eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 580-87706-1

Job Description: Portland Harbor

For:
Haley & Aldrich, Inc.
5333 Mission Center Road
Suite 300
San Diego, CA 92108

Attention: Dr. Laura McWilliams



Approved for release.
Nathan A Lewis
Project Manager I
8/1/2019 3:11 PM

Nathan A Lewis, Project Manager I
5755 8th Street East, Tacoma, WA, 98424
(253)922-2310
nathan.lewis@testamericainc.com
08/01/2019
Revision: 2

TestAmerica Seattle is a part of TestAmerica Laboratories, Inc.

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

Table of Contents

Cover Title Page 1

Data Summaries 6

- Definitions 6
- Case Narrative 7
- Detection Summary 11
- Client Sample Results 24
- Default Detection Limits 56
- Surrogate Summary 58
- Isotope Dilution Summary 61
- QC Sample Results 63
- QC Association 72
- Chronicle 77
- Certification Summary 85
- Method Summary 86
- Sample Summary 87
- Manual Integration Summary 88
- Reagent Traceability 281
  - COAs 356

Organic Sample Data 634

- GC/MS Semi VOA 634
  - Method 8270D SIM 634
    - Method 8270D SIM QC Summary 635
    - Method 8270D SIM Sample Data 652
    - Standards Data 1267
      - Method 8270D SIM ICAL Data 1267
      - Method 8270D SIM Resolution Data 1369

Table of Contents

Method 8270D SIM CCAL Data 1375

Raw QC Data 1407

Method 8270D SIM Tune Data 1407

Method 8270D SIM Blank Data 1446

Method 8270D SIM LCS/LCSD Data 1471

Method 8270D SIM MS/MSD Data 1476

Method 8270D SIM Run Logs 1510

Method 8270D SIM Prep Data 1514

GC Semi VOA 1516

Method 8081B 1516

Method 8081B QC Summary 1517

Method 8081B Sample Data 1556

Standards Data 1866

Method 8081B ICAL Data 1866

Method 8081B PEM Data 2230

Method 8081B CCAL Data 2254

Raw QC Data 2389

Method 8081B Blank Data 2389

Method 8081B LCS/LCSD Data 2404

Method 8081B MS/MSD Data 2421

Method 8081B Run Logs 2440

Method 8081B Prep Data 2448

Method 8082A 2450

Method 8082A QC Summary 2451

Method 8082A Sample Data 2480

Standards Data 2637

Table of Contents

Method 8082A ICAL Data 2637

Method 8082A CCAL Data 3025

Raw QC Data 3137

Method 8082A Blank Data 3137

Method 8082A LCS/LCSD Data 3147

Method 8082A MS/MSD Data 3154

Method 8082A Run Logs 3174

Method 8082A Prep Data 3178

Dioxin 3180

Method 1613B 3180

Method 1613B QC Summary 3181

Method 1613B Sample Data 3192

Standards Data 3874

Method 1613B ICAL Data 3874

Method 1613B Resolution Data 4062

Method 1613B CCAL Data 4074

Raw QC Data 4206

Method 1613B Tune Data 4206

Method 1613B Blank Data 4286

Method 1613B LCS/LCSD Data 4319

Method 1613B Run Logs 4375

Method 1613B Prep Data 4380

Inorganic Sample Data 4383

General Chemistry Data 4383

Gen Chem Cover Page 4384

Gen Chem Sample Data 4385

Table of Contents

Gen Chem QC Data 4400

Gen Chem ICV/CCV 4400

Gen Chem Blanks 4401

Gen Chem MS/MSD/PDS 4402

Gen Chem Duplicates 4404

Gen Chem LCS/LCSD 4405

Gen Chem MDL 4407

Gen Chem Analysis Run Log 4410

Gen Chem Prep Data 4414

Gen Chem Raw Data 4418

Subcontracted Data 4427

Shipping and Receiving Documents 4428

Client Chain of Custody 4429

Sample Receipt Checklist 4438

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
X	Surrogate is outside control limits

Dioxin

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE
Client: Haley & Aldrich, Inc.
Project: Portland Harbor
Report Number: 580-87706-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 07/16/2019; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.0º C, 3.3º C and 4.5º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

DIOXIN/ FURAN
Samples 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15) were analyzed for Dioxin/ Furan in accordance with 1613B. The samples were prepared on 07/18/2019 and analyzed on 07/21/2019 and 07/22/2019.

1,2,3,4,6,7,8-HpCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,7,8,9-HxCDF, OCDD and OCDF were detected in method blank MB 320-308663/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 3D5 exceeded this criteria: 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), (CCV 320-309103/51), (LCS 320-308663/2-A), (LCSD 320-308663/3-A), (MB 320-308663/1-A), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14), 22T-SG-16_20190716 (580-87706-15) and (CCV 320-309104/66). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument 4D2 exceeded this criteria: 22T-SG-18_20190716 (580-87706-2), 22T-SG-19_20190716 (580-87706-6), 22T-SG-14_20190716 (580-87706-9), 22T-SG-22_20190716 (580-87706-11), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14), 22T-SG-16_20190716 (580-87706-15) and (CCV 320-309356/1). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Samples 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3),

22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA sw-846 method 8082A. The samples were prepared on 07/19/2019 and analyzed on 07/23/2019.

The following samples required a TBA Sulfite clean-up to reduce matrix interferences caused by sulfur: 22T-SG-12_20190716 (580-87706-5), 22T-SG-12_20190716 (580-87706-5[MS]) and 22T-SG-12_20190716 (580-87706-5[MSD]).

The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15).

The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to multiple overlapping Aroclors, weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: 22T-SG-12_20190716 (580-87706-5). The sample(s) has been quantified and reported with the predominant Aroclor or mixture of Aroclors. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

%RPD between the primary and confirmation column exceeded 40% for some analytes for the following sample(s): 22T-SG-11_20190716 (580-87706-3[1.0]), 22T-SG-19_20190716 (580-87706-6[1.0]), 22T-SG-20_20190716 (580-87706-7[1.0]), 22T-SG-14_20190716 (580-87706-9[1.0]), 22T-SG-13_20190716 (580-87706-10[1.0]), 22T-SG-23_20190716 (580-87706-12[1.0]) and 22T-SG-21_20190716 (580-87706-14[1.0]). The lower value(s) has been reported in accordance with the laboratory's SOP.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with SW846 8270D_SIM. The samples were prepared on 07/19/2019 and analyzed on 07/22/2019 and 07/24/2019.

Samples 22T-SG-19_20190716 (580-87706-6)[10X], 22T-SG-21_20190716 (580-87706-14)[10X] and 22T-SG-16_20190716 (580-87706-15)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Benzo[g,h,i]perylene and Dibenz(a,h)anthracene were detected in method blank MB 580-306107/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 580-306107 and analytical batch 580-306243 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. 2-Methylnaphthalene and Phenanthrene exceeded the RPD limit. Data have been qualified and reported.

Due to the high concentration of Pyrene, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 580-306107 and analytical batch 580-306243 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PESTICIDES

Samples 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15) were analyzed for Pesticides in accordance with 8081B. The samples were prepared on 07/19/2019 and analyzed on 07/23/2019.

Samples 22T-SG-17_20190716 (580-87706-1)[3X], 22T-SG-18_20190716 (580-87706-2)[3X], 22T-SG-11_20190716 (580-87706-3)[3X], 22T-SG-11-D_20190716 (580-87706-4)[3X], 22T-SG-12_20190716 (580-87706-5)[3X], 22T-SG-19_20190716 (580-87706-6)[3X], 22T-SG-20_20190716 (580-87706-7)[3X], 22T-SG-15_20190716 (580-87706-8)[3X], 22T-SG-14_20190716 (580-87706-9)[3X],

22T-SG-13_20190716 (580-87706-10)[3X], 22T-SG-22_20190716 (580-87706-11)[3X], 22T-SG-23_20190716 (580-87706-12)[3X], 22T-SG-10_20190716 (580-87706-13)[3X], 22T-SG-21_20190716 (580-87706-14)[3X] and 22T-SG-16_20190716 (580-87706-15)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples required a copper TBA Sulfite clean-up to reduce matrix interferences caused by sulfur: 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-12_20190716 (580-87706-5[MS]), 22T-SG-12_20190716 (580-87706-5[MSD]), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14), and 22T-SG-16_20190716 (580-87706-15).

Surrogate recovery for 22T-SG-11_20190716 (580-87706-3), 22T-SG-12_20190716 (580-87706-5), 22T-SG-12_20190716 (580-87706-5[MS]), 22T-SG-12_20190716 (580-87706-5[MSD]), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-23_20190716 (580-87706-12) and 22T-SG-21_20190716 (580-87706-14) was outside control limits. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 580-306126 and analytical batch 580-306388 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

The surrogate recovery for the continuing calibration blank (CCB) associated with analytical batch 580-306340 was outside the upper control limits. No target analytes were detected in the blank, therefore data have been reported.

The %RPD between the primary and confirmation column exceeded 40% for 2,4'-DDD and 2,4'-DDE for the following samples: 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-23_20190716 (580-87706-12) and 22T-SG-21_20190716 (580-87706-14). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

The %RPD between the primary and confirmation column exceeded 40% for 2,4'-DDD and 4,4'-DDD for the following sample: 22T-SG-16_20190716 (580-87706-15). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

The continuing calibration verification (CCV) associated with 580-306340 recovered high and outside the control limits for 4,4'-DDD and 4,4'-DDE on one column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: 22T-SG-16_20190716 (580-87706-15) and (CCVIS 580-306340/7).

The following continuing calibration verification (CCV) standard associated with batch 580-306340 recovered outside acceptance criteria for %D for surrogate Tetrachloro-m-xylene and DCB Decachlorobiphenyl. Since the %Rec is within the acceptance criteria for the surrogate in the CCV and associated samples, the data have been reported.

The continuing calibration verification (CCV) associated with 580-306388 recovered high and outside the control limits for 2,4'-DDE on one column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-12_20190716 (580-87706-5[MS]), 22T-SG-12_20190716 (580-87706-5[MSD]), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and (CCV 580-306388/6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PUGET SOUND ESTUARY PROGRAM TOTAL ORGANIC CARBON

Samples 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15) were analyzed for Puget Sound Estuary Program total organic carbon in accordance with EPA SW-846 Method 9060, modified to meet the Puget Sound Estuary Program requirements. The samples were analyzed on 07/23/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples 22T-SG-17_20190716 (580-87706-1), 22T-SG-18_20190716 (580-87706-2), 22T-SG-11_20190716 (580-87706-3), 22T-SG-11-D_20190716 (580-87706-4), 22T-SG-12_20190716 (580-87706-5), 22T-SG-19_20190716 (580-87706-6), 22T-SG-20_20190716 (580-87706-7), 22T-SG-15_20190716 (580-87706-8), 22T-SG-14_20190716 (580-87706-9), 22T-SG-13_20190716 (580-87706-10), 22T-SG-22_20190716 (580-87706-11), 22T-SG-23_20190716 (580-87706-12), 22T-SG-10_20190716 (580-87706-13), 22T-SG-21_20190716 (580-87706-14) and 22T-SG-16_20190716 (580-87706-15) were analyzed for percent solids in accordance with ASTM D2216. The samples were analyzed on 07/18/2019.

Samples (580-87583-L-2) and (580-87583-L-2 DU) were re-weighed due to suspected inhomogeneity. Dry weight of these samples is reported as secondary. Deviations between primary and secondary moisture results may indicate non-homogenous sample characteristics.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Client Sample ID: 22T-SG-17_20190716

Lab Sample ID: 580-87706-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	24		8.4	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	10		8.4	3.4	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	4.7	J	8.4	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	4.5	J	8.4	0.84	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	7.7	J	8.4	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	9.5		8.4	0.84	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	54		8.4	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	14		8.4	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	91		8.4	2.4	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	100		8.4	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	38		8.4	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	44		8.4	2.5	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	43		8.4	0.99	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	12		8.4	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	35		8.4	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	38		8.4	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	4.4	J B	8.4	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	33	B	8.4	0.84	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	0.61	J	0.95	0.19	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	0.76	J	0.95	0.25	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDT	0.47	J	0.95	0.19	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0028	J	0.0032	0.0012	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.54	J q	1.8	0.19	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	0.66	J q	1.8	0.14	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	0.98	J	9.0	0.16	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.74	J q B	9.0	0.22	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	1.3	J q	9.0	0.23	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	1.2	J	9.0	0.21	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	2.0	J	9.0	0.28	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.95	J	9.0	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	1.7	J B	9.0	0.15	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.42	J q	9.0	0.18	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	27	B	9.0	0.44	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	6.5	J q	9.0	0.23	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.1	J q	9.0	0.27	pg/g	1	☼	1613B	Total/NA
OCDD	250	B	18	0.34	pg/g	1	☼	1613B	Total/NA
OCDF	19	B	18	0.29	pg/g	1	☼	1613B	Total/NA
Total Solids	54.6		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	13000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-18_20190716

Lab Sample ID: 580-87706-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	55		16	5.2	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	19		16	6.5	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	12	J	16	2.0	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	19		16	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	24		16	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	26		16	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	180		16	5.2	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	36		16	1.9	ug/Kg	1	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-18_20190716 (Continued)

Lab Sample ID: 580-87706-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	260		16	4.5	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	310		16	3.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	110		16	2.4	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	120		16	4.8	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	140		16	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	38		16	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	130		16	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	160		16	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	15	J B	16	2.3	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	130	B	16	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	1.4	J	1.9	0.37	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.4	J	1.9	0.50	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0043	J	0.0063	0.0024	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	1.3	J	3.3	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	4.0	J	17	0.48	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	3.0	J	17	0.51	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.4	J B	17	0.47	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	3.1	J q	17	0.47	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.6	J	17	0.45	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	4.4	J	17	0.63	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.8	J	17	0.70	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.5	J B	17	0.36	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.79	J q	17	0.42	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	92	B	17	1.1	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	15	J q	17	0.54	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.8	J	17	0.60	pg/g	1	☼	1613B	Total/NA
OCDD	830	B	33	0.89	pg/g	1	☼	1613B	Total/NA
OCDF	48	B	33	0.58	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF - RA	10		3.3	0.18	pg/g	1	☼	1613B	Total/NA
Total Solids	30.0		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	32000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-11_20190716

Lab Sample ID: 580-87706-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	170		10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	69		10	4.1	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	27		10	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	21		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	56		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	55		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	330		10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	65		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	460		10	2.8	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	500		10	2.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	240		10	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	250		10	3.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	320		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	92		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	300		10	1.7	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	310		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-11_20190716 (Continued)

Lab Sample ID: 580-87706-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	28	B	10	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	260	B	10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	0.70	J	1.4	0.27	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.4		1.4	0.37	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0018	J p	0.0046	0.0018	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.61	J	2.5	0.28	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	1.9	J	2.5	0.24	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	1.8	J	12	0.25	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	0.89	J	12	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.1	J B	12	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.7	J	12	0.36	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.1	J	12	0.35	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	2.4	J	12	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.2	J	12	0.46	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.5	J B	12	0.23	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.57	J	12	0.28	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	64	B	12	0.82	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	13	q	12	0.43	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.3	J	12	0.49	pg/g	1	☼	1613B	Total/NA
OCDD	580	B	25	0.57	pg/g	1	☼	1613B	Total/NA
OCDF	43	B	25	0.40	pg/g	1	☼	1613B	Total/NA
Total Solids	40.1		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	33000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-11-D_20190716

Lab Sample ID: 580-87706-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	96		12	4.0	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	53		12	5.0	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	31		12	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	20		12	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	38		12	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	40		12	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	260		12	4.0	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	45		12	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	280		12	3.4	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	300		12	2.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	110		12	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	110		12	3.7	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	140		12	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	40		12	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	120		12	2.1	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	140		12	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	13	B	12	1.8	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	110	B	12	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	0.78	J	1.5	0.30	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.5		1.5	0.41	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0037	J	0.0051	0.0020	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.66	J	2.6	0.31	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	1.4	J	2.6	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.1	J B	13	0.43	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-11-D_20190716 (Continued)

Lab Sample ID: 580-87706-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	2.5	J	13	0.41	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.0	J	13	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	2.8	J	13	0.56	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	3.2	J B	13	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	64	B	13	0.79	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	14	q	13	0.49	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.4	J	13	0.57	pg/g	1	☼	1613B	Total/NA
OCDD	570	B	26	0.70	pg/g	1	☼	1613B	Total/NA
OCDF	45	B	26	0.46	pg/g	1	☼	1613B	Total/NA
Total Solids	38.3		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	32000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-12_20190716

Lab Sample ID: 580-87706-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	670	F1	10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	130	F2	10	4.2	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	67		10	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	53		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	120		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	130		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	810	F2 F1	10	3.4	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	160		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	720	F1	10	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	780		10	2.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	280		10	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	280		10	3.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	320		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	83		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	280		10	1.7	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	290		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	27	B	10	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	250	B	10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
2,4'-DDD	1.3	J p	3.8	0.83	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDD	0.97	J F1 F2	1.5	0.30	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.2	J F1	1.5	0.40	ug/Kg	3	☼	8081B	Total/NA
2,3,7,8-TCDD	0.52	J q	2.5	0.29	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	1.7	J	2.5	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	2.5	J	13	0.34	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	0.98	J	13	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.97	J q B	13	0.37	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.7	J	13	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.1	J	13	0.36	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	4.0	J	13	0.41	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.4	J	13	0.45	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.7	J B	13	0.24	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.57	J q	13	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	58	B	13	0.89	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	12	J q	13	0.48	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.6	J	13	0.57	pg/g	1	☼	1613B	Total/NA
OCDD	550	B	25	0.65	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-12_20190716 (Continued)

Lab Sample ID: 580-87706-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDF	37	B	25	0.49	pg/g	1	☼	1613B	Total/NA
Total Solids	38.9		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	35000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-19_20190716

Lab Sample ID: 580-87706-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	230		8.2	2.6	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	70		8.2	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	33		8.2	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	41		8.2	0.82	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	370		8.2	0.98	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	410		8.2	0.82	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	2200		8.2	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	200		8.2	0.98	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	2600		8.2	2.3	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	610		8.2	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	600		8.2	2.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	520		8.2	0.96	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	150		8.2	0.98	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	470		8.2	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	410		8.2	0.98	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	33	B	8.2	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	340	B	8.2	0.82	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene - DL	3300		82	16	ug/Kg	10	☼	8270D SIM	Total/NA
2,4'-DDD	0.83	J p	2.8	0.63	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDD	1.9		1.1	0.22	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.7		1.1	0.30	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0036	J p	0.0038	0.0015	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	1.4	J	2.0	0.24	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	0.68	J q	9.8	0.36	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	12		9.8	0.50	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	5.8	J	9.8	0.57	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.0	J B	9.8	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.9	J	9.8	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.0	J	9.8	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	7.8	J	9.8	0.35	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	2.3	J	9.8	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	1.5	J B	9.8	0.20	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.99	J	9.8	0.24	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	52	B	9.8	0.67	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	11		9.8	0.31	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.1	J q	9.8	0.36	pg/g	1	☼	1613B	Total/NA
OCDD	490	B	20	0.55	pg/g	1	☼	1613B	Total/NA
OCDF	29	B	20	0.30	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF - RA	15		2.0	0.11	pg/g	1	☼	1613B	Total/NA
Total Solids	50.8		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	23000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Client Sample ID: 22T-SG-20_20190716 — Lab Sample ID: 580-87706-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	280		9.7	3.2	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	110		9.7	4.0	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	84		9.7	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	42		9.7	0.97	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	100		9.7	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	120		9.7	0.97	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	670		9.7	3.2	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	120		9.7	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	650		9.7	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	740		9.7	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	240		9.7	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	240		9.7	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	270		9.7	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	70		9.7	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	250		9.7	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	260		9.7	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	26	B	9.7	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	230	B	9.7	0.97	ug/Kg	1	☼	8270D SIM	Total/NA
2,4'-DDD	0.76	J p	3.1	0.68	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDD	1.5		1.2	0.24	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.5		1.2	0.33	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0025	J p	0.0041	0.0016	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDF	1.9	J	2.2	0.24	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	1.8	J	11	0.23	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.76	J B	11	0.35	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.7	J	11	0.35	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.1	J q	11	0.33	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	2.8	J	11	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	1.4	J B	11	0.22	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.51	J q	11	0.26	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	63	B	11	0.73	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	15	q	11	0.41	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.3	J	11	0.47	pg/g	1	☼	1613B	Total/NA
OCDD	590	B	22	0.65	pg/g	1	☼	1613B	Total/NA
OCDF	46	B	22	0.40	pg/g	1	☼	1613B	Total/NA
Total Solids	44.7		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	40000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-15_20190716 — Lab Sample ID: 580-87706-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	26		14	4.4	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	10	J	14	5.5	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	6.0	J	14	1.7	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	9.4	J	14	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	11	J	14	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	12	J	14	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	69		14	4.4	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	18		14	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	110		14	3.8	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	120		14	2.6	ug/Kg	1	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-15_20190716 (Continued)

Lab Sample ID: 580-87706-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	50		14	2.1	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	55		14	4.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	62		14	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	17		14	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	53		14	2.3	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	58		14	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	7.1	J B	14	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	45	B	14	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	0.81	J	1.6	0.31	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.4	J	1.6	0.42	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0029	J	0.0053	0.0020	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDF	2.1	J	2.8	0.25	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	0.74	J	14	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	2.8	J	14	0.34	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	0.99	J	14	0.37	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.2	J B	14	0.43	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	3.1	J	14	0.41	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.4	J	14	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	4.6	J	14	0.52	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.3	J q	14	0.56	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.8	J B	14	0.27	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.69	J	14	0.36	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	61	B	14	0.83	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	13	J q	14	0.47	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.4	J	14	0.54	pg/g	1	☼	1613B	Total/NA
OCDD	560	B	28	0.71	pg/g	1	☼	1613B	Total/NA
OCDF	43	B	28	0.52	pg/g	1	☼	1613B	Total/NA
Total Solids	35.7		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	41000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-14_20190716

Lab Sample ID: 580-87706-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	240		9.5	3.1	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	75		9.5	3.9	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	110		9.5	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	37		9.5	0.95	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	210		9.5	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	150		9.5	0.95	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	500		9.5	3.1	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	56		9.5	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	370		9.5	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	380		9.5	1.8	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	110		9.5	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	120		9.5	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	140		9.5	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	41		9.5	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	120		9.5	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	130		9.5	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	12	B	9.5	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	110	B	9.5	0.95	ug/Kg	1	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-14_20190716 (Continued)

Lab Sample ID: 580-87706-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDD	1.3	J	1.5	0.30	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.7		1.5	0.40	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0023	J p	0.0051	0.0020	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.91	J	2.6	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	2.9	J	13	0.45	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	1.3	J	13	0.50	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.4	J B	13	0.45	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	4.5	J	13	0.43	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	3.0	J q	13	0.42	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	3.8	J	13	0.60	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.5	J B	13	0.35	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.55	J q	13	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	88	B	13	1.1	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	16	q	13	0.48	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.6	J q	13	0.55	pg/g	1	☼	1613B	Total/NA
OCDD	790	B	26	0.86	pg/g	1	☼	1613B	Total/NA
OCDF	50	B	26	0.56	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF - RA	4.2		2.6	0.15	pg/g	1	☼	1613B	Total/NA
Total Solids	38.7		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	35000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-13_20190716

Lab Sample ID: 580-87706-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	140		9.0	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	51		9.0	3.7	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	37		9.0	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	21		9.0	0.90	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	61		9.0	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	60		9.0	0.90	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	290		9.0	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	59		9.0	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	290		9.0	2.5	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	320		9.0	1.7	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	110		9.0	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	120		9.0	2.7	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	130		9.0	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	39		9.0	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	120		9.0	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	120		9.0	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	12	B	9.0	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	100	B	9.0	0.90	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	1.0	J	1.5	0.29	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.5		1.5	0.40	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0021	J p	0.0050	0.0019	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.80	J	2.5	0.33	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	1.9	J	2.5	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	1.7	J q	12	0.35	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	1.0	J	12	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.1	J B	12	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.8	J	12	0.37	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-13_20190716 (Continued)

Lab Sample ID: 580-87706-10

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	1.9	J	12	0.35	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	3.7	J	12	0.44	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.4	J	12	0.48	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.4	J B	12	0.25	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	61	B	12	0.86	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	14		12	0.47	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.4	J	12	0.54	pg/g	1	☼	1613B	Total/NA
OCDD	530	B	25	0.76	pg/g	1	☼	1613B	Total/NA
OCDF	41	B	25	0.51	pg/g	1	☼	1613B	Total/NA
Total Solids	40.0		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	35000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-22_20190716

Lab Sample ID: 580-87706-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	250		11	3.7	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	110		11	4.6	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	46		11	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	22		11	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	65		11	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	70		11	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	420		11	3.7	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	79		11	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	310		11	3.2	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	340		11	2.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	110		11	1.7	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	120		11	3.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	130		11	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	36		11	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	110		11	1.9	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	110		11	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	11	B	11	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	86	B	11	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	0.96	J	1.3	0.26	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.1	J	1.3	0.36	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0038	J	0.0045	0.0017	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.91	J q	2.5	0.32	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	3.0	J	13	0.35	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	1.0	J	13	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.1	J B	13	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.3	J q	13	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.1	J	13	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	3.1	J	13	0.42	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.1	J	13	0.46	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.5	J B	13	0.24	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.63	J	13	0.30	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	69	B	13	0.92	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	12	J q	13	0.44	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.2	J	13	0.54	pg/g	1	☼	1613B	Total/NA
OCDD	610	B	25	0.76	pg/g	1	☼	1613B	Total/NA
OCDF	42	B	25	0.51	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-22_20190716 (Continued) — Lab Sample ID: 580-87706-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF - RA	4.3		2.5	0.15	pg/g	1	☼	1613B	Total/NA
Total Solids	39.3		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	33000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-23_20190716 — Lab Sample ID: 580-87706-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	42		10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	23		10	4.2	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	15		10	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	14		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	31		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	33		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	160		10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	39		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	230		10	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	250		10	2.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	91		10	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	95		10	3.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	97		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	25		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	85		10	1.7	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	90		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	8.5	J B	10	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	75	B	10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
2,4'-DDD	0.77	J p	3.0	0.66	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDD	1.3		1.2	0.24	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	1.3		1.2	0.32	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0023	J p	0.0040	0.0016	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.73	J	2.2	0.30	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	1.4	J	2.2	0.23	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	1.3	J	11	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.98	J B	11	0.32	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.3	J	11	0.30	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	2.0	J	11	0.29	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	2.0	J	11	0.33	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.82	J q	11	0.37	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	1.8	J B	11	0.18	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.52	J	11	0.22	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	59	B	11	0.78	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	9.1	J q	11	0.38	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.1	J	11	0.44	pg/g	1	☼	1613B	Total/NA
OCDD	520	B	22	0.56	pg/g	1	☼	1613B	Total/NA
OCDF	31	B	22	0.37	pg/g	1	☼	1613B	Total/NA
Total Solids	46.0		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	26000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-10_20190716 — Lab Sample ID: 580-87706-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	130		6.5	2.1	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	51		6.5	2.7	ug/Kg	1	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-10_20190716 (Continued)

Lab Sample ID: 580-87706-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	22		6.5	0.82	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	12		6.5	0.65	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	52		6.5	0.78	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	52		6.5	0.65	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	270		6.5	2.1	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	48		6.5	0.78	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	260		6.5	1.8	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene	280		6.5	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	97		6.5	0.99	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	95		6.5	2.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	82		6.5	0.77	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	22		6.5	0.78	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	75		6.5	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	63		6.5	0.78	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	8.7	B	6.5	0.94	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	50	B	6.5	0.65	ug/Kg	1	☼	8270D SIM	Total/NA
4,4'-DDD	0.62	J	1.0	0.20	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	0.82	J	1.0	0.28	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.0025	J	0.0035	0.0013	mg/Kg	1	☼	8082A	Total/NA
2,3,7,8-TCDD	0.40	J q	1.8	0.21	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	4.0	J	8.9	0.24	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	1.6	J	8.9	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.73	J B	8.9	0.26	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	2.0	J	8.9	0.26	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	1.4	J	8.9	0.25	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	3.8	J	8.9	0.30	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	1.7	J	8.9	0.33	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	2.2	J B	8.9	0.17	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.54	J	8.9	0.21	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	48	B	8.9	0.63	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	10		8.9	0.35	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.5	J	8.9	0.41	pg/g	1	☼	1613B	Total/NA
OCDD	630	B	18	0.62	pg/g	1	☼	1613B	Total/NA
OCDF	36	B	18	0.34	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF - RA	3.3		1.8	0.15	pg/g	1	☼	1613B	Total/NA
Total Solids	55.8		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	23000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-21_20190716

Lab Sample ID: 580-87706-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	2600		9.6	3.1	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	1600		9.6	3.9	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	520		9.6	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	260		9.6	0.96	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	3600		9.6	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	2600		9.6	0.96	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	1800		9.6	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	3000		9.6	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	3000		9.6	2.9	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	2900		9.6	1.1	ug/Kg	1	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-21_20190716 (Continued) — Lab Sample ID: 580-87706-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	890		9.6	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	2800		9.6	1.6	ug/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2500		9.6	1.1	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	220	B	9.6	1.4	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	2200	B	9.6	0.96	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene - DL	16000		96	31	ug/Kg	10	☼	8270D SIM	Total/NA
Fluoranthene - DL	9800		96	27	ug/Kg	10	☼	8270D SIM	Total/NA
Pyrene - DL	11000		96	19	ug/Kg	10	☼	8270D SIM	Total/NA
2,4'-DDD	5.9	p	3.2	0.71	ug/Kg	3	☼	8081B	Total/NA
2,4'-DDE	6.3	p	3.2	0.58	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDD	15		1.3	0.25	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	7.6		1.3	0.34	ug/Kg	3	☼	8081B	Total/NA
PCB-1260	0.025	p	0.0043	0.0016	mg/Kg	1	☼	8082A	Total/NA
1,2,3,7,8-PeCDF	19		12	0.74	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	7.6	J	12	0.85	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.0	J q B	12	0.43	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	4.5	J	12	0.42	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	3.0	J	12	0.40	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	21		12	0.60	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	7.7	J	12	0.68	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	1.9	J B	12	0.35	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	1.5	J q	12	0.42	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	210	B	12	1.8	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	39		12	0.71	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	5.1	J	12	0.93	pg/g	1	☼	1613B	Total/NA
OCDD	2100	B	23	1.3	pg/g	1	☼	1613B	Total/NA
OCDF	99	B	23	0.58	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF - RA	14		2.3	0.20	pg/g	1	☼	1613B	Total/NA
Total Solids	43.1		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	33000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

Client Sample ID: 22T-SG-16_20190716 — Lab Sample ID: 580-87706-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	780		10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
2-Methylnaphthalene	290		10	4.2	ug/Kg	1	☼	8270D SIM	Total/NA
1-Methylnaphthalene	130		10	1.3	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthylene	880		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Acenaphthene	340		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluorene	320		10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	1400		10	3.3	ug/Kg	1	☼	8270D SIM	Total/NA
Anthracene	390		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	3300		10	2.8	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]anthracene	3700		10	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Chrysene	3300		10	3.0	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	4000		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	1500		10	1.2	ug/Kg	1	☼	8270D SIM	Total/NA
Dibenz(a,h)anthracene	410	B	10	1.5	ug/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	3900	B	10	1.0	ug/Kg	1	☼	8270D SIM	Total/NA
Pyrene - DL	4900		100	20	ug/Kg	10	☼	8270D SIM	Total/NA
Benzo[a]pyrene - DL	4700		100	17	ug/Kg	10	☼	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-16_20190716 (Continued)

Lab Sample ID: 580-87706-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene - DL	4900		100	12	ug/Kg	10	☼	8270D SIM	Total/NA
2,4'-DDD	1.0	J p	3.0	0.66	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDD	2.7	p	1.2	0.23	ug/Kg	3	☼	8081B	Total/NA
4,4'-DDE	3.7		1.2	0.32	ug/Kg	3	☼	8081B	Total/NA
PCB-1254	0.022		0.0040	0.0016	mg/Kg	1	☼	8082A	Total/NA
1,2,3,7,8-PeCDF	25		11	0.57	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	6.7	J	11	0.62	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	1.4	J q B	11	0.42	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	5.8	J	11	0.41	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	3.2	J	11	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	29		11	0.57	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	7.8	J	11	0.62	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	1.9	J B	11	0.31	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	1.7	J	11	0.39	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	120	B	11	1.1	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	24		11	0.55	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	3.6	J q	11	0.63	pg/g	1	☼	1613B	Total/NA
OCDD	1200	B	23	0.90	pg/g	1	☼	1613B	Total/NA
OCDF	67	B	23	0.44	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF - RA	8.5		2.3	0.35	pg/g	1	☼	1613B	Total/NA
Total Solids	43.8		0.1	0.1	%	1		2540G	Total/NA
Total Organic Carbon - Duplicates	29000		2000	97	mg/Kg	1		9060_PSEP	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 22T-SG-17_20190716

Lab Sample ID: 580-87706-1

Date Collected: 07/16/19 08:13

Matrix: Solid

Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	13000		2000	97	mg/Kg			07/23/19 10:59	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	54.6		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-17_20190716

Lab Sample ID: 580-87706-1

Date Collected: 07/16/19 08:13

Matrix: Solid

Date Received: 07/16/19 15:45

Percent Solids: 54.6

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	24		8.4	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
2-Methylnaphthalene	10		8.4	3.4	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
1-Methylnaphthalene	4.7	J	8.4	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Acenaphthylene	4.5	J	8.4	0.84	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Acenaphthene	7.7	J	8.4	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Fluorene	9.5		8.4	0.84	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Phenanthrene	54		8.4	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Anthracene	14		8.4	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Fluoranthene	91		8.4	2.4	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Pyrene	100		8.4	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Benzo[a]anthracene	38		8.4	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Chrysene	44		8.4	2.5	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Benzo[b]fluoranthene	43		8.4	0.99	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Benzo[k]fluoranthene	12		8.4	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Benzo[a]pyrene	35		8.4	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Indeno[1,2,3-cd]pyrene	38		8.4	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Dibenz(a,h)anthracene	4.4	J B	8.4	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1
Benzo[g,h,i]perylene	33	B	8.4	0.84	ug/Kg	☼	07/19/19 09:49	07/22/19 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*62*		*57 - 120*	*07/19/19 09:49*	*07/22/19 12:55*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		2.4	0.52	ug/Kg	☼	07/19/19 11:28	07/23/19 16:01	3
2,4'-DDE	ND		2.4	0.43	ug/Kg	☼	07/19/19 11:28	07/23/19 16:01	3
2,4'-DDT	ND		2.4	0.91	ug/Kg	☼	07/19/19 11:28	07/23/19 16:01	3
4,4'-DDD	0.61	J	0.95	0.19	ug/Kg	☼	07/19/19 11:28	07/23/19 16:01	3
4,4'-DDE	0.76	J	0.95	0.25	ug/Kg	☼	07/19/19 11:28	07/23/19 16:01	3
4,4'-DDT	0.47	J	0.95	0.19	ug/Kg	☼	07/19/19 11:28	07/23/19 16:01	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*		*36 - 136*	*07/19/19 11:28*	*07/23/19 16:01*	*3*
Tetrachloro-m-xylene	*80*		*50 - 123*	*07/19/19 11:28*	*07/23/19 16:01*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0032	0.0012	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1
PCB-1221	ND		0.0032	0.0015	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1
PCB-1232	ND		0.0032	0.0015	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1
PCB-1242	ND		0.0032	0.00078	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1

Client Sample ID: 22T-SG-17_20190716

Date Collected: 07/16/19 08:13
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-1

Matrix: Solid
Percent Solids: 54.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.0032	0.00057	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1
PCB-1254	ND		0.0032	0.0013	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1
PCB-1260	**0.0028**	**J**	0.0032	0.0012	mg/Kg	☼	07/19/19 11:28	07/23/19 11:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*39 - 142*	*07/19/19 11:28*	*07/23/19 11:37*	*1*
Tetrachloro-m-xylene	*81*		*35 - 129*	*07/19/19 11:28*	*07/23/19 11:37*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.54**	**J q**	1.8	0.19	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
2,3,7,8-TCDF	**0.66**	**J q**	1.8	0.14	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,7,8-PeCDD	ND		9.0	0.24	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,7,8-PeCDF	**0.98**	**J**	9.0	0.16	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
2,3,4,7,8-PeCDF	ND		9.0	0.18	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,4,7,8-HxCDD	**0.74**	**J q B**	9.0	0.22	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,6,7,8-HxCDD	**1.3**	**J q**	9.0	0.23	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,7,8,9-HxCDD	**1.2**	**J**	9.0	0.21	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,4,7,8-HxCDF	**2.0**	**J**	9.0	0.28	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,6,7,8-HxCDF	**0.95**	**J**	9.0	0.29	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,7,8,9-HxCDF	**1.7**	**J B**	9.0	0.15	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
2,3,4,6,7,8-HxCDF	**0.42**	**J q**	9.0	0.18	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,4,6,7,8-HpCDD	**27**	**B**	9.0	0.44	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,4,6,7,8-HpCDF	**6.5**	**J q**	9.0	0.23	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
1,2,3,4,7,8,9-HpCDF	**1.1**	**J q**	9.0	0.27	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
OCDD	**250**	**B**	18	0.34	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1
OCDF	**19**	**B**	18	0.29	pg/g	☼	07/18/19 13:27	07/21/19 22:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*71*		*25 - 164*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-2,3,7,8-TCDF	*75*		*24 - 169*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,7,8-PeCDD	*72*		*25 - 181*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-2,3,4,7,8-PeCDF	*71*		*21 - 178*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,4,7,8-HxCDD	*65*		*32 - 141*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,6,7,8-HxCDD	*64*		*28 - 130*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,4,7,8-HxCDF	*74*		*26 - 152*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,6,7,8-HxCDF	*64*		*26 - 123*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-2,3,4,6,7,8-HxCDF	*69*		*28 - 136*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*29 - 147*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*72*		*23 - 140*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*72*		*28 - 143*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*81*		*26 - 138*	*07/18/19 13:27*	*07/21/19 22:18*	*1*
13C-OCDD	*74*		*17 - 157*	*07/18/19 13:27*	*07/21/19 22:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*92*		*35 - 197*	*07/18/19 13:27*	*07/21/19 22:18*	*1*

Client Sample ID: 22T-SG-18_20190716

Date Collected: 07/16/19 08:44
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	32000		2000	97	mg/Kg			07/23/19 11:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	30.0		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-18_20190716

Date Collected: 07/16/19 08:44
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-2
Matrix: Solid
Percent Solids: 30.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	55		16	5.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
2-Methylnaphthalene	19		16	6.5	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
1-Methylnaphthalene	12	J	16	2.0	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Acenaphthylene	19		16	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Acenaphthene	24		16	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Fluorene	26		16	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Phenanthrene	180		16	5.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Anthracene	36		16	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Fluoranthene	260		16	4.5	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Pyrene	310		16	3.1	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Benzo[a]anthracene	110		16	2.4	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Chrysene	120		16	4.8	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Benzo[b]fluoranthene	140		16	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Benzo[k]fluoranthene	38		16	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Benzo[a]pyrene	130		16	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Indeno[1,2,3-cd]pyrene	160		16	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Dibenz(a,h)anthracene	15	J B	16	2.3	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1
Benzo[g,h,i]perylene	130	B	16	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*64*		*57 - 120*	*07/19/19 09:49*	*07/22/19 13:22*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		4.8	1.0	ug/Kg	☼	07/19/19 11:28	07/23/19 16:21	3
2,4'-DDE	ND		4.8	0.86	ug/Kg	☼	07/19/19 11:28	07/23/19 16:21	3
2,4'-DDT	ND		4.8	1.8	ug/Kg	☼	07/19/19 11:28	07/23/19 16:21	3
4,4'-DDD	1.4	J	1.9	0.37	ug/Kg	☼	07/19/19 11:28	07/23/19 16:21	3
4,4'-DDE	1.4	J	1.9	0.50	ug/Kg	☼	07/19/19 11:28	07/23/19 16:21	3
4,4'-DDT	ND		1.9	0.37	ug/Kg	☼	07/19/19 11:28	07/23/19 16:21	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*51*		*36 - 136*	*07/19/19 11:28*	*07/23/19 16:21*	*3*
Tetrachloro-m-xylene	*62*		*50 - 123*	*07/19/19 11:28*	*07/23/19 16:21*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0063	0.0023	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1
PCB-1221	ND		0.0063	0.0030	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1
PCB-1232	ND		0.0063	0.0030	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1
PCB-1242	ND		0.0063	0.0016	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1

Client Sample ID: 22T-SG-18_20190716

Date Collected: 07/16/19 08:44
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-2

Matrix: Solid
Percent Solids: 30.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.0063	0.0011	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1
PCB-1254	ND		0.0063	0.0025	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1
PCB-1260	**0.0043**	**J**	0.0063	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*39 - 142*	*07/19/19 11:28*	*07/23/19 11:55*	*1*
Tetrachloro-m-xylene	*66*		*35 - 129*	*07/19/19 11:28*	*07/23/19 11:55*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**1.3**	**J**	3.3	0.38	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,7,8-PeCDD	ND		17	0.61	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,7,8-PeCDF	**4.0**	**J**	17	0.48	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
2,3,4,7,8-PeCDF	**3.0**	**J**	17	0.51	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,4,7,8-HxCDD	**1.4**	**J B**	17	0.47	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,6,7,8-HxCDD	**3.1**	**J q**	17	0.47	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,7,8,9-HxCDD	**2.6**	**J**	17	0.45	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,4,7,8-HxCDF	**4.4**	**J**	17	0.63	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,6,7,8-HxCDF	**1.8**	**J**	17	0.70	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,7,8,9-HxCDF	**2.5**	**J B**	17	0.36	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
2,3,4,6,7,8-HxCDF	**0.79**	**J q**	17	0.42	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,4,6,7,8-HpCDD	**92**	**B**	17	1.1	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,4,6,7,8-HpCDF	**15**	**J q**	17	0.54	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
1,2,3,4,7,8,9-HpCDF	**1.8**	**J**	17	0.60	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
OCDD	**830**	**B**	33	0.89	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1
OCDF	**48**	**B**	33	0.58	pg/g	☼	07/18/19 13:27	07/21/19 23:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*66*		*25 - 164*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,7,8-PeCDD	*68*		*25 - 181*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,7,8-PeCDF	*69*		*24 - 185*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-2,3,4,7,8-PeCDF	*69*		*21 - 178*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,4,7,8-HxCDD	*58*		*32 - 141*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,6,7,8-HxCDD	*59*		*28 - 130*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,4,7,8-HxCDF	*68*		*26 - 152*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,6,7,8-HxCDF	*59*		*26 - 123*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-2,3,4,6,7,8-HxCDF	*64*		*28 - 136*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,7,8,9-HxCDF	*68*		*29 - 147*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*65*		*23 - 140*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*64*		*28 - 143*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*26 - 138*	*07/18/19 13:27*	*07/21/19 23:06*	*1*
13C-OCDD	*66*		*17 - 157*	*07/18/19 13:27*	*07/21/19 23:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*94*		*35 - 197*	*07/18/19 13:27*	*07/21/19 23:06*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**10**		3.3	0.18	pg/g	☼	07/18/19 13:27	07/22/19 12:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*73*		*24 - 169*	*07/18/19 13:27*	*07/22/19 12:49*	*1*

Client Sample ID: 22T-SG-18_20190716

Lab Sample ID: 580-87706-2

Date Collected: 07/16/19 08:44
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 30.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	*82*		*35 - 197*	*07/18/19 13:27*	*07/22/19 12:49*	*1*

Client Sample ID: 22T-SG-11_20190716

Lab Sample ID: 580-87706-3

Date Collected: 07/16/19 08:58
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**33000**		2000	97	mg/Kg			07/23/19 11:08	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**40.1**		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-11_20190716

Lab Sample ID: 580-87706-3

Date Collected: 07/16/19 08:58
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 40.1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**170**		10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
2-Methylnaphthalene	**69**		10	4.1	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
1-Methylnaphthalene	**27**		10	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Acenaphthylene	**21**		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Acenaphthene	**56**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Fluorene	**55**		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Phenanthrene	**330**		10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Anthracene	**65**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Fluoranthene	**460**		10	2.8	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Pyrene	**500**		10	2.0	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Benzo[a]anthracene	**240**		10	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Chrysene	**250**		10	3.0	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Benzo[b]fluoranthene	**320**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Benzo[k]fluoranthene	**92**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Benzo[a]pyrene	**300**		10	1.7	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Indeno[1,2,3-cd]pyrene	**310**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Dibenz(a,h)anthracene	**28**	**B**	10	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1
Benzo[g,h,i]perylene	**260**	**B**	10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*65*		*57 - 120*	*07/19/19 09:49*	*07/22/19 13:48*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.5	0.77	ug/Kg	☼	07/19/19 11:28	07/23/19 16:40	3
2,4'-DDE	ND		3.5	0.63	ug/Kg	☼	07/19/19 11:28	07/23/19 16:40	3
2,4'-DDT	ND		3.5	1.3	ug/Kg	☼	07/19/19 11:28	07/23/19 16:40	3
4,4'-DDD	**0.70**	**J**	1.4	0.27	ug/Kg	☼	07/19/19 11:28	07/23/19 16:40	3
4,4'-DDE	**1.4**		1.4	0.37	ug/Kg	☼	07/19/19 11:28	07/23/19 16:40	3
4,4'-DDT	ND		1.4	0.27	ug/Kg	☼	07/19/19 11:28	07/23/19 16:40	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*34*	*X*	*36 - 136*	*07/19/19 11:28*	*07/23/19 16:40*	*3*

Client Sample ID: 22T-SG-11_20190716

Date Collected: 07/16/19 08:58
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-3

Matrix: Solid
Percent Solids: 40.1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*51*		*50 - 123*	*07/19/19 11:28*	*07/23/19 16:40*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0046	0.0017	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1
PCB-1221	ND		0.0046	0.0022	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1
PCB-1232	ND		0.0046	0.0022	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1
PCB-1242	ND		0.0046	0.0011	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1
PCB-1248	ND		0.0046	0.00084	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1
PCB-1254	ND		0.0046	0.0018	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1
PCB-1260	**0.0018**	**J p**	0.0046	0.0018	mg/Kg	☼	07/19/19 11:28	07/23/19 12:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*83*		*39 - 142*	*07/19/19 11:28*	*07/23/19 12:13*	*1*
Tetrachloro-m-xylene	*62*		*35 - 129*	*07/19/19 11:28*	*07/23/19 12:13*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.61**	**J**	2.5	0.28	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
2,3,7,8-TCDF	**1.9**	**J**	2.5	0.24	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,7,8-PeCDD	ND		12	0.38	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,7,8-PeCDF	**1.8**	**J**	12	0.25	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
2,3,4,7,8-PeCDF	**0.89**	**J**	12	0.27	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,4,7,8-HxCDD	**1.1**	**J B**	12	0.38	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,6,7,8-HxCDD	**2.7**	**J**	12	0.36	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,7,8,9-HxCDD	**2.1**	**J**	12	0.35	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,4,7,8-HxCDF	**2.4**	**J**	12	0.40	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,6,7,8-HxCDF	**1.2**	**J**	12	0.46	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,7,8,9-HxCDF	**2.5**	**J B**	12	0.23	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
2,3,4,6,7,8-HxCDF	**0.57**	**J**	12	0.28	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,4,6,7,8-HpCDD	**64**	**B**	12	0.82	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,4,6,7,8-HpCDF	**13**	**q**	12	0.43	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
1,2,3,4,7,8,9-HpCDF	**1.3**	**J**	12	0.49	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
OCDD	**580**	**B**	25	0.57	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1
OCDF	**43**	**B**	25	0.40	pg/g	☼	07/18/19 13:27	07/21/19 23:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	*69*		*25 - 164*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-2,3,7,8-TCDF	*75*		*24 - 169*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,7,8-PeCDD	*75*		*25 - 181*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*24 - 185*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-2,3,4,7,8-PeCDF	*74*		*21 - 178*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,4,7,8-HxCDD	*61*		*32 - 141*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,6,7,8-HxCDD	*64*		*28 - 130*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,4,7,8-HxCDF	*74*		*26 - 152*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,6,7,8-HxCDF	*63*		*26 - 123*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-2,3,4,6,7,8-HxCDF	*67*		*28 - 136*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*29 - 147*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*70*		*23 - 140*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*68*		*28 - 143*	*07/18/19 13:27*	*07/21/19 23:53*	*1*

Client Sample ID: 22T-SG-11_20190716

Lab Sample ID: 580-87706-3
Date Collected: 07/16/19 08:58
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 40.1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,7,8,9-HpCDF	*81*		*26 - 138*	*07/18/19 13:27*	*07/21/19 23:53*	*1*
13C-OCDD	*70*		*17 - 157*	*07/18/19 13:27*	*07/21/19 23:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*92*		*35 - 197*	*07/18/19 13:27*	*07/21/19 23:53*	*1*

Client Sample ID: 22T-SG-11-D_20190716

Lab Sample ID: 580-87706-4
Date Collected: 07/16/19 09:00
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**32000**		2000	97	mg/Kg			07/23/19 11:12	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**38.3**		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-11-D_20190716

Lab Sample ID: 580-87706-4
Date Collected: 07/16/19 09:00
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 38.3

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**96**		12	4.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
2-Methylnaphthalene	**53**		12	5.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
1-Methylnaphthalene	**31**		12	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Acenaphthylene	**20**		12	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Acenaphthene	**38**		12	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Fluorene	**40**		12	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Phenanthrene	**260**		12	4.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Anthracene	**45**		12	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Fluoranthene	**280**		12	3.4	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Pyrene	**300**		12	2.4	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Benzo[a]anthracene	**110**		12	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Chrysene	**110**		12	3.7	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Benzo[b]fluoranthene	**140**		12	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Benzo[k]fluoranthene	**40**		12	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Benzo[a]pyrene	**120**		12	2.1	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Indeno[1,2,3-cd]pyrene	**140**		12	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Dibenz(a,h)anthracene	**13**	**B**	12	1.8	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1
Benzo[g,h,i]perylene	**110**	**B**	12	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*57 - 120*	*07/19/19 09:49*	*07/22/19 14:15*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.8	0.84	ug/Kg	☼	07/19/19 11:28	07/23/19 16:59	3
2,4'-DDE	ND		3.8	0.70	ug/Kg	☼	07/19/19 11:28	07/23/19 16:59	3
2,4'-DDT	ND		3.8	1.5	ug/Kg	☼	07/19/19 11:28	07/23/19 16:59	3
4,4'-DDD	**0.78**	**J**	1.5	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 16:59	3
4,4'-DDE	**1.5**		1.5	0.41	ug/Kg	☼	07/19/19 11:28	07/23/19 16:59	3

Client Sample ID: 22T-SG-11-D_20190716

Date Collected: 07/16/19 09:00
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-4

Matrix: Solid
Percent Solids: 38.3

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		1.5	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 16:59	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*36 - 136*	*07/19/19 11:28*	*07/23/19 16:59*	*3*
Tetrachloro-m-xylene	*67*		*50 - 123*	*07/19/19 11:28*	*07/23/19 16:59*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0051	0.0019	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1
PCB-1221	ND		0.0051	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1
PCB-1232	ND		0.0051	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1
PCB-1242	ND		0.0051	0.0013	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1
PCB-1248	ND		0.0051	0.00092	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1
PCB-1254	ND		0.0051	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1
PCB-1260	**0.0037**	**J**	0.0051	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*39 - 142*	*07/19/19 11:28*	*07/23/19 12:31*	*1*
Tetrachloro-m-xylene	*61*		*35 - 129*	*07/19/19 11:28*	*07/23/19 12:31*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.66**	**J**	2.6	0.31	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
2,3,7,8-TCDF	**1.4**	**J**	2.6	0.27	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,7,8-PeCDD	ND		13	0.42	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,7,8-PeCDF	ND		13	0.32	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
2,3,4,7,8-PeCDF	ND		13	0.38	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,4,7,8-HxCDD	**1.1**	**J B**	13	0.43	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,6,7,8-HxCDD	**2.5**	**J**	13	0.41	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,7,8,9-HxCDD	**2.0**	**J**	13	0.40	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,4,7,8-HxCDF	**2.8**	**J**	13	0.56	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,6,7,8-HxCDF	ND		13	0.60	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,7,8,9-HxCDF	**3.2**	**J B**	13	0.29	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
2,3,4,6,7,8-HxCDF	ND		13	0.37	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,4,6,7,8-HpCDD	**64**	**B**	13	0.79	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,4,6,7,8-HpCDF	**14**	**q**	13	0.49	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
1,2,3,4,7,8,9-HpCDF	**1.4**	**J**	13	0.57	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
OCDD	**570**	**B**	26	0.70	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1
OCDF	**45**	**B**	26	0.46	pg/g	☼	07/18/19 13:27	07/22/19 00:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*65*		*25 - 164*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-2,3,7,8-TCDF	*67*		*24 - 169*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,7,8-PeCDD	*68*		*25 - 181*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,7,8-PeCDF	*69*		*24 - 185*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-2,3,4,7,8-PeCDF	*67*		*21 - 178*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,4,7,8-HxCDD	*58*		*32 - 141*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,6,7,8-HxCDD	*62*		*28 - 130*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,4,7,8-HxCDF	*67*		*26 - 152*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,6,7,8-HxCDF	*60*		*26 - 123*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-2,3,4,6,7,8-HxCDF	*62*		*28 - 136*	*07/18/19 13:27*	*07/22/19 00:41*	*1*

Client Sample ID: 22T-SG-11-D_20190716

Lab Sample ID: 580-87706-4

Date Collected: 07/16/19 09:00
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 38.3

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,7,8,9-HxCDF	*70*		*29 - 147*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*70*		*23 - 140*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*70*		*28 - 143*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*78*		*26 - 138*	*07/18/19 13:27*	*07/22/19 00:41*	*1*
13C-OCDD	*75*		*17 - 157*	*07/18/19 13:27*	*07/22/19 00:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*96*		*35 - 197*	*07/18/19 13:27*	*07/22/19 00:41*	*1*

Client Sample ID: 22T-SG-12_20190716

Lab Sample ID: 580-87706-5

Date Collected: 07/16/19 09:38
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**35000**		2000	97	mg/Kg			07/23/19 11:22	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**38.9**		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-12_20190716

Lab Sample ID: 580-87706-5

Date Collected: 07/16/19 09:38
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 38.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**670**	**F1**	10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
2-Methylnaphthalene	**130**	**F2**	10	4.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
1-Methylnaphthalene	**67**		10	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Acenaphthylene	**53**		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Acenaphthene	**120**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Fluorene	**130**		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Phenanthrene	**810**	**F2 F1**	10	3.4	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Anthracene	**160**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Fluoranthene	**720**	**F1**	10	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Pyrene	**780**		10	2.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Benzo[a]anthracene	**280**		10	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Chrysene	**280**		10	3.1	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Benzo[b]fluoranthene	**320**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Benzo[k]fluoranthene	**83**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Benzo[a]pyrene	**280**		10	1.7	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Indeno[1,2,3-cd]pyrene	**290**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Dibenz(a,h)anthracene	**27**	**B**	10	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1
Benzo[g,h,i]perylene	**250**	**B**	10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*57 - 120*	*07/19/19 09:49*	*07/22/19 14:41*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	**1.3**	**J p**	3.8	0.83	ug/Kg	☼	07/19/19 11:28	07/23/19 17:18	3
2,4'-DDE	ND		3.8	0.69	ug/Kg	☼	07/19/19 11:28	07/23/19 17:18	3

Client Sample ID: 22T-SG-12_20190716

Date Collected: 07/16/19 09:38
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-5

Matrix: Solid
Percent Solids: 38.9

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDT	ND		3.8	1.4	ug/Kg	☼	07/19/19 11:28	07/23/19 17:18	3
4,4'-DDD	**0.97**	**J F1 F2**	1.5	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 17:18	3
4,4'-DDE	**1.2**	**J F1**	1.5	0.40	ug/Kg	☼	07/19/19 11:28	07/23/19 17:18	3
4,4'-DDT	ND	F1 F2	1.5	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 17:18	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*	*X*	*36 - 136*	*07/19/19 11:28*	*07/23/19 17:18*	*3*
Tetrachloro-m-xylene	*58*		*50 - 123*	*07/19/19 11:28*	*07/23/19 17:18*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0051	0.0019	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1
PCB-1221	ND		0.0051	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1
PCB-1232	ND		0.0051	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1
PCB-1242	ND		0.0051	0.0012	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1
PCB-1248	ND		0.0051	0.00091	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1
PCB-1254	ND		0.0051	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1
PCB-1260	ND		0.0051	0.0019	mg/Kg	☼	07/19/19 11:28	07/23/19 10:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*39 - 142*	*07/19/19 11:28*	*07/23/19 10:42*	*1*
Tetrachloro-m-xylene	*62*		*35 - 129*	*07/19/19 11:28*	*07/23/19 10:42*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.52**	**J q**	2.5	0.29	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
2,3,7,8-TCDF	**1.7**	**J**	2.5	0.29	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,7,8-PeCDD	ND		13	0.38	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,7,8-PeCDF	**2.5**	**J**	13	0.34	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
2,3,4,7,8-PeCDF	**0.98**	**J**	13	0.39	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,4,7,8-HxCDD	**0.97**	**J q B**	13	0.37	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,6,7,8-HxCDD	**2.7**	**J**	13	0.38	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,7,8,9-HxCDD	**2.1**	**J**	13	0.36	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,4,7,8-HxCDF	**4.0**	**J**	13	0.41	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,6,7,8-HxCDF	**1.4**	**J**	13	0.45	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,7,8,9-HxCDF	**2.7**	**J B**	13	0.24	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
2,3,4,6,7,8-HxCDF	**0.57**	**J q**	13	0.29	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,4,6,7,8-HpCDD	**58**	**B**	13	0.89	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,4,6,7,8-HpCDF	**12**	**J q**	13	0.48	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
1,2,3,4,7,8,9-HpCDF	**1.6**	**J**	13	0.57	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
OCDD	**550**	**B**	25	0.65	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1
OCDF	**37**	**B**	25	0.49	pg/g	☼	07/18/19 13:27	07/22/19 01:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*68*		*25 - 164*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-2,3,7,8-TCDF	*73*		*24 - 169*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,7,8-PeCDD	*70*		*25 - 181*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*21 - 178*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,4,7,8-HxCDD	*61*		*32 - 141*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,6,7,8-HxCDD	*61*		*28 - 130*	*07/18/19 13:27*	*07/22/19 01:28*	*1*

Client Sample ID: 22T-SG-12_20190716

Lab Sample ID: 580-87706-5

Date Collected: 07/16/19 09:38
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 38.9

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,7,8-HxCDF	*72*		*26 - 152*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,6,7,8-HxCDF	*63*		*26 - 123*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-2,3,4,6,7,8-HxCDF	*66*		*28 - 136*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,7,8,9-HxCDF	*73*		*29 - 147*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*70*		*23 - 140*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*68*		*28 - 143*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*78*		*26 - 138*	*07/18/19 13:27*	*07/22/19 01:28*	*1*
13C-OCDD	*71*		*17 - 157*	*07/18/19 13:27*	*07/22/19 01:28*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*94*		*35 - 197*	*07/18/19 13:27*	*07/22/19 01:28*	*1*

Client Sample ID: 22T-SG-19_20190716

Lab Sample ID: 580-87706-6

Date Collected: 07/16/19 10:09
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**23000**		2000	97	mg/Kg			07/23/19 11:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**50.8**		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-19_20190716

Lab Sample ID: 580-87706-6

Date Collected: 07/16/19 10:09
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 50.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**230**		8.2	2.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
2-Methylnaphthalene	**70**		8.2	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
1-Methylnaphthalene	**33**		8.2	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Acenaphthylene	**41**		8.2	0.82	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Acenaphthene	**370**		8.2	0.98	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Fluorene	**410**		8.2	0.82	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Phenanthrene	**2200**		8.2	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Anthracene	**200**		8.2	0.98	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Fluoranthene	**2600**		8.2	2.3	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Benzo[a]anthracene	**610**		8.2	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Chrysene	**600**		8.2	2.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Benzo[b]fluoranthene	**520**		8.2	0.96	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Benzo[k]fluoranthene	**150**		8.2	0.98	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Benzo[a]pyrene	**470**		8.2	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Indeno[1,2,3-cd]pyrene	**410**		8.2	0.98	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Dibenz(a,h)anthracene	**33**	**B**	8.2	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1
Benzo[g,h,i]perylene	**340**	**B**	8.2	0.82	ug/Kg	☼	07/19/19 09:49	07/22/19 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*74*		*57 - 120*	*07/19/19 09:49*	*07/22/19 16:01*	*1*

Client Sample ID: 22T-SG-19_20190716

Date Collected: 07/16/19 10:09
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-6

Matrix: Solid
Percent Solids: 50.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	**3300**		82	16	ug/Kg	☼	07/19/19 09:49	07/24/19 02:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*57 - 120*	*07/19/19 09:49*	*07/24/19 02:17*	*10*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	**0.83**	**J p**	2.8	0.63	ug/Kg	☼	07/19/19 11:28	07/23/19 18:16	3
2,4'-DDE	ND		2.8	0.52	ug/Kg	☼	07/19/19 11:28	07/23/19 18:16	3
2,4'-DDT	ND		2.8	1.1	ug/Kg	☼	07/19/19 11:28	07/23/19 18:16	3
4,4'-DDD	**1.9**		1.1	0.22	ug/Kg	☼	07/19/19 11:28	07/23/19 18:16	3
4,4'-DDE	**1.7**		1.1	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 18:16	3
4,4'-DDT	ND		1.1	0.22	ug/Kg	☼	07/19/19 11:28	07/23/19 18:16	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*22*	*X*	*36 - 136*	*07/19/19 11:28*	*07/23/19 18:16*	*3*
Tetrachloro-m-xylene	*51*		*50 - 123*	*07/19/19 11:28*	*07/23/19 18:16*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0038	0.0014	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1
PCB-1221	ND		0.0038	0.0018	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1
PCB-1232	ND		0.0038	0.0018	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1
PCB-1242	ND		0.0038	0.00093	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1
PCB-1248	ND		0.0038	0.00068	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1
PCB-1254	ND		0.0038	0.0015	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1
PCB-1260	**0.0036**	**J p**	0.0038	0.0015	mg/Kg	☼	07/19/19 11:28	07/23/19 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*39 - 142*	*07/19/19 11:28*	*07/23/19 12:49*	*1*
Tetrachloro-m-xylene	*54*		*35 - 129*	*07/19/19 11:28*	*07/23/19 12:49*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**1.4**	**J**	2.0	0.24	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,7,8-PeCDD	**0.68**	**J q**	9.8	0.36	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,7,8-PeCDF	**12**		9.8	0.50	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
2,3,4,7,8-PeCDF	**5.8**	**J**	9.8	0.57	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,4,7,8-HxCDD	**1.0**	**J B**	9.8	0.29	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,6,7,8-HxCDD	**2.9**	**J**	9.8	0.29	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,7,8,9-HxCDD	**2.0**	**J**	9.8	0.27	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,4,7,8-HxCDF	**7.8**	**J**	9.8	0.35	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,6,7,8-HxCDF	**2.3**	**J**	9.8	0.40	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,7,8,9-HxCDF	**1.5**	**J B**	9.8	0.20	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
2,3,4,6,7,8-HxCDF	**0.99**	**J**	9.8	0.24	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,4,6,7,8-HpCDD	**52**	**B**	9.8	0.67	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,4,6,7,8-HpCDF	**11**		9.8	0.31	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
1,2,3,4,7,8,9-HpCDF	**1.1**	**J q**	9.8	0.36	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
OCDD	**490**	**B**	20	0.55	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1
OCDF	**29**	**B**	20	0.30	pg/g	☼	07/18/19 13:27	07/22/19 02:16	1

Client Sample ID: 22T-SG-19_20190716

Lab Sample ID: 580-87706-6

Date Collected: 07/16/19 10:09
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 50.8

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	67		25 - 164	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,7,8-PeCDD	71		25 - 181	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,7,8-PeCDF	72		24 - 185	07/18/19 13:27	07/22/19 02:16	1
13C-2,3,4,7,8-PeCDF	73		21 - 178	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,4,7,8-HxCDD	63		32 - 141	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,6,7,8-HxCDD	65		28 - 130	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,4,7,8-HxCDF	71		26 - 152	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,6,7,8-HxCDF	62		26 - 123	07/18/19 13:27	07/22/19 02:16	1
13C-2,3,4,6,7,8-HxCDF	66		28 - 136	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,7,8,9-HxCDF	73		29 - 147	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,4,6,7,8-HpCDD	68		23 - 140	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,4,6,7,8-HpCDF	71		28 - 143	07/18/19 13:27	07/22/19 02:16	1
13C-1,2,3,4,7,8,9-HpCDF	79		26 - 138	07/18/19 13:27	07/22/19 02:16	1
13C-OCDD	74		17 - 157	07/18/19 13:27	07/22/19 02:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	98		35 - 197	07/18/19 13:27	07/22/19 02:16	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	15		2.0	0.11	pg/g	☼	07/18/19 13:27	07/22/19 13:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	71		24 - 169	07/18/19 13:27	07/22/19 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	84		35 - 197	07/18/19 13:27	07/22/19 13:27	1

Client Sample ID: 22T-SG-20_20190716

Lab Sample ID: 580-87706-7

Date Collected: 07/16/19 10:31
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	40000		2000	97	mg/Kg			07/23/19 11:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	44.7		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-20_20190716

Lab Sample ID: 580-87706-7

Date Collected: 07/16/19 10:31
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 44.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	280		9.7	3.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
2-Methylnaphthalene	110		9.7	4.0	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
1-Methylnaphthalene	84		9.7	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Acenaphthylene	42		9.7	0.97	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Acenaphthene	100		9.7	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Fluorene	120		9.7	0.97	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Phenanthrene	670		9.7	3.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Anthracene	120		9.7	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Fluoranthene	650		9.7	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1

Client Sample ID: 22T-SG-20_20190716

Date Collected: 07/16/19 10:31
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-7

Matrix: Solid
Percent Solids: 44.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	**740**		9.7	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Benzo[a]anthracene	**240**		9.7	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Chrysene	**240**		9.7	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Benzo[b]fluoranthene	**270**		9.7	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Benzo[k]fluoranthene	**70**		9.7	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Benzo[a]pyrene	**250**		9.7	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Indeno[1,2,3-cd]pyrene	**260**		9.7	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Dibenz(a,h)anthracene	**26**	**B**	9.7	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1
Benzo[g,h,i]perylene	**230**	**B**	9.7	0.97	ug/Kg	☼	07/19/19 09:49	07/22/19 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*65*		*57 - 120*	*07/19/19 09:49*	*07/22/19 16:27*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	**0.76**	**J p**	3.1	0.68	ug/Kg	☼	07/19/19 11:28	07/23/19 18:35	3
2,4'-DDE	ND		3.1	0.56	ug/Kg	☼	07/19/19 11:28	07/23/19 18:35	3
2,4'-DDT	ND		3.1	1.2	ug/Kg	☼	07/19/19 11:28	07/23/19 18:35	3
4,4'-DDD	**1.5**		1.2	0.24	ug/Kg	☼	07/19/19 11:28	07/23/19 18:35	3
4,4'-DDE	**1.5**		1.2	0.33	ug/Kg	☼	07/19/19 11:28	07/23/19 18:35	3
4,4'-DDT	ND		1.2	0.24	ug/Kg	☼	07/19/19 11:28	07/23/19 18:35	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*36 - 136*	*07/19/19 11:28*	*07/23/19 18:35*	*3*
Tetrachloro-m-xylene	*49*	*X*	*50 - 123*	*07/19/19 11:28*	*07/23/19 18:35*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0041	0.0015	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1
PCB-1221	ND		0.0041	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1
PCB-1232	ND		0.0041	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1
PCB-1242	ND		0.0041	0.0010	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1
PCB-1248	ND		0.0041	0.00074	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1
PCB-1254	ND		0.0041	0.0016	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1
PCB-1260	**0.0025**	**J p**	0.0041	0.0016	mg/Kg	☼	07/19/19 11:28	07/23/19 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*39 - 142*	*07/19/19 11:28*	*07/23/19 13:07*	*1*
Tetrachloro-m-xylene	*58*		*35 - 129*	*07/19/19 11:28*	*07/23/19 13:07*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		2.2	0.31	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
2,3,7,8-TCDF	**1.9**	**J**	2.2	0.24	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,7,8-PeCDD	ND		11	0.38	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,7,8-PeCDF	**1.8**	**J**	11	0.23	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
2,3,4,7,8-PeCDF	ND		11	0.27	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,4,7,8-HxCDD	**0.76**	**J B**	11	0.35	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,6,7,8-HxCDD	**2.7**	**J**	11	0.35	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,7,8,9-HxCDD	**2.1**	**J q**	11	0.33	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,4,7,8-HxCDF	**2.8**	**J**	11	0.39	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1

Client Sample ID: 22T-SG-20_20190716

Lab Sample ID: 580-87706-7

Date Collected: 07/16/19 10:31
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 44.7

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDF	ND		11	0.46	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,7,8,9-HxCDF	**1.4**	**J B**	11	0.22	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
2,3,4,6,7,8-HxCDF	**0.51**	**J q**	11	0.26	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,4,6,7,8-HpCDD	**63**	**B**	11	0.73	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,4,6,7,8-HpCDF	**15**	**q**	11	0.41	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
1,2,3,4,7,8,9-HpCDF	**1.3**	**J**	11	0.47	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
OCDD	**590**	**B**	22	0.65	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1
OCDF	**46**	**B**	22	0.40	pg/g	☼	07/18/19 13:27	07/22/19 03:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*71*		*25 - 164*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-2,3,7,8-TCDF	*76*		*24 - 169*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,7,8-PeCDD	*75*		*25 - 181*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,7,8-PeCDF	*76*		*24 - 185*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-2,3,4,7,8-PeCDF	*75*		*21 - 178*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,4,7,8-HxCDD	*64*		*32 - 141*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,6,7,8-HxCDD	*66*		*28 - 130*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,4,7,8-HxCDF	*73*		*26 - 152*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,6,7,8-HxCDF	*62*		*26 - 123*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-2,3,4,6,7,8-HxCDF	*68*		*28 - 136*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,7,8,9-HxCDF	*75*		*29 - 147*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*71*		*23 - 140*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*71*		*28 - 143*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*79*		*26 - 138*	*07/18/19 13:27*	*07/22/19 03:03*	*1*
13C-OCDD	*73*		*17 - 157*	*07/18/19 13:27*	*07/22/19 03:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*97*		*35 - 197*	*07/18/19 13:27*	*07/22/19 03:03*	*1*

Client Sample ID: 22T-SG-15_20190716

Lab Sample ID: 580-87706-8

Date Collected: 07/16/19 10:50
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**41000**		2000	97	mg/Kg			07/23/19 11:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**35.7**		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-15_20190716

Lab Sample ID: 580-87706-8

Date Collected: 07/16/19 10:50
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 35.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**26**		14	4.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
2-Methylnaphthalene	**10**	**J**	14	5.5	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
1-Methylnaphthalene	**6.0**	**J**	14	1.7	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Acenaphthylene	**9.4**	**J**	14	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Acenaphthene	**11**	**J**	14	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Fluorene	**12**	**J**	14	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1

Client Sample ID: 22T-SG-15_20190716

Date Collected: 07/16/19 10:50
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-8

Matrix: Solid
Percent Solids: 35.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**69**		14	4.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Anthracene	**18**		14	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Fluoranthene	**110**		14	3.8	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Pyrene	**120**		14	2.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Benzo[a]anthracene	**50**		14	2.1	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Chrysene	**55**		14	4.1	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Benzo[b]fluoranthene	**62**		14	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Benzo[k]fluoranthene	**17**		14	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Benzo[a]pyrene	**53**		14	2.3	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Indeno[1,2,3-cd]pyrene	**58**		14	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Dibenz(a,h)anthracene	**7.1**	**J B**	14	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1
Benzo[g,h,i]perylene	**45**	**B**	14	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*66*		*57 - 120*	*07/19/19 09:49*	*07/22/19 16:54*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.9	0.87	ug/Kg	☼	07/19/19 11:28	07/23/19 18:55	3
2,4'-DDE	ND		3.9	0.72	ug/Kg	☼	07/19/19 11:28	07/23/19 18:55	3
2,4'-DDT	ND		3.9	1.5	ug/Kg	☼	07/19/19 11:28	07/23/19 18:55	3
4,4'-DDD	**0.81**	**J**	1.6	0.31	ug/Kg	☼	07/19/19 11:28	07/23/19 18:55	3
4,4'-DDE	**1.4**	**J**	1.6	0.42	ug/Kg	☼	07/19/19 11:28	07/23/19 18:55	3
4,4'-DDT	ND		1.6	0.31	ug/Kg	☼	07/19/19 11:28	07/23/19 18:55	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*38*		*36 - 136*	*07/19/19 11:28*	*07/23/19 18:55*	*3*
Tetrachloro-m-xylene	*55*		*50 - 123*	*07/19/19 11:28*	*07/23/19 18:55*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0053	0.0019	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1
PCB-1221	ND		0.0053	0.0025	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1
PCB-1232	ND		0.0053	0.0025	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1
PCB-1242	ND		0.0053	0.0013	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1
PCB-1248	ND		0.0053	0.00095	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1
PCB-1254	ND		0.0053	0.0021	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1
PCB-1260	**0.0029**	**J**	0.0053	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*39 - 142*	*07/19/19 11:28*	*07/23/19 13:25*	*1*
Tetrachloro-m-xylene	*50*		*35 - 129*	*07/19/19 11:28*	*07/23/19 13:25*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		2.8	0.35	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
2,3,7,8-TCDF	**2.1**	**J**	2.8	0.25	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,7,8-PeCDD	**0.74**	**J**	14	0.40	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,7,8-PeCDF	**2.8**	**J**	14	0.34	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
2,3,4,7,8-PeCDF	**0.99**	**J**	14	0.37	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,4,7,8-HxCDD	**1.2**	**J B**	14	0.43	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1

Client Sample ID: 22T-SG-15_20190716

Lab Sample ID: 580-87706-8

Date Collected: 07/16/19 10:50
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 35.7

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	3.1	J	14	0.41	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,7,8,9-HxCDD	2.4	J	14	0.39	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,4,7,8-HxCDF	4.6	J	14	0.52	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,6,7,8-HxCDF	1.3	J q	14	0.56	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,7,8,9-HxCDF	2.8	J B	14	0.27	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
2,3,4,6,7,8-HxCDF	0.69	J	14	0.36	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,4,6,7,8-HpCDD	61	B	14	0.83	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,4,6,7,8-HpCDF	13	J q	14	0.47	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
1,2,3,4,7,8,9-HpCDF	1.4	J	14	0.54	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
OCDD	560	B	28	0.71	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1
OCDF	43	B	28	0.52	pg/g	☼	07/18/19 13:27	07/22/19 03:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*67*		*25 - 164*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-2,3,7,8-TCDF	*73*		*24 - 169*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,7,8-PeCDD	*72*		*25 - 181*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*21 - 178*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*61*		*32 - 141*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*65*		*28 - 130*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*71*		*26 - 152*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,6,7,8-HxCDF	*64*		*26 - 123*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-2,3,4,6,7,8-HxCDF	*66*		*28 - 136*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,7,8,9-HxCDF	*74*		*29 - 147*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*71*		*23 - 140*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*70*		*28 - 143*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*80*		*26 - 138*	*07/18/19 13:27*	*07/22/19 03:51*	*1*
13C-OCDD	*70*		*17 - 157*	*07/18/19 13:27*	*07/22/19 03:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*92*		*35 - 197*	*07/18/19 13:27*	*07/22/19 03:51*	*1*

Client Sample ID: 22T-SG-14_20190716

Lab Sample ID: 580-87706-9

Date Collected: 07/16/19 11:06
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	35000		2000	97	mg/Kg			07/23/19 12:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	38.7		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-14_20190716

Lab Sample ID: 580-87706-9

Date Collected: 07/16/19 11:06
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 38.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	240		9.5	3.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
2-Methylnaphthalene	75		9.5	3.9	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
1-Methylnaphthalene	110		9.5	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1

Client Sample ID: 22T-SG-14_20190716

Date Collected: 07/16/19 11:06
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-9

Matrix: Solid
Percent Solids: 38.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	**37**		9.5	0.95	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Acenaphthene	**210**		9.5	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Fluorene	**150**		9.5	0.95	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Phenanthrene	**500**		9.5	3.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Anthracene	**56**		9.5	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Fluoranthene	**370**		9.5	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Pyrene	**380**		9.5	1.8	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Benzo[a]anthracene	**110**		9.5	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Chrysene	**120**		9.5	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Benzo[b]fluoranthene	**140**		9.5	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Benzo[k]fluoranthene	**41**		9.5	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Benzo[a]pyrene	**120**		9.5	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Indeno[1,2,3-cd]pyrene	**130**		9.5	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Dibenz(a,h)anthracene	**12**	**B**	9.5	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1
Benzo[g,h,i]perylene	**110**	**B**	9.5	0.95	ug/Kg	☼	07/19/19 09:49	07/22/19 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*64*		*57 - 120*	*07/19/19 09:49*	*07/22/19 17:20*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.8	0.84	ug/Kg	☼	07/19/19 11:28	07/23/19 19:14	3
2,4'-DDE	ND		3.8	0.69	ug/Kg	☼	07/19/19 11:28	07/23/19 19:14	3
2,4'-DDT	ND		3.8	1.4	ug/Kg	☼	07/19/19 11:28	07/23/19 19:14	3
4,4'-DDD	**1.3**	**J**	1.5	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 19:14	3
4,4'-DDE	**1.7**		1.5	0.40	ug/Kg	☼	07/19/19 11:28	07/23/19 19:14	3
4,4'-DDT	ND		1.5	0.30	ug/Kg	☼	07/19/19 11:28	07/23/19 19:14	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*36 - 136*	*07/19/19 11:28*	*07/23/19 19:14*	*3*
Tetrachloro-m-xylene	*75*		*50 - 123*	*07/19/19 11:28*	*07/23/19 19:14*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0051	0.0019	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1
PCB-1221	ND		0.0051	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1
PCB-1232	ND		0.0051	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1
PCB-1242	ND		0.0051	0.0012	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1
PCB-1248	ND		0.0051	0.00091	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1
PCB-1254	ND		0.0051	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1
PCB-1260	**0.0023**	**J p**	0.0051	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*39 - 142*	*07/19/19 11:28*	*07/23/19 13:43*	*1*
Tetrachloro-m-xylene	*65*		*35 - 129*	*07/19/19 11:28*	*07/23/19 13:43*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.91**	**J**	2.6	0.38	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,7,8-PeCDD	ND		13	0.51	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,7,8-PeCDF	**2.9**	**J**	13	0.45	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1

Client Sample ID: 22T-SG-14_20190716

Lab Sample ID: 580-87706-9

Date Collected: 07/16/19 11:06
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 38.7

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	1.3	J	13	0.50	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,4,7,8-HxCDD	1.4	J B	13	0.45	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,6,7,8-HxCDD	4.5	J	13	0.43	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,7,8,9-HxCDD	3.0	J q	13	0.42	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,4,7,8-HxCDF	3.8	J	13	0.60	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,6,7,8-HxCDF	ND		13	0.65	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,7,8,9-HxCDF	2.5	J B	13	0.35	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
2,3,4,6,7,8-HxCDF	0.55	J q	13	0.40	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,4,6,7,8-HpCDD	88	B	13	1.1	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,4,6,7,8-HpCDF	16	q	13	0.48	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
1,2,3,4,7,8,9-HpCDF	1.6	J q	13	0.55	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
OCDD	790	B	26	0.86	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1
OCDF	50	B	26	0.56	pg/g	☼	07/18/19 13:27	07/22/19 08:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*69*		*25 - 164*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,7,8-PeCDD	*73*		*25 - 181*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,7,8-PeCDF	*73*		*24 - 185*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-2,3,4,7,8-PeCDF	*73*		*21 - 178*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,4,7,8-HxCDD	*62*		*32 - 141*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,6,7,8-HxCDD	*62*		*28 - 130*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,4,7,8-HxCDF	*69*		*26 - 152*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,6,7,8-HxCDF	*62*		*26 - 123*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-2,3,4,6,7,8-HxCDF	*66*		*28 - 136*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,7,8,9-HxCDF	*71*		*29 - 147*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*62*		*23 - 140*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*66*		*28 - 143*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*26 - 138*	*07/18/19 13:27*	*07/22/19 08:18*	*1*
13C-OCDD	*67*		*17 - 157*	*07/18/19 13:27*	*07/22/19 08:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*98*		*35 - 197*	*07/18/19 13:27*	*07/22/19 08:18*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	4.2		2.6	0.15	pg/g	☼	07/18/19 13:27	07/22/19 14:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*73*		*24 - 169*	*07/18/19 13:27*	*07/22/19 14:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*80*		*35 - 197*	*07/18/19 13:27*	*07/22/19 14:05*	*1*

Client Sample ID: 22T-SG-13_20190716

Lab Sample ID: 580-87706-10

Date Collected: 07/16/19 12:12
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	35000		2000	97	mg/Kg			07/23/19 12:04	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	40.0		0.1	0.1	%			07/18/19 14:00	1

Client Sample ID: 22T-SG-13_20190716

Date Collected: 07/16/19 12:12
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-10

Matrix: Solid
Percent Solids: 40.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**140**		9.0	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
2-Methylnaphthalene	**51**		9.0	3.7	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
1-Methylnaphthalene	**37**		9.0	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Acenaphthylene	**21**		9.0	0.90	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Acenaphthene	**61**		9.0	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Fluorene	**60**		9.0	0.90	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Phenanthrene	**290**		9.0	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Anthracene	**59**		9.0	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Fluoranthene	**290**		9.0	2.5	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Pyrene	**320**		9.0	1.7	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Benzo[a]anthracene	**110**		9.0	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Chrysene	**120**		9.0	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Benzo[b]fluoranthene	**130**		9.0	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Benzo[k]fluoranthene	**39**		9.0	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Benzo[a]pyrene	**120**		9.0	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Indeno[1,2,3-cd]pyrene	**120**		9.0	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Dibenz(a,h)anthracene	**12**	**B**	9.0	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1
Benzo[g,h,i]perylene	**100**	**B**	9.0	0.90	ug/Kg	☼	07/19/19 09:49	07/22/19 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*72*		*57 - 120*	*07/19/19 09:49*	*07/22/19 17:47*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.7	0.82	ug/Kg	☼	07/19/19 11:28	07/23/19 19:33	3
2,4'-DDE	ND		3.7	0.68	ug/Kg	☼	07/19/19 11:28	07/23/19 19:33	3
2,4'-DDT	ND		3.7	1.4	ug/Kg	☼	07/19/19 11:28	07/23/19 19:33	3
4,4'-DDD	**1.0**	**J**	1.5	0.29	ug/Kg	☼	07/19/19 11:28	07/23/19 19:33	3
4,4'-DDE	**1.5**		1.5	0.40	ug/Kg	☼	07/19/19 11:28	07/23/19 19:33	3
4,4'-DDT	ND		1.5	0.29	ug/Kg	☼	07/19/19 11:28	07/23/19 19:33	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*		*36 - 136*	*07/19/19 11:28*	*07/23/19 19:33*	*3*
Tetrachloro-m-xylene	*109*		*50 - 123*	*07/19/19 11:28*	*07/23/19 19:33*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0050	0.0018	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1
PCB-1221	ND		0.0050	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1
PCB-1232	ND		0.0050	0.0024	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1
PCB-1242	ND		0.0050	0.0012	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1
PCB-1248	ND		0.0050	0.00090	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1
PCB-1254	ND		0.0050	0.0020	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1
PCB-1260	**0.0021**	**J p**	0.0050	0.0019	mg/Kg	☼	07/19/19 11:28	07/23/19 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*39 - 142*	*07/19/19 11:28*	*07/23/19 14:01*	*1*
Tetrachloro-m-xylene	*64*		*35 - 129*	*07/19/19 11:28*	*07/23/19 14:01*	*1*

Client Sample ID: 22T-SG-13_20190716

Lab Sample ID: 580-87706-10

Date Collected: 07/16/19 12:12
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 40.0

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.80**	**J**	2.5	0.33	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
2,3,7,8-TCDF	**1.9**	**J**	2.5	0.29	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,7,8-PeCDD	ND		12	0.46	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,7,8-PeCDF	**1.7**	**J q**	12	0.35	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
2,3,4,7,8-PeCDF	**1.0**	**J**	12	0.39	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,4,7,8-HxCDD	**1.1**	**J B**	12	0.38	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,6,7,8-HxCDD	**2.8**	**J**	12	0.37	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,7,8,9-HxCDD	**1.9**	**J**	12	0.35	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,4,7,8-HxCDF	**3.7**	**J**	12	0.44	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,6,7,8-HxCDF	**1.4**	**J**	12	0.48	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,7,8,9-HxCDF	**2.4**	**J B**	12	0.25	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
2,3,4,6,7,8-HxCDF	ND		12	0.32	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,4,6,7,8-HpCDD	**61**	**B**	12	0.86	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,4,6,7,8-HpCDF	**14**		12	0.47	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
1,2,3,4,7,8,9-HpCDF	**1.4**	**J**	12	0.54	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
OCDD	**530**	**B**	25	0.76	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1
OCDF	**41**	**B**	25	0.51	pg/g	☼	07/18/19 13:27	07/22/19 09:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*68*		*25 - 164*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-2,3,7,8-TCDF	*73*		*24 - 169*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*25 - 181*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,7,8-PeCDF	*75*		*24 - 185*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-2,3,4,7,8-PeCDF	*74*		*21 - 178*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,4,7,8-HxCDD	*63*		*32 - 141*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,6,7,8-HxCDD	*64*		*28 - 130*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,4,7,8-HxCDF	*71*		*26 - 152*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,6,7,8-HxCDF	*62*		*26 - 123*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-2,3,4,6,7,8-HxCDF	*63*		*28 - 136*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,7,8,9-HxCDF	*74*		*29 - 147*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*69*		*23 - 140*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*69*		*28 - 143*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*78*		*26 - 138*	*07/18/19 13:27*	*07/22/19 09:06*	*1*
13C-OCDD	*71*		*17 - 157*	*07/18/19 13:27*	*07/22/19 09:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*98*		*35 - 197*	*07/18/19 13:27*	*07/22/19 09:06*	*1*

Client Sample ID: 22T-SG-22_20190716

Lab Sample ID: 580-87706-11

Date Collected: 07/16/19 12:30
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**33000**		2000	97	mg/Kg			07/23/19 12:09	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**39.3**		0.1	0.1	%			07/18/19 14:32	1

Client Sample ID: 22T-SG-22_20190716

Date Collected: 07/16/19 12:30
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-11

Matrix: Solid
Percent Solids: 39.3

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**250**		11	3.7	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
2-Methylnaphthalene	**110**		11	4.6	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
1-Methylnaphthalene	**46**		11	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Acenaphthylene	**22**		11	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Acenaphthene	**65**		11	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Fluorene	**70**		11	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Phenanthrene	**420**		11	3.7	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Anthracene	**79**		11	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Fluoranthene	**310**		11	3.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Pyrene	**340**		11	2.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Benzo[a]anthracene	**110**		11	1.7	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Chrysene	**120**		11	3.4	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Benzo[b]fluoranthene	**130**		11	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Benzo[k]fluoranthene	**36**		11	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Benzo[a]pyrene	**110**		11	1.9	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Indeno[1,2,3-cd]pyrene	**110**		11	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Dibenz(a,h)anthracene	**11**	**B**	11	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1
Benzo[g,h,i]perylene	**86**	**B**	11	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*57 - 120*	*07/19/19 09:49*	*07/22/19 18:13*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.4	0.74	ug/Kg	☼	07/19/19 11:28	07/23/19 19:53	3
2,4'-DDE	ND		3.4	0.61	ug/Kg	☼	07/19/19 11:28	07/23/19 19:53	3
2,4'-DDT	ND		3.4	1.3	ug/Kg	☼	07/19/19 11:28	07/23/19 19:53	3
4,4'-DDD	**0.96**	**J**	1.3	0.26	ug/Kg	☼	07/19/19 11:28	07/23/19 19:53	3
4,4'-DDE	**1.1**	**J**	1.3	0.36	ug/Kg	☼	07/19/19 11:28	07/23/19 19:53	3
4,4'-DDT	ND		1.3	0.26	ug/Kg	☼	07/19/19 11:28	07/23/19 19:53	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*37*		*36 - 136*	*07/19/19 11:28*	*07/23/19 19:53*	*3*
Tetrachloro-m-xylene	*54*		*50 - 123*	*07/19/19 11:28*	*07/23/19 19:53*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0045	0.0017	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1
PCB-1221	ND		0.0045	0.0021	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1
PCB-1232	ND		0.0045	0.0021	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1
PCB-1242	ND		0.0045	0.0011	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1
PCB-1248	ND		0.0045	0.00081	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1
PCB-1254	ND		0.0045	0.0018	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1
PCB-1260	**0.0038**	**J**	0.0045	0.0017	mg/Kg	☼	07/19/19 11:28	07/23/19 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*39 - 142*	*07/19/19 11:28*	*07/23/19 14:19*	*1*
Tetrachloro-m-xylene	*55*		*35 - 129*	*07/19/19 11:28*	*07/23/19 14:19*	*1*

Client Sample ID: 22T-SG-22_20190716

Date Collected: 07/16/19 12:30
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-11

Matrix: Solid
Percent Solids: 39.3

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.91**	**J q**	2.5	0.32	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,7,8-PeCDD	ND		13	0.43	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,7,8-PeCDF	**3.0**	**J**	13	0.35	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
2,3,4,7,8-PeCDF	**1.0**	**J**	13	0.39	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,4,7,8-HxCDD	**1.1**	**J B**	13	0.40	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,6,7,8-HxCDD	**2.3**	**J q**	13	0.40	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,7,8,9-HxCDD	**2.1**	**J**	13	0.38	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,4,7,8-HxCDF	**3.1**	**J**	13	0.42	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,6,7,8-HxCDF	**1.1**	**J**	13	0.46	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,7,8,9-HxCDF	**2.5**	**J B**	13	0.24	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
2,3,4,6,7,8-HxCDF	**0.63**	**J**	13	0.30	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,4,6,7,8-HpCDD	**69**	**B**	13	0.92	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,4,6,7,8-HpCDF	**12**	**J q**	13	0.44	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
1,2,3,4,7,8,9-HpCDF	**1.2**	**J**	13	0.54	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
OCDD	**610**	**B**	25	0.76	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1
OCDF	**42**	**B**	25	0.51	pg/g	☼	07/18/19 13:27	07/22/19 09:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*69*		*25 - 164*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,7,8-PeCDD	*73*		*25 - 181*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-2,3,4,7,8-PeCDF	*73*		*21 - 178*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,4,7,8-HxCDD	*62*		*32 - 141*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,6,7,8-HxCDD	*62*		*28 - 130*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,4,7,8-HxCDF	*71*		*26 - 152*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,6,7,8-HxCDF	*62*		*26 - 123*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-2,3,4,6,7,8-HxCDF	*65*		*28 - 136*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,7,8,9-HxCDF	*73*		*29 - 147*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*68*		*23 - 140*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*69*		*28 - 143*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*77*		*26 - 138*	*07/18/19 13:27*	*07/22/19 09:53*	*1*
13C-OCDD	*68*		*17 - 157*	*07/18/19 13:27*	*07/22/19 09:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*98*		*35 - 197*	*07/18/19 13:27*	*07/22/19 09:53*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**4.3**		2.5	0.15	pg/g	☼	07/18/19 13:27	07/22/19 14:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*76*		*24 - 169*	*07/18/19 13:27*	*07/22/19 14:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*83*		*35 - 197*	*07/18/19 13:27*	*07/22/19 14:42*	*1*

Client Sample ID: 22T-SG-23_20190716

Lab Sample ID: 580-87706-12

Date Collected: 07/16/19 12:58

Matrix: Solid

Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	26000		2000	97	mg/Kg			07/23/19 12:13	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	46.0		0.1	0.1	%			07/18/19 14:32	1

Client Sample ID: 22T-SG-23_20190716

Lab Sample ID: 580-87706-12

Date Collected: 07/16/19 12:58

Matrix: Solid

Date Received: 07/16/19 15:45

Percent Solids: 46.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	42		10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
2-Methylnaphthalene	23		10	4.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
1-Methylnaphthalene	15		10	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Acenaphthylene	14		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Acenaphthene	31		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Fluorene	33		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Phenanthrene	160		10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Anthracene	39		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Fluoranthene	230		10	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Pyrene	250		10	2.0	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Benzo[a]anthracene	91		10	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Chrysene	95		10	3.1	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Benzo[b]fluoranthene	97		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Benzo[k]fluoranthene	25		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Benzo[a]pyrene	85		10	1.7	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Indeno[1,2,3-cd]pyrene	90		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Dibenz(a,h)anthracene	8.5	J B	10	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1
Benzo[g,h,i]perylene	75	B	10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*66*		*57 - 120*	*07/19/19 09:49*	*07/22/19 18:39*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	0.77	J p	3.0	0.66	ug/Kg	☼	07/19/19 11:29	07/23/19 20:12	3
2,4'-DDE	ND		3.0	0.55	ug/Kg	☼	07/19/19 11:29	07/23/19 20:12	3
2,4'-DDT	ND		3.0	1.1	ug/Kg	☼	07/19/19 11:29	07/23/19 20:12	3
4,4'-DDD	1.3		1.2	0.24	ug/Kg	☼	07/19/19 11:29	07/23/19 20:12	3
4,4'-DDE	1.3		1.2	0.32	ug/Kg	☼	07/19/19 11:29	07/23/19 20:12	3
4,4'-DDT	ND		1.2	0.24	ug/Kg	☼	07/19/19 11:29	07/23/19 20:12	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*34*	*X*	*36 - 136*	*07/19/19 11:29*	*07/23/19 20:12*	*3*
Tetrachloro-m-xylene	*67*		*50 - 123*	*07/19/19 11:29*	*07/23/19 20:12*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0040	0.0015	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1
PCB-1221	ND		0.0040	0.0019	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1
PCB-1232	ND		0.0040	0.0019	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1
PCB-1242	ND		0.0040	0.00099	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1

Client Sample ID: 22T-SG-23_20190716

Date Collected: 07/16/19 12:58
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-12

Matrix: Solid
Percent Solids: 46.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.0040	0.00072	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1
PCB-1254	ND		0.0040	0.0016	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1
PCB-1260	**0.0023**	**J p**	0.0040	0.0016	mg/Kg	☼	07/19/19 11:29	07/23/19 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*39 - 142*	*07/19/19 11:29*	*07/23/19 14:37*	*1*
Tetrachloro-m-xylene	*62*		*35 - 129*	*07/19/19 11:29*	*07/23/19 14:37*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.73**	**J**	2.2	0.30	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
2,3,7,8-TCDF	**1.4**	**J**	2.2	0.23	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,7,8-PeCDD	ND		11	0.33	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,7,8-PeCDF	**1.3**	**J**	11	0.27	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
2,3,4,7,8-PeCDF	ND		11	0.30	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,4,7,8-HxCDD	**0.98**	**J B**	11	0.32	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,6,7,8-HxCDD	**2.3**	**J**	11	0.30	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,7,8,9-HxCDD	**2.0**	**J**	11	0.29	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,4,7,8-HxCDF	**2.0**	**J**	11	0.33	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,6,7,8-HxCDF	**0.82**	**J q**	11	0.37	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,7,8,9-HxCDF	**1.8**	**J B**	11	0.18	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
2,3,4,6,7,8-HxCDF	**0.52**	**J**	11	0.22	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,4,6,7,8-HpCDD	**59**	**B**	11	0.78	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,4,6,7,8-HpCDF	**9.1**	**J q**	11	0.38	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
1,2,3,4,7,8,9-HpCDF	**1.1**	**J**	11	0.44	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
OCDD	**520**	**B**	22	0.56	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1
OCDF	**31**	**B**	22	0.37	pg/g	☼	07/18/19 13:27	07/22/19 10:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*72*		*25 - 164*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-2,3,7,8-TCDF	*74*		*24 - 169*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,7,8-PeCDD	*78*		*25 - 181*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,7,8-PeCDF	*77*		*24 - 185*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-2,3,4,7,8-PeCDF	*78*		*21 - 178*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,4,7,8-HxCDD	*65*		*32 - 141*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,6,7,8-HxCDD	*69*		*28 - 130*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*26 - 152*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,6,7,8-HxCDF	*67*		*26 - 123*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-2,3,4,6,7,8-HxCDF	*70*		*28 - 136*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,7,8,9-HxCDF	*77*		*29 - 147*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*73*		*23 - 140*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*28 - 143*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*86*		*26 - 138*	*07/18/19 13:27*	*07/22/19 10:41*	*1*
13C-OCDD	*77*		*17 - 157*	*07/18/19 13:27*	*07/22/19 10:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*96*		*35 - 197*	*07/18/19 13:27*	*07/22/19 10:41*	*1*

Client Sample ID: 22T-SG-10_20190716

Lab Sample ID: 580-87706-13

Date Collected: 07/16/19 13:15

Matrix: Solid

Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	23000		2000	97	mg/Kg			07/23/19 12:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	55.8		0.1	0.1	%			07/18/19 14:32	1

Client Sample ID: 22T-SG-10_20190716

Lab Sample ID: 580-87706-13

Date Collected: 07/16/19 13:15

Matrix: Solid

Date Received: 07/16/19 15:45

Percent Solids: 55.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	130		6.5	2.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
2-Methylnaphthalene	51		6.5	2.7	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
1-Methylnaphthalene	22		6.5	0.82	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Acenaphthylene	12		6.5	0.65	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Acenaphthene	52		6.5	0.78	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Fluorene	52		6.5	0.65	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Phenanthrene	270		6.5	2.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Anthracene	48		6.5	0.78	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Fluoranthene	260		6.5	1.8	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Pyrene	280		6.5	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Benzo[a]anthracene	97		6.5	0.99	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Chrysene	95		6.5	2.0	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Benzo[b]fluoranthene	82		6.5	0.77	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Benzo[k]fluoranthene	22		6.5	0.78	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Benzo[a]pyrene	75		6.5	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Indeno[1,2,3-cd]pyrene	63		6.5	0.78	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Dibenz(a,h)anthracene	8.7	B	6.5	0.94	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1
Benzo[g,h,i]perylene	50	B	6.5	0.65	ug/Kg	☼	07/19/19 09:49	07/22/19 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*86*		*57 - 120*	*07/19/19 09:49*	*07/22/19 19:06*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		2.6	0.58	ug/Kg	☼	07/19/19 11:29	07/23/19 20:31	3
2,4'-DDE	ND		2.6	0.48	ug/Kg	☼	07/19/19 11:29	07/23/19 20:31	3
2,4'-DDT	ND		2.6	1.0	ug/Kg	☼	07/19/19 11:29	07/23/19 20:31	3
4,4'-DDD	0.62	J	1.0	0.20	ug/Kg	☼	07/19/19 11:29	07/23/19 20:31	3
4,4'-DDE	0.82	J	1.0	0.28	ug/Kg	☼	07/19/19 11:29	07/23/19 20:31	3
4,4'-DDT	ND		1.0	0.20	ug/Kg	☼	07/19/19 11:29	07/23/19 20:31	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*42*		*36 - 136*	*07/19/19 11:29*	*07/23/19 20:31*	*3*
Tetrachloro-m-xylene	*55*		*50 - 123*	*07/19/19 11:29*	*07/23/19 20:31*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0035	0.0013	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1
PCB-1221	ND		0.0035	0.0017	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1
PCB-1232	ND		0.0035	0.0017	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1
PCB-1242	ND		0.0035	0.00086	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1

Client Sample ID: 22T-SG-10_20190716

Date Collected: 07/16/19 13:15
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-13

Matrix: Solid
Percent Solids: 55.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.0035	0.00063	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1
PCB-1254	ND		0.0035	0.0014	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1
PCB-1260	**0.0025**	**J**	0.0035	0.0013	mg/Kg	☼	07/19/19 11:29	07/23/19 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*39 - 142*	*07/19/19 11:29*	*07/23/19 14:55*	*1*
Tetrachloro-m-xylene	*59*		*35 - 129*	*07/19/19 11:29*	*07/23/19 14:55*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**0.40**	**J q**	1.8	0.21	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,7,8-PeCDD	ND		8.9	0.28	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,7,8-PeCDF	**4.0**	**J**	8.9	0.24	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
2,3,4,7,8-PeCDF	**1.6**	**J**	8.9	0.27	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,4,7,8-HxCDD	**0.73**	**J B**	8.9	0.26	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,6,7,8-HxCDD	**2.0**	**J**	8.9	0.26	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,7,8,9-HxCDD	**1.4**	**J**	8.9	0.25	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,4,7,8-HxCDF	**3.8**	**J**	8.9	0.30	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,6,7,8-HxCDF	**1.7**	**J**	8.9	0.33	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,7,8,9-HxCDF	**2.2**	**J B**	8.9	0.17	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
2,3,4,6,7,8-HxCDF	**0.54**	**J**	8.9	0.21	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,4,6,7,8-HpCDD	**48**	**B**	8.9	0.63	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,4,6,7,8-HpCDF	**10**		8.9	0.35	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
1,2,3,4,7,8,9-HpCDF	**1.5**	**J**	8.9	0.41	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
OCDD	**630**	**B**	18	0.62	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1
OCDF	**36**	**B**	18	0.34	pg/g	☼	07/18/19 13:27	07/22/19 11:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*67*		*25 - 164*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,7,8-PeCDD	*71*		*25 - 181*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-2,3,4,7,8-PeCDF	*70*		*21 - 178*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,4,7,8-HxCDD	*60*		*32 - 141*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,6,7,8-HxCDD	*62*		*28 - 130*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,4,7,8-HxCDF	*68*		*26 - 152*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,6,7,8-HxCDF	*60*		*26 - 123*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-2,3,4,6,7,8-HxCDF	*63*		*28 - 136*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,7,8,9-HxCDF	*71*		*29 - 147*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*66*		*23 - 140*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*66*		*28 - 143*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*77*		*26 - 138*	*07/18/19 13:27*	*07/22/19 11:29*	*1*
13C-OCDD	*66*		*17 - 157*	*07/18/19 13:27*	*07/22/19 11:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*94*		*35 - 197*	*07/18/19 13:27*	*07/22/19 11:29*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**3.3**		1.8	0.15	pg/g	☼	07/18/19 13:27	07/22/19 15:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*74*		*24 - 169*	*07/18/19 13:27*	*07/22/19 15:20*	*1*

Client Sample ID: 22T-SG-10_20190716

Lab Sample ID: 580-87706-13
Matrix: Solid
Percent Solids: 55.8

Date Collected: 07/16/19 13:15
Date Received: 07/16/19 15:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	85		35 - 197	07/18/19 13:27	07/22/19 15:20	1

Client Sample ID: 22T-SG-21_20190716

Lab Sample ID: 580-87706-14
Matrix: Solid

Date Collected: 07/16/19 14:08
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	33000		2000	97	mg/Kg			07/23/19 12:22	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	43.1		0.1	0.1	%			07/18/19 14:32	1

Client Sample ID: 22T-SG-21_20190716

Lab Sample ID: 580-87706-14
Matrix: Solid
Percent Solids: 43.1

Date Collected: 07/16/19 14:08
Date Received: 07/16/19 15:45

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2600		9.6	3.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
2-Methylnaphthalene	1600		9.6	3.9	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
1-Methylnaphthalene	520		9.6	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Acenaphthylene	260		9.6	0.96	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Acenaphthene	3600		9.6	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Fluorene	2600		9.6	0.96	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Anthracene	1800		9.6	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Benzo[a]anthracene	3000		9.6	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Chrysene	3000		9.6	2.9	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Benzo[b]fluoranthene	2900		9.6	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Benzo[k]fluoranthene	890		9.6	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Benzo[a]pyrene	2800		9.6	1.6	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Indeno[1,2,3-cd]pyrene	2500		9.6	1.1	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Dibenz(a,h)anthracene	220	B	9.6	1.4	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1
Benzo[g,h,i]perylene	2200	B	9.6	0.96	ug/Kg	☼	07/19/19 09:49	07/22/19 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	67		57 - 120	07/19/19 09:49	07/22/19 19:32	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	16000		96	31	ug/Kg	☼	07/19/19 09:49	07/24/19 02:44	10
Fluoranthene	9800		96	27	ug/Kg	☼	07/19/19 09:49	07/24/19 02:44	10
Pyrene	11000		96	19	ug/Kg	☼	07/19/19 09:49	07/24/19 02:44	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	72		57 - 120	07/19/19 09:49	07/24/19 02:44	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	5.9	p	3.2	0.71	ug/Kg	☼	07/19/19 11:29	07/23/19 20:51	3
2,4'-DDE	6.3	p	3.2	0.58	ug/Kg	☼	07/19/19 11:29	07/23/19 20:51	3
2,4'-DDT	ND		3.2	1.2	ug/Kg	☼	07/19/19 11:29	07/23/19 20:51	3
4,4'-DDD	15		1.3	0.25	ug/Kg	☼	07/19/19 11:29	07/23/19 20:51	3

Client Sample ID: 22T-SG-21_20190716

Date Collected: 07/16/19 14:08
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-14

Matrix: Solid
Percent Solids: 43.1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	**7.6**		1.3	0.34	ug/Kg	☼	07/19/19 11:29	07/23/19 20:51	3
4,4'-DDT	ND		1.3	0.25	ug/Kg	☼	07/19/19 11:29	07/23/19 20:51	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*21*	*X*	*36 - 136*	*07/19/19 11:29*	*07/23/19 20:51*	*3*
Tetrachloro-m-xylene	*44*	*X*	*50 - 123*	*07/19/19 11:29*	*07/23/19 20:51*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0043	0.0016	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1
PCB-1221	ND		0.0043	0.0020	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1
PCB-1232	ND		0.0043	0.0020	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1
PCB-1242	ND		0.0043	0.0010	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1
PCB-1248	ND		0.0043	0.00077	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1
PCB-1254	ND		0.0043	0.0017	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1
PCB-1260	**0.025**	**p**	0.0043	0.0016	mg/Kg	☼	07/19/19 11:29	07/23/19 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*39 - 142*	*07/19/19 11:29*	*07/23/19 15:13*	*1*
Tetrachloro-m-xylene	*62*		*35 - 129*	*07/19/19 11:29*	*07/23/19 15:13*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		2.3	0.52	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,7,8-PeCDD	ND		12	0.58	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,7,8-PeCDF	**19**		12	0.74	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
2,3,4,7,8-PeCDF	**7.6**	**J**	12	0.85	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,4,7,8-HxCDD	**1.0**	**J q B**	12	0.43	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,6,7,8-HxCDD	**4.5**	**J**	12	0.42	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,7,8,9-HxCDD	**3.0**	**J**	12	0.40	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,4,7,8-HxCDF	**21**		12	0.60	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,6,7,8-HxCDF	**7.7**	**J**	12	0.68	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,7,8,9-HxCDF	**1.9**	**J B**	12	0.35	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
2,3,4,6,7,8-HxCDF	**1.5**	**J q**	12	0.42	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,4,6,7,8-HpCDD	**210**	**B**	12	1.8	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,4,6,7,8-HpCDF	**39**		12	0.71	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
1,2,3,4,7,8,9-HpCDF	**5.1**	**J**	12	0.93	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
OCDD	**2100**	**B**	23	1.3	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1
OCDF	**99**	**B**	23	0.58	pg/g	☼	07/18/19 13:27	07/22/19 12:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*67*		*25 - 164*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*25 - 181*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,7,8-PeCDF	*76*		*24 - 185*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-2,3,4,7,8-PeCDF	*76*		*21 - 178*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,4,7,8-HxCDD	*67*		*32 - 141*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,6,7,8-HxCDD	*61*		*28 - 130*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,4,7,8-HxCDF	*72*		*26 - 152*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,6,7,8-HxCDF	*62*		*26 - 123*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-2,3,4,6,7,8-HxCDF	*64*		*28 - 136*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,7,8,9-HxCDF	*72*		*29 - 147*	*07/18/19 13:27*	*07/22/19 12:16*	*1*

Client Sample ID: 22T-SG-21_20190716

Lab Sample ID: 580-87706-14

Date Collected: 07/16/19 14:08
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 43.1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*65*		*23 - 140*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*28 - 143*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*70*		*26 - 138*	*07/18/19 13:27*	*07/22/19 12:16*	*1*
13C-OCDD	*66*		*17 - 157*	*07/18/19 13:27*	*07/22/19 12:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*96*		*35 - 197*	*07/18/19 13:27*	*07/22/19 12:16*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**14**		2.3	0.20	pg/g	☼	07/18/19 13:27	07/22/19 15:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*78*		*24 - 169*	*07/18/19 13:27*	*07/22/19 15:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*89*		*35 - 197*	*07/18/19 13:27*	*07/22/19 15:58*	*1*

Client Sample ID: 22T-SG-16_20190716

Lab Sample ID: 580-87706-15

Date Collected: 07/16/19 14:24
Matrix: Solid
Date Received: 07/16/19 15:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**29000**		2000	97	mg/Kg			07/23/19 12:27	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**43.8**		0.1	0.1	%			07/18/19 14:32	1

Client Sample ID: 22T-SG-16_20190716

Lab Sample ID: 580-87706-15

Date Collected: 07/16/19 14:24
Matrix: Solid
Date Received: 07/16/19 15:45
Percent Solids: 43.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**780**		10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
2-Methylnaphthalene	**290**		10	4.2	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
1-Methylnaphthalene	**130**		10	1.3	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Acenaphthylene	**880**		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Acenaphthene	**340**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Fluorene	**320**		10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Phenanthrene	**1400**		10	3.3	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Anthracene	**390**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Fluoranthene	**3300**		10	2.8	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Benzo[a]anthracene	**3700**		10	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Chrysene	**3300**		10	3.0	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Benzo[b]fluoranthene	**4000**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Benzo[k]fluoranthene	**1500**		10	1.2	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Dibenz(a,h)anthracene	**410**	**B**	10	1.5	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1
Benzo[g,h,i]perylene	**3900**	**B**	10	1.0	ug/Kg	☼	07/19/19 09:49	07/22/19 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*57 - 120*	*07/19/19 09:49*	*07/22/19 19:59*	*1*

Client Sample ID: 22T-SG-16_20190716

Date Collected: 07/16/19 14:24
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-15

Matrix: Solid
Percent Solids: 43.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	**4900**		100	20	ug/Kg	☼	07/19/19 09:49	07/24/19 19:36	10
Benzo[a]pyrene	**4700**		100	17	ug/Kg	☼	07/19/19 09:49	07/24/19 19:36	10
Indeno[1,2,3-cd]pyrene	**4900**		100	12	ug/Kg	☼	07/19/19 09:49	07/24/19 19:36	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	**1.0**	**J p**	3.0	0.66	ug/Kg	☼	07/19/19 11:29	07/23/19 14:47	3
2,4'-DDE	ND		3.0	0.55	ug/Kg	☼	07/19/19 11:29	07/23/19 14:47	3
2,4'-DDT	ND		3.0	1.1	ug/Kg	☼	07/19/19 11:29	07/23/19 14:47	3
4,4'-DDD	**2.7**	**p**	1.2	0.23	ug/Kg	☼	07/19/19 11:29	07/23/19 14:47	3
4,4'-DDE	**3.7**		1.2	0.32	ug/Kg	☼	07/19/19 11:29	07/23/19 14:47	3
4,4'-DDT	ND		1.2	0.23	ug/Kg	☼	07/19/19 11:29	07/23/19 14:47	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*36 - 136*	*07/19/19 11:29*	*07/23/19 14:47*	*3*
Tetrachloro-m-xylene	*67*		*50 - 123*	*07/19/19 11:29*	*07/23/19 14:47*	*3*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0040	0.0015	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1
PCB-1221	ND		0.0040	0.0019	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1
PCB-1232	ND		0.0040	0.0019	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1
PCB-1242	ND		0.0040	0.00098	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1
PCB-1248	ND		0.0040	0.00072	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1
PCB-1254	**0.022**		0.0040	0.0016	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1
PCB-1260	ND		0.0040	0.0015	mg/Kg	☼	07/19/19 11:29	07/23/19 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*39 - 142*	*07/19/19 11:29*	*07/23/19 15:32*	*1*
Tetrachloro-m-xylene	*53*		*35 - 129*	*07/19/19 11:29*	*07/23/19 15:32*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		2.3	0.31	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,7,8-PeCDD	ND		11	0.45	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,7,8-PeCDF	**25**		11	0.57	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
2,3,4,7,8-PeCDF	**6.7**	**J**	11	0.62	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,4,7,8-HxCDD	**1.4**	**J q B**	11	0.42	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,6,7,8-HxCDD	**5.8**	**J**	11	0.41	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,7,8,9-HxCDD	**3.2**	**J**	11	0.39	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,4,7,8-HxCDF	**29**		11	0.57	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,6,7,8-HxCDF	**7.8**	**J**	11	0.62	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,7,8,9-HxCDF	**1.9**	**J B**	11	0.31	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
2,3,4,6,7,8-HxCDF	**1.7**	**J**	11	0.39	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,4,6,7,8-HpCDD	**120**	**B**	11	1.1	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,4,6,7,8-HpCDF	**24**		11	0.55	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
1,2,3,4,7,8,9-HpCDF	**3.6**	**J q**	11	0.63	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
OCDD	**1200**	**B**	23	0.90	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1
OCDF	**67**	**B**	23	0.44	pg/g	☼	07/18/19 13:27	07/22/19 13:04	1

Client Sample ID: 22T-SG-16_20190716

Date Collected: 07/16/19 14:24
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-15

Matrix: Solid
Percent Solids: 43.8

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	69		25 - 164	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,7,8-PeCDD	75		25 - 181	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,7,8-PeCDF	77		24 - 185	07/18/19 13:27	07/22/19 13:04	1
13C-2,3,4,7,8-PeCDF	78		21 - 178	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,4,7,8-HxCDD	62		32 - 141	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,6,7,8-HxCDD	63		28 - 130	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,4,7,8-HxCDF	69		26 - 152	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,6,7,8-HxCDF	60		26 - 123	07/18/19 13:27	07/22/19 13:04	1
13C-2,3,4,6,7,8-HxCDF	65		28 - 136	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,7,8,9-HxCDF	72		29 - 147	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,4,6,7,8-HpCDD	66		23 - 140	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,4,6,7,8-HpCDF	66		28 - 143	07/18/19 13:27	07/22/19 13:04	1
13C-1,2,3,4,7,8,9-HpCDF	74		26 - 138	07/18/19 13:27	07/22/19 13:04	1
13C-OCDD	66		17 - 157	07/18/19 13:27	07/22/19 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	94		35 - 197	07/18/19 13:27	07/22/19 13:04	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	8.5		2.3	0.35	pg/g	☼	07/18/19 13:27	07/22/19 16:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	77		24 - 169	07/18/19 13:27	07/22/19 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	87		35 - 197	07/18/19 13:27	07/22/19 16:36	1

Default Detection Limits

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Prep: 3546

Analyte	RL	MDL	Units
1-Methylnaphthalene	5.0	0.63	ug/Kg
2-Methylnaphthalene	5.0	2.1	ug/Kg
Acenaphthene	5.0	0.60	ug/Kg
Acenaphthylene	5.0	0.50	ug/Kg
Anthracene	5.0	0.60	ug/Kg
Benzo[a]anthracene	5.0	0.76	ug/Kg
Benzo[a]pyrene	5.0	0.84	ug/Kg
Benzo[b]fluoranthene	5.0	0.59	ug/Kg
Benzo[g,h,i]perylene	5.0	0.50	ug/Kg
Benzo[k]fluoranthene	5.0	0.60	ug/Kg
Chrysene	5.0	1.5	ug/Kg
Dibenz(a,h)anthracene	5.0	0.72	ug/Kg
Fluoranthene	5.0	1.4	ug/Kg
Fluorene	5.0	0.50	ug/Kg
Indeno[1,2,3-cd]pyrene	5.0	0.60	ug/Kg
Naphthalene	5.0	1.6	ug/Kg
Phenanthrene	5.0	1.6	ug/Kg
Pyrene	5.0	0.97	ug/Kg

Method: 8081B - Organochlorine Pesticides (GC)

Prep: 3550B

Analyte	RL	MDL	Units
2,4'-DDD	5.0	1.1	ug/Kg
2,4'-DDE	5.0	0.91	ug/Kg
2,4'-DDT	5.0	1.9	ug/Kg
4,4'-DDD	2.0	0.39	ug/Kg
4,4'-DDE	2.0	0.53	ug/Kg
4,4'-DDT	2.0	0.39	ug/Kg

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Prep: 3550B

Analyte	RL	MDL	Units
PCB-1016	0.020	0.0074	mg/Kg
PCB-1221	0.020	0.0095	mg/Kg
PCB-1232	0.020	0.0095	mg/Kg
PCB-1242	0.020	0.0049	mg/Kg
PCB-1248	0.020	0.0036	mg/Kg
PCB-1254	0.020	0.0079	mg/Kg
PCB-1260	0.020	0.0077	mg/Kg

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Prep: HRMS-Sox

Analyte	RL		Units
1,2,3,4,6,7,8-HpCDD	5.0		pg/g
1,2,3,4,6,7,8-HpCDF	5.0		pg/g
1,2,3,4,7,8,9-HpCDF	5.0		pg/g
1,2,3,4,7,8-HxCDD	5.0		pg/g
1,2,3,4,7,8-HxCDF	5.0		pg/g
1,2,3,6,7,8-HxCDD	5.0		pg/g
1,2,3,6,7,8-HxCDF	5.0		pg/g
1,2,3,7,8,9-HxCDD	5.0		pg/g

Default Detection Limits

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Prep: HRMS-Sox

Analyte	RL		Units
1,2,3,7,8,9-HxCDF	5.0		pg/g
1,2,3,7,8-PeCDD	5.0		pg/g
1,2,3,7,8-PeCDF	5.0		pg/g
2,3,4,6,7,8-HxCDF	5.0		pg/g
2,3,4,7,8-PeCDF	5.0		pg/g
2,3,7,8-TCDD	1.0		pg/g
2,3,7,8-TCDF	1.0		pg/g
OCDD	10		pg/g
OCDF	10		pg/g

General Chemistry

Analyte	RL	RL	Units
Total Solids	0.1	0.1	%
Total Organic Carbon - Duplicates	2000	97	mg/Kg

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	TPHL (57-120)						
580-87706-1	22T-SG-17_20190716	62						
580-87706-2	22T-SG-18_20190716	64						
580-87706-3	22T-SG-11_20190716	65						
580-87706-4	22T-SG-11-D_20190716	70						
580-87706-5	22T-SG-12_20190716	69						
580-87706-5 MS	22T-SG-12_20190716	77						
580-87706-5 MSD	22T-SG-12_20190716	77						
580-87706-6	22T-SG-19_20190716	74						
580-87706-6 - DL	22T-SG-19_20190716	70						
580-87706-7	22T-SG-20_20190716	65						
580-87706-8	22T-SG-15_20190716	66						
580-87706-9	22T-SG-14_20190716	64						
580-87706-10	22T-SG-13_20190716	72						
580-87706-11	22T-SG-22_20190716	70						
580-87706-12	22T-SG-23_20190716	66						
580-87706-13	22T-SG-10_20190716	86						
580-87706-14	22T-SG-21_20190716	67						
580-87706-14 - DL	22T-SG-21_20190716	72						
580-87706-15	22T-SG-16_20190716	70						
LCS 580-306107/2-A	Lab Control Sample	80						
MB 580-306107/1-A	Method Blank	75						

Surrogate Legend

TPHL = Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	DCBP1 (36-136)	TCX1 (50-123)					
580-87706-1	22T-SG-17_20190716	50	80					
580-87706-2	22T-SG-18_20190716	51	62					
580-87706-3	22T-SG-11_20190716	34 X	51					
580-87706-4	22T-SG-11-D_20190716	45	67					
580-87706-5	22T-SG-12_20190716	32 X	58					
580-87706-5 MS	22T-SG-12_20190716	32 X	57					
580-87706-5 MSD	22T-SG-12_20190716	46	6 X					
580-87706-6	22T-SG-19_20190716	22 X	51					
580-87706-7	22T-SG-20_20190716	36	49 X					
580-87706-8	22T-SG-15_20190716	38	55					
580-87706-9	22T-SG-14_20190716	40	75					
580-87706-10	22T-SG-13_20190716	39	109					
580-87706-11	22T-SG-22_20190716	37	54					
580-87706-12	22T-SG-23_20190716	34 X	67					
580-87706-13	22T-SG-10_20190716	42	55					
580-87706-14	22T-SG-21_20190716	21 X	44 X					
580-87706-15	22T-SG-16_20190716	71	67					
LCS 580-306126/2-A	Lab Control Sample	101	83					
LCS 580-306126/4-A	Lab Control Sample	86	71					

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(36-136)	(50-123)
LCSD 580-306126/5-A	Lab Control Sample Dup	72	59
MB 580-306126/1-A	Method Blank	92	77

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(39-142)	(35-129)
580-87706-1	22T-SG-17_20190716	94	81
580-87706-2	22T-SG-18_20190716	77	66
580-87706-3	22T-SG-11_20190716	83	62
580-87706-4	22T-SG-11-D_20190716	74	61
580-87706-5	22T-SG-12_20190716	80	62
580-87706-5 MS	22T-SG-12_20190716	64	51
580-87706-5 MSD	22T-SG-12_20190716	71	59
580-87706-6	22T-SG-19_20190716	72	54
580-87706-7	22T-SG-20_20190716	68	58
580-87706-8	22T-SG-15_20190716	59	50
580-87706-9	22T-SG-14_20190716	83	65
580-87706-10	22T-SG-13_20190716	82	64
580-87706-11	22T-SG-22_20190716	68	55
580-87706-12	22T-SG-23_20190716	77	62
580-87706-13	22T-SG-10_20190716	63	59
580-87706-14	22T-SG-21_20190716	82	62
580-87706-15	22T-SG-16_20190716	72	53
LCS 580-306126/3-A	Lab Control Sample	95	75
MB 580-306126/1-A	Method Blank	106	81

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		37TCDD
Lab Sample ID	Client Sample ID	(35-197)
580-87706-1	22T-SG-17_20190716	92
580-87706-2	22T-SG-18_20190716	94
580-87706-2 - RA	22T-SG-18_20190716	82
580-87706-3	22T-SG-11_20190716	92
580-87706-4	22T-SG-11-D_20190716	96
580-87706-5	22T-SG-12_20190716	94
580-87706-6	22T-SG-19_20190716	98
580-87706-6 - RA	22T-SG-19_20190716	84
580-87706-7	22T-SG-20_20190716	97

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	37TCDD (35-197)							
580-87706-8	22T-SG-15_20190716	92							
580-87706-9	22T-SG-14_20190716	98							
580-87706-9 - RA	22T-SG-14_20190716	80							
580-87706-10	22T-SG-13_20190716	98							
580-87706-11	22T-SG-22_20190716	98							
580-87706-11 - RA	22T-SG-22_20190716	83							
580-87706-12	22T-SG-23_20190716	96							
580-87706-13	22T-SG-10_20190716	94							
580-87706-13 - RA	22T-SG-10_20190716	85							
580-87706-14	22T-SG-21_20190716	96							
580-87706-14 - RA	22T-SG-21_20190716	89							
580-87706-15	22T-SG-16_20190716	94							
580-87706-15 - RA	22T-SG-16_20190716	87							
MB 320-308663/1-A	Method Blank	95							

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	37TCDD (31-191)							
LCS 320-308663/2-A	Lab Control Sample	95							
LCSD 320-308663/3-A	Lab Control Sample Dup	96							

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (25-164)	TCDF (24-169)	PeCDD (25-181)	PeCDF (24-185)	PeCF (21-178)	HxCDD (32-141)	HxDD (28-130)	HxCDF (26-152)
580-87706-1	22T-SG-17_20190716	71	75	72	72	71	65	64	74
580-87706-2	22T-SG-18_20190716	66		68	69	69	58	59	68
580-87706-2 - RA	22T-SG-18_20190716		73						
580-87706-3	22T-SG-11_20190716	69	75	75	74	74	61	64	74
580-87706-4	22T-SG-11-D_20190716	65	67	68	69	67	58	62	67
580-87706-5	22T-SG-12_20190716	68	73	70	72	72	61	61	72
580-87706-6	22T-SG-19_20190716	67		71	72	73	63	65	71
580-87706-6 - RA	22T-SG-19_20190716		71						
580-87706-7	22T-SG-20_20190716	71	76	75	76	75	64	66	73
580-87706-8	22T-SG-15_20190716	67	73	72	72	72	61	65	71
580-87706-9	22T-SG-14_20190716	69		73	73	73	62	62	69
580-87706-9 - RA	22T-SG-14_20190716		73						
580-87706-10	22T-SG-13_20190716	68	73	76	75	74	63	64	71
580-87706-11	22T-SG-22_20190716	69		73	72	73	62	62	71
580-87706-11 - RA	22T-SG-22_20190716		76						
580-87706-12	22T-SG-23_20190716	72	74	78	77	78	65	69	76
580-87706-13	22T-SG-10_20190716	67		71	72	70	60	62	68
580-87706-13 - RA	22T-SG-10_20190716		74						
580-87706-14	22T-SG-21_20190716	67		76	76	76	67	61	72
580-87706-14 - RA	22T-SG-21_20190716		78						
580-87706-15	22T-SG-16_20190716	69		75	77	78	62	63	69
580-87706-15 - RA	22T-SG-16_20190716		77						
MB 320-308663/1-A	Method Blank	71	75	75	75	75	67	71	80

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	HxDF (26-123)	13CHxCF (28-136)	HxCF (29-147)	HpCDD (23-140)	HpCDF (28-143)	HpCDF2 (26-138)	OCDD (17-157)
580-87706-1	22T-SG-17_20190716	64	69	76	72	72	81	74
580-87706-2	22T-SG-18_20190716	59	64	68	65	64	75	66
580-87706-2 - RA	22T-SG-18_20190716							
580-87706-3	22T-SG-11_20190716	63	67	76	70	68	81	70
580-87706-4	22T-SG-11-D_20190716	60	62	70	70	70	78	75
580-87706-5	22T-SG-12_20190716	63	66	73	70	68	78	71
580-87706-6	22T-SG-19_20190716	62	66	73	68	71	79	74
580-87706-6 - RA	22T-SG-19_20190716							
580-87706-7	22T-SG-20_20190716	62	68	75	71	71	79	73
580-87706-8	22T-SG-15_20190716	64	66	74	71	70	80	70
580-87706-9	22T-SG-14_20190716	62	66	71	62	66	75	67
580-87706-9 - RA	22T-SG-14_20190716							
580-87706-10	22T-SG-13_20190716	62	63	74	69	69	78	71
580-87706-11	22T-SG-22_20190716	62	65	73	68	69	77	68
580-87706-11 - RA	22T-SG-22_20190716							
580-87706-12	22T-SG-23_20190716	67	70	77	73	76	86	77
580-87706-13	22T-SG-10_20190716	60	63	71	66	66	77	66
580-87706-13 - RA	22T-SG-10_20190716							
580-87706-14	22T-SG-21_20190716	62	64	72	65	65	70	66
580-87706-14 - RA	22T-SG-21_20190716							
580-87706-15	22T-SG-16_20190716	60	65	72	66	66	74	66
580-87706-15 - RA	22T-SG-16_20190716							
MB 320-308663/1-A	Method Blank	71	74	80	72	82	86	84

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD	TCDF	PeCDD	PeCDF	PeCF	HxCDD	HxDD	HxCDF
Lab Sample ID	Client Sample ID	(20-175)	(22-152)	(21-227)	(21-192)	(13-328)	(21-193)	(25-163)	(19-202)
LCS 320-308663/2-A	Lab Control Sample	67	71	72	72	71	62	60	74
LCSD 320-308663/3-A	Lab Control Sample Dup	71	74	76	76	74	64	68	75

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HxDF	13CHxCF	HxCF	HpCDD	HpCDF	HpCDF2	OCDD	
Lab Sample ID	Client Sample ID	(21-159)	(22-176)	(17-205)	(26-166)	(21-158)	(20-186)	(13-199)	
LCS 320-308663/2-A	Lab Control Sample	67	68	74	72	76	81	79	
LCSD 320-308663/3-A	Lab Control Sample Dup	67	70	77	77	78	86	84	

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-306107/1-A
Matrix: Solid
Analysis Batch: 306243

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 306107

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.6	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
2-Methylnaphthalene	ND		5.0	2.1	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
1-Methylnaphthalene	ND		5.0	0.63	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Acenaphthylene	ND		5.0	0.50	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Acenaphthene	ND		5.0	0.60	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Fluorene	ND		5.0	0.50	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Phenanthrene	ND		5.0	1.6	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Anthracene	ND		5.0	0.60	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Fluoranthene	ND		5.0	1.4	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Pyrene	ND		5.0	0.97	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Benzo[a]anthracene	ND		5.0	0.76	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Chrysene	ND		5.0	1.5	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Benzo[b]fluoranthene	ND		5.0	0.59	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Benzo[k]fluoranthene	ND		5.0	0.60	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Benzo[a]pyrene	ND		5.0	0.84	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.60	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Dibenz(a,h)anthracene	1.47	J	5.0	0.72	ug/Kg		07/19/19 09:49	07/22/19 12:03	1
Benzo[g,h,i]perylene	0.668	J	5.0	0.50	ug/Kg		07/19/19 09:49	07/22/19 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*75*		*57 - 120*	*07/19/19 09:49*	*07/22/19 12:03*	*1*

Lab Sample ID: LCS 580-306107/2-A
Matrix: Solid
Analysis Batch: 306243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 306107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1000	842		ug/Kg		84	70 - 120
2-Methylnaphthalene	1000	887		ug/Kg		89	68 - 120
1-Methylnaphthalene	1000	864		ug/Kg		86	71 - 120
Acenaphthylene	1000	914		ug/Kg		91	68 - 120
Acenaphthene	1000	857		ug/Kg		86	68 - 120
Fluorene	1000	912		ug/Kg		91	73 - 120
Phenanthrene	1000	864		ug/Kg		86	66 - 120
Anthracene	1000	887		ug/Kg		89	73 - 125
Fluoranthene	1000	894		ug/Kg		89	74 - 125
Pyrene	1000	847		ug/Kg		85	70 - 120
Benzo[a]anthracene	1000	975		ug/Kg		97	66 - 120
Chrysene	1000	901		ug/Kg		90	63 - 120
Benzo[b]fluoranthene	1000	1000		ug/Kg		100	63 - 132
Benzo[k]fluoranthene	1000	926		ug/Kg		93	63 - 131
Benzo[a]pyrene	1000	887		ug/Kg		89	72 - 124
Indeno[1,2,3-cd]pyrene	1000	1070		ug/Kg		107	65 - 132
Dibenz(a,h)anthracene	1000	995		ug/Kg		100	70 - 133
Benzo[g,h,i]perylene	1000	967		ug/Kg		97	63 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*80*		*57 - 120*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: 580-87706-5 MS
Matrix: Solid
Analysis Batch: 306243

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA
Prep Batch: 306107

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	670	F1	2160	2030	F1	ug/Kg	☼	63	70 - 120
2-Methylnaphthalene	130	F2	2160	1930		ug/Kg	☼	83	68 - 120
1-Methylnaphthalene	67		2160	1890		ug/Kg	☼	84	71 - 120
Acenaphthylene	53		2160	1980		ug/Kg	☼	89	68 - 120
Acenaphthene	120		2160	1860		ug/Kg	☼	80	68 - 120
Fluorene	130		2160	2000		ug/Kg	☼	87	73 - 120
Phenanthrene	810	F2 F1	2160	2220	F1	ug/Kg	☼	65	66 - 120
Anthracene	160		2160	2000		ug/Kg	☼	85	73 - 125
Fluoranthene	720	F1	2160	2410		ug/Kg	☼	78	74 - 125
Pyrene	780		2160	2420	E	ug/Kg	☼	76	70 - 120
Benzo[a]anthracene	280		2160	2410		ug/Kg	☼	98	66 - 120
Chrysene	280		2160	1990		ug/Kg	☼	79	63 - 120
Benzo[b]fluoranthene	320		2160	2130		ug/Kg	☼	84	63 - 132
Benzo[k]fluoranthene	83		2160	1710		ug/Kg	☼	75	63 - 131
Benzo[a]pyrene	280		2160	1980		ug/Kg	☼	78	72 - 124
Indeno[1,2,3-cd]pyrene	290		2160	2470		ug/Kg	☼	101	65 - 132
Dibenz(a,h)anthracene	27	B	2160	1900		ug/Kg	☼	87	70 - 133
Benzo[g,h,i]perylene	250	B	2160	2000		ug/Kg	☼	81	63 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*77*		*57 - 120*

Lab Sample ID: 580-87706-5 MSD
Matrix: Solid
Analysis Batch: 306243

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA
Prep Batch: 306107

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	670	F1	2010	1800	F1	ug/Kg	☼	56	70 - 120	12	12
2-Methylnaphthalene	130	F2	2010	1700	F2	ug/Kg	☼	78	68 - 120	13	12
1-Methylnaphthalene	67		2010	1710		ug/Kg	☼	82	71 - 120	10	21
Acenaphthylene	53		2010	1800		ug/Kg	☼	87	68 - 120	10	22
Acenaphthene	120		2010	1680		ug/Kg	☼	78	68 - 120	10	12
Fluorene	130		2010	1810		ug/Kg	☼	84	73 - 120	10	13
Phenanthrene	810	F2 F1	2010	1960	F2 F1	ug/Kg	☼	57	66 - 120	12	11
Anthracene	160		2010	1800		ug/Kg	☼	81	73 - 125	11	12
Fluoranthene	720	F1	2010	2190	F1	ug/Kg	☼	73	74 - 125	9	19
Pyrene	780		2010	2210	E	ug/Kg	☼	71	70 - 120	9	12
Benzo[a]anthracene	280		2010	2180		ug/Kg	☼	95	66 - 120	10	14
Chrysene	280		2010	1900		ug/Kg	☼	80	63 - 120	5	10
Benzo[b]fluoranthene	320		2010	1980		ug/Kg	☼	83	63 - 132	7	25
Benzo[k]fluoranthene	83		2010	1620		ug/Kg	☼	76	63 - 131	5	15
Benzo[a]pyrene	280		2010	1910		ug/Kg	☼	81	72 - 124	3	19
Indeno[1,2,3-cd]pyrene	290		2010	2340		ug/Kg	☼	102	65 - 132	6	15
Dibenz(a,h)anthracene	27	B	2010	1700		ug/Kg	☼	83	70 - 133	11	13
Benzo[g,h,i]perylene	250	B	2010	1880		ug/Kg	☼	81	63 - 128	6	14

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*77*		*57 - 120*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 580-306126/1-A
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 306126

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.50	0.11	ug/Kg		07/19/19 11:28	07/23/19 14:44	1
2,4'-DDE	ND		0.50	0.091	ug/Kg		07/19/19 11:28	07/23/19 14:44	1
2,4'-DDT	ND		0.50	0.19	ug/Kg		07/19/19 11:28	07/23/19 14:44	1
4,4'-DDD	ND		0.20	0.039	ug/Kg		07/19/19 11:28	07/23/19 14:44	1
4,4'-DDE	ND		0.20	0.053	ug/Kg		07/19/19 11:28	07/23/19 14:44	1
4,4'-DDT	ND		0.20	0.039	ug/Kg		07/19/19 11:28	07/23/19 14:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*36 - 136*	*07/19/19 11:28*	*07/23/19 14:44*	*1*
Tetrachloro-m-xylene	*77*		*50 - 123*	*07/19/19 11:28*	*07/23/19 14:44*	*1*

Lab Sample ID: LCS 580-306126/2-A
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	2.50	2.20		ug/Kg		88	61 - 132
4,4'-DDE	2.50	2.27		ug/Kg		91	53 - 124
4,4'-DDT	2.50	2.22		ug/Kg		89	43 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*101*		*36 - 136*
Tetrachloro-m-xylene	*83*		*50 - 123*

Lab Sample ID: LCS 580-306126/4-A
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4'-DDD	2.50	2.43		ug/Kg		97	50 - 150
2,4'-DDE	2.50	2.63		ug/Kg		105	50 - 150
2,4'-DDT	2.50	2.33		ug/Kg		93	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*86*		*36 - 136*
Tetrachloro-m-xylene	*71*		*50 - 123*

Lab Sample ID: LCSD 580-306126/5-A
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4'-DDD	2.50	2.04		ug/Kg		81	50 - 150	18	40
2,4'-DDE	2.50	2.19		ug/Kg		88	50 - 150	18	40
2,4'-DDT	2.50	1.90		ug/Kg		76	50 - 150	20	40

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 580-306126/5-A
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 306126

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	72		36 - 136
Tetrachloro-m-xylene	59		50 - 123

Lab Sample ID: 580-87706-5 MS
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.97	J F1 F2	5.71	5.96		ug/Kg	☼	87	61 - 132
4,4'-DDE	1.2	J F1	5.71	4.14	F1	ug/Kg	☼	51	53 - 124
4,4'-DDT	ND	F1 F2	5.71	2.61		ug/Kg	☼	46	43 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	32	X	36 - 136
Tetrachloro-m-xylene	57		50 - 123

Lab Sample ID: 580-87706-5 MSD
Matrix: Solid
Analysis Batch: 306388

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.97	J F1 F2	6.03	3.74	F1 F2	ug/Kg	☼	46	61 - 132	46	18
4,4'-DDE	1.2	J F1	6.03	3.75	F1	ug/Kg	☼	42	53 - 124	10	18
4,4'-DDT	ND	F1 F2	6.03	0.565	J F1 F2	ug/Kg	☼	9	43 - 150	129	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	46		36 - 136
Tetrachloro-m-xylene	6	X	50 - 123

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-306126/1-A
Matrix: Solid
Analysis Batch: 306344

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 306126

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0020	0.00074	mg/Kg		07/19/19 11:28	07/23/19 09:48	1
PCB-1221	ND		0.0020	0.00095	mg/Kg		07/19/19 11:28	07/23/19 09:48	1
PCB-1232	ND		0.0020	0.00095	mg/Kg		07/19/19 11:28	07/23/19 09:48	1
PCB-1242	ND		0.0020	0.00049	mg/Kg		07/19/19 11:28	07/23/19 09:48	1
PCB-1248	ND		0.0020	0.00036	mg/Kg		07/19/19 11:28	07/23/19 09:48	1
PCB-1254	ND		0.0020	0.00079	mg/Kg		07/19/19 11:28	07/23/19 09:48	1
PCB-1260	ND		0.0020	0.00077	mg/Kg		07/19/19 11:28	07/23/19 09:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		39 - 142	07/19/19 11:28	07/23/19 09:48	1
Tetrachloro-m-xylene	81		35 - 129	07/19/19 11:28	07/23/19 09:48	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 580-306126/3-A
Matrix: Solid
Analysis Batch: 306344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.0125	0.0103		mg/Kg		83	41 - 138
PCB-1260	0.0125	0.0113		mg/Kg		91	47 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*95*		*39 - 142*
Tetrachloro-m-xylene	*75*		*35 - 129*

Lab Sample ID: 580-87706-5 MS
Matrix: Solid
Analysis Batch: 306344

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		0.0270	0.0155		mg/Kg	☼	57	41 - 138
PCB-1260	ND		0.0270	0.0178		mg/Kg	☼	66	47 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*39 - 142*
Tetrachloro-m-xylene	*51*		*35 - 129*

Lab Sample ID: 580-87706-5 MSD
Matrix: Solid
Analysis Batch: 306344

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA
Prep Batch: 306126

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		0.0287	0.0181		mg/Kg	☼	63	41 - 138	16	21
PCB-1260	ND		0.0287	0.0211		mg/Kg	☼	73	47 - 142	17	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*71*		*39 - 142*
Tetrachloro-m-xylene	*59*		*35 - 129*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-308663/1-A
Matrix: Solid
Analysis Batch: 309103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 308663

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0	0.098	pg/g		07/18/19 13:27	07/21/19 19:56	1
2,3,7,8-TCDF	ND		1.0	0.068	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,7,8-PeCDD	ND		5.0	0.14	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,7,8-PeCDF	ND		5.0	0.098	pg/g		07/18/19 13:27	07/21/19 19:56	1
2,3,4,7,8-PeCDF	ND		5.0	0.11	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,4,7,8-HxCDD	0.140	J q	5.0	0.094	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,6,7,8-HxCDD	ND		5.0	0.092	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,7,8,9-HxCDD	ND		5.0	0.088	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,4,7,8-HxCDF	ND		5.0	0.11	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,6,7,8-HxCDF	ND		5.0	0.12	pg/g		07/18/19 13:27	07/21/19 19:56	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-308663/1-A
Matrix: Solid
Analysis Batch: 309103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 308663

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8,9-HxCDF	0.681	J	5.0	0.066	pg/g		07/18/19 13:27	07/21/19 19:56	1
2,3,4,6,7,8-HxCDF	ND		5.0	0.076	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,4,6,7,8-HpCDD	0.218	J q	5.0	0.069	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.075	pg/g		07/18/19 13:27	07/21/19 19:56	1
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.095	pg/g		07/18/19 13:27	07/21/19 19:56	1
OCDD	1.95	J	10	0.12	pg/g		07/18/19 13:27	07/21/19 19:56	1
OCDF	0.415	J	10	0.14	pg/g		07/18/19 13:27	07/21/19 19:56	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*71*		*25 - 164*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-2,3,7,8-TCDF	*75*		*24 - 169*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,7,8-PeCDD	*75*		*25 - 181*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,7,8-PeCDF	*75*		*24 - 185*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-2,3,4,7,8-PeCDF	*75*		*21 - 178*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,4,7,8-HxCDD	*67*		*32 - 141*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,6,7,8-HxCDD	*71*		*28 - 130*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,4,7,8-HxCDF	*80*		*26 - 152*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,6,7,8-HxCDF	*71*		*26 - 123*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-2,3,4,6,7,8-HxCDF	*74*		*28 - 136*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,7,8,9-HxCDF	*80*		*29 - 147*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*72*		*23 - 140*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*82*		*28 - 143*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*86*		*26 - 138*	*07/18/19 13:27*	*07/21/19 19:56*	*1*
13C-OCDD	*84*		*17 - 157*	*07/18/19 13:27*	*07/21/19 19:56*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*95*		*35 - 197*	*07/18/19 13:27*	*07/21/19 19:56*	*1*

Lab Sample ID: LCS 320-308663/2-A
Matrix: Solid
Analysis Batch: 309103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308663

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	21.6		pg/g		108	67 - 158
2,3,7,8-TCDF	20.0	21.2		pg/g		106	75 - 158
1,2,3,7,8-PeCDD	100	108		pg/g		108	70 - 142
1,2,3,7,8-PeCDF	100	112		pg/g		112	80 - 134
2,3,4,7,8-PeCDF	100	114		pg/g		114	68 - 160
1,2,3,4,7,8-HxCDD	100	108		pg/g		108	70 - 164
1,2,3,6,7,8-HxCDD	100	114		pg/g		114	76 - 134
1,2,3,7,8,9-HxCDD	100	120		pg/g		120	64 - 162
1,2,3,4,7,8-HxCDF	100	101		pg/g		101	72 - 134
1,2,3,6,7,8-HxCDF	100	107		pg/g		107	84 - 130
1,2,3,7,8,9-HxCDF	100	110		pg/g		110	78 - 130
2,3,4,6,7,8-HxCDF	100	106		pg/g		106	70 - 156
1,2,3,4,6,7,8-HpCDD	100	112		pg/g		112	70 - 140
1,2,3,4,6,7,8-HpCDF	100	109		pg/g		109	82 - 122
1,2,3,4,7,8,9-HpCDF	100	107		pg/g		107	78 - 138

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-308663/2-A
Matrix: Solid
Analysis Batch: 309103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308663

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
OCDD			200	214		pg/g		107	78 - 144		
OCDF			200	216		pg/g		108	63 - 170		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*67*		*20 - 175*
13C-2,3,7,8-TCDF	*71*		*22 - 152*
13C-1,2,3,7,8-PeCDD	*72*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*72*		*21 - 192*
13C-2,3,4,7,8-PeCDF	*71*		*13 - 328*
13C-1,2,3,4,7,8-HxCDD	*62*		*21 - 193*
13C-1,2,3,6,7,8-HxCDD	*60*		*25 - 163*
13C-1,2,3,4,7,8-HxCDF	*74*		*19 - 202*
13C-1,2,3,6,7,8-HxCDF	*67*		*21 - 159*
13C-2,3,4,6,7,8-HxCDF	*68*		*22 - 176*
13C-1,2,3,7,8,9-HxCDF	*74*		*17 - 205*
13C-1,2,3,4,6,7,8-HpCDD	*72*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*81*		*20 - 186*
13C-OCDD	*79*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*95*		*31 - 191*

Lab Sample ID: LCSD 320-308663/3-A
Matrix: Solid
Analysis Batch: 309103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 308663

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD			20.0	21.2		pg/g		106	67 - 158	2	50
2,3,7,8-TCDF			20.0	20.7		pg/g		104	75 - 158	2	50
1,2,3,7,8-PeCDD			100	108		pg/g		108	70 - 142	0	50
1,2,3,7,8-PeCDF			100	112		pg/g		112	80 - 134	1	50
2,3,4,7,8-PeCDF			100	114		pg/g		114	68 - 160	0	50
1,2,3,4,7,8-HxCDD			100	112		pg/g		112	70 - 164	3	50
1,2,3,6,7,8-HxCDD			100	107		pg/g		107	76 - 134	6	50
1,2,3,7,8,9-HxCDD			100	116		pg/g		116	64 - 162	3	50
1,2,3,4,7,8-HxCDF			100	103		pg/g		103	72 - 134	1	50
1,2,3,6,7,8-HxCDF			100	108		pg/g		108	84 - 130	1	50
1,2,3,7,8,9-HxCDF			100	112		pg/g		112	78 - 130	2	50
2,3,4,6,7,8-HxCDF			100	108		pg/g		108	70 - 156	2	50
1,2,3,4,6,7,8-HpCDD			100	111		pg/g		111	70 - 140	1	50
1,2,3,4,6,7,8-HpCDF			100	107		pg/g		107	82 - 122	1	50
1,2,3,4,7,8,9-HpCDF			100	107		pg/g		107	78 - 138	1	50
OCDD			200	213		pg/g		106	78 - 144	1	50
OCDF			200	214		pg/g		107	63 - 170	1	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*71*		*20 - 175*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-308663/3-A
Matrix: Solid
Analysis Batch: 309103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 308663

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C-2,3,7,8-TCDF	74		22 - 152
13C-1,2,3,7,8-PeCDD	76		21 - 227
13C-1,2,3,7,8-PeCDF	76		21 - 192
13C-2,3,4,7,8-PeCDF	74		13 - 328
13C-1,2,3,4,7,8-HxCDD	64		21 - 193
13C-1,2,3,6,7,8-HxCDD	68		25 - 163
13C-1,2,3,4,7,8-HxCDF	75		19 - 202
13C-1,2,3,6,7,8-HxCDF	67		21 - 159
13C-2,3,4,6,7,8-HxCDF	70		22 - 176
13C-1,2,3,7,8,9-HxCDF	77		17 - 205
13C-1,2,3,4,6,7,8-HpCDD	77		26 - 166
13C-1,2,3,4,6,7,8-HpCDF	78		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	86		20 - 186
13C-OCDD	84		13 - 199

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
37Cl4-2,3,7,8-TCDD	96		31 - 191

Method: 2540G - SM 2540G

Lab Sample ID: 580-87706-15 DU
Matrix: Solid
Analysis Batch: 306039

Client Sample ID: 22T-SG-16_20190716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	43.8			43.9		%				0.2	20

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-306422/3
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	97	mg/Kg			07/23/19 10:47	1

Lab Sample ID: LCS 580-306422/4
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Duplicates			5080	5430		mg/Kg		107	40 - 180		

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: LCSD 580-306422/5
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			5080	5530		mg/Kg		109	40 - 180	2	32

Lab Sample ID: 580-87706-5 MS
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Duplicates	35000		120000	162000		mg/Kg		106	68 - 149		

Lab Sample ID: 580-87706-5 MSD
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	35000		120000	157000		mg/Kg		102	68 - 149	3	32

Lab Sample ID: 580-87706-5 DU
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	35000			34100		mg/Kg				2	50

Lab Sample ID: 580-87706-5 TRL
Matrix: Solid
Analysis Batch: 306422

Client Sample ID: 22T-SG-12_20190716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		TRL Result	TRL Qualifier	Unit	D			RSD	RSD Limit
Total Organic Carbon - Duplicates	35000			34500		mg/Kg				1	20

GC/MS Semi VOA

Prep Batch: 306107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	3546	
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	3546	
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	3546	
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	3546	
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	3546	
580-87706-6 - DL	22T-SG-19_20190716	Total/NA	Solid	3546	
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	3546	
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	3546	
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	3546	
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	3546	
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	3546	
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	3546	
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	3546	
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	3546	
580-87706-14 - DL	22T-SG-21_20190716	Total/NA	Solid	3546	
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	3546	
580-87706-15 - DL	22T-SG-16_20190716	Total/NA	Solid	3546	
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	3546	
MB 580-306107/1-A	Method Blank	Total/NA	Solid	3546	
LCS 580-306107/2-A	Lab Control Sample	Total/NA	Solid	3546	
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	3546	
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	3546	

Analysis Batch: 306243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	8270D SIM	306107
MB 580-306107/1-A	Method Blank	Total/NA	Solid	8270D SIM	306107
LCS 580-306107/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	306107
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	8270D SIM	306107

Analysis Batch: 306419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-6 - DL	22T-SG-19_20190716	Total/NA	Solid	8270D SIM	306107
580-87706-14 - DL	22T-SG-21_20190716	Total/NA	Solid	8270D SIM	306107

GC/MS Semi VOA

Analysis Batch: 306485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-15 - DL	22T-SG-16_20190716	Total/NA	Solid	8270D SIM	306107

GC Semi VOA

Prep Batch: 306126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	3550B	
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	3550B	
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	3550B	
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	3550B	
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	3550B	
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	3550B	
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	3550B	
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	3550B	
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	3550B	
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	3550B	
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	3550B	
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	3550B	
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	3550B	
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	3550B	
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	3550B	
MB 580-306126/1-A	Method Blank	Total/NA	Solid	3550B	
LCS 580-306126/2-A	Lab Control Sample	Total/NA	Solid	3550B	
LCS 580-306126/3-A	Lab Control Sample	Total/NA	Solid	3550B	
LCS 580-306126/4-A	Lab Control Sample	Total/NA	Solid	3550B	
LCSD 580-306126/5-A	Lab Control Sample Dup	Total/NA	Solid	3550B	
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	3550B	
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	3550B	
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	3550B	
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	3550B	

Analysis Batch: 306340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	8081B	306126

Analysis Batch: 306344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	8082A	306126
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	8082A	306126
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	8082A	306126
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	8082A	306126
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	8082A	306126
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	8082A	306126
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	8082A	306126
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	8082A	306126
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	8082A	306126
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	8082A	306126
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	8082A	306126
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	8082A	306126
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	8082A	306126
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	8082A	306126

GC Semi VOA (Continued)

Analysis Batch: 306344 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	8082A	306126
MB 580-306126/1-A	Method Blank	Total/NA	Solid	8082A	306126
LCS 580-306126/3-A	Lab Control Sample	Total/NA	Solid	8082A	306126
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	8082A	306126
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	8082A	306126

Analysis Batch: 306388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	8081B	306126
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	8081B	306126
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	8081B	306126
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	8081B	306126
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	8081B	306126
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	8081B	306126
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	8081B	306126
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	8081B	306126
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	8081B	306126
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	8081B	306126
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	8081B	306126
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	8081B	306126
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	8081B	306126
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	8081B	306126
MB 580-306126/1-A	Method Blank	Total/NA	Solid	8081B	306126
LCS 580-306126/2-A	Lab Control Sample	Total/NA	Solid	8081B	306126
LCS 580-306126/4-A	Lab Control Sample	Total/NA	Solid	8081B	306126
LCSD 580-306126/5-A	Lab Control Sample Dup	Total/NA	Solid	8081B	306126
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	8081B	306126
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	8081B	306126

Specialty Organics

Prep Batch: 308663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-2 - RA	22T-SG-18_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-6 - RA	22T-SG-19_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-9 - RA	22T-SG-14_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-11 - RA	22T-SG-22_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-13 - RA	22T-SG-10_20190716	Total/NA	Solid	HRMS-Sox	

Specialty Organics (Continued)

Prep Batch: 308663 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-14 - RA	22T-SG-21_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	HRMS-Sox	
580-87706-15 - RA	22T-SG-16_20190716	Total/NA	Solid	HRMS-Sox	
MB 320-308663/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	
LCS 320-308663/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
LCSD 320-308663/3-A	Lab Control Sample Dup	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 309103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	1613B	308663
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	1613B	308663
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	1613B	308663
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	1613B	308663
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	1613B	308663
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	1613B	308663
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	1613B	308663
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	1613B	308663
MB 320-308663/1-A	Method Blank	Total/NA	Solid	1613B	308663
LCS 320-308663/2-A	Lab Control Sample	Total/NA	Solid	1613B	308663
LCSD 320-308663/3-A	Lab Control Sample Dup	Total/NA	Solid	1613B	308663

Analysis Batch: 309104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	1613B	308663
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	1613B	308663
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	1613B	308663
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	1613B	308663
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	1613B	308663
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	1613B	308663
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	1613B	308663

Analysis Batch: 309356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-2 - RA	22T-SG-18_20190716	Total/NA	Solid	1613B	308663
580-87706-6 - RA	22T-SG-19_20190716	Total/NA	Solid	1613B	308663
580-87706-9 - RA	22T-SG-14_20190716	Total/NA	Solid	1613B	308663
580-87706-11 - RA	22T-SG-22_20190716	Total/NA	Solid	1613B	308663
580-87706-13 - RA	22T-SG-10_20190716	Total/NA	Solid	1613B	308663
580-87706-14 - RA	22T-SG-21_20190716	Total/NA	Solid	1613B	308663
580-87706-15 - RA	22T-SG-16_20190716	Total/NA	Solid	1613B	308663

General Chemistry

Analysis Batch: 306030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	2540G	
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	2540G	
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	2540G	
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	2540G	
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	2540G	

General Chemistry (Continued)

Analysis Batch: 306030 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	2540G	
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	2540G	
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	2540G	
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	2540G	
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	2540G	
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	2540G	
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	2540G	

Analysis Batch: 306039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	2540G	
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	2540G	
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	2540G	
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	2540G	
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	2540G	
580-87706-15 DU	22T-SG-16_20190716	Total/NA	Solid	2540G	

Analysis Batch: 306422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-87706-1	22T-SG-17_20190716	Total/NA	Solid	9060_PSEP	
580-87706-2	22T-SG-18_20190716	Total/NA	Solid	9060_PSEP	
580-87706-3	22T-SG-11_20190716	Total/NA	Solid	9060_PSEP	
580-87706-4	22T-SG-11-D_20190716	Total/NA	Solid	9060_PSEP	
580-87706-5	22T-SG-12_20190716	Total/NA	Solid	9060_PSEP	
580-87706-6	22T-SG-19_20190716	Total/NA	Solid	9060_PSEP	
580-87706-7	22T-SG-20_20190716	Total/NA	Solid	9060_PSEP	
580-87706-8	22T-SG-15_20190716	Total/NA	Solid	9060_PSEP	
580-87706-9	22T-SG-14_20190716	Total/NA	Solid	9060_PSEP	
580-87706-10	22T-SG-13_20190716	Total/NA	Solid	9060_PSEP	
580-87706-11	22T-SG-22_20190716	Total/NA	Solid	9060_PSEP	
580-87706-12	22T-SG-23_20190716	Total/NA	Solid	9060_PSEP	
580-87706-13	22T-SG-10_20190716	Total/NA	Solid	9060_PSEP	
580-87706-14	22T-SG-21_20190716	Total/NA	Solid	9060_PSEP	
580-87706-15	22T-SG-16_20190716	Total/NA	Solid	9060_PSEP	
MB 580-306422/3	Method Blank	Total/NA	Solid	9060_PSEP	
LCS 580-306422/4	Lab Control Sample	Total/NA	Solid	9060_PSEP	
LCSD 580-306422/5	Lab Control Sample Dup	Total/NA	Solid	9060_PSEP	
580-87706-5 MS	22T-SG-12_20190716	Total/NA	Solid	9060_PSEP	
580-87706-5 MSD	22T-SG-12_20190716	Total/NA	Solid	9060_PSEP	
580-87706-5 DU	22T-SG-12_20190716	Total/NA	Solid	9060_PSEP	
580-87706-5 TRL	22T-SG-12_20190716	Total/NA	Solid	9060_PSEP	

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Client Sample ID: 22T-SG-17_20190716
Date Collected: 07/16/19 08:13
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 10:59	SPP	TAL SEA

Client Sample ID: 22T-SG-17_20190716
Date Collected: 07/16/19 08:13
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-1
Matrix: Solid
Percent Solids: 54.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 12:55	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 16:01	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 11:37	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/21/19 22:18	AS	TAL SAC

Client Sample ID: 22T-SG-18_20190716
Date Collected: 07/16/19 08:44
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:03	SPP	TAL SEA

Client Sample ID: 22T-SG-18_20190716
Date Collected: 07/16/19 08:44
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-2
Matrix: Solid
Percent Solids: 30.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 13:22	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 16:21	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 11:55	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/21/19 23:06	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 12:49	ALM	TAL SAC

Client Sample ID: 22T-SG-11_20190716
Date Collected: 07/16/19 08:58
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:08	SPP	TAL SEA

Client Sample ID: 22T-SG-11_20190716
Date Collected: 07/16/19 08:58
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-3
Matrix: Solid
Percent Solids: 40.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 13:48	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 16:40	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 12:13	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/21/19 23:53	AS	TAL SAC

Client Sample ID: 22T-SG-11-D_20190716
Date Collected: 07/16/19 09:00
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:12	SPP	TAL SEA

Client Sample ID: 22T-SG-11-D_20190716
Date Collected: 07/16/19 09:00
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-4
Matrix: Solid
Percent Solids: 38.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 14:15	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 16:59	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 12:31	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/22/19 00:41	AS	TAL SAC

Client Sample ID: 22T-SG-12_20190716
Date Collected: 07/16/19 09:38
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA

Client Sample ID: 22T-SG-12_20190716
Date Collected: 07/16/19 09:38
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:22	SPP	TAL SEA

Client Sample ID: 22T-SG-12_20190716
Date Collected: 07/16/19 09:38
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-5
Matrix: Solid
Percent Solids: 38.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 14:41	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 17:18	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 10:42	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/22/19 01:28	AS	TAL SAC

Client Sample ID: 22T-SG-19_20190716
Date Collected: 07/16/19 10:09
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:41	SPP	TAL SEA

Client Sample ID: 22T-SG-19_20190716
Date Collected: 07/16/19 10:09
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-6
Matrix: Solid
Percent Solids: 50.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 16:01	TL1	TAL SEA
Total/NA	Prep	3546	DL		306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM	DL	10	306419	07/24/19 02:17	E1L	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 18:16	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 12:49	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/22/19 02:16	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 13:27	ALM	TAL SAC

Client Sample ID: 22T-SG-20_20190716
Date Collected: 07/16/19 10:31
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:46	SPP	TAL SEA

Client Sample ID: 22T-SG-20_20190716
Date Collected: 07/16/19 10:31
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-7
Matrix: Solid
Percent Solids: 44.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 16:27	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 18:35	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 13:07	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/22/19 03:03	AS	TAL SAC

Client Sample ID: 22T-SG-15_20190716
Date Collected: 07/16/19 10:50
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 11:55	SPP	TAL SEA

Client Sample ID: 22T-SG-15_20190716
Date Collected: 07/16/19 10:50
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-8
Matrix: Solid
Percent Solids: 35.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 16:54	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 18:55	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 13:25	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309103	07/22/19 03:51	AS	TAL SAC

Client Sample ID: 22T-SG-14_20190716
Date Collected: 07/16/19 11:06
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA

Client Sample ID: 22T-SG-14_20190716
Date Collected: 07/16/19 11:06
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:00	SPP	TAL SEA

Client Sample ID: 22T-SG-14_20190716
Date Collected: 07/16/19 11:06
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-9
Matrix: Solid
Percent Solids: 38.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 17:20	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 19:14	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 13:43	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 08:18	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 14:05	ALM	TAL SAC

Client Sample ID: 22T-SG-13_20190716
Date Collected: 07/16/19 12:12
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306030	07/18/19 14:00	RM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:04	SPP	TAL SEA

Client Sample ID: 22T-SG-13_20190716
Date Collected: 07/16/19 12:12
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-10
Matrix: Solid
Percent Solids: 40.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 17:47	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 19:33	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 14:01	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 09:06	AS	TAL SAC

Client Sample ID: 22T-SG-22_20190716
Date Collected: 07/16/19 12:30
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306039	07/18/19 14:32	JCM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:09	SPP	TAL SEA

Client Sample ID: 22T-SG-22_20190716
Date Collected: 07/16/19 12:30
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-11
Matrix: Solid
Percent Solids: 39.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 18:13	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 19:53	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:28	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 14:19	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 09:53	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 14:42	ALM	TAL SAC

Client Sample ID: 22T-SG-23_20190716
Date Collected: 07/16/19 12:58
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306039	07/18/19 14:32	JCM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:13	SPP	TAL SEA

Client Sample ID: 22T-SG-23_20190716
Date Collected: 07/16/19 12:58
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-12
Matrix: Solid
Percent Solids: 46.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 18:39	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 20:12	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 14:37	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 10:41	AS	TAL SAC

Client Sample ID: 22T-SG-10_20190716
Date Collected: 07/16/19 13:15
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306039	07/18/19 14:32	JCM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:18	SPP	TAL SEA

Client Sample ID: 22T-SG-10_20190716
Date Collected: 07/16/19 13:15
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-13
Matrix: Solid
Percent Solids: 55.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 19:06	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 20:31	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 14:55	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 11:29	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 15:20	ALM	TAL SAC

Client Sample ID: 22T-SG-21_20190716
Date Collected: 07/16/19 14:08
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306039	07/18/19 14:32	JCM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:22	SPP	TAL SEA

Client Sample ID: 22T-SG-21_20190716
Date Collected: 07/16/19 14:08
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-14
Matrix: Solid
Percent Solids: 43.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 19:32	TL1	TAL SEA
Total/NA	Prep	3546	DL		306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM	DL	10	306419	07/24/19 02:44	E1L	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306388	07/23/19 20:51	CJB	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 15:13	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 12:16	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 15:58	ALM	TAL SAC

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Client Sample ID: 22T-SG-16_20190716
Date Collected: 07/16/19 14:24
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1	306039	07/18/19 14:32	JCM	TAL SEA
Total/NA	Analysis	9060_PSEP		1	306422	07/23/19 12:27	SPP	TAL SEA

Client Sample ID: 22T-SG-16_20190716
Date Collected: 07/16/19 14:24
Date Received: 07/16/19 15:45

Lab Sample ID: 580-87706-15
Matrix: Solid
Percent Solids: 43.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM		1	306243	07/22/19 19:59	TL1	TAL SEA
Total/NA	Prep	3546	DL		306107	07/19/19 09:49	FCG	TAL SEA
Total/NA	Analysis	8270D SIM	DL	10	306485	07/24/19 19:36	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8081B		3	306340	07/23/19 14:47	TL1	TAL SEA
Total/NA	Prep	3550B			306126	07/19/19 11:29	FCG	TAL SEA
Total/NA	Analysis	8082A		1	306344	07/23/19 15:32	CJB	TAL SEA
Total/NA	Prep	HRMS-Sox			308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B		1	309104	07/22/19 13:04	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		308663	07/18/19 13:27	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	309356	07/22/19 16:36	ALM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Laboratory: Eurofins TestAmerica, Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Oregon	NELAP	10	WA100007	11-05-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
2540G		Solid	Total Solids

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
ANAB	DoD		L2468	01-20-21
ANAB	DOE		L2468.01	01-20-21
Arizona	State Program	9	AZ0708	08-11-19
Arkansas DEQ	State Program	6	88-0691	06-17-20
California	State Program	9	2897	01-31-20
Colorado	State Program	8	CA00044	08-31-19
Connecticut	State		PH-0691	06-30-21
Connecticut	State Program	1	PH-0691	06-30-21
Florida	NELAP	4	E87570	06-30-20
Florida	NELAP		E87570	06-30-20
Hawaii	State Program	9	N/A	01-29-20
Illinois	NELAP	5	200060	03-17-20 *
Kansas	NELAP	7	E-10375	10-31-19
Louisiana	NELAP	6	30612	06-30-20
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-19
New Hampshire	NELAP	1	2997	04-20-20
New York	NELAP	2	11666	04-01-20
Oregon	NELAP	10	4040	01-29-20
Oregon	NELAP		4040	01-29-20
Pennsylvania	NELAP	3	68-01272	03-31-20
Pennsylvania	NELAP		68-01272	03-31-20
Texas	NELAP	6	T104704399	05-31-20
US Fish & Wildlife	Federal		LE148388-0	07-31-19
USDA	Federal		P330-18-00239	01-17-21
USEPA UCMR	Federal	1	CA00044	12-31-20
Utah	NELAP	8	CA00044	02-29-20
Vermont	State Program	1	VT-4040	04-16-20
Virginia	NELAP	3	460278	03-14-20
Washington	State Program	10	C581	05-05-20
West Virginia (DW)	State Program	3	9930C	12-31-19
Wyoming	State Program	8	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 580-87706-1
Project/Site: Portland Harbor

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SEA
8081B	Organochlorine Pesticides (GC)	SW846	TAL SEA
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL SEA
1613B	Dioxins and Furans (HRGC/HRMS)	40CFR136A	TAL SAC
2540G	SM 2540G	SM22	TAL SEA
9060_PSEP	TOC (Puget Sound)	PSEP	TAL SEA
3546	Microwave Extraction	SW846	TAL SEA
3550B	Ultrasonic Extraction	SW846	TAL SEA
3665A	Sulfuric Acid/Permanganate Cleanup	SW846	TAL SEA
HRMS-Sox	Soxhlet Extraction	EPA	TAL SAC

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

PSEP = Puget Sound Estuary Program

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Portland Harbor

Job ID: 580-87706-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-87706-1	22T-SG-17_20190716	Solid	07/16/19 08:13	07/16/19 15:45	
580-87706-2	22T-SG-18_20190716	Solid	07/16/19 08:44	07/16/19 15:45	
580-87706-3	22T-SG-11_20190716	Solid	07/16/19 08:58	07/16/19 15:45	
580-87706-4	22T-SG-11-D_20190716	Solid	07/16/19 09:00	07/16/19 15:45	
580-87706-5	22T-SG-12_20190716	Solid	07/16/19 09:38	07/16/19 15:45	
580-87706-6	22T-SG-19_20190716	Solid	07/16/19 10:09	07/16/19 15:45	
580-87706-7	22T-SG-20_20190716	Solid	07/16/19 10:31	07/16/19 15:45	
580-87706-8	22T-SG-15_20190716	Solid	07/16/19 10:50	07/16/19 15:45	
580-87706-9	22T-SG-14_20190716	Solid	07/16/19 11:06	07/16/19 15:45	
580-87706-10	22T-SG-13_20190716	Solid	07/16/19 12:12	07/16/19 15:45	
580-87706-11	22T-SG-22_20190716	Solid	07/16/19 12:30	07/16/19 15:45	
580-87706-12	22T-SG-23_20190716	Solid	07/16/19 12:58	07/16/19 15:45	
580-87706-13	22T-SG-10_20190716	Solid	07/16/19 13:15	07/16/19 15:45	
580-87706-14	22T-SG-21_20190716	Solid	07/16/19 14:08	07/16/19 15:45	
580-87706-15	22T-SG-16_20190716	Solid	07/16/19 14:24	07/16/19 15:45	

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 293966

Lab Sample ID: STD13 580-293966/4 IC Client Sample ID:

Date Analyzed: 01/30/19 18:23 Lab File ID: 013019b005.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[a]anthracene	11.77	Incomplete Integration	zboralskie	02/01/19 15:04
Chrysene	11.81	Incomplete Integration	zboralskie	02/01/19 15:04
Benzo[b]fluoranthene	12.71	Incomplete Integration	zboralskie	02/01/19 15:04
Dibenz(a,h)anthracene	14.15	Incomplete Integration	zboralskie	02/01/19 15:04

Lab Sample ID: STD12 580-293966/5 IC Client Sample ID:

Date Analyzed: 01/30/19 18:49 Lab File ID: 013019b006.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	12.67	Split Peak	zboralskie	02/01/19 15:05
Benzo[k]fluoranthene	12.69	Split Peak	zboralskie	02/01/19 15:05
Dibenz(a,h)anthracene	14.15	Incomplete Integration	zboralskie	02/01/19 15:05

Lab Sample ID: STD6 580-293966/11 IC Client Sample ID:

Date Analyzed: 01/30/19 21:24 Lab File ID: 013019b012.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	14.10	Split Peak	zboralskie	02/01/19 15:08
Dibenz(a,h)anthracene	14.15	Peak assignment corrected	zboralskie	02/01/19 15:08

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 293966

Lab Sample ID: STD5 580-293966/12 IC Client Sample ID:

Date Analyzed: 01/30/19 21:50 Lab File ID: 013019b013.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	14.10	Split Peak	zboralskie	02/01/19 15:09
Dibenz(a,h)anthracene	14.15	Split Peak	zboralskie	02/01/19 15:09

Lab Sample ID: STD4 580-293966/13 IC Client Sample ID:

Date Analyzed: 01/30/19 22:16 Lab File ID: 013019b014.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acenaphthene	8.49	Baseline	zboralskie	02/01/19 15:10
Fluorene	8.91	Baseline	zboralskie	02/01/19 15:10
Pentachlorophenol	9.53	Split Peak	zboralskie	02/01/19 15:10
Benzo[a]anthracene	11.78	Split Peak	zboralskie	02/01/19 15:10
Chrysene	11.81	Split Peak	zboralskie	02/01/19 15:10
Benzo[k]fluoranthene	12.69	Split Peak	zboralskie	02/01/19 15:09
Indeno[1,2,3-cd]pyrene	14.10	Split Peak	zboralskie	02/01/19 15:09
Dibenz(a,h)anthracene	14.15	Peak assignment corrected	zboralskie	02/01/19 15:09

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 293966

Lab Sample ID: STD3 580-293966/14 IC Client Sample ID:

Date Analyzed: 01/30/19 22:42 Lab File ID: 013019b015.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acenaphthene	8.49	Baseline	zboralskie	02/01/19 15:11
Fluorene	8.91	Baseline	zboralskie	02/01/19 15:11
Pentachlorophenol	9.53	Missed Peak	zboralskie	02/01/19 15:11
Phenanthrene	9.67	Baseline	zboralskie	02/01/19 15:11
Anthracene	9.72	Baseline	zboralskie	02/01/19 15:11
Benzo[a]anthracene	11.78	Baseline	zboralskie	02/01/19 15:11
Chrysene-d12	11.78	Baseline	zboralskie	02/01/19 15:11
Chrysene	11.81	Baseline	zboralskie	02/01/19 15:11
Benzo[a]pyrene	12.96	Baseline	zboralskie	02/01/19 15:11
Indeno[1,2,3-cd]pyrene	14.10	Baseline	zboralskie	02/01/19 15:12
Dibenz(a,h)anthracene	14.15	Baseline	zboralskie	02/01/19 15:12
Benzo[g,h,i]perylene	14.38	Baseline	zboralskie	02/01/19 15:12

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 293966

Lab Sample ID: STD2 580-293966/15 IC Client Sample ID:

Date Analyzed: 01/30/19 23:08 Lab File ID: 013019b016.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	6.99	Baseline	zboralskie	02/01/19 15:17
Acenaphthene	8.49	Baseline	zboralskie	02/01/19 15:17
2,4,6-Tribromophenol	9.11	Baseline	zboralskie	02/01/19 15:13
Phenanthrene	9.67	Baseline	zboralskie	02/01/19 15:13
Anthracene	9.72	Baseline	zboralskie	02/01/19 15:13
Chrysene	11.81	Baseline	zboralskie	02/01/19 15:13
Benzo[k]fluoranthene	12.69	Baseline	zboralskie	02/01/19 15:12
Benzo[a]pyrene	12.96	Baseline	zboralskie	02/01/19 15:12
Indeno[1,2,3-cd]pyrene	14.11	Baseline	zboralskie	02/01/19 15:12
Dibenz(a,h)anthracene	14.15	Baseline	zboralskie	02/01/19 15:12
Benzo[g,h,i]perylene	14.38	Baseline	zboralskie	02/01/19 15:12

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 293966

Lab Sample ID: STD1 580-293966/16 IC Client Sample ID:

Date Analyzed: 01/30/19 23:34 Lab File ID: 013019b017.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	6.99	Peak assignment corrected	zboralskie	02/01/19 15:17
Acenaphthene	8.49	Baseline	zboralskie	02/01/19 15:17
Fluorene	8.91	Baseline	zboralskie	02/01/19 15:17
2,4,6-Tribromophenol	9.11	Baseline	zboralskie	02/01/19 15:18
Phenanthrene	9.67	Peak assignment corrected	zboralskie	02/01/19 15:18
Anthracene	9.72	Peak assignment corrected	zboralskie	02/01/19 15:18
Pentachlorophenol		Invalid Compound ID	zboralskie	02/01/19 15:18
Chrysene	11.81	Peak assignment corrected	zboralskie	02/01/19 15:18
Benzo[k]fluoranthene	12.69	Peak assignment corrected	zboralskie	02/01/19 15:18
Benzo[a]pyrene	12.96	Peak assignment corrected	zboralskie	02/01/19 15:18
Indeno[1,2,3-cd]pyrene	14.11	Split Peak	zboralskie	02/01/19 15:18
Dibenz(a,h)anthracene	14.15	Baseline	zboralskie	02/01/19 15:18
Benzo[g,h,i]perylene	14.38	Baseline	zboralskie	02/01/19 15:19

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: CCVIS 580-306243/3 Client Sample ID:

Date Analyzed: 07/22/19 10:43 Lab File ID: 072219A003.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorene	8.95	Split Peak	squiresk	07/22/19 11:30
Benzo[a]anthracene	11.80	Peak assignment corrected	squiresk	07/22/19 11:29
Chrysene	11.82	Peak assignment corrected	squiresk	07/22/19 11:29
Benzo[b]fluoranthene	12.63	Peak assignment corrected	squiresk	07/22/19 11:30
Indeno[1,2,3-cd]pyrene	13.94	Split Peak	squiresk	07/22/19 11:30
Dibenz(a,h)anthracene	13.97	Split Peak	squiresk	07/22/19 11:30

Lab Sample ID: MB 580-306107/1-A Client Sample ID:

Date Analyzed: 07/22/19 12:03 Lab File ID: 072219A004.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.01	Assign Peak	limwirojt	07/23/19 13:43
2-Methylnaphthalene	7.65	Assign Peak	limwirojt	07/23/19 13:43
1-Methylnaphthalene	7.72	Assign Peak	limwirojt	07/23/19 13:43
Acenaphthylene	8.38	Assign Peak	limwirojt	07/23/19 13:43
Acenaphthene	8.53	Baseline	limwirojt	07/23/19 13:43
Fluorene	8.95	Assign Peak	limwirojt	07/23/19 13:43
Phenanthrene-d10	9.69	Peak assignment corrected	limwirojt	07/23/19 13:42
Anthracene	9.75	Assign Peak	limwirojt	07/23/19 13:44
Fluoranthene		Invalid Compound ID	limwirojt	07/23/19 13:44
Pyrene	10.83	Assign Peak	limwirojt	07/23/19 13:44
Benzo[a]anthracene	11.80	Assign Peak	limwirojt	07/23/19 13:44
Chrysene	11.82	Assign Peak	limwirojt	07/23/19 13:44
Benzo[b]fluoranthene	12.63	Assign Peak	limwirojt	07/23/19 13:44
Benzo[k]fluoranthene	12.65	Assign Peak	limwirojt	07/23/19 13:44
Benzo[a]pyrene	12.90	Assign Peak	limwirojt	07/23/19 13:45
Indeno[1,2,3-cd]pyrene	13.95	Assign Peak	limwirojt	07/23/19 13:45
Dibenz(a,h)anthracene	13.98	Assign Peak	limwirojt	07/23/19 13:45
Benzo[g,h,i]perylene	14.19	Assign Peak	limwirojt	07/23/19 13:45

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/22/19 12:55 Lab File ID: 072219A006.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 13:46
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 13:46
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 13:46
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 13:47
Fluorene	8.95	Baseline	limwirojt	07/23/19 13:47
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 13:47
Fluoranthene	10.66	Baseline	limwirojt	07/23/19 13:47
Pyrene	10.83	Baseline	limwirojt	07/23/19 13:47
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 13:48
Benzo[k]fluoranthene	12.64	Baseline	limwirojt	07/23/19 13:49
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 13:49
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 13:53
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 13:50
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 13:50

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/22/19 13:22 Lab File ID: 072219A007.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 13:50
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 13:51
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 13:51
Fluorene	8.94	Baseline	limwirojt	07/23/19 13:51
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 13:51
Anthracene	9.75	Baseline	limwirojt	07/23/19 13:51
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 13:51
Pyrene	10.82	Baseline	limwirojt	07/23/19 13:51
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 13:51
Chrysene	11.82	Baseline	limwirojt	07/23/19 13:51
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 13:52
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 13:52
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 13:53
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 13:53
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 13:53
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 13:53

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/22/19 13:48 Lab File ID: 072219A008.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 13:59
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 13:59
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:00
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:00
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:00
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:00
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:00
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:00
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:01
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:01
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:01
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:01
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:01
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:02
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:02
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:02
Benzo[g,h,i]perylene	14.18	Baseline	limwirojt	07/23/19 14:02

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/22/19 14:15 Lab File ID: 072219A009.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:02
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:04
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:05
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:05
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:05
Fluorene	8.94	Baseline	limmere	07/22/19 14:47
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:05
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:05
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:05
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:06
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:06
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:07
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:07
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:07
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:07
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:07
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:07
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:07

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/22/19 14:41 Lab File ID: 072219A010.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:10
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:10
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:10
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:10
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:10
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:10
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:11
Fluoranthene	10.66	Baseline	limwirojt	07/23/19 14:11
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:11
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:11
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:11
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:11
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:11
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:12
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:12

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-5 MS Client Sample ID: 22T-SG-12_20190716 MS

Date Analyzed: 07/22/19 15:08 Lab File ID: 072219A011.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:13
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:14
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:14
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:14
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:14
Terphenyl-d14	11.00	Baseline	limwirojt	07/23/19 14:13
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:14
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:14
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:15
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:15
Dibenz(a,h)anthracene	13.97	Baseline	limwirojt	07/23/19 14:16
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:16

Lab Sample ID: 580-87706-5 MSD Client Sample ID: 22T-SG-12_20190716 MSD

Date Analyzed: 07/22/19 15:34 Lab File ID: 072219A012.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:17
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:17
Acenaphthene	8.53	Baseline	limwirojt	07/23/19 14:17
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:18
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:18
Fluoranthene	10.66	Baseline	limwirojt	07/23/19 14:18
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:18
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:19
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:19
Indeno[1,2,3-cd]pyrene	13.93	Split Peak	limwirojt	07/23/19 14:20
Dibenz(a,h)anthracene	13.97	Baseline	limwirojt	07/23/19 14:20
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:20

8270D SIM

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/22/19 16:01 Lab File ID: 072219A013.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:22
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:22
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:22
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:22
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:23
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:23
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:23
Fluoranthene	10.66	Baseline	limwirojt	07/23/19 14:23
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:23
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:23
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:25
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:25
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:25
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:25
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:25
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:25

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-7 Client Sample ID:

Date Analyzed: 07/22/19 16:27 Lab File ID: 072219A014.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene-d8	6.99	Baseline	limwirojt	07/23/19 14:27
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:27
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:27
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:27
Acenaphthene-d10	8.50	Baseline	limwirojt	07/23/19 14:27
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:28
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:28
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:28
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:28
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:29
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:29
Chrysene-d12	11.80	Baseline	limwirojt	07/23/19 14:27
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:29
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:29
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:29
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:29
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:29
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:29
Benzo[g,h,i]perylene	14.18	Baseline	limwirojt	07/23/19 14:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/22/19 16:54 Lab File ID: 072219A015.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:31
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:31
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:31
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:31
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:31
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:32
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:32
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:32
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:32
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:32
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:32
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:32
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:32
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:33
Indeno[1,2,3-cd]pyrene	13.94	Baseline	limwirojt	07/23/19 14:33
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:33
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:33

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/22/19 17:20 Lab File ID: 072219A016.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:34
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:34
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:34
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:34
Acenaphthene	8.53	Baseline	limwirojt	07/23/19 14:34
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:34
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:35
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:35
Fluoranthene	10.66	Baseline	limwirojt	07/23/19 14:35
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:35
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:35
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:35
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:35
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:36
Benzo[a]pyrene	12.89	Assign Peak	limwirojt	07/23/19 14:36
Indeno[1,2,3-cd]pyrene	13.94	Baseline	limwirojt	07/23/19 14:36
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:36
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:37

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-10 Client Sample ID:

Date Analyzed: 07/22/19 17:47 Lab File ID: 072219A017.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene-d8	6.99	Baseline	limwirojt	07/23/19 14:43
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:44
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:45
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:45
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:45
Acenaphthene-d10	8.50	Baseline	limwirojt	07/23/19 14:43
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:45
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:45
Phenanthrene-d10	9.69	Baseline	limwirojt	07/23/19 14:44
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:45
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:46
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:46
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:46
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:46
Chrysene-d12	11.80	Baseline	limwirojt	07/23/19 14:44
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:47
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:47
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:47
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:47
Indeno[1,2,3-cd]pyrene	13.94	Baseline	limwirojt	07/23/19 14:47
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:47
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:47

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/22/19 18:13 Lab File ID: 072219A018.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:48
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:48
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:48
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:48
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:49
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:49
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:49
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:49
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:49
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:49
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:49
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:49
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:50
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:50
Indeno[1,2,3-cd]pyrene	13.94	Baseline	limwirojt	07/23/19 14:50
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:50
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:50

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/22/19 18:39 Lab File ID: 072219A019.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:51
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:51
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:51
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:51
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:51
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:51
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:51
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:52
Benzo[a]pyrene	12.89	Assign Peak	limwirojt	07/23/19 14:52
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:52
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:52

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/22/19 19:06 Lab File ID: 072219A020.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	7.00	Baseline	limwirojt	07/23/19 14:52
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 14:52
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 14:53
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 14:53
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 14:53
Fluorene	8.94	Baseline	limwirojt	07/23/19 14:53
Phenanthrene	9.70	Baseline	limwirojt	07/23/19 14:53
Anthracene	9.75	Baseline	limwirojt	07/23/19 14:53
Fluoranthene	10.65	Baseline	limwirojt	07/23/19 14:53
Pyrene	10.82	Baseline	limwirojt	07/23/19 14:54
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:54
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:54
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:54
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:54
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:54
Indeno[1,2,3-cd]pyrene	13.93	Baseline	limwirojt	07/23/19 14:54
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:54
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:55

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-14 Client Sample ID:

Date Analyzed: 07/22/19 19:32 Lab File ID: 072219A021.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene-d8	6.99	Baseline	limwirojt	07/23/19 14:55
Acenaphthene-d10	8.50	Baseline	limwirojt	07/23/19 14:55
Phenanthrene-d10	9.69	Assign Peak	limwirojt	07/23/19 14:55
Terphenyl-d14	11.00	Baseline	limwirojt	07/23/19 14:55
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 14:57
Chrysene-d12	11.80	Baseline	limwirojt	07/23/19 14:55
Chrysene	11.82	Baseline	limwirojt	07/23/19 14:57
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 14:57
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 14:58
Benzo[a]pyrene	12.89	Baseline	limwirojt	07/23/19 14:58
Perylene-d12	12.95	Baseline	limwirojt	07/23/19 14:55
Indeno[1,2,3-cd]pyrene	13.94	Assign Peak	limwirojt	07/23/19 14:58
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 14:58
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 14:59

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306243

Lab Sample ID: 580-87706-15 Client Sample ID:

Date Analyzed: 07/22/19 19:59 Lab File ID: 072219A022.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene-d8	6.99	Baseline	limwirojt	07/23/19 15:01
Naphthalene	7.00	Baseline	limwirojt	07/23/19 15:01
2-Methylnaphthalene	7.64	Baseline	limwirojt	07/23/19 15:01
1-Methylnaphthalene	7.72	Baseline	limwirojt	07/23/19 15:01
Acenaphthylene	8.38	Baseline	limwirojt	07/23/19 15:01
Acenaphthene-d10	8.50	Baseline	limwirojt	07/23/19 15:01
Acenaphthene	8.52	Baseline	limwirojt	07/23/19 15:02
Fluorene	8.94	Baseline	limwirojt	07/23/19 15:02
Phenanthrene-d10	9.69	Baseline	limwirojt	07/23/19 15:01
Anthracene	9.75	Baseline	limwirojt	07/23/19 15:02
Fluoranthene	10.66	Baseline	limwirojt	07/23/19 15:04
Terphenyl-d14	11.00	Baseline	limwirojt	07/23/19 15:01
Benzo[a]anthracene	11.79	Baseline	limwirojt	07/23/19 15:04
Chrysene-d12	11.80	Baseline	limwirojt	07/23/19 15:01
Chrysene	11.82	Baseline	limwirojt	07/23/19 15:04
Benzo[b]fluoranthene	12.63	Split Peak	limwirojt	07/23/19 15:04
Benzo[k]fluoranthene	12.64	Assign Peak	limwirojt	07/23/19 15:05
Perylene-d12	12.95	Baseline	limwirojt	07/23/19 15:01
Dibenz(a,h)anthracene	13.97	Assign Peak	limwirojt	07/23/19 15:05
Benzo[g,h,i]perylene	14.19	Baseline	limwirojt	07/23/19 15:05

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306419

Lab Sample ID: CCVIS 580-306419/3 Client Sample ID:

Date Analyzed: 07/23/19 15:36 Lab File ID: 072319B003.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenanthrene-d10	9.69	Peak assignment corrected	limmere	07/23/19 15:59
Phenanthrene	9.70	Peak assignment corrected	limmere	07/23/19 16:00
Anthracene	9.75	Peak assignment corrected	limmere	07/23/19 15:59
Benzo[b]fluoranthene	12.64	Peak assignment corrected	limmere	07/23/19 16:00
Benzo[k]fluoranthene	12.65	Peak assignment corrected	limmere	07/23/19 16:00
Indeno[1,2,3-cd]pyrene	13.95	Split Peak	limmere	07/23/19 16:00
Dibenz(a,h)anthracene	13.98	Split Peak	limmere	07/23/19 16:01

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Analysis Batch Number: 306485

Lab Sample ID: CCVIS 580-306485/3 Client Sample ID:

Date Analyzed: 07/24/19 10:31 Lab File ID: 072419A003.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorene	8.95	Peak assignment corrected	limmere	07/24/19 11:25
Indeno[1,2,3-cd]pyrene	13.95	Split Peak	limmere	07/24/19 11:25
Dibenz(a,h)anthracene	13.98	Split Peak	limmere	07/24/19 11:26

Lab Sample ID: 580-87706-15 DL Client Sample ID: 22T-SG-16_20190716 DL

Date Analyzed: 07/24/19 19:36 Lab File ID: 072419A021.D GC Column: ZB-SV ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pyrene	10.83	Baseline	limwirojt	07/25/19 13:08
Benzo[a]pyrene	12.90	Baseline	limwirojt	07/25/19 13:08
Indeno[1,2,3-cd]pyrene	13.95	Baseline	limwirojt	07/25/19 13:09

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/22 Client Sample ID:

Date Analyzed: 07/14/19 01:22 Lab File ID: 34G13PST19a0026.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 14:51

Lab Sample ID: IC 580-305574/23 Client Sample ID:

Date Analyzed: 07/14/19 01:42 Lab File ID: 34G13PST19a0027.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 16:05

Lab Sample ID: IC 580-305574/24 Client Sample ID:

Date Analyzed: 07/14/19 02:01 Lab File ID: 34G13PST19a0028.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 15:30

Lab Sample ID: ICIS 580-305574/25 Client Sample ID:

Date Analyzed: 07/14/19 02:20 Lab File ID: 34G13PST19a0029.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Peak Tail	bohnc	07/16/19 15:10

Lab Sample ID: IC 580-305574/26 Client Sample ID:

Date Analyzed: 07/14/19 02:40 Lab File ID: 34G13PST19a0030.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	6.89	Incomplete Integration	brennanr	07/15/19 13:20

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/26 Client Sample ID:

Date Analyzed: 07/14/19 02:40 Lab File ID: 34G13PST19a0030.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 14:48

Lab Sample ID: IC 580-305574/27 Client Sample ID:

Date Analyzed: 07/14/19 02:59 Lab File ID: 34G13PST19a0031.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.18	Baseline Smoothing	bohnc	07/16/19 15:38

Lab Sample ID: IC 580-305574/28 Client Sample ID:

Date Analyzed: 07/14/19 03:19 Lab File ID: 34G13PST19a0032.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 15:39

Lab Sample ID: IC 580-305574/29 Client Sample ID:

Date Analyzed: 07/14/19 03:38 Lab File ID: 34G13PST19a0033.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Mirex	7.85	Incomplete Integration	brennanr	07/15/19 12:25

Lab Sample ID: IC 580-305574/29 Client Sample ID:

Date Analyzed: 07/14/19 03:38 Lab File ID: 34G13PST19a0033.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.18	Baseline Smoothing	bohnc	07/16/19 16:00

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/30 Client Sample ID:

Date Analyzed: 07/14/19 03:58 Lab File ID: 34G13PST19a0034.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-Nonachlor	6.72	Incomplete Integration	brennanr	07/15/19 12:26

Lab Sample ID: IC 580-305574/30 Client Sample ID:

Date Analyzed: 07/14/19 03:58 Lab File ID: 34G13PST19a0034.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 16:01
2,4'-DDT	8.02	Incomplete Integration	bohnc	07/16/19 11:21
cis-Nonachlor	8.06	Incomplete Integration	bohnc	07/16/19 11:22

Lab Sample ID: ICV 580-305574/31 Client Sample ID:

Date Analyzed: 07/14/19 04:17 Lab File ID: 34G13PST19a0035.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDE	6.56	Baseline Smoothing	bohnc	07/16/19 14:02

Lab Sample ID: ICV 580-305574/31 Client Sample ID:

Date Analyzed: 07/14/19 04:17 Lab File ID: 34G13PST19a0035.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.19	Baseline Smoothing	bohnc	07/16/19 16:02

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/32 Client Sample ID:

Date Analyzed: 07/14/19 04:36 Lab File ID: 34G13PST19a0036.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobutadiene	3.62	Peak assignment corrected	brennanr	07/15/19 12:28
Methoxychlor	7.73	Incomplete Integration	brennanr	07/15/19 13:33

Lab Sample ID: IC 580-305574/32 Client Sample ID:

Date Analyzed: 07/14/19 04:36 Lab File ID: 34G13PST19a0036.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobutadiene	3.96	Peak assignment corrected	brennanr	07/15/19 12:28

Lab Sample ID: IC 580-305574/33 Client Sample ID:

Date Analyzed: 07/14/19 04:56 Lab File ID: 34G13PST19a0037.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	7.89	Incomplete Integration	brennanr	07/15/19 12:30

Lab Sample ID: ICIS 580-305574/35 Client Sample ID:

Date Analyzed: 07/14/19 05:34 Lab File ID: 34G13PST19a0039.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	7.37	Peak not integrated	bohnc	07/16/19 11:26

Lab Sample ID: ICIS 580-305574/35 Client Sample ID:

Date Analyzed: 07/14/19 05:34 Lab File ID: 34G13PST19a0039.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
beta-BHC	6.32	Baseline Smoothing	bohnc	07/16/19 14:28

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/36 Client Sample ID:

Date Analyzed: 07/14/19 05:54 Lab File ID: 34G13PST19a0040.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
beta-BHC	5.72	Incomplete Integration	bohnc	07/16/19 11:28

Lab Sample ID: IC 580-305574/37 Client Sample ID:

Date Analyzed: 07/14/19 06:13 Lab File ID: 34G13PST19a0041.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
gamma-BHC (Lindane)	5.67	Incomplete Integration	brennanr	07/15/19 12:33

Lab Sample ID: IC 580-305574/38 Client Sample ID:

Date Analyzed: 07/14/19 06:33 Lab File ID: 34G13PST19a0042.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-Chlordane	6.73	Baseline Smoothing	bohnc	07/16/19 12:39
4,4'-DDE	6.78	Baseline Smoothing	bohnc	07/16/19 12:39
Endosulfan I	6.82	Baseline Smoothing	bohnc	07/16/19 12:39
Methoxychlor	7.73	Incomplete Integration	brennanr	07/15/19 12:36

Lab Sample ID: IC 580-305574/38 Client Sample ID:

Date Analyzed: 07/14/19 06:33 Lab File ID: 34G13PST19a0042.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobenzene	5.90	Baseline Smoothing	bohnc	07/16/19 12:40
alpha-BHC	6.00	Baseline Smoothing	bohnc	07/16/19 12:40
beta-BHC	6.32	Baseline Smoothing	bohnc	07/16/19 16:21
delta-BHC	6.54	Incomplete Integration	brennanr	07/15/19 12:35
Endosulfan II	8.18	Baseline Smoothing	bohnc	07/16/19 12:40

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/39 Client Sample ID:

Date Analyzed: 07/14/19 06:52 Lab File ID: 34G13PST19a0043.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-Chlordane	6.73	Incomplete Integration	brennanr	07/15/19 12:44
4,4'-DDE	6.78	Incomplete Integration	brennanr	07/15/19 12:45
Endosulfan II	7.29	Incomplete Integration	brennanr	07/15/19 12:45
Methoxychlor	7.73	Incomplete Integration	brennanr	07/15/19 12:46

Lab Sample ID: IC 580-305574/39 Client Sample ID:

Date Analyzed: 07/14/19 06:52 Lab File ID: 34G13PST19a0043.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
beta-BHC	6.32	Baseline Smoothing	bohnc	07/16/19 16:23
DCB Decachlorobiphenyl	10.10	Baseline Smoothing	bohnc	07/16/19 15:14

Lab Sample ID: IC 580-305574/40 Client Sample ID:

Date Analyzed: 07/14/19 07:11 Lab File ID: 34G13PST19a0044.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.48	Incomplete Integration	brennanr	07/15/19 12:47
Tetrachloro-m-xylene	5.09	Incomplete Integration	bohnc	07/16/19 11:33
Hexachlorobenzene	5.37	Incomplete Integration	brennanr	07/15/19 12:48
alpha-BHC	5.46	Incomplete Integration	brennanr	07/15/19 12:48
4,4'-DDE	6.78	Incomplete Integration	bohnc	07/16/19 12:38
Endosulfan I	6.82	Baseline Smoothing	bohnc	07/16/19 12:38
Dieldrin	6.98	Incomplete Integration	bohnc	07/16/19 11:34
4,4'-DDD	7.18	Baseline Smoothing	bohnc	07/16/19 11:34
4,4'-DDT	7.38	Incomplete Integration	brennanr	07/15/19 13:11
Endrin aldehyde	7.58	Baseline Smoothing	bohnc	07/16/19 11:34
Methoxychlor	7.73	Incomplete Integration	brennanr	07/15/19 13:12

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 305574

Lab Sample ID: IC 580-305574/40 Client Sample ID:

Date Analyzed: 07/14/19 07:11 Lab File ID: 34G13PST19a0044.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
beta-BHC	6.32	Baseline Smoothing	bohnc	07/16/19 16:25
delta-BHC	6.54	Baseline Smoothing	bohnc	07/16/19 11:35
Heptachlor	6.59	Incomplete Integration	brennanr	07/15/19 12:49
4,4'-DDD	8.07	Incomplete Integration	brennanr	07/15/19 12:49
4,4'-DDT	8.32	Baseline Smoothing	bohnc	07/16/19 11:35
Endrin aldehyde	8.44	Baseline Smoothing	bohnc	07/16/19 11:34
Methoxychlor	8.87	Incomplete Integration	brennanr	07/15/19 13:13

Lab Sample ID: ICV 580-305574/41 Client Sample ID:

Date Analyzed: 07/14/19 07:30 Lab File ID: 34G13PST19a0045.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endrin aldehyde	7.58	Incomplete Integration	brennanr	07/15/19 13:15

Lab Sample ID: ICV 580-305574/41 Client Sample ID:

Date Analyzed: 07/14/19 07:30 Lab File ID: 34G13PST19a0045.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
gamma-BHC (Lindane)	6.26	Baseline Smoothing	bohnc	07/16/19 16:15
beta-BHC	6.32	Baseline Smoothing	bohnc	07/16/19 16:15
delta-BHC	6.54	Baseline Smoothing	bohnc	07/16/19 15:24
Heptachlor	6.59	Baseline Smoothing	bohnc	07/16/19 15:24
Heptachlor epoxide	7.26	Baseline Smoothing	bohnc	07/16/19 14:08
4,4'-DDE	7.62	Baseline Smoothing	bohnc	07/16/19 14:06
Endrin	8.02	Baseline Smoothing	bohnc	07/16/19 14:06
Endrin aldehyde	8.44	Baseline Smoothing	bohnc	07/16/19 15:16
Endosulfan sulfate	8.66	Baseline Smoothing	bohnc	07/16/19 14:23

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: PEM 580-306388/3 Client Sample ID:

Date Analyzed: 07/23/19 12:30 Lab File ID: 34G23PST19a0005.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDE	6.77	Incomplete Integration	limwirojt	07/24/19 10:44
Endrin	7.13	Assign Peak	limwirojt	07/24/19 10:50
4,4'-DDD	7.16	Assign Peak	limwirojt	07/24/19 10:44
Endrin aldehyde	7.56	Incomplete Integration	limwirojt	07/24/19 10:44

Lab Sample ID: PEM 580-306388/3 Client Sample ID:

Date Analyzed: 07/23/19 12:30 Lab File ID: 34G23PST19a0005.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	8.05	Assign Peak	limwirojt	07/24/19 10:44
Endrin aldehyde	8.43	Incomplete Integration	limwirojt	07/24/19 10:45
Endrin ketone	9.10	Incomplete Integration	limwirojt	07/24/19 10:45

Lab Sample ID: CCVL 580-306388/8 Client Sample ID:

Date Analyzed: 07/23/19 14:06 Lab File ID: 34G23PST19a0010.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	5.08	Incomplete Integration	limwirojt	07/24/19 11:05
delta-BHC	5.83	Incomplete Integration	limwirojt	07/24/19 11:05
cis-Chlordane	6.72	Incomplete Integration	limwirojt	07/24/19 11:06
4,4'-DDD	7.17	Incomplete Integration	limwirojt	07/24/19 11:06
4,4'-DDT	7.36	Incomplete Integration	limwirojt	07/24/19 11:06
Methoxychlor	7.72	Incomplete Integration	limwirojt	07/24/19 11:06
Endrin ketone	8.09	Incomplete Integration	limwirojt	07/24/19 11:06
DCB Decachlorobiphenyl	8.88	Baseline Smoothing	limwirojt	07/24/19 11:07

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: CCB 580-306388/9 Client Sample ID:

Date Analyzed: 07/23/19 14:25 Lab File ID: 34G23PST19a0011.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	8.89	Incomplete Integration	limwirojt	07/24/19 11:08
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 11:08

Lab Sample ID: LCSD 580-306126/5-A Client Sample ID:

Date Analyzed: 07/23/19 15:42 Lab File ID: 34G23PST19a0015.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	8.89	Incomplete Integration	bohnc	07/24/19 09:21

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 16:01 Lab File ID: 34G23PST19a0016.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 11:13
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 11:13

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 16:01 Lab File ID: 34G23PST19a0016.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	8.31	Incomplete Integration	limwirojt	07/24/19 11:13
2,4'-DDD		Unspecified		
2,4'-DDE		Unspecified		

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 16:21 Lab File ID: 34G23PST19a0017.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	8.89	Assign Peak	limwirojt	07/24/19 11:14
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 11:14
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 11:13
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 11:14
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 11:14

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 16:21 Lab File ID: 34G23PST19a0017.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 11:14
2,4'-DDD		Unspecified		
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 16:40 Lab File ID: 34G23PST19a0018.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 11:15
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 11:15
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 11:15

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 16:40 Lab File ID: 34G23PST19a0018.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD		Unspecified		
2,4'-DDE		Unspecified		
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 16:59 Lab File ID: 34G23PST19a0019.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	7.16	Incomplete Integration	limwirojt	07/24/19 11:16
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 11:16

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 16:59 Lab File ID: 34G23PST19a0019.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 11:16
2,4'-DDD		Unspecified		

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/23/19 17:18 Lab File ID: 34G23PST19a0020.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	6.89	Incomplete Integration	limwirojt	07/24/19 11:21
4,4'-DDD	7.16	Incomplete Integration	limwirojt	07/24/19 11:22
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 11:17
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 11:22

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/23/19 17:18 Lab File ID: 34G23PST19a0020.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	7.77	Incomplete Integration	limwirojt	07/24/19 11:21
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 11:22
2,4'-DDE		Incomplete Integration	limwirojt	07/24/19 11:17
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-5 MS Client Sample ID: 22T-SG-12_20190716 MS

Date Analyzed: 07/23/19 17:38 Lab File ID: 34G23PST19a0021.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	8.89	Incomplete Integration	limwirojt	07/24/19 11:26

Lab Sample ID: 580-87706-5 MS Client Sample ID: 22T-SG-12_20190716 MS

Date Analyzed: 07/23/19 17:38 Lab File ID: 34G23PST19a0021.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	10.09	Incomplete Integration	limwirojt	07/24/19 11:26

Lab Sample ID: 580-87706-5 MSD Client Sample ID: 22T-SG-12_20190716 MSD

Date Analyzed: 07/23/19 17:57 Lab File ID: 34G23PST19a0022.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	8.31	Incomplete Integration	limwirojt	07/24/19 12:21

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 18:16 Lab File ID: 34G23PST19a0023.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:23
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:24

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 18:16 Lab File ID: 34G23PST19a0023.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	7.77	Incomplete Integration	limwirojt	07/24/19 12:23
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 12:24
2,4'-DDE		Unspecified		
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 18:35 Lab File ID: 34G23PST19a0024.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	6.89	Incomplete Integration	limwirojt	07/24/19 12:25
4,4'-DDD	7.16	Incomplete Integration	limwirojt	07/24/19 12:26
DCB Decachlorobiphenyl	8.89	Assign Peak	limwirojt	07/24/19 12:25
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:25
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:25
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:26

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 18:35 Lab File ID: 34G23PST19a0024.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	7.77	Incomplete Integration	limwirojt	07/24/19 12:25
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 18:55 Lab File ID: 34G23PST19a0025.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	7.16	Incomplete Integration	limwirojt	07/24/19 12:28
DCB Decachlorobiphenyl	8.88	Assign Peak	limwirojt	07/24/19 12:28
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 12:28
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:27
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:28

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 18:55 Lab File ID: 34G23PST19a0025.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDE	7.60	Incomplete Integration	limwirojt	07/24/19 12:27
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 12:28
2,4'-DDD		Unspecified		
2,4'-DDE		Unspecified		
4,4'-DDT		Unspecified		
DCB Decachlorobiphenyl	10.09	Assign Peak	limwirojt	07/24/19 12:28

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 19:14 Lab File ID: 34G23PST19a0026.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	6.89	Incomplete Integration	limwirojt	07/24/19 12:29
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:29
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:29
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:30

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 19:14 Lab File ID: 34G23PST19a0026.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	7.77	Incomplete Integration	limwirojt	07/24/19 12:29
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 12:30
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		
DCB Decachlorobiphenyl	10.09	Incomplete Integration	limwirojt	07/24/19 12:30

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 19:33 Lab File ID: 34G23PST19a0027.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 12:33
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:33
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:33
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:34

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 19:33 Lab File ID: 34G23PST19a0027.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	8.05	Incomplete Integration	limwirojt	07/24/19 12:33
2,4'-DDD		Incomplete Integration	limwirojt	07/24/19 12:33
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 19:53 Lab File ID: 34G23PST19a0028.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	7.16	Incomplete Integration	limwirojt	07/24/19 12:36
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:36
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:36
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:36

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 19:53 Lab File ID: 34G23PST19a0028.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDE	7.61	Incomplete Integration	limwirojt	07/24/19 12:36
2,4'-DDD	7.77	Incomplete Integration	limwirojt	07/24/19 12:36
4,4'-DDD	8.06	Incomplete Integration	limwirojt	07/24/19 12:36
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 20:12 Lab File ID: 34G23PST19a0029.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	6.89	Incomplete Integration	limwirojt	07/24/19 12:37
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:37
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:37
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:37

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 20:12 Lab File ID: 34G23PST19a0029.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	7.77	Incomplete Integration	limwirojt	07/24/19 12:37
4,4'-DDD	8.06	Incomplete Integration	limwirojt	07/24/19 12:37
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/23/19 20:31 Lab File ID: 34G23PST19a0030.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDE	6.77	Incomplete Integration	limwirojt	07/24/19 12:39
DCB Decachlorobiphenyl	8.89	Assign Peak	limwirojt	07/24/19 12:41
2,4'-DDD		Invalid Compound ID	limwirojt	07/24/19 12:40
2,4'-DDE		Invalid Compound ID	limwirojt	07/24/19 12:39
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:40
4,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:40

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Analysis Batch Number: 306388

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/23/19 20:31 Lab File ID: 34G23PST19a0030.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDE	7.61	Incomplete Integration	limwirojt	07/24/19 12:40
4,4'-DDD	8.06	Incomplete Integration	limwirojt	07/24/19 12:40
2,4'-DDD		Unspecified		
2,4'-DDE		Unspecified		
2,4'-DDT		Unspecified		
4,4'-DDT		Unspecified		
DCB Decachlorobiphenyl	10.09	Assign Peak	limwirojt	07/24/19 12:41

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 20:51 Lab File ID: 34G23PST19a0031.d GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	5.08	Peak assignment corrected	limwirojt	07/24/19 12:41
2,4'-DDD	6.89	Incomplete Integration	limwirojt	07/24/19 12:41
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:42

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 20:51 Lab File ID: 34G23PST19a0031.d GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	5.55	Peak assignment corrected	limwirojt	07/24/19 12:41
2,4'-DDT		Unspecified		
DCB Decachlorobiphenyl	10.10	Incomplete Integration	limwirojt	07/24/19 12:42

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 295252

Lab Sample ID: IC 580-295252/22 Client Sample ID:

Date Analyzed: 02/27/19 17:34 Lab File ID: 45B227a022.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.28	Baseline Smoothing	ruslander a	03/01/19 11:53
2,4'-DDE	7.33	Baseline Smoothing	ruslander a	03/01/19 11:53

Lab Sample ID: ICIS 580-295252/25 Client Sample ID:

Date Analyzed: 02/27/19 18:40 Lab File ID: 45B227a025.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.28	Peak assignment corrected	ruslander a	03/01/19 11:46
trans-Nonachlor	7.53	Peak assignment corrected	ruslander a	03/01/19 11:46
Mirex	8.77	Peak assignment corrected	ruslander a	03/01/19 11:46

Lab Sample ID: ICIS 580-295252/25 Client Sample ID:

Date Analyzed: 02/27/19 18:40 Lab File ID: 45B227a025.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	7.96	Peak assignment corrected	ruslander a	03/01/19 11:46
trans-Nonachlor	8.25	Peak assignment corrected	ruslander a	03/01/19 11:46
Mirex	9.96	Peak assignment corrected	ruslander a	03/01/19 11:46

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 295252

Lab Sample ID: IC 580-295252/32 Client Sample ID:

Date Analyzed: 02/27/19 21:12 Lab File ID: 45B227a032.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:12
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:12

Lab Sample ID: IC 580-295252/33 Client Sample ID:

Date Analyzed: 02/27/19 21:34 Lab File ID: 45B227a033.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:13
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:13

Lab Sample ID: IC 580-295252/34 Client Sample ID:

Date Analyzed: 02/27/19 21:55 Lab File ID: 45B227a034.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:13
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:13

Lab Sample ID: ICIS 580-295252/35 Client Sample ID:

Date Analyzed: 02/27/19 22:17 Lab File ID: 45B227a035.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobenzene	6.00	Incomplete Integration	ruslander a	03/01/19 12:49

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 295252

Lab Sample ID: ICIS 580-295252/35 Client Sample ID:

Date Analyzed: 02/27/19 22:17 Lab File ID: 45B227a035.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobenzene	6.58	Incomplete Integration	ruslander a	03/01/19 12:49
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:12
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:12

Lab Sample ID: IC 580-295252/36 Client Sample ID:

Date Analyzed: 02/27/19 22:37 Lab File ID: 45B227a036.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:14
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:14

Lab Sample ID: IC 580-295252/37 Client Sample ID:

Date Analyzed: 02/27/19 22:58 Lab File ID: 45B227a037.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:14
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:14

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 295252

Lab Sample ID: IC 580-295252/38 Client Sample ID:

Date Analyzed: 02/27/19 23:18 Lab File ID: 45B227a038.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	6.19	Incomplete Integration	ruslander a	03/01/19 15:49
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:14
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:14

Lab Sample ID: IC 580-295252/39 Client Sample ID:

Date Analyzed: 02/27/19 23:39 Lab File ID: 45B227a039.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	5.70	Peak Tail	ruslander a	03/01/19 15:48

Lab Sample ID: IC 580-295252/39 Client Sample ID:

Date Analyzed: 02/27/19 23:39 Lab File ID: 45B227a039.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	6.19	Baseline Smoothing	ruslander a	03/01/19 15:49
Endosulfan sulfate	9.48	Peak assignment corrected	ruslander a	03/01/19 16:14
Methoxychlor	9.67	Peak assignment corrected	ruslander a	03/01/19 16:14

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 295252

Lab Sample ID: IC 580-295252/40 Client Sample ID:

Date Analyzed: 02/27/19 23:59 Lab File ID: 45B227a040.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	5.70	Peak Tail	ruslandera	03/01/19 15:47

Lab Sample ID: IC 580-295252/40 Client Sample ID:

Date Analyzed: 02/27/19 23:59 Lab File ID: 45B227a040.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	6.20	Baseline Smoothing	ruslandera	03/01/19 15:49
Endosulfan sulfate	9.48	Peak assignment corrected	ruslandera	03/01/19 16:15
Methoxychlor	9.67	Peak assignment corrected	ruslandera	03/01/19 16:15

Lab Sample ID: ICV 580-295252/41 Client Sample ID:

Date Analyzed: 02/28/19 00:20 Lab File ID: 45B227a041.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endosulfan sulfate	9.48	Peak assignment corrected	ruslandera	03/01/19 16:15
Methoxychlor	9.67	Peak assignment corrected	ruslandera	03/01/19 16:15

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 306340

Lab Sample ID: PEM 580-306340/3 Client Sample ID:

Date Analyzed: 07/23/19 08:33 Lab File ID: 45F072319a004.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDD	7.96	Peak assignment corrected	bohnc	07/23/19 11:03

Lab Sample ID: CCV 580-306340/6 Client Sample ID:

Date Analyzed: 07/23/19 10:39 Lab File ID: 45F072319a007.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDE	7.28	Peak Tail	bohnc	07/23/19 11:12
cis-Nonachlor	7.95	Peak Tail	bohnc	07/23/19 11:13

Lab Sample ID: CCVIS 580-306340/7 Client Sample ID:

Date Analyzed: 07/23/19 11:21 Lab File ID: 45F072319a008.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobutadiene	4.12	Split Peak	bohnc	07/23/19 12:53
Tetrachloro-m-xylene	5.66	Shouldering	bohnc	07/23/19 12:52
Hexachlorobenzene	5.96	Shouldering	bohnc	07/23/19 12:51
delta-BHC	6.49	Shouldering	bohnc	07/23/19 12:51
Heptachlor epoxide	7.29	Shouldering	bohnc	07/23/19 12:52
4,4'-DDT	8.17	Peak Tail	bohnc	07/23/19 12:50
Endrin aldehyde	8.40	Shouldering	bohnc	07/23/19 12:51
Endosulfan sulfate	8.74	Split Peak	bohnc	07/23/19 12:52

Lab Sample ID: CCVIS 580-306340/7 Client Sample ID:

Date Analyzed: 07/23/19 11:21 Lab File ID: 45F072319a008.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobutadiene	4.48	Split Peak	bohnc	07/23/19 12:49

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Analysis Batch Number: 306340

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 14:47 Lab File ID: 45F072319a013.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDT		Invalid Compound ID	limwirojt	07/24/19 12:51

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 14:47 Lab File ID: 45F072319a013.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4'-DDD	8.49	Incomplete Integration	limwirojt	07/24/19 12:51
2,4'-DDT		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/4 Client Sample ID:

Date Analyzed: 12/22/18 17:47 Lab File ID: 57L2218B003.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslander a	12/23/18 14:09

Lab Sample ID: IC 580-291937/4 Client Sample ID:

Date Analyzed: 12/22/18 17:47 Lab File ID: 57L2218B003.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:09

Lab Sample ID: IC 580-291937/5 Client Sample ID:

Date Analyzed: 12/22/18 18:04 Lab File ID: 57L2218B004.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslander a	12/23/18 14:08

Lab Sample ID: IC 580-291937/5 Client Sample ID:

Date Analyzed: 12/22/18 18:04 Lab File ID: 57L2218B004.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:08

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/6 Client Sample ID:

Date Analyzed: 12/22/18 18:22 Lab File ID: 57L2218B005.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslander a	12/23/18 14:08

Lab Sample ID: IC 580-291937/6 Client Sample ID:

Date Analyzed: 12/22/18 18:22 Lab File ID: 57L2218B005.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:08

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/7 Client Sample ID:

Date Analyzed: 12/22/18 18:39 Lab File ID: 57L2218B006.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslandera	12/23/18 14:08
PCB-1232 Peak 1	5.19	Peak assignment corrected	ruslandera	12/23/18 13:51
PCB-1232 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 4	5.86	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 5	6.15	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 2	7.23	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 3	7.53	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 4	7.72	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 5	7.96	Baseline Smoothing	ruslandera	12/23/18 13:56

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/7 Client Sample ID:

Date Analyzed: 12/22/18 18:39 Lab File ID: 57L2218B006.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslandera	12/23/18 14:08
PCB-1232 Peak 1	5.74	Peak assignment corrected	ruslandera	12/23/18 13:51
PCB-1262 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 2	8.00	Baseline Smoothing	ruslandera	12/23/18 13:56

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/8 Client Sample ID:

Date Analyzed: 12/22/18 18:57 Lab File ID: 57L2218B007.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslandera	12/23/18 14:08
PCB-1232 Peak 1	5.19	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 4	5.86	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1232 Peak 5	6.15	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 2	7.23	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 3	7.53	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 4	7.72	Baseline Smoothing	ruslandera	12/23/18 13:56
PCB-1262 Peak 5	7.96	Baseline Smoothing	ruslandera	12/23/18 13:56

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/8 Client Sample ID:

Date Analyzed: 12/22/18 18:57 Lab File ID: 57L2218B007.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:08
PCB-1262 Peak 1	7.72	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 2	8.00	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 3	8.37	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 4	8.63	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 5	8.82	Baseline Smoothing	ruslander a	12/23/18 13:57

Lab Sample ID: IC 580-291937/9 Client Sample ID:

Date Analyzed: 12/22/18 19:15 Lab File ID: 57L2218B008.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslander a	12/23/18 14:08
PCB-1232 Peak 2	5.44	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 1	6.92	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 2	7.23	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 3	7.53	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 4	7.72	Baseline Smoothing	ruslander a	12/23/18 13:57
PCB-1262 Peak 5	7.96	Baseline Smoothing	ruslander a	12/23/18 13:57

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/9 Client Sample ID:

Date Analyzed: 12/22/18 19:15 Lab File ID: 57L2218B008.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:08

Lab Sample ID: IC 580-291937/10 Client Sample ID:

Date Analyzed: 12/22/18 19:32 Lab File ID: 57L2218B009.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslander a	12/23/18 14:08
PCB-1232 Peak 2	5.44	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1232 Peak 3	5.77	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1232 Peak 4	5.87	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1232 Peak 5	6.15	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1262 Peak 2	7.23	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1262 Peak 3	7.53	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1262 Peak 4	7.72	Baseline Smoothing	ruslander a	12/23/18 13:58
PCB-1262 Peak 5	7.96	Baseline Smoothing	ruslander a	12/23/18 13:58

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/10 Client Sample ID:

Date Analyzed: 12/22/18 19:32 Lab File ID: 57L2218B009.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslandera	12/23/18 14:08
PCB-1232 Peak 3	6.50	Baseline Smoothing	ruslandera	12/23/18 13:58
PCB-1232 Peak 4	6.85	Baseline Smoothing	ruslandera	12/23/18 13:58
PCB-1232 Peak 5	7.18	Baseline Smoothing	ruslandera	12/23/18 13:58
PCB-1262 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 13:58

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/11 Client Sample ID:

Date Analyzed: 12/22/18 19:50 Lab File ID: 57L2218B010.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslandera	12/23/18 14:08
PCB-1232 Peak 1	5.19	Baseline Smoothing	ruslandera	12/23/18 13:58
PCB-1232 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 13:58
PCB-1232 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1232 Peak 4	5.87	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1232 Peak 5	6.15	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 2	7.23	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 3	7.53	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 4	7.72	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 5	7.96	Baseline Smoothing	ruslandera	12/23/18 13:59

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/11 Client Sample ID:

Date Analyzed: 12/22/18 19:50 Lab File ID: 57L2218B010.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslandera	12/23/18 14:08
PCB-1232 Peak 1	5.74	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1232 Peak 2	6.04	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1232 Peak 3	6.49	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1232 Peak 4	6.85	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1232 Peak 5	7.18	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 2	8.00	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 3	8.37	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 4	8.63	Baseline Smoothing	ruslandera	12/23/18 13:59
PCB-1262 Peak 5	8.82	Baseline Smoothing	ruslandera	12/23/18 13:59

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICV 580-291937/12 Client Sample ID:

Date Analyzed: 12/22/18 20:07 Lab File ID: 57L2218B011.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1262 Peak 1	6.92	Baseline Smoothing	ruslander a	12/23/18 13:59
PCB-1262 Peak 2	7.23	Baseline Smoothing	ruslander a	12/23/18 14:00
PCB-1262 Peak 3	7.53	Baseline Smoothing	ruslander a	12/23/18 14:00
PCB-1262 Peak 4	7.72	Baseline Smoothing	ruslander a	12/23/18 14:00
PCB-1262 Peak 5	7.96	Baseline Smoothing	ruslander a	12/23/18 14:00

Lab Sample ID: IC 580-291937/13 Client Sample ID:

Date Analyzed: 12/22/18 20:25 Lab File ID: 57L2218B012.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.75	Baseline Smoothing	ruslander a	12/23/18 14:36
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslander a	12/23/18 14:36
PCB-1248 Peak 3	6.44	Baseline Smoothing	ruslander a	12/23/18 14:36
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslander a	12/23/18 14:36
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslander a	12/23/18 14:36

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/14 Client Sample ID:

Date Analyzed: 12/22/18 20:42 Lab File ID: 57L2218B013.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.75	Baseline Smoothing	ruslandera	12/23/18 14:38
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:38
PCB-1248 Peak 3	6.44	Baseline Smoothing	ruslandera	12/23/18 14:38
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslandera	12/23/18 14:38
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslandera	12/23/18 14:38

Lab Sample ID: IC 580-291937/15 Client Sample ID:

Date Analyzed: 12/22/18 21:00 Lab File ID: 57L2218B014.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.75	Baseline Smoothing	ruslandera	12/23/18 14:39
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:39
PCB-1248 Peak 3	6.44	Baseline Smoothing	ruslandera	12/23/18 14:39
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslandera	12/23/18 14:39
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslandera	12/23/18 14:39

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/16 Client Sample ID:

Date Analyzed: 12/22/18 21:18 Lab File ID: 57L2218B015.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslander a	12/23/18 14:20
PCB-1248 Peak 1	5.75	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 3	6.45	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslander a	12/23/18 14:42

Lab Sample ID: ICIS 580-291937/16 Client Sample ID:

Date Analyzed: 12/22/18 21:18 Lab File ID: 57L2218B015.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:21
PCB-1248 Peak 1	6.37	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 2	6.85	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 3	7.18	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 4	7.36	Baseline Smoothing	ruslander a	12/23/18 14:42
PCB-1248 Peak 5	7.69	Peak assignment corrected	ruslander a	12/23/18 14:22

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/17 Client Sample ID:

Date Analyzed: 12/22/18 21:35 Lab File ID: 57L2218B016.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.76	Baseline Smoothing	ruslandera	12/23/18 14:46
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:46
PCB-1248 Peak 3	6.45	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslandera	12/23/18 14:47

Lab Sample ID: IC 580-291937/17 Client Sample ID:

Date Analyzed: 12/22/18 21:35 Lab File ID: 57L2218B016.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 2	6.85	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 3	7.18	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 4	7.37	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 5	7.69	Baseline Smoothing	ruslandera	12/23/18 14:47

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/18 Client Sample ID:

Date Analyzed: 12/22/18 21:53 Lab File ID: 57L2218B017.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.76	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 3	6.45	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslandera	12/23/18 14:47

Lab Sample ID: IC 580-291937/18 Client Sample ID:

Date Analyzed: 12/22/18 21:53 Lab File ID: 57L2218B017.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	6.37	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 2	6.85	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 3	7.18	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 4	7.36	Baseline Smoothing	ruslandera	12/23/18 14:47
PCB-1248 Peak 5	7.69	Baseline Smoothing	ruslandera	12/23/18 14:47

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/19 Client Sample ID:

Date Analyzed: 12/22/18 22:10 Lab File ID: 57L2218B018.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.76	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 3	6.45	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslandera	12/23/18 14:48

Lab Sample ID: IC 580-291937/19 Client Sample ID:

Date Analyzed: 12/22/18 22:10 Lab File ID: 57L2218B018.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	6.37	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 2	6.85	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 3	7.18	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 4	7.37	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 5	7.69	Baseline Smoothing	ruslandera	12/23/18 14:48

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/20 Client Sample ID:

Date Analyzed: 12/22/18 22:28 Lab File ID: 57L2218B019.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.76	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 3	6.45	Baseline Smoothing	ruslandera	12/23/18 14:48
PCB-1248 Peak 4	6.90	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslandera	12/23/18 14:49

Lab Sample ID: IC 580-291937/20 Client Sample ID:

Date Analyzed: 12/22/18 22:28 Lab File ID: 57L2218B019.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	6.37	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 2	6.85	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 3	7.18	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 5	7.69	Baseline Smoothing	ruslandera	12/23/18 14:49

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICV 580-291937/21 Client Sample ID:

Date Analyzed: 12/22/18 22:45 Lab File ID: 57L2218B020.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	5.76	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 2	6.15	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 3	6.45	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 4	6.89	Baseline Smoothing	ruslandera	12/23/18 14:49
PCB-1248 Peak 5	7.10	Baseline Smoothing	ruslandera	12/23/18 14:49

Lab Sample ID: ICV 580-291937/21 Client Sample ID:

Date Analyzed: 12/22/18 22:45 Lab File ID: 57L2218B020.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 5	7.69	Baseline Smoothing	ruslandera	12/23/18 14:49

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/22 Client Sample ID:

Date Analyzed: 12/22/18 23:03 Lab File ID: 57L2218B021.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	5.19	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 5	6.44	Baseline Smoothing	ruslandera	12/23/18 15:21

Lab Sample ID: IC 580-291937/23 Client Sample ID:

Date Analyzed: 12/22/18 23:20 Lab File ID: 57L2218B022.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	5.19	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1268 Peak 2	8.22	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1268 Peak 3	8.25	Baseline Smoothing	ruslandera	12/23/18 15:21

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/24 Client Sample ID:

Date Analyzed: 12/22/18 23:38 Lab File ID: 57L2218B023.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1268 Peak 1	7.97	Baseline Smoothing	ruslandera	12/23/18 15:21

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/25 Client Sample ID:

Date Analyzed: 12/22/18 23:55 Lab File ID: 57L2218B024.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslandera	12/23/18 14:59
PCB-1242 Peak 1	5.19	Peak assignment corrected	ruslandera	12/23/18 14:59
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 15:03
PCB-1242 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 15:03
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:03
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslandera	12/23/18 15:03
PCB-1268 Peak 1	7.97	Baseline Smoothing	ruslandera	12/23/18 15:21
PCB-1268 Peak 2	8.22	Peak assignment corrected	ruslandera	12/23/18 15:14
PCB-1268 Peak 3	8.25	Peak assignment corrected	ruslandera	12/23/18 15:14
PCB-1268 Peak 4	8.93	Peak assignment corrected	ruslandera	12/23/18 15:14
PCB-1268 Peak 5	9.08	Peak assignment corrected	ruslandera	12/23/18 15:15

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/25 Client Sample ID:

Date Analyzed: 12/22/18 23:55 Lab File ID: 57L2218B024.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslander a	12/23/18 14:59
PCB-1242 Peak 1	6.04	Peak assignment corrected	ruslander a	12/23/18 15:00
PCB-1242 Peak 2	6.24	Peak assignment corrected	ruslander a	12/23/18 15:00
PCB-1242 Peak 3	6.85	Peak assignment corrected	ruslander a	12/23/18 15:00
PCB-1242 Peak 4	7.18	Peak assignment corrected	ruslander a	12/23/18 15:00
PCB-1242 Peak 5	7.36	Peak assignment corrected	ruslander a	12/23/18 15:15
PCB-1268 Peak 1	8.82	Peak assignment corrected	ruslander a	12/23/18 15:15
PCB-1268 Peak 2	9.13	Peak assignment corrected	ruslander a	12/23/18 15:01
PCB-1268 Peak 3	9.17	Peak assignment corrected	ruslander a	12/23/18 15:01
PCB-1268 Peak 4	9.40	Peak assignment corrected	ruslander a	12/23/18 15:01
PCB-1268 Peak 5	9.91	Peak assignment corrected	ruslander a	12/23/18 15:01

Lab Sample ID: IC 580-291937/26 Client Sample ID:

Date Analyzed: 12/23/18 00:13 Lab File ID: 57L2218B025.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1268 Peak 2	8.22	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1268 Peak 3	8.25	Baseline Smoothing	ruslander a	12/23/18 15:22

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/27 Client Sample ID:

Date Analyzed: 12/23/18 00:30 Lab File ID: 57L2218B026.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	5.19	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 3	5.77	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslander a	12/23/18 15:22

Lab Sample ID: IC 580-291937/27 Client Sample ID:

Date Analyzed: 12/23/18 00:30 Lab File ID: 57L2218B026.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	6.04	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 2	6.24	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 3	6.85	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 4	7.18	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1242 Peak 5	7.36	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1268 Peak 2	9.13	Baseline Smoothing	ruslander a	12/23/18 15:22
PCB-1268 Peak 3	9.17	Baseline Smoothing	ruslander a	12/23/18 15:22

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/28 Client Sample ID:

Date Analyzed: 12/23/18 00:48 Lab File ID: 57L2218B027.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 15:22
PCB-1242 Peak 3	5.78	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1268 Peak 2	8.22	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1268 Peak 3	8.25	Baseline Smoothing	ruslandera	12/23/18 15:23

Lab Sample ID: IC 580-291937/28 Client Sample ID:

Date Analyzed: 12/23/18 00:48 Lab File ID: 57L2218B027.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1268 Peak 2	9.13	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1268 Peak 3	9.17	Baseline Smoothing	ruslandera	12/23/18 15:23

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/29 Client Sample ID:

Date Analyzed: 12/23/18 01:06 Lab File ID: 57L2218B028.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3	5.78	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslandera	12/23/18 15:23
PCB-1268 Peak 2	8.22	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1268 Peak 3	8.25	Baseline Smoothing	ruslandera	12/23/18 15:24

Lab Sample ID: IC 580-291937/29 Client Sample ID:

Date Analyzed: 12/23/18 01:06 Lab File ID: 57L2218B028.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1268 Peak 2	9.13	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1268 Peak 3	9.17	Baseline Smoothing	ruslandera	12/23/18 15:24

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICV 580-291937/30 Client Sample ID:

Date Analyzed: 12/23/18 01:23 Lab File ID: 57L2218B029.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	5.19	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1242 Peak 2	5.44	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1242 Peak 3	5.77	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1242 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1242 Peak 5	6.45	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1268 Peak 2	8.22	Baseline Smoothing	ruslandera	12/23/18 15:24
PCB-1268 Peak 3	8.25	Baseline Smoothing	ruslandera	12/23/18 15:24

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/31 Client Sample ID:

Date Analyzed: 12/23/18 01:41 Lab File ID: 57L2218B030.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 1	5.05	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1221 Peak 2	5.16	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1221 Peak 3	5.19	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslander a	12/23/18 15:30
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslander a	12/23/18 15:30

Lab Sample ID: IC 580-291937/32 Client Sample ID:

Date Analyzed: 12/23/18 01:58 Lab File ID: 57L2218B031.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslander a	12/23/18 15:31

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/33 Client Sample ID:

Date Analyzed: 12/23/18 02:16 Lab File ID: 57L2218B032.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 1	5.05	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1221 Peak 2	5.16	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1221 Peak 3	5.19	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslandera	12/23/18 15:31
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslandera	12/23/18 15:31

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/34 Client Sample ID:

Date Analyzed: 12/23/18 02:33 Lab File ID: 57L2218B033.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1221 Peak 1	5.05	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1221 Peak 2	5.16	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1221 Peak 3	5.19	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1254 Peak 1	6.42	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 2	6.60	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 3	6.89	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 4	7.10	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 5	7.45	Peak assignment corrected	ruslandera	12/23/18 15:28

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/34 Client Sample ID:

Date Analyzed: 12/23/18 02:33 Lab File ID: 57L2218B033.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1221 Peak 1	5.58	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1221 Peak 2	5.69	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1221 Peak 3	5.74	Peak assignment corrected	ruslandera	12/23/18 15:27
PCB-1254 Peak 1	7.18	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 2	7.31	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 3	7.69	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 4	7.86	Peak assignment corrected	ruslandera	12/23/18 15:28
PCB-1254 Peak 5	8.31	Peak assignment corrected	ruslandera	12/23/18 15:28

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/35 Client Sample ID:

Date Analyzed: 12/23/18 02:51 Lab File ID: 57L2218B034.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 1	5.05	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1221 Peak 2	5.16	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1221 Peak 3	5.19	Baseline Smoothing	ruslander a	12/23/18 15:31
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslander a	12/23/18 15:32

Lab Sample ID: IC 580-291937/35 Client Sample ID:

Date Analyzed: 12/23/18 02:51 Lab File ID: 57L2218B034.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	7.18	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 2	7.31	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 3	7.69	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 4	7.86	Baseline Smoothing	ruslander a	12/23/18 15:32
PCB-1254 Peak 5	8.31	Baseline Smoothing	ruslander a	12/23/18 15:32

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/36 Client Sample ID:

Date Analyzed: 12/23/18 03:09 Lab File ID: 57L2218B035.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslandera	12/23/18 15:32
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslandera	12/23/18 15:32
PCB-1254 Peak 3	6.90	Baseline Smoothing	ruslandera	12/23/18 15:32
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslandera	12/23/18 15:32
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslandera	12/23/18 15:32

Lab Sample ID: IC 580-291937/36 Client Sample ID:

Date Analyzed: 12/23/18 03:09 Lab File ID: 57L2218B035.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 5	8.31	Baseline Smoothing	ruslandera	12/23/18 15:32

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/37 Client Sample ID:

Date Analyzed: 12/23/18 03:26 Lab File ID: 57L2218B036.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslandera	12/23/18 15:33

Lab Sample ID: IC 580-291937/37 Client Sample ID:

Date Analyzed: 12/23/18 03:26 Lab File ID: 57L2218B036.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	7.18	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 2	7.31	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 3	7.69	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 4	7.86	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 5	8.31	Baseline Smoothing	ruslandera	12/23/18 15:33

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/38 Client Sample ID:

Date Analyzed: 12/23/18 03:44 Lab File ID: 57L2218B037.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslandera	12/23/18 15:33

Lab Sample ID: IC 580-291937/38 Client Sample ID:

Date Analyzed: 12/23/18 03:44 Lab File ID: 57L2218B037.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	7.18	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 2	7.31	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 3	7.69	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 4	7.86	Baseline Smoothing	ruslandera	12/23/18 15:33
PCB-1254 Peak 5	8.31	Baseline Smoothing	ruslandera	12/23/18 15:33

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICV 580-291937/39 Client Sample ID:

Date Analyzed: 12/23/18 04:01 Lab File ID: 57L2218B038.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 1	5.05	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1221 Peak 2	5.16	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1221 Peak 3	5.19	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1254 Peak 1	6.42	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1254 Peak 2	6.60	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1254 Peak 3	6.89	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1254 Peak 4	7.10	Baseline Smoothing	ruslandera	12/23/18 15:30
PCB-1254 Peak 5	7.45	Baseline Smoothing	ruslandera	12/23/18 15:30

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/40 Client Sample ID:

Date Analyzed: 12/23/18 04:19 Lab File ID: 57L2218B039.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	4.92	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1016 Peak 2	5.77	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1016 Peak 3	5.86	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1016 Peak 5	6.21	Unspecified	ruslander a	12/23/18 16:00
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslander a	12/23/18 15:46
PCB-1260 Peak 5	7.73	Baseline Smoothing	ruslander a	12/23/18 15:46

Lab Sample ID: IC 580-291937/40 Client Sample ID:

Date Analyzed: 12/23/18 04:19 Lab File ID: 57L2218B039.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	6.95	Peak assignment corrected	ruslander a	12/23/18 16:00
PCB-1260 Peak 3	8.14	Peak assignment corrected	ruslander a	12/23/18 15:55

8082A

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/41 Client Sample ID:

Date Analyzed: 12/23/18 04:36 Lab File ID: 57L2218B040.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 2	5.77	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 3	5.86	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 16:00
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 5	7.72	Baseline Smoothing	ruslandera	12/23/18 15:46

Lab Sample ID: IC 580-291937/41 Client Sample ID:

Date Analyzed: 12/23/18 04:36 Lab File ID: 57L2218B040.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	6.95	Peak assignment corrected	ruslandera	12/23/18 16:00
PCB-1260 Peak 3	8.14	Peak assignment corrected	ruslandera	12/23/18 15:56

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/42 Client Sample ID:

Date Analyzed: 12/23/18 04:54 Lab File ID: 57L2218B041.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	4.92	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 2	5.77	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 3	5.86	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 16:00
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:46
PCB-1260 Peak 5	7.72	Baseline Smoothing	ruslandera	12/23/18 15:46
DCB Decachlorobiphenyl	9.08	Baseline Smoothing	ruslandera	12/23/18 15:46

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/42 Client Sample ID:

Date Analyzed: 12/23/18 04:54 Lab File ID: 57L2218B041.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	6.95	Peak assignment corrected	ruslandera	12/23/18 16:00
PCB-1260 Peak 3	8.14	Peak assignment corrected	ruslandera	12/23/18 15:56

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/43 Client Sample ID:

Date Analyzed: 12/23/18 05:11 Lab File ID: 57L2218B042.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.28	Peak assignment corrected	ruslandera	12/23/18 15:37
Tetrachloro-m-xylene	4.92	Peak assignment corrected	ruslandera	12/23/18 15:39
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 2	5.77	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 3	5.87	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 15:59
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 5	7.73	Baseline Smoothing	ruslandera	12/23/18 15:47
DCB Decachlorobiphenyl	9.08	Peak assignment corrected	ruslandera	12/23/18 15:39

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICIS 580-291937/43 Client Sample ID:

Date Analyzed: 12/23/18 05:11 Lab File ID: 57L2218B042.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1-Bromo-2-nitrobenzene	4.60	Peak assignment corrected	ruslandera	12/23/18 15:37
Tetrachloro-m-xylene	5.35	Peak assignment corrected	ruslandera	12/23/18 15:39
PCB-1016 Peak 1	6.04	Peak assignment corrected	ruslandera	12/23/18 15:38
PCB-1016 Peak 2	6.39	Peak assignment corrected	ruslandera	12/23/18 15:38
PCB-1016 Peak 3	6.50	Peak assignment corrected	ruslandera	12/23/18 15:38
PCB-1016 Peak 4	6.85	Peak assignment corrected	ruslandera	12/23/18 15:44
PCB-1016 Peak 5	6.95	Peak assignment corrected	ruslandera	12/23/18 15:59
PCB-1260 Peak 1	7.71	Peak assignment corrected	ruslandera	12/23/18 15:39
PCB-1260 Peak 2	7.84	Peak assignment corrected	ruslandera	12/23/18 15:39
PCB-1260 Peak 3	8.14	Peak assignment corrected	ruslandera	12/23/18 15:55
PCB-1260 Peak 4	8.37	Peak assignment corrected	ruslandera	12/23/18 15:39
PCB-1260 Peak 5	8.63	Peak assignment corrected	ruslandera	12/23/18 15:39
DCB Decachlorobiphenyl	10.16	Peak assignment corrected	ruslandera	12/23/18 15:39

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/44 Client Sample ID:

Date Analyzed: 12/23/18 05:29 Lab File ID: 57L2218B043.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 2	5.77	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 3	5.87	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 16:00
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 5	7.73	Baseline Smoothing	ruslandera	12/23/18 15:47

Lab Sample ID: IC 580-291937/44 Client Sample ID:

Date Analyzed: 12/23/18 05:29 Lab File ID: 57L2218B043.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	6.95	Peak assignment corrected	ruslandera	12/23/18 16:00
PCB-1260 Peak 3	8.14	Peak assignment corrected	ruslandera	12/23/18 15:56

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/45 Client Sample ID:

Date Analyzed: 12/23/18 05:47 Lab File ID: 57L2218B044.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 2	5.78	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 3	5.87	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 16:00
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:47
PCB-1260 Peak 5	7.73	Baseline Smoothing	ruslandera	12/23/18 15:47

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/45 Client Sample ID:

Date Analyzed: 12/23/18 05:47 Lab File ID: 57L2218B044.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	6.95	Peak assignment corrected	ruslandera	12/23/18 16:00
PCB-1260 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 2	7.84	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 3	8.14	Unspecified	ruslandera	12/23/18 15:56
PCB-1260 Peak 4	8.37	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 5	8.63	Baseline Smoothing	ruslandera	12/23/18 15:48

Lab Sample ID: IC 580-291937/46 Client Sample ID:

Date Analyzed: 12/23/18 06:04 Lab File ID: 57L2218B045.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 5	6.21	Peak assignment corrected	ruslandera	12/23/18 16:00
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 5	7.73	Baseline Smoothing	ruslandera	12/23/18 15:48

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/46 Client Sample ID:

Date Analyzed: 12/23/18 06:04 Lab File ID: 57L2218B045.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	6.04	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 2	6.39	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 3	6.49	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 4	6.85	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 5	6.95	Unspecified	ruslandera	12/23/18 16:01
PCB-1260 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 2	7.84	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1260 Peak 3	8.14	Unspecified	ruslandera	12/23/18 15:56
PCB-1260 Peak 4	8.37	Baseline Smoothing	ruslandera	12/23/18 15:48

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/47 Client Sample ID:

Date Analyzed: 12/23/18 06:22 Lab File ID: 57L2218B046.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 2	5.78	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 3	5.87	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:48
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 16:01
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 5	7.73	Baseline Smoothing	ruslandera	12/23/18 15:49

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: IC 580-291937/47 Client Sample ID:

Date Analyzed: 12/23/18 06:22 Lab File ID: 57L2218B046.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	6.04	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 2	6.39	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 3	6.50	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 4	6.85	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 5	6.95	Unspecified	ruslandera	12/23/18 16:01
PCB-1260 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 2	7.84	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 3	8.14	Unspecified	ruslandera	12/23/18 15:57
PCB-1260 Peak 4	8.37	Baseline Smoothing	ruslandera	12/23/18 15:49

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICV 580-291937/48 Client Sample ID:

Date Analyzed: 12/23/18 06:39 Lab File ID: 57L2218B047.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	5.44	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 2	5.77	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 3	5.87	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 4	6.15	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 5	6.21	Unspecified	ruslandera	12/23/18 16:01
PCB-1260 Peak 1	6.92	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 2	7.03	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 3	7.23	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 4	7.53	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 5	7.72	Baseline Smoothing	ruslandera	12/23/18 15:49

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 291937

Lab Sample ID: ICV 580-291937/48 Client Sample ID:

Date Analyzed: 12/23/18 06:39 Lab File ID: 57L2218B047.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	6.04	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 2	6.39	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 3	6.49	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 4	6.85	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1016 Peak 5	6.95	Unspecified	ruslandera	12/23/18 16:01
PCB-1260 Peak 1	7.71	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 2	7.84	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 3	8.14	Unspecified	ruslandera	12/23/18 15:58
PCB-1260 Peak 4	8.37	Baseline Smoothing	ruslandera	12/23/18 15:49
PCB-1260 Peak 5	8.63	Baseline Smoothing	ruslandera	12/23/18 15:49

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: CCV 580-306344/4 Client Sample ID:

Date Analyzed: 07/23/19 08:00 Lab File ID: 57G2319A005.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1	5.04	Baseline Smoothing	bohnc	07/23/19 10:41
PCB-1232 Peak 2	5.28	Shouldering	bohnc	07/23/19 10:41
PCB-1232 Peak 3	5.61	Shouldering	bohnc	07/23/19 10:41
PCB-1262 Peak 1	6.72	Baseline Smoothing	bohnc	07/23/19 10:39
PCB-1262 Peak 2	7.03	Baseline Smoothing	bohnc	07/23/19 10:40
PCB-1262 Peak 3	7.32	Baseline Smoothing	bohnc	07/23/19 10:40
PCB-1262 Peak 4	7.51	Baseline Smoothing	bohnc	07/23/19 10:40
PCB-1262 Peak 5	7.75	Baseline Smoothing	bohnc	07/23/19 10:40

Lab Sample ID: CCV 580-306344/7 Client Sample ID:

Date Analyzed: 07/23/19 08:54 Lab File ID: 57G2319A008.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 1	4.91	Baseline Smoothing	bohnc	07/23/19 10:43
PCB-1221 Peak 2	5.01	Baseline Smoothing	bohnc	07/23/19 10:43
PCB-1221 Peak 3	5.05	Baseline Smoothing	bohnc	07/23/19 10:43

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: CCB 580-306344/9 Client Sample ID:

Date Analyzed: 07/23/19 09:30 Lab File ID: 57G2319A010.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1221 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1221 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1221 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1232 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1232 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1232 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1232 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1232 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1242 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1242 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1242 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1242 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1242 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1248 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1248 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1248 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1248 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1248 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1254 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1254 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1254 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1254 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:44
PCB-1254 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:44

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: MB 580-306126/1-A Client Sample ID:

Date Analyzed: 07/23/19 09:48 Lab File ID: 57G2319A011.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260		Unspecified		
PCB-1016 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1016 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1016 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1016 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1016 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1221 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1221 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1221 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1232 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1232 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1232 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1232 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1232 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1242 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1242 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1242 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1242 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1242 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1248 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1248 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1248 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1248 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1248 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:45

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: MB 580-306126/1-A Client Sample ID:

Date Analyzed: 07/23/19 09:48 Lab File ID: 57G2319A011.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1254 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1254 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1254 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1254 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1260 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1260 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1260 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1260 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:45
PCB-1260 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:45

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: MB 580-306126/1-A Client Sample ID:

Date Analyzed: 07/23/19 09:48 Lab File ID: 57G2319A011.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260		Unspecified		
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Unspecified		
PCB-1248 Peak 2		Unspecified		
PCB-1248 Peak 3		Unspecified		
PCB-1248 Peak 4		Unspecified		
PCB-1248 Peak 5		Unspecified		

8082A

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: MB 580-306126/1-A Client Sample ID:

Date Analyzed: 07/23/19 09:48 Lab File ID: 57G2319A011.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1		Unspecified		
PCB-1254 Peak 2		Unspecified		
PCB-1254 Peak 3		Unspecified		
PCB-1254 Peak 4		Unspecified		
PCB-1254 Peak 5		Unspecified		
PCB-1260 Peak 1		Unspecified		
PCB-1260 Peak 2		Unspecified		
PCB-1260 Peak 3		Unspecified		
PCB-1260 Peak 4		Unspecified		
PCB-1260 Peak 5		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/23/19 10:42 Lab File ID: 57G2319A014.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1016 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1016 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1016 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1016 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1016 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1221 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1221 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1221 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1232 Peak 1		Invalid Compound ID	bohnc	07/23/19 11:00
PCB-1232 Peak 2		Invalid Compound ID	bohnc	07/23/19 11:00
PCB-1232 Peak 3		Invalid Compound ID	bohnc	07/23/19 11:00
PCB-1232 Peak 4		Invalid Compound ID	bohnc	07/23/19 11:00
PCB-1232 Peak 5		Invalid Compound ID	bohnc	07/23/19 11:00
PCB-1242 Peak 1		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1242 Peak 2		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1242 Peak 3		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1242 Peak 4		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1242 Peak 5		Invalid Compound ID	bohnc	07/23/19 10:59
PCB-1248 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1248 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1248 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1248 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1248 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1254 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:08

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/23/19 10:42 Lab File ID: 57G2319A014.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1254 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1254 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:08
PCB-1254 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:08

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/23/19 10:42 Lab File ID: 57G2319A014.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Unspecified		
PCB-1248 Peak 2		Unspecified		
PCB-1248 Peak 3		Unspecified		
PCB-1248 Peak 4		Unspecified		
PCB-1248 Peak 5		Unspecified		
PCB-1254 Peak 1		Unspecified		

8082A

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/23/19 10:42 Lab File ID: 57G2319A014.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 2		Unspecified		
PCB-1254 Peak 3		Unspecified		
PCB-1254 Peak 4		Unspecified		
PCB-1254 Peak 5		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 MS Client Sample ID: 22T-SG-12_20190716 MS

Date Analyzed: 07/23/19 11:00 Lab File ID: 57G2319A015.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1016 Peak 2	5.59	Peak assignment corrected	bohnc	07/23/19 15:09
PCB-1016 Peak 4	5.96	Peak assignment corrected	bohnc	07/23/19 15:09
PCB-1221 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1221 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1221 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 MS Client Sample ID: 22T-SG-12_20190716 MS

Date Analyzed: 07/23/19 11:00 Lab File ID: 57G2319A015.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Unspecified		
PCB-1248 Peak 2		Unspecified		
PCB-1248 Peak 3		Unspecified		
PCB-1248 Peak 4		Unspecified		
PCB-1248 Peak 5		Unspecified		
PCB-1254 Peak 1		Unspecified		
PCB-1254 Peak 2		Unspecified		
PCB-1254 Peak 3		Unspecified		
PCB-1254 Peak 4		Unspecified		
PCB-1254 Peak 5		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 MSD Client Sample ID: 22T-SG-12_20190716 MSD

Date Analyzed: 07/23/19 11:19 Lab File ID: 57G2319A016.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1016 Peak 2	5.59	Peak assignment corrected	bohnc	07/23/19 15:00
PCB-1016 Peak 4	5.96	Peak assignment corrected	bohnc	07/23/19 15:00
PCB-1221 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1221 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1221 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1232 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1242 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1248 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 1		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 2		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 3		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 4		Invalid Compound ID	bohnc	07/23/19 15:10
PCB-1254 Peak 5		Invalid Compound ID	bohnc	07/23/19 15:10

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-5 MSD Client Sample ID: 22T-SG-12_20190716 MSD

Date Analyzed: 07/23/19 11:19 Lab File ID: 57G2319A016.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Unspecified		
PCB-1248 Peak 2		Unspecified		
PCB-1248 Peak 3		Unspecified		
PCB-1248 Peak 4		Unspecified		
PCB-1248 Peak 5		Unspecified		
PCB-1254 Peak 1		Unspecified		
PCB-1254 Peak 2		Unspecified		
PCB-1254 Peak 3		Unspecified		
PCB-1254 Peak 4		Unspecified		
PCB-1254 Peak 5		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 11:37 Lab File ID: 57G2319A017.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 5	7.51	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1221 Peak 1		Invalid Compound ID	bohnc	07/23/19 13:22
PCB-1221 Peak 2		Invalid Compound ID	bohnc	07/23/19 13:22
PCB-1221 Peak 3		Invalid Compound ID	bohnc	07/23/19 13:22
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:27

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 11:37 Lab File ID: 57G2319A017.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:27
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:37
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:37

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 11:37 Lab File ID: 57G2319A017.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:37

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 11:37 Lab File ID: 57G2319A017.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/23/19 11:37 Lab File ID: 57G2319A017.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:37
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:37

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 11:55 Lab File ID: 57G2319A018.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 2	6.82	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 3	7.03	Unspecified	thaneerat w	07/24/19 08:55
PCB-1260 Peak 4	7.32	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 5	7.50	Unspecified	thaneerat w	07/24/19 08:57
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:38

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 11:55 Lab File ID: 57G2319A018.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:38
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:40

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 11:55 Lab File ID: 57G2319A018.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:40
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:40

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 11:55 Lab File ID: 57G2319A018.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 2	7.64	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 3	7.94	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 4	8.17	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1260 Peak 5	8.42	Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/23/19 11:55 Lab File ID: 57G2319A018.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1248 Peak 2		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1248 Peak 3		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1248 Peak 4		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1248 Peak 5		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1254 Peak 1		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1254 Peak 2		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1254 Peak 3		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1254 Peak 4		Incomplete Integration	thaneerat w	07/24/19 08:43
PCB-1254 Peak 5		Incomplete Integration	thaneerat w	07/24/19 08:43

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 12:13 Lab File ID: 57G2319A019.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 08:52
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 08:52
PCB-1260 Peak 3	7.03	Incomplete Integration	thaneerat w	07/24/19 08:57
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 08:53
PCB-1260 Peak 5	7.51	Incomplete Integration	thaneerat w	07/24/19 08:58
DCB Decachlorobiphenyl	8.86	Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:44

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 12:13 Lab File ID: 57G2319A019.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:44
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 08:47
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 08:47
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 08:47
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 08:47
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 08:47
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:50

8082A

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 12:13 Lab File ID: 57G2319A019.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 2		Baseline Smoothing	thaneeratw	07/24/19 08:50
PCB-1254 Peak 3		Baseline Smoothing	thaneeratw	07/24/19 08:50
PCB-1254 Peak 4		Baseline Smoothing	thaneeratw	07/24/19 08:50
PCB-1254 Peak 5		Baseline Smoothing	thaneeratw	07/24/19 08:50

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 12:13 Lab File ID: 57G2319A019.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 08:53
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 08:53
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 08:53
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 08:53
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 08:53
PCB-1016 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1016 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1016 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1016 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1016 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1232 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:50

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 12:13 Lab File ID: 57G2319A019.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1232 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1232 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1242 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1242 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1242 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1242 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1242 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 08:50
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 08:50

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/23/19 12:13 Lab File ID: 57G2319A019.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 08:50

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 12:31 Lab File ID: 57G2319A020.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 5	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:03

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 12:31 Lab File ID: 57G2319A020.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:03

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 12:31 Lab File ID: 57G2319A020.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:03
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:03

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 12:31 Lab File ID: 57G2319A020.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

8082A

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/23/19 12:31 Lab File ID: 57G2319A020.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:04
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:04

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 12:49 Lab File ID: 57G2319A021.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:31
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:31
PCB-1260 Peak 3	7.03	Baseline Smoothing	thaneerat w	07/24/19 09:31
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:31
PCB-1260 Peak 5	7.50	Baseline Smoothing	thaneerat w	07/24/19 09:31
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:28

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 12:49 Lab File ID: 57G2319A021.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:28
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:30

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 12:49 Lab File ID: 57G2319A021.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:30
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:30

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 12:49 Lab File ID: 57G2319A021.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/23/19 12:49 Lab File ID: 57G2319A021.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:32
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:32

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 13:07 Lab File ID: 57G2319A022.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 3	7.03	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 5	7.51	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:33

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 13:07 Lab File ID: 57G2319A022.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:33
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:35

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 13:07 Lab File ID: 57G2319A022.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:35
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:35

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 13:07 Lab File ID: 57G2319A022.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/23/19 13:07 Lab File ID: 57G2319A022.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:36
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:36

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 13:25 Lab File ID: 57G2319A023.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:40
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:40
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 09:40
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:40
PCB-1260 Peak 5	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:40
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:38

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 13:25 Lab File ID: 57G2319A023.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:38
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:39

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 13:25 Lab File ID: 57G2319A023.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:39
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:39

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 13:25 Lab File ID: 57G2319A023.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:41
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:41
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

8082A

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/23/19 13:25 Lab File ID: 57G2319A023.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:42
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:41
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:41
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:41
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:41
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:41

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 13:43 Lab File ID: 57G2319A024.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 5	7.51	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:42

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 13:43 Lab File ID: 57G2319A024.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:42
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:43

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 13:43 Lab File ID: 57G2319A024.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:43
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:43

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 13:43 Lab File ID: 57G2319A024.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.51	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/23/19 13:43 Lab File ID: 57G2319A024.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:44
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:44

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 14:01 Lab File ID: 57G2319A025.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:50
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:50
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1260 Peak 5	7.50	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:46

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 14:01 Lab File ID: 57G2319A025.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:46
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:48

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 14:01 Lab File ID: 57G2319A025.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:48
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:48

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 14:01 Lab File ID: 57G2319A025.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/23/19 14:01 Lab File ID: 57G2319A025.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:51
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:51

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 14:19 Lab File ID: 57G2319A026.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 09:56
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 09:56
PCB-1260 Peak 3	7.03	Baseline Smoothing	thaneerat w	07/24/19 09:57
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 09:57
PCB-1260 Peak 5	7.52	Baseline Smoothing	thaneerat w	07/24/19 09:57
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:52

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 14:19 Lab File ID: 57G2319A026.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:52
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:54

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 14:19 Lab File ID: 57G2319A026.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:54
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:54

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 14:19 Lab File ID: 57G2319A026.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.51	Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/23/19 14:19 Lab File ID: 57G2319A026.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 09:55
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 09:55

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 14:37 Lab File ID: 57G2319A027.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 10:02
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 10:02
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1260 Peak 5	7.52	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:58

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 14:37 Lab File ID: 57G2319A027.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 09:58
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1254 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1254 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:02

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 14:37 Lab File ID: 57G2319A027.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1254 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:02
PCB-1254 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:02

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 14:37 Lab File ID: 57G2319A027.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.51	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/23/19 14:37 Lab File ID: 57G2319A027.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:03
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:03

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/23/19 14:55 Lab File ID: 57G2319A028.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 5	7.51	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:05

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/23/19 14:55 Lab File ID: 57G2319A028.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:05
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:07
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:07
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:07
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:07
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:07
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:13

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/23/19 14:55 Lab File ID: 57G2319A028.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.51	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1016 Peak 1		Unspecified		
PCB-1016 Peak 2		Unspecified		
PCB-1016 Peak 3		Unspecified		
PCB-1016 Peak 4		Unspecified		
PCB-1016 Peak 5		Unspecified		
PCB-1232 Peak 1		Unspecified		
PCB-1232 Peak 2		Unspecified		
PCB-1232 Peak 3		Unspecified		
PCB-1232 Peak 4		Unspecified		
PCB-1232 Peak 5		Unspecified		
PCB-1242 Peak 1		Unspecified		
PCB-1242 Peak 2		Unspecified		
PCB-1242 Peak 3		Unspecified		
PCB-1242 Peak 4		Unspecified		
PCB-1242 Peak 5		Unspecified		

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/23/19 14:55 Lab File ID: 57G2319A028.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:13
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:13

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 15:13 Lab File ID: 57G2319A029.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	6.73	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 2	6.82	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 3	7.02	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 4	7.32	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 5	7.51	Baseline Smoothing	thaneerat w	07/24/19 10:18
DCB Decachlorobiphenyl	8.86	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1016 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1016 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1016 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1016 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1016 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:17

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 15:13 Lab File ID: 57G2319A029.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:17
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1248 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1248 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1248 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1248 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1248 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:18
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:18

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 15:13 Lab File ID: 57G2319A029.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 2		Baseline Smoothing	thaneeratw	07/24/19 10:18
PCB-1254 Peak 3		Baseline Smoothing	thaneeratw	07/24/19 10:18
PCB-1254 Peak 4		Baseline Smoothing	thaneeratw	07/24/19 10:18
PCB-1254 Peak 5		Baseline Smoothing	thaneeratw	07/24/19 10:18

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 15:13 Lab File ID: 57G2319A029.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1254		Unspecified		
PCB-1260 Peak 1	7.52	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 2	7.64	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 3	7.94	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 4	8.17	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1260 Peak 5	8.42	Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1016 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1016 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1016 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1016 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1016 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1221 Peak 1		Unspecified		
PCB-1221 Peak 2		Unspecified		
PCB-1221 Peak 3		Unspecified		
PCB-1232 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1232 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:18

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 15:13 Lab File ID: 57G2319A029.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1232 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1232 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1242 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1242 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1242 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1242 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1242 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1254 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1254 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1254 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:18
PCB-1254 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:18

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/23/19 15:13 Lab File ID: 57G2319A029.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:18

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 15:32 Lab File ID: 57G2319A030.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1260		Unspecified		
PCB-1254 Peak 1	6.22	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 2	6.40	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 3	6.69	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 4	6.89	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 5	7.24	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1221 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1221 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1221 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:26

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 15:32 Lab File ID: 57G2319A030.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1232 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1232 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1232 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1232 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1242 Peak 1		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1242 Peak 2		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1242 Peak 3		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1242 Peak 4		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1242 Peak 5		Invalid Compound ID	thaneerat w	07/24/19 10:26
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1260 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1260 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 15:32 Lab File ID: 57G2319A030.D GC Column: ZB-CLPest-1 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 3		Baseline Smoothing	thaneeratw	07/24/19 10:27
PCB-1260 Peak 4		Baseline Smoothing	thaneeratw	07/24/19 10:27
PCB-1260 Peak 5		Baseline Smoothing	thaneeratw	07/24/19 10:27

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 15:32 Lab File ID: 57G2319A030.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Unspecified		
PCB-1221		Unspecified		
PCB-1232		Unspecified		
PCB-1242		Unspecified		
PCB-1248		Unspecified		
PCB-1260		Unspecified		
Tetrachloro-m-xylene	5.19	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 1	6.99	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 2	7.12	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 3	7.49	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 4	7.66	Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1254 Peak 5	8.10	Baseline Smoothing	thaneerat w	07/24/19 10:28
PCB-1016 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1016 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1221 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1221 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 15:32 Lab File ID: 57G2319A030.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1221 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1232 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1232 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1232 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1232 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1232 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1242 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1242 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1242 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1242 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1242 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 2		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 3		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 4		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1248 Peak 5		Baseline Smoothing	thaneerat w	07/24/19 10:27
PCB-1260 Peak 1		Baseline Smoothing	thaneerat w	07/24/19 10:27

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattl Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Analysis Batch Number: 306344

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/23/19 15:32 Lab File ID: 57G2319A030.D GC Column: ZB-CLPest-2 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 2		Baseline Smoothing	thaneeratw	07/24/19 10:27
PCB-1260 Peak 3		Baseline Smoothing	thaneeratw	07/24/19 10:27
PCB-1260 Peak 4		Baseline Smoothing	thaneeratw	07/24/19 10:27
PCB-1260 Peak 5		Baseline Smoothing	thaneeratw	07/24/19 10:27

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 296020

Lab Sample ID: IC 320-296020/3 Client Sample ID:

Date Analyzed: 05/21/19 13:31 Lab File ID: 21MY193D5_3.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDF	17.92	Poor chromatography	shardaa	05/21/19 17:52
2,3,7,8-TCDD	18.64	Poor chromatography	shardaa	05/21/19 17:52
13C-2,3,4,7,8-PeCDF	24.48	Peak assignment corrected	shardaa	05/21/19 17:48
13C-1,2,3,4,7,8-HxCDF	31.05	Peak assignment corrected	shardaa	05/21/19 17:49
13C-1,2,3,4,7,8-HxCDD	32.10	Peak assignment corrected	shardaa	05/21/19 17:49
13C-1,2,3,4,7,8,9-HpCDF	35.23	Peak assignment corrected	shardaa	05/21/19 17:49

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309103

Lab Sample ID: MB 320-308663/1-A Client Sample ID:

Date Analyzed: 07/21/19 19:56 Lab File ID: 19JL19A3D5_54.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,3,4,7,8-HxCDD	30.97	Split Peak	krongsing n	07/23/19 10:37
1,2,3,6,7,8-HxCDD	31.10	Split Peak	krongsing n	07/23/19 10:37

Lab Sample ID: 580-87706-1 Client Sample ID: 22T-SG-17_20190716

Date Analyzed: 07/21/19 22:18 Lab File ID: 19JL19A3D5_57.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.37	Split Peak	krongsing n	07/23/19 10:41
1,2,3,4,7,8-HxCDD	30.95	Split Peak	krongsing n	07/23/19 10:42
1,2,3,6,7,8-HxCDD	31.10	Split Peak	krongsing n	07/23/19 10:42

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309103

Lab Sample ID: 580-87706-2 Client Sample ID: 22T-SG-18_20190716

Date Analyzed: 07/21/19 23:06 Lab File ID: 19JL19A3D5_58.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.37	Split Peak	krongsing n	07/23/19 10:52
1,2,3,7,8-PeCDF	21.37	Split Peak	krongsing n	07/23/19 10:53
1,2,3,4,7,8-HxCDF	29.18	Split Peak	krongsing n	07/23/19 10:54
1,2,3,6,7,8-HxCDF	29.49	Split Peak	krongsing n	07/23/19 10:54
2,3,4,6,7,8-HxCDF	30.69	Split Peak	krongsing n	07/23/19 10:54
1,2,3,4,7,8-HxCDD	30.95	Split Peak	krongsing n	07/23/19 10:55
1,2,3,6,7,8-HxCDD	31.09	Split Peak	krongsing n	07/23/19 10:55
1,2,3,7,8,9-HxCDF	31.70	Split Peak	krongsing n	07/23/19 10:54

Lab Sample ID: 580-87706-3 Client Sample ID: 22T-SG-11_20190716

Date Analyzed: 07/21/19 23:53 Lab File ID: 19JL19A3D5_59.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.39	Split Peak	krongsing n	07/23/19 10:56
2,3,4,6,7,8-HxCDF	30.71	Split Peak	krongsing n	07/23/19 10:57
1,2,3,4,7,8-HxCDD	30.97	Split Peak	krongsing n	07/23/19 10:57
1,2,3,6,7,8-HxCDD	31.10	Split Peak	krongsing n	07/23/19 10:57

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309103

Lab Sample ID: 580-87706-4 Client Sample ID: 22T-SG-11-D_20190716

Date Analyzed: 07/22/19 00:41 Lab File ID: 19JL19A3D5_60.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.32	Split Peak	krongsing n	07/23/19 10:58
1,2,3,7,8,9-HxCDD	31.49	Split Peak	krongsing n	07/23/19 10:59

Lab Sample ID: 580-87706-5 Client Sample ID: 22T-SG-12_20190716

Date Analyzed: 07/22/19 01:28 Lab File ID: 19JL19A3D5_61.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.32	Split Peak	krongsing n	07/23/19 11:01
2,3,4,6,7,8-HxCDF	30.67	Split Peak	krongsing n	07/23/19 11:03

Lab Sample ID: 580-87706-6 Client Sample ID: 22T-SG-19_20190716

Date Analyzed: 07/22/19 02:16 Lab File ID: 19JL19A3D5_62.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.39	Split Peak	krongsing n	07/23/19 11:06
1,2,3,7,8-PeCDF	21.36	Split Peak	krongsing n	07/23/19 11:07
1,2,3,4,7,8-HxCDD	30.95	Split Peak	krongsing n	07/23/19 11:09
1,2,3,6,7,8-HxCDD	31.09	Split Peak	krongsing n	07/23/19 11:09
1,2,3,7,8,9-HxCDF	31.70	Split Peak	krongsing n	07/23/19 11:09

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309103

Lab Sample ID: 580-87706-7 Client Sample ID: 22T-SG-20_20190716

Date Analyzed: 07/22/19 03:03 Lab File ID: 19JL19A3D5_63.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD		Split Peak	krongsing n	07/23/19 11:10
2,3,4,6,7,8-HxCDF	30.69	Split Peak	krongsing n	07/23/19 11:11
1,2,3,4,7,8-HxCDD	30.95	Split Peak	krongsing n	07/23/19 11:12
1,2,3,6,7,8-HxCDD	31.10	Split Peak	krongsing n	07/23/19 11:12
1,2,3,7,8,9-HxCDF	31.70	Split Peak	krongsing n	07/23/19 11:12

Lab Sample ID: 580-87706-8 Client Sample ID: 22T-SG-15_20190716

Date Analyzed: 07/22/19 03:51 Lab File ID: 19JL19A3D5_64.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,4,6,7,8-HxCDF	30.70	Split Peak	krongsing n	07/23/19 11:14

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309104

Lab Sample ID: 580-87706-9 Client Sample ID: 22T-SG-14_20190716

Date Analyzed: 07/22/19 08:18 Lab File ID: 19JL19A3D5_69.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.31	Split Peak	krongsing n	07/23/19 12:08
2,3,4,6,7,8-HxCDF	30.67	Split Peak	krongsing n	07/23/19 12:09
1,2,3,4,7,8-HxCDD	30.93	Split Peak	krongsing n	07/23/19 12:10
1,2,3,6,7,8-HxCDD	31.07	Split Peak	krongsing n	07/23/19 12:10

Lab Sample ID: 580-87706-10 Client Sample ID: 22T-SG-13_20190716

Date Analyzed: 07/22/19 09:06 Lab File ID: 19JL19A3D5_70.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.31	Split Peak	krongsing n	07/23/19 12:12
1,2,3,4,7,8-HxCDD	30.94	Split Peak	krongsing n	07/23/19 12:14
1,2,3,6,7,8-HxCDD	31.07	Split Peak	krongsing n	07/23/19 12:14

Lab Sample ID: 580-87706-11 Client Sample ID: 22T-SG-22_20190716

Date Analyzed: 07/22/19 09:53 Lab File ID: 19JL19A3D5_71.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.32	Split Peak	krongsing n	07/23/19 12:16
1,2,3,4,7,8-HxCDD	30.95	Split Peak	krongsing n	07/23/19 12:17
1,2,3,6,7,8-HxCDD	31.07	Split Peak	krongsing n	07/23/19 12:17

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309104

Lab Sample ID: 580-87706-12 Client Sample ID: 22T-SG-23_20190716

Date Analyzed: 07/22/19 10:41 Lab File ID: 19JL19A3D5_72.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.36	Split Peak	krongsing n	07/23/19 12:19
2,3,4,6,7,8-HxCDF	30.66	Split Peak	krongsing n	07/23/19 12:20

Lab Sample ID: 580-87706-13 Client Sample ID: 22T-SG-10_20190716

Date Analyzed: 07/22/19 11:29 Lab File ID: 19JL19A3D5_73.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDD	17.36	Split Peak	krongsing n	07/23/19 12:22
2,3,4,6,7,8-HxCDF	30.66	Split Peak	krongsing n	07/23/19 12:24
1,2,3,7,8,9-HxCDD	31.47	Split Peak	krongsing n	07/23/19 12:25

Lab Sample ID: 580-87706-14 Client Sample ID: 22T-SG-21_20190716

Date Analyzed: 07/22/19 12:16 Lab File ID: 19JL19A3D5_74.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C-2,3,7,8-TCDD	17.54	Peak assignment corrected	shardaa	07/22/19 13:07
1,2,3,7,8-PeCDF	21.45	Split Peak	krongsing n	07/23/19 12:28
2,3,4,6,7,8-HxCDF	30.77	Baseline	krongsing n	07/23/19 12:32
1,2,3,4,7,8-HxCDD	31.01	Split Peak	krongsing n	07/23/19 12:33
1,2,3,6,7,8-HxCDD	31.14	Split Peak	krongsing n	07/23/19 12:33

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Analysis Batch Number: 309104

Lab Sample ID: 580-87706-15 Client Sample ID: 22T-SG-16_20190716

Date Analyzed: 07/22/19 13:04 Lab File ID: 19JL19A3D5_75.d GC Column: DB-5 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,3,7,8-PeCDF	21.36	Split Peak	krongsing n	07/23/19 12:36
1,2,3,4,7,8-HxCDD	30.94	Split Peak	krongsing n	07/23/19 12:39
1,2,3,6,7,8-HxCDD	31.09	Split Peak	krongsing n	07/23/19 12:38

DIOXIN MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Sacram Job No.: 580-87706-1

SDG No.:

Instrument ID: 4D2 Analysis Batch Number: 309356

Lab Sample ID: 580-87706-15 RA Client Sample ID: 22T-SG-16_20190716 RA

Date Analyzed: 07/22/19 16:36 Lab File ID: 22JL19A4D2_010.d GC Column: DB-225 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,3,7,8-TCDF	16.09	Split Peak	messecara	07/22/19 20:19

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
1248IC100_00015	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	48_ICSTK_00007	500 uL	PCB-1248 Peak 1	100 ug/L
							PCB-1248 Peak 2	100 ug/L
							PCB-1248 Peak 3	100 ug/L
							PCB-1248 Peak 4	100 ug/L
							PCB-1248 Peak 5	100 ug/L
.48_ICSTK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr1248P_00012	100 uL	PCB-1248 Peak 1	10000 ug/L
							PCB-1248 Peak 2	10000 ug/L
							PCB-1248 Peak 3	10000 ug/L
							PCB-1248 Peak 4	10000 ug/L
							PCB-1248 Peak 5	10000 ug/L
..Arclr1248P_00012	04/30/24		Restek, Lot A0134182		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
1248IC100_00015	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	48_ICSTK_00007	500 uL	PCB-1248	100 ug/L
.48_ICSTK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr1248P_00012	100 uL	PCB-1248	10000 ug/L
..Arclr1248P_00012	04/30/24		Restek, Lot A0134182		(Purchased Reagent)		PCB-1248	1000 ug/mL
1248ICV100_00009	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	1248ICVStk_00007	100 uL	PCB-1248	100 ug/L
							PCB-1248 Peak 1	100 ug/L
							PCB-1248 Peak 2	100 ug/L
							PCB-1248 Peak 3	100 ug/L
							PCB-1248 Peak 4	100 ug/L
							PCB-1248 Peak 5	100 ug/L
.1248ICVStk_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr1248S_00015	100 uL	PCB-1248	10000 ug/L
							PCB-1248 Peak 1	10000 ug/L
							PCB-1248 Peak 2	10000 ug/L
							PCB-1248 Peak 3	10000 ug/L
							PCB-1248 Peak 4	10000 ug/L
							PCB-1248 Peak 5	10000 ug/L
..Arclr1248S_00015	04/30/23		Restek, Lot A0124143		(Purchased Reagent)		PCB-1248	1000 ug/mL
							PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
1660_ICSTK_00025	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	1660restek_P_00006	100 uL	PCB-1016 Peak 1	10000 ug/L
							PCB-1016 Peak 2	10000 ug/L
							PCB-1016 Peak 3	10000 ug/L
							PCB-1016 Peak 4	10000 ug/L
							PCB-1016 Peak 5	10000 ug/L
							PCB-1260 Peak 1	10000 ug/L
							PCB-1260 Peak 2	10000 ug/L
							PCB-1260 Peak 3	10000 ug/L
							PCB-1260 Peak 4	10000 ug/L
							PCB-1260 Peak 5	10000 ug/L
					81/82_SurrSTK_00002	50 uL	DCB Decachlorobiphenyl	1001 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloro-m-xylene	1001.5 ug/L
.1660restek_P_00006	10/31/24		restek, Lot A0139779		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.81/82_SurrSTK_00002	06/30/24		Restek, Lot A0136320		(Purchased Reagent)		DCB Decachlorobiphenyl	200.2 ug/mL
							Tetrachloro-m-xylene	200.3 ug/mL
1660IC0100_00013	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	1660_ICSTK_00025	500 uL	PCB-1016 Peak 1	100 ug/L
							PCB-1016 Peak 2	100 ug/L
							PCB-1016 Peak 3	100 ug/L
							PCB-1016 Peak 4	100 ug/L
							PCB-1016 Peak 5	100 ug/L
							PCB-1260 Peak 1	100 ug/L
							PCB-1260 Peak 2	100 ug/L
							PCB-1260 Peak 3	100 ug/L
							PCB-1260 Peak 4	100 ug/L
							PCB-1260 Peak 5	100 ug/L
							DCB Decachlorobiphenyl	10.01 ug/L
							Tetrachloro-m-xylene	10.015 ug/L
.1660_ICSTK_00025	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	1660restek_P_00006	100 uL	PCB-1016 Peak 1	10000 ug/L
							PCB-1016 Peak 2	10000 ug/L
							PCB-1016 Peak 3	10000 ug/L
							PCB-1016 Peak 4	10000 ug/L
							PCB-1016 Peak 5	10000 ug/L
							PCB-1260 Peak 1	10000 ug/L
							PCB-1260 Peak 2	10000 ug/L
							PCB-1260 Peak 3	10000 ug/L
							PCB-1260 Peak 4	10000 ug/L
							PCB-1260 Peak 5	10000 ug/L
					81/82_SurrSTK_00002	50 uL	DCB Decachlorobiphenyl	1001 ug/L
							Tetrachloro-m-xylene	1001.5 ug/L
..1660restek_P_00006	10/31/24		restek, Lot A0139779		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..81/82_SurrSTK_00002	06/30/24		Restek, Lot A0136320		(Purchased Reagent)		DCB Decachlorobiphenyl	200.2 ug/mL
							Tetrachloro-m-xylene	200.3 ug/mL
1660IC0100_00013	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	1660_ICSTK_00025	500 uL	PCB-1016	100 ug/L
							PCB-1260	100 ug/L
.1660_ICSTK_00025	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	1660restek_P_00006	100 uL	PCB-1016	10000 ug/L
							PCB-1260	10000 ug/L
..1660restek_P_00006	10/31/24		restek, Lot A0139779		(Purchased Reagent)		PCB-1016	1000 ug/mL
							PCB-1260	1000 ug/mL
1660ICV100_00024	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	1660ICVStk_00015	100 uL	PCB-1016	100 ug/L
							PCB-1016 Peak 1	100 ug/L
							PCB-1016 Peak 2	100 ug/L
							PCB-1016 Peak 3	100 ug/L
							PCB-1016 Peak 4	100 ug/L
							PCB-1016 Peak 5	100 ug/L
							PCB-1260	100 ug/L
							PCB-1260 Peak 1	100 ug/L
							PCB-1260 Peak 2	100 ug/L
							PCB-1260 Peak 3	100 ug/L
							PCB-1260 Peak 4	100 ug/L
							PCB-1260 Peak 5	100 ug/L
							DCB Decachlorobiphenyl	10.01 ug/L
							Tetrachloro-m-xylene	10.015 ug/L
.1660ICVStk_00015	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	1660restek_S_00008	100 uL	PCB-1016	10000 ug/L
							PCB-1016 Peak 1	10000 ug/L
							PCB-1016 Peak 2	10000 ug/L
							PCB-1016 Peak 3	10000 ug/L
							PCB-1016 Peak 4	10000 ug/L
							PCB-1016 Peak 5	10000 ug/L
							PCB-1260	10000 ug/L
							PCB-1260 Peak 1	10000 ug/L
							PCB-1260 Peak 2	10000 ug/L
							PCB-1260 Peak 3	10000 ug/L
							PCB-1260 Peak 4	10000 ug/L
							PCB-1260 Peak 5	10000 ug/L
					81/82_SurrSTK_00002	50 uL	DCB Decachlorobiphenyl	1001 ug/L
							Tetrachloro-m-xylene	1001.5 ug/L
..1660restek_S_00008	03/31/24		restek, Lot A0133256		(Purchased Reagent)		PCB-1016	1000 ug/mL
							PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 5	1000 ug/mL
..81/82_SurrSTK_00002	06/30/24		Restek, Lot A0136320		(Purchased Reagent)		DCB Decachlorobiphenyl	200.2 ug/mL
							Tetrachloro-m-xylene	200.3 ug/mL
2154_ICSTK_00022	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr2154P_00001	100 uL	PCB-1221 Peak 1	10000 ug/L
							PCB-1221 Peak 2	10000 ug/L
							PCB-1221 Peak 3	10000 ug/L
							PCB-1254 Peak 1	10000 ug/L
							PCB-1254 Peak 2	10000 ug/L
							PCB-1254 Peak 3	10000 ug/L
							PCB-1254 Peak 4	10000 ug/L
							PCB-1254 Peak 5	10000 ug/L
.Arclr2154P_00001	01/31/24		RESTEK, Lot A0131802		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
2154IC0100_00014	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	2154_ICSTK_00022	500 uL	PCB-1221 Peak 1	100 ug/L
							PCB-1221 Peak 2	100 ug/L
							PCB-1221 Peak 3	100 ug/L
							PCB-1254 Peak 1	100 ug/L
							PCB-1254 Peak 2	100 ug/L
							PCB-1254 Peak 3	100 ug/L
							PCB-1254 Peak 4	100 ug/L
							PCB-1254 Peak 5	100 ug/L
.2154_ICSTK_00022	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr2154P_00001	100 uL	PCB-1221 Peak 1	10000 ug/L
							PCB-1221 Peak 2	10000 ug/L
							PCB-1221 Peak 3	10000 ug/L
							PCB-1254 Peak 1	10000 ug/L
							PCB-1254 Peak 2	10000 ug/L
							PCB-1254 Peak 3	10000 ug/L
							PCB-1254 Peak 4	10000 ug/L
							PCB-1254 Peak 5	10000 ug/L
..Arclr2154P_00001	01/31/24		RESTEK, Lot A0131802		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
2154IC0100_00014	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	2154_ICSTK_00022	500 uL	PCB-1221	100 ug/L
							PCB-1254	100 ug/L
.2154_ICSTK_00022	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr2154P_00001	100 uL	PCB-1221	10000 ug/L
							PCB-1254	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..Arclr2154P_00001	01/31/24		RESTEK, Lot A0131802		(Purchased Reagent)		PCB-1221	1000 ug/mL
							PCB-1254	1000 ug/mL
2154ICV100_00023	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	2154ICVStk_00015	100 uL	PCB-1221	100 ug/L
							PCB-1221 Peak 1	100 ug/L
							PCB-1221 Peak 2	100 ug/L
							PCB-1221 Peak 3	100 ug/L
							PCB-1254	100 ug/L
							PCB-1254 Peak 1	100 ug/L
							PCB-1254 Peak 2	100 ug/L
							PCB-1254 Peak 3	100 ug/L
							PCB-1254 Peak 4	100 ug/L
							PCB-1254 Peak 5	100 ug/L
.2154ICVStk_00015	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr2154S_00001	100 uL	PCB-1221	10000 ug/L
							PCB-1221 Peak 1	10000 ug/L
							PCB-1221 Peak 2	10000 ug/L
							PCB-1221 Peak 3	10000 ug/L
							PCB-1254	10000 ug/L
							PCB-1254 Peak 1	10000 ug/L
							PCB-1254 Peak 2	10000 ug/L
							PCB-1254 Peak 3	10000 ug/L
							PCB-1254 Peak 4	10000 ug/L
							PCB-1254 Peak 5	10000 ug/L
..Arclr2154S_00001	01/31/24		RESTEK, Lot A0131779		(Purchased Reagent)		PCB-1221	1000 ug/mL
							PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
3262_IC_STOCK_00008	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr3262P_00001	100 uL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
							PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
.Arclr3262P_00001	01/31/24		RESTEK, Lot A0132023		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
3262IC0100_00011	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	3262_IC_STOCK_00008	500 uL	PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
							PCB-1262 Peak 1	100 ug/L
							PCB-1262 Peak 2	100 ug/L
							PCB-1262 Peak 3	100 ug/L
							PCB-1262 Peak 4	100 ug/L
							PCB-1262 Peak 5	100 ug/L
.3262_IC_STOCK_00008	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr3262P_00001	100 uL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
							PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..Arclr3262P_00001	01/31/24		RESTEK, Lot A0132023		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
3262IC0100_00011	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	3262_IC_STOCK_00008	500 uL	PCB-1232	100 ug/L
.3262_IC_STOCK_00008	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr3262P_00001	100 uL	PCB-1232	10000 ug/L
..Arclr3262P_00001	01/31/24		RESTEK, Lot A0132023		(Purchased Reagent)		PCB-1232	1000 ug/mL
3262ICV100_00018	12/04/19	09/17/18	Hexane, Lot 196294	10 mL	3262ICV_STOCK_00007	100 uL	PCB-1232	100 ug/L
							PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
.3262ICV_STOCK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr3262S_00002	100 uL	PCB-1232	10000 ug/L
							PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
..Arclr3262S_00002	05/31/24		RESTEK, Lot A0134307		(Purchased Reagent)		PCB-1232	1000 ug/mL
							PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
4268_ICSTK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr4268P_00001	100 uL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
.Arclr4268P_00001	03/31/24		Restek, Lot A0133093		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
4268IC0100_00011	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	4268_ICSTK_00007	500 uL	PCB-1242 Peak 1	100 ug/L
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
.4268_ICSTK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr4268P_00001	100 uL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..Arclr4268P_00001	03/31/24		Restek, Lot A0133093		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
4268IC0100_00011	12/04/19	12/04/18	Hexane, Lot 196294	50 mL	4268_ICSTK_00007	500 uL	PCB-1242	100 ug/L
.4268_ICSTK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr4268P_00001	100 uL	PCB-1242	10000 ug/L
..Arclr4268P_00001	03/31/24		Restek, Lot A0133093		(Purchased Reagent)		PCB-1242	1000 ug/mL
4268ICV100_00009	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	4268ICVStk_00007	100 uL	PCB-1242 Peak 1	100 ug/L
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
.4268ICVStk_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr4268S_00003	100 uL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..Arclr4268S_00003	05/31/24		RESTEK, Lot A0135206		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
4268ICV100_00009	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	4268ICVStk_00007	100 uL	PCB-1242	100 ug/L
.4268ICVStk_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr4268S_00003	100 uL	PCB-1242	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..Arclr4268S_00003	05/31/24		RESTEK, Lot A0135206		(Purchased Reagent)		PCB-1242	1000 ug/mL
48_ICSTK_00007	12/04/19	12/04/18	Hexane, Lot 196294	10 mL	Arclr1248P_00012	100 uL	PCB-1248 Peak 1	10000 ug/L
							PCB-1248 Peak 2	10000 ug/L
							PCB-1248 Peak 3	10000 ug/L
							PCB-1248 Peak 4	10000 ug/L
							PCB-1248 Peak 5	10000 ug/L
.Arclr1248P_00012	04/30/24		Restek, Lot A0134182		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
8081PEMstd_00023	08/31/19	05/02/19	hexanes, Lot 203465	100 mL	8081PEM_SEC_00001	100 uL	4,4'-DDT	202 ug/L
							Endrin	100.9 ug/L
.8081PEM_SEC_00001	08/31/19		Restek, Lot A0115756		(Purchased Reagent)		4,4'-DDT	202 ug/mL
							Endrin	100.9 ug/mL
8182_CCB_IS_00017	09/20/19	03/21/19	Hexane, Lot 196294	100 mL	8182_ISTD_ULT_00013	1 mL	1-Bromo-2-nitrobenzene	100 ug/L
.8182_ISTD_ULT_00013	02/07/20	02/07/19	Hexane, Lot 203465	100 mL	8182_ISTD_STK_00003	1 mL	1-Bromo-2-nitrobenzene	10000 ug/L
..8182_ISTD_STK_00003	12/31/20		Restek, Lot 643872		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
8182_CCB_IS_00017	09/20/19	03/21/19	Hexane, Lot 196294	100 mL	Pest/PCB Surr_00072	1 mL	DCB Decachlorobiphenyl	20.06 ug/L
							Tetrachloro-m-xylene	20.14 ug/L
.Pest/PCB Surr_00072	02/01/20	02/01/19	Acetone, Lot 179319	100 mL	81/82_SurrSTK_00003	1 mL	DCB Decachlorobiphenyl	2.006 mg/L
							Tetrachloro-m-xylene	2.014 mg/L
..81/82_SurrSTK_00003	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200.6 ug/mL
							Tetrachloro-m-xylene	201.4 ug/mL
8182_ISTD_ULT_00012	11/15/19	11/15/18	Hexane, Lot 196294	100 mL	8182_ISTD_STK_00003	1 mL	1-Bromo-2-nitrobenzene	10000 ug/L
.8182_ISTD_STK_00003	12/31/20		Restek, Lot 643872		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
8182_ISTD_ULT_00013	02/07/20	02/07/19	Hexane, Lot 203465	100 mL	8182_ISTD_STK_00003	1 mL	1-Bromo-2-nitrobenzene	10000 ug/L
.8182_ISTD_STK_00003	12/31/20		Restek, Lot 643872		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
8270flspk_00252	05/31/20	07/10/19	Acetone/DCM, Lot 225409/DCMct161	50 mL	8270Mega_1stk_00011	1 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzofluoranthene	40 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Diphenylamine	17 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	40 ug/mL
					8270S#10_1stk_00011	1 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					8270S#11_1stk_00005	1 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
					8270S#9_1stk_00010	1 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.8270Mega_1stk_00011	09/30/20		Restek, Lot A0147571		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzofluoranthene	2000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.8270S#10_1stk_00011	08/31/20		Restek, Lot A0145854		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.8270S#11_1stk_00005	05/31/20		Restek, Lot A0143627		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
.8270S#9_1stk_00010	05/31/20		Restek, Lot A0143498		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
8270SIM_IS_00060	01/04/20	05/02/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
.8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
8270Surr_Phen_00011	08/31/23		Phenova, Lot CL13005		(Purchased Reagent)		1,4-Dioxane-d8	500 ug/mL
							2,4,6-Tribromophenol	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Nitrobenzene-d5	100 ug/mL
							Phenol-d5	100 ug/mL
							Terphenyl-d14	100 ug/mL
CaCO3_00004_00007	08/17/20		LECO, Lot 1040		(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
CaCO3_00008	09/30/21		ACROS, Lot A0311356		(Purchased Reagent)		TOC Result 1	120000 mg/Kg
							Total Organic Carbon - Duplicates	120000 mg/Kg
ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
..8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
.8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
..8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
ccv_SIM_500_00071	01/04/20	07/09/19	DCM, Lot MeCl2_CT_00159	10 mL	8270SIM_IS_00060	100 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270SIM_IS_00060	01/04/20	05/02/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
..8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
ccv_SIM_500_00071	01/04/20	07/09/19	DCM, Lot MeCl2_CT_00159	10 mL	8270_ic_stk_00048	50 uL	1-Methylnaphthalene	500 ug/L
							2-Methylnaphthalene	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	500 ug/L
							Acenaphthylene	500 ug/L
							Anthracene	500 ug/L
							Benzo[a]anthracene	500 ug/L
							Benzo[a]pyrene	500 ug/L
							Benzo[b]fluoranthene	500 ug/L
							Benzo[g,h,i]perylene	500 ug/L
							Benzo[k]fluoranthene	500 ug/L
							Chrysene	500 ug/L
							Dibenz(a,h)anthracene	500 ug/L
							Fluoranthene	500 ug/L
							Fluorene	500 ug/L
							Indeno[1,2,3-cd]pyrene	500 ug/L
							Naphthalene	500 ug/L
							Phenanthrene	500 ug/L
							Pyrene	500 ug/L
							Terphenyl-d14	500 ug/L
.8270_ic_stk_00048	05/31/20	06/03/19	DCM, Lot DCM CT#158	10 mL	8270Mega_1stk_00011	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	Terphenyl-d14	100 ug/mL
..8270Mega_1stk_00011	09/30/20	Restek, Lot A0147571			(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		Terphenyl-d14	5000 ug/mL
DFTPPx2_00022							4,4'-DDD	
							4,4'-DDE	
							Tentatively Identified Compound	
							TPAH	
					DFTPPSTK_00011	250 uL	4,4'-DDT	12.5 ug/mL
							Benzidine_T	12.5 ug/mL
							DFTPP	12.5 ug/mL
							Pentachlorophenol_T	12.5 ug/mL
.DFTPPSTK_00011	09/30/21		Restek, Lot A0141339		(Purchased Reagent)		4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
DFTPPx2_00035							4,4'-DDD	
							4,4'-DDE	
							Tentatively Identified Compound	
							TPAH	
					DFTPPSTK_00012	125 uL	4,4'-DDT	12.5 ug/mL
							Benzidine_T	12.5 ug/mL
							DFTPP	12.5 ug/mL
							Pentachlorophenol_T	12.5 ug/mL
.DFTPPSTK_00012	12/31/21		Restek, Lot A0144160		(Purchased Reagent)		4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
EXTOCP_IC400_00008	08/06/19	02/06/19	hexane, Lot 203465	25 mL	EXTOCP-IC_STK_00027	5 mL	cis-Nonachlor	400 ug/L
							Mirex	400 ug/L
							trans-Nonachlor	400 ug/L
							2,4'-DDD	400 ug/L
							2,4'-DDE	400 ug/L
							2,4'-DDT	400 ug/L
							oxy-Chlordane	400 ug/L
.EXTOCP-IC_STK_00027	02/06/20	02/06/19	Hexane, Lot 203465	25 mL	8081CISNONPRI_00009	50 uL	cis-Nonachlor	2000 ug/L
					8081MIREX_00016	25 uL	Mirex	2000 ug/L
					8081TRANONPRI_00007	50 uL	trans-Nonachlor	2000 ug/L
					opDDE_DDD_DDT_00007	50 uL	2,4'-DDD	2000 ug/L
							2,4'-DDE	2000 ug/L
							2,4'-DDT	2000 ug/L
					OXYCHL_SPEX_00002	50 uL	oxy-Chlordane	2000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..8081CISNONPRI_00009	11/01/20		Spex, Lot E171102023		(Purchased Reagent)		cis-Nonachlor	1000 ug/mL
..8081MIREX_00016	07/31/21		Restek, Lot A0145272		(Purchased Reagent)		Mirex	2000 ug/mL
..8081TRANONPRI_00007	08/26/21		SPEX, Lot GS180827008		(Purchased Reagent)		trans-Nonachlor	1000 ug/mL
..opDDE_DDD_DDT_00007	07/04/21		O2Si, Lot 365254		(Purchased Reagent)		2,4'-DDD	1000 mg/L
							2,4'-DDE	1000 mg/L
							2,4'-DDT	1000 mg/L
..OXYCHL_SPEX_00002	01/13/22		SPEX, Lot EN1810080220		(Purchased Reagent)		oxy-Chlordane	1000 ug/mL
EXTOCP_IC50_00014	08/06/19	02/06/19	hexane, Lot 203465	50 mL	EXTOCP-IC_STK_00027	1250 uL	cis-Nonachlor	50 ug/L
							Mirex	50 ug/L
							trans-Nonachlor	50 ug/L
							2,4'-DDD	50 ug/L
							2,4'-DDE	50 ug/L
							2,4'-DDT	50 ug/L
							oxy-Chlordane	50 ug/L
.EXTOCP-IC_STK_00027	02/06/20	02/06/19	Hexane, Lot 203465	25 mL	8081CISNONPRI_00009	50 uL	cis-Nonachlor	2000 ug/L
					8081MIREX_00016	25 uL	Mirex	2000 ug/L
					8081TRANONPRI_00007	50 uL	trans-Nonachlor	2000 ug/L
					opDDE_DDD_DDT_00007	50 uL	2,4'-DDD	2000 ug/L
							2,4'-DDE	2000 ug/L
							2,4'-DDT	2000 ug/L
					OXYCHL_SPEX_00002	50 uL	oxy-Chlordane	2000 ug/L
..8081CISNONPRI_00009	11/01/20		Spex, Lot E171102023		(Purchased Reagent)		cis-Nonachlor	1000 ug/mL
..8081MIREX_00016	07/31/21		Restek, Lot A0145272		(Purchased Reagent)		Mirex	2000 ug/mL
..8081TRANONPRI_00007	08/26/21		SPEX, Lot GS180827008		(Purchased Reagent)		trans-Nonachlor	1000 ug/mL
..opDDE_DDD_DDT_00007	07/04/21		O2Si, Lot 365254		(Purchased Reagent)		2,4'-DDD	1000 mg/L
							2,4'-DDE	1000 mg/L
							2,4'-DDT	1000 mg/L
..OXYCHL_SPEX_00002	01/13/22		SPEX, Lot EN1810080220		(Purchased Reagent)		oxy-Chlordane	1000 ug/mL
EXTOCP_IC50_00017	01/08/20	07/08/19	hexane, Lot 203465	50 mL	EXTOCP-IC_STK_00027	1250 uL	2,4'-DDD	50 ug/L
							2,4'-DDE	50 ug/L
							2,4'-DDT	50 ug/L
.EXTOCP-IC_STK_00027	02/06/20	02/06/19	Hexane, Lot 203465	25 mL	opDDE_DDD_DDT_00007	50 uL	2,4'-DDD	2000 ug/L
							2,4'-DDE	2000 ug/L
							2,4'-DDT	2000 ug/L
..opDDE_DDD_DDT_00007	07/04/21		O2Si, Lot 365254		(Purchased Reagent)		2,4'-DDD	1000 mg/L
							2,4'-DDE	1000 mg/L
							2,4'-DDT	1000 mg/L
EXTOCP_ICV_00026	08/06/19	02/06/19	HEXANES, Lot 203465	10 mL	EXTOCP_ICVSTK_00021	250 uL	2,4'-DDD	50 ug/L
							2,4'-DDE	50 ug/L
							2,4'-DDT	50 ug/L
.EXTOCP_ICVSTK_00021	02/06/20	02/06/19	Hexane, Lot 203465	25 mL	opExt_DDX_ss_00001	50 uL	2,4'-DDD	2000 ug/L
							2,4'-DDE	2000 ug/L
							2,4'-DDT	2000 ug/L
..opExt_DDX_ss_00001	07/04/21		O2Si, Lot 365255		(Purchased Reagent)		2,4'-DDD	1000 mg/L
							2,4'-DDE	1000 mg/L
							2,4'-DDT	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
IC_8270IS_1_00004	05/31/19	01/10/19	DCM, Lot MeCl2 CT#147	10 mL	8270_icb100is_00018	9.99 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	10 uL	1-Methylnaphthalene	1 ug/L
							2-Methylnaphthalene	1 ug/L
							Acenaphthene	1 ug/L
							Acenaphthylene	1 ug/L
							Anthracene	1 ug/L
							Benzo[a]anthracene	1 ug/L
							Benzo[a]pyrene	1 ug/L
							Benzo[b]fluoranthene	1 ug/L
							Benzo[g,h,i]perylene	1 ug/L
							Benzo[k]fluoranthene	1 ug/L
							Chrysene	1 ug/L
							Dibenz(a,h)anthracene	1 ug/L
							Fluoranthene	1 ug/L
							Fluorene	1 ug/L
							Indeno[1,2,3-cd]pyrene	1 ug/L
							Naphthalene	1 ug/L
							Pentachlorophenol	2 ug/L
							Phenanthrene	1 ug/L
							Pyrene	1 ug/L
							2,4,6-Tribromophenol	1 ug/L
							2-methylnaphthalene-d10	1 ug/L
							Fluoranthene-d10 (Surr)	1 ug/L
							Terphenyl-d14	1 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22	Restek, Lot A0129635			(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_10_00020	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_icb100is_00018	9.9 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	100 uL	1-Methylnaphthalene	10 ug/L
							2-Methylnaphthalene	10 ug/L
							Acenaphthene	10 ug/L
							Acenaphthylene	10 ug/L
							Anthracene	10 ug/L
							Benzo[a]anthracene	10 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	10 ug/L
							Benzo[b]fluoranthene	10 ug/L
							Benzo[g,h,i]perylene	10 ug/L
							Benzo[k]fluoranthene	10 ug/L
							Chrysene	10 ug/L
							Dibenz(a,h)anthracene	10 ug/L
							Fluoranthene	10 ug/L
							Fluorene	10 ug/L
							Indeno[1,2,3-cd]pyrene	10 ug/L
							Naphthalene	10 ug/L
							Pentachlorophenol	20 ug/L
							Phenanthrene	10 ug/L
							Pyrene	10 ug/L
							2,4,6-Tribromophenol	10 ug/L
							2-methylnaphthalene-d10	10 ug/L
							Fluoranthene-d10 (Surr)	10 ug/L
							Terphenyl-d14	10 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22	Restek, Lot A0129635			(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_100_00033	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_icb100is_00018	9 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	1 mL	1-Methylnaphthalene	100 ug/L
							2-Methylnaphthalene	100 ug/L
							Acenaphthene	100 ug/L
							Acenaphthylene	100 ug/L
							Anthracene	100 ug/L
							Benzo[a]anthracene	100 ug/L
							Benzo[a]pyrene	100 ug/L
							Benzo[b]fluoranthene	100 ug/L
							Benzo[g,h,i]perylene	100 ug/L
							Benzo[k]fluoranthene	100 ug/L
							Chrysene	100 ug/L
							Dibenz(a,h)anthracene	100 ug/L
							Fluoranthene	100 ug/L
							Fluorene	100 ug/L
							Indeno[1,2,3-cd]pyrene	100 ug/L
							Naphthalene	100 ug/L
							Pentachlorophenol	200 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene	100 ug/L
							Pyrene	100 ug/L
							2,4,6-Tribromophenol	100 ug/L
							2-methylnaphthalene-d10	100 ug/L
							Fluoranthene-d10 (Surr)	100 ug/L
							Terphenyl-d14	100 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22	Restek, Lot A0129635			(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19	Restek, Lot A0136052			(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_10k_00021	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00143	10 mL	8270_ic_stk_00043	1 mL	1-Methylnaphthalene	10000 ug/L
							2-Methylnaphthalene	10000 ug/L
							Acenaphthene	10000 ug/L
							Acenaphthylene	10000 ug/L
							Anthracene	10000 ug/L
							Benzo[a]anthracene	10000 ug/L
							Benzo[a]pyrene	10000 ug/L
							Benzo[b]fluoranthene	10000 ug/L
							Benzo[g,h,i]perylene	10000 ug/L
							Benzo[k]fluoranthene	10000 ug/L
							Chrysene	10000 ug/L
							Dibenz(a,h)anthracene	10000 ug/L
							Fluoranthene	10000 ug/L
							Fluorene	10000 ug/L
							Indeno[1,2,3-cd]pyrene	10000 ug/L
							Naphthalene	10000 ug/L
							Pentachlorophenol	20000 ug/L
							Phenanthrene	10000 ug/L
							Pyrene	10000 ug/L
							2,4,6-Tribromophenol	10000 ug/L
							2-methylnaphthalene-d10	10000 ug/L
							Fluoranthene-d10 (Surr)	10000 ug/L
							Terphenyl-d14	10000 ug/L
					8270SIM_IS_00059	100 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
..8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
.8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
..8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_2_00003	05/31/19	01/10/19	DCM, Lot MeCl2 CT#147	10 mL	8270_icb100is_00018	9.98 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	20 uL	1-Methylnaphthalene	2 ug/L
							2-Methylnaphthalene	2 ug/L
							Acenaphthene	2 ug/L
							Acenaphthylene	2 ug/L
							Anthracene	2 ug/L
							Benzo[a]anthracene	2 ug/L
							Benzo[a]pyrene	2 ug/L
							Benzo[b]fluoranthene	2 ug/L
							Benzo[g,h,i]perylene	2 ug/L
							Benzo[k]fluoranthene	2 ug/L
							Chrysene	2 ug/L
							Dibenz(a,h)anthracene	2 ug/L
							Fluoranthene	2 ug/L
							Fluorene	2 ug/L
							Indeno[1,2,3-cd]pyrene	2 ug/L
							Naphthalene	2 ug/L
							Pentachlorophenol	4 ug/L
							Phenanthrene	2 ug/L
							Pyrene	2 ug/L
							2,4,6-Tribromophenol	2 ug/L
							2-methylnaphthalene-d10	2 ug/L
							Fluoranthene-d10 (Surr)	2 ug/L
							Terphenyl-d14	2 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22	Restek, Lot A0129635			(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_20_00032	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_icb100is_00018	9.8 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	200 uL	1-Methylnaphthalene	20 ug/L
							2-Methylnaphthalene	20 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	20 ug/L
							Acenaphthylene	20 ug/L
							Anthracene	20 ug/L
							Benzo[a]anthracene	20 ug/L
							Benzo[a]pyrene	20 ug/L
							Benzo[b]fluoranthene	20 ug/L
							Benzo[g,h,i]perylene	20 ug/L
							Benzo[k]fluoranthene	20 ug/L
							Chrysene	20 ug/L
							Dibenz(a,h)anthracene	20 ug/L
							Fluoranthene	20 ug/L
							Fluorene	20 ug/L
							Indeno[1,2,3-cd]pyrene	20 ug/L
							Naphthalene	20 ug/L
							Pentachlorophenol	40 ug/L
							Phenanthrene	20 ug/L
							Pyrene	20 ug/L
							2,4,6-Tribromophenol	20 ug/L
							2-methylnaphthalene-d10	20 ug/L
							Fluoranthene-d10 (Surr)	20 ug/L
							Terphenyl-d14	20 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22	Restek, Lot A0129635			(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_200_00031	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_icb100is_00018	8 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	2 mL	1-Methylnaphthalene	200 ug/L
							2-Methylnaphthalene	200 ug/L
							Acenaphthene	200 ug/L
							Acenaphthylene	200 ug/L
							Anthracene	200 ug/L
							Benzo[a]anthracene	200 ug/L
							Benzo[a]pyrene	200 ug/L
							Benzo[b]fluoranthene	200 ug/L
							Benzo[g,h,i]perylene	200 ug/L
							Benzo[k]fluoranthene	200 ug/L
							Chrysene	200 ug/L
							Dibenz(a,h)anthracene	200 ug/L
							Fluoranthene	200 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	200 ug/L
							Indeno[1,2,3-cd]pyrene	200 ug/L
							Naphthalene	200 ug/L
							Pentachlorophenol	400 ug/L
							Phenanthrene	200 ug/L
							Pyrene	200 ug/L
							2,4,6-Tribromophenol	200 ug/L
							2-methylnaphthalene-d10	200 ug/L
							Fluoranthene-d10 (Surr)	200 ug/L
							Terphenyl-d14	200 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_2k_00031	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_ic_stk_00043	0.2 mL	1-Methylnaphthalene	2000 ug/L
							2-Methylnaphthalene	2000 ug/L
							Acenaphthene	2000 ug/L
							Acenaphthylene	2000 ug/L
							Anthracene	2000 ug/L
							Benzo[a]anthracene	2000 ug/L
							Benzo[a]pyrene	2000 ug/L
							Benzo[b]fluoranthene	2000 ug/L
							Benzo[g,h,i]perylene	2000 ug/L
							Benzo[k]fluoranthene	2000 ug/L
							Chrysene	2000 ug/L
							Dibenz(a,h)anthracene	2000 ug/L
							Fluoranthene	2000 ug/L
							Fluorene	2000 ug/L
							Indeno[1,2,3-cd]pyrene	2000 ug/L
							Naphthalene	2000 ug/L
							Pentachlorophenol	4000 ug/L
							Phenanthrene	2000 ug/L
							Pyrene	2000 ug/L
							2,4,6-Tribromophenol	2000 ug/L
							2-methylnaphthalene-d10	2000 ug/L
							Fluoranthene-d10 (Surr)	2000 ug/L
							Terphenyl-d14	2000 ug/L
					8270SIM_IS_00059	100 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
..8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
.8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
..8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_5_00003	05/31/19	01/10/19	DCM, Lot MeCl2 CT#147	10 mL	8270_icb100is_00018	9.95 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	50 uL	1-Methylnaphthalene	5 ug/L
							2-Methylnaphthalene	5 ug/L
							Acenaphthene	5 ug/L
							Acenaphthylene	5 ug/L
							Anthracene	5 ug/L
							Benzo[a]anthracene	5 ug/L
							Benzo[a]pyrene	5 ug/L
							Benzo[b]fluoranthene	5 ug/L
							Benzo[g,h,i]perylene	5 ug/L
							Benzo[k]fluoranthene	5 ug/L
							Chrysene	5 ug/L
							Dibenz(a,h)anthracene	5 ug/L
							Fluoranthene	5 ug/L
							Fluorene	5 ug/L
							Indeno[1,2,3-cd]pyrene	5 ug/L
							Naphthalene	5 ug/L
							Pentachlorophenol	10 ug/L
							Phenanthrene	5 ug/L
							Pyrene	5 ug/L
							2,4,6-Tribromophenol	5 ug/L
							2-methylnaphthalene-d10	5 ug/L
							Fluoranthene-d10 (Surr)	5 ug/L
							Terphenyl-d14	5 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_50_00032	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_icb100is_00018	9.5 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	500 uL	1-Methylnaphthalene	50 ug/L
							2-Methylnaphthalene	50 ug/L
							Acenaphthene	50 ug/L
							Acenaphthylene	50 ug/L
							Anthracene	50 ug/L
							Benzo[a]anthracene	50 ug/L
							Benzo[a]pyrene	50 ug/L
							Benzo[b]fluoranthene	50 ug/L
							Benzo[g,h,i]perylene	50 ug/L
							Benzo[k]fluoranthene	50 ug/L
							Chrysene	50 ug/L
							Dibenz(a,h)anthracene	50 ug/L
							Fluoranthene	50 ug/L
							Fluorene	50 ug/L
							Indeno[1,2,3-cd]pyrene	50 ug/L
							Naphthalene	50 ug/L
							Pentachlorophenol	100 ug/L
							Phenanthrene	50 ug/L
							Pyrene	50 ug/L
							2,4,6-Tribromophenol	50 ug/L
							2-methylnaphthalene-d10	50 ug/L
							Fluoranthene-d10 (Surr)	50 ug/L
							Terphenyl-d14	50 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_500_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_icb100is_00018	5 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
					ccv_8270_1000_00034	5 mL	1-Methylnaphthalene	500 ug/L
							2-Methylnaphthalene	500 ug/L
							Acenaphthene	500 ug/L
							Acenaphthylene	500 ug/L
							Anthracene	500 ug/L
							Benzo[a]anthracene	500 ug/L
							Benzo[a]pyrene	500 ug/L
							Benzo[b]fluoranthene	500 ug/L
							Benzo[g,h,i]perylene	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	500 ug/L
							Chrysene	500 ug/L
							Dibenz(a,h)anthracene	500 ug/L
							Fluoranthene	500 ug/L
							Fluorene	500 ug/L
							Indeno[1,2,3-cd]pyrene	500 ug/L
							Naphthalene	500 ug/L
							Pentachlorophenol	1000 ug/L
							Phenanthrene	500 ug/L
							Pyrene	500 ug/L
							2,4,6-Tribromophenol	500 ug/L
							2-methylnaphthalene-d10	500 ug/L
							Fluoranthene-d10 (Surr)	500 ug/L
							Terphenyl-d14	500 ug/L
							Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_icb100is_00018	01/04/20	01/10/19	DCM, Lot MeCl2_CT_00147	100 mL	8270SIM_IS_00059	1 mL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22	Restek, Lot A0129635			(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.ccv_8270_1000_00034	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00141	20 mL	8270_ic_stk_00043	200 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Pentachlorophenol	2000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L
							Terphenyl-d14	1000 ug/L
					8270SIM_IS_00059	200 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
..8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
...8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
...8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
..8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
...8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
IC_8270IS_5k_00031	05/31/19	01/10/19	DCM, Lot MeCl2_CT_00147	10 mL	8270_ic_stk_00043	0.5 mL	1-Methylnaphthalene	5000 ug/L
							2-Methylnaphthalene	5000 ug/L
							Acenaphthene	5000 ug/L
							Acenaphthylene	5000 ug/L
							Anthracene	5000 ug/L
							Benzo[a]anthracene	5000 ug/L
							Benzo[a]pyrene	5000 ug/L
							Benzo[b]fluoranthene	5000 ug/L
							Benzo[g,h,i]perylene	5000 ug/L
							Benzo[k]fluoranthene	5000 ug/L
							Chrysene	5000 ug/L
							Dibenz(a,h)anthracene	5000 ug/L
							Fluoranthene	5000 ug/L
							Fluorene	5000 ug/L
							Indeno[1,2,3-cd]pyrene	5000 ug/L
							Naphthalene	5000 ug/L
							Pentachlorophenol	10000 ug/L
							Phenanthrene	5000 ug/L
							Pyrene	5000 ug/L
							2,4,6-Tribromophenol	5000 ug/L
							2-methylnaphthalene-d10	5000 ug/L
							Fluoranthene-d10 (Surr)	5000 ug/L
							Terphenyl-d14	5000 ug/L
					8270SIM_IS_00059	100 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270_ic_stk_00043	05/31/19	10/05/18	DCM, Lot DCM CT#141	10 mL	8270Mega_1stk_00010	1 mL	1-Methylnaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100 ug/mL
							2-methylnaphthalene-d10	100 ug/mL
							Fluoranthene-d10 (Surr)	100 ug/mL
							Terphenyl-d14	100 ug/mL
..8270Mega_1stk_00010	09/30/19		Restek, Lot A0136052		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14	5000 ug/mL
.8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
..8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
icv_8270_1000_00003	03/31/19	01/11/19	DCM, Lot CT_147	10 mL	8270SIM_IS_00059	100 uL	Acenaphthene-d10	100 ug/L
							Chrysene-d12	100 ug/L
							Naphthalene-d8	100 ug/L
							Perylene-d12	100 ug/L
							Phenanthrene-d10	100 ug/L
.8270SIM_IS_00059	01/04/20	01/04/19	DCM, Lot CT#147	50 mL	8270ISstk_00006	250 uL	Acenaphthene-d10	10 ug/mL
							Chrysene-d12	10 ug/mL
							Naphthalene-d8	10 ug/mL
							Perylene-d12	10 ug/mL
							Phenanthrene-d10	10 ug/mL
..8270ISstk_00006	08/31/22		Restek, Lot A0129635		(Purchased Reagent)		Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
icv_8270_1000_00003	03/31/19	01/11/19	DCM, Lot CT_147	10 mL	8270_IC_STK_00042	100 uL	1-Methylnaphthalene	1000 ug/L
							2-Methylnaphthalene	1000 ug/L
							Acenaphthene	1000 ug/L
							Acenaphthylene	1000 ug/L
							Anthracene	1000 ug/L
							Benzo[a]anthracene	1000 ug/L
							Benzo[a]pyrene	1000 ug/L
							Benzo[b]fluoranthene	1000 ug/L
							Benzo[g,h,i]perylene	1000 ug/L
							Benzo[k]fluoranthene	1000 ug/L
							Chrysene	1000 ug/L
							Dibenz(a,h)anthracene	1000 ug/L
							Fluoranthene	1000 ug/L
							Fluorene	1000 ug/L
							Indeno[1,2,3-cd]pyrene	1000 ug/L
							Naphthalene	1000 ug/L
							Phenanthrene	1000 ug/L
							Pyrene	1000 ug/L
							2,4,6-Tribromophenol	1000 ug/L
							2-methylnaphthalene-d10	1000 ug/L
							Fluoranthene-d10 (Surr)	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14	1000 ug/L
.8270_IC_STK_00042	03/31/19	10/05/18	DCM, Lot CT#141	10 mL	8270L1S1-S_00003	1 mL	1-Methylnaphthalene	100000 ug/L
							2-Methylnaphthalene	100000 ug/L
							Acenaphthene	100000 ug/L
							Acenaphthylene	100000 ug/L
							Anthracene	100000 ug/L
							Benzo[a]anthracene	100000 ug/L
							Benzo[a]pyrene	100000 ug/L
							Benzo[b]fluoranthene	100000 ug/L
							Benzo[g,h,i]perylene	100000 ug/L
							Benzo[k]fluoranthene	100000 ug/L
							Chrysene	100000 ug/L
							Dibenz(a,h)anthracene	100000 ug/L
							Fluoranthene	100000 ug/L
							Fluorene	100000 ug/L
							Indeno[1,2,3-cd]pyrene	100000 ug/L
							Naphthalene	100000 ug/L
							Phenanthrene	100000 ug/L
							Pyrene	100000 ug/L
					8270SSstkPhen_00004	0.2 mL	2,4,6-Tribromophenol	100000 ug/L
							2-methylnaphthalene-d10	100000 ug/L
							Fluoranthene-d10 (Surr)	100000 ug/L
							Terphenyl-d14	100000 ug/L
..8270L1S1-S_00003	03/31/19		Restek, Lot A0131190		(Purchased Reagent)		1-Methylnaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..8270SSstkPhen_00004	08/31/23		Phenova, Lot CL12771		(Purchased Reagent)		2,4,6-Tribromophenol	5000 ug/mL
							2-methylnaphthalene-d10	5000 ug/mL
							Fluoranthene-d10 (Surr)	5000 ug/mL
							Terphenyl-d14	5000 ug/mL
LVI PCB Spk_00019	10/13/19	07/16/19	MeOH, Lot 196628	10 mL	PCB_MS_00007	2.5 mL	PCB-1016	2.5 mg/L
							PCB-1016 Peak 1	2.5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 2	2.5 mg/L
							PCB-1016 Peak 3	2.5 mg/L
							PCB-1016 Peak 4	2.5 mg/L
							PCB-1016 Peak 5	2.5 mg/L
							PCB-1260	2.5 mg/L
							PCB-1260 Peak 1	2.5 mg/L
							PCB-1260 Peak 2	2.5 mg/L
							PCB-1260 Peak 3	2.5 mg/L
							PCB-1260 Peak 4	2.5 mg/L
							PCB-1260 Peak 5	2.5 mg/L
.PCB_MS_00007	04/30/21		Restek, Lot A0108598		(Purchased Reagent)		PCB-1016	10 mg/L
							PCB-1016 Peak 1	10 mg/L
							PCB-1016 Peak 2	10 mg/L
							PCB-1016 Peak 3	10 mg/L
							PCB-1016 Peak 4	10 mg/L
							PCB-1016 Peak 5	10 mg/L
							PCB-1260	10 mg/L
							PCB-1260 Peak 1	10 mg/L
							PCB-1260 Peak 2	10 mg/L
							PCB-1260 Peak 3	10 mg/L
							PCB-1260 Peak 4	10 mg/L
							PCB-1260 Peak 5	10 mg/L
LVI_8081MS_00029	11/24/19	05/24/19	Acetone, Lot 000179319	50 mL	8081MSStk_00043	1250 uL	4,4'-DDD	500 ug/L
							4,4'-DDE	500 ug/L
							4,4'-DDT	500 ug/L
							Aldrin	500 ug/L
							alpha-BHC	500 ug/L
							beta-BHC	500 ug/L
							cis-Chlordane	500 ug/L
							delta-BHC	500 ug/L
							Dieldrin	500 ug/L
							Endosulfan I	500 ug/L
							Endosulfan II	500 ug/L
							Endosulfan sulfate	500 ug/L
							Endrin	500 ug/L
							Endrin aldehyde	500 ug/L
							Endrin ketone	500 ug/L
							gamma-BHC (Lindane)	500 ug/L
							Heptachlor	500 ug/L
							Heptachlor epoxide	500 ug/L
							Methoxychlor	500 ug/L
							trans-Chlordane	500 ug/L
							Hexachlorobenzene	500 ug/L
							Hexachlorobutadiene	500 ug/L
.8081MSStk_00043	10/31/19	12/05/18	Hexane, Lot 0000196294	25 mL	8081_OCP_P_00010	250 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aldrin	20000 ug/L
							alpha-BHC	20000 ug/L
							beta-BHC	20000 ug/L
							cis-Chlordane	20000 ug/L
							delta-BHC	20000 ug/L
							Dieldrin	20000 ug/L
							Endosulfan I	20000 ug/L
							Endosulfan II	20000 ug/L
							Endosulfan sulfate	20000 ug/L
							Endrin	20000 ug/L
							Endrin aldehyde	20000 ug/L
							Endrin ketone	20000 ug/L
							gamma-BHC (Lindane)	20000 ug/L
							Heptachlor	20000 ug/L
							Heptachlor epoxide	20000 ug/L
							Methoxychlor	20000 ug/L
							trans-Chlordane	20000 ug/L
					8081HCB_P_00004	500 uL	Hexachlorobenzene	20000 ug/L
					8081HCBD_P_00005	500 uL	Hexachlorobutadiene	20000 ug/L
..8081_OCP_P_00010	10/31/19		Restek, Lot A0114872		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							beta-BHC	2000 ug/mL
							cis-Chlordane	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
							trans-Chlordane	2000 ug/mL
..8081HCB_P_00004	02/28/23		Restek, Lot A0135337		(Purchased Reagent)		Hexachlorobenzene	1000 ug/mL
..8081HCBD_P_00005	04/30/23		Restek, Lot A0137065		(Purchased Reagent)		Hexachlorobutadiene	1000 ug/mL
LVI_81Ext_MS_00002	08/06/19	07/19/19	Hexane, Lot 203465	10 mL	81_Ext_MS_00001	2500 uL	cis-Nonachlor	500 ug/L
							Mirex	500 ug/L
							oxy-Chlordane	500 ug/L
							trans-Nonachlor	500 ug/L
							2,4'-DDD	500 ug/L
							2,4'-DDE	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4'-DDT	500 ug/L
.81_Ext_MS_00001	08/06/19	02/06/19	Hexane, Lot 203465	20 mL	8081CISNONSEC_00003	40 uL	cis-Nonachlor	2000 ug/L
					8081MIREX_00015	40 uL	Mirex	2000 ug/L
					8081OXYCHLSS_00007	400 uL	oxy-Chlordane	2000 ug/L
					8081TRANON_00010	400 uL	trans-Nonachlor	2000 ug/L
					opExt_DDX_ss_00001	40 uL	2,4'-DDD	2000 ug/L
							2,4'-DDE	2000 ug/L
							2,4'-DDT	2000 ug/L
..8081CISNONSEC_00003	05/15/21		O2Si, Lot 342135		(Purchased Reagent)		cis-Nonachlor	1000 ug/mL
..8081MIREX_00015	09/17/20		spex, Lot en170918009		(Purchased Reagent)		Mirex	1000 ug/mL
..8081OXYCHLSS_00007	07/31/21		Agilent, Lot CR-2559		(Purchased Reagent)		oxy-Chlordane	100 ug/mL
..8081TRANON_00010	05/31/22		Agilent, Lot CS-1938		(Purchased Reagent)		trans-Nonachlor	100000 ug/L
..opExt_DDX_ss_00001	07/04/21		O2Si, Lot 365255		(Purchased Reagent)		2,4'-DDD	1000 mg/L
							2,4'-DDE	1000 mg/L
							2,4'-DDT	1000 mg/L
LVI81/82_Surr_00027	03/21/20	07/01/19	acetone, Lot 179319	100 mL	Pest/PCB Surr_00074	25 mL	DCB Decachlorobiphenyl	500 ug/L
							Tetrachloro-m-xylene	500 ug/L
.Pest/PCB Surr_00074	03/21/20	06/17/19	Acetone, Lot 179319	100 mL	Pest/PCBstock_00019	1 mL	DCB Decachlorobiphenyl	2 mg/L
							Tetrachloro-m-xylene	2 mg/L
..Pest/PCBstock_00019	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
OCP_IC001_00014	12/28/19	05/10/19	Hexane, Lot 203464	50 mL	OCP_IC400_00016	125 uL	4,4'-DDD	1 ug/L
							4,4'-DDE	1 ug/L
							4,4'-DDT	1 ug/L
							DCB Decachlorobiphenyl	1 ug/L
							Tetrachloro-m-xylene	1 ug/L
.OCP_IC400_00016	12/28/19	03/19/18	Hexane, Lot 1960936	25 mL	OCP_IC_STK_00025	500 uL	4,4'-DDD	400 ug/L
							4,4'-DDE	400 ug/L
							4,4'-DDT	400 ug/L
							DCB Decachlorobiphenyl	400 ug/L
							Tetrachloro-m-xylene	400 ug/L
..OCP_IC_STK_00025	02/28/19	03/19/18	Hexane, Lot 1960936	10 mL	8081_OCP_S_00016	100 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L
					Pest/PCBstock_00015	1 mL	DCB Decachlorobiphenyl	20000 ug/L
							Tetrachloro-m-xylene	20000 ug/L
...8081_OCP_S_00016	02/28/19		Restek, Lot A094503		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
...Pest/PCBstock_00015	06/30/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
OCP_IC050_00027	08/06/19	02/07/19	Hexane, Lot 203465	50 mL	OCP_IC_STK_00027	125 uL	4,4'-DDD	50 ug/L
							4,4'-DDE	50 ug/L
							4,4'-DDT	50 ug/L
							Aldrin	50 ug/L
							alpha-BHC	50 ug/L
							beta-BHC	50 ug/L

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-Chlordane	50 ug/L
							delta-BHC	50 ug/L
							Dieldrin	50 ug/L
							Endosulfan I	50 ug/L
							Endosulfan II	50 ug/L
							Endosulfan sulfate	50 ug/L
							Endrin	50 ug/L
							Endrin aldehyde	50 ug/L
							Endrin ketone	50 ug/L
							gamma-BHC (Lindane)	50 ug/L
							Heptachlor	50 ug/L
							Heptachlor epoxide	50 ug/L
							Methoxychlor	50 ug/L
							trans-Chlordane	50 ug/L
							Hexachlorobenzene	50 ug/L
							Hexachlorobutadiene	50 ug/L
							DCB Decachlorobiphenyl	50.15 ug/L
							Tetrachloro-m-xylene	50.35 ug/L
.OCP_IC_STK_00027	02/06/20	02/07/19	Hexane, Lot 203465	10 mL	8081_OCP_P_00011	100 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L
							Aldrin	20000 ug/L
							alpha-BHC	20000 ug/L
							beta-BHC	20000 ug/L
							cis-Chlordane	20000 ug/L
							delta-BHC	20000 ug/L
							Dieldrin	20000 ug/L
							Endosulfan I	20000 ug/L
							Endosulfan II	20000 ug/L
							Endosulfan sulfate	20000 ug/L
							Endrin	20000 ug/L
							Endrin aldehyde	20000 ug/L
							Endrin ketone	20000 ug/L
							gamma-BHC (Lindane)	20000 ug/L
							Heptachlor	20000 ug/L
							Heptachlor epoxide	20000 ug/L
							Methoxychlor	20000 ug/L
							trans-Chlordane	20000 ug/L
					8081HCB_P_00003	200 uL	Hexachlorobenzene	20000 ug/L
					8081HCBD_P_00005	200 uL	Hexachlorobutadiene	20000 ug/L
					81/82_SurrSTK_00003	1 mL	DCB Decachlorobiphenyl	20060 ug/L
							Tetrachloro-m-xylene	20140 ug/L
..8081_OCP_P_00011	09/01/22		Restek, Lot A0137734		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							beta-BHC	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-Chlordane	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
							trans-Chlordane	2000 ug/mL
..8081HCB_P_00003	08/31/20		Restek, Lot A0113404		(Purchased Reagent)		Hexachlorobenzene	1000 ug/mL
..8081HCBD_P_00005	04/30/23		Restek, Lot A0137065		(Purchased Reagent)		Hexachlorobutadiene	1000 ug/mL
..81/82_SurrSTK_00003	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200.6 ug/mL
							Tetrachloro-m-xylene	201.4 ug/mL
OCP_IC050_00028	11/10/19	05/10/19	Hexane, Lot 203464	50 mL	OCP_IC_STK_00027	125 uL	4,4'-DDD	50 ug/L
							4,4'-DDE	50 ug/L
							4,4'-DDT	50 ug/L
							DCB Decachlorobiphenyl	50.15 ug/L
							Tetrachloro-m-xylene	50.35 ug/L
.OCP_IC_STK_00027	02/06/20	02/07/19	Hexane, Lot 203465	10 mL	8081_OCP_P_00011	100 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L
					81/82_SurrSTK_00003	1 mL	DCB Decachlorobiphenyl	20060 ug/L
							Tetrachloro-m-xylene	20140 ug/L
..8081_OCP_P_00011	09/01/22		Restek, Lot A0137734		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
..81/82_SurrSTK_00003	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200.6 ug/mL
							Tetrachloro-m-xylene	201.4 ug/mL
OCP_IC400_00017	08/06/19	02/07/19	Hexane, Lot 203465	25 mL	OCP_IC_STK_00027	500 uL	4,4'-DDD	400 ug/L
							4,4'-DDE	400 ug/L
							4,4'-DDT	400 ug/L
							Aldrin	400 ug/L
							alpha-BHC	400 ug/L
							beta-BHC	400 ug/L
							cis-Chlordane	400 ug/L
							delta-BHC	400 ug/L
							Dieldrin	400 ug/L
							Endosulfan I	400 ug/L
							Endosulfan II	400 ug/L
							Endosulfan sulfate	400 ug/L
							Endrin	400 ug/L
							Endrin aldehyde	400 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Endrin ketone	400 ug/L
							gamma-BHC (Lindane)	400 ug/L
							Heptachlor	400 ug/L
							Heptachlor epoxide	400 ug/L
							Methoxychlor	400 ug/L
							trans-Chlordane	400 ug/L
							Hexachlorobenzene	400 ug/L
							Hexachlorobutadiene	400 ug/L
							DCB Decachlorobiphenyl	401.2 ug/L
							Tetrachloro-m-xylene	402.8 ug/L
.OCP_IC_STK_00027	02/06/20	02/07/19	Hexane, Lot 203465	10 mL	8081_OCP_P_00011	100 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L
							Aldrin	20000 ug/L
							alpha-BHC	20000 ug/L
							beta-BHC	20000 ug/L
							cis-Chlordane	20000 ug/L
							delta-BHC	20000 ug/L
							Dieldrin	20000 ug/L
							Endosulfan I	20000 ug/L
							Endosulfan II	20000 ug/L
							Endosulfan sulfate	20000 ug/L
							Endrin	20000 ug/L
							Endrin aldehyde	20000 ug/L
							Endrin ketone	20000 ug/L
							gamma-BHC (Lindane)	20000 ug/L
							Heptachlor	20000 ug/L
							Heptachlor epoxide	20000 ug/L
							Methoxychlor	20000 ug/L
							trans-Chlordane	20000 ug/L
					8081HCB_P_00003	200 uL	Hexachlorobenzene	20000 ug/L
					8081HCBD_P_00005	200 uL	Hexachlorobutadiene	20000 ug/L
					81/82_SurrSTK_00003	1 mL	DCB Decachlorobiphenyl	20060 ug/L
							Tetrachloro-m-xylene	20140 ug/L
..8081_OCP_P_00011	09/01/22		Restek, Lot A0137734		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							beta-BHC	2000 ug/mL
							cis-Chlordane	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
							trans-Chlordane	2000 ug/mL
..8081HCB_P_00003	08/31/20		Restek, Lot A0113404		(Purchased Reagent)		Hexachlorobenzene	1000 ug/mL
..8081HCBD_P_00005	04/30/23		Restek, Lot A0137065		(Purchased Reagent)		Hexachlorobutadiene	1000 ug/mL
..81/82_SurrSTK_00003	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200.6 ug/mL
							Tetrachloro-m-xylene	201.4 ug/mL
OCP_ICV_50_00034	02/28/19	02/07/19	Hexane, Lot 203465	10 mL	ocp_icv_stk_00021	25 uL	4,4'-DDD	50 ug/L
							4,4'-DDE	50 ug/L
							4,4'-DDT	50 ug/L
							DCB Decachlorobiphenyl	50.15 ug/L
							Tetrachloro-m-xylene	50.35 ug/L
.ocp_icv_stk_00021	02/28/19	02/07/19	Hexanes, Lot 203465	10 mL	8081_OCP_S_00015	100 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L
					81/82_SurrSTK_00003	1 mL	DCB Decachlorobiphenyl	20060 ug/L
							Tetrachloro-m-xylene	20140 ug/L
..8081_OCP_S_00015	02/28/19		Restek, Lot A0108854		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
..81/82_SurrSTK_00003	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200.6 ug/mL
							Tetrachloro-m-xylene	201.4 ug/mL
OCP_ICV_50_00035	05/30/20	06/06/19	Hexane, Lot 196294	10 mL	ocp_icv_stk_00022	25 uL	4,4'-DDD	50 ug/L
							4,4'-DDE	50 ug/L
							4,4'-DDT	50 ug/L
							DCB Decachlorobiphenyl	50 ug/L
							Tetrachloro-m-xylene	50 ug/L
.ocp_icv_stk_00022	05/30/20	05/30/19	Hexanes, Lot 221330	10 mL	8081_OCP_P_00011	100 uL	4,4'-DDD	20000 ug/L
							4,4'-DDE	20000 ug/L
							4,4'-DDT	20000 ug/L
					Pest/PCBstock_00019	1 mL	DCB Decachlorobiphenyl	20000 ug/L
							Tetrachloro-m-xylene	20000 ug/L
..8081_OCP_P_00011	09/01/22		Restek, Lot A0137734		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
..Pest/PCBstock_00019	11/30/24		Restek, Lot A0141110		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
TOCS_LCS_00010	07/31/21		ERA, Lot D100-542		(Purchased Reagent)		Total Organic Carbon - Duplicates	5080 mg/Kg

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
HRDXNCP_00038	10/16/19	10/16/18	C14, Lot STBH5862	6 mL	HRDXNCP_00037	1.2 mL	1,2,3,4,6,7,9-HpCDD	40 pg/uL
							1,2,3,4,6,7-HxCDD	40 pg/uL
							1,2,3,4,6,8-HxCDF	40 pg/uL
							1,2,3,4,8,9-HxCDF	40 pg/uL
							1,2,3,7-TCDD	40 pg/uL
							1,2,3,8,9-PeCDD	40 pg/uL
							1,2,3,8,9-PeCDF	40 pg/uL
							1,2,3,9-TCDD	40 pg/uL
							1,2,3,9-TCDF	40 pg/uL
							1,2,4,6,7,9-HxCDD	40 pg/uL
							1,2,4,7,9-PeCDD	40 pg/uL
							1,2,8,9-TCDD	40 pg/uL
							1,2,8,9-TCDF	40 pg/uL
							1,3,4,6,8-PeCDF	40 pg/uL
							1,3,6,8-TCDD	40 pg/uL
							1,3,6,8-TCDF	40 pg/uL
							13C-2,3,7,8-TCDD	40 pg/uL
							13C-2,3,7,8-TCDF	40 pg/uL
							2,3,4,7-TCDF	40 pg/uL
							2,3,7,8-TCDD	40 pg/uL
							2,3,7,8-TCDF	40 pg/uL
.HRDXNCP_00037	03/31/25		CIL, Lot ER03111502		(Purchased Reagent)		1,2,3,4,6,7,9-HpCDD	200 ng/mL
							1,2,3,4,6,7-HxCDD	200 ng/mL
							1,2,3,4,6,8-HxCDF	200 ng/mL
							1,2,3,4,8,9-HxCDF	200 ng/mL
							1,2,3,7-TCDD	200 ng/mL
							1,2,3,8,9-PeCDD	200 ng/mL
							1,2,3,8,9-PeCDF	200 ng/mL
							1,2,3,9-TCDD	200 ng/mL
							1,2,3,9-TCDF	200 ng/mL
							1,2,4,6,7,9-HxCDD	200 ng/mL
							1,2,4,7,9-PeCDD	200 ng/mL
							1,2,8,9-TCDD	200 ng/mL
							1,2,8,9-TCDF	200 ng/mL
							1,3,4,6,8-PeCDF	200 ng/mL
							1,3,6,8-TCDD	200 ng/mL
							1,3,6,8-TCDF	200 ng/mL
							13C-2,3,7,8-TCDD	200 ng/mL
							13C-2,3,7,8-TCDF	200 ng/mL
							2,3,4,7-TCDF	200 ng/mL
							2,3,7,8-TCDD	200 ng/mL
							2,3,7,8-TCDF	200 ng/mL
HRDXNIC_00038	10/25/19	01/31/19	C14, Lot STBH5862	0.5 mL	HRDXNIDA_00303	0.125 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNIDA_00364	0.25 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL
							13C-OCDD	200 ng/mL
					HRDXNSU_00196	0.05 mL	37Cl4-2,3,7,8-TCDD	40 ng/mL
					HRDXNTA_00098	0.5 mL	1,2,3,4,6,7,8-HpCDD	200 ng/mL
							1,2,3,4,6,7,8-HpCDF	200 ng/mL
							1,2,3,4,7,8,9-HpCDF	200 ng/mL
							1,2,3,4,7,8-HxCDD	200 ng/mL
							1,2,3,4,7,8-HxCDF	200 ng/mL
							1,2,3,6,7,8-HxCDD	200 ng/mL
							1,2,3,6,7,8-HxCDF	200 ng/mL
							1,2,3,7,8,9-HxCDD	200 ng/mL
							1,2,3,7,8,9-HxCDF	200 ng/mL
							1,2,3,7,8-PeCDD	200 ng/mL
							1,2,3,7,8-PeCDF	200 ng/mL
							2,3,4,6,7,8-HxCDF	200 ng/mL
							2,3,4,7,8-PeCDF	200 ng/mL
							2,3,7,8-TCDD	40 ng/mL
							2,3,7,8-TCDF	40 ng/mL
							OCDD	400 ng/mL
							OCDF	400 ng/mL
.HRDXNIDA_00303	07/31/20	09/20/17	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00247	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00297	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00301	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00302	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00247	03/31/26		CIL, Lot ER053107-02		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00297	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00301	10/31/21		CIL, Lot ER102711-01		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00302	07/31/20		CIL, Lot ER072810-02		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNSU_00196	07/31/25	09/10/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00195	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
..HRDXNSU_00195	07/31/25	09/10/18	Isooctane, Lot 0000192372	10 mL	HRDXNSU_00187	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
...HRDXNSU_00187	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00098	03/01/25		Wellington Labs, Lot 13PAR0418		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	200 ng/mL
							1,2,3,4,6,7,8-HpCDF	200 ng/mL
							1,2,3,4,7,8,9-HpCDF	200 ng/mL
							1,2,3,4,7,8-HxCDD	200 ng/mL
							1,2,3,4,7,8-HxCDF	200 ng/mL
							1,2,3,6,7,8-HxCDD	200 ng/mL
							1,2,3,6,7,8-HxCDF	200 ng/mL
							1,2,3,7,8,9-HxCDD	200 ng/mL
							1,2,3,7,8,9-HxCDF	200 ng/mL
							1,2,3,7,8-PeCDD	200 ng/mL
							1,2,3,7,8-PeCDF	200 ng/mL
							2,3,4,6,7,8-HxCDF	200 ng/mL
							2,3,4,7,8-PeCDF	200 ng/mL
							2,3,7,8-TCDD	40 ng/mL
							2,3,7,8-TCDF	40 ng/mL
							OCDD	400 ng/mL
							OCDF	400 ng/mL
HRDXNIDA_00385	07/12/20	07/12/19	Acetone, Lot 0000197752	500 mL	HRDXNIDA_00364	5 mL	13C-1,2,3,4,6,7,8-HpCDD	2 pg/uL
							13C-1,2,3,4,6,7,8-HpCDF	2 pg/uL
							13C-2,3,7,8-TCDF	2 pg/uL
							13C-2,3,7,8-TCDD	2 pg/uL
							13C-1,2,3,6,7,8-HxCDF	2 pg/uL
							13C-1,2,3,7,8,9-HxCDF	2 pg/uL
							13C-2,3,4,6,7,8-HxCDF	2 pg/uL
							13C-1,2,3,7,8-PeCDD	2 pg/uL
							13C-1,2,3,7,8-PeCDF	2 pg/uL
							13C-1,2,3,6,7,8-HxCDD	2 pg/uL
							13C-OCDD	4 pg/uL
					HRDXNIDA_00379	2.5 mL	13C-1,2,3,4,7,8,9-HpCDF	2 pg/uL
							13C-2,3,4,7,8-PeCDF	2 pg/uL
							13C-1,2,3,4,7,8-HxCDD	2 pg/uL

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-1,2,3,4,7,8-HxCDF	2 pg/uL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIDA_00379	04/11/26	04/11/19	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00375	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00376	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00377	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00378	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00375	05/31/26		CIL, Lot ER04251601		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00376	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00377	06/30/26		CIL, Lot ER04211601		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00378	07/31/27		CIL, Lot ER04211701		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
HRDXNIS_00117	04/29/20	04/29/19	C14, Lot STBH7678	100 mL	HRDXNIS_00112	2 mL	13C-1,2,3,7,8,9-HxCDD	0.1 ug/mL
							13C-1,2,3,4-TCDD	0.1 ug/mL
.HRDXNIS_00112	09/30/26	10/25/18	Isooctane, Lot 0000192372	10 mL	HRDXNIS_00110	1 mL	13C-1,2,3,7,8,9-HxCDD	5 ug/mL
					HRDXNIS_00111	1 mL	13C-1,2,3,4-TCDD	5 ug/mL
..HRDXNIS_00110	09/30/26		CIL, Lot ER08221601		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDD	50 ug/mL
..HRDXNIS_00111	01/31/27		CIL, Lot ER11081602		(Purchased Reagent)		13C-1,2,3,4-TCDD	50 ug/mL
HRDXNL2_00024	09/07/19	01/29/19	C14, Lot STBH5862	1 mL	HRDXNIDA_00303	0.25 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNIDA_00364	0.5 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL
							13C-OCDD	200 ng/mL
					HRDXNIS_00113	1 mL	13C-1,2,3,7,8,9-HxCDD	100 ng/mL
							13C-1,2,3,4-TCDD	100 ng/mL
					HRDXNSU_00205	0.625 mL	37Cl4-2,3,7,8-TCDD	0.5 ng/mL
					HRDXNTA_00100	0.125 mL	1,2,3,4,6,7,8-HpCDD	2.5 ng/mL
							1,2,3,4,6,7,8-HpCDF	2.5 ng/mL
							1,2,3,4,7,8,9-HpCDF	2.5 ng/mL
							1,2,3,4,7,8-HxCDD	2.5 ng/mL
							1,2,3,4,7,8-HxCDF	2.5 ng/mL
							1,2,3,6,7,8-HxCDD	2.5 ng/mL
							1,2,3,6,7,8-HxCDF	2.5 ng/mL
							1,2,3,7,8,9-HxCDD	2.5 ng/mL
							1,2,3,7,8,9-HxCDF	2.5 ng/mL
							1,2,3,7,8-PeCDD	2.5 ng/mL
							1,2,3,7,8-PeCDF	2.5 ng/mL
							2,3,4,6,7,8-HxCDF	2.5 ng/mL
							2,3,4,7,8-PeCDF	2.5 ng/mL
							2,3,7,8-TCDD	0.5 ng/mL
							2,3,7,8-TCDF	0.5 ng/mL
							OCDD	5 ng/mL
							OCDF	5 ng/mL
.HRDXNIDA_00303	07/31/20	09/20/17	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00247	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00297	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00301	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00302	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00247	03/31/26		CIL, Lot ER053107-02		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00297	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00301	10/31/21		CIL, Lot ER102711-01		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00302	07/31/20		CIL, Lot ER072810-02		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIS_00113	10/25/19	10/25/18	C14, Lot STBH5862	100 mL	HRDXNIS_00112	2 mL	13C-1,2,3,7,8,9-HxCDD	0.1 ug/mL
							13C-1,2,3,4-TCDD	0.1 ug/mL
..HRDXNIS_00112	09/30/26	10/25/18	Isooctane, Lot 0000192372	10 mL	HRDXNIS_00110	1 mL	13C-1,2,3,7,8,9-HxCDD	5 ug/mL
					HRDXNIS_00111	1 mL	13C-1,2,3,4-TCDD	5 ug/mL
...HRDXNIS_00110	09/30/26		CIL, Lot ER08221601		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDD	50 ug/mL
...HRDXNIS_00111	01/31/27		CIL, Lot ER11081602		(Purchased Reagent)		13C-1,2,3,4-TCDD	50 ug/mL
.HRDXNSU_00205	09/07/19	01/08/19	Isooctane, Lot 0000192372	500 mL	HRDXNSU_00192	1000 uL	37Cl4-2,3,7,8-TCDD	0.8 pg/uL
..HRDXNSU_00192	09/07/19	09/07/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00169	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
...HRDXNSU_00169	07/31/25	09/19/17	Isooctane, Lot 0000134126	10 mL	HRDXNSU_00123	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
....HRDXNSU_00123	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00100	01/08/20	01/08/19	Acetone, Lot 00000164215	25 mL	HRDXNTA_00091	0.25 mL	1,2,3,4,6,7,8-HpCDD	20 ng/mL
							1,2,3,4,6,7,8-HpCDF	20 ng/mL
							1,2,3,4,7,8,9-HpCDF	20 ng/mL
							1,2,3,4,7,8-HxCDD	20 ng/mL
							1,2,3,4,7,8-HxCDF	20 ng/mL
							1,2,3,6,7,8-HxCDD	20 ng/mL
							1,2,3,6,7,8-HxCDF	20 ng/mL
							1,2,3,7,8,9-HxCDD	20 ng/mL
							1,2,3,7,8,9-HxCDF	20 ng/mL
							1,2,3,7,8-PeCDD	20 ng/mL
							1,2,3,7,8-PeCDF	20 ng/mL
							2,3,4,6,7,8-HxCDF	20 ng/mL
							2,3,4,7,8-PeCDF	20 ng/mL
							2,3,7,8-TCDD	4 ng/mL
							2,3,7,8-TCDF	4 ng/mL
							OCDD	40 ng/mL
							OCDF	40 ng/mL
..HRDXNTA_00091	04/30/26		CIL, Lot ER02241602		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL
HRDXNL3_00022	09/07/19	01/29/19	C14, Lot STBH5862	0.5 mL	HRDXNIDA_00303	0.125 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNIDA_00364	0.25 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL
							13C-OCDD	200 ng/mL
					HRDXNIS_00113	0.5 mL	13C-1,2,3,7,8,9-HxCDD	100 ng/mL
							13C-1,2,3,4-TCDD	100 ng/mL
					HRDXNSU_00205	1.25 mL	37Cl4-2,3,7,8-TCDD	2 ng/mL
					HRDXNTA_00100	0.25 mL	1,2,3,4,6,7,8-HpCDD	10 ng/mL
							1,2,3,4,6,7,8-HpCDF	10 ng/mL
							1,2,3,4,7,8,9-HpCDF	10 ng/mL
							1,2,3,4,7,8-HxCDD	10 ng/mL
							1,2,3,4,7,8-HxCDF	10 ng/mL
							1,2,3,6,7,8-HxCDD	10 ng/mL
							1,2,3,6,7,8-HxCDF	10 ng/mL
							1,2,3,7,8,9-HxCDD	10 ng/mL
							1,2,3,7,8,9-HxCDF	10 ng/mL
							1,2,3,7,8-PeCDD	10 ng/mL
							1,2,3,7,8-PeCDF	10 ng/mL
							2,3,4,6,7,8-HxCDF	10 ng/mL
							2,3,4,7,8-PeCDF	10 ng/mL
							2,3,7,8-TCDD	2 ng/mL
							2,3,7,8-TCDF	2 ng/mL
							OCDD	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							OCDF	20 ng/mL
.HRDXNIDA_00303	07/31/20	09/20/17	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00247	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00297	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00301	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00302	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00247	03/31/26		CIL, Lot ER053107-02		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00297	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00301	10/31/21		CIL, Lot ER102711-01		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00302	07/31/20		CIL, Lot ER072810-02		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIS_00113	10/25/19	10/25/18	C14, Lot STBH5862	100 mL	HRDXNIS_00112	2 mL	13C-1,2,3,7,8,9-HxCDD	0.1 ug/mL
							13C-1,2,3,4-TCDD	0.1 ug/mL
..HRDXNIS_00112	09/30/26	10/25/18	Isooctane, Lot 0000192372	10 mL	HRDXNIS_00110	1 mL	13C-1,2,3,7,8,9-HxCDD	5 ug/mL
					HRDXNIS_00111	1 mL	13C-1,2,3,4-TCDD	5 ug/mL
...HRDXNIS_00110	09/30/26		CIL, Lot ER08221601		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDD	50 ug/mL
...HRDXNIS_00111	01/31/27		CIL, Lot ER11081602		(Purchased Reagent)		13C-1,2,3,4-TCDD	50 ug/mL
.HRDXNSU_00205	09/07/19	01/08/19	Isooctane, Lot 0000192372	500 mL	HRDXNSU_00192	1000 uL	37Cl4-2,3,7,8-TCDD	0.8 pg/uL
..HRDXNSU_00192	09/07/19	09/07/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00169	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
...HRDXNSU_00169	07/31/25	09/19/17	Isooctane, Lot 0000134126	10 mL	HRDXNSU_00123	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
....HRDXNSU_00123	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00100	01/08/20	01/08/19	Acetone, Lot 00000164215	25 mL	HRDXNTA_00091	0.25 mL	1,2,3,4,6,7,8-HpCDD	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3,4,6,7,8-HpCDF	20 ng/mL
							1,2,3,4,7,8,9-HpCDF	20 ng/mL
							1,2,3,4,7,8-HxCDD	20 ng/mL
							1,2,3,4,7,8-HxCDF	20 ng/mL
							1,2,3,6,7,8-HxCDD	20 ng/mL
							1,2,3,6,7,8-HxCDF	20 ng/mL
							1,2,3,7,8,9-HxCDD	20 ng/mL
							1,2,3,7,8,9-HxCDF	20 ng/mL
							1,2,3,7,8-PeCDD	20 ng/mL
							1,2,3,7,8-PeCDF	20 ng/mL
							2,3,4,6,7,8-HxCDF	20 ng/mL
							2,3,4,7,8-PeCDF	20 ng/mL
							2,3,7,8-TCDD	4 ng/mL
							2,3,7,8-TCDF	4 ng/mL
							OCDD	40 ng/mL
							OCDF	40 ng/mL
..HRDXNTA_00091	04/30/26		CIL, Lot ER02241602		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL
HRDXNL4_00077	10/25/19	01/29/19	C14, Lot STBH5862	1 mL	HRDXNIDA_00303	0.25 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNIDA_00364	0.5 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-OCDD	200 ng/mL
					HRDXNIS_00113	1 mL	13C-1,2,3,7,8,9-HxCDD	100 ng/mL
							13C-1,2,3,4-TCDD	100 ng/mL
					HRDXNSU_00196	0.025 mL	37Cl4-2,3,7,8-TCDD	10 ng/mL
					HRDXNTA_00092	0.025 mL	1,2,3,4,6,7,8-HpCDD	50 ng/mL
							1,2,3,4,6,7,8-HpCDF	50 ng/mL
							1,2,3,4,7,8,9-HpCDF	50 ng/mL
							1,2,3,4,7,8-HxCDD	50 ng/mL
							1,2,3,4,7,8-HxCDF	50 ng/mL
							1,2,3,6,7,8-HxCDD	50 ng/mL
							1,2,3,6,7,8-HxCDF	50 ng/mL
							1,2,3,7,8,9-HxCDD	50 ng/mL
							1,2,3,7,8,9-HxCDF	50 ng/mL
							1,2,3,7,8-PeCDD	50 ng/mL
							1,2,3,7,8-PeCDF	50 ng/mL
							2,3,4,6,7,8-HxCDF	50 ng/mL
							2,3,4,7,8-PeCDF	50 ng/mL
							2,3,7,8-TCDD	10 ng/mL
							2,3,7,8-TCDF	10 ng/mL
							OCDD	100 ng/mL
							OCDF	100 ng/mL
.HRDXNIDA_00303	07/31/20	09/20/17	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00247	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00297	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00301	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00302	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00247	03/31/26		CIL, Lot ER053107-02		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00297	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00301	10/31/21		CIL, Lot ER102711-01		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00302	07/31/20		CIL, Lot ER072810-02		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIS_00113	10/25/19	10/25/18	C14, Lot STBH5862	100 mL	HRDXNIS_00112	2 mL	13C-1,2,3,7,8,9-HxCDD	0.1 ug/mL
							13C-1,2,3,4-TCDD	0.1 ug/mL
..HRDXNIS_00112	09/30/26	10/25/18	Isooctane, Lot 0000192372	10 mL	HRDXNIS_00110	1 mL	13C-1,2,3,7,8,9-HxCDD	5 ug/mL
					HRDXNIS_00111	1 mL	13C-1,2,3,4-TCDD	5 ug/mL
...HRDXNIS_00110	09/30/26		CIL, Lot ER08221601		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDD	50 ug/mL
...HRDXNIS_00111	01/31/27		CIL, Lot ER11081602		(Purchased Reagent)		13C-1,2,3,4-TCDD	50 ug/mL
.HRDXNSU_00196	07/31/25	09/10/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00195	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
..HRDXNSU_00195	07/31/25	09/10/18	Isooctane, Lot 0000192372	10 mL	HRDXNSU_00187	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
...HRDXNSU_00187	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00092	04/30/26		CIL, Lot ER02241602		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL
HRDXNL4_00081	04/29/20	05/31/19	C14, Lot STBH5862	1 mL	HRDXNIDA_00364	0.5 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL
							13C-OCDD	200 ng/mL
					HRDXNIDA_00379	0.25 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNSU_00196	0.025 mL	37Cl4-2,3,7,8-TCDD	10 ng/mL
					HRDXNTA_00092	0.025 mL	1,2,3,4,6,7,8-HpCDD	50 ng/mL
							1,2,3,4,6,7,8-HpCDF	50 ng/mL
							1,2,3,4,7,8,9-HpCDF	50 ng/mL
							1,2,3,4,7,8-HxCDD	50 ng/mL
							1,2,3,4,7,8-HxCDF	50 ng/mL
							1,2,3,6,7,8-HxCDD	50 ng/mL
							1,2,3,6,7,8-HxCDF	50 ng/mL
							1,2,3,7,8,9-HxCDD	50 ng/mL
							1,2,3,7,8,9-HxCDF	50 ng/mL
							1,2,3,7,8-PeCDD	50 ng/mL
							1,2,3,7,8-PeCDF	50 ng/mL
							2,3,4,6,7,8-HxCDF	50 ng/mL
							2,3,4,7,8-PeCDF	50 ng/mL
							2,3,7,8-TCDD	10 ng/mL
							2,3,7,8-TCDF	10 ng/mL
							OCDD	100 ng/mL
							OCDF	100 ng/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20	CIL, Lot ER111010-01			(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24	CIL, Lot ER08101404			(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26	CIL, Lot ER09131601			(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26	CIL, Lot ER03031601			(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26	CIL, Lot ER02241603			(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20	CIL, Lot ER100610-01			(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20	CIL, Lot ER100610-02			(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24	CIL, Lot ER08041401			(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21	CIL, Lot ER012111-01			(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28	CIL, Lot ER03151801			(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27	CIL, Lot ER04051701			(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIDA_00379	04/11/26	04/11/19	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00375	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00376	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00377	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00378	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00375	05/31/26	CIL, Lot ER04251601			(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..HRDXNIDA_00376	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00377	06/30/26		CIL, Lot ER04211601		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00378	07/31/27		CIL, Lot ER04211701		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNSU_00196	07/31/25	09/10/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00195	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
..HRDXNSU_00195	07/31/25	09/10/18	Isooctane, Lot 0000192372	10 mL	HRDXNSU_00187	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
...HRDXNSU_00187	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00092	04/30/26		CIL, Lot ER02241602		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL
HRDXNL5_00025	10/25/19	01/29/19	C14, Lot STBH5862	0.2 mL	HRDXNIDA_00303	0.05 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNIDA_00364	0.1 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL
							13C-OCDD	200 ng/mL
					HRDXNIS_00113	0.2 mL	13C-1,2,3,7,8,9-HxCDD	100 ng/mL
							13C-1,2,3,4-TCDD	100 ng/mL
					HRDXNSU_00196	0.02 mL	37Cl4-2,3,7,8-TCDD	40 ng/mL
					HRDXNTA_00092	0.02 mL	1,2,3,4,6,7,8-HpCDD	200 ng/mL
							1,2,3,4,6,7,8-HpCDF	200 ng/mL
							1,2,3,4,7,8,9-HpCDF	200 ng/mL
							1,2,3,4,7,8-HxCDD	200 ng/mL
							1,2,3,4,7,8-HxCDF	200 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3,6,7,8-HxCDD	200 ng/mL
							1,2,3,6,7,8-HxCDF	200 ng/mL
							1,2,3,7,8,9-HxCDD	200 ng/mL
							1,2,3,7,8,9-HxCDF	200 ng/mL
							1,2,3,7,8-PeCDD	200 ng/mL
							1,2,3,7,8-PeCDF	200 ng/mL
							2,3,4,6,7,8-HxCDF	200 ng/mL
							2,3,4,7,8-PeCDF	200 ng/mL
							2,3,7,8-TCDD	40 ng/mL
							2,3,7,8-TCDF	40 ng/mL
							OCDD	400 ng/mL
							OCDF	400 ng/mL
.HRDXNIDA_00303	07/31/20	09/20/17	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00247	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00297	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00301	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00302	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00247	03/31/26		CIL, Lot ER053107-02		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00297	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00301	10/31/21		CIL, Lot ER102711-01		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00302	07/31/20		CIL, Lot ER072810-02		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIS_00113	10/25/19	10/25/18	C14, Lot STBH5862	100 mL	HRDXNIS_00112	2 mL	13C-1,2,3,7,8,9-HxCDD	0.1 ug/mL
							13C-1,2,3,4-TCDD	0.1 ug/mL
..HRDXNIS_00112	09/30/26	10/25/18	Isooctane, Lot 0000192372	10 mL	HRDXNIS_00110	1 mL	13C-1,2,3,7,8,9-HxCDD	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					HRDXNIS_00111	1 mL	13C-1,2,3,4-TCDD	5 ug/mL
...HRDXNIS_00110	09/30/26		CIL, Lot ER08221601		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDD	50 ug/mL
...HRDXNIS_00111	01/31/27		CIL, Lot ER11081602		(Purchased Reagent)		13C-1,2,3,4-TCDD	50 ug/mL
.HRDXNSU_00196	07/31/25	09/10/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00195	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
..HRDXNSU_00195	07/31/25	09/10/18	Isooctane, Lot 0000192372	10 mL	HRDXNSU_00187	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
...HRDXNSU_00187	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00092	04/30/26		CIL, Lot ER02241602		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL
HRDXNL6_00021	10/25/19	01/29/19	C14, Lot STBH5862	0.2 mL	HRDXNIDA_00303	0.05 mL	13C-1,2,3,4,7,8,9-HpCDF	100 ng/mL
							13C-2,3,4,7,8-PeCDF	100 ng/mL
							13C-1,2,3,4,7,8-HxCDD	100 ng/mL
							13C-1,2,3,4,7,8-HxCDF	100 ng/mL
					HRDXNIDA_00364	0.1 mL	13C-1,2,3,4,6,7,8-HpCDD	100 ng/mL
							13C-1,2,3,4,6,7,8-HpCDF	100 ng/mL
							13C-2,3,7,8-TCDF	100 ng/mL
							13C-2,3,7,8-TCDD	100 ng/mL
							13C-1,2,3,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8,9-HxCDF	100 ng/mL
							13C-2,3,4,6,7,8-HxCDF	100 ng/mL
							13C-1,2,3,7,8-PeCDD	100 ng/mL
							13C-1,2,3,7,8-PeCDF	100 ng/mL
							13C-1,2,3,6,7,8-HxCDD	100 ng/mL
							13C-OCDD	200 ng/mL
					HRDXNIS_00113	0.2 mL	13C-1,2,3,7,8,9-HxCDD	100 ng/mL
							13C-1,2,3,4-TCDD	100 ng/mL
					HRDXNSU_00196	0.1 mL	37Cl4-2,3,7,8-TCDD	200 ng/mL
					HRDXNTA_00092	0.1 mL	1,2,3,4,6,7,8-HpCDD	1000 ng/mL
							1,2,3,4,6,7,8-HpCDF	1000 ng/mL
							1,2,3,4,7,8,9-HpCDF	1000 ng/mL
							1,2,3,4,7,8-HxCDD	1000 ng/mL
							1,2,3,4,7,8-HxCDF	1000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3,6,7,8-HxCDD	1000 ng/mL
							1,2,3,6,7,8-HxCDF	1000 ng/mL
							1,2,3,7,8,9-HxCDD	1000 ng/mL
							1,2,3,7,8,9-HxCDF	1000 ng/mL
							1,2,3,7,8-PeCDD	1000 ng/mL
							1,2,3,7,8-PeCDF	1000 ng/mL
							2,3,4,6,7,8-HxCDF	1000 ng/mL
							2,3,4,7,8-PeCDF	1000 ng/mL
							2,3,7,8-TCDD	200 ng/mL
							2,3,7,8-TCDF	200 ng/mL
							OCDD	2000 ng/mL
							OCDF	2000 ng/mL
.HRDXNIDA_00303	07/31/20	09/20/17	Isooctane, Lot 0000134126	100 mL	HRDXNIDA_00247	0.8 mL	13C-1,2,3,4,7,8,9-HpCDF	0.4 ug/mL
					HRDXNIDA_00297	0.8 mL	13C-2,3,4,7,8-PeCDF	0.4 ug/mL
					HRDXNIDA_00301	0.8 mL	13C-1,2,3,4,7,8-HxCDD	0.4 ug/mL
					HRDXNIDA_00302	0.8 mL	13C-1,2,3,4,7,8-HxCDF	0.4 ug/mL
..HRDXNIDA_00247	03/31/26		CIL, Lot ER053107-02		(Purchased Reagent)		13C-1,2,3,4,7,8,9-HpCDF	50 ug/mL
..HRDXNIDA_00297	01/31/27		CIL, Lot ER01061701		(Purchased Reagent)		13C-2,3,4,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00301	10/31/21		CIL, Lot ER102711-01		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00302	07/31/20		CIL, Lot ER072810-02		(Purchased Reagent)		13C-1,2,3,4,7,8-HxCDF	50 ug/mL
.HRDXNIDA_00364	11/30/20	01/28/19	Isooctane, Lot 0000192372	250 mL	HRDXNIDA_00075	1 mL	13C-1,2,3,4,6,7,8-HpCDD	0.2 ug/mL
					HRDXNIDA_00353	1 mL	13C-1,2,3,4,6,7,8-HpCDF	0.2 ug/mL
					HRDXNIDA_00354	1 mL	13C-2,3,7,8-TCDF	0.2 ug/mL
					HRDXNIDA_00355	1 mL	13C-2,3,7,8-TCDD	0.2 ug/mL
					HRDXNIDA_00357	1 mL	13C-1,2,3,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00358	1 mL	13C-1,2,3,7,8,9-HxCDF	0.2 ug/mL
					HRDXNIDA_00359	1 mL	13C-2,3,4,6,7,8-HxCDF	0.2 ug/mL
					HRDXNIDA_00360	1 mL	13C-1,2,3,7,8-PeCDD	0.2 ug/mL
					HRDXNIDA_00361	1 mL	13C-1,2,3,7,8-PeCDF	0.2 ug/mL
					HRDXNIDA_00362	1 mL	13C-1,2,3,6,7,8-HxCDD	0.2 ug/mL
					HRDXNIDA_00365	10 mL	13C-OCDD	0.4 ug/mL
..HRDXNIDA_00075	11/30/20		CIL, Lot ER111010-01		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDD	50 ug/mL
..HRDXNIDA_00353	11/30/24		CIL, Lot ER08101404		(Purchased Reagent)		13C-1,2,3,4,6,7,8-HpCDF	50 ug/mL
..HRDXNIDA_00354	09/30/26		CIL, Lot ER09131601		(Purchased Reagent)		13C-2,3,7,8-TCDF	50 ug/mL
..HRDXNIDA_00355	03/31/26		CIL, Lot ER03031601		(Purchased Reagent)		13C-2,3,7,8-TCDD	50 ug/mL
..HRDXNIDA_00357	04/30/26		CIL, Lot ER02241603		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00358	12/31/20		CIL, Lot ER100610-01		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDF	50 ug/mL
..HRDXNIDA_00359	12/31/20		CIL, Lot ER100610-02		(Purchased Reagent)		13C-2,3,4,6,7,8-HxCDF	50 ug/mL
..HRDXNIDA_00360	08/31/24		CIL, Lot ER08041401		(Purchased Reagent)		13C-1,2,3,7,8-PeCDD	50 ug/mL
..HRDXNIDA_00361	01/31/21		CIL, Lot ER012111-01		(Purchased Reagent)		13C-1,2,3,7,8-PeCDF	50 ug/mL
..HRDXNIDA_00362	03/31/28		CIL, Lot ER03151801		(Purchased Reagent)		13C-1,2,3,6,7,8-HxCDD	50 ug/mL
..HRDXNIDA_00365	04/30/27		CIL, Lot ER04051701		(Purchased Reagent)		13C-OCDD	10 ug/mL
.HRDXNIS_00113	10/25/19	10/25/18	C14, Lot STBH5862	100 mL	HRDXNIS_00112	2 mL	13C-1,2,3,7,8,9-HxCDD	0.1 ug/mL
							13C-1,2,3,4-TCDD	0.1 ug/mL
..HRDXNIS_00112	09/30/26	10/25/18	Isooctane, Lot 0000192372	10 mL	HRDXNIS_00110	1 mL	13C-1,2,3,7,8,9-HxCDD	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					HRDXNIS_00111	1 mL	13C-1,2,3,4-TCDD	5 ug/mL
...HRDXNIS_00110	09/30/26		CIL, Lot ER08221601		(Purchased Reagent)		13C-1,2,3,7,8,9-HxCDD	50 ug/mL
...HRDXNIS_00111	01/31/27		CIL, Lot ER11081602		(Purchased Reagent)		13C-1,2,3,4-TCDD	50 ug/mL
.HRDXNSU_00196	07/31/25	09/10/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00195	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
..HRDXNSU_00195	07/31/25	09/10/18	Isooctane, Lot 0000192372	10 mL	HRDXNSU_00187	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
...HRDXNSU_00187	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
.HRDXNTA_00092	04/30/26		CIL, Lot ER02241602		(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL
HRDXNSU_00215	09/07/19	06/24/19	Isooctane, Lot 0000192372	500 mL	HRDXNSU_00192	1000 uL	37Cl4-2,3,7,8-TCDD	0.8 pg/uL
.HRDXNSU_00192	09/07/19	09/07/18	Isooctane, Lot 0000192372	25 mL	HRDXNSU_00169	2 mL	37Cl4-2,3,7,8-TCDD	0.4 ug/mL
..HRDXNSU_00169	07/31/25	09/19/17	Isooctane, Lot 0000134126	10 mL	HRDXNSU_00123	1 mL	37Cl4-2,3,7,8-TCDD	5 ug/mL
...HRDXNSU_00123	07/31/25		CIL, Lot ER05211501		(Purchased Reagent)		37Cl4-2,3,7,8-TCDD	50 ug/mL
HRDXNTA_00113	05/29/20	05/29/19	Acetone, Lot 00000197752	25 mL	HRDXNTA_00092	0.25 mL	1,2,3,4,6,7,8-HpCDD	20 ng/mL
							1,2,3,4,6,7,8-HpCDF	20 ng/mL
							1,2,3,4,7,8,9-HpCDF	20 ng/mL
							1,2,3,4,7,8-HxCDD	20 ng/mL
							1,2,3,4,7,8-HxCDF	20 ng/mL
							1,2,3,6,7,8-HxCDD	20 ng/mL
							1,2,3,6,7,8-HxCDF	20 ng/mL
							1,2,3,7,8,9-HxCDD	20 ng/mL
							1,2,3,7,8,9-HxCDF	20 ng/mL
							1,2,3,7,8-PeCDD	20 ng/mL
							1,2,3,7,8-PeCDF	20 ng/mL
							2,3,4,6,7,8-HxCDF	20 ng/mL
							2,3,4,7,8-PeCDF	20 ng/mL
							2,3,7,8-TCDD	4 ng/mL
							2,3,7,8-TCDF	4 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							OCDD	40 ng/mL
							OCDF	40 ng/mL
.HRDXNTA_00092	04/30/26	CIL, Lot ER02241602			(Purchased Reagent)		1,2,3,4,6,7,8-HpCDD	2 ug/mL
							1,2,3,4,6,7,8-HpCDF	2 ug/mL
							1,2,3,4,7,8,9-HpCDF	2 ug/mL
							1,2,3,4,7,8-HxCDD	2 ug/mL
							1,2,3,4,7,8-HxCDF	2 ug/mL
							1,2,3,6,7,8-HxCDD	2 ug/mL
							1,2,3,6,7,8-HxCDF	2 ug/mL
							1,2,3,7,8,9-HxCDD	2 ug/mL
							1,2,3,7,8,9-HxCDF	2 ug/mL
							1,2,3,7,8-PeCDD	2 ug/mL
							1,2,3,7,8-PeCDF	2 ug/mL
							2,3,4,6,7,8-HxCDF	2 ug/mL
							2,3,4,7,8-PeCDF	2 ug/mL
							2,3,7,8-TCDD	0.4 ug/mL
							2,3,7,8-TCDF	0.4 ug/mL
							OCDD	4 ug/mL
							OCDF	4 ug/mL

Reagent

1660restek_P_00006

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32039 **Lot No.:** A0139779

Description : Aroclor® 1016/1260 Mix

Aroclor® 1016/1260 Mix 1,000 µg/mL, Hexane, 1mL/ampul

2248079
ID: 1660restek_P_00006
Exp: 10/31/24 Prpd: ERZ
1000 ug/mL 1016/1260 prim

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1016		1,005.4 µg/mL	+/- 5.8590	µg/mL	Gravimetric
	CAS # 12674-11-2	(Lot 766071)		+/- 31.8575	µg/mL	Unstressed
	Purity —%			+/- 41.6206	µg/mL	Stressed
2	Aroclor 1260		1,009.8 µg/mL	+/- 5.8846	µg/mL	Gravimetric
	CAS # 11096-82-5	(Lot 855895)		+/- 31.9969	µg/mL	Unstressed
	Purity —%			+/- 41.8028	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

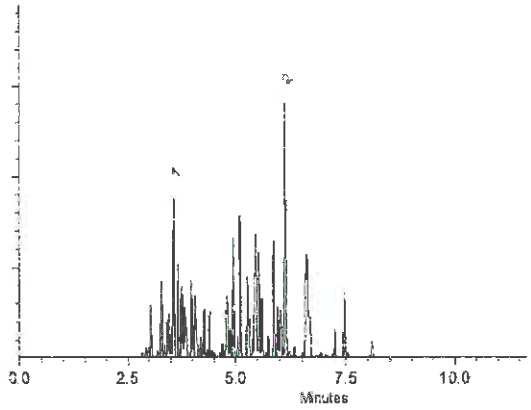
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alice Brooks - Mix Technician

Date Mixed: 18-Jul-2018 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 23-Jul-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

1660restek_S_00008

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

2248004
ID: 1660restek_S_00008
Exp: 03/31/24 Prpd: ERZ
1000 ug/mL 1016/1260 seco

Catalog No. : 32039.SEC **Lot No.:** A0133256

Description : Aroclor® 1016/1260 Mix

Aroclor® 1016/1260 Mix 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Aroclor 1016	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 12674-11-2.SEC (Lot NTO1016)		+/- 31.9609 µg/mL	Unstressed
	Purity —%		+/- 41.7443 µg/mL	Stressed
2	Aroclor 1260	1,004.0 µg/mL	+/- 5.9635 µg/mL	Gravimetric
	CAS # 11096-82-5.SEC (Lot 021-020-1A)		+/- 31.8340 µg/mL	Unstressed
	Purity —%		+/- 41.5787 µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

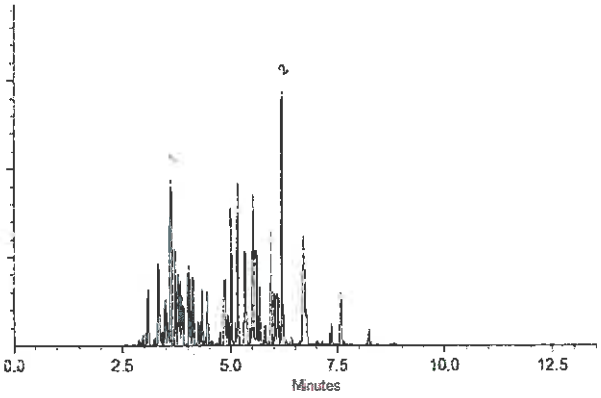
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Larry J. Moore - Mix Technician

Date Mixed: 12-Dec-2017 **Balance:** B345965662

Justine Albertson - Operations Tech-ARM QC

Date Passed: 13-Dec-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

8081_OCP_P_00011

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32415.sec **Lot No.:** A0108854

Description : Organochlorine Pesticide Mix AB #3

Organochlorine Pesticide Mix AB #3 2,000µg/mL, Hexane/Toluene (50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	alpha-BHC **CAS #** 319-84-6.SEC **Purity** 99%	(Lot 1623900)	2,009.5 µg/mL	+/- 11.7929 µg/mL +/- 78.6071 µg/mL +/- 124.7419 µg/mL	Gravimetric Unstressed Stressed
2	gamma-BHC (Lindane) **CAS #** 58-89-9.SEC **Purity** 99%	(Lot LC00563V)	2,010.0 µg/mL	+/- 11.7958 µg/mL +/- 78.6267 µg/mL +/- 124.7729 µg/mL	Gravimetric Unstressed Stressed
3	beta-BHC **CAS #** 319-85-7.SEC **Purity** 98%	(Lot 1808700)	2,003.1 µg/mL	+/- 11.7554 µg/mL +/- 78.3575 µg/mL +/- 124.3458 µg/mL	Gravimetric Unstressed Stressed
4	delta-BHC **CAS #** 319-86-8.SEC **Purity** 99%	(Lot 1912200)	2,003.5 µg/mL	+/- 11.7577 µg/mL +/- 78.3724 µg/mL +/- 124.3694 µg/mL	Gravimetric Unstressed Stressed
5	Heptachlor **CAS #** 76-44-8.SEC **Purity** 99%	(Lot 1745400)	2,000.5 µg/mL	+/- 11.7401 µg/mL +/- 78.2551 µg/mL +/- 124.1832 µg/mL	Gravimetric Unstressed Stressed
6	Aldrin **CAS #** 309-00-2.SEC **Purity** 98%	(Lot ER062311-01)	2,004.1 µg/mL	+/- 11.7612 µg/mL +/- 78.3959 µg/mL +/- 124.4067 µg/mL	Gravimetric Unstressed Stressed
7	Heptachlor epoxide (isomer B) **CAS #** 1024-57-3.SEC **Purity** 99%	(Lot 3352500)	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 78.4702 µg/mL +/- 124.5246 µg/mL	Gravimetric Unstressed Stressed

Reagent

8081_OCP_S_00016

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

1656181
ID: 8081_OCP_S_00012
Exp: 02/28/19 Prpd: ERZ
2000 ug/ml Restek OCP Sec

Rec'd 2/22/16 DCV

Catalog No. : 32415.sec **Lot No.:** A0108854

Description : Organochlorine Pesticide Mix AB #3

Organochlorine Pesticide Mix AB #3 2,000 µg/mL, Hexane/Toluene (50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	alpha-BHC **CAS #** 319-84-6.SEC **Purity** 99%	(Lot 1623900)	2,009.5 µg/mL	+/- 11.7929 µg/mL +/- 78.6071 µg/mL +/- 124.7419 µg/mL		Gravimetric Unstressed Stressed
2	gamma-BHC (Lindane) **CAS #** 58-89-9.SEC **Purity** 99%	(Lot LC00563V)	2,010.0 µg/mL	+/- 11.7958 µg/mL +/- 78.6267 µg/mL +/- 124.7729 µg/mL		Gravimetric Unstressed Stressed
3	beta-BHC **CAS #** 319-85-7.SEC **Purity** 98%	(Lot 1808700)	2,003.1 µg/mL	+/- 11.7554 µg/mL +/- 78.3575 µg/mL +/- 124.3458 µg/mL		Gravimetric Unstressed Stressed
4	delta-BHC **CAS #** 319-86-8.SEC **Purity** 99%	(Lot 1912200)	2,003.5 µg/mL	+/- 11.7577 µg/mL +/- 78.3724 µg/mL +/- 124.3694 µg/mL		Gravimetric Unstressed Stressed
5	Heptachlor **CAS #** 76-44-8.SEC **Purity** 99%	(Lot 1745400)	2,000.5 µg/mL	+/- 11.7401 µg/mL +/- 78.2551 µg/mL +/- 124.1832 µg/mL		Gravimetric Unstressed Stressed
6	Aldrin **CAS #** 309-00-2.SEC **Purity** 98%	(Lot ER062311-01)	2,004.1 µg/mL	+/- 11.7612 µg/mL +/- 78.3959 µg/mL +/- 124.4067 µg/mL		Gravimetric Unstressed Stressed
7	Heptachlor epoxide (isomer B) **CAS #** 1024-57-3.SEC **Purity** 99%	(Lot 3352500)	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 78.4702 µg/mL +/- 124.5246 µg/mL		Gravimetric Unstressed Stressed

8	trans-Chlordane		2,006.0	µg/mL	+/-	11.7723	µg/mL	Gravimetric
	CAS # 5103-74-2.SEC	(Lot LC06193V)			+/-	78.4702	µg/mL	Unstressed
	Purity 99%				+/-	124.5246	µg/mL	Stressed
9	cis-Chlordane		2,009.0	µg/mL	+/-	11.7899	µg/mL	Gravimetric
	CAS # 5103-71-9.SEC	(Lot 24407)			+/-	78.5876	µg/mL	Unstressed
	Purity 99%				+/-	124.7108	µg/mL	Stressed
10	4,4'-DDE		2,001.5	µg/mL	+/-	11.7459	µg/mL	Gravimetric
	CAS # 72-55-9.SEC	(Lot 1833500)			+/-	78.2942	µg/mL	Unstressed
	Purity 99%				+/-	124.2453	µg/mL	Stressed
11	Endosulfan I		2,002.1	µg/mL	+/-	11.7497	µg/mL	Gravimetric
	CAS # 959-98-8.SEC	(Lot 1710200)			+/-	78.3192	µg/mL	Unstressed
	Purity 98%				+/-	124.2850	µg/mL	Stressed
12	Dieldrin		1,995.3	µg/mL	+/-	11.7094	µg/mL	Gravimetric
	CAS # 60-57-1.SEC	(Lot 1274700)			+/-	78.0509	µg/mL	Unstressed
	Purity 98%				+/-	123.8591	µg/mL	Stressed
13	Endrin		2,000.0	µg/mL	+/-	11.7371	µg/mL	Gravimetric
	CAS # 72-20-8 *	(Lot LC06045V)			+/-	78.2355	µg/mL	Unstressed
	Purity 99%				+/-	124.1521	µg/mL	Stressed
14	4,4'-DDD		2,009.0	µg/mL	+/-	11.7899	µg/mL	Gravimetric
	CAS # 72-54-8.SEC	(Lot 1141700)			+/-	78.5876	µg/mL	Unstressed
	Purity 98%				+/-	124.7108	µg/mL	Stressed
15	Endosulfan II		2,010.0	µg/mL	+/-	11.7958	µg/mL	Gravimetric
	CAS # 33213-65-9.SEC	(Lot 3437500)			+/-	78.6267	µg/mL	Unstressed
	Purity 99%				+/-	124.7729	µg/mL	Stressed
16	4,4'-DDT		2,016.5	µg/mL	+/-	11.8340	µg/mL	Gravimetric
	CAS # 50-29-3.SEC	(Lot 3478000)			+/-	78.8809	µg/mL	Unstressed
	Purity 99%				+/-	125.1764	µg/mL	Stressed
17	Endrin aldehyde		2,016.4	µg/mL	+/-	11.8331	µg/mL	Gravimetric
	CAS # 7421-93-4.SEC	(Lot 21752)			+/-	78.8751	µg/mL	Unstressed
	Purity 98%				+/-	125.1671	µg/mL	Stressed
18	Methoxychlor		2,007.0	µg/mL	+/-	11.7782	µg/mL	Gravimetric
	CAS # 72-43-5.SEC	(Lot LC09014V)			+/-	78.5093	µg/mL	Unstressed
	Purity 99%				+/-	124.5867	µg/mL	Stressed
19	Endosulfan sulfate		2,007.5	µg/mL	+/-	11.7813	µg/mL	Gravimetric
	CAS # 1031-07-8.SEC	(Lot 1888900)			+/-	78.5301	µg/mL	Unstressed
	Purity 98%				+/-	124.6196	µg/mL	Stressed
20	Endrin ketone		2,007.5	µg/mL	+/-	11.7813	µg/mL	Gravimetric
	CAS # 53494-70-5.SEC	(Lot 091307RD)			+/-	78.5301	µg/mL	Unstressed
	Purity 98%				+/-	124.6196	µg/mL	Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

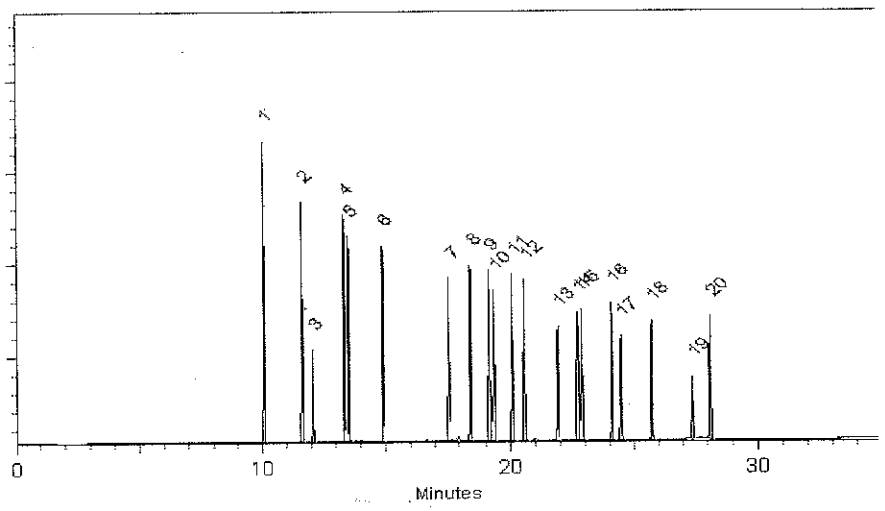
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 04-Feb-2015 **Balance:** B345965662

Diane Shaffer - QA Analyst

Date Passed: 12-Feb-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8081CISNONPRI_00009

Reference Materials Producer
Cert #2495.01

SPEXertificate®
Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: S-2765 **Lot No.** EN171102023

Description: cis-Nonachlor

Matrix: Methanol (Purge & Trap Grade)

Manufactured Date: 11-2-2017
Expiration Date: 11-1-2020

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality contrc standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTI and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
cis-Nonachlor	5103-73-1	1000 µg/mL	99.9%	999 µg/mL	± 26 µg/mL

2151934
ID: 8081CISNONPRI_00009
Exp: 11/01/20 Prpd: YIW
1000 ug/ml cis-Nonachlor

5/3/18 YW

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 11-2-2017 Certifying Officer: Shannon Nave

©2017 SPEX CertiPrep, LLC

Report of Certification

Catalog Number: S-2765 **Lot No.** EN171102023

Description: cis-Nonachlor

Matrix: Methanol (Purge & Trap Grade)

Manufactured Date: 11-2-2017

Expiration Date: 11-1-2020

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in ambient conditions (18°C to 27°C). Note: Shippir conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve a one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that shoulc removed from this vial is 5µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that cor in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identificati are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation h been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appe X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedur 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bott variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i, where $u_c=\sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individu who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, allegc negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liab for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave. Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-732-549-7144 • Fax 1-732-603-9647

Accredited to 17025 & Guide 34 ISO Certified to 9001

Reference Materials Producer
Cert #2495.01

SPEXertificate®
Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: S-2765 **Lot No.** EN170308003

Description: cis-Nonachlor

Matrix: Methanol (Purge & Trap Grade)

Manufactured Date: 3-8-2017
Expiration Date: 3-7-2020

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality contrc standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTI and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
cis-Nonachlor	5103-73-1	1000 µg/mL	99.9%	1009 µg/mL	± 26 µg/mL

2151932
ID: 8081CISNONPRI_00008
Exp: 03/07/20 Prpd: Y1W
1000 ug/ml cis-Nonachlor

5/3/18 YW

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 3-8-2017 Certifying Officer: Shannon Nave

©2017 SPEX CertiPrep, LLC

Report of Certification

Catalog Number: S-2765 **Lot No.** EN170308003

Description: cis-Nonachlor

Matrix: Methanol (Purge & Trap Grade)

Manufactured Date: 3-8-2017
Expiration Date: 3-7-2020

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in ambient conditions (18°C to 27°C). Note: Shippir conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve a one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that shoul removed from this vial is 5µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that cor in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identificati are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation h been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appe X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedur 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bott variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i, where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individu who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, alleg negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liab for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave. Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-732-549-7144 • Fax 1-732-603-9647

Accredited to 17025 & Guide 34 ISO Certified to 9001

Reagent

8081CISNONSEC_00003

o2si smart solutions®

Quality System Audited & Registered by NSF-ISR to ISO 9001:2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

ACCREDITED

ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: 2/6/19

Certificate of Analysis

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
030350-02	342135	≤ 6 °C	Methanol w/ 0.1% Formic Acid	15-May-2021	cis-Nonachlor Solution, 1,000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
cis-nonachlor	5103-73-1	99.7	350.4.2.8P	995 +/- 10.16	mg/L

Certified By: Kimberly A King

Kimberly King
Manufacture Date 11-May-2018

Follow all storage requirements, keep tightly closed when not in use, and use good laboratory practices when handling.
This Reference Material was manufactured, produced, and/or certified under a quality management system that is accredited to ISO 17034 and ISO/IEC 17025.

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

The stated uncertainty is the expanded uncertainty with a coverage factor of two to give a 95% confidence level.

Reagent

8081HCB_P_00003

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32231 **Lot No.:** A0113404

Description : Hexachlorobenzene Standard

Hexachlorobenzene 1000µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2020 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

1656151
ID: 8081HCB_P_00002
Exp: 08/31/20 Prpd: ERZ
1000 ug/ml Hexachlorobenz

Rec'd
DCV
2/22/16

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Hexachlorobenzene	999.6 µg/mL	+/- 5.9373	µg/mL	Gravimetric
	CAS # 118-74-1 (Lot LC04221V)		+/- 11.3372	µg/mL	Unstressed
	Purity 98%		+/- 13.0275	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

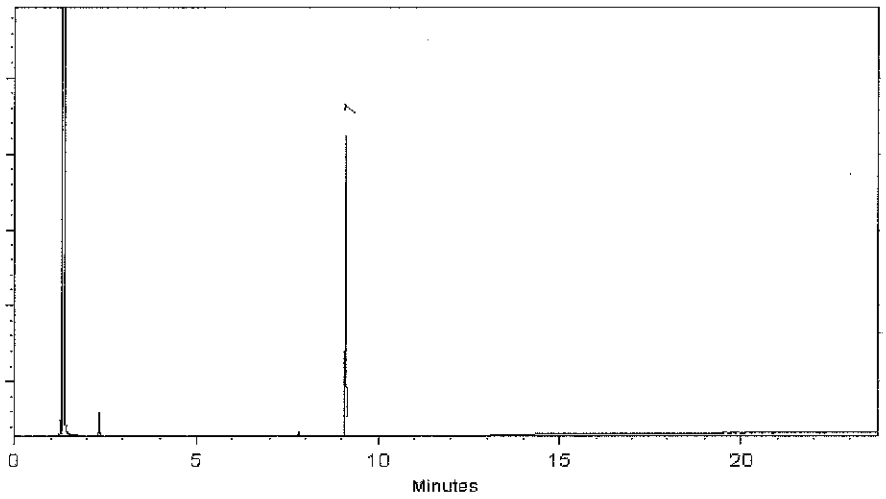
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jesse King - Mix Technician

Date Mixed: 18-Aug-2015 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst

Date Passed: 20-Aug-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8081HCB_P_00004

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32231 **Lot No.:** A0135337

Description : Hexachlorobenzene Standard

Hexachlorobenzene Standard 1000 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2023 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Hexachlorobenzene	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 118-74-1 (Lot 7013600)		+/- 56.3065	µg/mL	Unstressed
	Purity 99%		+/- 57.6234	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

2164178
ID: 8081HCB_P_00004
Exp: 02/28/23 Prpd: Y1W
1000 ug/ml Hexachlorobenz
5/24/18 YW

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

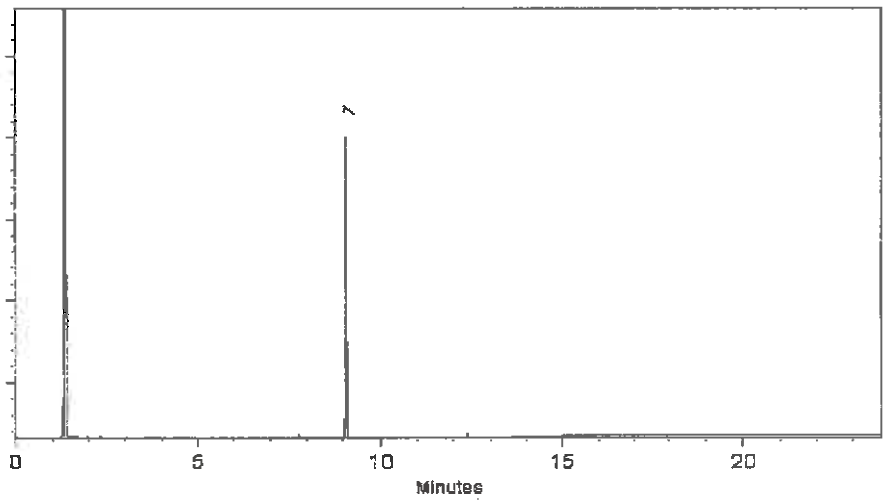
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 19-Feb-2018 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 21-Feb-2018

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

8081HCBD_P_00005

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31435 **Lot No.:** A0137065

Description : Hexachlorobutadiene Standard

Hexachlorobutadiene 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Hexachlorobutadiene	1,000.0 µg/mL	+/- 10.0737	µg/mL	Gravimetric
	CAS # 87-68-3 (Lot J31X013)		+/- 56.6693	µg/mL	Unstressed
	Purity 99%		+/- 57.9677	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

2164175
ID: 8081HCBD_P_00005
Exp: 04/30/23 Prpd: Y1W
1000 ug/ml Hexachlorobuta

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

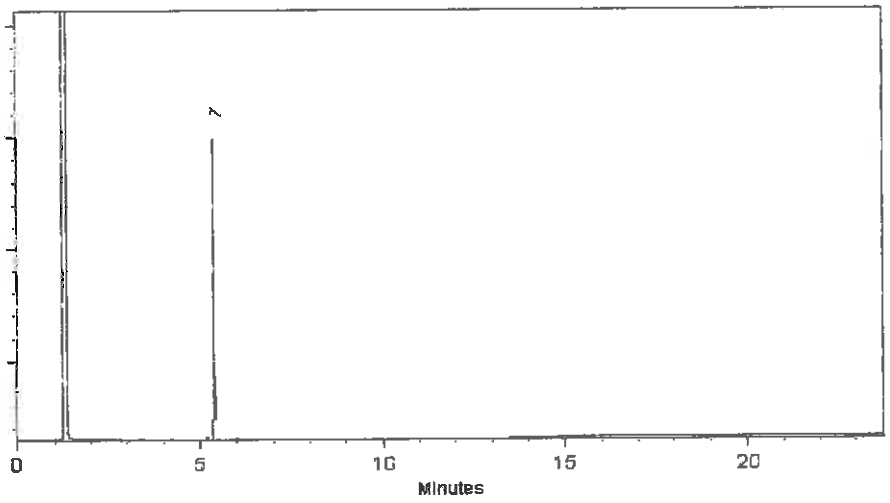
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician

Date Mixed: 11-Apr-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 13-Apr-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8081MIREX_00015

ACCREDITED
Reference Materials Producer
Cert #2495.01

SPEXertificate®
Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: S-2635 **Lot No.** EN170918009

Description: Mirex

Matrix: Hexane:Toluene (50:50)

Manufactured Date: 9-18-2017
Expiration Date: 9-17-2020

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality contrc standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTI and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
Mirex	2385-85-5	1000 µg/mL	99.5%	997 µg/mL	± 26 µg/mL

2151921
ID: 8081MIREX_00015
Exp: 09/17/20 Prpd: YIW
1173-69-03 Mirex Supelco
5/3/18 YW

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 9-18-2017 Certifying Officer: Shannon Mora

©2017 SPEX CertiPrep LLC

Report of Certification

Catalog Number: S-2635 **Lot No.** EN170918009

Description: Mirex

Matrix: Hexane:Toluene (50:50)

Manufactured Date: 9-18-2017

Expiration Date: 9-17-2020

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in ambient conditions (18°C to 27°C). Note: Shippir conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve a one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that shoulc removed from this vial is 5µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that cor in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identificati are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation h been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appe X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedur 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bott variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i, where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individu who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, allegc negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liab for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave. Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-732-549-7144 • Fax 1-732-603-9647

Reagent

8081MIREX_00016

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222-01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222-02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571990 **Lot No.:** A0145272

Description : 8081 Mirex Standard

8081 Mirex Standard 2,000µg/mL, Hexane/Toluene (50:50), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Mirex		2,000.0 µg/mL	+/- 18.5989	µg/mL	Gravimetric
	CAS # 2385-85-5	(Lot 7018700)		+/- 92.2339	µg/mL	Unstressed
	Purity 99%			+/- 132.3227	µg/mL	Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8081OXYCHLSS_00007

Certificate of Analysis

Agilent

Oxychlordane Solution

Product Number: PP-541 **Page:** 1 of 1

Lot Number: CR-2559 **Lot Issue Date:** 07-Jun-2017 **Expiration Date:** 31-Jul-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
oxychlordane	027304-13-8	RM12307	99.9 ± 0.5 µg/mL

Matrix: hexane

Storage: Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED TESTING LABORATORY

ISO 9001
Registered
TUV USA, Inc.

250 Smith Street North Kingstown, Rhode Island 02852 www.ultrasci.com

Reagent

8081TRANON_00010

Certificate of Analysis

Agilent

trans-Nonachlor Solution

Product Number: PP-500 **Page:** 1 of 1

Lot Number: CS-1938 **Lot Issue Date:** 17-Apr-2018 **Expiration Date:** 31-May-2022

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
trans-nonachlor	039765-80-5	RM13557	100.4 ± 0.5 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED TESTING LABORATORY

ISO 9001
Registered
TUV USA, Inc.

250 Smith Street North Kingstown, Rhode Island 02852 www.ultrasci.com

Reagent

8081TRANONPRI_00007

ACCREDITED
Reference Materials Producer
Cert #2495.01

SPEXertificate®
Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: S-2770 **Lot No.** GS180827008

Description: trans-Nonachlor

Matrix: Methanol

Manufactured Date: 8-27-2018

Expiration Date: 8-26-2021

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
trans-Nonachlor	39765-80-5	1000 µg/mL	99%	995 µg/mL	± 26 µg/mL

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 8-27-2018

Certifying Officer: Shannon Mace

Shannon Macieira, Operations Manager

© 2018 SPEX CertiPrep, LLC

Reagent

81/82_SurrSTK_00002

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0136320

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2,4,5,6-Tetrachloro-m-xylene **CAS #** 877-09-8 (Lot 0052481) **Purity** 98%	200.3 µg/mL	+/- 1.1673 µg/mL +/- 6.3472 µg/mL +/- 8.2923 µg/mL	Gravimetric Unstressed Stressed
2	Decachlorobiphenyl (BZ# 209) **CAS #** 2051-24-3 (Lot ER071509-01) **Purity** 99%	200.2 µg/mL	+/- 1.1667 µg/mL +/- 6.3436 µg/mL +/- 8.2877 µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

81/82_SurrSTK_00003

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0141110

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2024 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4,5,6-Tetrachloro-m-xylene	201.4 µg/mL	+/- 1.1736	µg/mL	Gravimetric
	CAS # 877-09-8 (Lot 0052481)		+/- 6.3813	µg/mL	Unstressed
	Purity 98%		+/- 8.3370	µg/mL	Stressed
2	Decachlorobiphenyl (BZ# 209)	200.6 µg/mL	+/- 1.1690	µg/mL	Gravimetric
	CAS # 2051-24-3 (Lot ER071509-01)		+/- 6.3563	µg/mL	Unstressed
	Purity 99%		+/- 8.3043	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8182_ISTD_STK_00003

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32279 **Lot No.:** A0130784

Description : 1-Bromo-2-nitrobenzene Standard

1-Bromo-2-nitrobenzene Standard 1000 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2020 **Storage:** 10°C or colder

2124443
ID: 8182_ISTD_STK_00003
Exp: 12/31/20 Prpd: YW
1000ug/mL ISTD for 8081/8
YW 3/20/2018

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	1-Bromo-2-nitrobenzene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 577-19-5	(Lot 643872/1)		+/- 56.0822	µg/mL	Unstressed
	Purity 99%			+/- 57.3938	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

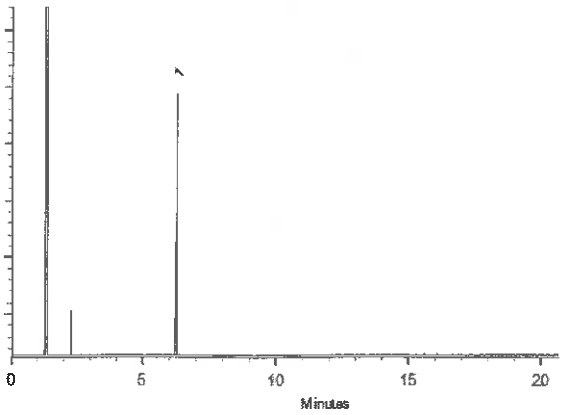
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 14-Sep-2017 **Balance:** 1128360905

Justine Albertson
Justine Albertson - Operations Tech-ARM QC

Date Passed: 18-Sep-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

Reagent

8270flspk_00252

Preliminary Report

Eurofins TestAmerica, Seattle

LCS, Lab Control Sample Report

Sample Path: \\chromna\Seattle\ChromData\TAC051\20190710-66230.b\0710A026.D

Lims ID: 8270flspk_252 Inj. Date: 10-Jul-2019 19:33:30

Worklist ID: 580-0066230-023 Instrument: TAC051

Method: 8270 TAC051

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3550B
16 N-Nitrosodimethylamine	1000.0	1026.2	102.6	55-140
17 Pyridine	2000.0	1843.7	92.2	53-120
19 Phenol	1000.0	1022.7	102.3	59-120
18 Aniline	1000.0	1013.7	101.4	21-121
20 Bis(2-chloroethyl)ether	1000.0	953.0	95.3	61-120
21 2-Chlorophenol	1000.0	1054.9	105.5	66-120
22 n-Decane	1000.0	904.0	90.4	50-120
23 1,3-Dichlorobenzene	1000.0	1008.5	100.9	64-120
25 1,4-Dichlorobenzene	1000.0	979.9	98.0	57-120
26 Benzyl alcohol	1000.0	997.2	99.7	28-134
27 1,2-Dichlorobenzene	1000.0	1016.3	101.6	62-120
28 2-Methylphenol	1000.0	1055.7	105.6	61-120
29 2,2'-oxybis[1-chloropro	1000.0	804.9	80.5	42-134
30 Acetophenone	1000.0	995.2	99.5	75-120
32 3 & 4 Methylphenol	1000.0	1049.4	104.9	60-120
31 N-Nitrosodi-n-propylami	1000.0	963.7	96.4	56-128
33 Hexachloroethane	1000.0	951.4	95.1	64-120
34 Nitrobenzene	1000.0	1001.2	100.1	57-136
35 Isophorone	1000.0	992.8	99.3	61-128
36 2-Nitrophenol	1000.0	1182.2	118.2	58-130
37 2,4-Dimethylphenol	1000.0	1124.6	112.5	37-129
39 Benzoic acid	2000.0	2033.6	101.7	10-120
38 Bis(2-chloroethoxy)meth	1000.0	1015.7	101.6	60-120
40 2,4-Dichlorophenol	1000.0	1094.5	109.5	63-121
41 1,2,4-Trichlorobenzene	1000.0	1048.9	104.9	66-120
42 Naphthalene	1000.0	991.8	99.2	68-120
43 4-Chloroaniline	1000.0	1225.4	122.5	10-120*
44 2,6-Dichlorophenol	1000.0	1117.3	111.7	10-150
45 Hexachlorobutadiene	1000.0	1054.3	105.4	64-120
46 4-Chloro-3-methylphenol	1000.0	1068.1	106.8	61-120
47 2-Methylnaphthalene	1000.0	1025.0	102.5	65-120
48 1-Methylnaphthalene	1000.0	1046.6	104.7	69-120
49 Hexachlorocyclopentadie	1000.0	419.2	41.9	* 53-131
50 1,2,4,5-Tetrachlorobenz	1000.0	1023.1	102.3	75-120
52 2,4,6-Trichlorophenol	1000.0	1119.4	111.9	59-120
53 2,4,5-Trichlorophenol	1000.0	1158.4	115.8	64-120
54 1,1'-Biphenyl	1000.0	1036.9	103.7	73-120
55 2-Chloronaphthalene	1000.0	1071.8	107.2	65-120
56 2-Nitroaniline	1000.0	1069.6	107.0	63-126
57 Dimethyl phthalate	1000.0	1116.4	111.6	66-120
58 1,3-Dinitrobenzene	1000.0	1206.0	120.6	50-150

Preliminary Report

Sample Path: \\chromna\Seattle\ChromData\TAC051\20190710-66230.b\0710A026.D

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3550B
59 2,6-Dinitrotoluene	1000.0	1151.6	115.2	63-126
60 Acenaphthylene	1000.0	1143.6	114.4	63-120
61 3-Nitroaniline	1000.0	1504.4	150.4	34-120*
62 Acenaphthene	1000.0	1051.9	105.2	64-120
63 2,4-Dinitrophenol	2000.0	2261.5	113.1	10-139
64 4-Nitrophenol	2000.0	2302.3	115.1	27-150
65 2,4-Dinitrotoluene	1000.0	1143.5	114.4	63-125
66 Dibenzofuran	1000.0	1113.0	111.3	68-120
67 2,3,4,6-Tetrachlorophen	1000.0	1075.9	107.6	43-134
68 Diethyl phthalate	1000.0	1146.9	114.7	53-126
69 Fluorene	1000.0	1030.8	103.1	68-121
70 4-Chlorophenyl phenyl e	1000.0	1131.6	113.2	64-120
71 4-Nitroaniline	1000.0	1263.0	126.3	49-128
72 4,6-Dinitro-2-methylphe	2000.0	2221.9	111.1	13-150
73 N-Nitrosodiphenylamine	1000.0	1046.9	104.7	67-120
74 Azobenzene	1000.0	968.9	96.9	56-139
75 4-Bromophenyl phenyl et	1000.0	977.2	97.7	65-120
76 Hexachlorobenzene	1000.0	900.1	90.0	53-126
77 Atrazine	2000.0	2256.1	112.8	50-150
78 Pentachlorophenol	2000.0	1923.3	96.2	18-125
79 n-Octadecane	1000.0	964.7	96.5	67-127
80 Phenanthrene	1000.0	1005.2	100.5	68-120
81 Anthracene	1000.0	1042.8	104.3	67-120
83 Carbazole	1000.0	1148.9	114.9	70-137
84 Di-n-butyl phthalate	1000.0	997.4	99.7	59-129
85 Fluoranthene	1000.0	1034.7	103.5	69-120
88 Benzidine	2000.0	1714.5	85.7	10-120
89 Pyrene	1000.0	1136.9	113.7	73-120
94 Butyl benzyl phthalate	1000.0	998.5	99.8	59-141
96 3,3'-Dichlorobenzidine	2000.0	2333.7	116.7	23-129
97 Benzo[a]anthracene	1000.0	1092.2	109.2	66-120
99 Chrysene	1000.0	1052.4	105.2	63-120
98 Bis(2-ethylhexyl) phtha	1000.0	982.0	98.2	59-136
100 Di-n-octyl phthalate	1000.0	1015.9	101.6	53-144
101 Benzo[b]fluoranthene	1000.0	1065.8	106.6	71-130
103 Benzo[k]fluoranthene	1000.0	1075.4	107.5	68-123
102 Benzofluoranthene	2000.0	2209.8	110.5	71-120
104 Benzo[a]pyrene	1000.0	1060.3	106.0	72-121
105 Indeno[1,2,3-cd]pyrene	1000.0	1049.2	104.9	52-139
106 Dibenz(a,h)anthracene	1000.0	1016.2	101.6	59-132
107 Benzo[g,h,i]perylene	1000.0	1157.3	115.7	59-134
111 Caprolactam	2000.0	*ND	0.0	50-150
119 Indene	2000.0	*ND	0.0	50-150
116 Hexadecane	1000.0	*ND	0.0	50-150

Preliminary Report

Sample Path: \\chromna\Seattle\ChromData\TAC051\20190710-66230.b\0710A026.D

Samples for Limit Group: 1, Lims Prep Method: 3550B

580-87377-A-3-C	580-87377-A-4-C	580-87377-A-5-C
580-87377-A-6-C	580-87377-A-7-B	580-87377-A-8-B
580-87377-A-9-B	580-87377-A-10-B	580-87377-A-11-B
580-87377-A-13-B	580-87377-A-24-B	580-87377-A-25-B
580-87377-A-26-B		

Reagent

8270ISstk_00006

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 **Lot No.:** A0129635

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

2115197
ID: 8270ISstk_00006
Exp: 08/31/22 Prpd: ERZ
8270 Internal standard st

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2022 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	2,014.1	µg/mL	+/- 11.7102 +/- 90.7163 +/- 100.6609	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 **Purity** 99%	(Lot M-1452)	2,004.1	µg/mL	+/- 11.6520 +/- 90.2659 +/- 100.1611	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 **Purity** 99%	(Lot PR-25444)	2,011.1	µg/mL	+/- 11.6927 +/- 90.5811 +/- 100.5110	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 **Purity** 99%	(Lot PR-27621)	2,014.5	µg/mL	+/- 11.7125 +/- 90.7343 +/- 100.6809	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 **Purity** 99%	(Lot PR-27952)	2,013.6	µg/mL	+/- 11.7072 +/- 90.6938 +/- 100.6359	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 **Purity** 99%	(Lot PR-27342)	2,012.2	µg/mL	+/- 11.6991 +/- 90.6307 +/- 100.5659	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

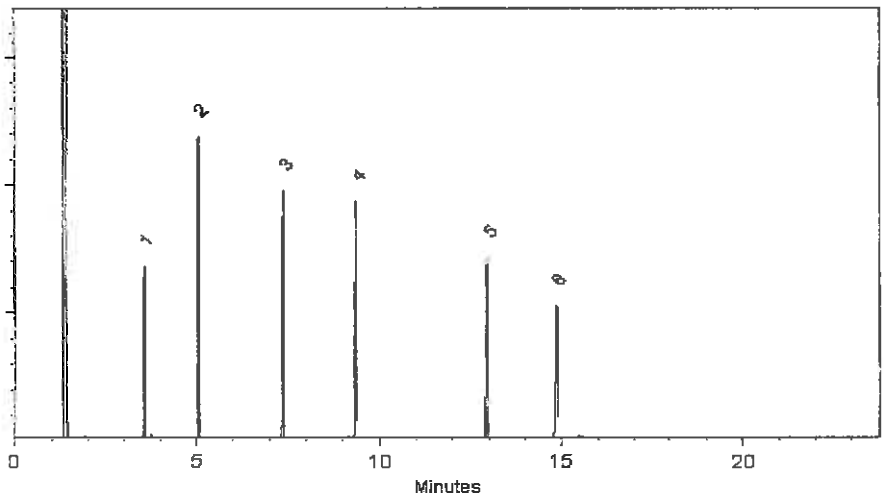
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician **Date Mixed:** 02-Aug-2017 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Aug-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

8270Mega_1stk_00011

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995 **Lot No.:** A0147571

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2000µg/mL, Methylene chloride, 5mL/ampul

2400813
ID: 8270Mega_1stk_00011
Exp:09/30/20 Prpd:ADB Opn:06/03/19
8270 List 1 / Std#1 MegaM

Container Size : **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2020 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane **CAS #** 123-91-1 (Lot SHBJ5124) **Purity** 99%	1,004.1 µg/mL	+/- 5.8379 µg/mL +/- 12.0031 µg/mL +/- 19.1027 µg/mL	Gravimetric Unstressed Stressed
2	N-Nitrosodimethylamine **CAS #** 62-75-9 (Lot 190214JLM) **Purity** 99%	1,004.7 µg/mL	+/- 5.8414 µg/mL +/- 12.0102 µg/mL +/- 19.1141 µg/mL	Gravimetric Unstressed Stressed
3	Pyridine **CAS #** 110-86-1 (Lot SHBJ3129) **Purity** 99%	2,005.9 µg/mL	+/- 11.6625 µg/mL +/- 23.9787 µg/mL +/- 38.1617 µg/mL	Gravimetric Unstressed Stressed
4	Phenol **CAS #** 108-95-2 (Lot SHBF9719V) **Purity** 99%	1,008.7 µg/mL	+/- 5.8647 µg/mL +/- 12.0581 µg/mL +/- 19.1902 µg/mL	Gravimetric Unstressed Stressed
5	Aniline **CAS #** 62-53-3 (Lot K22Z462) **Purity** 99%	1,006.5 µg/mL	+/- 5.8519 µg/mL +/- 12.0318 µg/mL +/- 19.1484 µg/mL	Gravimetric Unstressed Stressed
6	Bis(2-chloroethyl)ether **CAS #** 111-44-4 (Lot SHBJ2059) **Purity** 99%	1,006.2 µg/mL	+/- 5.8501 µg/mL +/- 12.0282 µg/mL +/- 19.1427 µg/mL	Gravimetric Unstressed Stressed
7	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBK4937) **Purity** 99%	1,008.6 µg/mL	+/- 5.8641 µg/mL +/- 12.0569 µg/mL +/- 19.1883 µg/mL	Gravimetric Unstressed Stressed

8	2-Chlorophenol		1,007.3	µg/mL	+/-	5.8565	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot STBF2690V)			+/-	12.0413	µg/mL	Unstressed
	Purity 99%				+/-	19.1636	µg/mL	Stressed
9	1,3-Dichlorobenzene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/-	12.0186	µg/mL	Unstressed
	Purity 99%				+/-	19.1274	µg/mL	Stressed
10	1,4-Dichlorobenzene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	12.0605	µg/mL	Unstressed
	Purity 99%				+/-	19.1940	µg/mL	Stressed
11	Benzyl alcohol		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBJ0534)			+/-	11.9863	µg/mL	Unstressed
	Purity 99%				+/-	19.0761	µg/mL	Stressed
12	1,2-Dichlorobenzene		1,004.2	µg/mL	+/-	5.8385	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/-	12.0043	µg/mL	Unstressed
	Purity 99%				+/-	19.1046	µg/mL	Stressed
13	2-Methylphenol (o-cresol)		1,009.2	µg/mL	+/-	5.8676	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBH6379)			+/-	12.0640	µg/mL	Unstressed
	Purity 99%				+/-	19.1997	µg/mL	Stressed
14	2,2'-oxybis(1-chloropropane)		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 8021900)			+/-	12.0294	µg/mL	Unstressed
	Purity 99%				+/-	19.1446	µg/mL	Stressed
15	Acetophenone		1,006.8	µg/mL	+/-	5.8536	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot STBH5416)			+/-	12.0353	µg/mL	Unstressed
	Purity 99%				+/-	19.1541	µg/mL	Stressed
16	3-Methylphenol (m-cresol)		500.9	µg/mL	+/-	2.9190	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.9911	µg/mL	Unstressed
	Purity 99%				+/-	9.5315	µg/mL	Stressed
17	4-Methylphenol (p-cresol)		500.6	µg/mL	+/-	2.9173	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.9875	µg/mL	Unstressed
	Purity 99%				+/-	9.5258	µg/mL	Stressed
18	N-Nitroso-di-n-propylamine		1,004.7	µg/mL	+/-	5.8414	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot 2D5VJ)			+/-	12.0102	µg/mL	Unstressed
	Purity 99%				+/-	19.1141	µg/mL	Stressed
19	Hexachloroethane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.9720	µg/mL	Unstressed
	Purity 99%				+/-	19.0532	µg/mL	Stressed
20	Nitrobenzene		1,006.8	µg/mL	+/-	5.8536	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBG5577V)			+/-	12.0353	µg/mL	Unstressed
	Purity 99%				+/-	19.1541	µg/mL	Stressed
21	Isophorone		1,007.0	µg/mL	+/-	5.8545	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	12.0371	µg/mL	Unstressed
	Purity 98%				+/-	19.1569	µg/mL	Stressed
22	2-Nitrophenol		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	12.0246	µg/mL	Unstressed
	Purity 99%				+/-	19.1370	µg/mL	Stressed
23	2,4-Dimethylphenol		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	11.9600	µg/mL	Unstressed
	Purity 99%				+/-	19.0342	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane **CAS #** 111-91-1 **Purity** 99%	(Lot 8238500)	1,002.7	µg/mL	+/- 5.8298 +/- 11.9863 +/- 19.0761	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	2,4-Dichlorophenol **CAS #** 120-83-2 **Purity** 99%	(Lot BCBJ8113V)	1,005.3	µg/mL	+/- 5.8449 +/- 12.0174 +/- 19.1255	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBJ9215)	1,005.9	µg/mL	+/- 5.8484 +/- 12.0246 +/- 19.1370	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBZ8680V)	1,002.3	µg/mL	+/- 5.8275 +/- 11.9816 +/- 19.0685	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	2,6-Dichlorophenol **CAS #** 87-65-0 **Purity** 99%	(Lot MKBP8620V)	1,005.4	µg/mL	+/- 5.8455 +/- 12.0186 +/- 19.1274	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	4-Chloroaniline **CAS #** 106-47-8 **Purity** 99%	(Lot BCBJ1580V)	1,005.1	µg/mL	+/- 5.8437 +/- 12.0150 +/- 19.1217	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 99%	(Lot J31X013)	1,005.8	µg/mL	+/- 5.8478 +/- 12.0234 +/- 19.1351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	4-Chloro-3-methylphenol **CAS #** 59-50-7 **Purity** 99%	(Lot STBC7309V)	1,008.2	µg/mL	+/- 5.8618 +/- 12.0521 +/- 19.1807	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	2-Methylnaphthalene **CAS #** 91-57-6 **Purity** 96%	(Lot STBG8884)	1,004.7	µg/mL	+/- 5.8416 +/- 12.0107 +/- 19.1148	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	1-Methylnaphthalene **CAS #** 90-12-0 **Purity** 99%	(Lot 525000-9)	1,008.5	µg/mL	+/- 5.8635 +/- 12.0557 +/- 19.1864	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,2,4,5-Tetrachlorobenzene **CAS #** 95-94-3 **Purity** 99%	(Lot MKBW7717V)	1,001.7	µg/mL	+/- 5.8240 +/- 11.9744 +/- 19.0571	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Hexachlorocyclopentadiene **CAS #** 77-47-4 **Purity** 99%	(Lot 0012015)	1,004.2	µg/mL	+/- 5.8385 +/- 12.0043 +/- 19.1046	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	2,4,6-Trichlorophenol **CAS #** 88-06-2 **Purity** 99%	(Lot STBF3742V)	1,005.4	µg/mL	+/- 5.8455 +/- 12.0186 +/- 19.1274	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2,4,5-Trichlorophenol **CAS #** 95-95-4 **Purity** 99%	(Lot FHN01)	1,003.8	µg/mL	+/- 5.8362 +/- 11.9995 +/- 19.0970	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	2-Chloronaphthalene **CAS #** 91-58-7 **Purity** 99%	(Lot AJ2UI)	1,006.4	µg/mL	+/- 5.8513 +/- 12.0306 +/- 19.1465	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Biphenyl **CAS #** 92-52-4 **Purity** 99%	(Lot MKCD8504)	1,006.9	µg/mL	+/- 5.8542 +/- 12.0365 +/- 19.1560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Nitroaniline		1,004.8	µg/mL	+/-	5.8420	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBV9629V)			+/-	12.0114	µg/mL	Unstressed
	Purity 99%				+/-	19.1160	µg/mL	Stressed
41	Acenaphthylene		1,002.1	µg/mL	+/-	5.8266	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot N25T)			+/-	11.9797	µg/mL	Unstressed
	Purity 98%				+/-	19.0656	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,009.8	µg/mL	+/-	5.8711	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	12.0712	µg/mL	Unstressed
	Purity 99%				+/-	19.2112	µg/mL	Stressed
43	Dimethylphthalate		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	12.0461	µg/mL	Unstressed
	Purity 99%				+/-	19.1712	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	12.0258	µg/mL	Unstressed
	Purity 99%				+/-	19.1389	µg/mL	Stressed
45	3-Nitroaniline		1,004.0	µg/mL	+/-	5.8373	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBX1283V)			+/-	12.0019	µg/mL	Unstressed
	Purity 99%				+/-	19.1008	µg/mL	Stressed
46	Acenaphthene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKCG4614)			+/-	12.0126	µg/mL	Unstressed
	Purity 99%				+/-	19.1179	µg/mL	Stressed
47	2,4-Dinitrophenol		2,016.7	µg/mL	+/-	11.7253	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBH7564)			+/-	24.1078	µg/mL	Unstressed
	Purity 99%				+/-	38.3671	µg/mL	Stressed
48	Dibenzofuran		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKCD9952)			+/-	11.9875	µg/mL	Unstressed
	Purity 99%				+/-	19.0780	µg/mL	Stressed
49	4-Nitrophenol		2,004.8	µg/mL	+/-	11.6561	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	23.9655	µg/mL	Unstressed
	Purity 99%				+/-	38.1407	µg/mL	Stressed
50	2,4-Dinitrotoluene		1,005.2	µg/mL	+/-	5.8443	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690)			+/-	12.0162	µg/mL	Unstressed
	Purity 99%				+/-	19.1236	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot PR-30126)			+/-	11.9720	µg/mL	Unstressed
	Purity 99%				+/-	19.0532	µg/mL	Stressed
52	Fluorene		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10207515)			+/-	11.9684	µg/mL	Unstressed
	Purity 99%				+/-	19.0475	µg/mL	Stressed
53	n-Hexadecane (C16)		1,008.3	µg/mL	+/-	5.8623	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBJ7508)			+/-	12.0533	µg/mL	Unstressed
	Purity 99%				+/-	19.1826	µg/mL	Stressed
54	Diethylphthalate		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKCB0810V)			+/-	12.0437	µg/mL	Unstressed
	Purity 99%				+/-	19.1674	µg/mL	Stressed
55	4-Chlorophenyl phenyl ether		1,004.4	µg/mL	+/-	5.8397	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKCD9935)			+/-	12.0067	µg/mL	Unstressed
	Purity 99%				+/-	19.1084	µg/mL	Stressed

56	4-Nitroaniline		1,006.8	µg/mL	+/-	5.8536	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBT9940)			+/-	12.0353	µg/mL	Unstressed
	Purity 99%				+/-	19.1541	µg/mL	Stressed
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,008.4	µg/mL	+/-	11.6770	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LRAC0549)			+/-	24.0085	µg/mL	Unstressed
	Purity 99%				+/-	38.2092	µg/mL	Stressed
58	Diphenylamine		852.7	µg/mL	+/-	4.9691	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	10.1988	µg/mL	Unstressed
	Purity 99%				+/-	16.2259	µg/mL	Stressed
59	Azobenzene		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot BCBW2006)			+/-	11.9708	µg/mL	Unstressed
	Purity 99%				+/-	19.0513	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	12.0234	µg/mL	Unstressed
	Purity 99%				+/-	19.1351	µg/mL	Stressed
61	Hexachlorobenzene		1,004.8	µg/mL	+/-	5.8420	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot 7990700)			+/-	12.0114	µg/mL	Unstressed
	Purity 99%				+/-	19.1160	µg/mL	Stressed
62	Pentachlorophenol		2,010.3	µg/mL	+/-	11.6881	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 190227CGKJ)			+/-	24.0313	µg/mL	Unstressed
	Purity 99%				+/-	38.2454	µg/mL	Stressed
63	n-Octadecane (C18)		1,007.4	µg/mL	+/-	5.8571	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot O8LZH)			+/-	12.0425	µg/mL	Unstressed
	Purity 99%				+/-	19.1655	µg/mL	Stressed
64	Phenanthrene		1,009.2	µg/mL	+/-	5.8676	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKCD3760)			+/-	12.0640	µg/mL	Unstressed
	Purity 99%				+/-	19.1997	µg/mL	Stressed
65	Anthracene		1,004.6	µg/mL	+/-	5.8408	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKCC7378)			+/-	12.0091	µg/mL	Unstressed
	Purity 99%				+/-	19.1122	µg/mL	Stressed
66	Carbazole		1,004.7	µg/mL	+/-	5.8414	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot 8210200)			+/-	12.0102	µg/mL	Unstressed
	Purity 99%				+/-	19.1141	µg/mL	Stressed
67	Di-n-butylphthalate		1,009.5	µg/mL	+/-	5.8693	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBW8599V)			+/-	12.0676	µg/mL	Unstressed
	Purity 99%				+/-	19.2054	µg/mL	Stressed
68	Fluoranthene		1,007.3	µg/mL	+/-	5.8568	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	12.0418	µg/mL	Unstressed
	Purity 98%				+/-	19.1644	µg/mL	Stressed
69	Pyrene		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBW7698)			+/-	11.9624	µg/mL	Unstressed
	Purity 99%				+/-	19.0380	µg/mL	Stressed
70	Benzyl butyl phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot MKCF0058)			+/-	12.0557	µg/mL	Unstressed
	Purity 99%				+/-	19.1864	µg/mL	Stressed
71	Benz(a)anthracene		1,007.1	µg/mL	+/-	5.8556	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot 0022018)			+/-	12.0394	µg/mL	Unstressed
	Purity 96%				+/-	19.1605	µg/mL	Stressed

72	Chrysene		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot 012015)			+/-	11.9600	µg/mL	Unstressed
	Purity 99%				+/-	19.0342	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,002.9	µg/mL	+/-	5.8309	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBZ3868V)			+/-	11.9887	µg/mL	Unstressed
	Purity 99%				+/-	19.0799	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 7962600)			+/-	12.0473	µg/mL	Unstressed
	Purity 99%				+/-	19.1731	µg/mL	Stressed
75	Benzo(b)fluoranthene		987.2	µg/mL	+/-	5.7394	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot 012012B)			+/-	11.8005	µg/mL	Unstressed
	Purity 98%				+/-	18.7803	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012K)			+/-	12.0210	µg/mL	Unstressed
	Purity 99%				+/-	19.1312	µg/mL	Stressed
77	Benzo(a)pyrene		1,001.9	µg/mL	+/-	5.8251	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot 1-NAZ-99-1)			+/-	11.9768	µg/mL	Unstressed
	Purity 99%				+/-	19.0609	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	11.9875	µg/mL	Unstressed
	Purity 99%				+/-	19.0780	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.9732	µg/mL	Unstressed
	Purity 99%				+/-	19.0551	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,006.9	µg/mL	+/-	5.8542	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER05121401)			+/-	12.0365	µg/mL	Unstressed
	Purity 99%				+/-	19.1560	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

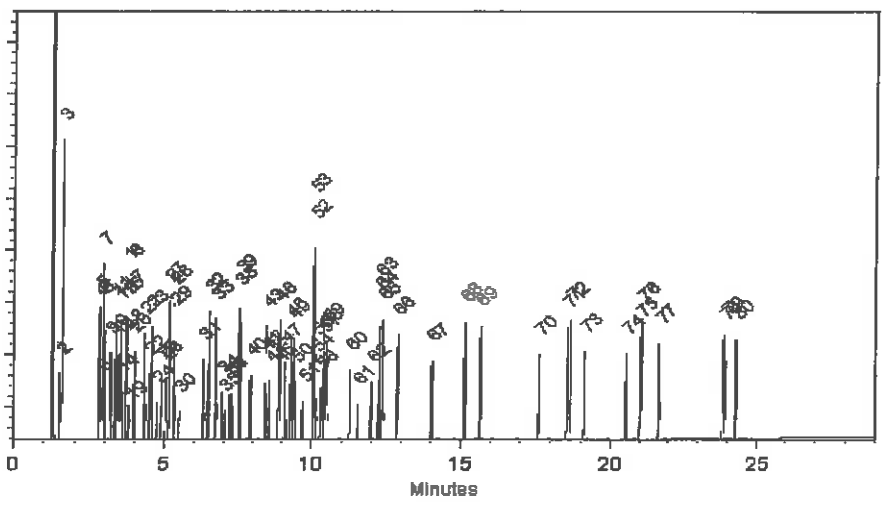
Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 28-Mar-2019 **Balance:** B442140311

Date Passed: 01-May-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS. LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270S#10_1stk_00011

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0145854

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2020 **Storage:** 10°C or colder

Handling: This product is photosensitive.

2400815
ID: 8270S#10_1stk_00011
Exp:08/31/20 Prpd:ADB Opn:06/03/19
8270 List 1 / Std#10 (pri

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Indene **CAS #** 95-13-6 **Purity** 98%	(Lot MKBT8433V)	2,000.2	µg/mL	+/- 11.6292 +/- 112.1481 +/- 114.7722	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKCC9722)	2,000.1	µg/mL	+/- 11.6288 +/- 112.1436 +/- 114.7676	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

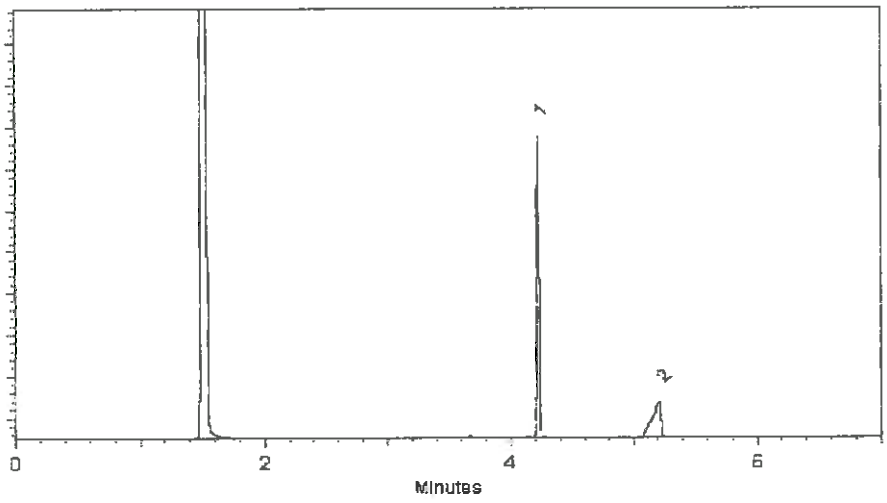
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Feb-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 11-Feb-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270S#11_1stk_00005

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732 **Lot No.:** A0143627

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000µg/mL, Methylene chloride, 5mL/ampul

2400818
ID: 8270S#11_1stk_00005
Exp:05/31/20 Prpd:ADB Opn:05/03/19
8270 List 1 / Std#11 (pri

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2020 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L., K=2)		
1	Benzaldehyde		1,996.1	µg/mL	+/- 11.6055	µg/mL	Gravimetric
	CAS # 100-52-7	(Lot SHBG8690V)			+/- 63.9863	µg/mL	Unstressed
	Purity 99%				+/- 74.3816	µg/mL	Stressed
2	epsilon-Caprolactam		2,004.8	µg/mL	+/- 11.6561	µg/mL	Gravimetric
	CAS # 105-60-2	(Lot I16X016)			+/- 64.2652	µg/mL	Unstressed
	Purity 99%				+/- 74.7058	µg/mL	Stressed
3	Atrazine		2,003.0	µg/mL	+/- 11.6456	µg/mL	Gravimetric
	CAS # 1912-24-9	(Lot 77P7D)			+/- 64.2075	µg/mL	Unstressed
	Purity 99%				+/- 74.6387	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

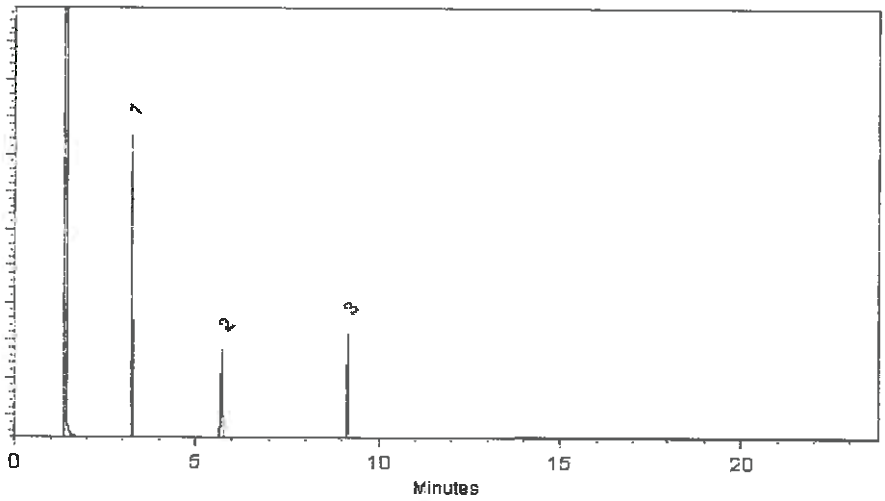
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Clara Wiedle - Operations Technician I

Date Mixed: 29-Nov-2018 **Balance:** B442140311

Jennifer Poilino - Operations Tech-ARM QC

Date Passed: 04-Dec-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270S#9_1stk_00010

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0143498

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2020 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

2400814
ID: 8270S#9_1stk_00010
Exp:05/31/20 Prpd:ADB Opn:06/03/19
8270 List 1 / Std#9 (prim

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine **CAS #** 92-87-5 **Purity** 99%	(Lot 180810JACG)	2,018.6 µg/mL	+/- 11.7363 µg/mL +/- 24.1305 µg/mL +/- 38.4033 µg/mL		Gravimetric Unstressed Stressed
2	3,3'-Dichlorobenzidine **CAS #** 91-94-1 **Purity** 99%	(Lot 070518JACG)	2,014.4 µg/mL	+/- 11.7119 µg/mL +/- 24.0803 µg/mL +/- 38.3234 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

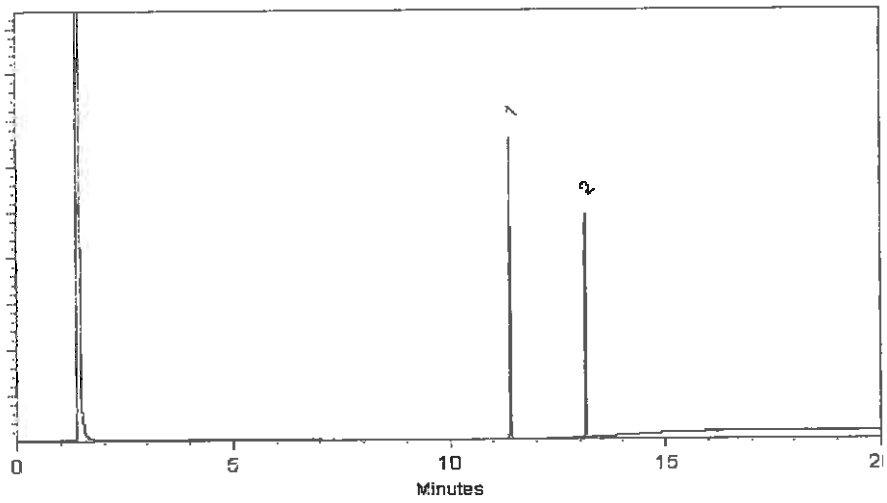
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician **Date Mixed:** 26-Nov-2018 **Balance:** B516847571

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 27-Nov-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8270Surr_Phen_00011

phenova™ | A Phenomenex Company
Certified Reference Materials

Certificate of Analysis

6390 Joyce Dr., #100 Golden, CO 80403 USA • Tel: 1-866-972-2978 • Fax: 1-866-283-0269 • Info@Phenova.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport.**

Certified Reference Material

This product is included in Phenova's ISO/EIC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog Number: AL0-130371
Description: Revised BNA Surrogate Spike Mix
Storage: Refrigerate
Provided As: 25 mL in 30 mL Vial in Methanol

Lot Number: CL13005
Certification Date: November 19, 2018
Expiration Date: November 30, 2023

2309520
ID: 8270Surr_Phen_00011
Exp: 08/31/23 Prpd: ERZ
8270/625 surrogate spike

Andrea L Gill
Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dioxane-d8	17647-74-4	500	0.206%
Fluoranthene-d10	93951-69-0	100	0.201%
2-Fluorobiphenyl	321-60-8	100	0.283%
2-Fluorophenol	367-12-4	100	0.283%
2-Methylnaphthalene-d10	7297-45-2	100	0.203%
Nitrobenzene-d5	4165-60-0	100	0.283%
Phenol-d5	4165-62-2	100	0.283%
p-Terphenyl-d14	1718-51-0	100	0.283%
2,4,6-Tribromophenol	118-79-6	100	0.223%

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an acredited ISO Guide 34 Reference Materal Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory

ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

phenova™ | A Phenomenex Company
Certified Reference Materials

Certificate of Analysis

6390 Joyce Dr., #100 Golden, CO 80403 USA • Tel: 1-866-972-2978 • Fax: 1-866-283-0269 • Info@Phenova.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport**.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35[2].

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: This product is manufactured for use in calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate or heat the unopened ampoule until material is fully dissolved. Dilute as required, use only glass A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available from Phenova upon request.

6. Level of Homogeneity: The product has been certified to guarantee the certified value and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of the materials used in this product were verified using ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analaysis (uH), and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product received.

10. Metrological Traceability: The property value (certified value and its uncertainty) is traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, and use of national methodology for glassware calibration and product homogeneity utilizing and ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subject to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance to ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:
[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an acredited ISO Guide 34 Reference Materal Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory

ilac-MRA
ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

Reagent

Arclr1248P_00012

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32010 **Lot No.:** A0134182

2248088
ID: Arclr1248P_00012
Exp: 04/30/24 Prpd: ERZ
1000 ug/mL Aroclor 1248 p

Description : Aroclor® 1248 Standard

Aroclor® 1248 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Aroclor 1248	1,001.5 µg/mL	+/- 5.8774	µg/mL	Gravimetric
	CAS # 12672-29-6 (Lot W-108-07)		+/- 31.7415	µg/mL	Unstressed
	Purity ----%		+/- 41.4650	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

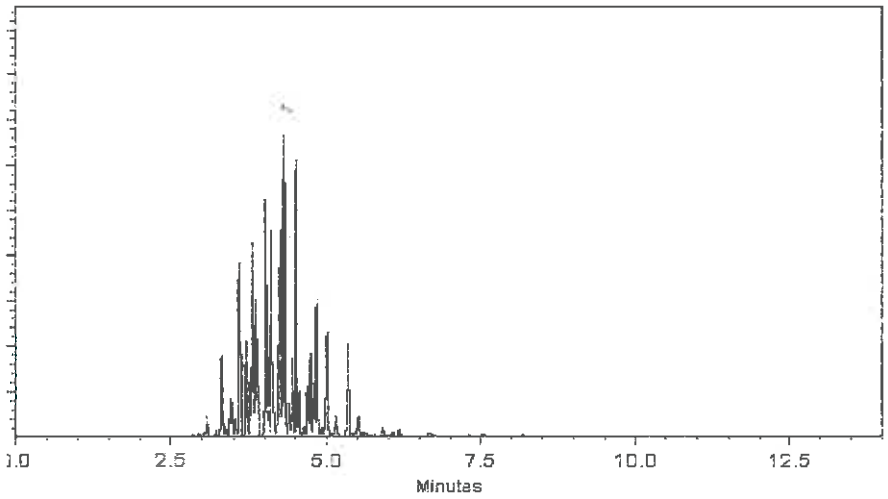
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alice Brooks - Mix Technician

Date Mixed: 15-Jan-2018 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2018

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

Arclr1248S_00015

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32010.SEC **Lot No.:** A0124143

Description : Aroclor® 1248 Standard

Aroclor® 1248 Standard 1,000µg/mL, Hexane, 1mL/ampul

2248085
ID: Arclr1248S_00015
Exp: 04/30/23 Prpd: ERZ
1000 ug/mL Aroclor 1248 s

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2023 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Aroclor 1248	1,008.0 µg/mL	+/- 5.9872	µg/mL	Gravimetric
	CAS # 12672-29-6.SEC (Lot 106-248)		+/- 31.9609	µg/mL	Unstressed
	Purity —%		+/- 41.7443	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

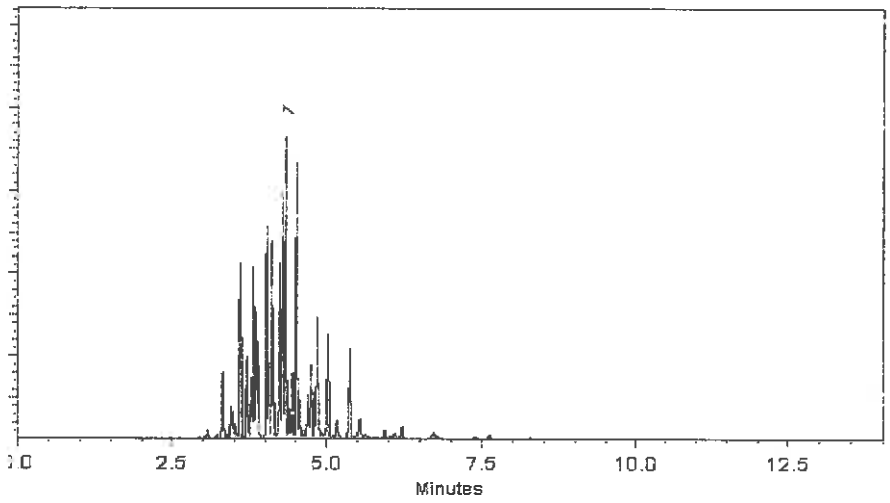
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician **Date Mixed:** 12-Jan-2017 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 16-Jan-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

Arclr2154P_00001

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

2248174
ID: Arclr2154P_00001
Exp: 01/31/24 Prpd: ERZ
1000 ug/mL 1221/1254 prim

Catalog No. : 569745 **Lot No.:** A0131802

Description : PCB-1221/1254 Standard

PCB-1221/1254 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1221	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 11104-28-2 (Lot 2781200)		+/- 31.8975	µg/mL	Unstressed
	Purity —%		+/- 41.6615	µg/mL	Stressed
2	Aroclor 1254	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 11097-69-1 (Lot 124-191-B)		+/- 31.7706	µg/mL	Unstressed
	Purity —%		+/- 41.4958	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

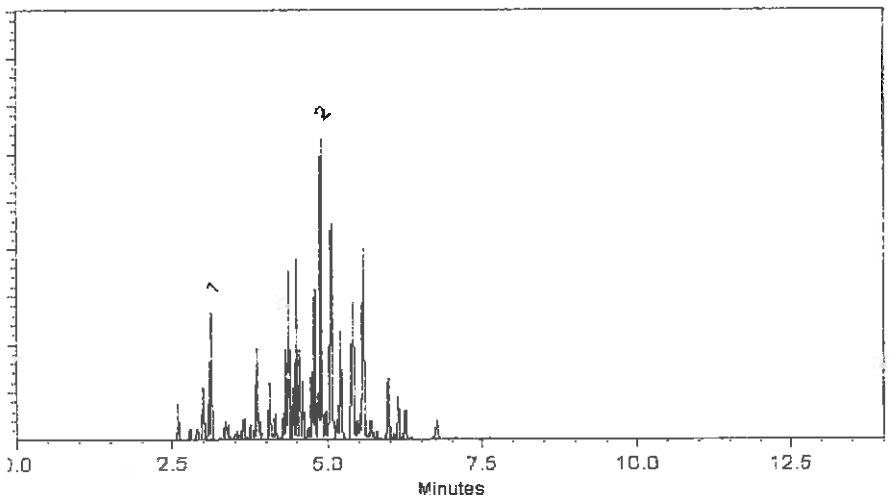
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dawn Brownson - Mix Technician **Date Mixed:** 20-Oct-2017 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 24-Oct-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

Arclr2154S_00001

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569745.SEC **Lot No.:** A0131779

2248166
ID: Arclr2154S_00001
Exp: 01/31/24 Prpd: ERZ
1000 ug/mL 1221/1254 seco

Description : PCB-1221/1254 Standard

PCB-1221/1254 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Aroclor 1221 **CAS #** 11104-28-2.SEC (Lot W-126-07) **Purity** ----%	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 31.7072 µg/mL +/- 41.4130 µg/mL	Gravimetric Unstressed Stressed
2	Aroclor 1254 **CAS #** 11097-69-1.SEC (Lot RM00922) **Purity** ----%	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 31.7706 µg/mL +/- 41.4958 µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

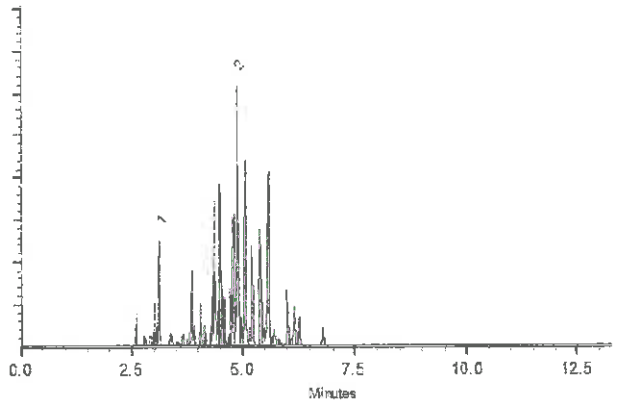
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 19-Oct-2017 **Balance:** 1128353505

Justine Albertson - Operations Tech-ARM QC

Date Passed: 23-Oct-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

Arclr3262P_00001

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

2248162
ID: Arclr3262P_00001
Exp: 01/31/24 Prpd: ERZ
1000 ug/ml Aroclor 1232/1

Catalog No. : 569746 **Lot No.:** A0132023

Description : PCB-1232/1262 Standard

PCB-1232/1262 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1232		1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 11141-16-5	(Lot W-107-05)		+/- 31.8340	µg/mL	Unstressed
	Purity ---%			+/- 41.5787	µg/mL	Stressed
2	Aroclor 1262		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 37324-23-5	(Lot 3067100)		+/- 31.7706	µg/mL	Unstressed
	Purity ---%			+/- 41.4958	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

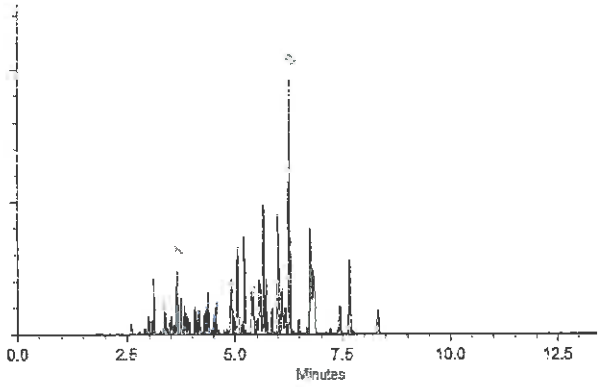
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust - Mix Technician

Date Mixed: 31-Oct-2017 **Balance:** B442140311

Justine Albertson - Operations Tech-ARM QC

Date Passed: 02-Nov-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

Arclr4268P_00001

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

2247920
ID: Arclr4268P_00001
Exp: 03/31/24 Prpd: ERZ
1000 ug/mL Aroclor 1242 s

Catalog No. : 569747 **Lot No.:** A0133093

Description : PCB-1242/1268 Standard

PCB-1242/1268 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Aroclor 1242 **CAS #** 53469-21-9 (Lot 01141-A) **Purity** —%	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 31.9609 µg/mL +/- 41.7443 µg/mL	Gravimetric Unstressed Stressed
2	Aroclor 1268 **CAS #** 11100-14-4 (Lot 2743900) **Purity** —%	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 31.7072 µg/mL +/- 41.4130 µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

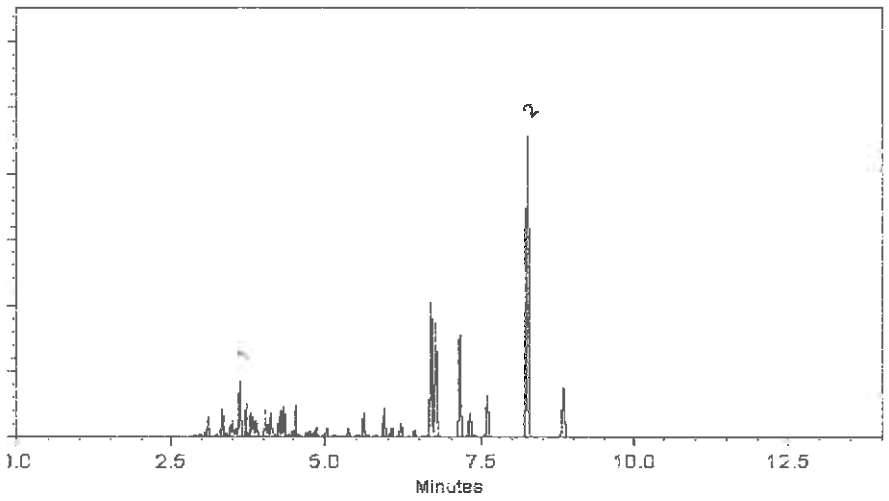
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 07-Dec-2017 **Balance:** B442140311

Jennifer Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 11-Dec-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

Arclr4268S_00003

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

2247913
ID: Arclr4268S_00003
Exp: 05/31/24 Prpd: ERZ
1000 ug/ml Aroclor 1242/1

Catalog No. : 569747.SEC **Lot No.:** A0135206

Description : PCB-1242/1268 Standard

PCB-1242/1268 Standard 1,000µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2024 **Storage:** 25°C nominal

Handling: This product contains PCBs.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Aroclor 1242	1,004.0 µg/mL	+/- 10.1140	µg/mL	Gravimetric
	CAS # 53469-21-9.SEC (Lot NTO1020)		+/- 32.8654	µg/mL	Unstressed
	Purity —%		+/- 42.3735	µg/mL	Stressed
2	Aroclor 1268	1,004.0 µg/mL	+/- 10.1140	µg/mL	Gravimetric
	CAS # 11100-14-4.SEC (Lot W-131-05)		+/- 32.8654	µg/mL	Unstressed
	Purity ----%		+/- 42.3735	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

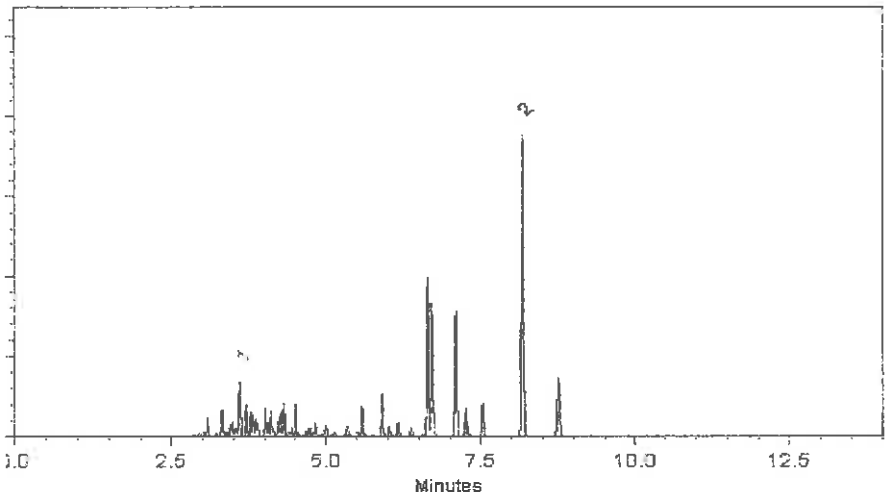
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Klbe - Mix Technician **Date Mixed:** 14-Feb-2018 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 16-Feb-2018

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

CaCO3_00004_00007

LECO Reference Material

LECO Corporation; Saint Joseph, Michigan USA

Description: Calcium Carbonate
Part No: 501-034
Lot No: 1043

ACCREDITED
Reference Material Producer
Certificate # 3285.02

LECO Reference Materials are traceable to national or international Certified Reference Materials whenever possible. When these Certified Reference Materials do not exist or are inadequate for calibration purposes, other appropriate materials are used. The accuracy of the reported results for LECO Reference Materials is greatly influenced by the accuracy of the primary reference materials used. The intended use of this reference material is for calibration purposes.

Category	Reference Value	+/-
% Carbon	12.01	0.04

- +/- indicates two times the standard deviation (2s).
- Refer to the reverse side of certificate for additional information regarding calculations.

Homogeneity:
Homogeneity of this material was confirmed through analysis of a random selection of bottled material and was found to be highly homogeneous.

Material:
LECO 501-034 Lot: 1043 is a calcium carbonate calibration material.

This reference material may be analyzed on a variety of macro analytical instrumentation. A minimum sample mass of 0.10 g is recommended for analysis. Refer to instrument manufacturer recommendations for nominal sample mass.

Traceability:
The following Certified Reference Material was used to validate the analytical data:
NIST SRM 915b Calcium Carbonate @ 12.0% Carbon

Preparation:
This reference material is suitable for use directly from the bottle without additional preparation.

Analysis:
LECO analytical instruments were used to characterize this material. This material was analyzed by high temperature combustion using a resistance furnace utilizing LECO infrared (IR) detection technology.

Category	Method/Detection	n
% Carbon	Combustion/IR	30

Reference Material

Delivering the Right Results

Analysis Data:

Data Set	Number of Analyses	% Carbon	Carbon Standard Dev.	Method	Instrument
1	10	12.023	0.013	TSL-C007	LECO SC632
2	10	12.024	0.005	TSL-C007	LECO SC832
3	10	11.994	0.019	TSL-C007	LECO CHN628 Ar
Average		12.014			
Std Dev		0.019			

- Each Data Set value represents an average of the sample analyses.
- Underline indicates last significant digit.

Expiration:
ISO Guide 31 States that the certificate should contain an expiration date for all materials where instability has been demonstrated or considered possible, after which the certified value is no longer guaranteed by the certifying body. This reference material is valid within the stated deviation until **August 17th, 2020** provided the RM is stored in its original bottle at room temperature. This reference material is nullified if it is contaminated or otherwise altered.

Participating Laboratories:
Lab:
LECO Technical Services Laboratory

Accreditation:
A2LA Accredited to ISO 17025:2005 Cert. # 3285.01

Calculations:
In compliance with the requirements of ISO Guides 31, 34 and 35 for the production of Reference Materials, the values for this material were calculated using a mean and standard deviation of the overall data.

References:
LECO TSL-C007: In house method for the analysis of pure compound material

ISO Standard 17025:2005 General requirements for the competence of testing and calibration laboratories.
ISO Guide 30:1992 Terms and definitions used in connection with reference materials.
ISO Guide 31:2000 Reference Materials-Contents of certificates and labels.
ISO Guide 33:2000 Uses of certified reference materials.
ISO Guide 34:2009 General requirements for the competence of reference material producers.
ISO Guide 35:2006 Reference Materials-General and statistical principles for certification.

ASTM Documents available from ASTM, 1916 Race Street, Philadelphia, PA, 19103
ISO Guides and Standards available from Global Engineering – www.global.ihs.com

Approved by: Dennis Lawrenz
Technical Services Laboratory Director
Date of release: August 17th, 2015

No warranties of description, merchantability, or fitness for a particular purpose or any other express or implied warranties arise out of LECO's sale of this product. Remedies for any claimed defect in this product will be limited to replacement of the product or refund of the purchase price. In no event shall LECO be liable for incidental or consequential damages.

LECO Corporation • Technical Services Laboratory
3000 Lakeview Avenue • St. Joseph, MI. USA 49085
Phone: 800-292-6141 • Fax: 269-982-8977 • www.leco.com
info@leco.com • A2LA Accredited to ISO 17025:2005 Cert. # 3285.01
LECO is a registered trademark of LECO Corporation.

1821631
ID: CaCO3_00004_00007
Exp:08/17/20 Prpd:RSB Opn:11/09/16
CaCO3-12%TC Second Source

Reagent

CaCO3_00008

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**C64**	**Quality Test / Release Date**	**9/30/2016**
Lot Number	**165927**		
Description	**CALCIUM CARBONATE, A.C.S.**		
Country of Origin	**United States**	*** Suggested Retest Date**	**Sep-2021**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White powder
AMMONIUM	%	<= 0.003	<0.0030
ASSAY	%	>= 99.0	100.2
BARIUM (Ba)	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
FLUORIDE	%	<= 0.0015	<0.0015
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE IN DILUTE HCL	%	<= 0.01	<0.010
IRON (Fe)	%	<= 0.003	<0.0030
MAGNESIUM	%	<= 0.02	<0.005
POTASSIUM (K)	%	<= 0.01	<0.005
SODIUM (Na)	%	<= 0.1	<0.01
STRONTIUM (Sr)	%	<= 0.1	<0.01
SULFATE (SO4)	%	<= 0.01	<0.010
WATER-SOLUBLE TITRABLE BASE	MEQ/G	<= 0.002	<0.0020

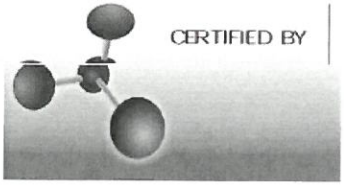
1947764

ID: CaCO3_00008

Exp: 06/02/27 Prpd: SPP

CaCO3-12%TC Second

6/7/17



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

DFTPPSTK_00011

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0141339

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

2292824
ID: DFTPPSTK_00011
Exp:09/30/21 Prpd:ADB Opn:11/13/18
GC/MS Tuning Mixture Stoc

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2021 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 170717KJA) **Purity** 99%	1,002.4 µg/mL	+/- 5.8826 µg/mL +/- 45.6585 µg/mL +/- 65.9247 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q15B005) **Purity** 97%	1,000.7 µg/mL	+/- 5.8724 µg/mL +/- 45.5789 µg/mL +/- 65.8098 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 180810JACG) **Purity** 99%	1,006.0 µg/mL	+/- 5.9038 µg/mL +/- 45.8225 µg/mL +/- 66.1615 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot S37912V) **Purity** 99%	1,001.2 µg/mL	+/- 5.8756 µg/mL +/- 45.6039 µg/mL +/- 65.8458 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

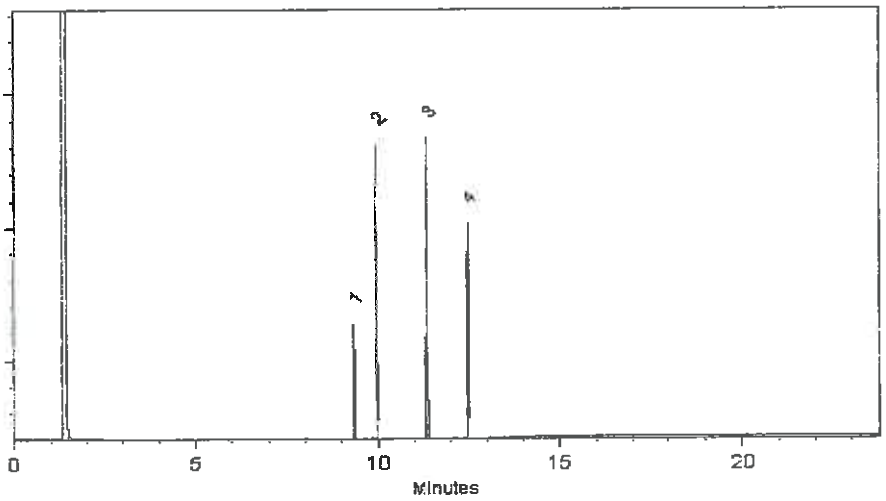
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dustin J Lidgett

Dustin Lidgett - Mix Technician

Date Mixed: 06-Sep-2018 **Balance:** 1128360905

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 12-Sep-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

DFTPPSTK_00012

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0144160

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2021 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 180924JACG) **Purity** 99%	1,003.2 µg/mL	+/- 5.8873 µg/mL +/- 45.6950 µg/mL +/- 65.9774 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot 10198748) **Purity** 99%	1,009.2 µg/mL	+/- 5.9226 µg/mL +/- 45.9683 µg/mL +/- 66.3720 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 180810JACG) **Purity** 99%	1,001.2 µg/mL	+/- 5.8756 µg/mL +/- 45.6039 µg/mL +/- 65.8458 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot S37912V) **Purity** 99%	1,008.0 µg/mL	+/- 5.9155 µg/mL +/- 45.9136 µg/mL +/- 66.2930 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

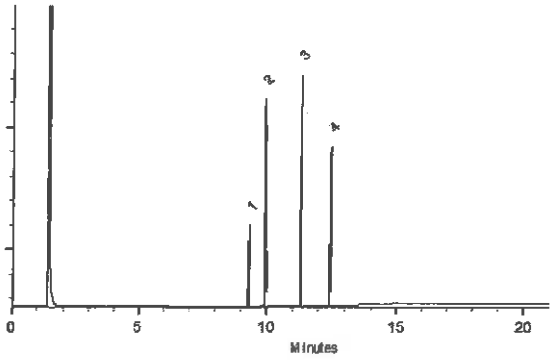
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 14-Dec-2018 **Balance:** B516847571

Justine Albertson - Operations Tech-ARM QC

Date Passed: 18-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

opDDE_DDD_DDT_00007

o2si smart solutions®

Quality System Audited & Registered by NSF-ISR to ISO 9001:2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

ACCREDITED

ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: 1/10/19

Certificate of Analysis

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
131220-01	365254	≤ -10 °C	Tol.:Hex. 1:1	4-Jul-2021	2,4-DDE, 2,4-DDD, & 2,4-DDT Solution, 1000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
o,p'-DDD	53-19-0	98.1	235.286.1P	1007 +/- 10.45	mg/L
o,p'-DDE	3424-82-6	99	396.286.1.2P	1008 +/- 10.46	mg/L
o,p'-DDT	789-02-6	97.6	395.286.2.1P	1005 +/- 10.43	mg/L

Certified By: Jarrett Howard

Jarrett Howard
Manufacture Date 27-Dec-2018

Follow all storage requirements, keep tightly closed when not in use, and use good laboratory practices when handling.
This Reference Material was manufactured, produced, and/or certified under a quality management system that is accredited to ISO 17034 and ISO/IEC 17025.

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

The stated uncertainty is the expanded uncertainty with a coverage factor of two to give a 95% confidence level.

Reagent

opExt_DDX_ss_00001

o2si smart solutions®

Quality System Audited & Registered by NSF-ISR to ISO 9001:2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

ACCREDITED

ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: 1/10/19

Certificate of Analysis

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
131220-01-SS	365255	≤-10 °C	Tol.:Hex. 1:1	4-Jul-2021	2,4-DDE, 2,4-DDD, & 2,4-DDT Solution, Second Source, 1000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
o,p'-DDD	53-19-0	98.1	235.286.1.1S	1015 +/- 11.01	mg/L
o,p'-DDE	3424-82-6	99	396.286.1.2.1S	997.6 +/- 10.86	mg/L
o,p'-DDT	789-02-6	97.6	395.286.2.1.1S	994.8 +/- 10.81	mg/L

Certified By: Jarrett Howard

Jarrett Howard
Manufacture Date 27-Dec-2018

Follow all storage requirements, keep tightly closed when not in use, and use good laboratory practices when handling.
This Reference Material was manufactured, produced, and/or certified under a quality management system that is accredited to ISO 17034 and ISO/IEC 17025.
Second Source standards are prepared according to NELAC

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

The stated uncertainty is the expanded uncertainty with a coverage factor of two to give a 95% confidence level.

Reagent

OXYCHL_SPEX_00002

ACCREDITED
Reference Materials Producer
Cert #2495.01

SPEXertificate®
Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: S-2910 **Lot No.** EN181008020

Description: Oxychlordane

Matrix: Methanol

Ship Date: 1-14-2019
Expiration Date: 1-13-2022

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
Oxychlordane	27304-13-8	1000 µg/mL	99.3%	1003 µg/mL	± 26 µg/mL

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-14-2019

Certifying Officer: Shannon Macieira

Shannon Macieira, Operations Manager

© 2018 SPEX CertiPrep, LLC

Reagent

Pest/PCBstock_00019

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0141110

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

2341775
ID: Pest/PCBstock_00019
Exp: 11/30/24 Prpd: CJB
200 ug/mL Pesticide surro

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2024 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4,5,6-Tetrachloro-m-xylene **CAS #** 877-09-8 **Purity** 98% (Lot 0052481)	201.4 µg/mL	+/- 1.1736 +/- 6.3813 +/- 8.3370	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Decachlorobiphenyl (BZ# 209) **CAS #** 2051-24-3 **Purity** 99% (Lot ER071509-01)	200.6 µg/mL	+/- 1.1690 +/- 6.3563 +/- 8.3043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

Reagent

TOCS_LCS_00010

ERA
A Waters Company

Reference Material

▪ Certificate of Analysis ▪

Product: Nutrients in Soil
Catalog Number: 542
Lot No. D100-542
Certificate Issue Date: December 14, 2017
Expiration Date: July 31, 2021
Revision Number: Original

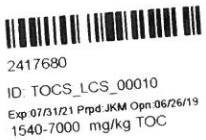
Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #542 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[6]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Ammonia as N	370	364	3.94	245 - 482	145 - 582
Total Kjeldahl Nitrogen	1480	1390	2.32	868 - 1900	757 - 2020
Total Organic Carbon (TOC)	5080	5060	0.876	1830 - 8280	2280 - 7830
Total Phosphorus	722	673	3.19	361 - 985	137 - 1210

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Ammonia as N	370	364	98.3	37	-	-
Total Kjeldahl Nitrogen	1480	1390	93.6	37	-	-
Total Organic Carbon (TOC)	5080	5060	99.4	25	-	-
Total Phosphorus	722	673	93.2	54	-	-



16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

7. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

David Kilhefner



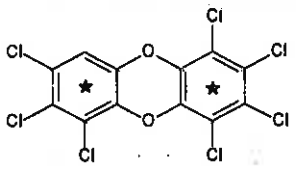
Reagent

HRDXNIDA_00075

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 9001:2008

1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number:	ED-972
Solution Lot:	ER111010-01
Expiration Date:	November 2020
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Intended Use:	For laboratory use only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume fill. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration

Component	Chromatographic Purity	Certified Concentration
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-$^{13}C_{12}$	98.9%	50.03 ± 0.32 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and *balance and weighing technique*.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Crtieria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Crtieria
New Lot	ER111010-01	50.5	± 5%	0.5	≤ 3%
Previous Lot	ER011807-01	47.4	± 5%	1.8	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared calibration solution gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

Darron Ellsworth, Quality Assurance Manager

January 15, 2016
Date

Cerilliant Corporation 811 Paloma Drive, Suite A, Round Rock, TX 78665 800-848-7837 / 512-238-9974

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}HO_2Cl_7$
Compound Lot:	ER100110-01	**CAS Number:**	NA
		Molecular Weight:	437.22

Neat Material Characterization Summary

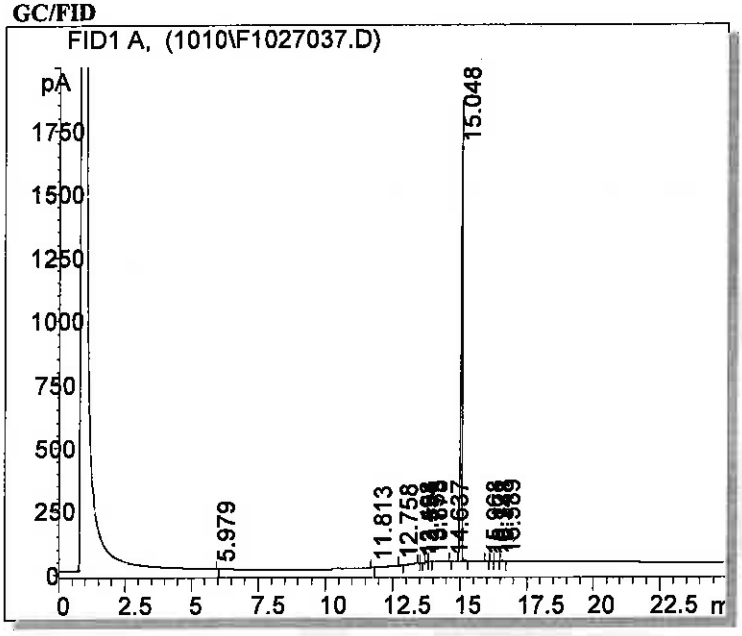
Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	98.9%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.02% $^{13}C_0$ vs $^{13}C_{12}$
		0.10% $^{13}C_6$ vs $^{13}C_{12}$
Purity Factor		98.91%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Cerilliant Corporation 811 Paloma Drive, Suite A, Round Rock, TX 78665 800-848-7837 / 512-238-9974

Spectral and Physical Data

GC/FID



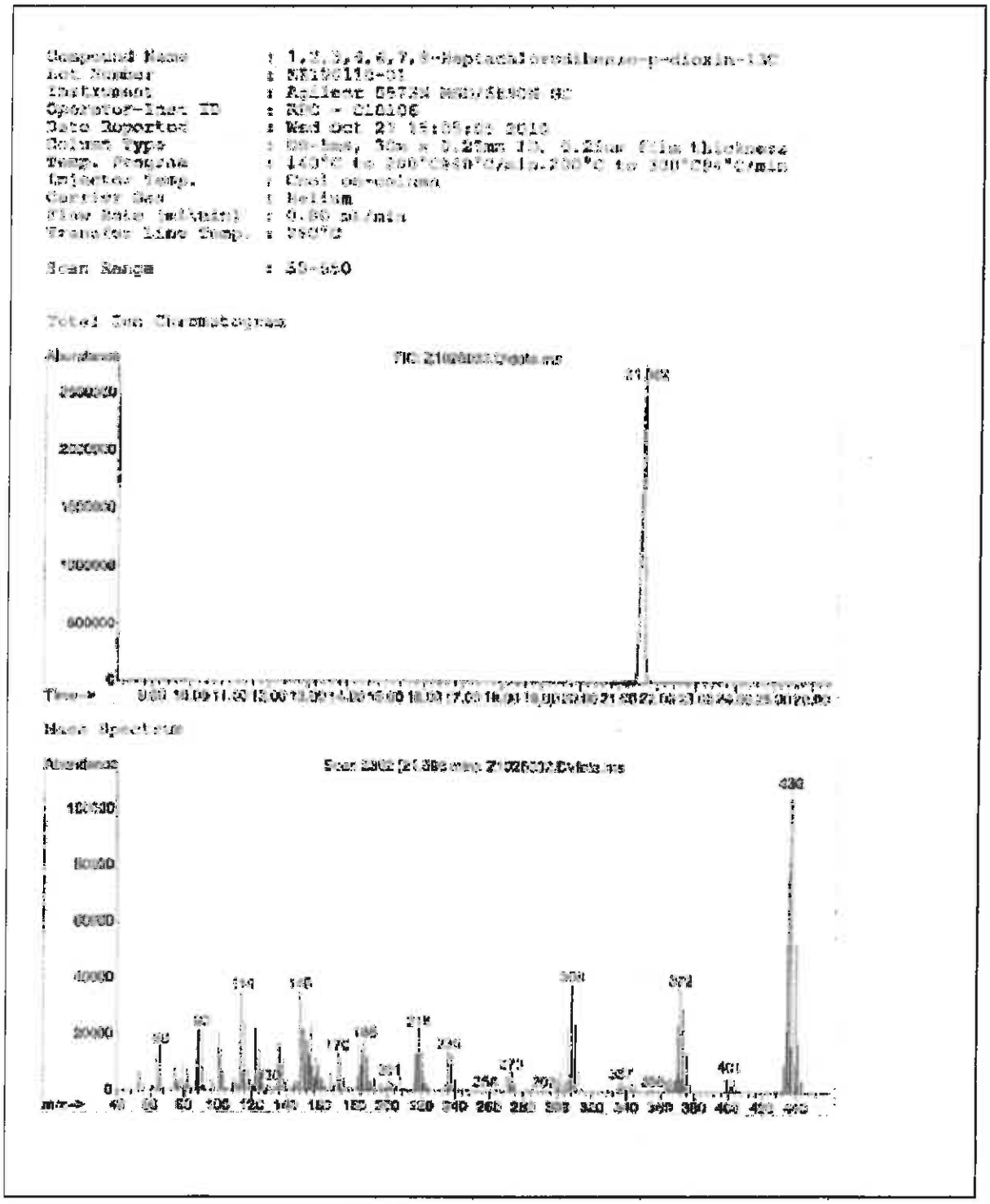
Column:	DB-5ms, 30m x 0.53mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-column
Detector Temp:	325°C
Data File Name:	S:\GC\GC6\2010\1010\F1027037.D
Instrument:	GC#6
Sample Name:	ER100110-01
Acquired:	October 28, 2010

Peak #	Ret Time	Area	Height	Area %
1	5.98	0.34	0.18	0.00
2	11.81	1.00	0.08	0.01
3	12.76	10.96	2.89	0.16
4	13.50	1.19	0.32	0.02
5	13.55	2.63	0.80	0.04
6	13.75	13.39	3.28	0.19
7	13.88	7.04	1.81	0.10
8	14.64	0.86	0.28	0.01
9	15.05	6900.70	1812.09	98.81
10	15.97	3.15	0.73	0.05
11	16.17	2.25	0.55	0.03
12	16.35	5.12	1.10	0.07
13	16.59	18.93	4.26	0.27
14	26.99	15.17	0.35	0.22
15	35.58	0.06	0.21	0.00
16	41.80	0.77	0.13	0.01

Cerilliant Corporation 811 Paloma Drive, Suite A, Round Rock, TX 78665 800-848-7837 / 512-238-9974

Spectral and Physical Data (cont.)

GC/MS



COA Revision History

Revision No.	Date	Reason for Revision
00	November 24, 2010	Initial version
01	January 15, 2016	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet".

Cerilliant Corporation 811 Paloma Drive, Suite A, Round Rock, TX 78665 800-848-7837 / 512-238-9974

Reagent

HRDXNIDA_00247

Received 8-17-16

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

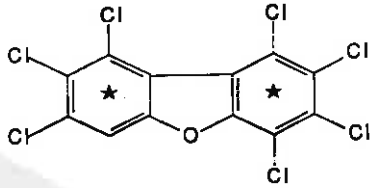
CIL

Certificate of Analysis

Cerilliant Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,4,7,8,9-Heptachlorodibenzofuran-$^{13}C_{12}$

1,2,3,4,7,8,9-HpCDF



Catalog Number:	EF-988
Solution Lot:	ER04251601
Expiration Date:	March 2026
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Intended Use:	For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampoules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
1,2,3,4,7,8,9-Heptachlorodibenzofuran-$^{13}C_{12}$	99.1%	49.99 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20°C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER04251601	49.11	± 5%	0.2	≤ 3%
Previous Lot	ER053107-02	50.58	± 5%	0.1	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darren Ellsworth, Quality Assurance Manager

June 21, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8,9-Heptachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}HCl_7O$
Compound Lot:	ER04041602	**CAS Number:**	109719-94-0
		Molecular Weight:	421.22

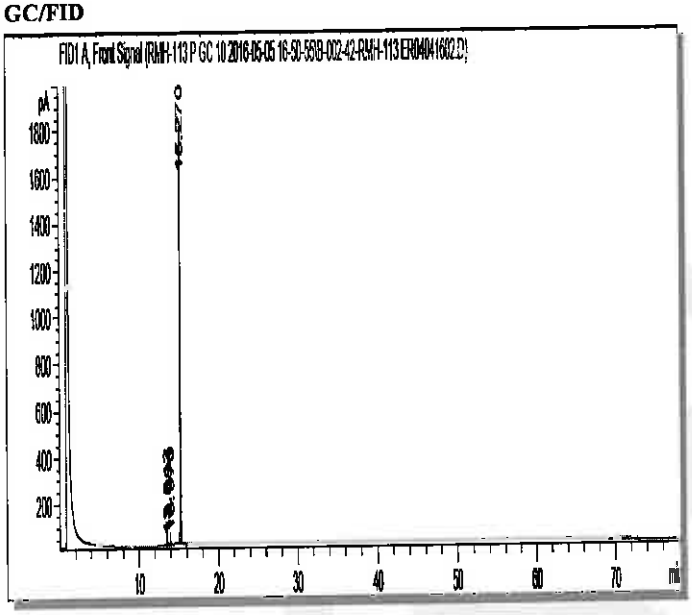
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.1%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Impurity Analysis by GC/MS SIM	SP10-0105	no single DD/DF impurity ≥ 0.5%
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.02% $^{13}C_0$ vs $^{13}C_{12}$
		0.16% $^{13}C_6$ vs $^{13}C_{12}$
Mass Balance Purity Factor		99.10%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data (cont.)

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-113 P GC 10 2016-05-05 16-50-55\B-002-42.D
Instrument:	GC#10
Sample Name:	ER04041602
Acquired:	May 05, 2016

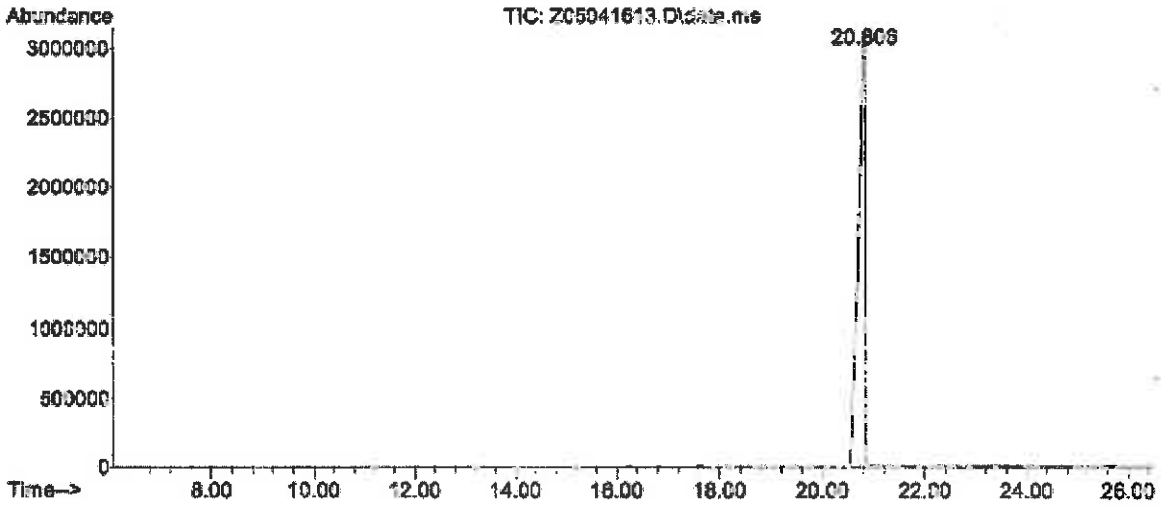
Peak #	Ret Time	Area	Height	Area %
1	13.51	8.76	2.52	0.12
2	13.68	17.42	7.45	0.24
3	13.97	39.65	15.48	0.54
4	15.27	7226.95	1798.33	99.10

Spectral and Physical Data (cont.)

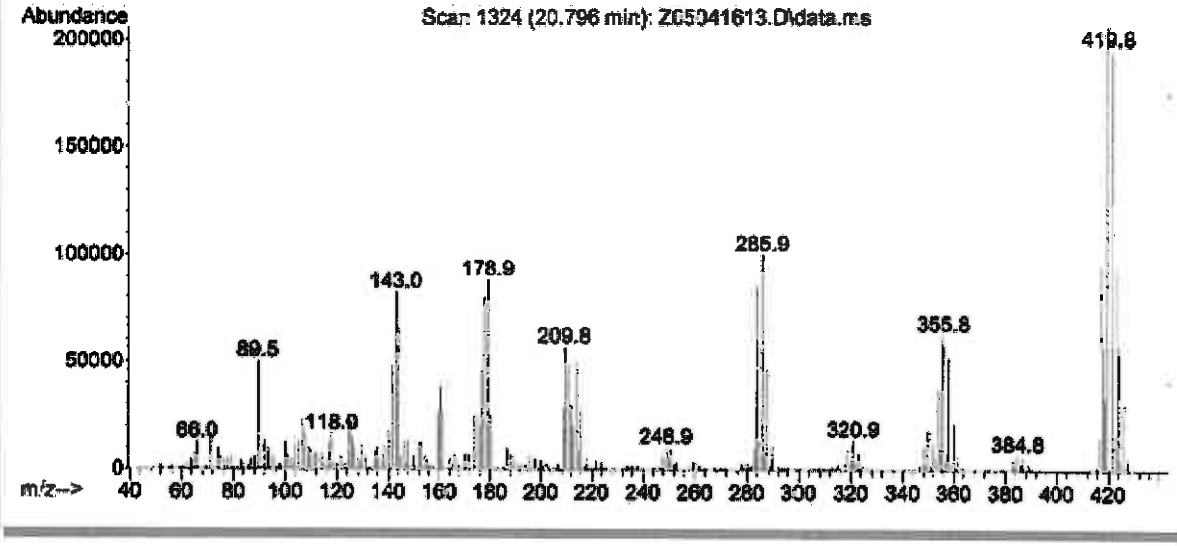
GC/MS

```
Compound Name          : 1,2,3,4,7,8,9-Heptachlorodibenzofuran-13C12
Lot Number             : ER04041602
Instrument             : Agilent GCMS
Operator               : ECM(SGZUFFRE)
Date Reported          : Wed May 04 15:34:28 2016
Column Type            : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program          : 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.         : Cool on-column
Carrier Gas            : Helium
Flow Rate (mL\min)     : 0.80 mL/min
Transfer Line Temp.    : 280°C
Scan Range             : 50-550
```

Total Ion Chromatogram



Mass Spectrum



COA Revision History

Revision No.	Date	Reason for Revision
00	June 21, 2016	Initial version

Reagent

HRDXNIDA_00297

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

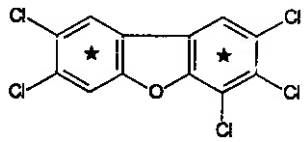
1042065
ID: HRDXNIDA_00297
Exp: 01/31/27 Prpd: SKV
13C-2,3,4,7,8-PeCDF [50ug

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

2,3,4,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$



Catalog Number: EF-958
Solution Lot: ER01061701
Expiration Date: January 2027
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
2,3,4,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$	97.9%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s); measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER01061701	50.51	± 5%	0.1	≤ 3%
Previous Lot	ER11041601	49.56	± 5%	0.1	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB

Darron Ellsworth, Quality Assurance Manager

January 27, 2017
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	2,3,4,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_3Cl_5O$
Compound Lot:	ER11101601	**CAS Number:**	116843-02-8
		Molecular Weight:	352.33

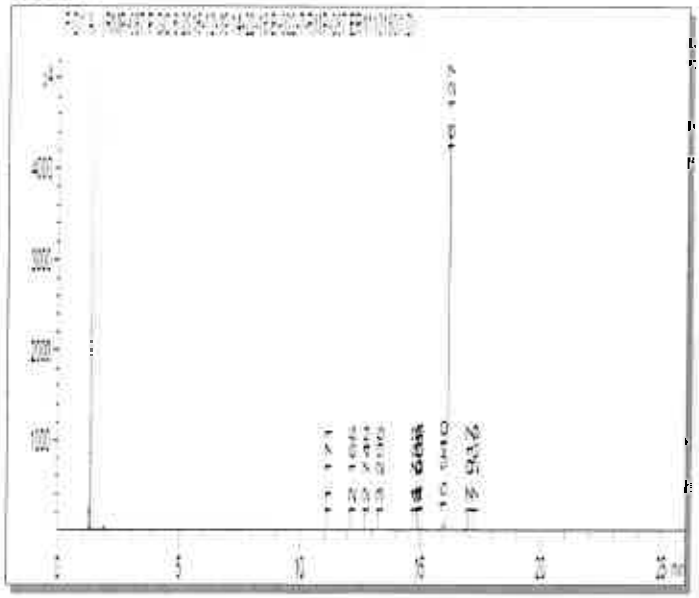
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0102	98.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.00% $^{13}C_0$ vs $^{13}C_{12}$
		0.02% $^{13}C_6$ vs $^{13}C_{12}$
Impurity Analysis by GC/MS SIM	SP10-0105	No Single DD/DF ≥ 0.5%
Mass Balance Purity Factor		98.33%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Specirai and Physicai Data

GC/FID



Column: DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program: 100°C to 300°C at 15°C/min hold 10 min
Injector Temp: Cool-on-Column
Detector Temp: 325°C

Data File Name: RMP-087 P GC 6 2016-12-19 14-22-16\B-002-7.D
Instrument: GC#6
Sample Name: ER11101601
Acquired: December 19, 2016

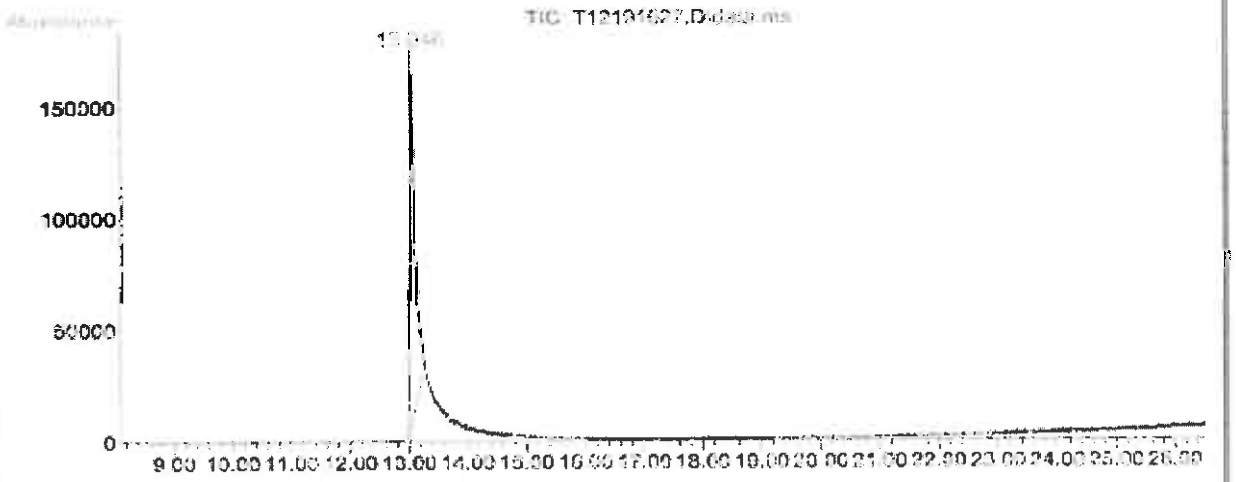
Peak #	Ret Time	Area	Height	Area %
1	11 17	0.94	0.40	0.01
2	12.17	1 30	0.39	0.01
3	12.75	0 47	0.20	0.00
4	13 30	0 90	0.35	0.01
5	14 75	1 70	0.87	0.02
6	14 91	1 09	0.56	0.01
7	14.97	32 24	17.54	0.29
8	15.94	124 38	64.36	1.13
9	16.13	10866 60	4688.80	98.41
10	17.02	6.31	2.46	0.06
11	17.27	6 76	2.34	0.06

Spectral and Physical Data (cont.)

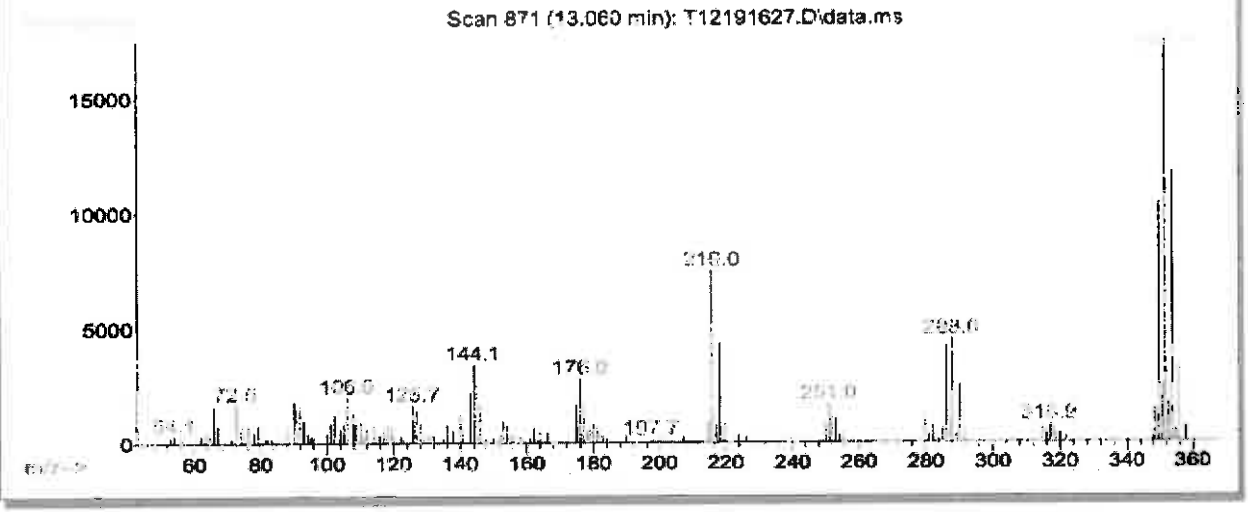
GC/MS

```
Compound Name          : 2,3,4,7,8-Pentachlorodibenzofuran-13C12
Lot Number             : ER11101601
Instrument             : Agilent GCMS
Operator               : ECM(SG1UFFRS)
Date Reported          : Tue Dec 20 12:19:55 2016
Column Type            : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program          : 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.         : Cool on-column
Carrier Gas            : Helium
Flow Rate (mL\min)     : 0.50 ml/min
Transfer Line Temp.    : 280°C
Scan Range             : 50-550
```

Total Ion Chromatogram



Mass Spectrum



Reagent

HRDXNIDA_00301

n: 9/2017 SKV

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

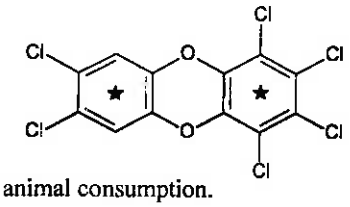
1042073
ID: HRDXNIDA_00301
Exp: 10/31/21 Prpd: SKV
13C-1,2,3,4,7,8-HxCDD [50

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 9001
GMP/GLP

1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number: ED-946
Solution Lot: ER102711-01
Expiration Date: October 2021
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume fill. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration.

Component	Solution Purity	Certified Concentration
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	99.0%	50.00 ± 0.32 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20°C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER102711-01	48.2	± 5%	0.2	≤ 3%
Previous Lot	ER012208-01	49.6	± 5%	0.3	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACLASS

Darron Ellsworth, Quality Assurance Manager

September 17, 2015
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2Cl_6O_2$
Compound Lot:	ER011008-01	**CAS Number:**	109719-80-4
		Molecular Weight:	402.77

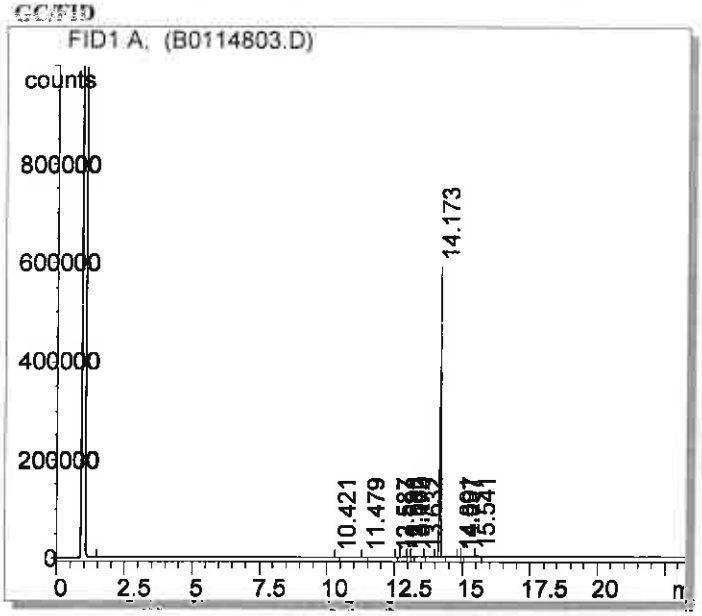
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.2%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.08% $^{13}C_0$ vs $^{13}C_{12}$
		0.19% $^{13}C_6$ vs $^{13}C_{12}$
Purity Factor		99.19%

- Chromatographic purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	C:\HPCHEM\1\DATA\B0114803.D
Instrument:	GC#2
Sample Name:	ER011008-01
Acquired:	January 14, 2008

Peak #	Ret Time	Area	Height	Area %
1	10.42	287.44	132.33	0.02
2	11.48	242.24	92.03	0.01
3	12.59	389.12	196.33	0.02
4	12.90	3015.36	1199.07	0.17
5	13.06	2243.36	788.13	0.13
6	13.17	2243.90	754.45	0.13
7	13.63	2349.03	134.07	0.02
8	14.17	427.02	588610.00	99.20
9	14.89	1731980.00	110.79	0.03
10	15.00	512.26	86.41	0.02
11	15.54	4077.63	1008.44	0.23

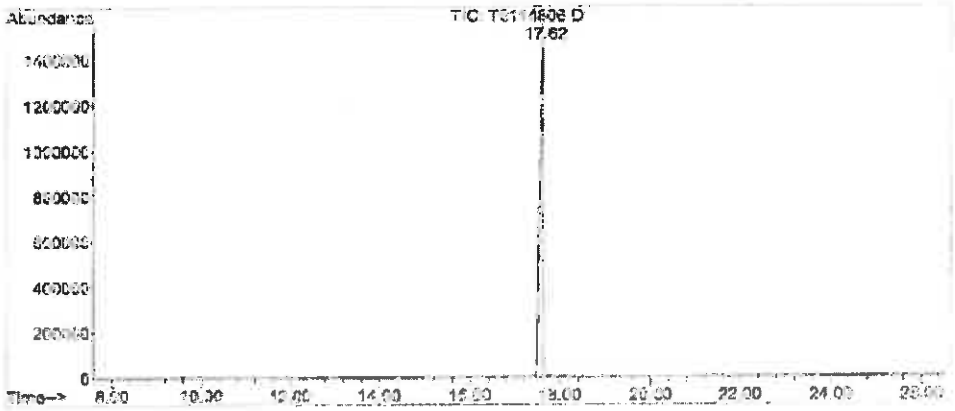
Spectral and Physical Data (cont.)

Identity by GC/MS Analysis

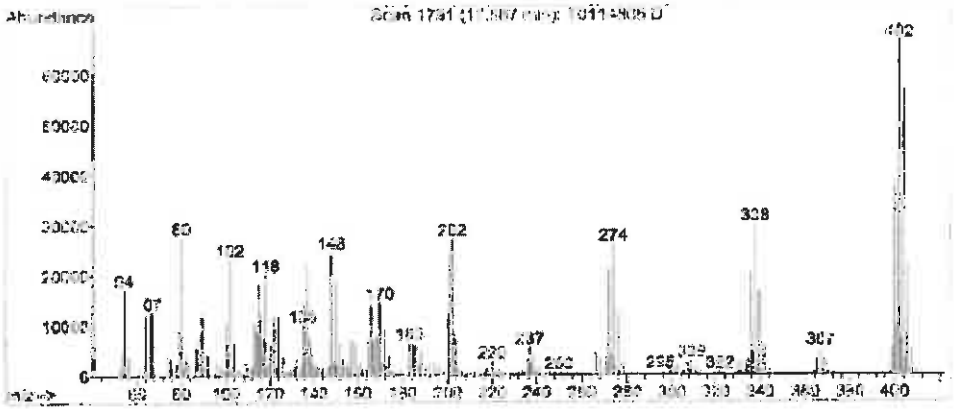
Compound Name : 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-13C12
Lot Number : MB110908-01
Instrument : Agilent 5973N MSD/6890N GC
Operator-Inst ID : REC - C1010E
Date Reported : Wed Jan 16 11:15:58 2008
Column Type : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program : 140°C to 208°C@40°C/min, 208°C to 300°C@8°C/min (5 min)
Injector Temp. : Cool on-column
Carrier Gas : Helium
Flow Rate (mL/min) : 0.80 mL/min
Transfer Line Temp. : 280°C

Scan Range : 50-550

Total Ion Chromatogram



Mass Spectrum



COA Revision History

Revision No.	Date	Reason for Revision
00	November 12, 2011	Initial version
01	September 17, 2015	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet"

Reagent

HRDXNIDA_00302

R: 9/20/17 SKV

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

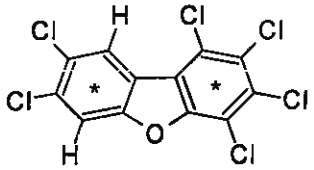
1042074
ID: HRDXNIDA_00302
Exp: 07/31/20 Prpd: SKV
13C-1,2,3,4,7,8-HxCDF [50

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 9001:2008

1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$



Catalog Number:	EF-963
Solution Lot:	ER072810-02
Expiration Date:	July 2020
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Protect from air and light, store at room temperature. Do not store cold.
Intended Use:	For laboratory use only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume fill. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration.

Component	Chromatographic Purity	Certified Concentration
1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	99.6%	50.00 ± 0.32 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER072810-02	47.4	± 5%	0.3	≤ 3%
Previous Lot	LR011907-01	46.6	—	1.3	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACLASS

Darron Ellsworth, Quality Assurance Manager

November 15, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2OCl_6$
Compound Lot:	35135-45	**CAS Number:**	114423-98-2
		Molecular Weight:	386.77

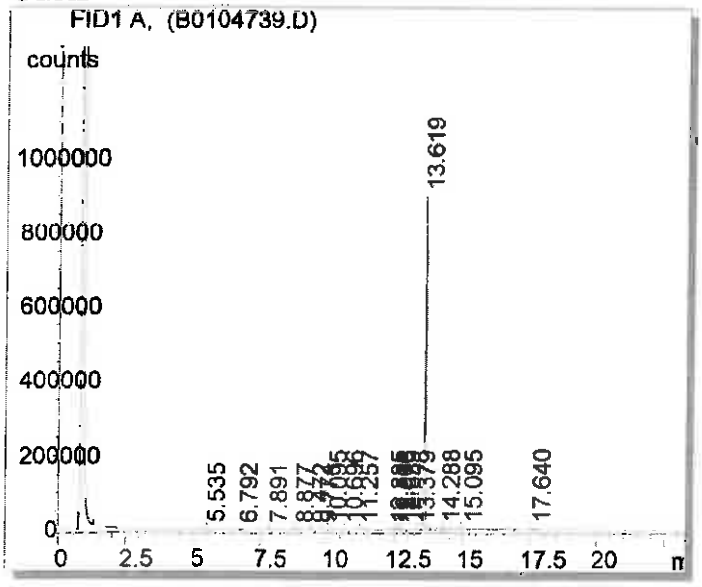
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	99.6%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.02% C_0 vs C_{12}
		0.13% C_6 vs C_{12}
Purity Factor		99.57%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID

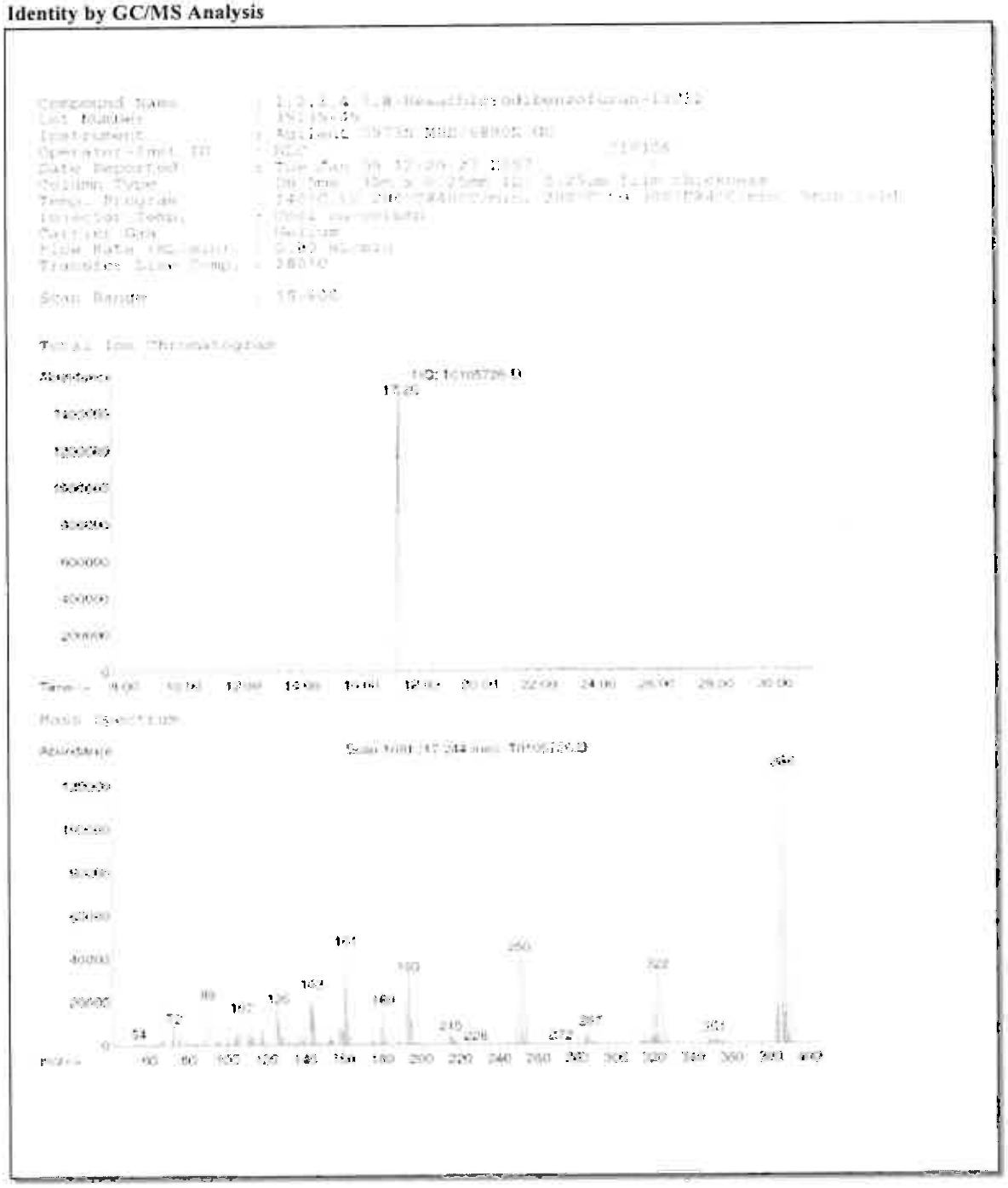


Column:	DB-5ms, 30m x 0.53mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-column
Detector Temp:	325°C
Data File Name:	C:\HPCHEM\1\DATA\B0104739.D
Instrument:	GC#2
Sample Name:	35135-45
Acquired:	January 05, 2007

Peak #	Ret Time	Area	Height	Area %
1	4.21	615.24	161.26	0.02
2	5.21	1024.94	292.85	0.04
3	6.09	326.05	83.67	0.01
4	7.10	301.83	31.69	0.01
5	7.75	169.71	40.31	0.01
6	8.38	136.91	47.17	0.01
7	8.97	123.76	38.29	0.00
8	12.30	2684.80	1153.73	0.10
9	12.48	1162.83	467.42	0.04
10	12.56	1893.94	719.41	0.07
11	12.68	466.69	180.24	0.02
12	12.86	690.32	301.63	0.03
13	13.62	2651450.00	979725.00	99.58
14	14.34	274.11	82.01	0.01
15	15.17	1208.09	320.67	0.05
16	19.00	166.44	32.66	0.01

Spectral and Physical Data (cont.)

Identity by GC/MS Analysis



COA Revision History

Revision No.	Date	Reason for Revision
00	September 22, 2010	Initial version
01	September 22, 2015	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet"
02	November 15, 2016	Corrected Molecular Weight from 368.77 to 386.77

Reagent

HRDXNIDA_00353

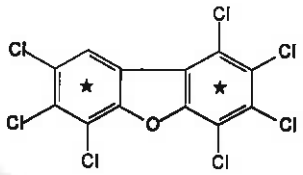
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Cerilliant Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,4,6,7,8-Heptachlorodibenzofuran-$^{13}C_{12}$



Catalog Number: EF-974
Solution Lot: ER08101404
Expiration Date: November 2024
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
1,2,3,4,6,7,8-Heptachlorodibenzofuran-$^{13}C_{12}$	98.3%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20°C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER08101404	48.75	± 5%	0.3	≤ 3%
Previous Lot	ER102711-02	51.49	± 5%	0.1	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACLASS
REFERENCE MATERIAL PRODUCER

Darron Ellsworth, Quality Assurance Manager

December 03, 2015
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,6,7,8-Heptachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}HCl_7O$
Compound Lot:	ER020507-02	**CAS Number:**	109719-84-8
		Molecular Weight:	421.22

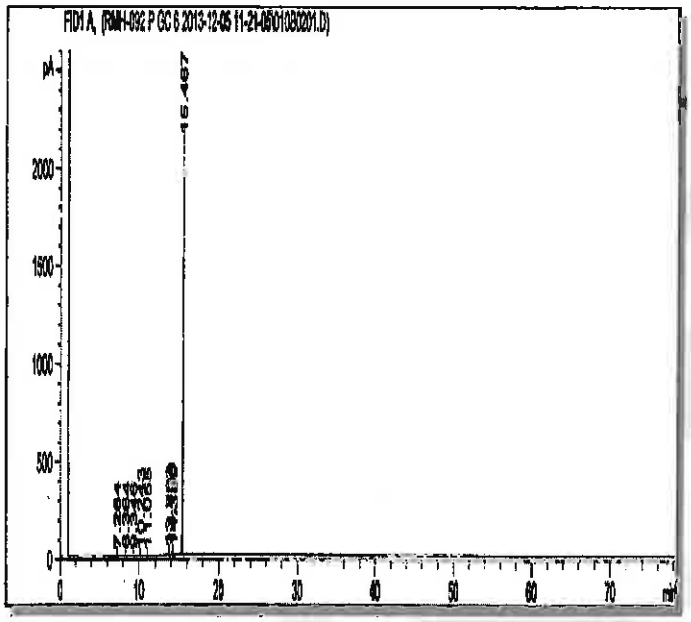
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	98.7%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.02% $^{13}C_0$ vs $^{13}C_{12}$
		0.16% $^{13}C_6$ vs $^{13}C_{12}$
Impurity Analysis by GC/MS	SP10-0105	Pass
		no single DD/DF impurity ≥1.0%
Purity Factor		98.69%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-092 P GC 6 2013-12-05 11-21-05\010B0201.D
Instrument:	GC#6
Sample Name:	ER020507-02
Acquired:	December 05, 2013

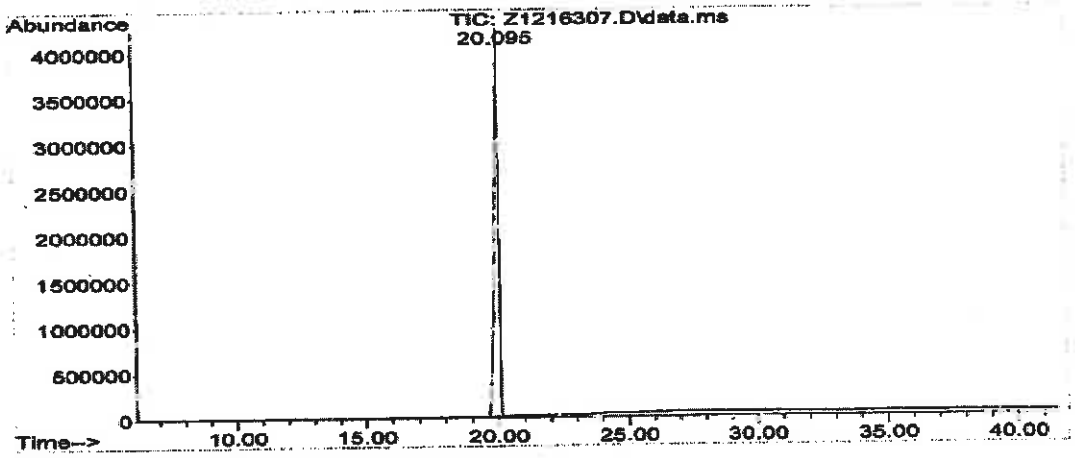
Peak #	Ret Time	Area	Height	Area %
1	7.26	4.41	2.08	0.05
2	8.36	11.76	5.45	0.12
3	9.35	5.20	2.32	0.05
4	10.24	1.47	0.62	0.02
5	11.06	0.34	0.17	0.00
6	13.75	8.81	4.38	0.09
7	13.80	23.67	9.98	0.25
8	14.13	43.07	16.42	0.45
9	14.20	21.73	8.77	0.23
10	14.39	4.79	1.81	0.05
11	15.47	9349.36	2200.33	98.68

Spectral and Physical Data (cont.)

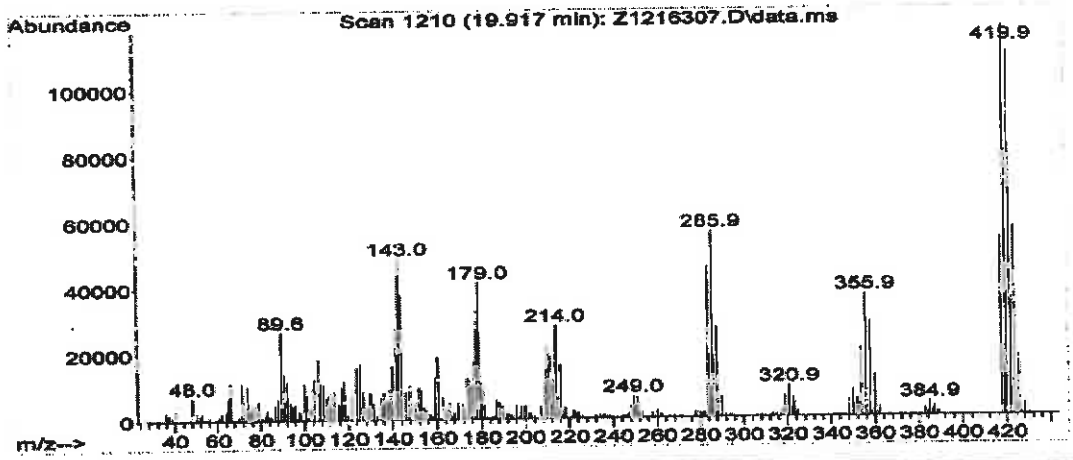
GC/MS

Compound Name : 1,2,3,4,6,7,8-Heptachlorodibenzofuran-13C12
Lot Number : ER020507-02
Instrument : Agilent GCMS
Operator : ECM(BRYAN_DOCKERY)
Date Reported : Tue Dec 17 09:08:58 2013
Column Type : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program : 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp. : Cool on-column
Carrier Gas : Helium
Flow Rate (mL\min) : 0.80 mL/min
Transfer Line Temp. : 280°C
Scan Range : 50-550

Total Ion Chromatogram



Mass Spectrum



COA Revision History

Revision No.	Date	Reason for Revision
00	January 19, 2015	Initial version
01	December 04, 2015	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet"

Reagent

HRDXNIDA_00354

Rec: 11/28/18 SKV

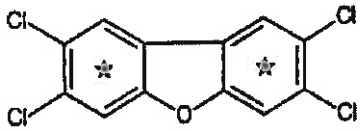
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Cerilliant Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

2,3,7,8-Tetrachlorodibenzofuran-$^{13}C_{12}$



Catalog Number: EF-904
Solution Lot: ER09131601
Expiration Date: September 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampoules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration.

Component	Solution Purity	Certified Concentration
2,3,7,8-Tetrachlorodibenzofuran-$^{13}C_{12}$	99.5%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20°C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER09131601	49.91	± 5%	0.2	≤ 3%
Previous Lot	ER12101304	51.13	± 5%	0.2	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darren Ellsworth, Quality Assurance Manager

November 02, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

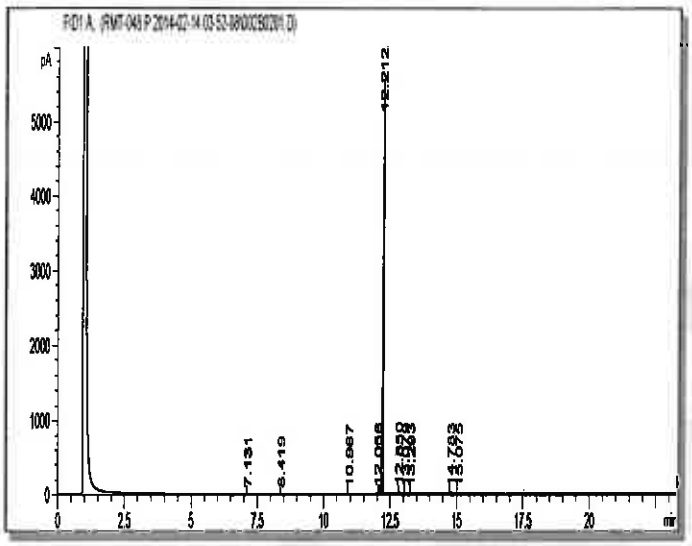
Compound Name:	2,3,7,8-Tetrachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_4Cl_4O$
Compound Lot:	ER01161401	**CAS Number:**	89059-46-1
		Molecular Weight:	317.88

Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.2%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Impurity Analysis by GC/MS SIM	SP10-0105	No single DD/DF ≥ 0.5%
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.00% $^{13}C_0$ vs $^{13}C_{12}$
		0.00% $^{13}C_6$ vs $^{13}C_{12}$
Mass Balance Purity Factor		99.24%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity

GC/FID



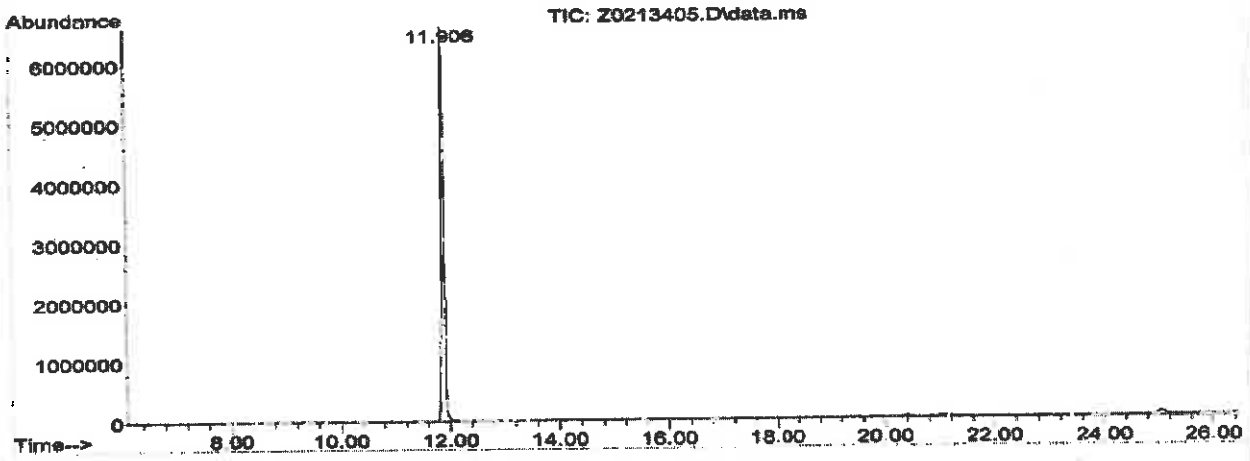
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMT-048 P 2014-02-14 03-52-08\002B0201.D
Instrument:	GC#10
Sample Name:	ER01161401
Acquired:	February 14, 2014

Peak #	Ret Time	Area	Height	Area %
1	7.13	1.19	0.61	0.01
2	8.42	3.23	1.42	0.03
3	10.97	3.57	1.04	0.03
4	12.06	20.86	12.47	0.18
5	12.21	11764.70	5466.96	99.29
6	12.85	30.72	15.48	0.26
7	13.08	7.62	4.03	0.06
8	13.29	5.47	2.91	0.05
9	14.78	7.62	2.76	0.06
10	15.08	3.87	1.33	0.03

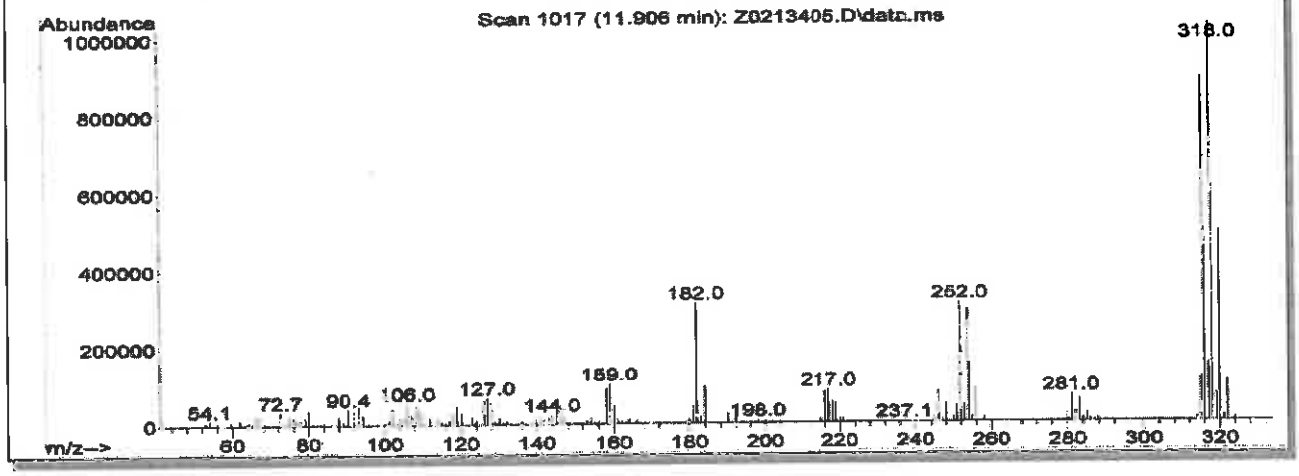
GC/MS

Compound Name	:	2,3,7,8-Tetrachlorodibenzofuran-13C12
Lot Number	:	ER01161401
Instrument	:	Agilent GCMS
Operator	:	ECM(SAMUEL_GIUFFRE)
Date Reported	:	Thu Feb 13 11:57:07 2014
Column Type	:	DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program	:	140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.	:	Cool on-column
Carrier Gas	:	Helium
Flow Rate (mL\min)	:	0.80 mL/min
Transfer Line Temp.	:	280°C
Scan Range	:	50-550

Total Ion Chromatogram



Mass Spectrum



COA Revision History

Revision No.	Date	Reason for Revision
00	November 02, 2016	Initial version

Reagent

HRDXNIDA_00355

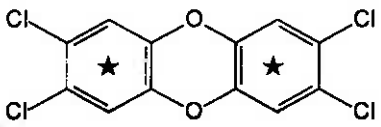
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Cerilliant Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO TS17M
ISO 9001
GMP/GLP

2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number: ED-900
Solution Lot: ER03031601
Expiration Date: March 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{13}C_{12}$	99.4%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution, and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER03031601	52.66	± 5%	0.3	≤ 3%
Previous Lot	ER01031401	49.83	± 5%	0.3	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darron Ellsworth, Quality Assurance Manager

March 24, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-35ms 30 m x 0.53 mm ID, 1.0 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_4Cl_4O_2$
Compound Lot:	ER01201405	**CAS Number:**	76523-40-5
		Molecular Weight:	333.88

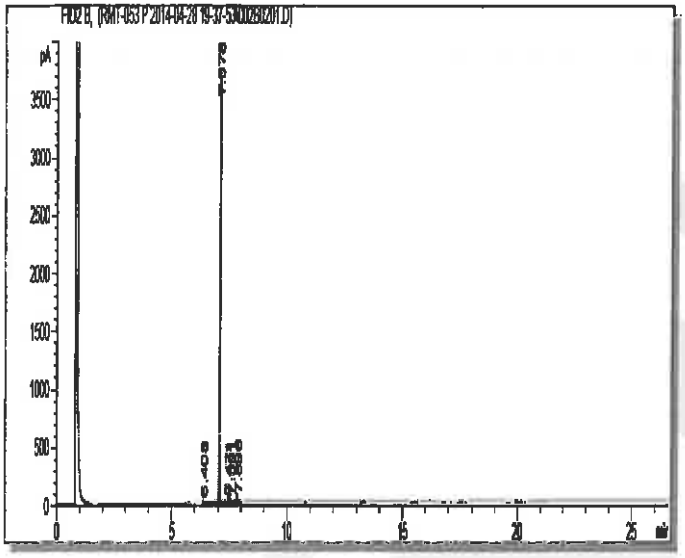
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	99.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity and Distribution by GC/MS SIM Analysis	SP10-0105	0.01% $^{13}C_0$ vs $^{13}C_{12}$
		0.05% $^{13}C_6$ vs $^{13}C_{12}$
Impurities by GC/MS SIM Analysis	SP10-0105	no single DD/DF impurity $\geq$ 0.5%
Mass Balance Purity Factor		99.34%

- The primary chromatographic purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Mass Balance Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-35ms, 30 m x 0.53 mm ID, 1.0 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMT-053 P 2014-04-28 19-37-53\002B0201.D
Instrument:	GC#6
Sample Name:	ER01201405
Acquired:	April 28, 2014

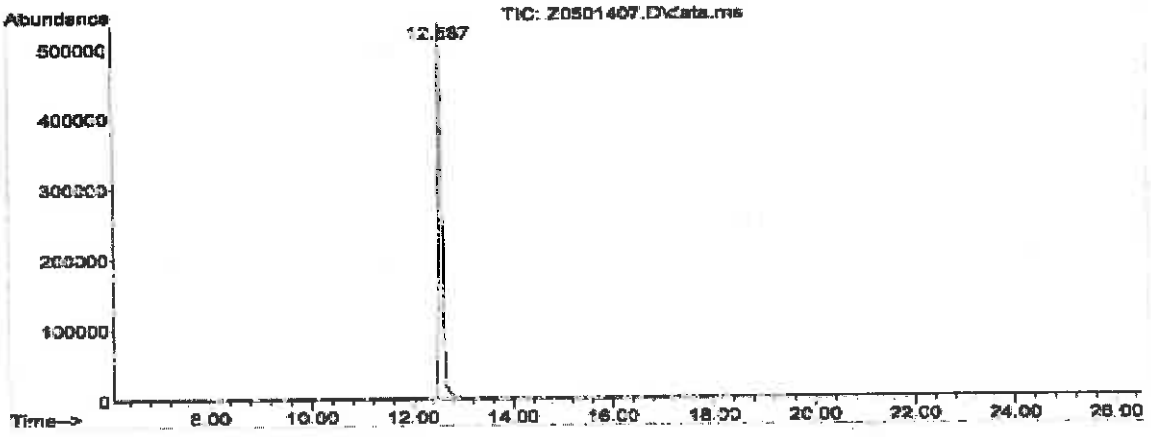
Peak #	Ret Time	Area	Height	Area %
1	6.41	4 36	2.80	0.08
2	7 08	5225 21	3678.99	99.32
3	7 47	5 29	3.00	0.10
4	7 59	9 11	4.81	0.17
5	7.90	17 05	9.22	0.32

Spectral and Physical Data (cont.)

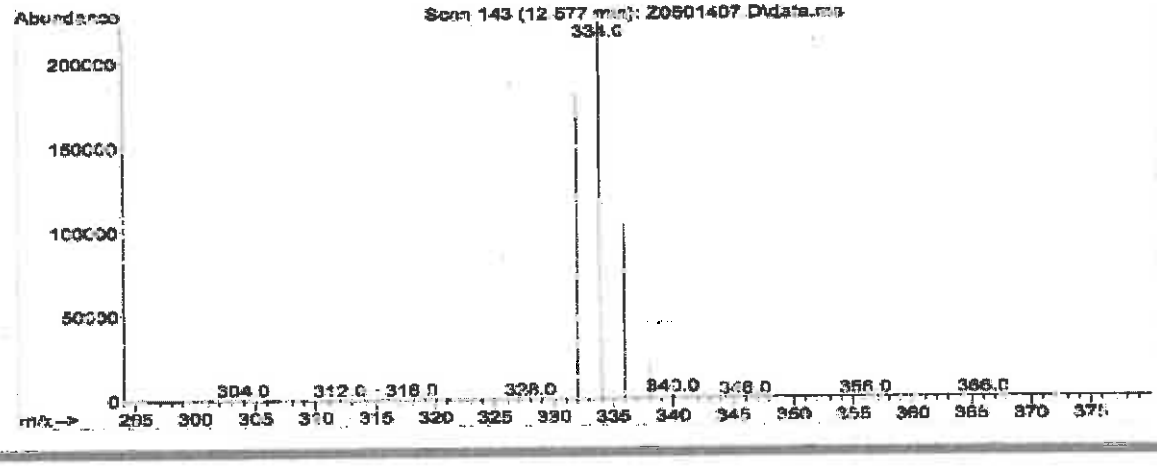
GC/MS

```
Compound Name          : 2,3,7,8-Tetrachlorodibenzo-p-dioxin-13C12
Lot Number             : ER[illegible]1405
Instrument             : Agilent GCMS
Operator               : ECM(SAMUEL_GIUFFRE)
Date Reported          : Tue May 06 09:30:26 2014
Column Type            : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program          : 140°C to 200°C@40°C/min,280°C to 320°C@4°C/min
Injector Temp.         : Cool on-column
Carrier Gas            : Helium
Flow Rate (mL\min)     : 0.80 mL/min
Transfer Line Temp.    : 280°C
Scan Range             : 50-550
```

Total Ion Chromatogram



Mass Spectrum



Reagent

HRDXNIDA_00357

R: 1/15/19 SKV

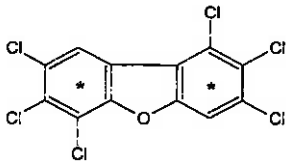
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

Certificate of Analysis

1,2,3,6,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$



Catalog Number:	EF-985
Solution Lot:	ER02241603
Expiration Date:	April 2026
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Intended Use:	For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
1,2,3,6,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	99.6%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER02241603	50.09	± 5%	0.4	≤ 3%
Previous Lot	ER053107-03	50.81	± 5%	0.3	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darron Ellsworth, Quality Assurance Manager

May 04, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,6,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2Cl_6O$
Compound Lot:	ER051607-01	**CAS Number:**	116843-03-9
		Molecular Weight:	386.77

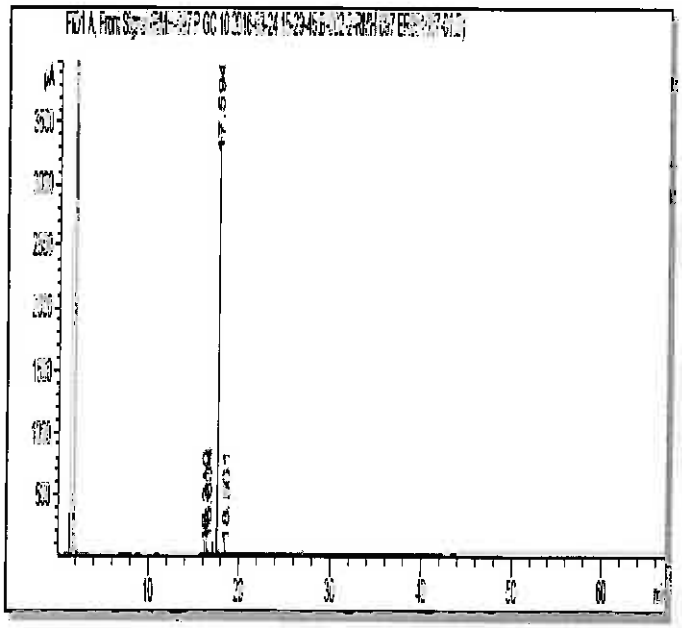
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.0%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.01% $^{13}C_0$ vs $^{13}C_{12}$
		0.06% $^{13}C_6$ vs $^{13}C_{12}$
Impurities by GC/MS SIM Analysis	SP10-0105	no single DD/DF impurity $\geq$ 0.5%
Mass Balance Purity Factor		99.01%

- The chromatographic purity is calculated as the average of two independently performed analyses utilizing two different methods Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Mass Balance Purity Factor
- Mass Balance Purity Factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	40°C to 300°C at 15°C/min hold 50 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-097 P GC 10 2016-03-24 15-29-45\B-002-2.D
Instrument:	GC#10
Sample Name:	ER051607-01
Acquired:	March 24, 2016

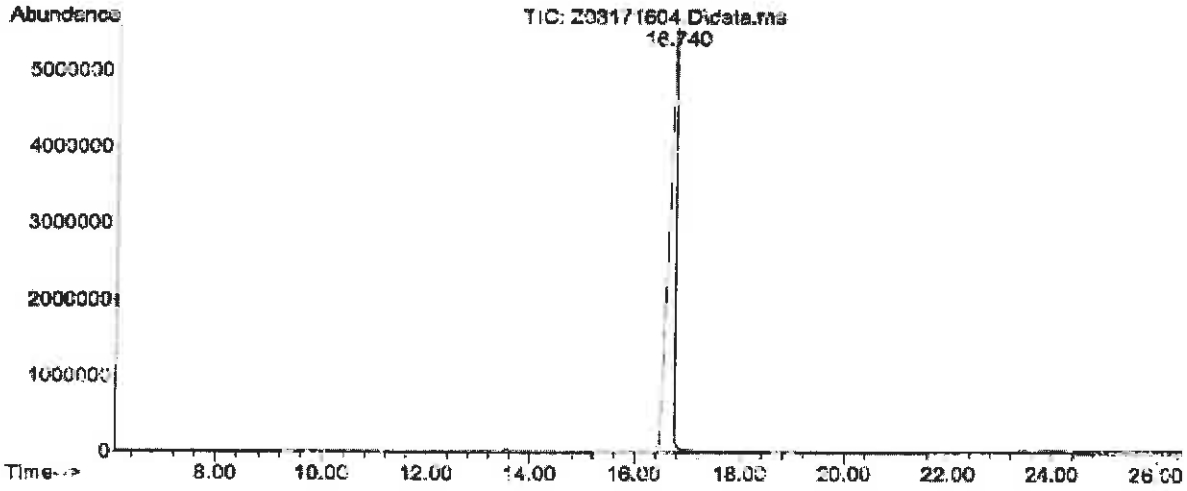
Peak #	Ret Time	Area	Height	Area %
1	16.31	6.97	3.21	0.08
2	16.60	77.08	33.51	0.83
3	17.59	9156.82	3458.38	99.00
4	18.56	8.48	2.69	0.09

Spectral and Physical Data (cont.)

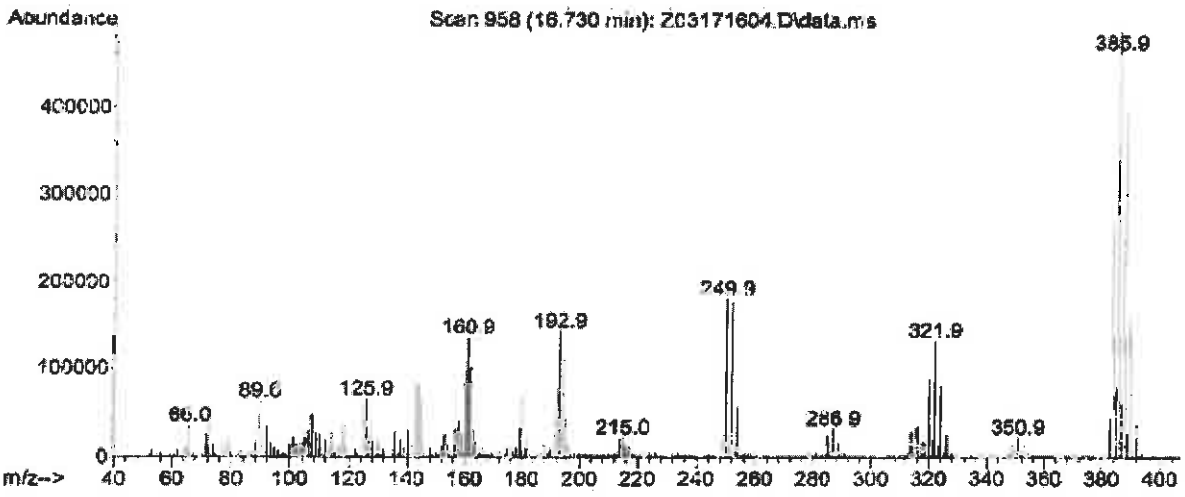
GC/MS

Compound Name	: 1,2,3,6,7,8 Hexachlorodibenzofuran-13C12
Lot Number	: ER051607-01
Instrument	: Agilent GCMS
Operator	: ECM(SGIUFFRE)
Date Reported	: Fri Mar 18 07:08:54 2016
Column Type	: DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp Program	: 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.	: Cool on-column
Carrier Gas	: Helium
Flow Rate (mL\min)	: 0.80 mL/min
Transfer Line Temp.	: 280°C
Scan Range	: 50-550

Total Ion Chromatogram



Mass Spectrum



COA Revision History

Revision No.	Date	Reason for Revision
00	May 04, 2016	Initial version

Reagent

HRDXNIDA_00358

r: 1/15/19 SK✓

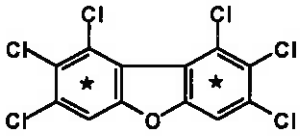
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

ISO GUIDE 34
ISO/IEC 17025
ISO 9001:2008

Certificate of Analysis

1,2,3,7,8,9-Hexachlorodibenzofuran-$^{13}C_{12}$



Catalog Number:	EF-986
Solution Lot:	ER100610-01
Expiration Date:	December 2020
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Intended Use:	For laboratory use only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume fill. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration.

Component	Chromatographic Purity	Certified Concentration
1,2,3,7,8,9-Hexachlorodibenzofuran-$^{13}C_{12}$	99.5%	50.00 ± 0.32 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Crtieria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Crtieria
New Lot	ER100610-01	51.2	± 5%	0.4	≤ 3%
Previous Lot	ER100107-01	49.9	± 5%	1.4	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACLASS

Darron Ellsworth, Quality Assurance Manager

February 14, 2017
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2OCl_6$
Compound Lot:	ER080108-03	**CAS Number:**	116843-04-0
		Molecular Weight:	386.77

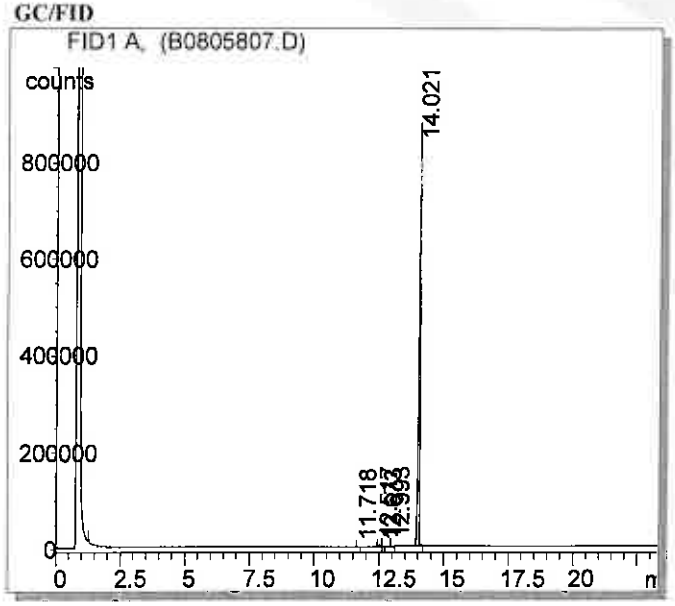
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.5%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.03% $^{13}C_0$ vs $^{13}C_{12}$
		0.09% $^{13}C_6$ vs $^{13}C_{12}$
Purity Factor		99.49%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID

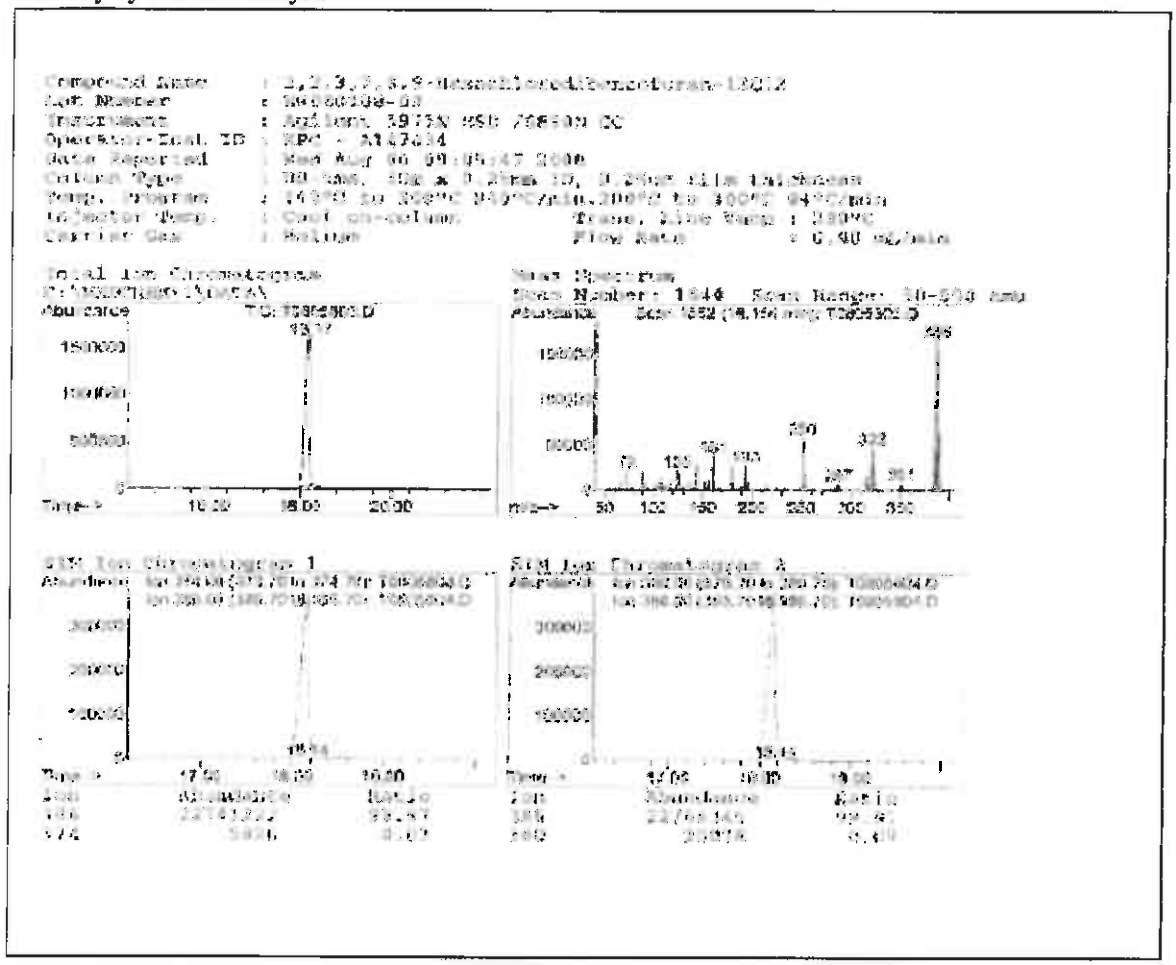


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	C:\HPCHEM\1\DATA\B0805807.D
Instrument:	GC#2
Sample Name:	ER080108-03
Acquired:	August 05, 2008

Peak #	Ret Time	Area	Height	Area %
1	11.72	318.47	152.10	0.01
2	12.52	8294.54	2994.64	0.30
3	12.67	155.17	67.29	0.01
4	12.99	4248.66	1646.53	0.16
5	14.02	2708910.00	880320.00	99.52

Spectral and Physical Data (cont.)

Identity by GC/MS Analysis



COA Revision History

Revision No.	Date	Reason for Revision
00	January 12, 2011	Initial version
01	November 05, 2015	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet".
02	February 14, 2017	Corrected Isotopic Purity by GC/MS SIM from C to ^{13}C.

Reagent

HRDXNIDA_00359

r: 1/15/19 SKV

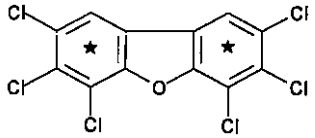
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

ISO GUIDE 34
ISO/IEC 17025
ISO 9001:2008

Certificate of Analysis

2,3,4,6,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$



Catalog Number: EF-987
Solution Lot: ER100610-02
Expiration Date: December 2020
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For laboratory use only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume fill. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration

Component	Chromatographic Purity	Certified Concentration
2,3,4,6,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	99.4%	50.00 ± 0.32 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Crtieria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Crtieria
New Lot	ER100610-02	50.9	± 5%	0.6	≤ 3%
Previous Lot	ER031507-03	50.3	± 5%	1.8	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared calibration solution gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACLASS

Darren Ellsworth, Quality Assurance Manager

January 15, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	2,3,4,6,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2Cl_6O$
Compound Lot:	ER061906-02	**CAS Number:**	116843-05-1
		Molecular Weight:	386.73

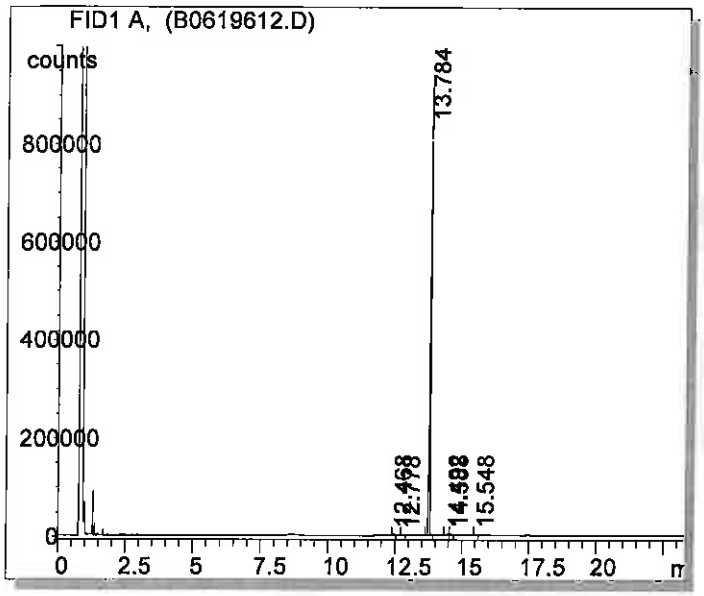
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	99.4%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.01% $^{13}C_0$ vs $^{13}C_{12}$
		0.04% $^{13}C_6$ vs $^{13}C_{12}$
Purity Factor		99.40%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID

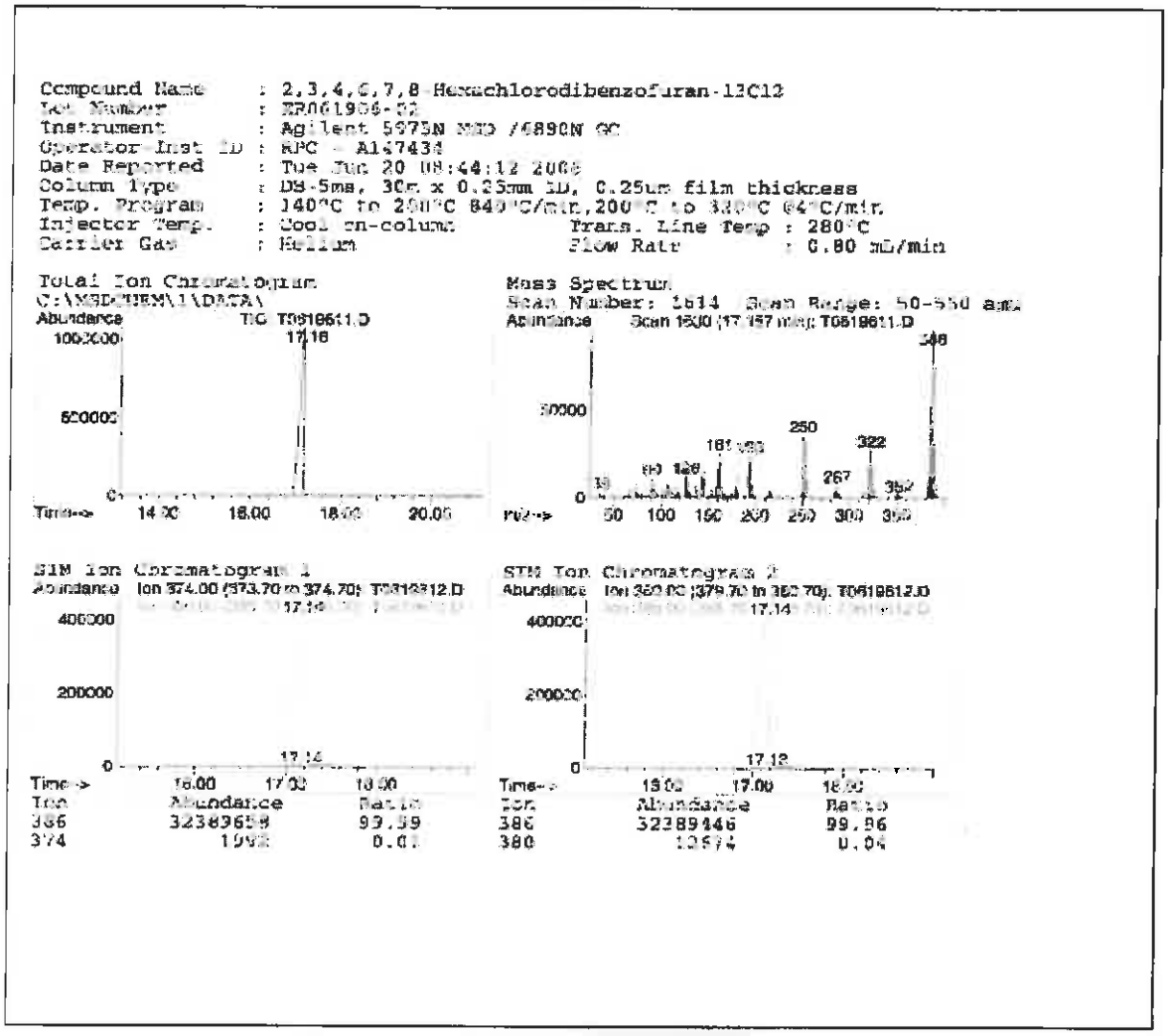


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	C:\HPCHEM\1\DATA\B0619612.D
Instrument:	GC#2
Sample Name:	ER061906-02
Acquired:	June 19, 2006

Peak #	Ret Time	Area	Height	Area %
1	12.47	4458	1822	0.18
2	12.78	3496	1304	0.14
3	13.78	2443150	925399	99.39
4	14.49	1528	387	0.06
5	14.59	4236	1332	0.17
6	15.55	1361	348	0.06

Spectral and Physical Data (cont.)

GC/MS



COA Revision History

Revision No.	Date	Reason for Revision
00	January 04, 2011	Initial version
01	January 15, 2016	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet".

Reagent

HRDXNIDA_00360

r: 1/15/19 SKV

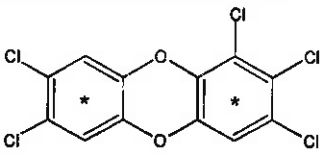
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

Certificate of Analysis

1,2,3,7,8-Pentachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number: ED-955
Solution Lot: ER08041401
Expiration Date: August 2024
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration.

Component	Solution Purity	Certified Concentration
1,2,3,7,8-Pentachlorodibenzo-p-dioxin-$^{13}C_{12}$	98.2%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER08041401	48.80	± 5%	0.3	≤ 3%
Previous Lot	ER030907-02	49.84	± 5%	0.4	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACCLASS

Darron Ellsworth, Quality Assurance Manager

February 10, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,7,8-Pentachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_3Cl_5O_2$
Compound Lot:	ER06241403	**CAS Number:**	109719-79-1
		Molecular Weight:	368.33

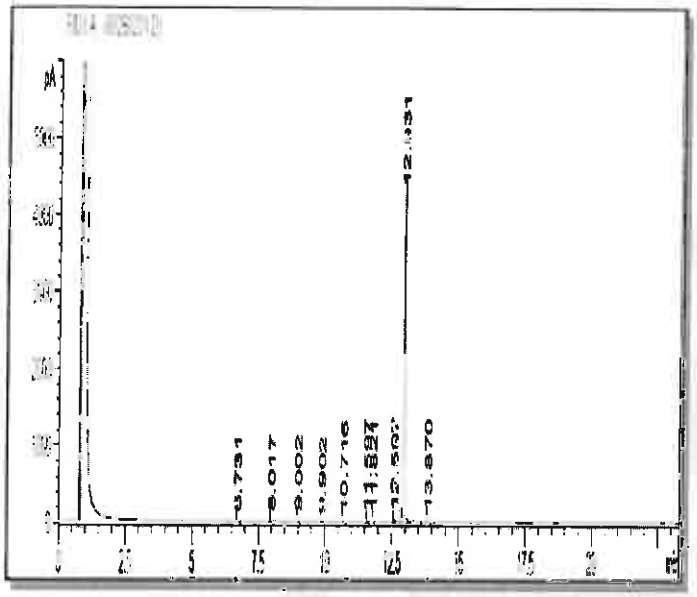
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	98.9%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS-SIM Analysis	SP10-0105	0.07% $^{13}C_0$ vs $^{13}C_{12}$ 0.14% $^{13}C_6$ vs $^{13}C_{12}$
Impurity Analysis by GC/MS	SP10-0105	No single DD/DF $\geq$ 0.5%
Mass Balance Purity Factor		98.90%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The primary chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID

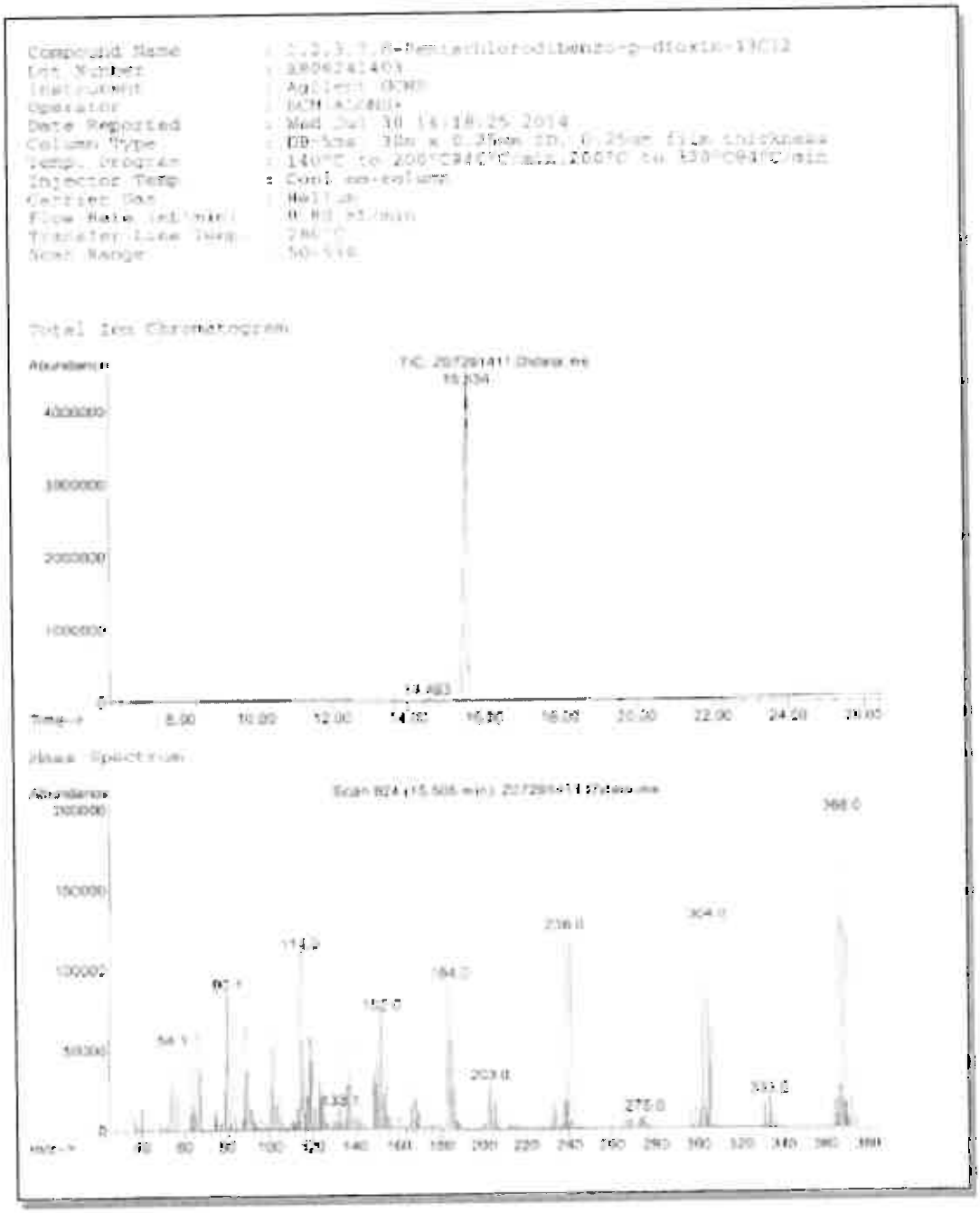


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min, hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMP-085 P GC 6 2014-07-30 18-11-11\002B0201.D
Instrument:	GC#6
Sample Name:	ER06241403
Acquired:	July 30, 2014

Peak #	Ret Time	Area	Height	Area %
1	6 73	7.32	3.42	0.07
2	8.02	3 79	1.60	0.04
3	9.00	8 74	3.64	0.08
4	9 90	3 38	1.35	0.03
5	10 72	1 31	0.45	0.01
6	11 60	14 46	6.69	0.14
7	11 82	2 21	1.11	0.02
8	12.60	68 05	28.10	0.64
9	12.93	10594 10	4235.85	98.91
10	13.87	7 09	2.57	0.07

Spectral and Physical Data (cont.)

GC/MS



COA Revision History

Revision No.	Date	Reason for Revision
00	September 24, 2014	Initial version
01	February 10, 2016	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet".

Reagent

HRDXNIDA_00361

r: 1/15/19 SKV

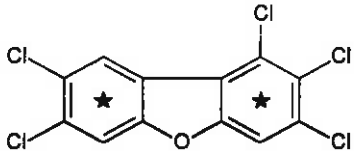
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 9001:2008

1,2,3,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$



Catalog Number: EF-952
Solution Lot: ER012111-01
Expiration Date: January 2021
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For laboratory use only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume fill. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration.

Component	Chromatographic Purity	Certified Concentration
1,2,3,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$	99.2%	50.00 ± 0.32 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Acceptance Crtieria	%RSD - Homogeneity Actual Results	Acceptance Crtieria
New Lot	ER012111-01	50.7	± 5%	0.4	≤ 3%
Previous Lot	ER0100407-02	51.0	± 5%	0.5	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ACLASS

Darren Ellsworth, Quality Assurance Manager

February 15, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_3OCl_5$
Compound Lot:	ER090110-01	**CAS Number:**	109719-77-9
		Molecular Weight:	352.33

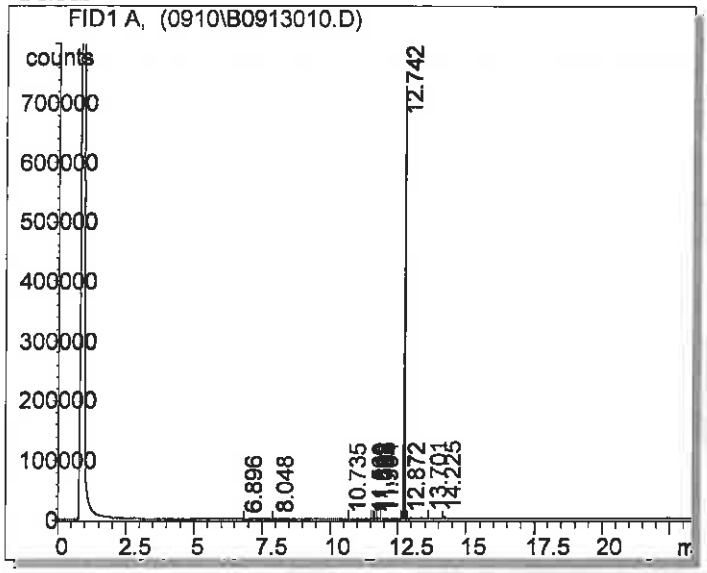
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	99.2%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.00% $^{13}C_0$ vs $^{13}C_{12}$
		0.03% $^{13}C_6$ vs $^{13}C_{12}$
Purity Factor		99.17%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID

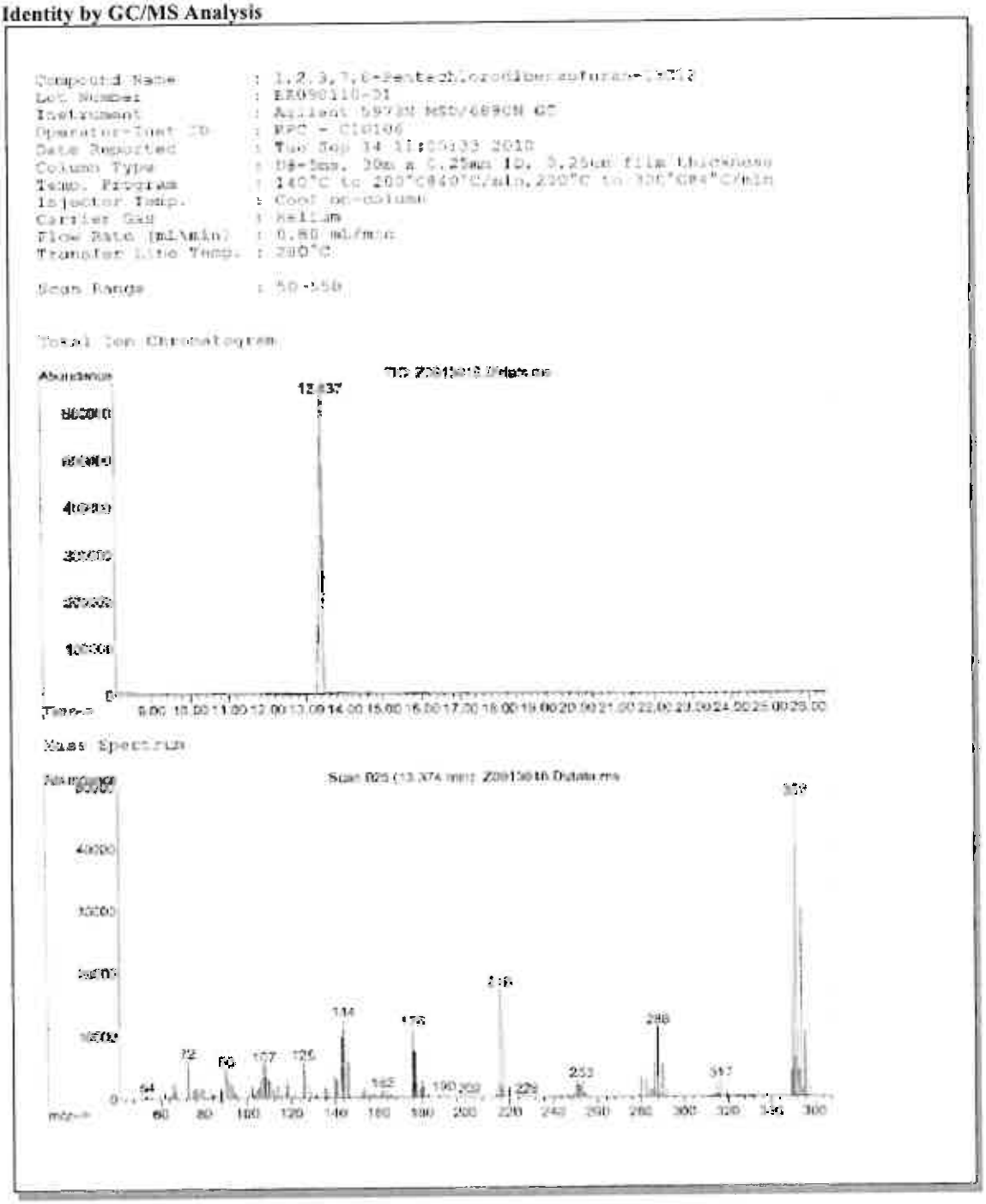


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	S:\GC\GC2\2010\0910\B0913010.D
Instrument:	GC#2
Sample Name:	ER090110-01
Acquired:	September 13, 2010

Peak #	Ret Time	Area	Height	Area %
1	6.90	618.64	296.84	0.04
2	8.05	254 50	102.70	0.01
3	10.74	162 25	70.86	0.01
4	11 57	145 03	82.11	0.01
5	11 62	468 46	216.27	0.03
6	11 69	1863 76	870.51	0.11
7	11.79	1631 76	576.35	0.10
8	11.90	421 31	184.81	0.02
9	12.74	1702290 00	729831.00	99.20
10	12.87	308 15	147.54	0.02
11	13.70	3743 55	1299.40	0.22
12	14.23	4032 24	1491.01	0.23

Spectral and Physical Data (cont.)

Identity by GC/MS Analysis



COA Revision History

Revision No.	Date	Reason for Revision
00	February 11, 2011	Initial version
01	March 01, 2011	Corrected typographical error: Chemical Structure
02	February 15, 2016	Updated Safety Section from "Flammable" to "Danger. See Safety Data Sheet".

Reagent

HRDXNIDA_00362

P: 1/15/19 SKV

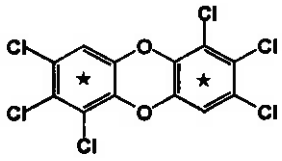
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number: ED-966
Solution Lot: ER03151801
Expiration Date: March 2028
Solvent: n-Nonane:Toluene (80:20) (v/v)
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	> 99.9%	50.03 ± 0.28 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER03151801	52.29	± 5%	0.2	≤ 3%
Previous Lot	ER010209-01	48.05	± 5%	0.3	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using balances that have been qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB

Darren Ellsworth, Quality Assurance Manager

April 19, 2018
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2Cl_6O_2$
Compound Lot:	FN01151802	**CAS Number:**	109719-81-5
		Molecular Weight:	402.77

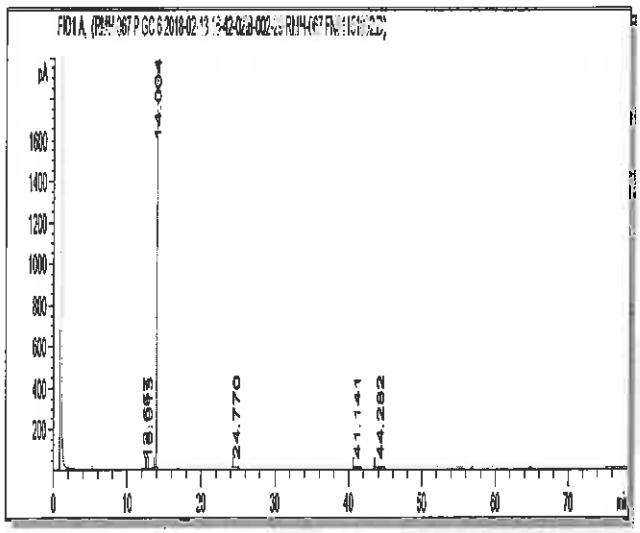
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.0%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.02% $^{13}C_0$ vs $^{13}C_{12}$ 0.04% $^{13}C_6$ vs $^{13}C_{12}$
Impurity Analysis by GC/MS SIM	SP10-0105	No Single DD/DF ≥ 1.0%
Mass Balance Purity Factor		98.96%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-067 P GC 6 2018-02-13 16-42-02\B-002-29.D
Instrument:	GC#6
Sample Name:	FN01151802
Acquired:	February 13, 2018

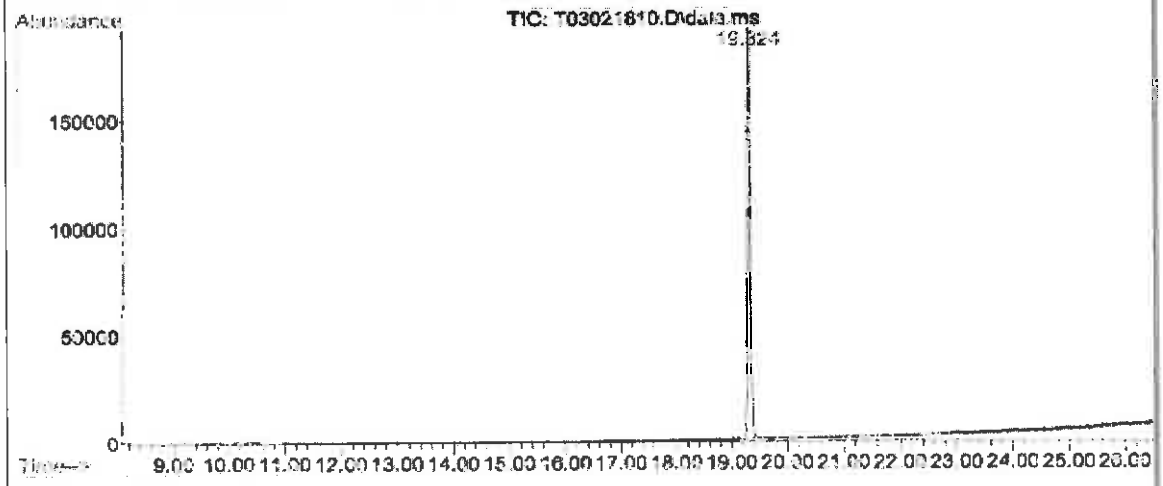
Peak #	Ret Time	Area	Height	Area %
1	12.66	1 69	0.62	0.03
2	13.01	1 96	0.53	0.03
3	14 00	5617 62	1952.76	98.87
4	24 77	5.26	0.34	0.09
5	41 14	10.58	0.38	0.19
6	44 28	44.69	1.49	0.79

Spectral and Physical Data (cont.)

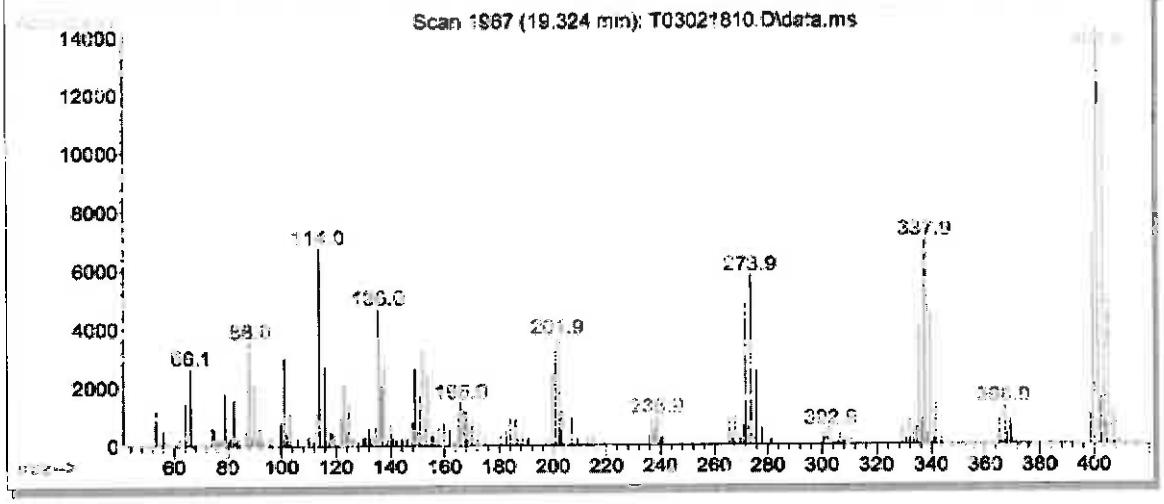
GC/MS

```
Compound Name          : 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-13C12
Lot Number             : FW01151802
Instrument             : Agilent GCMS
Operator               : ECM(SGIUPTRE)
Date Reported          : Mon Mar 05 10:17:32 2018
Column Type            : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program          : 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.         : Cool on-column
Carrier Gas            : Helium
Flow Rate (mL\min)     : 0.80 mL/min
Transfer Line Temp.    : 280°C
Scan Range             : 50-550
```

Total Ion Chromatogram



Mass Spectrum



Reagent

HRDXNIDA_00365

Rec 11/28/18 SKV

1450145
ID: HRDXNIDA_00347
Exp: 04/30/27 Prpd: SKV
13C-OCDD [10 ug/mL]

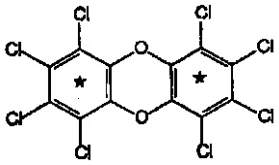
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Cerilliant Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

Octachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number: ED-981-1.2
Solution Lot: ER04051701
Expiration Date: April 2027
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampoules are overfilled to ensure a minimum 1.2 mL volume We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
Octachlorodibenzo-p-dioxin-$^{13}C_{12}$	> 99.9%	10.00 ± 0.05 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER04057101	10.22	± 5%	1.1	≤ 5%
Previous Lot	ER06061601	10.17	± 5%	0 8	≤ 5%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

Darron Ellsworth, Quality Assurance Manager

May 19, 2017
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.25 mm ID, 0.25 µm film thickness
Temp Program:	70°C to 200°C at 40°C/min 200°C to 280°C at 10°C/min hold 15 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	3
Linearity (r):	0.997

Neat Material Data

Compound Name:	Octachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}Cl_8O_2$
Compound Lot:	ER04041601	**CAS Number:**	114423-97-1
		Molecular Weight:	471.66

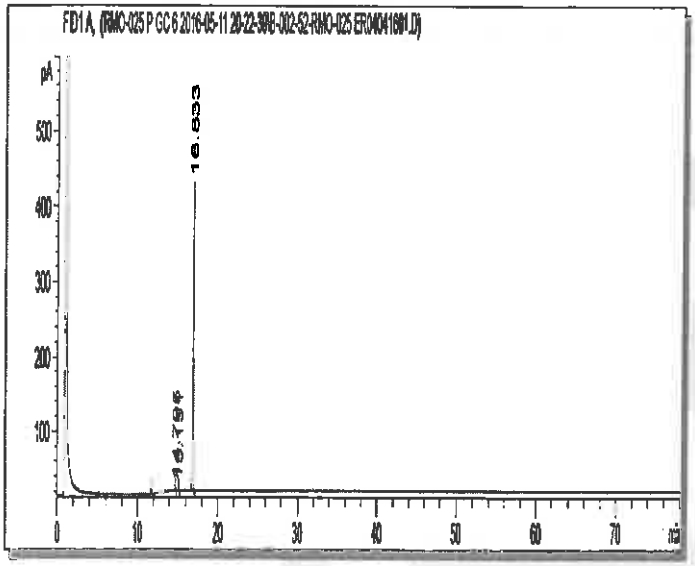
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.1%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Impurity Analysis by GC/MS	SP10-0105	no single DD/DF impurity ≥ 0.5%
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.07% $^{13}C_0$ vs $^{13}C_{12}$
		0.96% $^{13}C_6$ vs $^{13}C_{12}$
Mass Balance Purity Factor		99.15%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMO-025 P GC 6 2016-05-11 20-22-39\B-002-52.D
Instrument:	GC#6
Sample Name:	ER04041601
Acquired:	May 11, 2016

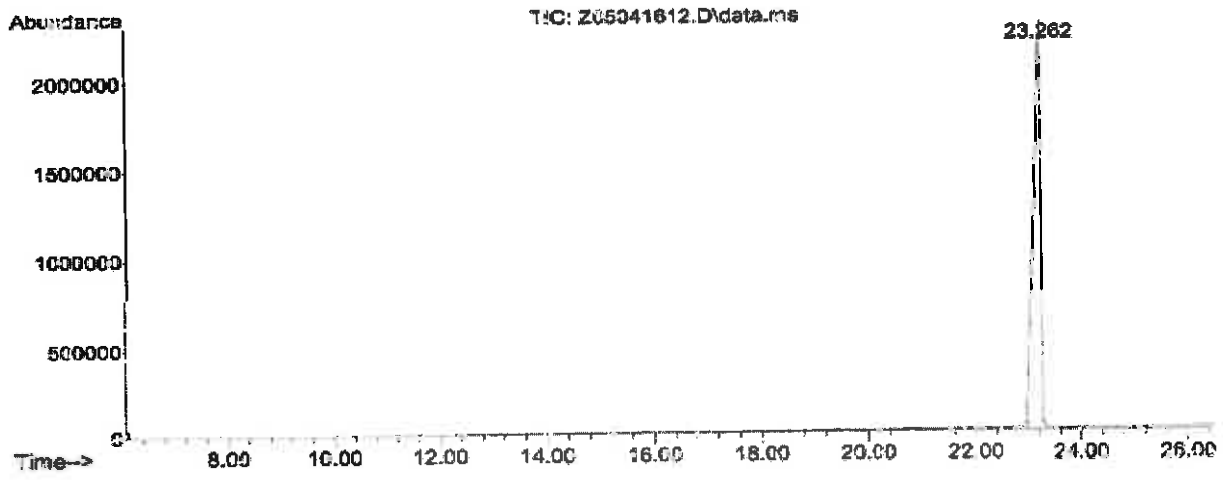
Peak #	Ret Time	Area	Height	Area %
1	14.80	12.12	3.62	0.61
2	15.15	4.72	1.32	0.24
3	16.83	1980.56	409.54	99.16

Spectral and Physical Data (cont.)

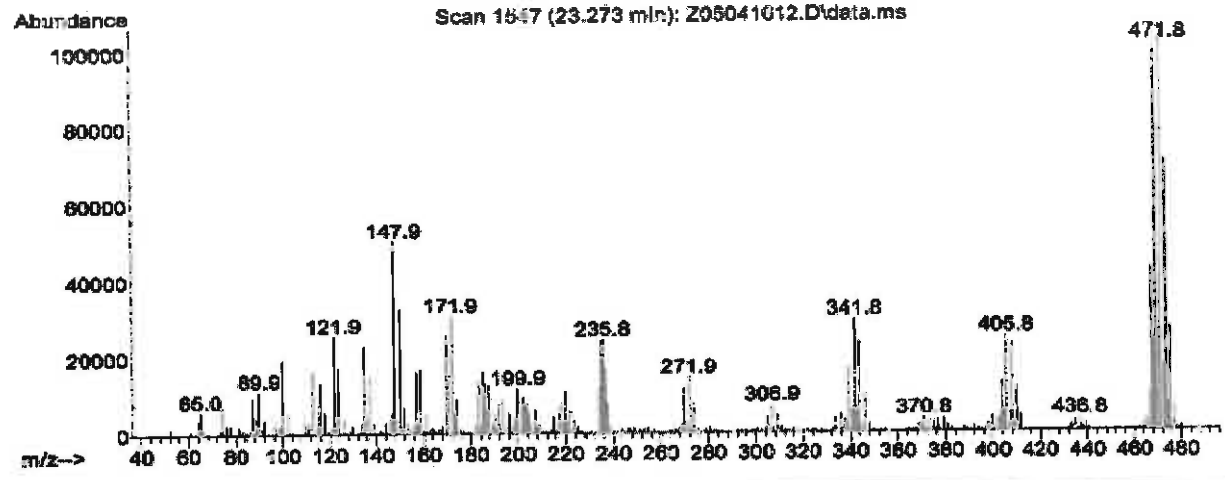
GC/MS

Compound Name	: Octachlorodibenzo-p-dioxin-13C12
Lot Number	: ERC041601
Instrument	: Agilent GCMS
Operator	: ECM(SGIUFFRE)
Date Reported	: Wed May 04 13:45:40 2016
Column Type	: DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program	: 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.	: Cool on-column
Carrier Gas	: Helium
Flow Rate (mL\min)	: 0.80 mL/min
Transfer Line Temp.	: 280°C
Scan Range	: 50-550

Total Ion Chromatogram



Mass Spectrum



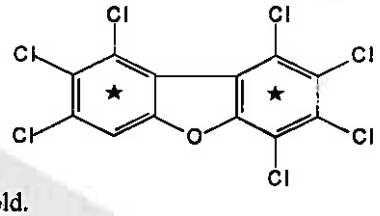
Reagent

HRDXNIDA_00375

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,4,7,8,9-Heptachlorodibenzofuran-$^{13}C_{12}$



Catalog Number: EF-988
Solution Lot: ER04251601
Expiration Date: May 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampoules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
1,2,3,4,7,8,9-Heptachlorodibenzofuran-$^{13}C_{12}$	99.1%	49.99 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass, Purity Factor of the analyte(s), measured mass of the solution, and the density of the pure diluent at 20°C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL)		%RSD - Homogeneity	
		Actual Results	Acceptance Criteria	Actual Results	Acceptance Criteria
New Lot	ER04251601	49.11	± 5%	0.2	≤ 3%
Previous Lot	ER053107-02	50.58	± 5%	0.1	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

Darron Ellsworth, Quality Assurance Manager

November 09, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8,9-Heptachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}HCl_7O$
Compound Lot:	ER04041602	**CAS Number:**	109719-94-0
		Molecular Weight:	421.22

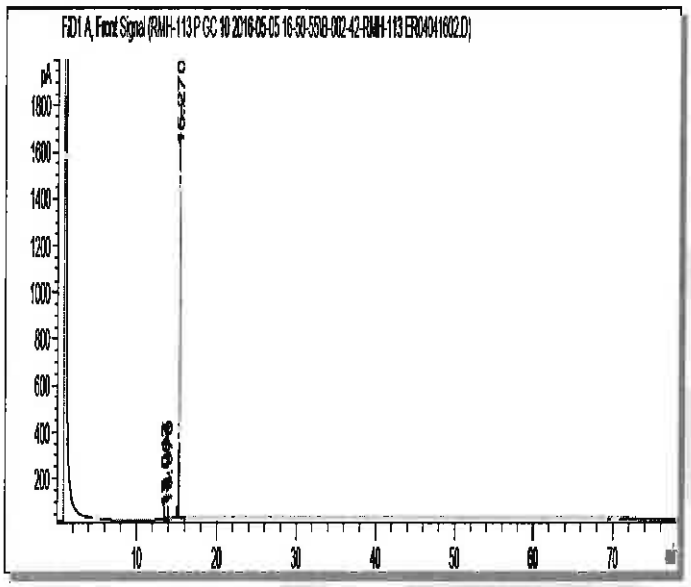
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.1%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Impurity Analysis by GC/MS SIM	SP10-0105	no single DD/DF impurity ≥ 0.5%
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.02% $^{13}C_0$ vs $^{13}C_{12}$
		0.16% $^{13}C_6$ vs $^{13}C_{12}$
Mass Balance Purity Factor		99.10%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The primary chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data (cont.)

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-113 P GC 10 2016-05-05 16-50-55\B-002-42.D
Instrument:	GC#10
Sample Name:	ER04041602
Acquired:	May 05, 2016

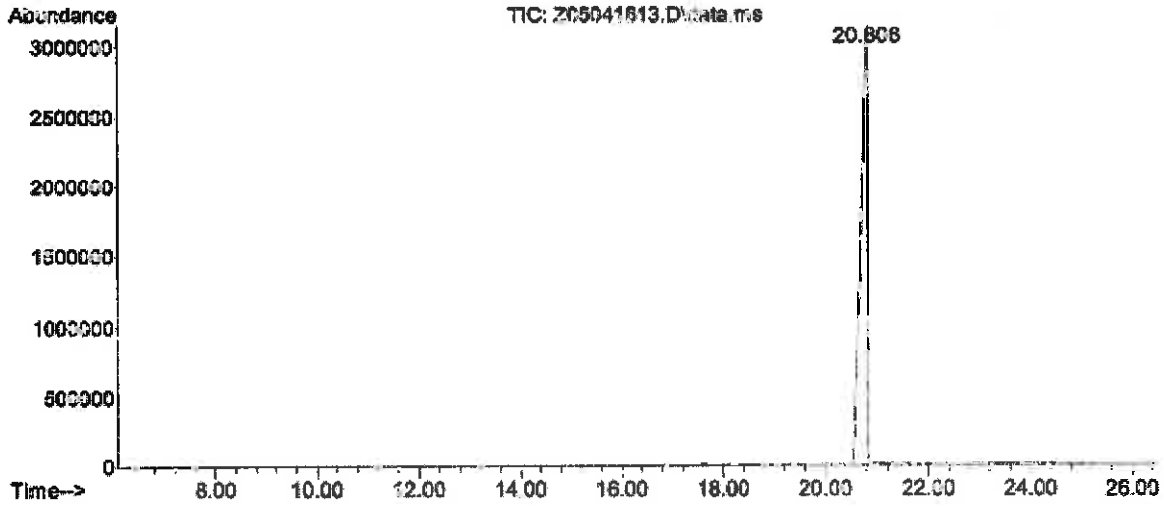
Peak #	Ret Time	Area	Height	Area %
1	13.51	8.76	2.52	0.12
2	13.68	17.42	7.45	0.24
3	13.97	39.65	15.48	0.54
4	15.27	7226.95	1798.33	99.10

Spectral and Physical Data (cont.)

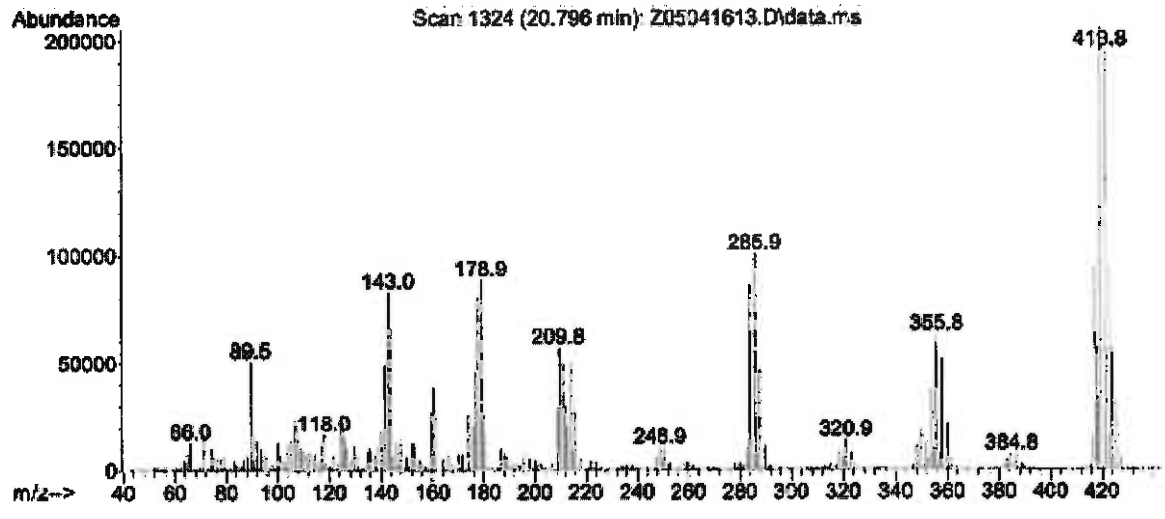
GC/MS

```
Compound Name          : 1,2,3,4,7,8,9-Heptachlorodibenzofuran-13C12
Lot Number             : ER04041602
Instrument             : Agilent GCMS
Operator               : ECM(SGIUFFRE)
Date Reported          : Wed May 04 15:34:28 2016
Column Type            : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program          : 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.         : Cool on-column
Carrier Gas            : Helium
Flow Rate (mL\min)     : 0.80 mL/min
Transfer Line Temp.    : 280°C
Scan Range             : 50-550
```

Total Ion Chromatogram



Mass Spectrum



COA Revision History

Revision No.	Date	Reason for Revision
00	June 21, 2016	Initial version
01	November 09, 2016	Corrected Expiration Date from March 2026 to May 2026.

Reagent

HRDXNIDA_00376

N: 4/8/19 SW

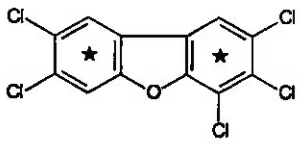
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

2,3,4,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$



Catalog Number:	EF-958
Solution Lot:	ER01061701
Expiration Date:	January 2027
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Intended Use:	For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
2,3,4,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$	97.9%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass, Purity Factor of the analyte(s), measured mass of the solution, and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER01061701	50.51	± 5%	0.1	≤ 3%
Previous Lot	ER11041601	49.56	± 5%	0.1	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darron Ellsworth, Quality Assurance Manager

January 27, 2017
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	2,3,4,7,8-Pentachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_3Cl_5O$
Compound Lot:	ER11101601	**CAS Number:**	116843-02-8
		Molecular Weight:	352.33

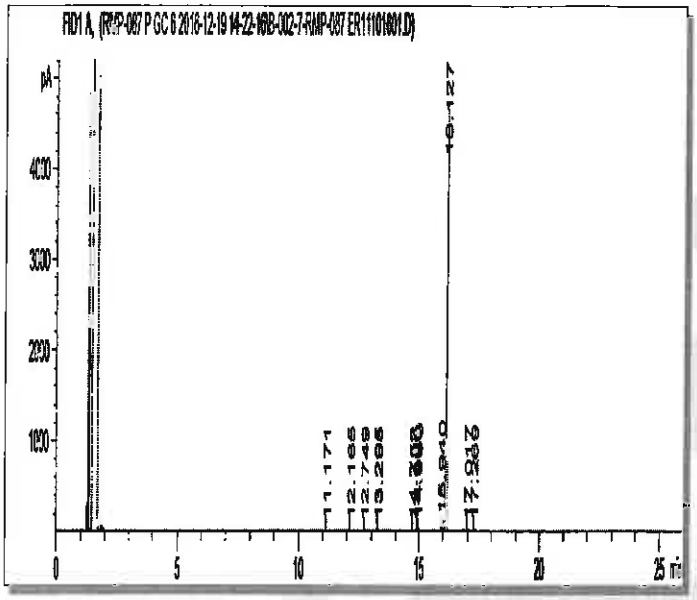
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0102	98.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.00% $^{13}C_0$ vs $^{13}C_{12}$
		0.02% $^{13}C_6$ vs $^{13}C_{12}$
Impurity Analysis by GC/MS SIM	SP10-0105	No Single DD/DF ≥ 0.5%
Mass Balance Purity Factor		**98.33%**

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMP-087 P GC 6 2016-12-19 14-22-16\B-002-7.D
Instrument:	GC#6
Sample Name:	ER11101601
Acquired:	December 19, 2016

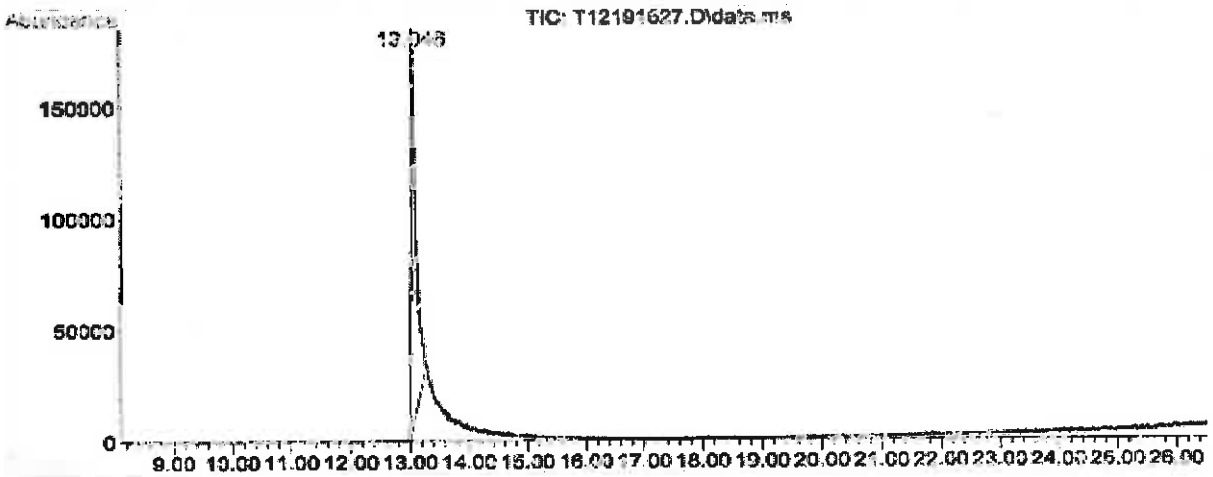
Peak #	Ret Time	Area	Height	Area %
1	11.17	0.94	0.40	0.01
2	12.17	1.30	0.39	0.01
3	12.75	0.47	0.20	0.00
4	13.30	0.90	0.35	0.01
5	14.75	1.70	0.87	0.02
6	14.91	1.09	0.56	0.01
7	14.97	32.24	17.54	0.29
8	15.94	124.38	64.36	1.13
9	16.13	10866.60	4688.80	98.41
10	17.02	6.31	2.46	0.06
11	17.27	6.76	2.34	0.06

Spectral and Physical Data (cont.)

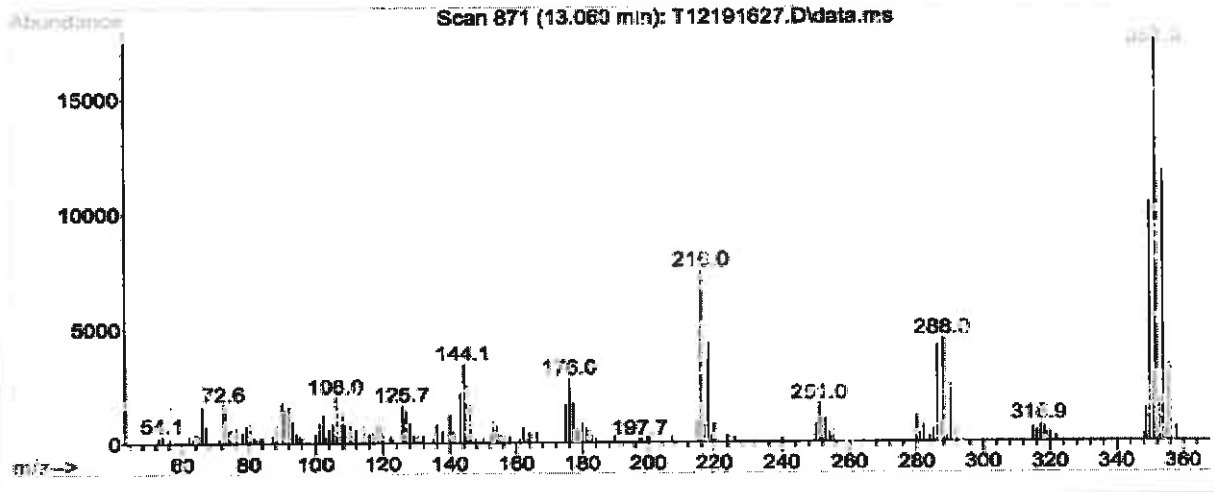
GC/MS

Compound Name	:	2,3,4,7,8-Pentachlorodibenzofuran-13C12
Lot Number	:	ER111201601
Instrument	:	Agilent GCMS
Operator	:	ECM(SGUFFRE)
Date Reported	:	Tue Dec 20 12:19:55 2016
Column Type	:	DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program	:	140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.	:	Cool on-column
Carrier Gas	:	Helium
Flow Rate (mL\min)	:	0.80 mL/min
Transfer Line Temp.	:	280°C
Scan Range	:	50-550

Total Ion Chromatogram



Mass Spectrum



Reagent

HRDXNIDA_00377

r: 4/8/19 SKJ

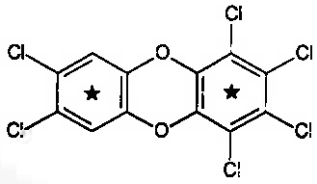
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$



Catalog Number: ED-946
Solution Lot: ER04211601
Expiration Date: June 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration.

Component	Solution Purity	Certified Concentration
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	99.3%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL)		%RSD - Homogeneity	
		Actual Results	Acceptance Criteria	Actual Results	Acceptance Criteria
New Lot	ER04211601	49.24	± 5%	0.4	≤ 3%
Previous Lot	ER102711-01	49.69	± 5%	0.3	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB

Darren Ellsworth, Quality Assurance Manager

August 11, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2Cl_6O_2$
Compound Lot:	ER011008-01	**CAS Number:**	109719-80-4
		Molecular Weight:	402.77

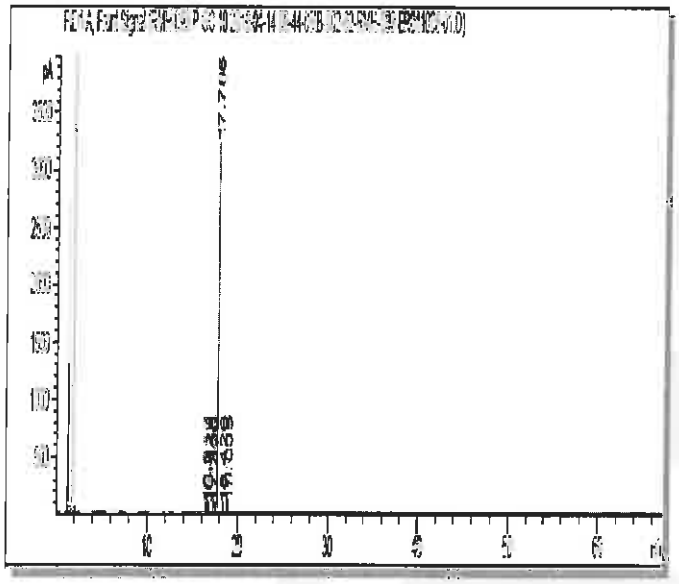
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Impurity Analysis by GC/MS	SP10-0105	no single DD/DF impurity ≥ 0.5%
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.08% $^{13}C_0$ vs $^{13}C_{12}$
		0.21% $^{13}C_6$ vs $^{13}C_{12}$
Mass Balance Purity Factor		99.26%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID

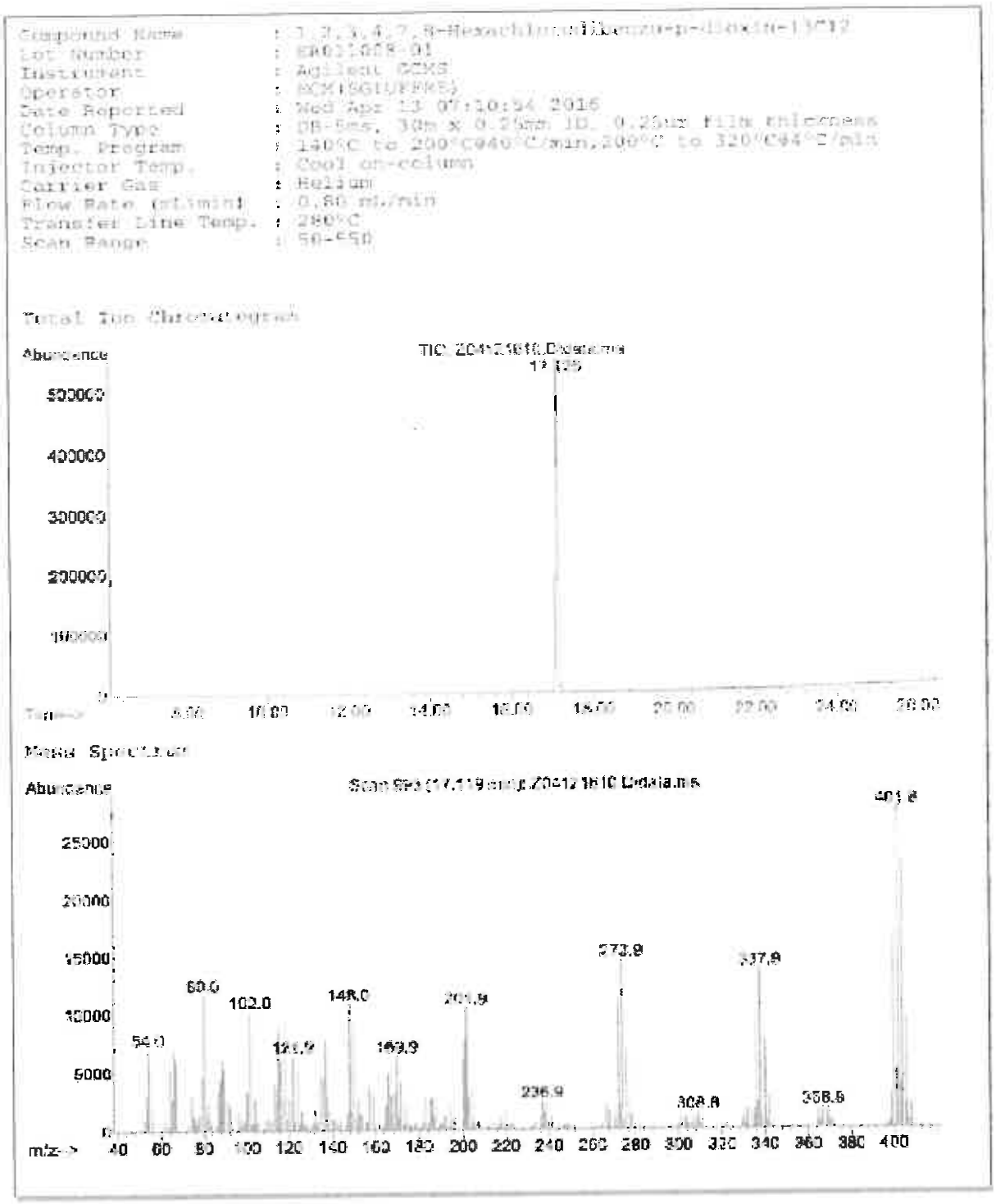


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	40°C to 300°C at 15°C/min hold 50 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-098 P GC 10 2016-04-14 08-44-08\B-002-62.D
Instrument:	GC#10
Sample Name:	ER011008-01
Acquired:	April 14, 2016

Peak #	Ret Time	Area	Height	Area %
1	16.56	16.58	7.74	0.19
2	16.72	11.25	5.08	0.13
3	16.83	8.45	4.05	0.10
4	17.30	1.81	0.71	0.02
5	17.48	1.07	0.50	0.01
6	17.79	8682.22	3203.58	99.29
7	18.43	1.99	0.68	0.02
8	19.01	20.62	6.08	0.24

Spectral and Physical Data (cont.)

GC/MS



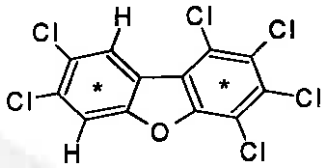
Reagent

HRDXNIDA_00378

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$



Catalog Number:	EF-963
Solution Lot:	ER04211701
Expiration Date:	July 2027
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Intended Use:	For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration

Component	Solution Purity	Certified Concentration
1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	99.4%	50.00 ± 0.28 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s); measured mass of the solution; and the density of the pure diluent at 20°C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER04211701	49.47	± 5%	0.2	≤ 3%
Previous Lot	ER072810-02	45.87	± 5%	0.2	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release

Traceability

- Gravemetrically prepared using balances that have been qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

Darron Ellsworth, Quality Assurance Manager

September 11, 2017
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4,7,8-Hexachlorodibenzofuran-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}Cl_6H_2O$
Compound Lot:	ER11281601	**CAS Number:**	114423-98-2
		Molecular Weight:	386.77

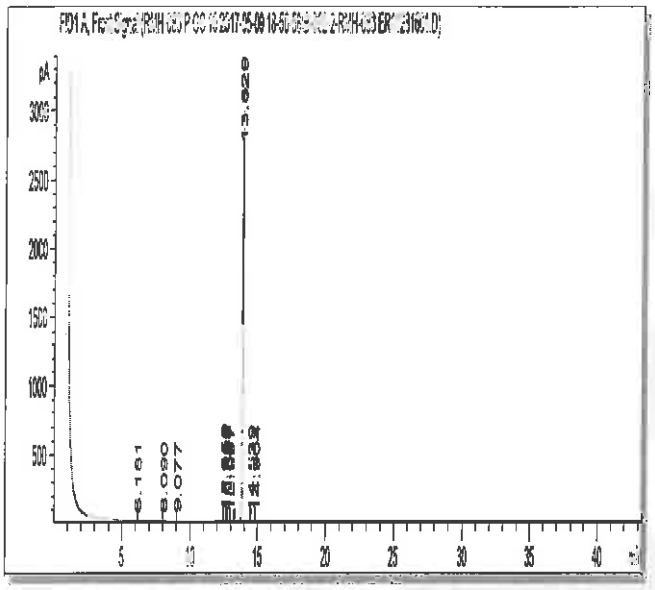
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0102	99.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.01% $^{13}C_0$ vs $^{13}C_{12}$
		0.06% $^{13}C_6$ vs $^{13}C_{12}$
Impurity Analysis by GC/MS SIM	SP10-0105	No Single DD/DF ≥ 0.5%
Mass Balance Purity Factor		99.31%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 30 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMH-083 P GC 10 2017-05-09 18-50-58\B-002-2.D
Instrument:	GC#10
Sample Name:	ER11281601
Acquired:	May 09, 2017

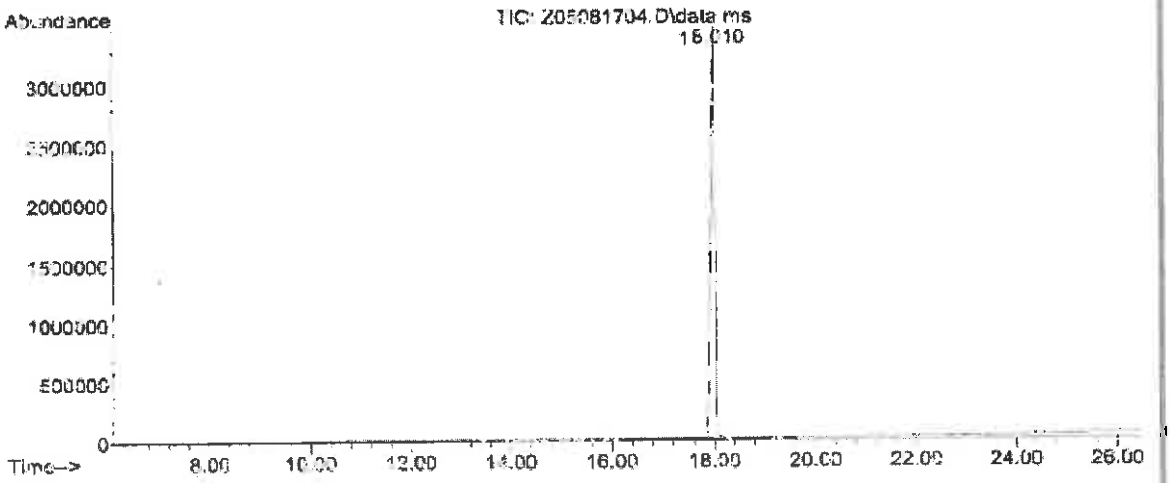
Peak #	Ret Time	Area	Height	Area %
1	6.18	1.10	0.64	0.01
2	8.09	2.00	0.70	0.02
3	9.08	1.17	0.48	0.01
4	12.55	14.76	7.25	0.16
5	12.73	32.67	11.32	0.36
6	12.84	5.45	2.50	0.06
7	13.00	2.51	1.30	0.03
8	13.83	8993.56	3122.16	99.30
9	14.54	1.11	0.20	0.01
10	14.90	2.71	0.86	0.03

Spectral and Physical Data (cont.)

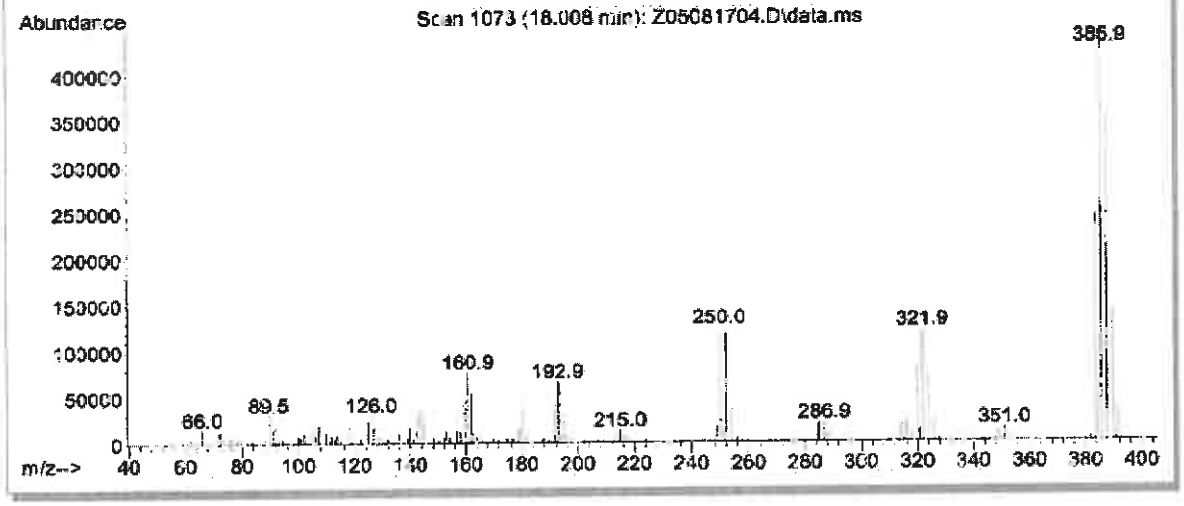
GC/MS

Compound Name : 1,2,3,4,7,8-hexachlorodibenzofuran-13C12
Lot Number : ERL180160
Instrument : Agilent GCMS
Operator : ECM(SGIUFFRE)
Date Reported : Mon May 08 09:30:09 2017
Column Type : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program : 140°C to 200°C@6°C/min,200°C to 320°C@4°C/min
Injector Temp. : Cool on-column
Carrier Gas : Helium
Flow Rate (mL\min) : 0.80 mL/min
Transfer Line Temp. : 280°C
Scan Range : 50-550

Total Ion Chromatogram



Mass Spectrum



Reagent

HRDXNIS_00110

R: 9/4/18 SKV

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$

Catalog Number: ED-996
Solution Lot: ER08221601
Expiration Date: September 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampoules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration.

Component	Solution Purity	Certified Concentration
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	99.5%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Acceptance Criteria	%RSD - Homogeneity Actual Results	Acceptance Criteria
New Lot	ER08221601	49.20	± 5%	0.3	≤ 3%
Previous Lot	ER021313-01	49.56	± 5%	0.2	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB

Darron Ellsworth, Quality Assurance Manager

September 28, 2016
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_2Cl_6O_2$
Compound Lot:	ER110510-01	**CAS Number:**	109719-82-6
		Molecular Weight:	402.77

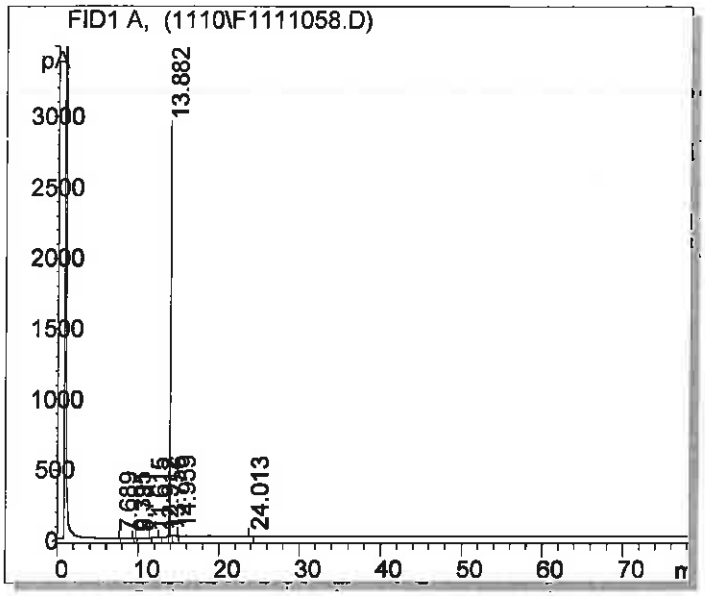
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	99.0%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.04% $^{13}C_0$ vs $^{13}C_{12}$
		0.27% $^{13}C_6$ vs $^{13}C_{12}$
Mass Balance Purity Factor		99.02%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The chromatographic purity value is used to calculate the Purity Factor
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID



Column:	DB-5ms 30m x 0.53mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 65 min
Injector Temp:	Cool-on-column
Detector Temp:	325°C
Data File Name:	S:\GC\GC6\2010\1110\F1111058.D
Instrument:	GC#6
Sample Name:	ER110510-01
Acquired:	November 12, 2010

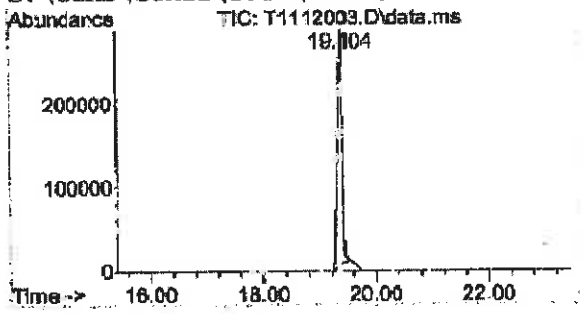
Peak #	Ret Time	Area	Height	Area %
1	4 69	0.45	0.10	0.01
2	9.40	0 72	0.14	0.01
3	9.78	0 80	0.13	0.01
4	11 62	7.34	2.54	0.09
5	12 91	2.59	0.23	0.03
6	13 76	1.91	1.00	0.02
7	13 88	8026.07	2938.74	99.11
8	14.96	36.82	11.38	0.45
9	24.01	21.08	1.62	0.26

Spectral and Physical Data (cont.)

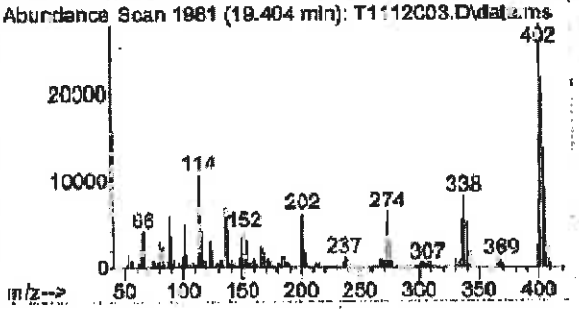
GC/MS

```
Compound Name     : 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin-13C12
Lot Number        : ER110510-01
Instrument        : Agilent 5973N MSD /6890N GC
Operator-Inst ID  : RPC - A147434
Date Reported     : Fri Nov 12 16:41:14 2010
Column Type       : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program     : 140°C to 200°C @40°C/min,200°C to 320°C @4°C/min
Injector Temp.    : Cool on-column          Trans. Line Temp : 280°C
Carrier Gas       : Helium                  Flow Rate        : 0.80 mL/min
```

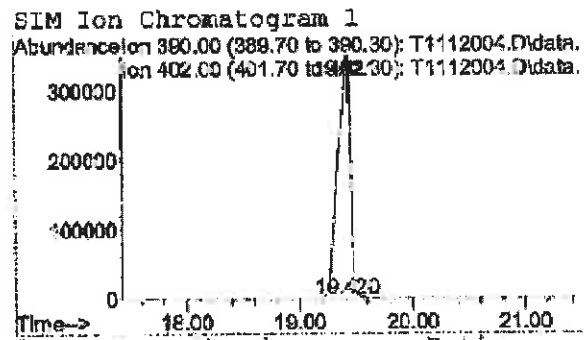
Total Ion Chromatogram
S:\GCMS\GCMS2\2010\1110\



Mass Spectrum
Scan Number: 1976 Scan Range: 50-550 amu

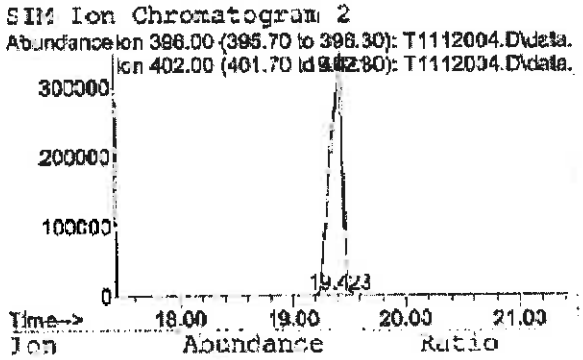


SIM Ion Chromatogram 1



Ion	Abundance	Ratio
402	26368380	99.96
390	9776	0.04

SIM Ion Chromatogram 2



Ion	Abundance	Ratio
402	26368380	99.73
396	71626	0.27

Reagent

HRDXNIS_00111

Rec: 9/4/18 SKV

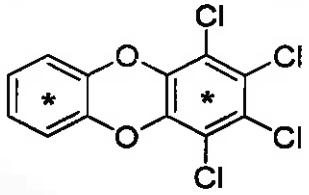
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

1,2,3,4-Tetrachlorodibenzo-p-dioxin-$^{13}C_{12}$

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP



Catalog Number: ED-911
Solution Lot: ER11081602
Expiration Date: January 2027
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration.

Component	Solution Purity	Certified Concentration
1,2,3,4-Tetrachlorodibenzo-p-dioxin-$^{13}C_{12}$	99.7%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER11081602	51.01	± 10%	0.1	≤ 3%
Previous Lot	ER060710-01	50.59	± 10%	0.1	≤ 3%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB

Darron Ellsworth, Quality Assurance Manager

January 23, 2017
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	1,2,3,4-Tetrachlorodibenzo-p-dioxin-$^{13}C_{12}$	**Chemical Formula:**	$^{13}C_{12}H_4Cl_4O_2$
Compound Lot:	ER02021602	**CAS Number:**	114423-99-3
		Molecular Weight:	333.88

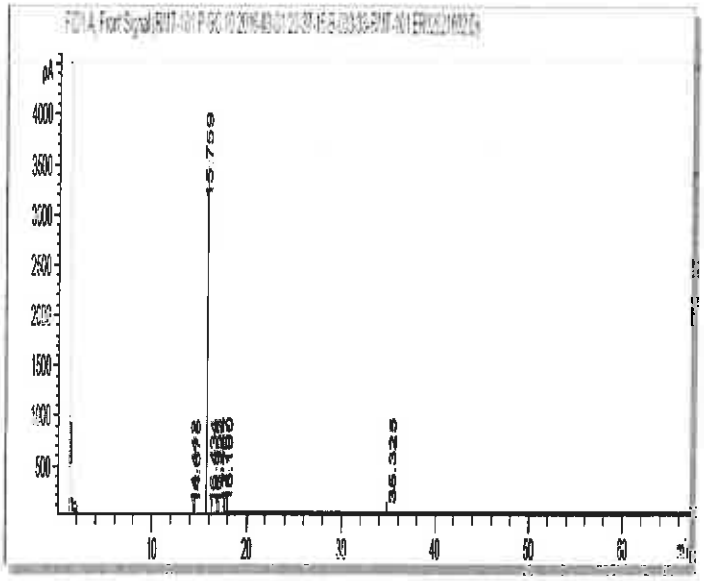
Neat Material Characterization Summary

Analytical Test	Method	Results
Chromatographic Purity by GC/FID Analysis	SP10-0101	99.0%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Impurity Analysis by GC/MS	SP10-0105	no single DD/DF impurity ≥ 1.0%
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.03% $^{13}C_0$ vs $^{13}C_{12}$ 0.01% $^{13}C_6$ vs $^{13}C_{12}$
Identity by ^{1}H-NMR Analysis	USP <761>, SP10-0116	Consistent with Structure
Residual Solvent by ^{1}H-NMR Analysis	USP <761>, SP10-0116	0.31% Dichloromethane
Mass Balance Purity Factor		98.71%

- Purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other
- The chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID

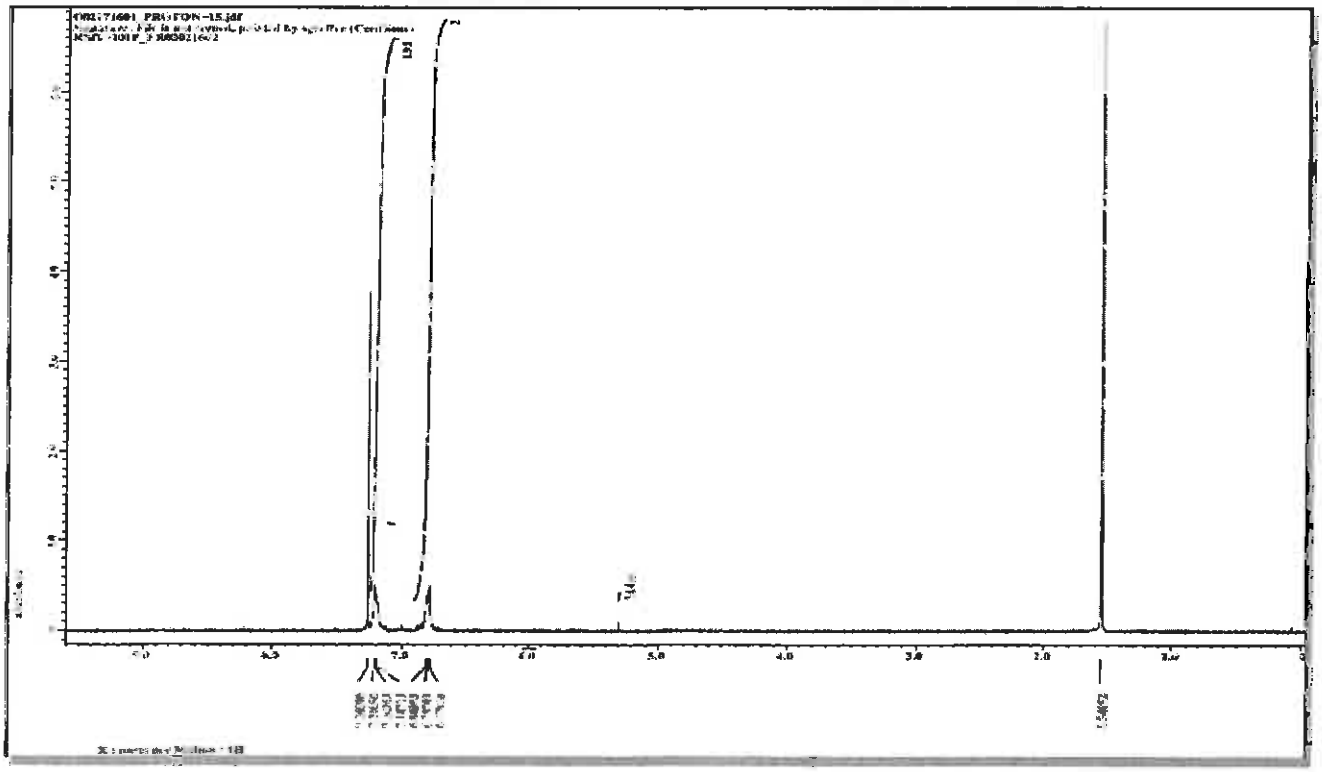


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	40°C to 300°C at 15°C/min hold 50 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	RMT-101 P GC 10 2016-03-01 20-37-15\B-003-33.D
Instrument:	GC#10
Sample Name:	ER02021602
Acquired:	March 01, 2016

Peak #	Ret Time	Area	Height	Area %
1	14.44	1.34	0.53	0.02
2	14.68	3.60	0.58	0.05
3	15.76	7522.29	3054.11	99.22
4	16.43	3.51	0.80	0.05
5	16.96	2.38	1.09	0.03
6	17.13	4.79	2.26	0.06
7	17.77	8.72	3.38	0.11
8	18.10	1.68	0.54	0.02
9	35.33	32.94	1.28	0.43

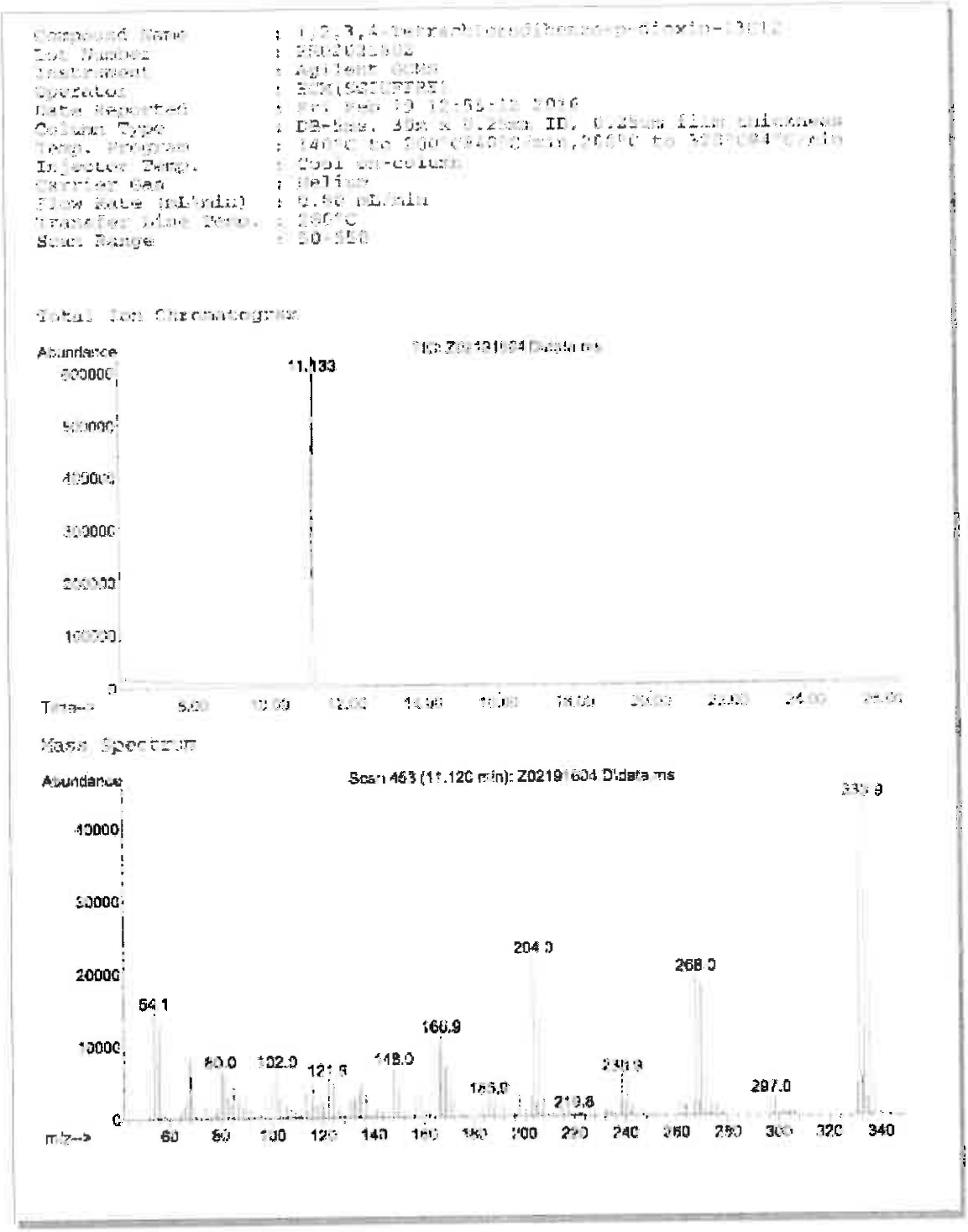
^{1}H NMR

Instrument:	JEOL ECS 400
Solvent:	Chloroform-D



Spectral and Physical Data (cont.)

GC/MS



Reagent

HRDXNSU_00123

Richard D Worstell

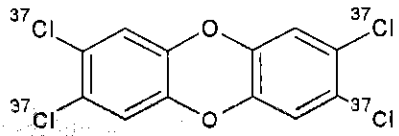
Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Cerilliant Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{37}Cl_4$



Catalog Number:	ED-907
Solution Lot:	ER05211501
Expiration Date:	July 2025
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold.
Shipping:	Ambient.
Intended Use:	For R&D/analytical purposes only. Not suitable for human or animal consumption.
Instructions for Use:	Sonicate before use.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies.
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration.
- For MS Applications, we advise laboratories not to mix lots during a single sequence.

Component	Solution Purity	Certified Concentration
2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{37}Cl_4$	98.5%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s); measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER05211501	50.60	± 10%	0.2	≤ 5%
Previous Lot	ER052010-02	49.73	± 10%	0.5	≤ 5%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after

ACLASS ACCREDITED
REFERENCE MATERIAL PRODUCER

Darron Ellsworth, Quality Assurance Manager

August 03, 2015
Date

Cerilliant Corporation 811 Paloma Drive, Suite A, Round Rock, TX 78665 800-848-7837 / 512-238-9974

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{37}Cl_4$	**Chemical Formula:**	$C_{12}H_4O_2{}^{37}Cl_4$
Compound Lot:	ER040510-01	**CAS Number:**	85508-50-5
		Molecular Weight:	328.02

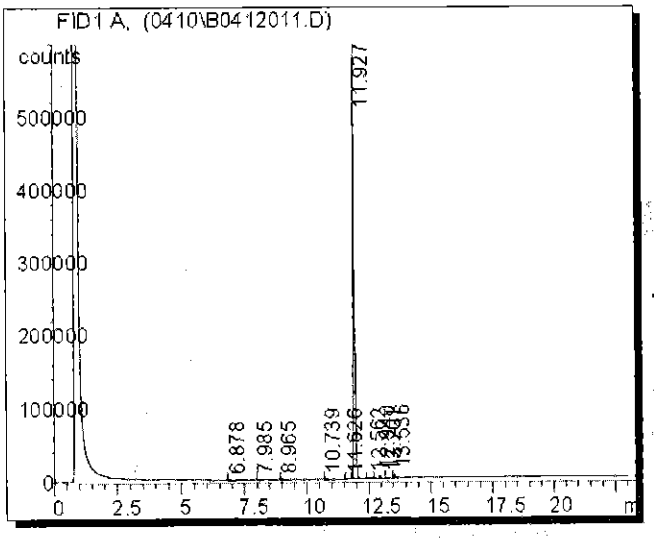
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	98.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.00% $^{37}Cl_0$ vs $^{37}Cl_4$
Identity by ^{1}H-NMR Analysis	USP <761>, SP10-0116	Consistent with Structure
Residual Solvent Analysis by ^{1}H-NMR	USP <761>, SP10-0116	1.2% Chloroform
Purity Factor		97.14%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity.

Spectral and Physical Data

GC/FID

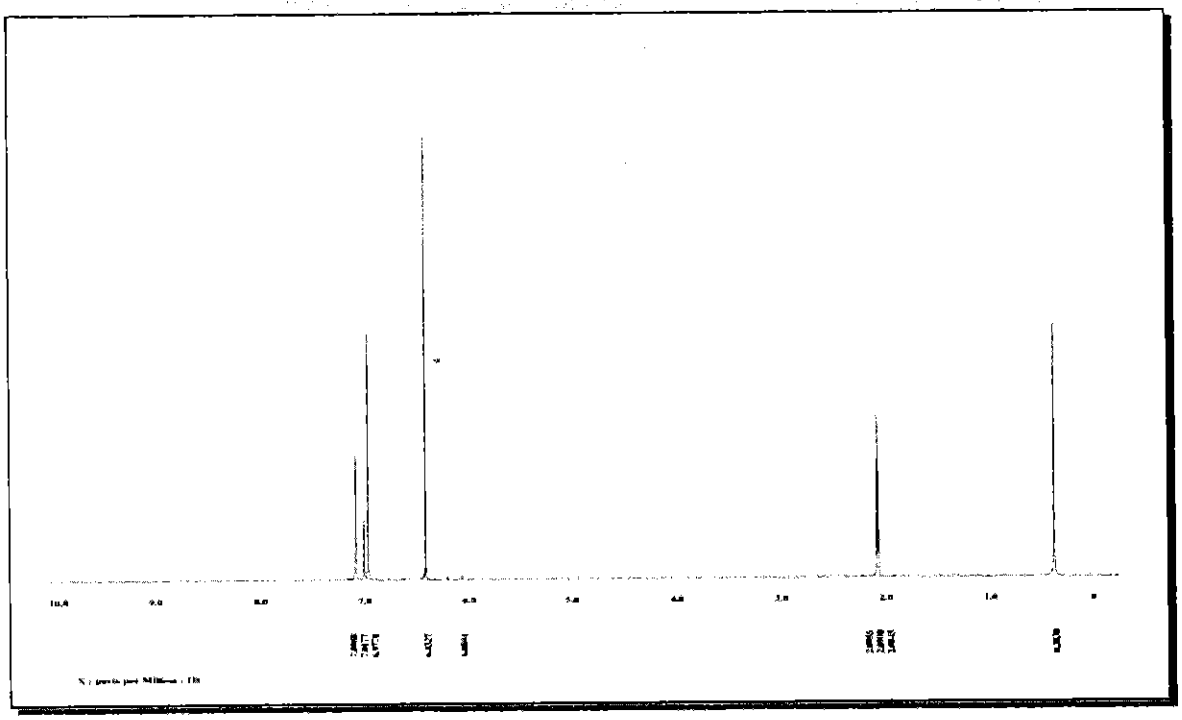


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	S:\GC\GC2\2010\0410\B0412011.D
Instrument:	GC#2
Sample Name	ER040510-01
Acquired:	April 13, 2010

Peak #	Ret Time	Area	Height	Area %
1	6.88	245.58	89.37	0.01
2	7.99	304.03	131.27	0.01
3	8.97	233.91	72.32	0.01
4	10.74	931.14	265.29	0.04
5	11.63	127.86	46.74	0.01
6	11.93	2261830.00	580792.00	98.34
7	12.56	6435.54	1838.17	0.28
8	12.94	13336.80	4373.86	0.58
9	13.20	2178.30	729.98	0.09
10	13.54	14483.30	5038.43	0.63

^{1}H NMR

Instrument:	JEOL ECS 400
Solvent:	Toluene-D_8



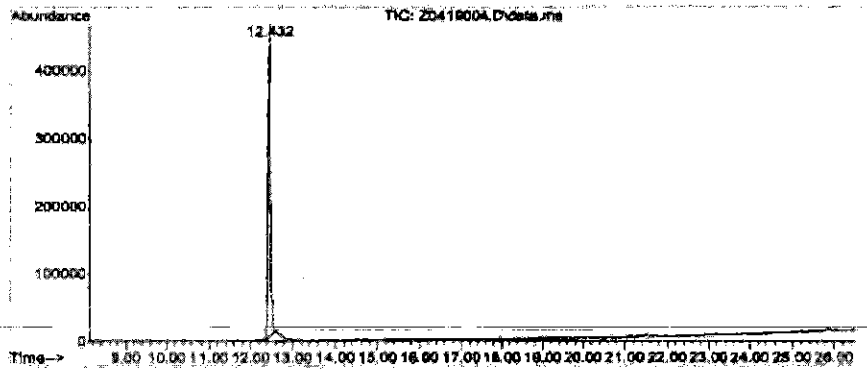
Spectral and Physical Data (cont.)

Identity by GC/MS Analysis

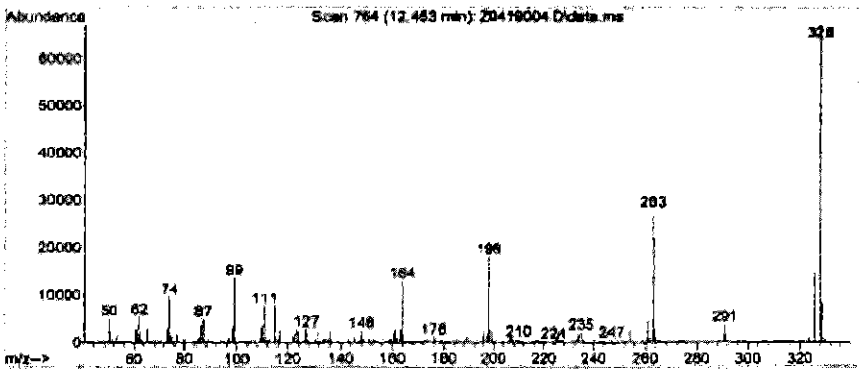
```
Compound Name          : 2,3,7,8-Tetrachlorodibenzo-p-dioxin-37Cl4
Lot Number             : ER040510-01
Instrument             : Agilent 5973N MSD/6890N GC
Operator-Inst ID       : RPC - C10106
Date Reported          : Mon Apr 19 13:23:09 2010
Column Type            : DB-5ms, 30m x 0.25mm ID, 0.25um film thickness
Temp. Program          : 140°C to 200°C@40°C/min,200°C to 320°C@4°C/min
Injector Temp.         : Cool on-column
Carrier Gas            : Helium
Flow Rate (mL\min)     : 0.80 mL/min
Transfer Line Temp.    : 280°C

Scan Range             : 50-550
```

Total Ion Chromatogram



Mass Spectrum



Reagent

HRDXNSU_00187

R: 7/30/18 SRV

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

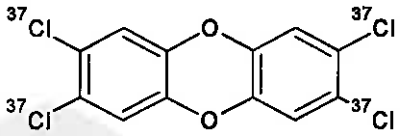
CIL

Revision 0

Certificate of Analysis

ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{37}Cl_4$



Catalog Number:	ED-907
Solution Lot:	ER05211501
Expiration Date:	July 2025
Solvent:	n-Nonane
Volume per Ampule:	Not less than 1.2 mL
Storage:	Store at room temperature. Do not store cold
Shipping:	Ambient.
Intended Use:	For R&D/analytical purposes only. Not suitable for human or animal consumption.
Instructions for Use:	Sonicate before use.
Safety:	**Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1.2 mL volume. We advise laboratories to quantitatively transfer desired volumes of this standard using established good laboratory practices to dilute to the desired concentration
- For MS Applications, we advise laboratories not to mix lots during a single sequence.

Component	Solution Purity	Certified Concentration
2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{37}Cl_4$	98.5%	50.00 ± 0.23 µg/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- This standard is prepared gravimetrically and mass results are reported on the conventional basis for weighing in air. Concentration is calculated based on: the actual measured mass; Purity Factor of the analyte(s), measured mass of the solution; and the density of the pure diluent at 20 °C.
- Concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics

Solution Standard Verification and Homogeneity

Standard Solution	Lot Number	Verified Concentration (µg/mL) Actual Results	Verified Concentration (µg/mL) Acceptance Criteria	%RSD - Homogeneity Actual Results	%RSD - Homogeneity Acceptance Criteria
New Lot	ER05211501	50.60	± 10%	0.2	≤ 5%
Previous Lot	ER052010-02	49.73	± 10%	0.5	≤ 5%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity of the New Lot is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The % RSD of samples pulled from across the lot demonstrate homogeneity of the New Lot.
- The % RSD of the Previous Lot represents variability of the analysis performed at the time of release.

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.1% relative error.
- Concentration is verified against an independently prepared 4-point calibration curve gravimetrically prepared using balances calibrated to NIST.
- In addition, each neat material utilized has been identified and thoroughly characterized through the use of multiple analytical techniques. Spectral data is provided on subsequent pages of the COA.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after

ACLASS ACCREDITED
REFERENCE MATERIAL PRODUCER

Darron Ellsworth, Quality Assurance Manager

August 03, 2015
Date

Standard Solution Assay Parameters

Analysis Method:	GC/FID
Column:	DB-5ms 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	60°C to 300°C at 40°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C

Calibration Curve

Calibration Curve:	Linear Regression
Number of Points:	4
Linearity (r):	1.000

Neat Material Data

Compound Name:	2,3,7,8-Tetrachlorodibenzo-p-dioxin-$^{37}Cl_4$	**Chemical Formula:**	$C_{12}H_4O_2{}^{37}Cl_4$
Compound Lot:	ER040510-01	**CAS Number**	85508-50-5
		Molecular Weight	328.02

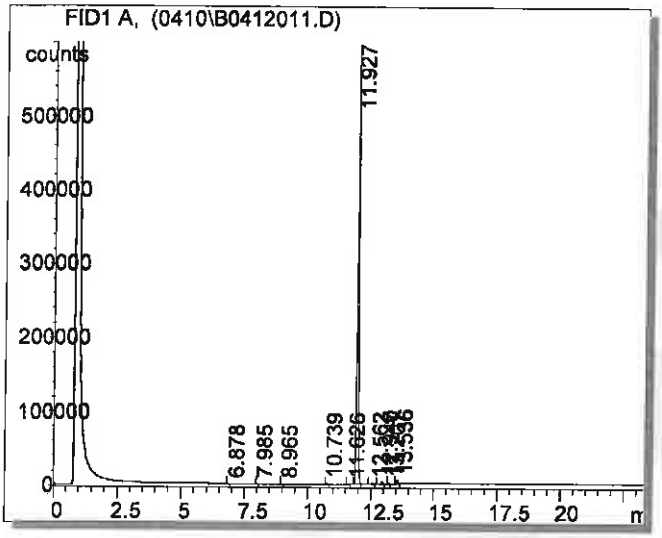
Neat Material Characterization Summary

Analytical Test	Method	Results
Primary Chromatographic Purity by GC/FID Analysis	SP10-0101	98.3%
Identity by GC/MS Analysis	SP10-0105	Consistent with Structure
Isotopic Purity by GC/MS SIM Analysis	SP10-0105	0.00% $^{37}Cl_0$ vs $^{37}Cl_4$
Identity by ^{1}H-NMR Analysis	USP <761>, SP10-0116	Consistent with Structure
Residual Solvent Analysis by ^{1}H-NMR	USP <761>, SP10-0116	1.2% Chloroform
Purity Factor		97.14%

- Primary purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The primary chromatographic purity value is used to calculate the Purity Factor.
- Purity factor does not include adjustment for chiral and/or isotopic purity

Spectral and Physical Data

GC/FID

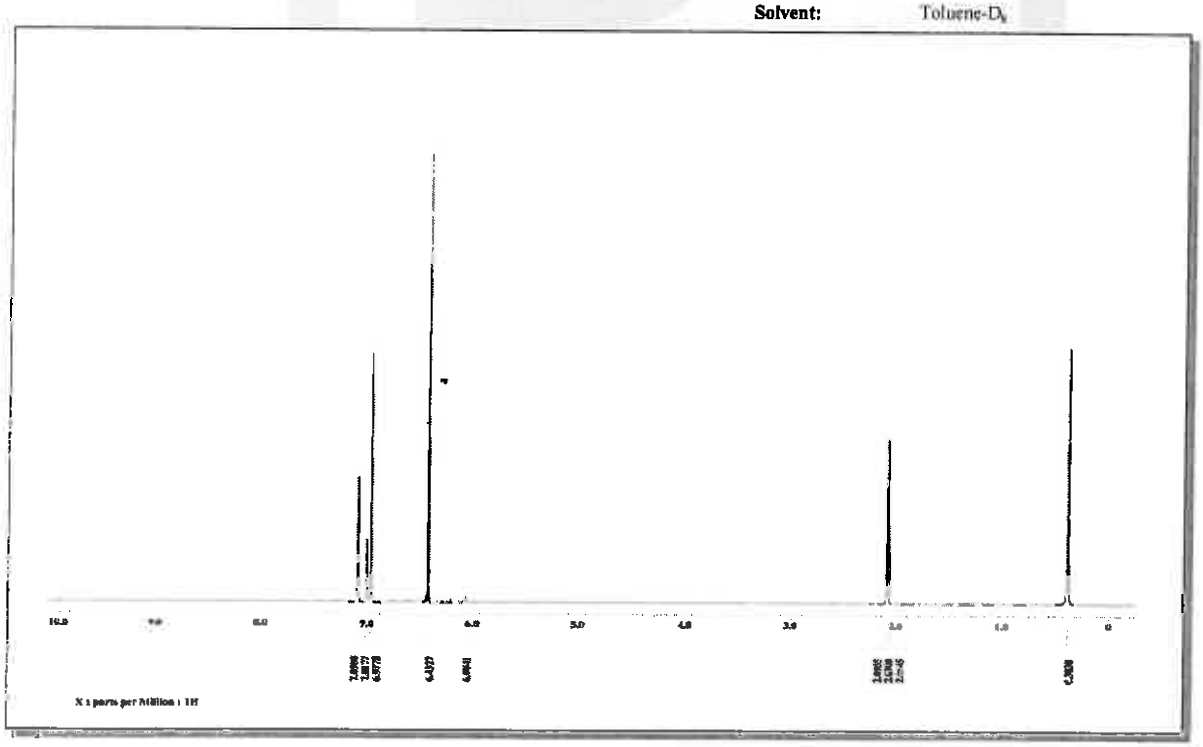


Column:	DB-5ms, 30 m x 0.53 mm ID, 1.5 µm film thickness
Temp Program:	100°C to 300°C at 15°C/min hold 10 min
Injector Temp:	Cool-on-Column
Detector Temp:	325°C
Data File Name:	S:\GC\GC2\2010\0410\B0412011.D
Instrument:	GC#2
Sample Name:	ER040510-01
Acquired:	April 13, 2010

Peak #	Ret Time	Area	Height	Area %
1	6.88	245.58	89.37	0.01
2	7.99	304.03	131.27	0.01
3	8.97	233.91	72.32	0.01
4	10.74	931.14	265.29	0.04
5	11.63	127.86	46.74	0.01
6	11.93	2261830.00	580792.00	98.34
7	12.56	6435.54	1838.17	0.28
8	12.94	13336.80	4373.86	0.58
9	13.20	2178.30	729.98	0.09
10	13.54	14483.80	5038.43	0.63

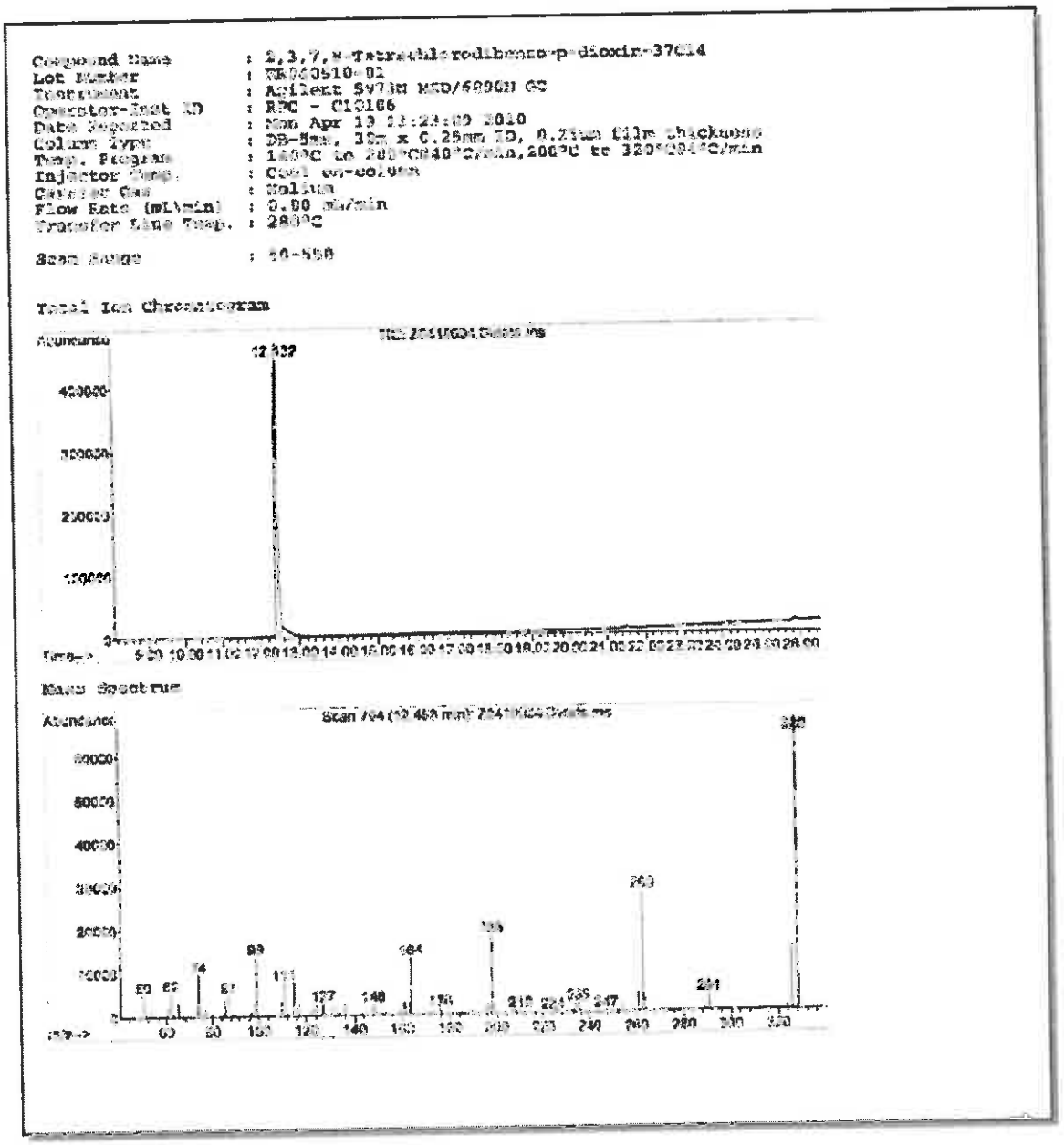
^{1}H NMR

Instrument: JEOL ECS 400
Solvent: Toluene-D_8



Spectral and Physical Data (cont.)

Identity by GC/MS Analysis



Reagent

HRDXNTA_00091

D: 7/6/18 SRJ

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Method 1613 PAR Stock Solution

Certificate Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

Catalog Number: EDF-7999-10X
Solution Lot: ER02241602
Expiration Date: April 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/ analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1 2 volume. We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration

Component	Lot Number	CAS Number	Chemical Formula	Molecular Weight	Chromatographic Purity	Concentration
2,3,7,8-TeCDD	ER04271502	1746-01-6	$C_{12}H_4Cl_4O_2$	321.97	99.2%	399.9 ± 4.0 ng/mL
2,3,7,8-TeCDF	ER101211-02	51207-31-9	$C_{12}H_4Cl_4O$	305.97	99.4%	399.9 ± 4.0 ng/mL
1,2,3,7,8-PeCDD	ER110909-02	40321-76-4	$C_{12}H_3Cl_5O_2$	356.42	99.2%	2000 ± 20 ng/mL
1,2,3,7,8-PeCDF	ER03121401	57117-41-6	$C_{12}H_3Cl_5O$	340.42	99.5%	1999 ± 20 ng/mL
2,3,4,7,8-PeCDF	ER070710-01	57117-31-4	$C_{12}H_3Cl_5O$	340.42	99.4%	1999 ± 20 ng/mL
1,2,3,4,7,8-HxCDD	ER080108-02	39227-28-6	$C_{12}H_2Cl_6O_2$	390.86	98.6%	2000 ± 20 ng/mL
1,2,3,6,7,8-HxCDD	ER03231501	57653-85-7	$C_{12}H_2Cl_6O_2$	390.86	99.6%	2000 ± 20 ng/mL
1,2,3,7,8,9-HxCDD	ER02041601	19408-74-3	$C_{12}H_2Cl_6O_2$	390.86	99.2%	2000 ± 20 ng/mL
1,2,3,4,7,8-HxCDF	ER021110-01	70648-26-9	$C_{12}H_2Cl_6O$	374.86	99.0%	2000 ± 20 ng/mL
1,2,3,6,7,8-HxCDF	ER04161501	57117-44-9	$C_{12}H_2Cl_6O$	374.86	99.8%	2000 ± 20 ng/mL
1,2,3,7,8,9-HxCDF	ER060107-01	72918-21-9	$C_{12}H_2Cl_6O$	374.86	97.5%	1999 ± 20 ng/mL
2,3,4,6,7,8-HxCDF	ER02041602	60851-34-5	$C_{12}H_2Cl_6O$	374.86	99.1%	2001 ± 20 ng/mL
1,2,3,4,6,7,8-HpCDD	ER01201504	35822-46-9	$C_{12}HCl_7O_2$	425.31	98.5%	1999 ± 20 ng/mL
1,2,3,4,6,7,8-HpCDF	ER02281403	67562-39-4	$C_{12}HCl_7O$	409.31	98.9%	1999 ± 20 ng/mL
1,2,3,4,7,8,9-HpCDF	ER01121503	55673-89-7	$C_{12}HCl_7O$	409.31	99.1%	1999 ± 20 ng/mL
OCDD	ER05221301	3268-87-9	$C_{12}Cl_8O_2$	459.75	99.9%	3999 ± 40 ng/mL
OCDF	ER040811-01	39001-02-0	$C_{12}Cl_8O$	443.75	98.9%	4000 ± 40 ng/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- Stock solution concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darron Ellsworth, Quality Assurance Manager

April 28, 2016
Date

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared calibration solution gravimetrically prepared using balances calibrated to NIST.

Standard Solution Assay Parameters

Analysis Method: GC/ECD
Column: DB-5ms, 30 m x 0.25 mm ID, 0 25 µm film thickness
Temp Program: 140°C to 200°C at 40°C/min, 200°C to 300°C at 4°C/min hold 3 min
Injector Temp: Cool on-column
Detector Temp: 280°C

Calibration Curve

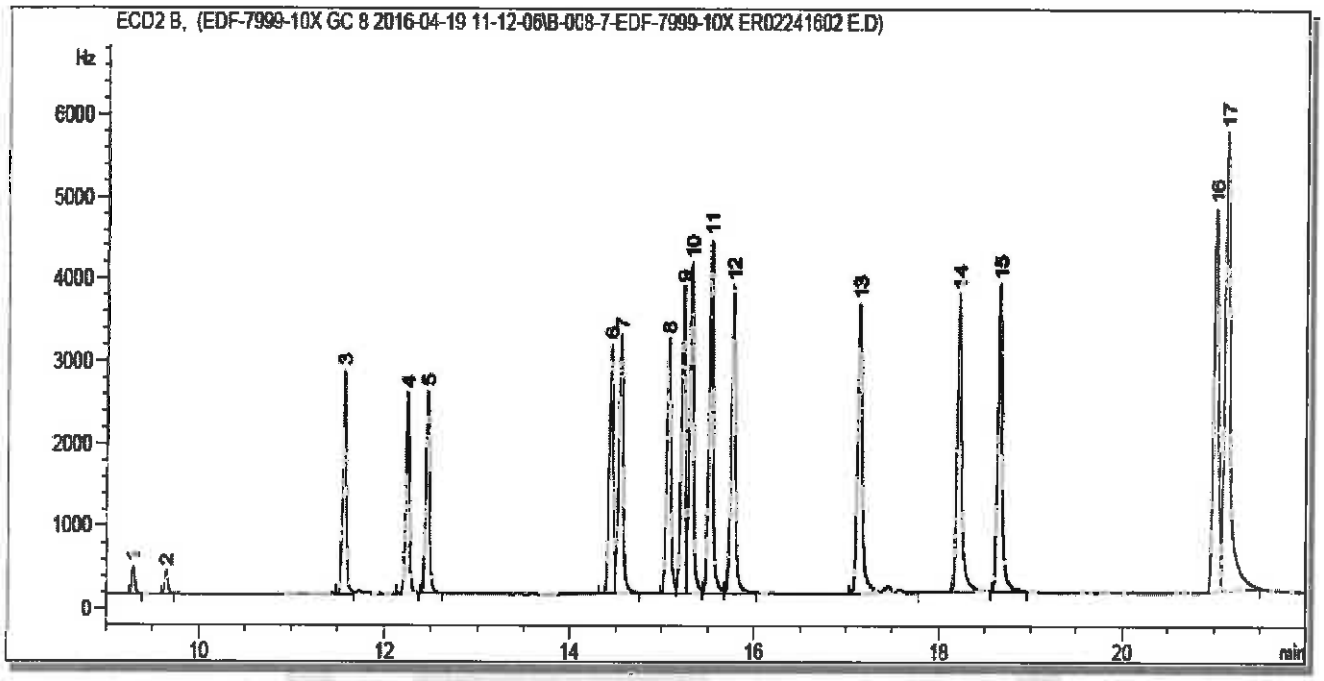
Calibration Curve: Linear Regression
Number of Points: 1

Solution Standard Verification and Homogeneity

Compound	Verified Concentration ng/mL	Acceptance Criteria	%RSD - Homogeneity %	Acceptance Criteria
2,3,7,8-TeCDD	397 1	± 10%	0.7	≤ 5%
2,3,7,8-TeCDF	386 6	± 10%	0.7	≤ 5%
1,2,3,7,8-PeCDD	1937	± 10%	0 8	≤ 5%
1,2,3,7,8-PeCDF	1919	± 10%	0.8	≤ 5%
2,3,4,7,8-PeCDF	1941	± 10%	0.8	≤ 5%
1,2,3,4,7,8-HxCDD	1932	± 10%	0.9	≤ 5%
1,2,3,6,7,8-HxCDD	1987	± 10%	0 8	≤ 5%
1,2,3,7,8,9-HxCDD	1943	± 10%	0 7	≤ 5%
1,2,3,4,7,8-HxCDF	1933	± 10%	0.9	≤ 5%
1,2,3,6,7,8-HxCDF	1909	± 10%	0.9	≤ 5%
1,2,3,7,8,9-HxCDF	1942	± 10%	0.7	≤ 5%
2,3,4,6,7,8-HxCDF	1950	± 10%	0.8	≤ 5%
1.2.3.4.6.7.8-HpCDD	1930	± 10%	0.9	≤ 5%
1,2,3,4,6,7,8-HpCDF	1919	± 10%	0.9	≤ 5%
1,2,3,4,7,8,9-HpCDF	1943	± 10%	1.0	≤ 5%
OCDD	3844	± 10%	1.0	≤ 5%
OCDF	3906	± 10%	0.9	≤ 5%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The %RSD of samples pulled from across the lot demonstrate homogeneity.
- Product is compared to prior lot and meets acceptance criteria of ± 10%.

Product Analysis



Peak:	Analyte:
1	2,3,7,8-Tetrachlorodibenzofuran
2	2,3,7,8-Tetrachloro-p-dioxin
3	1,2,3,7,8-Pentachlorodibenzofuran
4	2,3,4,7,8-Pentachlorodibenzofuran
5	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
6	1,2,3,4,7,8-Hexachlorodibenzofuran
7	1,2,3,6,7,8-Hexachlorodibenzofuran
8	2,3,4,6,7,8-Hexachlorodibenzofuran
9	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
10	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
11	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
12	1,2,3,7,8,9-Hexachlorodibenzofuran
13	1,2,3,4,6,7,8-Heptachlorodibenzofuran
14	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
15	1,2,3,4,7,8,9-Heptachlorodibenzofuran
16	Octachlorodibenzo-p-dioxin
17	Octachlorodibenzofuran

COA Revision History

Revision No.	Date	Reason for Revision
00	April 28, 2016	Initial version

Reagent

HRDXNTA_00092

R: 7/6/18 SRJ

Cerilliant
Analytical Reference Standards
a SIGMA-ALDRICH company

CIL

Certificate of Analysis

Method 1613 PAR Stock Solution

Certificate Quality
ISO GUIDE 34
ISO/IEC 17025
ISO 13485
ISO 15194
ISO 9001
GMP/GLP

Catalog Number: EDF-7999-10X
Solution Lot: ER02241602
Expiration Date: April 2026
Solvent: n-Nonane
Volume per Ampule: Not less than 1.2 mL
Storage: Store at room temperature. Do not store cold.
Intended Use: For R&D/ analytical purposes only. Not suitable for human or animal consumption.
Safety: **Danger. See Safety Data Sheet.**

- Expiration Date has been established through real time stability studies
- Ampules are overfilled to ensure a minimum 1 2 volume We advise laboratories to use measured volumes of this standard solution before diluting to the desired concentration

Component	Lot Number	CAS Number	Chemical Formula	Molecular Weight	Chromatographic Purity	Concentration
2,3,7,8-TeCDD	ER04271502	1746-01-6	$C_{12}H_4Cl_4O_2$	321.97	99.2%	399.9 ± 4.0 ng/mL
2,3,7,8-TeCDF	ER101211-02	51207-31-9	$C_{12}H_4Cl_4O$	305.97	99.4%	399.9 ± 4.0 ng/mL
1,2,3,7,8-PeCDD	ER110909-02	40321-76-4	$C_{12}H_3Cl_5O_2$	356.42	99.2%	2000 ± 20 ng/mL
1,2,3,7,8-PeCDF	ER03121401	57117-41-6	$C_{12}H_3Cl_5O$	340.42	99.5%	1999 ± 20 ng/mL
2,3,4,7,8-PeCDF	ER070710-01	57117-31-4	$C_{12}H_3Cl_5O$	340.42	99.4%	1999 ± 20 ng/mL
1,2,3,4,7,8-HxCDD	ER080108-02	39227-28-6	$C_{12}H_2Cl_6O_2$	390.86	98.6%	2000 ± 20 ng/mL
1,2,3,6,7,8-HxCDD	ER03231501	57653-85-7	$C_{12}H_2Cl_6O_2$	390.86	99.6%	2000 ± 20 ng/mL
1,2,3,7,8,9-HxCDD	ER02041601	19408-74-3	$C_{12}H_2Cl_6O_2$	390.86	99.2%	2000 ± 20 ng/mL
1,2,3,4,7,8-HxCDF	ER021110-01	70648-26-9	$C_{12}H_2Cl_6O$	374.86	99.0%	2000 ± 20 ng/mL
1,2,3,6,7,8-HxCDF	ER04161501	57117-44-9	$C_{12}H_2Cl_6O$	374.86	99.8%	2000 ± 20 ng/mL
1,2,3,7,8,9-HxCDF	ER060107-01	72918-21-9	$C_{12}H_2Cl_6O$	374.86	97.5%	1999 ± 20 ng/mL
2,3,4,6,7,8-HxCDF	ER02041602	60851-34-5	$C_{12}H_2Cl_6O$	374.86	99.1%	2001 ± 20 ng/mL
1,2,3,4,6,7,8-HpCDD	ER01201504	35822-46-9	$C_{12}HCl_7O_2$	425.31	98.5%	1999 ± 20 ng/mL
1,2,3,4,6,7,8-HpCDF	ER02281403	67562-39-4	$C_{12}HCl_7O$	409.31	98.9%	1999 ± 20 ng/mL
1,2,3,4,7,8,9-HpCDF	ER01121503	55673-89-7	$C_{12}HCl_7O$	409.31	99.1%	1999 ± 20 ng/mL
OCDD	ER05221301	3268-87-9	$C_{12}Cl_8O_2$	459.75	99.9%	3999 ± 40 ng/mL
OCDF	ER040811-01	39001-02-0	$C_{12}Cl_8O$	443.75	98.9%	4000 ± 40 ng/mL

- Uncertainty of the concentration is expressed as an expanded uncertainty in accordance with ISO 17025 and Guide 34 at the approximate 95% confidence interval using a coverage factor of k = 2 and has been calculated by statistical analysis of our production system and incorporates uncertainty of the purity factor, material density, and balance and weighing technique.
- Stock solution concentration is corrected for chromatographic purity, residual water, residual solvents and residual inorganics.

Cerilliant certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration/retest date when stored unopened as recommended. Product should be used shortly after opening to avoid concentration changes due to evaporation. Warranty does not apply to ampoules stored after opening.

ANAB ACCREDITED

Darren Ellsworth, Quality Assurance Manager

April 28, 2016
Date

Traceability

- Gravimetrically prepared using qualified balances calibrated semi-annually by Mettler Toledo using NIST traceable weights. Calibration verification performed weekly and prior to each use utilizing NIST traceable weights. Each balance has been assigned a minimum weighing by Mettler Toledo taking into consideration the balance and installed environmental conditions to ensure weighing complies with USP tolerances of no more than 0.10% relative error.
- Concentration is verified against an independently prepared calibration solution gravimetrically prepared using balances calibrated to NIST.

Standard Solution Assay Parameters

Analysis Method: GC/ECD
Column: DB-5ms, 30 m x 0.25 mm ID, 0 25 µm film thickness
Temp Program: 140°C to 200°C at 40°C/min, 200°C to 300°C at 4°C/min hold 3 min
Injector Temp: Cool on-column
Detector Temp: 280°C

Calibration Curve

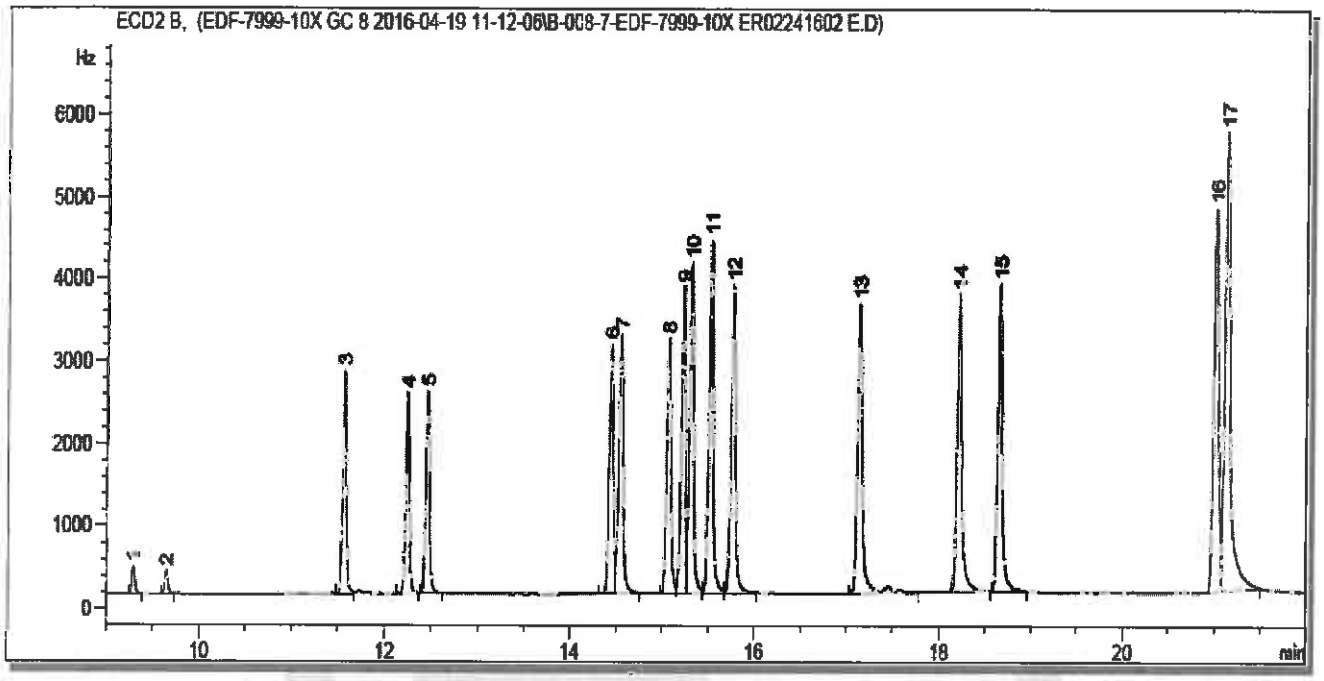
Calibration Curve: Linear Regression
Number of Points: 1

Solution Standard Verification and Homogeneity

Compound	Verified Concentration ng/mL	Acceptance Criteria	%RSD - Homogeneity %	Acceptance Criteria
2,3,7,8-TeCDD	397 1	± 10%	0.7	≤ 5%
2,3,7,8-TeCDF	386 6	± 10%	0.7	≤ 5%
1,2,3,7,8-PeCDD	1937	± 10%	0 8	≤ 5%
1,2,3,7,8-PeCDF	1919	± 10%	0.8	≤ 5%
2,3,4,7,8-PeCDF	1941	± 10%	0.8	≤ 5%
1,2,3,4,7,8-HxCDD	1932	± 10%	0.9	≤ 5%
1,2,3,6,7,8-HxCDD	1987	± 10%	0 8	≤ 5%
1,2,3,7,8,9-HxCDD	1943	± 10%	0 7	≤ 5%
1,2,3,4,7,8-HxCDF	1933	± 10%	0.9	≤ 5%
1,2,3,6,7,8-HxCDF	1909	± 10%	0.9	≤ 5%
1,2,3,7,8,9-HxCDF	1942	± 10%	0.7	≤ 5%
2,3,4,6,7,8-HxCDF	1950	± 10%	0.8	≤ 5%
1.2.3.4.6.7.8-HpCDD	1930	± 10%	0.9	≤ 5%
1,2,3,4,6,7,8-HpCDF	1919	± 10%	0.9	≤ 5%
1,2,3,4,7,8,9-HpCDF	1943	± 10%	1.0	≤ 5%
OCDD	3844	± 10%	1.0	≤ 5%
OCDF	3906	± 10%	0.9	≤ 5%

- Concentration is verified through multiple analyses and is calculated as the average of multiple analyses compared to an independently prepared calibration solution.
- Homogeneity is ensured through rigorous production process controls statistically analyzed to evaluate risk and verified by analysis. The %RSD of samples pulled from across the lot demonstrate homogeneity.
- Product is compared to prior lot and meets acceptance criteria of ± 10%.

Product Analysis



Peak:	Analyte:
1	2,3,7,8-Tetrachlorodibenzofuran
2	2,3,7,8-Tetrachloro-p-dioxin
3	1,2,3,7,8-Pentachlorodibenzofuran
4	2,3,4,7,8-Pentachlorodibenzofuran
5	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
6	1,2,3,4,7,8-Hexachlorodibenzofuran
7	1,2,3,6,7,8-Hexachlorodibenzofuran
8	2,3,4,6,7,8-Hexachlorodibenzofuran
9	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
10	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
11	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
12	1,2,3,7,8,9-Hexachlorodibenzofuran
13	1,2,3,4,6,7,8-Heptachlorodibenzofuran
14	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
15	1,2,3,4,7,8,9-Heptachlorodibenzofuran
16	Octachlorodibenzo-p-dioxin
17	Octachlorodibenzofuran

COA Revision History

Revision No.	Date	Reason for Revision
00	April 28, 2016	Initial version

Reagent

HRDXNTA_00098

R: 11/2/18 SKJ

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613PAR

U.S. EPA Method 1613 Native PCDD/PCDF
Precision and Recovery Stock Solution

PRODUCT CODE:	EPA-1613PAR
LOT NUMBER:	13PAR0418
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	04/11/2018
LAST TESTED: (mm/dd/yyyy)	04/12/2018
EXPIRY DATE: (mm/dd/yyyy)	03/01/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted chlorinated dibenzo-p-dioxins (PCDDs) and 2,3,7,8-substituted dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B).

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

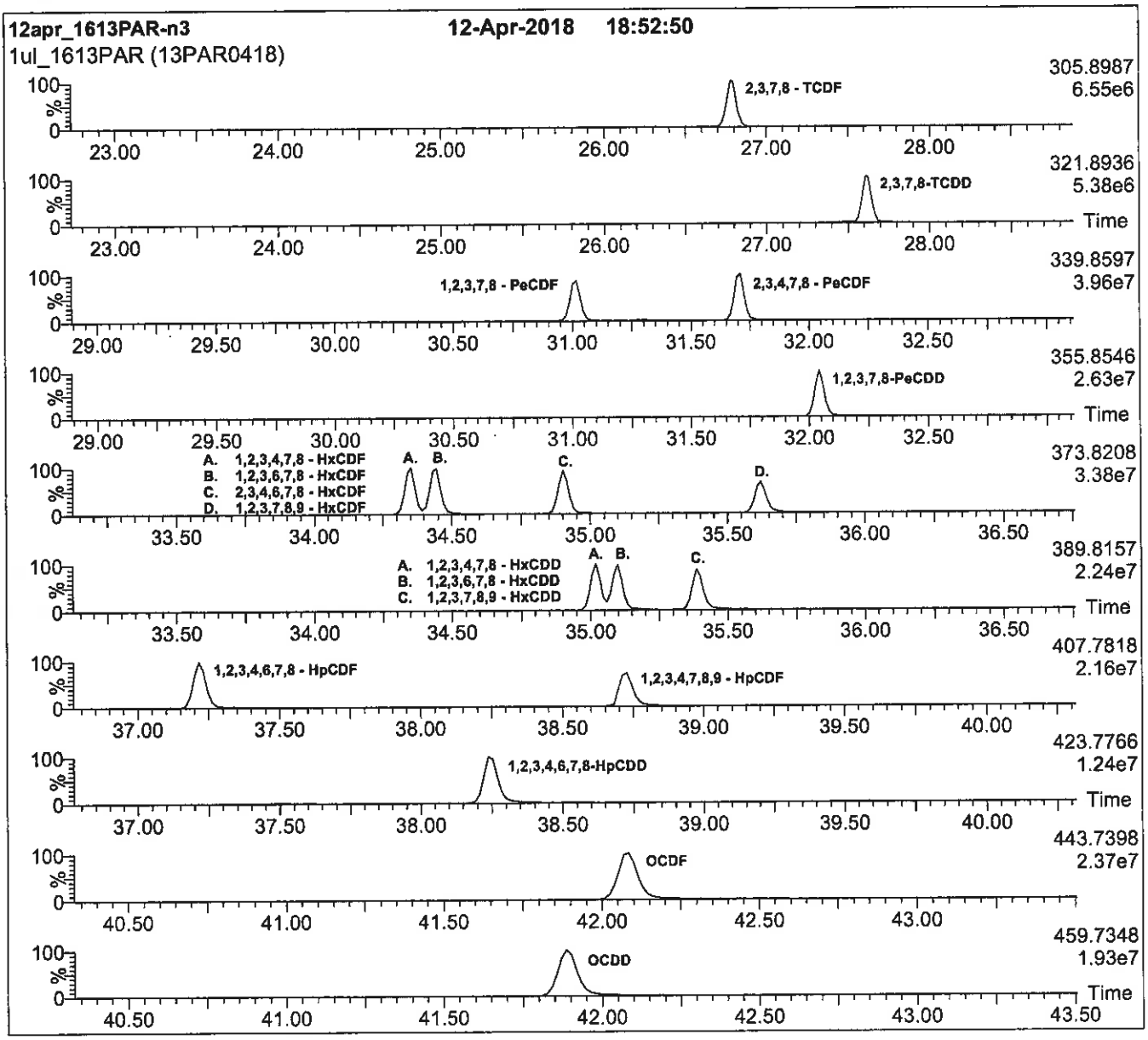
Table A: **EPA-1613PAR; Components and Concentrations (ng/ml, ± 5% in nonane/ 2.4% toluene)**

	Concentration (ng/ml)
PCDDs:	
2,3,7,8-Tetrachlorodibenzo-p-dioxin	40
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	200
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	200
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	200
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	200
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	200
Octachlorodibenzo-p-dioxin	400
PCDFs:	
2,3,7,8-Tetrachlorodibenzofuran	40
1,2,3,7,8-Pentachlorodibenzofuran	200
2,3,4,7,8-Pentachlorodibenzofuran	200
1,2,3,4,7,8-Hexachlorodibenzofuran	200
1,2,3,6,7,8-Hexachlorodibenzofuran	200
1,2,3,7,8,9-Hexachlorodibenzofuran	200
2,3,4,6,7,8-Hexachlorodibenzofuran	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	200
Octachlorodibenzofuran	400

Certified By: _____ **Date:** 04/16/2018
(mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min
Injector: 280 °C (Splitless Injection)
Ionization: EI+
Detector: 280 °C
SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)
12 °C/min to 200 °C
3 °C/min to 235 °C
235 °C (8 min)
8 °C/min to 310 °C
310 °C (8 min)

Method 8270D SIM

Semivolatile Organic Compounds (GC/MS SIM) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB-SV ID: 0.25(mm)

Client Sample ID	Lab Sample ID	TPHL #
22T-SG-17_20190716	580-87706-1	62
22T-SG-18_20190716	580-87706-2	64
22T-SG-11_20190716	580-87706-3	65
22T-SG-11-D_20190716	580-87706-4	70
22T-SG-12_20190716	580-87706-5	69
22T-SG-19_20190716	580-87706-6	74
22T-SG-19_20190716 DL	580-87706-6 DL	70
22T-SG-20_20190716	580-87706-7	65
22T-SG-15_20190716	580-87706-8	66
22T-SG-14_20190716	580-87706-9	64
22T-SG-13_20190716	580-87706-10	72
22T-SG-22_20190716	580-87706-11	70
22T-SG-23_20190716	580-87706-12	66
22T-SG-10_20190716	580-87706-13	86
22T-SG-21_20190716	580-87706-14	67
22T-SG-21_20190716 DL	580-87706-14 DL	72
22T-SG-16_20190716	580-87706-15	70
	MB 580-306107/1-A	75
	LCS 580-306107/2-A	80
22T-SG-12_20190716 MS	580-87706-5 MS	77
22T-SG-12_20190716 MSD	580-87706-5 MSD	77

	QC LIMITS
TPHL = Terphenyl-d14	57-120

Column to be used to flag recovery values

FORM II 8270D SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 072219A005.D

Lab ID: LCS 580-306107/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Naphthalene	1000	842	84	70-120	
2-Methylnaphthalene	1000	887	89	68-120	
1-Methylnaphthalene	1000	864	86	71-120	
Acenaphthylene	1000	914	91	68-120	
Acenaphthene	1000	857	86	68-120	
Fluorene	1000	912	91	73-120	
Phenanthrene	1000	864	86	66-120	
Anthracene	1000	887	89	73-125	
Fluoranthene	1000	894	89	74-125	
Pyrene	1000	847	85	70-120	
Benzo[a]anthracene	1000	975	97	66-120	
Chrysene	1000	901	90	63-120	
Benzo[b]fluoranthene	1000	1000	100	63-132	
Benzo[k]fluoranthene	1000	926	93	63-131	
Benzo[a]pyrene	1000	887	89	72-124	
Indeno[1,2,3-cd]pyrene	1000	1070	107	65-132	
Dibenz(a,h)anthracene	1000	995	100	70-133	
Benzo[g,h,i]perylene	1000	967	97	63-128	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 072219A011.D

Lab ID: 580-87706-5 MS Client ID: 22T-SG-12_20190716 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Naphthalene	2160	670	2030	63	70-120	F1
2-Methylnaphthalene	2160	130	1930	83	68-120	
1-Methylnaphthalene	2160	67	1890	84	71-120	
Acenaphthylene	2160	53	1980	89	68-120	
Acenaphthene	2160	120	1860	80	68-120	
Fluorene	2160	130	2000	87	73-120	
Phenanthrene	2160	810	2220	65	66-120	F1
Anthracene	2160	160	2000	85	73-125	
Fluoranthene	2160	720	2410	78	74-125	
Pyrene	2160	780	2420	76	70-120	E
Benzo[a]anthracene	2160	280	2410	98	66-120	
Chrysene	2160	280	1990	79	63-120	
Benzo[b]fluoranthene	2160	320	2130	84	63-132	
Benzo[k]fluoranthene	2160	83	1710	75	63-131	
Benzo[a]pyrene	2160	280	1980	78	72-124	
Indeno[1,2,3-cd]pyrene	2160	290	2470	101	65-132	
Dibenz(a,h)anthracene	2160	27	1900	87	70-133	
Benzo[g,h,i]perylene	2160	250	2000	81	63-128	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 072219A012.D

Lab ID: 580-87706-5 MSD Client ID: 22T-SG-12_20190716 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Naphthalene	2010	1800	56	12	12	70-120	F1
2-Methylnaphthalene	2010	1700	78	13	12	68-120	F2
1-Methylnaphthalene	2010	1710	82	10	21	71-120	
Acenaphthylene	2010	1800	87	10	22	68-120	
Acenaphthene	2010	1680	78	10	12	68-120	
Fluorene	2010	1810	84	10	13	73-120	
Phenanthrene	2010	1960	57	12	11	66-120	F2 F1
Anthracene	2010	1800	81	11	12	73-125	
Fluoranthene	2010	2190	73	9	19	74-125	F1
Pyrene	2010	2210	71	9	12	70-120	E
Benzo[a]anthracene	2010	2180	95	10	14	66-120	
Chrysene	2010	1900	80	5	10	63-120	
Benzo[b]fluoranthene	2010	1980	83	7	25	63-132	
Benzo[k]fluoranthene	2010	1620	76	5	15	63-131	
Benzo[a]pyrene	2010	1910	81	3	19	72-124	
Indeno[1,2,3-cd]pyrene	2010	2340	102	6	15	65-132	
Dibenz(a,h)anthracene	2010	1700	83	11	13	70-133	
Benzo[g,h,i]perylene	2010	1880	81	6	14	63-128	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab File ID: 072219A004.D Lab Sample ID: MB 580-306107/1-A

Matrix: Solid Date Extracted: 07/19/2019 09:49

Instrument ID: TAC023 Date Analyzed: 07/22/2019 12:03

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 580-306107/2-A	072219A005.D	07/22/2019 12:29
22T-SG-17_20190716	580-87706-1	072219A006.D	07/22/2019 12:55
22T-SG-18_20190716	580-87706-2	072219A007.D	07/22/2019 13:22
22T-SG-11_20190716	580-87706-3	072219A008.D	07/22/2019 13:48
22T-SG-11-D_20190716	580-87706-4	072219A009.D	07/22/2019 14:15
22T-SG-12_20190716	580-87706-5	072219A010.D	07/22/2019 14:41
22T-SG-12_20190716 MS	580-87706-5 MS	072219A011.D	07/22/2019 15:08
22T-SG-12_20190716 MSD	580-87706-5 MSD	072219A012.D	07/22/2019 15:34
22T-SG-19_20190716	580-87706-6	072219A013.D	07/22/2019 16:01
22T-SG-20_20190716	580-87706-7	072219A014.D	07/22/2019 16:27
22T-SG-15_20190716	580-87706-8	072219A015.D	07/22/2019 16:54
22T-SG-14_20190716	580-87706-9	072219A016.D	07/22/2019 17:20
22T-SG-13_20190716	580-87706-10	072219A017.D	07/22/2019 17:47
22T-SG-22_20190716	580-87706-11	072219A018.D	07/22/2019 18:13
22T-SG-23_20190716	580-87706-12	072219A019.D	07/22/2019 18:39
22T-SG-10_20190716	580-87706-13	072219A020.D	07/22/2019 19:06
22T-SG-21_20190716	580-87706-14	072219A021.D	07/22/2019 19:32
22T-SG-16_20190716	580-87706-15	072219A022.D	07/22/2019 19:59
22T-SG-19_20190716 DL	580-87706-6 DL	072319B027.D	07/24/2019 02:17
22T-SG-21_20190716 DL	580-87706-14 DL	072319B028.D	07/24/2019 02:44
22T-SG-16_20190716 DL	580-87706-15 DL	072419A021.D	07/24/2019 19:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab File ID: 013019b004.D DFTPP Injection Date: 01/30/2019

Instrument ID: TAC023 DFTPP Injection Time: 17:57

Analysis Batch No.: 293966

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.0 - 80.0 % of mass 198	17.2	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	26.1	
70	Less than 2.0 % of mass 69	0.1	(0.3) 1
127	10.0 - 80.0 % of mass 198	58.7	
197	Less than 2.0 % of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 - 9.0 % of mass 198	7.1	
275	10.0 - 60.0 % of mass 198	30.2	
365	Greater than 1.0 % of mass 198	4.4	
441	Present but less than mass 443	18.8	
442	Greater than 50.0 % of mass 198	115.2	
443	15.0 - 24.0 % of mass 442	23.2	(20.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD13 580-293966/4	013019b005.D	01/30/2019	18:23
	STD12 580-293966/5	013019b006.D	01/30/2019	18:49
	STD11 580-293966/6	013019b007.D	01/30/2019	19:15
	STD10 580-293966/7	013019b008.D	01/30/2019	19:41
	STD9IS 580-293966/8	013019b009.D	01/30/2019	20:07
	STD8 580-293966/9	013019b010.D	01/30/2019	20:33
	STD7 580-293966/10	013019b011.D	01/30/2019	20:59
	STD6 580-293966/11	013019b012.D	01/30/2019	21:24
	STD5 580-293966/12	013019b013.D	01/30/2019	21:50
	STD4 580-293966/13	013019b014.D	01/30/2019	22:16
	STD3 580-293966/14	013019b015.D	01/30/2019	22:42
	STD2 580-293966/15	013019b016.D	01/30/2019	23:08
	STD1 580-293966/16	013019b017.D	01/30/2019	23:34
	ICV 580-293966/18	013019b019.D	01/31/2019	00:25

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab File ID: 072219A002.D DFTPP Injection Date: 07/22/2019

Instrument ID: TAC023 DFTPP Injection Time: 09:37

Analysis Batch No.: 306243

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.0 - 80.0 % of mass 198	32.7	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	28.0	
70	Less than 2.0 % of mass 69	0.1	(0.3) 1
127	10.0 - 80.0 % of mass 198	59.8	
197	Less than 2.0 % of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 - 9.0 % of mass 198	7.1	
275	10.0 - 60.0 % of mass 198	26.1	
365	Greater than 1.0 % of mass 198	3.7	
441	Present but less than mass 443	19.3	
442	Greater than 50.0 % of mass 198	115.1	
443	15.0 - 24.0 % of mass 442	23.6	(20.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 580-306243/3	072219A003.D	07/22/2019	10:43
	MB 580-306107/1-A	072219A004.D	07/22/2019	12:03
	LCS 580-306107/2-A	072219A005.D	07/22/2019	12:29
22T-SG-17_20190716	580-87706-1	072219A006.D	07/22/2019	12:55
22T-SG-18_20190716	580-87706-2	072219A007.D	07/22/2019	13:22
22T-SG-11_20190716	580-87706-3	072219A008.D	07/22/2019	13:48
22T-SG-11-D_20190716	580-87706-4	072219A009.D	07/22/2019	14:15
22T-SG-12_20190716	580-87706-5	072219A010.D	07/22/2019	14:41
22T-SG-12_20190716 MS	580-87706-5 MS	072219A011.D	07/22/2019	15:08
22T-SG-12_20190716 MSD	580-87706-5 MSD	072219A012.D	07/22/2019	15:34
22T-SG-19_20190716	580-87706-6	072219A013.D	07/22/2019	16:01
22T-SG-20_20190716	580-87706-7	072219A014.D	07/22/2019	16:27
22T-SG-15_20190716	580-87706-8	072219A015.D	07/22/2019	16:54
22T-SG-14_20190716	580-87706-9	072219A016.D	07/22/2019	17:20
22T-SG-13_20190716	580-87706-10	072219A017.D	07/22/2019	17:47
22T-SG-22_20190716	580-87706-11	072219A018.D	07/22/2019	18:13
22T-SG-23_20190716	580-87706-12	072219A019.D	07/22/2019	18:39
22T-SG-10_20190716	580-87706-13	072219A020.D	07/22/2019	19:06
22T-SG-21_20190716	580-87706-14	072219A021.D	07/22/2019	19:32
22T-SG-16_20190716	580-87706-15	072219A022.D	07/22/2019	19:59

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab File ID: 072319B002.D DFTPP Injection Date: 07/23/2019

Instrument ID: TAC023 DFTPP Injection Time: 14:55

Analysis Batch No.: 306419

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.0 - 80.0 % of mass 198	28.3	
68	Less than 2.0 % of mass 69	0.0	(0.1) 1
69	Mass 69 relative abundance	25.5	
70	Less than 2.0 % of mass 69	0.1	(0.5) 1
127	10.0 - 80.0 % of mass 198	54.4	
197	Less than 2.0 % of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 - 9.0 % of mass 198	7.1	
275	10.0 - 60.0 % of mass 198	27.7	
365	Greater than 1.0 % of mass 198	4.5	
441	Present but less than mass 443	23.5	
442	Greater than 50.0 % of mass 198	144.4	
443	15.0 - 24.0 % of mass 442	29.0	(20.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 580-306419/3	072319B003.D	07/23/2019	15:36
22T-SG-19_20190716 DL	580-87706-6 DL	072319B027.D	07/24/2019	02:17
22T-SG-21_20190716 DL	580-87706-14 DL	072319B028.D	07/24/2019	02:44

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab File ID: 072419A002.D DFTPP Injection Date: 07/24/2019

Instrument ID: TAC023 DFTPP Injection Time: 09:16

Analysis Batch No.: 306485

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.0 - 80.0 % of mass 198	27.5	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	24.9	
70	Less than 2.0 % of mass 69	0.2	(0.7) 1
127	10.0 - 80.0 % of mass 198	52.9	
197	Less than 2.0 % of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 - 9.0 % of mass 198	6.7	
275	10.0 - 60.0 % of mass 198	28.3	
365	Greater than 1.0 % of mass 198	4.2	
441	Present but less than mass 443	23.7	
442	Greater than 50.0 % of mass 198	144.5	
443	15.0 - 24.0 % of mass 442	28.9	(20.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 580-306485/3	072419A003.D	07/24/2019	10:31
22T-SG-16_20190716 DL	580-87706-15 DL	072419A021.D	07/24/2019	19:36

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: STD9IS 580-293966/8 Date Analyzed: 01/30/2019 20:07

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 013019b009.D Heated Purge: (Y/N) N

Calibration ID: 27371

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		415959	6.97	183117	8.46	312444	9.66
UPPER LIMIT		831918	7.47	366234	8.96	624888	10.16
LOWER LIMIT		207980	6.47	91559	7.96	156222	9.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-293966/18		418812	6.97	190528	8.47	318260	9.66

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: STD9IS 580-293966/8 Date Analyzed: 01/30/2019 20:07

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 013019b009.D Heated Purge: (Y/N) N

Calibration ID: 27371

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		269112	11.78	240624	13.02		
UPPER LIMIT		538224	12.28	481248	13.52		
LOWER LIMIT		134556	11.28	120312	12.52		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-293966/18		281648	11.78	250626	13.02		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306243/3 Date Analyzed: 07/22/2019 10:43

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 072219A003.D Heated Purge: (Y/N) N

Calibration ID: 27371

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		411002	6.99	177034	8.50	291117	9.69
UPPER LIMIT		822004	7.49	354068	9.00	582234	10.19
LOWER LIMIT		205501	6.49	88517	8.00	145559	9.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 580-306107/1-A		385839	6.99	171273	8.50	280257	9.69
LCS 580-306107/2-A		348909	6.99	152899	8.50	260680	9.69
580-87706-1	22T-SG-17_20190716	381836	6.99	167807	8.50	293150	9.69
580-87706-2	22T-SG-18_20190716	391585	6.99	178053	8.50	310796	9.69
580-87706-3	22T-SG-11_20190716	390426	6.99	176967	8.50	309891	9.69
580-87706-4	22T-SG-11-D_20190716	384494	6.99	176553	8.50	304709	9.69
580-87706-5	22T-SG-12_20190716	381466	6.99	177251	8.50	307548	9.69
580-87706-5 MS	22T-SG-12_20190716 MS	350986	6.99	157371	8.50	274117	9.69
580-87706-5 MSD	22T-SG-12_20190716 MSD	352655	6.99	159226	8.50	278804	9.69
580-87706-6	22T-SG-19_20190716	347215	6.99	162170	8.50	279343	9.69
580-87706-7	22T-SG-20_20190716	374007	6.99	171865	8.50	301393	9.69
580-87706-8	22T-SG-15_20190716	378896	6.99	168164	8.50	293335	9.69
580-87706-9	22T-SG-14_20190716	346489	6.99	171462	8.50	305575	9.69
580-87706-10	22T-SG-13_20190716	314332	6.99	158637	8.50	279297	9.69
580-87706-11	22T-SG-22_20190716	338359	6.99	170232	8.50	297345	9.69
580-87706-12	22T-SG-23_20190716	326196	6.99	147195	8.50	290533	9.69
580-87706-13	22T-SG-10_20190716	379468	6.99	161358	8.50	287717	9.69
580-87706-14	22T-SG-21_20190716	331851	6.99	169887	8.50	277527	9.69
580-87706-15	22T-SG-16_20190716	321915	6.99	165574	8.50	294339	9.69

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306243/3 Date Analyzed: 07/22/2019 10:43

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 072219A003.D Heated Purge: (Y/N) N

Calibration ID: 27371

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		219565	11.80	221604	12.95		
UPPER LIMIT		439130	12.30	443208	13.45		
LOWER LIMIT		109783	11.30	110802	12.45		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 580-306107/1-A		199661	11.80	202010	12.95		
LCS 580-306107/2-A		197272	11.80	191422	12.94		
580-87706-1	22T-SG-17_20190716	215954	11.80	238866	12.94		
580-87706-2	22T-SG-18_20190716	229183	11.80	259177	12.94		
580-87706-3	22T-SG-11_20190716	233589	11.80	265873	12.94		
580-87706-4	22T-SG-11-D_20190716	231765	11.80	261592	12.94		
580-87706-5	22T-SG-12_20190716	231985	11.80	260978	12.94		
580-87706-5 MS	22T-SG-12_20190716 MS	214513	11.80	244279	12.94		
580-87706-5 MSD	22T-SG-12_20190716 MSD	217354	11.80	244979	12.94		
580-87706-6	22T-SG-19_20190716	213151	11.80	239694	12.95		
580-87706-7	22T-SG-20_20190716	229573	11.80	270281	12.94		
580-87706-8	22T-SG-15_20190716	221523	11.80	255998	12.94		
580-87706-9	22T-SG-14_20190716	229692	11.80	258778	12.95		
580-87706-10	22T-SG-13_20190716	219674	11.80	263825	12.95		
580-87706-11	22T-SG-22_20190716	227489	11.80	267340	12.94		
580-87706-12	22T-SG-23_20190716	232490	11.80	259877	12.94		
580-87706-13	22T-SG-10_20190716	229306	11.80	255042	12.94		
580-87706-14	22T-SG-21_20190716	205275	11.80	237757	12.95		
580-87706-15	22T-SG-16_20190716	221413	11.80	241265	12.95		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306419/3 Date Analyzed: 07/23/2019 15:36

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 072319B003.D Heated Purge: (Y/N) N

Calibration ID: 27371

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		382151	6.99	171531	8.50	288793	9.69
UPPER LIMIT		764302	7.49	343062	9.00	577586	10.19
LOWER LIMIT		191076	6.49	85766	8.00	144397	9.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
580-87706-6 DL	22T-SG-19_20190716 DL	337283	6.99	153653	8.50	270635	9.69
580-87706-14 DL	22T-SG-21_20190716 DL	337256	6.99	157615	8.50	274299	9.69

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306419/3 Date Analyzed: 07/23/2019 15:36

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 072319B003.D Heated Purge: (Y/N) N

Calibration ID: 27371

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		219551	11.81	223343	12.95		
UPPER LIMIT		439102	12.31	446686	13.45		
LOWER LIMIT		109776	11.31	111672	12.45		
LAB SAMPLE ID	CLIENT SAMPLE ID						
580-87706-6 DL	22T-SG-19_20190716 DL	218148	11.81	234981	12.95		
580-87706-14 DL	22T-SG-21_20190716 DL	217760	11.81	240072	12.95		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306485/3 Date Analyzed: 07/24/2019 10:31

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 072419A003.D Heated Purge: (Y/N) N

Calibration ID: 27371

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		362438	6.99	163684	8.50	278064	9.69
UPPER LIMIT		724876	7.49	327368	9.00	556128	10.19
LOWER LIMIT		181219	6.49	81842	8.00	139032	9.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
580-87706-15 DL	22T-SG-16_20190716 DL	364805	6.99	167198	8.50	293131	9.69

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306485/3 Date Analyzed: 07/24/2019 10:31

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm)

Lab File ID (Standard): 072419A003.D Heated Purge: (Y/N) N

Calibration ID: 27371

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		204997	11.81	200467	12.96		
UPPER LIMIT		409994	12.31	400934	13.46		
LOWER LIMIT		102499	11.31	100234	12.46		
LAB SAMPLE ID	CLIENT SAMPLE ID						
580-87706-15 DL	22T-SG-16_20190716 DL	214496	11.81	233406	12.95		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Matrix: Solid Lab File ID: 072219A006.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 08:13

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10.878(g) Date Analyzed: 07/22/2019 12:55

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 45.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	24		8.4	2.7
91-57-6	2-Methylnaphthalene	10		8.4	3.4
90-12-0	1-Methylnaphthalene	4.7	J	8.4	1.1
208-96-8	Acenaphthylene	4.5	J	8.4	0.84
83-32-9	Acenaphthene	7.7	J	8.4	1.0
86-73-7	Fluorene	9.5		8.4	0.84
85-01-8	Phenanthrene	54		8.4	2.7
120-12-7	Anthracene	14		8.4	1.0
206-44-0	Fluoranthene	91		8.4	2.4
129-00-0	Pyrene	100		8.4	1.6
56-55-3	Benzo[a]anthracene	38		8.4	1.3
218-01-9	Chrysene	44		8.4	2.5
205-99-2	Benzo[b]fluoranthene	43		8.4	0.99
207-08-9	Benzo[k]fluoranthene	12		8.4	1.0
50-32-8	Benzo[a]pyrene	35		8.4	1.4
193-39-5	Indeno[1,2,3-cd]pyrene	38		8.4	1.0
53-70-3	Dibenz(a,h)anthracene	4.4	J B	8.4	1.2
191-24-2	Benzo[g,h,i]perylene	33	B	8.4	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	62		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D
Lims ID: 580-87706-A-1-A
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 12:55:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-1-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:53:58 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:53:58

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
*	1 Naphthalene-d8	136	6.988	6.988	0.000	100	381836	100.0	
*	2 Acenaphthene-d10	164	8.498	8.503	-0.005	95	167807	100.0	
*	3 Phenanthrene-d10	188	9.688	9.688	0.000	100	293150	100.0	
*	4 Chrysene-d12	240	11.804	11.804	0.000	99	215954	100.0	
*	5 Perylene-d12	264	12.941	12.946	-0.005	100	238866	100.0	
$	9 Terphenyl-d14	244	11.002	11.002	0.000	99	1380404	621.9	
	10 Naphthalene	128	7.004	7.004	0.000	100	59710	14.0	M
	11 2-Methylnaphthalene	142	7.640	7.640	0.000	96	16700	5.97	M
	12 1-Methylnaphthalene	142	7.722	7.722	0.000	93	7235	2.77	
	13 Acenaphthylene	152	8.377	8.376	0.001	100	9784	2.67	M
	14 Acenaphthene	153	8.520	8.525	-0.005	78	12090	4.55	M
	15 Fluorene	166	8.947	8.947	0.000	98	15077	5.67	M
	17 Phenanthrene	178	9.704	9.704	0.000	100	127902	32.1	M
	18 Anthracene	178	9.745	9.745	0.000	100	30840	8.34	
	19 Fluoranthene	202	10.657	10.657	0.000	97	204254	54.2	M
	20 Pyrene	202	10.830	10.830	0.000	99	238121	60.0	M
	21 Benzo[a]anthracene	228	11.793	11.799	-0.006	93	54920	22.3	
	22 Chrysene	228	11.821	11.821	0.000	98	84763	25.9	
	23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	78307	25.5	M
	24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	27564	7.32	M
	25 Benzo[a]pyrene	252	12.886	12.892	-0.006	95	64645	20.7	M
	26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	95	52883	22.4	M
	27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	4608	2.63	M
	28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	96	66398	19.6	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

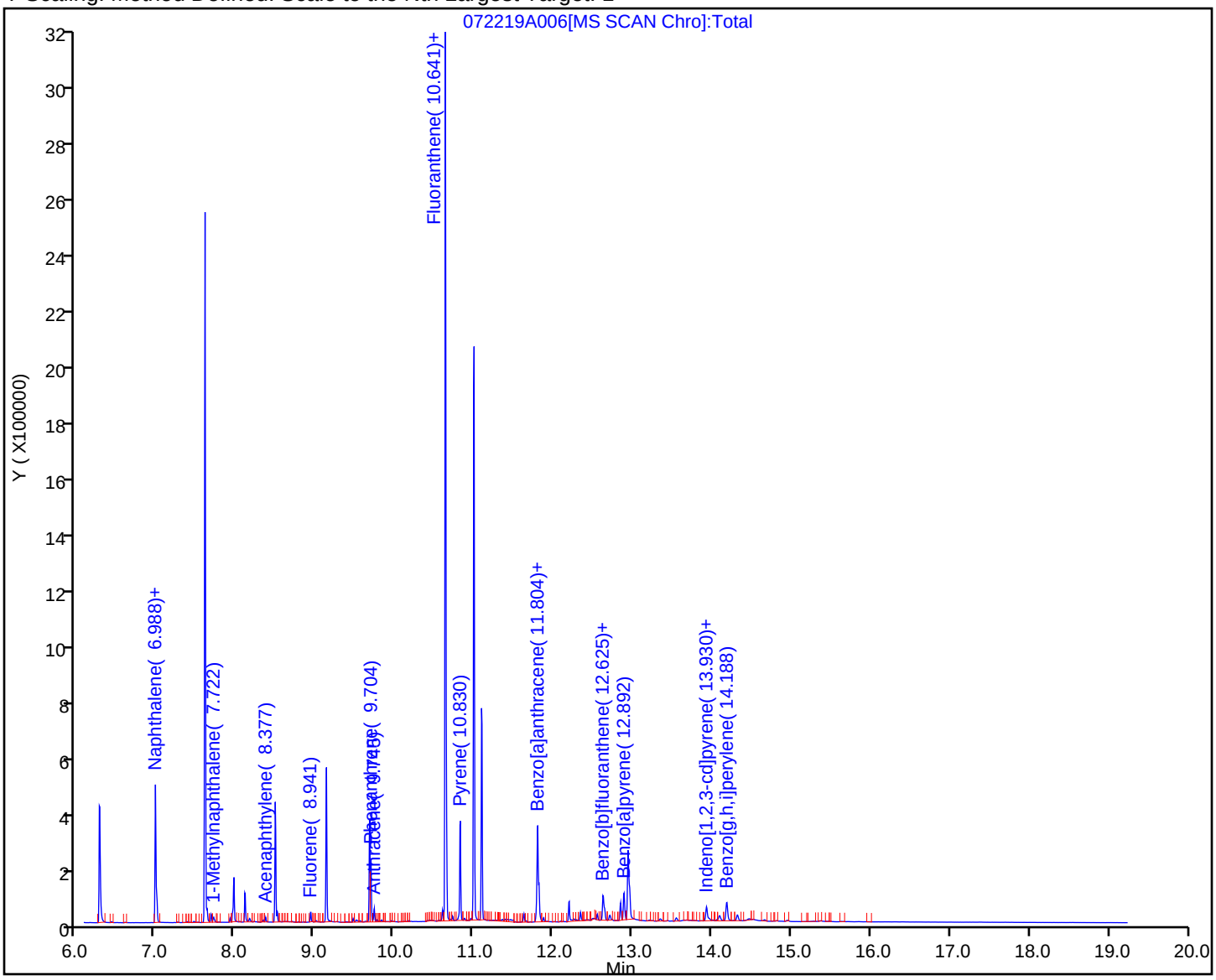
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle

Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D
Lims ID: 580-87706-A-1-A
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 12:55:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-1-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:53:58 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:53:58

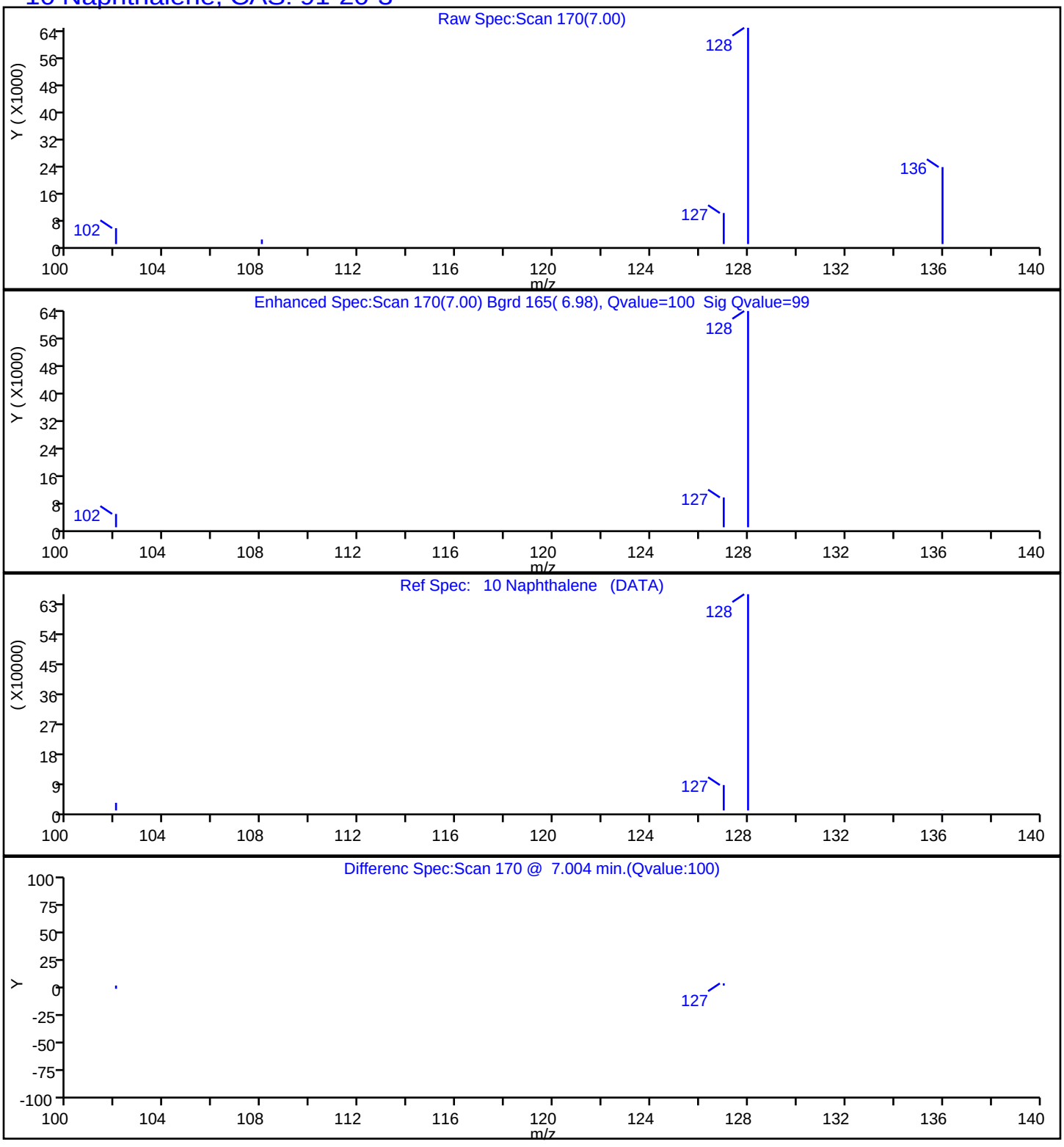
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	621.9	62.19

Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

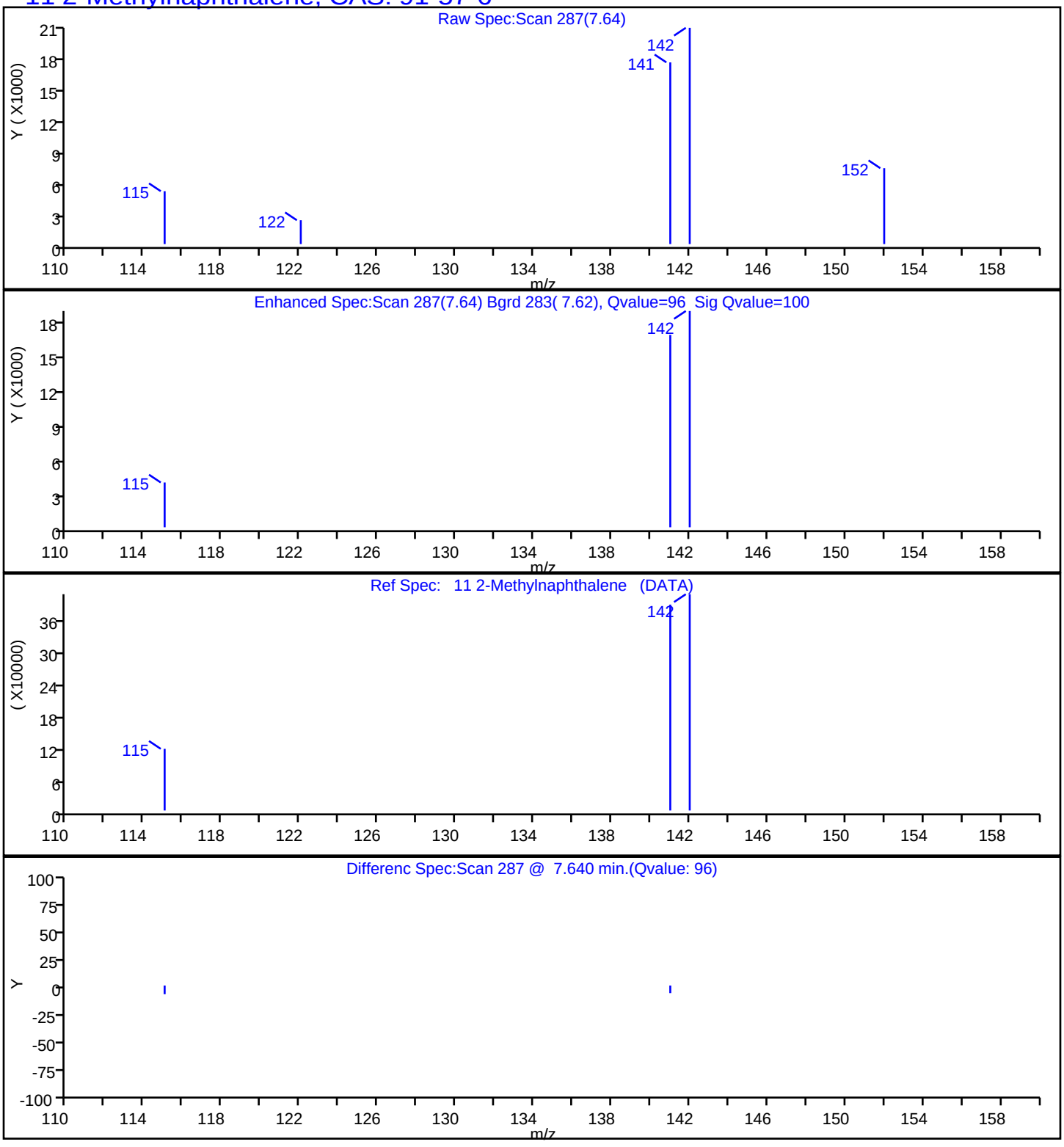


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

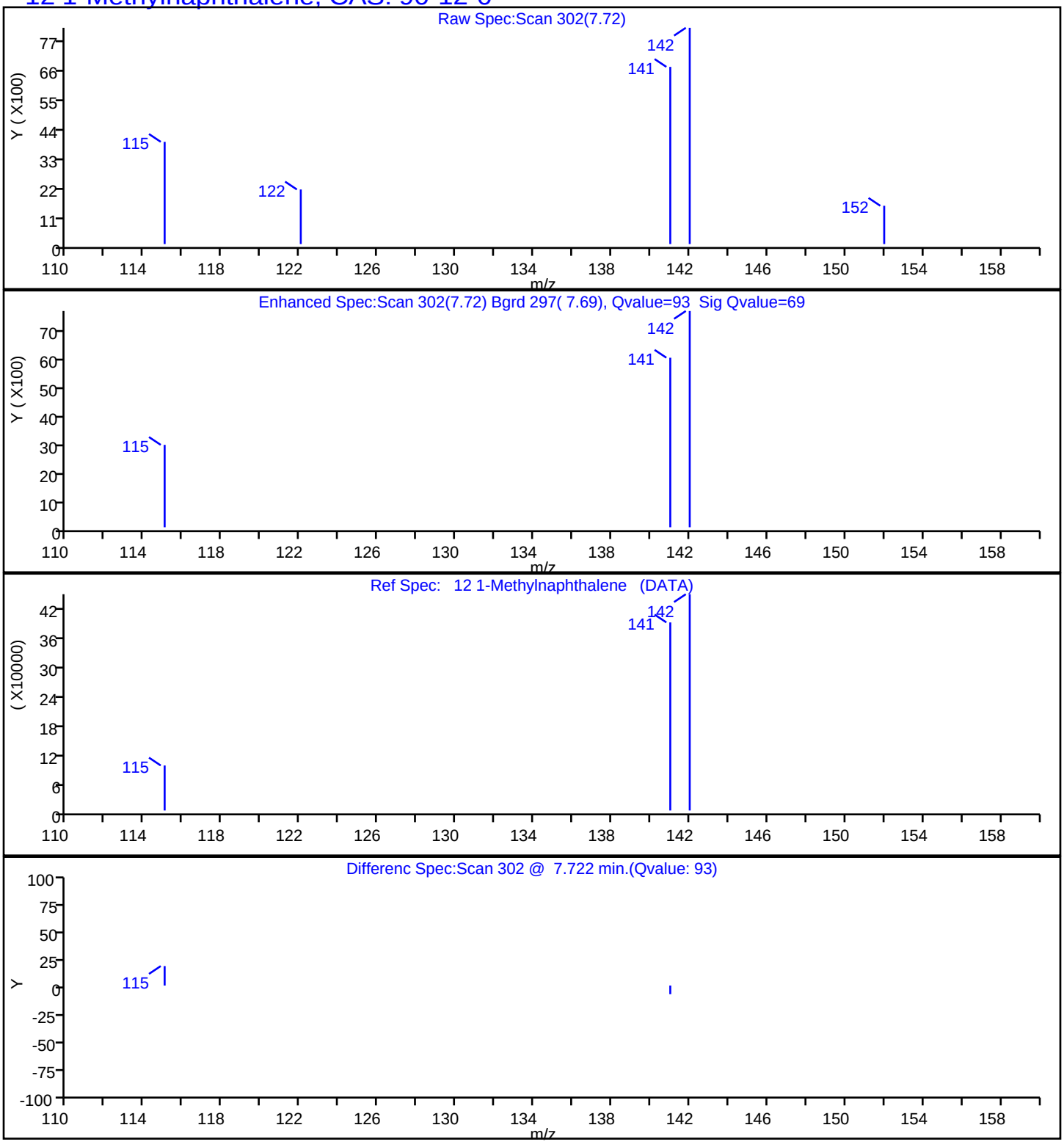


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

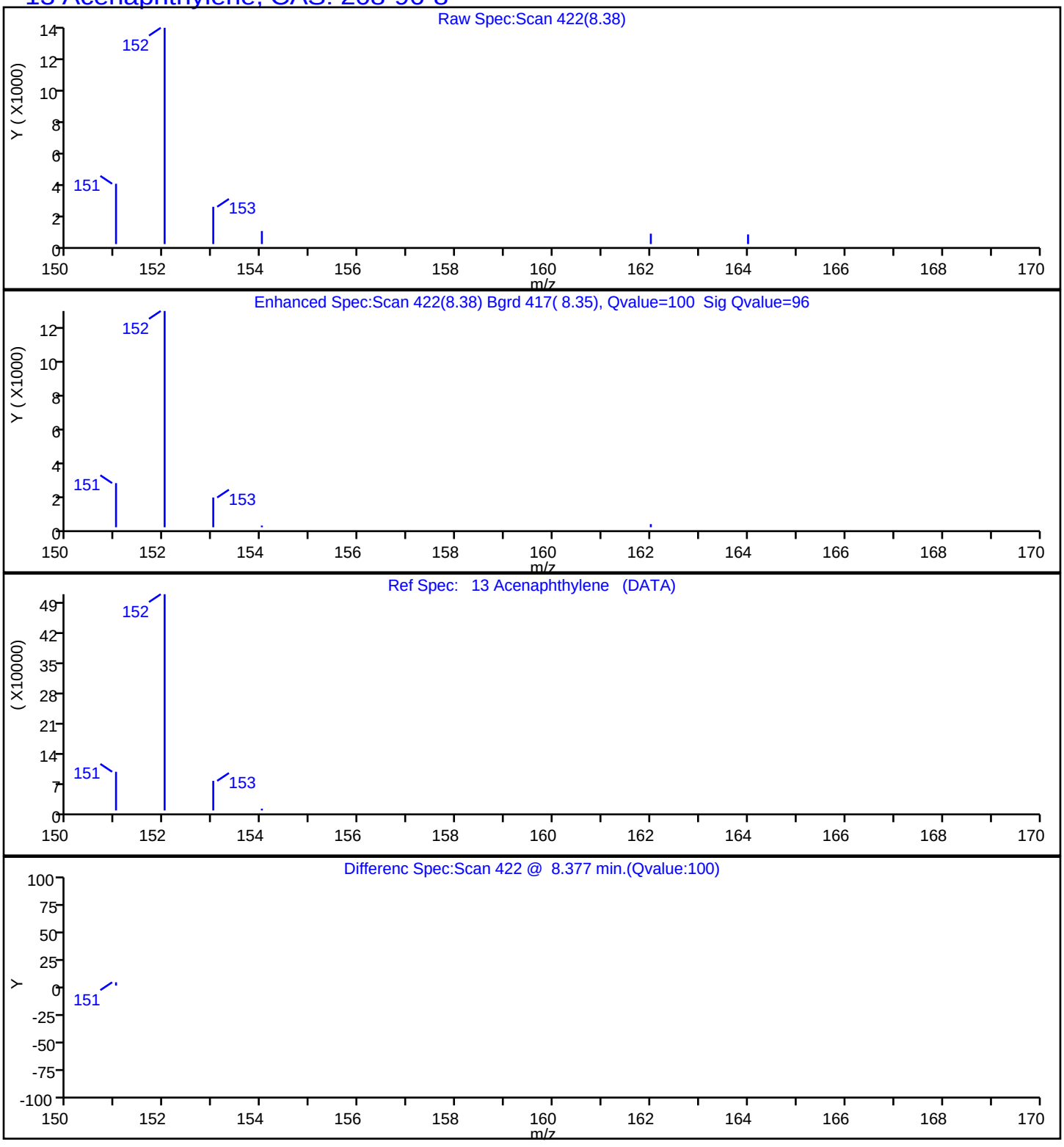


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

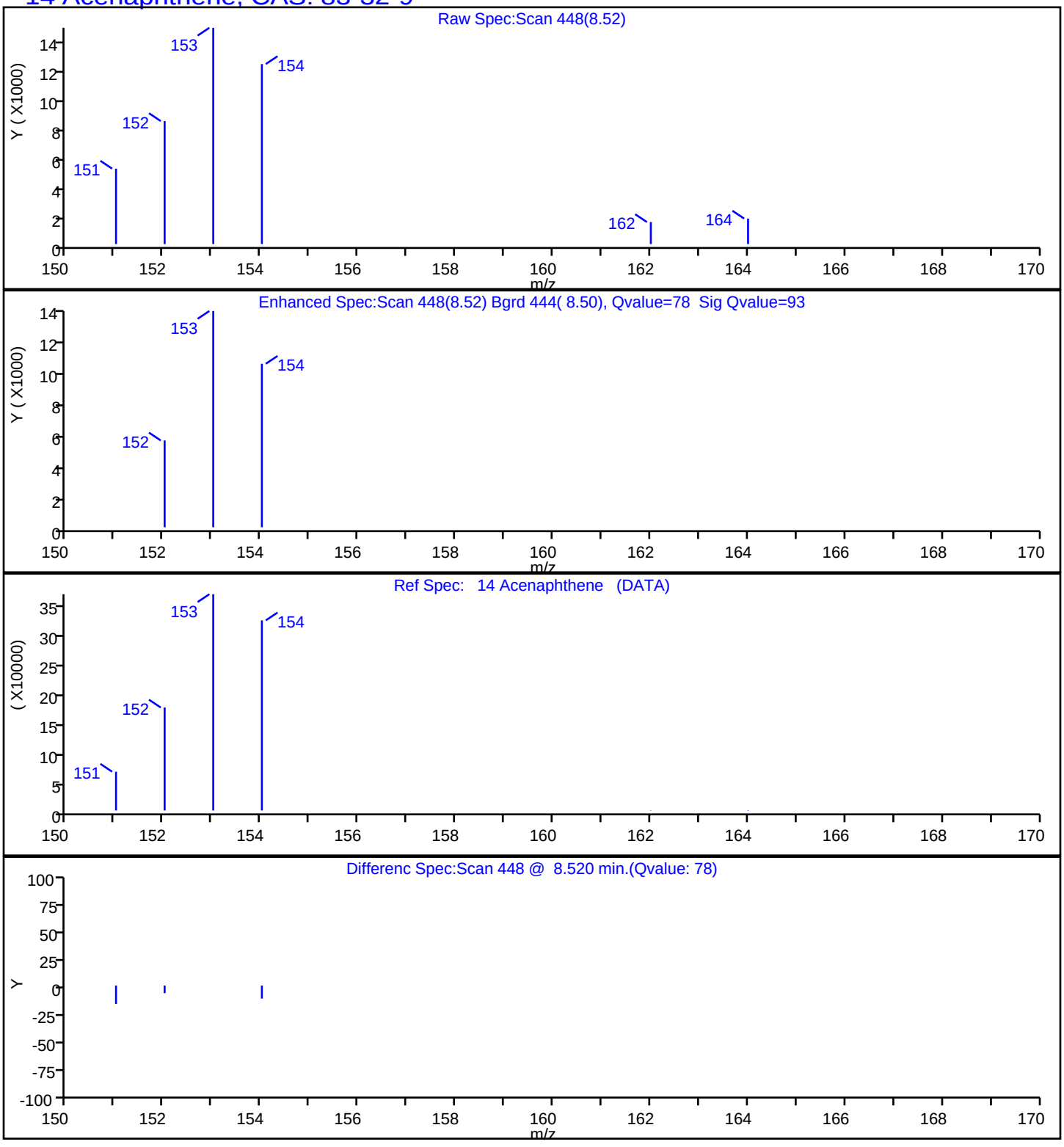


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

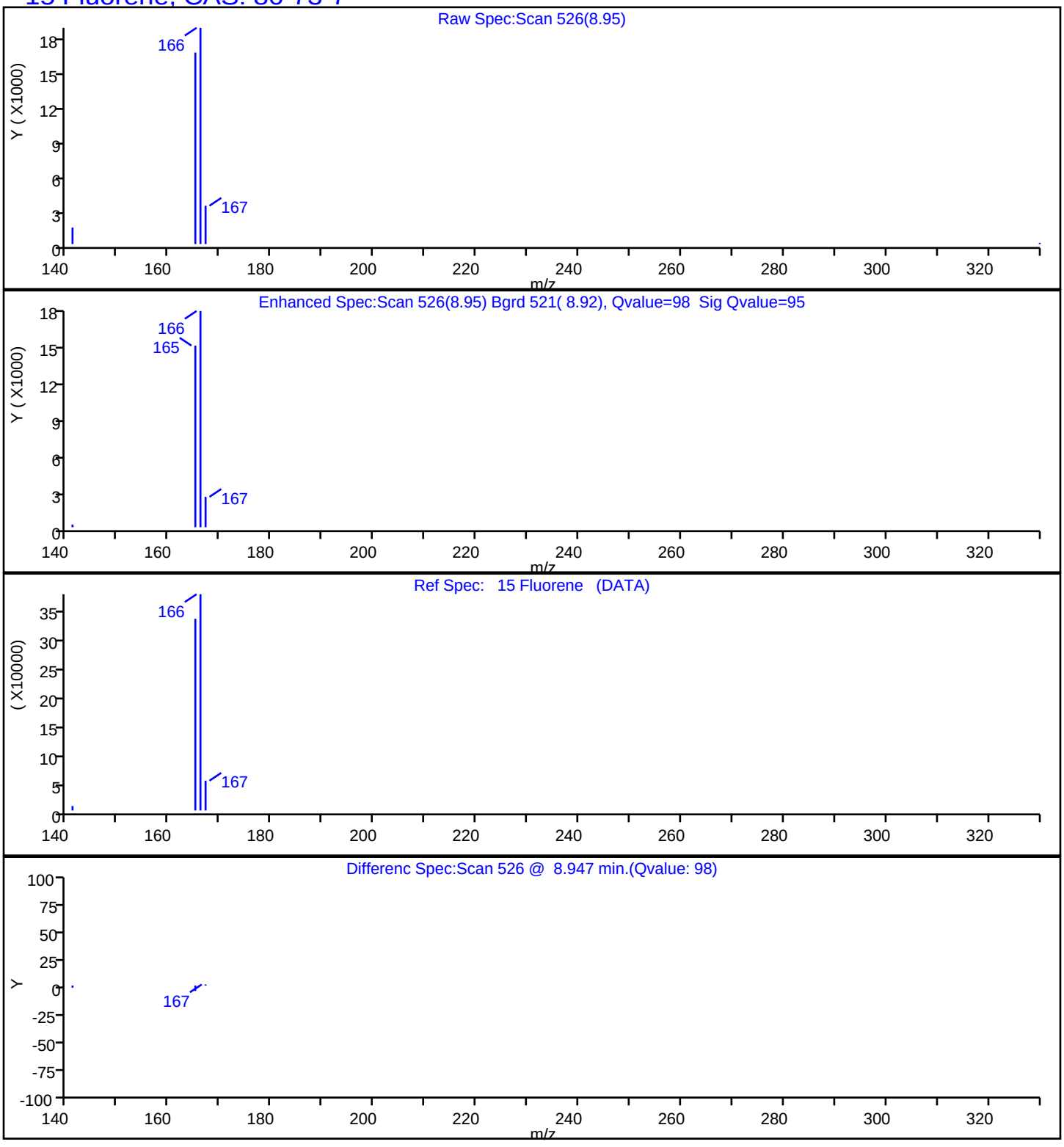


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

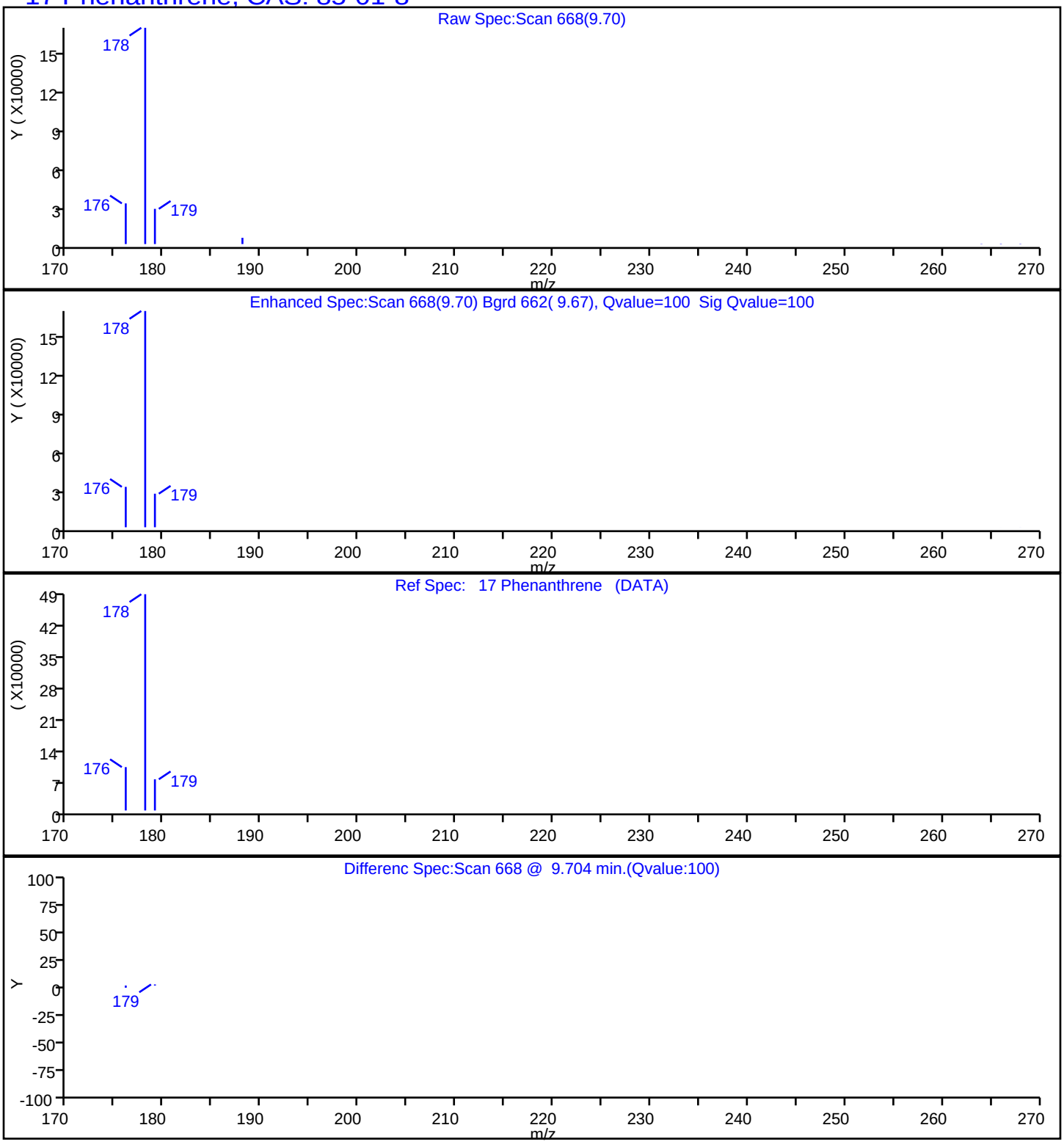


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

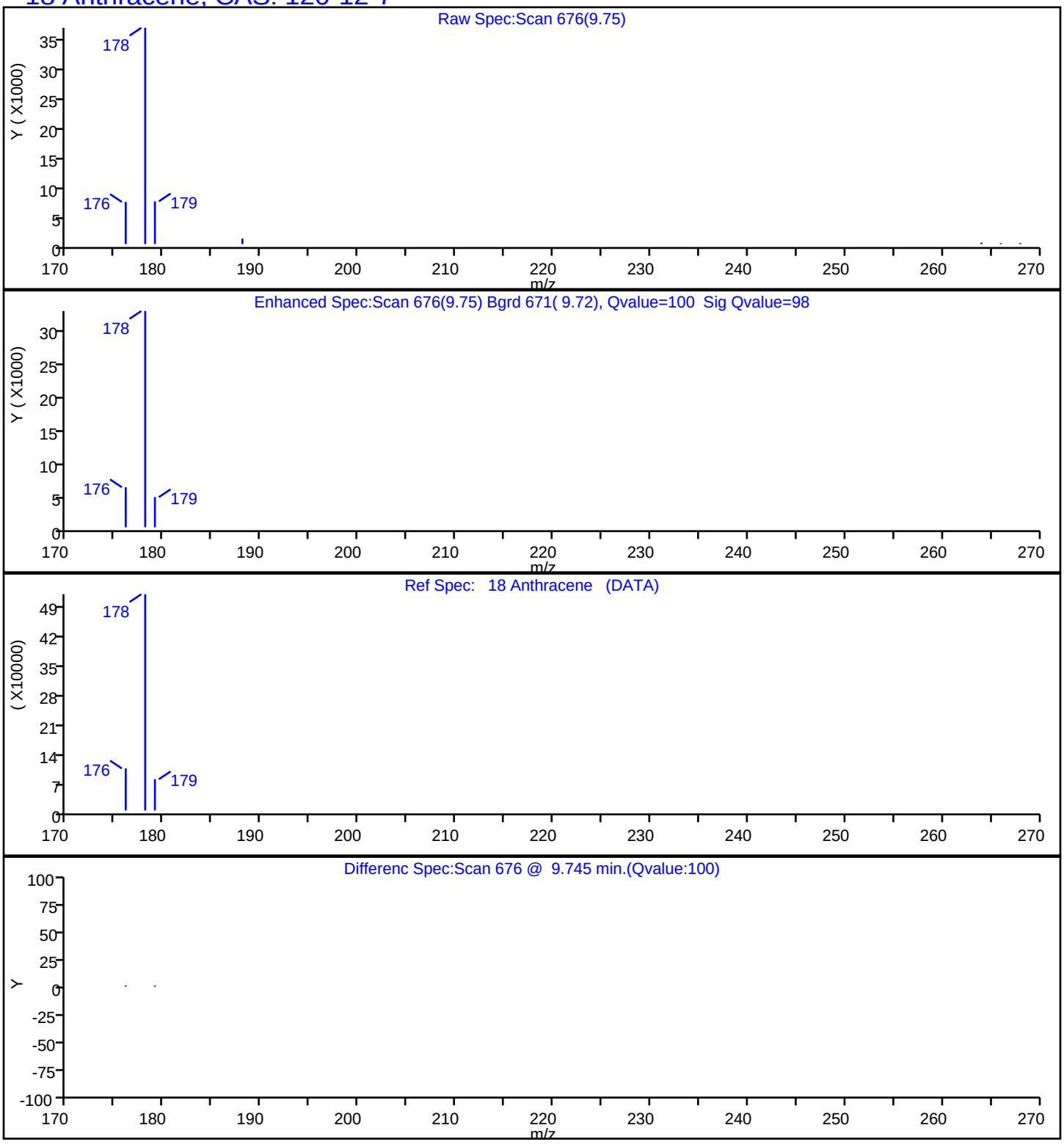


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

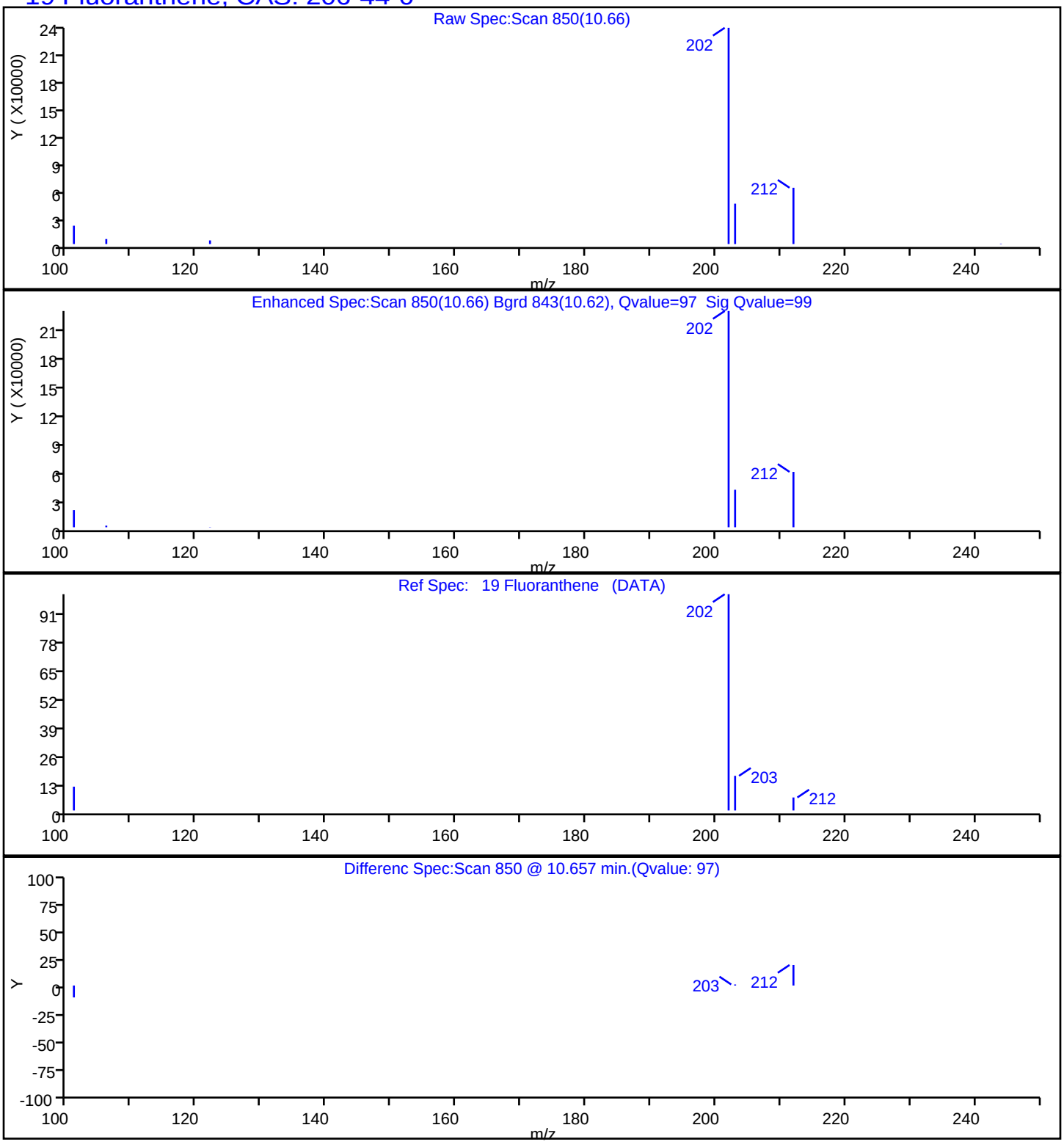


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

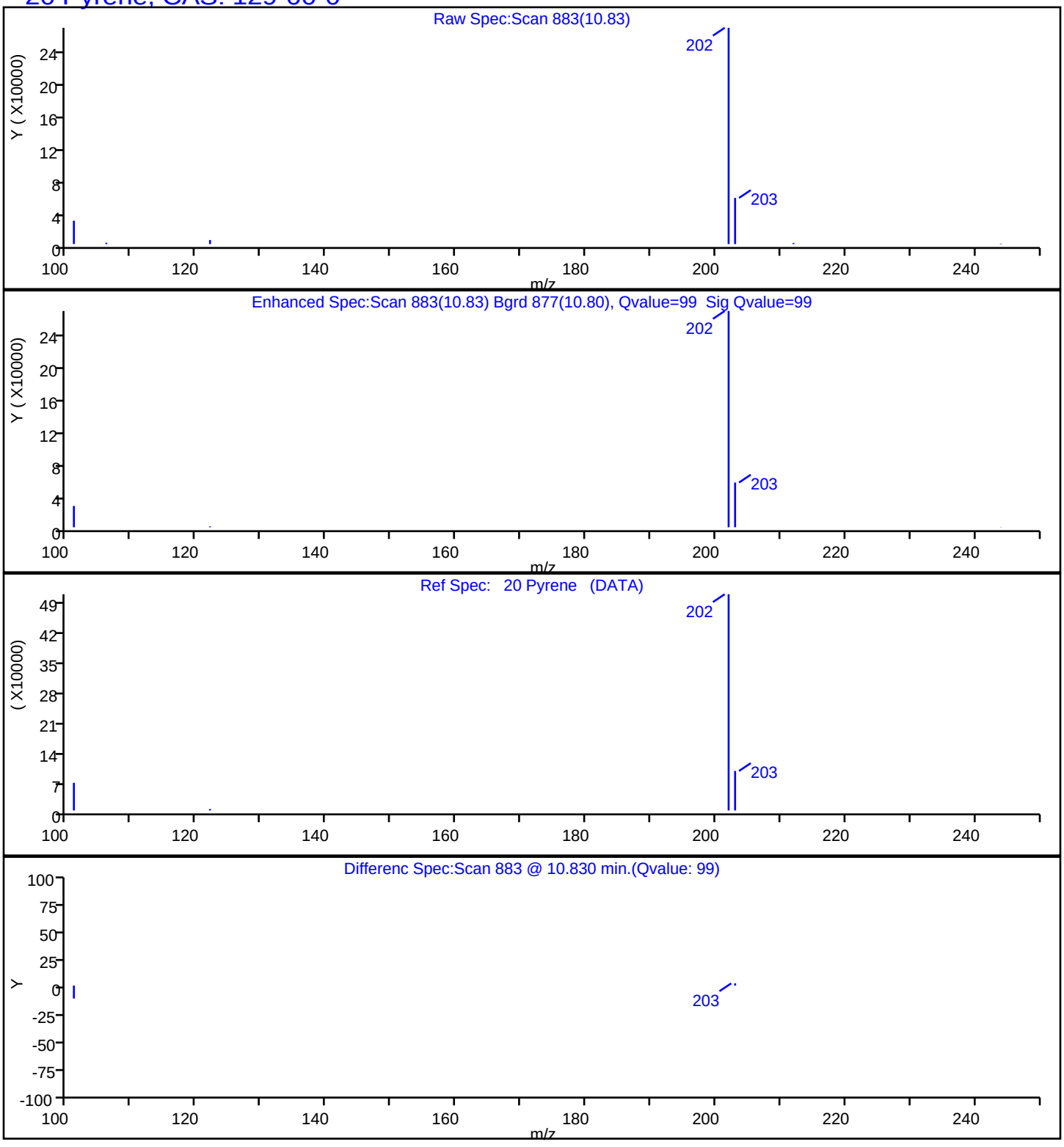


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

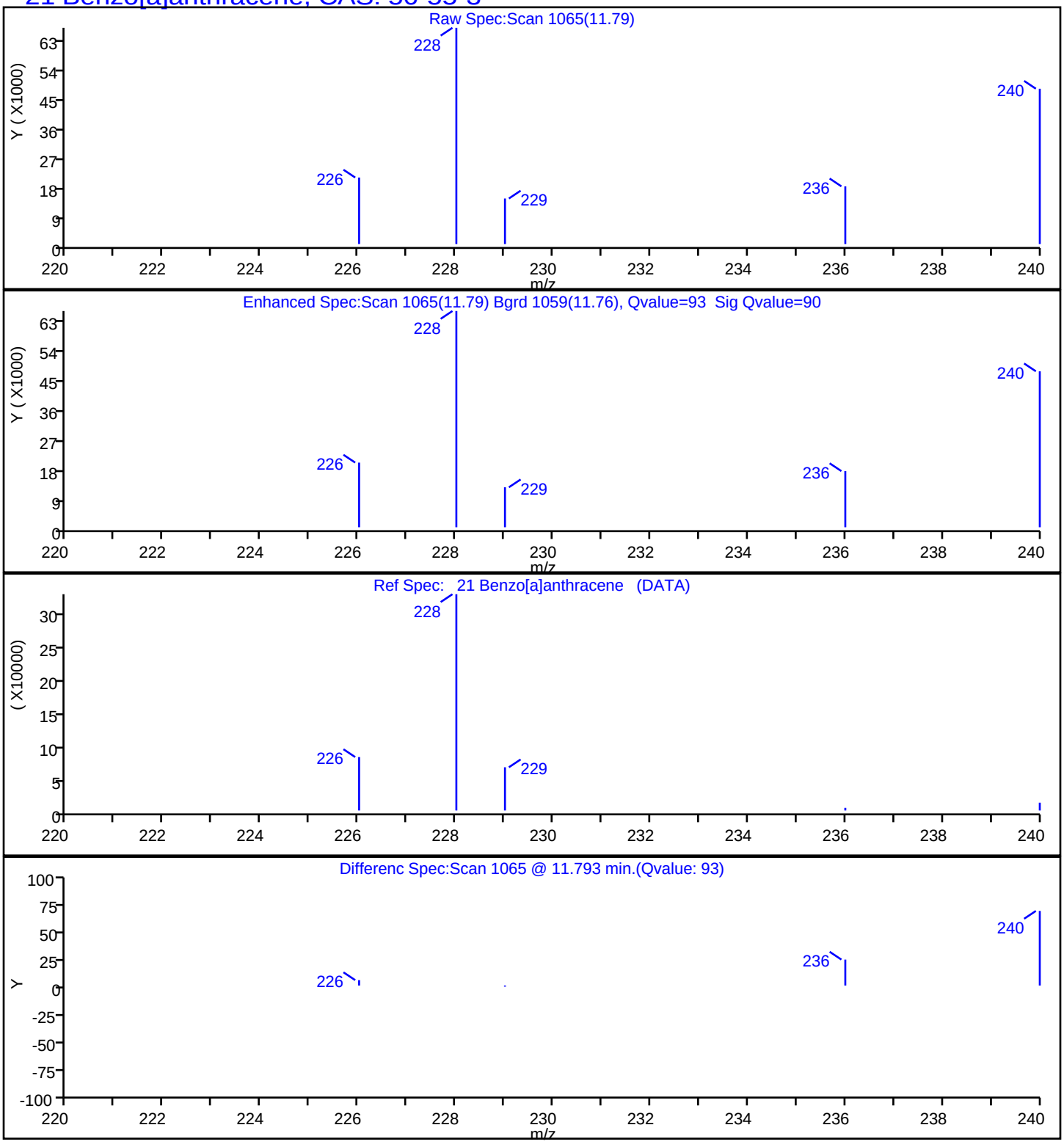


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

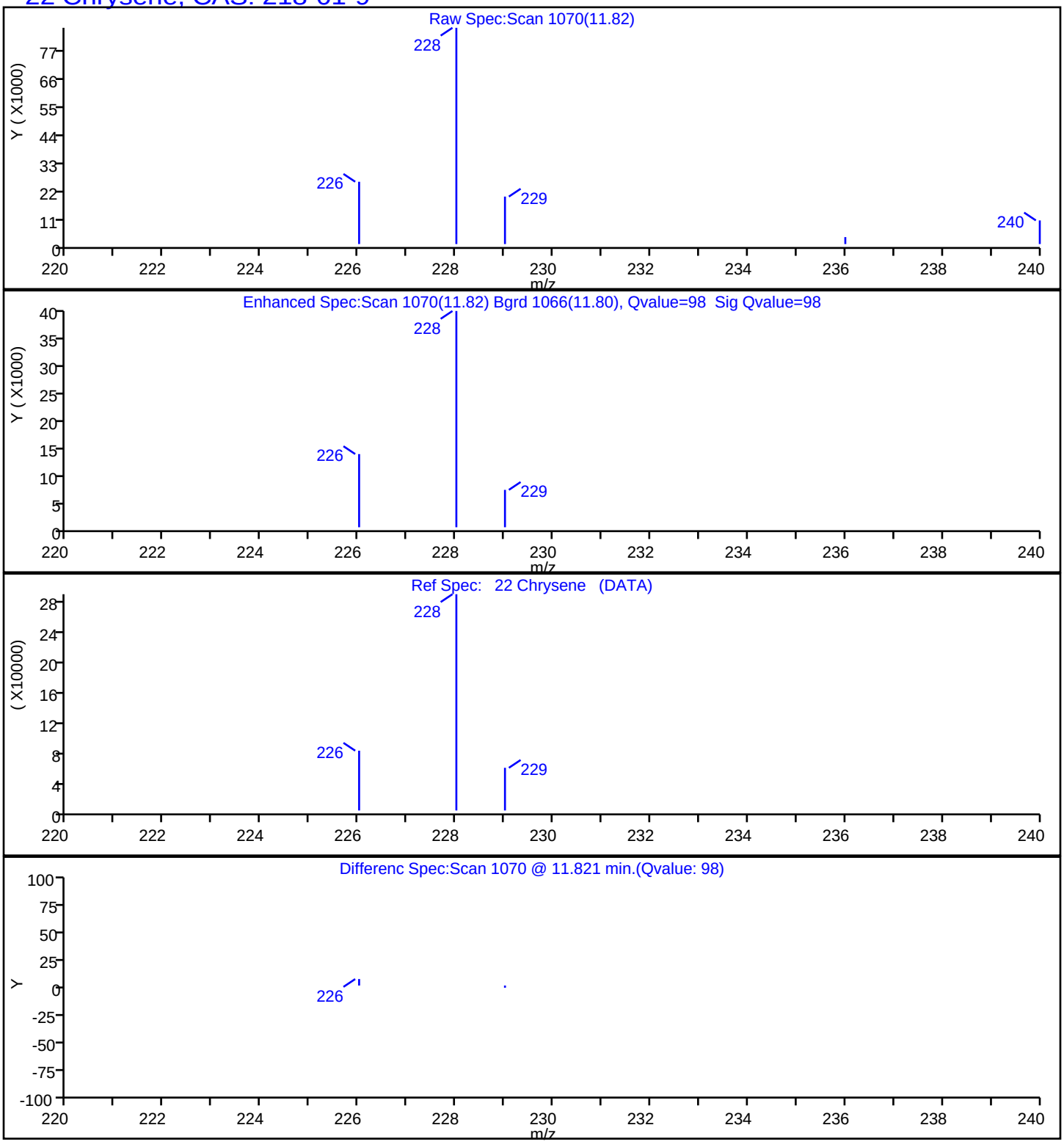


Report Date: 23-Jul-2019 13:54:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

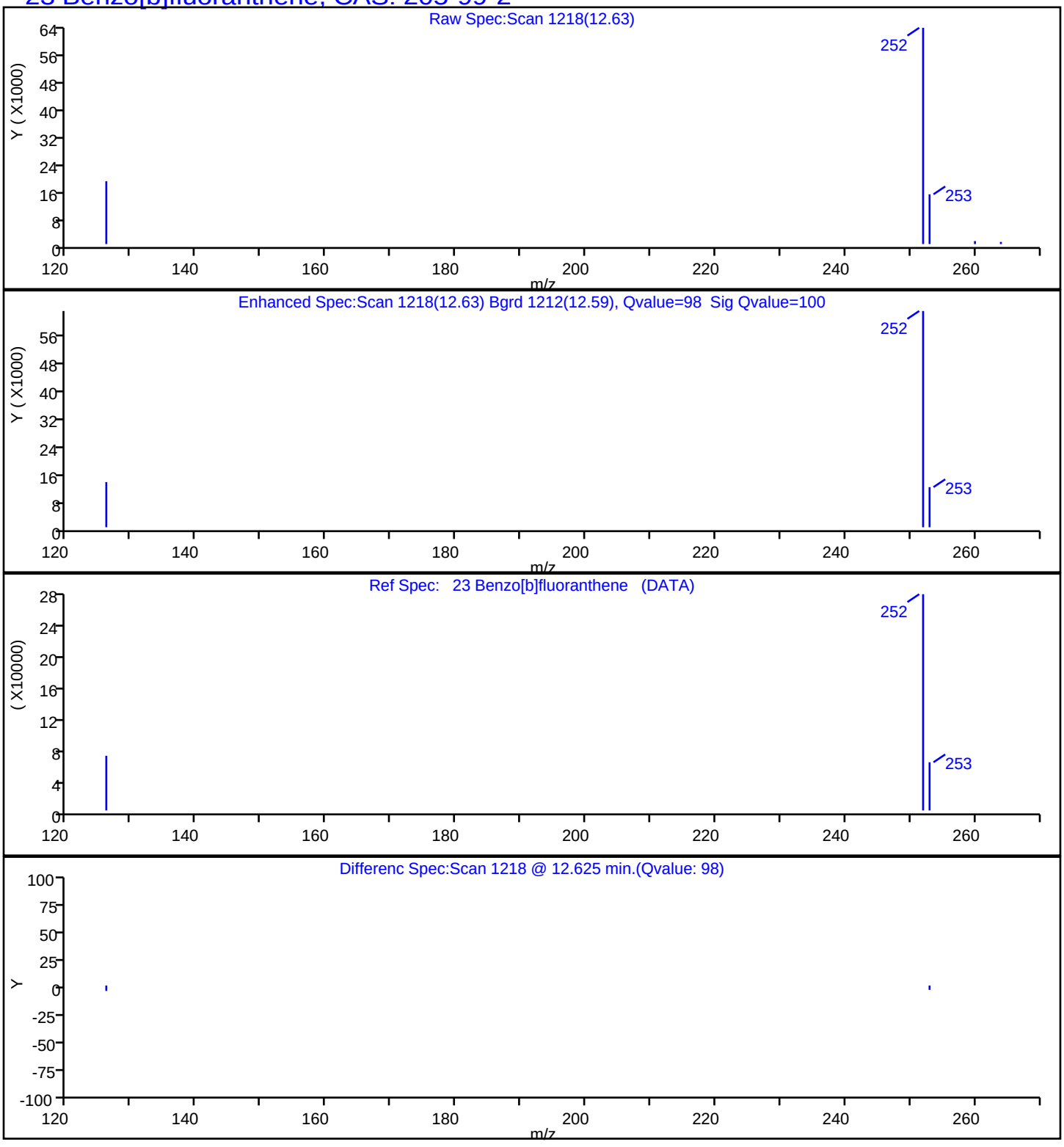


Report Date: 23-Jul-2019 13:54:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

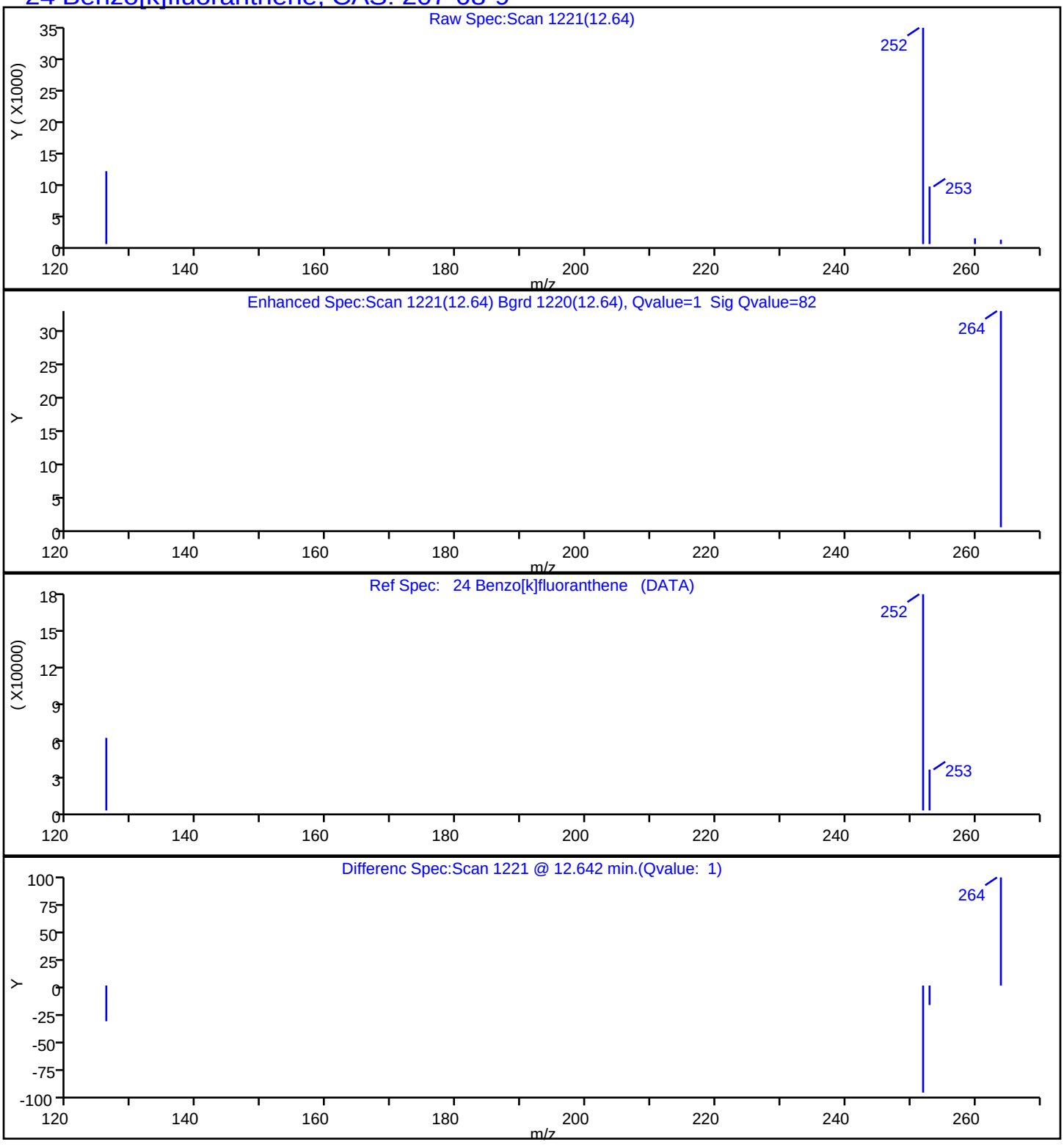


Report Date: 23-Jul-2019 13:54:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

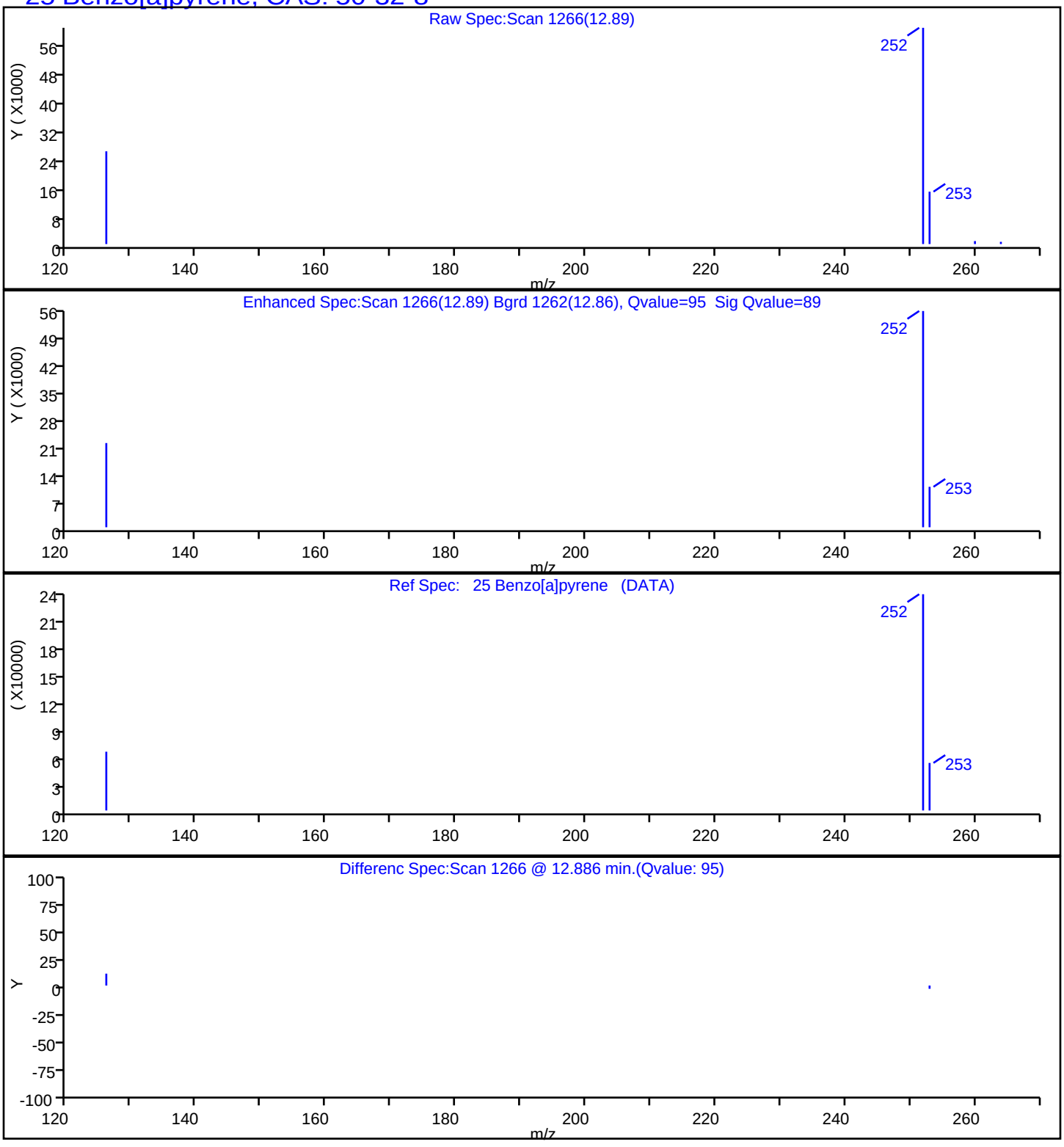


Report Date: 23-Jul-2019 13:54:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

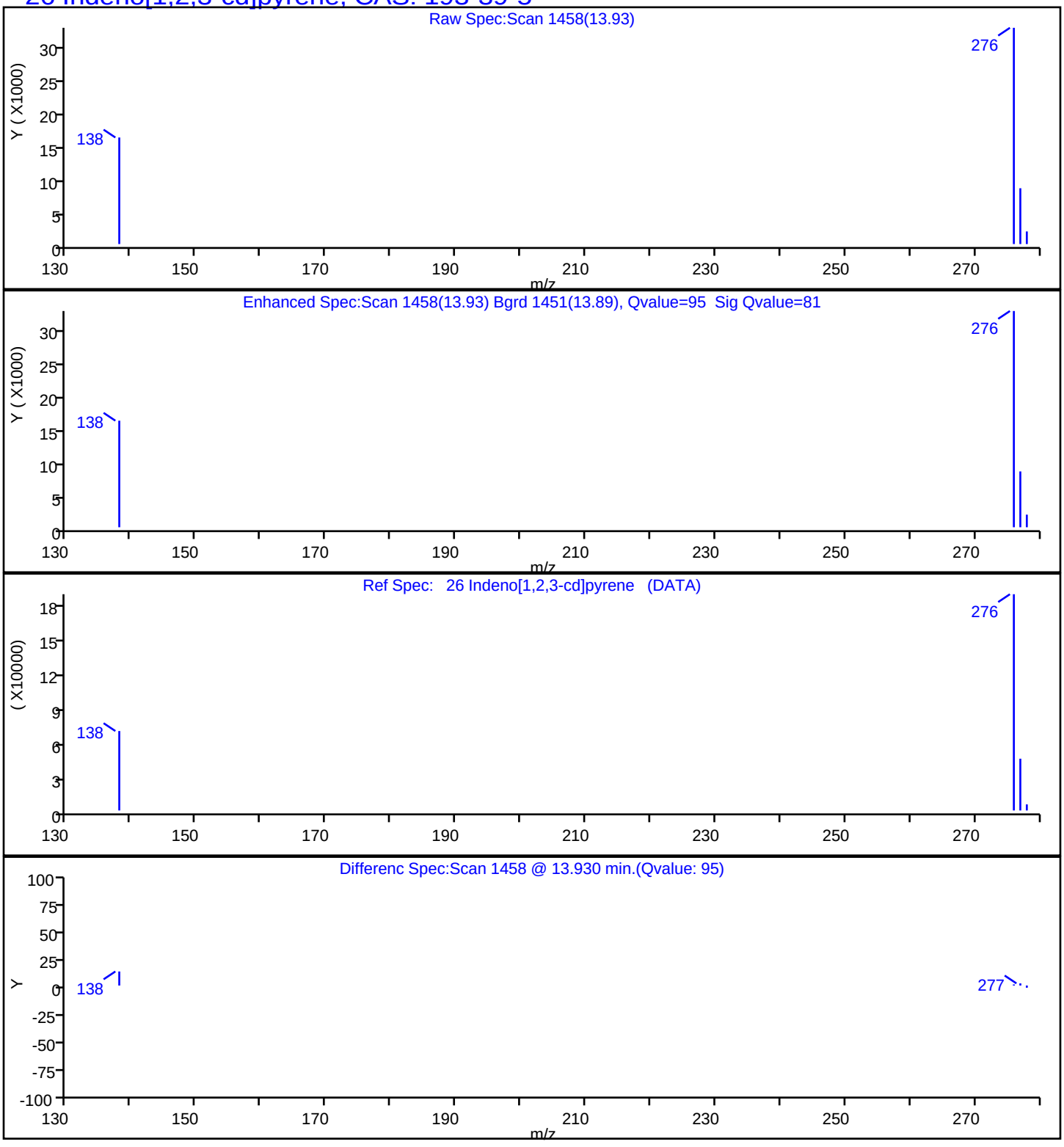


Report Date: 23-Jul-2019 13:54:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

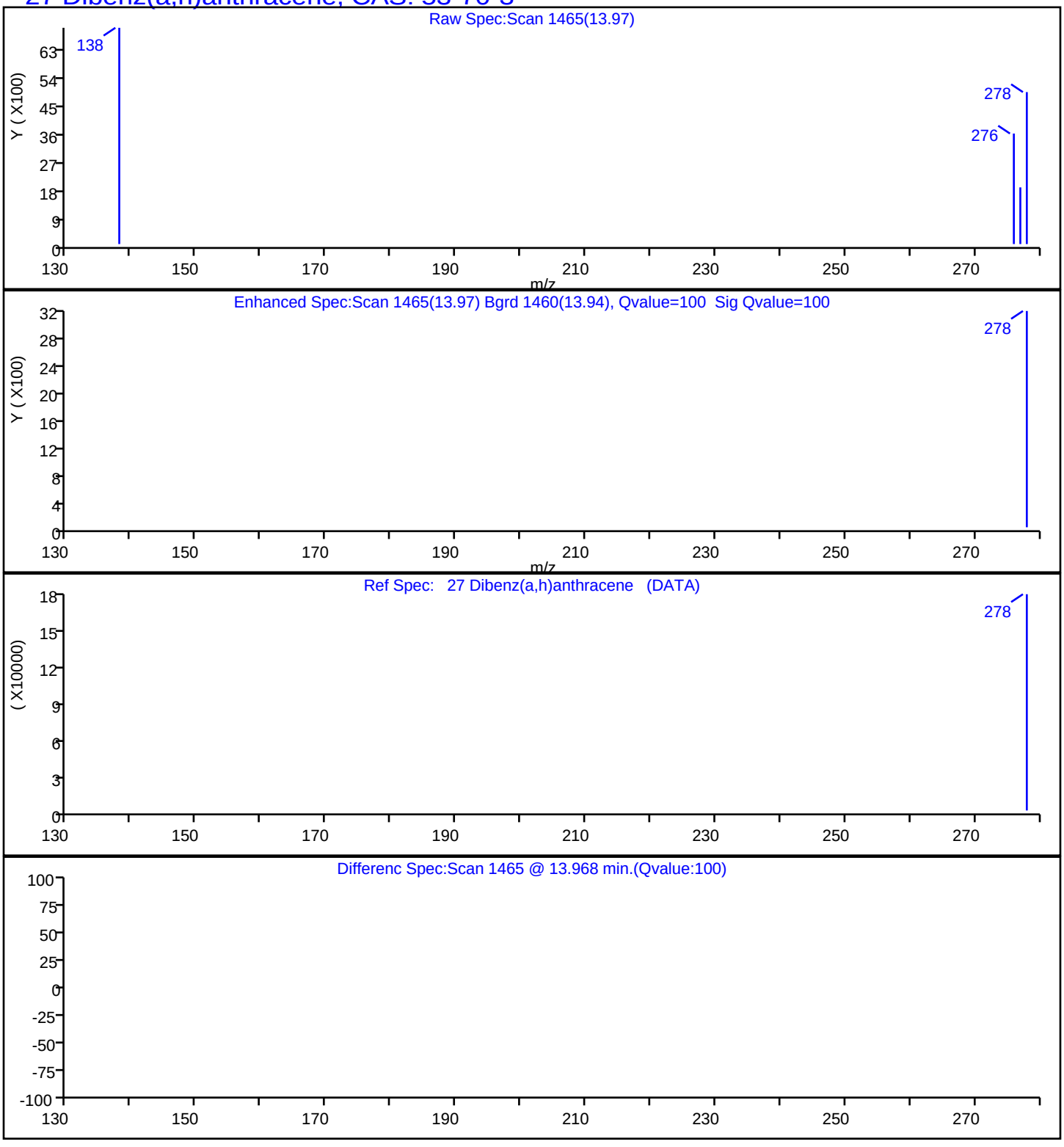


Report Date: 23-Jul-2019 13:54:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

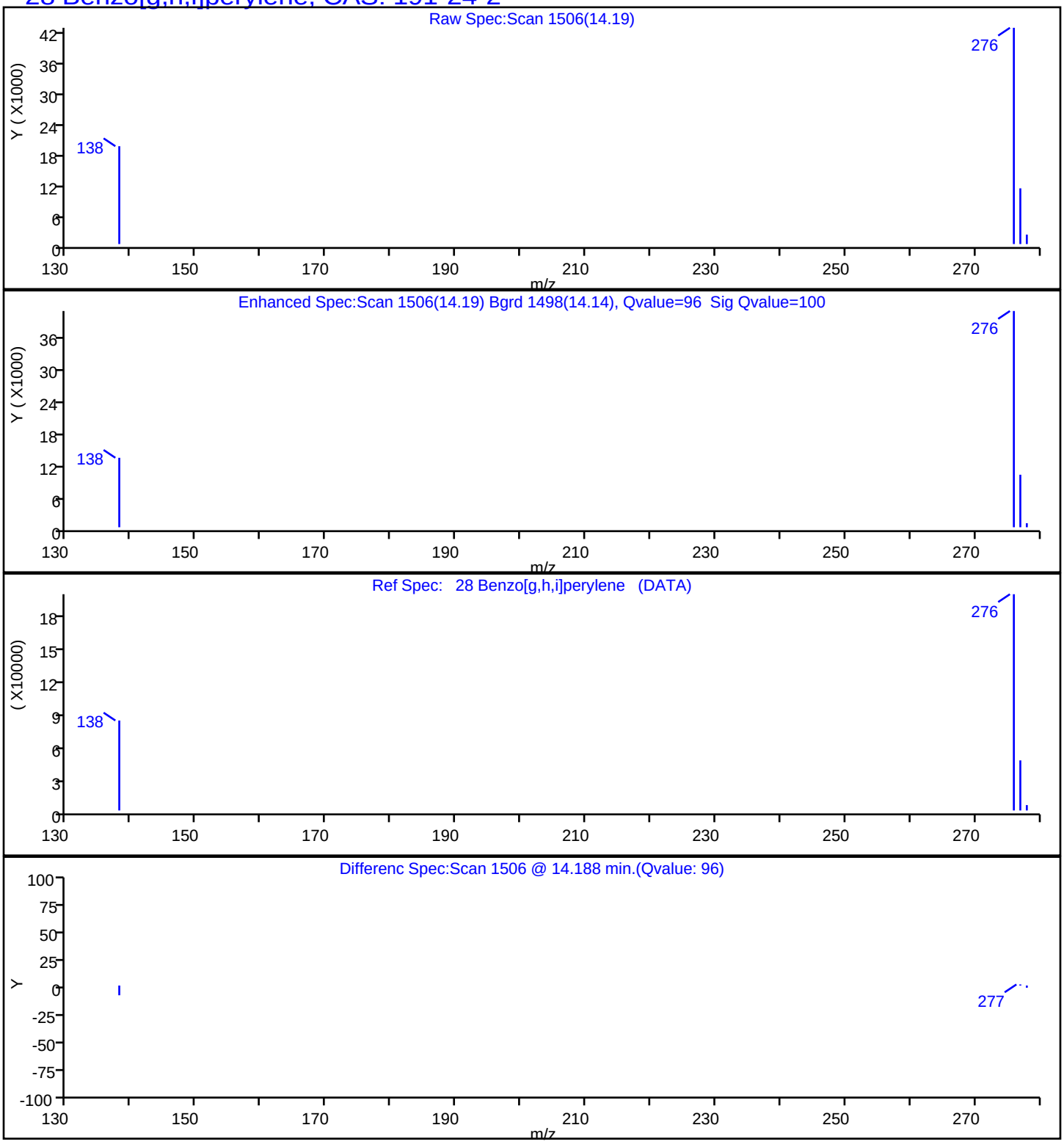


Report Date: 23-Jul-2019 13:54:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

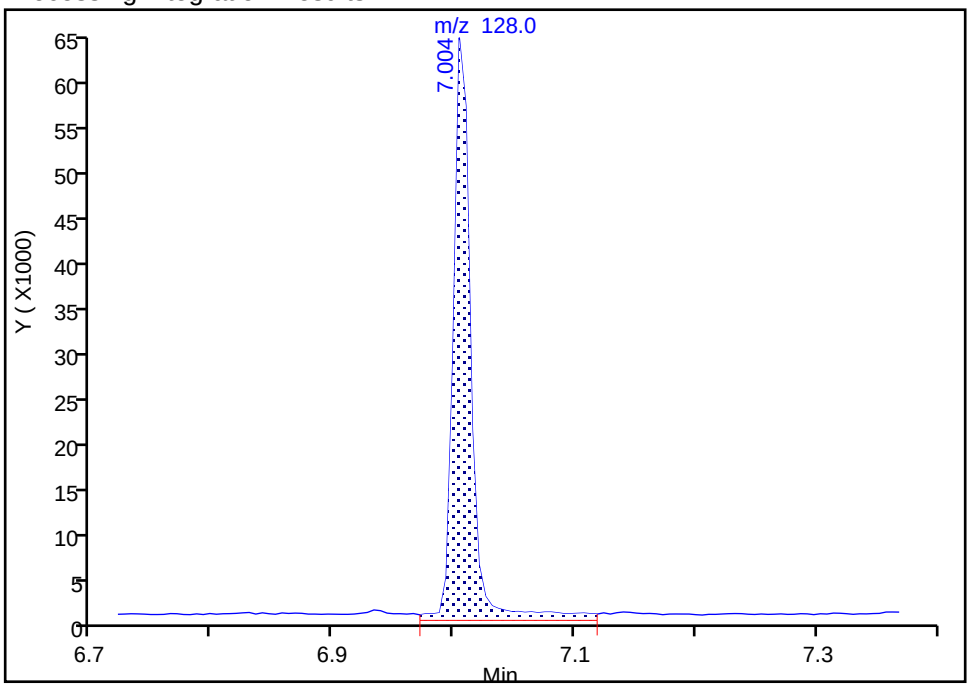
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

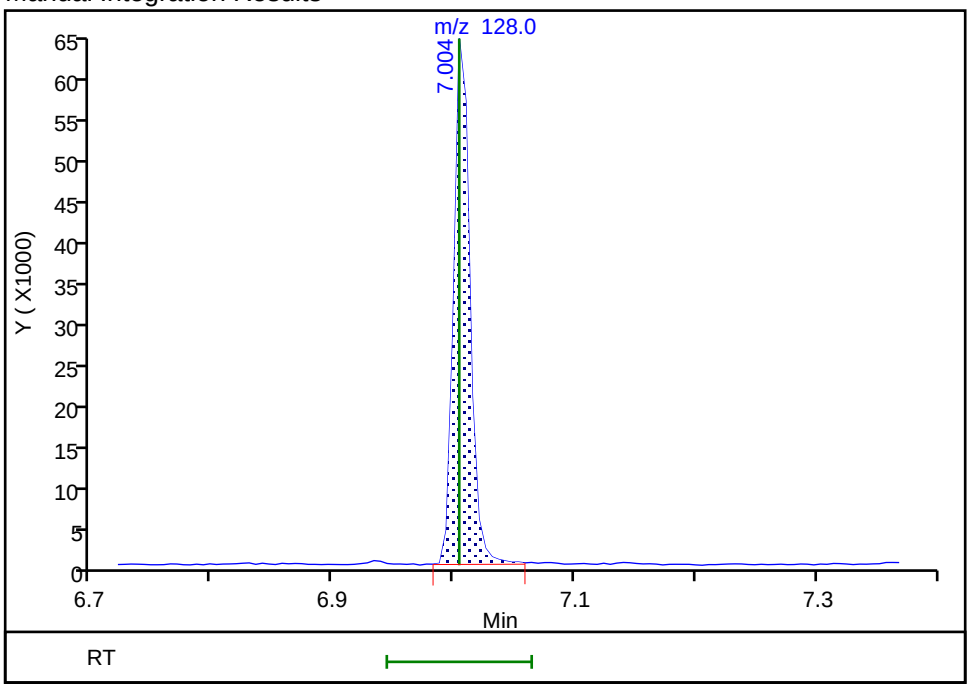
Processing Integration Results

RT: 7.00
Area: 66293
Amount: 15.538863
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 59710
Amount: 13.995830
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:46:40

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

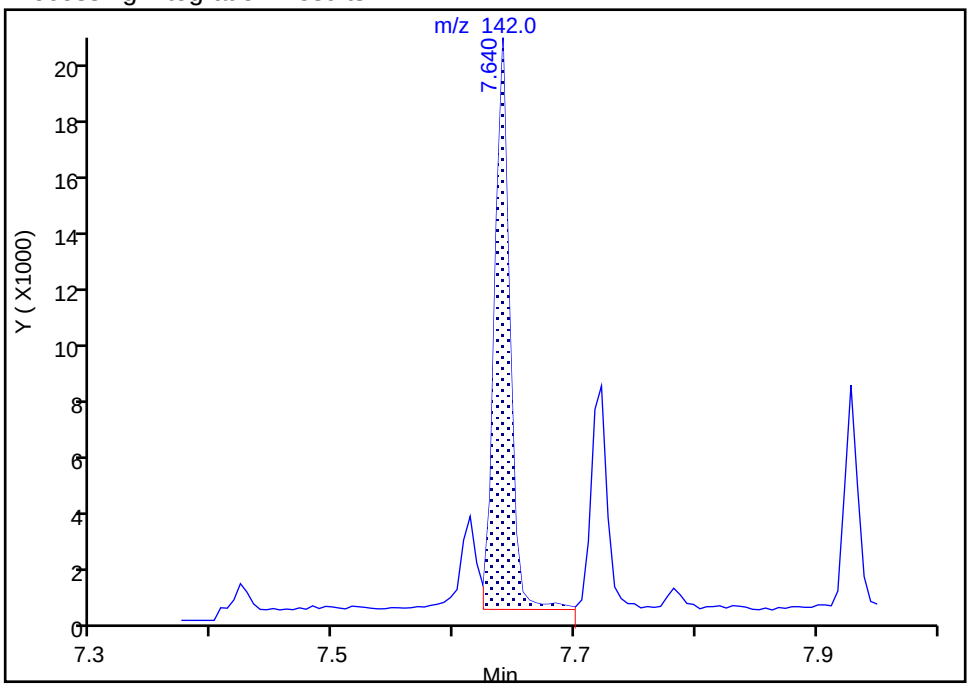
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

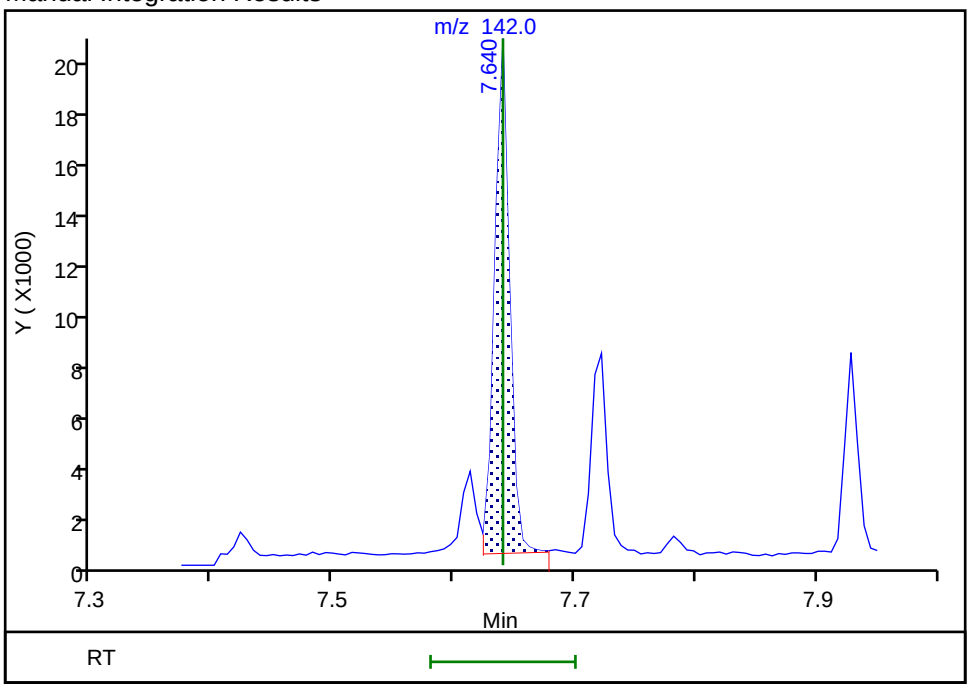
Processing Integration Results

RT: 7.64
Area: 17195
Amount: 6.145947
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 16700
Amount: 5.969021
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:46:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

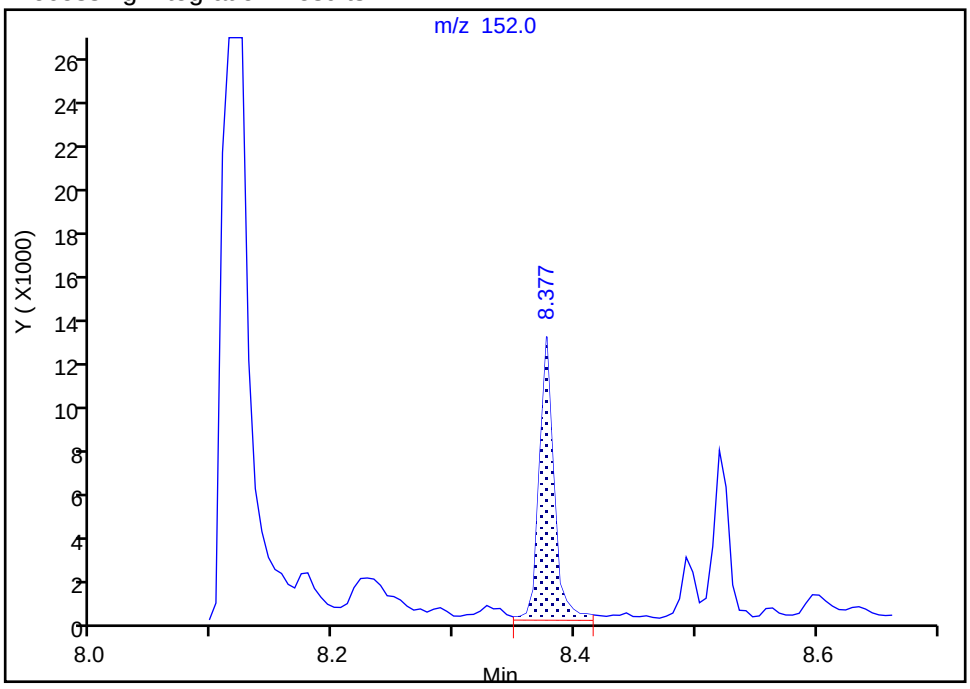
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

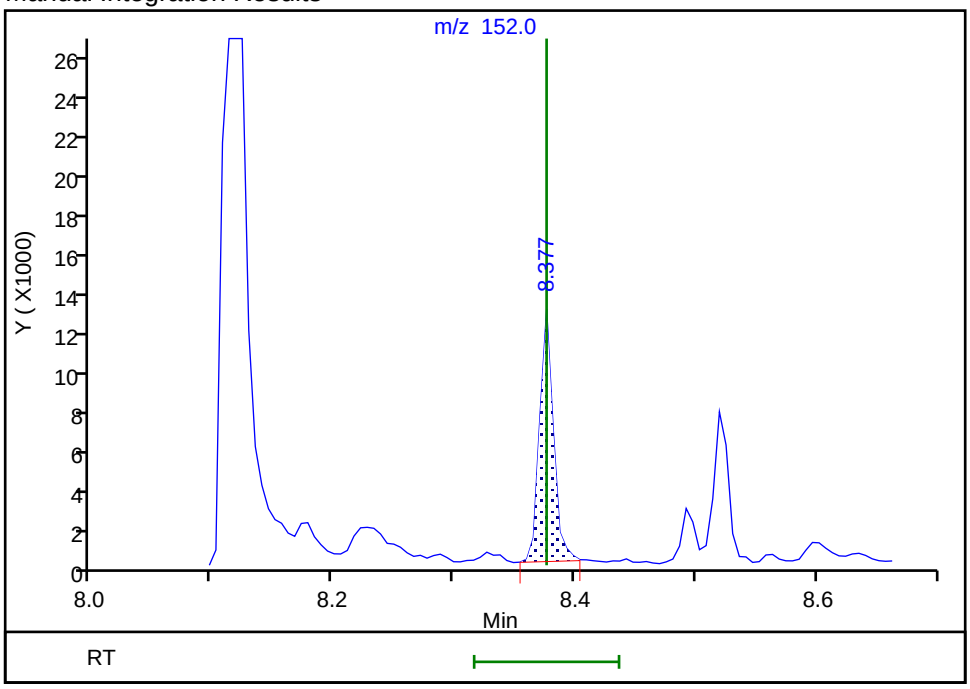
Processing Integration Results

RT: 8.38
Area: 10602
Amount: 2.896749
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 9784
Amount: 2.673250
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:46:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

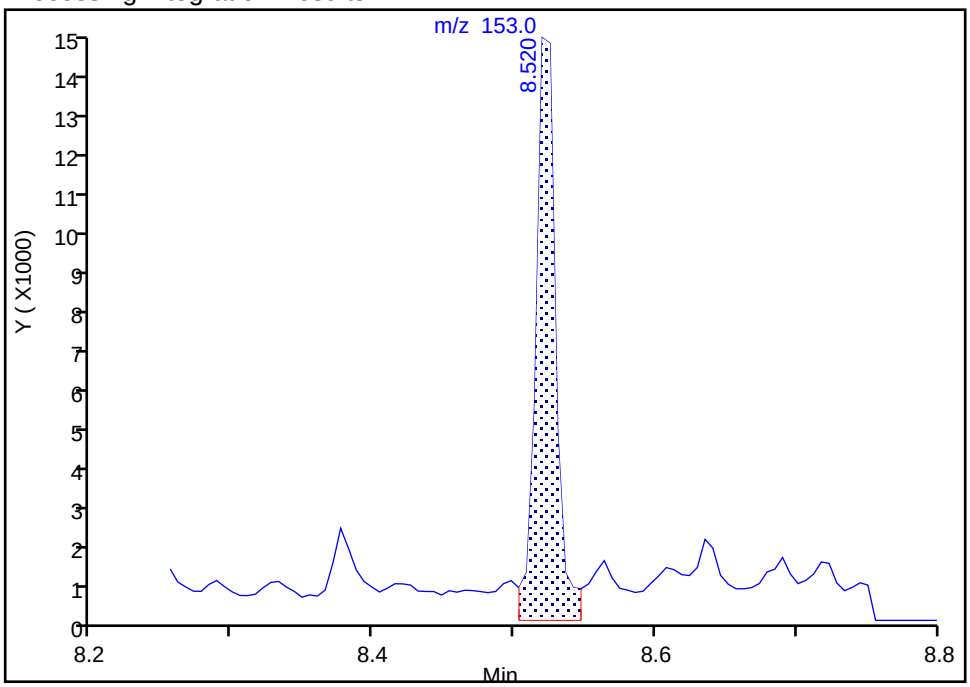
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

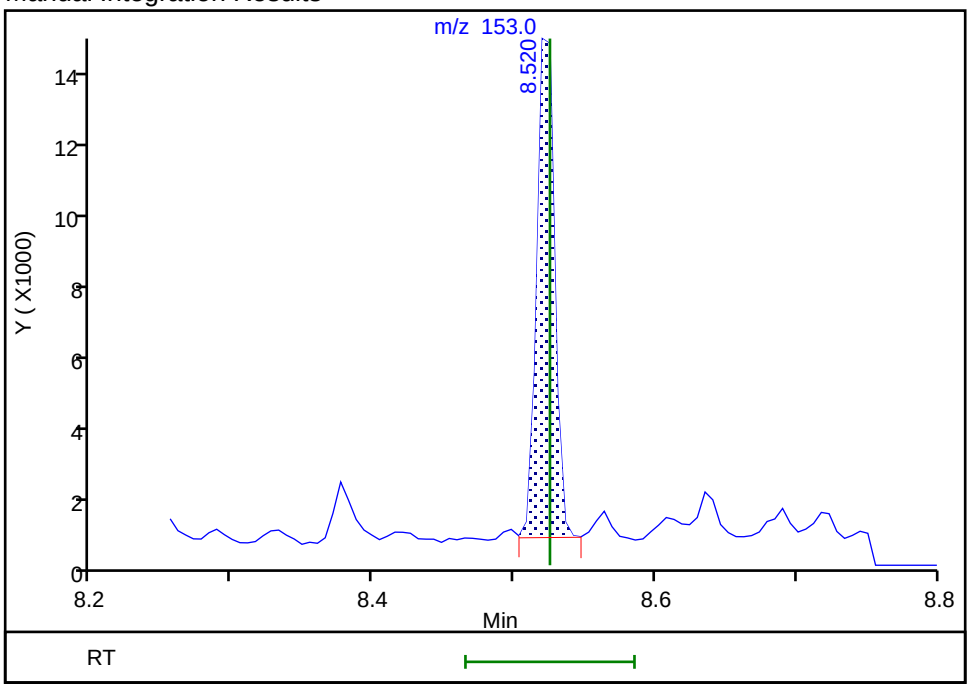
Processing Integration Results

RT: 8.52
Area: 14095
Amount: 5.304824
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 12090
Amount: 4.550218
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:47:03

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

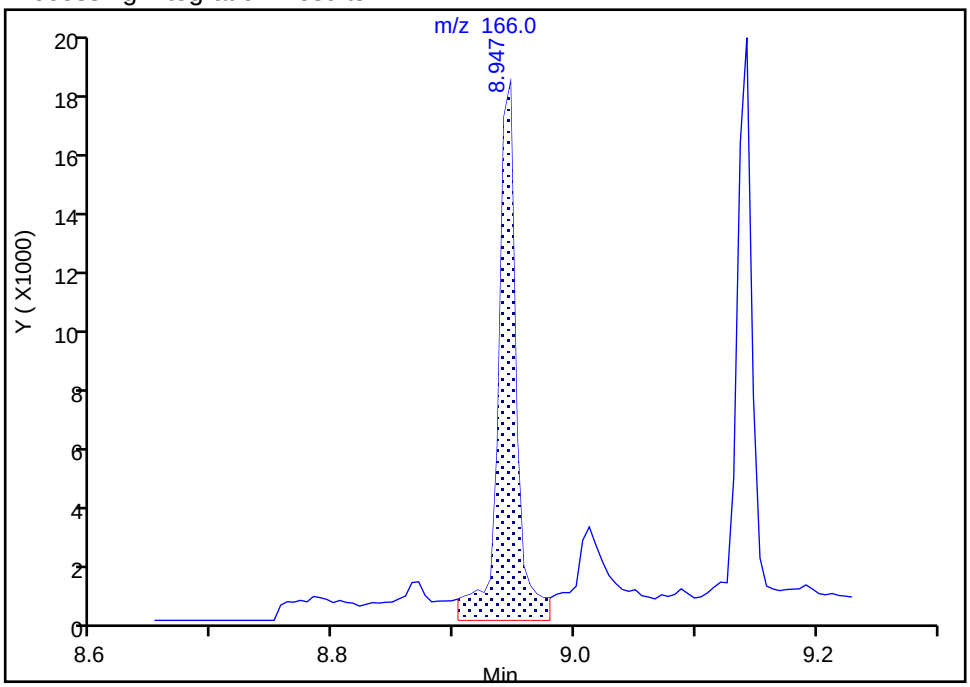
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

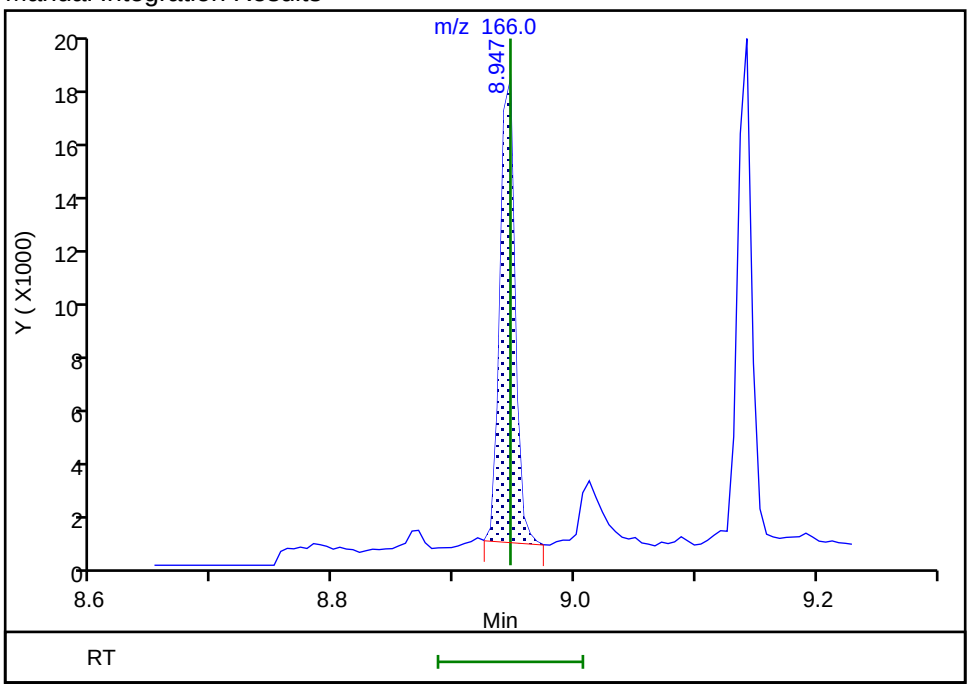
Processing Integration Results

RT: 8.95
Area: 18951
Amount: 7.123060
Amount Units: ug/L



Manual Integration Results

RT: 8.95
Area: 15077
Amount: 5.666950
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:47:11

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

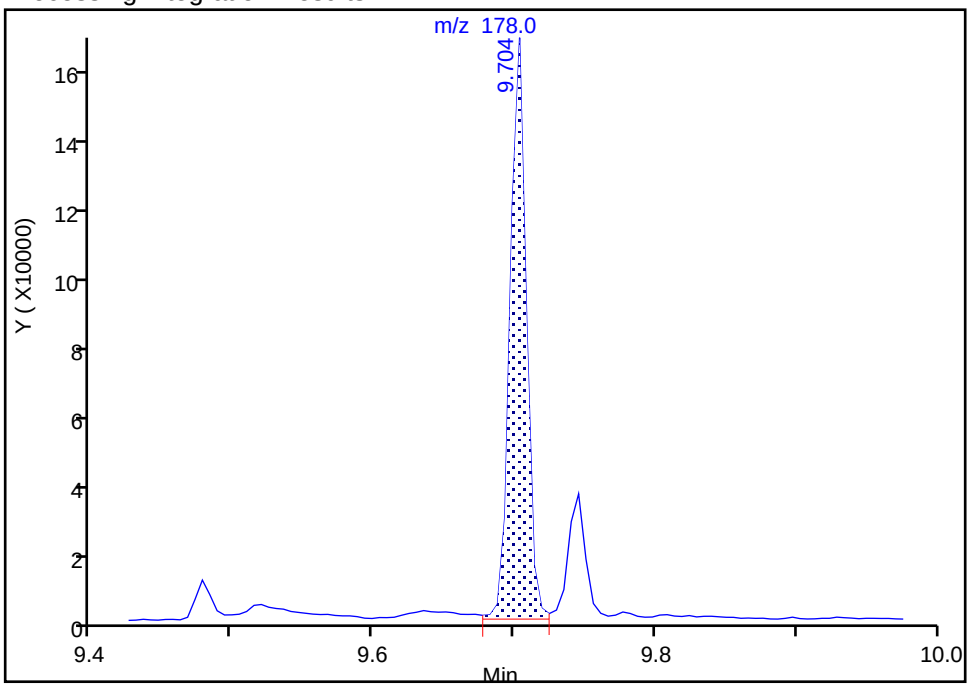
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

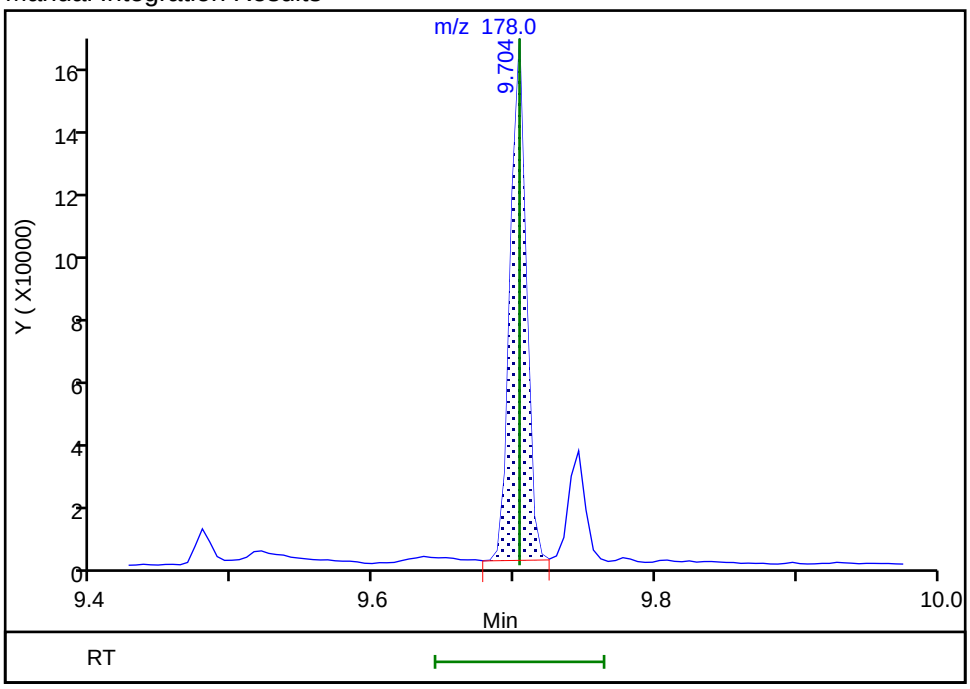
Processing Integration Results

RT: 9.70
Area: 131160
Amount: 32.957107
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 127902
Amount: 32.138456
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:47:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

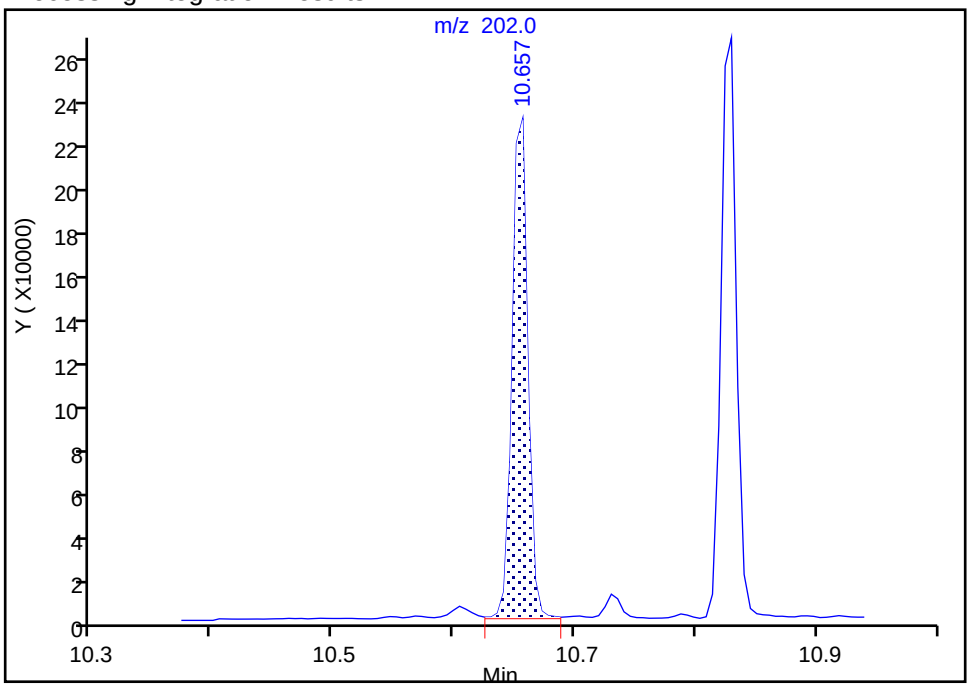
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

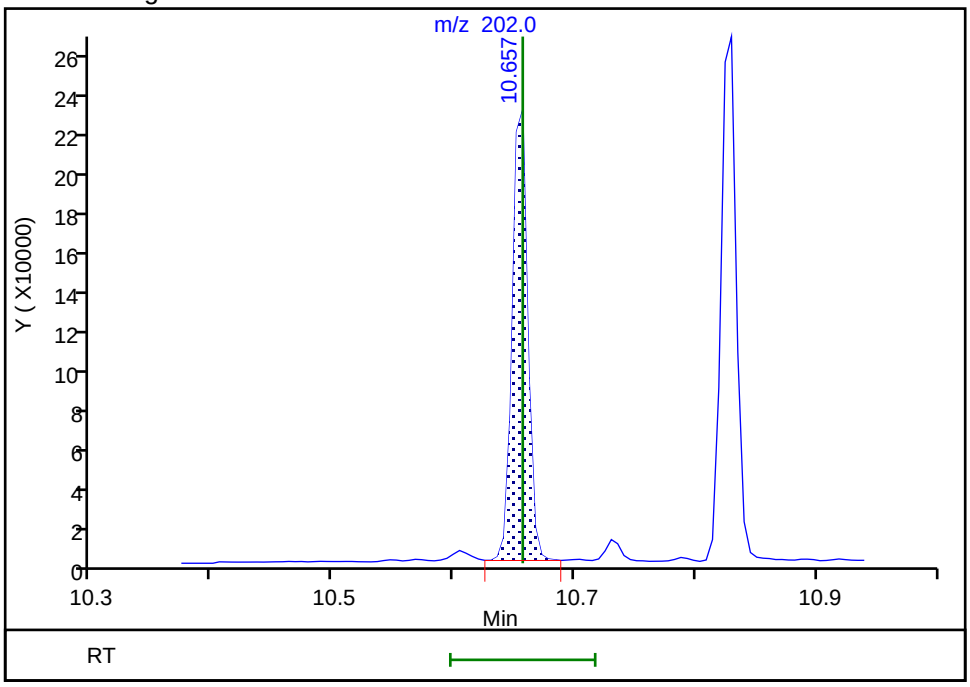
Processing Integration Results

RT: 10.66
Area: 206660
Amount: 54.812645
Amount Units: ug/L



Manual Integration Results

RT: 10.66
Area: 204254
Amount: 54.174499
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:47:44

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

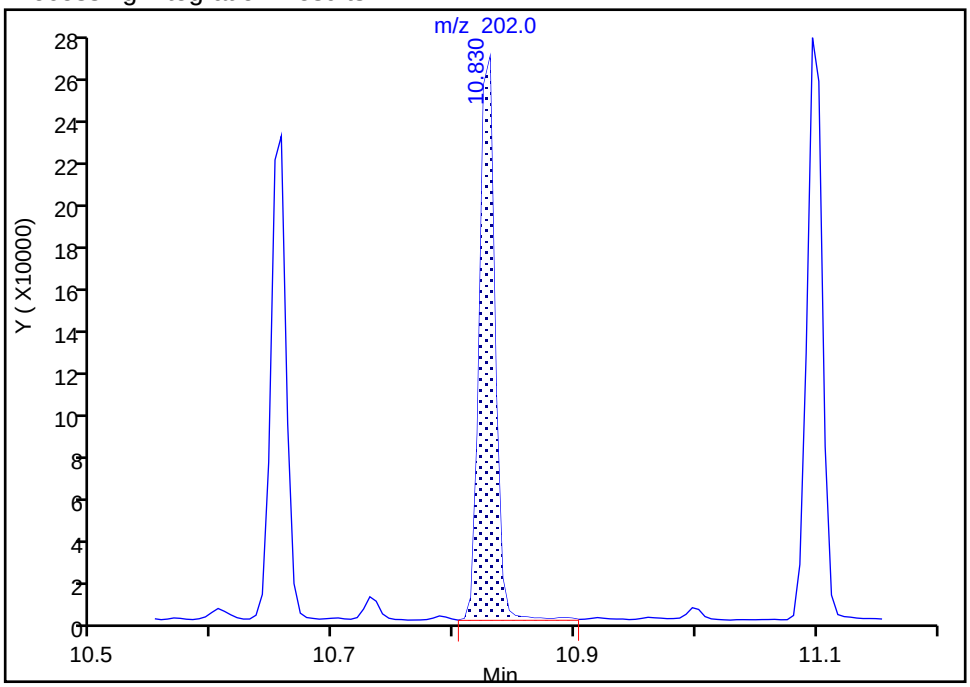
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

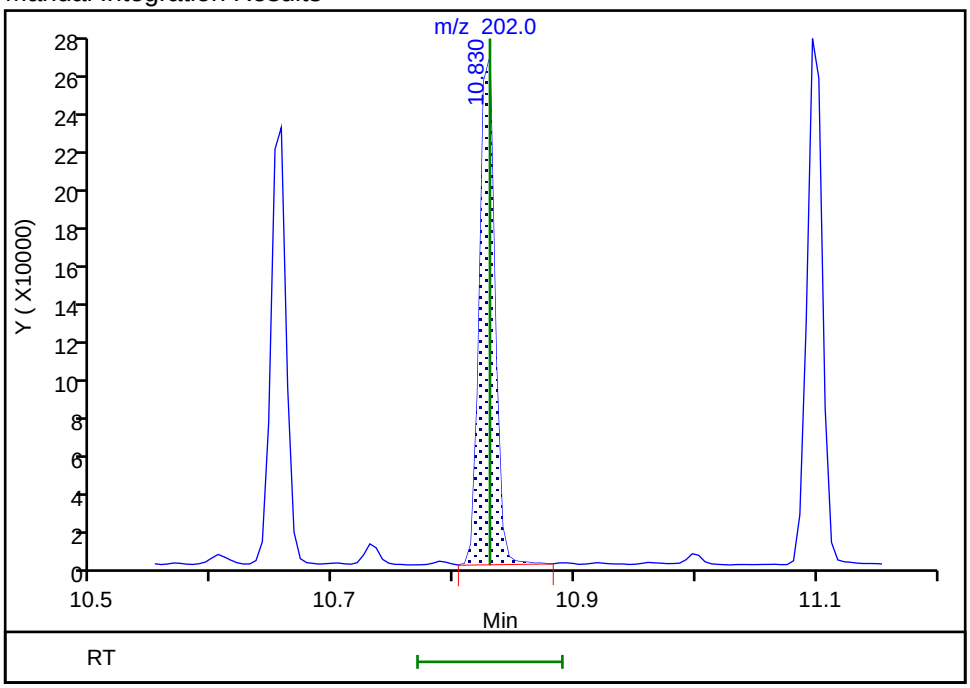
Processing Integration Results

RT: 10.83
Area: 240734
Amount: 60.624166
Amount Units: ug/L



Manual Integration Results

RT: 10.83
Area: 238121
Amount: 59.966133
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:47:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

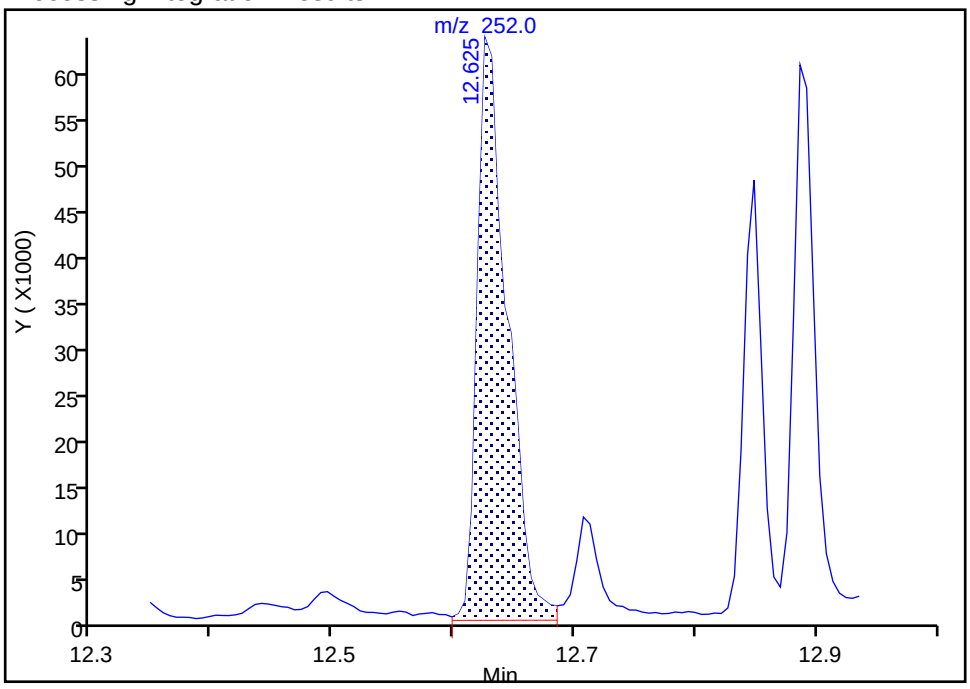
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

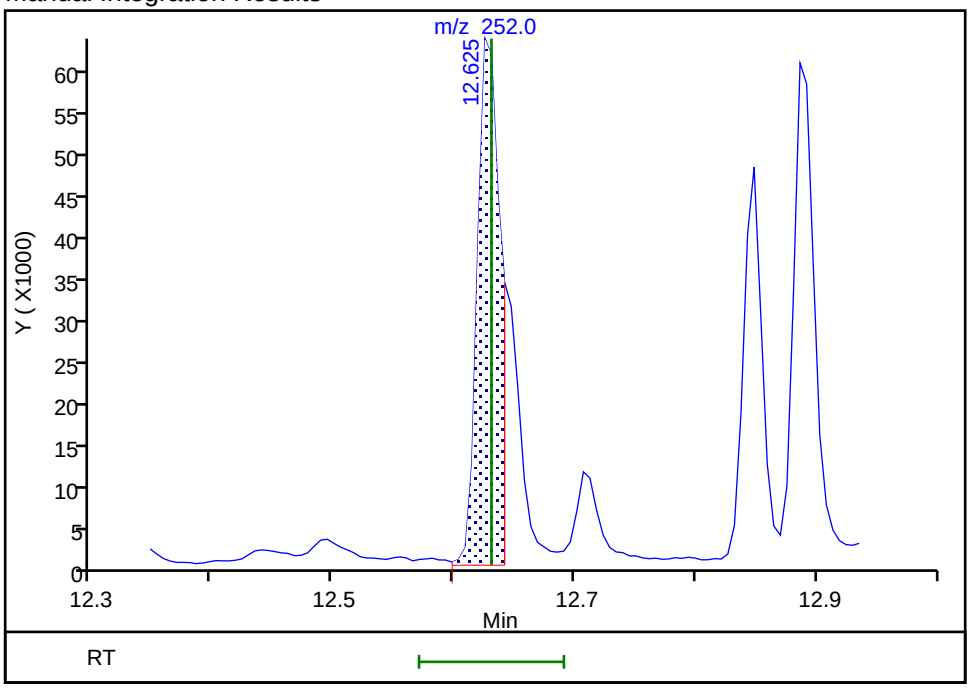
Processing Integration Results

RT: 12.63
Area: 107995
Amount: 35.099973
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 78307
Amount: 25.450934
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:48:08

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

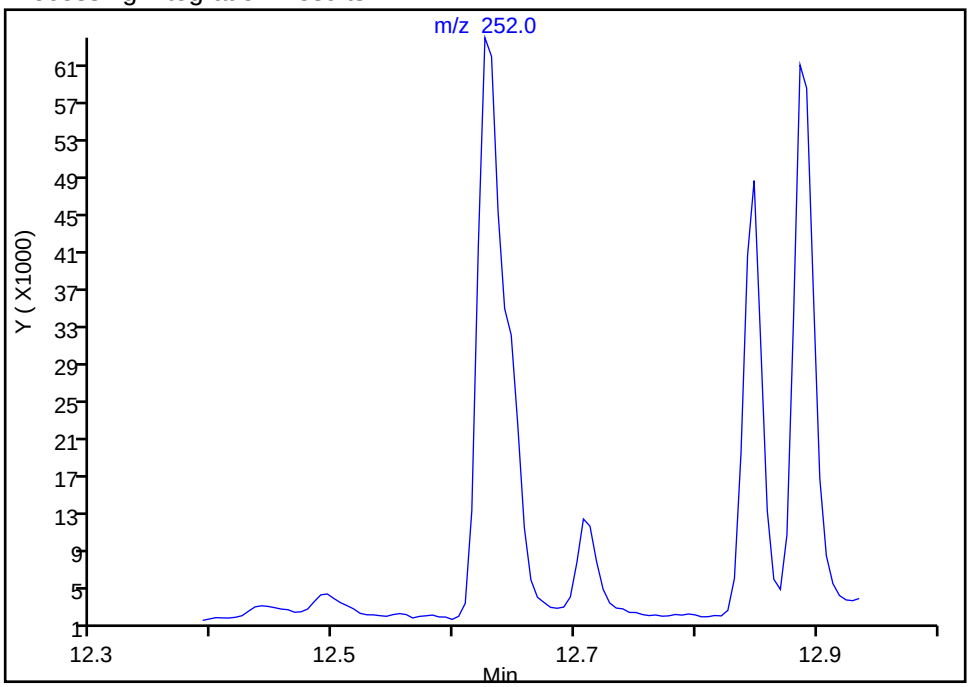
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

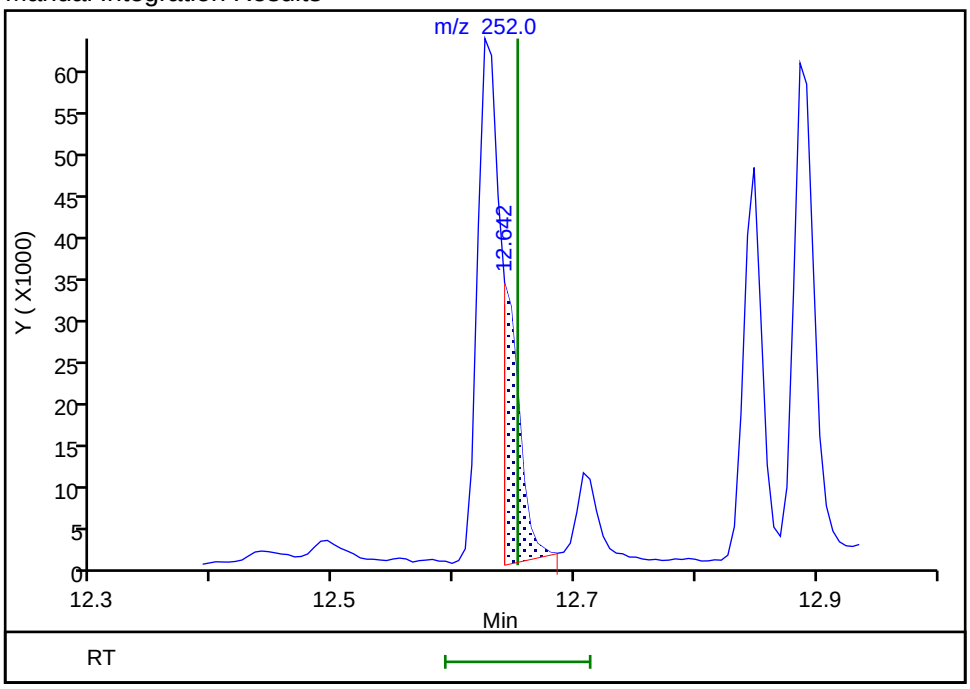
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 27564
Amount: 7.322533
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:49:49
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

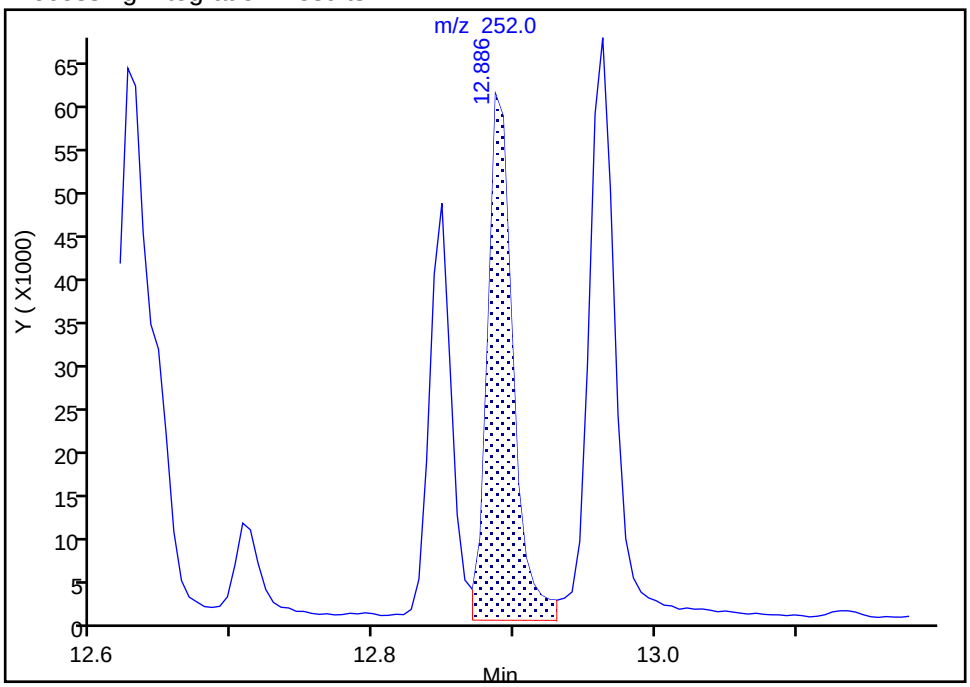
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

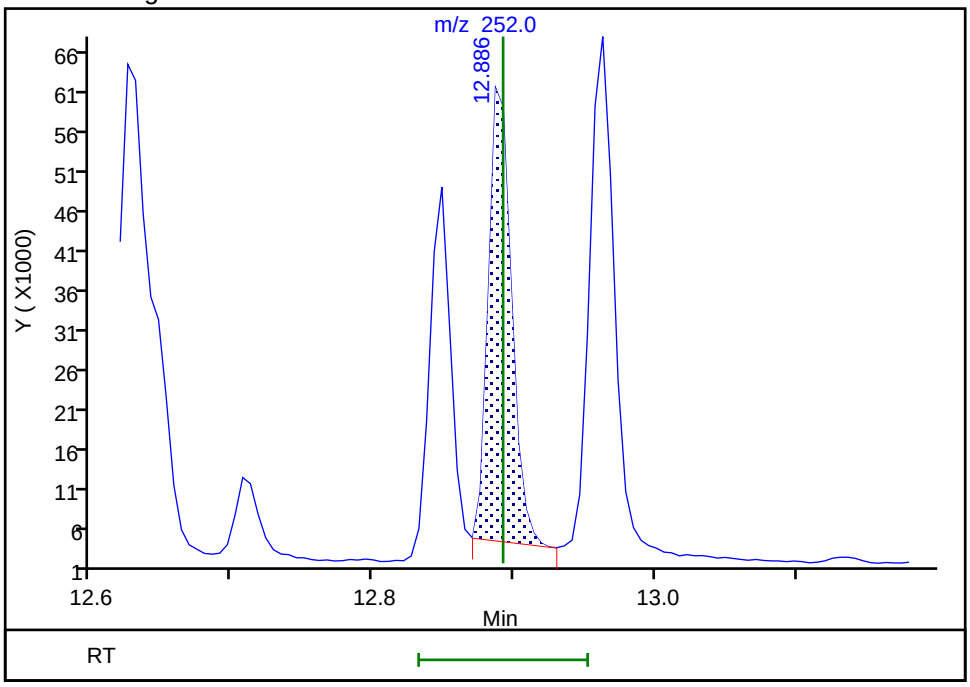
Processing Integration Results

RT: 12.89
Area: 74820
Amount: 24.004750
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 64645
Amount: 20.740270
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:49:37

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

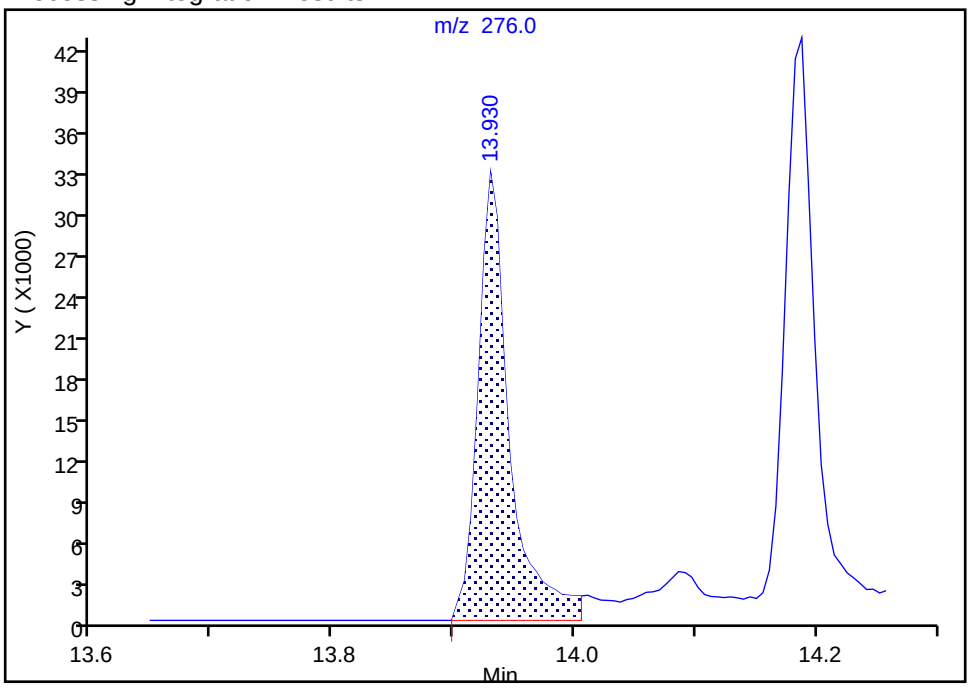
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

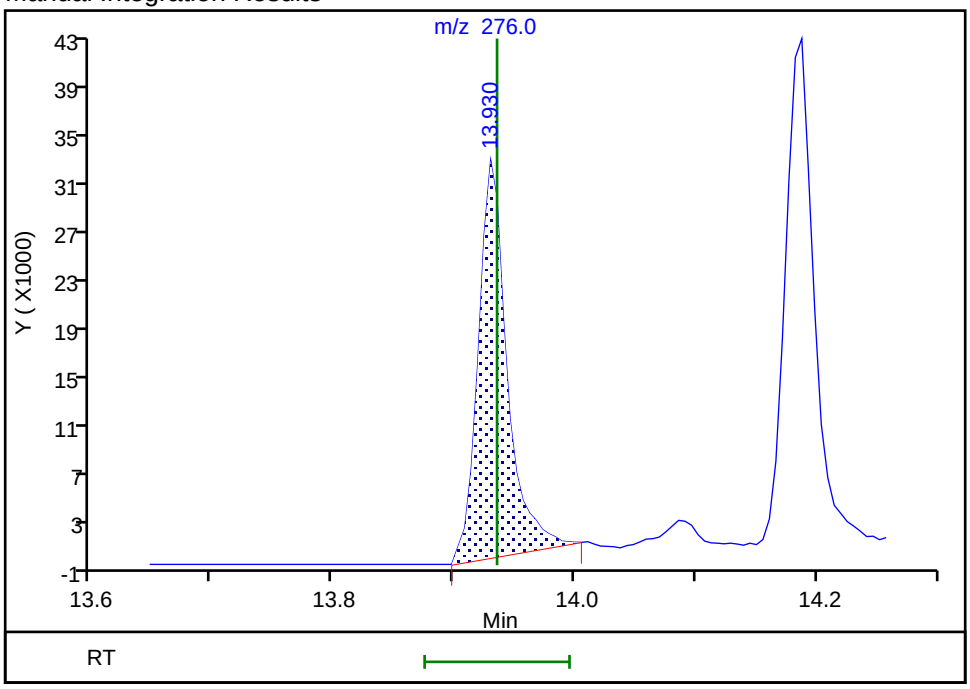
Processing Integration Results

RT: 13.93
Area: 58283
Amount: 24.621349
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 52883
Amount: 22.353956
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:53:56
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

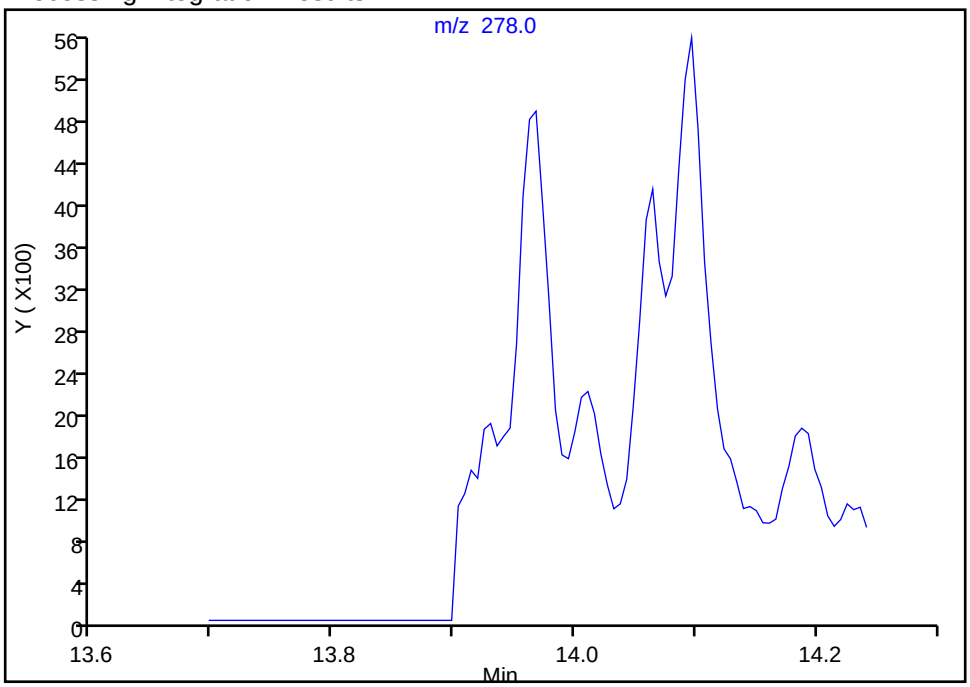
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

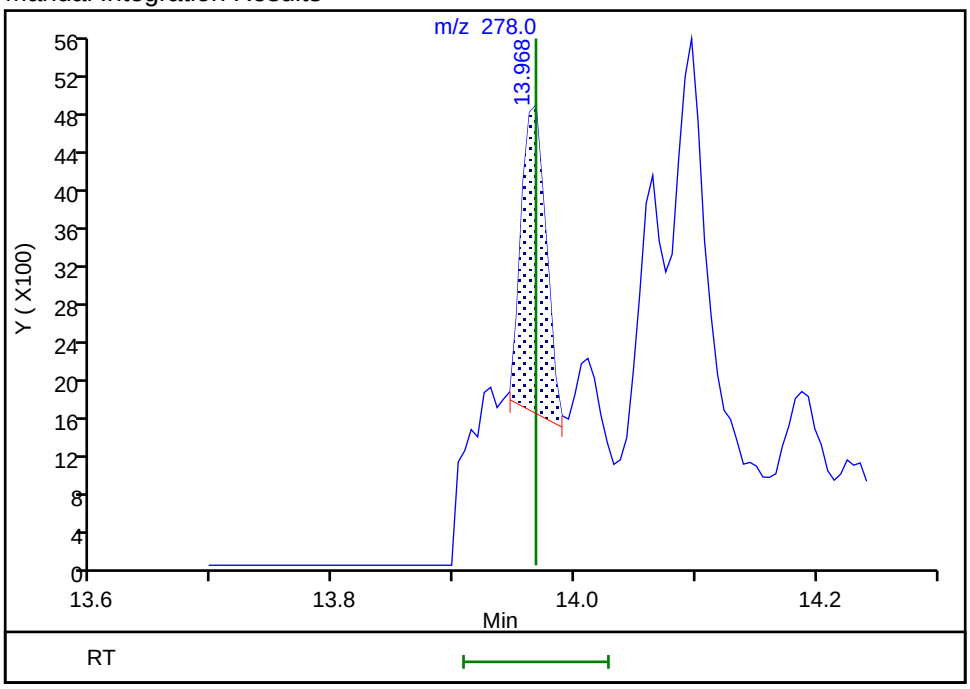
Not Detected
Expected RT: 13.97

Processing Integration Results



Manual Integration Results

RT: 13.97
Area: 4608
Amount: 2.625036
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:50:05
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

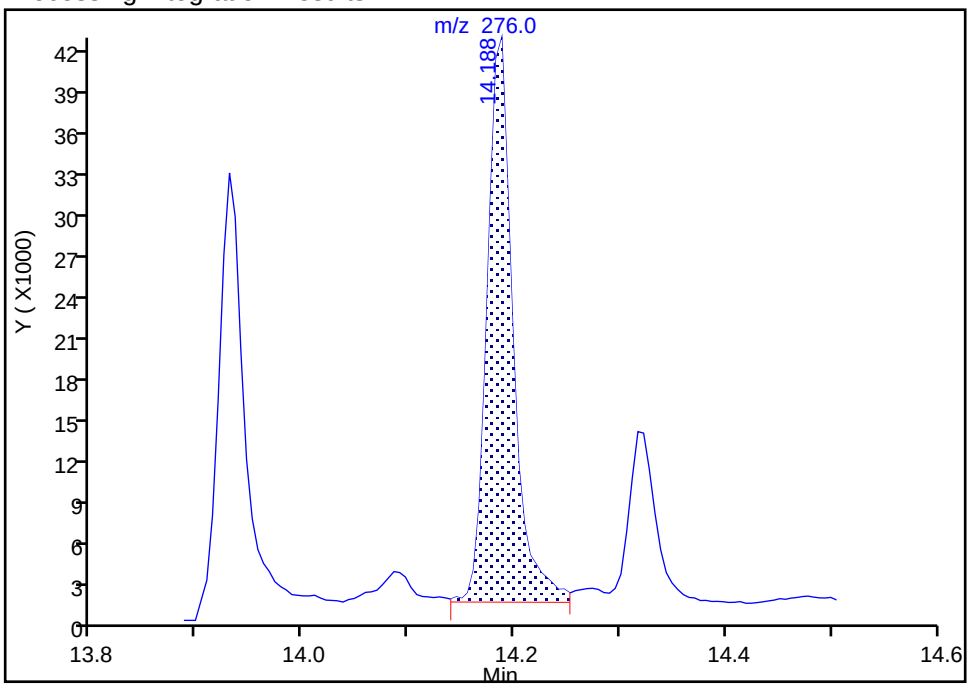
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A006.D				
Injection Date:	22-Jul-2019 12:55:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-1-A	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	KFS	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

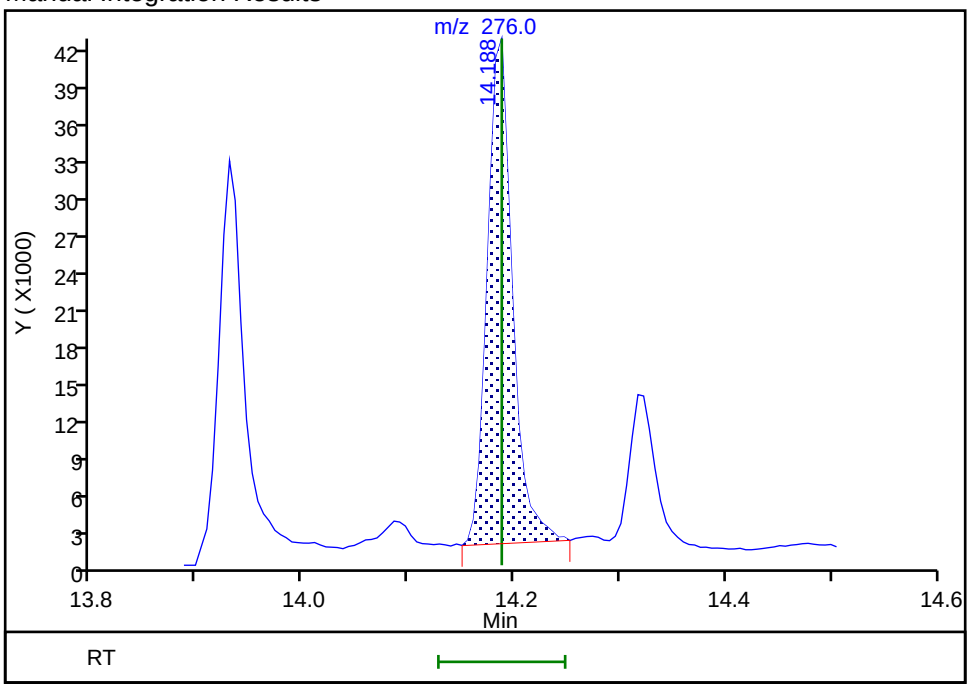
Processing Integration Results

RT: 14.19
Area: 69441
Amount: 20.439562
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 66398
Amount: 19.555374
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:50:26

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Matrix: Solid Lab File ID: 072219A007.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 08:44

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10.463(g) Date Analyzed: 07/22/2019 13:22

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	55		16	5.2
91-57-6	2-Methylnaphthalene	19		16	6.5
90-12-0	1-Methylnaphthalene	12	J	16	2.0
208-96-8	Acenaphthylene	19		16	1.6
83-32-9	Acenaphthene	24		16	1.9
86-73-7	Fluorene	26		16	1.6
85-01-8	Phenanthrene	180		16	5.2
120-12-7	Anthracene	36		16	1.9
206-44-0	Fluoranthene	260		16	4.5
129-00-0	Pyrene	310		16	3.1
56-55-3	Benzo[a]anthracene	110		16	2.4
218-01-9	Chrysene	120		16	4.8
205-99-2	Benzo[b]fluoranthene	140		16	1.9
207-08-9	Benzo[k]fluoranthene	38		16	1.9
50-32-8	Benzo[a]pyrene	130		16	2.7
193-39-5	Indeno[1,2,3-cd]pyrene	160		16	1.9
53-70-3	Dibenz(a,h)anthracene	15	J B	16	2.3
191-24-2	Benzo[g,h,i]perylene	130	B	16	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	64		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D
Lims ID: 580-87706-A-2-A
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:22:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-2-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:53:58 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:54:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	391585	100.0	
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	94	178053	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	310796	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	229183	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	259177	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1513945	643.4	
10 Naphthalene	128	7.004	7.004	0.000	100	75849	17.3	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	98	16974	5.92	M
12 1-Methylnaphthalene	142	7.722	7.722	0.000	93	9798	3.66	
13 Acenaphthylene	152	8.376	8.376	0.000	100	23038	5.93	M
14 Acenaphthene	153	8.519	8.525	-0.006	68	21274	7.55	M
15 Fluorene	166	8.941	8.947	-0.006	93	22977	8.14	M
17 Phenanthrene	178	9.703	9.704	-0.001	99	243059	57.6	M
18 Anthracene	178	9.745	9.745	0.000	100	44122	11.2	M
19 Fluoranthene	202	10.651	10.657	-0.006	88	331376	82.9	M
20 Pyrene	202	10.824	10.830	-0.006	100	410514	97.5	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	95	93012	35.6	M
22 Chrysene	228	11.820	11.821	-0.001	98	131146	37.8	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	146206	43.8	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	48103	11.8	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	94	135253	40.0	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	96	127897	49.6	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	11815	4.69	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	97	156217	42.1	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

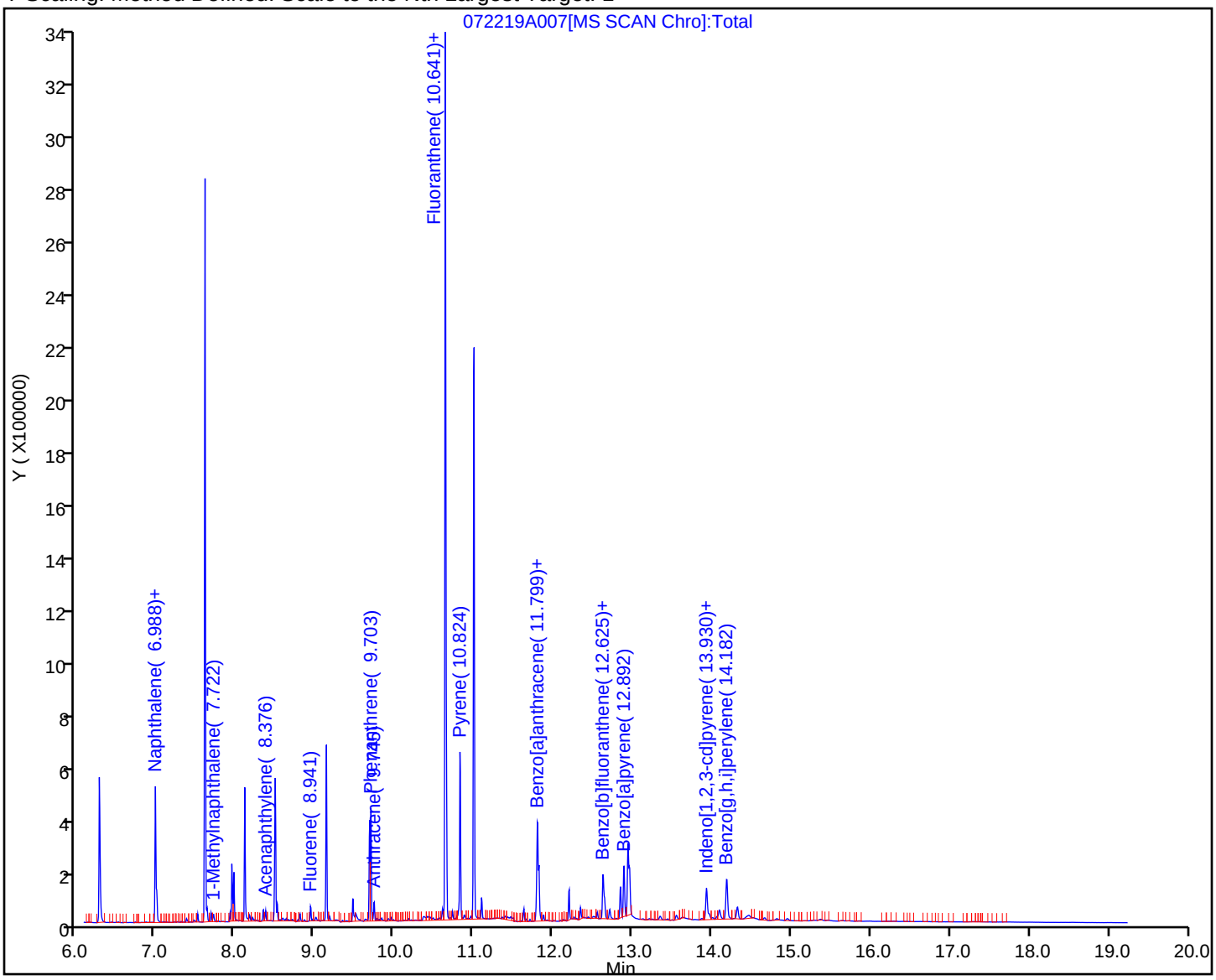
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle

Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D
Lims ID: 580-87706-A-2-A
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:22:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-2-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:53:58 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:54:18

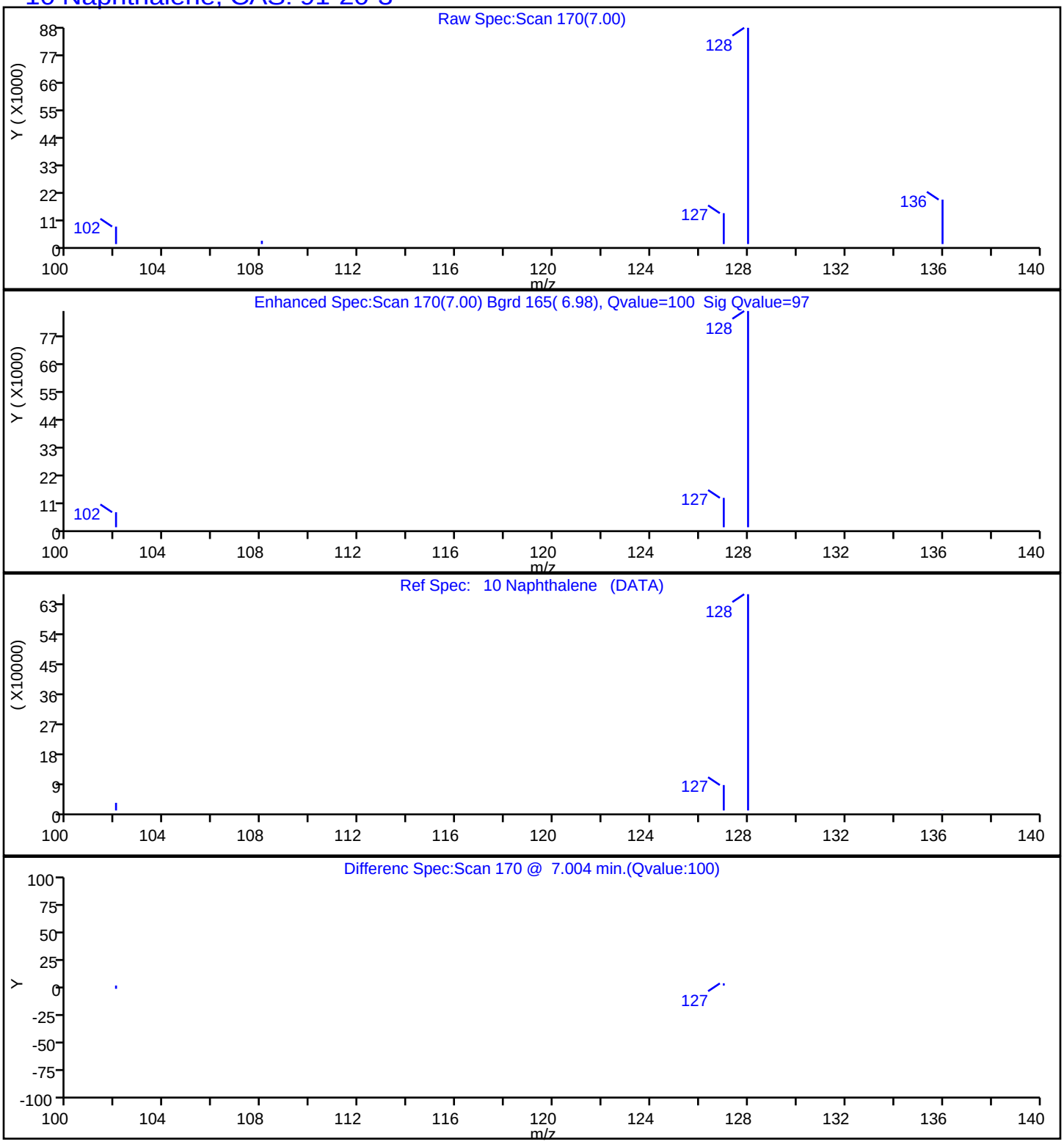
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	643.4	64.34

Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

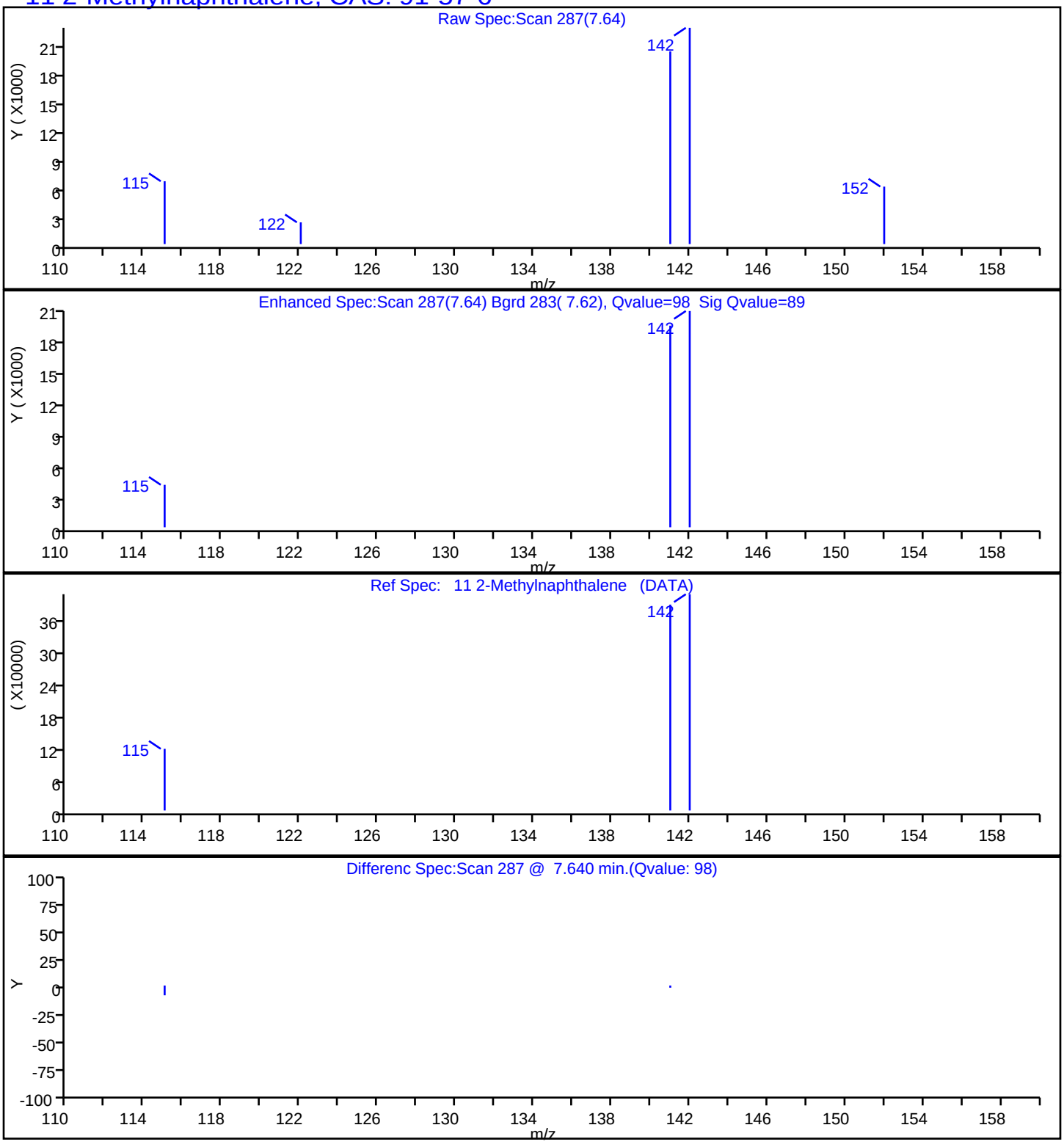


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

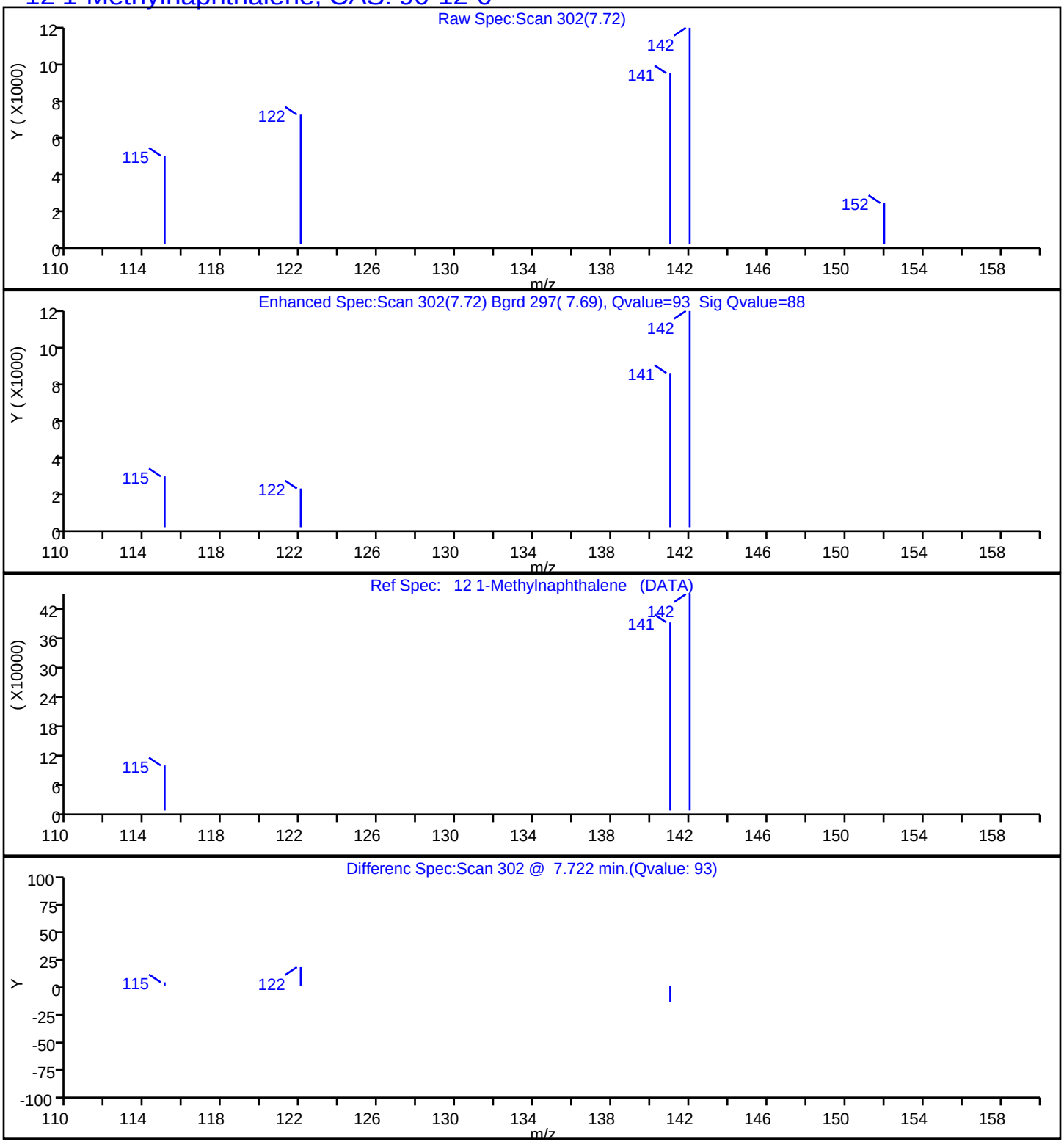


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

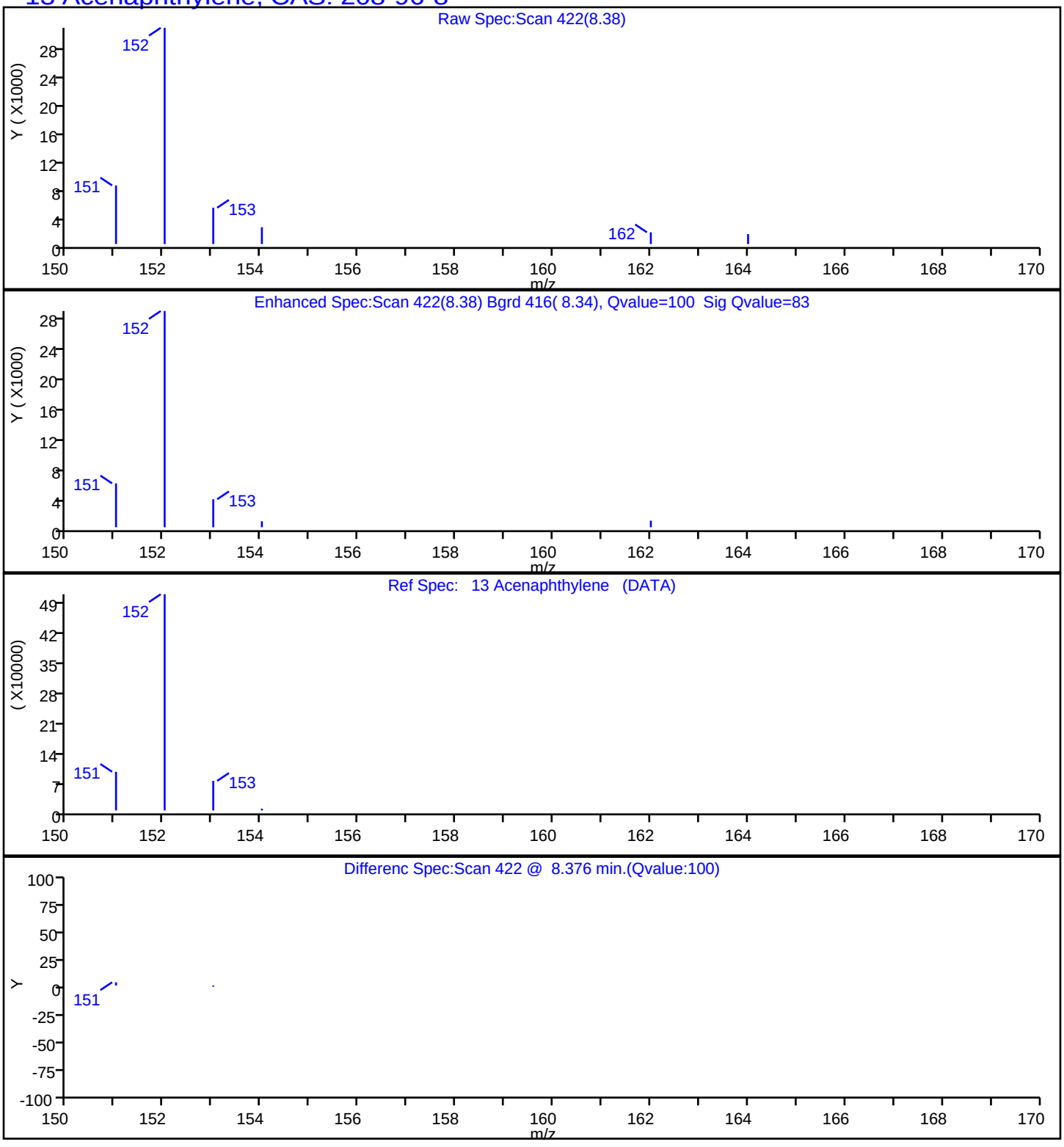


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

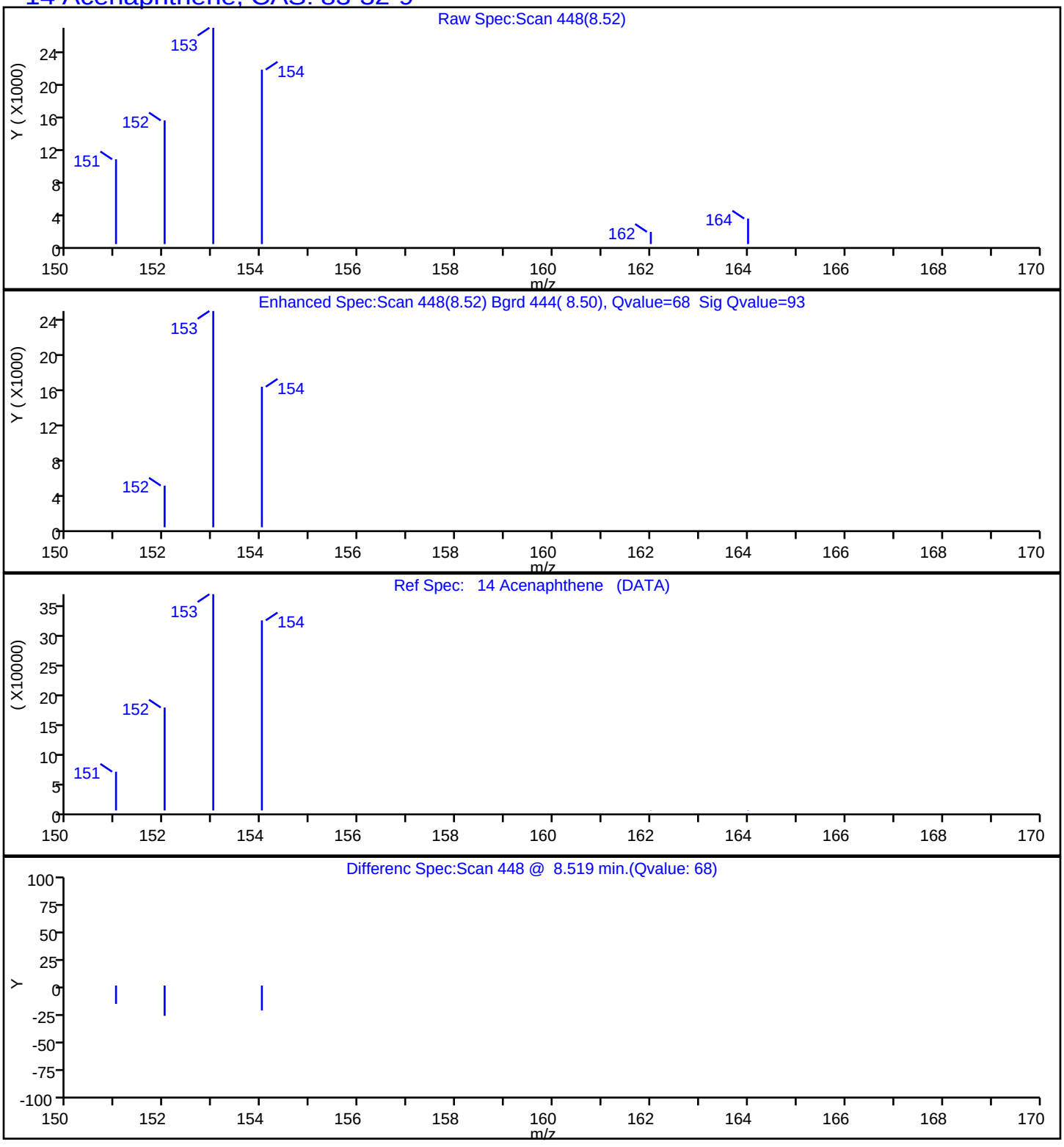


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

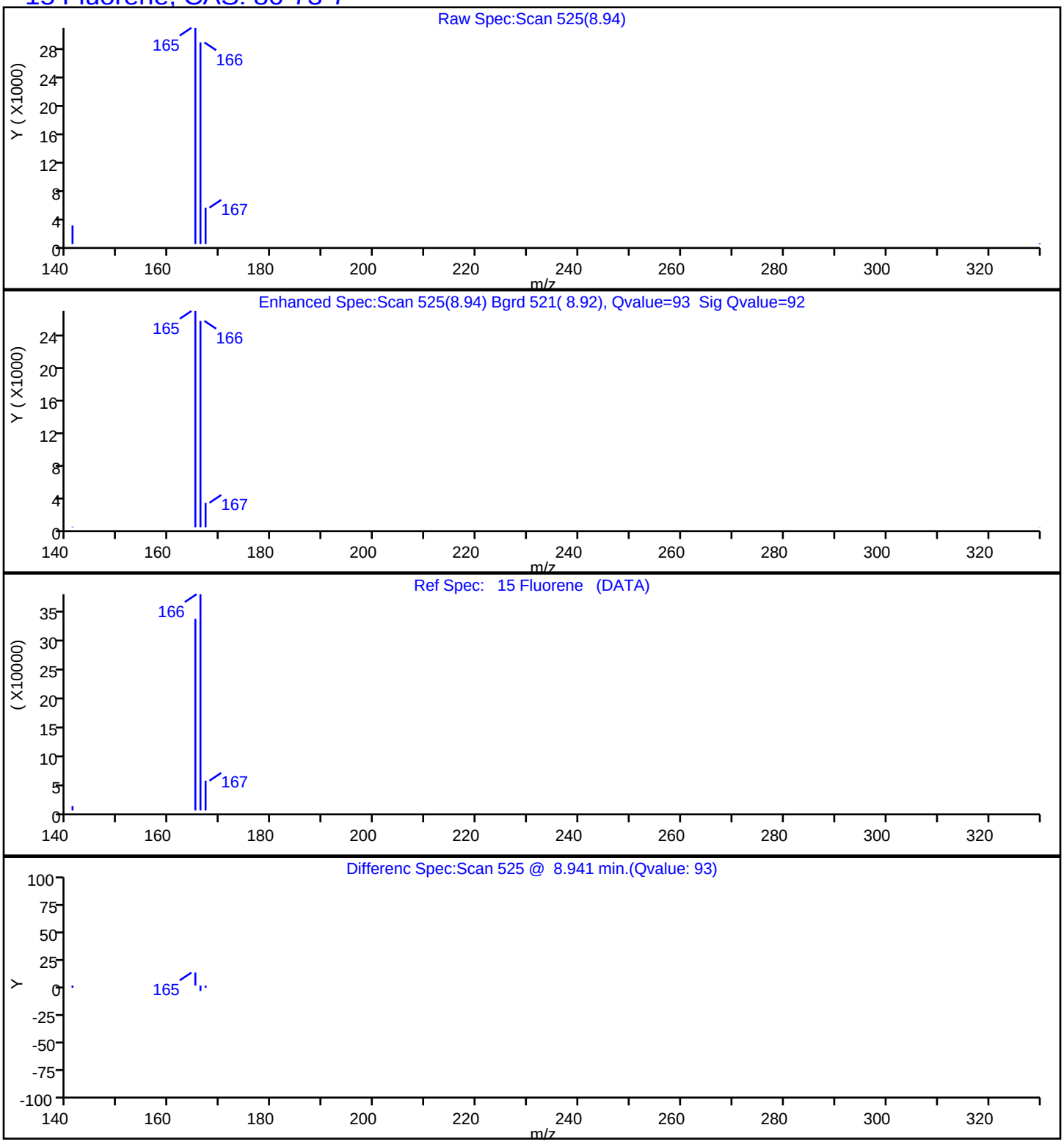


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

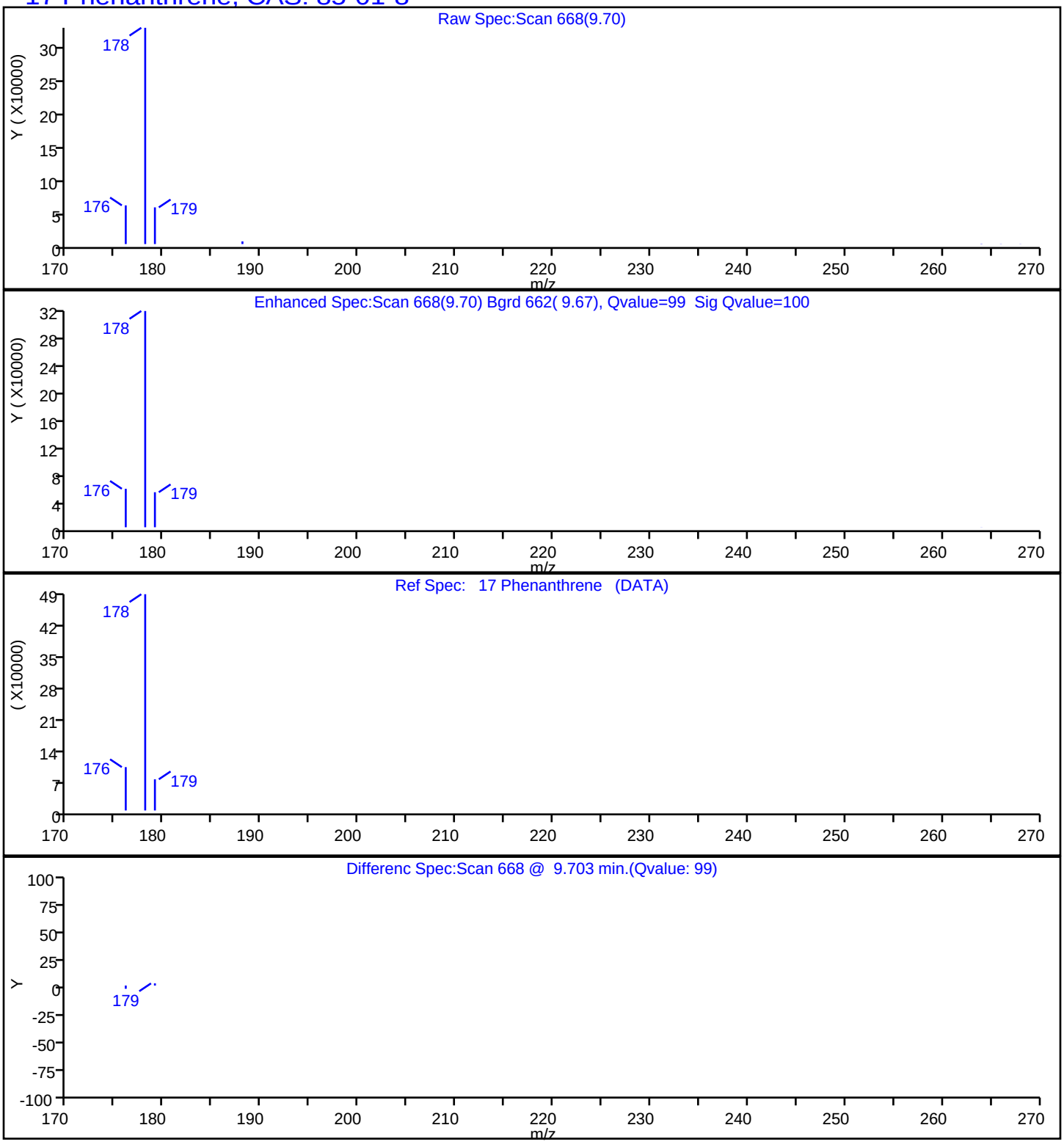


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

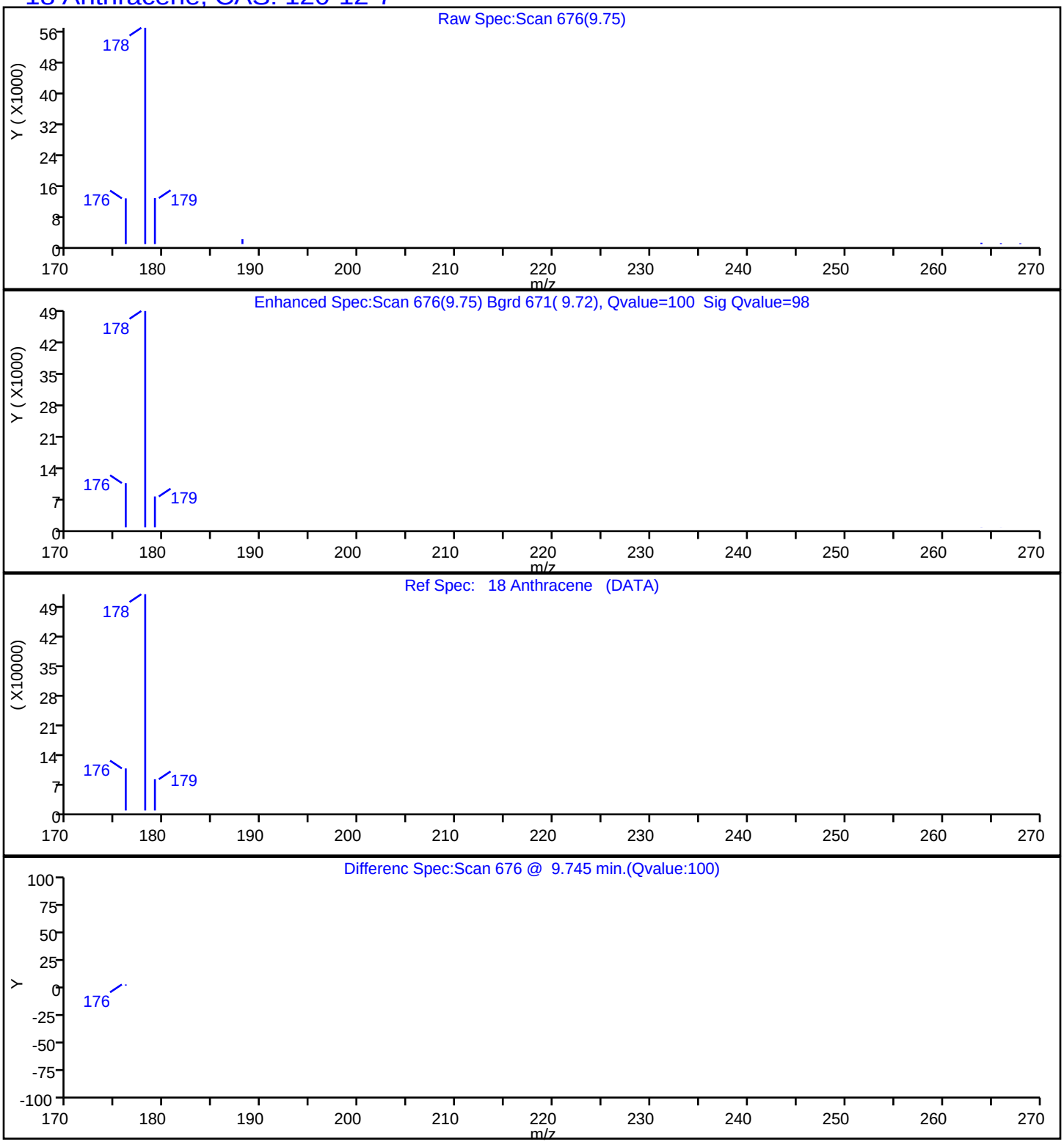


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

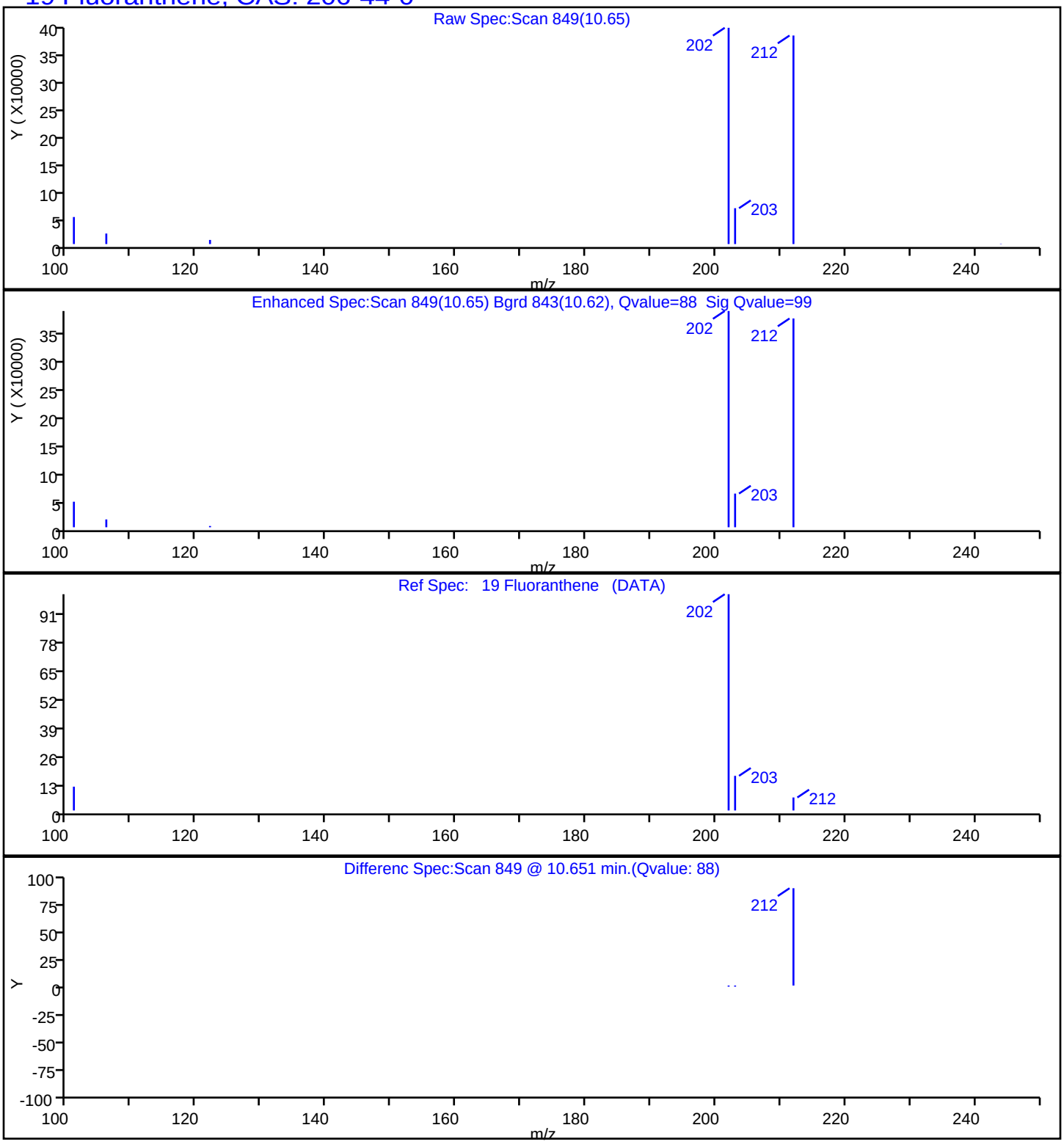


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

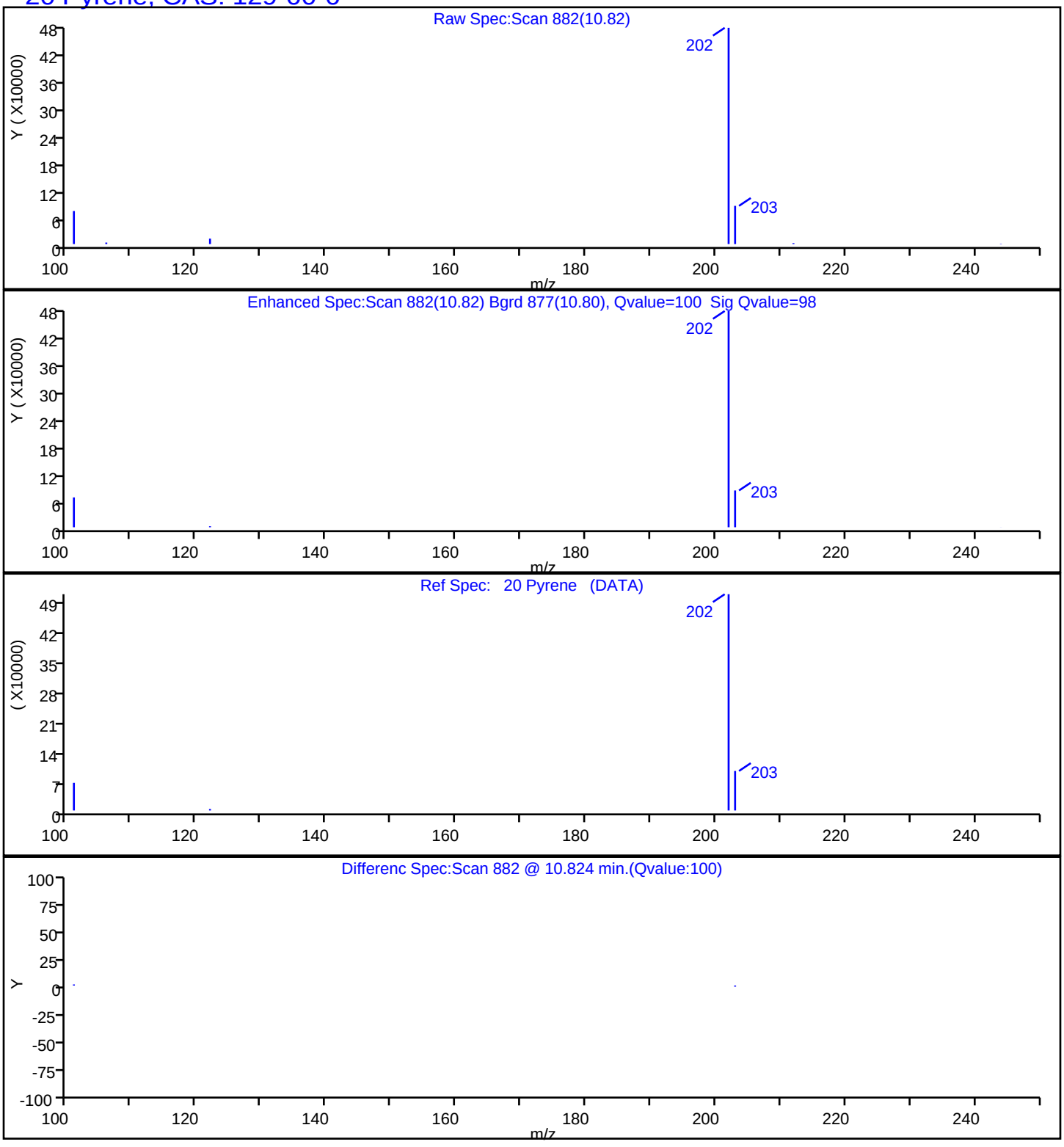


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

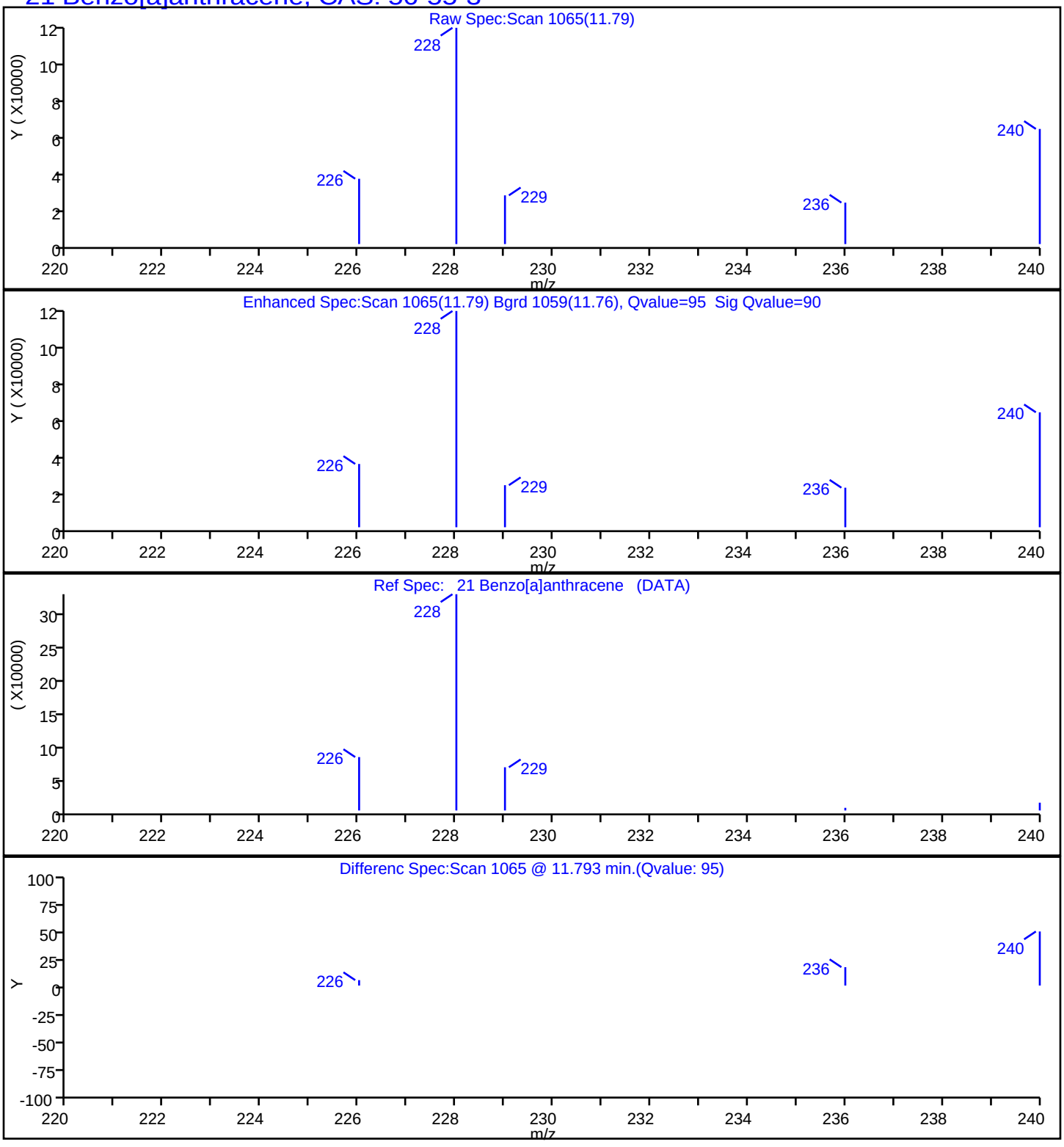


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

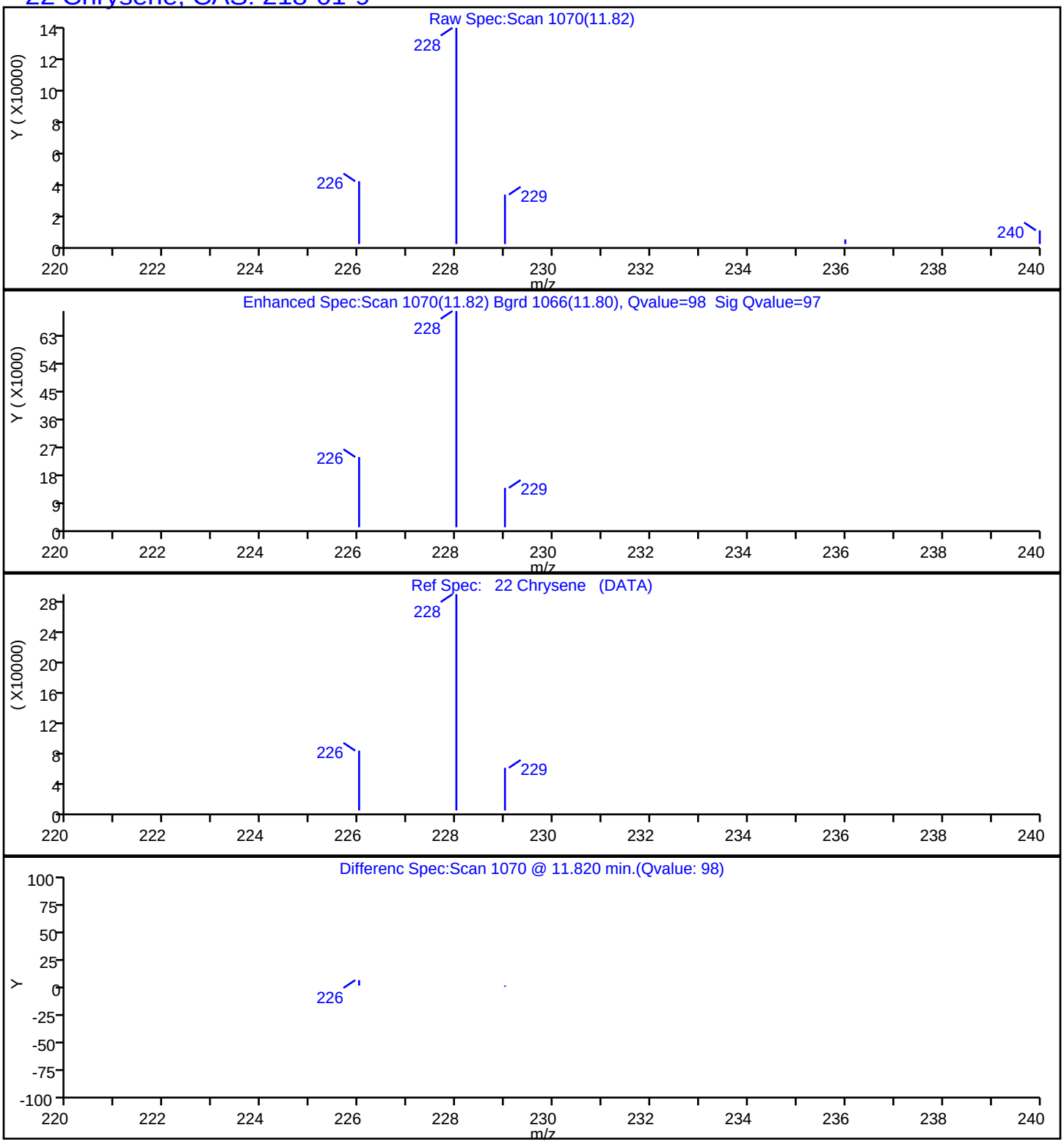


Report Date: 23-Jul-2019 13:54:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

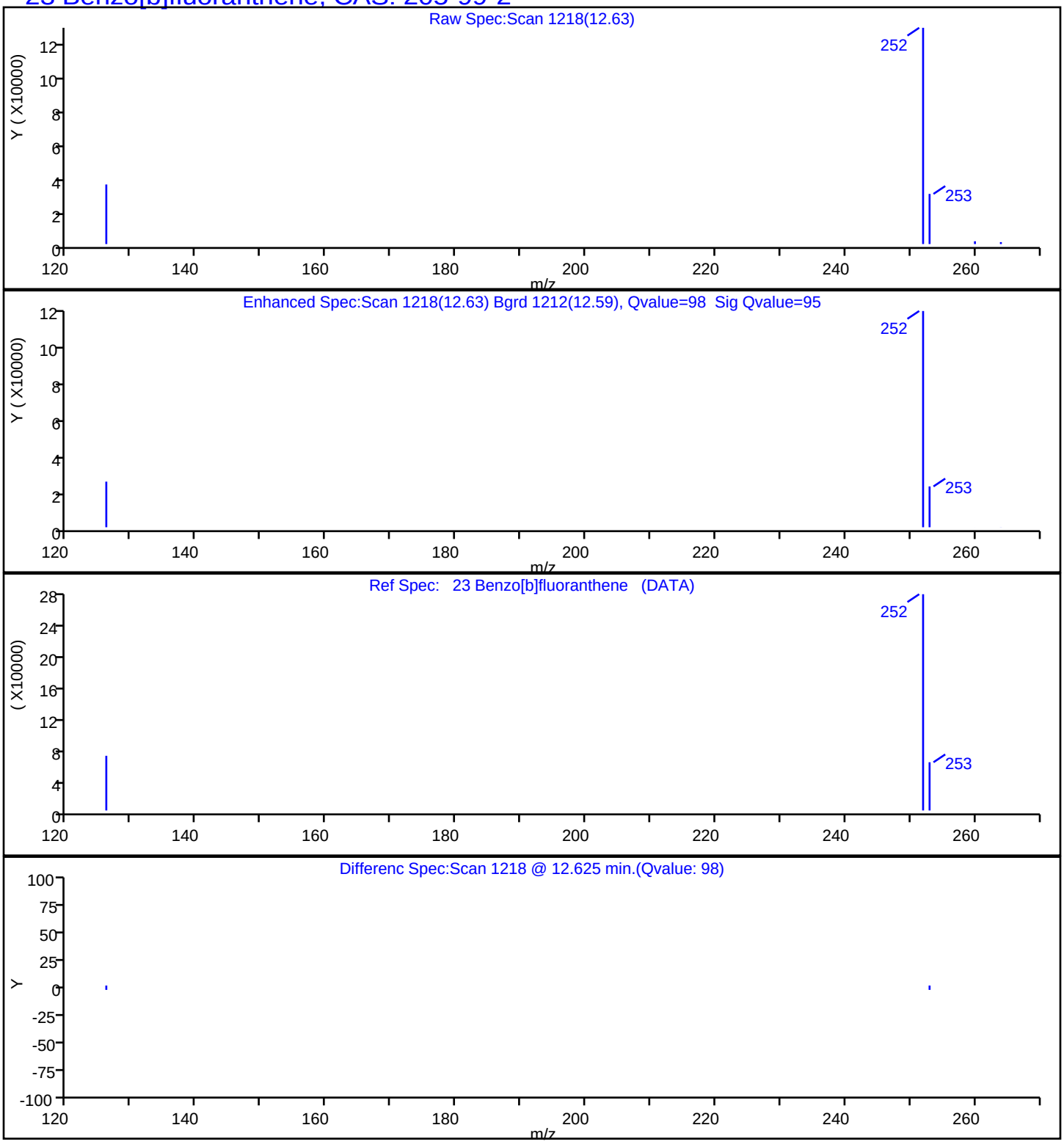


Report Date: 23-Jul-2019 13:54:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

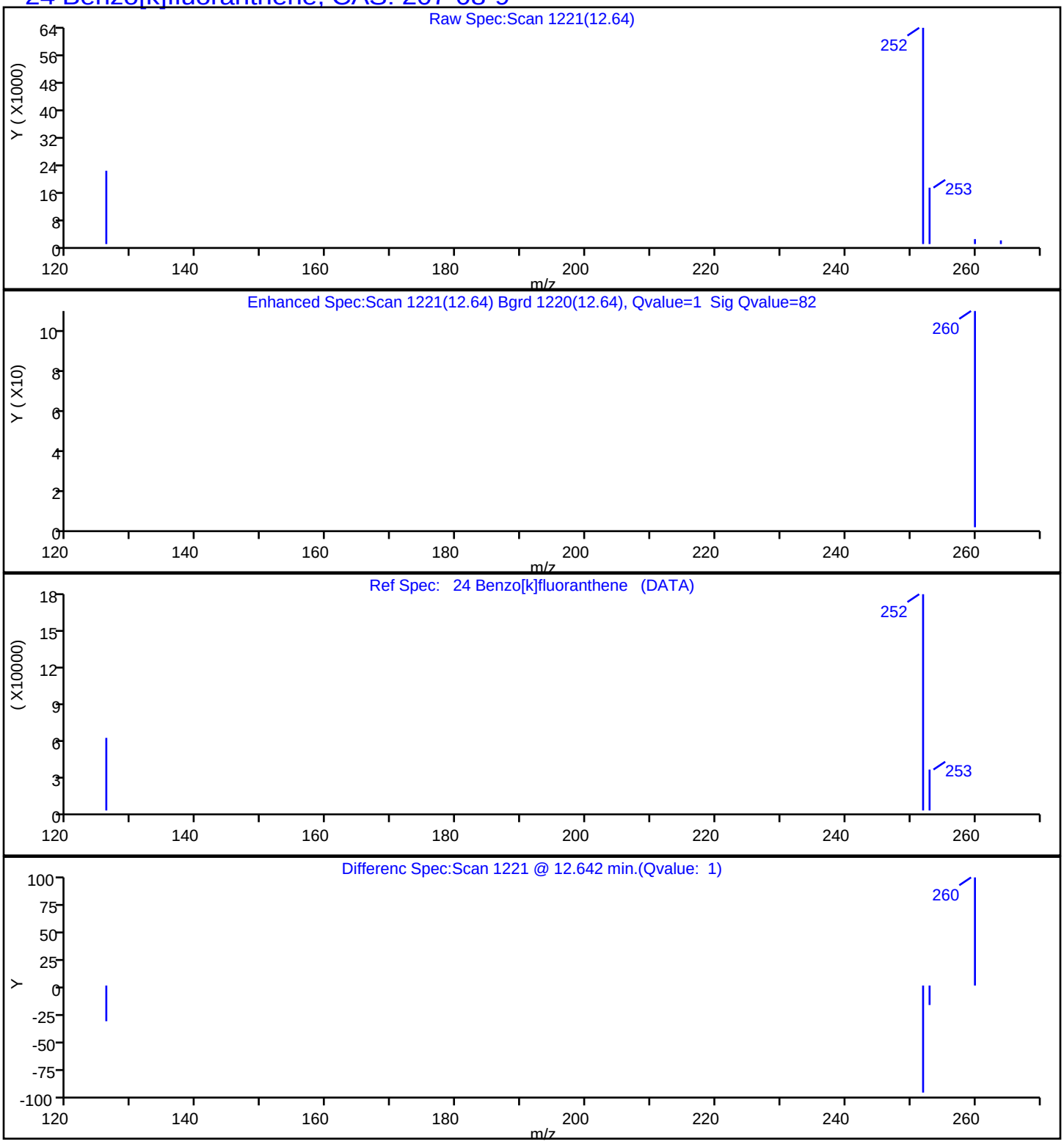


Report Date: 23-Jul-2019 13:54:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

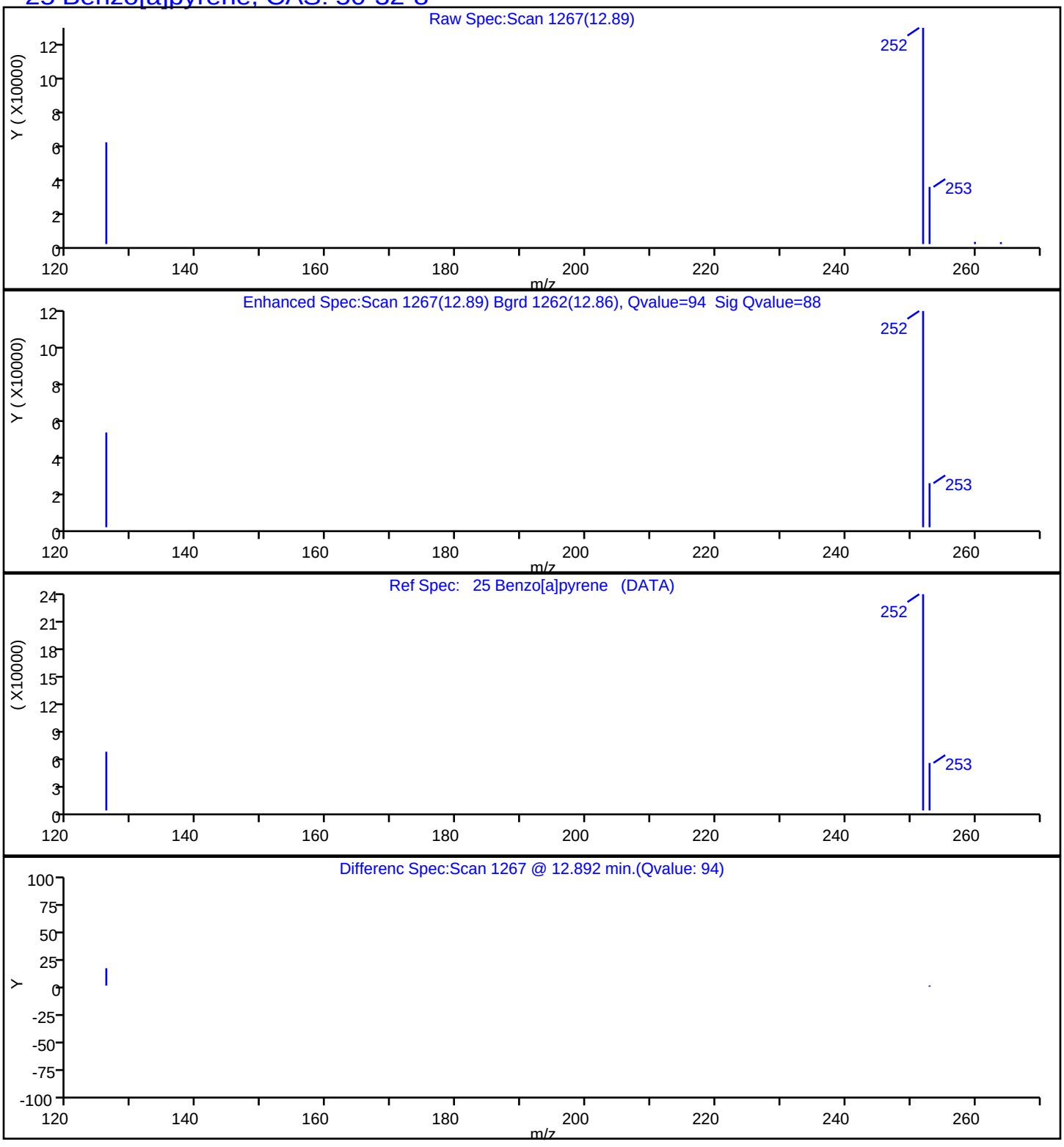


Report Date: 23-Jul-2019 13:54:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

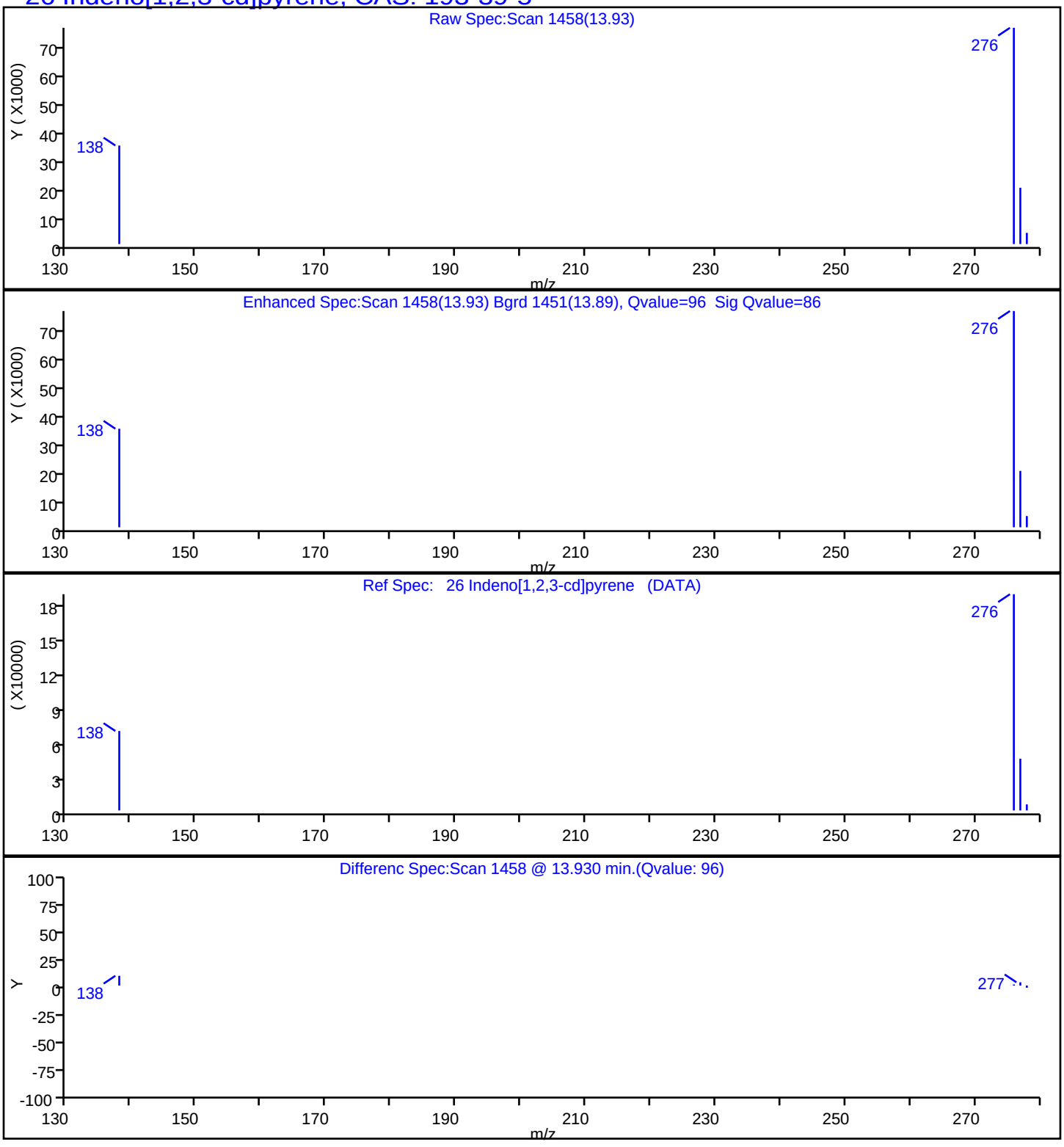


Report Date: 23-Jul-2019 13:54:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

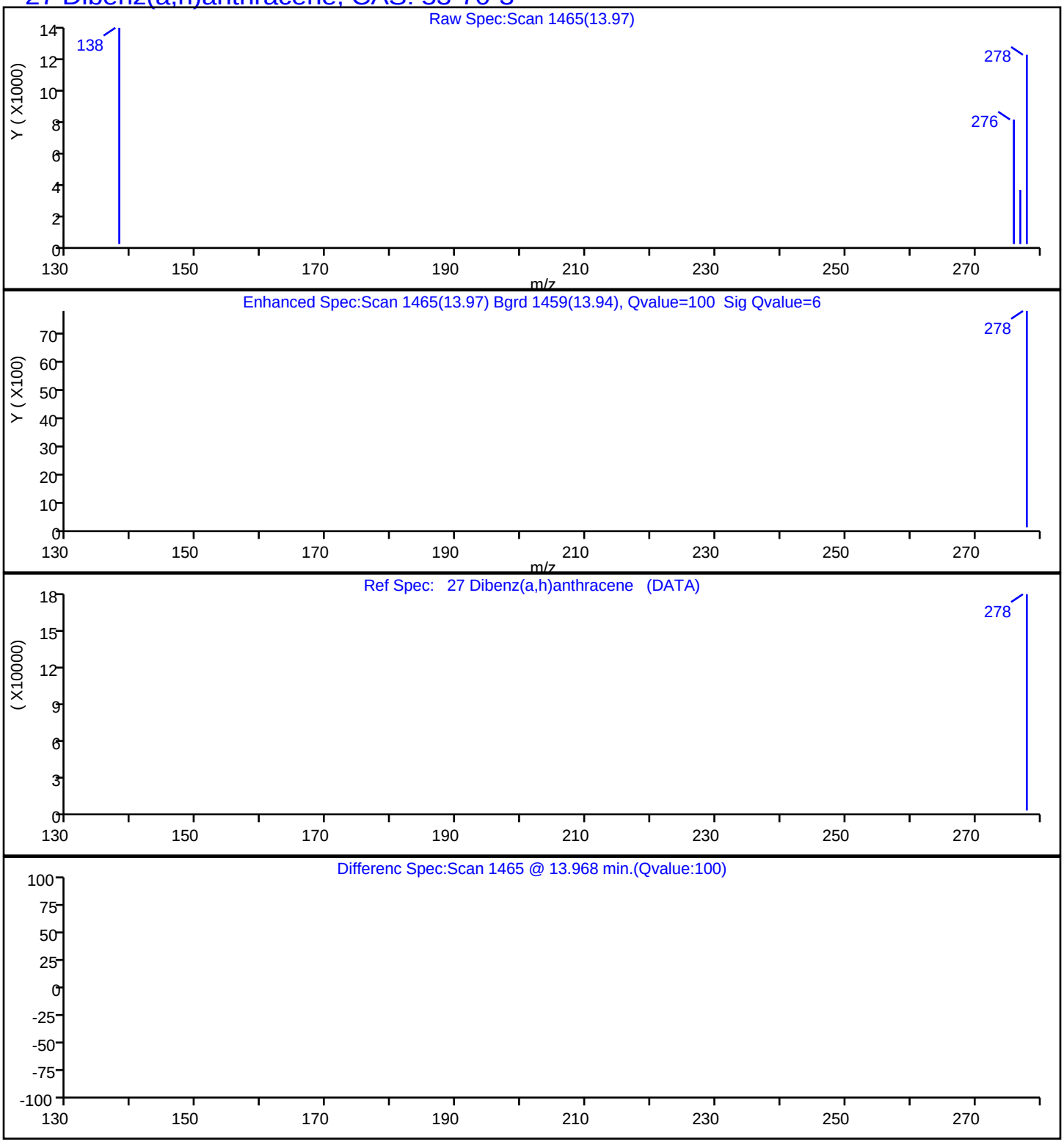


Report Date: 23-Jul-2019 13:54:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

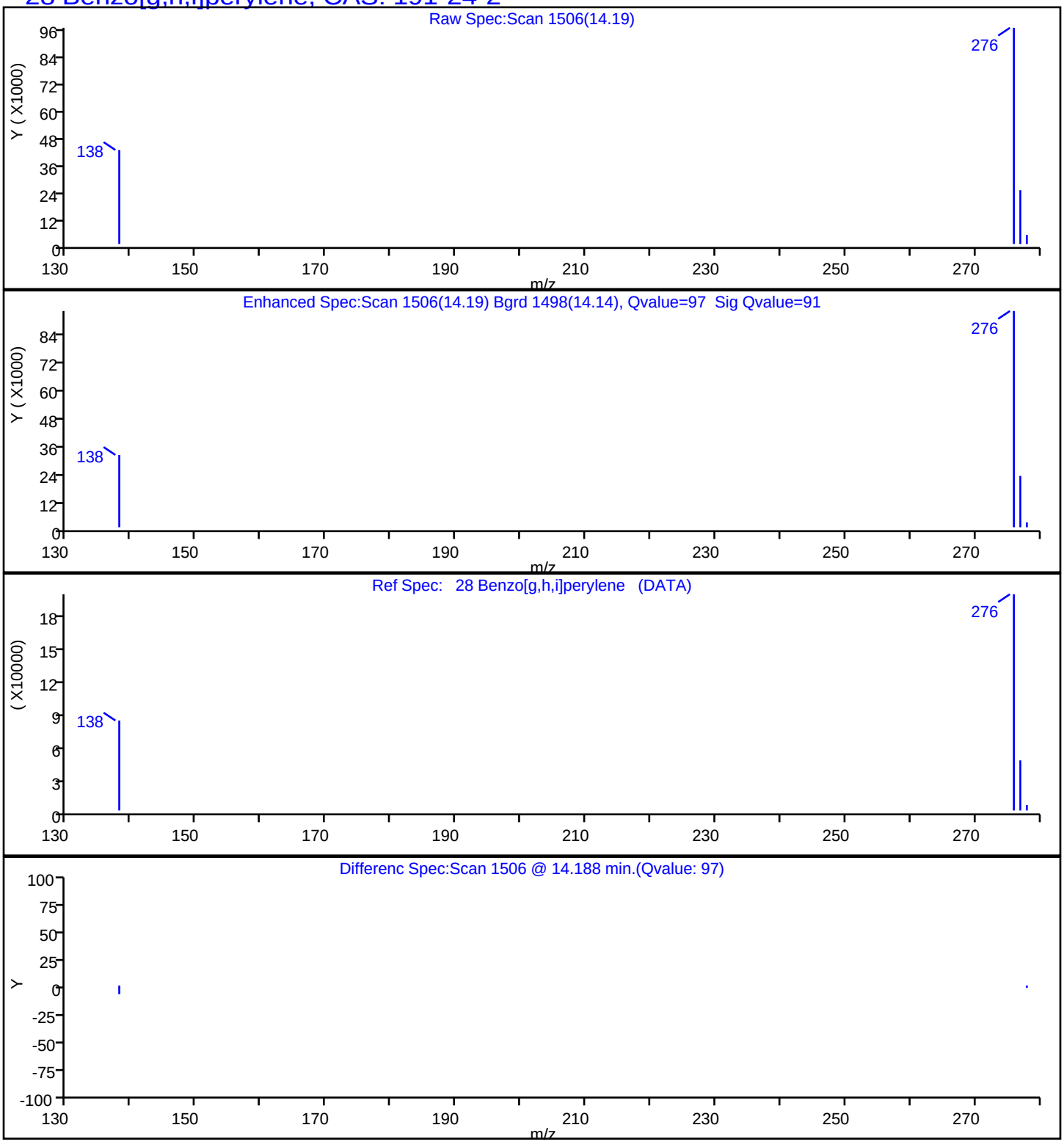


Report Date: 23-Jul-2019 13:54:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

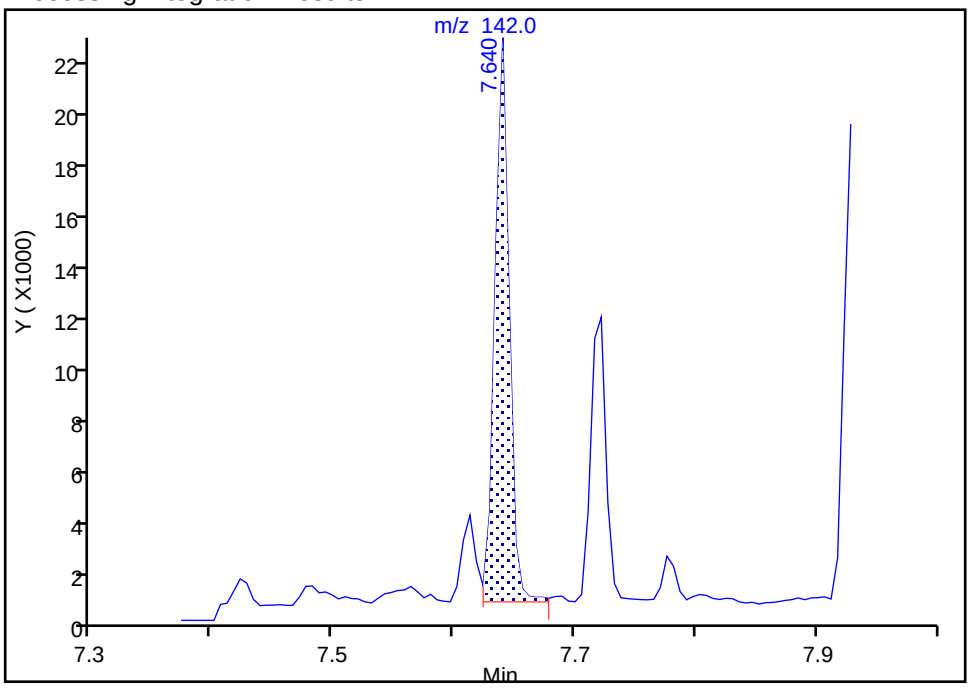
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

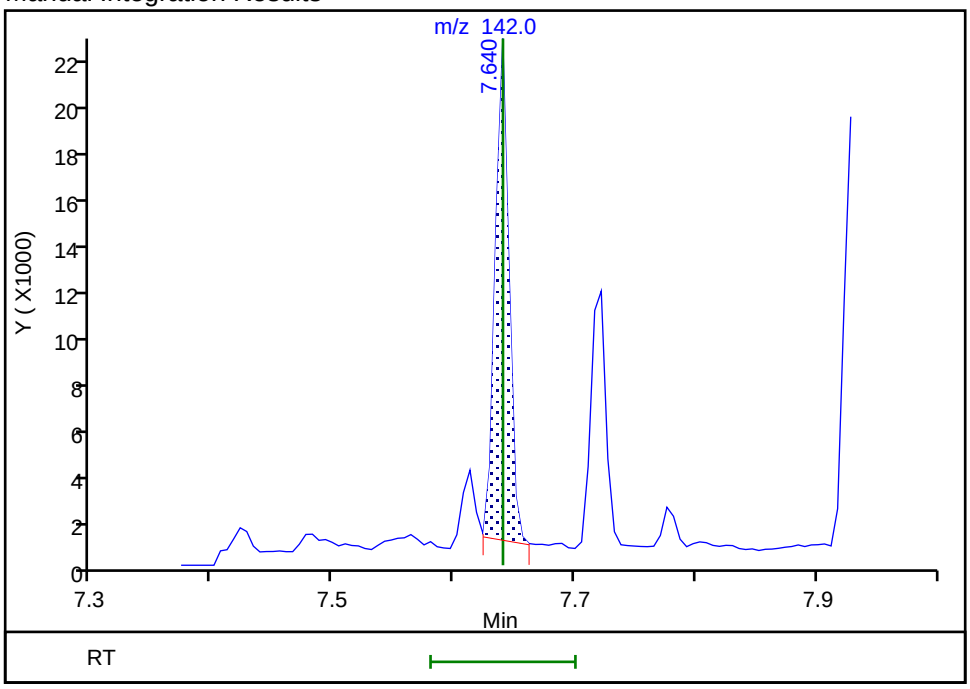
Processing Integration Results

RT: 7.64
Area: 17907
Amount: 6.241088
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 16974
Amount: 5.915911
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:50:56

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

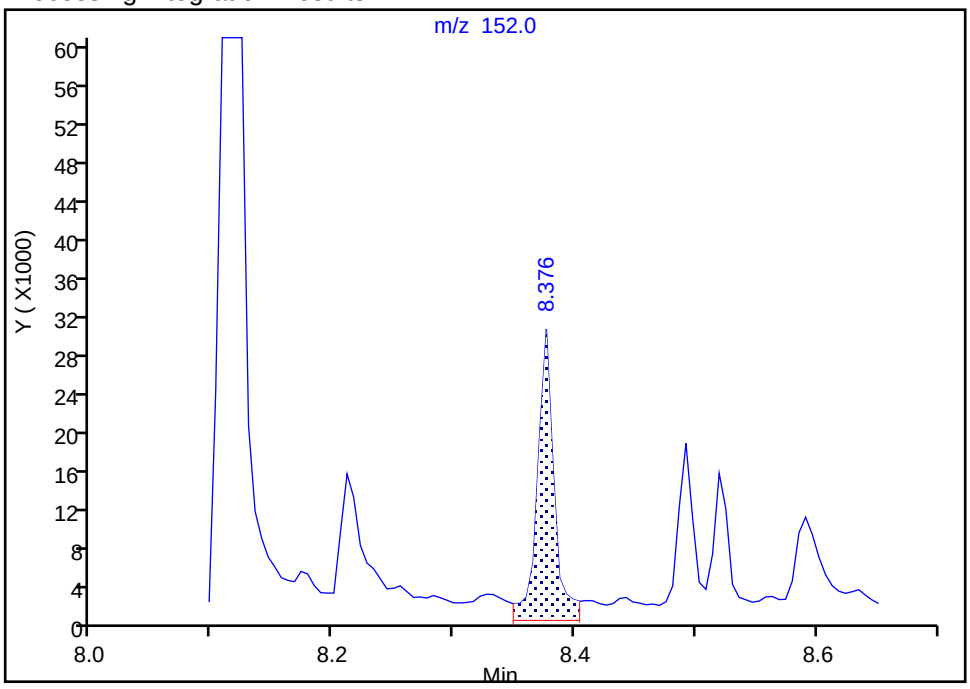
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

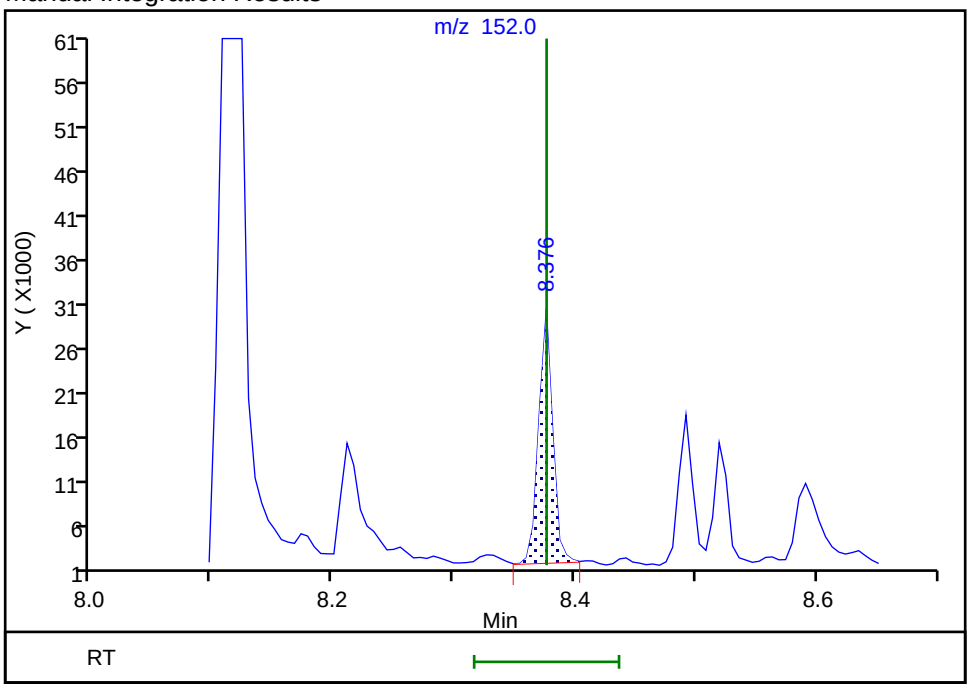
Processing Integration Results

RT: 8.38
Area: 28933
Amount: 7.450362
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 23038
Amount: 5.932376
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

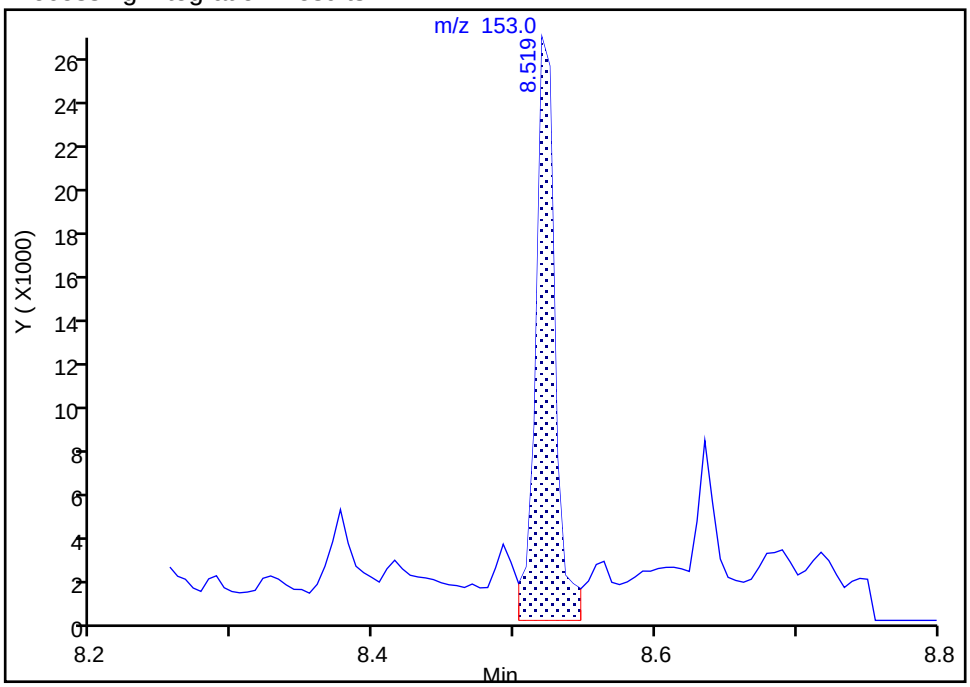
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

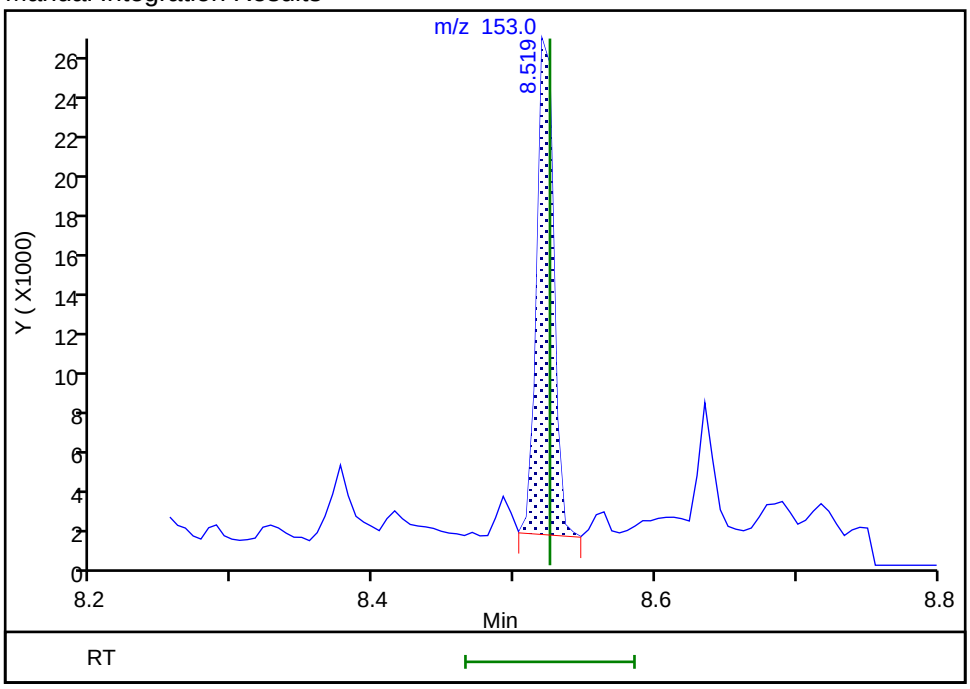
Processing Integration Results

RT: 8.52
Area: 25349
Amount: 8.991403
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 21274
Amount: 7.545983
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:12

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

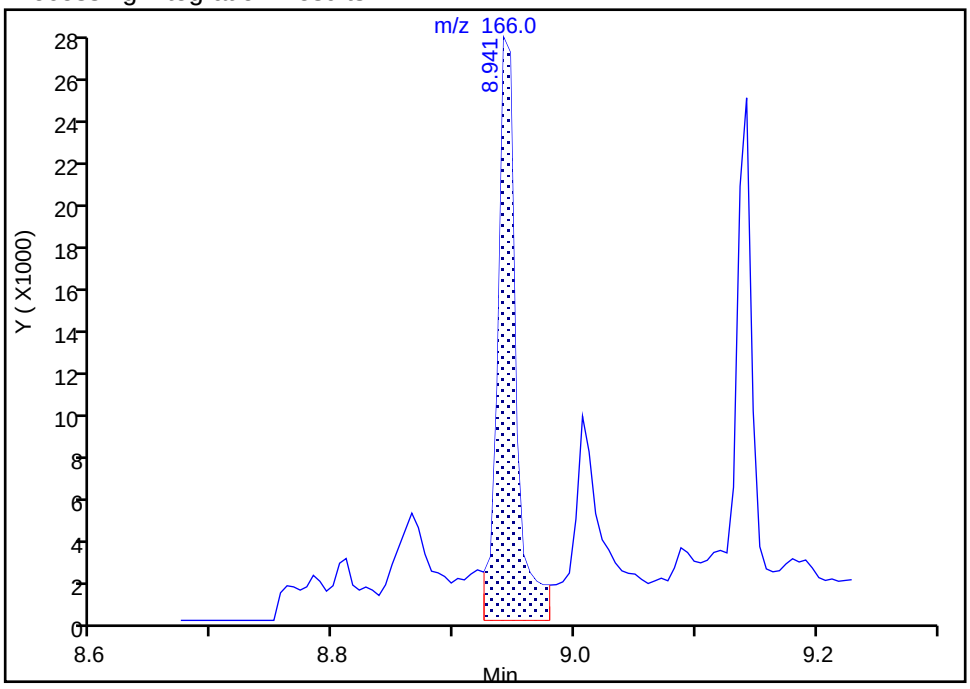
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

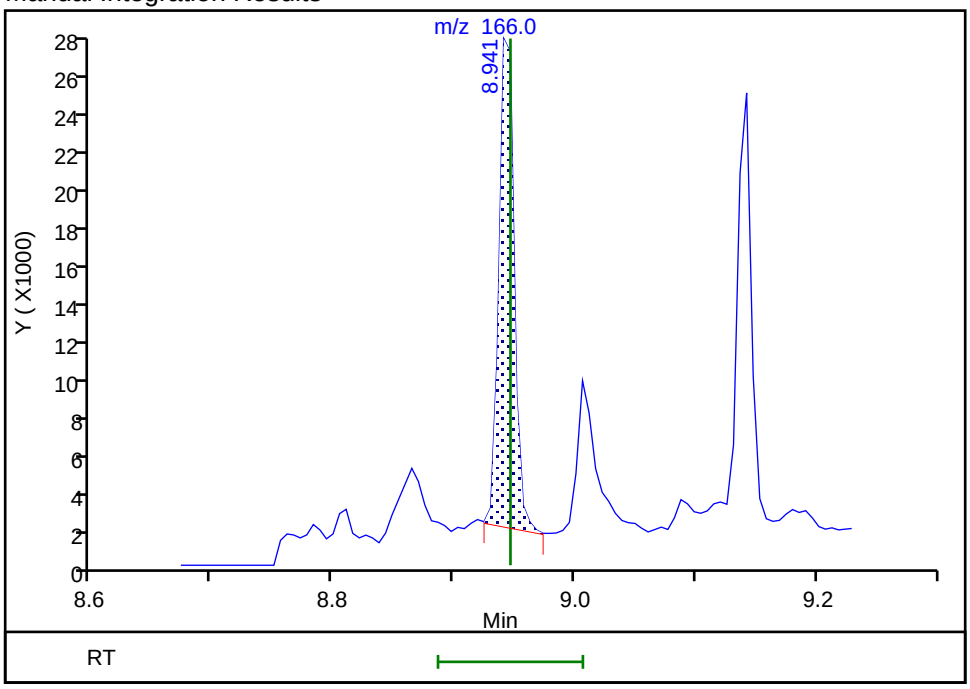
Processing Integration Results

RT: 8.94
Area: 29200
Amount: 10.343752
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 22977
Amount: 8.139329
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

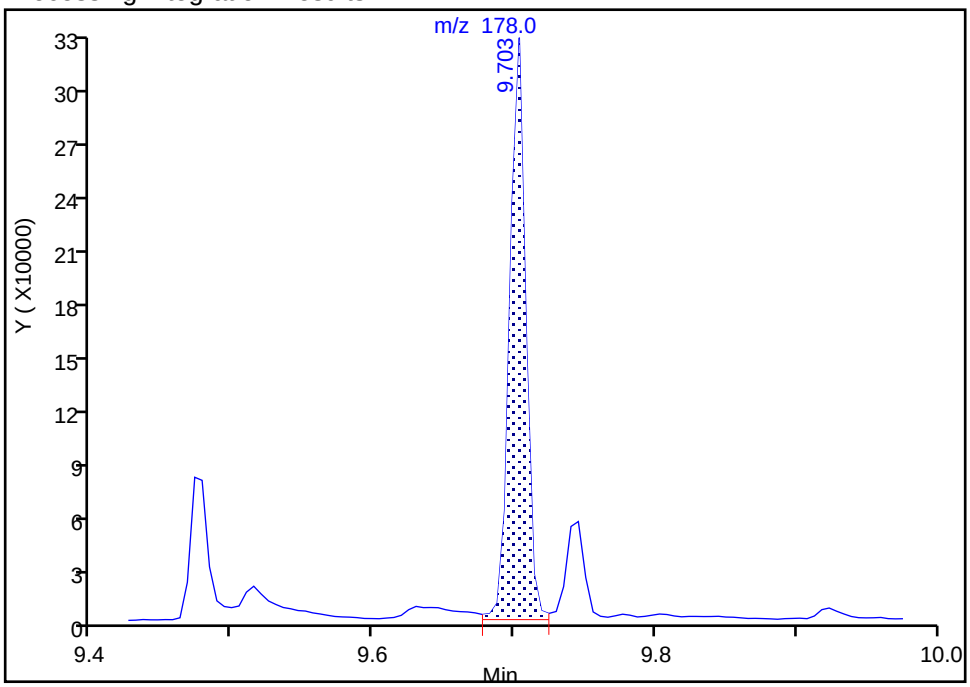
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

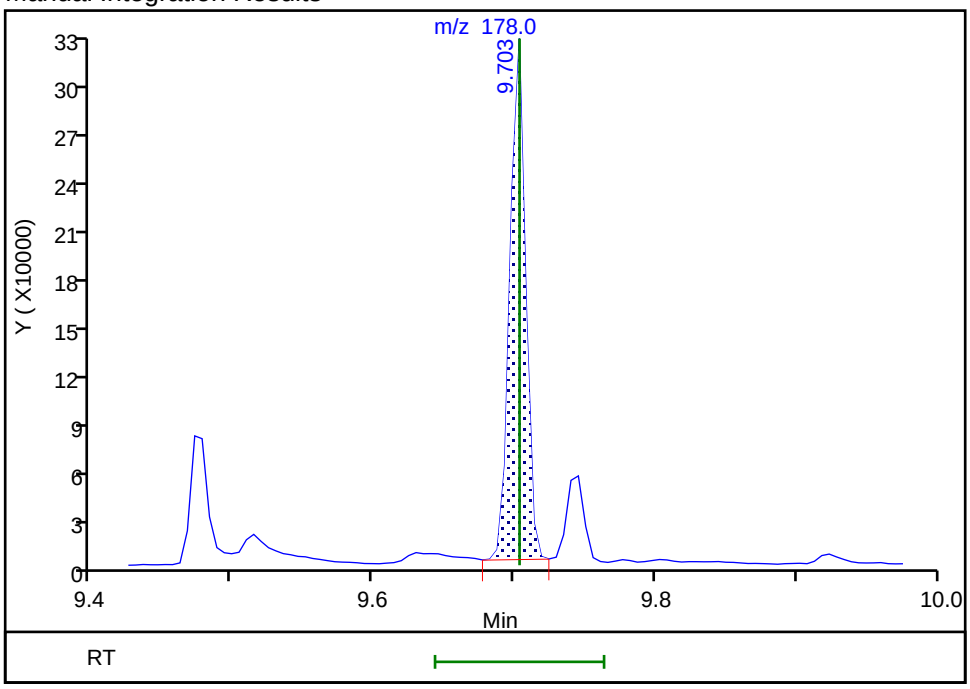
Processing Integration Results

RT: 9.70
Area: 251493
Amount: 59.605736
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 243059
Amount: 57.606815
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

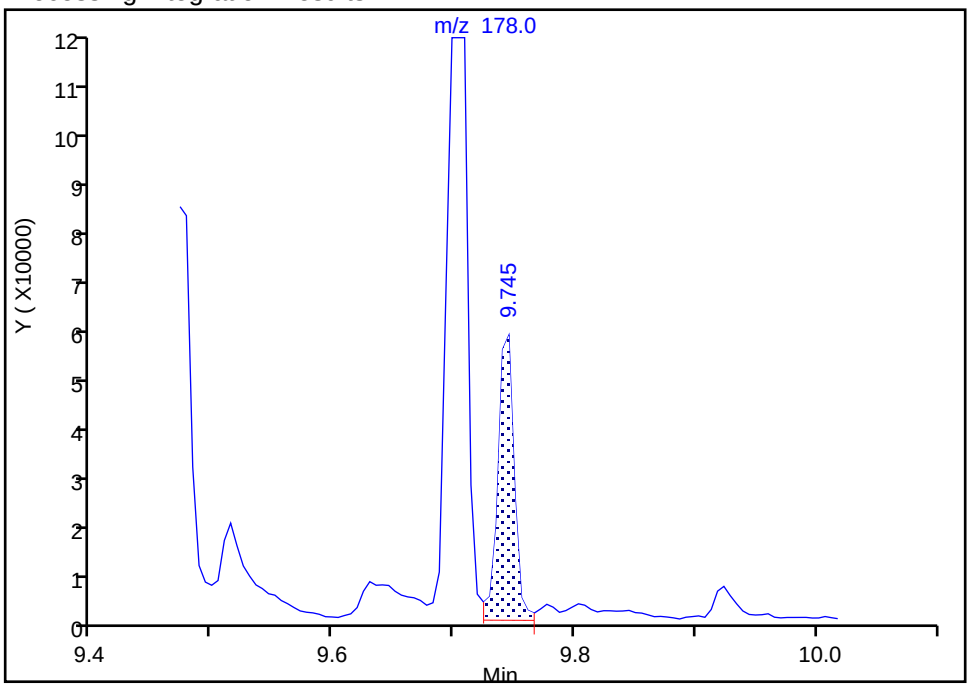
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

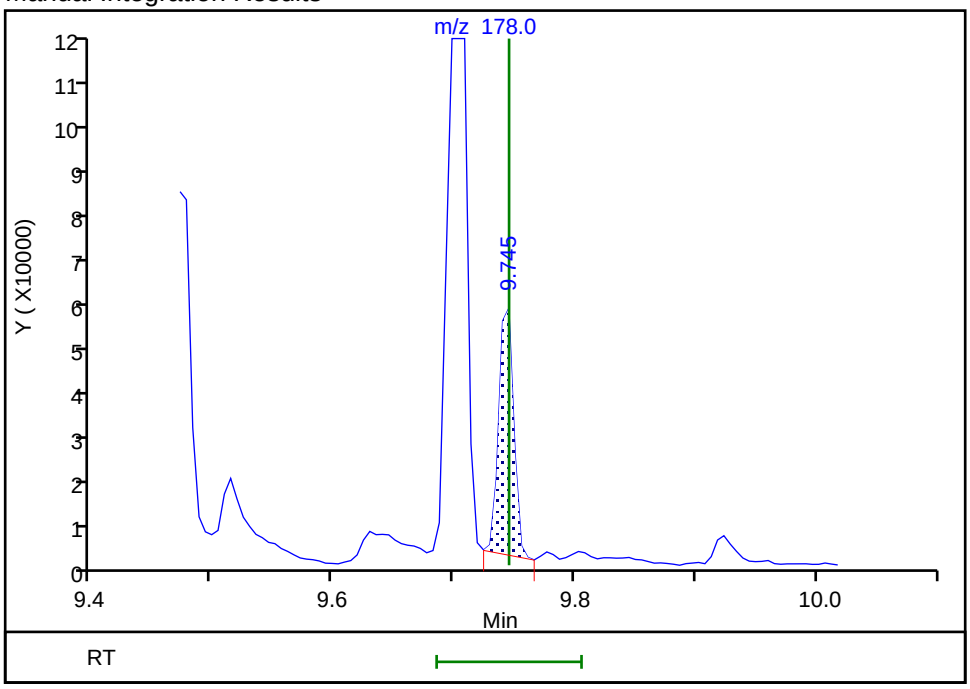
Processing Integration Results

RT: 9.75
Area: 49952
Amount: 12.734399
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 44122
Amount: 11.248141
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

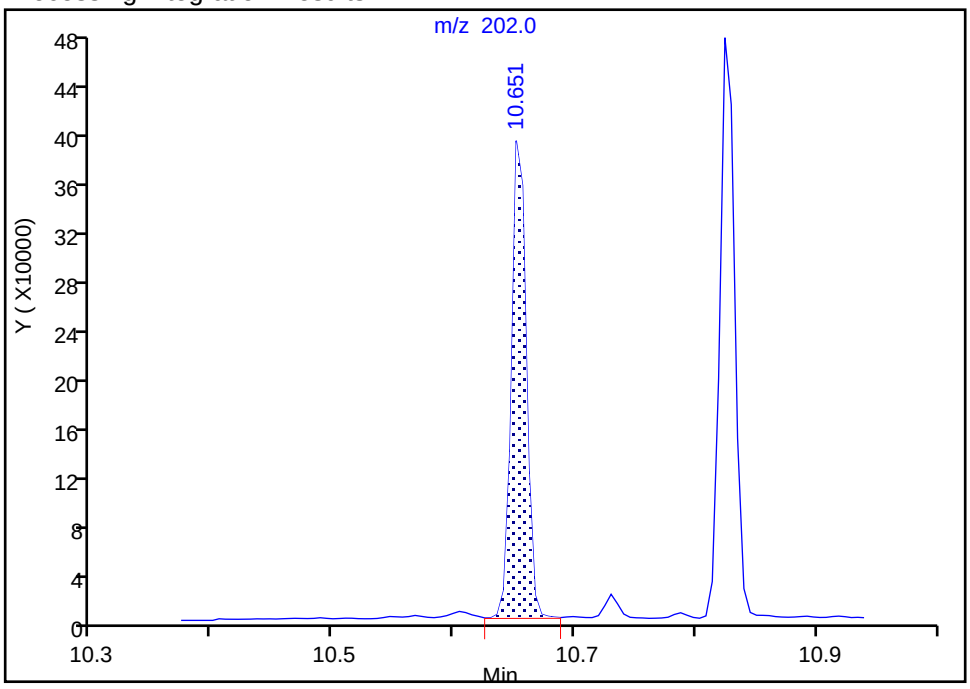
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

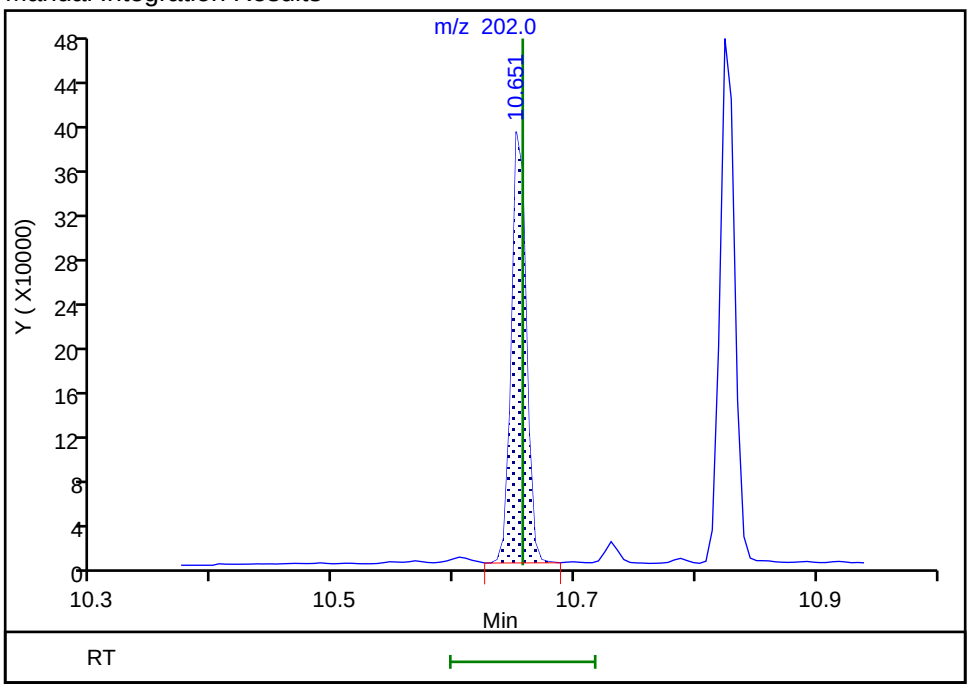
Processing Integration Results

RT: 10.65
Area: 333205
Amount: 83.358583
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 331376
Amount: 82.901018
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

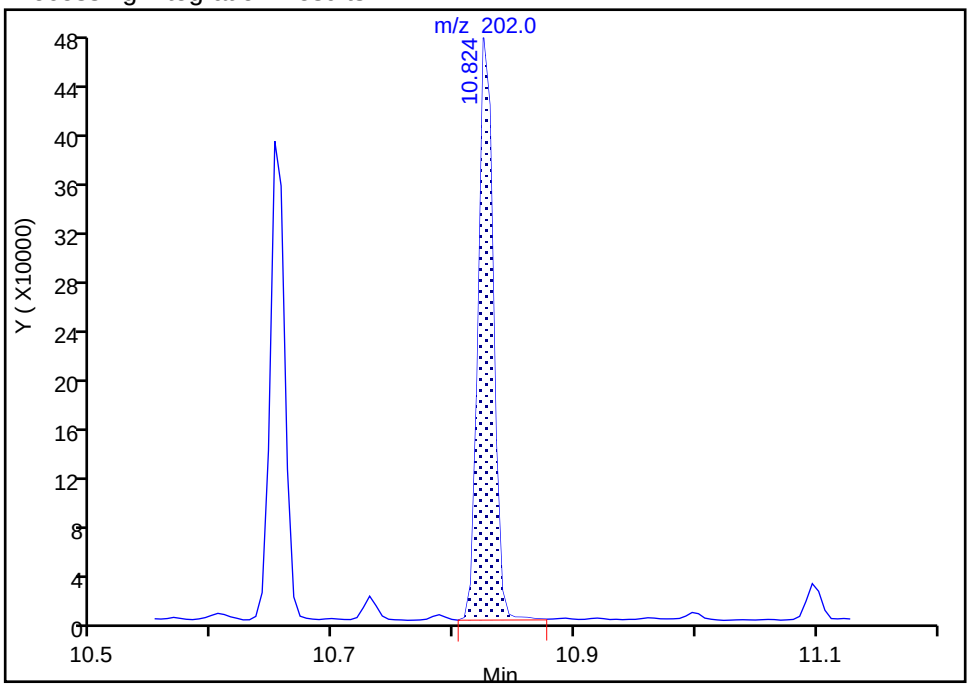
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

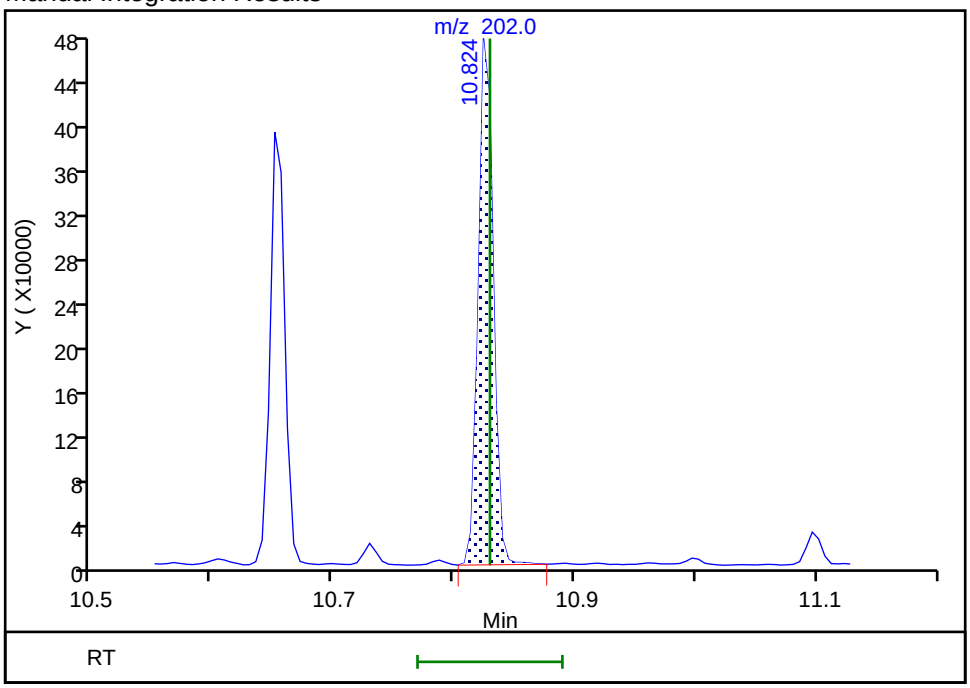
Processing Integration Results

RT: 10.82
Area: 411429
Amount: 97.727710
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 410514
Amount: 97.510368
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:41

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

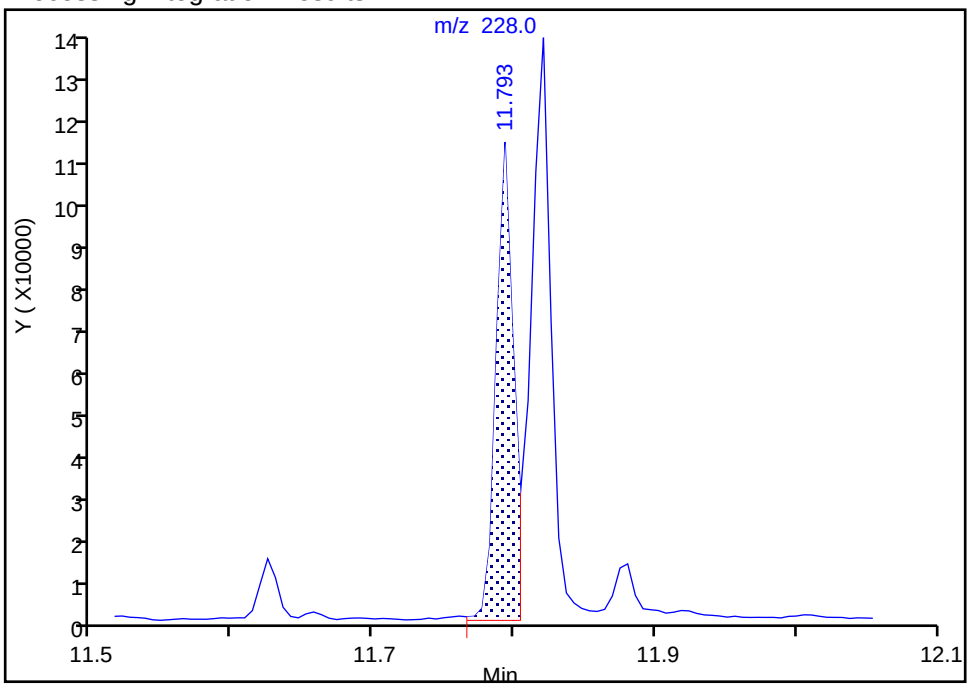
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

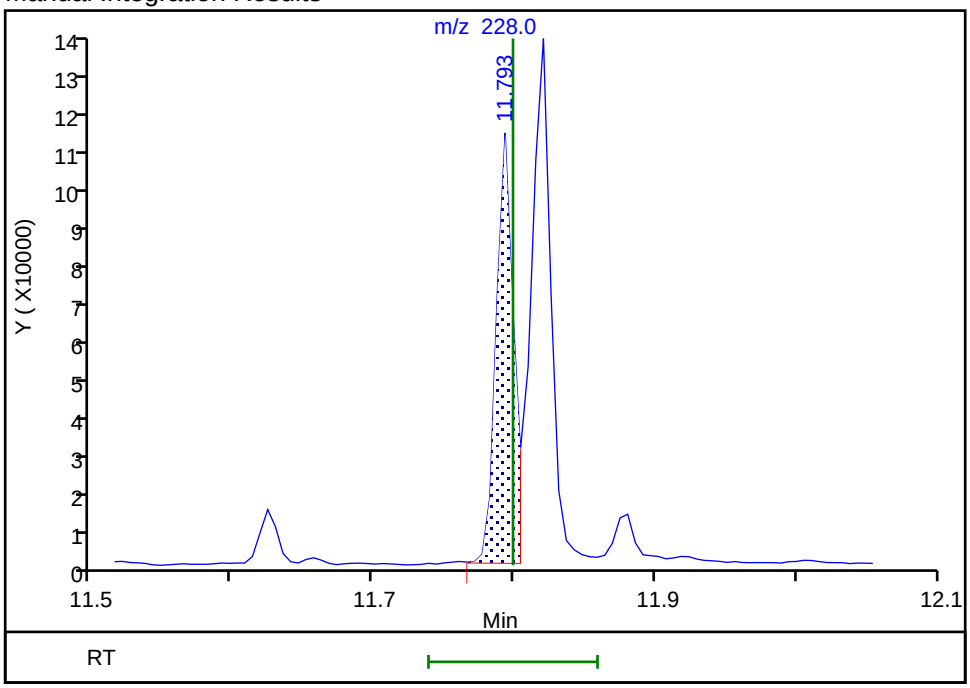
Processing Integration Results

RT: 11.79
Area: 94273
Amount: 36.092463
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 93012
Amount: 35.609689
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:47

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

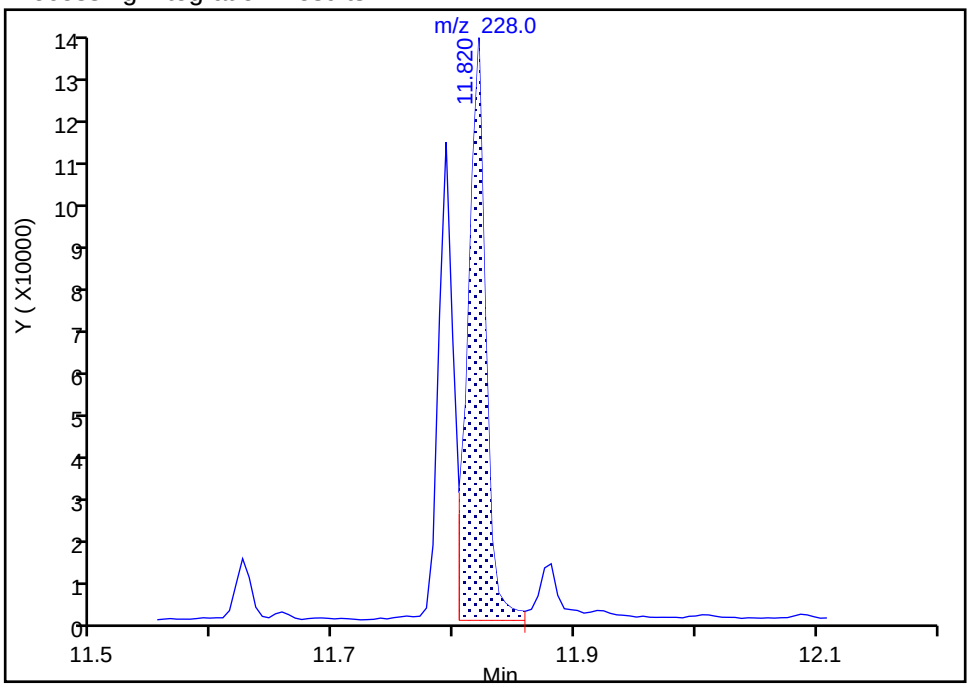
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

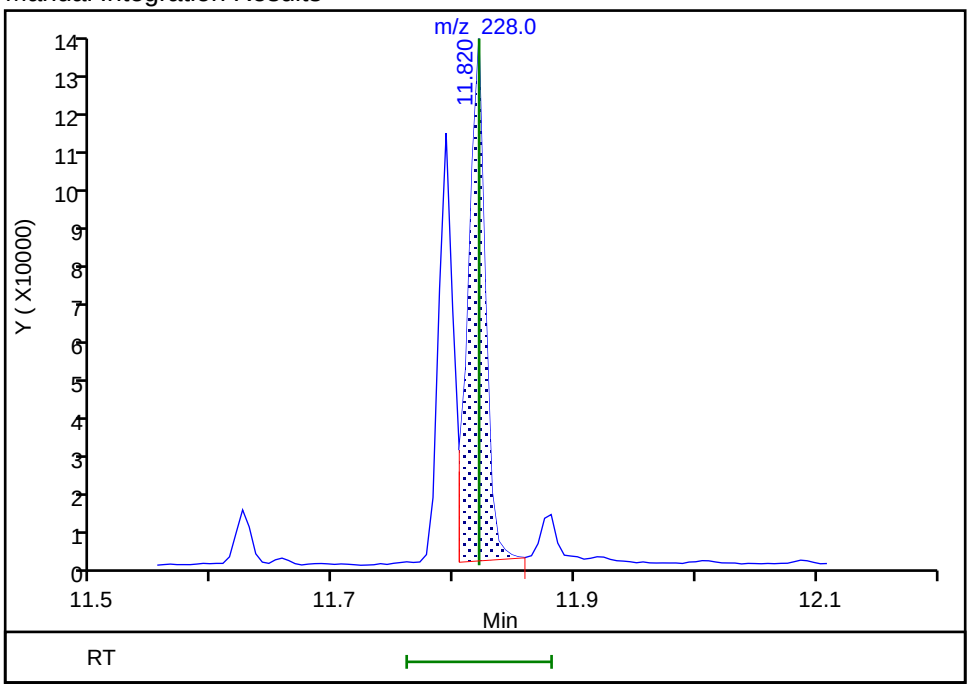
Processing Integration Results

RT: 11.82
Area: 135967
Amount: 39.143474
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 131146
Amount: 37.755559
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:51:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

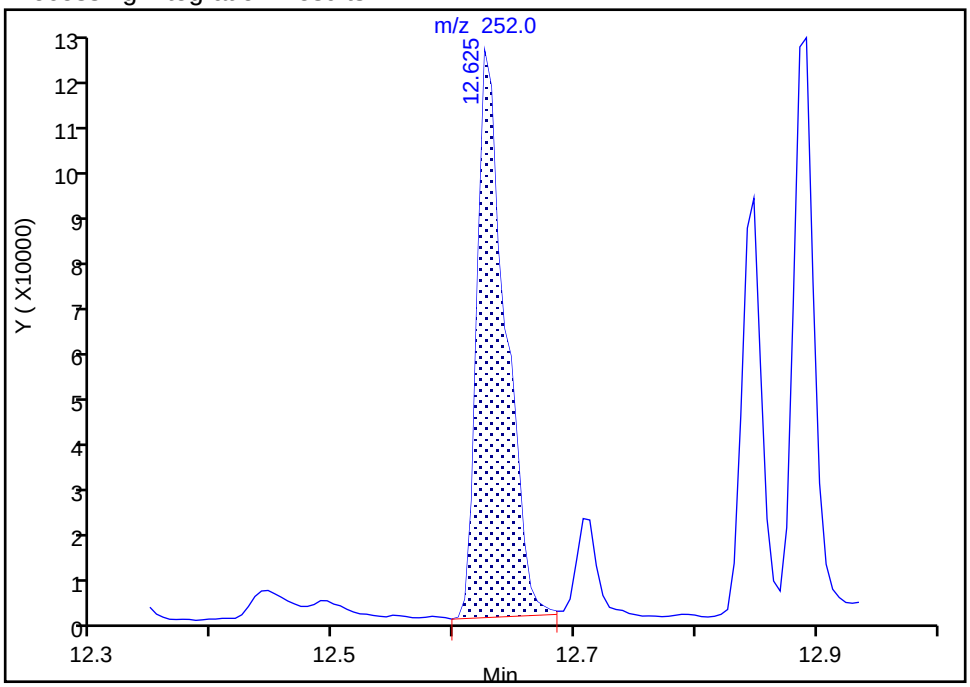
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

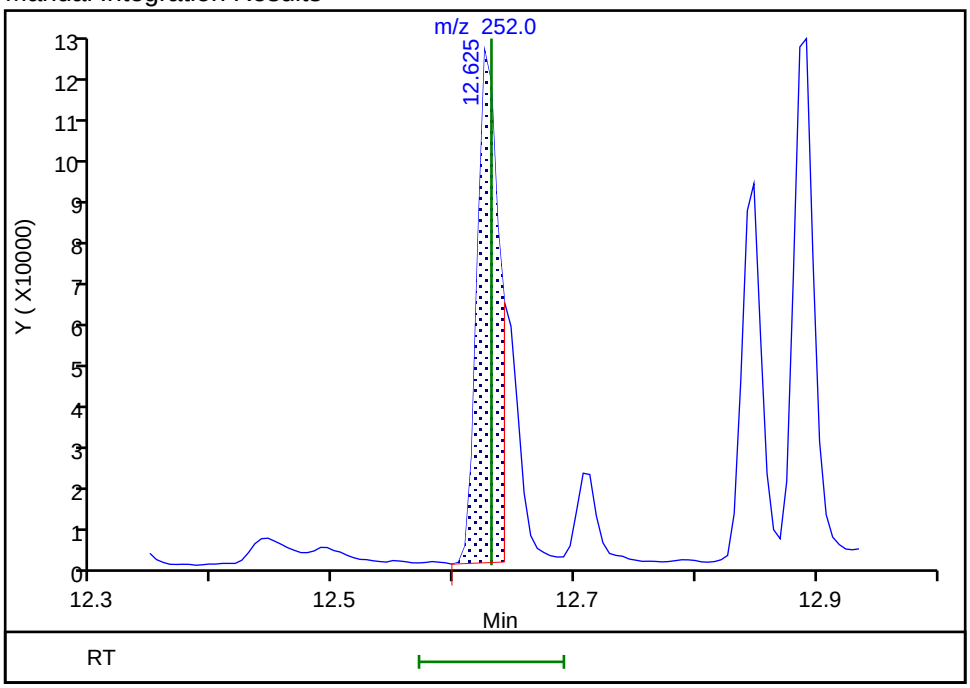
Processing Integration Results

RT: 12.63
Area: 195058
Amount: 58.428506
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 146206
Amount: 43.795170
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:52:03

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

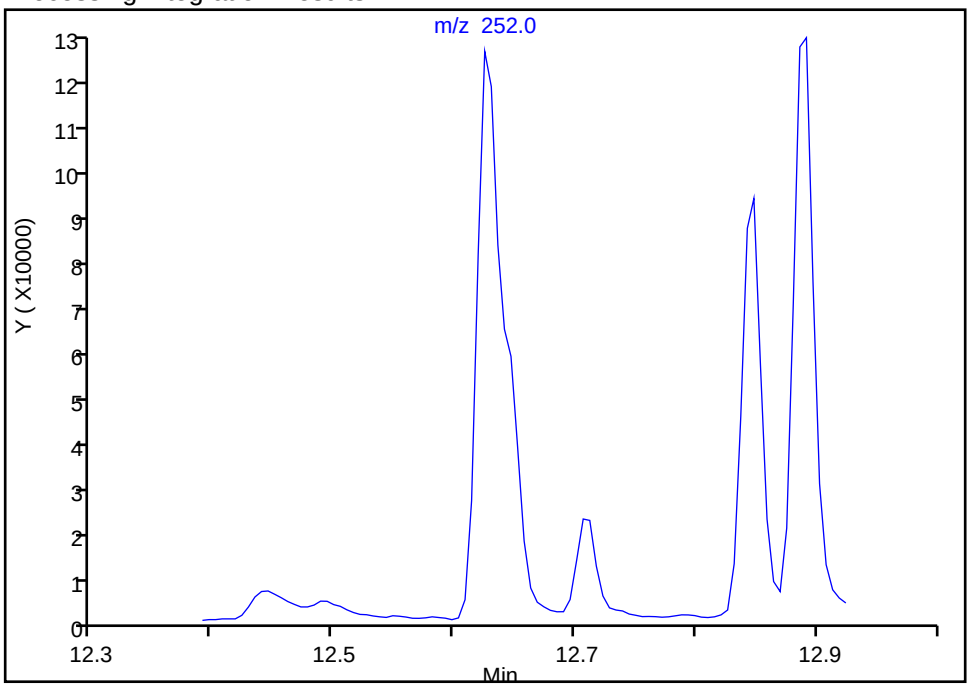
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

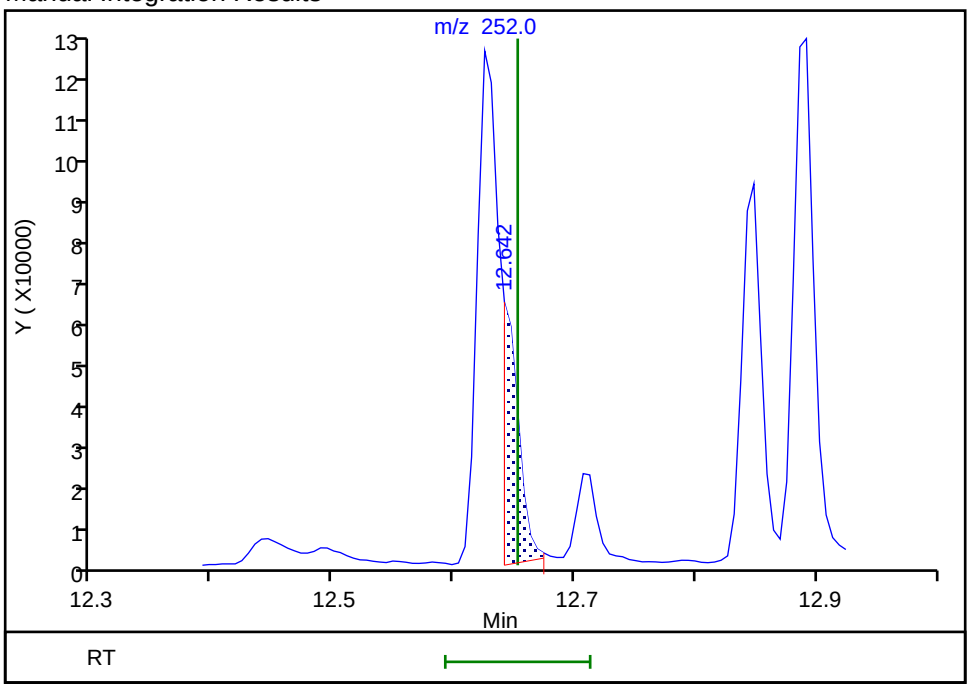
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 48103
Amount: 11.777392
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:52:53
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

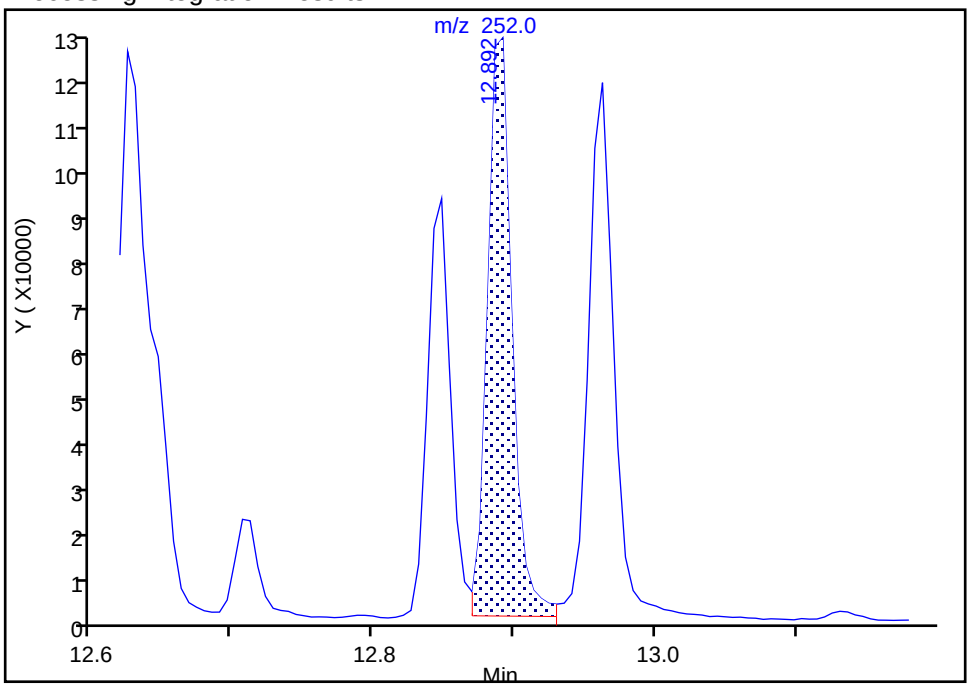
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

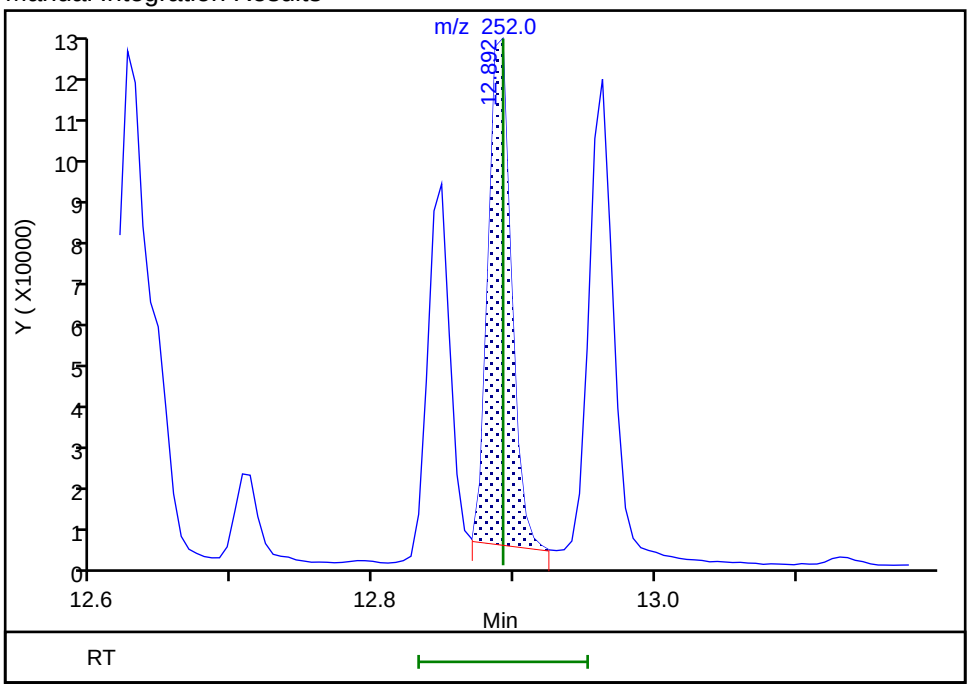
Processing Integration Results

RT: 12.89
Area: 147697
Amount: 43.672598
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 135253
Amount: 39.993026
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:53:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

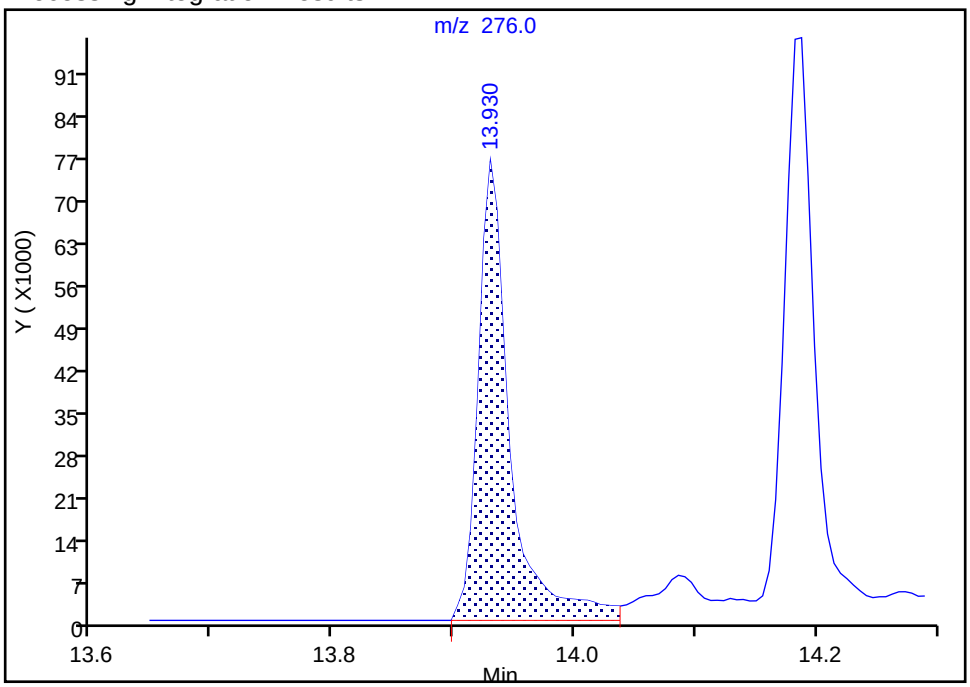
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

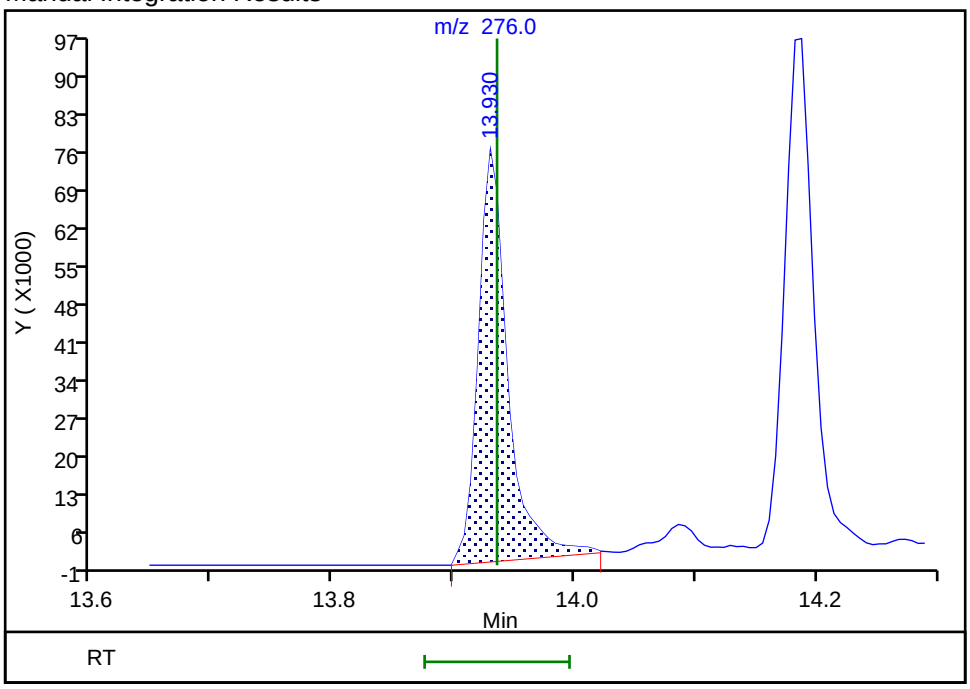
Processing Integration Results

RT: 13.93
Area: 138734
Amount: 53.781078
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 127897
Amount: 49.601640
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:53:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

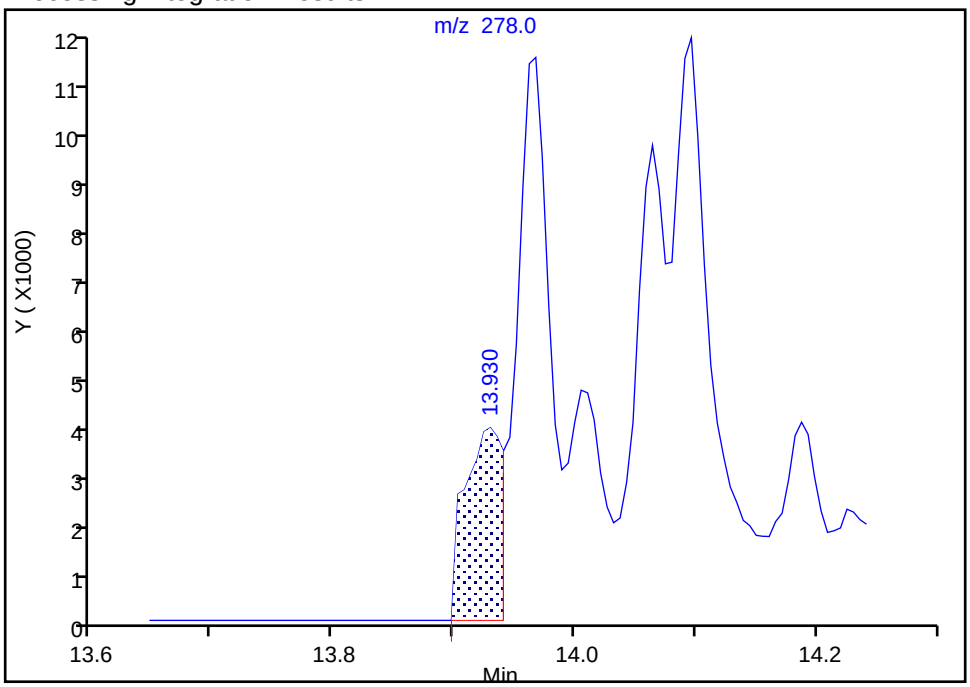
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

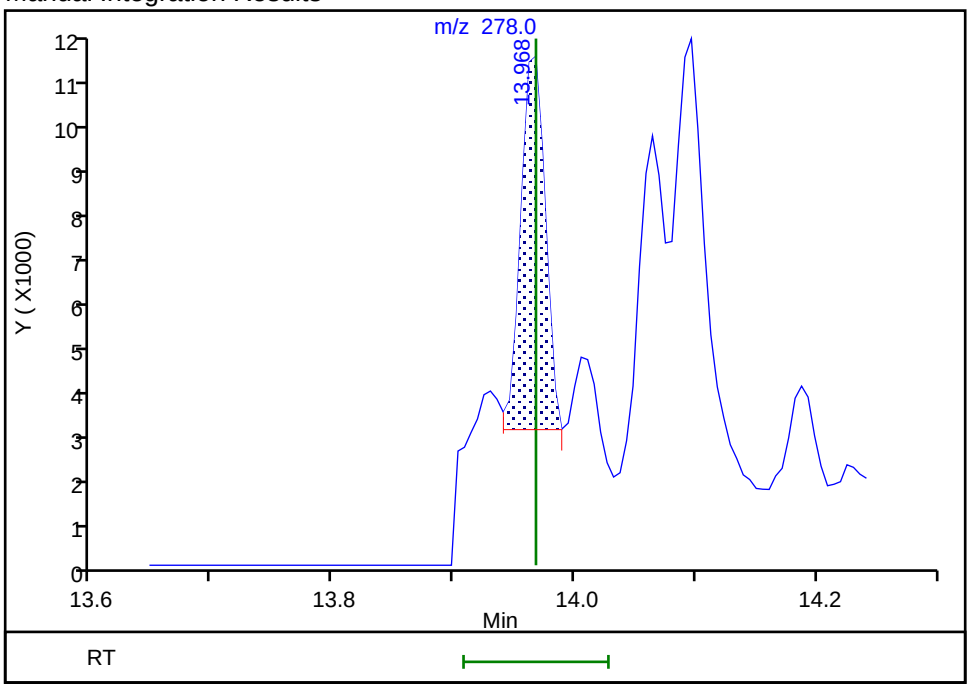
Processing Integration Results

RT: 13.93
Area: 8009
Amount: 3.537649
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 11815
Amount: 4.691919
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:53:21

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

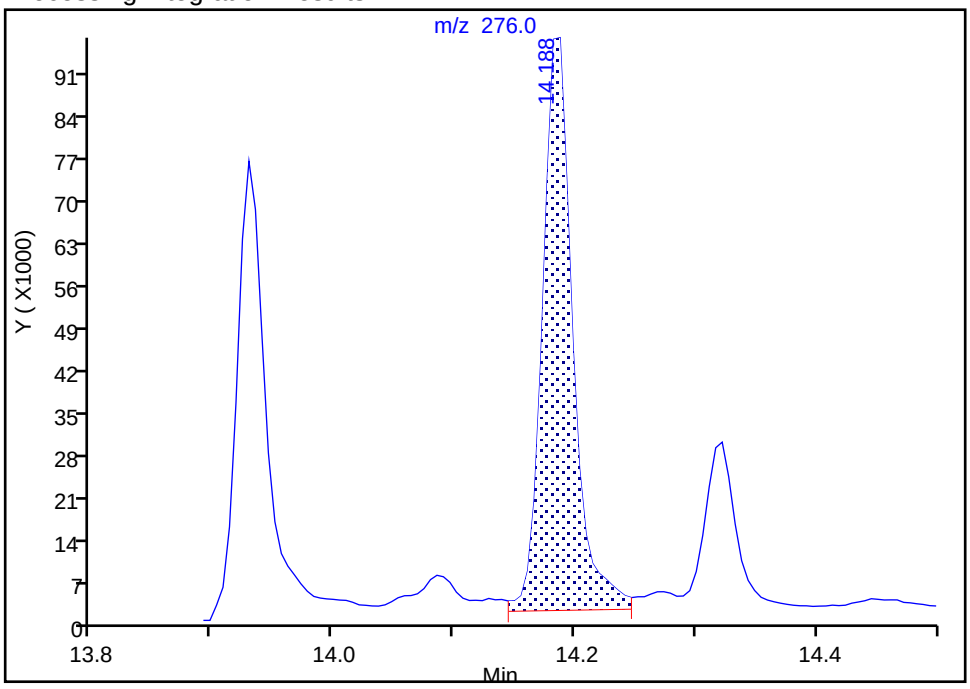
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A007.D				
Injection Date:	22-Jul-2019 13:22:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-2-A	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	KFS	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

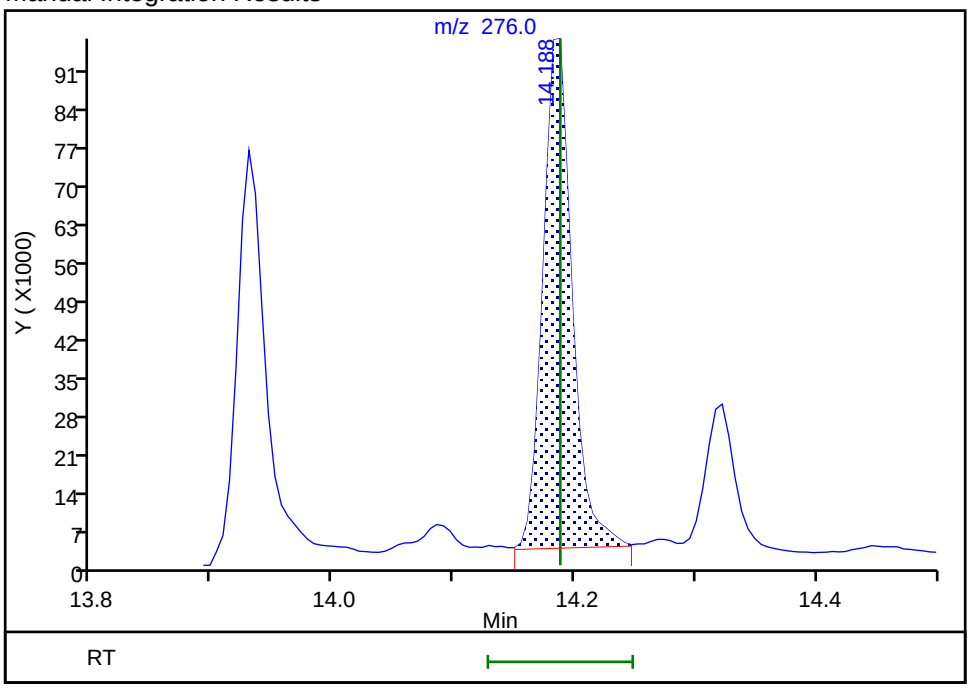
Processing Integration Results

RT: 14.19
Area: 165566
Amount: 44.600036
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 156217
Amount: 42.096430
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:53:27

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 072219A008.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 08:58

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.361(g) Date Analyzed: 07/22/2019 13:48

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	170		10	3.3
91-57-6	2-Methylnaphthalene	69		10	4.1
90-12-0	1-Methylnaphthalene	27		10	1.3
208-96-8	Acenaphthylene	21		10	1.0
83-32-9	Acenaphthene	56		10	1.2
86-73-7	Fluorene	55		10	1.0
85-01-8	Phenanthrene	330		10	3.3
120-12-7	Anthracene	65		10	1.2
206-44-0	Fluoranthene	460		10	2.8
129-00-0	Pyrene	500		10	2.0
56-55-3	Benzo[a]anthracene	240		10	1.5
218-01-9	Chrysene	250		10	3.0
205-99-2	Benzo[b]fluoranthene	320		10	1.2
207-08-9	Benzo[k]fluoranthene	92		10	1.2
50-32-8	Benzo[a]pyrene	300		10	1.7
193-39-5	Indeno[1,2,3-cd]pyrene	310		10	1.2
53-70-3	Dibenz(a,h)anthracene	28	B	10	1.5
191-24-2	Benzo[g,h,i]perylene	260	B	10	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	65		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D
Lims ID: 580-87706-A-3-A
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:48:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-3-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:02:34 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:02:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	390426	100.0	
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	95	176967	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	309891	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	233589	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	265873	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1527191	650.9	
10 Naphthalene	128	7.004	7.004	0.000	100	370352	84.9	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	94	98091	34.3	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	96	35236	13.2	M
13 Acenaphthylene	152	8.376	8.376	0.000	100	40966	10.6	M
14 Acenaphthene	153	8.519	8.525	-0.006	80	78306	27.9	M
15 Fluorene	166	8.941	8.947	-0.006	94	76201	27.2	M
17 Phenanthrene	178	9.703	9.704	-0.001	100	689657	163.9	M
18 Anthracene	178	9.745	9.745	0.000	100	126098	32.2	M
19 Fluoranthene	202	10.651	10.657	-0.006	97	902513	226.4	M
20 Pyrene	202	10.824	10.830	-0.006	100	1049472	250.0	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	98	310135	116.5	M
22 Chrysene	228	11.820	11.821	-0.001	99	436547	123.3	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	539412	157.5	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	190479	45.5	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	100	519549	149.8	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	99	411510	154.3	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	42499	13.7	M
28 Benzo[g,h,i]perylene	276	14.182	14.188	-0.006	99	489865	128.1	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

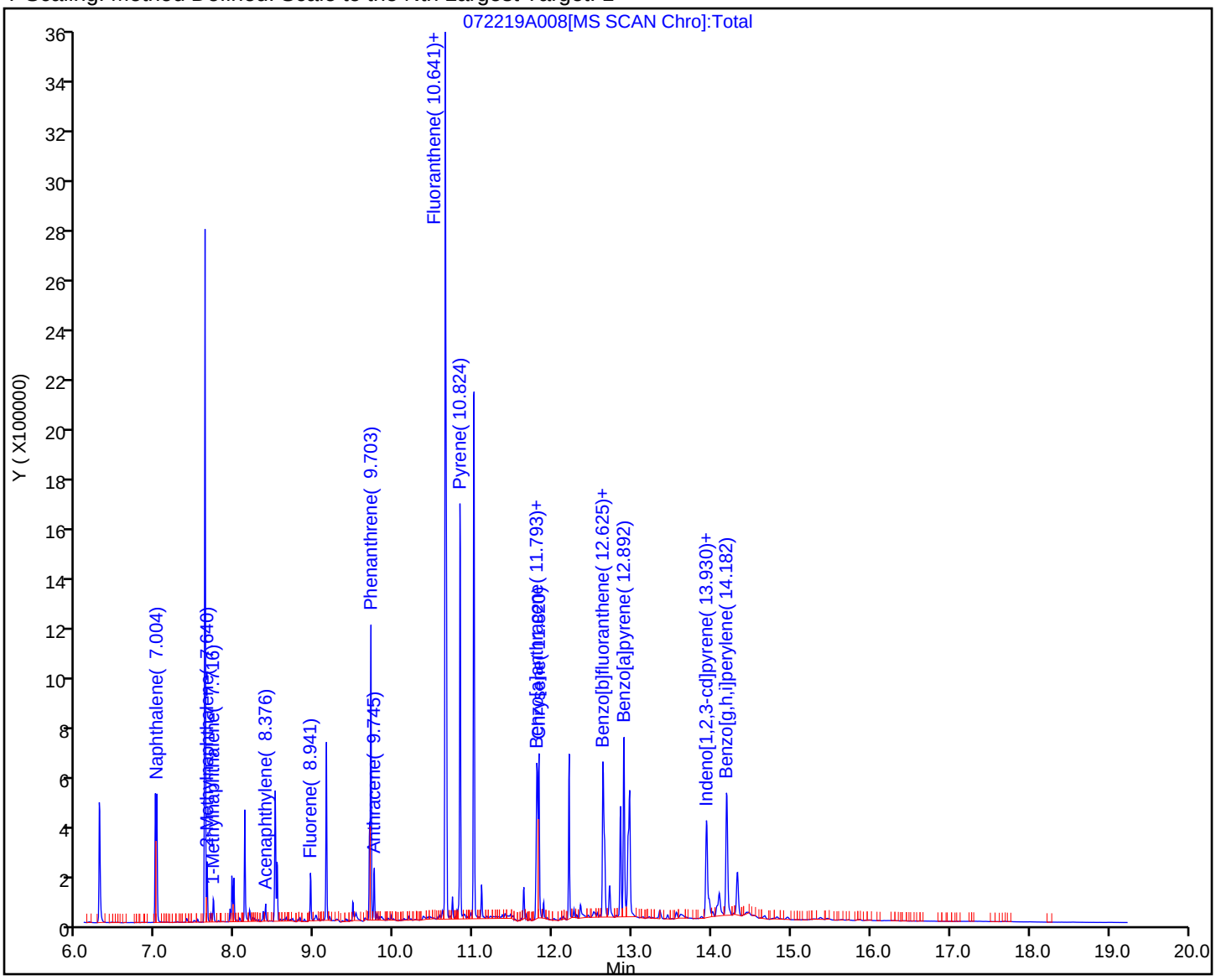
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:02:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D
Lims ID: 580-87706-A-3-A
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:48:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-3-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:02:34 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:02:34

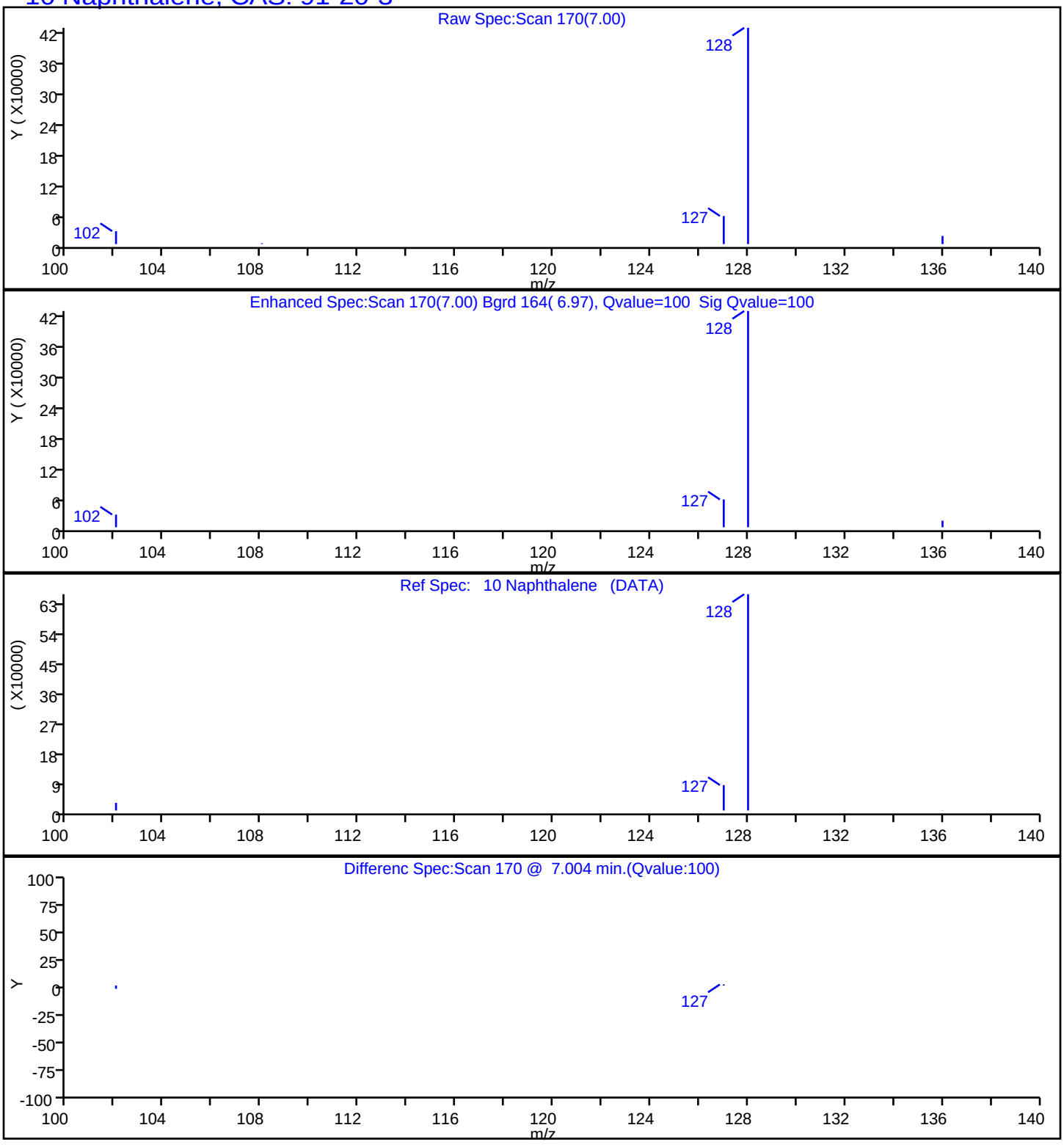
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	650.9	65.09

Report Date: 23-Jul-2019 14:02:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

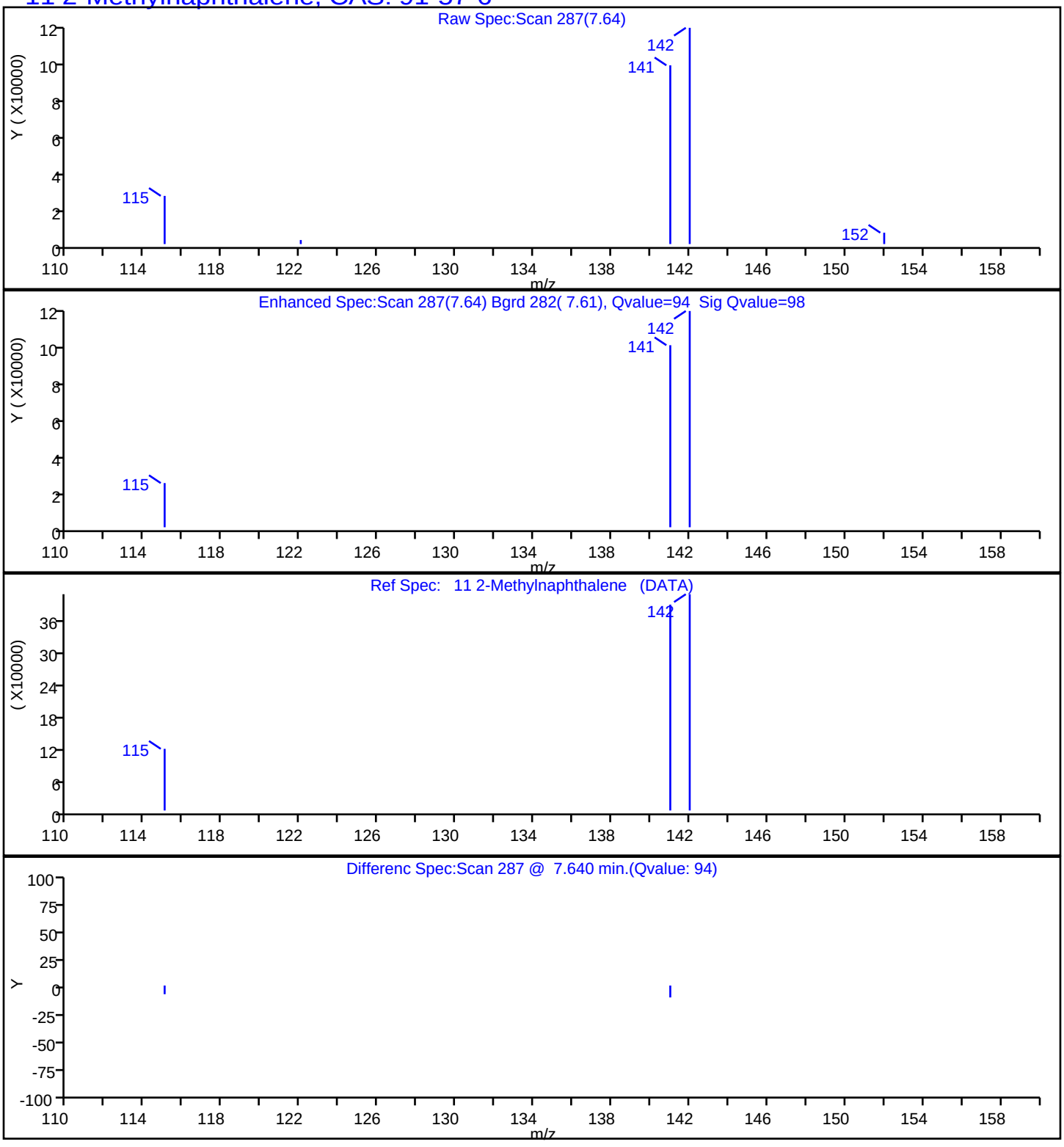


Report Date: 23-Jul-2019 14:02:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

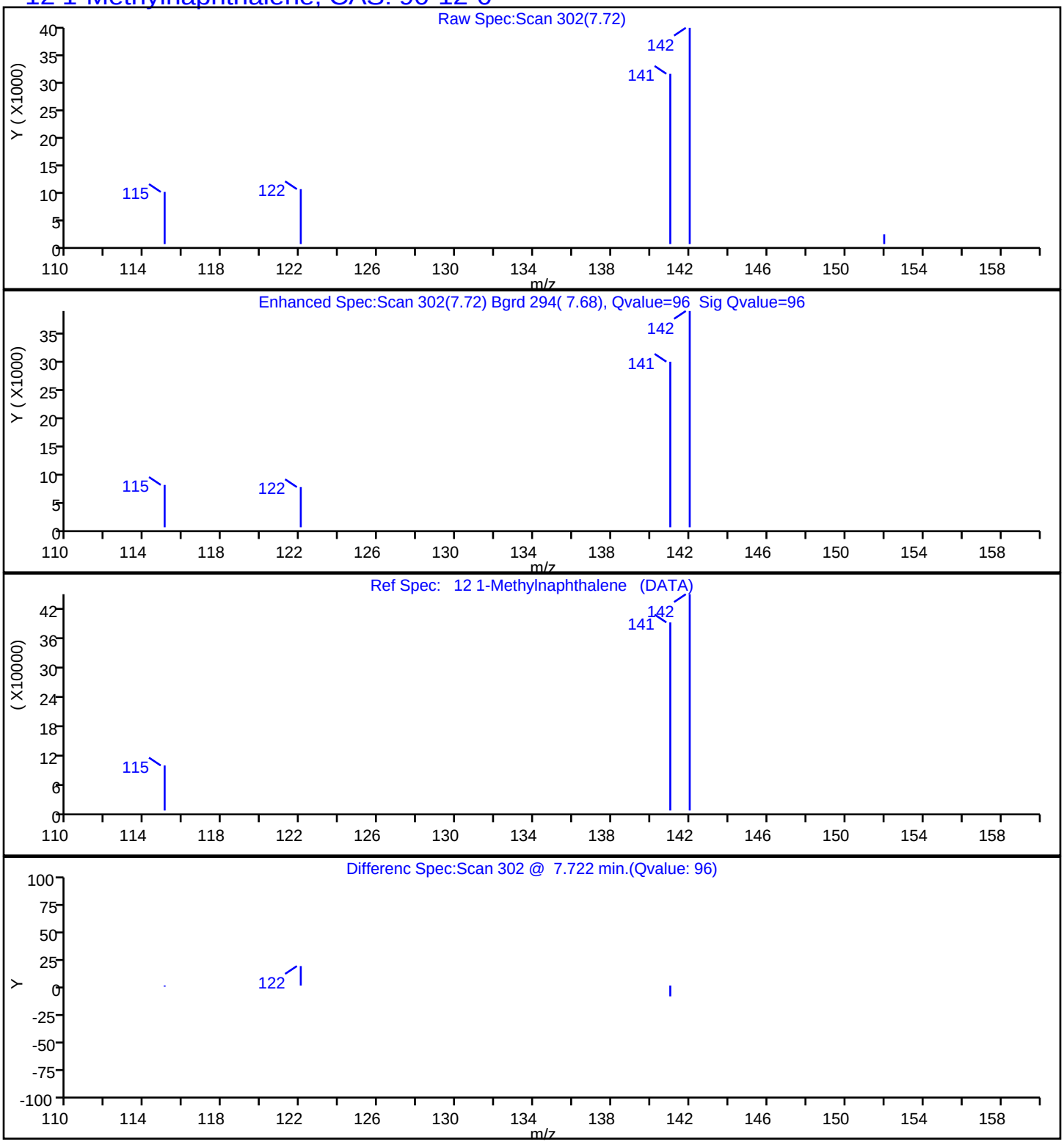


Report Date: 23-Jul-2019 14:02:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

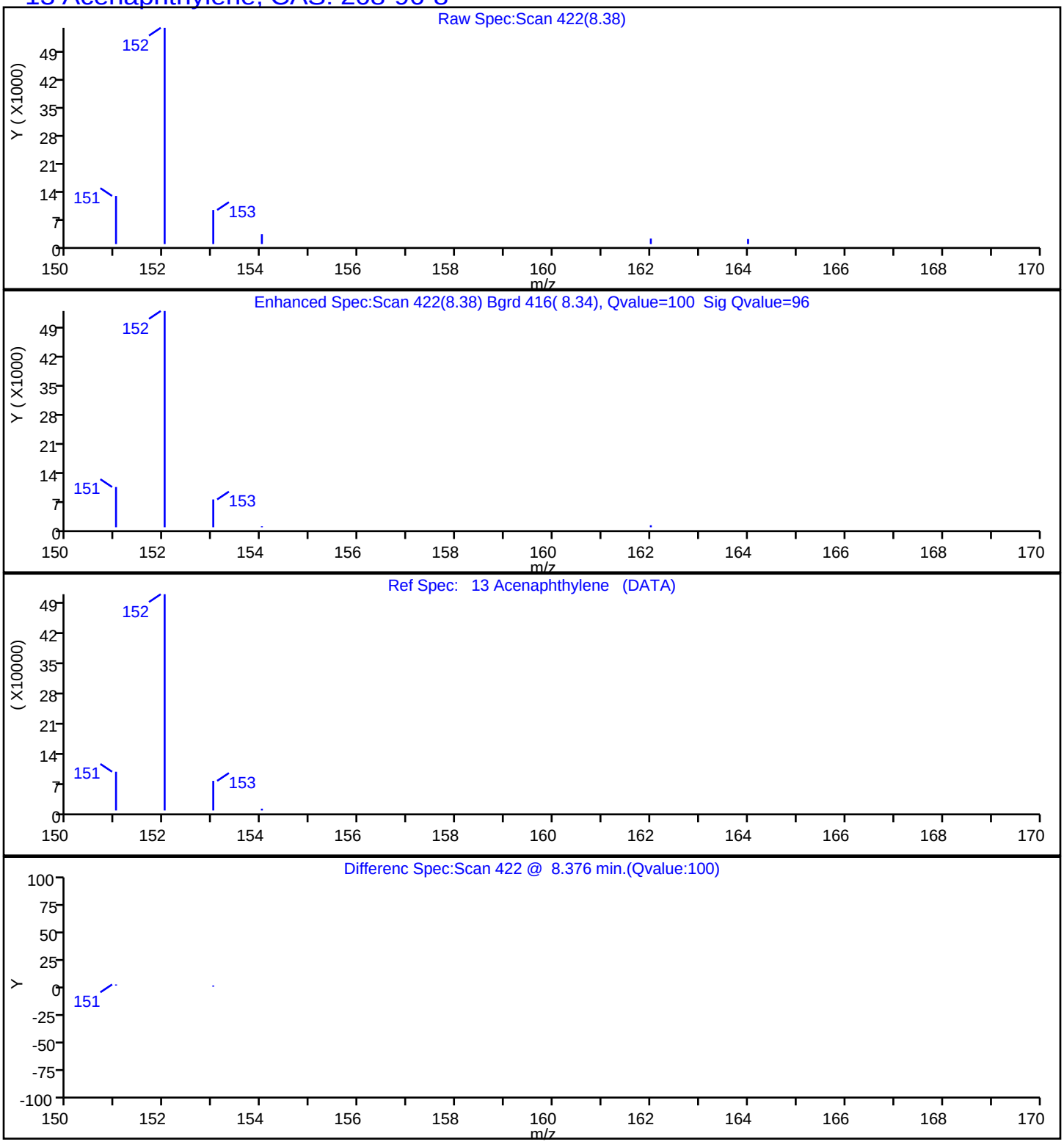


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

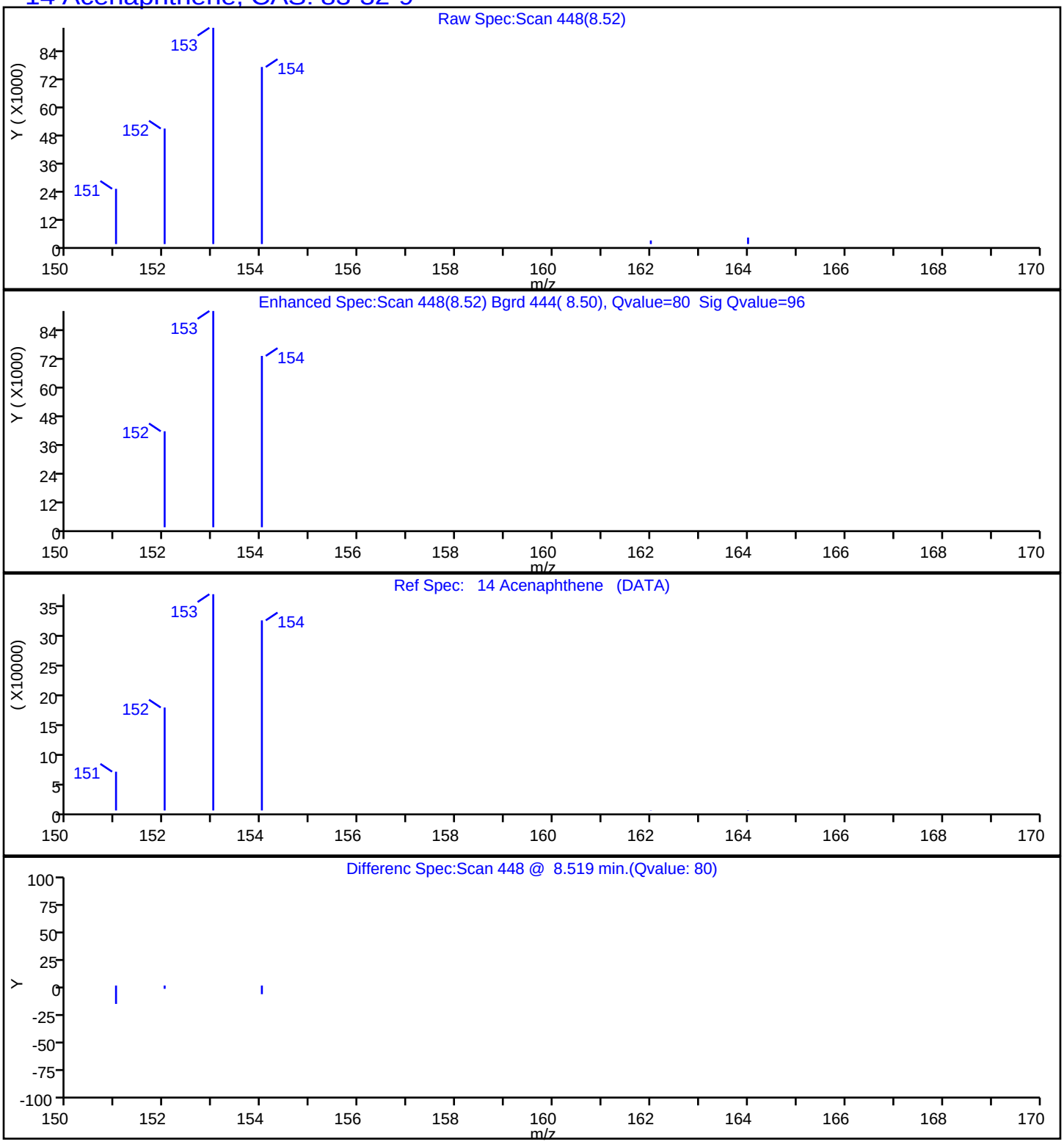


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

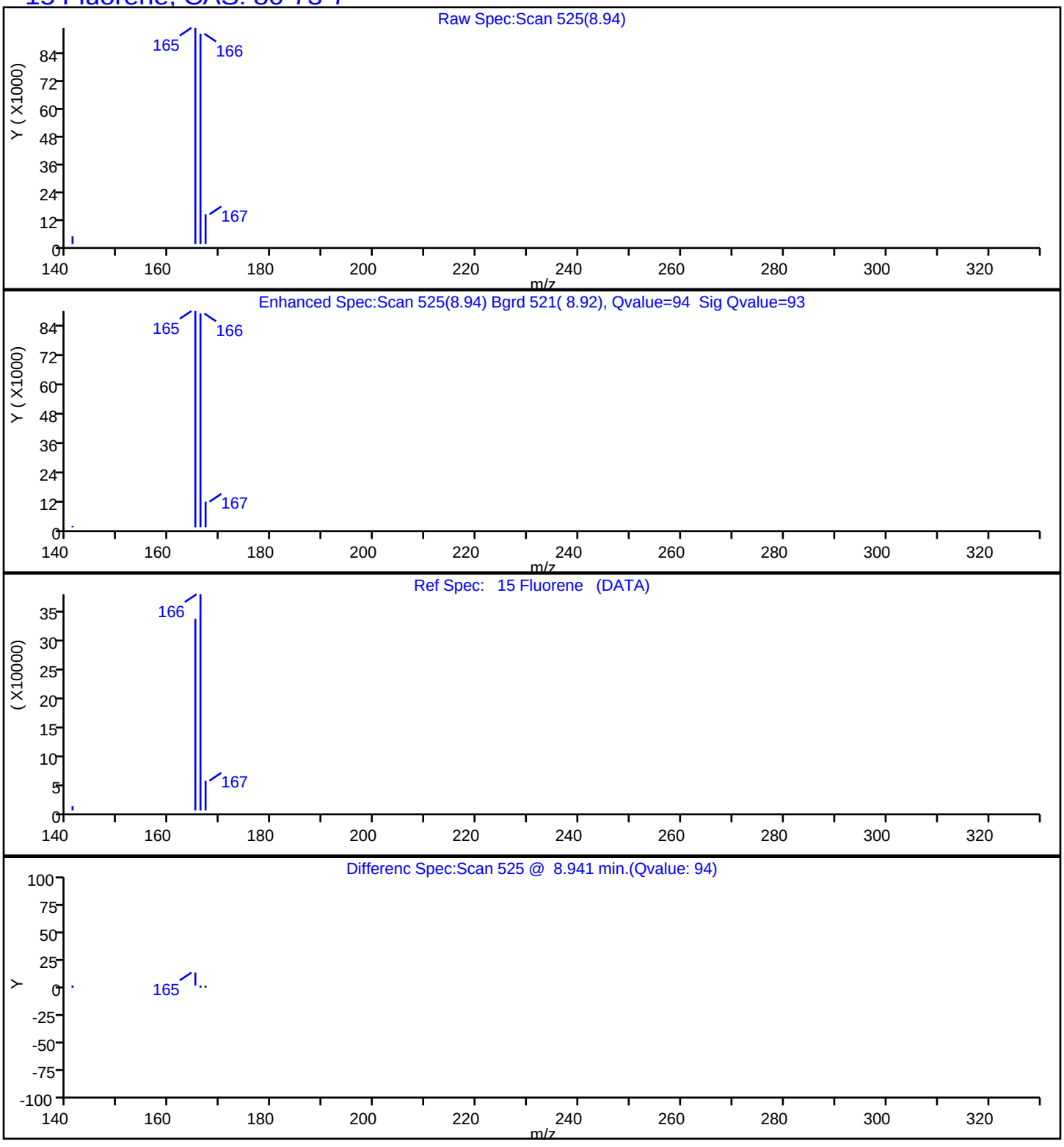


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

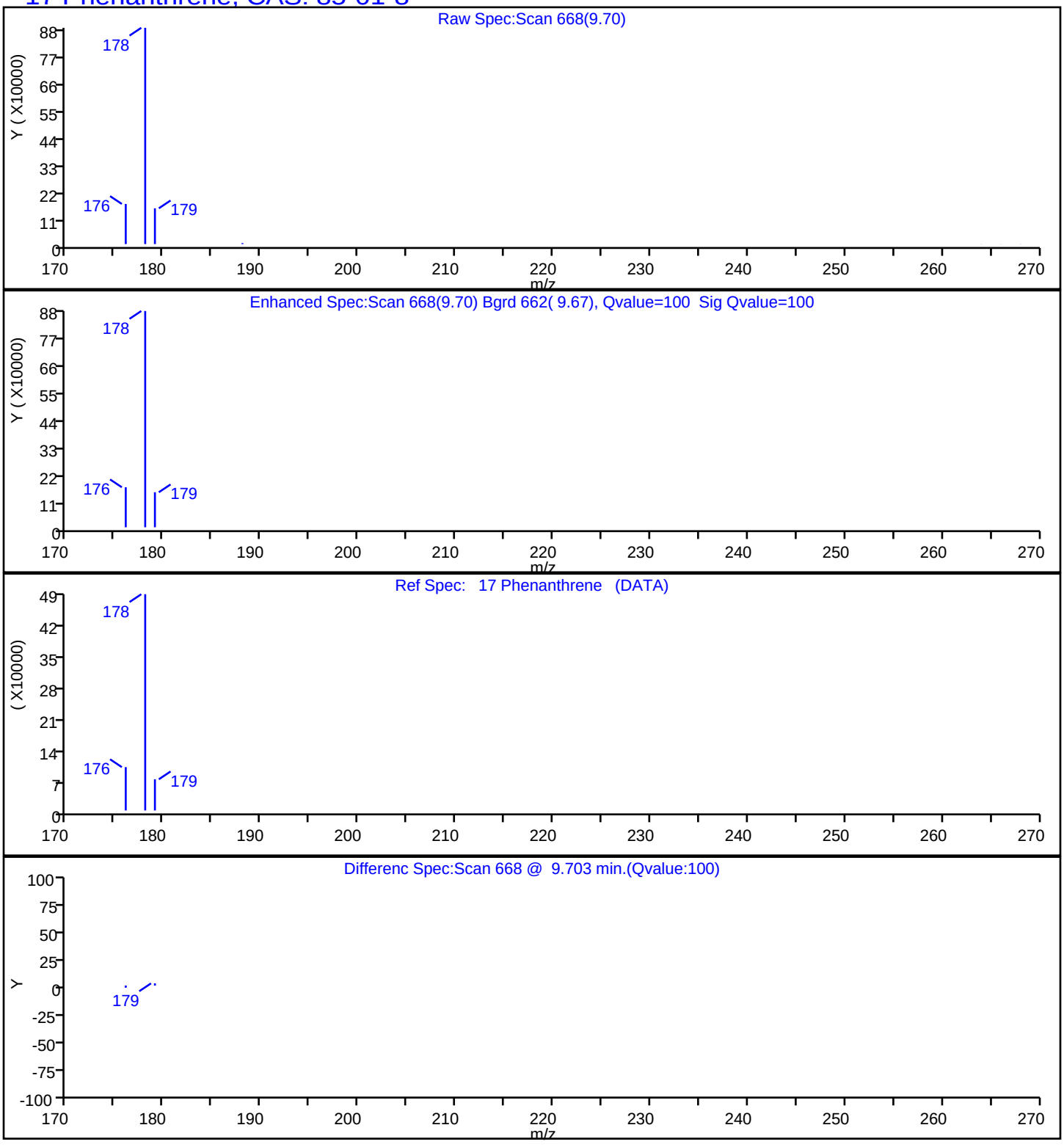


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

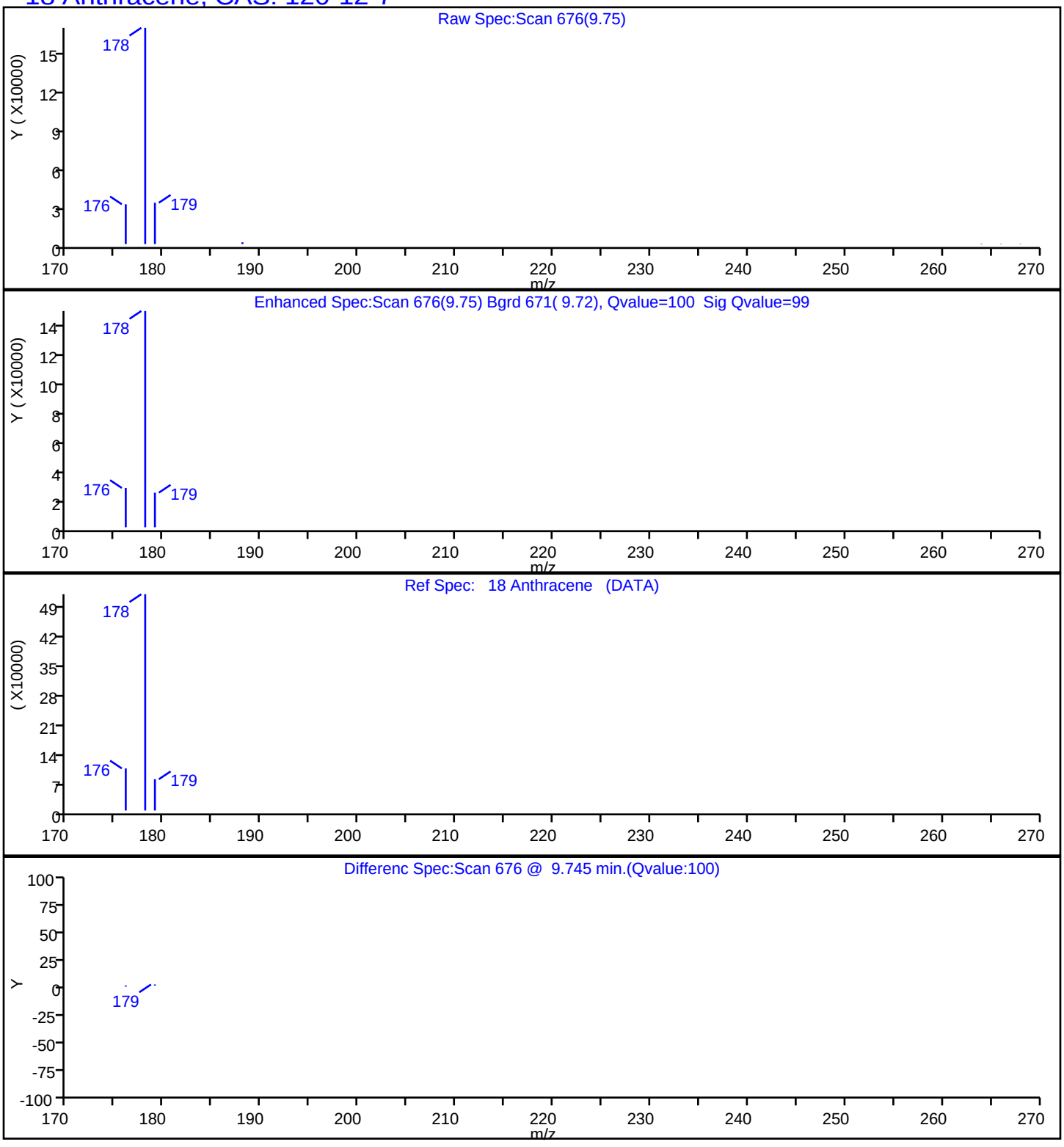


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

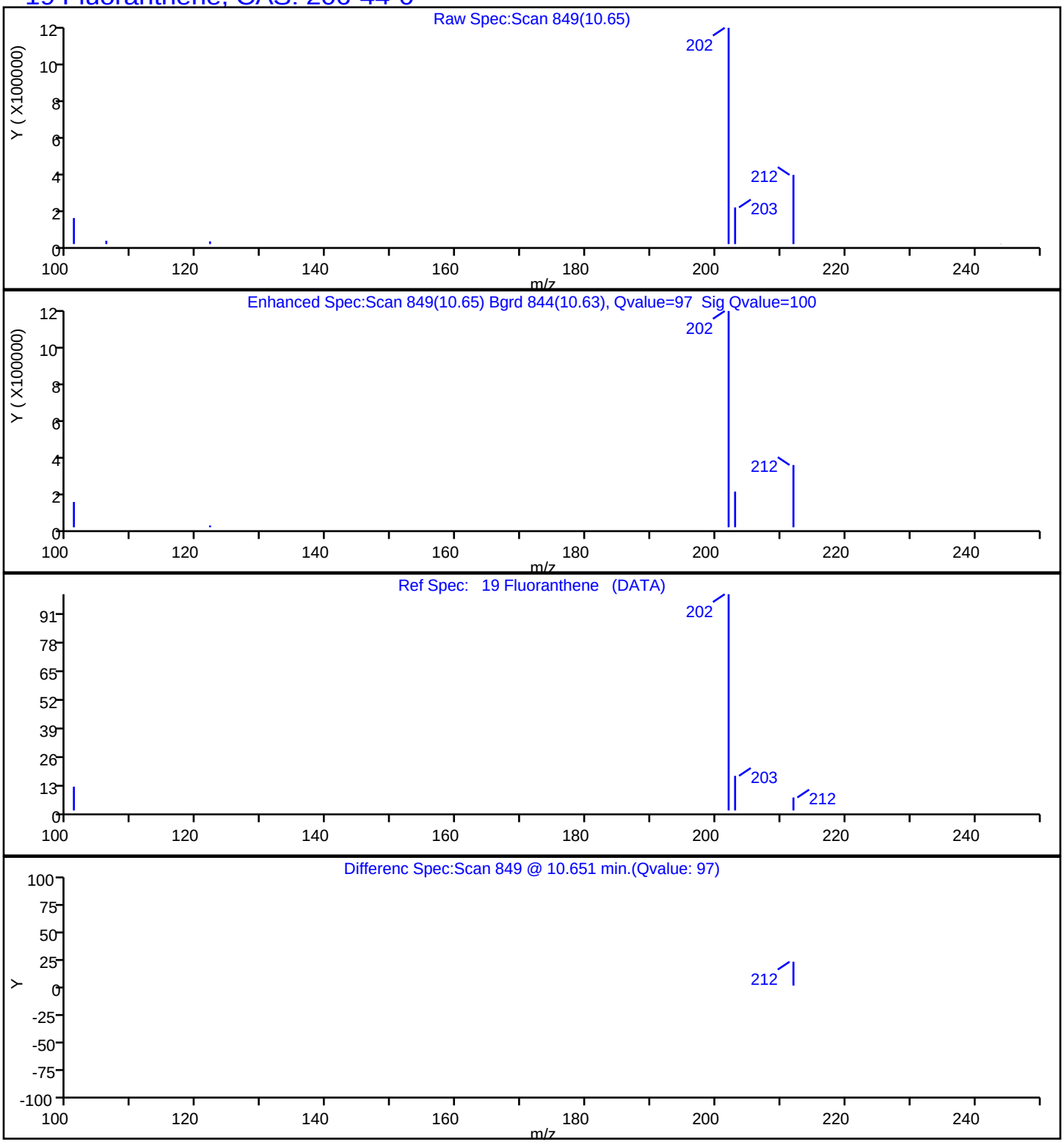


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

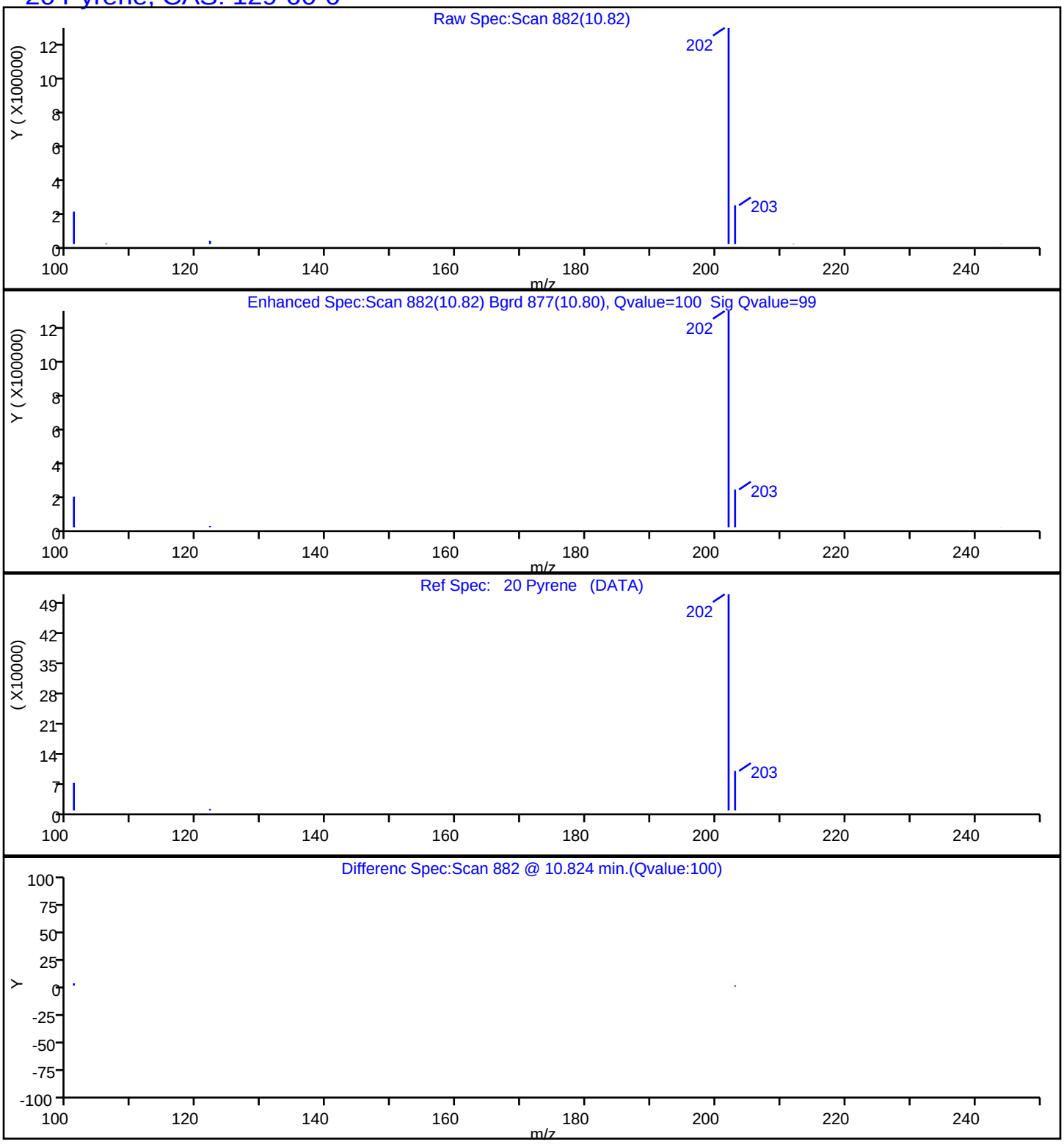


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

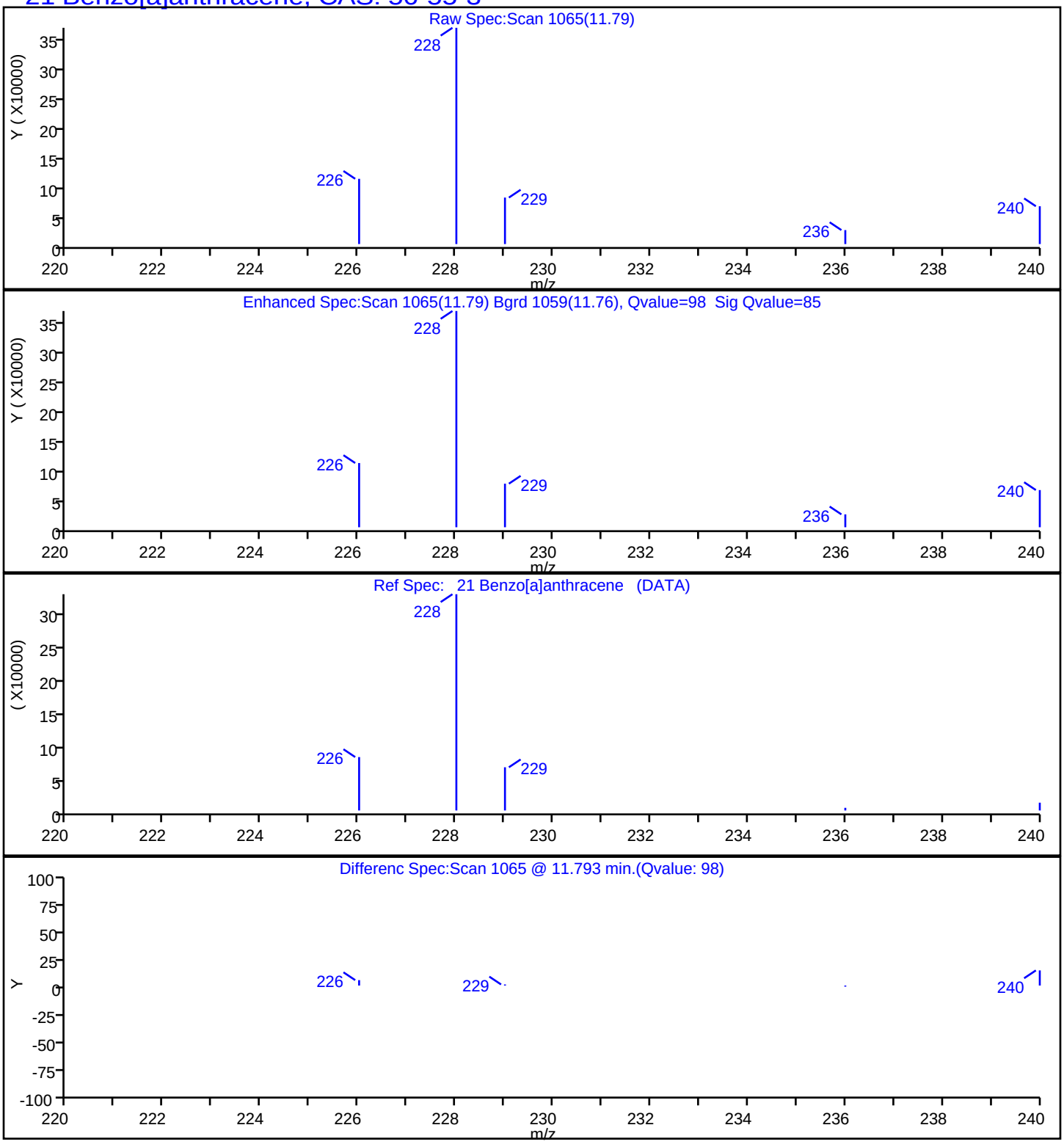


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

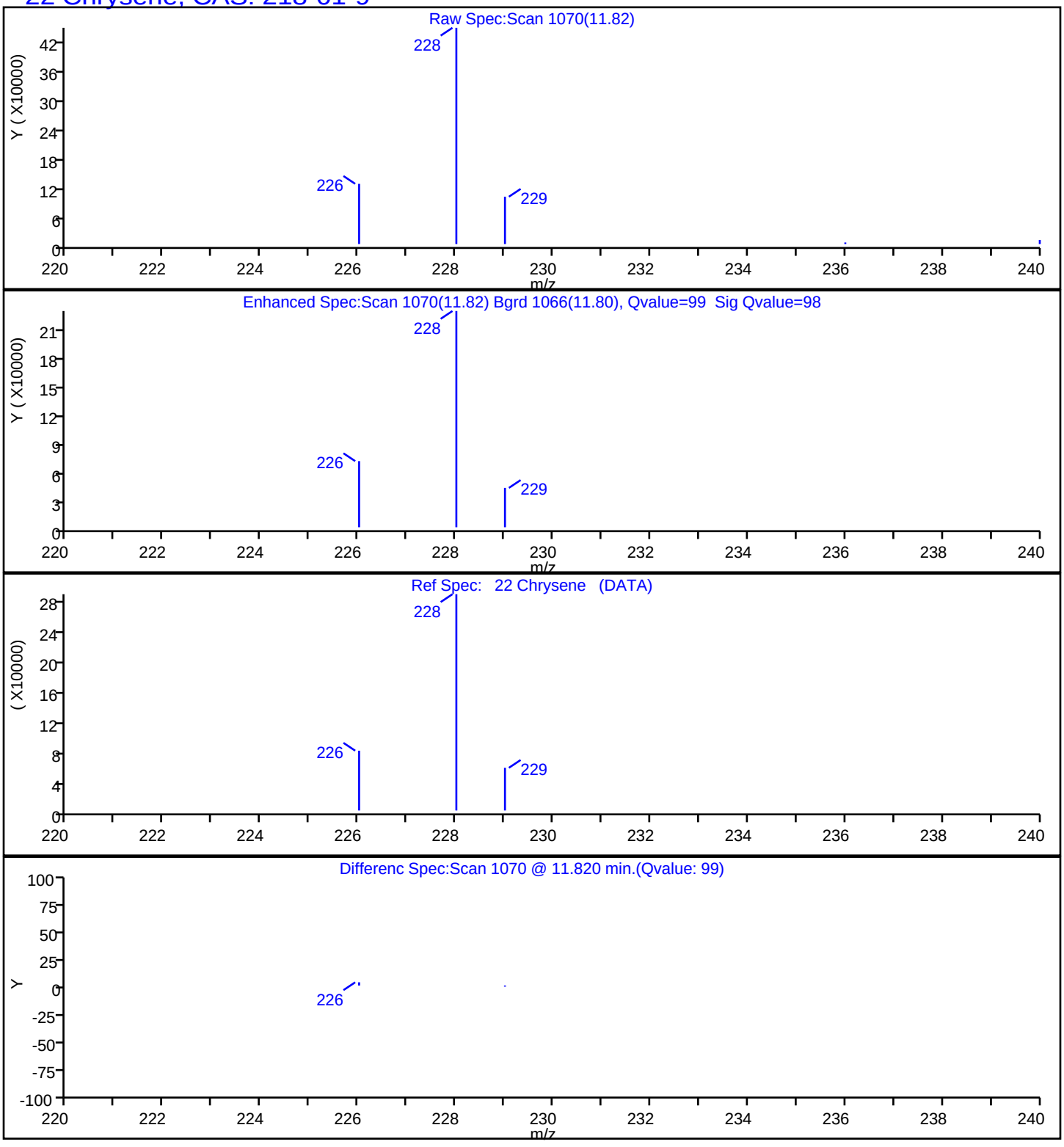


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

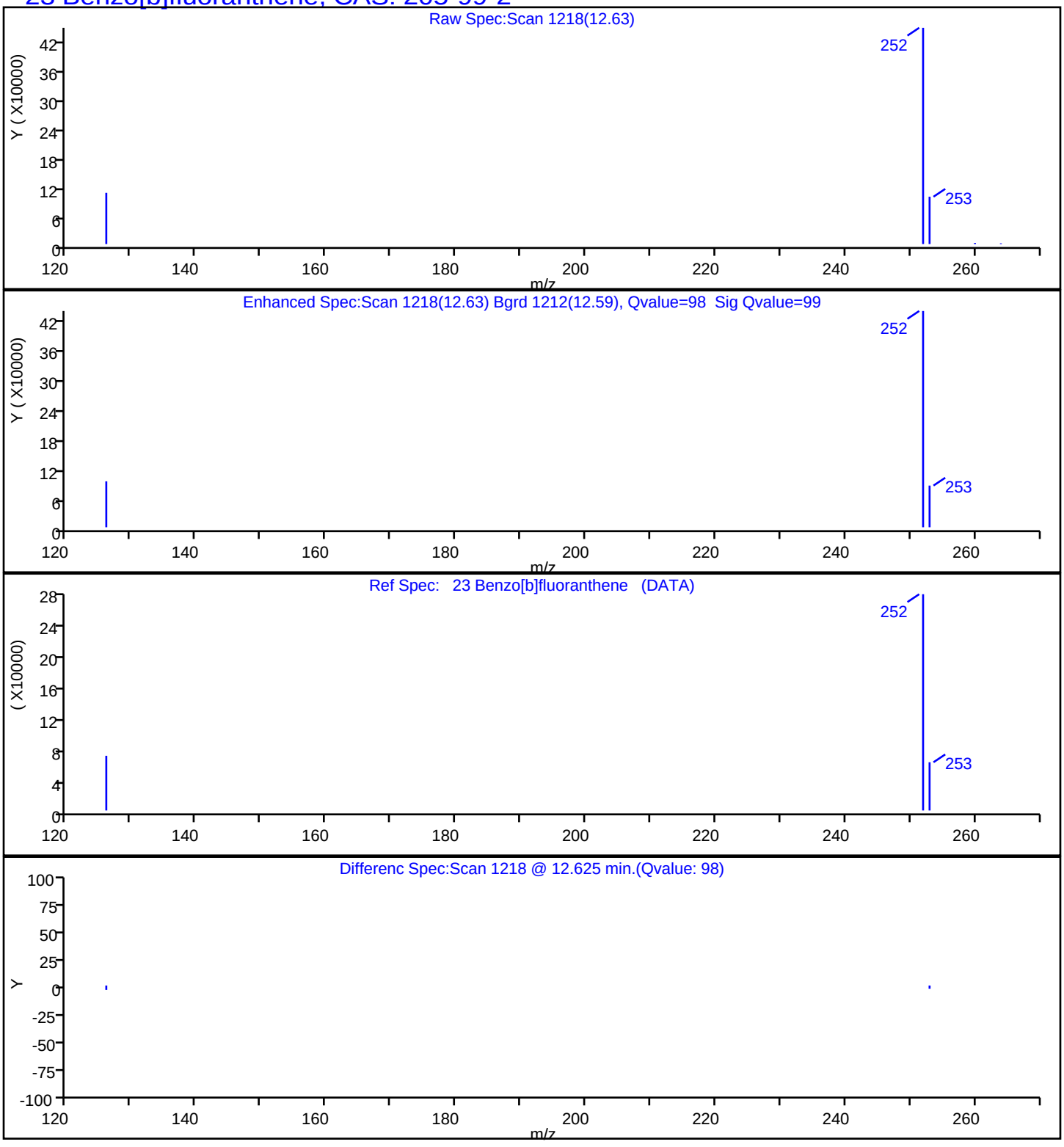


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

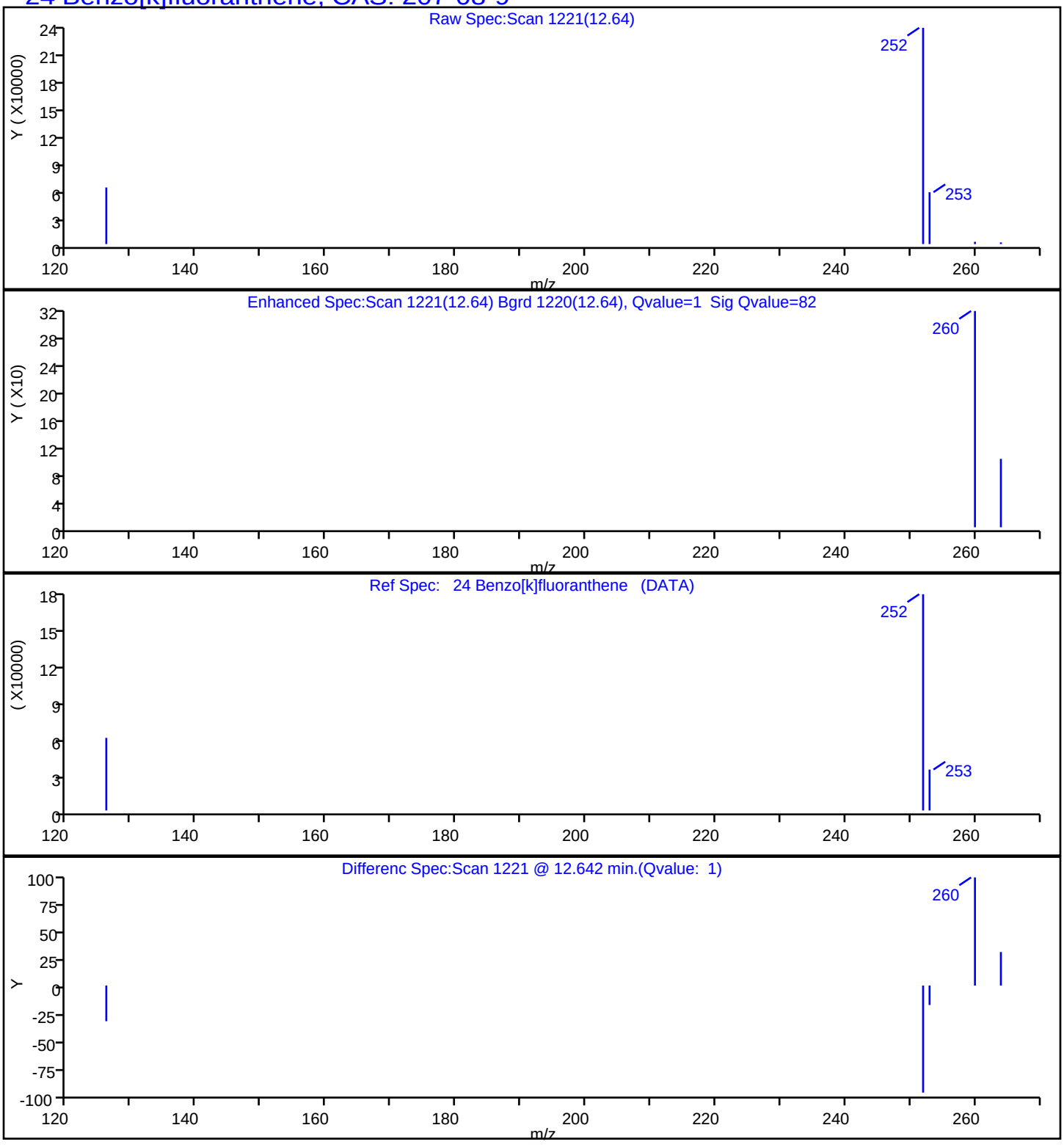


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

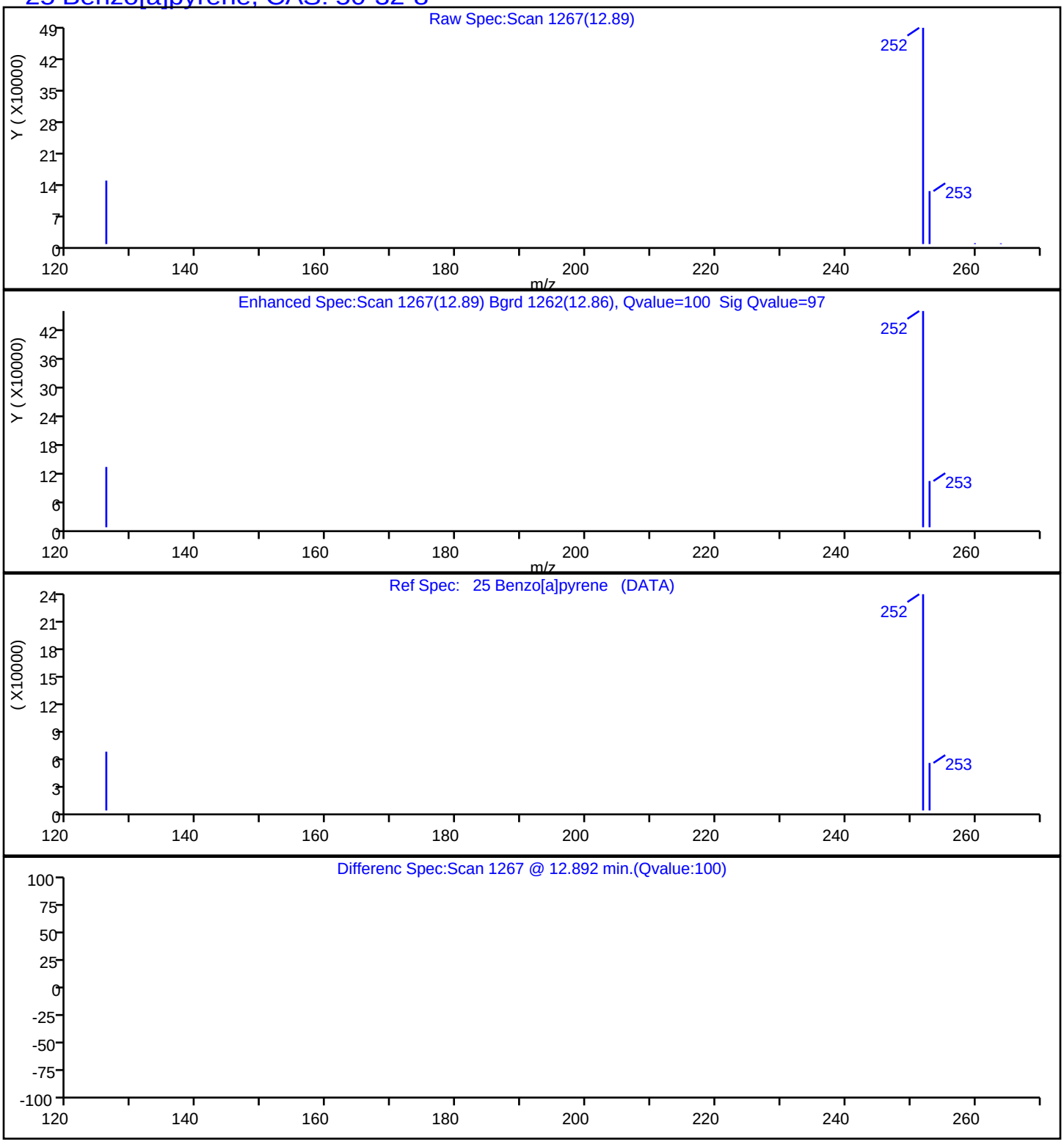


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

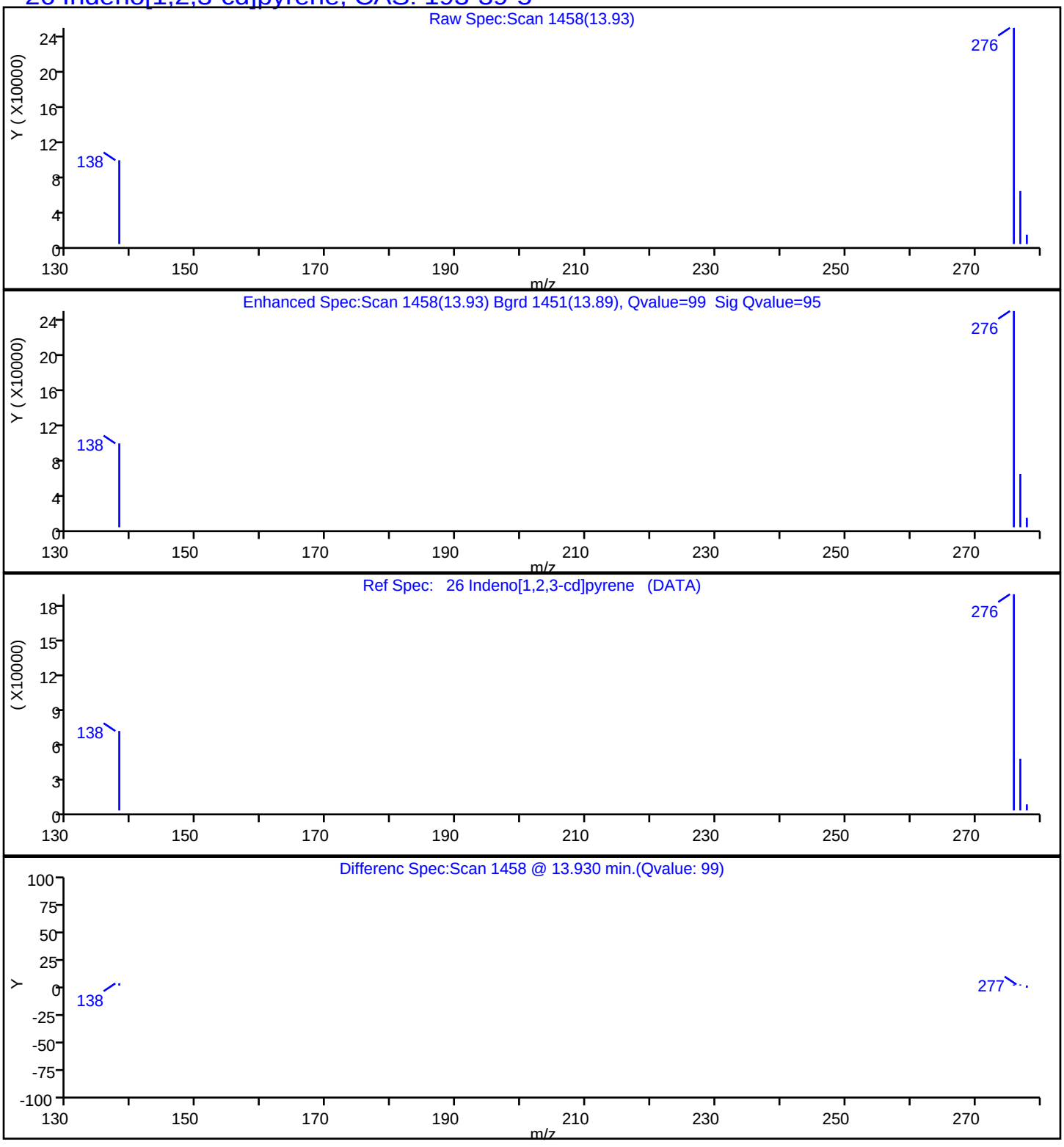


Report Date: 23-Jul-2019 14:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

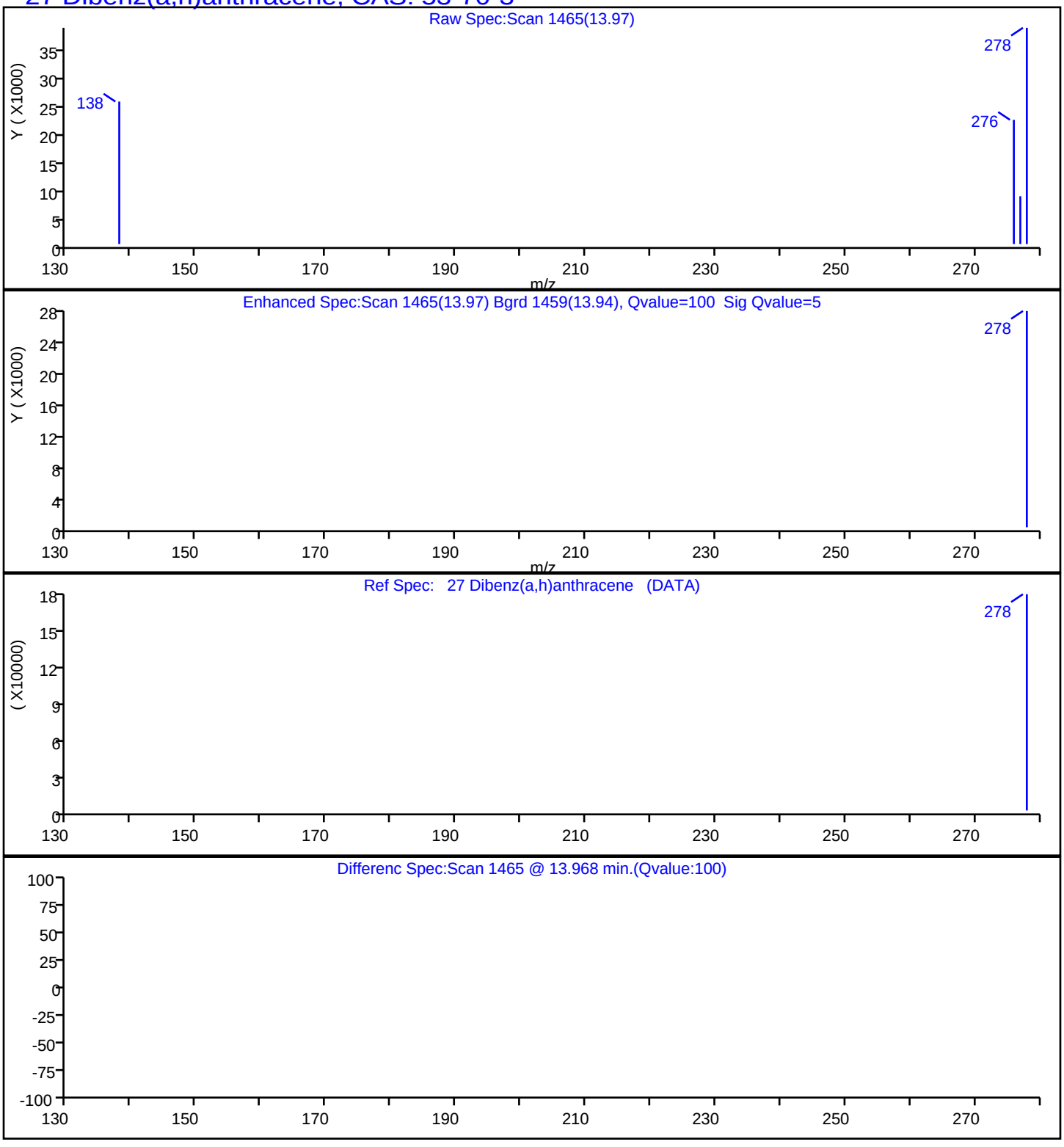


Report Date: 23-Jul-2019 14:02:36 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

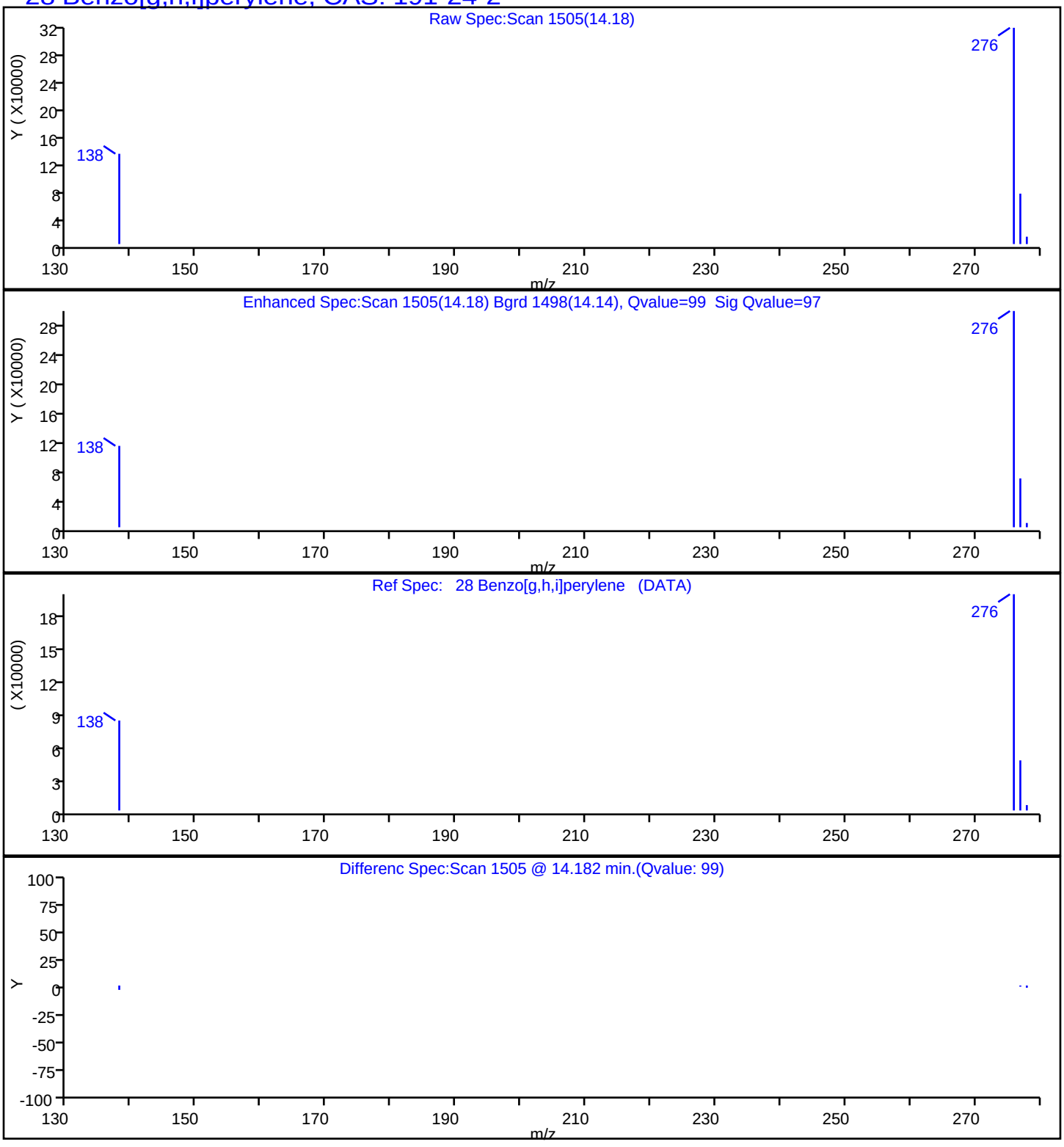


Report Date: 23-Jul-2019 14:02:36 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

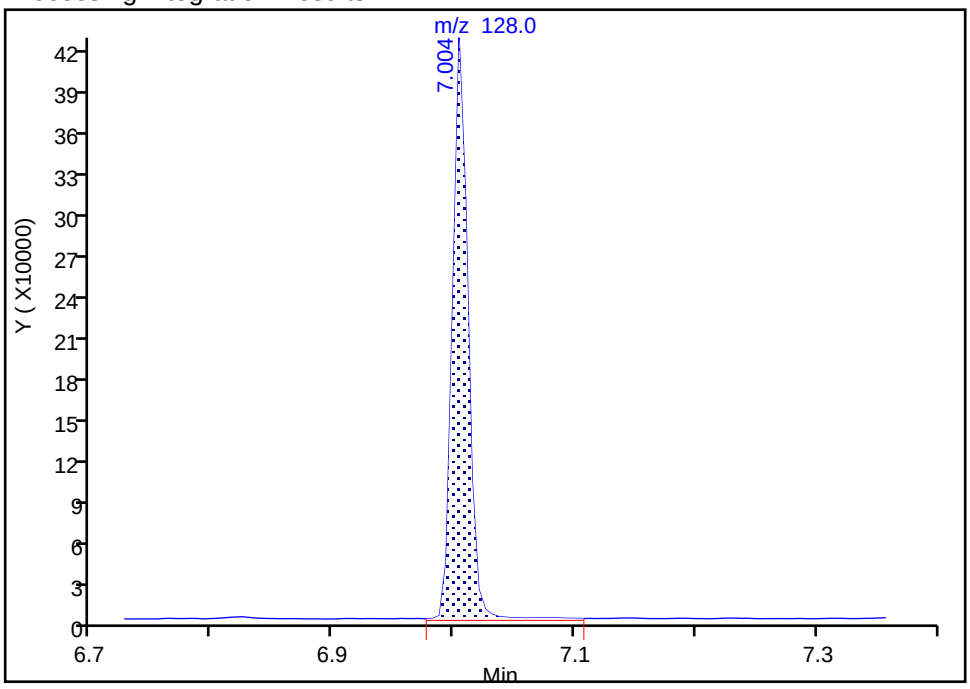
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

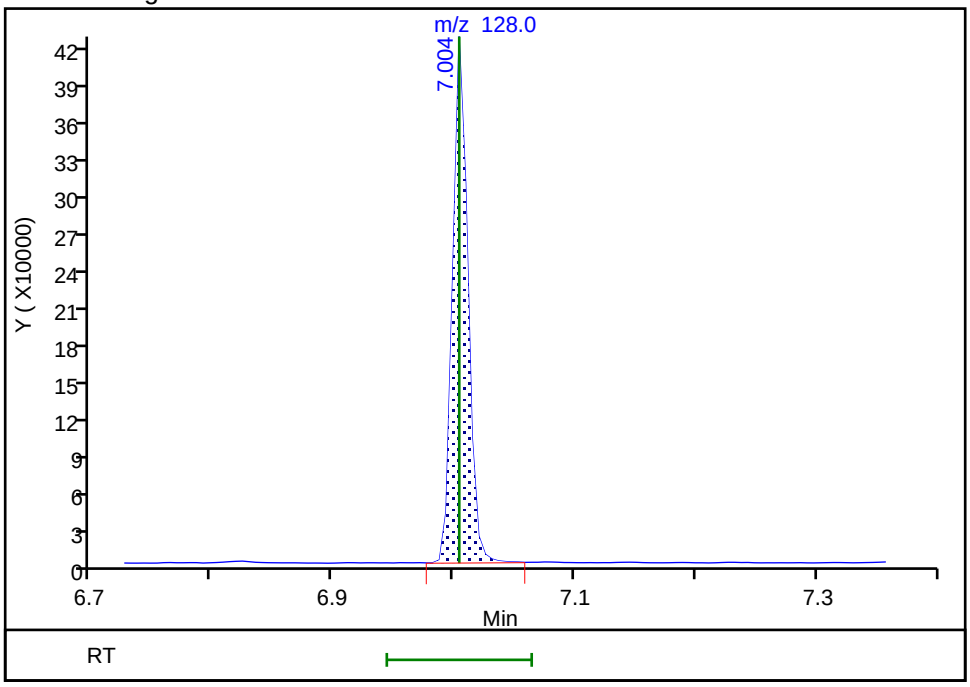
Processing Integration Results

RT: 7.00
Area: 380856
Amount: 87.307292
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 370352
Amount: 84.899358
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:59:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

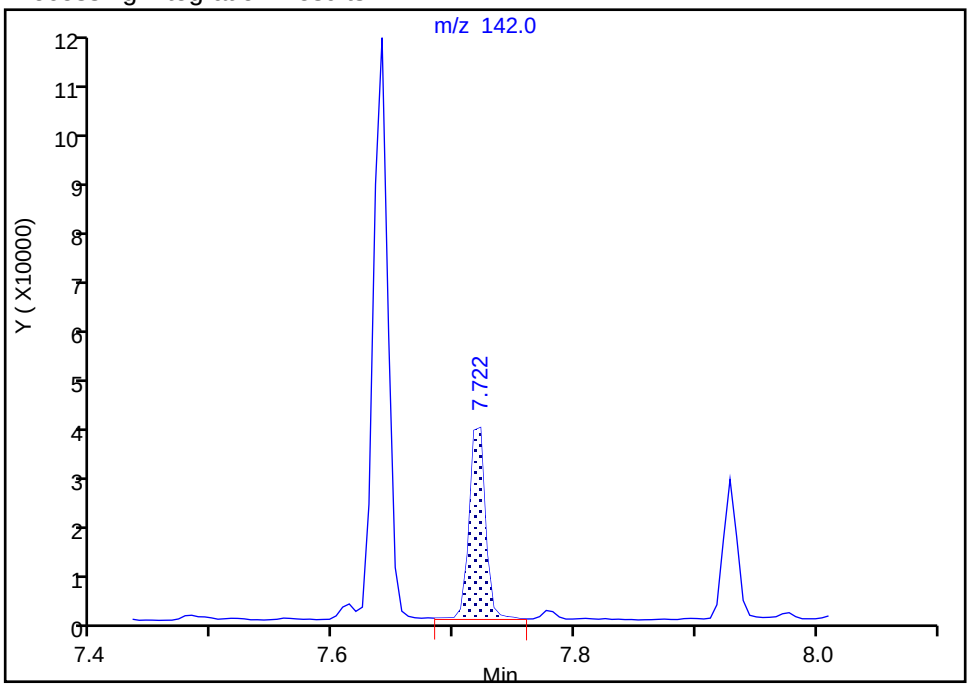
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

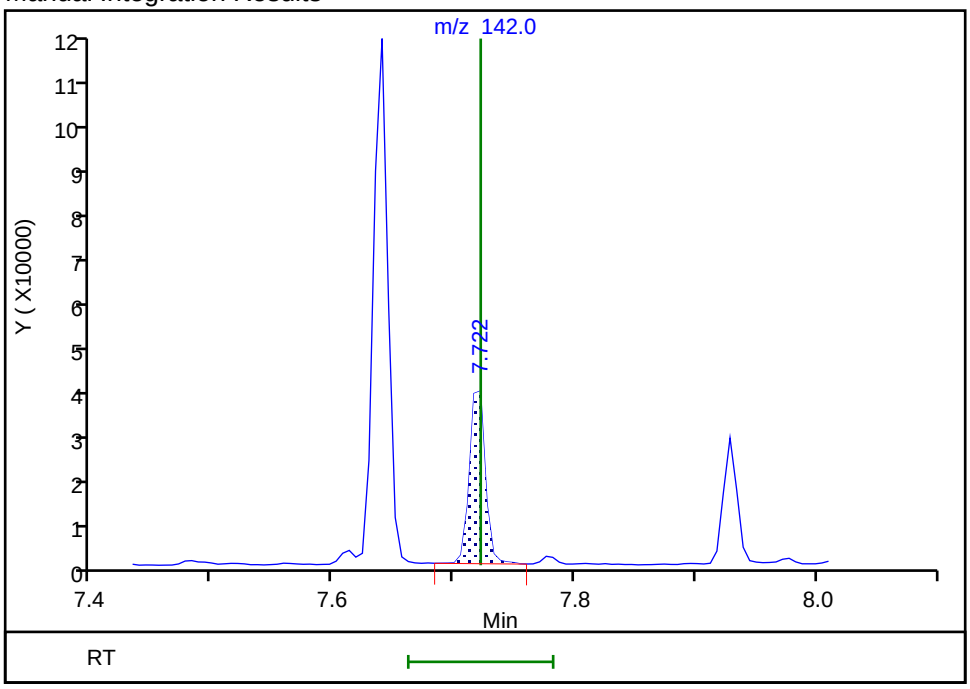
Processing Integration Results

RT: 7.72
Area: 35950
Amount: 13.460101
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 35236
Amount: 13.192771
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:59:58

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

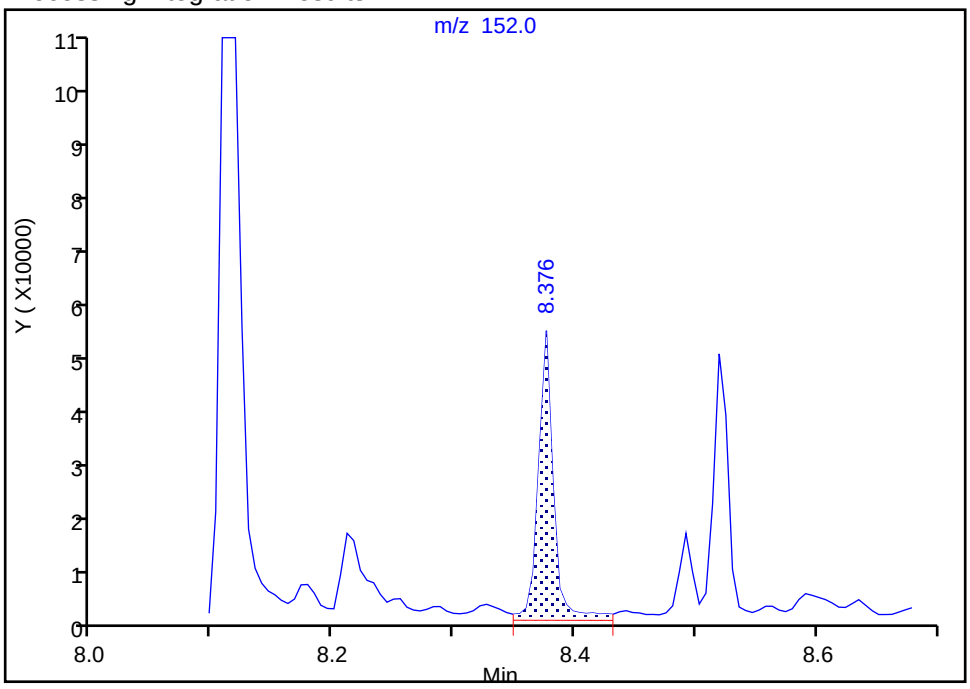
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

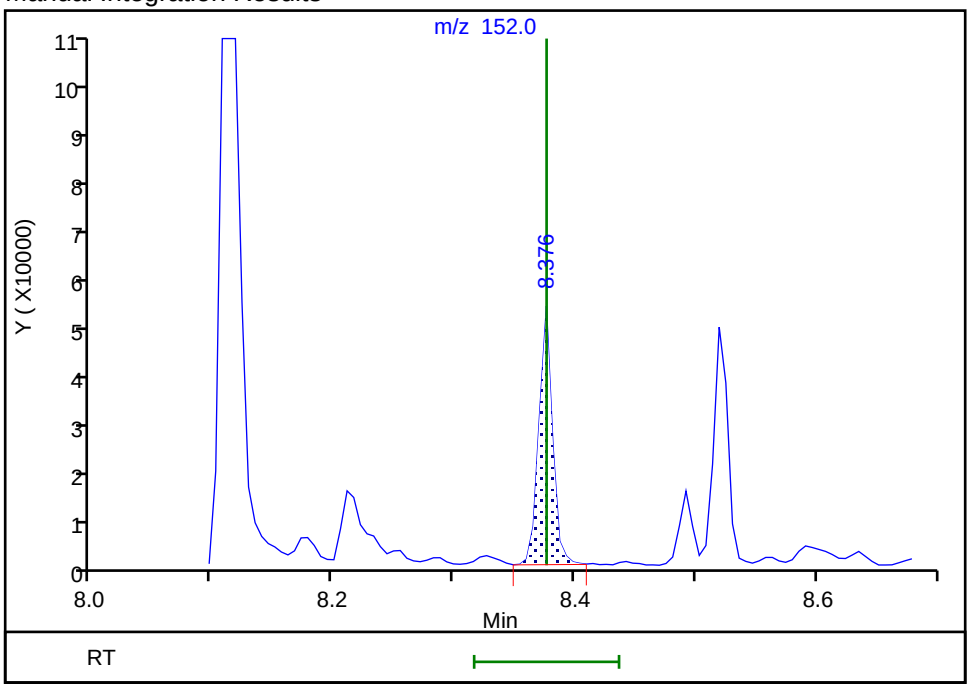
Processing Integration Results

RT: 8.38
Area: 46702
Amount: 12.099750
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 40966
Amount: 10.613643
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:00:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

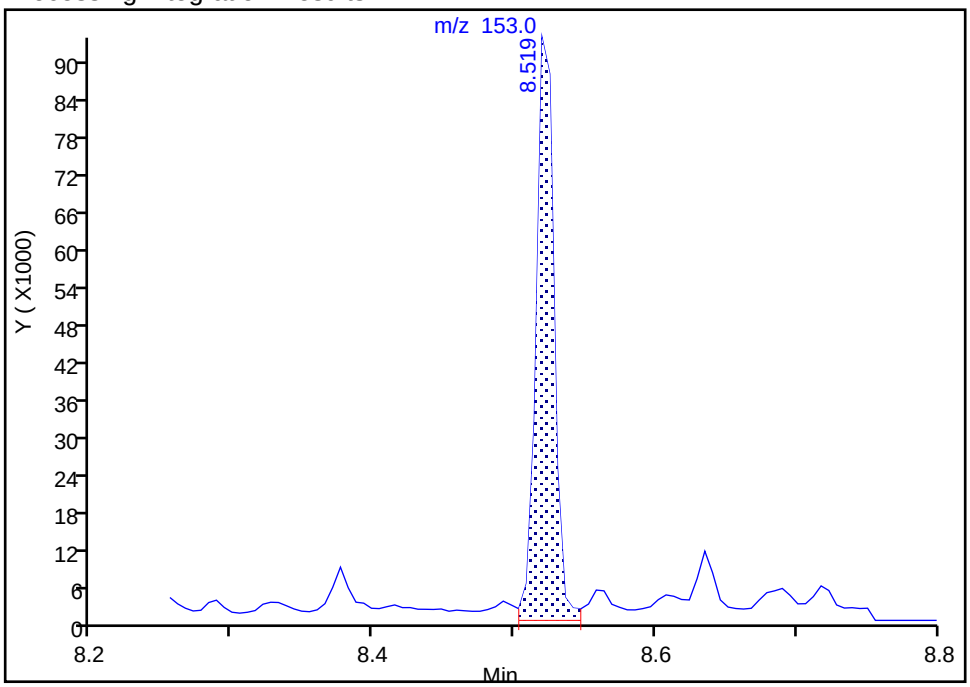
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

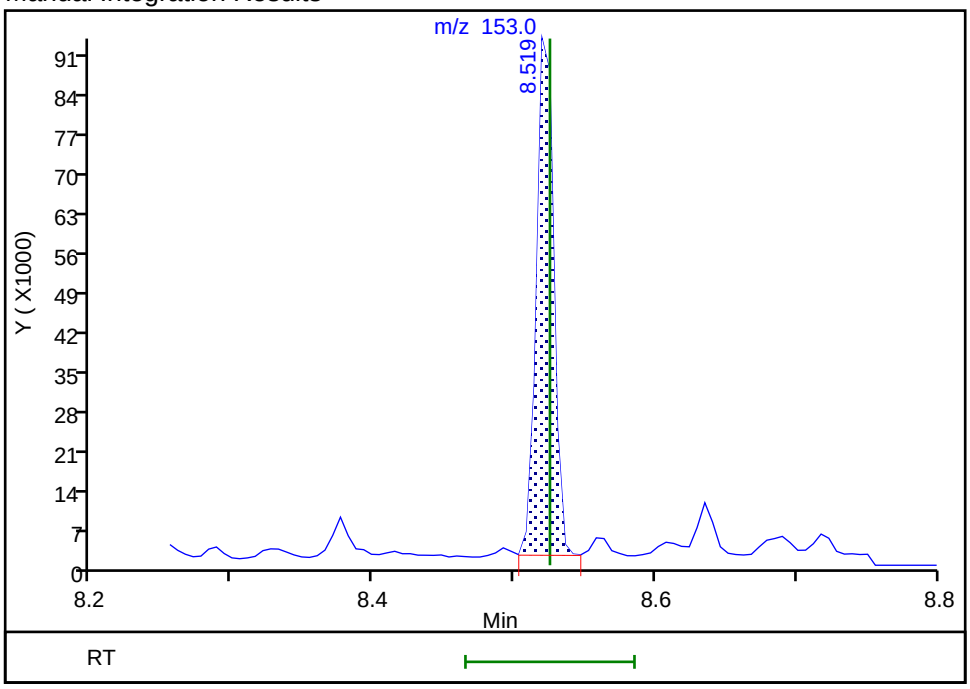
Processing Integration Results

RT: 8.52
Area: 82974
Amount: 29.611859
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 78306
Amount: 27.945938
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:00:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

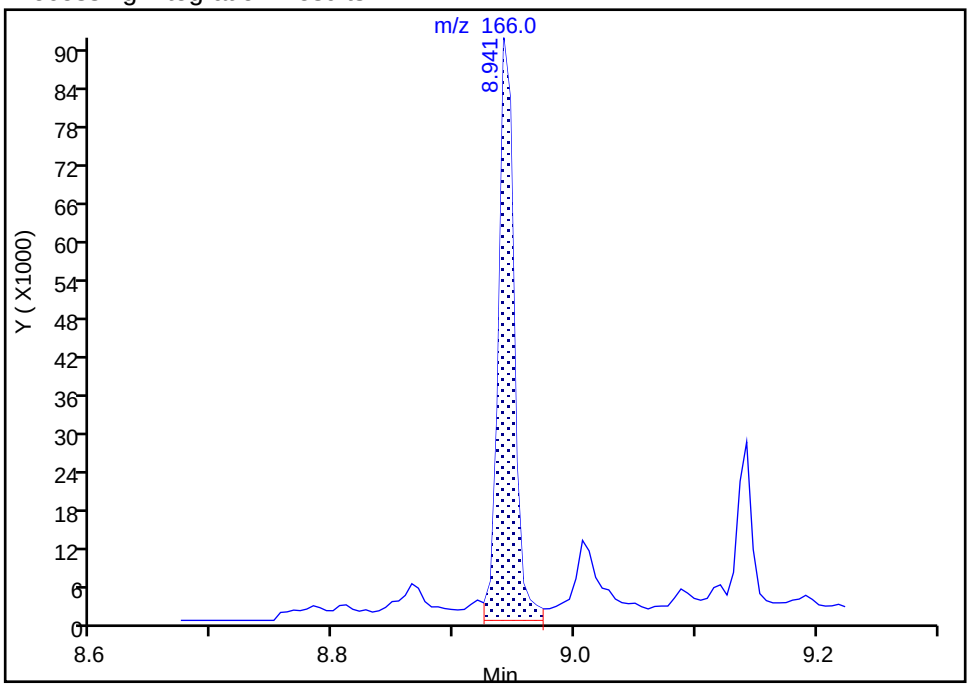
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

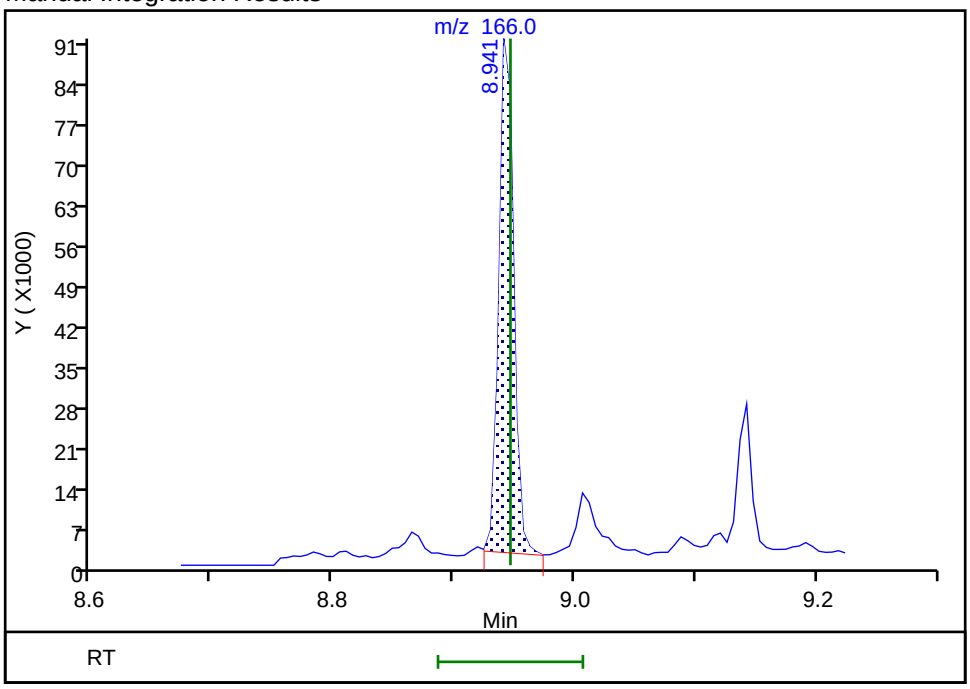
Processing Integration Results

RT: 8.94
Area: 82376
Amount: 29.359791
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 76201
Amount: 27.158947
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:00:12

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

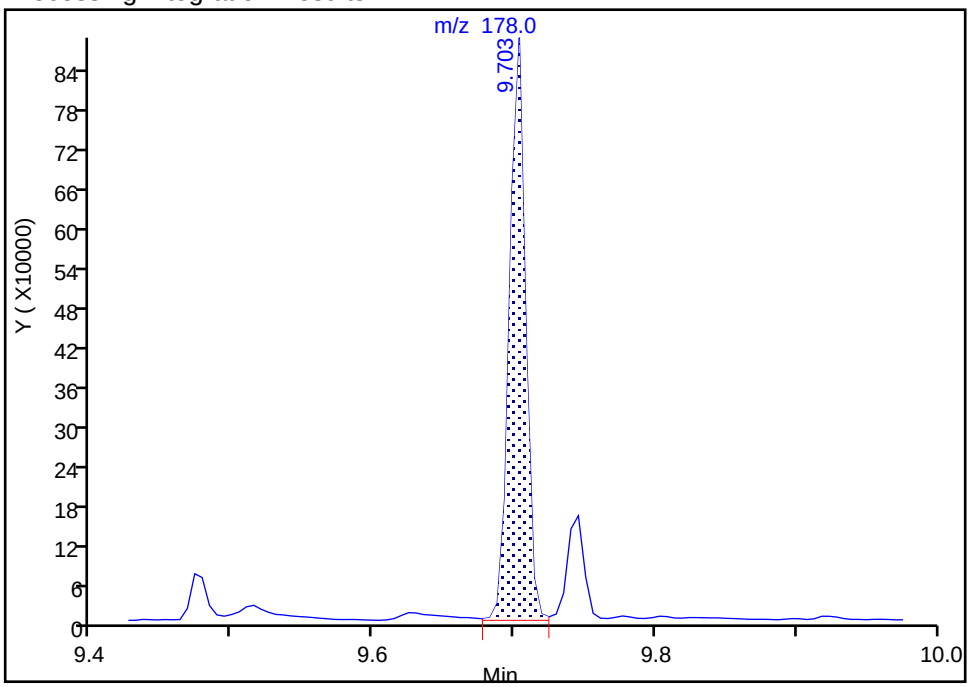
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

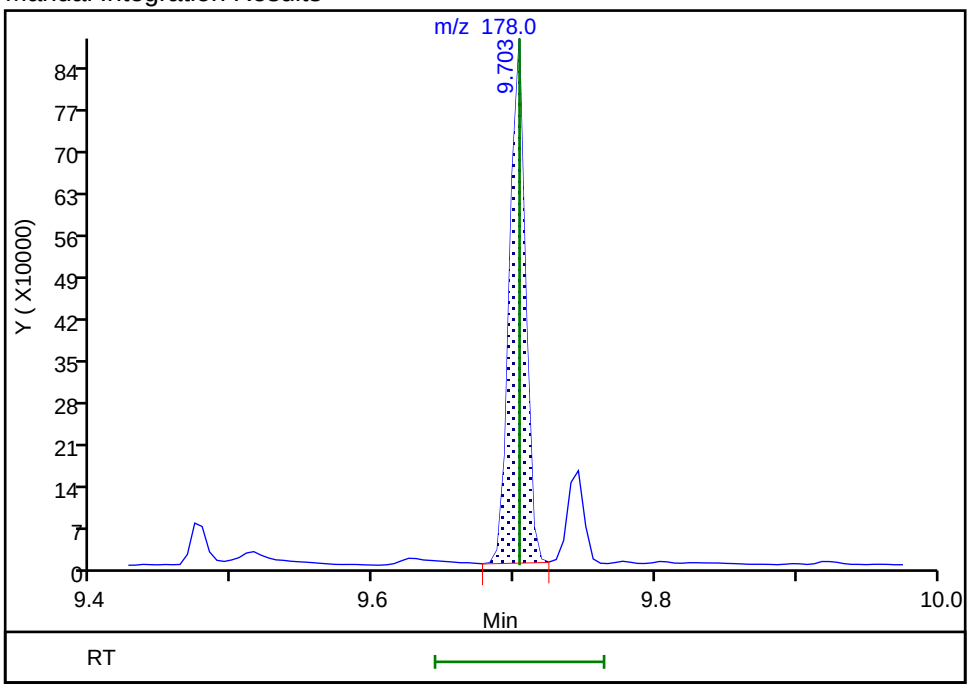
Processing Integration Results

RT: 9.70
Area: 699114
Amount: 166.1792
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 689657
Amount: 163.9313
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:00:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

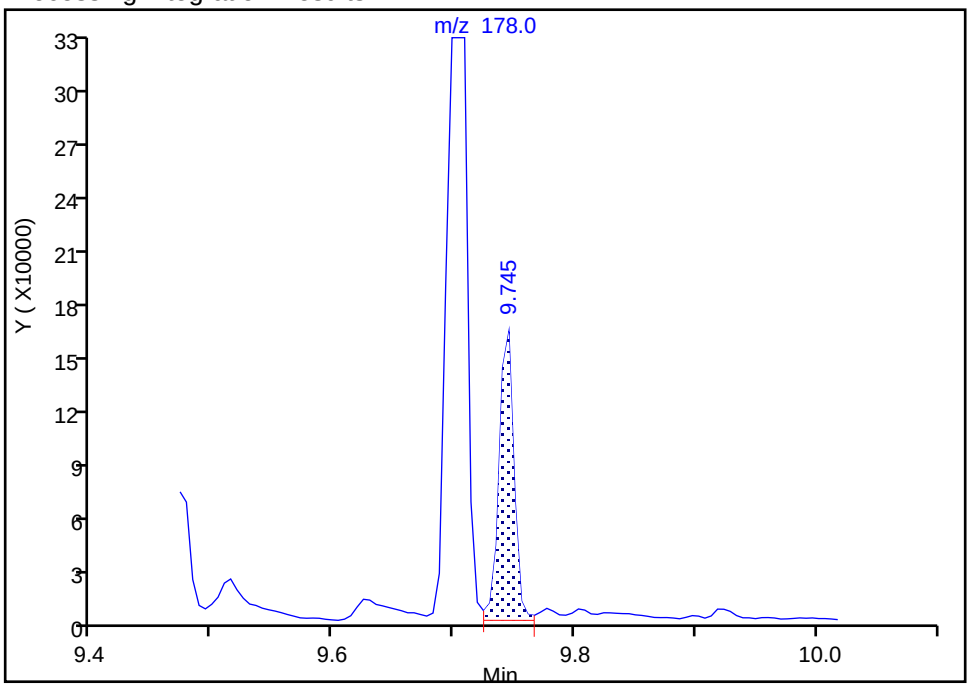
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

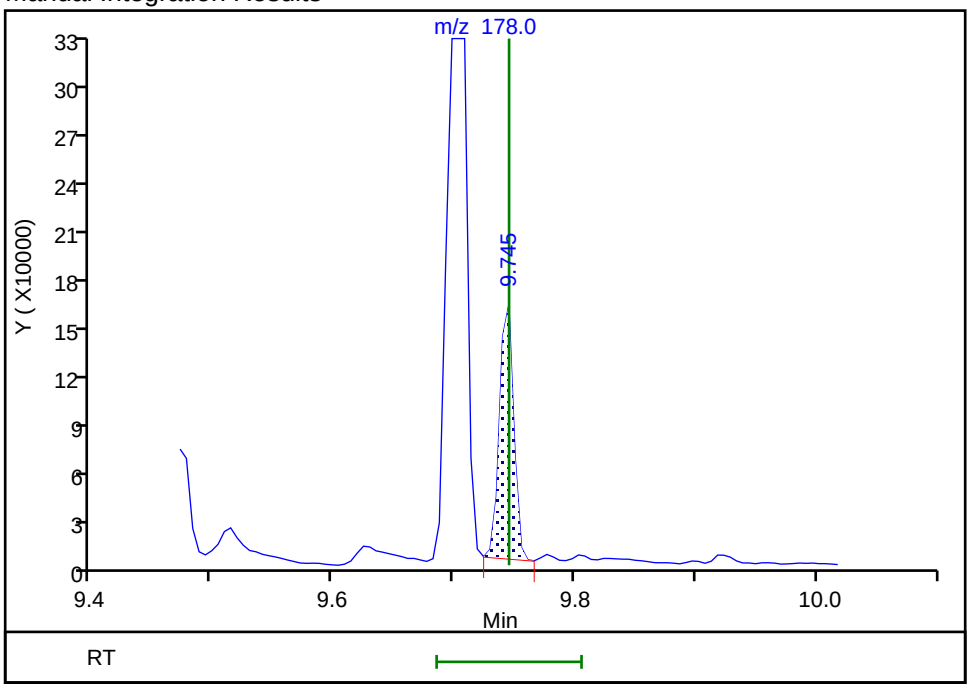
Processing Integration Results

RT: 9.75
Area: 135340
Amount: 34.603353
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 126098
Amount: 32.240385
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:00:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

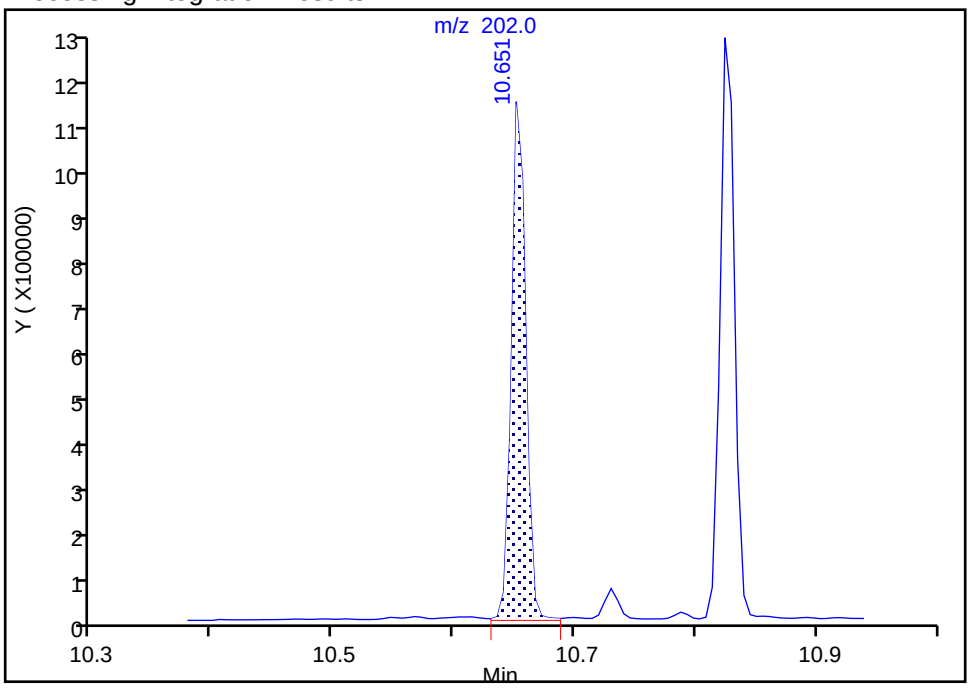
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

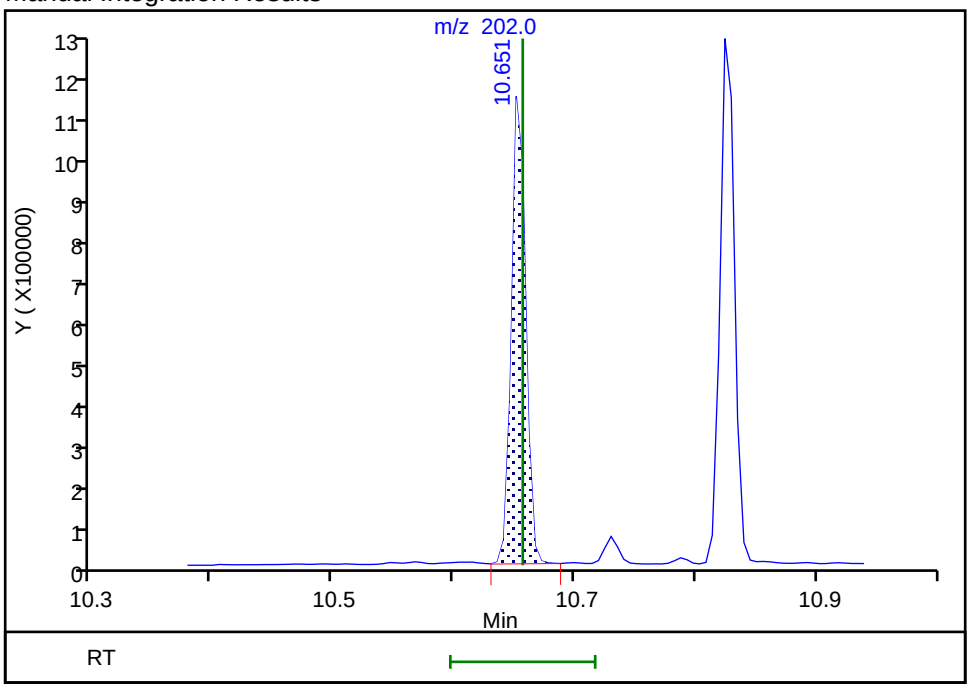
Processing Integration Results

RT: 10.65
Area: 914396
Amount: 229.4244
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 902513
Amount: 226.4429
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:00:57

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

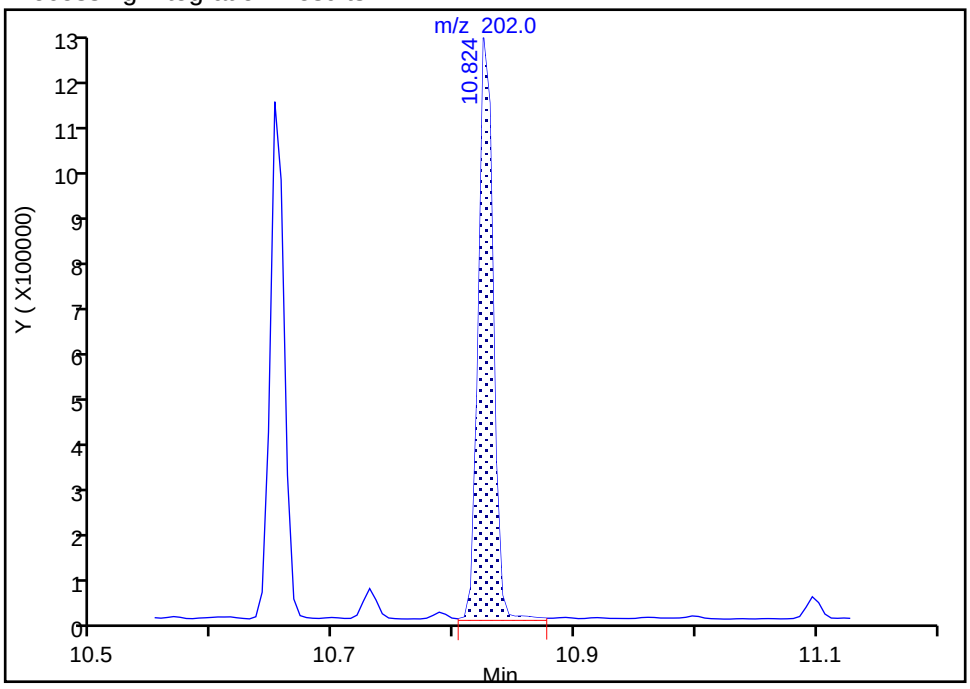
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

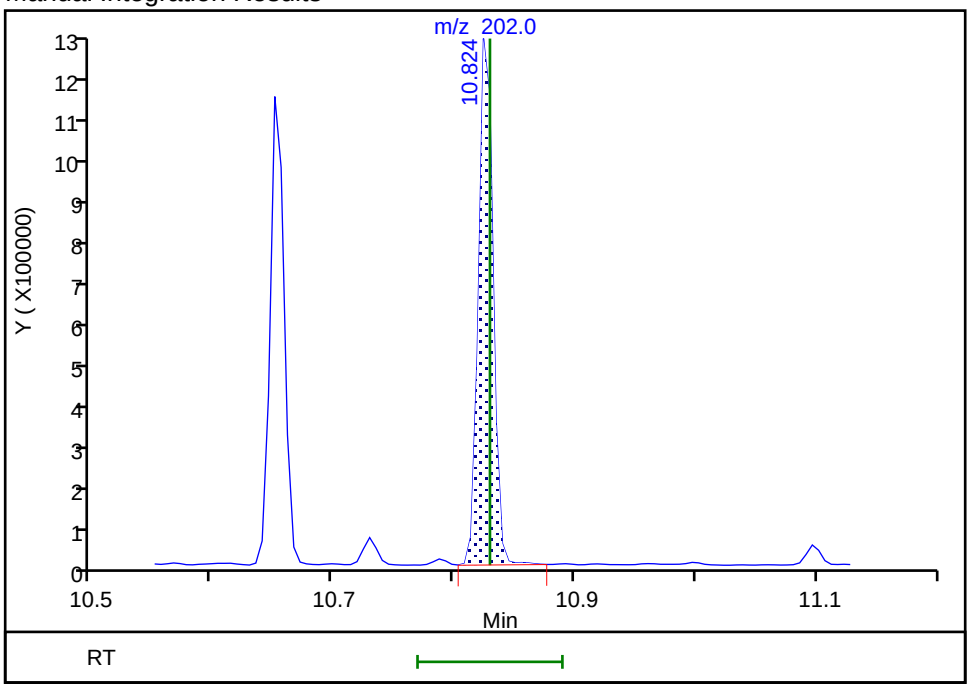
Processing Integration Results

RT: 10.82
Area: 1065089
Amount: 253.7320
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 1049472
Amount: 250.0116
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:01:06

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

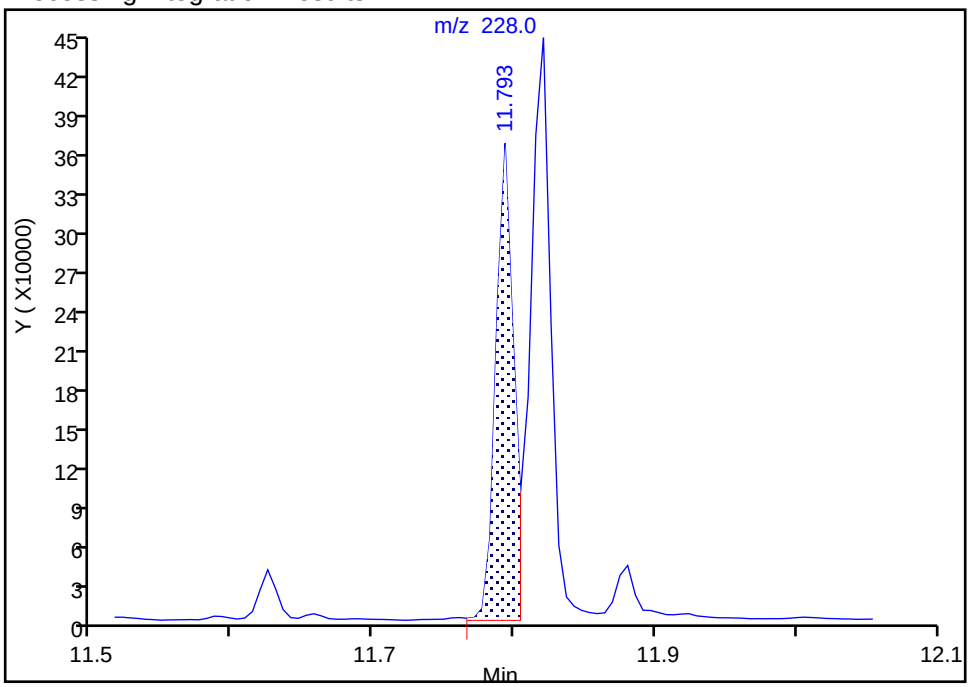
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

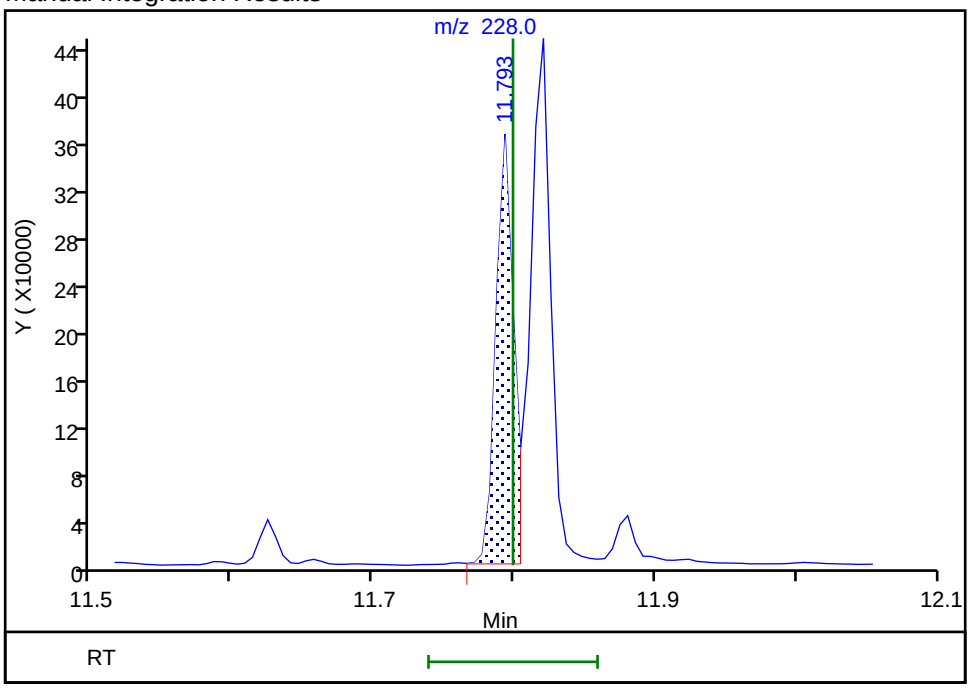
Processing Integration Results

RT: 11.79
Area: 312890
Amount: 117.5306
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 310135
Amount: 116.4957
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:01:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

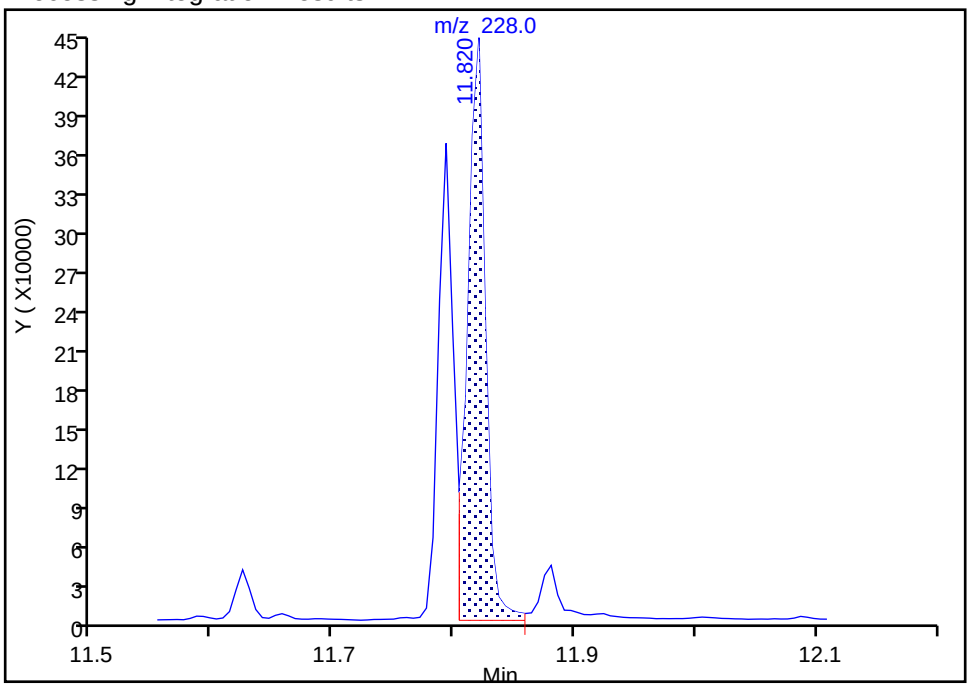
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

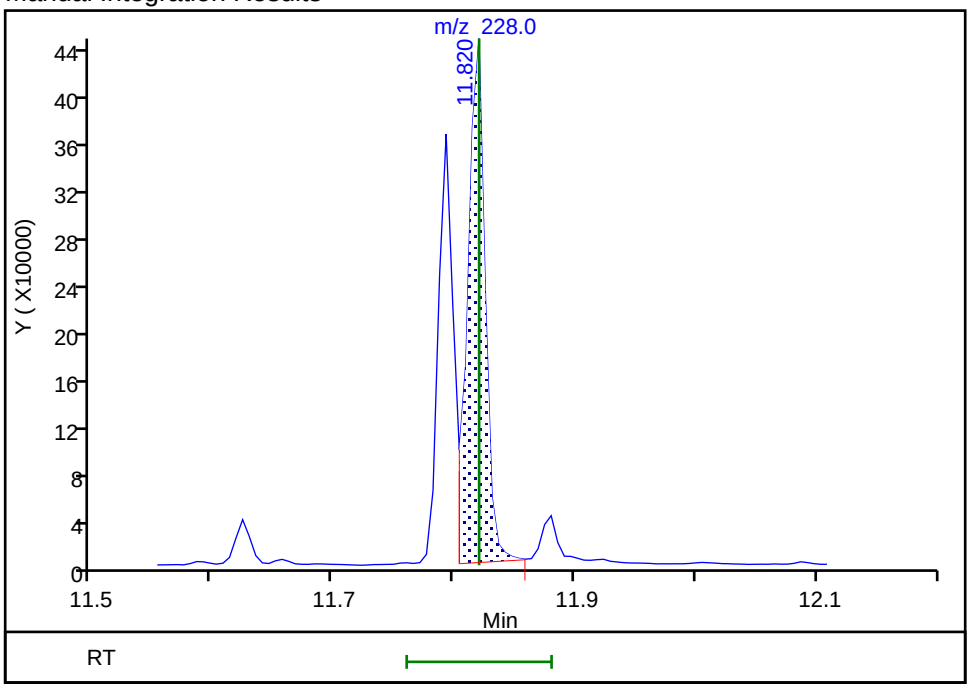
Processing Integration Results

RT: 11.82
Area: 446589
Amount: 126.1432
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 436547
Amount: 123.3068
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:01:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

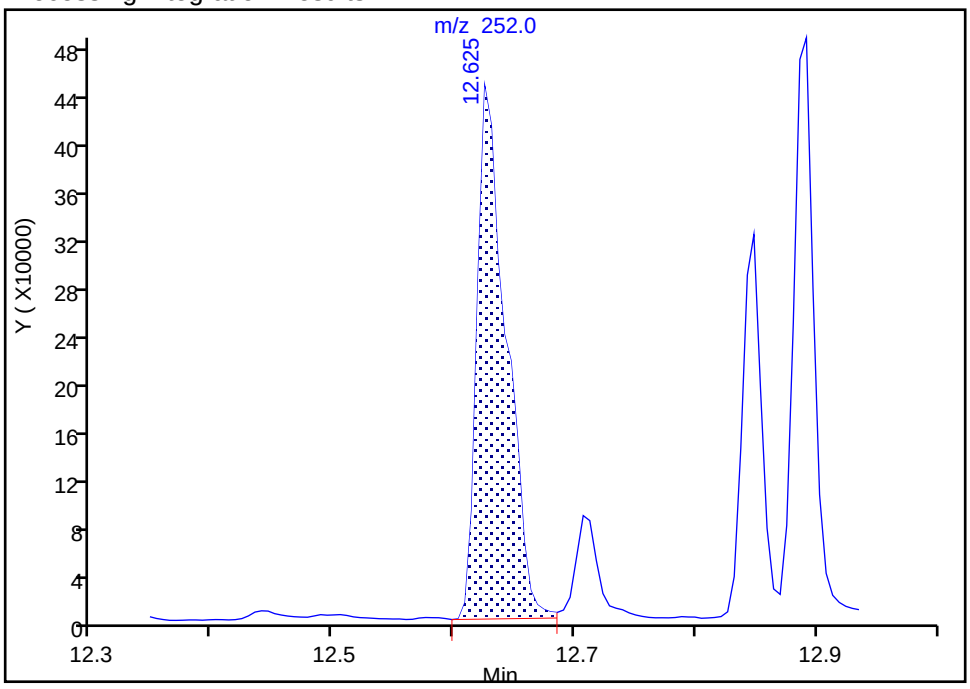
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

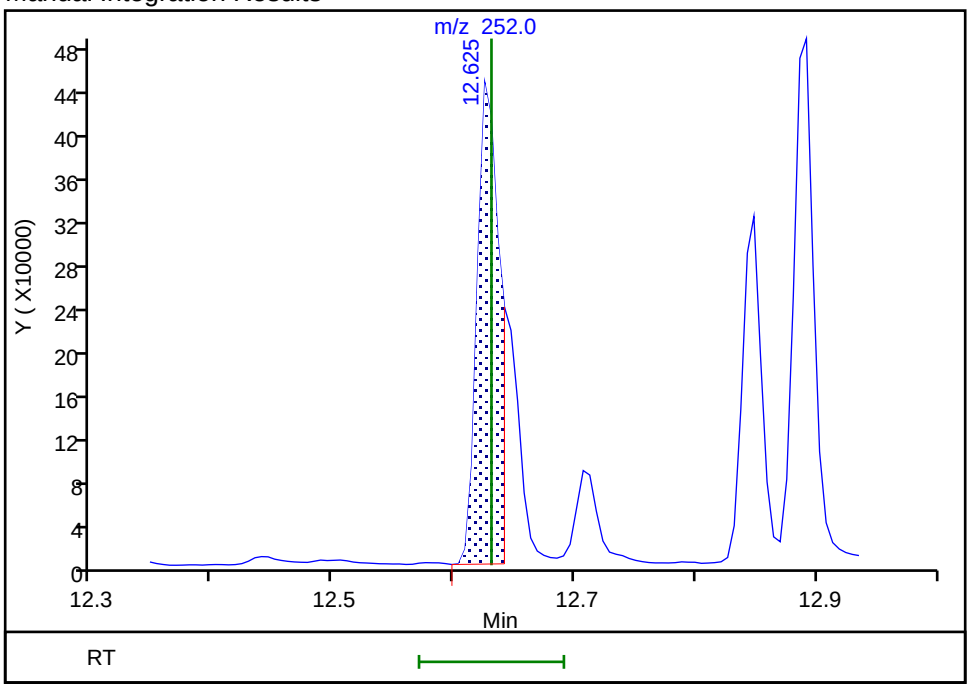
Processing Integration Results

RT: 12.63
Area: 733097
Amount: 214.0645
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 539412
Amount: 157.5084
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:01:28

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

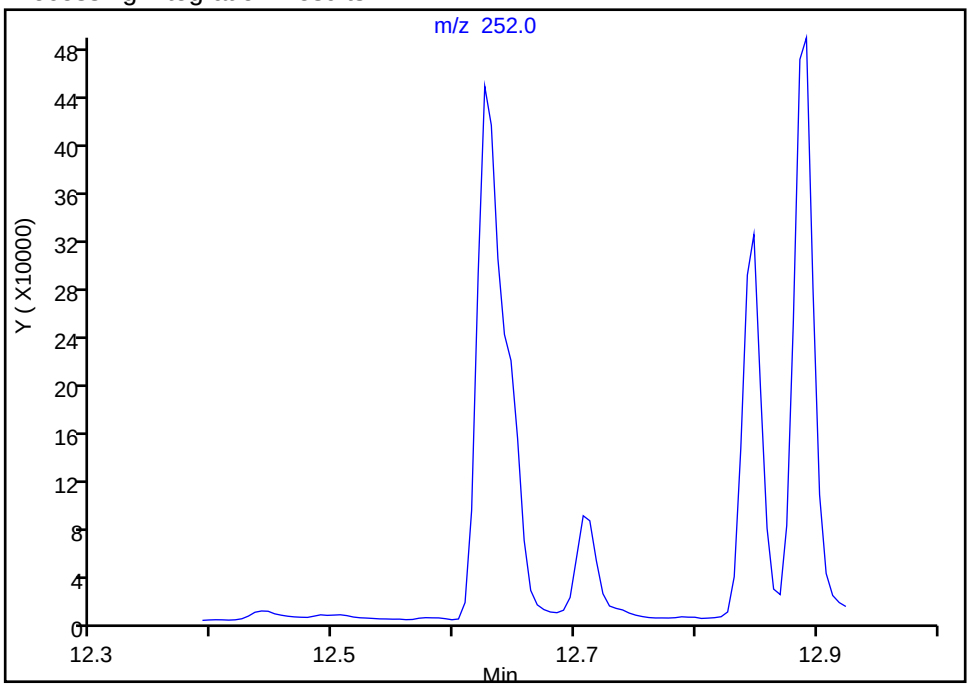
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

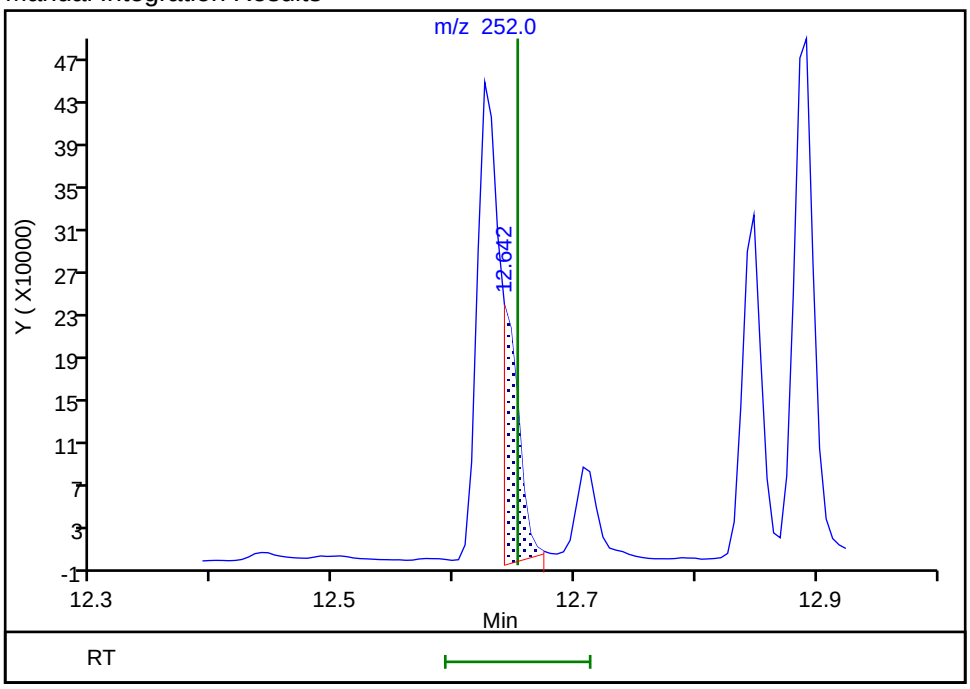
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 190479
Amount: 45.461764
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:01:40
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

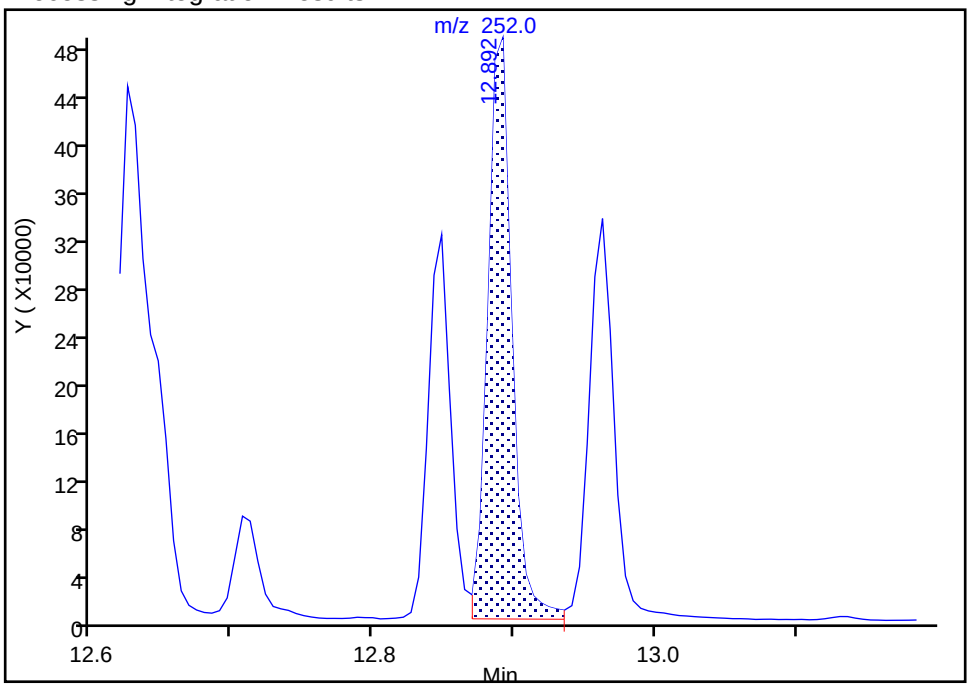
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

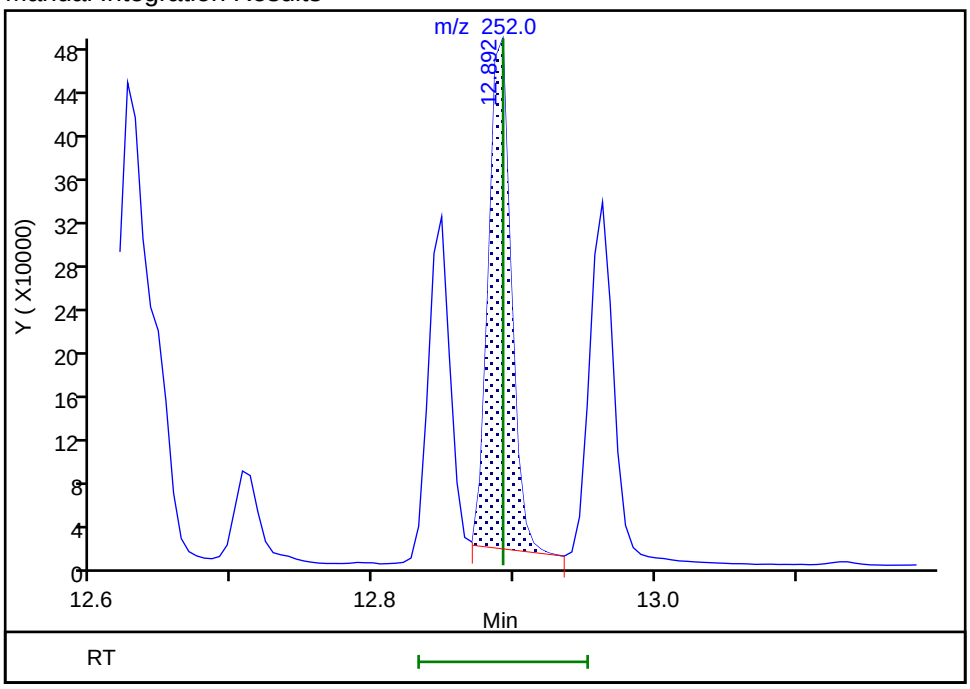
Processing Integration Results

RT: 12.89
Area: 567164
Amount: 163.4814
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 519549
Amount: 149.7566
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:02:06

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

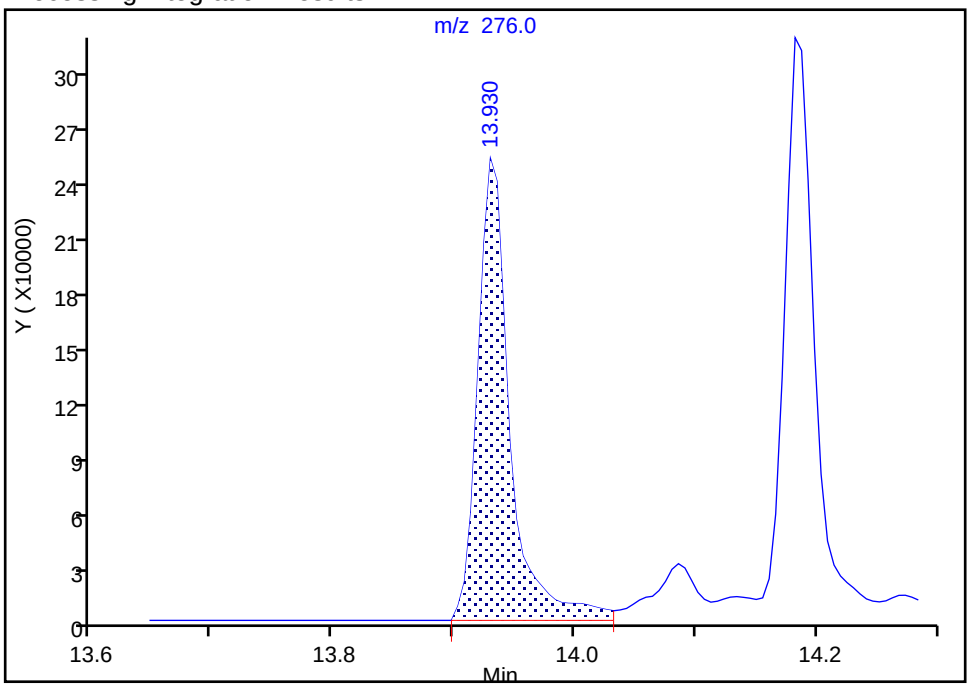
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

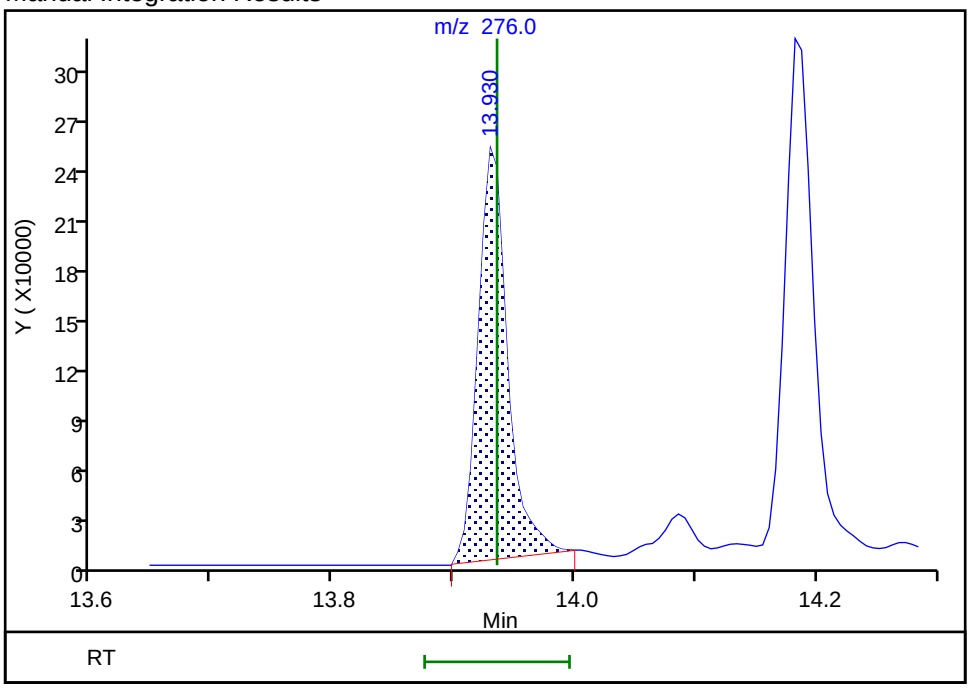
Processing Integration Results

RT: 13.93
Area: 454273
Amount: 170.2126
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 411510
Amount: 154.3477
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:02:16

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

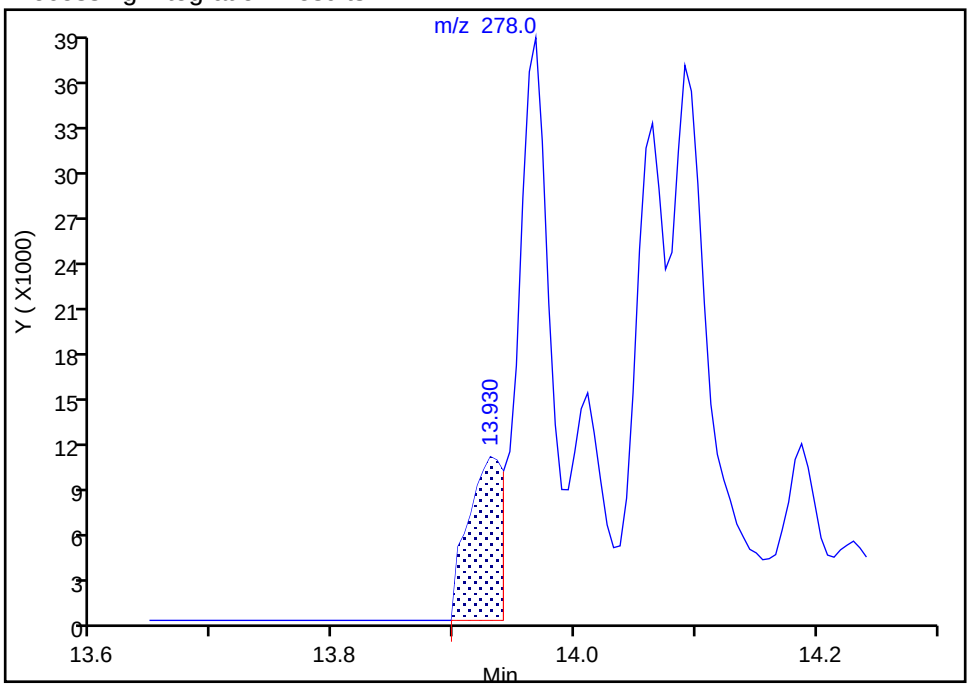
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

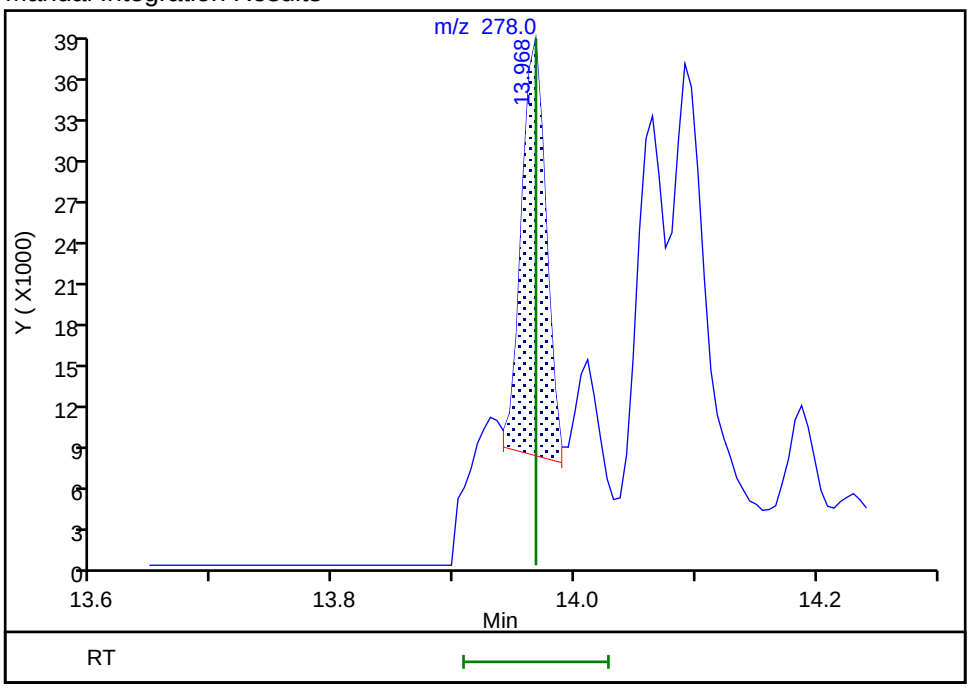
Processing Integration Results

RT: 13.93
Area: 20110
Amount: 7.053997
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 42499
Amount: 13.673046
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:02:25

Audit Action: Manually Integrated Audit Reason: Assign Peak

Eurofins TestAmerica, Seattle

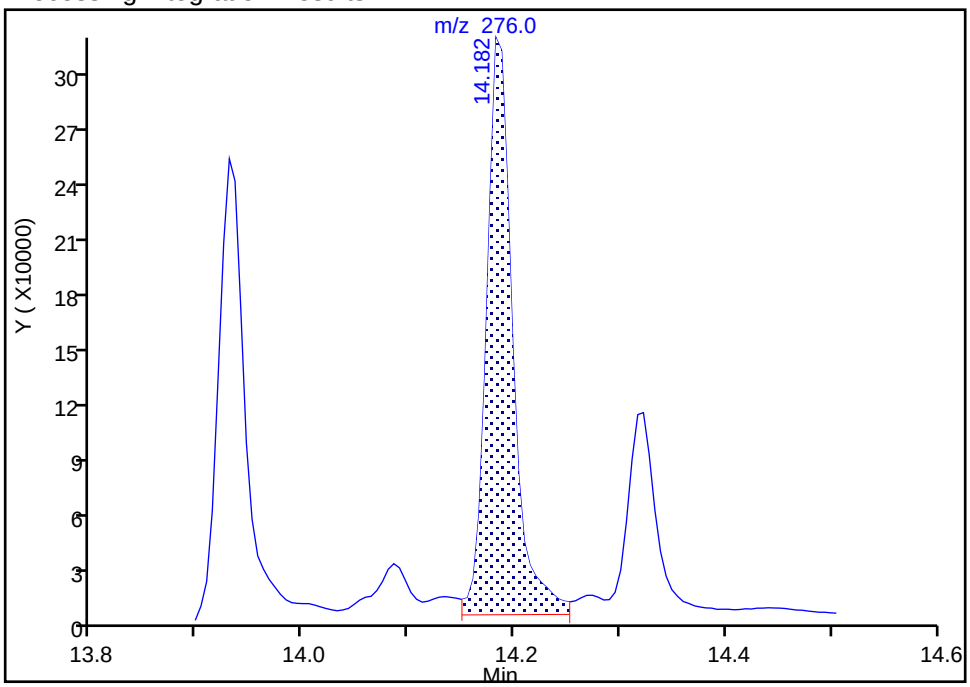
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A008.D				
Injection Date:	22-Jul-2019 13:48:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-3-A	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	KFS	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

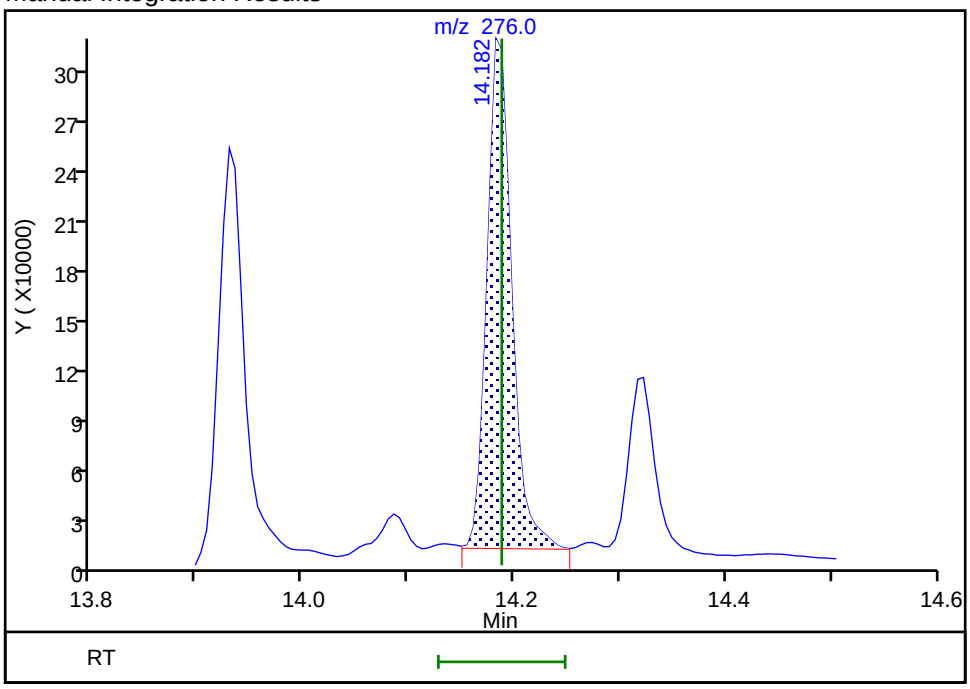
Processing Integration Results

RT: 14.18
Area: 530868
Amount: 138.8453
Amount Units: ug/L



Manual Integration Results

RT: 14.18
Area: 489865
Amount: 128.1415
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:02:32
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Matrix: Solid Lab File ID: 072219A009.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 09:00

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10.675(g) Date Analyzed: 07/22/2019 14:15

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 61.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	96		12	4.0
91-57-6	2-Methylnaphthalene	53		12	5.0
90-12-0	1-Methylnaphthalene	31		12	1.5
208-96-8	Acenaphthylene	20		12	1.2
83-32-9	Acenaphthene	38		12	1.5
86-73-7	Fluorene	40		12	1.2
85-01-8	Phenanthrene	260		12	4.0
120-12-7	Anthracene	45		12	1.5
206-44-0	Fluoranthene	280		12	3.4
129-00-0	Pyrene	300		12	2.4
56-55-3	Benzo[a]anthracene	110		12	1.9
218-01-9	Chrysene	110		12	3.7
205-99-2	Benzo[b]fluoranthene	140		12	1.4
207-08-9	Benzo[k]fluoranthene	40		12	1.5
50-32-8	Benzo[a]pyrene	120		12	2.1
193-39-5	Indeno[1,2,3-cd]pyrene	140		12	1.5
53-70-3	Dibenz(a,h)anthracene	13	B	12	1.8
191-24-2	Benzo[g,h,i]perylene	110	B	12	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	70		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D
Lims ID: 580-87706-A-4-A
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:15:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-4-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:07:59 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:07:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	384494	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	95	176553	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	304709	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	231765	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	261592	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1620207	702.3	
10 Naphthalene	128	7.004	7.004	0.000	100	168842	39.3	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	61060	21.7	M
12 1-Methylnaphthalene	142	7.717	7.722	-0.005	93	33448	12.7	M
13 Acenaphthylene	152	8.377	8.376	0.001	99	32145	8.35	M
14 Acenaphthene	153	8.520	8.525	-0.005	77	43566	15.6	M
15 Fluorene	166	8.941	8.947	-0.006	91	45353	16.2	M
17 Phenanthrene	178	9.704	9.704	0.000	99	432174	104.5	M
18 Anthracene	178	9.745	9.745	0.000	100	70625	18.4	M
19 Fluoranthene	202	10.652	10.657	-0.005	93	454667	116.0	M
20 Pyrene	202	10.824	10.830	-0.006	100	501602	121.5	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	96	122366	46.3	M
22 Chrysene	228	11.821	11.821	0.000	99	162678	46.3	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	192367	57.1	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	66979	16.2	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	94	167362	49.0	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	96	148387	57.0	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	14112	5.35	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	173035	46.2	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

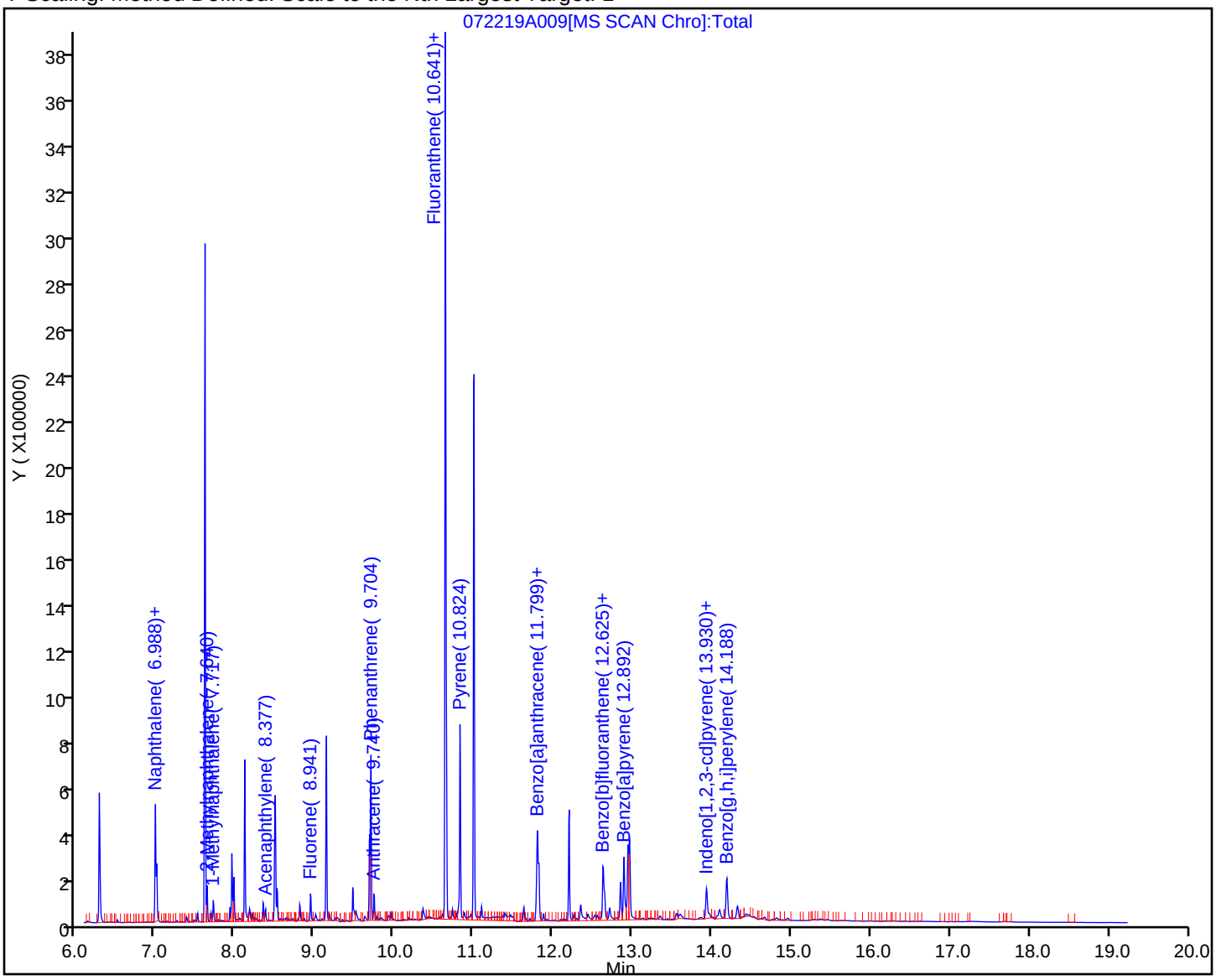
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D
Lims ID: 580-87706-A-4-A
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:15:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-4-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:07:59 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:07:59

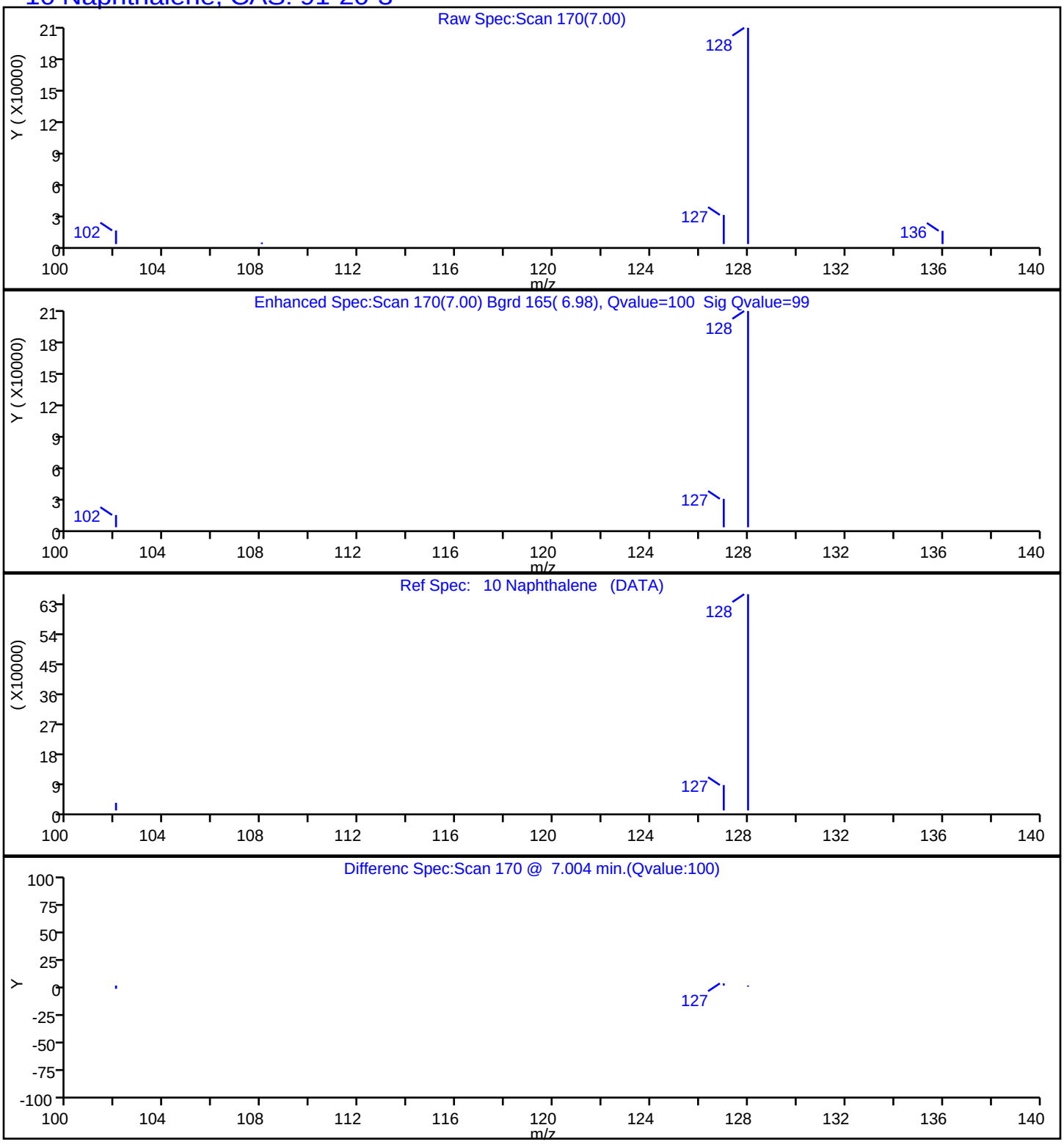
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	702.3	70.23

Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

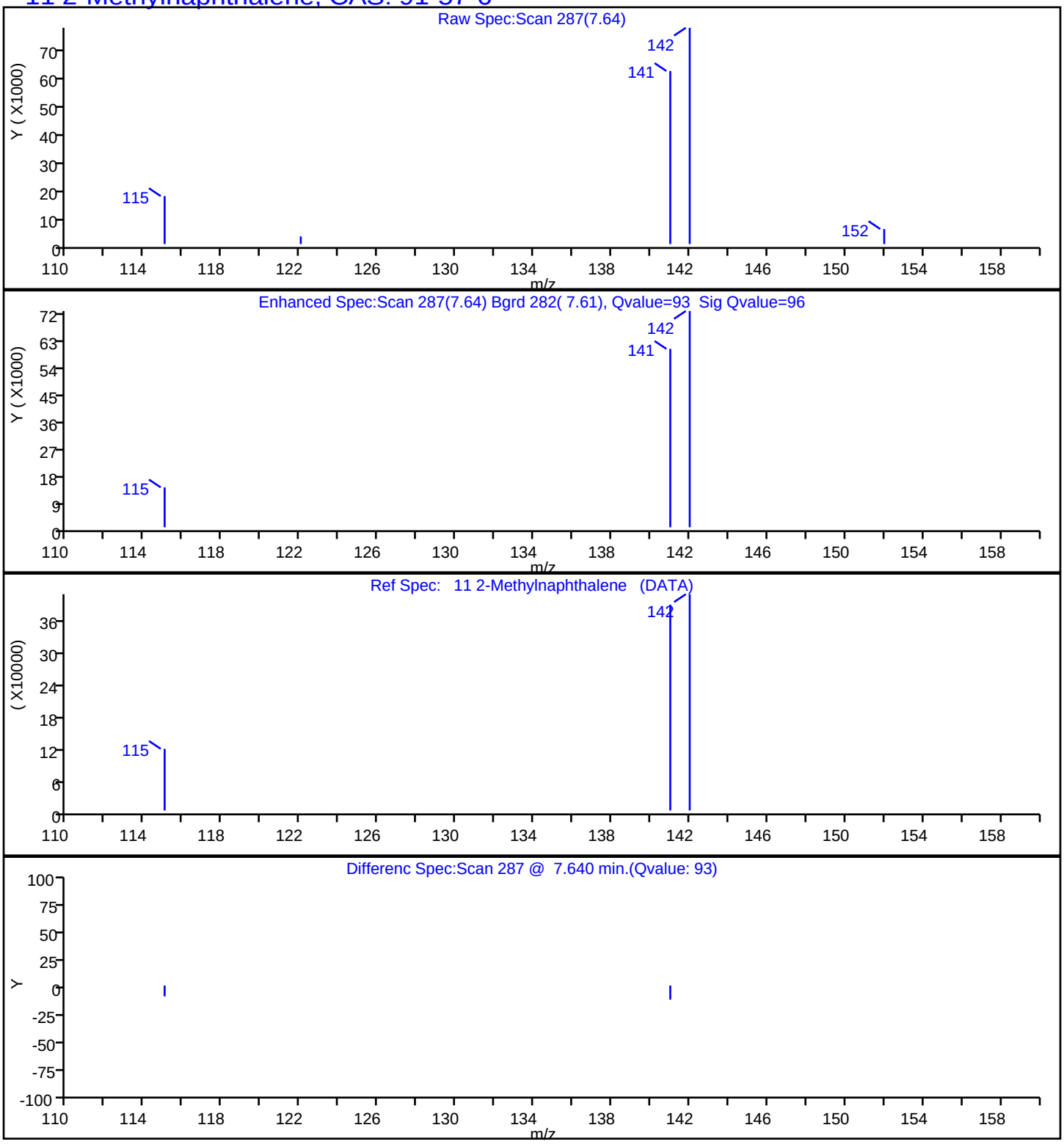


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

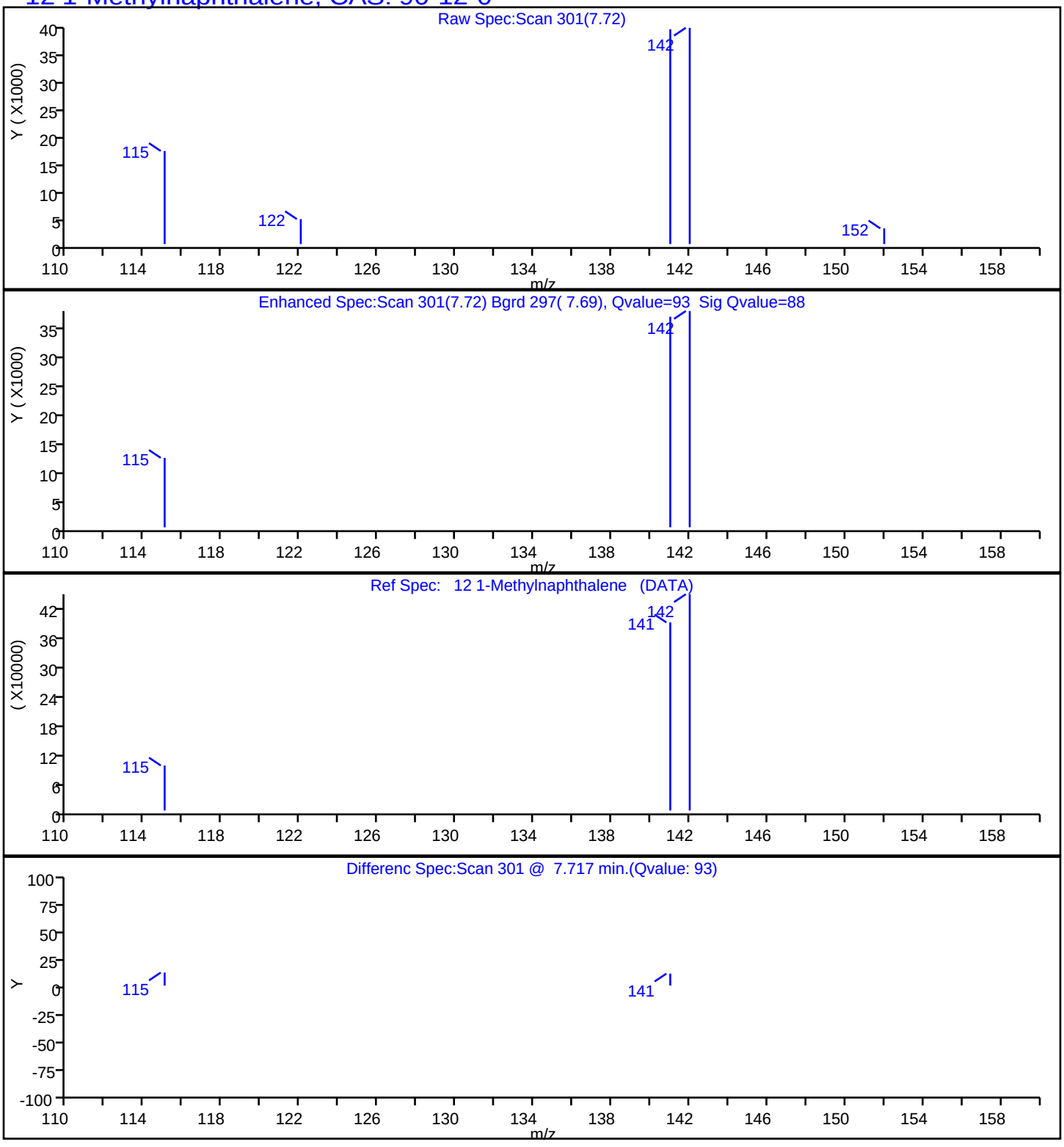


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

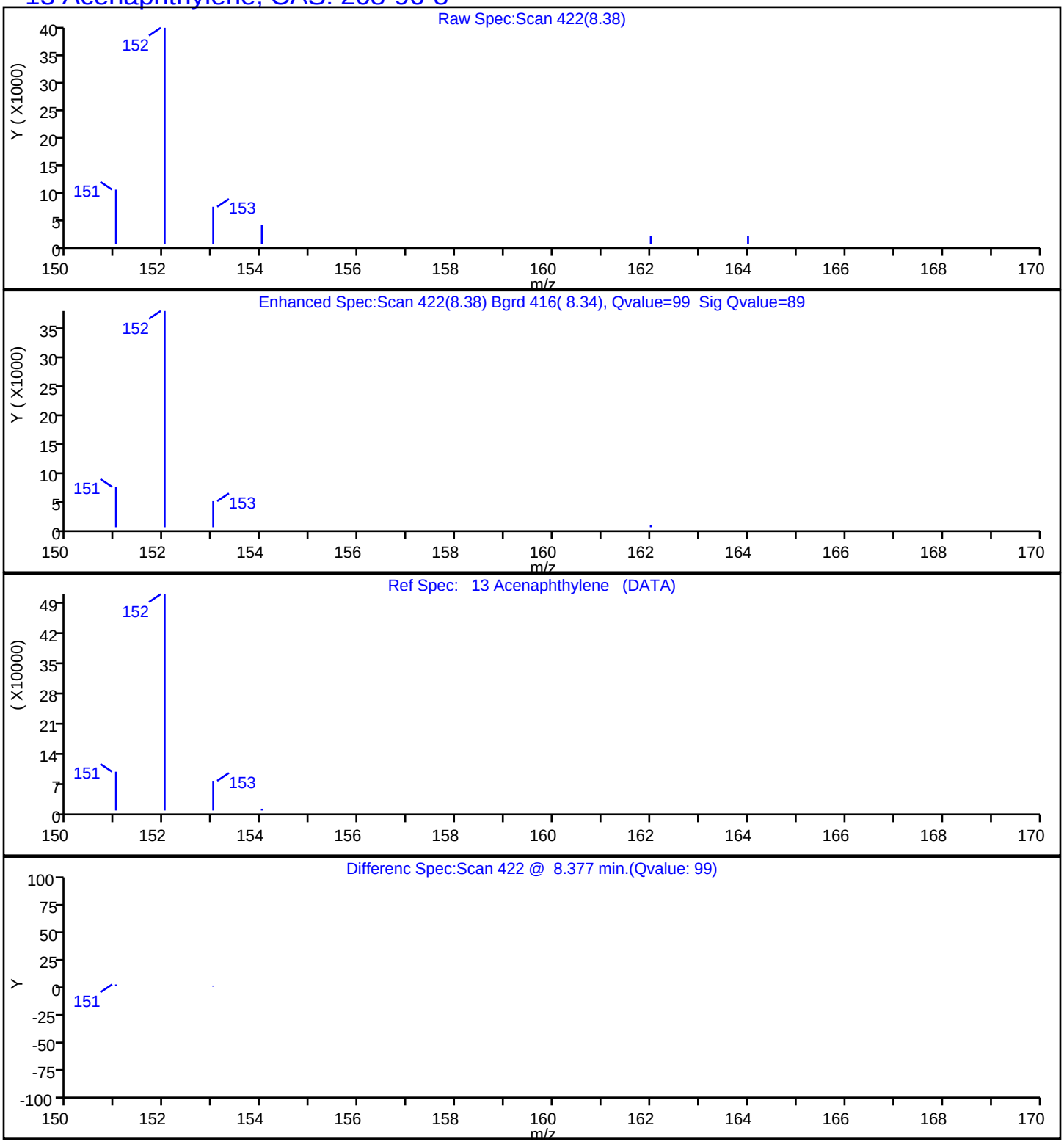


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

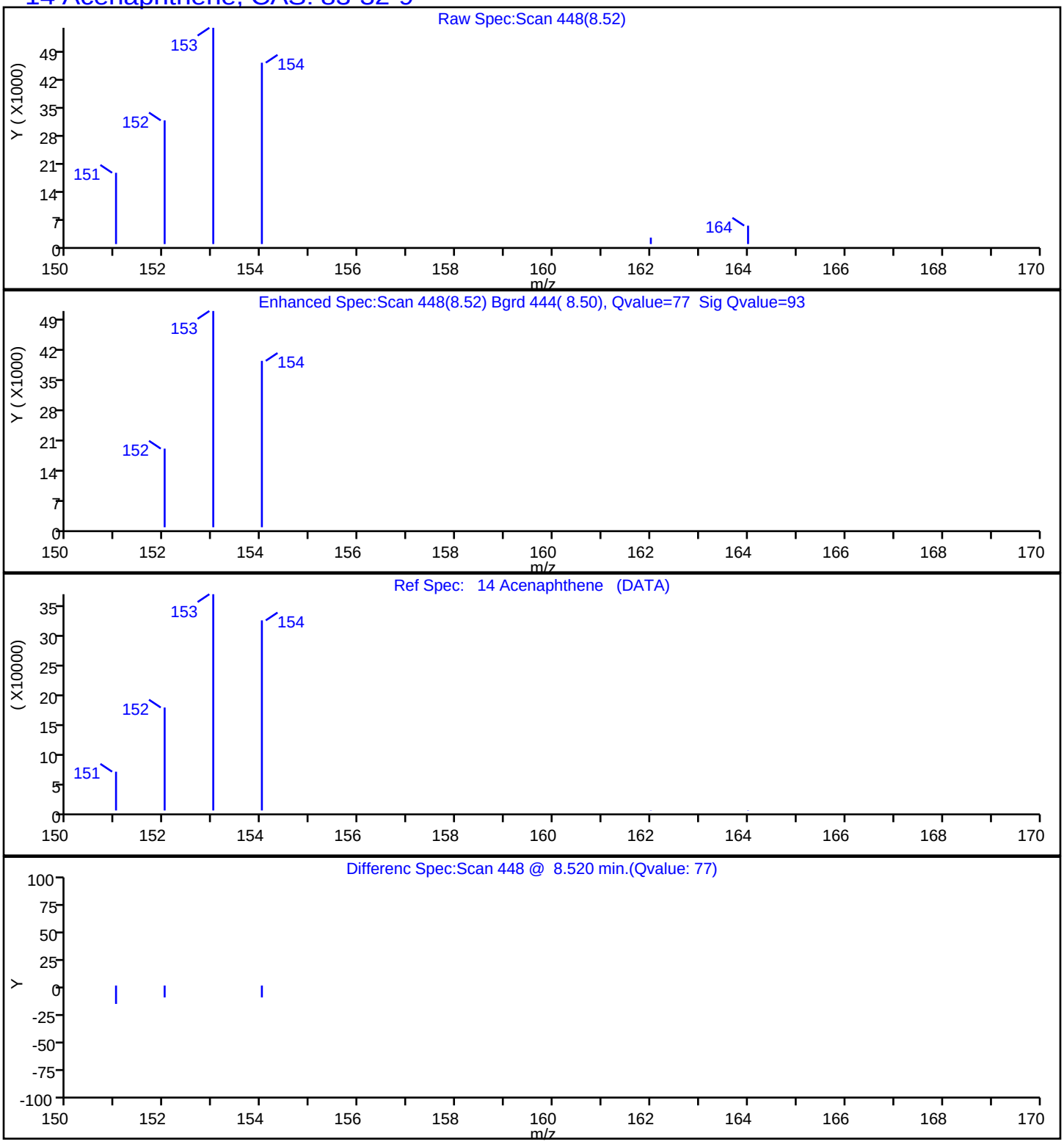


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

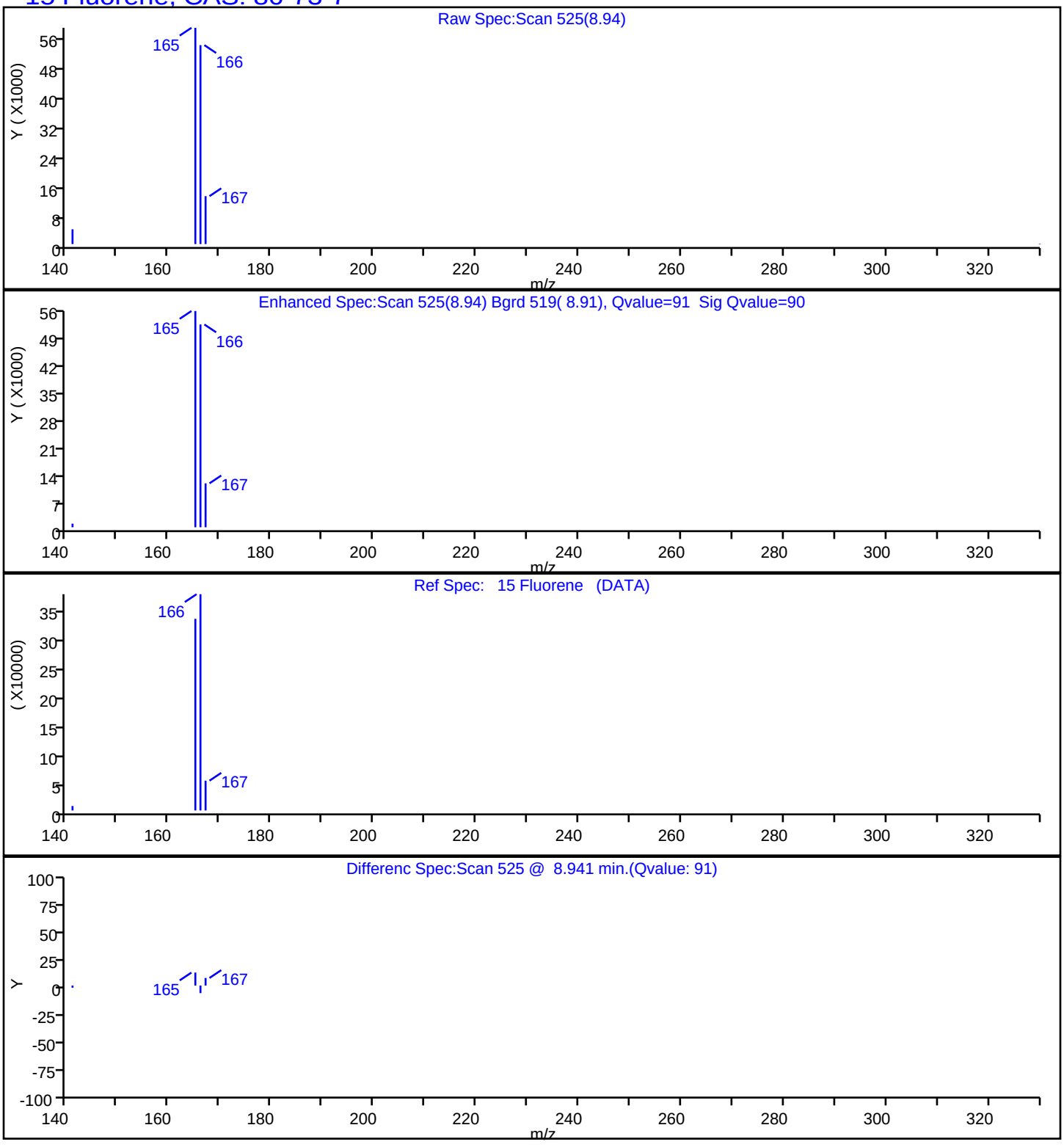


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

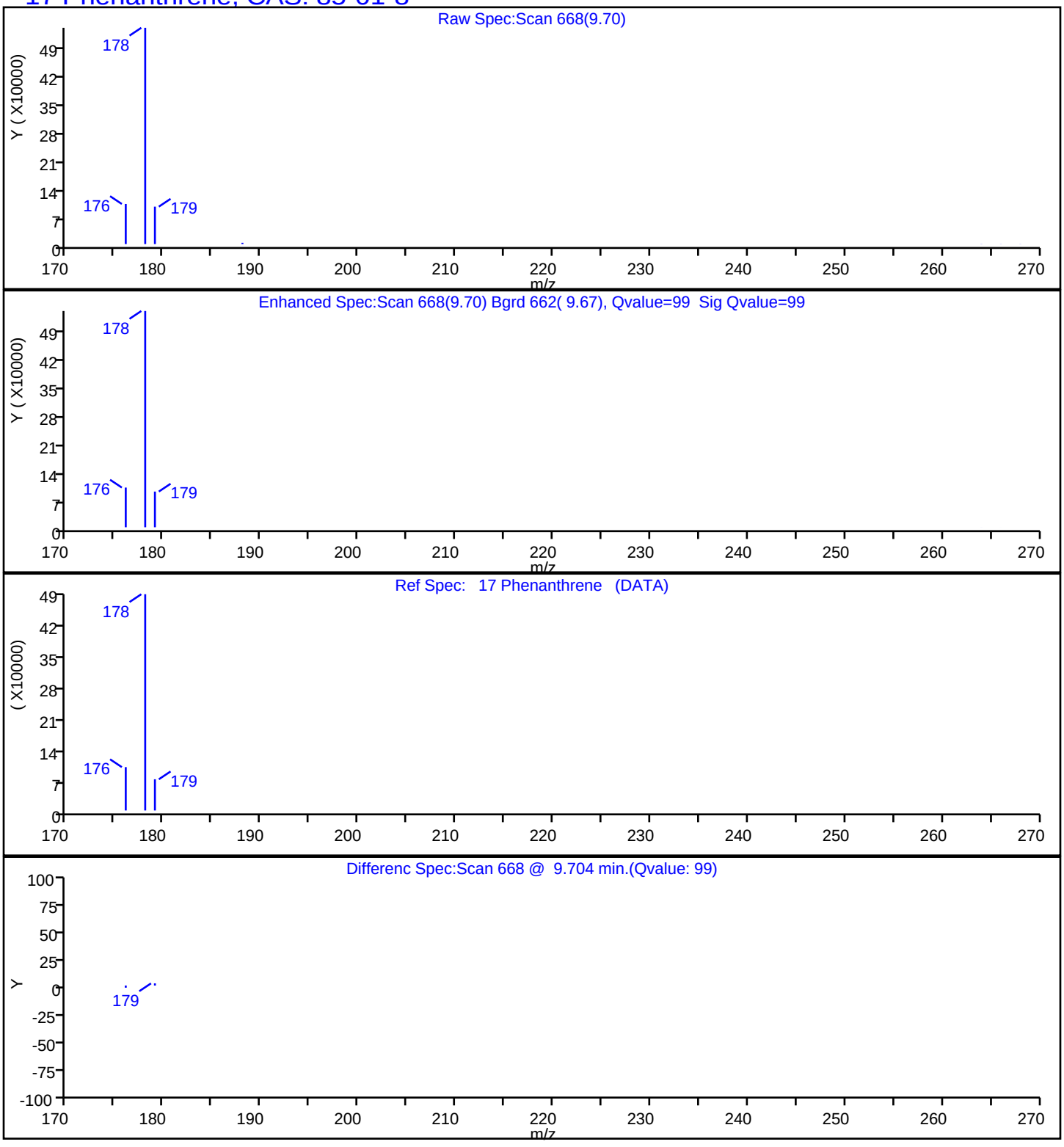


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

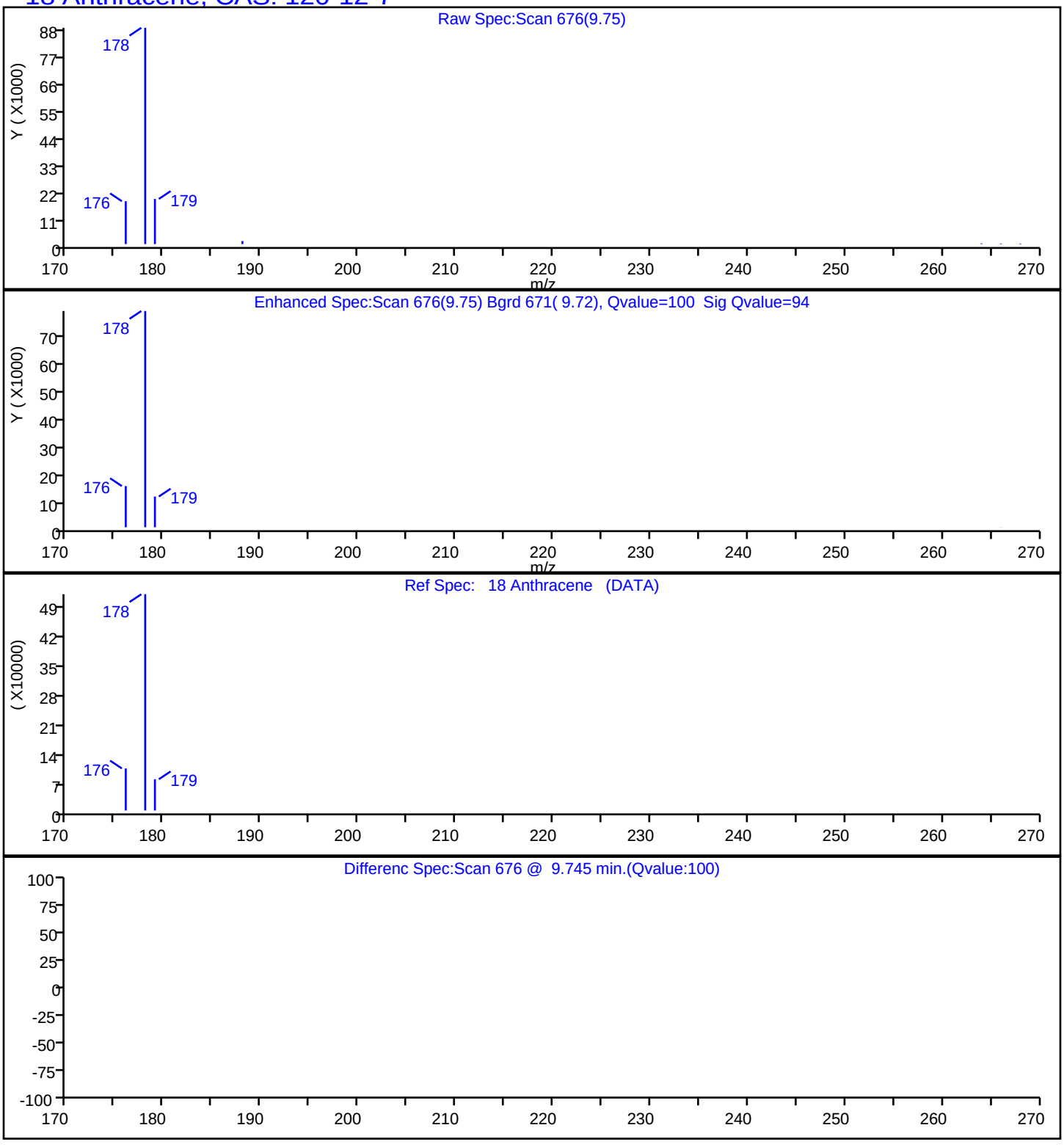


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

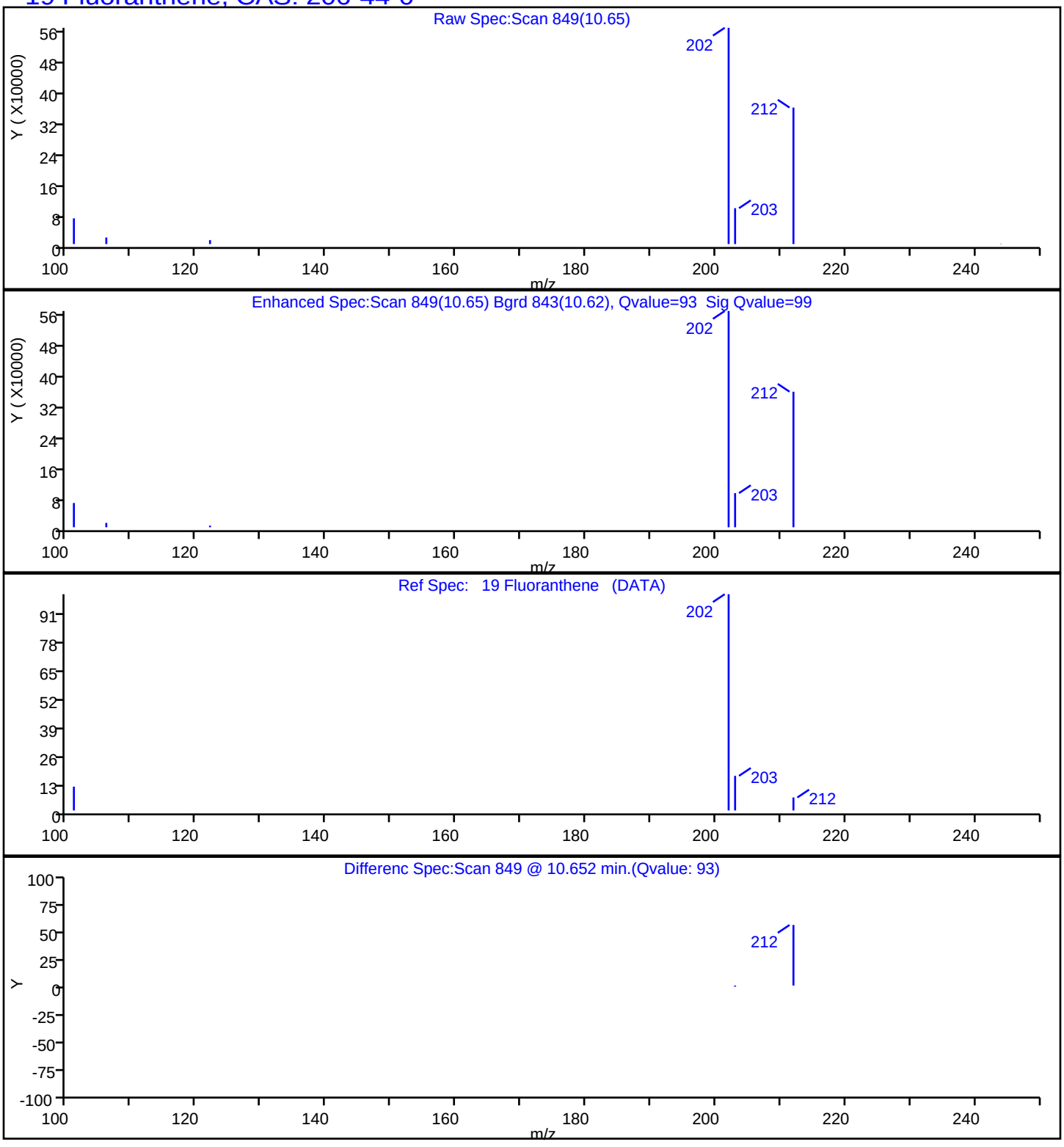


Report Date: 23-Jul-2019 14:08:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

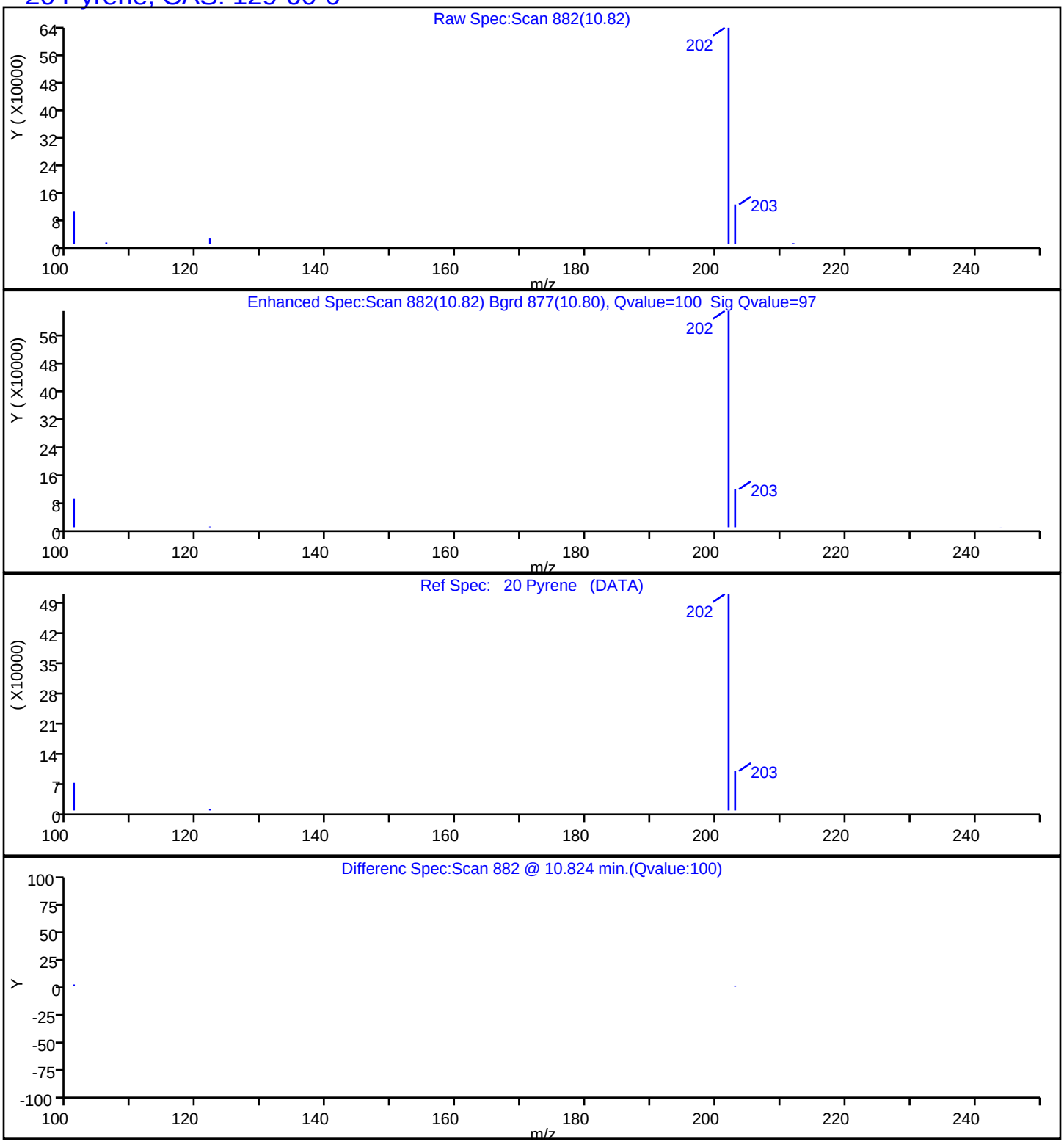


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

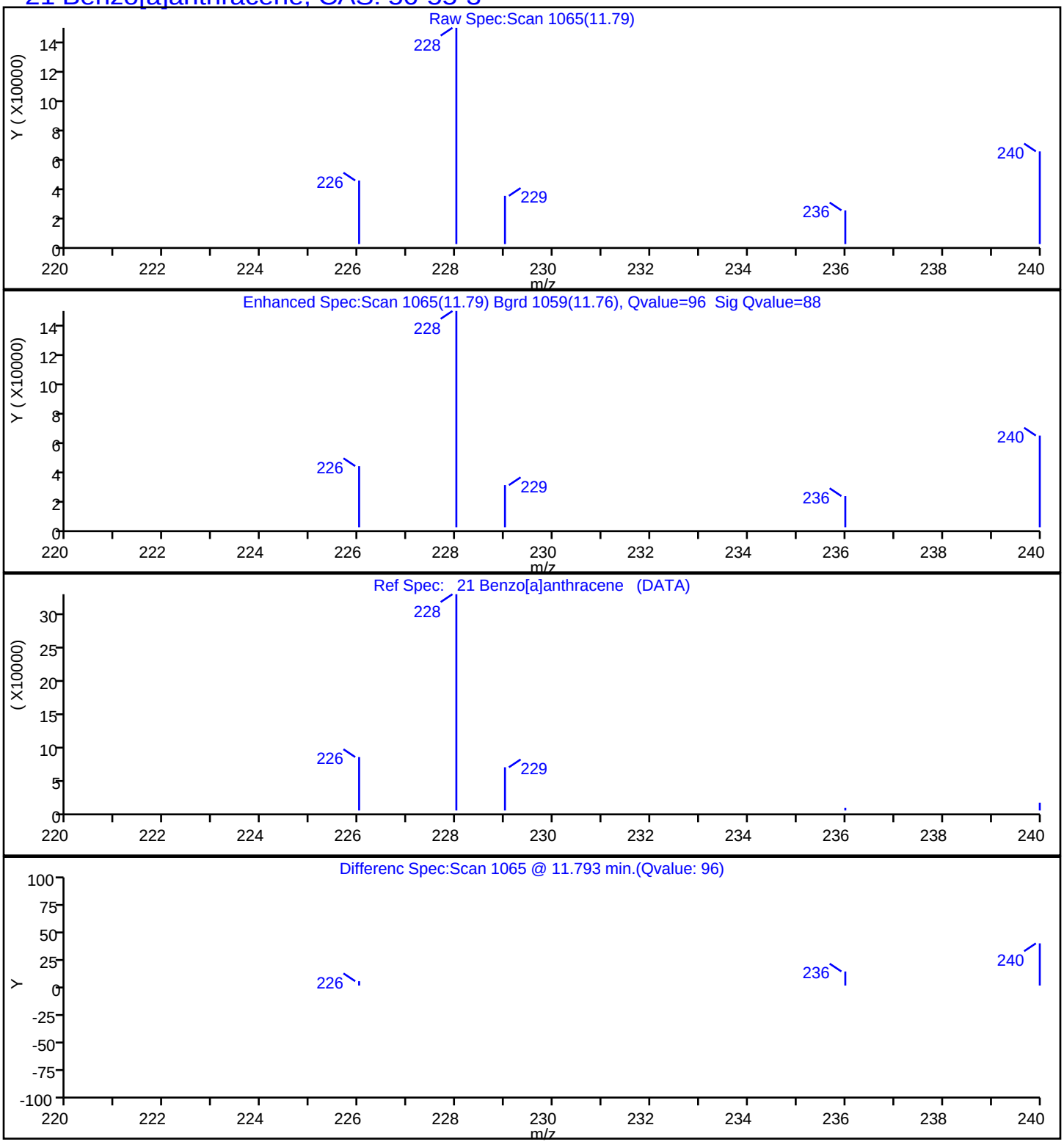


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

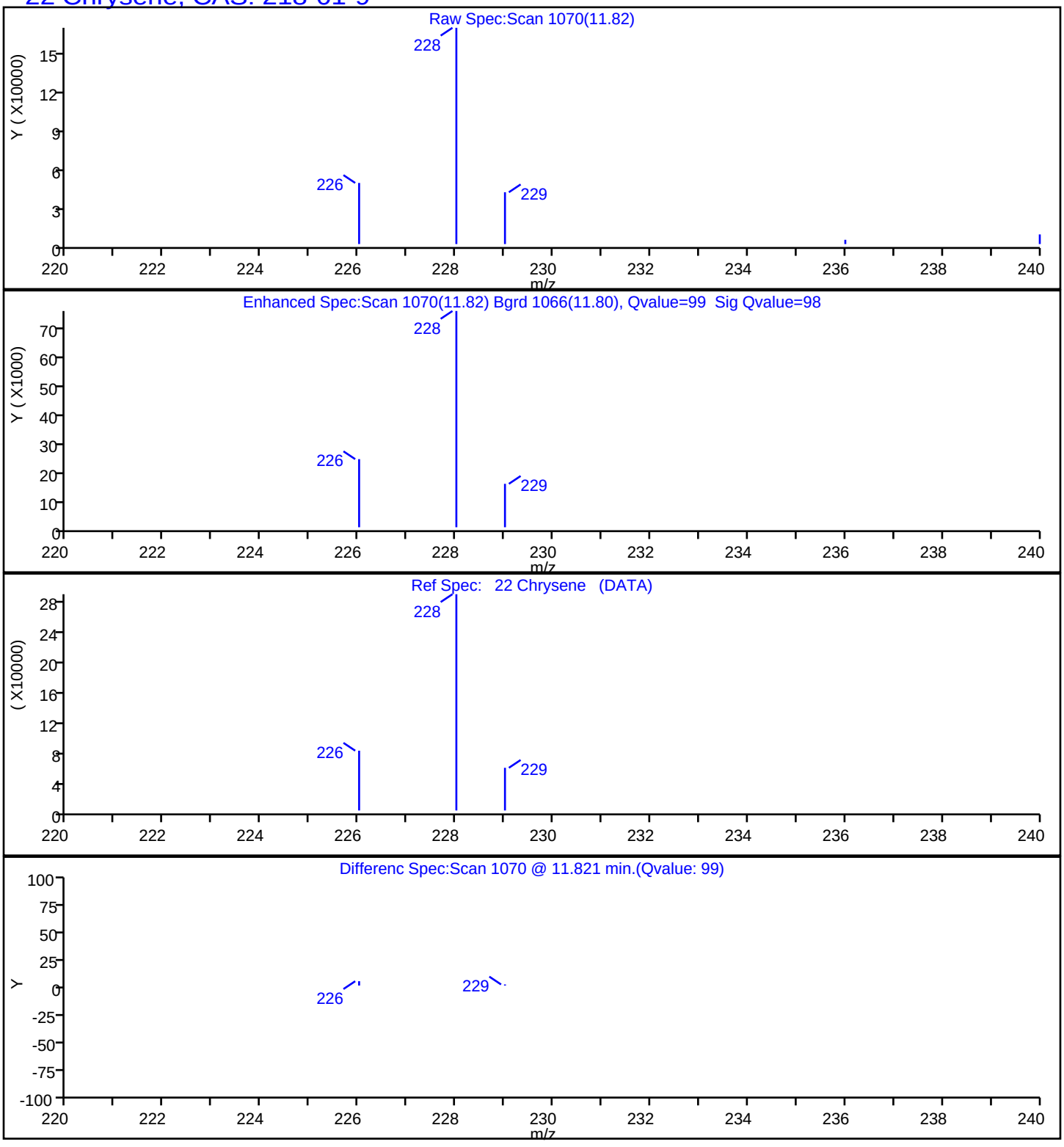


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

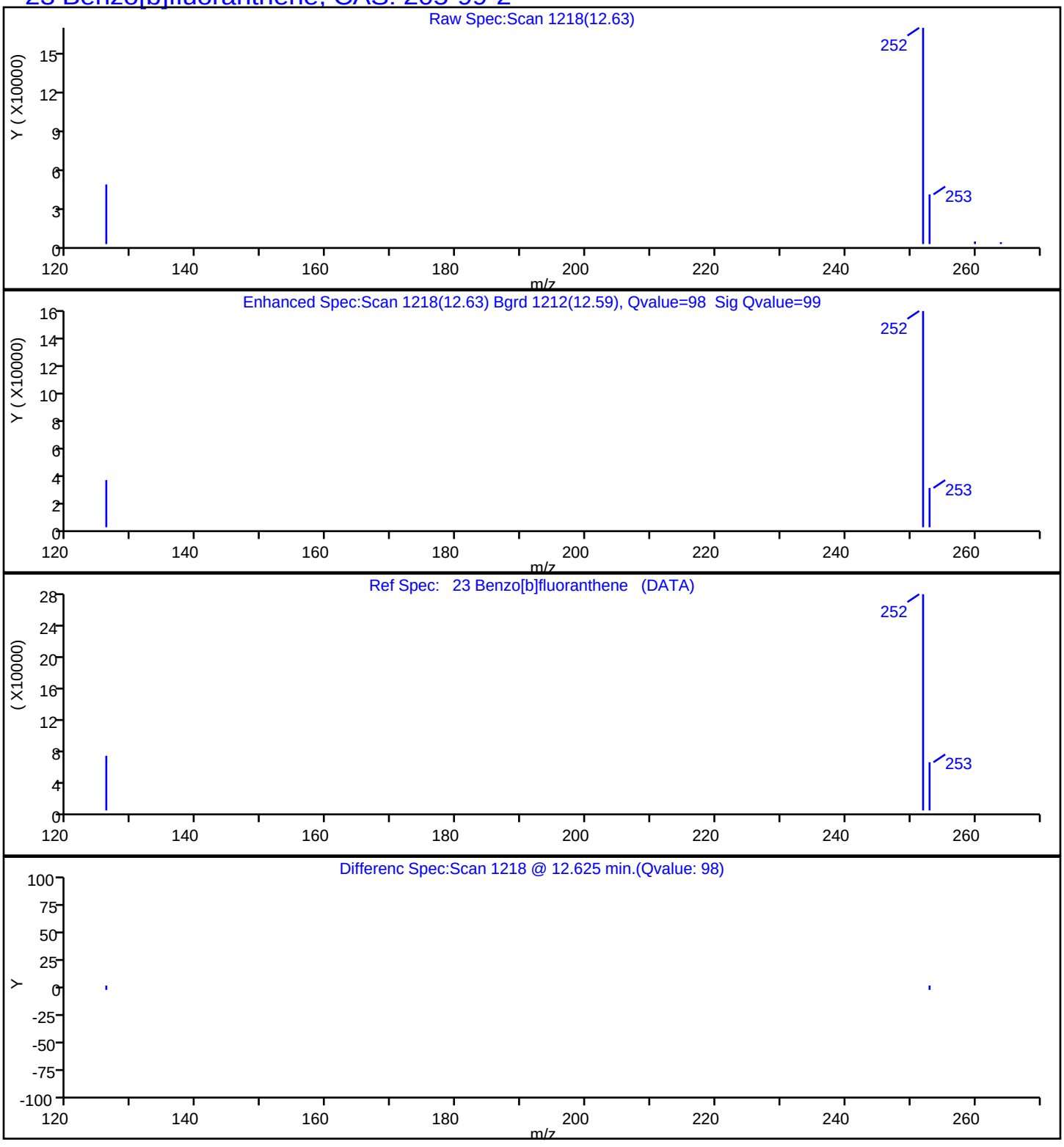


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

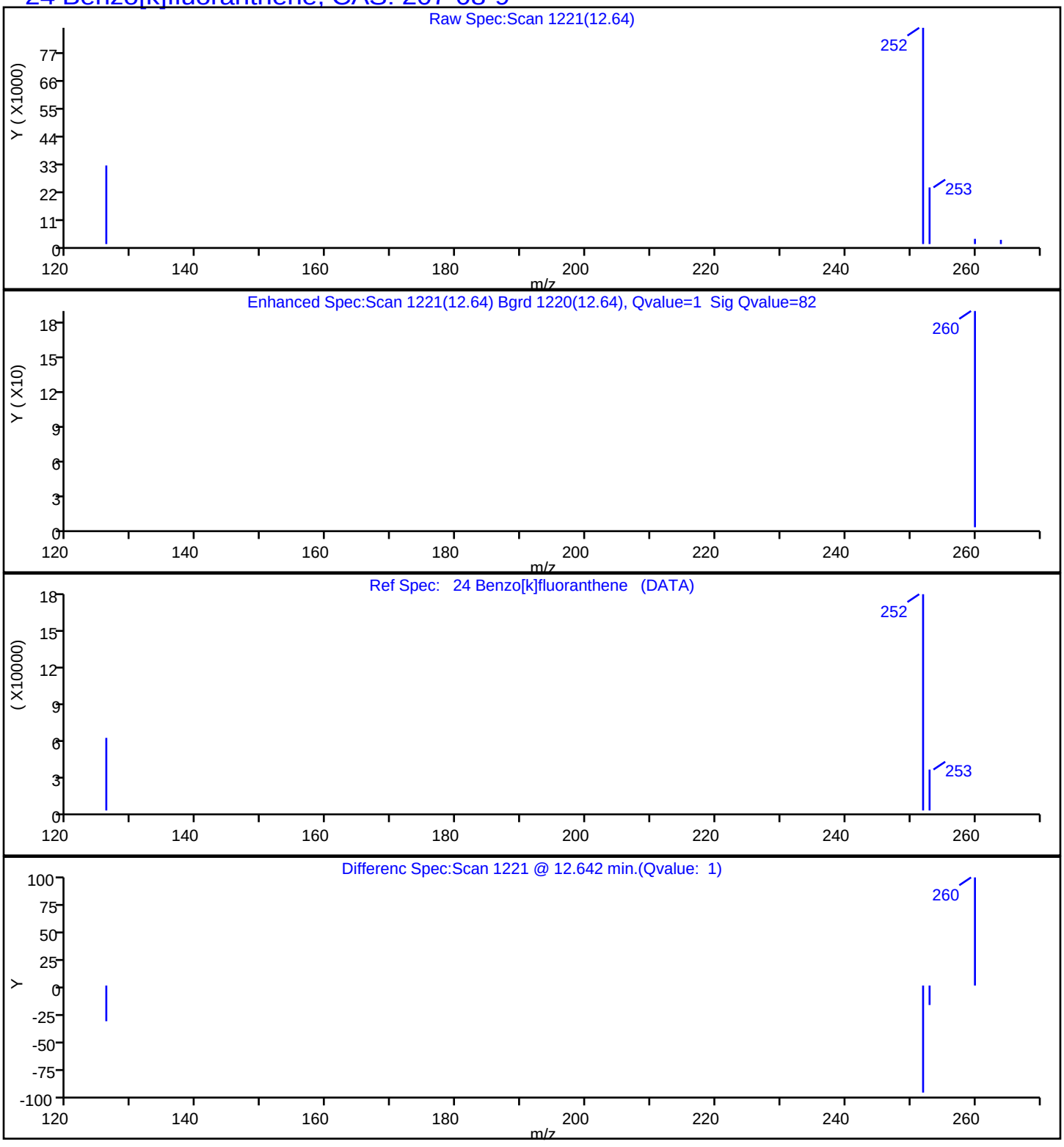


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

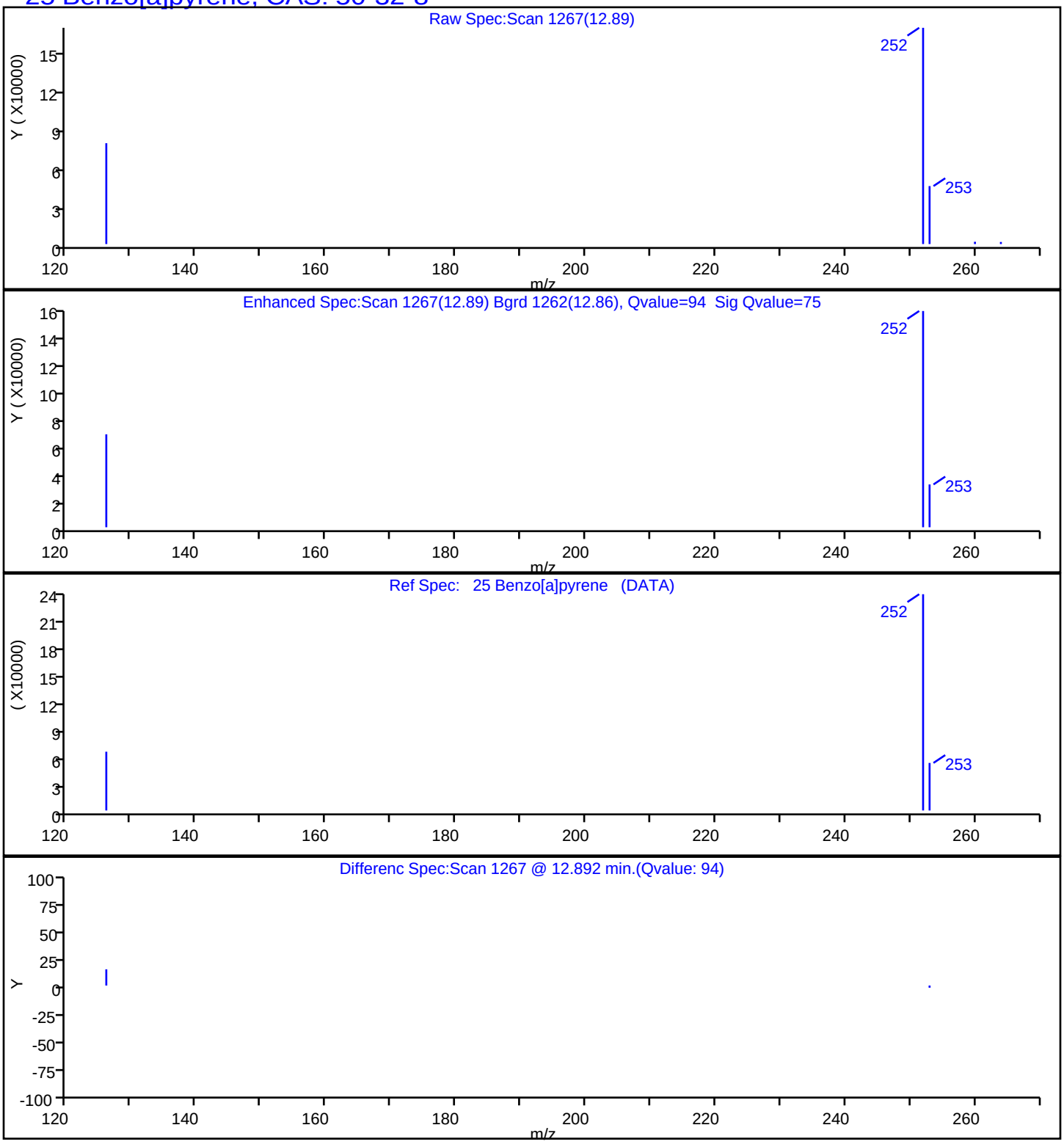


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

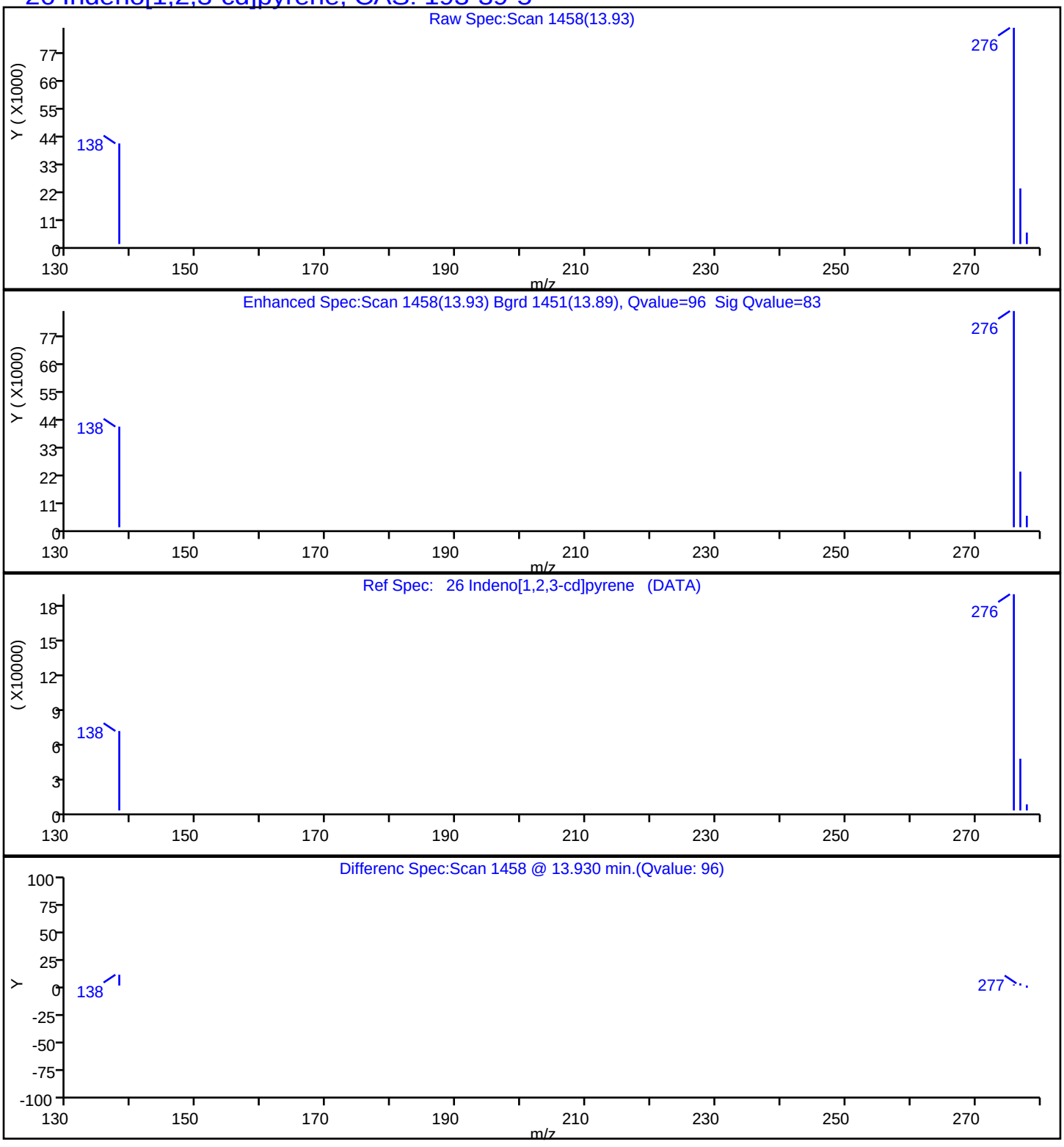


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

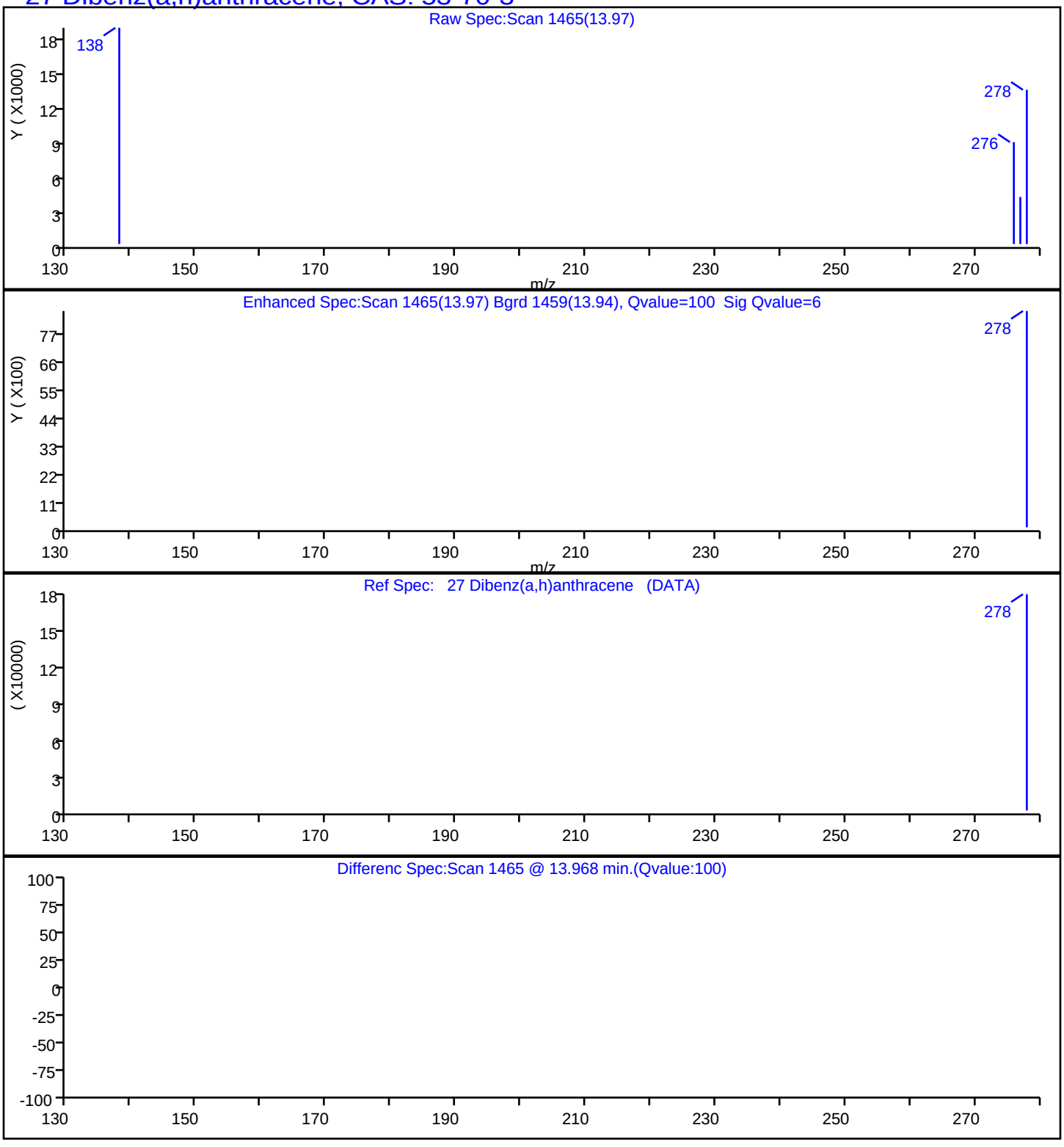


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

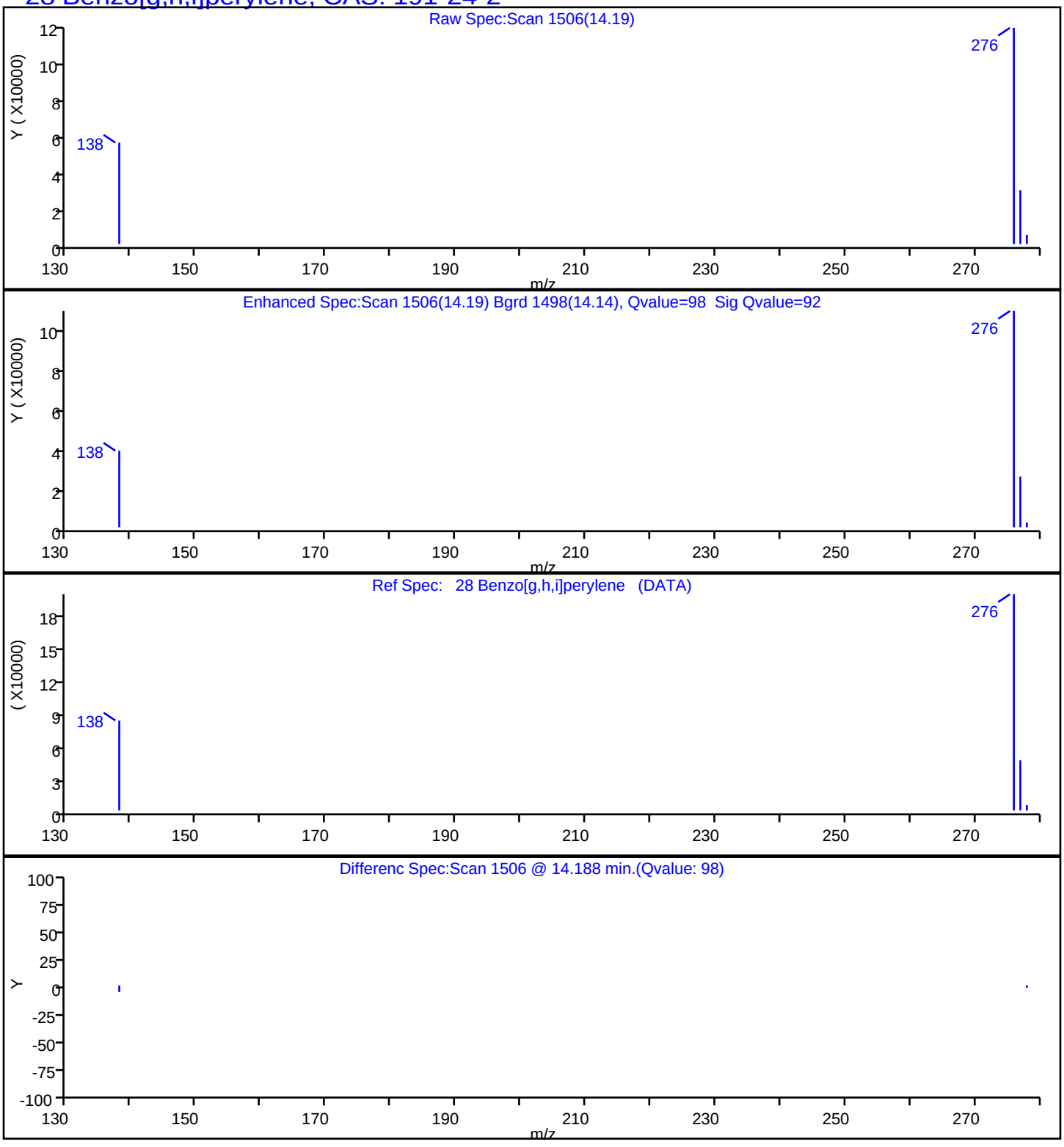


Report Date: 23-Jul-2019 14:08:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

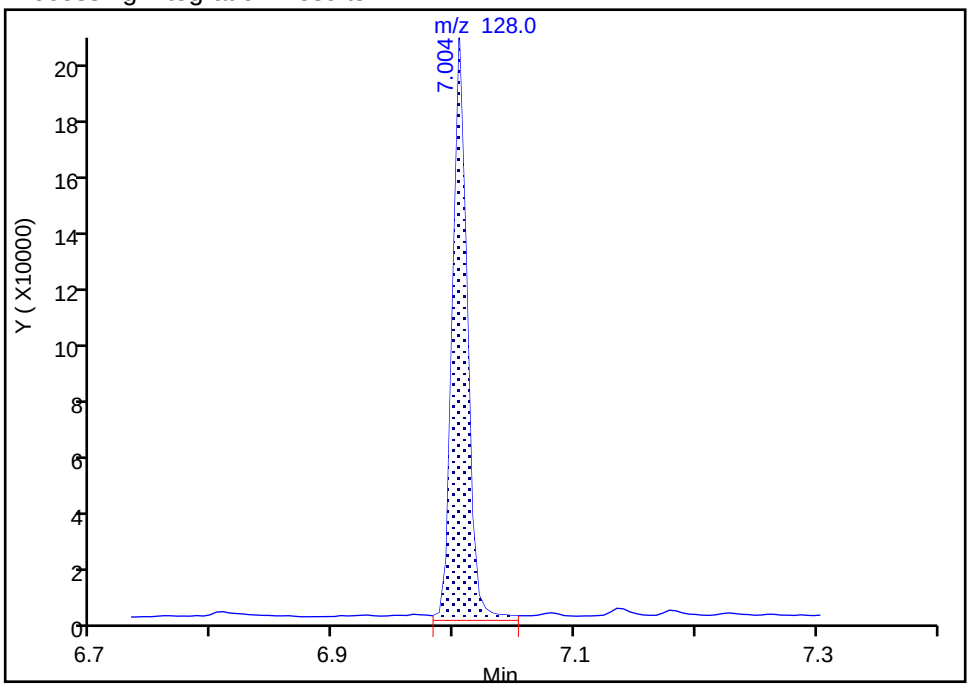
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

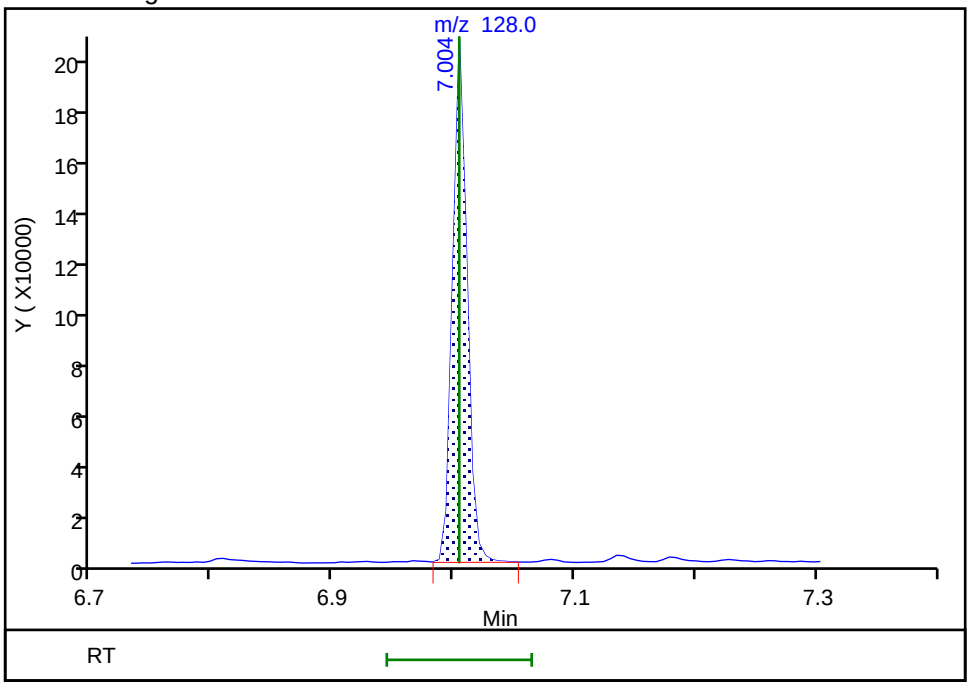
Processing Integration Results

RT: 7.00
Area: 175318
Amount: 40.809886
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 168842
Amount: 39.302427
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:02:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

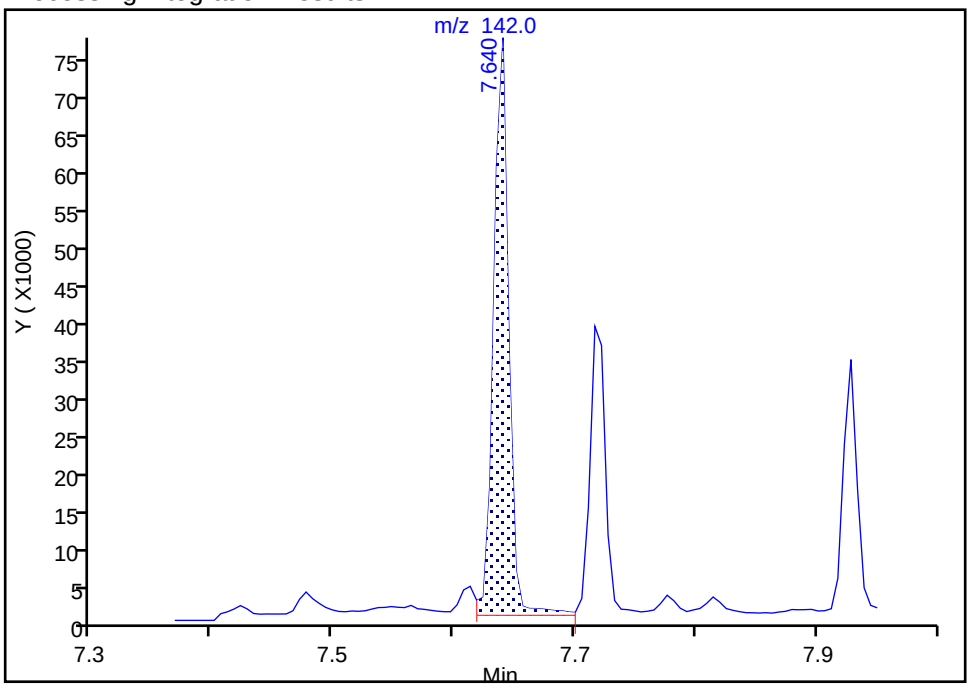
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

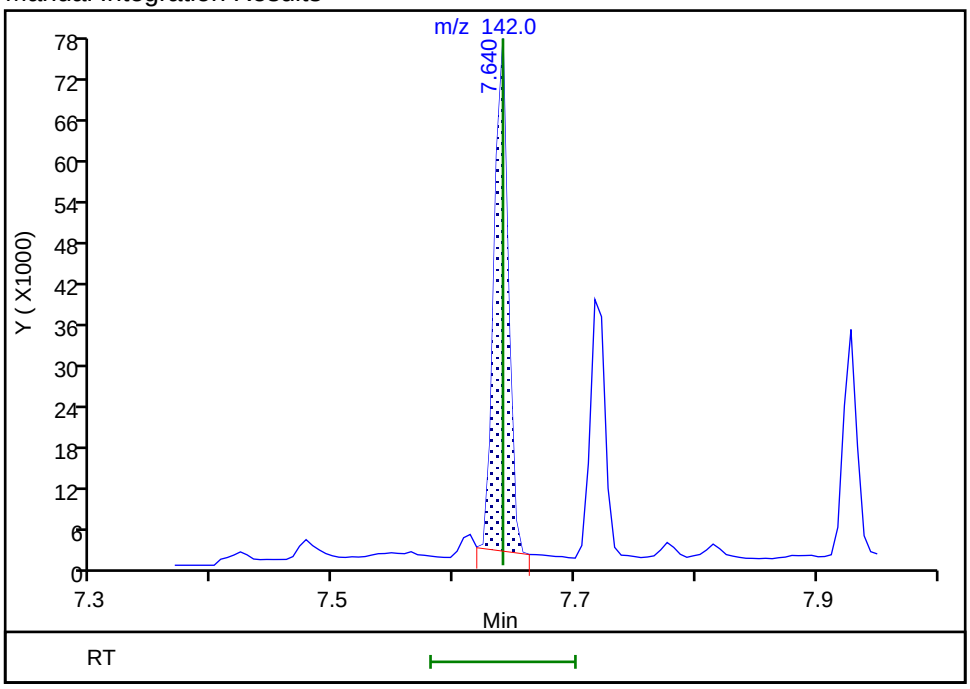
Processing Integration Results

RT: 7.64
Area: 66225
Amount: 23.506929
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 61060
Amount: 21.673584
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:04:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

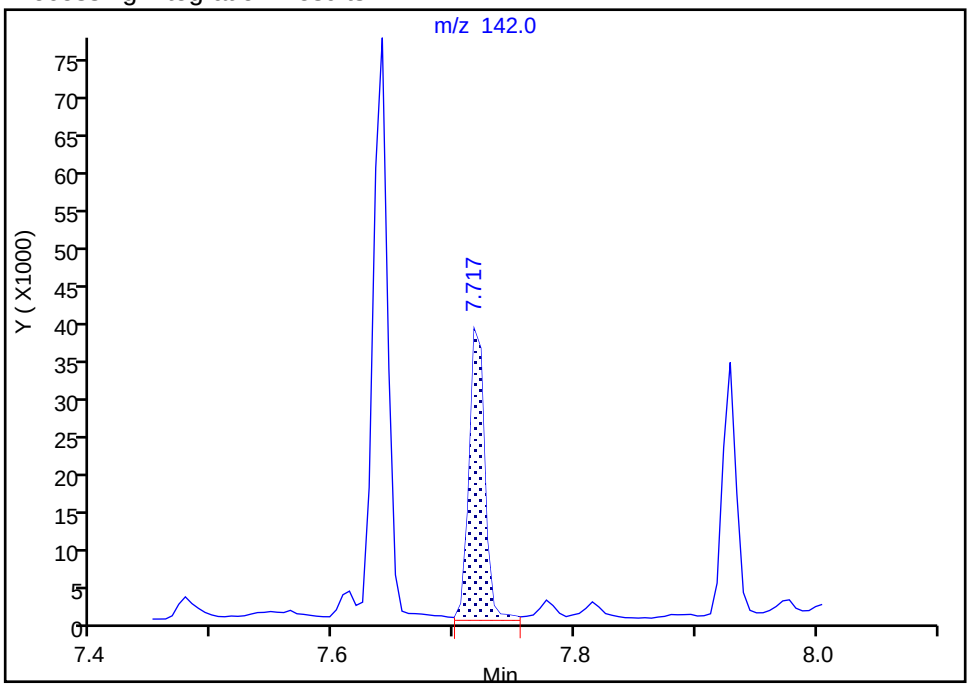
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

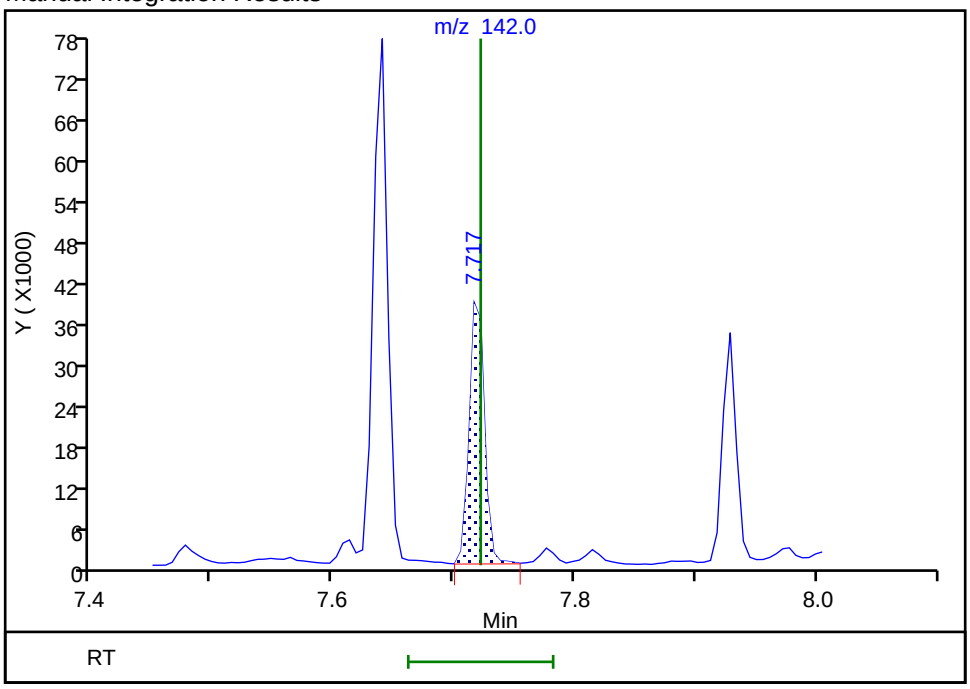
Processing Integration Results

RT: 7.72
Area: 34606
Amount: 13.156792
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 33448
Amount: 12.716534
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:05:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

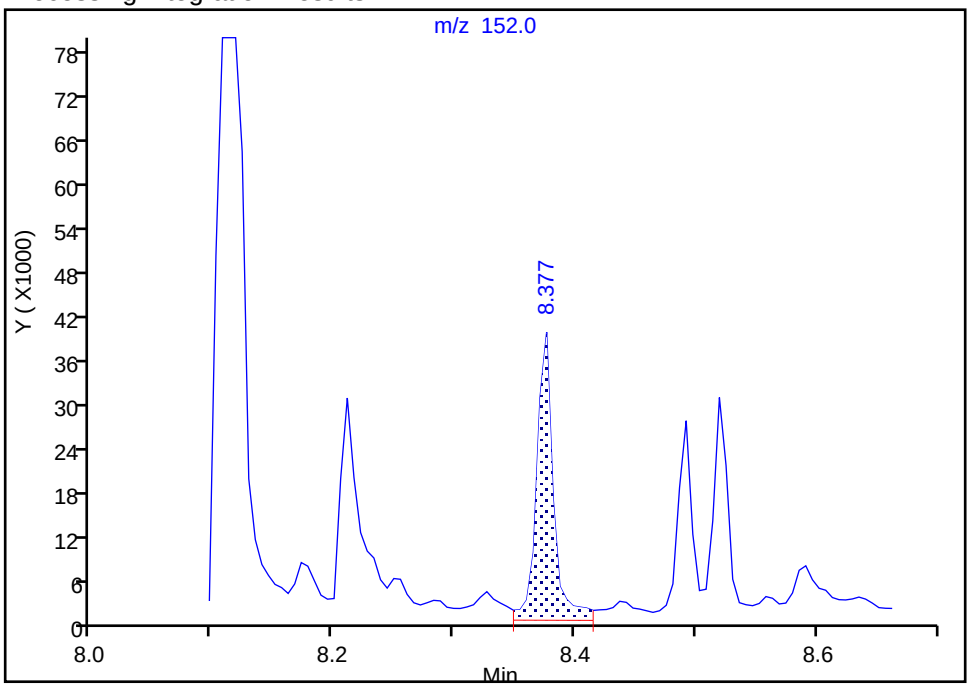
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

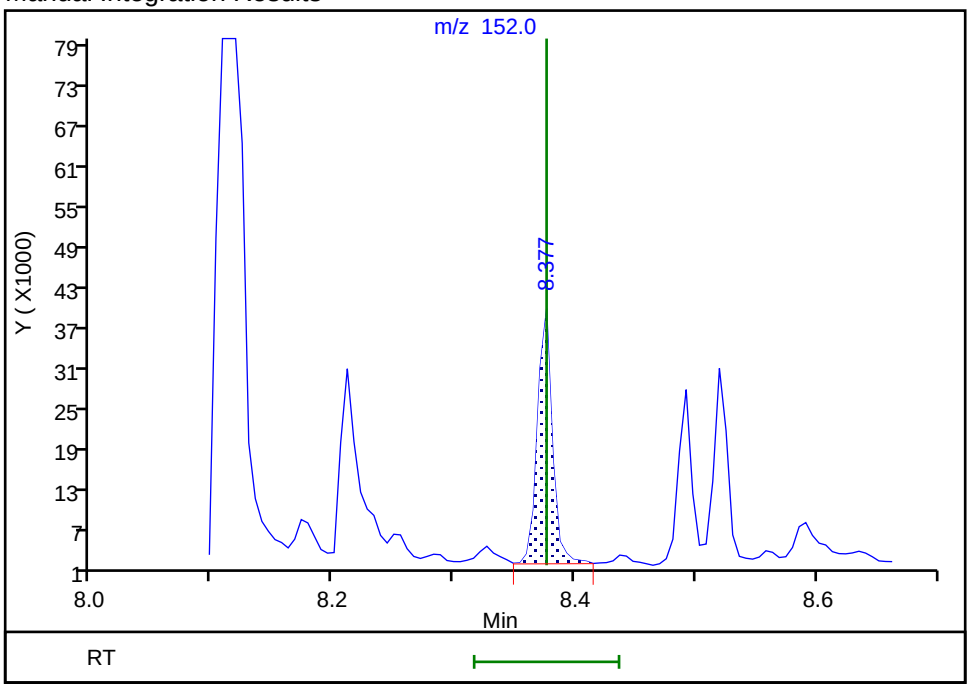
Processing Integration Results

RT: 8.38
Area: 37207
Amount: 9.662349
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 32145
Amount: 8.347790
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:05:06
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

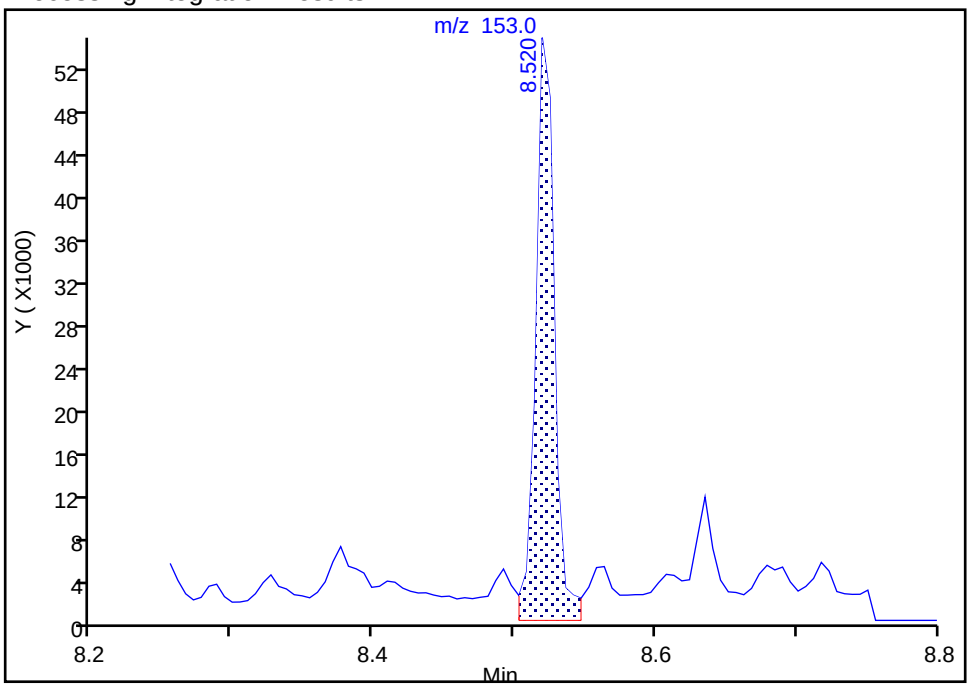
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

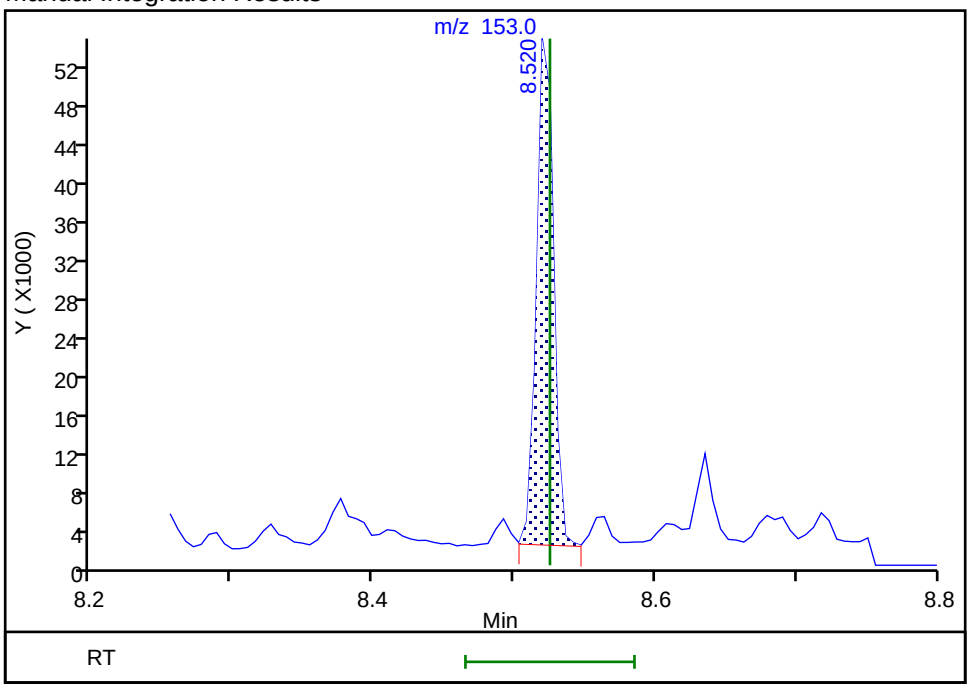
Processing Integration Results

RT: 8.52
Area: 48980
Amount: 17.521029
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 43566
Amount: 15.584344
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:05:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

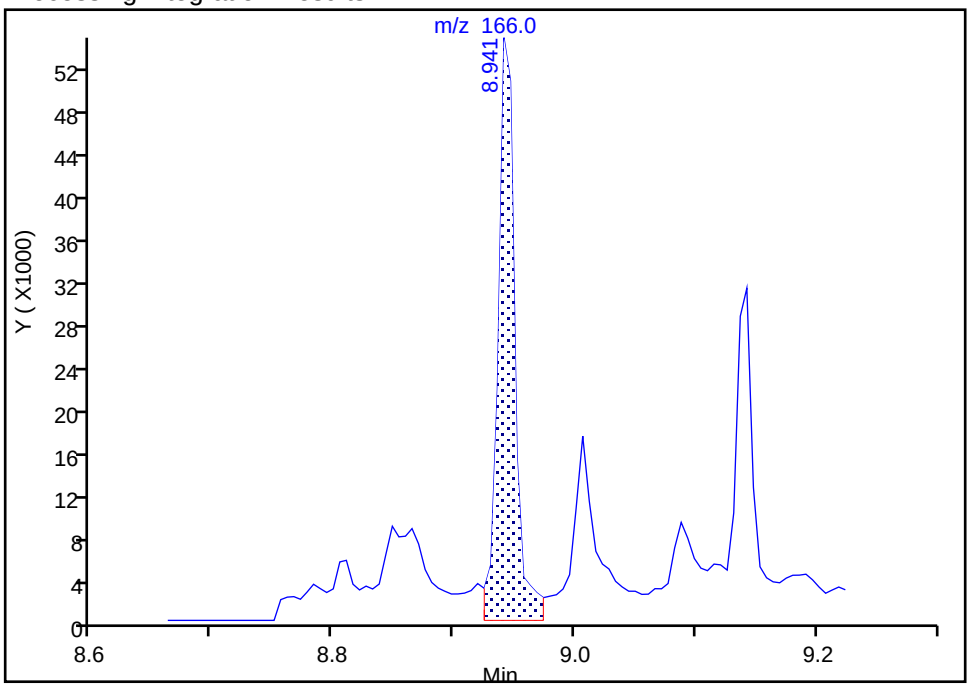
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

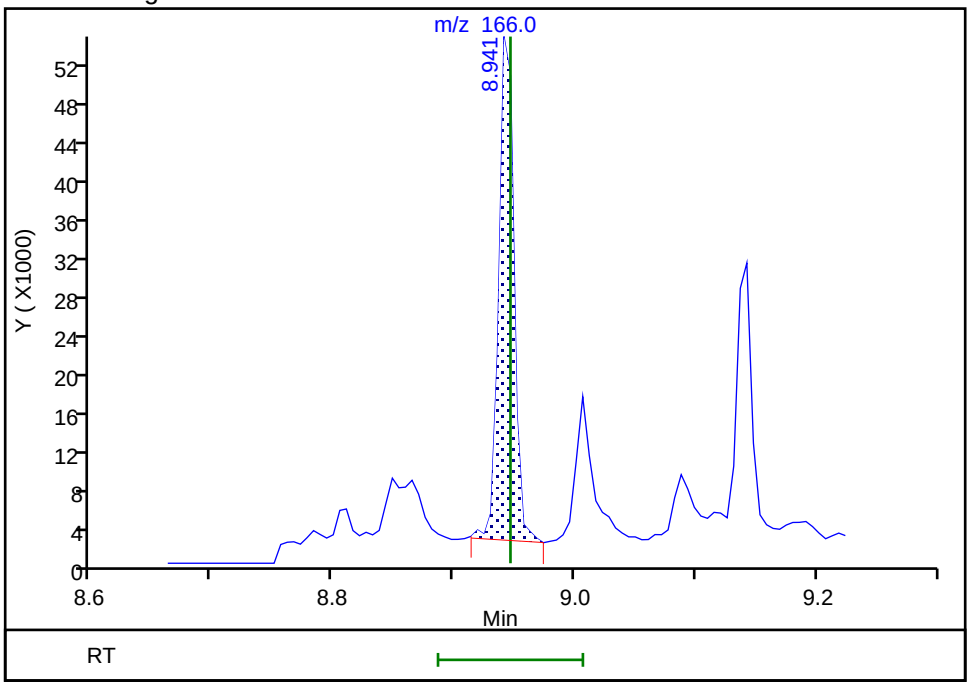
Processing Integration Results

RT: 8.94
Area: 51772
Amount: 18.495428
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 45353
Amount: 16.202255
Amount Units: ug/L



Reviewer: limmere, 22-Jul-2019 14:47:42

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

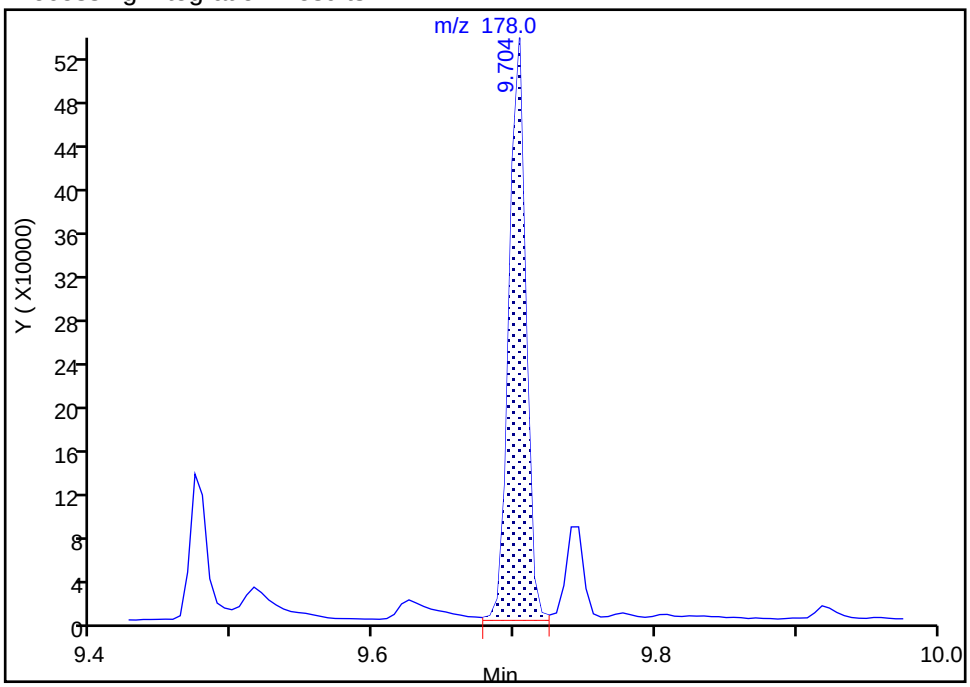
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

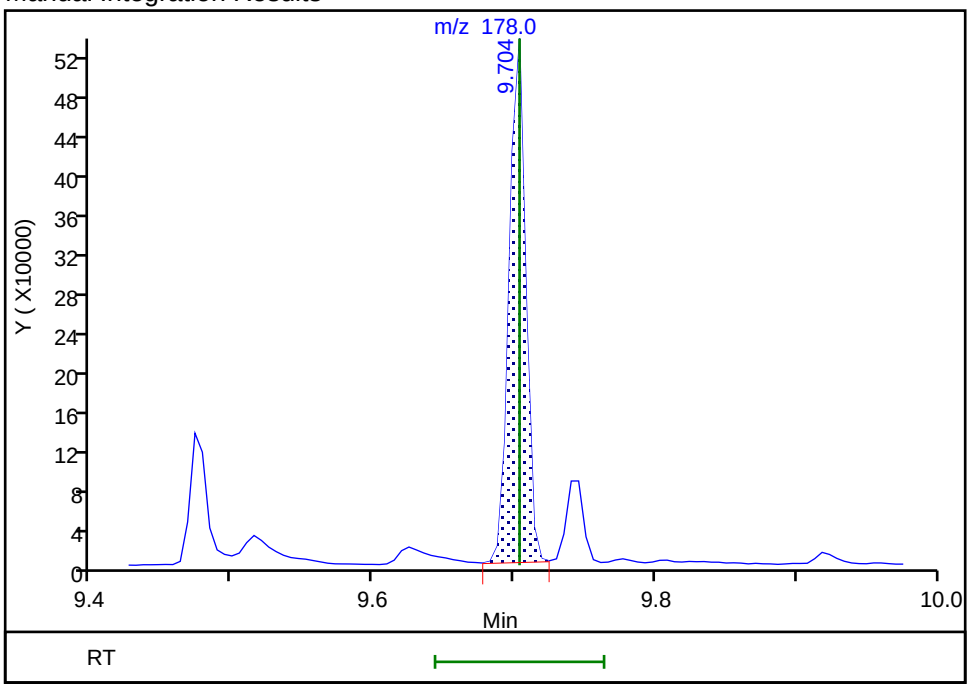
Processing Integration Results

RT: 9.70
Area: 440430
Amount: 106.4705
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 432174
Amount: 104.4747
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:05:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

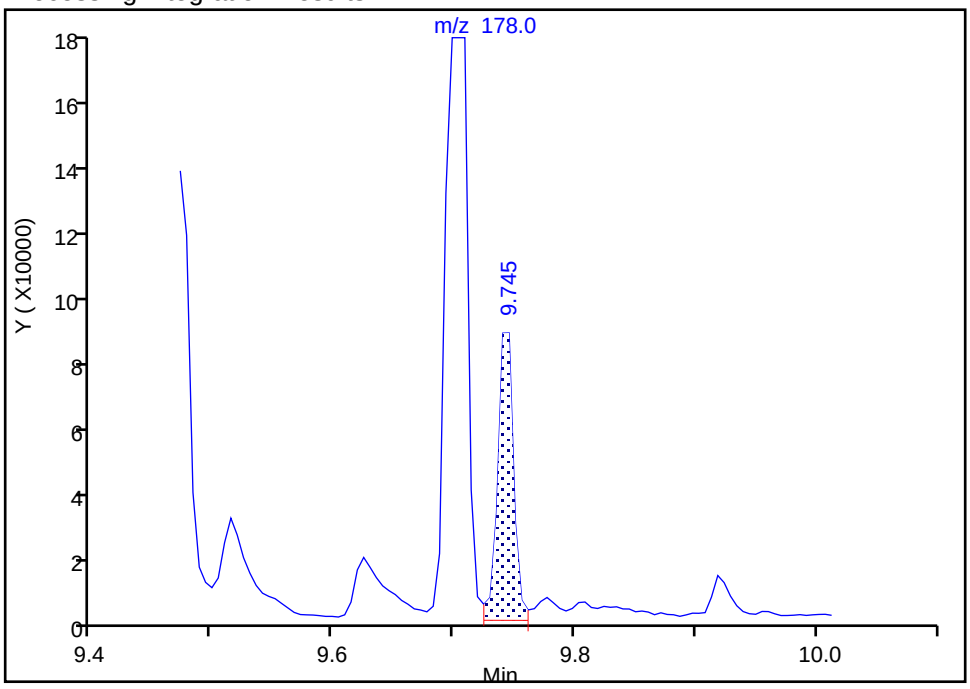
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

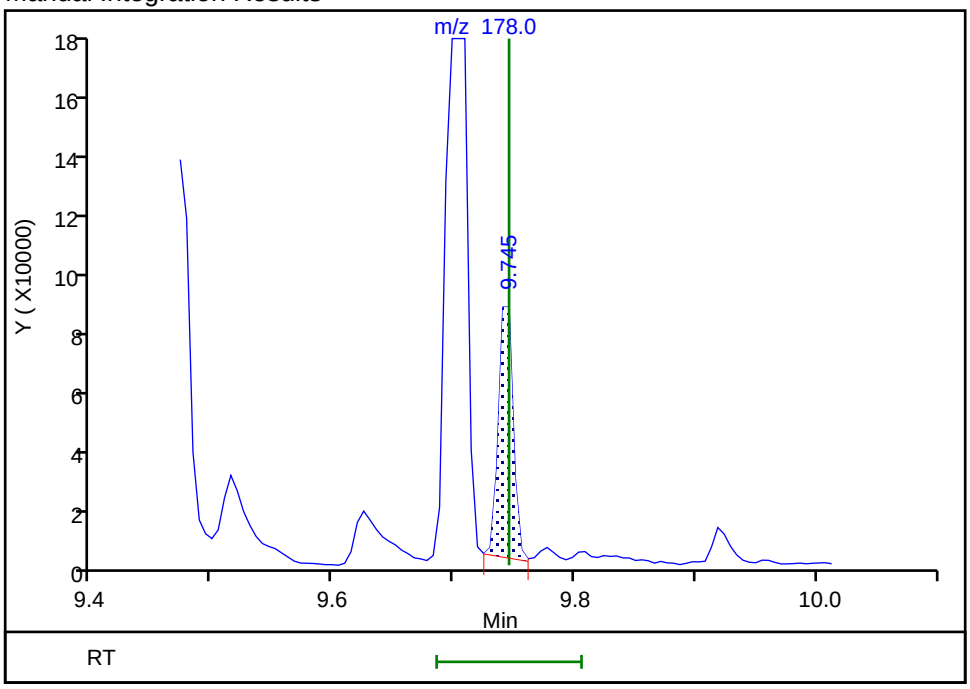
Processing Integration Results

RT: 9.75
Area: 78262
Amount: 20.350104
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 70625
Amount: 18.364291
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:05:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

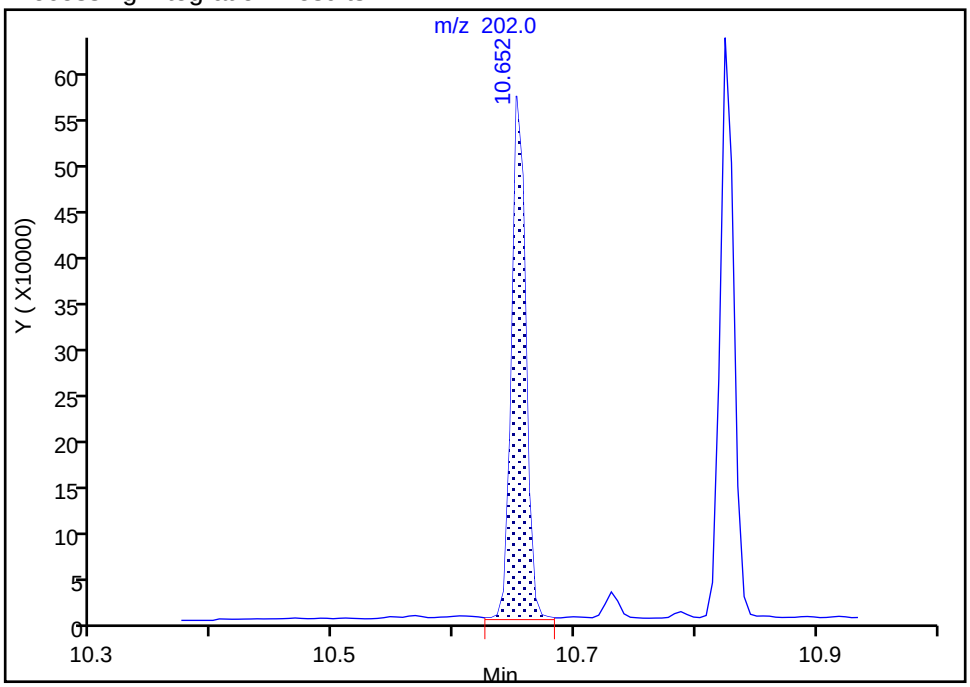
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

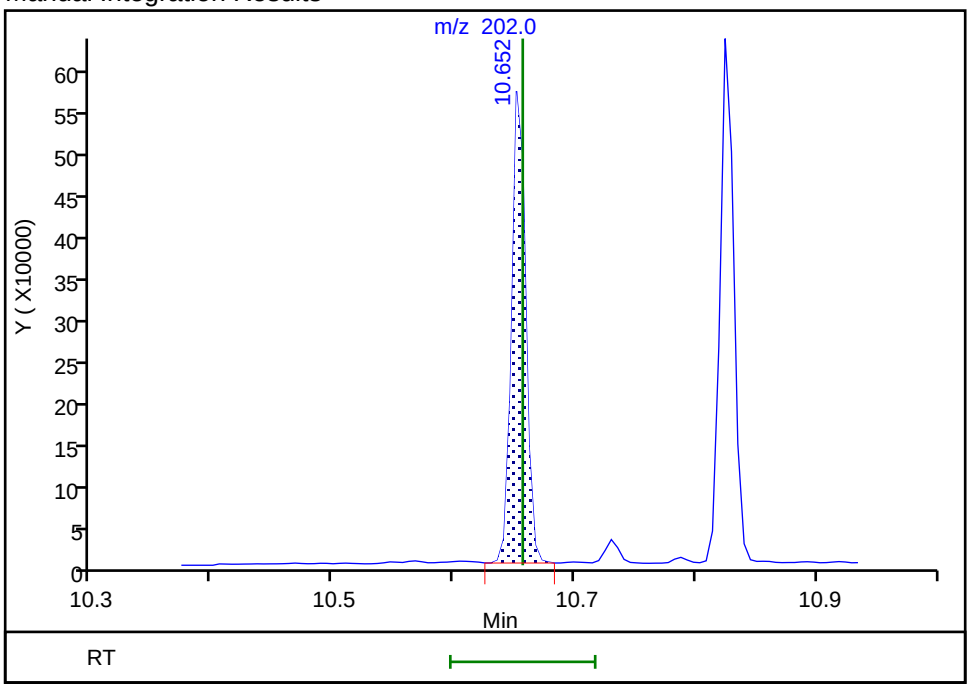
Processing Integration Results

RT: 10.65
Area: 460999
Amount: 117.6329
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 454667
Amount: 116.0172
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:05:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

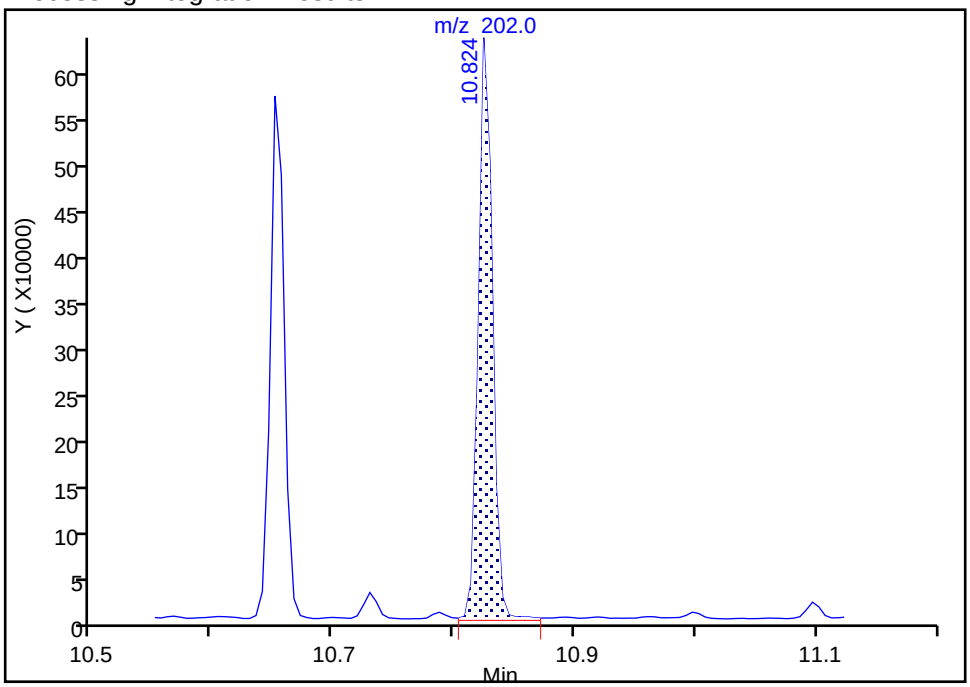
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

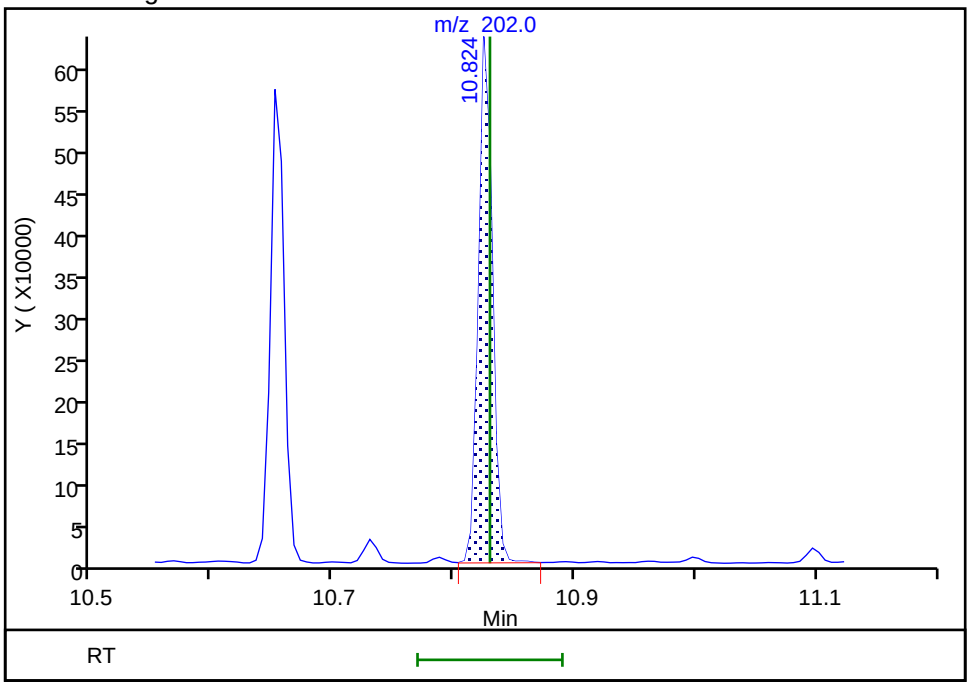
Processing Integration Results

RT: 10.82
Area: 510132
Amount: 123.5935
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 501602
Amount: 121.5268
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:06:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

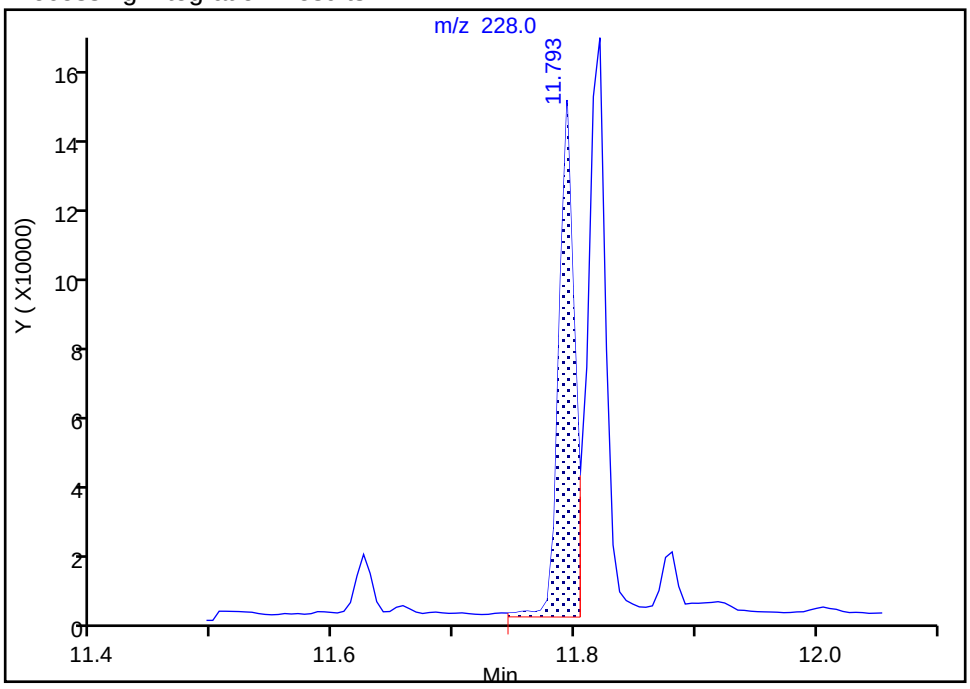
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

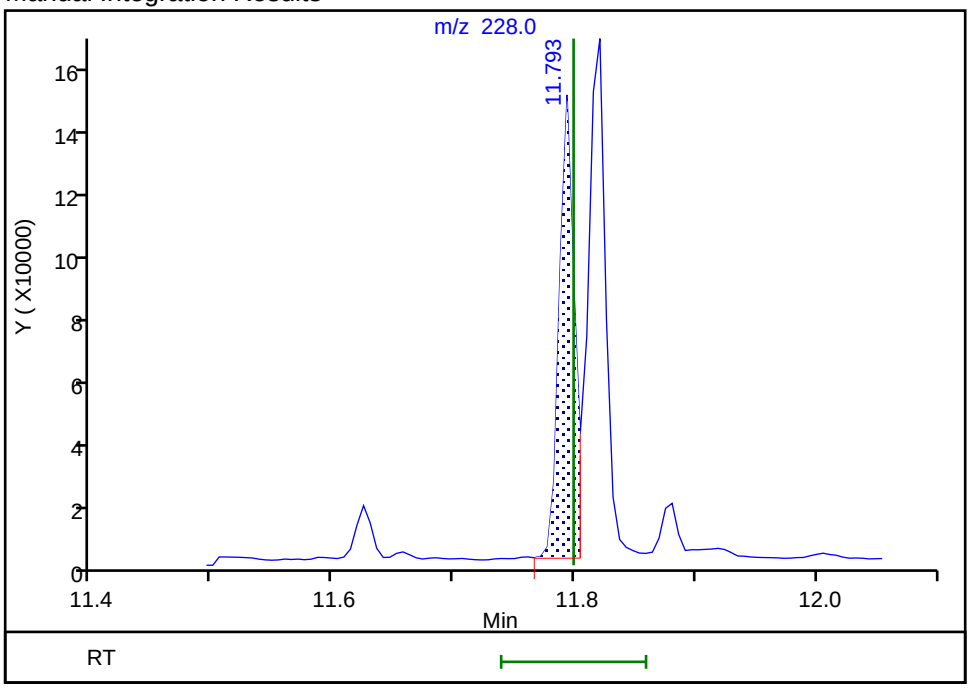
Processing Integration Results

RT: 11.79
Area: 126992
Amount: 48.077304
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 122366
Amount: 46.325968
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:06:54

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

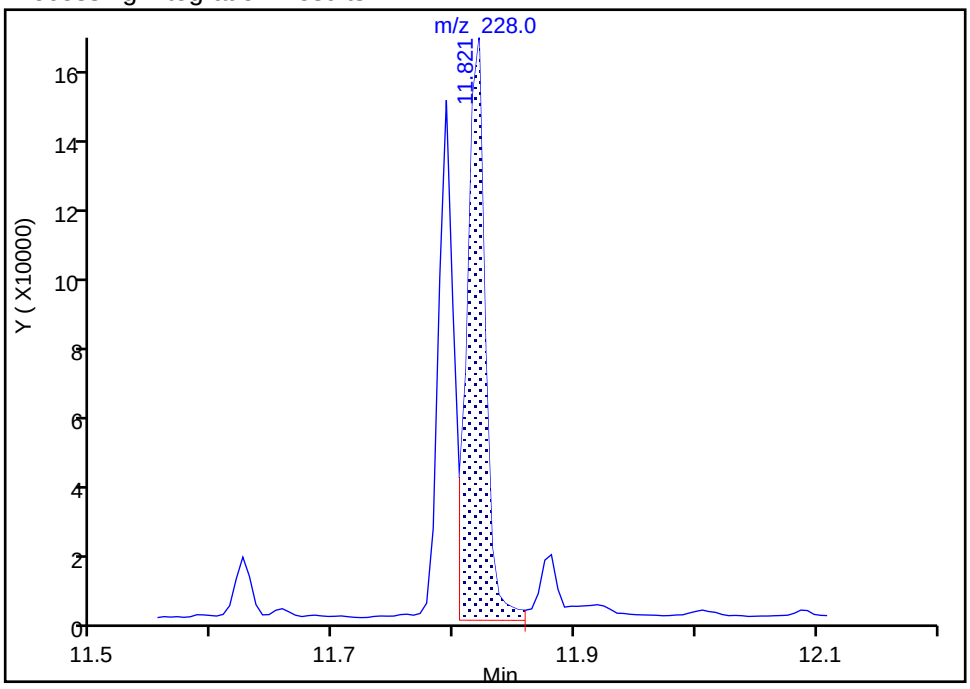
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

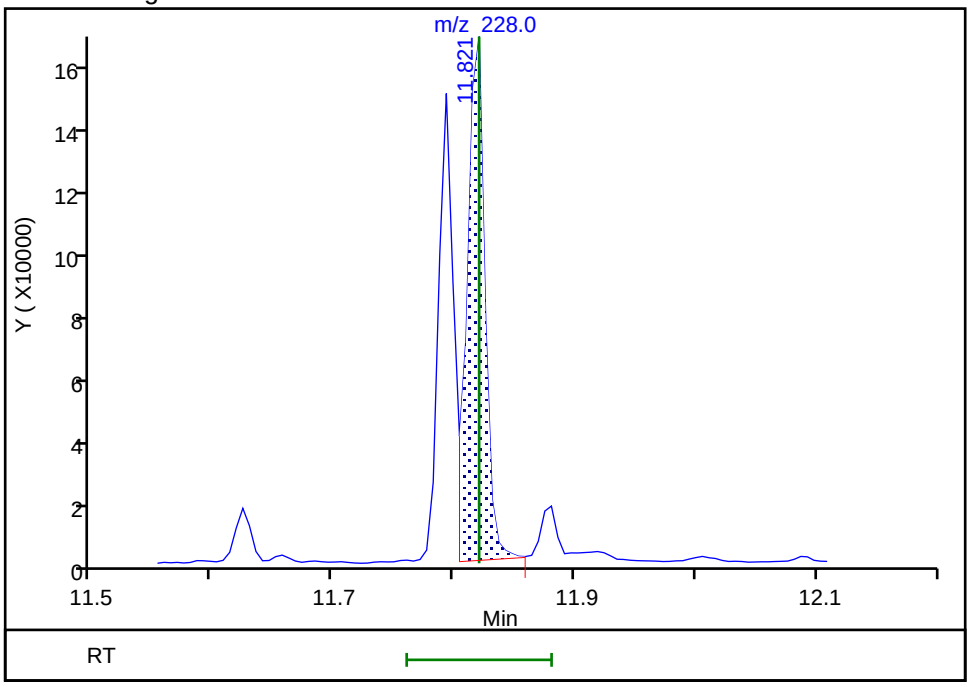
Processing Integration Results

RT: 11.82
Area: 168862
Amount: 48.072016
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 162678
Amount: 46.311540
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

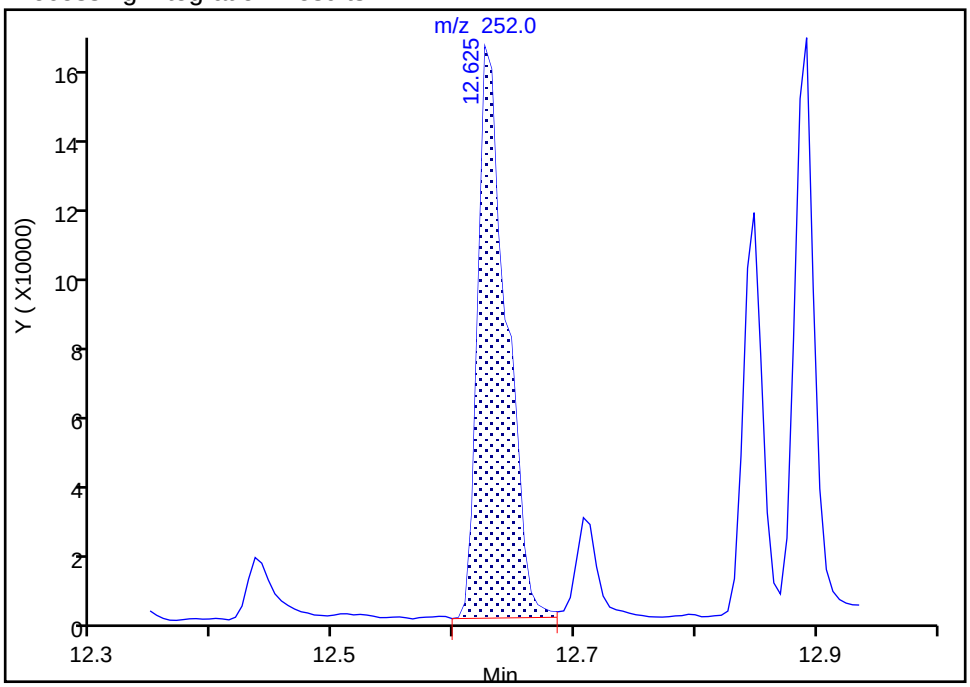
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

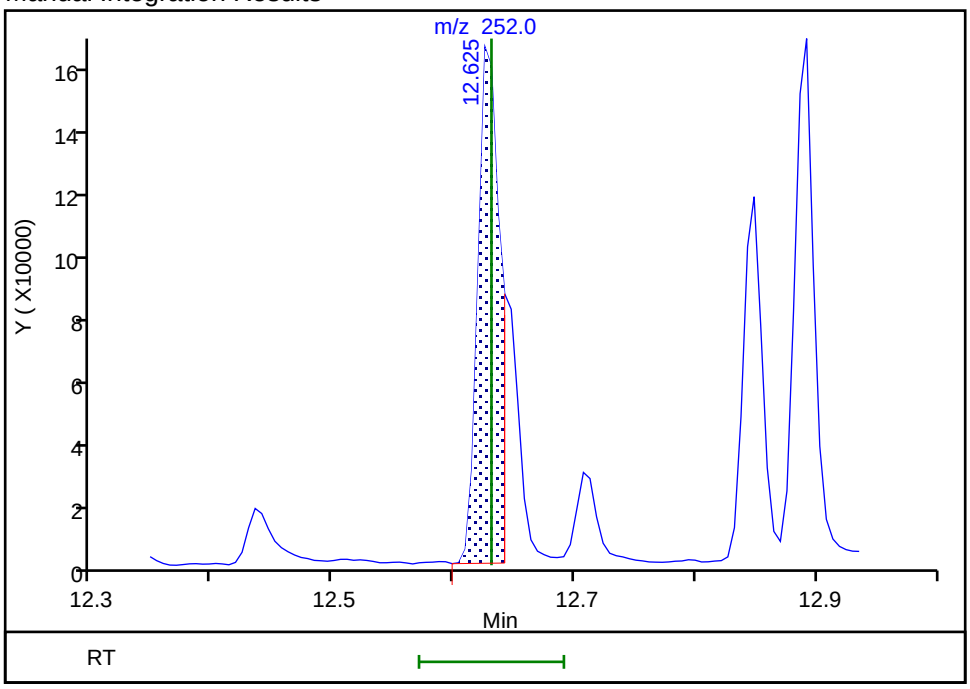
Processing Integration Results

RT: 12.63
Area: 259280
Amount: 76.948833
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 192367
Amount: 57.090466
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:10

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

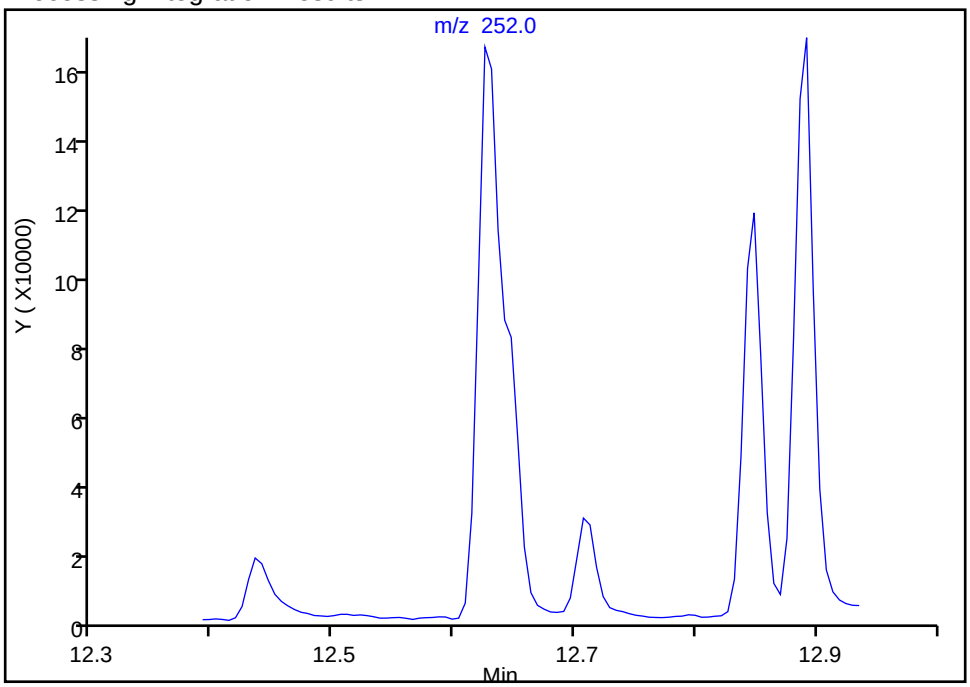
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

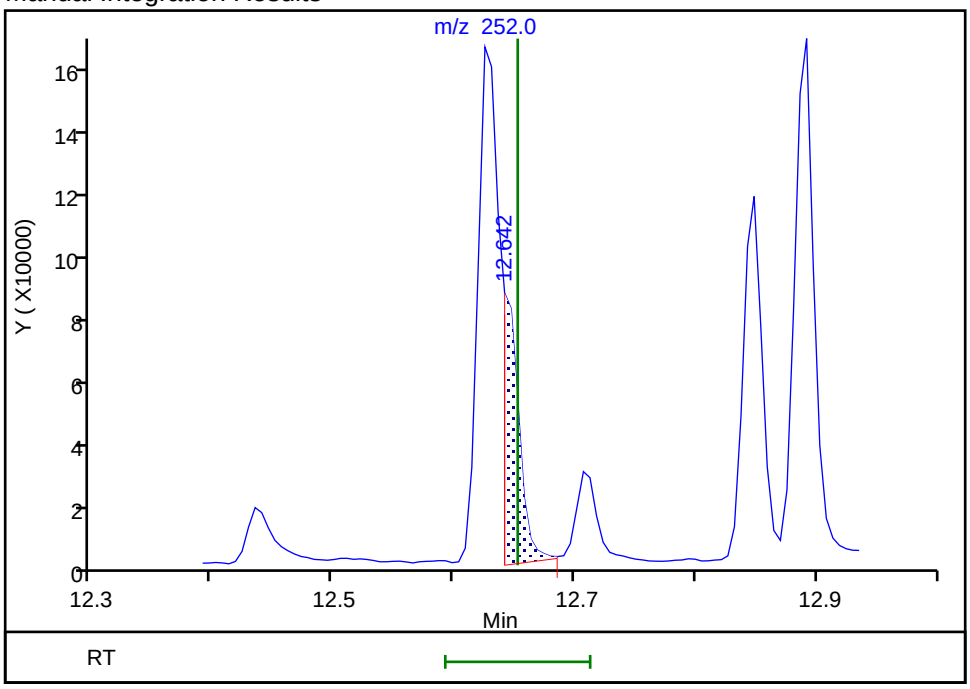
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 66979
Amount: 16.247540
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:26
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

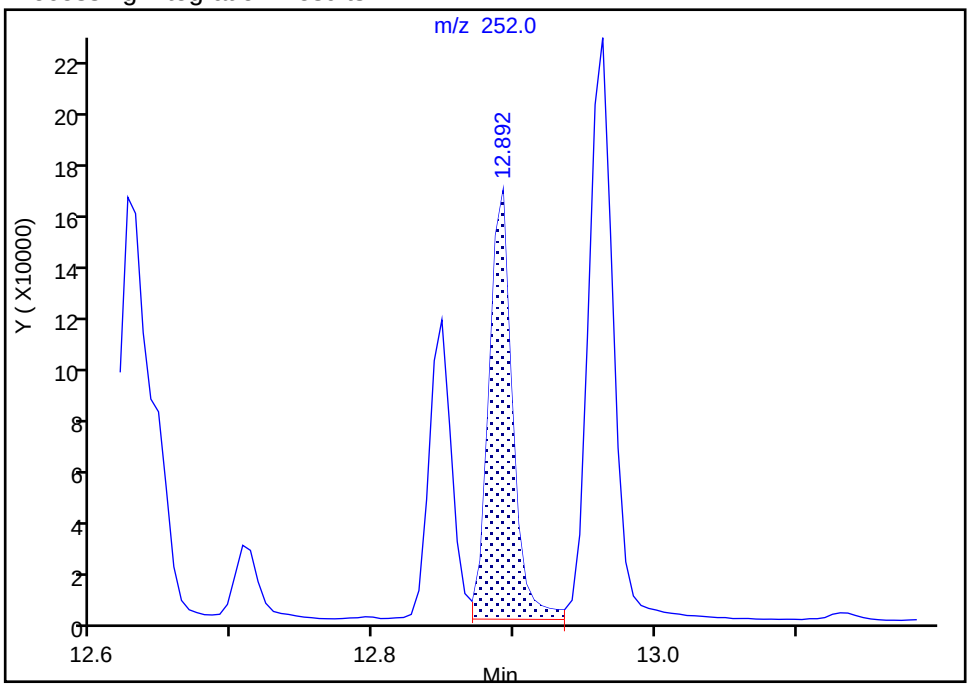
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

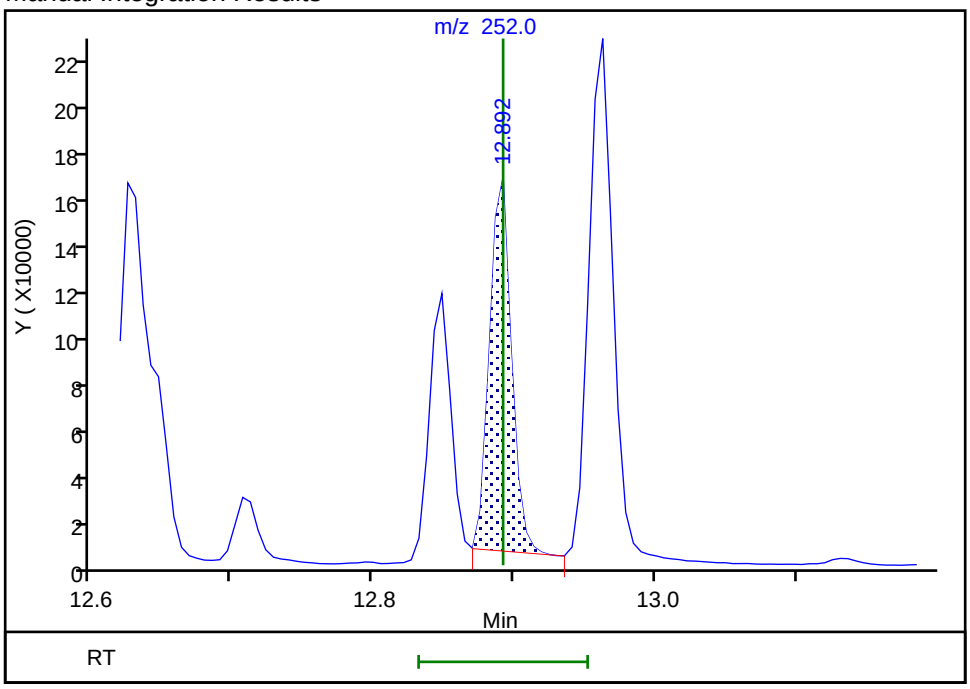
Processing Integration Results

RT: 12.89
Area: 186836
Amount: 54.735604
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 167362
Amount: 49.030487
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

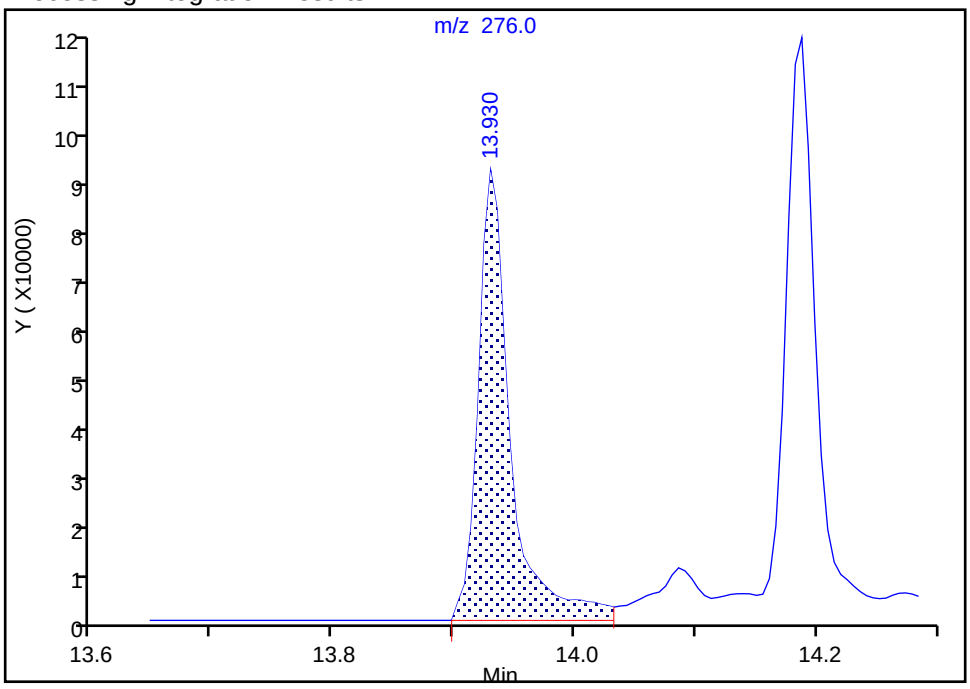
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

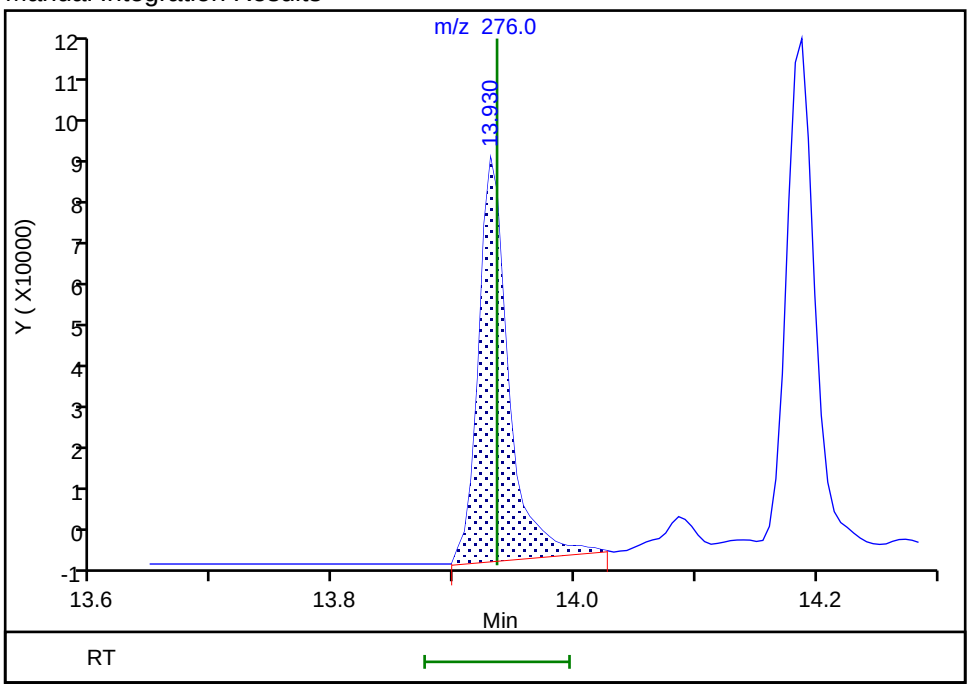
Processing Integration Results

RT: 13.93
Area: 158265
Amount: 60.745298
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 148387
Amount: 56.974147
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:42

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

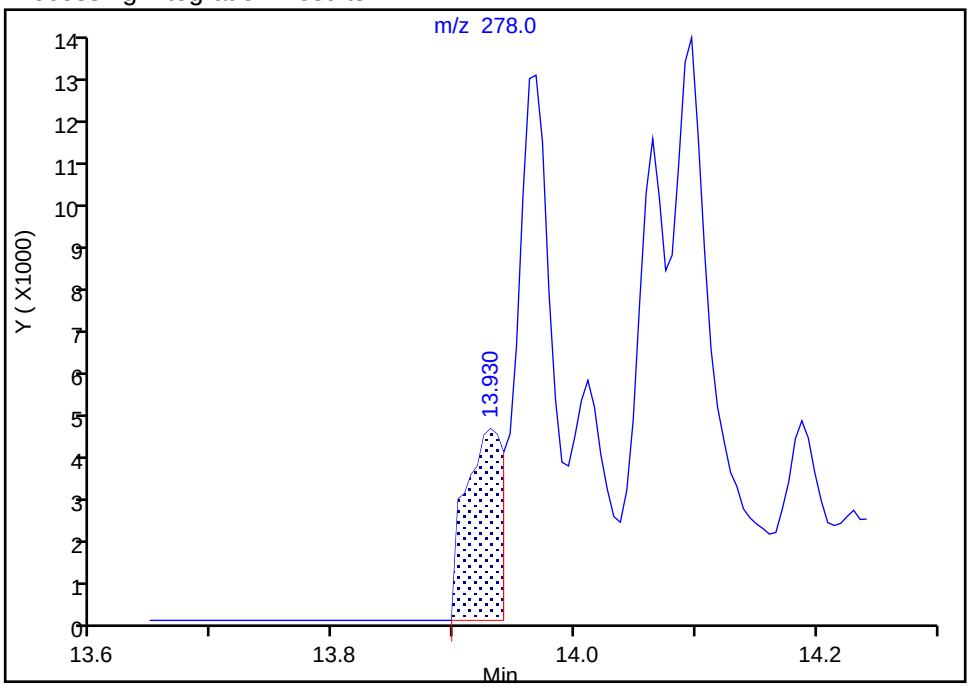
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

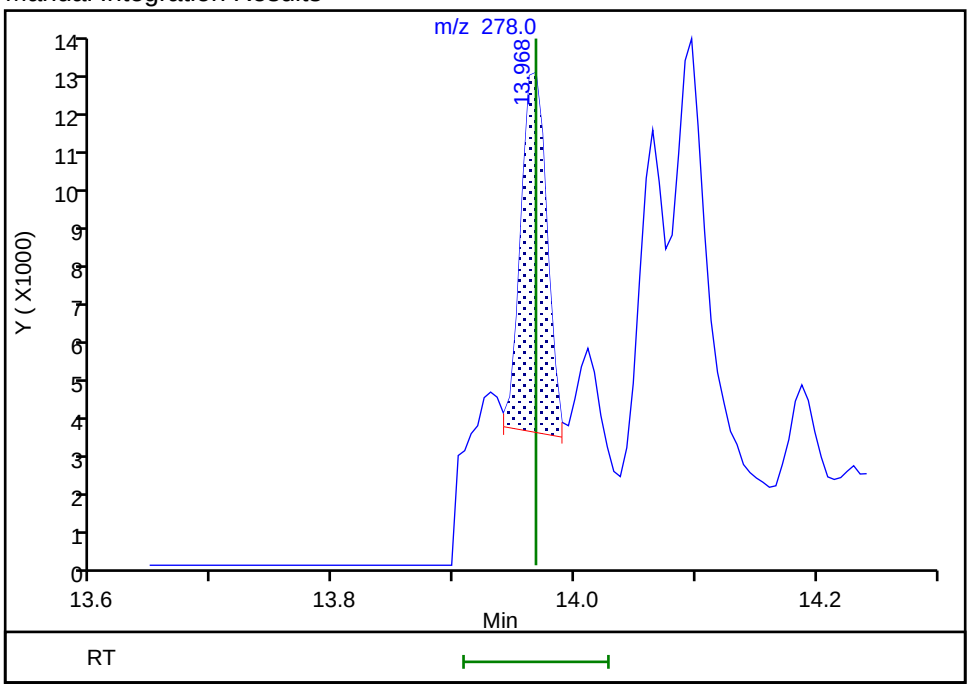
Processing Integration Results

RT: 13.93
Area: 9183
Amount: 3.867984
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 14112
Amount: 5.349034
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:52

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

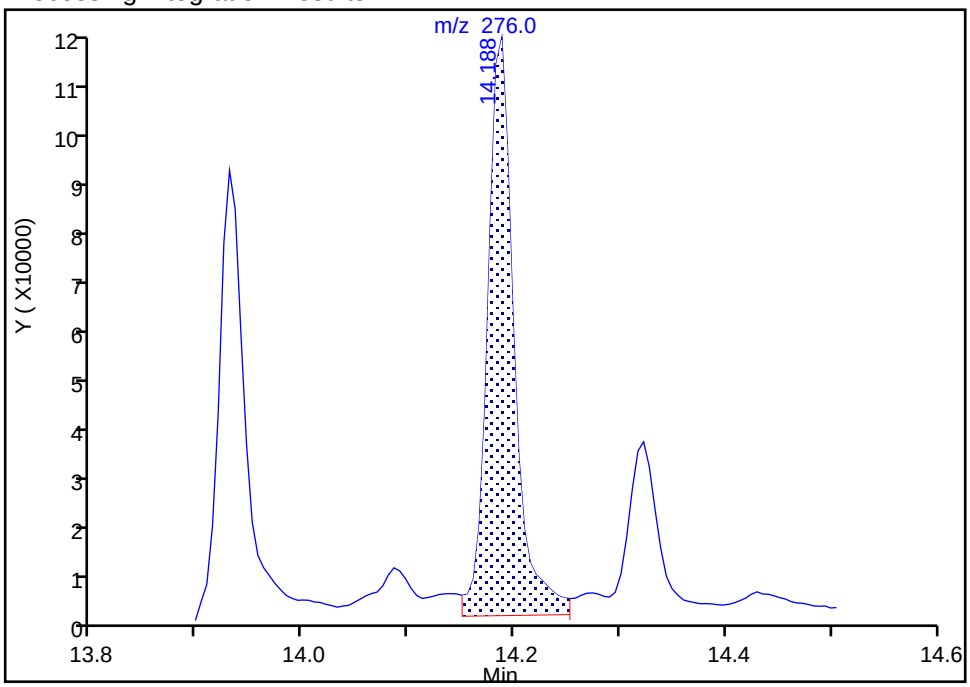
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A009.D				
Injection Date:	22-Jul-2019 14:15:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-4-A	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	KFS	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

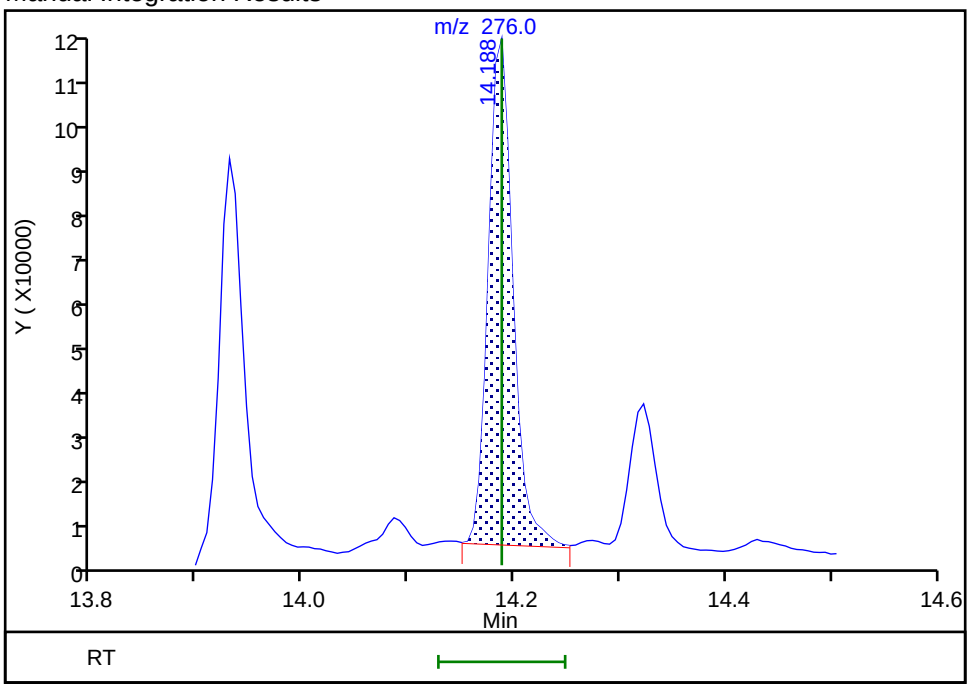
Processing Integration Results

RT: 14.19
Area: 192689
Amount: 51.387037
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 173035
Amount: 46.172403
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:07:57

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Matrix: Solid Lab File ID: 072219A010.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 09:38

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.452(g) Date Analyzed: 07/22/2019 14:41

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 61.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	670	F1	10	3.3
91-57-6	2-Methylnaphthalene	130	F2	10	4.2
90-12-0	1-Methylnaphthalene	67		10	1.3
208-96-8	Acenaphthylene	53		10	1.0
83-32-9	Acenaphthene	120		10	1.2
86-73-7	Fluorene	130		10	1.0
85-01-8	Phenanthrene	810	F2 F1	10	3.4
120-12-7	Anthracene	160		10	1.2
206-44-0	Fluoranthene	720	F1	10	2.9
129-00-0	Pyrene	780		10	2.0
56-55-3	Benzo[a]anthracene	280		10	1.6
218-01-9	Chrysene	280		10	3.1
205-99-2	Benzo[b]fluoranthene	320		10	1.2
207-08-9	Benzo[k]fluoranthene	83		10	1.2
50-32-8	Benzo[a]pyrene	280		10	1.7
193-39-5	Indeno[1,2,3-cd]pyrene	290		10	1.2
53-70-3	Dibenz(a,h)anthracene	27	B	10	1.5
191-24-2	Benzo[g,h,i]perylene	250	B	10	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	69		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D
Lims ID: 580-87706-A-5-A
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:41:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-5-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:12:18 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:12:18

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
*	1 Naphthalene-d8	136	6.988	6.988	0.000	100	381466	100.0	
*	2 Acenaphthene-d10	164	8.498	8.503	-0.005	95	177251	100.0	
*	3 Phenanthrene-d10	188	9.688	9.688	0.000	100	307548	100.0	
*	4 Chrysene-d12	240	11.804	11.804	0.000	99	231985	100.0	
*	5 Perylene-d12	264	12.941	12.946	-0.005	100	260978	100.0	
$	6 2-methylnaphthalene-d10	152	7.613	7.619	-0.006	98	1857130	757.5	
$	7 2,4,6-Tribromophenol	330	9.142	9.148	-0.006	100	446935	1170.4	
$	8 Fluoranthene-d10 (Surr)	212	10.641	10.646	-0.005	98	2494574	735.2	
$	9 Terphenyl-d14	244	11.003	11.002	0.000	99	1605954	689.7	
	10 Naphthalene	128	7.004	7.004	0.000	100	1392733	326.8	M
	11 2-Methylnaphthalene	142	7.640	7.640	0.000	91	181195	64.8	M
	12 1-Methylnaphthalene	142	7.717	7.722	-0.005	96	84480	32.4	M
	13 Acenaphthylene	152	8.377	8.376	0.001	99	98913	25.6	M
	14 Acenaphthene	153	8.520	8.525	-0.005	82	164806	58.7	M
	15 Fluorene	166	8.941	8.947	-0.006	96	170771	60.8	M
	16 Pentachlorophenol	266	9.567	9.567	0.000	99	1333	26.2	M
	17 Phenanthrene	178	9.704	9.704	0.000	99	1636081	391.9	
	18 Anthracene	178	9.745	9.745	0.000	99	302624	78.0	M
	19 Fluoranthene	202	10.657	10.657	0.000	98	1386387	350.5	M
	20 Pyrene	202	10.824	10.830	-0.006	100	1565709	375.8	M
	21 Benzo[a]anthracene	228	11.794	11.799	-0.005	98	364102	137.7	
	22 Chrysene	228	11.821	11.821	0.000	99	484540	137.8	
	23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	518339	154.2	M
	24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	165107	40.1	M
	25 Benzo[a]pyrene	252	12.892	12.892	0.000	98	468041	137.4	M
	26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	99	367174	140.4	M
	27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	39717	13.1	M
	28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	462116	123.2	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

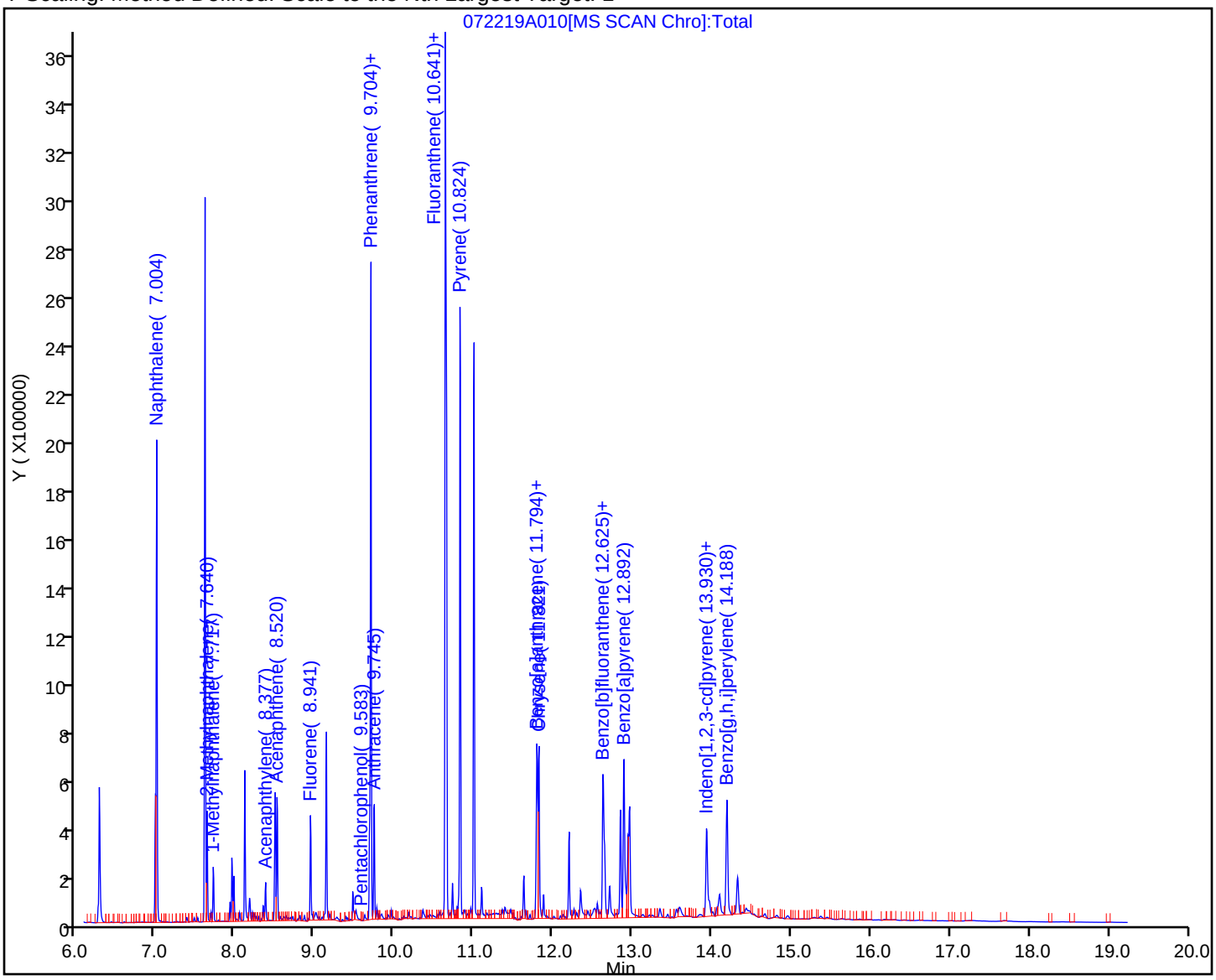
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:12:18 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D
Lims ID: 580-87706-A-5-A
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:41:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-5-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:12:18 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:12:18

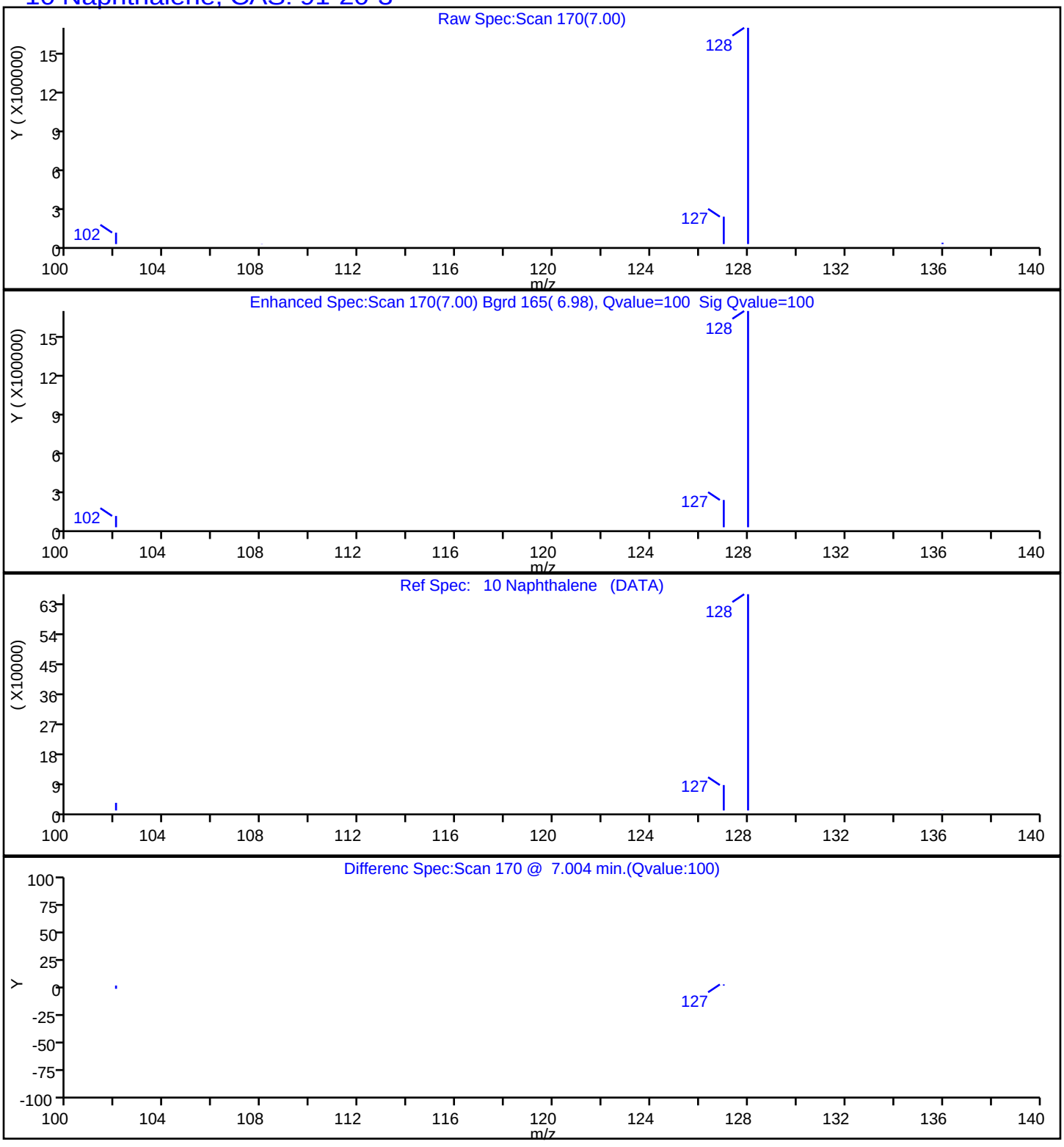
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	1000.0	757.5	75.75
$ 7 2,4,6-Tribromophenol	1000.0	1170.4	117.04
$ 8 Fluoranthene-d10 (Surr)	1000.0	735.2	73.52
$ 9 Terphenyl-d14	1000.0	689.7	68.97

Report Date: 23-Jul-2019 14:12:18 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

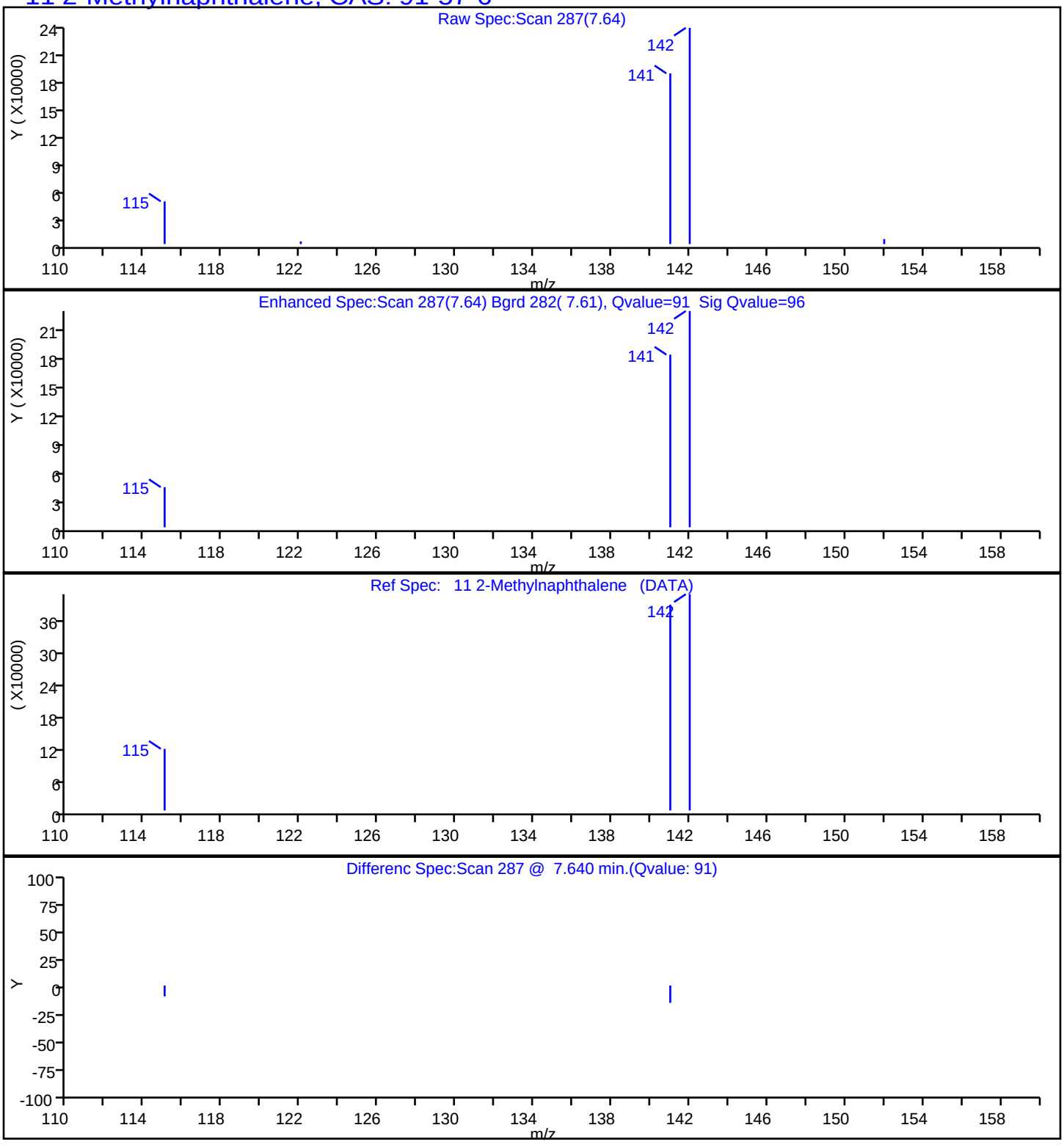


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

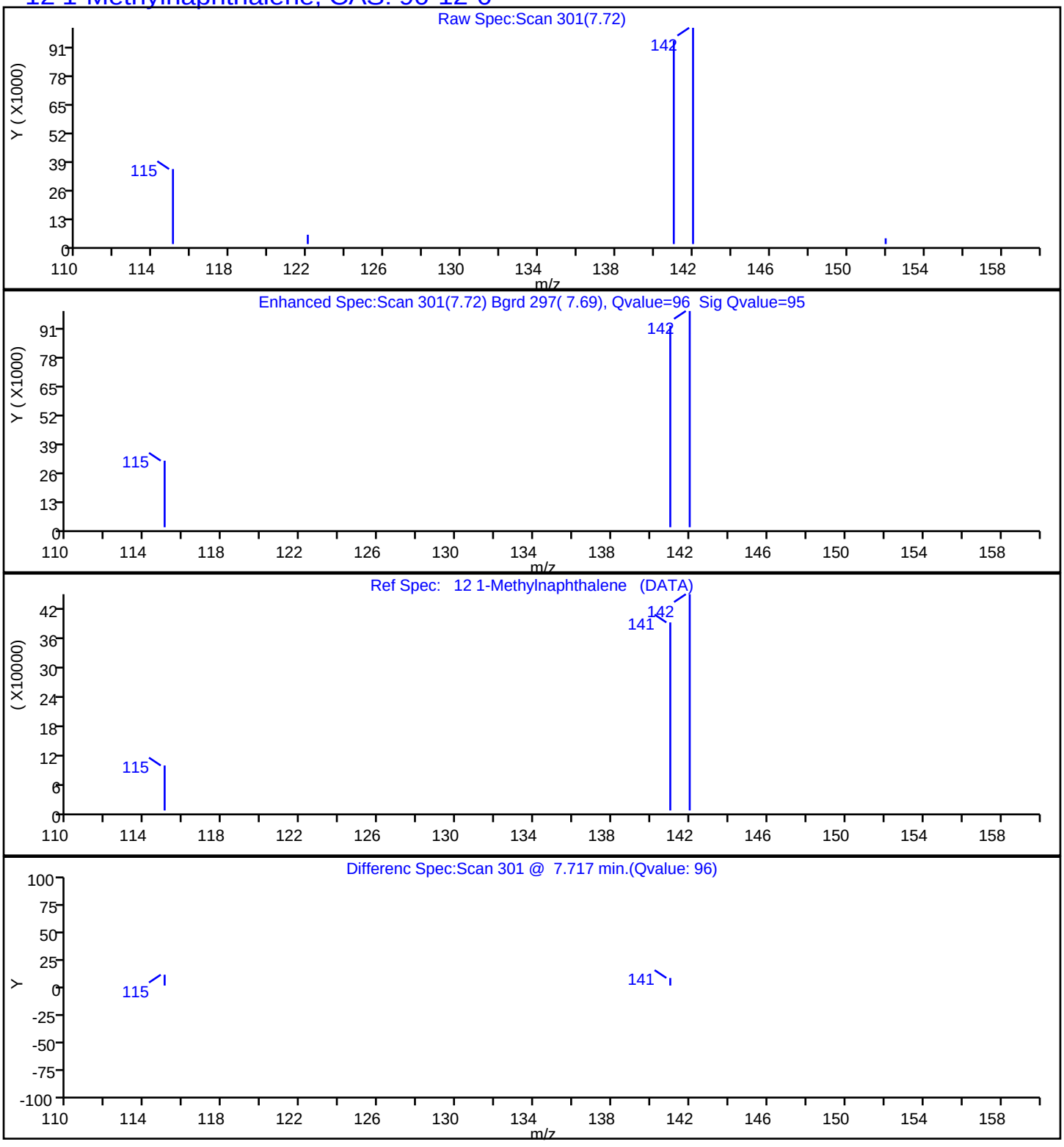


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

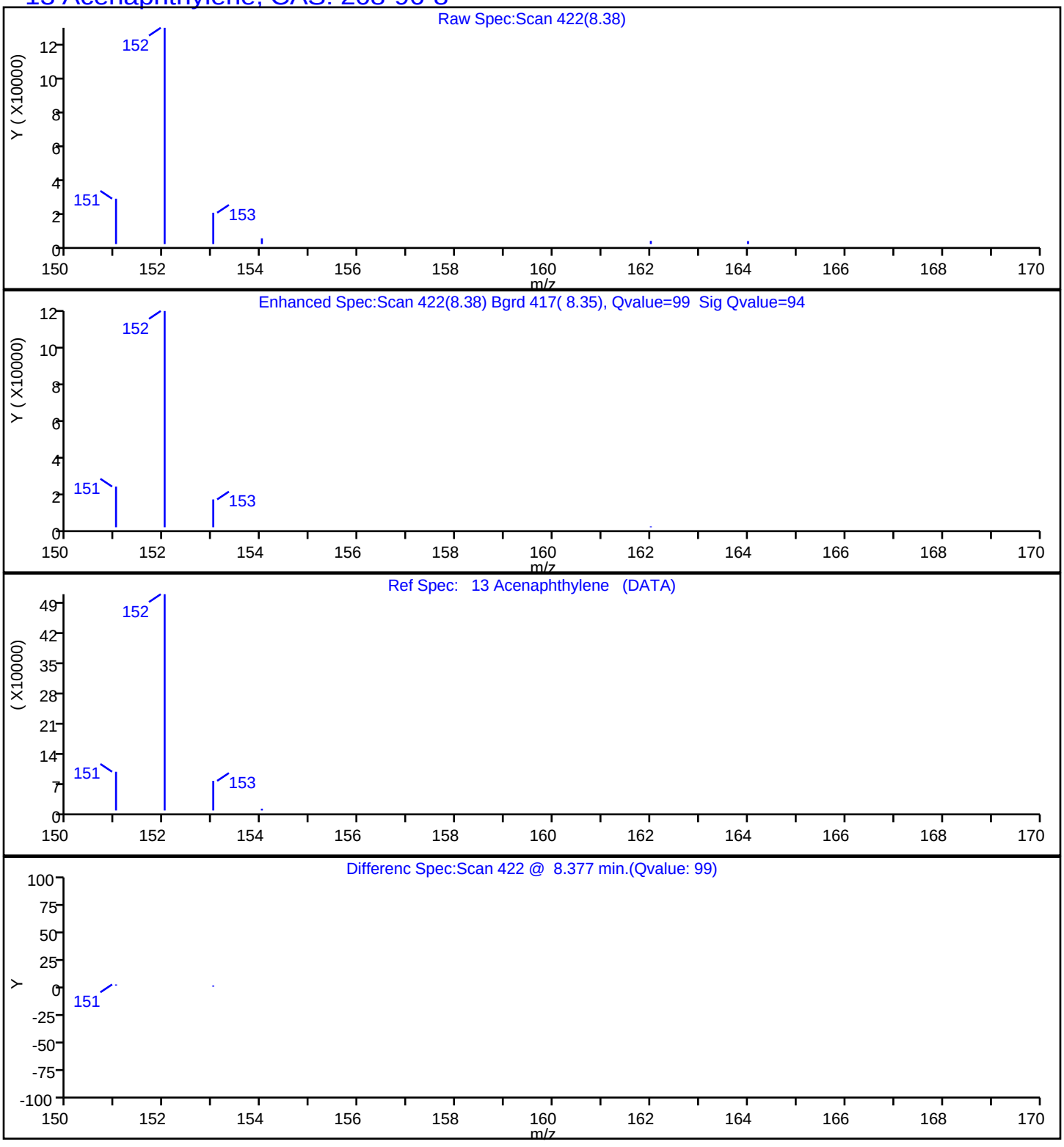


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

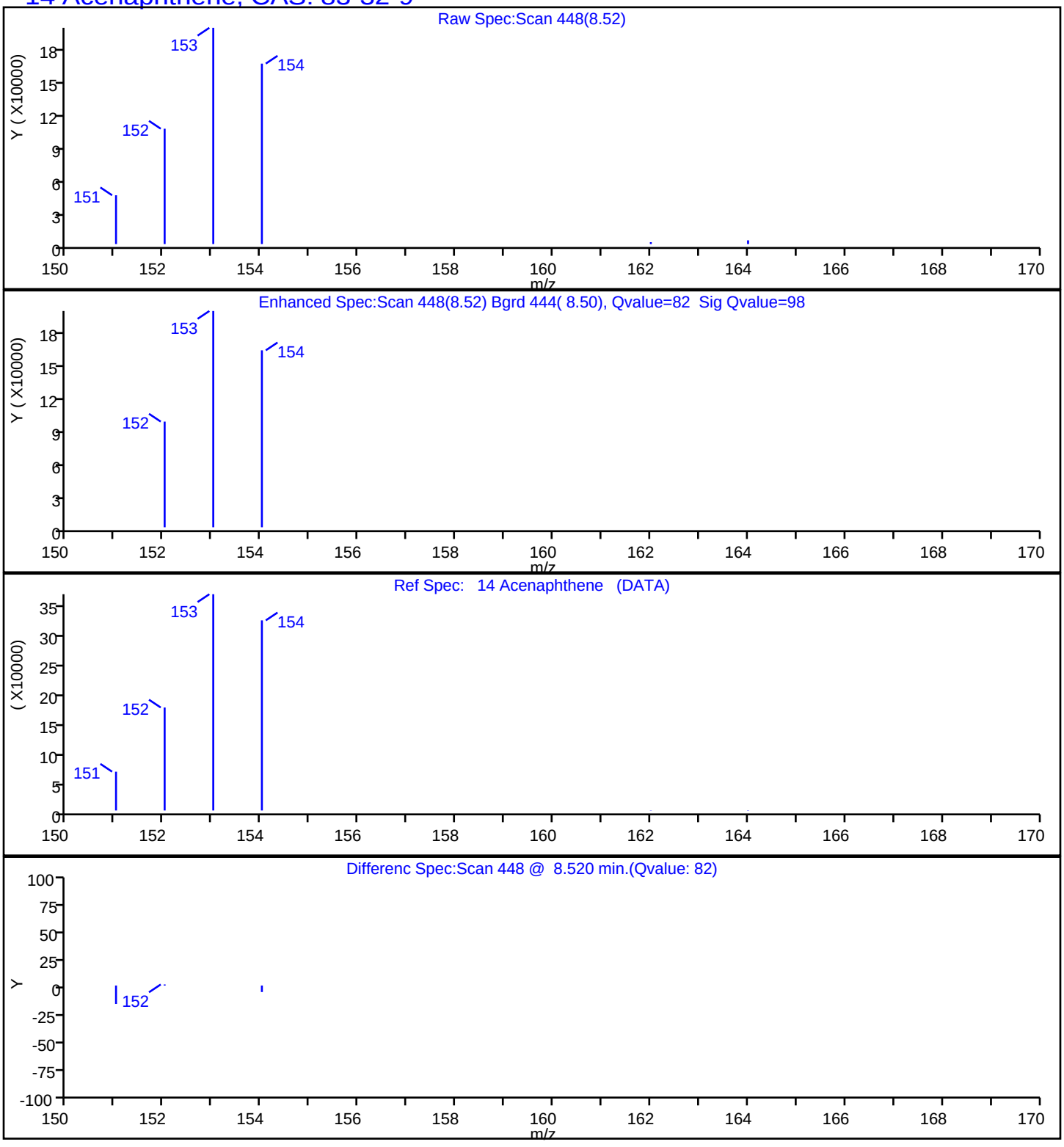


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

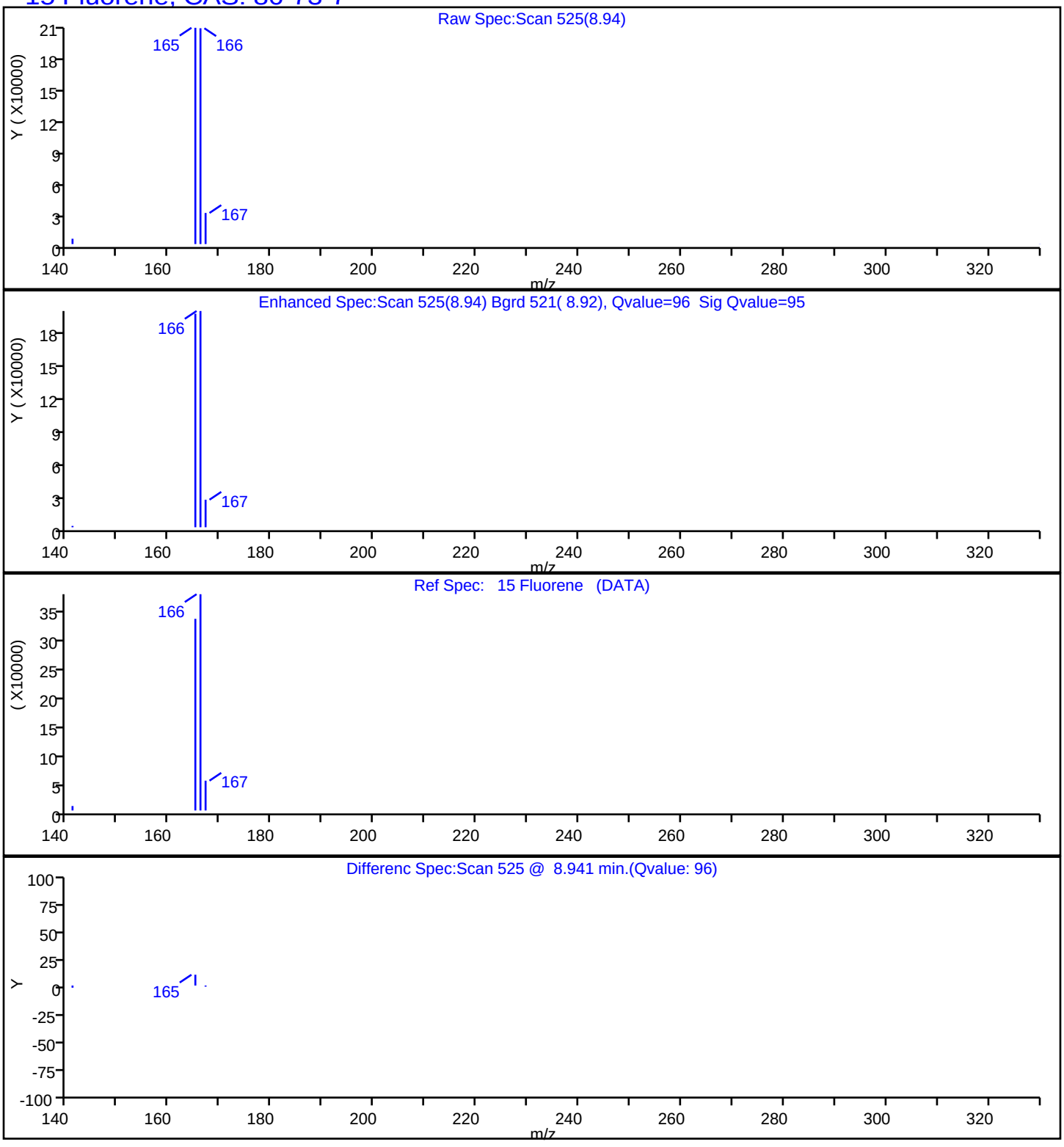


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

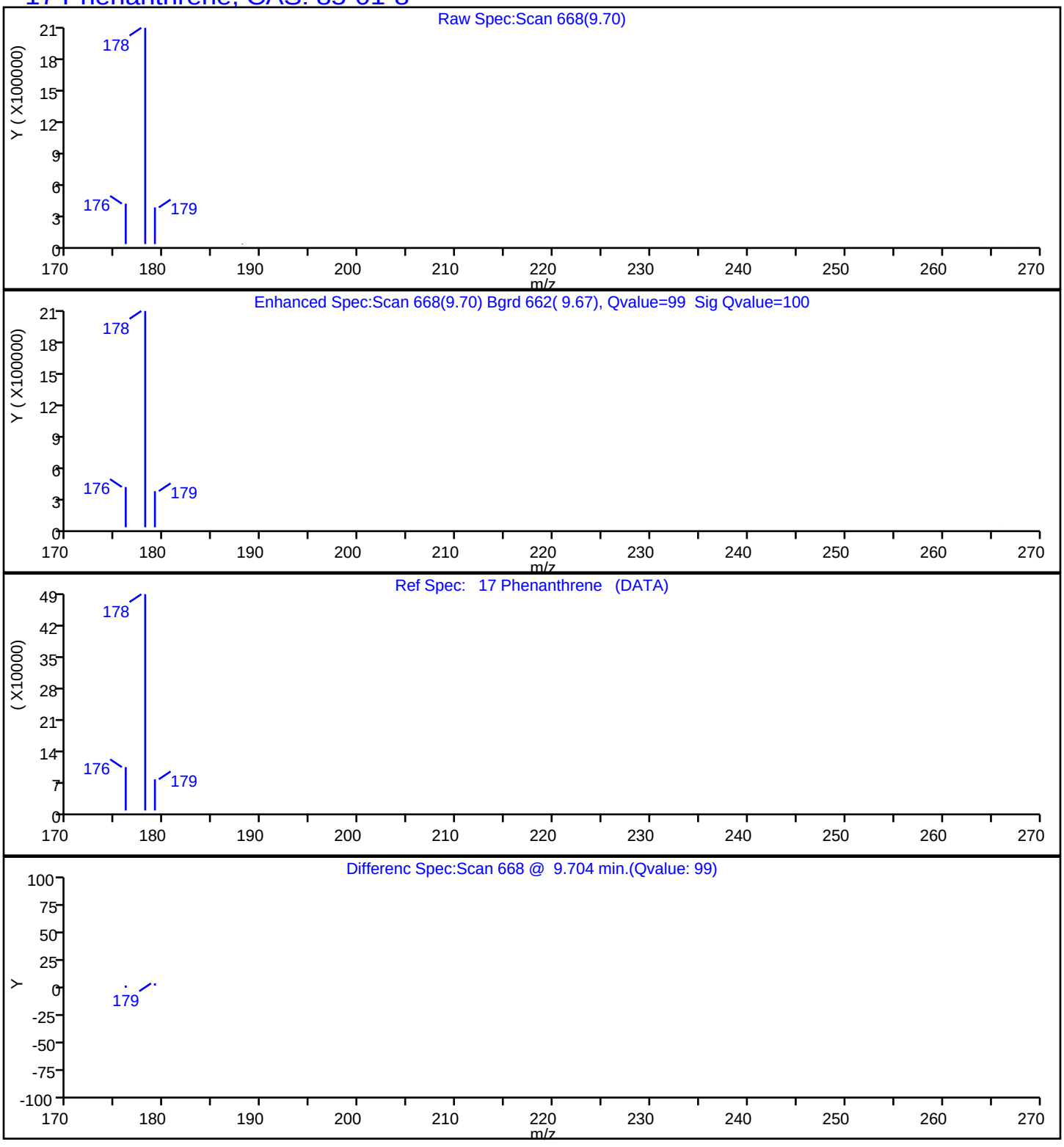


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

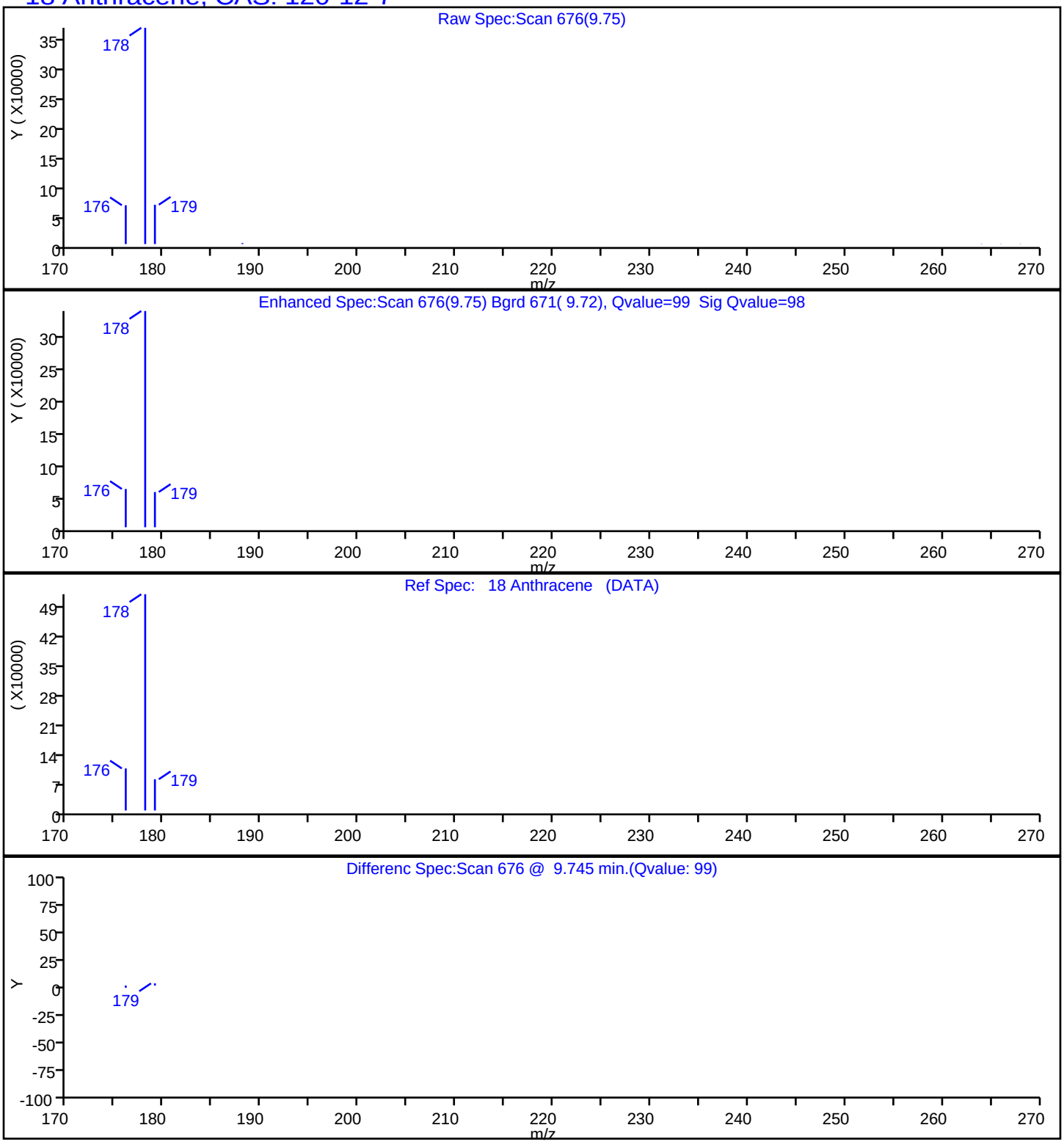


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

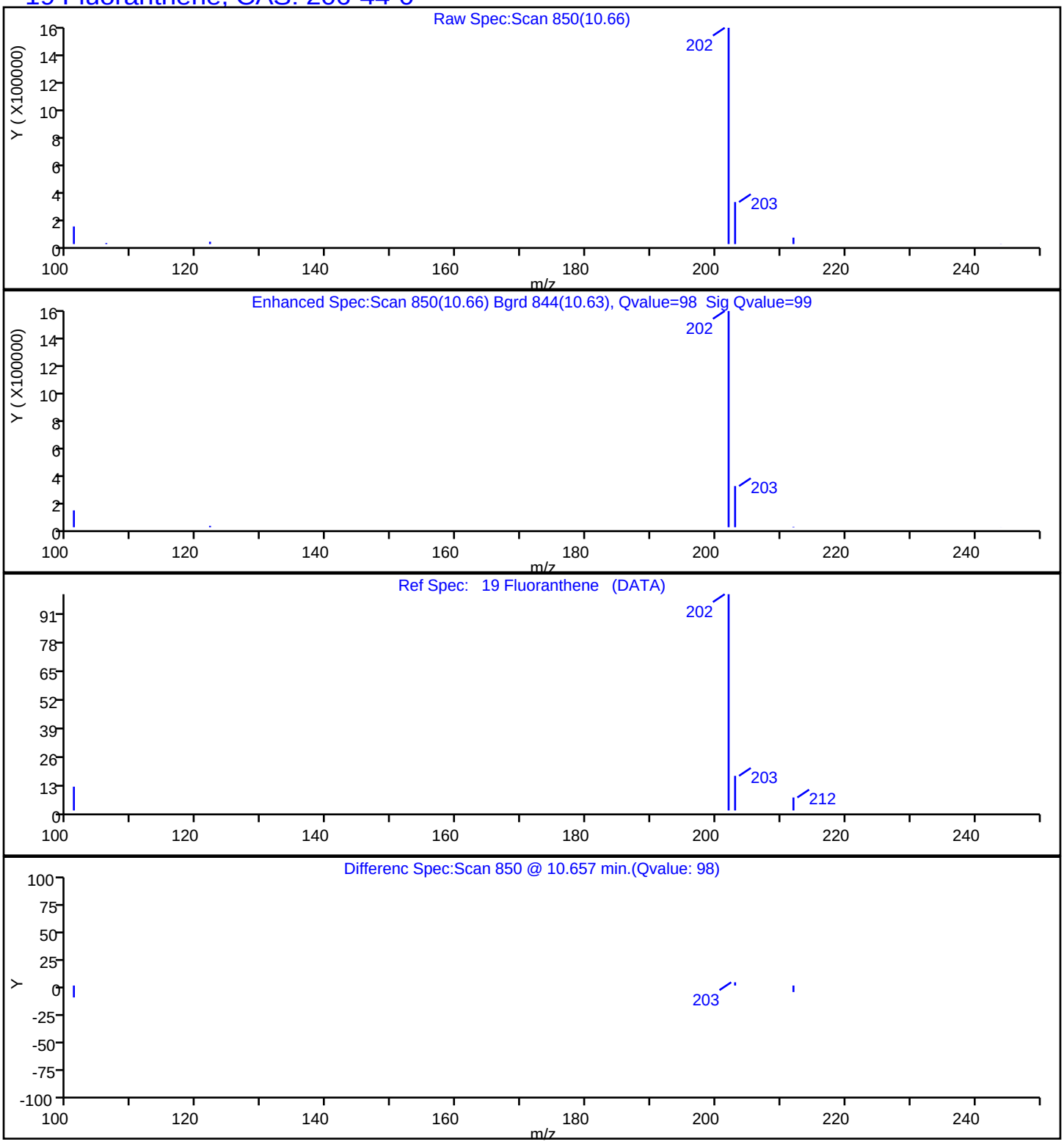


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

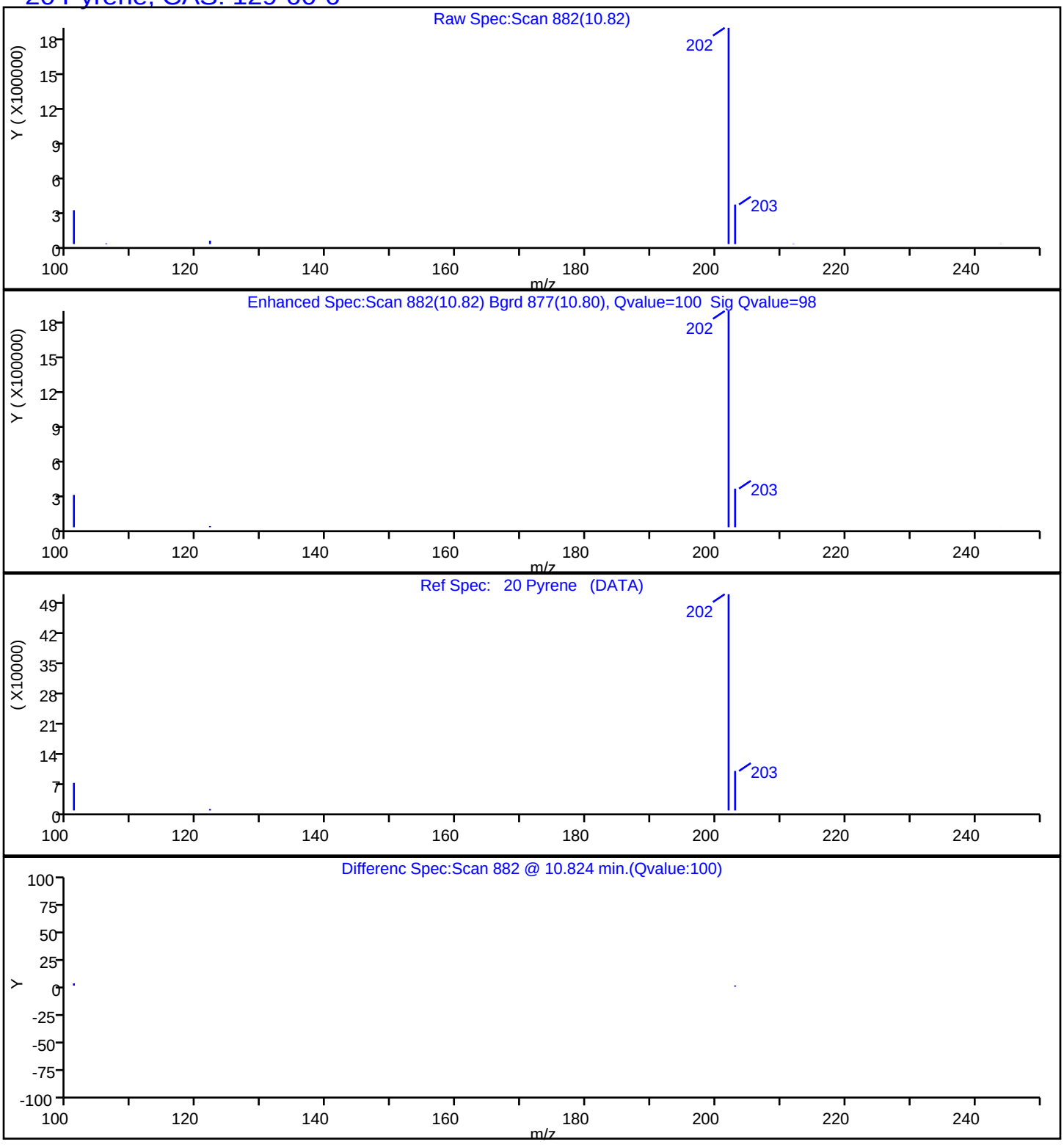


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

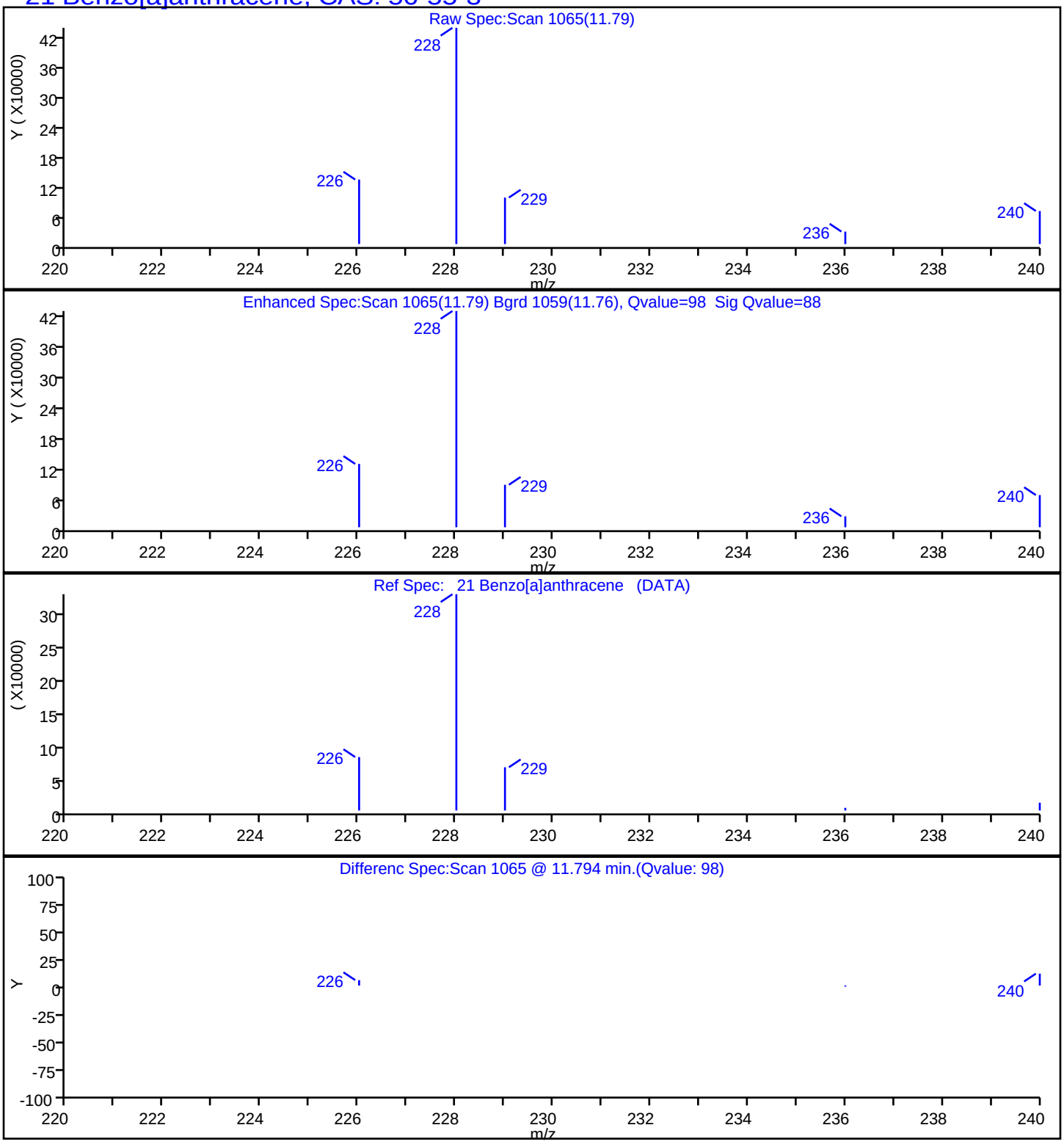


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

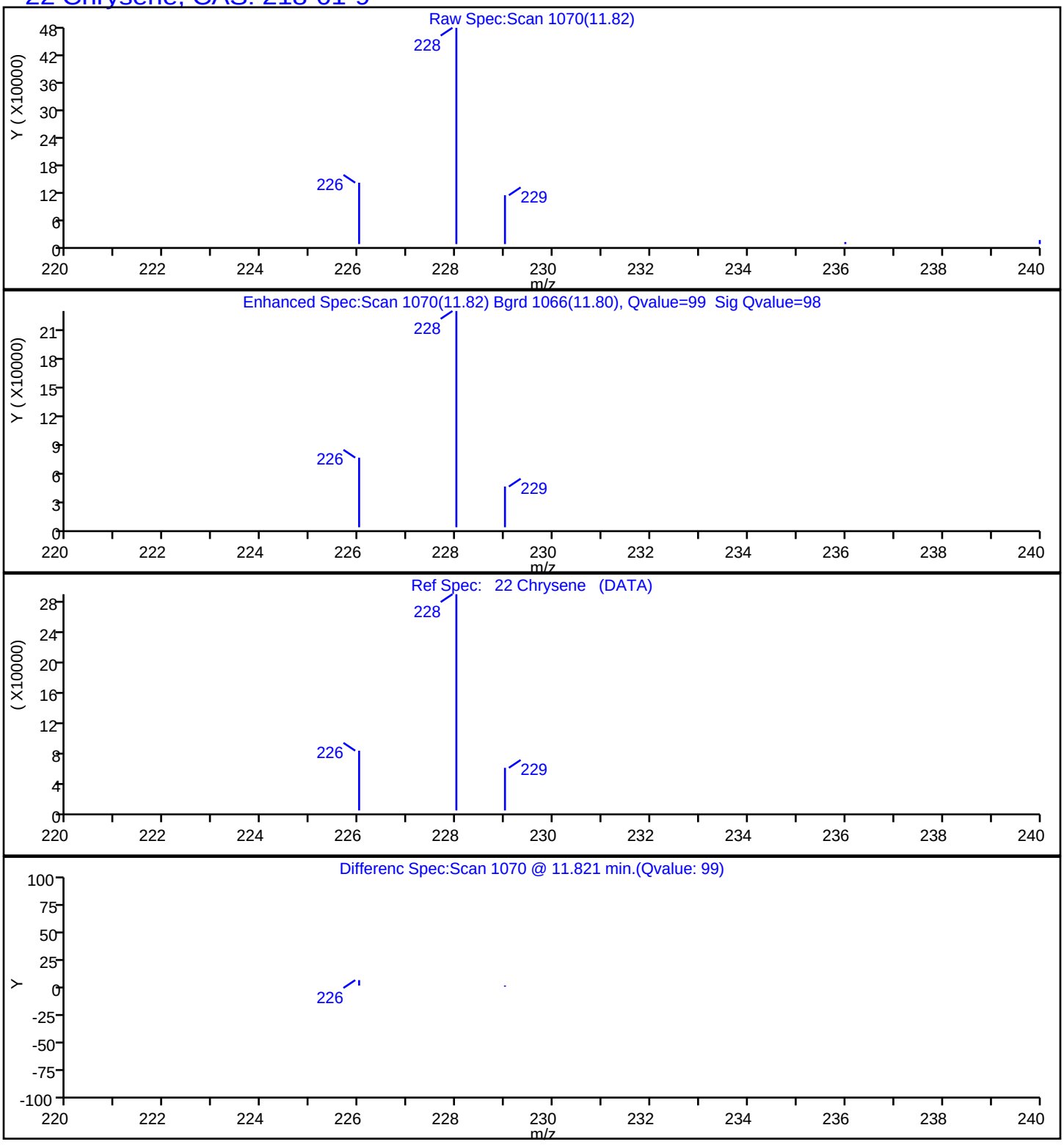


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

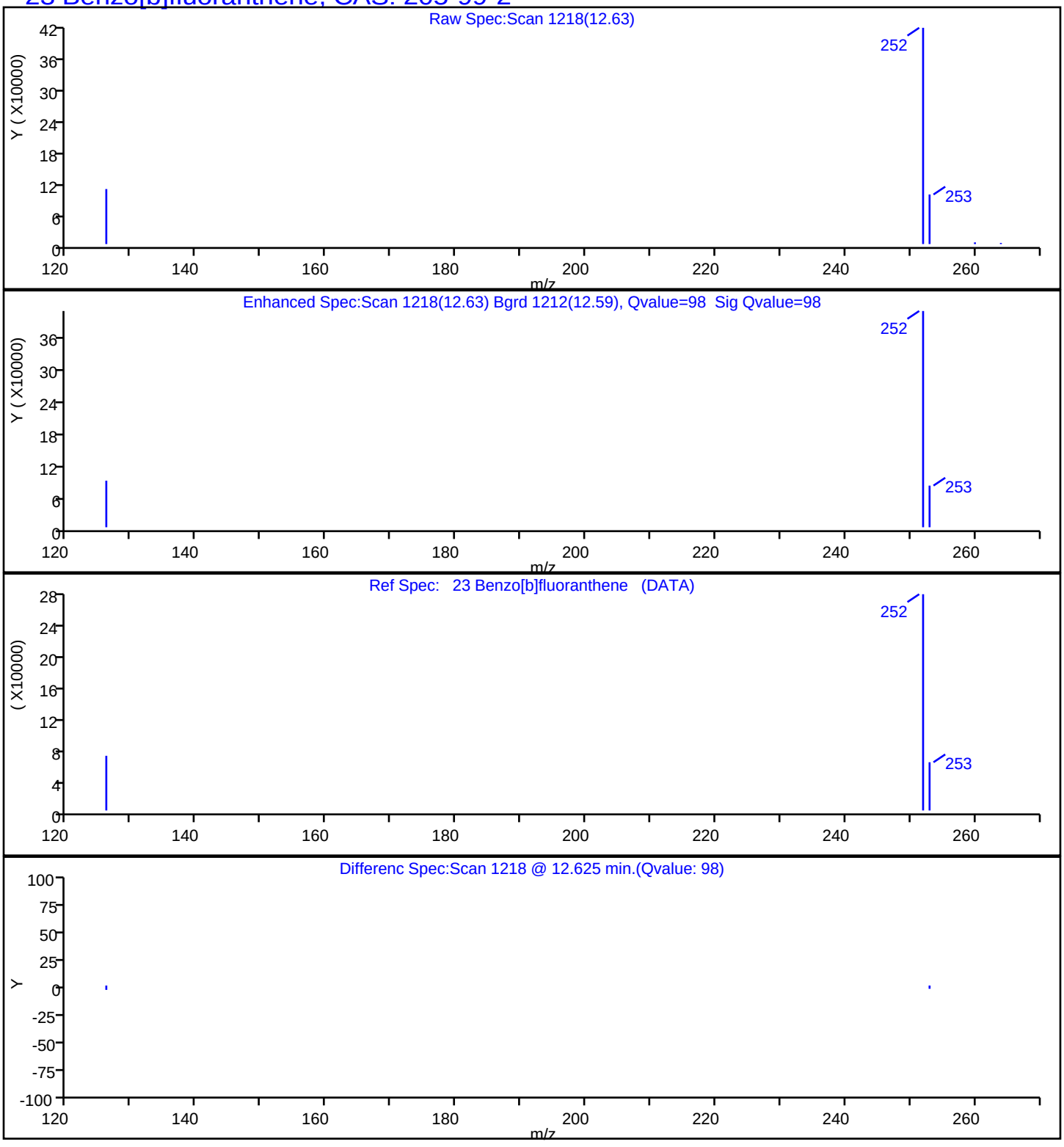


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

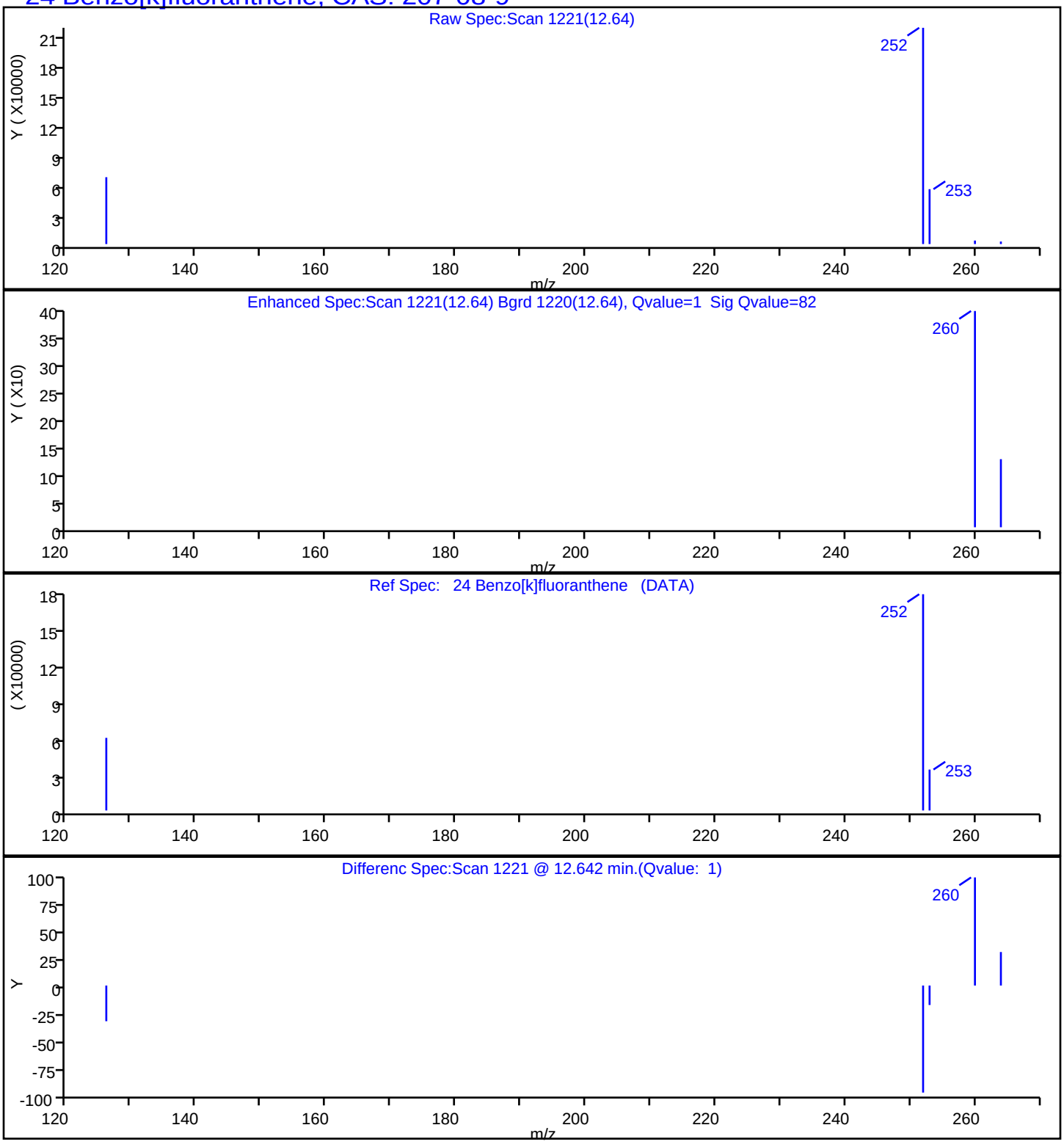


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

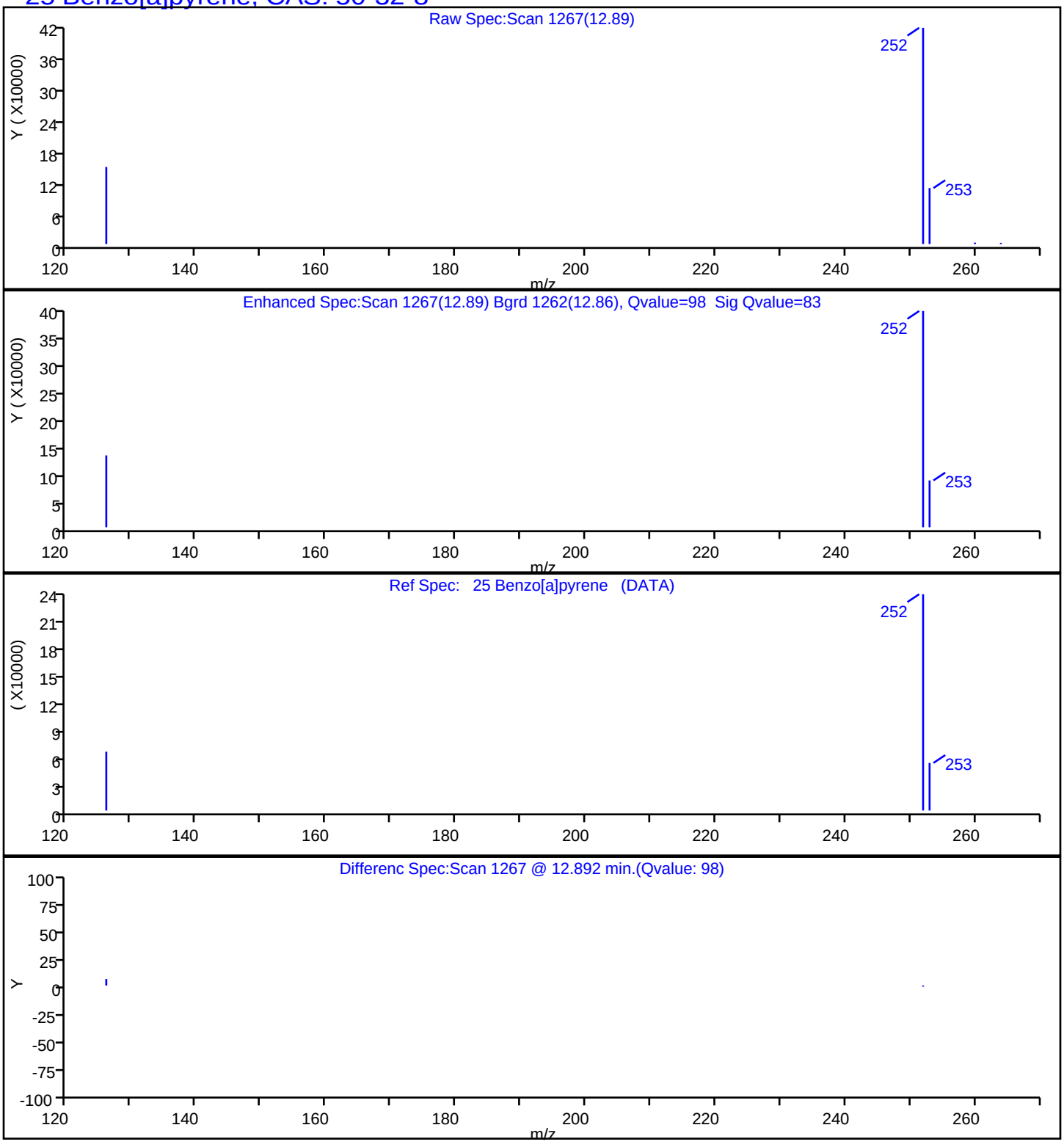


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

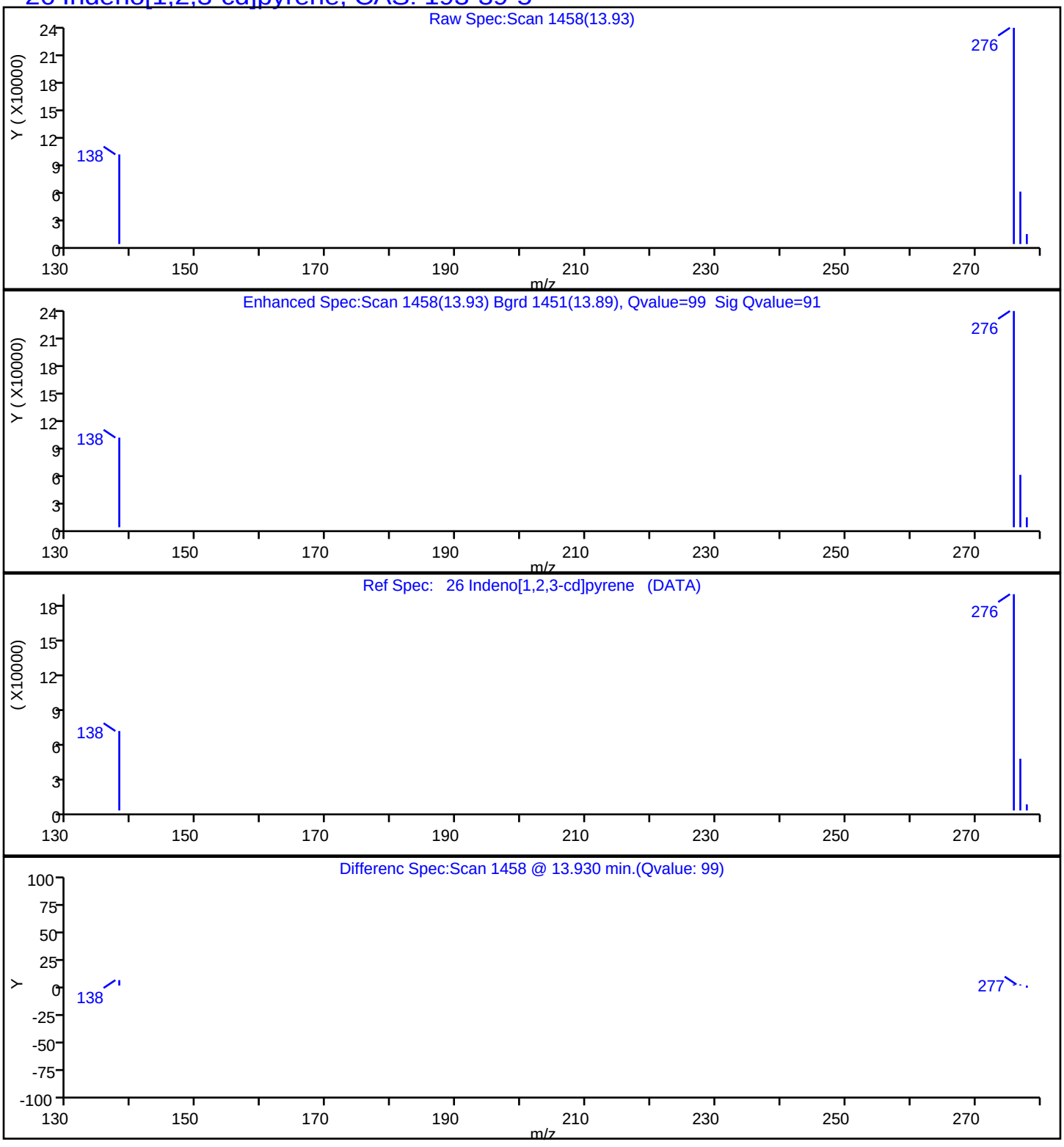


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

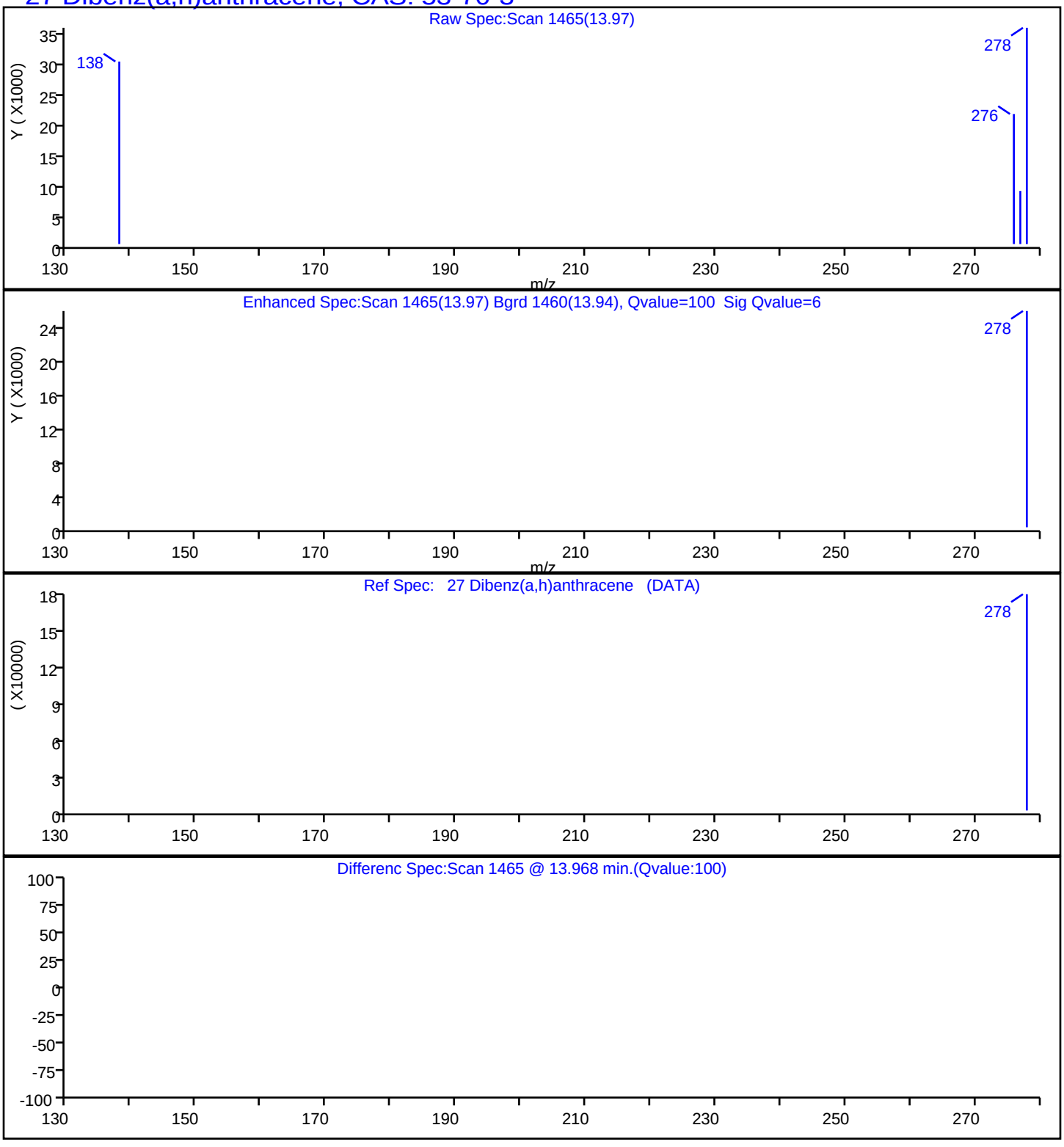


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

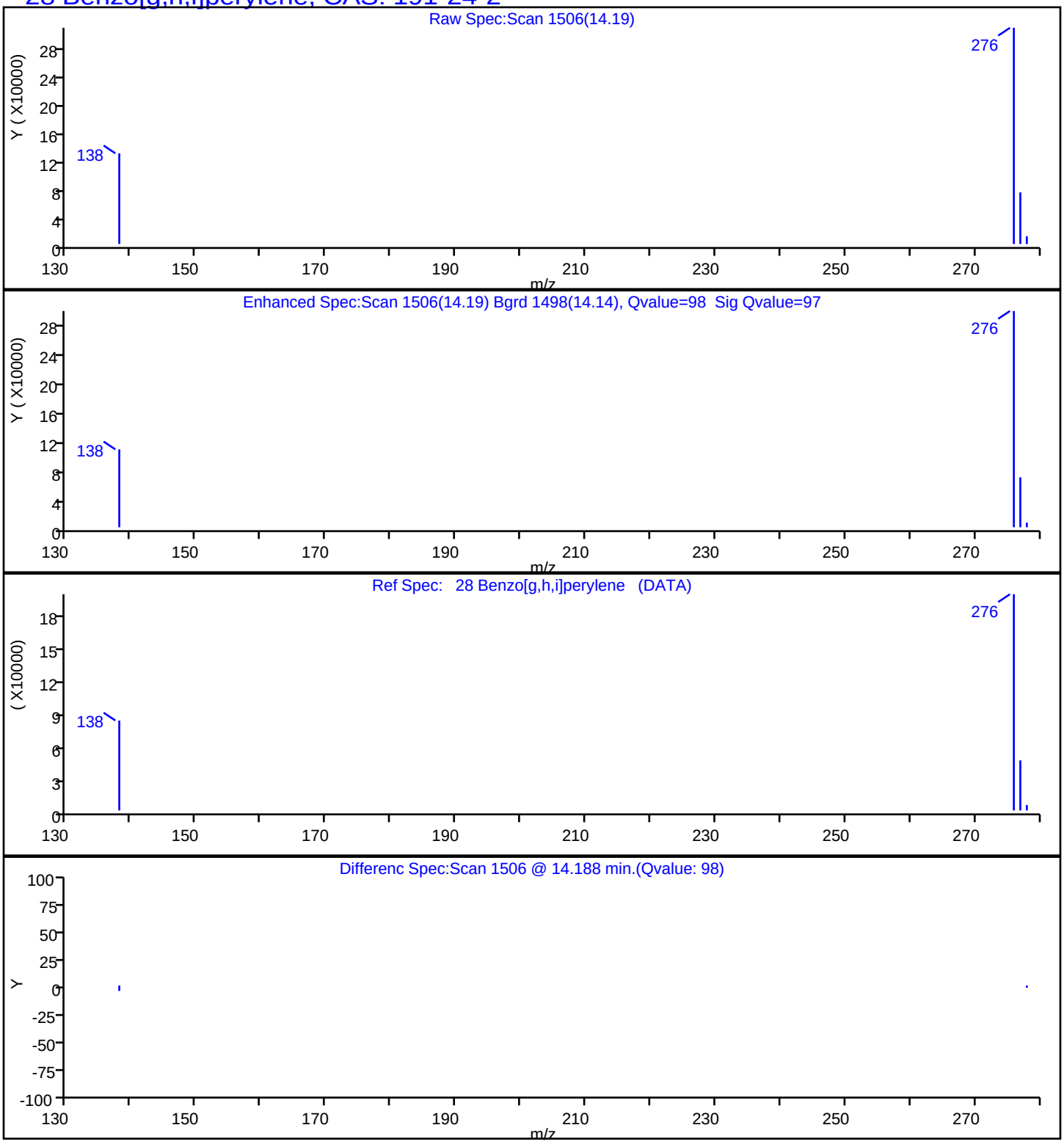


Report Date: 23-Jul-2019 14:12:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

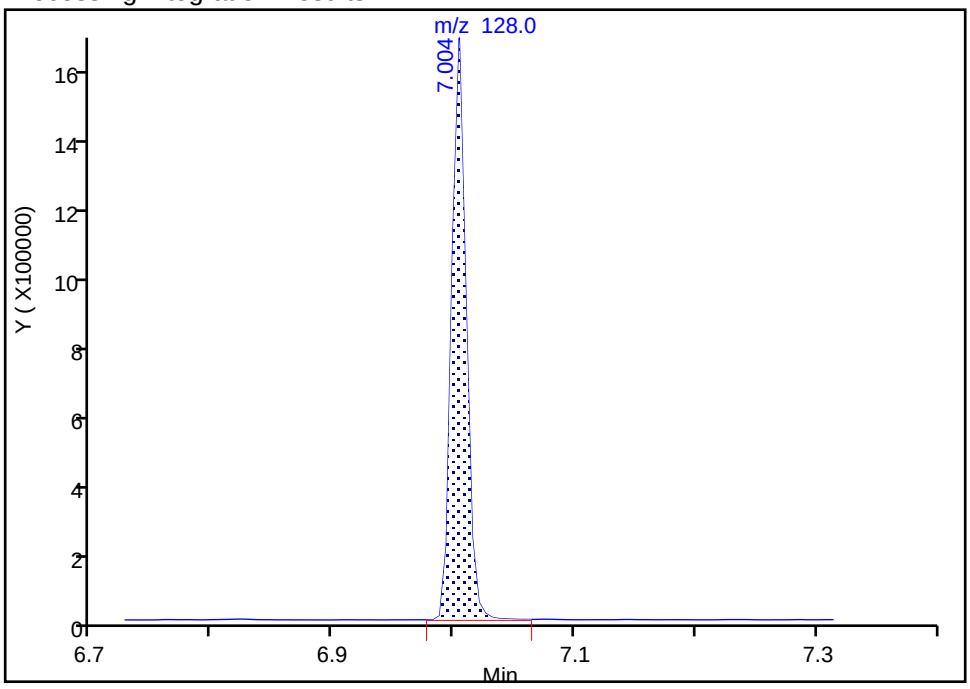
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

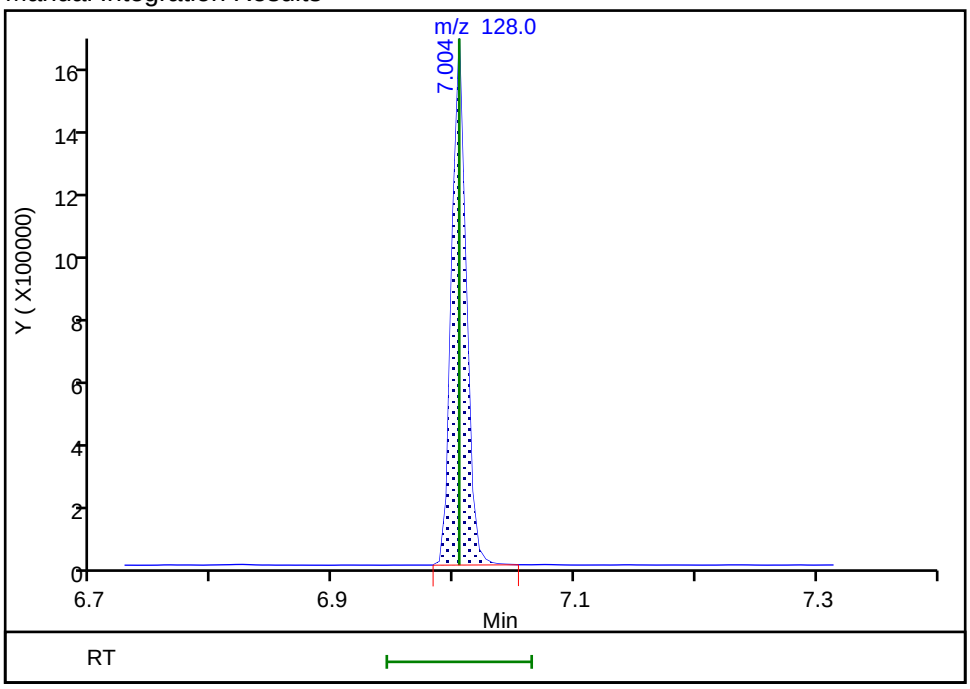
Processing Integration Results

RT: 7.00
Area: 1403489
Amount: 329.2923
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 1392733
Amount: 326.7687
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:10:00
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

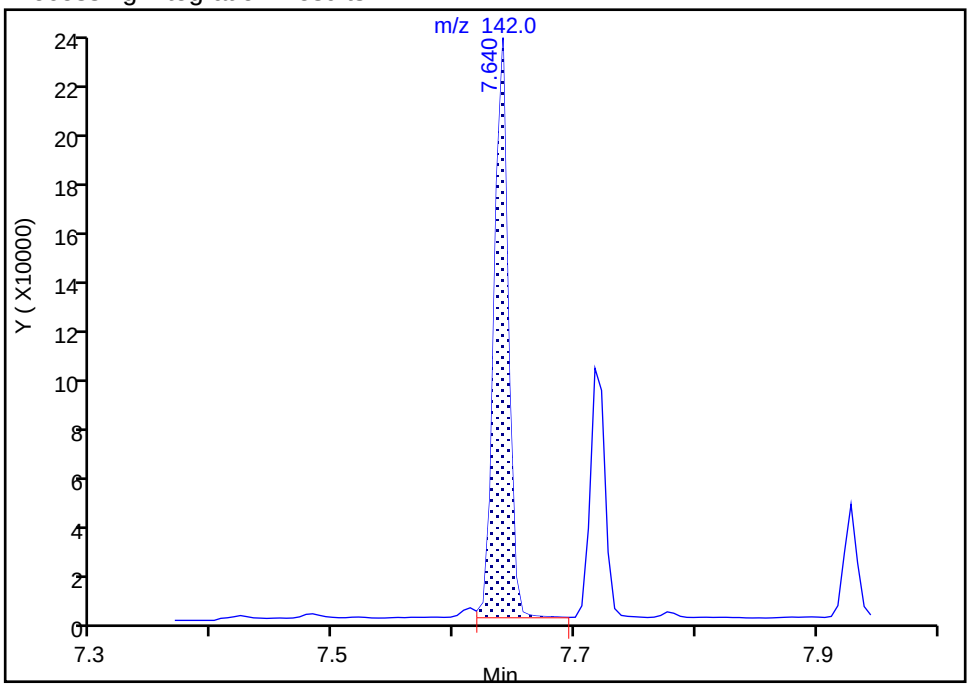
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

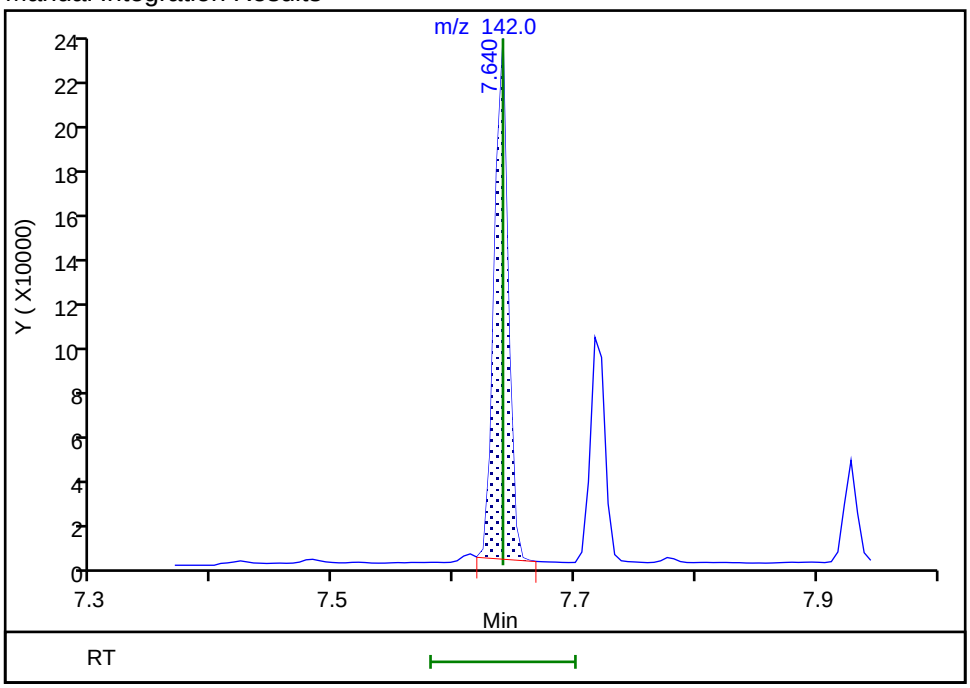
Processing Integration Results

RT: 7.64
Area: 186243
Amount: 66.632733
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 181195
Amount: 64.826694
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:10:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

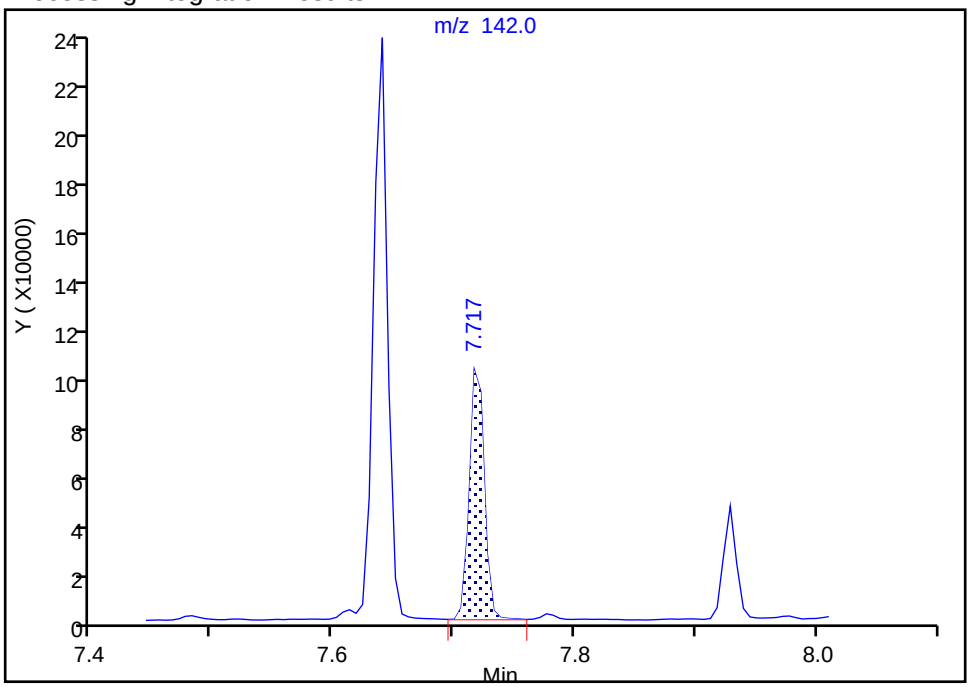
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

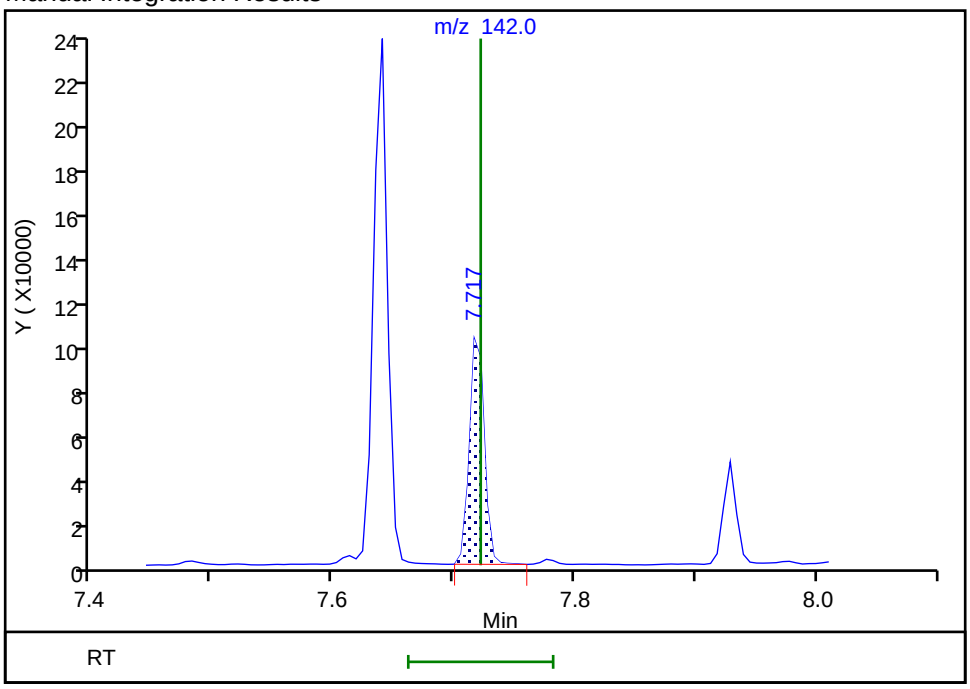
Processing Integration Results

RT: 7.72
Area: 85107
Amount: 32.613515
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 84480
Amount: 32.373245
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:10:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

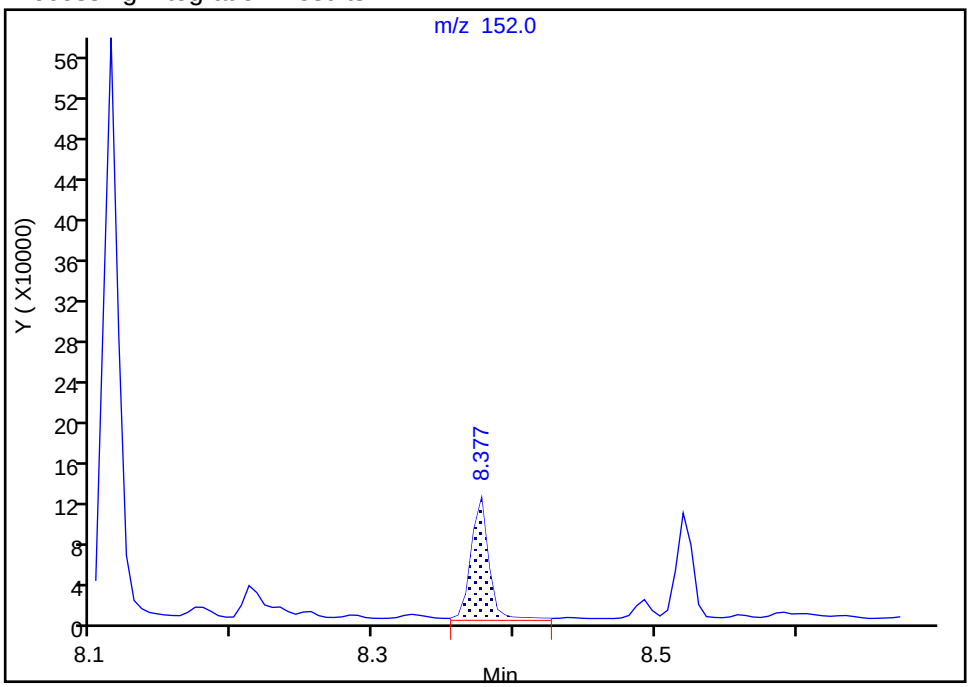
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

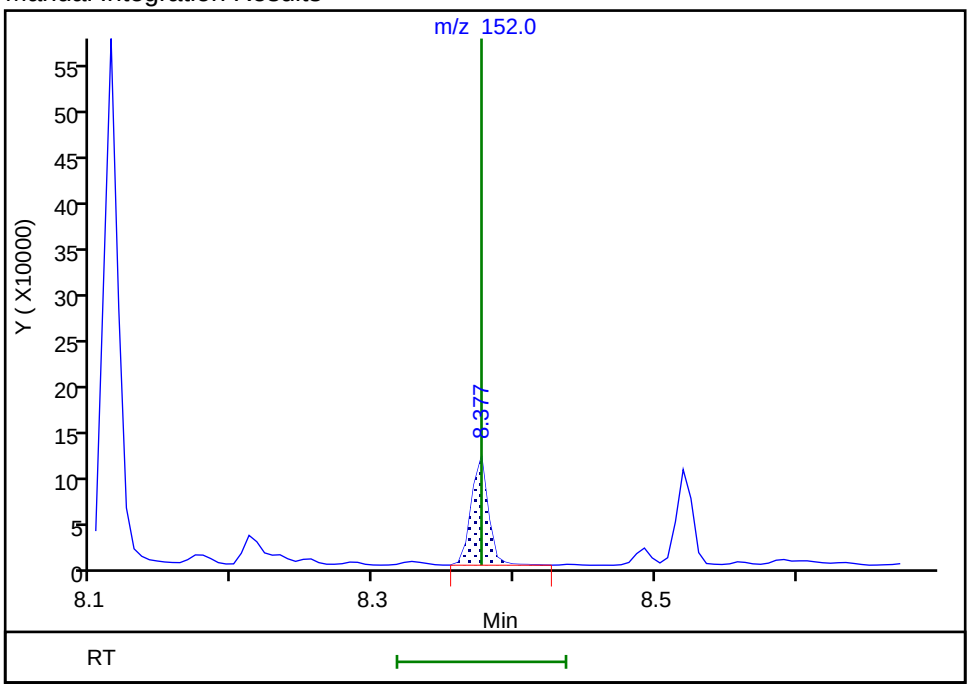
Processing Integration Results

RT: 8.38
Area: 106727
Amount: 27.606973
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 98913
Amount: 25.585733
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:10:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

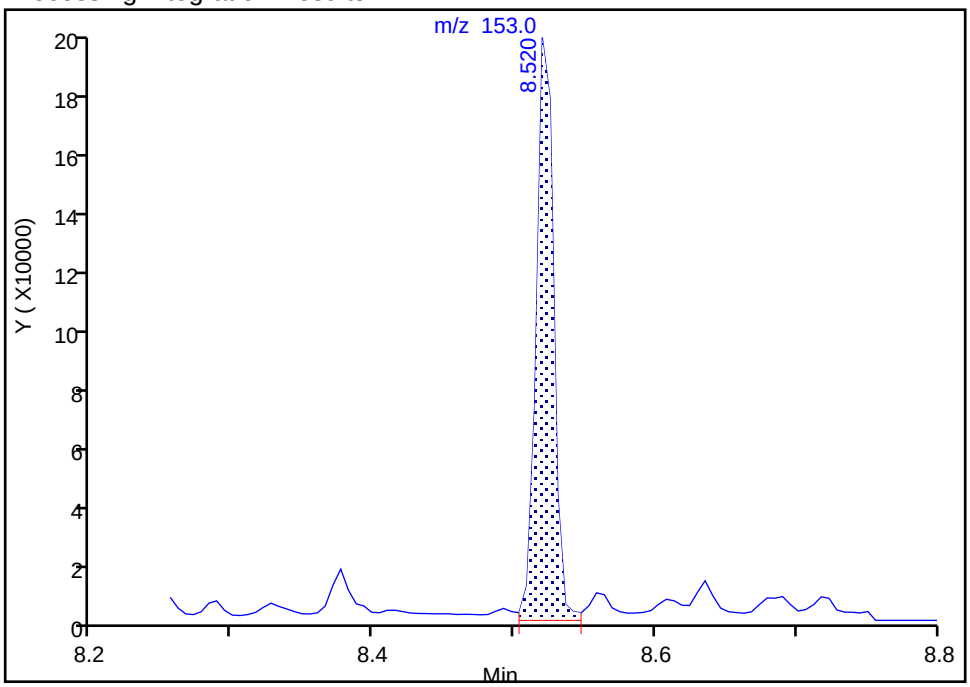
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

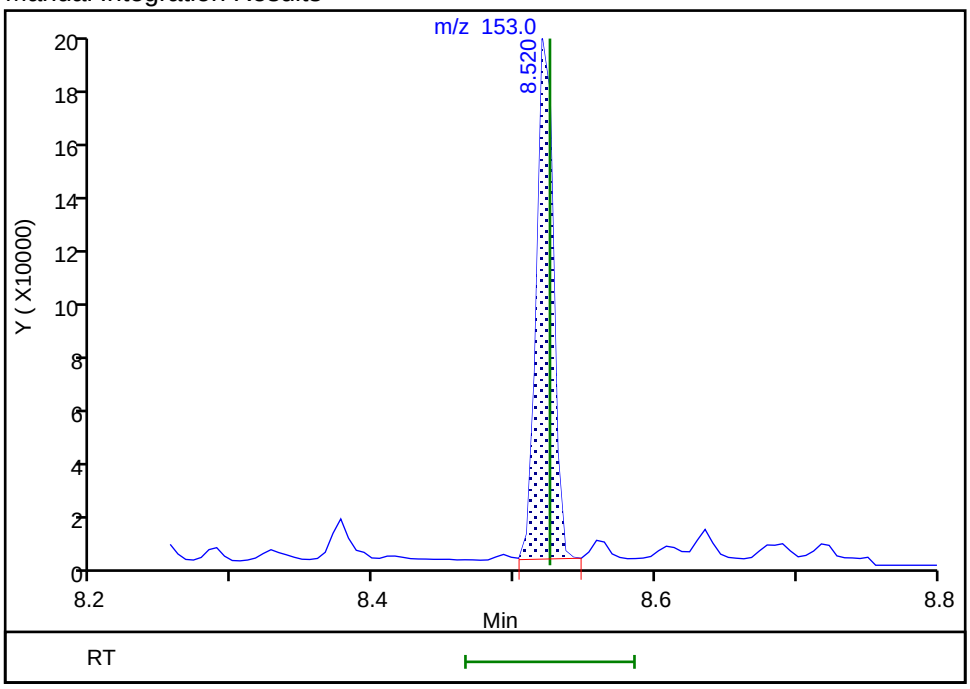
Processing Integration Results

RT: 8.52
Area: 171128
Amount: 60.974510
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 164806
Amount: 58.721922
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:10:28

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

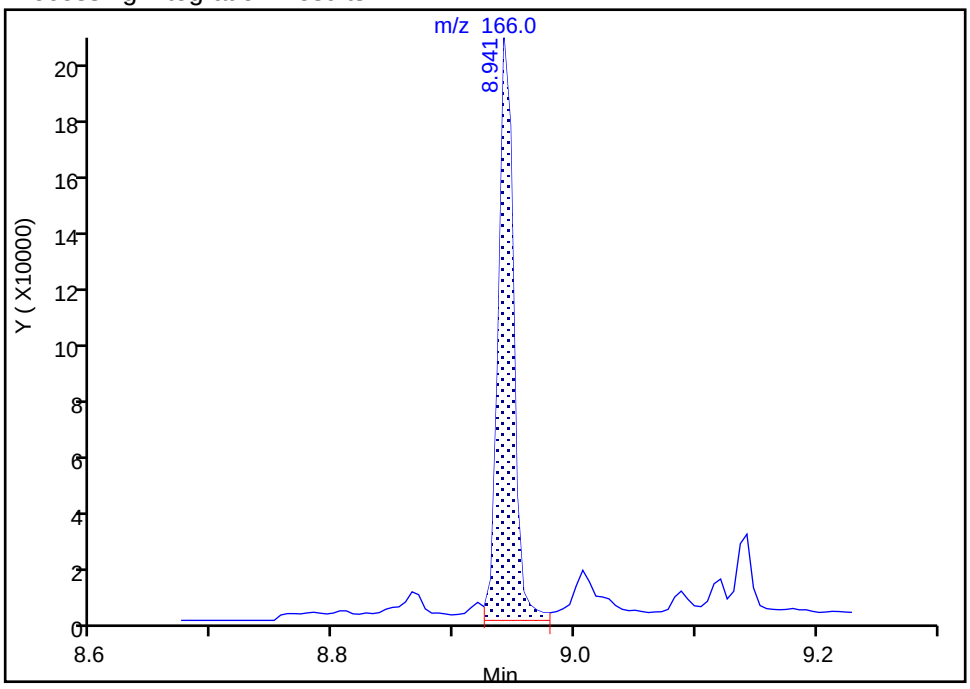
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

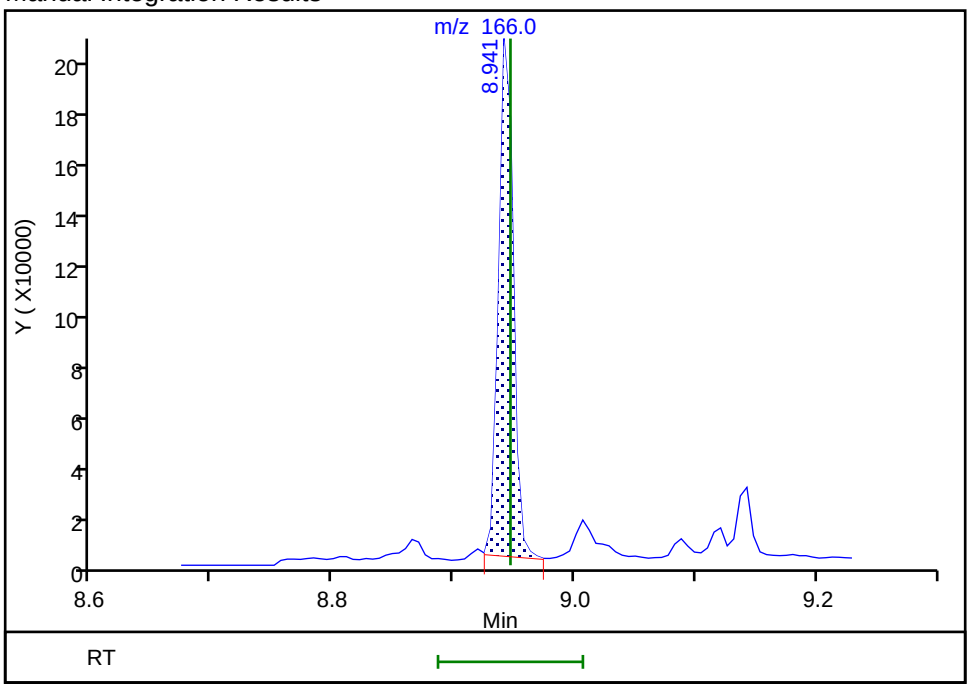
Processing Integration Results

RT: 8.94
Area: 181080
Amount: 64.435669
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 170771
Amount: 60.767305
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:10:33
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

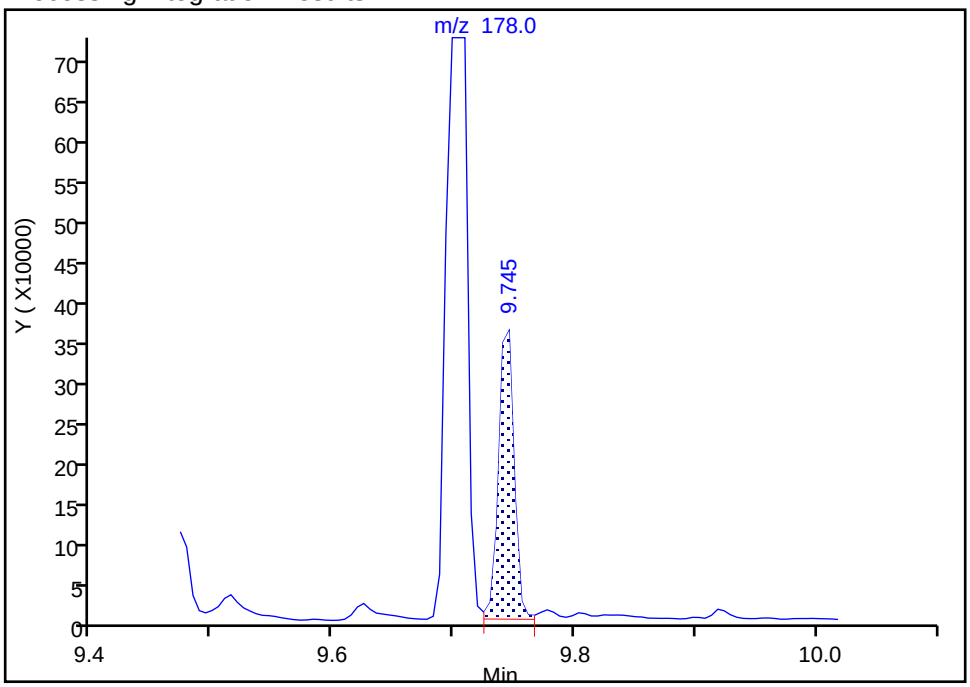
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

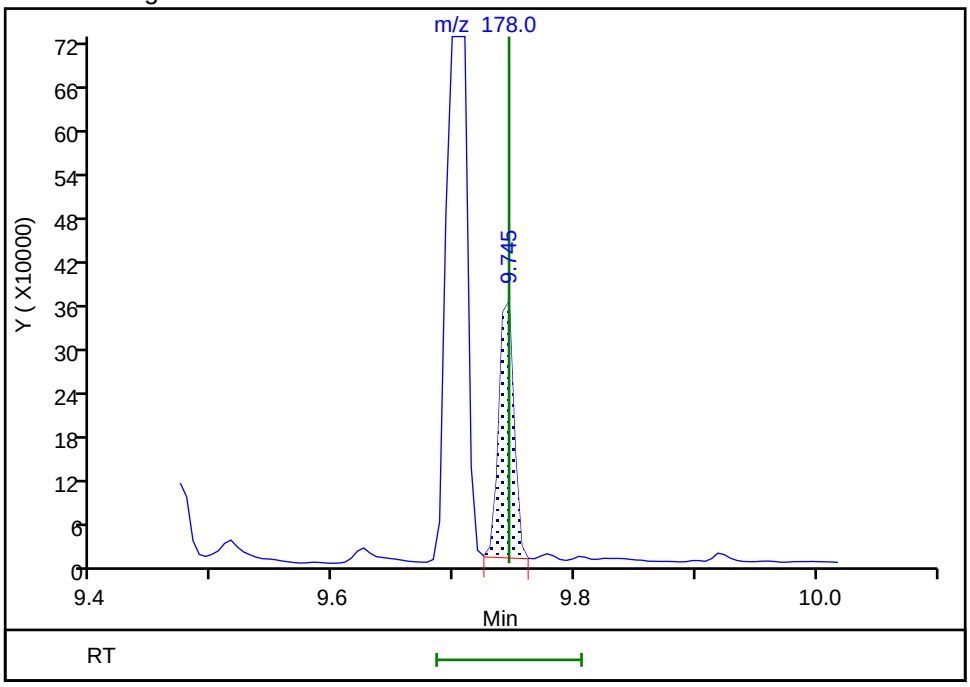
Processing Integration Results

RT: 9.75
Area: 317043
Amount: 81.678215
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 302624
Amount: 77.963520
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

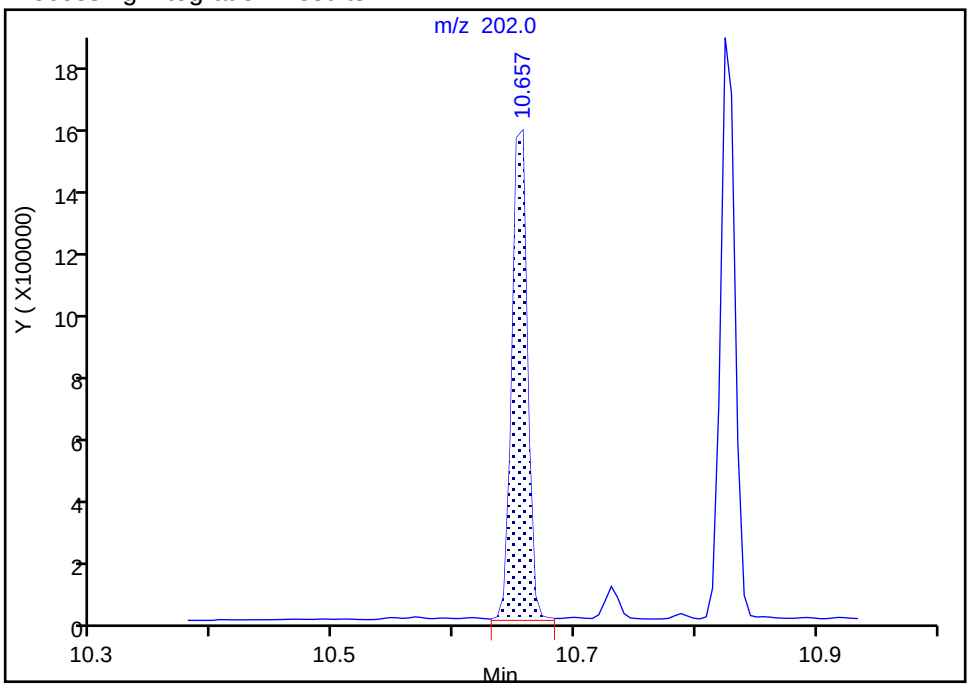
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

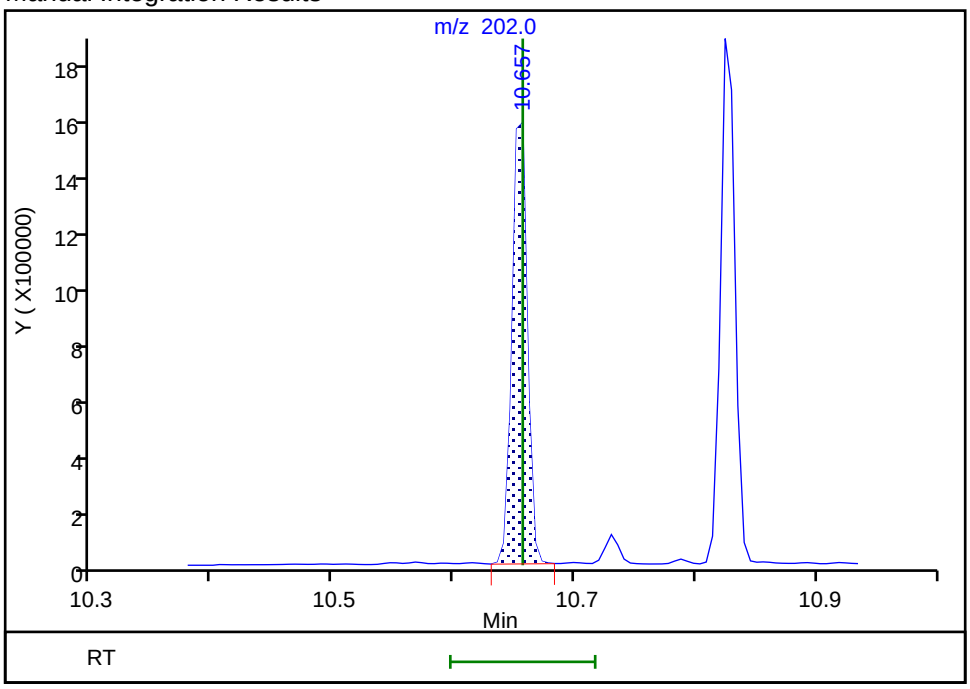
Processing Integration Results

RT: 10.66
Area: 1401230
Amount: 354.2507
Amount Units: ug/L



Manual Integration Results

RT: 10.66
Area: 1386387
Amount: 350.4982
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:16

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

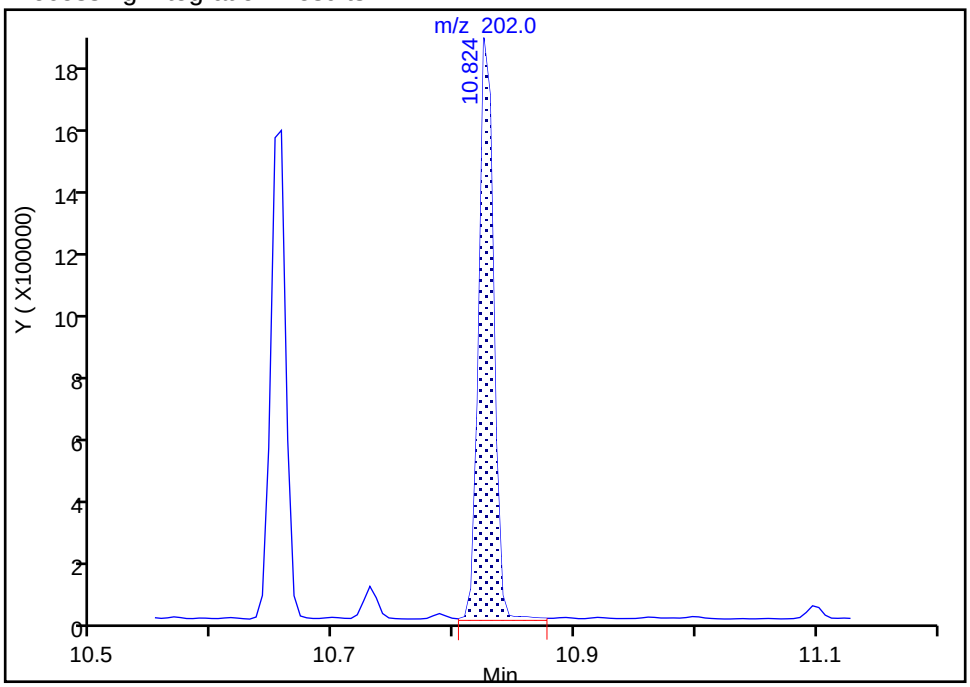
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

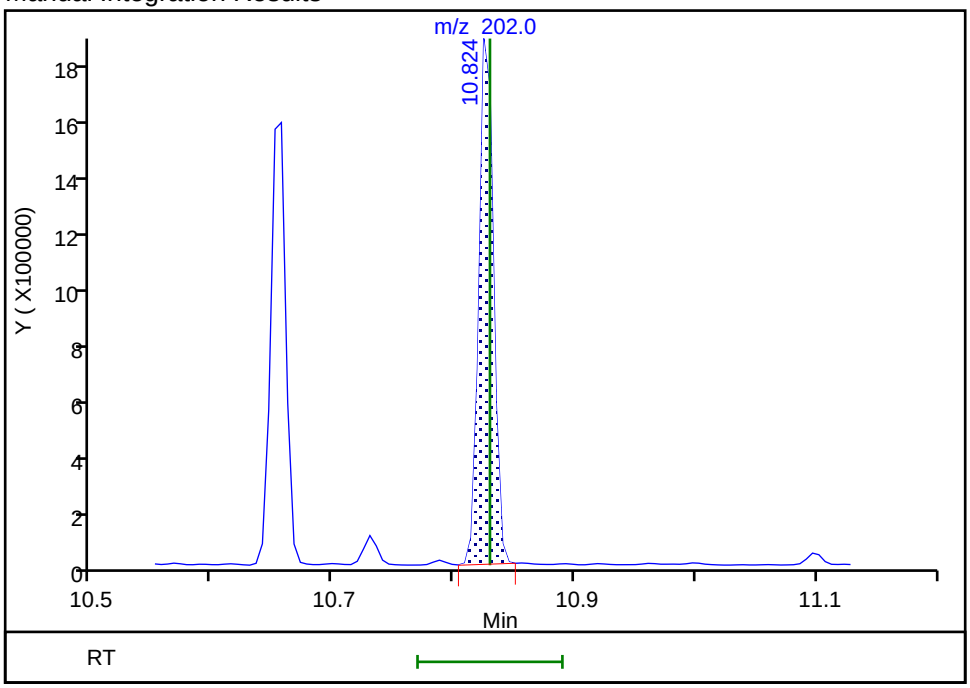
Processing Integration Results

RT: 10.82
Area: 1601235
Amount: 384.3620
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 1565709
Amount: 375.8343
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

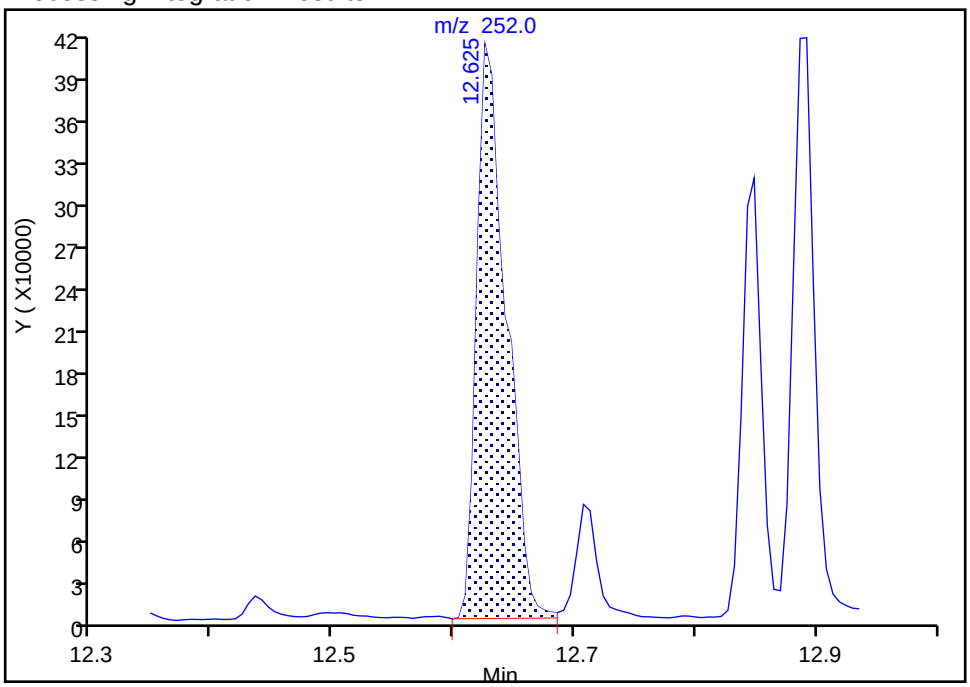
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

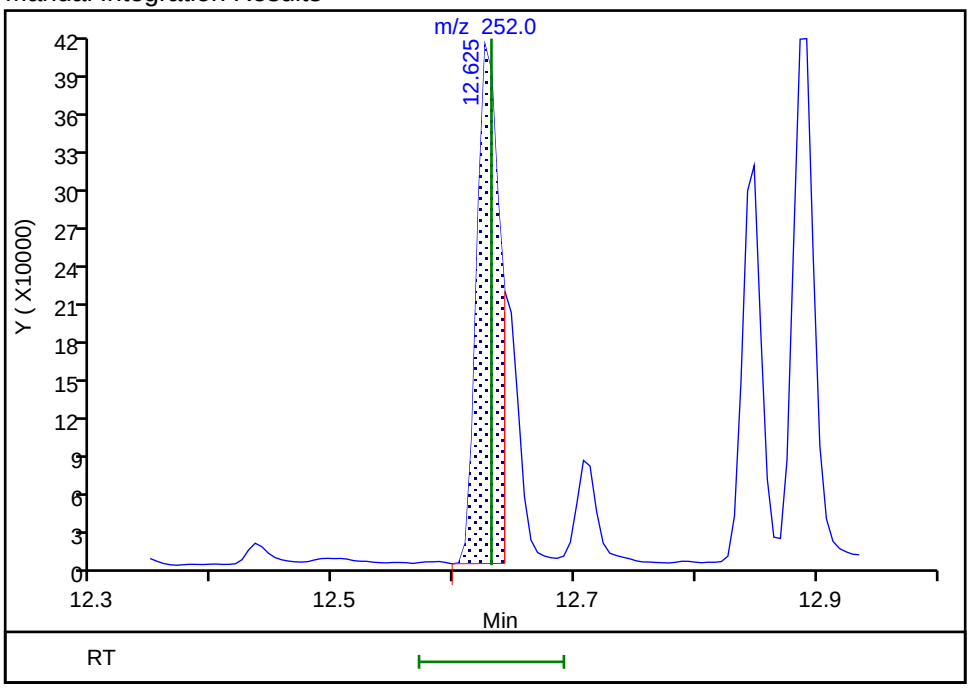
Processing Integration Results

RT: 12.63
Area: 688919
Amount: 204.9376
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 518339
Amount: 154.1940
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:33

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

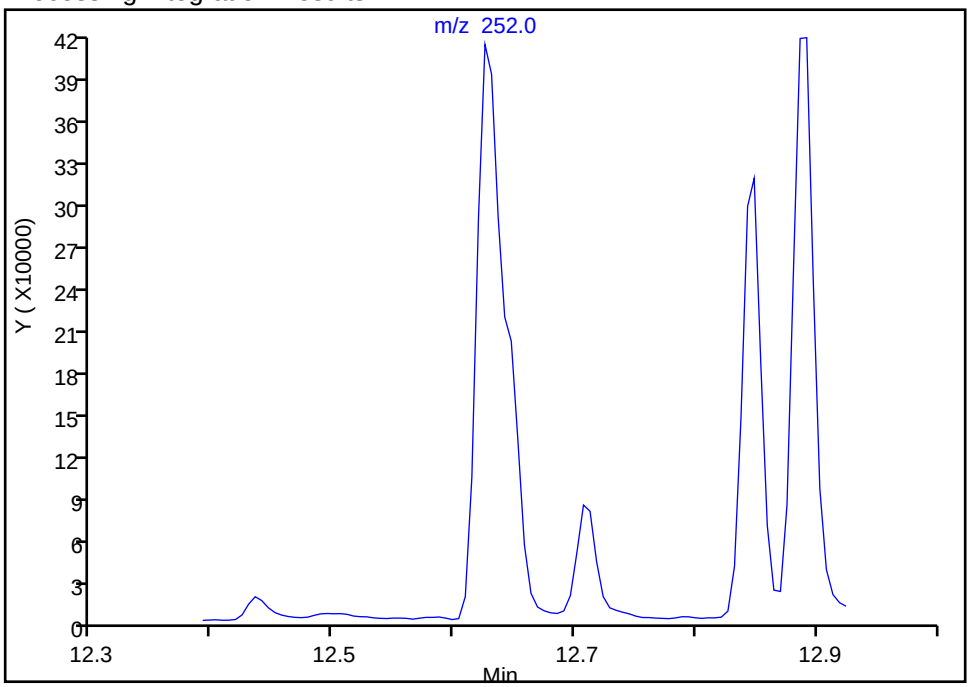
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

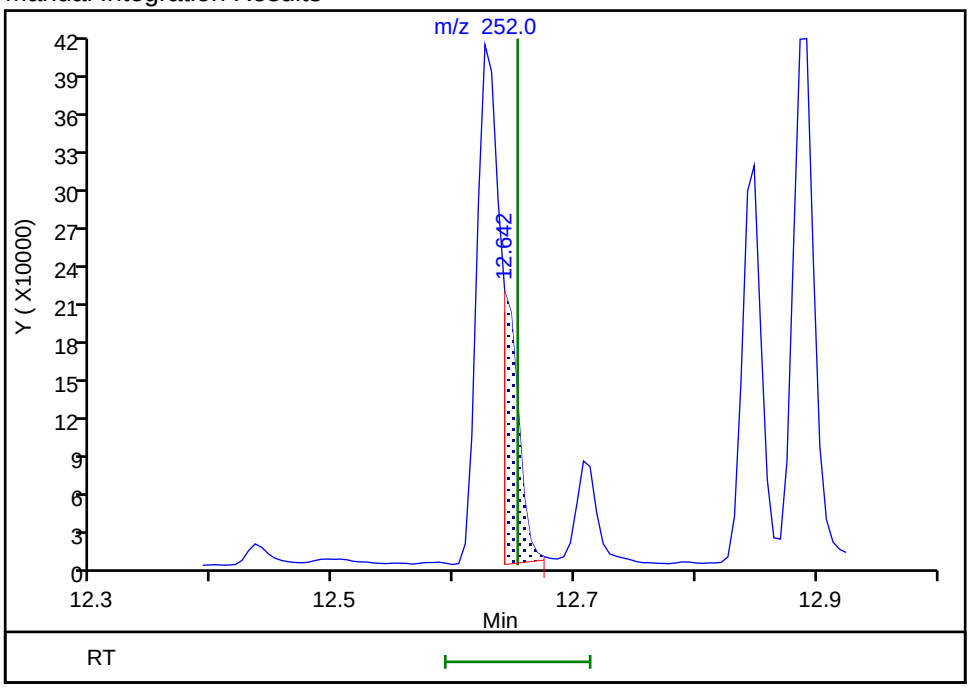
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 165107
Amount: 40.145328
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:44
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

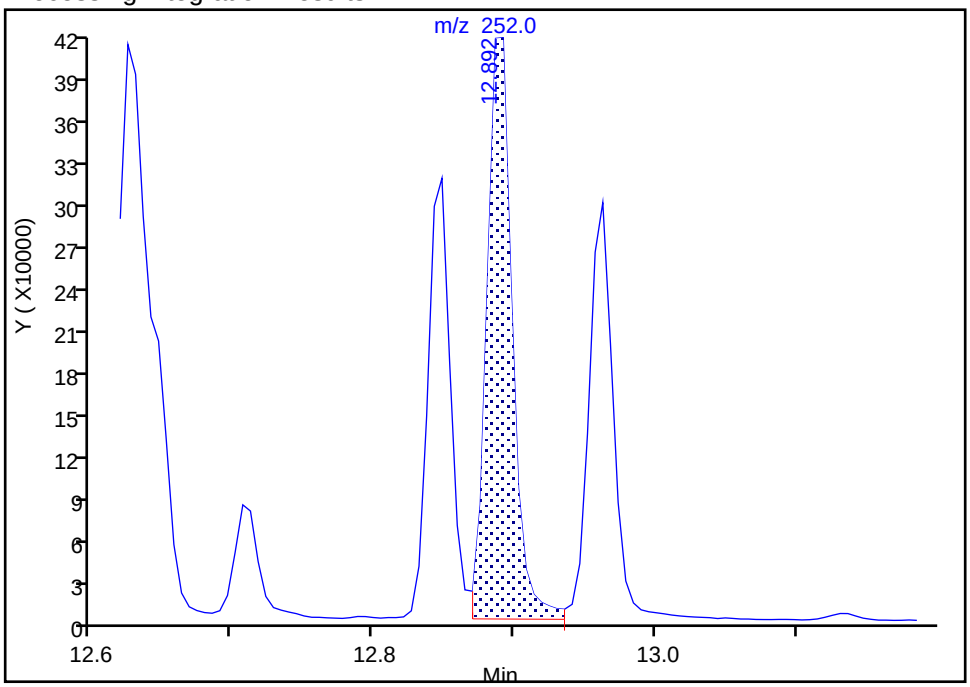
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

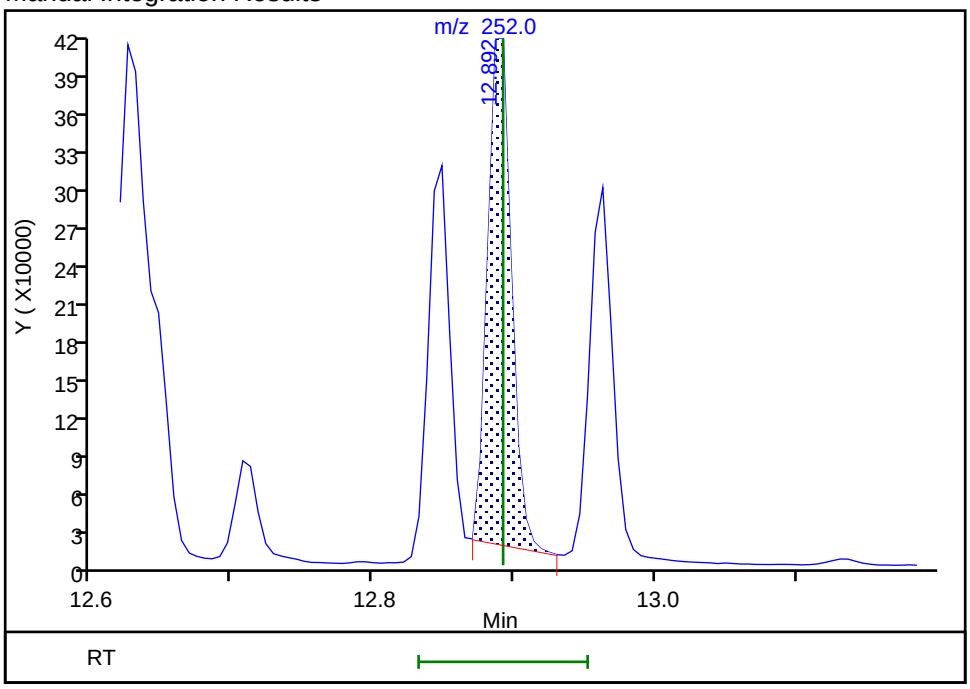
Processing Integration Results

RT: 12.89
Area: 516730
Amount: 151.7377
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 468041
Amount: 137.4402
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:51

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

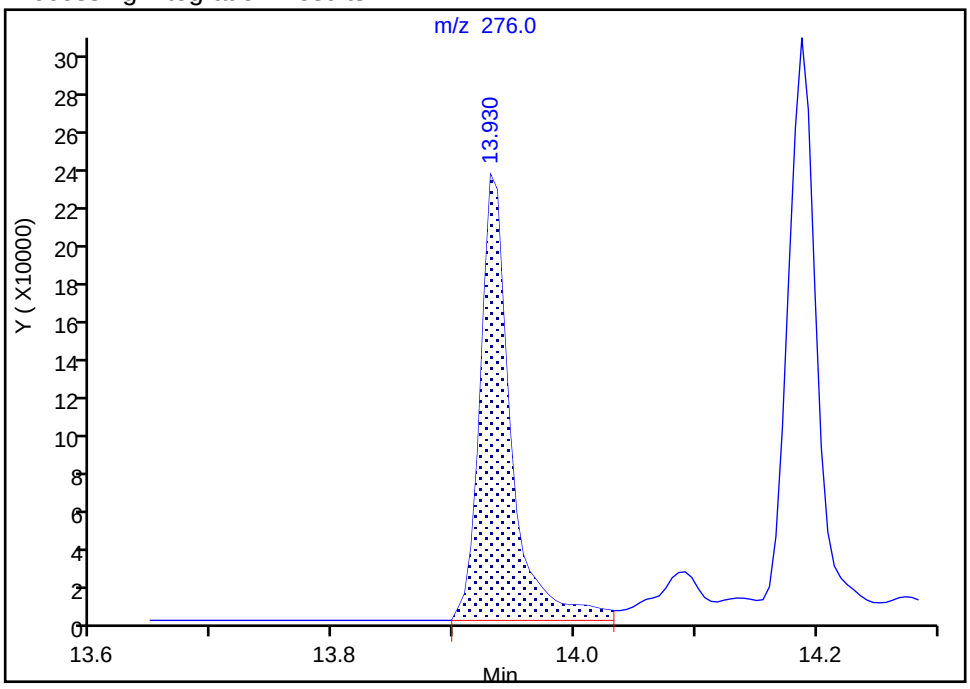
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

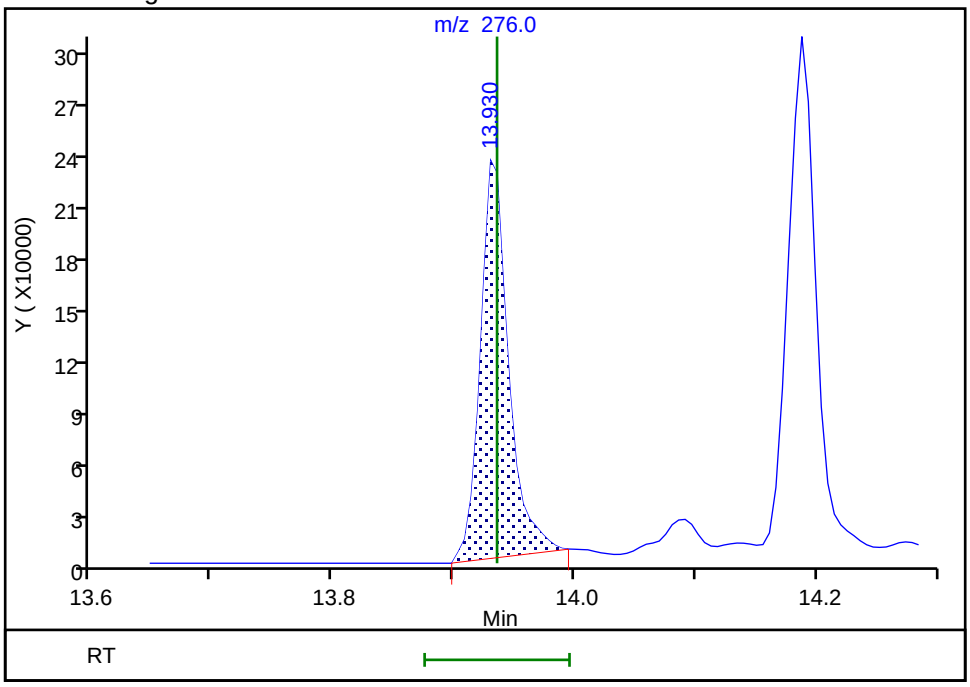
Processing Integration Results

RT: 13.93
Area: 406464
Amount: 155.3049
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 367174
Amount: 140.4296
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:11:57

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

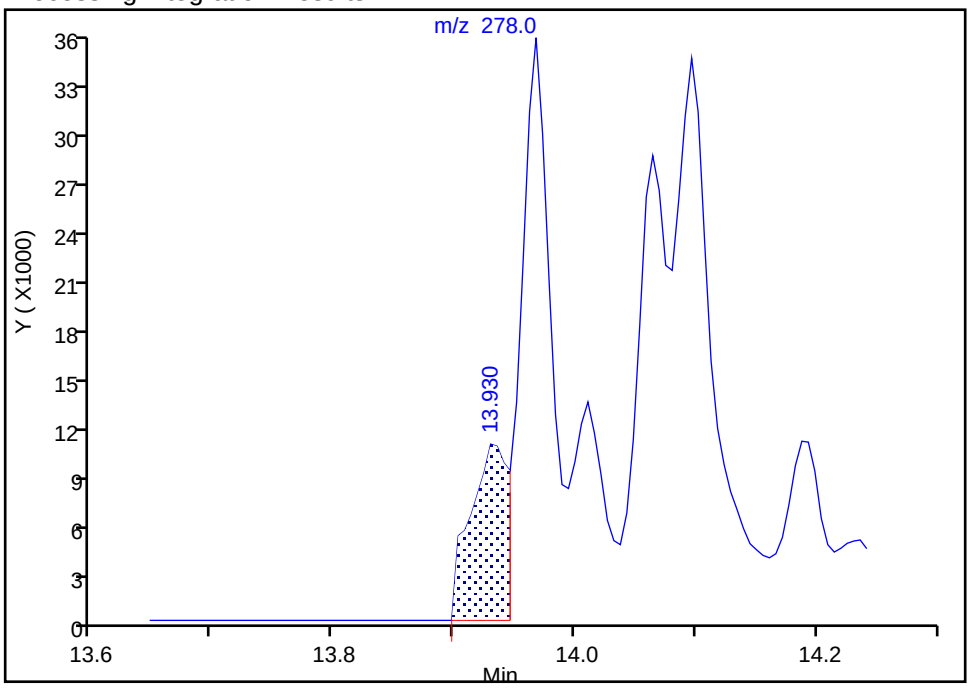
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

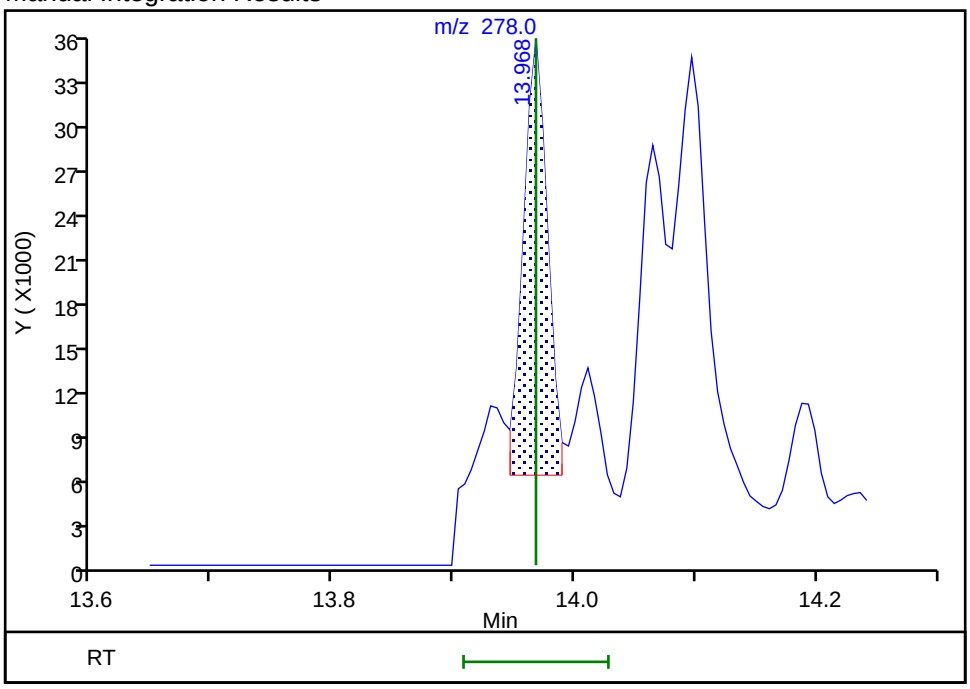
Processing Integration Results

RT: 13.93
Area: 22087
Amount: 7.760949
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 39717
Amount: 13.070815
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:12:05

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

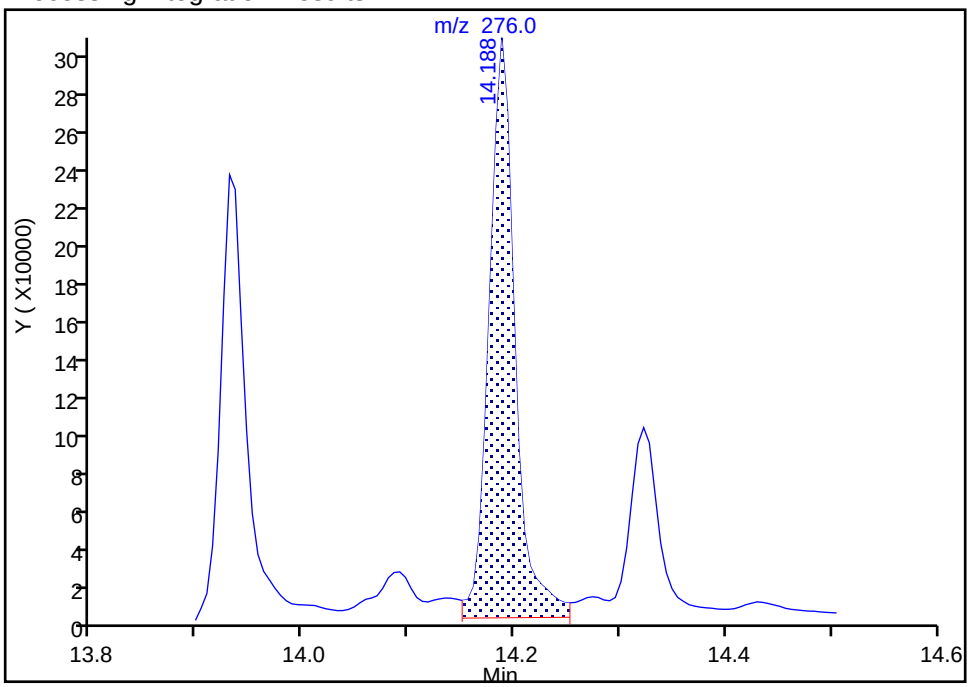
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A010.D				
Injection Date:	22-Jul-2019 14:41:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-A	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

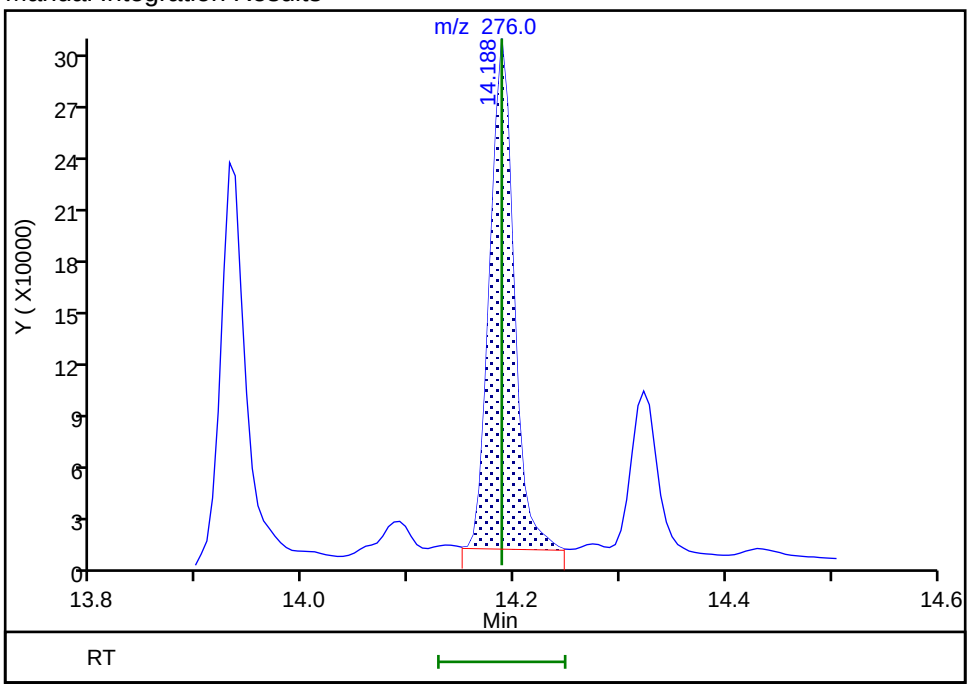
Processing Integration Results

RT: 14.19
Area: 509352
Amount: 135.7226
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 462116
Amount: 123.1603
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:12:12

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 072219A013.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 10:09

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.075(g) Date Analyzed: 07/22/2019 16:01

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	230		8.2	2.6
91-57-6	2-Methylnaphthalene	70		8.2	3.3
90-12-0	1-Methylnaphthalene	33		8.2	1.0
208-96-8	Acenaphthylene	41		8.2	0.82
83-32-9	Acenaphthene	370		8.2	0.98
86-73-7	Fluorene	410		8.2	0.82
85-01-8	Phenanthrene	2200		8.2	2.7
120-12-7	Anthracene	200		8.2	0.98
206-44-0	Fluoranthene	2600		8.2	2.3
56-55-3	Benzo[a]anthracene	610		8.2	1.2
218-01-9	Chrysene	600		8.2	2.4
205-99-2	Benzo[b]fluoranthene	520		8.2	0.96
207-08-9	Benzo[k]fluoranthene	150		8.2	0.98
50-32-8	Benzo[a]pyrene	470		8.2	1.4
193-39-5	Indeno[1,2,3-cd]pyrene	410		8.2	0.98
53-70-3	Dibenz(a,h)anthracene	33	B	8.2	1.2
191-24-2	Benzo[g,h,i]perylene	340	B	8.2	0.82

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	74		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D
Lims ID: 580-87706-A-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:01:30 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-6-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:25:53 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:25:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	347215	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	93	162170	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	279343	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	87	213151	100.0	
* 5 Perylene-d12	264	12.946	12.946	0.000	100	239694	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1555546	735.5	
10 Naphthalene	128	7.004	7.004	0.000	100	542022	139.7	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	109186	42.9	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	95	47928	20.2	M
13 Acenaphthylene	152	8.377	8.376	0.001	98	89574	25.3	M
14 Acenaphthene	153	8.520	8.525	-0.005	95	577510	224.9	M
15 Fluorene	166	8.941	8.947	-0.006	93	648291	252.1	M
17 Phenanthrene	178	9.704	9.704	0.000	99	5051035	1331.9	M
18 Anthracene	178	9.745	9.745	0.000	99	438321	124.3	M
19 Fluoranthene	202	10.657	10.657	0.000	98	5766988	1605.2	M
20 Pyrene	202	10.830	10.830	0.000	98	6648840	1757.1	EM
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	99	905815	372.9	M
22 Chrysene	228	11.821	11.821	0.000	98	1183337	366.3	M
23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	98	976225	316.2	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	347957	92.1	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	100	900787	288.0	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	100	612291	253.2	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	58360	20.2	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	710595	206.0	M

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags
M - Manually Integrated

Reagents:

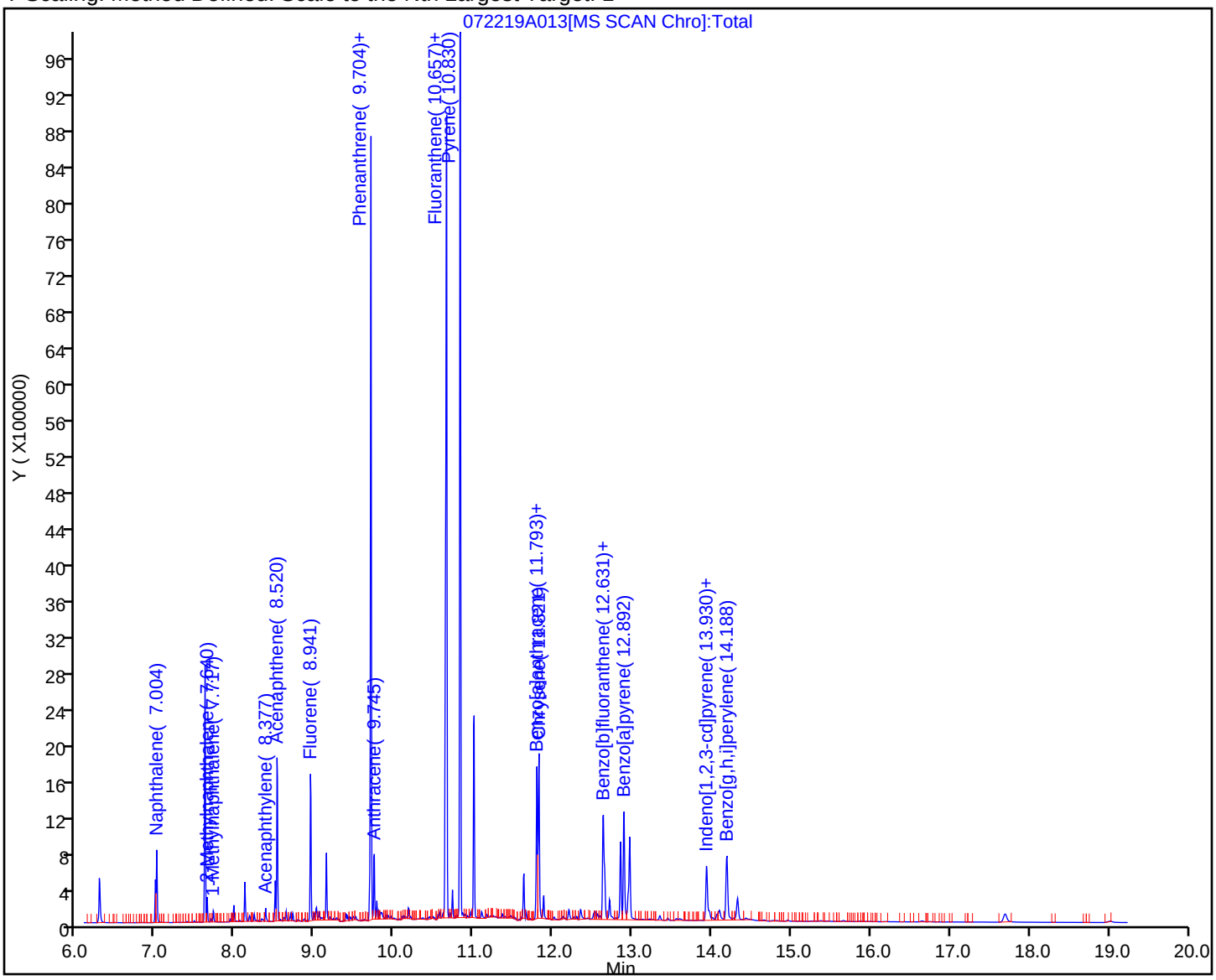
8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle

Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D
Lims ID: 580-87706-A-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:01:30 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-6-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:25:53 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:25:53

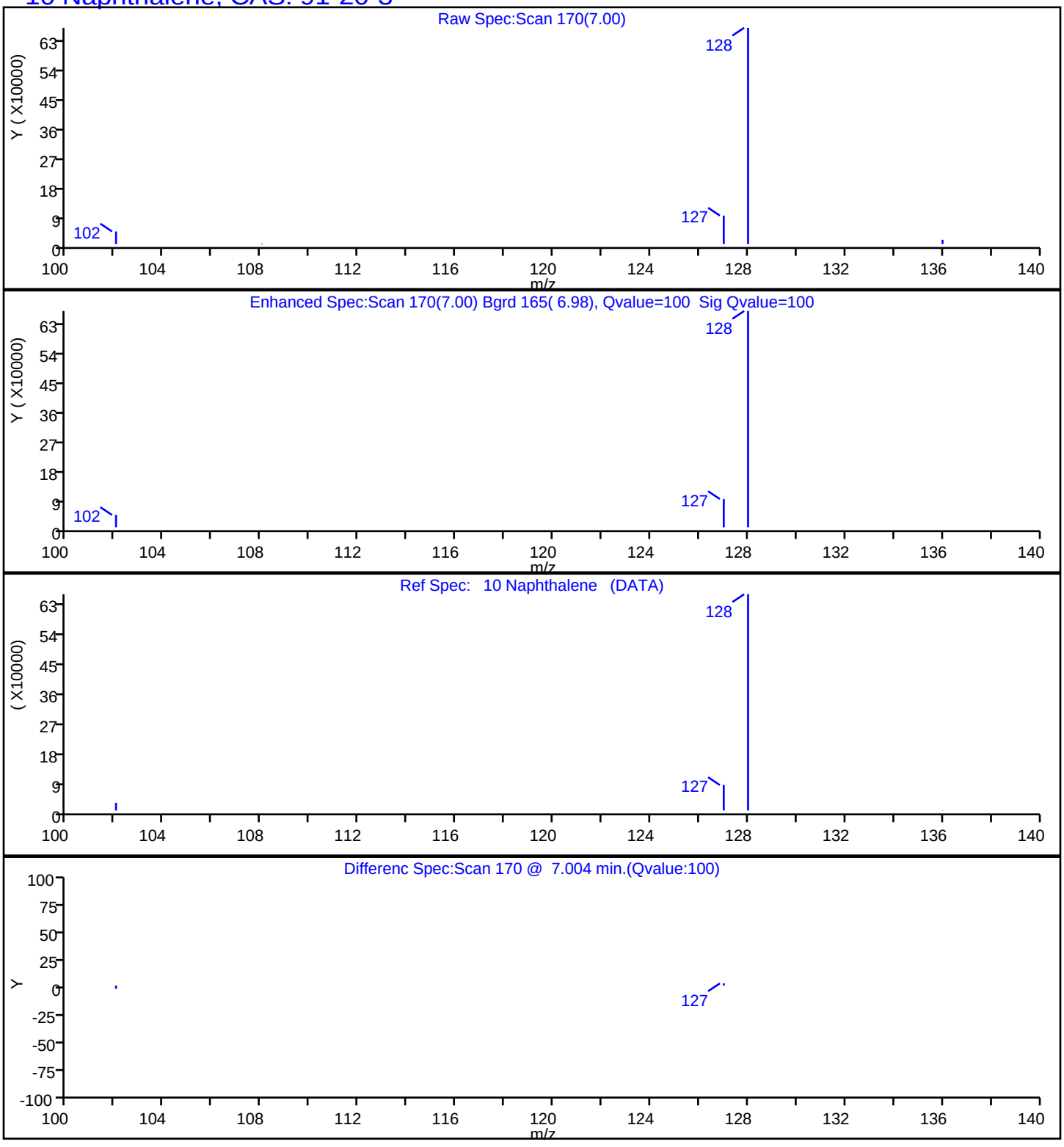
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	735.5	73.55

Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

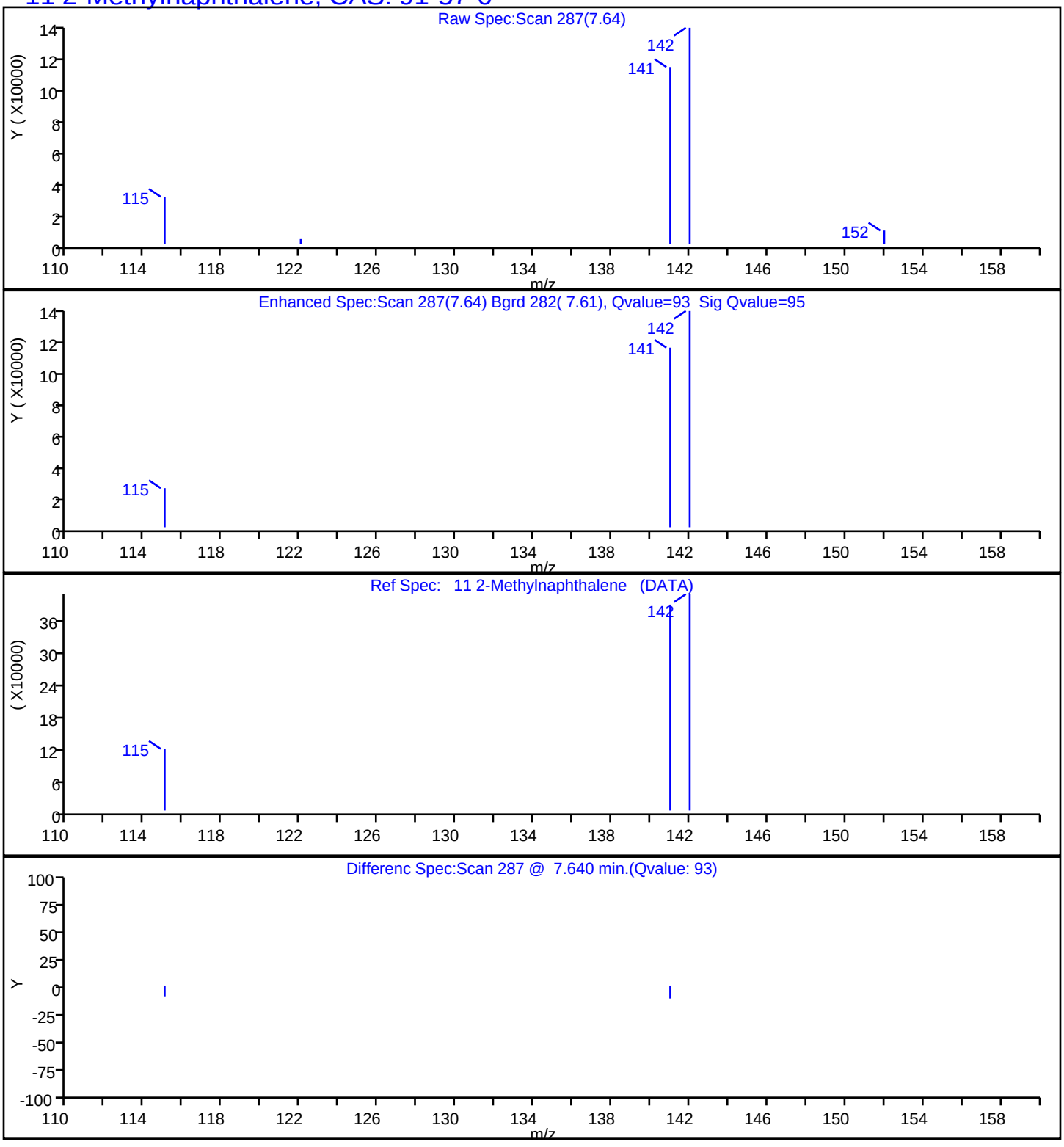


Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

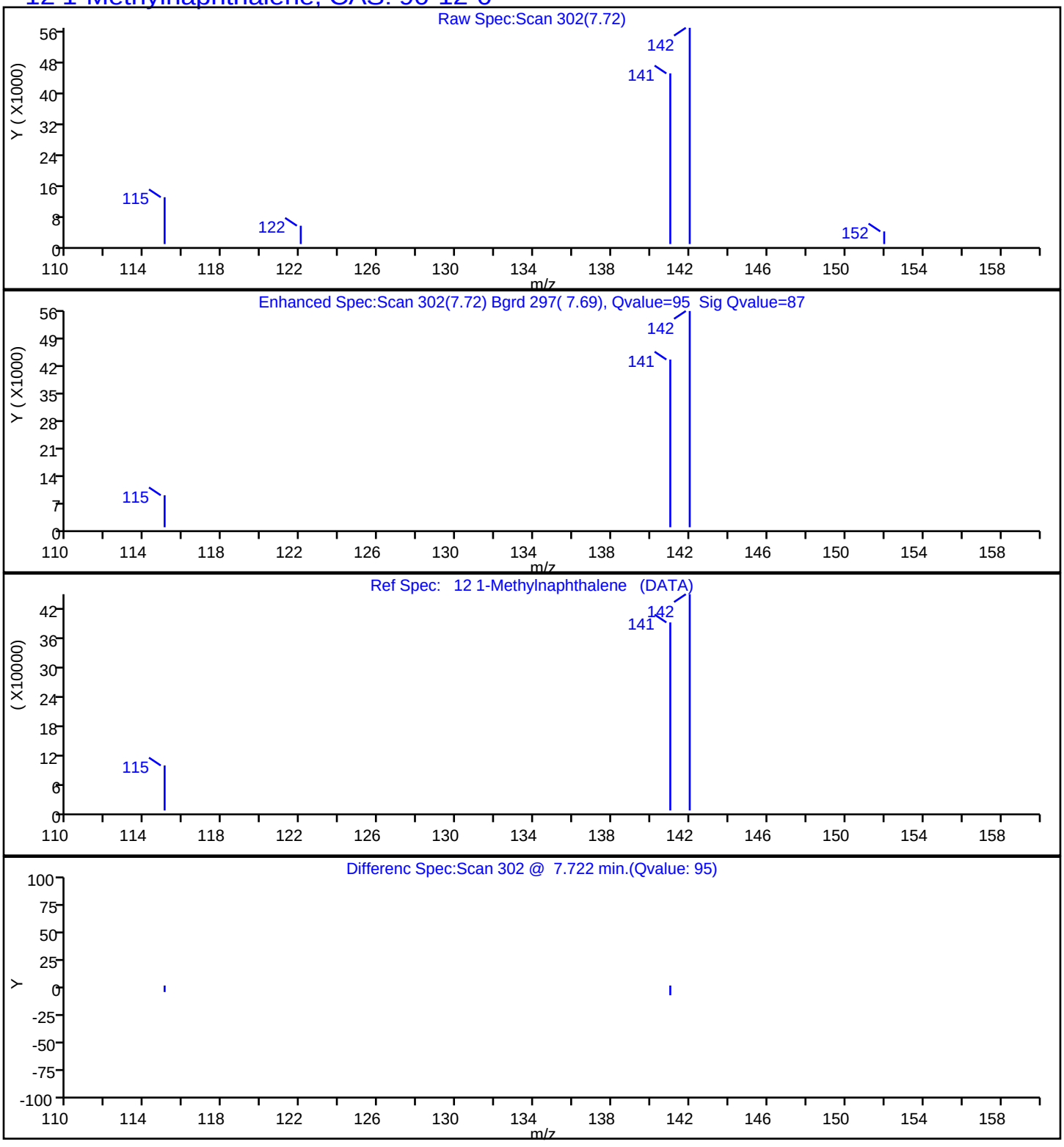


Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

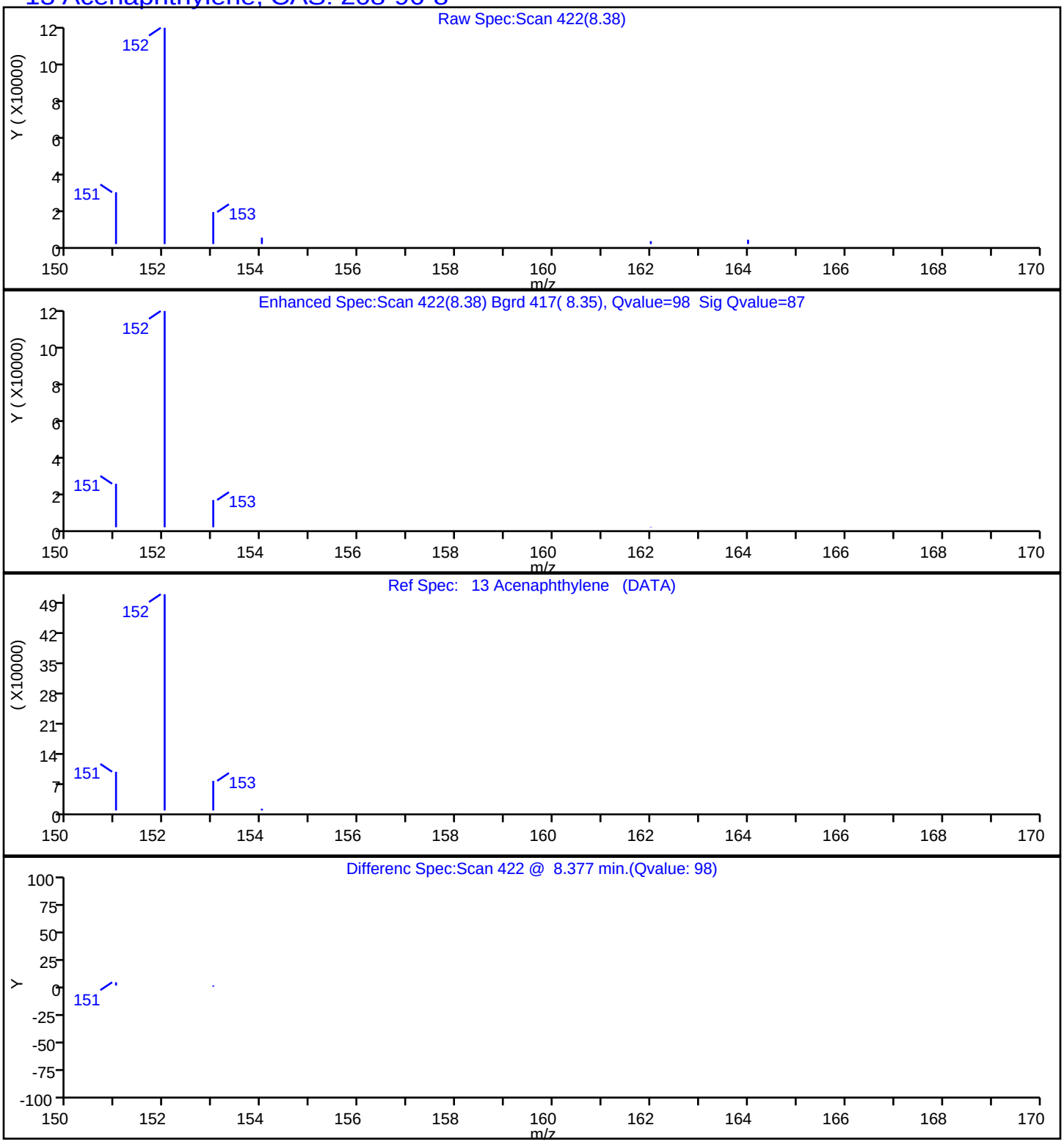


Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

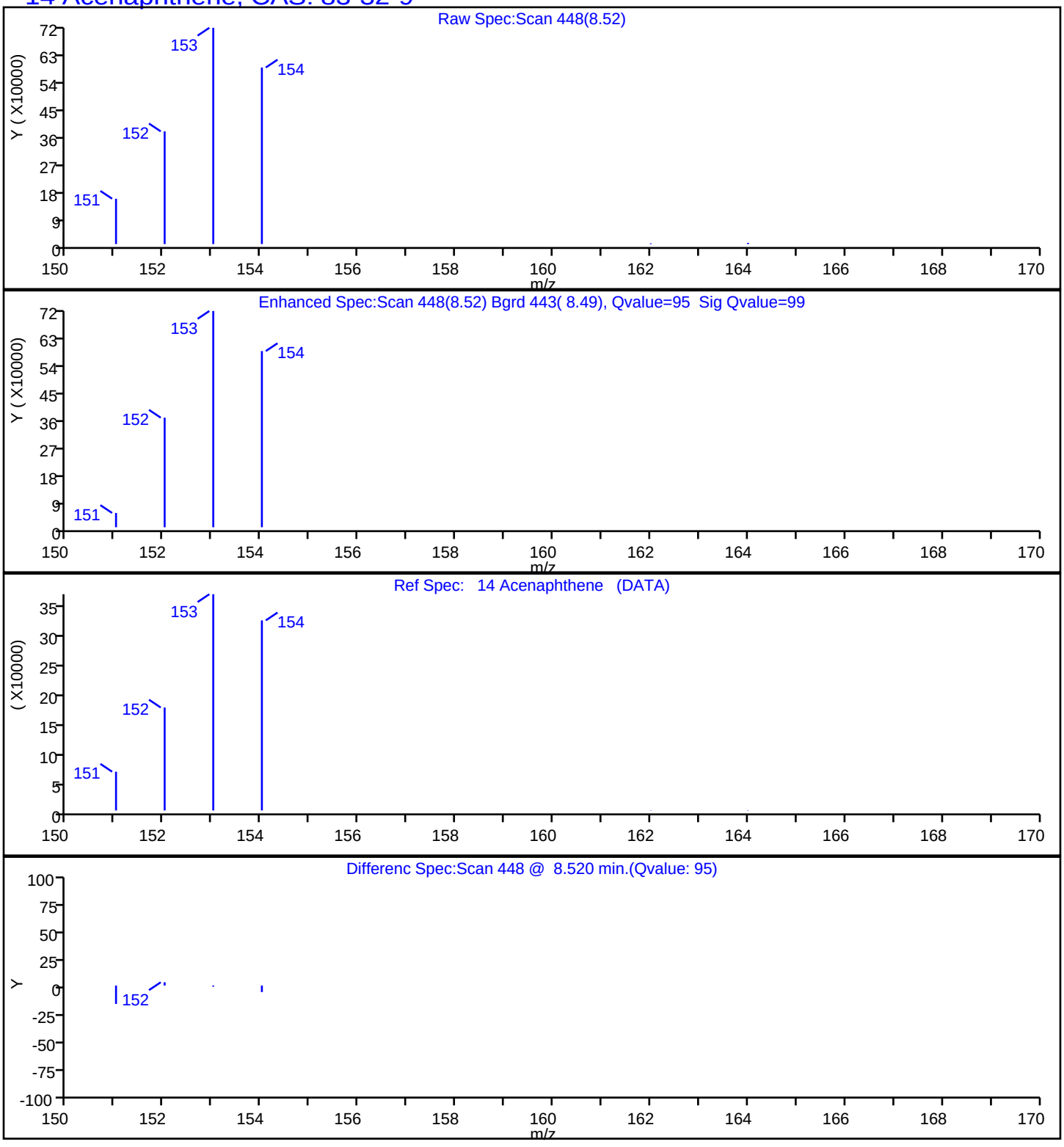


Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

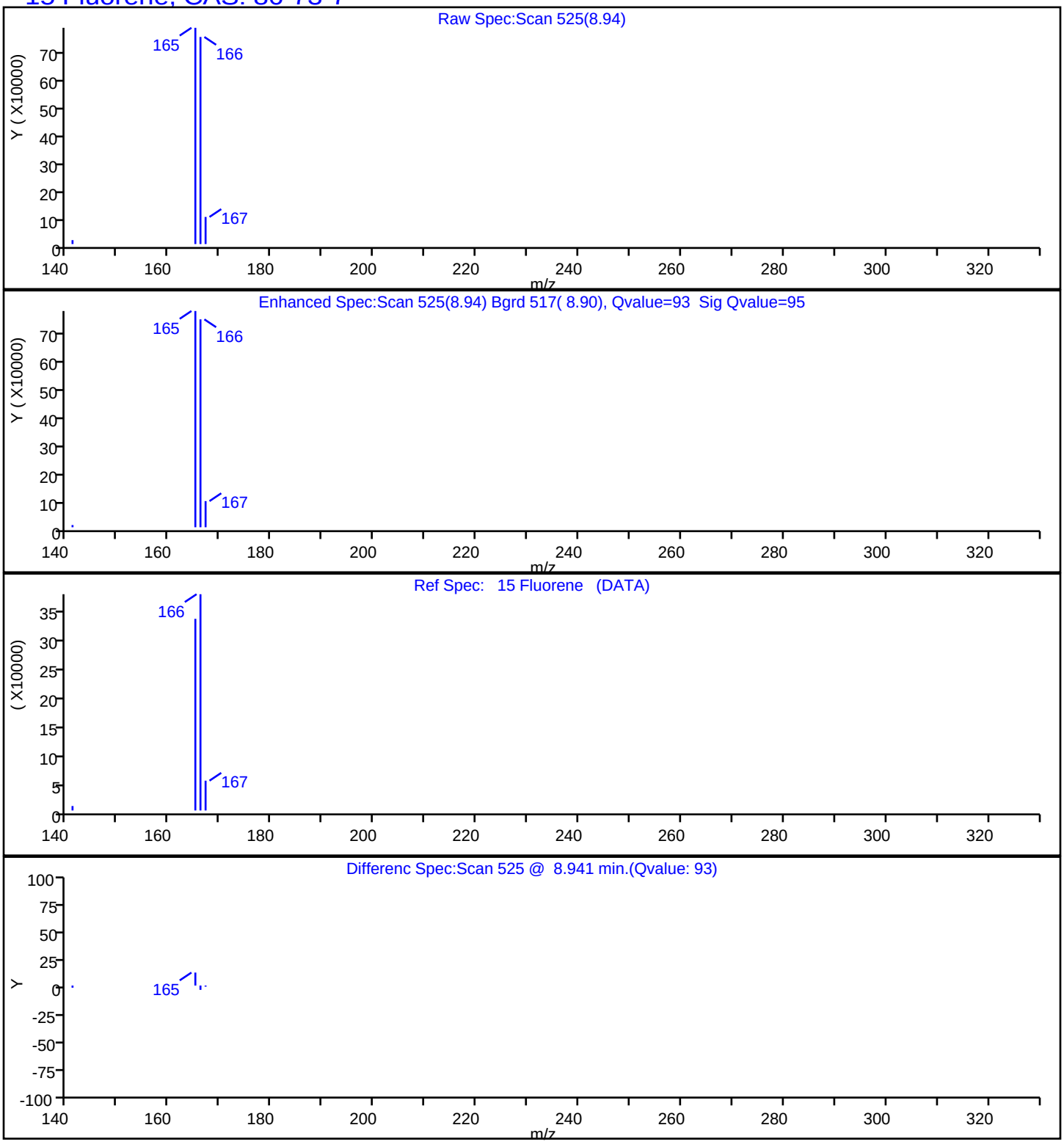


Report Date: 23-Jul-2019 14:25:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

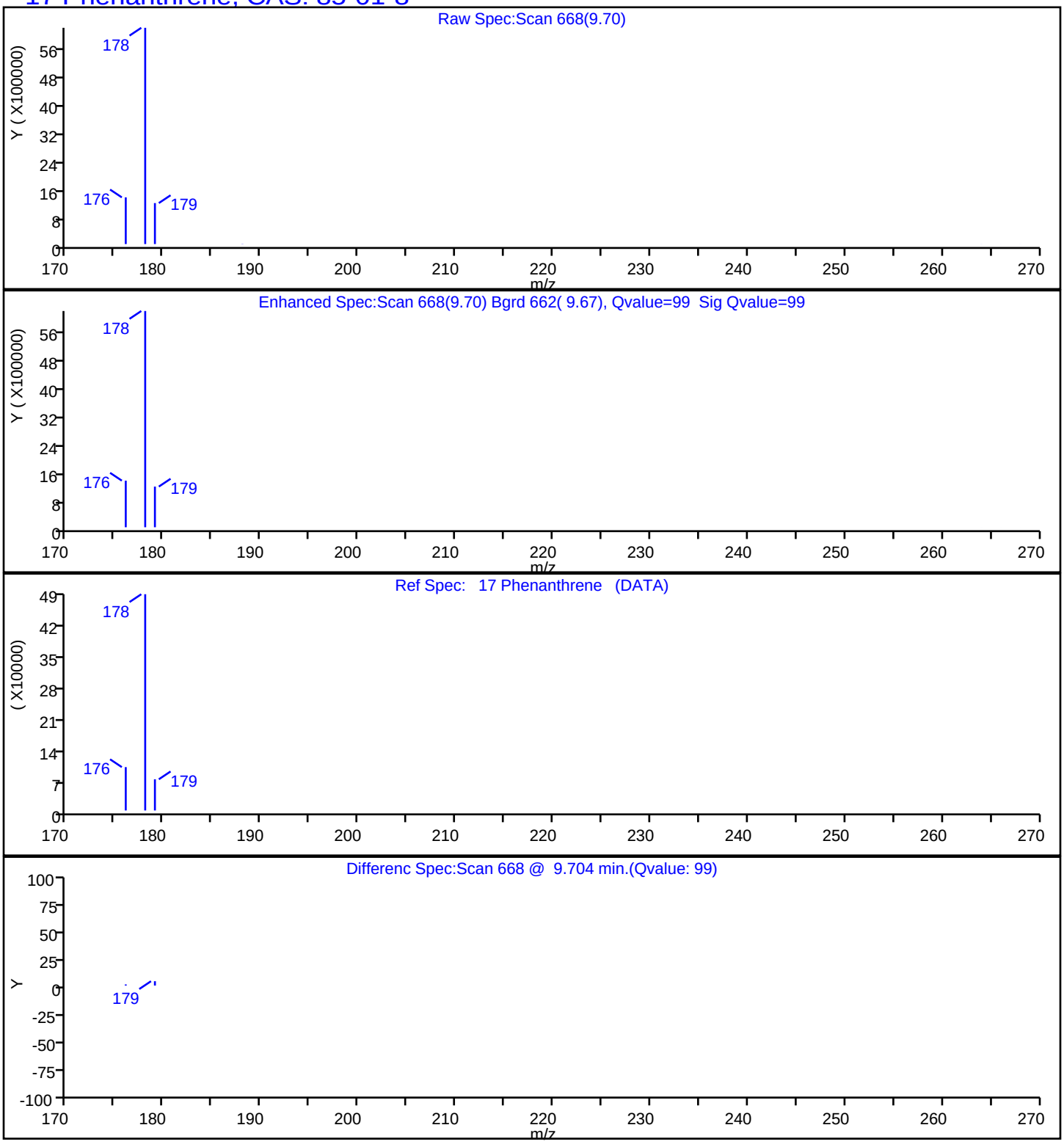


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

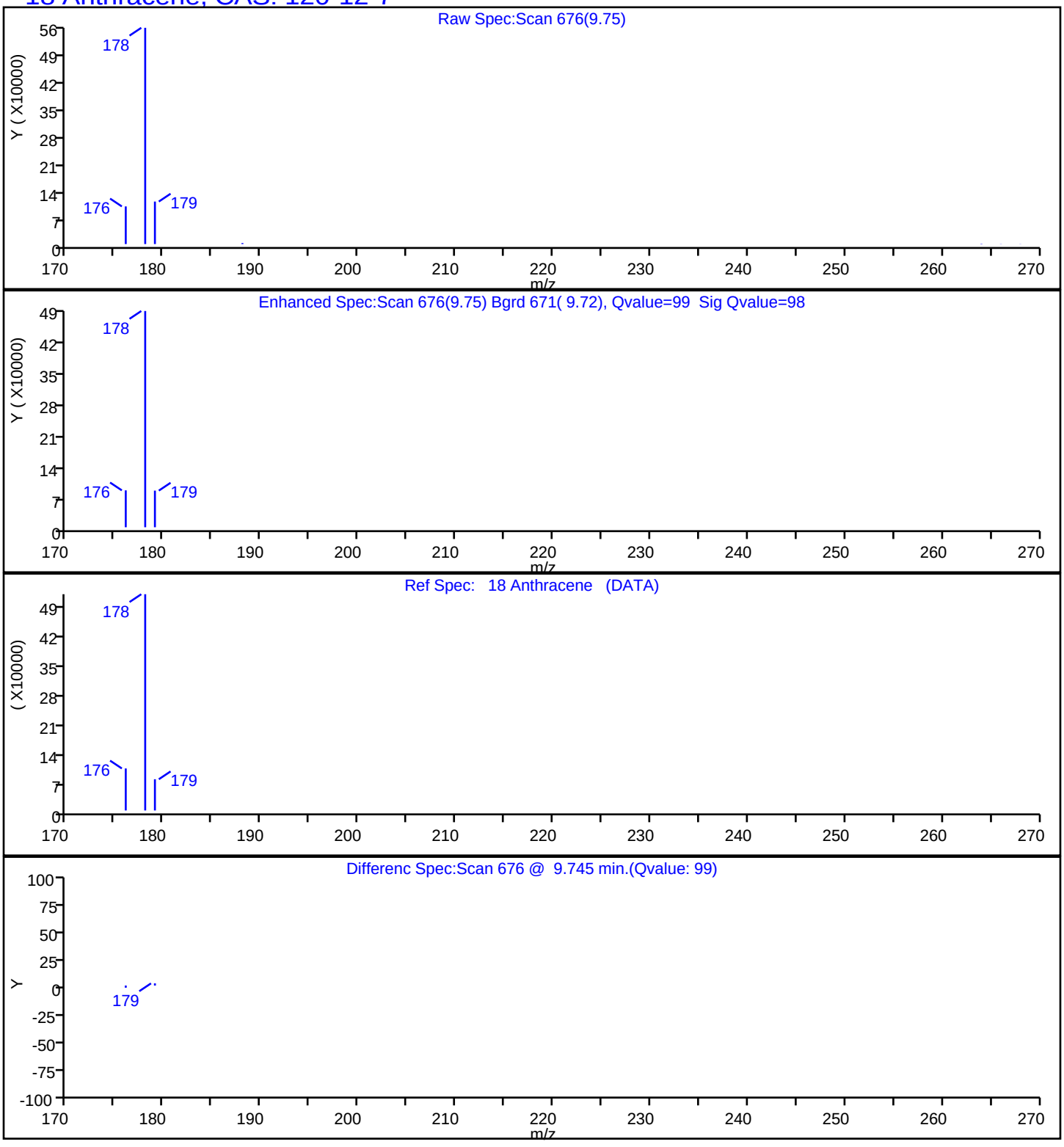


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

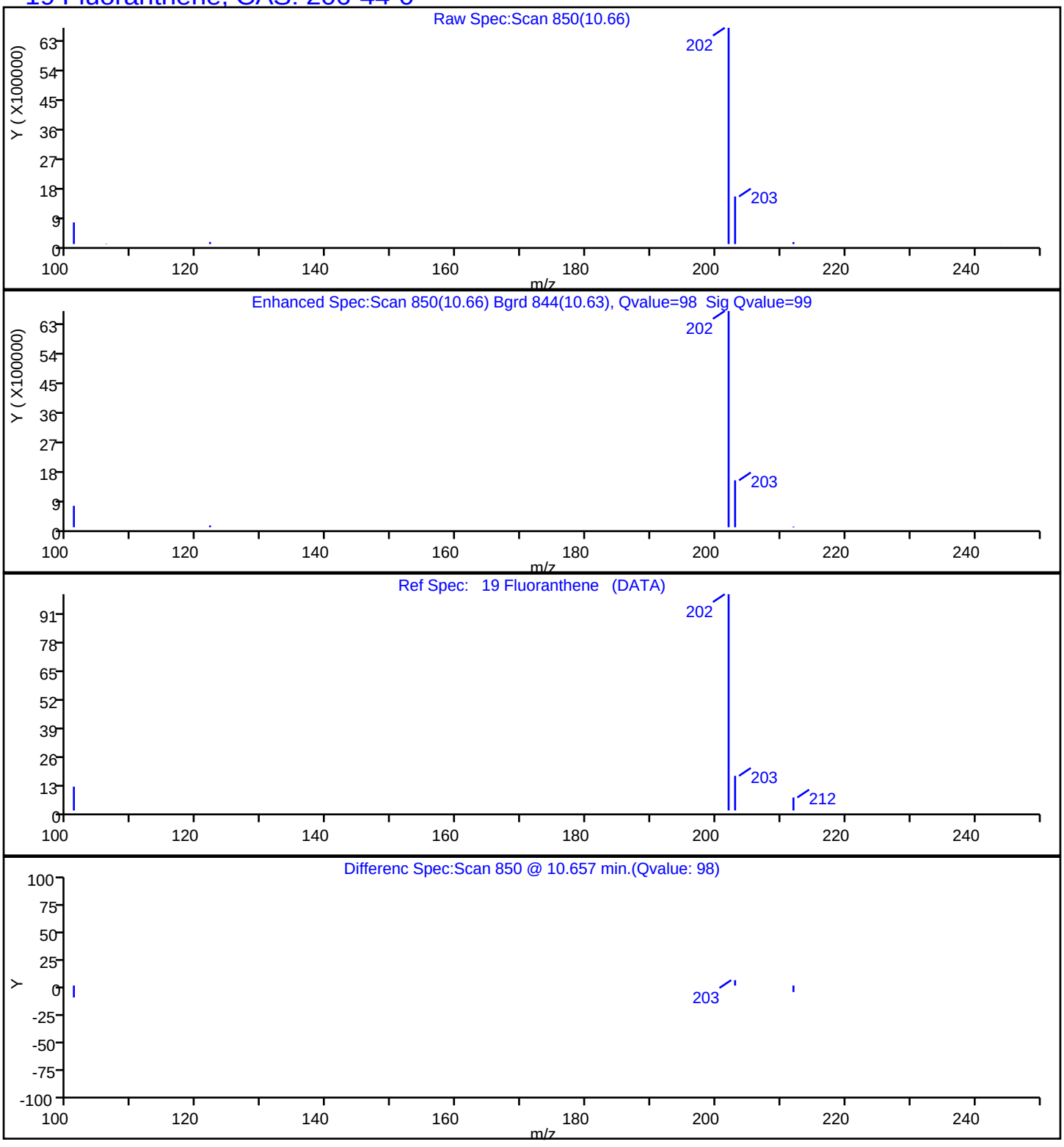


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

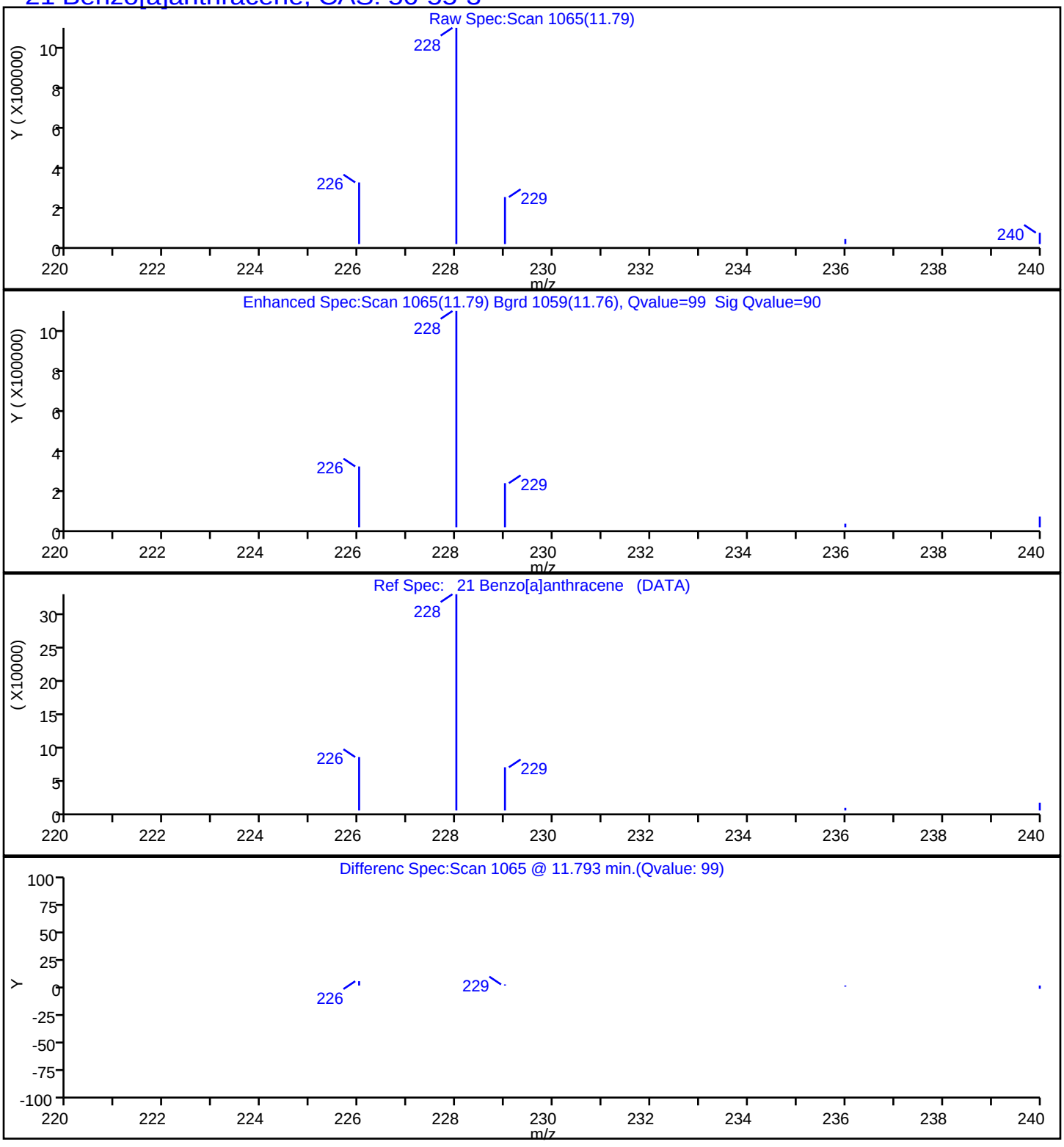


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

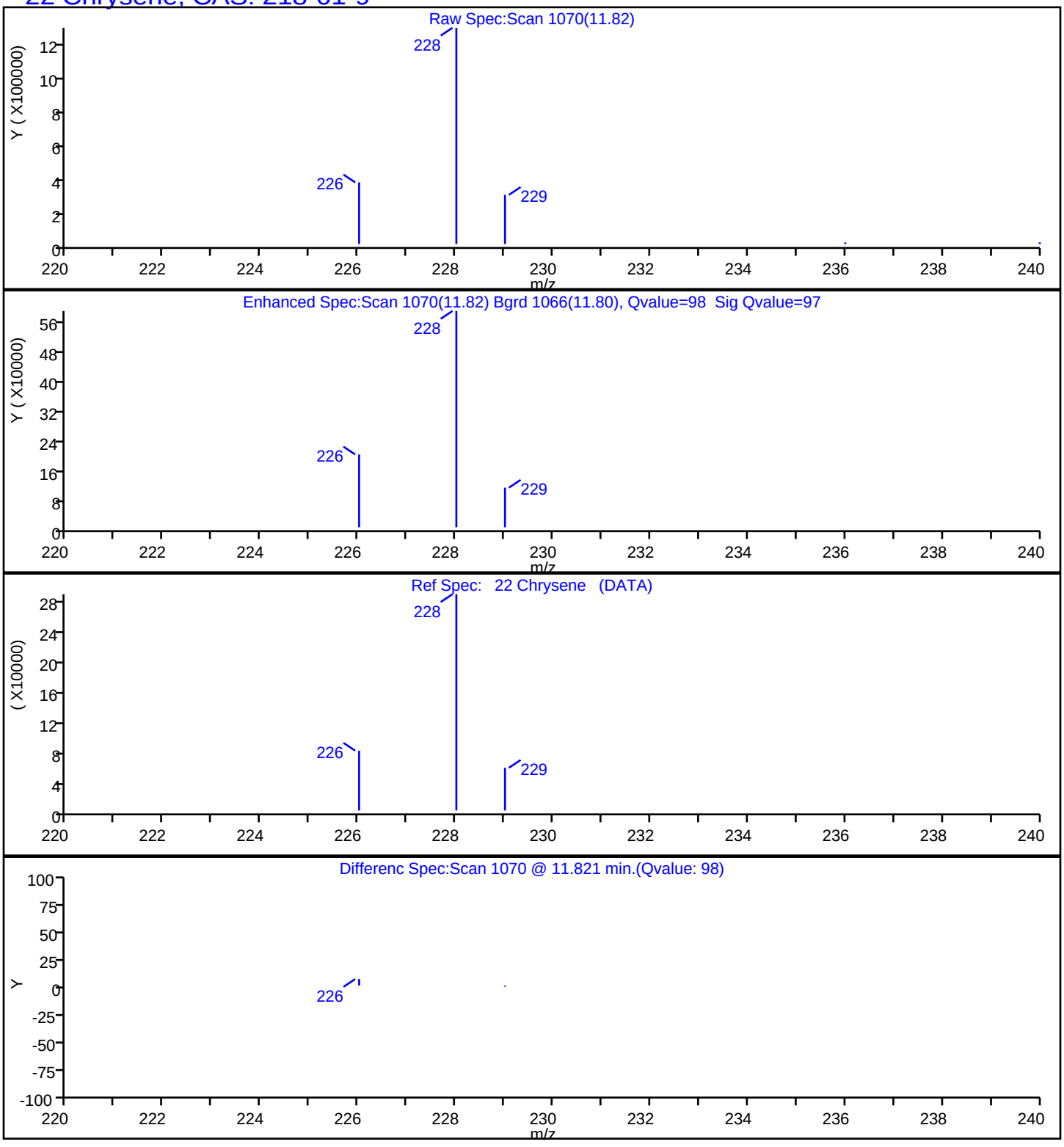


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

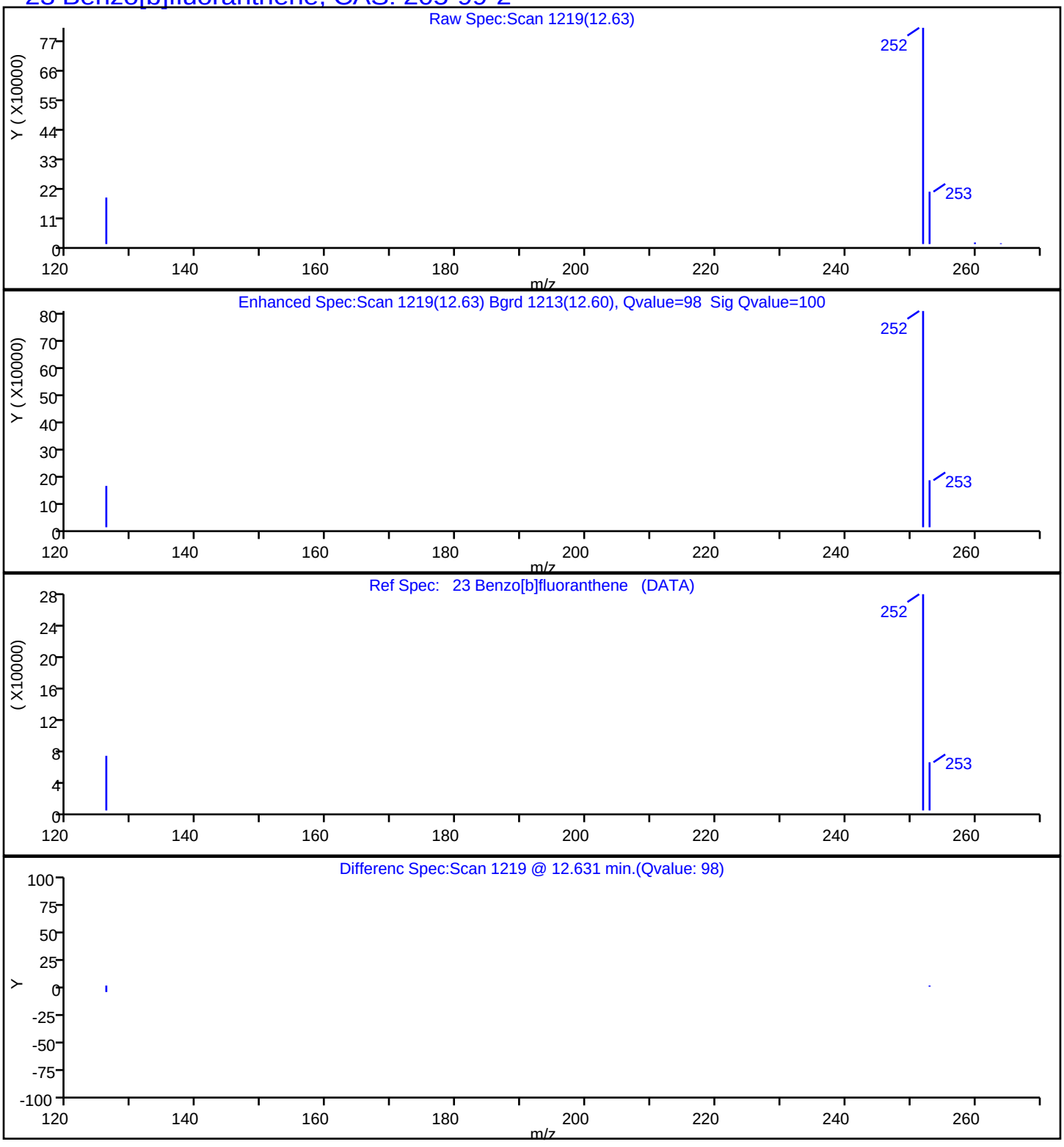


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

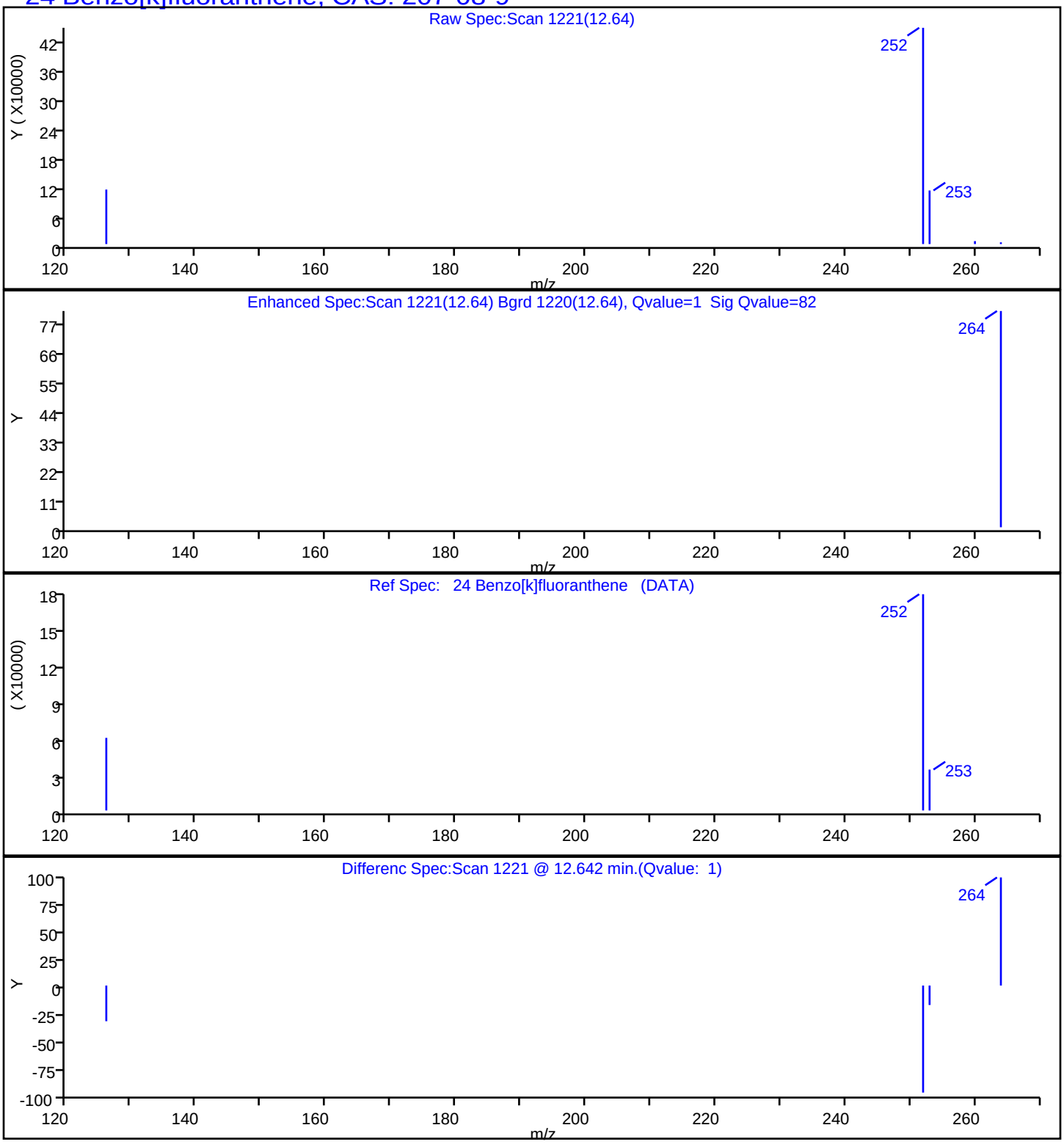


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

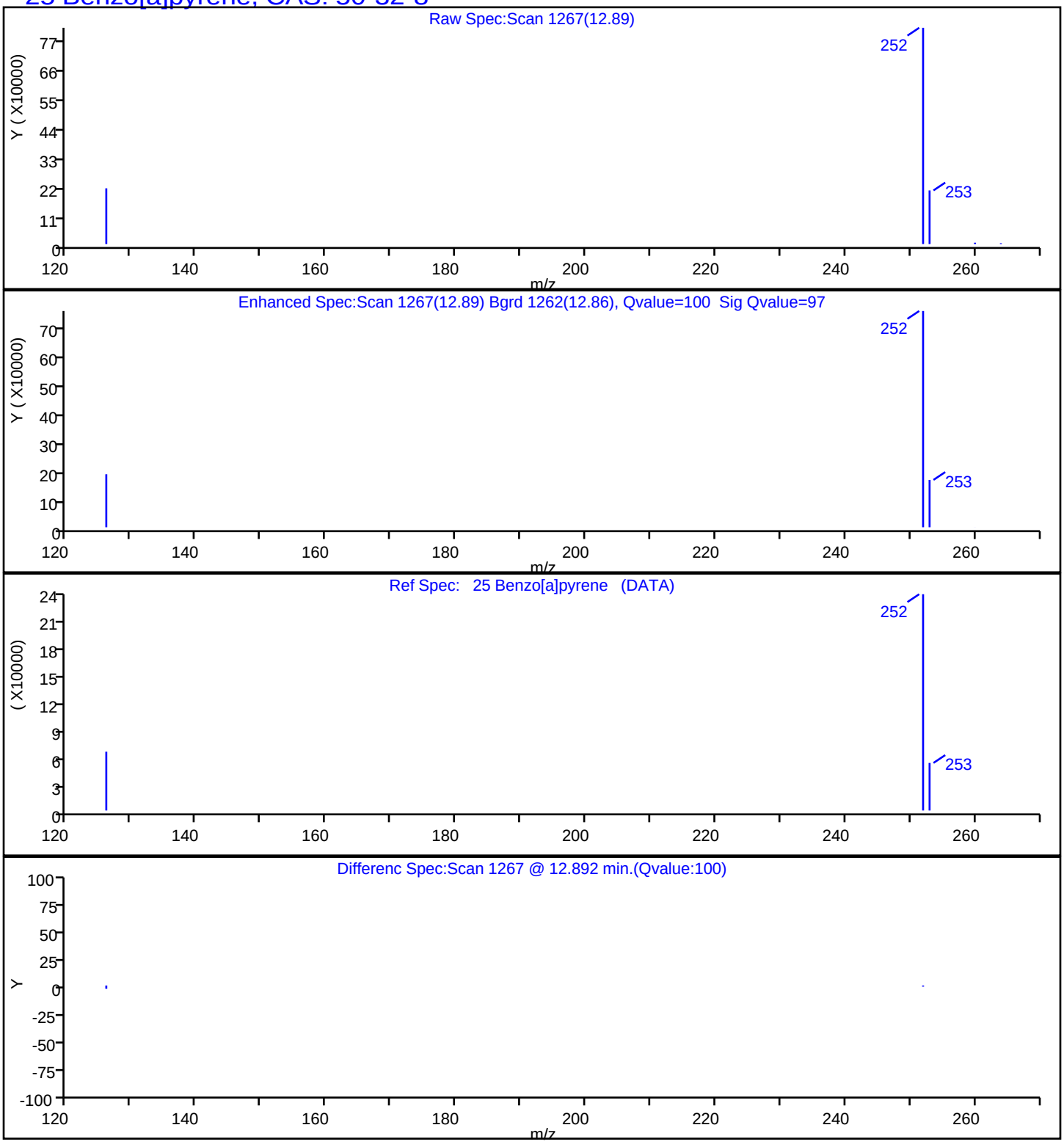


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

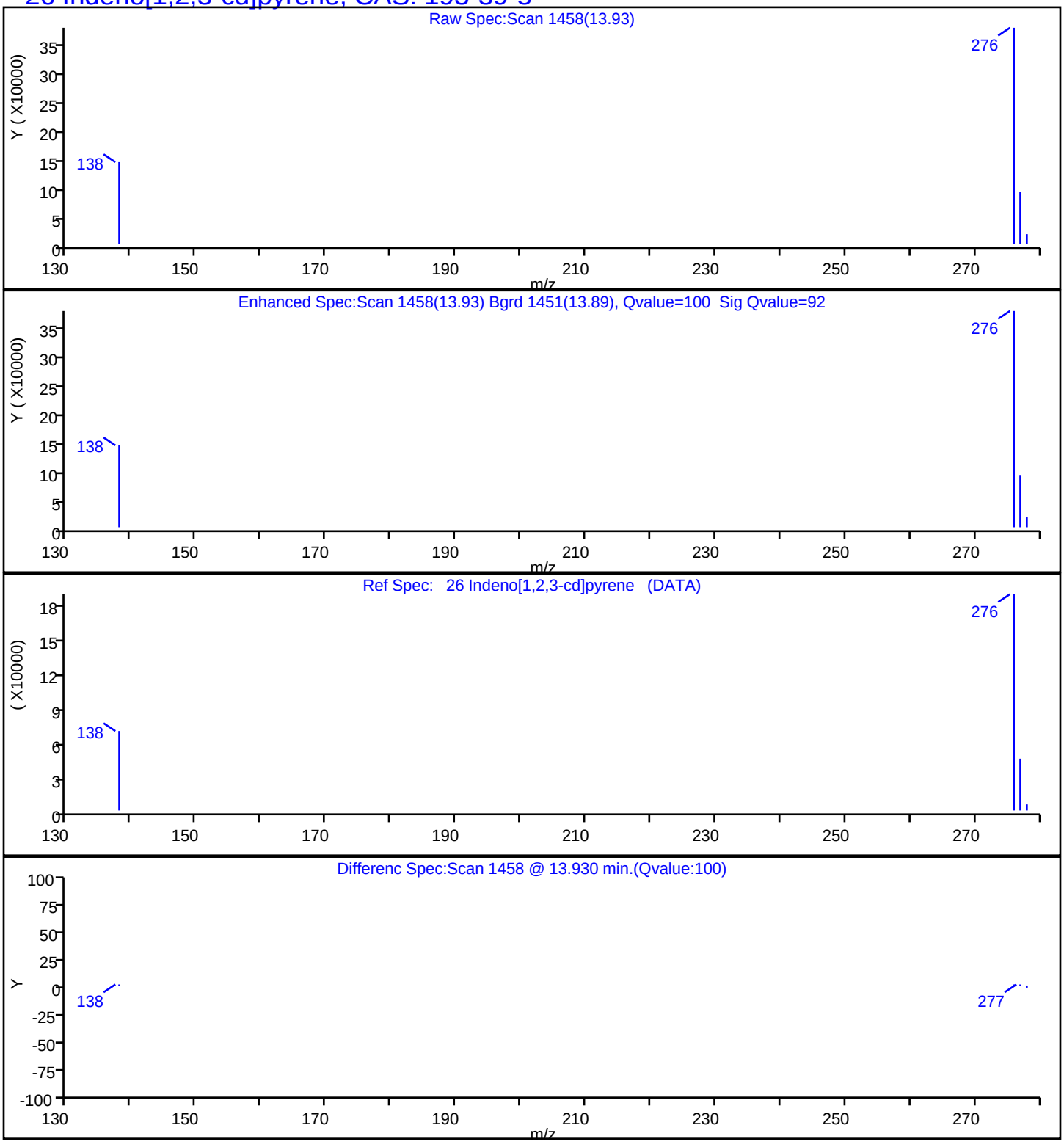


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

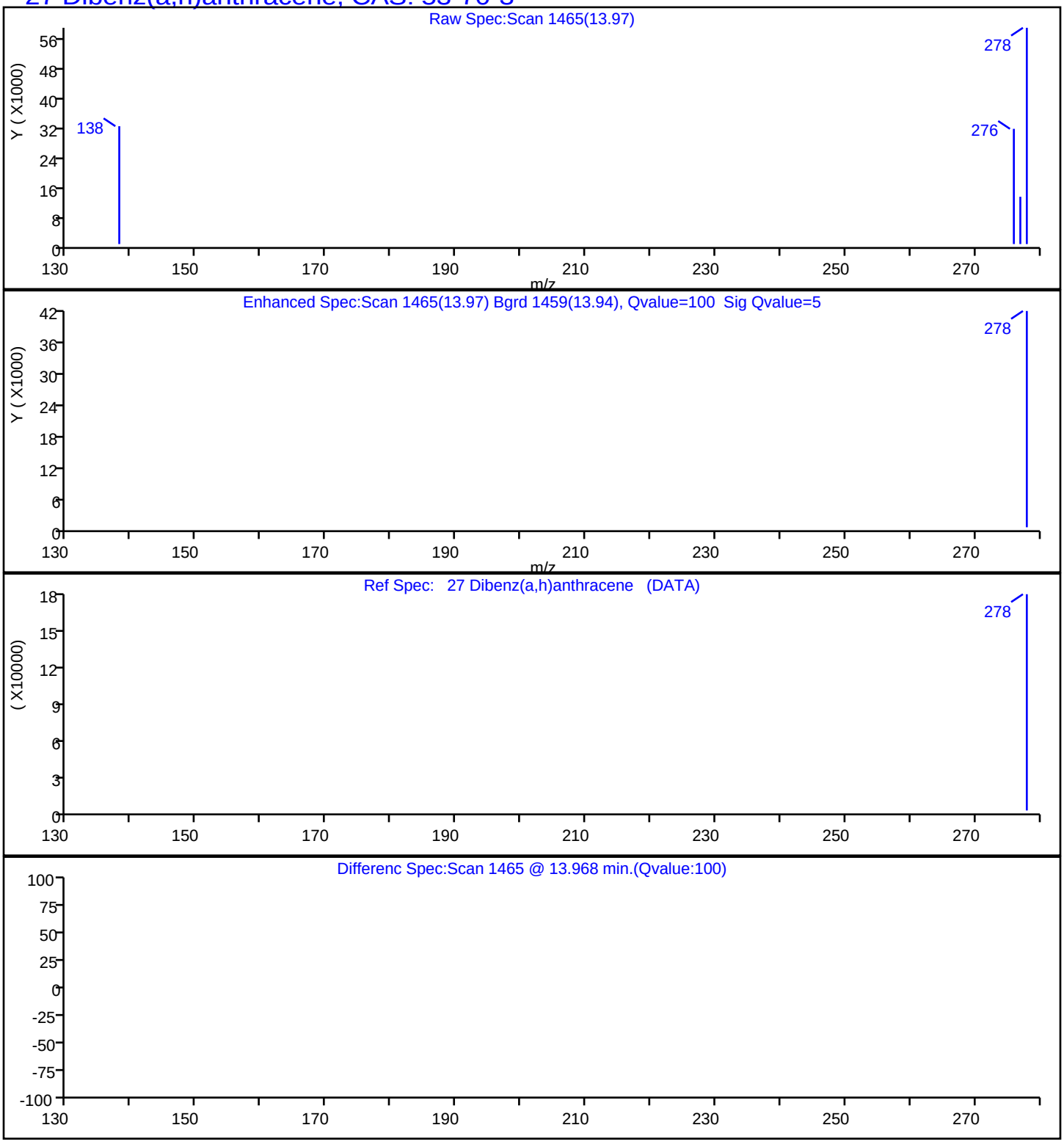


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

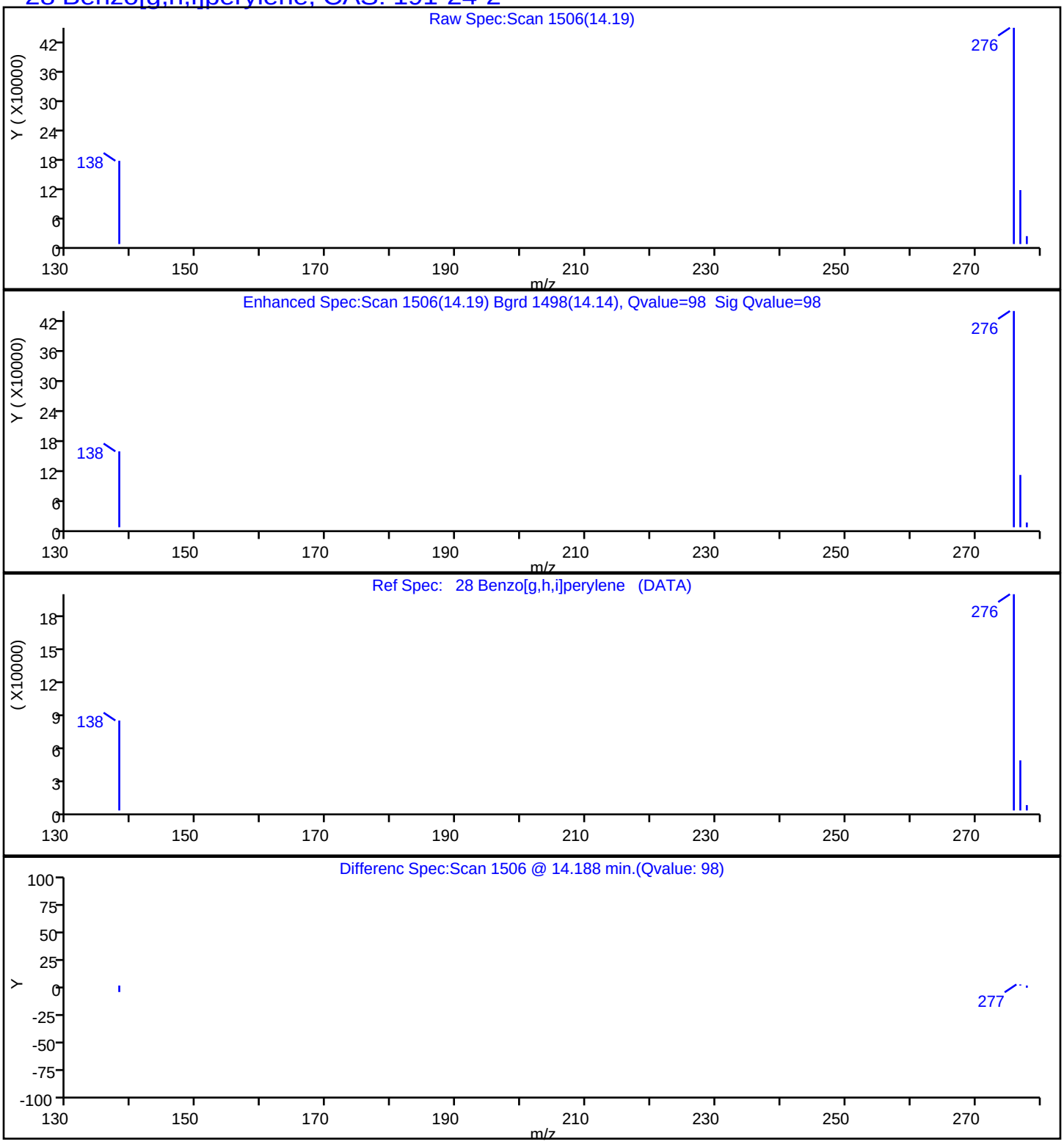


Report Date: 23-Jul-2019 14:25:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

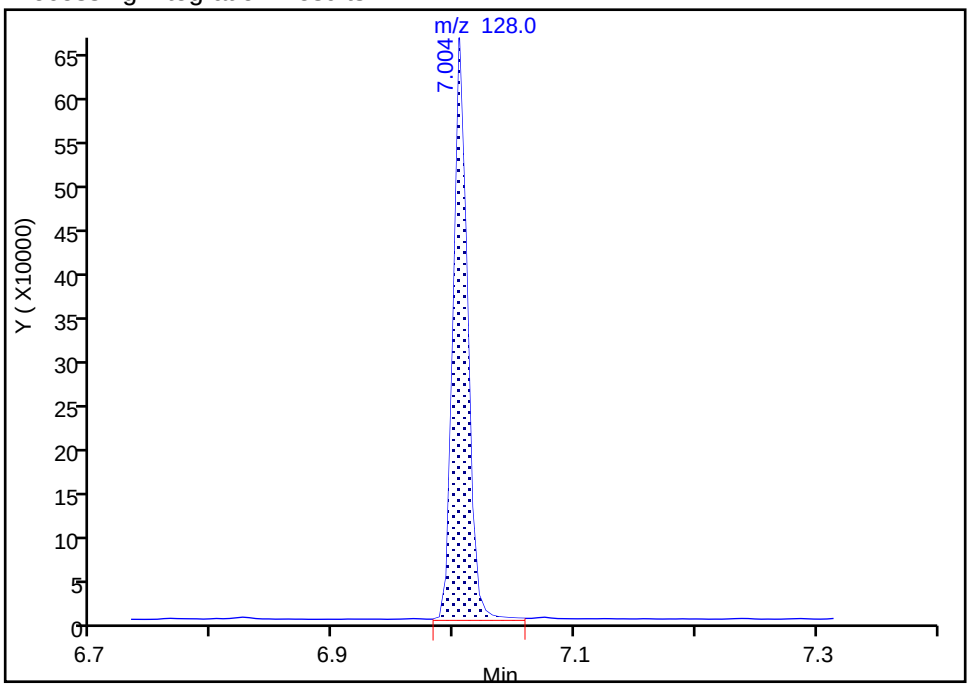
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

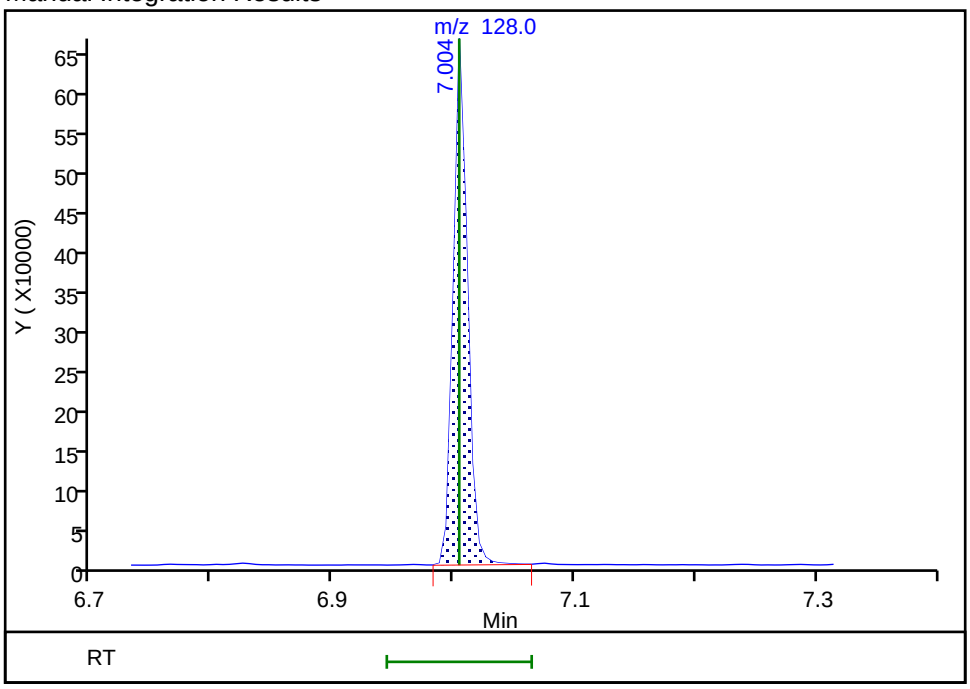
Processing Integration Results

RT: 7.00
Area: 548830
Amount: 141.4711
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 542022
Amount: 139.7162
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:22:12

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

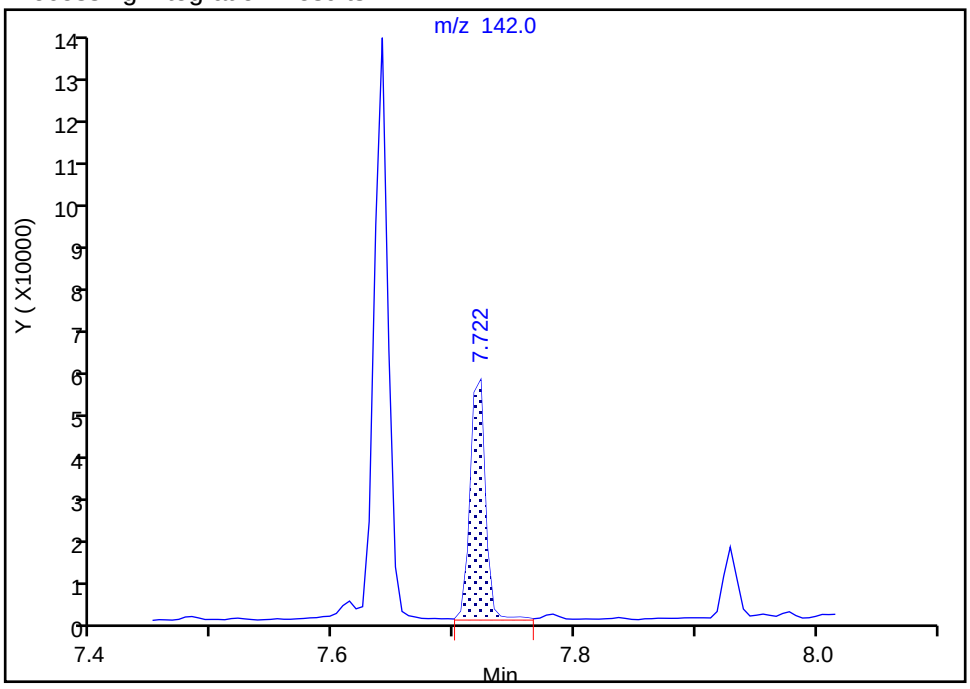
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

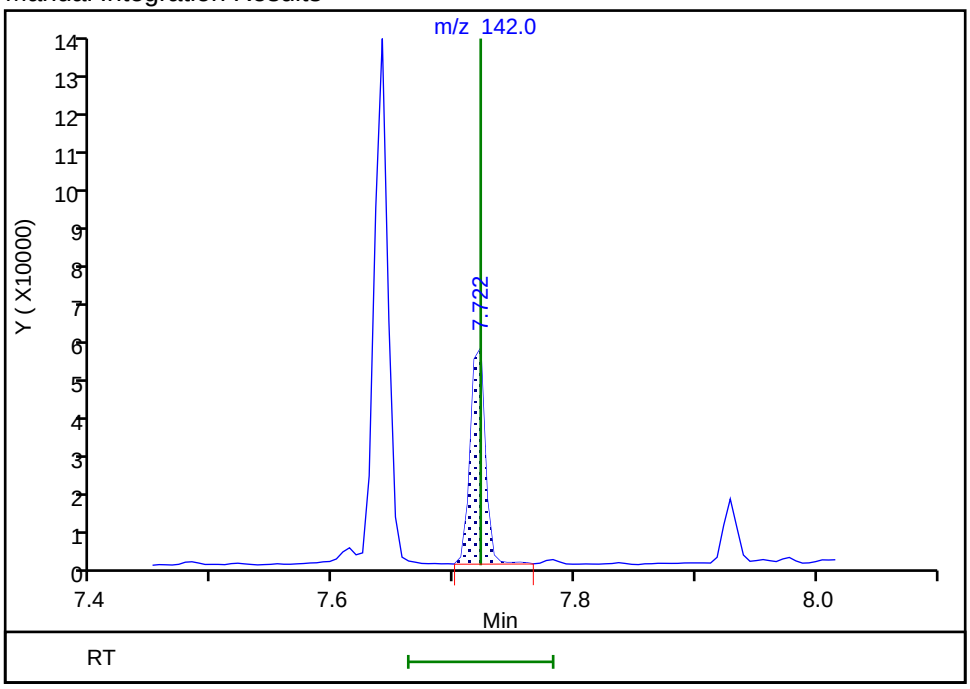
Processing Integration Results

RT: 7.72
Area: 48813
Amount: 20.550632
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 47928
Amount: 20.178041
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:22:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

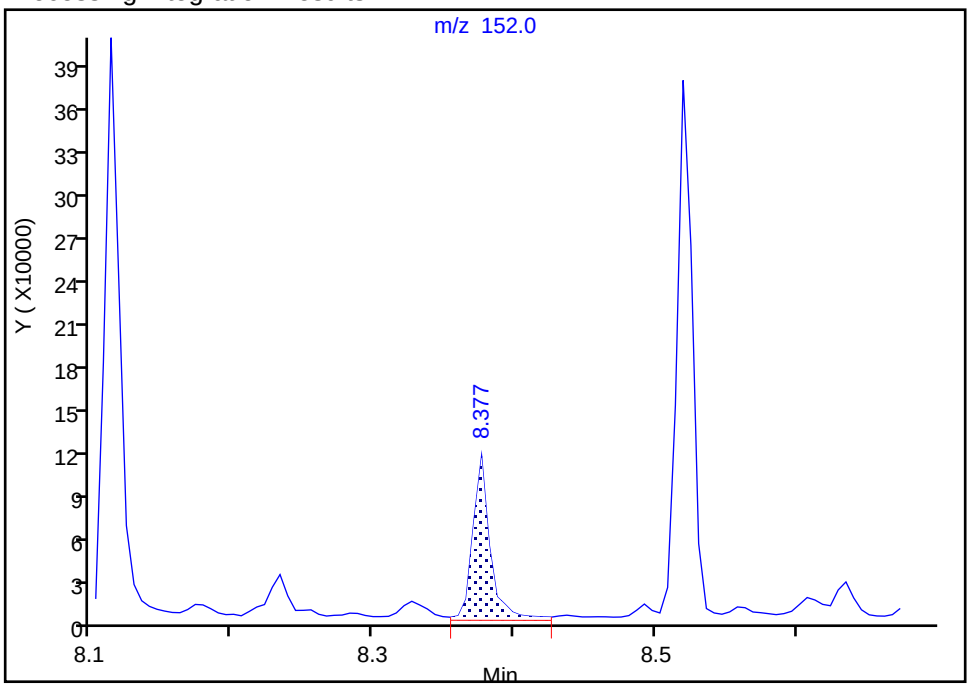
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

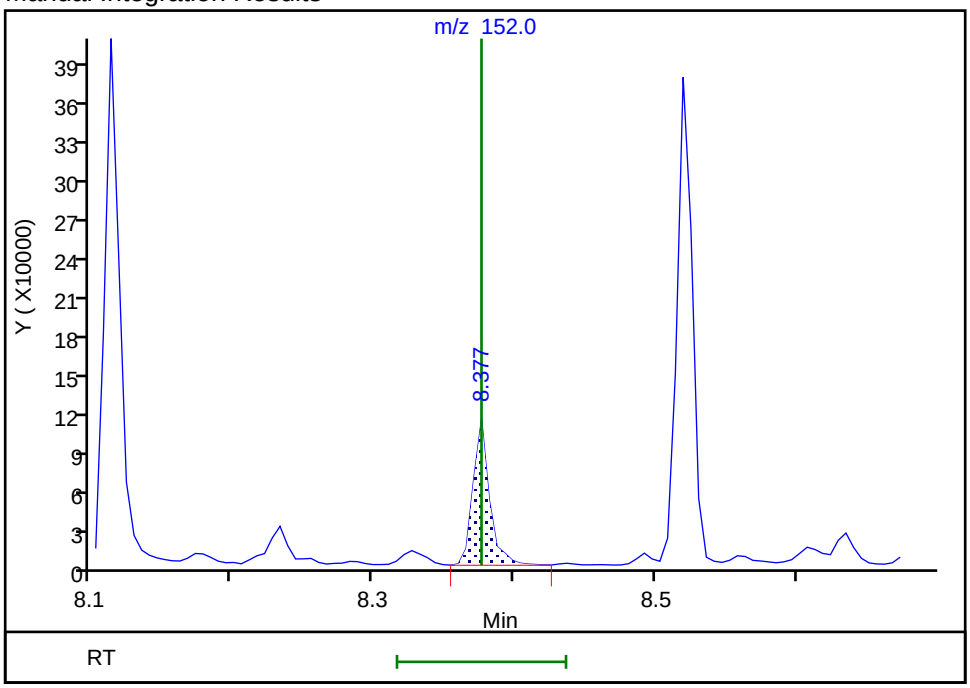
Processing Integration Results

RT: 8.38
Area: 98276
Amount: 27.784984
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 89574
Amount: 25.324719
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:22:47

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

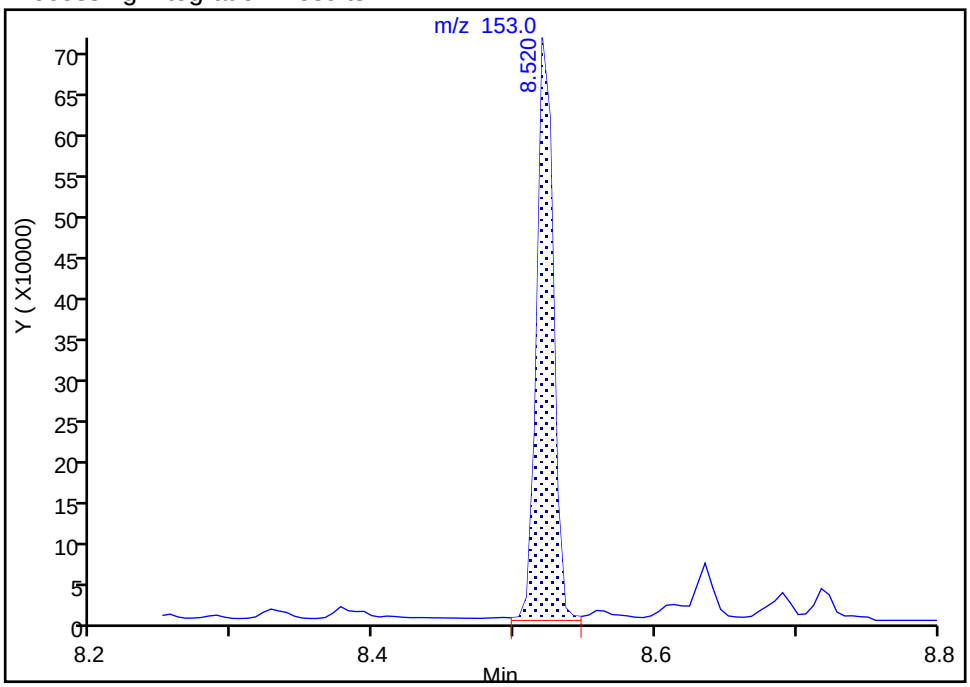
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

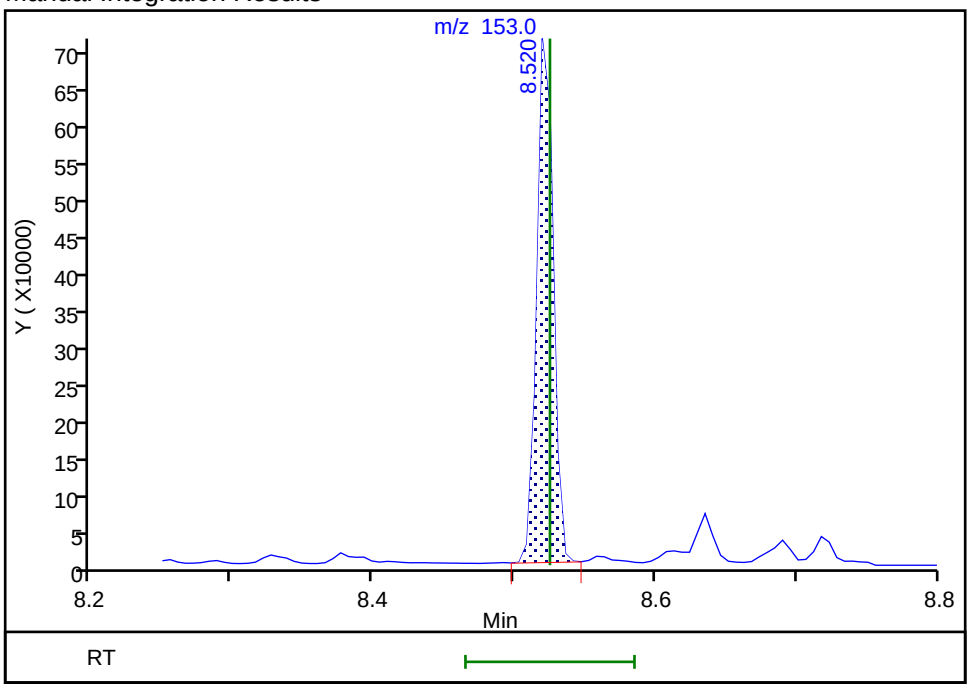
Processing Integration Results

RT: 8.52
Area: 588433
Amount: 229.1619
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 577510
Amount: 224.9080
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:22:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

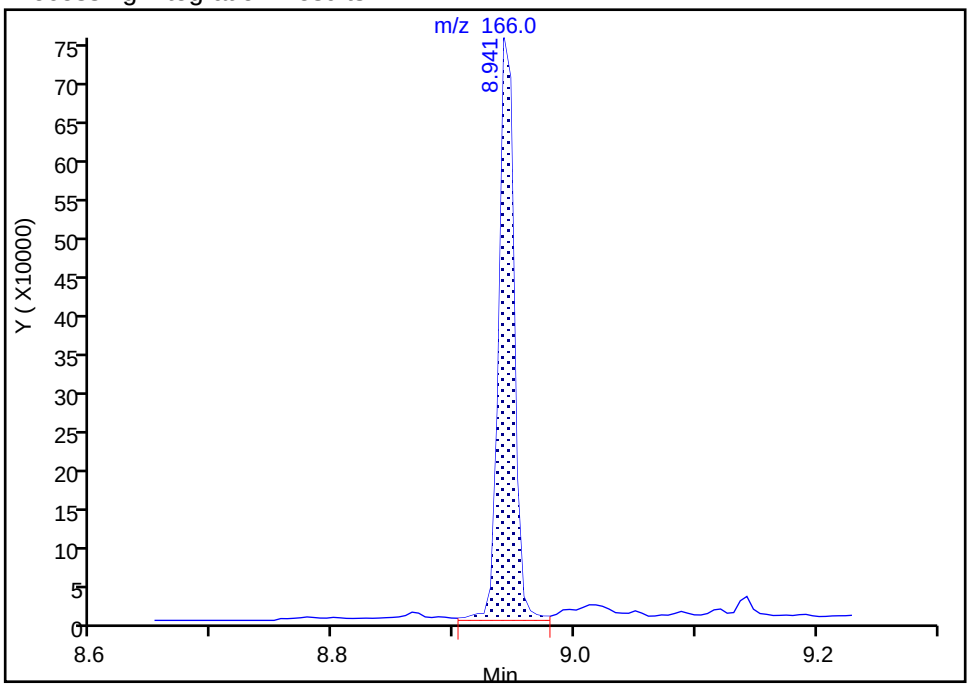
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

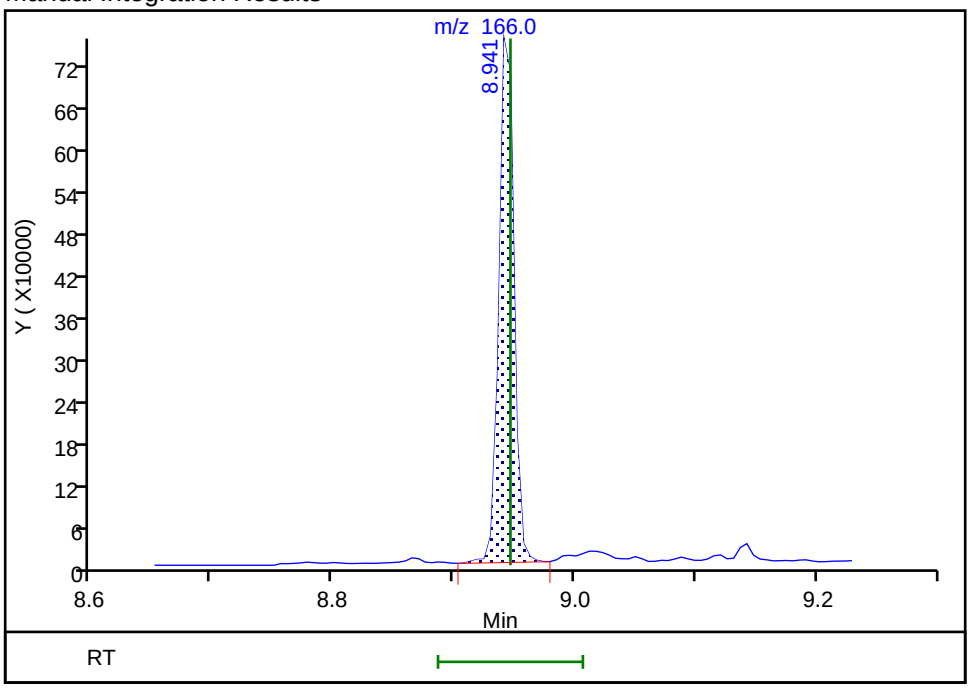
Processing Integration Results

RT: 8.94
Area: 665787
Amount: 258.9461
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 648291
Amount: 252.1413
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:23:00

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

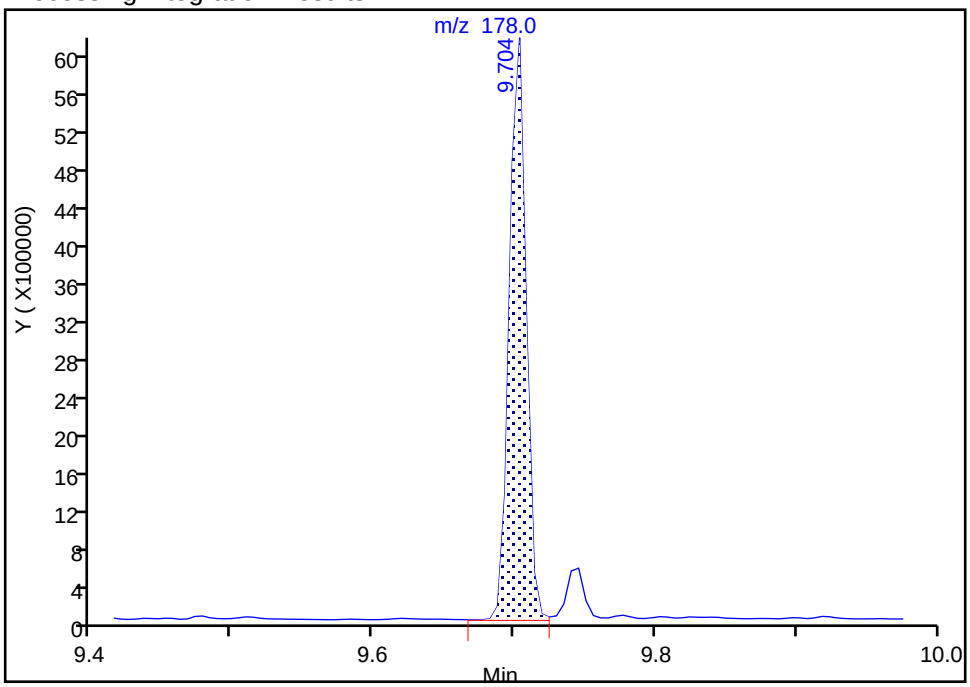
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

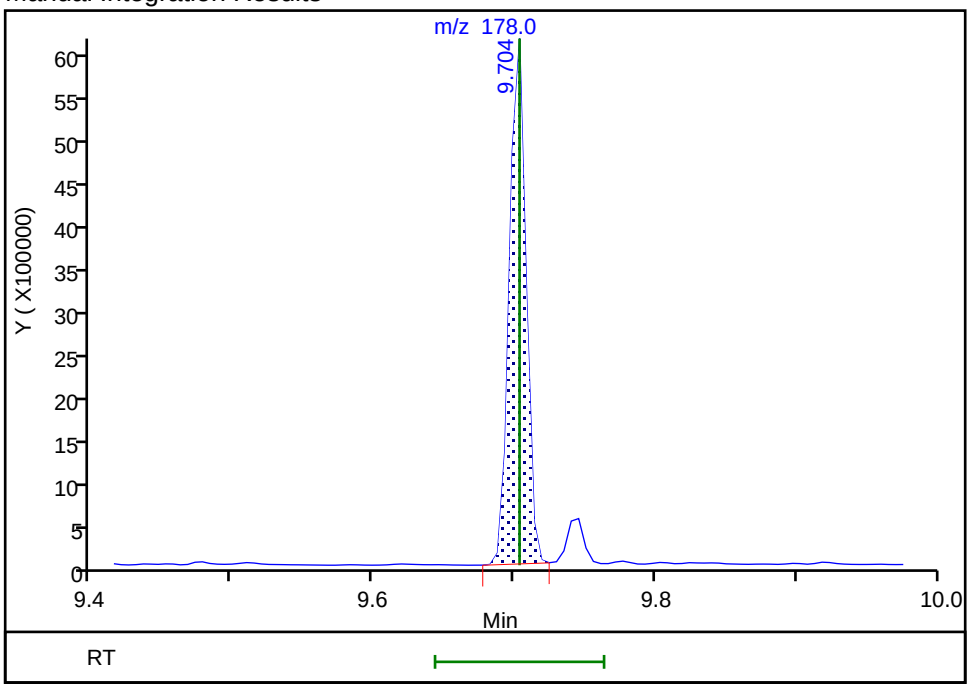
Processing Integration Results

RT: 9.70
Area: 5113760
Amount: 1348.4664
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 5051035
Amount: 1331.9262
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:23:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

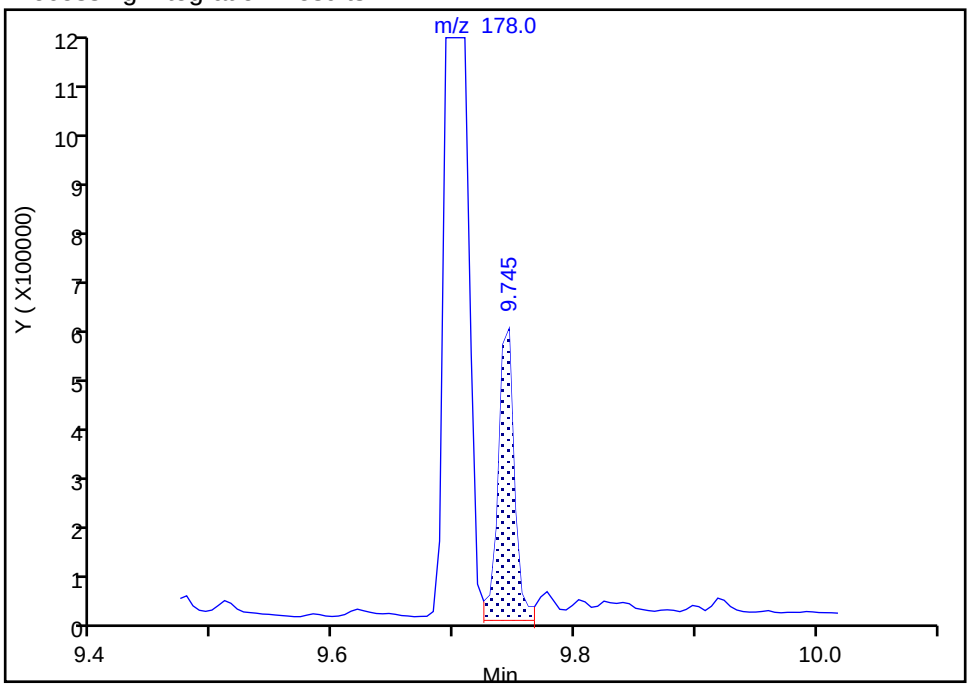
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

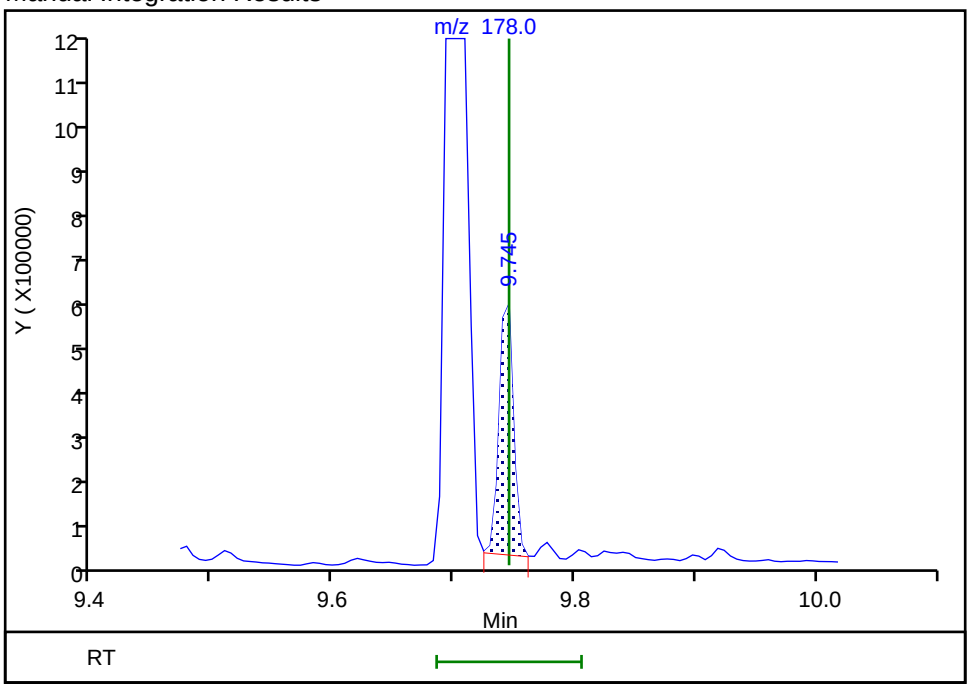
Processing Integration Results

RT: 9.75
Area: 510017
Amount: 144.6598
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 438321
Amount: 124.3241
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:23:13

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

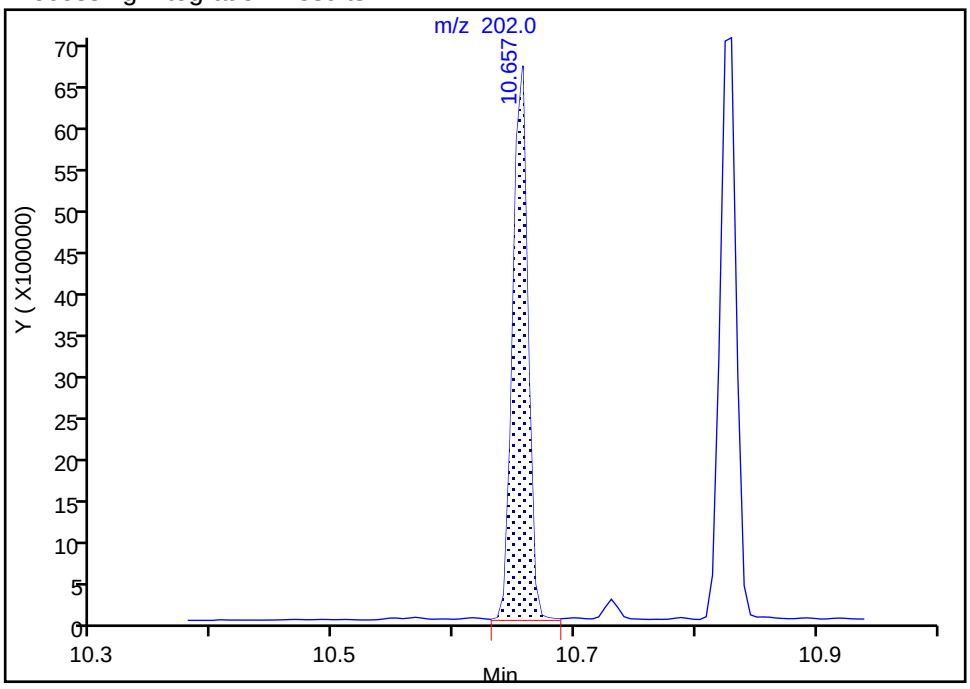
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

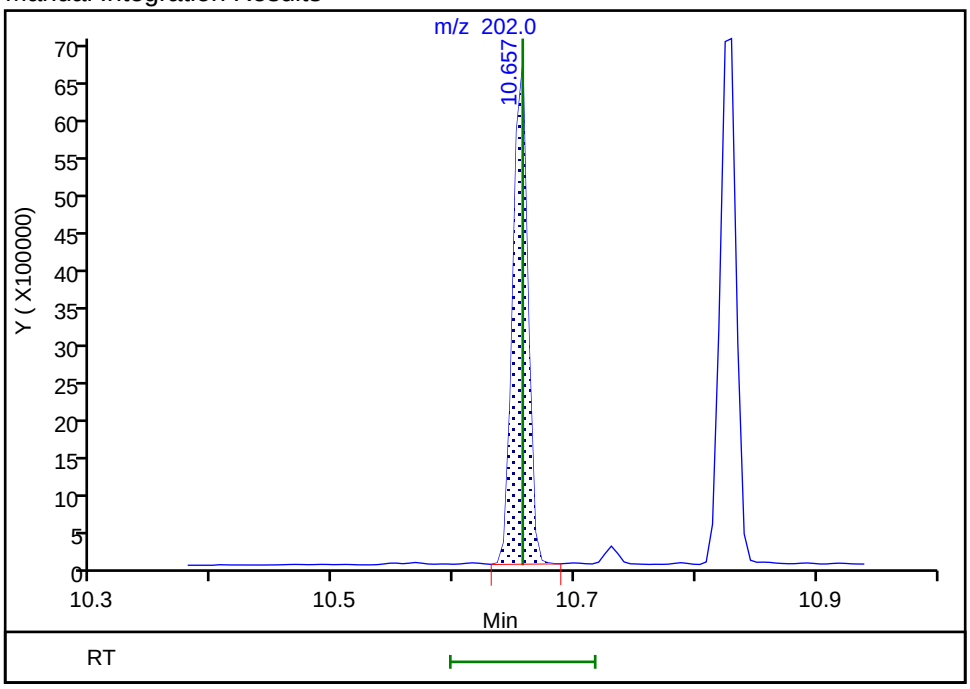
Processing Integration Results

RT: 10.66
Area: 5816331
Amount: 1618.9206
Amount Units: ug/L



Manual Integration Results

RT: 10.66
Area: 5766988
Amount: 1605.1865
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:23:19

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

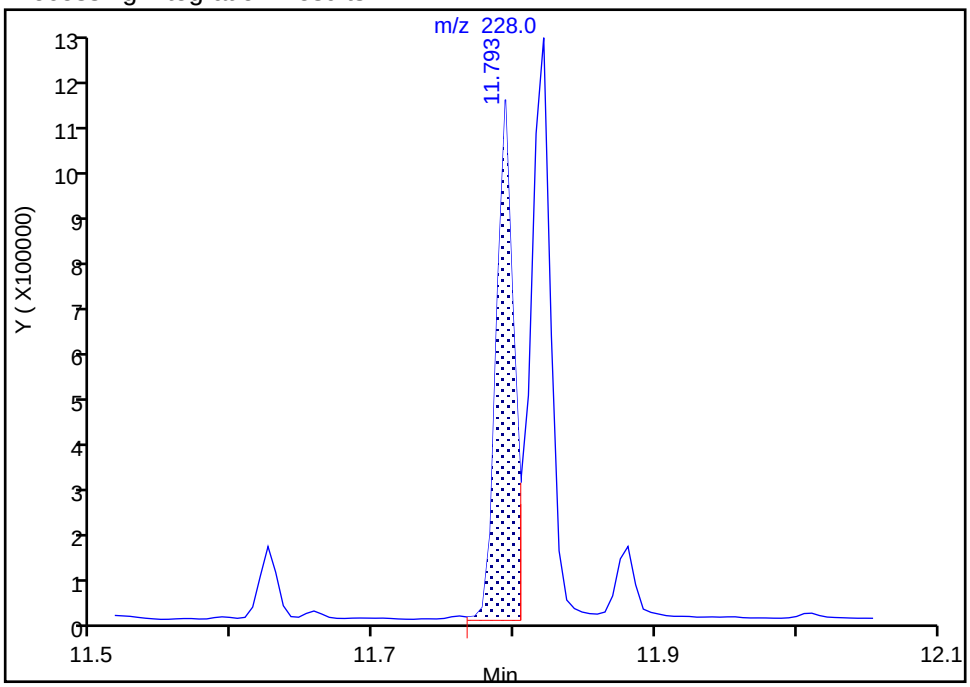
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

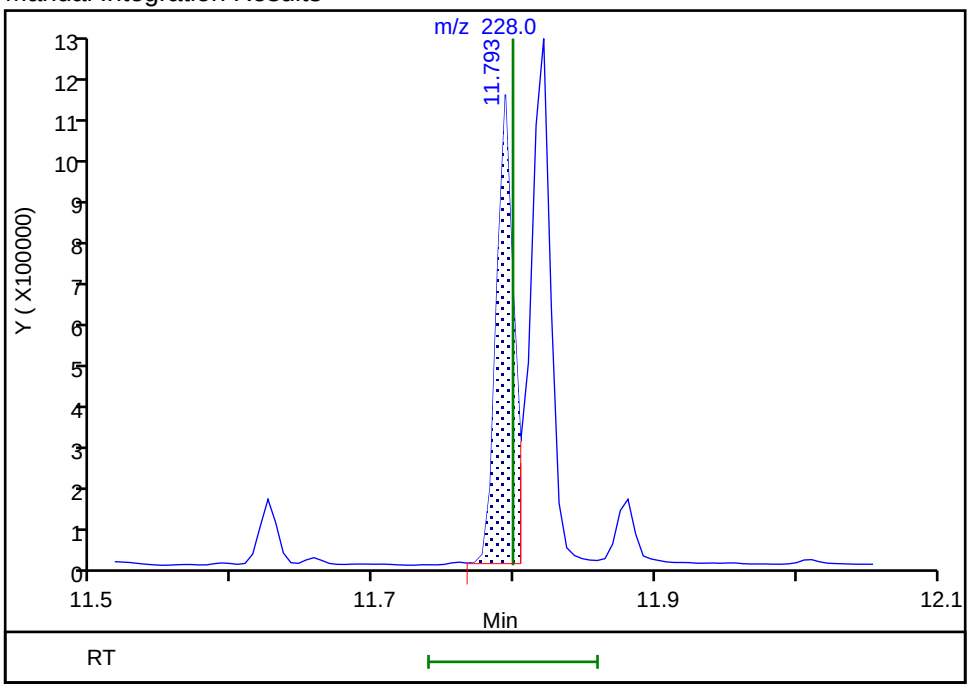
Processing Integration Results

RT: 11.79
Area: 918998
Amount: 378.3021
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 905815
Amount: 372.8754
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:23:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

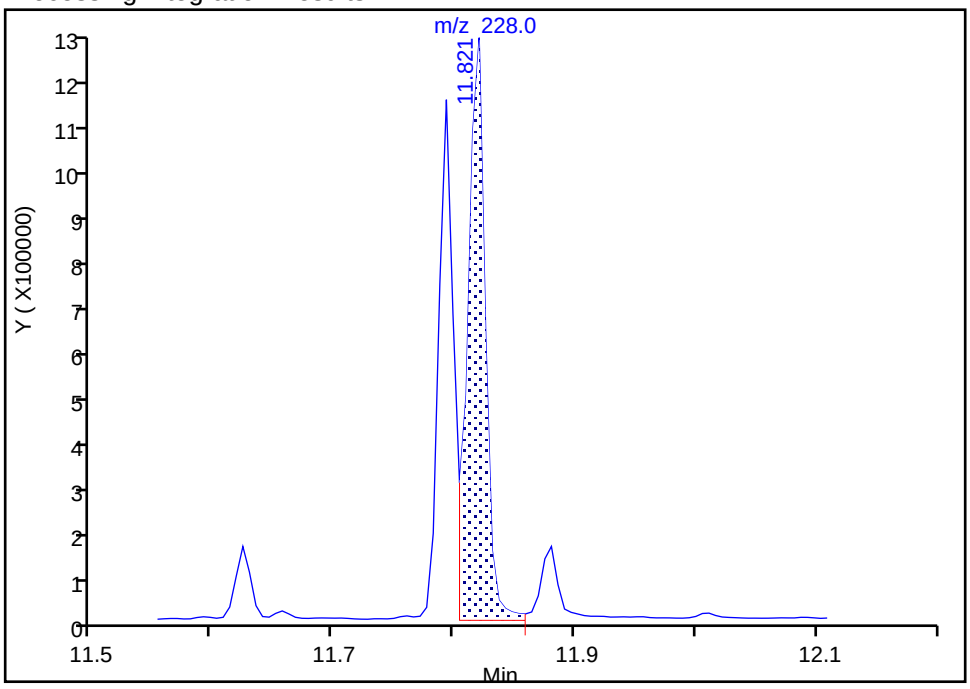
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

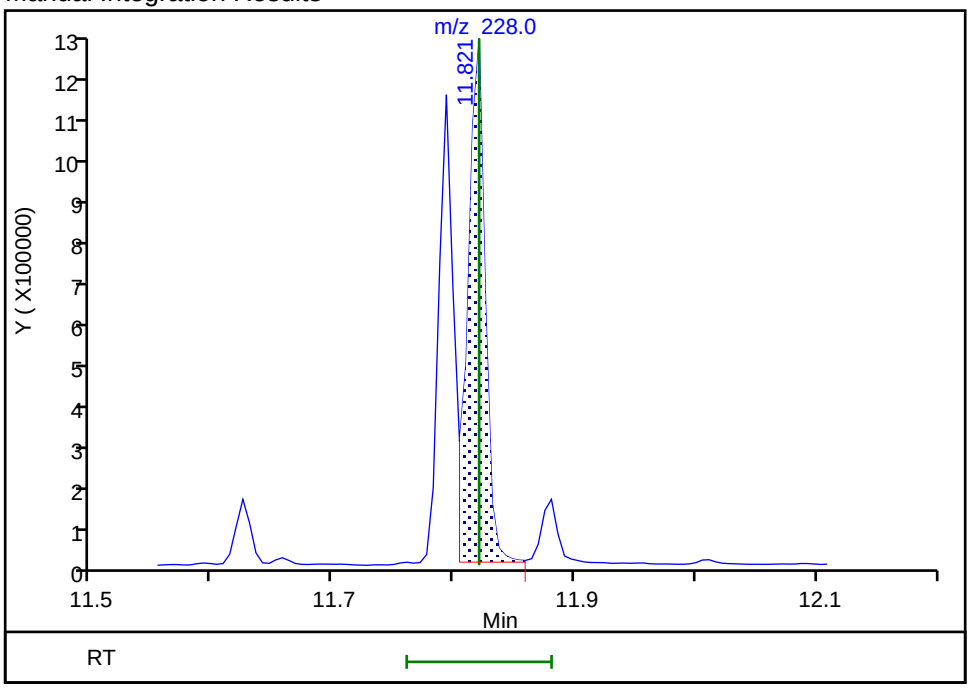
Processing Integration Results

RT: 11.82
Area: 1214564
Amount: 375.9597
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 1183337
Amount: 366.2936
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:23:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

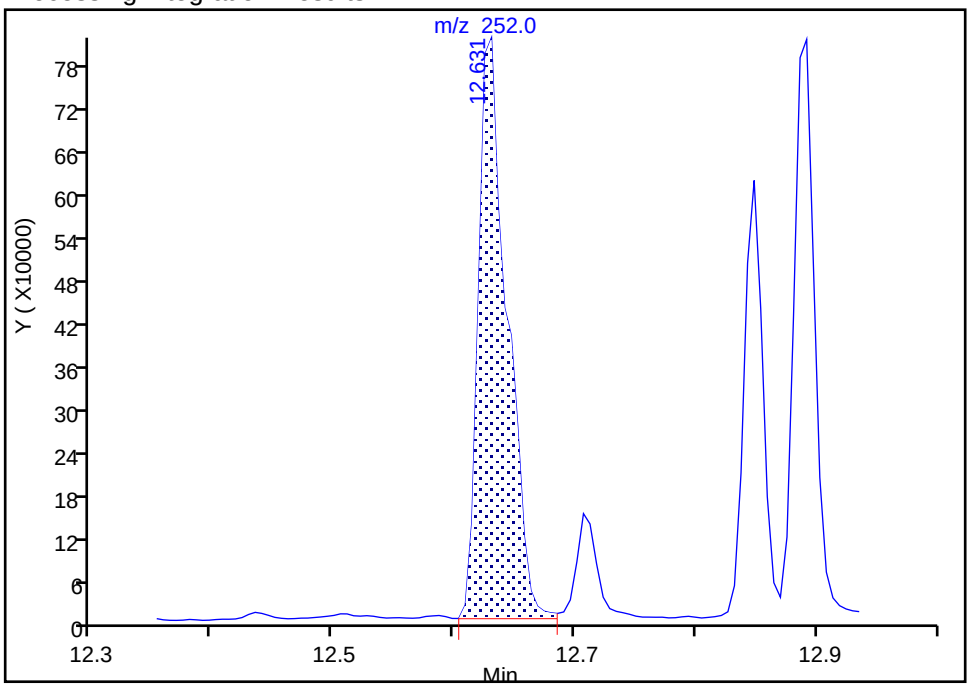
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

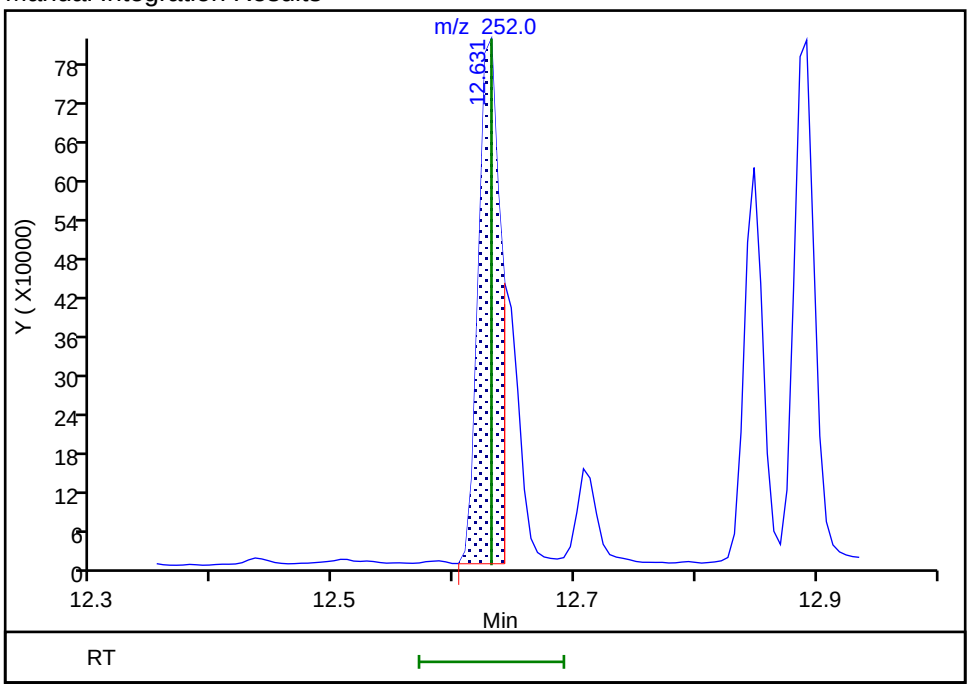
Processing Integration Results

RT: 12.63
Area: 1325191
Amount: 429.2189
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 976225
Amount: 316.1915
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:25:02

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

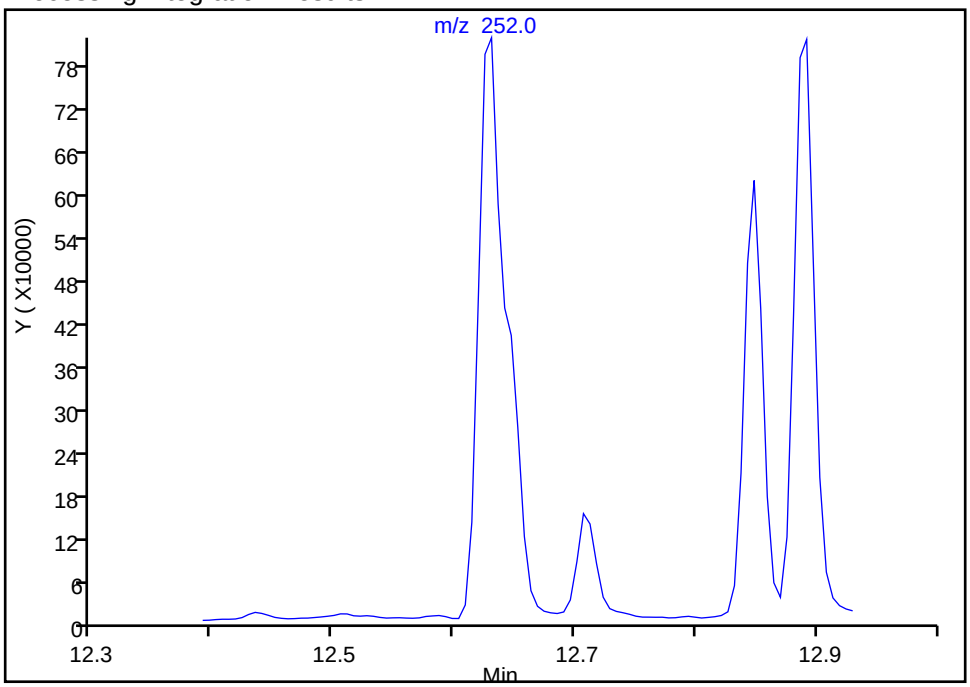
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

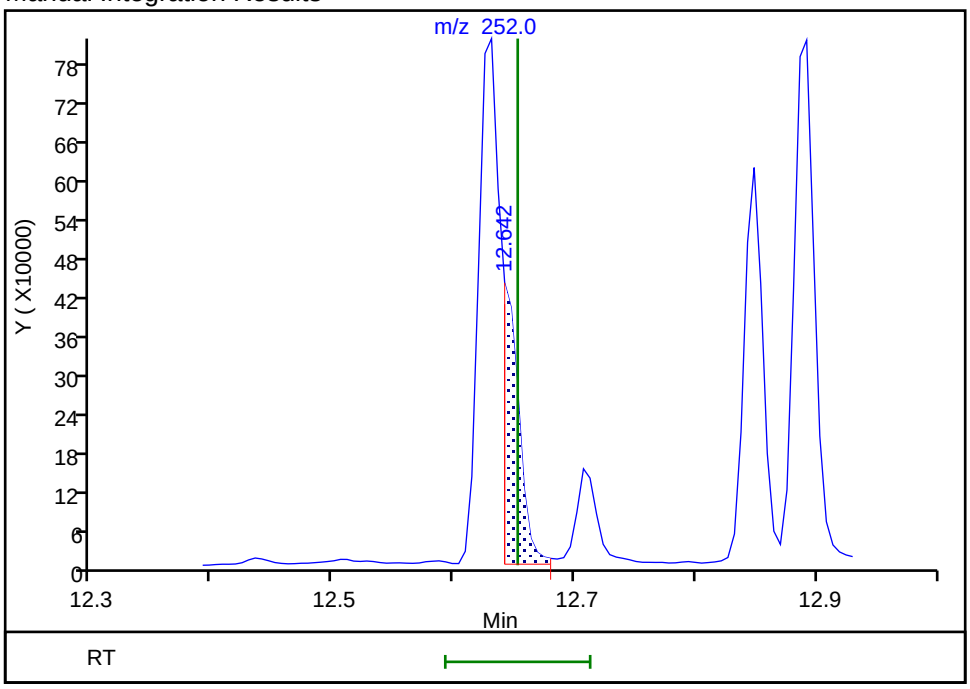
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 347957
Amount: 92.117435
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:25:14
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

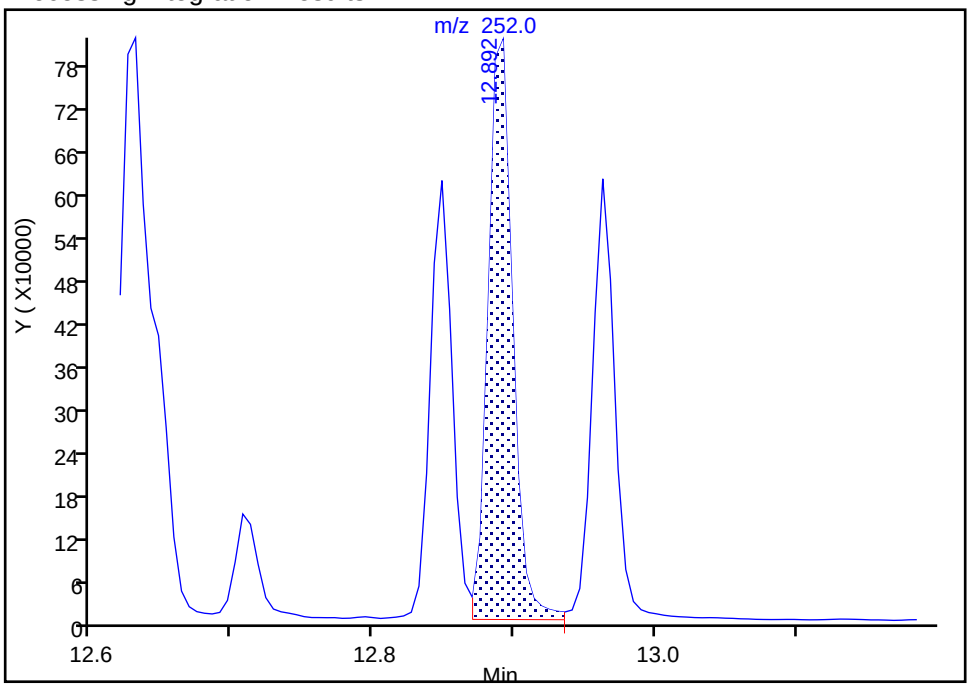
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

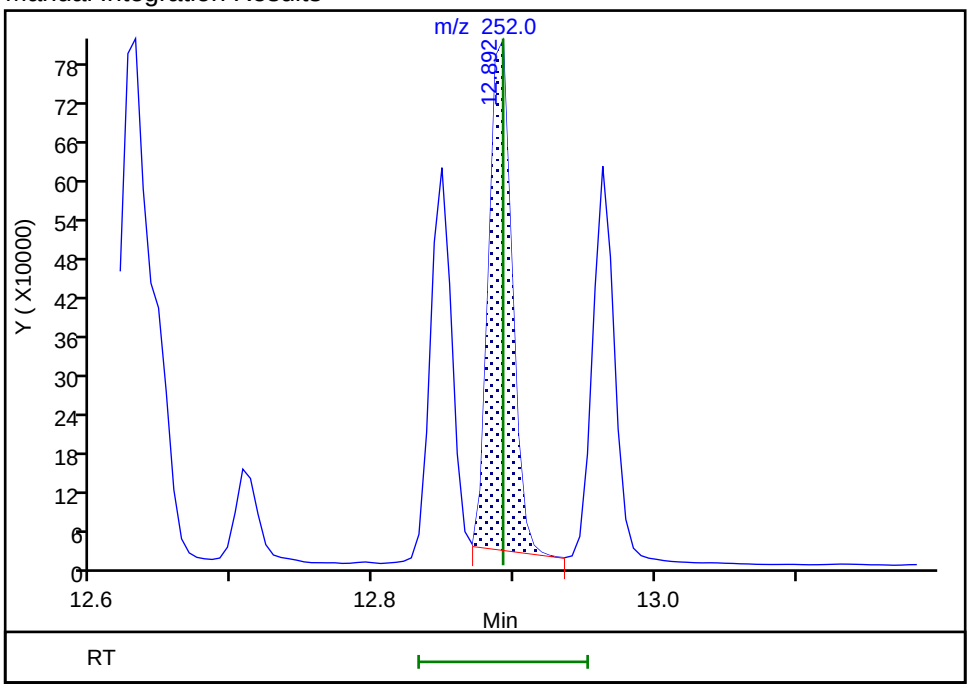
Processing Integration Results

RT: 12.89
Area: 973434
Amount: 311.2312
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 900787
Amount: 288.0042
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:25:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

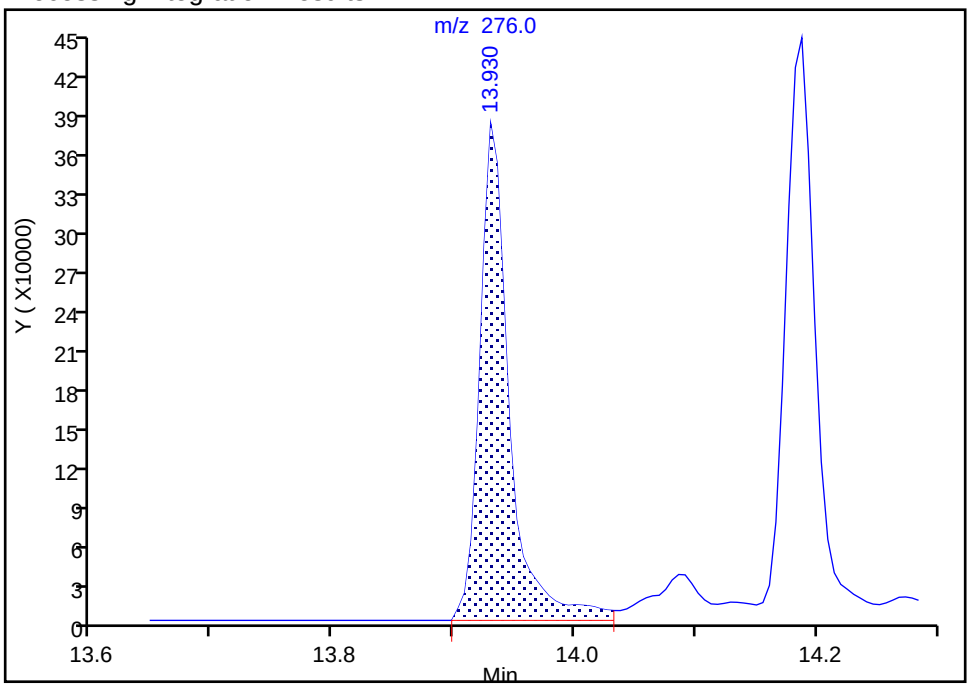
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

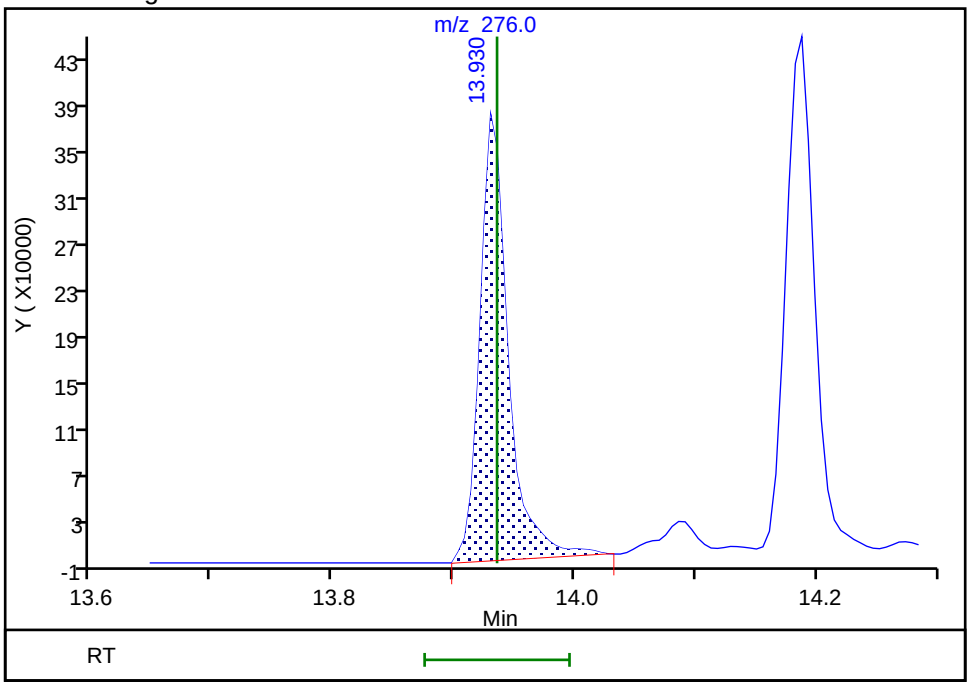
Processing Integration Results

RT: 13.93
Area: 643181
Amount: 265.7239
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 612291
Amount: 253.1577
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:25:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

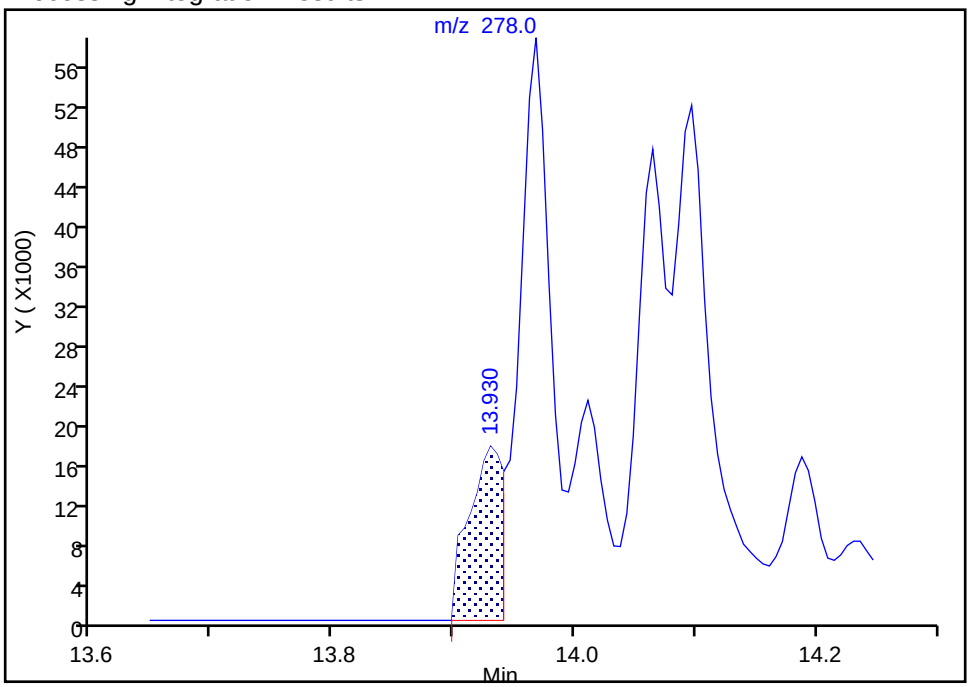
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

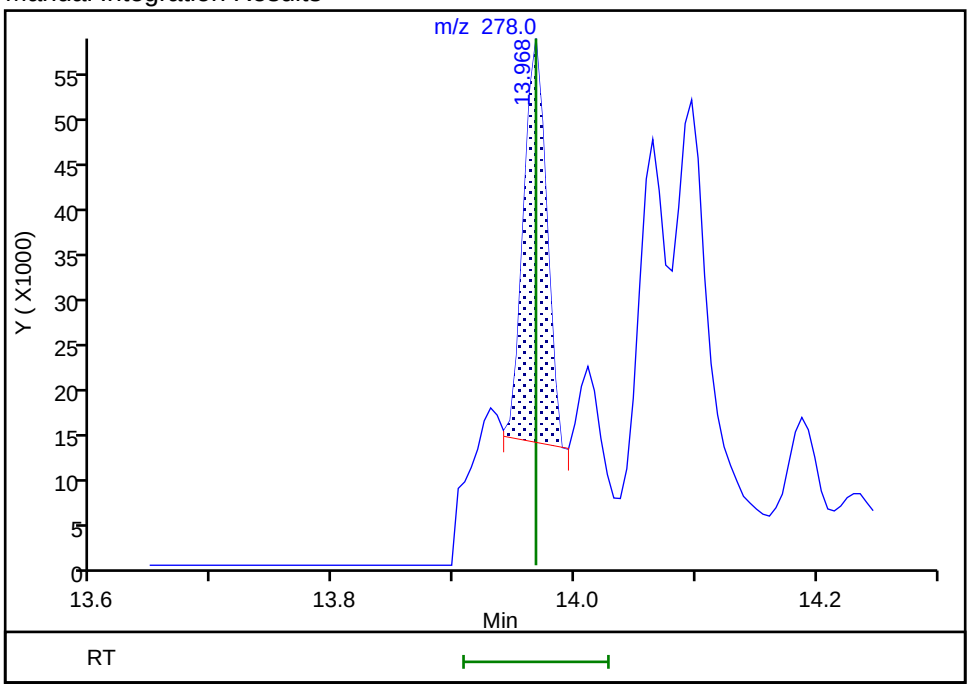
Processing Integration Results

RT: 13.93
Area: 31708
Amount: 11.506636
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 58360
Amount: 20.246563
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:25:39

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

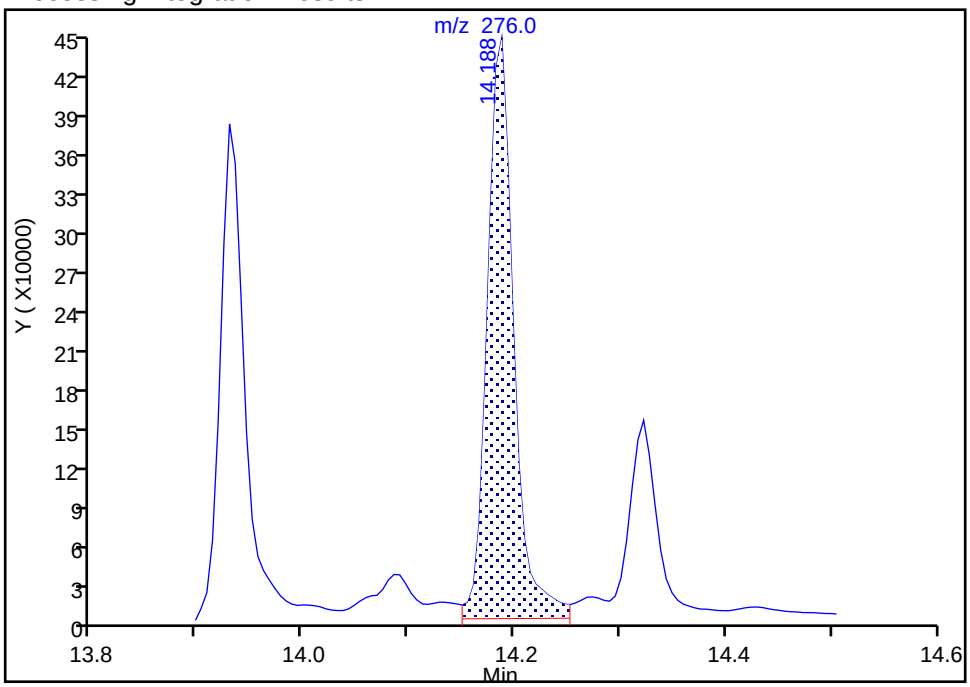
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A013.D				
Injection Date:	22-Jul-2019 16:01:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

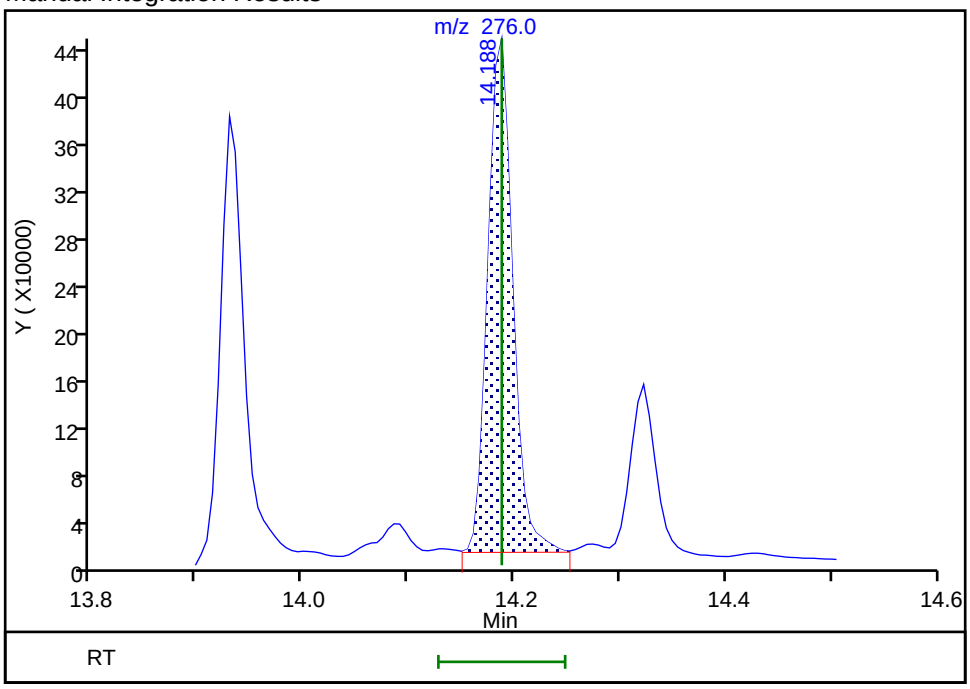
Processing Integration Results

RT: 14.19
Area: 768870
Amount: 222.8973
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 710595
Amount: 206.0231
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:25:45

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 DL Lab Sample ID: 580-87706-6 DL

Matrix: Solid Lab File ID: 072319B027.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 10:09

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.075(g) Date Analyzed: 07/24/2019 02:17

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306419 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
129-00-0	Pyrene	3300		82	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	70		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B027.D
Lims ID: 580-87706-A-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 24-Jul-2019 02:17:30 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 580-87706-a-6-a
Misc. Info.: 10X RA
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 24-Jul-2019 10:20:12 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: limmere Date: 24-Jul-2019 10:20:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	337283	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	93	153653	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	270635	100.0	
* 4 Chrysene-d12	240	11.810	11.810	0.000	99	218148	100.0	
* 5 Perylene-d12	264	12.952	12.952	0.000	100	234981	100.0	
$ 9 Terphenyl-d14	244	11.008	11.008	0.000	99	144428	70.5	
10 Naphthalene	128	7.004	7.004	0.000	100	49464	13.1	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	98	9376	3.79	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	100	4265	1.85	
13 Acenaphthylene	152	8.376	8.377	-0.001	98	13679	4.08	
14 Acenaphthene	153	8.525	8.525	0.000	94	52985	21.8	M
15 Fluorene	166	8.941	8.947	-0.006	91	59362	24.4	
17 Phenanthrene	178	9.703	9.704	-0.001	100	508830	138.5	
18 Anthracene	178	9.745	9.745	0.000	99	50804	14.9	
19 Fluoranthene	202	10.657	10.657	0.000	100	613180	176.2	
20 Pyrene	202	10.830	10.830	0.000	100	739186	201.6	
21 Benzo[a]anthracene	228	11.799	11.799	0.000	95	82476	33.2	
22 Chrysene	228	11.826	11.826	0.000	97	115507	34.9	
23 Benzo[b]fluoranthene	252	12.636	12.636	0.000	98	85730	28.3	M
24 Benzo[k]fluoranthene	252	12.647	12.653	-0.006	1	38594	10.4	M
25 Benzo[a]pyrene	252	12.897	12.897	0.000	99	91791	29.9	
26 Indeno[1,2,3-cd]pyrene	276	13.946	13.946	0.000	99	59695	25.6	
27 Dibenz(a,h)anthracene	278	13.978	13.978	0.000	100	5309	2.88	M
28 Benzo[g,h,i]perylene	276	14.199	14.199	0.000	98	67570	20.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

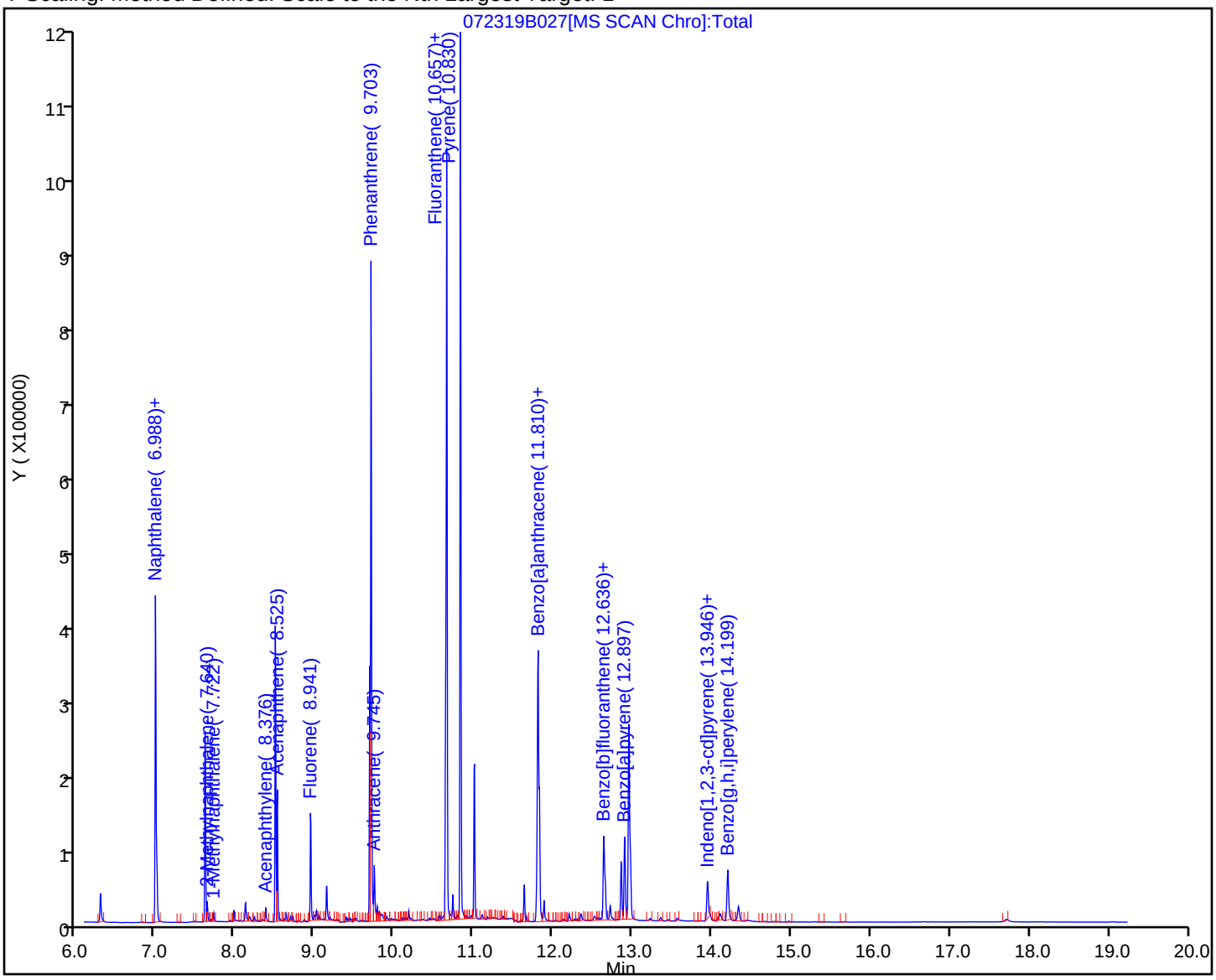
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 10:20:13 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B027.D				
Injection Date:	24-Jul-2019 02:17:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B027.D
Lims ID: 580-87706-A-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 24-Jul-2019 02:17:30 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 580-87706-a-6-a
Misc. Info.: 10X RA
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 24-Jul-2019 10:20:12 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: limmere Date: 24-Jul-2019 10:20:12

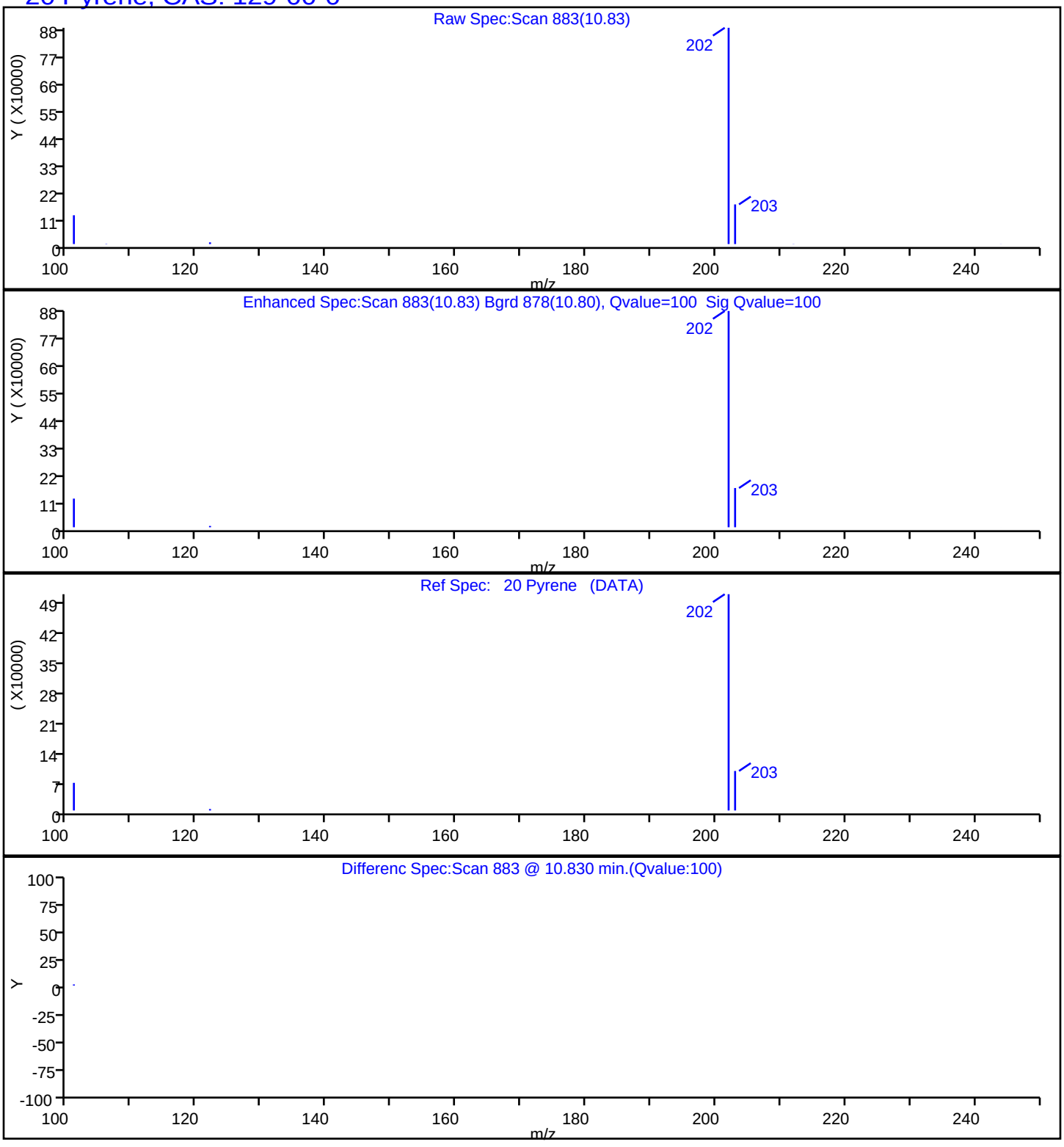
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	70.5	7.05

Report Date: 24-Jul-2019 10:20:13 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B027.D				
Injection Date:	24-Jul-2019 02:17:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-6-A	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	KFS	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 072219A014.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 10:31

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 11.466(g) Date Analyzed: 07/22/2019 16:27

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	280		9.7	3.2
91-57-6	2-Methylnaphthalene	110		9.7	4.0
90-12-0	1-Methylnaphthalene	84		9.7	1.2
208-96-8	Acenaphthylene	42		9.7	0.97
83-32-9	Acenaphthene	100		9.7	1.2
86-73-7	Fluorene	120		9.7	0.97
85-01-8	Phenanthrene	670		9.7	3.2
120-12-7	Anthracene	120		9.7	1.2
206-44-0	Fluoranthene	650		9.7	2.7
129-00-0	Pyrene	740		9.7	1.9
56-55-3	Benzo[a]anthracene	240		9.7	1.5
218-01-9	Chrysene	240		9.7	2.9
205-99-2	Benzo[b]fluoranthene	270		9.7	1.1
207-08-9	Benzo[k]fluoranthene	70		9.7	1.2
50-32-8	Benzo[a]pyrene	250		9.7	1.6
193-39-5	Indeno[1,2,3-cd]pyrene	260		9.7	1.2
53-70-3	Dibenz(a,h)anthracene	26	B	9.7	1.4
191-24-2	Benzo[g,h,i]perylene	230	B	9.7	0.97

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	65		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D
Lims ID: 580-87706-A-7-A
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:27:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-7-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:30:06 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:30:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	374007	100.0	M
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	96	171865	100.0	M
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	301393	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	229573	100.0	M
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	270281	100.0	
$ 9 Terphenyl-d14	244	11.003	11.002	0.000	99	1486536	651.4	
10 Naphthalene	128	7.004	7.004	0.000	100	593128	141.9	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	94	150534	54.9	
12 1-Methylnaphthalene	142	7.717	7.722	-0.005	95	110658	43.3	M
13 Acenaphthylene	152	8.377	8.376	0.001	98	81467	21.7	M
14 Acenaphthene	153	8.520	8.525	-0.005	81	143219	52.6	M
15 Fluorene	166	8.941	8.947	-0.006	94	164556	60.4	M
17 Phenanthrene	178	9.704	9.704	0.000	100	1410724	344.8	
18 Anthracene	178	9.745	9.745	0.000	99	234568	61.7	M
19 Fluoranthene	202	10.652	10.657	-0.005	98	1293543	333.7	M
20 Pyrene	202	10.824	10.830	-0.006	100	1558887	381.8	M
21 Benzo[a]anthracene	228	11.794	11.799	-0.005	98	319540	122.1	M
22 Chrysene	228	11.821	11.821	0.000	98	436022	125.3	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	487522	140.0	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	152010	35.7	M
25 Benzo[a]pyrene	252	12.886	12.892	-0.006	100	443702	125.8	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	99	363384	134.3	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	42230	13.4	M
28 Benzo[g,h,i]perylene	276	14.183	14.188	-0.005	98	451197	116.1	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

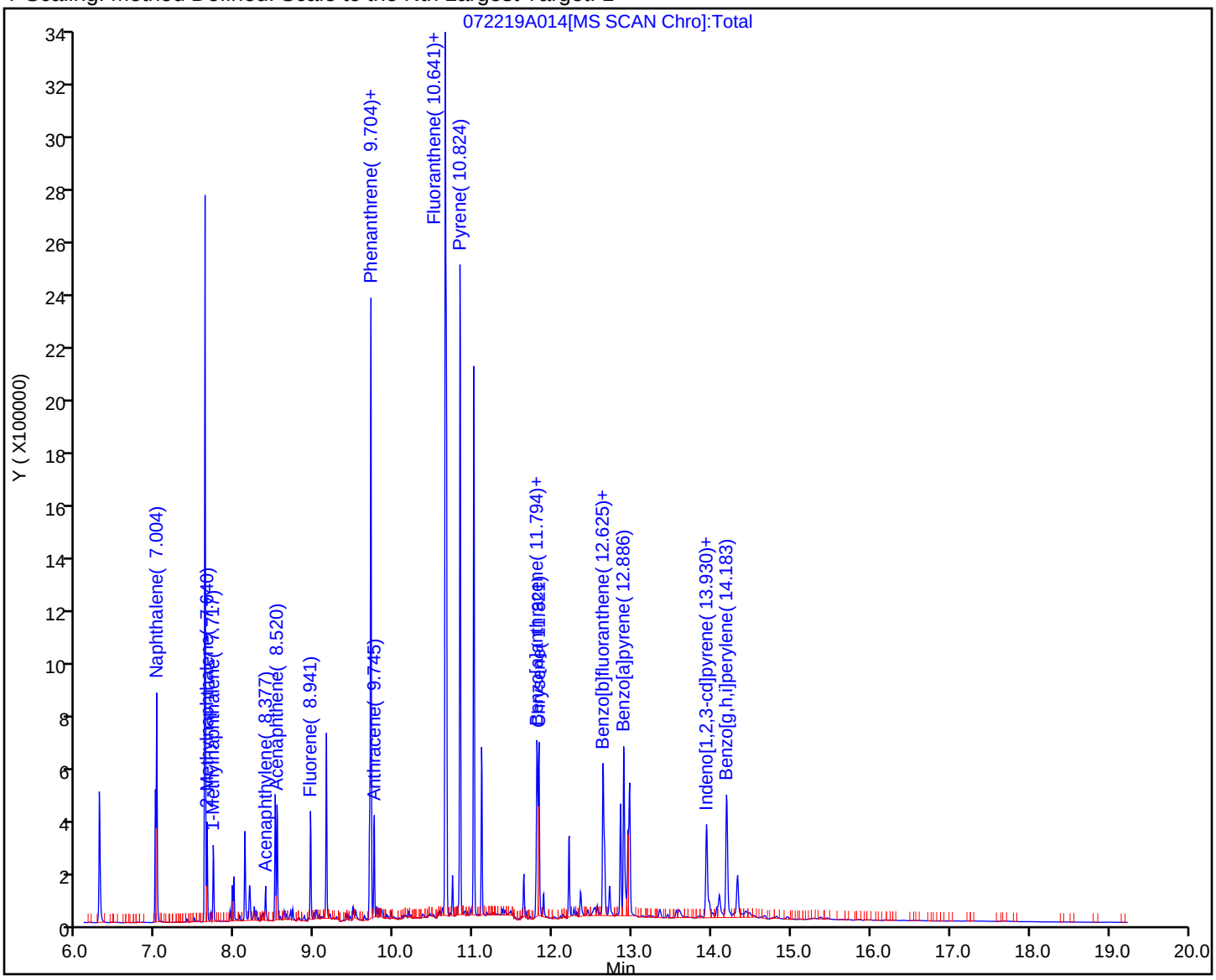
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D
Lims ID: 580-87706-A-7-A
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:27:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-7-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:30:06 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:30:06

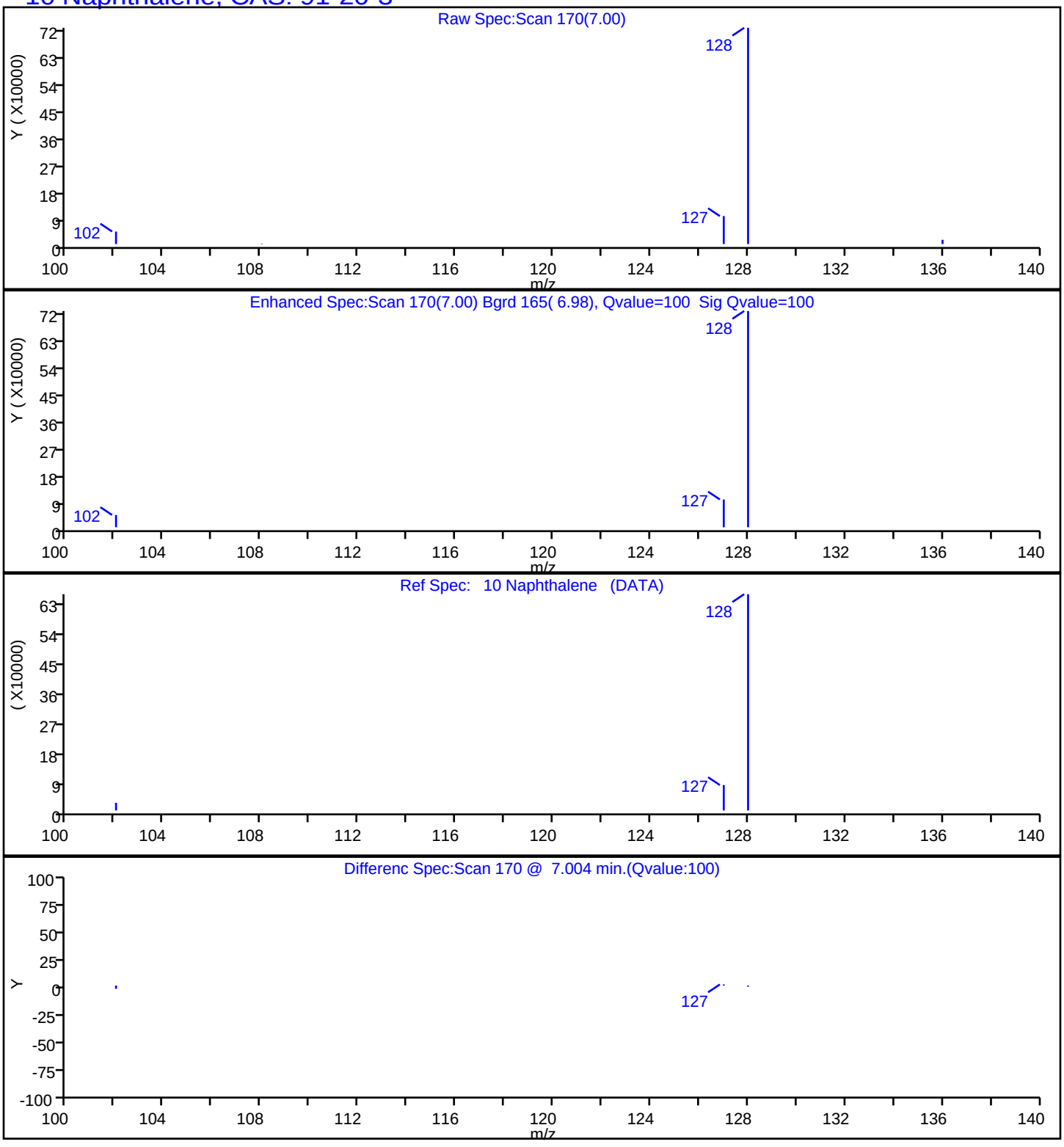
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	651.4	65.14

Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

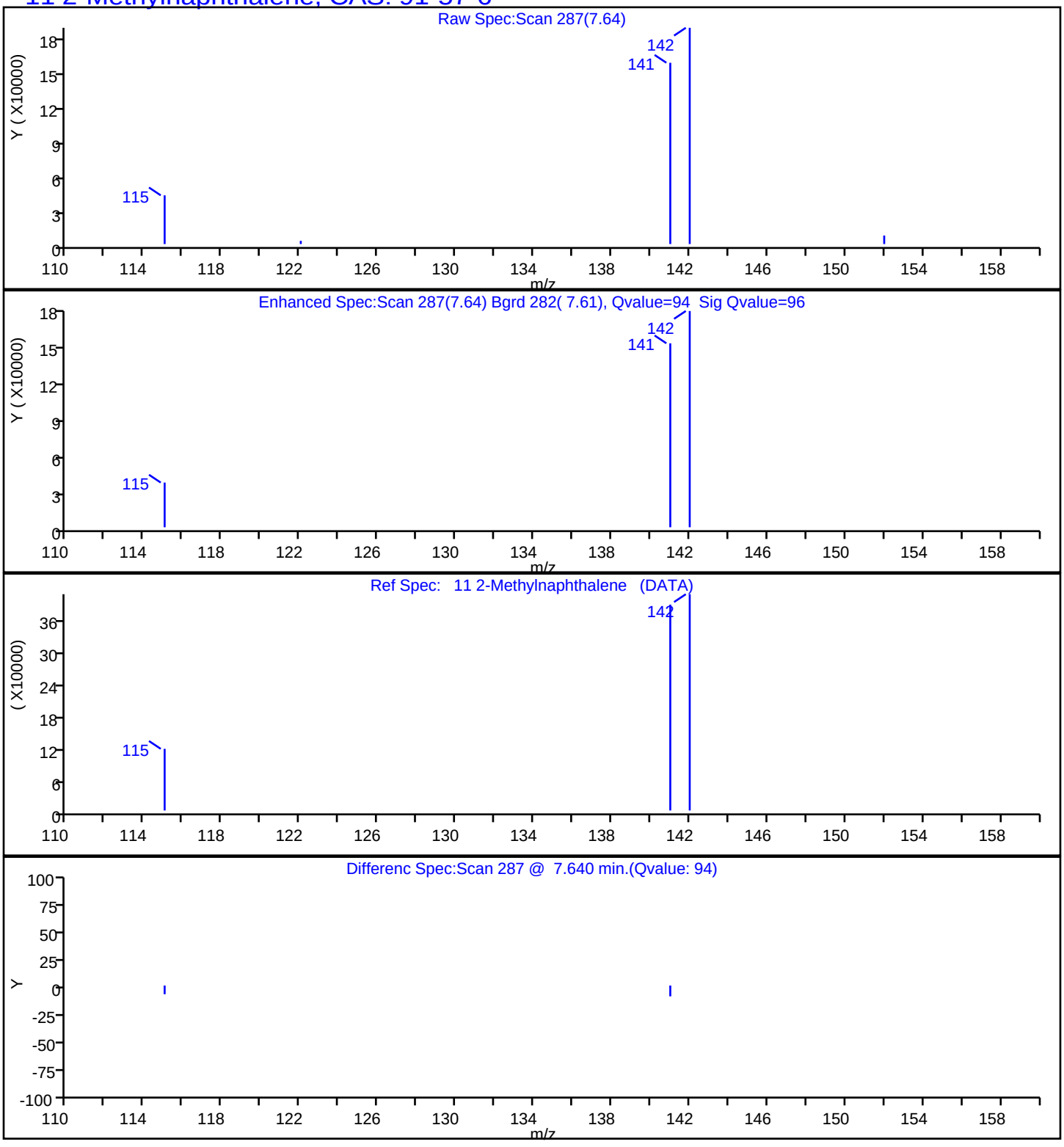


Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

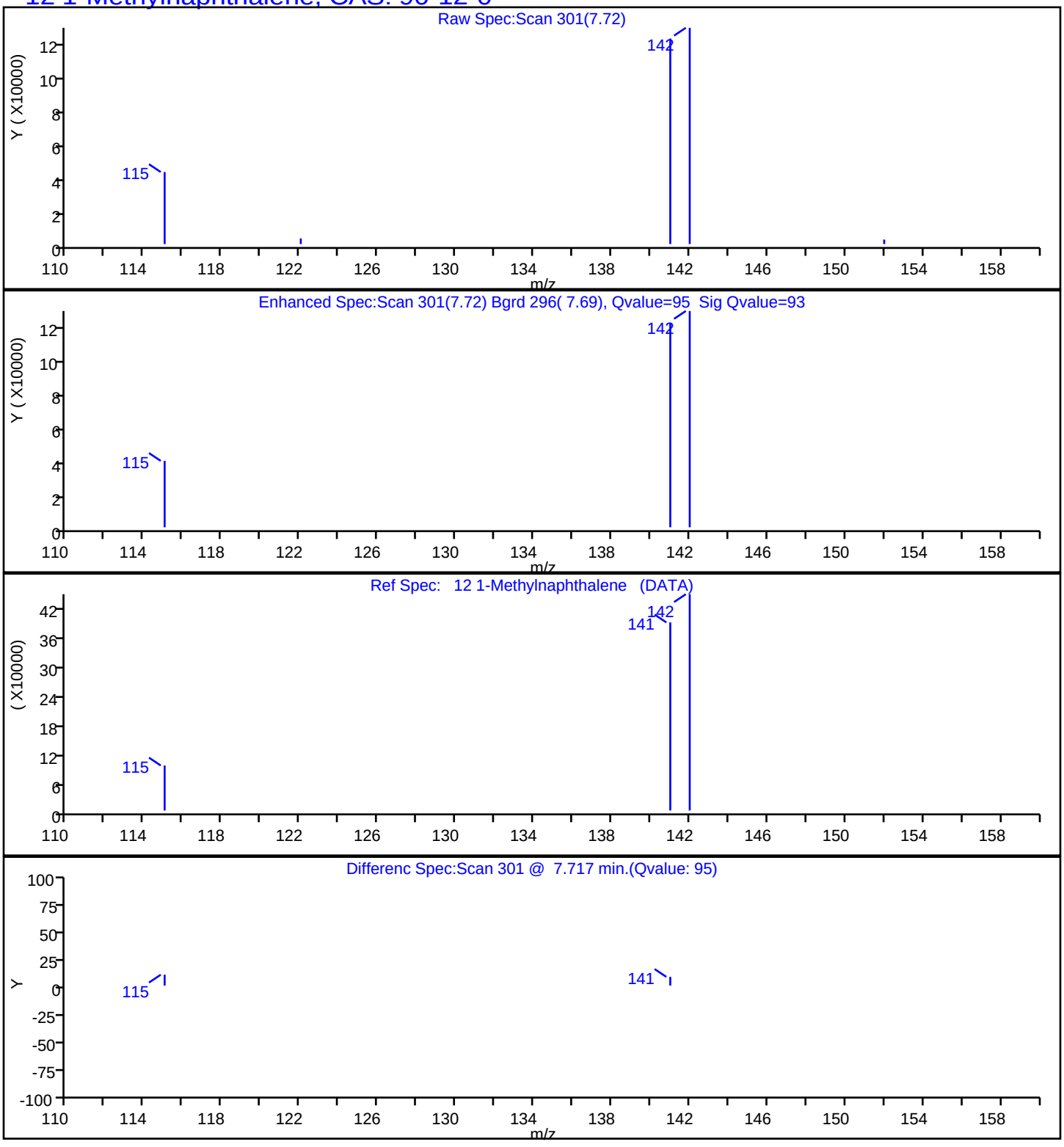


Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

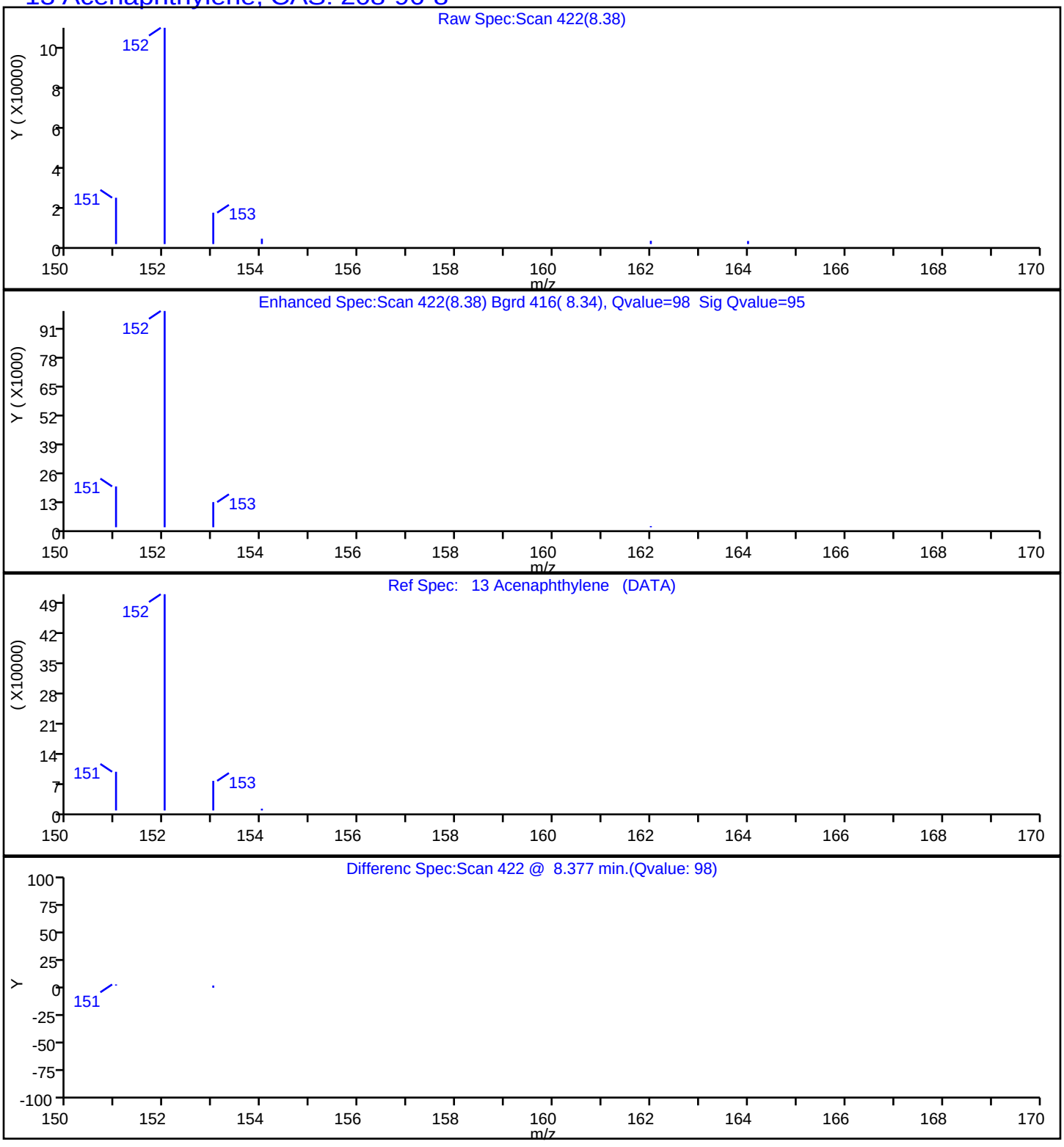


Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

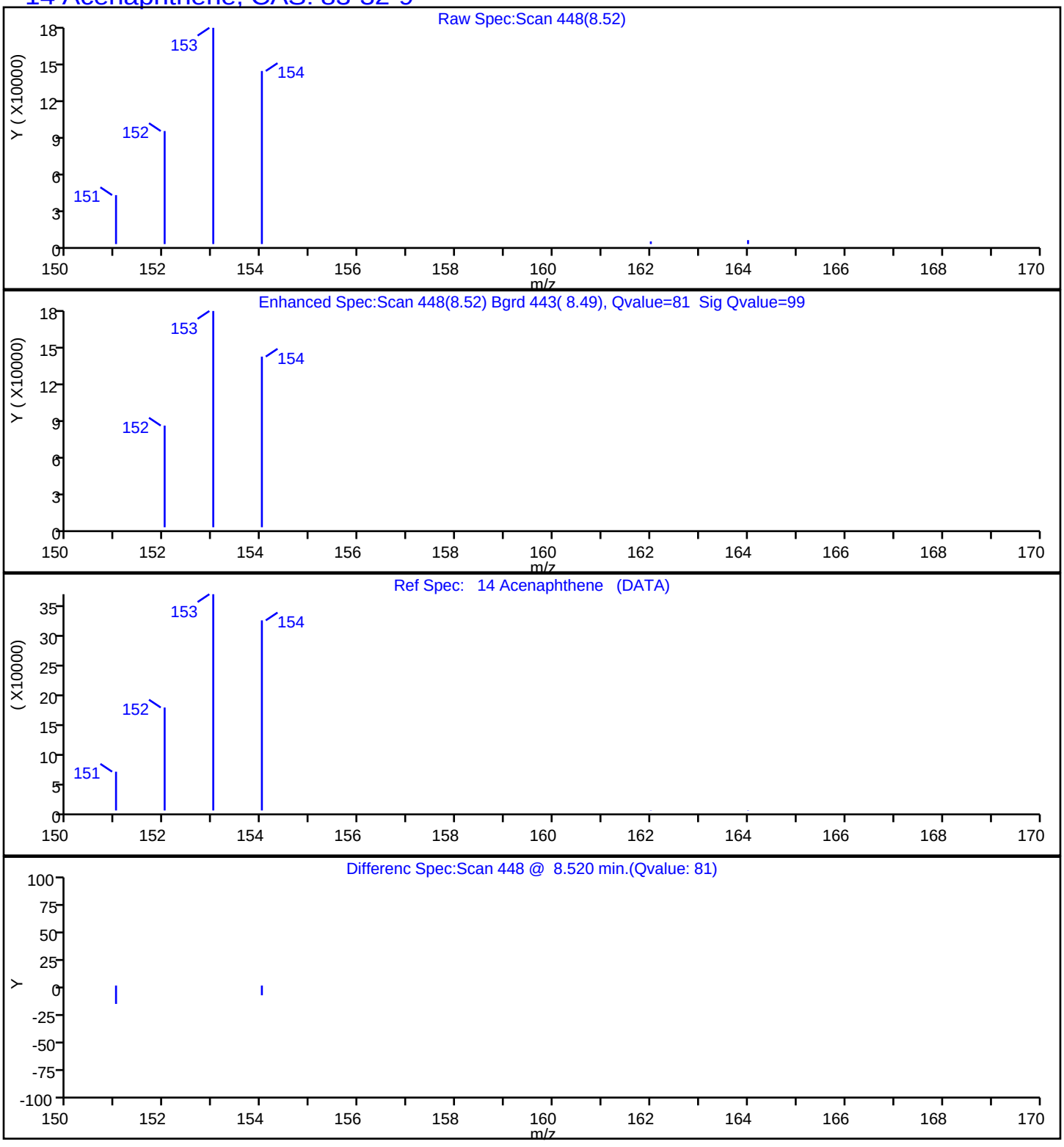


Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

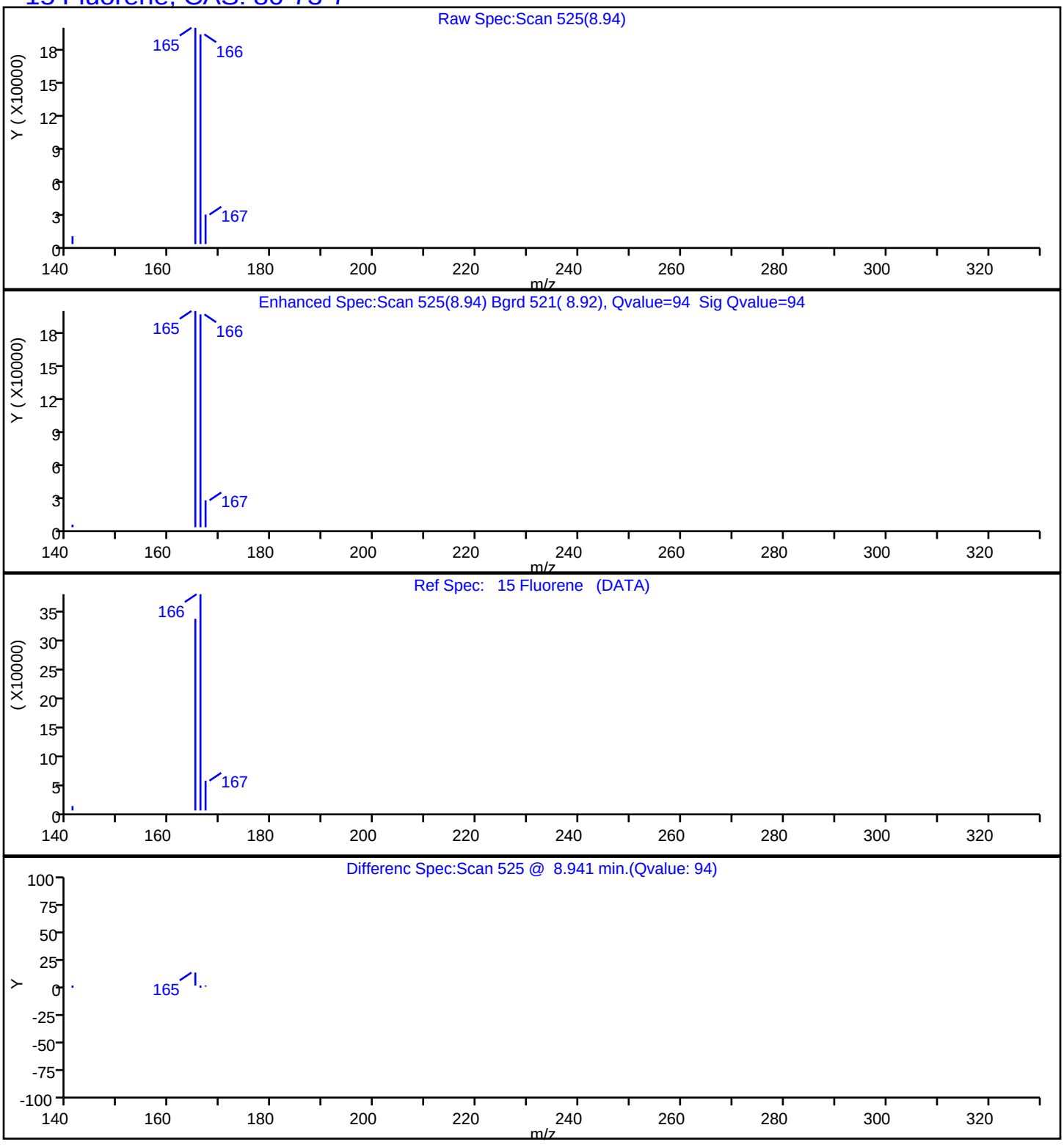


Report Date: 23-Jul-2019 14:30:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

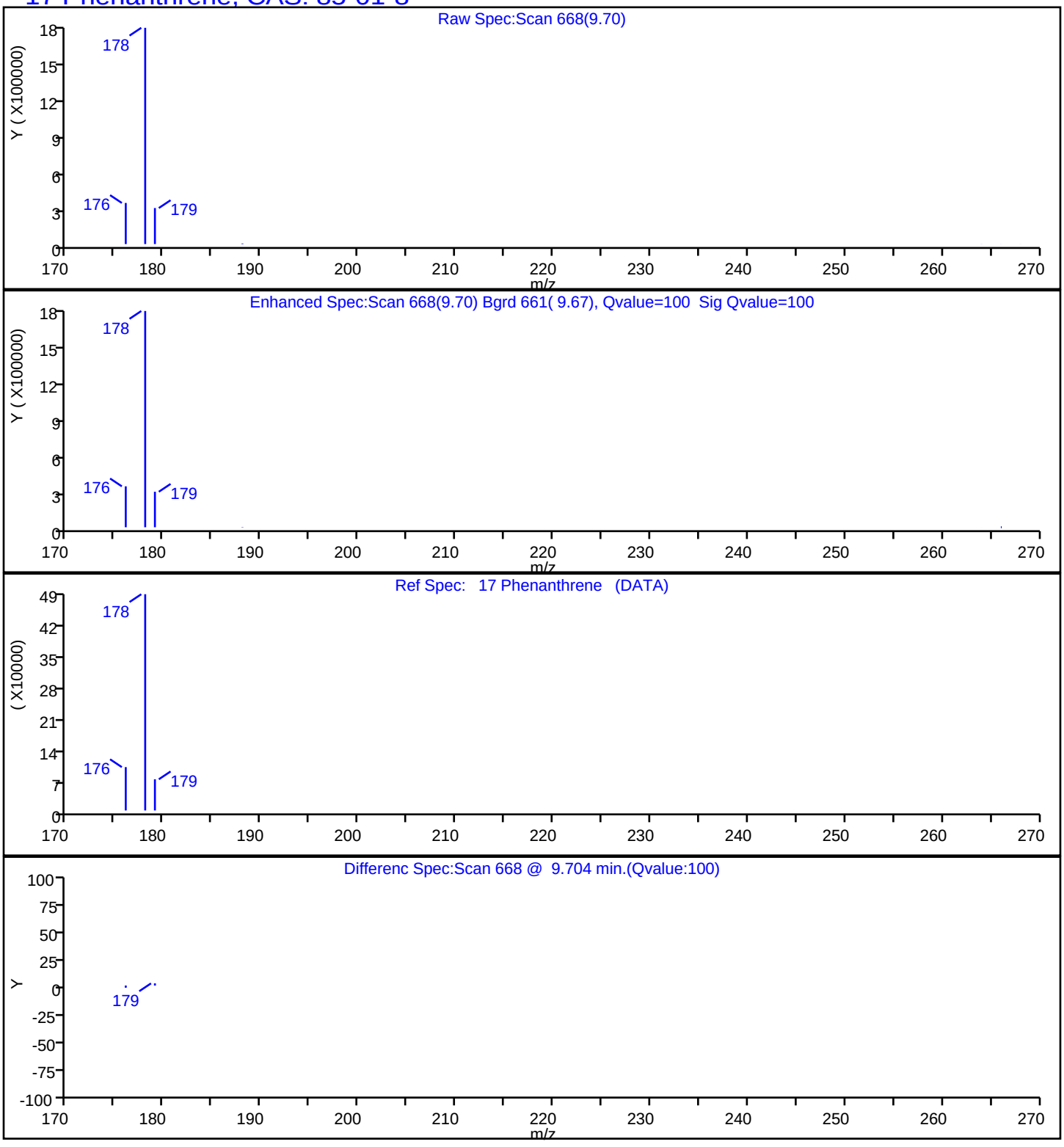


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

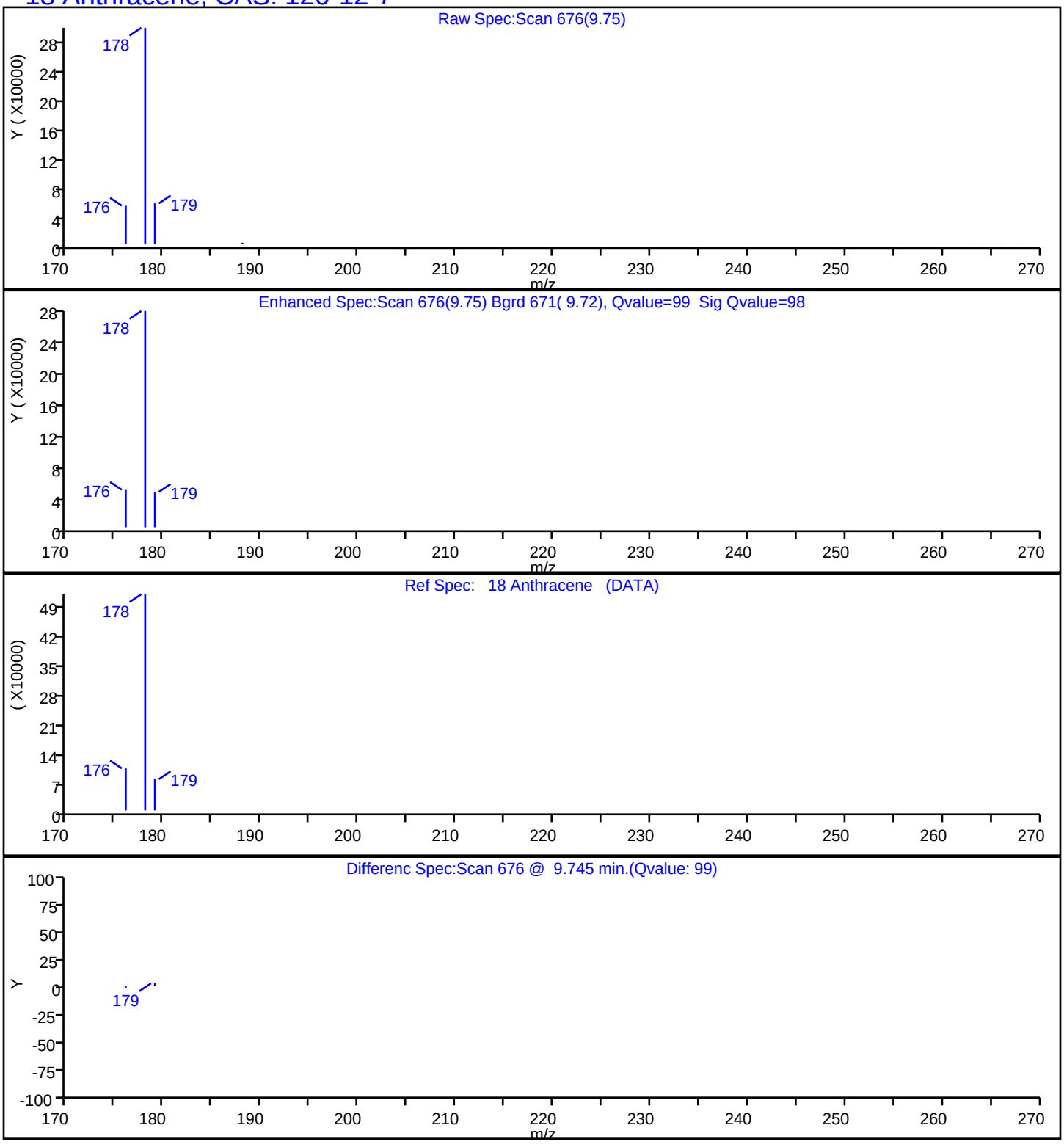


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

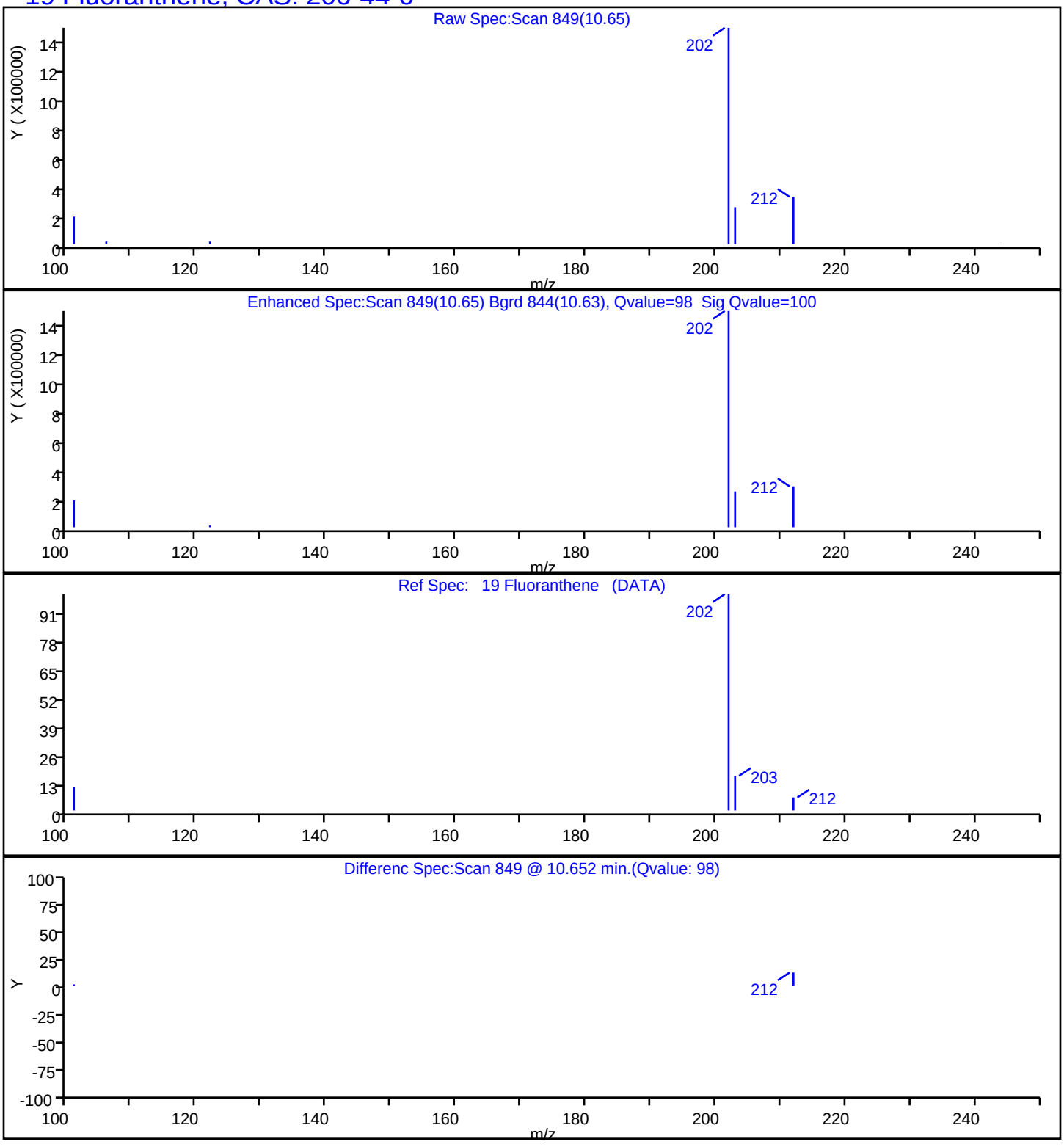


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

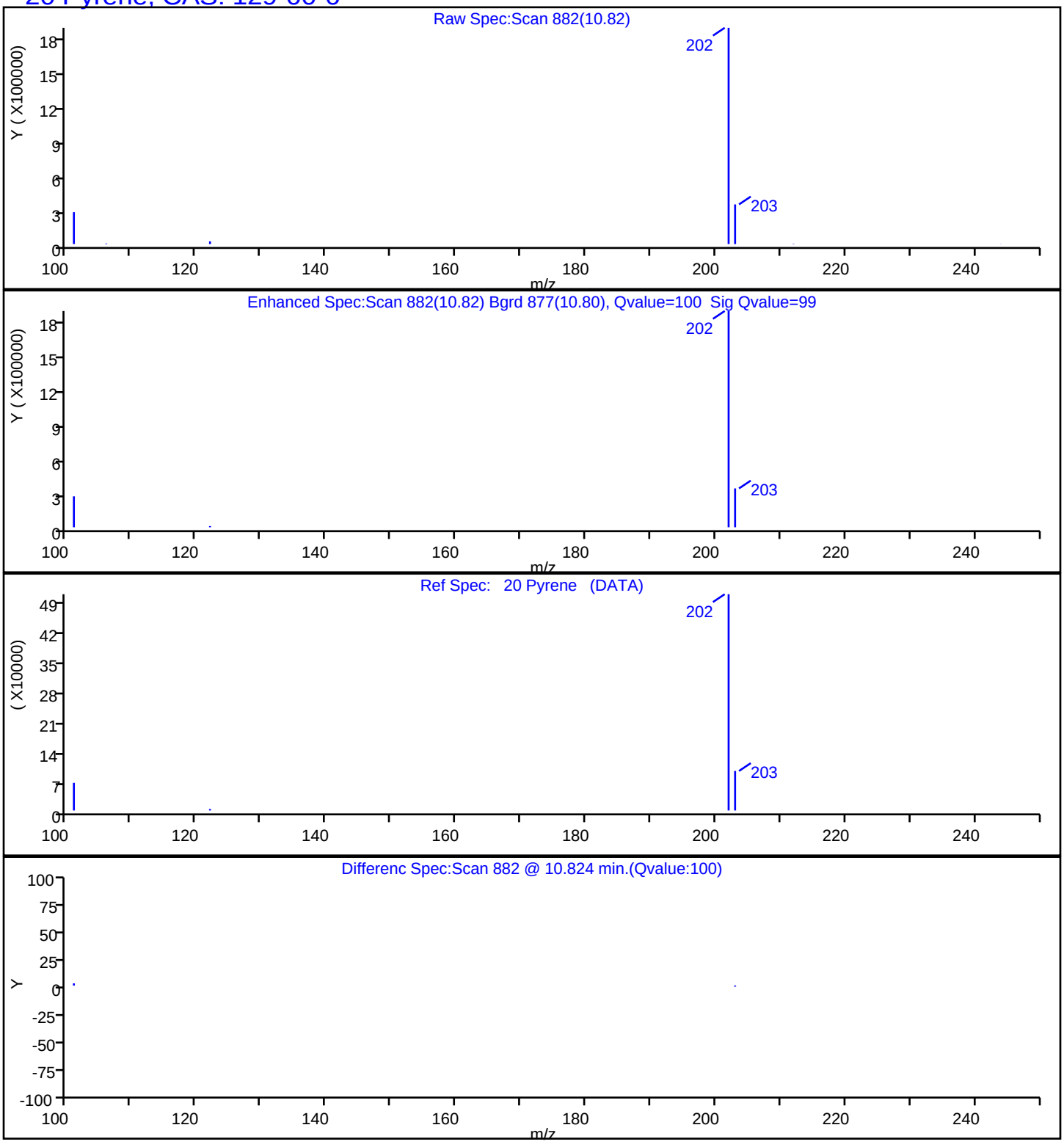


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

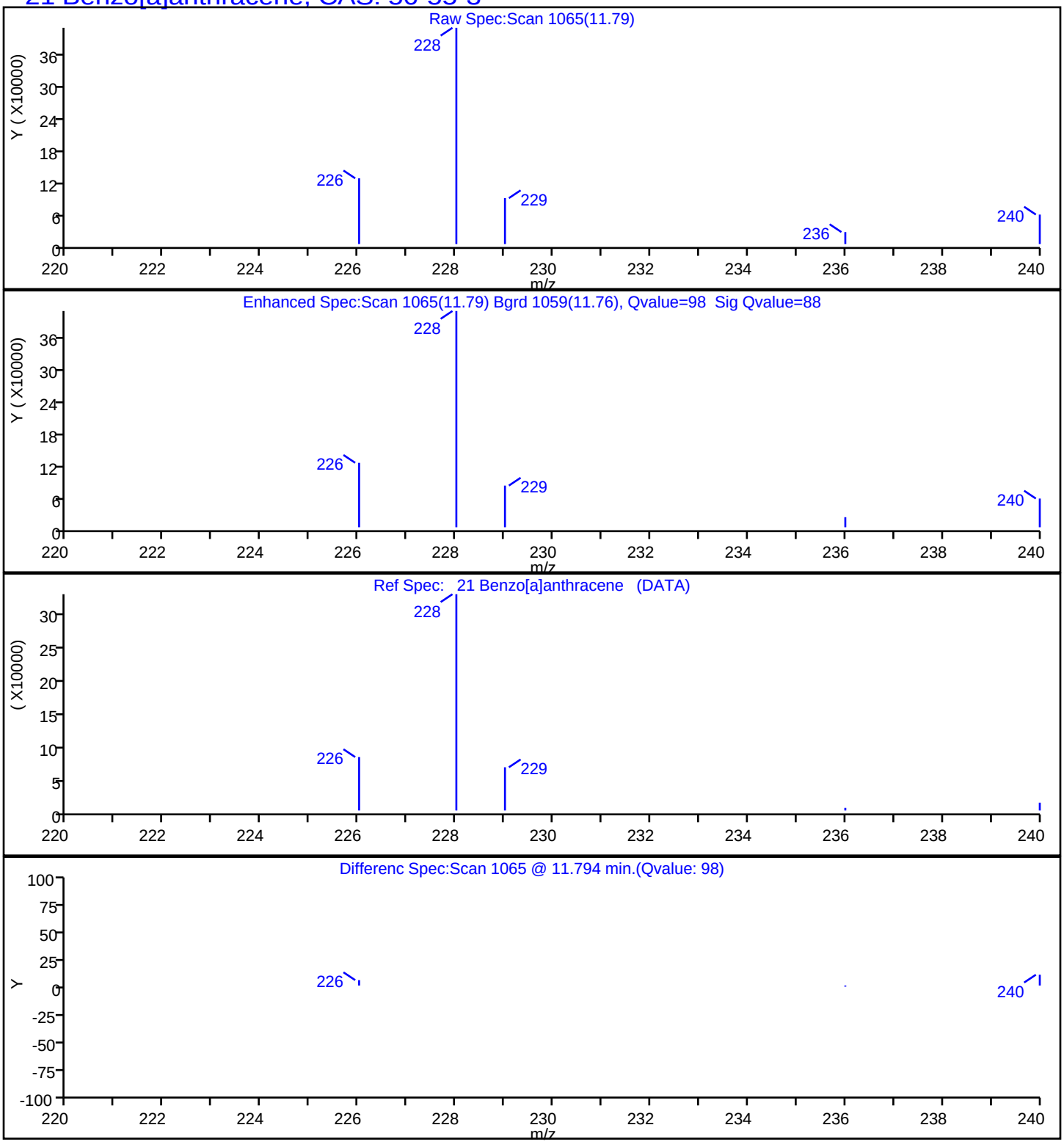


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

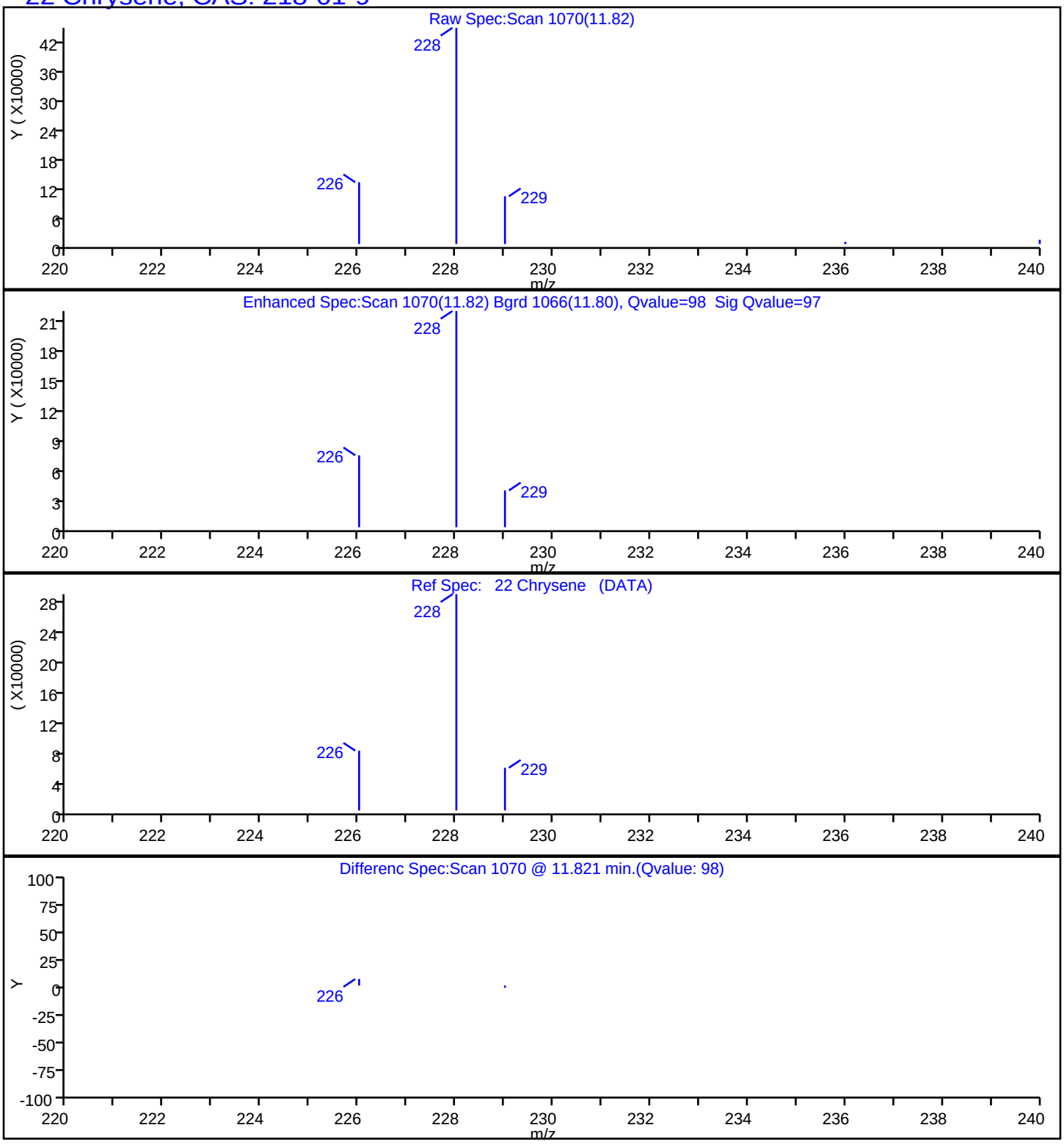


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

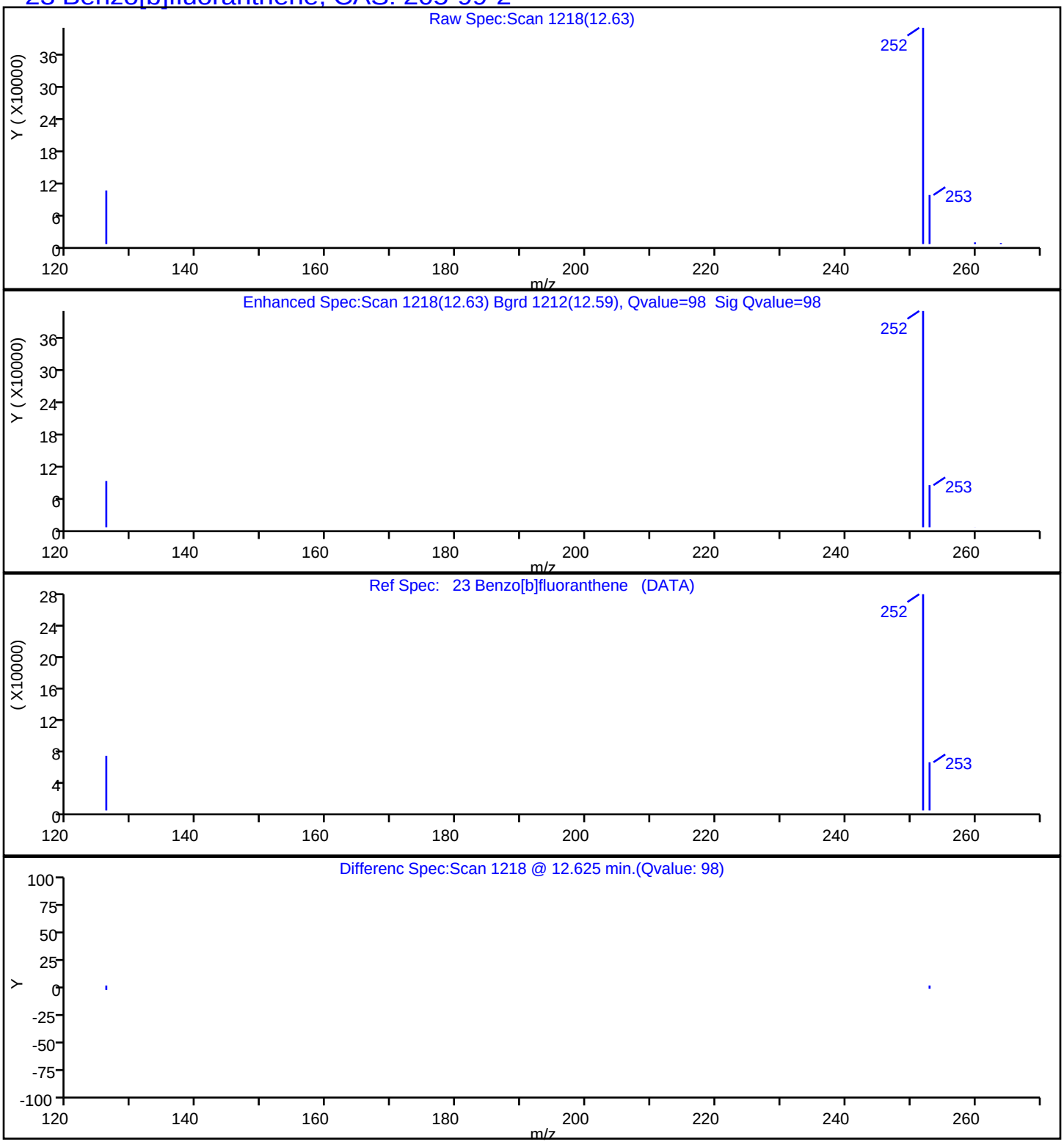


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

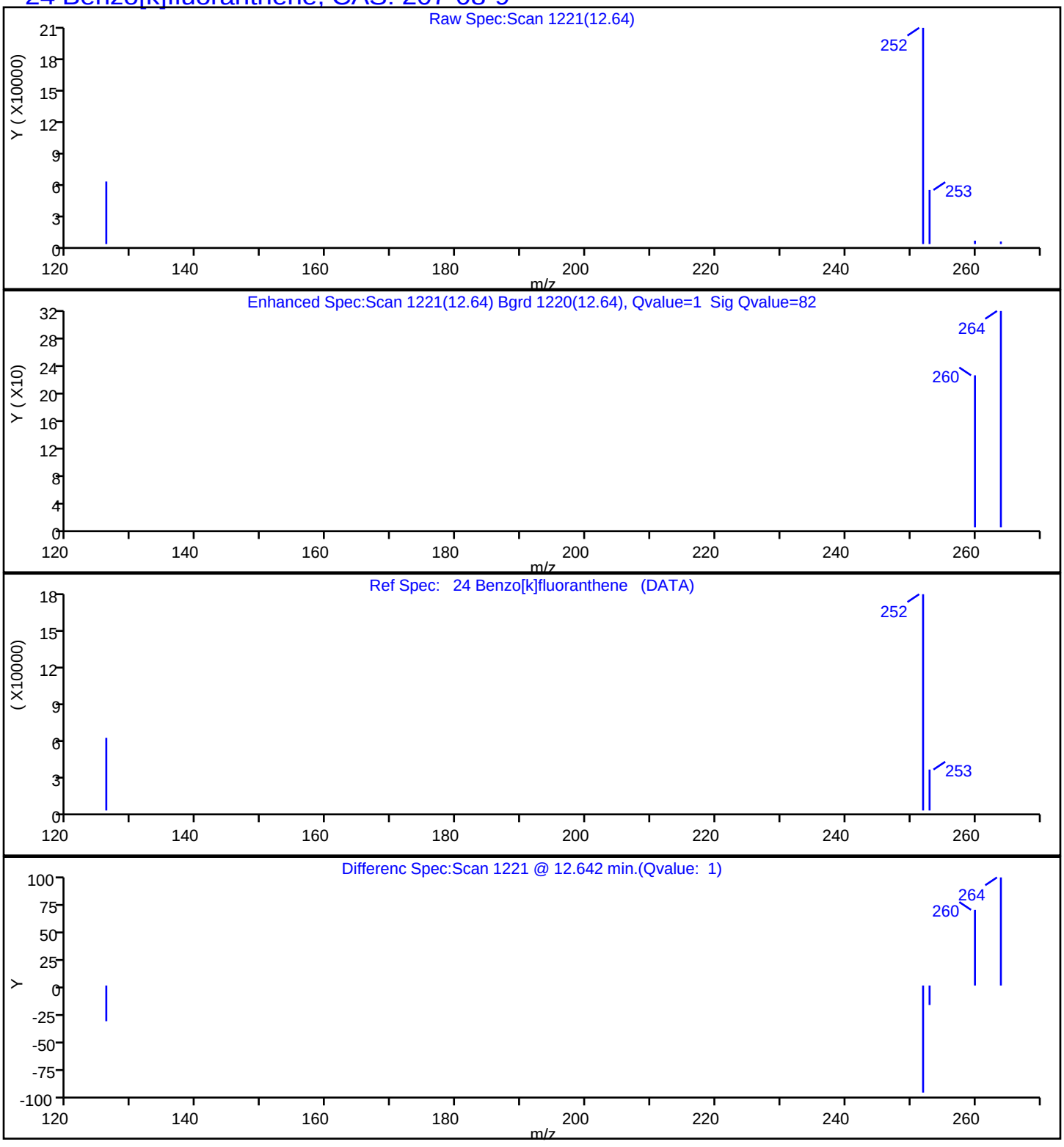


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

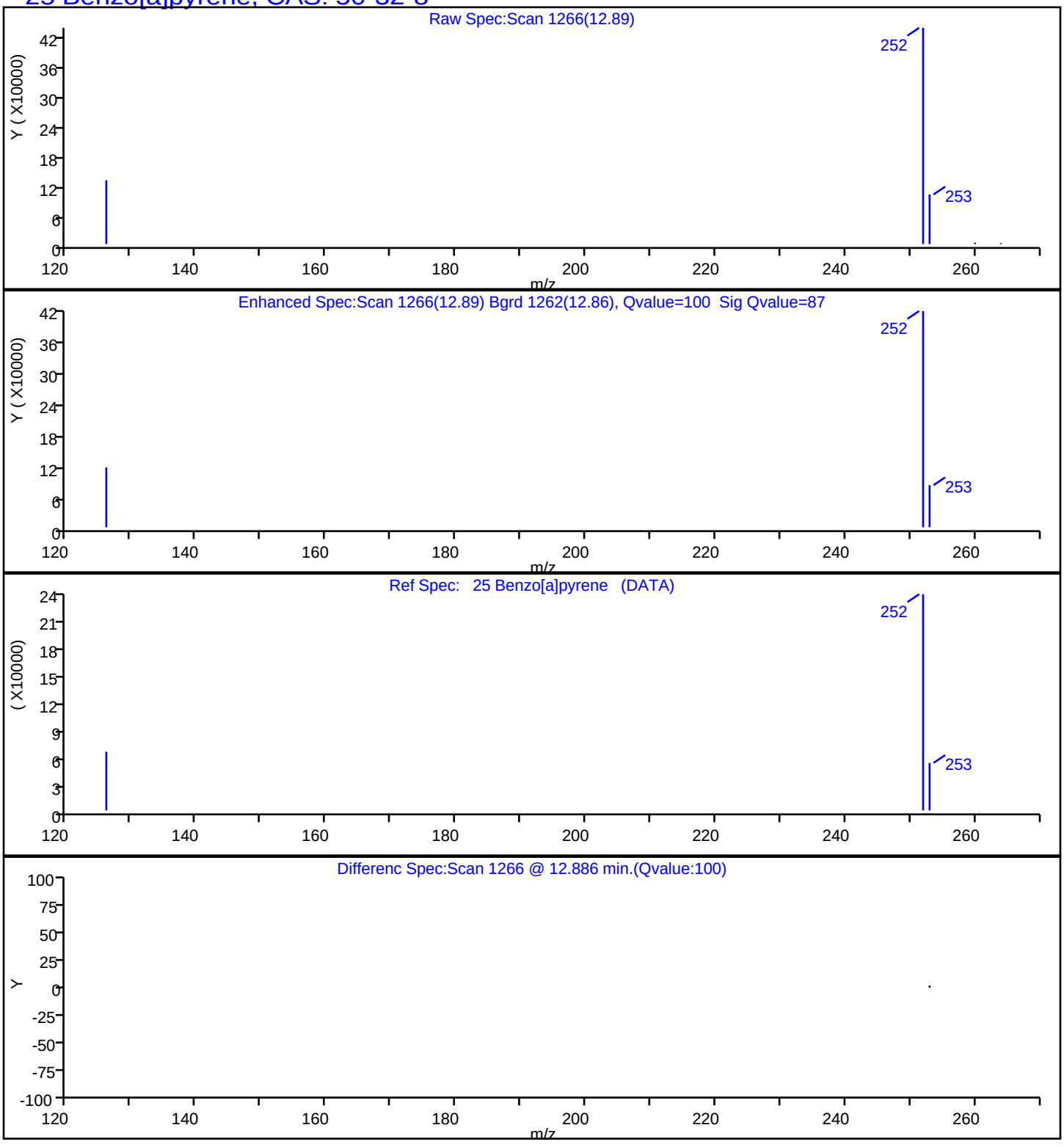


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

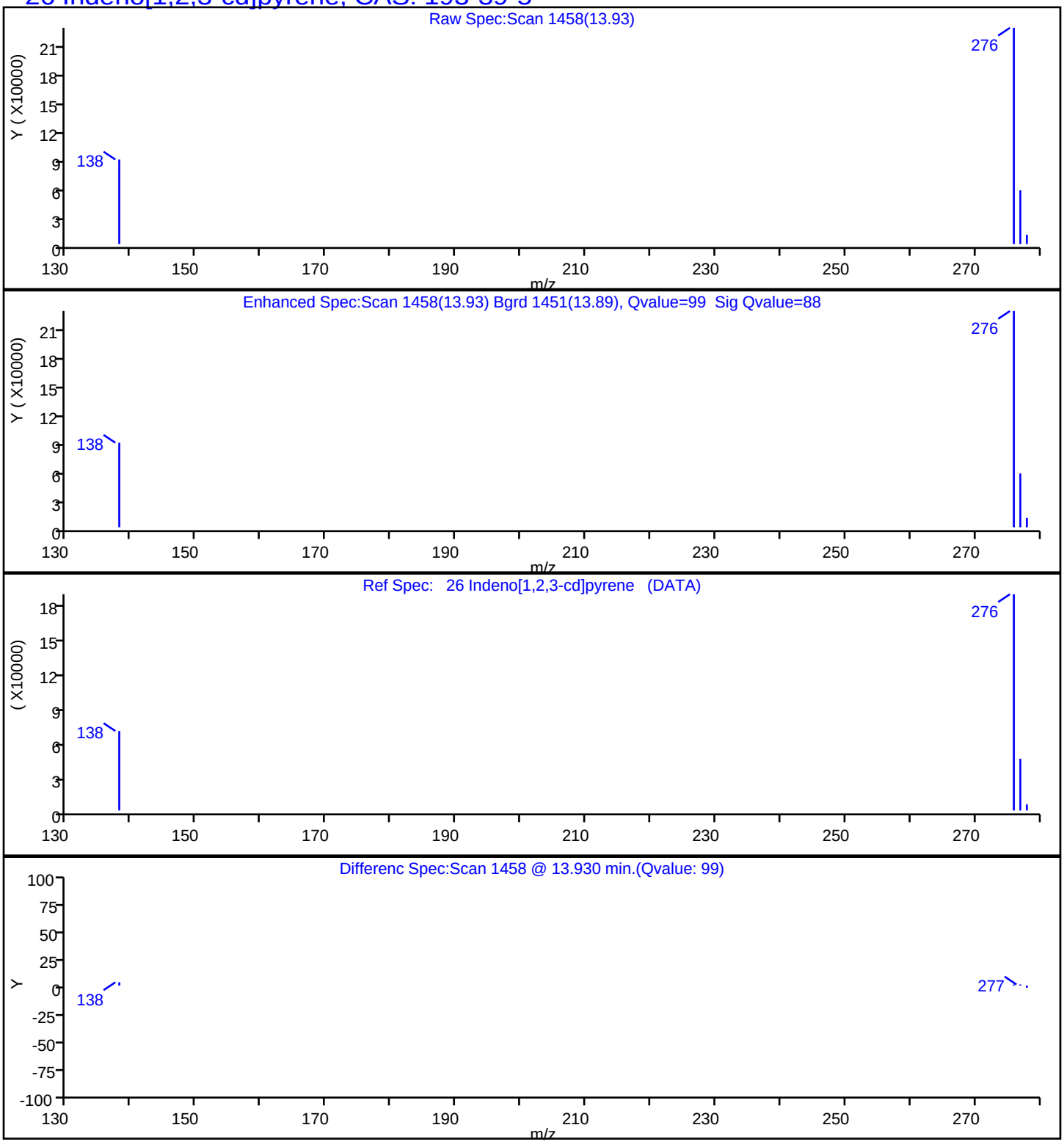


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

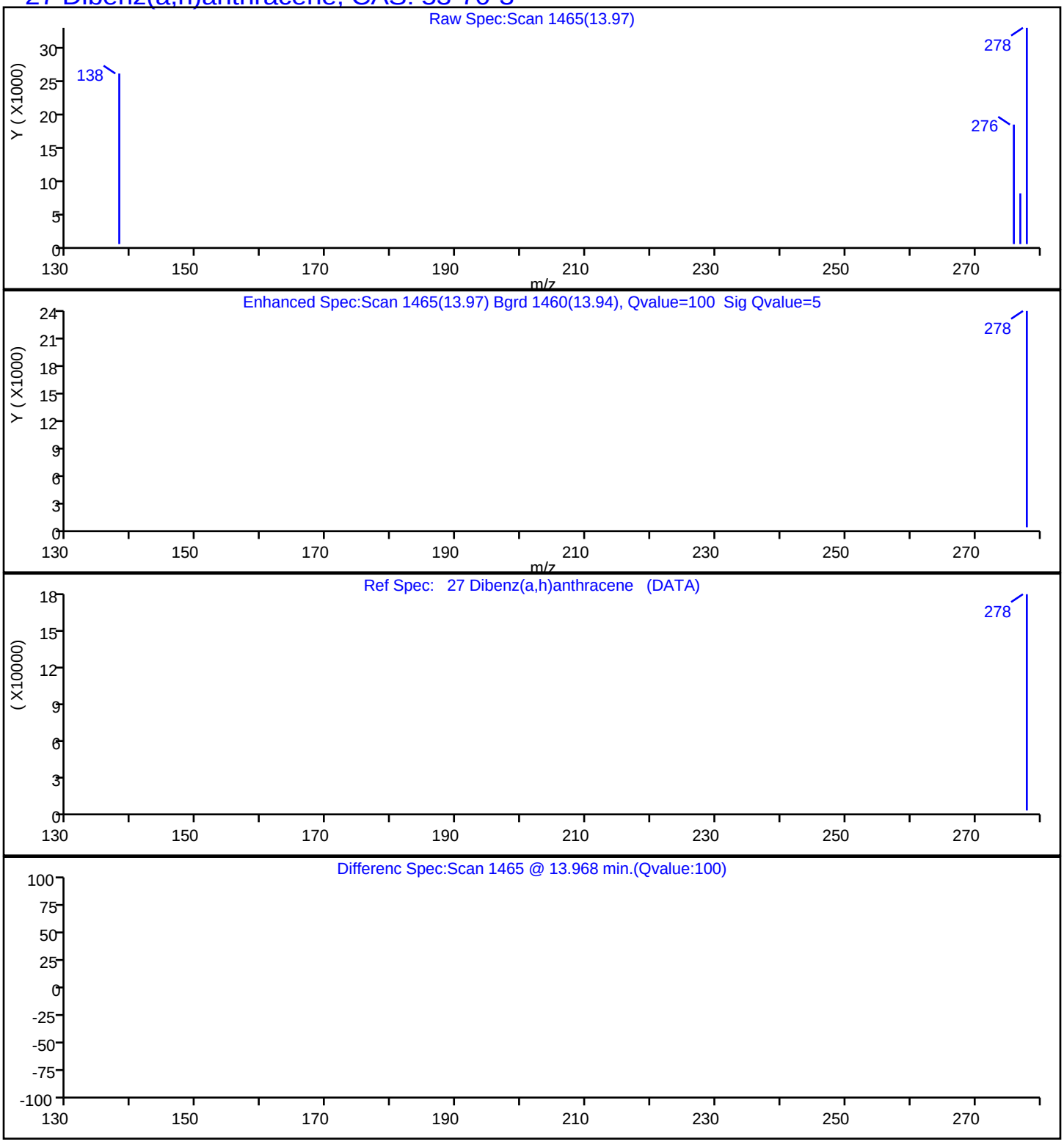


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

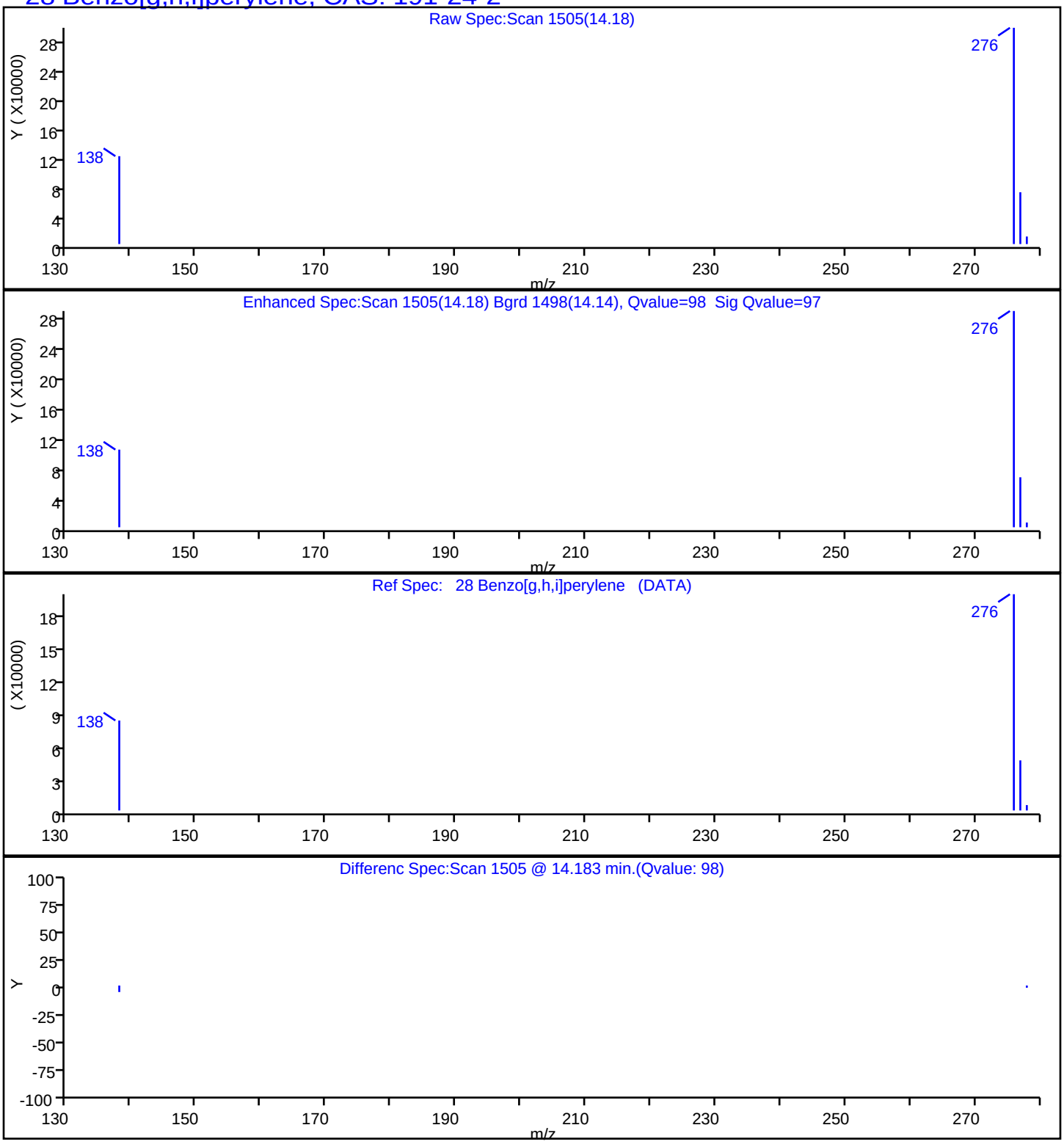


Report Date: 23-Jul-2019 14:30:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

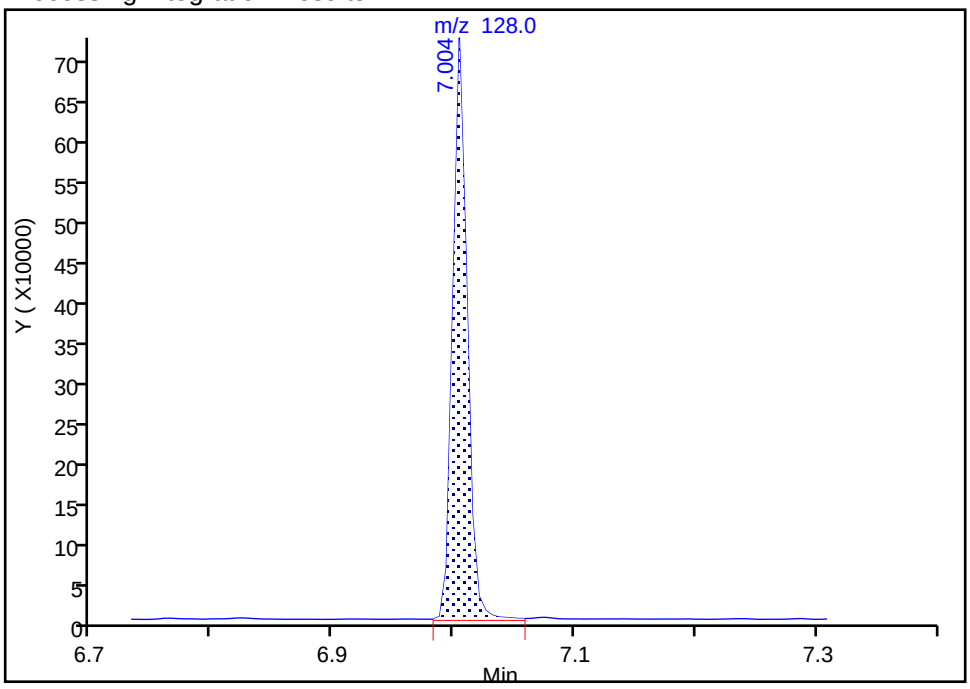
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

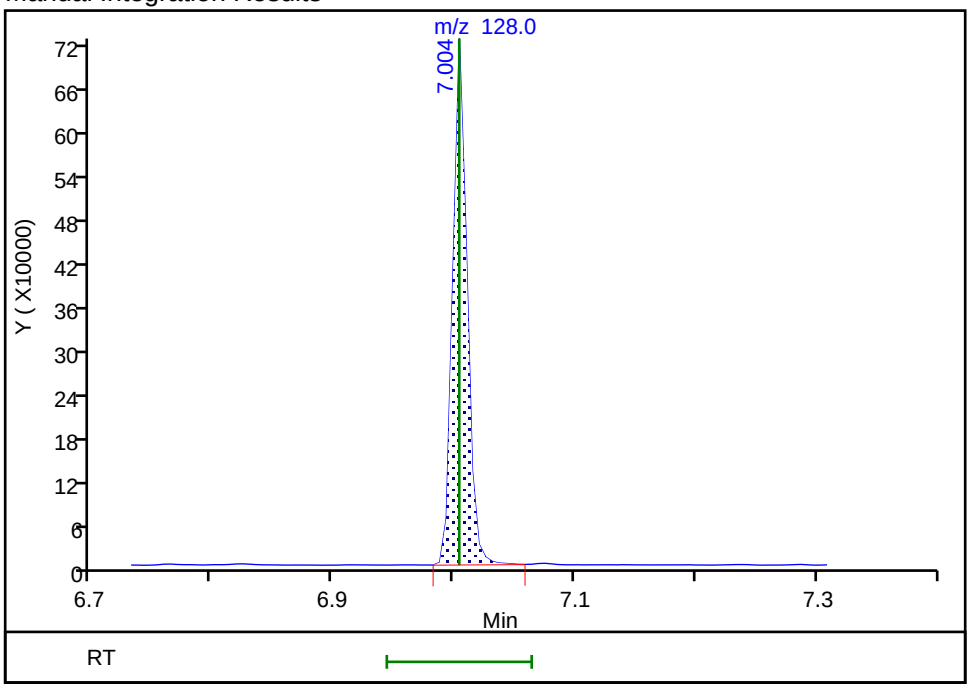
Processing Integration Results

RT: 7.00
Area: 600575
Amount: 143.7196
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 593128
Amount: 141.9375
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:27:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

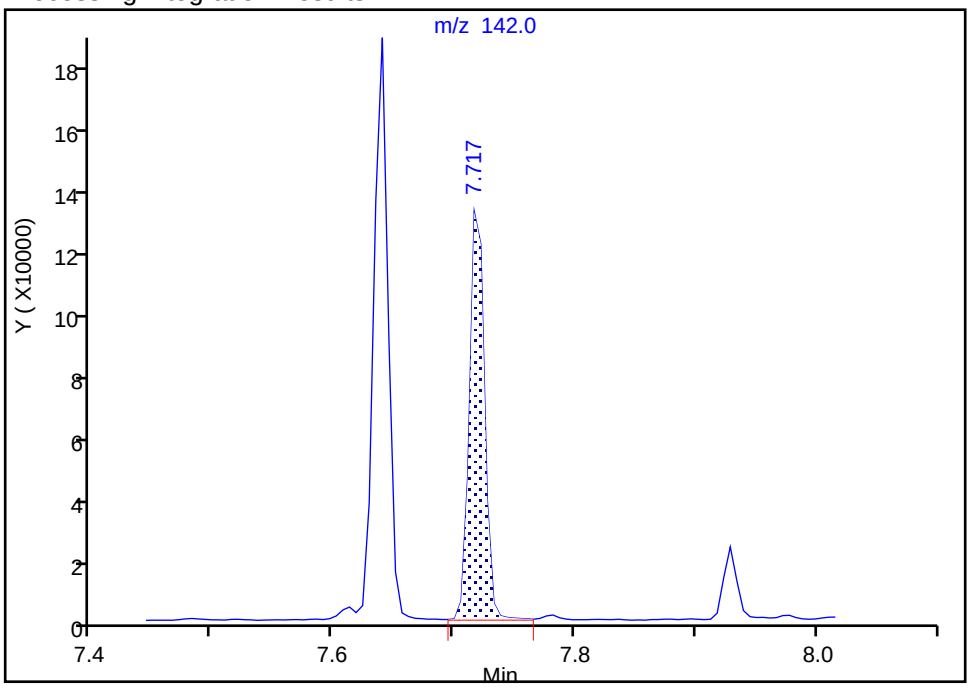
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

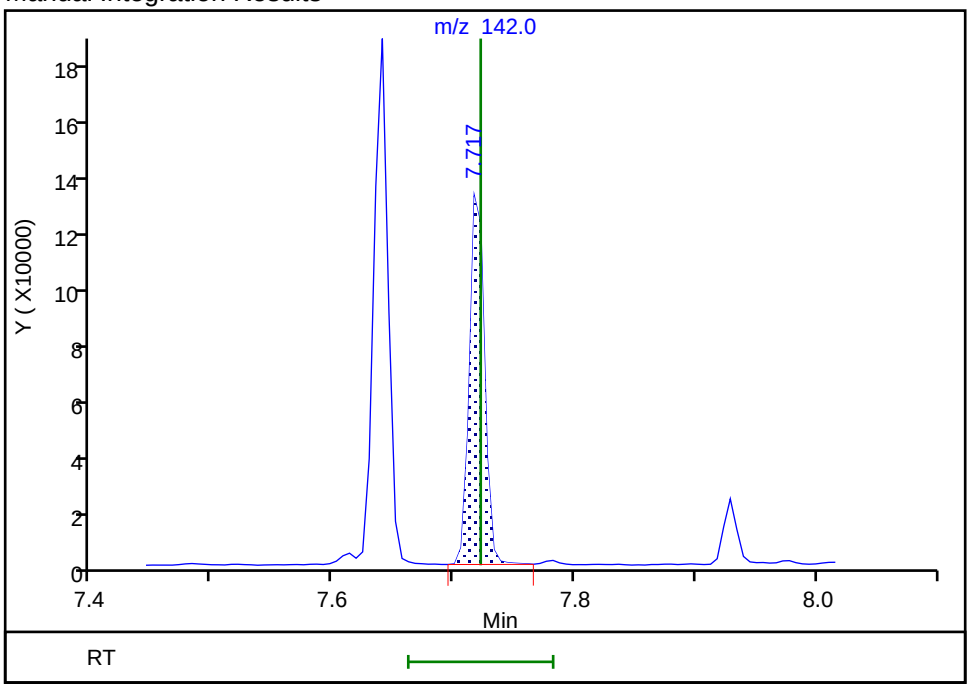
Processing Integration Results

RT: 7.72
Area: 111506
Amount: 43.581951
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 110658
Amount: 43.250512
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:27:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

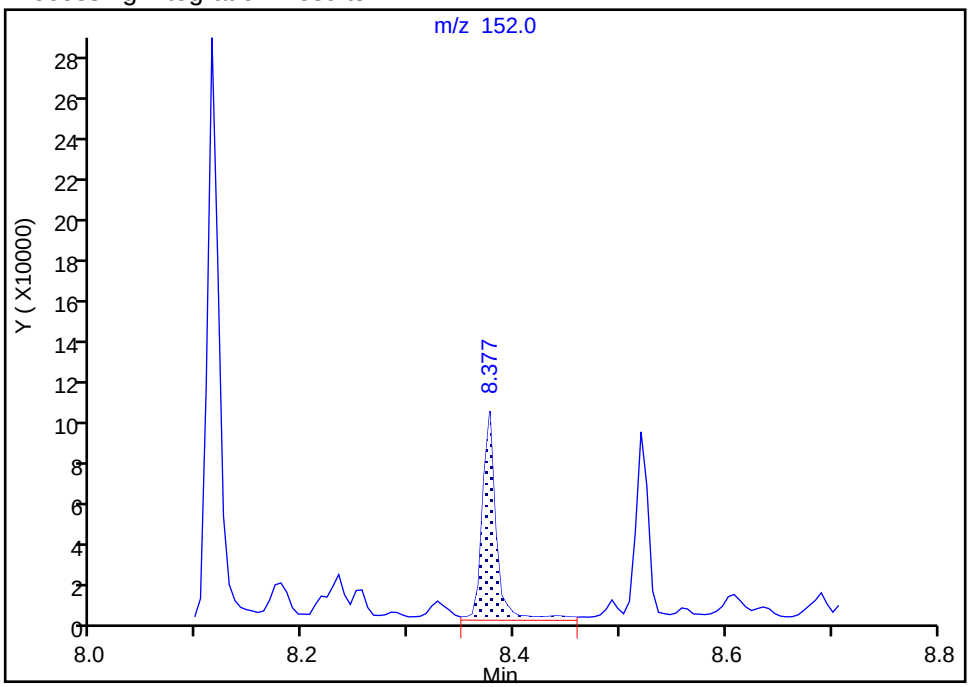
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

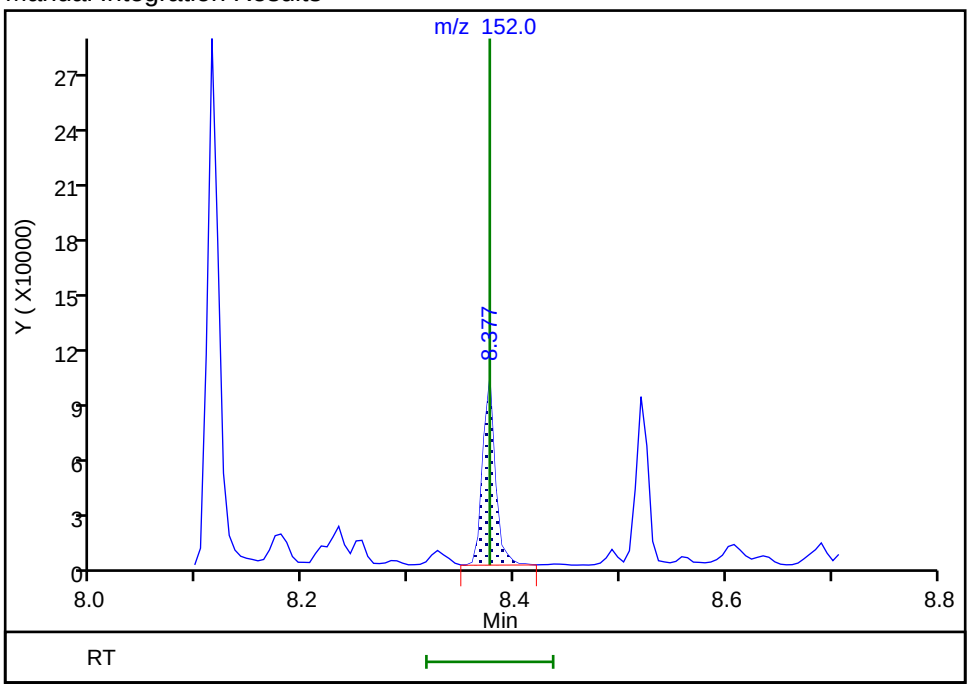
Processing Integration Results

RT: 8.38
Area: 91955
Amount: 24.531330
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 81467
Amount: 21.733390
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:27:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

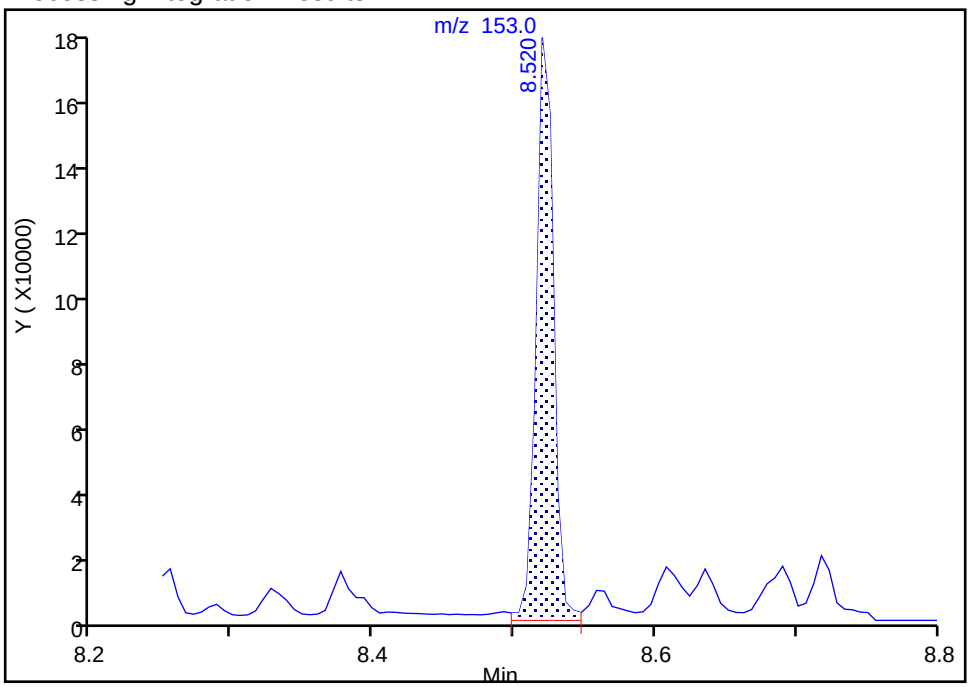
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

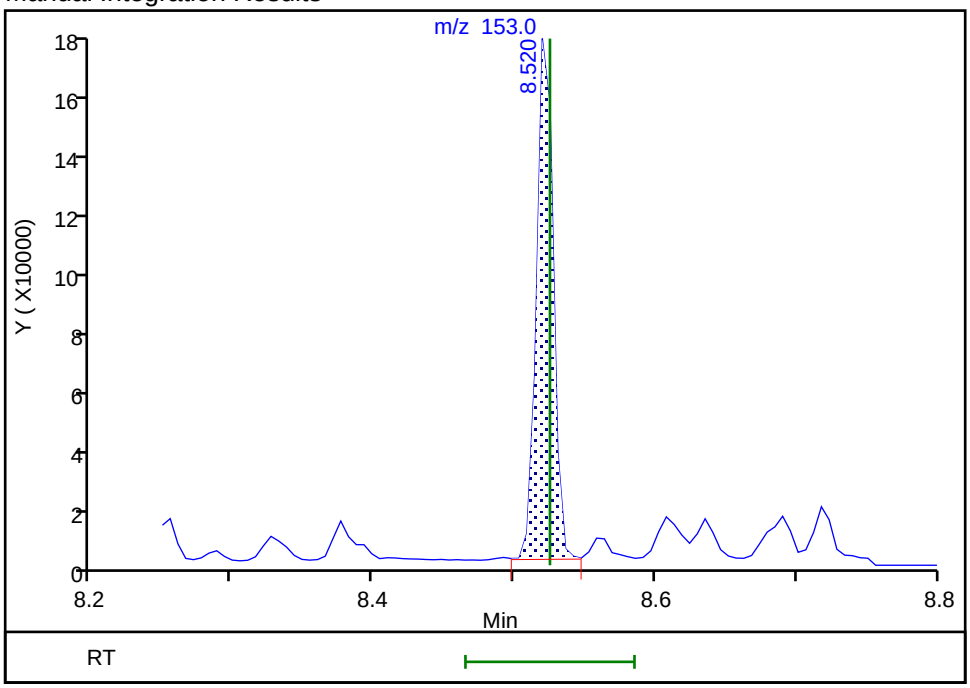
Processing Integration Results

RT: 8.52
Area: 149044
Amount: 54.770032
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 143219
Amount: 52.629487
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:28:30

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

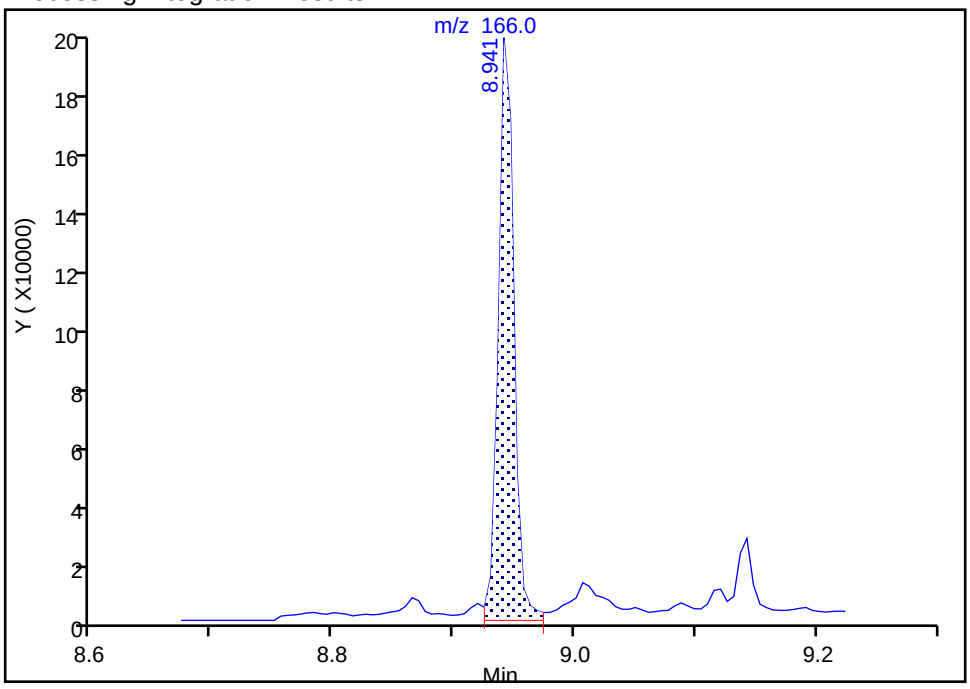
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

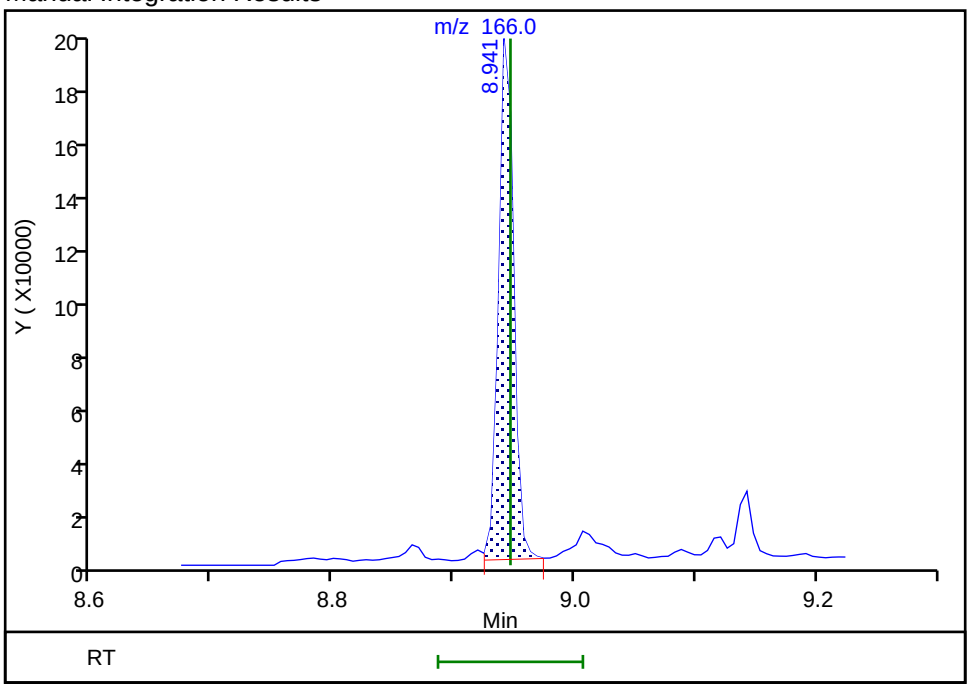
Processing Integration Results

RT: 8.94
Area: 170960
Amount: 62.741026
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 164556
Amount: 60.390806
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:28:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

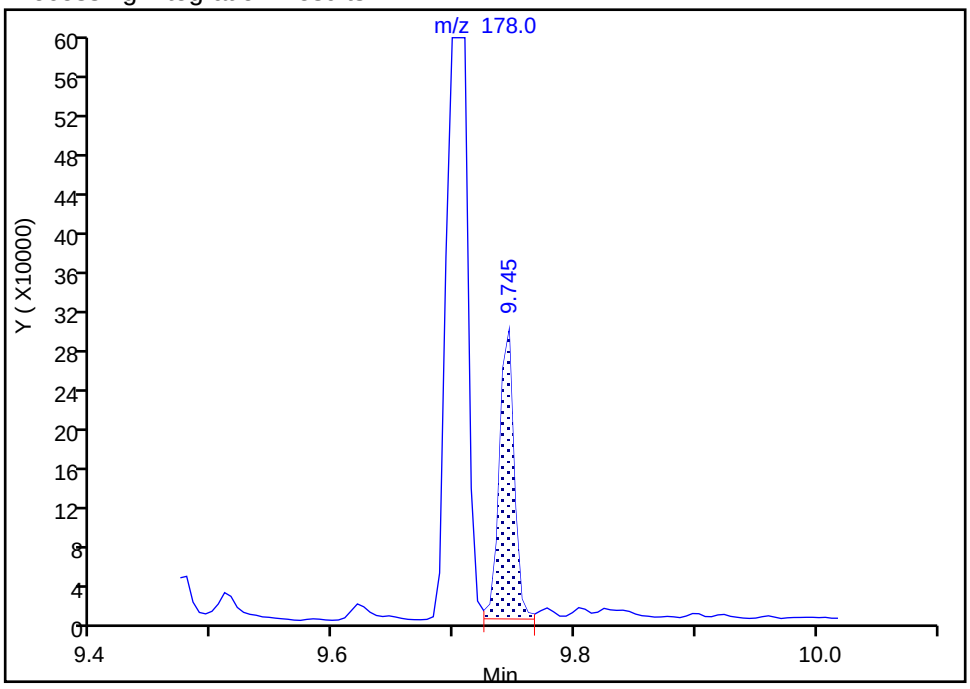
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

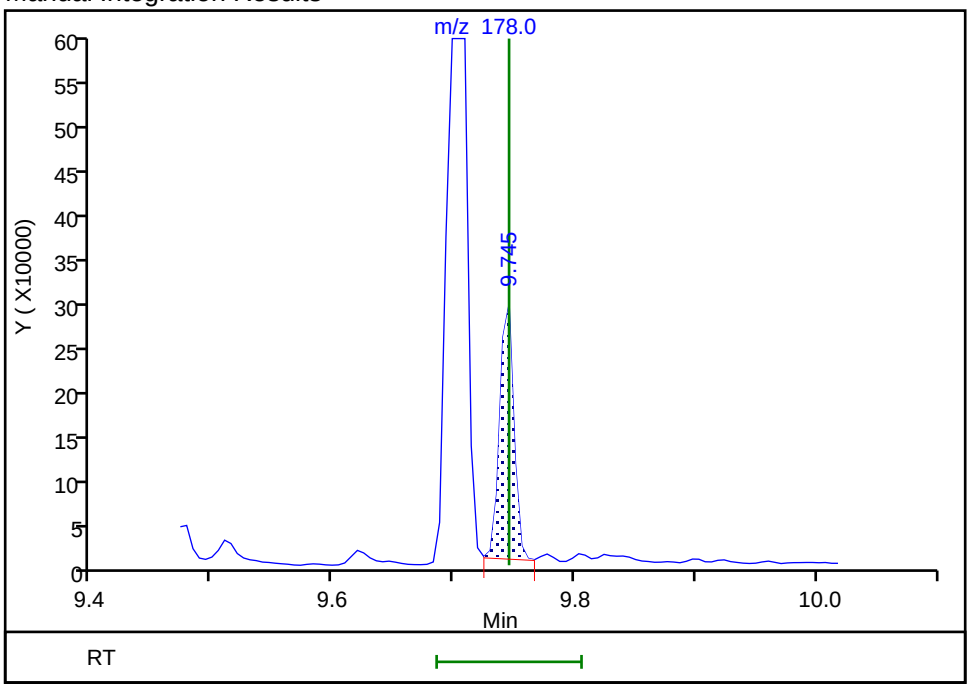
Processing Integration Results

RT: 9.75
Area: 248137
Amount: 65.231797
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 234568
Amount: 61.664694
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:28:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

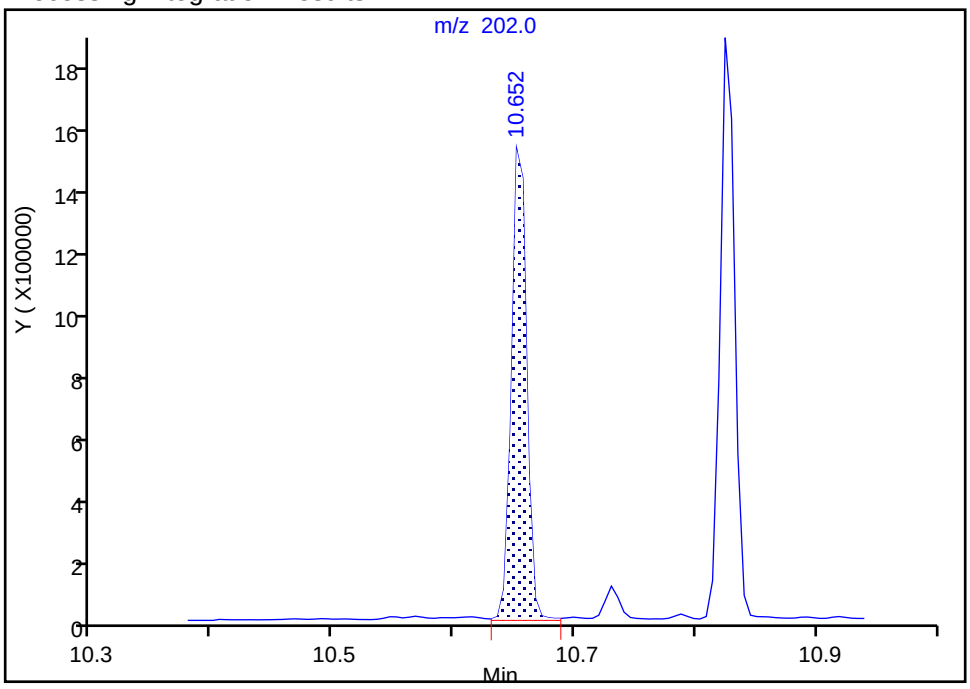
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

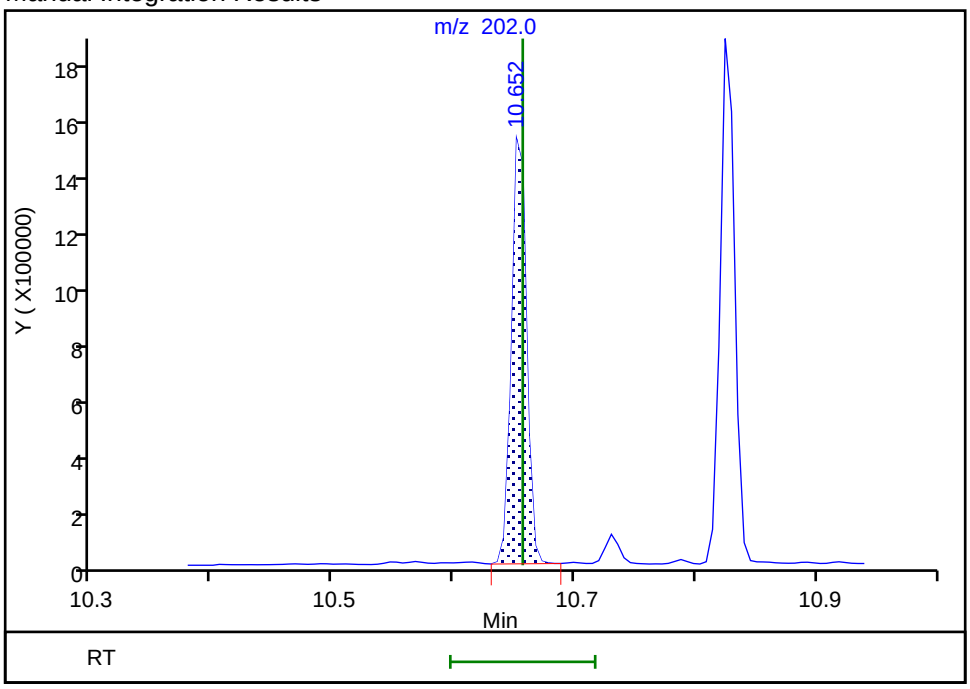
Processing Integration Results

RT: 10.65
Area: 1311374
Amount: 338.3044
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 1293543
Amount: 333.7044
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:28:56

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

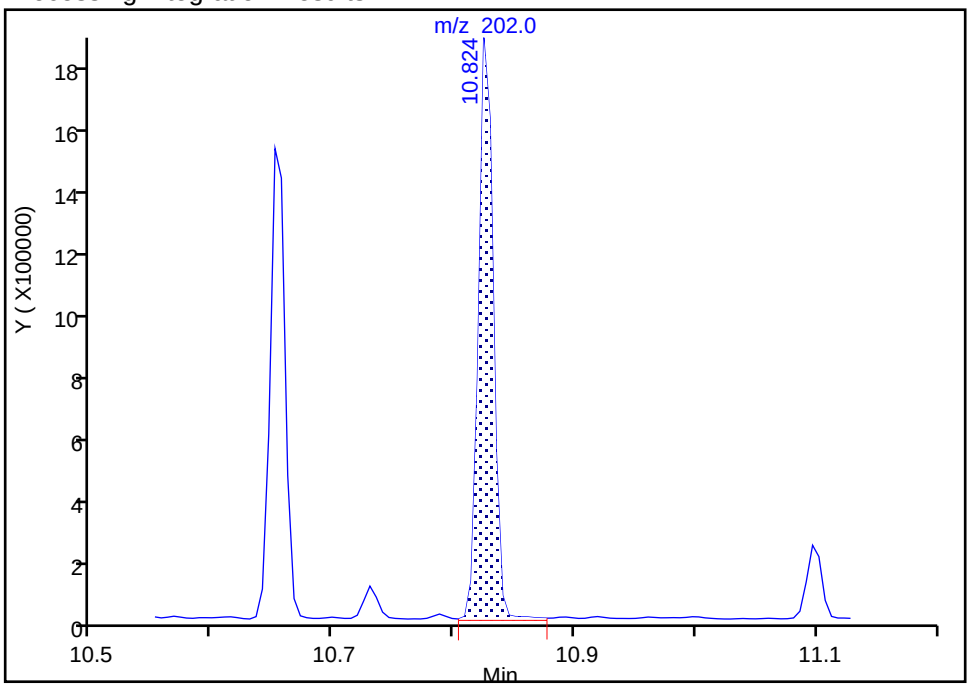
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

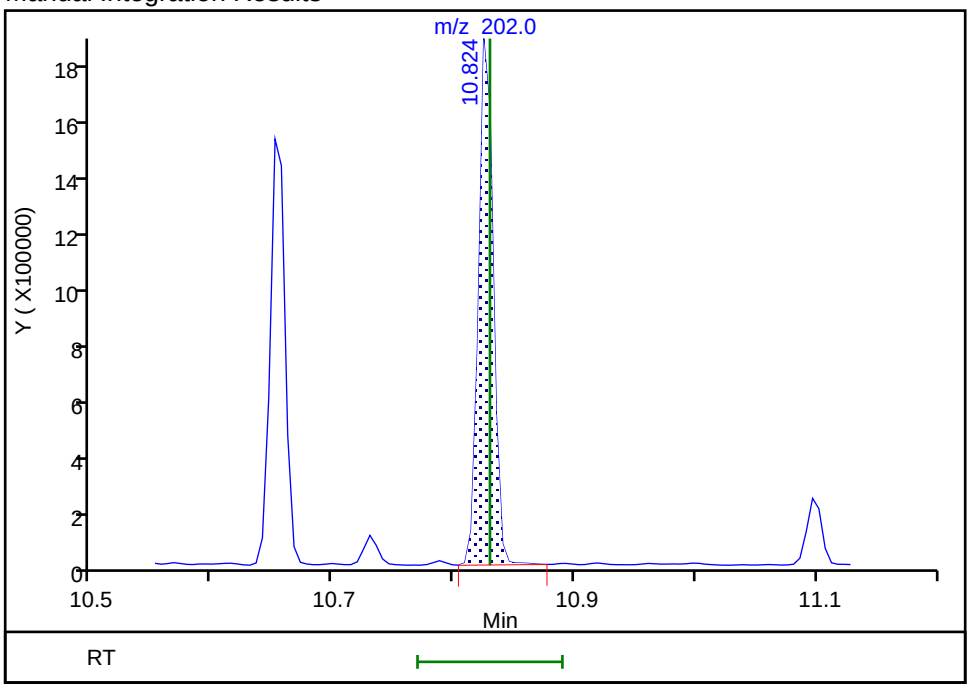
Processing Integration Results

RT: 10.82
Area: 1583061
Amount: 387.7598
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 1558887
Amount: 381.8385
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:06

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

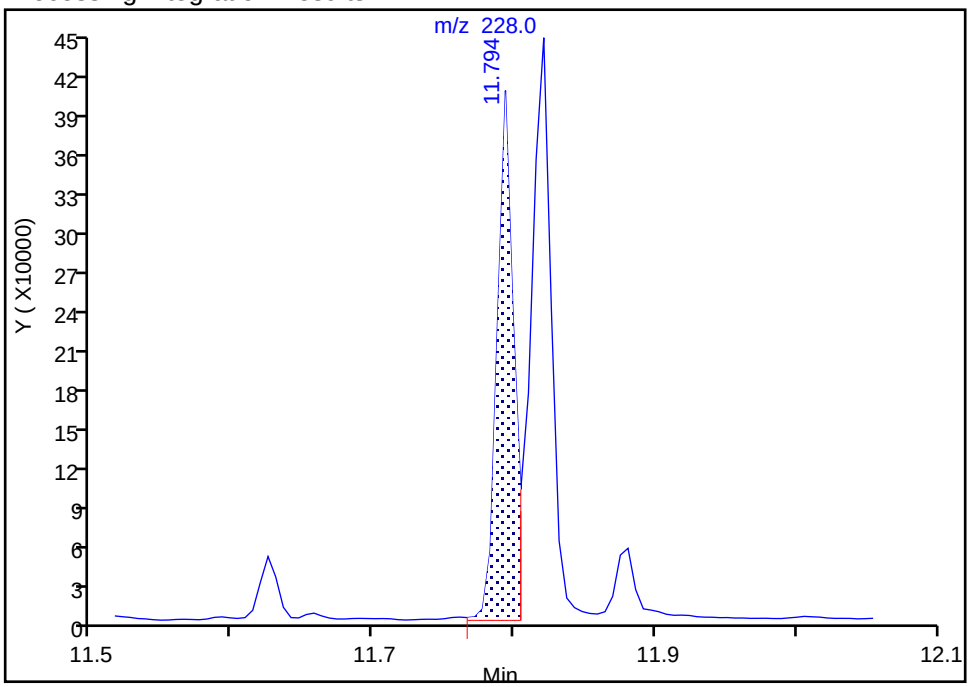
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

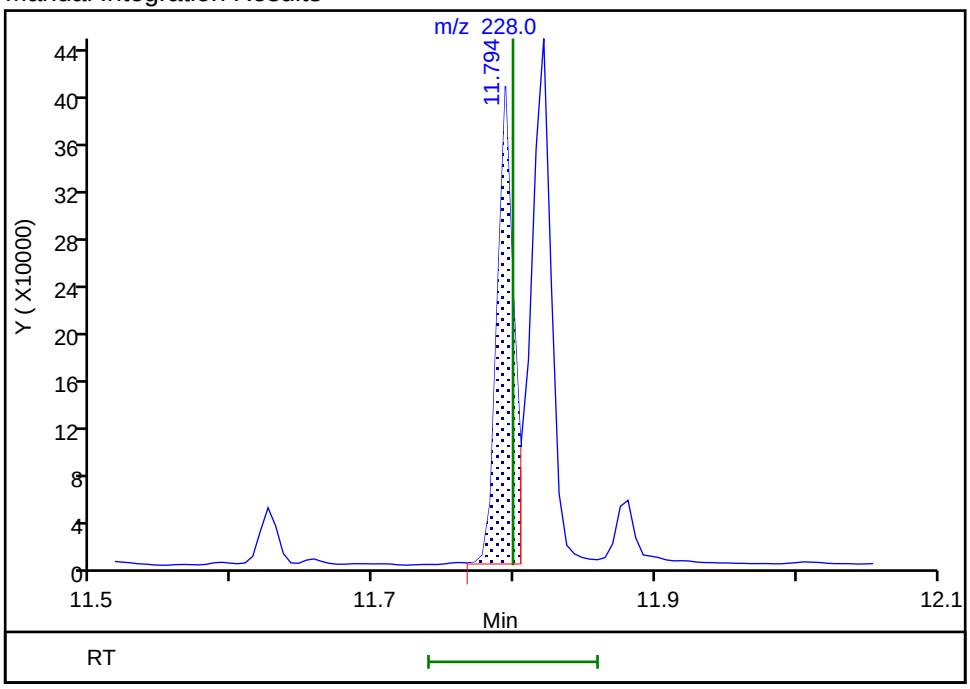
Processing Integration Results

RT: 11.79
Area: 322350
Amount: 123.2022
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 319540
Amount: 122.1282
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

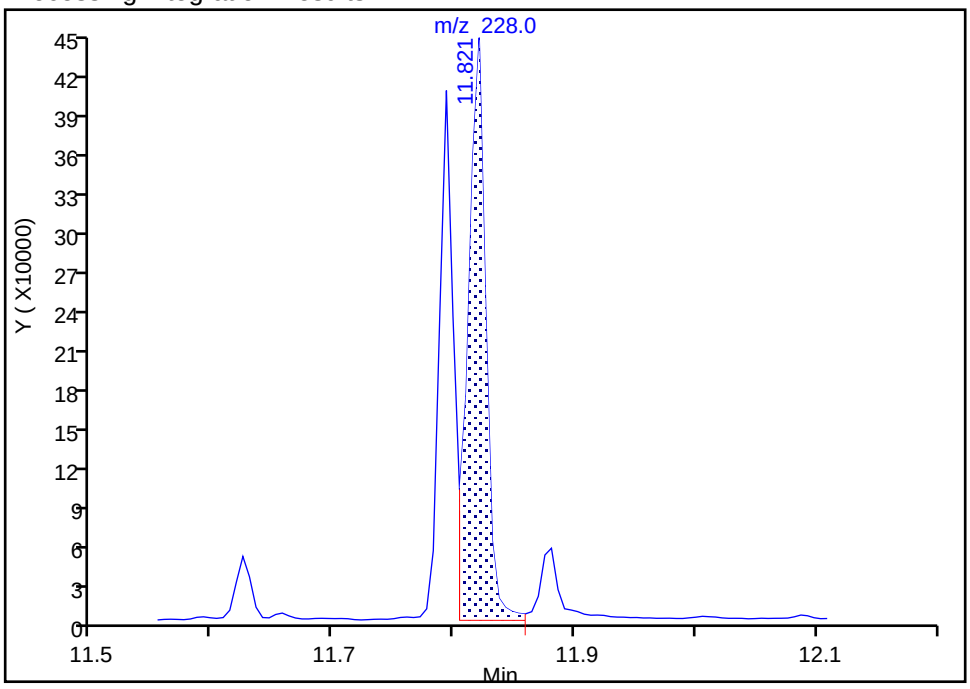
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

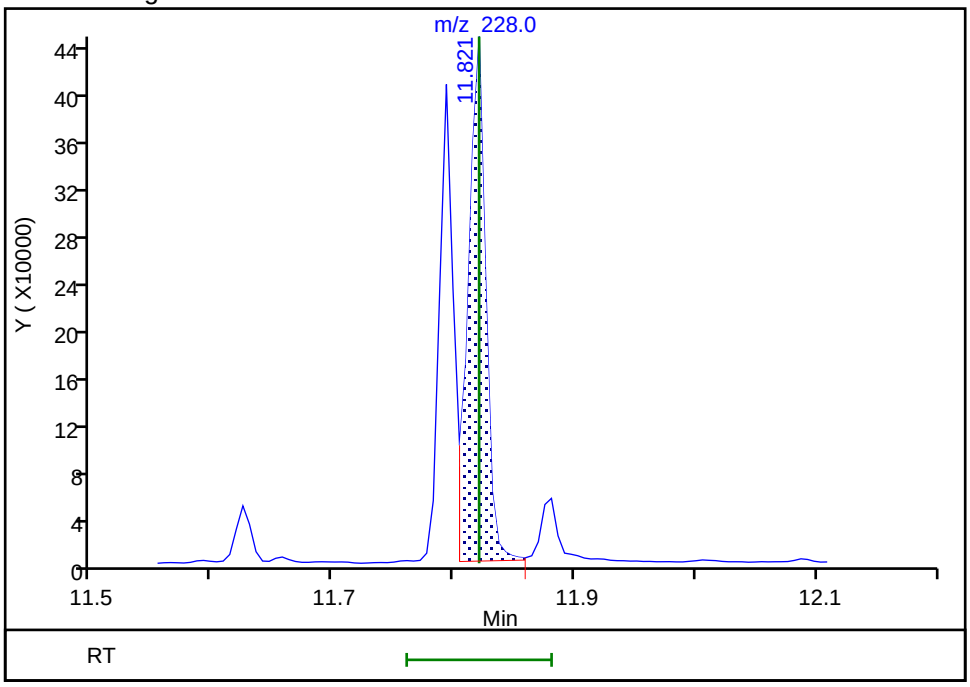
Processing Integration Results

RT: 11.82
Area: 443746
Amount: 127.5328
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 436022
Amount: 125.3129
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:19

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

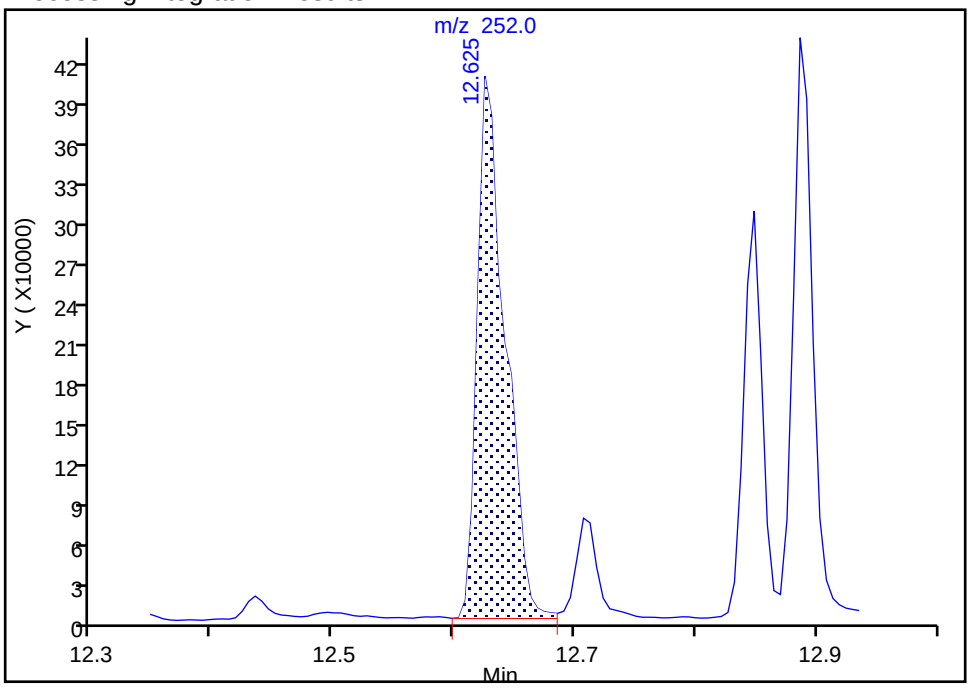
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

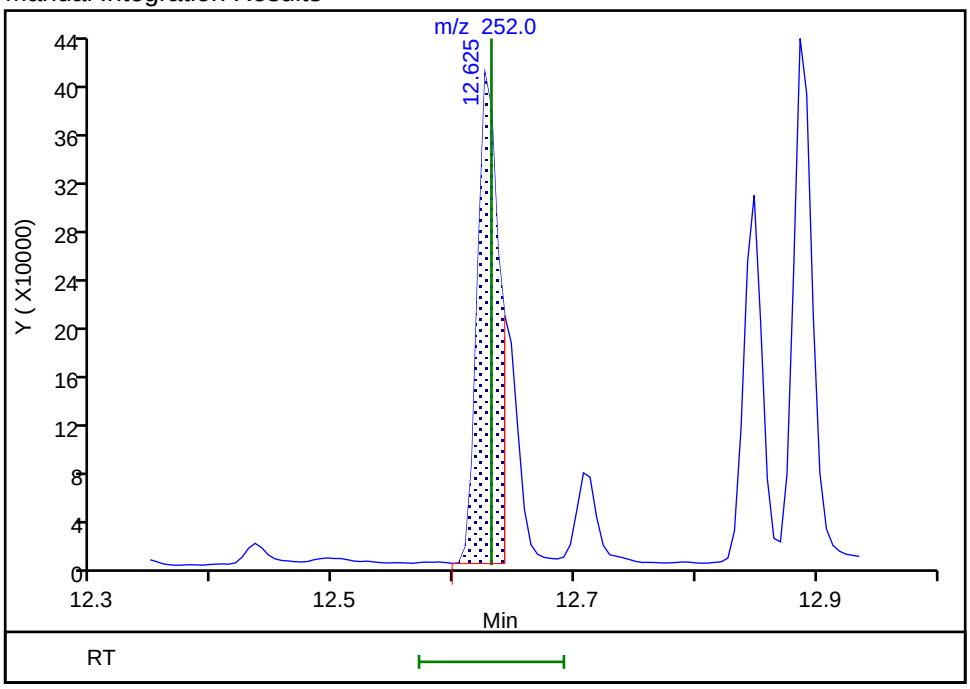
Processing Integration Results

RT: 12.63
Area: 642176
Amount: 184.4574
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 487522
Amount: 140.0349
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:28

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

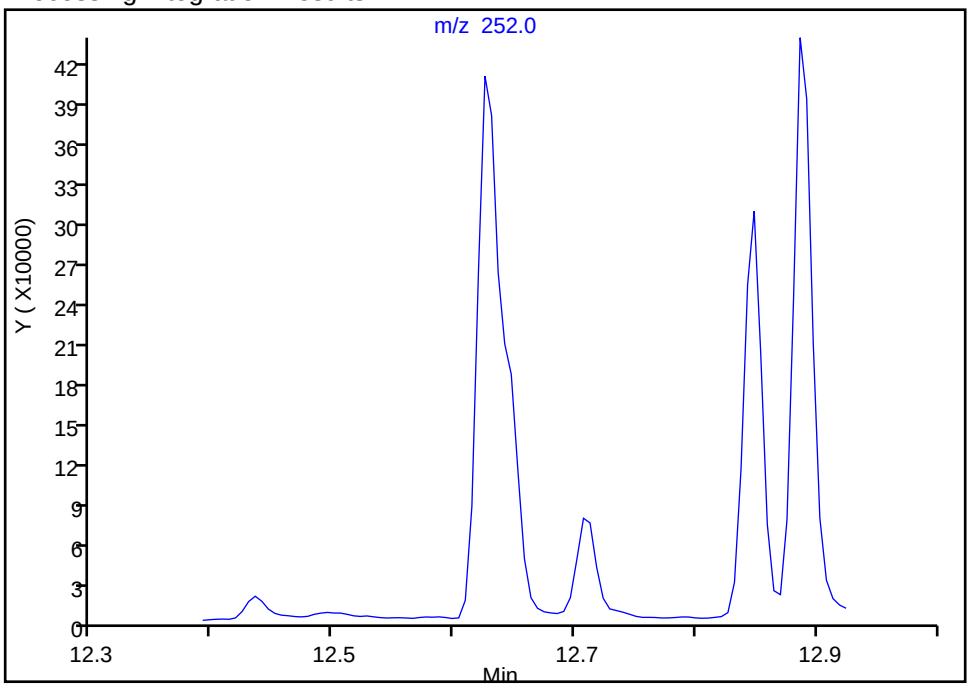
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

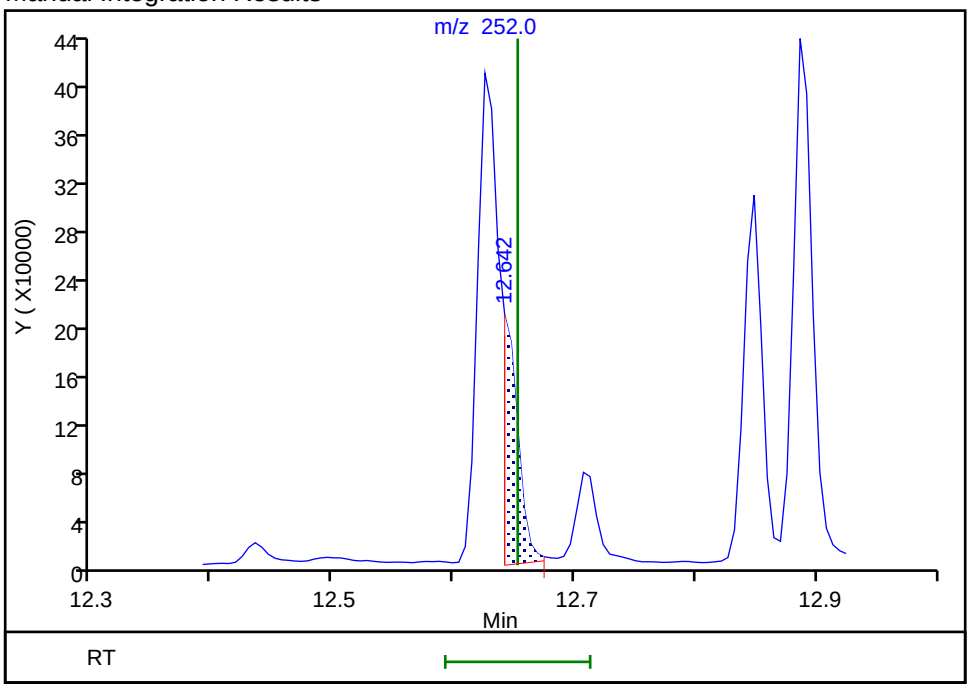
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 152010
Amount: 35.688645
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:37
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

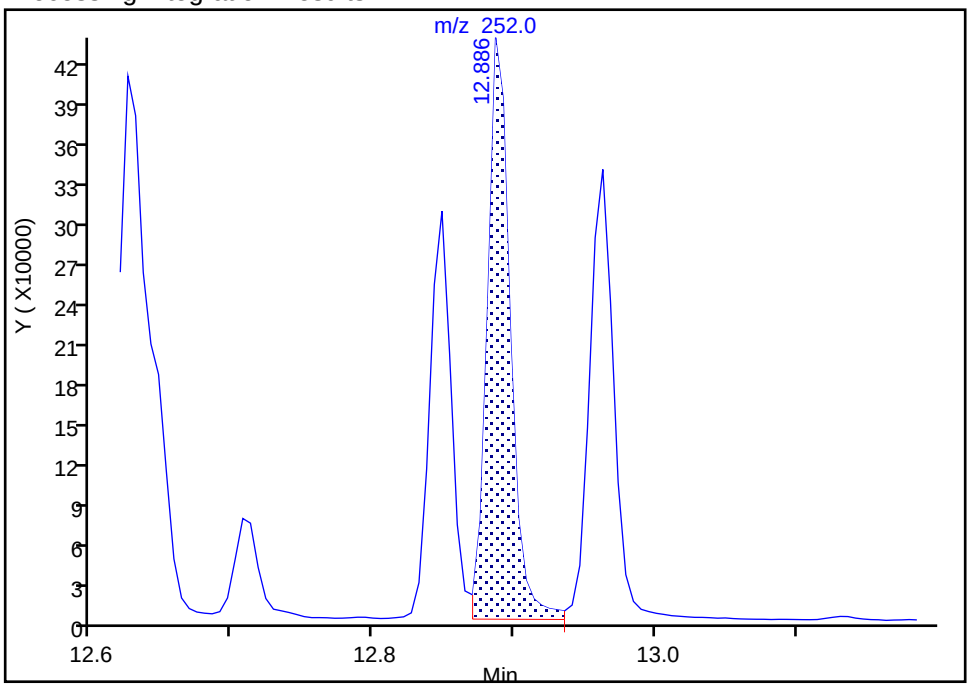
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

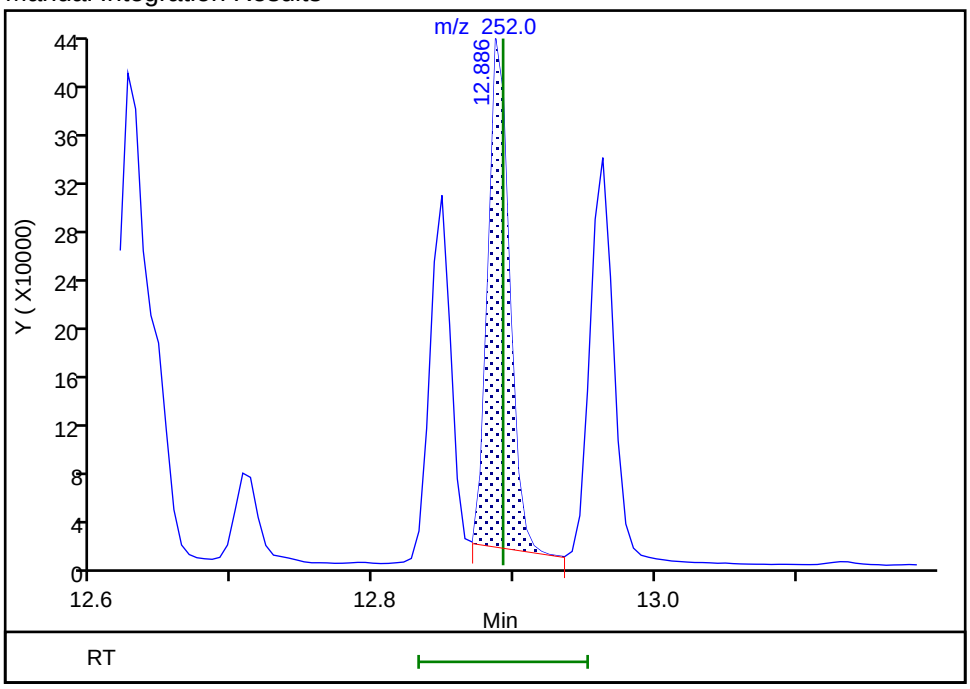
Processing Integration Results

RT: 12.89
Area: 487766
Amount: 138.3024
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 443702
Amount: 125.8084
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

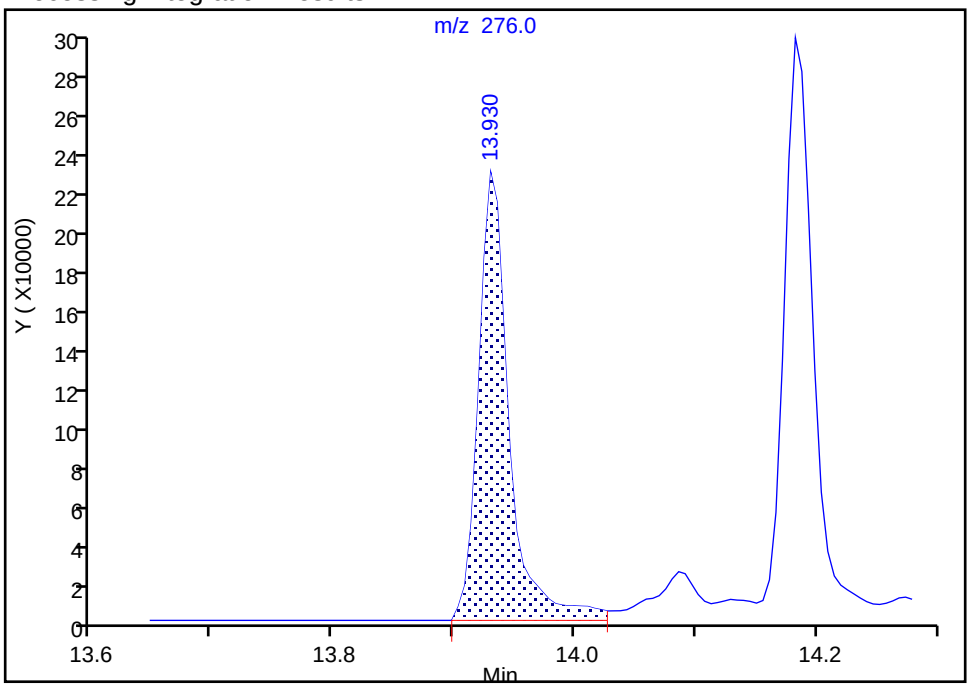
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

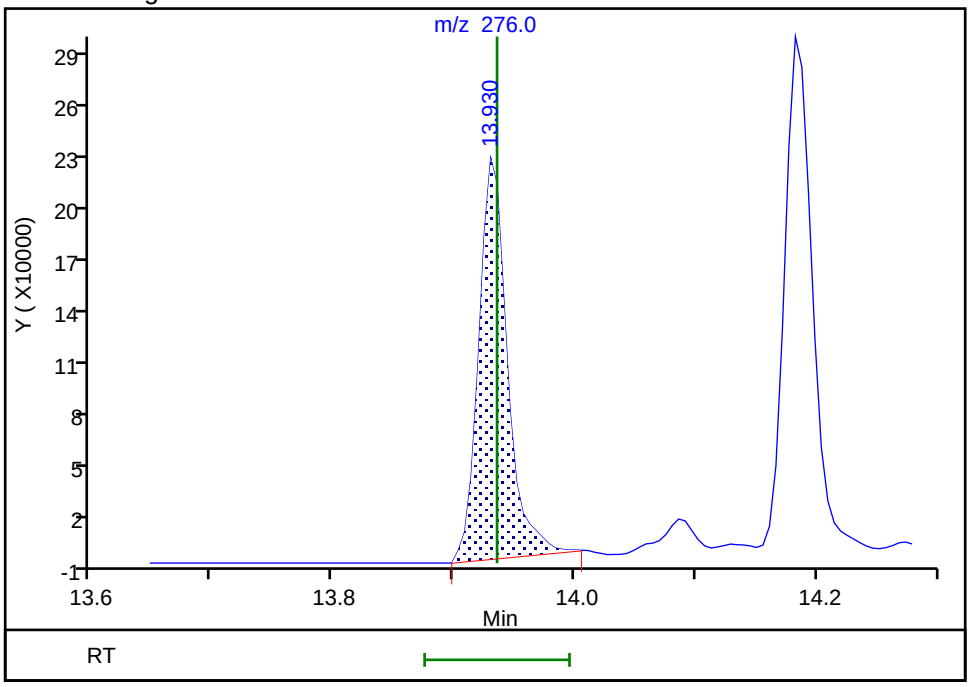
Processing Integration Results

RT: 13.93
Area: 392505
Amount: 144.9079
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 363384
Amount: 134.2515
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:51

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

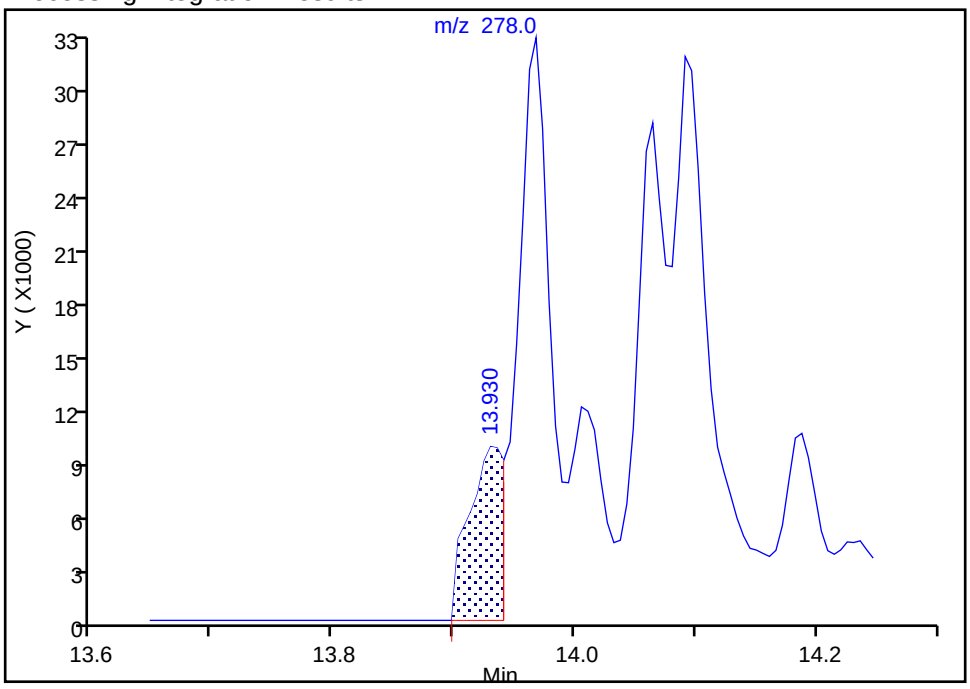
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

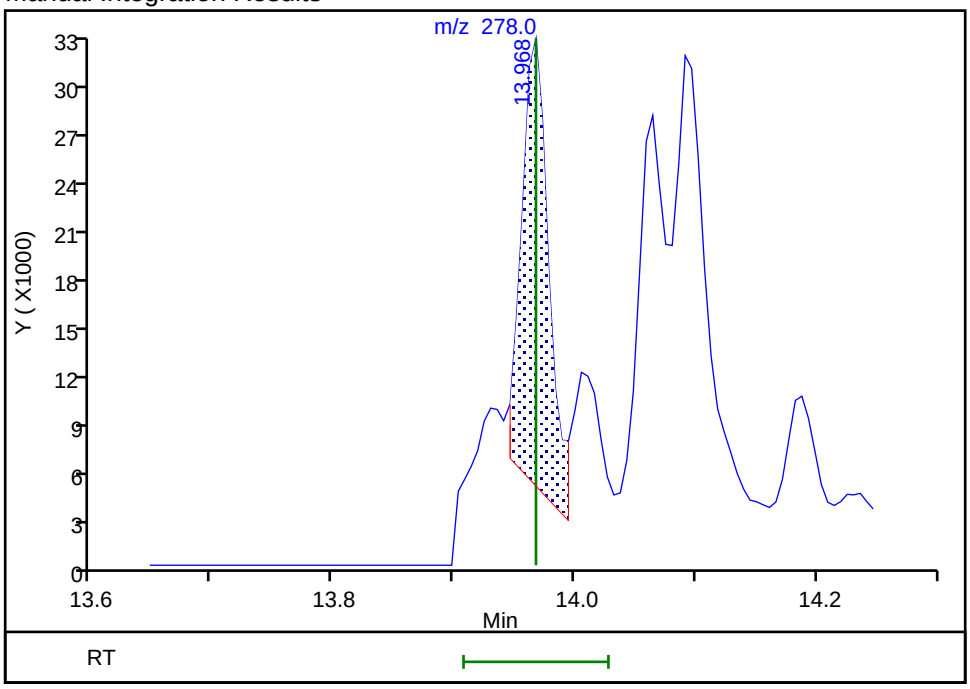
Processing Integration Results

RT: 13.93
Area: 17847
Amount: 6.298917
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 42230
Amount: 13.389905
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:29:58

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

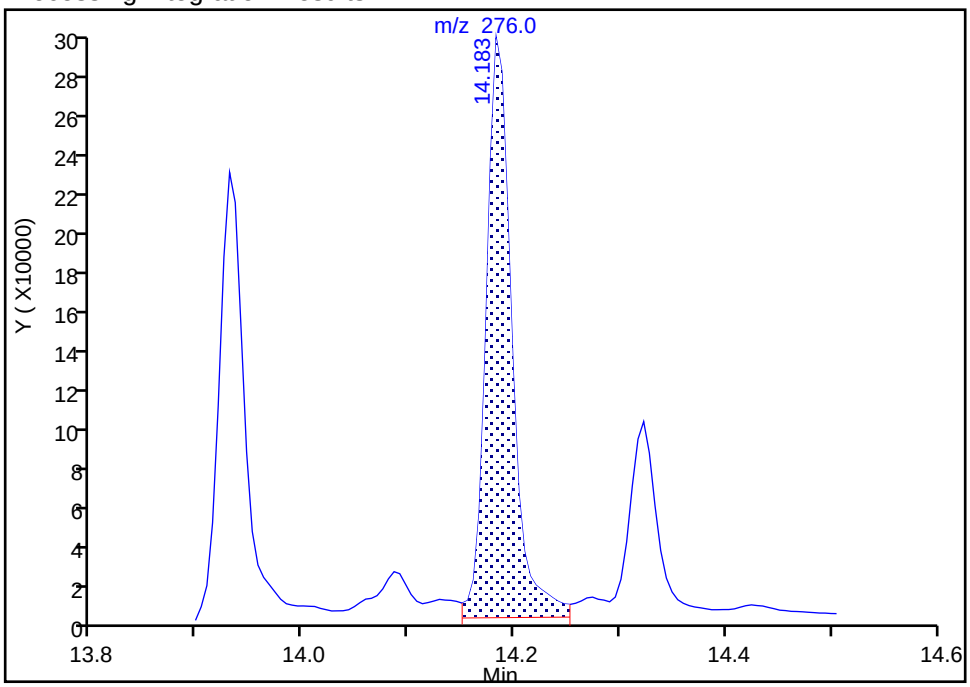
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

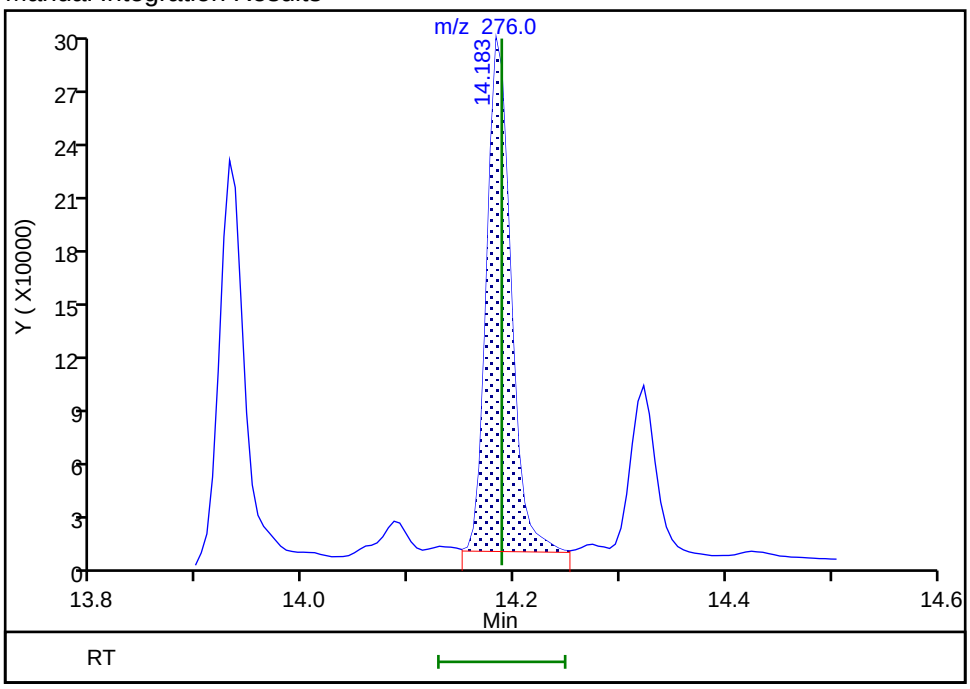
Processing Integration Results

RT: 14.18
Area: 488196
Amount: 125.6274
Amount Units: ug/L



Manual Integration Results

RT: 14.18
Area: 451197
Amount: 116.1263
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:30:04

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

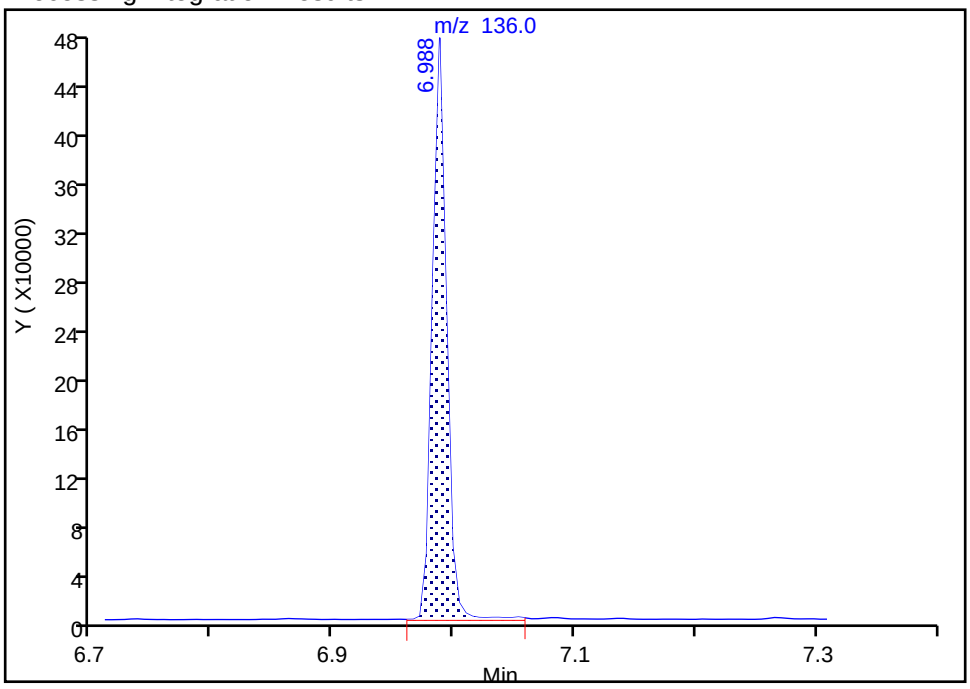
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 1 Naphthalene-d8, CAS: 1146-65-2

Signal: 1

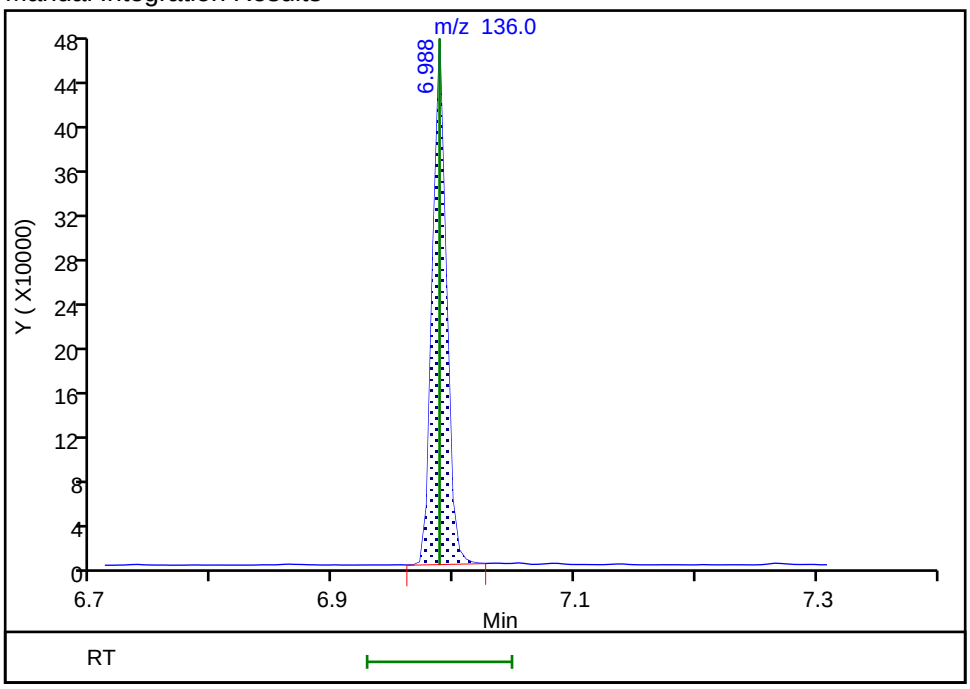
Processing Integration Results

RT: 6.99
Area: 383348
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 6.99
Area: 374007
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:27:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

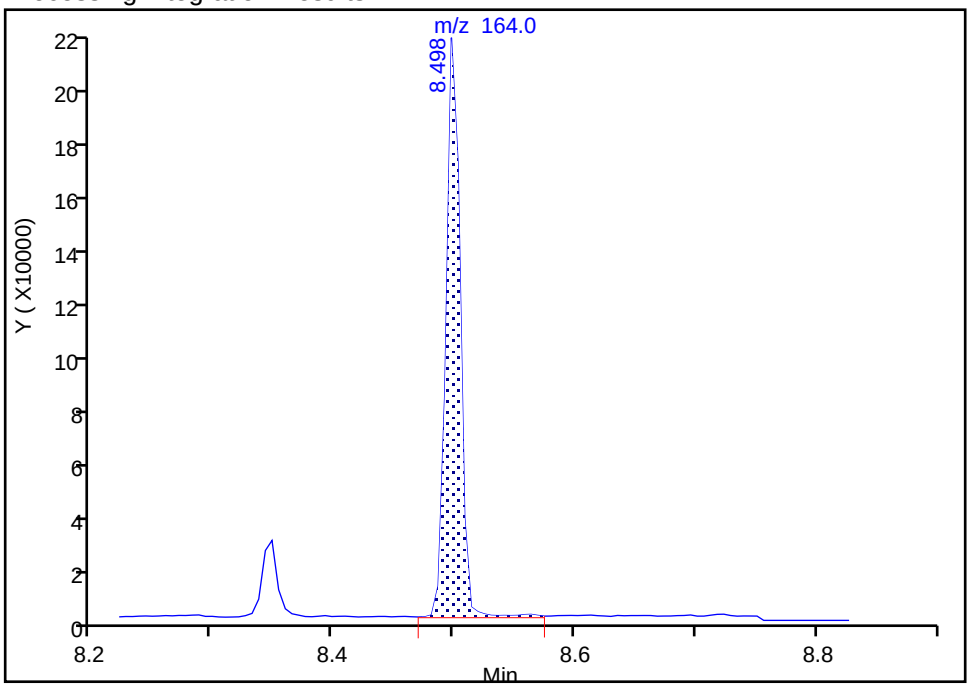
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 2 Acenaphthene-d10, CAS: 15067-26-2

Signal: 1

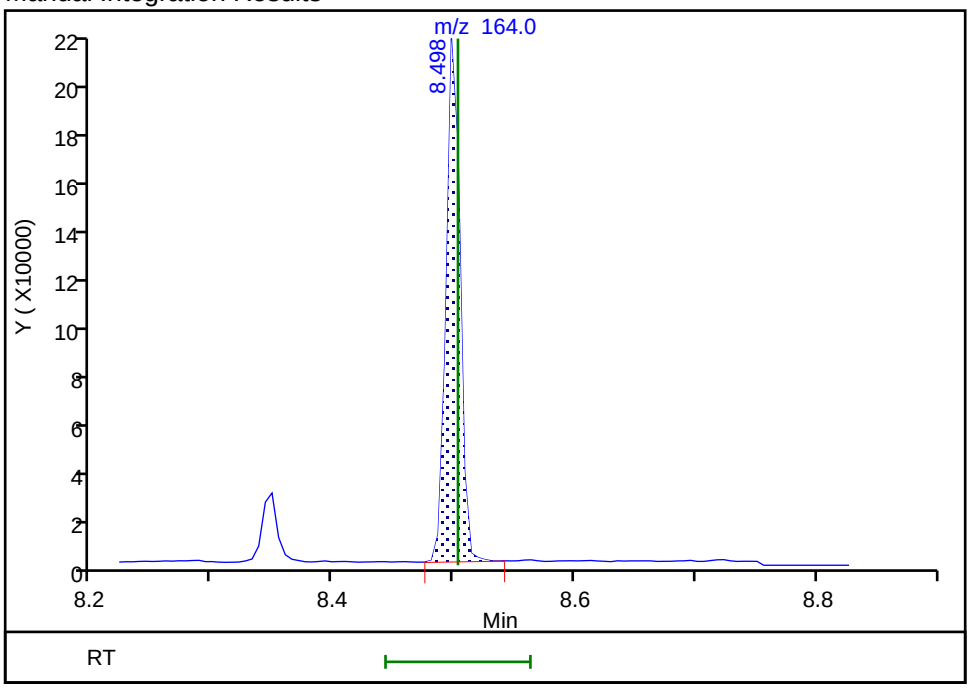
Processing Integration Results

RT: 8.50
Area: 175492
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 8.50
Area: 171865
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:27:06

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

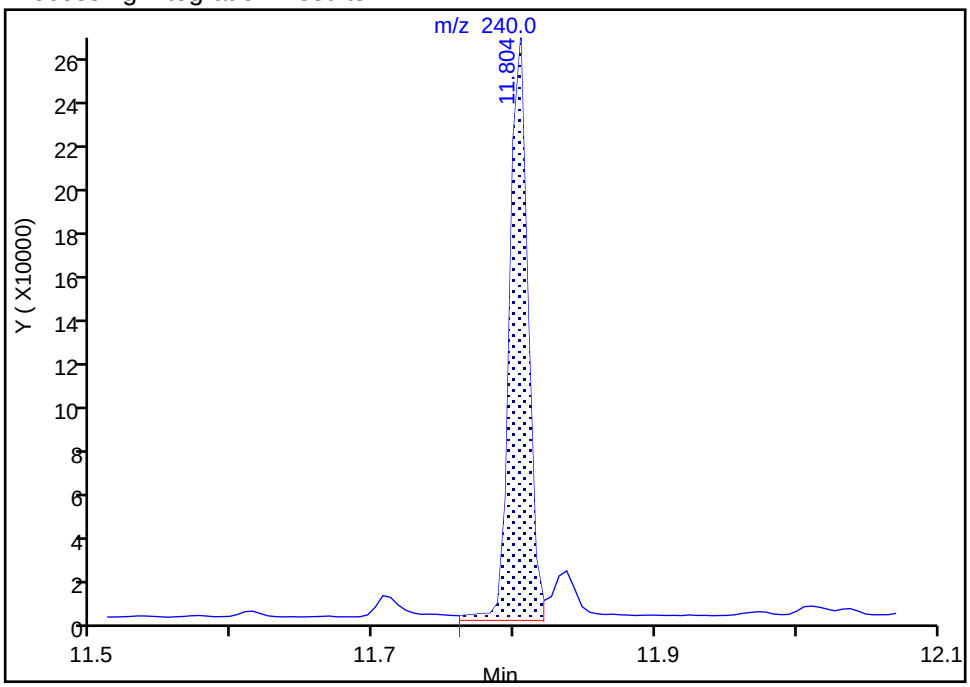
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A014.D				
Injection Date:	22-Jul-2019 16:27:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-7-A	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	KFS	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 4 Chrysene-d12, CAS: 1719-03-5

Signal: 1

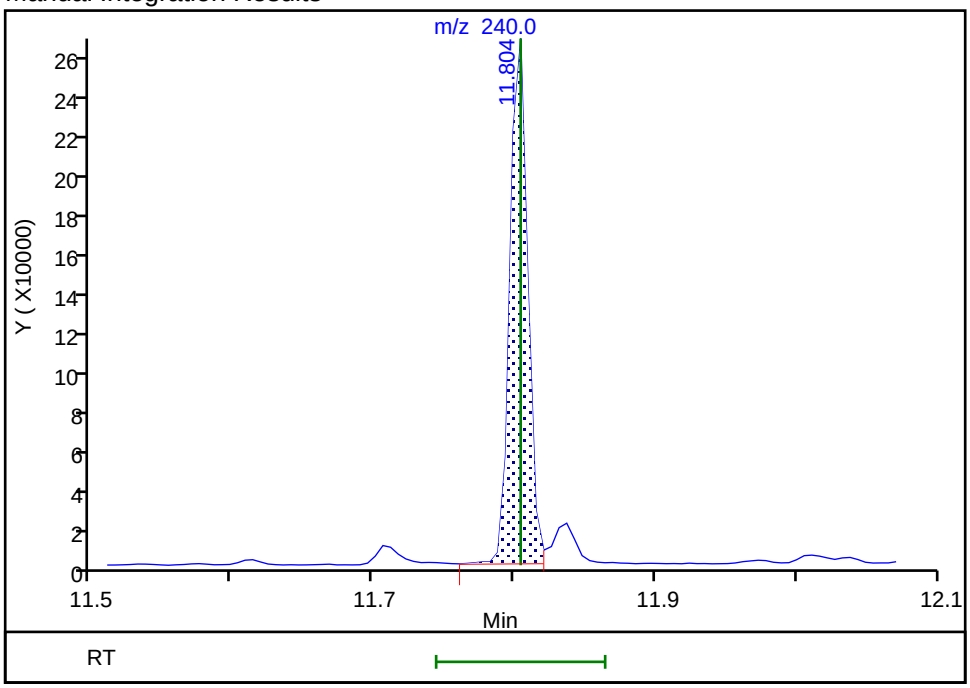
Processing Integration Results

RT: 11.80
Area: 236891
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 11.80
Area: 229573
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:27:12

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Matrix: Solid Lab File ID: 072219A015.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 10:50

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10.351(g) Date Analyzed: 07/22/2019 16:54

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 64.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	26		14	4.4
91-57-6	2-Methylnaphthalene	10	J	14	5.5
90-12-0	1-Methylnaphthalene	6.0	J	14	1.7
208-96-8	Acenaphthylene	9.4	J	14	1.4
83-32-9	Acenaphthene	11	J	14	1.6
86-73-7	Fluorene	12	J	14	1.4
85-01-8	Phenanthrene	69		14	4.4
120-12-7	Anthracene	18		14	1.6
206-44-0	Fluoranthene	110		14	3.8
129-00-0	Pyrene	120		14	2.6
56-55-3	Benzo[a]anthracene	50		14	2.1
218-01-9	Chrysene	55		14	4.1
205-99-2	Benzo[b]fluoranthene	62		14	1.6
207-08-9	Benzo[k]fluoranthene	17		14	1.6
50-32-8	Benzo[a]pyrene	53		14	2.3
193-39-5	Indeno[1,2,3-cd]pyrene	58		14	1.6
53-70-3	Dibenz(a,h)anthracene	7.1	J B	14	1.9
191-24-2	Benzo[g,h,i]perylene	45	B	14	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	66		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D
Lims ID: 580-87706-A-8-A
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:54:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-8-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:33:27 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:33:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	99	378896	100.0	
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	96	168164	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	293335	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	221523	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	255998	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1470670	662.2	
10 Naphthalene	128	7.004	7.004	0.000	100	40636	9.60	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	96	10639	3.83	M
12 1-Methylnaphthalene	142	7.722	7.722	0.000	87	5756	2.22	M
13 Acenaphthylene	152	8.376	8.376	0.000	97	12754	3.48	M
14 Acenaphthene	153	8.520	8.525	-0.005	61	10663	4.00	M
15 Fluorene	166	8.941	8.947	-0.006	97	12051	4.52	M
17 Phenanthrene	178	9.703	9.704	-0.001	99	101337	25.4	M
18 Anthracene	178	9.745	9.745	0.000	100	25254	6.82	M
19 Fluoranthene	202	10.651	10.657	-0.006	47	149466	39.6	
20 Pyrene	202	10.824	10.830	-0.006	98	174138	43.8	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	87	46928	18.6	M
22 Chrysene	228	11.821	11.821	0.000	98	68864	20.5	M
23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	100	75017	22.7	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	25739	6.38	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	77	65323	19.6	M
26 Indeno[1,2,3-cd]pyrene	276	13.935	13.935	0.000	85	54512	21.5	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	4994	2.64	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	60198	16.6	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

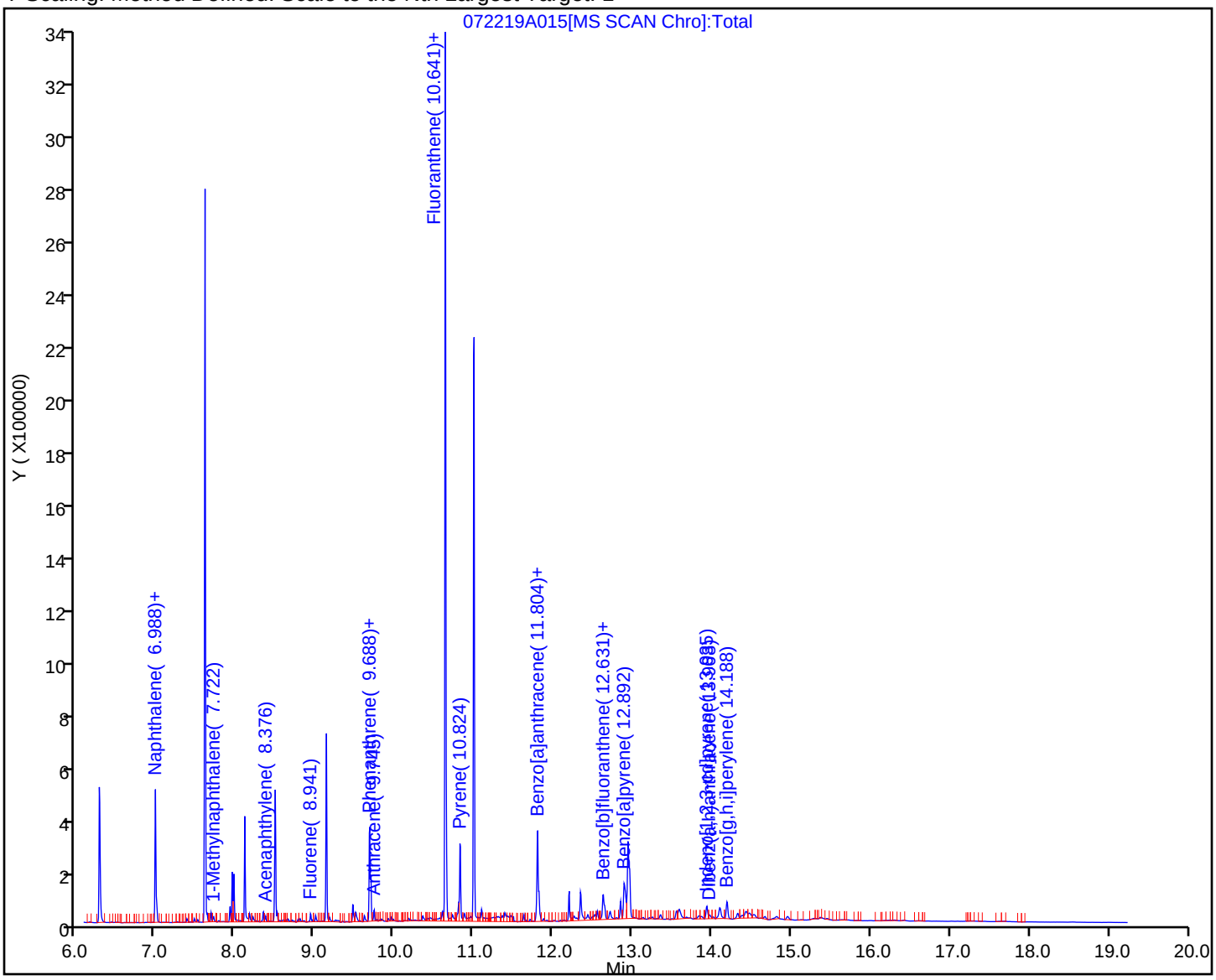
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D
Lims ID: 580-87706-A-8-A
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:54:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-8-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:33:27 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:33:27

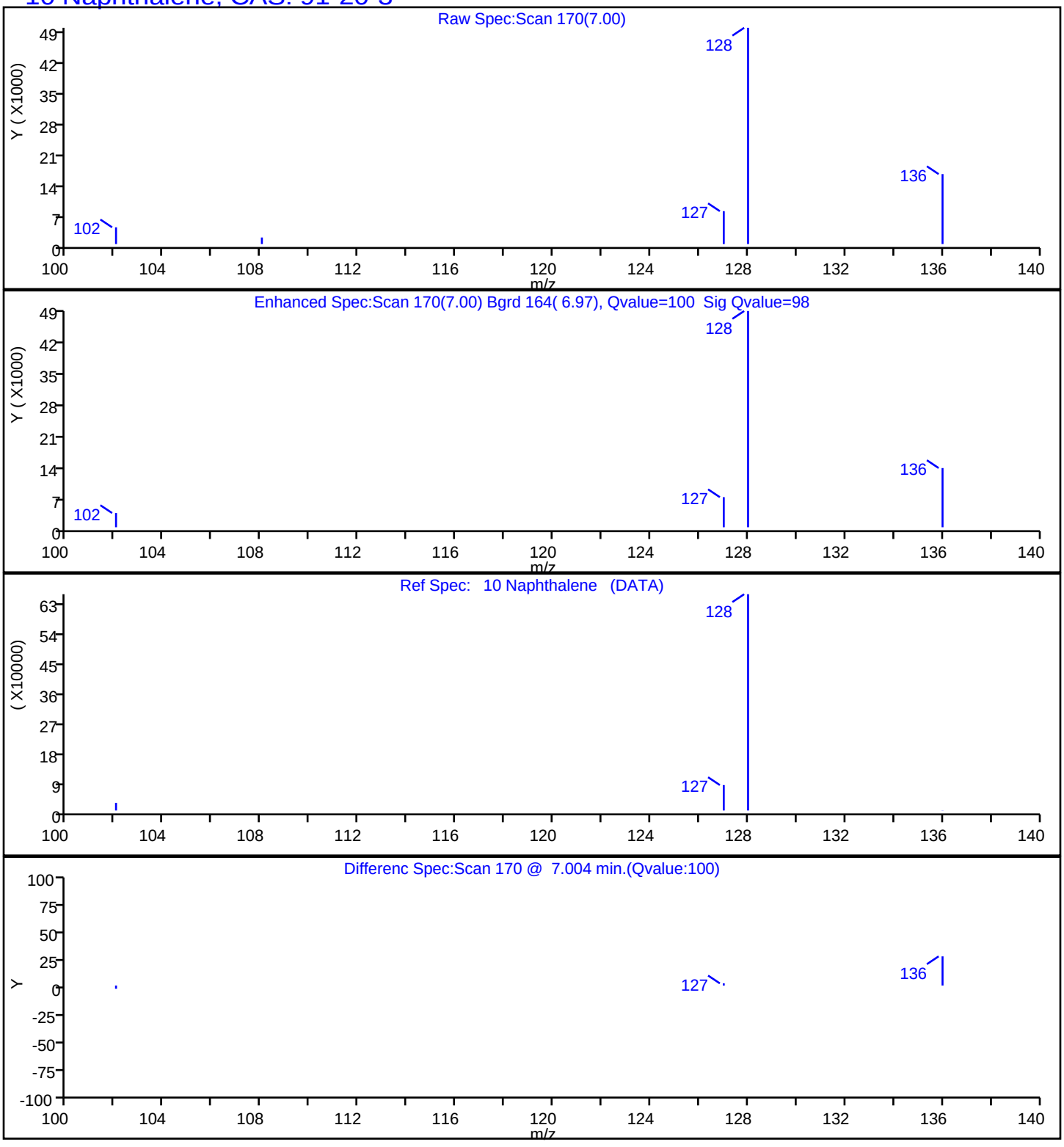
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	662.2	66.22

Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

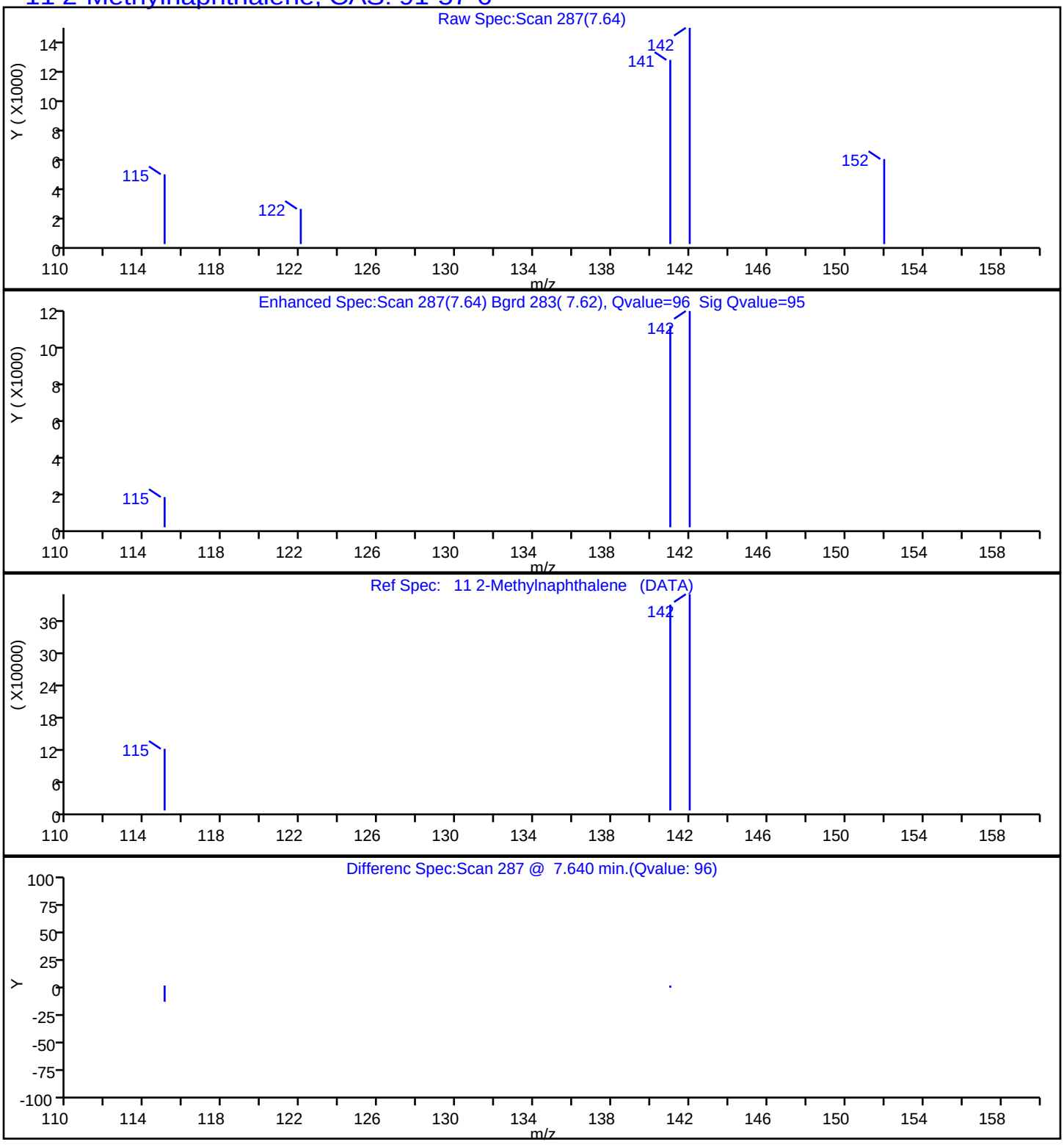


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

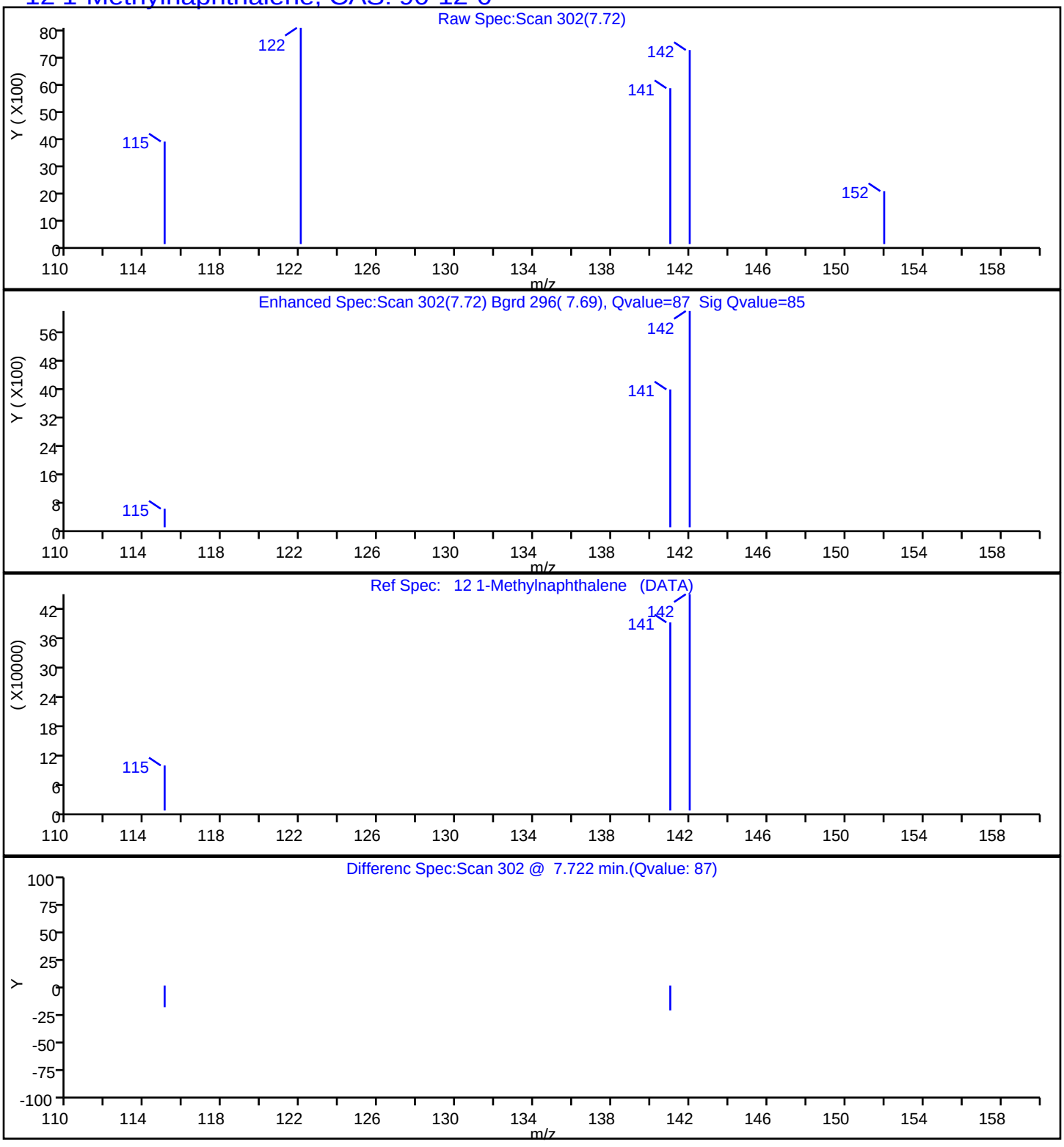


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

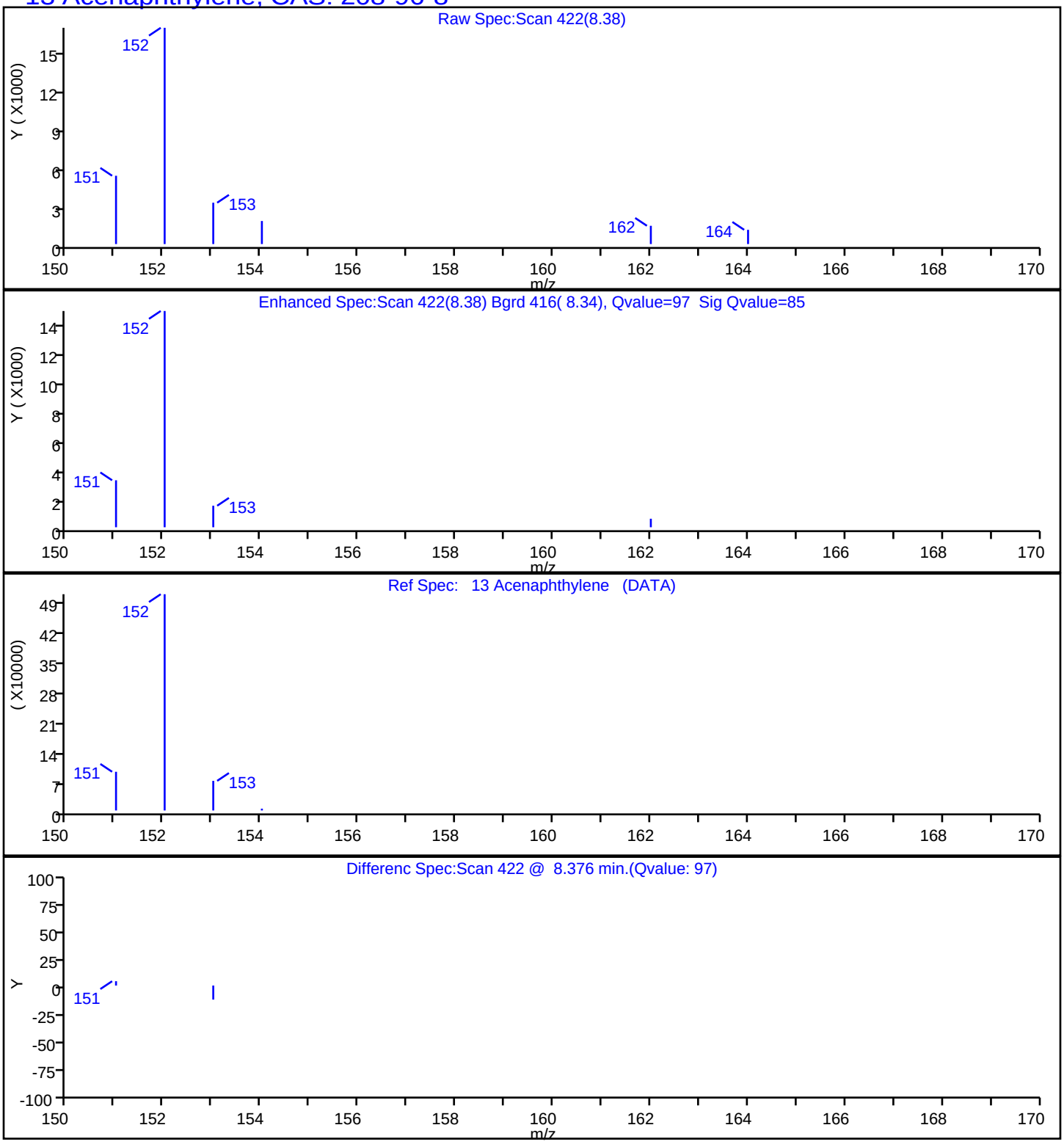


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

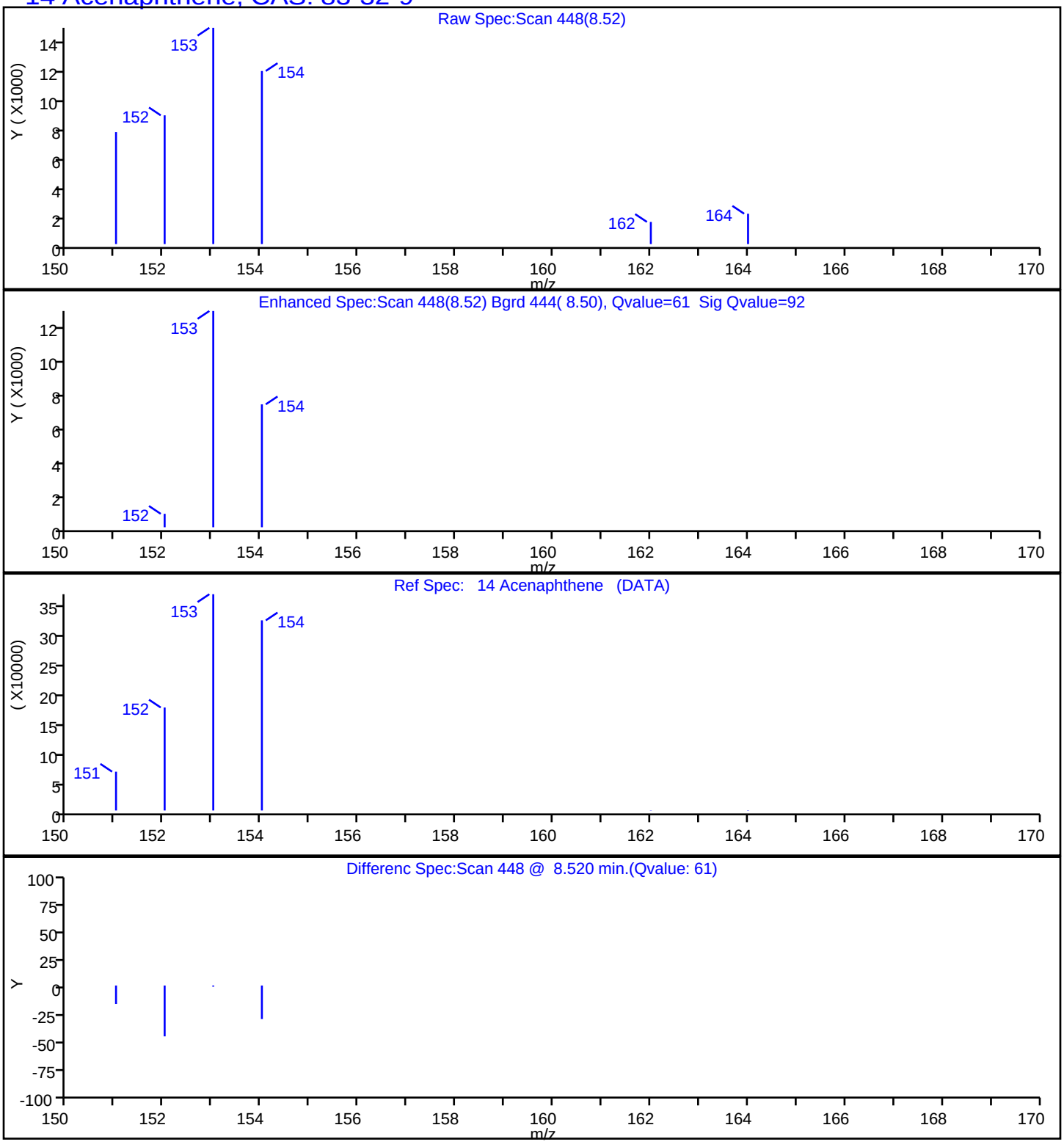


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

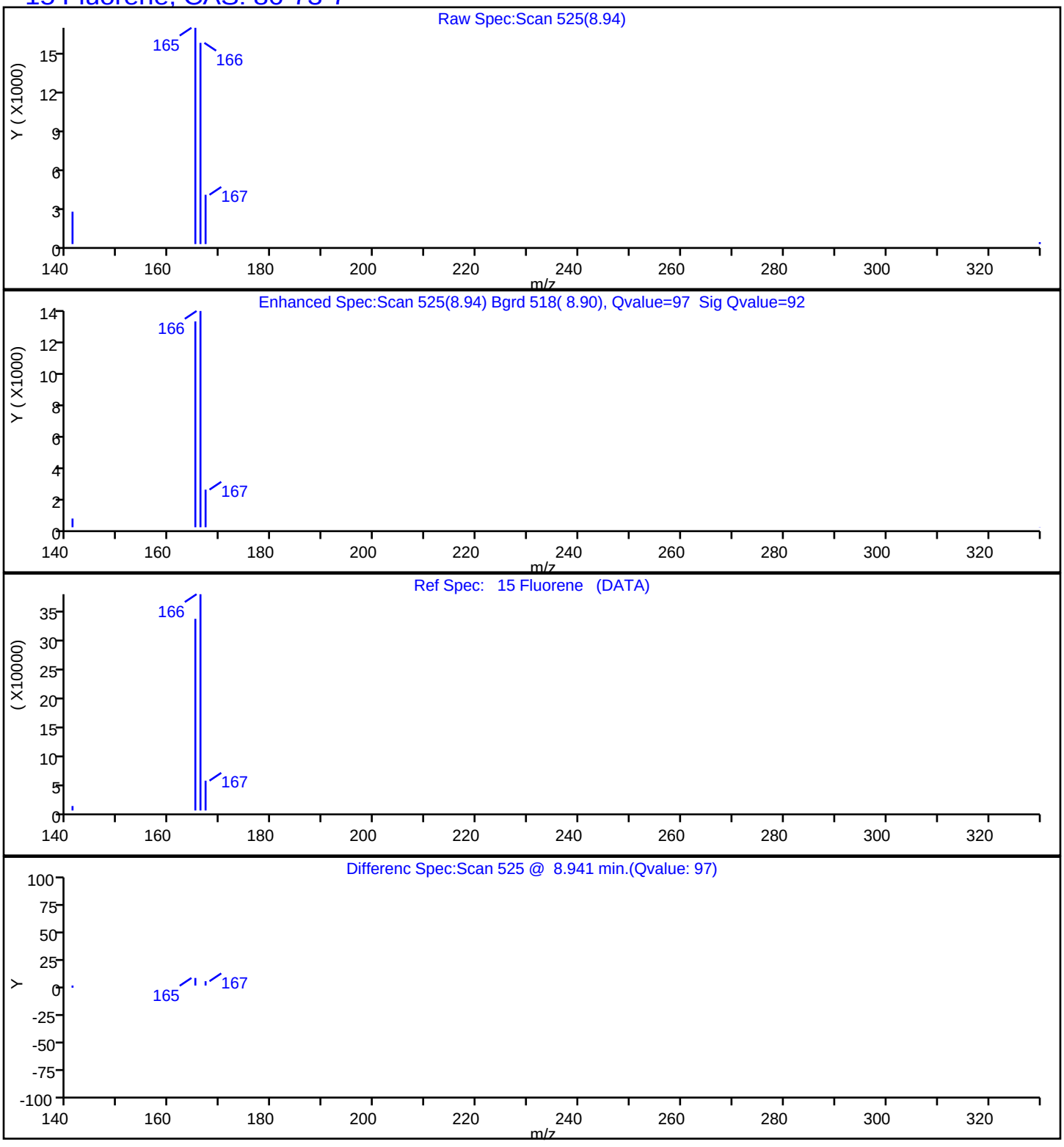


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

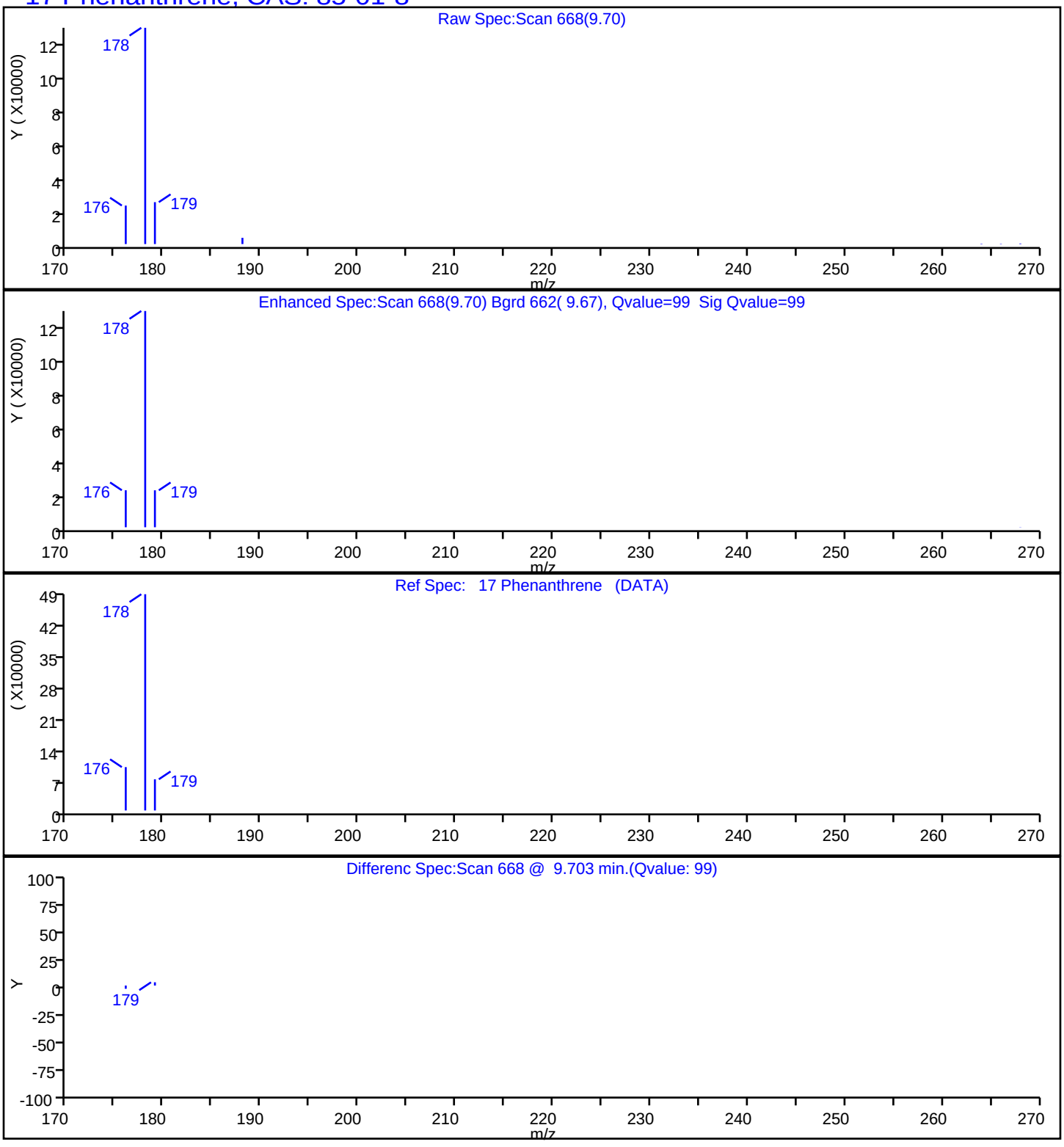


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

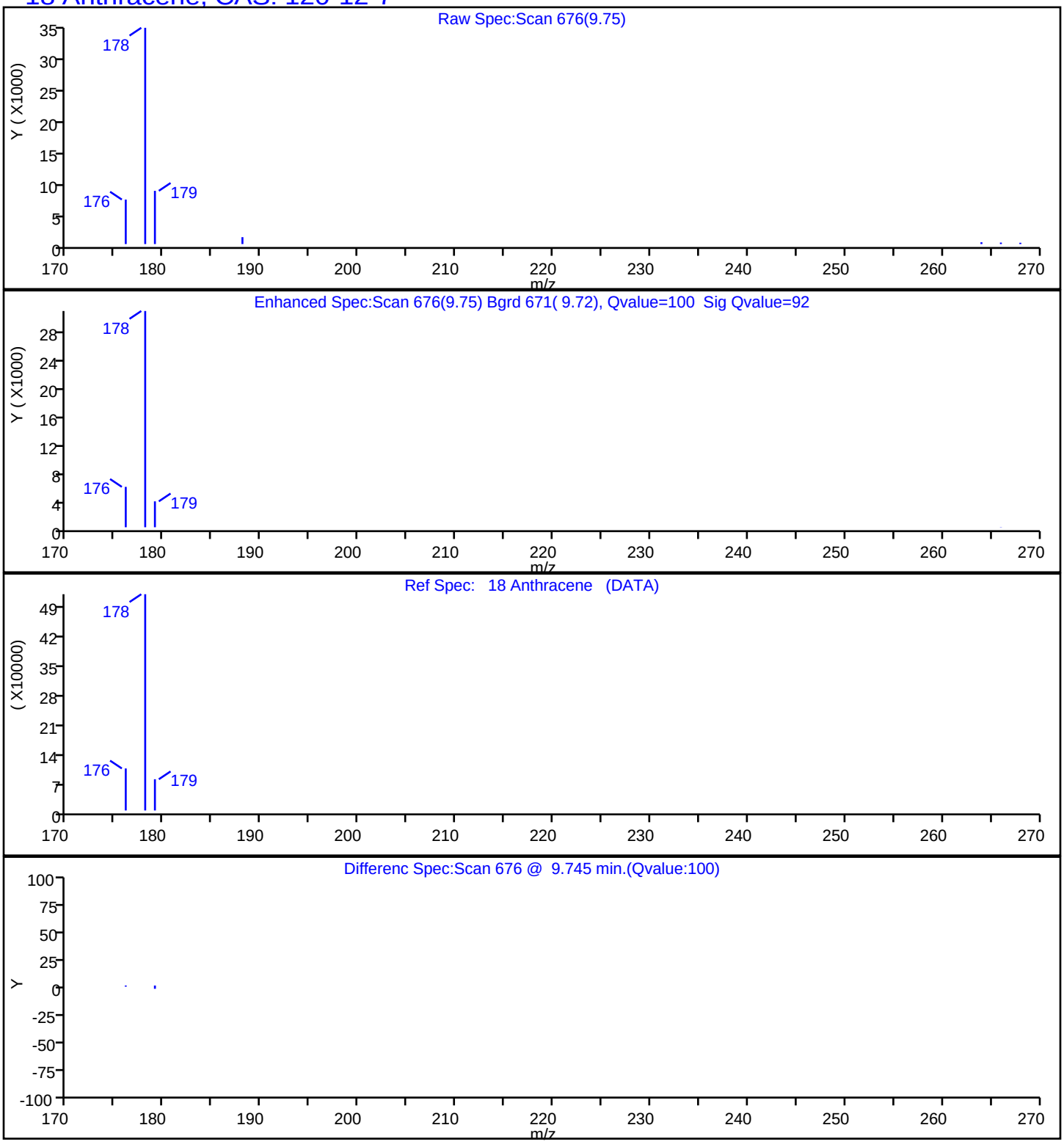


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

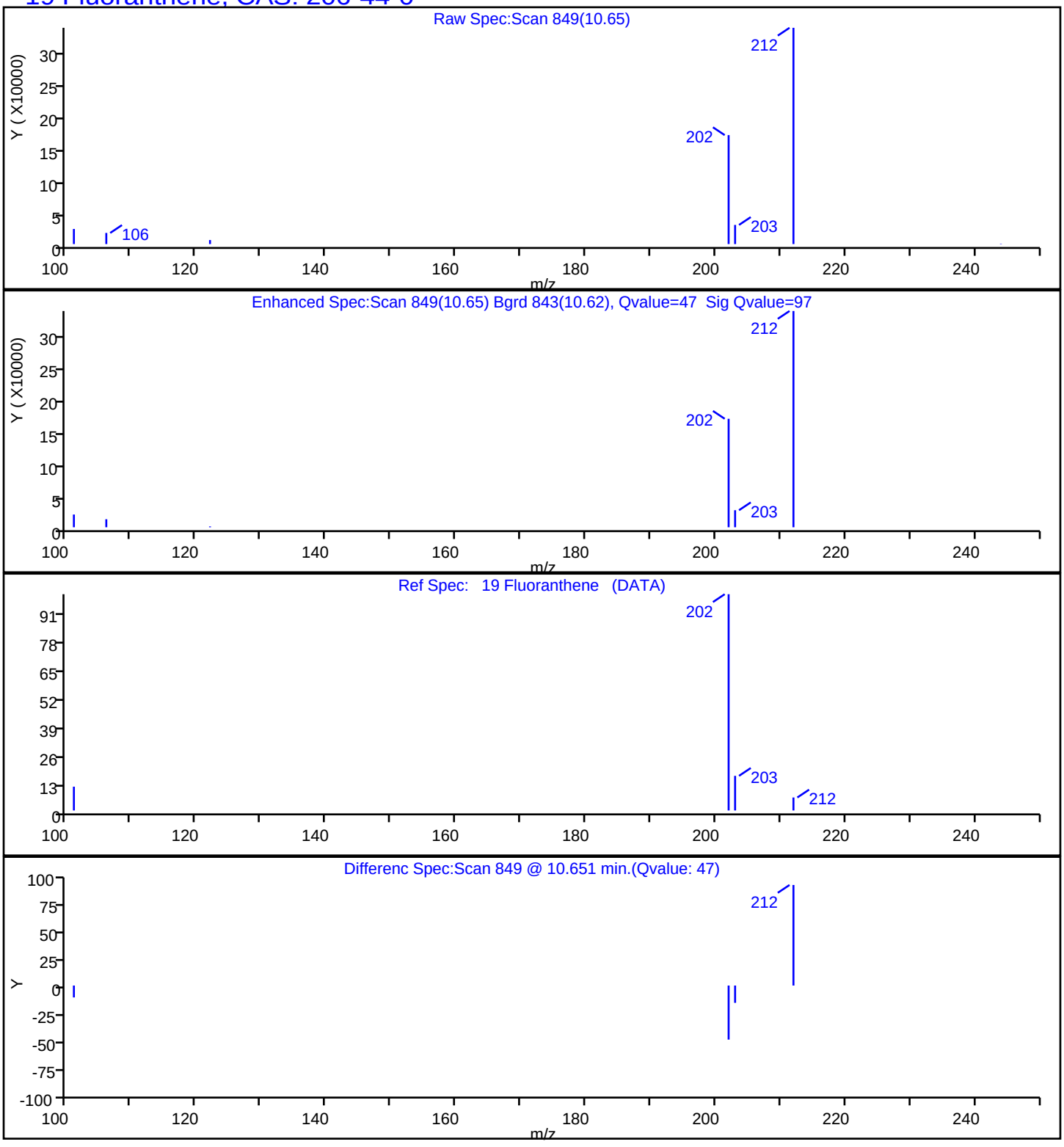


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

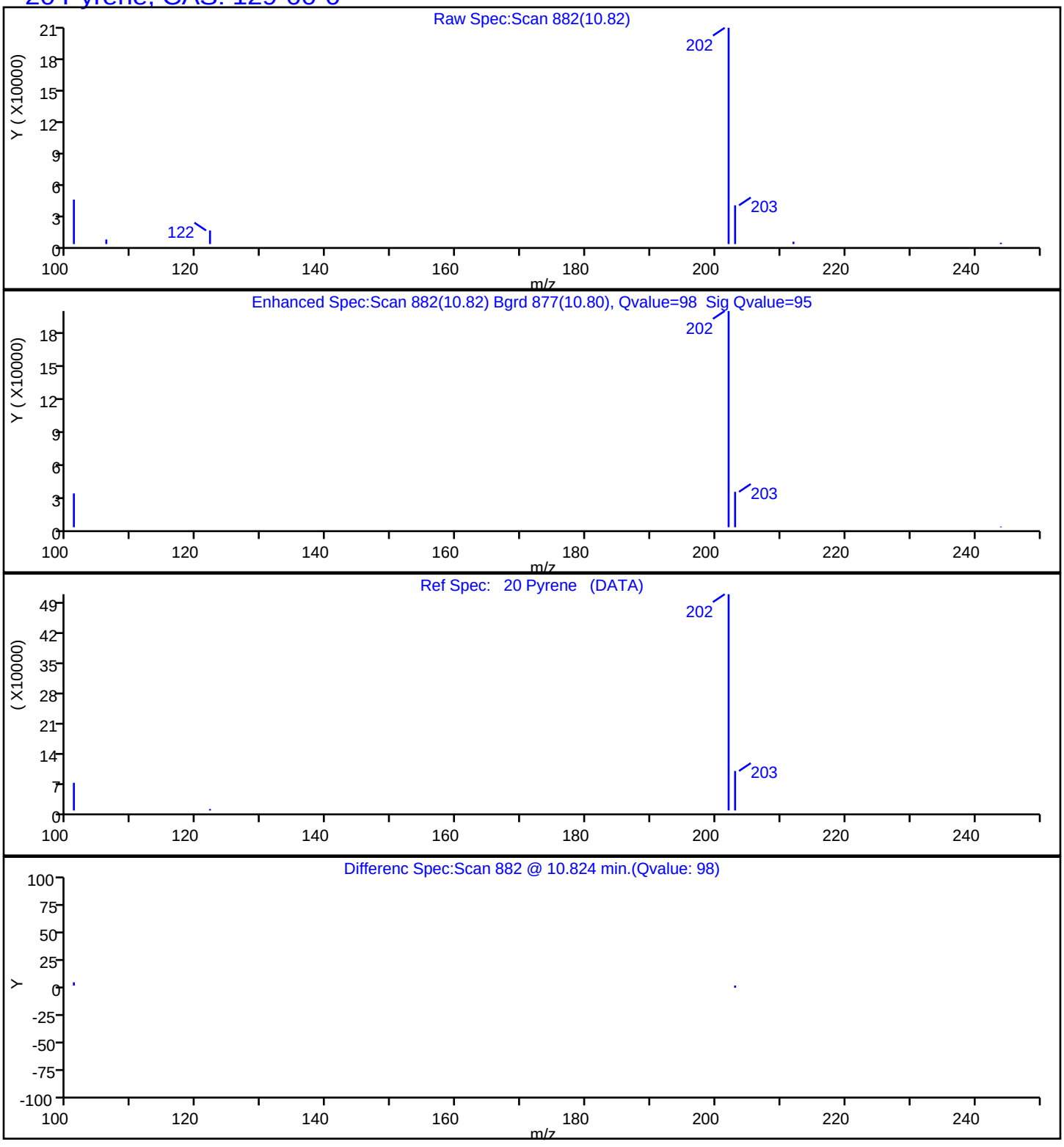


Report Date: 23-Jul-2019 14:33:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

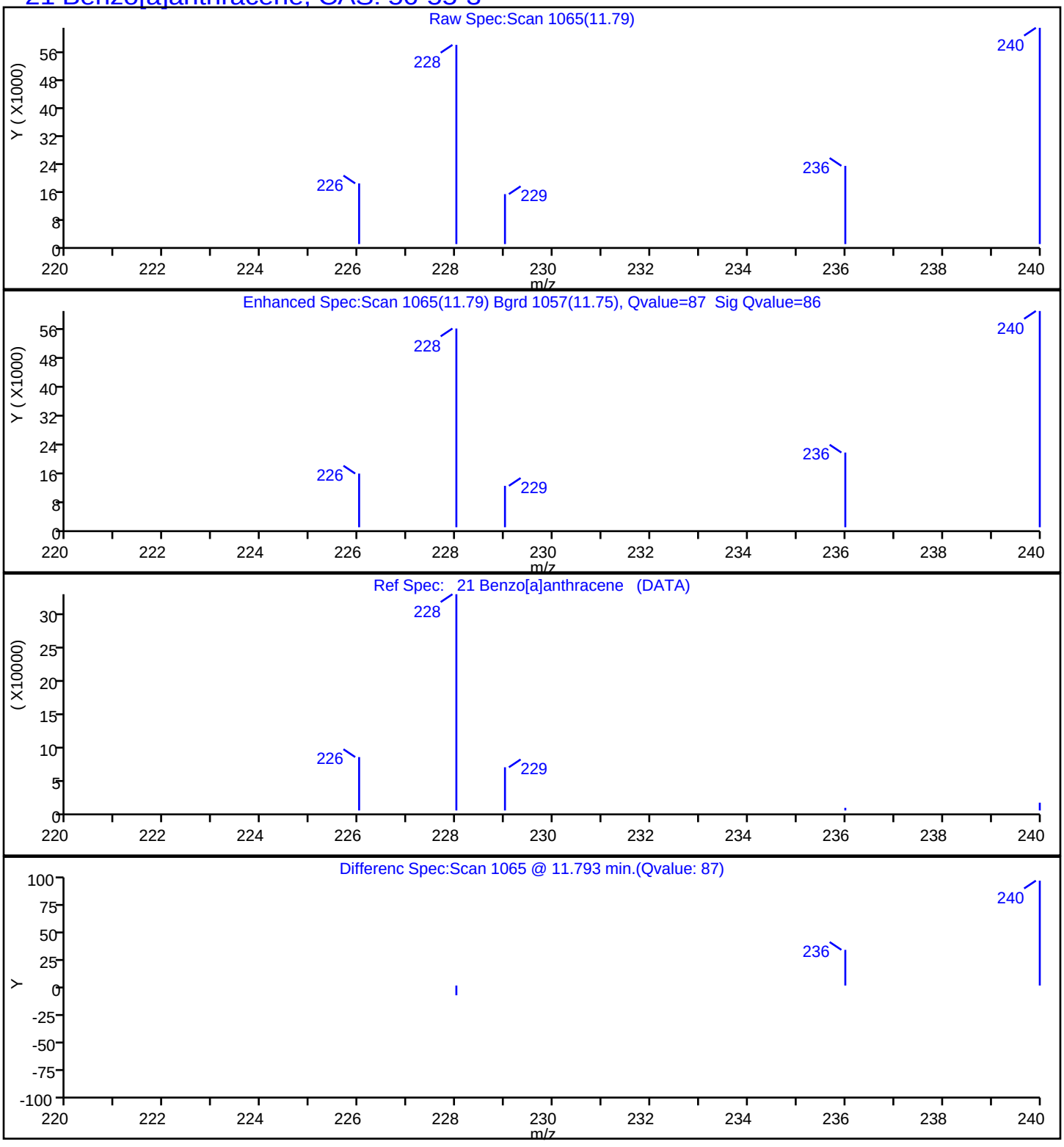


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

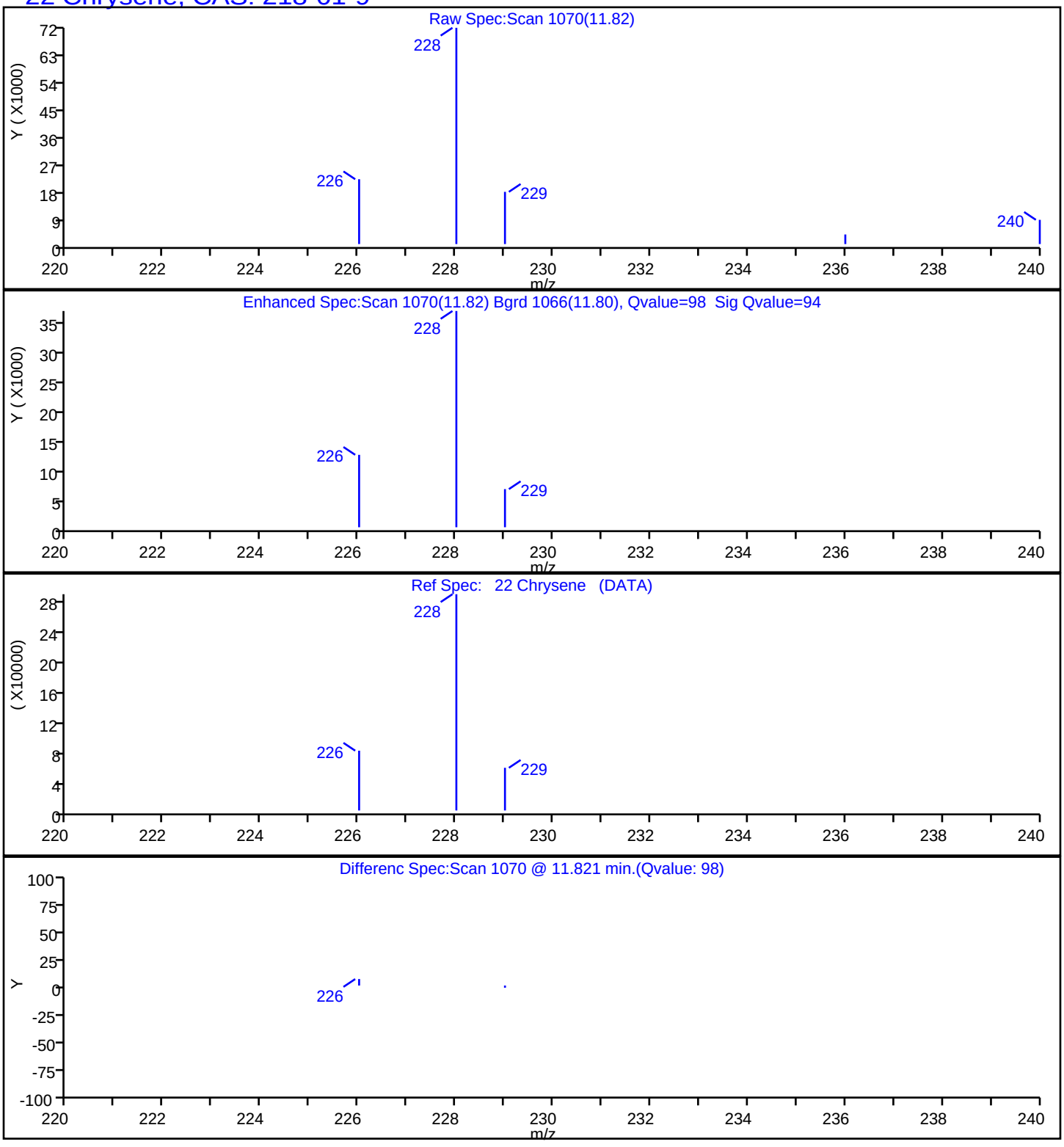


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

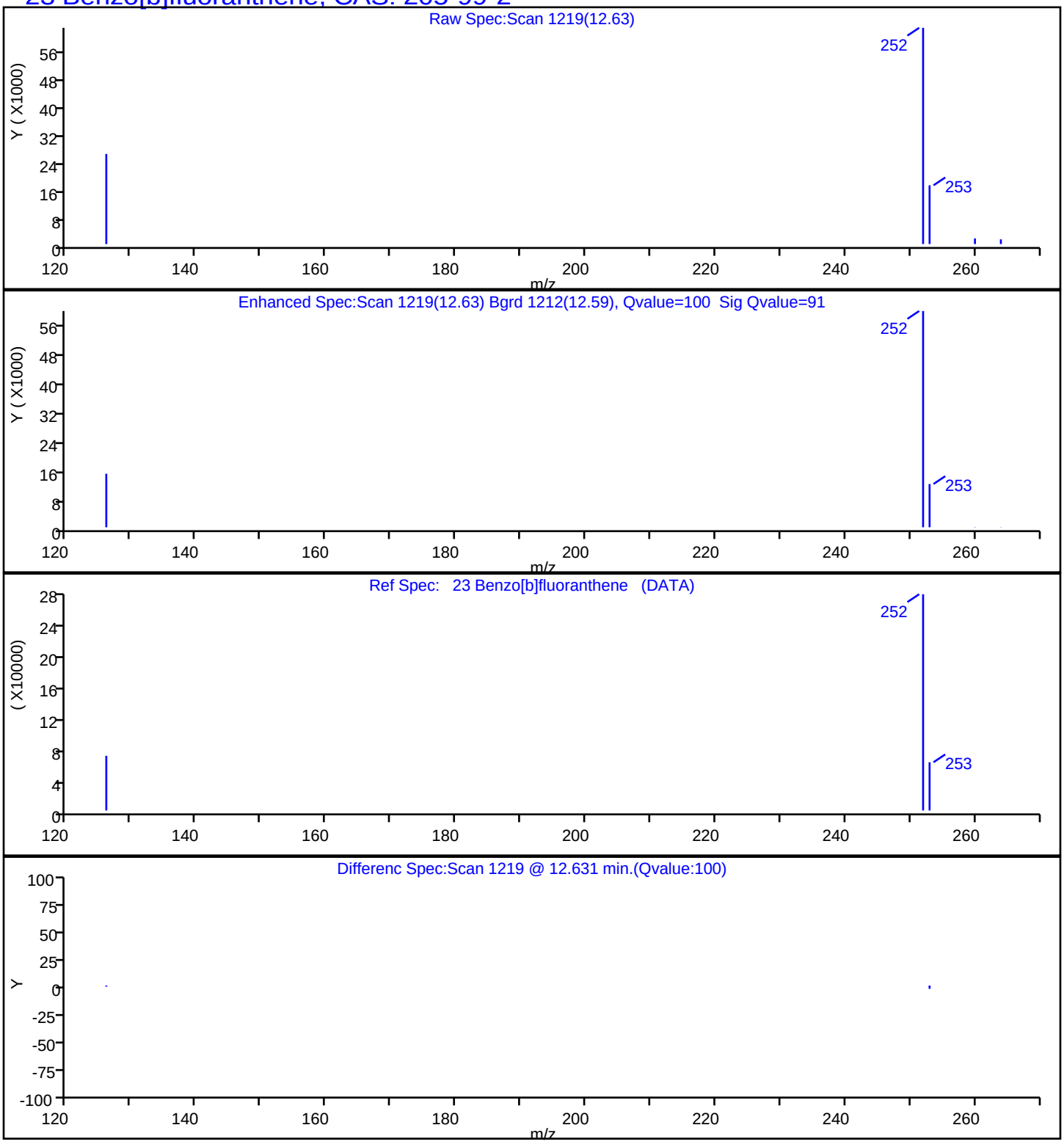


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

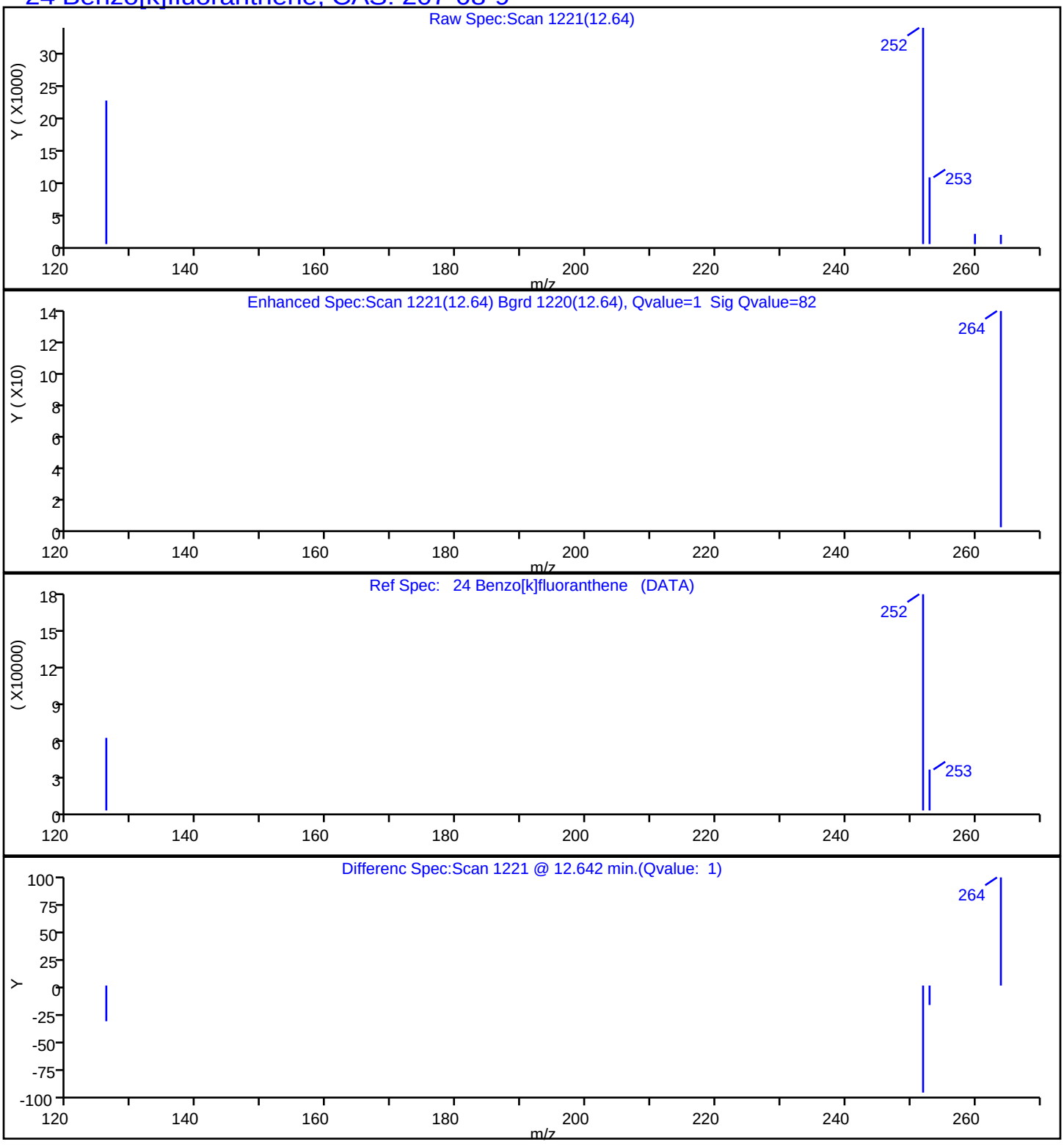


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

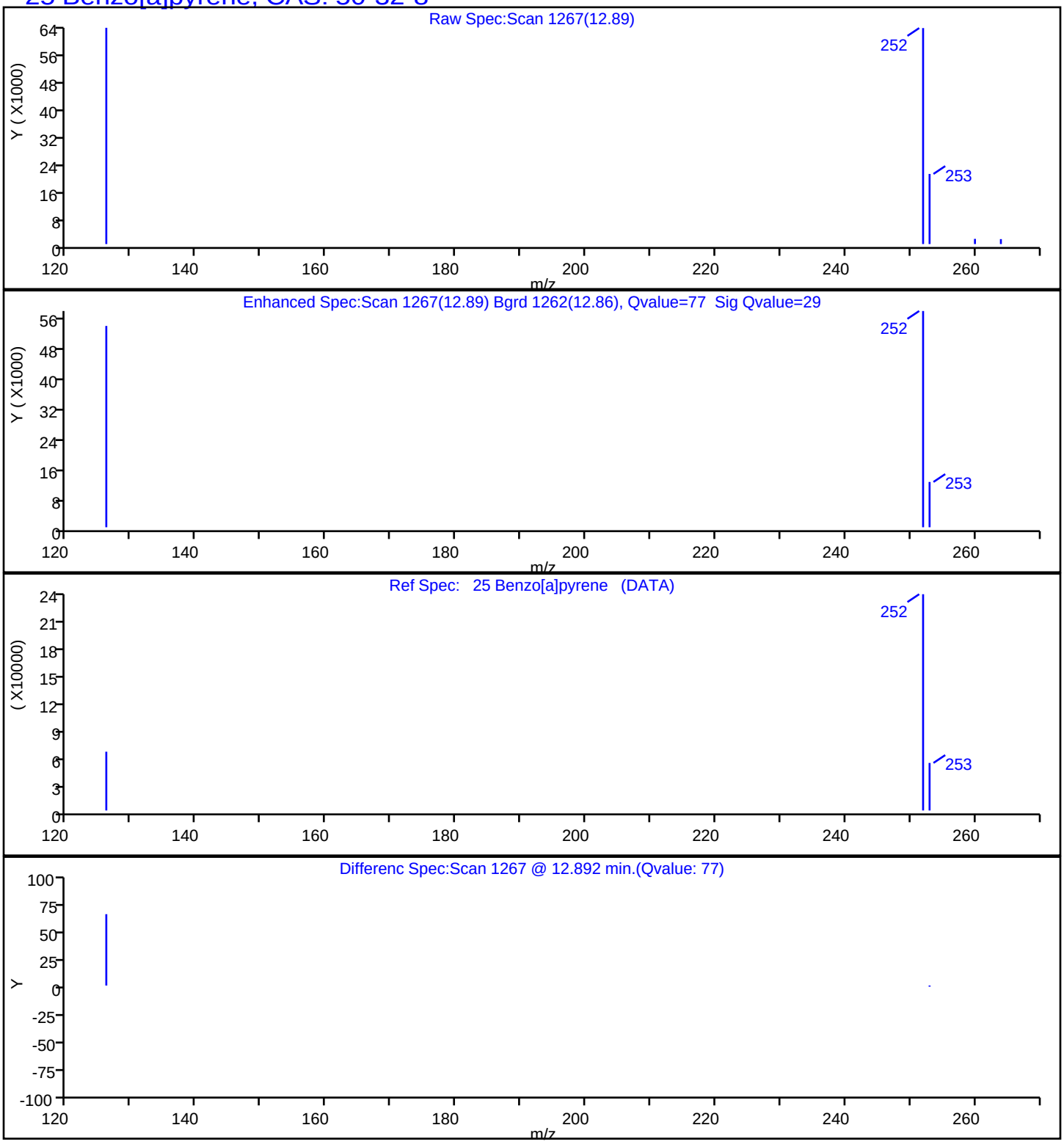


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

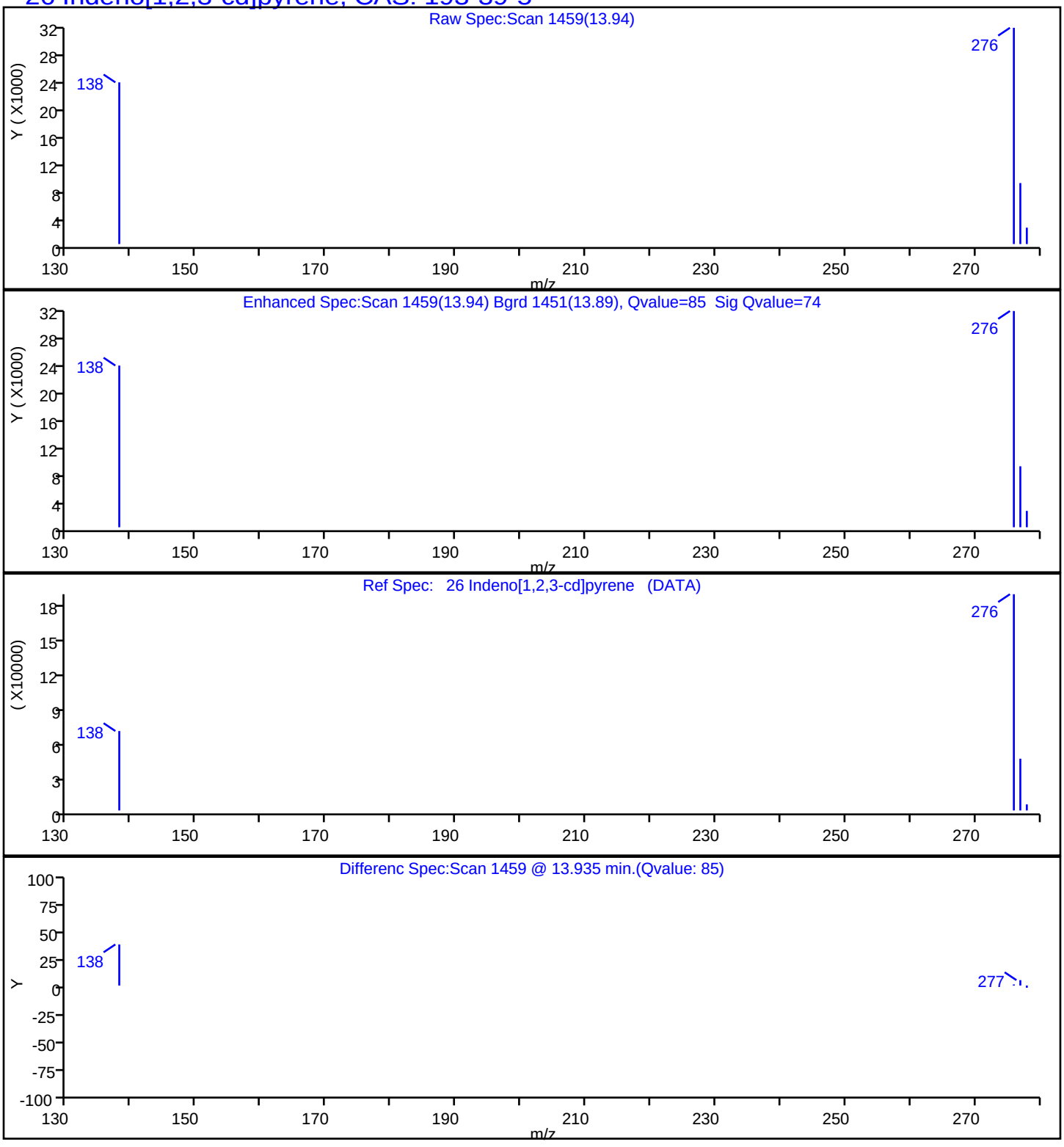


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

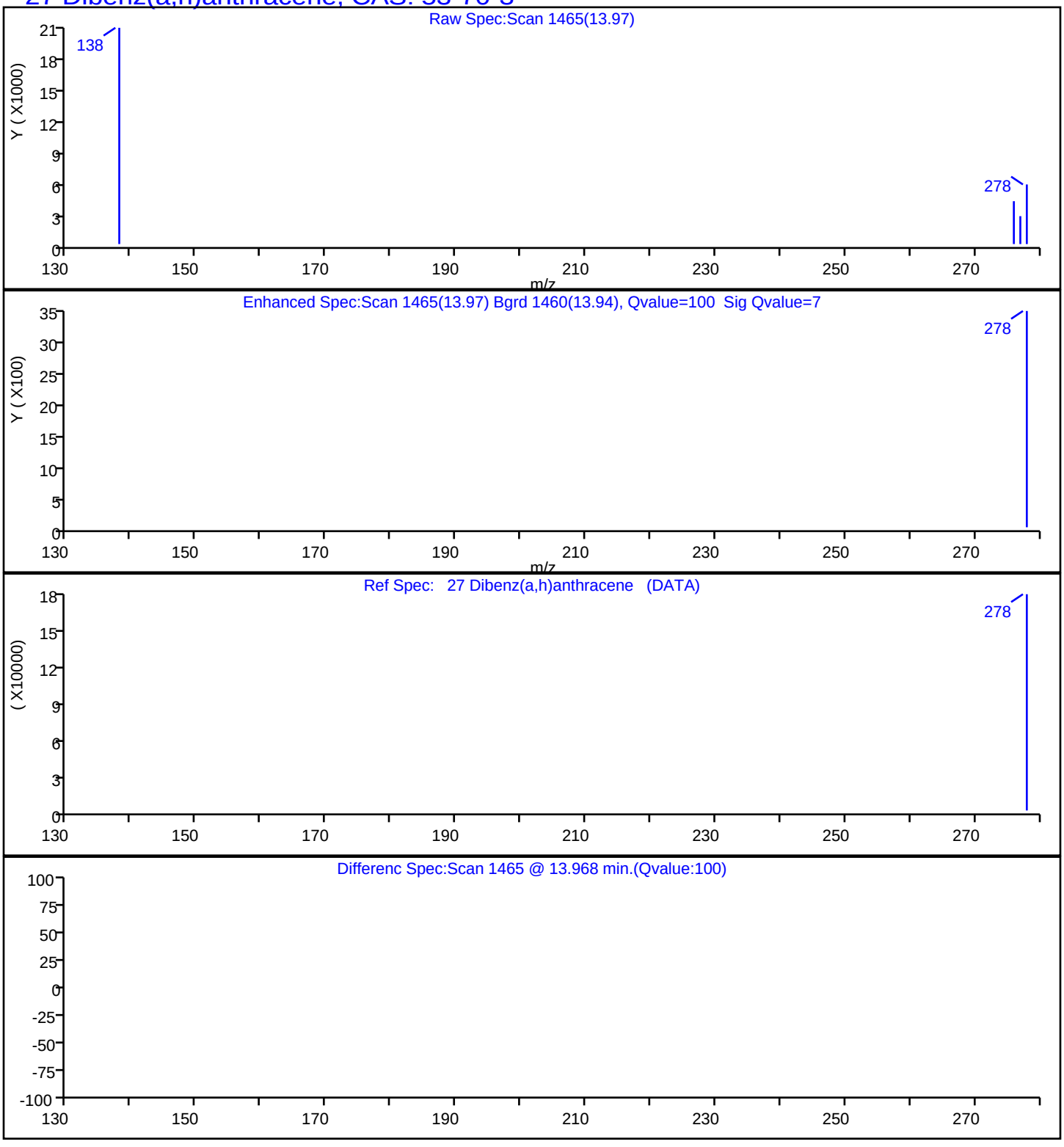


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

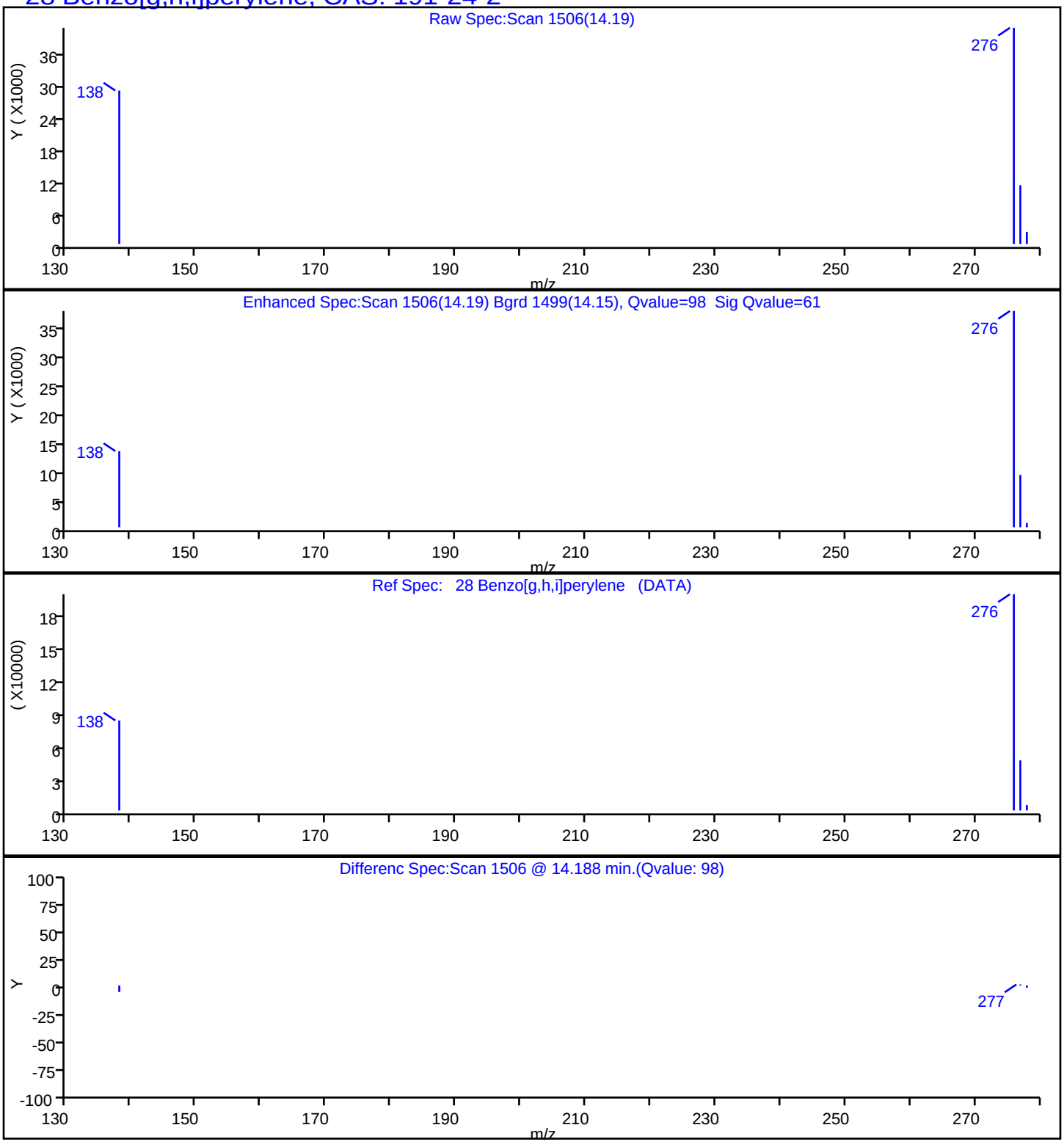


Report Date: 23-Jul-2019 14:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Eurofins TestAmerica, Seattle

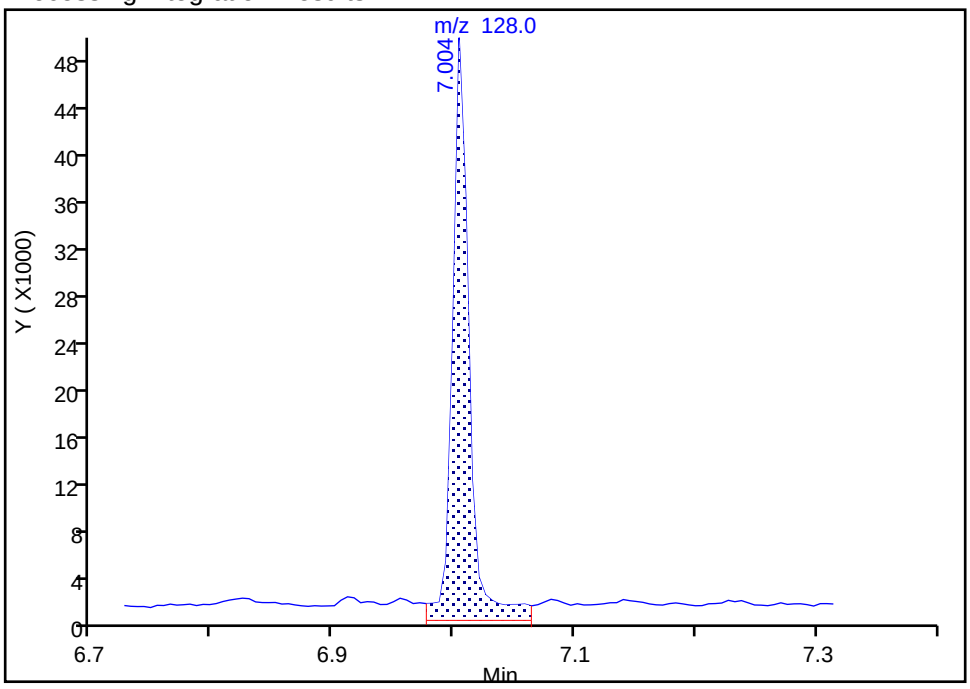
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

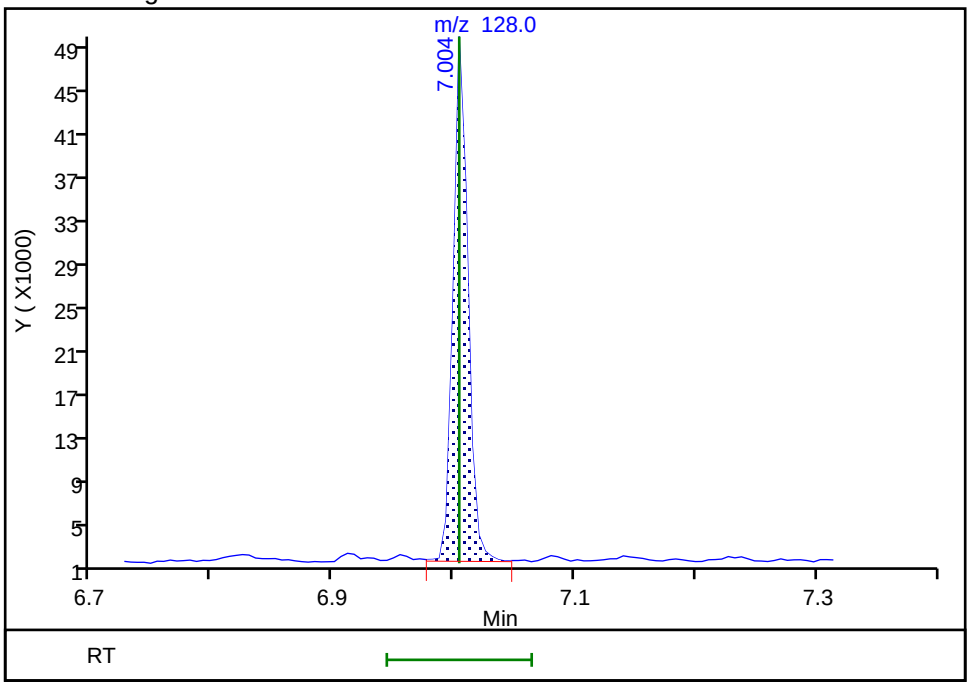
Processing Integration Results

RT: 7.00
Area: 47292
Amount: 11.171104
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 40636
Amount: 9.598854
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:31:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

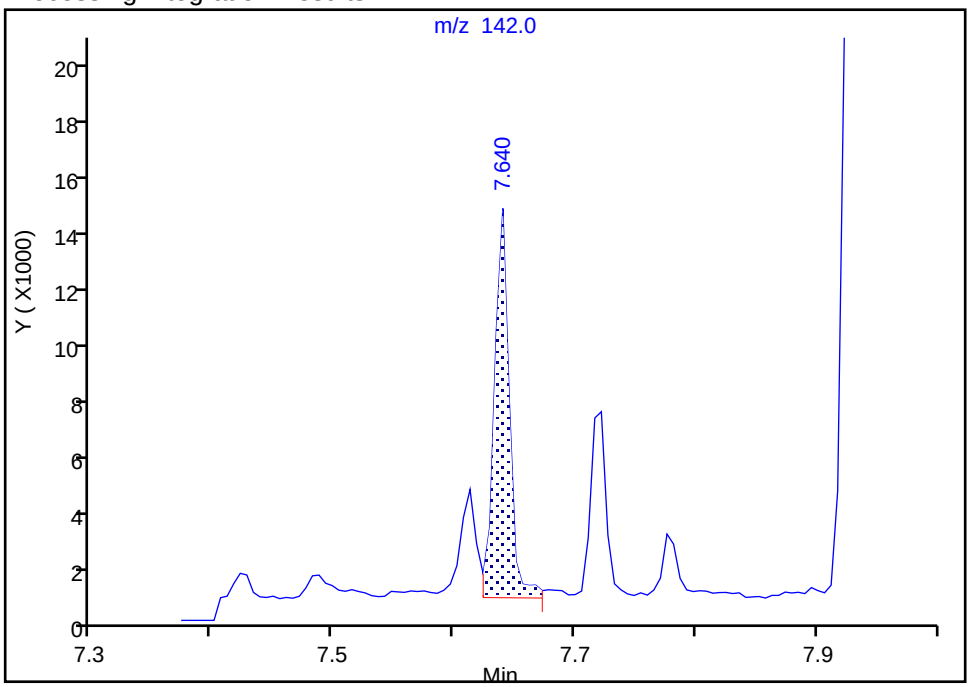
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

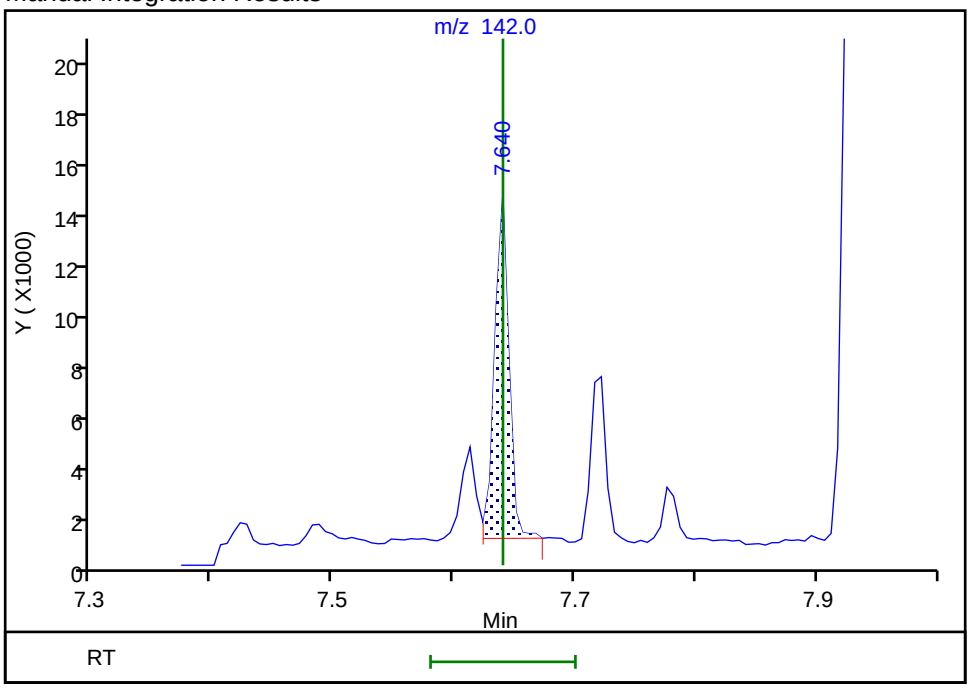
Processing Integration Results

RT: 7.64
Area: 11368
Amount: 4.094751
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 10639
Amount: 3.832166
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:31:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

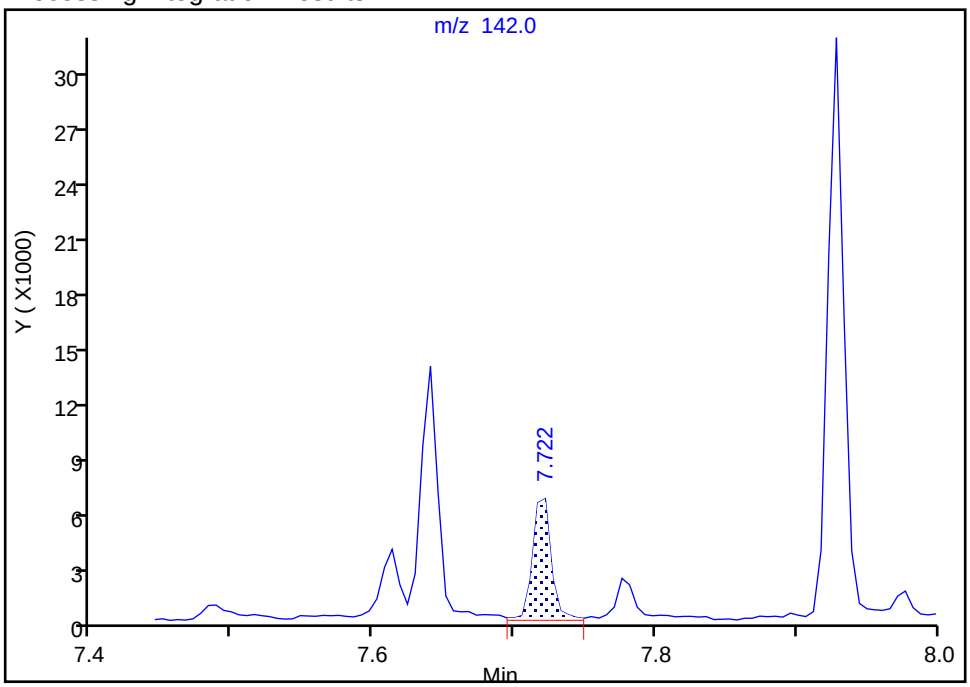
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

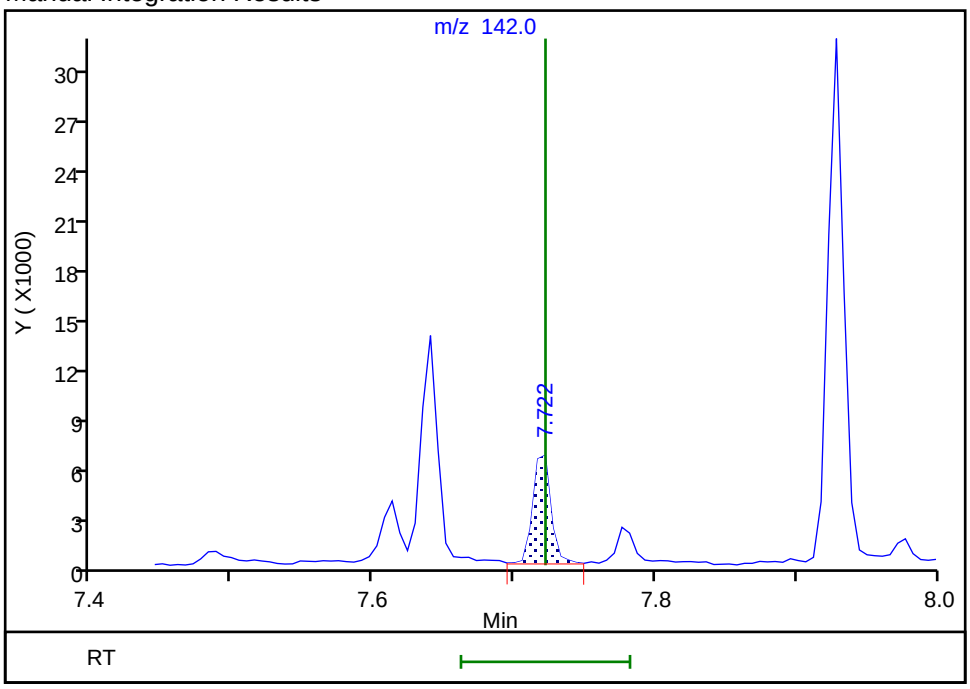
Processing Integration Results

RT: 7.72
Area: 5988
Amount: 2.310202
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 5756
Amount: 2.220695
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:31:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

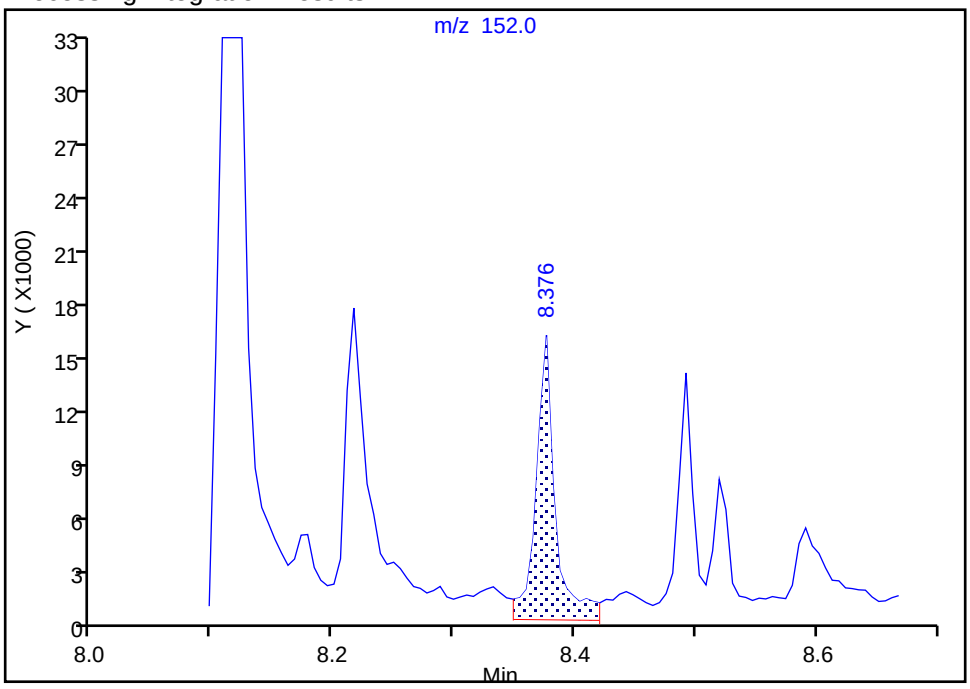
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

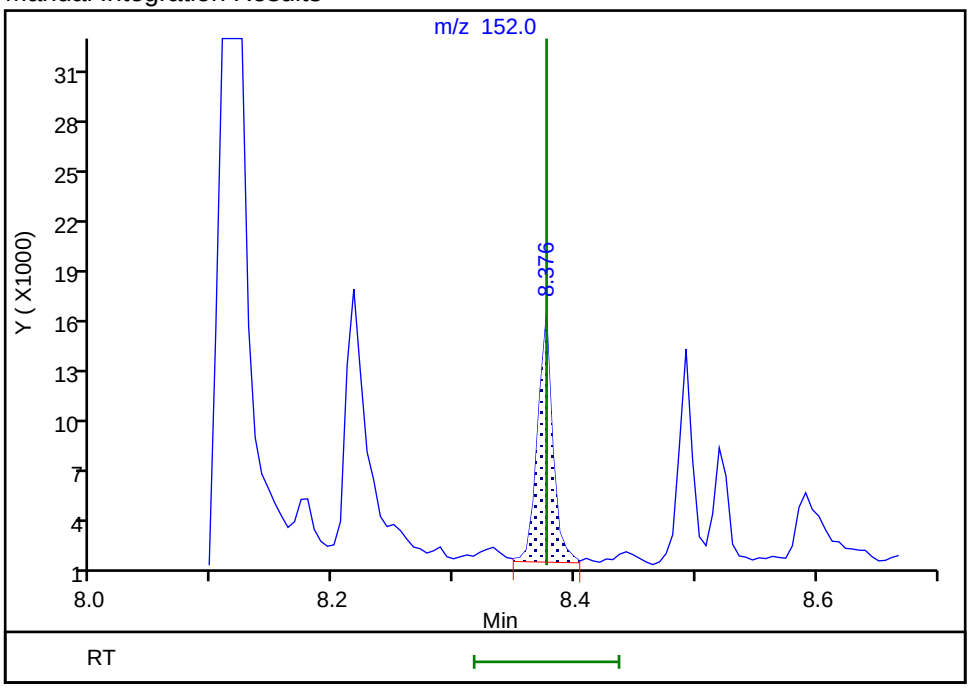
Processing Integration Results

RT: 8.38
Area: 16873
Amount: 4.600367
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 12754
Amount: 3.477335
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:31:40

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

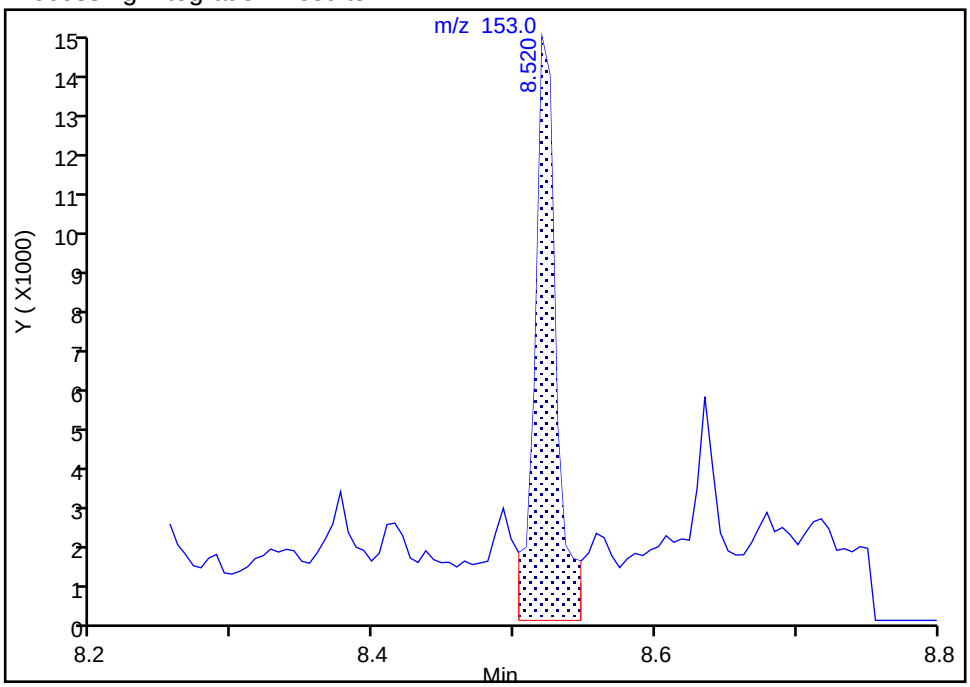
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

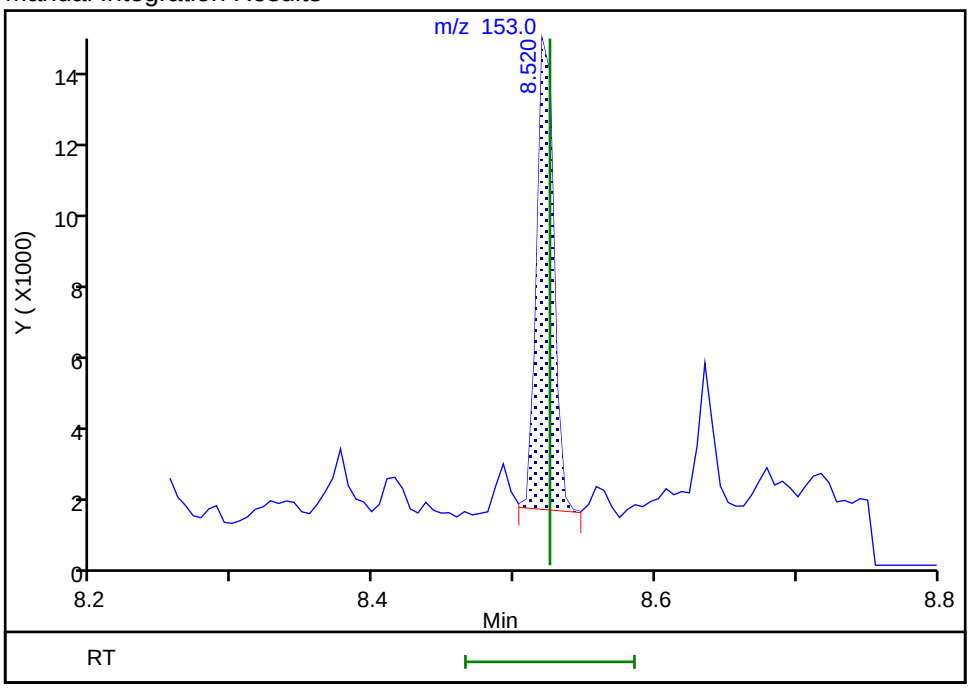
Processing Integration Results

RT: 8.52
Area: 14565
Amount: 5.470076
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 10663
Amount: 4.004629
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:31:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

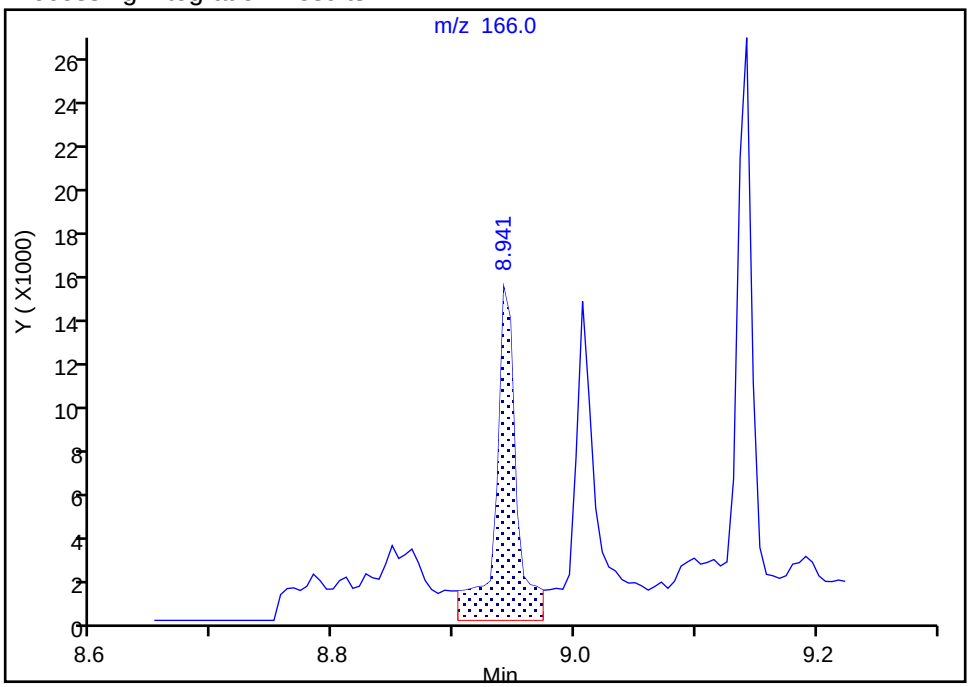
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

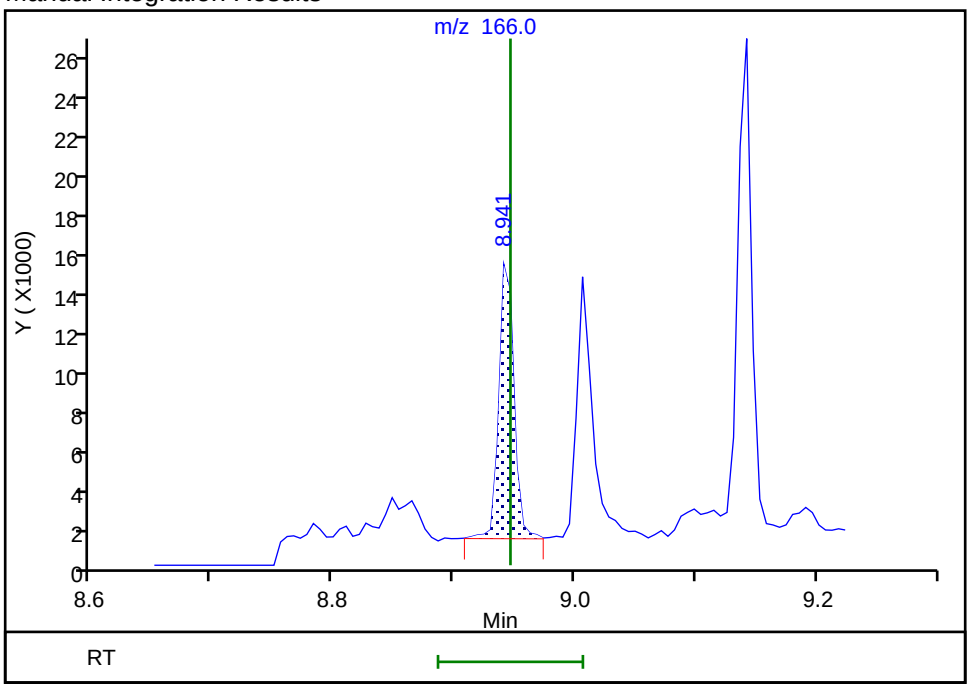
Processing Integration Results

RT: 8.94
Area: 17764
Amount: 6.662731
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 12051
Amount: 4.519960
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:05

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

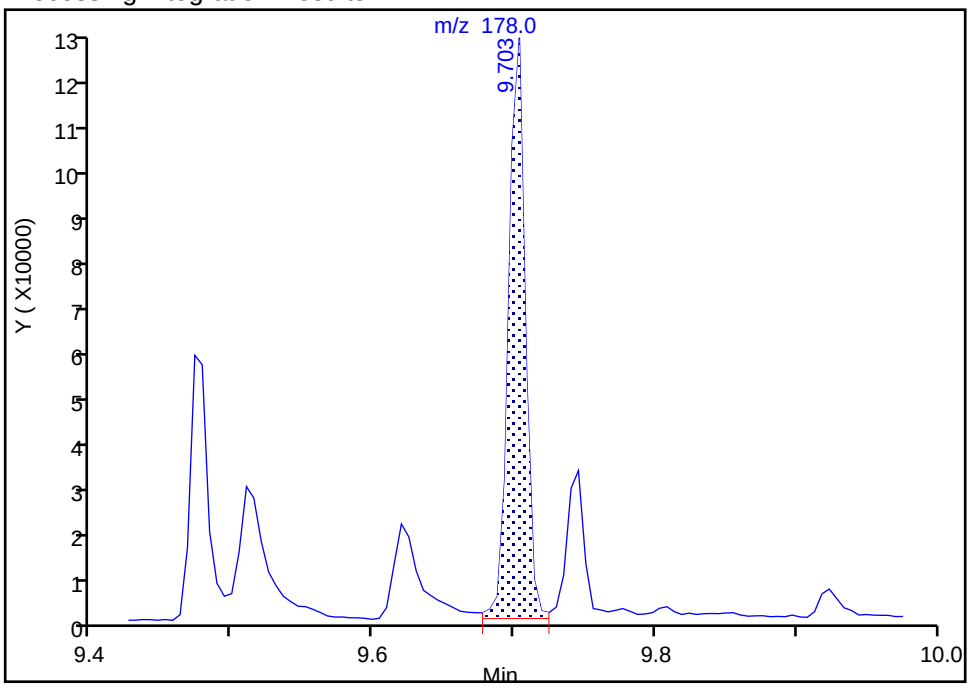
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

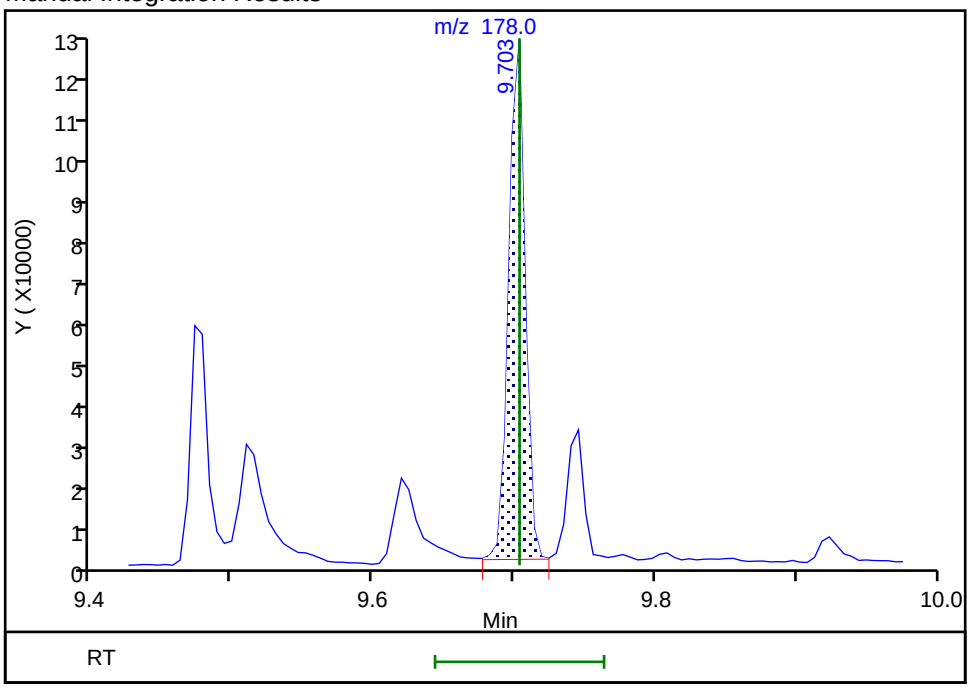
Processing Integration Results

RT: 9.70
Area: 104196
Amount: 26.165241
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 101337
Amount: 25.447301
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

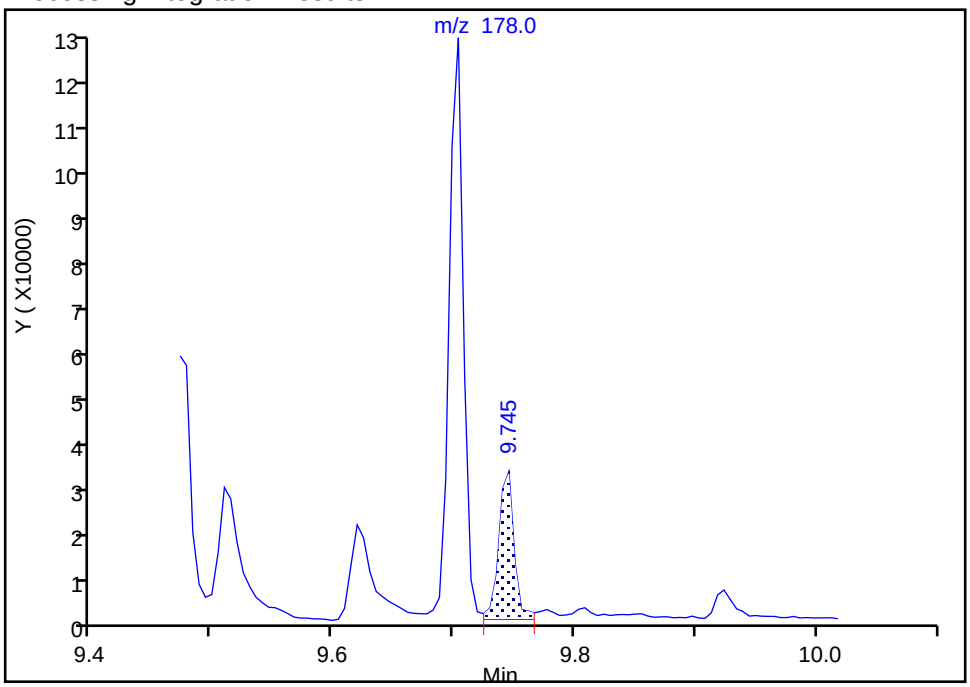
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

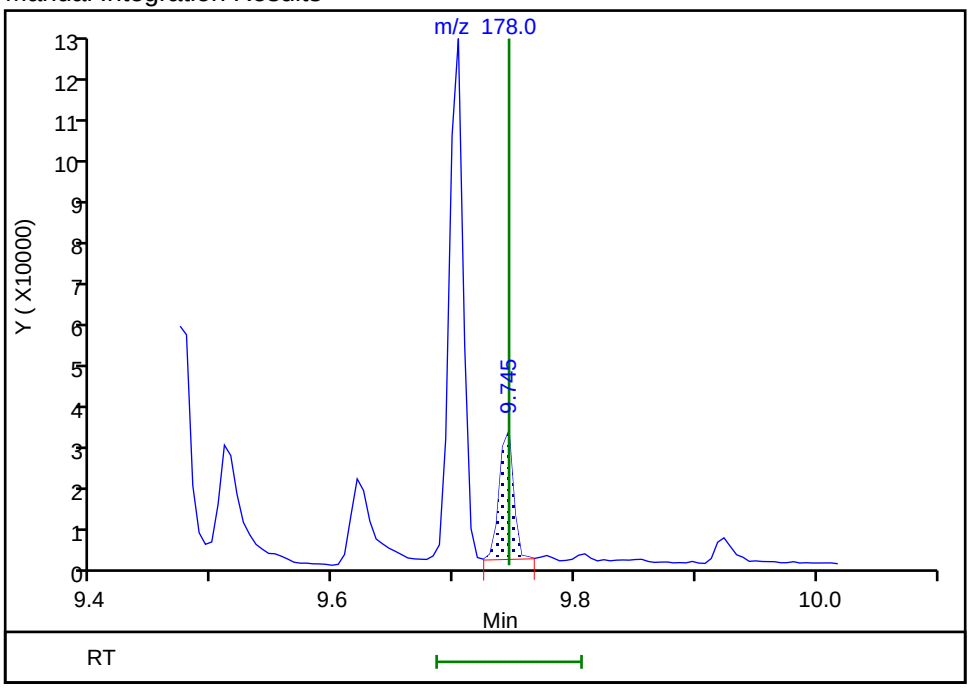
Processing Integration Results

RT: 9.75
Area: 28316
Amount: 7.648372
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 25254
Amount: 6.821302
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

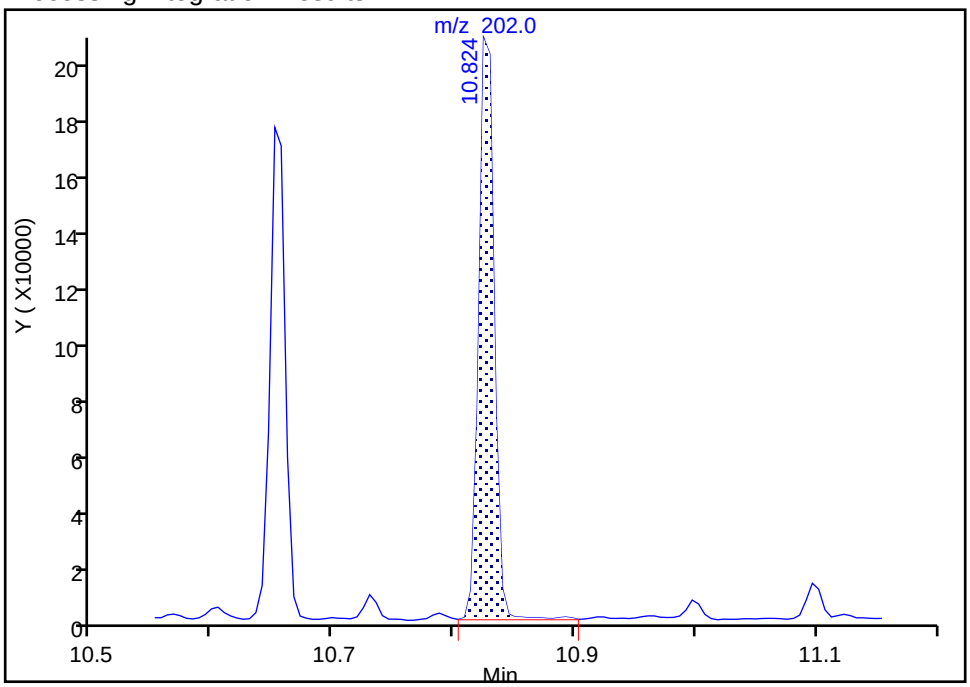
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

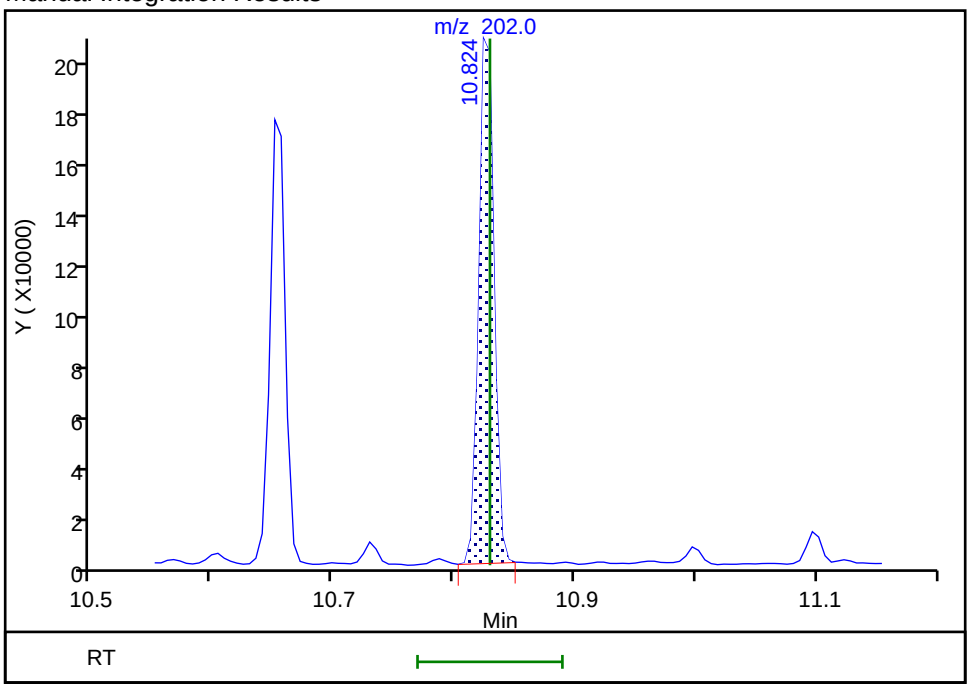
Processing Integration Results

RT: 10.82
Area: 177485
Amount: 44.667949
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 174138
Amount: 43.825604
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

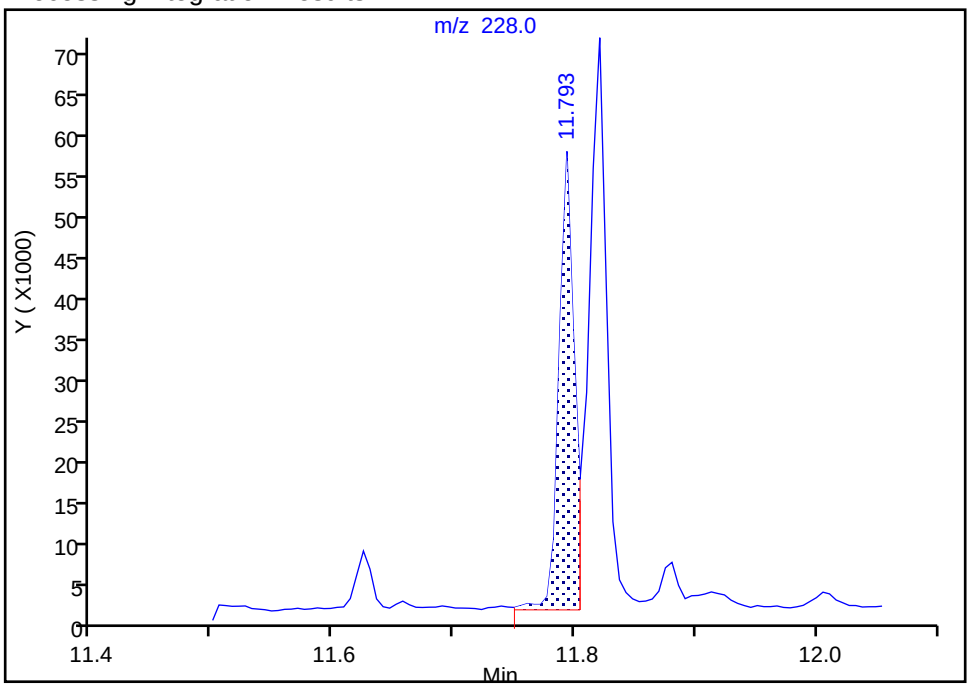
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

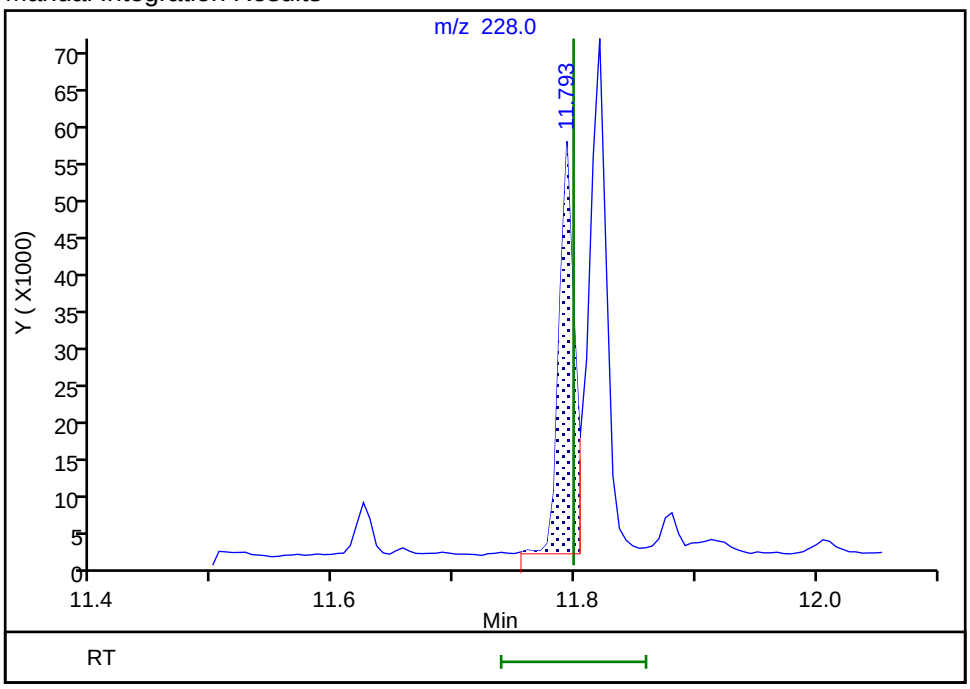
Processing Integration Results

RT: 11.79
Area: 47829
Amount: 18.944540
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 46928
Amount: 18.587664
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

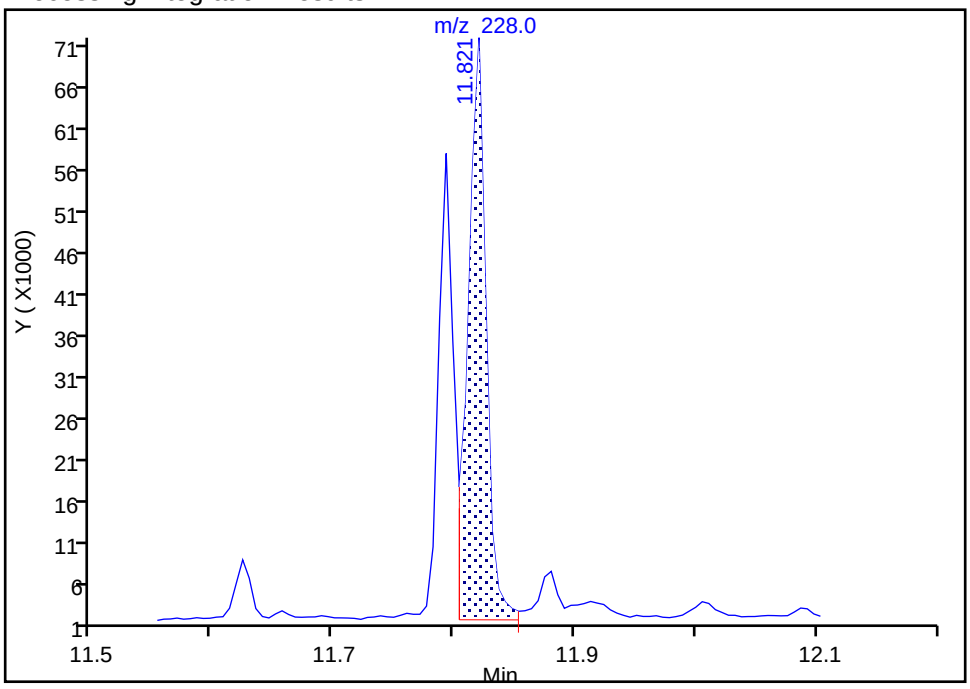
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

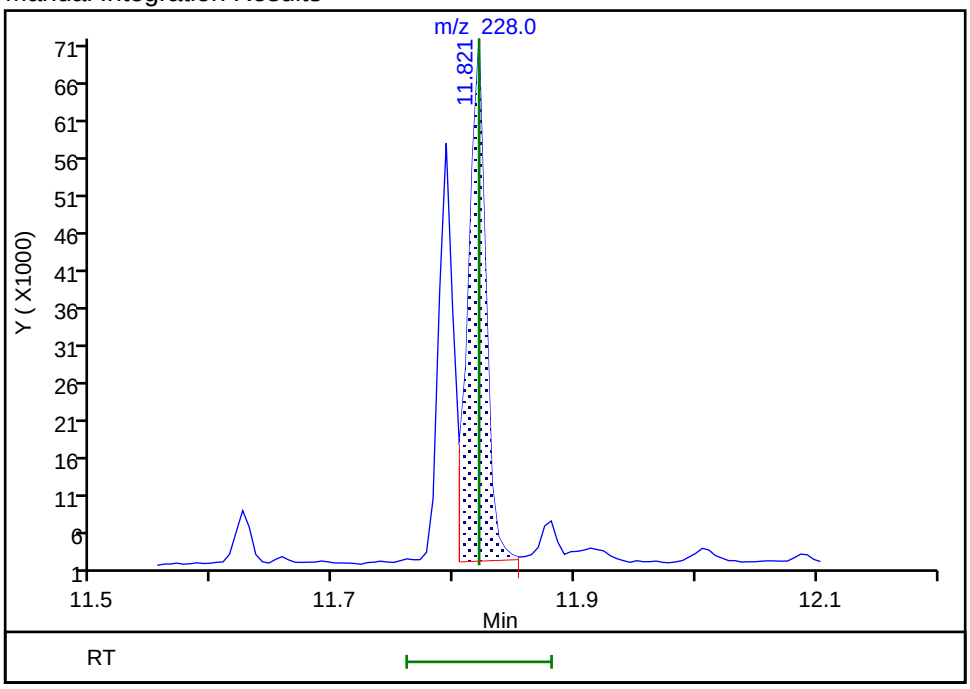
Processing Integration Results

RT: 11.82
Area: 70410
Amount: 20.971224
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 68864
Amount: 20.510756
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:33

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

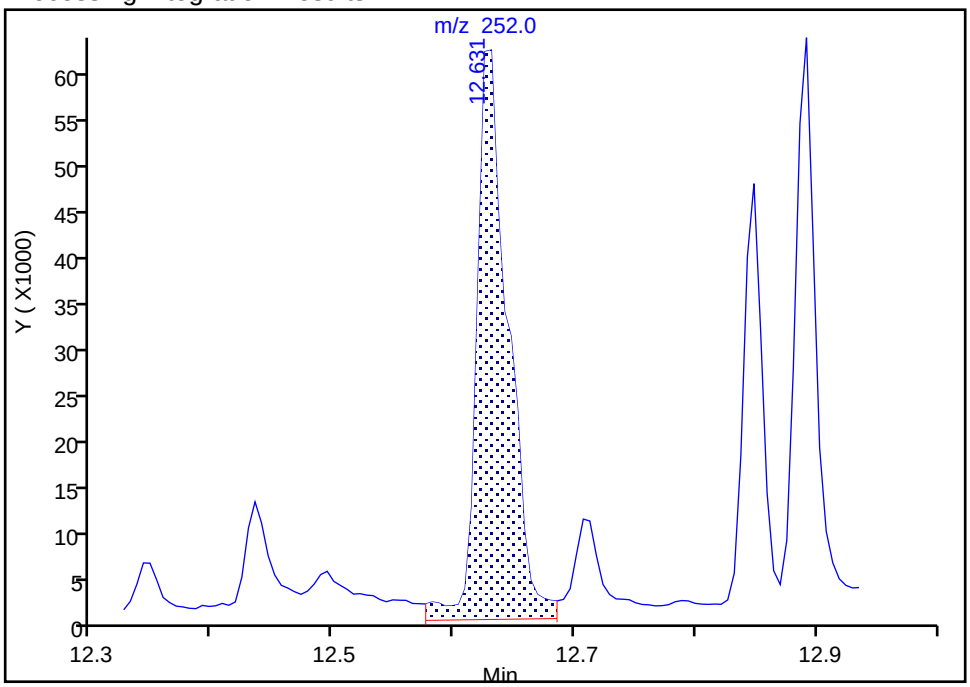
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

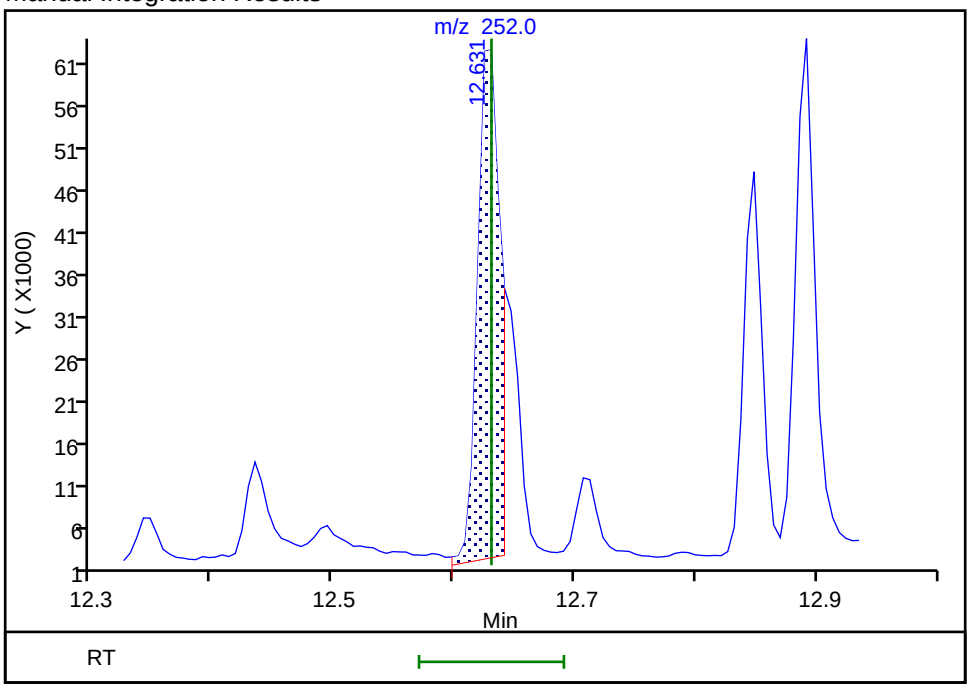
Processing Integration Results

RT: 12.63
Area: 110001
Amount: 33.359347
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 75017
Amount: 22.749958
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:42

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

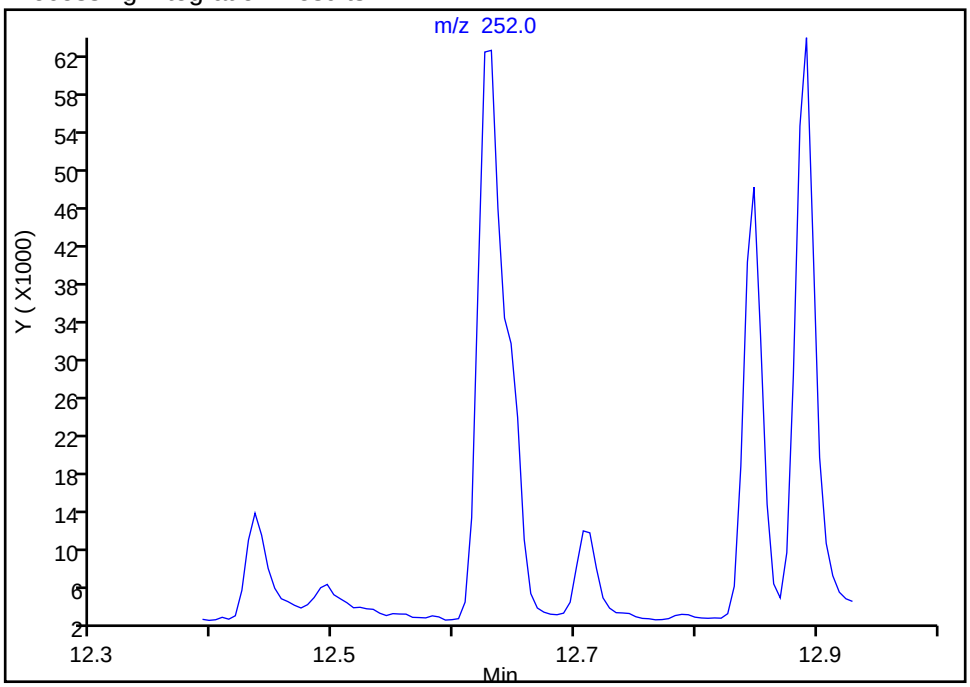
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

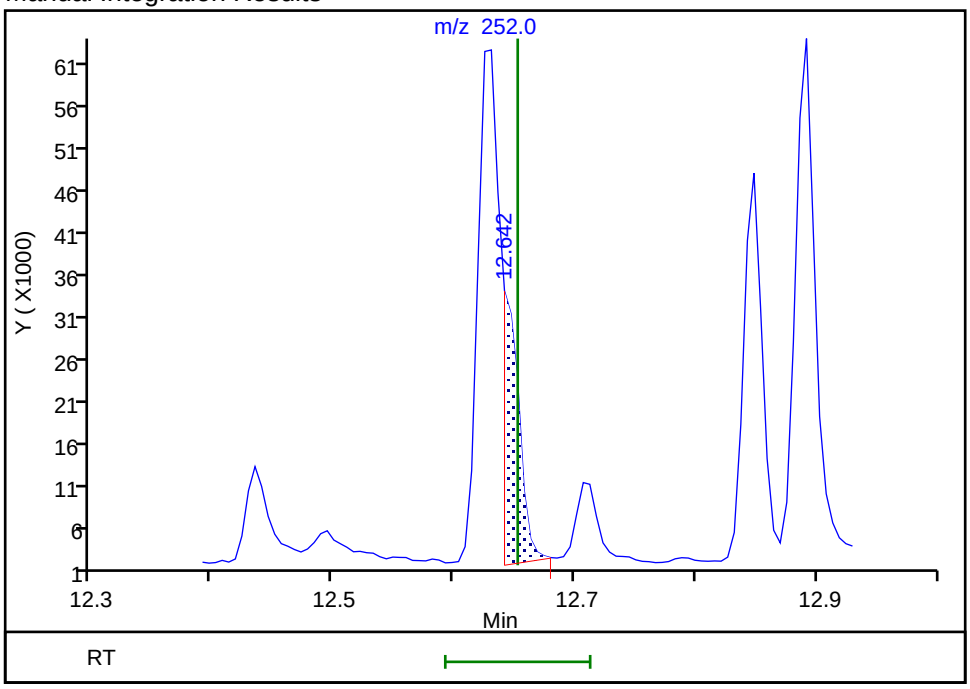
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 25739
Amount: 6.380115
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:32:56
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

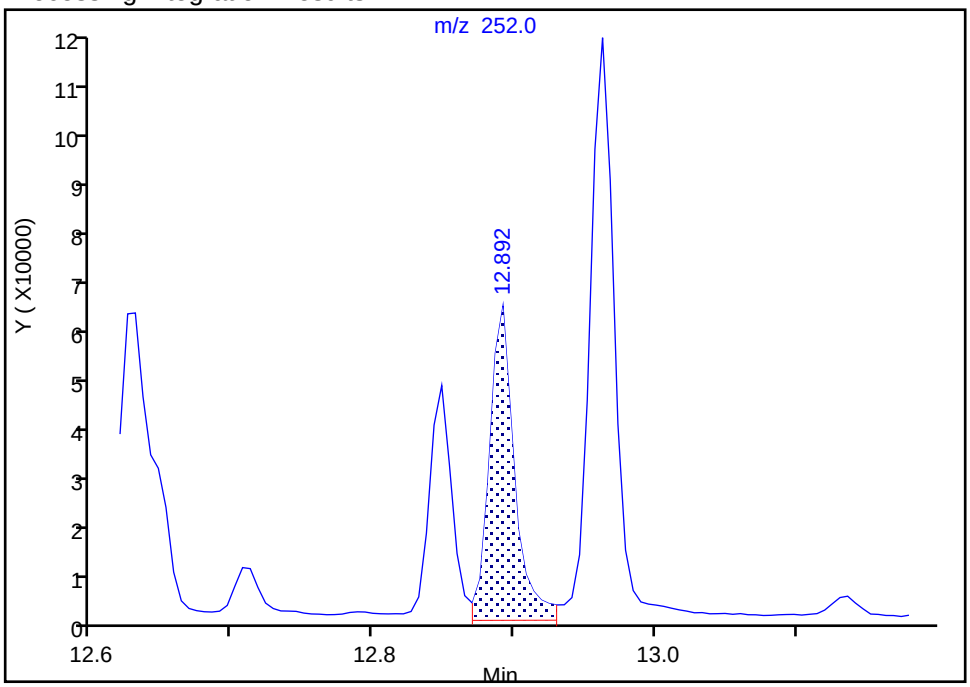
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

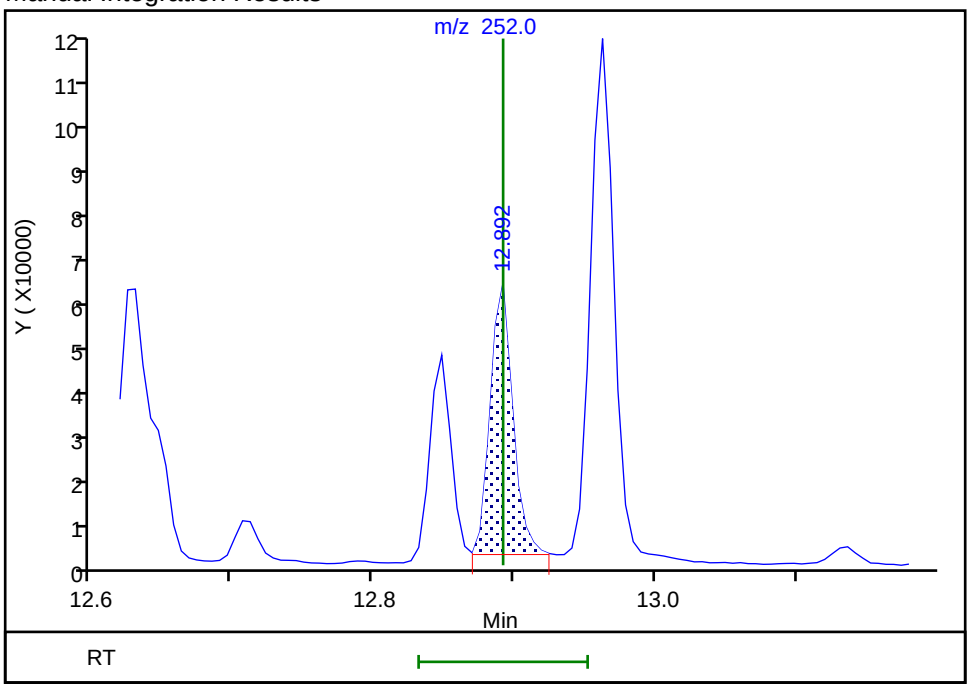
Processing Integration Results

RT: 12.89
Area: 76403
Amount: 22.872185
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 65323
Amount: 19.555250
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:33:02

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

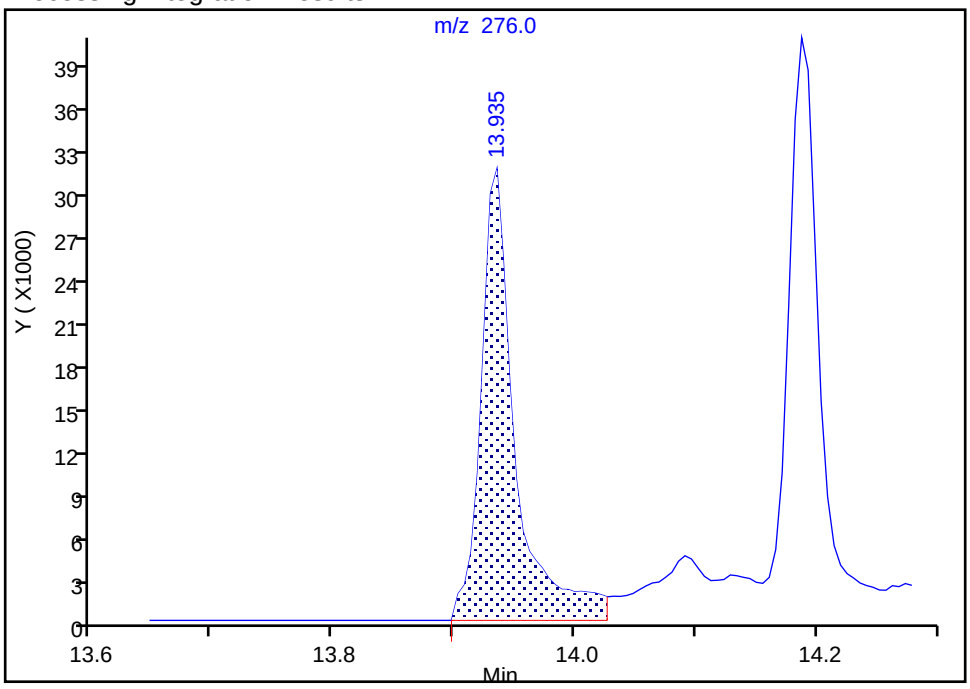
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

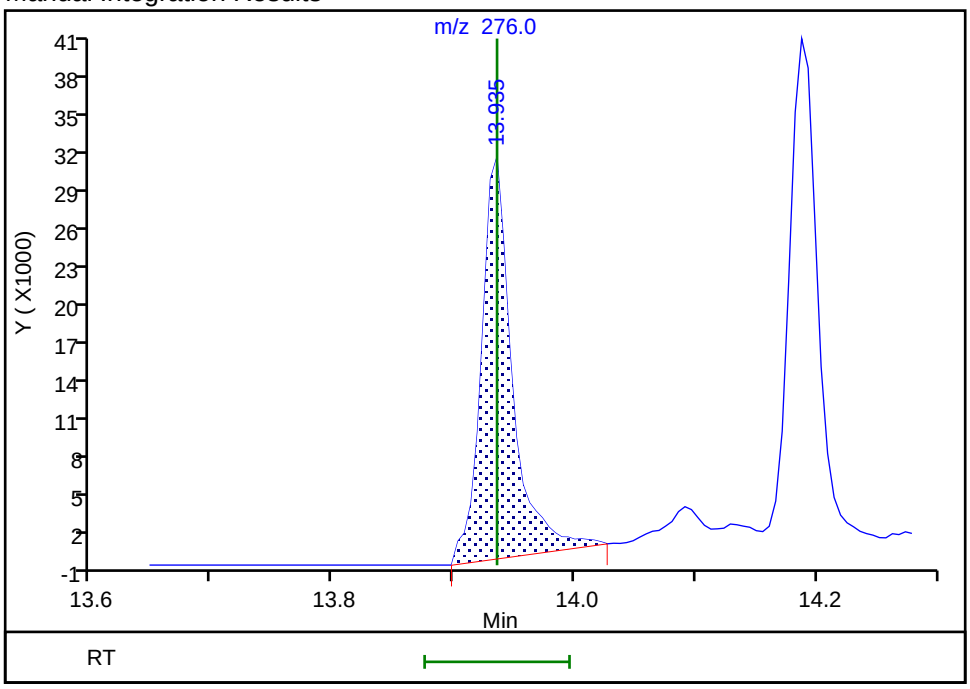
Processing Integration Results

RT: 13.94
Area: 60701
Amount: 23.931012
Amount Units: ug/L



Manual Integration Results

RT: 13.94
Area: 54512
Amount: 21.506012
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:33:09
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

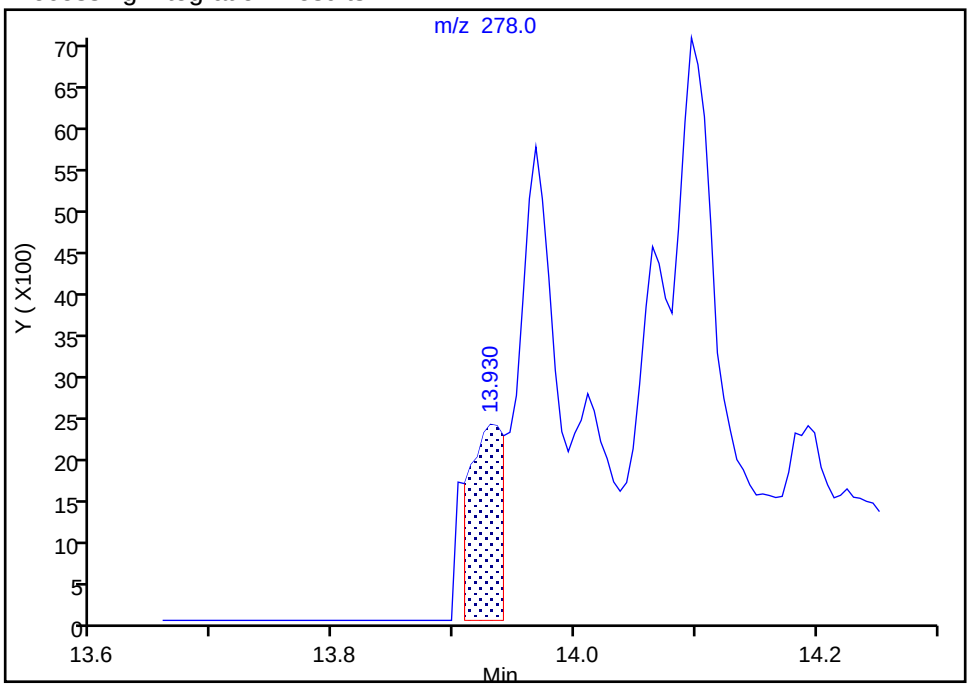
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

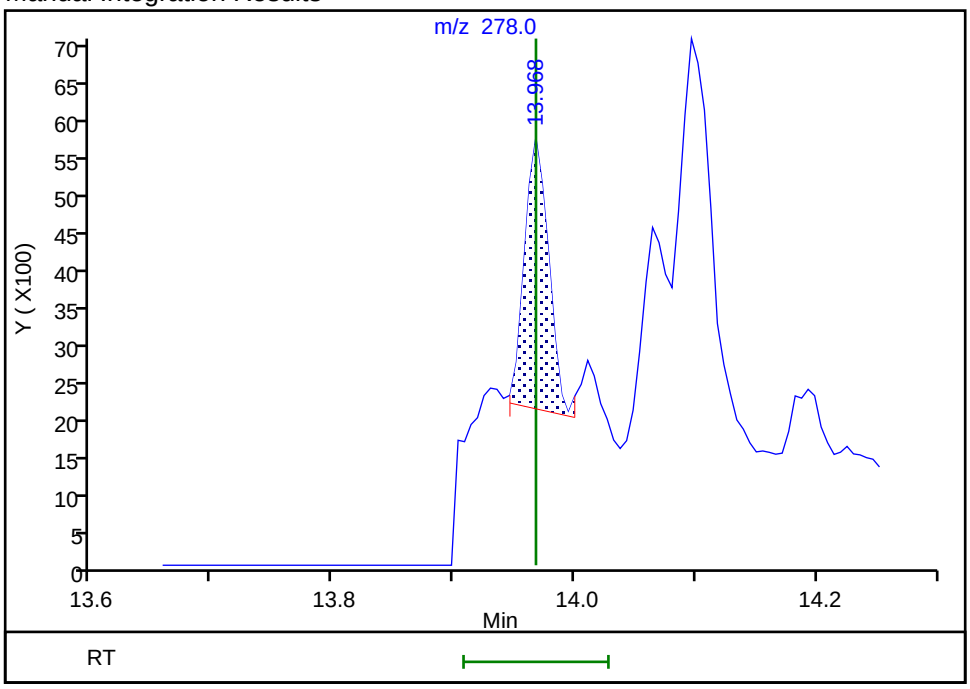
Processing Integration Results

RT: 13.93
Area: 4111
Amount: 2.370959
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 4994
Amount: 2.642078
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:33:17

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

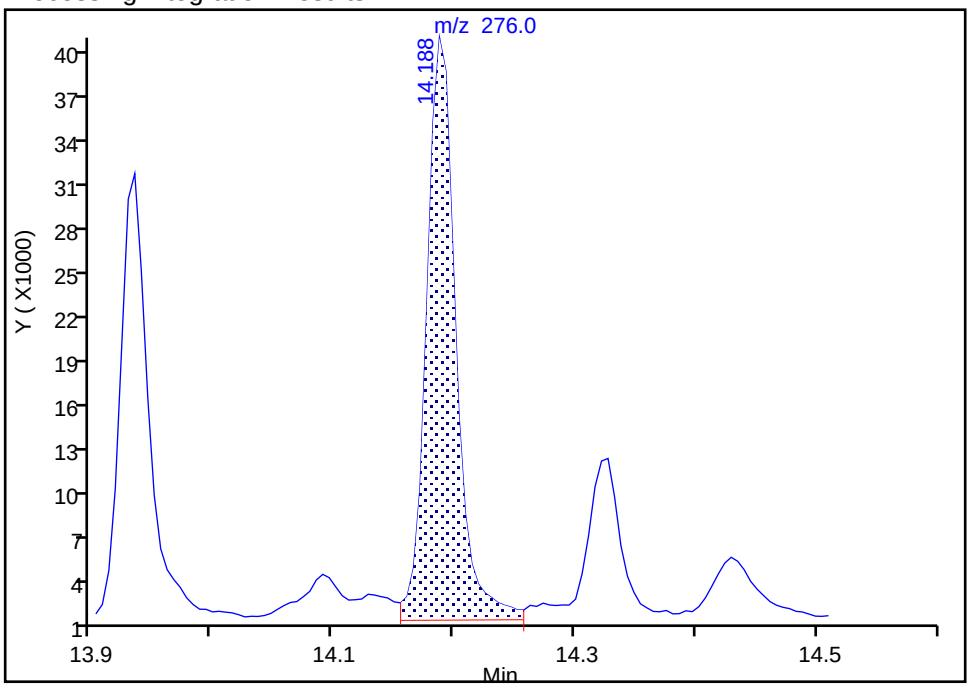
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A015.D				
Injection Date:	22-Jul-2019 16:54:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-8-A	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	KFS	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

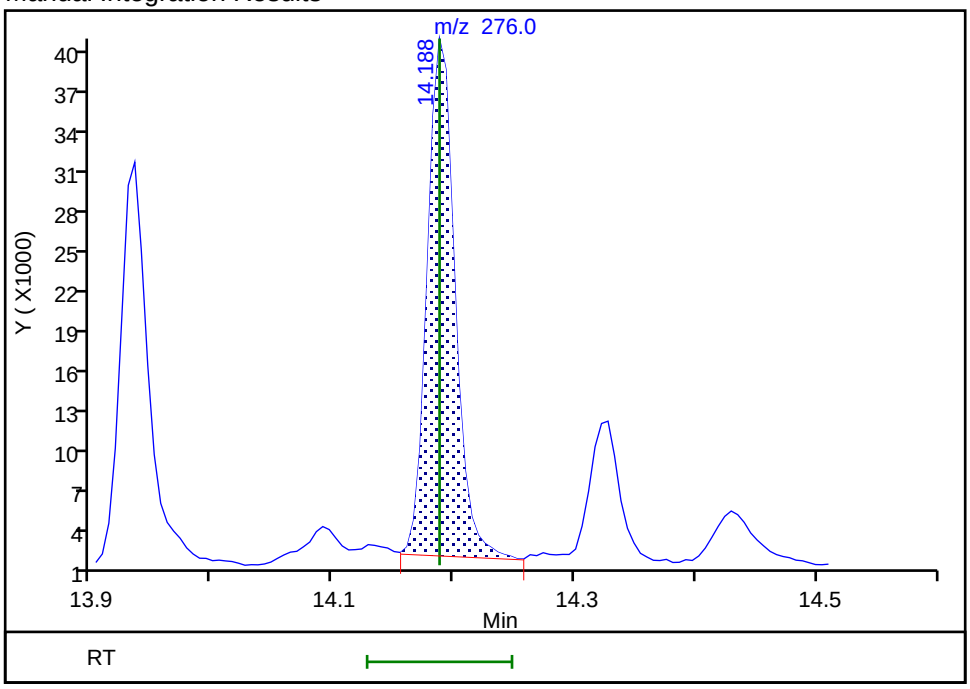
Processing Integration Results

RT: 14.19
Area: 65146
Amount: 17.924803
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 60198
Amount: 16.583304
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:33:22

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 072219A016.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 11:06

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 13.572(g) Date Analyzed: 07/22/2019 17:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	240		9.5	3.1
91-57-6	2-Methylnaphthalene	75		9.5	3.9
90-12-0	1-Methylnaphthalene	110		9.5	1.2
208-96-8	Acenaphthylene	37		9.5	0.95
83-32-9	Acenaphthene	210		9.5	1.1
86-73-7	Fluorene	150		9.5	0.95
85-01-8	Phenanthrene	500		9.5	3.1
120-12-7	Anthracene	56		9.5	1.1
206-44-0	Fluoranthene	370		9.5	2.7
129-00-0	Pyrene	380		9.5	1.8
56-55-3	Benzo[a]anthracene	110		9.5	1.4
218-01-9	Chrysene	120		9.5	2.9
205-99-2	Benzo[b]fluoranthene	140		9.5	1.1
207-08-9	Benzo[k]fluoranthene	41		9.5	1.1
50-32-8	Benzo[a]pyrene	120		9.5	1.6
193-39-5	Indeno[1,2,3-cd]pyrene	130		9.5	1.1
53-70-3	Dibenz(a,h)anthracene	12	B	9.5	1.4
191-24-2	Benzo[g,h,i]perylene	110	B	9.5	0.95

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	64		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D
Lims ID: 580-87706-A-9-A
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 17:20:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-9-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:37:06 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:37:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	346489	100.0	
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	95	171462	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	305575	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	229692	100.0	
* 5 Perylene-d12	264	12.946	12.946	0.000	100	258778	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	100	1478541	639.0	
10 Naphthalene	128	7.004	7.004	0.000	100	493720	127.5	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	94	99927	39.4	M
12 1-Methylnaphthalene	142	7.722	7.722	0.000	95	130861	55.2	M
13 Acenaphthylene	152	8.376	8.376	0.000	98	71938	19.2	M
14 Acenaphthene	153	8.525	8.525	0.000	79	296784	109.3	M
15 Fluorene	166	8.941	8.947	-0.006	93	213578	78.6	M
17 Phenanthrene	178	9.703	9.704	-0.001	100	1096218	264.3	M
18 Anthracene	178	9.745	9.745	0.000	100	114110	29.6	M
19 Fluoranthene	202	10.657	10.657	0.000	99	773165	196.7	M
20 Pyrene	202	10.824	10.830	-0.006	100	831643	200.9	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	97	152701	58.3	M
22 Chrysene	228	11.820	11.821	-0.001	95	219003	62.9	M
23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	98	240041	72.0	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	88340	21.7	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	94	218617	64.7	M
26 Indeno[1,2,3-cd]pyrene	276	13.935	13.935	0.000	95	174963	67.8	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	16347	6.07	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	99	205623	55.4	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

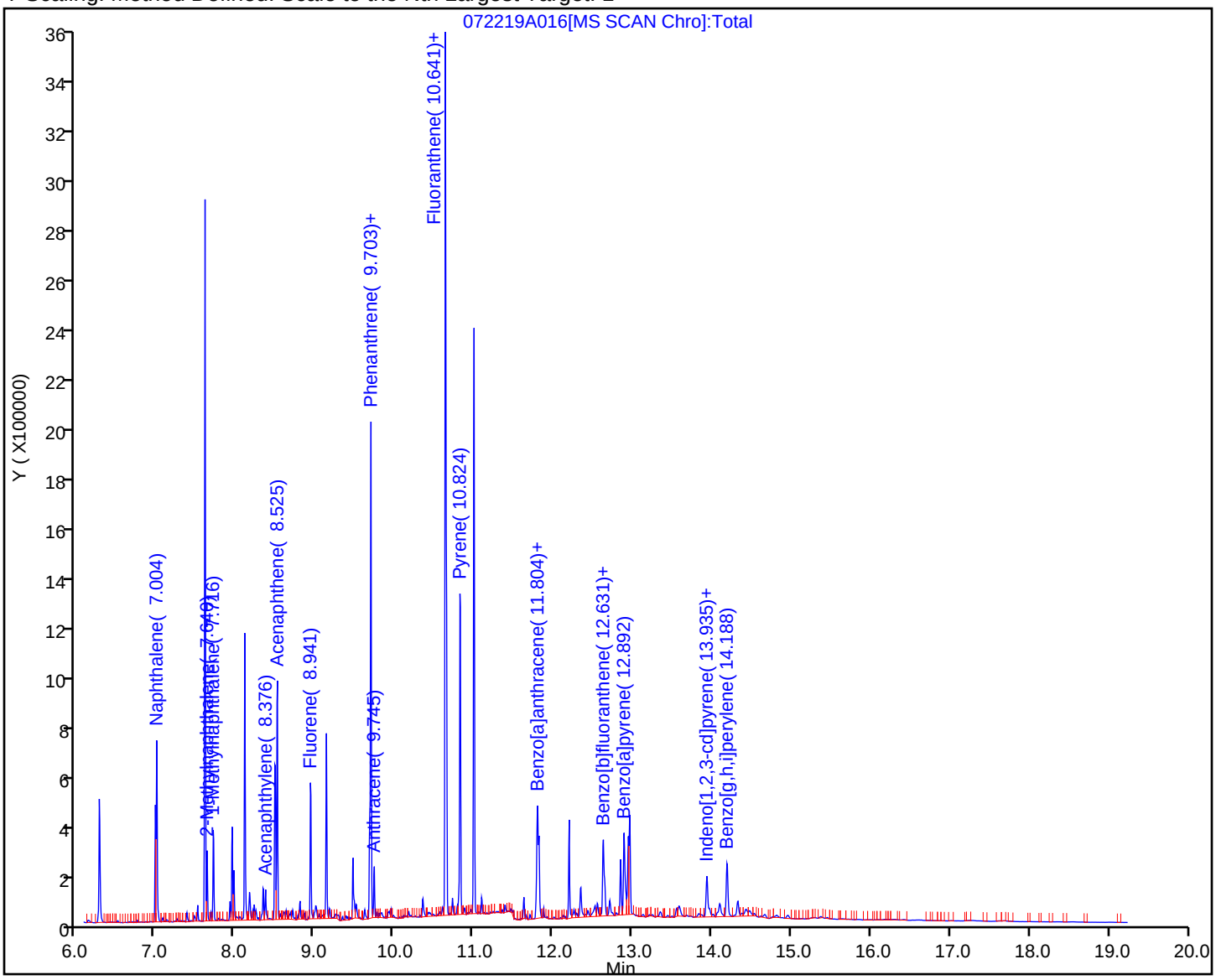
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D
Lims ID: 580-87706-A-9-A
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 17:20:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-9-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:37:06 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:37:06

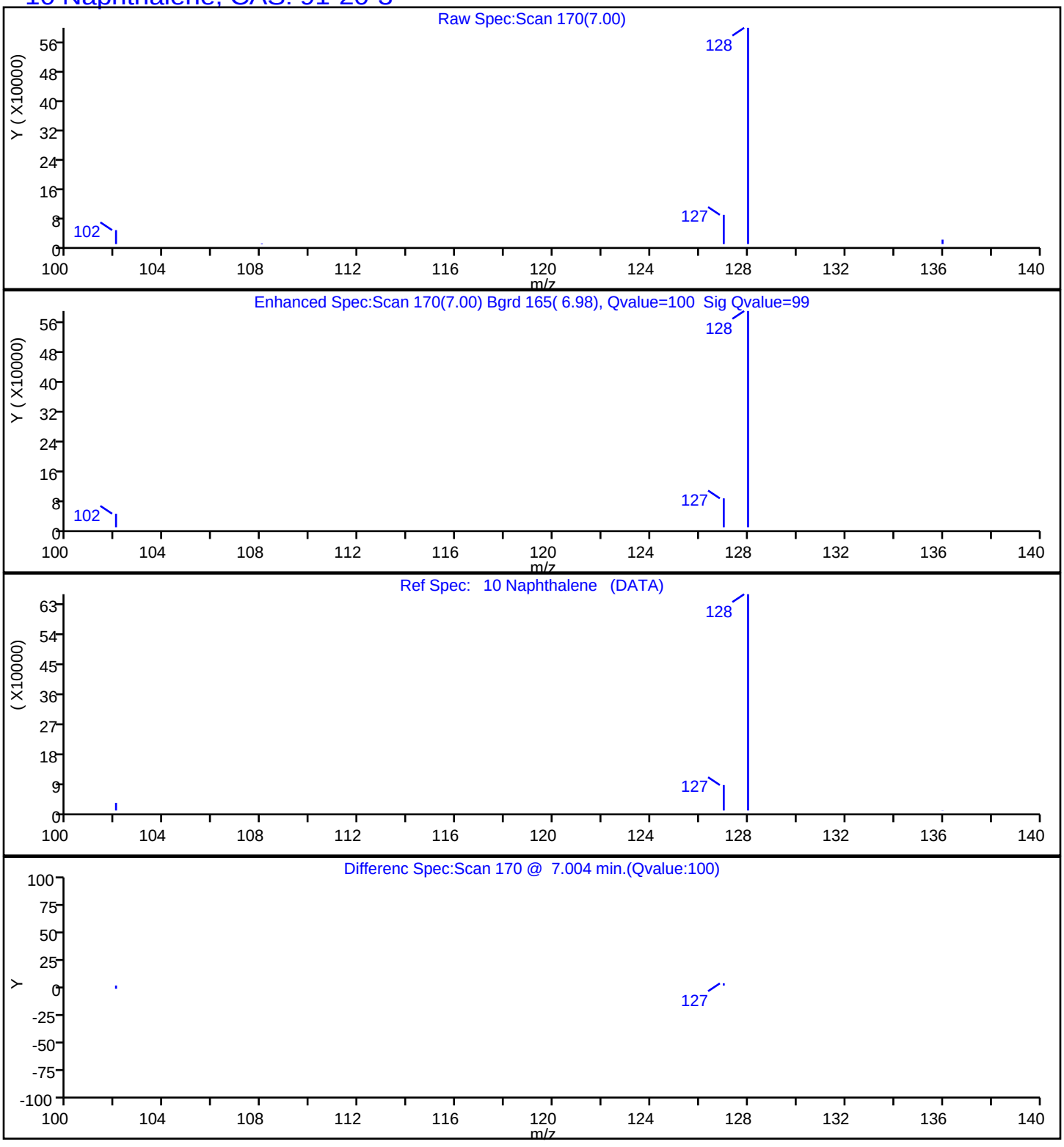
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	639.0	63.90

Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

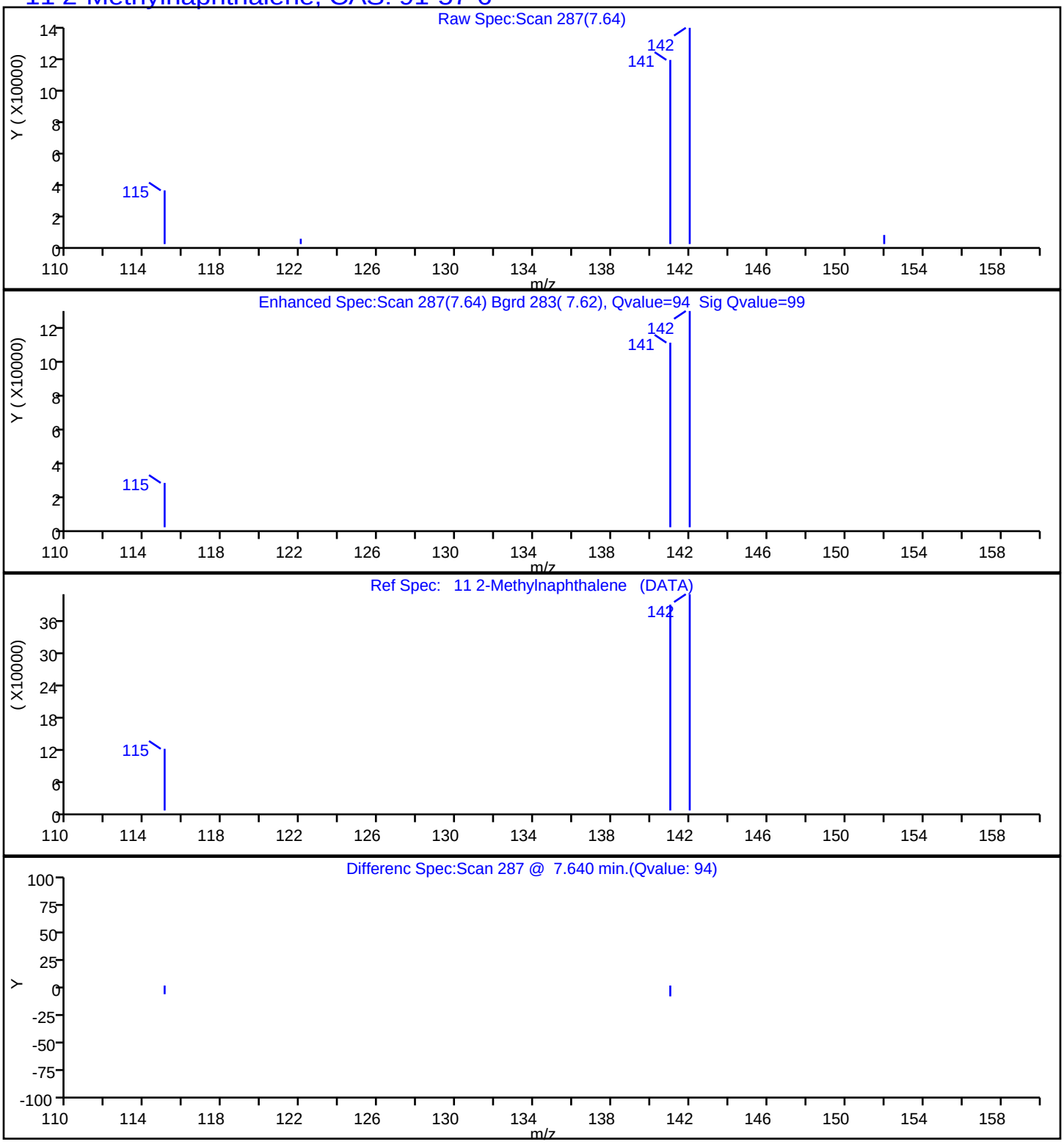


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

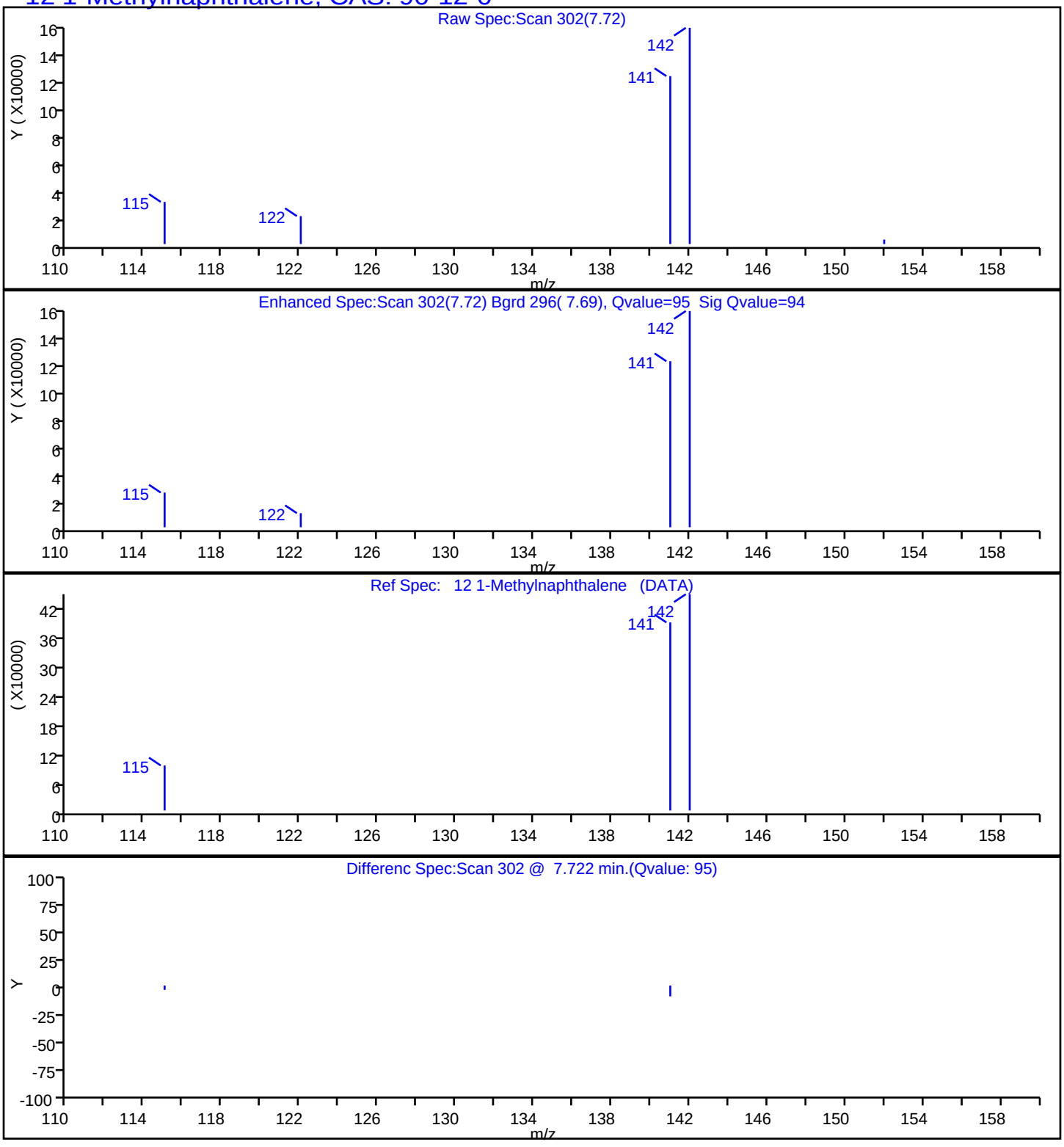


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

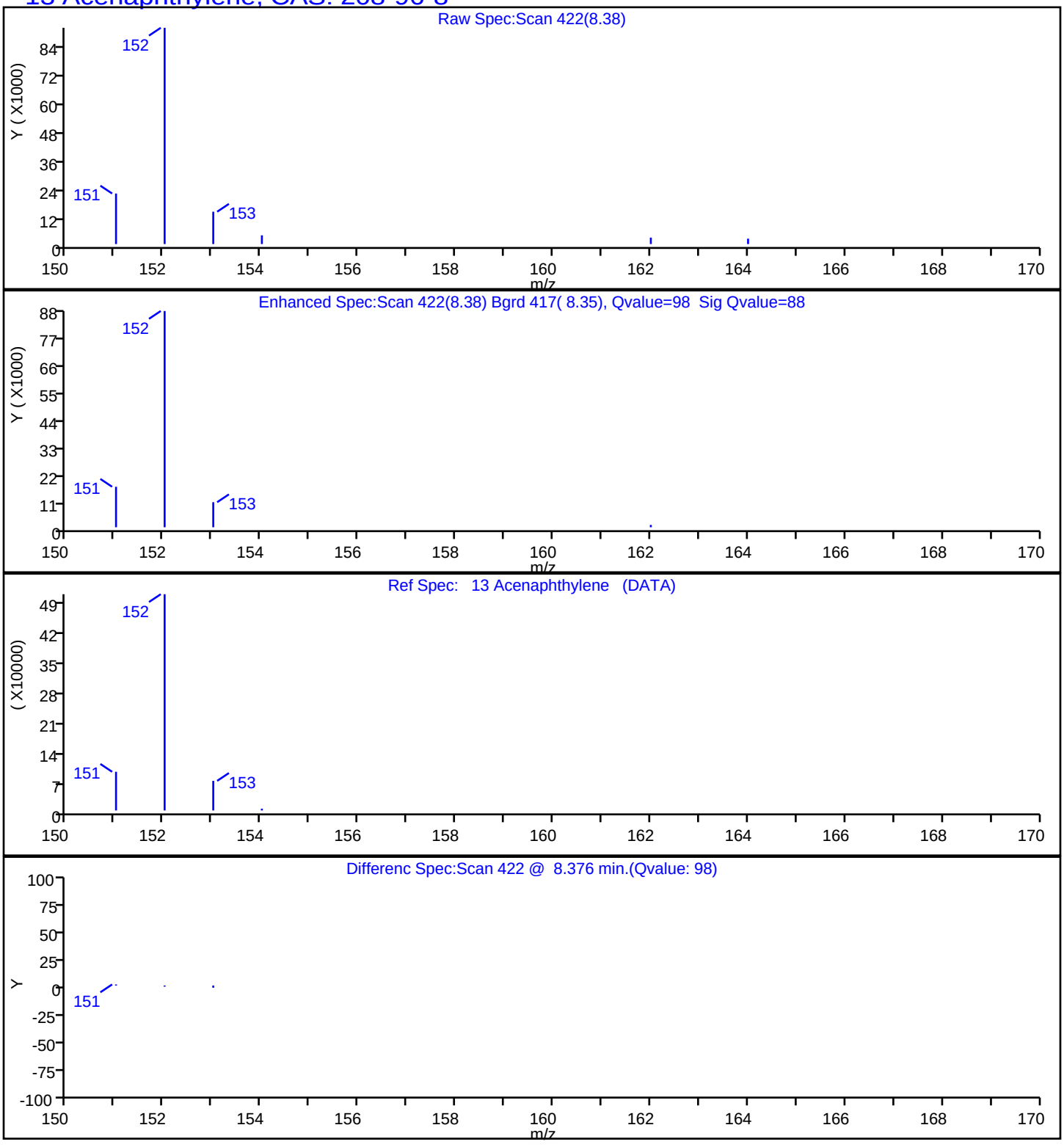


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

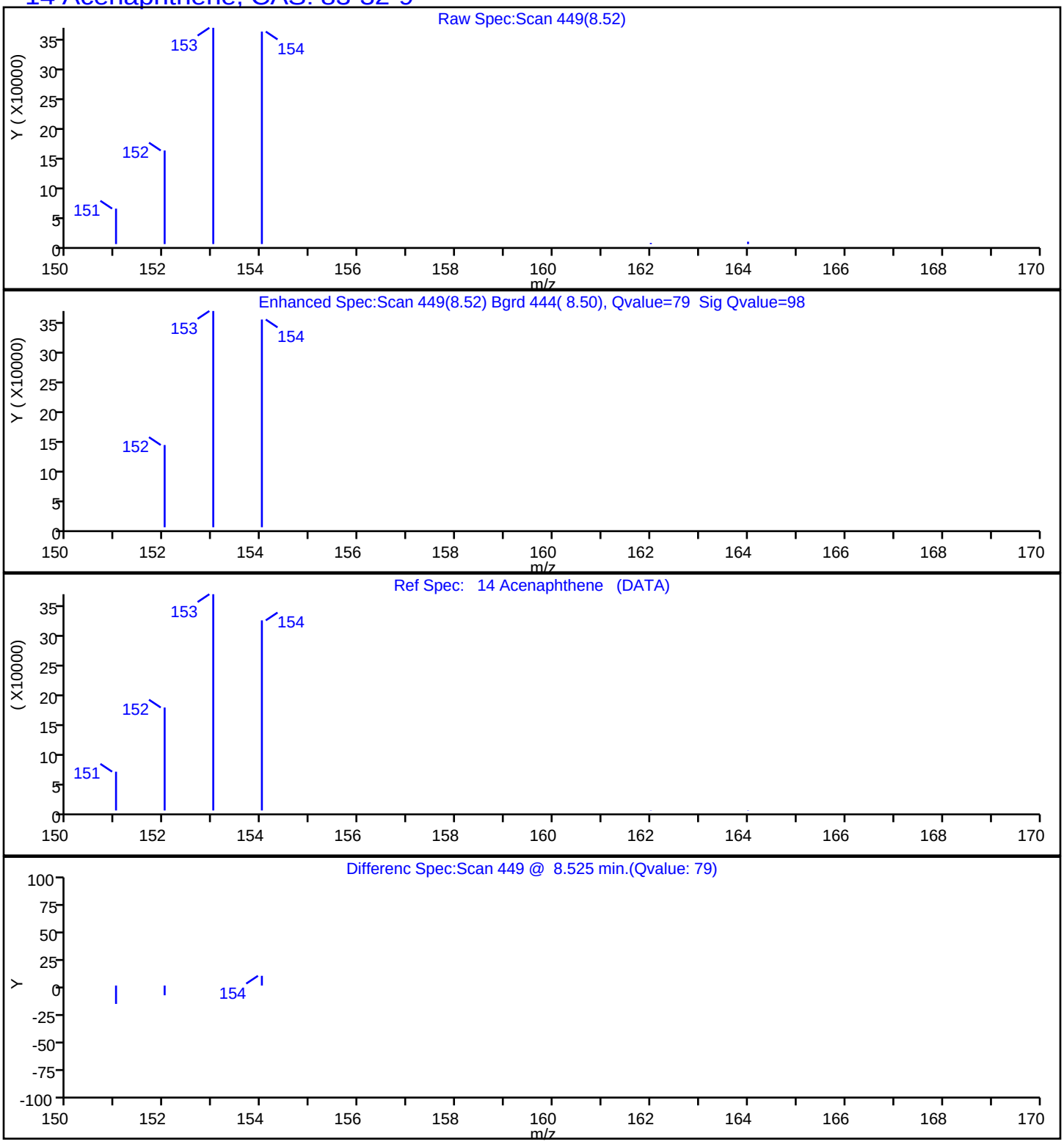


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

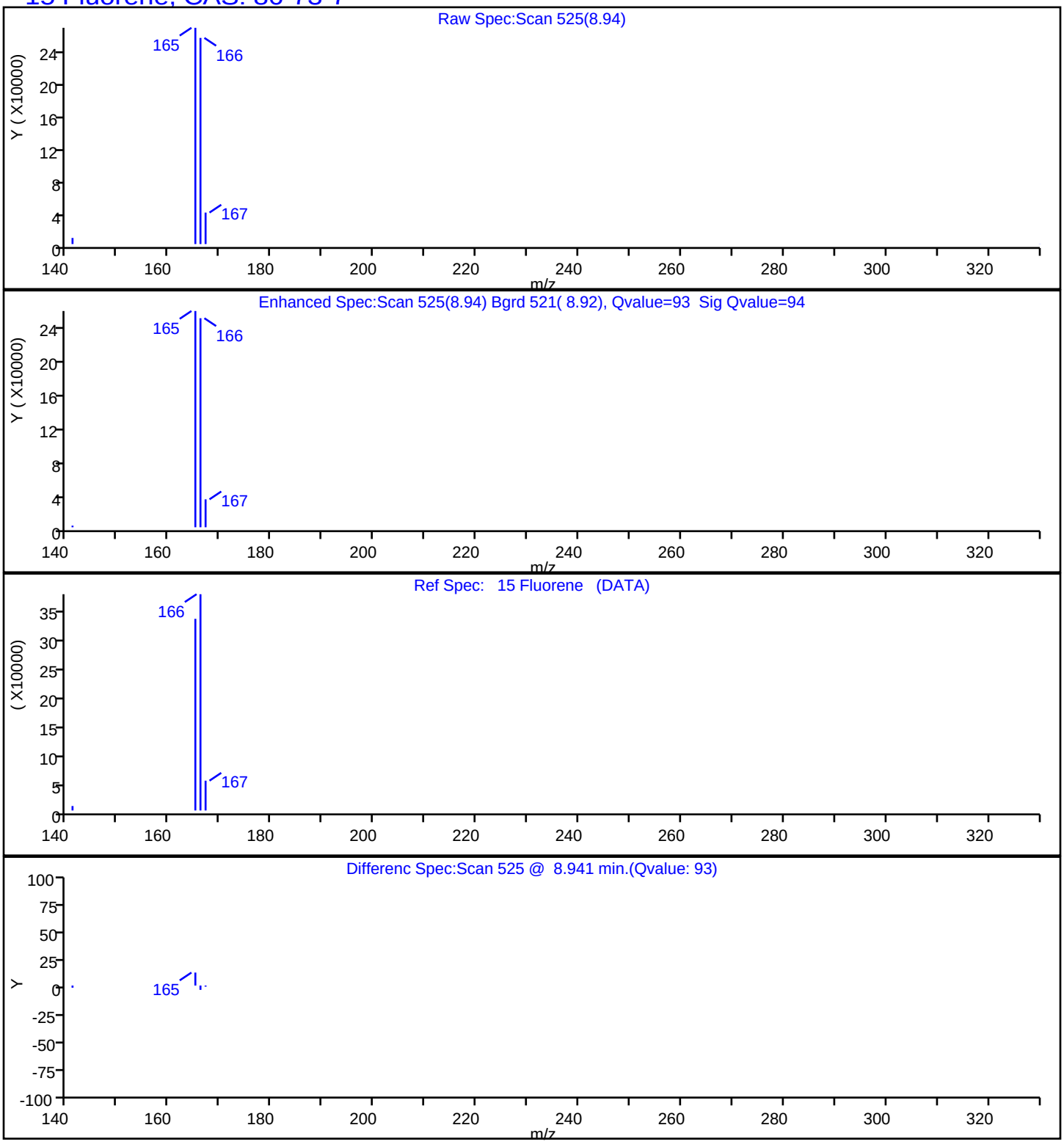


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

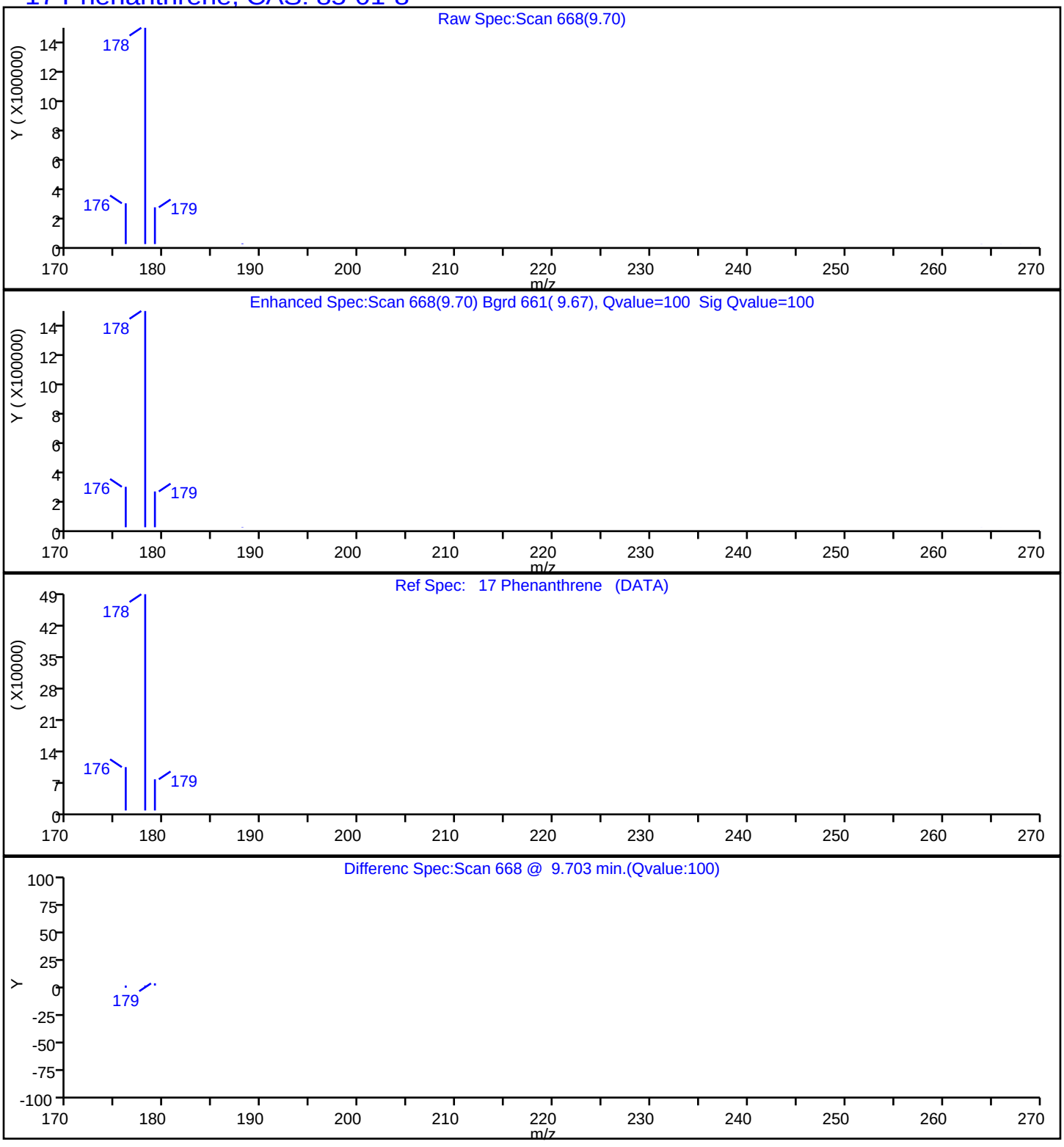


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

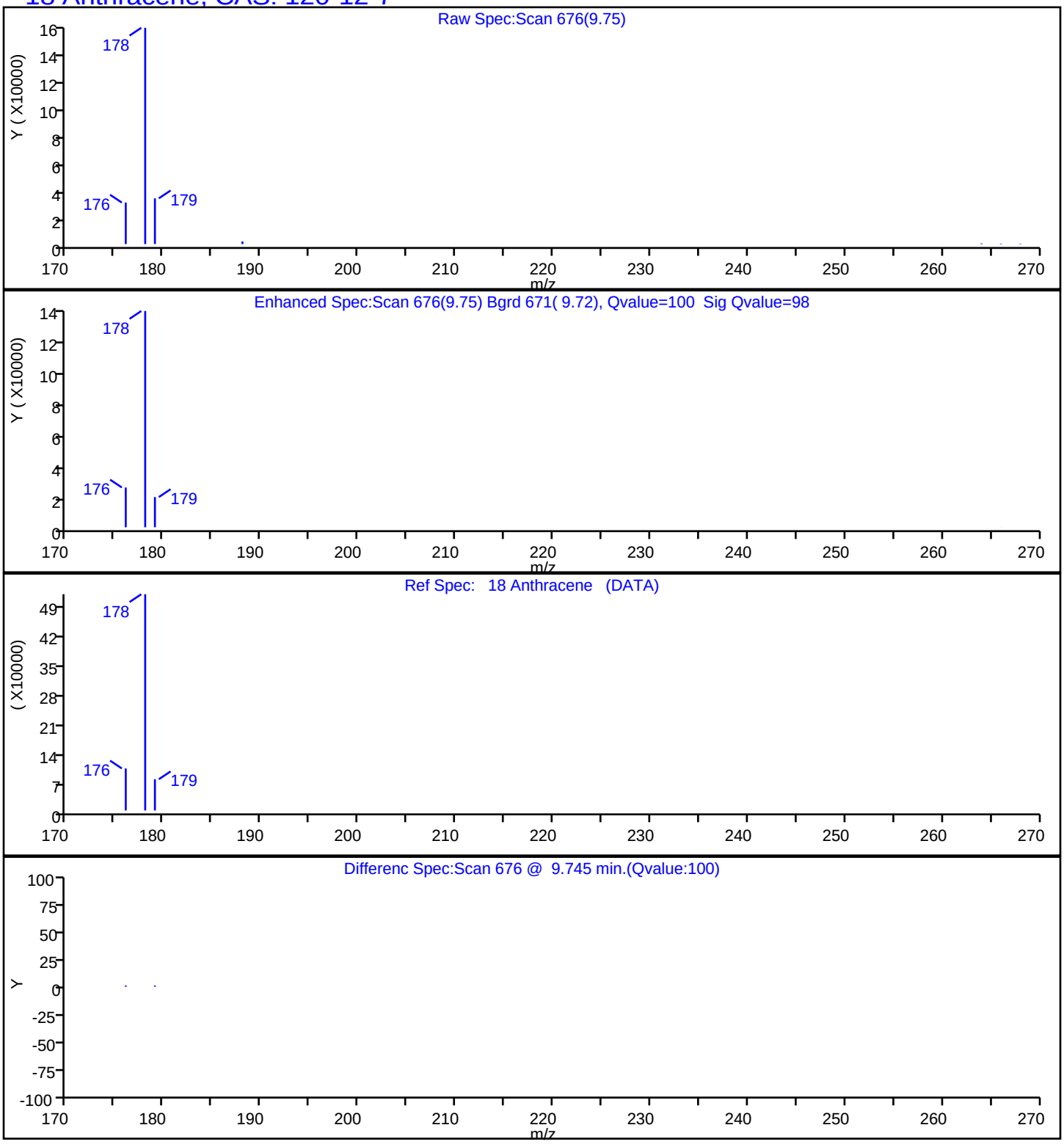


Report Date: 23-Jul-2019 14:37:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

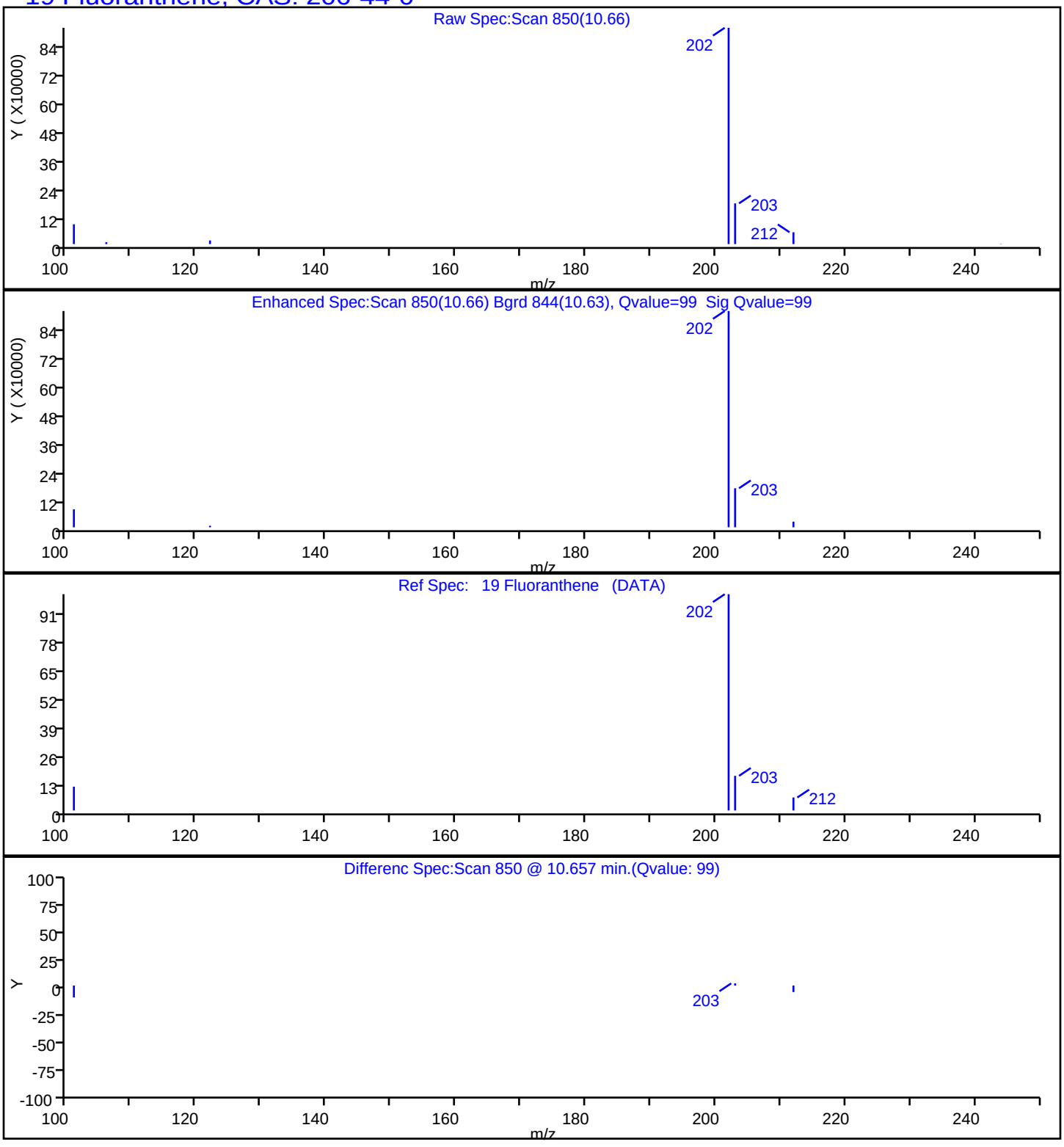


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

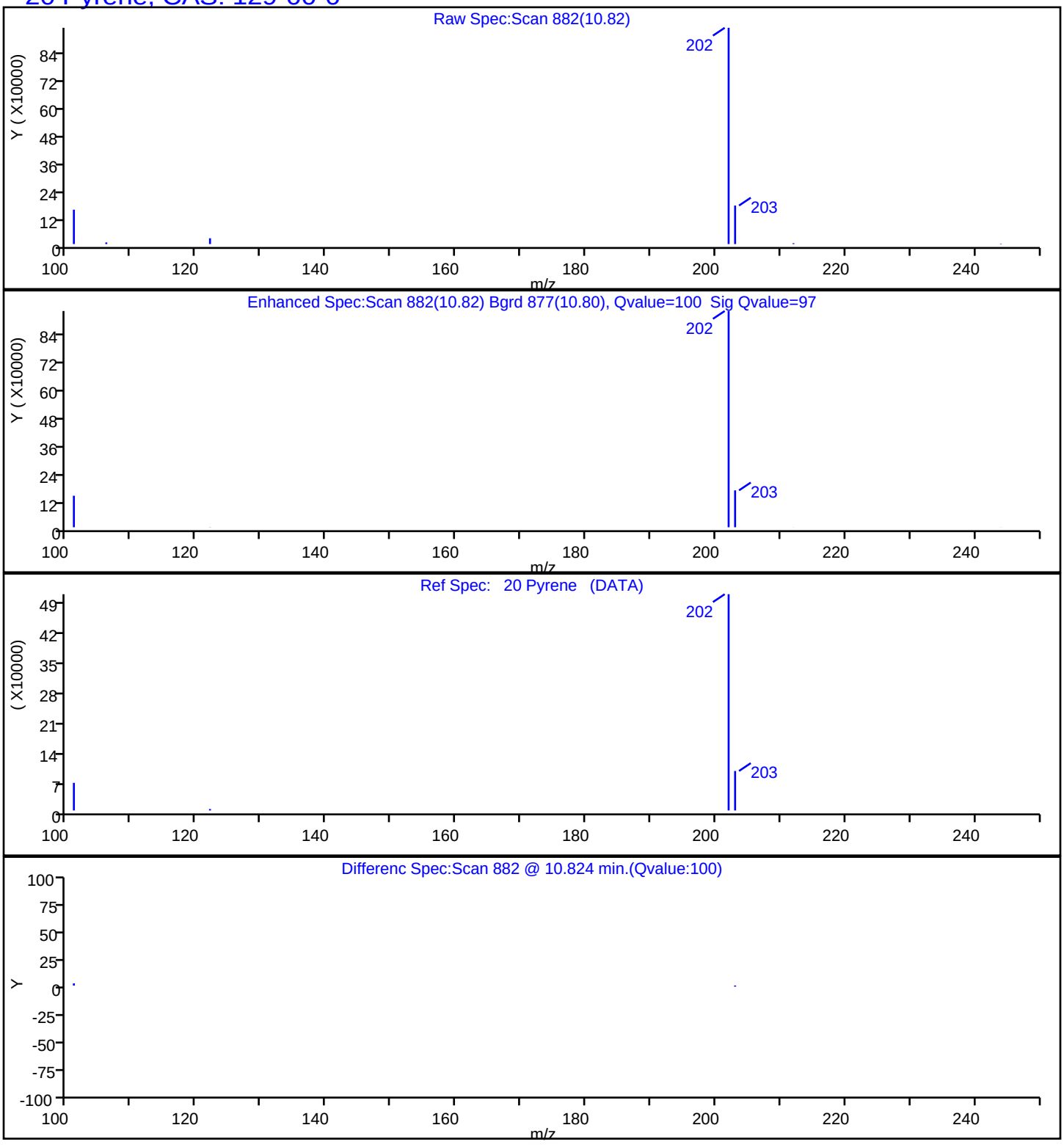


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

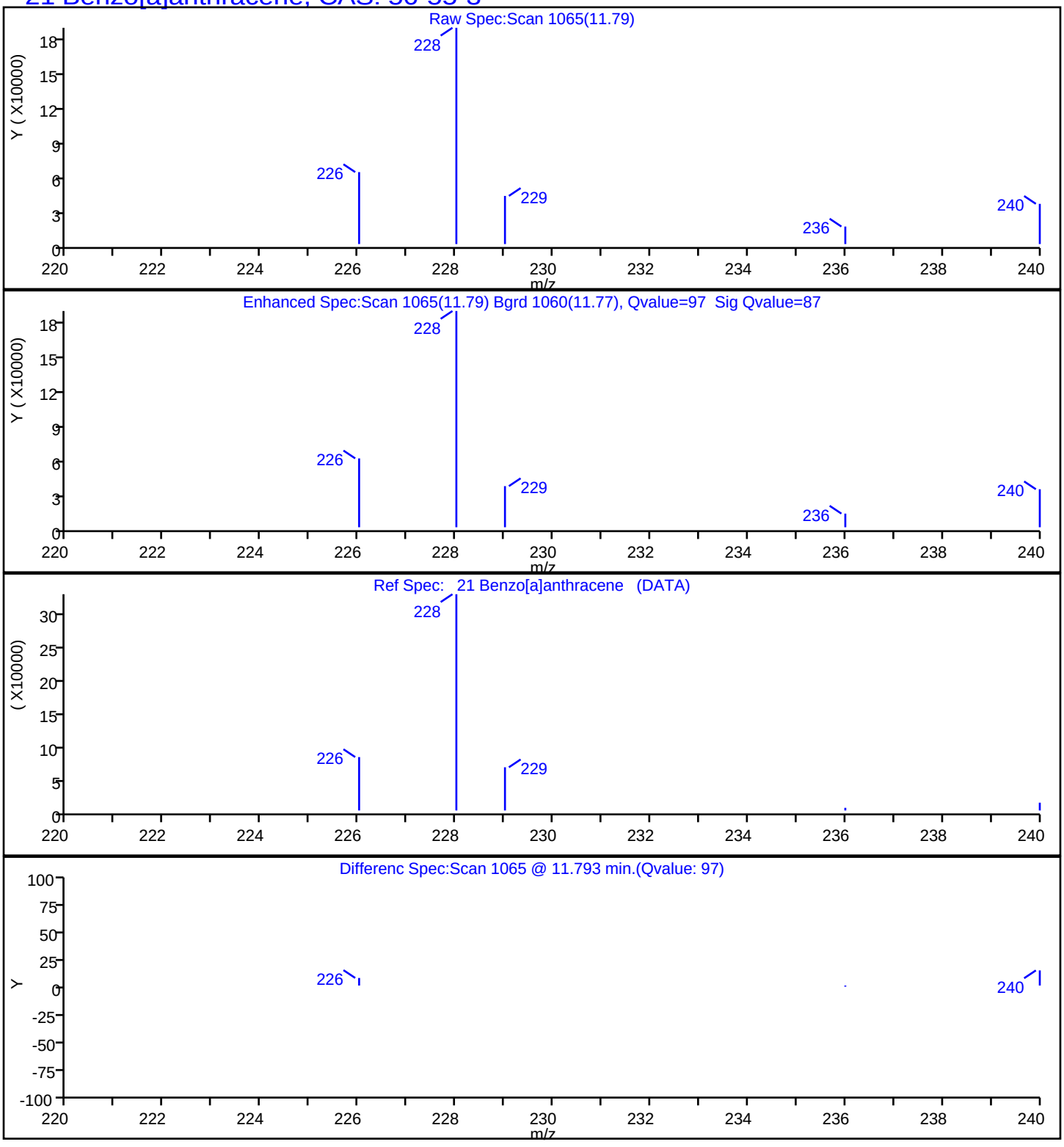


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

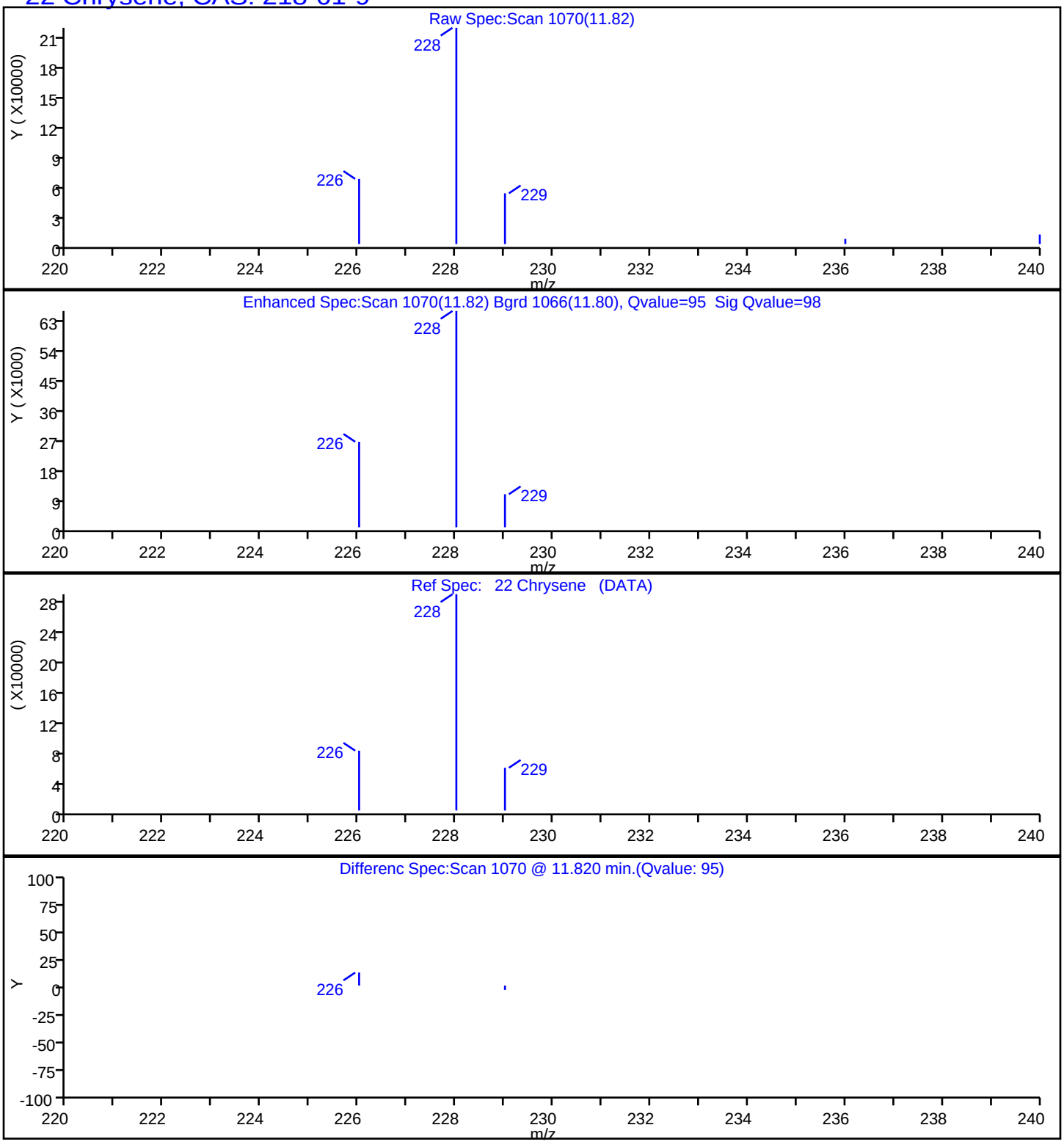


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

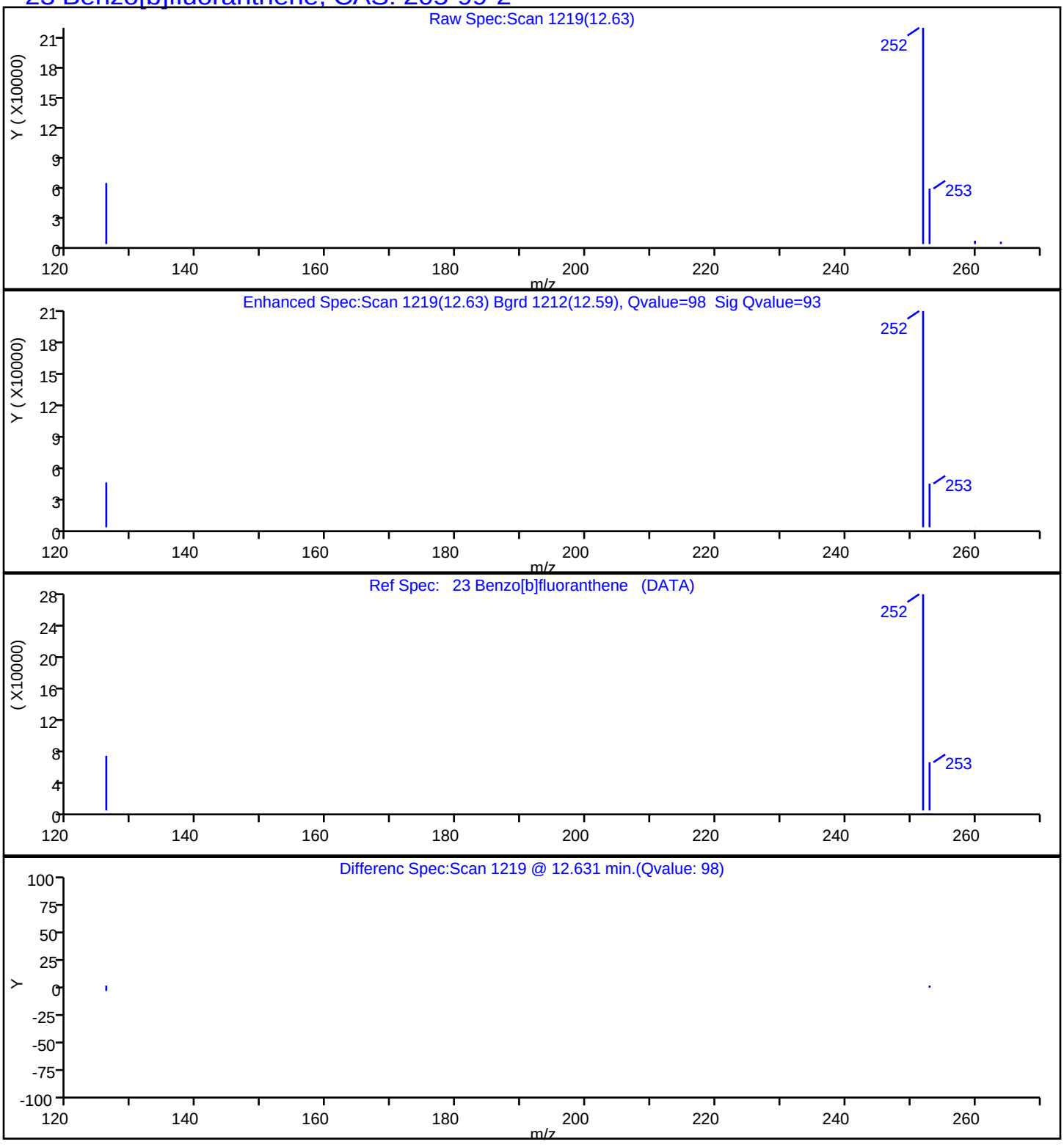


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

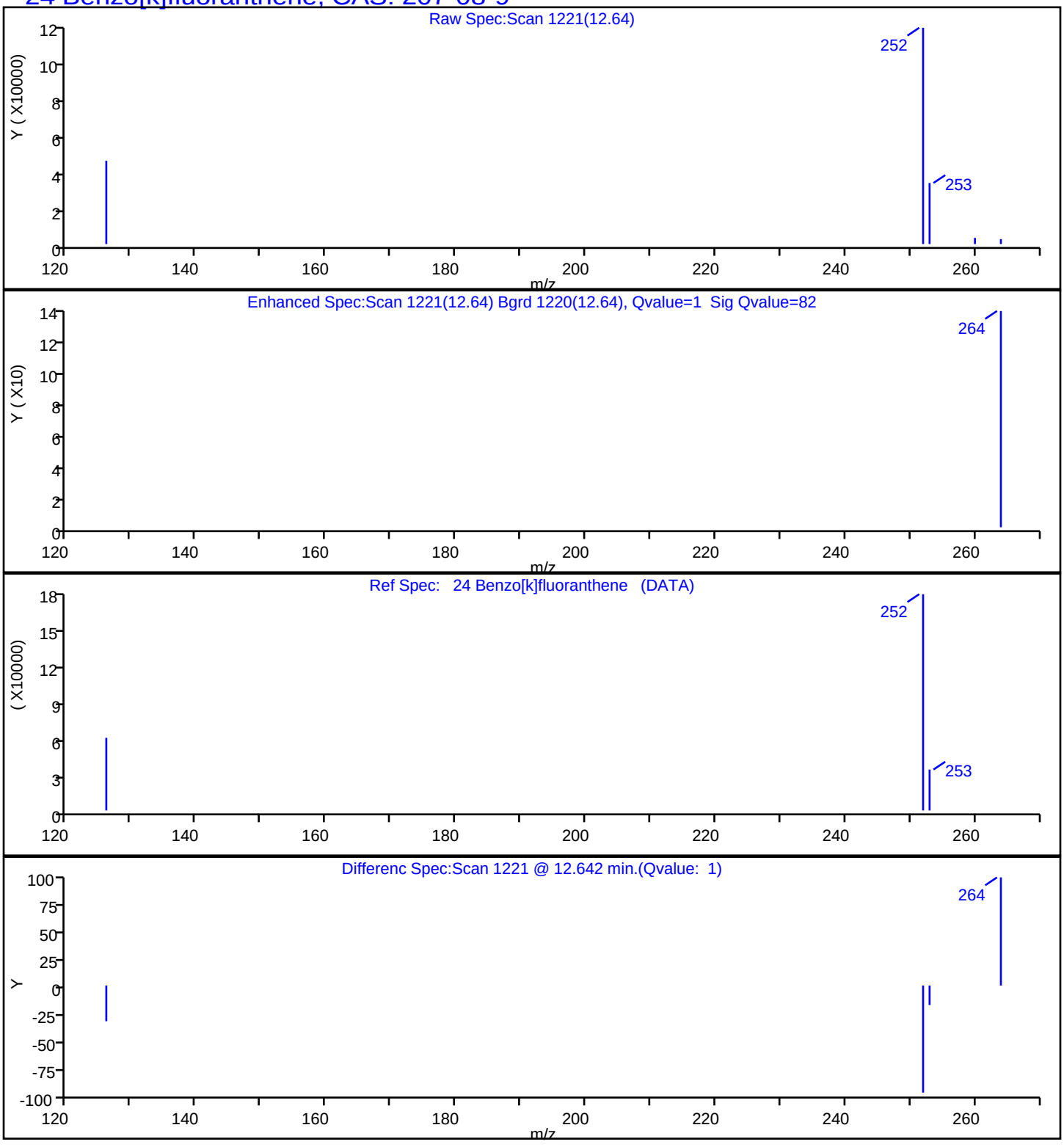


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

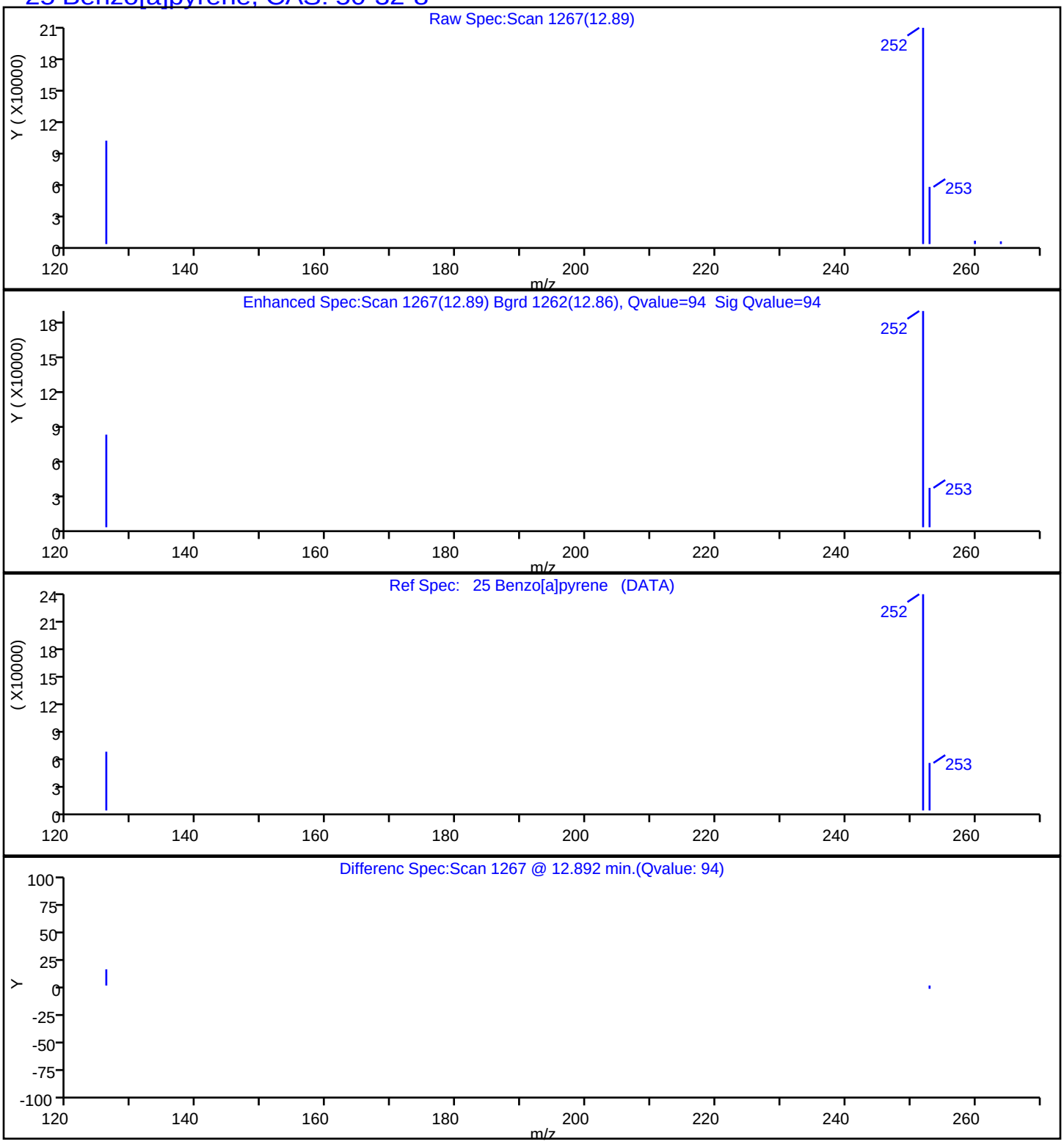


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

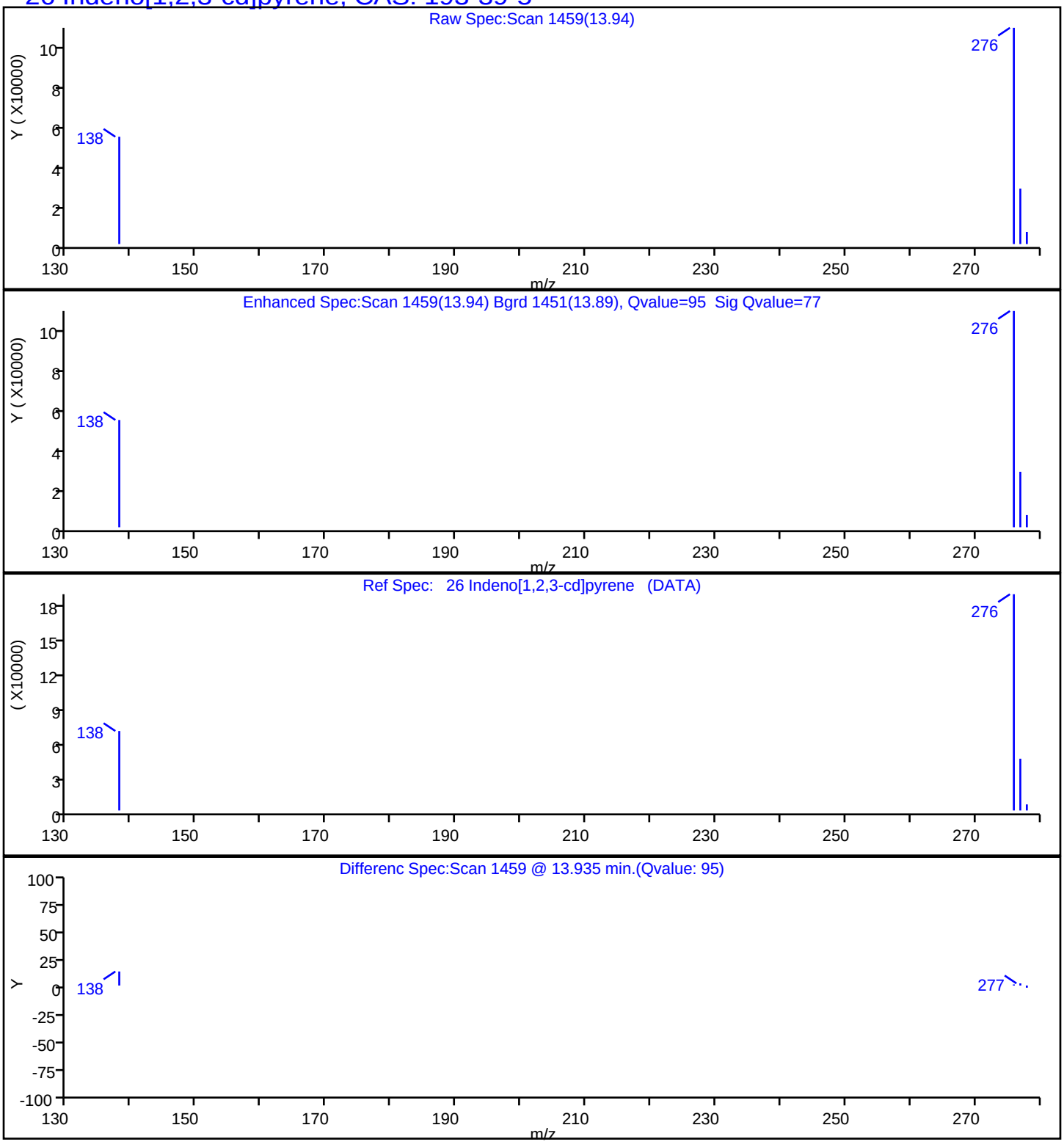


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

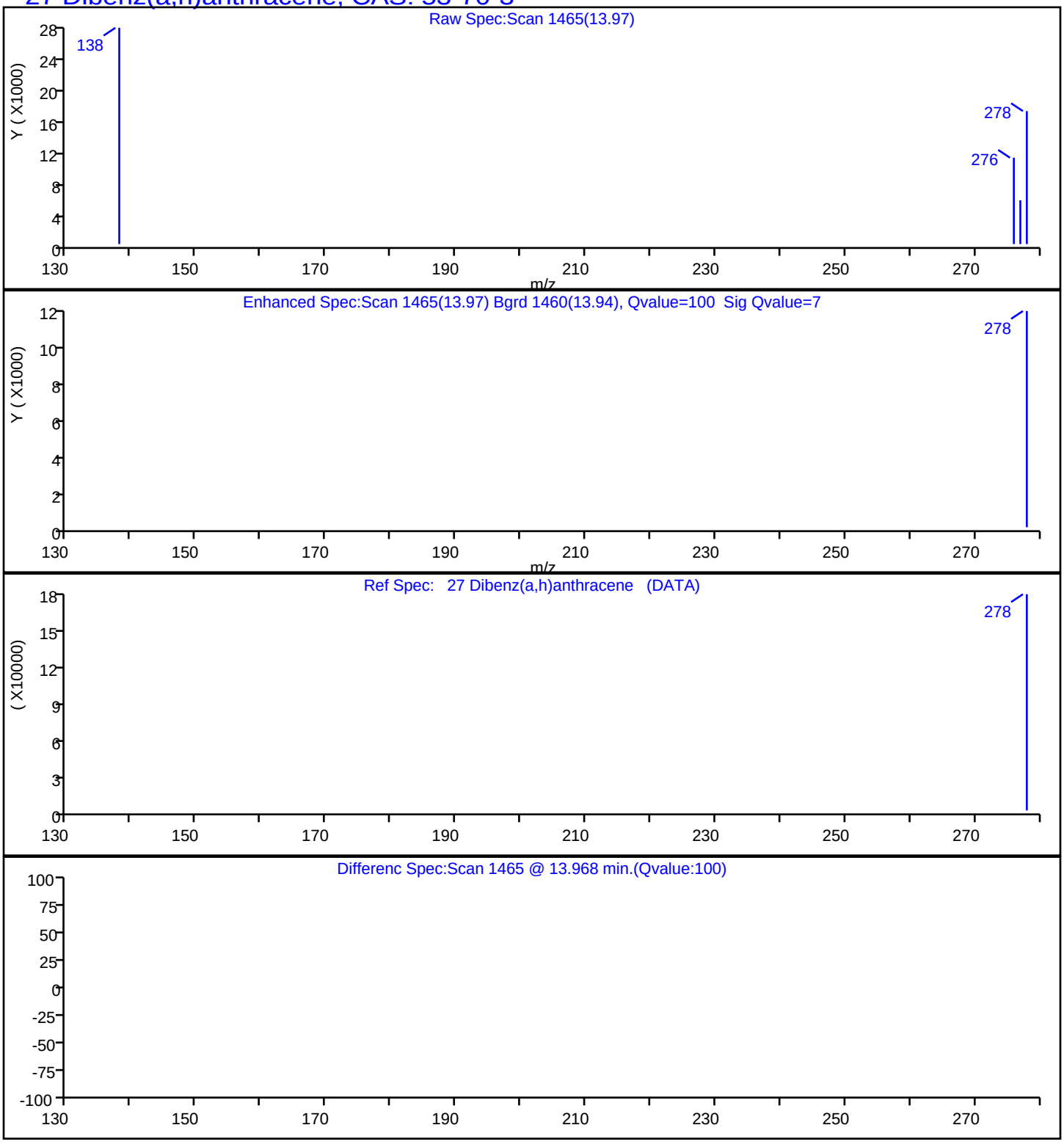


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

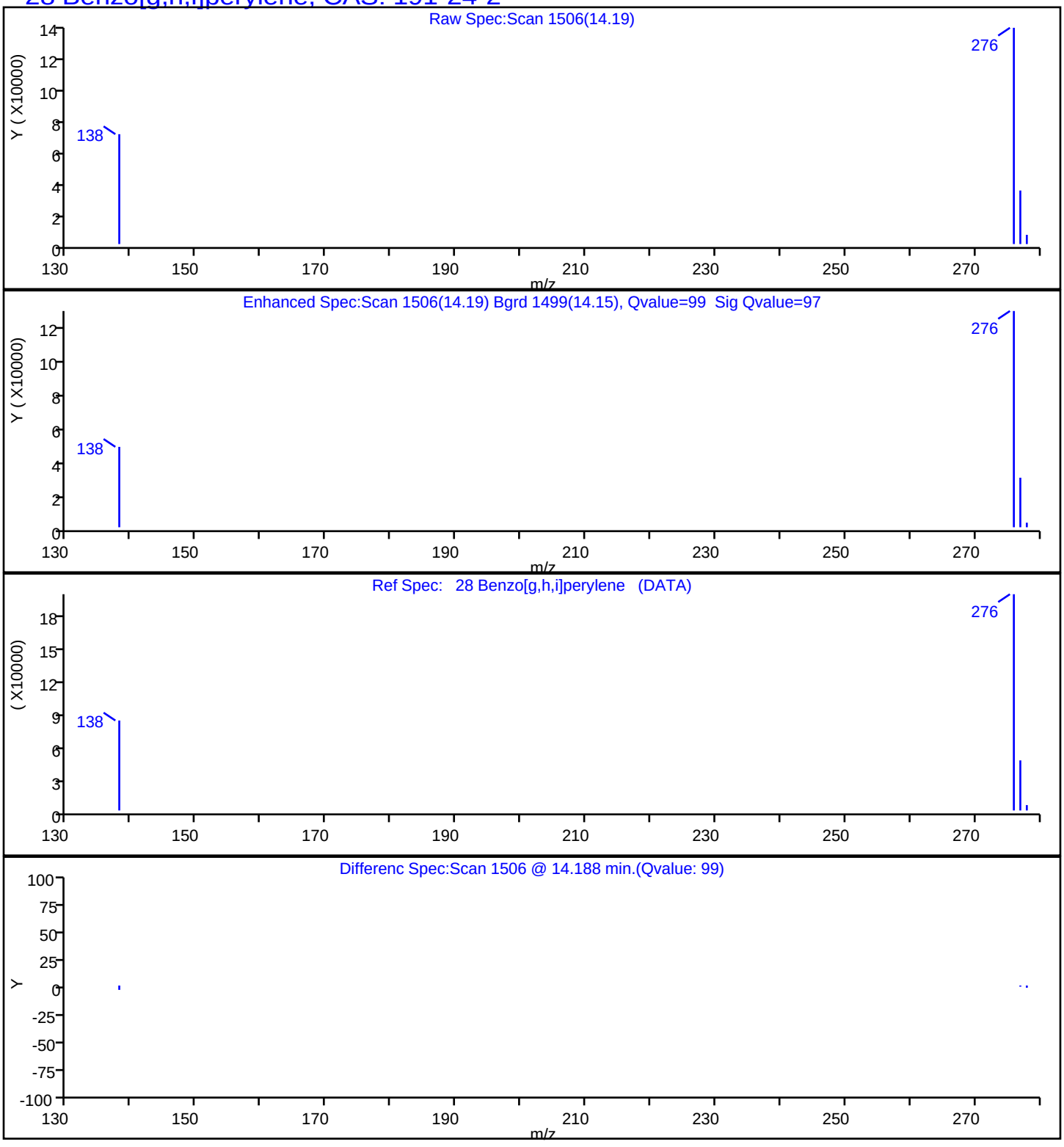


Report Date: 23-Jul-2019 14:37:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

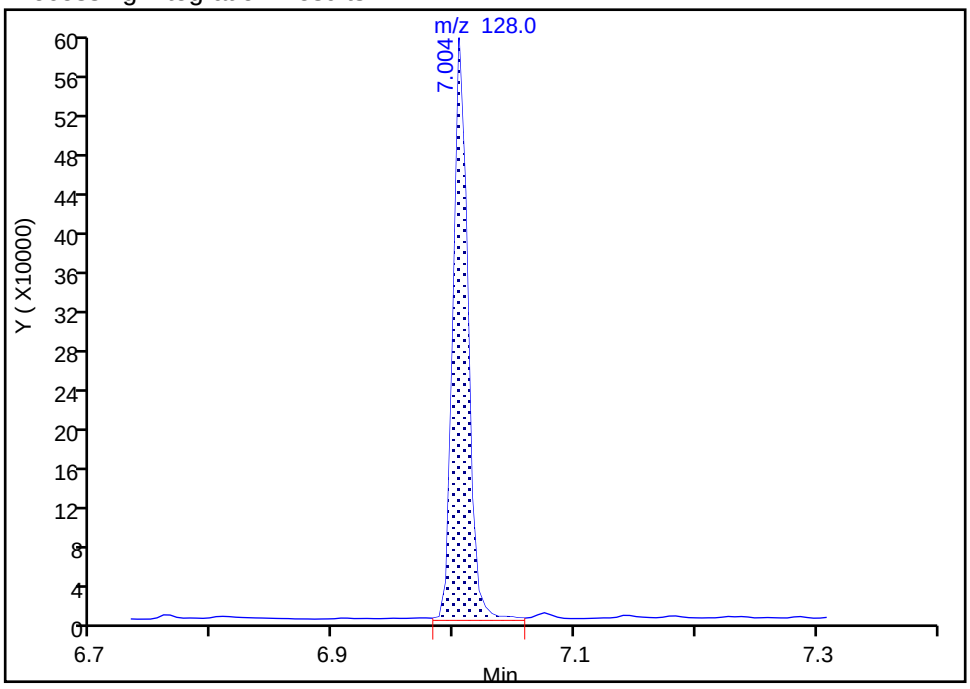
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

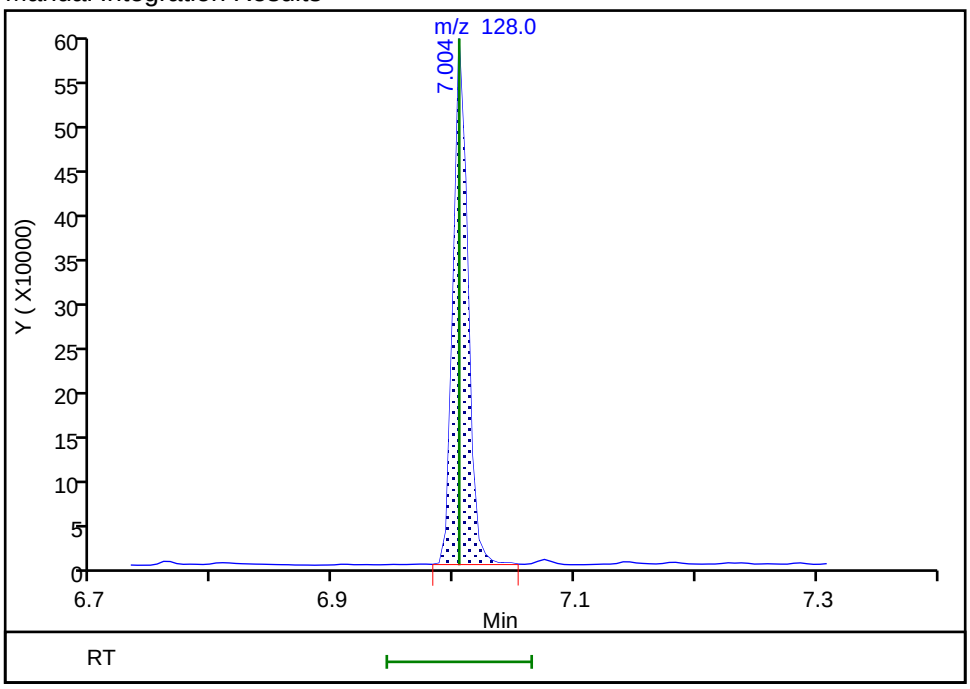
Processing Integration Results

RT: 7.00
Area: 502911
Amount: 129.9063
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 493720
Amount: 127.5322
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:34:24

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

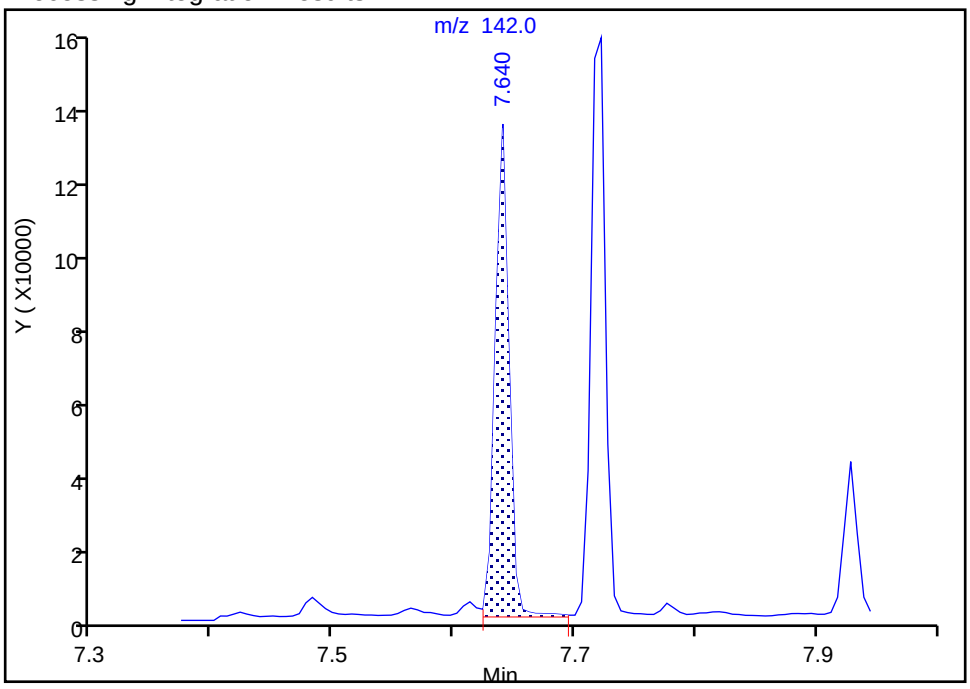
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

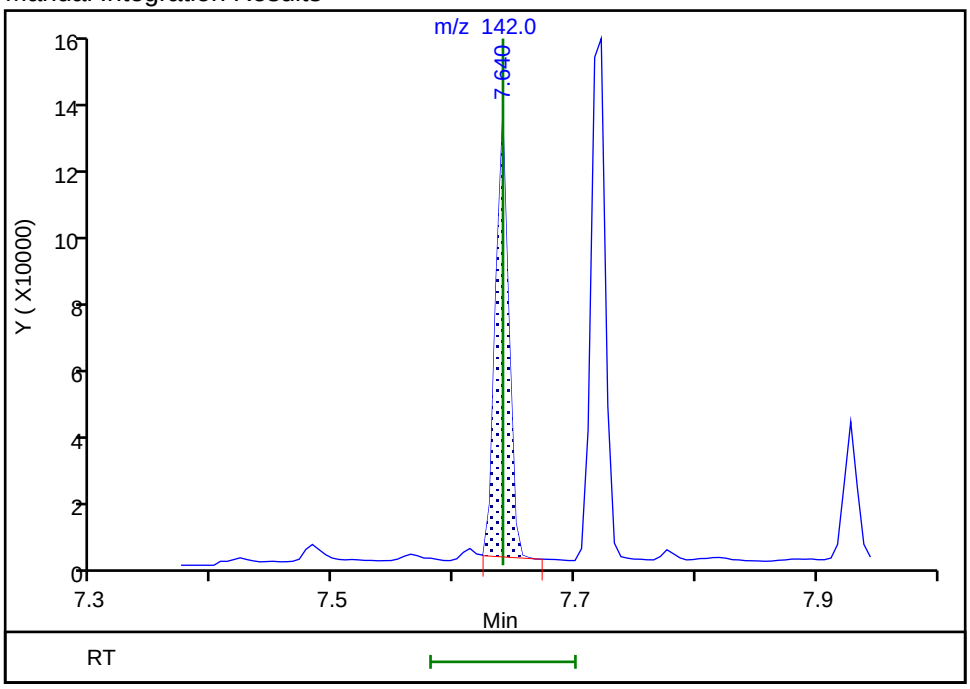
Processing Integration Results

RT: 7.64
Area: 104960
Amount: 41.342608
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 99927
Amount: 39.360164
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:34:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

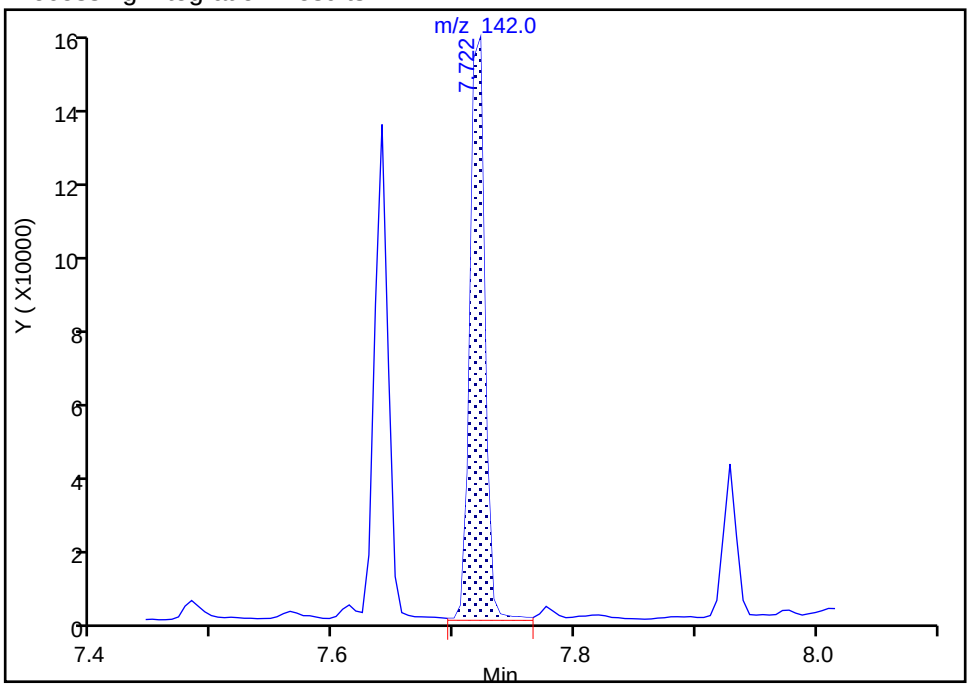
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

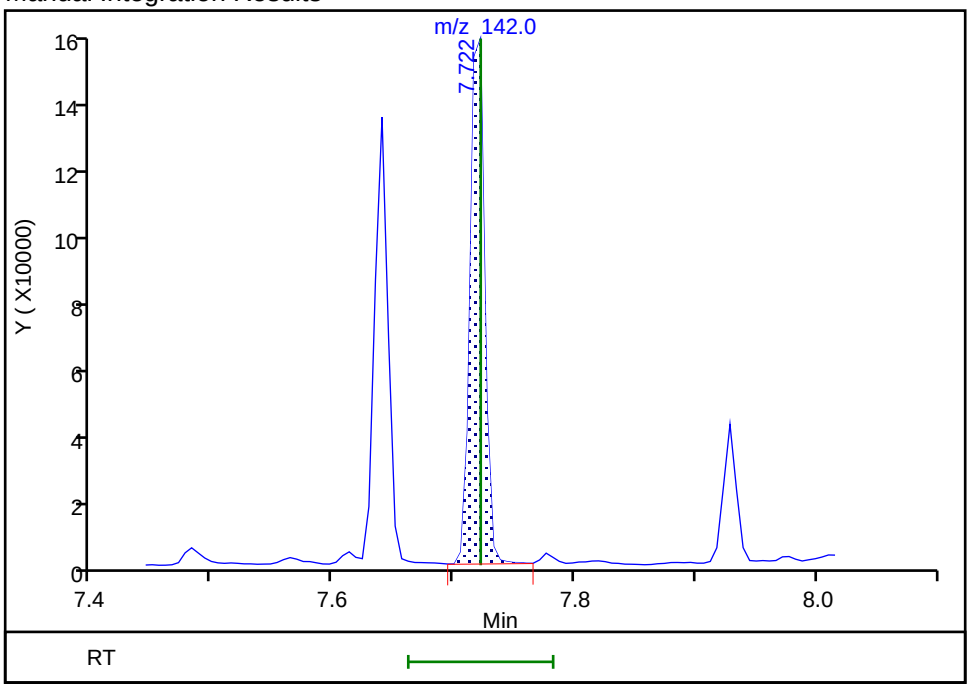
Processing Integration Results

RT: 7.72
Area: 133120
Amount: 56.161930
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 130861
Amount: 55.208881
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:34:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

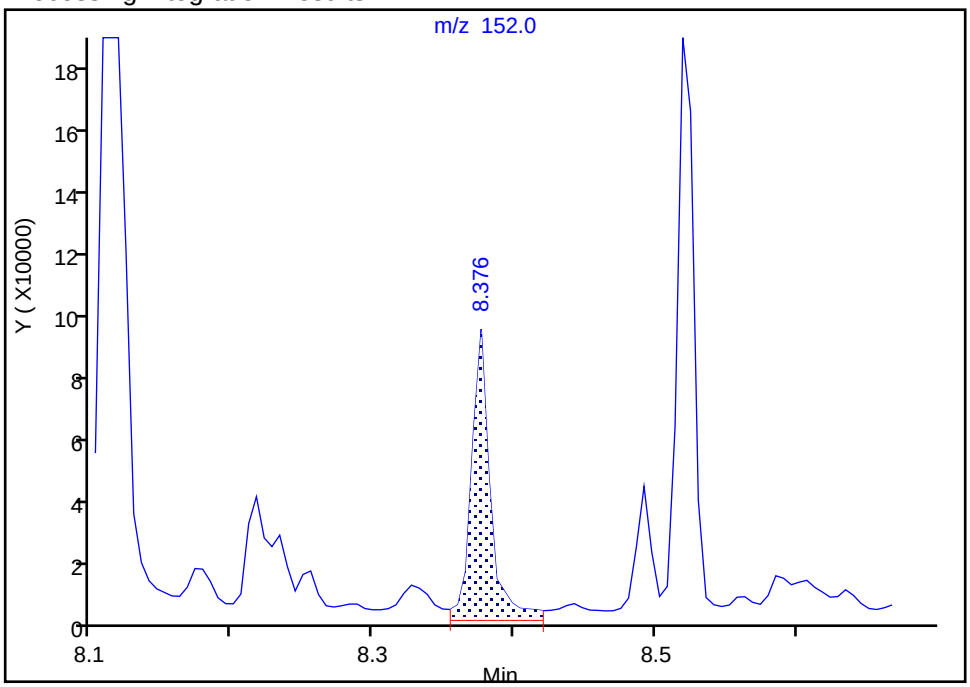
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

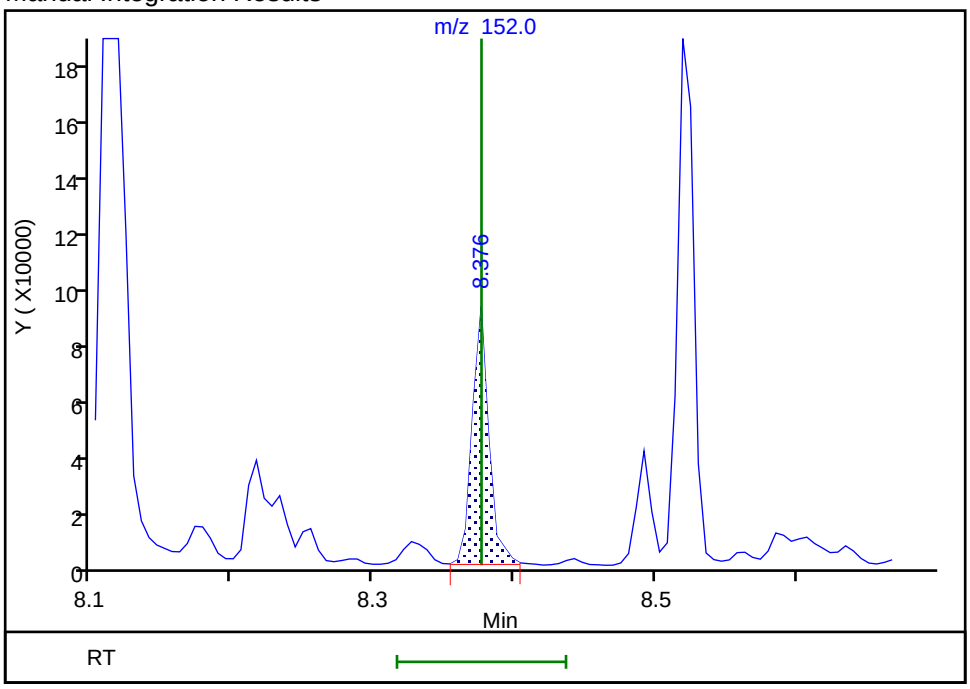
Processing Integration Results

RT: 8.38
Area: 85076
Amount: 22.749527
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 71938
Amount: 19.236394
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:34:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

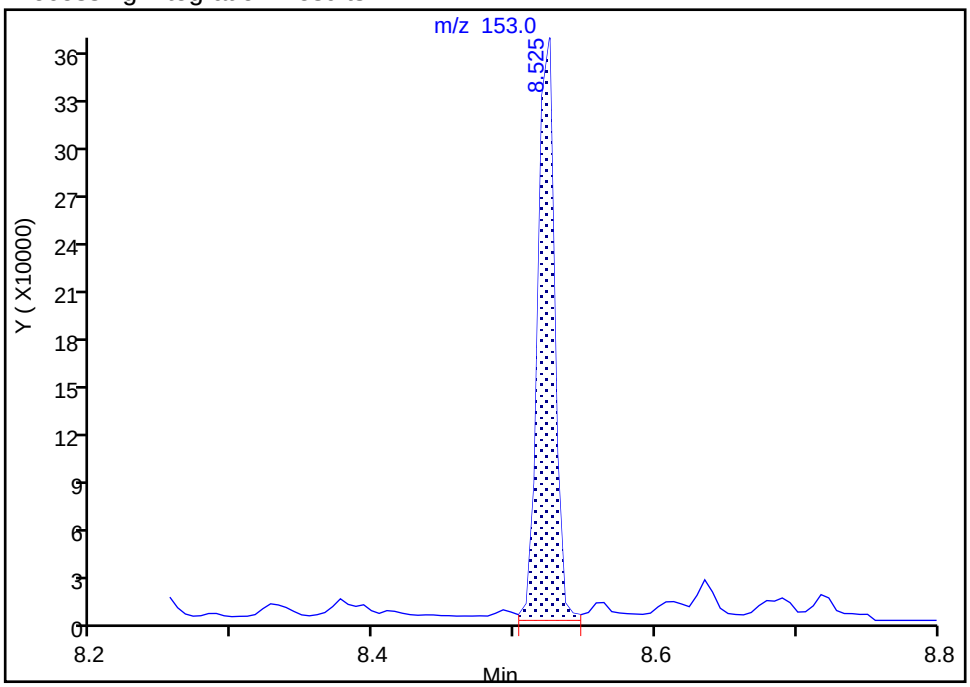
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

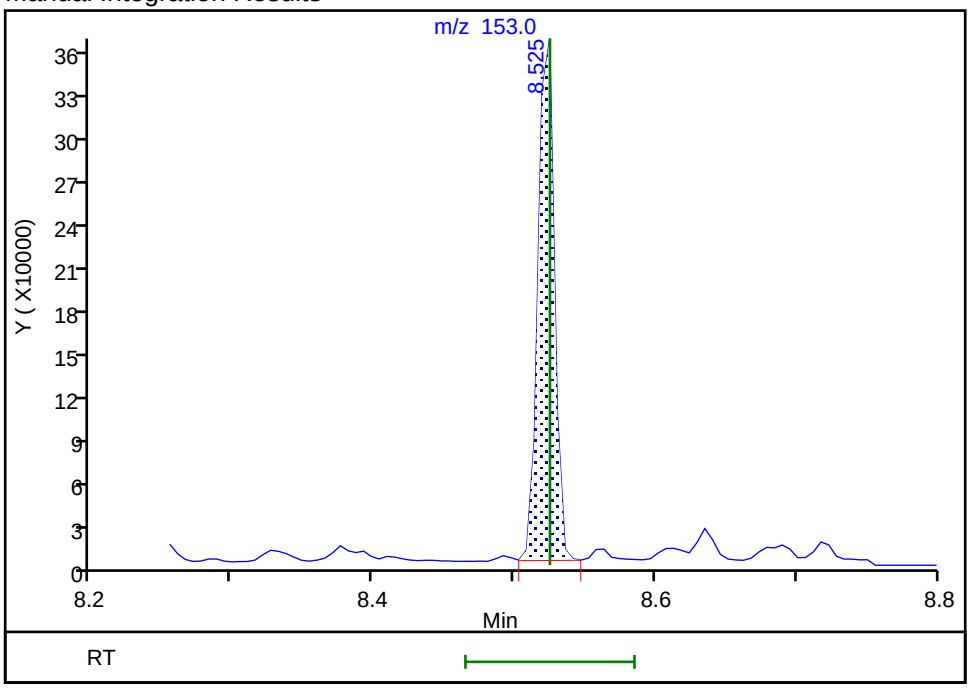
Processing Integration Results

RT: 8.52
Area: 305619
Amount: 112.5715
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 296784
Amount: 109.3172
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:34:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

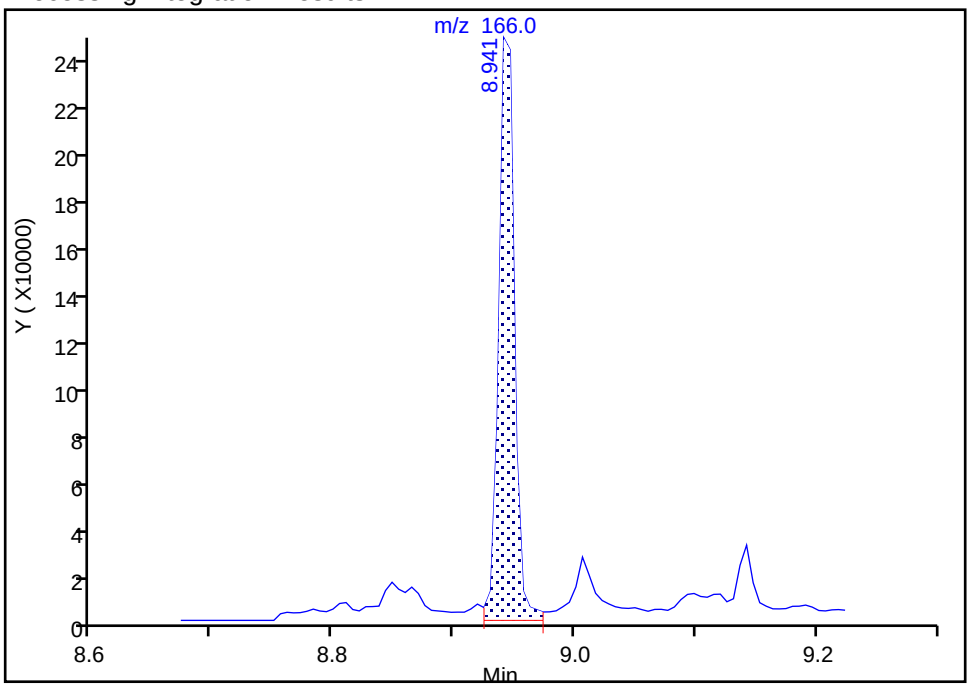
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

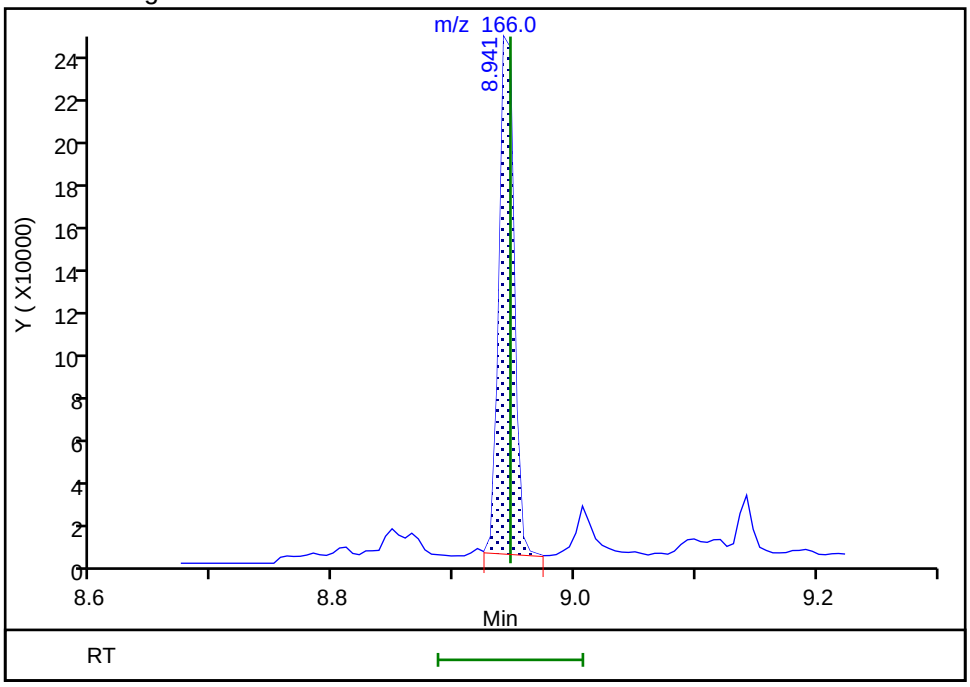
Processing Integration Results

RT: 8.94
Area: 225474
Amount: 82.941738
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 213578
Amount: 78.565735
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:34:59

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

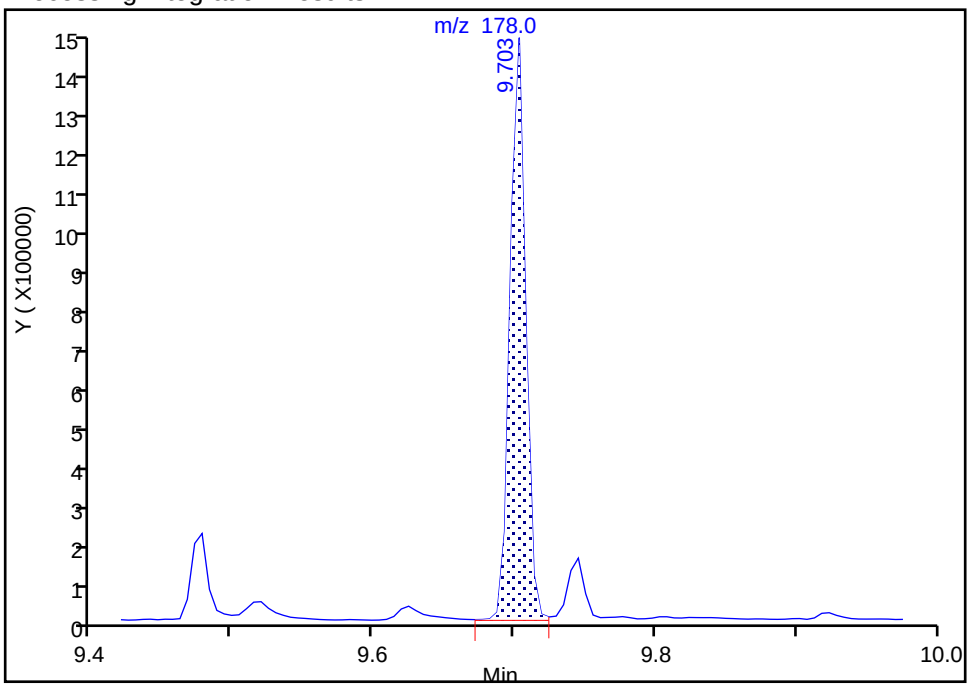
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

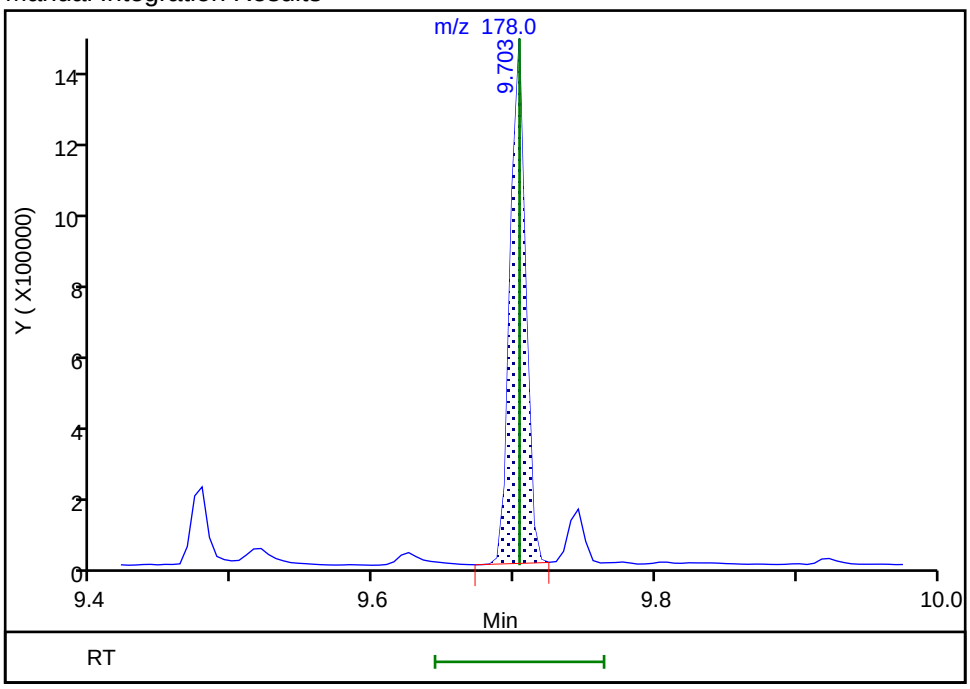
Processing Integration Results

RT: 9.70
Area: 1111634
Amount: 267.9672
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 1096218
Amount: 264.2510
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:05

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

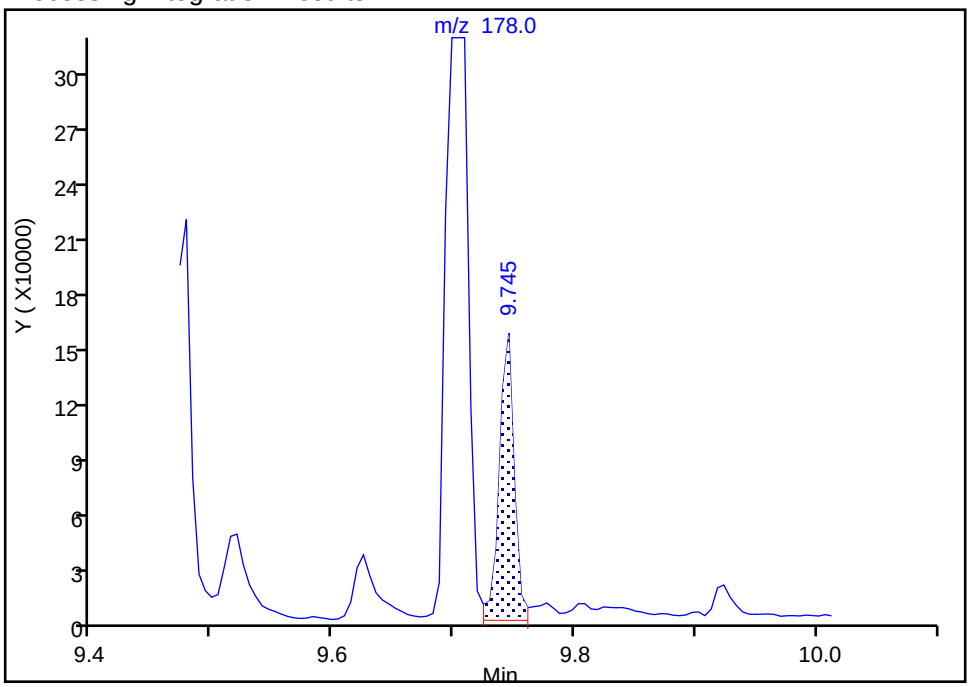
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

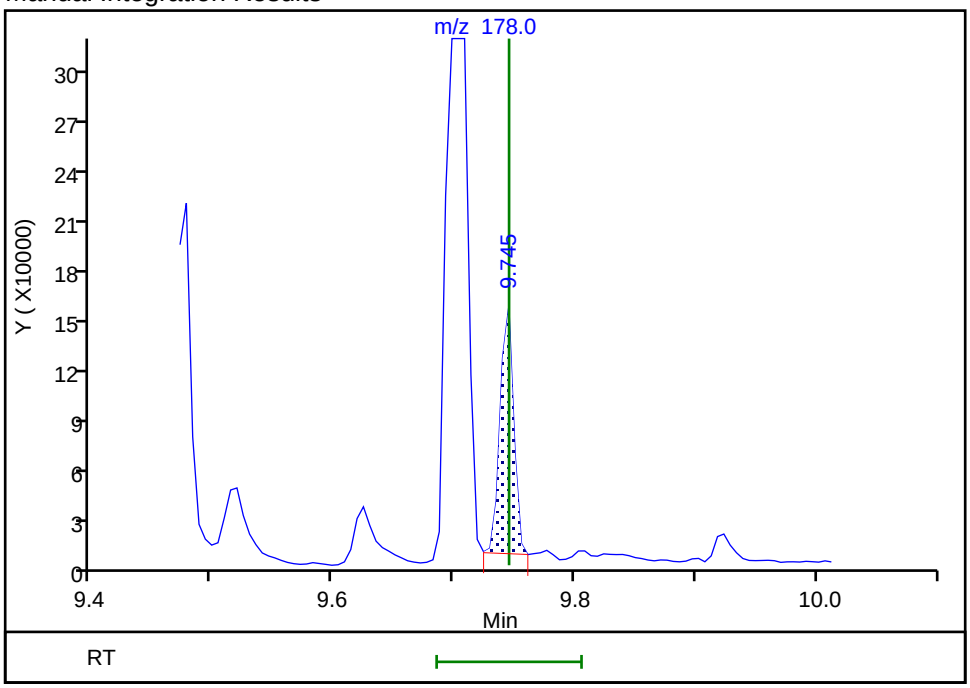
Processing Integration Results

RT: 9.75
Area: 130374
Amount: 33.804471
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 114110
Amount: 29.587404
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

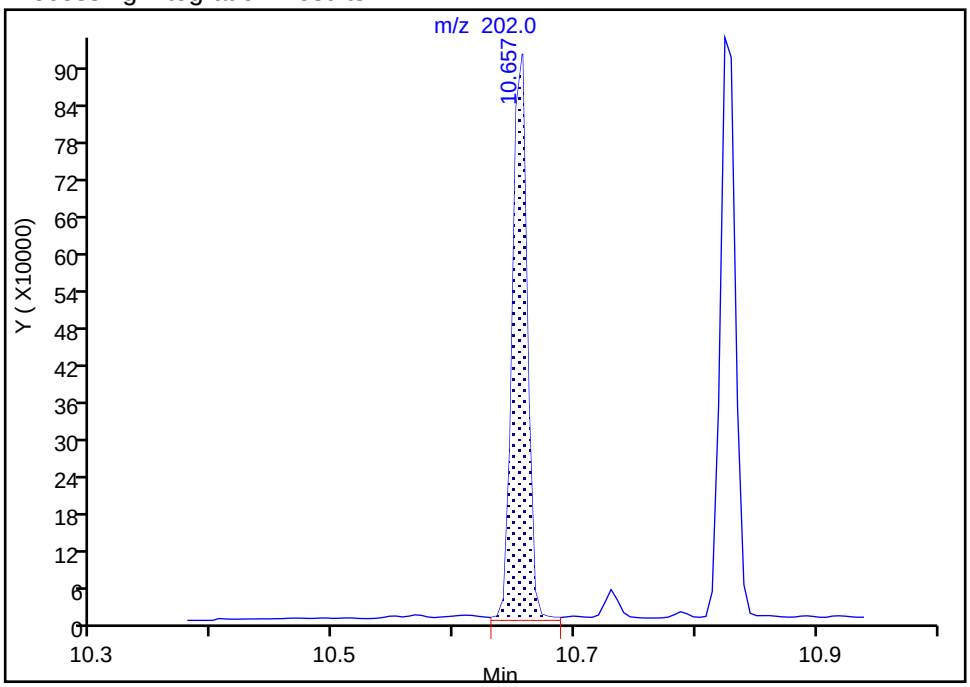
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

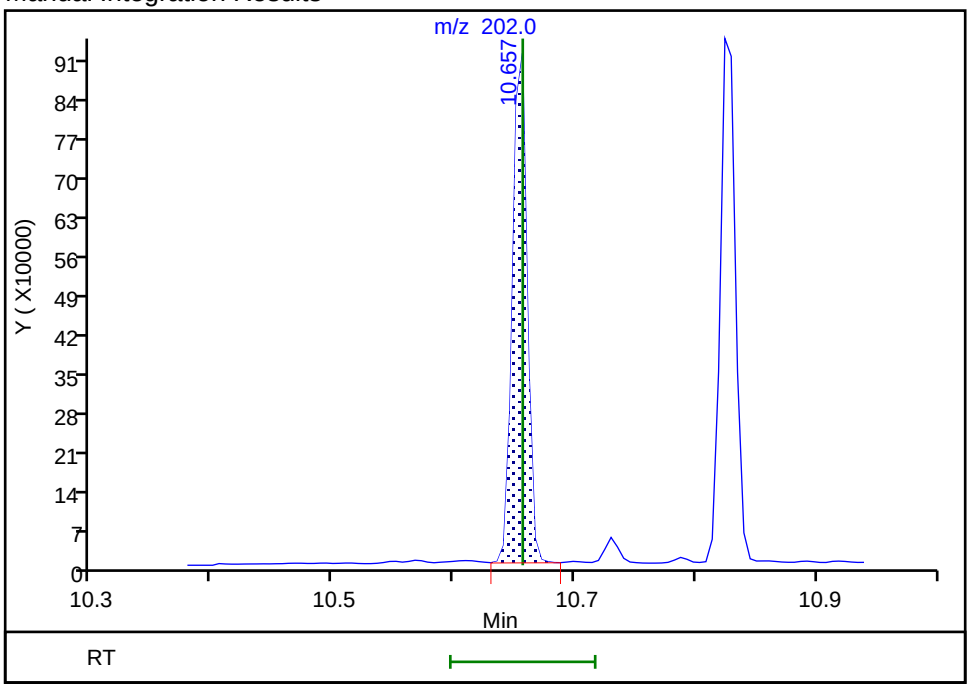
Processing Integration Results

RT: 10.66
Area: 787866
Amount: 200.4697
Amount Units: ug/L



Manual Integration Results

RT: 10.66
Area: 773165
Amount: 196.7291
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:16

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

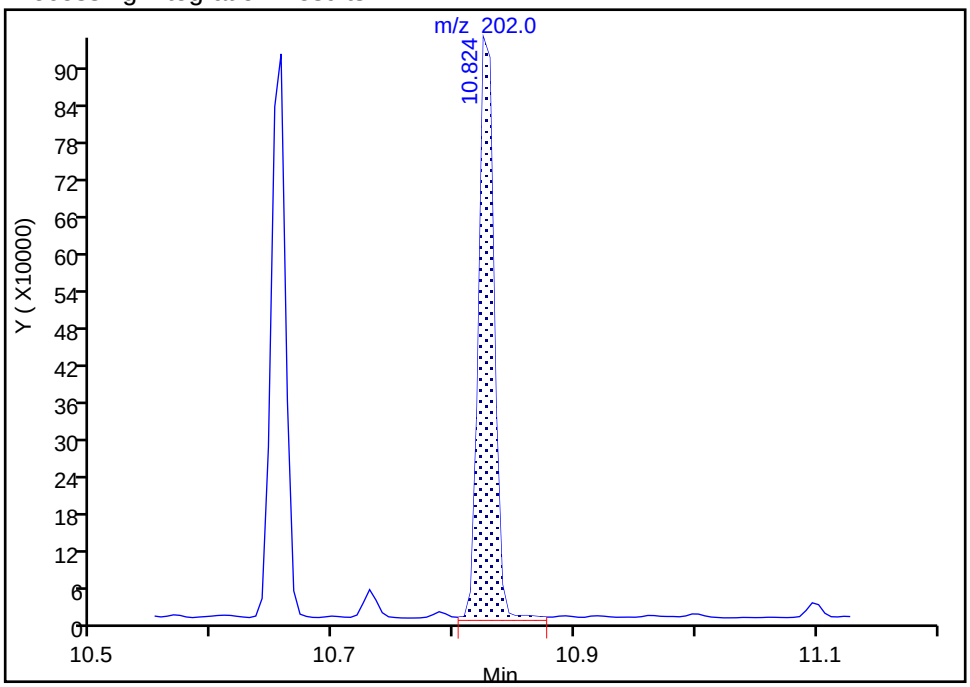
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

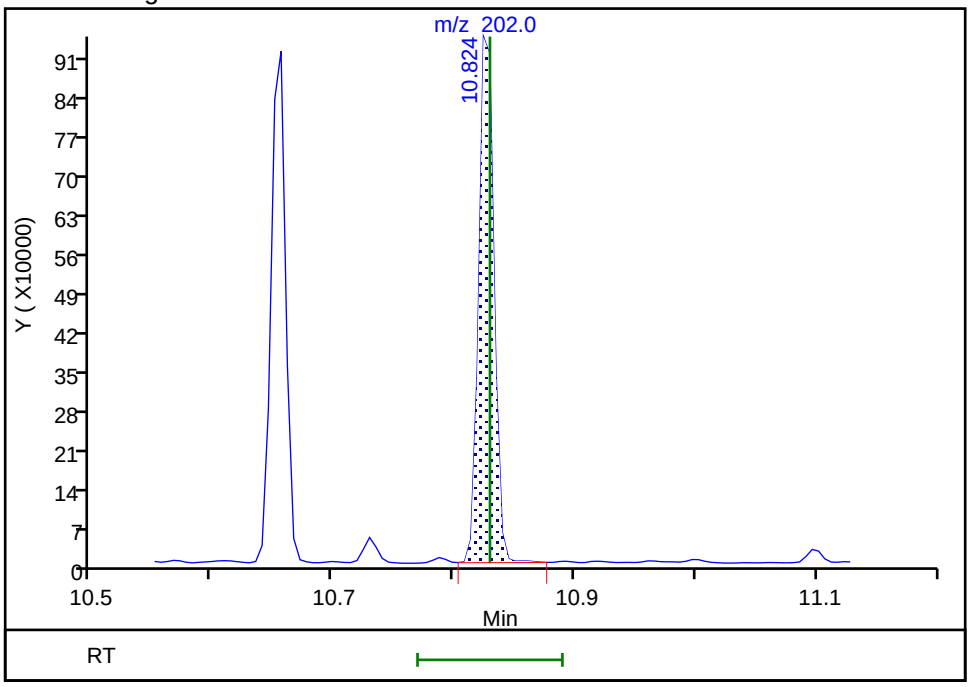
Processing Integration Results

RT: 10.82
Area: 853334
Amount: 206.1577
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 831643
Amount: 200.9173
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:22

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

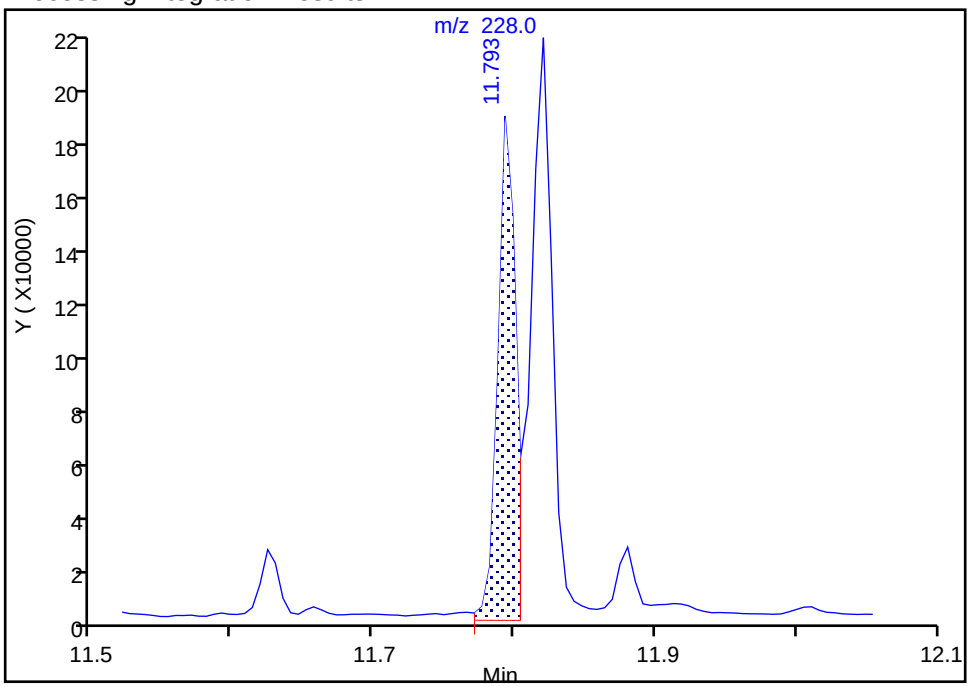
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

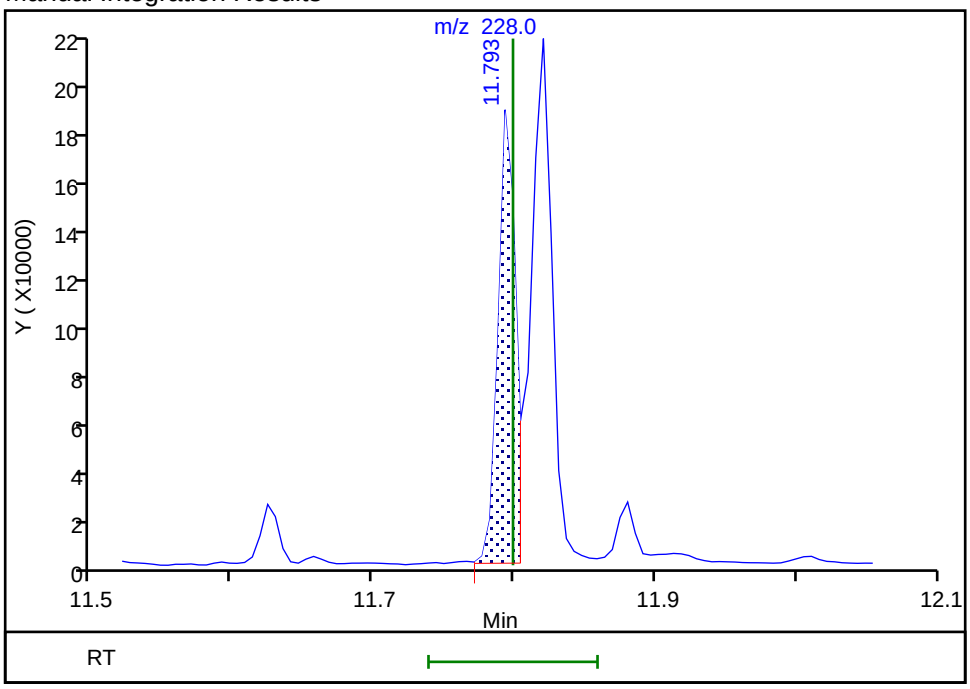
Processing Integration Results

RT: 11.79
Area: 157001
Amount: 59.974708
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 152701
Amount: 58.332099
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:28

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

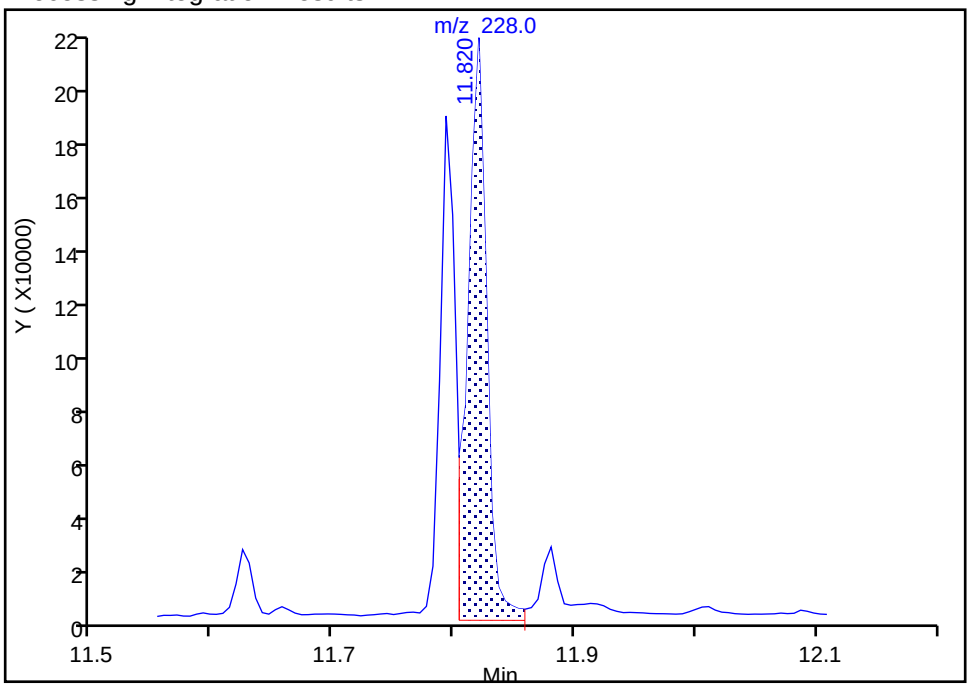
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

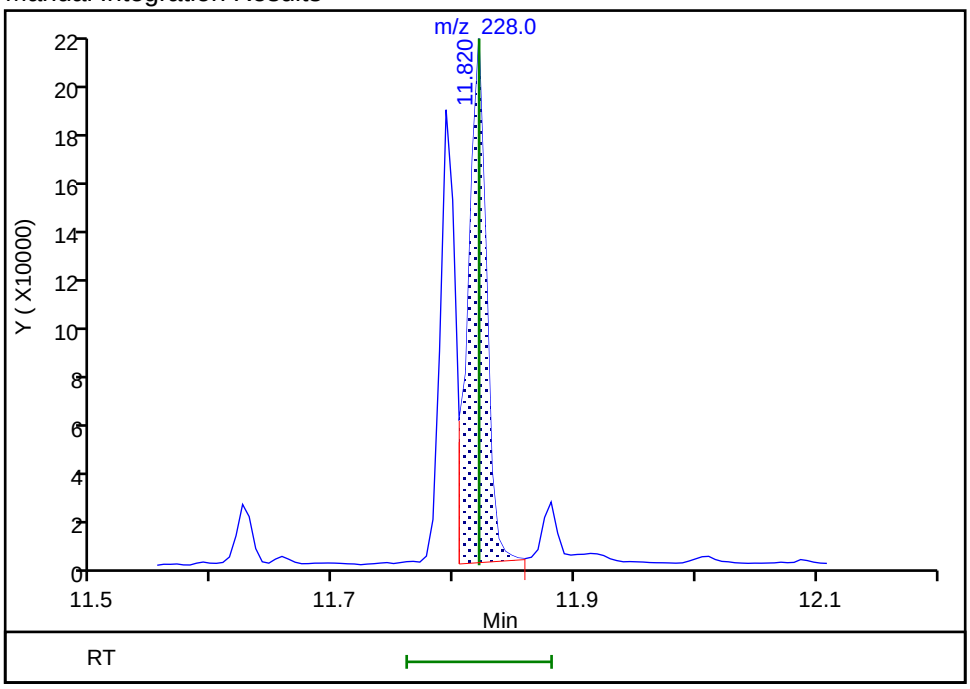
Processing Integration Results

RT: 11.82
Area: 228274
Amount: 65.572061
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 219003
Amount: 62.908952
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

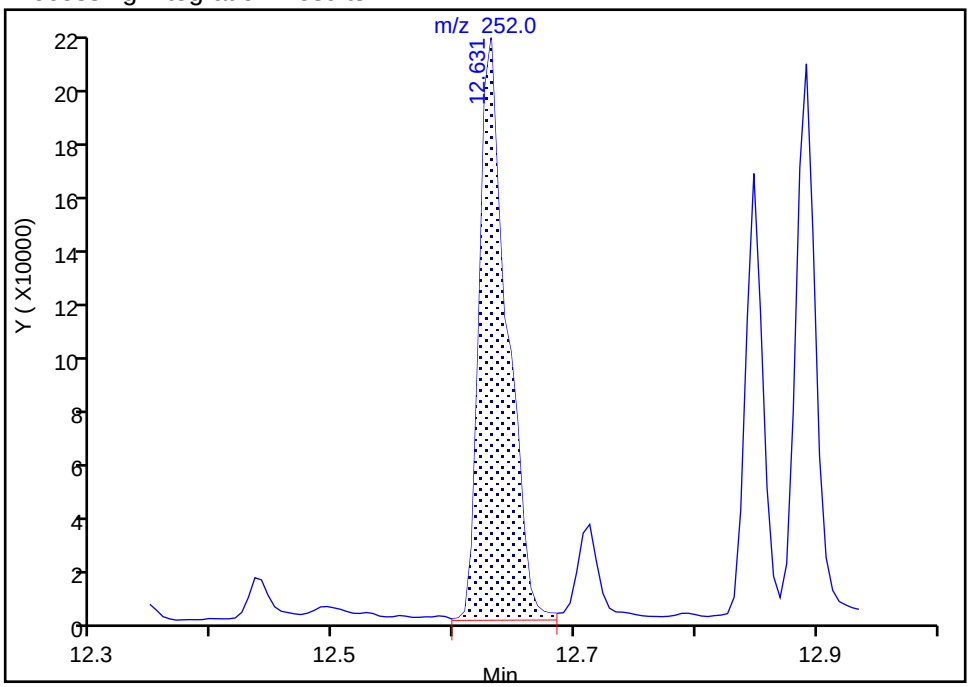
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

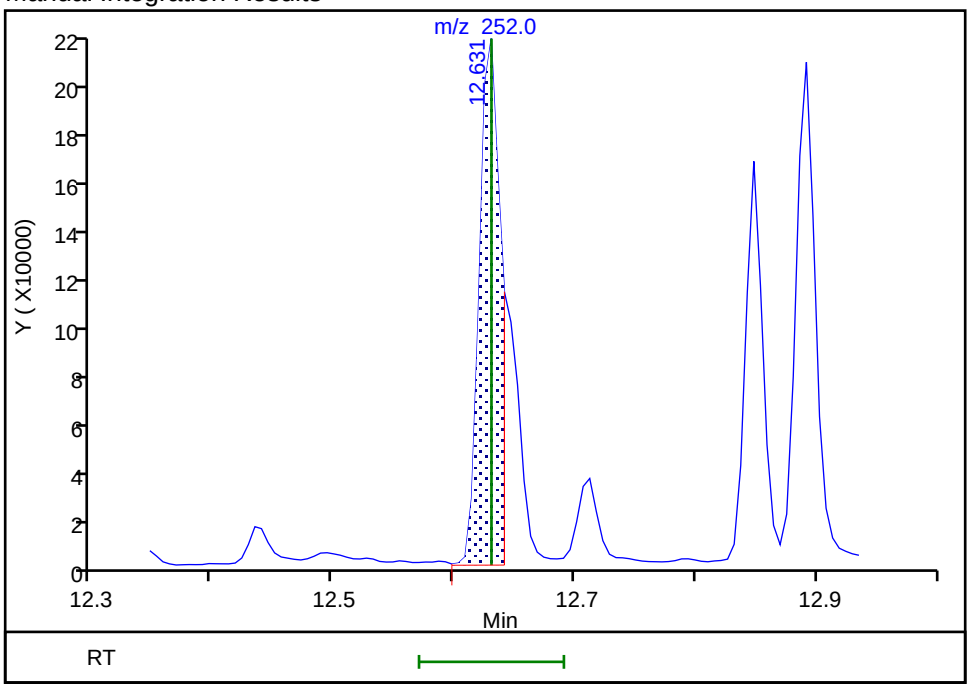
Processing Integration Results

RT: 12.63
Area: 330747
Amount: 99.226126
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 240041
Amount: 72.013771
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:35:43

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

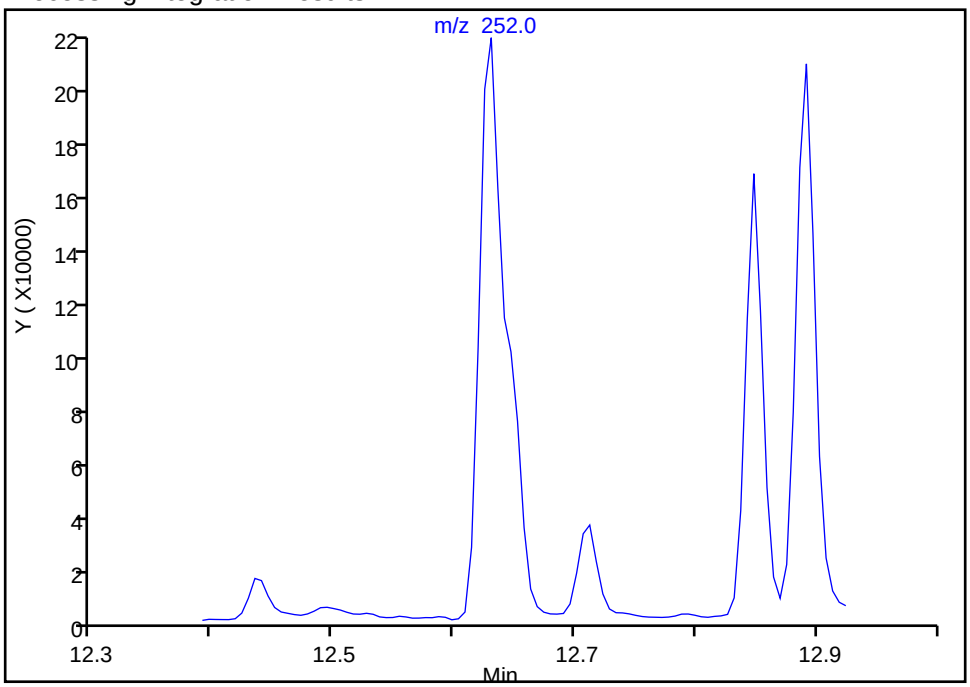
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

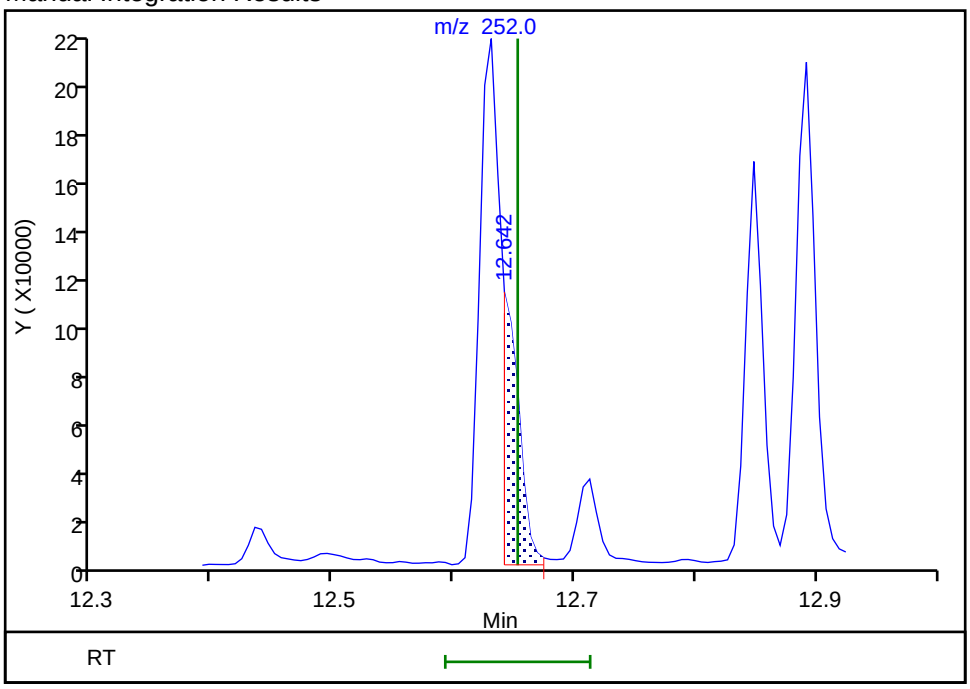
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 88340
Amount: 21.662245
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:36:36
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

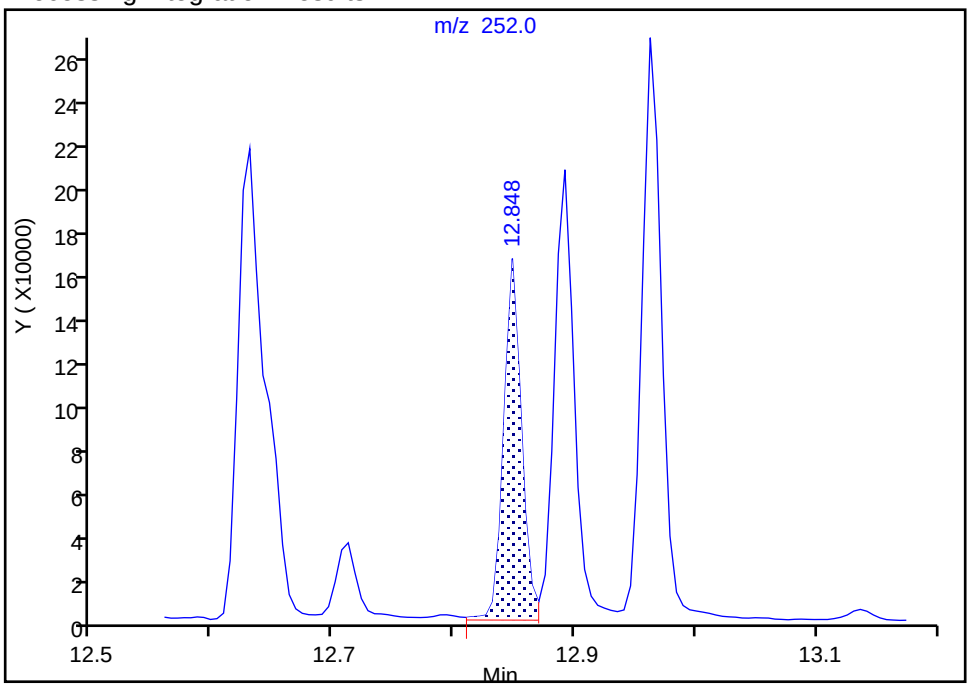
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

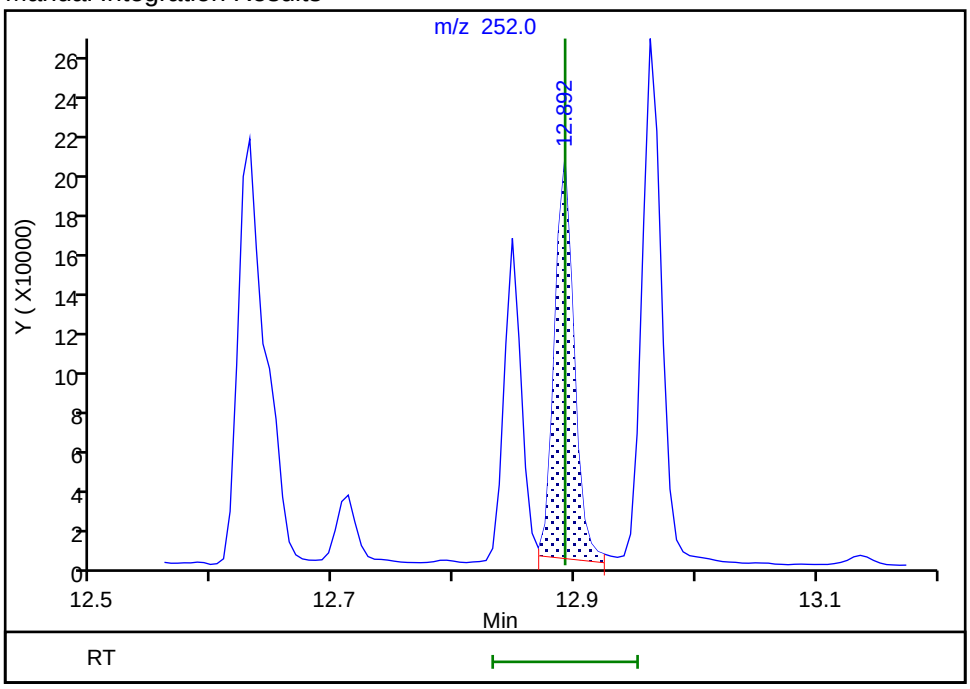
Processing Integration Results

RT: 12.85
Area: 162618
Amount: 48.158736
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 218617
Amount: 64.742638
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:36:41

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

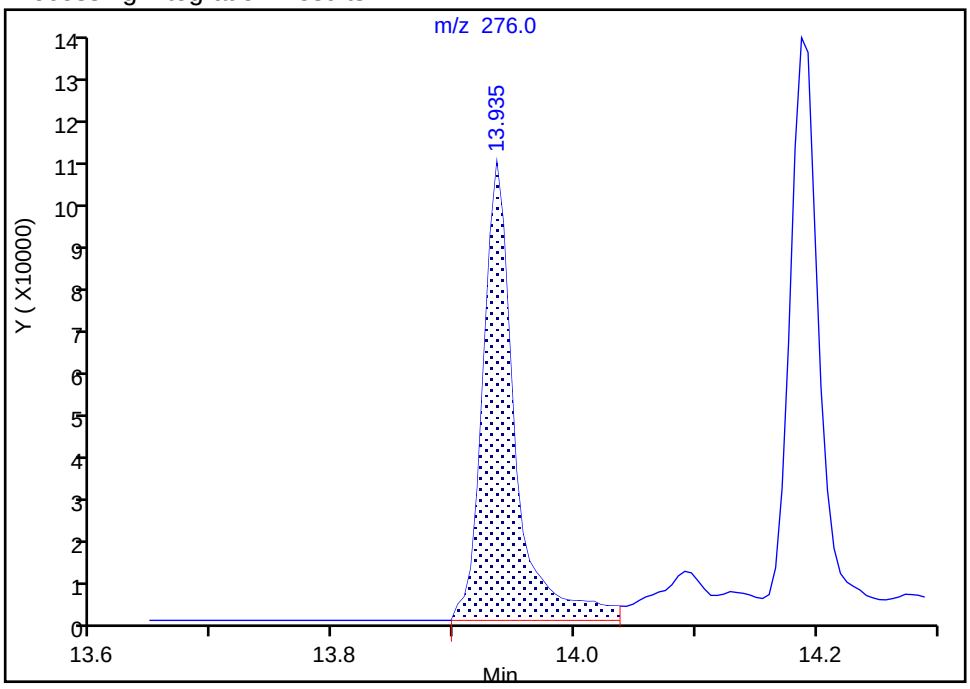
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

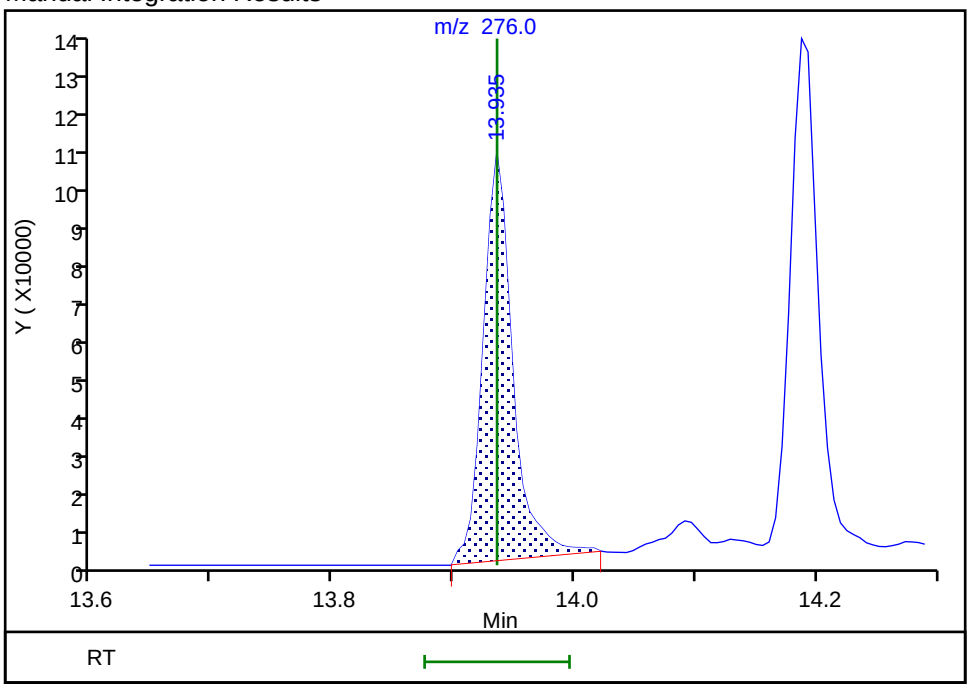
Processing Integration Results

RT: 13.94
Area: 191601
Amount: 74.253415
Amount Units: ug/L



Manual Integration Results

RT: 13.94
Area: 174963
Amount: 67.841839
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:36:49

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

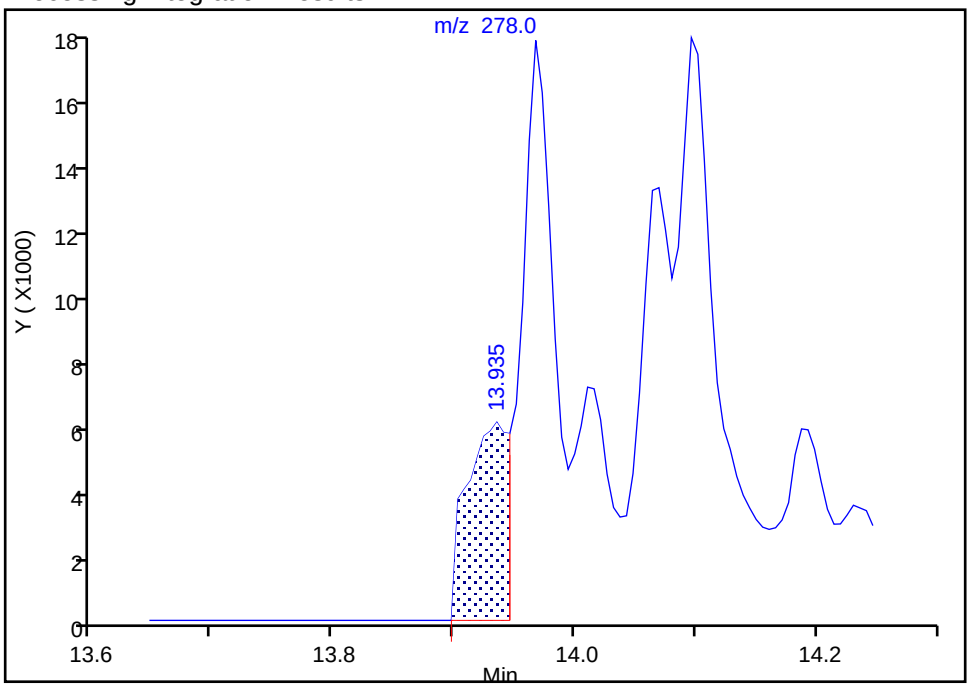
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

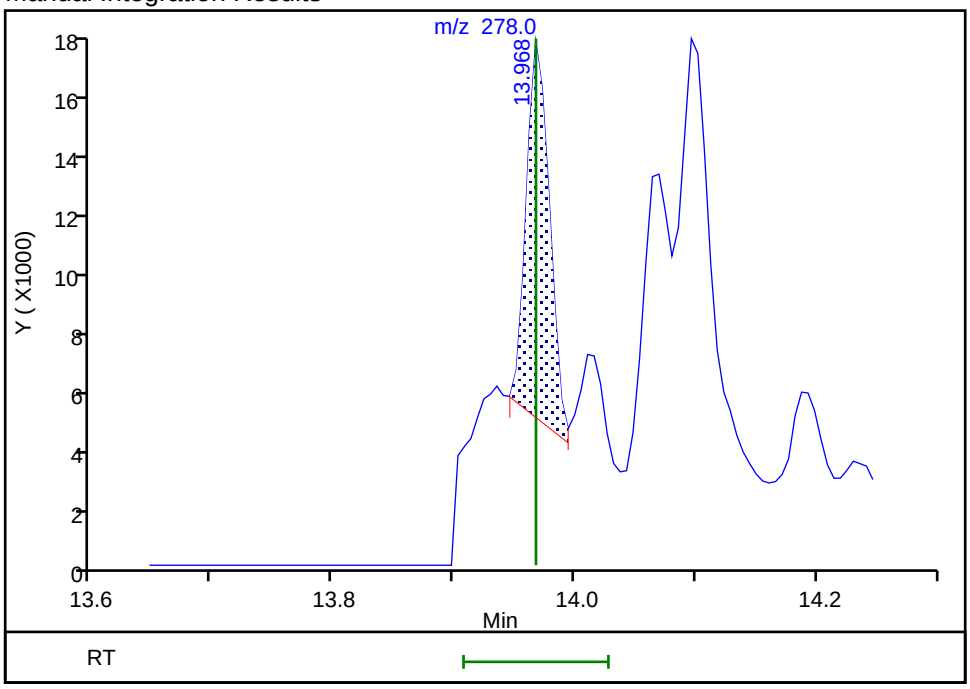
Processing Integration Results

RT: 13.94
Area: 13376
Amount: 5.171588
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 16347
Amount: 6.074012
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:36:56

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

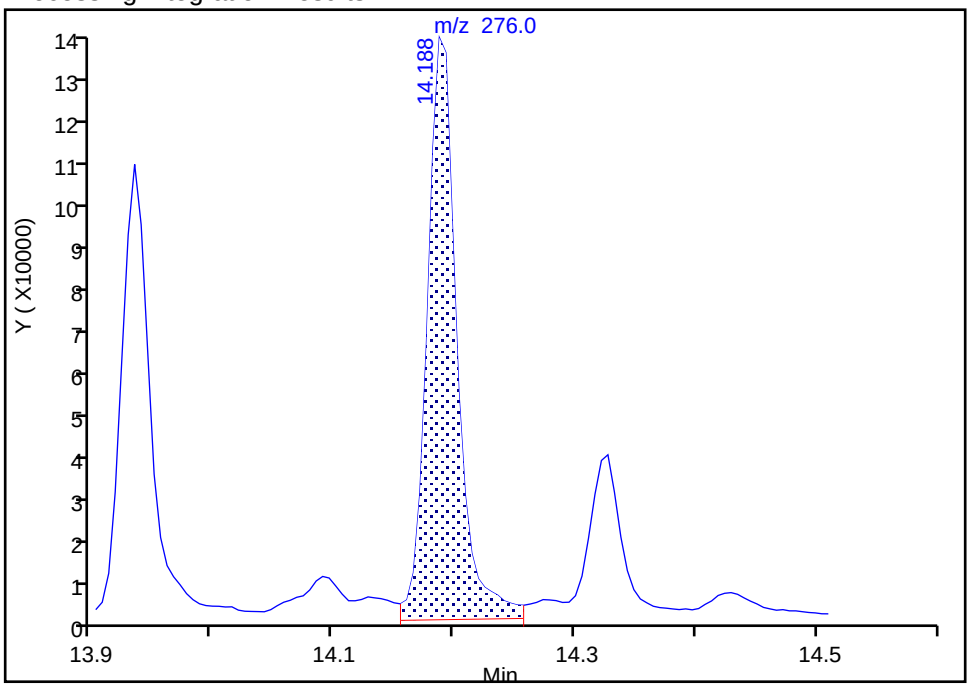
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A016.D				
Injection Date:	22-Jul-2019 17:20:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-9-A	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	KFS	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

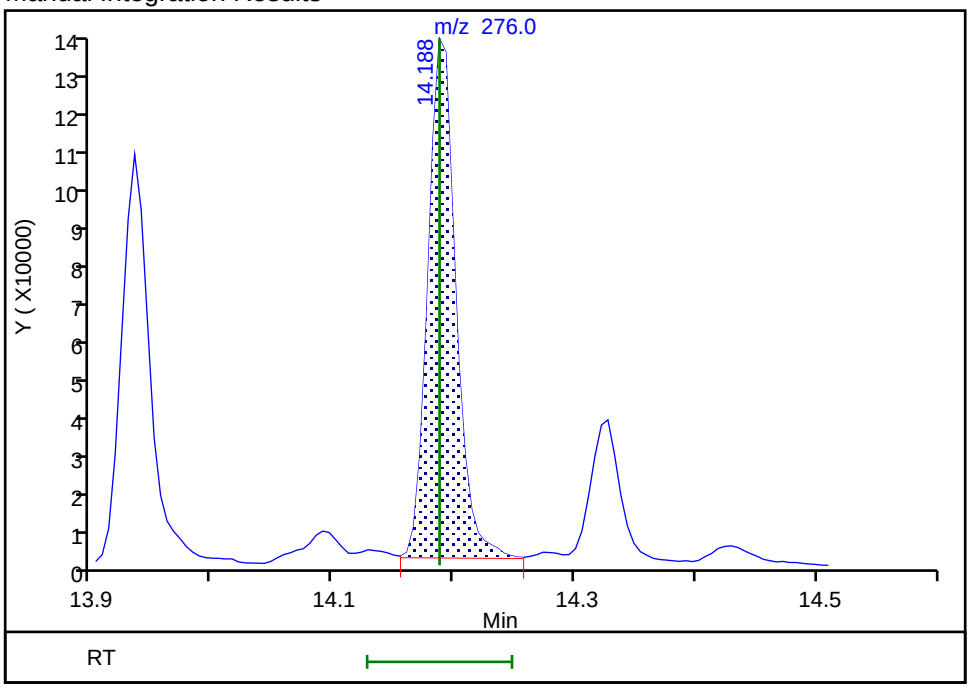
Processing Integration Results

RT: 14.19
Area: 224003
Amount: 60.341606
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 205623
Amount: 55.411963
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:37:03

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle | Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 | Lab Sample ID: 580-87706-10

Matrix: Solid | Lab File ID: 072219A017.D

Analysis Method: 8270D SIM | Date Collected: 07/16/2019 12:12

Extract. Method: 3546 | Date Extracted: 07/19/2019 09:49

Sample wt/vol: 13.891(g) | Date Analyzed: 07/22/2019 17:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 60.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	140		9.0	2.9
91-57-6	2-Methylnaphthalene	51		9.0	3.7
90-12-0	1-Methylnaphthalene	37		9.0	1.1
208-96-8	Acenaphthylene	21		9.0	0.90
83-32-9	Acenaphthene	61		9.0	1.1
86-73-7	Fluorene	60		9.0	0.90
85-01-8	Phenanthrene	290		9.0	2.9
120-12-7	Anthracene	59		9.0	1.1
206-44-0	Fluoranthene	290		9.0	2.5
129-00-0	Pyrene	320		9.0	1.7
56-55-3	Benzo[a]anthracene	110		9.0	1.4
218-01-9	Chrysene	120		9.0	2.7
205-99-2	Benzo[b]fluoranthene	130		9.0	1.1
207-08-9	Benzo[k]fluoranthene	39		9.0	1.1
50-32-8	Benzo[a]pyrene	120		9.0	1.5
193-39-5	Indeno[1,2,3-cd]pyrene	120		9.0	1.1
53-70-3	Dibenz(a,h)anthracene	12	B	9.0	1.3
191-24-2	Benzo[g,h,i]perylene	100	B	9.0	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	72		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D
Lims ID: 580-87706-A-10-A
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 17:47:30 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-10-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:47:54 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:47:54

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
*	1 Naphthalene-d8	136	6.988	6.988	0.000	100	314332	100.0	M
*	2 Acenaphthene-d10	164	8.497	8.503	-0.006	94	158637	100.0	M
*	3 Phenanthrene-d10	188	9.688	9.688	0.000	100	279297	100.0	M
*	4 Chrysene-d12	240	11.804	11.804	0.000	99	219674	100.0	M
*	5 Perylene-d12	264	12.946	12.946	0.000	100	263825	100.0	
$	9 Terphenyl-d14	244	11.002	11.002	0.000	99	1530962	724.0	
	10 Naphthalene	128	7.004	7.004	0.000	100	266204	75.8	M
	11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	64704	28.1	M
	12 1-Methylnaphthalene	142	7.716	7.722	-0.006	93	44742	20.8	M
	13 Acenaphthylene	152	8.376	8.376	0.000	99	39858	11.5	M
	14 Acenaphthene	153	8.519	8.525	-0.006	77	84533	33.7	M
	15 Fluorene	166	8.941	8.947	-0.006	96	84170	33.5	M
	17 Phenanthrene	178	9.703	9.704	-0.001	100	619193	163.3	M
	18 Anthracene	178	9.745	9.745	0.000	100	116582	33.1	M
	19 Fluoranthene	202	10.651	10.657	-0.006	95	575400	160.2	M
	20 Pyrene	202	10.824	10.830	-0.006	99	665153	175.8	M
	21 Benzo[a]anthracene	228	11.793	11.799	-0.006	98	157757	63.0	M
	22 Chrysene	228	11.820	11.821	-0.001	97	224515	67.4	M
	23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	253942	74.7	M
	24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	90815	21.8	M
	25 Benzo[a]pyrene	252	12.892	12.892	0.000	94	229231	66.6	M
	26 Indeno[1,2,3-cd]pyrene	276	13.935	13.935	0.000	96	181899	69.2	M
	27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	18699	6.68	M
	28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	210860	55.7	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

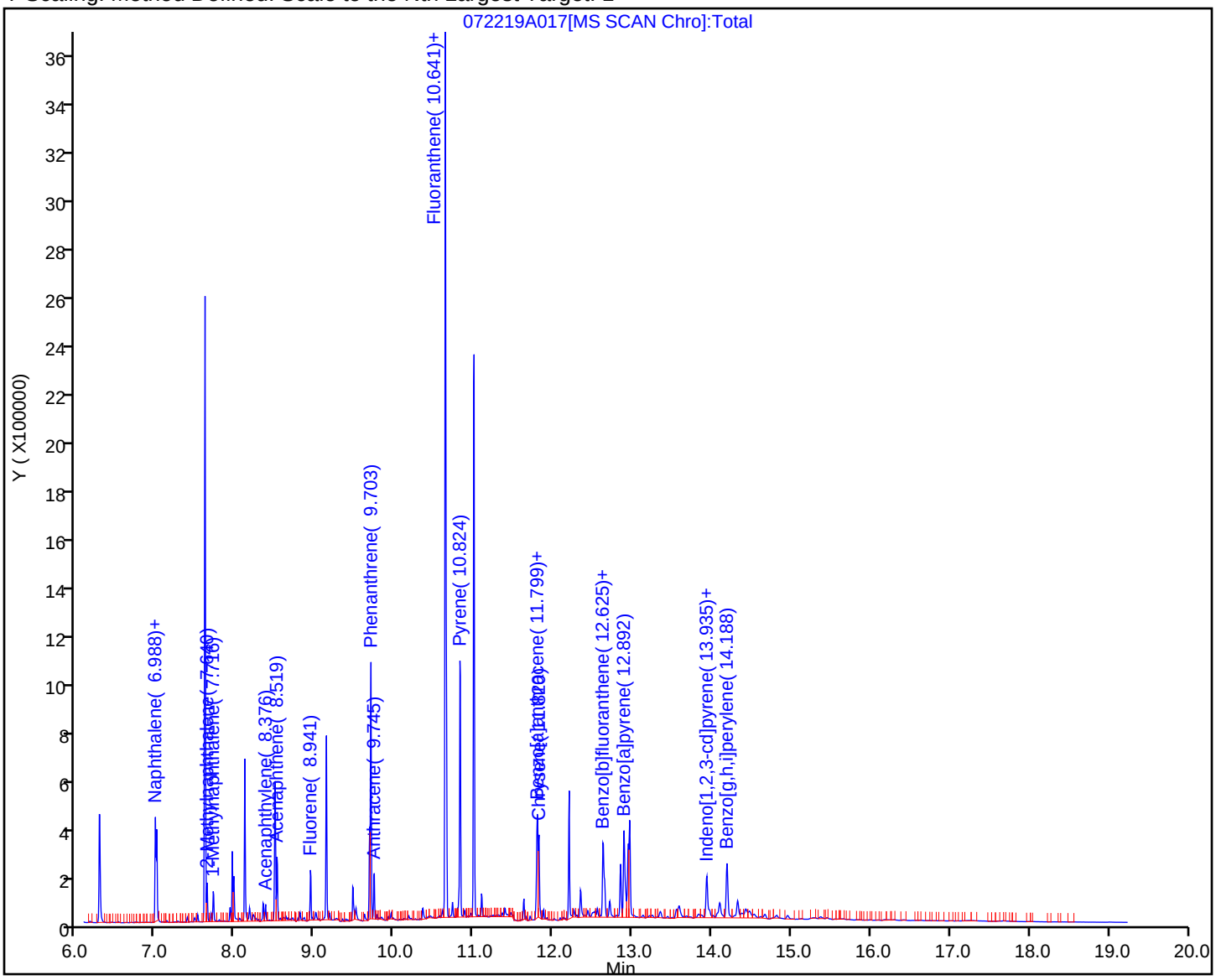
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:47:55 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D
Lims ID: 580-87706-A-10-A
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 17:47:30 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-10-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:47:54 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:47:54

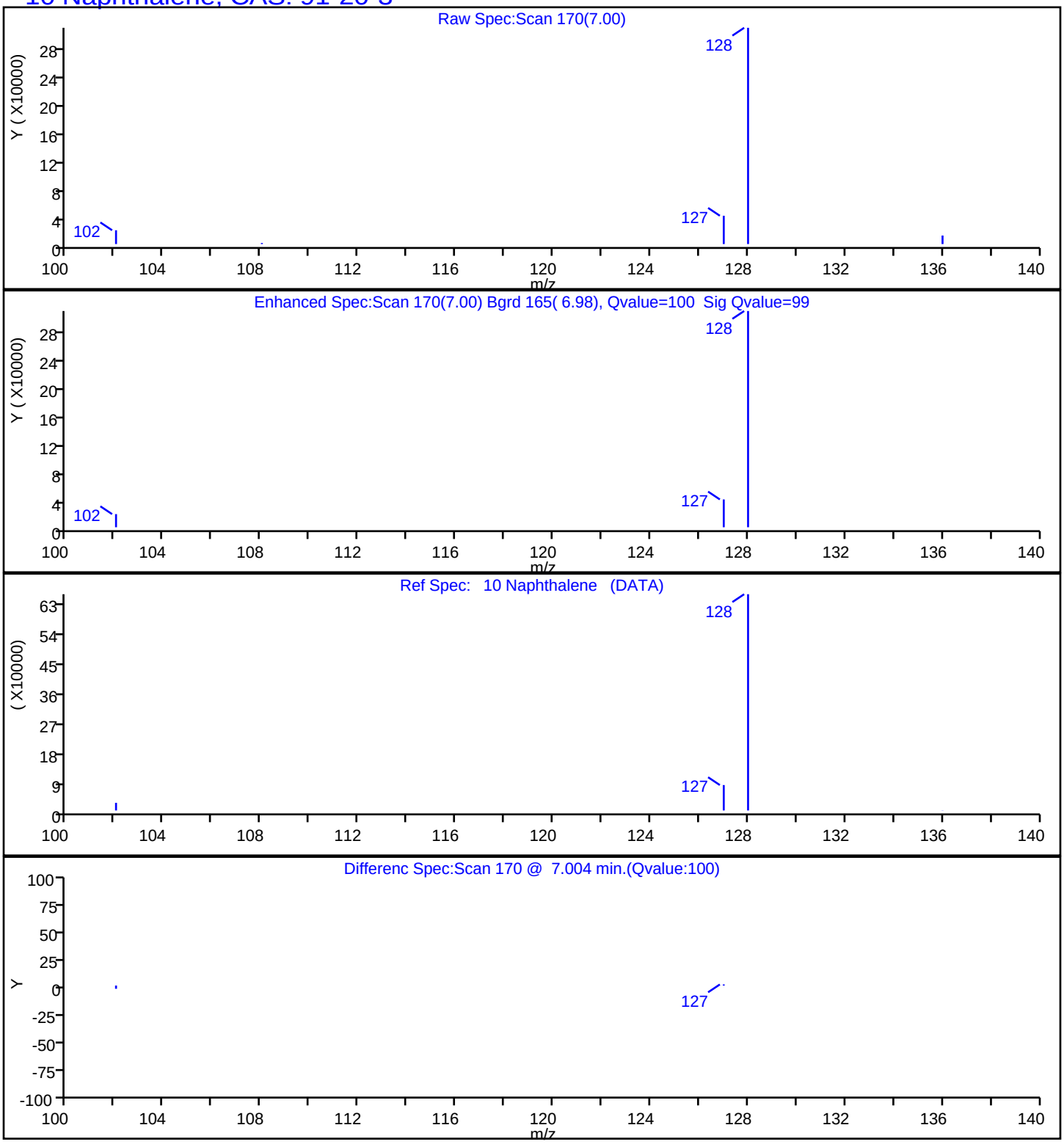
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	724.0	72.40

Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

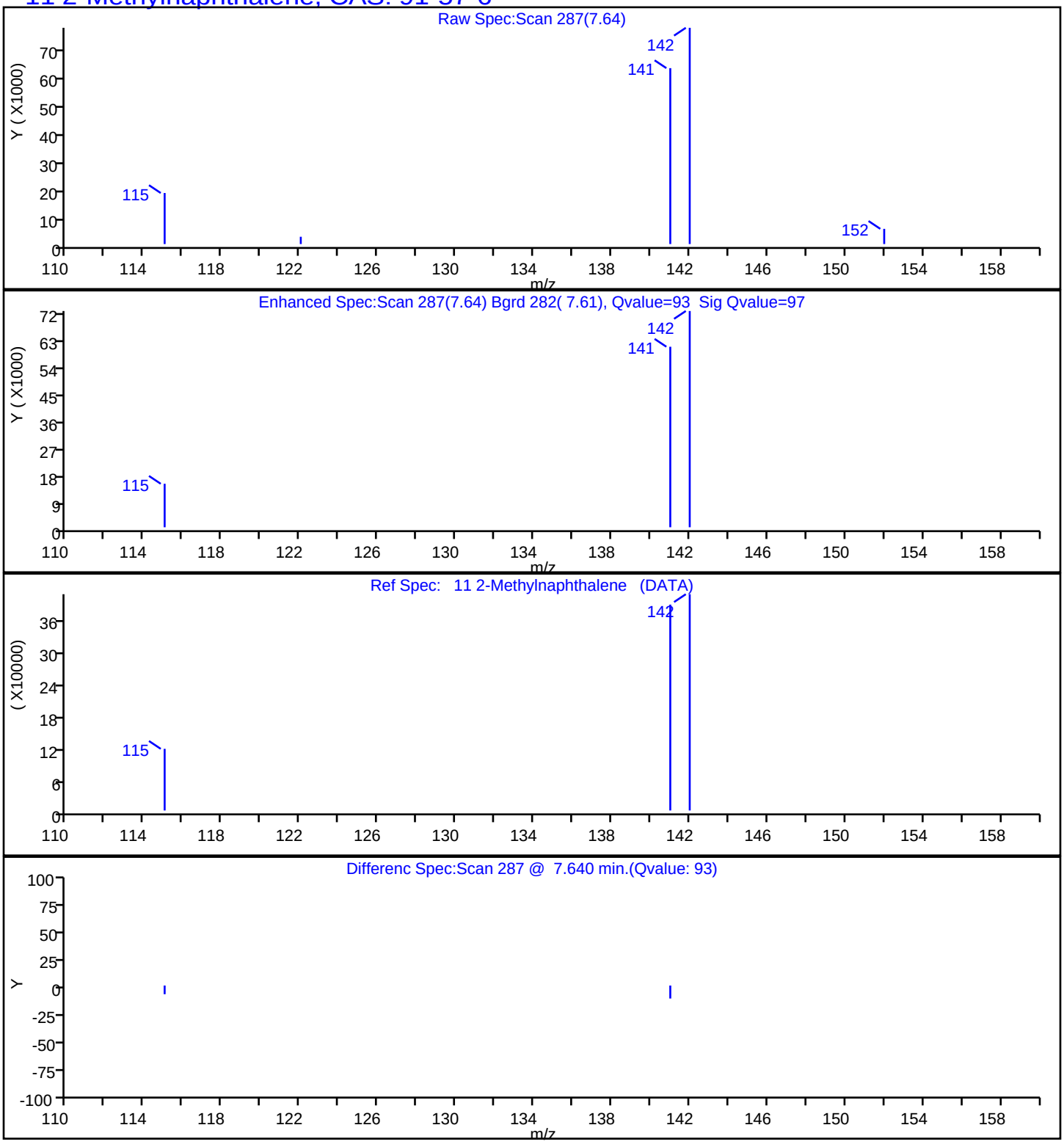


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

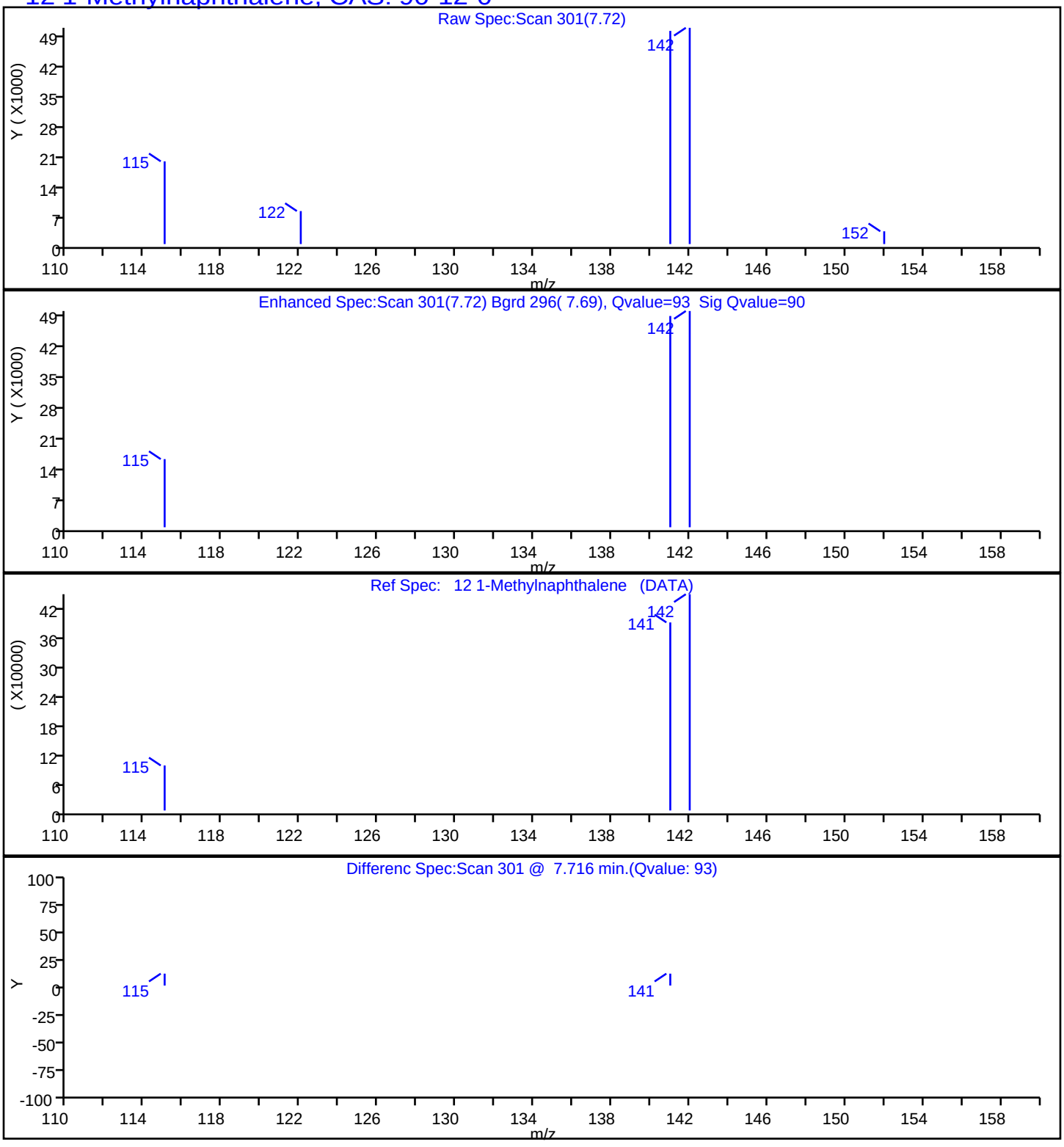


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

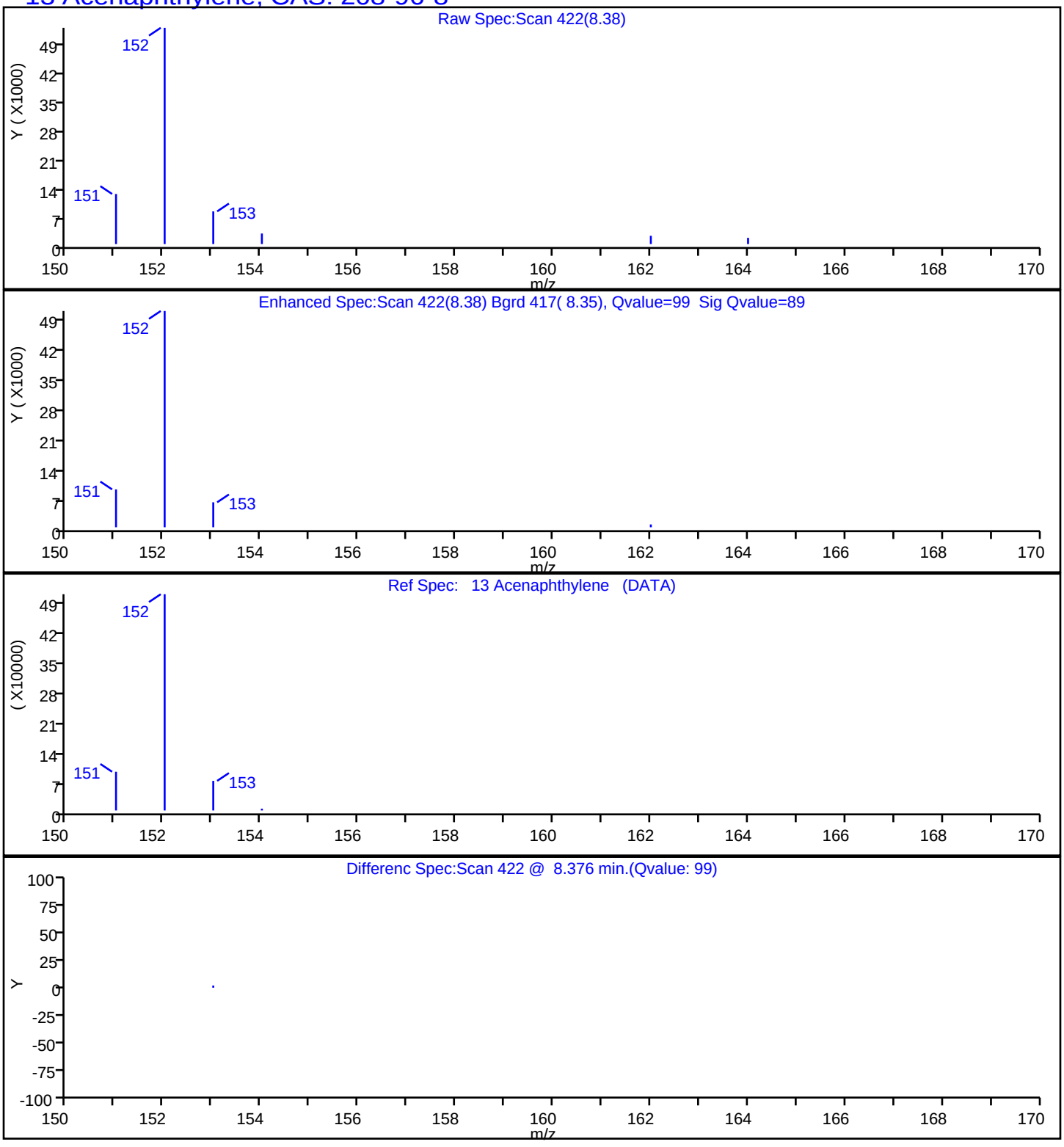


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

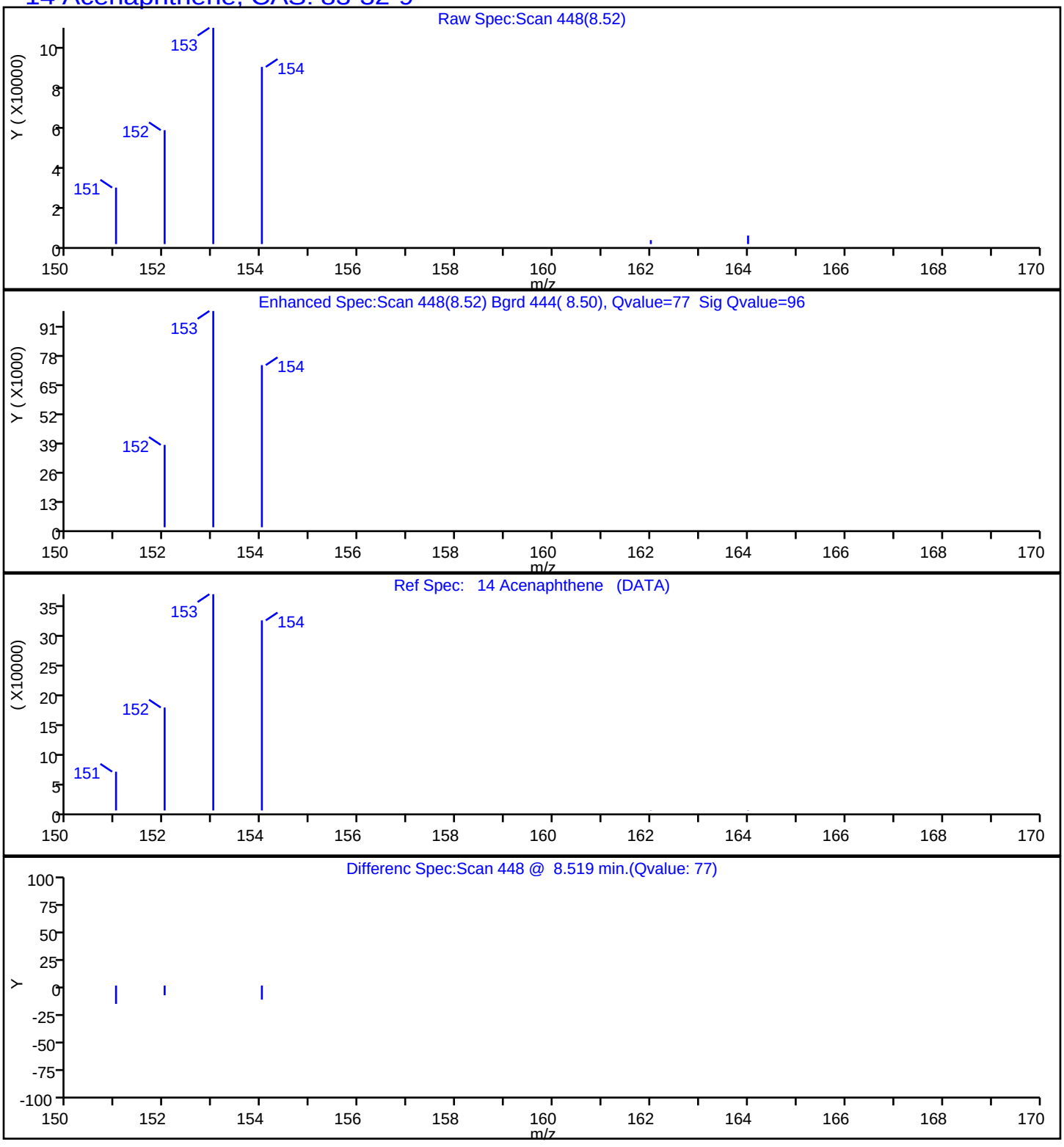


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

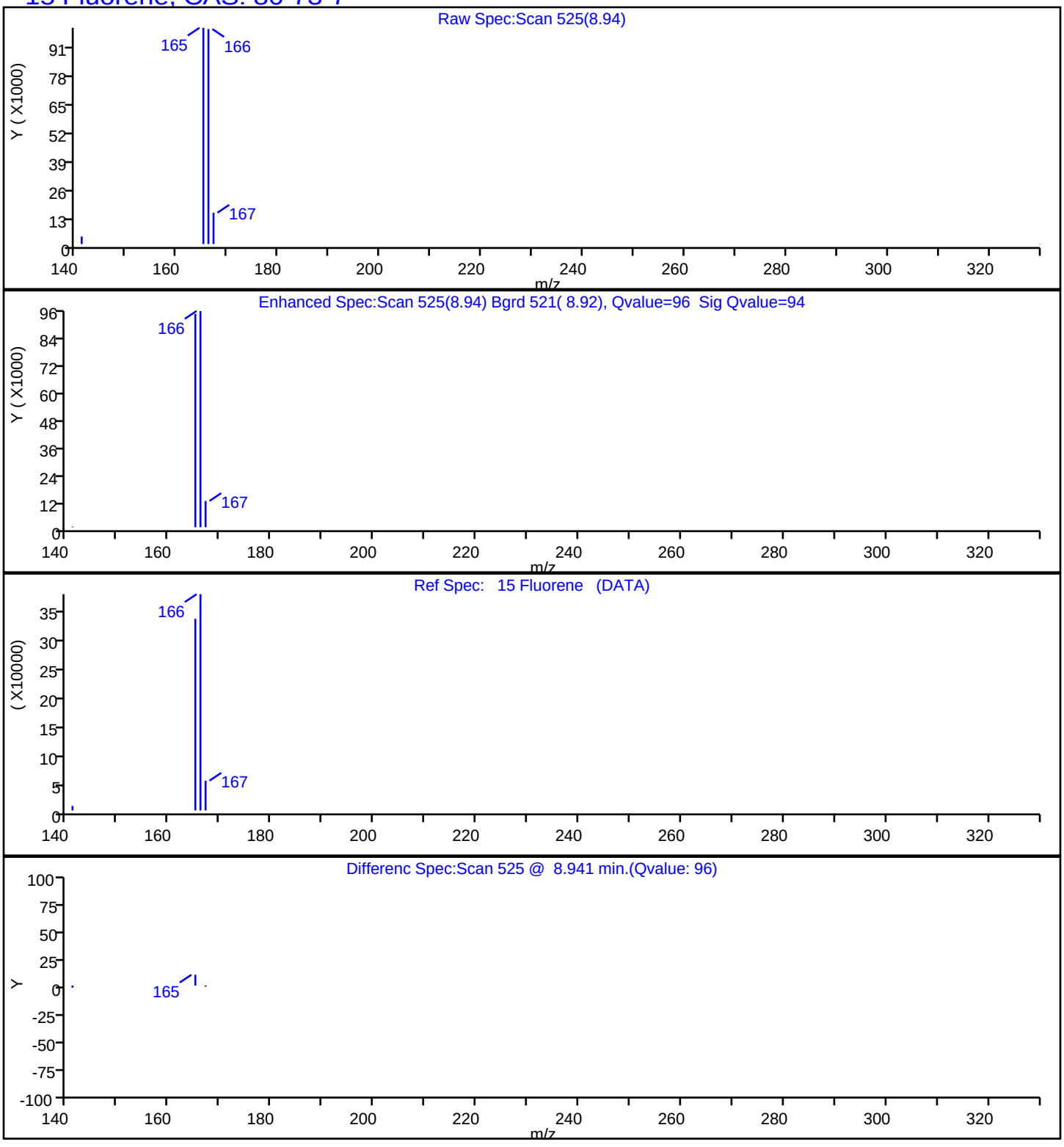


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

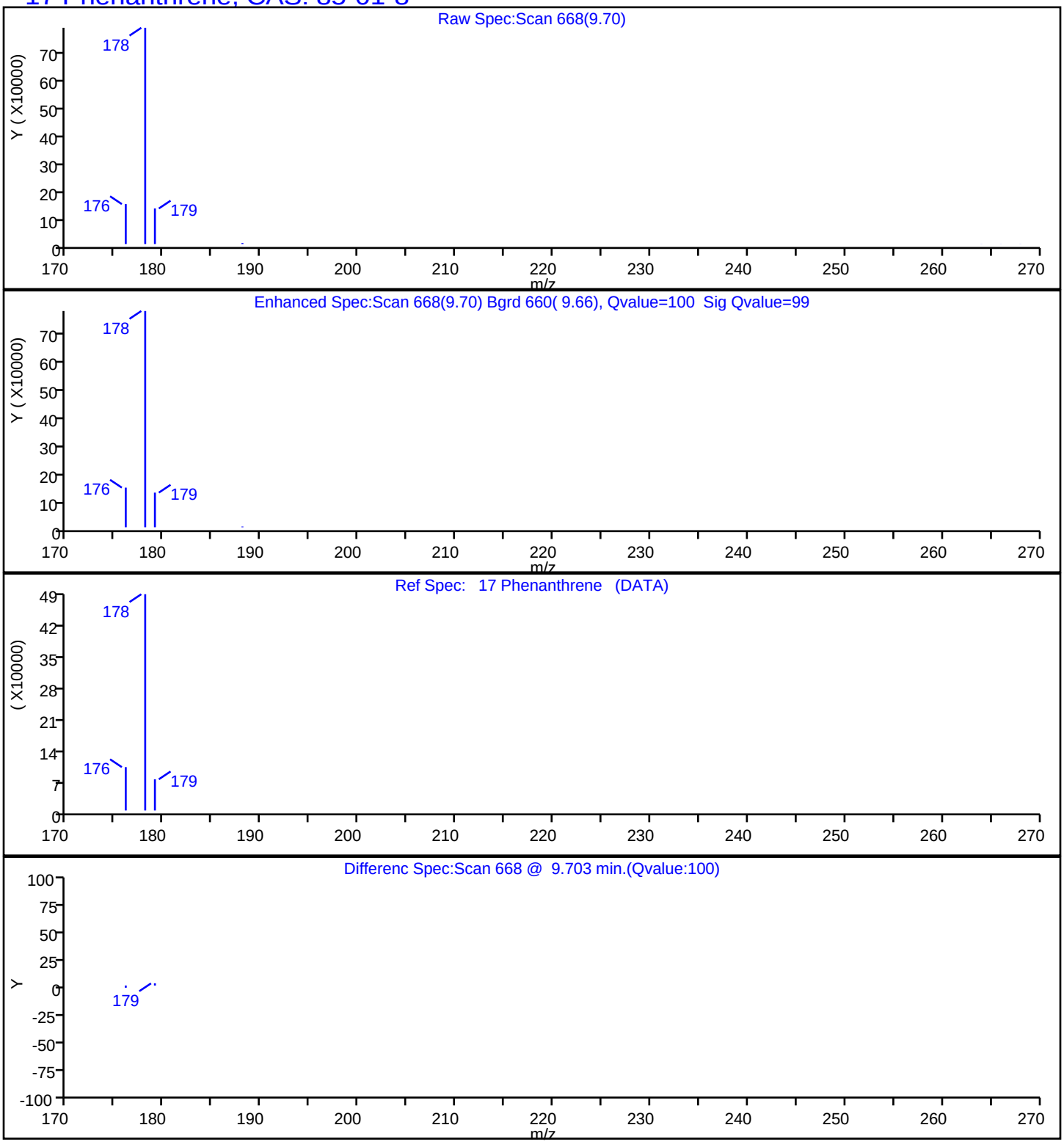


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

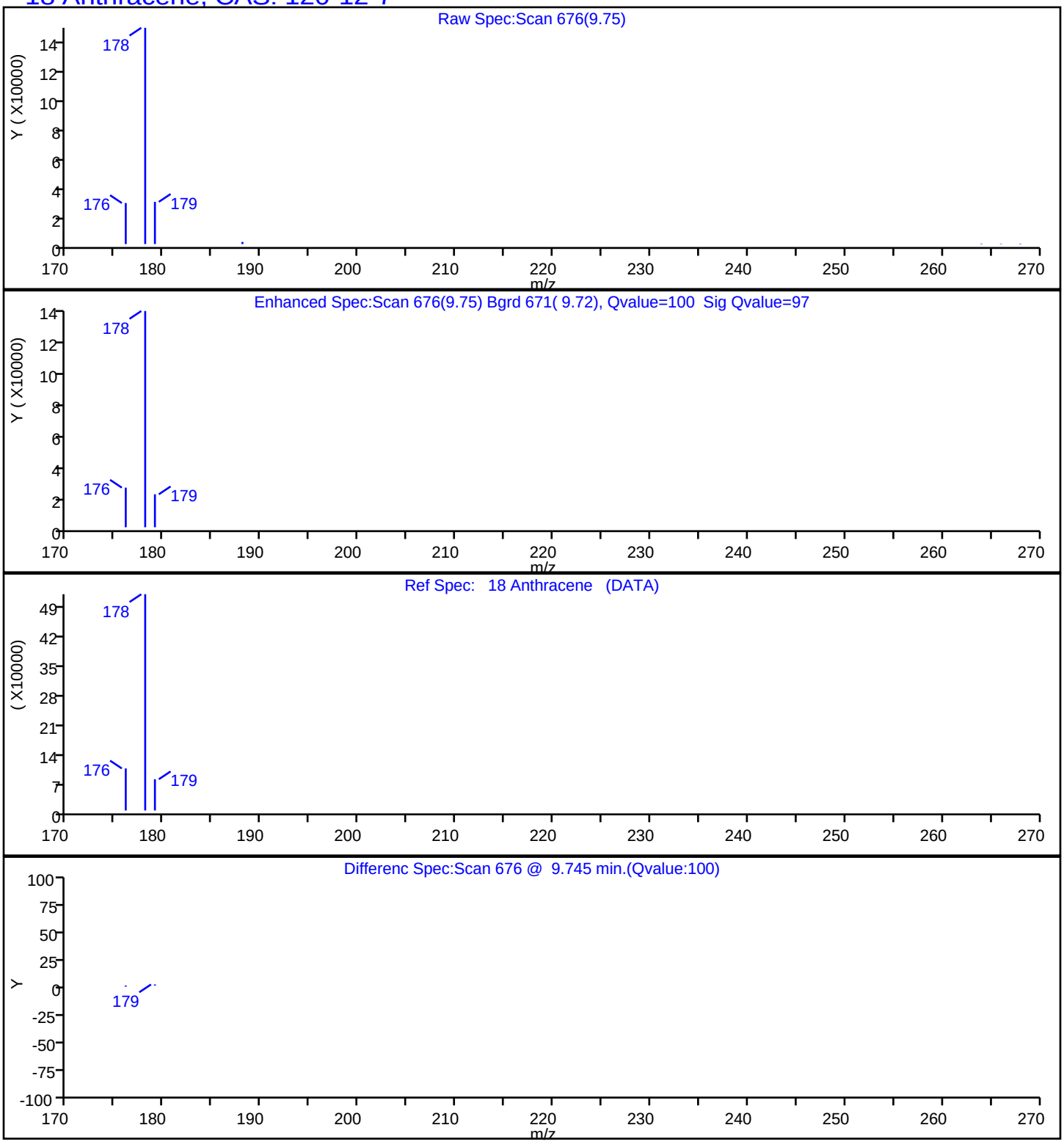


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

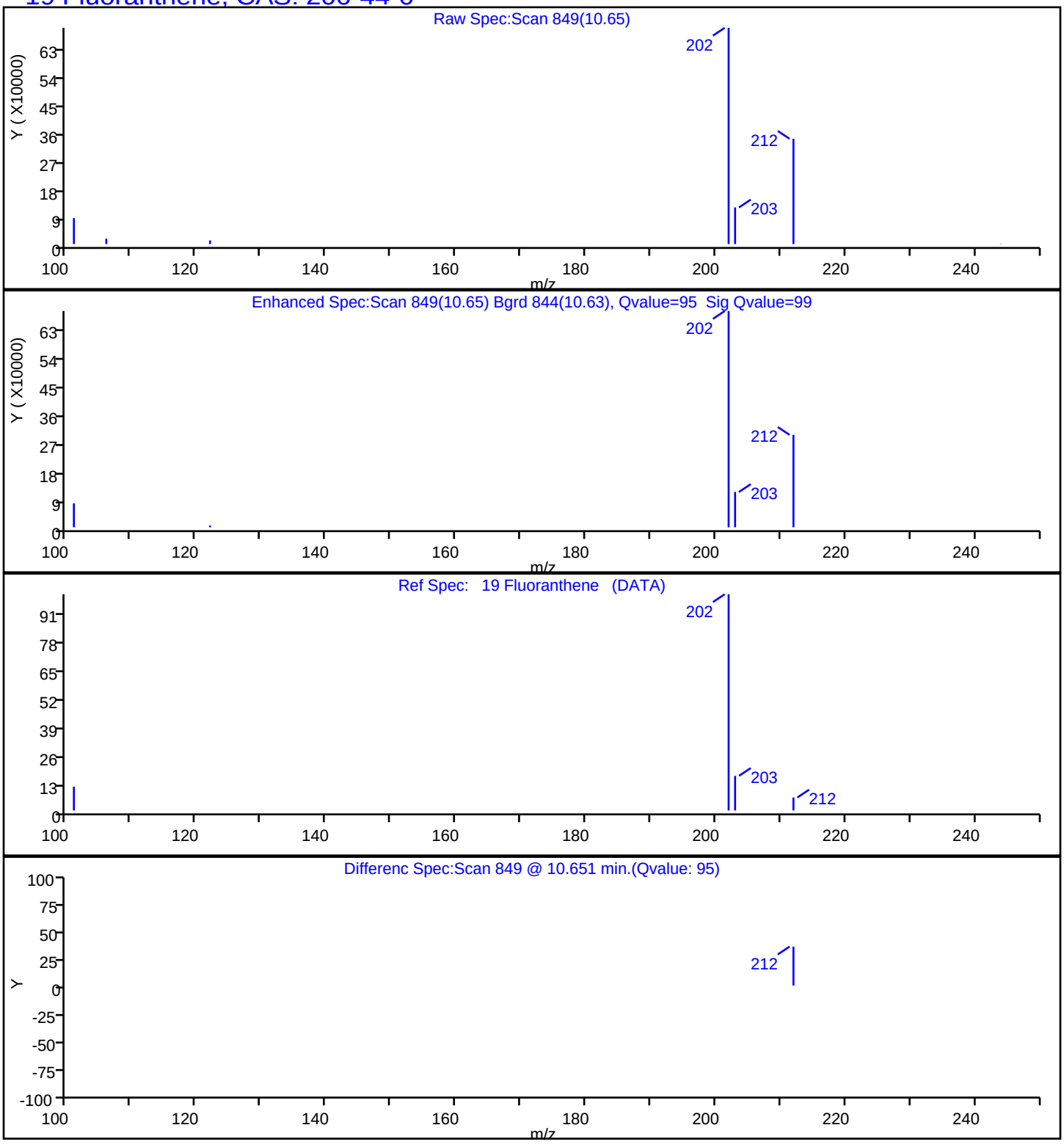


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

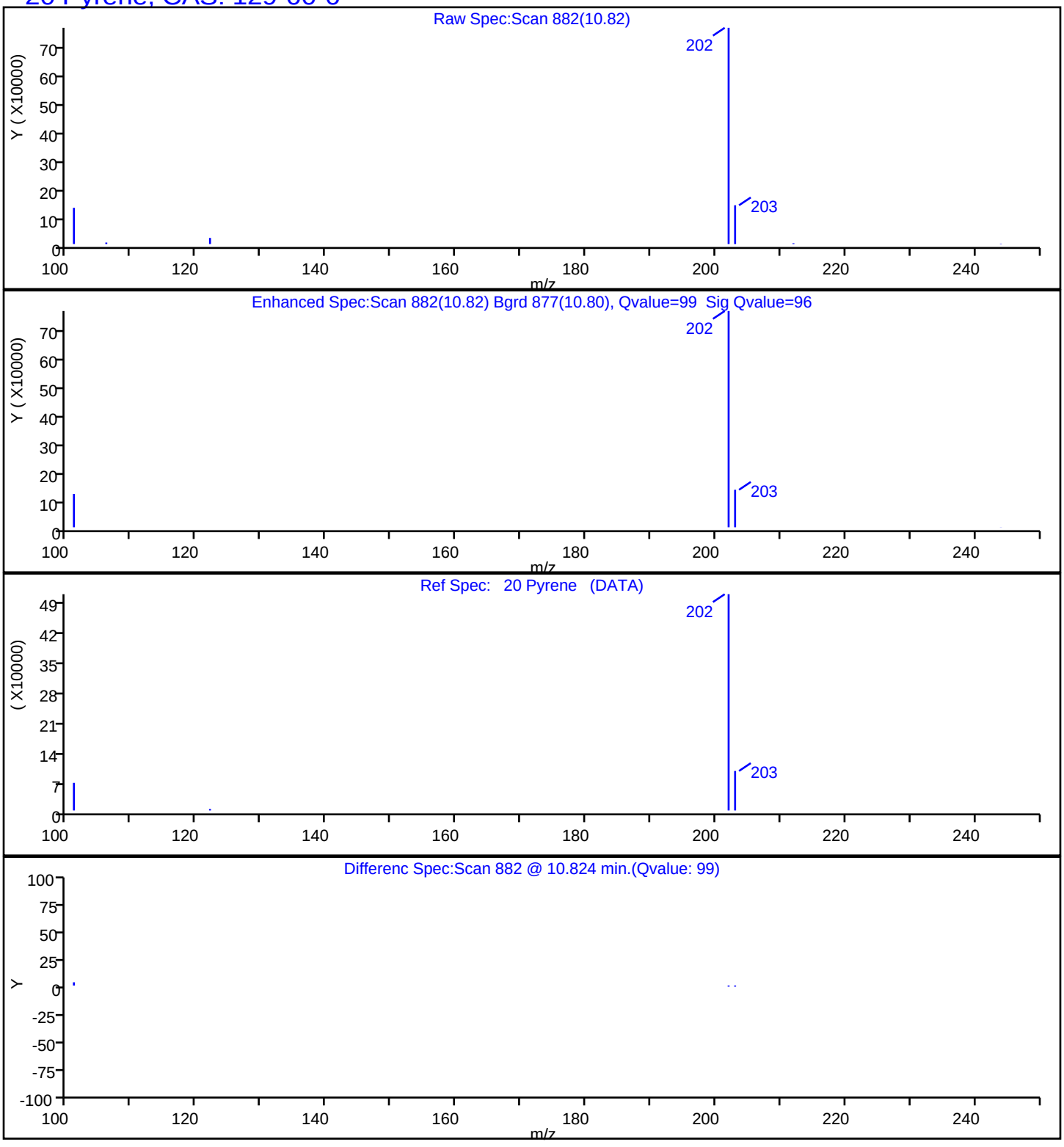


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

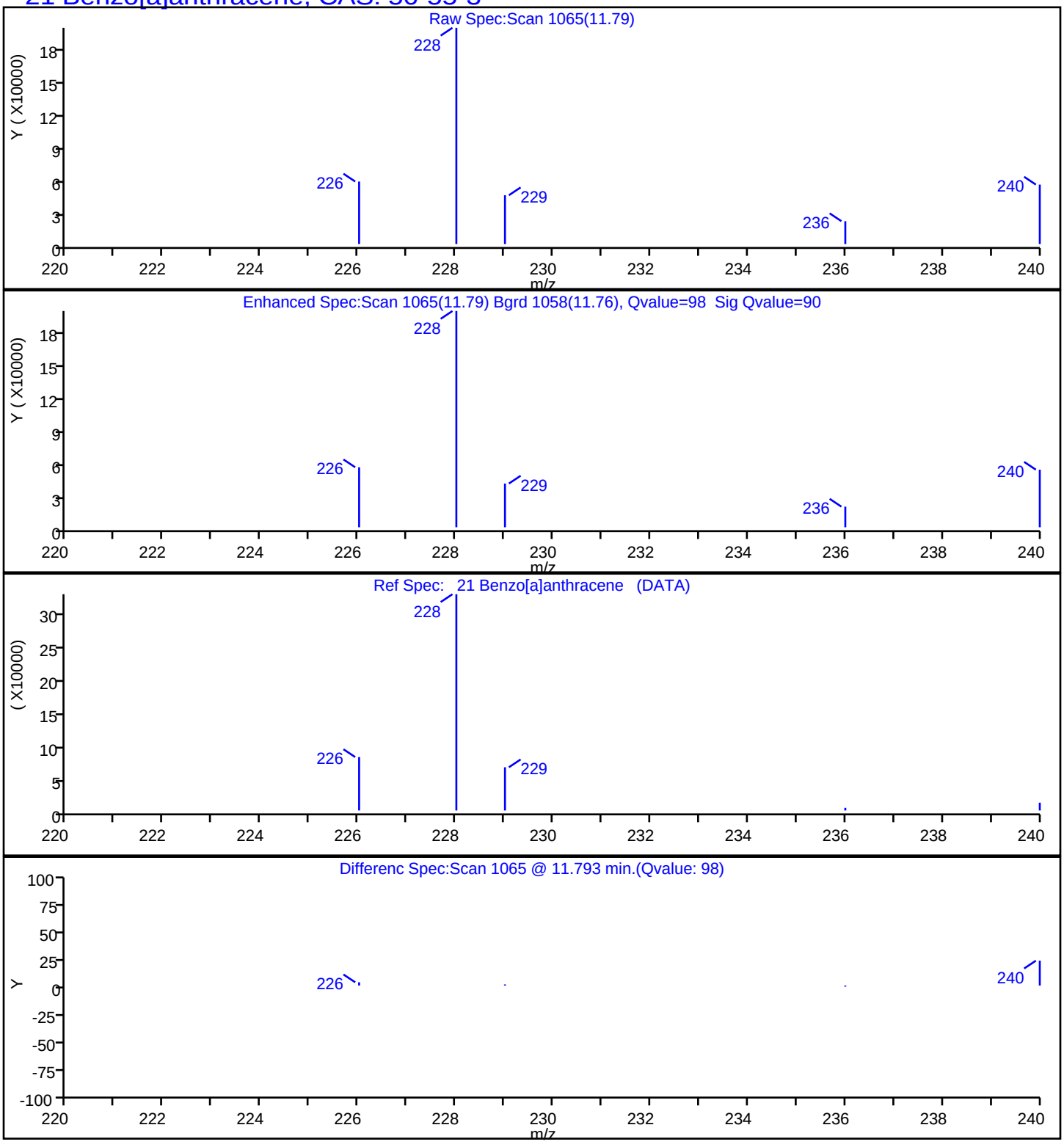


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

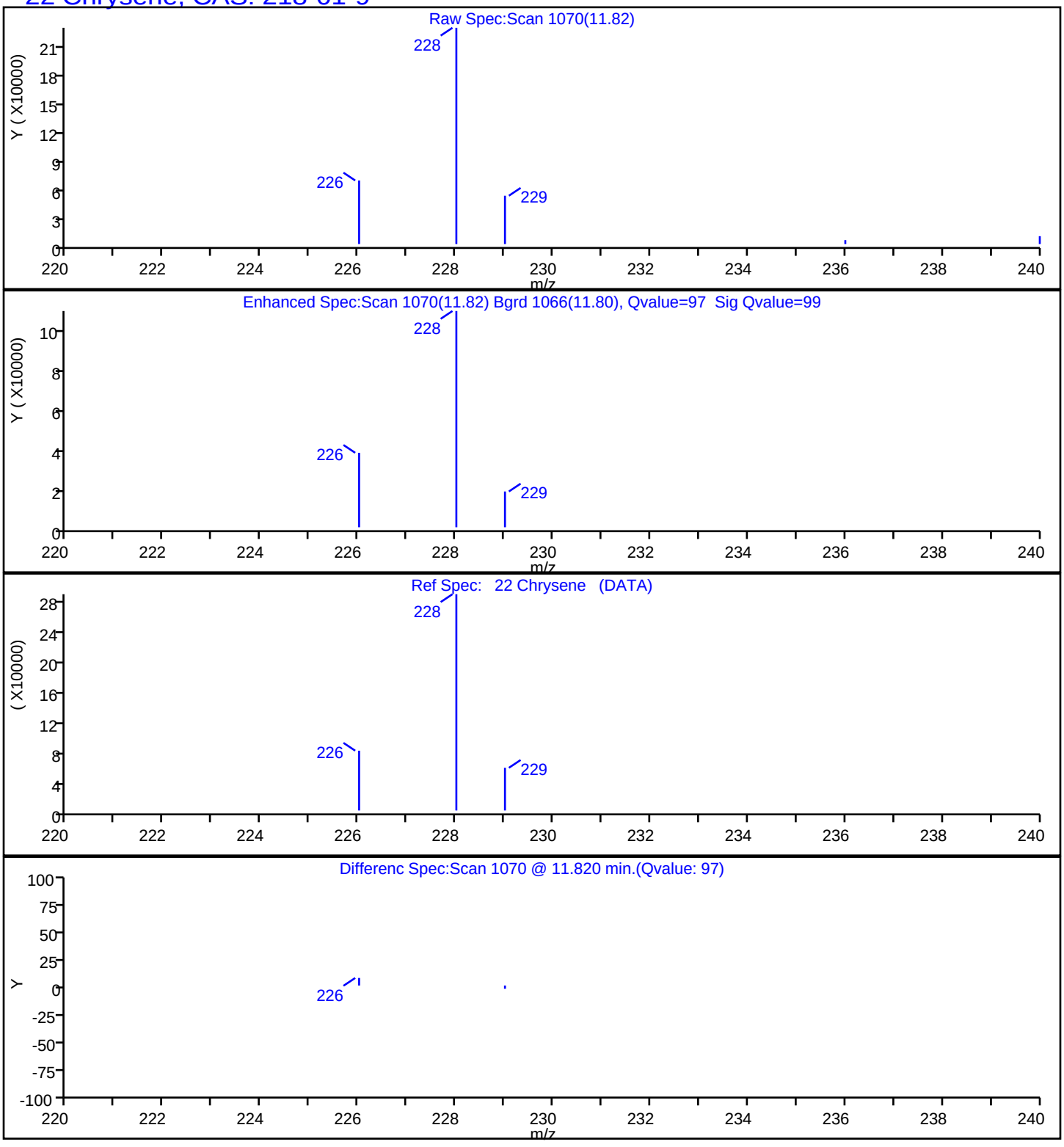


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

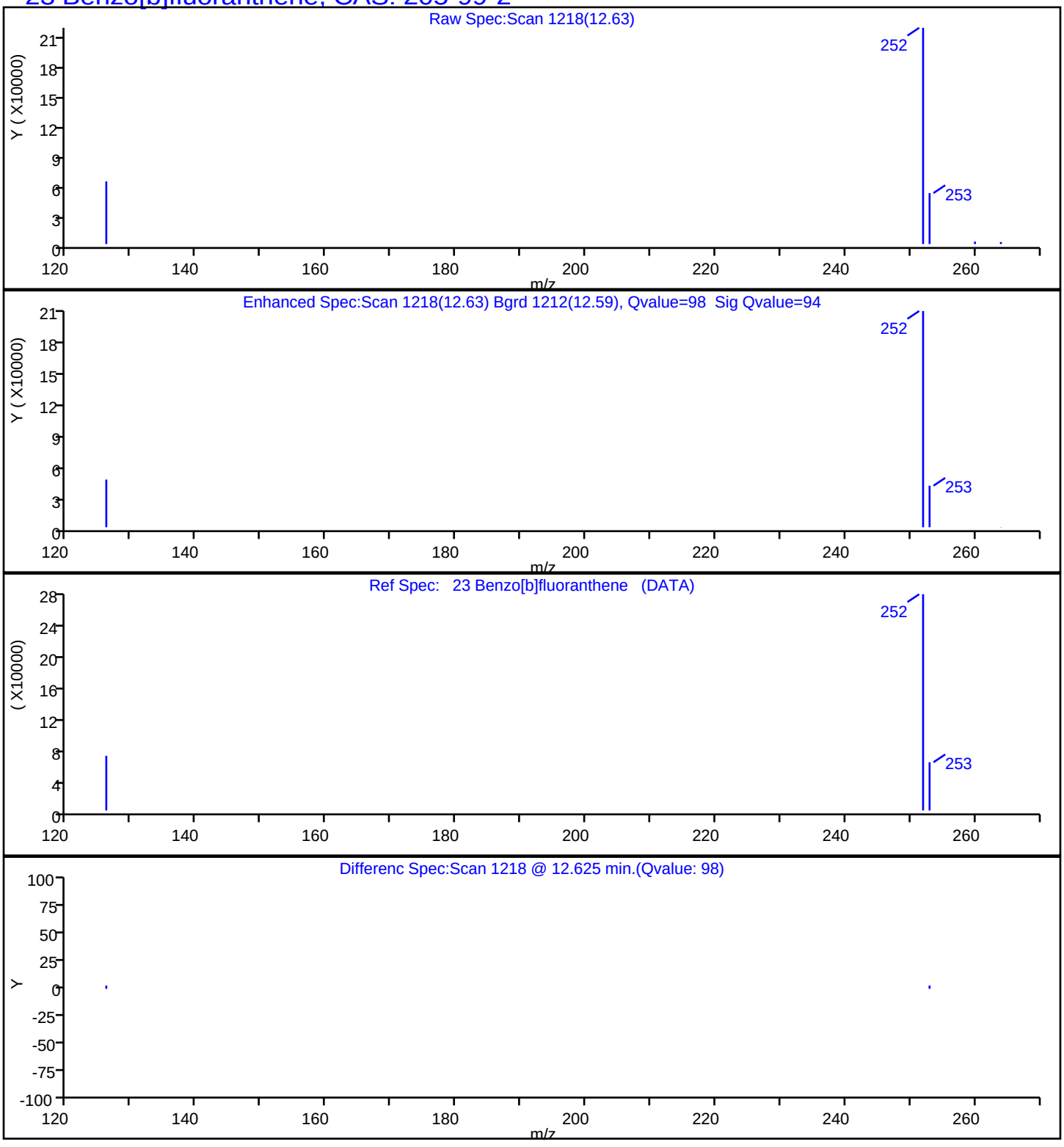


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

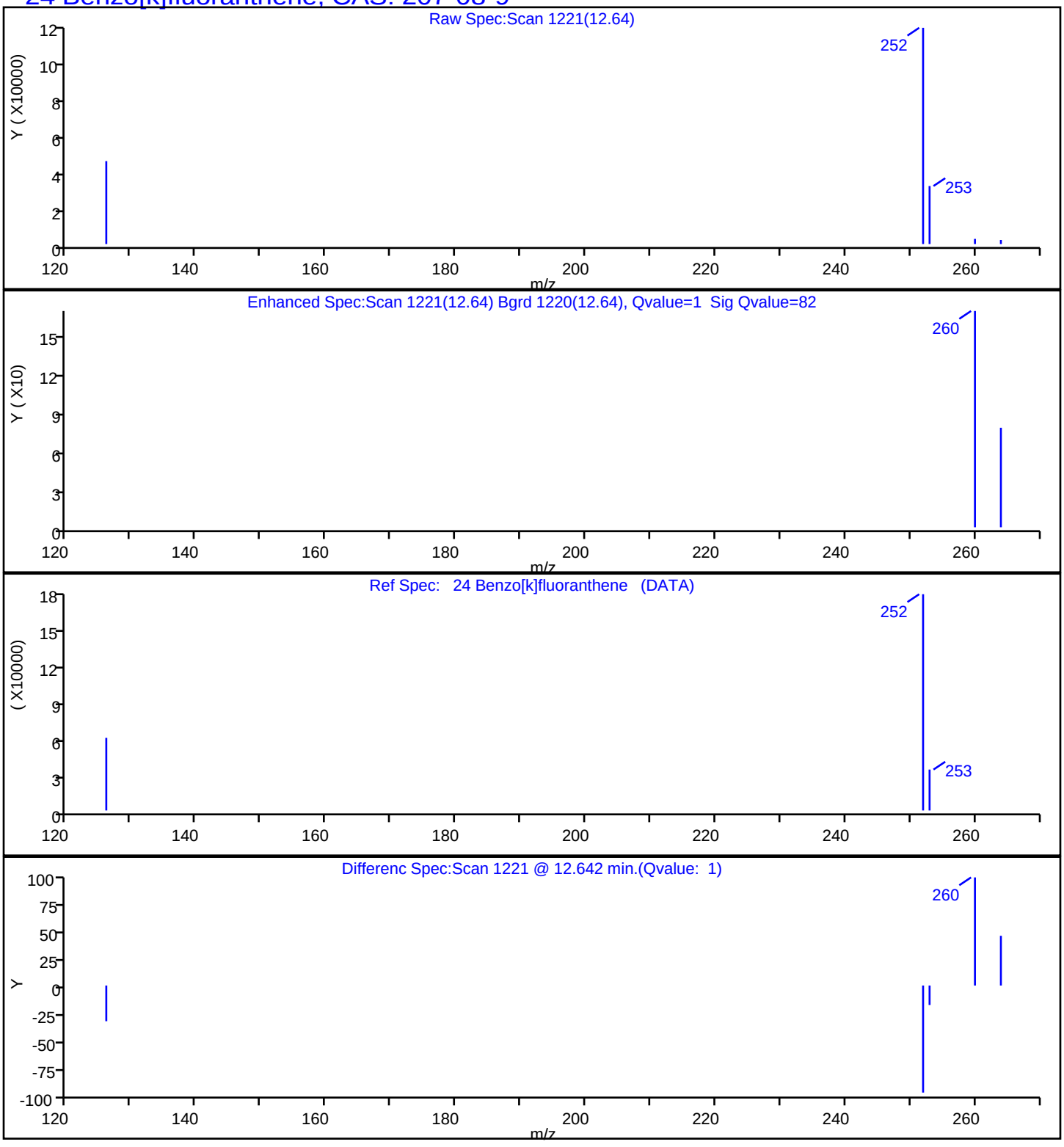


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

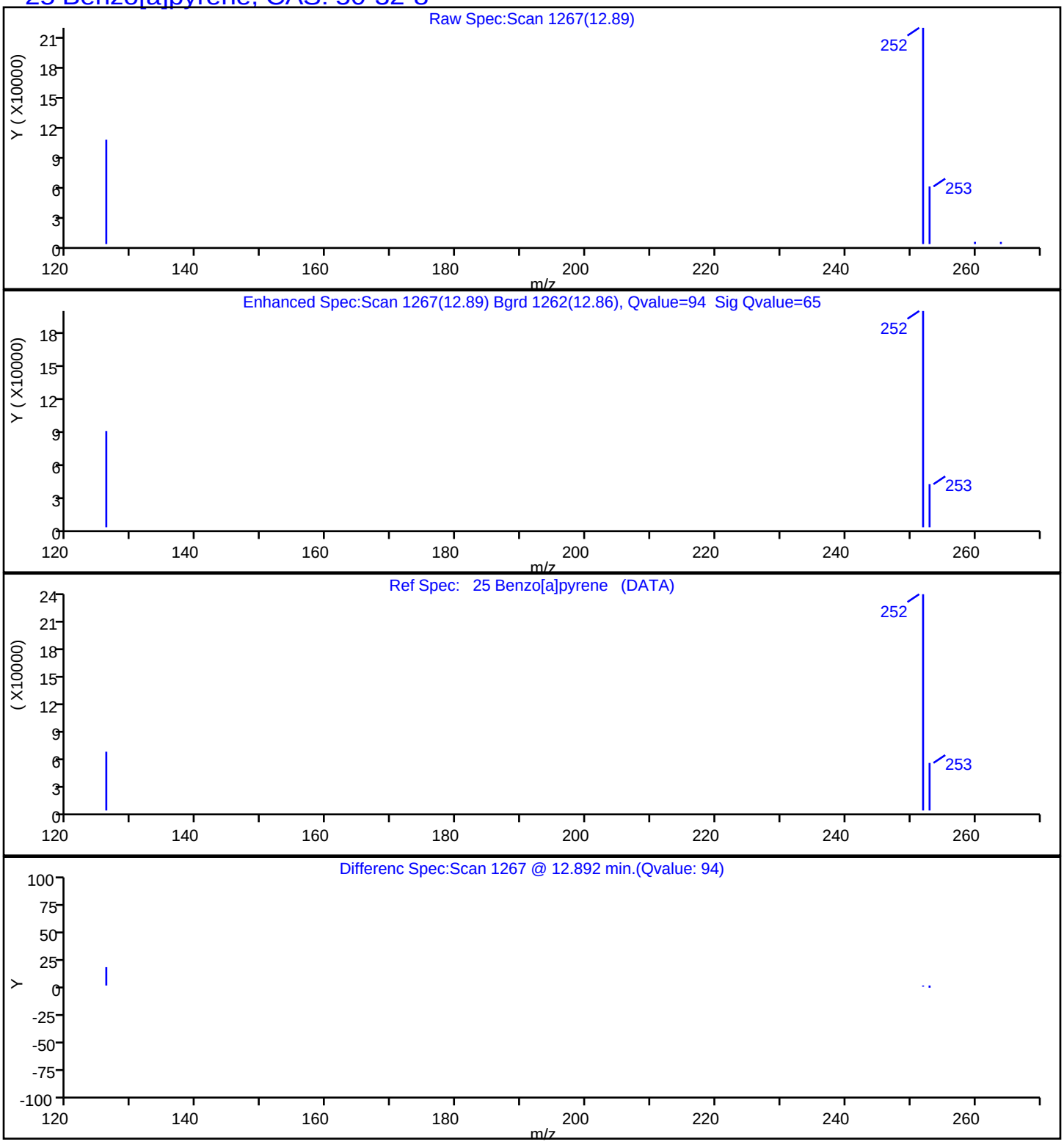


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

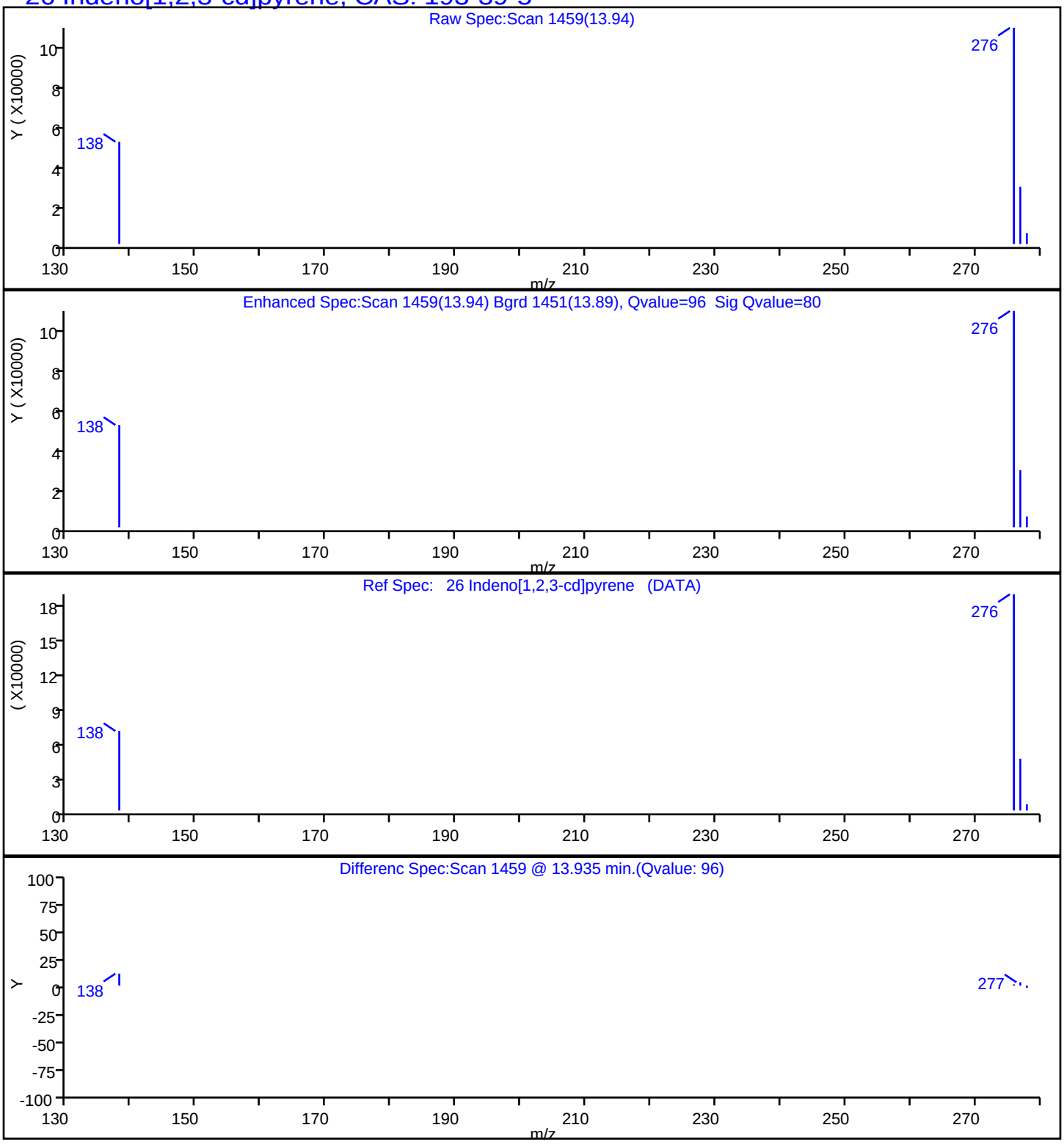


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

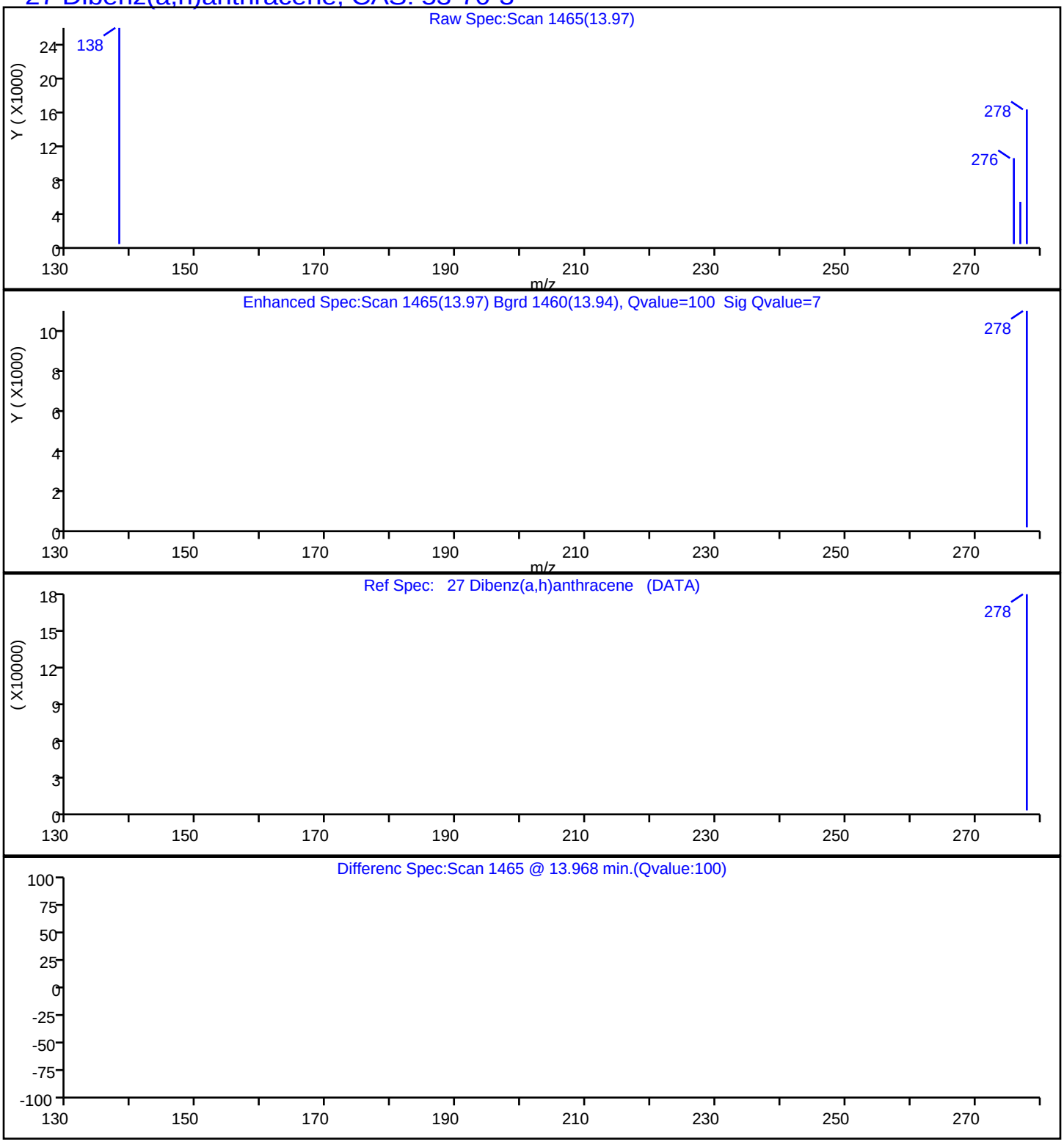


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

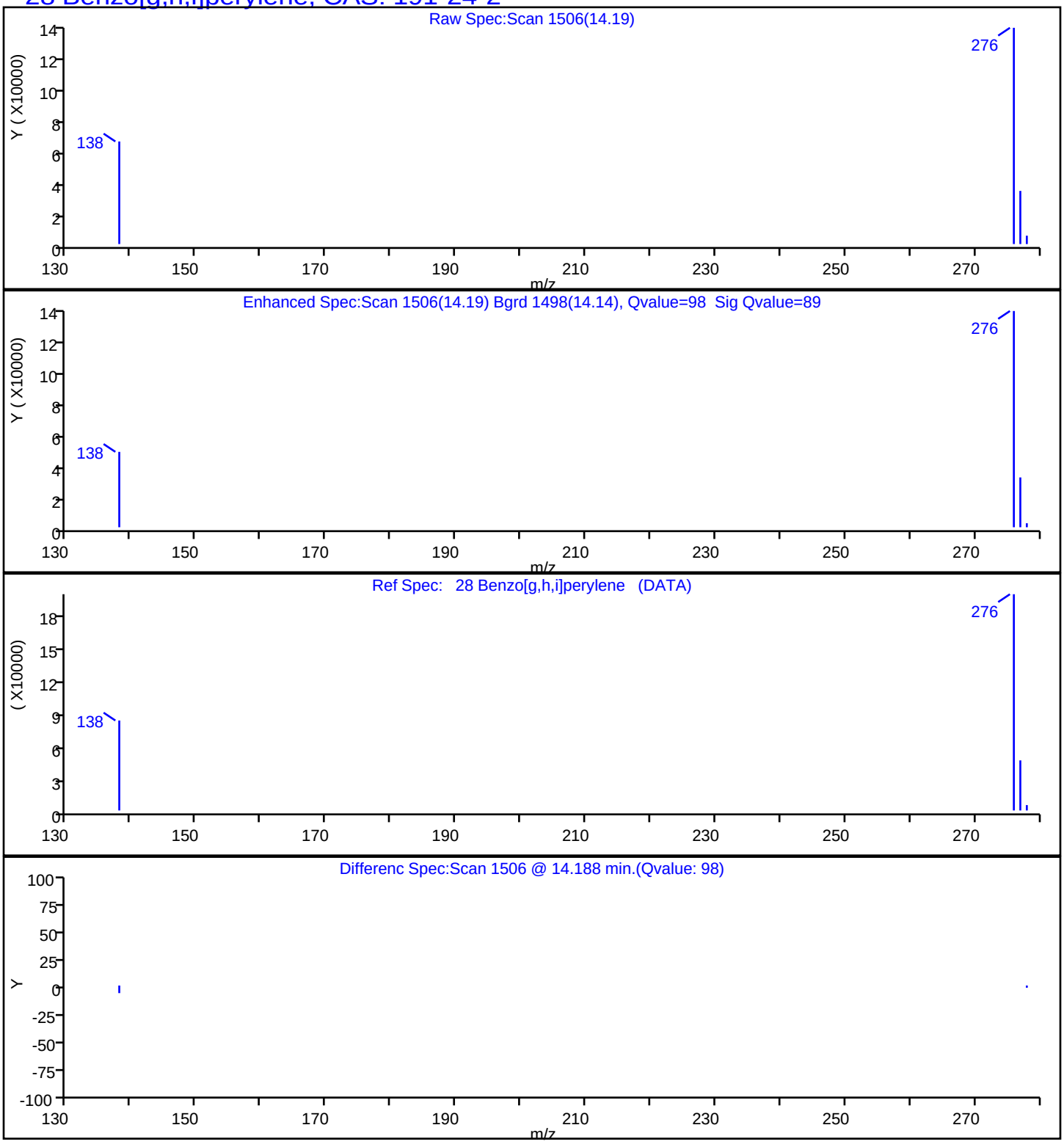


Report Date: 23-Jul-2019 14:47:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

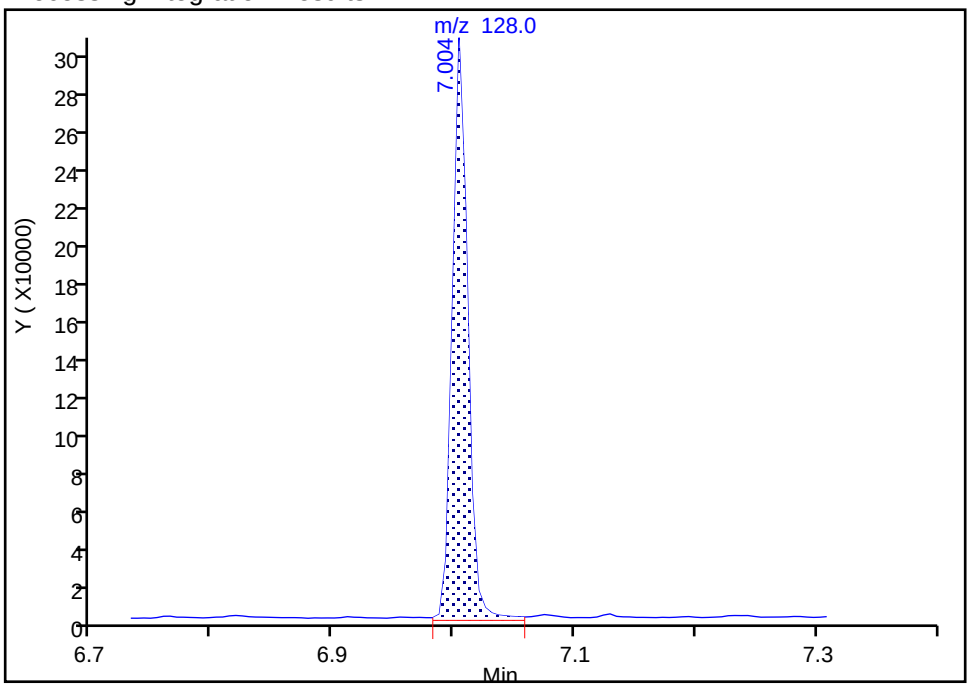
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

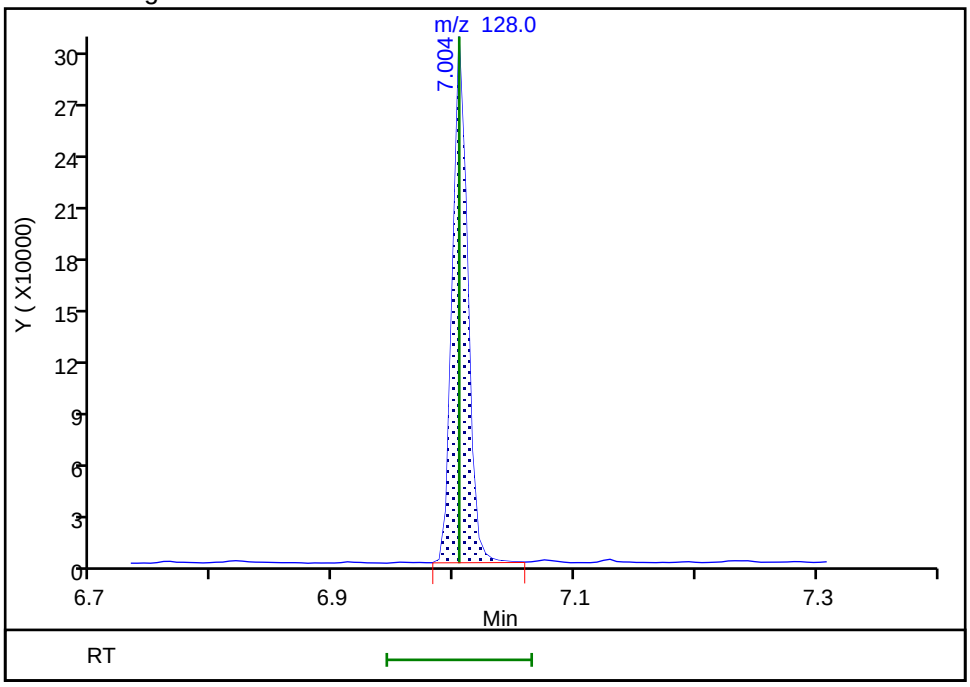
Processing Integration Results

RT: 7.00
Area: 272837
Amount: 77.686063
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 266204
Amount: 75.797421
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:44:30

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

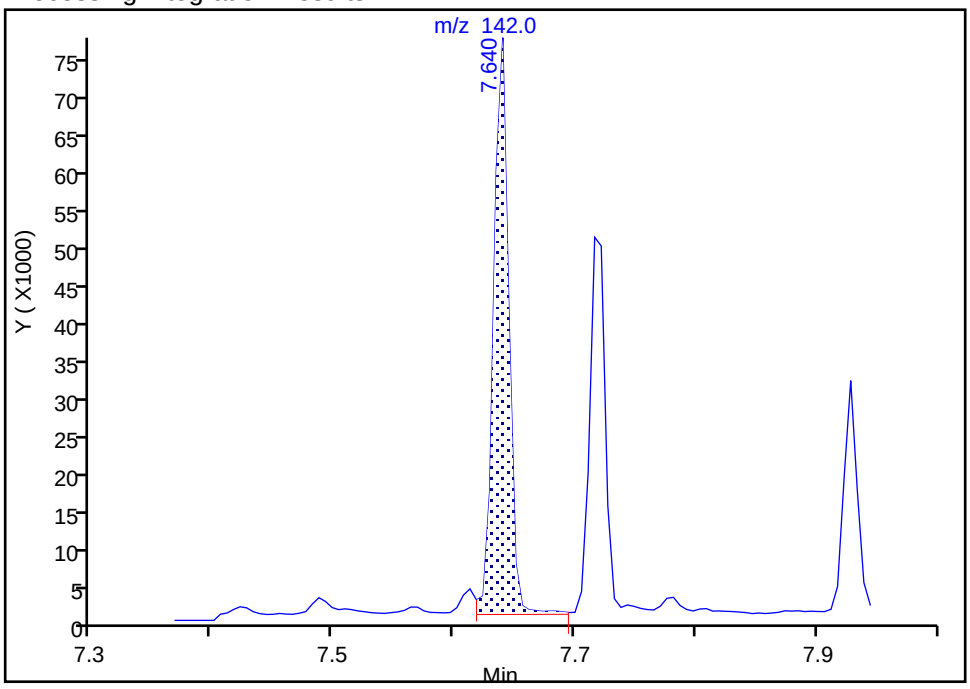
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

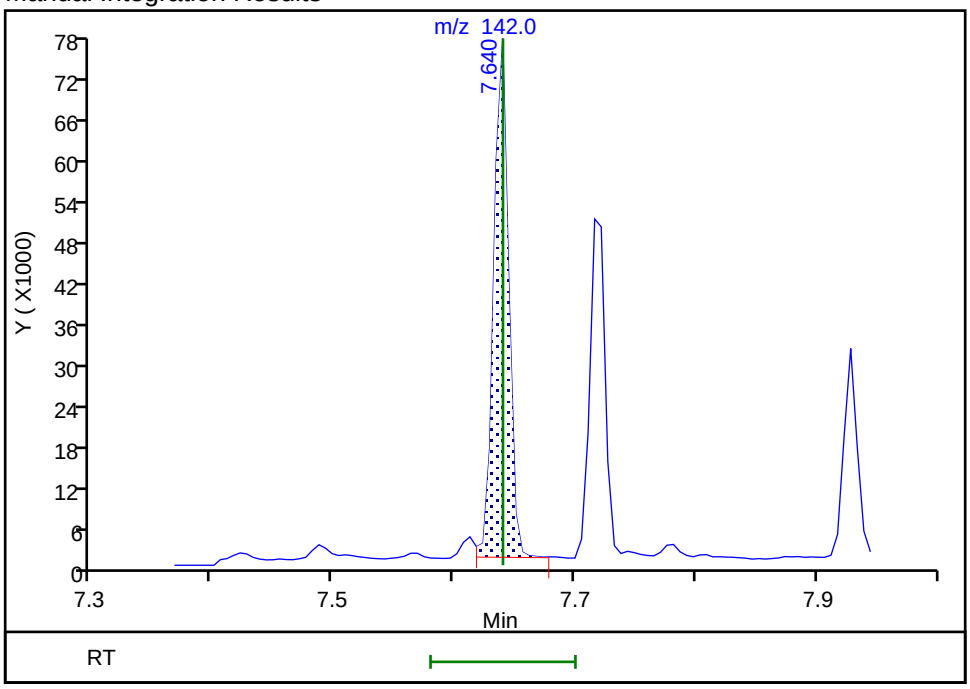
Processing Integration Results

RT: 7.64
Area: 66375
Amount: 28.819035
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 64704
Amount: 28.093512
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:45:12
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

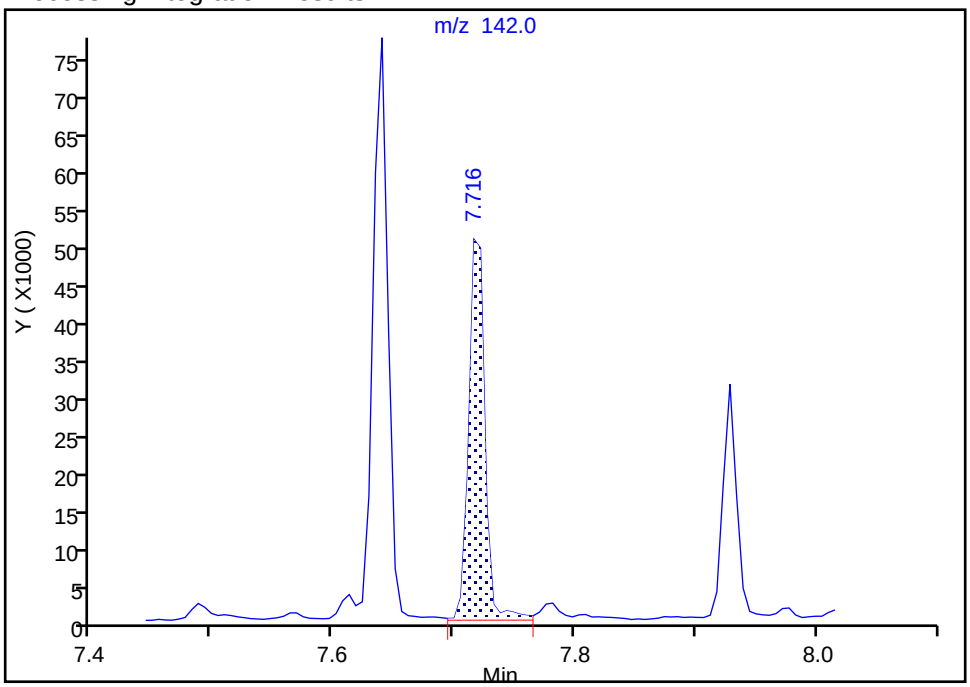
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

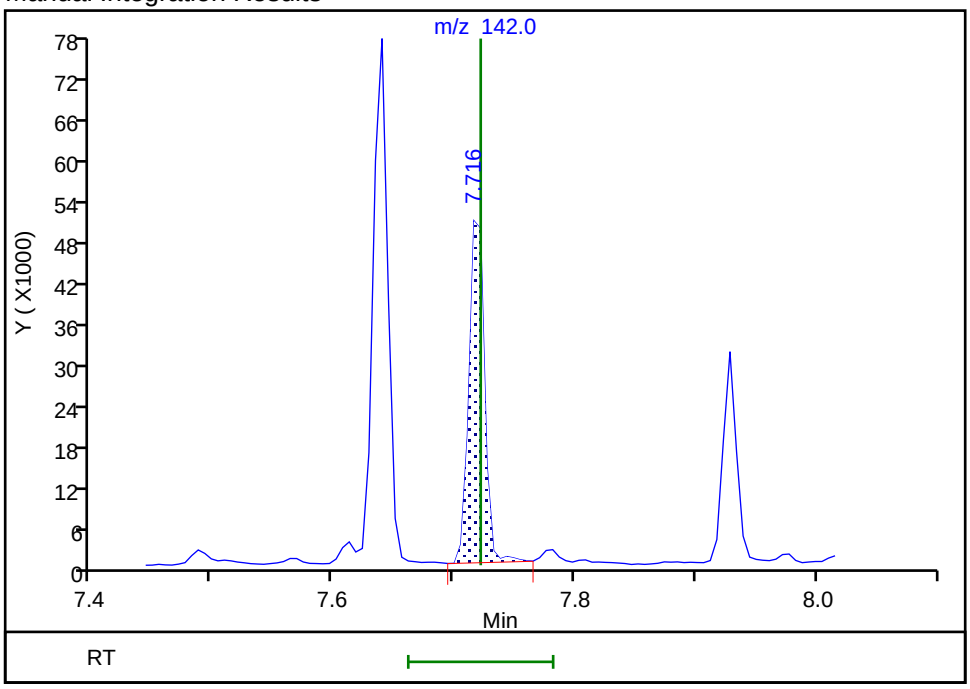
Processing Integration Results

RT: 7.72
Area: 46341
Amount: 21.550878
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 44742
Amount: 20.807263
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:45:19

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

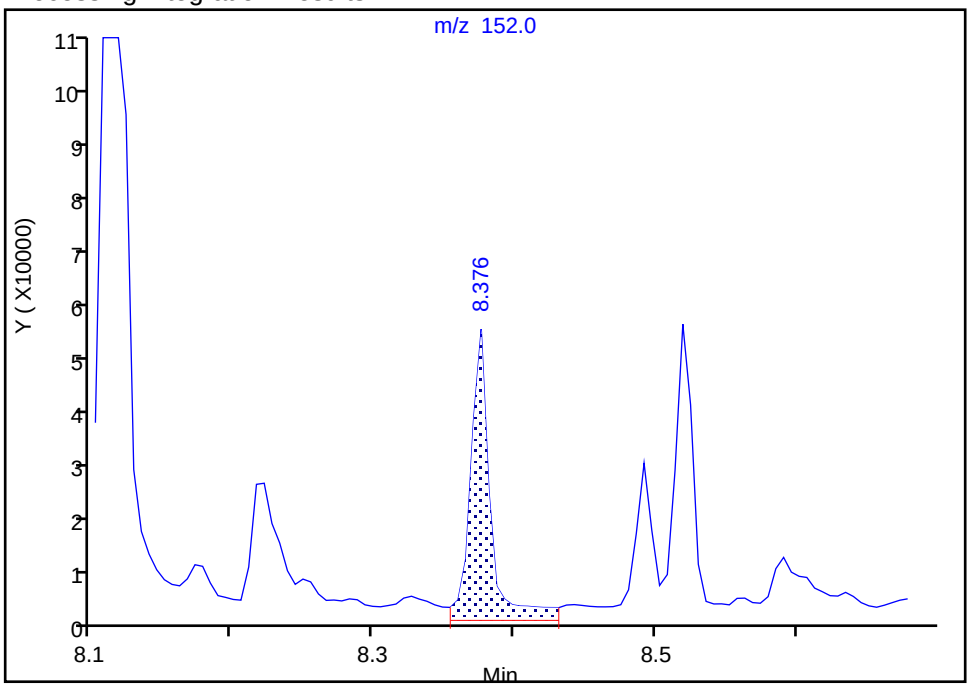
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

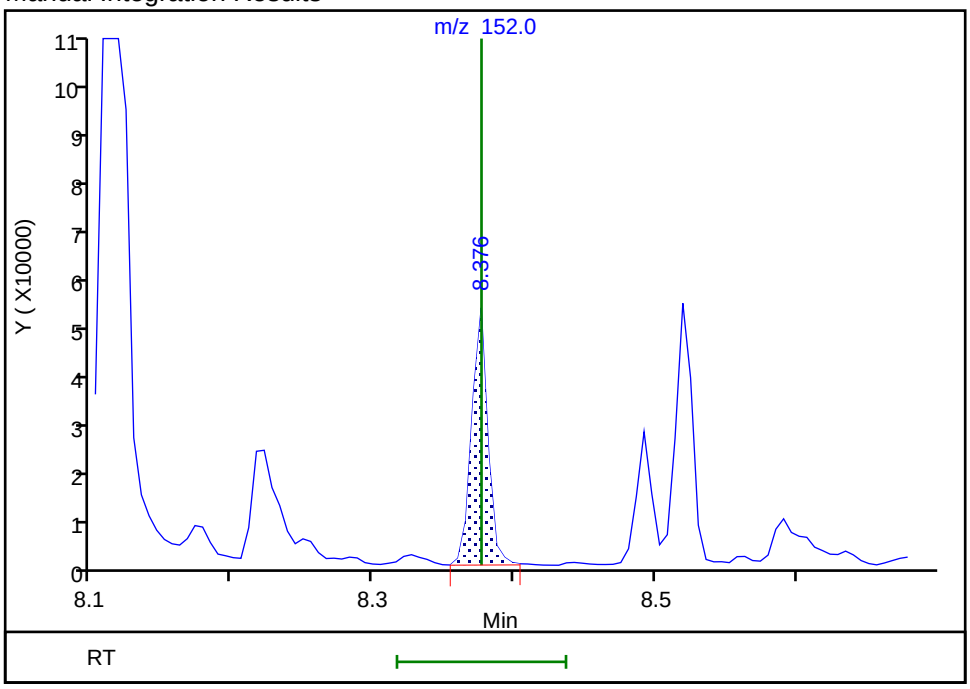
Processing Integration Results

RT: 8.38
Area: 50766
Amount: 14.672416
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 39858
Amount: 11.519780
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:45:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

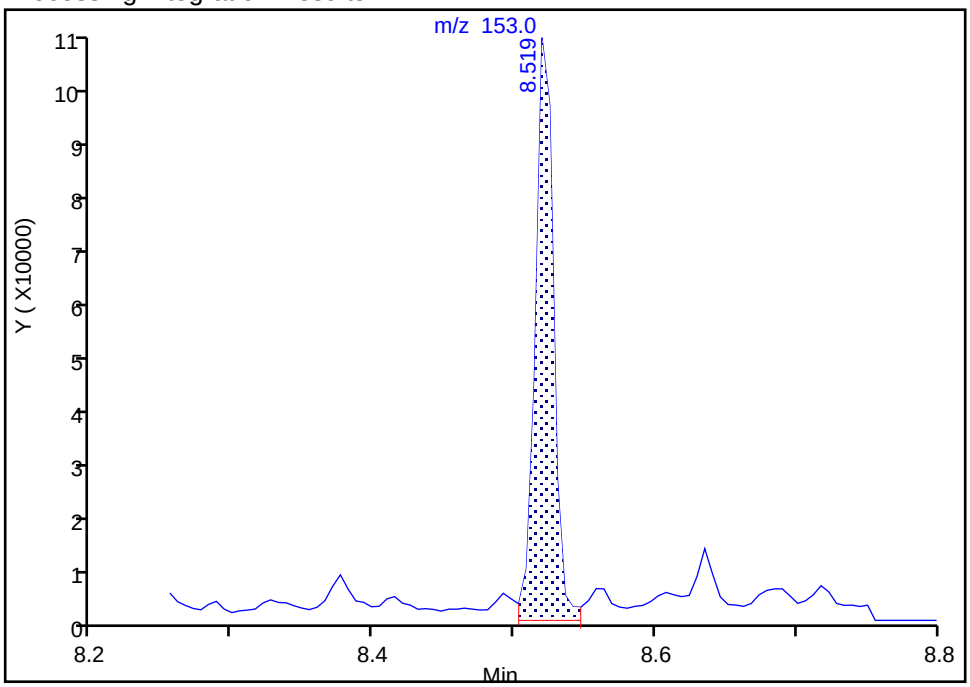
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

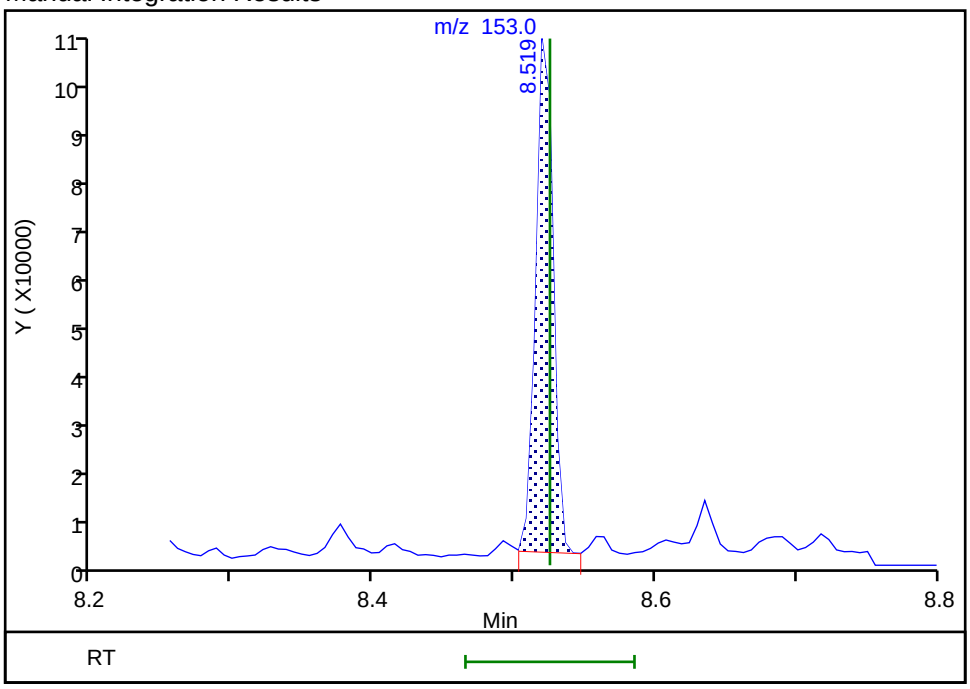
Processing Integration Results

RT: 8.52
Area: 91029
Amount: 36.240253
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 84533
Amount: 33.654081
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:45:29

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

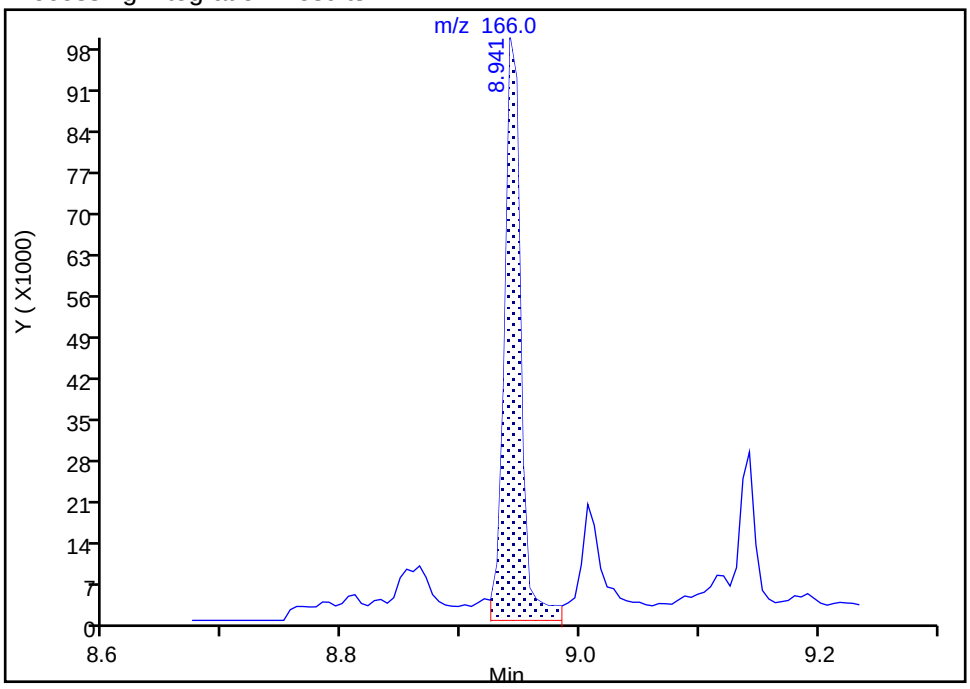
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

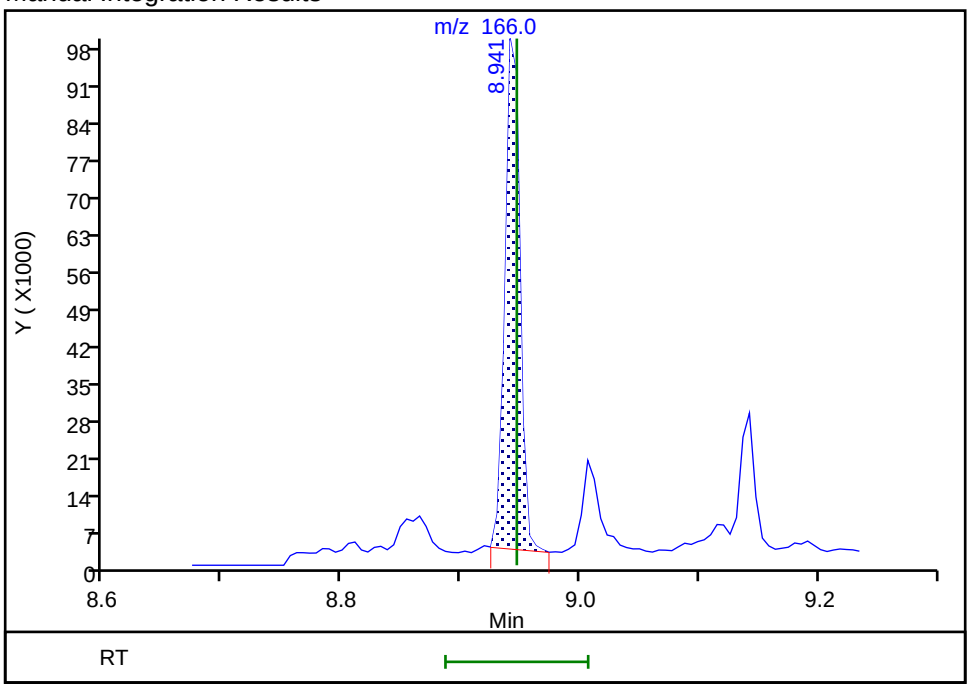
Processing Integration Results

RT: 8.94
Area: 94285
Amount: 37.487171
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 84170
Amount: 33.465505
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:45:51
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

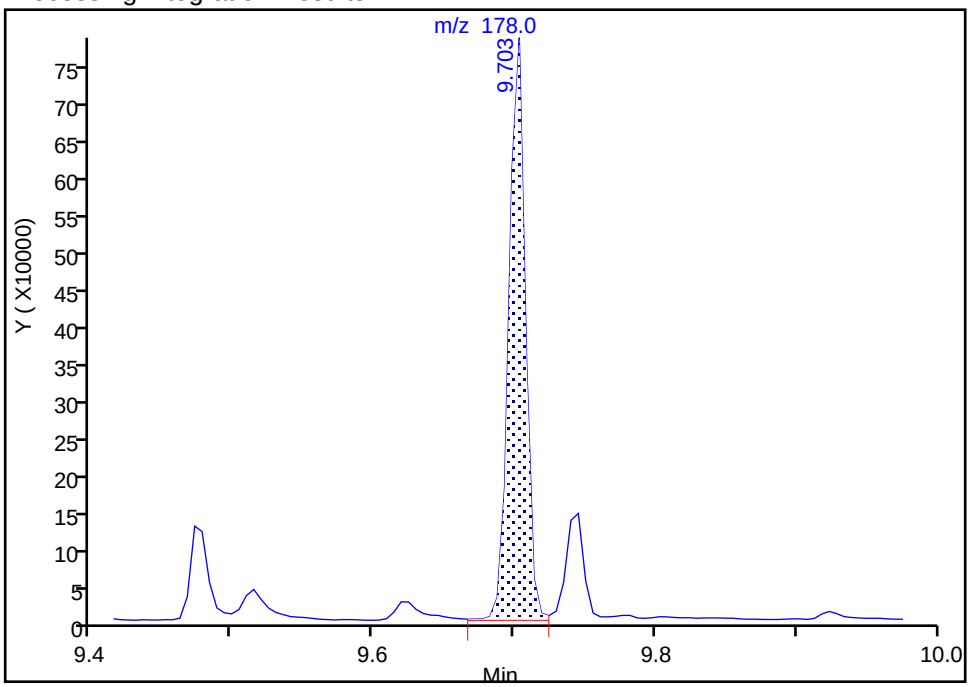
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

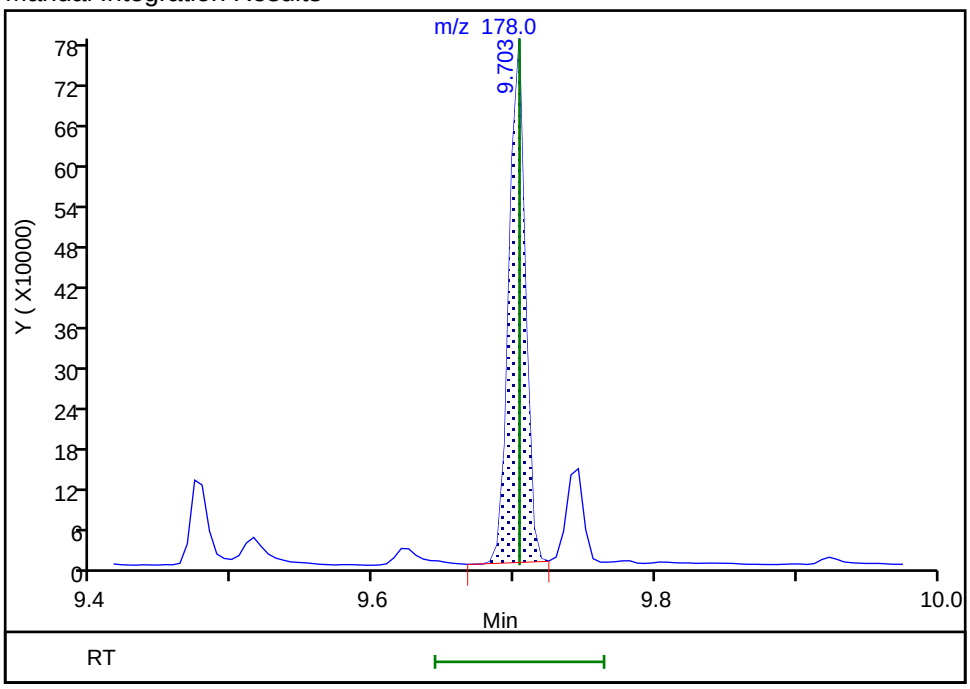
Processing Integration Results

RT: 9.70
Area: 631479
Amount: 166.5445
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 619193
Amount: 163.3042
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:45:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

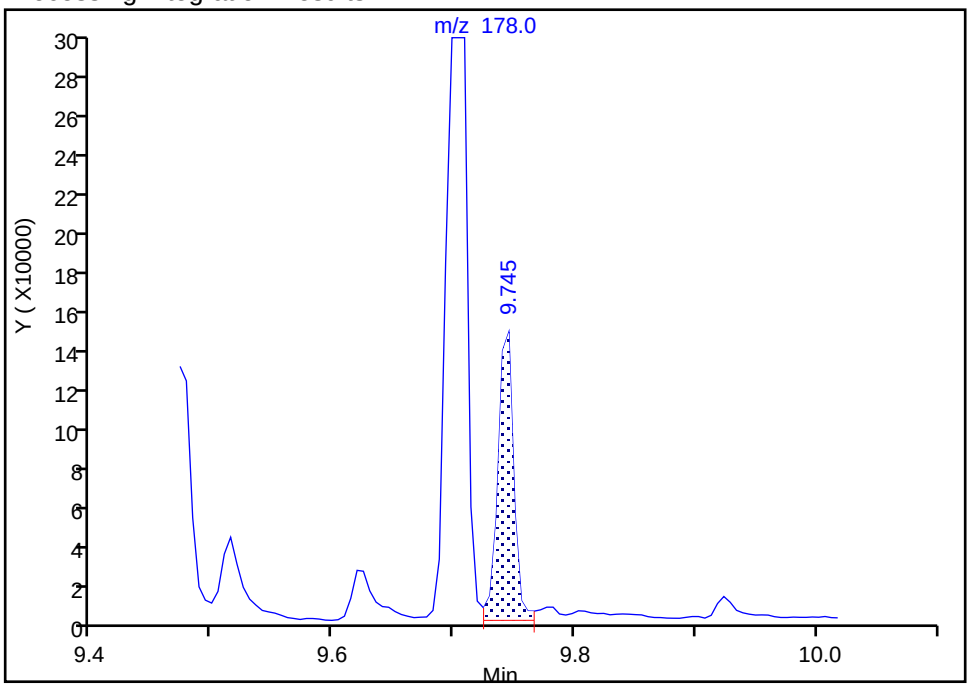
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

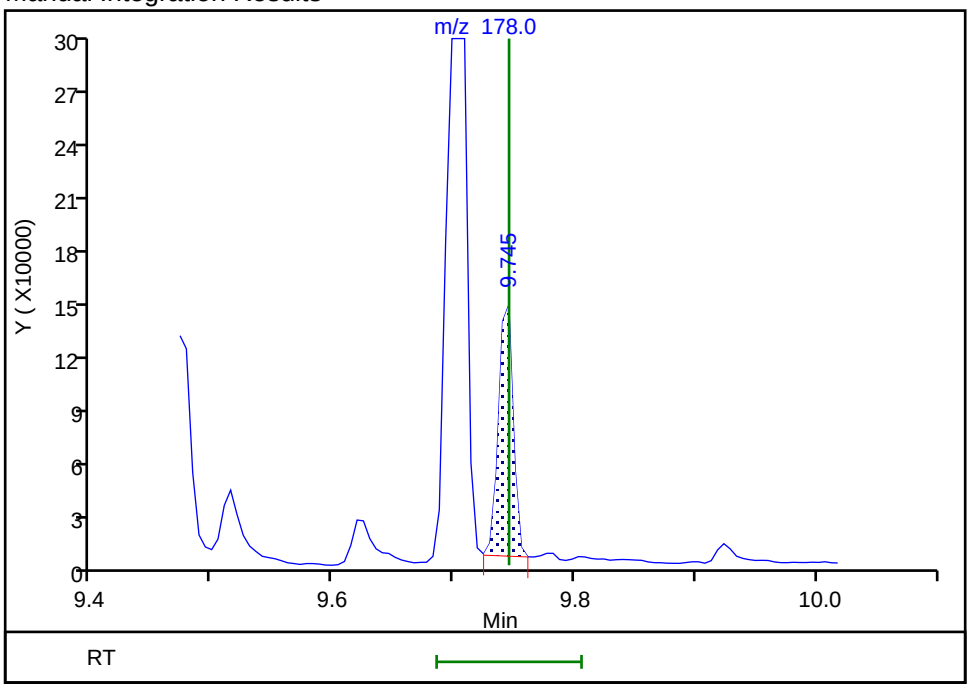
Processing Integration Results

RT: 9.75
Area: 129065
Amount: 36.613664
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 116582
Amount: 33.072438
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:46:41

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

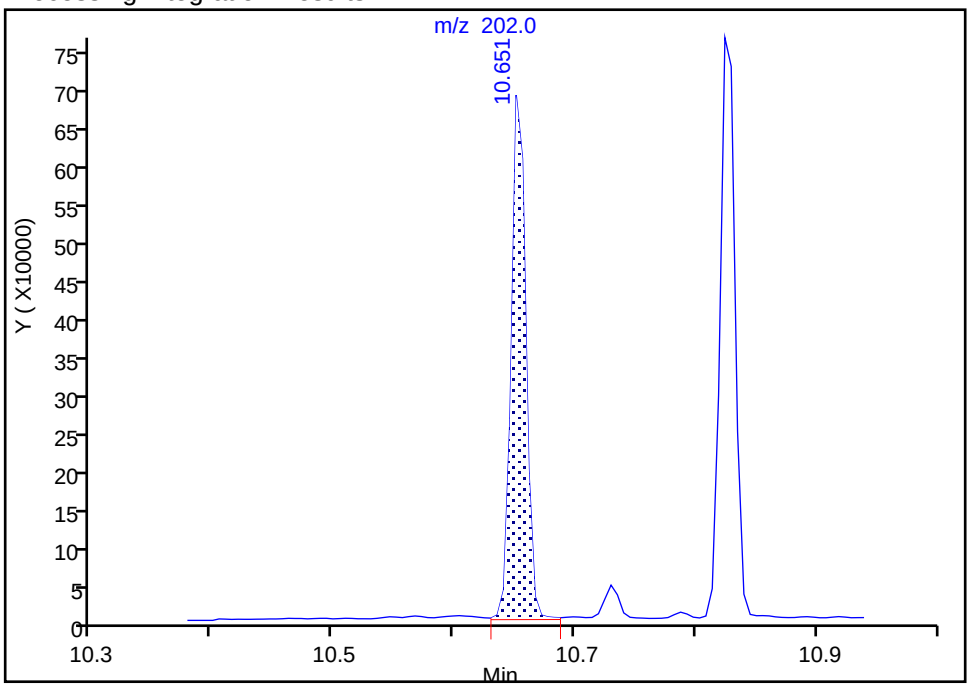
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

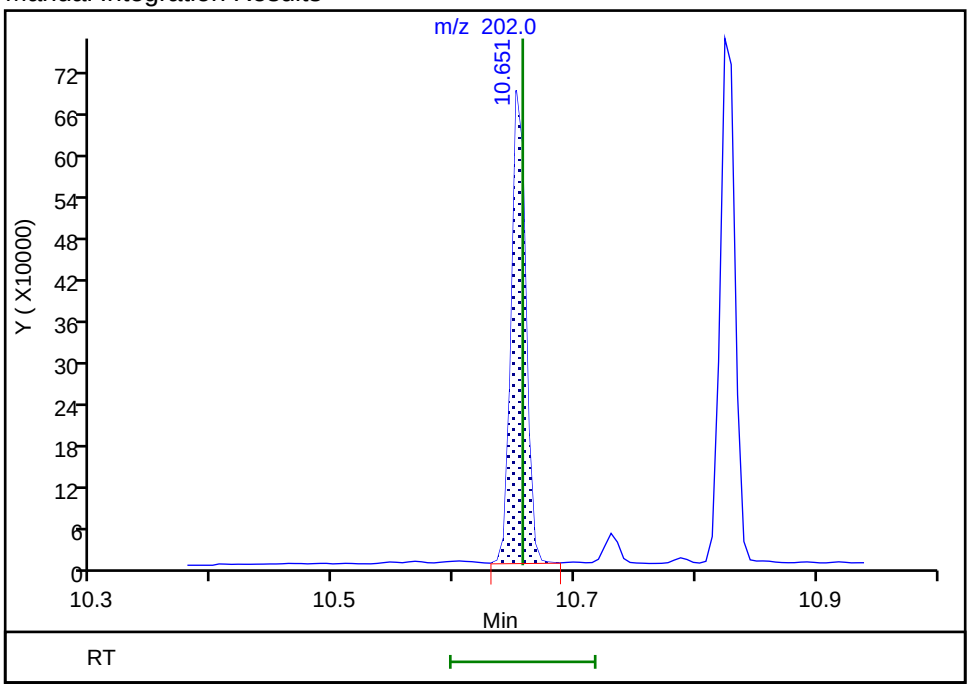
Processing Integration Results

RT: 10.65
Area: 580572
Amount: 161.6233
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 575400
Amount: 160.1835
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:46:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

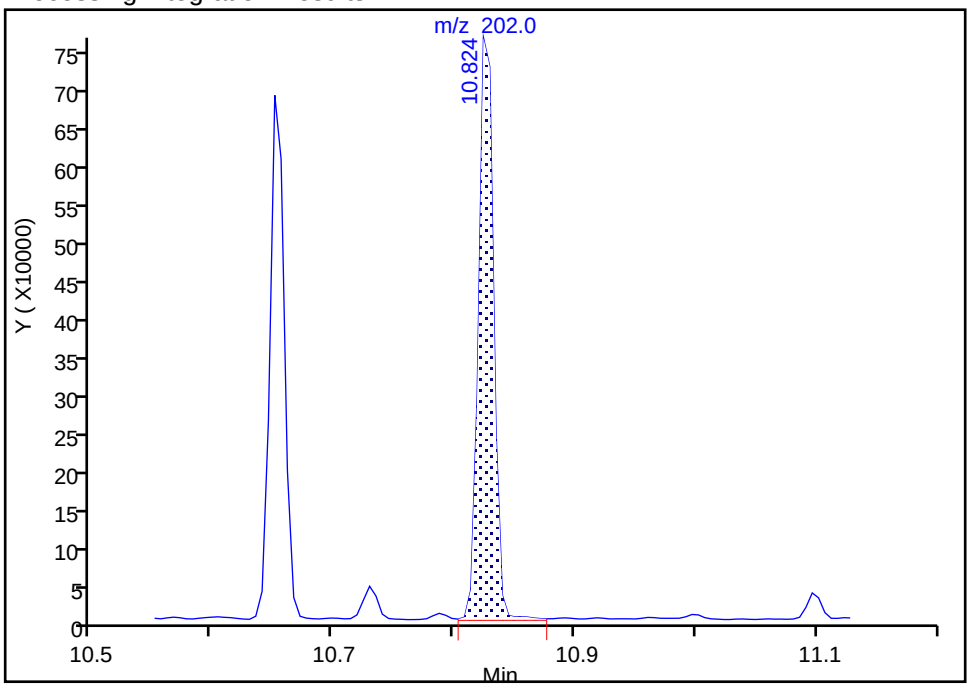
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

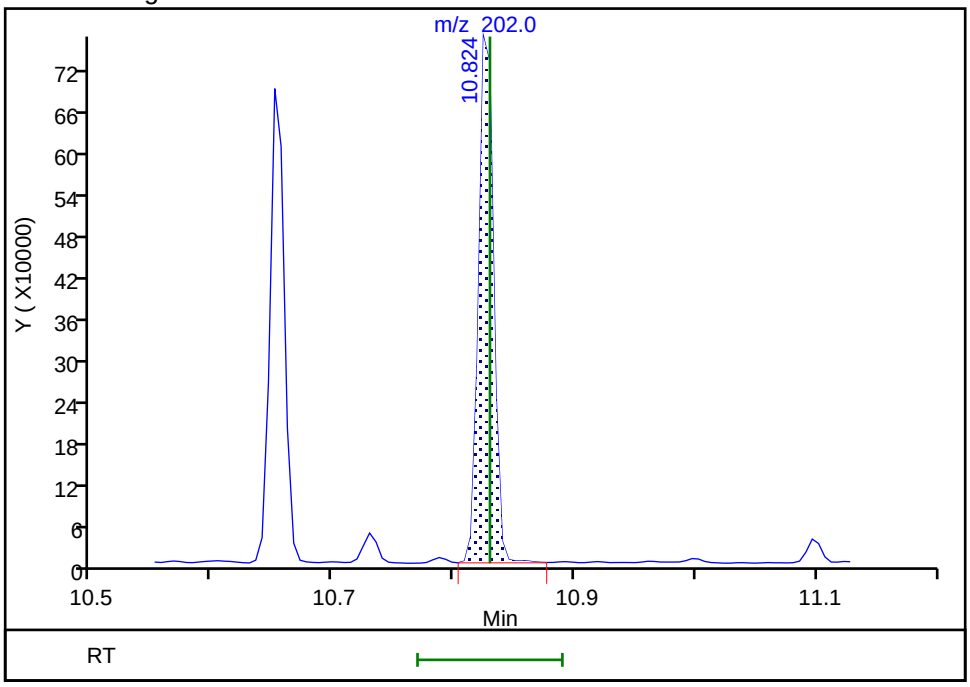
Processing Integration Results

RT: 10.82
Area: 671902
Amount: 177.5979
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 665153
Amount: 175.8140
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:46:51

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

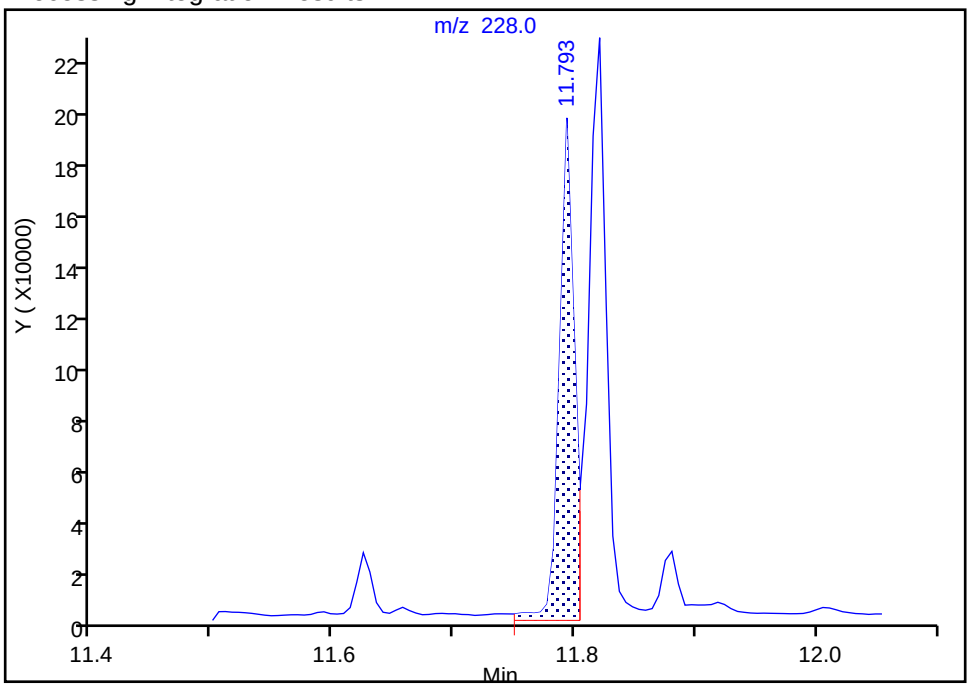
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

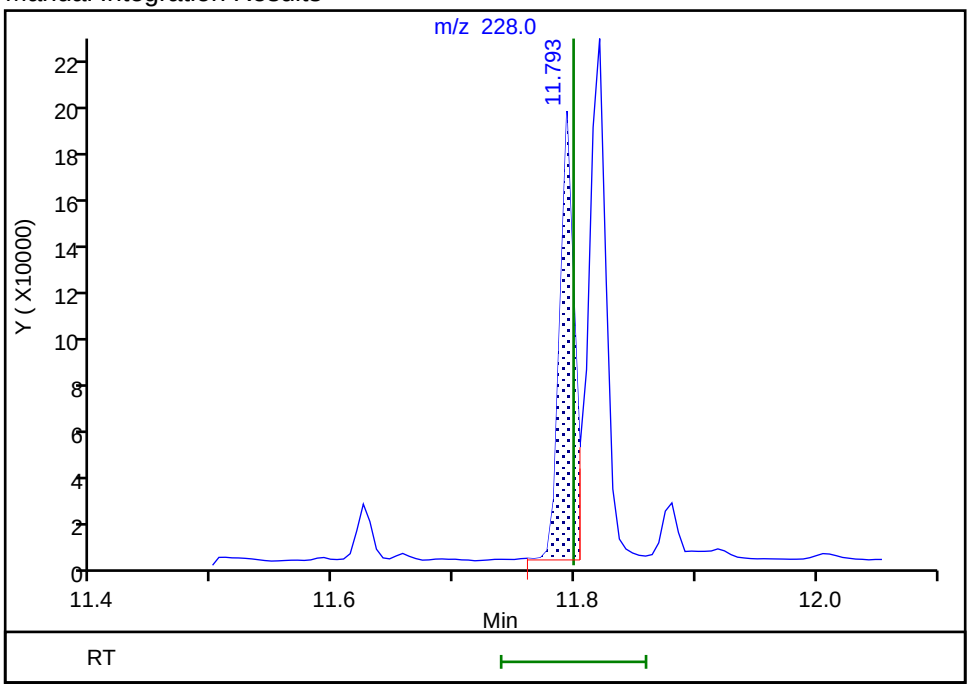
Processing Integration Results

RT: 11.79
Area: 165611
Amount: 66.148822
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 157757
Amount: 63.011755
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:46:57

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

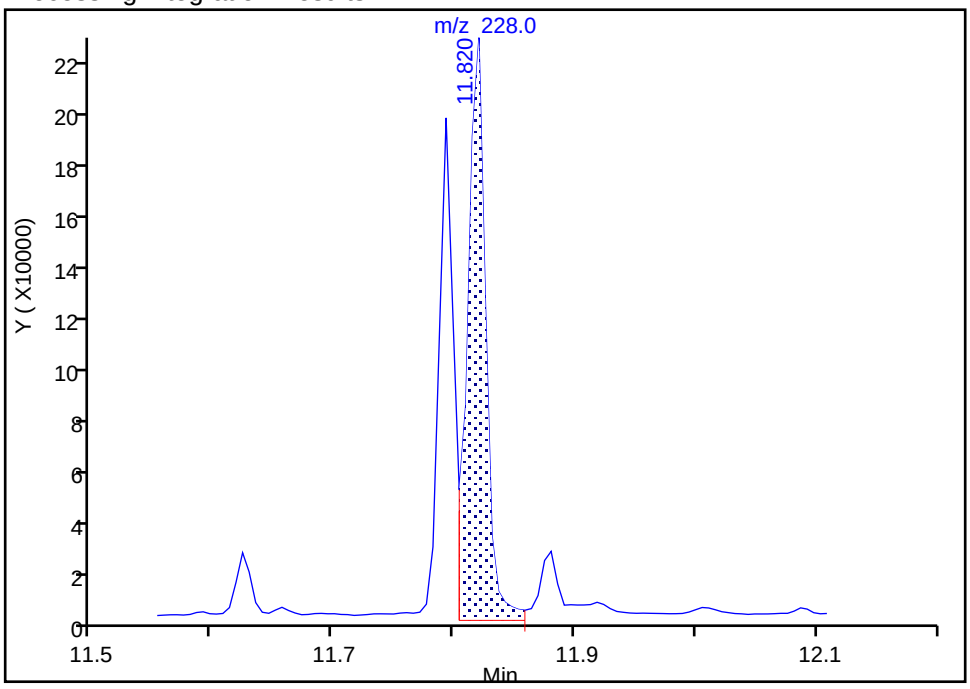
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

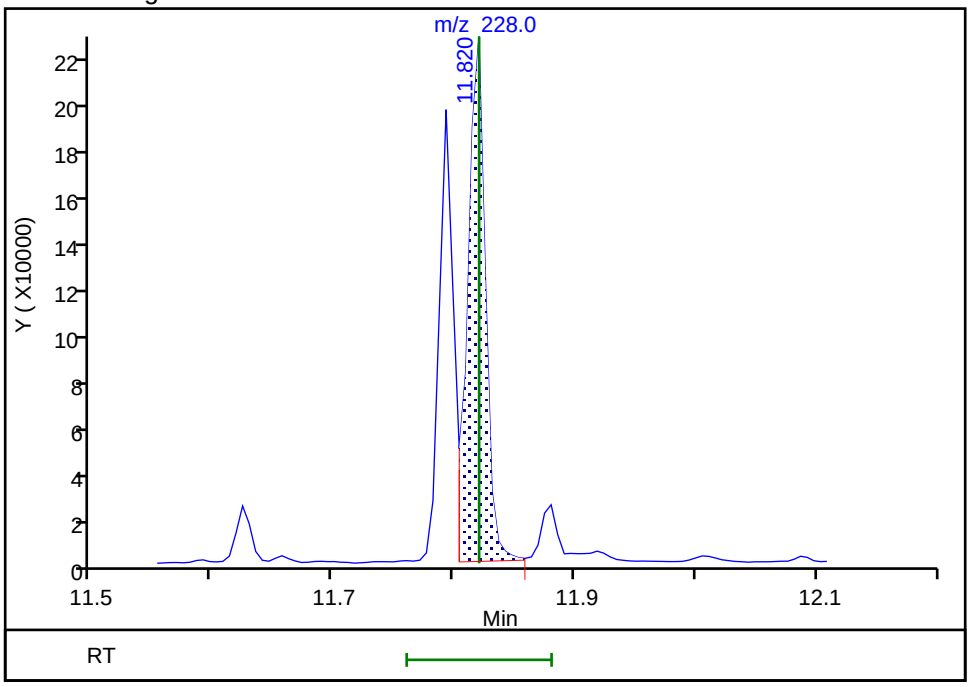
Processing Integration Results

RT: 11.82
Area: 233808
Amount: 70.224550
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 224515
Amount: 67.433385
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

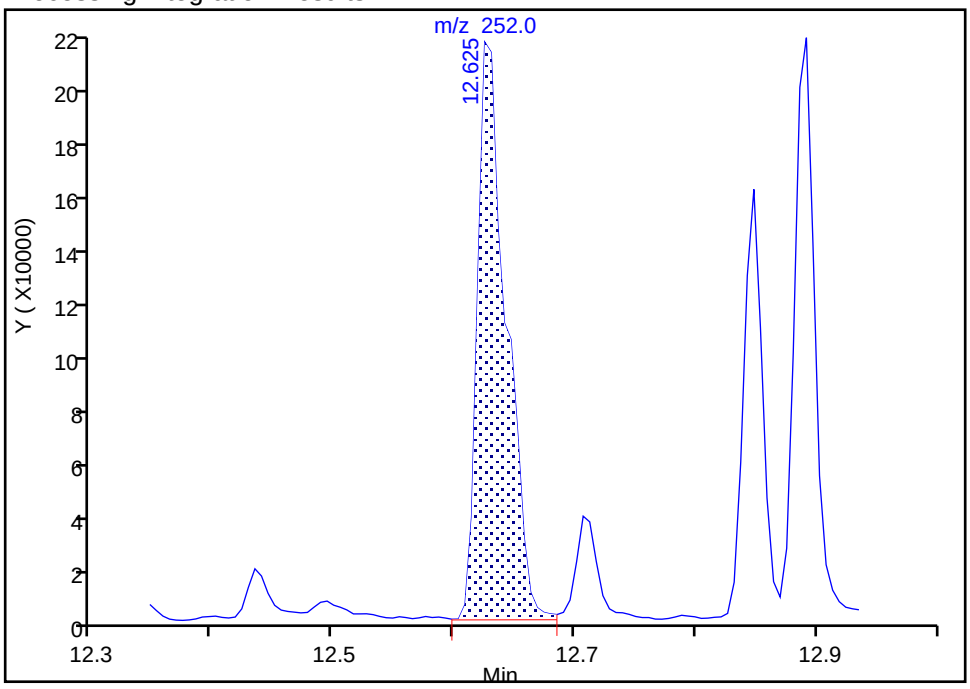
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

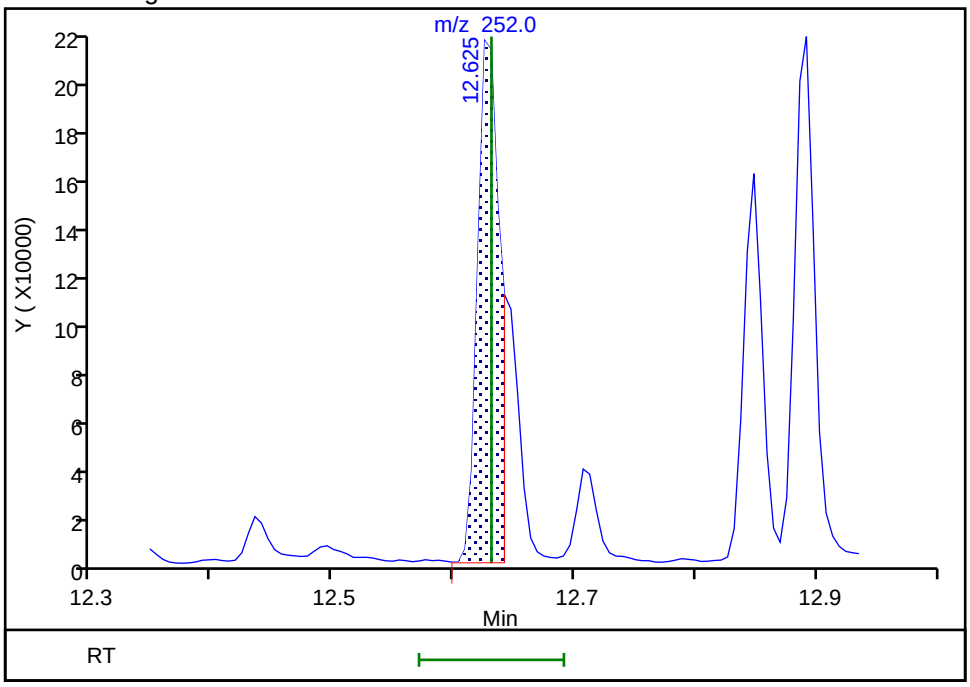
Processing Integration Results

RT: 12.63
Area: 342841
Amount: 100.8868
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 253942
Amount: 74.726745
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:10

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

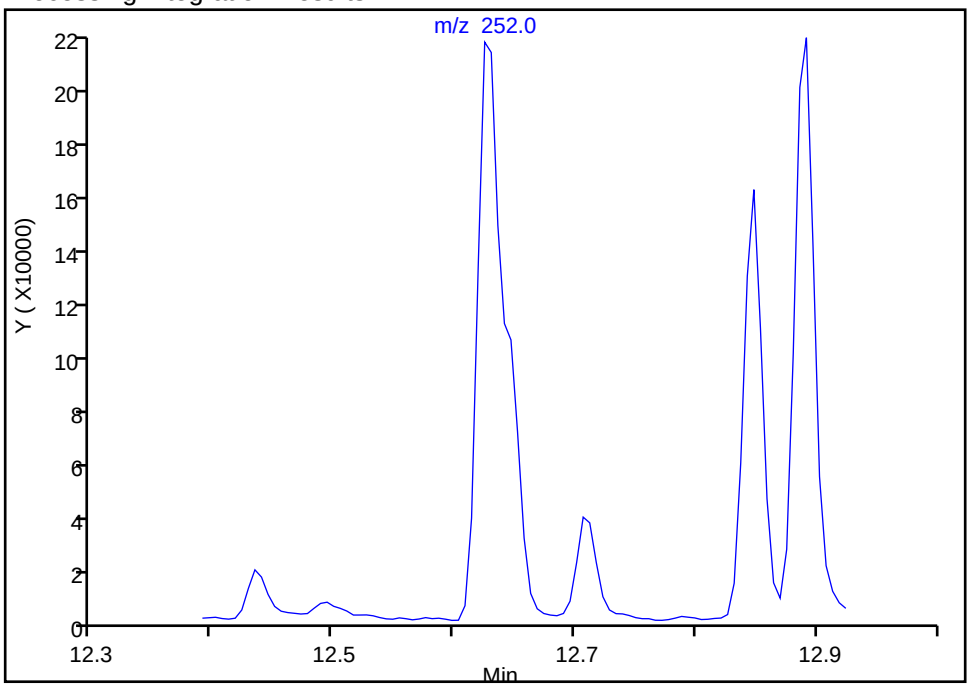
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

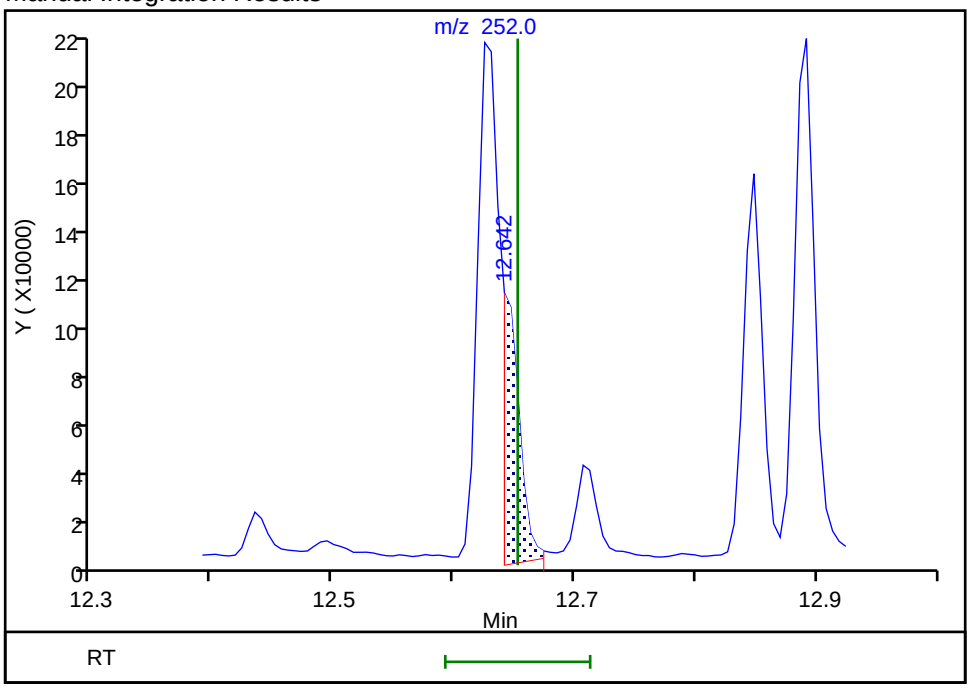
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 90815
Amount: 21.843140
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:22
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

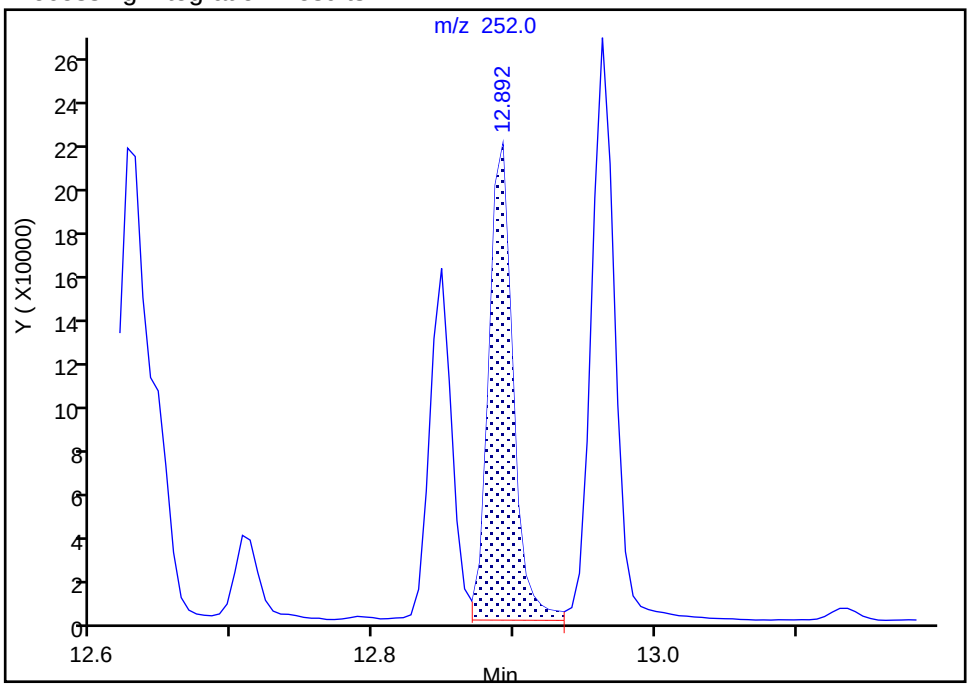
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

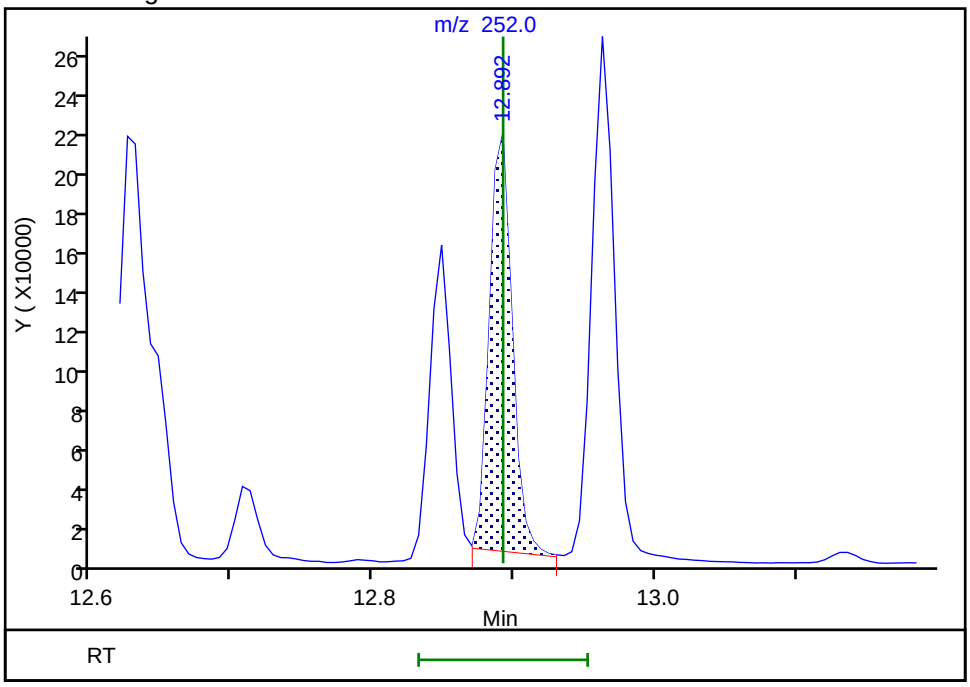
Processing Integration Results

RT: 12.89
Area: 249081
Amount: 72.353320
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 229231
Amount: 66.587271
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:28

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

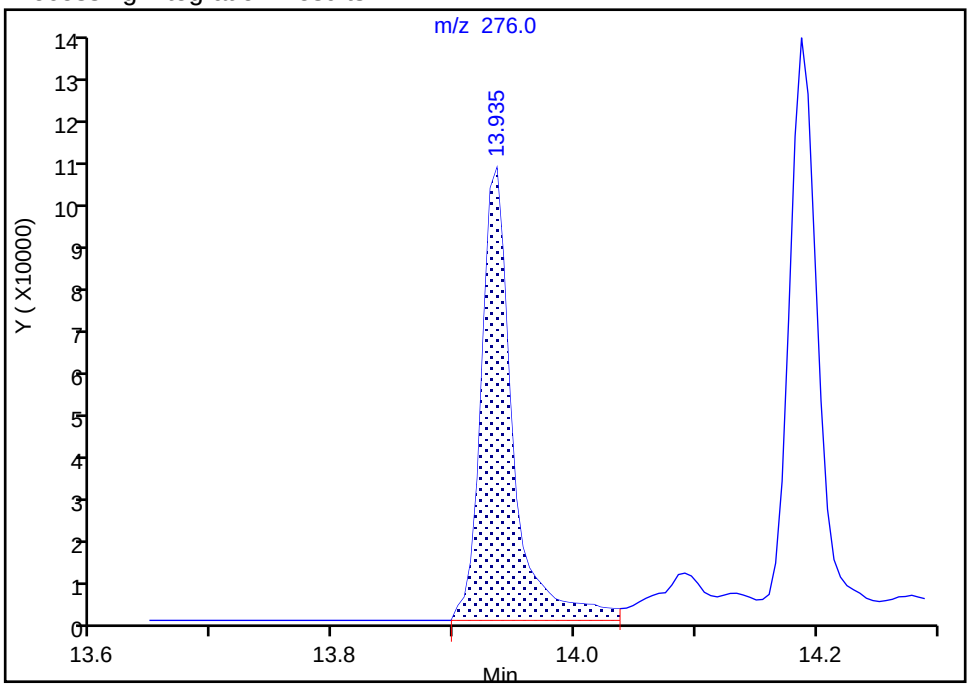
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

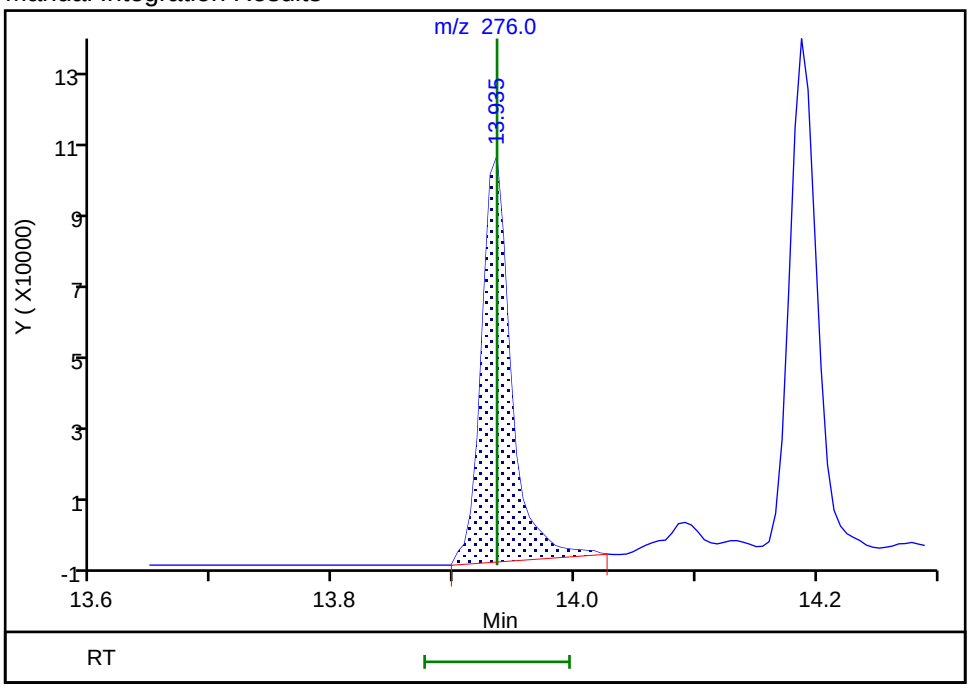
Processing Integration Results

RT: 13.94
Area: 194659
Amount: 73.996921
Amount Units: ug/L



Manual Integration Results

RT: 13.94
Area: 181899
Amount: 69.174139
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

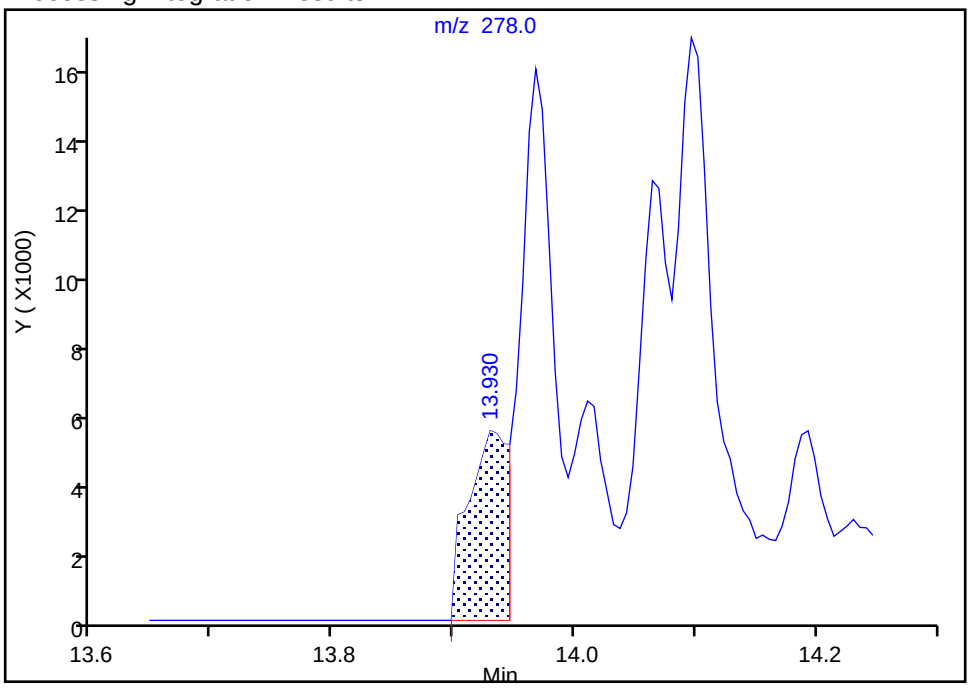
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

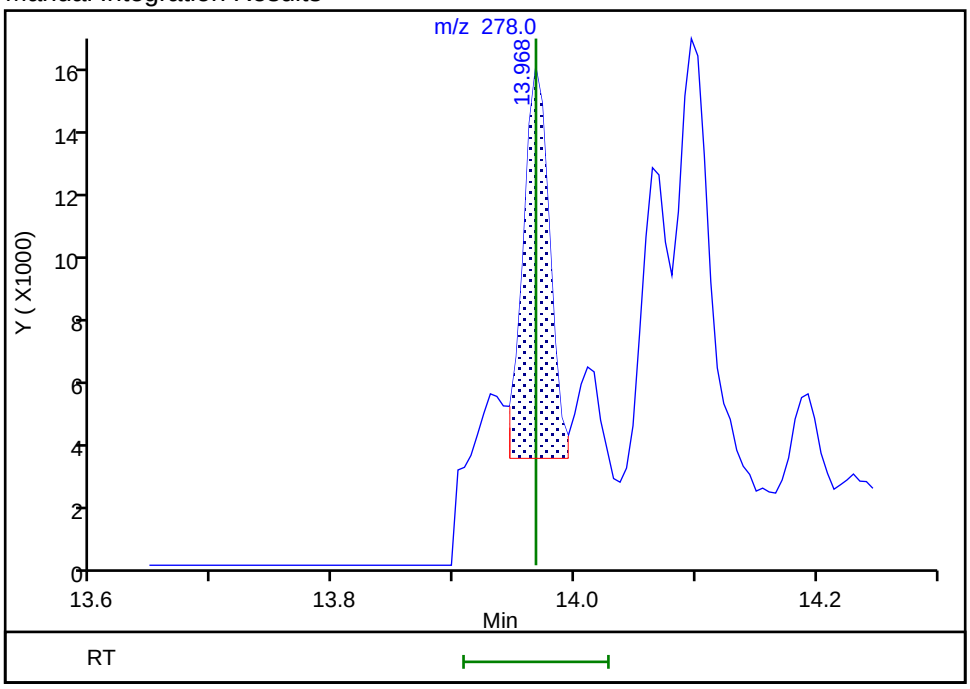
Processing Integration Results

RT: 13.93
Area: 11986
Amount: 4.679737
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 18699
Amount: 6.679764
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:39

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

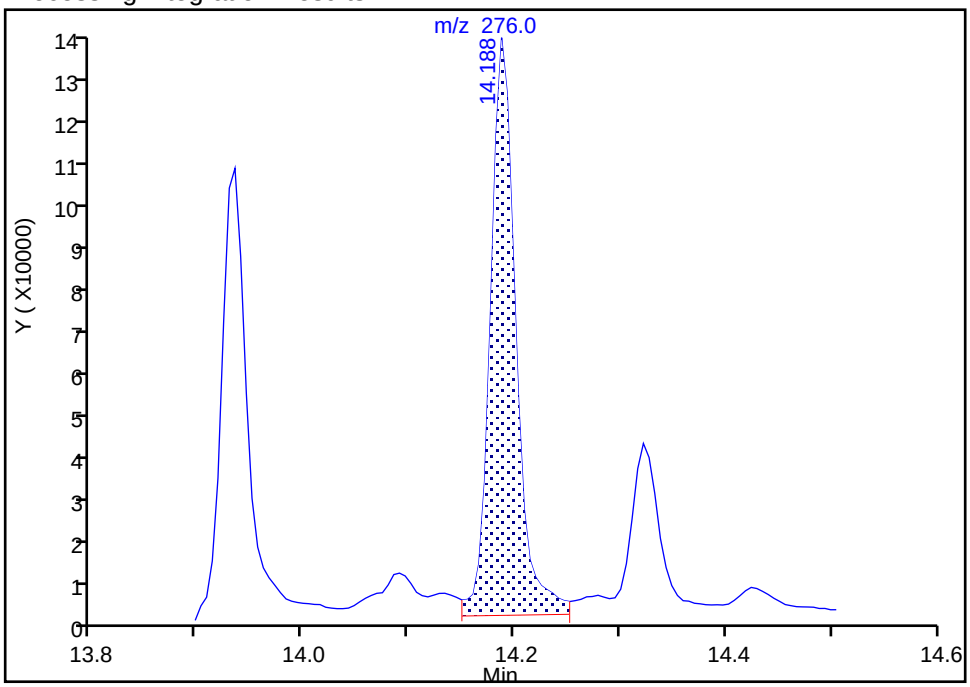
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

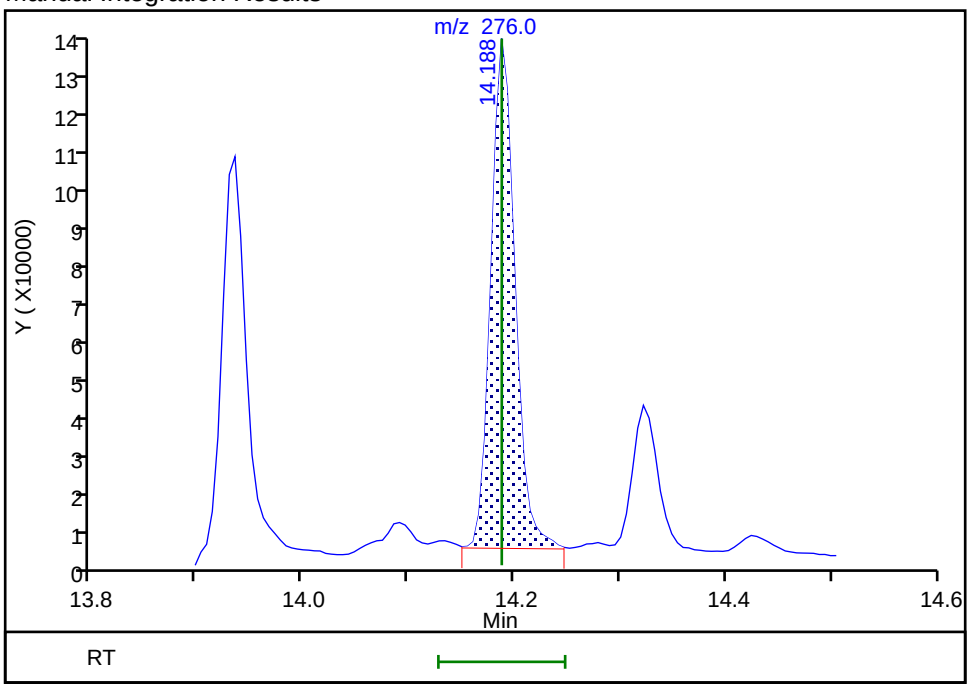
Processing Integration Results

RT: 14.19
Area: 230380
Amount: 60.869922
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 210860
Amount: 55.734677
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:47:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

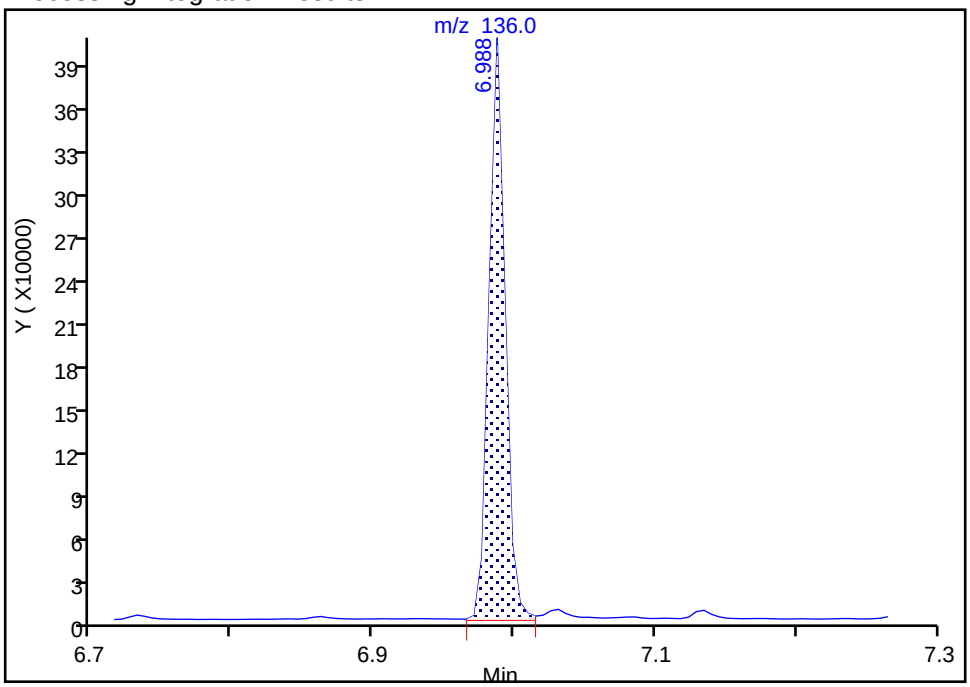
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 1 Naphthalene-d8, CAS: 1146-65-2

Signal: 1

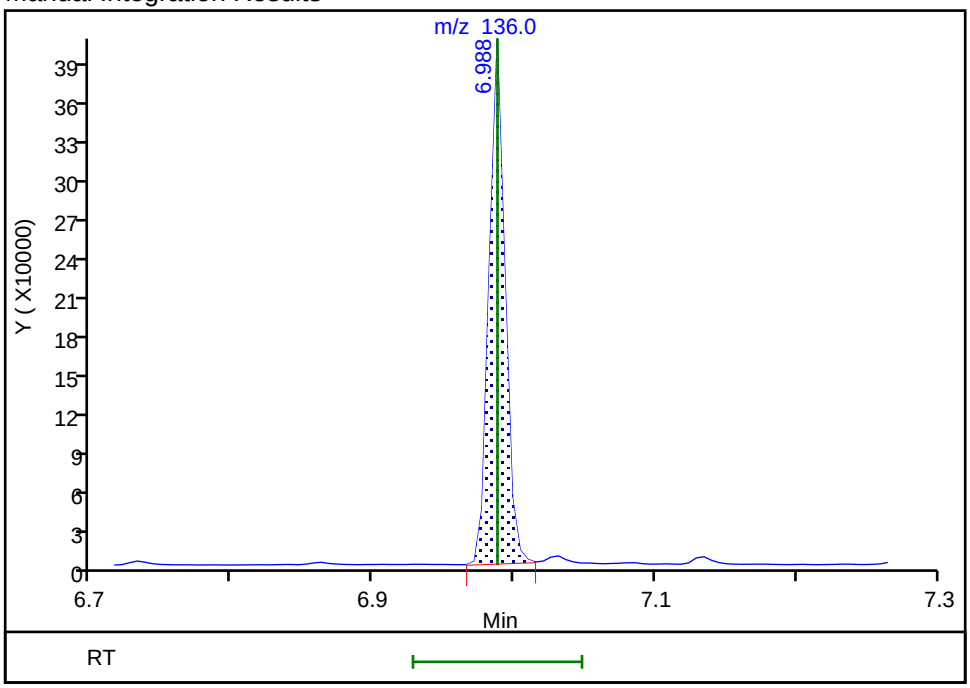
Processing Integration Results

RT: 6.99
Area: 318465
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 6.99
Area: 314332
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:43:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

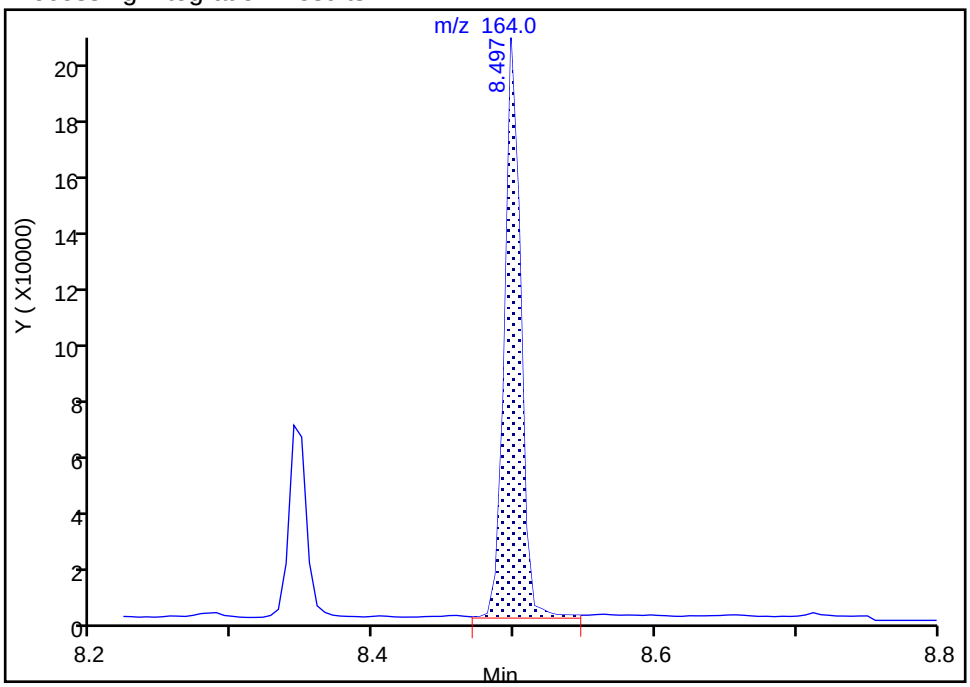
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 2 Acenaphthene-d10, CAS: 15067-26-2

Signal: 1

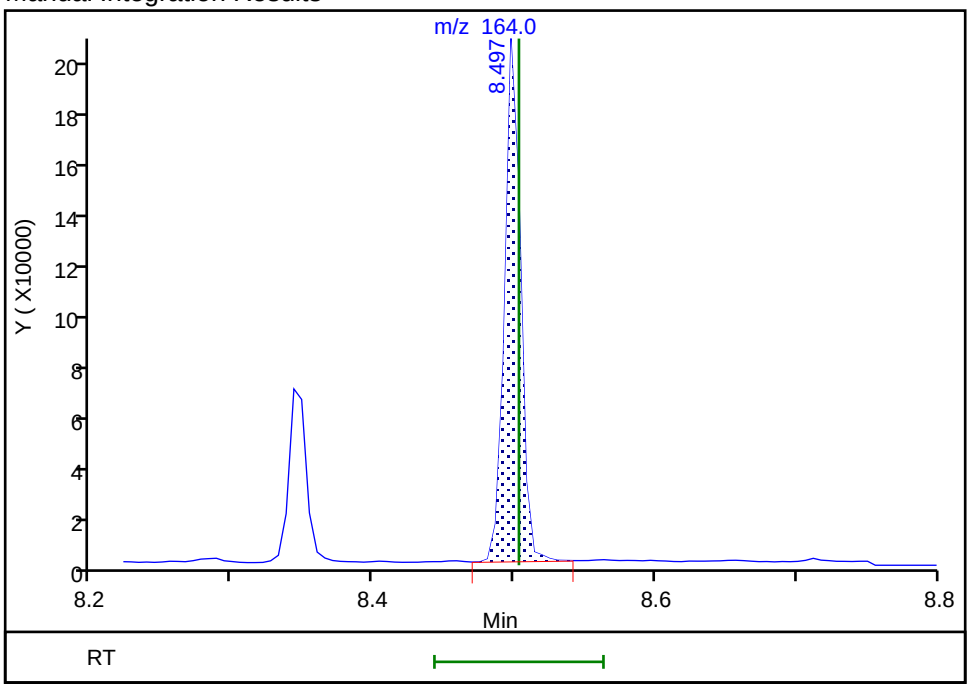
Processing Integration Results

RT: 8.50
Area: 161370
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 8.50
Area: 158637
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:43:56

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

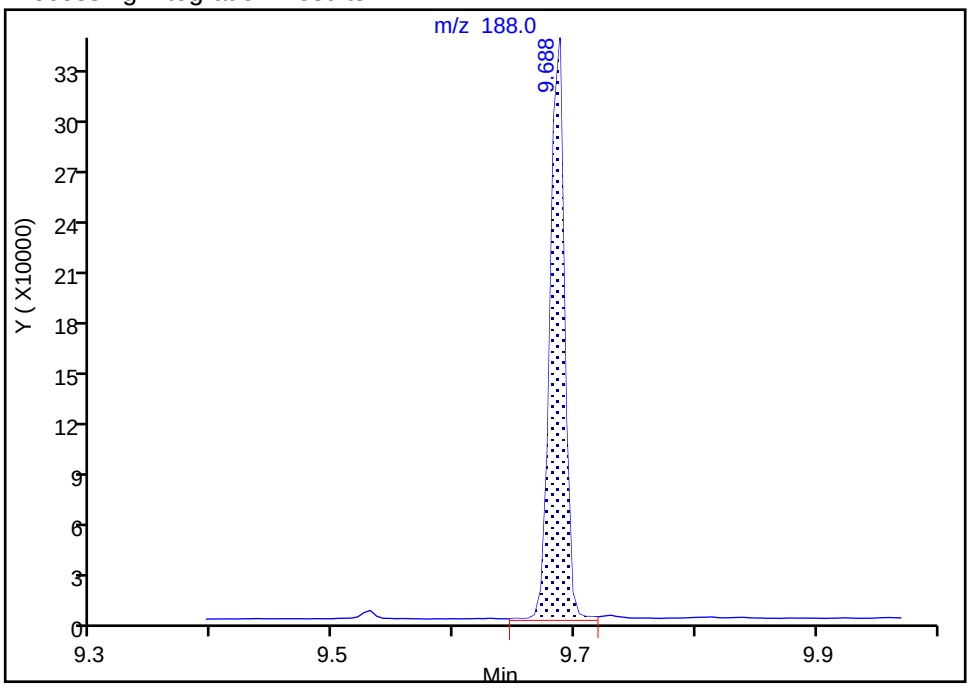
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 3 Phenanthrene-d10, CAS: 1517-22-2

Signal: 1

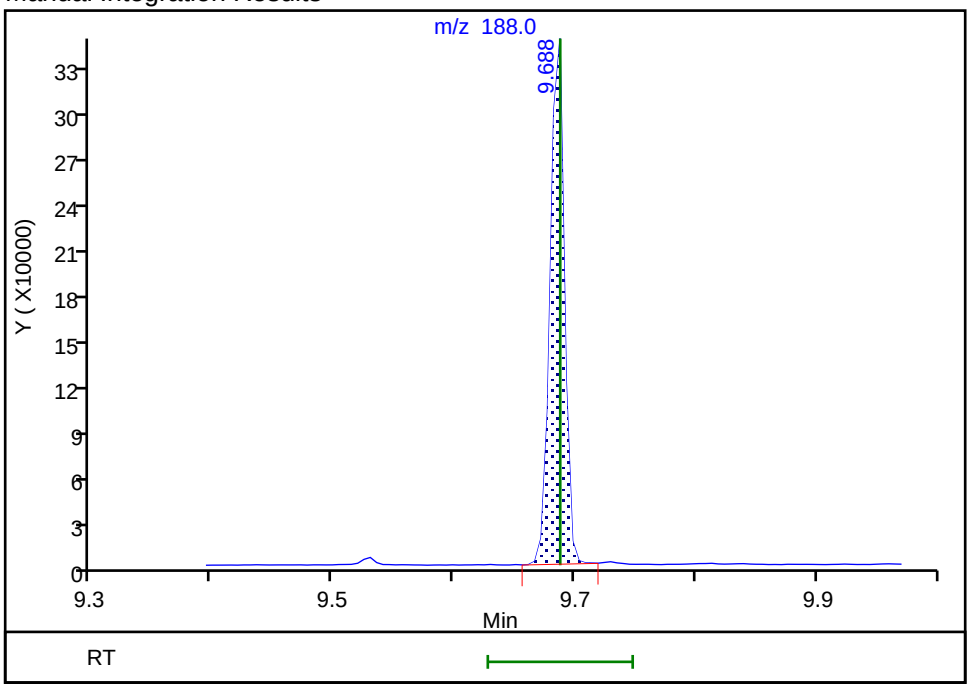
Processing Integration Results

RT: 9.69
Area: 285351
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 9.69
Area: 279297
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:44:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

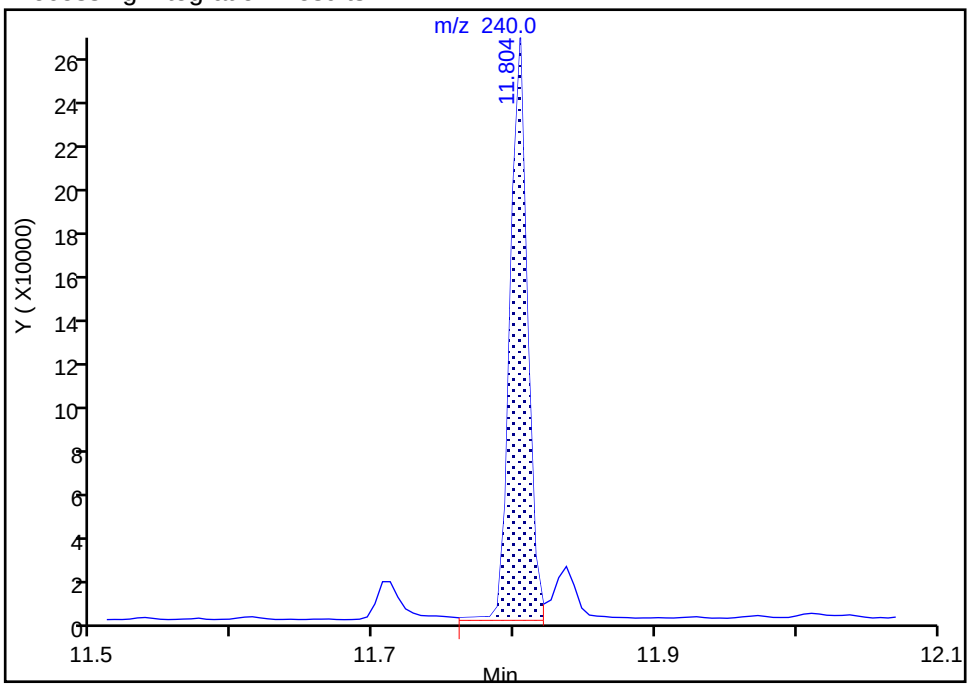
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A017.D				
Injection Date:	22-Jul-2019 17:47:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-10-A	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	KFS	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 4 Chrysene-d12, CAS: 1719-03-5

Signal: 1

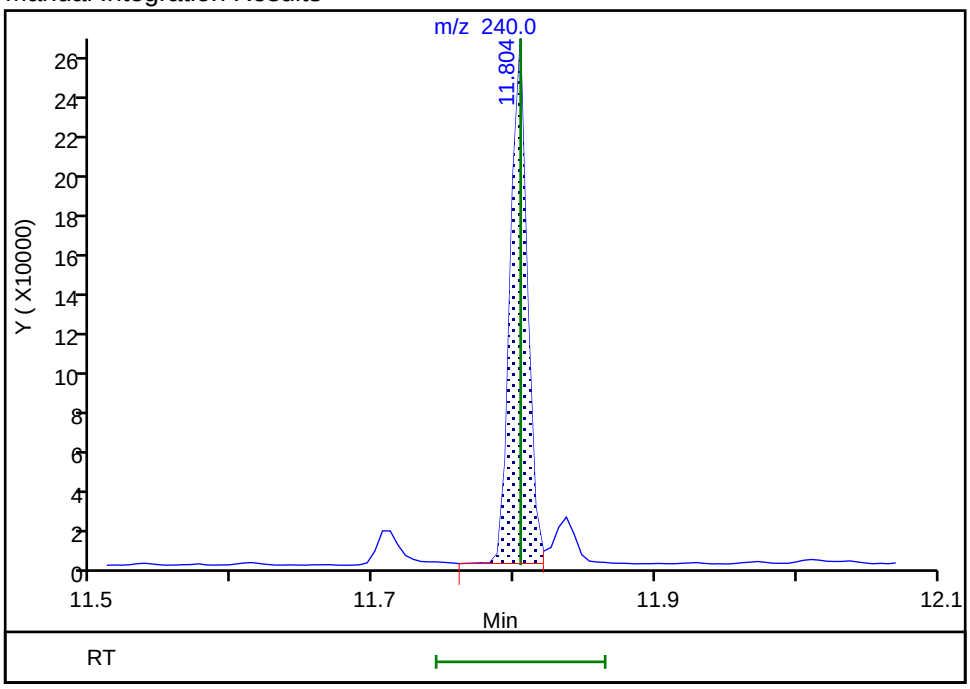
Processing Integration Results

RT: 11.80
Area: 223894
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 11.80
Area: 219674
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:44:19

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle | Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 | Lab Sample ID: 580-87706-11

Matrix: Solid | Lab File ID: 072219A018.D

Analysis Method: 8270D SIM | Date Collected: 07/16/2019 12:30

Extract. Method: 3546 | Date Extracted: 07/19/2019 09:49

Sample wt/vol: 11.221(g) | Date Analyzed: 07/22/2019 18:13

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 60.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	250		11	3.7
91-57-6	2-Methylnaphthalene	110		11	4.6
90-12-0	1-Methylnaphthalene	46		11	1.4
208-96-8	Acenaphthylene	22		11	1.1
83-32-9	Acenaphthene	65		11	1.4
86-73-7	Fluorene	70		11	1.1
85-01-8	Phenanthrene	420		11	3.7
120-12-7	Anthracene	79		11	1.4
206-44-0	Fluoranthene	310		11	3.2
129-00-0	Pyrene	340		11	2.2
56-55-3	Benzo[a]anthracene	110		11	1.7
218-01-9	Chrysene	120		11	3.4
205-99-2	Benzo[b]fluoranthene	130		11	1.3
207-08-9	Benzo[k]fluoranthene	36		11	1.4
50-32-8	Benzo[a]pyrene	110		11	1.9
193-39-5	Indeno[1,2,3-cd]pyrene	110		11	1.4
53-70-3	Dibenz(a,h)anthracene	11	B	11	1.6
191-24-2	Benzo[g,h,i]perylene	86	B	11	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	70		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D
Lims ID: 580-87706-A-11-A
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 18:13:30 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-11-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:50:30 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:50:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	338359	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	96	170232	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	297345	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	227489	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	267340	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1579828	701.7	
10 Naphthalene	128	7.004	7.004	0.000	100	423712	112.1	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	122343	49.3	M
12 1-Methylnaphthalene	142	7.717	7.722	-0.005	94	46996	20.3	M
13 Acenaphthylene	152	8.377	8.376	0.001	98	36152	9.74	M
14 Acenaphthene	153	8.520	8.525	-0.005	81	77199	28.6	M
15 Fluorene	166	8.941	8.947	-0.006	94	82882	30.7	M
17 Phenanthrene	178	9.704	9.704	0.000	99	743319	184.1	
18 Anthracene	178	9.745	9.745	0.000	100	130607	34.8	M
19 Fluoranthene	202	10.652	10.657	-0.005	95	515022	134.7	M
20 Pyrene	202	10.824	10.830	-0.006	100	595445	147.8	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	97	131324	50.7	M
22 Chrysene	228	11.821	11.821	0.000	98	183558	53.2	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	202505	58.8	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	66116	15.7	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	94	174073	49.9	M
26 Indeno[1,2,3-cd]pyrene	276	13.936	13.935	0.001	95	127515	48.0	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	13351	5.03	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	97	145949	38.2	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

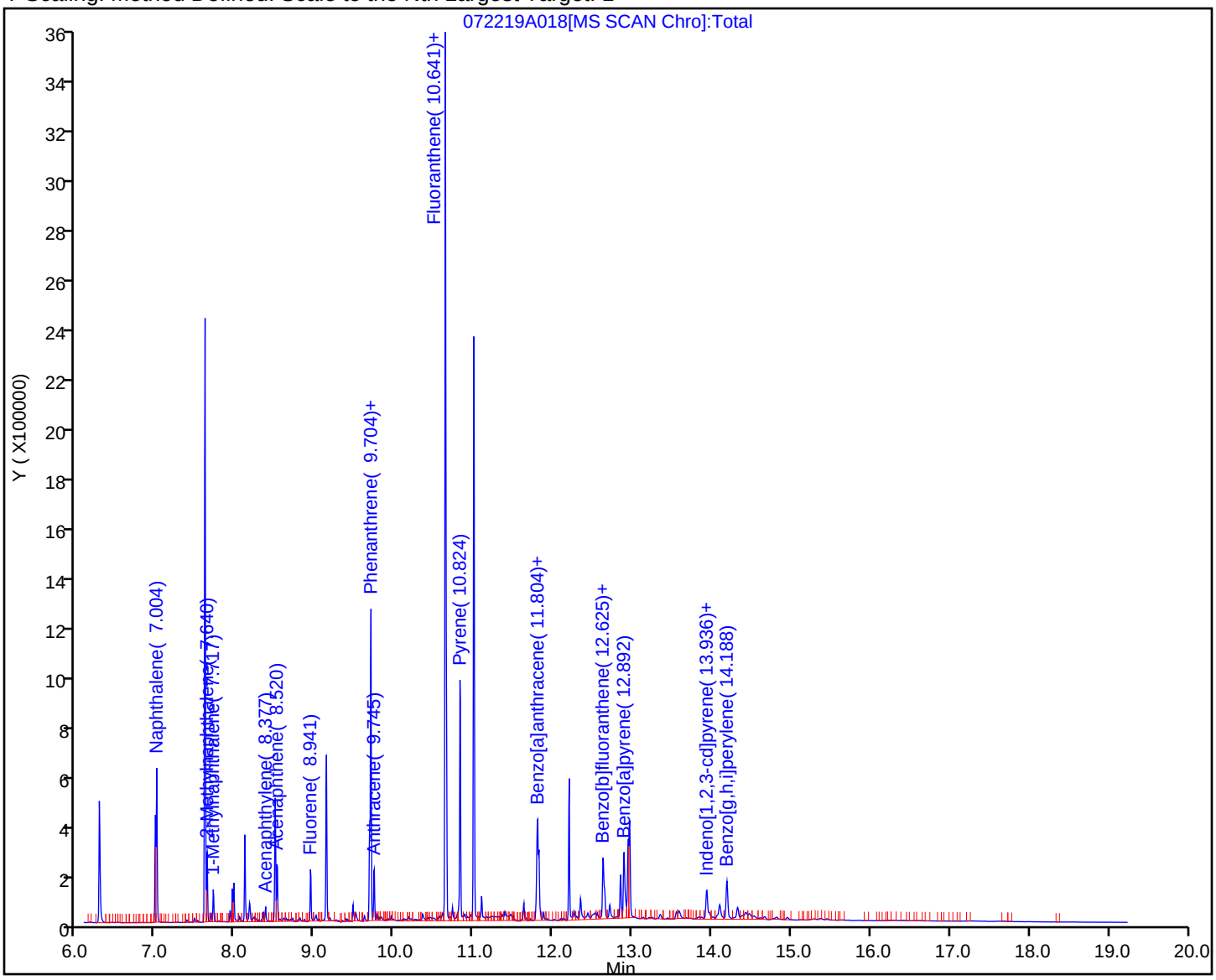
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle

Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D
Lims ID: 580-87706-A-11-A
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 18:13:30 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-11-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:50:30 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:50:30

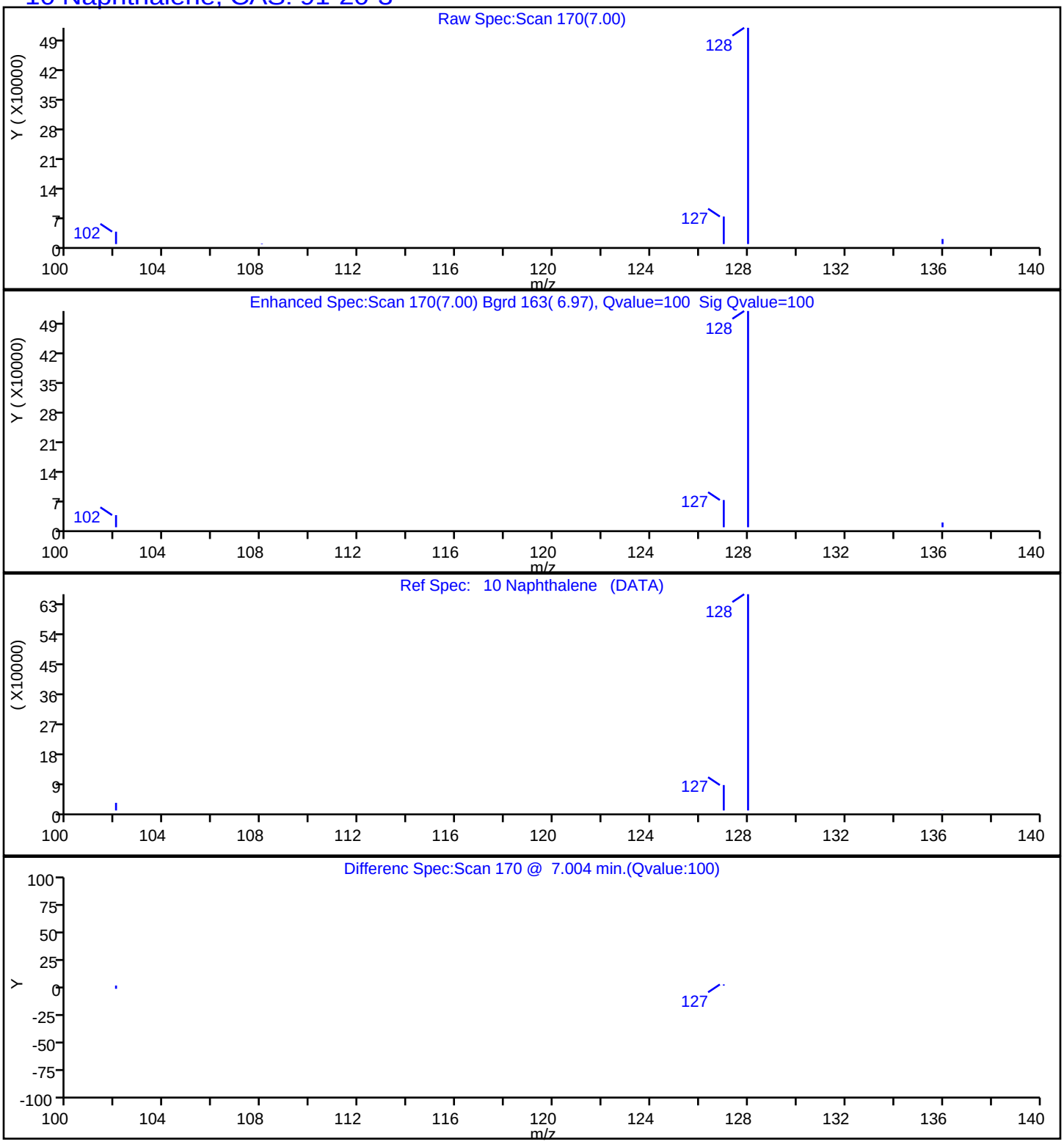
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	701.7	70.17

Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

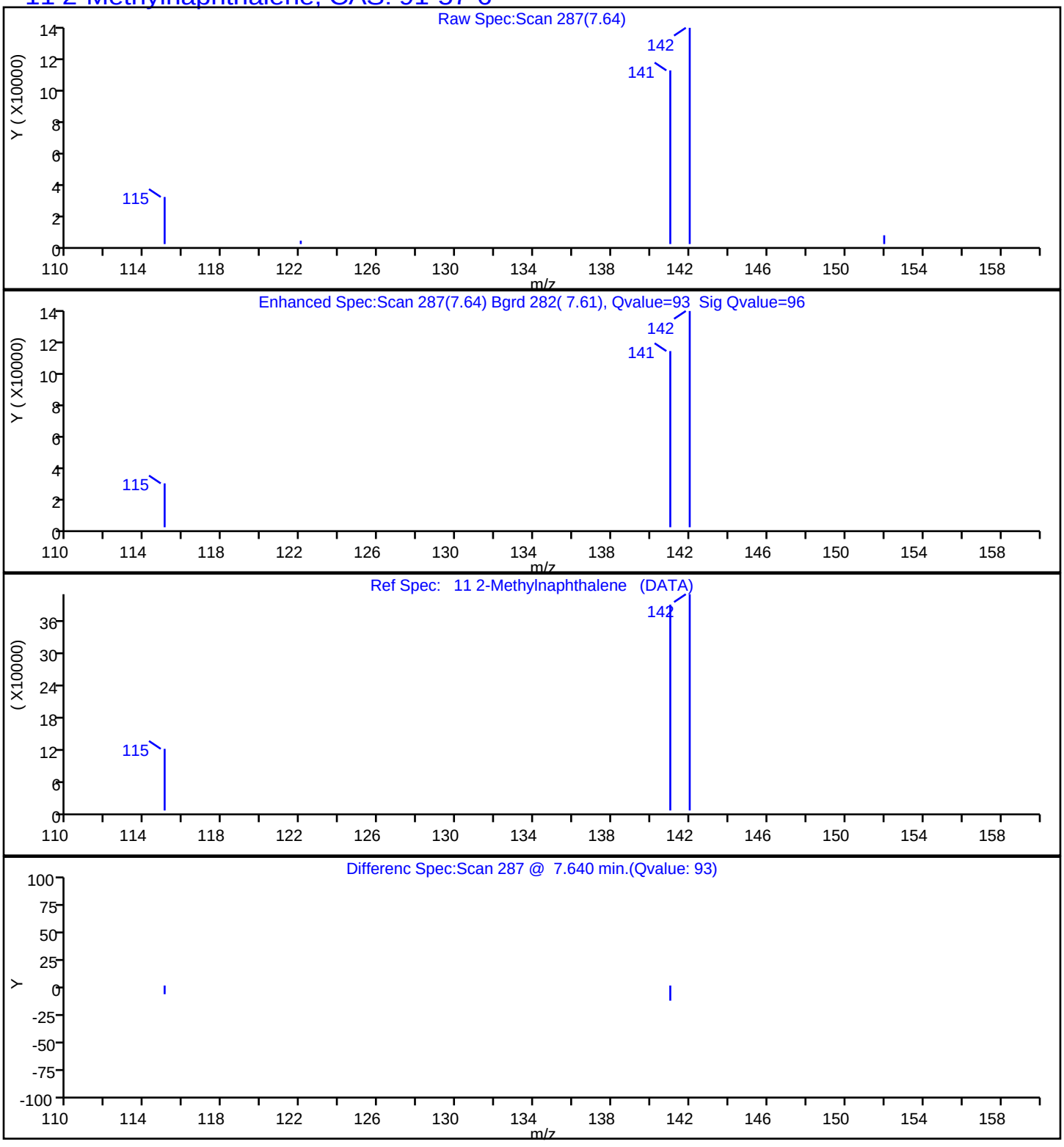


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

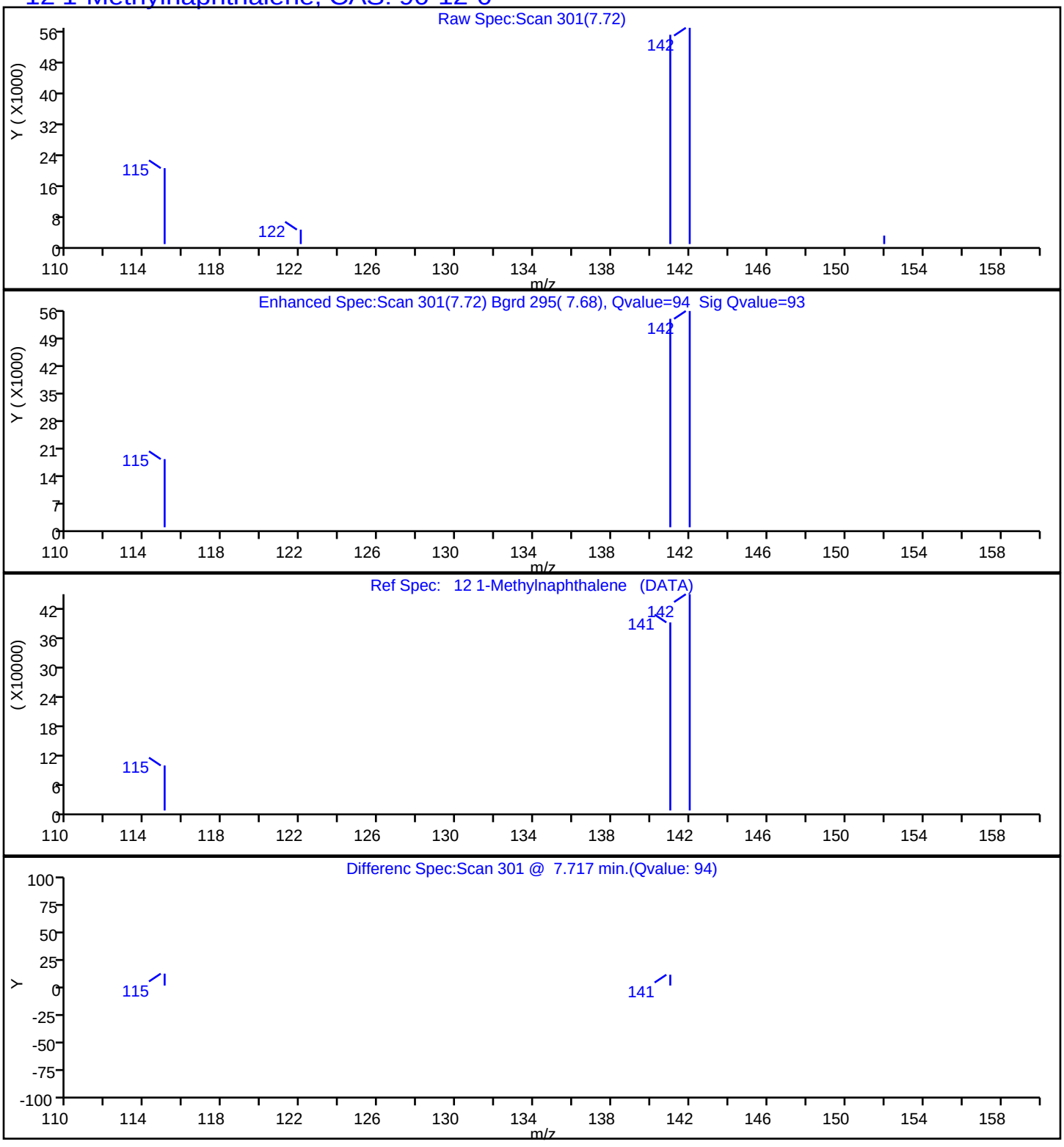


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

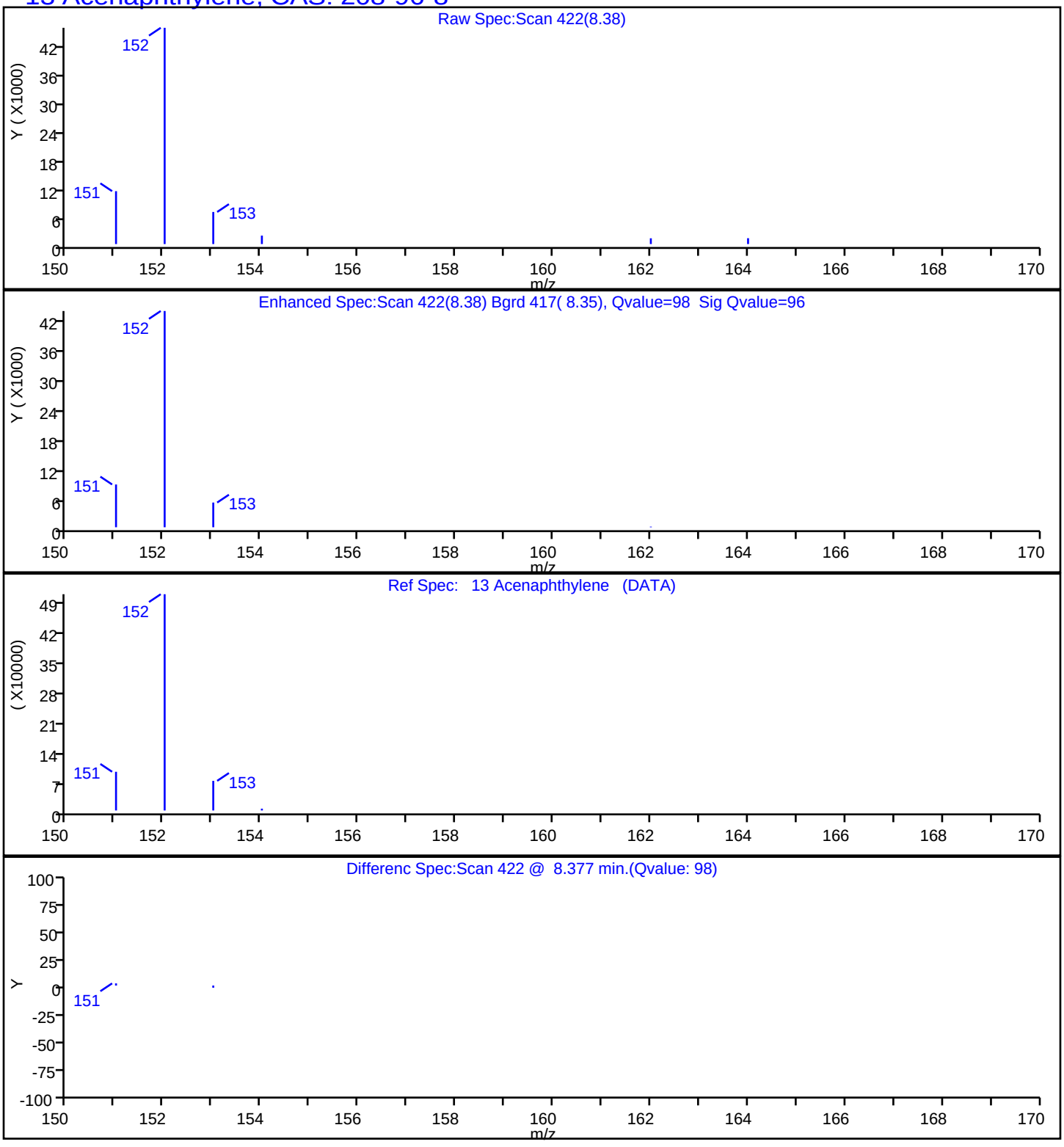


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

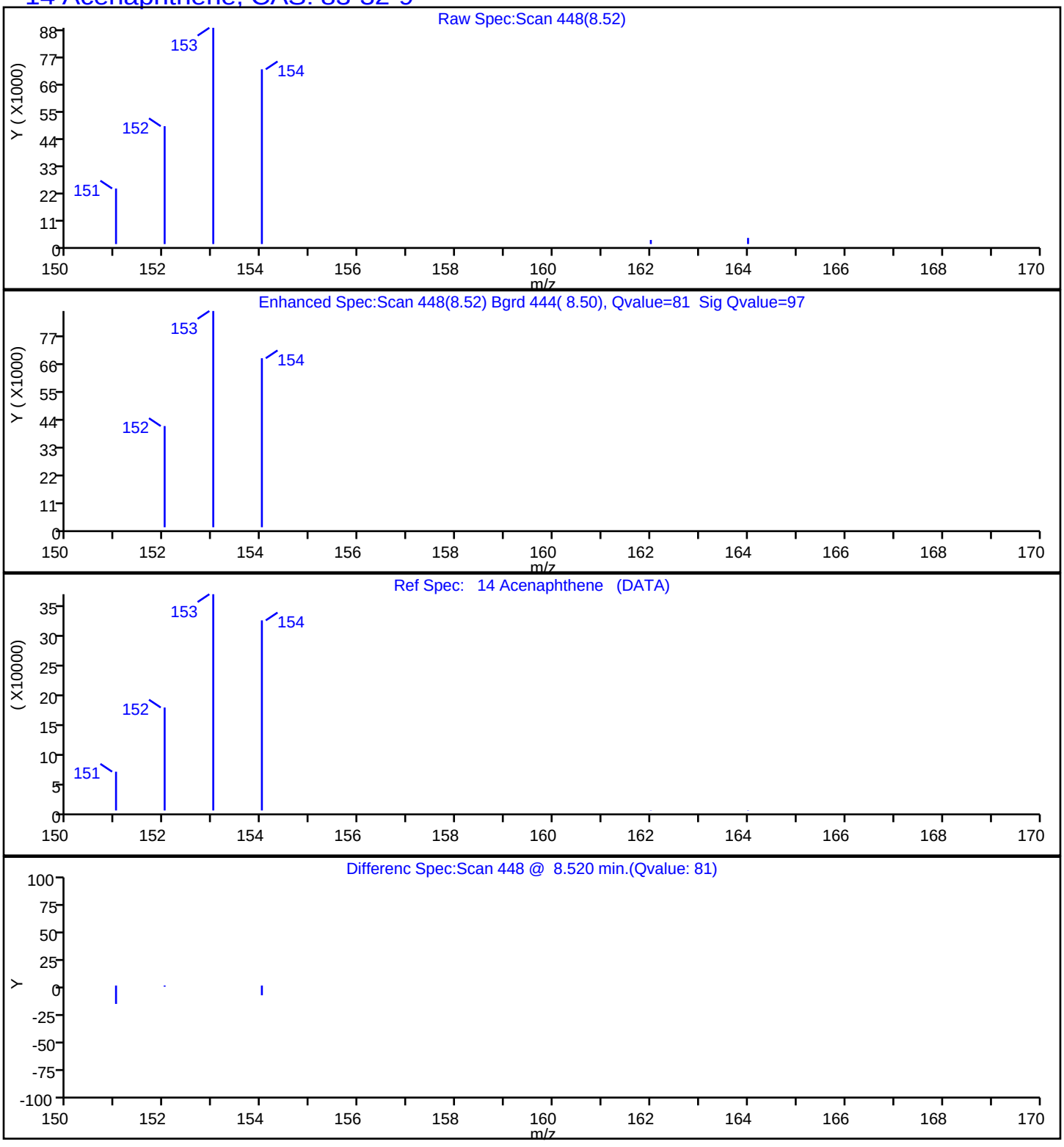


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

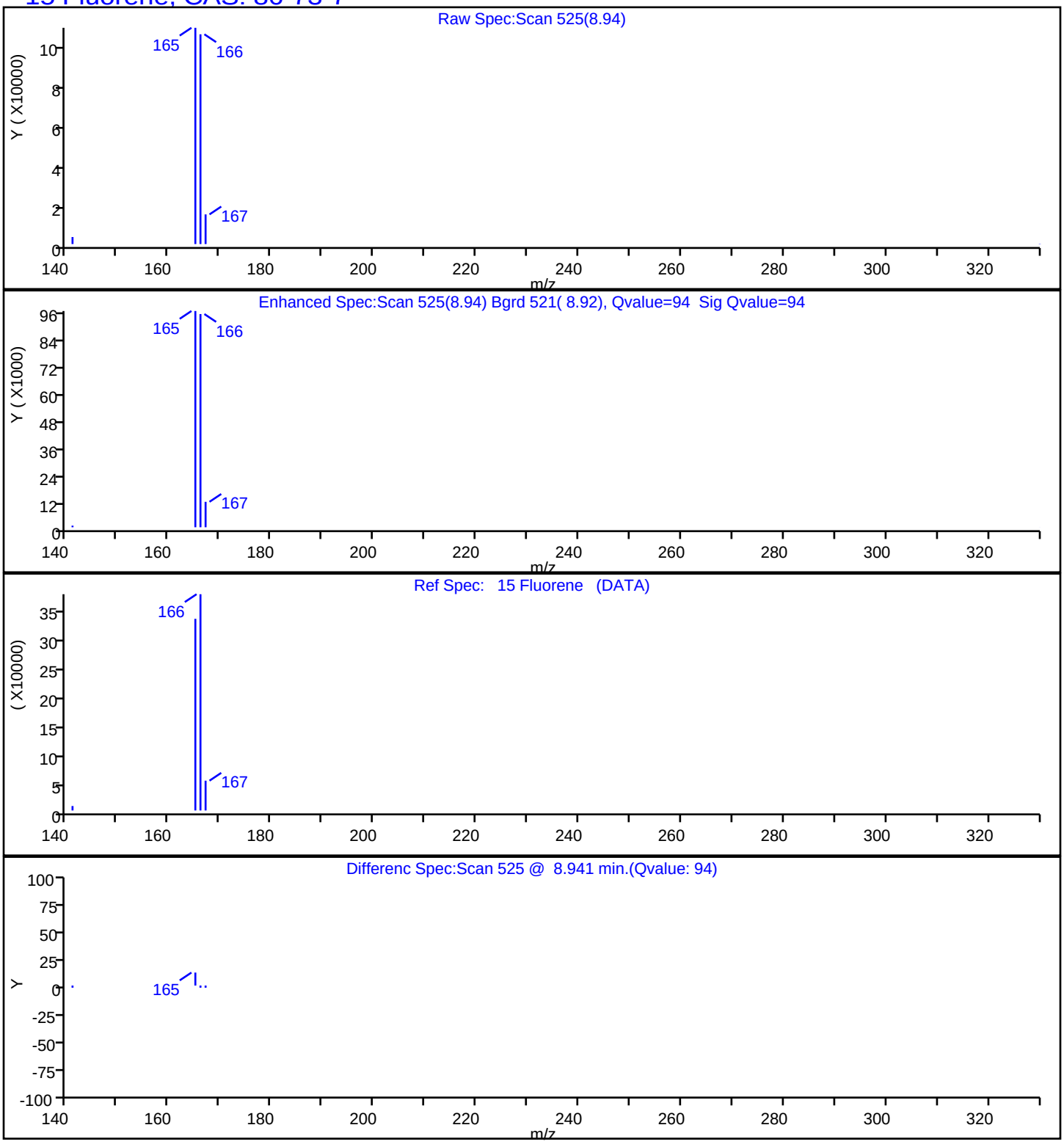


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

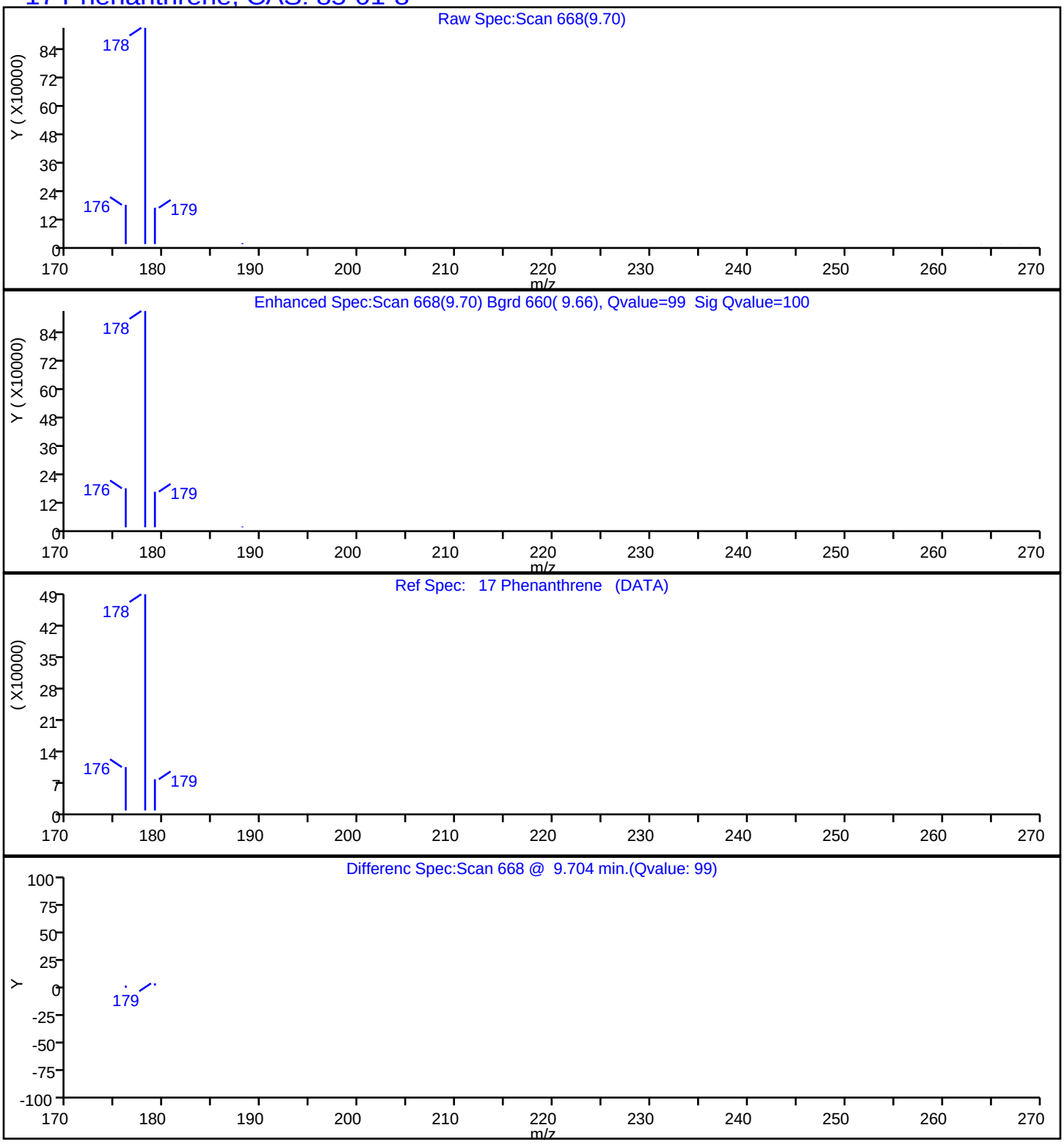


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

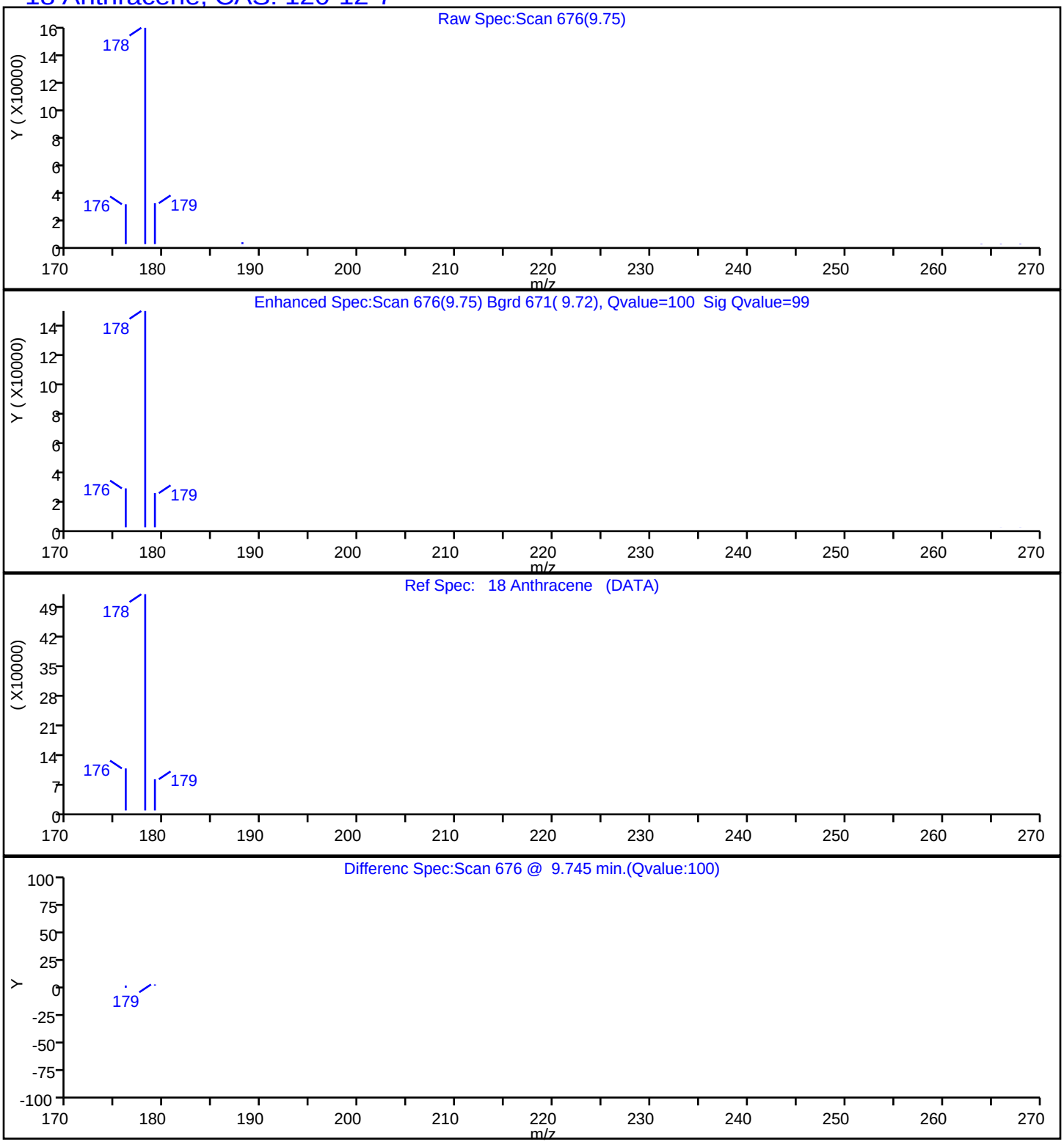


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

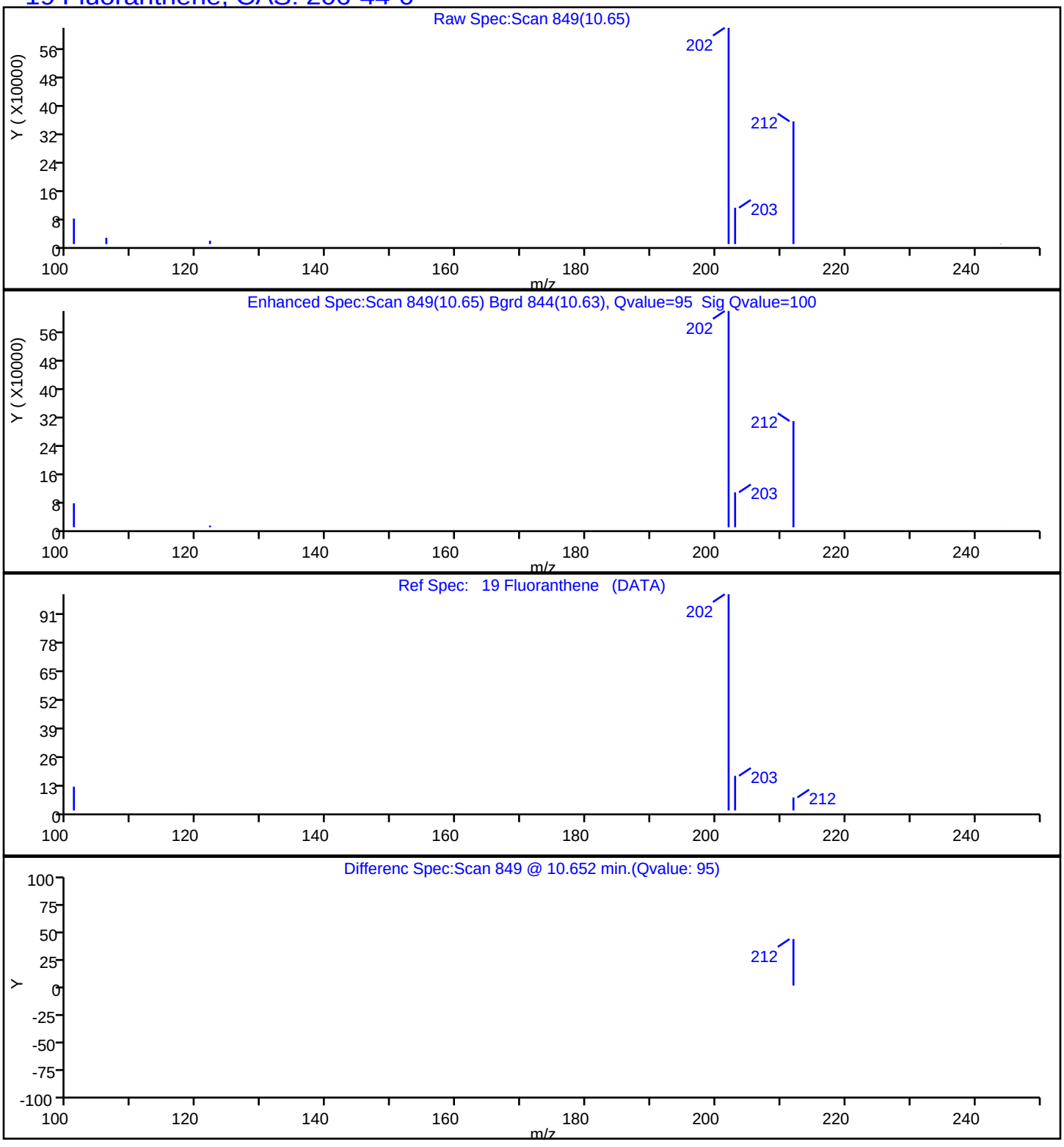


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

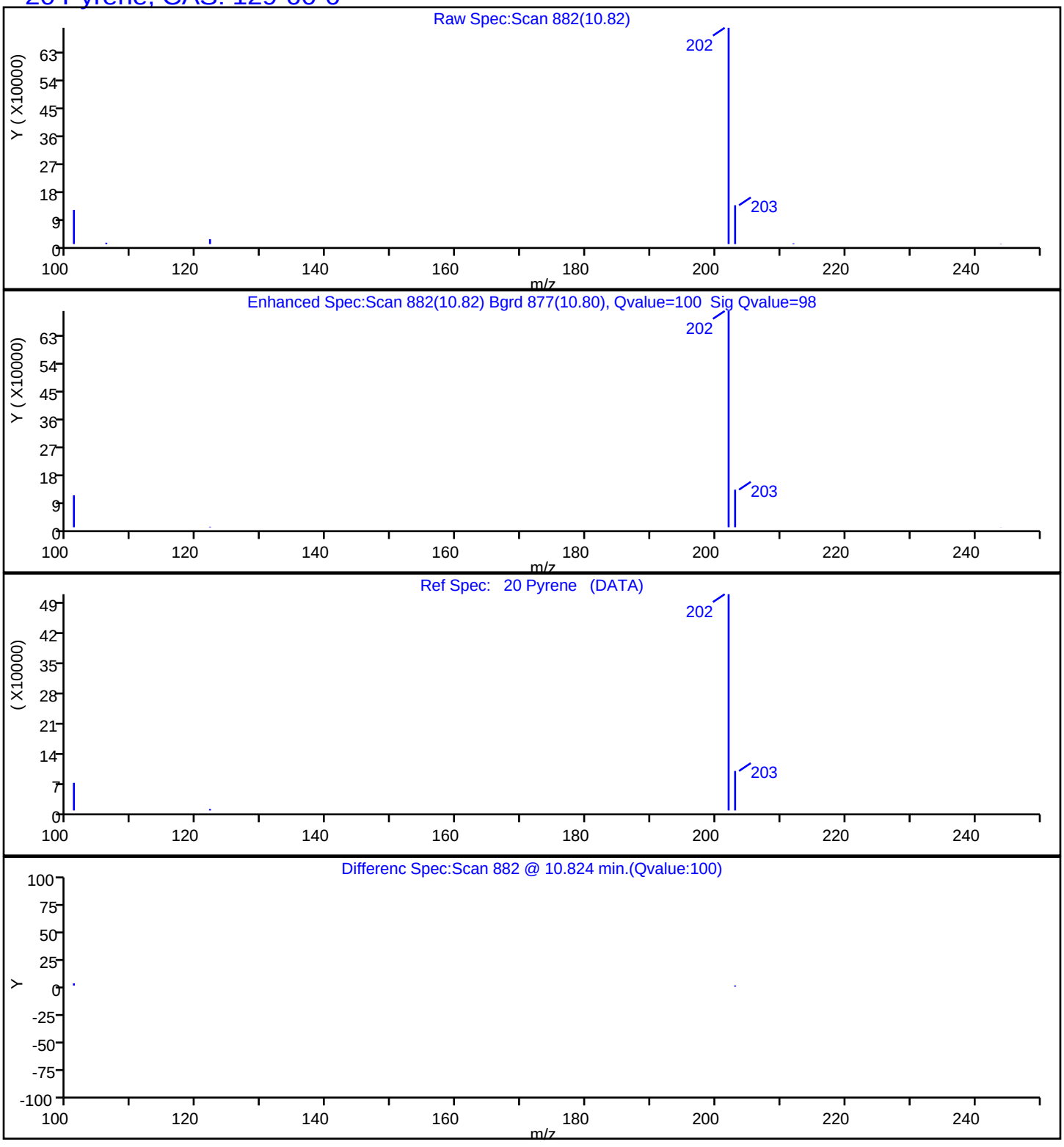


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

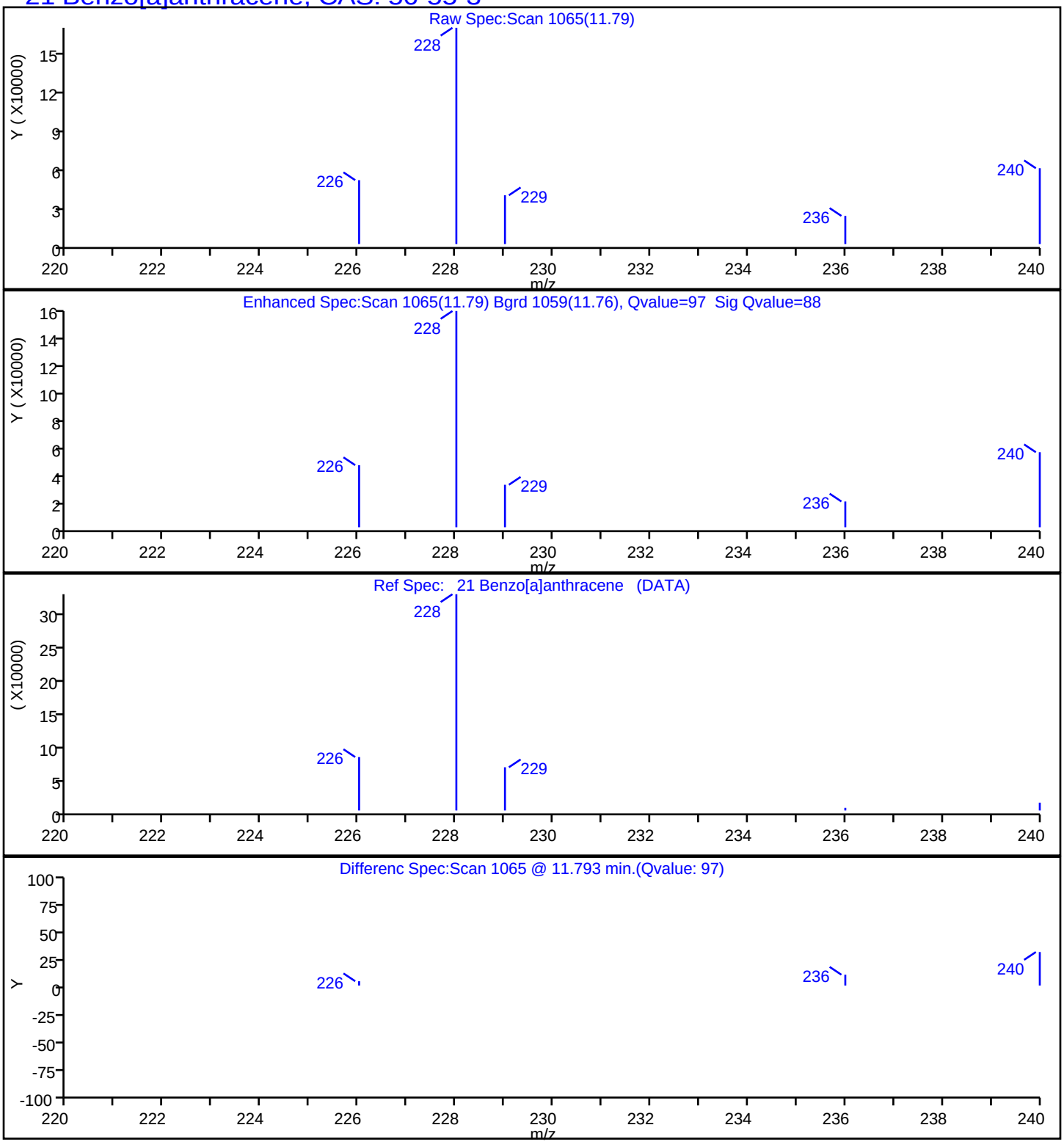


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

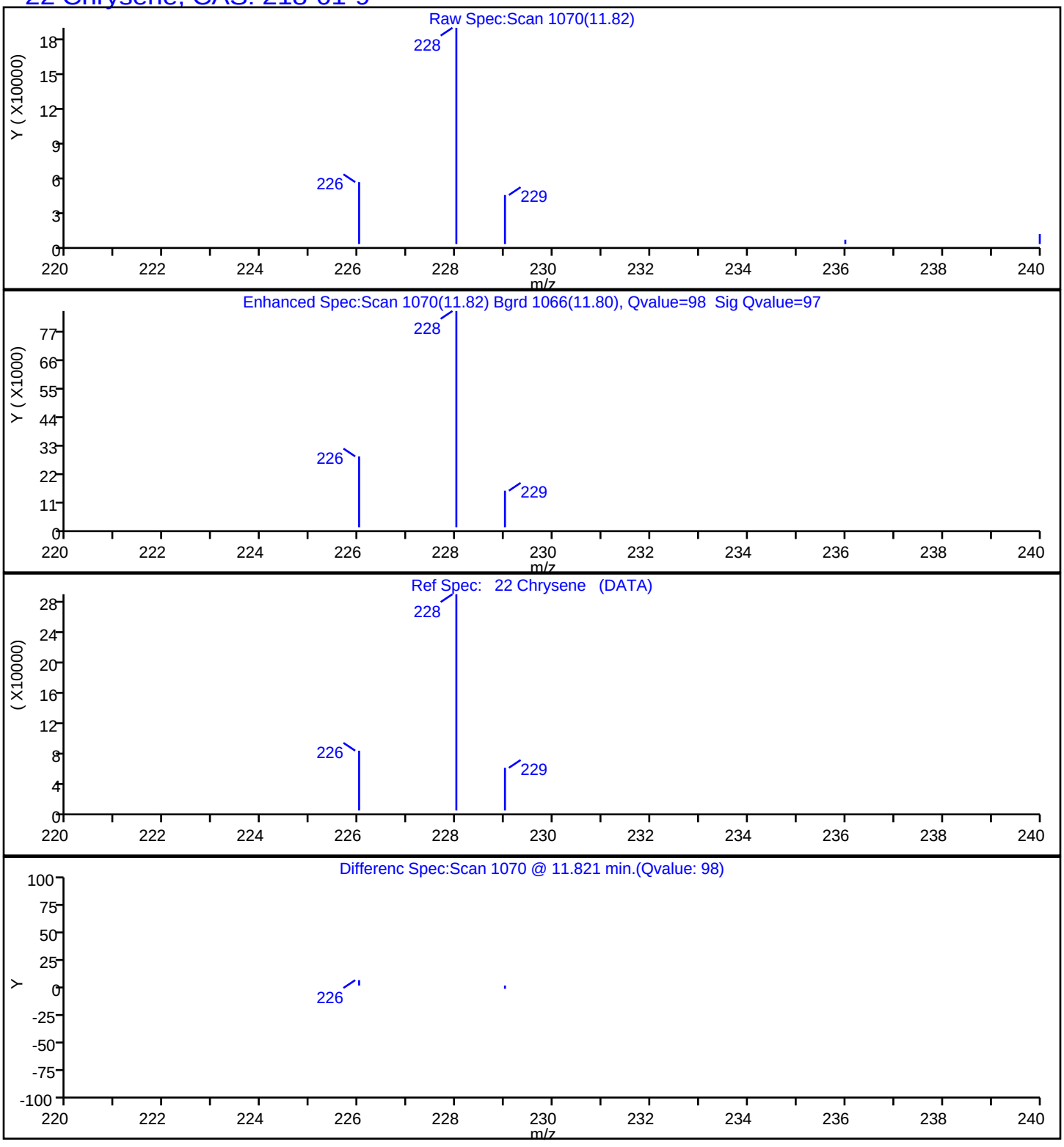


Report Date: 23-Jul-2019 14:50:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

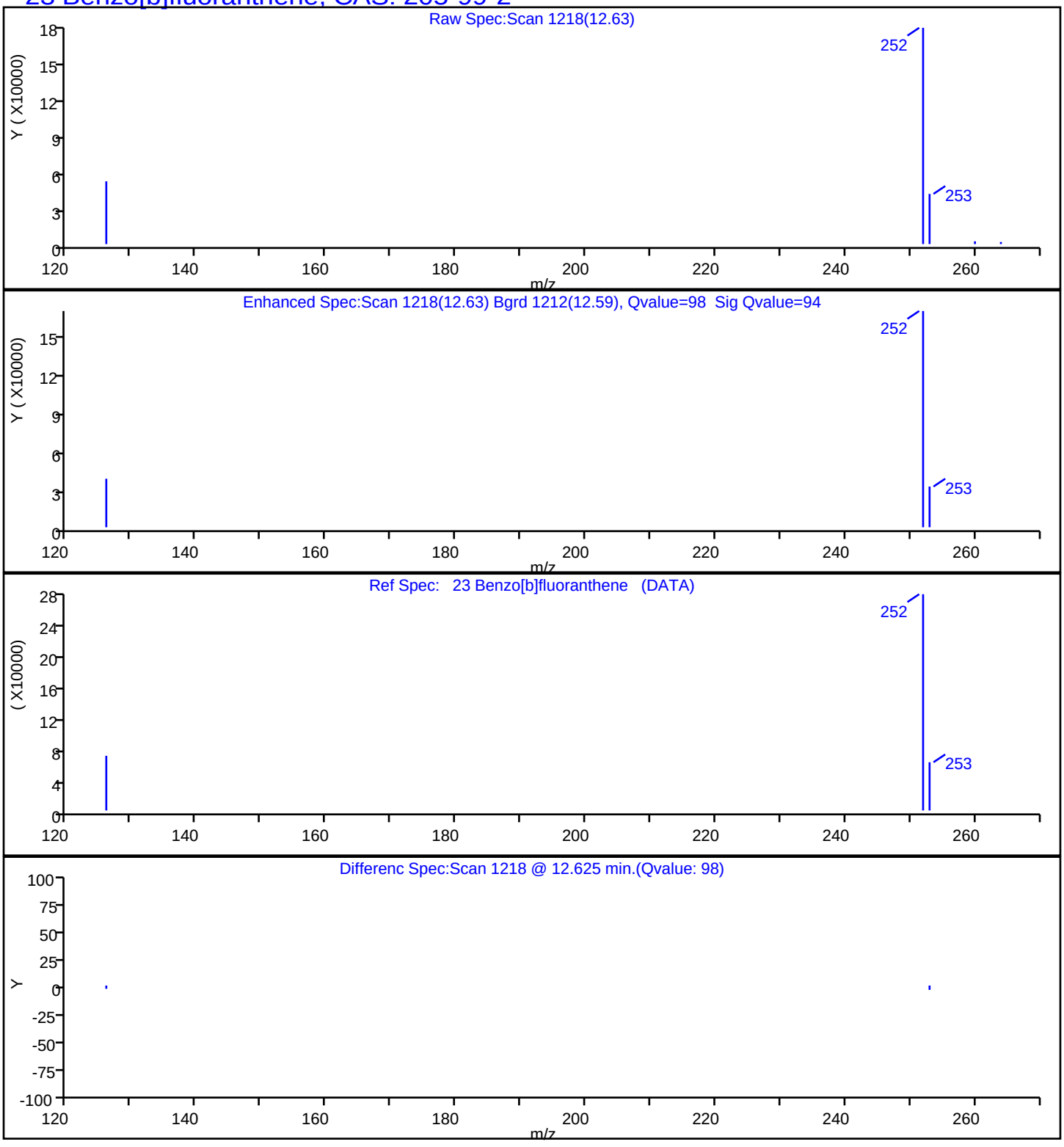


Report Date: 23-Jul-2019 14:50:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

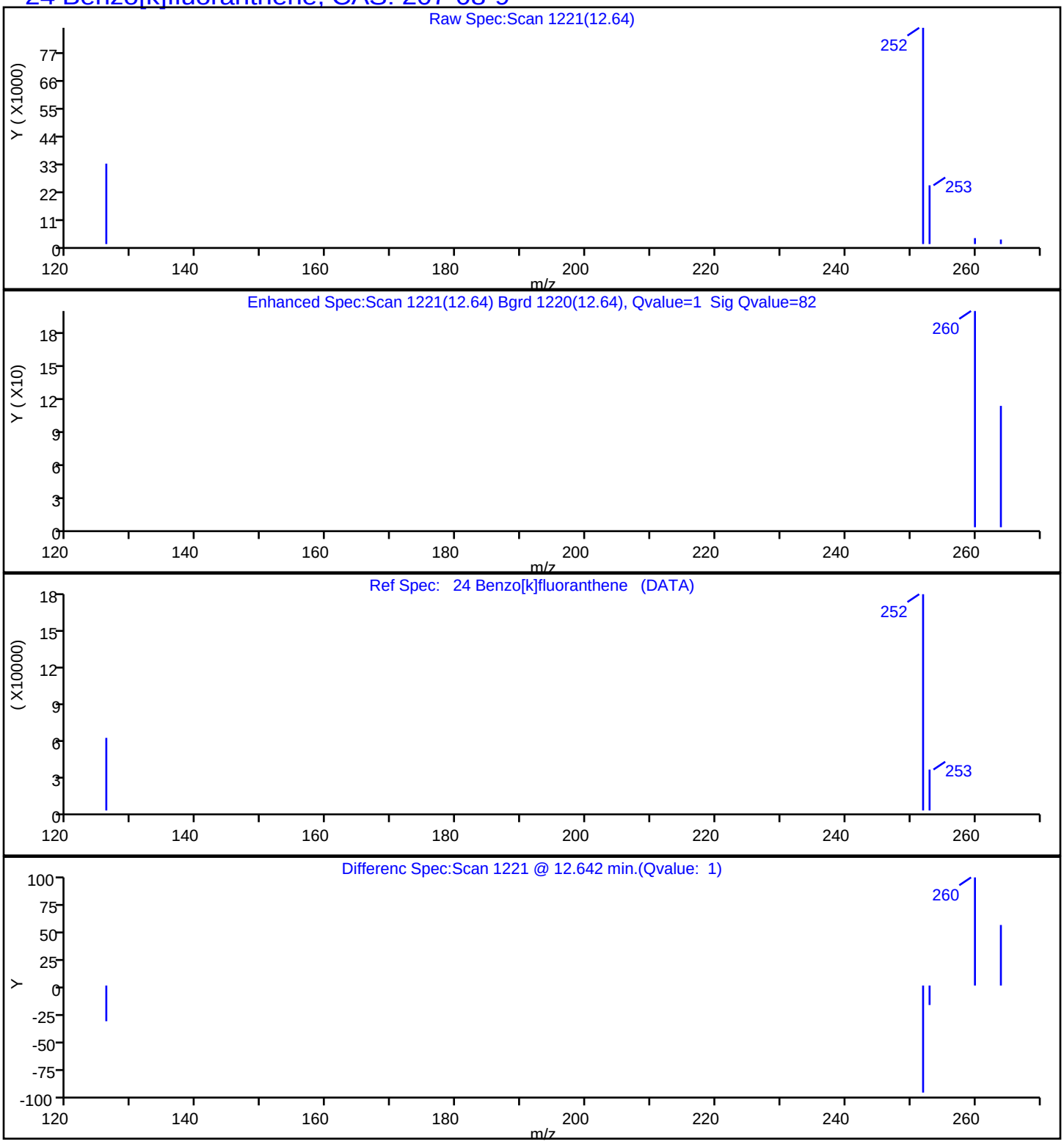


Report Date: 23-Jul-2019 14:50:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

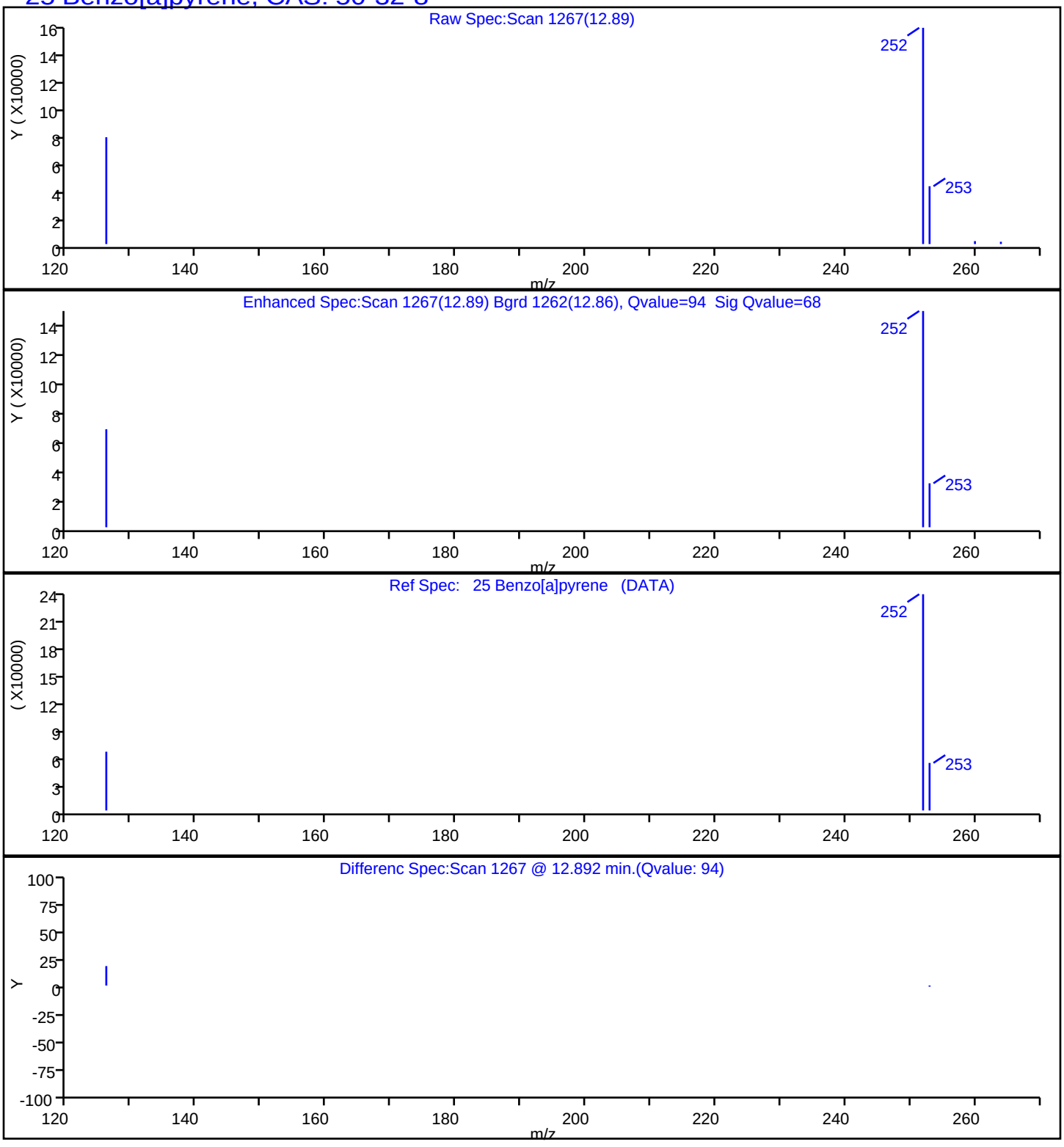


Report Date: 23-Jul-2019 14:50:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

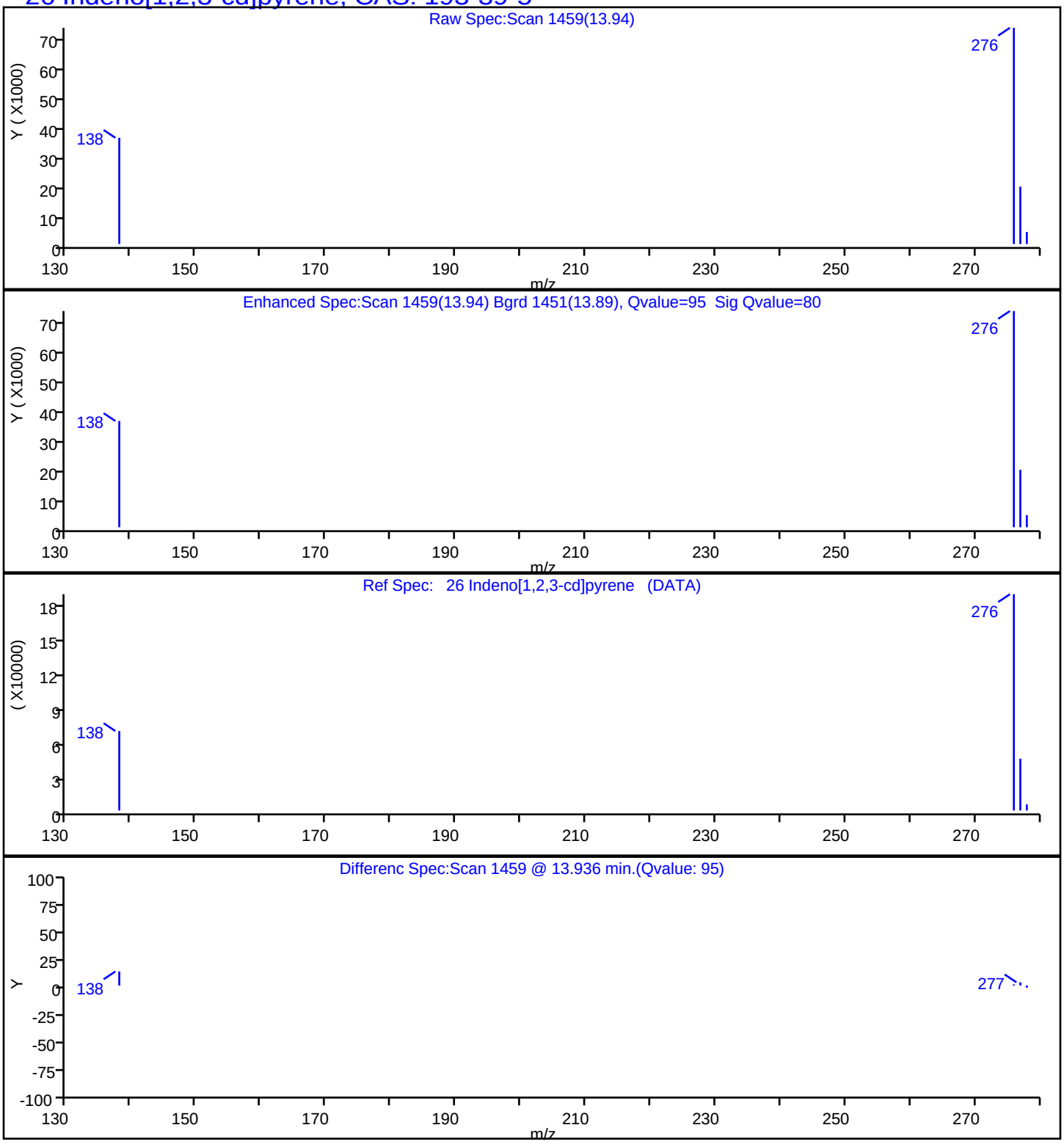


Report Date: 23-Jul-2019 14:50:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

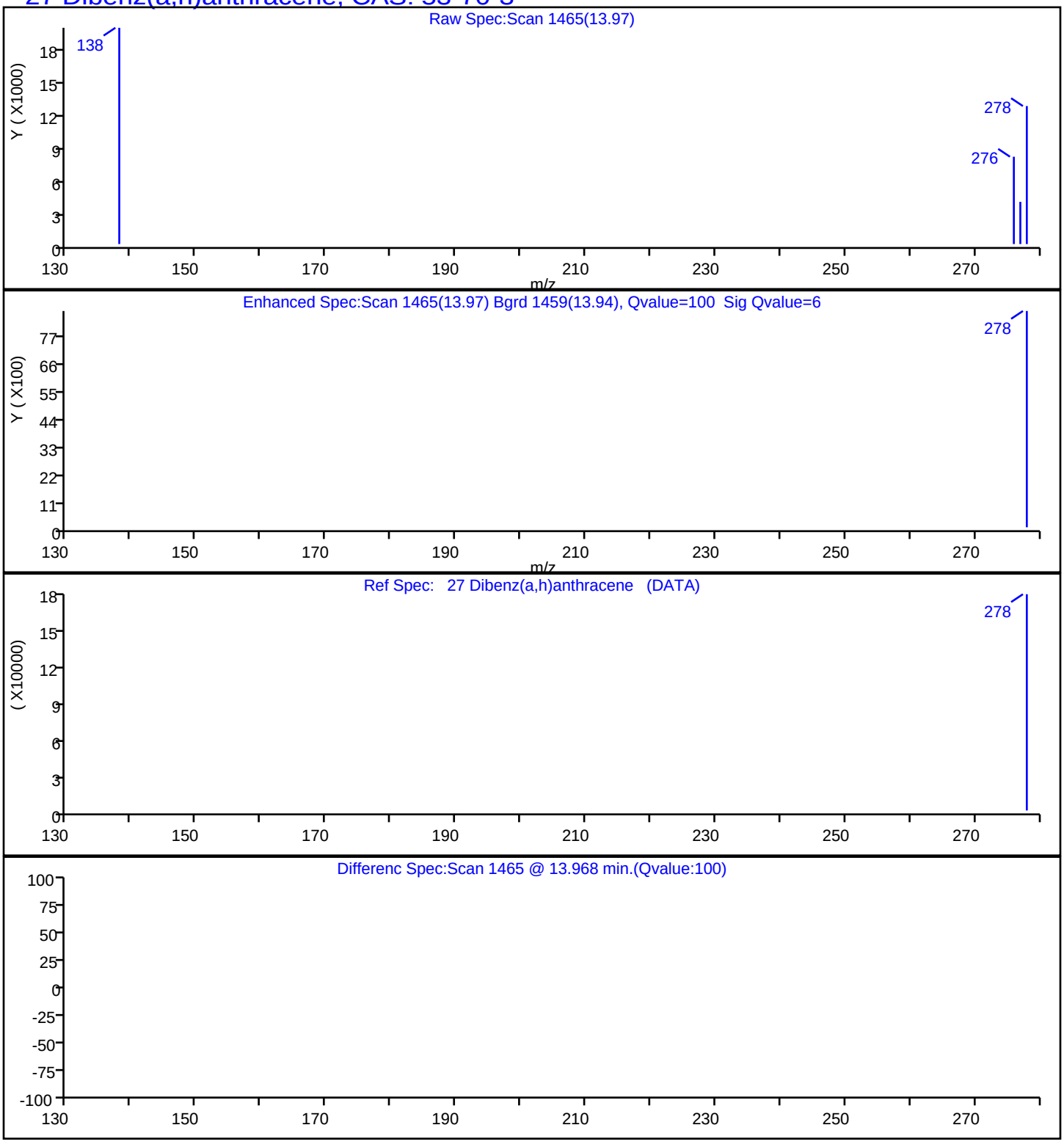


Report Date: 23-Jul-2019 14:50:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

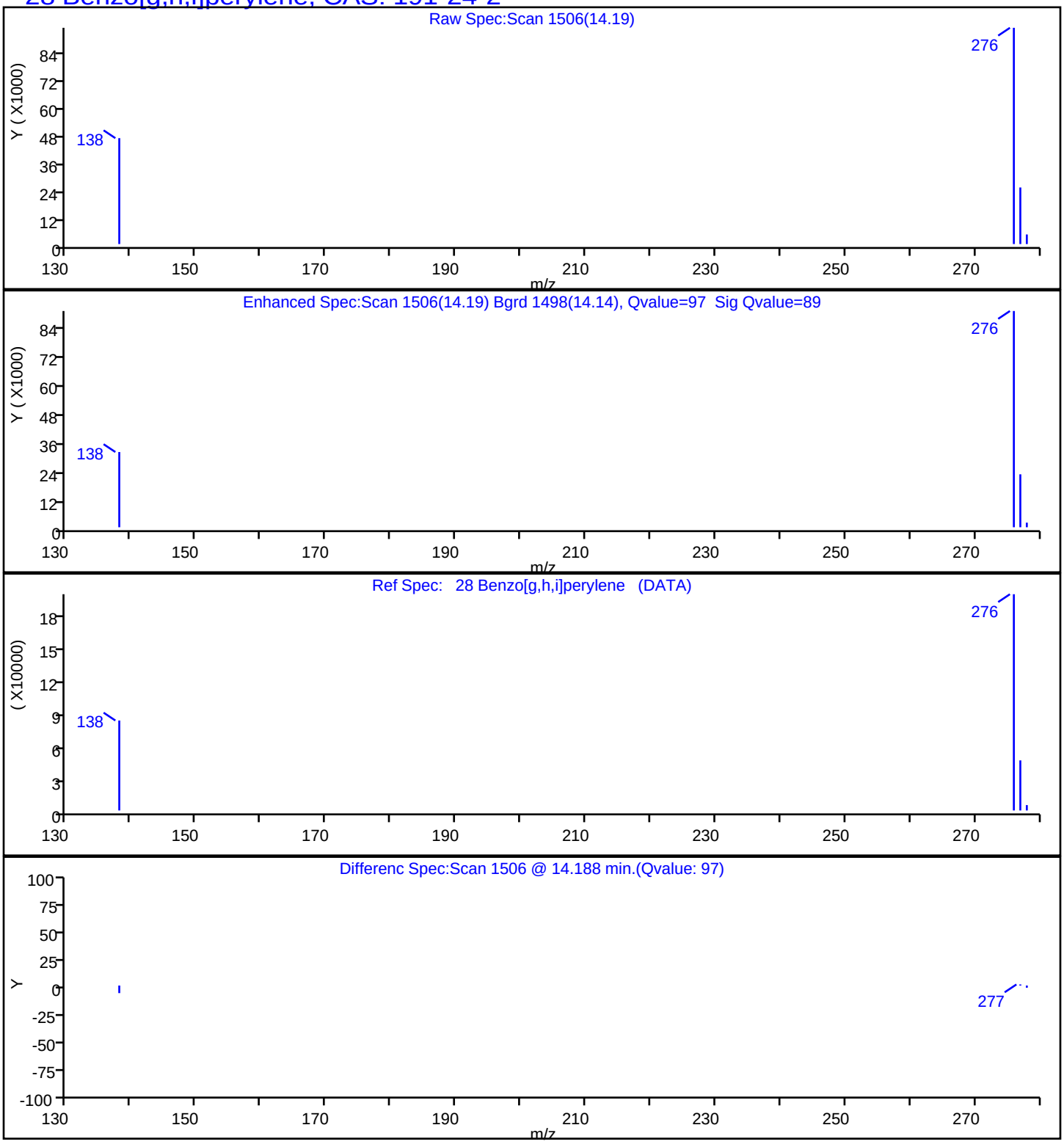


Report Date: 23-Jul-2019 14:50:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

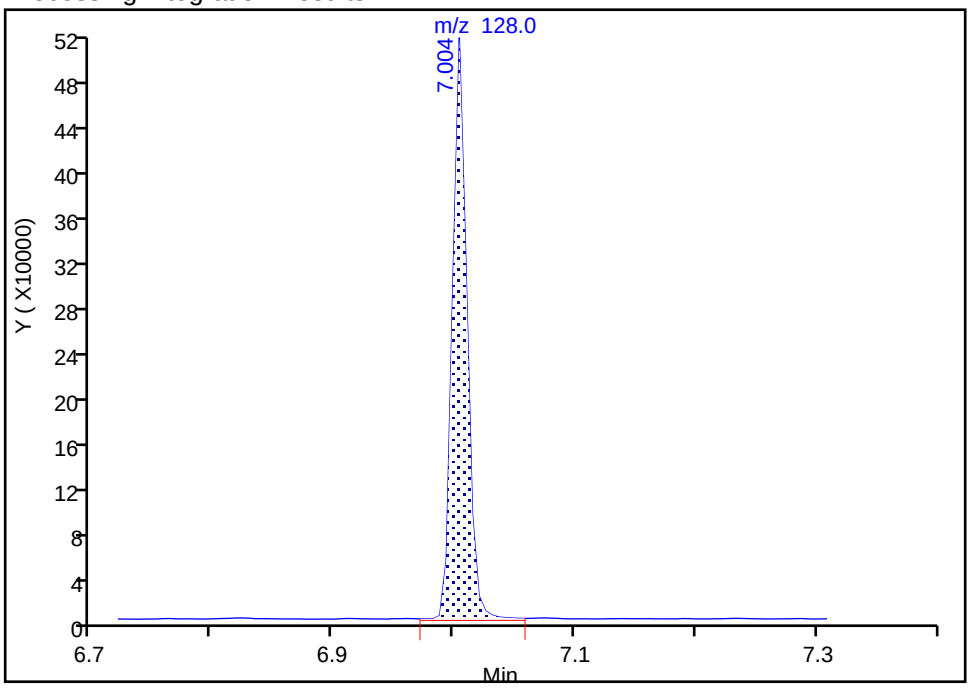
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

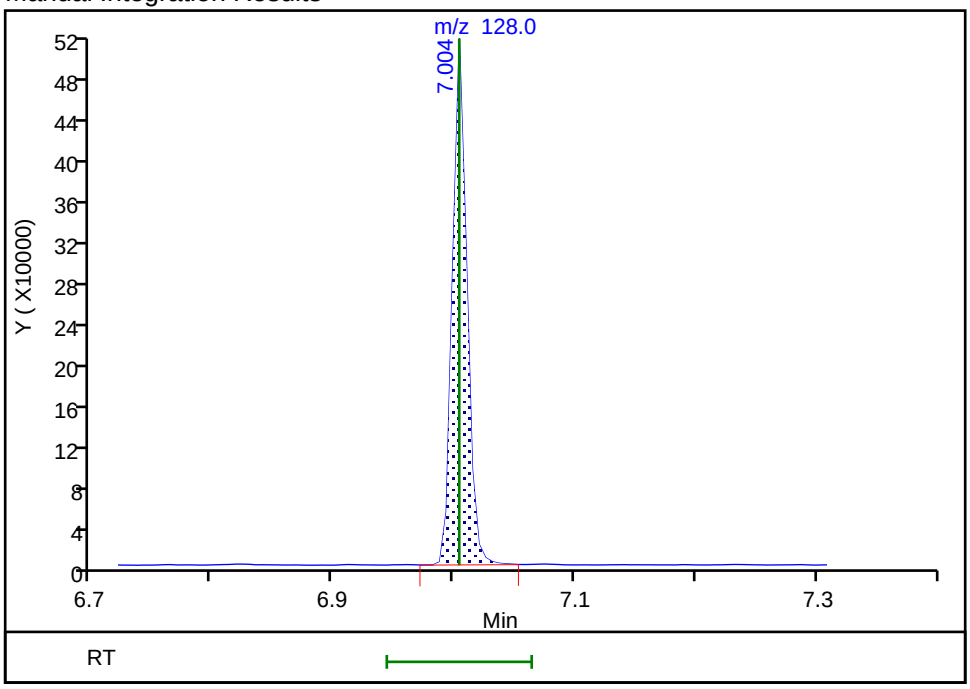
Processing Integration Results

RT: 7.00
Area: 430889
Amount: 113.9767
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 423712
Amount: 112.0783
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:48:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

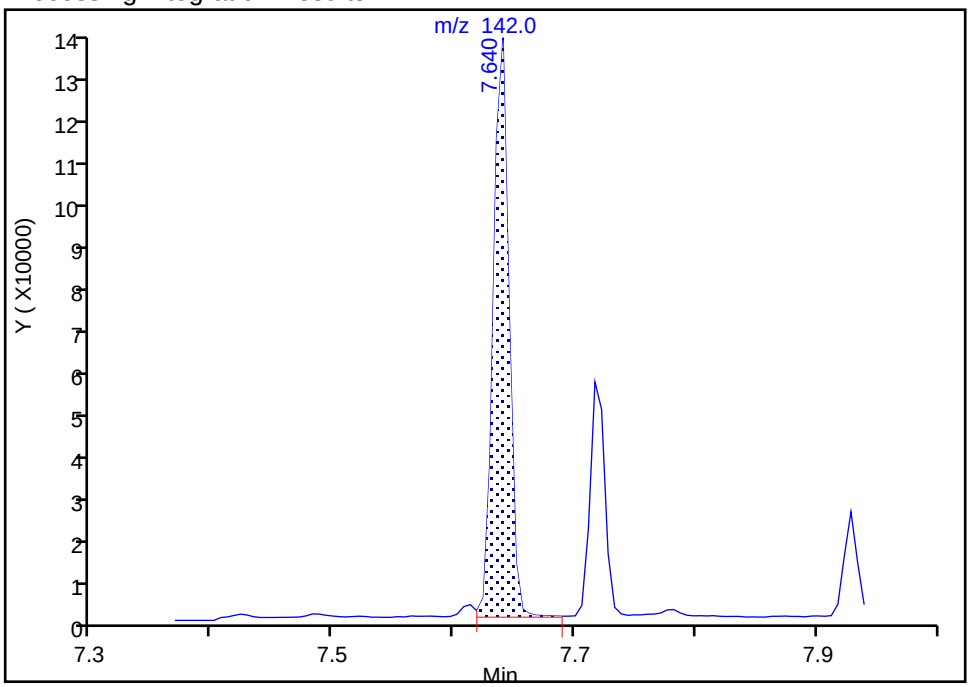
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

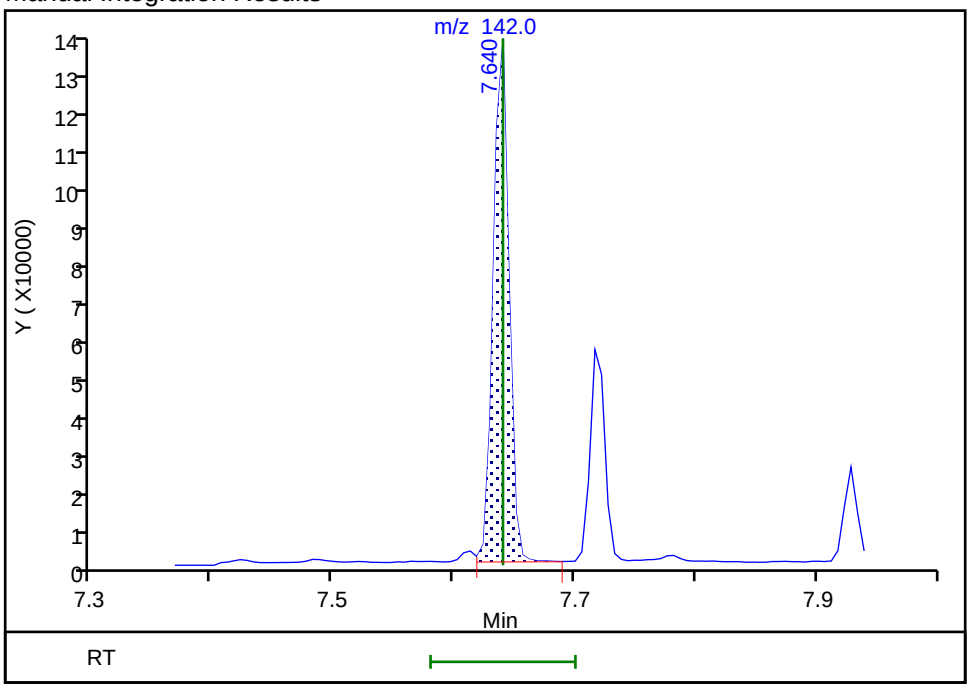
Processing Integration Results

RT: 7.64
Area: 122842
Amount: 49.548744
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 122343
Amount: 49.347470
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:48:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

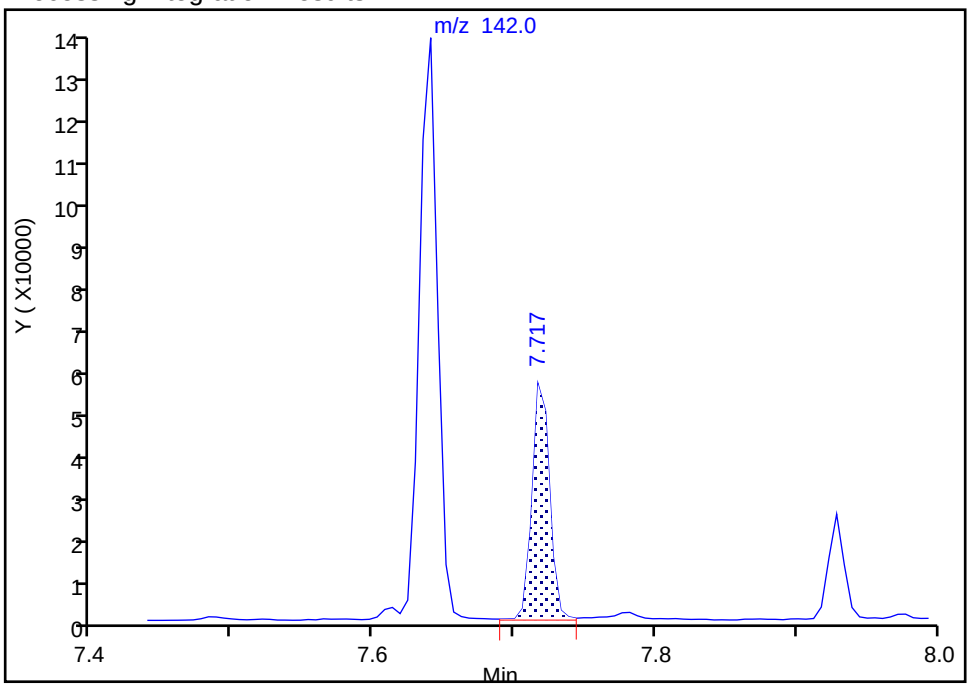
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

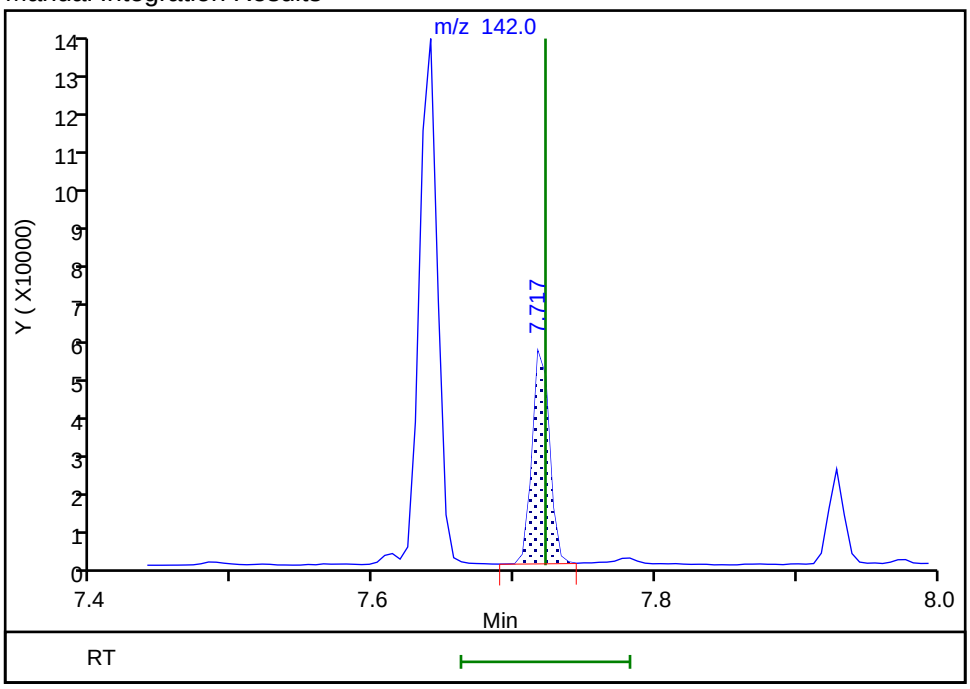
Processing Integration Results

RT: 7.72
Area: 47911
Amount: 20.698824
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 46996
Amount: 20.303519
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:48:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

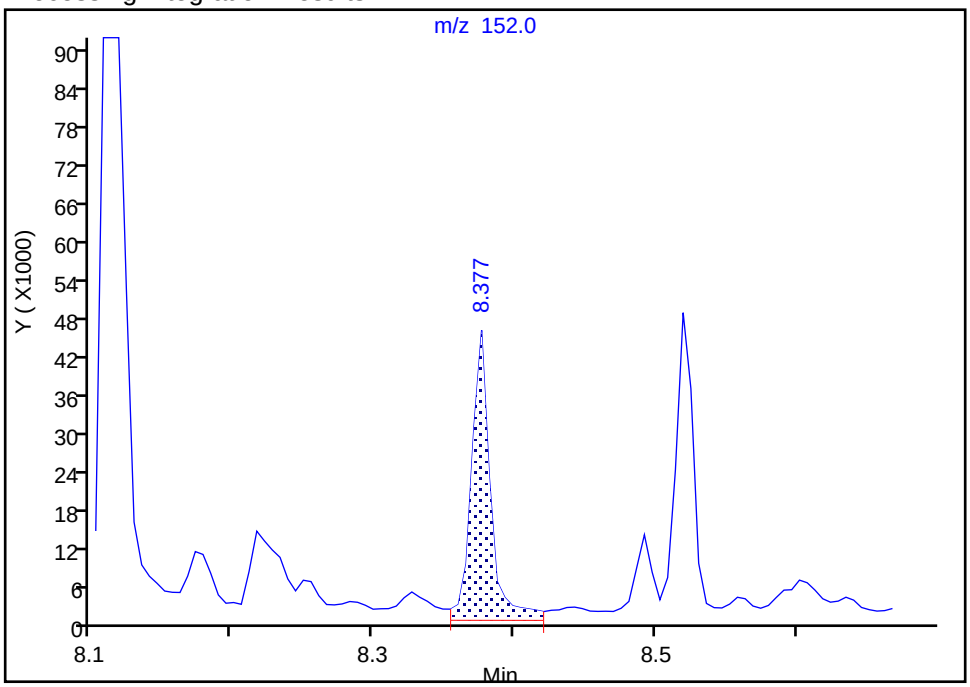
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

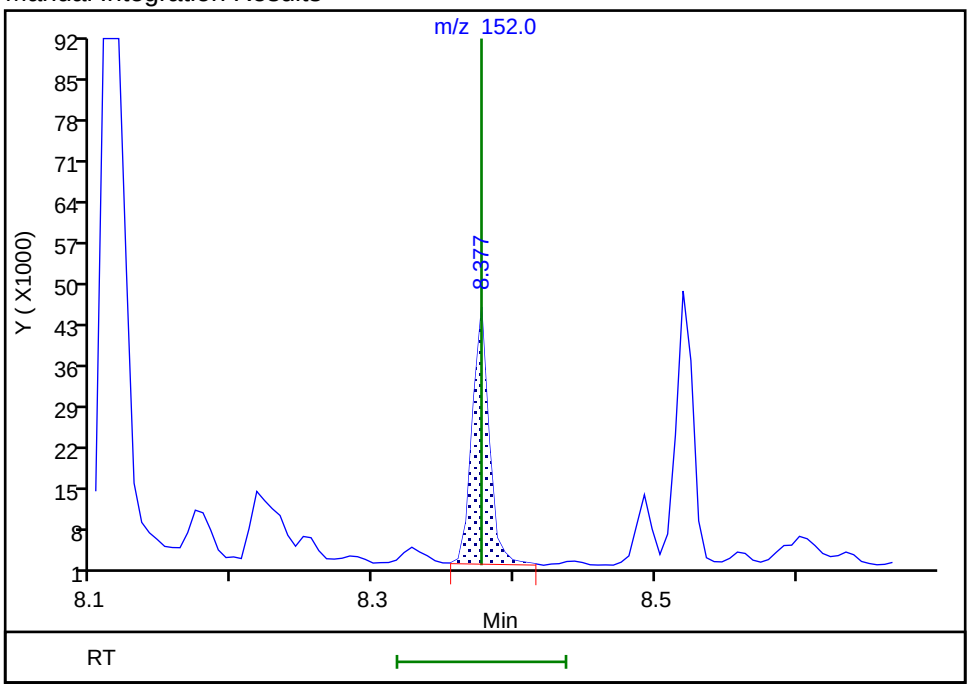
Processing Integration Results

RT: 8.38
Area: 42119
Amount: 11.344100
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 36152
Amount: 9.736981
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:48:57

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

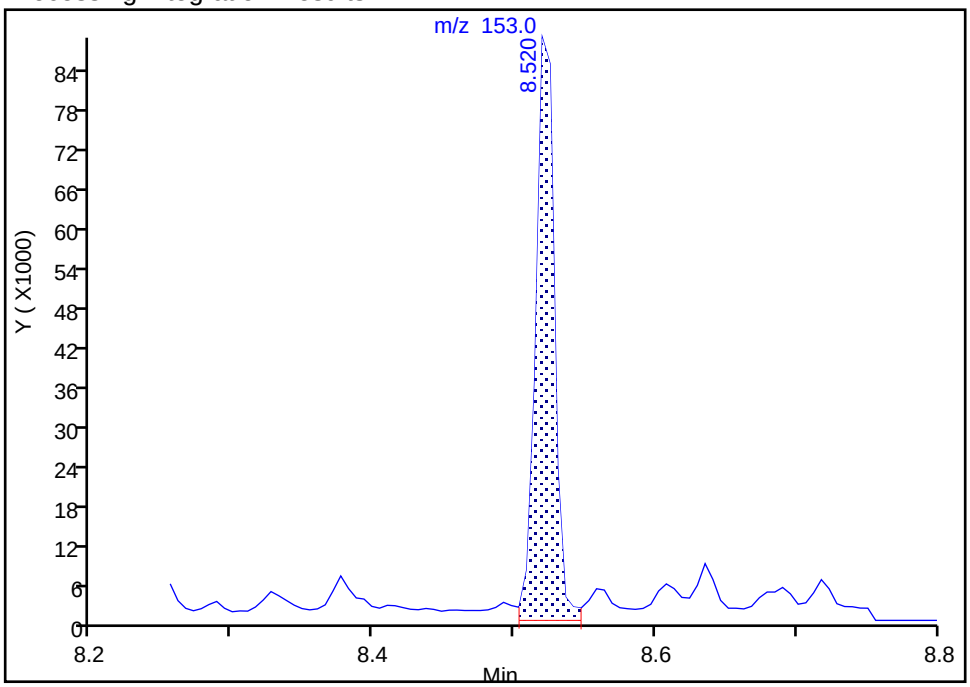
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

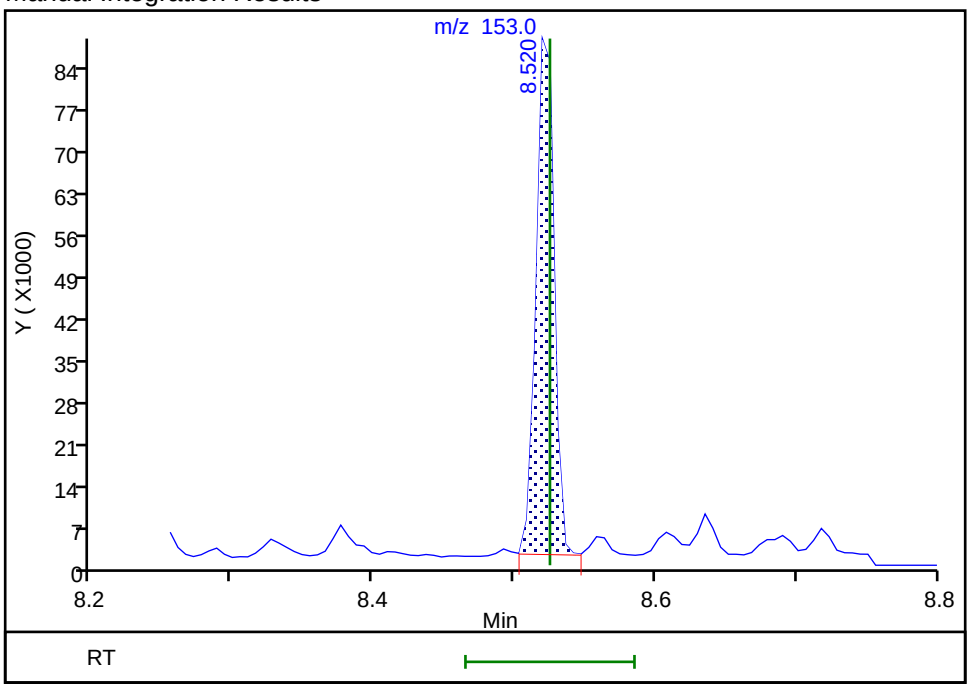
Processing Integration Results

RT: 8.52
Area: 81921
Amount: 30.392749
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 77199
Amount: 28.640884
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:03

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

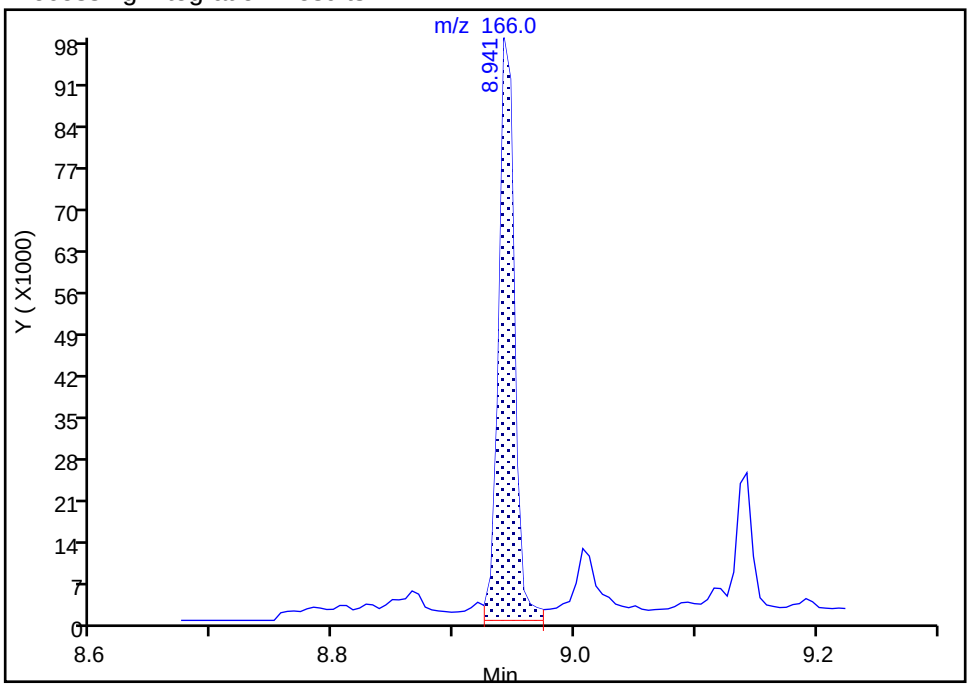
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

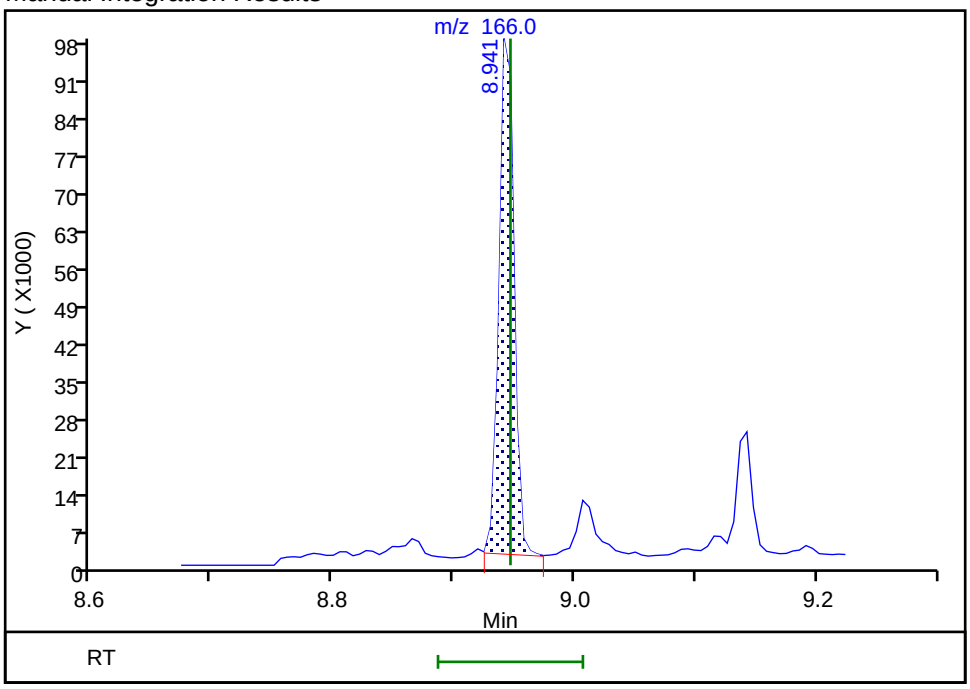
Processing Integration Results

RT: 8.94
Area: 88681
Amount: 32.857455
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 82882
Amount: 30.708851
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

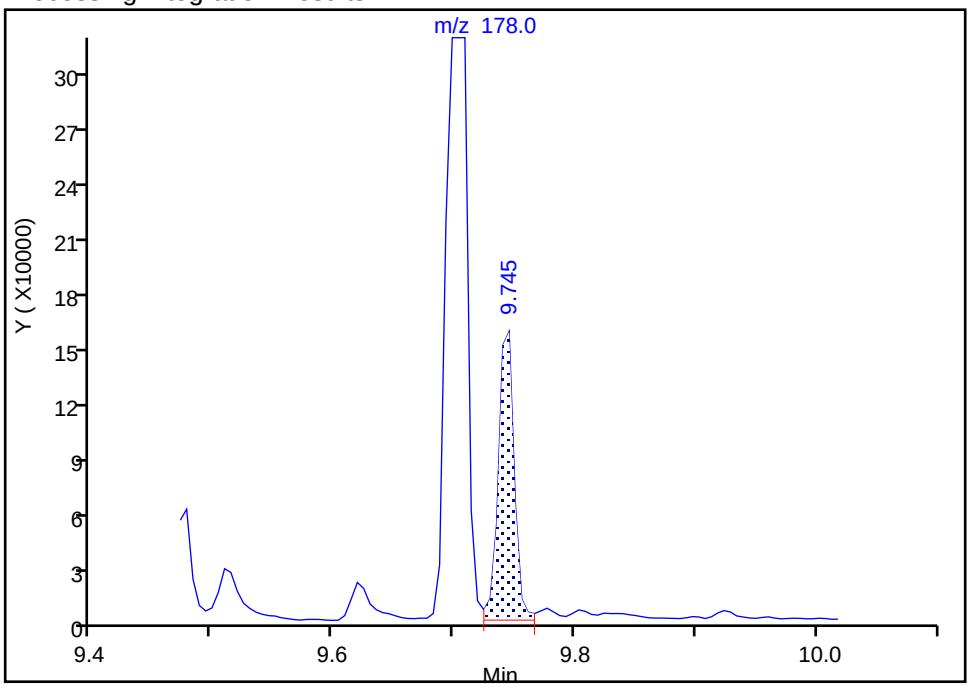
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

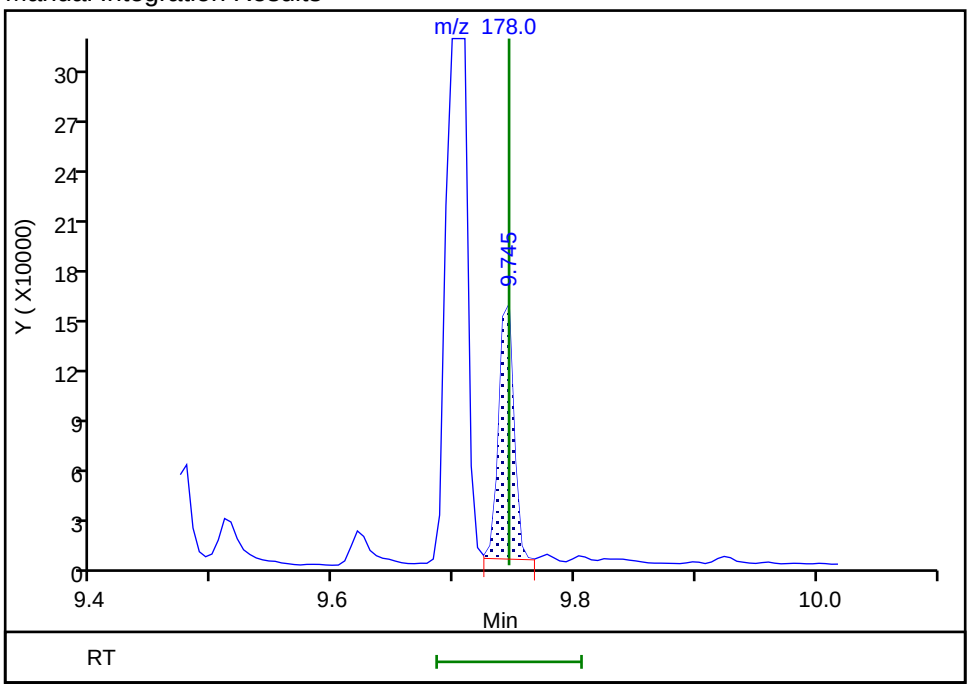
Processing Integration Results

RT: 9.75
Area: 139326
Amount: 37.125517
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 130607
Amount: 34.802208
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:18

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

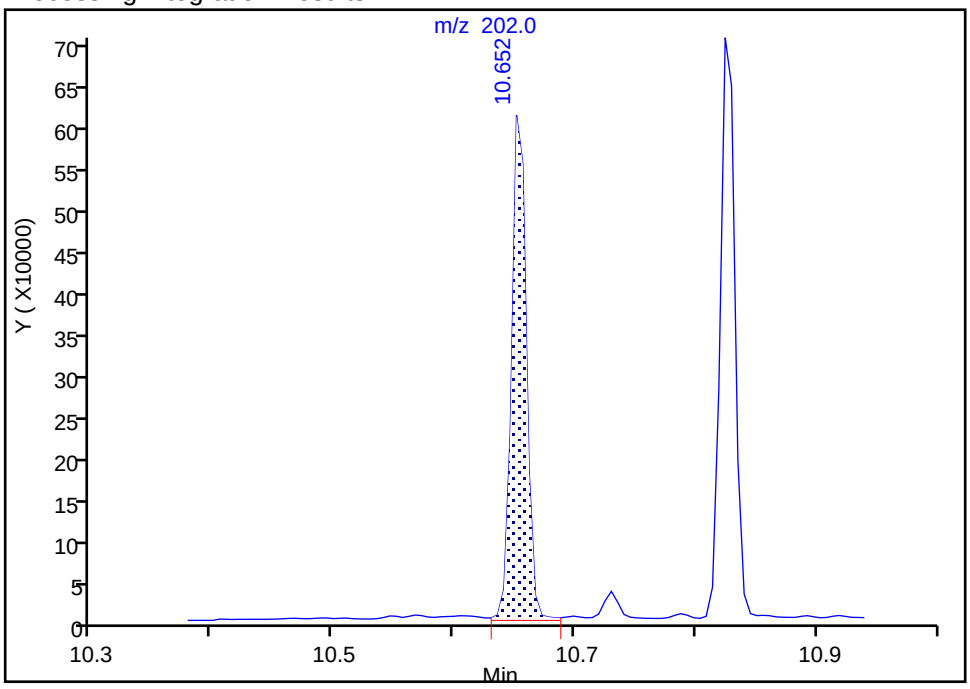
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

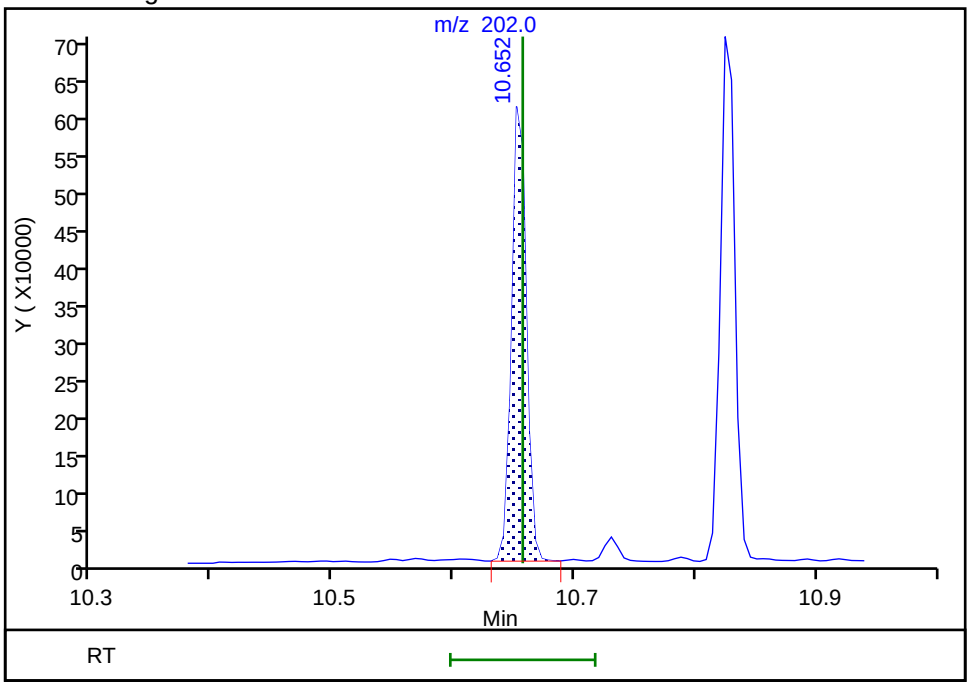
Processing Integration Results

RT: 10.65
Area: 524831
Amount: 137.2376
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 515022
Amount: 134.6726
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

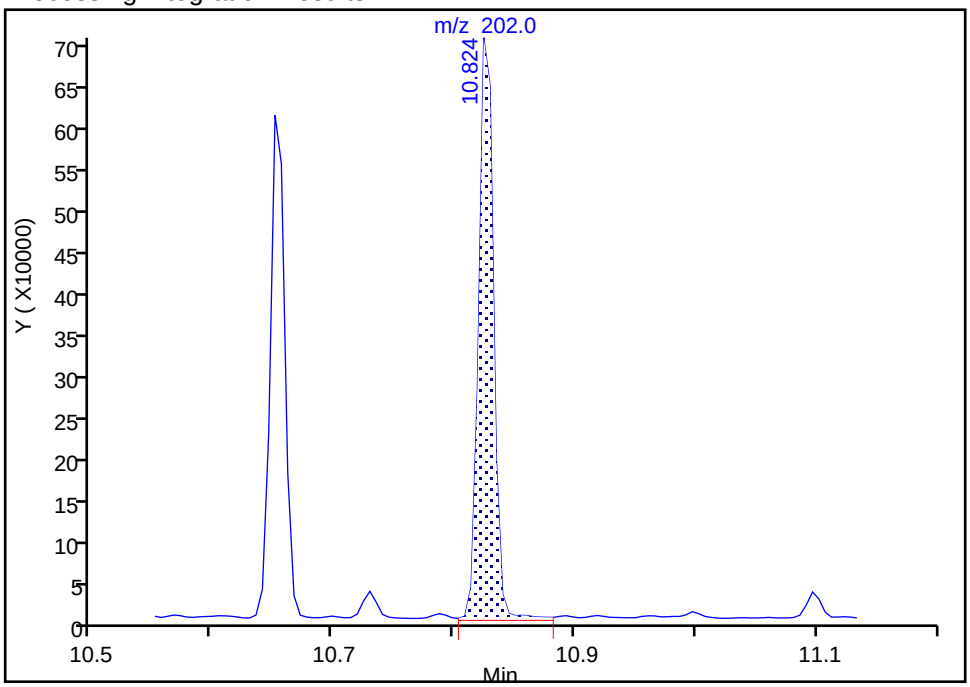
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

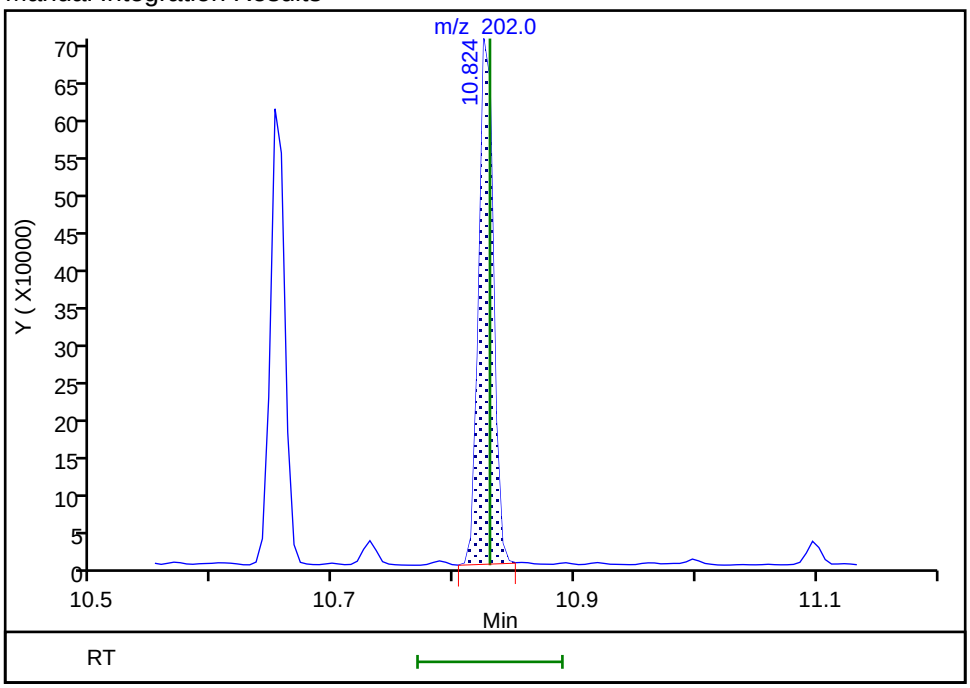
Processing Integration Results

RT: 10.82
Area: 614901
Amount: 152.6662
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 595445
Amount: 147.8357
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

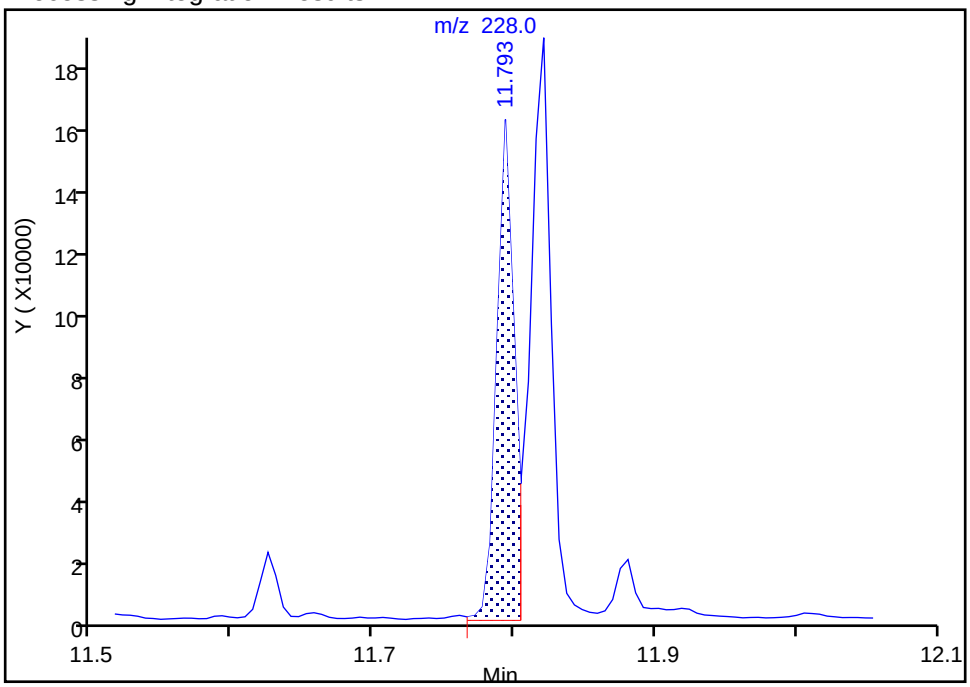
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

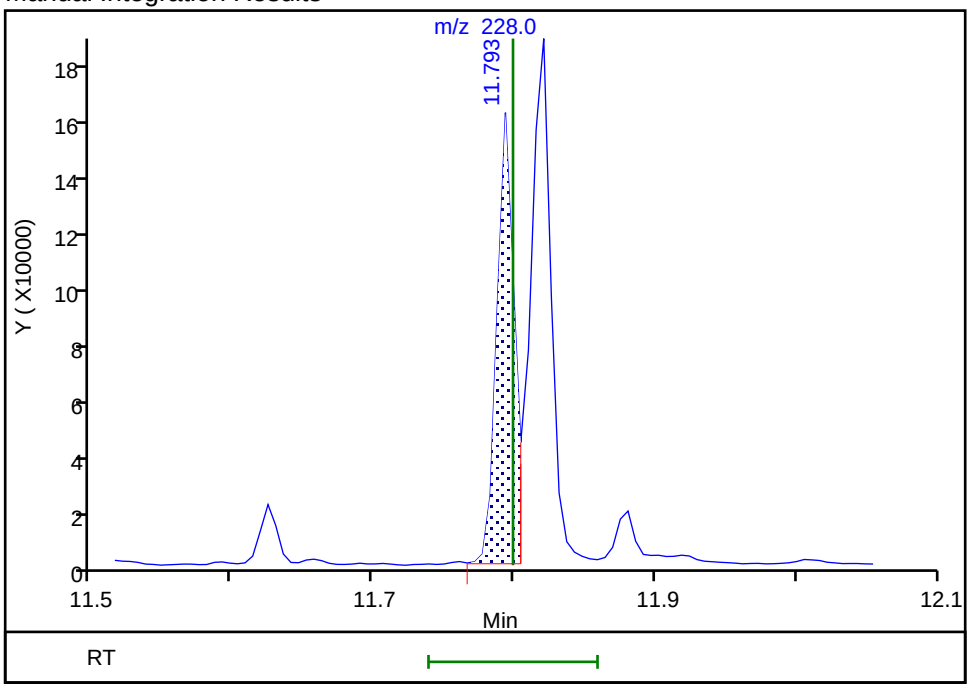
Processing Integration Results

RT: 11.79
Area: 133211
Amount: 51.379667
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 131324
Amount: 50.651848
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:43

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

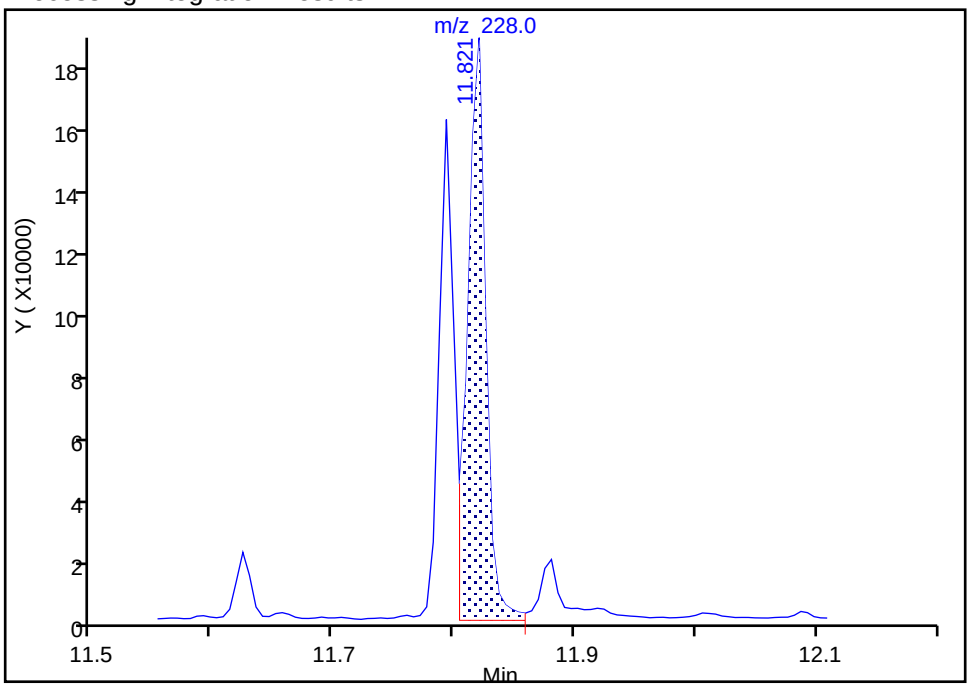
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

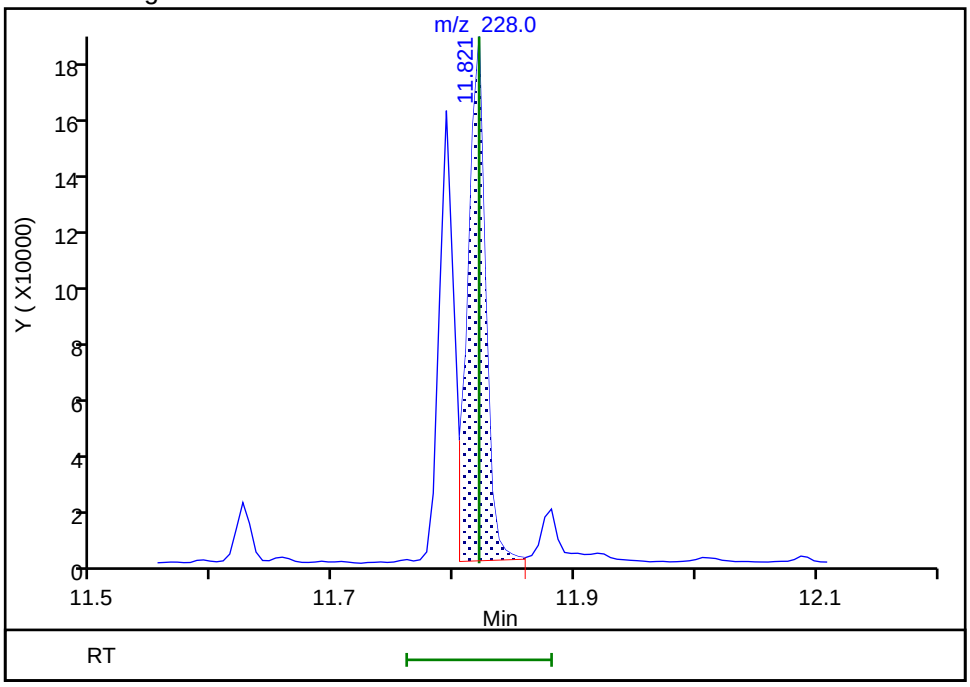
Processing Integration Results

RT: 11.82
Area: 187907
Amount: 54.499286
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 183558
Amount: 53.237931
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

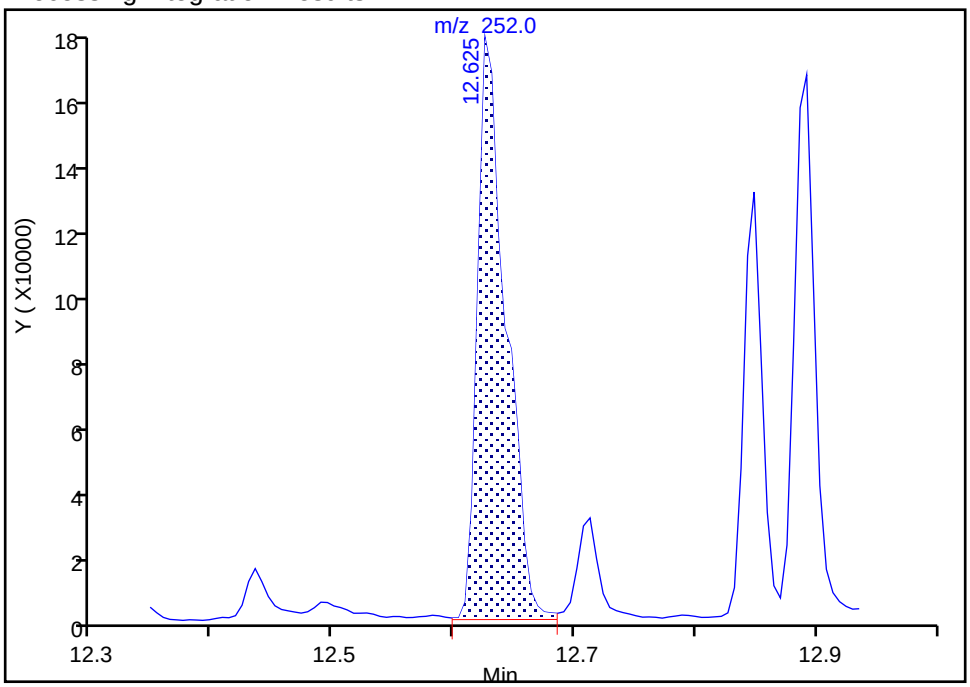
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

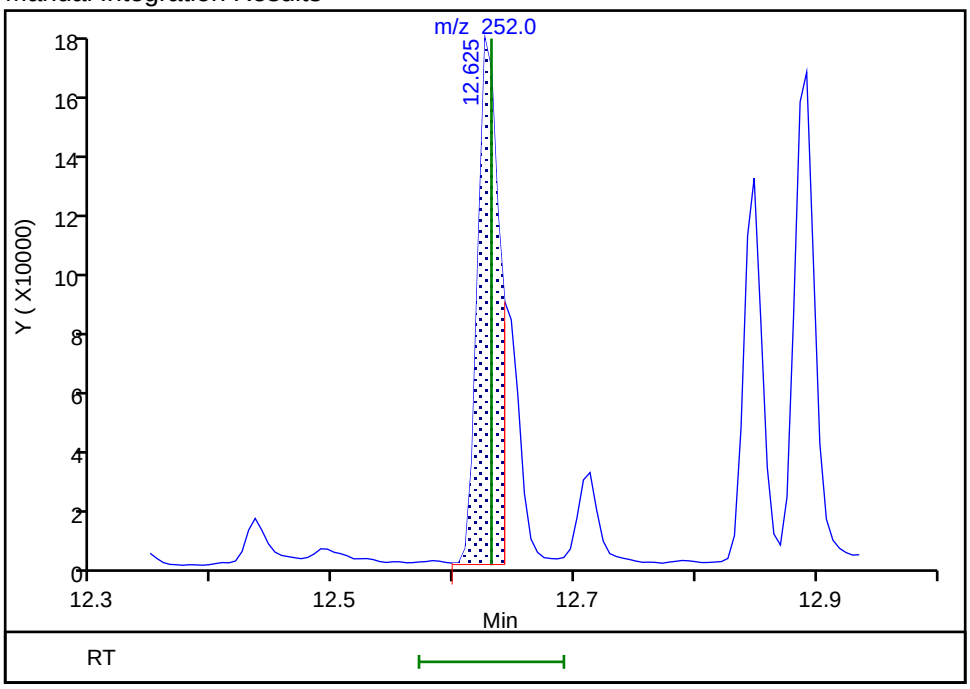
Processing Integration Results

RT: 12.63
Area: 272182
Amount: 79.041092
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 202505
Amount: 58.807035
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:49:55

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

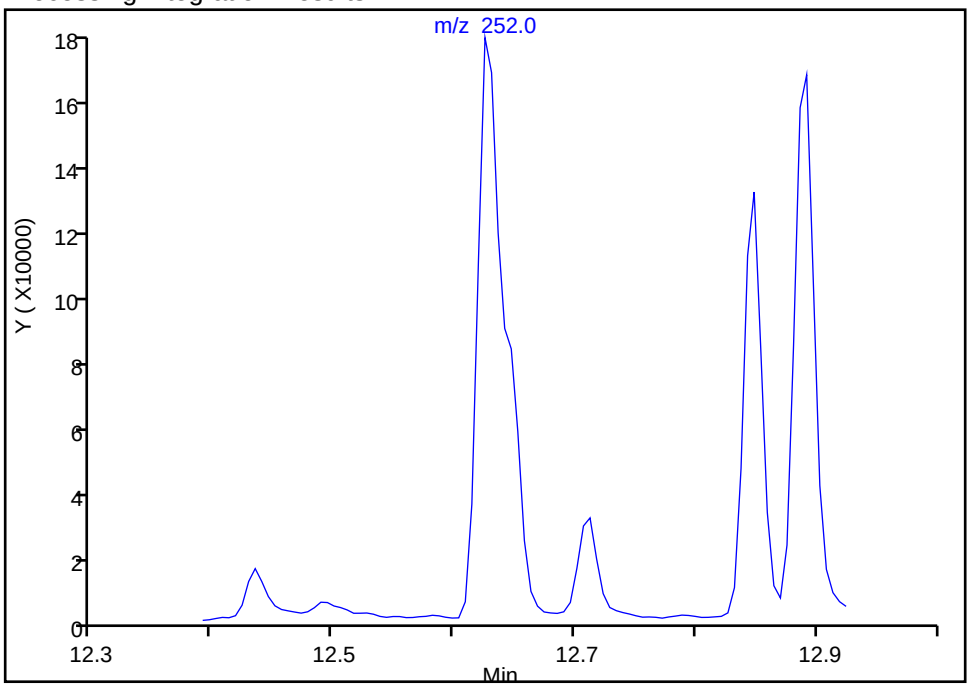
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

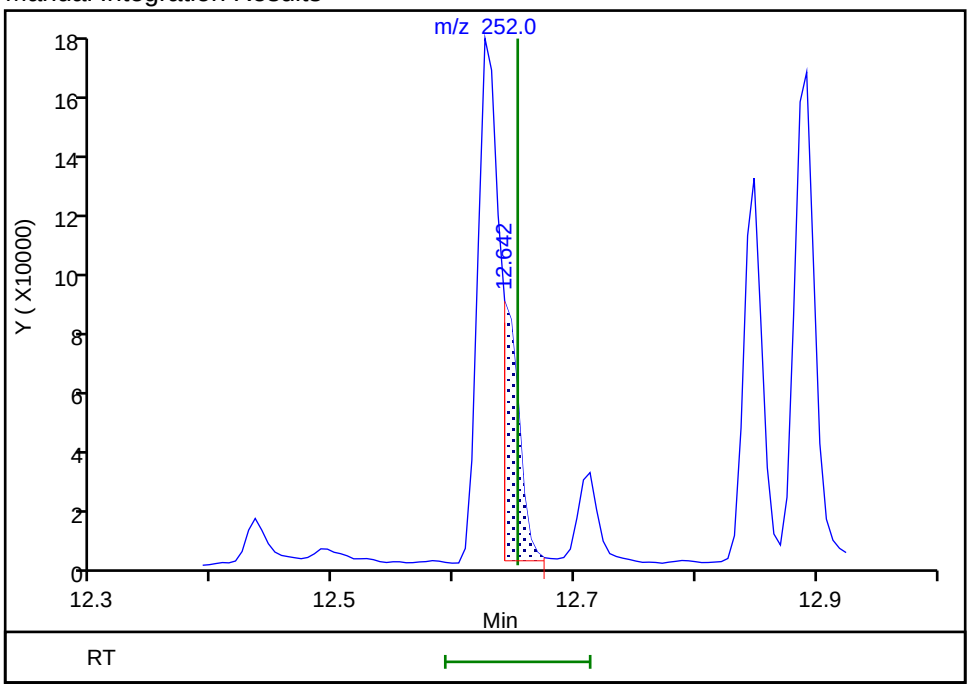
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 66116
Amount: 15.693364
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:50:05
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

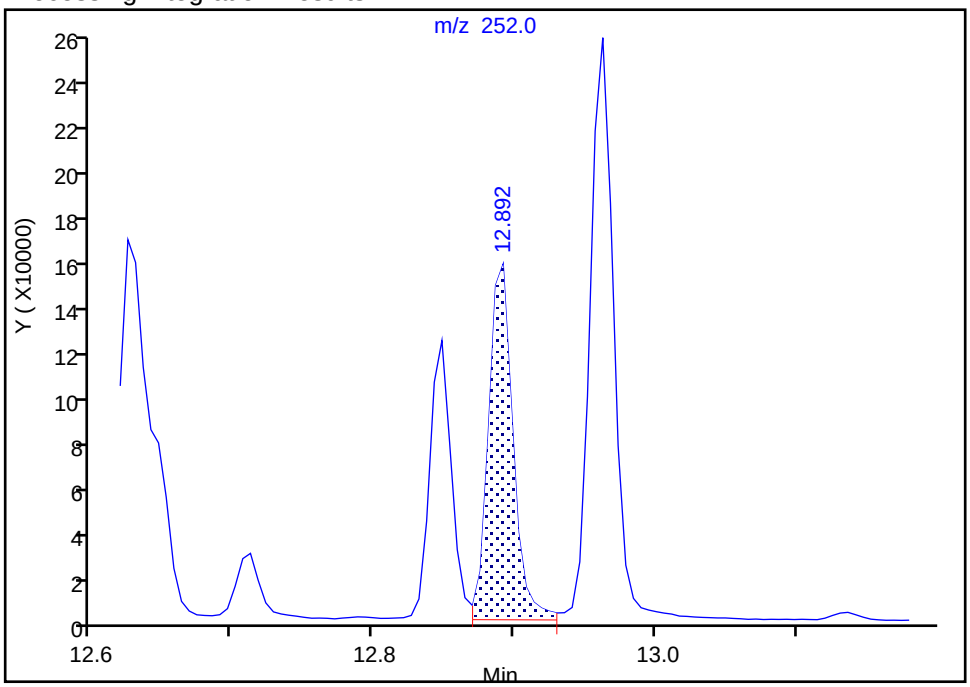
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

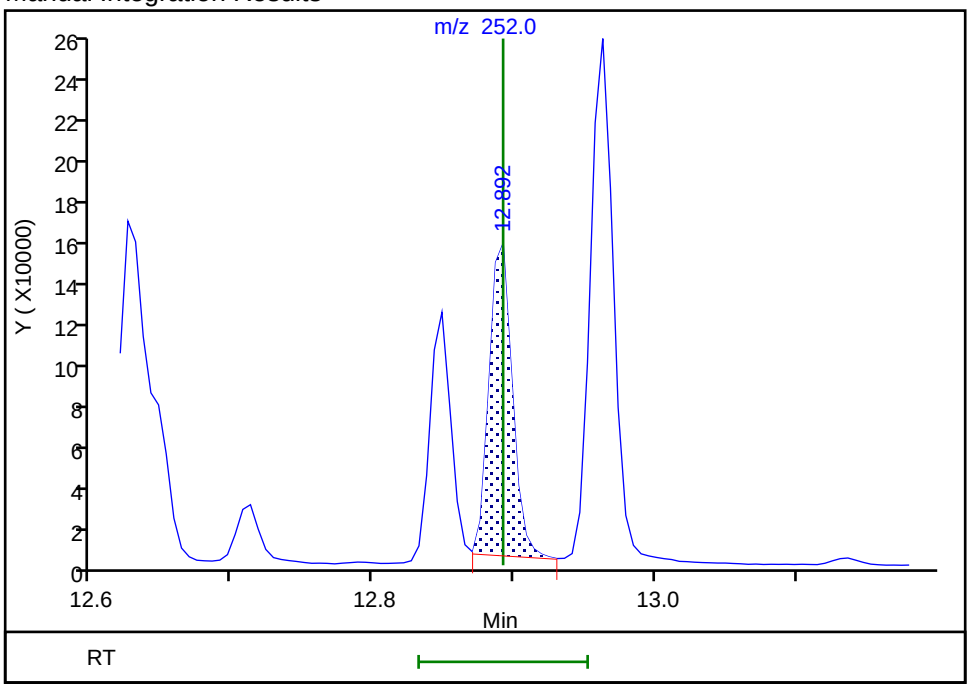
Processing Integration Results

RT: 12.89
Area: 188281
Amount: 53.972976
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 174073
Amount: 49.900085
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:50:11

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

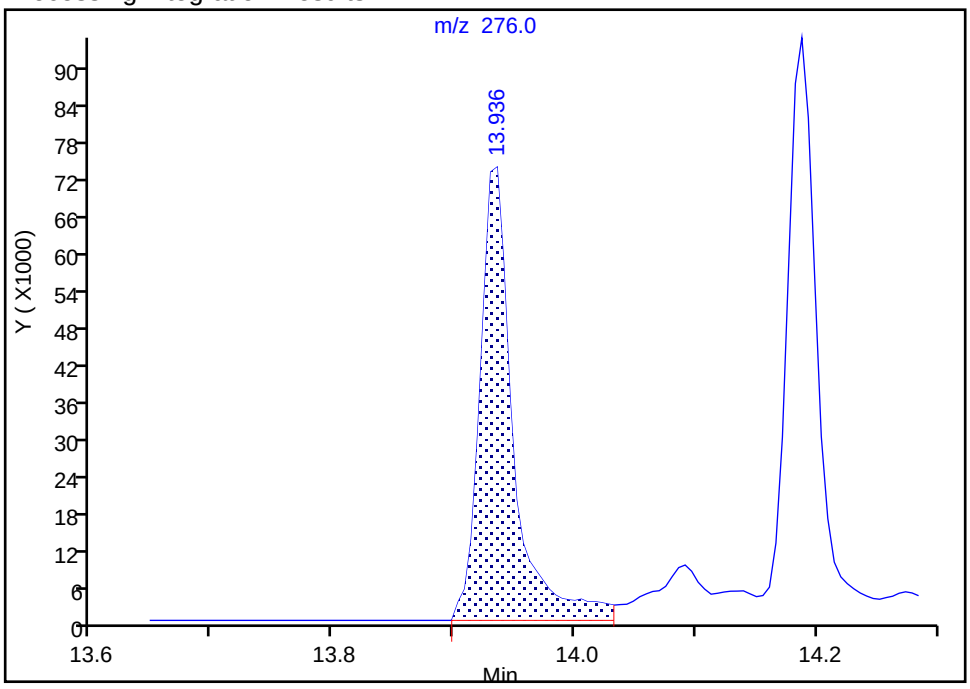
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

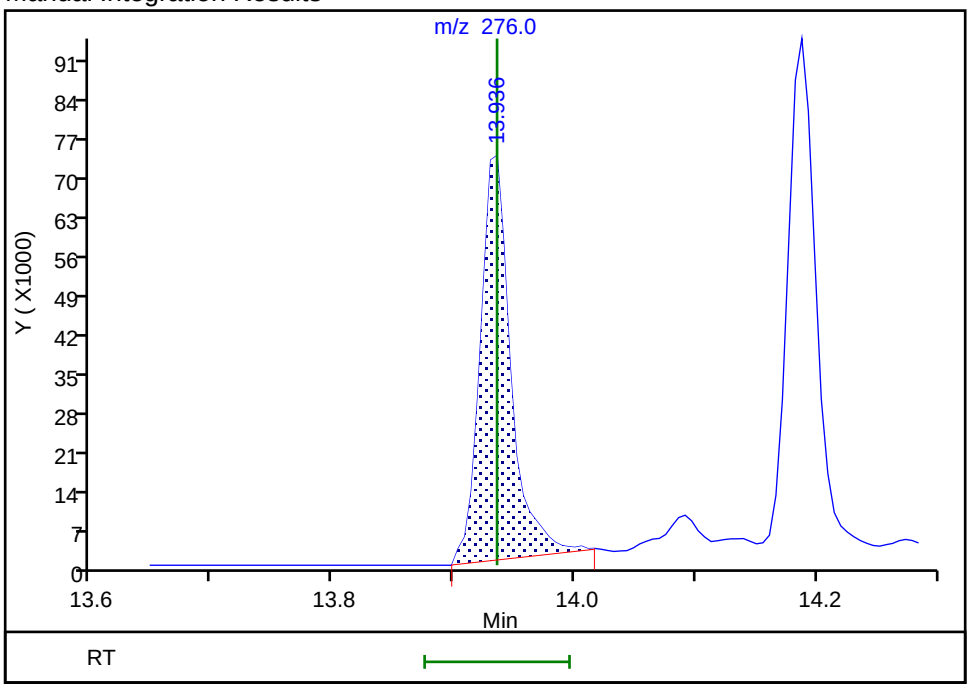
Processing Integration Results

RT: 13.94
Area: 140502
Amount: 52.808580
Amount Units: ug/L



Manual Integration Results

RT: 13.94
Area: 127515
Amount: 47.952130
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:50:16

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

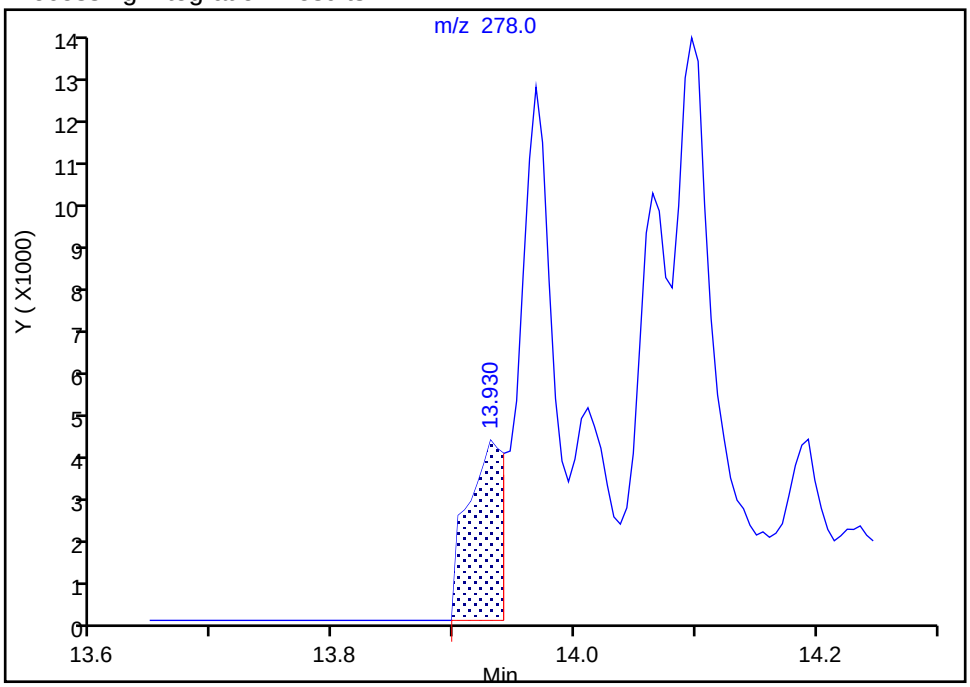
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

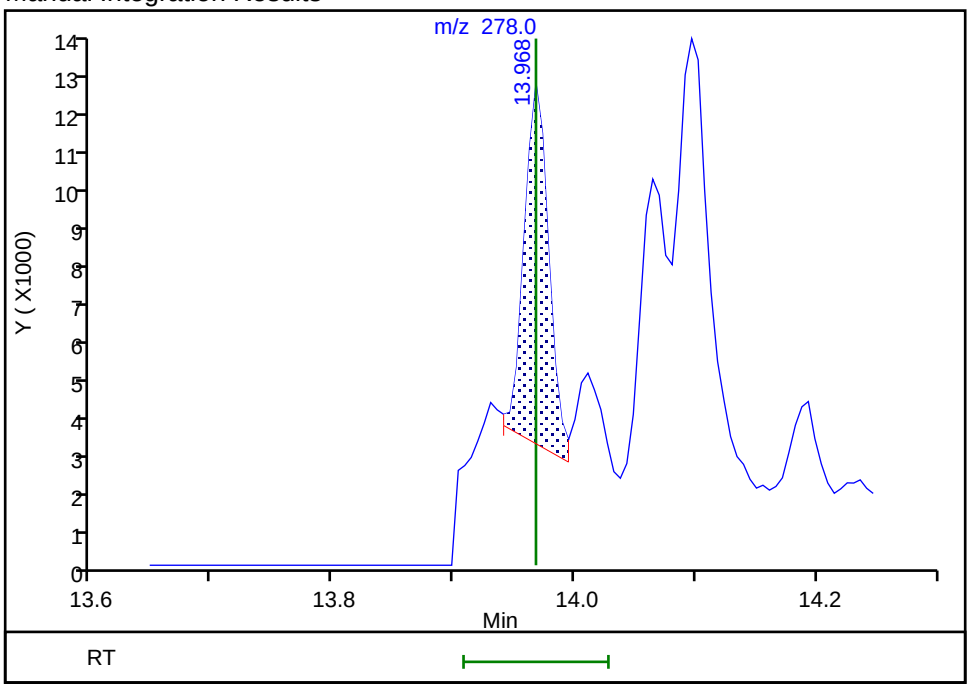
Processing Integration Results

RT: 13.93
Area: 8186
Amount: 3.515524
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 13351
Amount: 5.034117
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:50:22

Audit Action: Manually Integrated Audit Reason: Assign Peak

Eurofins TestAmerica, Seattle

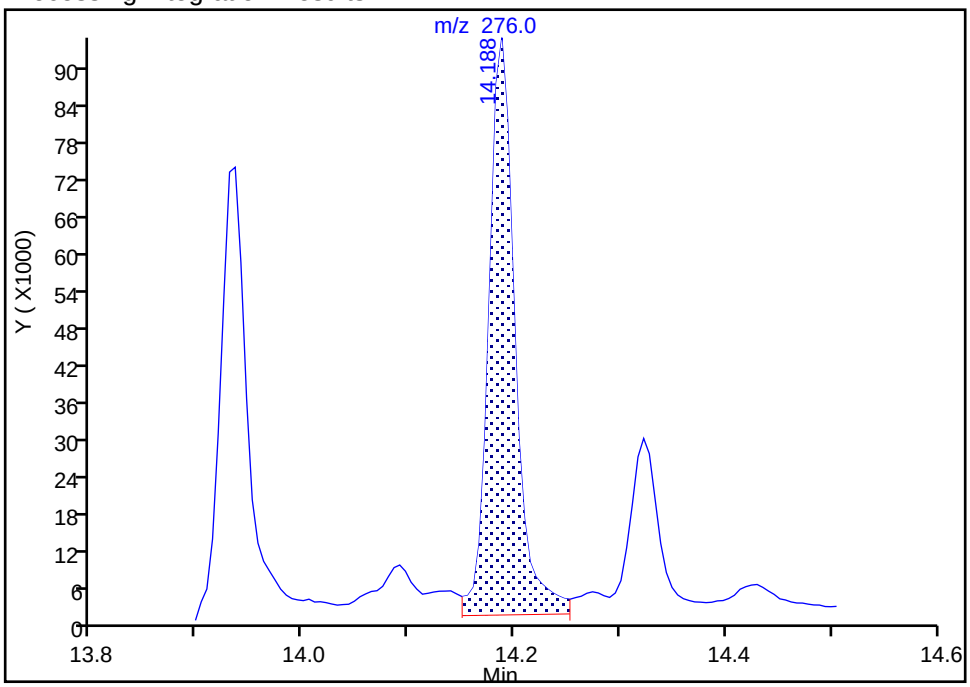
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A018.D				
Injection Date:	22-Jul-2019 18:13:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-11-A	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	KFS	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

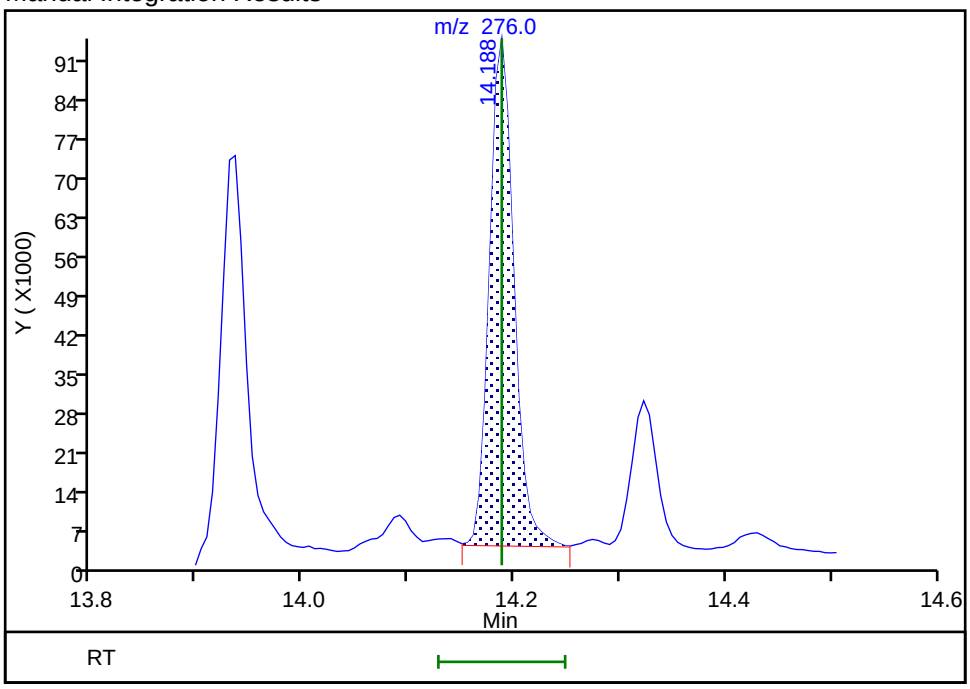
Processing Integration Results

RT: 14.19
Area: 161312
Amount: 42.141815
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 145949
Amount: 38.153316
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:50:28
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 072219A019.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 12:58

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10.604(g) Date Analyzed: 07/22/2019 18:39

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	42		10	3.3
91-57-6	2-Methylnaphthalene	23		10	4.2
90-12-0	1-Methylnaphthalene	15		10	1.3
208-96-8	Acenaphthylene	14		10	1.0
83-32-9	Acenaphthene	31		10	1.2
86-73-7	Fluorene	33		10	1.0
85-01-8	Phenanthrene	160		10	3.3
120-12-7	Anthracene	39		10	1.2
206-44-0	Fluoranthene	230		10	2.9
129-00-0	Pyrene	250		10	2.0
56-55-3	Benzo[a]anthracene	91		10	1.6
218-01-9	Chrysene	95		10	3.1
205-99-2	Benzo[b]fluoranthene	97		10	1.2
207-08-9	Benzo[k]fluoranthene	25		10	1.2
50-32-8	Benzo[a]pyrene	85		10	1.7
193-39-5	Indeno[1,2,3-cd]pyrene	90		10	1.2
53-70-3	Dibenz(a,h)anthracene	8.5	J B	10	1.5
191-24-2	Benzo[g,h,i]perylene	75	B	10	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	66		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D
Lims ID: 580-87706-A-12-A
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 18:39:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-12-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:52:29 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:52:29

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
*	1 Naphthalene-d8	136	6.988	6.988	0.000	100	326196	100.0	
*	2 Acenaphthene-d10	164	8.498	8.503	-0.005	94	147195	100.0	
*	3 Phenanthrene-d10	188	9.688	9.688	0.000	100	290533	100.0	
*	4 Chrysene-d12	240	11.799	11.804	-0.005	100	232490	100.0	
*	5 Perylene-d12	264	12.941	12.946	-0.005	100	259877	100.0	
$	9 Terphenyl-d14	244	11.002	11.002	0.000	99	1453467	660.7	
	10 Naphthalene	128	7.004	7.004	0.000	100	74334	20.4	
	11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	26741	11.2	
	12 1-Methylnaphthalene	142	7.716	7.722	-0.006	93	15864	7.11	M
	13 Acenaphthylene	152	8.376	8.376	0.000	97	22126	6.89	M
	14 Acenaphthene	153	8.520	8.525	-0.005	79	35286	15.1	M
	15 Fluorene	166	8.941	8.947	-0.006	96	37018	15.9	M
	17 Phenanthrene	178	9.704	9.704	0.000	100	304691	77.3	
	18 Anthracene	178	9.745	9.745	0.000	100	69053	18.8	M
	19 Fluoranthene	202	10.652	10.657	-0.005	92	419487	112.3	M
	20 Pyrene	202	10.824	10.830	-0.006	100	478591	121.6	
	21 Benzo[a]anthracene	228	11.793	11.799	-0.006	95	117749	44.4	
	22 Chrysene	228	11.821	11.821	0.000	99	163292	46.3	
	23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	158910	47.5	M
	24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	50457	12.3	M
	25 Benzo[a]pyrene	252	12.886	12.892	-0.006	96	141179	41.6	M
	26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	95	113174	43.8	M
	27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	10079	4.16	M
	28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	136555	36.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

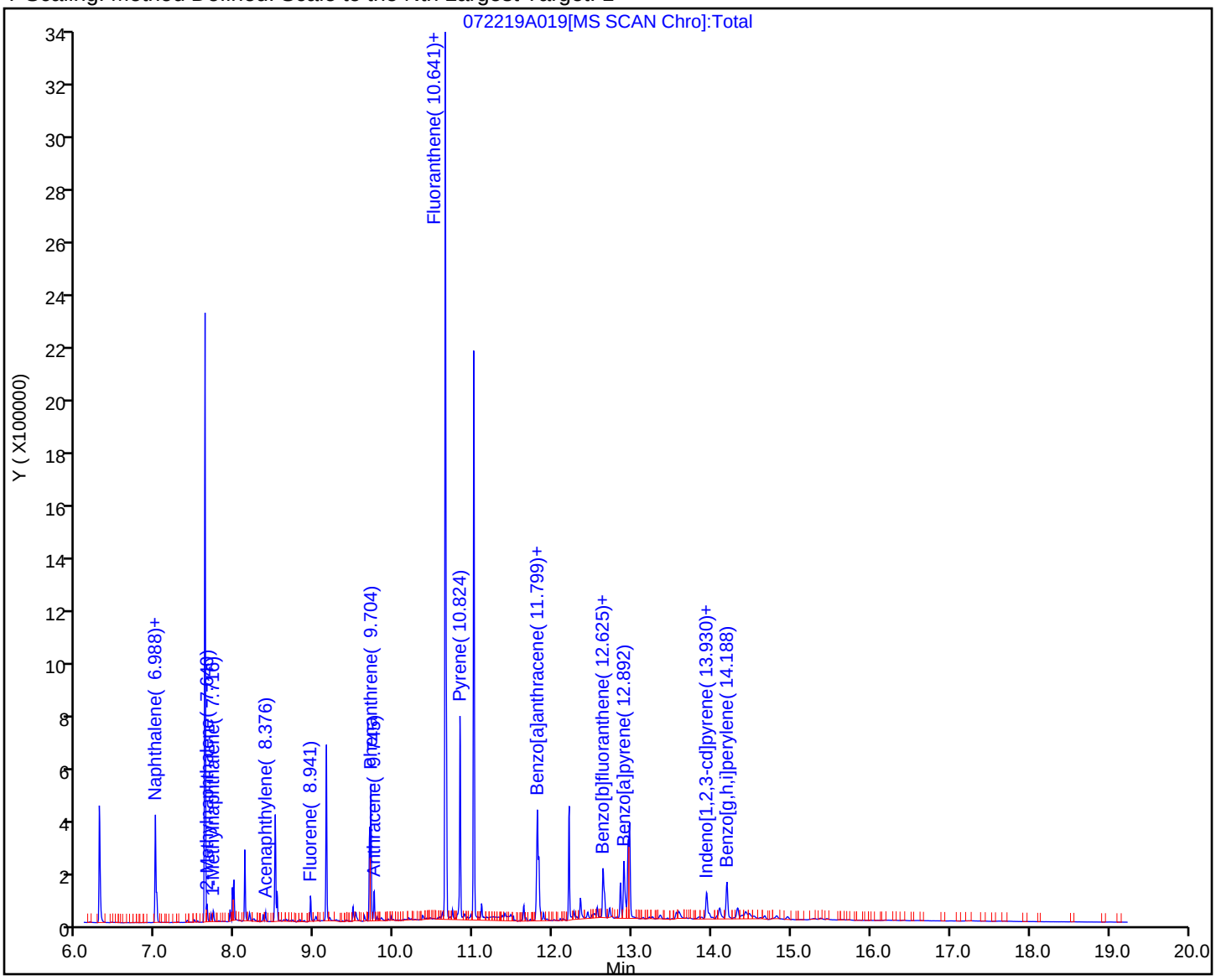
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D
Lims ID: 580-87706-A-12-A
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 18:39:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-12-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:52:29 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:52:29

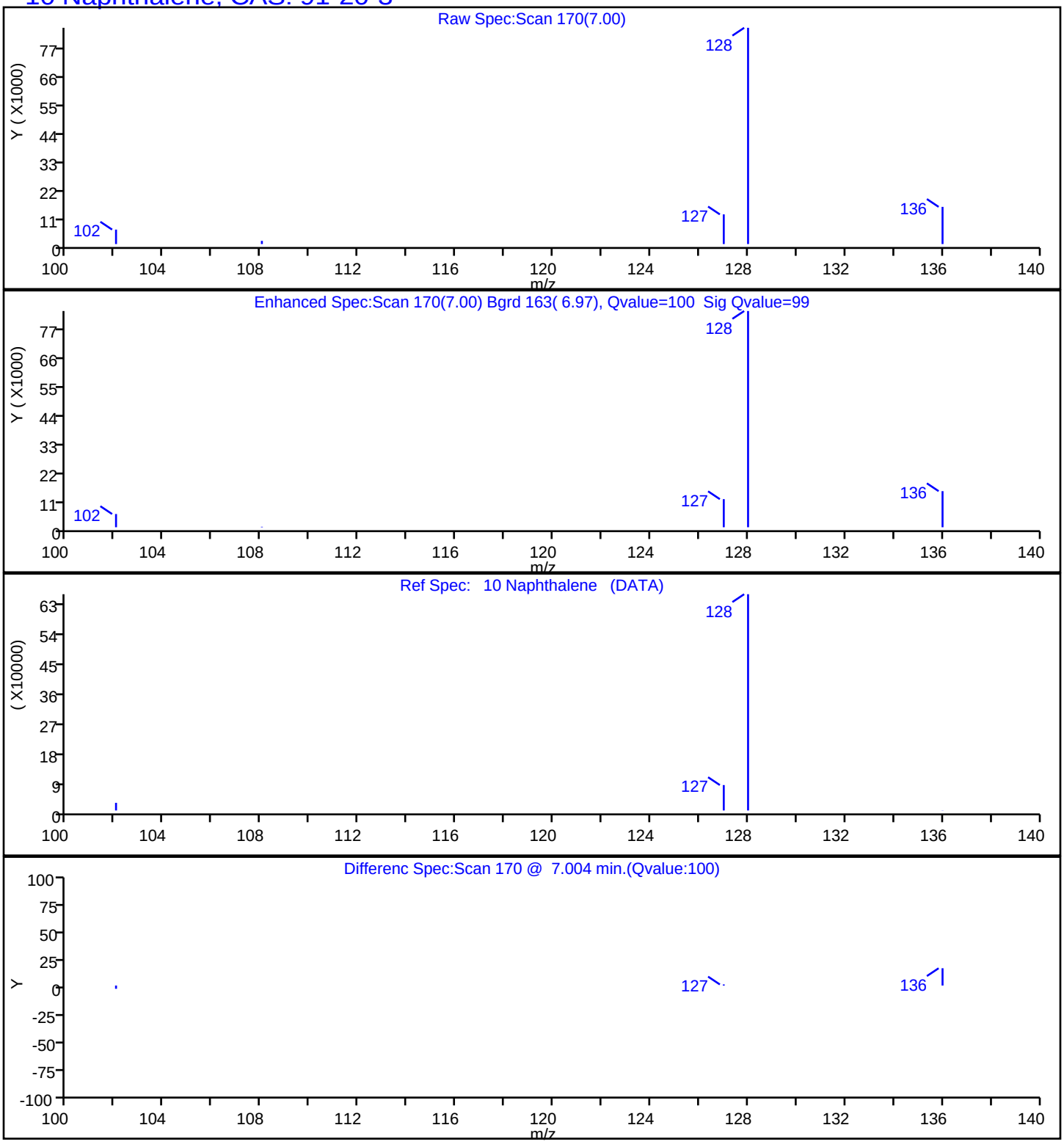
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	660.7	66.07

Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

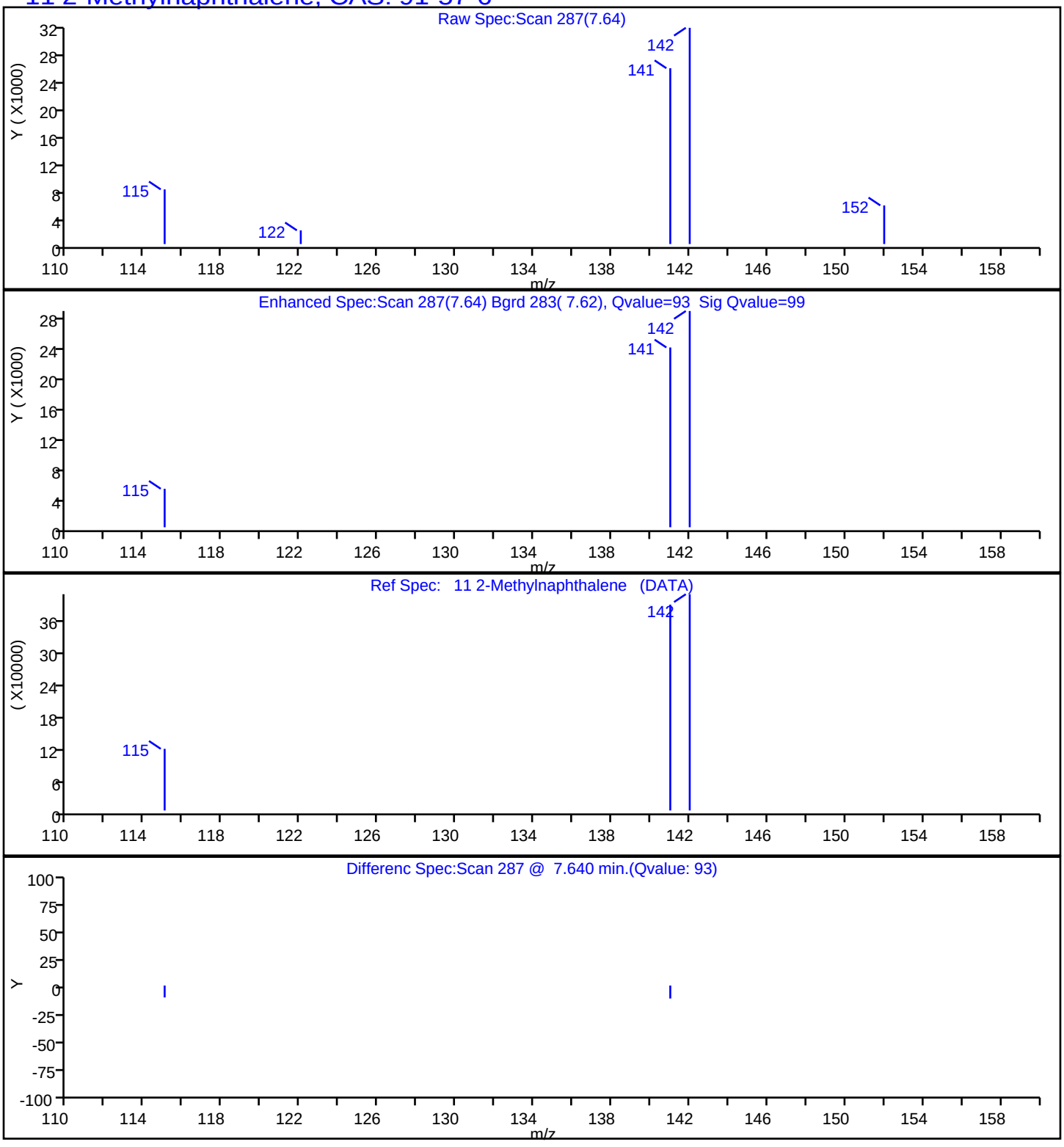


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

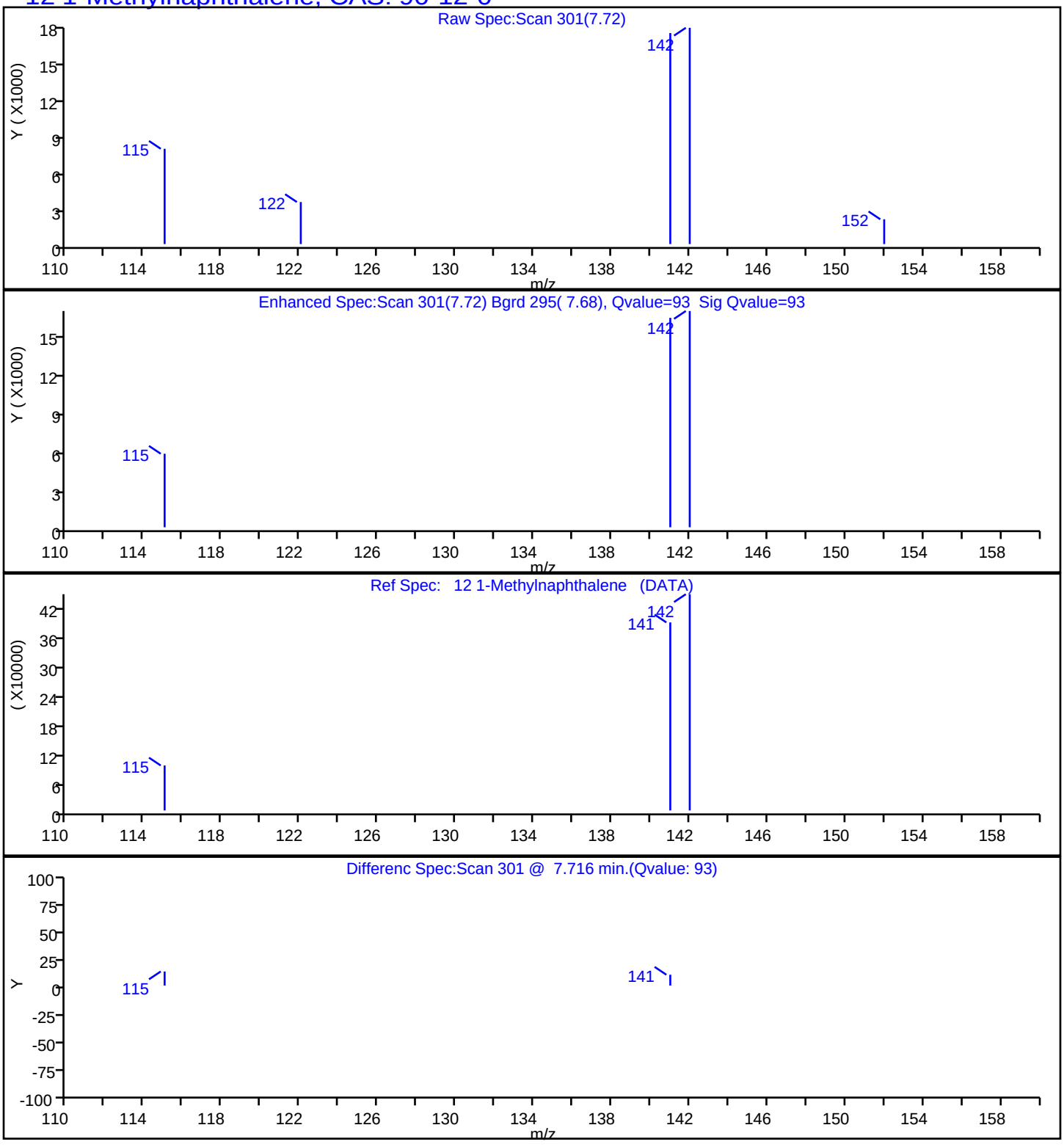


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

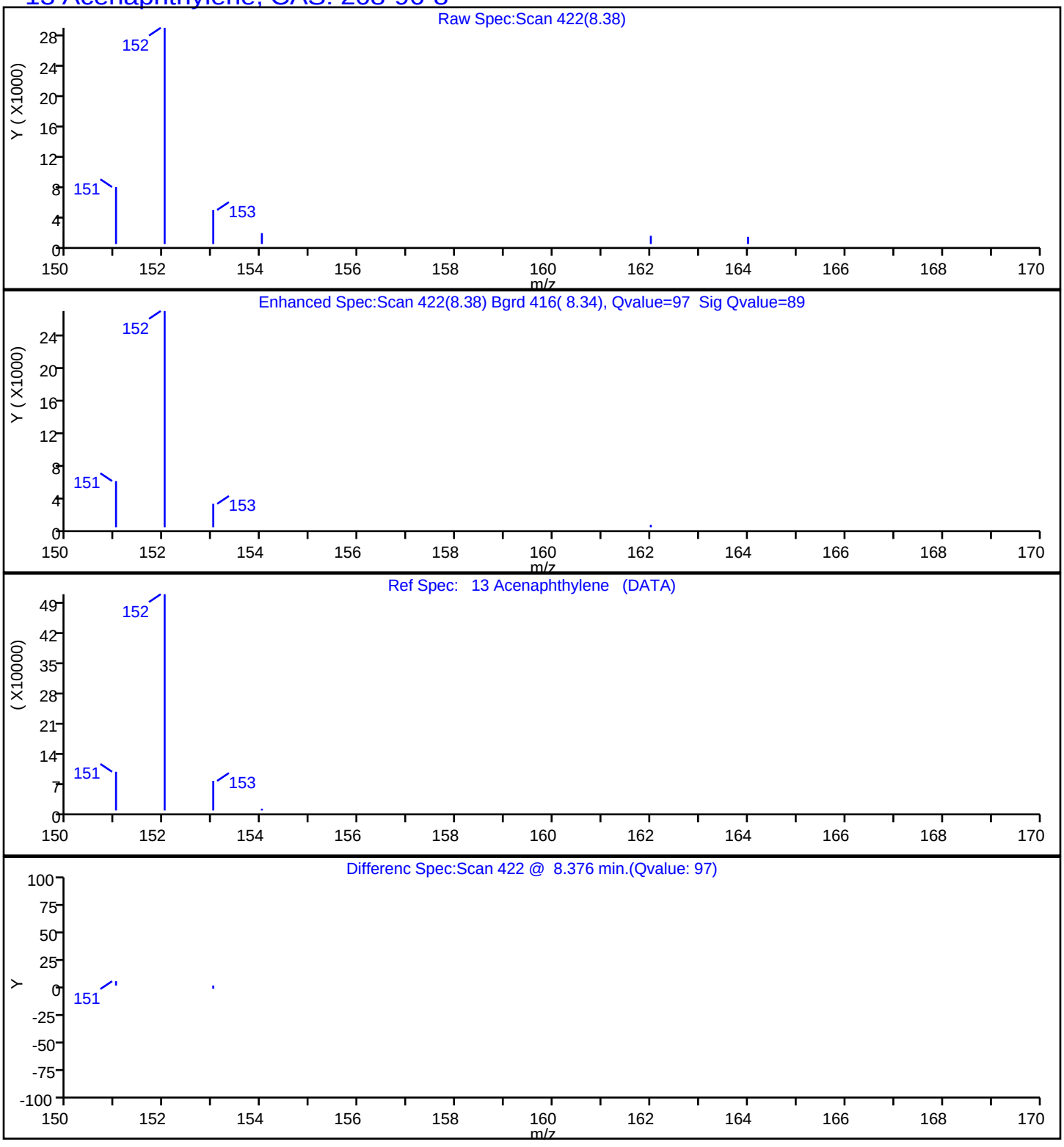


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

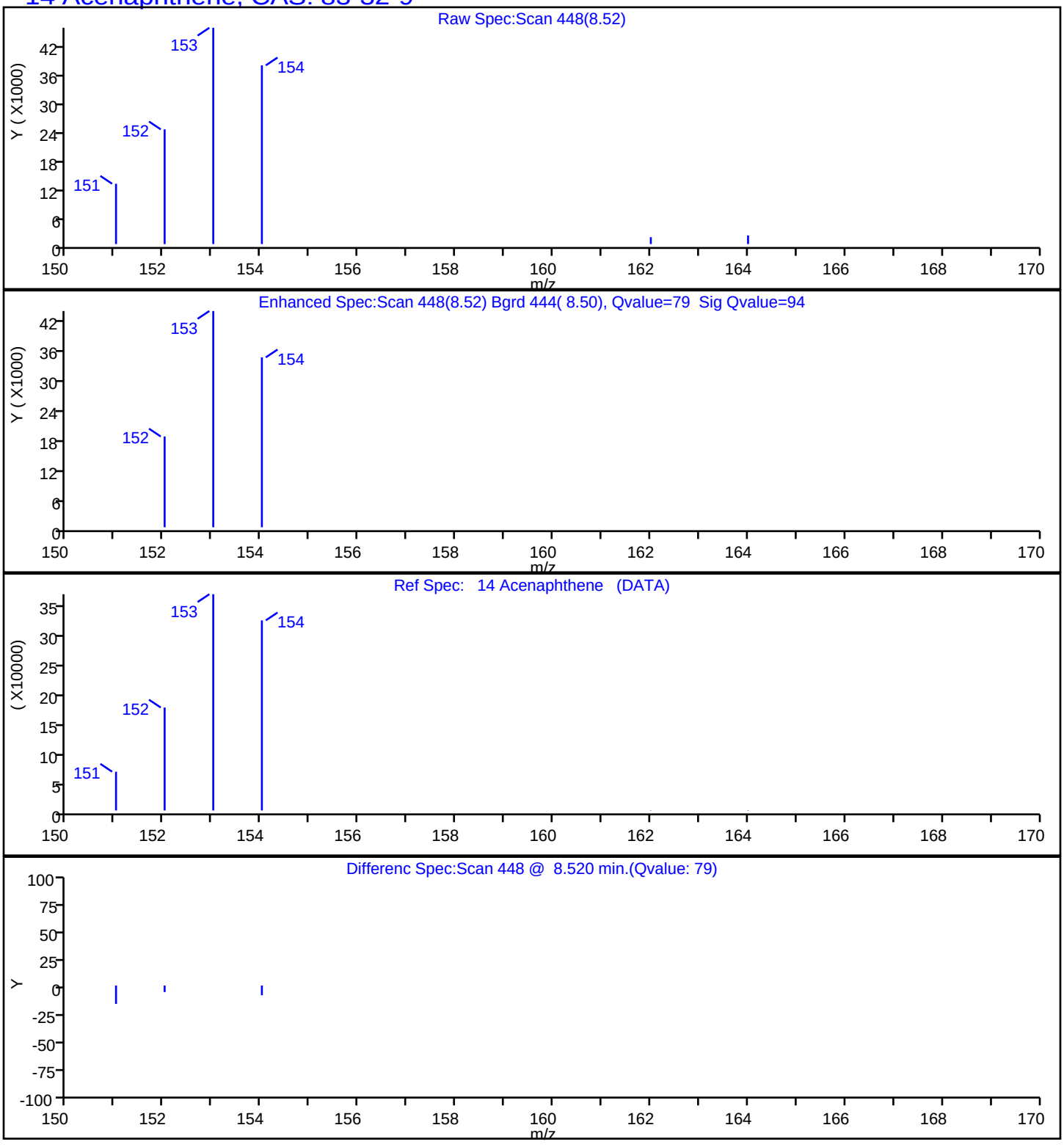


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

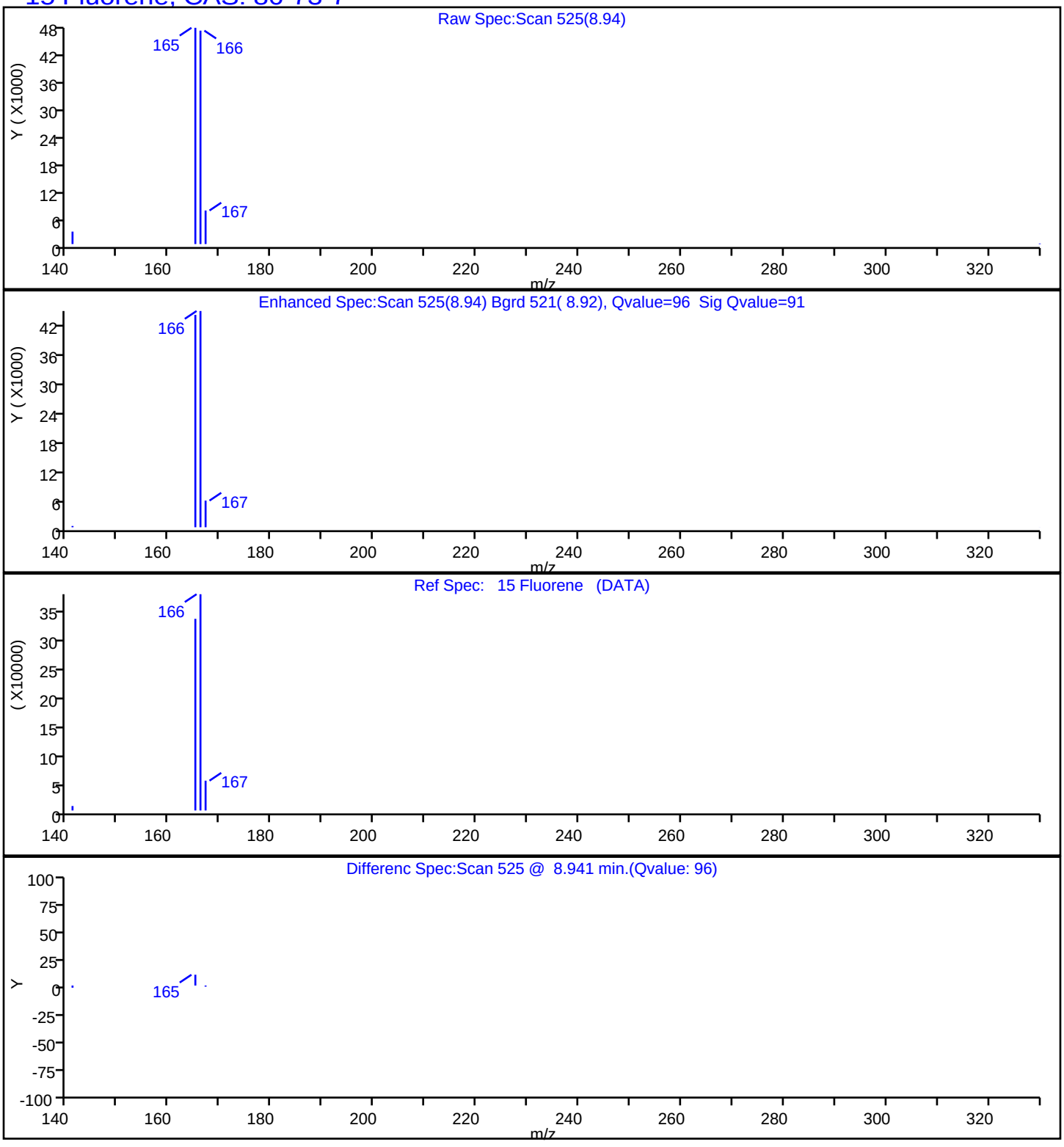


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

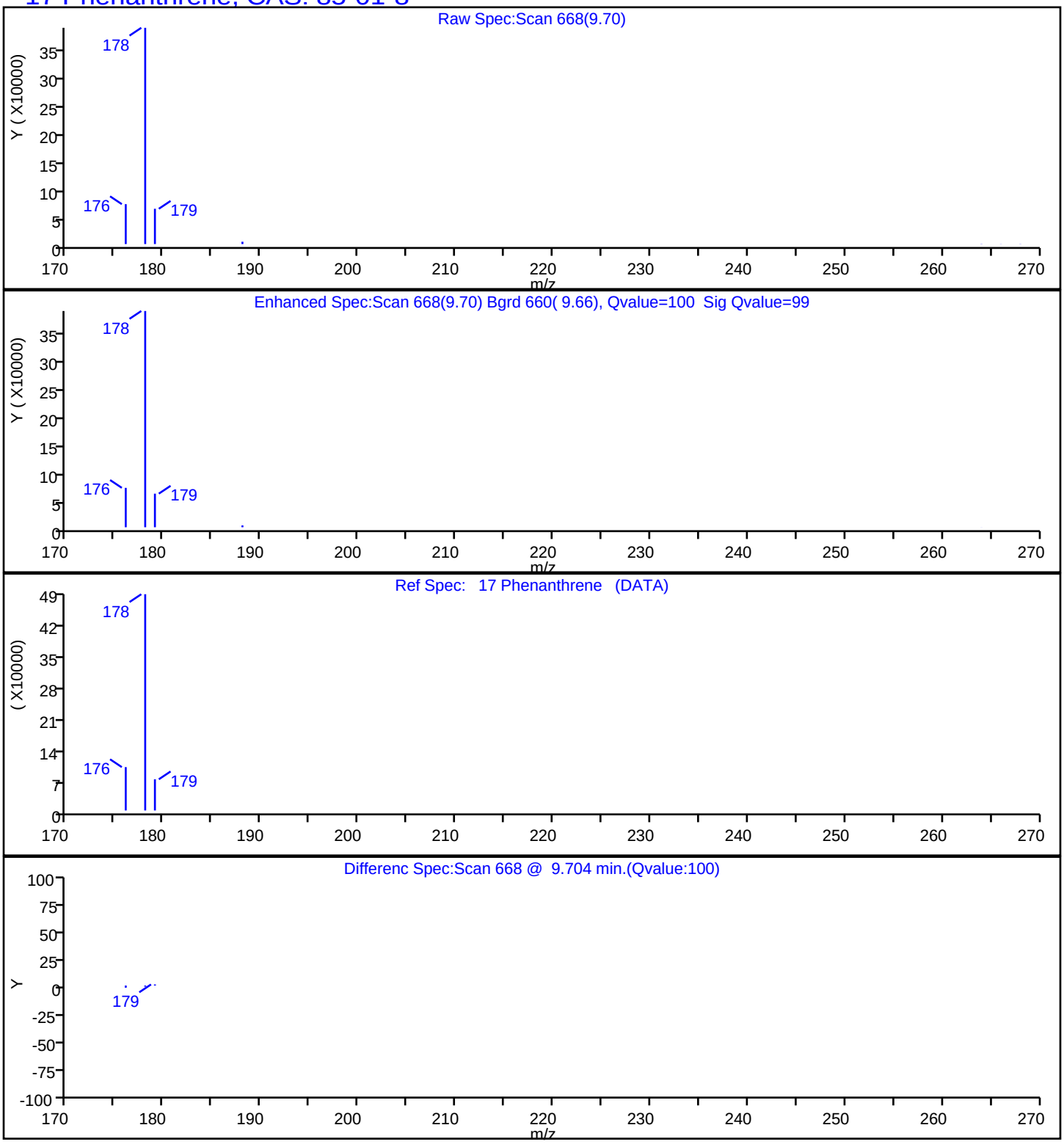


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

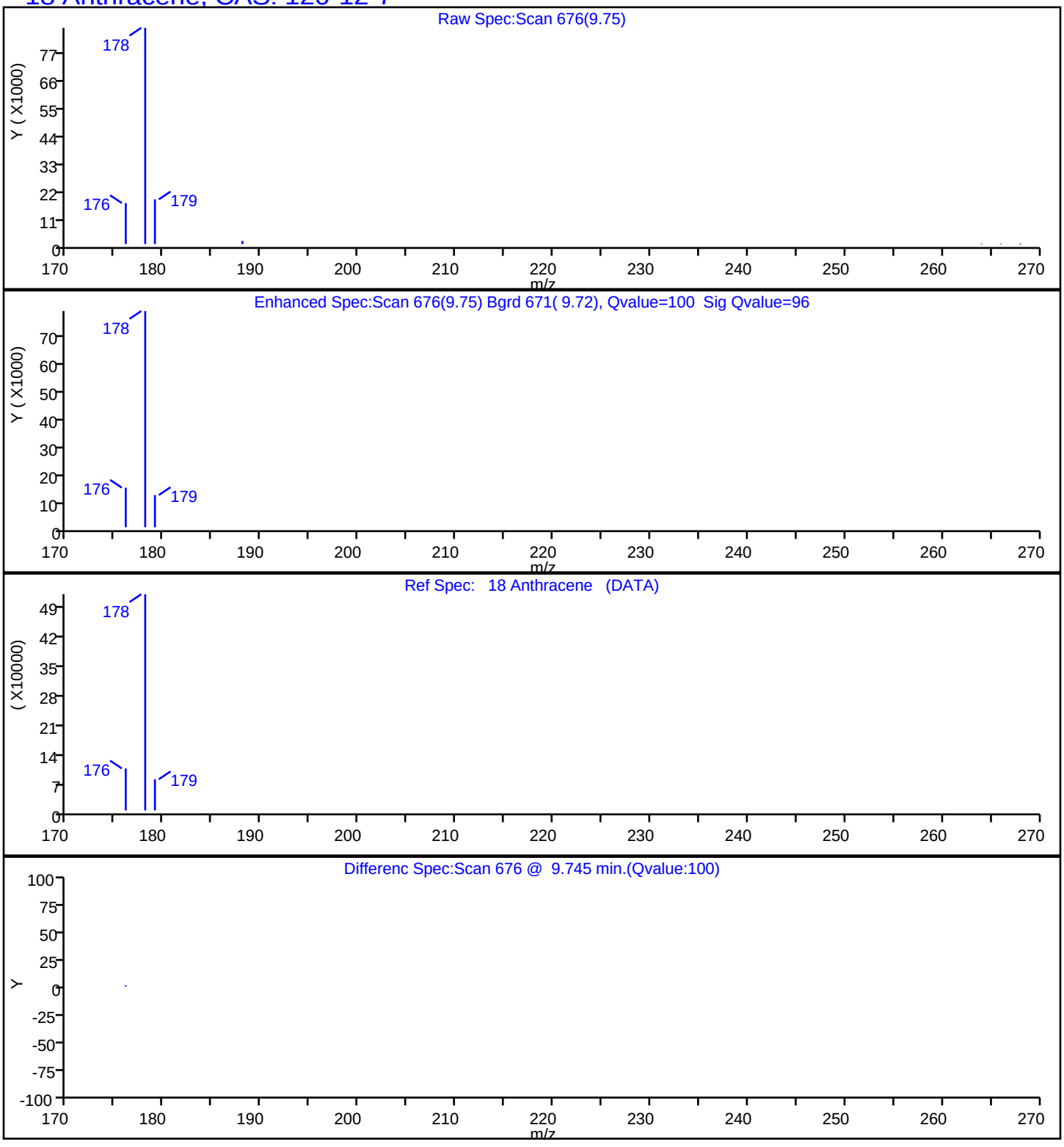


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

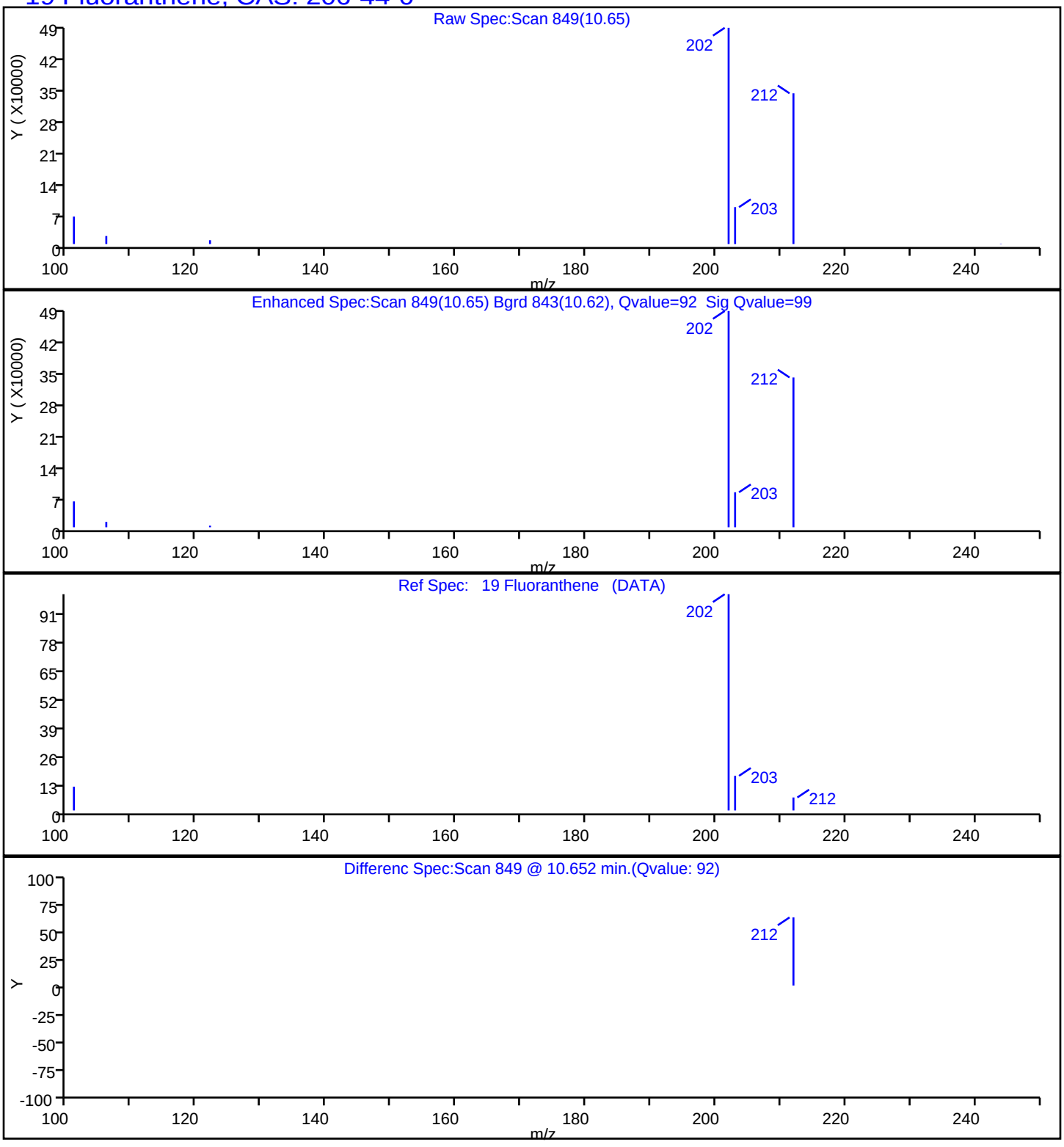


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

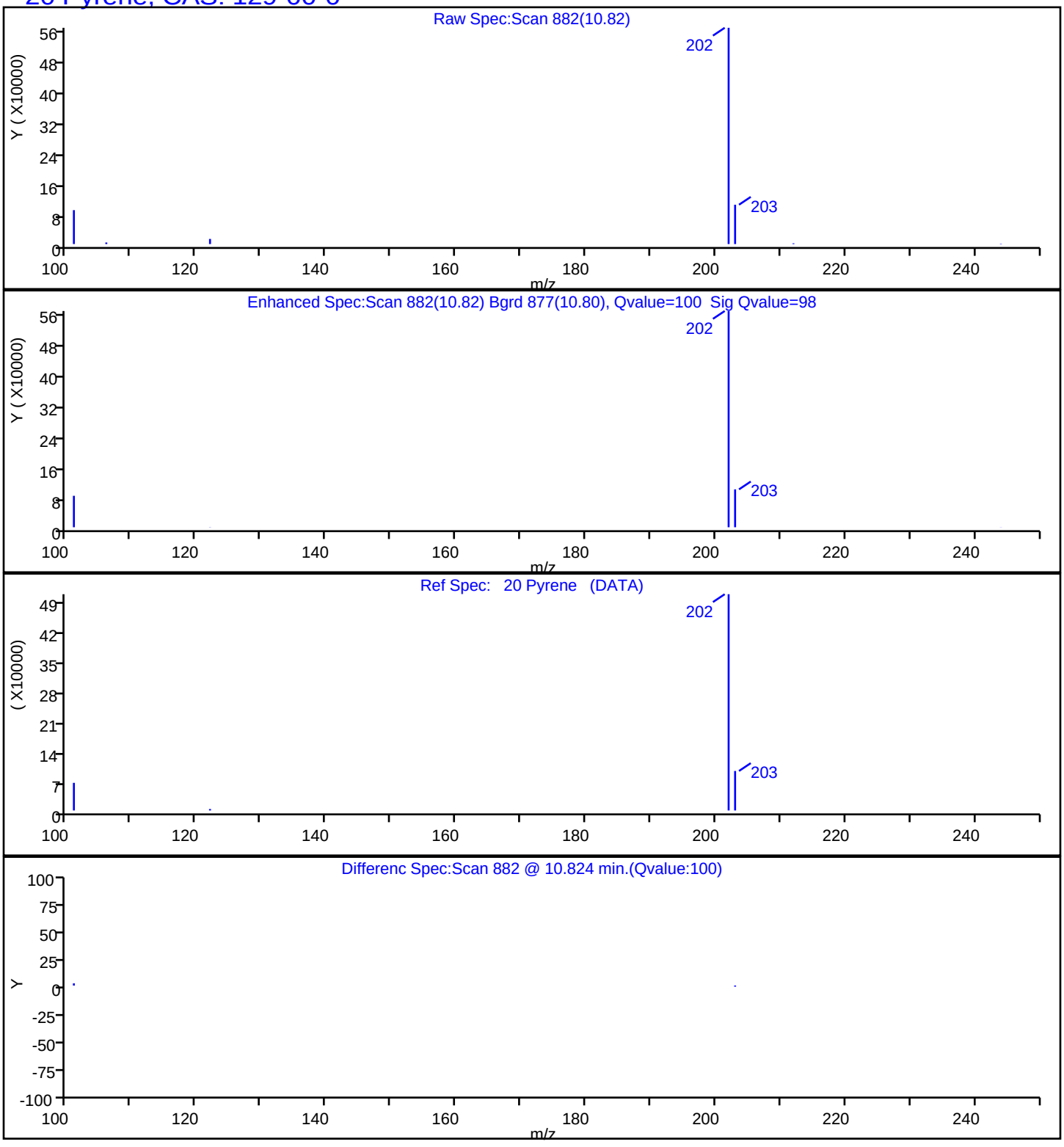


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

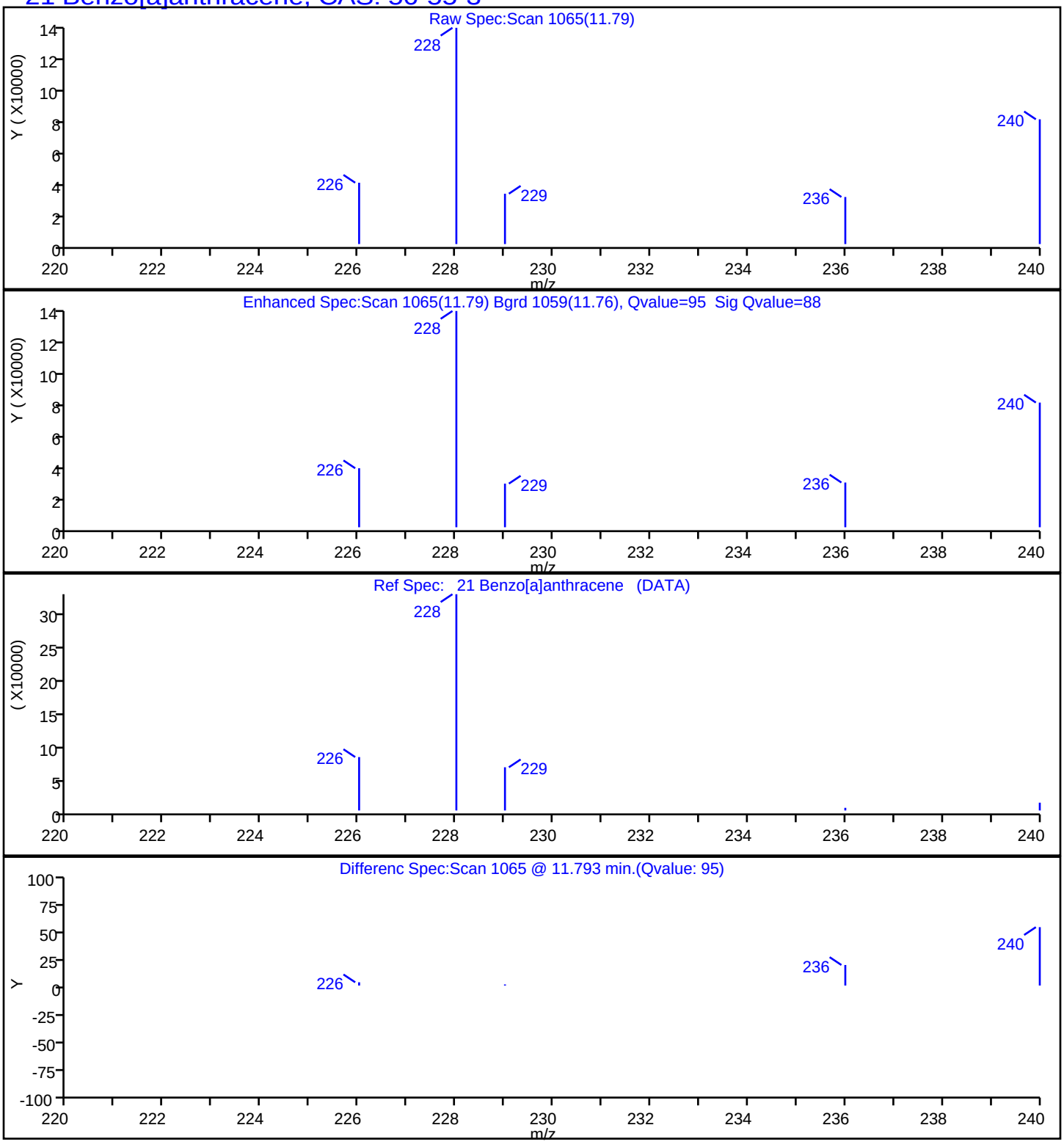


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

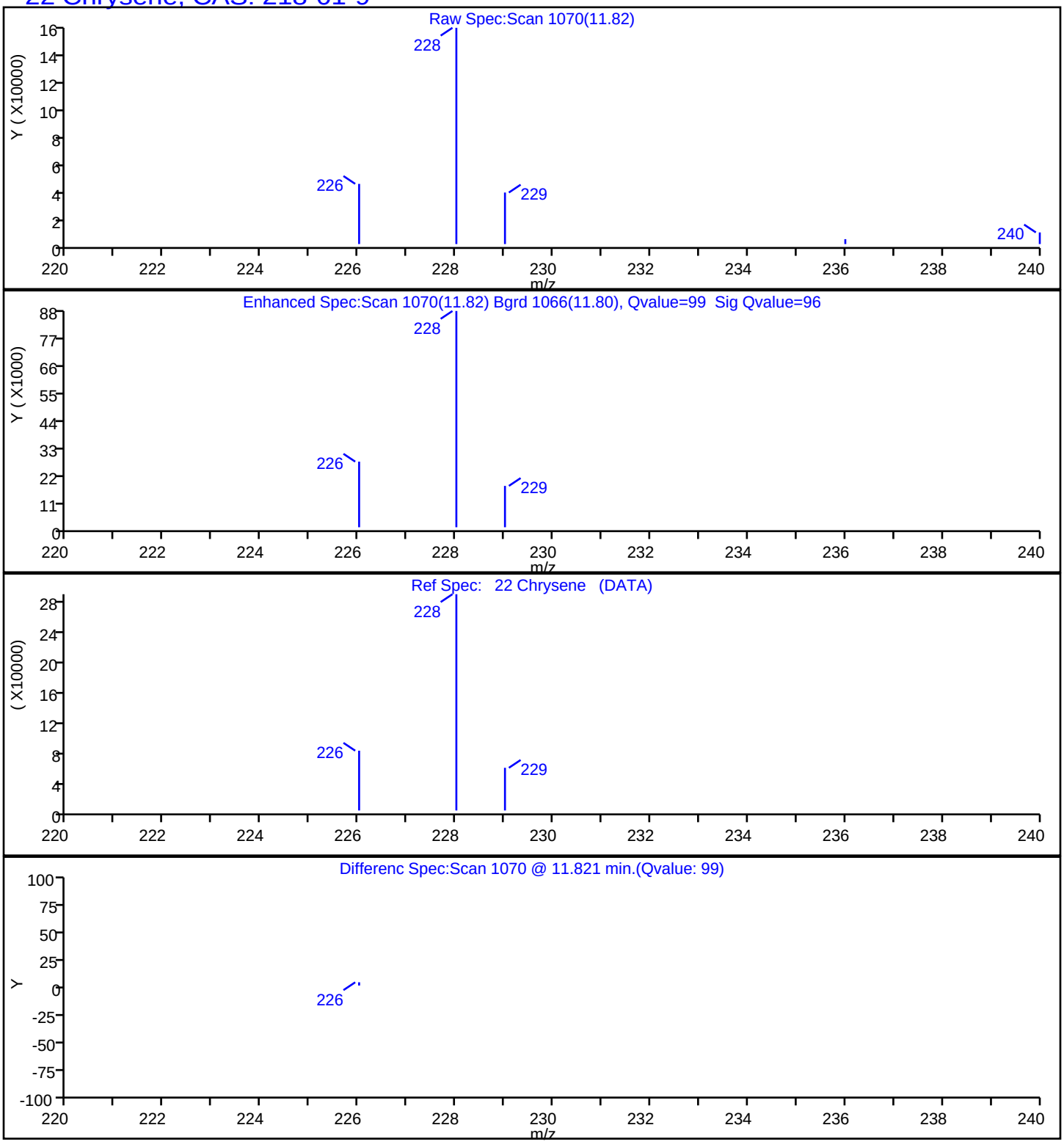


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

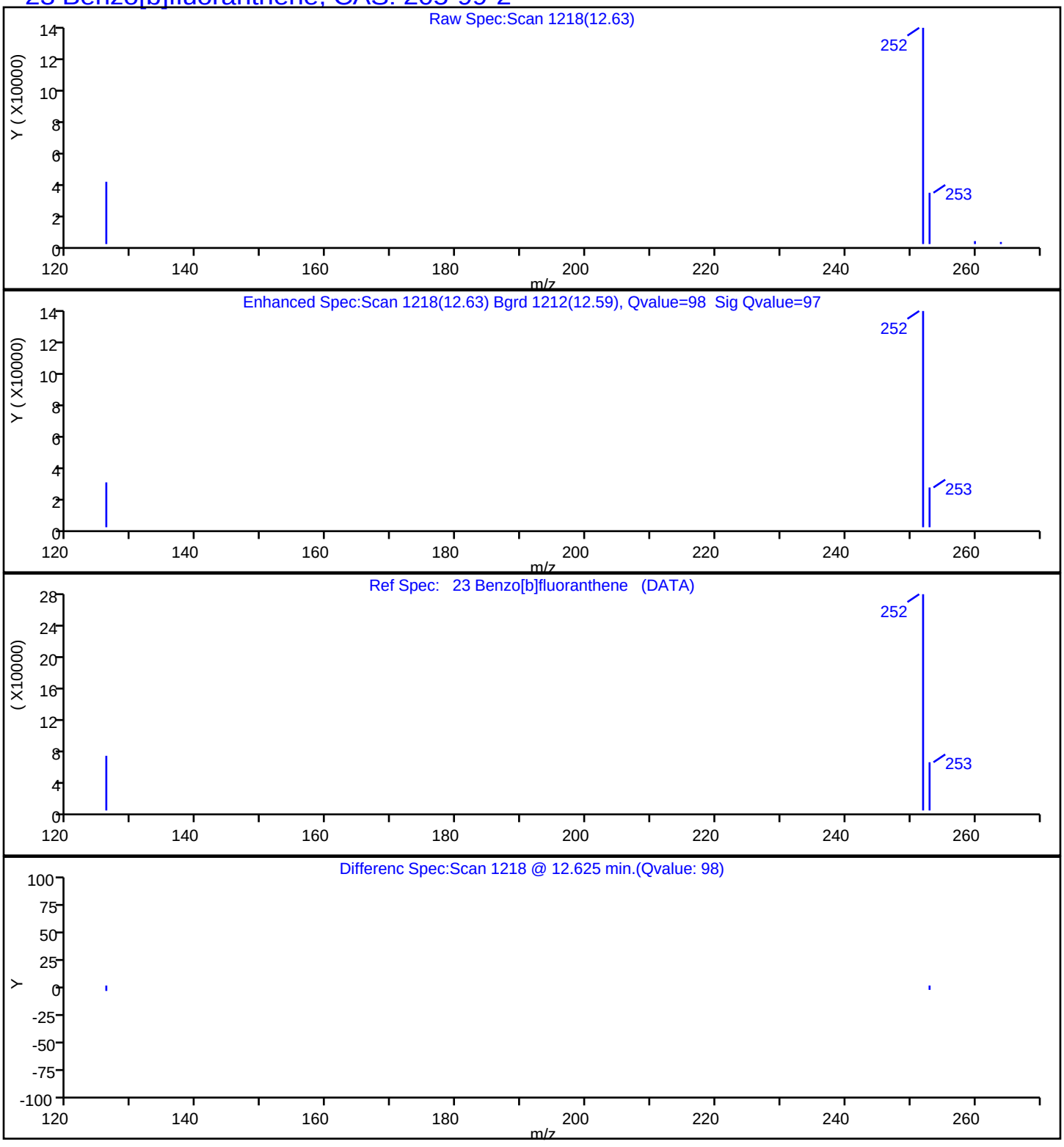


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

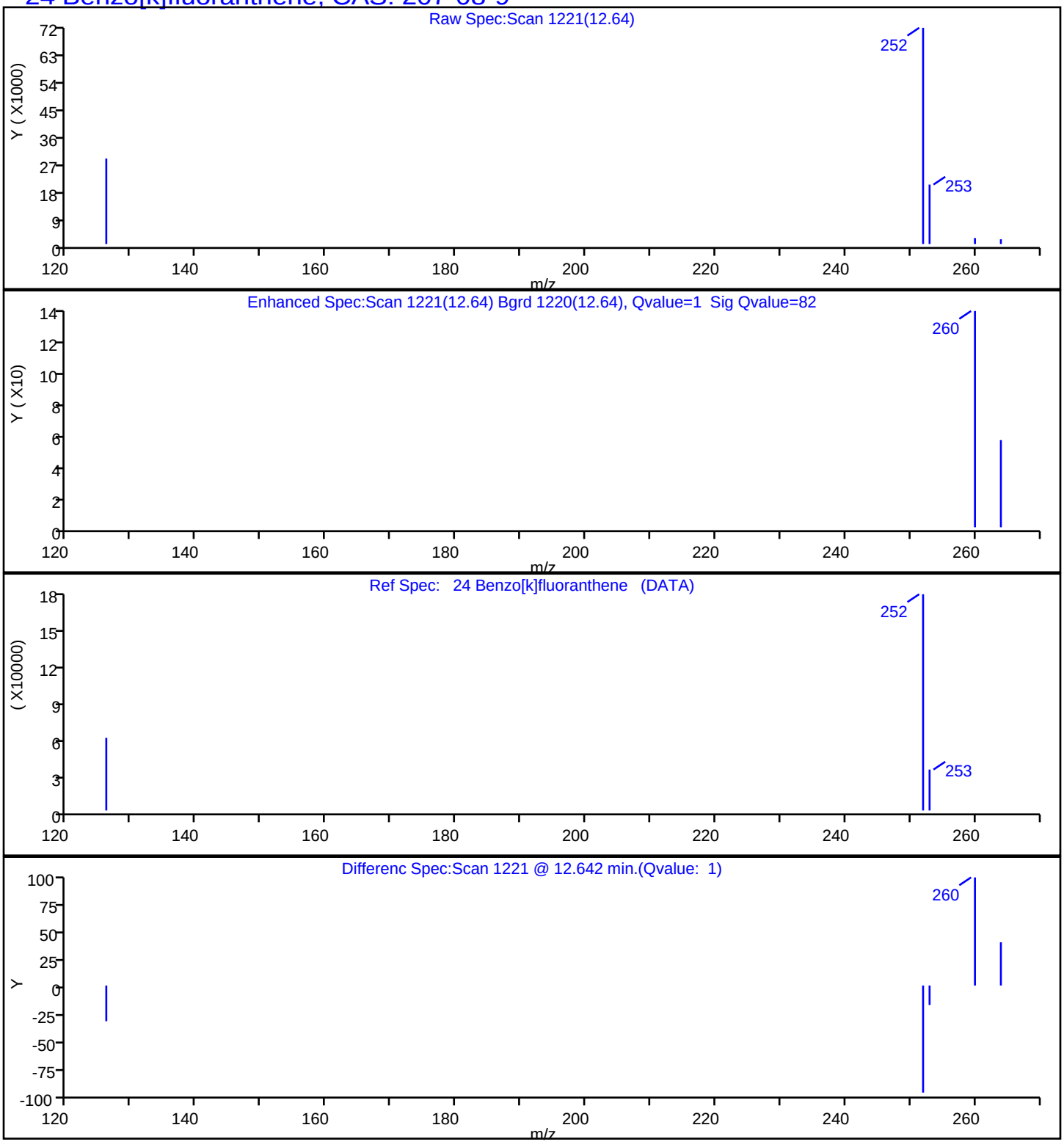


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

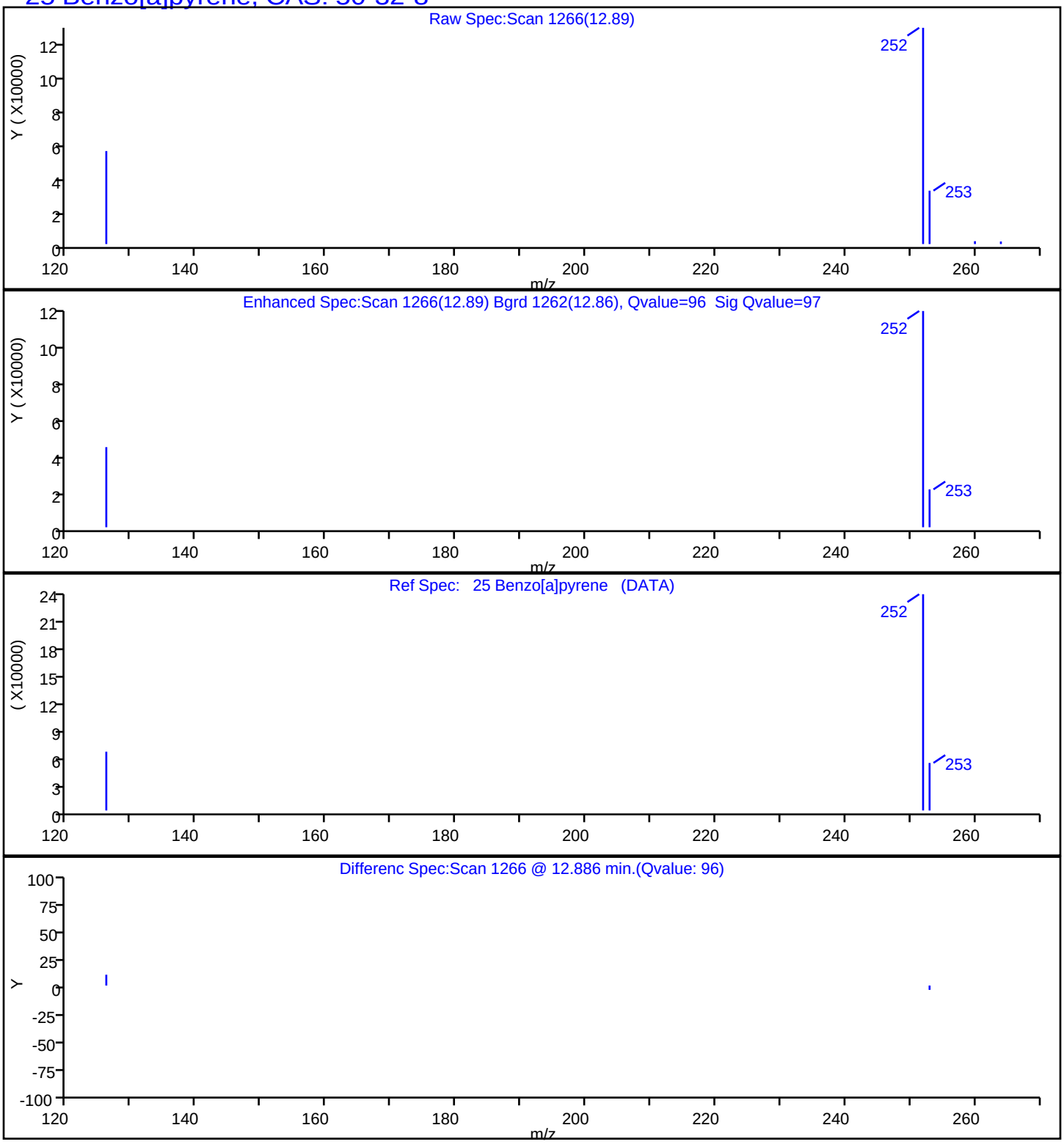


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

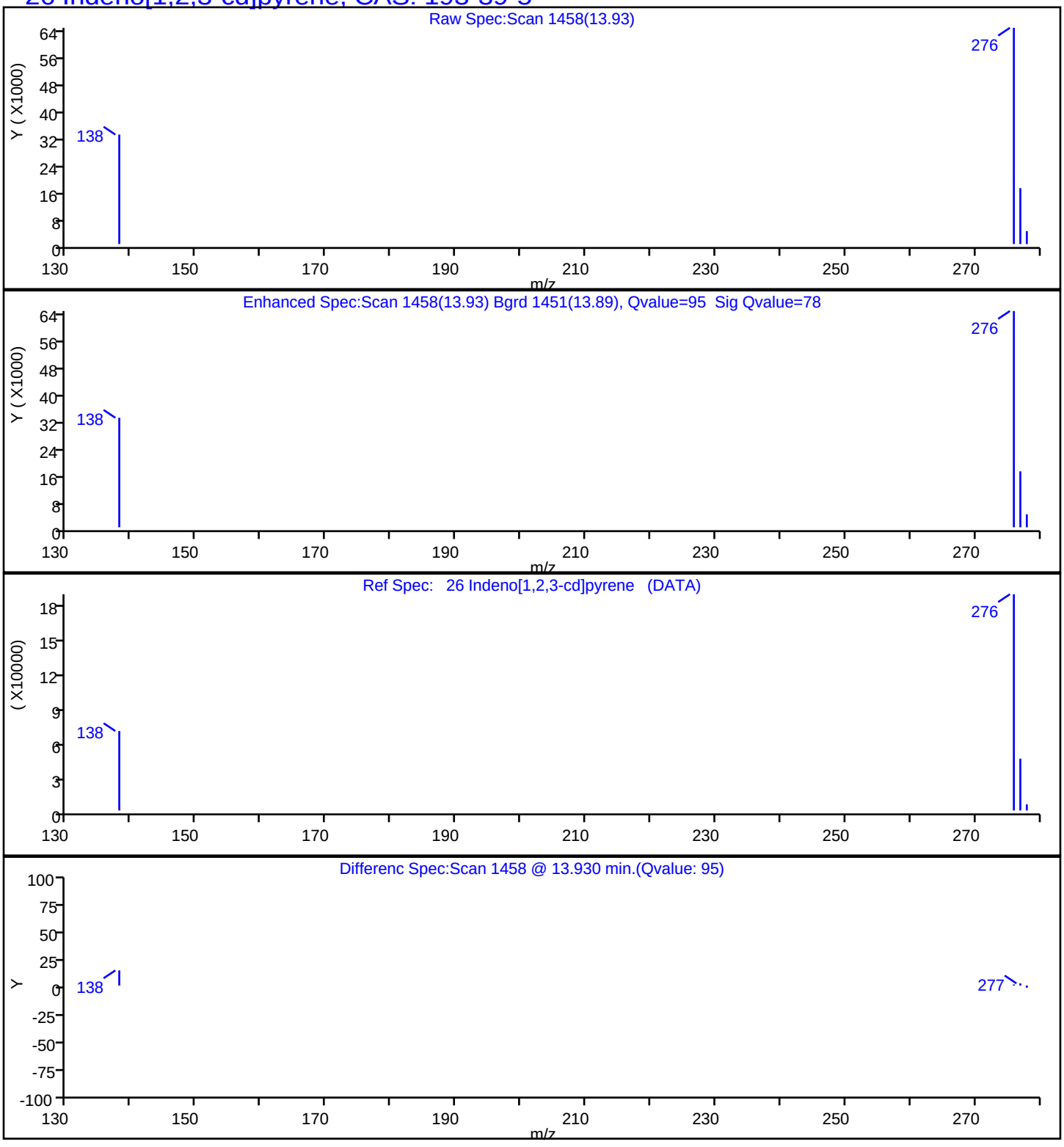


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

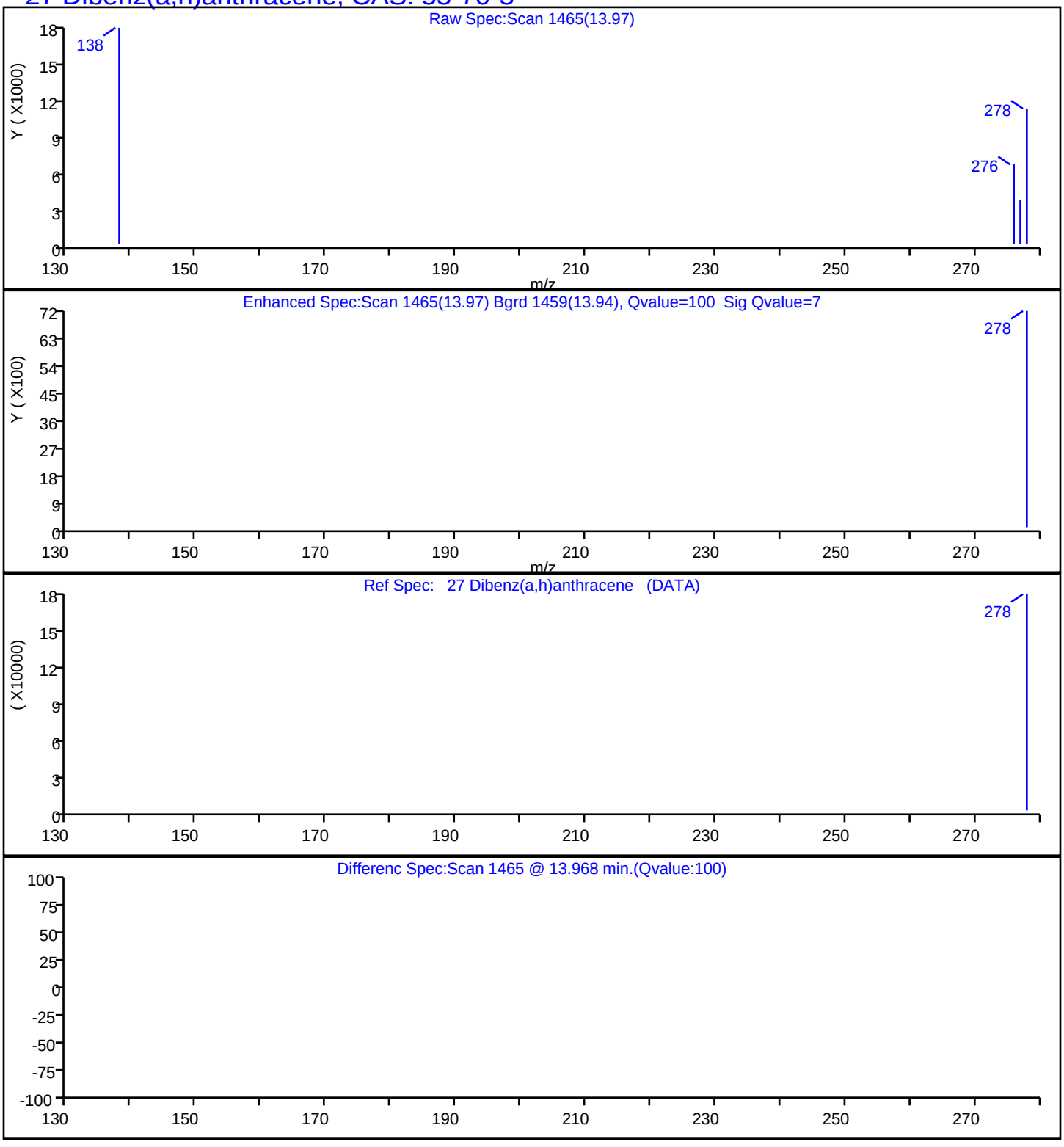


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

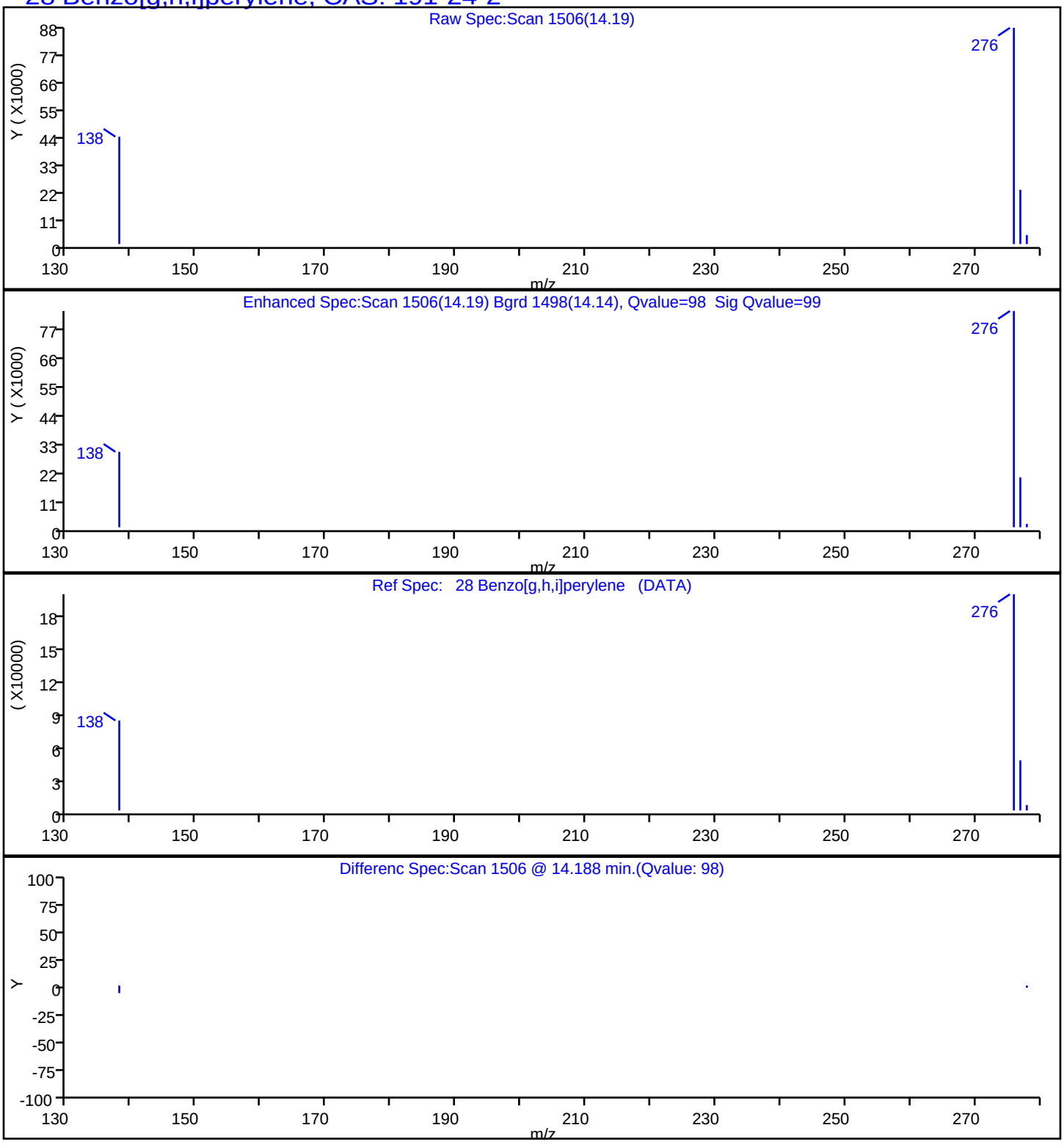


Report Date: 23-Jul-2019 14:52:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

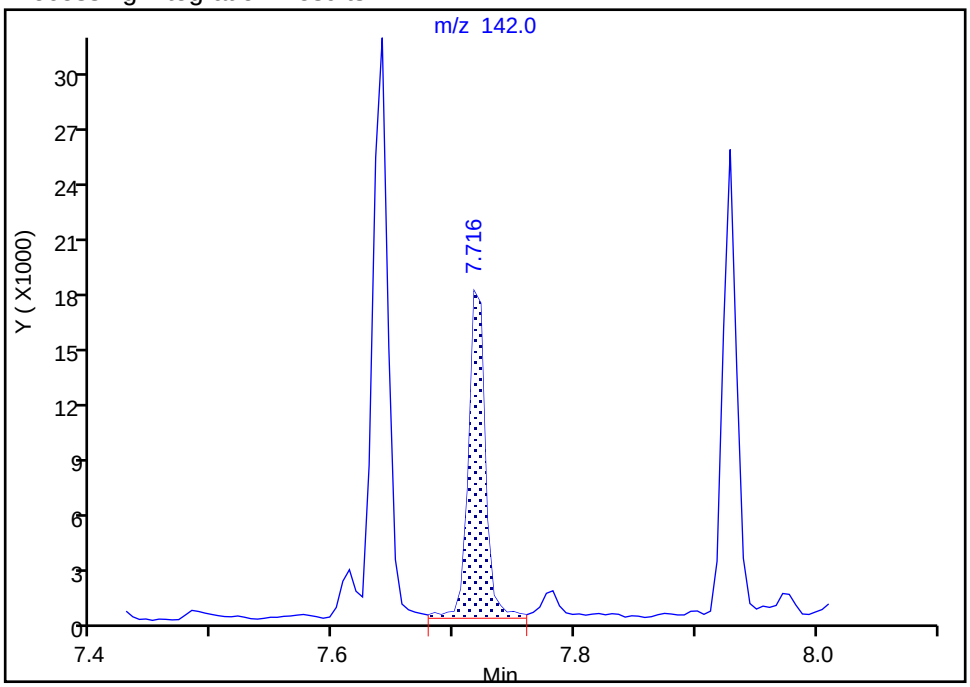
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

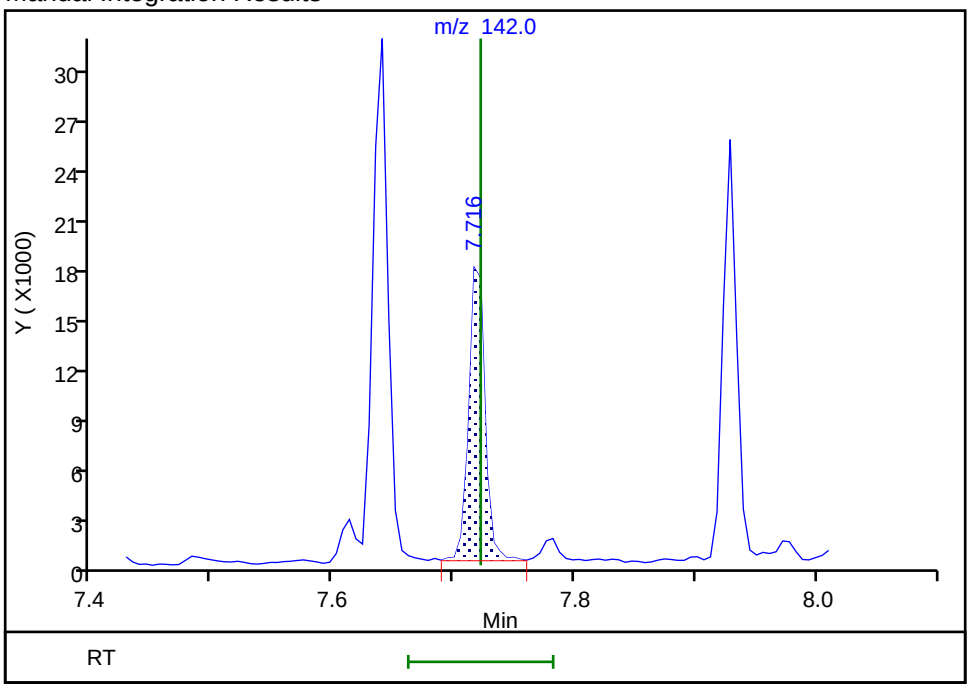
Processing Integration Results

RT: 7.72
Area: 16644
Amount: 7.458770
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 15864
Amount: 7.109225
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

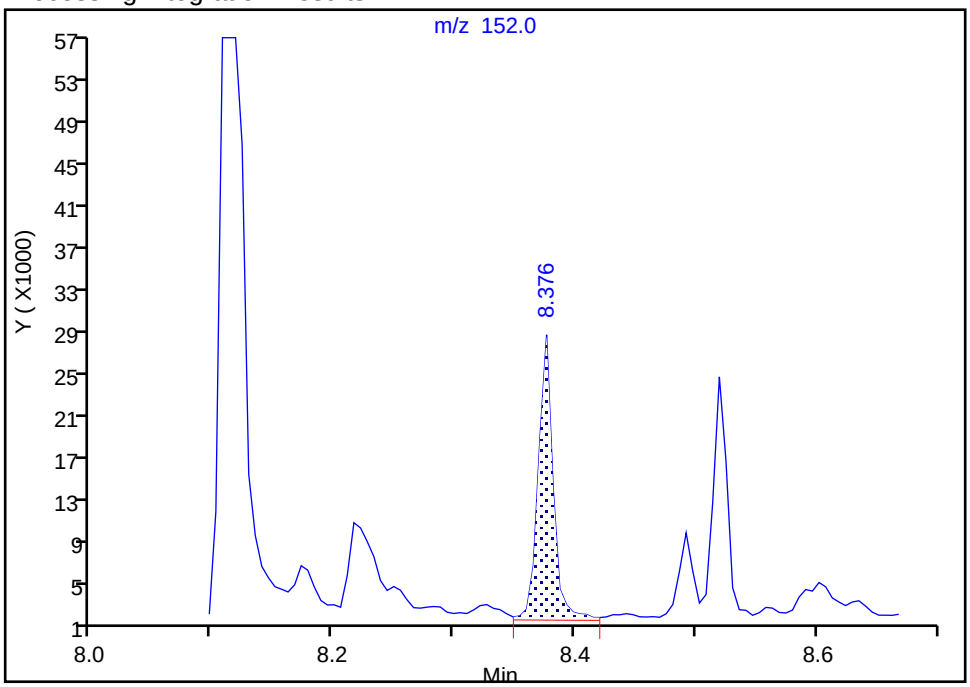
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

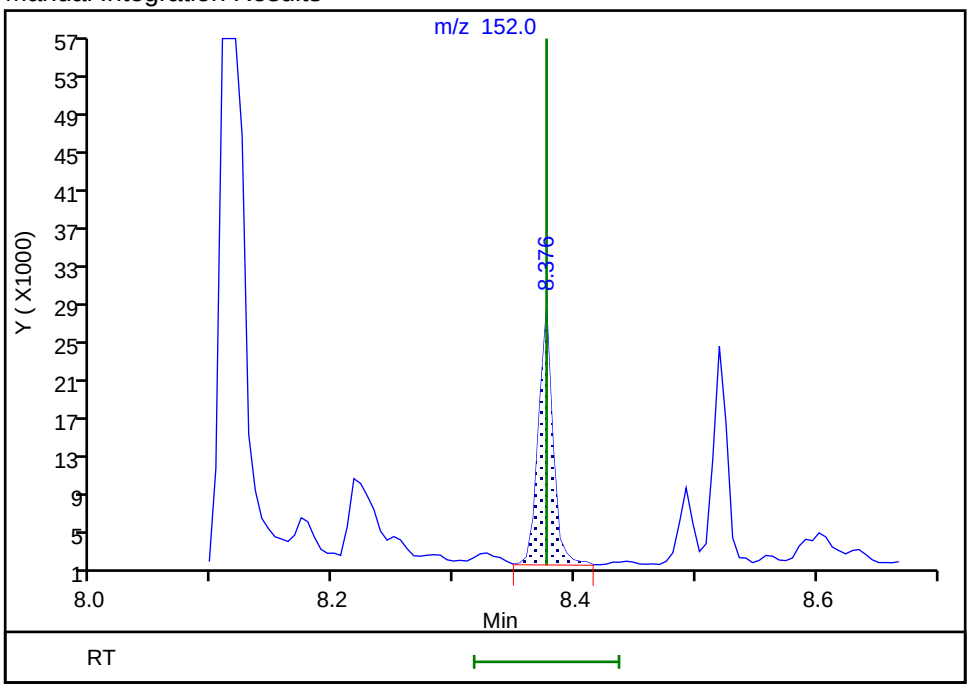
Processing Integration Results

RT: 8.38
Area: 23058
Amount: 7.182271
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 22126
Amount: 6.891965
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:06

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

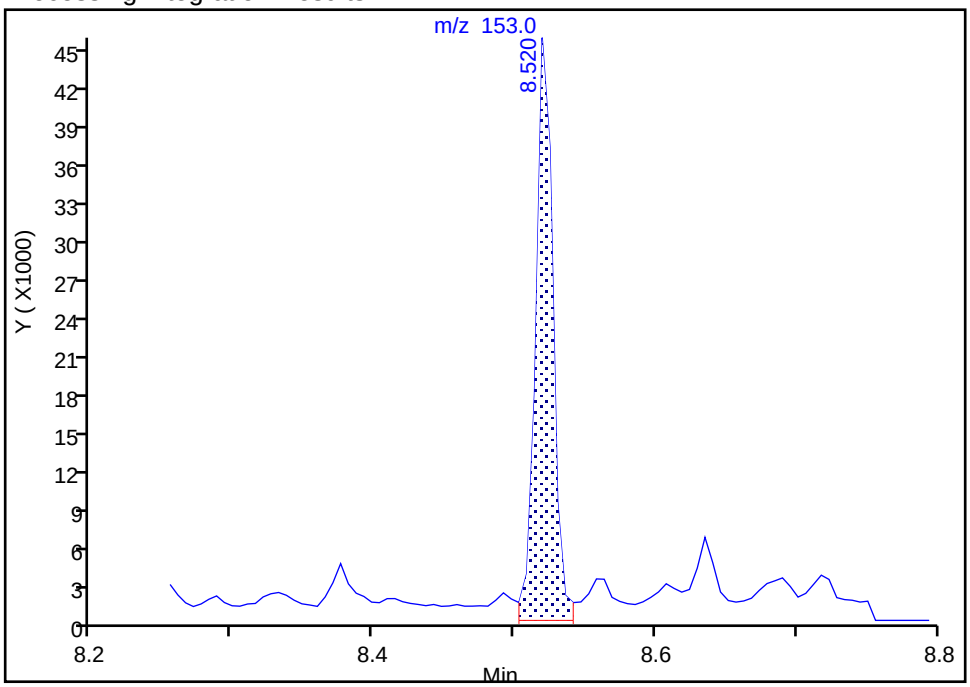
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

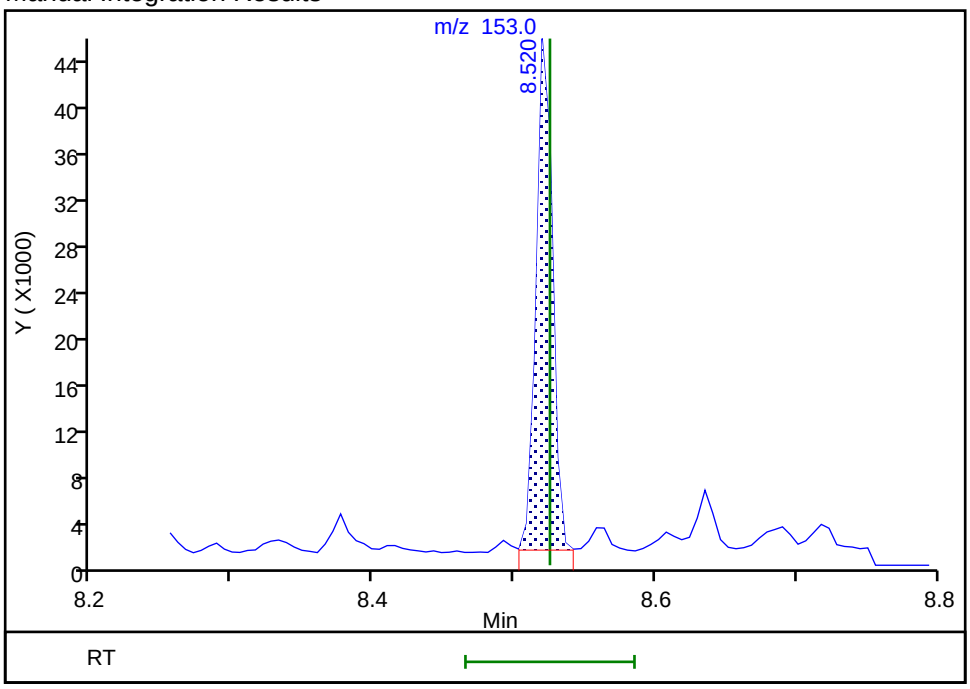
Processing Integration Results

RT: 8.52
Area: 38298
Amount: 16.432323
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 35286
Amount: 15.139980
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

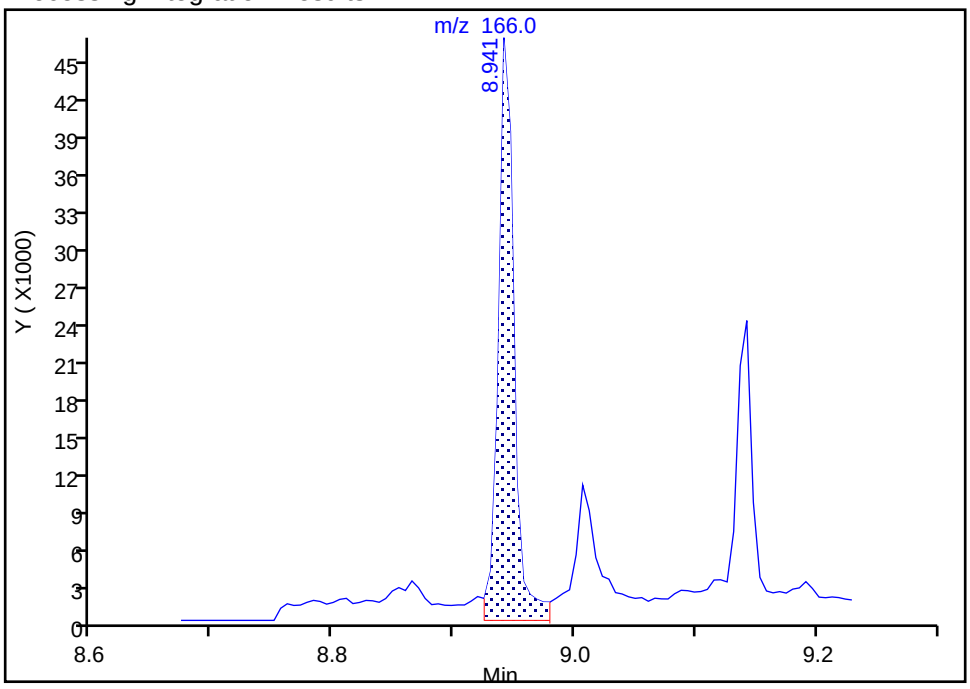
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

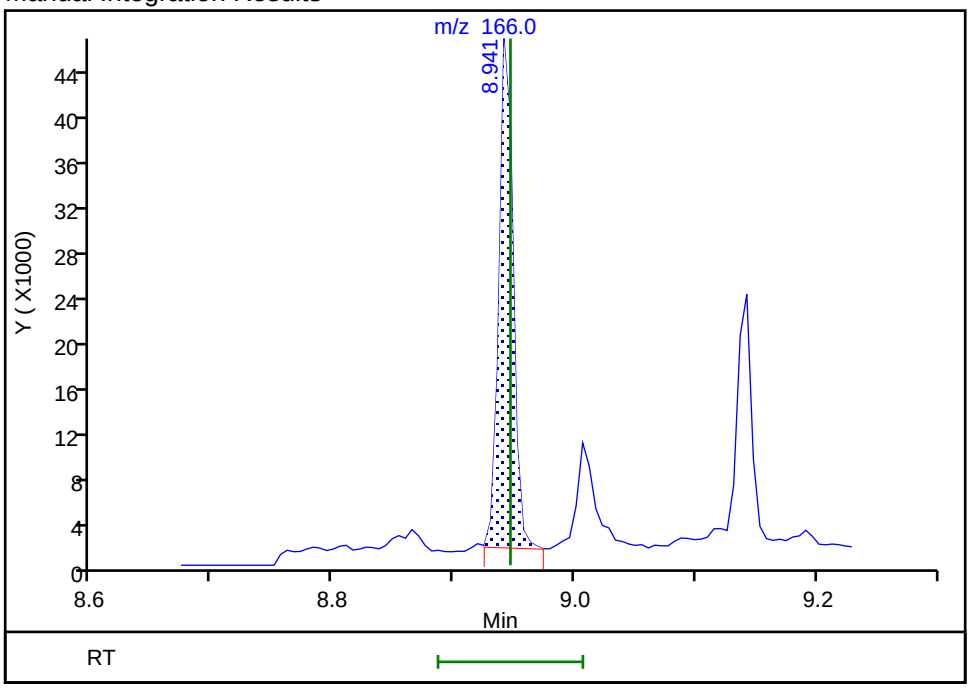
Processing Integration Results

RT: 8.94
Area: 41952
Amount: 17.976459
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 37018
Amount: 15.862237
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:15

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

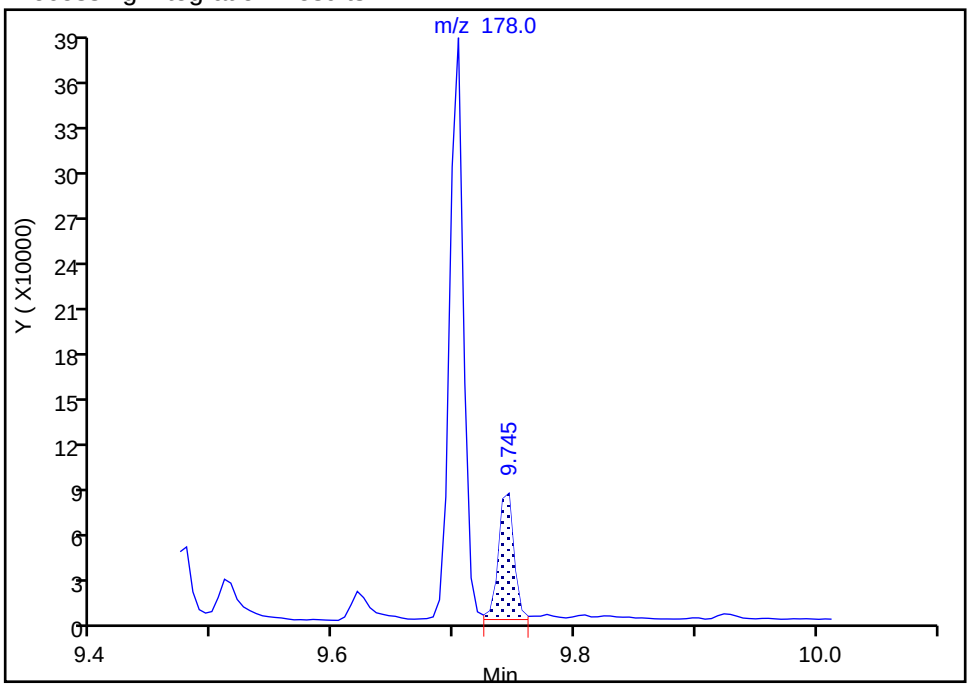
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

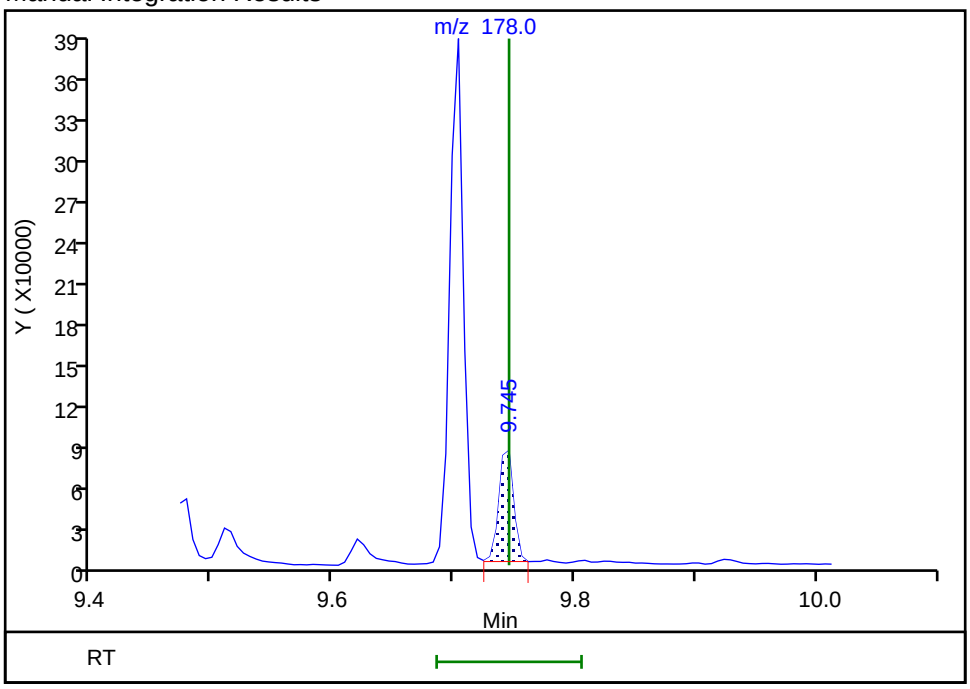
Processing Integration Results

RT: 9.75
Area: 73777
Amount: 20.119932
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 69053
Amount: 18.831636
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

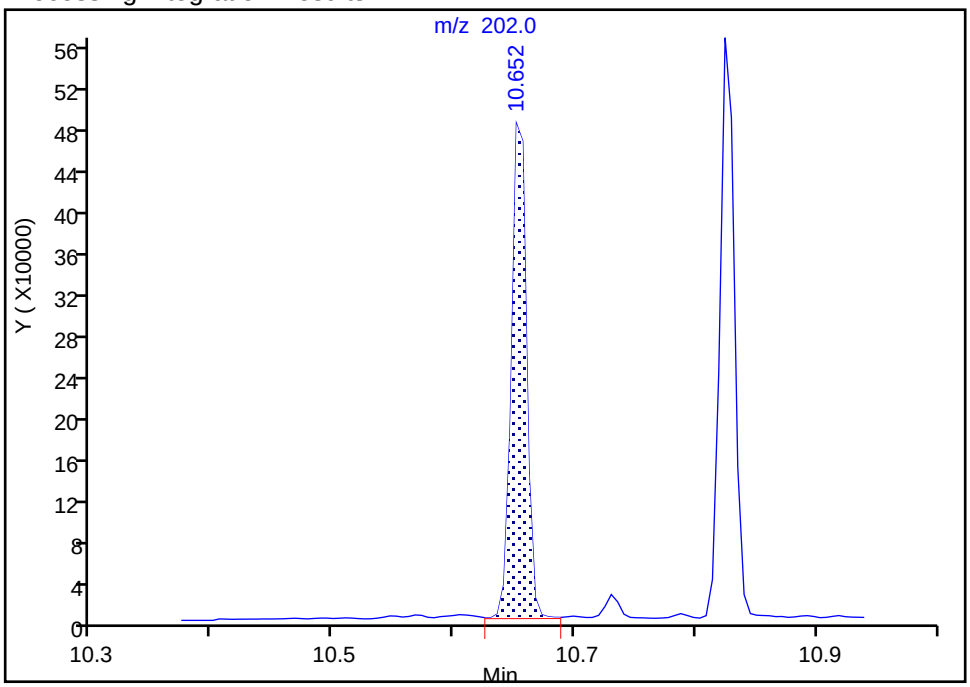
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

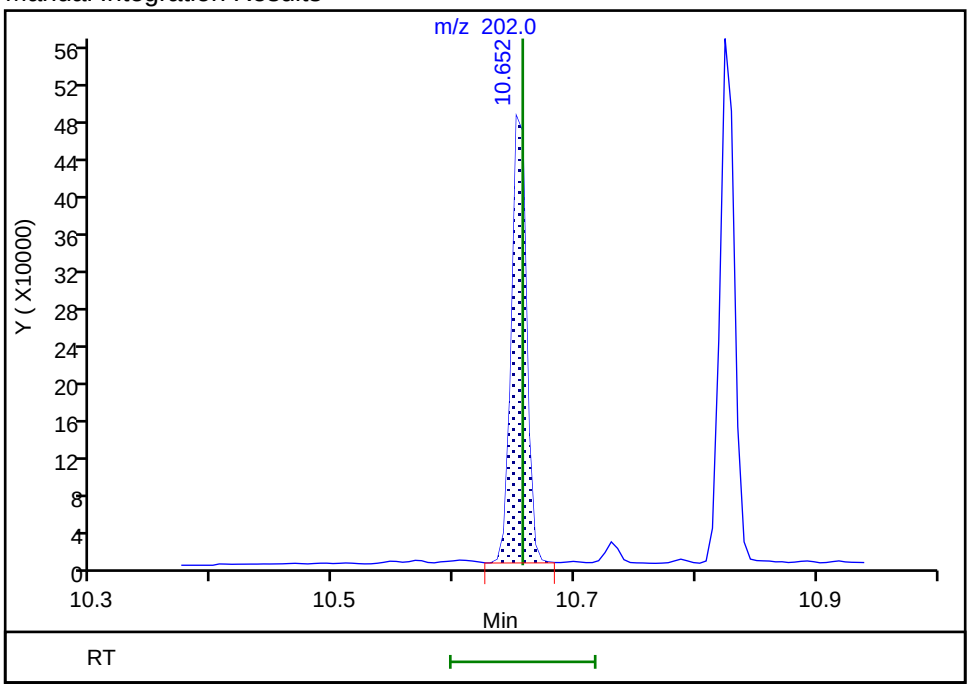
Processing Integration Results

RT: 10.65
Area: 422519
Amount: 113.0746
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 419487
Amount: 112.2632
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

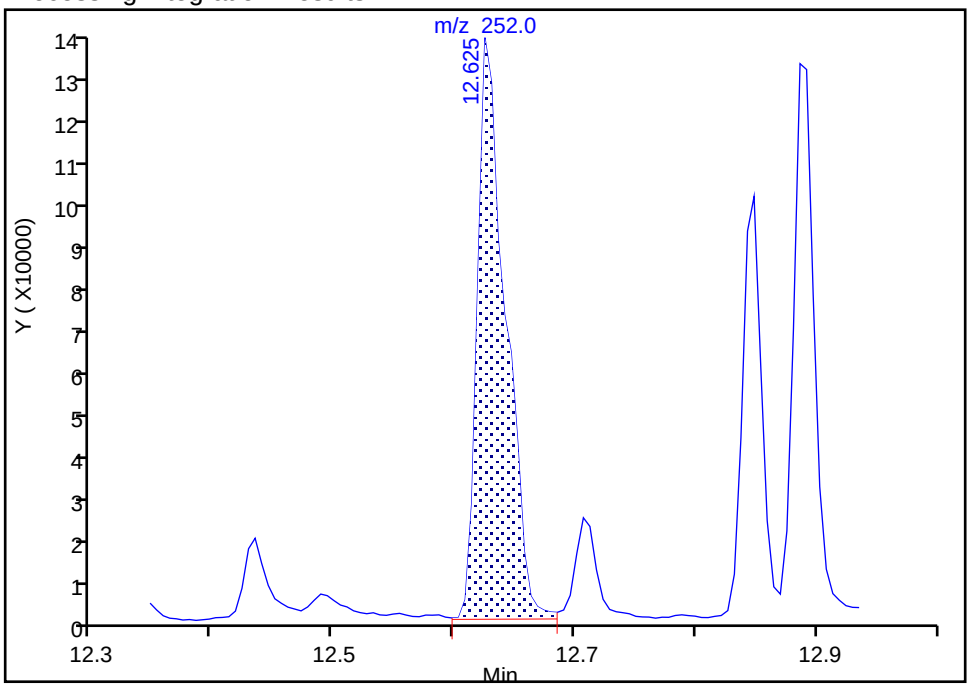
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

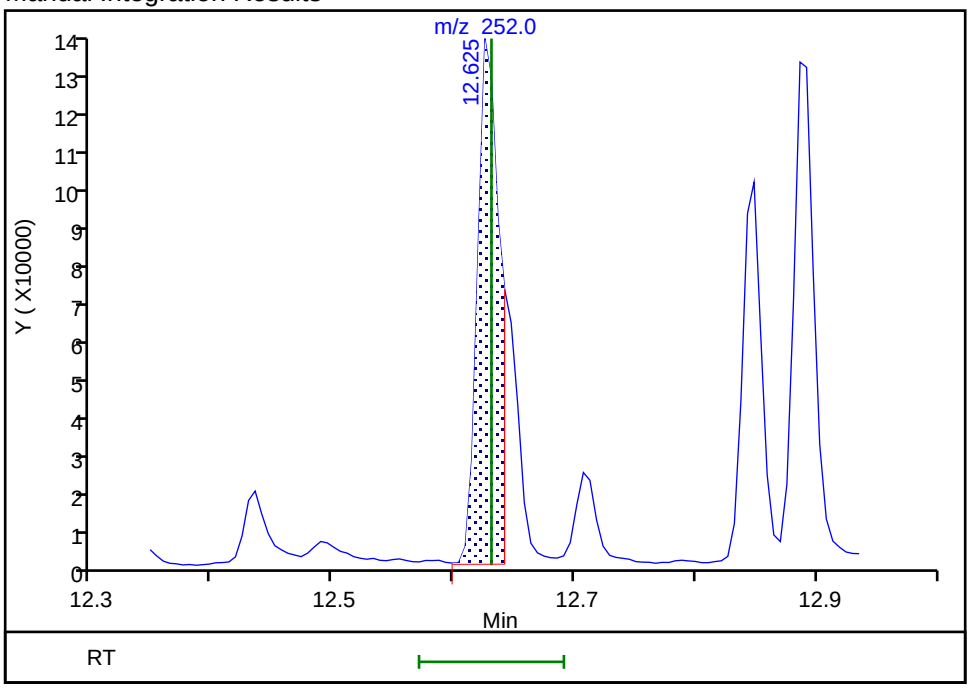
Processing Integration Results

RT: 12.63
Area: 212015
Amount: 63.336815
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 158910
Amount: 47.472364
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:51:58

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

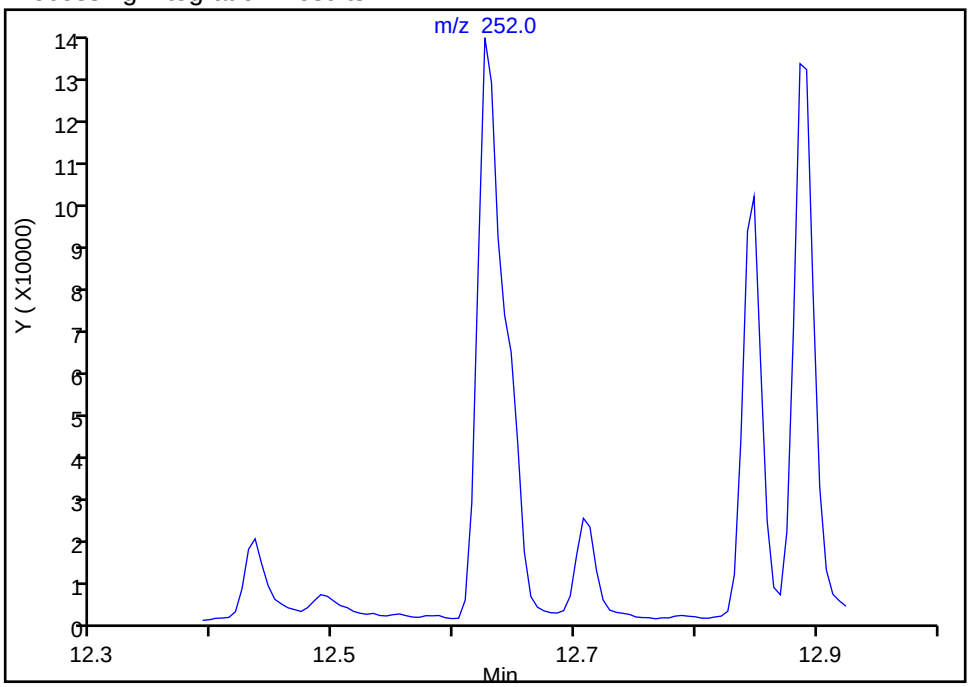
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

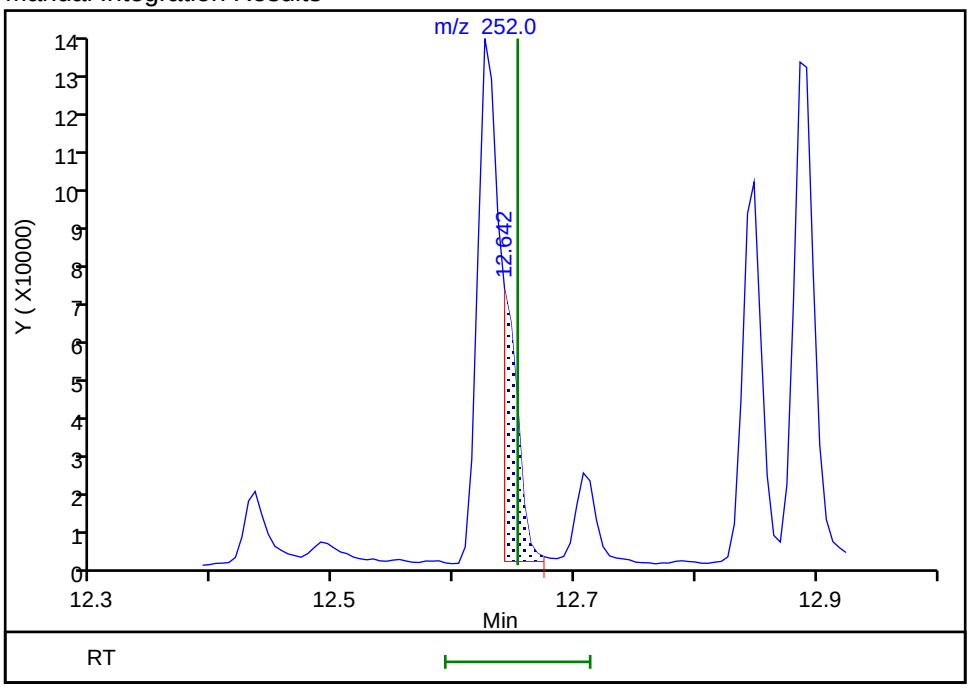
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 50457
Amount: 12.320462
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:52:07
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

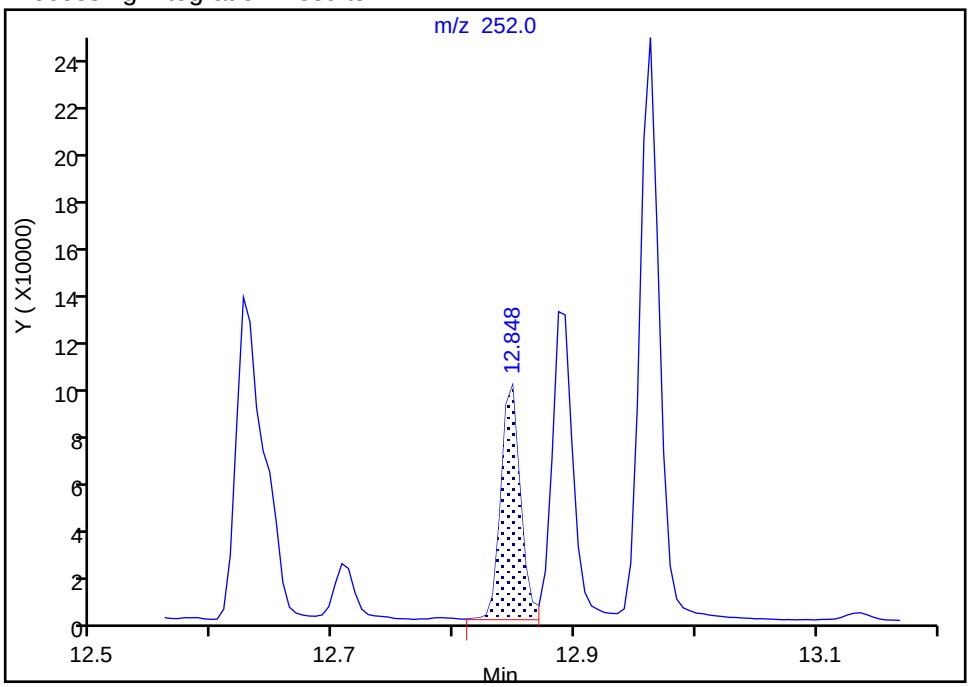
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

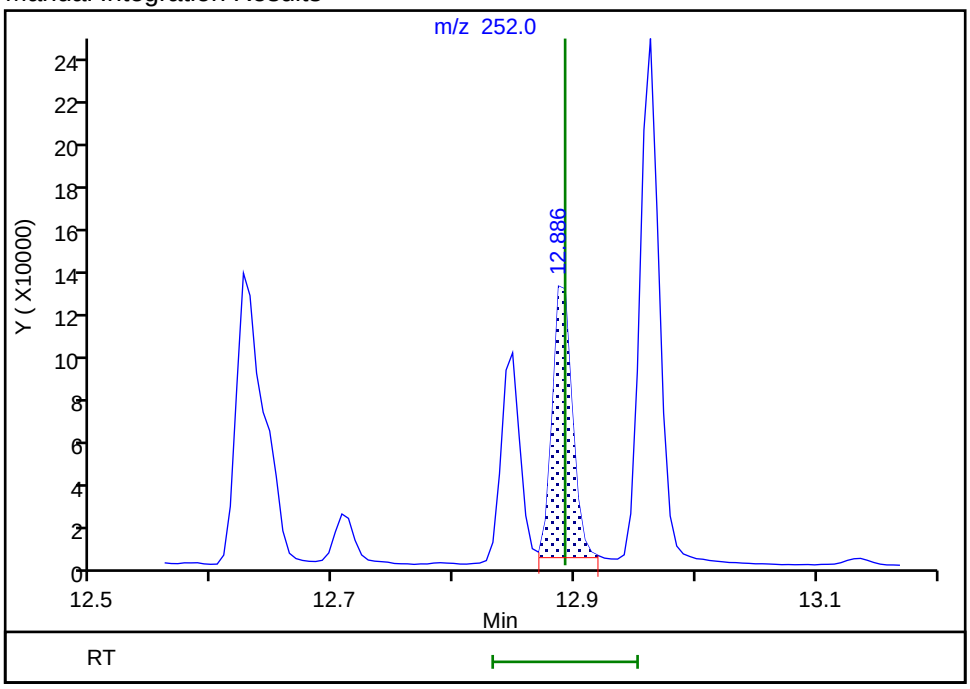
Processing Integration Results

RT: 12.85
Area: 106956
Amount: 31.540685
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 141179
Amount: 41.632843
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:52:10

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

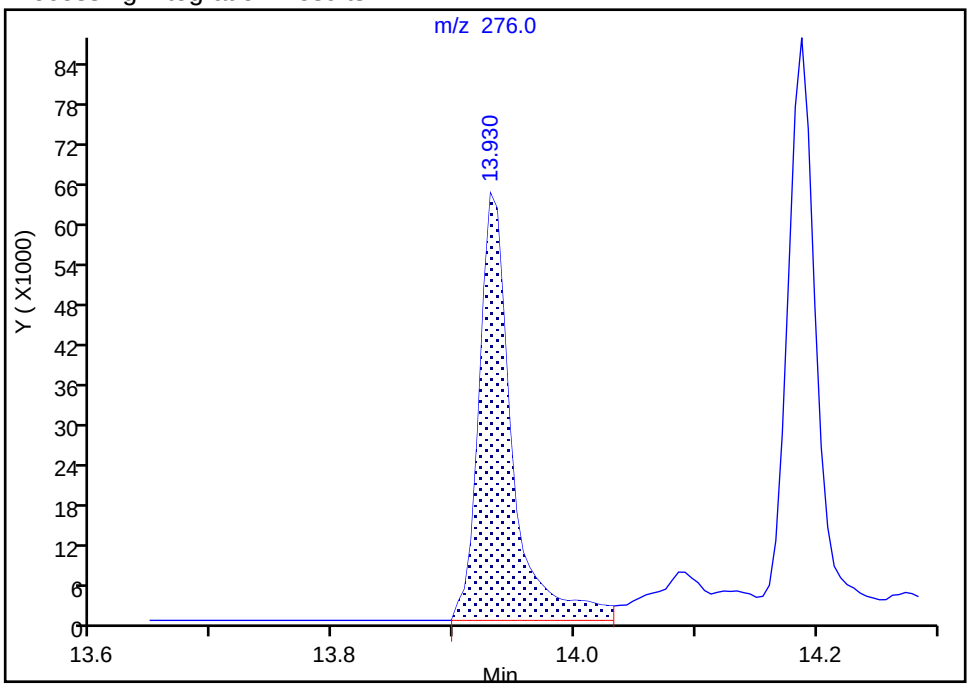
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

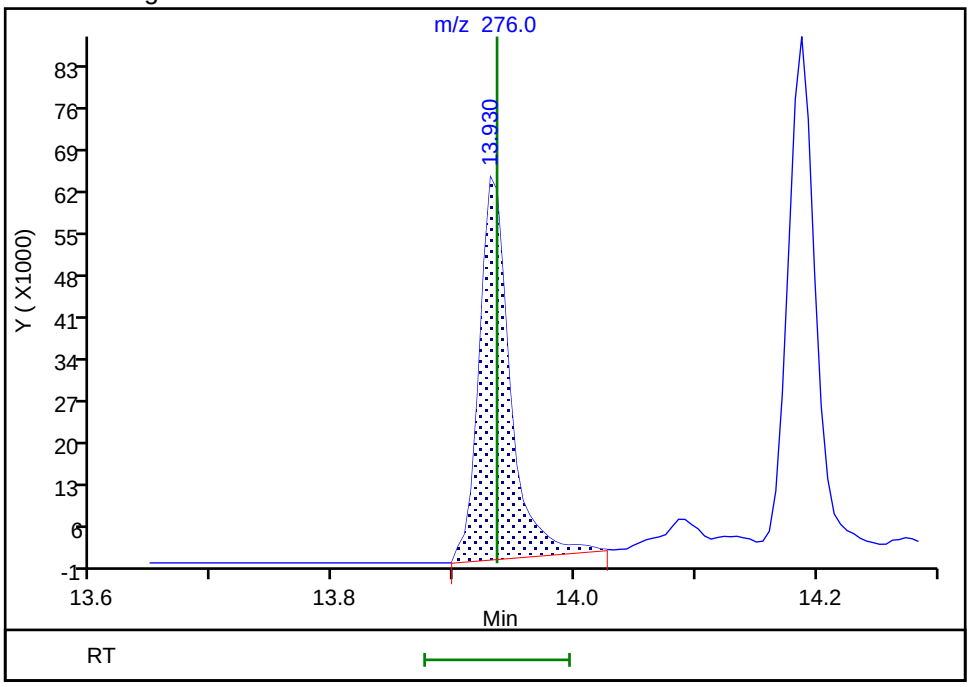
Processing Integration Results

RT: 13.93
Area: 121516
Amount: 47.013429
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 113174
Amount: 43.802451
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:52:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

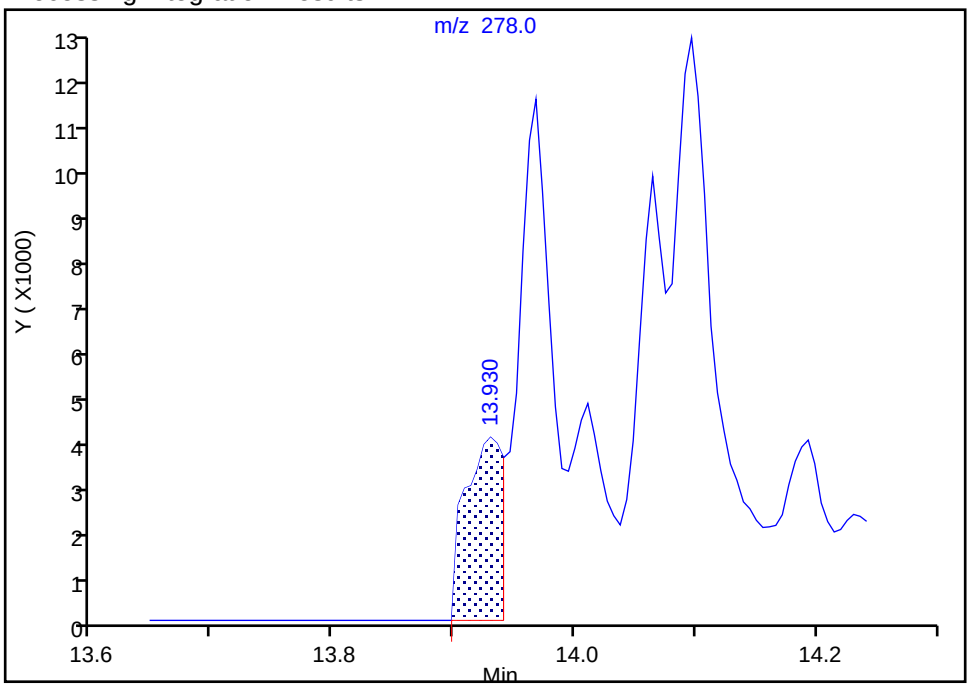
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A019.D				
Injection Date:	22-Jul-2019 18:39:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-12-A	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	KFS	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

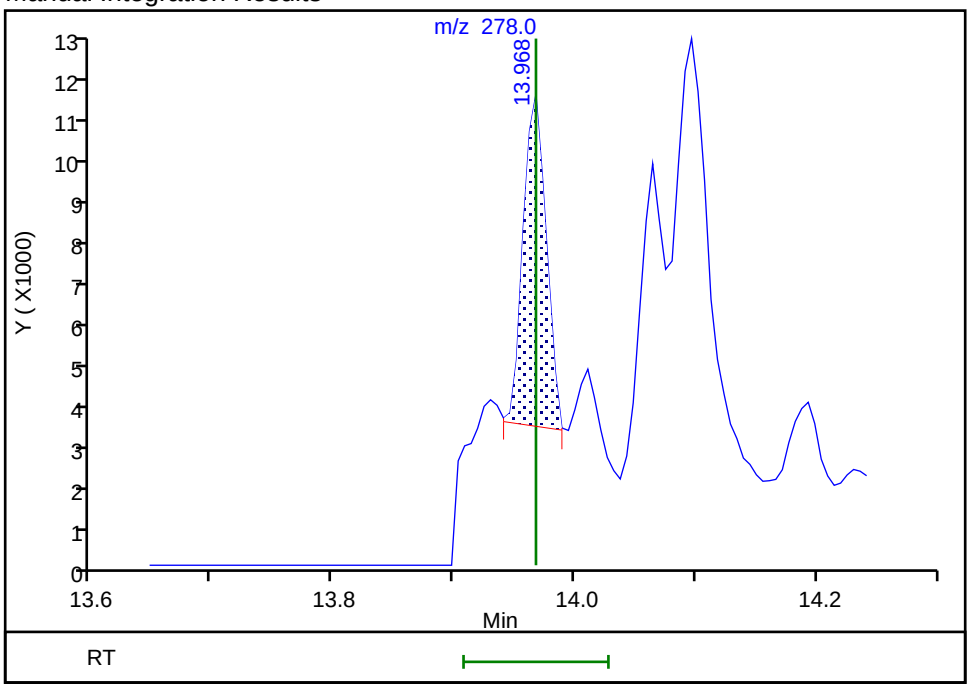
Processing Integration Results

RT: 13.93
Area: 7760
Amount: 3.455794
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 10079
Amount: 4.157197
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:52:25

Audit Action: Manually Integrated Audit Reason: Assign Peak

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Matrix: Solid Lab File ID: 072219A020.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 13:15

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 13.788(g) Date Analyzed: 07/22/2019 19:06

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	130		6.5	2.1
91-57-6	2-Methylnaphthalene	51		6.5	2.7
90-12-0	1-Methylnaphthalene	22		6.5	0.82
208-96-8	Acenaphthylene	12		6.5	0.65
83-32-9	Acenaphthene	52		6.5	0.78
86-73-7	Fluorene	52		6.5	0.65
85-01-8	Phenanthrene	270		6.5	2.1
120-12-7	Anthracene	48		6.5	0.78
206-44-0	Fluoranthene	260		6.5	1.8
129-00-0	Pyrene	280		6.5	1.3
56-55-3	Benzo[a]anthracene	97		6.5	0.99
218-01-9	Chrysene	95		6.5	2.0
205-99-2	Benzo[b]fluoranthene	82		6.5	0.77
207-08-9	Benzo[k]fluoranthene	22		6.5	0.78
50-32-8	Benzo[a]pyrene	75		6.5	1.1
193-39-5	Indeno[1,2,3-cd]pyrene	63		6.5	0.78
53-70-3	Dibenz(a,h)anthracene	8.7	B	6.5	0.94
191-24-2	Benzo[g,h,i]perylene	50	B	6.5	0.65

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	86		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D
Lims ID: 580-87706-A-13-A
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 19:06:30 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-13-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:55:08 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:55:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	379468	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	95	161358	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	287717	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	99	229306	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	255042	100.0	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1882724	864.2	
10 Naphthalene	128	7.004	7.004	0.000	100	409197	96.5	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	108891	39.2	M
12 1-Methylnaphthalene	142	7.717	7.722	-0.005	93	42944	16.5	M
13 Acenaphthylene	152	8.377	8.376	0.001	98	32825	9.33	M
14 Acenaphthene	153	8.520	8.525	-0.005	81	102022	39.9	M
15 Fluorene	166	8.941	8.947	-0.006	95	102349	40.0	M
17 Phenanthrene	178	9.704	9.704	0.000	99	796411	203.9	M
18 Anthracene	178	9.745	9.745	0.000	100	133703	36.8	M
19 Fluoranthene	202	10.652	10.657	-0.005	97	736017	198.9	M
20 Pyrene	202	10.824	10.830	-0.006	100	845000	216.8	M
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	97	195193	74.7	M
22 Chrysene	228	11.821	11.821	0.000	99	254068	73.1	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	98	207090	63.0	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	0	66965	16.7	M
25 Benzo[a]pyrene	252	12.886	12.892	-0.006	97	193030	58.0	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	97	122225	48.2	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	18182	6.71	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	97	140906	38.6	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

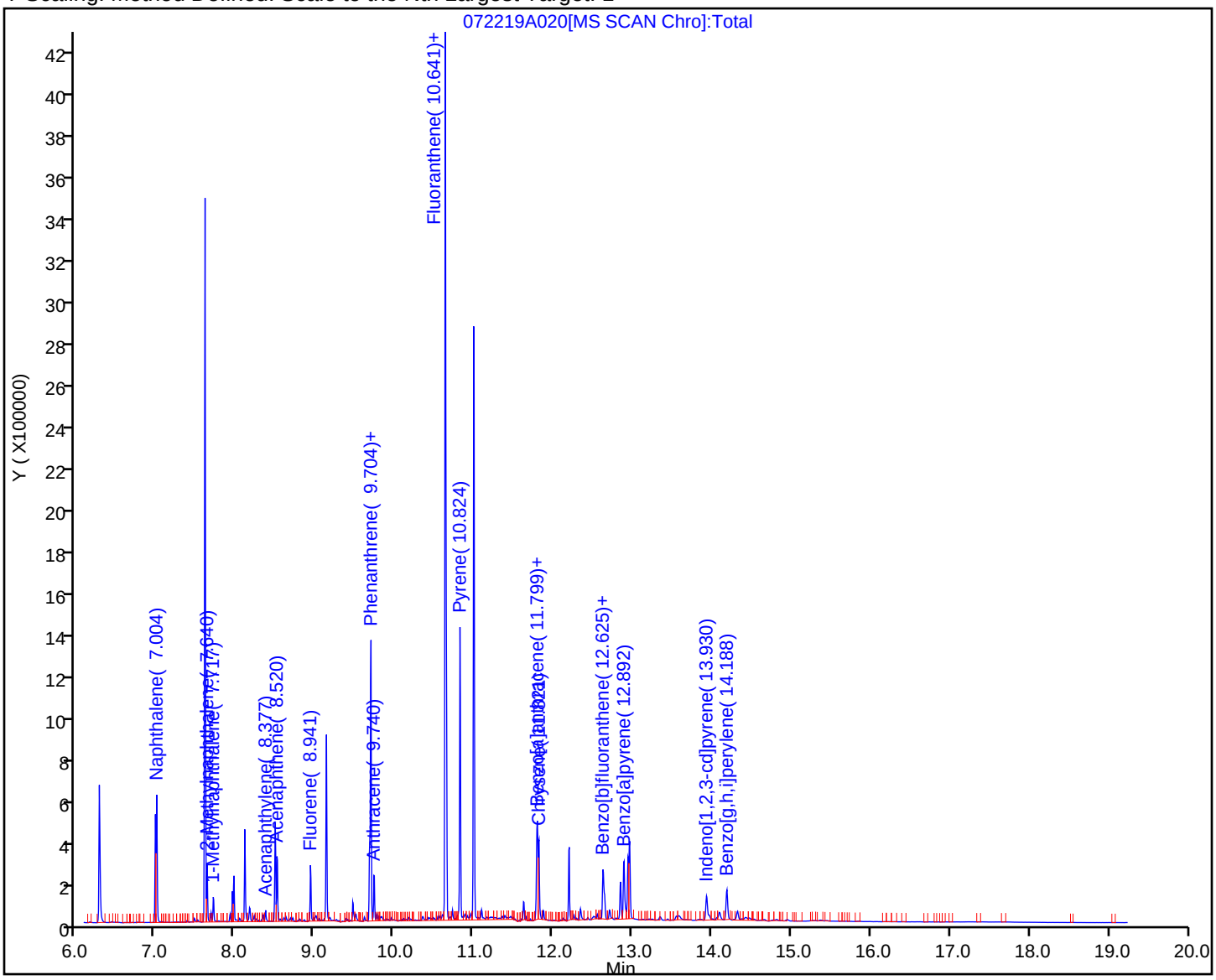
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D
Lims ID: 580-87706-A-13-A
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 19:06:30 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-13-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:55:08 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:55:08

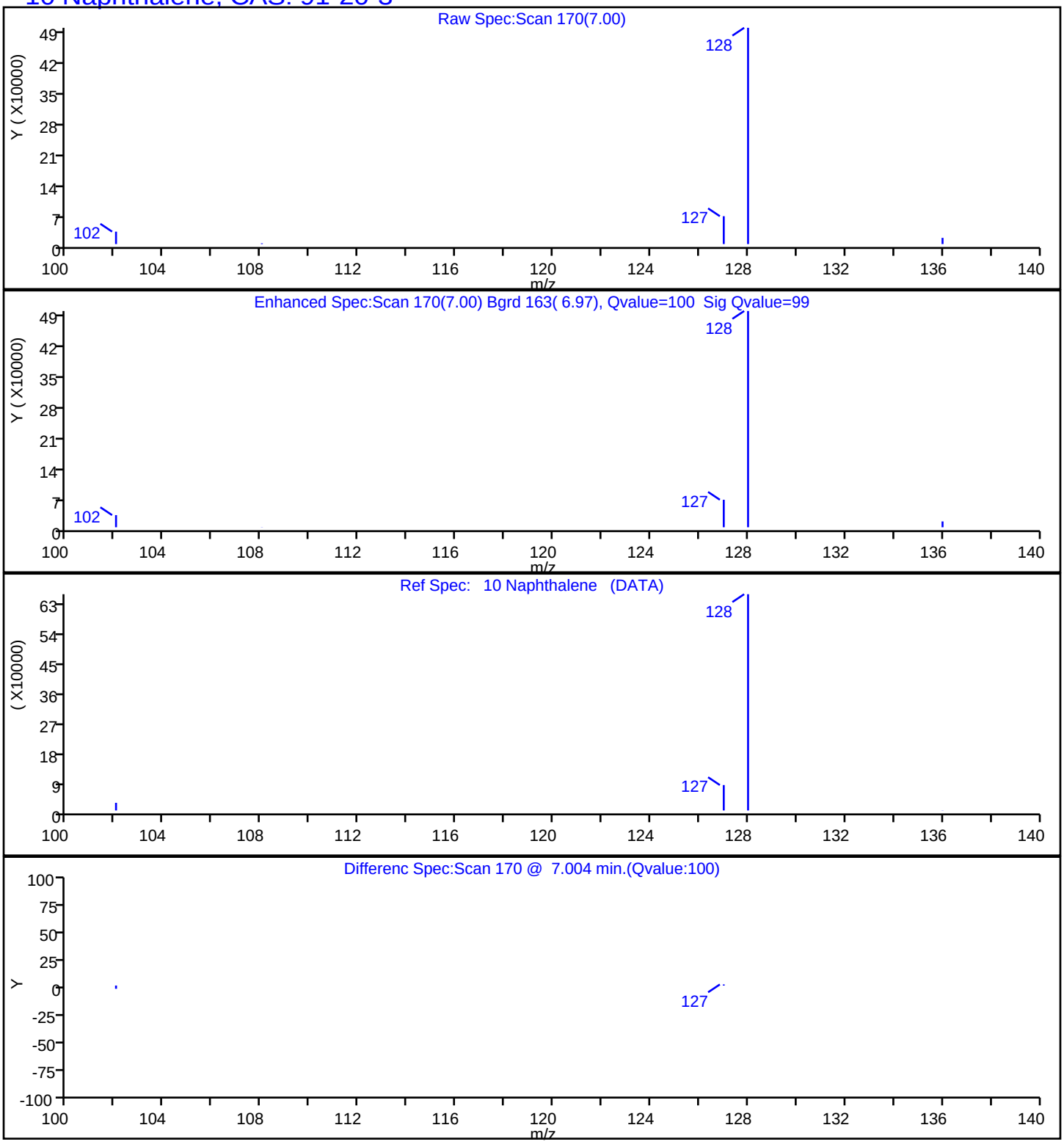
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	864.2	86.42

Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

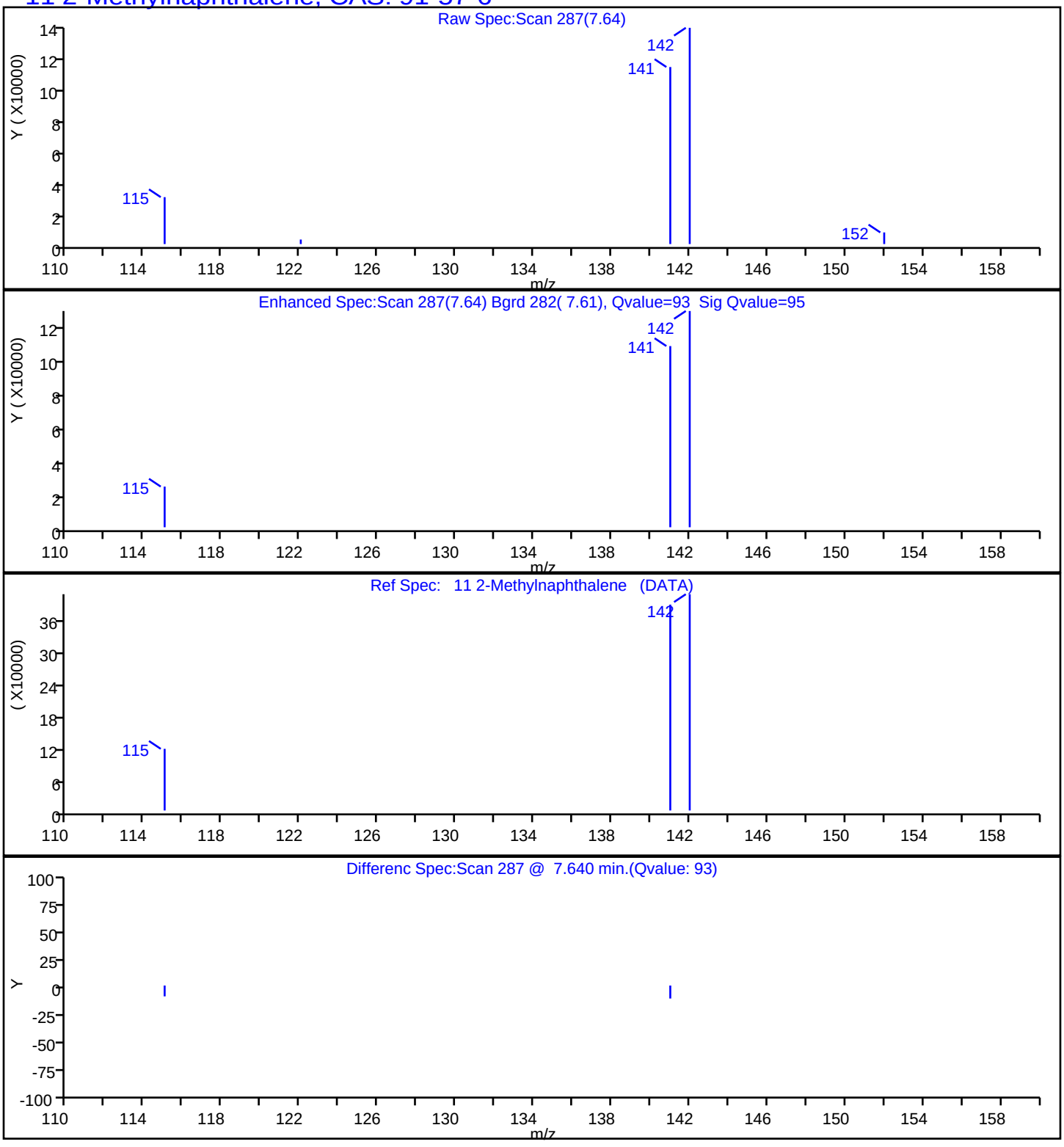


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

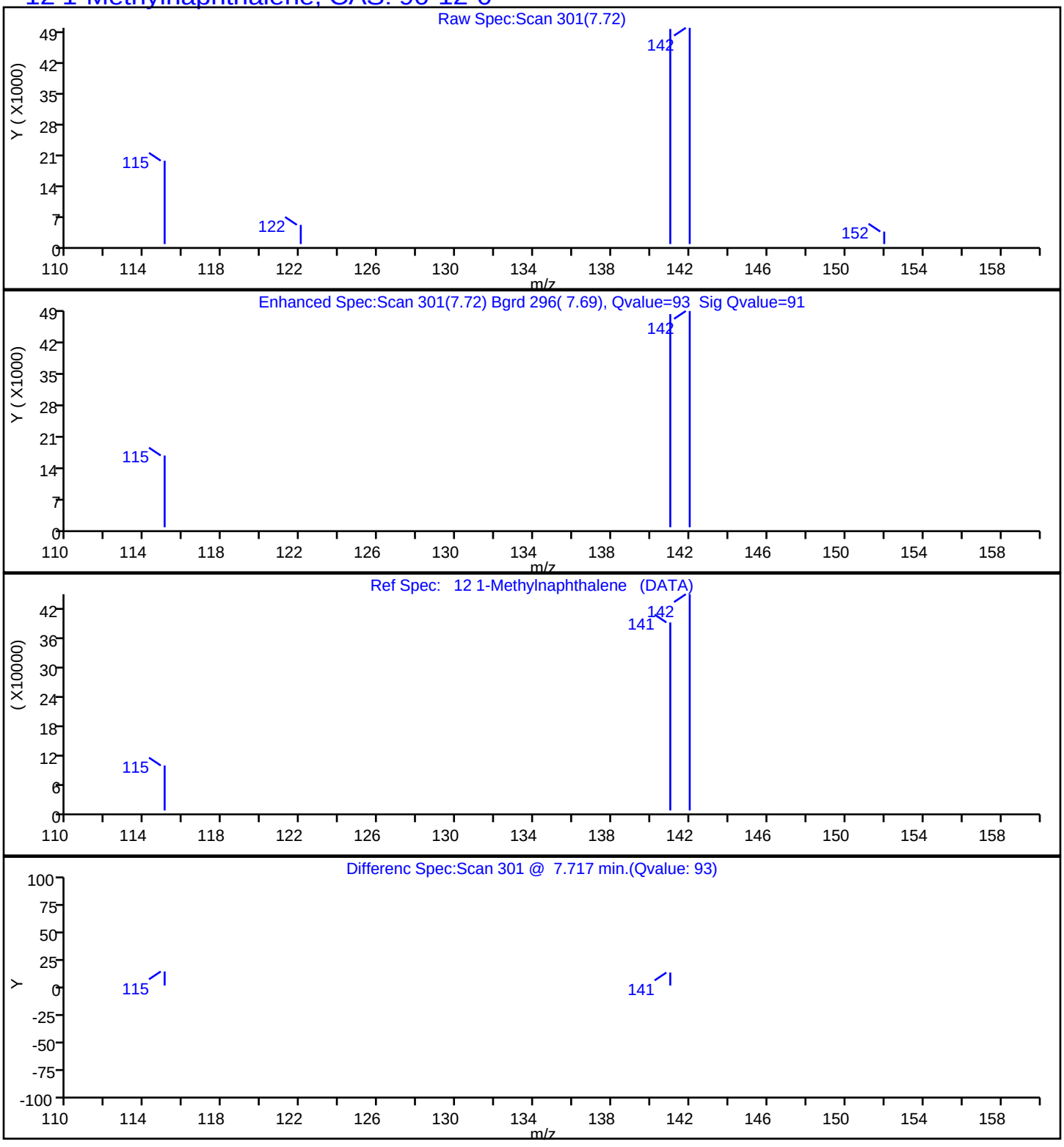


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

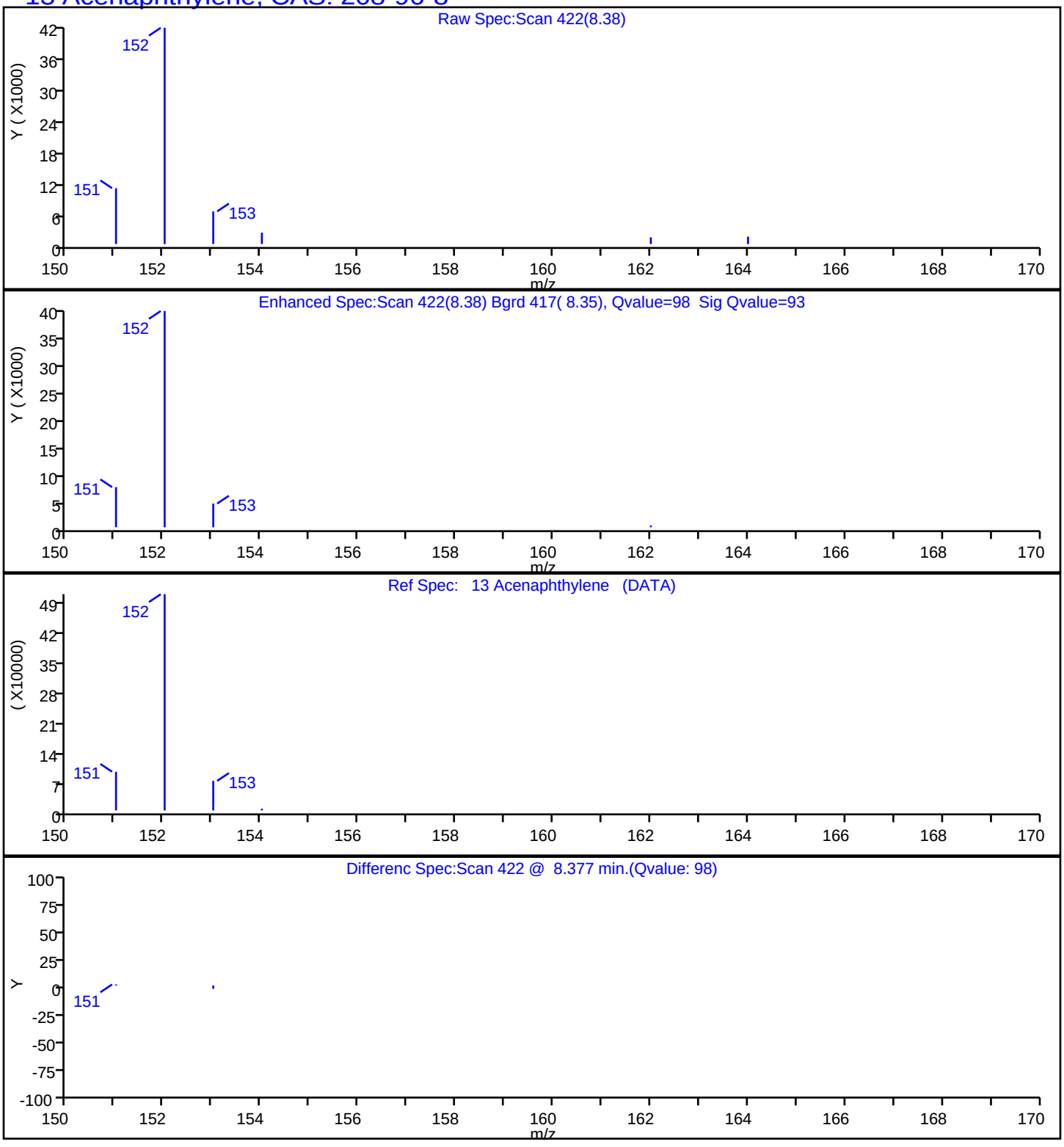


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

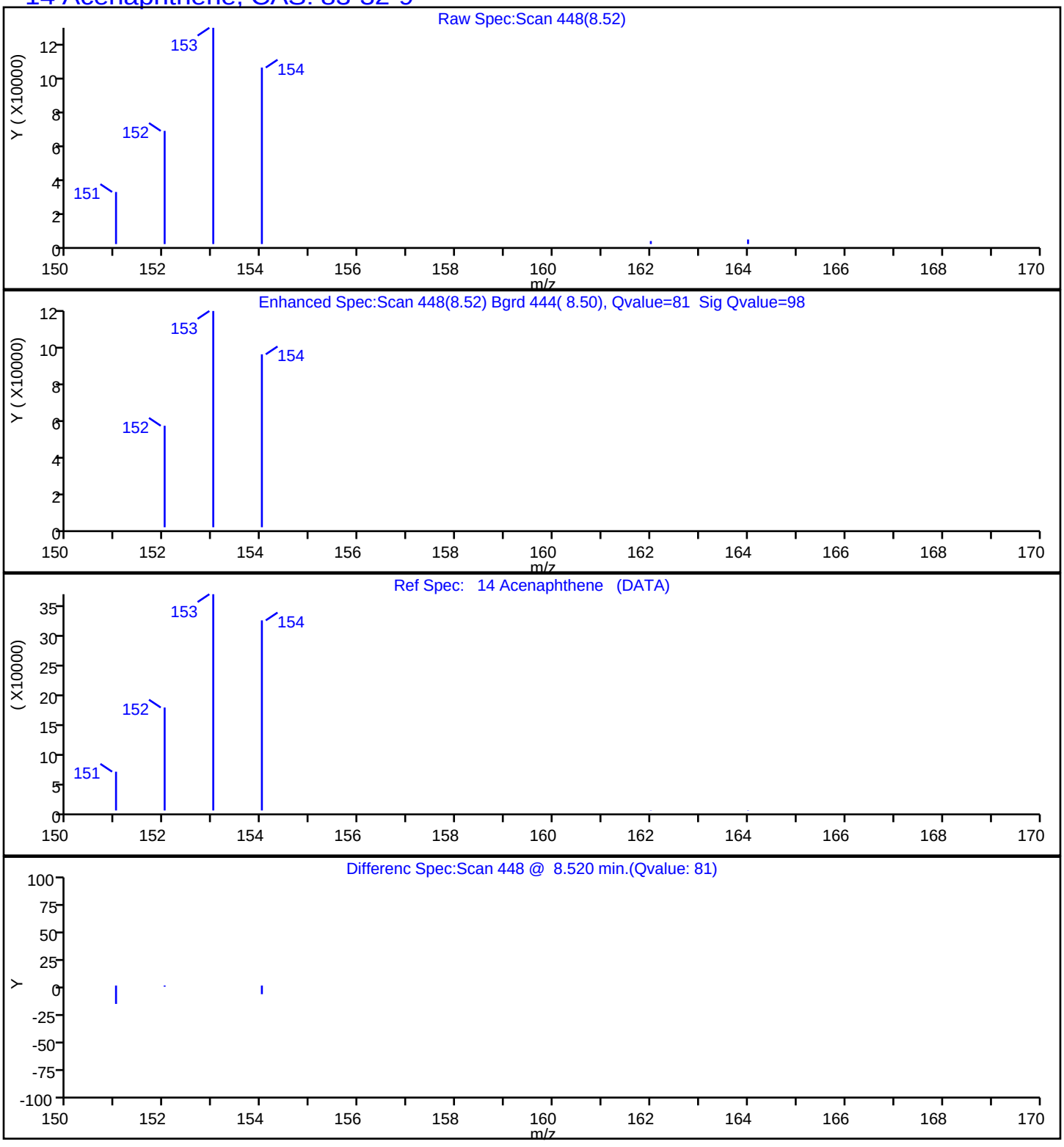


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

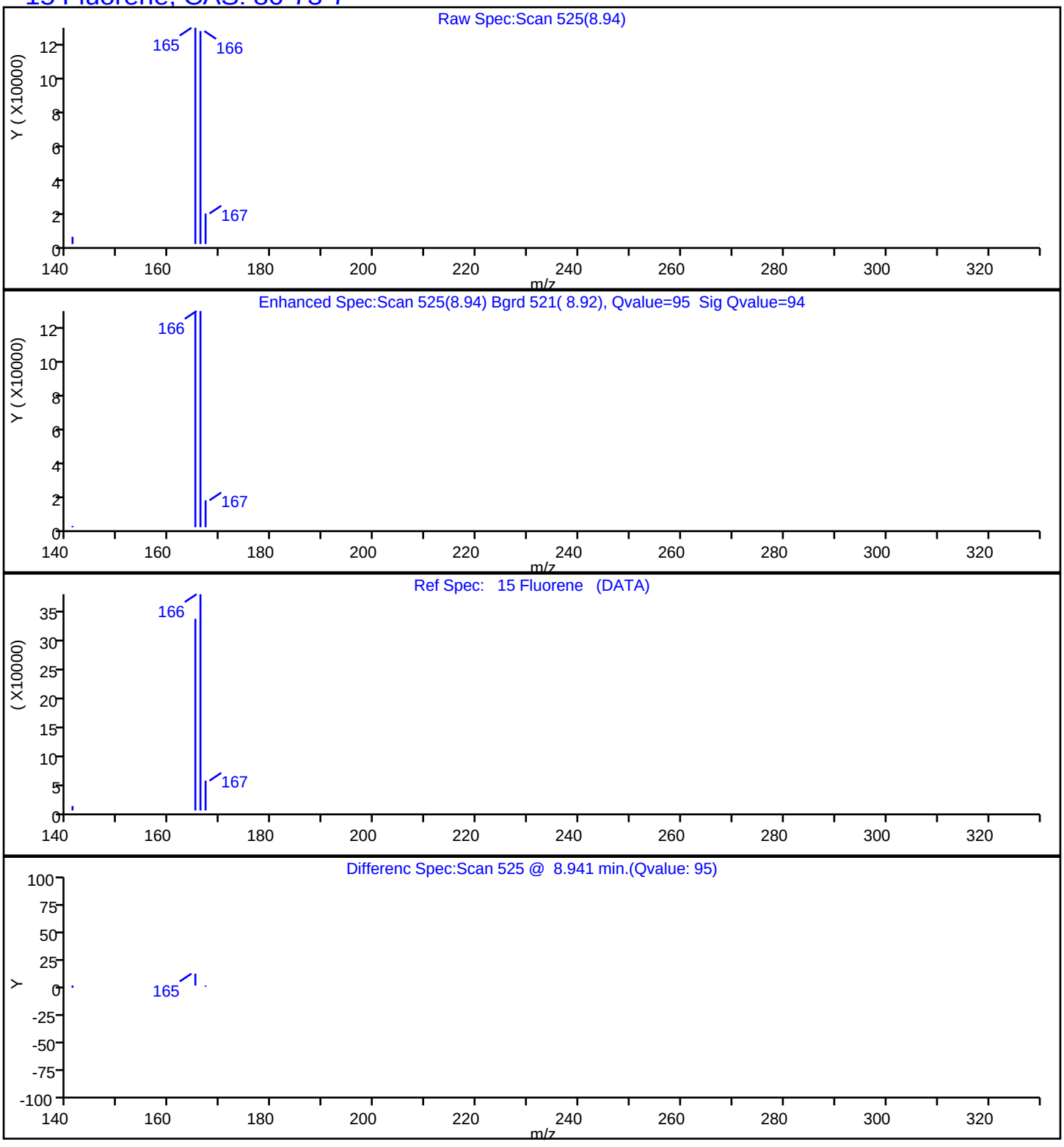


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

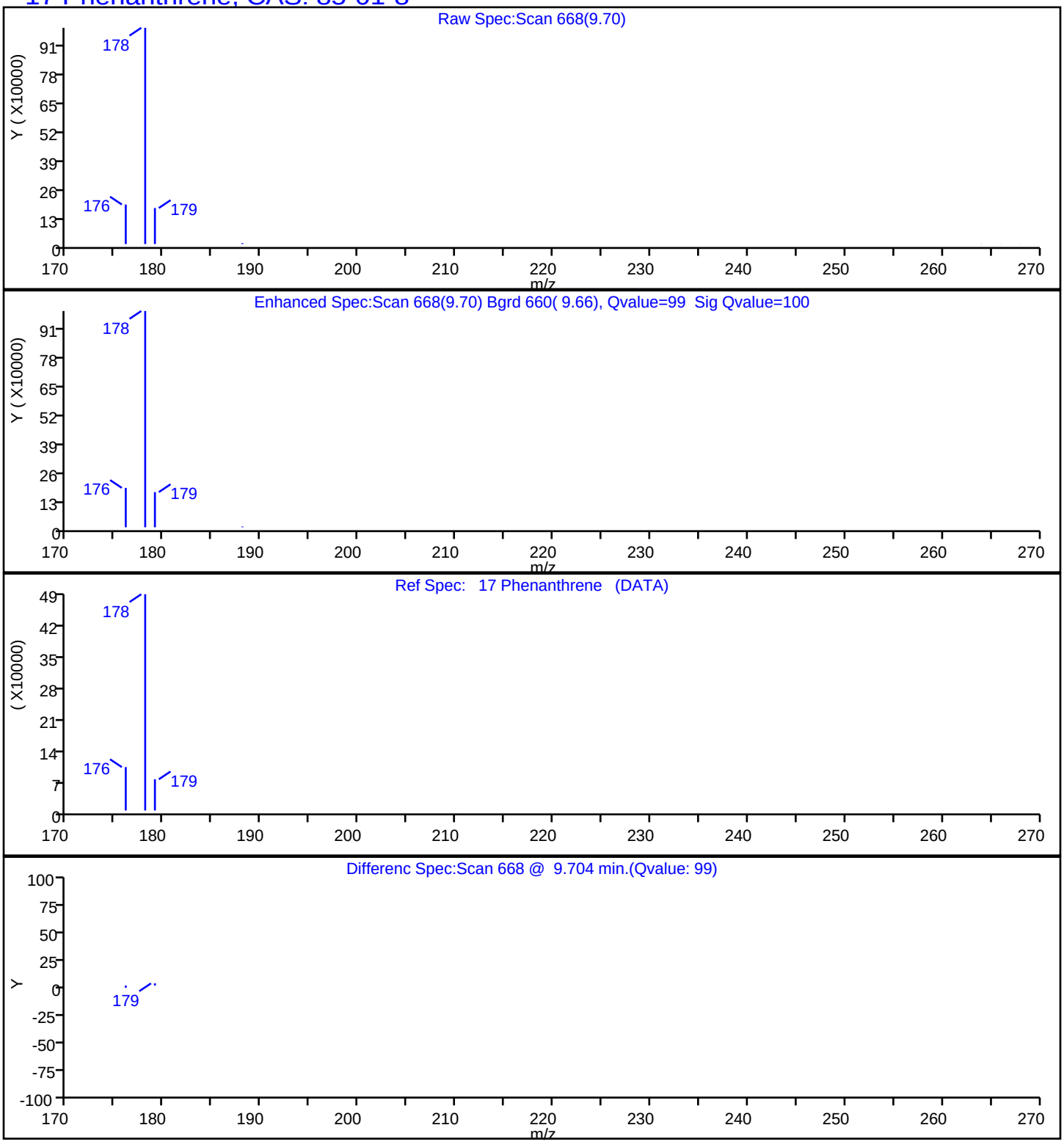


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

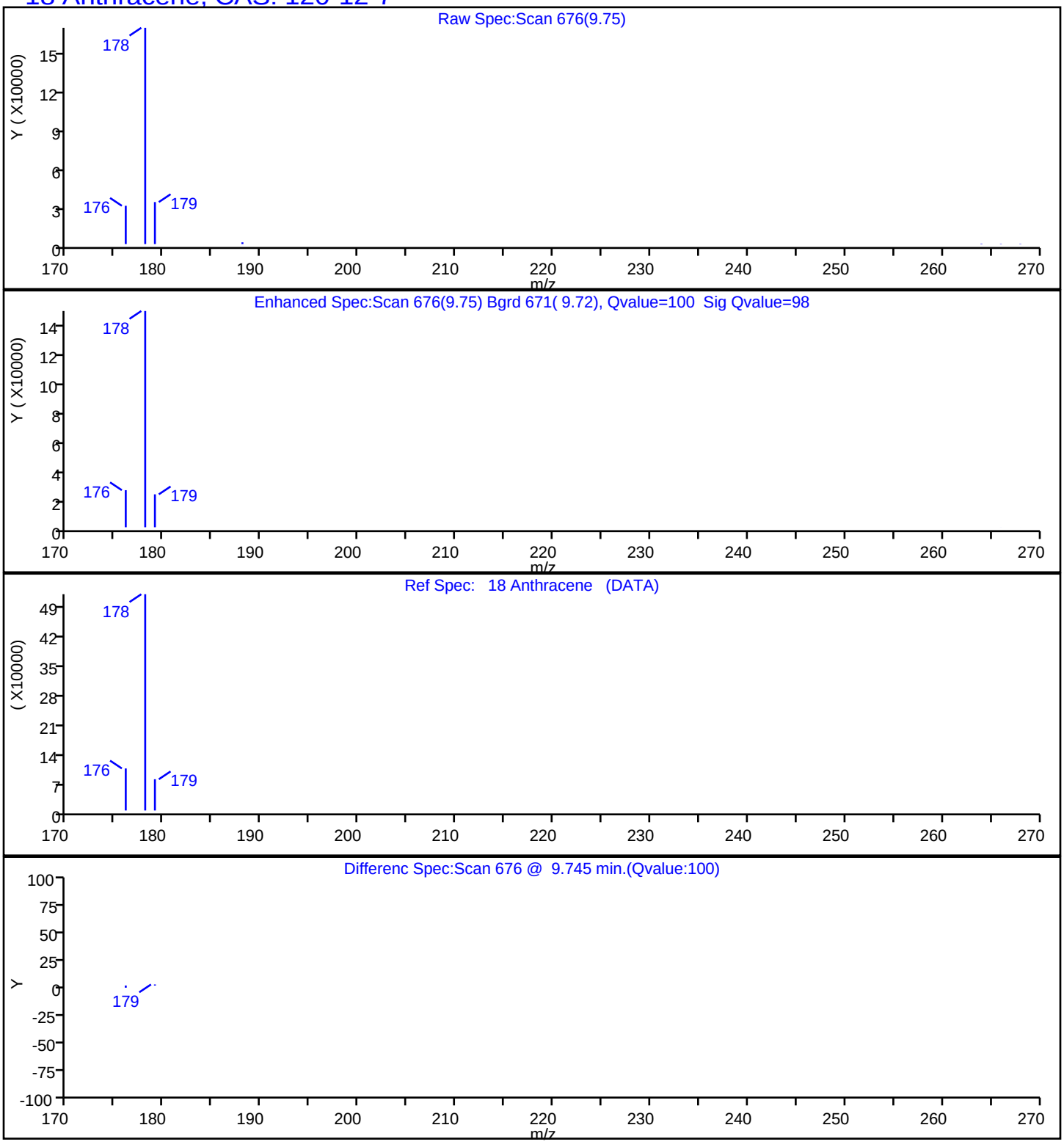


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

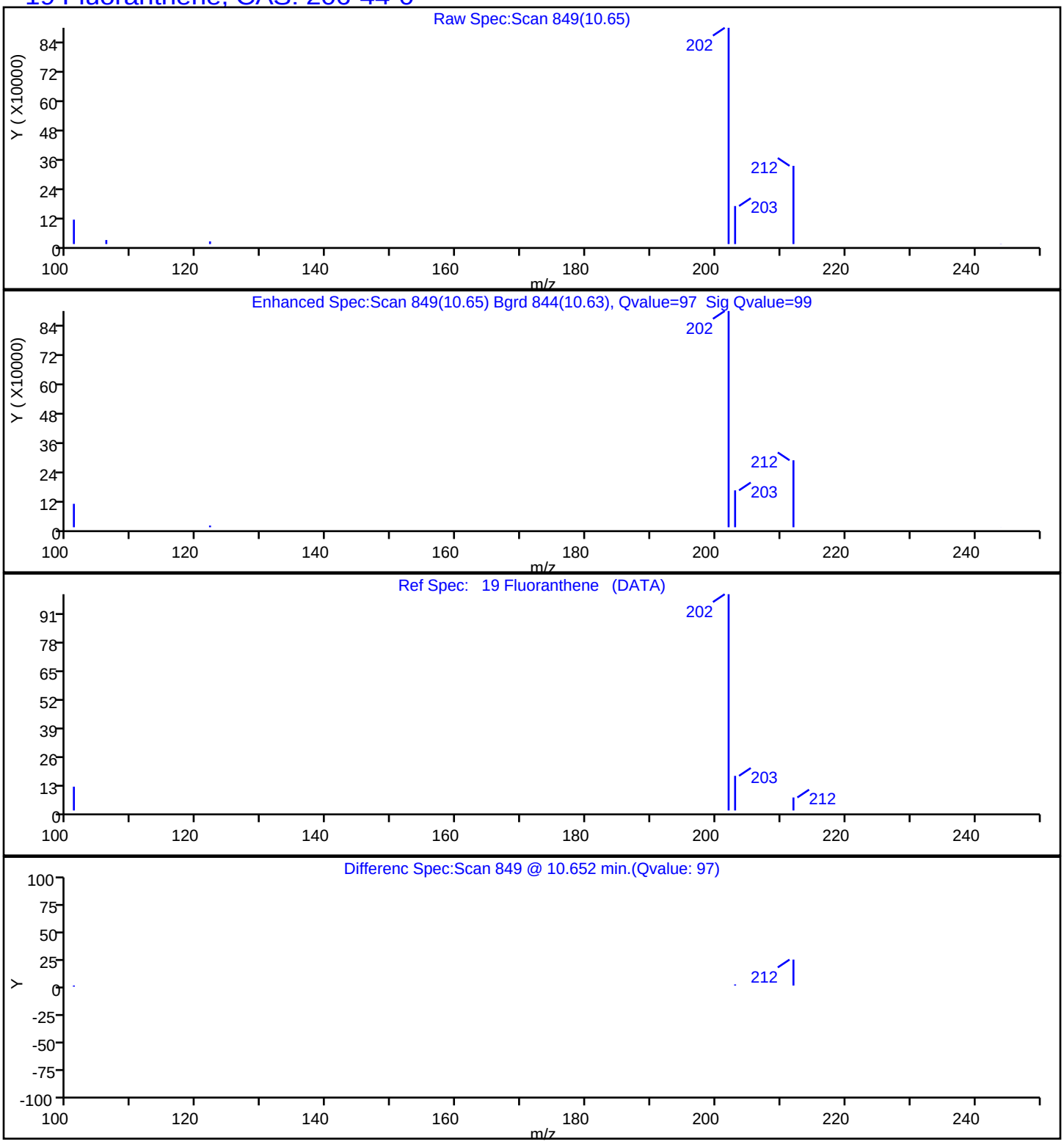


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

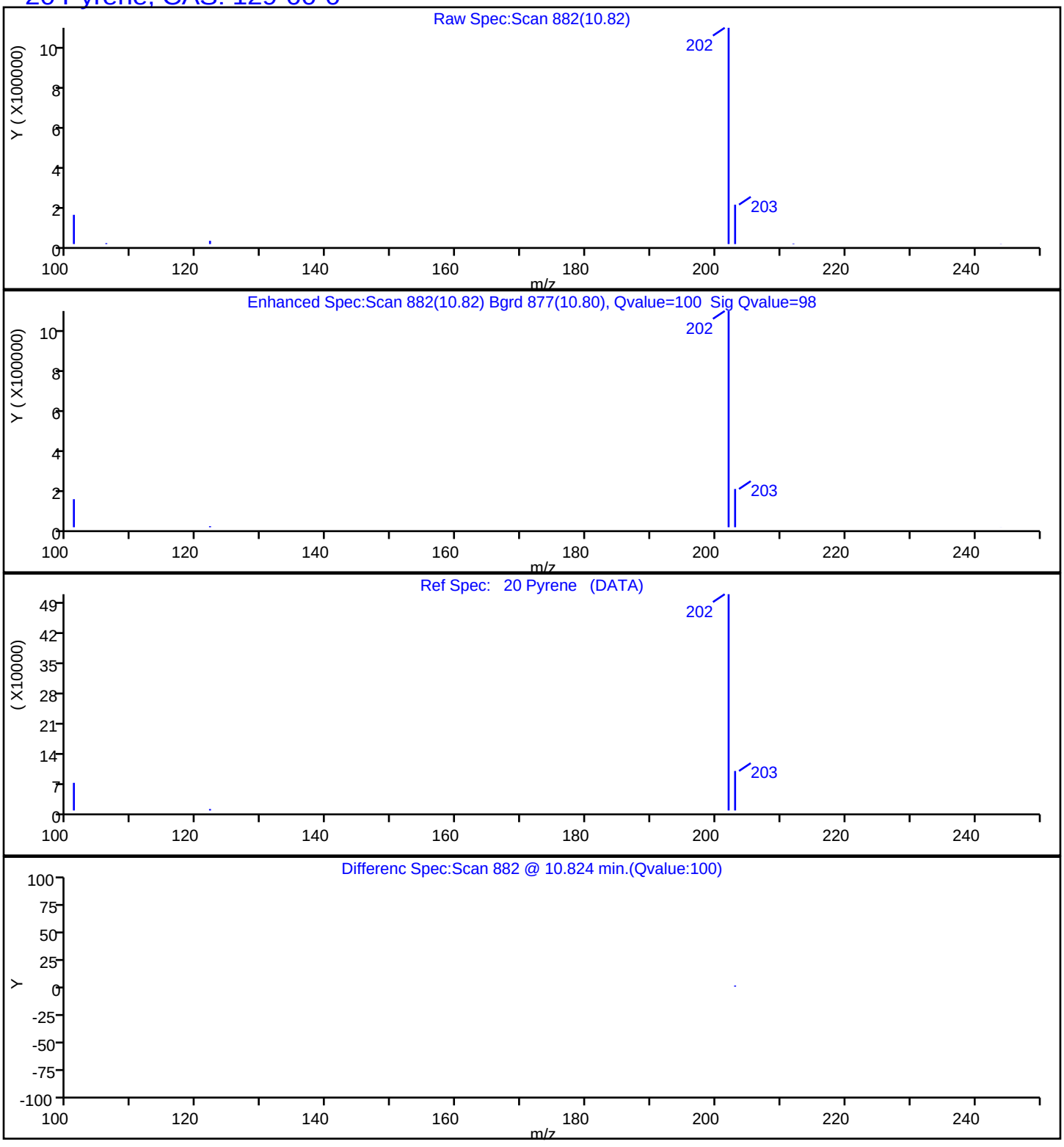


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

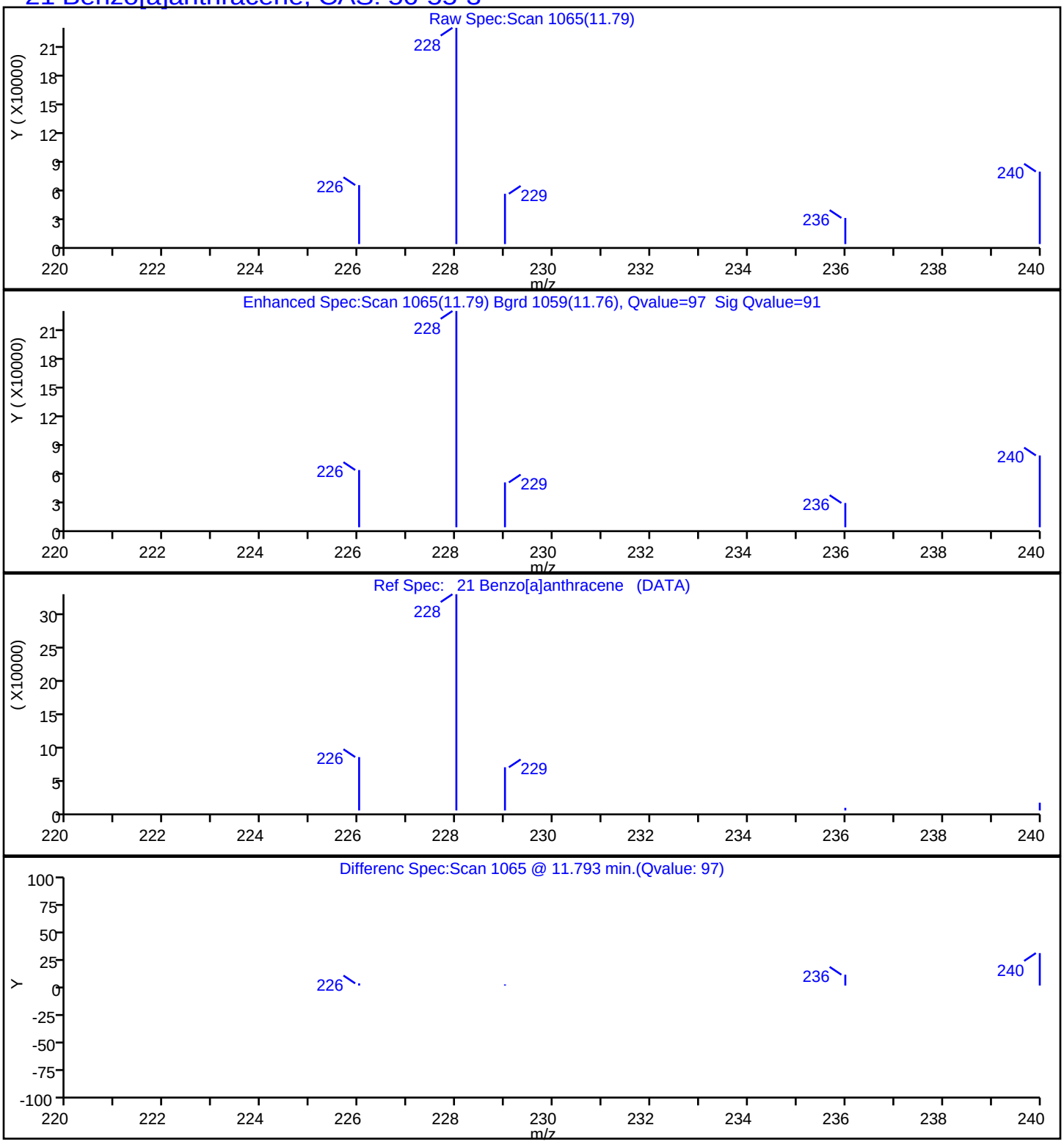


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

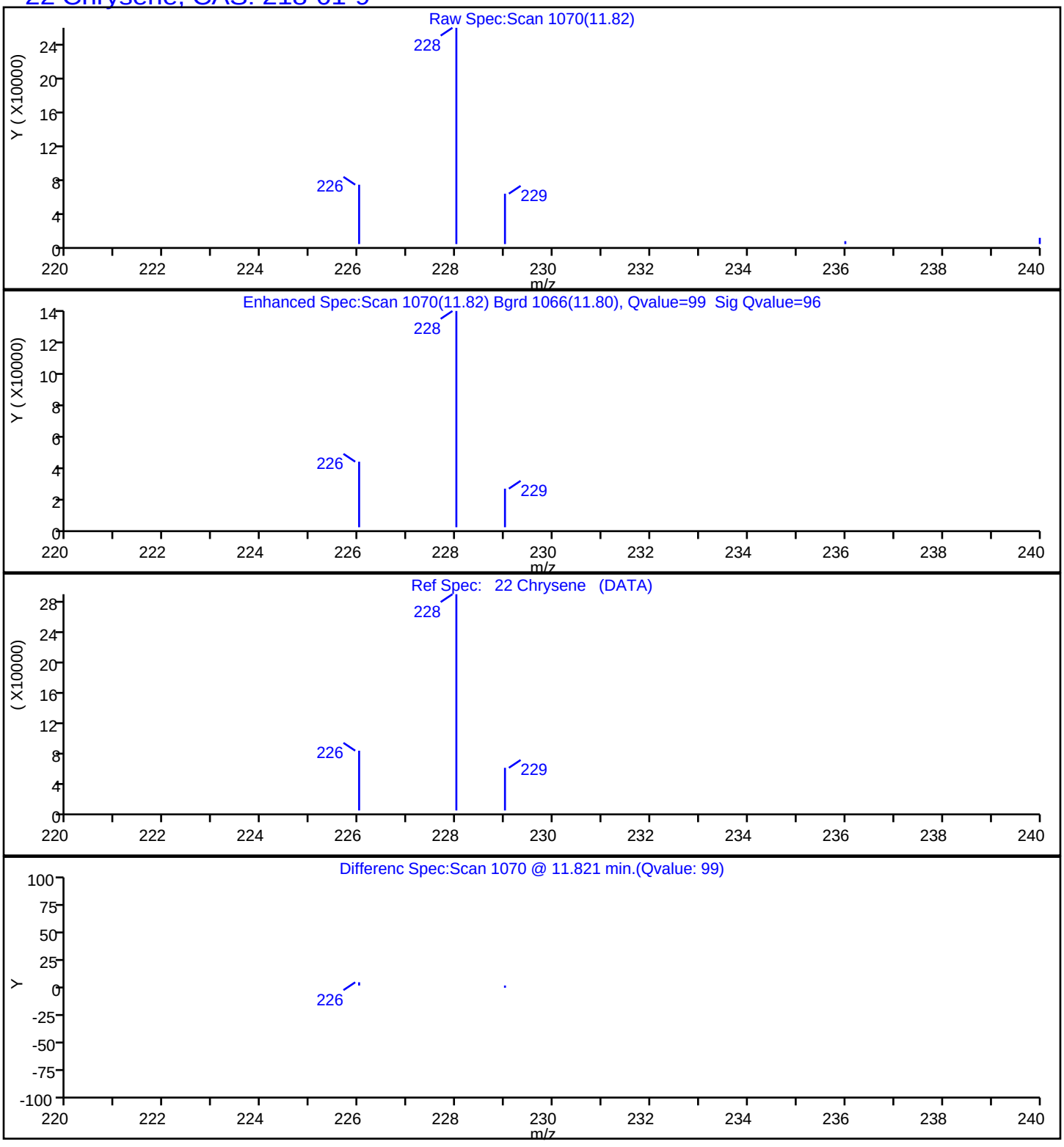


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

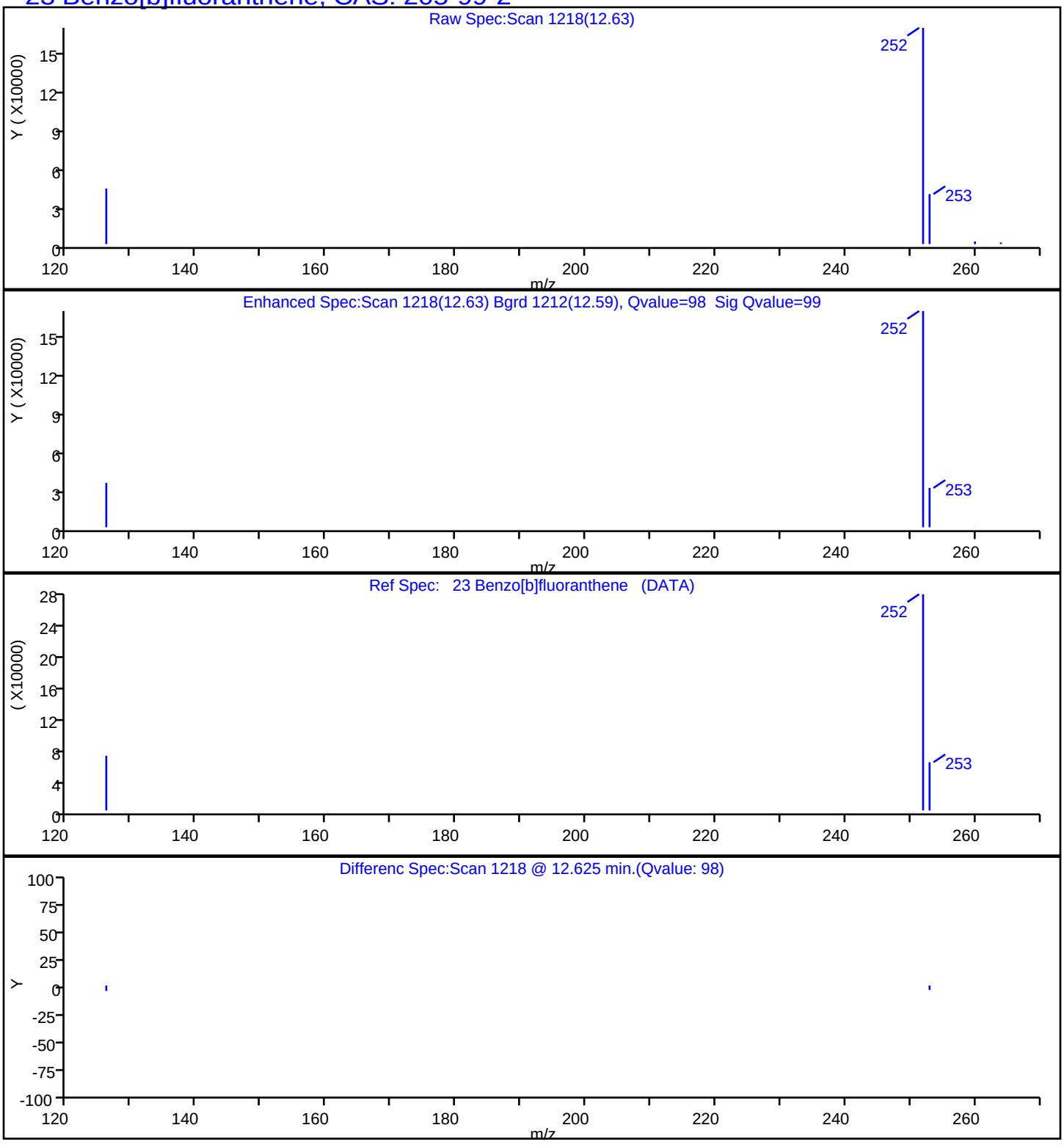


Report Date: 23-Jul-2019 14:55:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

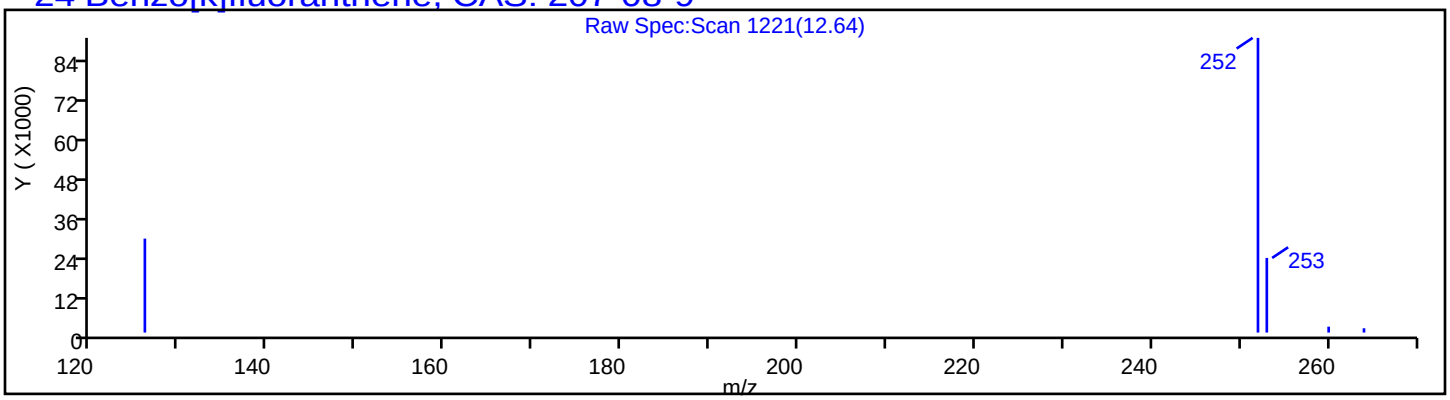


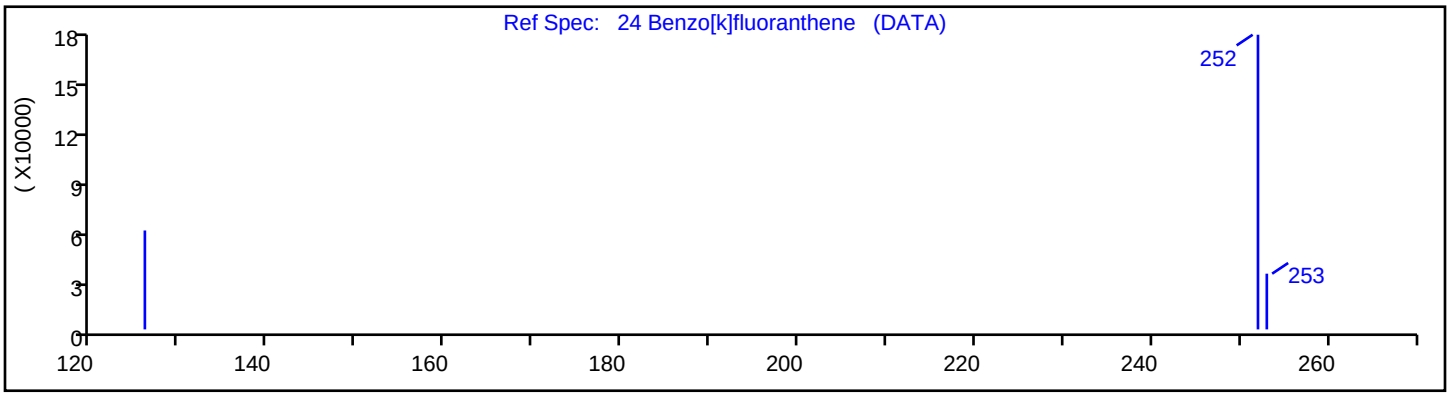
Report Date: 23-Jul-2019 14:55:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9



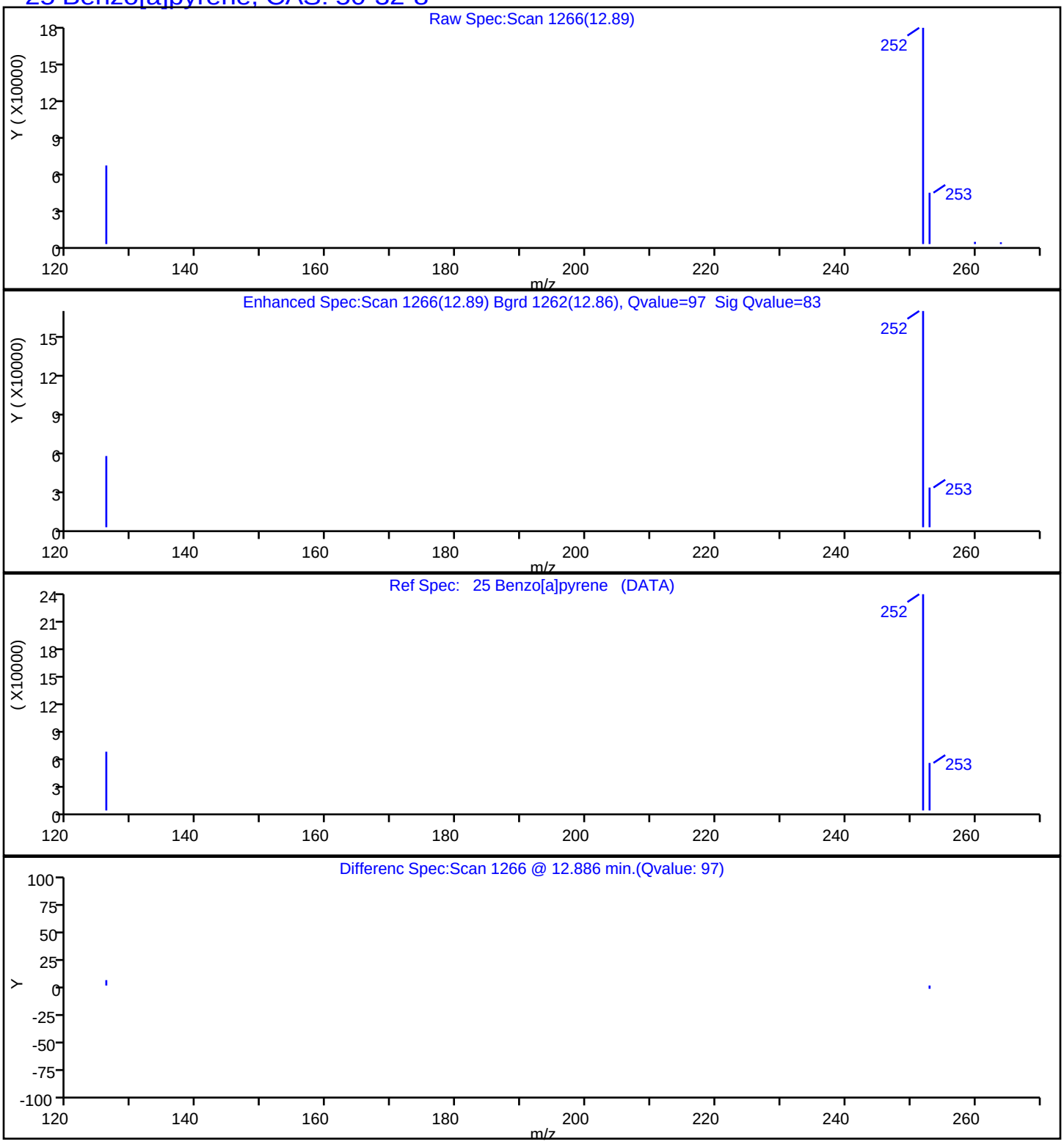


Report Date: 23-Jul-2019 14:55:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

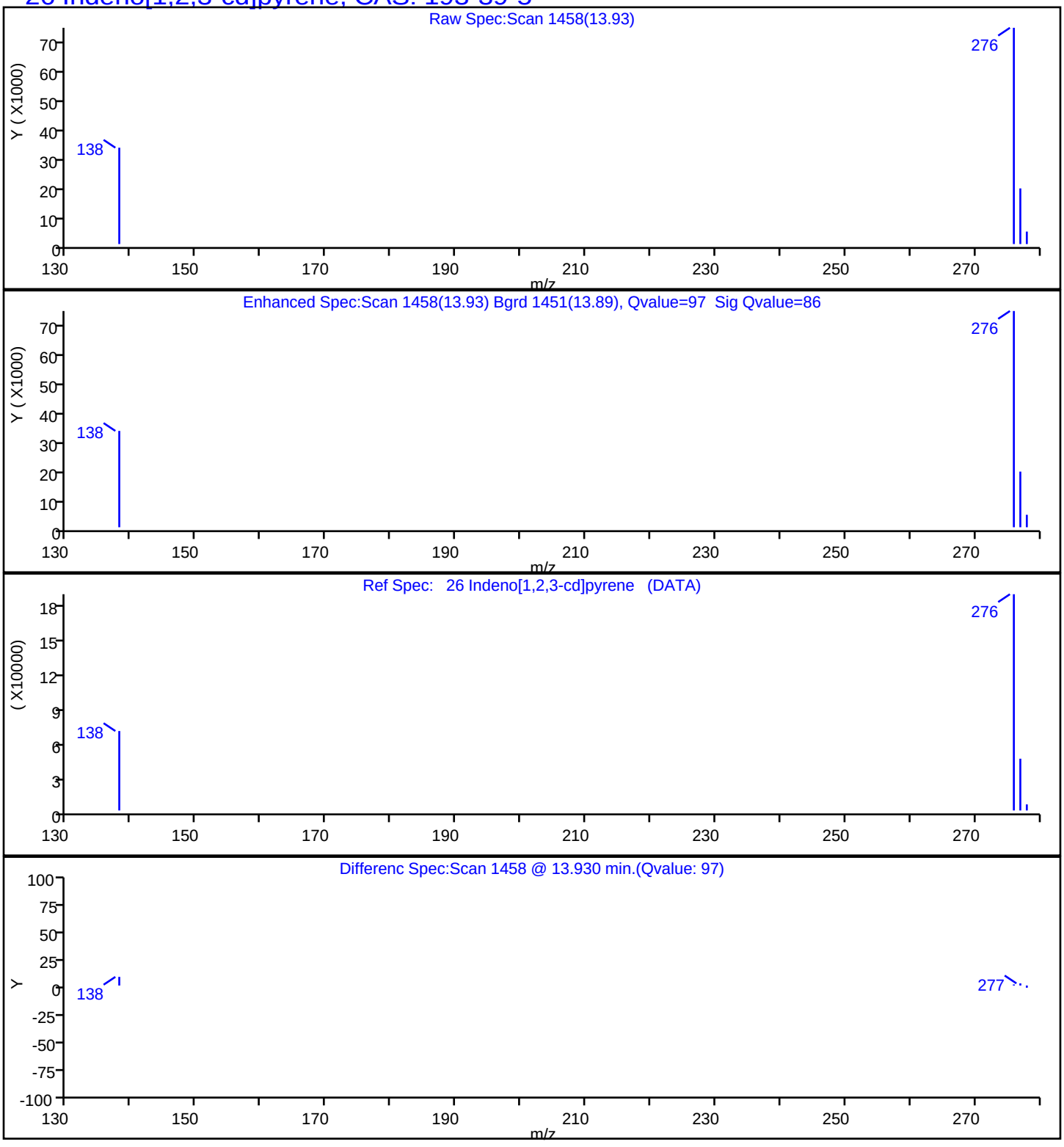


Report Date: 23-Jul-2019 14:55:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

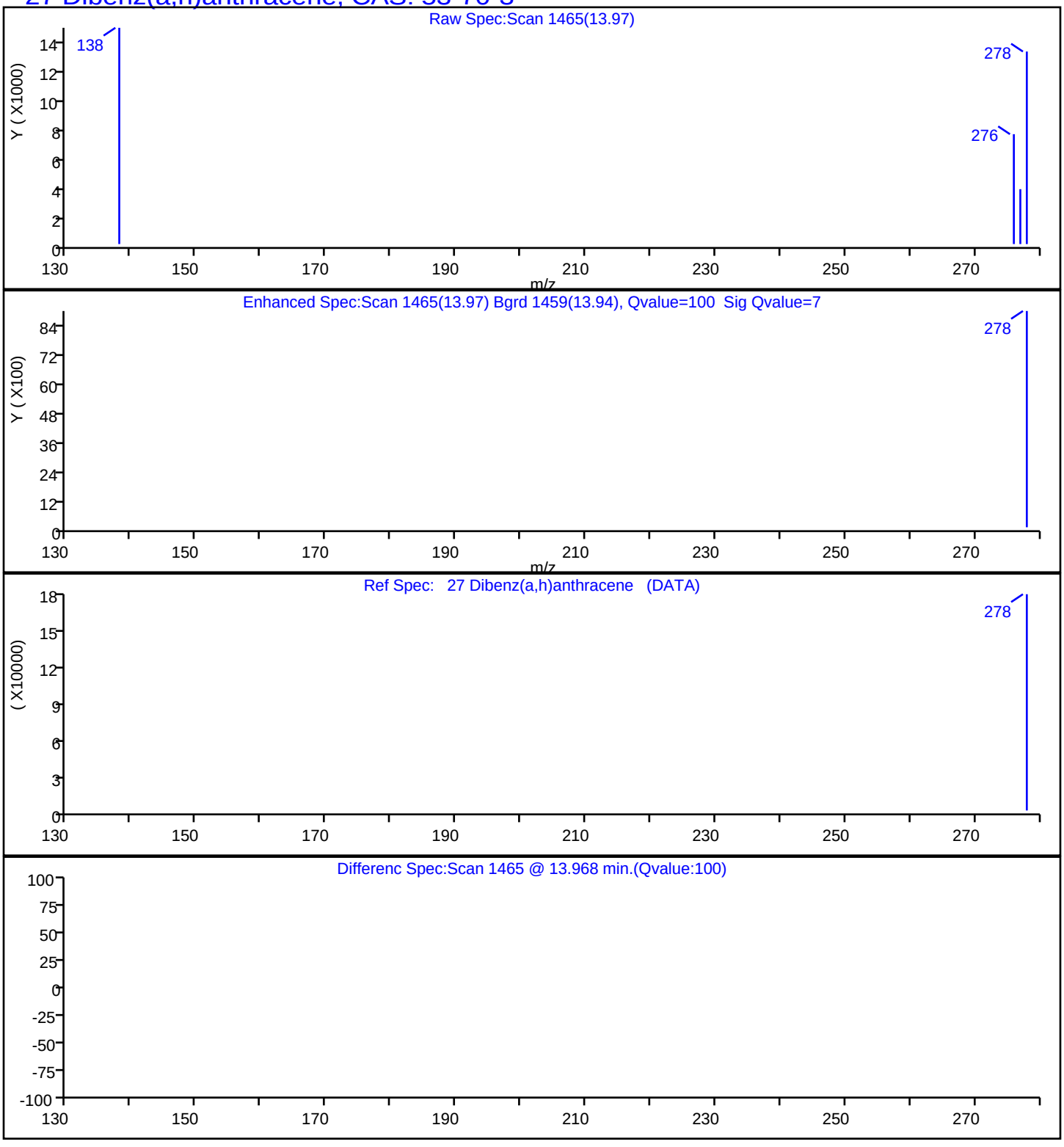


Report Date: 23-Jul-2019 14:55:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

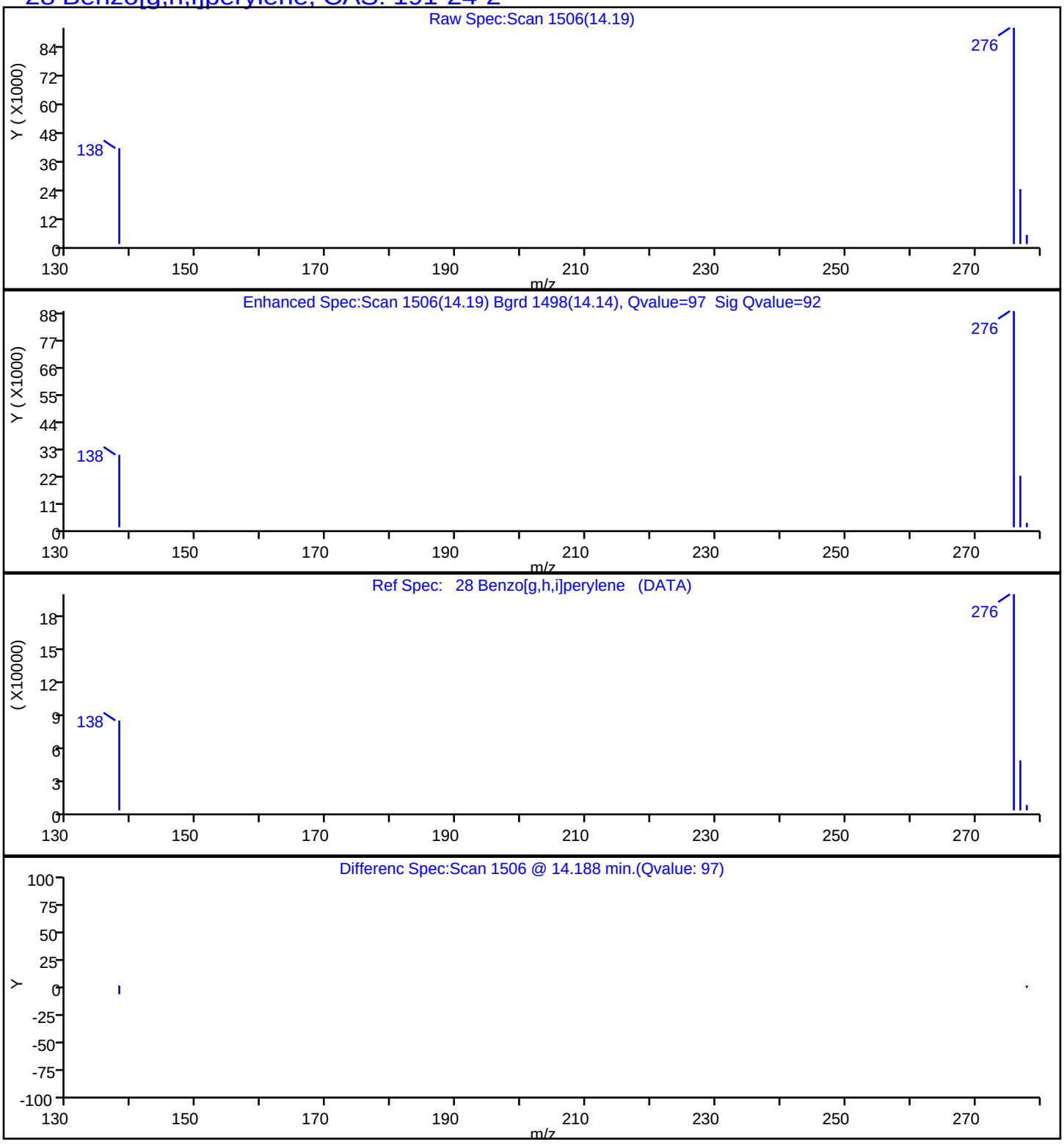


Report Date: 23-Jul-2019 14:55:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

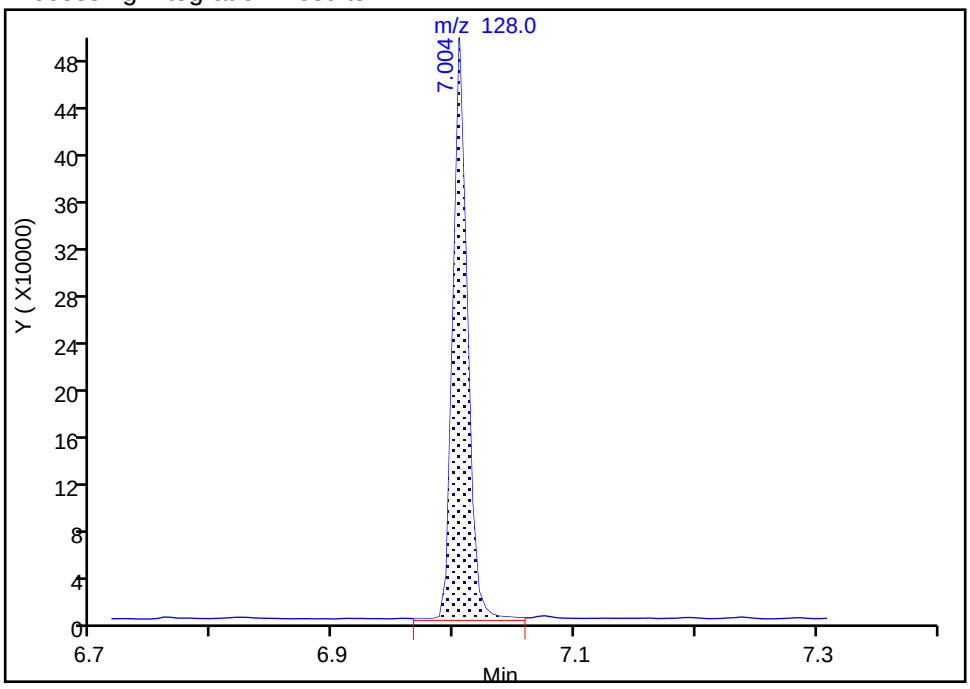
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

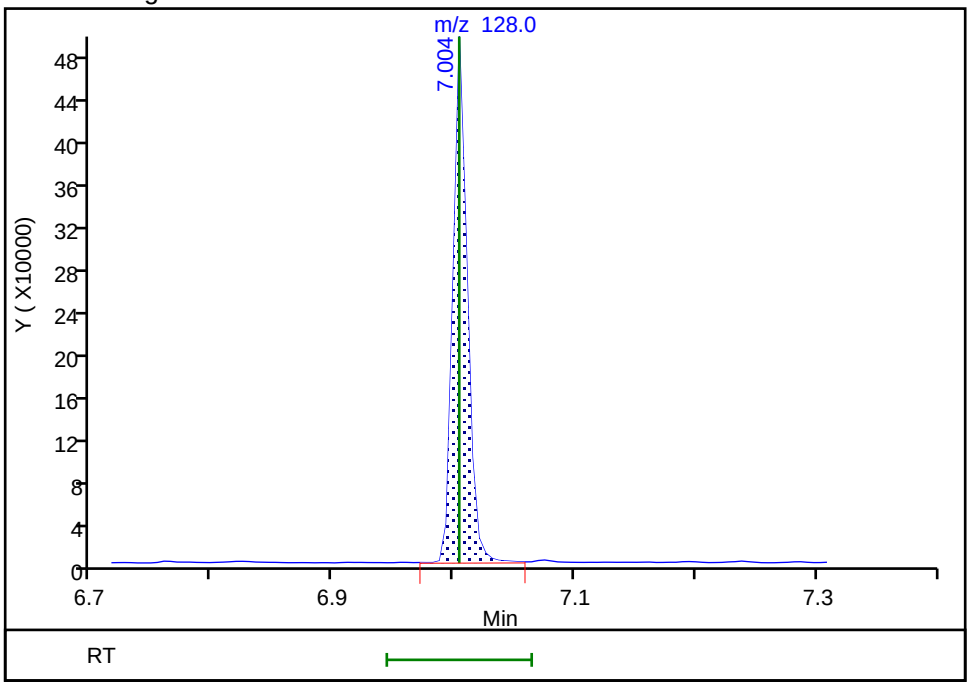
Processing Integration Results

RT: 7.00
Area: 415096
Amount: 97.904315
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 409197
Amount: 96.512981
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:52:53

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

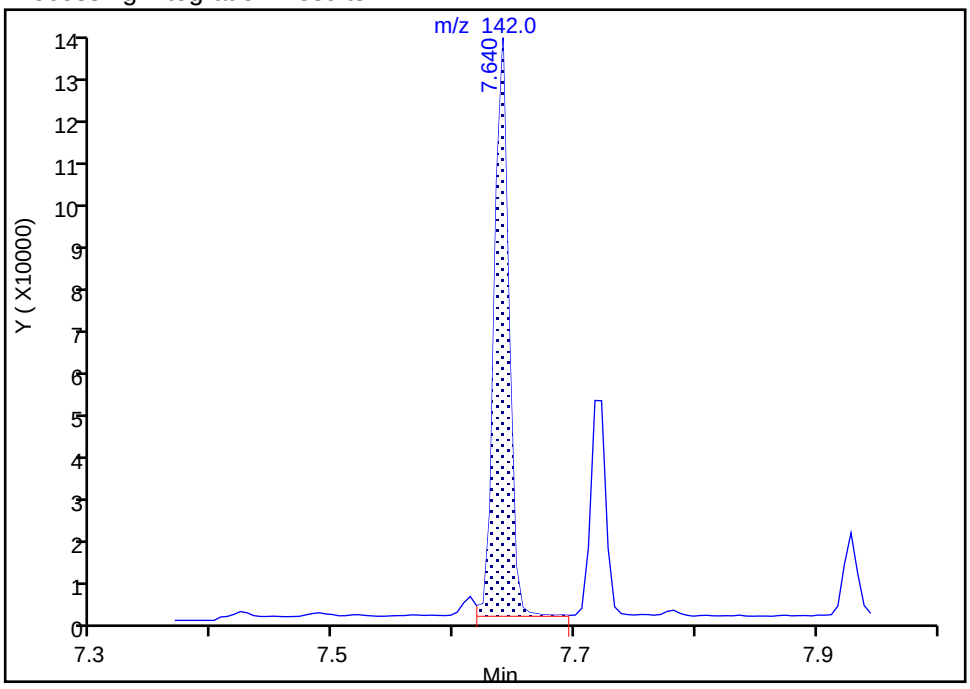
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

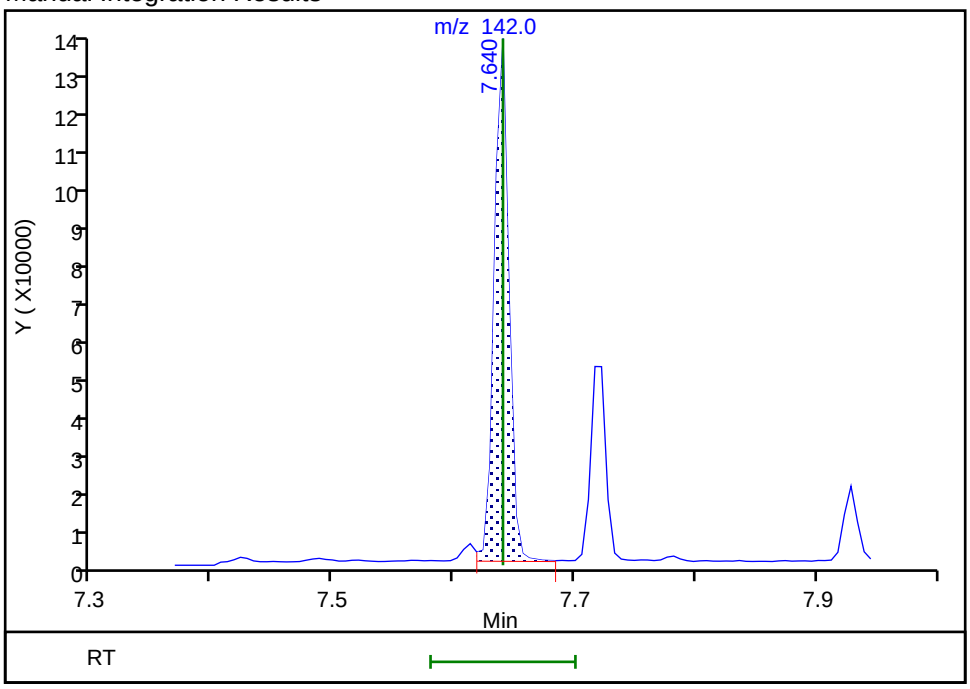
Processing Integration Results

RT: 7.64
Area: 109214
Amount: 39.279564
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 108891
Amount: 39.163395
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:52:59

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Seattle

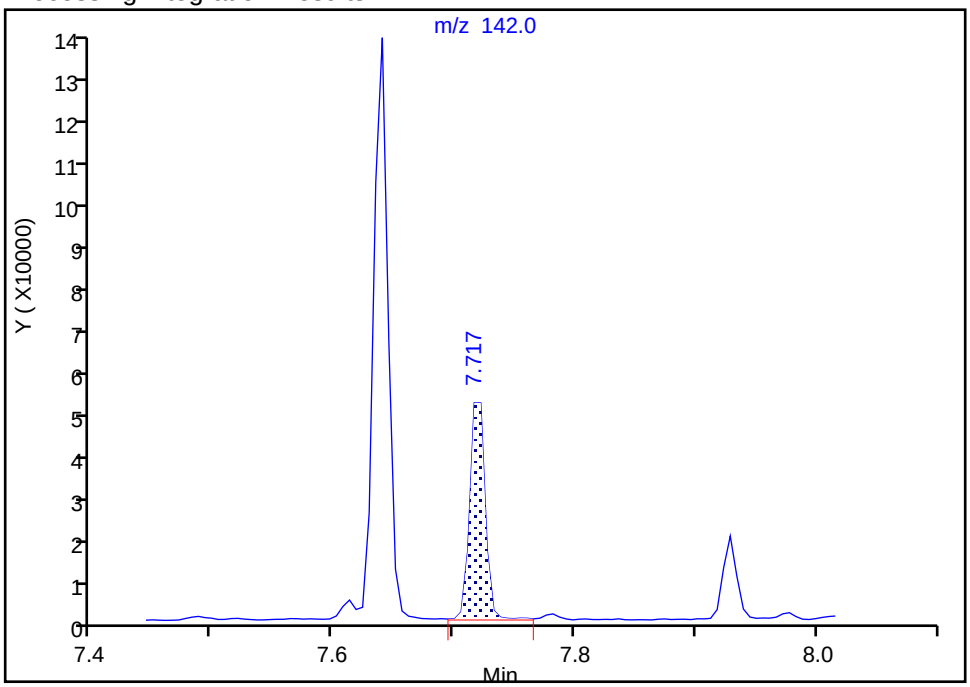
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

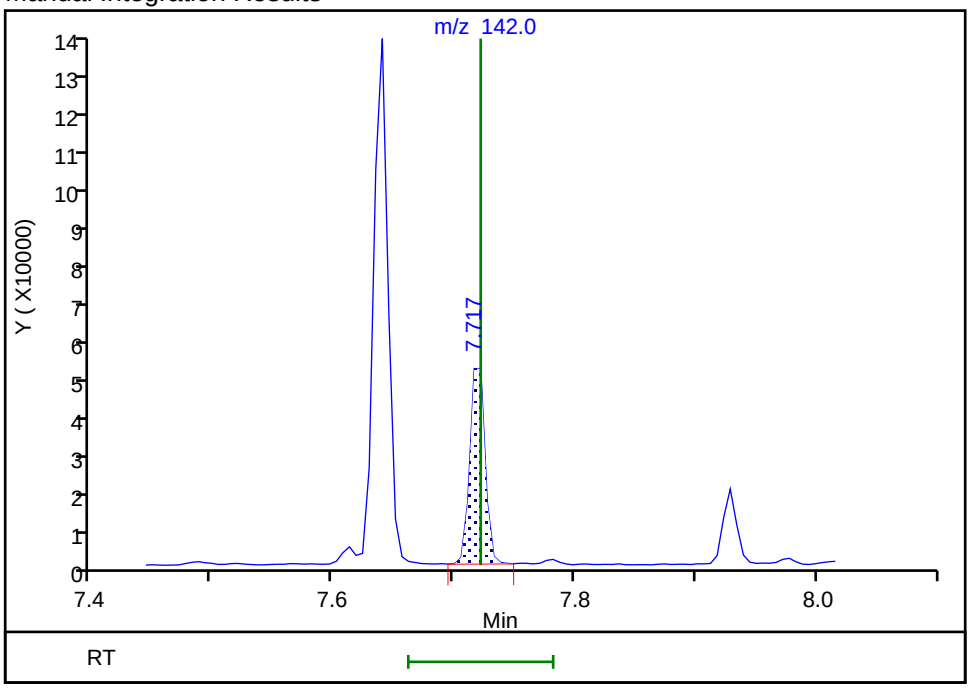
Processing Integration Results

RT: 7.72
Area: 43975
Amount: 16.940212
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 42944
Amount: 16.543047
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

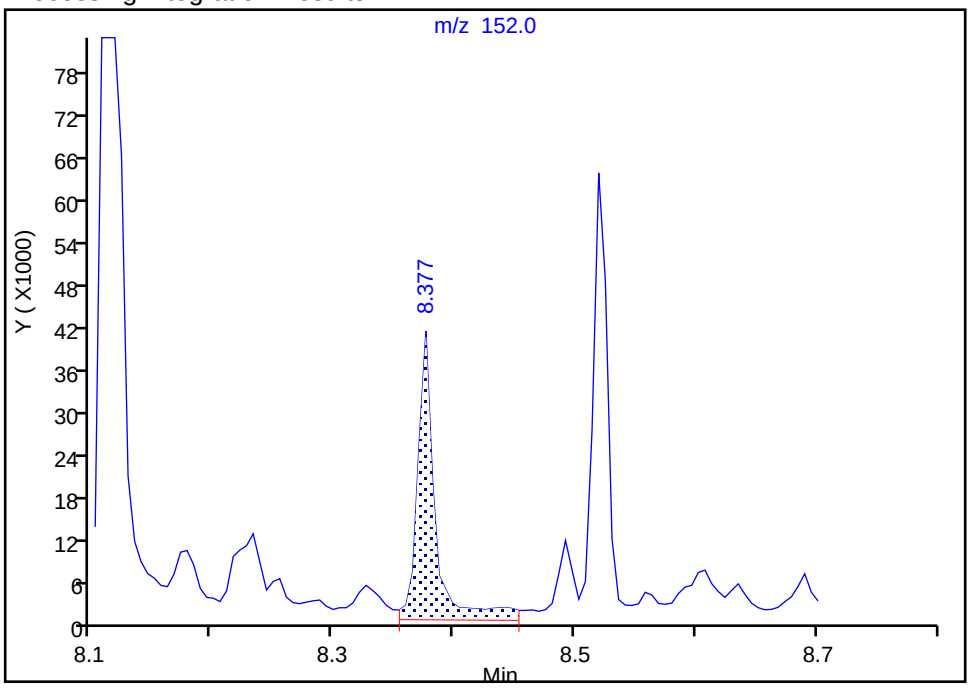
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

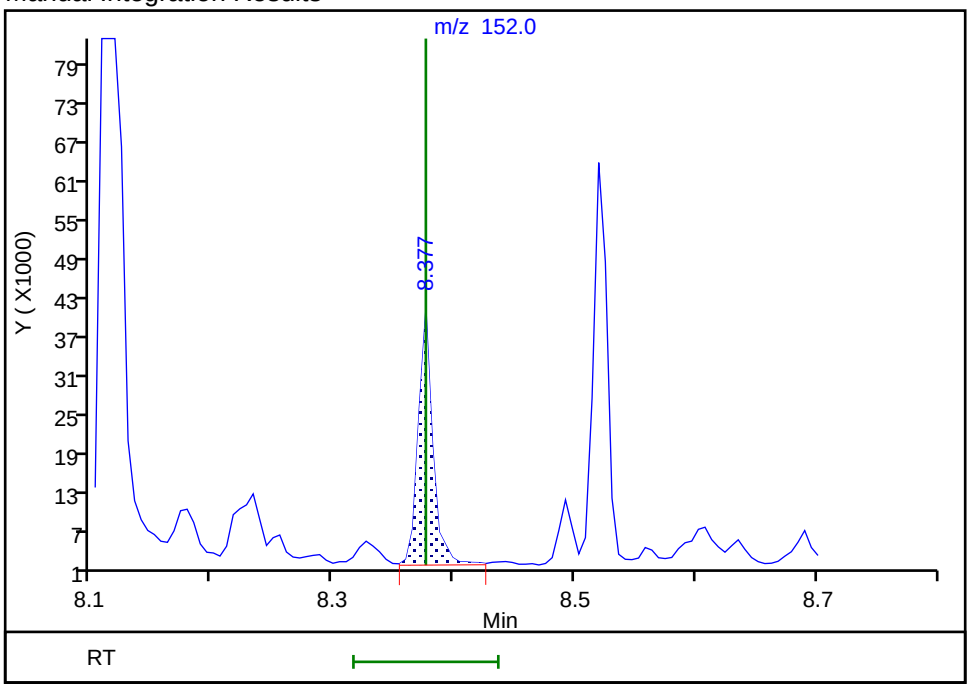
Processing Integration Results

RT: 8.38
Area: 40739
Amount: 11.575854
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 32825
Amount: 9.327117
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:11

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

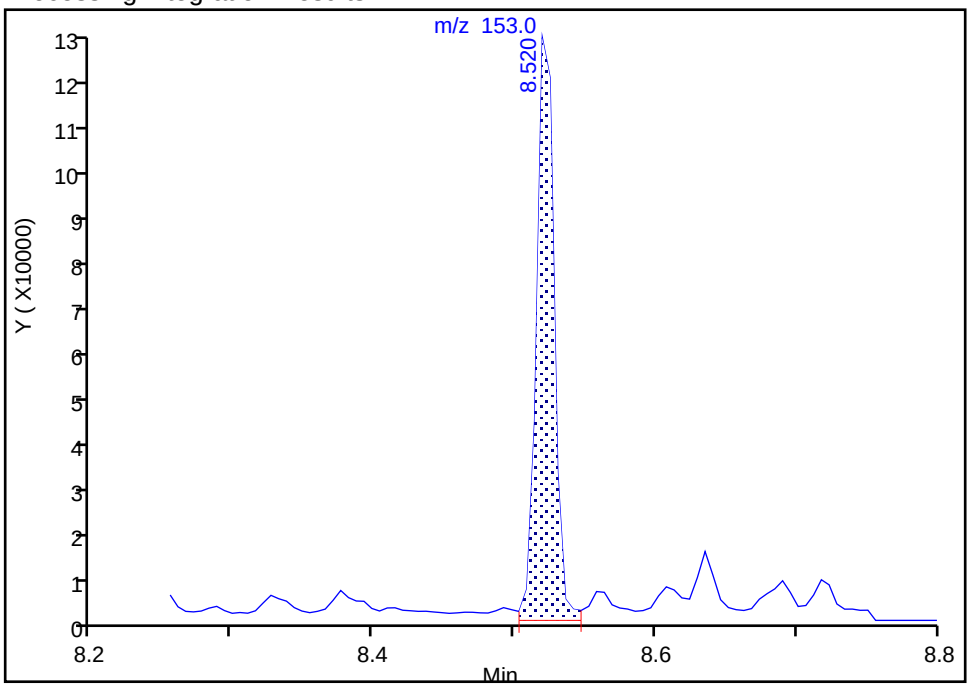
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

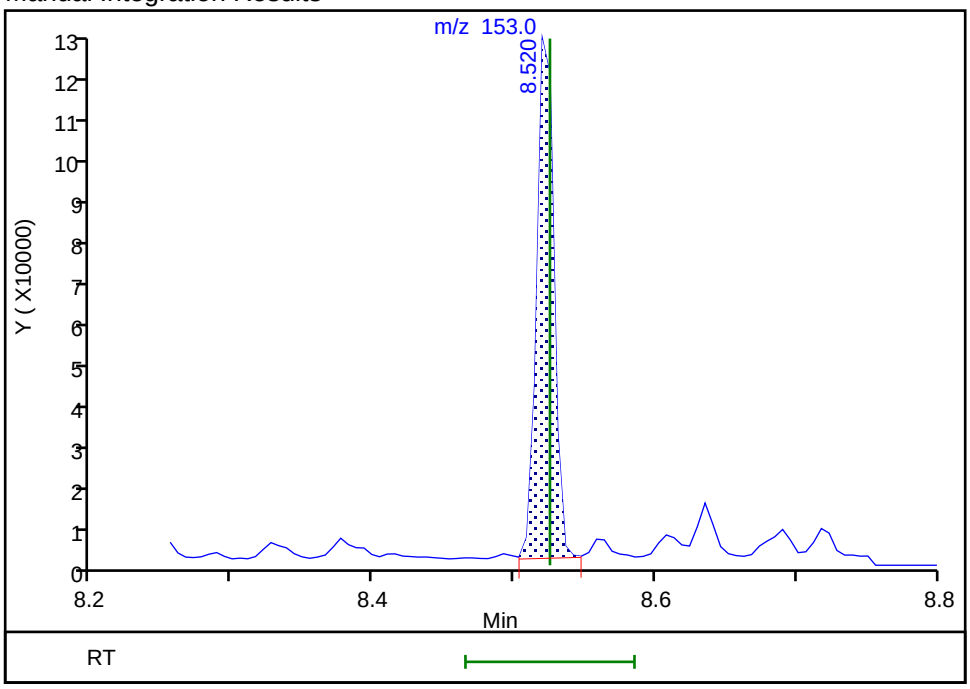
Processing Integration Results

RT: 8.52
Area: 106304
Amount: 41.607828
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 102022
Amount: 39.931835
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:15

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

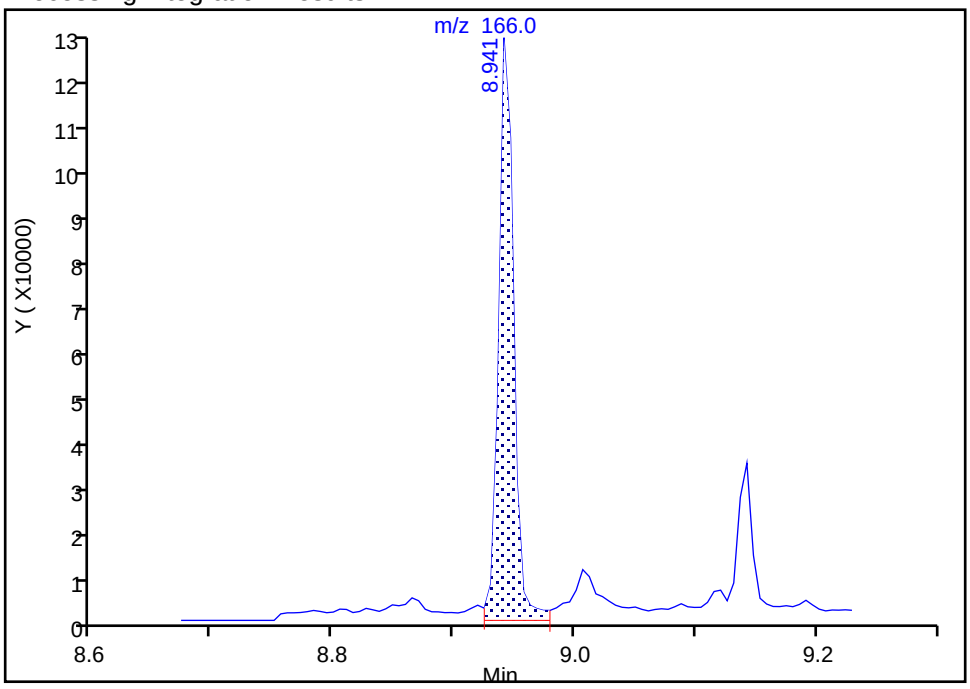
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

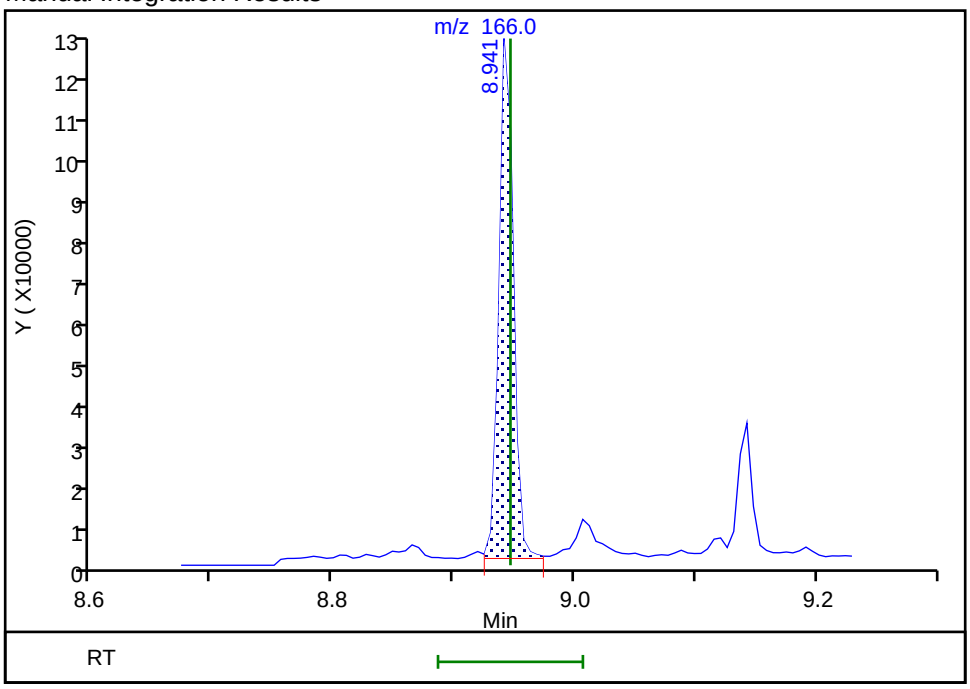
Processing Integration Results

RT: 8.94
Area: 107808
Amount: 42.141019
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 102349
Amount: 40.007153
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

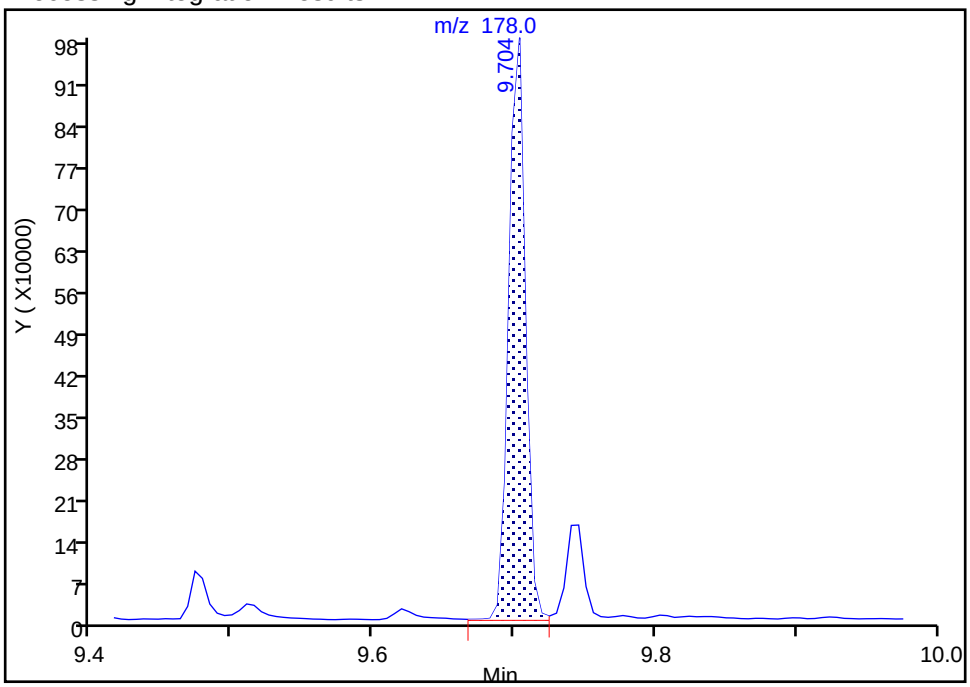
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

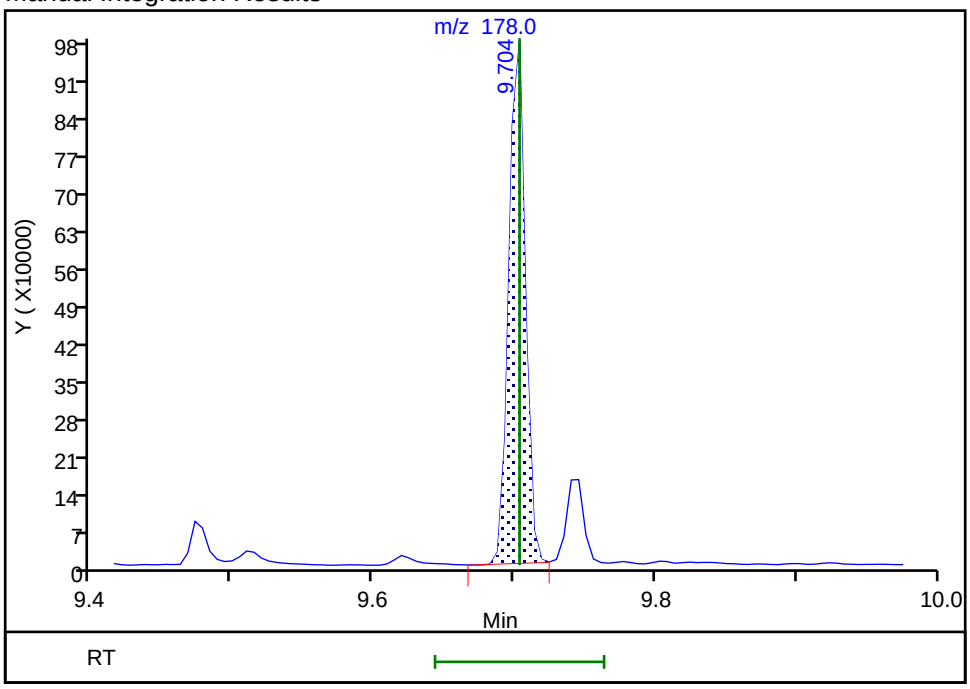
Processing Integration Results

RT: 9.70
Area: 810123
Amount: 207.4068
Amount Units: ug/L



Manual Integration Results

RT: 9.70
Area: 796411
Amount: 203.8963
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

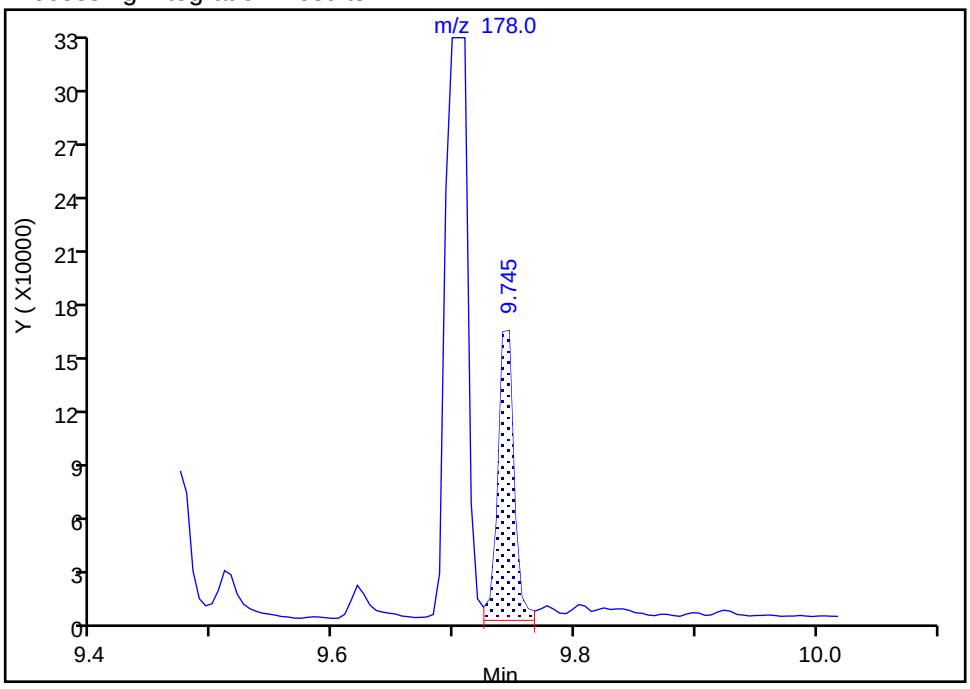
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

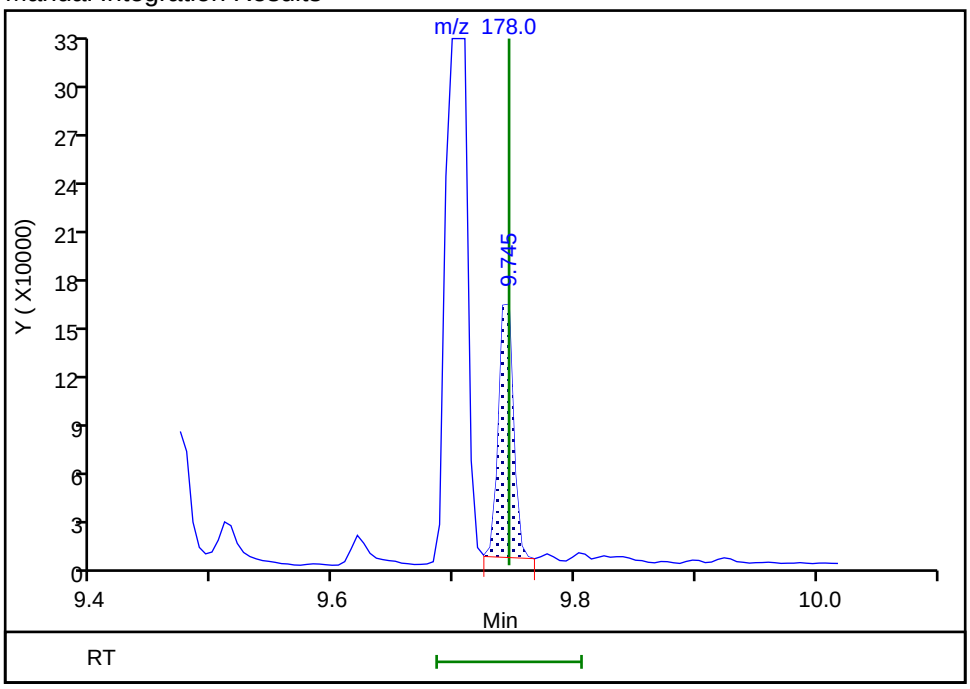
Processing Integration Results

RT: 9.75
Area: 148401
Amount: 40.866955
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 133703
Amount: 36.819392
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:44

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

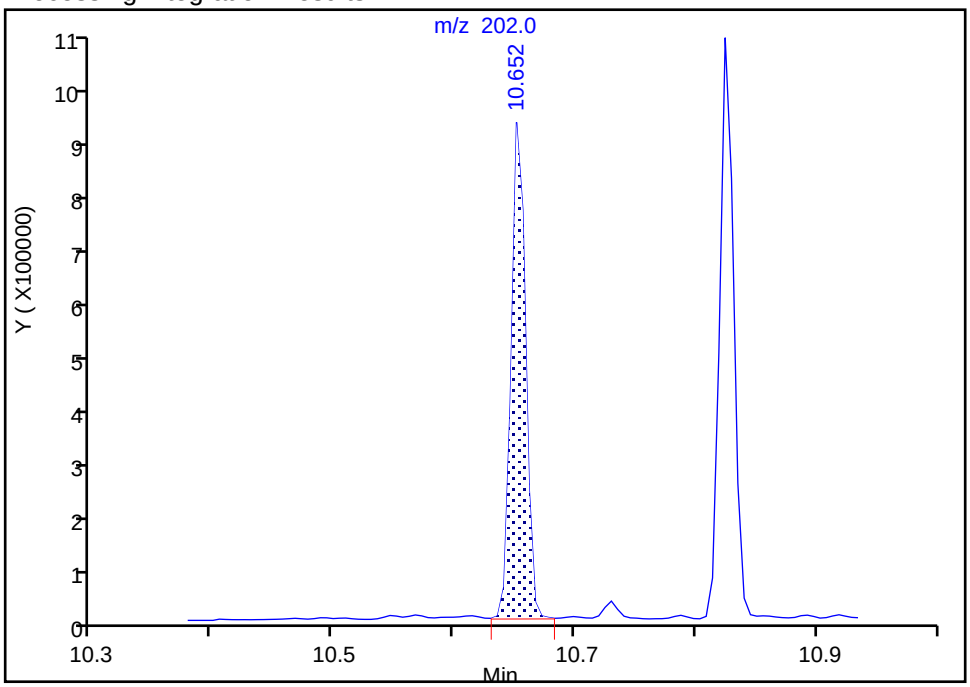
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

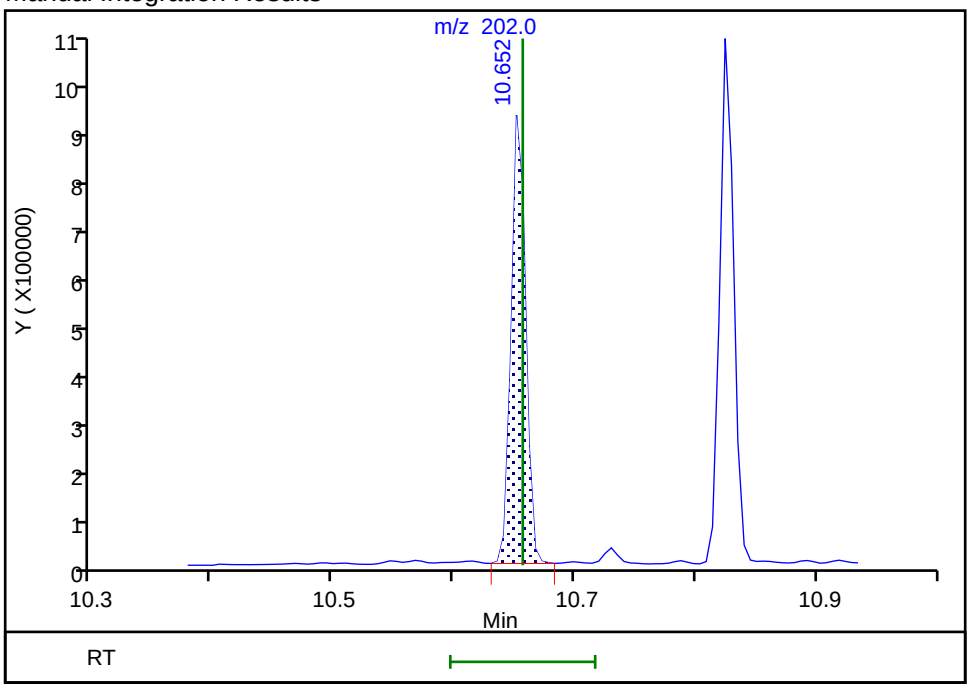
Processing Integration Results

RT: 10.65
Area: 739224
Amount: 199.7675
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 736017
Amount: 198.9008
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:53:53

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

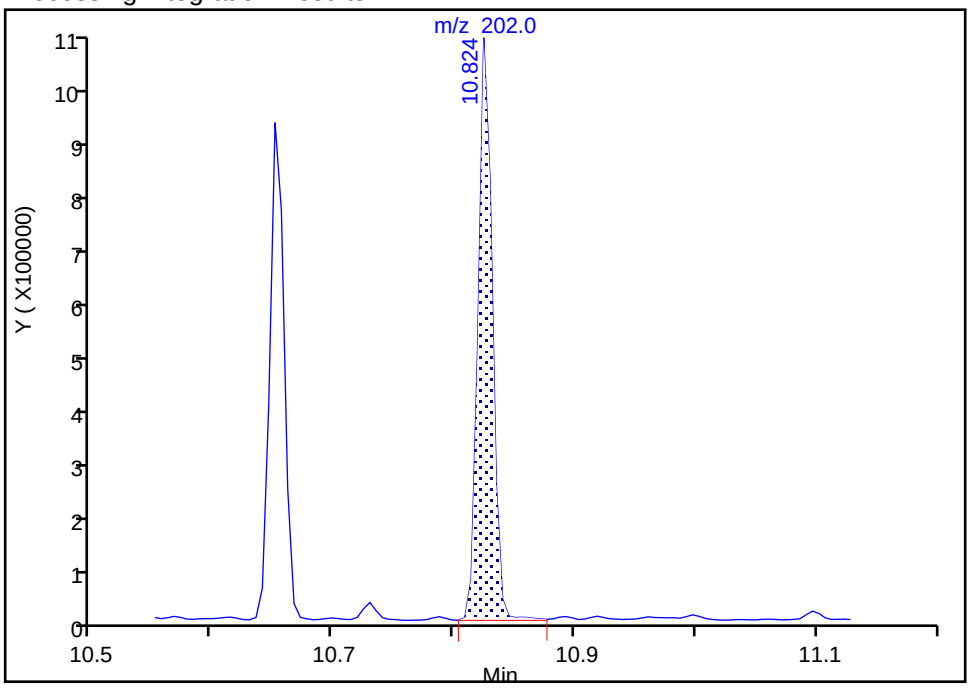
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

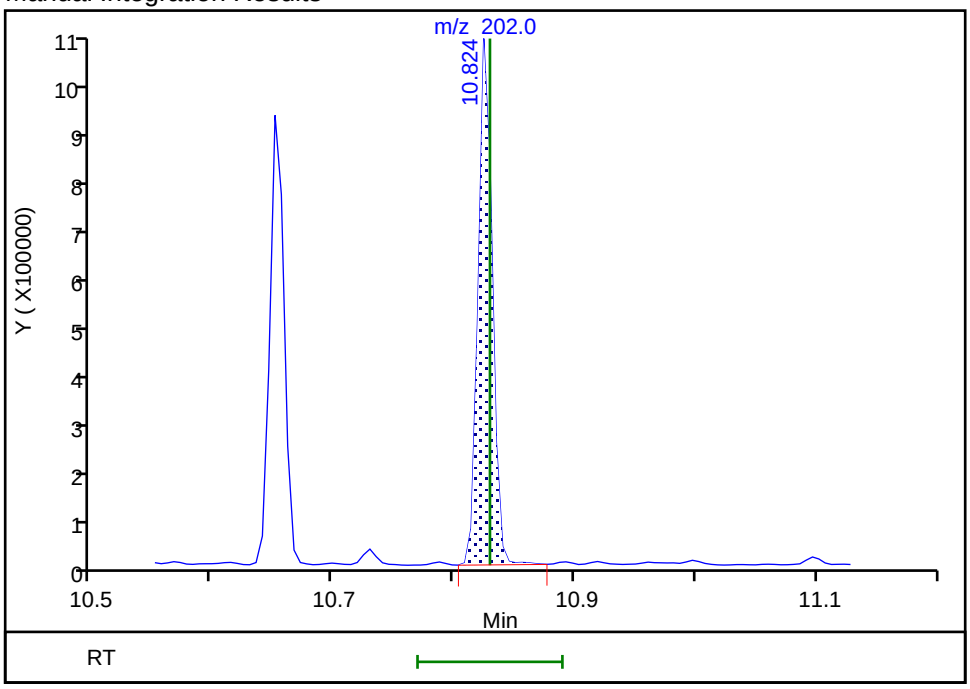
Processing Integration Results

RT: 10.82
Area: 849046
Amount: 217.8532
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 845000
Amount: 216.8151
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

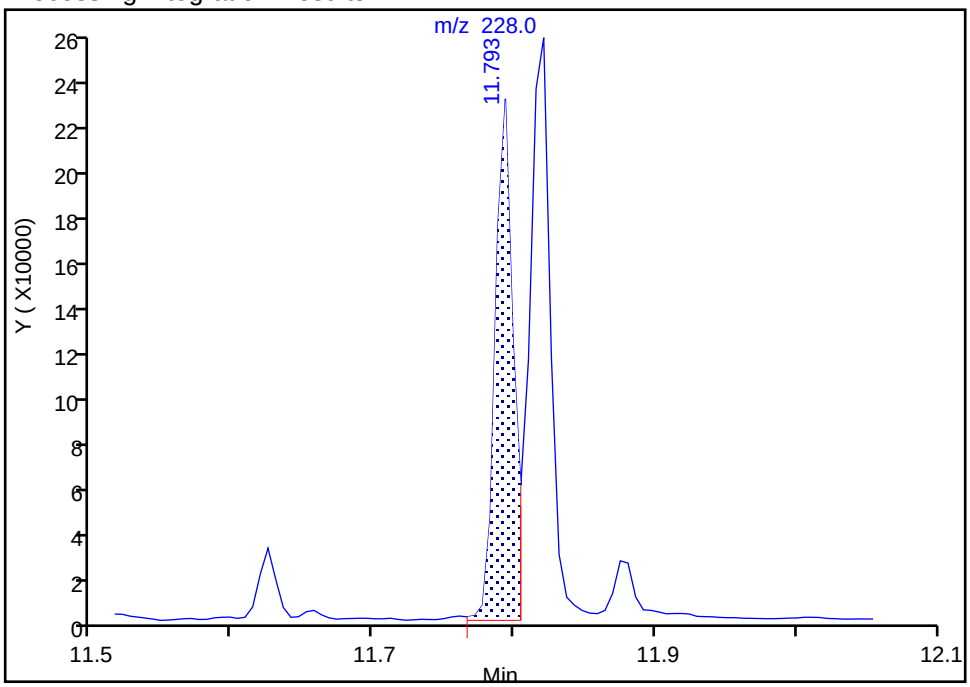
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

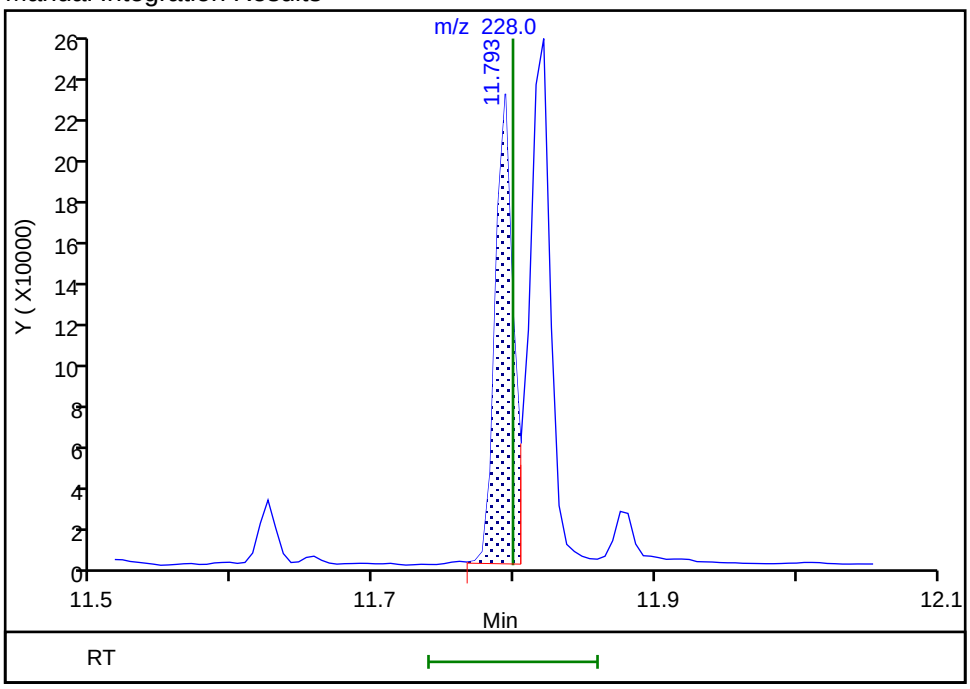
Processing Integration Results

RT: 11.79
Area: 196929
Amount: 75.353920
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 195193
Amount: 74.689648
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:13

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

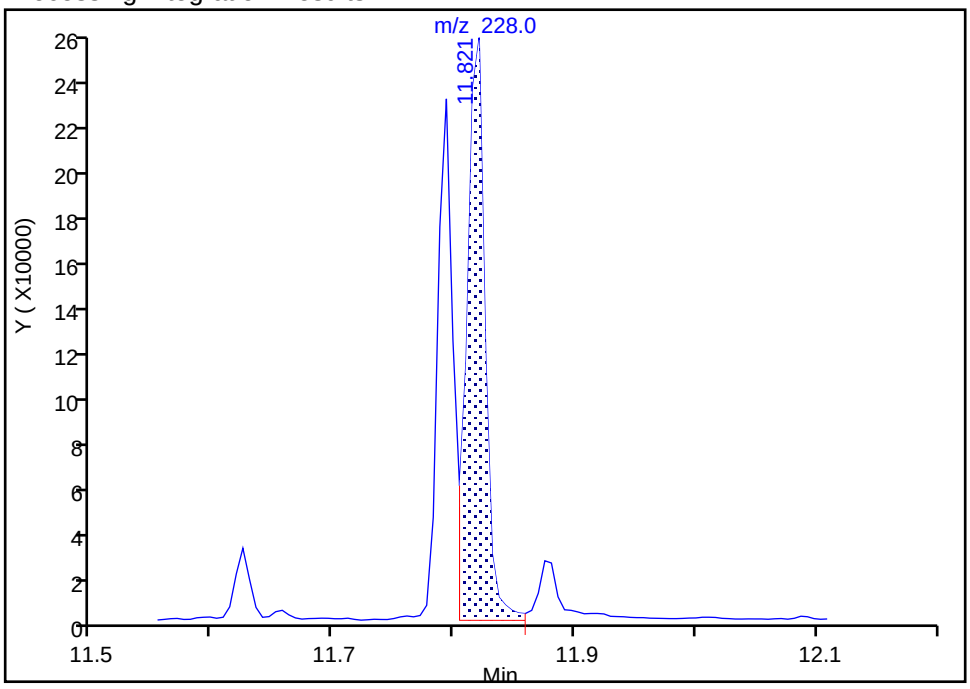
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

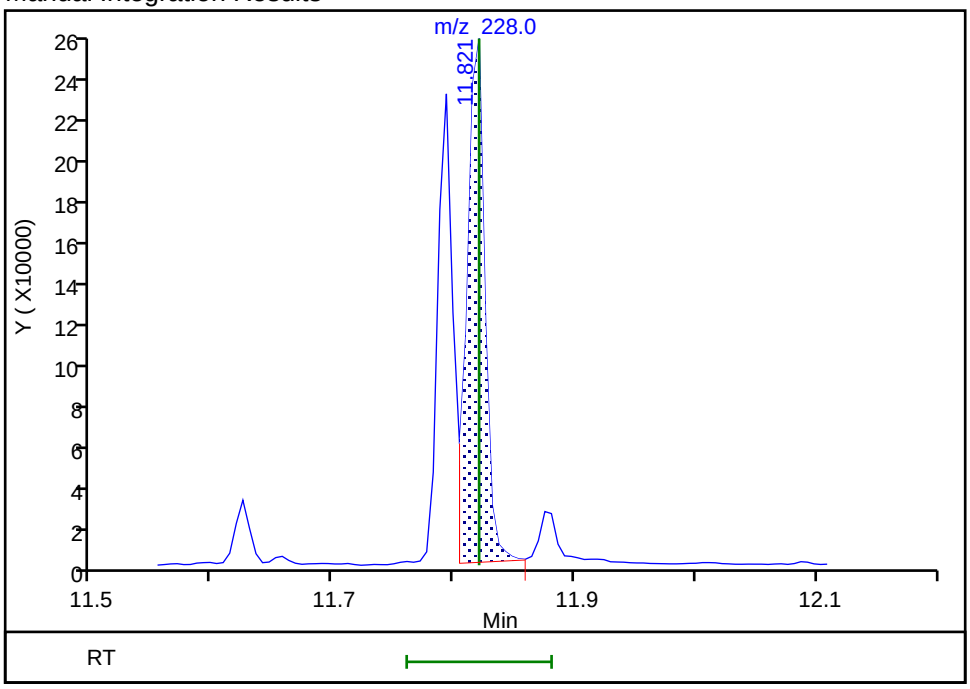
Processing Integration Results

RT: 11.82
Area: 259980
Amount: 74.805370
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 254068
Amount: 73.104280
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

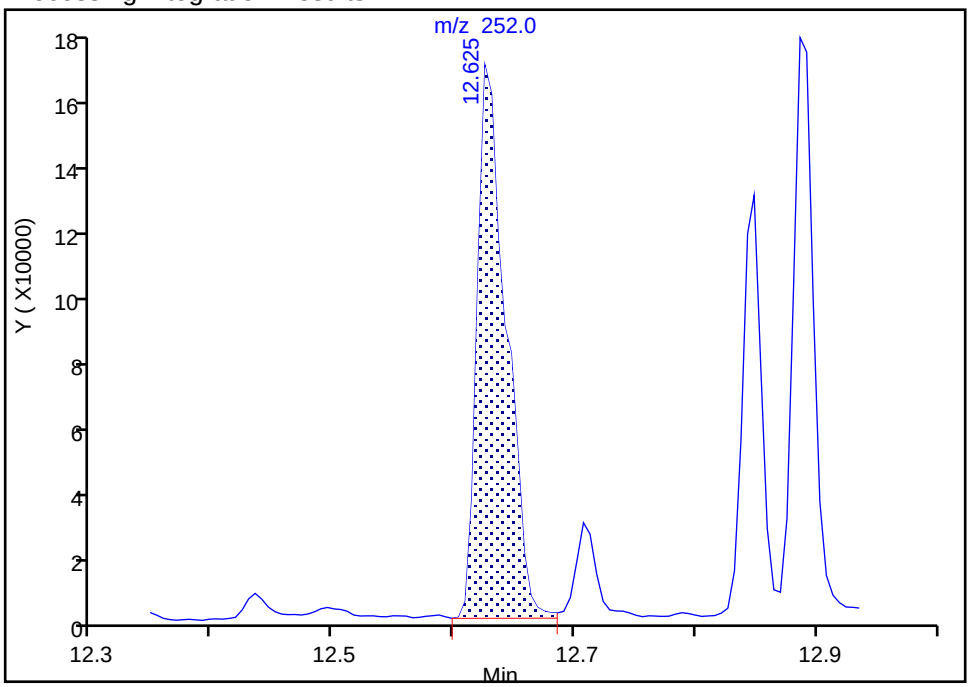
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

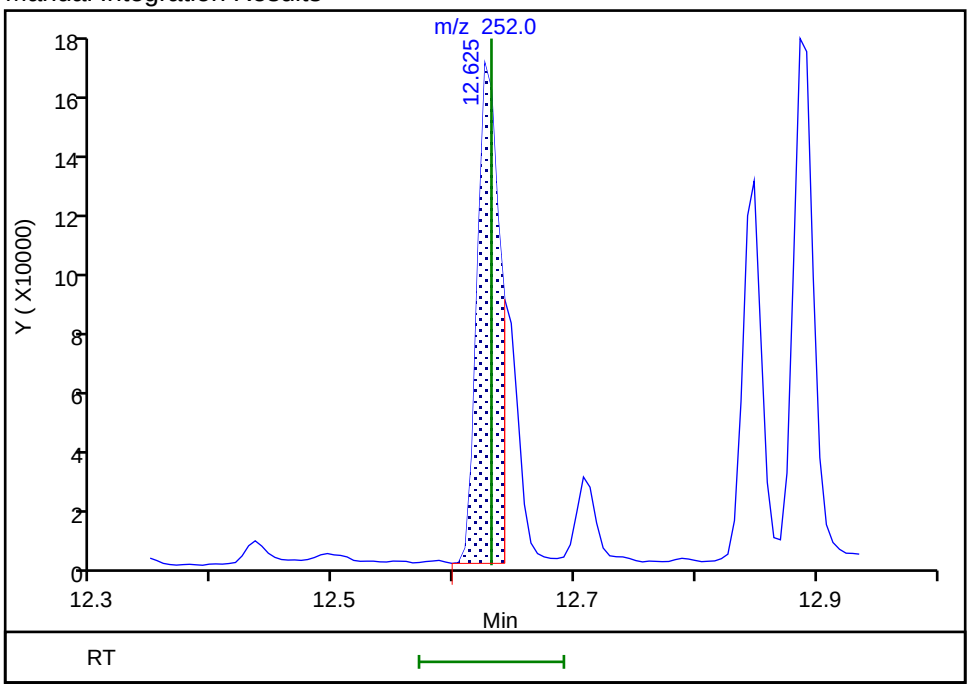
Processing Integration Results

RT: 12.63
Area: 275280
Amount: 83.795449
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 207090
Amount: 63.038359
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:29

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

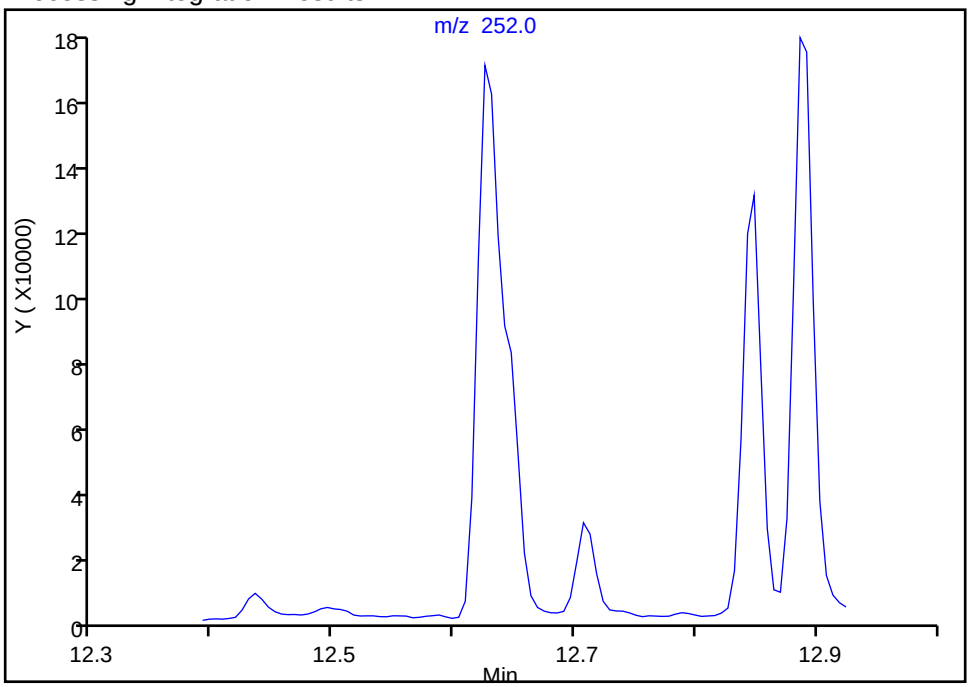
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

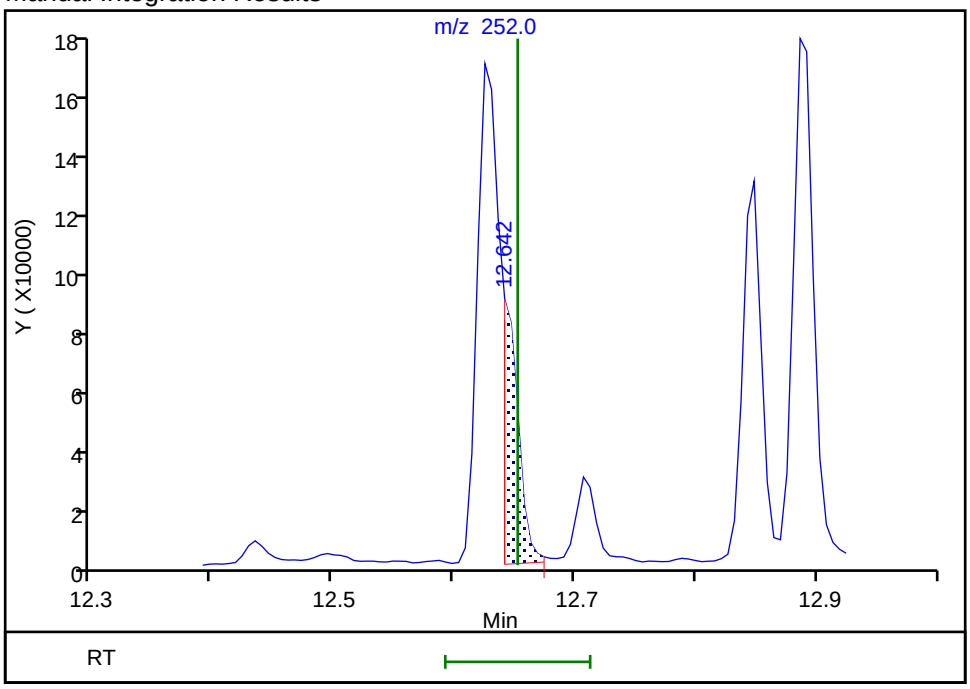
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 66965
Amount: 16.661327
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:37
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

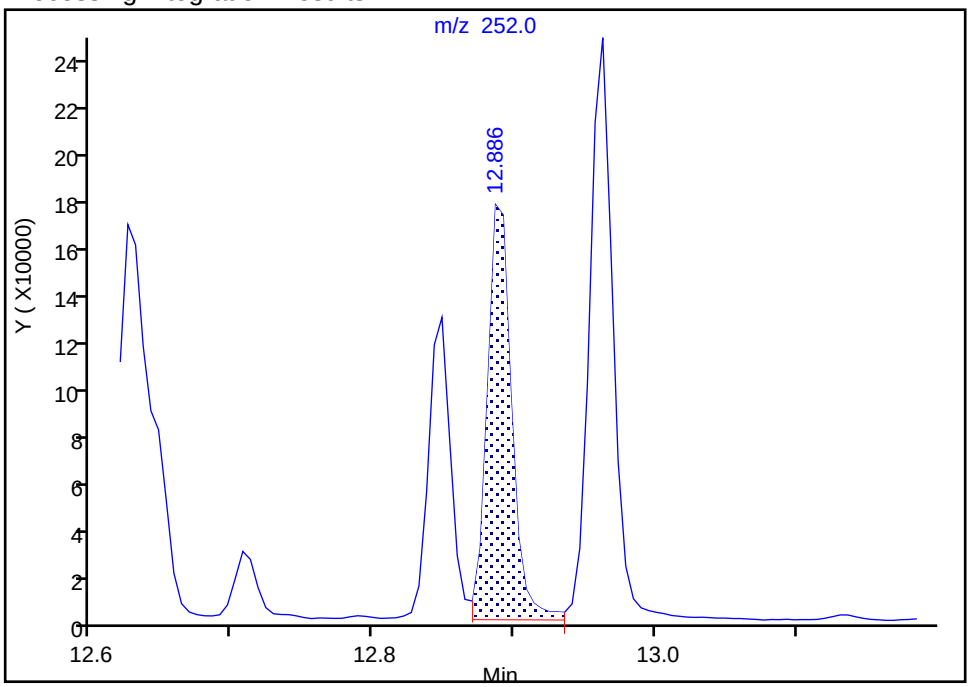
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

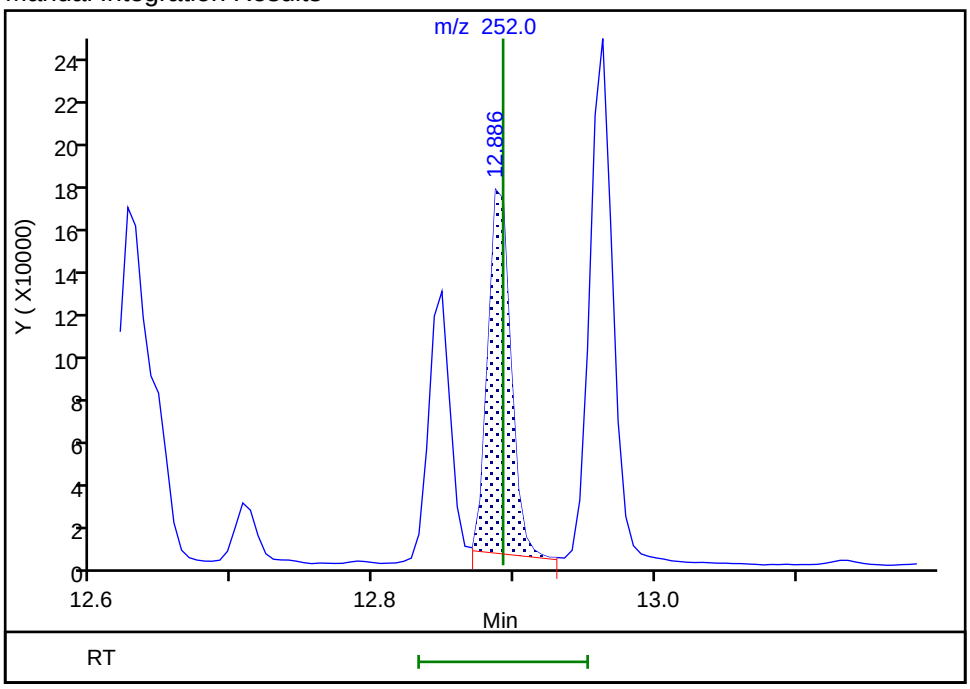
Processing Integration Results

RT: 12.89
Area: 210076
Amount: 63.124587
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 193030
Amount: 58.002527
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:44

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

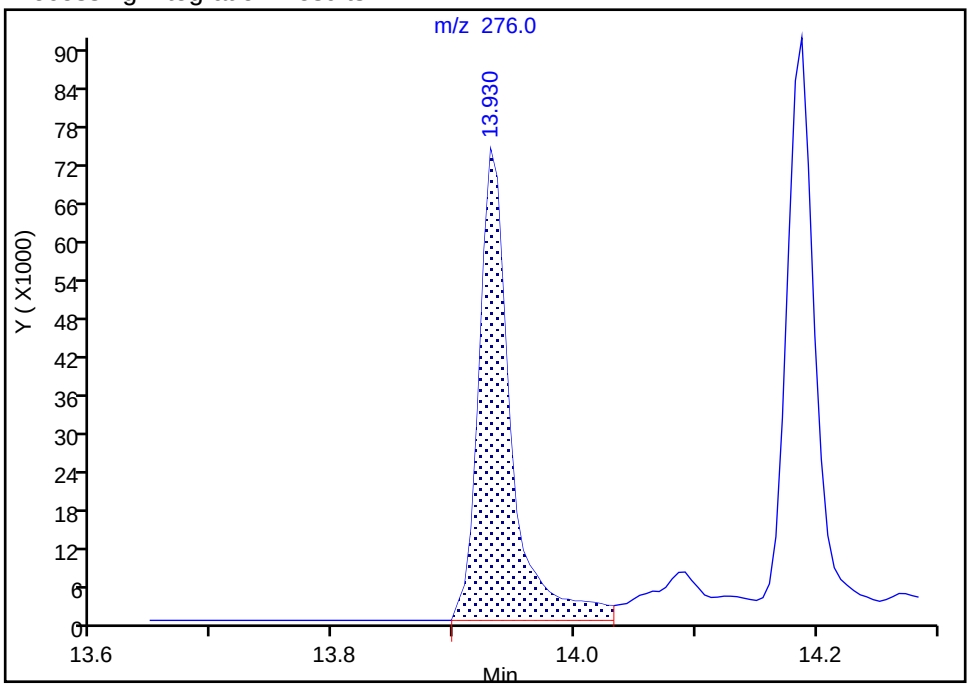
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

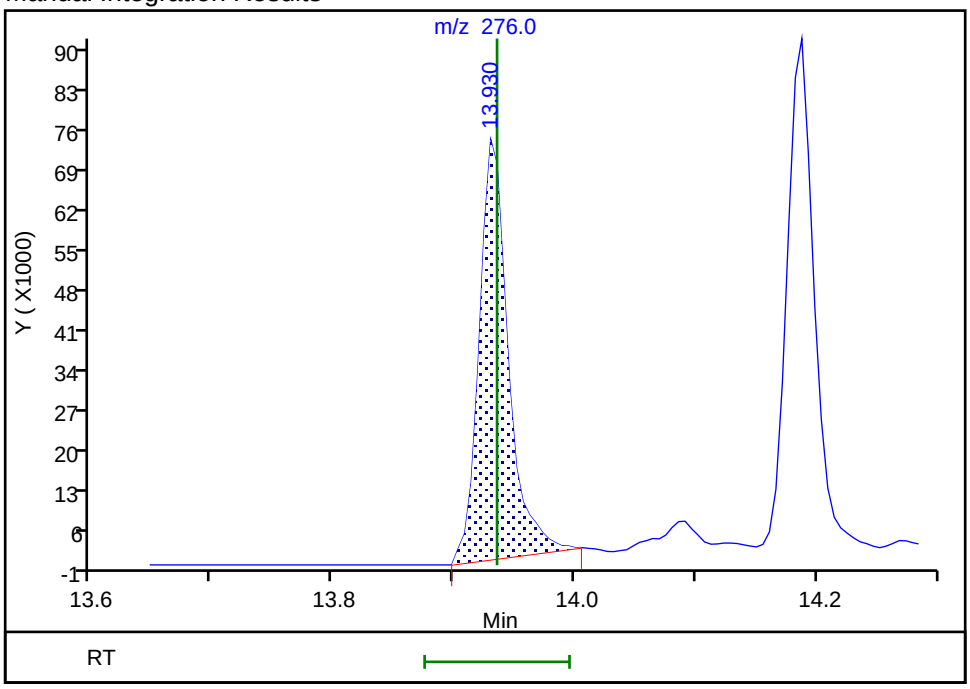
Processing Integration Results

RT: 13.93
Area: 135711
Amount: 53.463860
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 122225
Amount: 48.177919
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:49

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

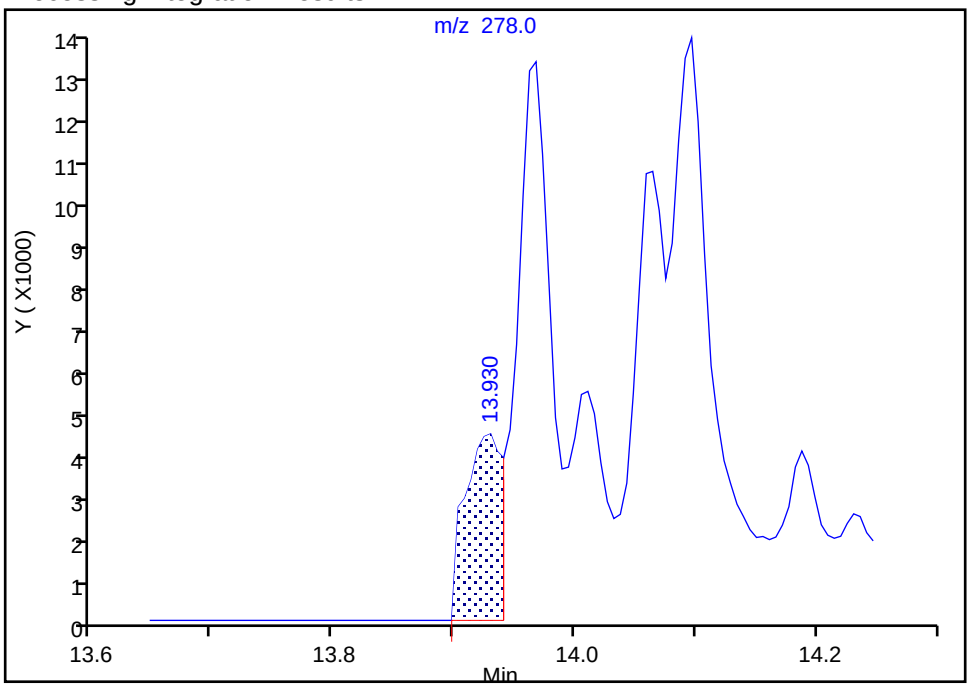
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

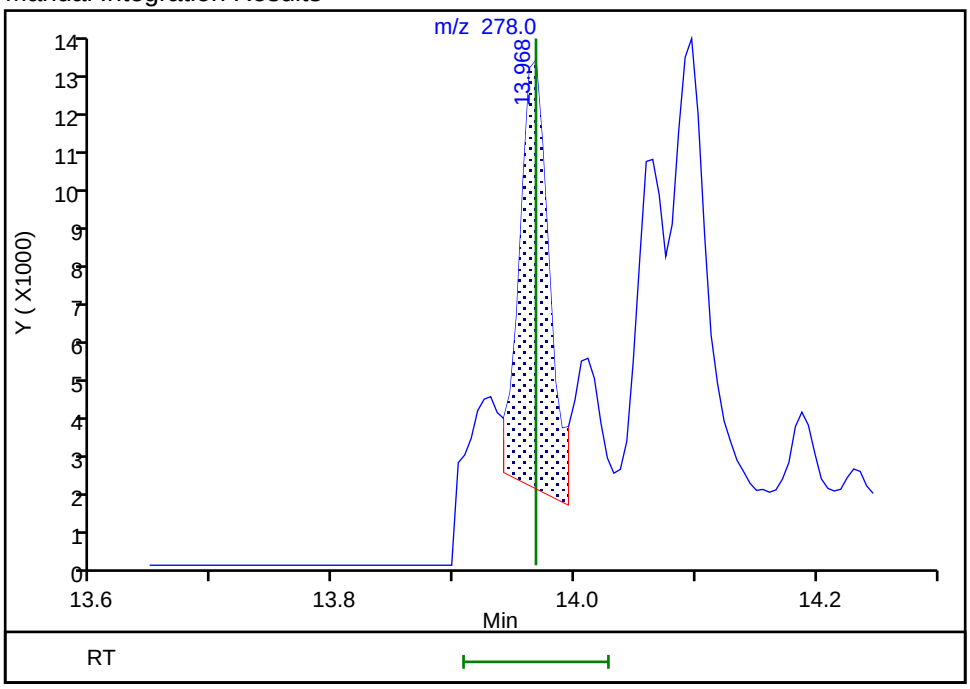
Processing Integration Results

RT: 13.93
Area: 8605
Amount: 3.760712
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 18182
Amount: 6.712281
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:54:55

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

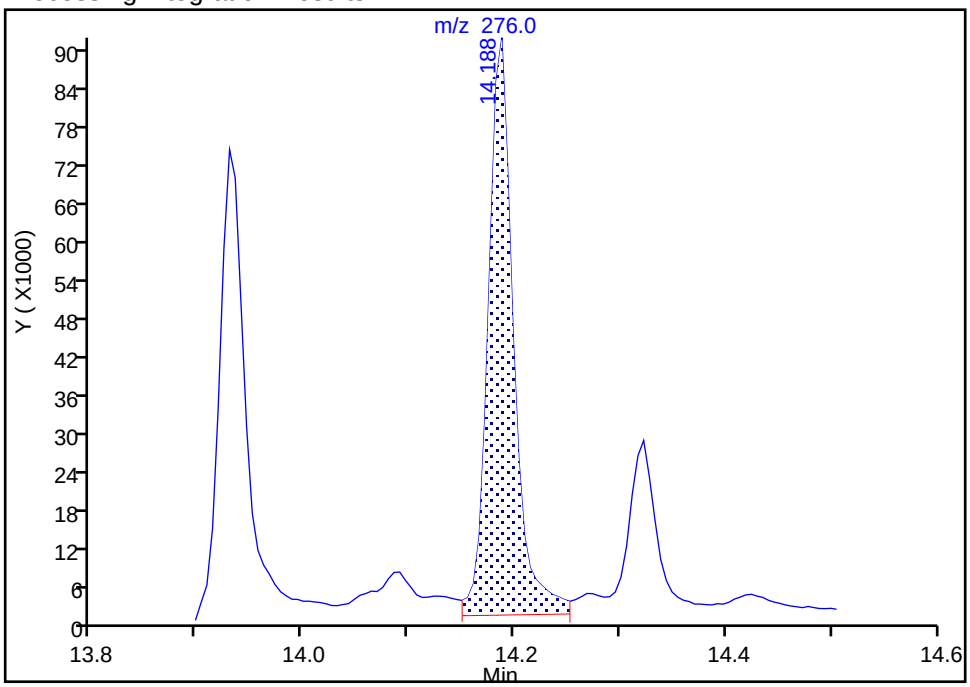
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A020.D				
Injection Date:	22-Jul-2019 19:06:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-13-A	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	KFS	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

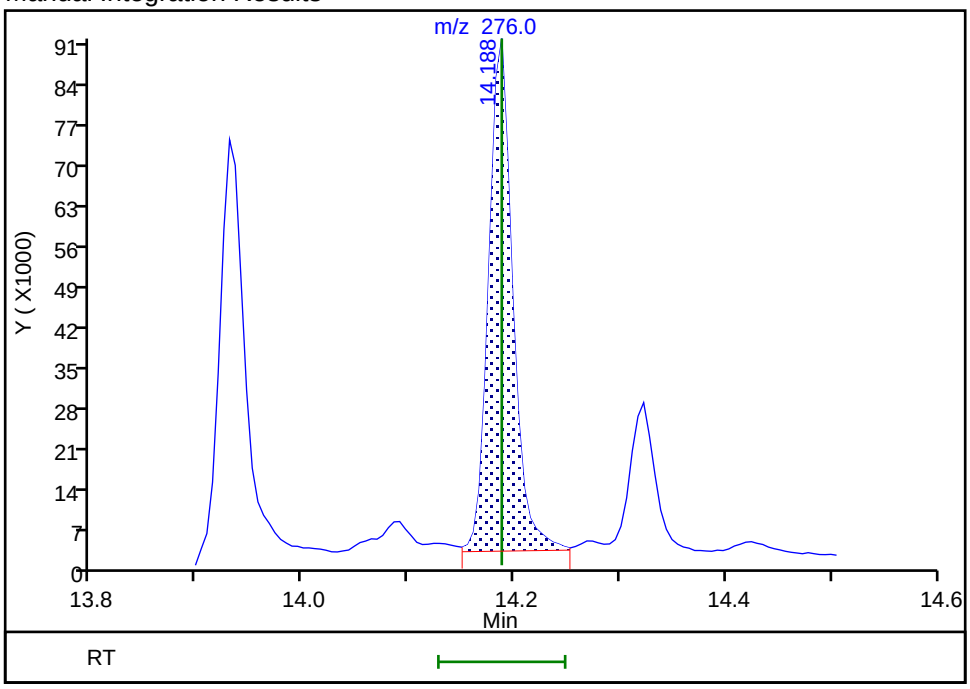
Processing Integration Results

RT: 14.19
Area: 150843
Amount: 41.312228
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 140906
Amount: 38.608014
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:05

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 072219A021.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 14:08

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.119(g) Date Analyzed: 07/22/2019 19:32

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	2600		9.6	3.1
91-57-6	2-Methylnaphthalene	1600		9.6	3.9
90-12-0	1-Methylnaphthalene	520		9.6	1.2
208-96-8	Acenaphthylene	260		9.6	0.96
83-32-9	Acenaphthene	3600		9.6	1.1
86-73-7	Fluorene	2600		9.6	0.96
120-12-7	Anthracene	1800		9.6	1.1
56-55-3	Benzo[a]anthracene	3000		9.6	1.5
218-01-9	Chrysene	3000		9.6	2.9
205-99-2	Benzo[b]fluoranthene	2900		9.6	1.1
207-08-9	Benzo[k]fluoranthene	890		9.6	1.1
50-32-8	Benzo[a]pyrene	2800		9.6	1.6
193-39-5	Indeno[1,2,3-cd]pyrene	2500		9.6	1.1
53-70-3	Dibenz(a,h)anthracene	220	B	9.6	1.4
191-24-2	Benzo[g,h,i]perylene	2200	B	9.6	0.96

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	67		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D
Lims ID: 580-87706-A-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 19:32:30 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-14-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:59:07 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:59:07

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
*	1 Naphthalene-d8	136	6.988	6.988	0.000	100	331851	100.0	M
*	2 Acenaphthene-d10	164	8.498	8.503	-0.005	95	169887	100.0	M
*	3 Phenanthrene-d10	188	9.688	9.688	0.000	43	277527	100.0	M
*	4 Chrysene-d12	240	11.804	11.804	0.000	45	205275	100.0	M
*	5 Perylene-d12	264	12.946	12.946	0.000	100	237757	100.0	M
$	9 Terphenyl-d14	244	11.003	11.002	0.000	99	1411121	671.5	M
	10 Naphthalene	128	7.004	7.004	0.000	100	5046817	1361.1	
	11 2-Methylnaphthalene	142	7.640	7.640	0.000	92	1990808	818.7	
	12 1-Methylnaphthalene	142	7.717	7.722	-0.005	96	621008	273.6	
	13 Acenaphthylene	152	8.377	8.376	0.001	100	505208	136.3	
	14 Acenaphthene	153	8.520	8.525	-0.005	97	5119598	1903.2	
	15 Fluorene	166	8.941	8.947	-0.006	95	3691056	1370.4	
	17 Phenanthrene	178	9.709	9.704	0.005	77	11557127	3067.5	Ee
	18 Anthracene	178	9.745	9.745	0.000	100	3306344	943.9	
	19 Fluoranthene	202	10.662	10.657	0.005	82	10162871	2847.2	Ee
	20 Pyrene	202	10.824	10.830	-0.006	91	10273457	2732.8	EeM
	21 Benzo[a]anthracene	228	11.794	11.799	-0.005	97	3722713	1591.2	M
	22 Chrysene	228	11.821	11.821	0.000	93	4922311	1582.1	M
	23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	99	4564777	1490.5	M
	24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	1737238	463.7	M
	25 Benzo[a]pyrene	252	12.892	12.892	0.000	99	4491458	1447.7	M
	26 Indeno[1,2,3-cd]pyrene	276	13.936	13.935	0.001	99	3358780	1315.8	M
	27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	345327	115.3	M
	28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	99	3997186	1167.1	M

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
e - Potential Peak Saturated

Review Flags
M - Manually Integrated

Reagents:

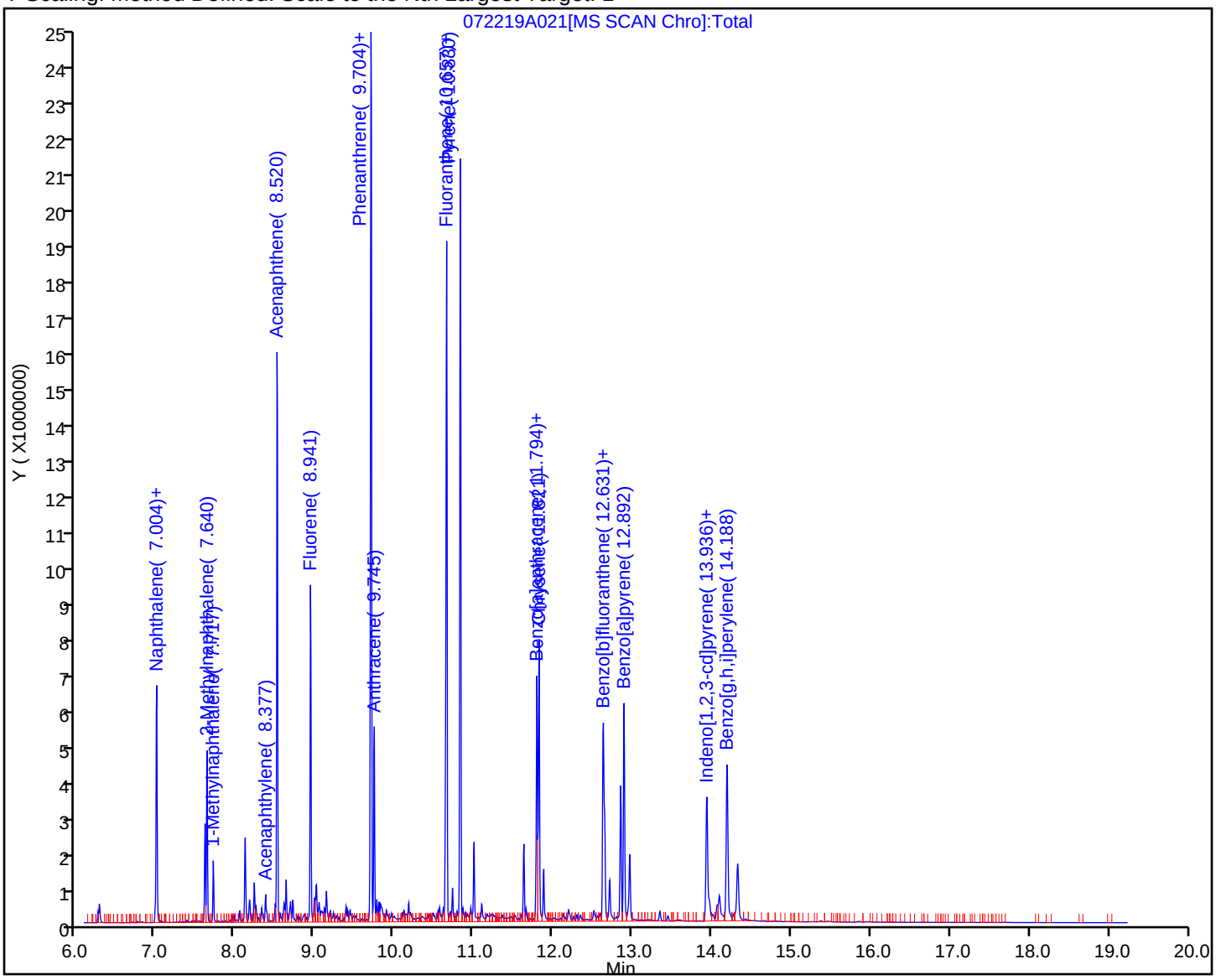
8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D
Lims ID: 580-87706-A-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 19:32:30 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-14-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:59:07 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:59:07

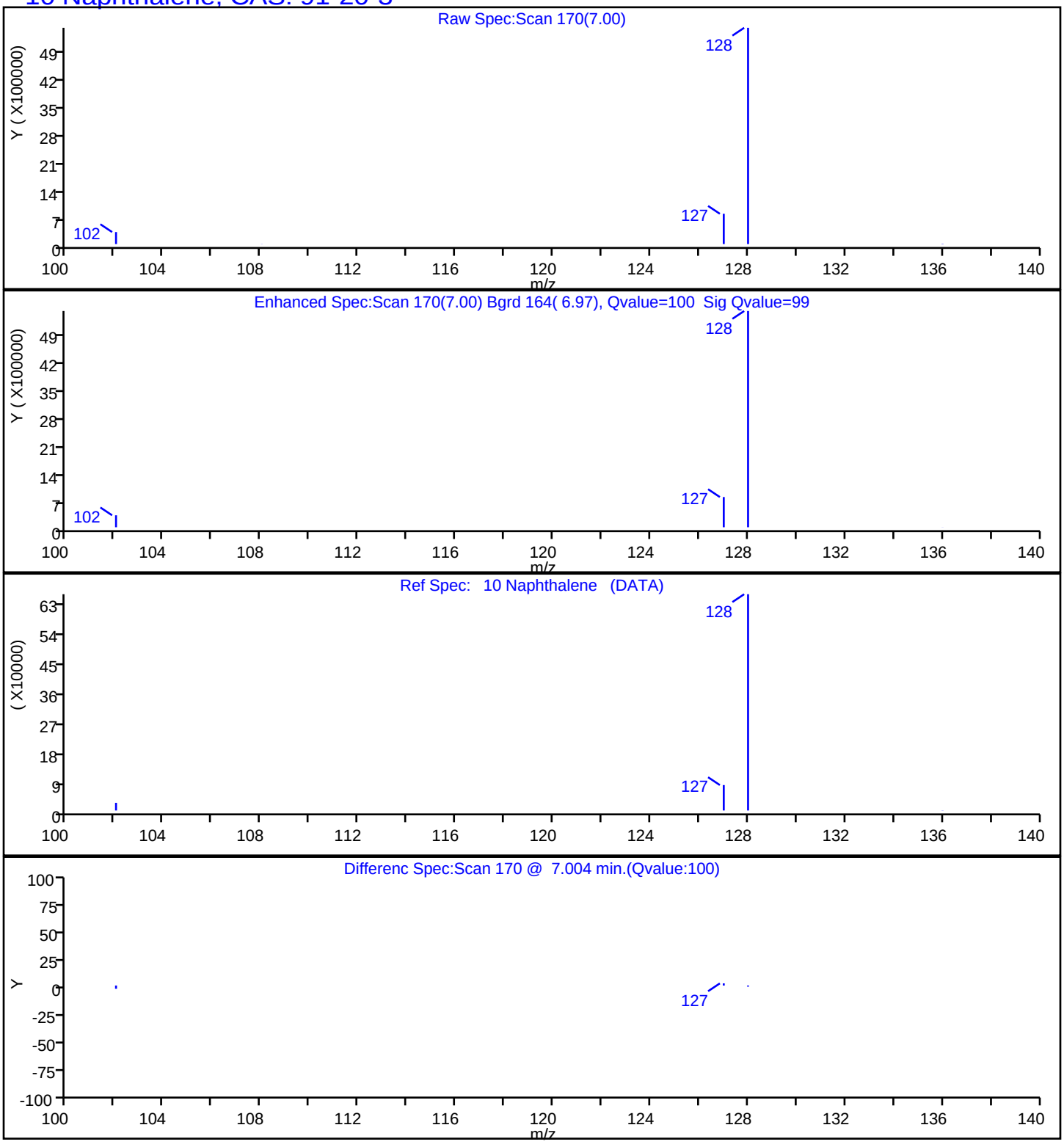
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	671.5	67.15

Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

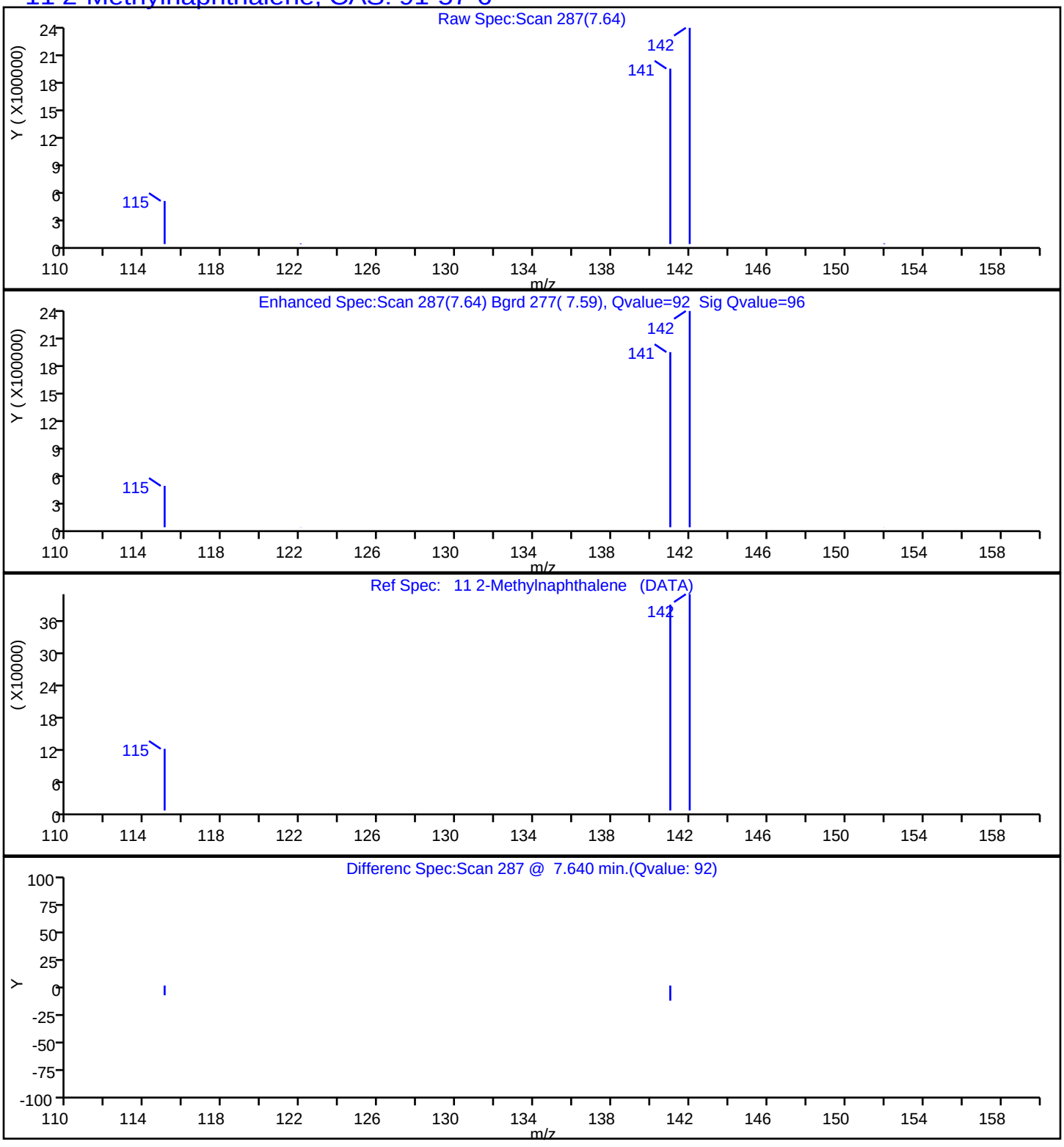


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

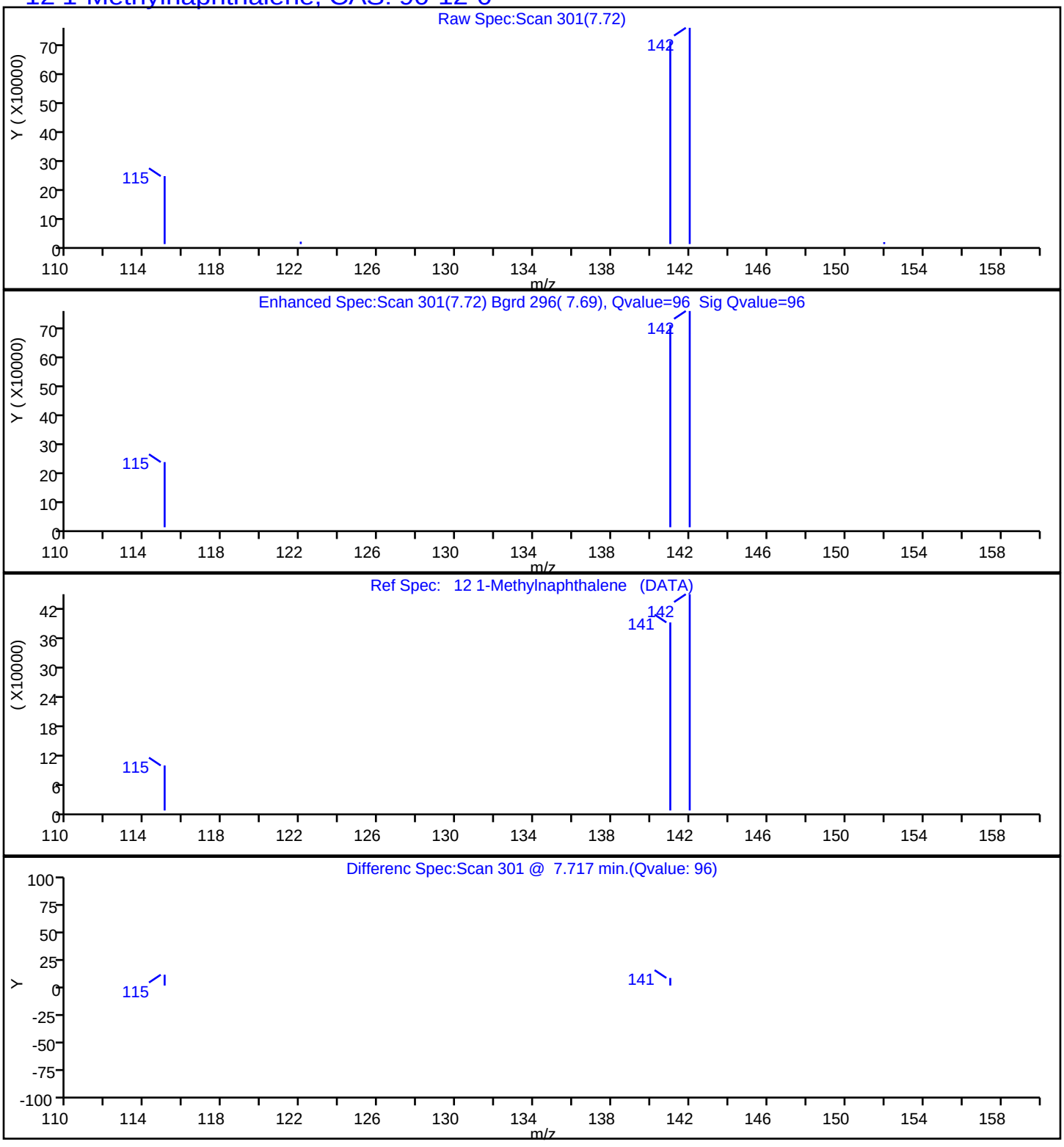


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

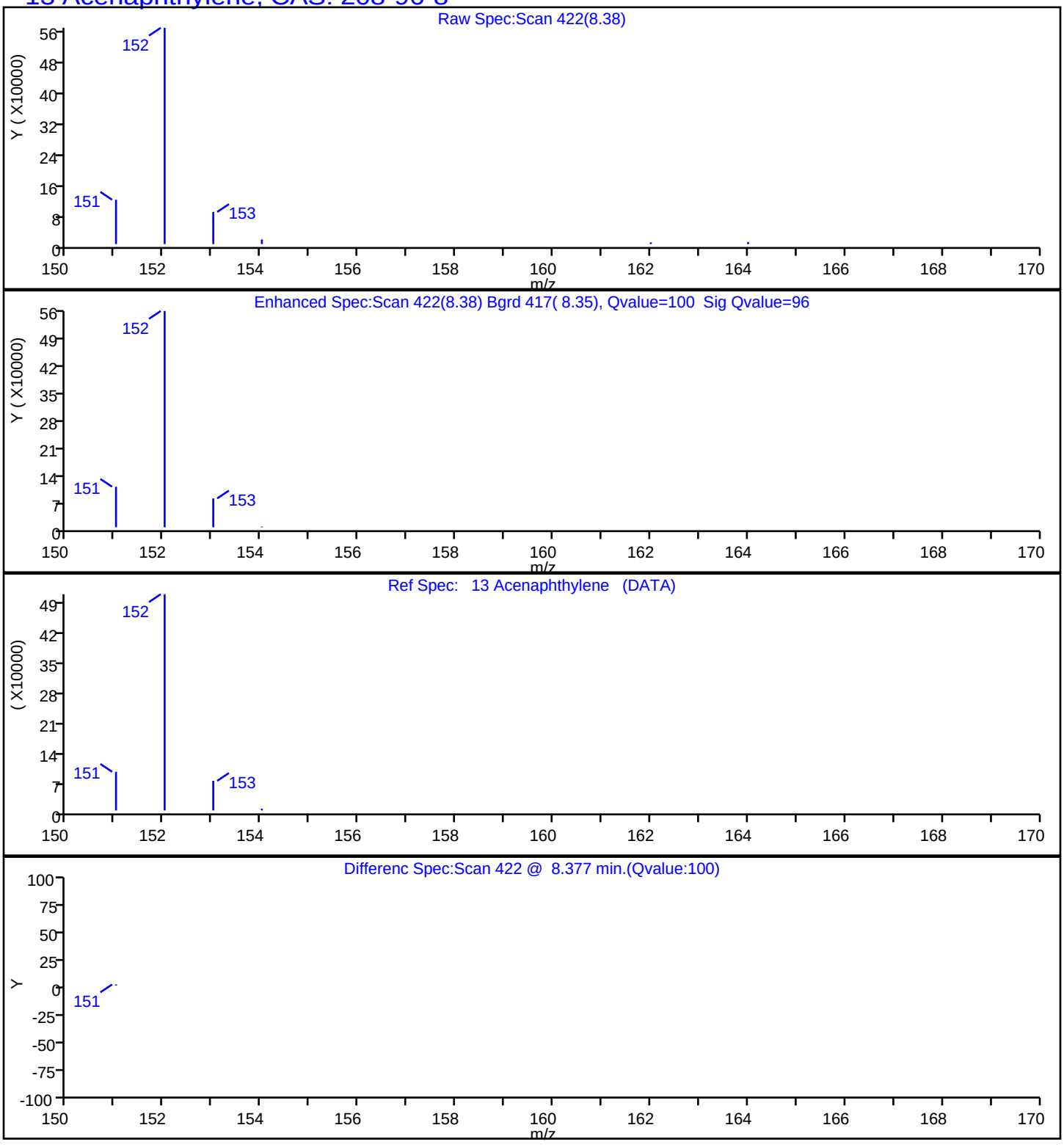


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

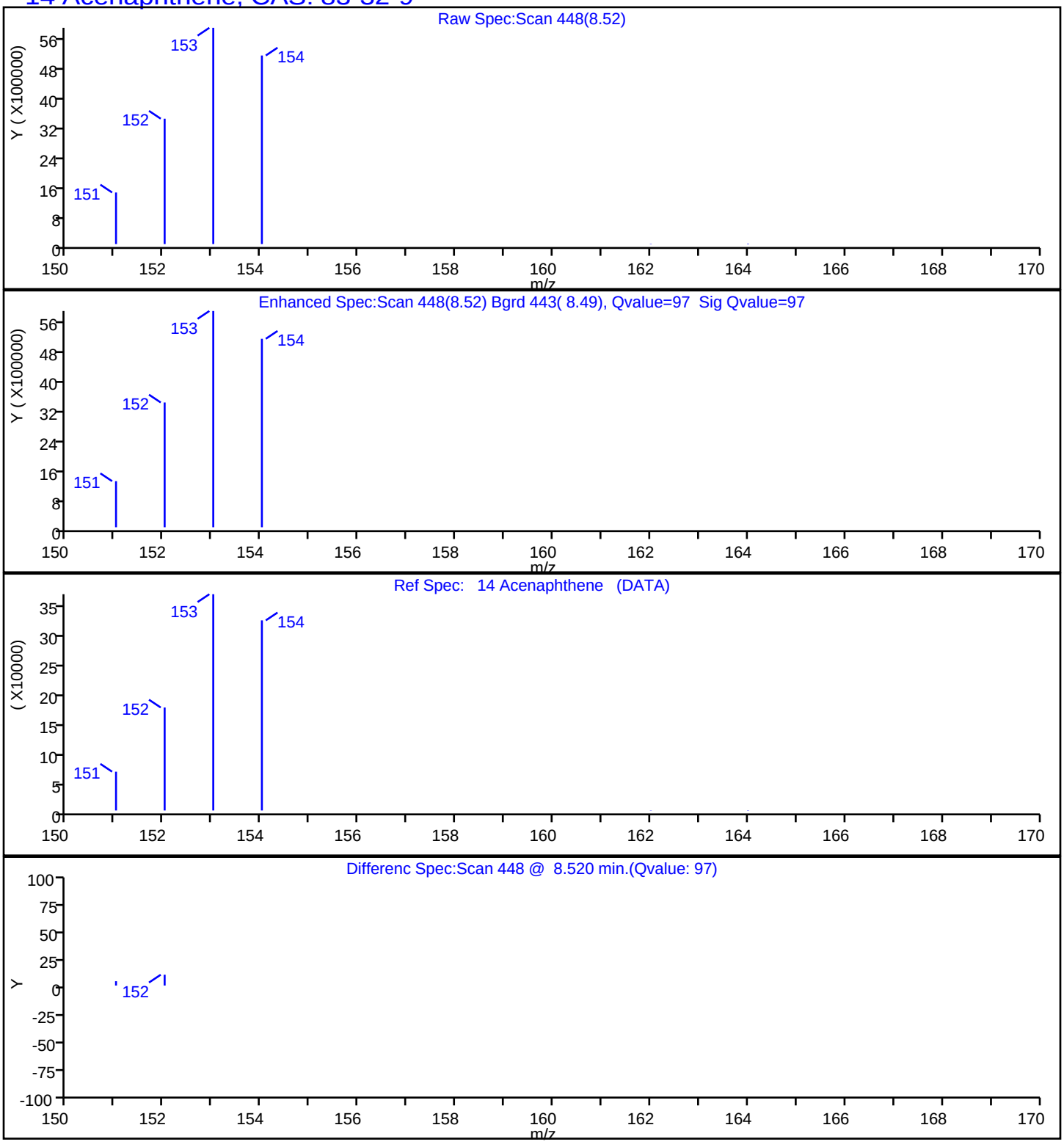


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

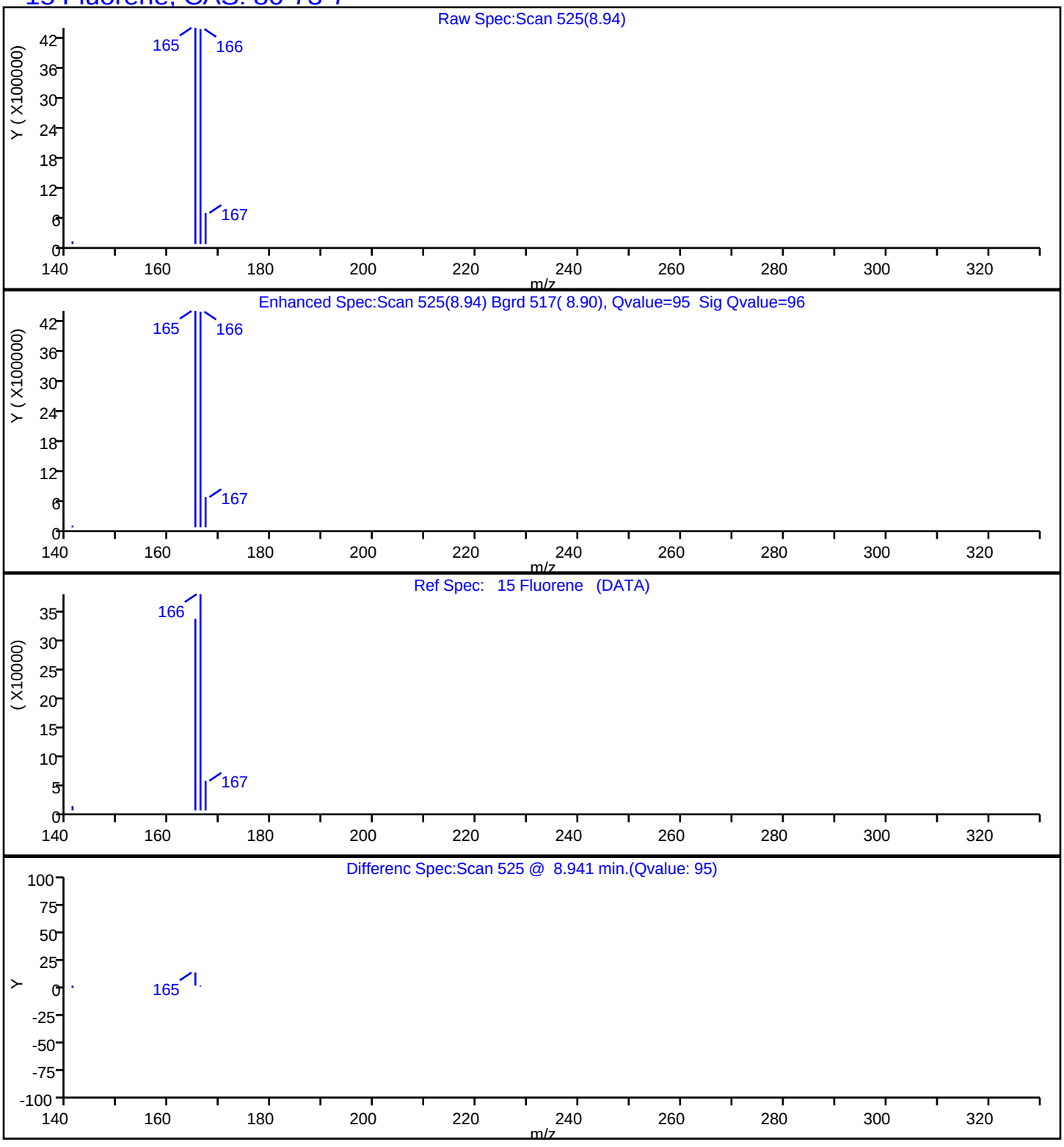


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

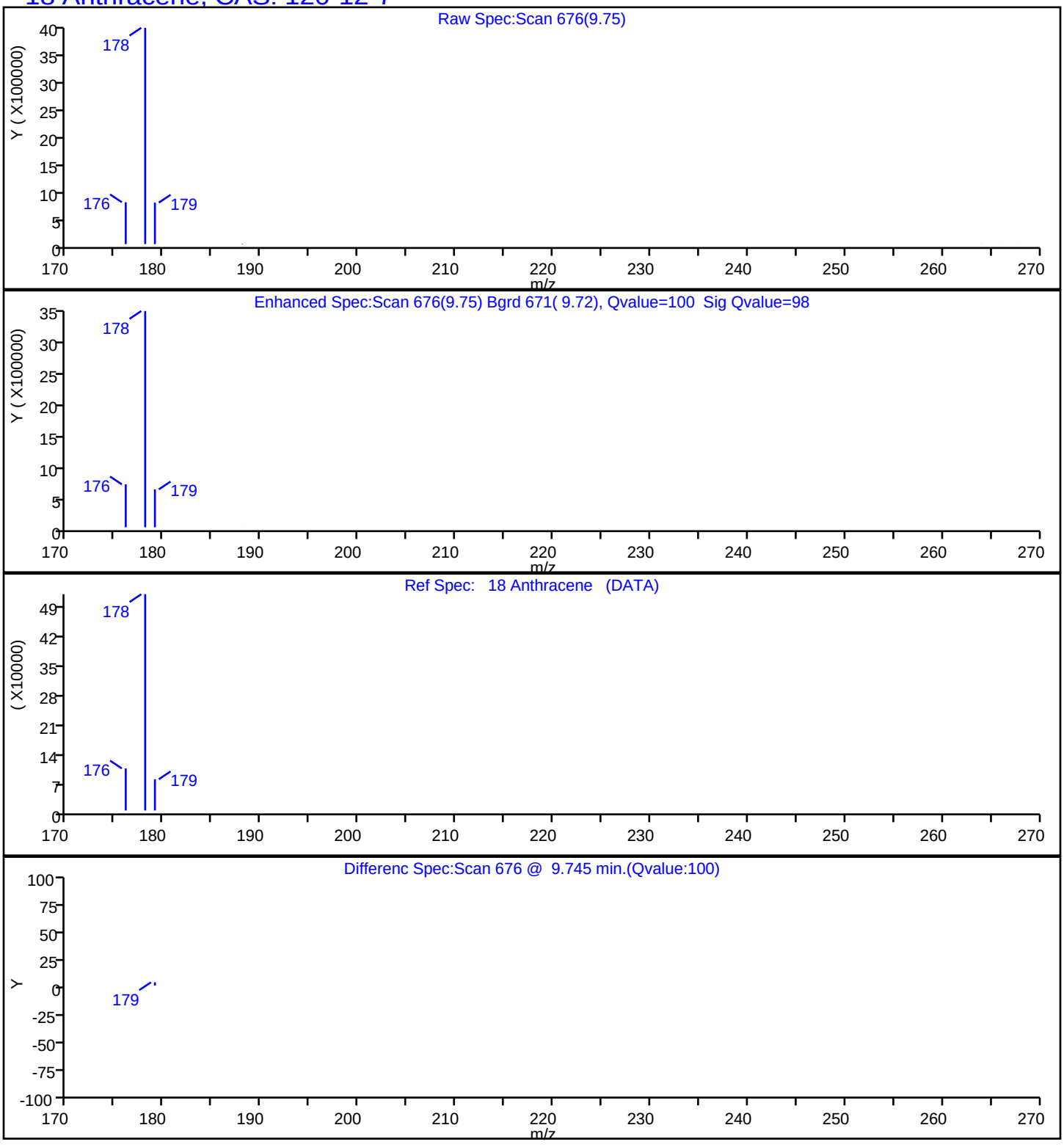


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

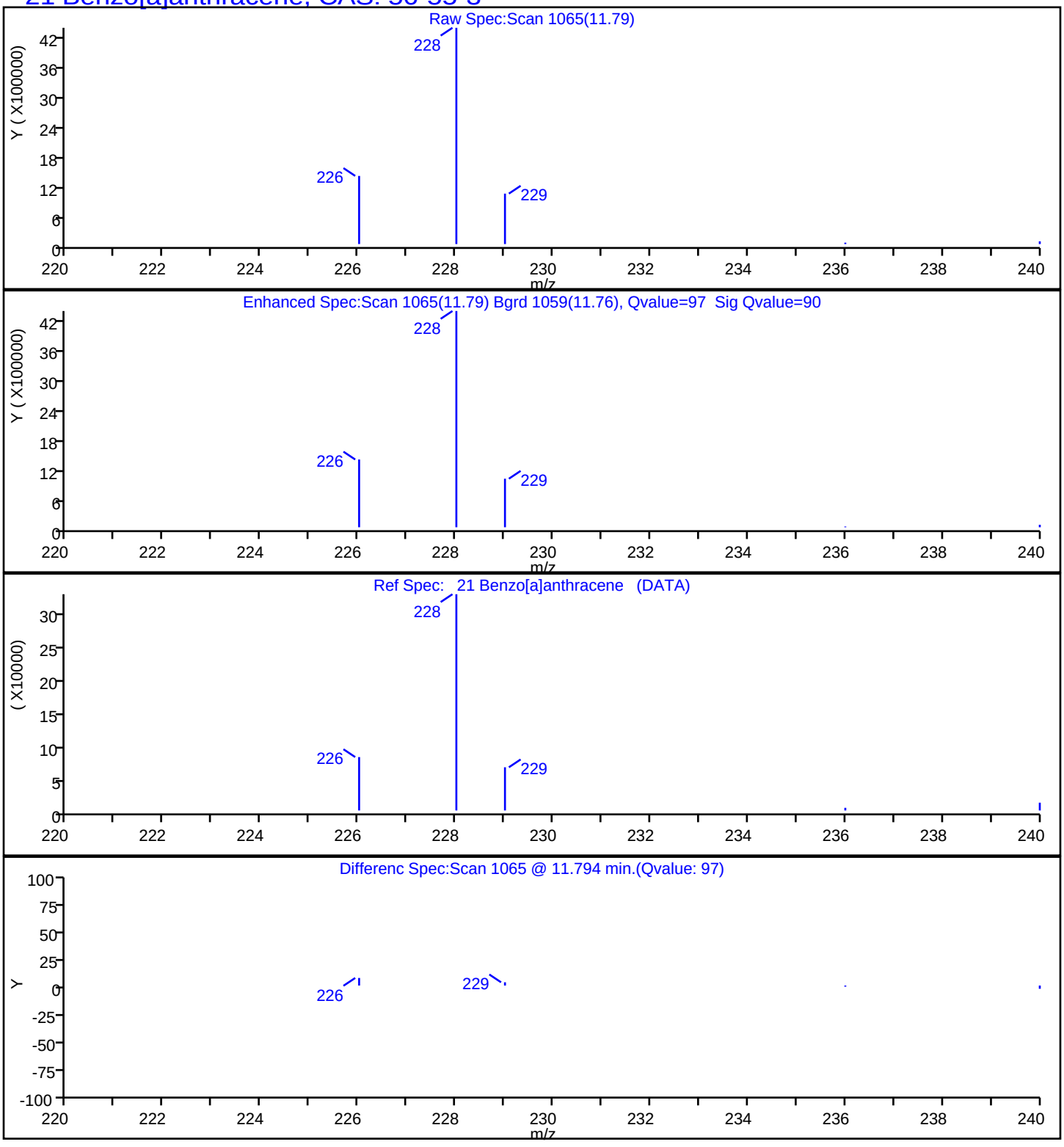


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

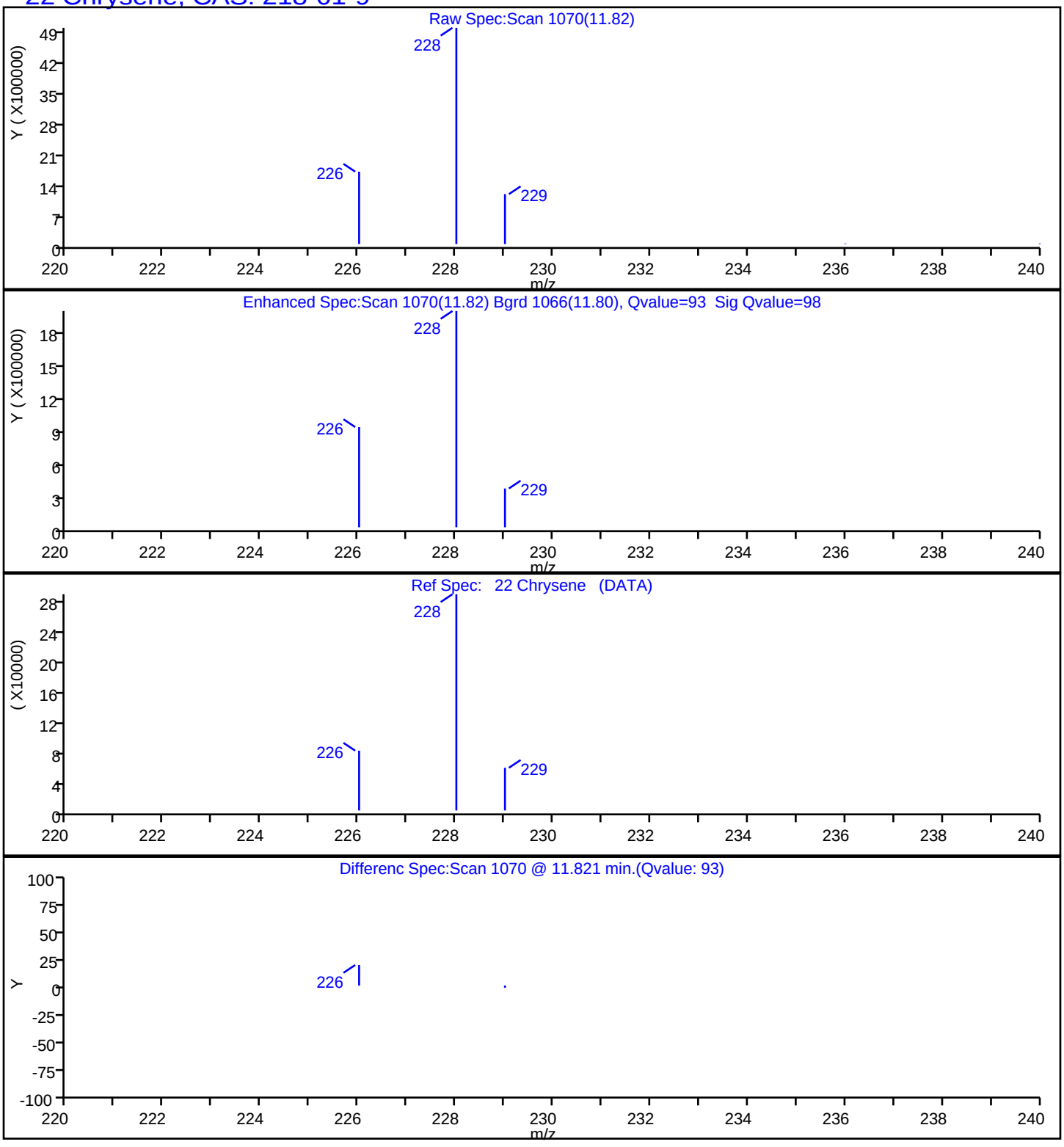


Report Date: 23-Jul-2019 14:59:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

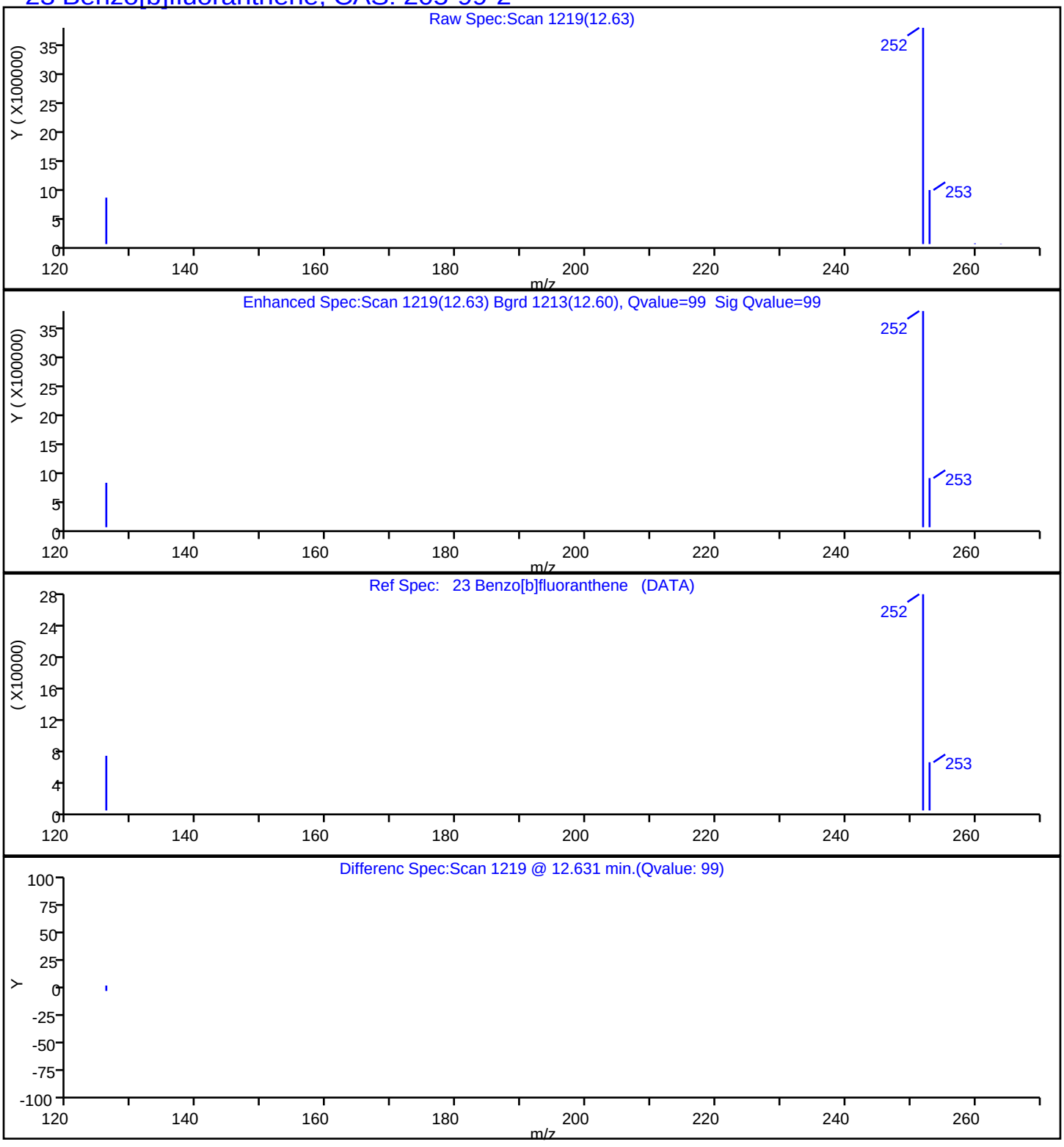


Report Date: 23-Jul-2019 14:59:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

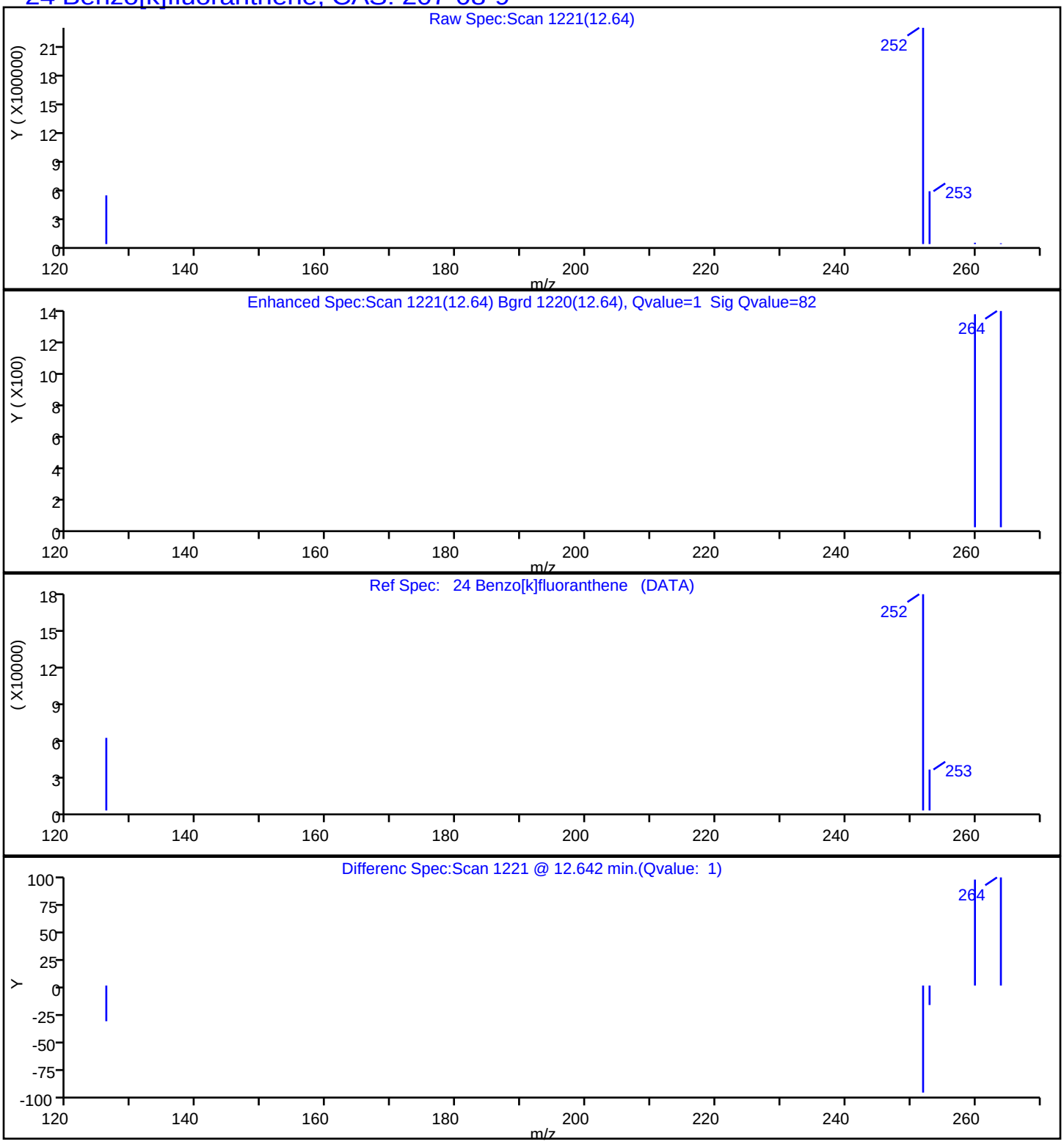


Report Date: 23-Jul-2019 14:59:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

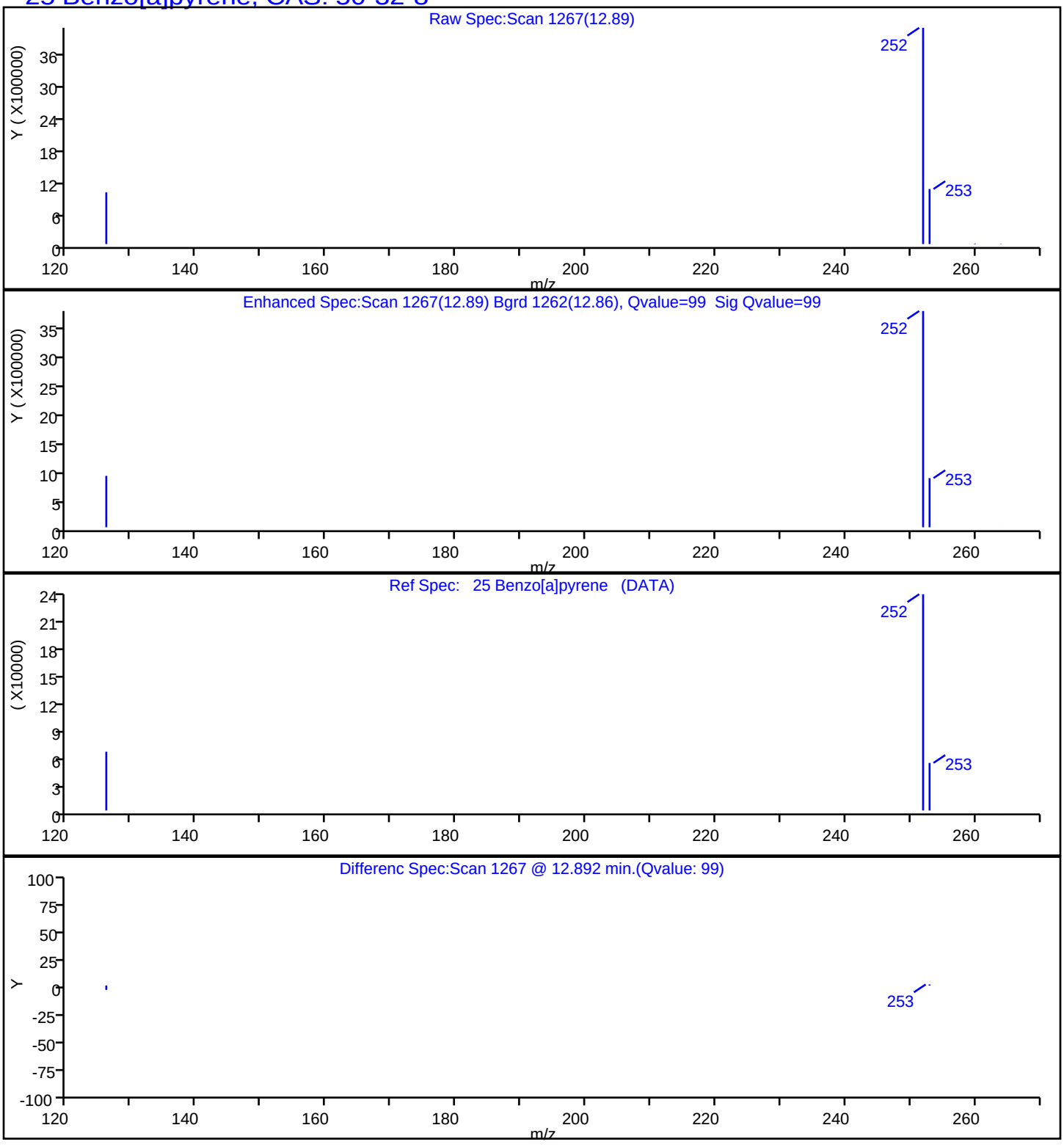


Report Date: 23-Jul-2019 14:59:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

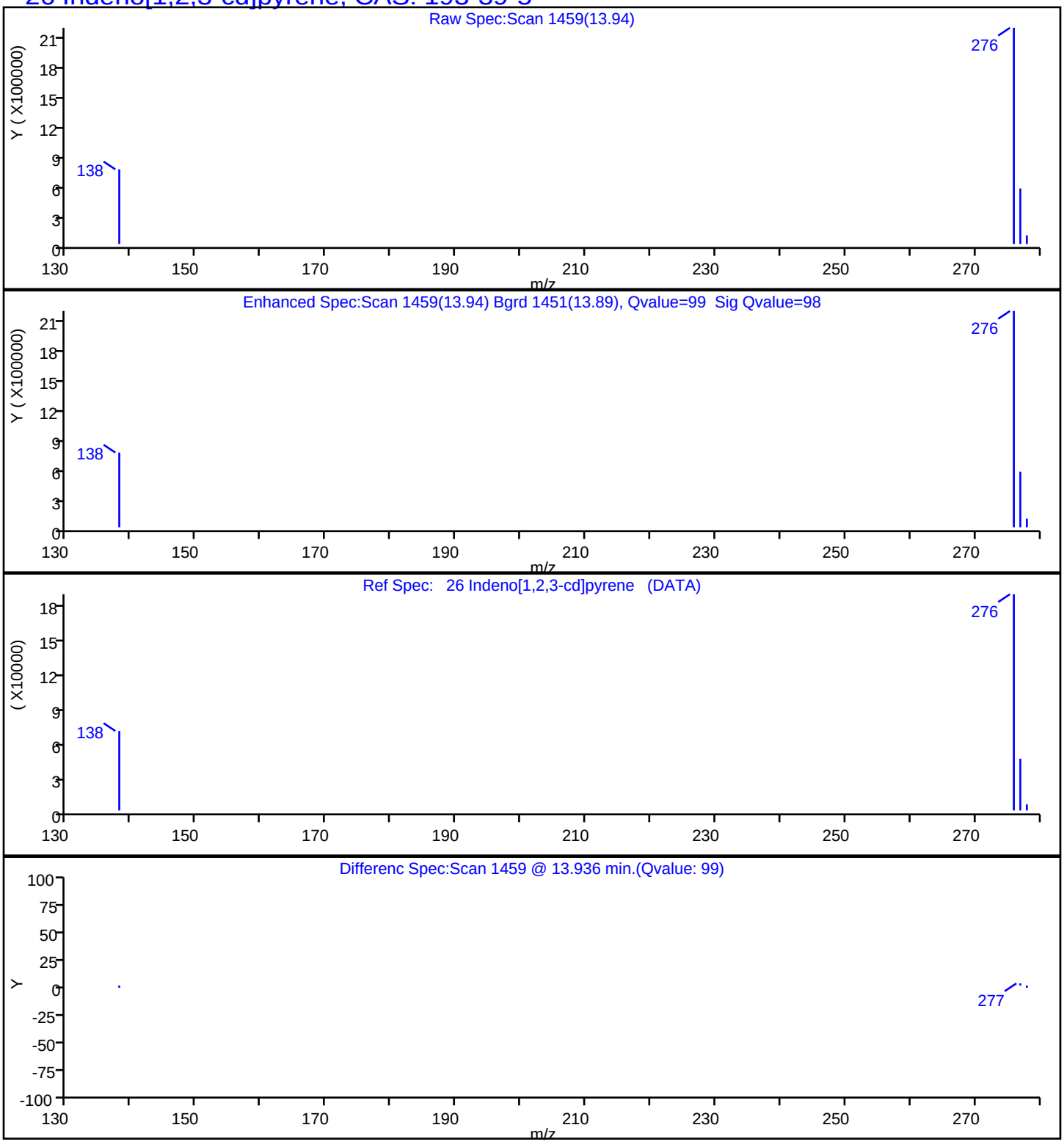


Report Date: 23-Jul-2019 14:59:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

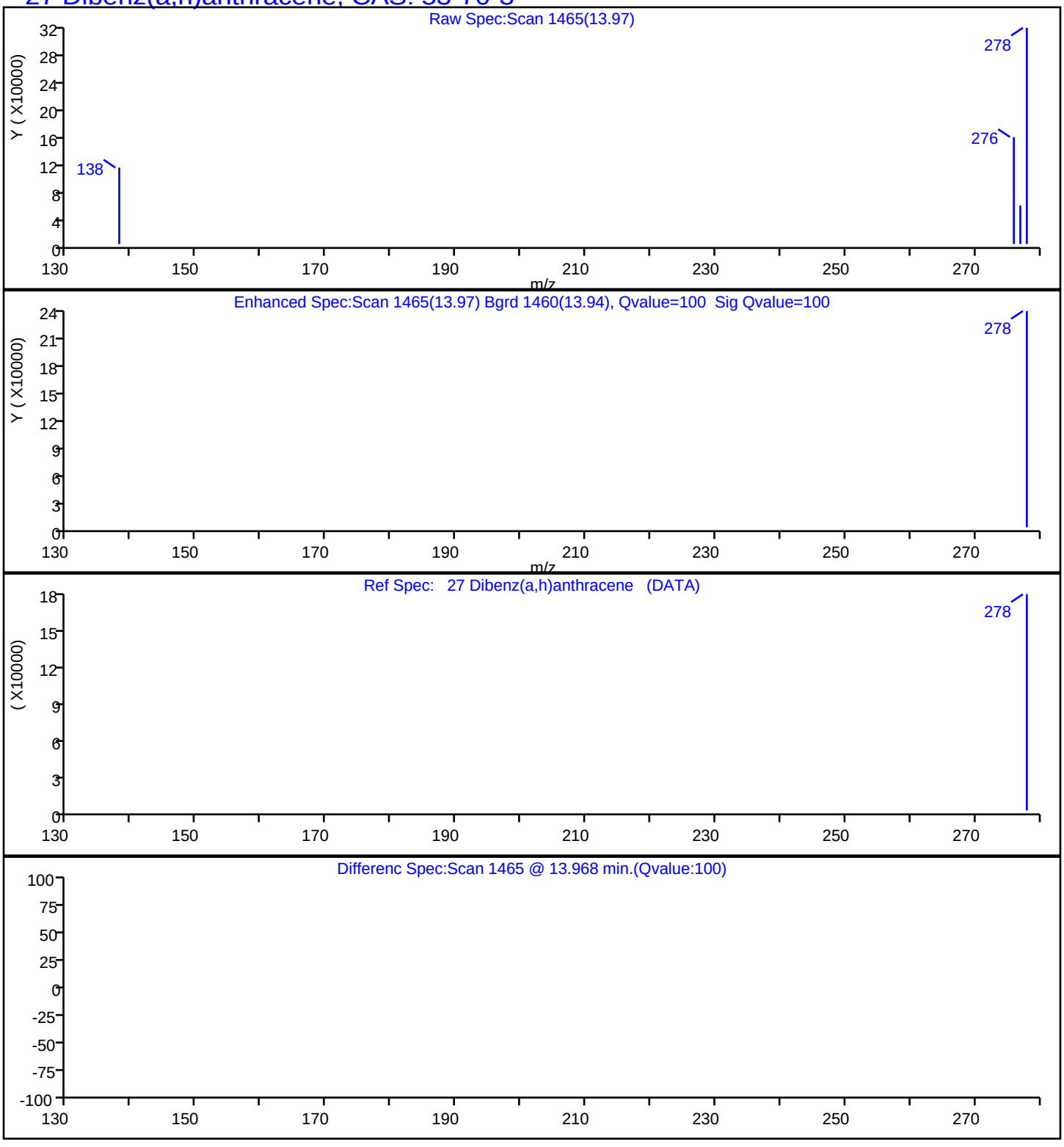


Report Date: 23-Jul-2019 14:59:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

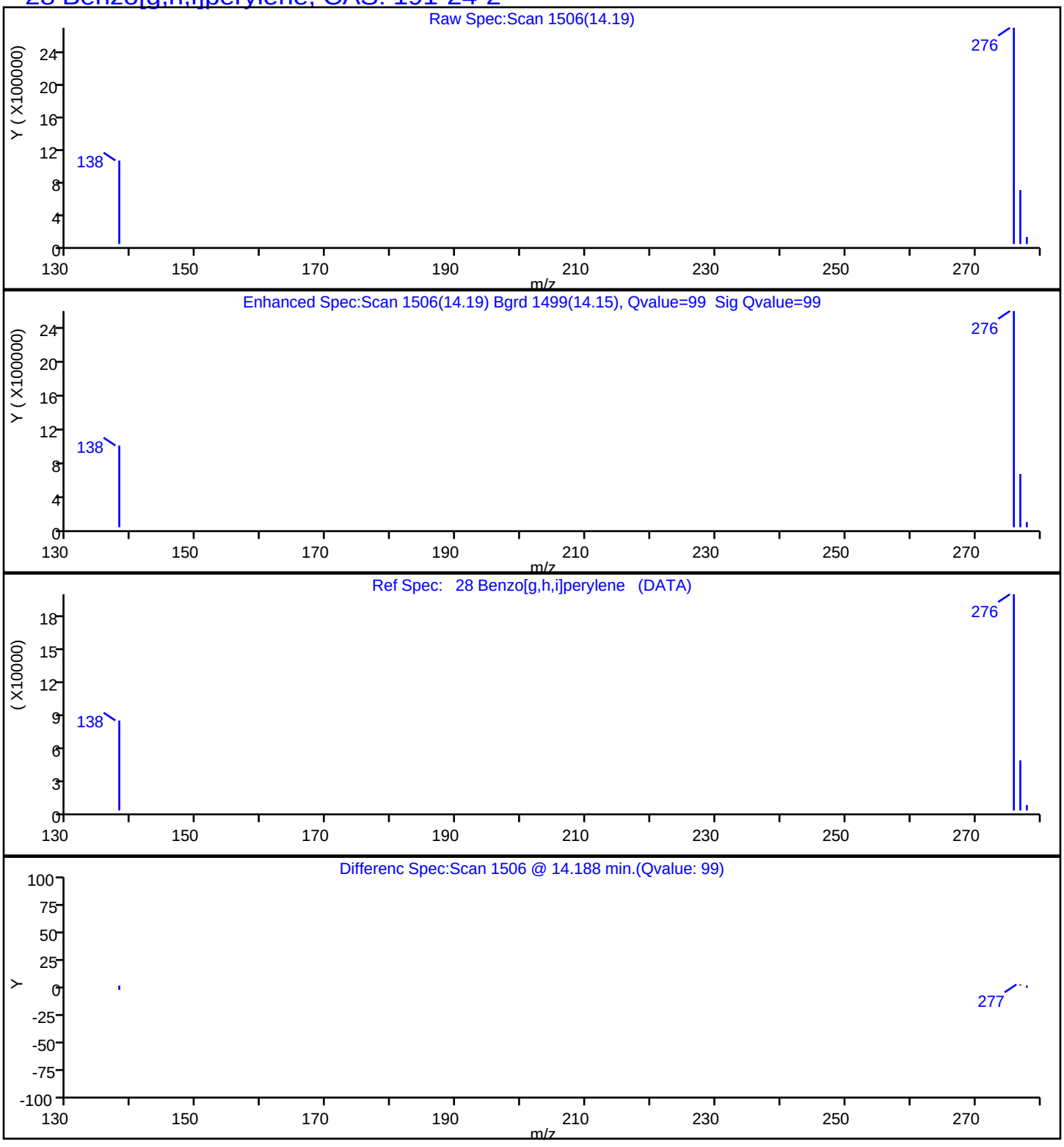


Report Date: 23-Jul-2019 14:59:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

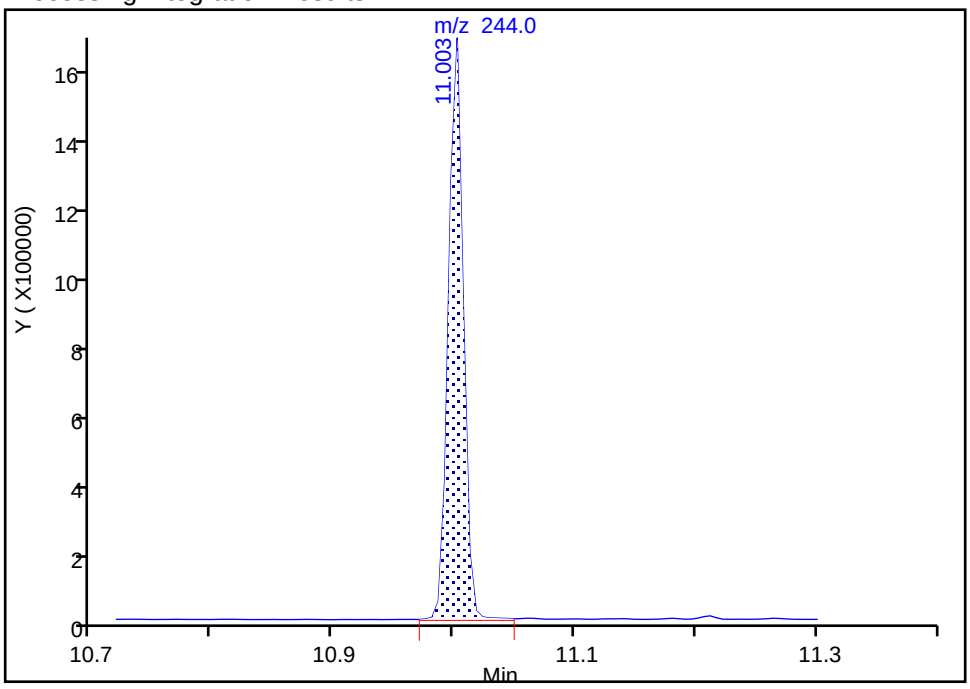
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

$ 9 Terphenyl-d14, CAS: 1718-51-0

Signal: 1

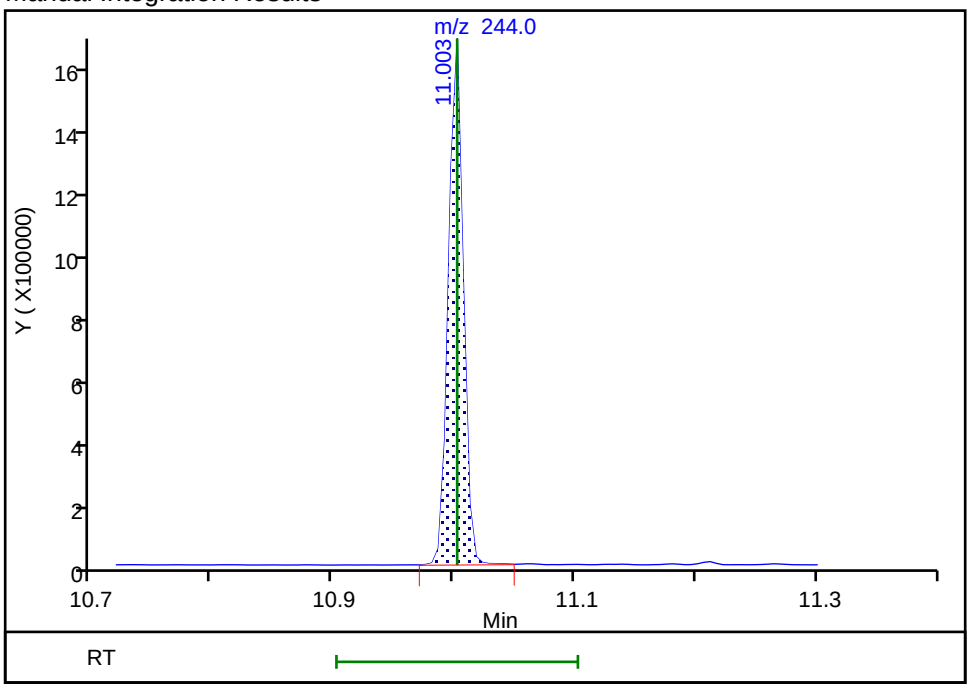
Processing Integration Results

RT: 11.00
Area: 1422352
Amount: 676.8867
Amount Units: ug/L



Manual Integration Results

RT: 11.00
Area: 1411121
Amount: 671.5420
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

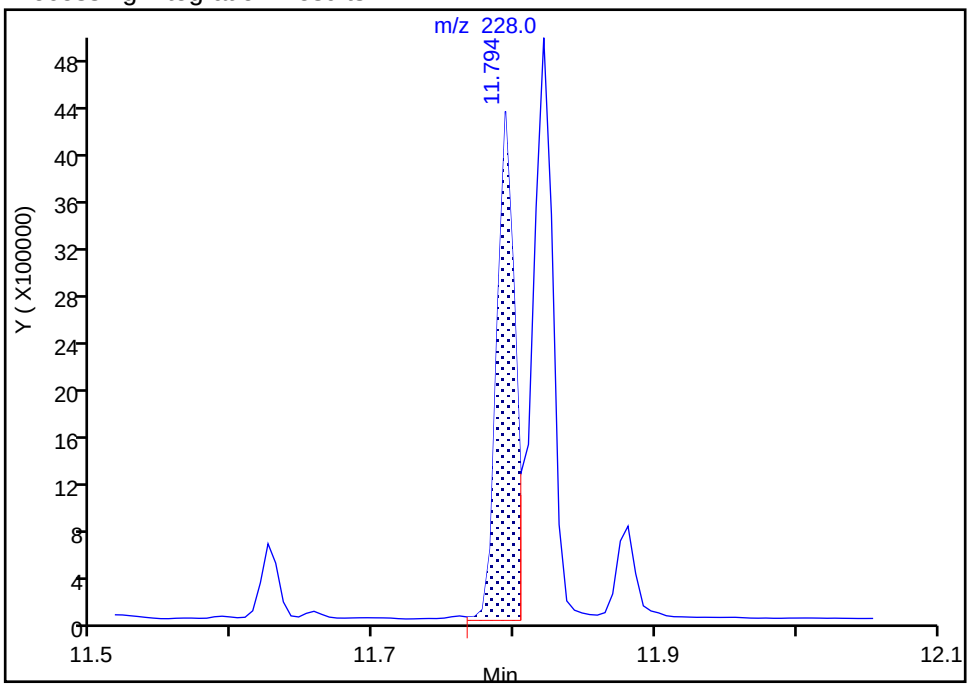
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

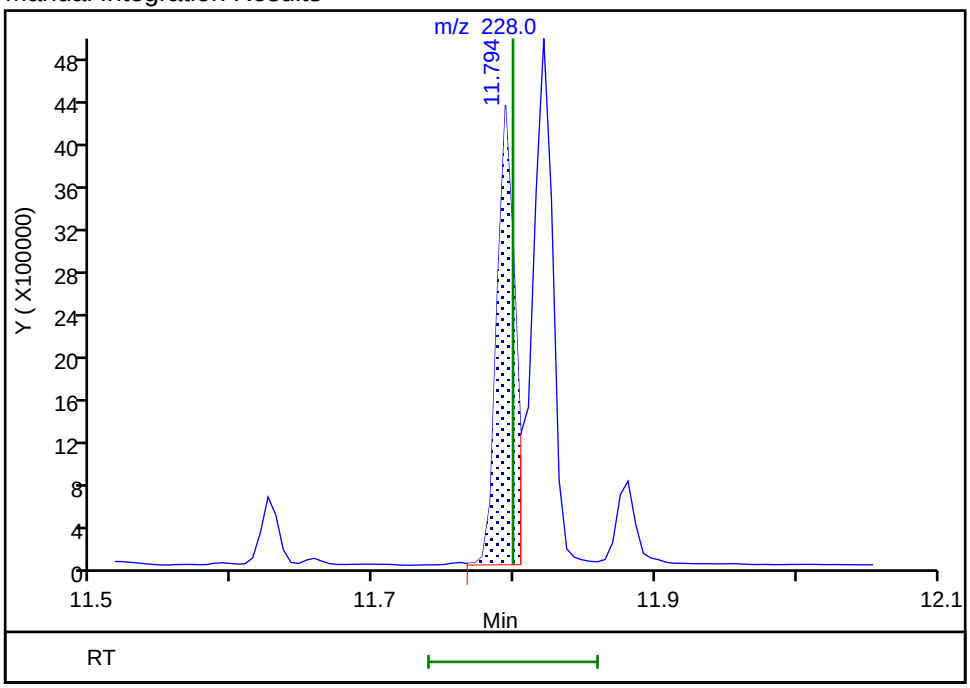
Processing Integration Results

RT: 11.79
Area: 3758149
Amount: 1606.3846
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 3722713
Amount: 1591.2378
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:57:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

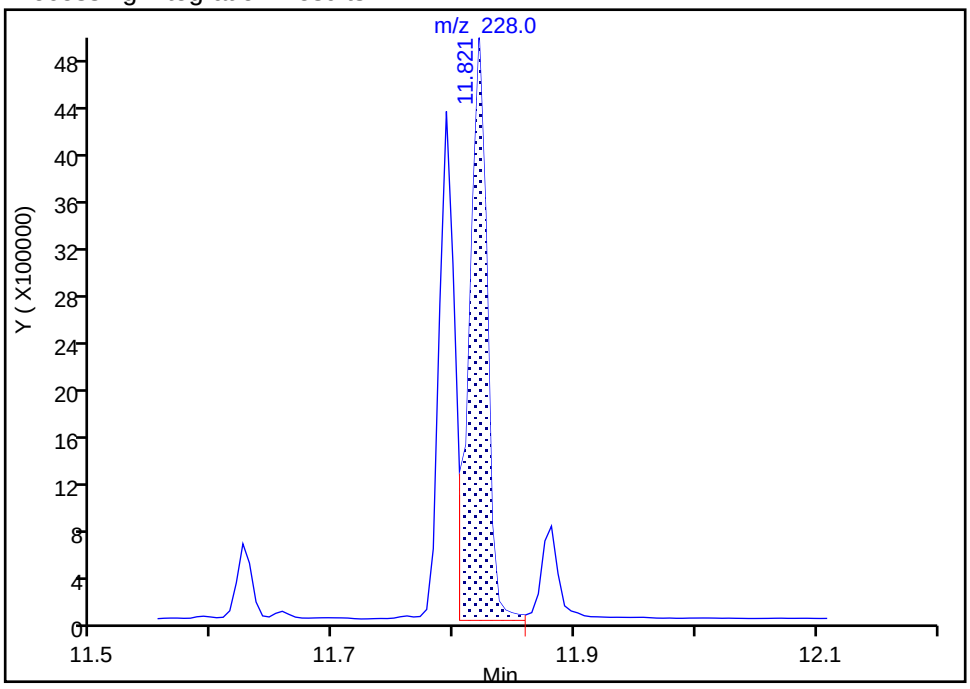
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

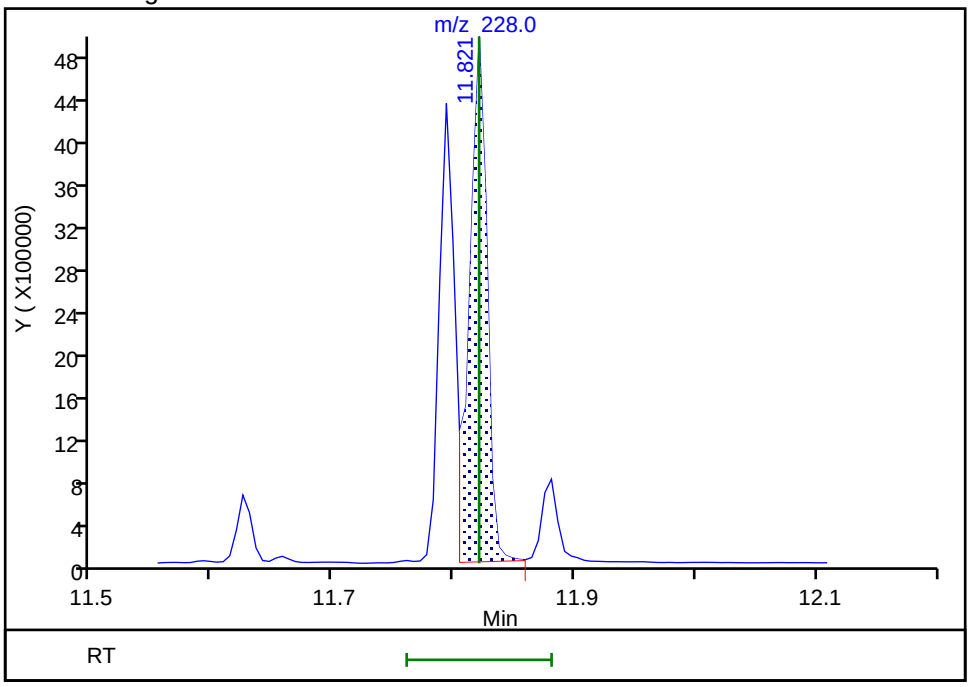
Processing Integration Results

RT: 11.82
Area: 5015909
Amount: 1612.2109
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 4922311
Amount: 1582.1266
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:57:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

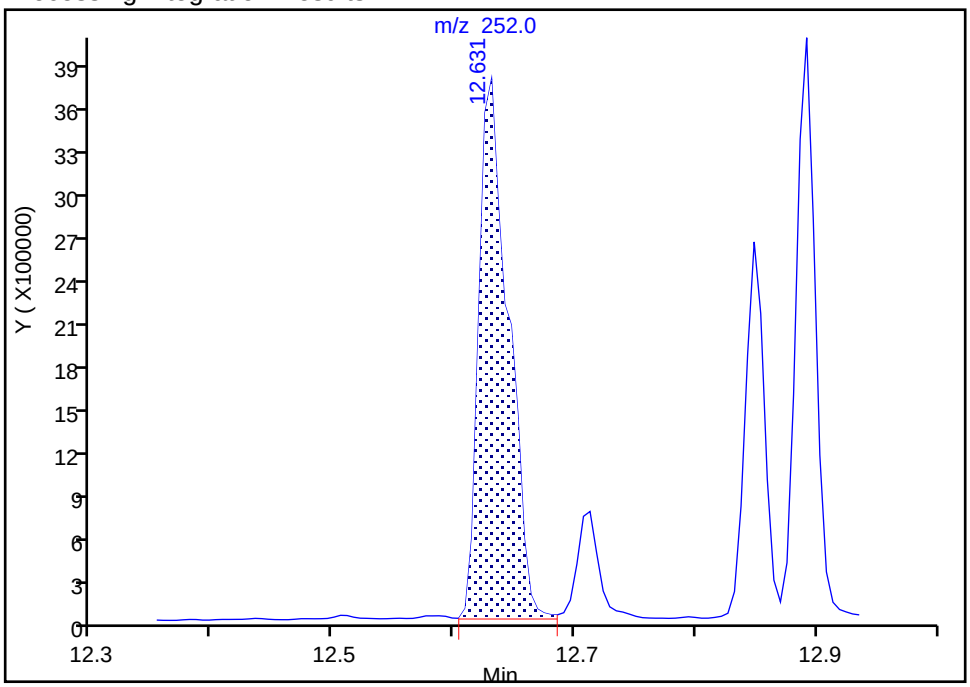
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

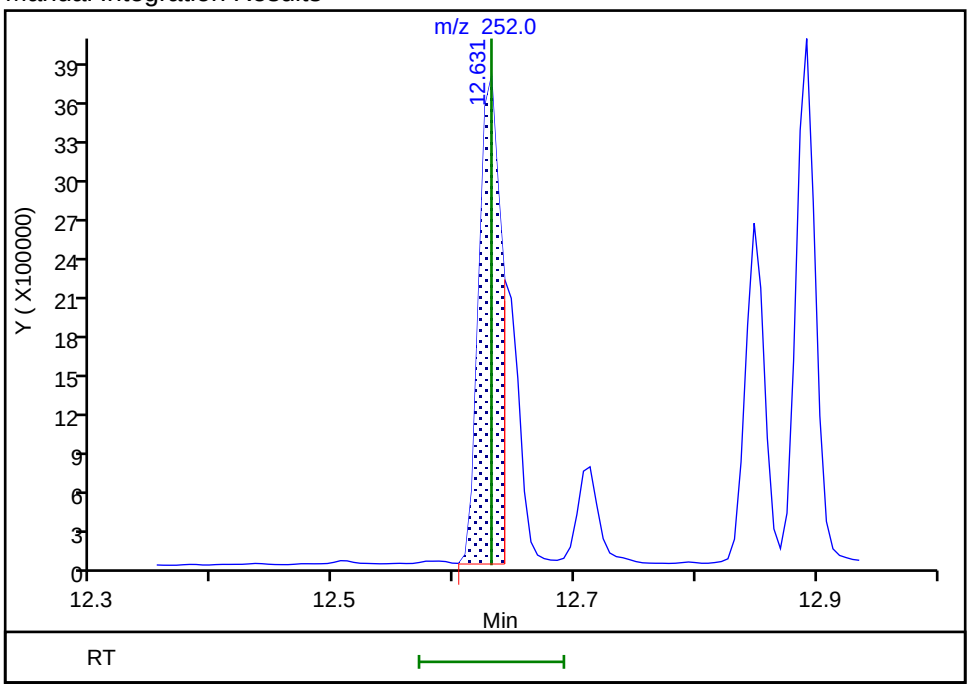
Processing Integration Results

RT: 12.63
Area: 6344107
Amount: 2071.5464
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 4564777
Amount: 1490.5403
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:57:57

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

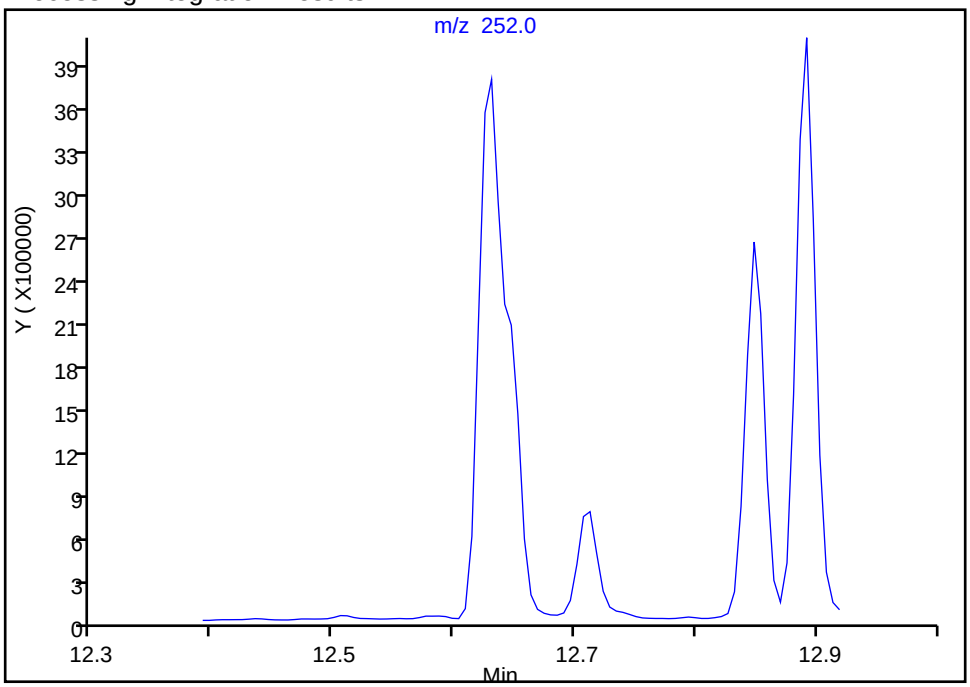
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

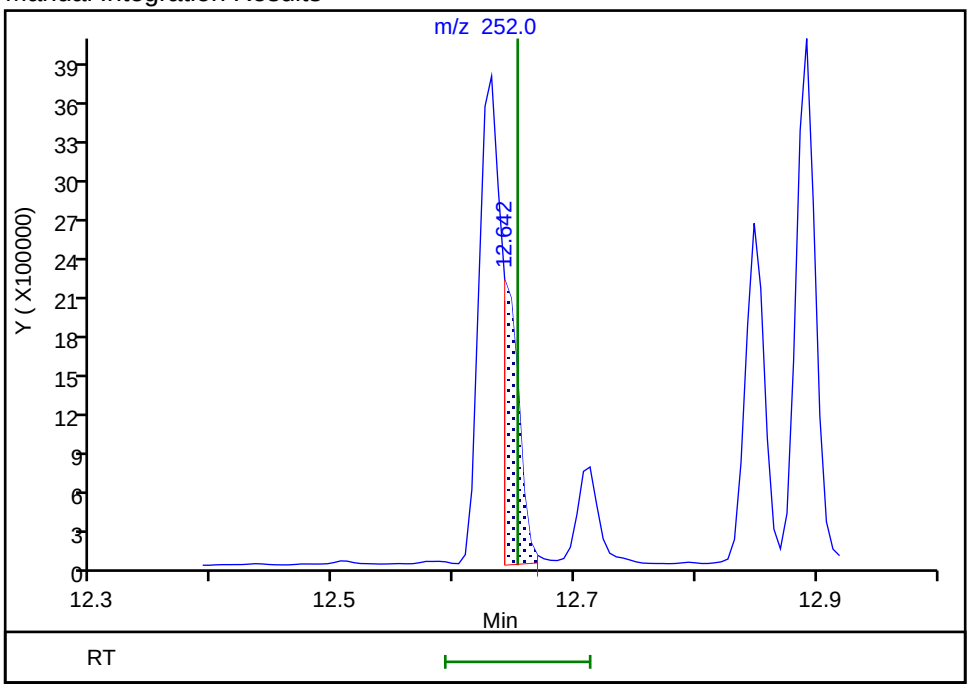
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 1737238
Amount: 463.6598
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:58:07
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

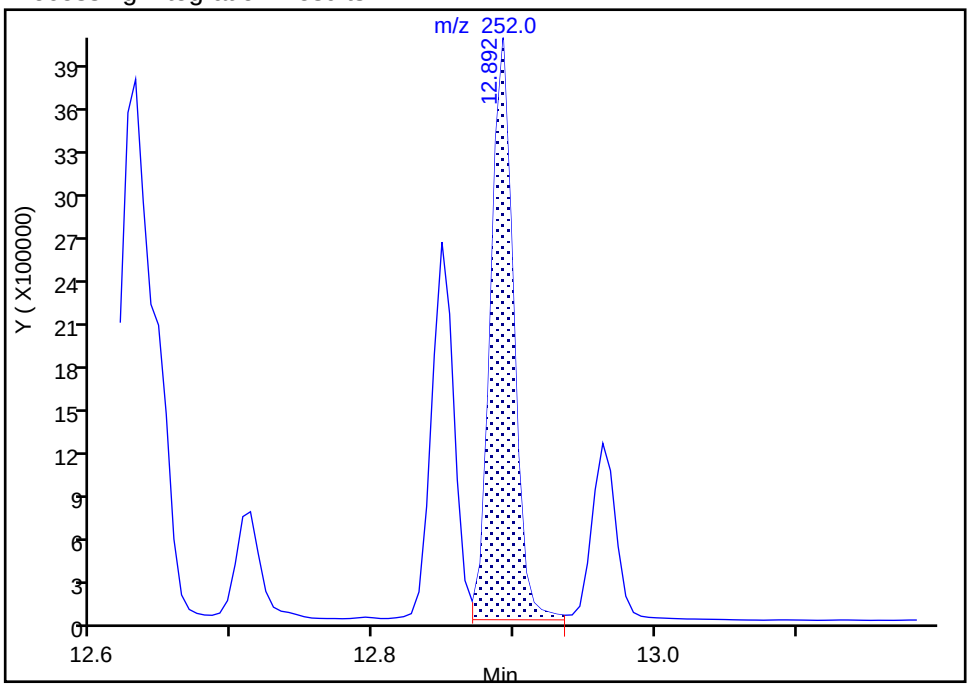
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

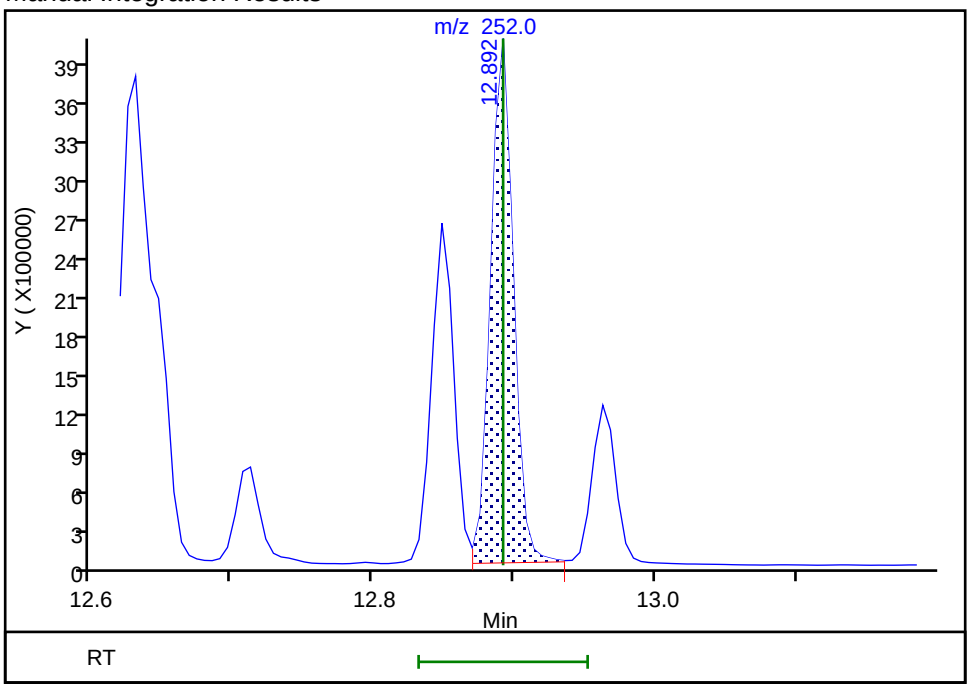
Processing Integration Results

RT: 12.89
Area: 4554323
Amount: 1467.9942
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 4491458
Amount: 1447.7309
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:58:41

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

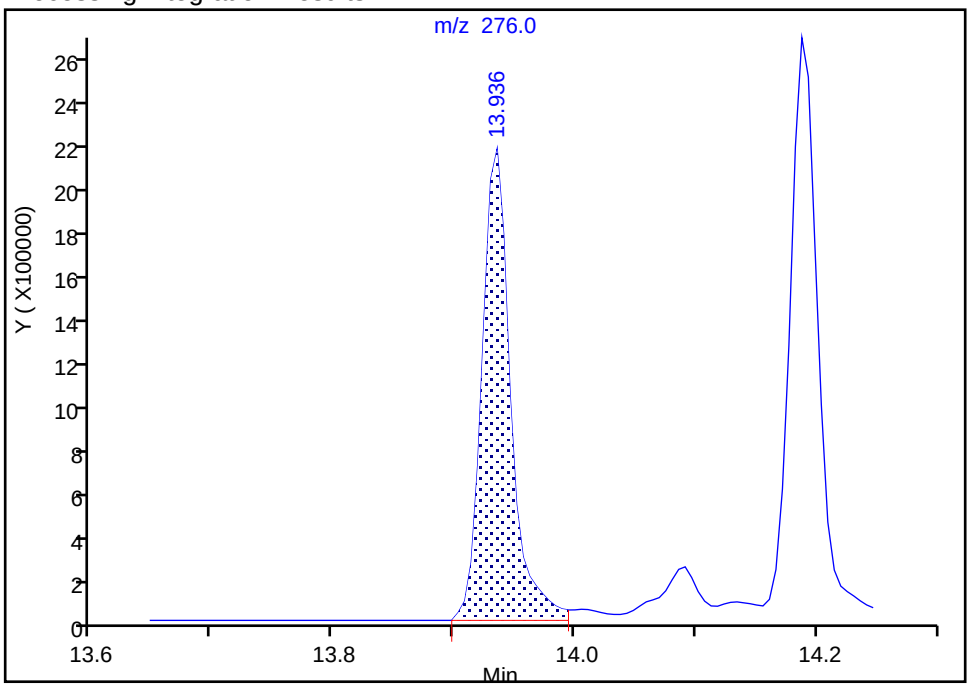
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

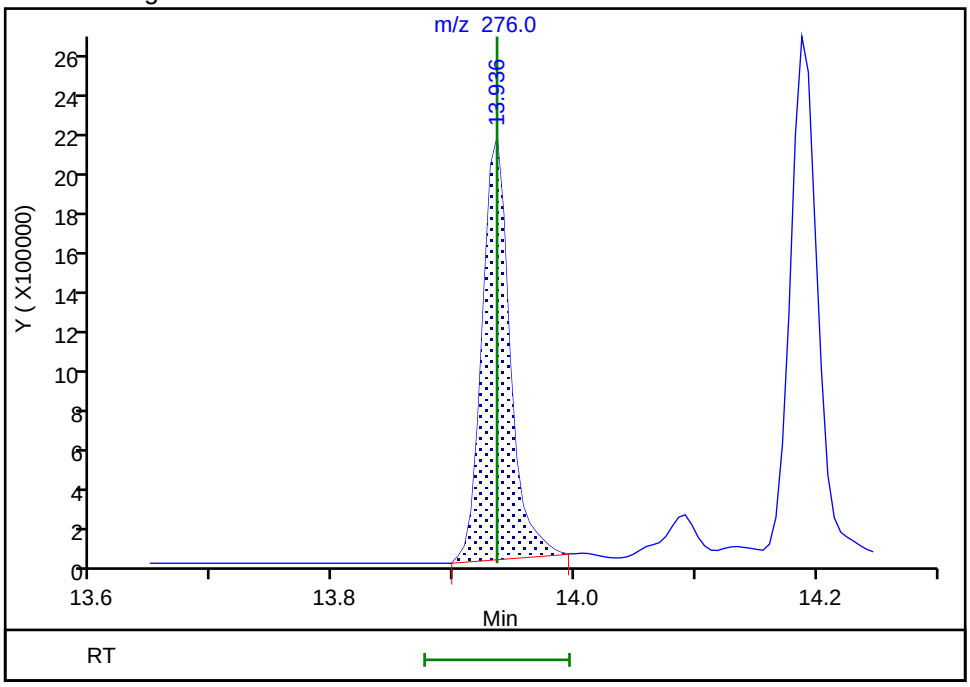
Processing Integration Results

RT: 13.94
Area: 3488443
Amount: 1362.9986
Amount Units: ug/L



Manual Integration Results

RT: 13.94
Area: 3358780
Amount: 1315.8247
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:58:58

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

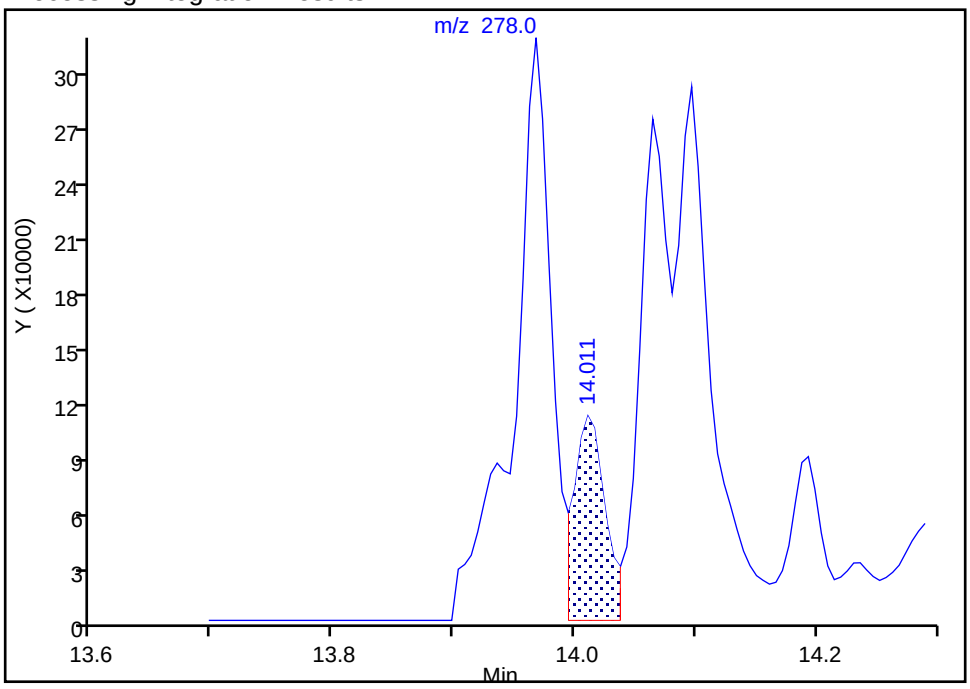
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

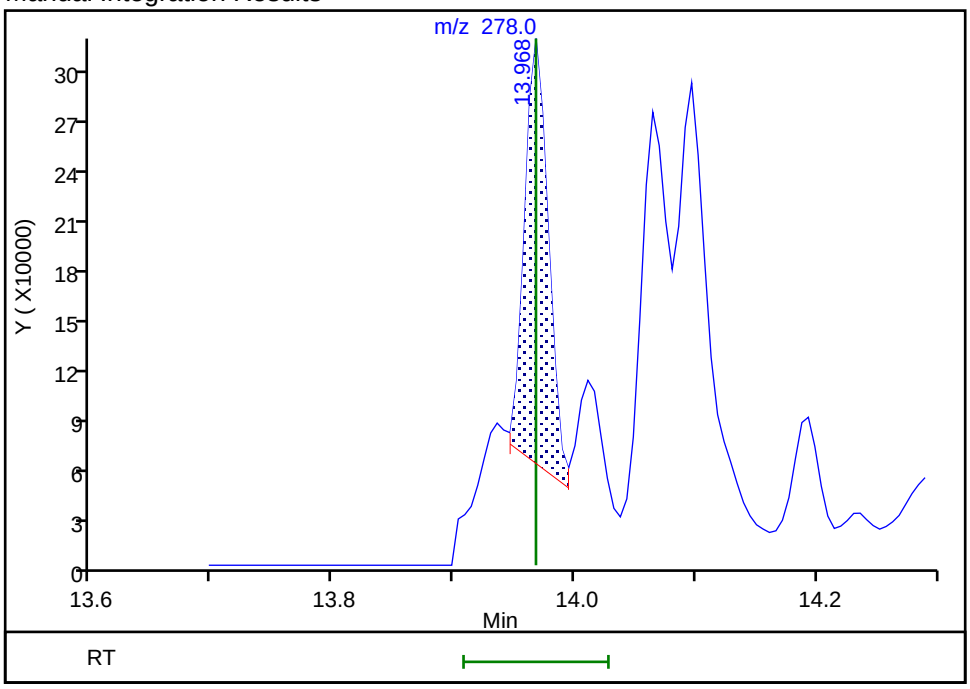
Processing Integration Results

RT: 14.01
Area: 190476
Amount: 64.079927
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 345327
Amount: 115.2735
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:58:53

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

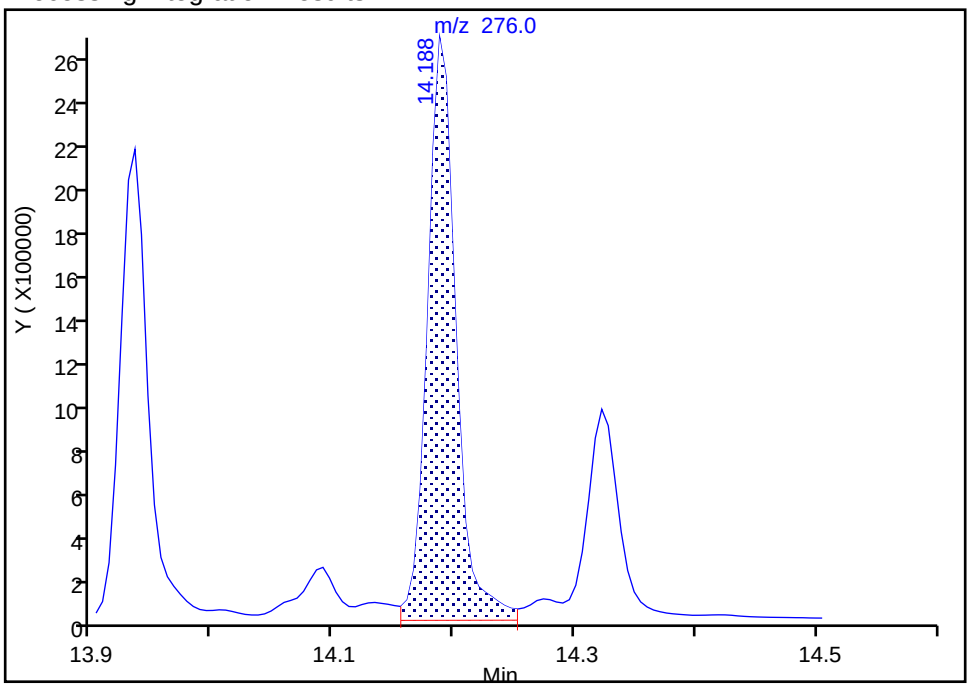
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

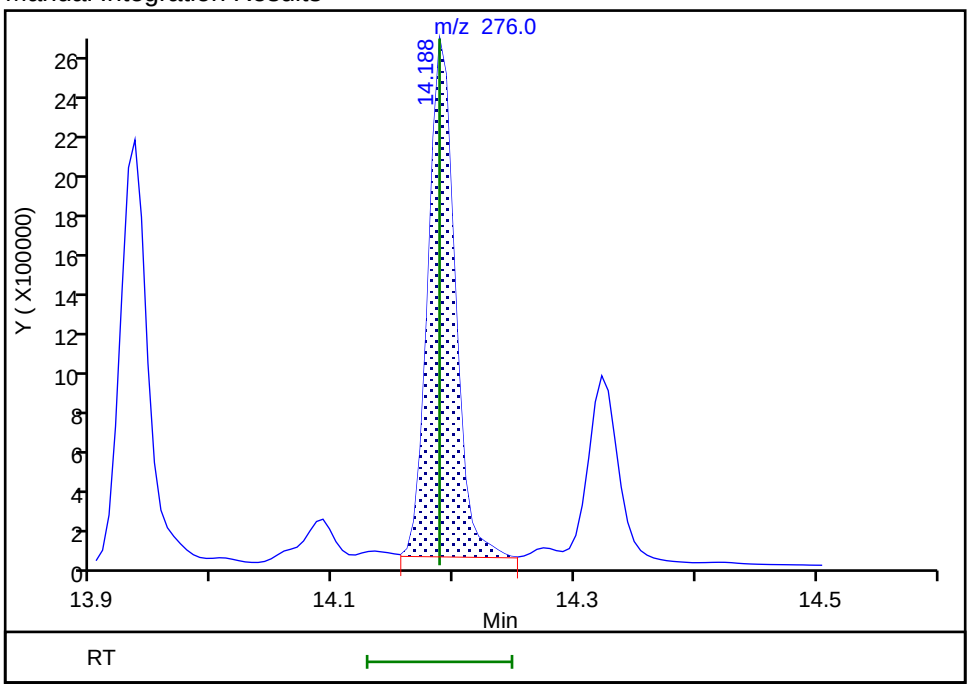
Processing Integration Results

RT: 14.19
Area: 4287226
Amount: 1251.7899
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 3997186
Amount: 1167.1214
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:59:05

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

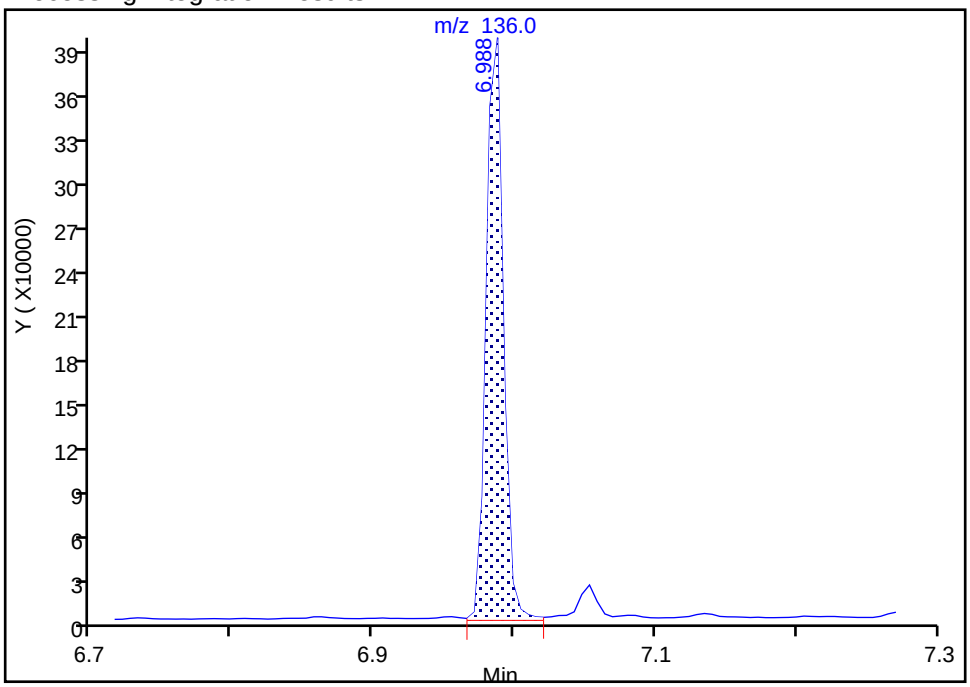
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 1 Naphthalene-d8, CAS: 1146-65-2

Signal: 1

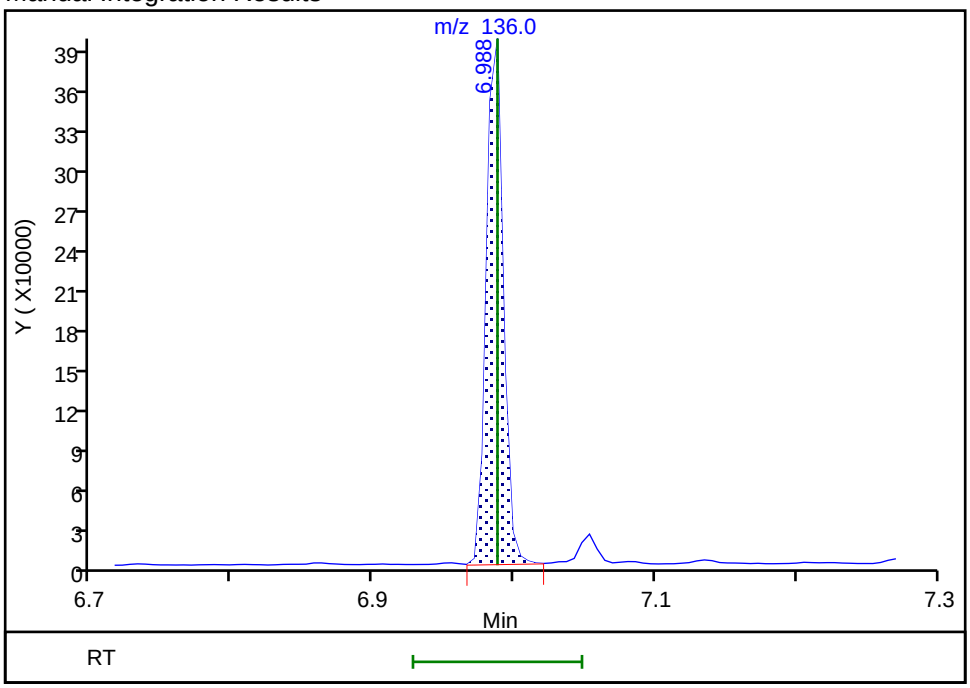
Processing Integration Results

RT: 6.99
Area: 335902
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 6.99
Area: 331851
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:30

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

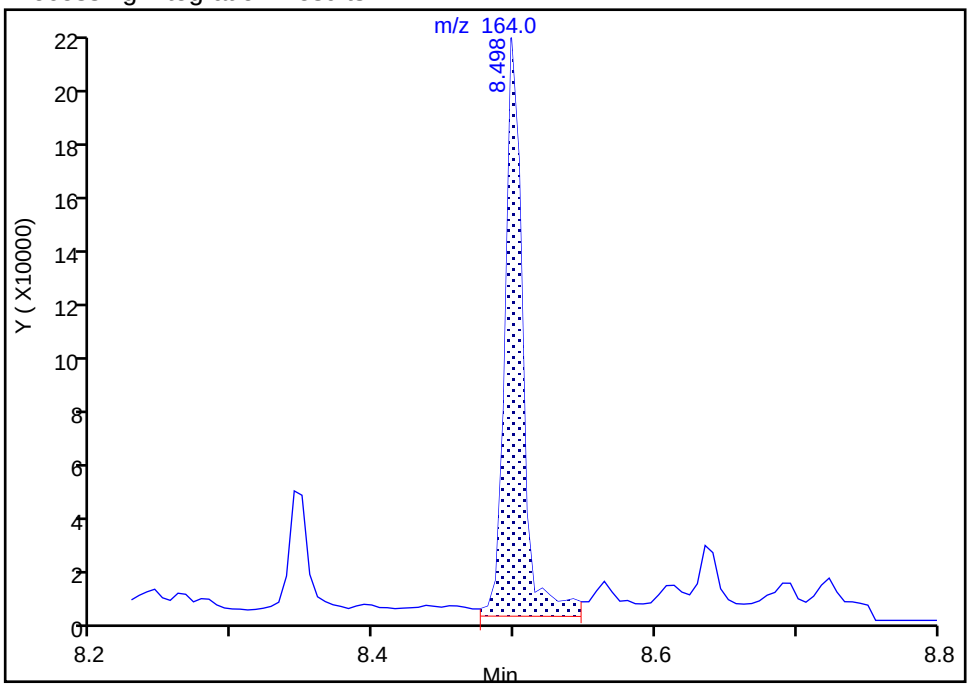
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 2 Acenaphthene-d10, CAS: 15067-26-2

Signal: 1

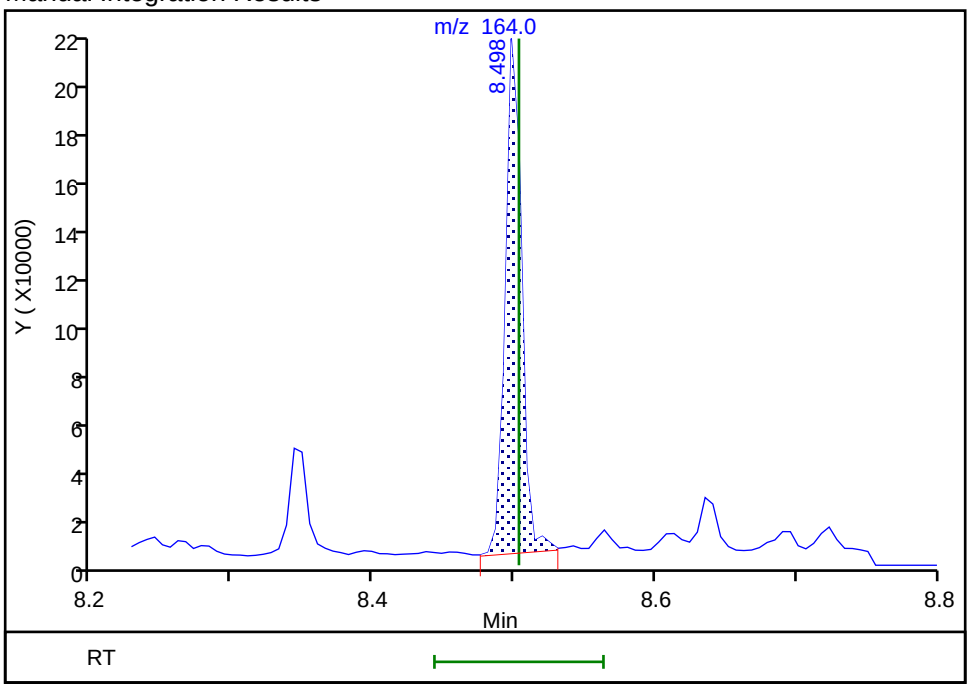
Processing Integration Results

RT: 8.50
Area: 187077
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 8.50
Area: 169887
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

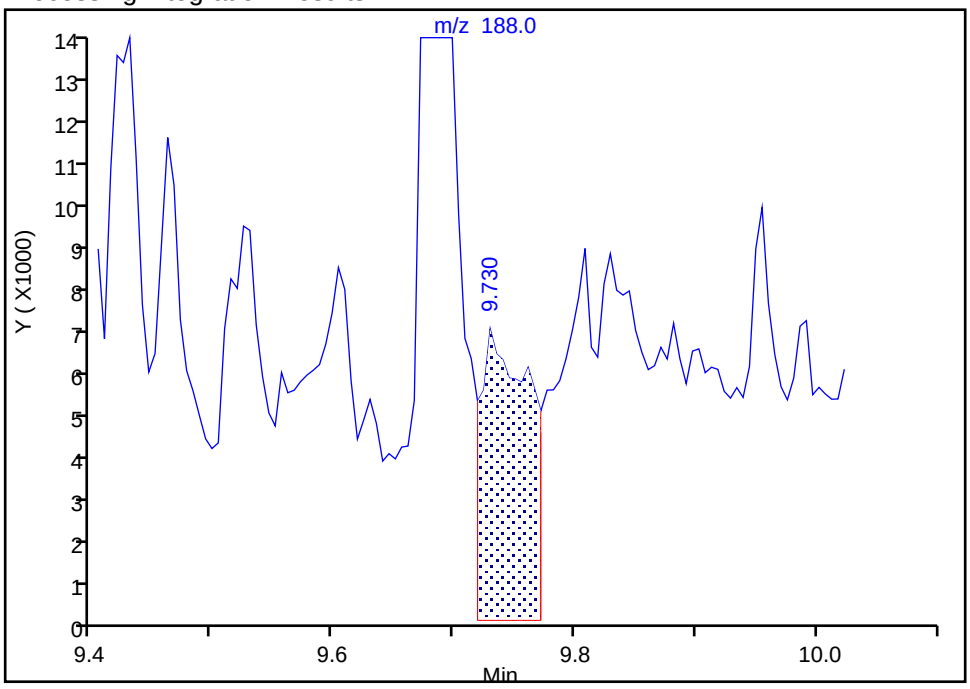
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 3 Phenanthrene-d10, CAS: 1517-22-2

Signal: 1

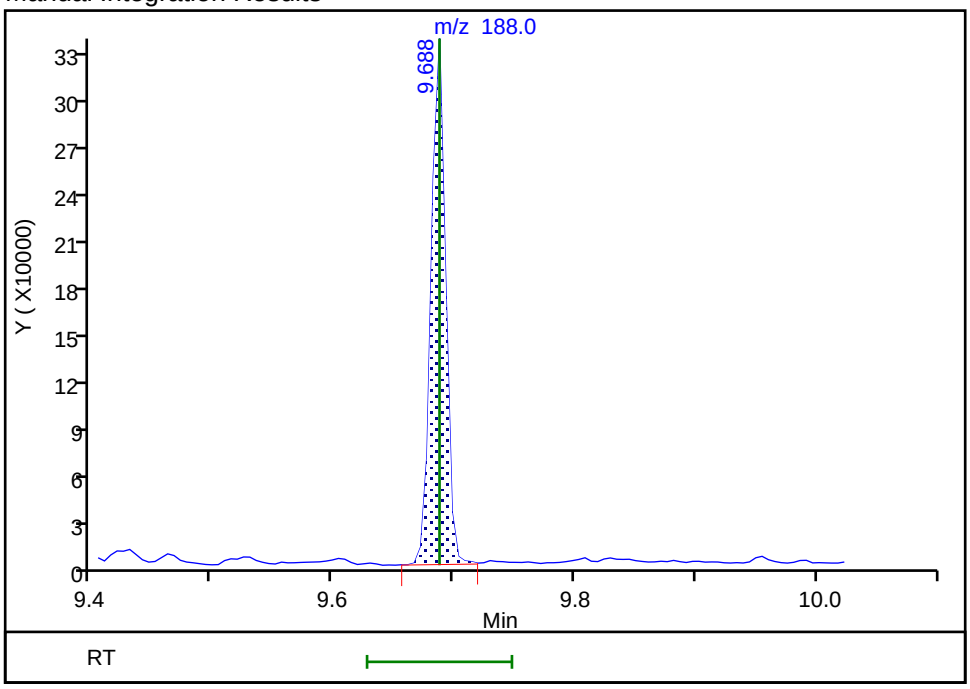
Processing Integration Results

RT: 9.73
Area: 17372
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 9.69
Area: 277527
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:41

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

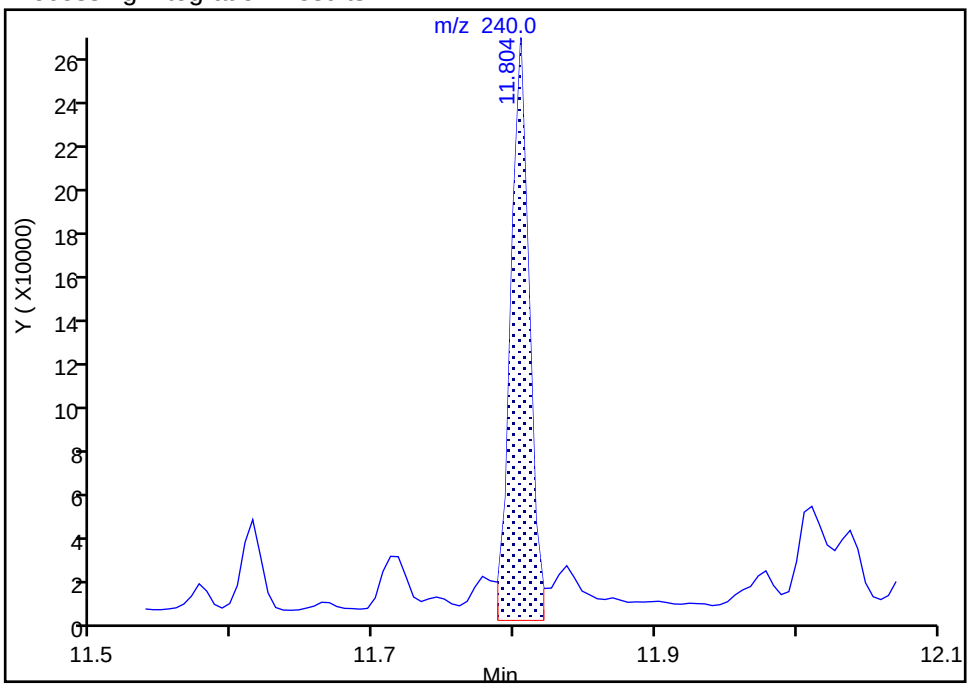
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 4 Chrysene-d12, CAS: 1719-03-5

Signal: 1

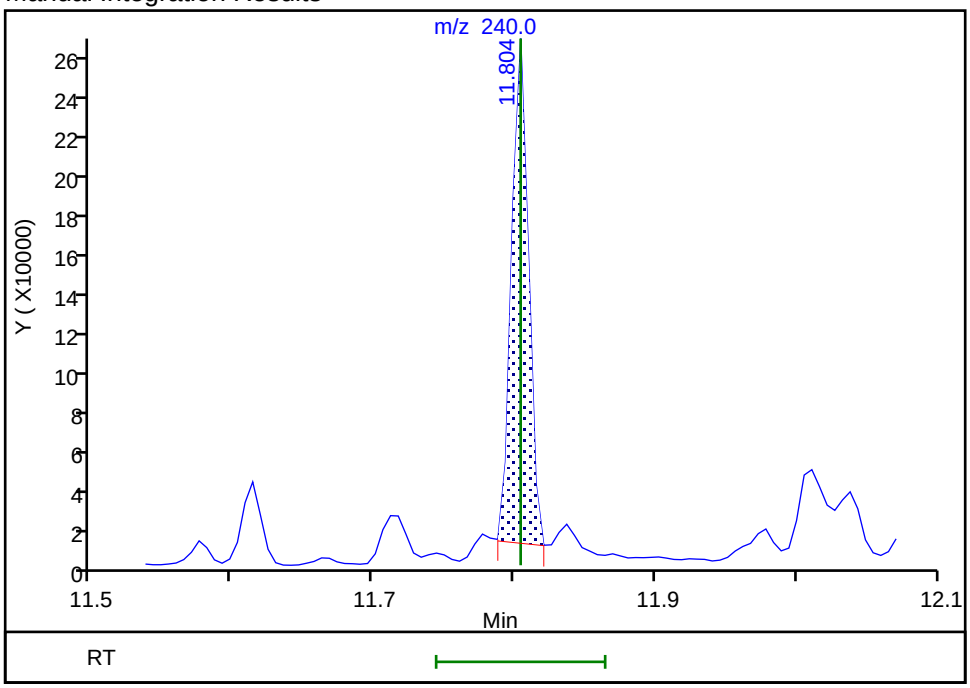
Processing Integration Results

RT: 11.80
Area: 235265
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 11.80
Area: 205275
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

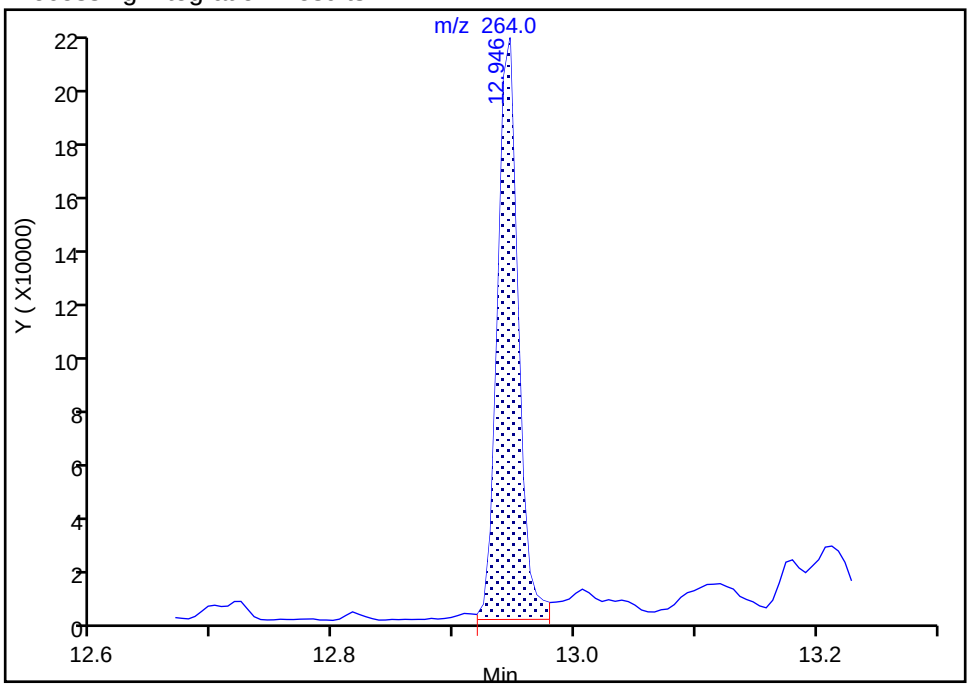
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A021.D				
Injection Date:	22-Jul-2019 19:32:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 5 Perylene-d12, CAS: 1520-96-3

Signal: 1

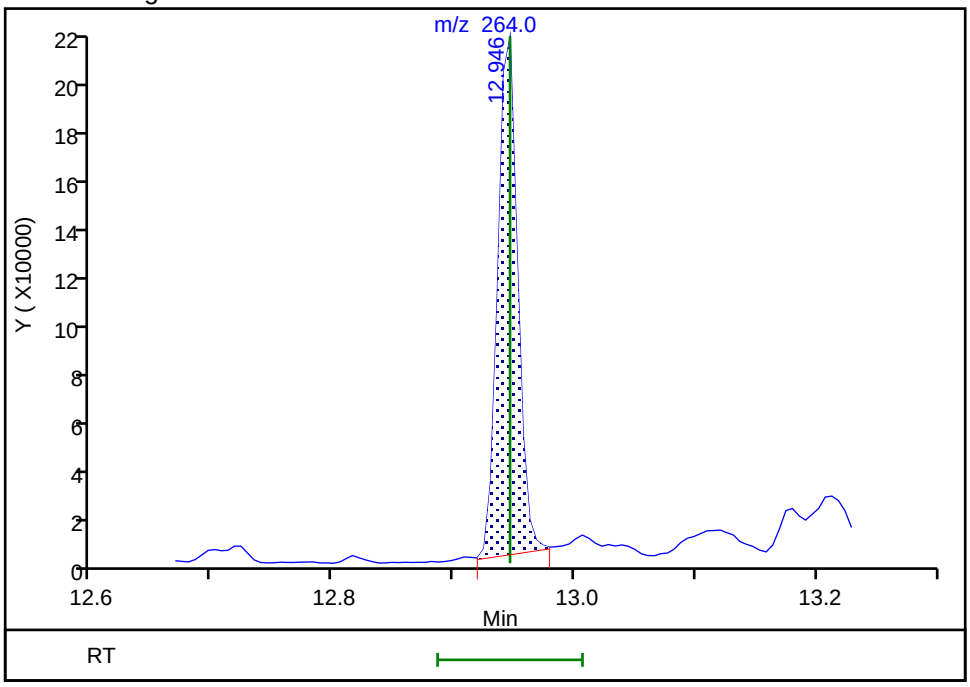
Processing Integration Results

RT: 12.95
Area: 249466
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 12.95
Area: 237757
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:55:53

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 DL Lab Sample ID: 580-87706-14 DL

Matrix: Solid Lab File ID: 072319B028.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 14:08

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.119(g) Date Analyzed: 07/24/2019 02:44

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306419 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
85-01-8	Phenanthrene	16000		96	31
206-44-0	Fluoranthene	9800		96	27
129-00-0	Pyrene	11000		96	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	72		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B028.D
Lims ID: 580-87706-A-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 24-Jul-2019 02:44:30 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 580-87706-a-14-a
Misc. Info.: 10X RA
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 24-Jul-2019 10:21:50 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: limmere Date: 24-Jul-2019 10:21:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	337256	100.0	
* 2 Acenaphthene-d10	164	8.503	8.503	0.000	99	157615	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	274299	100.0	
* 4 Chrysene-d12	240	11.810	11.810	0.000	99	217760	100.0	
* 5 Perylene-d12	264	12.952	12.952	0.000	100	240072	100.0	
$ 9 Terphenyl-d14	244	11.008	11.008	0.000	99	150287	72.4	
10 Naphthalene	128	7.004	7.004	0.000	100	617359	163.8	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	96	193091	78.1	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	98	61178	26.5	
13 Acenaphthylene	152	8.376	8.377	-0.001	100	61023	17.8	
14 Acenaphthene	153	8.525	8.525	0.000	94	562157	225.3	
15 Fluorene	166	8.946	8.947	-0.001	99	368457	147.4	
17 Phenanthrene	178	9.703	9.704	-0.001	100	3156223	847.6	
18 Anthracene	178	9.745	9.745	0.000	100	407275	117.6	
19 Fluoranthene	202	10.657	10.657	0.000	99	1811595	513.5	
20 Pyrene	202	10.829	10.830	-0.001	100	2231567	600.6	
21 Benzo[a]anthracene	228	11.799	11.799	0.000	99	388072	156.4	
22 Chrysene	228	11.826	11.826	0.000	97	525612	159.3	
23 Benzo[b]fluoranthene	252	12.636	12.636	0.000	98	442832	143.2	M
24 Benzo[k]fluoranthene	252	12.647	12.653	-0.006	1	178812	47.3	M
25 Benzo[a]pyrene	252	12.897	12.897	0.000	98	507123	161.9	
26 Indeno[1,2,3-cd]pyrene	276	13.941	13.946	-0.005	99	343153	142.7	
27 Dibenz(a,h)anthracene	278	13.941	13.978	-0.037	3	12341	5.15	
28 Benzo[g,h,i]perylene	276	14.198	14.199	-0.001	97	411973	119.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

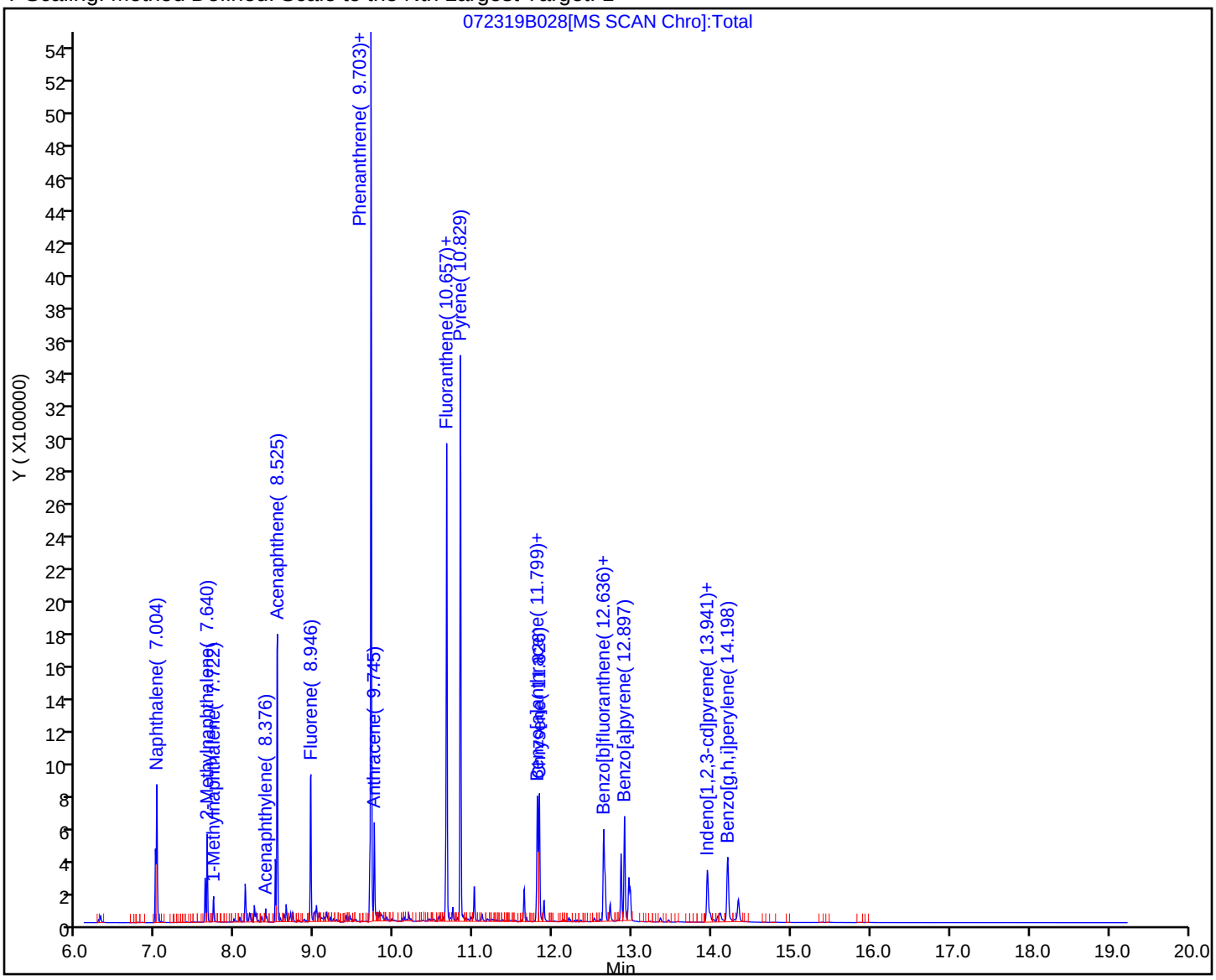
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 10:21:51 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B028.D				
Injection Date:	24-Jul-2019 02:44:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B028.D
Lims ID: 580-87706-A-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 24-Jul-2019 02:44:30 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 580-87706-a-14-a
Misc. Info.: 10X RA
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 24-Jul-2019 10:21:50 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0303

First Level Reviewer: limmere Date: 24-Jul-2019 10:21:50

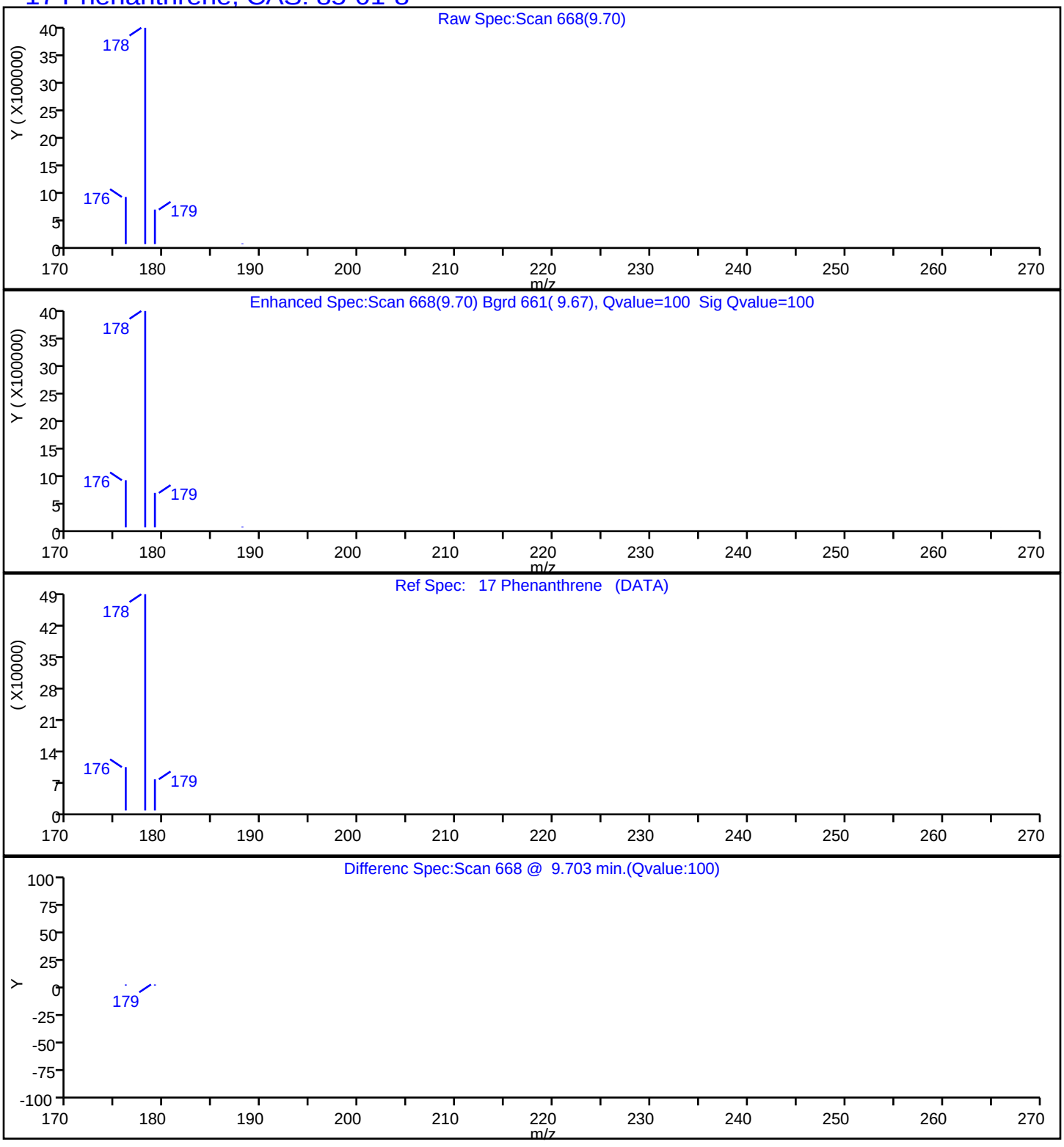
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	72.4	7.24

Report Date: 24-Jul-2019 10:21:51 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B028.D				
Injection Date:	24-Jul-2019 02:44:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

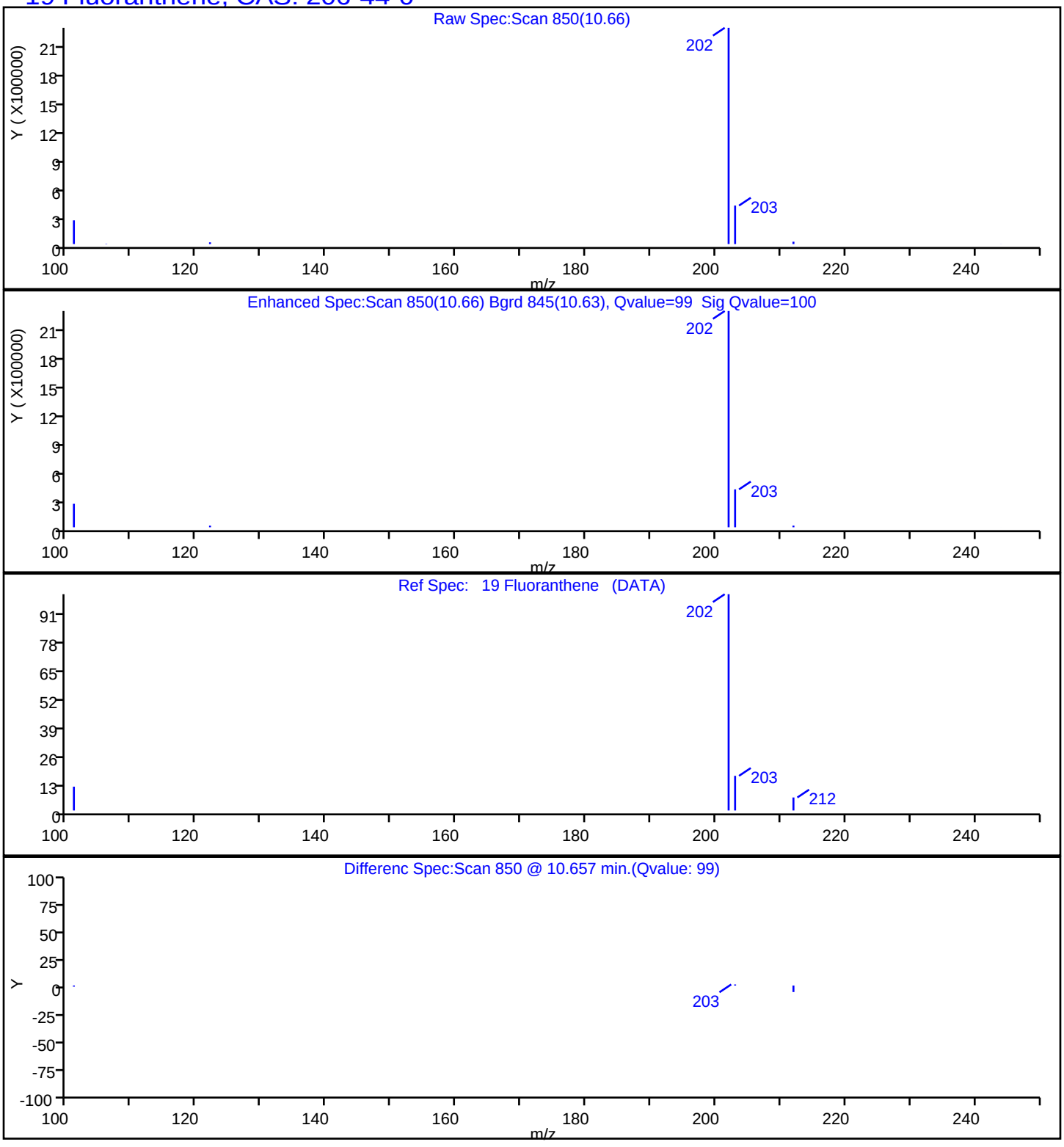


Report Date: 24-Jul-2019 10:21:51 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B028.D				
Injection Date:	24-Jul-2019 02:44:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

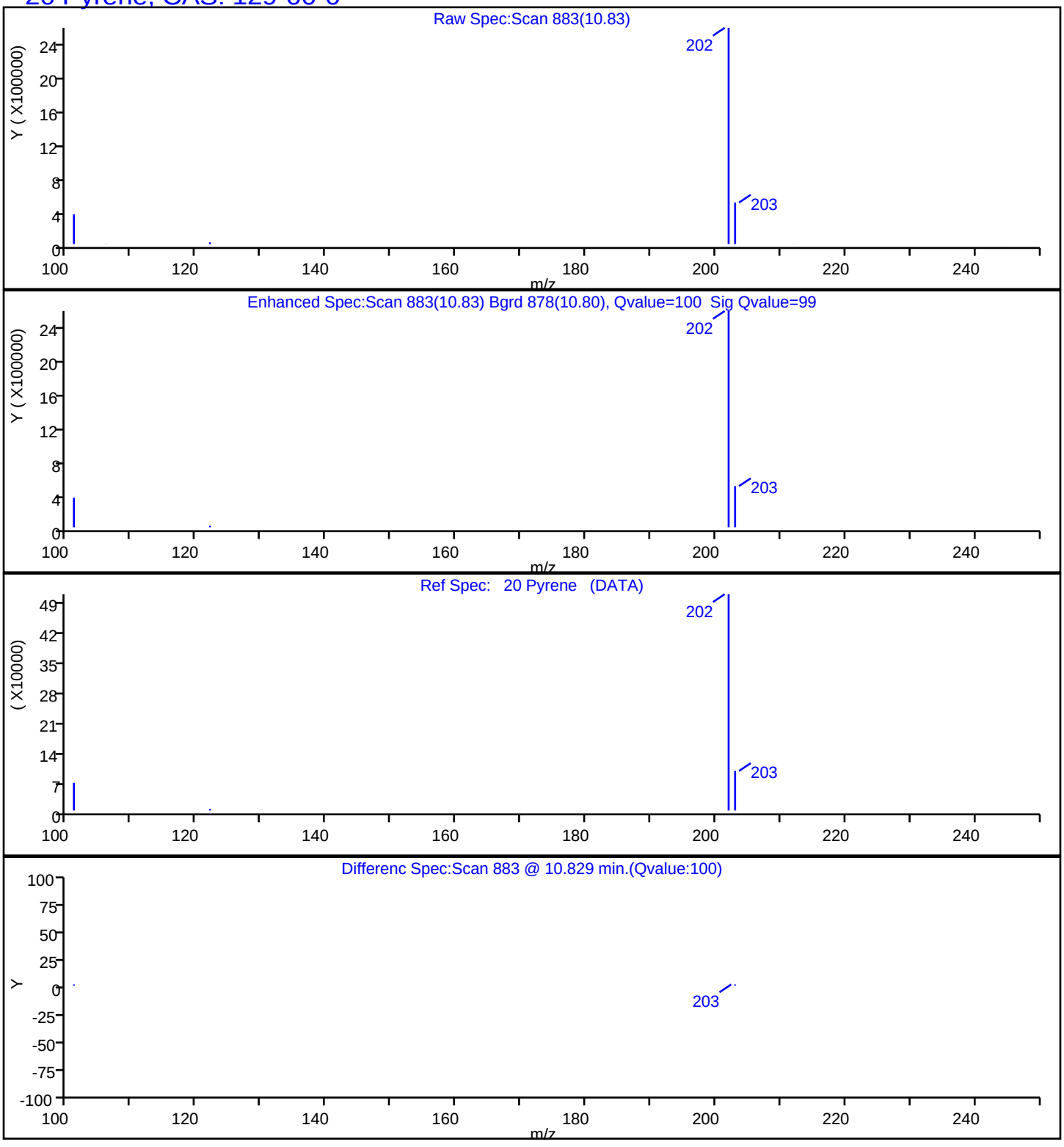


Report Date: 24-Jul-2019 10:21:51 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B028.D				
Injection Date:	24-Jul-2019 02:44:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-14-A	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	KFS	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Matrix: Solid Lab File ID: 072219A022.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 14:24

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 11.276(g) Date Analyzed: 07/22/2019 19:59

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	780		10	3.3
91-57-6	2-Methylnaphthalene	290		10	4.2
90-12-0	1-Methylnaphthalene	130		10	1.3
208-96-8	Acenaphthylene	880		10	1.0
83-32-9	Acenaphthene	340		10	1.2
86-73-7	Fluorene	320		10	1.0
85-01-8	Phenanthrene	1400		10	3.3
120-12-7	Anthracene	390		10	1.2
206-44-0	Fluoranthene	3300		10	2.8
56-55-3	Benzo[a]anthracene	3700		10	1.5
218-01-9	Chrysene	3300		10	3.0
205-99-2	Benzo[b]fluoranthene	4000		10	1.2
207-08-9	Benzo[k]fluoranthene	1500		10	1.2
53-70-3	Dibenz(a,h)anthracene	410	B	10	1.5
191-24-2	Benzo[g,h,i]perylene	3900	B	10	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	70		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D
Lims ID: 580-87706-A-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 19:59:30 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-15-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 15:07:26 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 15:07:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	321915	100.0	M
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	95	165574	100.0	M
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	294339	100.0	M
* 4 Chrysene-d12	240	11.804	11.804	0.000	26	221413	100.0	M
* 5 Perylene-d12	264	12.946	12.946	0.000	100	241265	100.0	M
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1556974	698.6	M
10 Naphthalene	128	7.004	7.004	0.000	100	1385919	385.3	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	91	331962	140.7	M
12 1-Methylnaphthalene	142	7.716	7.722	-0.006	94	143102	65.0	M
13 Acenaphthylene	152	8.376	8.376	0.000	100	1564785	433.3	M
14 Acenaphthene	153	8.519	8.525	-0.006	82	435893	166.3	M
15 Fluorene	166	8.941	8.947	-0.006	95	409545	156.0	M
17 Phenanthrene	178	9.703	9.704	-0.001	100	2787923	697.7	
18 Anthracene	178	9.745	9.745	0.000	99	710419	191.2	M
19 Fluoranthene	202	10.657	10.657	0.000	98	6219055	1642.8	M
20 Pyrene	202	10.829	10.830	-0.001	97	7759966	1946.3	EeM
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	96	4638958	1838.4	M
22 Chrysene	228	11.820	11.821	-0.001	96	5429312	1617.9	M
23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	99	6113642	1967.3	M
24 Benzo[k]fluoranthene	252	12.642	12.653	-0.011	1	2782275	731.8	M
25 Benzo[a]pyrene	252	12.892	12.892	0.000	100	6807566	2162.4	EM
26 Indeno[1,2,3-cd]pyrene	276	13.935	13.935	0.000	100	5708105	2109.4	EM
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	617907	202.4	M
28 Benzo[g,h,i]perylene	276	14.193	14.188	0.005	98	6774232	1949.0	M

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
e - Potential Peak Saturated

Review Flags
M - Manually Integrated

Reagents:

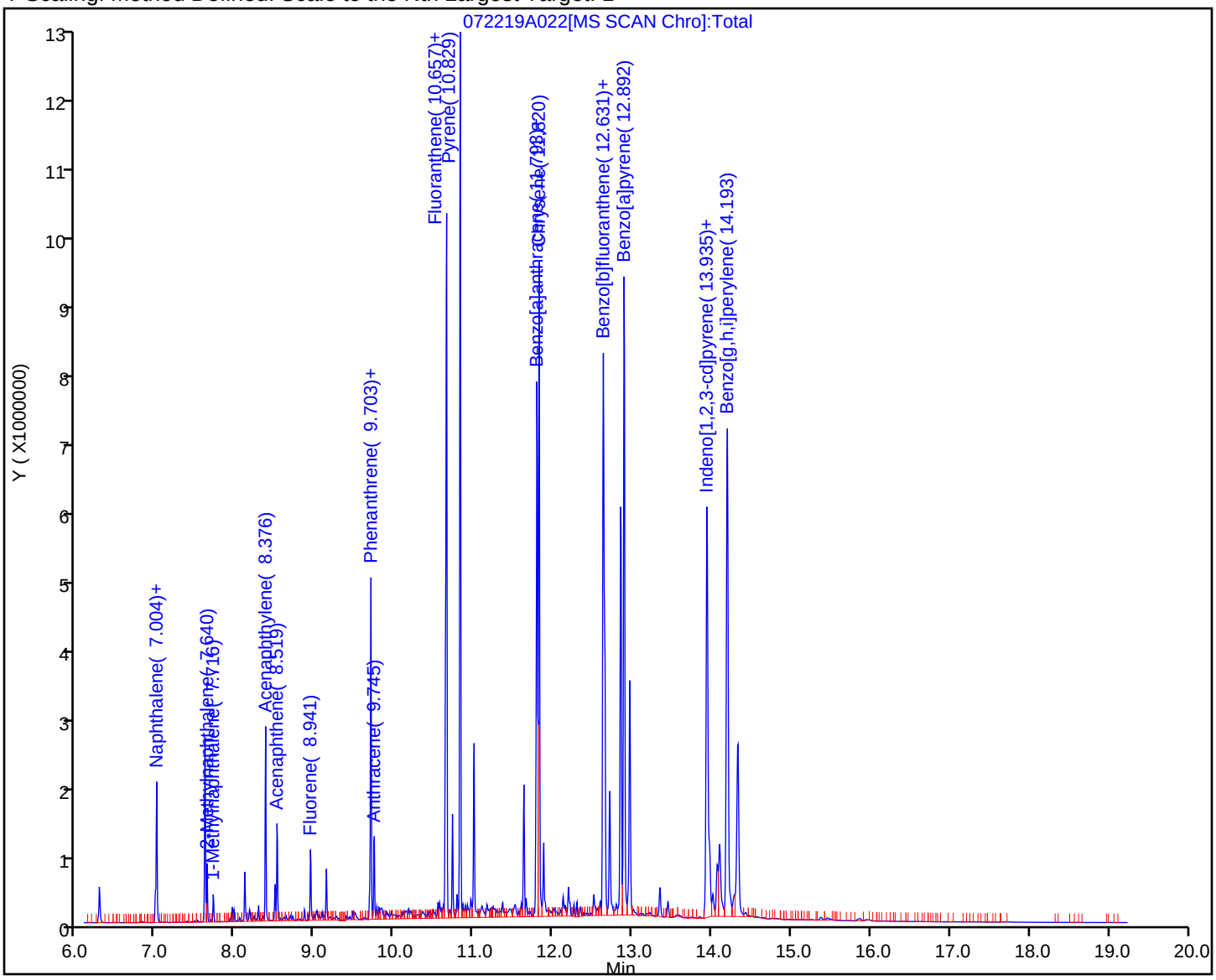
8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:07:27 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D
Lims ID: 580-87706-A-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 19:59:30 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-15-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 15:07:26 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 15:07:26

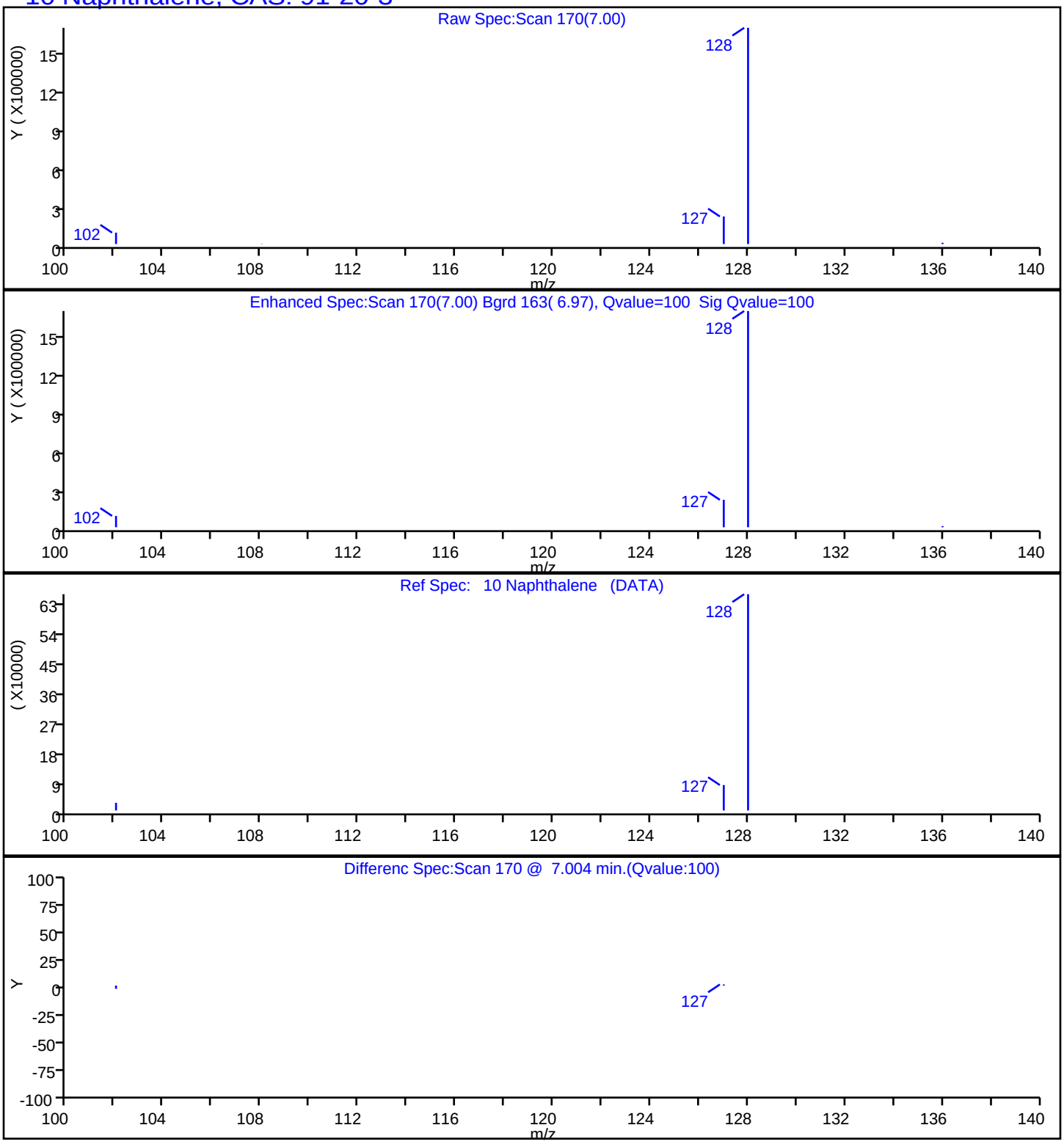
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	698.6	69.86

Report Date: 23-Jul-2019 15:07:27 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

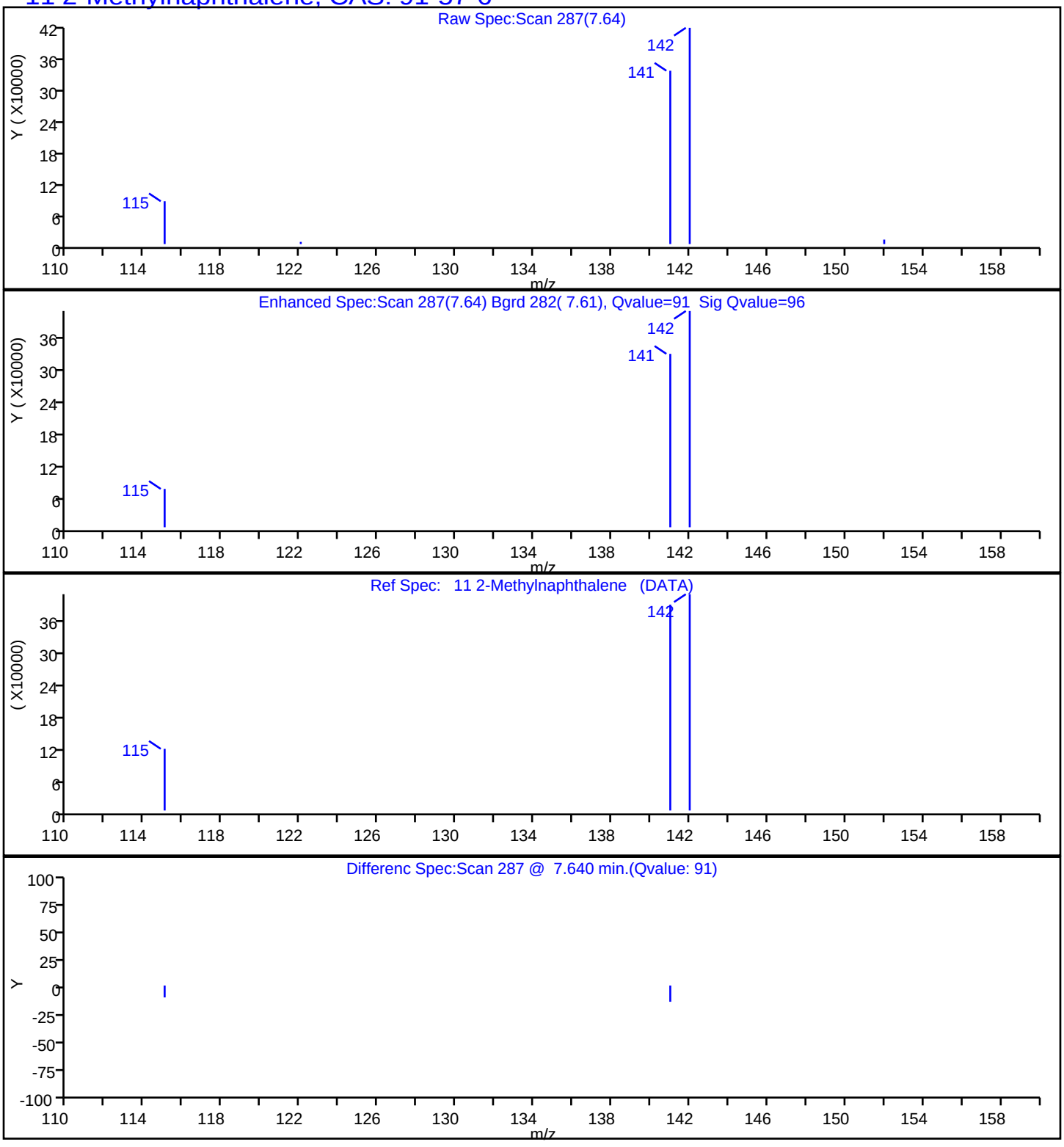


Report Date: 23-Jul-2019 15:07:27 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

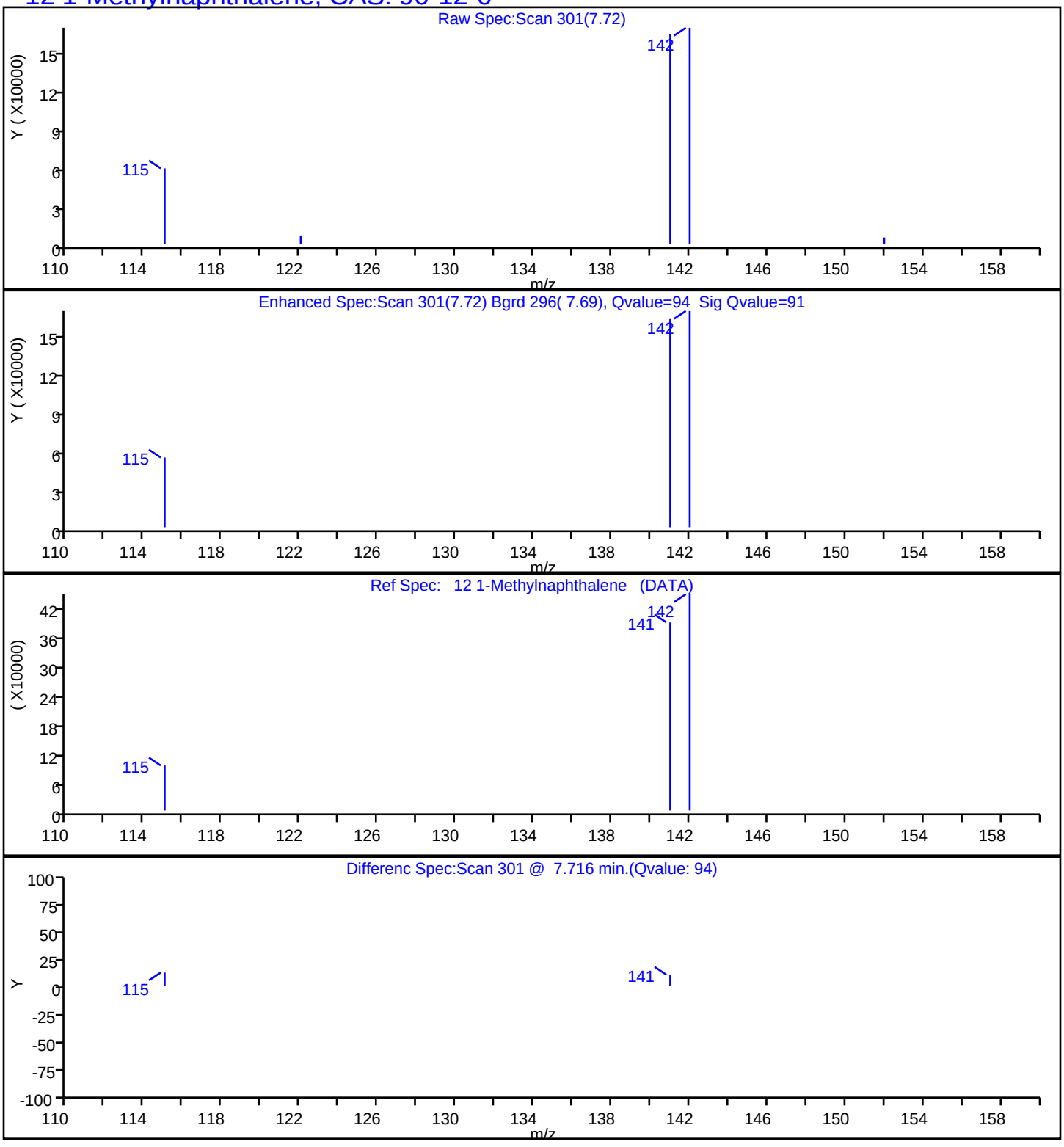


Report Date: 23-Jul-2019 15:07:27 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

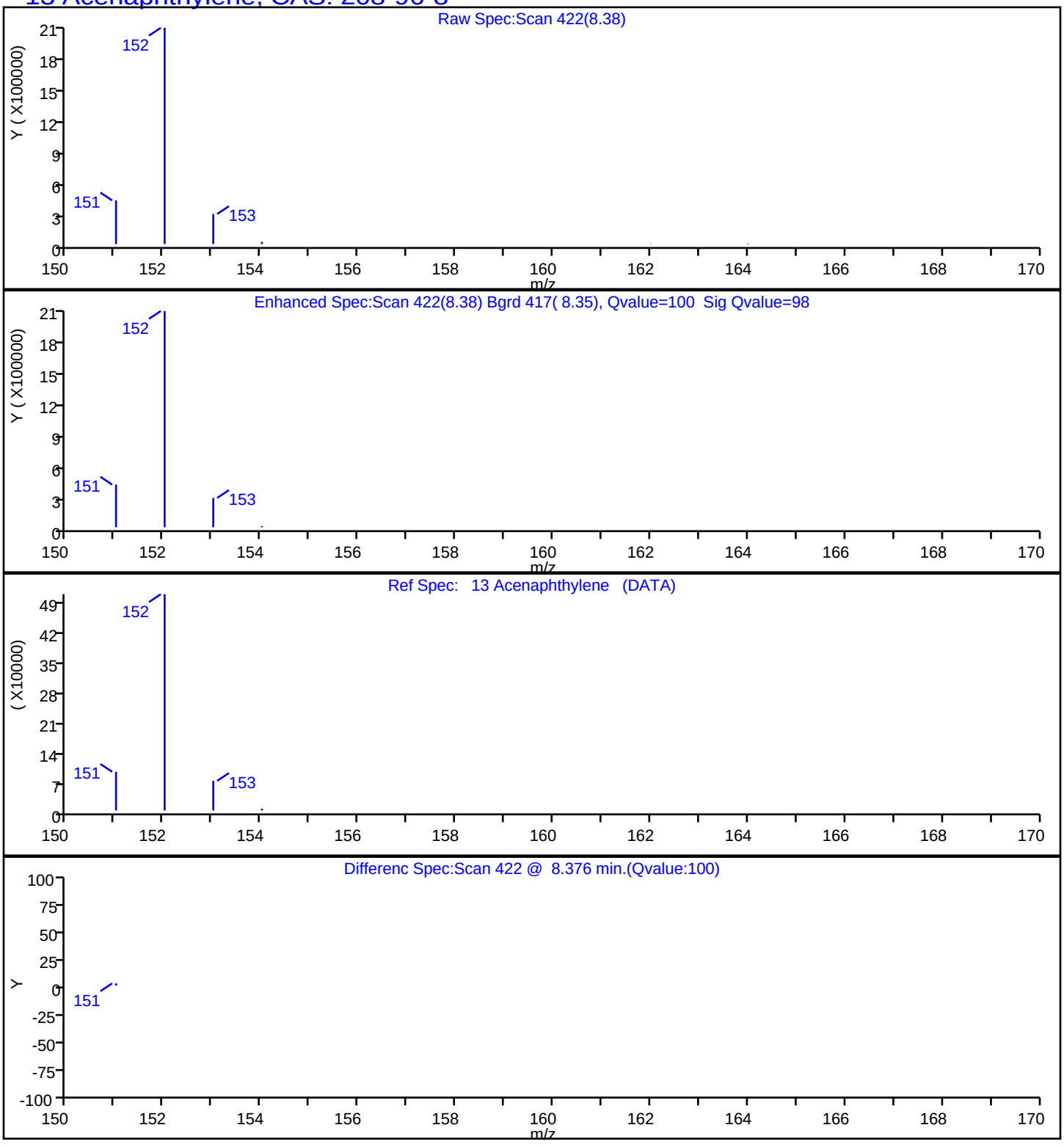


Report Date: 23-Jul-2019 15:07:27 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

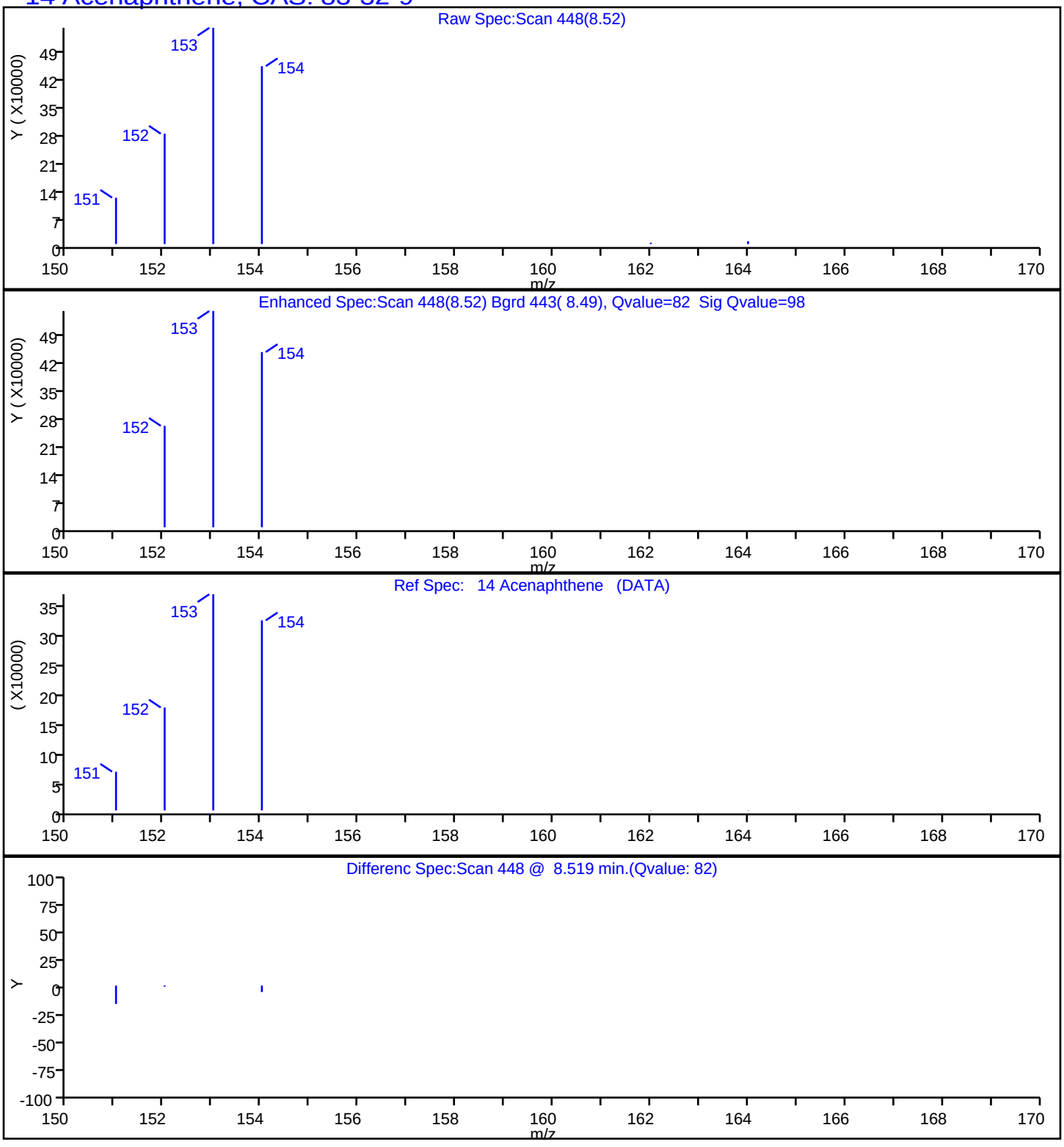


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

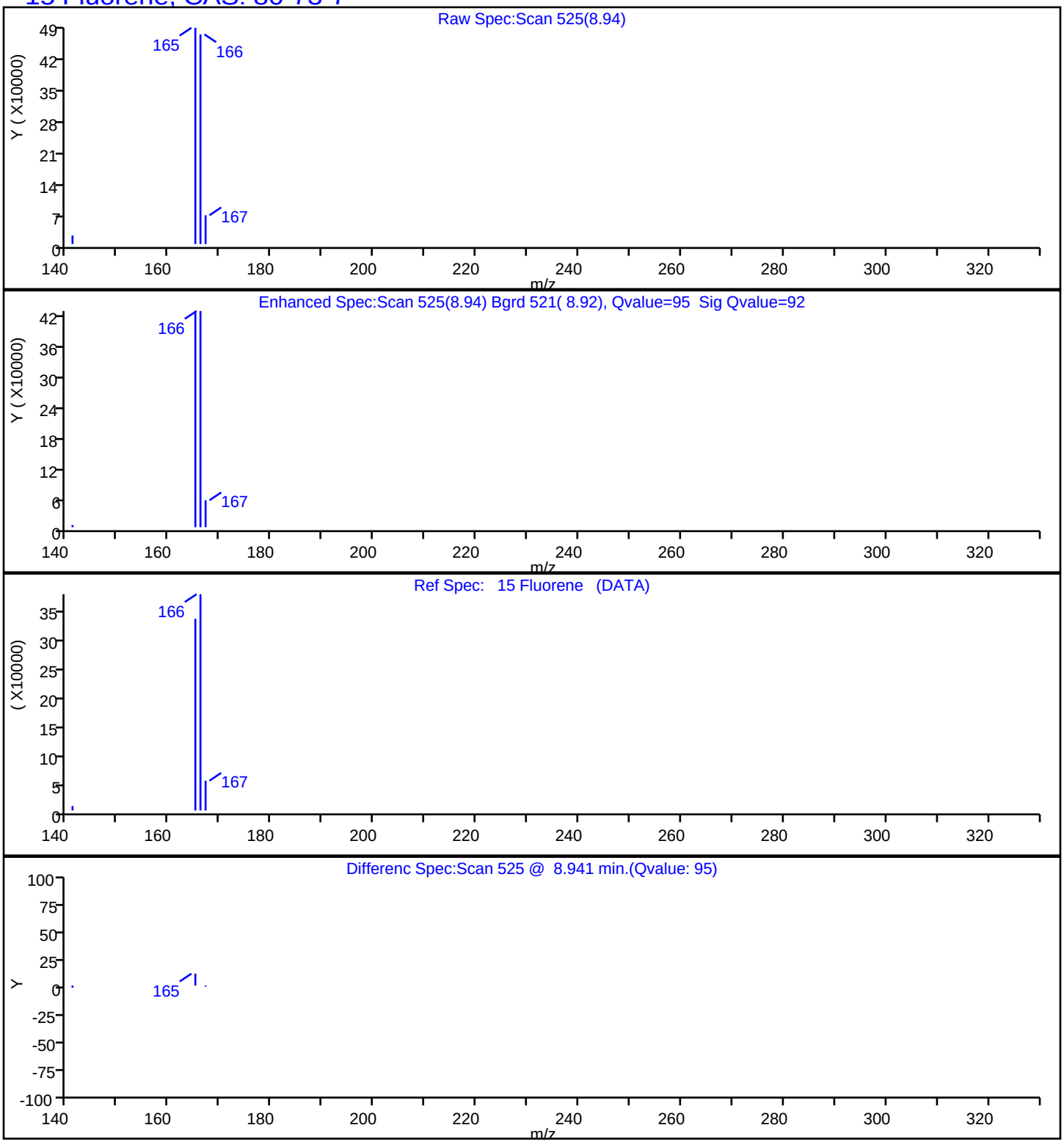


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

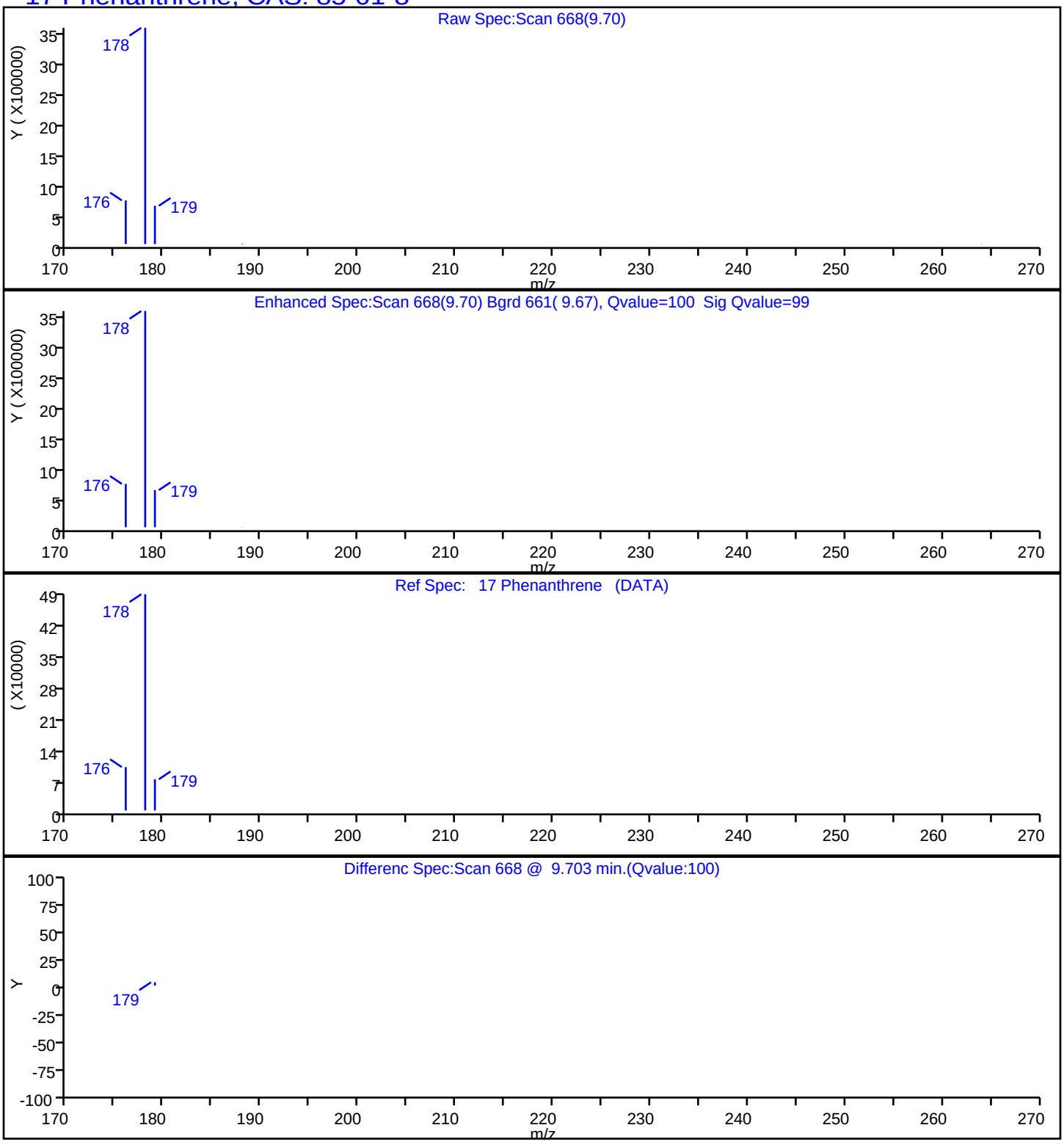


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

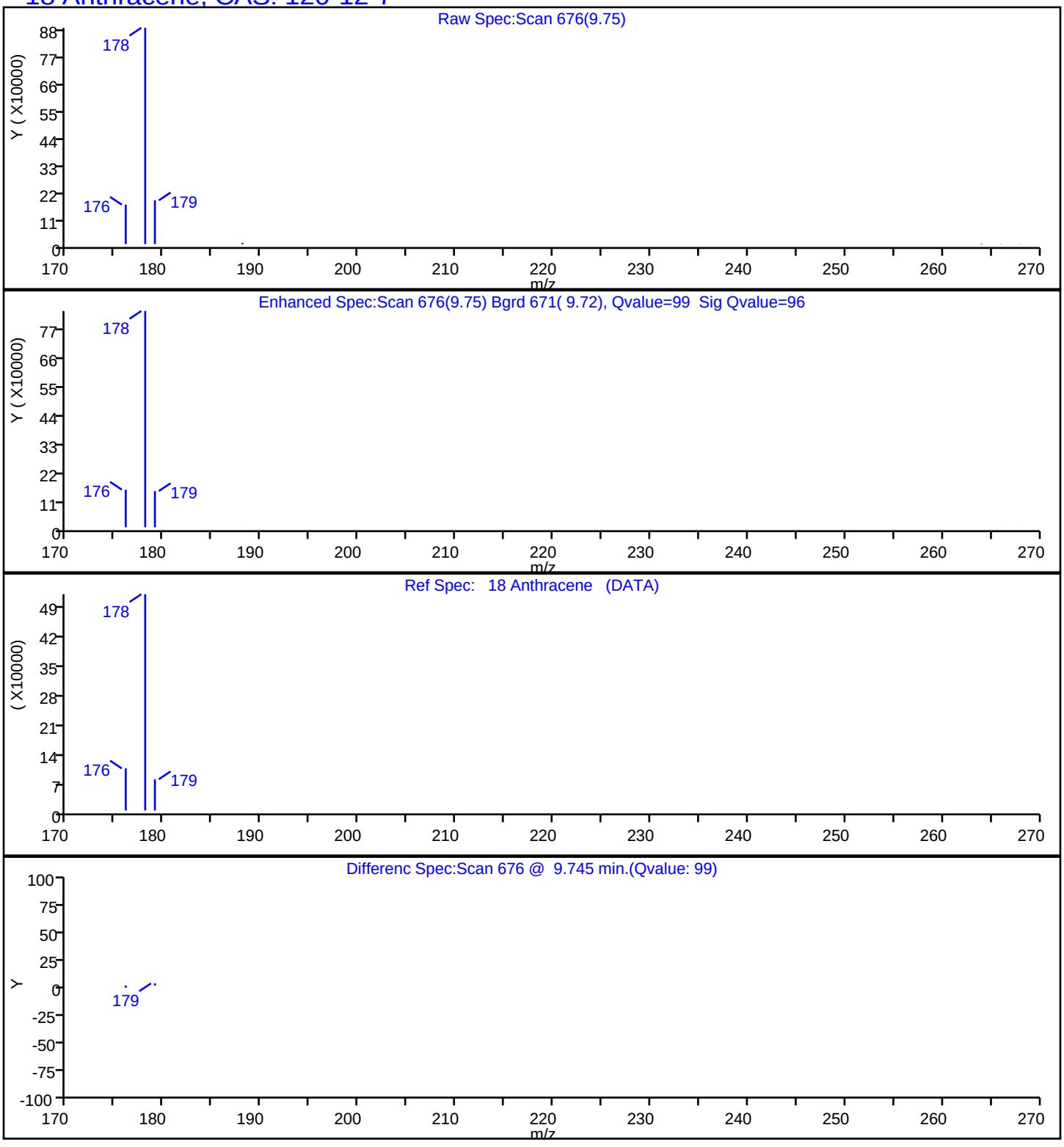


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

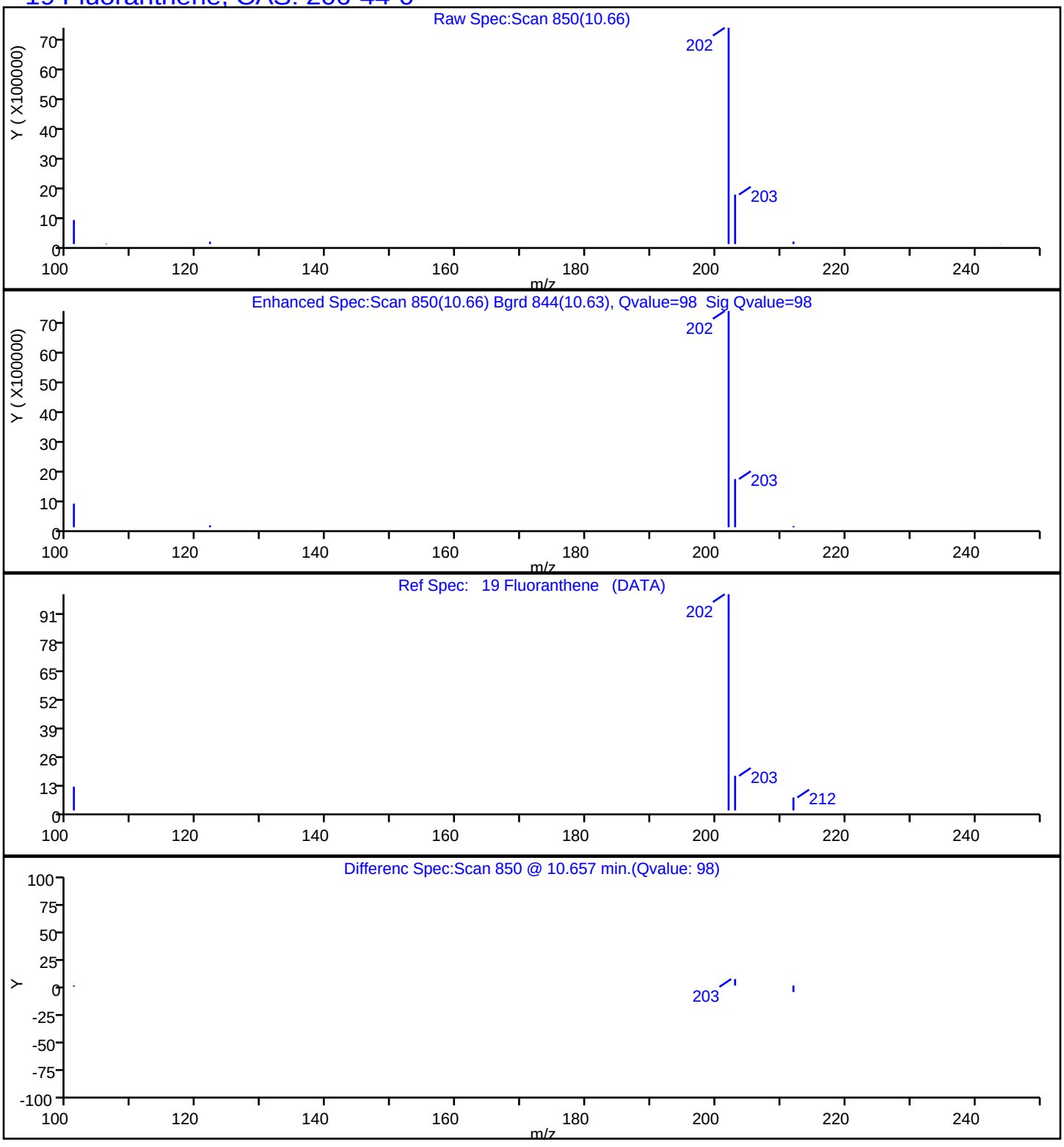


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

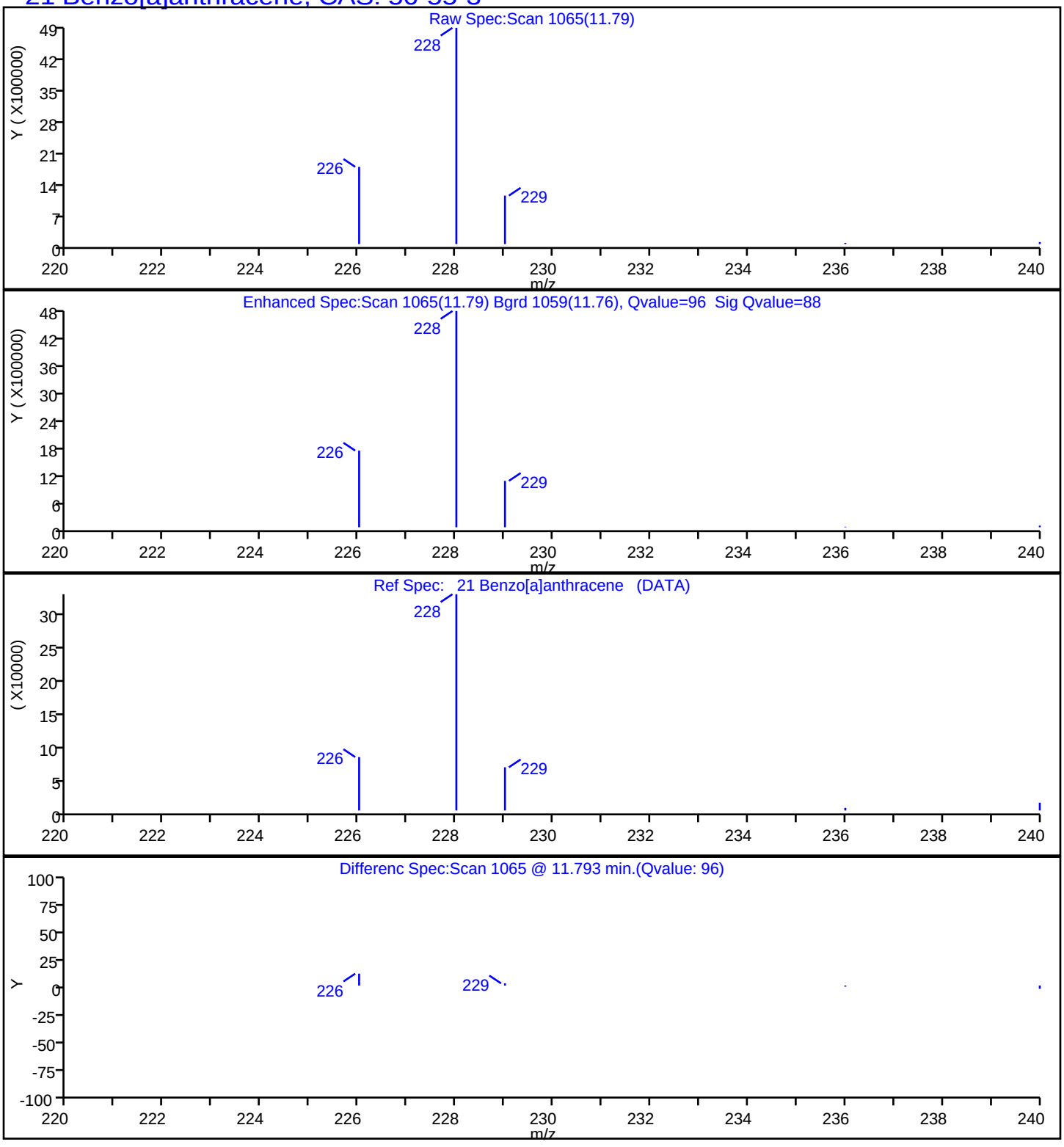


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

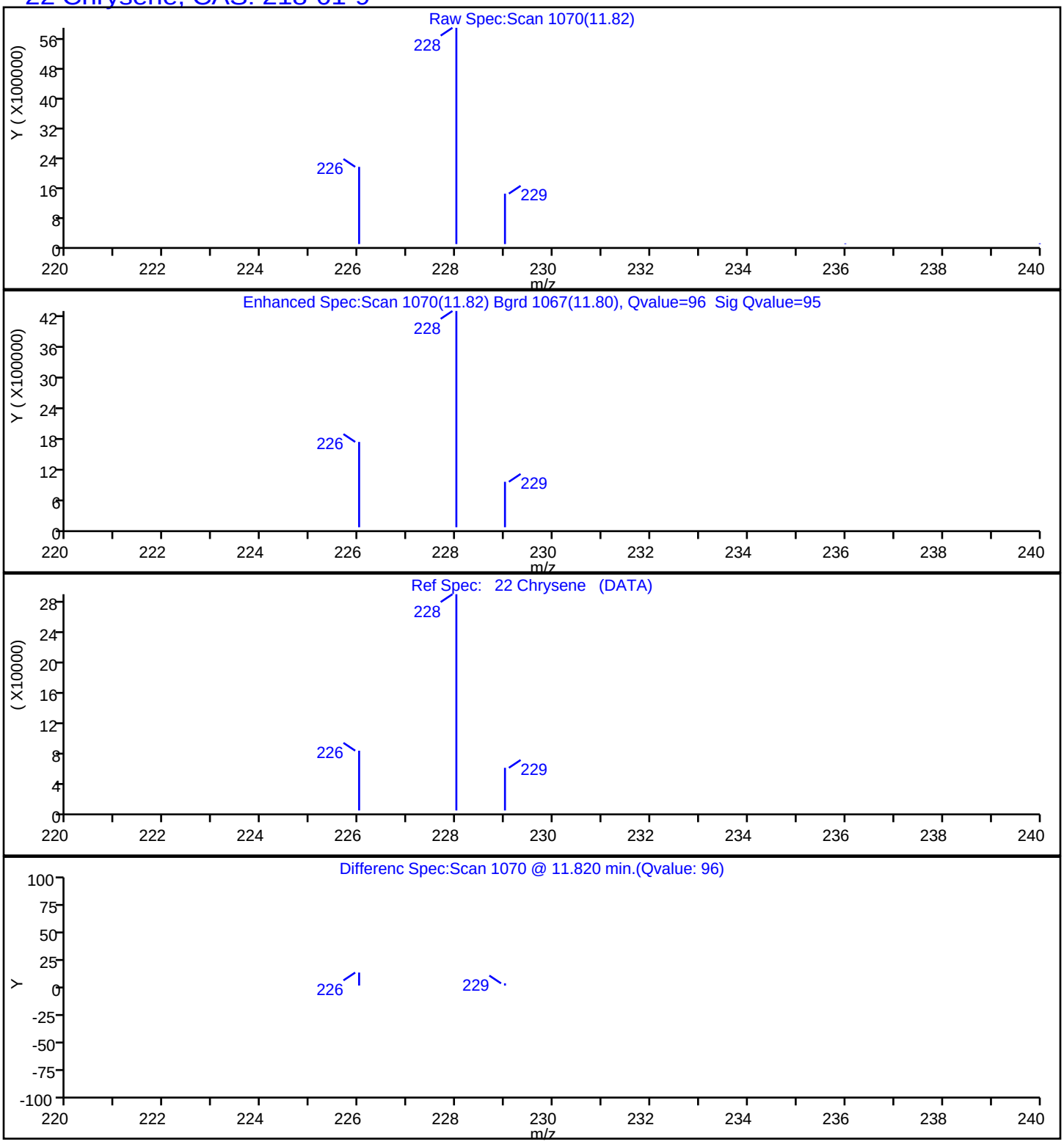


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

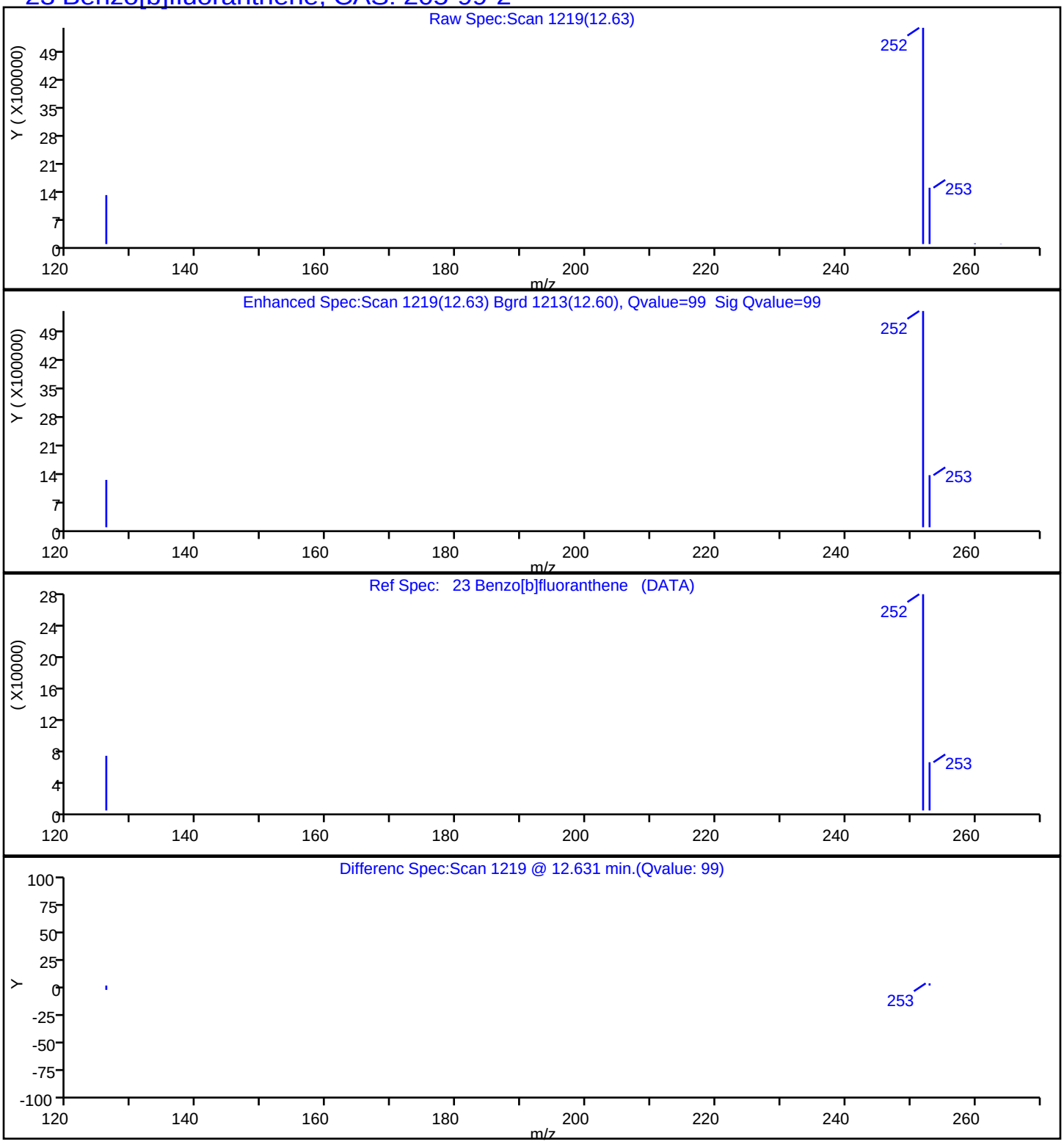


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

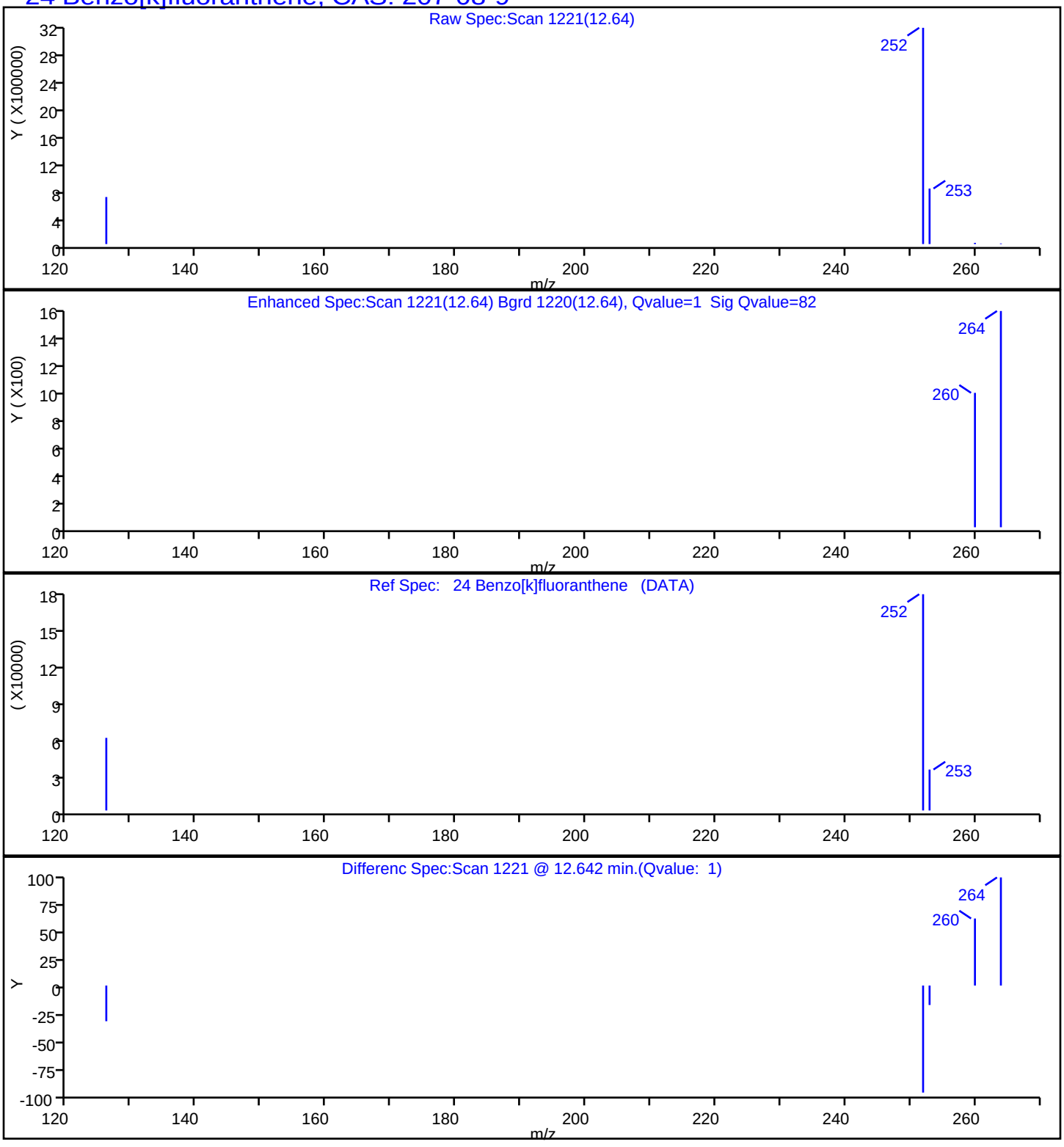


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

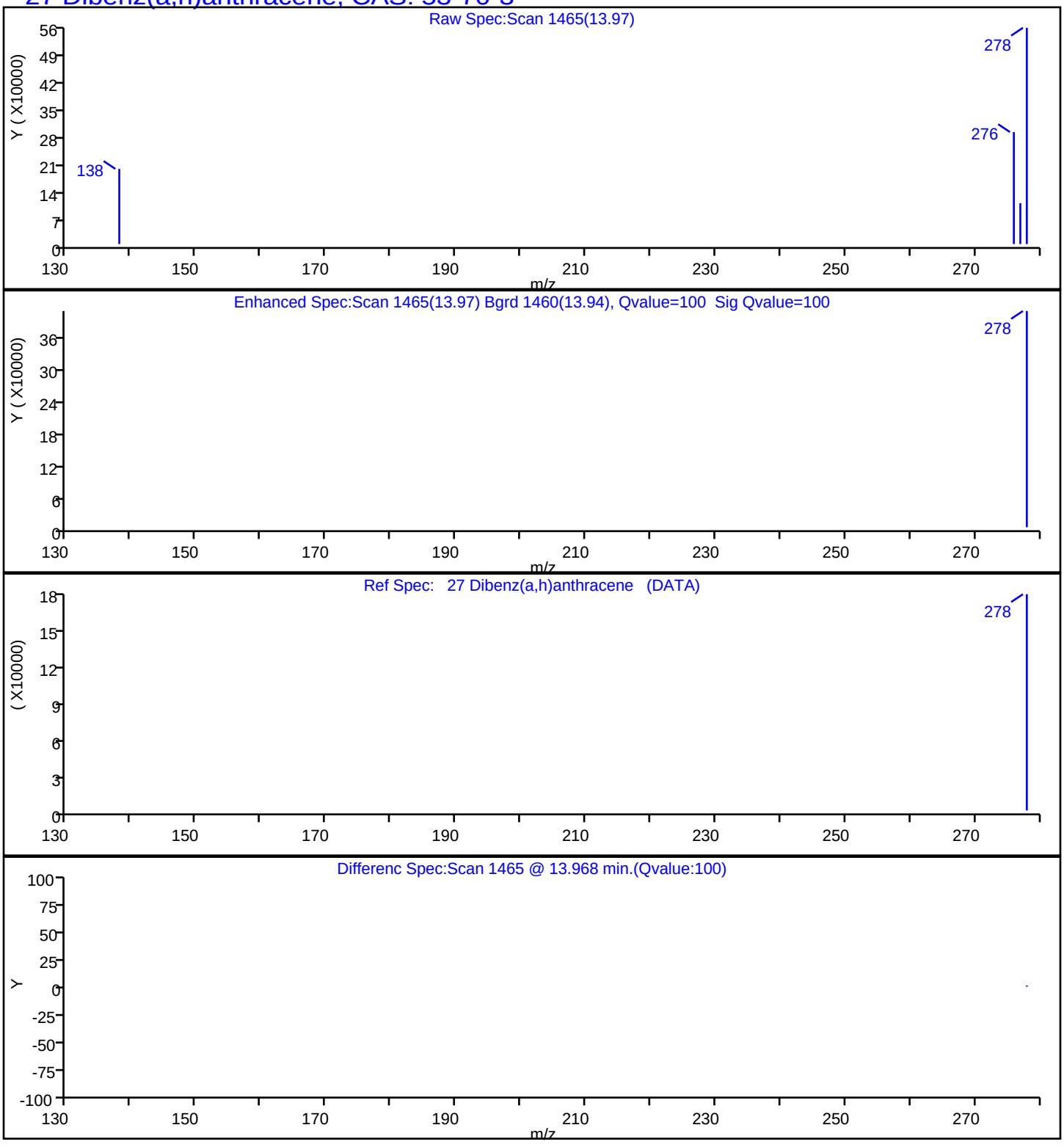


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

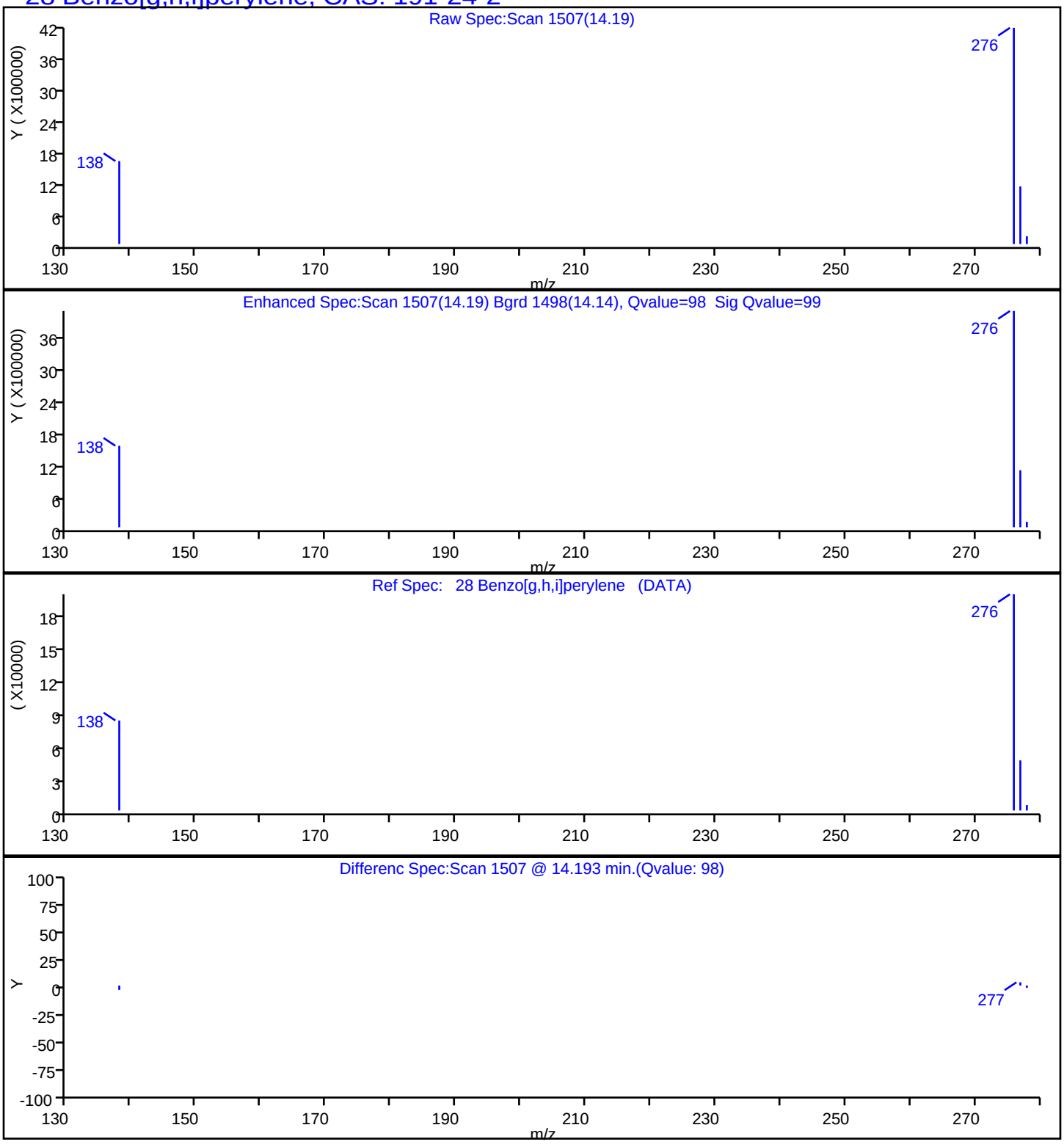


Report Date: 23-Jul-2019 15:07:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

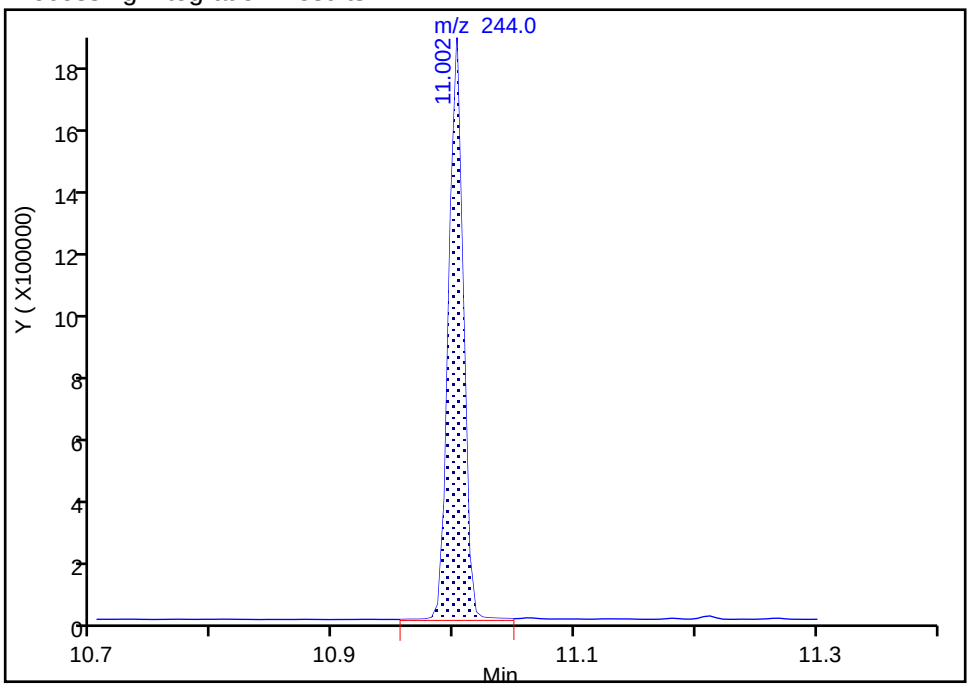
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

$ 9 Terphenyl-d14, CAS: 1718-51-0

Signal: 1

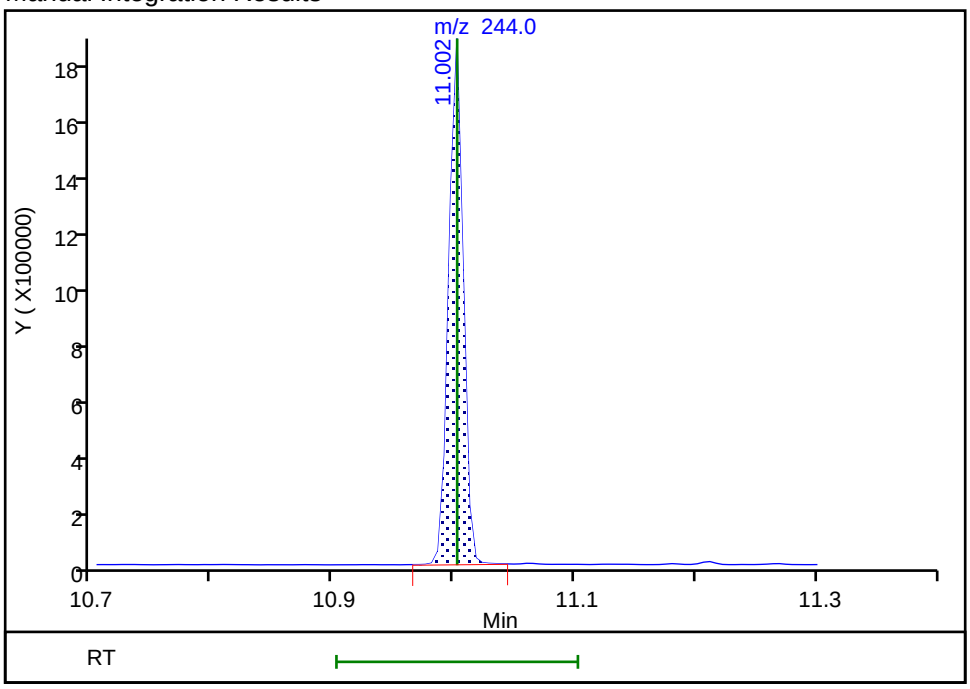
Processing Integration Results

RT: 11.00
Area: 1574109
Amount: 706.3194
Amount Units: ug/L



Manual Integration Results

RT: 11.00
Area: 1556974
Amount: 698.6308
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

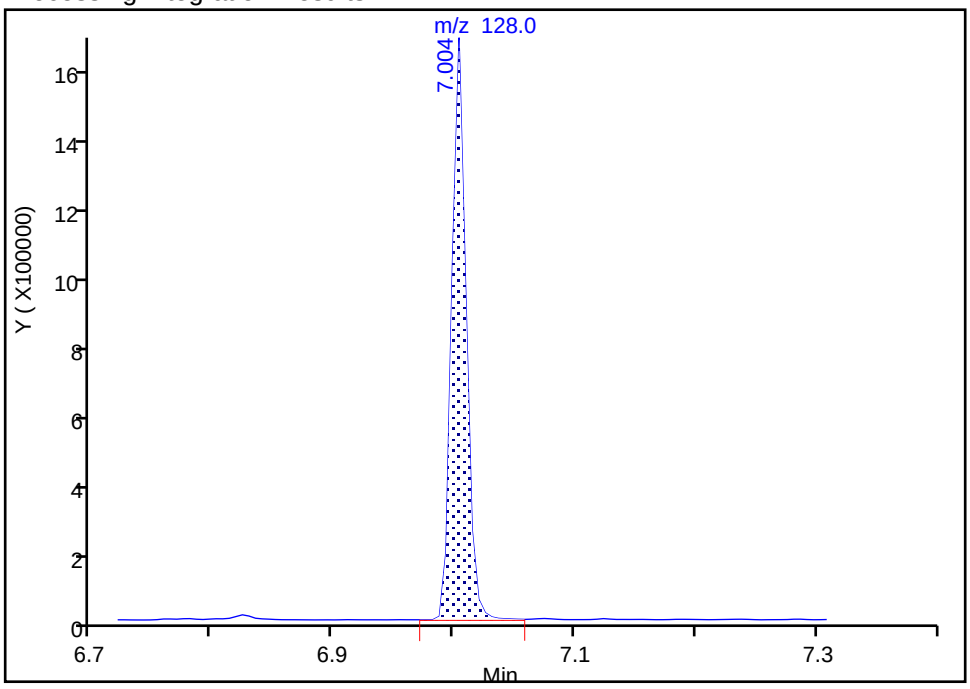
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

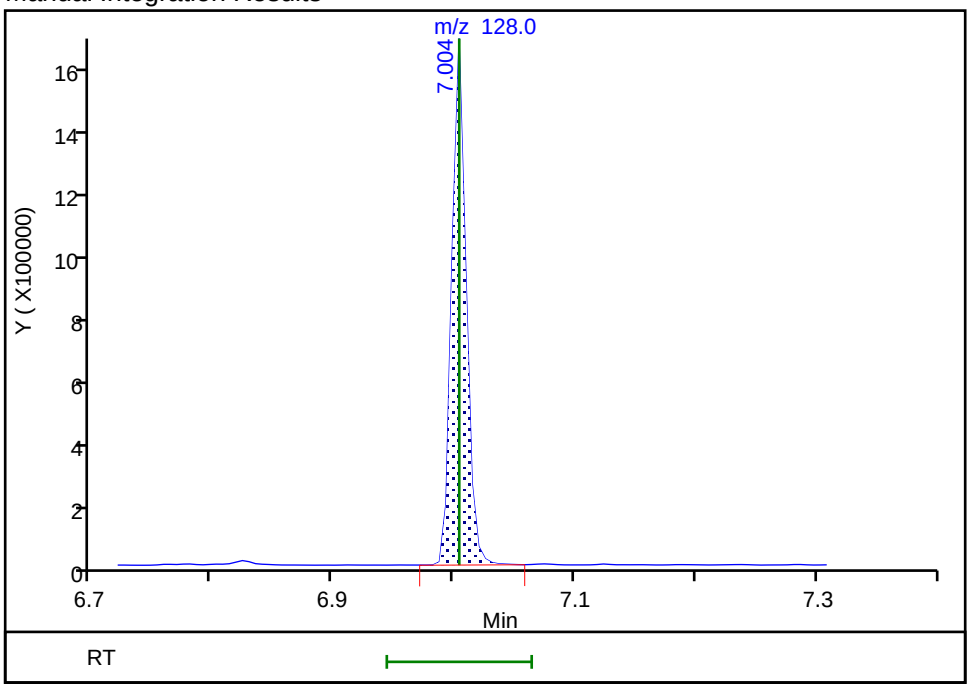
Processing Integration Results

RT: 7.00
Area: 1395816
Amount: 388.0748
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 1385919
Amount: 385.3231
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:43

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

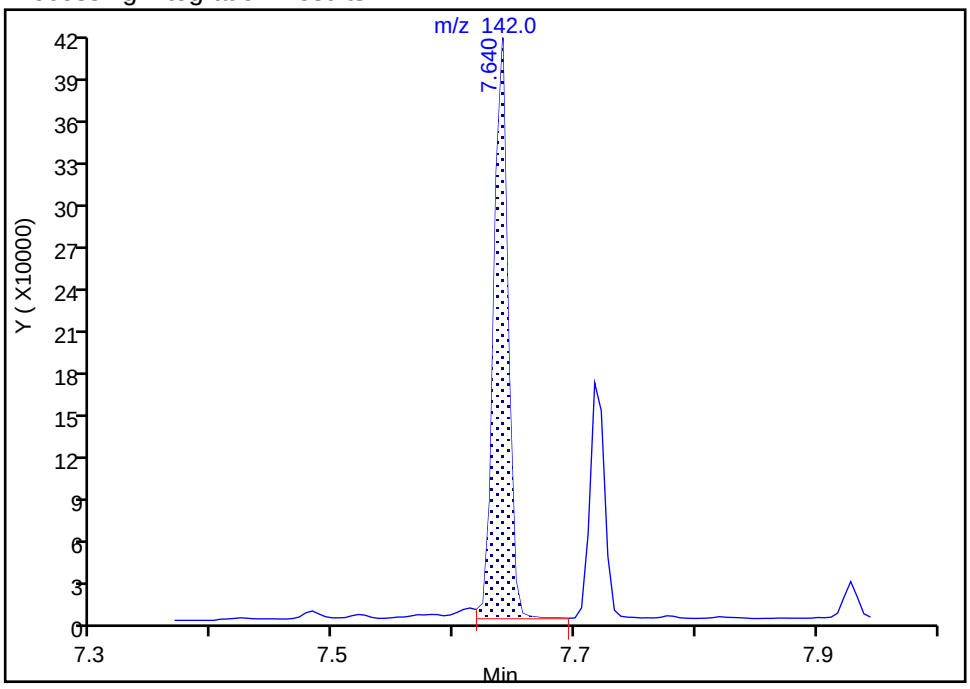
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

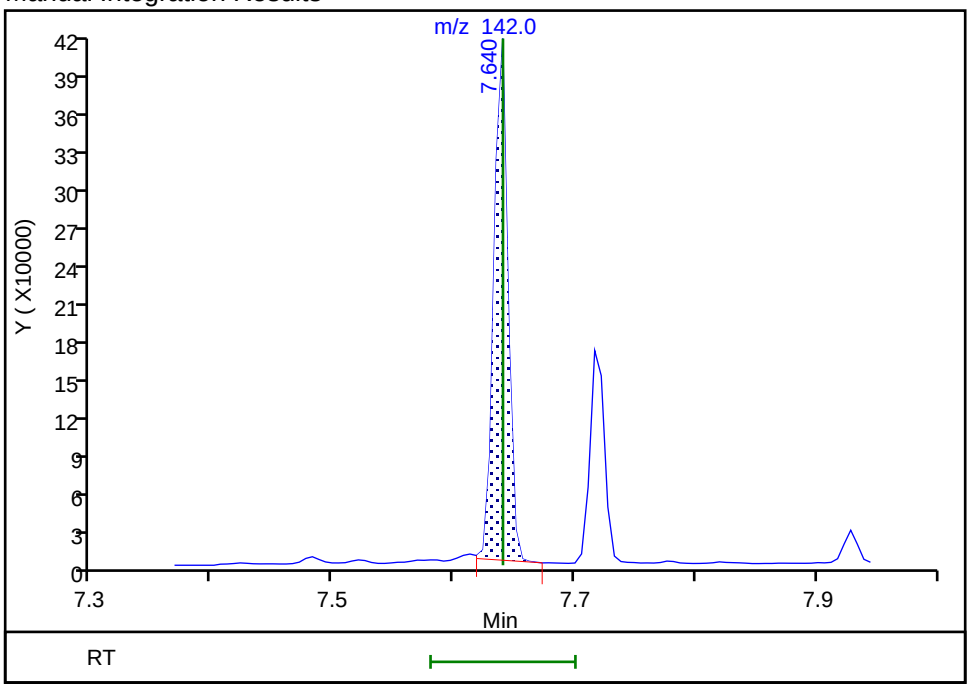
Processing Integration Results

RT: 7.64
Area: 340881
Amount: 144.5190
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 331962
Amount: 140.7378
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

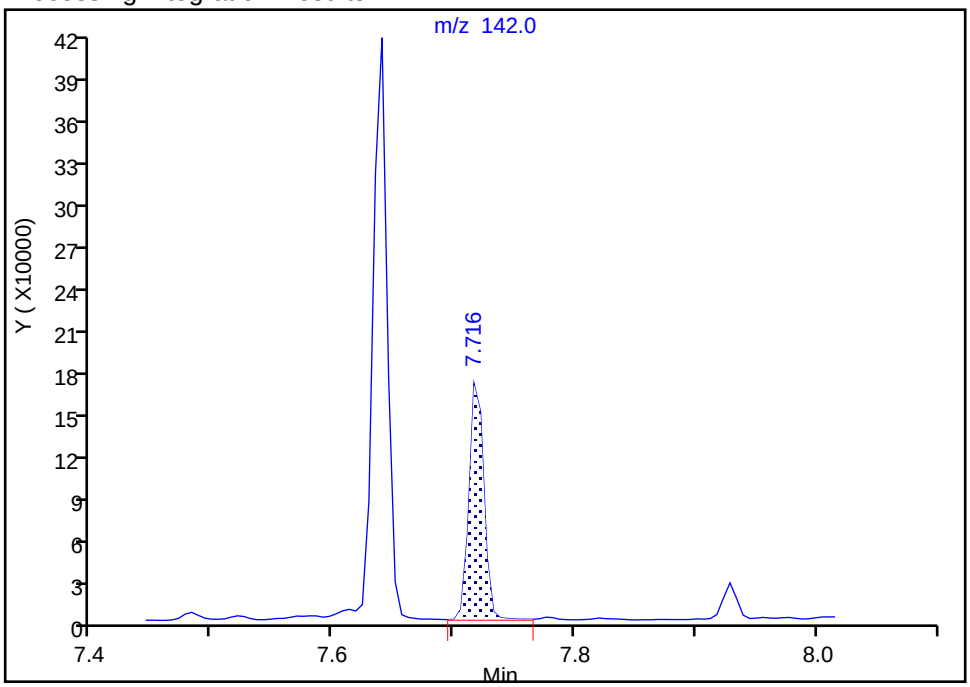
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

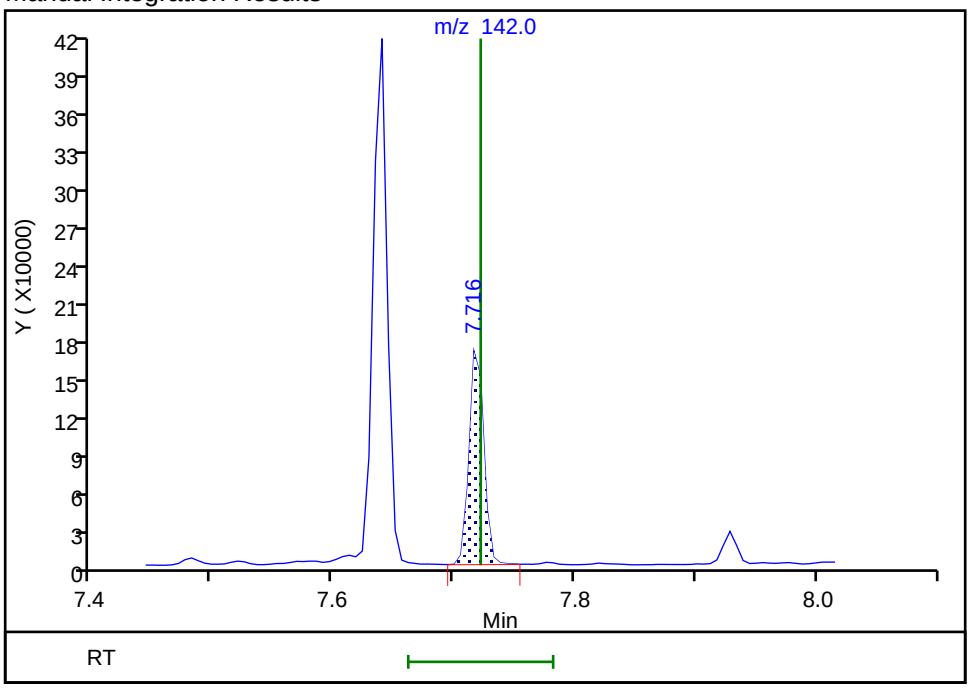
Processing Integration Results

RT: 7.72
Area: 144797
Amount: 65.751629
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 143102
Amount: 64.981937
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:54

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

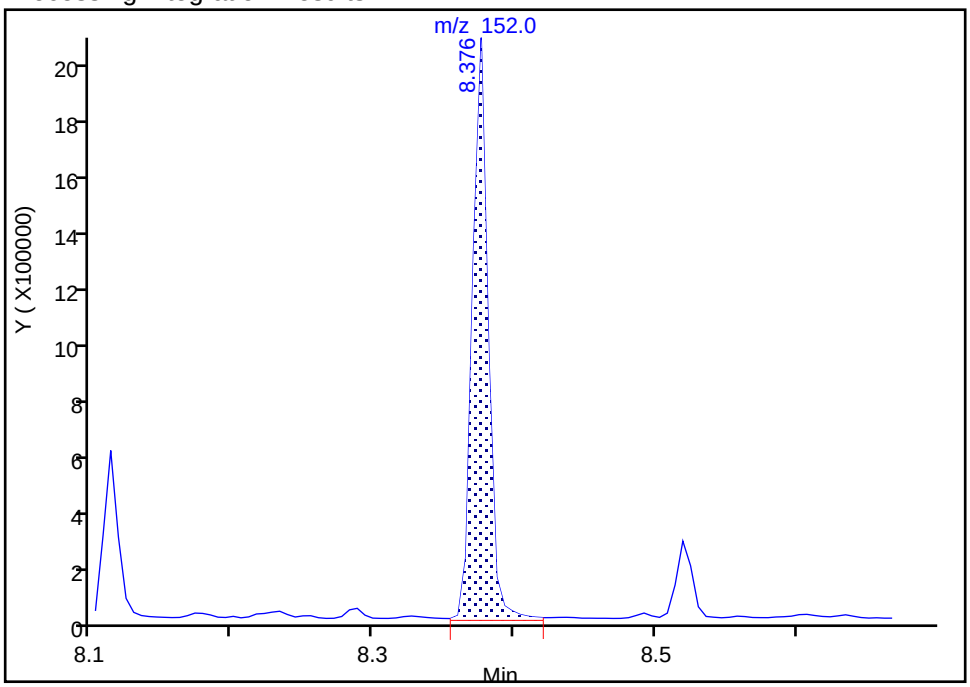
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

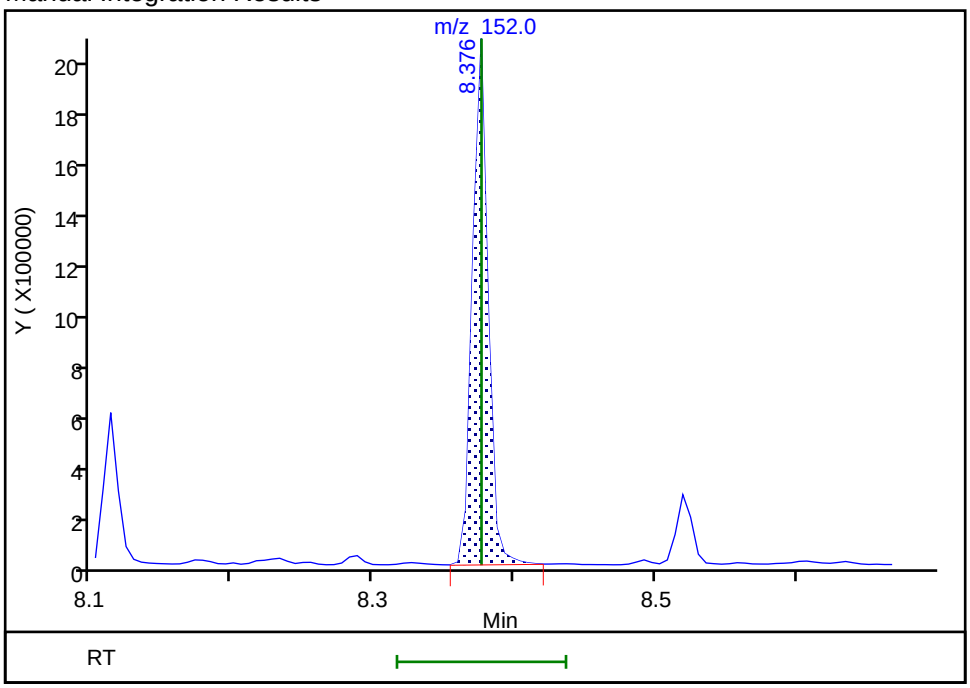
Processing Integration Results

RT: 8.38
Area: 1591829
Amount: 440.7958
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 1564785
Amount: 433.3070
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:59

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

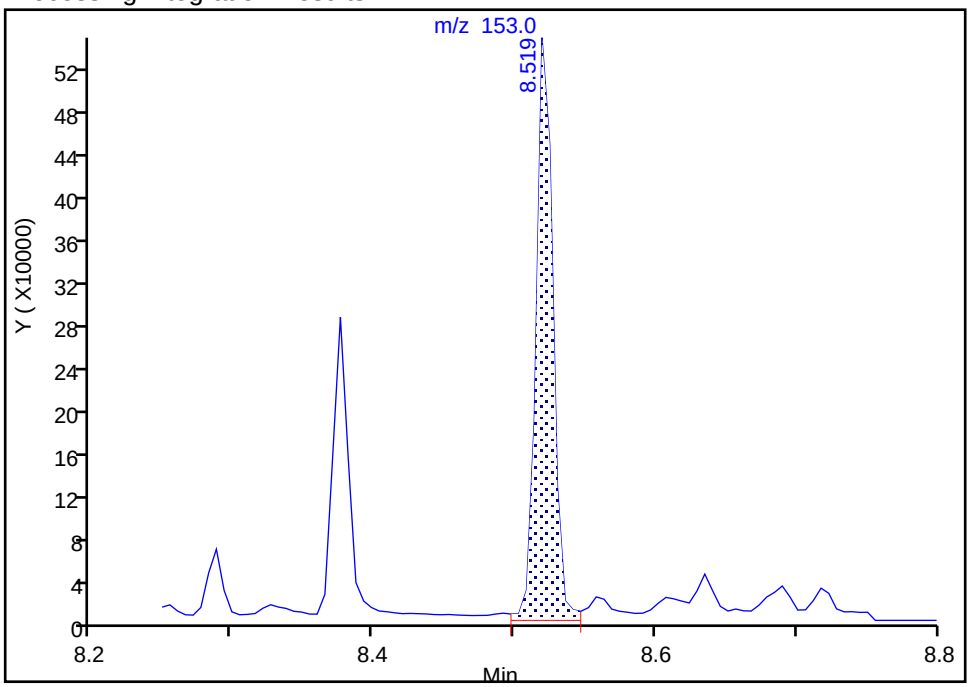
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

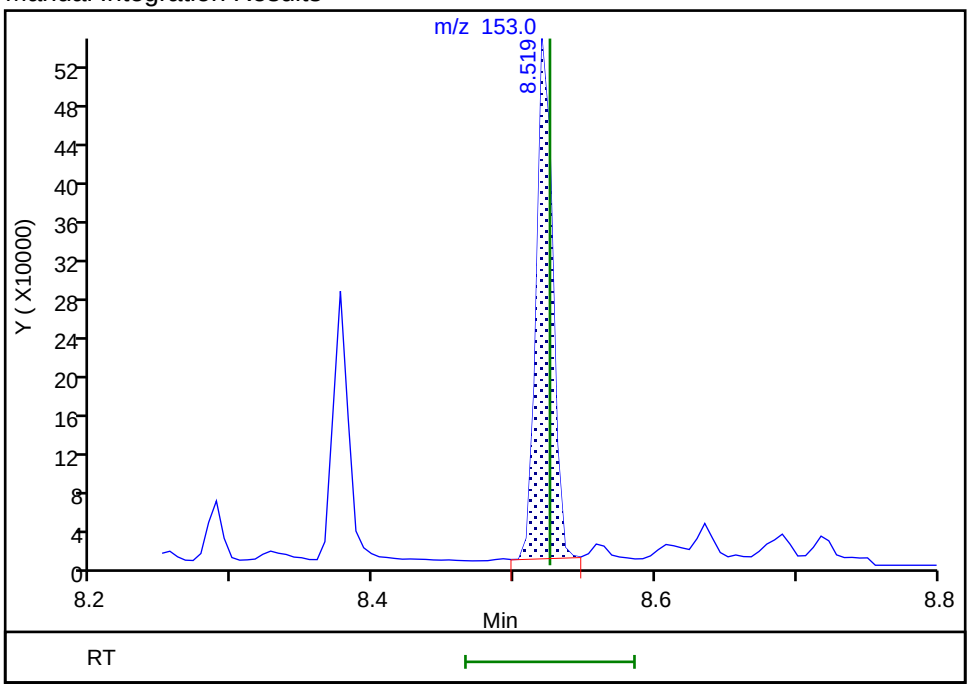
Processing Integration Results

RT: 8.52
Area: 456099
Amount: 173.9734
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 435893
Amount: 166.2661
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:02:05

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

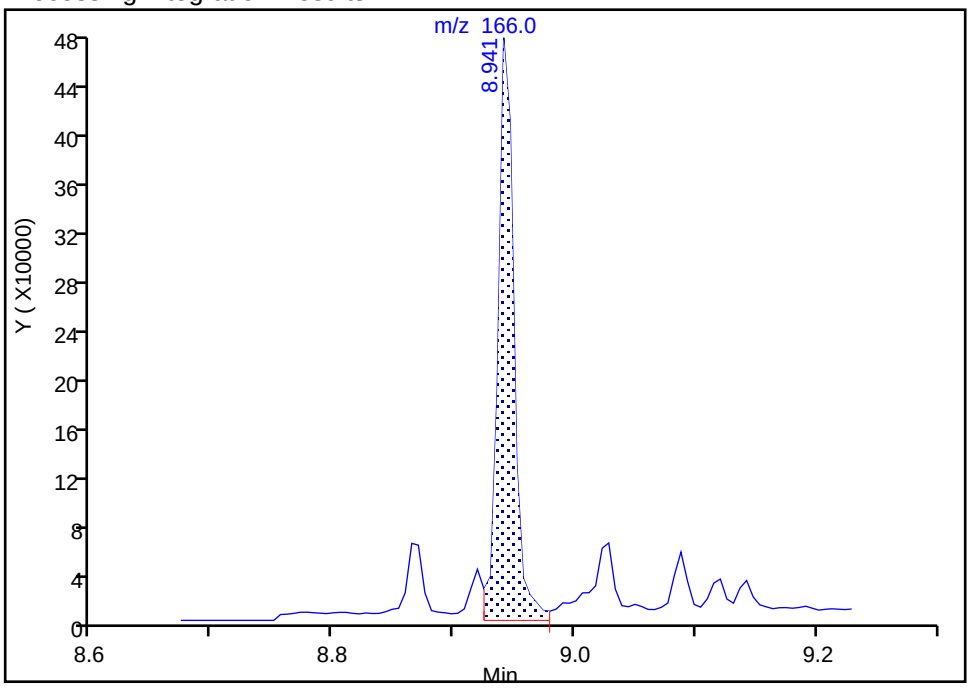
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

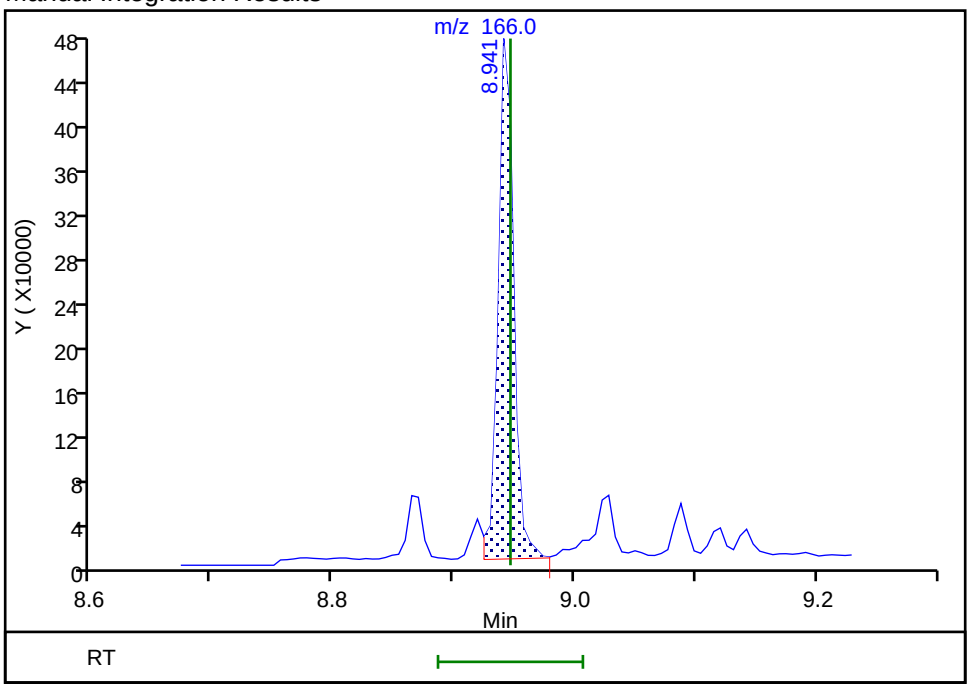
Processing Integration Results

RT: 8.94
Area: 428629
Amount: 163.2804
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 409545
Amount: 156.0106
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:02:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

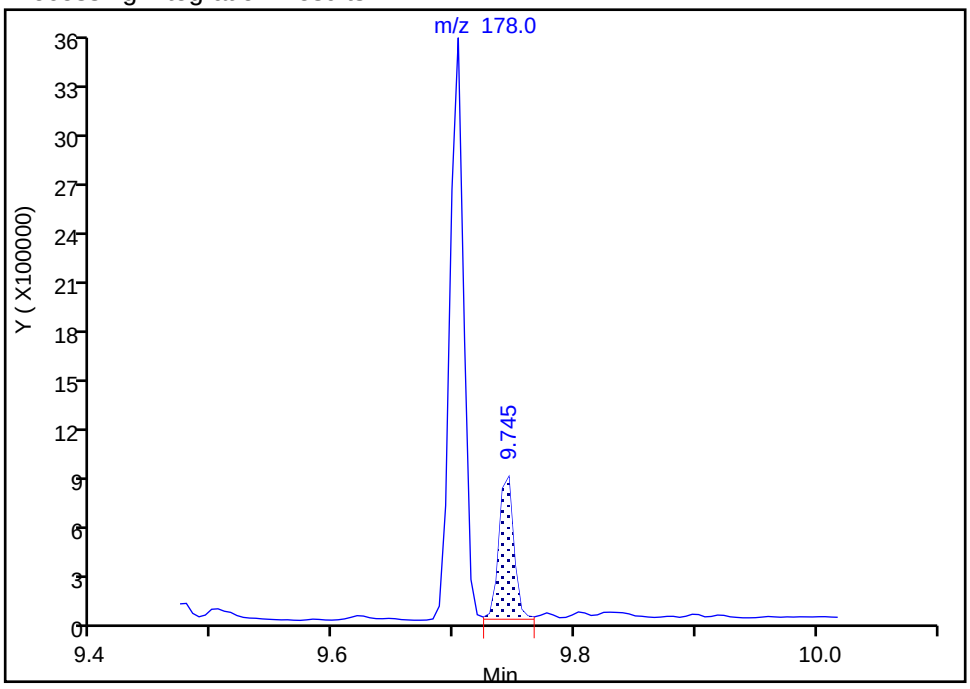
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

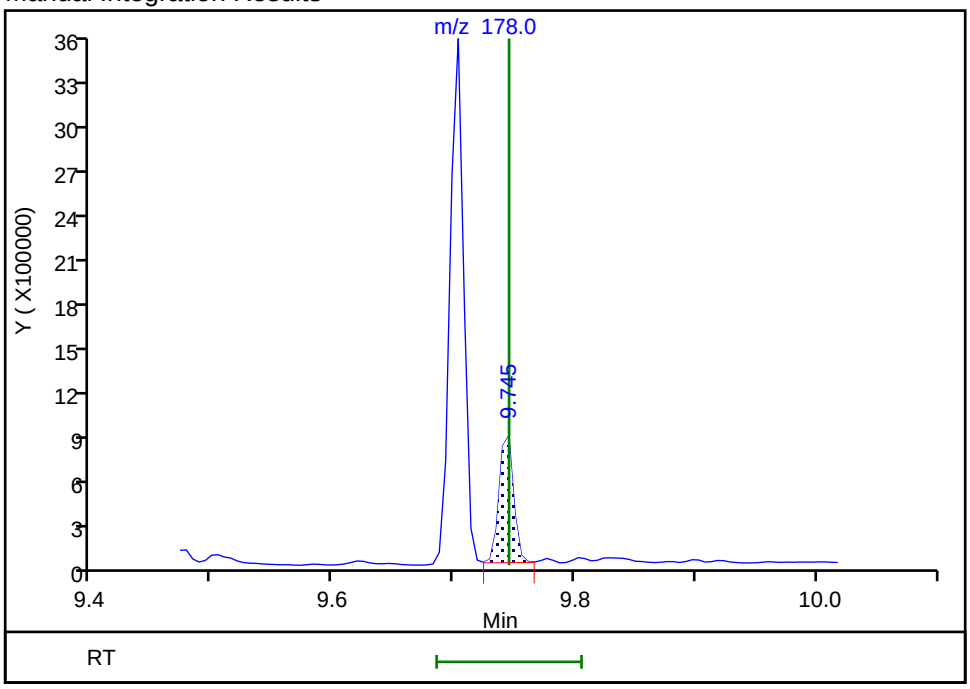
Processing Integration Results

RT: 9.75
Area: 736612
Amount: 198.2860
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 710419
Amount: 191.2352
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:02:18

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

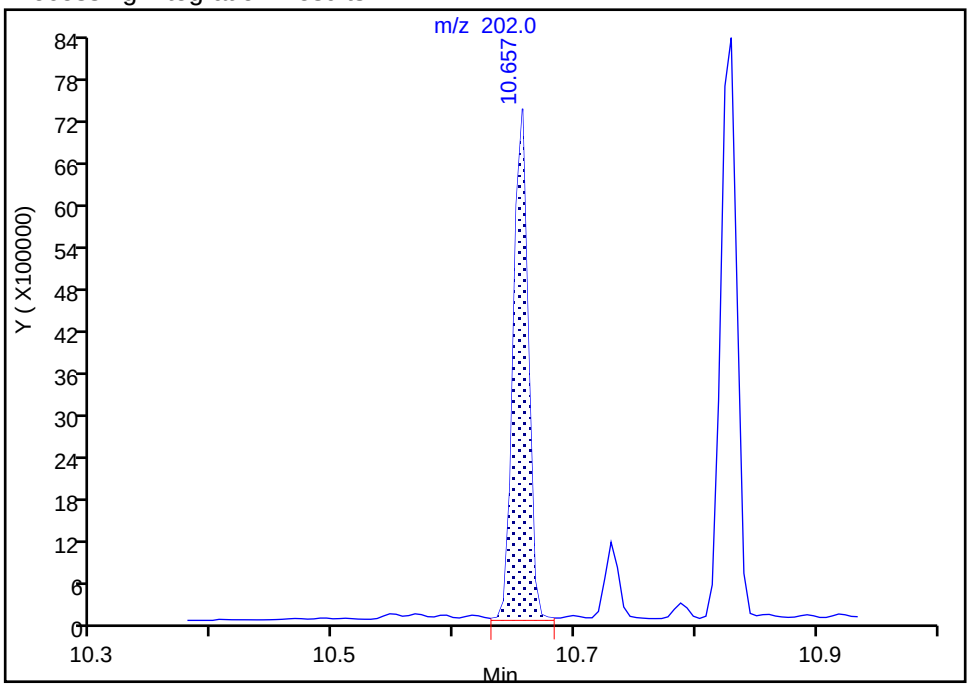
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

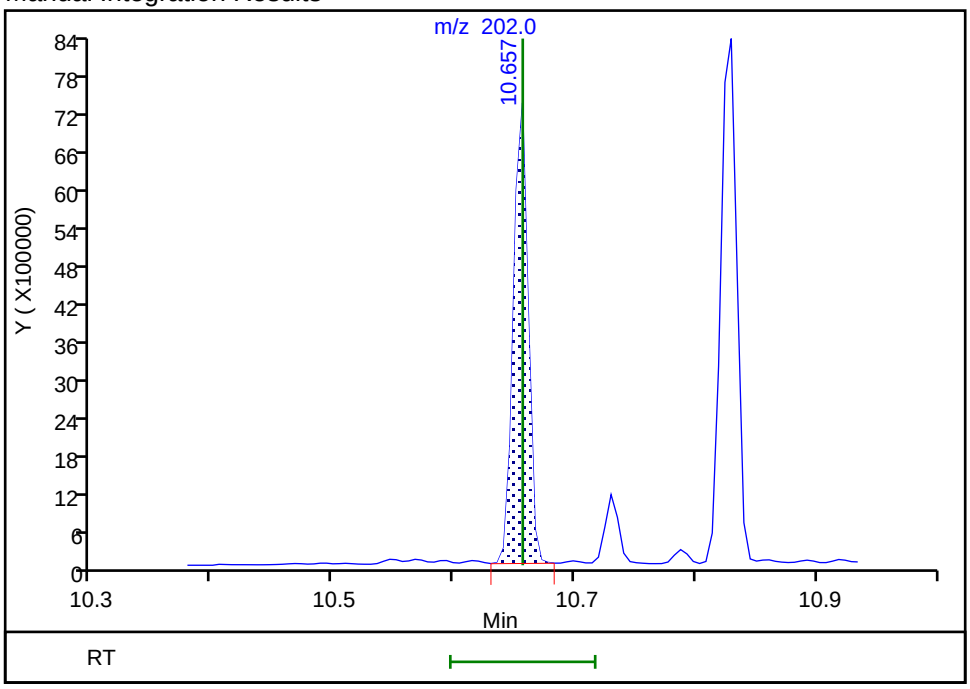
Processing Integration Results

RT: 10.66
Area: 6307430
Amount: 1666.1683
Amount Units: ug/L



Manual Integration Results

RT: 10.66
Area: 6219055
Amount: 1642.8232
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:04:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

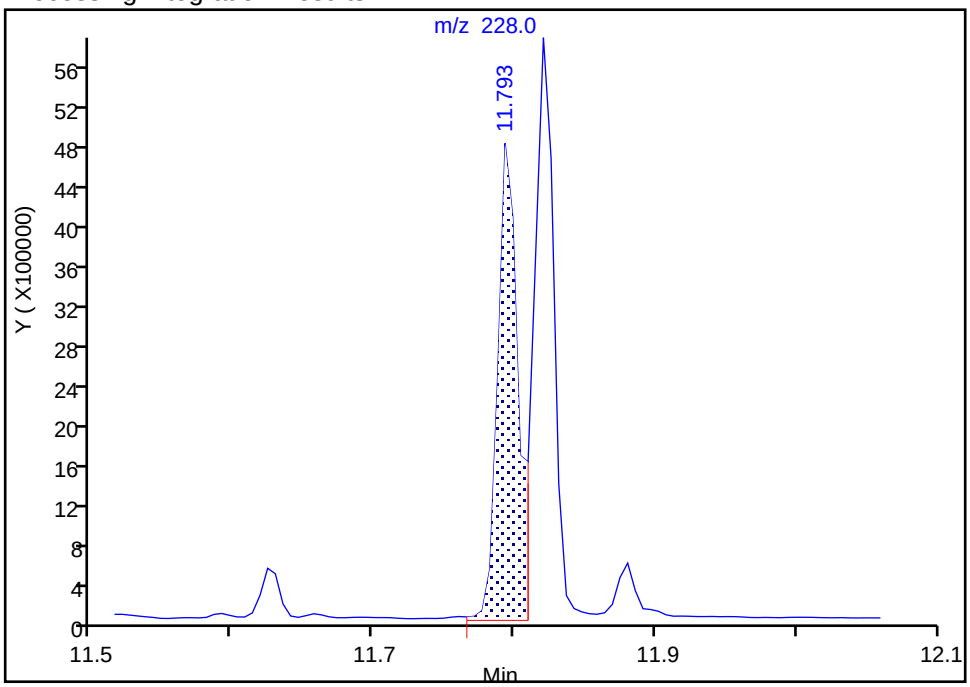
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

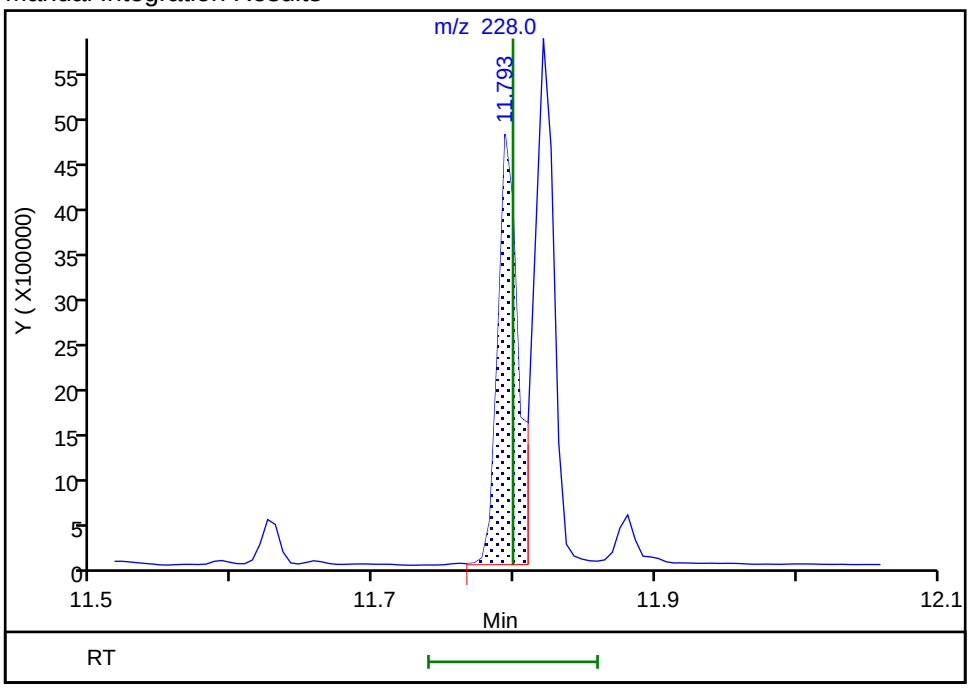
Processing Integration Results

RT: 11.79
Area: 4699796
Amount: 1862.4623
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 4638958
Amount: 1838.3530
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:04:30

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

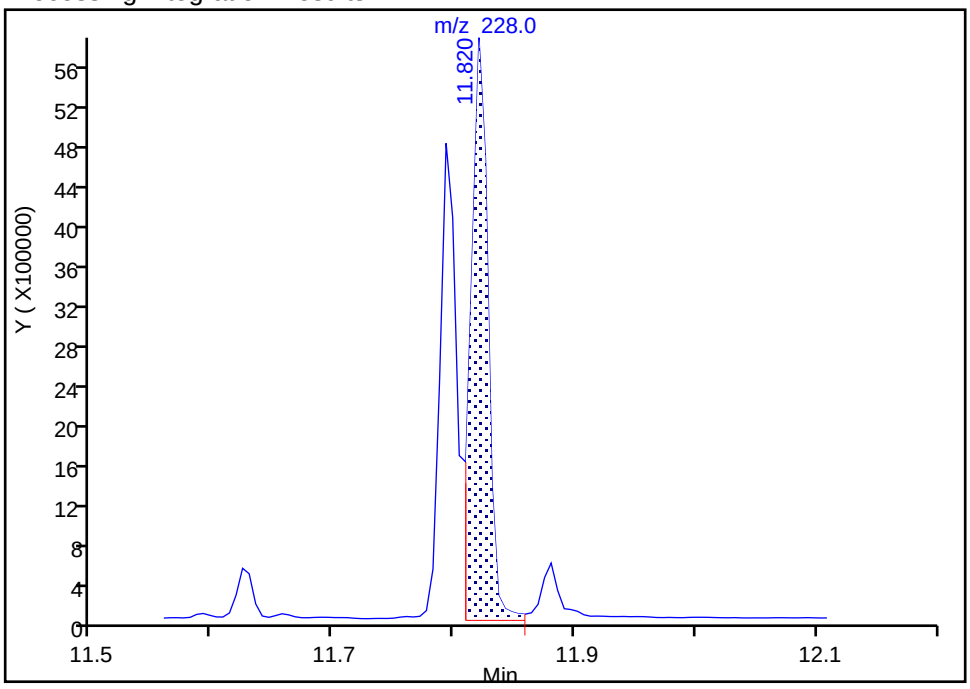
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

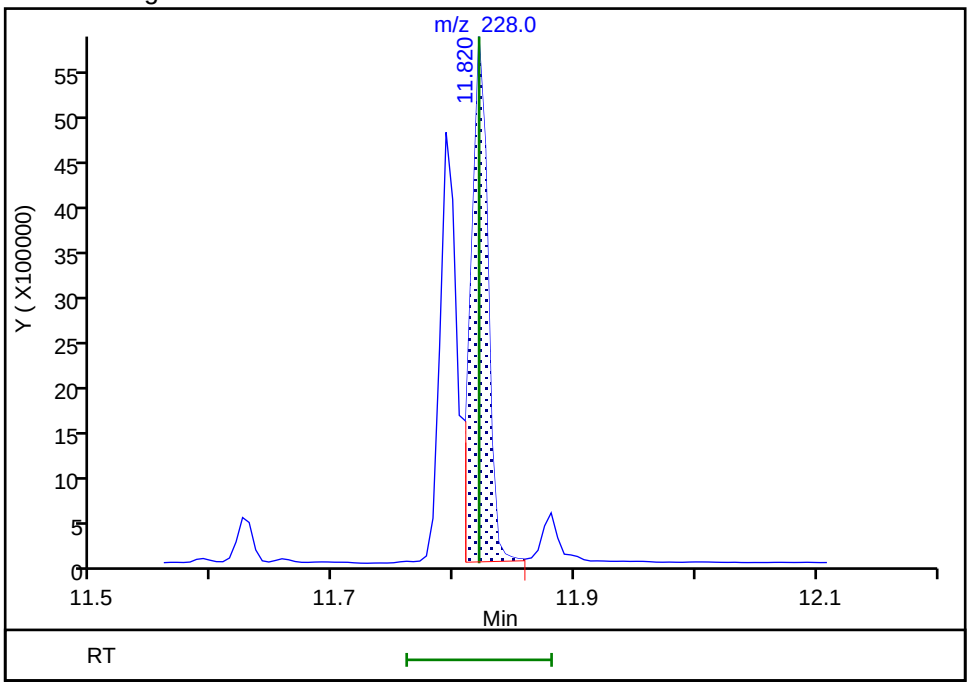
Processing Integration Results

RT: 11.82
Area: 5536637
Amount: 1649.8756
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 5429312
Amount: 1617.8935
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:04:34

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

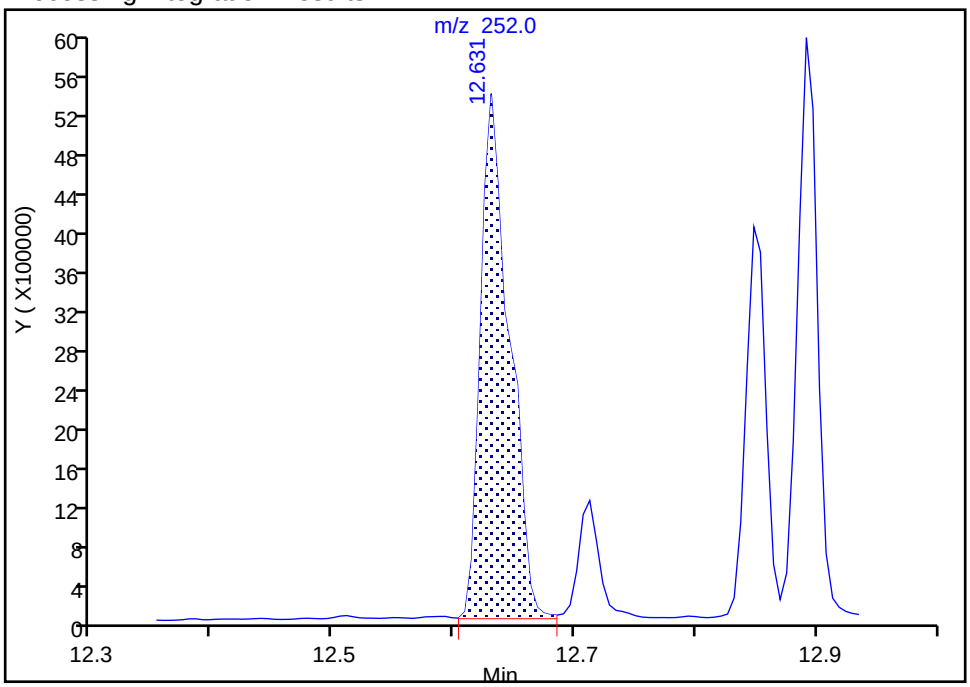
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

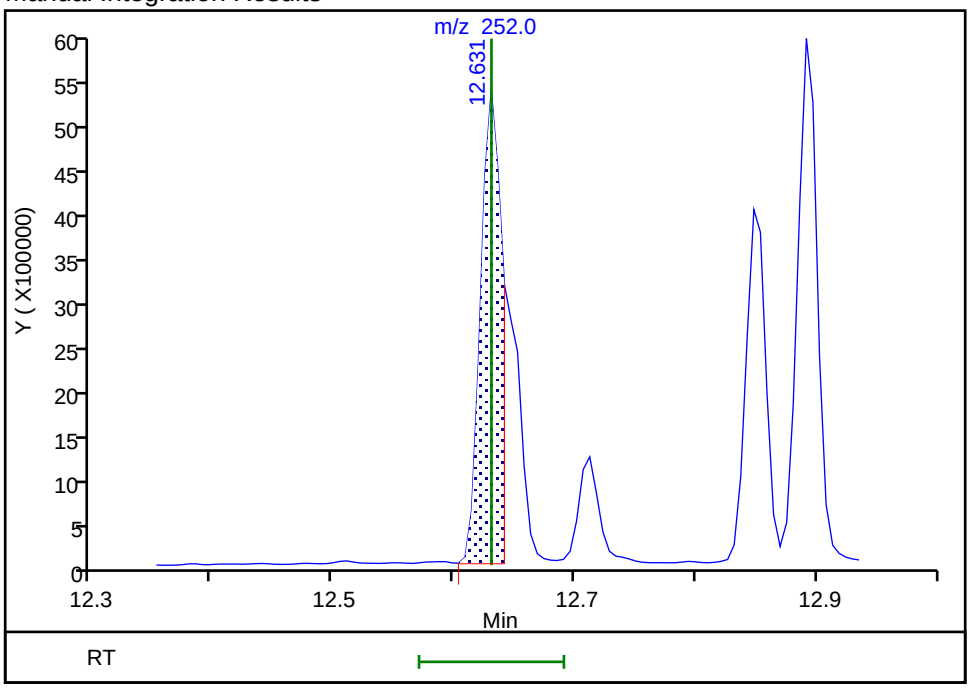
Processing Integration Results

RT: 12.63
Area: 8866837
Amount: 2853.1978
Amount Units: ug/L



Manual Integration Results

RT: 12.63
Area: 6113642
Amount: 1967.2663
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:04:52

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

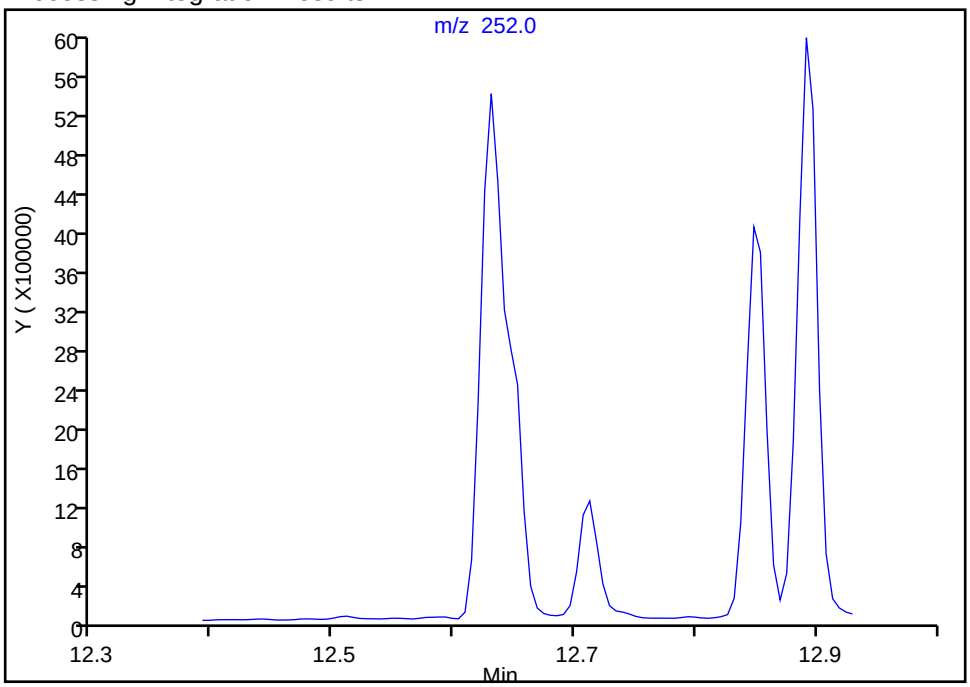
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

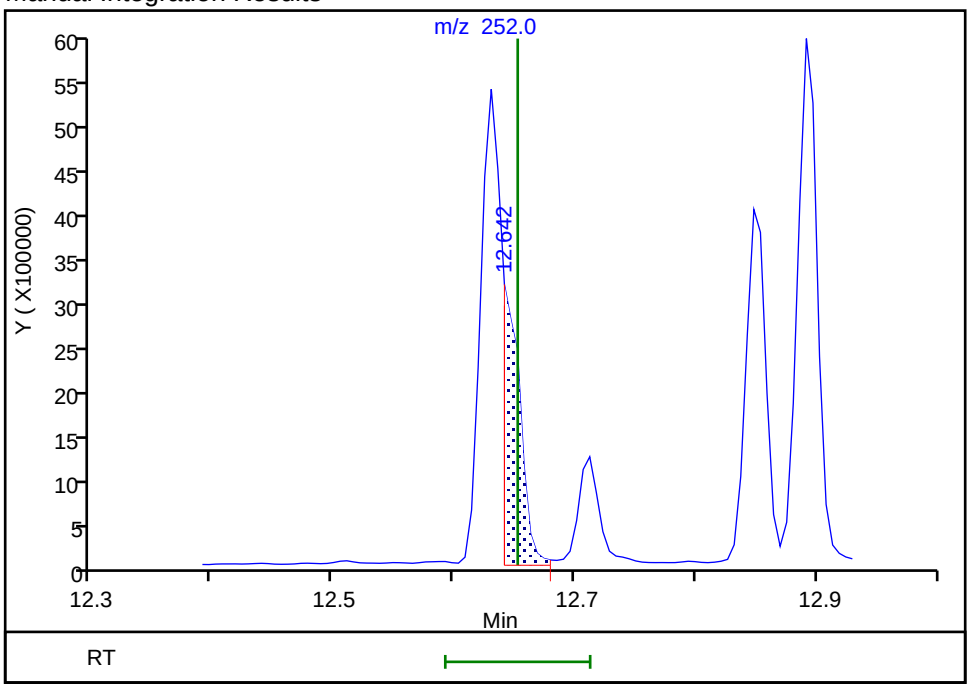
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 2782275
Amount: 731.7777
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:05:03
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

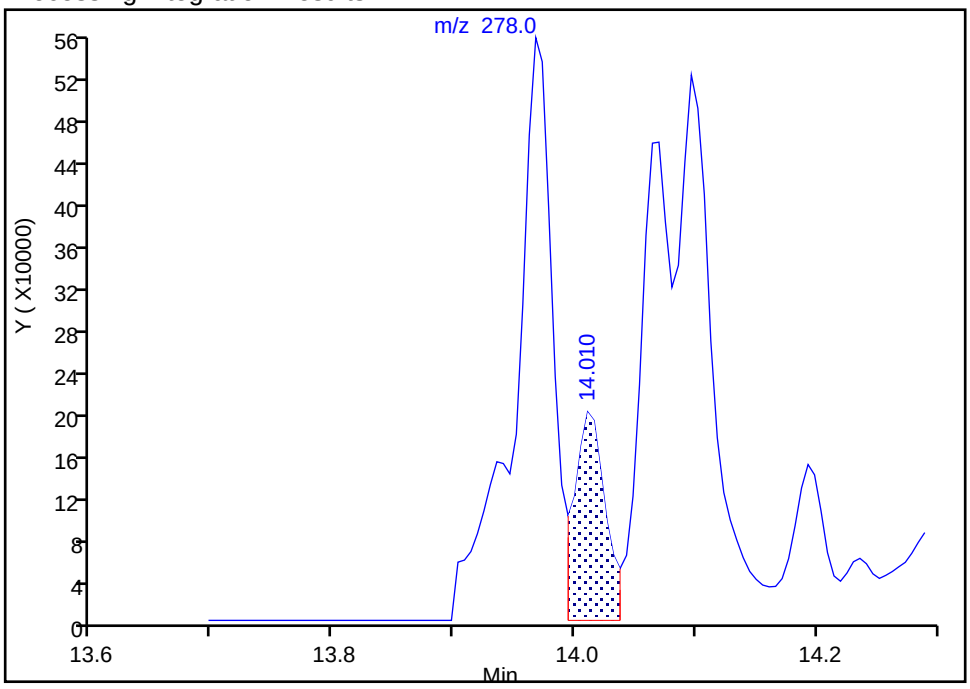
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

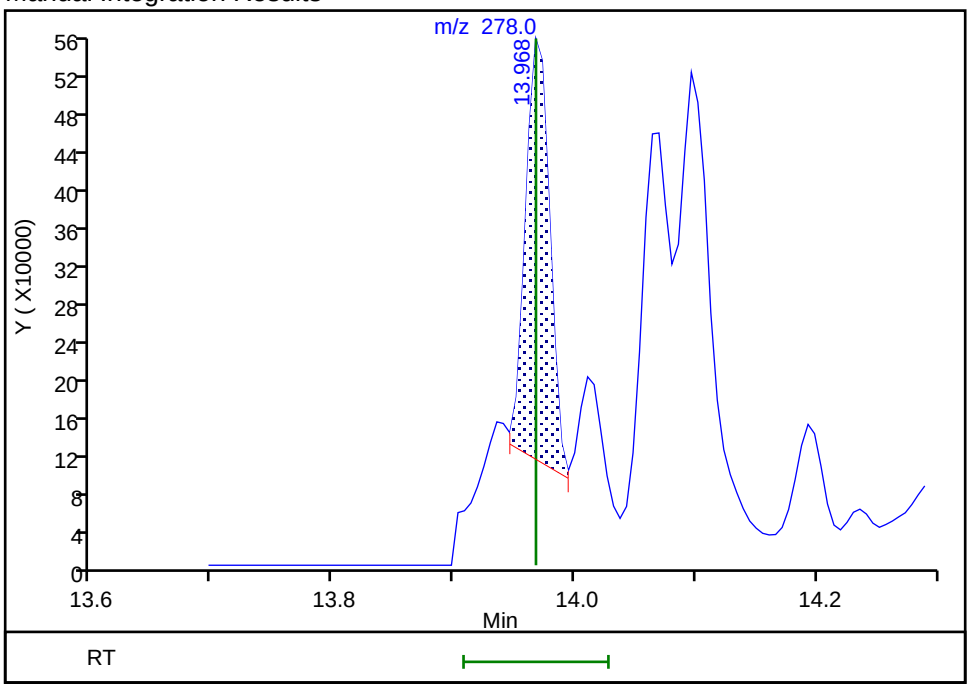
Processing Integration Results

RT: 14.01
Area: 338728
Amount: 111.4637
Amount Units: ug/L



Manual Integration Results

RT: 13.97
Area: 617907
Amount: 202.4181
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:05:28

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

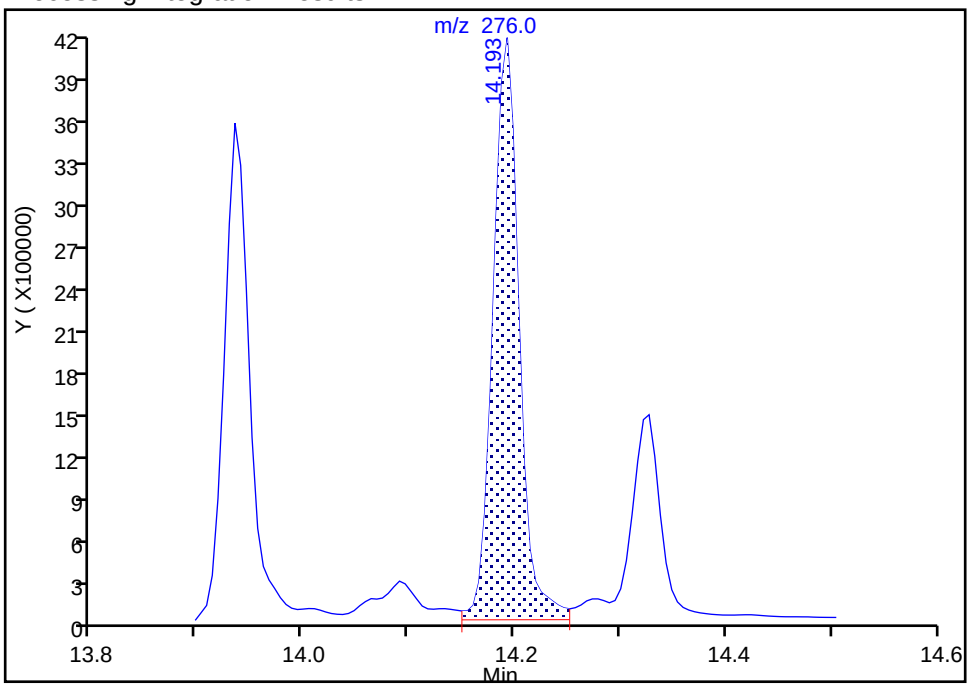
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

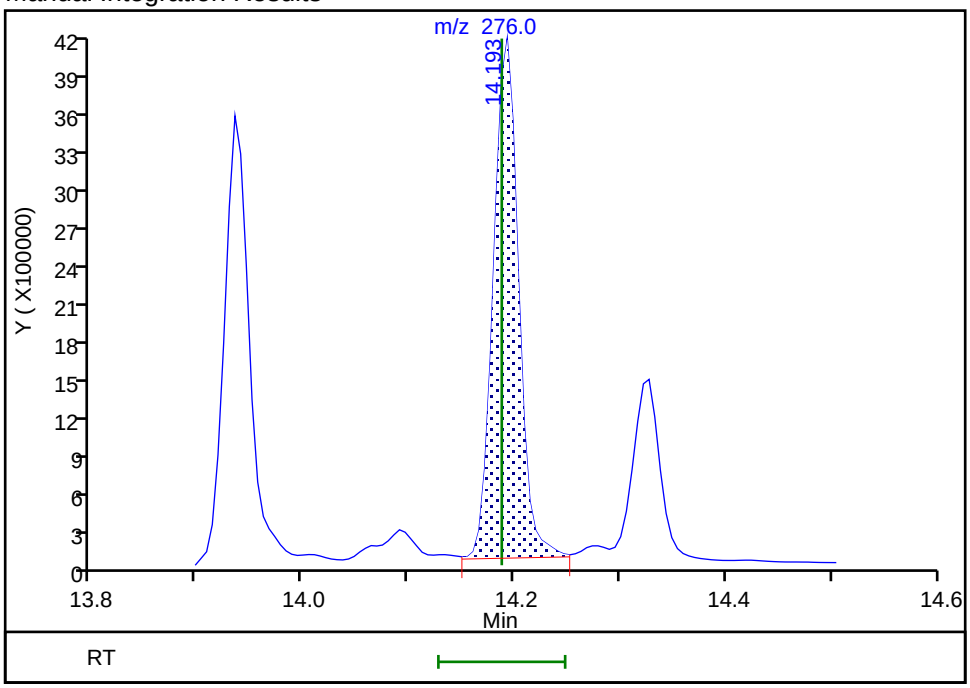
Processing Integration Results

RT: 14.19
Area: 7099228
Amount: 2042.5370
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 6774232
Amount: 1949.0436
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:05:37

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

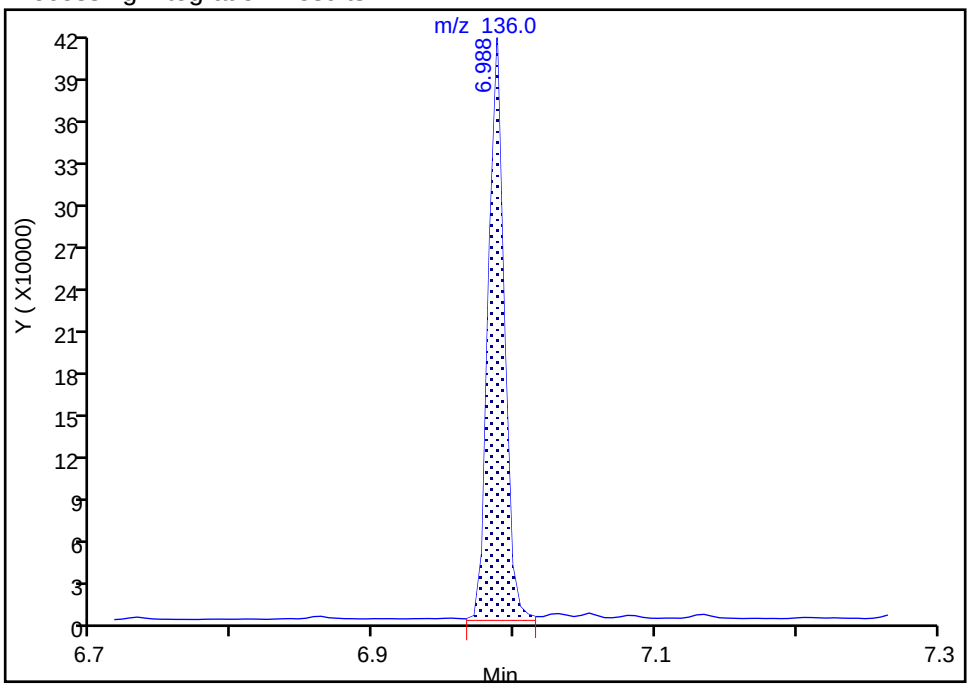
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 1 Naphthalene-d8, CAS: 1146-65-2

Signal: 1

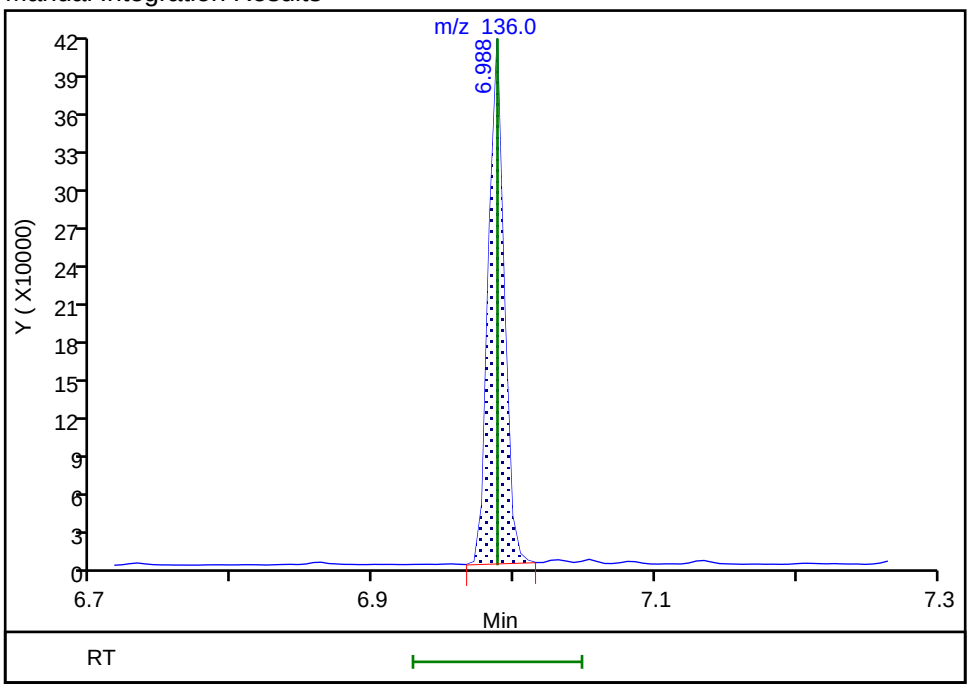
Processing Integration Results

RT: 6.99
Area: 326825
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 6.99
Area: 321915
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

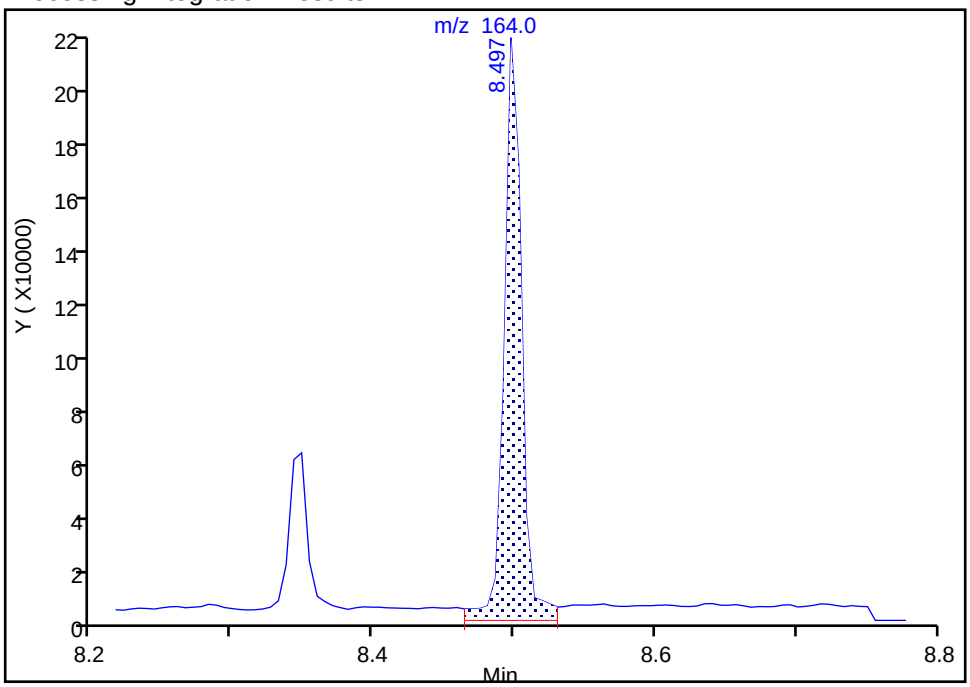
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 2 Acenaphthene-d10, CAS: 15067-26-2

Signal: 1

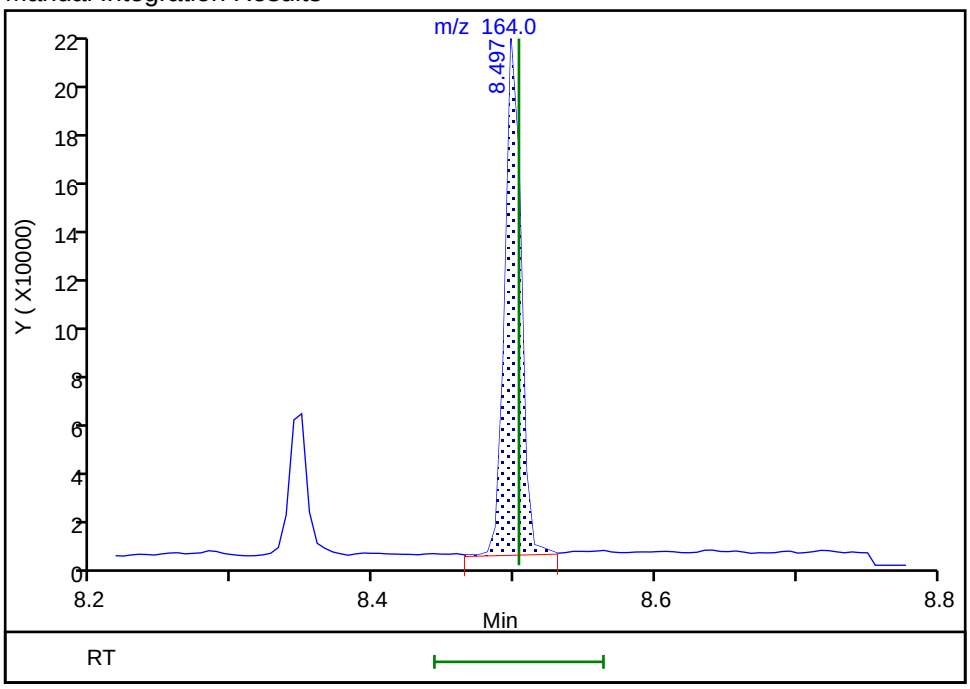
Processing Integration Results

RT: 8.50
Area: 181298
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 8.50
Area: 165574
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

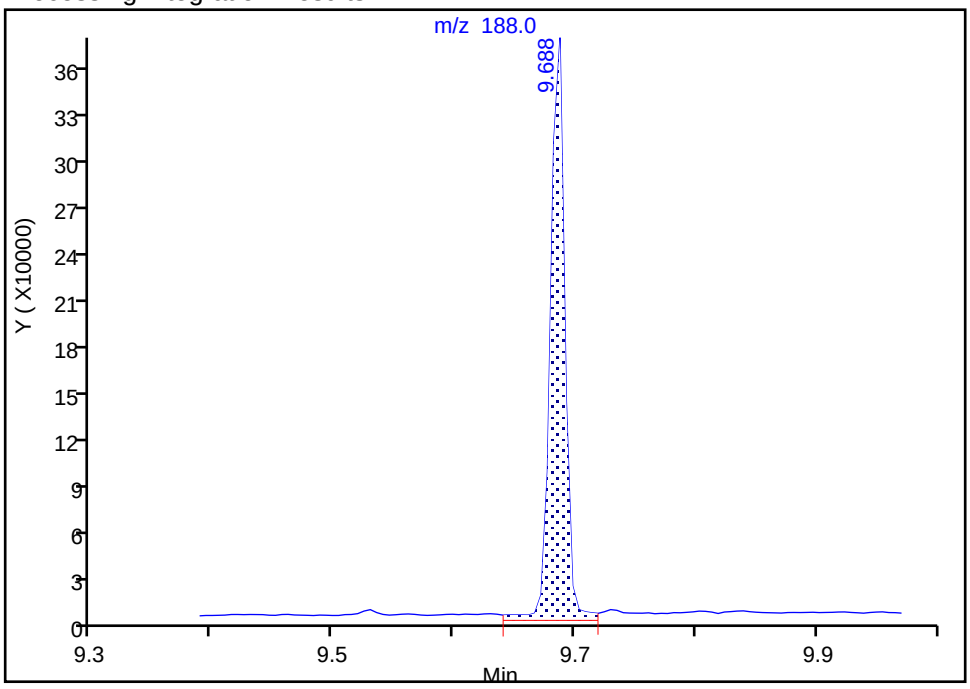
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 3 Phenanthrene-d10, CAS: 1517-22-2

Signal: 1

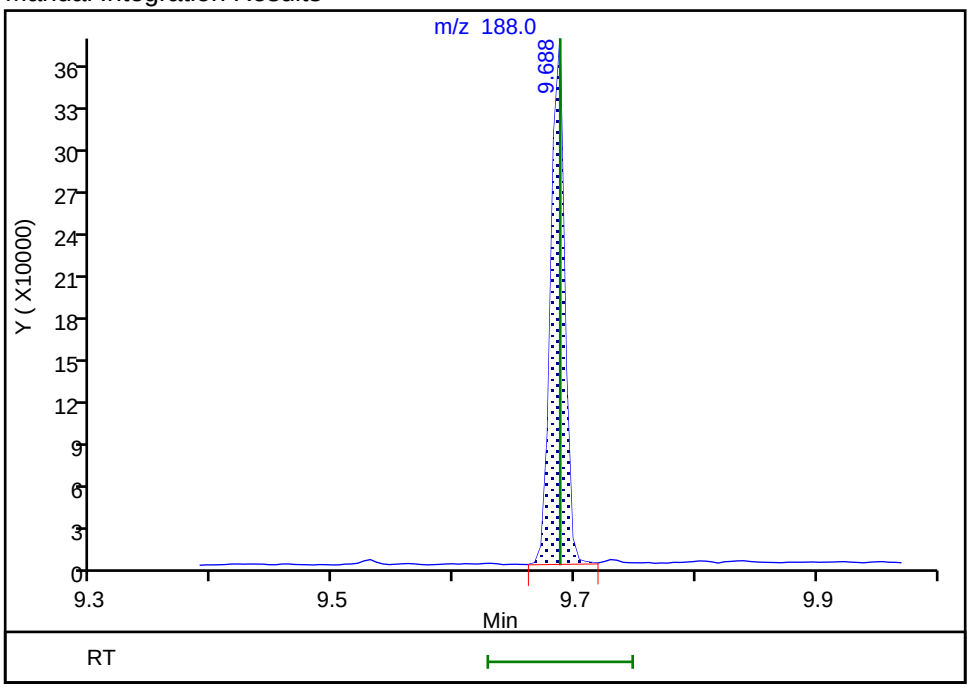
Processing Integration Results

RT: 9.69
Area: 310812
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 9.69
Area: 294339
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

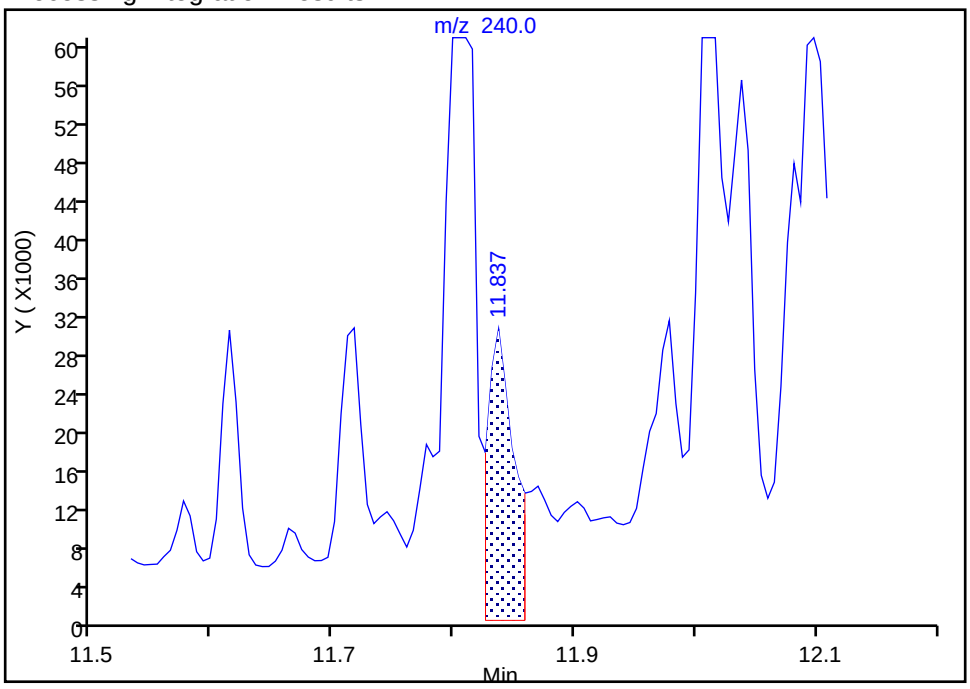
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 4 Chrysene-d12, CAS: 1719-03-5

Signal: 1

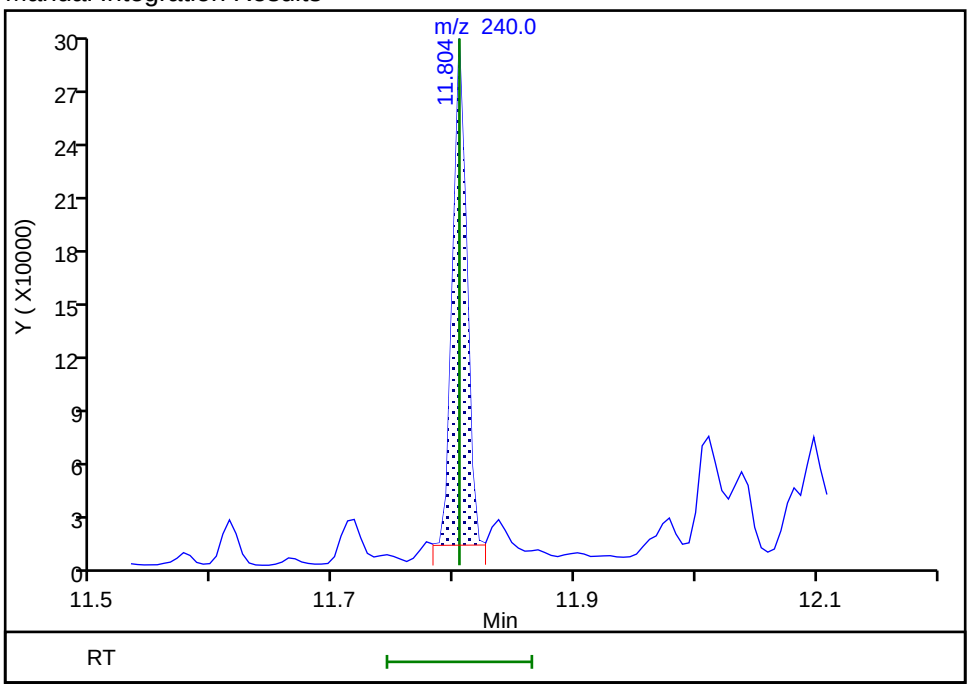
Processing Integration Results

RT: 11.84
Area: 42312
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 11.80
Area: 221413
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

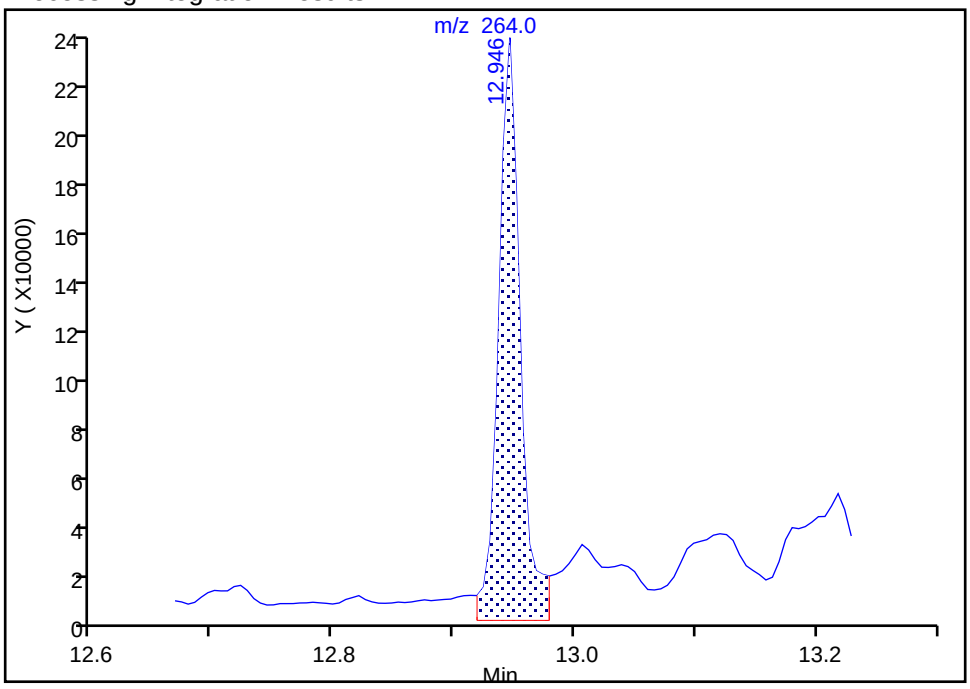
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A022.D				
Injection Date:	22-Jul-2019 19:59:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 5 Perylene-d12, CAS: 1520-96-3

Signal: 1

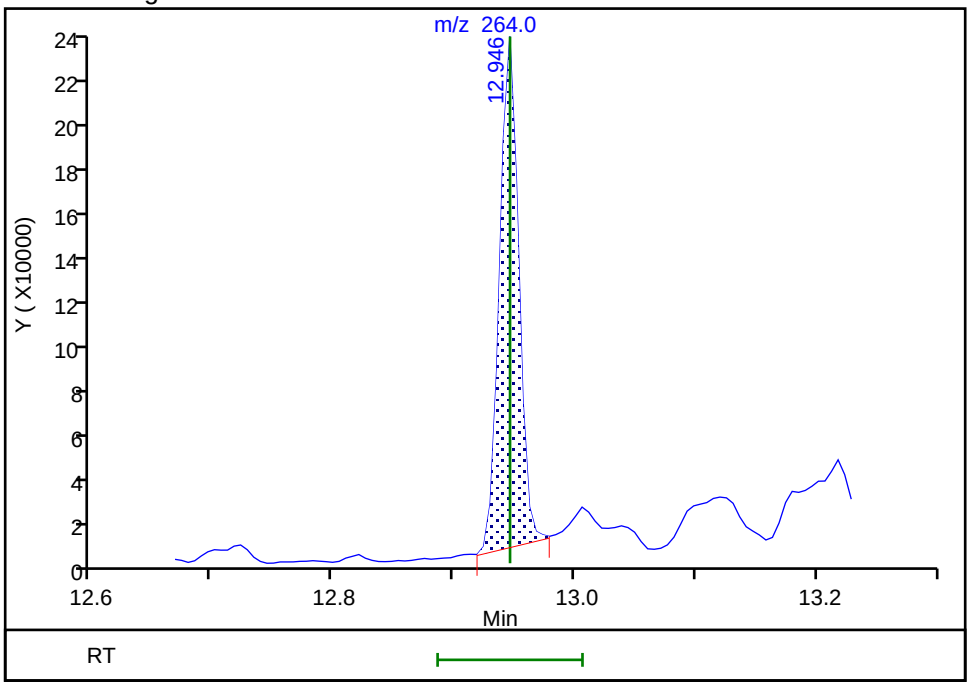
Processing Integration Results

RT: 12.95
Area: 288504
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 12.95
Area: 241265
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 15:01:33

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 DL Lab Sample ID: 580-87706-15 DL

Matrix: Solid Lab File ID: 072419A021.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 14:24

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 11.276(g) Date Analyzed: 07/24/2019 19:36

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306485 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
129-00-0	Pyrene	4900		100	20
50-32-8	Benzo[a]pyrene	4700		100	17
193-39-5	Indeno[1,2,3-cd]pyrene	4900		100	12

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D
Lims ID: 580-87706-A-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 24-Jul-2019 19:36:30 ALS Bottle#: 21 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 580-87706-a-15-a
Misc. Info.: 10X
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 25-Jul-2019 13:09:40 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0321

First Level Reviewer: limwirojt Date: 25-Jul-2019 13:09:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	364805	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	95	167198	100.0	
* 3 Phenanthrene-d10	188	9.688	9.693	-0.005	100	293131	100.0	
* 4 Chrysene-d12	240	11.810	11.810	0.000	99	214496	100.0	
* 5 Perylene-d12	264	12.952	12.957	-0.005	100	233406	100.0	
$ 9 Terphenyl-d14	244	11.008	11.008	0.000	99	153370	69.1	
10 Naphthalene	128	7.004	7.004	0.000	100	159782	39.2	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	96	34932	13.1	M
12 1-Methylnaphthalene	142	7.722	7.722	0.000	97	15227	6.10	M
13 Acenaphthylene	152	8.376	8.376	0.000	100	149969	41.1	M
14 Acenaphthene	153	8.525	8.525	0.000	80	44510	16.8	M
15 Fluorene	166	8.947	8.947	0.000	100	41476	15.6	M
17 Phenanthrene	178	9.704	9.709	-0.005	100	292162	73.4	
18 Anthracene	178	9.745	9.745	0.000	100	70401	19.0	M
19 Fluoranthene	202	10.657	10.662	-0.005	100	706335	187.4	M
20 Pyrene	202	10.830	10.835	-0.005	100	964065	242.8	M
21 Benzo[a]anthracene	228	11.799	11.804	-0.005	98	406577	166.3	M
22 Chrysene	228	11.826	11.826	0.000	97	616827	189.7	M
23 Benzo[b]fluoranthene	252	12.636	12.636	0.000	98	669262	222.6	M
24 Benzo[k]fluoranthene	252	12.647	12.658	-0.011	1	286989	78.0	M
25 Benzo[a]pyrene	252	12.897	12.903	-0.006	98	701994	230.5	M
26 Indeno[1,2,3-cd]pyrene	276	13.946	13.946	0.000	98	573776	243.8	M
27 Dibenz(a,h)anthracene	278	13.978	13.984	-0.006	100	61603	21.9	M
28 Benzo[g,h,i]perylene	276	14.199	14.204	-0.005	98	704549	209.8	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

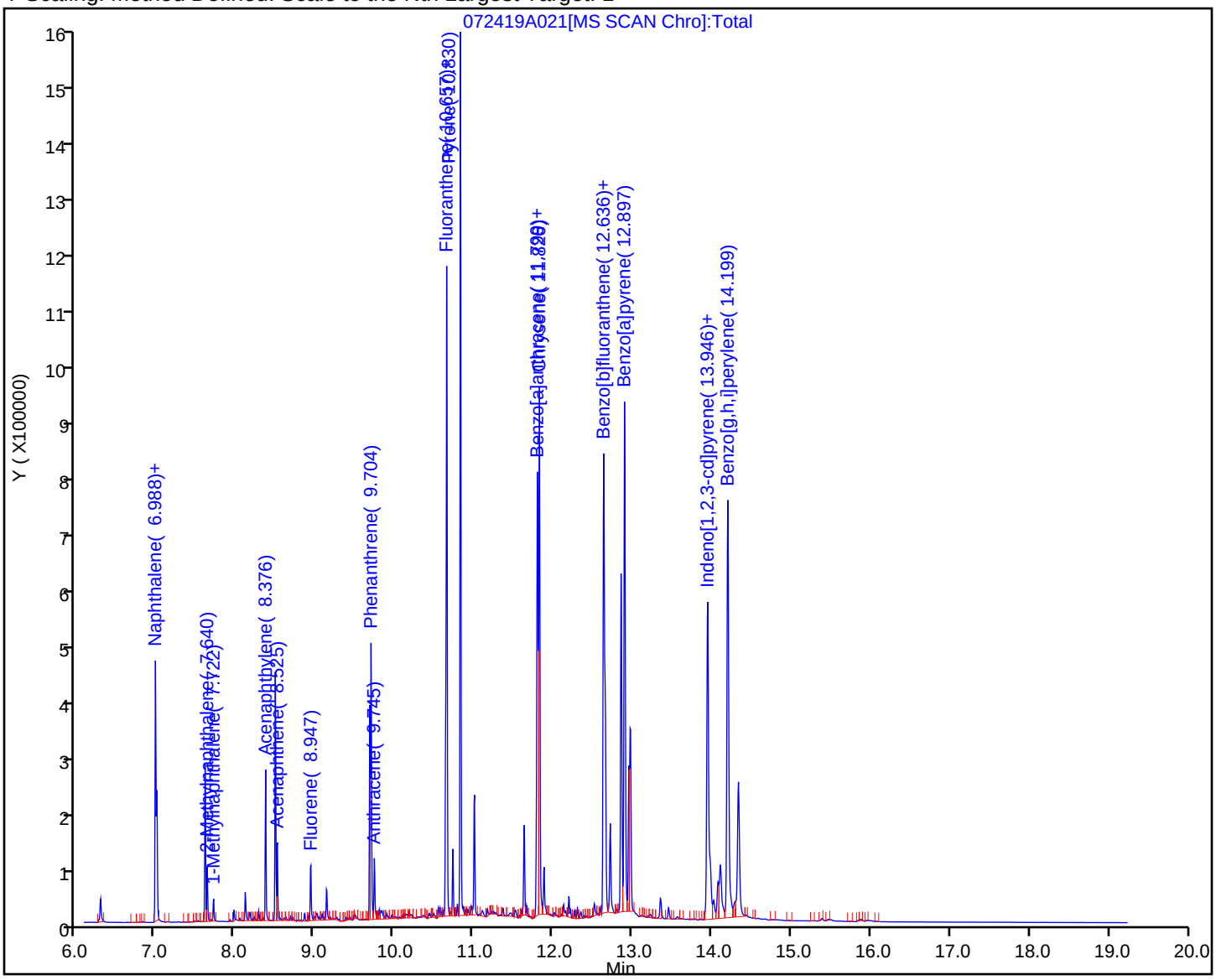
8270SIM_IS_00060	Amount Added: 10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 25-Jul-2019 13:09:40 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D
Lims ID: 580-87706-A-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 24-Jul-2019 19:36:30 ALS Bottle#: 21 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 580-87706-a-15-a
Misc. Info.: 10X
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 25-Jul-2019 13:09:40 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0321

First Level Reviewer: limwirojt Date: 25-Jul-2019 13:09:40

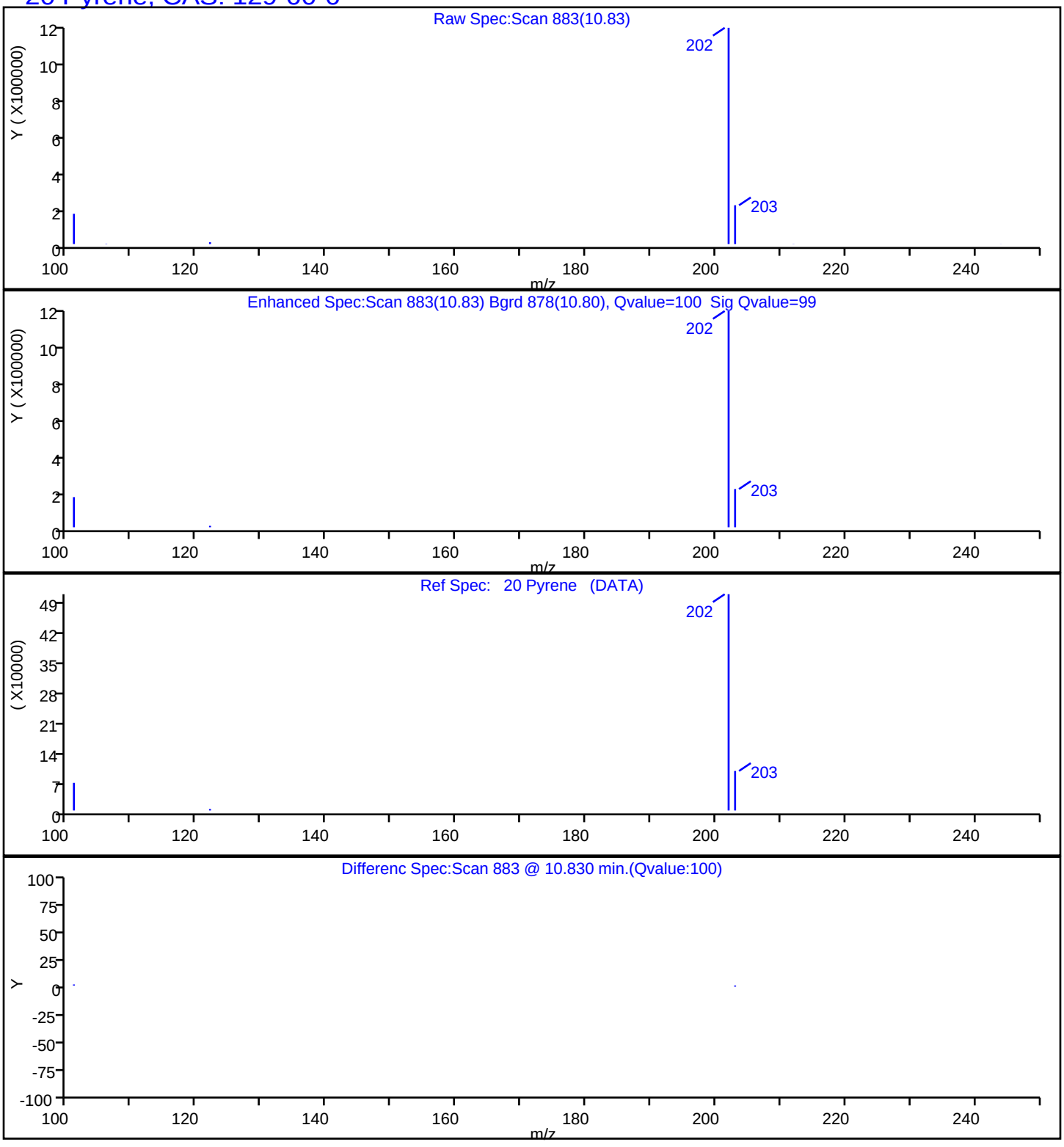
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	0.0	0	0.00
$ 7 2,4,6-Tribromophenol	0.0	0	0.00
$ 8 Fluoranthene-d10 (Surr)	0.0	0	0.00
$ 9 Terphenyl-d14	1000.0	69.1	6.91

Report Date: 25-Jul-2019 13:09:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

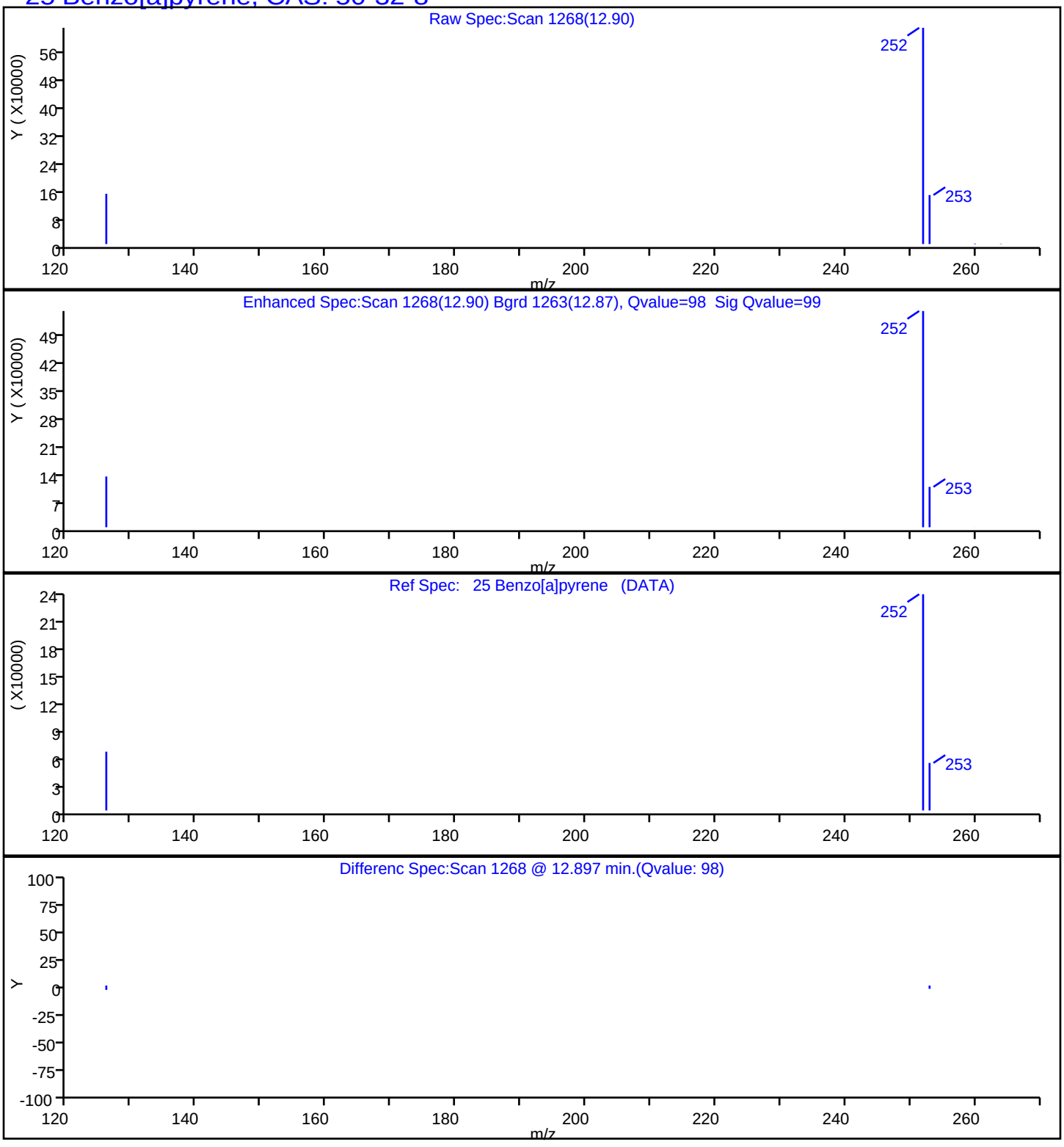


Report Date: 25-Jul-2019 13:09:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

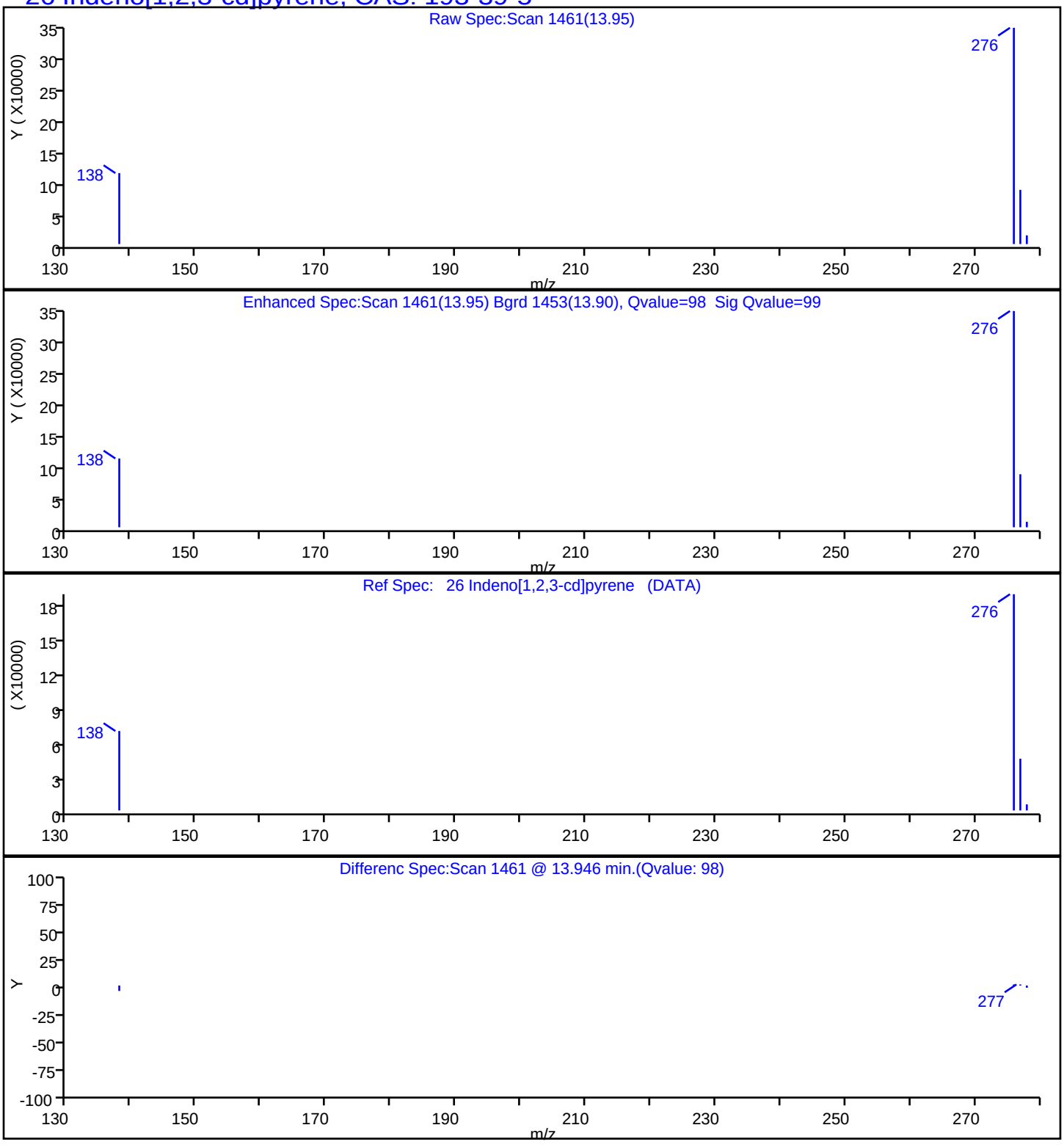


Report Date: 25-Jul-2019 13:09:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

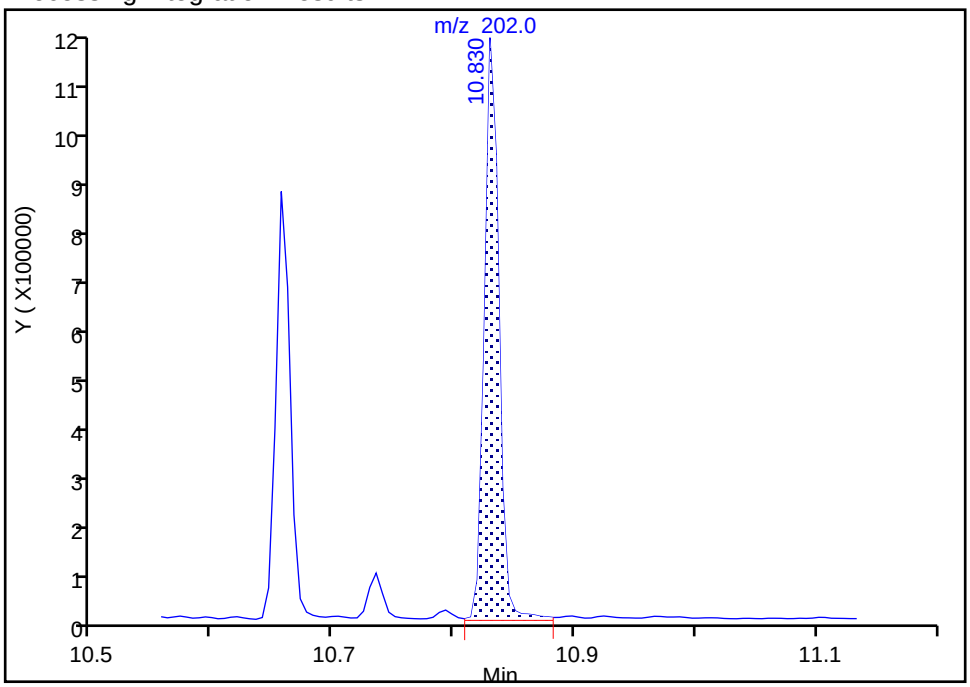
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

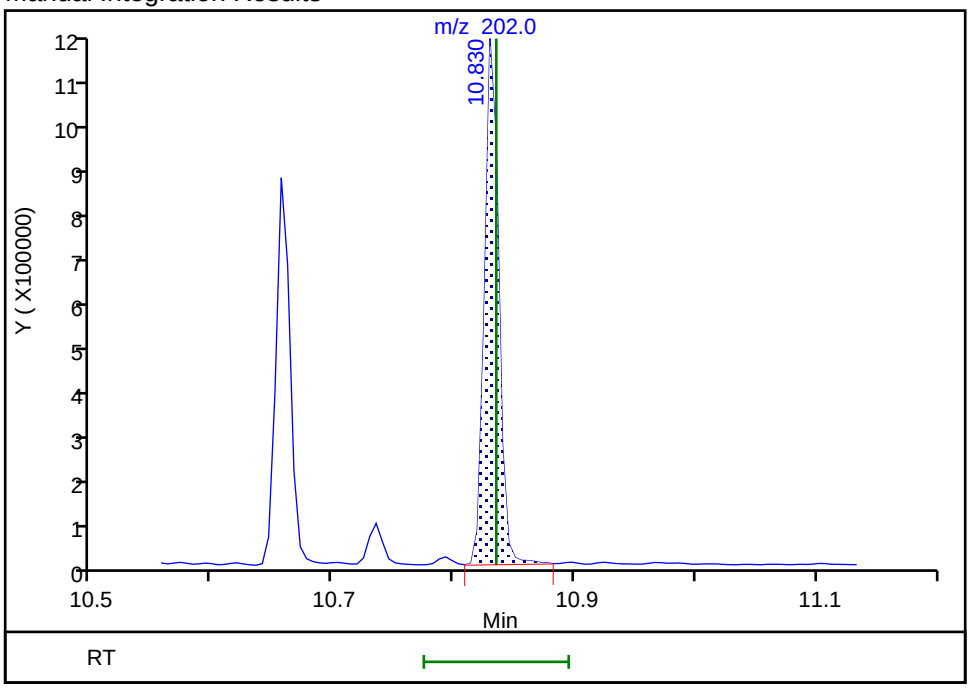
Processing Integration Results

RT: 10.83
Area: 980053
Amount: 246.8232
Amount Units: ug/L



Manual Integration Results

RT: 10.83
Area: 964065
Amount: 242.7967
Amount Units: ug/L



Reviewer: limwirojt, 25-Jul-2019 13:08:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

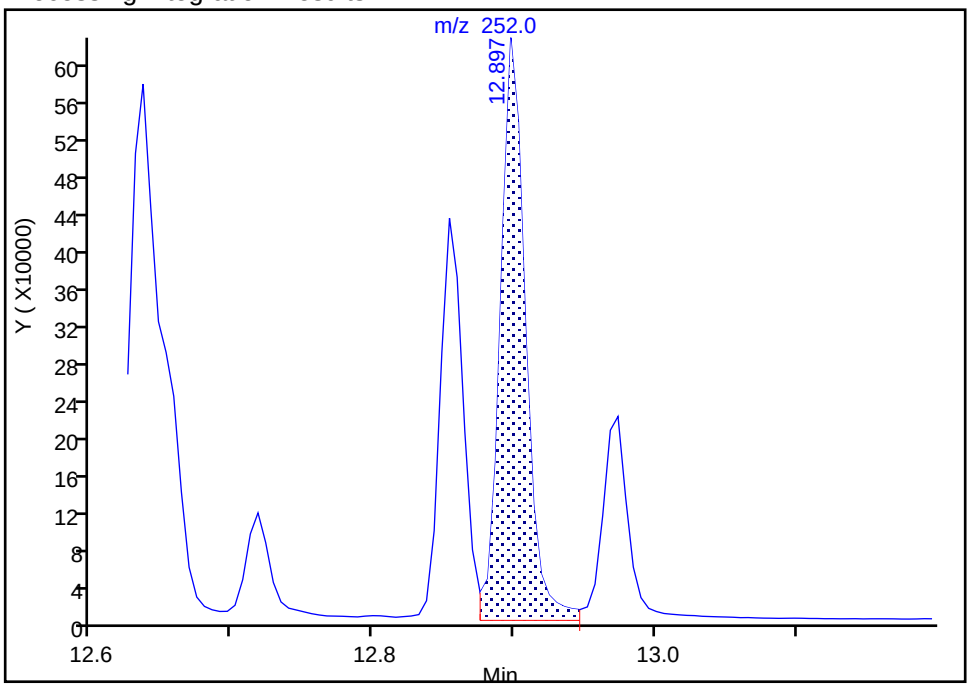
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

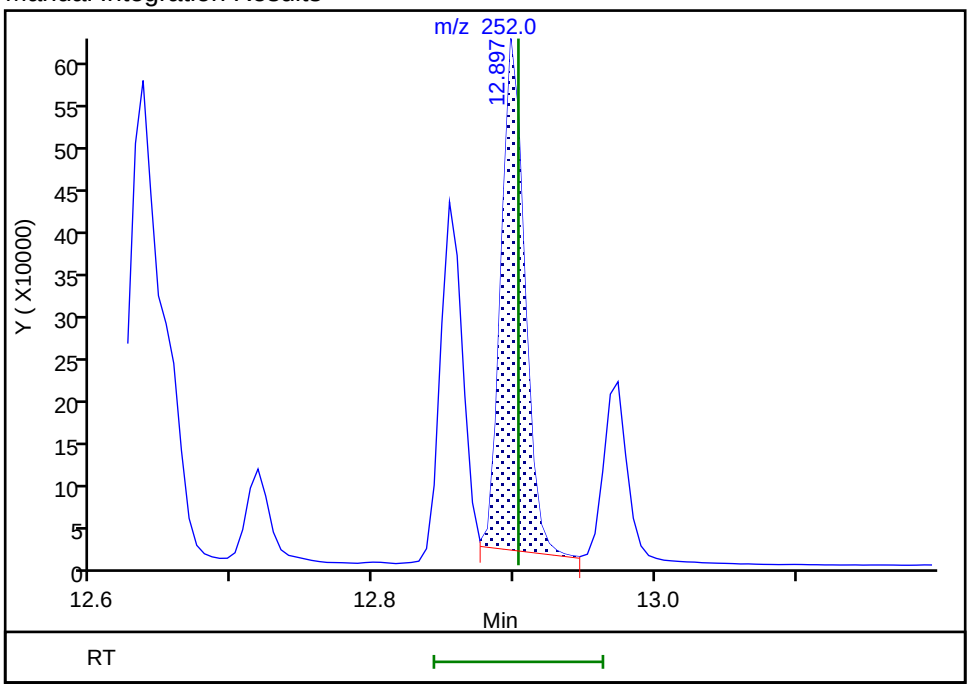
Processing Integration Results

RT: 12.90
Area: 772595
Amount: 253.6727
Amount Units: ug/L



Manual Integration Results

RT: 12.90
Area: 701994
Amount: 230.4916
Amount Units: ug/L



Reviewer: limwirojt, 25-Jul-2019 13:08:49

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

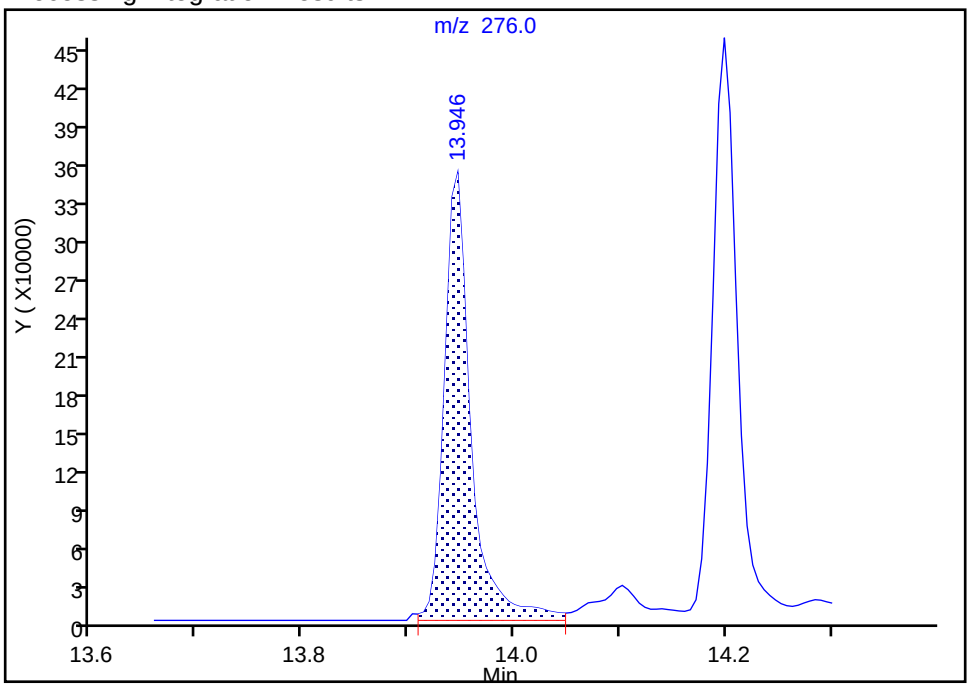
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A021.D				
Injection Date:	24-Jul-2019 19:36:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-15-A	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	KFS	ALS Bottle#:	21	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

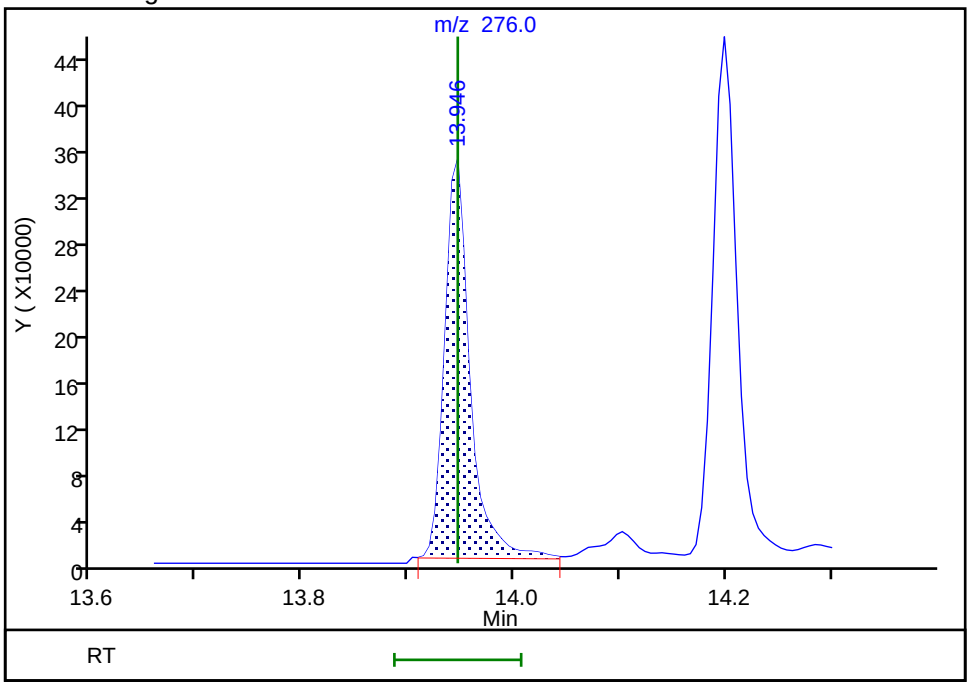
Processing Integration Results

RT: 13.95
Area: 608924
Amount: 258.4637
Amount Units: ug/L



Manual Integration Results

RT: 13.95
Area: 573776
Amount: 243.7658
Amount Units: ug/L



Reviewer: limwirojt, 25-Jul-2019 13:09:18

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 580-293966/16	013019b017.D
Level 2	STD2 580-293966/15	013019b016.D
Level 3	STD3 580-293966/14	013019b015.D
Level 4	STD4 580-293966/13	013019b014.D
Level 5	STD5 580-293966/12	013019b013.D
Level 6	STD6 580-293966/11	013019b012.D
Level 7	STD7 580-293966/10	013019b011.D
Level 8	STD8 580-293966/9	013019b010.D
Level 9	STD9IS 580-293966/8	013019b009.D
Level 10	STD10 580-293966/7	013019b008.D
Level 11	STD11 580-293966/6	013019b007.D
Level 12	STD12 580-293966/5	013019b006.D
Level 13	STD13 580-293966/4	013019b005.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Naphthalene	1.2274 1.1468 0.8754	1.1677 1.1582 +++++	1.1308 1.1132 +++++	1.2338 1.0932	1.1756 0.9684	Ave		1.1173			0.7000	9.6		15.0			
2-Methylnaphthalene	0.8064 0.7288 0.6583	0.7545 0.7461 +++++	0.7141 0.7387 +++++	0.7729 0.7449	0.7429 0.6523	Ave		0.7327			0.4000	6.2		15.0			
1-Methylnaphthalene	0.7407 0.6879 0.6108	0.6883 0.6990 +++++	0.6595 0.6901 +++++	0.7366 0.6877	0.7084 0.6160	Ave		0.6841			0.1000	6.1		15.0			
Acenaphthylene	2.3047 2.2265 1.8634	2.1589 2.2501 +++++	2.1811 2.2513 +++++	2.3066 2.2478	2.2041 1.9971	Ave		2.1811			0.9000	6.2		15.0			
Acenaphthene	1.7402 1.6311 1.3894	1.6108 1.6113 +++++	1.5848 1.5900 +++++	1.6817 1.5551	1.6677 1.3551	Ave		1.5834			0.9000	7.4		15.0			
Fluorene	1.6330 1.6413 1.4556	1.5294 1.6452 +++++	1.5162 1.6473 +++++	1.6506 1.6208	1.6532 1.4476	Ave		1.5855			0.9000	5.1		15.0			
Pentachlorophenol	+++++ 0.1283 0.2805	+++++ 0.1653 +++++	+++++ 0.2012 +++++	0.0125 0.2470	0.0696 0.2128	Qua1	-4.438	0.1974	0.0000202		0.0500	13.6			0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Phenanthrene	1.5662 1.3671 1.0421	1.4262 1.3872 +++++	1.3642 1.3461 +++++	1.4842 1.3324	1.4522 1.1655	Ave		1.3576			0.7000	10.7		15.0			
Anthracene	1.1930 1.3029 1.0903	1.1937 1.3388 +++++	1.1914 1.3124 +++++	1.3920 1.3320	1.3686 1.1681	Ave		1.2621			0.7000	7.8		15.0			
Fluoranthene	1.4736 1.2662 1.1130	1.2848 1.3150 +++++	1.2327 1.3125 +++++	1.3587 1.3314	1.3184 1.1412	Ave		1.2861			0.6000	7.7		15.0			
Pyrene	1.5460 1.2992 +++++	1.3891 1.3493 +++++	1.2772 1.3363 +++++	1.4053 1.3738	1.3676 1.2021	Ave		1.3546			0.6000	6.7		15.0			
Benzo[a]anthracene	1.3083 1.0864 1.1241	1.1168 1.1525 +++++	1.1013 1.1348 +++++	1.1609 1.1864	1.0967 1.0685	Ave		1.1397			0.8000	5.8		15.0			
Chrysene	1.6943 1.6092 1.2278	1.5366 1.5710 +++++	1.5729 1.5091 +++++	1.6689 1.4332	1.6090 1.2398	Ave		1.5156			0.7000	10.3		15.0			
Benzo[b]fluoranthene	1.2937 1.3389 1.2940	1.1119 1.3766 +++++	1.1937 1.3667 +++++	1.2704 1.3906	1.3130 1.2194	Ave		1.2881			0.7000	6.6		15.0			
Benzo[k]fluoranthene	1.6076 1.6108 1.5400	1.3765 1.7466 +++++	1.4287 1.6790 +++++	1.6109 1.6432	1.6262 1.4653	Ave		1.5759			0.7000	7.1		15.0			
Benzo[a]pyrene	1.2358 1.3945 1.3798	1.1125 1.4241 +++++	1.1721 1.4058 +++++	1.3458 1.4190	1.1831 1.2811	Ave		1.3049			0.7000	8.7		15.0			
Indeno[1,2,3-cd]pyrene	0.8897 0.9652 1.1451	0.9494 0.9927 +++++	0.8140 1.0215 +++++	1.1297 1.0949	0.9941 0.9570	Qua2	-0.115	0.9942	0.0000604		0.5000	8.7			0.9930		0.9900
Dibenz(a,h)anthracene	+++++ 1.1440 1.3202	0.8727 1.2145 +++++	0.8166 1.2413 +++++	1.2700 1.2854	1.1245 1.1800	Lin1	-1.411	1.2722			0.4000	11.5			0.9980		0.9900
Benzo[g,h,i]perylene	1.2260 1.4238 1.4748	1.1856 1.5275 +++++	1.1090 1.4597 +++++	1.4777 1.4966	1.4225 1.3314	Lin1	-0.378	1.4408			0.5000	8.3			0.9980		0.9900
2-methylnaphthalene-d10	0.6866 0.6301 +++++	0.6469 0.6408 +++++	0.6059 0.6335 +++++	0.6670 0.6341	0.6394 +++++	Ave		0.6427				3.6		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
2,4,6-Tribromophenol	+++++ 0.1733 0.2287	+++++ 0.1934 +++++	0.1262 0.2075 +++++	0.1763 0.2188	0.1558 0.2074	Qua2	-0.331	0.1936	0.0000189			7.6			0.9950		0.9900
Fluoranthene-d10 (Surr)	+++++ 1.0502 +++++	1.2084 1.0737 +++++	1.0712 1.0654 +++++	1.1852 1.0625	1.1100 +++++	Ave		1.1033				5.5		15.0			
Terphenyl-d14	+++++ 0.7403 0.7281	0.7801 0.7657 +++++	0.7256 0.7606 +++++	0.7890 0.7774	0.7770 0.7278	Ave		0.7572				3.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 580-293966/16	013019b017.D
Level 2	STD2 580-293966/15	013019b016.D
Level 3	STD3 580-293966/14	013019b015.D
Level 4	STD4 580-293966/13	013019b014.D
Level 5	STD5 580-293966/12	013019b013.D
Level 6	STD6 580-293966/11	013019b012.D
Level 7	STD7 580-293966/10	013019b011.D
Level 8	STD8 580-293966/9	013019b010.D
Level 9	STD9IS 580-293966/8	013019b009.D
Level 10	STD10 580-293966/7	013019b008.D
Level 11	STD11 580-293966/6	013019b007.D
Level 12	STD12 580-293966/5	013019b006.D
Level 13	STD13 580-293966/4	013019b005.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
Naphthalene	NPT	Ave	4580 223302 7481361	8705 455108 +++++	21343 896348 +++++	46074 2273545	89419 4321899	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
2-Methylnaphthalene	NPT	Ave	3009 141903 5625915	5625 293160 +++++	13478 594792 +++++	28865 1549342	56507 2911196	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
1-Methylnaphthalene	NPT	Ave	2764 133944 5219828	5131 274685 +++++	12448 555675 +++++	27508 1430297	53882 2748935	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Acenaphthylene	ANT	Ave	3503 182701 7080871	6681 380553 +++++	16719 779787 +++++	35998 2058077	70155 3970241	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Acenaphthene	ANT	Ave	2645 133846 5279876	4985 272503 +++++	12148 550726 +++++	26245 1423825	53080 2693937	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Fluorene	ANT	Ave	2482 134685 5531248	4733 278252 +++++	11622 570567 +++++	25759 1483968	52618 2877912	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Pentachlorophenol	ANT	Qua1	+++++ 21054 2131599	+++++ 55898 +++++	+++++ 139346 +++++	391 452355	4433 846135	+++++ 100 4000	+++++ 200 +++++	+++++ 400 +++++	20.0 1000	40.0 2000
Phenanthrene	PHN	Ave	3874 191699 6848085	7112 395246 +++++	17230 803076 +++++	37946 2081424	75505 3951479	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
Anthracene	PHN	Ave	2951 182696 7165154	5953 381432 +++++	15047 782959 +++++	35590 2080917	71159 3960359	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Fluoranthene	PHN	Ave	3645 177551 7314281	6407 374652 +++++	15569 783030 +++++	34738 2079900	68549 3869162	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Pyrene	PHN	Ave	3824 182177 +++++	6927 384434 +++++	16131 797200 +++++	35930 2146155	71104 4075476	1.00 50.0 +++++	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Benzo[a]anthracene	CRY	Ave	2423 115015 6602558	4054 256569 +++++	10242 551767 +++++	21646 1596336	42768 3198644	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Chrysene	CRY	Ave	3138 170362 7211455	5578 349718 +++++	14627 733787 +++++	31120 1928472	62746 3711656	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Benzo[b]fluoranthene	PRY	Ave	1966 129199 6742003	3681 271452 +++++	10642 593278 +++++	21836 1673084	43770 3262733	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Benzo[k]fluoranthene	PRY	Ave	2443 155439 8023682	4557 344418 +++++	12737 728847 +++++	27689 1976929	54212 3920722	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Benzo[a]pyrene	PRY	Ave	1878 134567 7188862	3683 280816 +++++	10450 610216 +++++	23133 1707195	39439 3427866	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Indeno[1,2,3-cd]pyrene	PRY	Qua2	1352 93140 5966450	3143 195752 +++++	7257 443419 +++++	19418 1317236	33140 2560730	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Dibenz(a,h)anthracene	PRY	Lin1	+++++ 110390 6878580	2889 239484 +++++	7280 538814 +++++	21829 1546543	37486 3157308	+++++ 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
Benzo[g,h,i]perylene	PRY	Lin1	1863 137398 7684235	3925 301222 +++++	9887 633644 +++++	25399 1800537	47420 3562552	1.00 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000
2-methylnaphthalene-d10	NPT	Ave	2562 122693 +++++	4823 251795 +++++	11436 510089 +++++	24910 1318728	48637 +++++	1.00 50.0 +++++	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 +++++
2,4,6-Tribromophenol	ANT	Qua2	+++++ 14220 869194	+++++ 32710 +++++	967 71868 +++++	2752 200364	4960 412379	+++++ 50.0 2000	+++++ 100 +++++	5.00 200 +++++	10.0 500	20.0 1000

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10	LVL 1 LVL 6 LVL 11	LVL 2 LVL 7 LVL 12	LVL 3 LVL 8 LVL 13	LVL 4 LVL 9	LVL 5 LVL 10
Fluoranthene-d10 (Surr)	PHN	Ave	+++++ 147268 +++++	6026 305901 +++++	13530 635604 +++++	30303 1659850	57711 +++++	+++++ 50.0 +++++	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 +++++
Terphenyl-d14	PHN	Ave	+++++ 103812 4784558	3890 218146 +++++	9165 453780 +++++	20173 1214523	40399 2467330	+++++ 50.0 2000	2.00 100 +++++	5.00 200 +++++	10.0 500	20.0 1000

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua1 = Quadratic 1/conc ISTD
Qua2 = Quadratic 1/conc^2 ISTD

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 580-293966/16	013019b017.D
Level 2	STD2 580-293966/15	013019b016.D
Level 3	STD3 580-293966/14	013019b015.D
Level 4	STD4 580-293966/13	013019b014.D
Level 5	STD5 580-293966/12	013019b013.D
Level 6	STD6 580-293966/11	013019b012.D
Level 7	STD7 580-293966/10	013019b011.D
Level 8	STD8 580-293966/9	013019b010.D
Level 9	STD9IS 580-293966/8	013019b009.D
Level 10	STD10 580-293966/7	013019b008.D
Level 11	STD11 580-293966/6	013019b007.D
Level 12	STD12 580-293966/5	013019b006.D
Level 13	STD13 580-293966/4	013019b005.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 # LVL 13 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 # LVL 11 #	LVL 6 # LVL 12 #	LVL 1 LVL 7 LVL 13	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5 LVL 11	LVL 6 LVL 12
Naphthalene	9.9 +++++					+++++	50					
2-Methylnaphthalene	10.1 +++++					+++++	50					
1-Methylnaphthalene	8.3 +++++					+++++	50					
Acenaphthylene	5.7 +++++					+++++	50					
Acenaphthene	9.9 +++++					+++++	50					
Fluorene	3.0 +++++					+++++	50					
Pentachlorophenol	+++++ +++++	+++++	+++++	18.5		+++++				50		
Phenanthrene	15.4 +++++					+++++	50					

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 # LVL 13 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 # LVL 11 #	LVL 6 # LVL 12 #	LVL 1 LVL 7 LVL 13	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5 LVL 11	LVL 6 LVL 12
Anthracene	-5.5 +++++					+++++	50					
Fluoranthene	14.6 +++++					+++++	50					
Pyrene	14.1 +++++				+++++	+++++	50					
Benzo[a]anthracene	14.8 +++++					+++++	50					
Chrysene	11.8 +++++					+++++	50					
Benzo[b]fluoranthene	0.4 +++++					+++++	50					
Benzo[k]fluoranthene	2.0 +++++					+++++	50					
Benzo[a]pyrene	-5.3 +++++					+++++	50					
Indeno[1,2,3-cd]pyrene	1.1 +++++					+++++	50					
Dibenz(a,h)anthracene	+++++ +++++	24.0				+++++		50				
Benzo[g,h,i]perylene	11.3 +++++					+++++	50					
2-methylnaphthalene-d10	6.8 +++++			+++++	+++++	+++++	50					
2,4,6-Tribromophenol	+++++ +++++	+++++	-0.7			+++++			50			

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 293966

SDG No.:

Instrument ID: TAC023 GC Column: ZB-SV ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/30/2019 18:23 Calibration End Date: 01/30/2019 23:34 Calibration ID: 27371

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 # LVL 13 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 # LVL 11 #	LVL 6 # LVL 12 #	LVL 1 LVL 7 LVL 13	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5 LVL 11	LVL 6 LVL 12
Fluoranthene-d10 (Surr)	+++++ +++++	9.5		+++++	+++++	+++++		50				
Terphenyl-d14	+++++ +++++	3.0				+++++		50				

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b005.D
Lims ID: std13
Client ID:
Sample Type: IC Calib Level: 13
Inject. Date: 30-Jan-2019 18:23:30 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 13
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:05:20 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:19:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	89	454817	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	96	211195	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	360021	100.0	100.0	
* 4 Chrysene-d12	240	11.795	11.784	0.011	28	325304	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	315316	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.580	7.580	0.000	73	9898937	10000	3386.4	e
$ 7 2,4,6-Tribromophenol	330	9.111	9.105	0.006	83	4582486	10000	6758.7	
$ 8 Fluoranthene-d10 (Surr)	212	10.632	10.616	0.016	94	13211163	10000	3325.9	e
$ 9 Terphenyl-d14	244	10.977	10.972	0.005	90	11480109	10000	4211.5	e
10 Naphthalene	128	6.999	6.988	0.011	99	11896277	10000	2341.0	e
11 2-Methylnaphthalene	142	7.613	7.608	0.005	98	9819987	10000	2946.7	e
12 1-Methylnaphthalene	142	7.695	7.684	0.011	94	10491661	10000	3372.1	e
13 Acenaphthylene	152	8.343	8.338	0.005	54	10764077	10000	2336.8	e
14 Acenaphthene	153	8.498	8.486	0.012	89	10920293	10000	3265.6	e
15 Fluorene	166	8.915	8.910	0.005	88	10331727	10000	3085.6	e
16 Pentachlorophenol	266	9.532	9.527	0.006	75	8530012	20000	10087	e
17 Phenanthrene	178	9.684	9.673	0.011	91	11620656	10000	2377.6	e
18 Anthracene	178	9.726	9.715	0.011	96	12017222	10000	2644.7	e
19 Fluoranthene	202	10.637	10.632	0.005	63	11473011	10000	2477.8	e
20 Pyrene	202	10.815	10.804	0.011	71	12341145	10000	2530.6	e
21 Benzo[a]anthracene	228	11.773	11.778	-0.005	88	12344990	10000	3329.8	eM
22 Chrysene	228	11.805	11.805	0.000	0	12811624	10000	2598.5	eM
23 Benzo[b]fluoranthene	252	12.714	12.670	0.044	95	31204071	10000	7682.9	ea
24 Benzo[k]fluoranthene	252	12.714	12.692	0.022	91	31204508	10000	6279.8	e
25 Benzo[a]pyrene	252	12.980	12.964	0.016	82	18404383	10000	4473.1	e
26 Indeno[1,2,3-cd]pyrene	276	14.130	14.103	0.027	88	23026809	10000	5504.2	e
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	21848243	10000	5447.5	eM
28 Benzo[g,h,i]perylene	276	14.414	14.382	0.032	93	24387639	10000	5368.4	e

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_10k_00021 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:05:22 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b005.D

Injection Date: 30-Jan-2019 18:23:30 Instrument ID: TAC023

Lims ID: std13

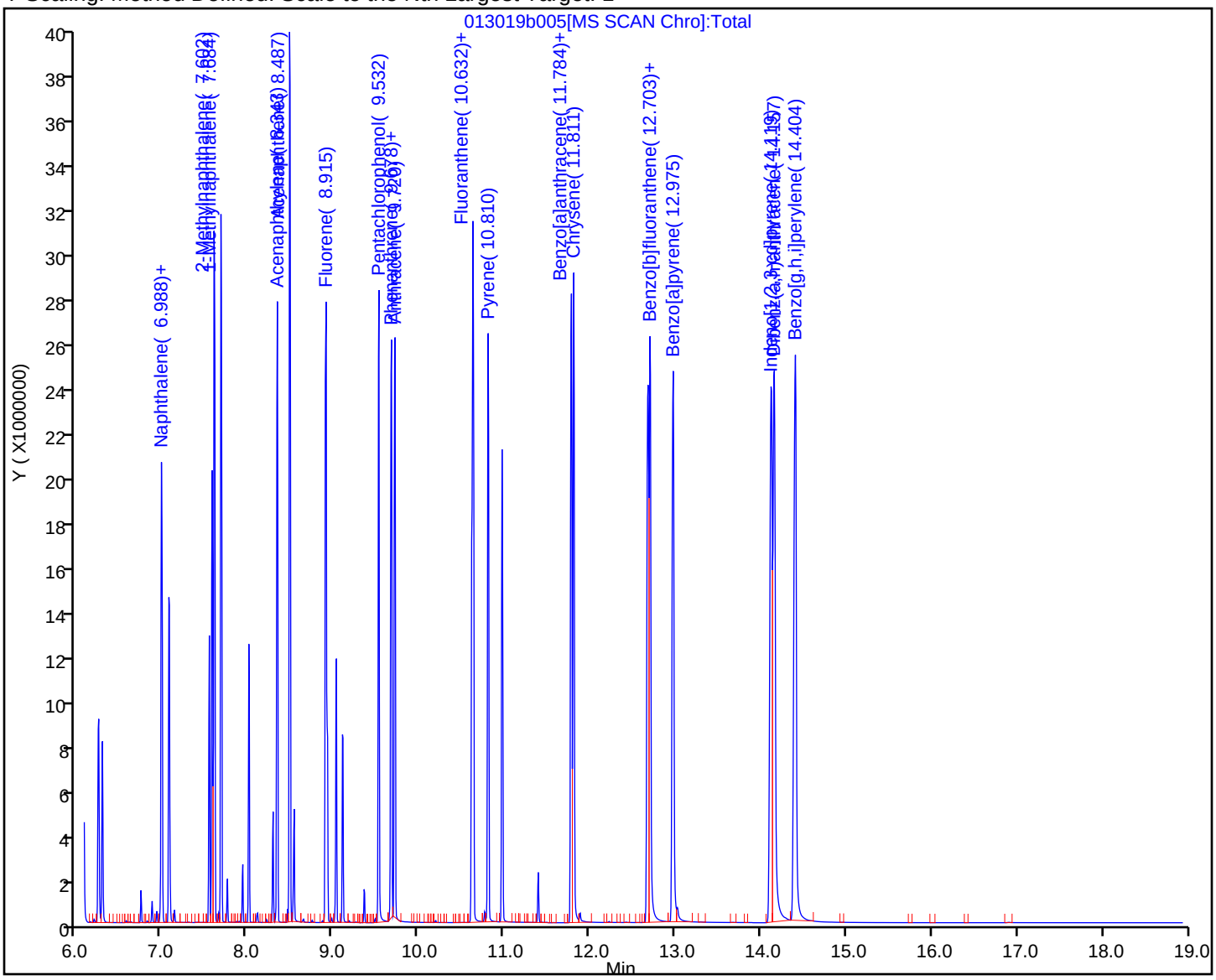
Client ID:

Operator ID: adb ALS Bottle#: 3 Worklist Smp#: 4

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

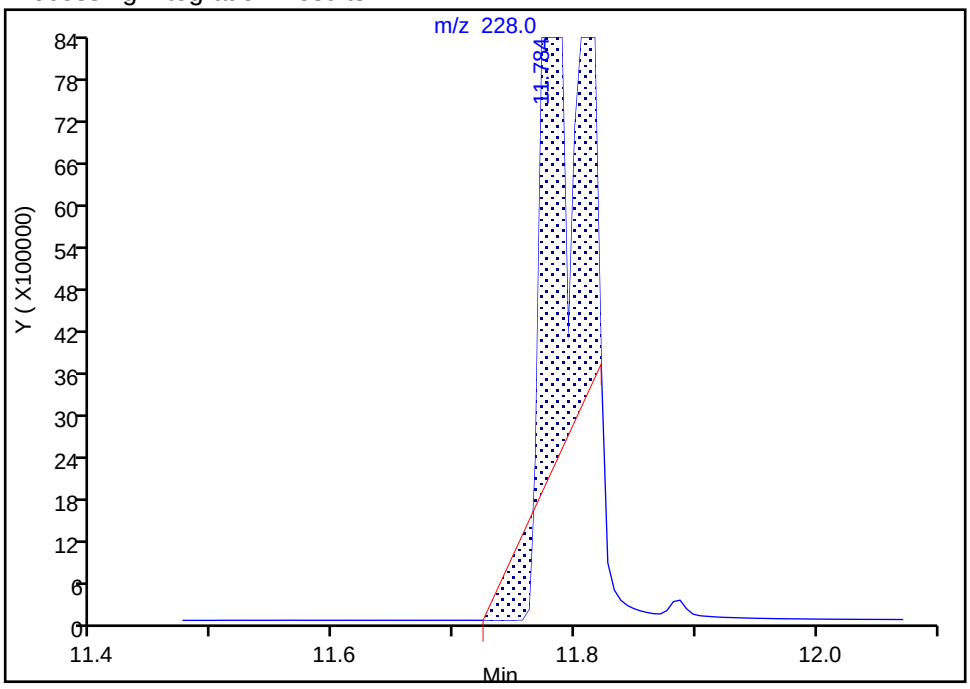
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b005.D
Injection Date: 30-Jan-2019 18:23:30 Instrument ID: TAC023
Lims ID: std13
Client ID:
Operator ID: adb ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

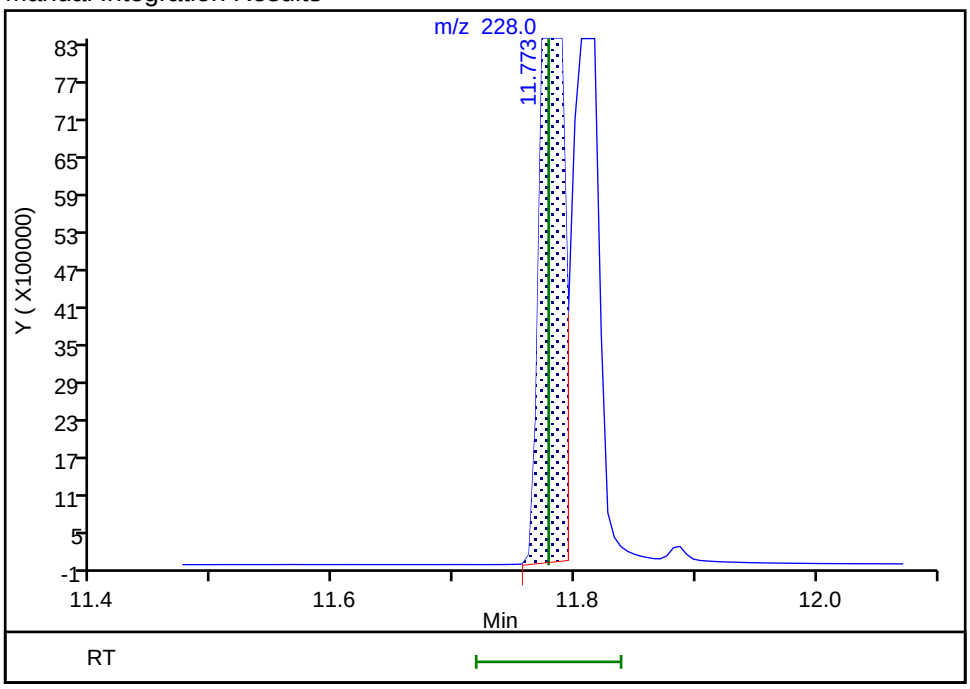
Processing Integration Results

RT: 11.78
Area: 13352369
Amount: 3340.4536
Amount Units: ug/L



Manual Integration Results

RT: 11.77
Area: 12344990
Amount: 3329.7600
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:04:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Seattle

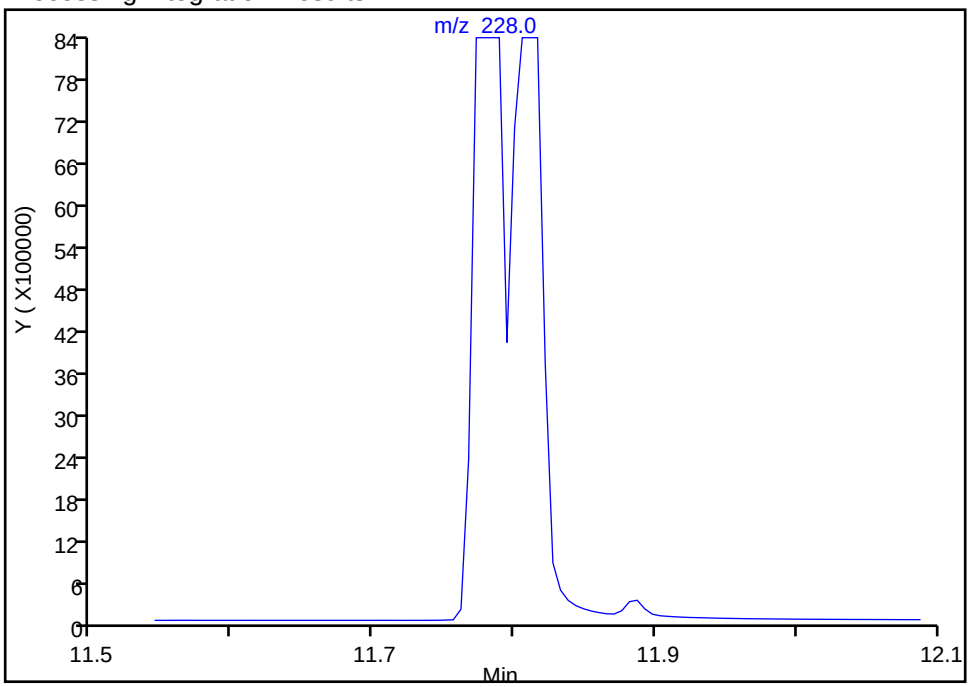
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b005.D				
Injection Date:	30-Jan-2019 18:23:30	Instrument ID:	TAC023		
Lims ID:	std13				
Client ID:					
Operator ID:	adb	ALS Bottle#:	3	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

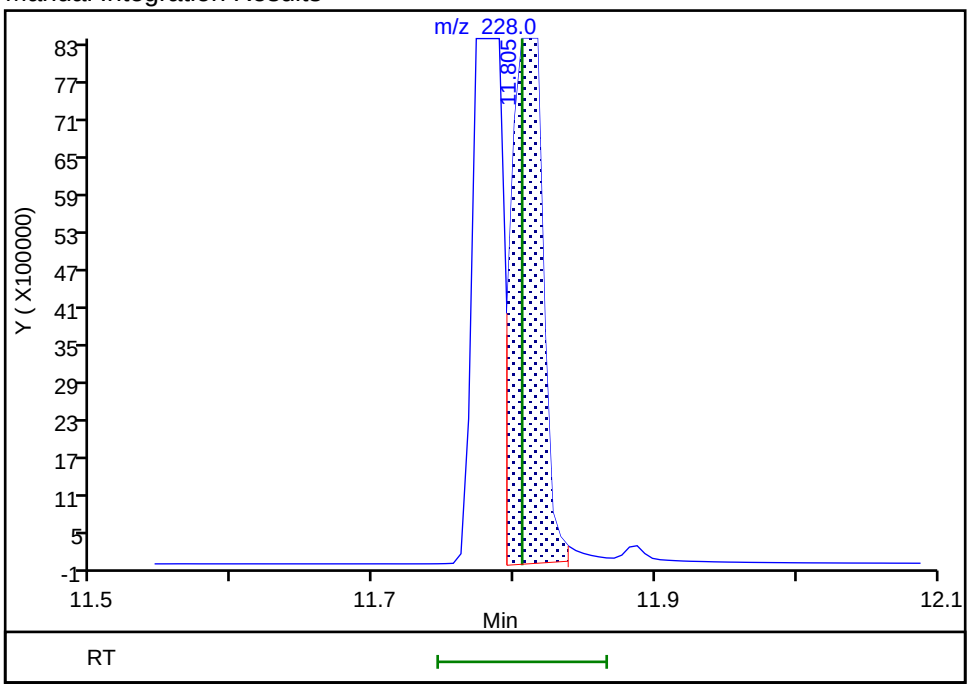
Not Detected
Expected RT: 11.81

Processing Integration Results



Manual Integration Results

RT: 11.81
Area: 12811624
Amount: 2598.5019
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:04:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Seattle

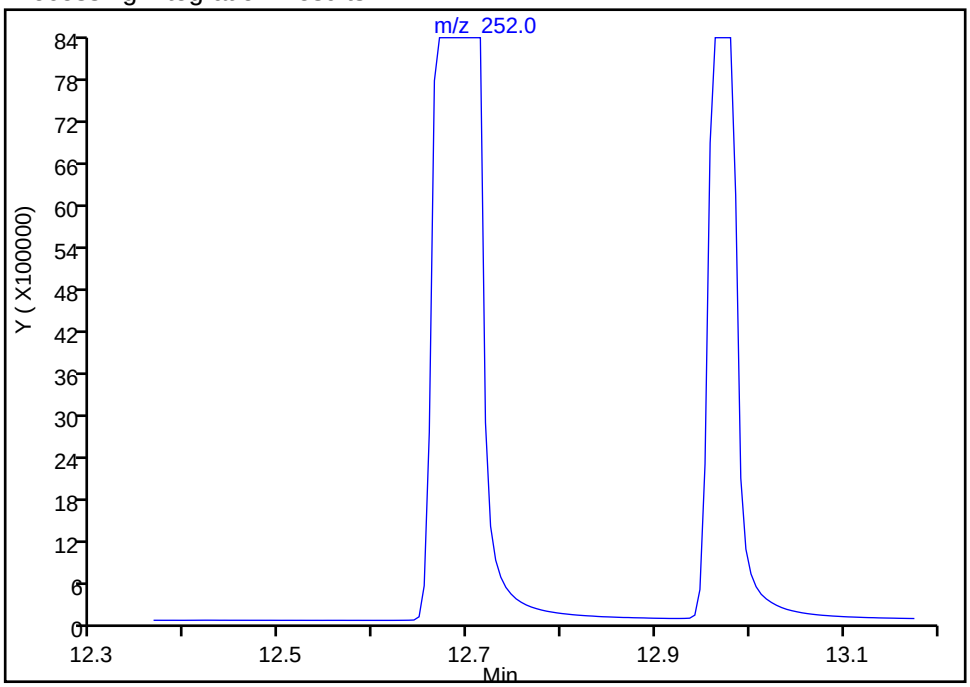
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b005.D
Injection Date: 30-Jan-2019 18:23:30 Instrument ID: TAC023
Lims ID: std13
Client ID:
Operator ID: adb ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

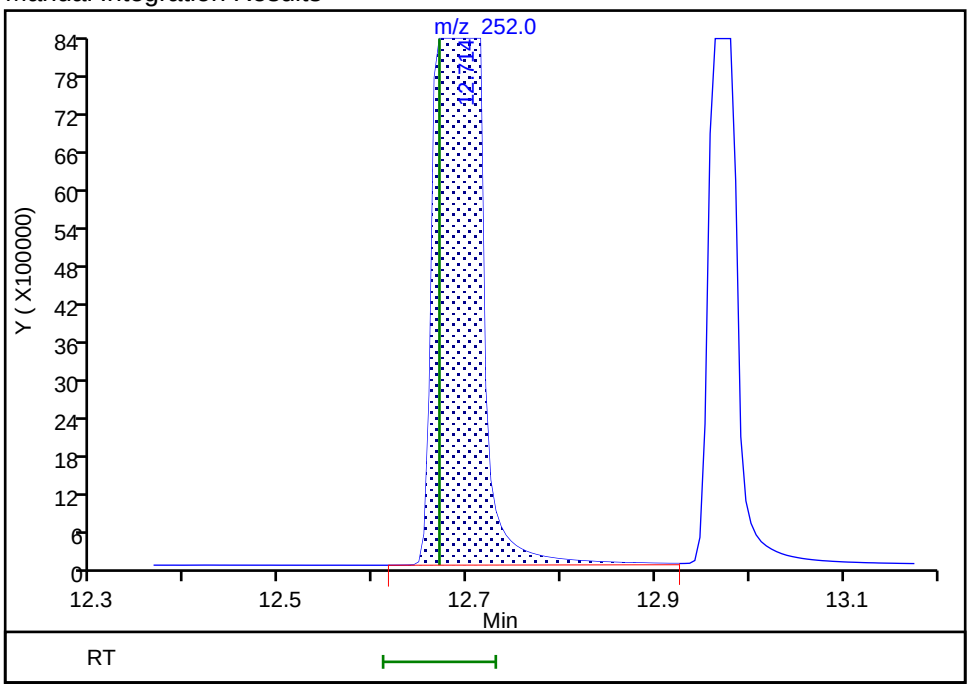
Not Detected
Expected RT: 12.67

Processing Integration Results



Manual Integration Results

RT: 12.71
Area: 31204071
Amount: 7682.8566
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:04:35
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Seattle

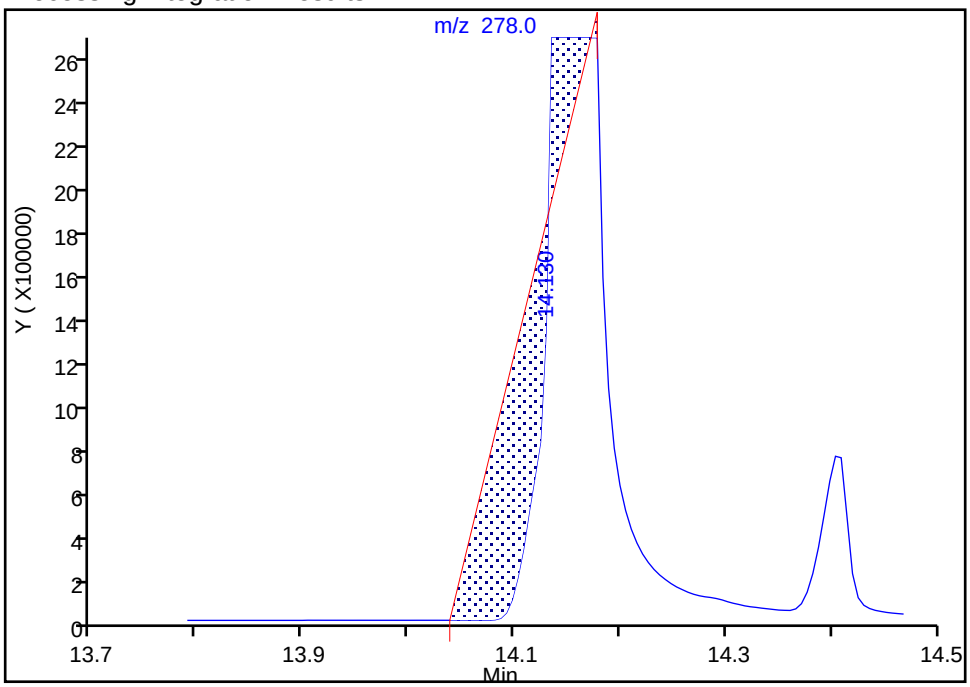
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b005.D
Injection Date: 30-Jan-2019 18:23:30 Instrument ID: TAC023
Lims ID: std13
Client ID:
Operator ID: adb ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

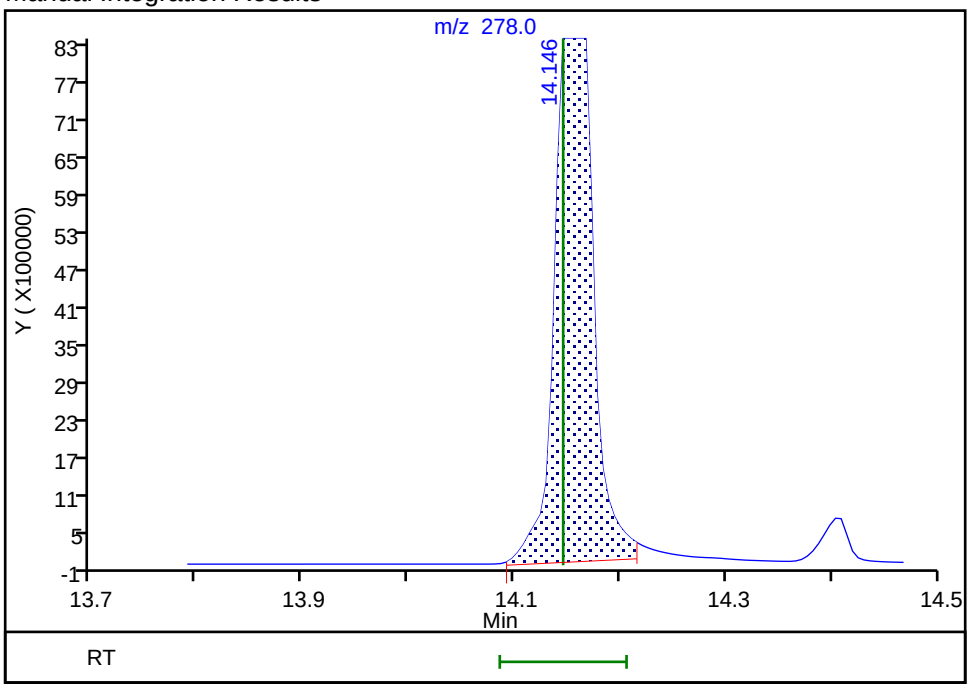
Processing Integration Results

RT: 14.13
Area: 8687248
Amount: 2152.0893
Amount Units: ug/L



Manual Integration Results

RT: 14.15
Area: 21848243
Amount: 5447.4602
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:04:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Report Date: 05-Feb-2019 13:05:27 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b006.D
Lims ID: std12
Client ID:
Sample Type: IC Calib Level: 12
Inject. Date: 30-Jan-2019 18:49:30 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 12
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:05:25 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:20:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	449618	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	98	200417	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	350240	100.0	100.0	
* 4 Chrysene-d12	240	11.789	11.784	0.005	29	315983	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	283826	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.586	7.580	0.006	100	8299154	5000.0	2872.0	e
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	95	2245066	5000.0	4127.6	
$ 8 Fluoranthene-d10 (Surr)	212	10.626	10.616	0.010	96	10164666	5000.0	2630.4	e
$ 9 Terphenyl-d14	244	10.977	10.972	0.005	98	8719222	5000.0	3288.0	e
10 Naphthalene	128	6.993	6.988	0.005	95	10521911	5000.0	2094.5	e
11 2-Methylnaphthalene	142	7.608	7.608	0.000	93	8935792	5000.0	2712.4	e
12 1-Methylnaphthalene	142	7.689	7.684	0.005	92	8177804	5000.0	2658.8	e
13 Acenaphthylene	152	8.343	8.338	0.005	78	9266783	5000.0	2120.0	e
14 Acenaphthene	153	8.492	8.486	0.006	93	8408295	5000.0	2649.7	e
15 Fluorene	166	8.910	8.910	0.000	92	8909326	5000.0	2803.9	e
16 Pentachlorophenol	266	9.527	9.527	0.000	97	5537583	10000	7801.6	
17 Phenanthrene	178	9.678	9.673	0.005	86	9694212	5000.0	2038.8	e
18 Anthracene	178	9.720	9.715	0.005	91	9834933	5000.0	2224.9	e
19 Fluoranthene	202	10.637	10.632	0.005	73	9918962	5000.0	2202.0	e
20 Pyrene	202	10.815	10.804	0.011	96	10375458	5000.0	2187.0	e
21 Benzo[a]anthracene	228	11.784	11.778	0.006	87	10654501	5000.0	2958.6	e
22 Chrysene	228	11.811	11.805	0.006	70	10532986	5000.0	2199.4	e
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	89	13115272	5000.0	3587.4	eM
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	9	11761963	5000.0	2629.7	eMa
25 Benzo[a]pyrene	252	12.974	12.964	0.010	96	14051410	5000.0	3794.0	e
26 Indeno[1,2,3-cd]pyrene	276	14.114	14.103	0.011	96	15370909	5000.0	4315.5	e
27 Dibenz(a,h)anthracene	278	14.151	14.146	0.005	100	16190534	5000.0	4484.9	eM
28 Benzo[g,h,i]perylene	276	14.398	14.382	0.016	96	17315658	5000.0	4234.6	e

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_5k_00031 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:05:27 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b006.D

Injection Date: 30-Jan-2019 18:49:30 Instrument ID: TAC023

Lims ID: std12

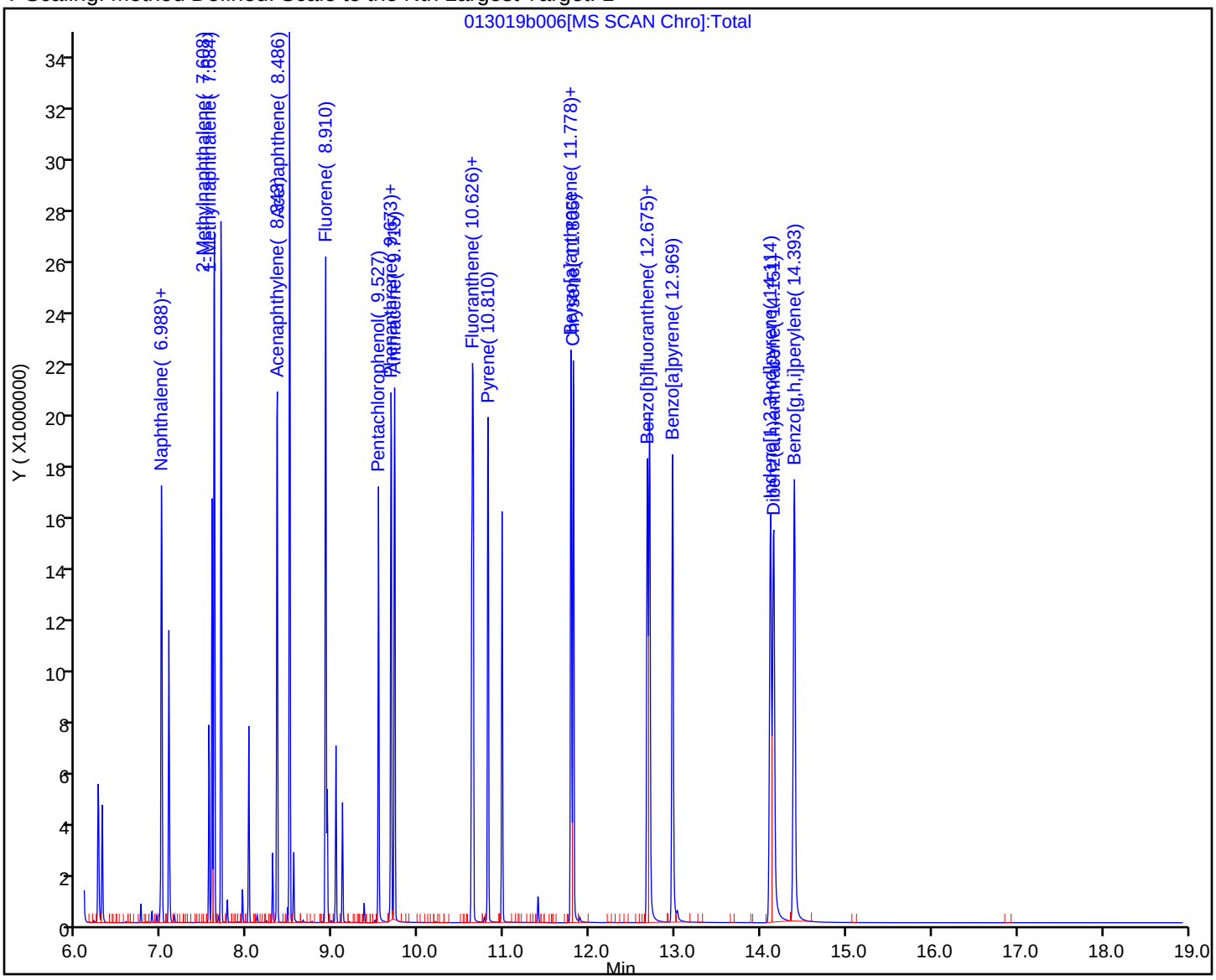
Client ID:

Operator ID: adb ALS Bottle#: 4 Worklist Smp#: 5

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

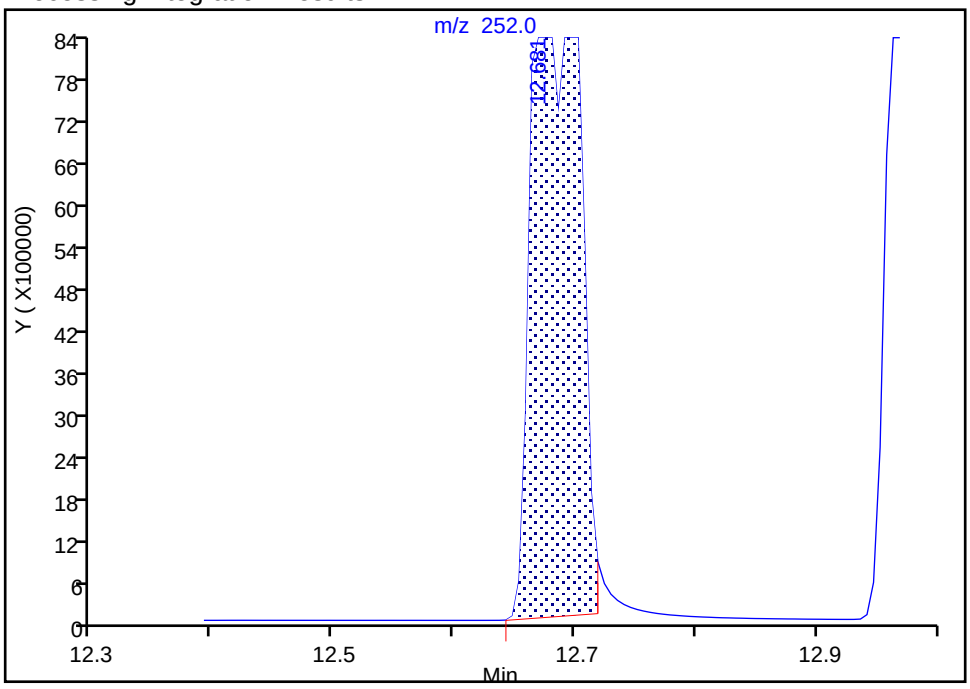
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b006.D
Injection Date: 30-Jan-2019 18:49:30 Instrument ID: TAC023
Lims ID: std12
Client ID:
Operator ID: adb ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

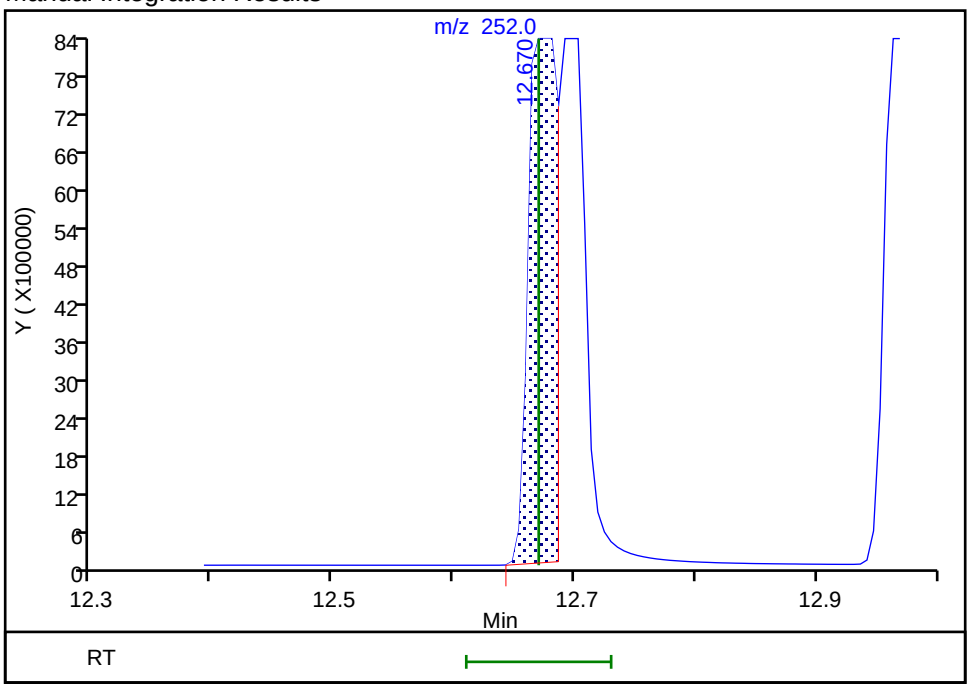
Processing Integration Results

RT: 12.68
Area: 24881113
Amount: 6805.7361
Amount Units: ug/L



Manual Integration Results

RT: 12.67
Area: 13115272
Amount: 3587.4231
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:05:29
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

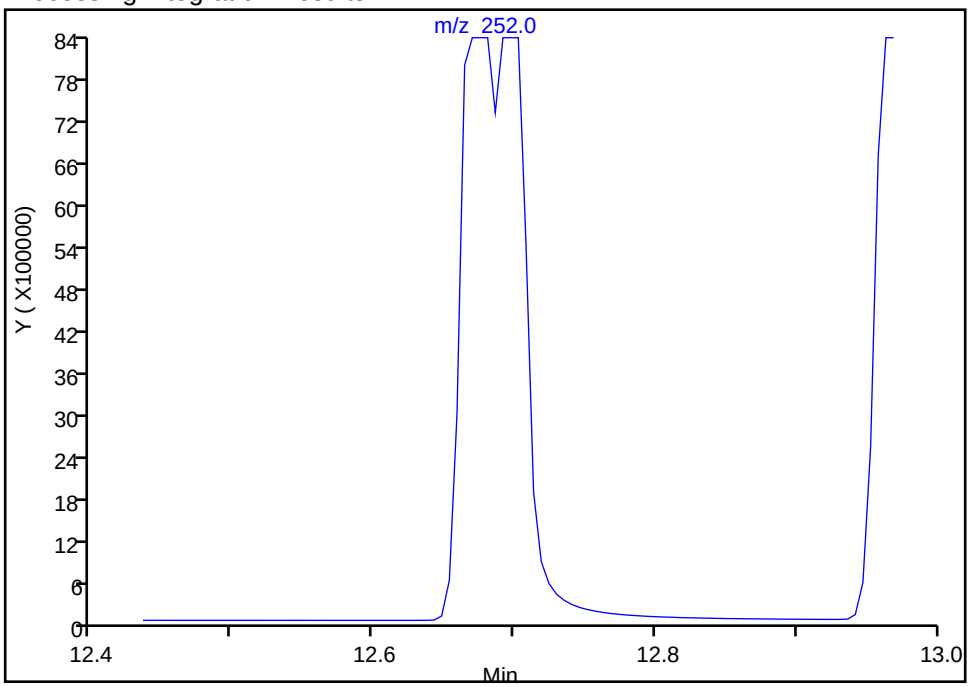
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b006.D				
Injection Date:	30-Jan-2019 18:49:30	Instrument ID:	TAC023		
Lims ID:	std12				
Client ID:					
Operator ID:	adb	ALS Bottle#:	4	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

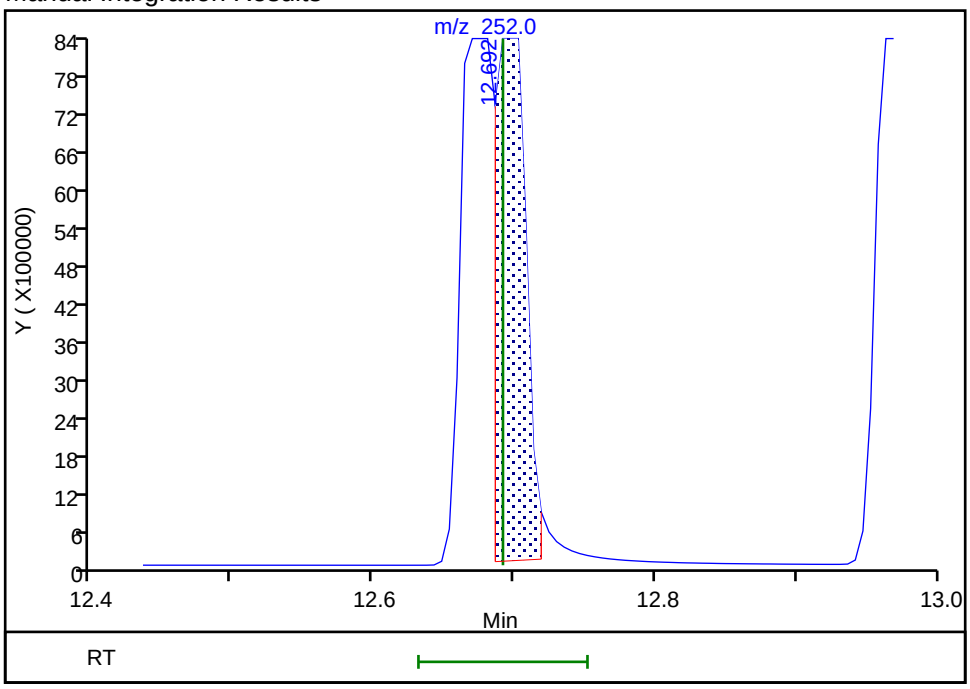
Not Detected
Expected RT: 12.69

Processing Integration Results



Manual Integration Results

RT: 12.69
Area: 11761963
Amount: 2629.6688
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:05:25
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Report Date: 05-Feb-2019 13:05:27 Chrom Revision: 2.3 an-2019 08:51:34

Manual Integration/User Ass ak Report

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702. 19b006.D

Injection Date: 30-Jan-2019 18:49:30 Instrument ID: 23

Lims ID: std12

Client ID:

Operator ID: adb ALS Bottle#: Worklist Smp#: 5

Injection Vol: 1.0 ul Dil. Factor: 0

Method: TAC23_PAH_SIM Limit Group: SIM

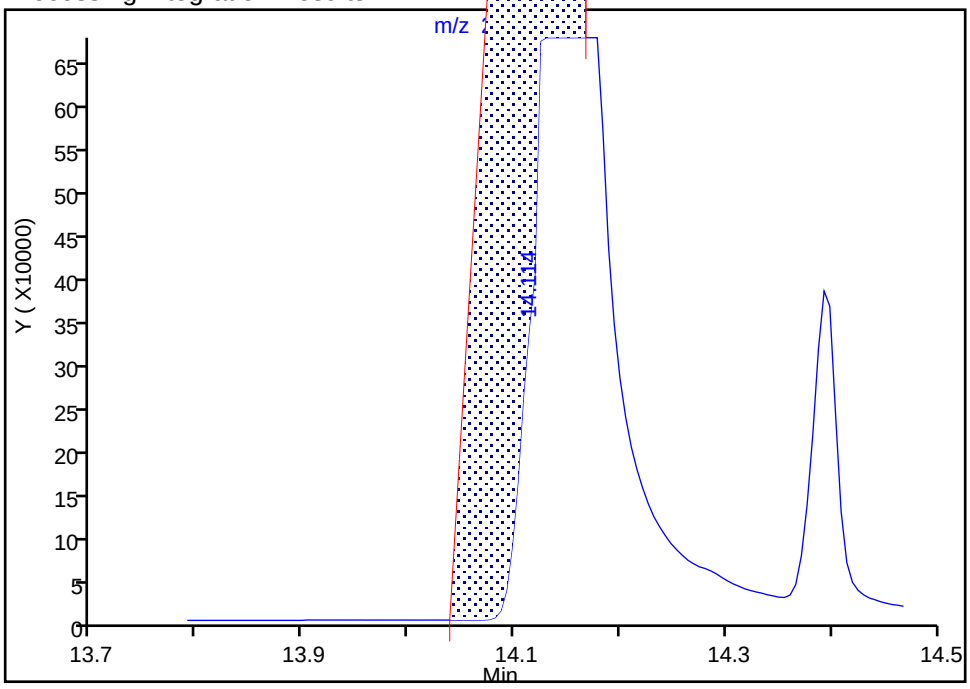
Column: Detector CAN

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

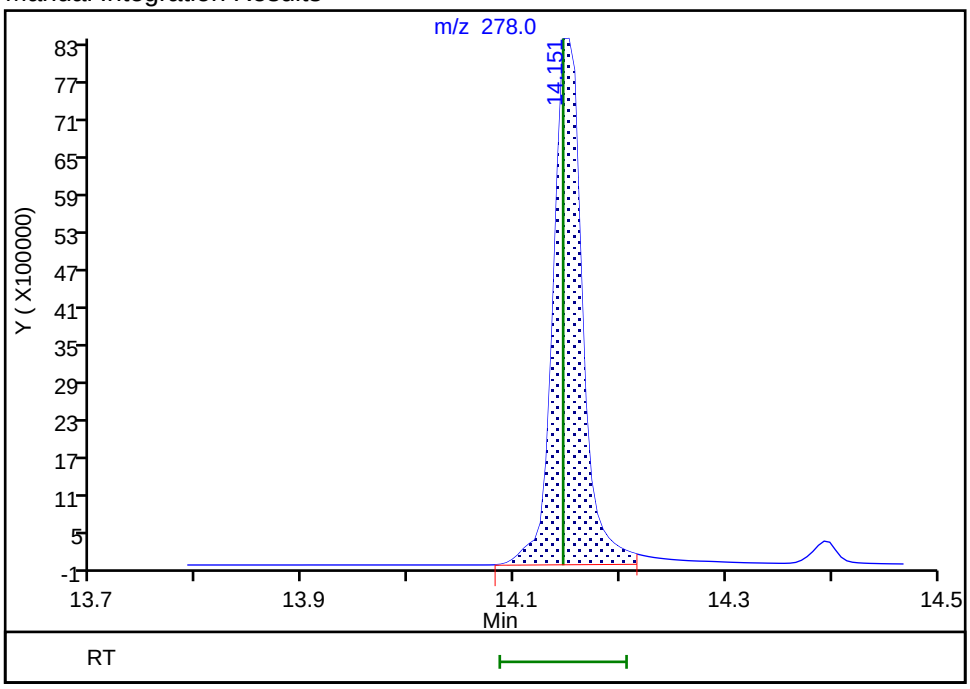
Processing Integration Results

RT: 14.11
Area: 4310220
Amount: 1189.6832
Amount Units: ug/L



Manual Integration Results

RT: 14.15
Area: 16190534
Amount: 4484.8872
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:05:10

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Report Date: 05-Feb-2019 13:05:33 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b007.D
Lims ID: std11
Client ID:
Sample Type: IC Calib Level: 11
Inject. Date: 30-Jan-2019 19:15:30 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 11
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:05:31 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:22:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	427293	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	98	190001	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	328587	100.0	100.0	
* 4 Chrysene-d12	240	11.789	11.784	0.005	41	293675	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	260511	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.580	7.580	0.000	97	4963124	2000.0	1807.3	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	98	869194	2000.0	1981.7	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	100	6538384	2000.0	1803.5	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	100	4784558	2000.0	1923.1	
10 Naphthalene	128	6.988	6.988	0.000	98	7481361	2000.0	1567.1	e
11 2-Methylnaphthalene	142	7.608	7.608	0.000	93	5625915	2000.0	1796.9	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	91	5219828	2000.0	1785.7	
13 Acenaphthylene	152	8.338	8.338	0.000	96	7080871	2000.0	1708.7	e
14 Acenaphthene	153	8.486	8.486	0.000	99	5279876	2000.0	1755.0	
15 Fluorene	166	8.910	8.910	0.000	99	5531248	2000.0	1836.2	
16 Pentachlorophenol	266	9.526	9.527	0.000	98	2131599	4000.0	4039.3	
17 Phenanthrene	178	9.673	9.673	0.000	96	6848085	2000.0	1535.2	e
18 Anthracene	178	9.715	9.715	0.000	97	7165154	2000.0	1727.7	e
19 Fluoranthene	202	10.632	10.632	0.000	97	7314281	2000.0	1730.8	e
20 Pyrene	202	10.804	10.804	0.000	98	7507579	2000.0	1686.7	e
21 Benzo[a]anthracene	228	11.778	11.778	0.000	97	6602558	2000.0	1972.7	
22 Chrysene	228	11.805	11.805	0.000	95	7211455	2000.0	1620.2	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	99	6742003	2000.0	2009.2	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	98	8023682	2000.0	1954.4	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	7188862	2000.0	2114.8	
26 Indeno[1,2,3-cd]pyrene	276	14.108	14.103	0.005	99	5966450	2000.0	2048.7	
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	6878580	2000.0	2076.5	
28 Benzo[g,h,i]perylene	276	14.388	14.382	0.006	97	7684235	2000.0	2047.5	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Reagents:

IC_8270IS_2k_00031 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:05:33 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b007.D

Injection Date: 30-Jan-2019 19:15:30 Instrument ID: TAC023

Lims ID: std11

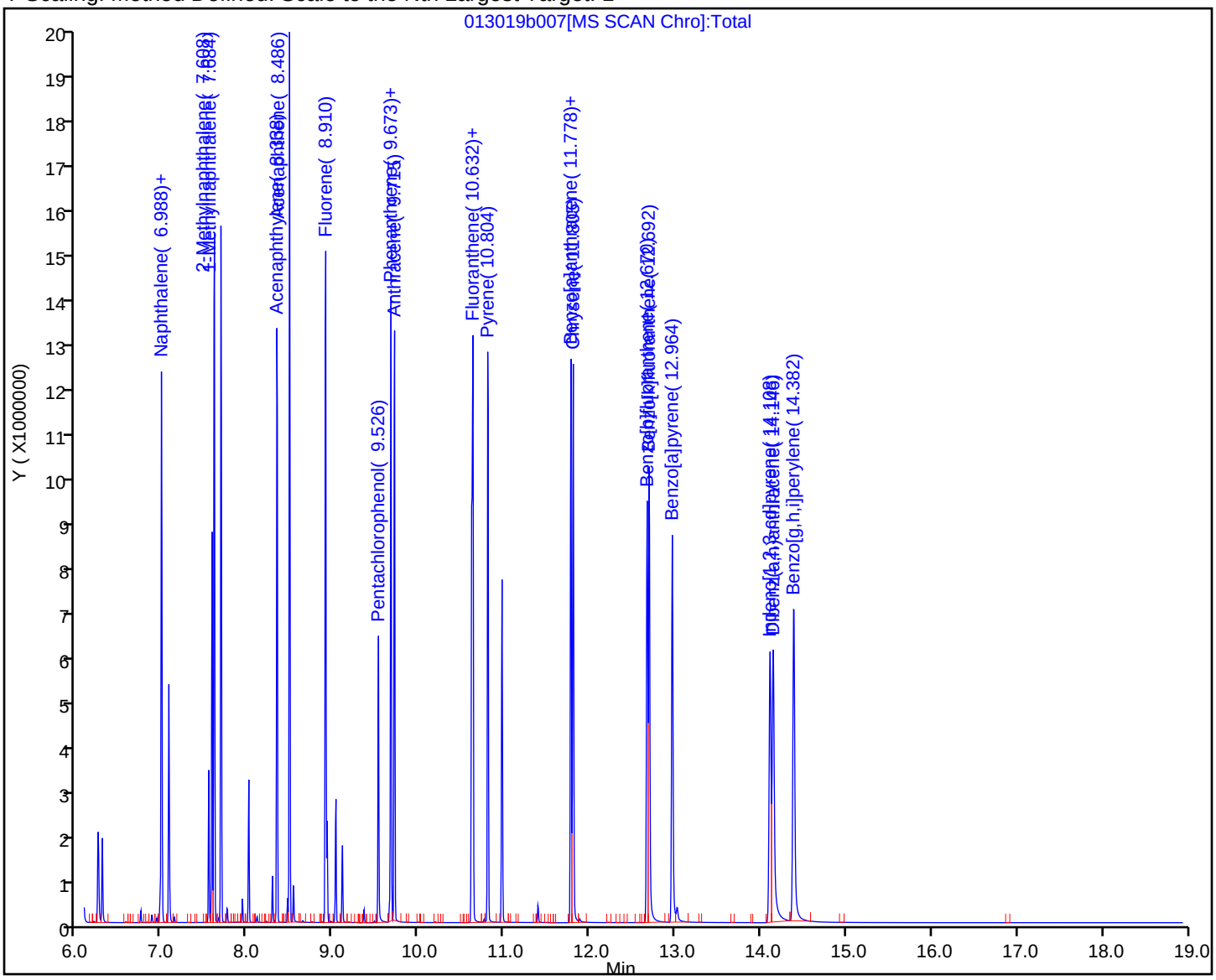
Client ID:

Operator ID: adb ALS Bottle#: 5 Worklist Smp#: 6

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b008.D
Lims ID: std10
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 30-Jan-2019 19:41:30 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 10
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:05:38 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:23:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	446271	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	99	198805	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	339034	100.0	100.0	
* 4 Chrysene-d12	240	11.789	11.784	0.005	59	299364	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	267571	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.580	7.580	0.000	97	773468	1000.0	269.7	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	99	412379	1000.0	979.5	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	965778	1000.0	258.2	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	2467330	1000.0	961.2	
10 Naphthalene	128	6.988	6.988	0.000	100	4321899	1000.0	866.8	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	91	2911196	1000.0	890.3	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	93	2748935	1000.0	900.4	
13 Acenaphthylene	152	8.338	8.338	0.000	99	3970241	1000.0	915.6	
14 Acenaphthene	153	8.486	8.486	0.000	100	2693937	1000.0	855.8	
15 Fluorene	166	8.910	8.910	0.000	98	2877912	1000.0	913.1	
16 Pentachlorophenol	266	9.526	9.527	0.000	97	846135	2000.0	1834.9	
17 Phenanthrene	178	9.673	9.673	0.000	100	3951479	1000.0	858.5	
18 Anthracene	178	9.715	9.715	0.000	99	3960359	1000.0	925.5	
19 Fluoranthene	202	10.632	10.632	0.000	99	3869162	1000.0	887.3	
20 Pyrene	202	10.804	10.804	0.000	100	4075476	1000.0	887.4	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	99	3198644	1000.0	937.5	
22 Chrysene	228	11.805	11.805	0.000	98	3711656	1000.0	818.0	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	99	3262733	1000.0	946.7	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	100	3920722	1000.0	929.8	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	3427866	1000.0	981.8	
26 Indeno[1,2,3-cd]pyrene	276	14.108	14.103	0.005	98	2560730	1000.0	912.2	
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	3157308	1000.0	928.6	
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	3562552	1000.0	924.4	

Reagents:

ccv_8270_1000_00034 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:05:40 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b008.D

Injection Date: 30-Jan-2019 19:41:30 Instrument ID: TAC023

Lims ID: std10

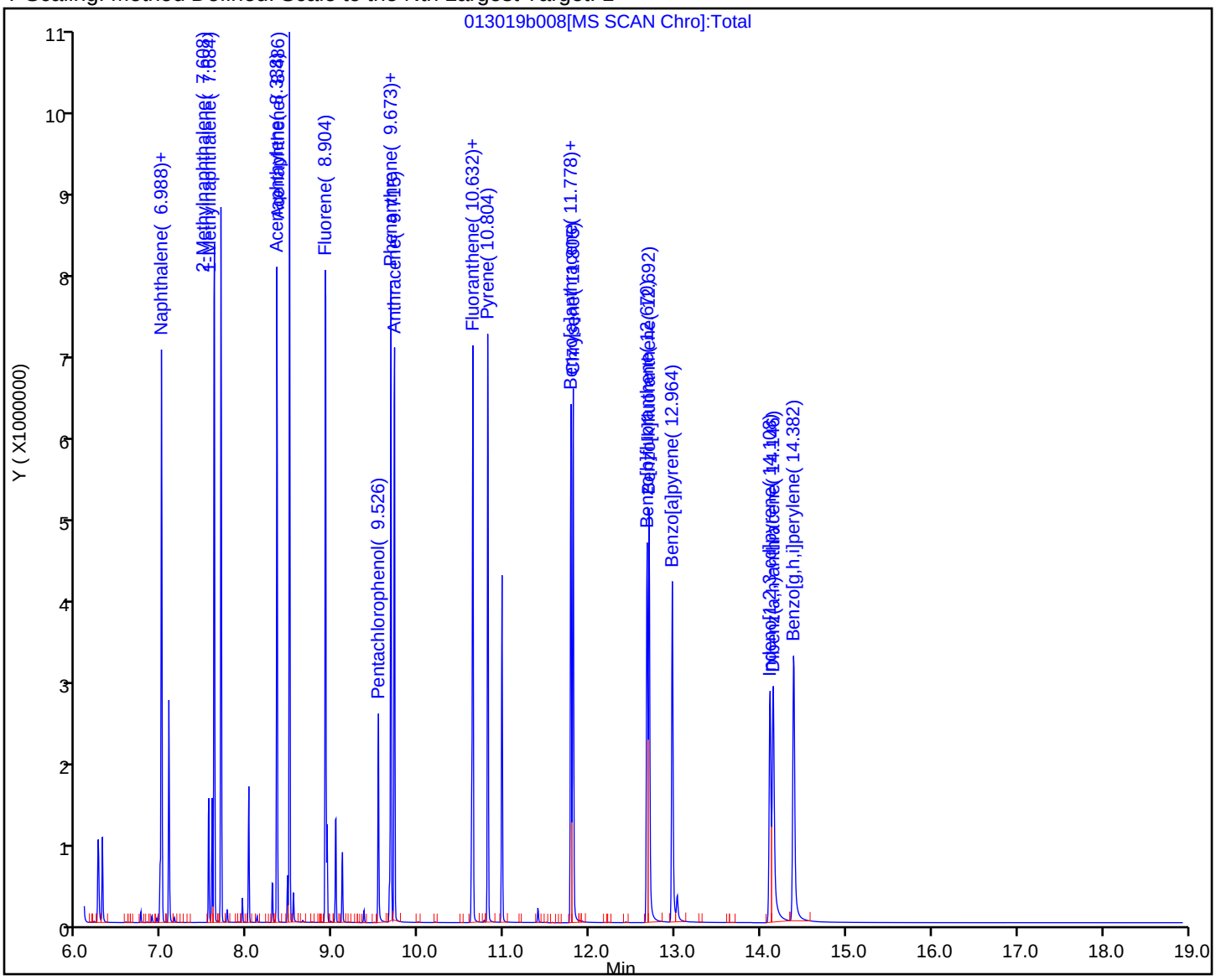
Client ID:

Operator ID: adb ALS Bottle#: 6 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b009.D
Lims ID: std9is
Client ID:
Sample Type: ICIS Calib Level: 9
Inject. Date: 30-Jan-2019 20:07:30 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 9is
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:05:43 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:23:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	415959	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	100	183117	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	312444	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	45	269112	100.0	100.0	
* 5 Perylene-d12	264	13.018	13.018	0.000	100	240624	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.580	7.580	0.000	98	1318728	500.0	493.3	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	99	200364	500.0	538.5	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	1659850	500.0	481.5	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	1214523	500.0	513.4	
10 Naphthalene	128	6.988	6.988	0.000	100	2273545	500.0	489.2	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	91	1549342	500.0	508.3	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	93	1430297	500.0	502.6	
13 Acenaphthylene	152	8.338	8.338	0.000	99	2058077	500.0	515.3	
14 Acenaphthene	153	8.486	8.486	0.000	100	1423825	500.0	491.1	
15 Fluorene	166	8.910	8.910	0.000	97	1483968	500.0	511.1	
16 Pentachlorophenol	266	9.527	9.527	0.000	98	452355	1000.0	1141.1	
17 Phenanthrene	178	9.673	9.673	0.000	100	2081424	500.0	490.7	
18 Anthracene	178	9.715	9.715	0.000	99	2080917	500.0	527.7	
19 Fluoranthene	202	10.632	10.632	0.000	99	2079900	500.0	517.6	
20 Pyrene	202	10.804	10.804	0.000	100	2146155	500.0	507.1	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	100	1596336	500.0	520.5	
22 Chrysene	228	11.805	11.805	0.000	100	1928472	500.0	472.8	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	99	1673084	500.0	539.8	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	99	1976929	500.0	521.3	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	1707195	500.0	543.7	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	99	1317236	500.0	533.4	
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	1546543	500.0	506.3	
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	1800537	500.0	519.6	

Reagents:

IC_8270IS_500_00034 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:05:48 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b009.D

Injection Date: 30-Jan-2019 20:07:30 Instrument ID: TAC023

Lims ID: std9is

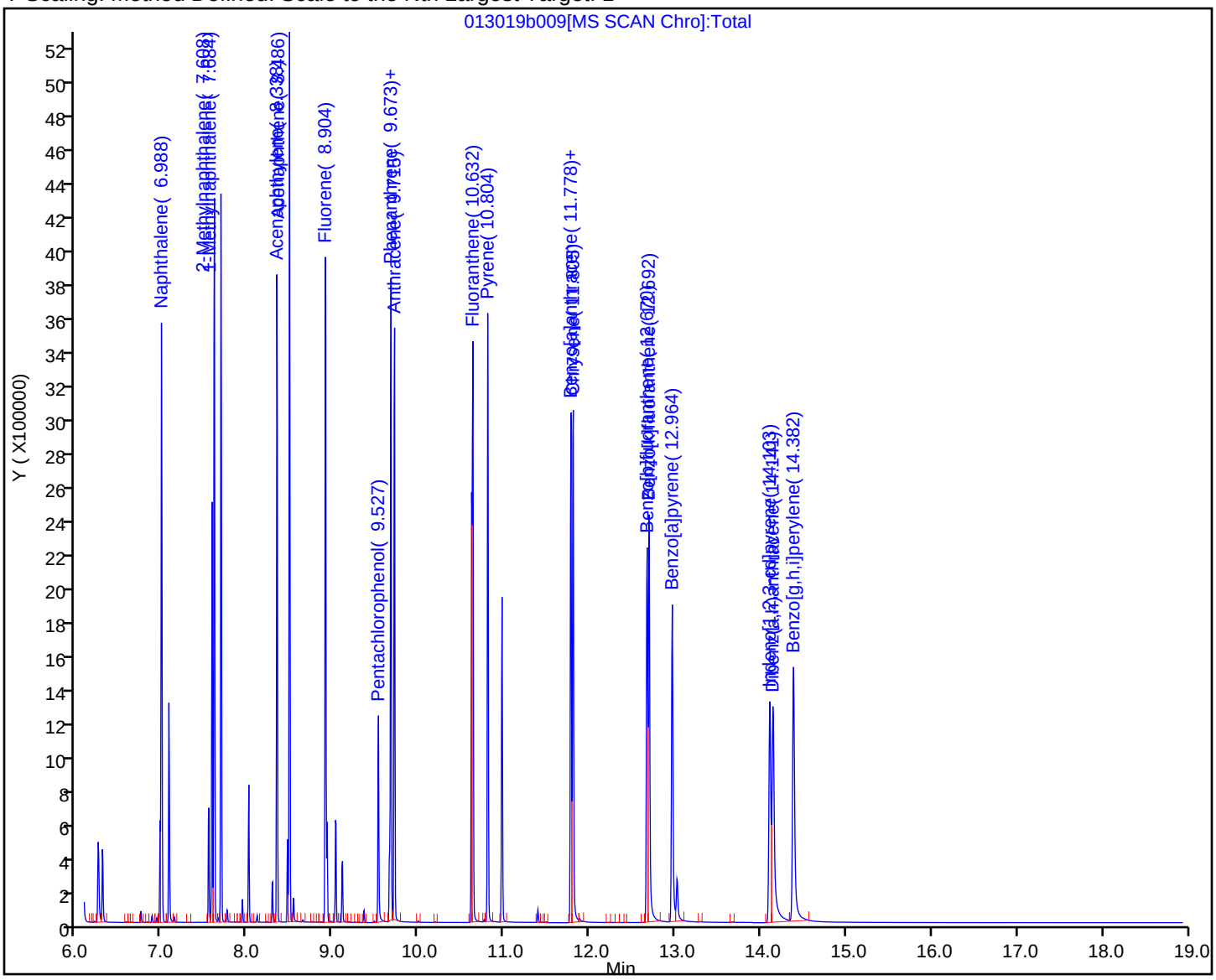
Client ID:

Operator ID: adb ALS Bottle#: 7 Worklist Smp#: 8

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b010.D
Lims ID: std8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 30-Jan-2019 20:33:30 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 8
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:05:52 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:24:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	402617	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	100	173186	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	298292	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	70	243117	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	217042	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.580	7.580	0.000	97	510089	200.0	197.1	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	98	71868	200.0	211.6	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	635604	200.0	193.1	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	453780	200.0	200.9	
10 Naphthalene	128	6.988	6.988	0.000	100	896348	200.0	199.3	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	92	594792	200.0	201.6	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	92	555675	200.0	201.8	
13 Acenaphthylene	152	8.338	8.338	0.000	99	779787	200.0	206.4	
14 Acenaphthene	153	8.486	8.486	0.000	99	550726	200.0	200.8	
15 Fluorene	166	8.910	8.910	0.000	98	570567	200.0	207.8	
16 Pentachlorophenol	266	9.526	9.527	0.000	98	139346	400.0	412.8	
17 Phenanthrene	178	9.673	9.673	0.000	100	803076	200.0	198.3	
18 Anthracene	178	9.715	9.715	0.000	99	782959	200.0	208.0	
19 Fluoranthene	202	10.632	10.632	0.000	99	783030	200.0	204.1	
20 Pyrene	202	10.804	10.804	0.000	100	797200	200.0	197.3	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	99	551767	200.0	199.1	
22 Chrysene	228	11.805	11.805	0.000	100	733787	200.0	199.1	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	99	593278	200.0	212.2	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	99	728847	200.0	213.1	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	610216	200.0	215.5	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	99	443419	200.0	203.1	
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	538814	200.0	196.2	
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	633644	200.0	202.9	

Reagents:

IC_8270IS_200_00031 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:05:56 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b010.D

Injection Date: 30-Jan-2019 20:33:30 Instrument ID: TAC023

Lims ID: std8

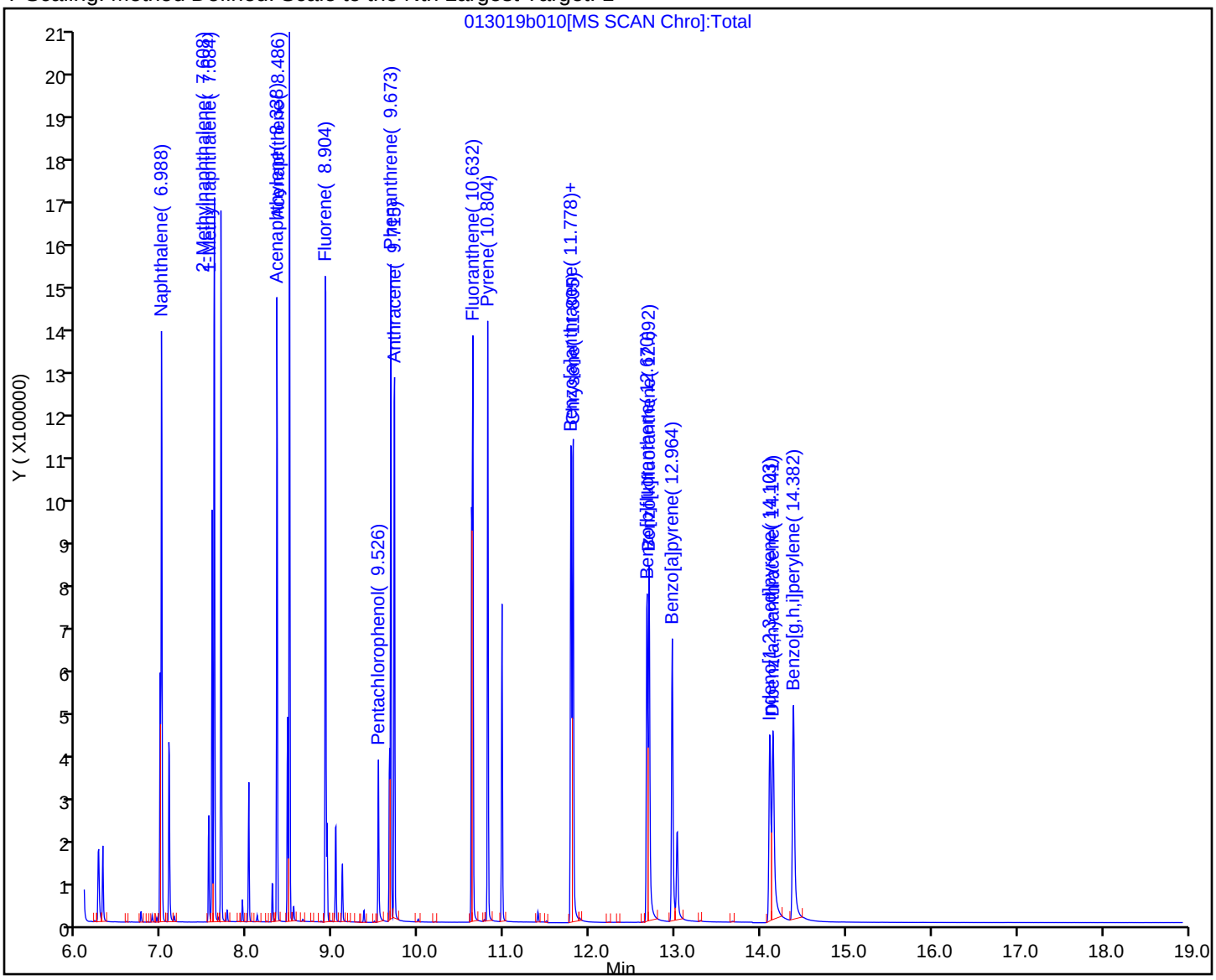
Client ID:

Operator ID: adb ALS Bottle#: 8 Worklist Smp#: 9

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b011.D
Lims ID: std7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 30-Jan-2019 20:59:30 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 7
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:00 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:25:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.972	6.971	0.001	100	392948	100.0	100.0	
* 2 Acenaphthene-d10	164	8.465	8.464	0.001	100	169125	100.0	100.0	
* 3 Phenanthrene-d10	188	9.658	9.657	0.001	100	284916	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	97	222610	100.0	100.0	
* 5 Perylene-d12	264	13.024	13.018	0.006	100	197194	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.581	7.580	0.001	97	251795	100.0	99.7	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	95	32710	100.0	100.6	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	305901	100.0	97.3	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	218146	100.0	101.1	
10 Naphthalene	128	6.988	6.988	0.000	100	455108	100.0	103.7	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	92	293160	100.0	101.8	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	91	274685	100.0	102.2	
13 Acenaphthylene	152	8.338	8.338	0.000	99	380553	100.0	103.2	
14 Acenaphthene	153	8.487	8.486	0.001	100	272503	100.0	101.8	
15 Fluorene	166	8.910	8.910	0.000	99	278252	100.0	103.8	
16 Pentachlorophenol	266	9.527	9.527	0.001	99	55898	200.0	186.4	
17 Phenanthrene	178	9.673	9.673	0.000	100	395246	100.0	102.2	
18 Anthracene	178	9.715	9.715	0.000	99	381432	100.0	106.1	
19 Fluoranthene	202	10.632	10.632	0.000	99	374652	100.0	102.2	
20 Pyrene	202	10.805	10.804	0.001	100	384434	100.0	99.6	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	98	256569	100.0	101.1	
22 Chrysene	228	11.805	11.805	0.000	100	349718	100.0	103.7	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	98	271452	100.0	106.9	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	98	344418	100.0	110.8	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	280816	100.0	109.1	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	99	195752	100.0	99.4	
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	239484	100.0	96.6	
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	301222	100.0	106.3	

Reagents:

IC_8270IS_100_00033 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:01 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b011.D

Injection Date: 30-Jan-2019 20:59:30 Instrument ID: TAC023

Lims ID: std7

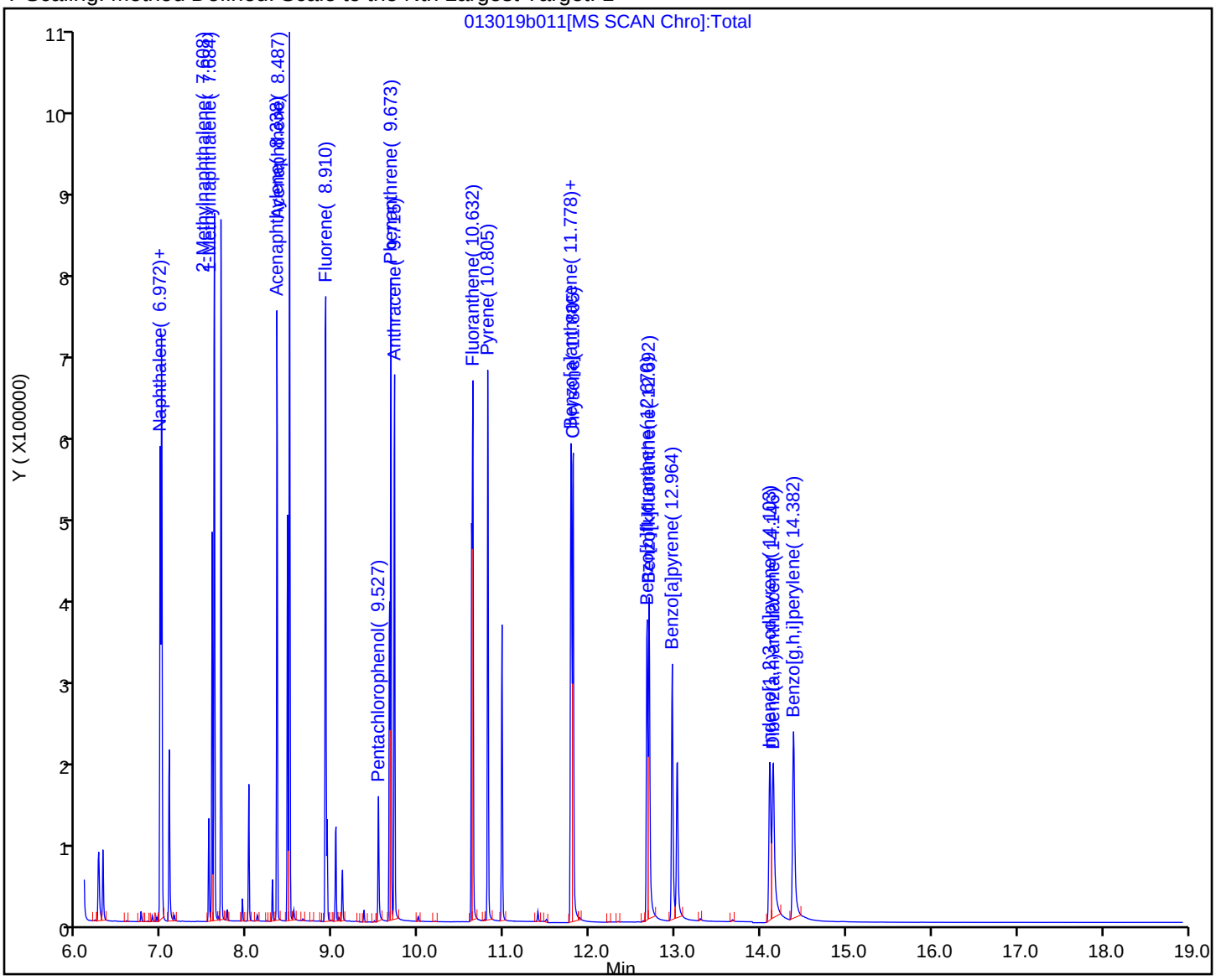
Client ID:

Operator ID: adb ALS Bottle#: 9 Worklist Smp#: 10

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b012.D
Lims ID: std6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 30-Jan-2019 21:24:30 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 6
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:05 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:26:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.972	6.971	0.001	100	389427	100.0	100.0	
* 2 Acenaphthene-d10	164	8.465	8.464	0.001	100	164116	100.0	100.0	
* 3 Phenanthrene-d10	188	9.658	9.657	0.001	100	280452	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	88	211740	100.0	100.0	
* 5 Perylene-d12	264	13.018	13.018	0.000	100	192997	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.581	7.580	0.001	97	122693	50.0	49.0	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	98	14220	50.0	46.2	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	147268	50.0	47.6	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	103812	50.0	48.9	
10 Naphthalene	128	6.988	6.988	0.000	100	223302	50.0	51.3	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	93	141903	50.0	49.7	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	91	133944	50.0	50.3	
13 Acenaphthylene	152	8.338	8.338	0.000	99	182701	50.0	51.0	
14 Acenaphthene	153	8.487	8.486	0.001	99	133846	50.0	51.5	
15 Fluorene	166	8.910	8.910	0.000	99	134685	50.0	51.8	
16 Pentachlorophenol	266	9.527	9.527	0.001	99	21054	100.0	86.7	
17 Phenanthrene	178	9.673	9.673	0.000	99	191699	50.0	50.3	
18 Anthracene	178	9.715	9.715	0.000	99	182696	50.0	51.6	
19 Fluoranthene	202	10.632	10.632	0.000	99	177551	50.0	49.2	
20 Pyrene	202	10.805	10.804	0.001	100	182177	50.0	48.0	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	96	115015	50.0	47.7	
22 Chrysene	228	11.806	11.805	0.001	100	170362	50.0	53.1	
23 Benzo[b]fluoranthene	252	12.665	12.670	-0.005	99	129199	50.0	52.0	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	98	155439	50.0	51.1	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	134567	50.0	53.4	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	99	93140	50.0	48.5	M
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	110390	50.0	46.1	a
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	137398	50.0	49.7	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_50_00032 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:08 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b012.D

Injection Date: 30-Jan-2019 21:24:30 Instrument ID: TAC023

Lims ID: std6

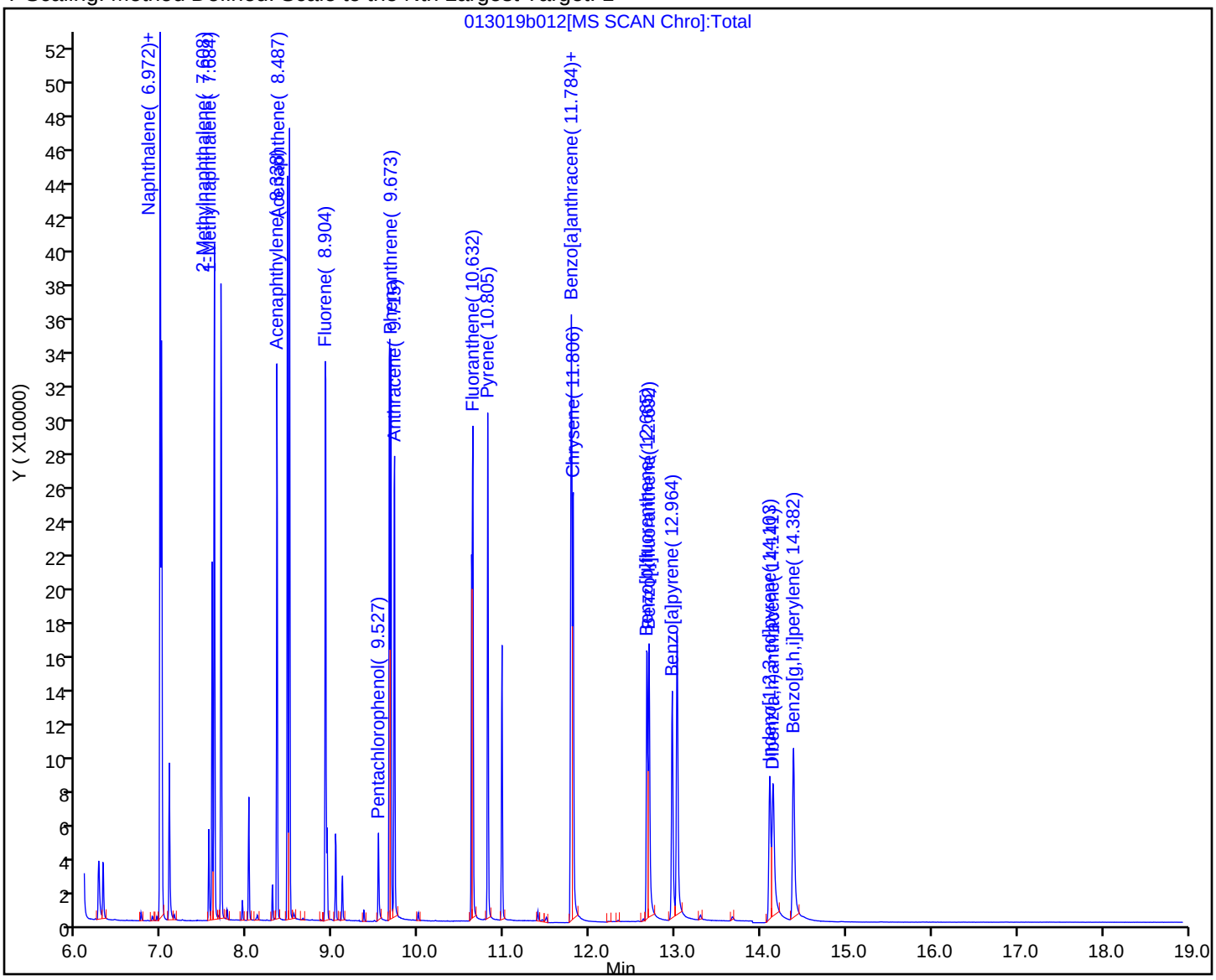
Client ID:

Operator ID: adb ALS Bottle#: 10 Worklist Smp#: 11

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

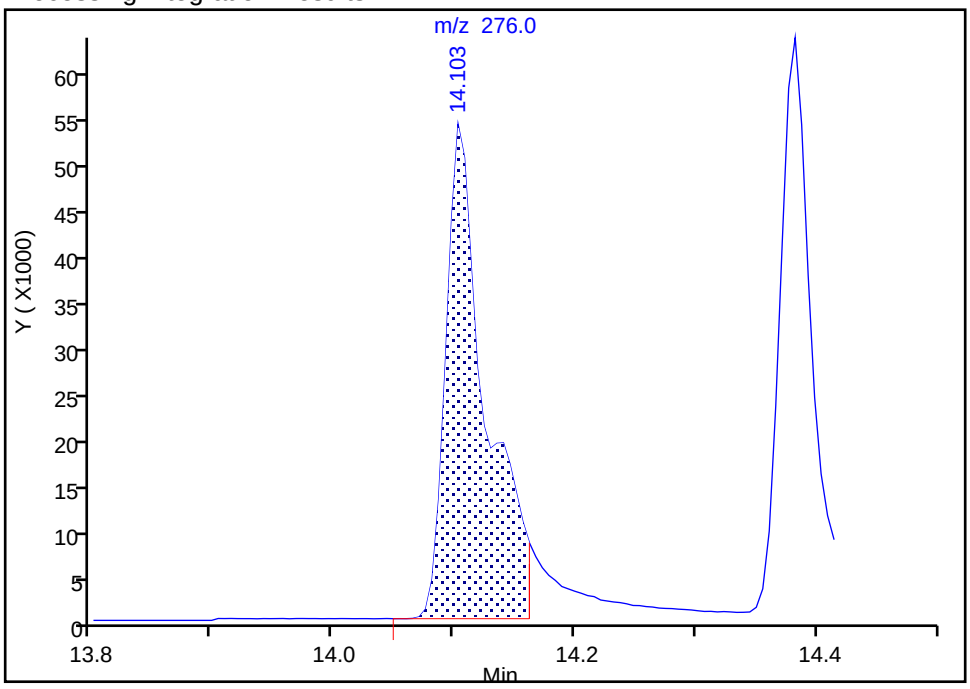
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b012.D
Injection Date: 30-Jan-2019 21:24:30 Instrument ID: TAC023
Lims ID: std6
Client ID:
Operator ID: adb ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

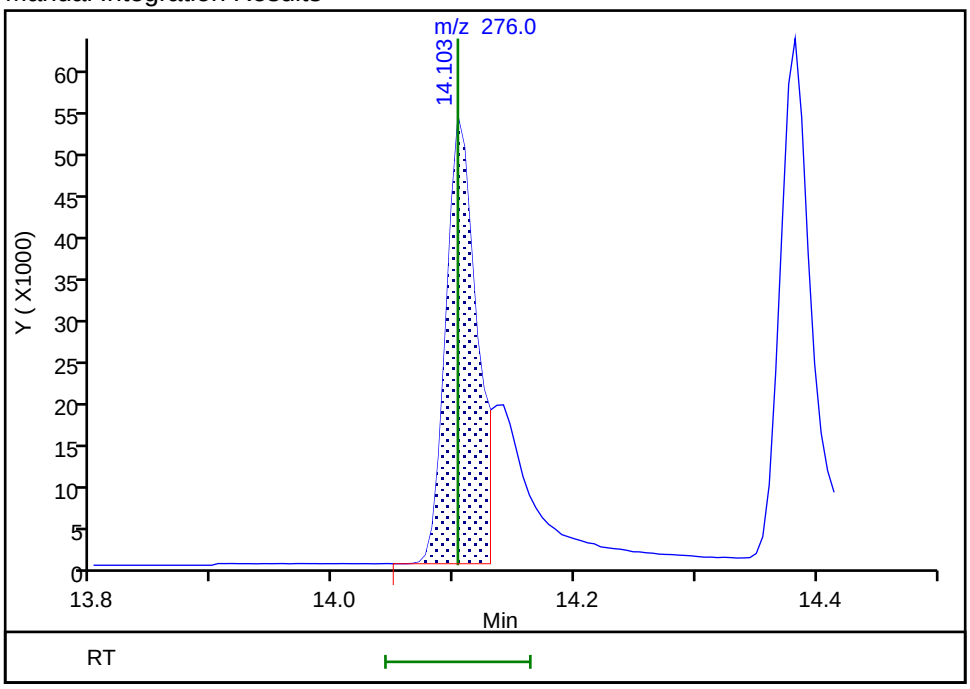
Processing Integration Results

RT: 14.10
Area: 122960
Amount: 54.215320
Amount Units: ug/L



Manual Integration Results

RT: 14.10
Area: 93140
Amount: 48.514242
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:08:44
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

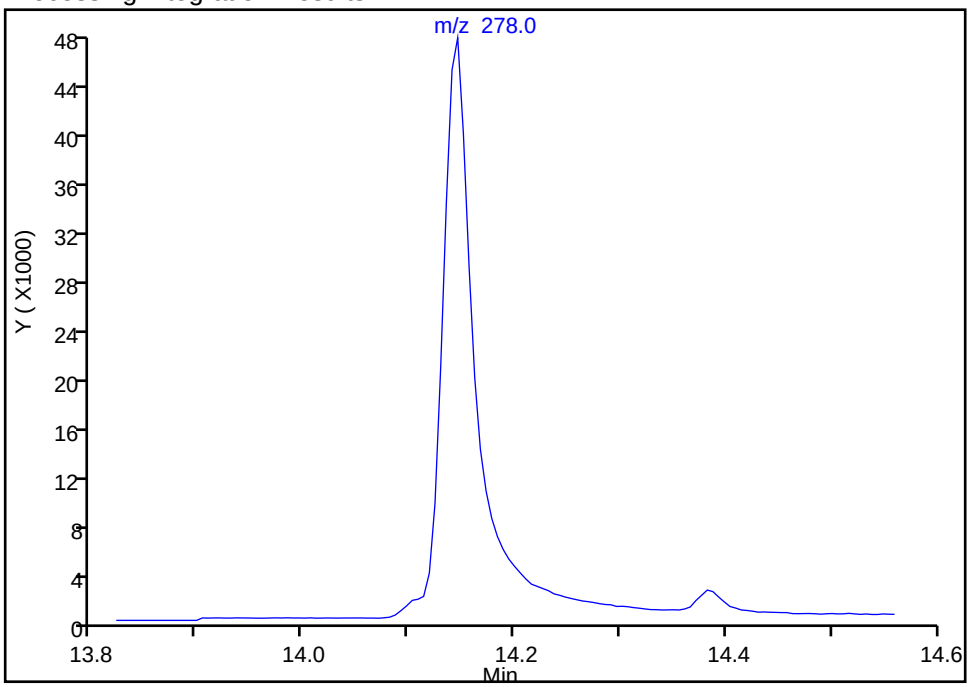
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b012.D				
Injection Date:	30-Jan-2019 21:24:30	Instrument ID:	TAC023		
Lims ID:	std6				
Client ID:					
Operator ID:	adb	ALS Bottle#:	10	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

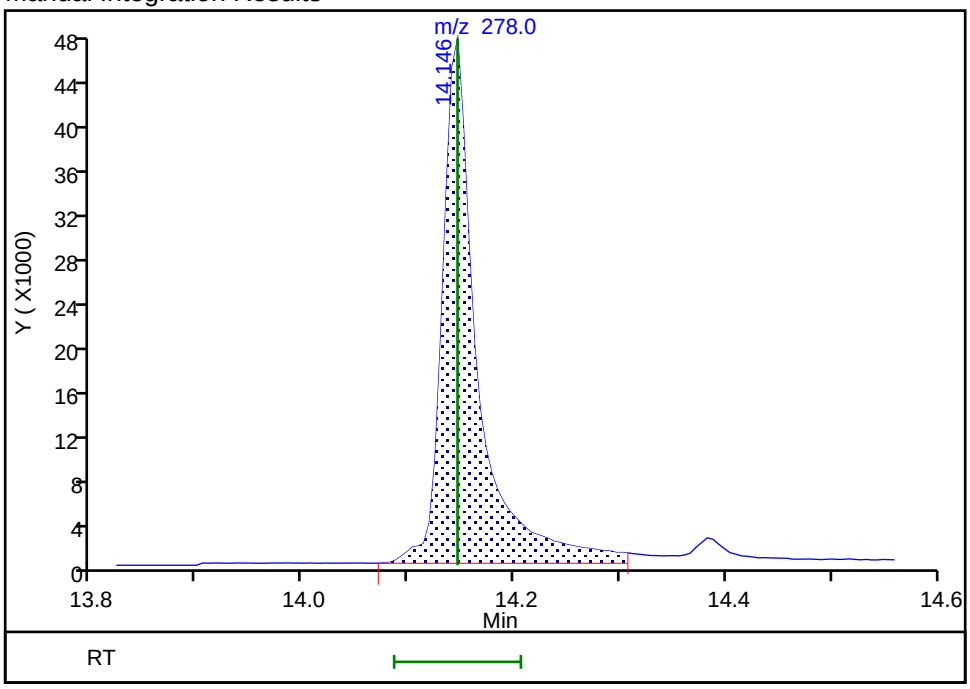
Not Detected
Expected RT: 14.15

Processing Integration Results



Manual Integration Results

RT: 14.15
Area: 110390
Amount: 46.067468
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:08:37
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b013.D
Lims ID: std5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 30-Jan-2019 21:50:30 ALS Bottle#: 11 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 5
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:11 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:27:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	380326	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	100	159143	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	259963	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	81	194980	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	166680	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.580	7.580	0.000	96	48637	20.0	19.9	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	97	4960	20.0	17.8	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	57711	20.0	20.1	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	40399	20.0	20.5	
10 Naphthalene	128	6.993	6.988	0.005	100	89419	20.0	21.0	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	94	56507	20.0	20.3	
12 1-Methylnaphthalene	142	7.689	7.684	0.005	97	53882	20.0	20.7	
13 Acenaphthylene	152	8.338	8.338	0.000	99	70155	20.0	20.2	
14 Acenaphthene	153	8.486	8.486	0.000	100	53080	20.0	21.1	
15 Fluorene	166	8.910	8.910	0.000	99	52618	20.0	20.9	
16 Pentachlorophenol	266	9.526	9.527	0.000	98	4433	40.0	36.5	
17 Phenanthrene	178	9.673	9.673	0.000	99	75505	20.0	21.4	
18 Anthracene	178	9.715	9.715	0.000	99	71159	20.0	21.7	
19 Fluoranthene	202	10.632	10.632	0.000	99	68549	20.0	20.5	
20 Pyrene	202	10.804	10.804	0.000	100	71104	20.0	20.2	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	69	42768	20.0	19.2	
22 Chrysene	228	11.805	11.805	0.000	99	62746	20.0	21.2	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	98	43770	20.0	20.4	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	100	54212	20.0	20.6	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	98	39439	20.0	18.1	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	100	33140	20.0	20.1	M
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	37486	20.0	18.8	a
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	47420	20.0	20.0	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_20_00032 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:14 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b013.D

Injection Date: 30-Jan-2019 21:50:30 Instrument ID: TAC023

Lims ID: std5

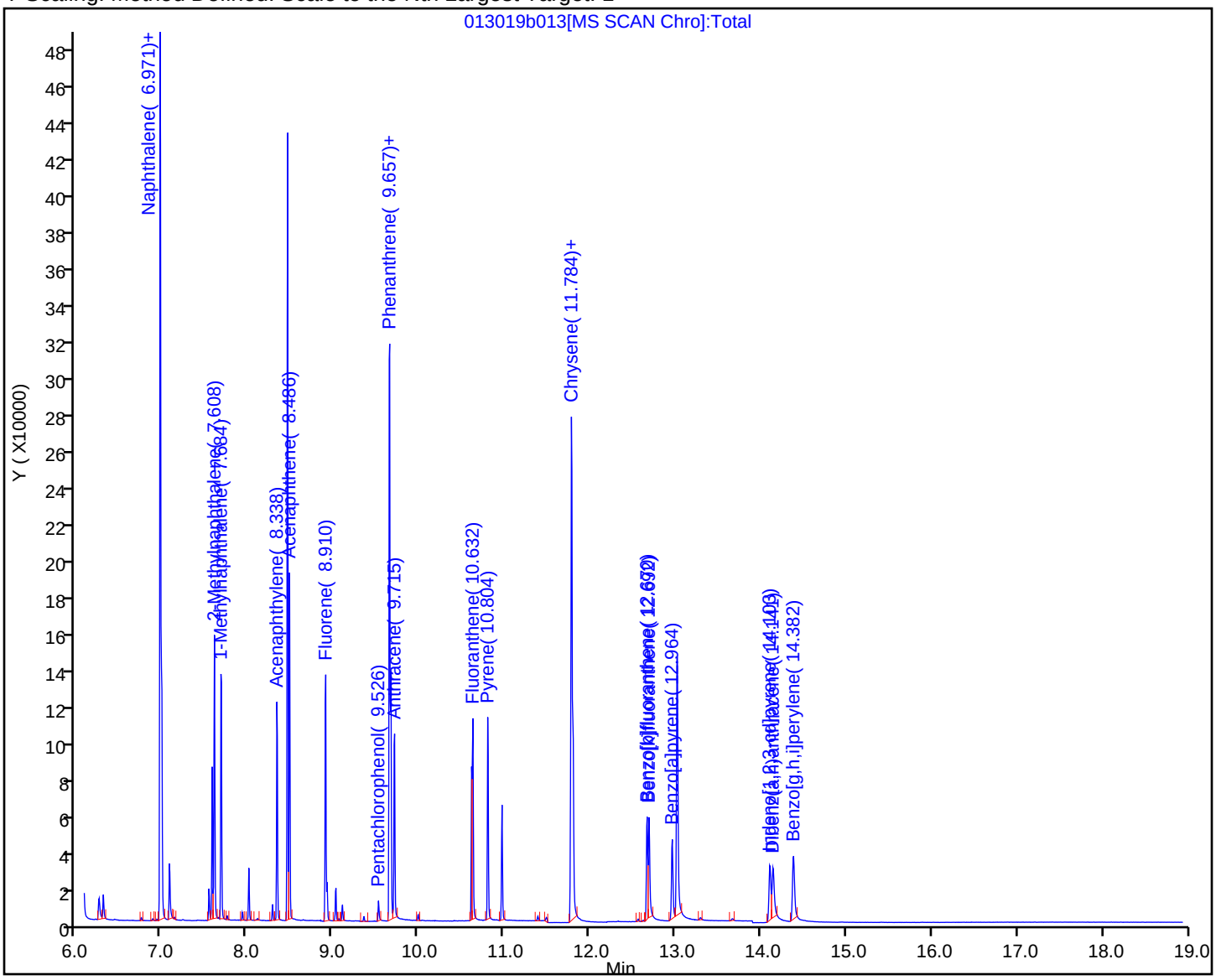
Client ID:

Operator ID: adb ALS Bottle#: 11 Worklist Smp#: 12

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

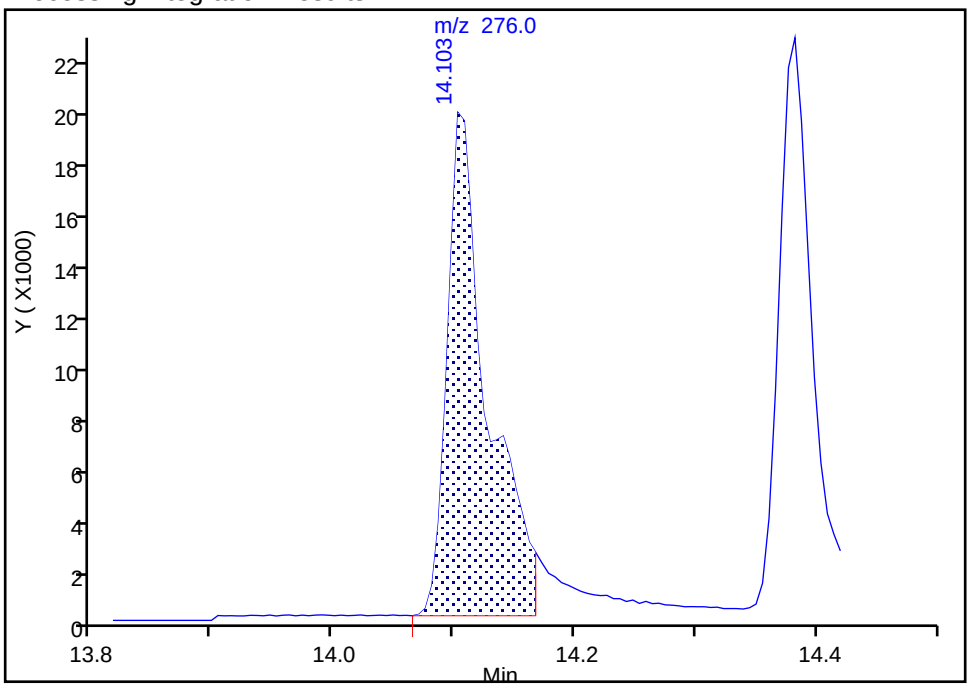
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b013.D
Injection Date: 30-Jan-2019 21:50:30 Instrument ID: TAC023
Lims ID: std5
Client ID:
Operator ID: adb ALS Bottle#: 11 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

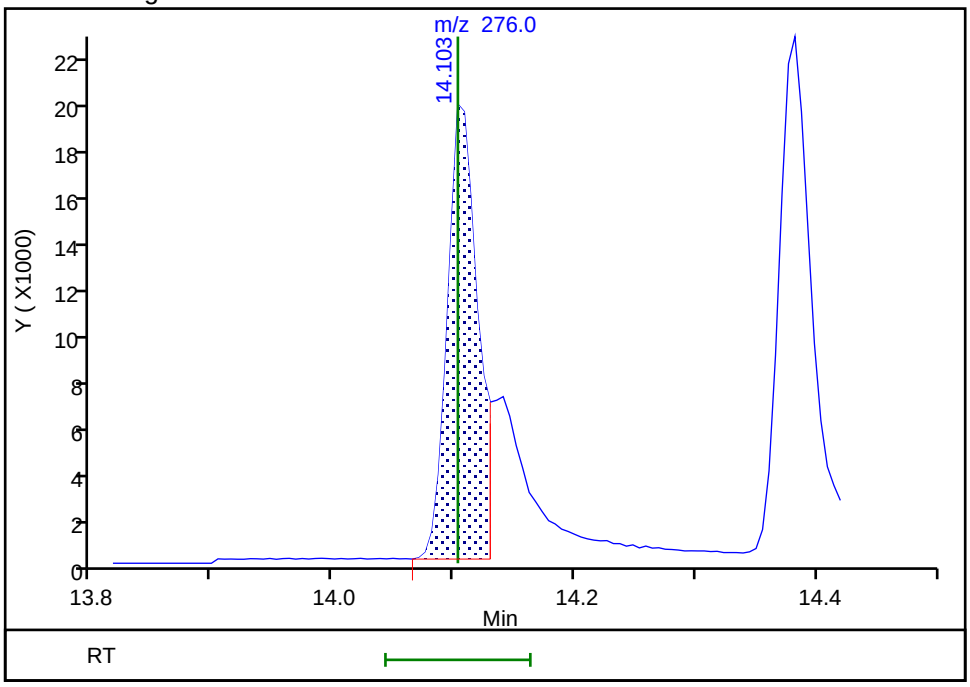
Processing Integration Results

RT: 14.10
Area: 44678
Amount: 23.271693
Amount Units: ug/L



Manual Integration Results

RT: 14.10
Area: 33140
Amount: 20.089854
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:09:30
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

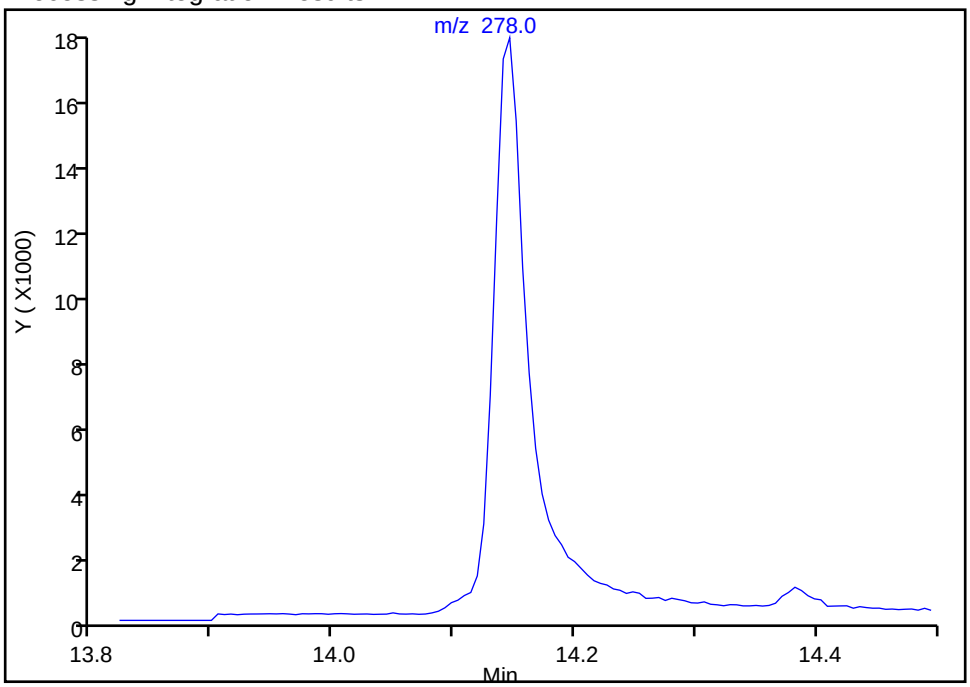
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b013.D				
Injection Date:	30-Jan-2019 21:50:30	Instrument ID:	TAC023		
Lims ID:	std5				
Client ID:					
Operator ID:	adb	ALS Bottle#:	11	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

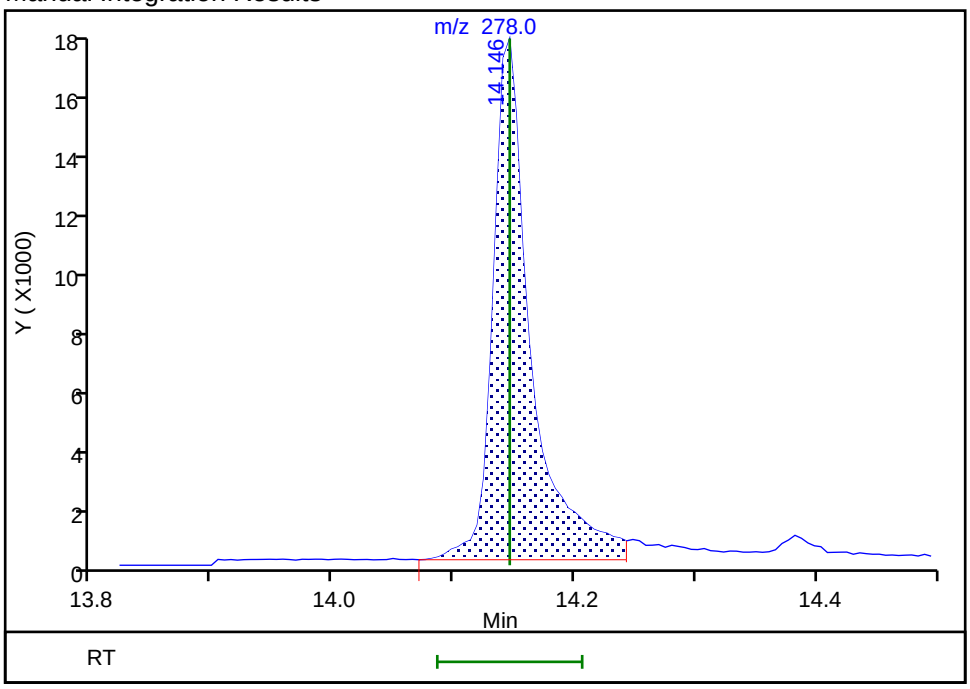
Not Detected
Expected RT: 14.15

Processing Integration Results



Manual Integration Results

RT: 14.15
Area: 37486
Amount: 18.786204
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:09:33
Audit Action: Assigned Compound ID Audit Reason: Split Peak

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D
Lims ID: std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 30-Jan-2019 22:16:30 ALS Bottle#: 12 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 4
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:17 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:30:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	373443	100.0	100.0	
* 2 Acenaphthene-d10	164	8.465	8.464	0.001	100	156063	100.0	100.0	
* 3 Phenanthrene-d10	188	9.652	9.657	-0.005	100	255671	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	78	186465	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	171884	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.581	7.580	0.000	95	24910	10.0	10.4	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	96	2752	10.0	10.8	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	30303	10.0	10.7	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	20173	10.0	10.4	
10 Naphthalene	128	6.993	6.988	0.005	100	46074	10.0	11.0	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	96	28865	10.0	10.5	
12 1-Methylnaphthalene	142	7.689	7.684	0.005	97	27508	10.0	10.8	
13 Acenaphthylene	152	8.338	8.338	0.000	99	35998	10.0	10.6	
14 Acenaphthene	153	8.487	8.486	0.001	99	26245	10.0	10.6	M
15 Fluorene	166	8.910	8.910	0.000	100	25759	10.0	10.4	M
16 Pentachlorophenol	266	9.532	9.527	0.006	100	391	20.0	23.7	a
17 Phenanthrene	178	9.673	9.673	0.000	99	37946	10.0	10.9	
18 Anthracene	178	9.715	9.715	0.000	100	35590	10.0	11.0	
19 Fluoranthene	202	10.632	10.632	0.000	100	34738	10.0	10.6	
20 Pyrene	202	10.805	10.804	0.001	99	35930	10.0	10.4	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	44	21646	10.0	10.2	a
22 Chrysene	228	11.805	11.805	0.000	99	31120	10.0	11.0	a
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	97	21836	10.0	9.86	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	98	27689	10.0	10.2	a
25 Benzo[a]pyrene	252	12.964	12.964	0.000	100	23133	10.0	10.3	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	99	19418	10.0	11.5	M
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	21829	10.0	11.1	a
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	25399	10.0	10.5	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_10_00020 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:20 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D

Injection Date: 30-Jan-2019 22:16:30 Instrument ID: TAC023

Lims ID: std4

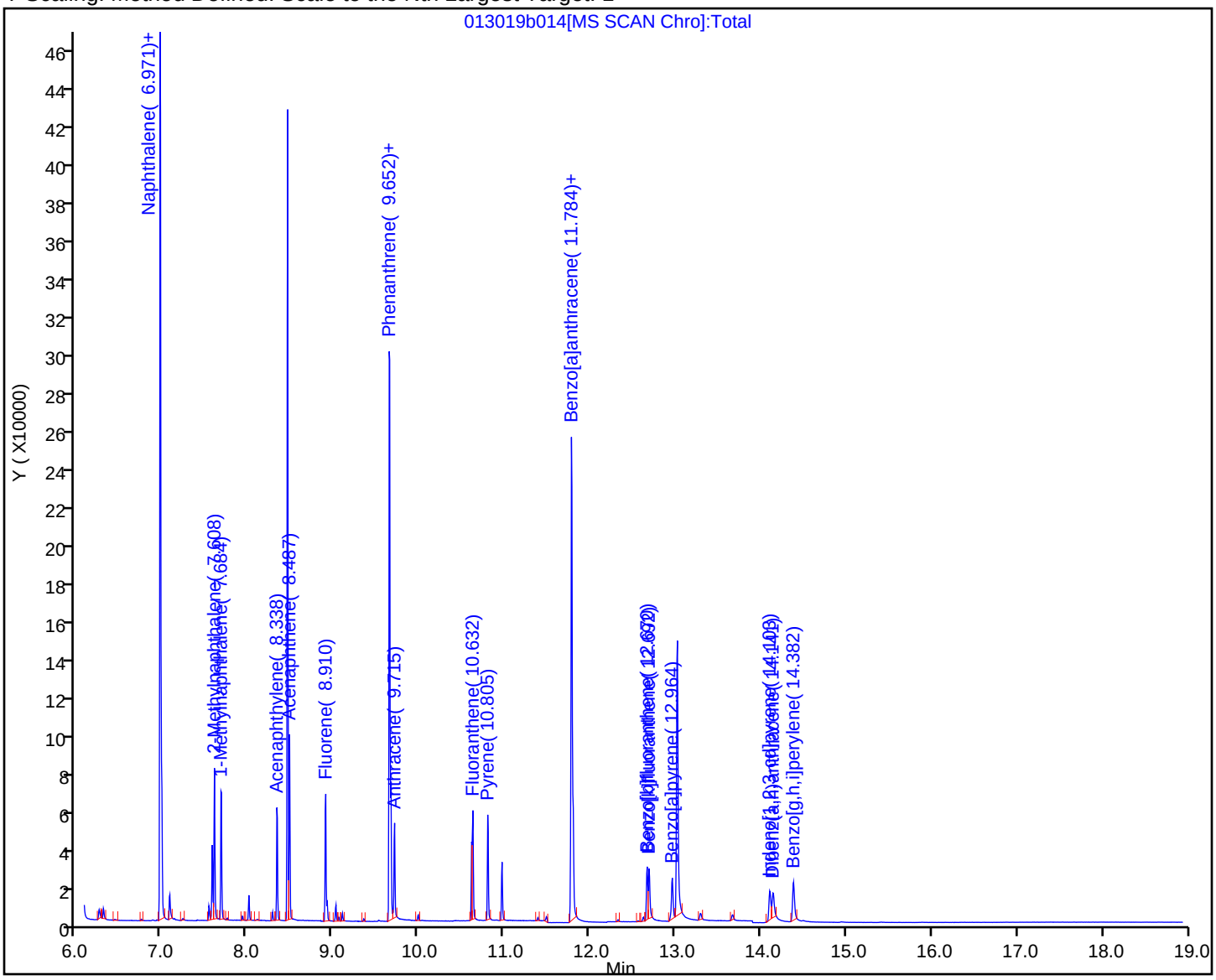
Client ID:

Operator ID: adb ALS Bottle#: 12 Worklist Smp#: 13

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

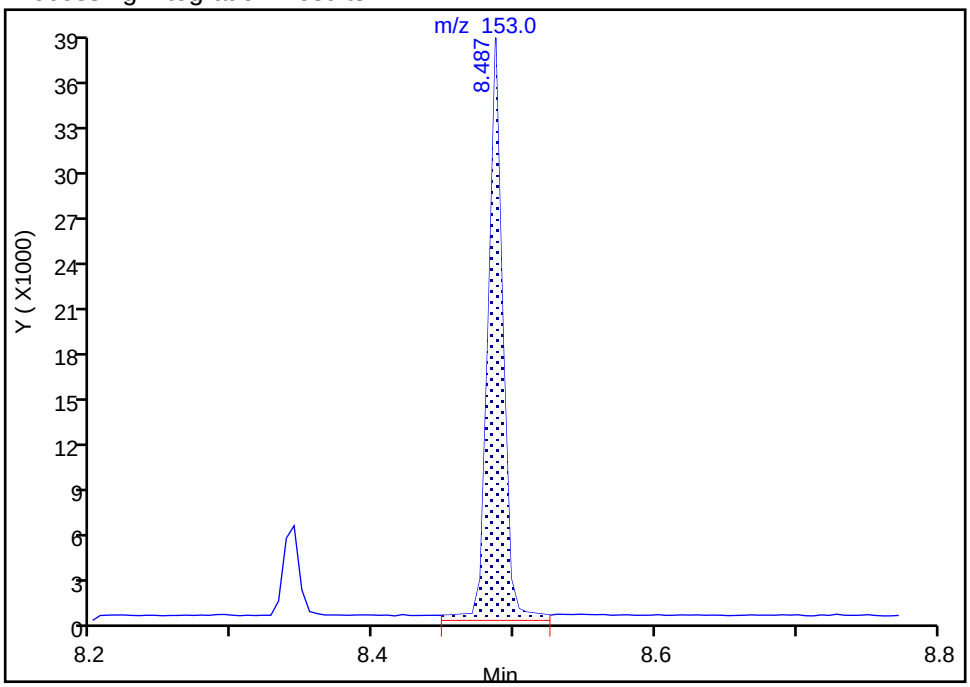
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D				
Injection Date:	30-Jan-2019 22:16:30	Instrument ID:	TAC023		
Lims ID:	std4				
Client ID:					
Operator ID:	adb	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

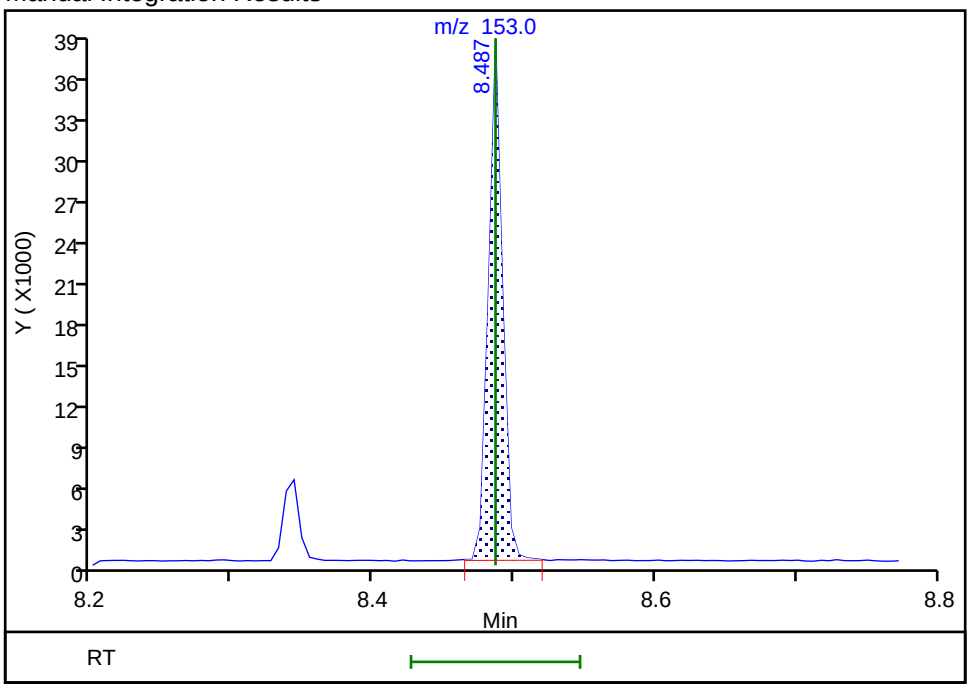
Processing Integration Results

RT: 8.49
Area: 27914
Amount: 10.358473
Amount Units: ug/L



Manual Integration Results

RT: 8.49
Area: 26245
Amount: 10.620930
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:10:33

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

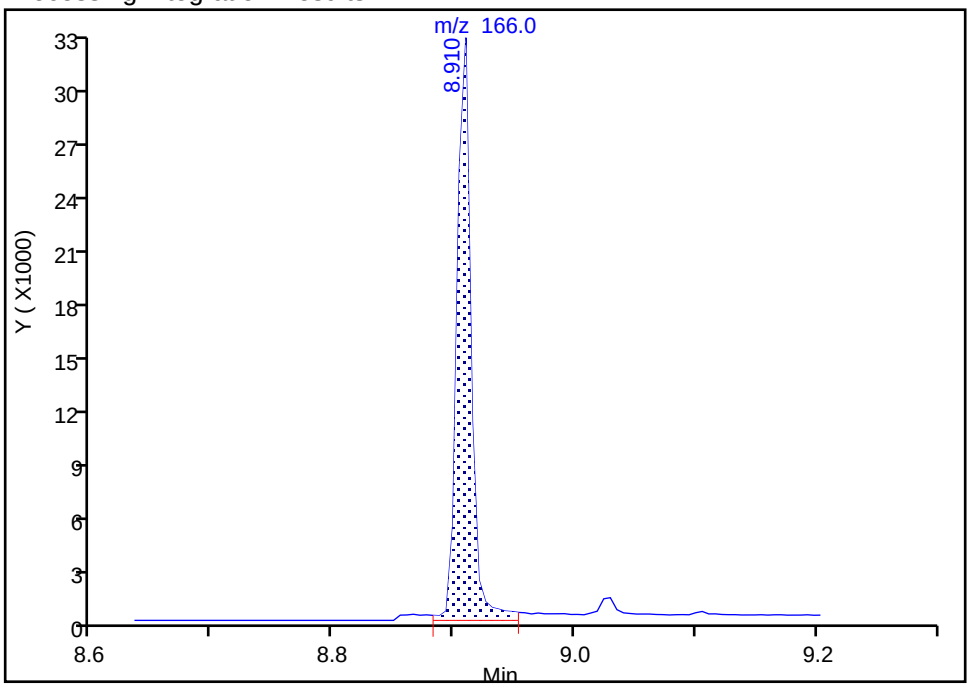
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D
Injection Date: 30-Jan-2019 22:16:30 Instrument ID: TAC023
Lims ID: std4
Client ID:
Operator ID: adb ALS Bottle#: 12 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

15 Fluorene, CAS: 86-73-7

Signal: 1

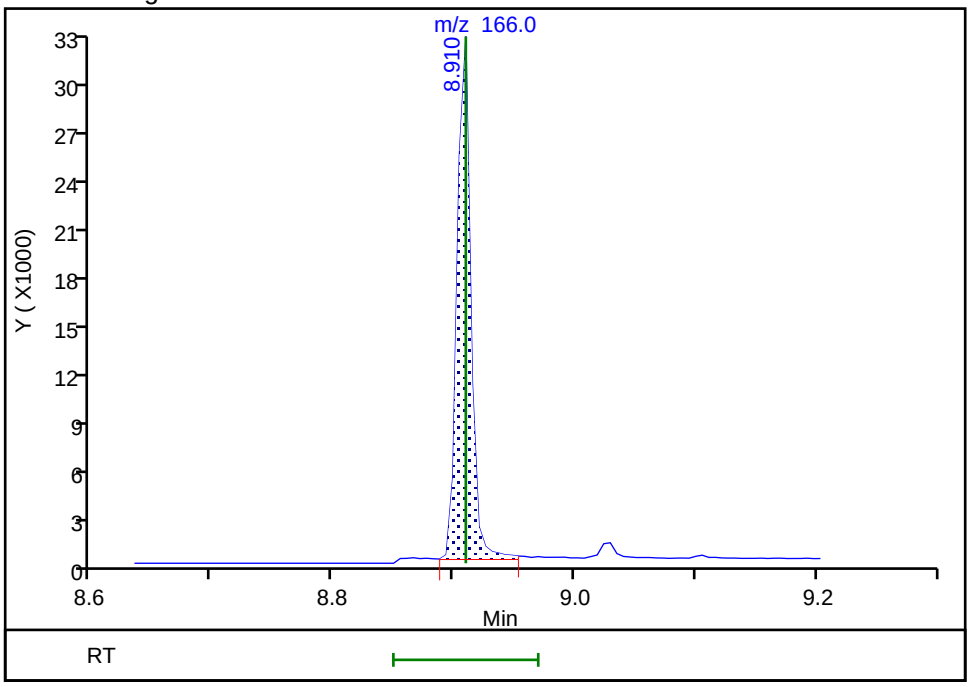
Processing Integration Results

RT: 8.91
Area: 26764
Amount: 10.361090
Amount Units: ug/L



Manual Integration Results

RT: 8.91
Area: 25759
Amount: 10.410548
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:10:38
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

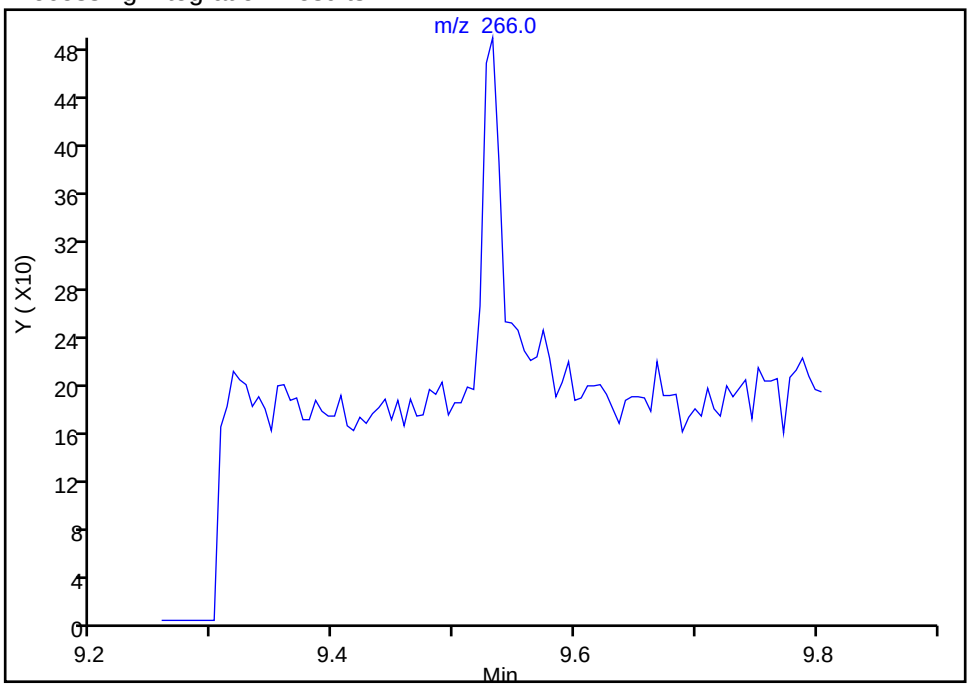
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D				
Injection Date:	30-Jan-2019 22:16:30	Instrument ID:	TAC023		
Lims ID:	std4				
Client ID:					
Operator ID:	adb	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

16 Pentachlorophenol, CAS: 87-86-5

Signal: 1

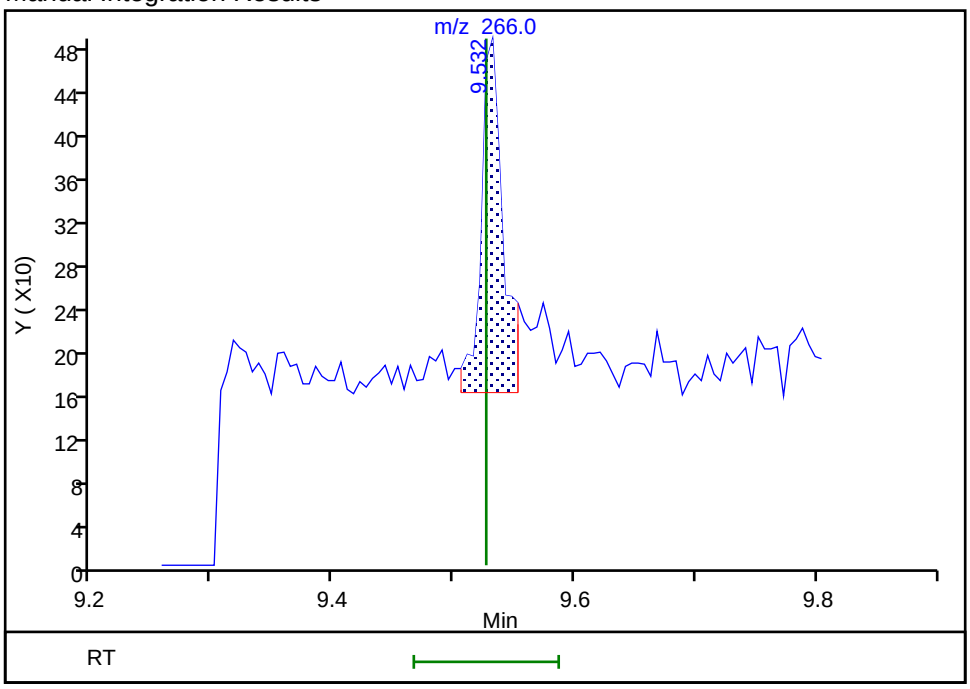
Not Detected
Expected RT: 9.53

Processing Integration Results



Manual Integration Results

RT: 9.53
Area: 391
Amount: 23.697590
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:10:13
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

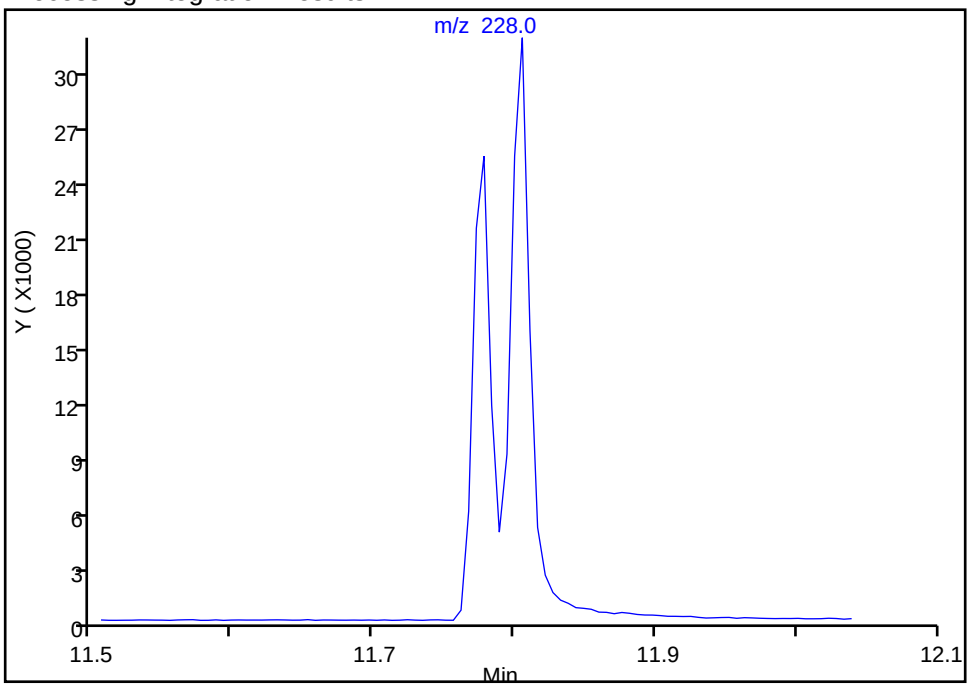
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D				
Injection Date:	30-Jan-2019 22:16:30	Instrument ID:	TAC023		
Lims ID:	std4				
Client ID:					
Operator ID:	adb	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

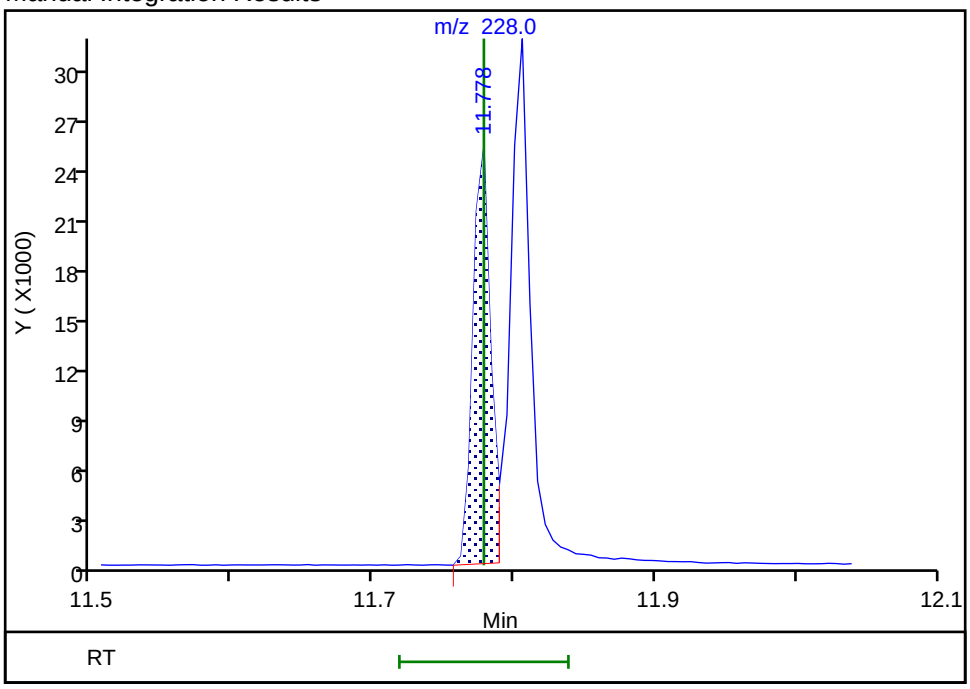
Not Detected
Expected RT: 11.78

Processing Integration Results



Manual Integration Results

RT: 11.78
Area: 21646
Amount: 10.185724
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:10:06
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

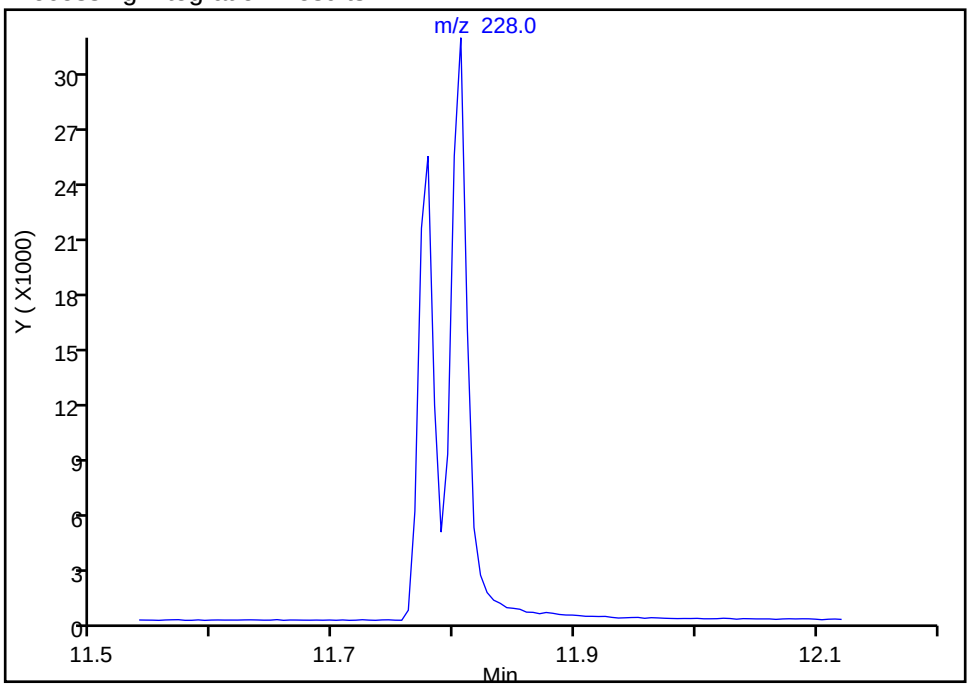
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D				
Injection Date:	30-Jan-2019 22:16:30	Instrument ID:	TAC023		
Lims ID:	std4				
Client ID:					
Operator ID:	adb	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

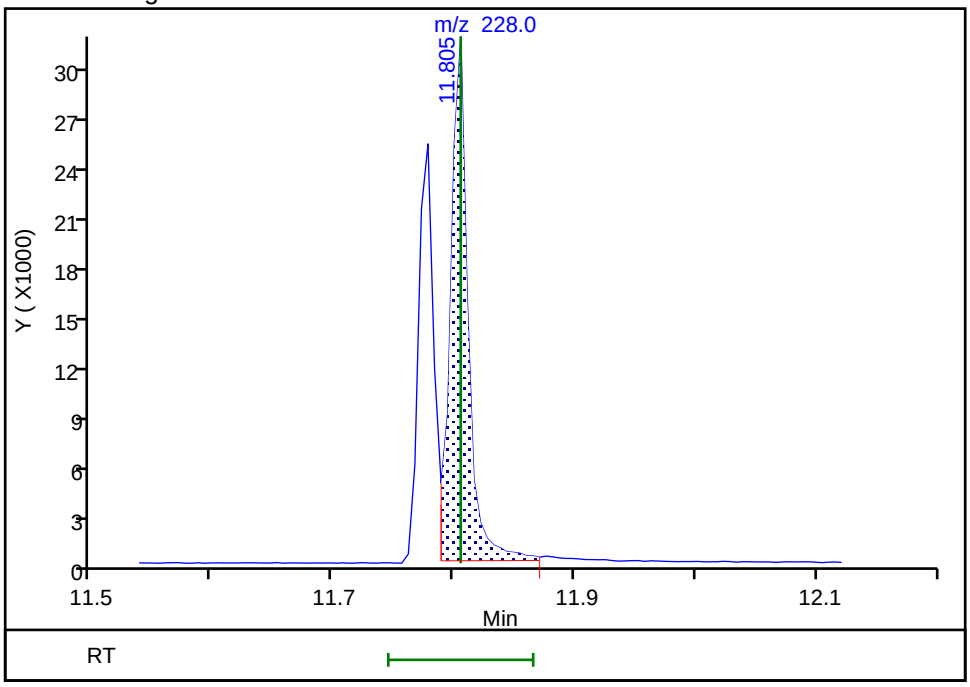
Not Detected
Expected RT: 11.81

Processing Integration Results



Manual Integration Results

RT: 11.81
Area: 31120
Amount: 11.011602
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:10:03
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

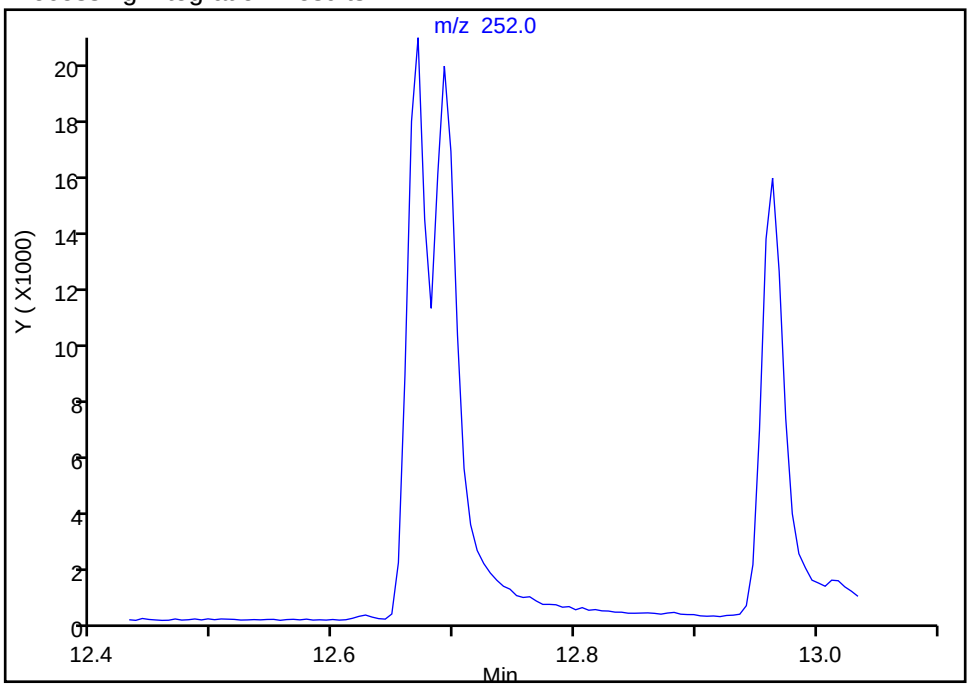
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D				
Injection Date:	30-Jan-2019 22:16:30	Instrument ID:	TAC023		
Lims ID:	std4				
Client ID:					
Operator ID:	adb	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

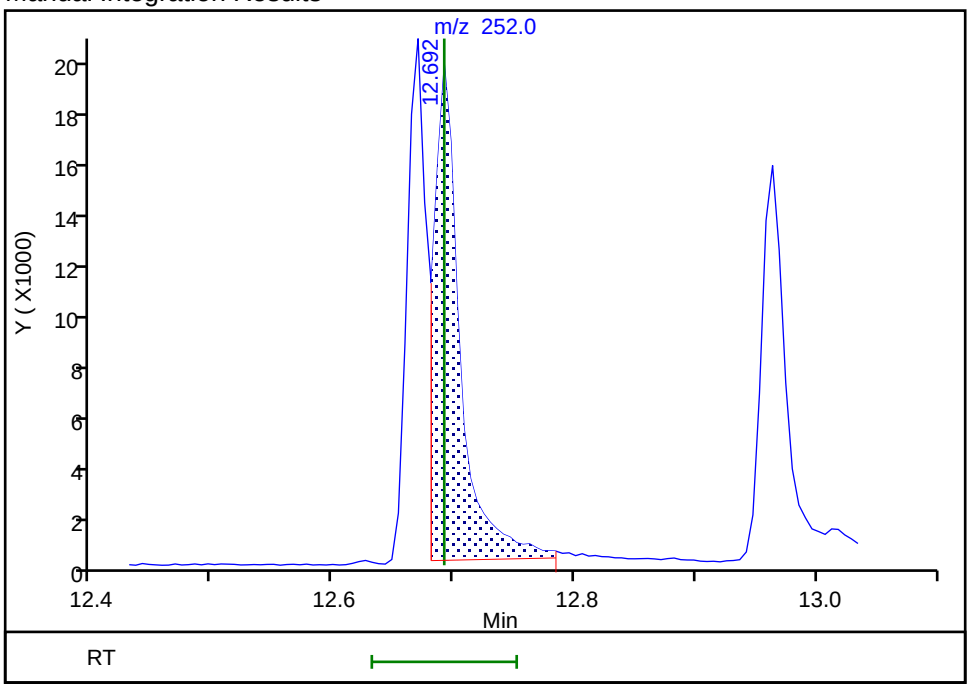
Not Detected
Expected RT: 12.69

Processing Integration Results



Manual Integration Results

RT: 12.69
Area: 27689
Amount: 10.222220
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:09:55
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

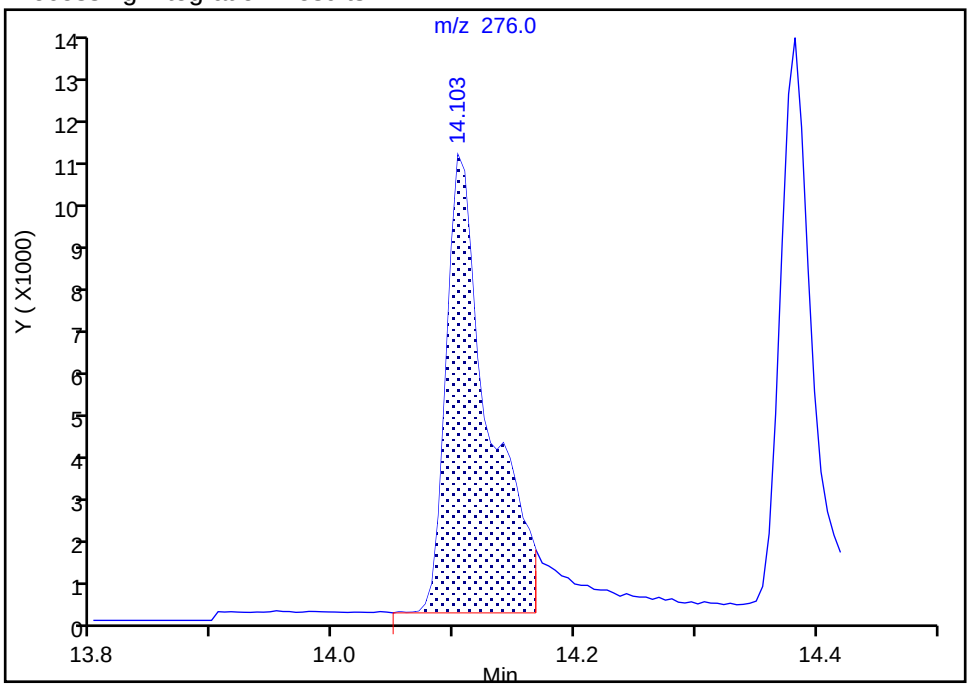
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D
Injection Date: 30-Jan-2019 22:16:30 Instrument ID: TAC023
Lims ID: std4
Client ID:
Operator ID: adb ALS Bottle#: 12 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

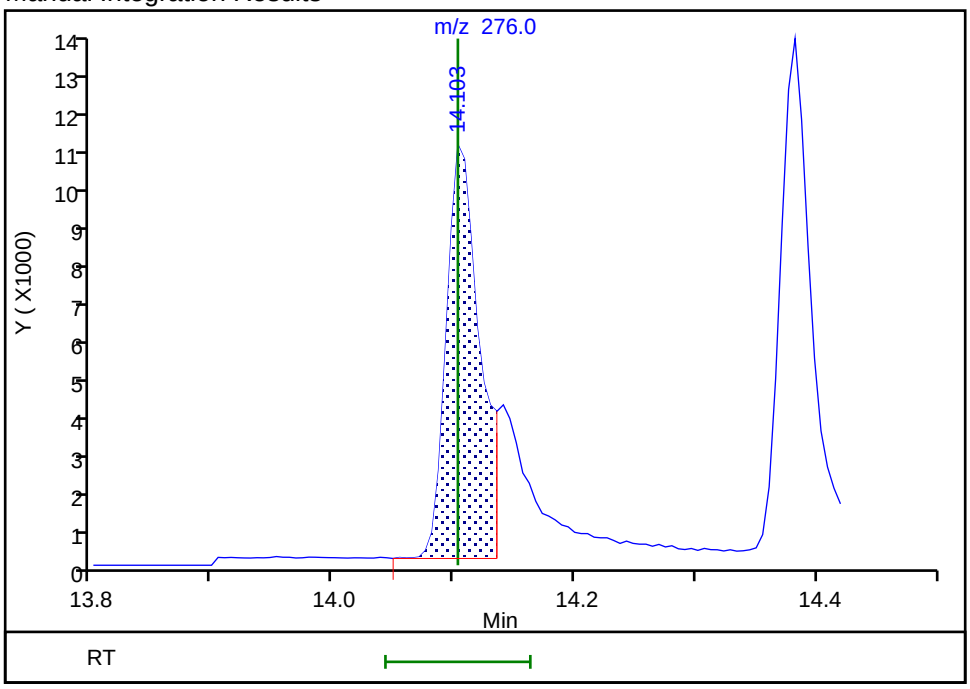
Processing Integration Results

RT: 14.10
Area: 24793
Amount: 12.574836
Amount Units: ug/L



Manual Integration Results

RT: 14.10
Area: 19418
Amount: 11.471062
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:09:50
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

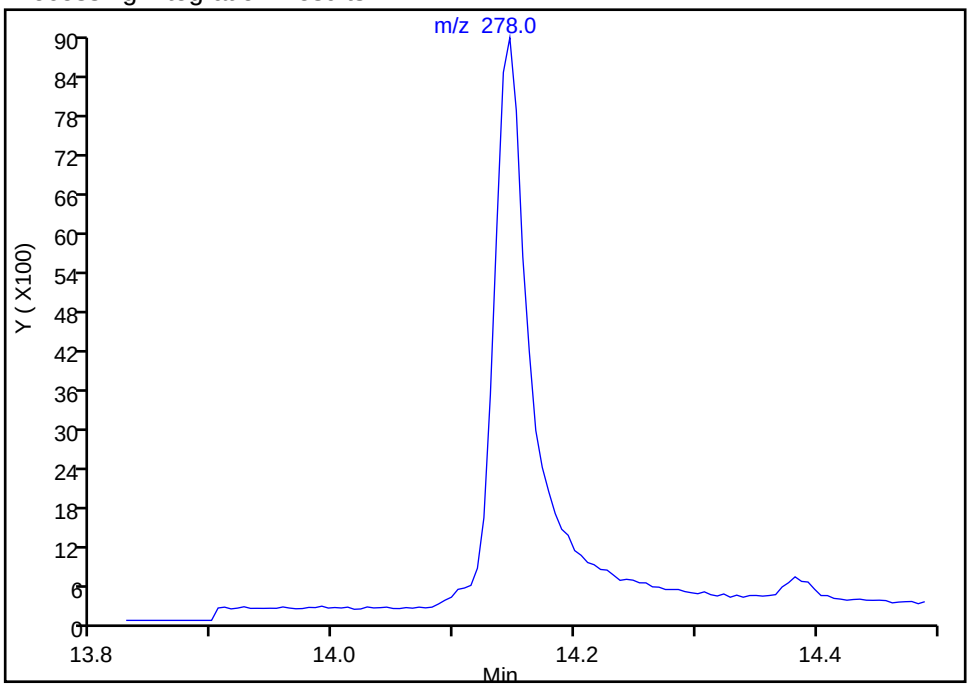
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b014.D				
Injection Date:	30-Jan-2019 22:16:30	Instrument ID:	TAC023		
Lims ID:	std4				
Client ID:					
Operator ID:	adb	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

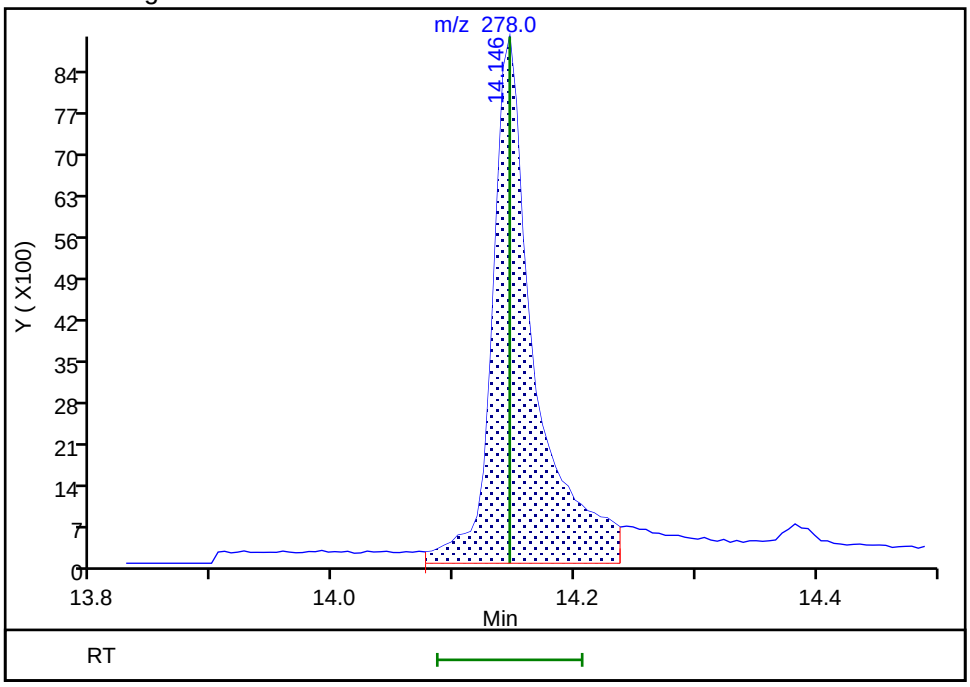
Not Detected
Expected RT: 14.15

Processing Integration Results



Manual Integration Results

RT: 14.15
Area: 21829
Amount: 11.091075
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:09:43
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Lims ID: std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 30-Jan-2019 22:42:30 ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 3
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:23 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:31:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	99	377498	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	99	153308	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	252604	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	77	185992	100.0	100.0	a
* 5 Perylene-d12	264	13.018	13.018	0.000	100	178306	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.586	7.580	0.006	100	11436	5.00	4.71	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	91	967	5.00	4.96	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	99	13530	5.00	4.85	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	100	9165	5.00	4.79	
10 Naphthalene	128	6.993	6.988	0.005	100	21343	5.00	5.06	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	96	13478	5.00	4.87	
12 1-Methylnaphthalene	142	7.689	7.684	0.005	97	12448	5.00	4.82	
13 Acenaphthylene	152	8.343	8.338	0.005	100	16719	5.00	5.00	
14 Acenaphthene	153	8.487	8.486	0.000	100	12148	5.00	5.00	M
15 Fluorene	166	8.910	8.910	0.000	100	11622	5.00	4.78	M
16 Pentachlorophenol	266	9.532	9.527	0.006	0	340	10.0	23.6	M
17 Phenanthrene	178	9.673	9.673	0.000	100	17230	5.00	5.02	M
18 Anthracene	178	9.715	9.715	0.000	100	15047	5.00	4.72	M
19 Fluoranthene	202	10.632	10.632	0.000	100	15569	5.00	4.79	
20 Pyrene	202	10.805	10.804	0.000	100	16131	5.00	4.71	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	26	10242	5.00	4.83	a
22 Chrysene	228	11.805	11.805	0.000	99	14627	5.00	5.19	a
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	97	10642	5.00	4.63	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	98	12737	5.00	4.53	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	10450	5.00	4.49	Ma
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	97	7257	5.00	4.21	M
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	7280	5.00	4.32	a
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	9887	5.00	4.11	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_5_00003 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:28 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D

Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023

Lims ID: std3

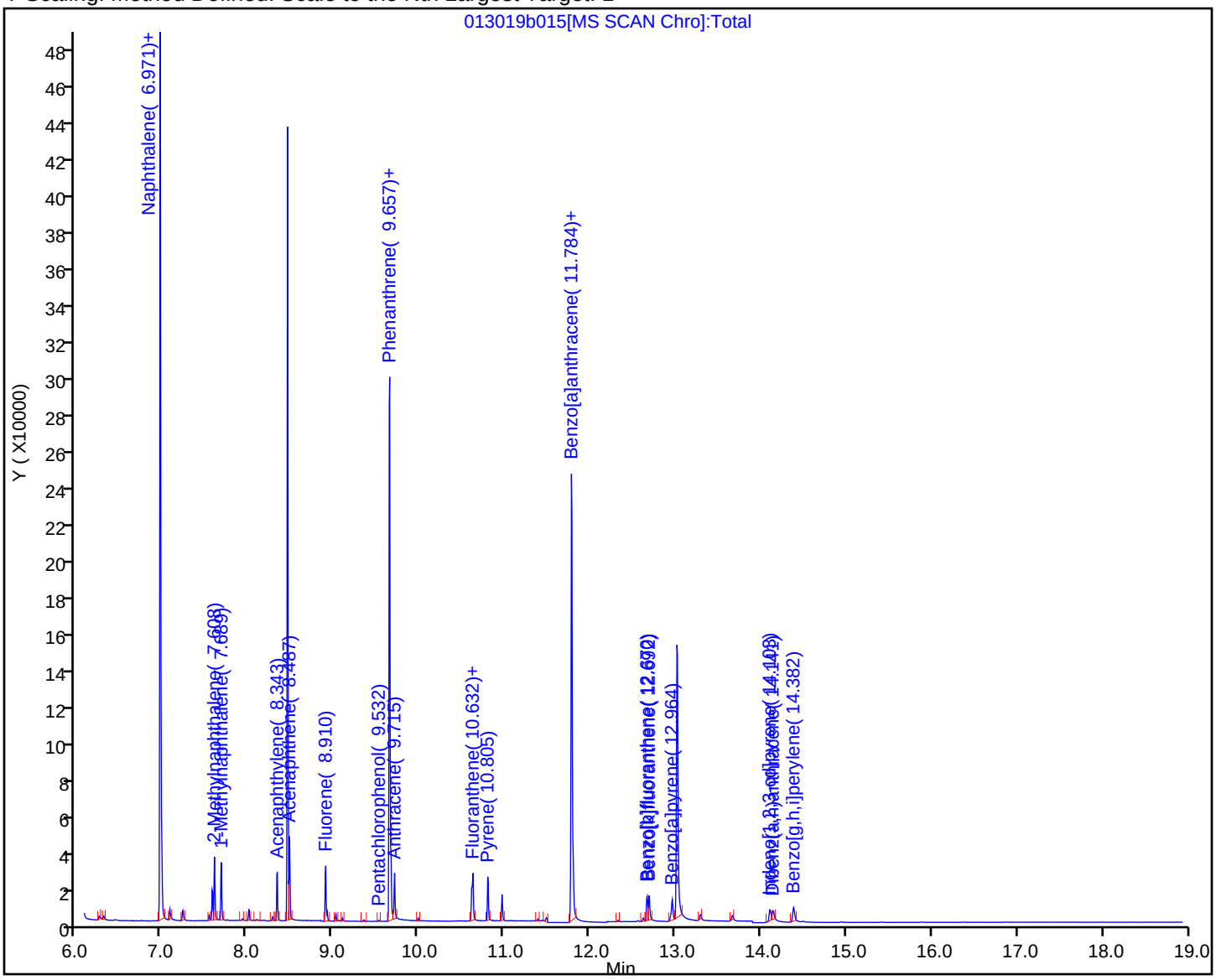
Client ID:

Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

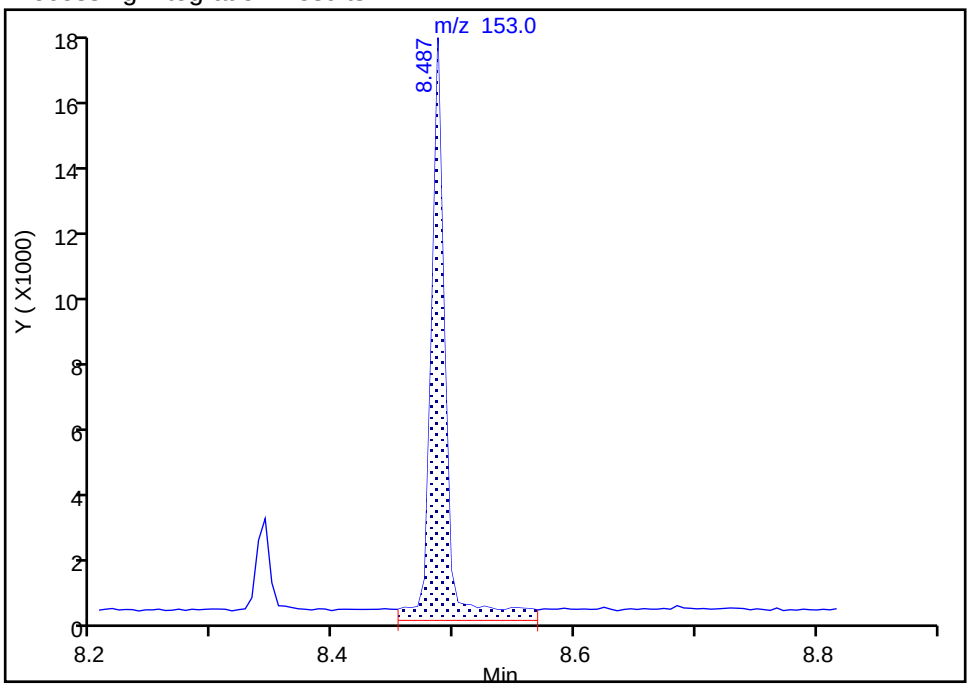
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023
Lims ID: std3
Client ID:
Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

14 Acenaphthene, CAS: 83-32-9

Signal: 1

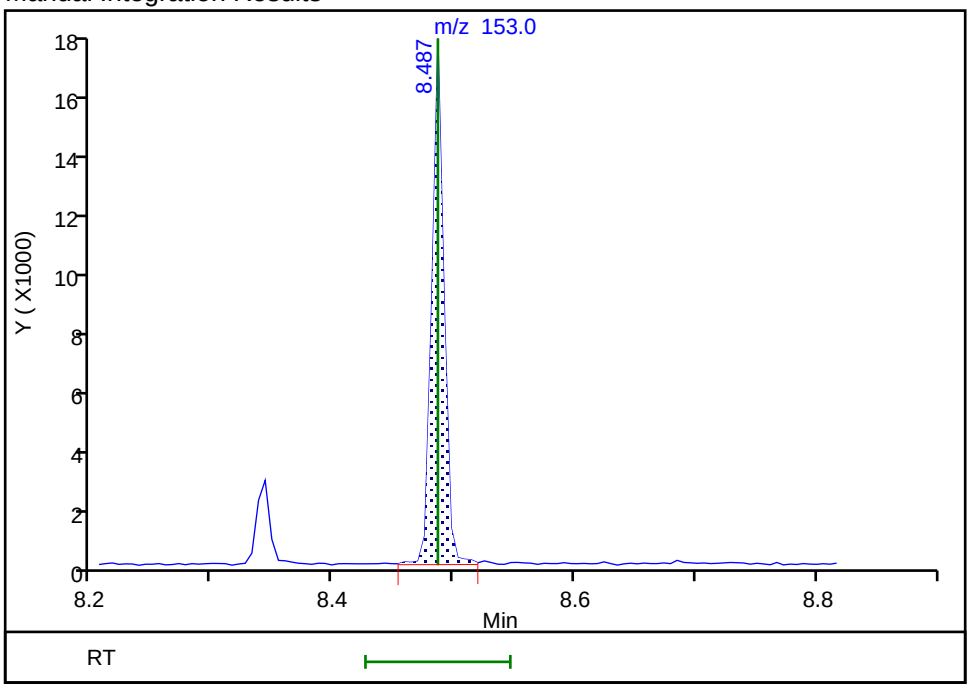
Processing Integration Results

RT: 8.49
Area: 14433
Amount: 5.482991
Amount Units: ug/L



Manual Integration Results

RT: 8.49
Area: 12148
Amount: 5.004445
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:05
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

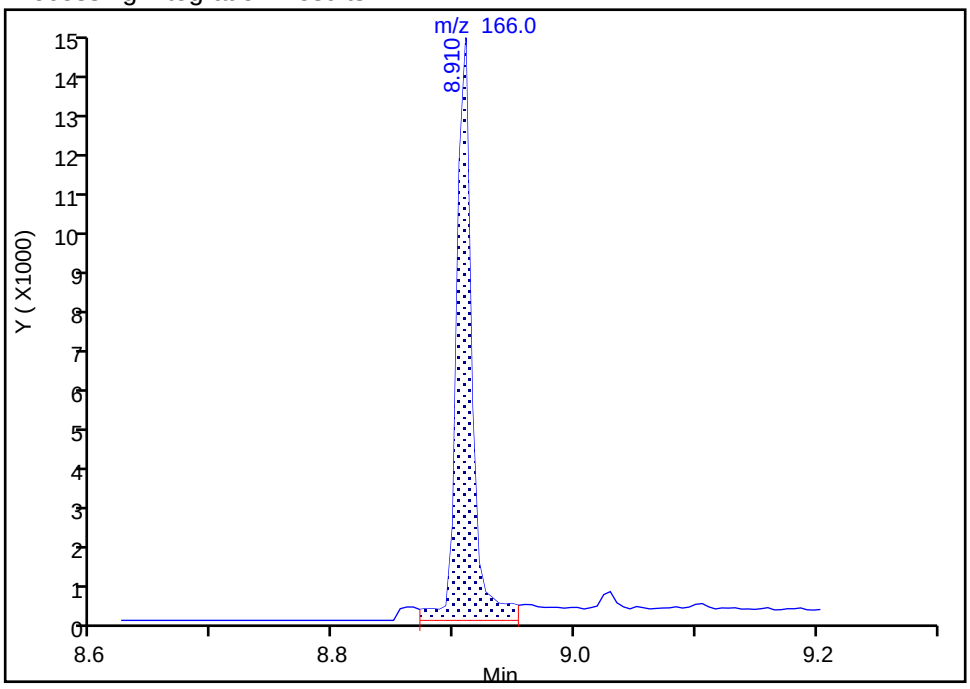
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023
Lims ID: std3
Client ID:
Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

15 Fluorene, CAS: 86-73-7

Signal: 1

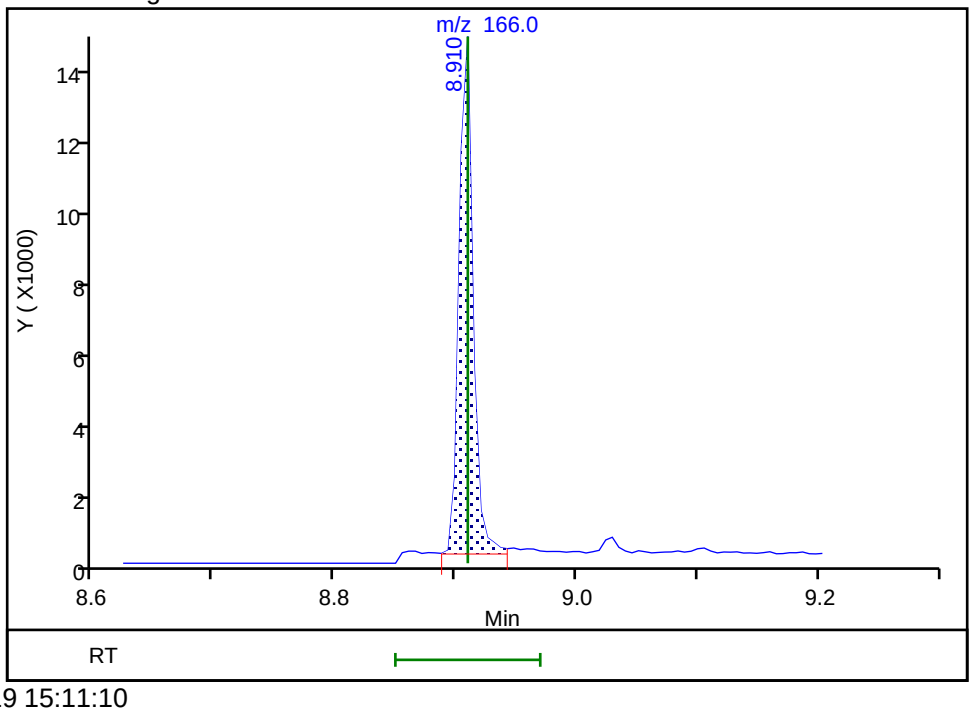
Processing Integration Results

RT: 8.91
Area: 13018
Amount: 5.148404
Amount Units: ug/L



Manual Integration Results

RT: 8.91
Area: 11622
Amount: 4.781461
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:10
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

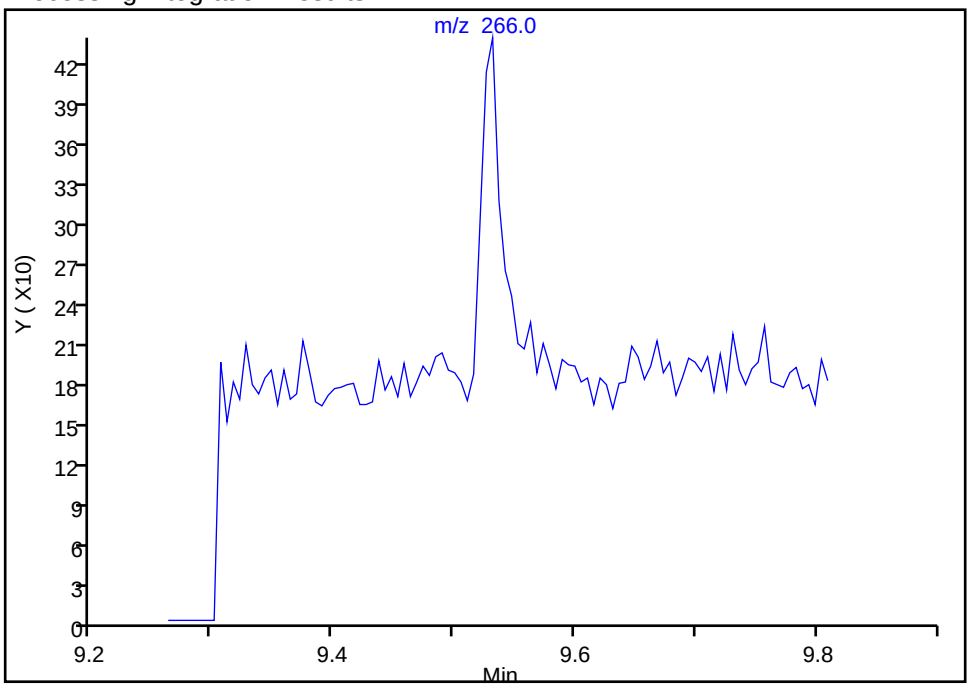
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D				
Injection Date:	30-Jan-2019 22:42:30	Instrument ID:	TAC023		
Lims ID:	std3				
Client ID:					
Operator ID:	adb	ALS Bottle#:	13	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

16 Pentachlorophenol, CAS: 87-86-5

Signal: 1

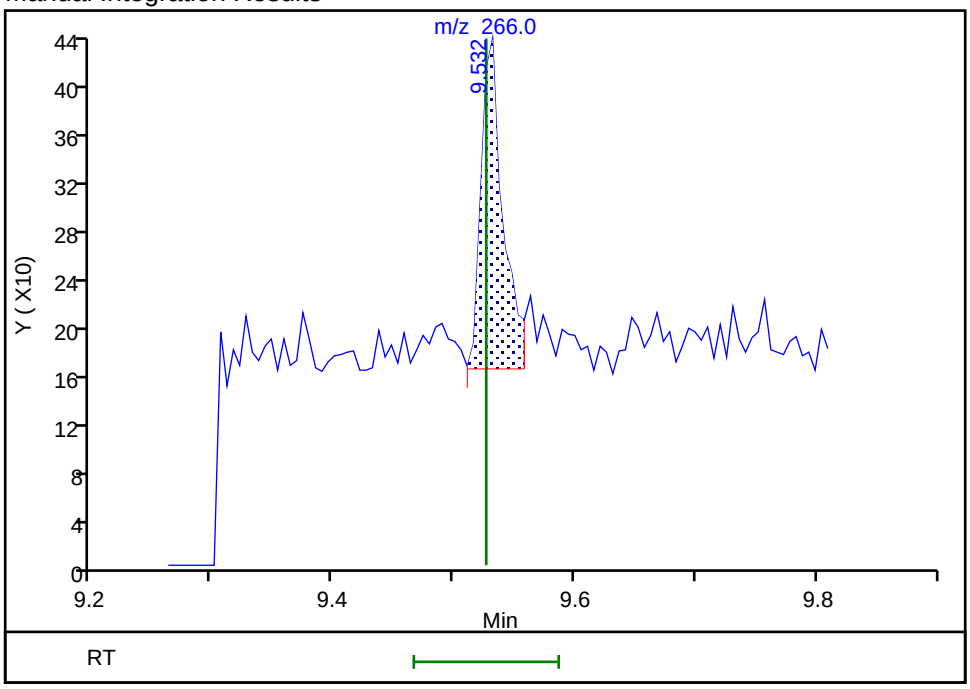
Not Detected
Expected RT: 9.53

Processing Integration Results



Manual Integration Results

RT: 9.53
Area: 340
Amount: 23.552548
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:20
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

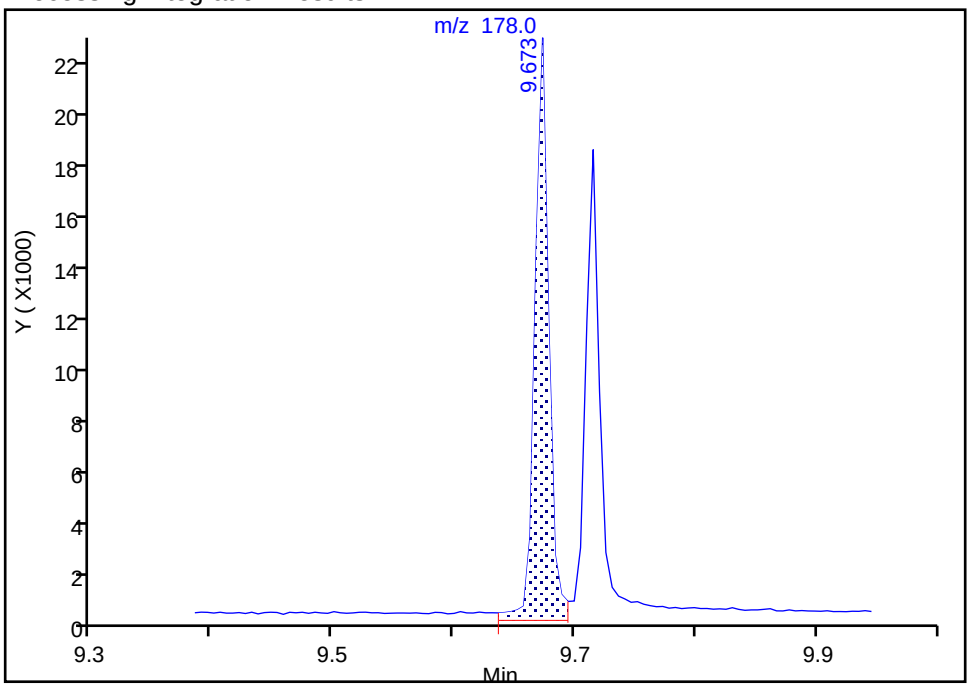
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023
Lims ID: std3
Client ID:
Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

17 Phenanthrene, CAS: 85-01-8

Signal: 1

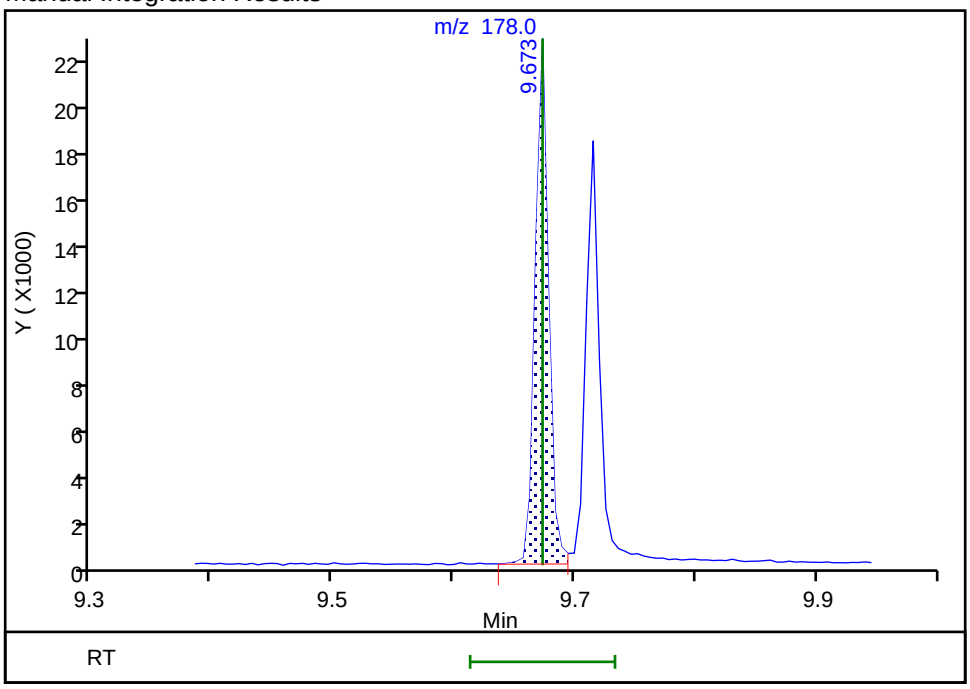
Processing Integration Results

RT: 9.67
Area: 18220
Amount: 5.283918
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 17230
Amount: 5.024382
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:29
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

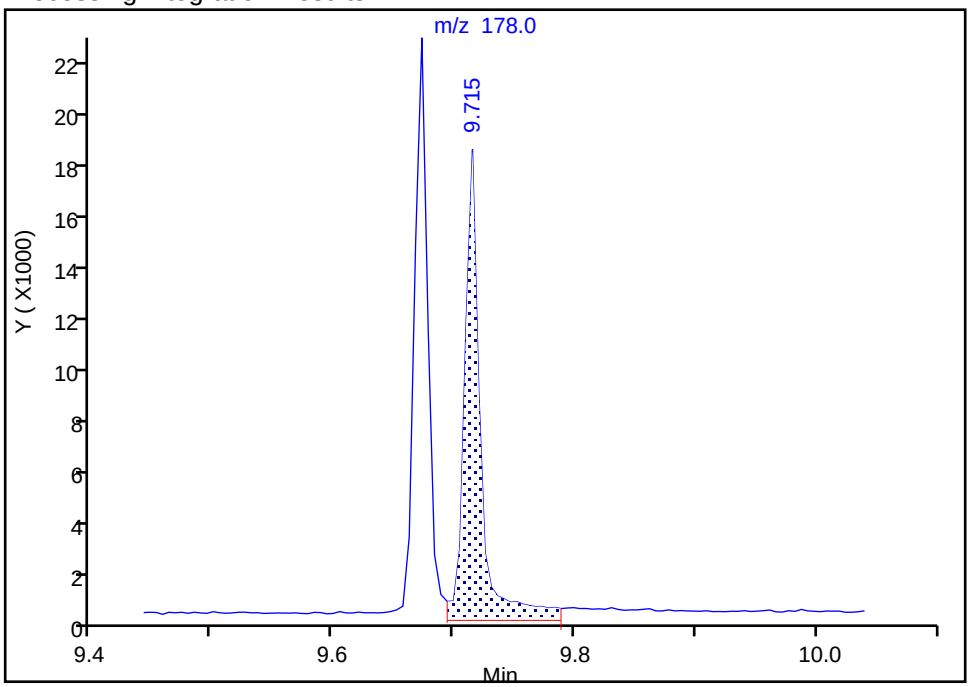
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023
Lims ID: std3
Client ID:
Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

18 Anthracene, CAS: 120-12-7

Signal: 1

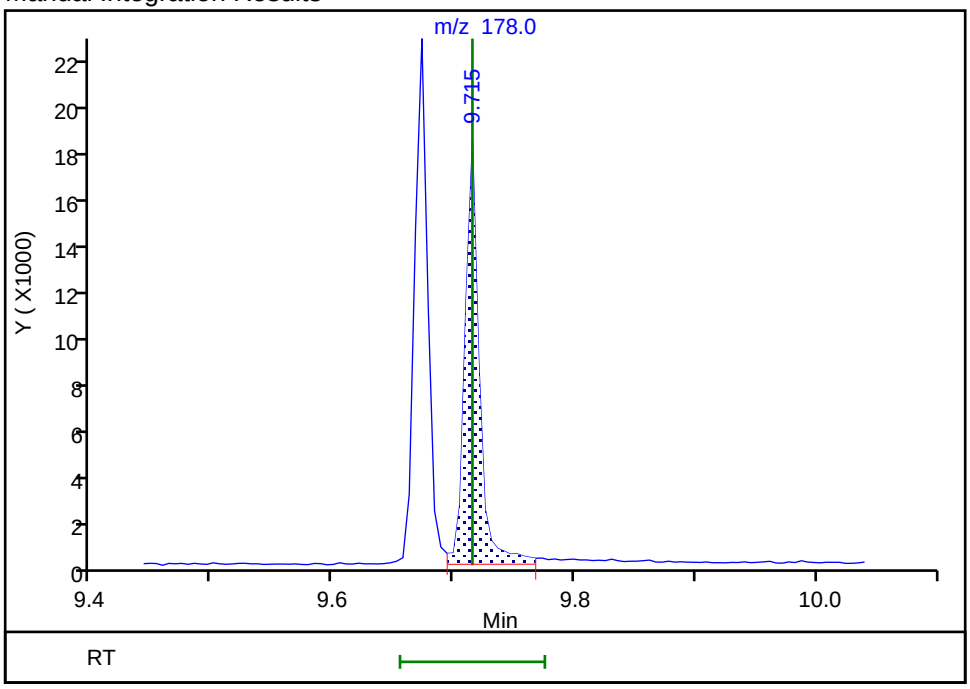
Processing Integration Results

RT: 9.72
Area: 16918
Amount: 5.141806
Amount Units: ug/L



Manual Integration Results

RT: 9.72
Area: 15047
Amount: 4.719660
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:35
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

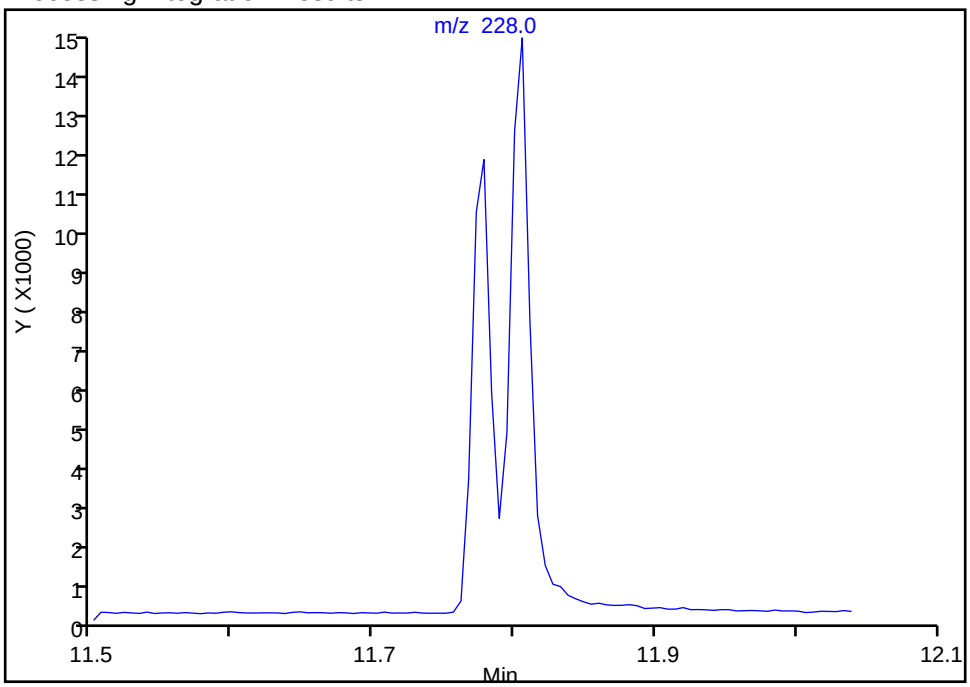
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D				
Injection Date:	30-Jan-2019 22:42:30	Instrument ID:	TAC023		
Lims ID:	std3				
Client ID:					
Operator ID:	adb	ALS Bottle#:	13	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

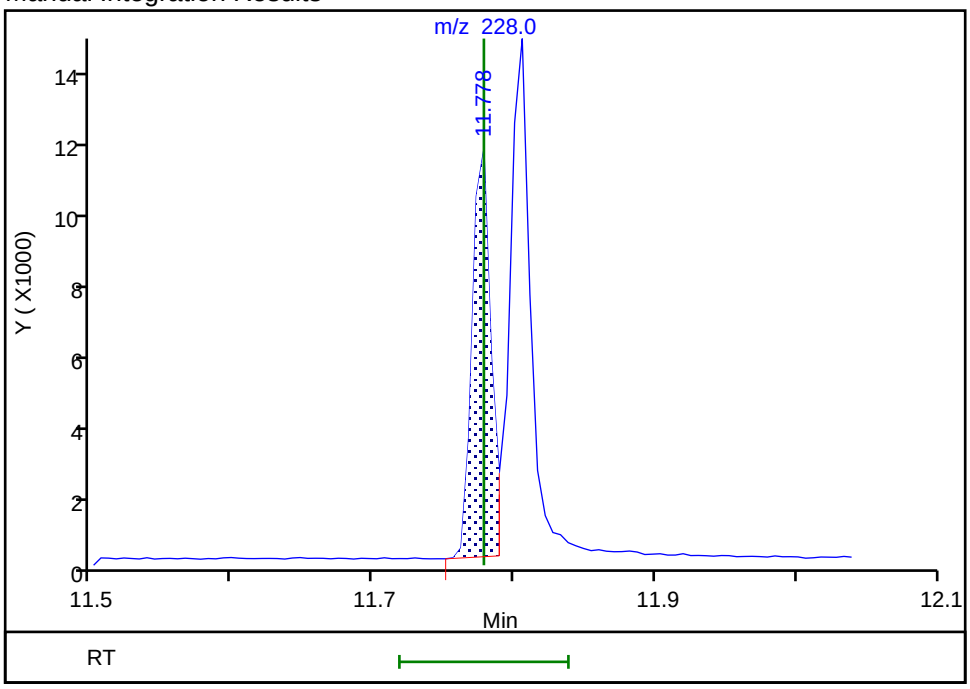
Not Detected
Expected RT: 11.78

Processing Integration Results



Manual Integration Results

RT: 11.78
Area: 10242
Amount: 4.831724
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:41
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

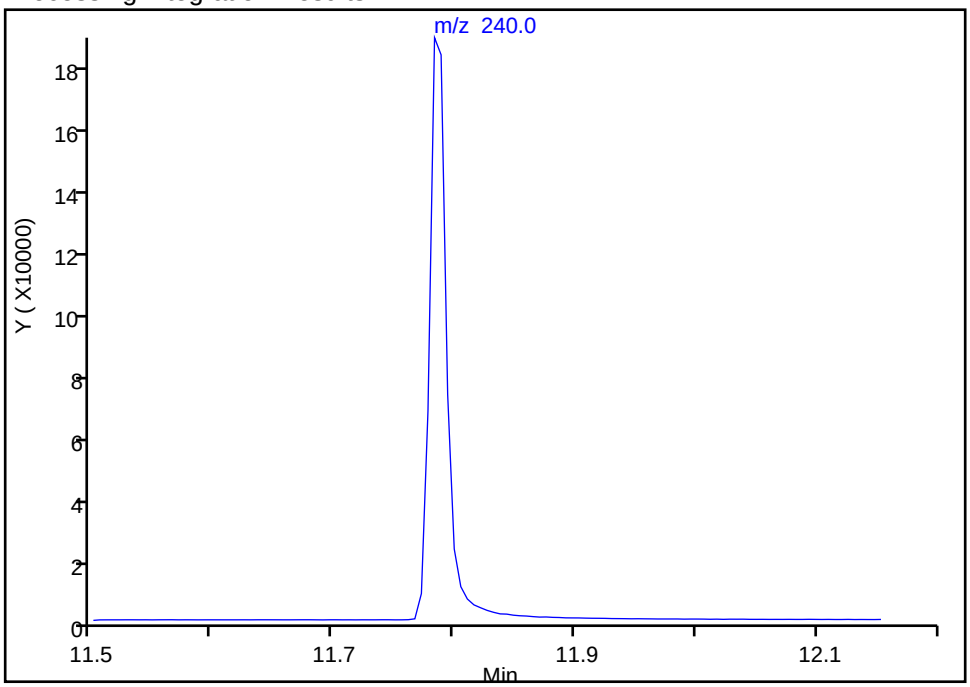
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D				
Injection Date:	30-Jan-2019 22:42:30	Instrument ID:	TAC023		
Lims ID:	std3				
Client ID:					
Operator ID:	adb	ALS Bottle#:	13	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 4 Chrysene-d12, CAS: 1719-03-5

Signal: 1

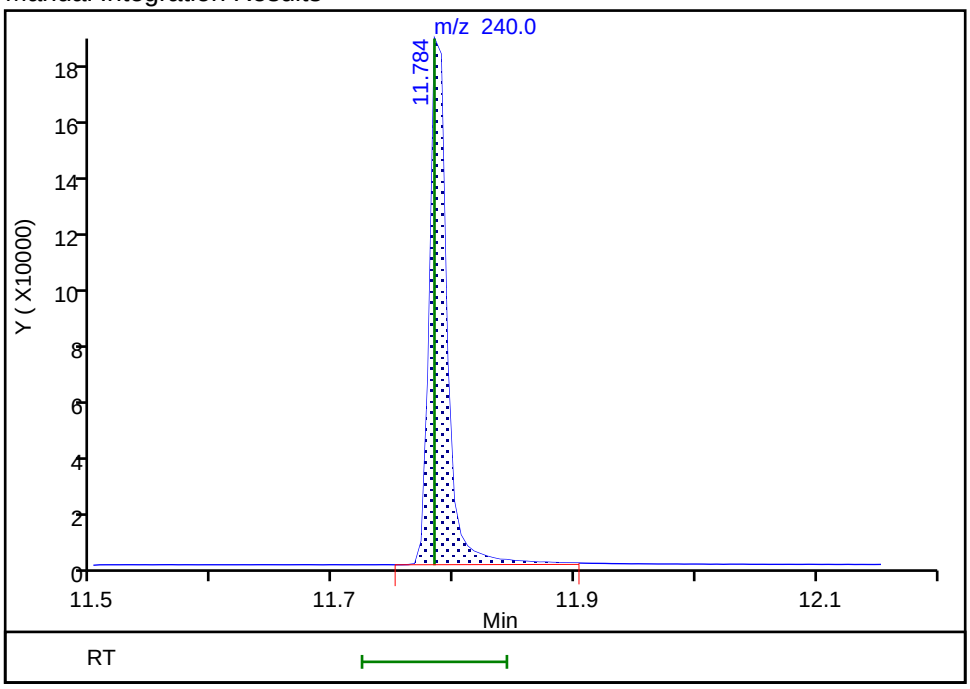
Not Detected
Expected RT: 11.78

Processing Integration Results



Manual Integration Results

RT: 11.78
Area: 185992
Amount: 100.0000
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:43
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

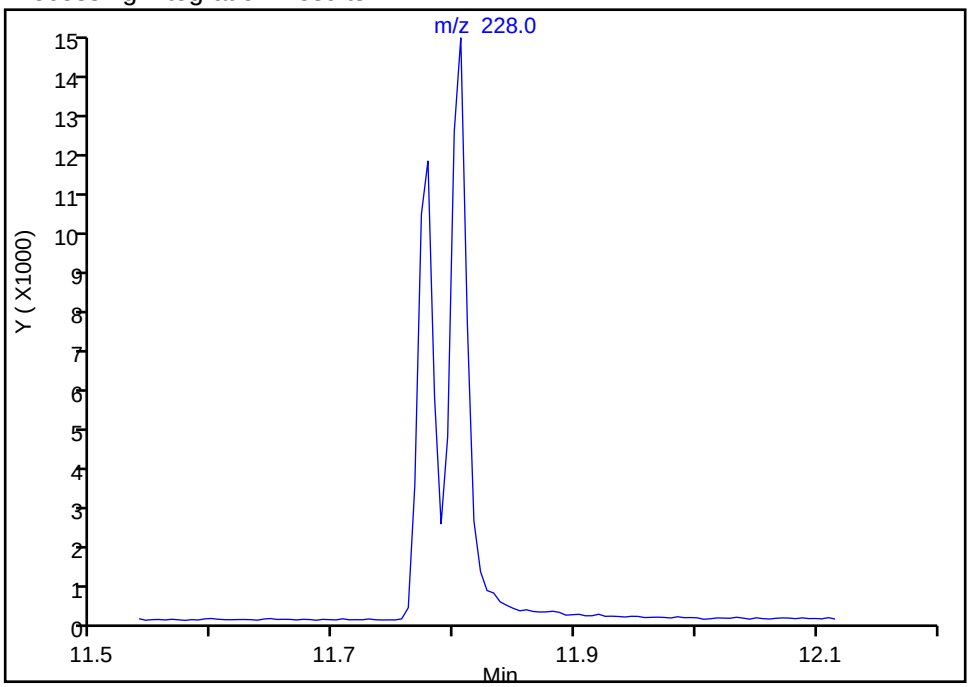
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D				
Injection Date:	30-Jan-2019 22:42:30	Instrument ID:	TAC023		
Lims ID:	std3				
Client ID:					
Operator ID:	adb	ALS Bottle#:	13	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

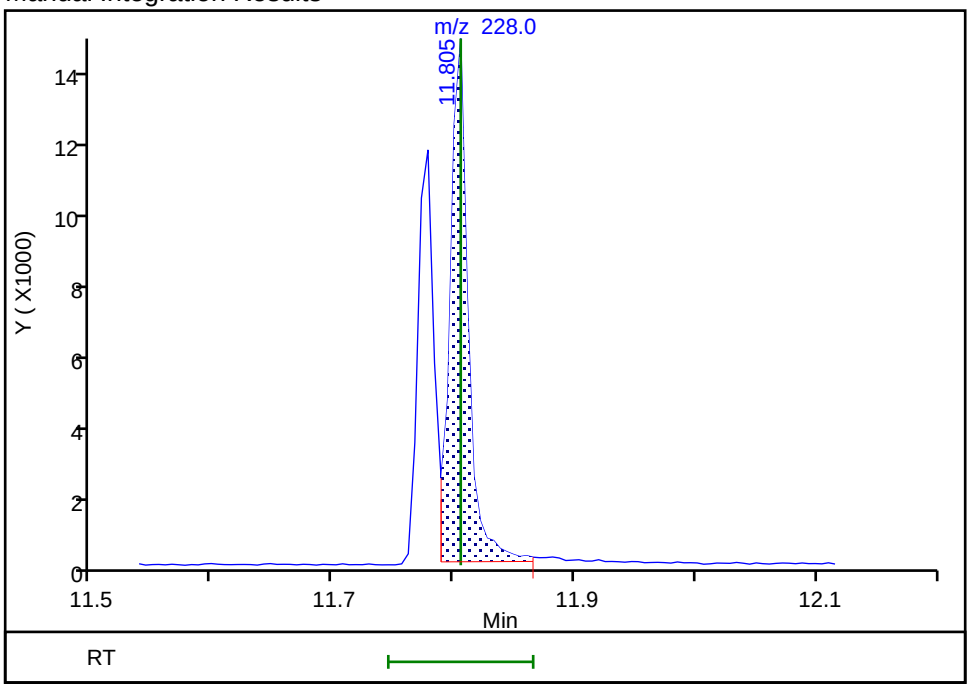
Not Detected
Expected RT: 11.81

Processing Integration Results



Manual Integration Results

RT: 11.81
Area: 14627
Amount: 5.188828
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:44
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

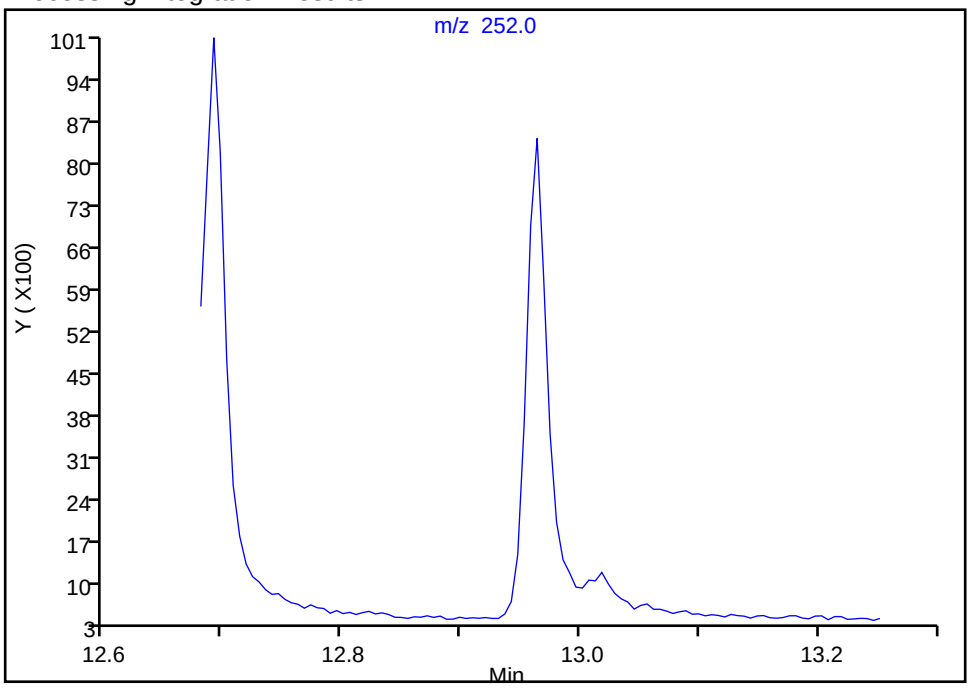
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D				
Injection Date:	30-Jan-2019 22:42:30	Instrument ID:	TAC023		
Lims ID:	std3				
Client ID:					
Operator ID:	adb	ALS Bottle#:	13	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

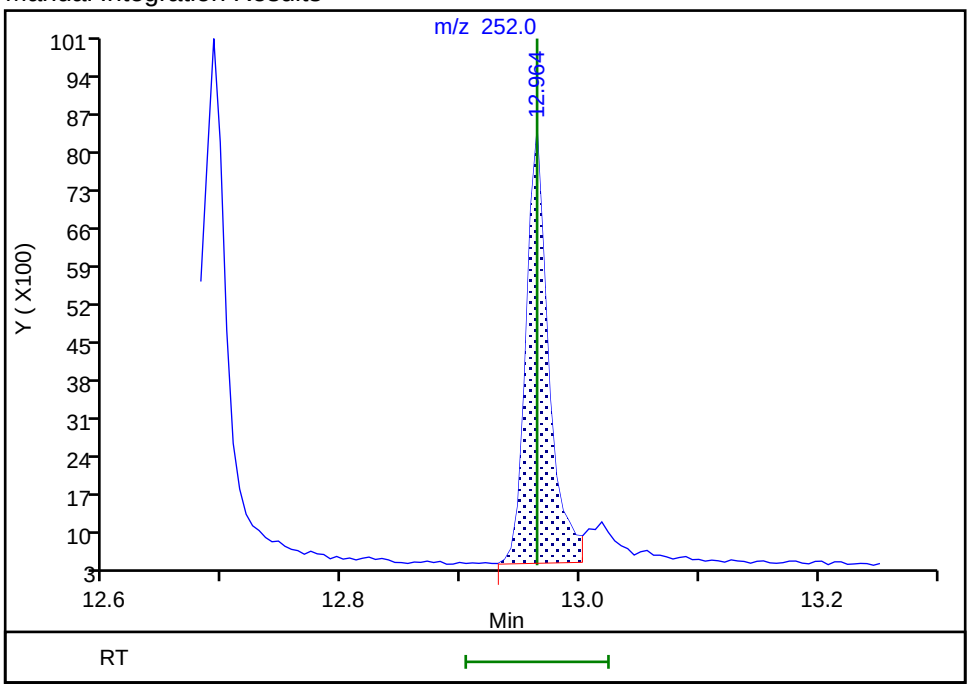
Not Detected
Expected RT: 12.96

Processing Integration Results



Manual Integration Results

RT: 12.96
Area: 10450
Amount: 4.491425
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:11:59
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

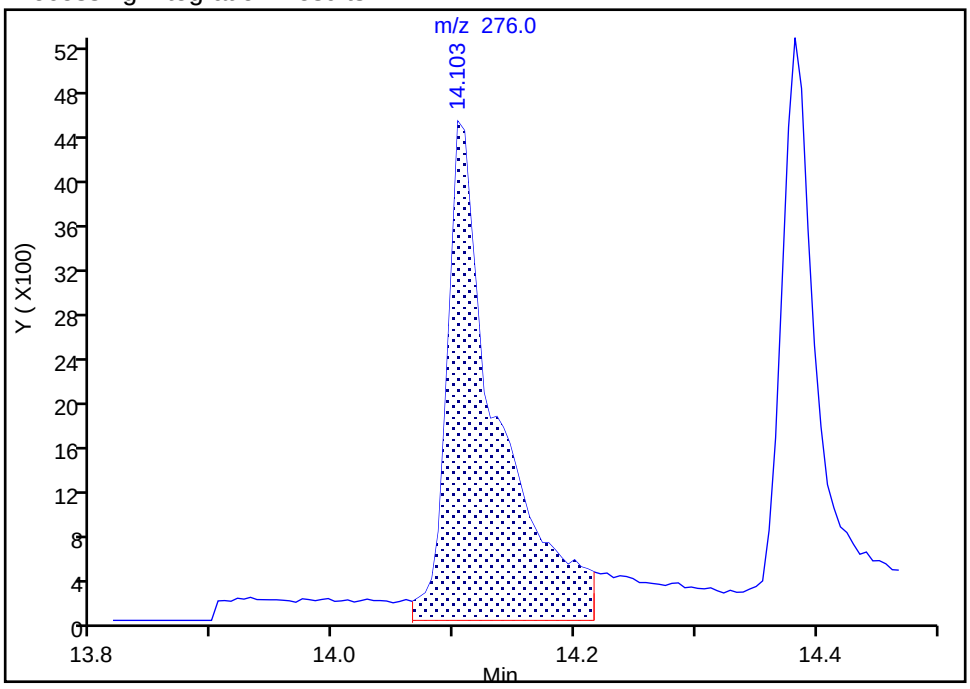
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023
Lims ID: std3
Client ID:
Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

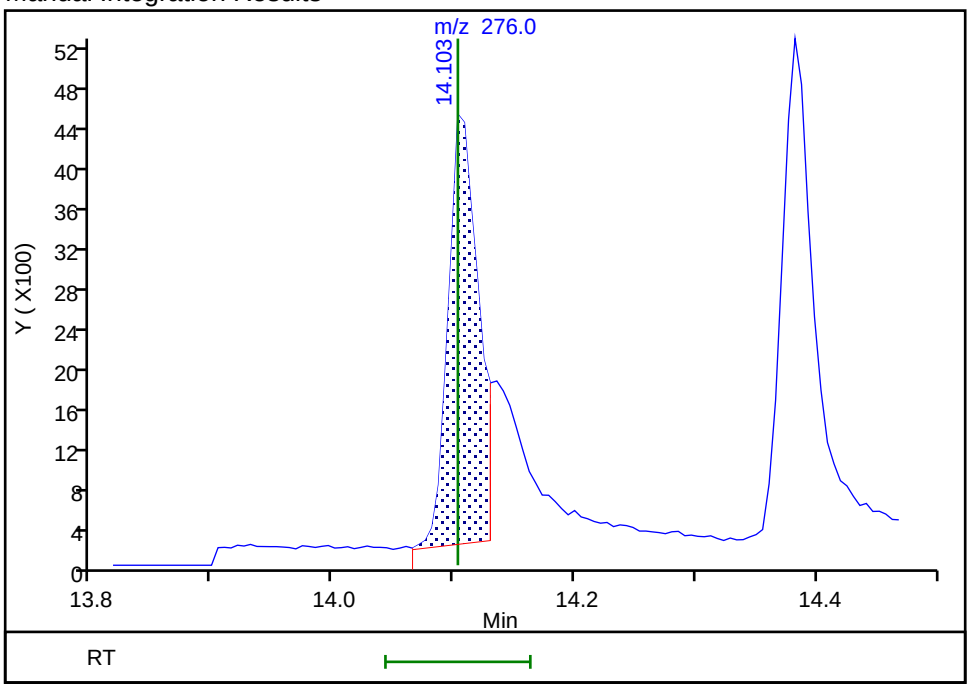
Processing Integration Results

RT: 14.10
Area: 12874
Amount: 5.836263
Amount Units: ug/L



Manual Integration Results

RT: 14.10
Area: 7257
Amount: 4.208650
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:06
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

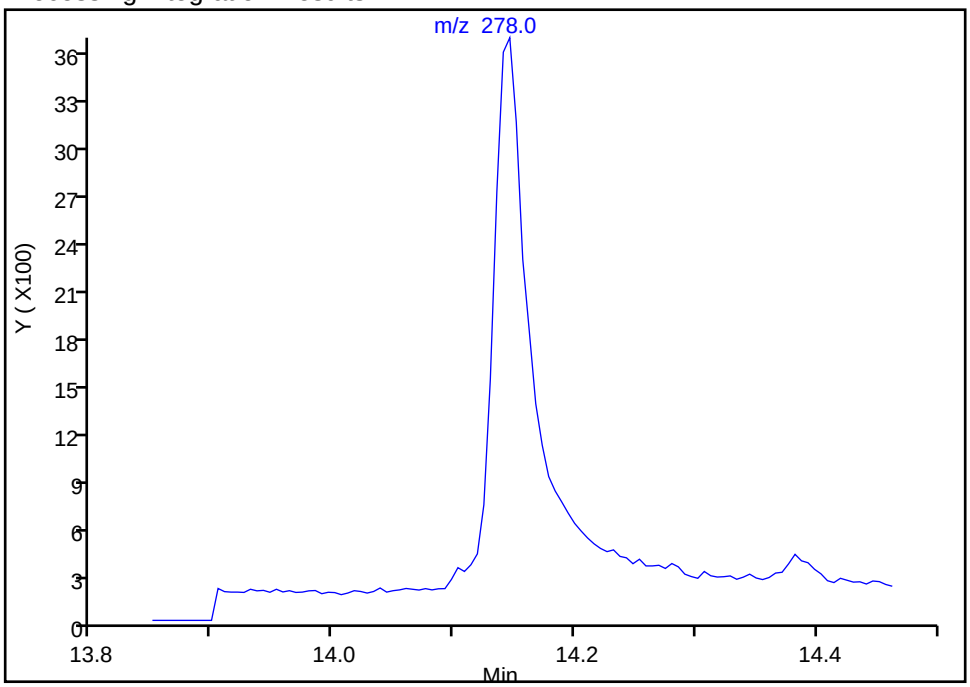
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D				
Injection Date:	30-Jan-2019 22:42:30	Instrument ID:	TAC023		
Lims ID:	std3				
Client ID:					
Operator ID:	adb	ALS Bottle#:	13	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

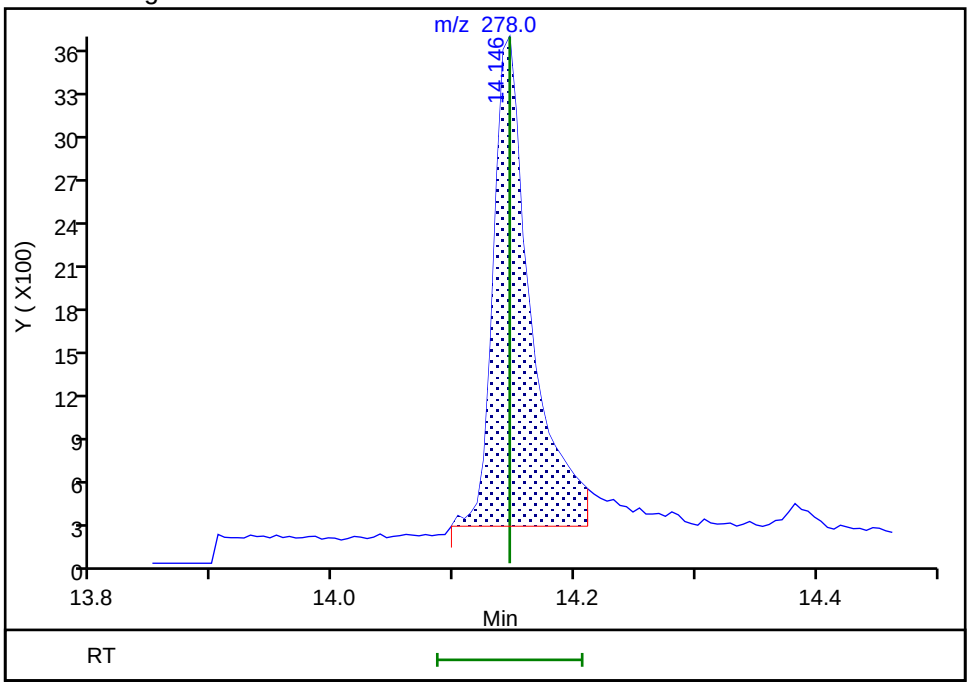
Not Detected
Expected RT: 14.15

Processing Integration Results



Manual Integration Results

RT: 14.15
Area: 7280
Amount: 4.317936
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:08
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

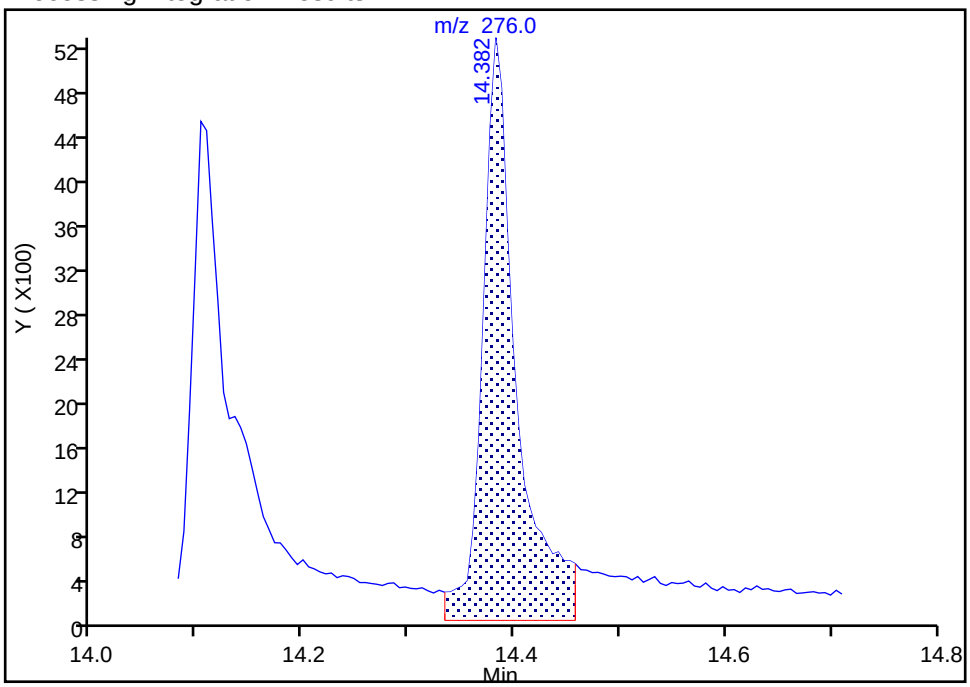
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b015.D
Injection Date: 30-Jan-2019 22:42:30 Instrument ID: TAC023
Lims ID: std3
Client ID:
Operator ID: adb ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

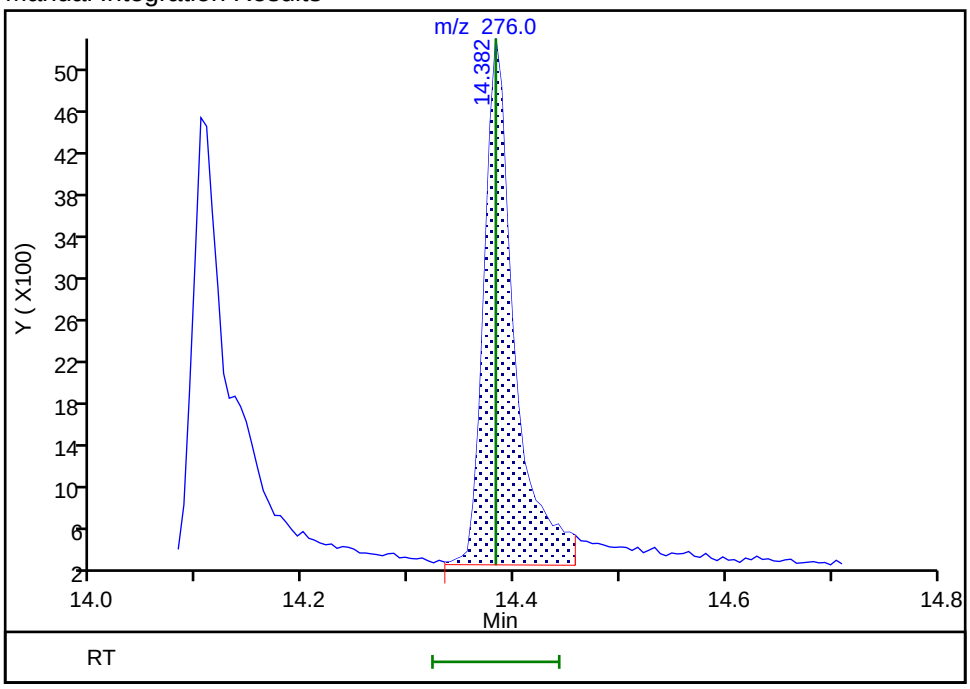
Processing Integration Results

RT: 14.38
Area: 11554
Amount: 4.447956
Amount Units: ug/L



Manual Integration Results

RT: 14.38
Area: 9887
Amount: 4.110992
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:14
Audit Action: Manually Integrated Audit Reason: Baseline

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D
Lims ID: std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 30-Jan-2019 23:08:30 ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 2
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:31 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:57:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	99	372756	100.0	100.0	
* 2 Acenaphthene-d10	164	8.464	8.464	0.000	99	154734	100.0	100.0	
* 3 Phenanthrene-d10	188	9.657	9.657	0.000	100	249342	100.0	100.0	
* 4 Chrysene-d12	240	11.789	11.784	0.005	77	181506	100.0	100.0	
* 5 Perylene-d12	264	13.023	13.018	0.005	100	165530	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.586	7.580	0.006	99	4823	2.00	2.01	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	0	312	2.00	2.75	M
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	99	6026	2.00	2.19	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	3890	2.00	2.06	
10 Naphthalene	128	6.993	6.988	0.005	77	8705	2.00	2.09	a
11 2-Methylnaphthalene	142	7.608	7.608	0.000	98	5625	2.00	2.06	
12 1-Methylnaphthalene	142	7.689	7.684	0.005	99	5131	2.00	2.01	
13 Acenaphthylene	152	8.338	8.338	0.000	99	6681	2.00	1.98	
14 Acenaphthene	153	8.486	8.486	0.000	97	4985	2.00	2.03	M
15 Fluorene	166	8.910	8.910	0.000	99	4733	2.00	1.93	
17 Phenanthrene	178	9.673	9.673	0.000	100	7112	2.00	2.10	M
18 Anthracene	178	9.715	9.715	0.000	99	5953	2.00	1.89	M
19 Fluoranthene	202	10.632	10.632	0.000	100	6407	2.00	2.00	
20 Pyrene	202	10.804	10.804	0.000	99	6927	2.00	2.05	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	18	4054	2.00	1.96	
22 Chrysene	228	11.805	11.805	0.000	98	5578	2.00	2.03	a
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	95	3681	2.00	1.73	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	94	4557	2.00	1.75	a
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	3683	2.00	1.71	a
26 Indeno[1,2,3-cd]pyrene	276	14.108	14.103	0.005	95	3143	2.00	2.03	M
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	2889	2.00	2.48	a
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	97	3925	2.00	1.91	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_2_00003 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:35 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D

Injection Date: 30-Jan-2019 23:08:30 Instrument ID: TAC023

Lims ID: std2

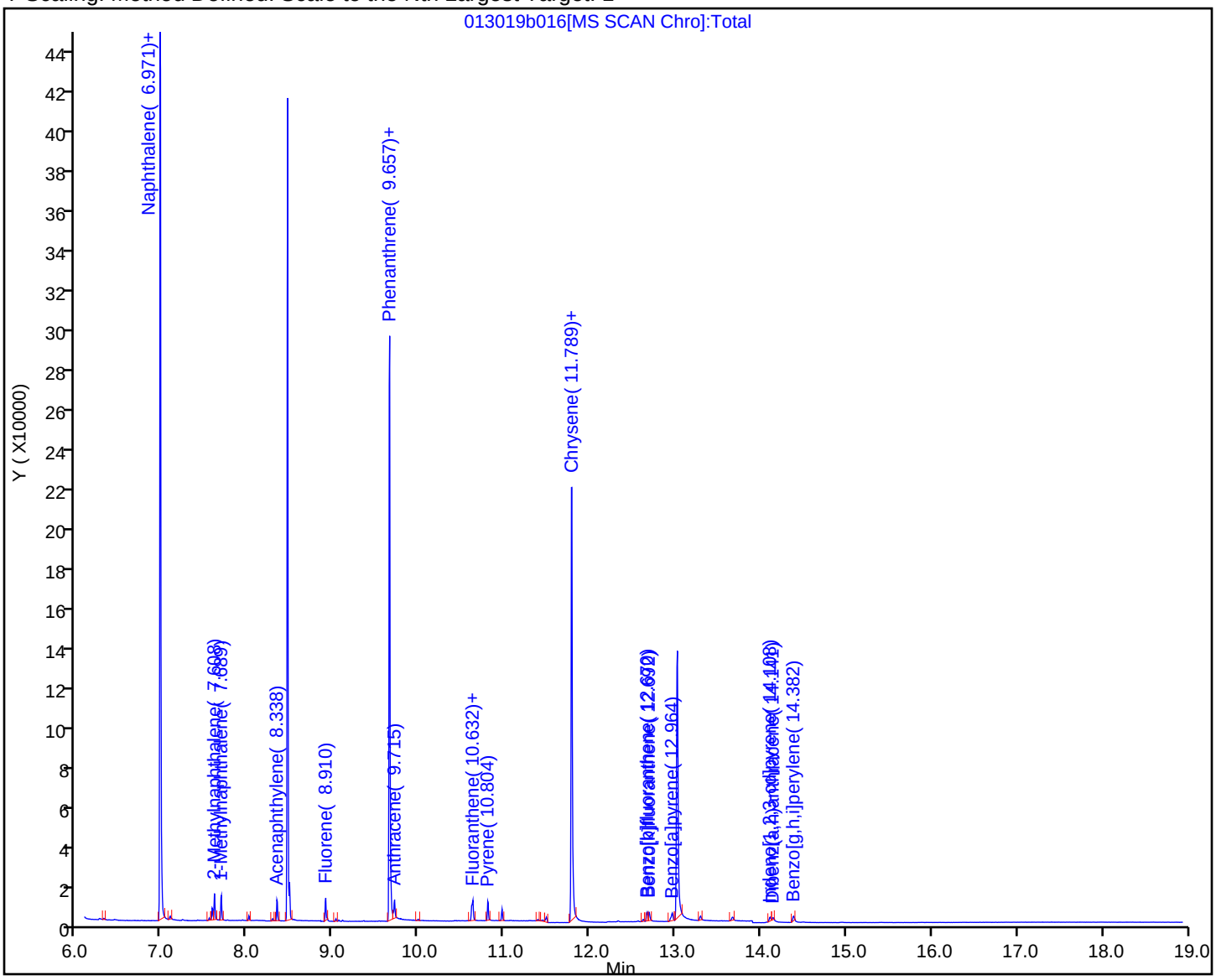
Client ID:

Operator ID: adb ALS Bottle#: 14 Worklist Smp#: 15

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

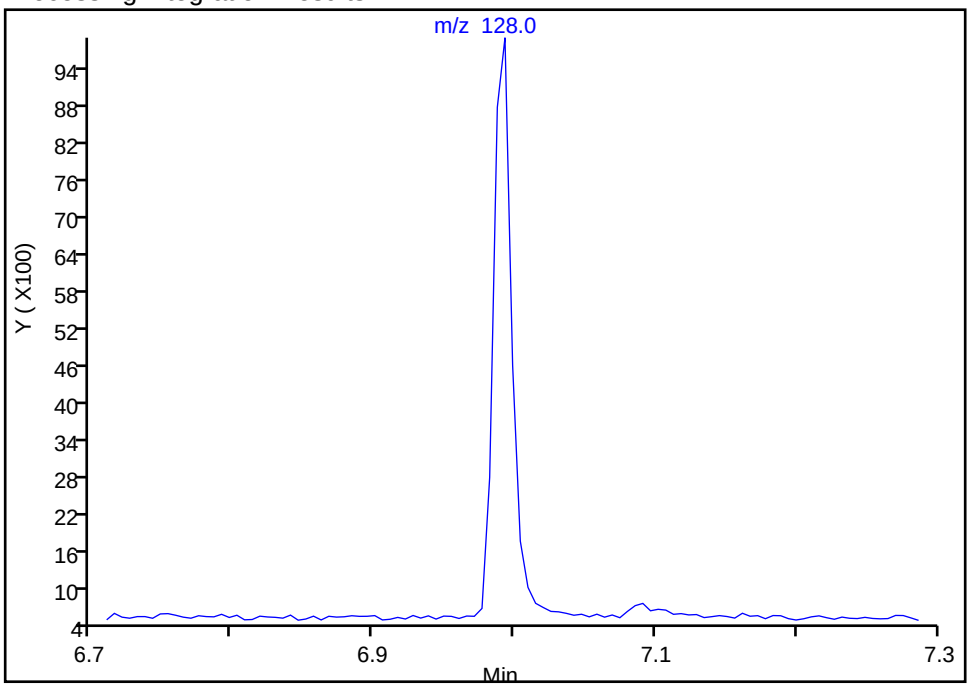
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D				
Injection Date:	30-Jan-2019 23:08:30	Instrument ID:	TAC023		
Lims ID:	std2				
Client ID:					
Operator ID:	adb	ALS Bottle#:	14	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

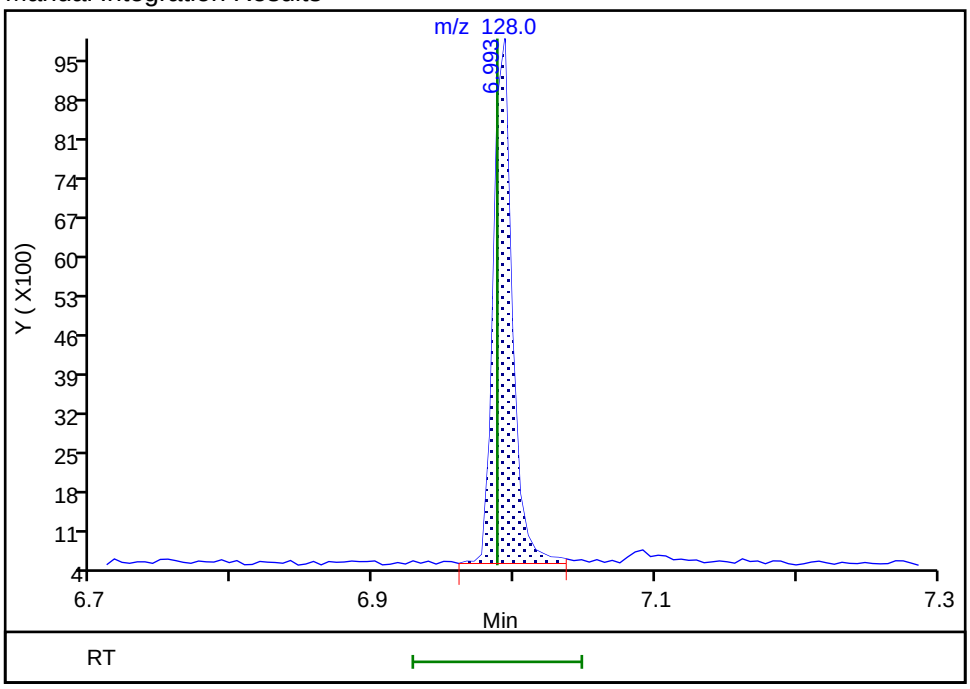
Not Detected
Expected RT: 6.99

Processing Integration Results



Manual Integration Results

RT: 6.99
Area: 8705
Amount: 2.090127
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:17:15
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

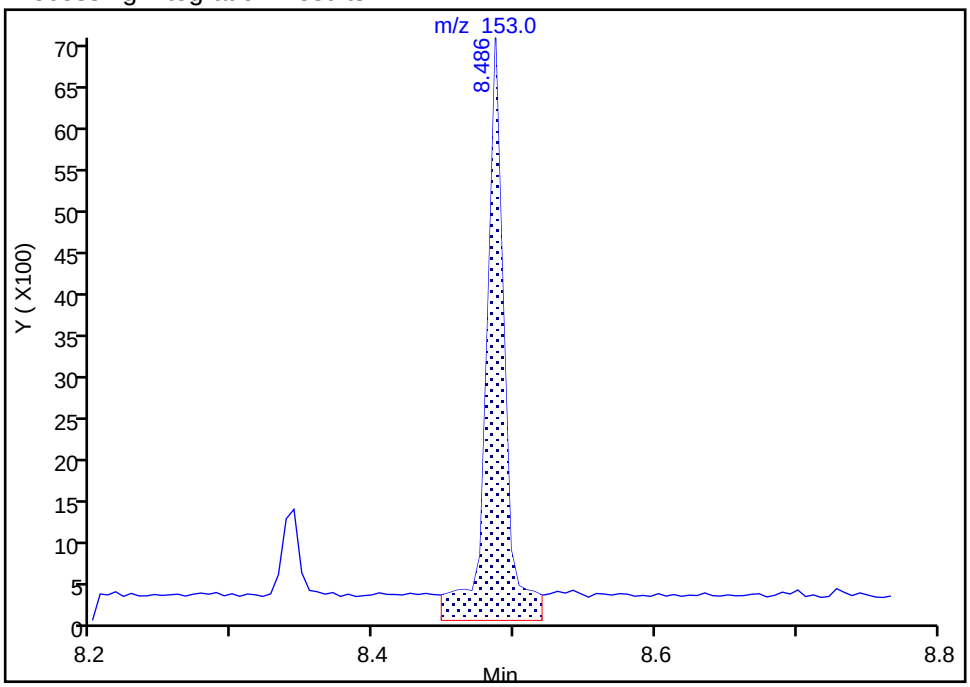
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D
Injection Date: 30-Jan-2019 23:08:30 Instrument ID: TAC023
Lims ID: std2
Client ID:
Operator ID: adb ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

14 Acenaphthene, CAS: 83-32-9

Signal: 1

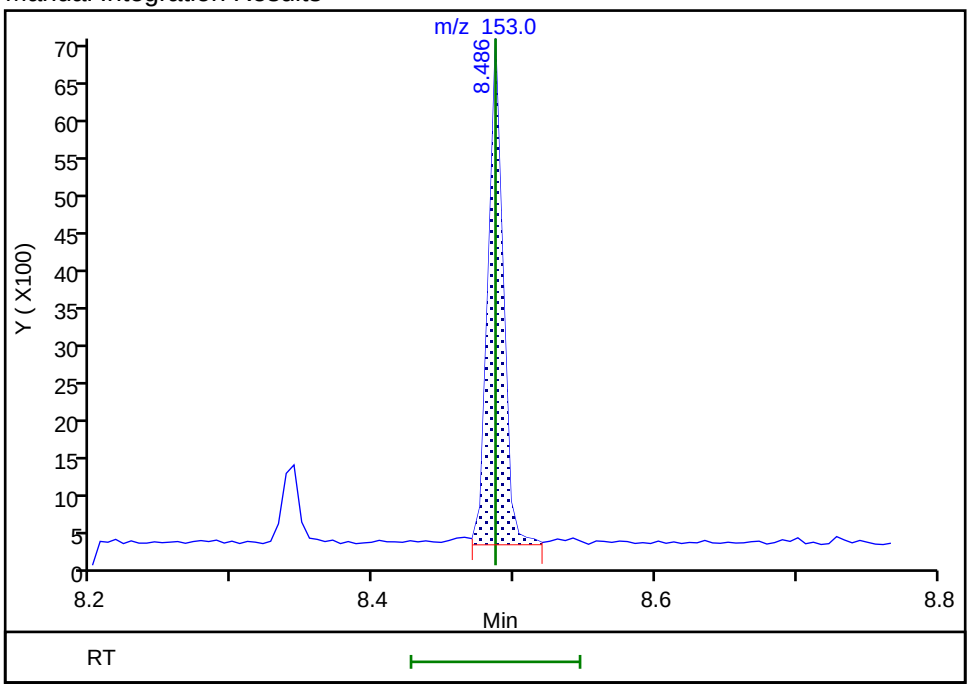
Processing Integration Results

RT: 8.49
Area: 6252
Amount: 2.390936
Amount Units: ug/L



Manual Integration Results

RT: 8.49
Area: 4985
Amount: 2.034676
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:17:07
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

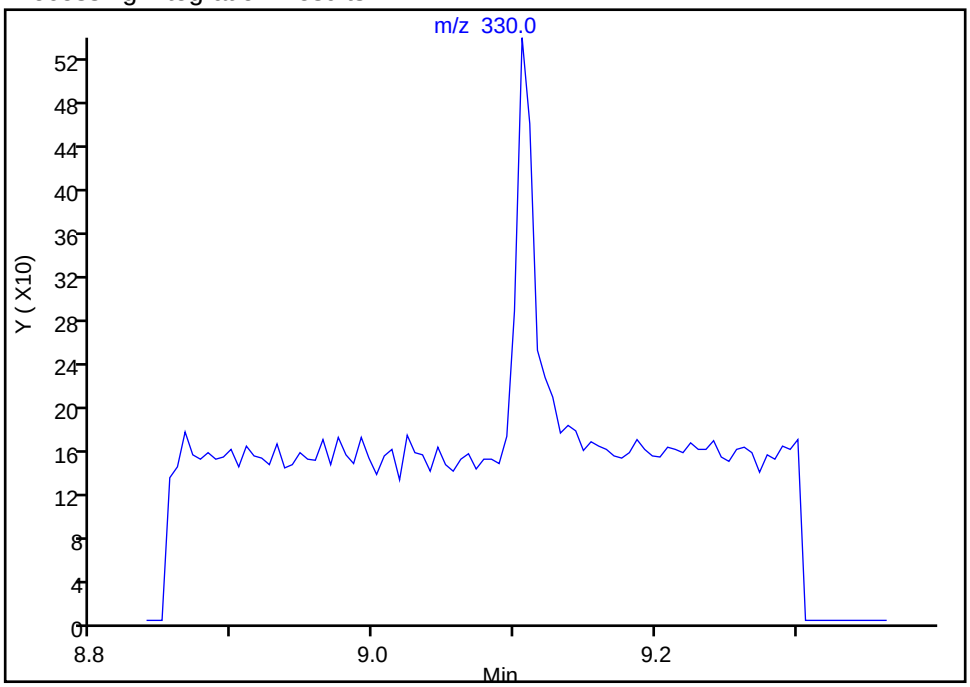
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D				
Injection Date:	30-Jan-2019 23:08:30	Instrument ID:	TAC023		
Lims ID:	std2				
Client ID:					
Operator ID:	adb	ALS Bottle#:	14	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

$ 7 2,4,6-Tribromophenol, CAS: 118-79-6

Signal: 1

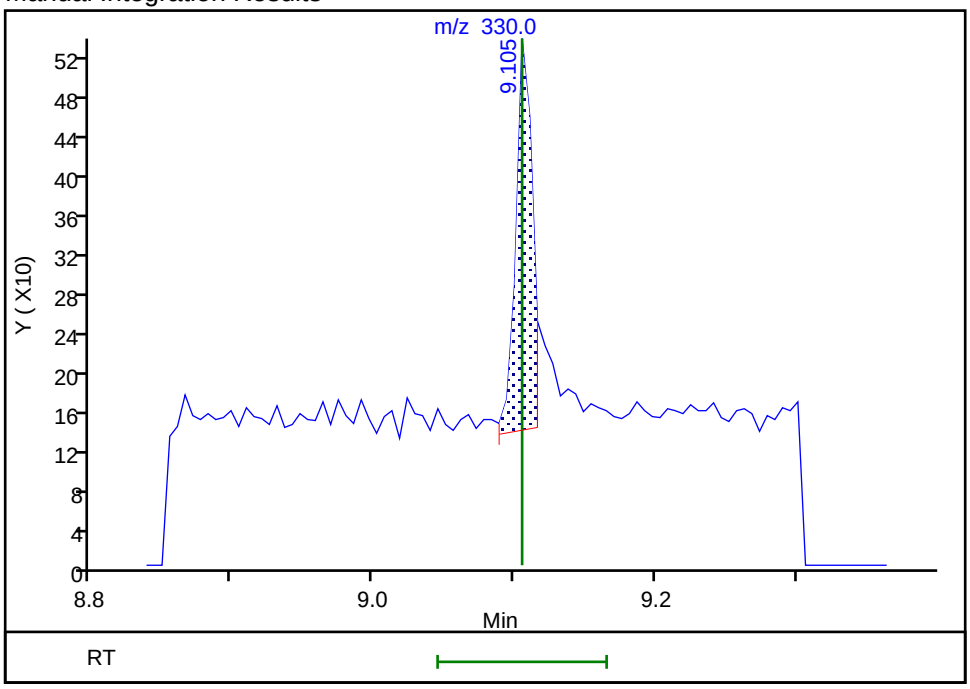
Not Detected
Expected RT: 9.11

Processing Integration Results



Manual Integration Results

RT: 9.11
Area: 312
Amount: 2.749412
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:13:37
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

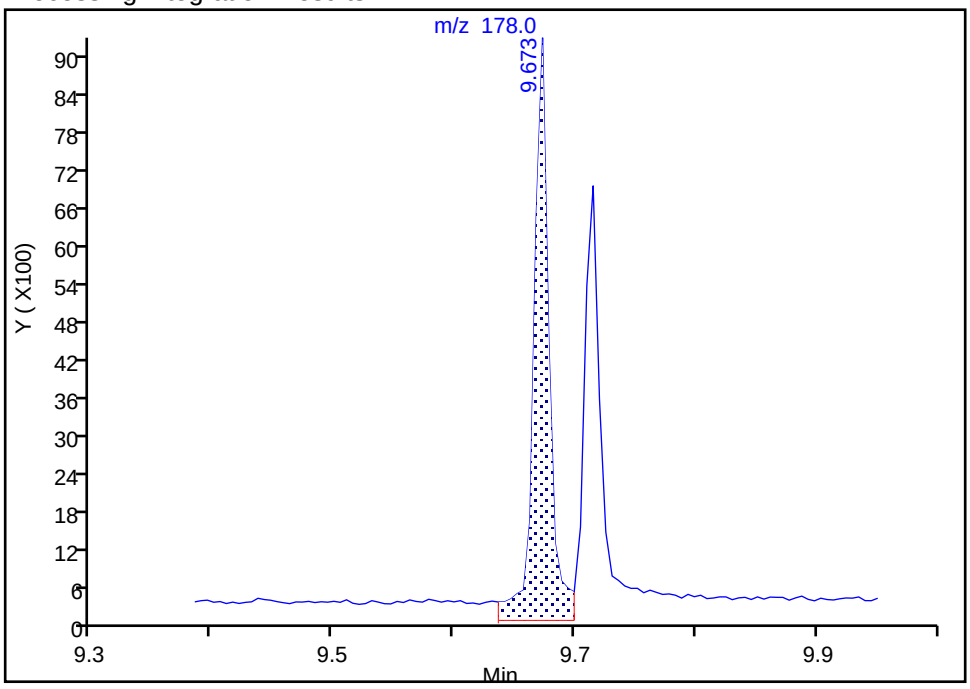
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D
Injection Date: 30-Jan-2019 23:08:30 Instrument ID: TAC023
Lims ID: std2
Client ID:
Operator ID: adb ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

17 Phenanthrene, CAS: 85-01-8

Signal: 1

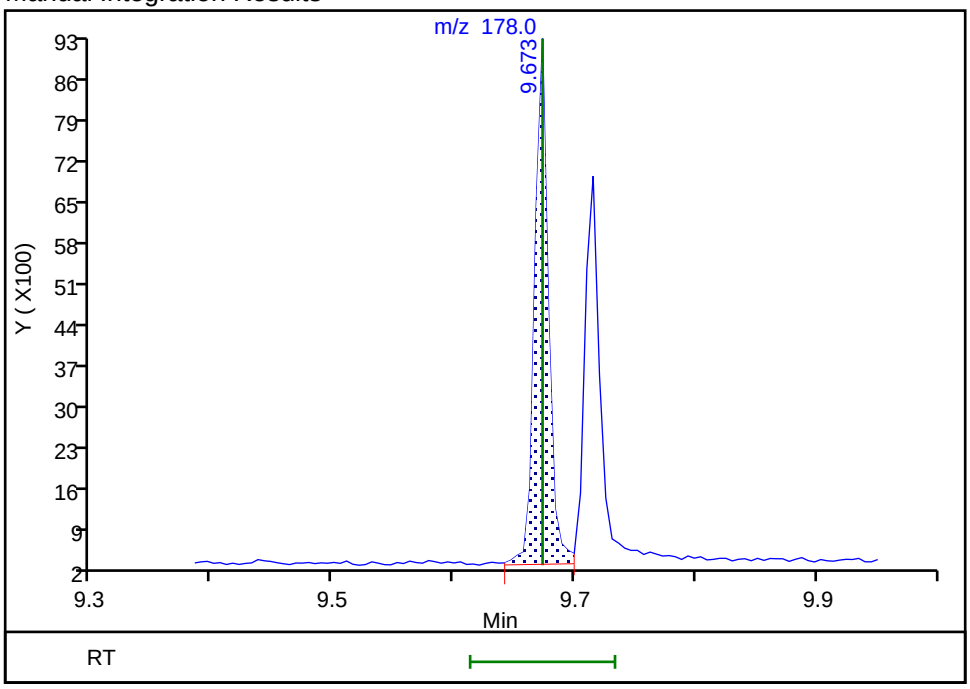
Processing Integration Results

RT: 9.67
Area: 8135
Amount: 2.403870
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 7112
Amount: 2.101038
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:13:29
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

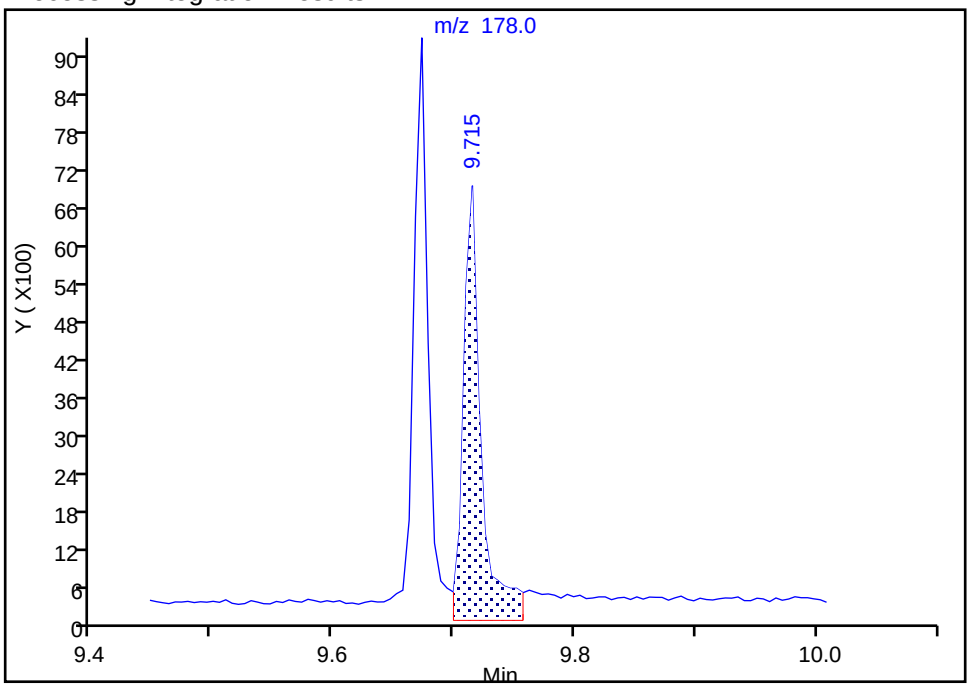
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D
Injection Date: 30-Jan-2019 23:08:30 Instrument ID: TAC023
Lims ID: std2
Client ID:
Operator ID: adb ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

18 Anthracene, CAS: 120-12-7

Signal: 1

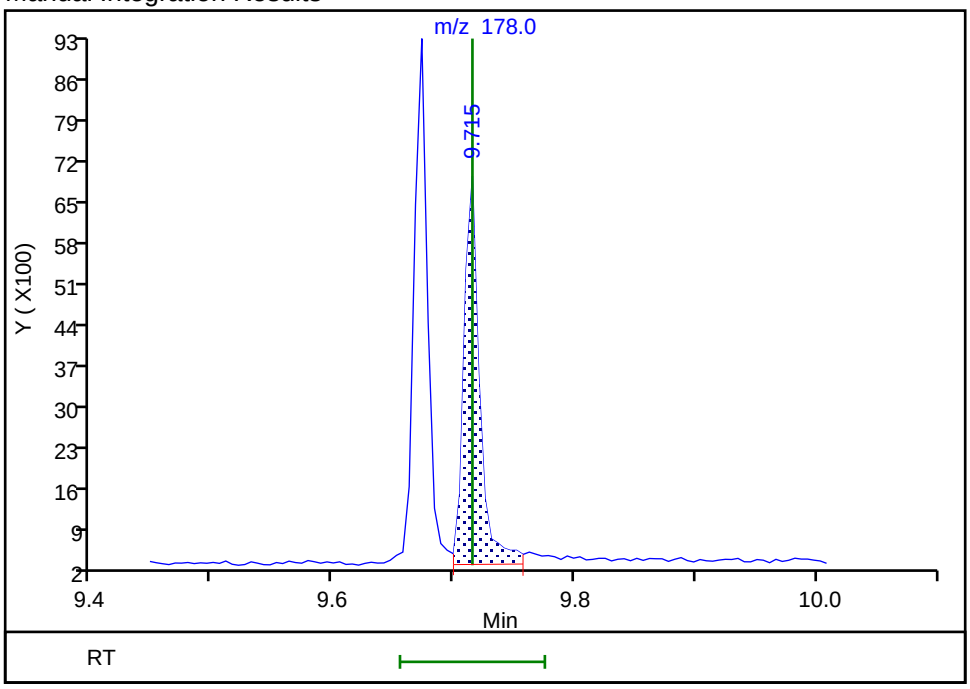
Processing Integration Results

RT: 9.72
Area: 6886
Amount: 2.144598
Amount Units: ug/L



Manual Integration Results

RT: 9.72
Area: 5953
Amount: 1.891653
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:13:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

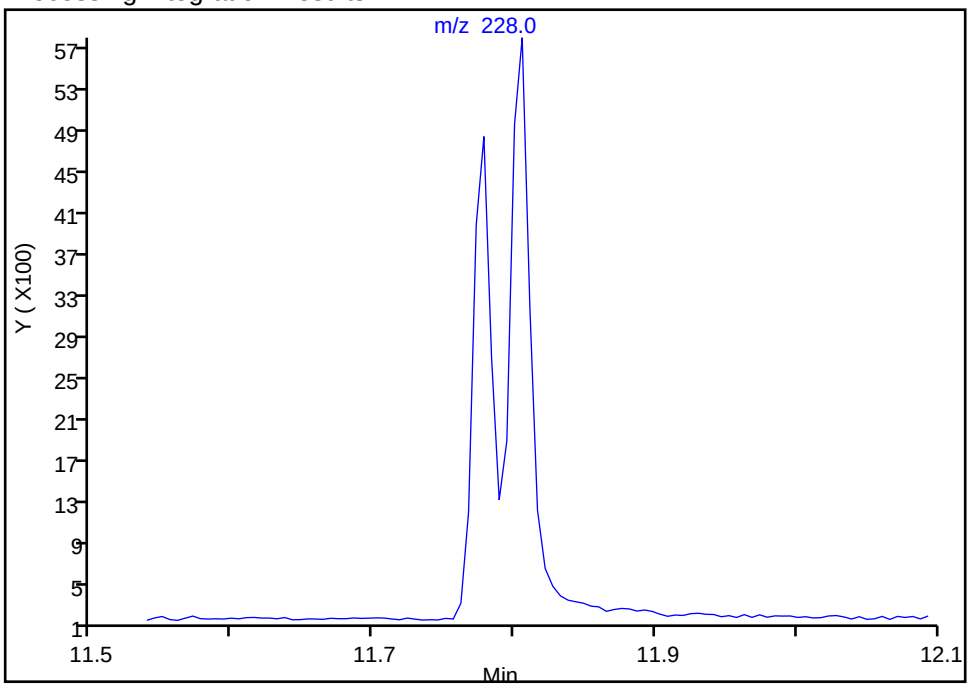
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D				
Injection Date:	30-Jan-2019 23:08:30	Instrument ID:	TAC023		
Lims ID:	std2				
Client ID:					
Operator ID:	adb	ALS Bottle#:	14	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

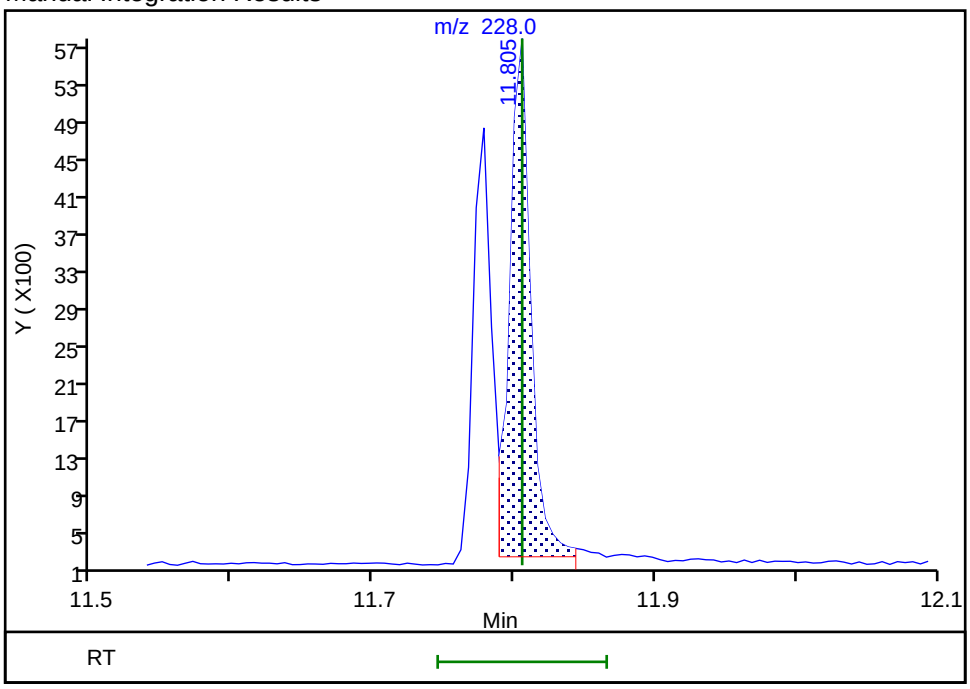
Not Detected
Expected RT: 11.81

Processing Integration Results



Manual Integration Results

RT: 11.81
Area: 5578
Amount: 2.027663
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:13:01
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

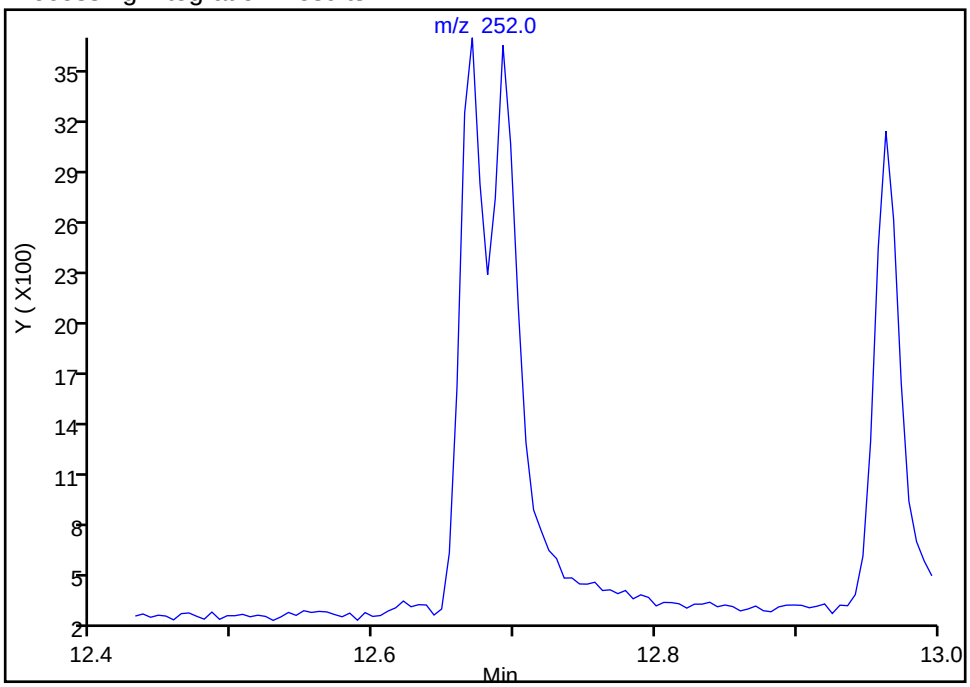
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D				
Injection Date:	30-Jan-2019 23:08:30	Instrument ID:	TAC023		
Lims ID:	std2				
Client ID:					
Operator ID:	adb	ALS Bottle#:	14	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

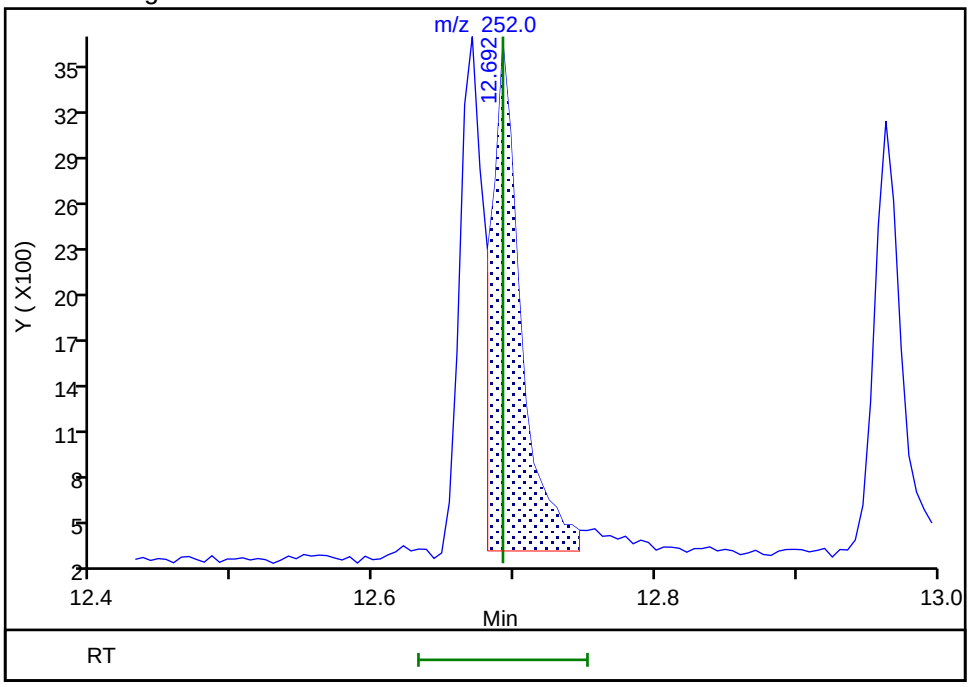
Not Detected
Expected RT: 12.69

Processing Integration Results



Manual Integration Results

RT: 12.69
Area: 4557
Amount: 1.746931
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:58
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

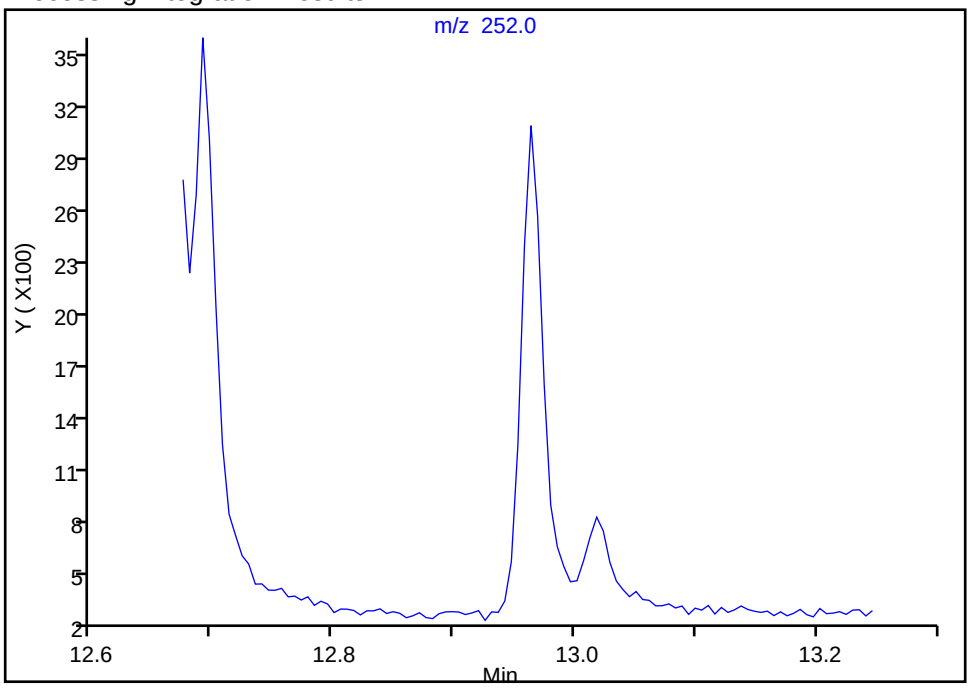
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D				
Injection Date:	30-Jan-2019 23:08:30	Instrument ID:	TAC023		
Lims ID:	std2				
Client ID:					
Operator ID:	adb	ALS Bottle#:	14	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

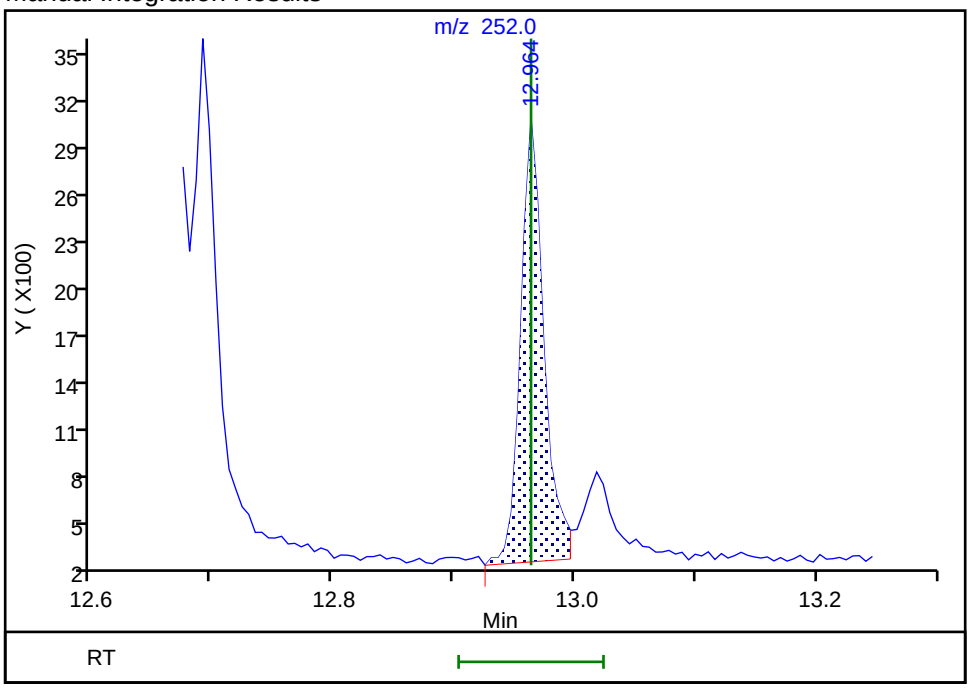
Not Detected
Expected RT: 12.96

Processing Integration Results



Manual Integration Results

RT: 12.96
Area: 3683
Amount: 1.705135
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:55
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

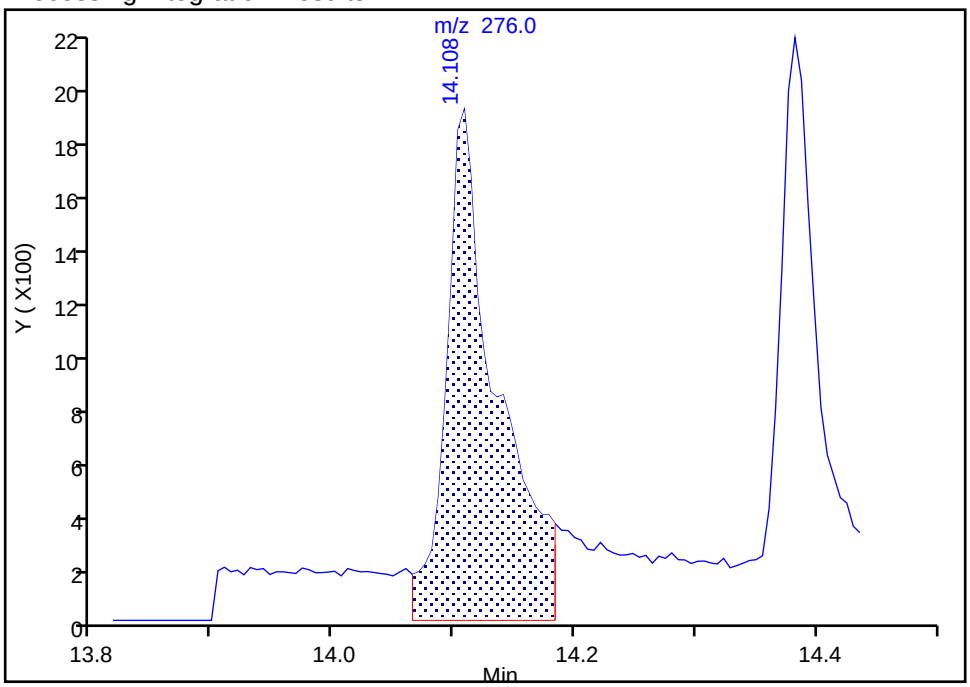
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D				
Injection Date:	30-Jan-2019 23:08:30	Instrument ID:	TAC023		
Lims ID:	std2				
Client ID:					
Operator ID:	adb	ALS Bottle#:	14	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

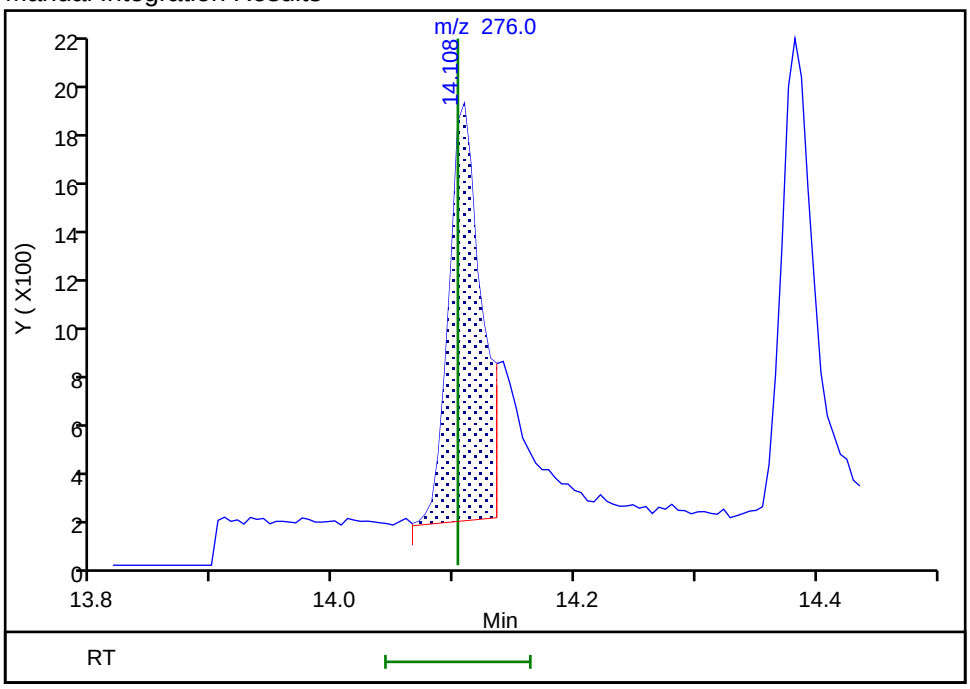
Processing Integration Results

RT: 14.11
Area: 5507
Amount: 2.269752
Amount Units: ug/L



Manual Integration Results

RT: 14.11
Area: 3143
Amount: 2.025595
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:52
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

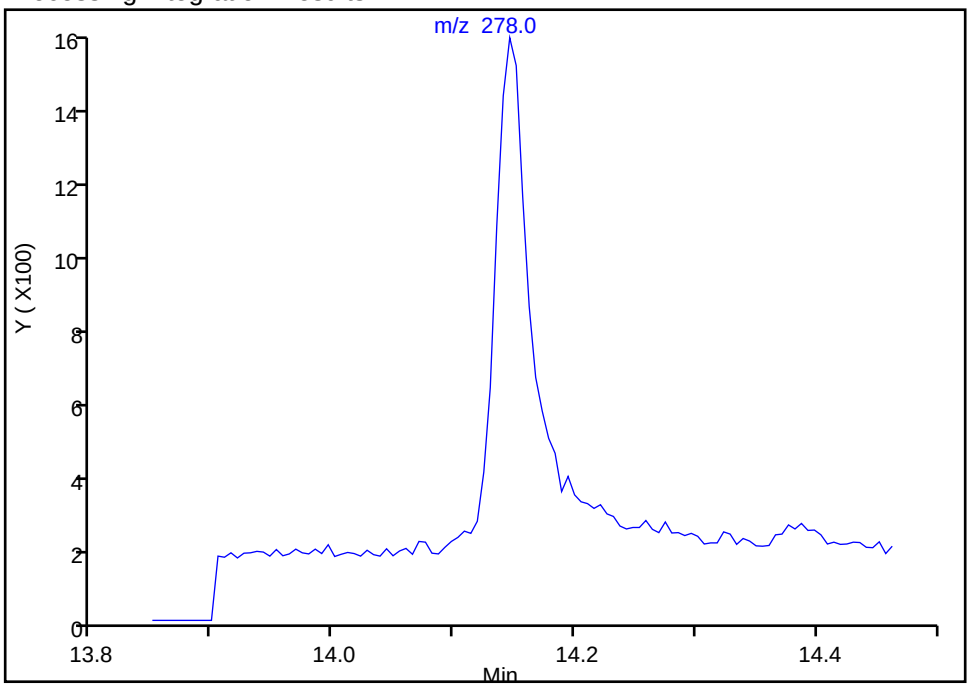
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D
Injection Date: 30-Jan-2019 23:08:30 Instrument ID: TAC023
Lims ID: std2
Client ID:
Operator ID: adb ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

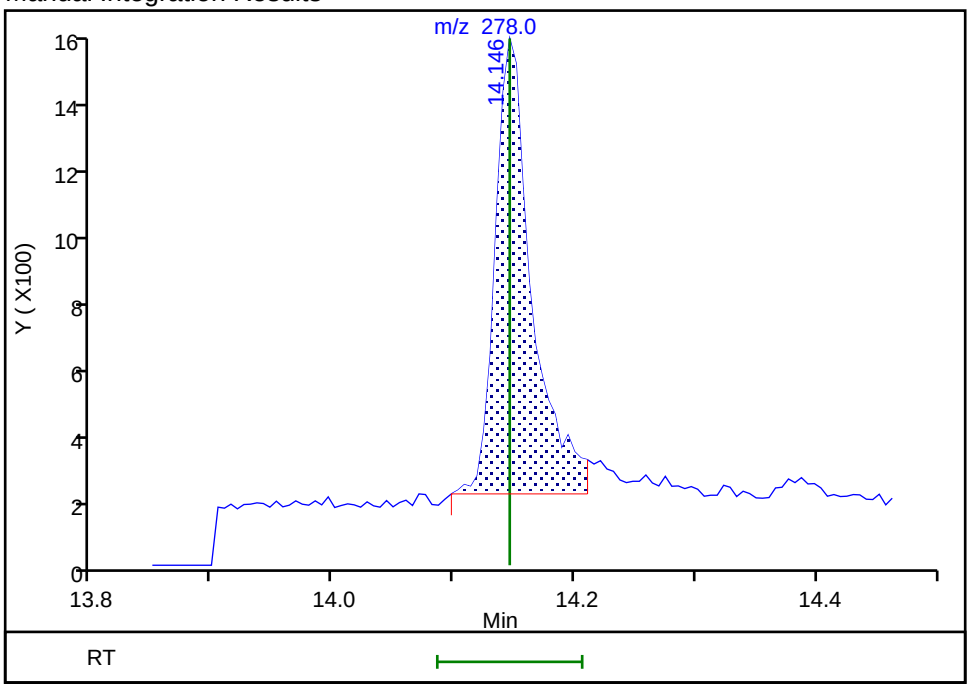
Not Detected
Expected RT: 14.15

Processing Integration Results



Manual Integration Results

RT: 14.15
Area: 2889
Amount: 2.480555
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:44
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

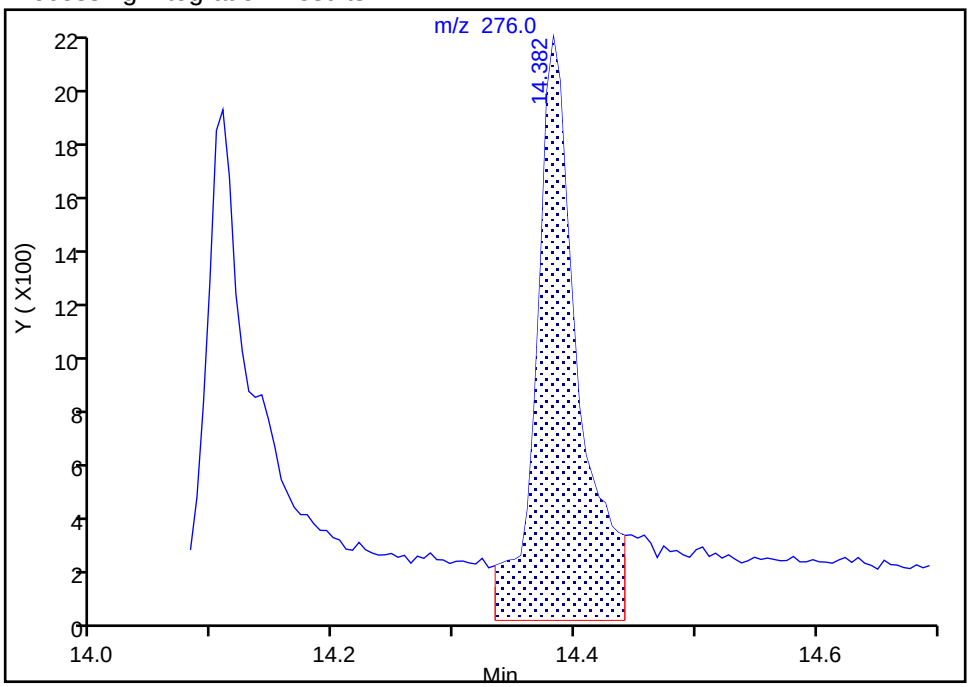
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b016.D
Injection Date: 30-Jan-2019 23:08:30 Instrument ID: TAC023
Lims ID: std2
Client ID:
Operator ID: adb ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

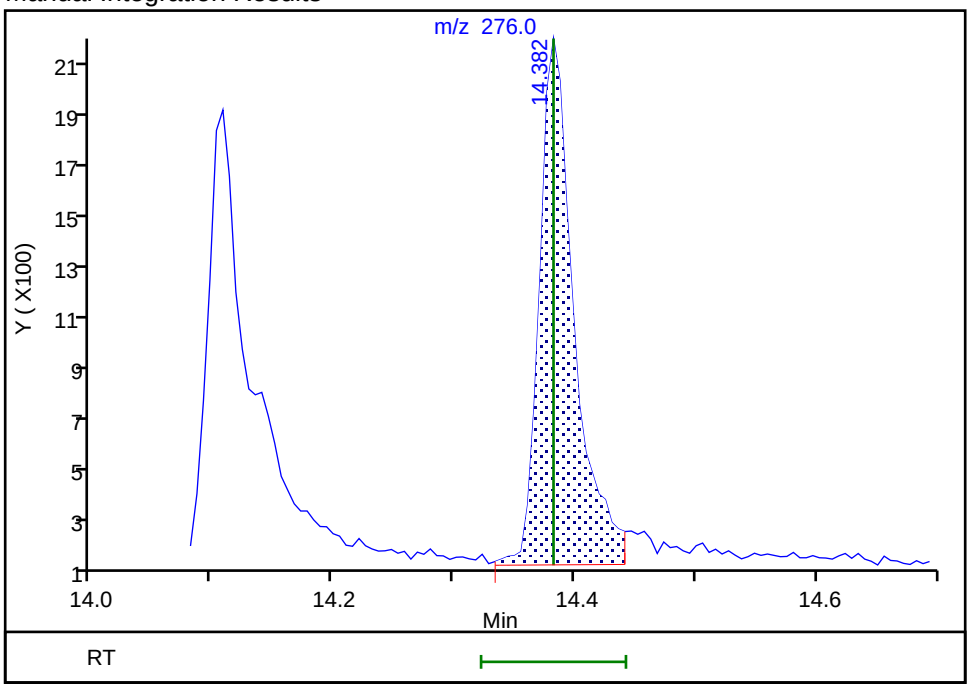
Processing Integration Results

RT: 14.38
Area: 5153
Amount: 2.257984
Amount Units: ug/L



Manual Integration Results

RT: 14.38
Area: 3925
Amount: 1.908189
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:12:42
Audit Action: Manually Integrated Audit Reason: Baseline

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D
Lims ID: std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 30-Jan-2019 23:34:30 ALS Bottle#: 15 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: std 1
Operator ID: adb Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:06:39 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 10:01:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.971	6.971	0.000	100	373144	100.0	100.0	
* 2 Acenaphthene-d10	164	8.465	8.464	0.001	99	151994	100.0	100.0	
* 3 Phenanthrene-d10	188	9.658	9.657	0.001	100	247352	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	76	185208	100.0	100.0	
* 5 Perylene-d12	264	13.024	13.018	0.006	100	151963	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.586	7.580	0.006	100	2562	1.00	1.07	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	0	221	1.00	2.46	M
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	99	4012	1.00	1.47	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	100	2292	1.00	1.22	
10 Naphthalene	128	6.993	6.988	0.005	43	4580	1.00	1.10	a
11 2-Methylnaphthalene	142	7.608	7.608	0.000	96	3009	1.00	1.10	
12 1-Methylnaphthalene	142	7.689	7.684	0.005	97	2764	1.00	1.08	
13 Acenaphthylene	152	8.343	8.338	0.005	100	3503	1.00	1.06	
14 Acenaphthene	153	8.487	8.486	0.001	91	2645	1.00	1.10	M
15 Fluorene	166	8.910	8.910	0.000	100	2482	1.00	1.03	M
17 Phenanthrene	178	9.673	9.673	0.000	58	3874	1.00	1.15	a
18 Anthracene	178	9.715	9.715	0.000	100	2951	1.00	0.9453	a
19 Fluoranthene	202	10.632	10.632	0.000	100	3645	1.00	1.15	
20 Pyrene	202	10.805	10.804	0.001	99	3824	1.00	1.14	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	16	2423	1.00	1.15	
22 Chrysene	228	11.805	11.805	0.000	94	3138	1.00	1.12	a
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	93	1966	1.00	1.00	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	91	2443	1.00	1.02	a
25 Benzo[a]pyrene	252	12.964	12.964	0.000	99	1878	1.00	0.9471	a
26 Indeno[1,2,3-cd]pyrene	276	14.108	14.103	0.005	90	1352	1.00	1.01	Ma
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	1261	1.00	1.76	Ma
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	95	1863	1.00	1.11	a

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC_8270IS_1_00004 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:06:43 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Injection Date: 30-Jan-2019 23:34:30 Instrument ID: TAC023

Lims ID: std1

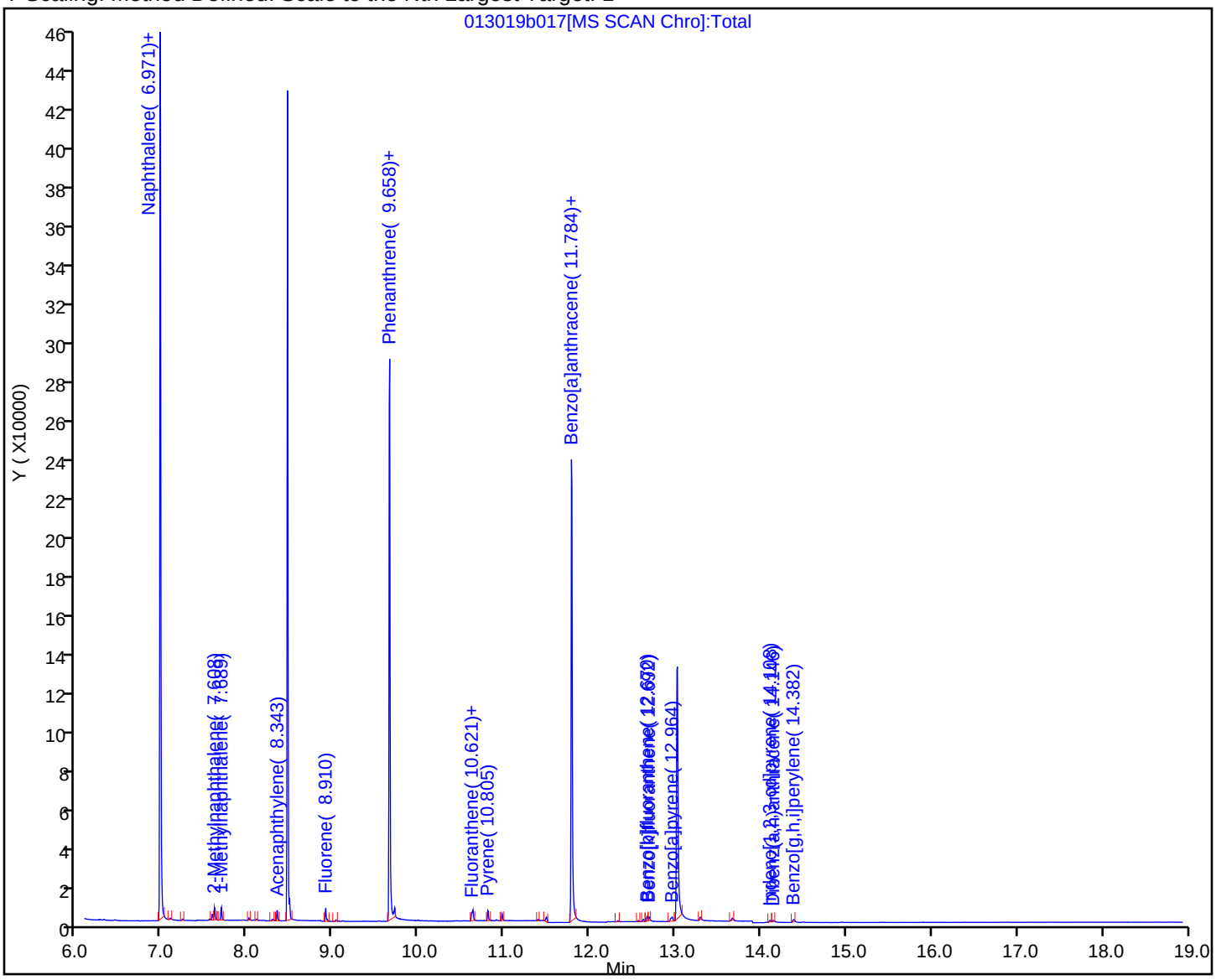
Client ID:

Operator ID: adb ALS Bottle#: 15 Worklist Smp#: 16

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Seattle

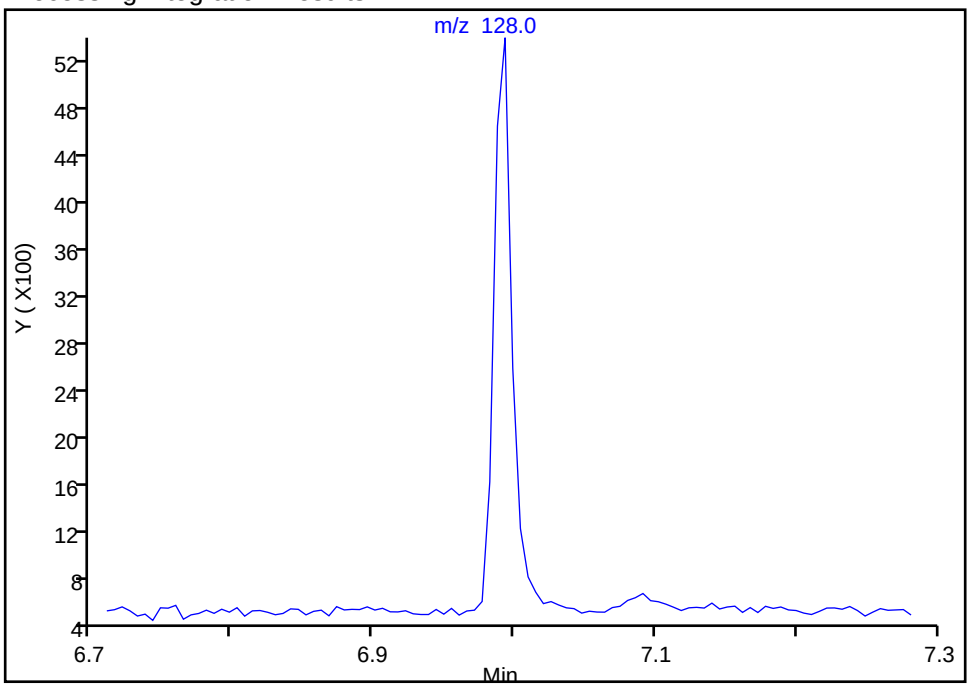
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

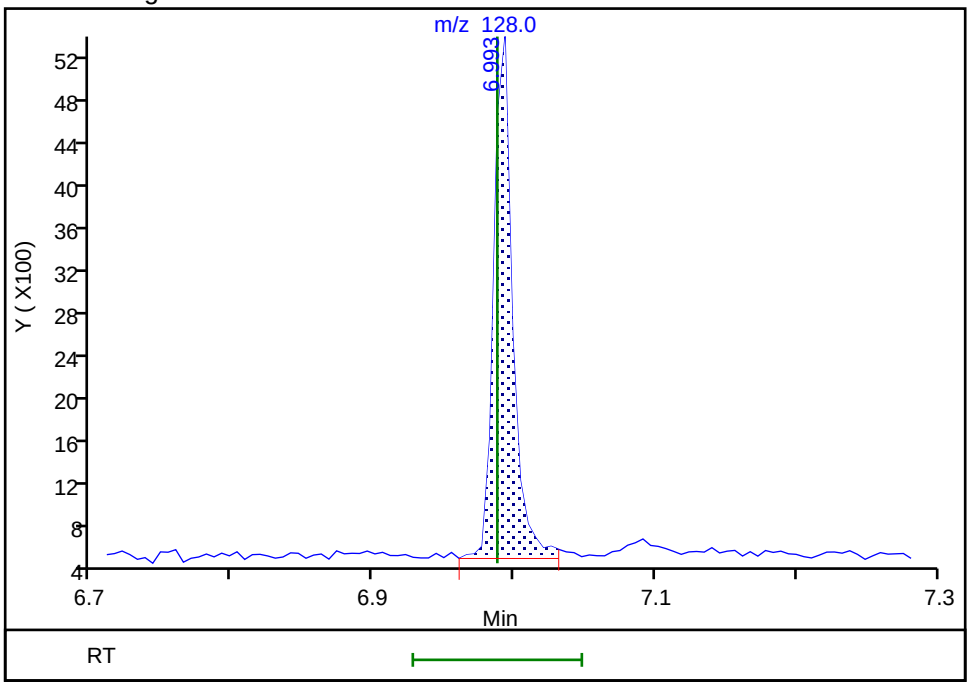
Not Detected
Expected RT: 6.99

Processing Integration Results



Manual Integration Results

RT: 6.99
Area: 4580
Amount: 1.098544
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:17:37
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

TestAmerica Seattle

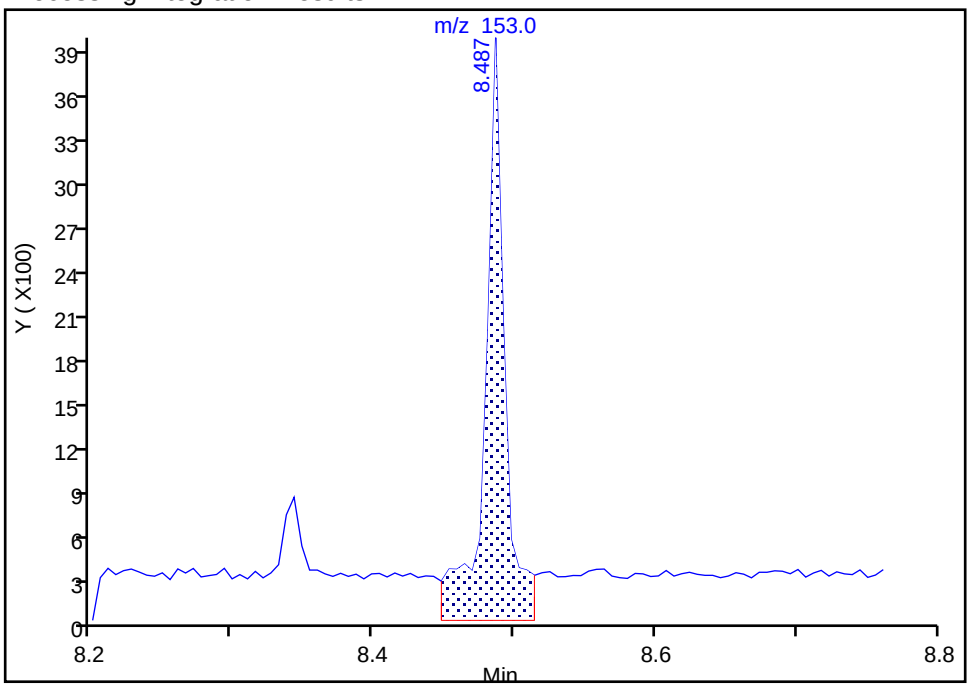
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

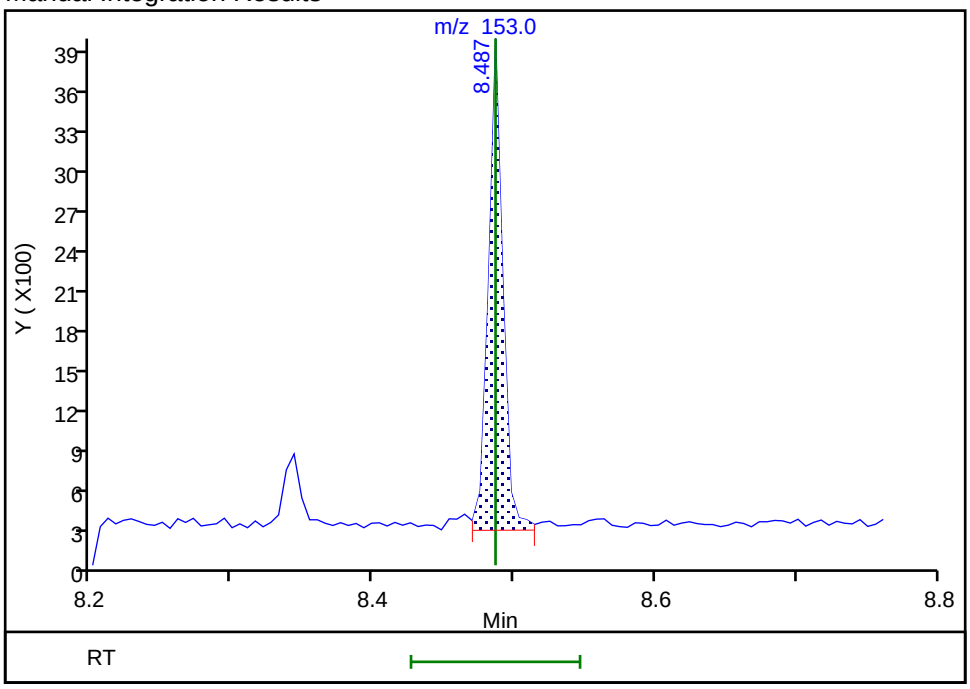
Processing Integration Results

RT: 8.49
Area: 3804
Amount: 1.514331
Amount Units: ug/L



Manual Integration Results

RT: 8.49
Area: 2645
Amount: 1.099044
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:17:49

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

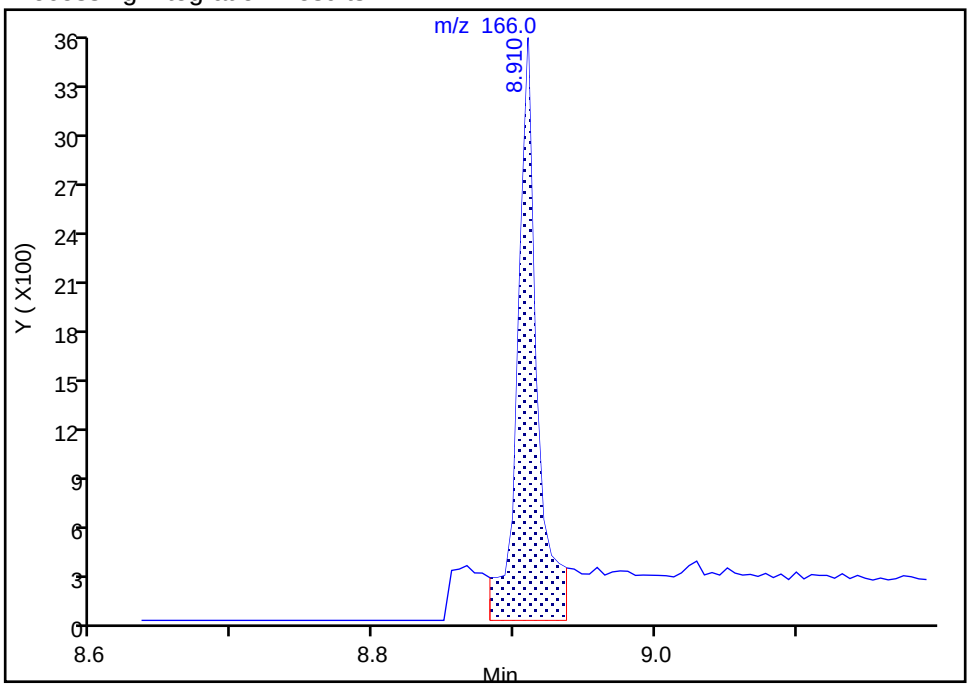
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D
Injection Date: 30-Jan-2019 23:34:30 Instrument ID: TAC023
Lims ID: std1
Client ID:
Operator ID: adb ALS Bottle#: 15 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

15 Fluorene, CAS: 86-73-7

Signal: 1

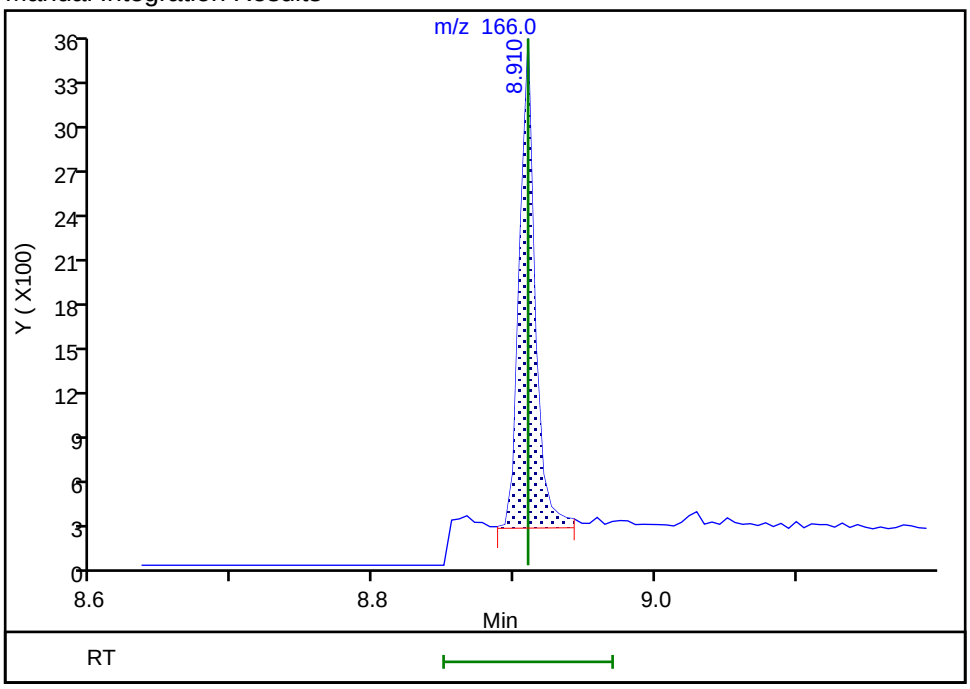
Processing Integration Results

RT: 8.91
Area: 3273
Amount: 1.318847
Amount Units: ug/L



Manual Integration Results

RT: 8.91
Area: 2482
Amount: 1.029959
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:17:55
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

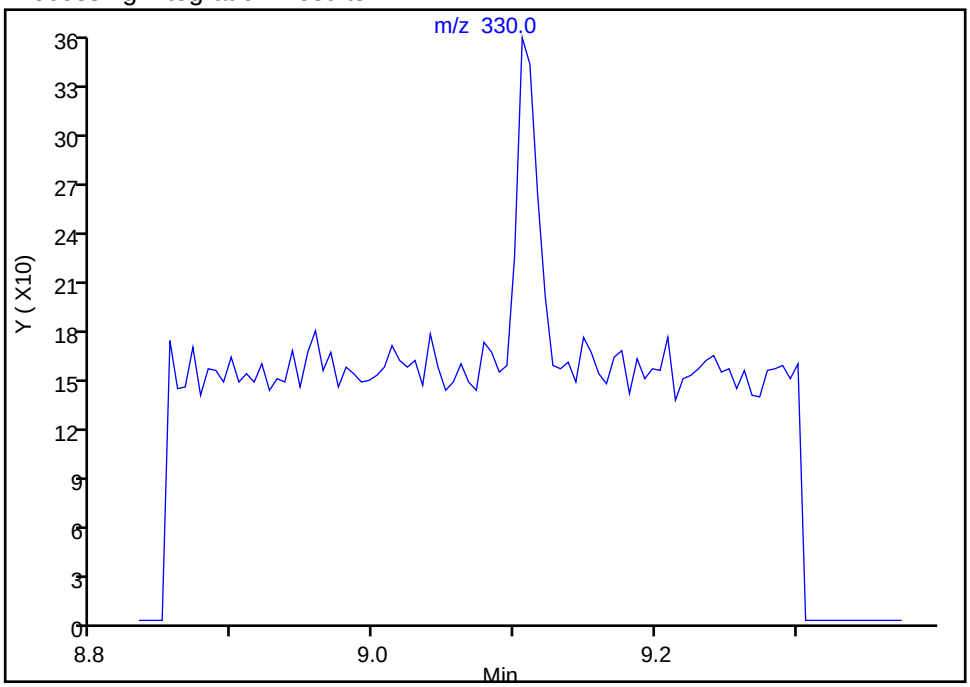
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

$ 7 2,4,6-Tribromophenol, CAS: 118-79-6

Signal: 1

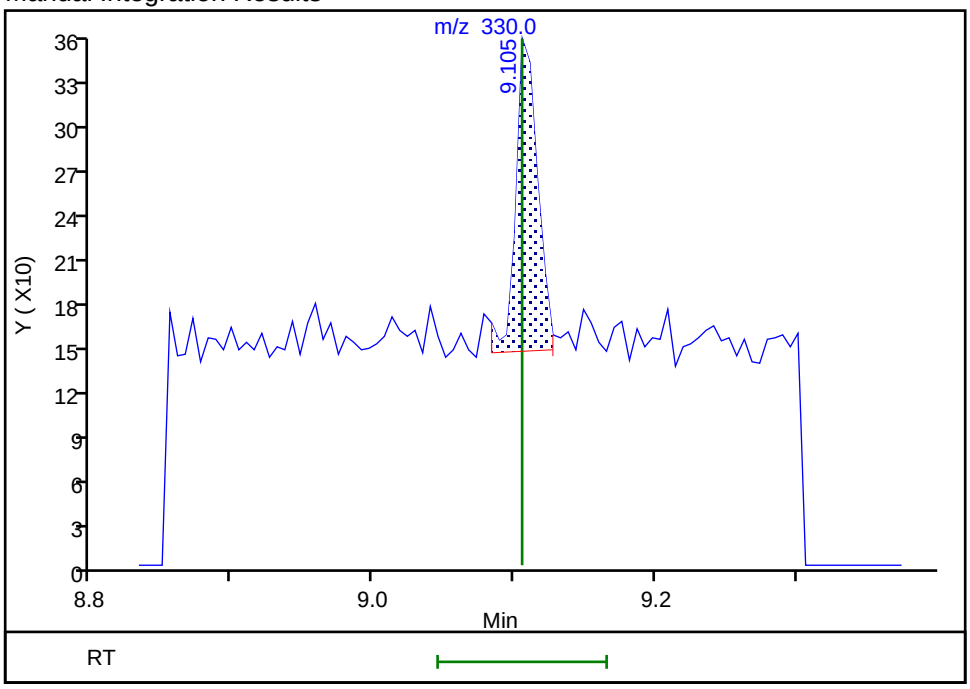
Not Detected
Expected RT: 9.11

Processing Integration Results



Manual Integration Results

RT: 9.11
Area: 221
Amount: 2.459155
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:00
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

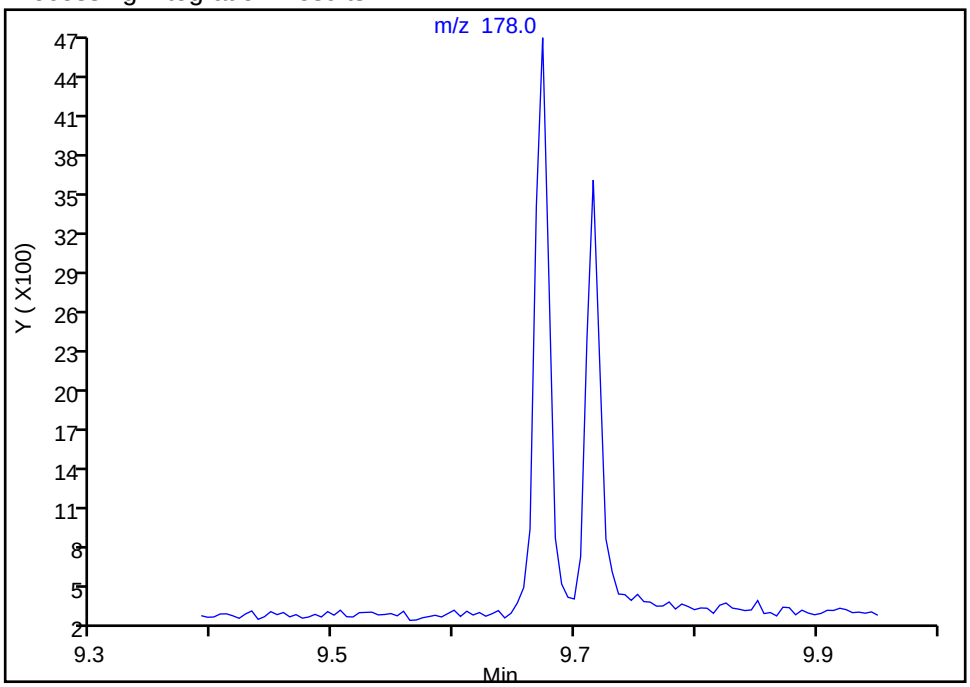
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

17 Phenanthrene, CAS: 85-01-8

Signal: 1

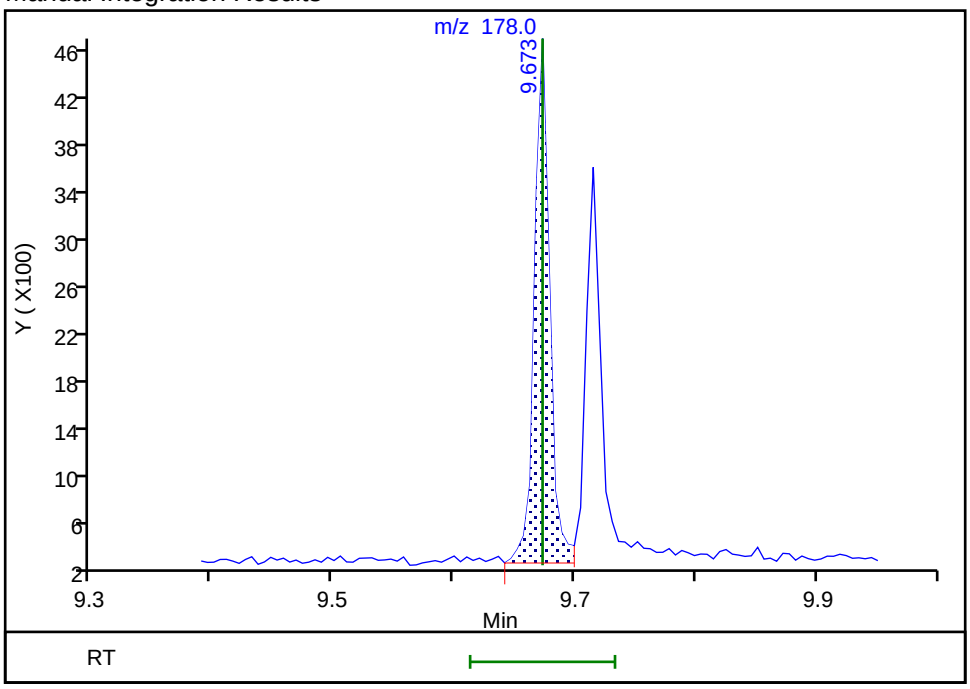
Not Detected
Expected RT: 9.67

Processing Integration Results



Manual Integration Results

RT: 9.67
Area: 3874
Amount: 1.153670
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:23
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

TestAmerica Seattle

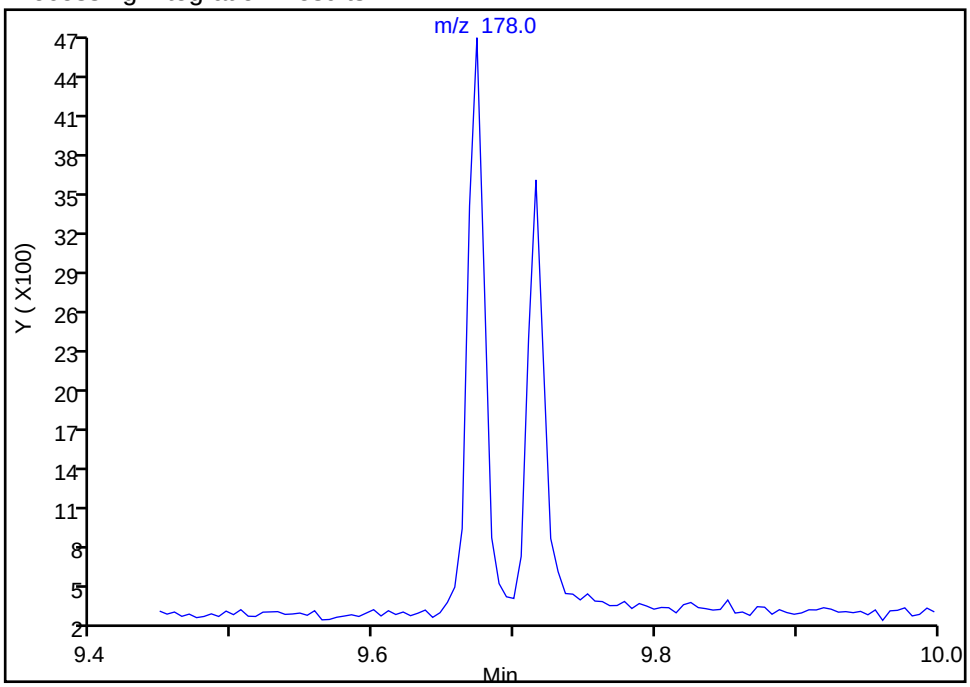
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

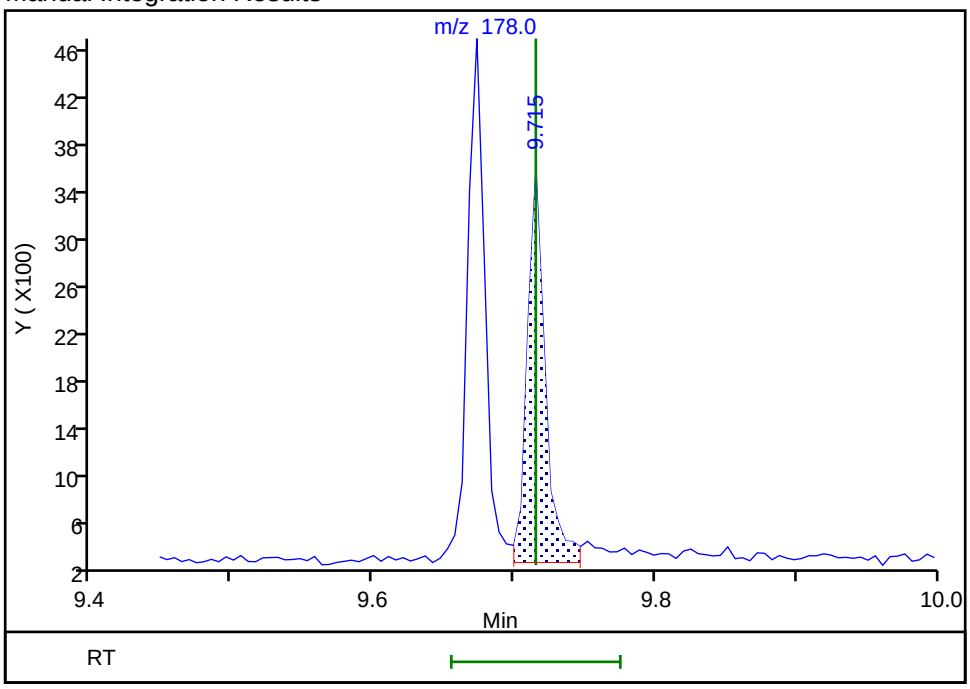
Not Detected
Expected RT: 9.72

Processing Integration Results



Manual Integration Results

RT: 9.72
Area: 2951
Amount: 0.945268
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:24
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

TestAmerica Seattle

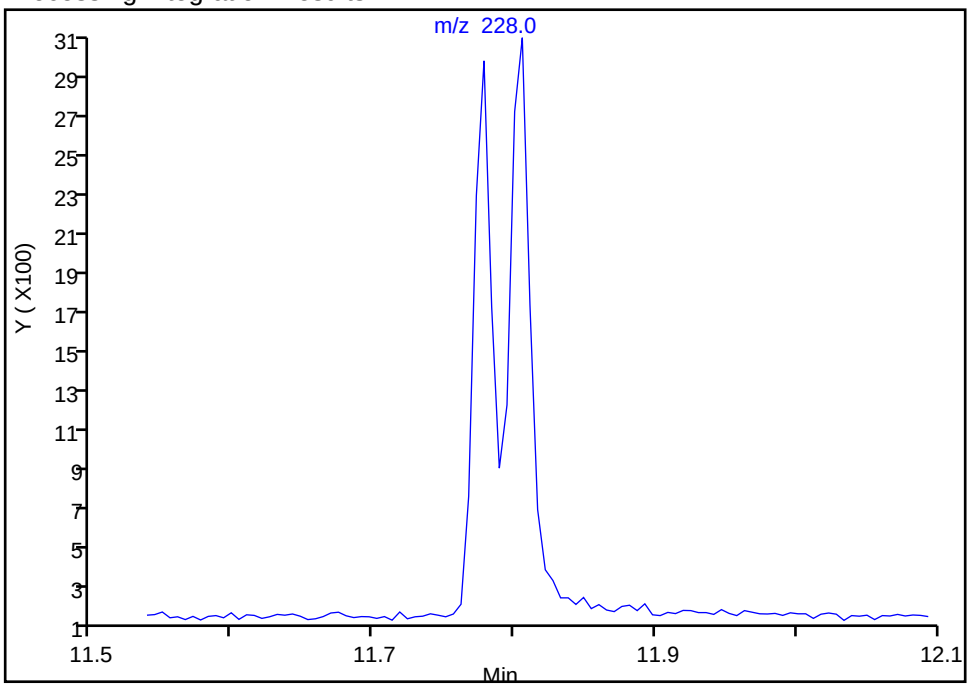
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D
Injection Date: 30-Jan-2019 23:34:30 Instrument ID: TAC023
Lims ID: std1
Client ID:
Operator ID: adb ALS Bottle#: 15 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

22 Chrysene, CAS: 218-01-9

Signal: 1

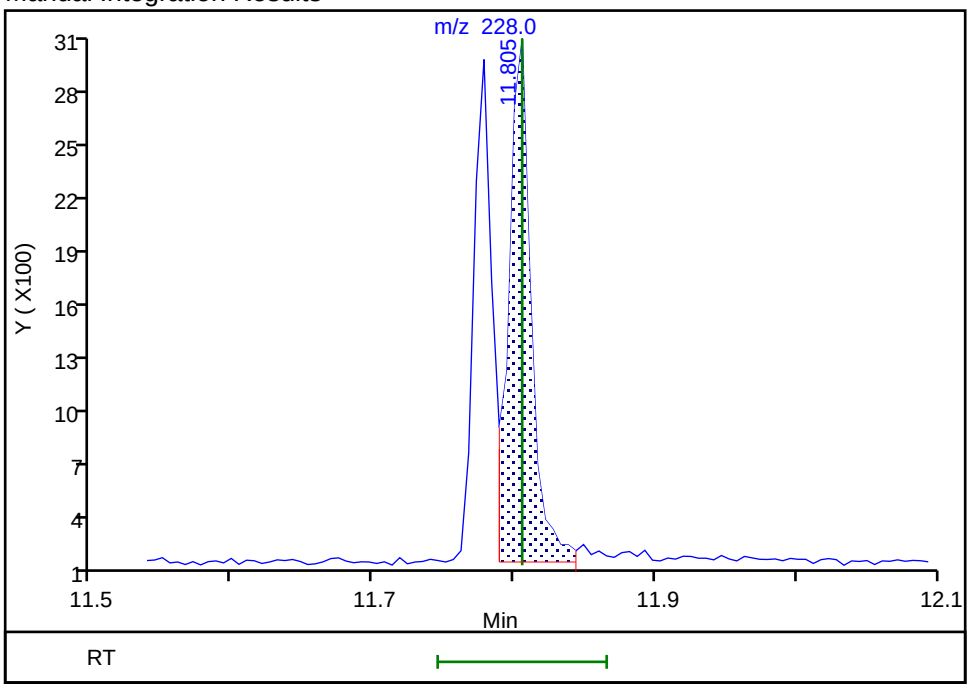
Not Detected
Expected RT: 11.81

Processing Integration Results



Manual Integration Results

RT: 11.81
Area: 3138
Amount: 1.117896
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:33
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

TestAmerica Seattle

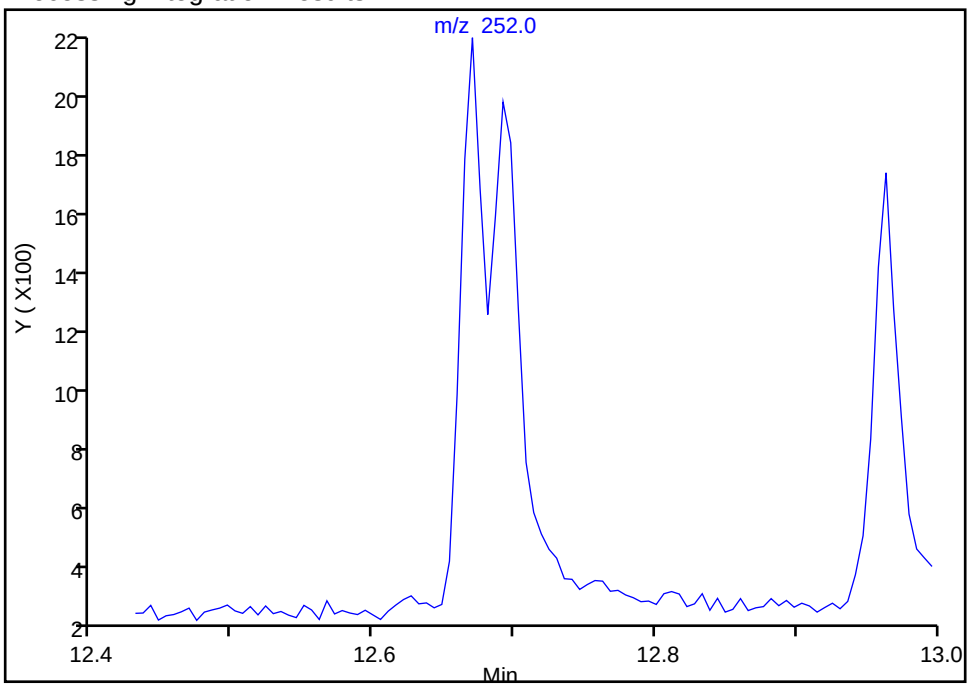
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

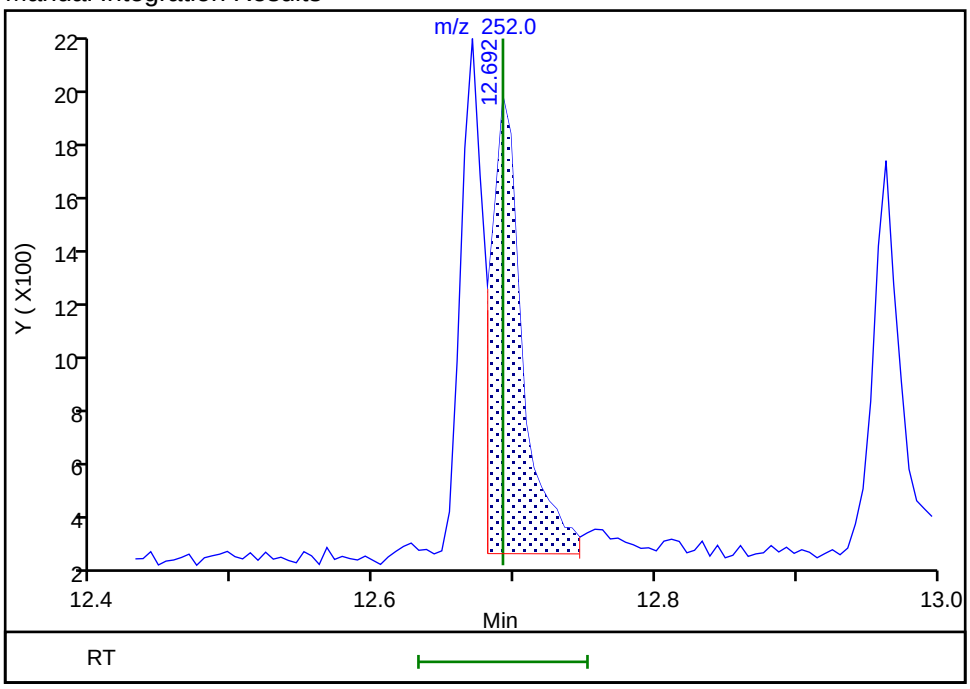
Not Detected
Expected RT: 12.69

Processing Integration Results



Manual Integration Results

RT: 12.69
Area: 2443
Amount: 1.020138
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:36
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

TestAmerica Seattle

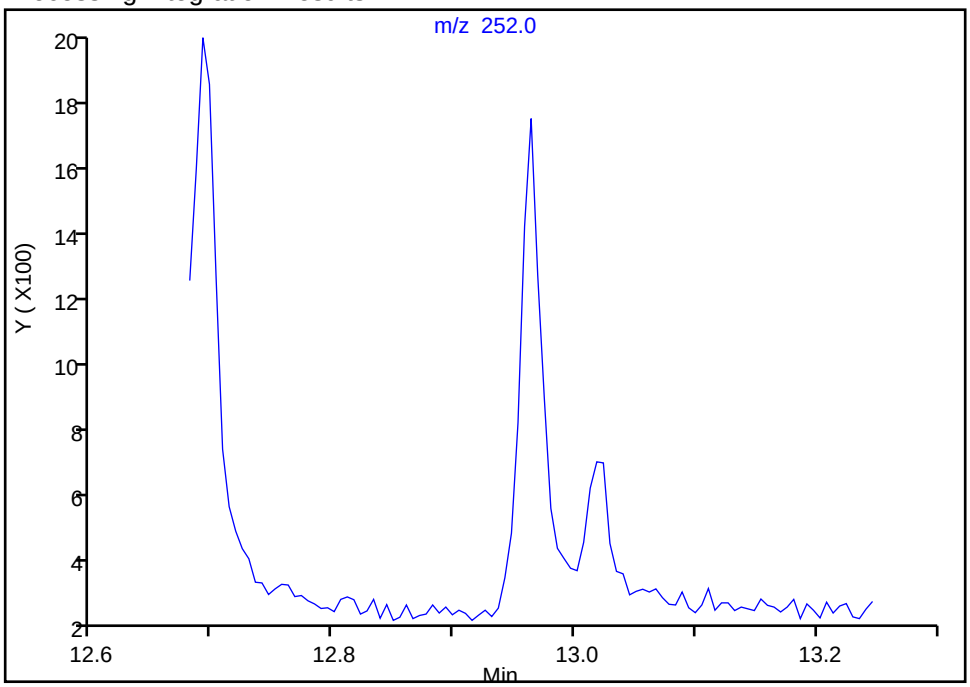
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

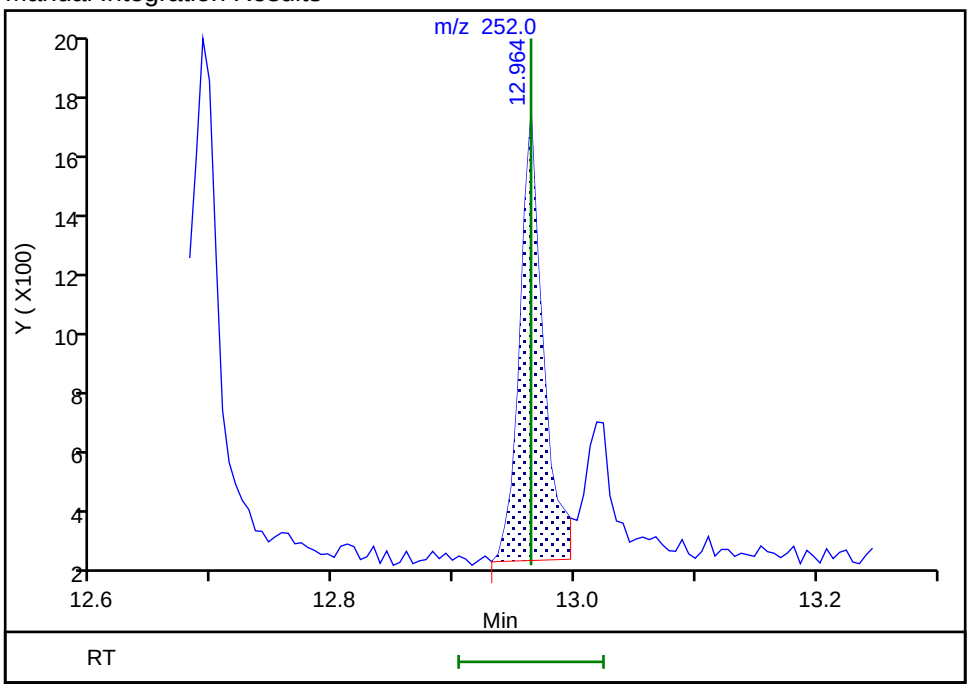
Not Detected
Expected RT: 12.96

Processing Integration Results



Manual Integration Results

RT: 12.96
Area: 1878
Amount: 0.947091
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:38
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

TestAmerica Seattle

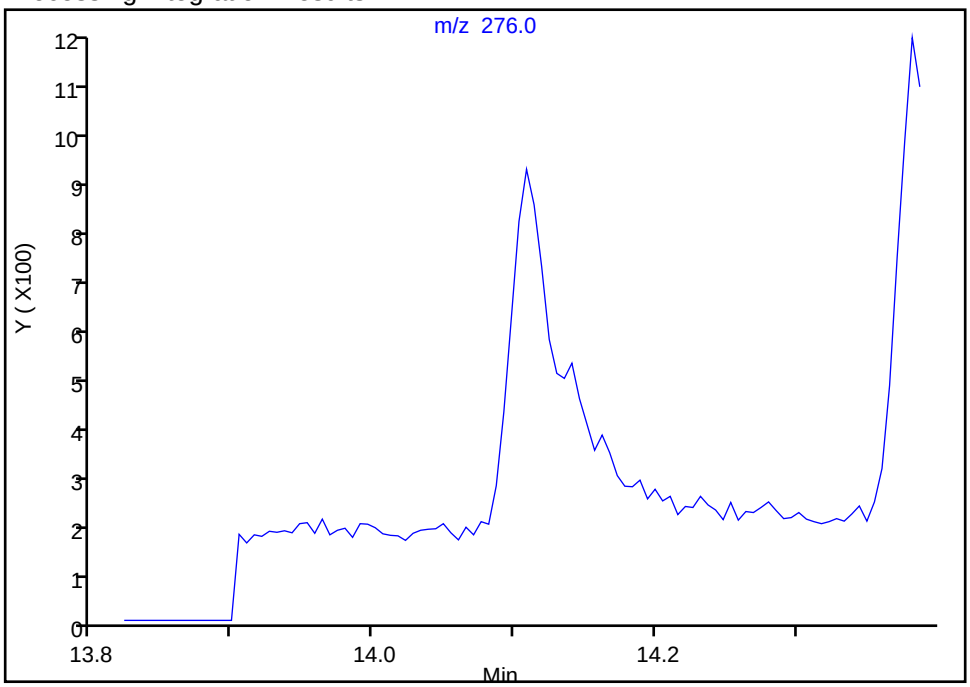
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

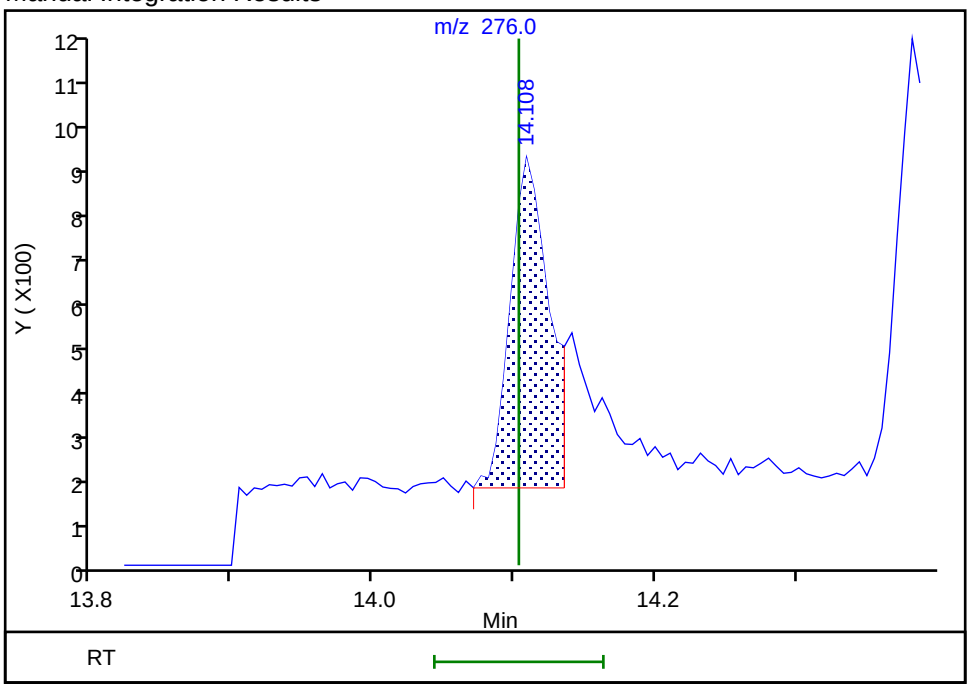
Not Detected
Expected RT: 14.10

Processing Integration Results



Manual Integration Results

RT: 14.11
Area: 1352
Amount: 1.010839
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:47
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Seattle

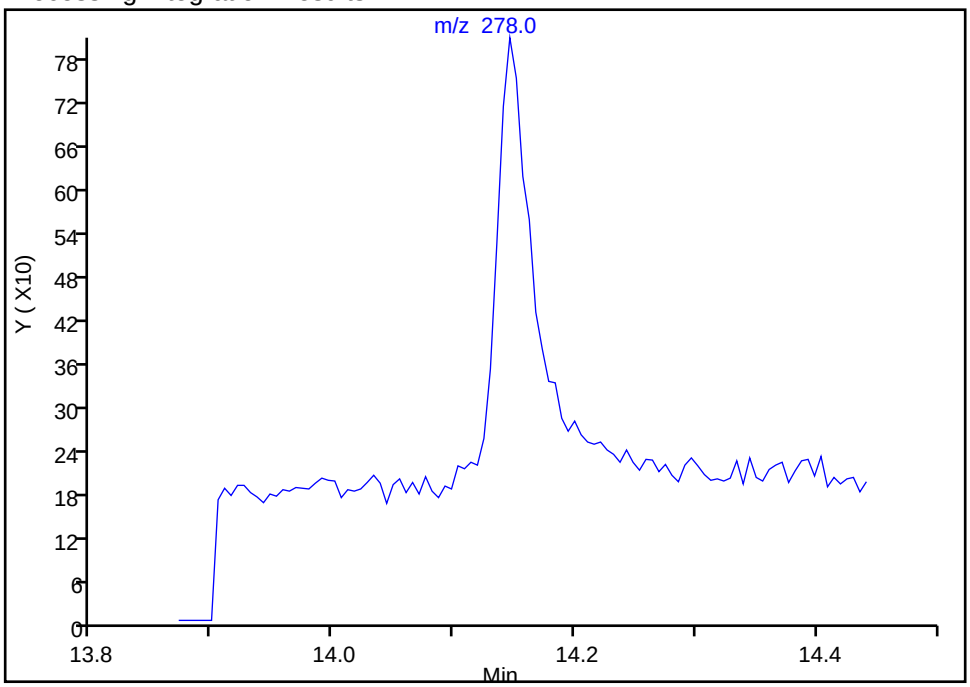
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

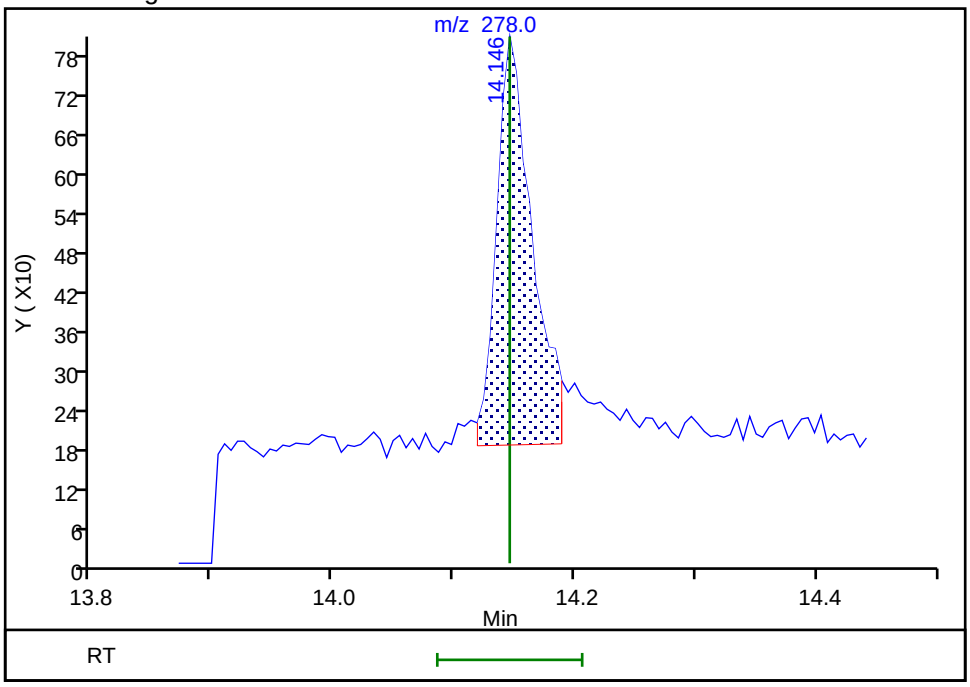
Not Detected
Expected RT: 14.15

Processing Integration Results



Manual Integration Results

RT: 14.15
Area: 1261
Amount: 1.760955
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:18:59
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Seattle

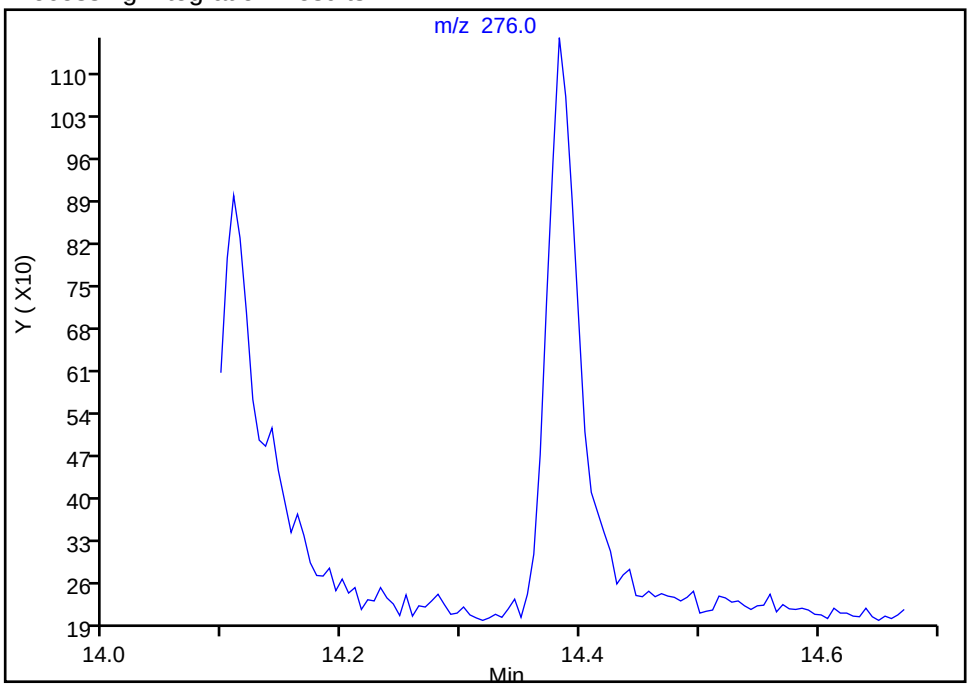
Data File:	\\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D				
Injection Date:	30-Jan-2019 23:34:30	Instrument ID:	TAC023		
Lims ID:	std1				
Client ID:					
Operator ID:	adb	ALS Bottle#:	15	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

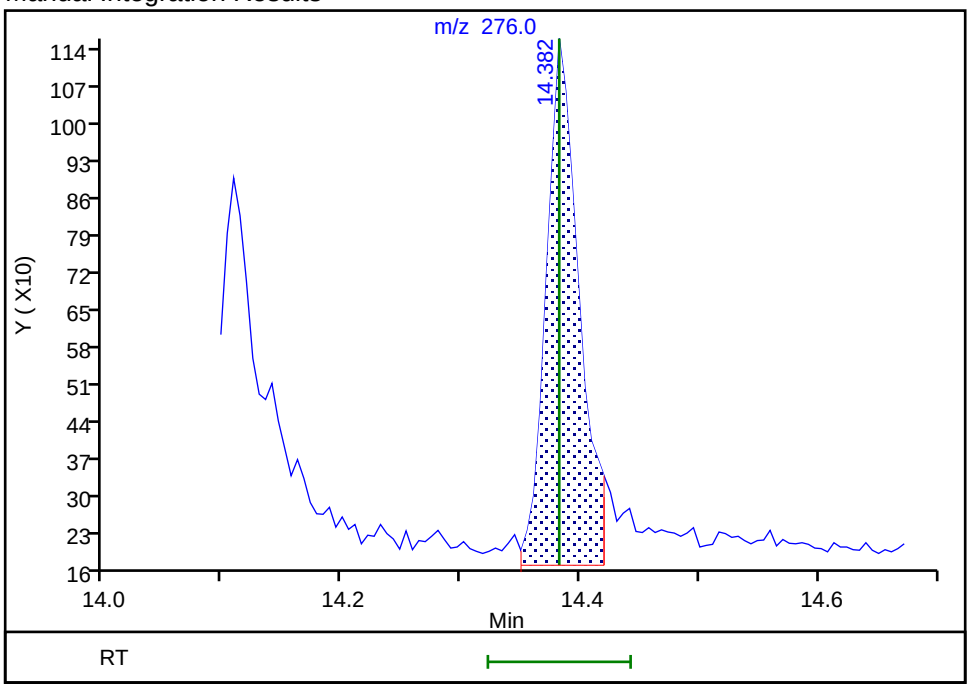
Not Detected
Expected RT: 14.38

Processing Integration Results



Manual Integration Results

RT: 14.38
Area: 1863
Amount: 1.113340
Amount Units: ug/L



Reviewer: zboralskie, 01-Feb-2019 15:19:01
Audit Action: Assigned Compound ID Audit Reason: Baseline

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): CCVIS 580-306243/3 Instrument ID (1): TAC023

GC Column (1): ZB-SV ID: 0.25(mm) Date Analyzed (1): 07/22/2019 10:43

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.63	37.10

Resolution Report

Eurofins TestAmerica, Seattle

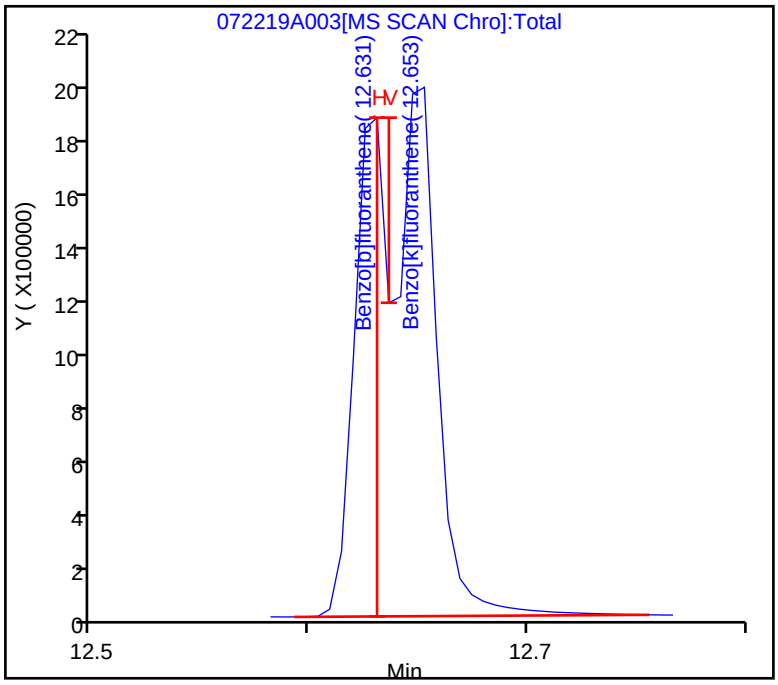
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D				
Injection Date:	22-Jul-2019 10:43:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

23 Benzo[b]fluoranthene - 24 Benzo[k]fluoranthene

CLP Method

%Resolution = (V/H) * 100
V(Valley Height) = 674131
H(Smaller Peak Height) = 1816327

%Resolution = 37.1, Min. Resolution > 25.0
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): CCVIS 580-306419/3 Instrument ID (1): TAC023

GC Column (1): ZB-SV ID: 0.25(mm) Date Analyzed (1): 07/23/2019 15:36

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.64	33.90

Report Date: 23-Jul-2019 16:02:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Resolution Report

Eurofins TestAmerica, Seattle

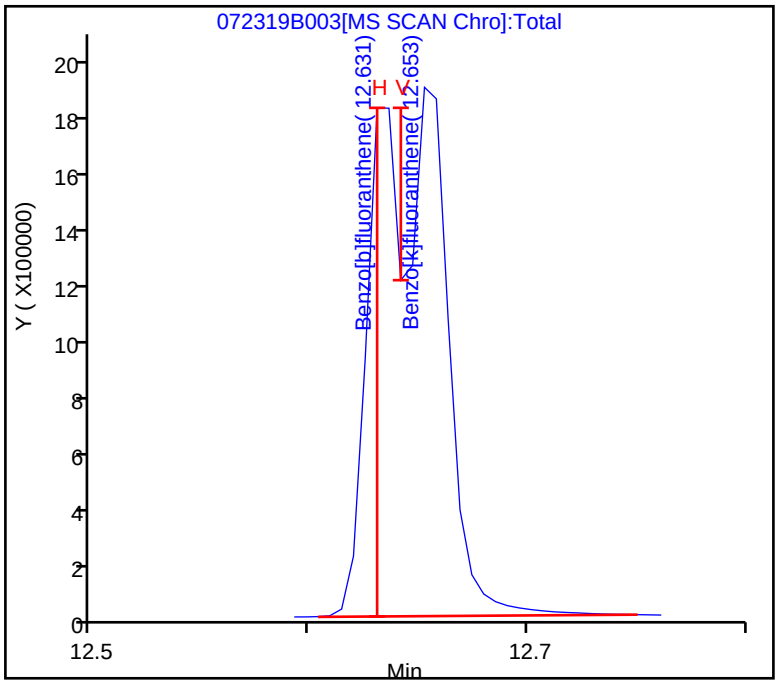
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

23 Benzo[b]fluoranthene - 24 Benzo[k]fluoranthene

CLP Method

%Resolution = (V/H) * 100
V(Valley Height) = 612434
H(Smaller Peak Height) = 1807654

%Resolution = 33.9, Min. Resolution > 25.0
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): CCVIS 580-306485/3 Instrument ID (1): TAC023

GC Column (1): ZB-SV ID: 0.25(mm) Date Analyzed (1): 07/24/2019 10:31

ANALYTE	RT	RESOLUTION (%)
Benzo[b]fluoranthene	12.64	45.20

Resolution Report

Eurofins TestAmerica, Seattle

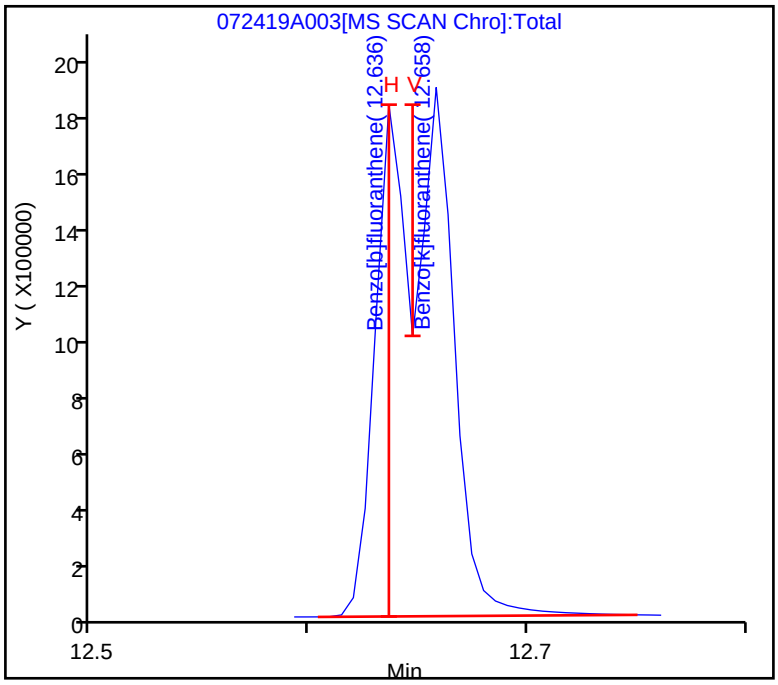
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A003.D				
Injection Date:	24-Jul-2019 10:31:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

23 Benzo[b]fluoranthene - 24 Benzo[k]fluoranthene

CLP Method

%Resolution = (V/H) * 100
V(Valley Height) = 822342
H(Smaller Peak Height) = 1820235

%Resolution = 45.2, Min. Resolution > 25.0
Passed



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-293966/18 Calibration Date: 01/31/2019 00:25

Instrument ID: TAC023 Calib Start Date: 01/30/2019 18:23

GC Column: ZB-SV ID: 0.25(mm) Calib End Date: 01/30/2019 23:34

Lab File ID: 013019b019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.117	0.9893	0.7000	885	1000	-11.5	30.0
2-Methylnaphthalene	Ave	0.7327	0.6722	0.4000	917	1000	-8.3	30.0
1-Methylnaphthalene	Ave	0.6841	0.6371	0.1000	931	1000	-6.9	30.0
Acenaphthylene	Ave	2.181	2.000	0.9000	917	1000	-8.3	30.0
Acenaphthene	Ave	1.583	1.385	0.9000	875	1000	-12.5	30.0
Fluorene	Ave	1.585	1.480	0.9000	933	1000	-6.7	30.0
Pentachlorophenol	Qua1		0.2128	0.0500	1830	2000	-8.3	30.0
Phenanthrene	Ave	1.358	1.189	0.7000	876	1000	-12.4	30.0
Anthracene	Ave	1.262	1.199	0.7000	950	1000	-5.0	30.0
Fluoranthene	Ave	1.286	1.201	0.6000	934	1000	-6.6	30.0
Pyrene	Ave	1.355	1.218	0.6000	899	1000	-10.1	30.0
Benzo[a]anthracene	Ave	1.140	1.049	0.8000	921	1000	-7.9	30.0
Chrysene	Ave	1.516	1.307	0.7000	862	1000	-13.8	30.0
Benzo[b]fluoranthene	Ave	1.288	1.204	0.7000	935	1000	-6.5	30.0
Benzo[k]fluoranthene	Ave	1.576	1.513	0.7000	960	1000	-4.0	30.0
Benzo[a]pyrene	Ave	1.305	1.305	0.7000	1000	1000	0.0	30.0
Indeno[1,2,3-cd]pyrene	Qua2		0.998	0.5000	949	1000	-5.1	30.0
Dibenz(a,h)anthracene	Lin1		1.204	0.4000	947	1000	-5.3	30.0
Benzo[g,h,i]perylene	Lin1		1.368	0.5000	949	1000	-5.1	30.0
2-methylnaphthalene-d10	Ave	0.6427	0.5834		908	1000	-9.2	30.0
2,4,6-Tribromophenol	Qua2		0.1911		908	1000	-9.2	30.0
Fluoranthene-d10 (Surr)	Ave	1.103	0.9885		896	1000	-10.4	30.0
Terphenyl-d14	Ave	0.7572	0.7119		940	1000	-6.0	30.0

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b019.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 31-Jan-2019 00:25:30 ALS Bottle#: 17 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: icv
Operator ID: adb Instrument ID: TAC023
Sublist:

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:07:16 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 11:10:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.972	6.971	0.001	100	418812	100.0	100.0	
* 2 Acenaphthene-d10	164	8.465	8.464	0.001	100	190528	100.0	100.0	
* 3 Phenanthrene-d10	188	9.658	9.657	0.001	100	318260	100.0	100.0	
* 4 Chrysene-d12	240	11.784	11.784	0.000	36	281648	100.0	100.0	
* 5 Perylene-d12	264	13.024	13.018	0.006	100	250626	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.581	7.580	0.001	98	2443251	1000.0	907.7	
$ 7 2,4,6-Tribromophenol	330	9.105	9.105	0.000	100	364087	1000.0	908.2	
$ 8 Fluoranthene-d10 (Surr)	212	10.616	10.616	0.000	98	3146061	1000.0	895.9	
$ 9 Terphenyl-d14	244	10.972	10.972	0.000	99	2265793	1000.0	940.3	
10 Naphthalene	128	6.988	6.988	0.000	100	4143411	1000.0	885.5	
11 2-Methylnaphthalene	142	7.608	7.608	0.000	92	2815292	1000.0	917.4	
12 1-Methylnaphthalene	142	7.684	7.684	0.000	94	2668274	1000.0	931.3	
13 Acenaphthylene	152	8.338	8.338	0.000	99	3811021	1000.0	917.1	
14 Acenaphthene	153	8.487	8.486	0.001	99	2639416	1000.0	874.9	
15 Fluorene	166	8.904	8.910	-0.006	92	2819207	1000.0	933.3	
16 Pentachlorophenol	266	9.527	9.527	0.001	97	810790	2000.0	1834.6	
17 Phenanthrene	178	9.673	9.673	0.000	100	3783465	1000.0	875.7	
18 Anthracene	178	9.715	9.715	0.000	99	3814745	1000.0	949.7	
19 Fluoranthene	202	10.632	10.632	0.000	99	3822451	1000.0	933.8	
20 Pyrene	202	10.805	10.804	0.001	100	3877019	1000.0	899.3	
21 Benzo[a]anthracene	228	11.778	11.778	0.000	99	2955274	1000.0	920.7	
22 Chrysene	228	11.805	11.805	0.000	99	3681608	1000.0	862.5	
23 Benzo[b]fluoranthene	252	12.670	12.670	0.000	99	3018133	1000.0	934.9	
24 Benzo[k]fluoranthene	252	12.692	12.692	0.000	99	3791807	1000.0	960.0	
25 Benzo[a]pyrene	252	12.964	12.964	0.000	98	3270438	1000.0	1000.0	
26 Indeno[1,2,3-cd]pyrene	276	14.103	14.103	0.000	99	2500196	1000.0	948.8	
27 Dibenz(a,h)anthracene	278	14.146	14.146	0.000	100	3016663	1000.0	947.2	
28 Benzo[g,h,i]perylene	276	14.382	14.382	0.000	98	3427646	1000.0	949.5	

Reagents:

icv_8270_1000_00003 Amount Added: 1.00 Units: mL

Report Date: 05-Feb-2019 13:07:21 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b019.D

Injection Date: 31-Jan-2019 00:25:30 Instrument ID: TAC023

Lims ID: icv

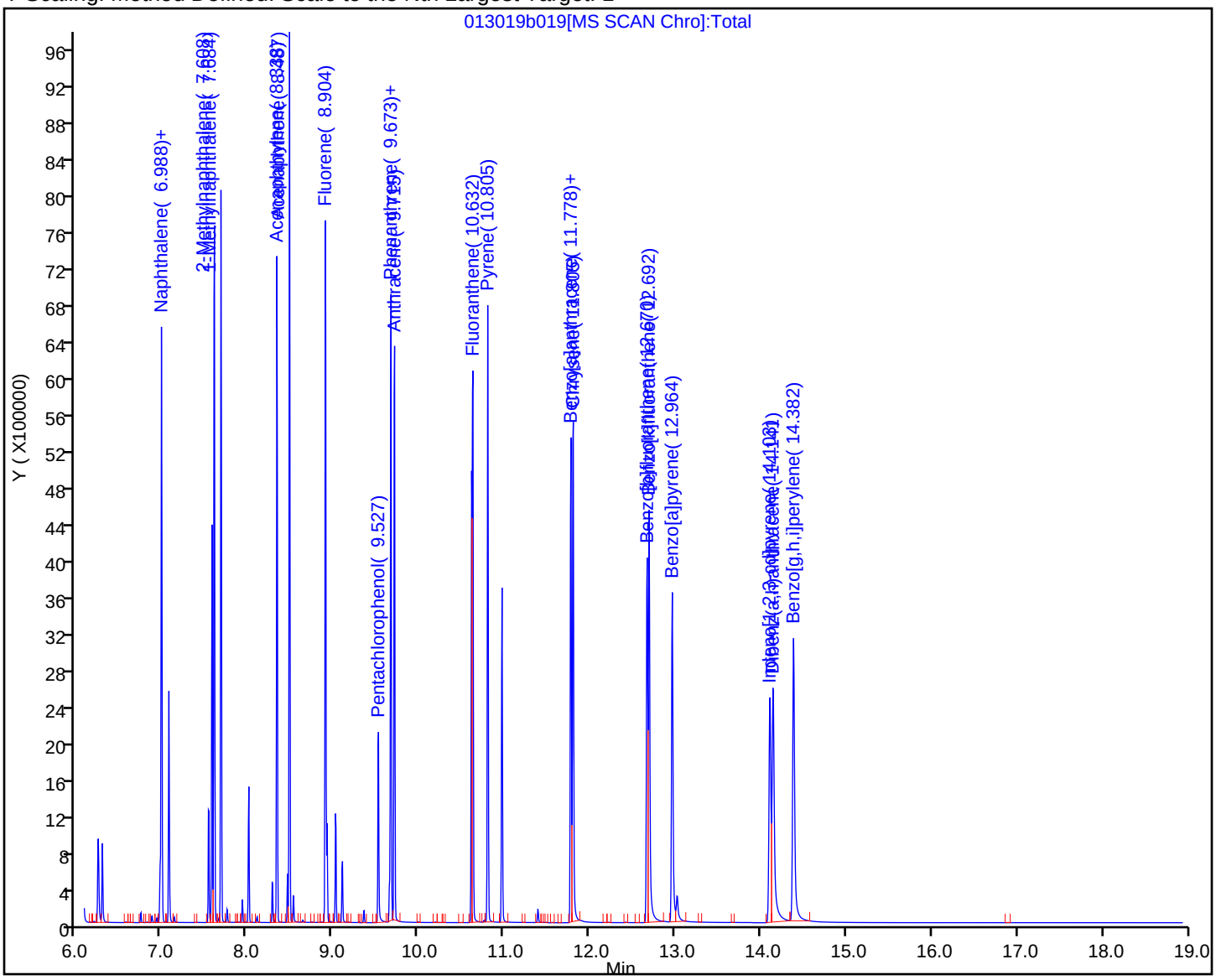
Client ID:

Operator ID: adb ALS Bottle#: 17 Worklist Smp#: 18

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306243/3 Calibration Date: 07/22/2019 10:43

Instrument ID: TAC023 Calib Start Date: 01/30/2019 18:23

GC Column: ZB-SV ID: 0.25(mm) Calib End Date: 01/30/2019 23:34

Lab File ID: 072219A003.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.117	0.9830	0.7000	440	500	-12.0	20.0
2-Methylnaphthalene	Ave	0.7327	0.6340	0.4000	433	500	-13.5	20.0
1-Methylnaphthalene	Ave	0.6841	0.5873	0.1000	429	500	-14.1	20.0
Acenaphthylene	Ave	2.181	2.006	0.9000	460	500	-8.0	20.0
Acenaphthene	Ave	1.583	1.344	0.9000	424	500	-15.1	20.0
Fluorene	Ave	1.585	1.428	0.9000	450	500	-9.9	20.0
Pentachlorophenol	Qua1		0.2549	0.0500	1170	1000	17.3	20.0
Phenanthrene	Ave	1.358	1.201	0.7000	442	500	-11.5	20.0
Anthracene	Ave	1.262	1.188	0.7000	471	500	-5.9	20.0
Fluoranthene	Ave	1.286	1.153	0.6000	448	500	-10.4	20.0
Pyrene	Ave	1.355	1.171	0.6000	432	500	-13.6	20.0
Benzo[a]anthracene	Ave	1.140	1.144	0.8000	502	500	0.4	20.0
Chrysene	Ave	1.516	1.316	0.7000	434	500	-13.2	20.0
Benzo[b]fluoranthene	Ave	1.288	1.098	0.7000	426	500	-14.8	20.0
Benzo[k]fluoranthene	Ave	1.576	1.525	0.7000	484	500	-3.2	20.0
Benzo[a]pyrene	Ave	1.305	1.188	0.7000	455	500	-8.9	20.0
Indeno[1,2,3-cd]pyrene	Qua2		1.092	0.5000	532	500	6.4	20.0
Dibenz(a,h)anthracene	Lin1		1.179	0.4000	464	500	-7.1	20.0
Benzo[g,h,i]perylene	Lin1		1.250	0.5000	434	500	-13.2	20.0
Terphenyl-d14	Ave	0.7572	0.6086		402	500	-19.6	20.0

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Jul-2019 10:43:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: KFS Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:42:28 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: squiresk Date: 22-Jul-2019 11:32:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	411002	100.0	100.0	
* 2 Acenaphthene-d10	164	8.503	8.503	0.000	99	177034	100.0	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	291117	100.0	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	52	219565	100.0	100.0	
* 5 Perylene-d12	264	12.946	12.946	0.000	100	221604	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.619	7.619	0.000	100	1132924	500.0	428.9	
$ 7 2,4,6-Tribromophenol	330	9.148	9.148	0.000	99	242506	500.0	665.9	
$ 8 Fluoranthene-d10 (Surr)	212	10.646	10.646	0.000	97	1372239	500.0	427.2	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	100	885898	500.0	401.9	
10 Naphthalene	128	7.004	7.004	0.000	100	2019970	500.0	439.9	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	99	1302911	500.0	432.6	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	100	1206964	500.0	429.3	
13 Acenaphthylene	152	8.376	8.376	0.000	99	1775444	500.0	459.8	
14 Acenaphthene	153	8.525	8.525	0.000	99	1189624	500.0	424.4	
15 Fluorene	166	8.947	8.947	0.000	100	1264122	500.0	450.4	a
16 Pentachlorophenol	266	9.567	9.567	0.000	99	451290	1000.0	1173.4	
17 Phenanthrene	178	9.704	9.704	0.000	100	1747996	500.0	442.3	
18 Anthracene	178	9.745	9.745	0.000	100	1728903	500.0	470.5	
19 Fluoranthene	202	10.657	10.657	0.000	99	1678041	500.0	448.2	
20 Pyrene	202	10.830	10.830	0.000	100	1704513	500.0	432.2	
21 Benzo[a]anthracene	228	11.799	11.799	0.000	100	1255846	500.0	501.9	a
22 Chrysene	228	11.821	11.821	0.000	96	1444792	500.0	434.2	a
23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	98	1216329	500.0	426.1	a
24 Benzo[k]fluoranthene	252	12.653	12.653	0.000	81	1689806	500.0	483.9	
25 Benzo[a]pyrene	252	12.892	12.892	0.000	99	1316751	500.0	455.4	
26 Indeno[1,2,3-cd]pyrene	276	13.935	13.935	0.000	99	1209940	500.0	532.1	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	1306439	500.0	464.5	a
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	99	1384765	500.0	434.0	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

ccv_SIM_500_00071 Amount Added: 1.00 Units: mL

Report Date: 23-Jul-2019 13:42:33 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D

Injection Date: 22-Jul-2019 10:43:30 Instrument ID: TAC023

Lims ID: ccvis

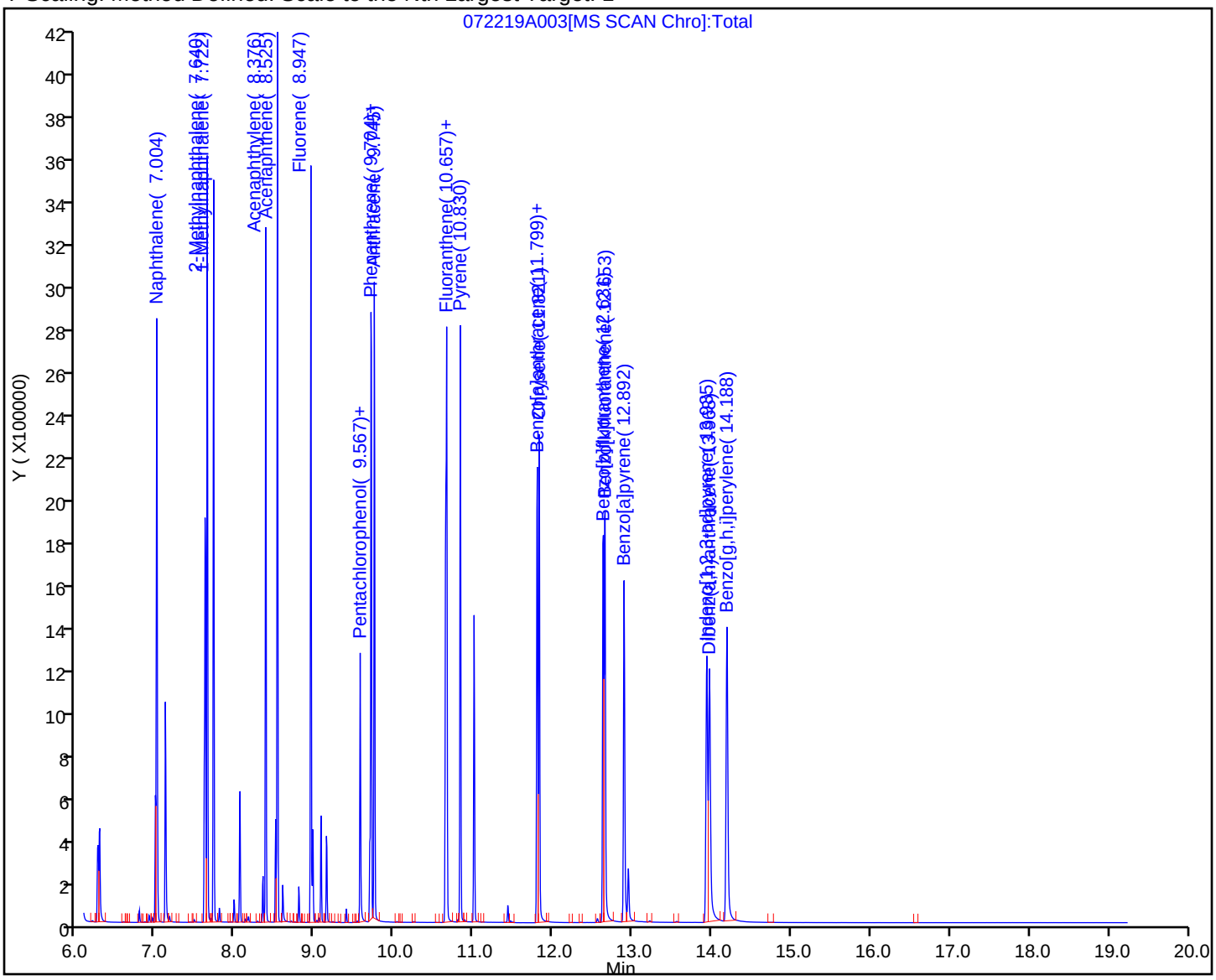
Client ID:

Operator ID: KFS ALS Bottle#: 3 Worklist Smp#: 3

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

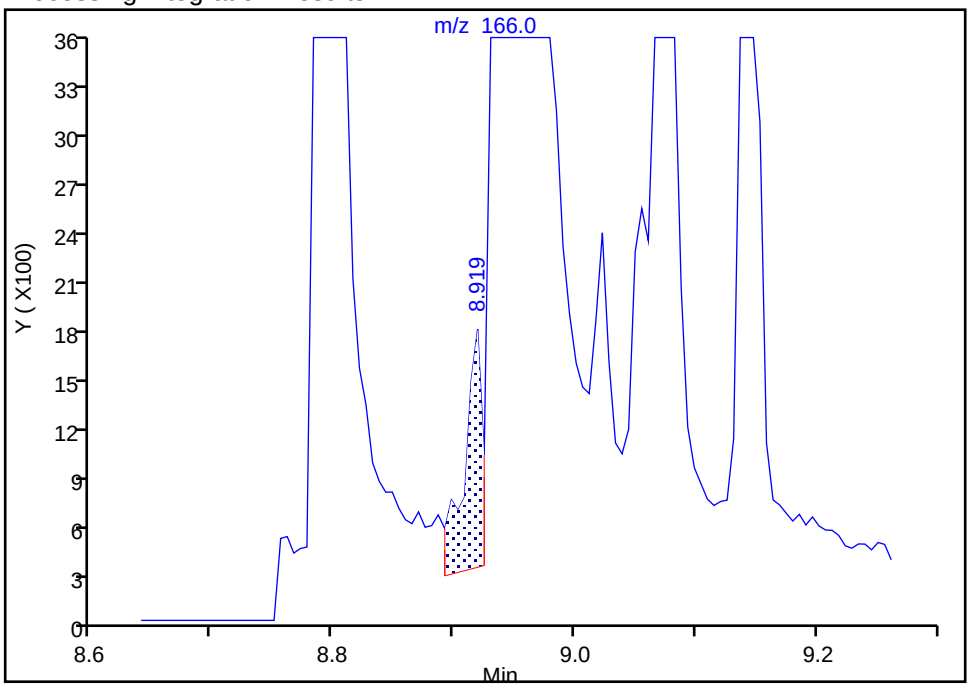
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D				
Injection Date:	22-Jul-2019 10:43:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

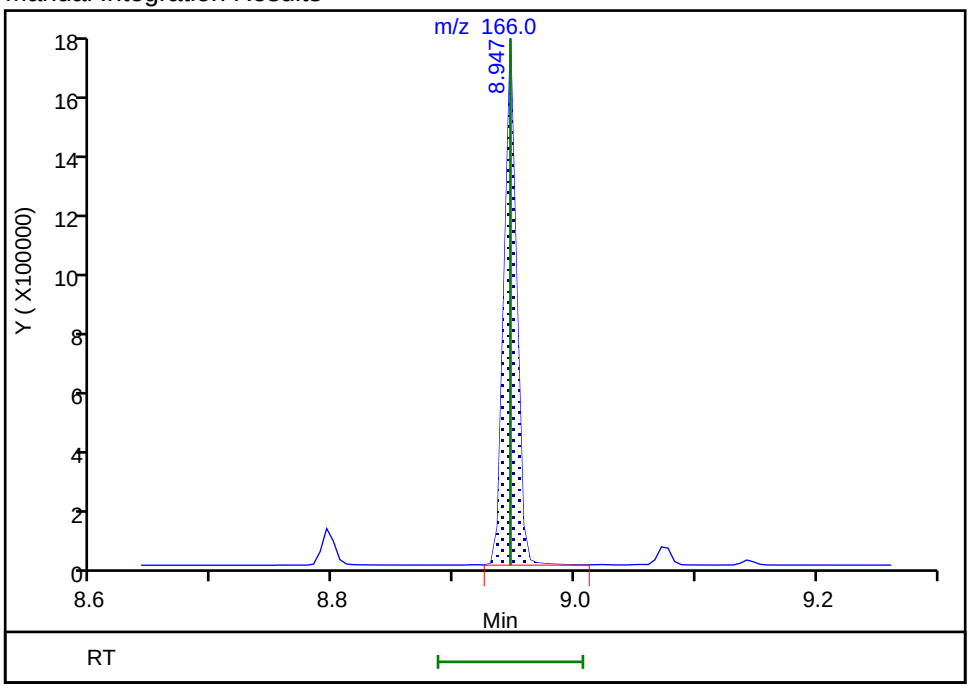
Processing Integration Results

RT: 8.92
Area: 1423
Amount: 0.506982
Amount Units: ug/L



Manual Integration Results

RT: 8.95
Area: 1264122
Amount: 450.3777
Amount Units: ug/L



Reviewer: squiresk, 22-Jul-2019 11:30:22
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

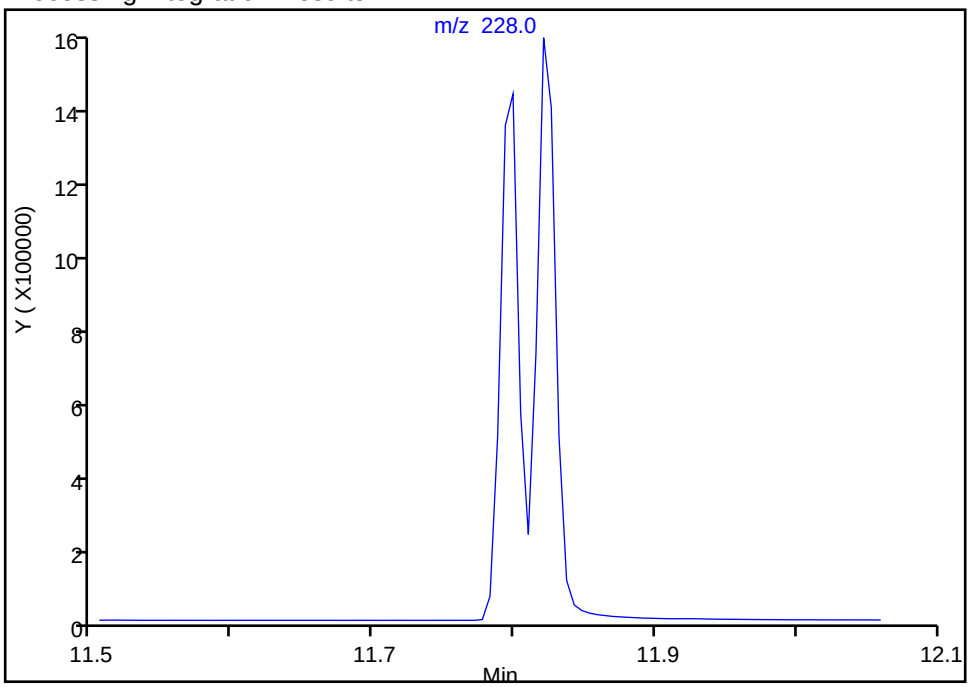
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D				
Injection Date:	22-Jul-2019 10:43:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

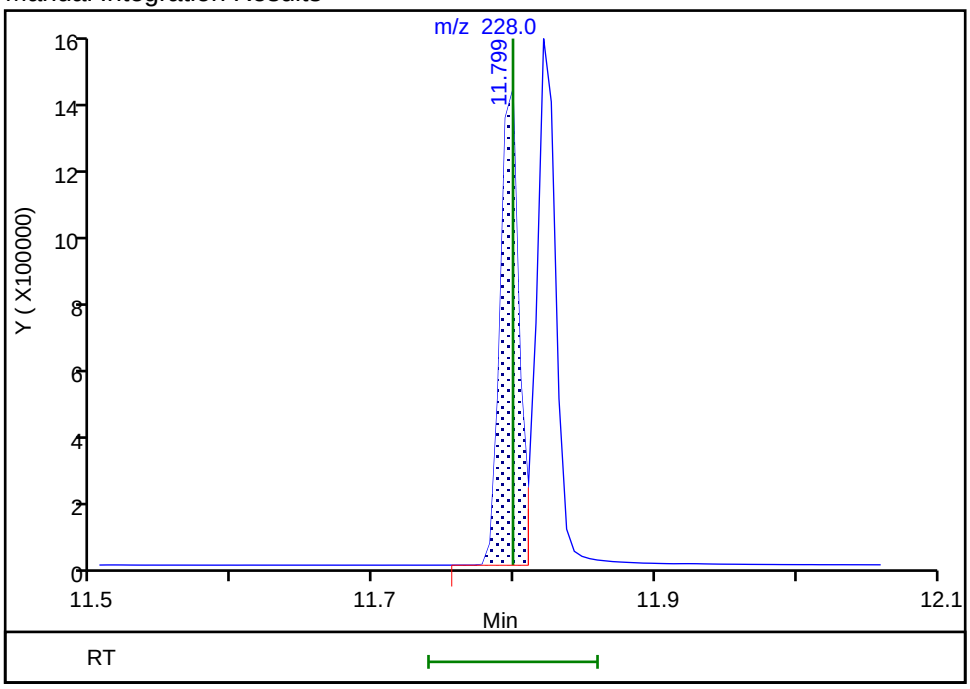
Not Detected
Expected RT: 11.80

Processing Integration Results



Manual Integration Results

RT: 11.80
Area: 1255846
Amount: 501.8626
Amount Units: ug/L



Reviewer: squiresk, 22-Jul-2019 11:29:54
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

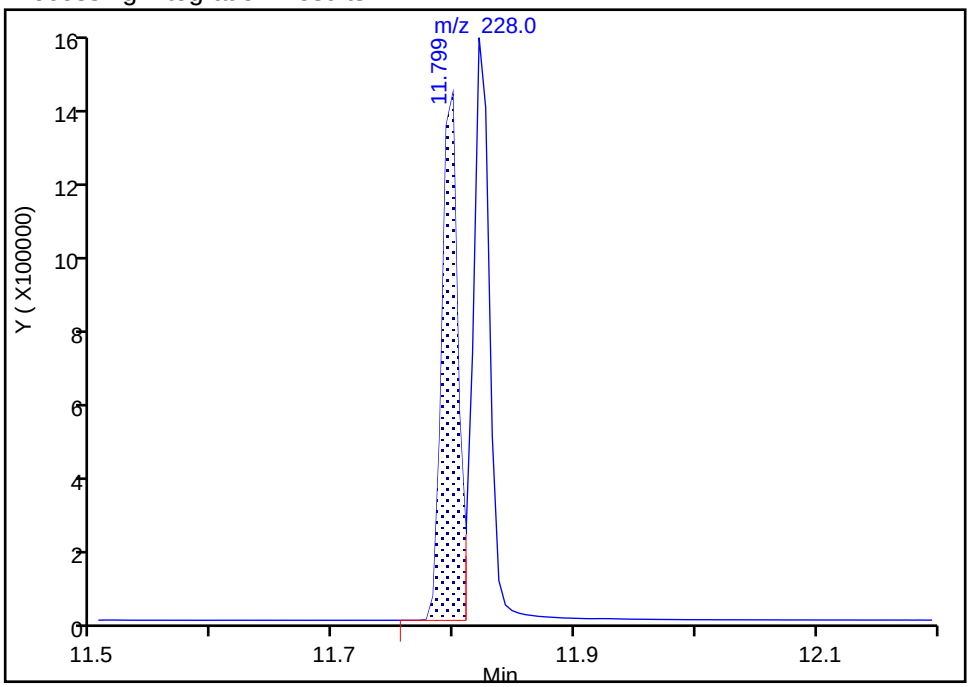
Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D
Injection Date: 22-Jul-2019 10:43:30 Instrument ID: TAC023
Lims ID: ccvis
Client ID:
Operator ID: KFS ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

22 Chrysene, CAS: 218-01-9

Signal: 1

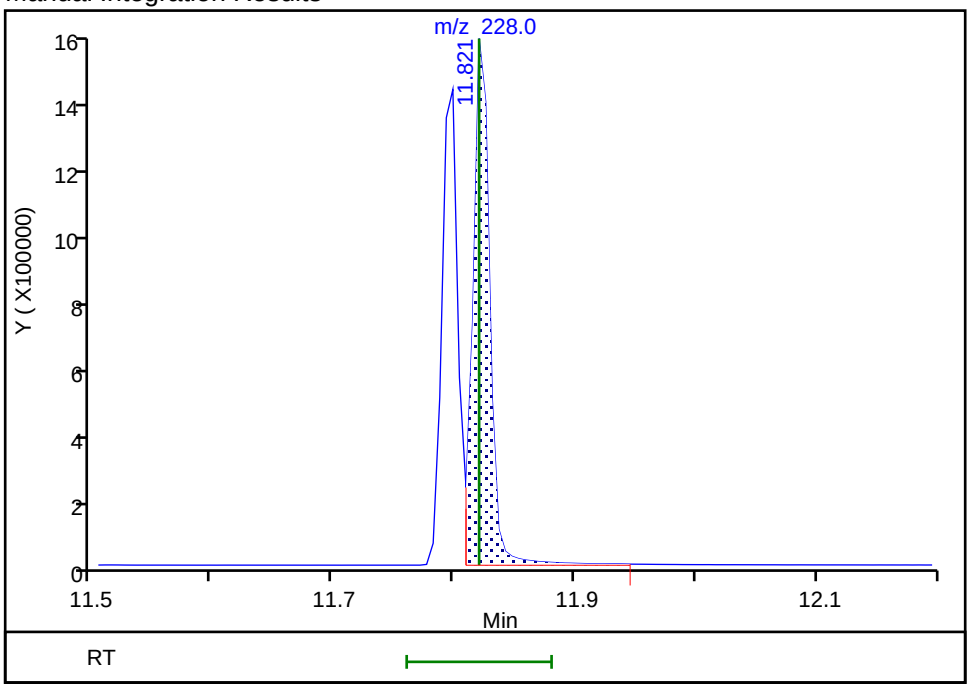
Processing Integration Results

RT: 11.80
Area: 1255846
Amount: 377.3823
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 1444792
Amount: 434.1607
Amount Units: ug/L



Reviewer: squiresk, 22-Jul-2019 11:29:58
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

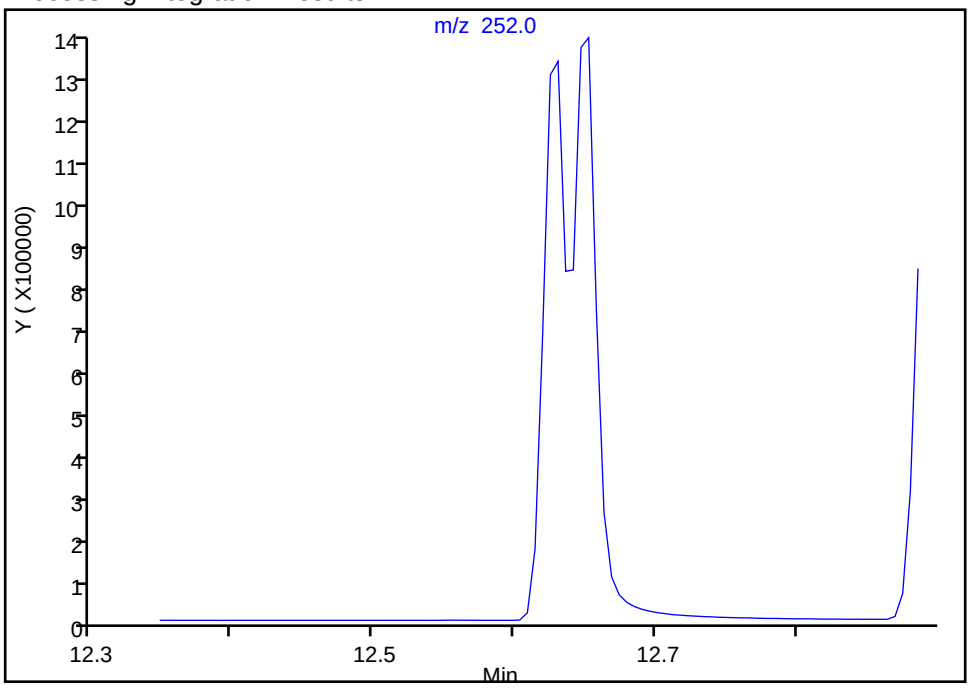
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D				
Injection Date:	22-Jul-2019 10:43:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

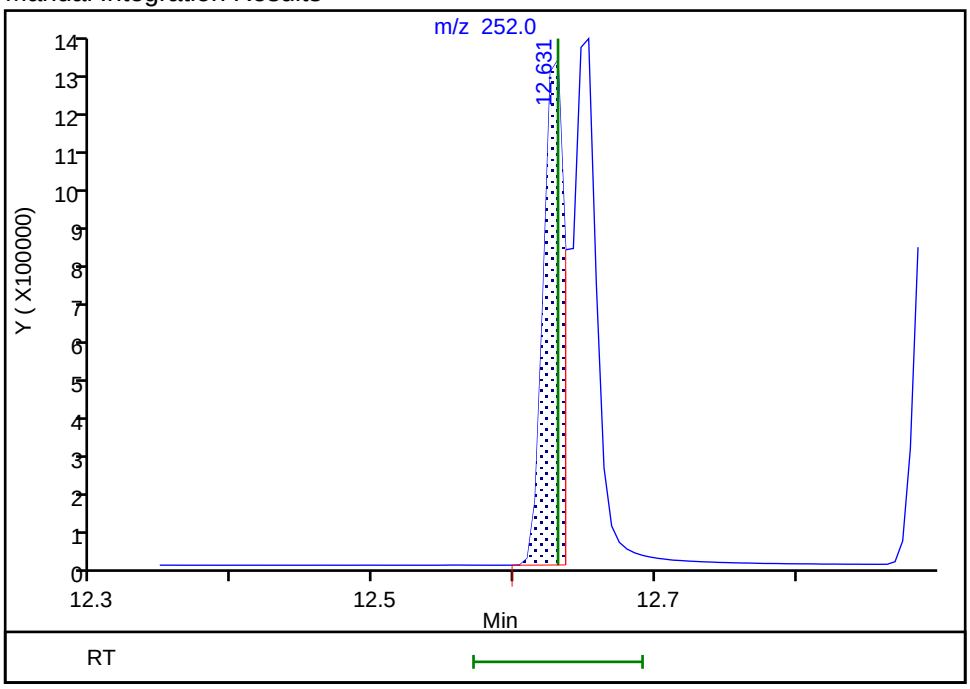
Not Detected
Expected RT: 12.63

Processing Integration Results



Manual Integration Results

RT: 12.63
Area: 1216329
Amount: 426.1190
Amount Units: ug/L



Reviewer: squiresk, 22-Jul-2019 11:30:01
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

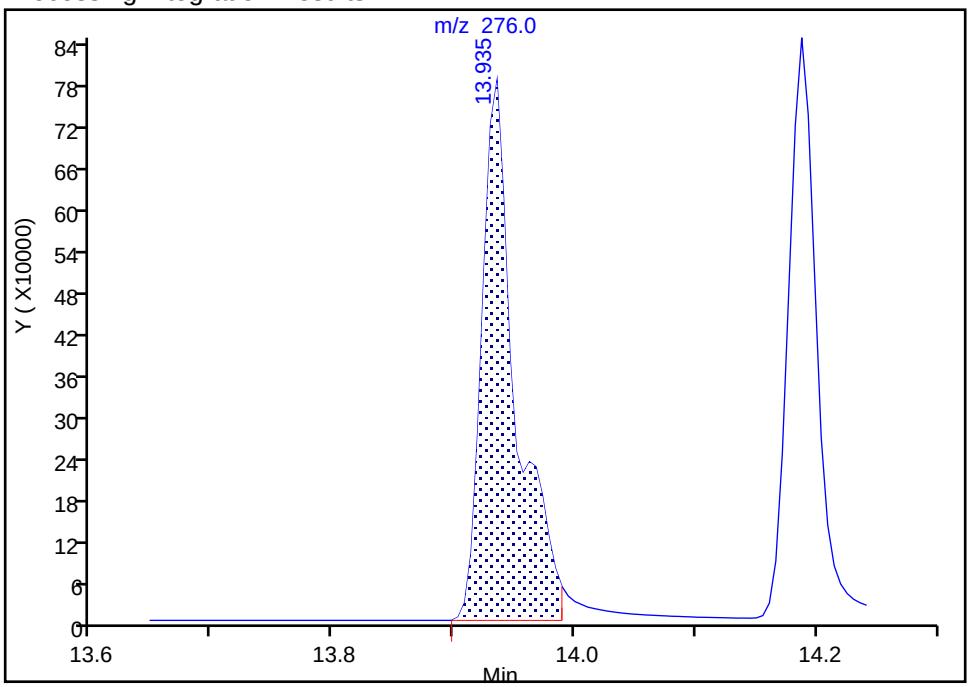
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D				
Injection Date:	22-Jul-2019 10:43:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

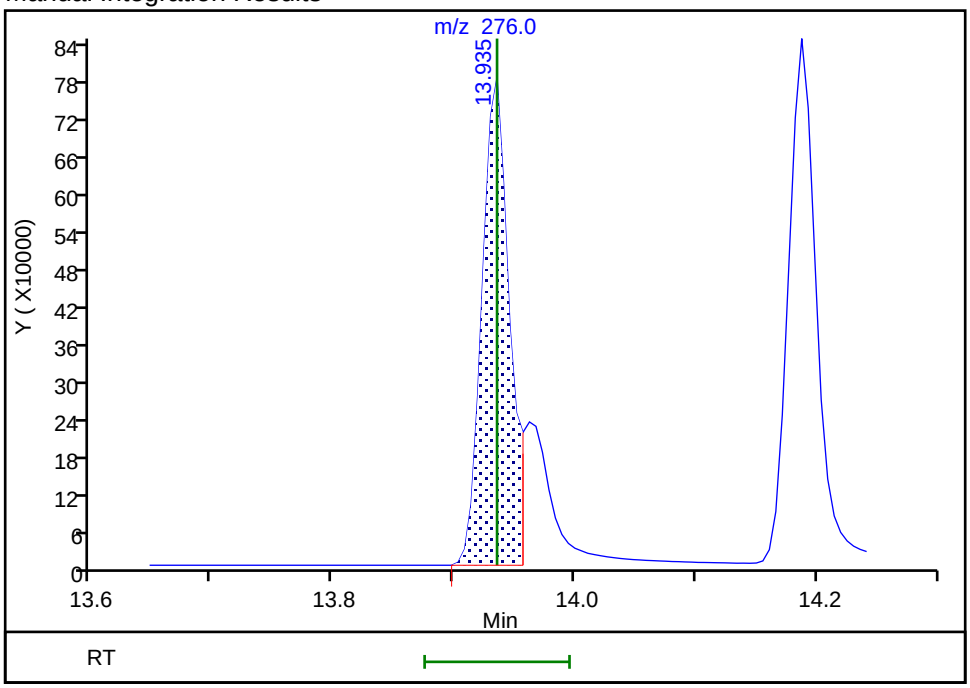
Processing Integration Results

RT: 13.94
Area: 1519377
Amount: 663.0250
Amount Units: ug/L



Manual Integration Results

RT: 13.94
Area: 1209940
Amount: 532.0860
Amount Units: ug/L



Reviewer: squiresk, 22-Jul-2019 11:30:12

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

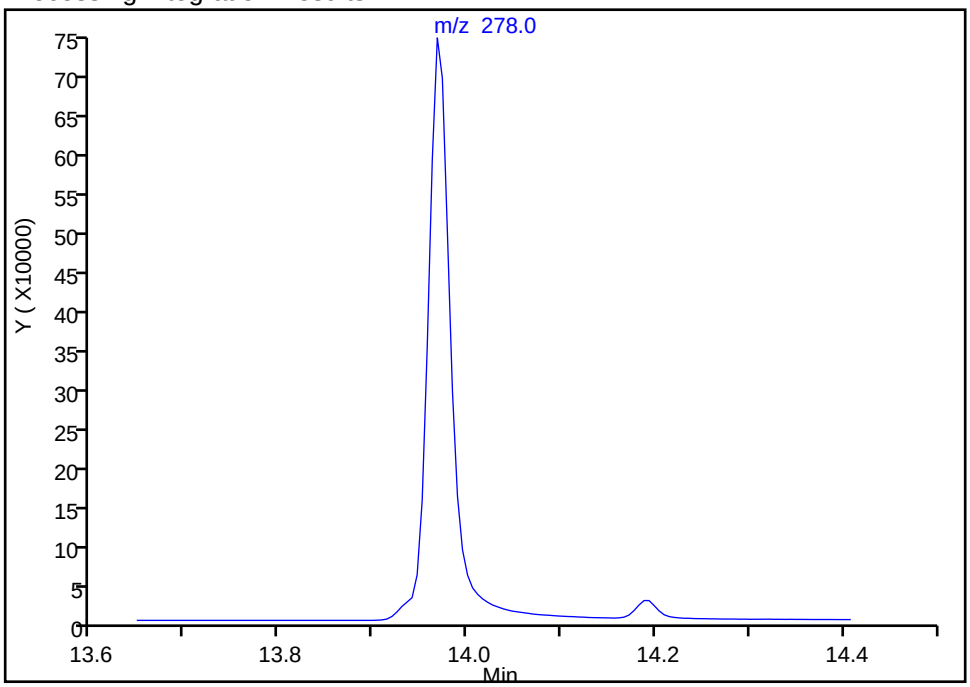
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A003.D				
Injection Date:	22-Jul-2019 10:43:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

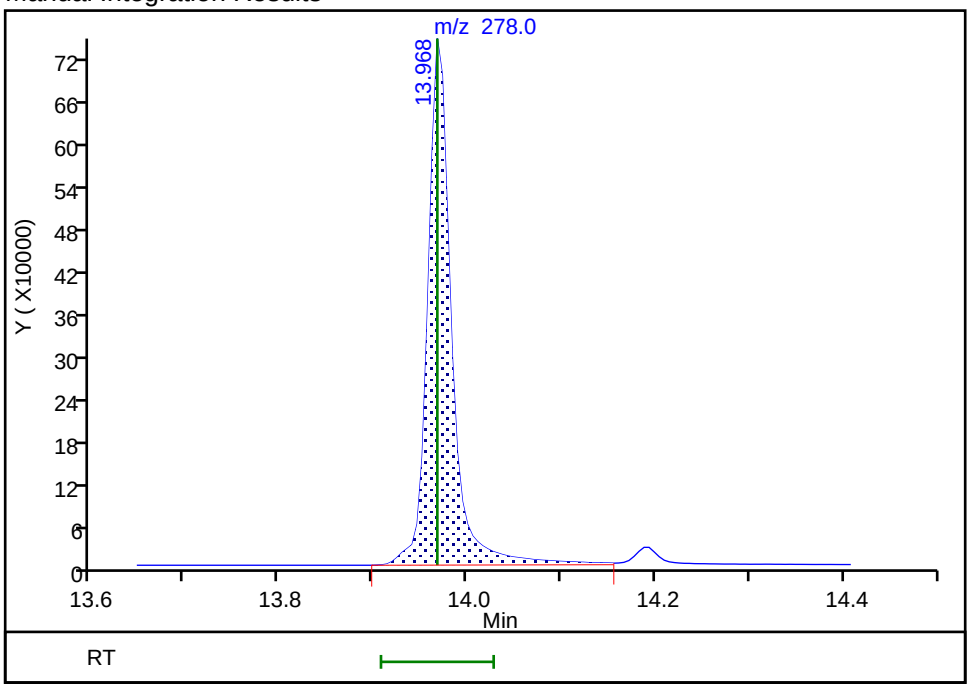
Not Detected
Expected RT: 13.97

Processing Integration Results



Manual Integration Results

RT: 13.97
Area: 1306439
Amount: 464.4987
Amount Units: ug/L



Reviewer: squiresk, 22-Jul-2019 11:30:17
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306419/3 Calibration Date: 07/23/2019 15:36

Instrument ID: TAC023 Calib Start Date: 01/30/2019 18:23

GC Column: ZB-SV ID: 0.25(mm) Calib End Date: 01/30/2019 23:34

Lab File ID: 072319B003.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.117	0.9894	0.7000	443	500	-11.4	20.0
2-Methylnaphthalene	Ave	0.7327	0.6686	0.4000	456	500	-8.7	20.0
1-Methylnaphthalene	Ave	0.6841	0.6120	0.1000	447	500	-10.5	20.0
Acenaphthylene	Ave	2.181	2.020	0.9000	463	500	-7.4	20.0
Acenaphthene	Ave	1.583	1.353	0.9000	427	500	-14.5	20.0
Fluorene	Ave	1.585	1.460	0.9000	460	500	-7.9	20.0
Pentachlorophenol	Qua1		0.2528	0.0500	1160	1000	16.5	20.0
Phenanthrene	Ave	1.358	1.187	0.7000	437	500	-12.6	20.0
Anthracene	Ave	1.262	1.193	0.7000	473	500	-5.5	20.0
Fluoranthene	Ave	1.286	1.158	0.6000	450	500	-10.0	20.0
Pyrene	Ave	1.355	1.176	0.6000	434	500	-13.2	20.0
Benzo[a]anthracene	Ave	1.140	1.176	0.8000	516	500	3.2	20.0
Chrysene	Ave	1.516	1.301	0.7000	429	500	-14.1	20.0
Benzo[b]fluoranthene	Ave	1.288	1.093	0.7000	424	500	-15.1	20.0
Benzo[k]fluoranthene	Ave	1.576	1.531	0.7000	486	500	-2.9	20.0
Benzo[a]pyrene	Ave	1.305	1.183	0.7000	453	500	-9.4	20.0
Indeno[1,2,3-cd]pyrene	Qua2		1.147	0.5000	558	500	11.6	20.0
Dibenz(a,h)anthracene	Lin1		1.219	0.4000	480	500	-4.0	20.0
Benzo[g,h,i]perylene	Lin1		1.299	0.5000	451	500	-9.8	20.0
Terphenyl-d14	Ave	0.7572	0.6212		410	500	-18.0	20.0

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 15:36:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: KFS Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 16:01:58 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: limmere Date: 23-Jul-2019 16:01:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	382151	100.0	100.0	
* 2 Acenaphthene-d10	164	8.503	8.503	0.000	99	171531	100.0	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	288793	100.0	100.0	a
* 4 Chrysene-d12	240	11.810	11.810	0.000	69	219551	100.0	100.0	
* 5 Perylene-d12	264	12.952	12.952	0.000	100	223343	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.613	7.613	0.000	95	1101561	500.0	448.5	
$ 7 2,4,6-Tribromophenol	330	9.148	9.148	0.000	99	245236	500.0	693.2	
$ 8 Fluoranthene-d10 (Surr)	212	10.646	10.646	0.000	98	1364138	500.0	428.1	
$ 9 Terphenyl-d14	244	11.008	11.008	0.000	99	896999	500.0	410.2	
10 Naphthalene	128	7.004	7.004	0.000	100	1890501	500.0	442.8	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	96	1277553	500.0	456.3	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	99	1169439	500.0	447.3	
13 Acenaphthylene	152	8.377	8.377	0.000	100	1732639	500.0	463.1	
14 Acenaphthene	153	8.525	8.525	0.000	95	1160809	500.0	427.4	
15 Fluorene	166	8.947	8.947	0.000	98	1251941	500.0	460.3	
16 Pentachlorophenol	266	9.567	9.567	0.000	98	433642	1000.0	1164.8	
17 Phenanthrene	178	9.704	9.704	0.000	100	1713259	500.0	437.0	a
18 Anthracene	178	9.745	9.745	0.000	100	1722635	500.0	472.6	a
19 Fluoranthene	202	10.657	10.657	0.000	99	1672265	500.0	450.2	
20 Pyrene	202	10.830	10.830	0.000	100	1697434	500.0	433.9	
21 Benzo[a]anthracene	228	11.799	11.799	0.000	99	1290786	500.0	515.9	
22 Chrysene	228	11.826	11.826	0.000	98	1428527	500.0	429.3	
23 Benzo[b]fluoranthene	252	12.636	12.636	0.000	98	1220830	500.0	424.4	a
24 Benzo[k]fluoranthene	252	12.653	12.653	0.000	13	1709394	500.0	485.7	a
25 Benzo[a]pyrene	252	12.897	12.897	0.000	99	1320828	500.0	453.2	
26 Indeno[1,2,3-cd]pyrene	276	13.946	13.946	0.000	98	1280655	500.0	557.9	M
27 Dibenz(a,h)anthracene	278	13.978	13.978	0.000	100	1361431	500.0	480.2	a
28 Benzo[g,h,i]perylene	276	14.199	14.199	0.000	98	1450643	500.0	451.1	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

ccv_SIM_500_00071 Amount Added: 1.00 Units: mL

Report Date: 23-Jul-2019 16:02:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D

Injection Date: 23-Jul-2019 15:36:30 Instrument ID: TAC023

Lims ID: ccvis

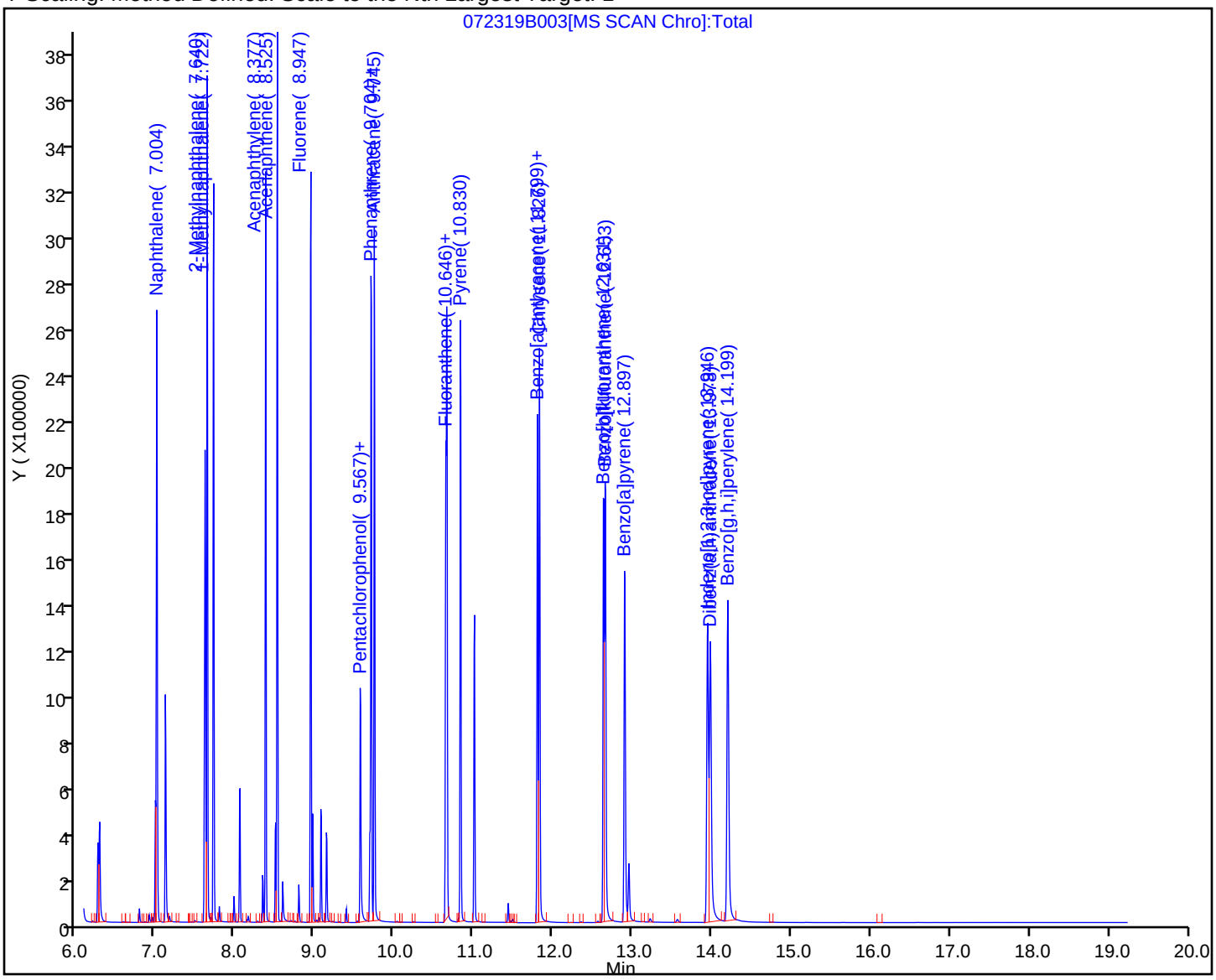
Client ID:

Operator ID: KFS ALS Bottle#: 3 Worklist Smp#: 3

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

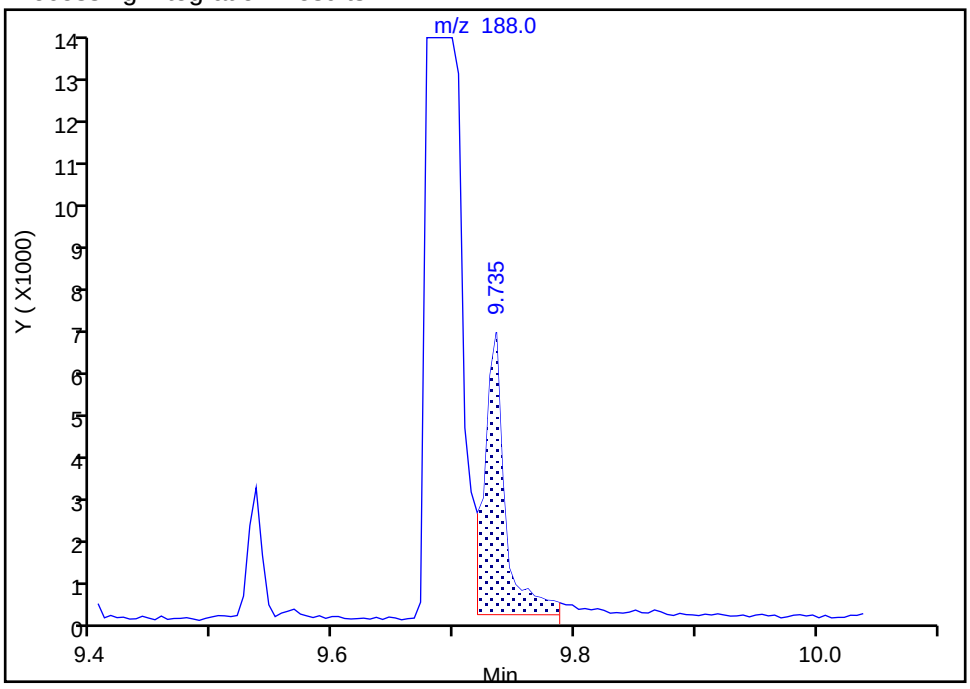
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 3 Phenanthrene-d10, CAS: 1517-22-2

Signal: 1

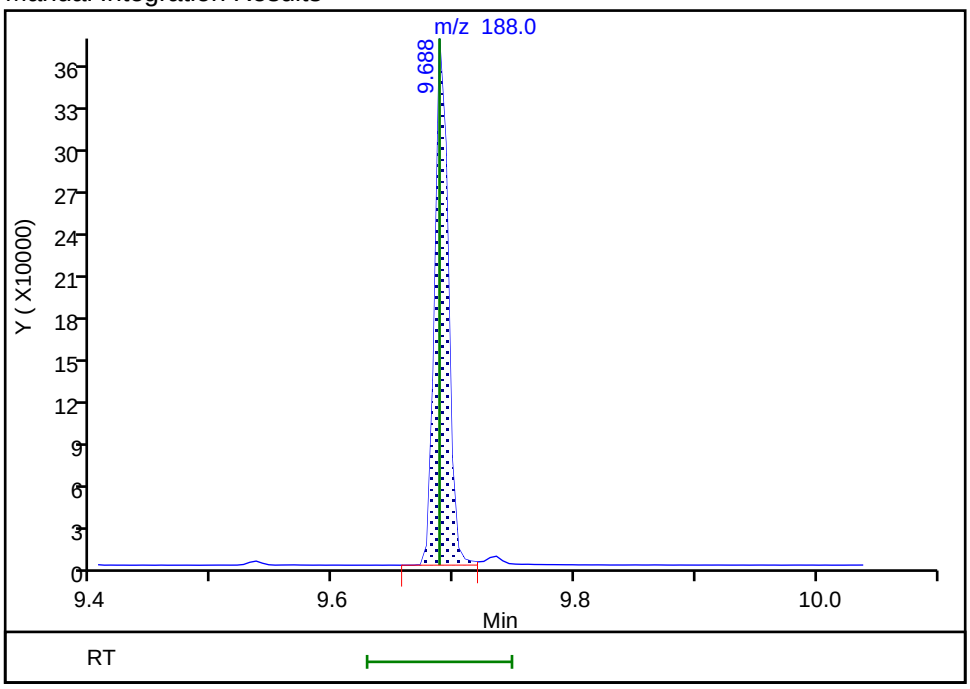
Processing Integration Results

RT: 9.73
Area: 7142
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 9.69
Area: 288793
Amount: 100.0000
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 15:59:36

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

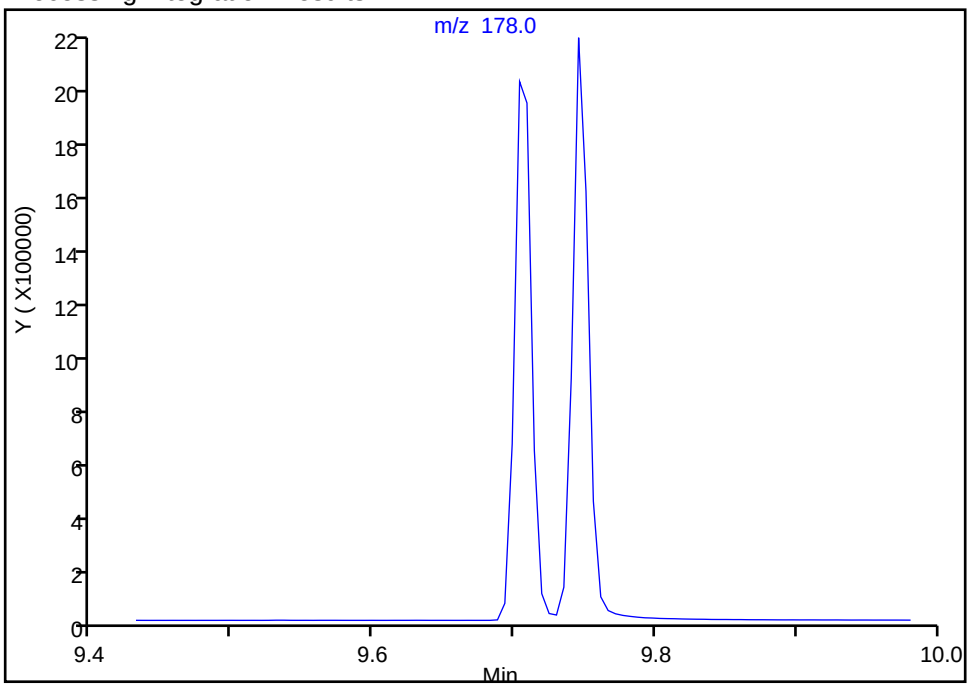
Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D
Injection Date: 23-Jul-2019 15:36:30 Instrument ID: TAC023
Lims ID: ccvis
Client ID:
Operator ID: KFS ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Column: Detector MS SCAN

17 Phenanthrene, CAS: 85-01-8

Signal: 1

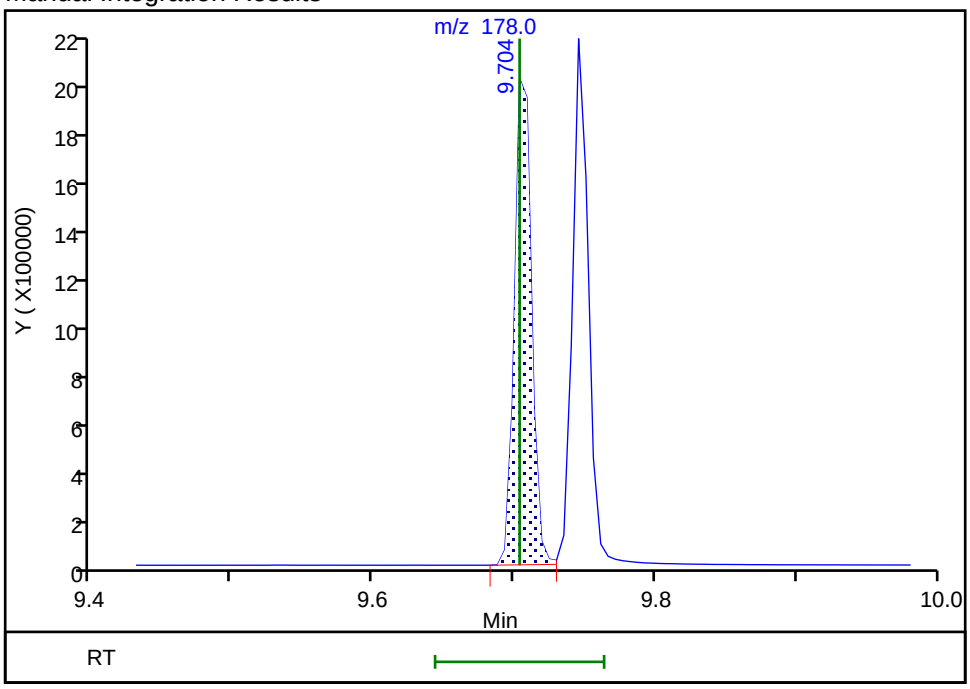
Not Detected
Expected RT: 9.70

Processing Integration Results



Manual Integration Results

RT: 9.70
Area: 1713259
Amount: 436.9925
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 16:00:03
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

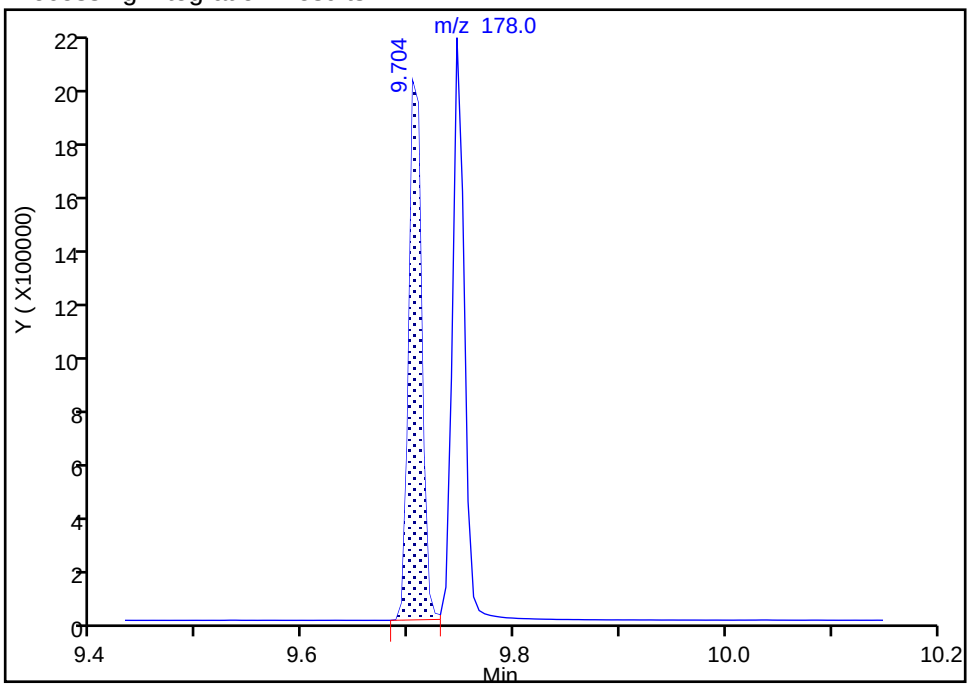
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

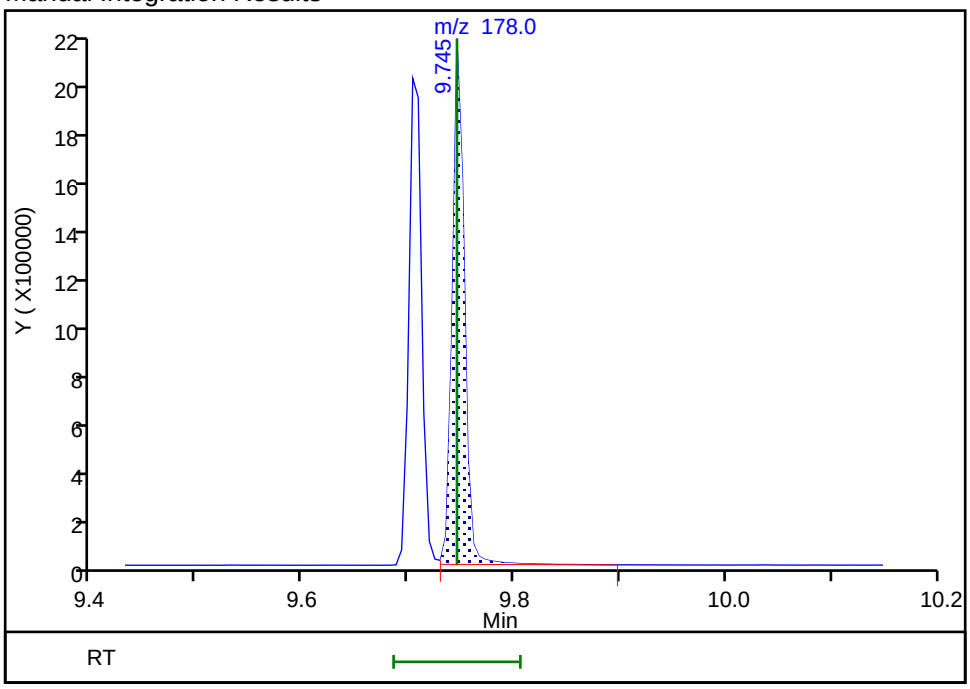
Processing Integration Results

RT: 9.70
Area: 1713259
Amount: 470.0427
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 1722635
Amount: 472.6151
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 15:59:58

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

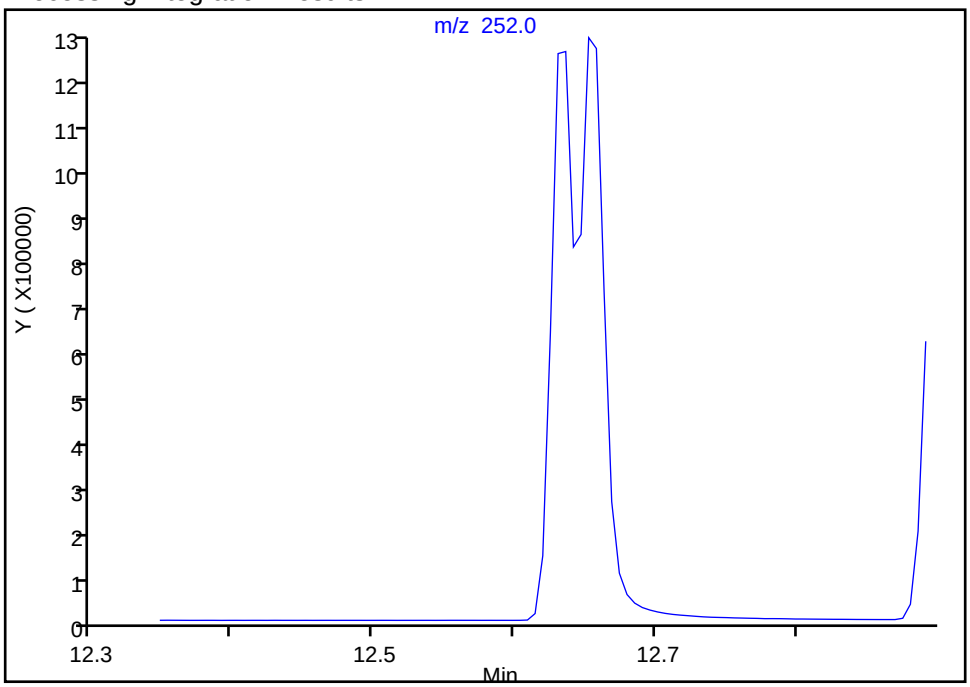
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

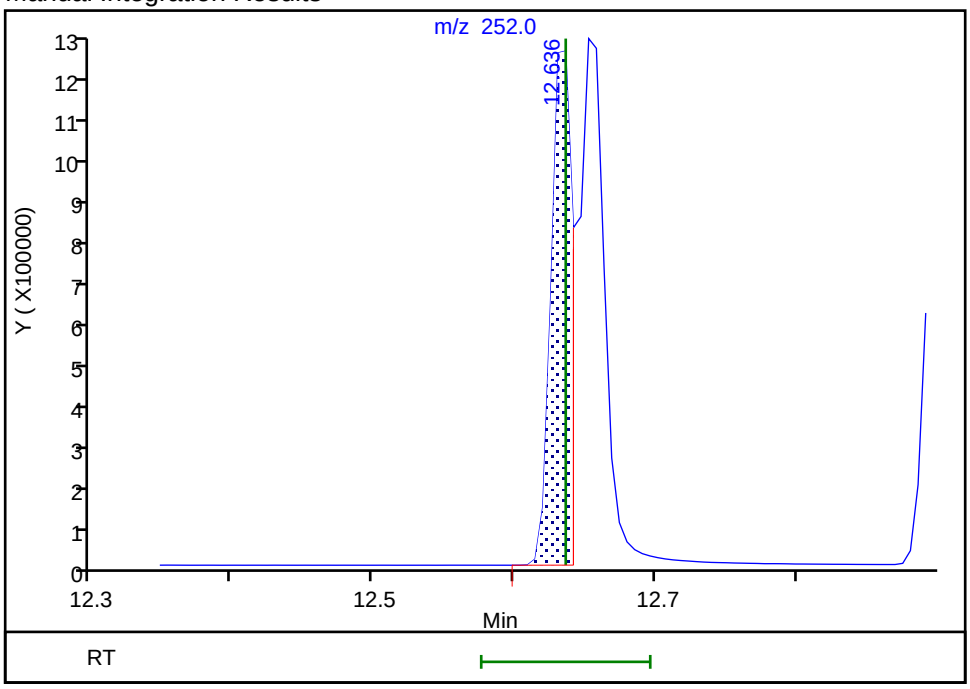
Not Detected
Expected RT: 12.64

Processing Integration Results



Manual Integration Results

RT: 12.64
Area: 1220830
Amount: 424.3657
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 16:00:24
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

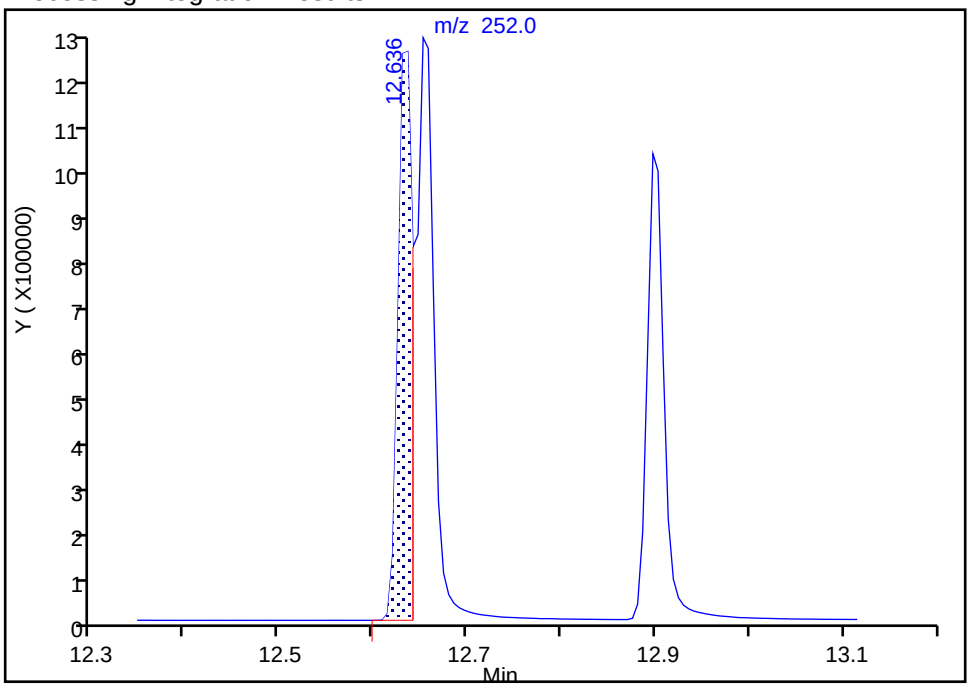
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

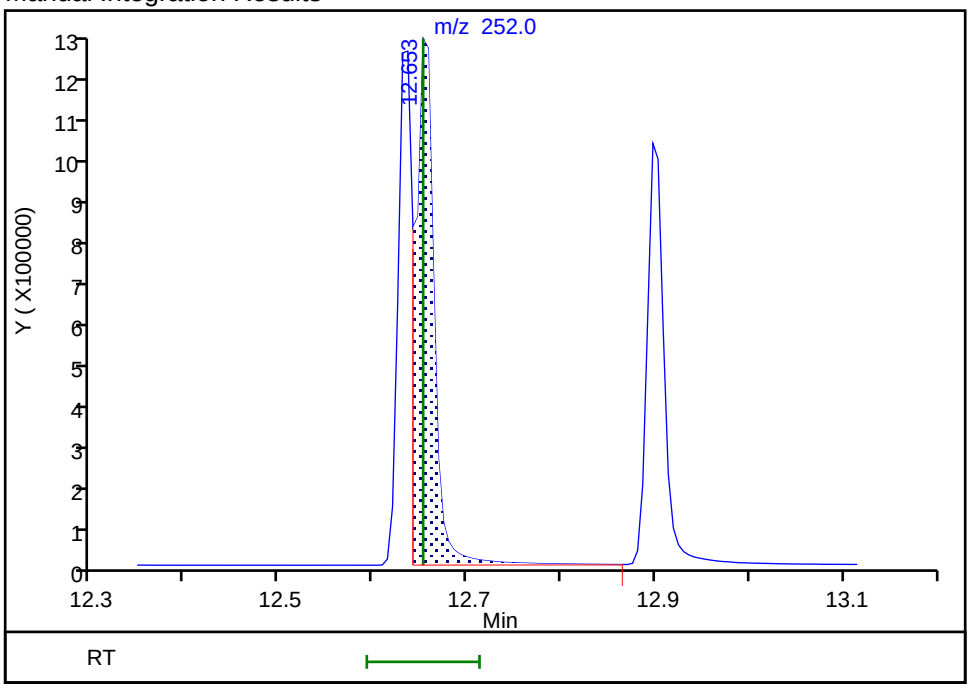
Processing Integration Results

RT: 12.64
Area: 1220830
Amount: 346.8616
Amount Units: ug/L



Manual Integration Results

RT: 12.65
Area: 1709394
Amount: 485.6722
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 16:00:17

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

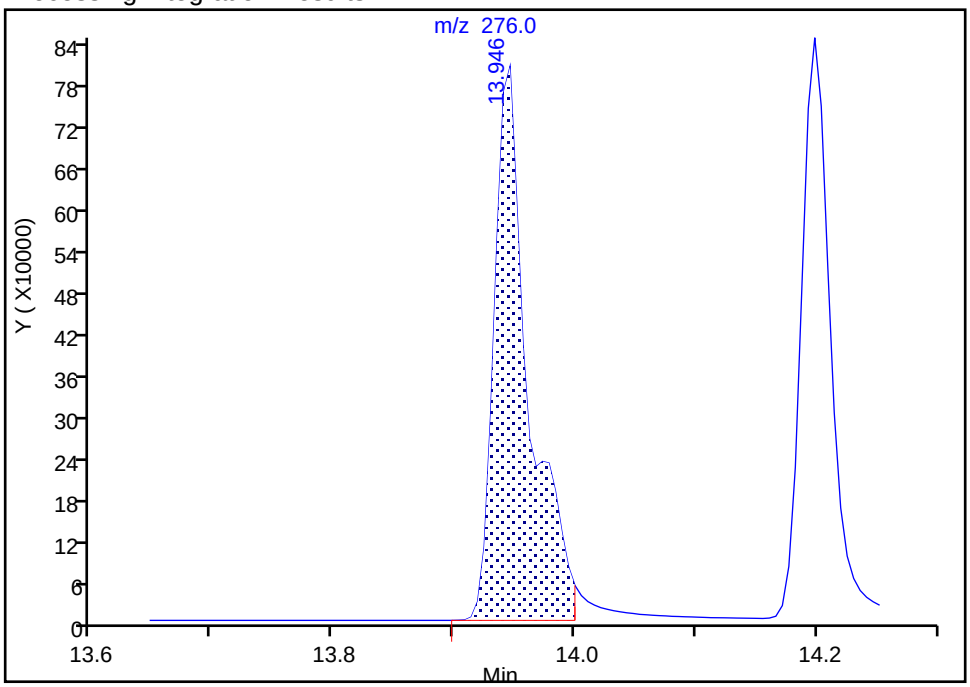
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

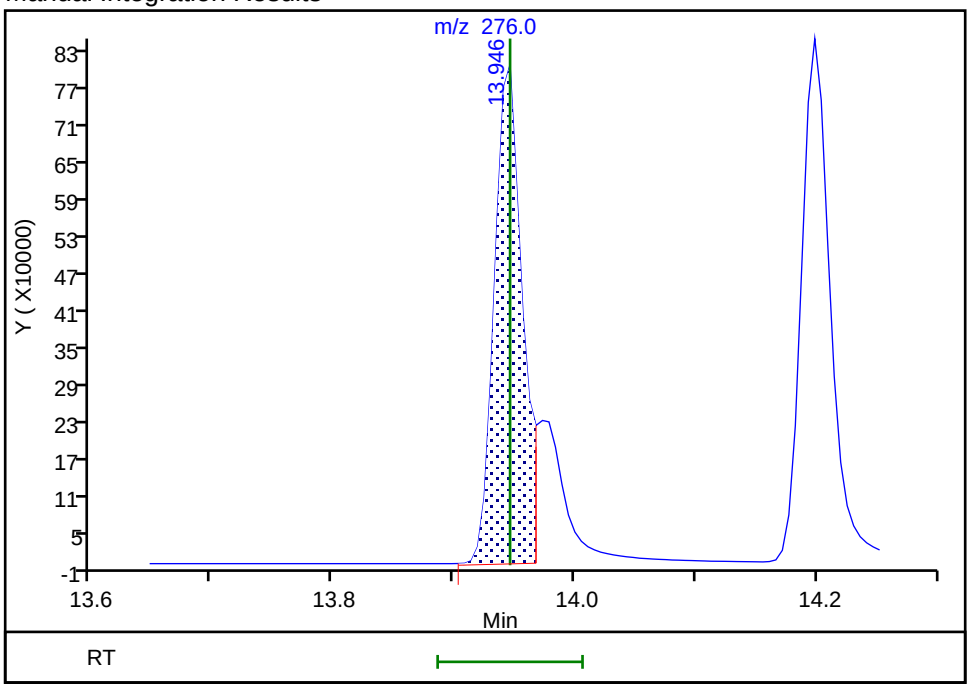
Processing Integration Results

RT: 13.95
Area: 1596768
Amount: 690.2681
Amount Units: ug/L



Manual Integration Results

RT: 13.95
Area: 1280655
Amount: 557.9437
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 16:00:54

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

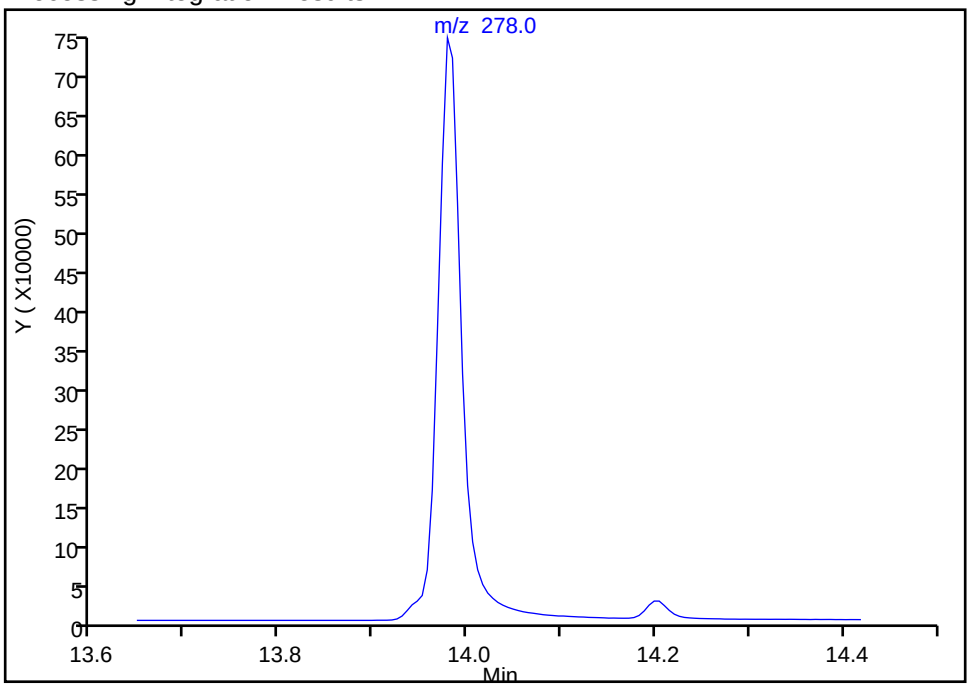
Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B003.D				
Injection Date:	23-Jul-2019 15:36:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

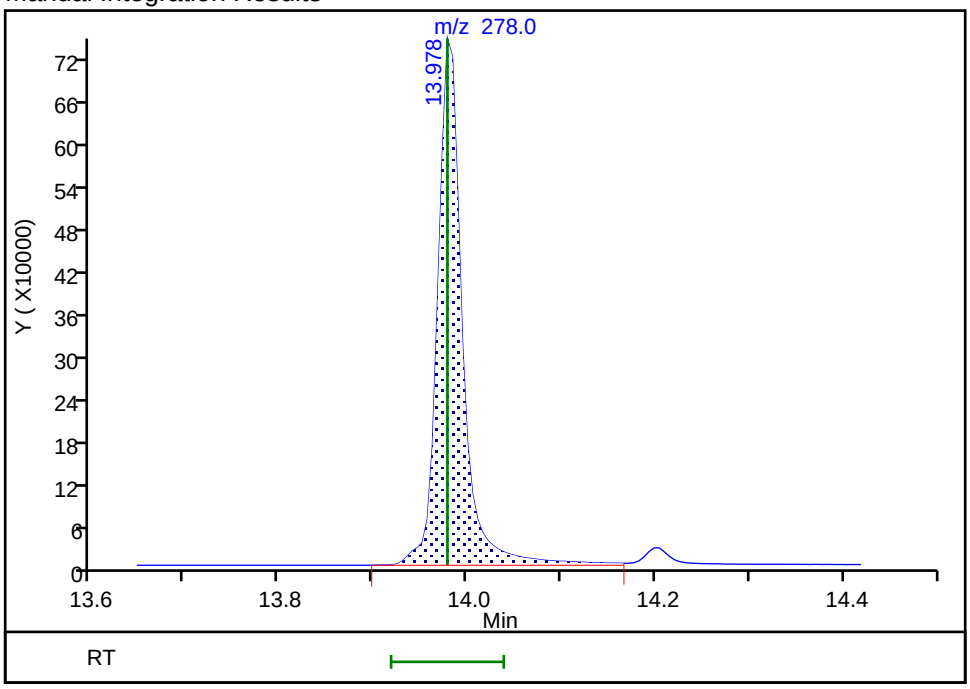
Not Detected
Expected RT: 13.98

Processing Integration Results



Manual Integration Results

RT: 13.98
Area: 1361431
Amount: 480.2443
Amount Units: ug/L



Reviewer: limmere, 23-Jul-2019 16:01:08
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306485/3 Calibration Date: 07/24/2019 10:31

Instrument ID: TAC023 Calib Start Date: 01/30/2019 18:23

GC Column: ZB-SV ID: 0.25(mm) Calib End Date: 01/30/2019 23:34

Lab File ID: 072419A003.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.117	0.9871	0.7000	442	500	-11.7	20.0
2-Methylnaphthalene	Ave	0.7327	0.6681	0.4000	456	500	-8.8	20.0
1-Methylnaphthalene	Ave	0.6841	0.6153	0.1000	450	500	-10.1	20.0
Acenaphthylene	Ave	2.181	2.028	0.9000	465	500	-7.0	20.0
Acenaphthene	Ave	1.583	1.334	0.9000	421	500	-15.8	20.0
Fluorene	Ave	1.585	1.452	0.9000	458	500	-8.4	20.0
Pentachlorophenol	Qua1		0.2383	0.0500	1110	1000	10.5	20.0
Phenanthrene	Ave	1.358	1.171	0.7000	431	500	-13.7	20.0
Anthracene	Ave	1.262	1.191	0.7000	472	500	-5.6	20.0
Fluoranthene	Ave	1.286	1.139	0.6000	443	500	-11.4	20.0
Pyrene	Ave	1.355	1.168	0.6000	431	500	-13.8	20.0
Benzo[a]anthracene	Ave	1.140	1.148	0.8000	504	500	0.8	20.0
Chrysene	Ave	1.516	1.334	0.7000	440	500	-12.0	20.0
Benzo[b]fluoranthene	Ave	1.288	1.228	0.7000	477	500	-4.7	20.0
Benzo[k]fluoranthene	Ave	1.576	1.459	0.7000	463	500	-7.4	20.0
Benzo[a]pyrene	Ave	1.305	1.195	0.7000	458	500	-8.4	20.0
Indeno[1,2,3-cd]pyrene	Qua2		1.166	0.5000	567	500	13.4	20.0
Dibenz(a,h)anthracene	Lin1		1.233	0.4000	486	500	-2.9	20.0
Benzo[g,h,i]perylene	Lin1		1.324	0.5000	460	500	-8.0	20.0
Terphenyl-d14	Ave	0.7572	0.6154		406	500	-18.7	20.0

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A003.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 24-Jul-2019 10:31:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: KFS Instrument ID: TAC023
Sublist: chrom-TAC23_PAH_SIM*sub8

Method: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 25-Jul-2019 11:00:29 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0321

First Level Reviewer: limwirojt Date: 25-Jul-2019 11:00:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	100	362438	100.0	100.0	
* 2 Acenaphthene-d10	164	8.503	8.503	0.000	99	163684	100.0	100.0	
* 3 Phenanthrene-d10	188	9.693	9.693	0.000	100	278064	100.0	100.0	
* 4 Chrysene-d12	240	11.810	11.810	0.000	48	204997	100.0	100.0	
* 5 Perylene-d12	264	12.957	12.957	0.000	100	200467	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.619	7.619	0.000	100	1040579	500.0	446.7	
$ 7 2,4,6-Tribromophenol	330	9.148	9.148	0.000	100	232330	500.0	688.5	
$ 8 Fluoranthene-d10 (Surr)	212	10.646	10.646	0.000	98	1306602	500.0	425.9	
$ 9 Terphenyl-d14	244	11.008	11.008	0.000	100	855652	500.0	406.4	
10 Naphthalene	128	7.004	7.004	0.000	100	1788762	500.0	441.7	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	98	1210645	500.0	455.9	
12 1-Methylnaphthalene	142	7.722	7.722	0.000	100	1114999	500.0	449.7	
13 Acenaphthylene	152	8.376	8.376	0.000	99	1659719	500.0	464.9	
14 Acenaphthene	153	8.525	8.525	0.000	98	1091715	500.0	421.2	
15 Fluorene	166	8.947	8.947	0.000	100	1188095	500.0	457.8	a
16 Pentachlorophenol	266	9.573	9.573	0.000	98	390123	1000.0	1105.3	
17 Phenanthrene	178	9.709	9.709	0.000	99	1628688	500.0	431.5	
18 Anthracene	178	9.745	9.745	0.000	100	1656473	500.0	472.0	
19 Fluoranthene	202	10.662	10.662	0.000	99	1584070	500.0	442.9	
20 Pyrene	202	10.835	10.835	0.000	99	1623269	500.0	431.0	
21 Benzo[a]anthracene	228	11.804	11.804	0.000	100	1177015	500.0	503.8	
22 Chrysene	228	11.826	11.826	0.000	95	1367550	500.0	440.2	
23 Benzo[b]fluoranthene	252	12.636	12.636	0.000	99	1230780	500.0	476.6	
24 Benzo[k]fluoranthene	252	12.658	12.658	0.000	96	1462616	500.0	463.0	
25 Benzo[a]pyrene	252	12.903	12.903	0.000	98	1198015	500.0	458.0	
26 Indeno[1,2,3-cd]pyrene	276	13.946	13.946	0.000	99	1168814	500.0	567.0	M
27 Dibenz(a,h)anthracene	278	13.984	13.984	0.000	100	1235745	500.0	485.6	a
28 Benzo[g,h,i]perylene	276	14.204	14.204	0.000	97	1327227	500.0	459.8	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

ccv_SIM_500_00071 Amount Added: 1.00 Units: mL

Report Date: 25-Jul-2019 11:00:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A003.D

Injection Date: 24-Jul-2019 10:31:30 Instrument ID: TAC023

Lims ID: ccvis

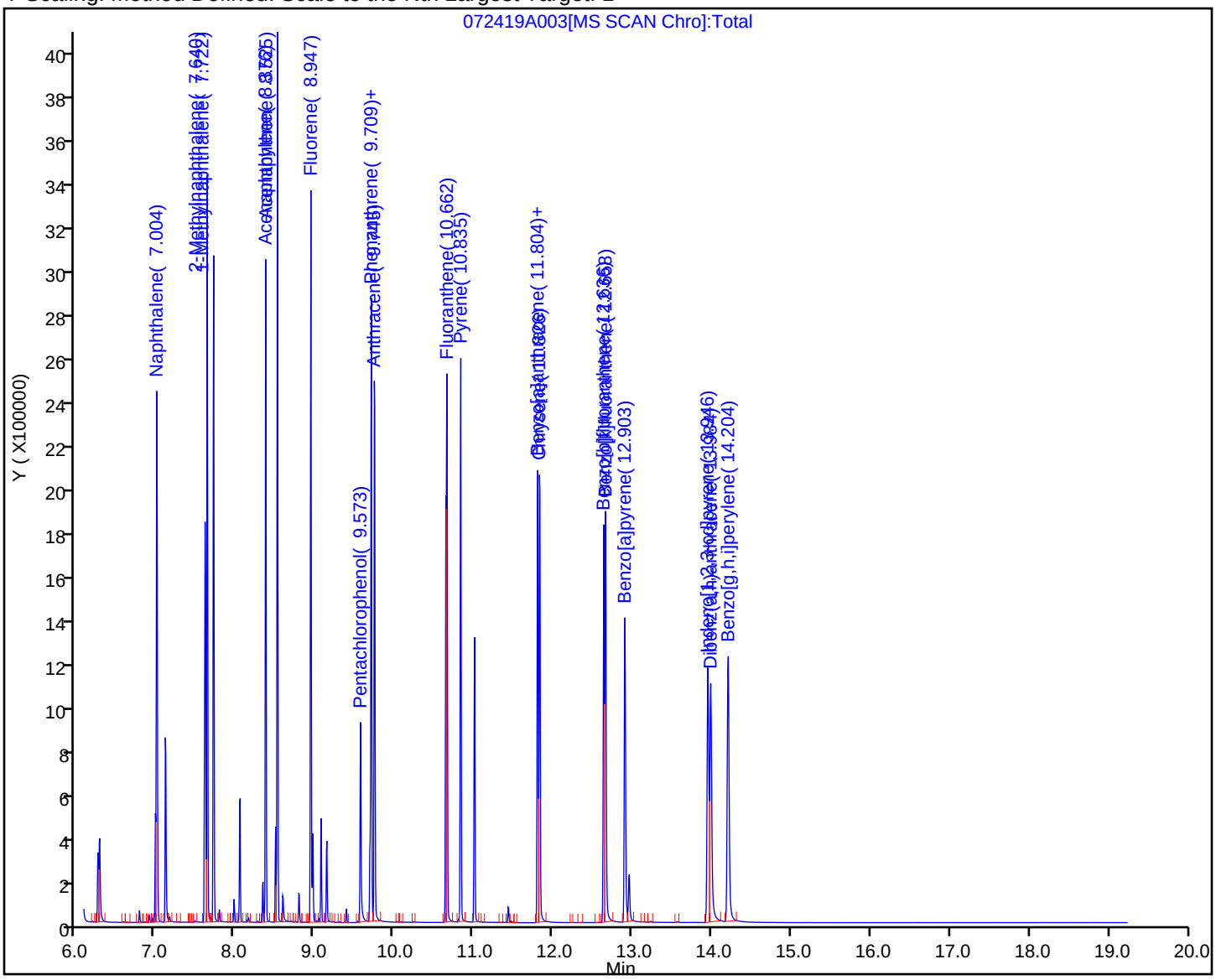
Client ID:

Operator ID: KFS ALS Bottle#: 3 Worklist Smp#: 3

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

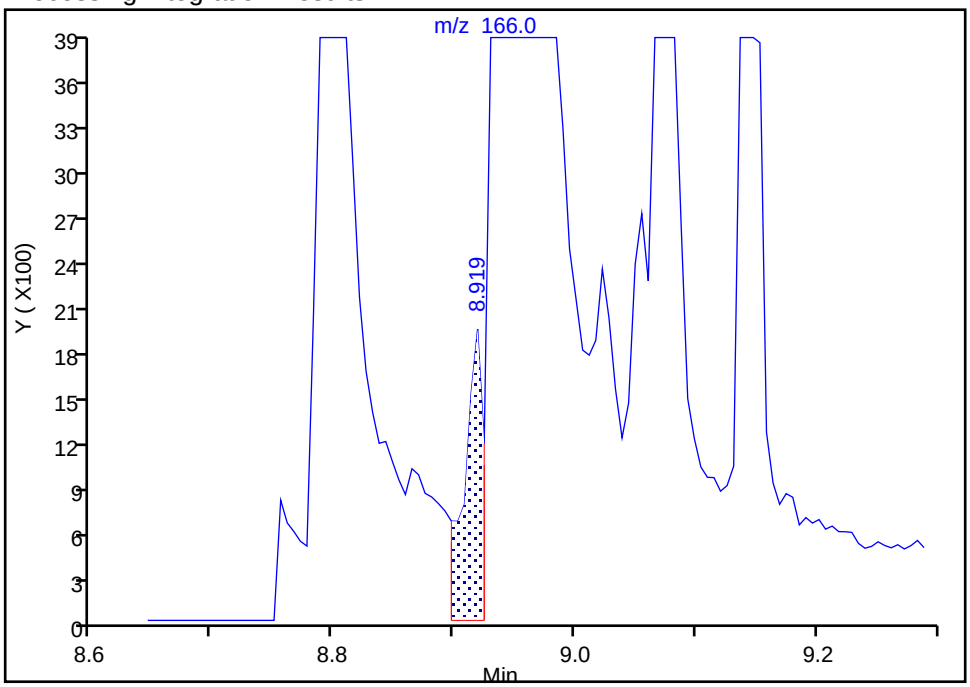
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A003.D				
Injection Date:	24-Jul-2019 10:31:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

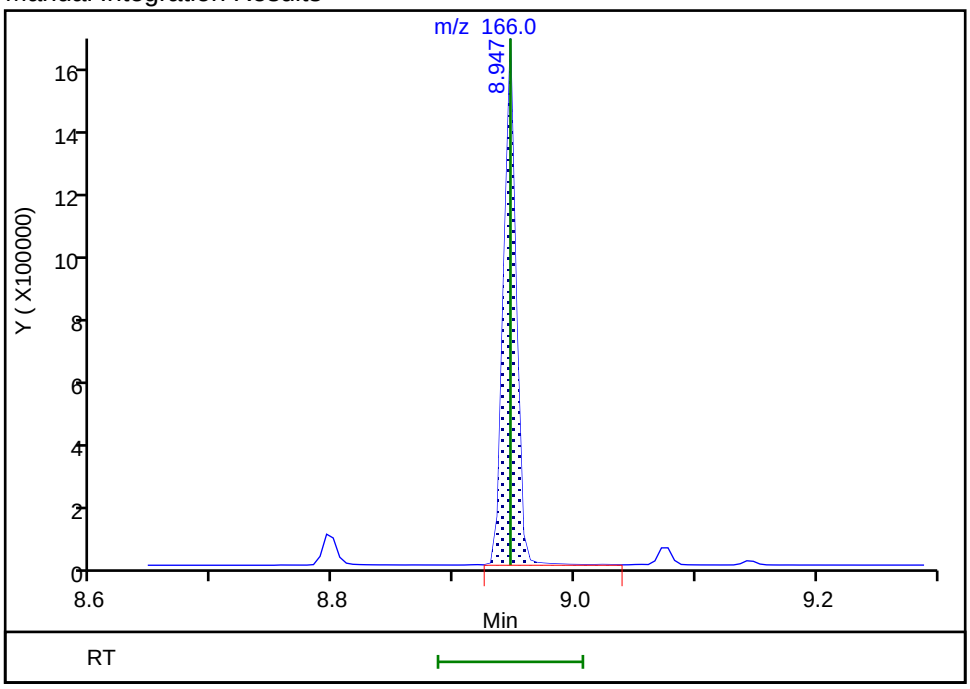
Processing Integration Results

RT: 8.92
Area: 1862
Amount: 0.717494
Amount Units: ug/L



Manual Integration Results

RT: 8.95
Area: 1188095
Amount: 457.8144
Amount Units: ug/L



Reviewer: limmere, 24-Jul-2019 11:25:33

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

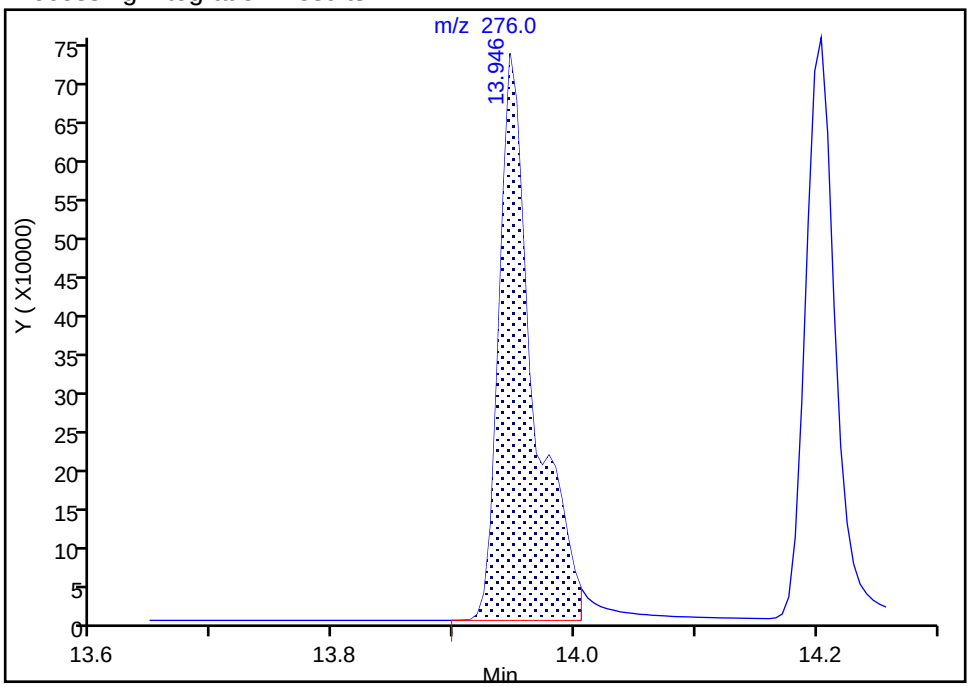
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A003.D				
Injection Date:	24-Jul-2019 10:31:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

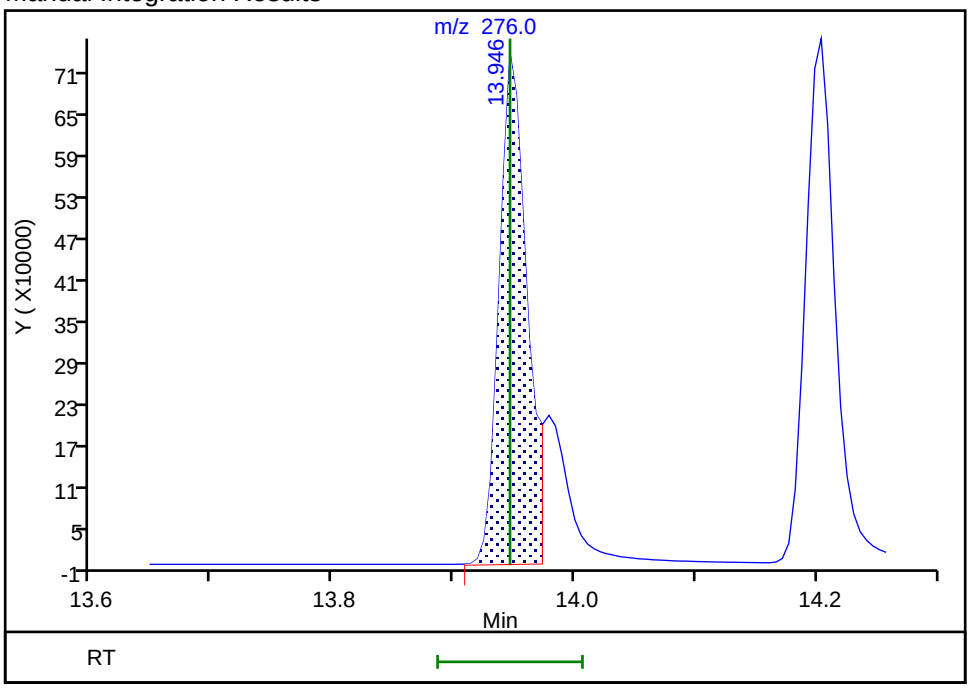
Processing Integration Results

RT: 13.95
Area: 1446222
Amount: 696.2855
Amount Units: ug/L



Manual Integration Results

RT: 13.95
Area: 1168814
Amount: 567.0220
Amount Units: ug/L



Reviewer: limmere, 24-Jul-2019 11:25:56

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

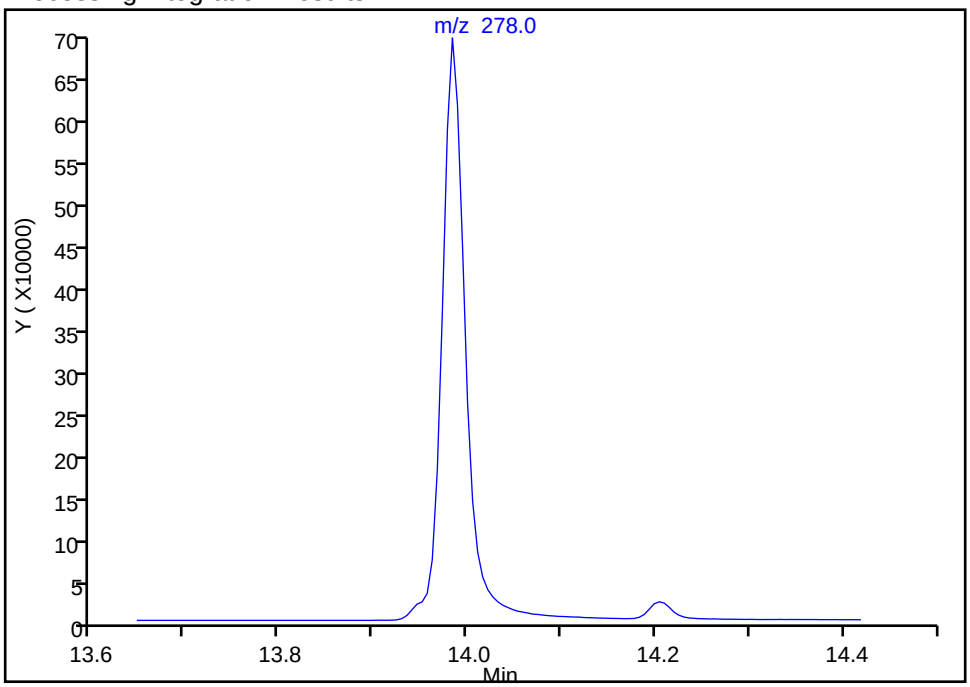
Data File:	\\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A003.D				
Injection Date:	24-Jul-2019 10:31:30	Instrument ID:	TAC023		
Lims ID:	ccvis				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

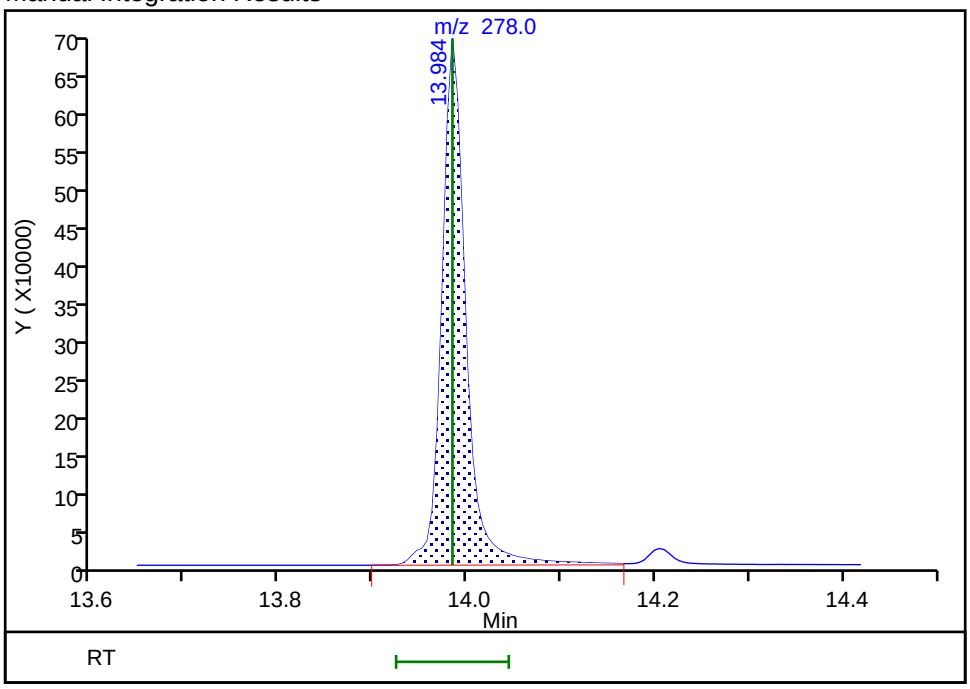
Not Detected
Expected RT: 13.98

Processing Integration Results



Manual Integration Results

RT: 13.98
Area: 1235745
Amount: 485.6392
Amount Units: ug/L



Reviewer: limmere, 24-Jul-2019 11:26:01
Audit Action: Assigned Compound ID Audit Reason: Split Peak

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D
Lims ID: dftpp
Client ID:
Sample Type: DFTPP
Inject. Date: 30-Jan-2019 17:57:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: dftpp
Operator ID: adb Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 05-Feb-2019 13:07:23 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX1002

First Level Reviewer: squiresk Date: 31-Jan-2019 09:15:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 Pentachlorophenol_T	266	9.525	9.525	0.000	0	3109616	NR	NR	
30 DFTPP									
31 Benzidine_T	184	10.770	10.770	0.000	0	9798379	NR	NR	e
32 4,4'-DDE	246	10.941	10.941	0.000	0	10886		NR	
33 4,4'-DDD	235	11.208	11.208	0.000	0	85238		NR	
34 4,4'-DDT	235	11.449	11.449	0.000	0	6181529	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
e - Potential Peak Saturated

Reagents:

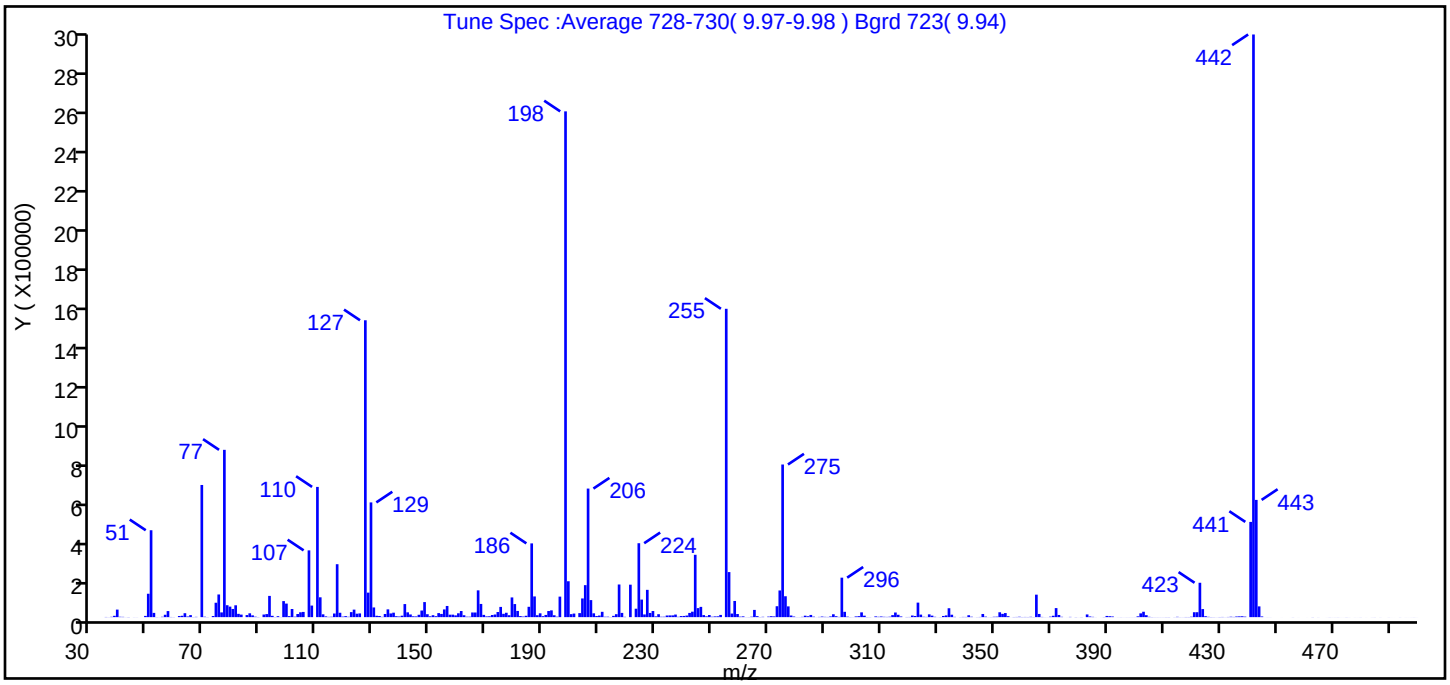
DFTPPx2_00022 Amount Added: 1.00 Units: mL

MS Tune Report

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D
Injection Date: 30-Jan-2019 17:57:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: adb ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Tune Method: DFTPP Method 525.2, BP 198

30 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (86.8)
51	10-80% of the base peak	17.2
68	<2% of mass 69	0.0 (0.0)
69	Present	26.1
70	<2% of mass 69	0.1 (0.3)
127	10-80% of the base peak	58.7
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.1
275	10-60% of the base peak	30.2
365	>1% of the base peak	4.4
441	Present and < mass 443	18.8 (81.2)
442	base peak, or >50% of 198	115.2
443	15-24% of mass 442	23.2 (20.1)

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 30-Jan-2019 17:57:30
Spectrum: Tune Spec :Average 728-730(9.97-9.98) Bgrd 723(9.94)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 422

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	899	152.00	4651	263.00	594	372.00	45168
36.00	397	153.00	20184	264.00	2212	373.00	10864
37.00	1636	154.00	16046	265.00	36184	374.00	1668
38.00	6651	155.00	38568	266.00	4896	375.00	76
39.00	37680	156.00	55800	267.00	742	376.00	149
40.00	1782	157.00	12255	268.00	1651	377.00	1212
41.00	1392	158.00	12382	270.00	2690	379.00	575
42.00	256	159.00	8845	271.00	4768	380.00	166
43.00	690	160.00	19272	272.00	3629	381.00	529
45.00	289	161.00	30568	273.00	54520	383.00	13472
46.00	245	162.00	9462	274.00	133248	384.00	3257
49.00	6176	163.00	2201	275.00	762368	385.00	1507
50.00	116864	164.00	2190	276.00	104376	386.00	222
51.00	434048	165.00	23288	277.00	53752	388.00	108
52.00	21256	166.00	23160	278.00	8164	389.00	626
53.00	553	167.00	133824	279.00	2993	390.00	6002
54.00	311	168.00	65920	280.00	495	391.00	4598
55.00	1749	169.00	11305	281.00	535	392.00	3368
56.00	11839	170.00	3673	282.00	1464	393.00	94
57.00	30296	171.00	4391	283.00	7273	394.00	234
58.00	846	172.00	10644	284.00	4433	395.00	358
59.00	523	173.00	13168	285.00	10997	396.00	172
61.00	5625	174.00	25552	286.00	2407	397.00	309
62.00	6875	175.00	51088	287.00	279	398.00	301
63.00	19672	176.00	16656	288.00	1211	399.00	253
64.00	3174	177.00	21944	289.00	2906	400.00	294
65.00	10099	178.00	9665	290.00	1456	401.00	3917
66.00	617	179.00	98472	291.00	1017	402.00	18936
67.00	1376	180.00	65312	292.00	3571	403.00	26912
69.00	660096	181.00	30944	293.00	14378	404.00	9737
70.00	2108	182.00	5309	294.00	4531	405.00	1674
71.00	597	183.00	2965	295.00	1260	406.00	634
73.00	5529	184.00	6804	296.00	197184	407.00	403

Report Date: 05-Feb-2019 13:07:25 Chrom Revision: 2.3 15-Jan-2019 08:51:34
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 30-Jan-2019 17:57:30
Spectrum: Tune Spec :Average 728-730(9.97-9.98) Bgrd 723(9.94)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 422

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	71912	185.00	51664	297.00	26616	408.00	422
75.00	113232	186.00	368384	298.00	2557	409.00	364
76.00	23696	187.00	103416	299.00	613	410.00	319
77.00	835648	188.00	9614	300.00	347	411.00	522
78.00	59560	189.00	19112	301.00	3519	412.00	545
79.00	52504	190.00	4815	302.00	4834	414.00	413
80.00	40832	191.00	10999	303.00	23920	415.00	1566
81.00	59184	192.00	30584	304.00	7266	416.00	431
82.00	16416	193.00	33816	305.00	739	417.00	347
83.00	12664	194.00	9399	306.00	515	418.00	787
85.00	10396	195.00	2319	307.00	60	419.00	759
86.00	19168	196.00	102504	308.00	3700	420.00	2086
87.00	8861	198.00	2526208	309.00	1861	421.00	24528
88.00	2248	199.00	179264	310.00	3190	422.00	24592
89.00	767	200.00	14978	311.00	1733	423.00	171712
91.00	13052	201.00	17832	312.00	1214	424.00	40312
92.00	15252	203.00	20120	313.00	2140	425.00	4577
93.00	106096	204.00	93376	314.00	10110	426.00	1587
94.00	6583	205.00	159808	315.00	23120	427.00	716
95.00	668	206.00	642176	316.00	11811	428.00	536
96.00	4733	207.00	85128	317.00	3348	429.00	304
97.00	474	208.00	19112	319.00	822	430.00	756
98.00	80088	209.00	5478	320.00	980	431.00	943
99.00	67712	210.00	7915	321.00	8019	432.00	358
100.00	4980	211.00	26632	322.00	5826	433.00	946
101.00	40624	212.00	1994	323.00	72544	434.00	2036
102.00	2337	213.00	2250	324.00	12640	435.00	1107
103.00	15559	214.00	642	325.00	1899	436.00	3184
104.00	24304	215.00	6431	326.00	1158	437.00	3843
105.00	26048	216.00	14734	327.00	14015	438.00	4343
107.00	333504	217.00	163072	328.00	7493	439.00	2537
108.00	57808	218.00	21184	329.00	1716	441.00	475712
110.00	650496	219.00	1498	330.00	285	442.00	2910208
111.00	99096	221.00	162176	331.00	631	443.00	585600

Report Date: 05-Feb-2019 13:07:25 Chrom Revision: 2.3 15-Jan-2019 08:51:34
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 30-Jan-2019 17:57:30
Spectrum: Tune Spec :Average 728-730(9.97-9.98) Bgrd 723(9.94)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 422

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	14128	223.00	42072	332.00	5850	444.00	53728
113.00	3758	224.00	369216	333.00	8549	445.00	3398
114.00	1393	225.00	87696	334.00	44464	446.00	84
115.00	1983	226.00	13590	335.00	12080	447.00	228
116.00	18144	227.00	136320	336.00	1408	448.00	195
117.00	264384	228.00	21008	338.00	472	452.00	72
118.00	21880	229.00	30544	339.00	1103	455.00	25
119.00	2573	230.00	3758	340.00	996	456.00	276
120.00	5042	231.00	14664	341.00	9445	458.00	97
121.00	1864	232.00	1973	342.00	2079	461.00	72
122.00	25120	233.00	2065	343.00	165	463.00	402
123.00	37544	234.00	8177	344.00	474	465.00	199
124.00	17184	235.00	8577	345.00	985	468.00	87
125.00	18616	236.00	8799	346.00	15785	469.00	283
127.00	1482752	237.00	12875	347.00	2615	470.00	150
128.00	122400	238.00	1637	348.00	397	471.00	193
129.00	573056	239.00	5484	349.00	535	472.00	276
130.00	48424	240.00	5998	350.00	1876	473.00	109
131.00	6909	241.00	7927	351.00	2262	474.00	99
132.00	5766	242.00	21056	352.00	24352	475.00	317
133.00	1350	243.00	27264	353.00	16512	476.00	152
134.00	15764	244.00	311424	354.00	20360	478.00	132
135.00	38880	245.00	45056	355.00	4584	479.00	80
136.00	18536	246.00	51256	356.00	153	480.00	249
137.00	22272	247.00	10141	357.00	766	482.00	91
138.00	4505	248.00	4104	358.00	997	484.00	167
139.00	3156	249.00	10565	359.00	1929	485.00	271
140.00	7278	250.00	2068	360.00	771	487.00	171
141.00	65280	251.00	3630	361.00	986	490.00	195
142.00	24024	252.00	4016	362.00	822	491.00	74
143.00	13380	253.00	11062	363.00	1685	492.00	60
144.00	4084	255.00	1540096	364.00	734	494.00	224
145.00	3542	256.00	225024	365.00	112296	496.00	109
146.00	11848	257.00	17888	366.00	15901	497.00	80

Report Date: 05-Feb-2019 13:07:25 Chrom Revision: 2.3 15-Jan-2019 08:51:34
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 30-Jan-2019 17:57:30
Spectrum: Tune Spec :Average 728-730(9.97-9.98) Bgrd 723(9.94)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 422

m/z	Y	m/z	Y	m/z	Y	m/z	Y
147.00	33000	258.00	80792	367.00	1090	498.00	126
148.00	75216	259.00	15631	368.00	330	499.00	199
149.00	14626	260.00	2434	369.00	277	500.00	99
150.00	4258	261.00	3814	370.00	2480		
151.00	9631	262.00	402	371.00	6934		

Report Date: 05-Feb-2019 13:07:25 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D

Injection Date: 30-Jan-2019 17:57:30 Instrument ID: TAC023

Lims ID: dftpp

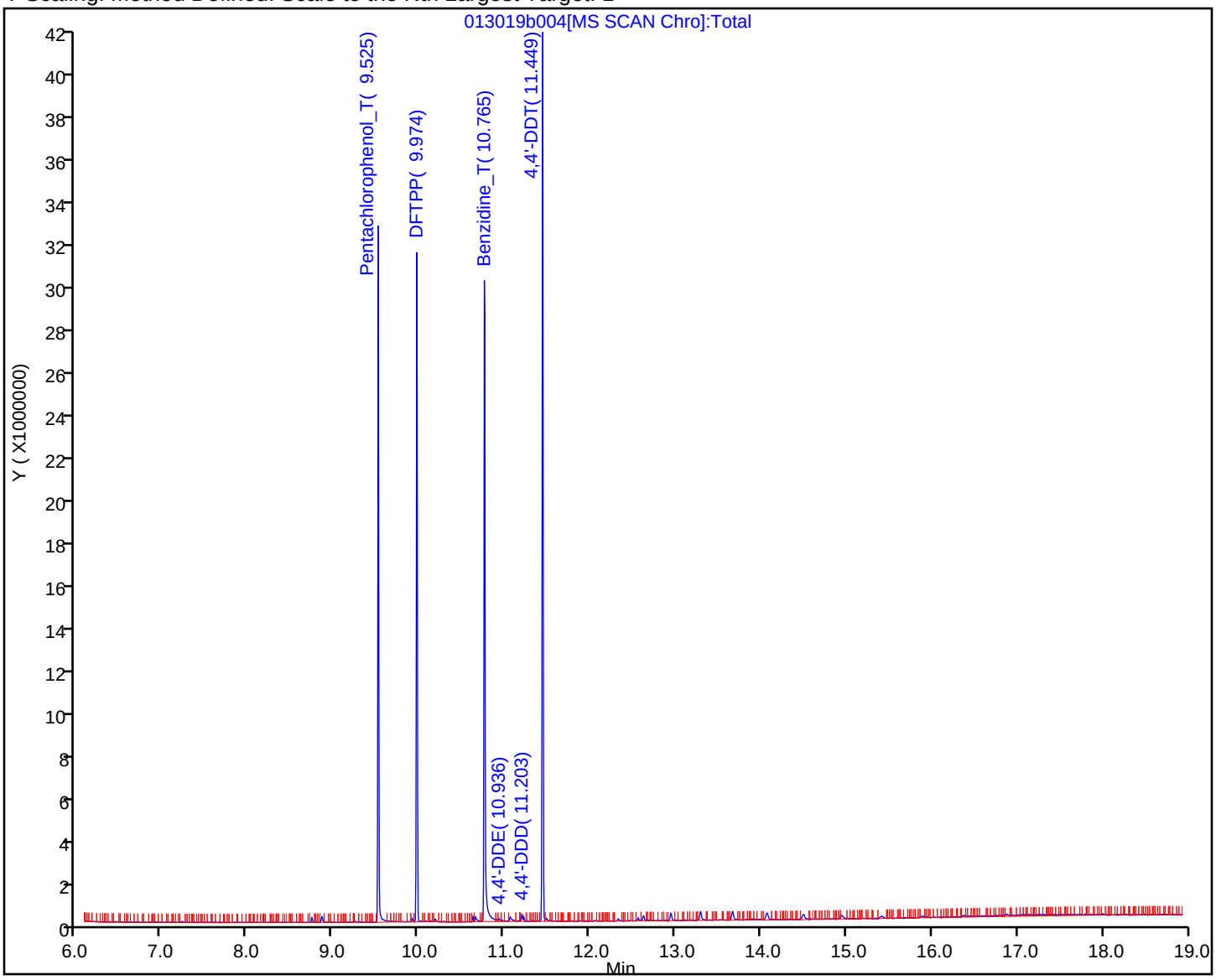
Client ID:

Operator ID: adb ALS Bottle#: 2 Worklist Smp#: 3

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Breakdown Report

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D
Injection Date: 30-Jan-2019 17:57:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: adb ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

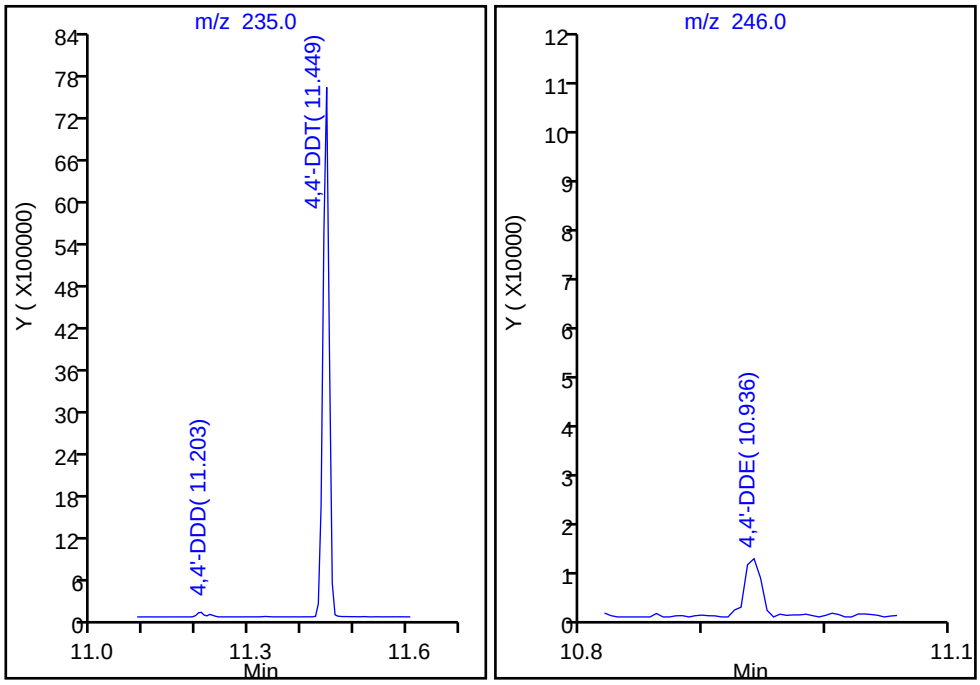
34 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

34 4,4'-DDT, Area = 6181529
33 4,4'-DDD, Area = 85238
32 4,4'-DDE, Area = 10886

%Breakdown: 1.53%, <= 20.00%
Passed



Peak Tailing Report

TestAmerica Seattle

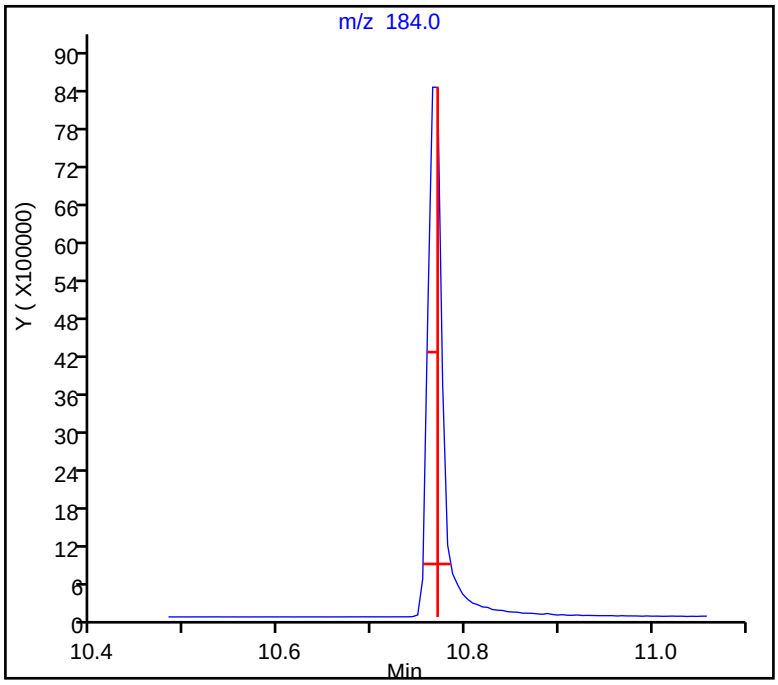
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D
Injection Date: 30-Jan-2019 17:57:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: adb ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

31 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.014 (min.)
Front Width = 0.016 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



Peak Tailing Report

TestAmerica Seattle

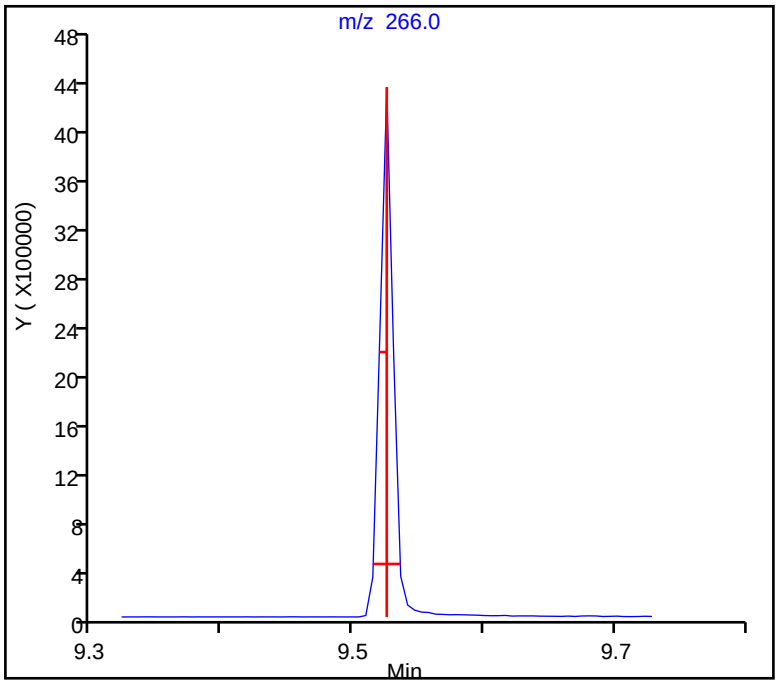
Data File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b004.D
Injection Date: 30-Jan-2019 17:57:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: adb ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.0, Max. Tailing < 2.00
Passed



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D
Lims ID: dftpp
Client ID:
Sample Type: DFTPP
Inject. Date: 22-Jul-2019 09:37:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: dftpp
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:32:17 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: squiresk Date: 22-Jul-2019 10:38:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 Pentachlorophenol_T	266	9.563	9.563	0.000	0	2735495	NR	NR	
30 DFTPP									
31 Benzidine_T	184	10.802	10.802	0.000	0	9994219	NR	NR	e
32 4,4'-DDE	246	10.968	10.968	0.000	0	10033		NR	
33 4,4'-DDD	235	11.235	11.235	0.000	0	52981		NR	M
34 4,4'-DDT	235	11.475	11.475	0.000	0	5665094	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
e - Potential Peak Saturated
Review Flags
M - Manually Integrated

Reagents:

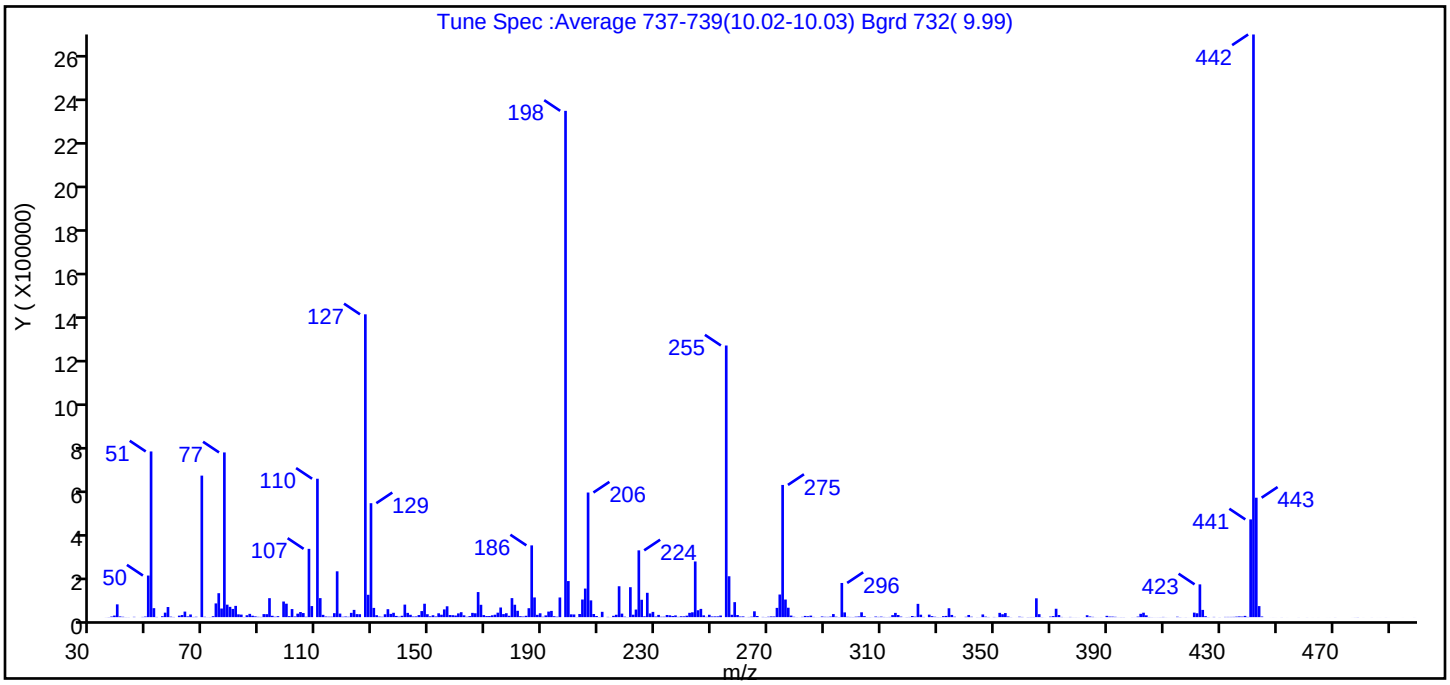
DFTPPx2_00035 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D				
Injection Date:	22-Jul-2019 09:37:30	Instrument ID:	TAC023		
Lims ID:	dftpp				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Tune Method:	DFTPP Method 525.2, BP 198				

30 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (86.9)
51	10-80% of the base peak	32.7
68	<2% of mass 69	0.0 (0.0)
69	Present	28.0
70	<2% of mass 69	0.1 (0.3)
127	10-80% of the base peak	59.8
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.1
275	10-60% of the base peak	26.1
365	>1% of the base peak	3.7
441	Present and < mass 443	19.3 (81.8)
442	base peak, or >50% of 198	115.1
443	15-24% of mass 442	23.6 (20.5)

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 22-Jul-2019 09:37:30
Spectrum: Tune Spec :Average 737-739(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 410

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	243	146.00	9367	251.00	3351	363.00	749
36.00	612	147.00	27296	252.00	3423	364.00	743
37.00	2839	148.00	60320	253.00	7255	365.00	84736
38.00	7060	149.00	13190	255.00	1222144	366.00	13343
39.00	57568	150.00	3654	256.00	183936	367.00	549
40.00	3179	151.00	8486	257.00	10581	368.00	109
41.00	1738	152.00	2978	258.00	67504	370.00	2531
42.00	421	153.00	17352	259.00	9498	371.00	4542
43.00	408	154.00	10837	260.00	2730	372.00	37760
45.00	1355	155.00	34840	261.00	3229	373.00	9453
47.00	93	156.00	48880	262.00	282	374.00	973
48.00	1072	157.00	9546	263.00	900	375.00	228
49.00	2605	158.00	8754	264.00	2123	376.00	240
50.00	187136	159.00	7249	265.00	26208	377.00	987
51.00	745472	160.00	16896	266.00	5097	378.00	250
52.00	40376	161.00	22240	268.00	1065	379.00	313
53.00	924	162.00	8129	269.00	640	380.00	200
55.00	4050	163.00	1651	270.00	1850	382.00	294
56.00	20176	164.00	4722	271.00	3285	383.00	8549
57.00	45488	165.00	19224	272.00	3033	384.00	2870
58.00	2132	166.00	17424	273.00	41664	385.00	1320
59.00	828	167.00	112832	274.00	101808	386.00	259
61.00	6657	168.00	55552	275.00	594816	387.00	172
62.00	9341	169.00	9108	276.00	79272	388.00	301
63.00	24968	170.00	4773	277.00	42384	390.00	5888
64.00	3288	171.00	5043	278.00	7070	391.00	2486
65.00	11944	172.00	8216	279.00	1643	392.00	2480
66.00	897	173.00	10866	280.00	472	393.00	1566
67.00	1709	174.00	20096	281.00	258	394.00	313
69.00	636736	175.00	43408	282.00	1381	395.00	470
70.00	1643	176.00	13701	283.00	5515	396.00	452
71.00	375	177.00	17592	284.00	4147	397.00	68
72.00	514	178.00	6061	285.00	6828	399.00	316

Report Date: 23-Jul-2019 13:32:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 22-Jul-2019 09:37:30
Spectrum: Tune Spec :Average 737-739(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 410

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	4074	179.00	85600	286.00	988	400.00	223
74.00	61832	180.00	55832	287.00	379	401.00	2284
75.00	107736	181.00	28552	288.00	324	402.00	14971
76.00	38824	182.00	4261	289.00	3023	403.00	19928
77.00	741056	183.00	2790	290.00	1536	404.00	8231
78.00	56168	184.00	6064	291.00	1279	405.00	797
79.00	46288	185.00	40216	292.00	2498	406.00	424
80.00	36928	186.00	322880	293.00	13838	407.00	251
81.00	50688	187.00	88648	294.00	2056	408.00	313
82.00	12697	188.00	10366	295.00	644	409.00	440
83.00	11448	189.00	17392	296.00	153792	410.00	1002
84.00	724	190.00	1663	297.00	21304	411.00	273
85.00	8509	191.00	7795	298.00	1555	412.00	136
86.00	14752	192.00	25008	299.00	932	413.00	78
87.00	6420	193.00	28104	300.00	732	414.00	77
88.00	3497	194.00	4147	301.00	2037	415.00	1940
89.00	1565	195.00	1989	302.00	2994	416.00	494
90.00	1052	196.00	88472	303.00	21792	417.00	110
91.00	13673	198.00	2277888	304.00	4392	418.00	368
92.00	13380	199.00	162304	305.00	444	419.00	118
93.00	85376	200.00	12586	306.00	524	420.00	150
94.00	6097	201.00	12036	307.00	206	421.00	20192
95.00	1799	202.00	432	308.00	2689	422.00	17504
96.00	4395	203.00	14096	309.00	1235	423.00	147456
98.00	70296	204.00	79320	310.00	2251	424.00	32616
99.00	60528	205.00	128552	311.00	899	425.00	4174
100.00	4364	206.00	560704	312.00	517	426.00	539
101.00	36344	207.00	75440	313.00	1011	427.00	93
102.00	3080	208.00	14063	314.00	9077	428.00	1057
103.00	15671	209.00	5086	315.00	19144	430.00	385
104.00	22968	210.00	782	316.00	9483	432.00	1101
105.00	18360	211.00	23960	317.00	2368	433.00	1128
106.00	1754	213.00	1189	318.00	189	434.00	1124
107.00	307264	214.00	334	319.00	651	435.00	1319

Report Date: 23-Jul-2019 13:32:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 22-Jul-2019 09:37:30
Spectrum: Tune Spec :Average 737-739(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 410

m/z	Y	m/z	Y	m/z	Y	m/z	Y
108.00	49808	215.00	5956	320.00	905	436.00	2375
110.00	622720	216.00	10724	321.00	5064	437.00	3367
111.00	85600	217.00	139008	322.00	2104	438.00	2552
112.00	10386	218.00	15855	323.00	59824	439.00	5692
113.00	2816	219.00	2095	324.00	11018	440.00	1080
114.00	2097	220.00	484	325.00	907	441.00	439744
115.00	2026	221.00	134720	327.00	11287	442.00	2621440
116.00	17872	222.00	10984	328.00	4476	443.00	537344
117.00	206208	223.00	34152	329.00	1864	444.00	49688
118.00	16035	224.00	300480	330.00	657	445.00	2969
119.00	1713	225.00	78152	331.00	562	446.00	56
120.00	2915	226.00	3844	332.00	4345	448.00	81
121.00	1716	227.00	109520	333.00	5525	449.00	145
122.00	19248	228.00	16544	334.00	40032	450.00	70
123.00	32656	229.00	23632	335.00	9925	452.00	240
124.00	13603	230.00	2581	336.00	1912	454.00	77
125.00	13190	231.00	10120	338.00	57	458.00	155
127.00	1362432	232.00	1842	340.00	1543	461.00	174
128.00	100600	233.00	1978	341.00	9783	463.00	79
129.00	512640	234.00	9712	342.00	1868	465.00	100
130.00	41552	235.00	8236	344.00	389	468.00	69
131.00	8731	236.00	5277	345.00	322	469.00	76
132.00	2570	237.00	7779	346.00	12197	471.00	221
133.00	1650	238.00	1389	347.00	2345	477.00	76
134.00	12901	239.00	3965	348.00	809	478.00	259
135.00	35824	240.00	3720	350.00	859	479.00	452
136.00	14700	241.00	6533	351.00	228	481.00	100
137.00	19632	242.00	19448	352.00	19280	484.00	169
138.00	5516	243.00	21784	353.00	13182	486.00	58
139.00	2157	244.00	250496	354.00	18328	487.00	88
140.00	6144	245.00	31016	355.00	2912	489.00	174
141.00	56400	246.00	37144	356.00	459	490.00	54
142.00	19184	247.00	8012	358.00	114	495.00	68
143.00	10635	248.00	1473	359.00	1951	499.00	119

Report Date: 23-Jul-2019 13:32:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 22-Jul-2019 09:37:30
Spectrum: Tune Spec :Average 737-739(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 410

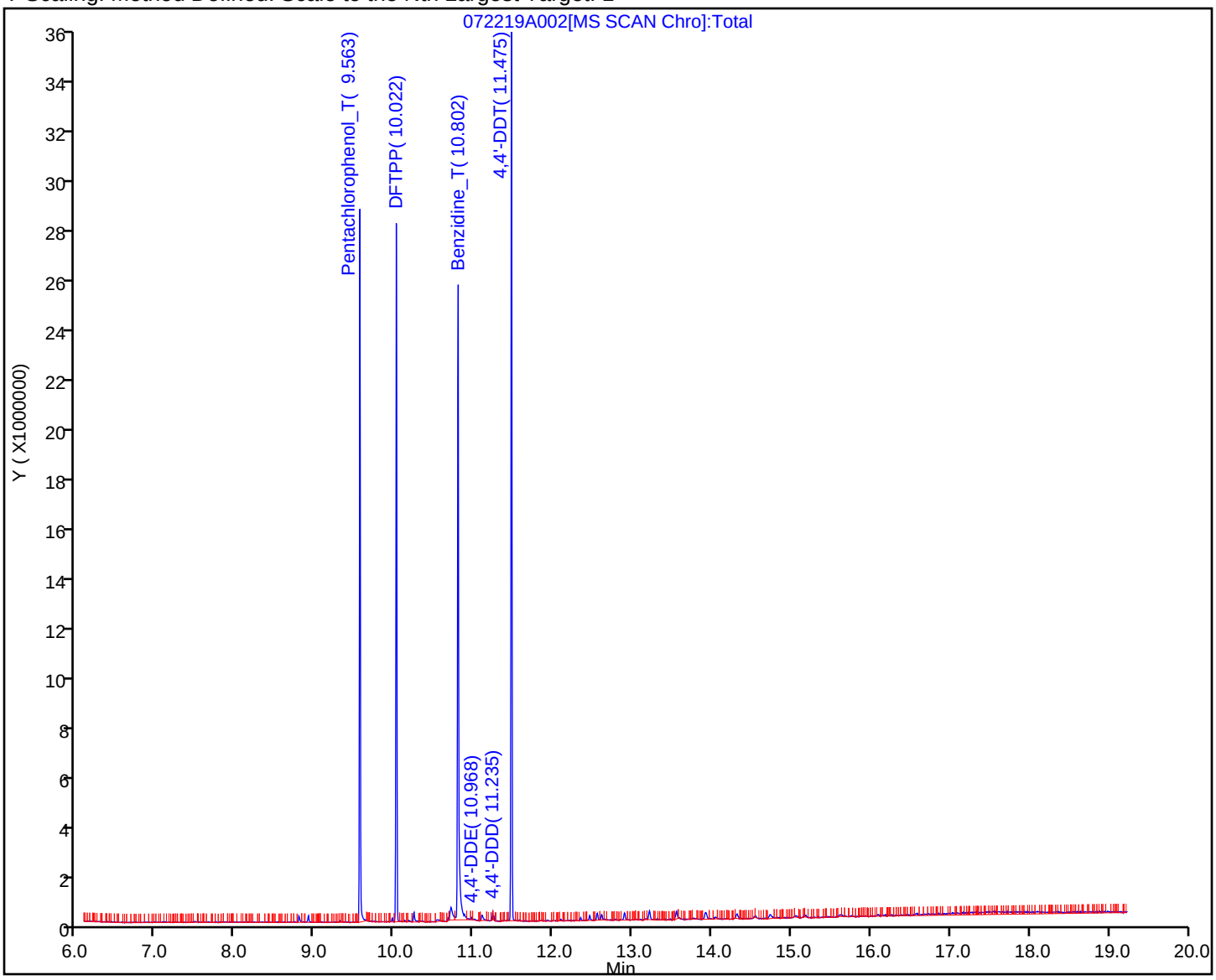
m/z	Y	m/z	Y	m/z	Y	m/z	Y
144.00	2765	249.00	10661	360.00	961		
145.00	3230	250.00	3108	362.00	625		

Report Date: 23-Jul-2019 13:32:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D				
Injection Date:	22-Jul-2019 09:37:30	Instrument ID:	TAC023		
Lims ID:	dftpp				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Breakdown Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D
Injection Date: 22-Jul-2019 09:37:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

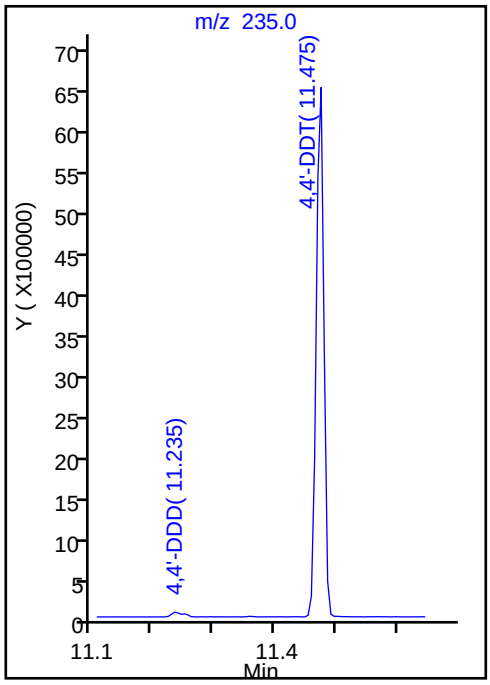
34 4,4'-DDT, Detector: MS SCAN

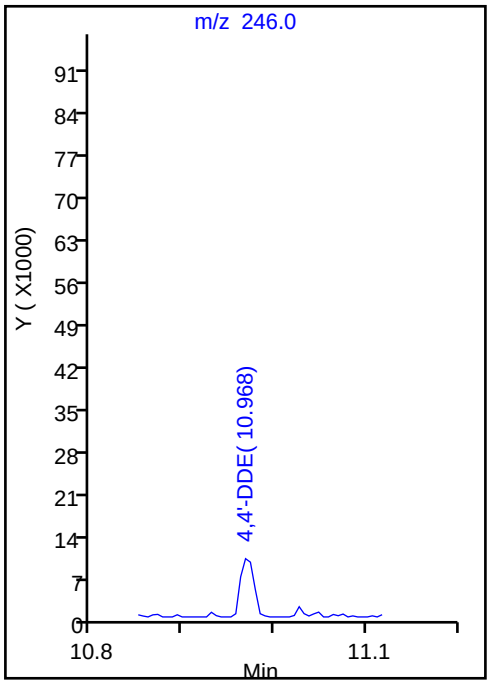
SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

34 4,4'-DDT, Area = 5665094
33 4,4'-DDD, Area = 52981
32 4,4'-DDE, Area = 10033

%Breakdown: 1.10%, <= 20.00%
Passed





Peak Tailing Report

Eurofins TestAmerica, Seattle

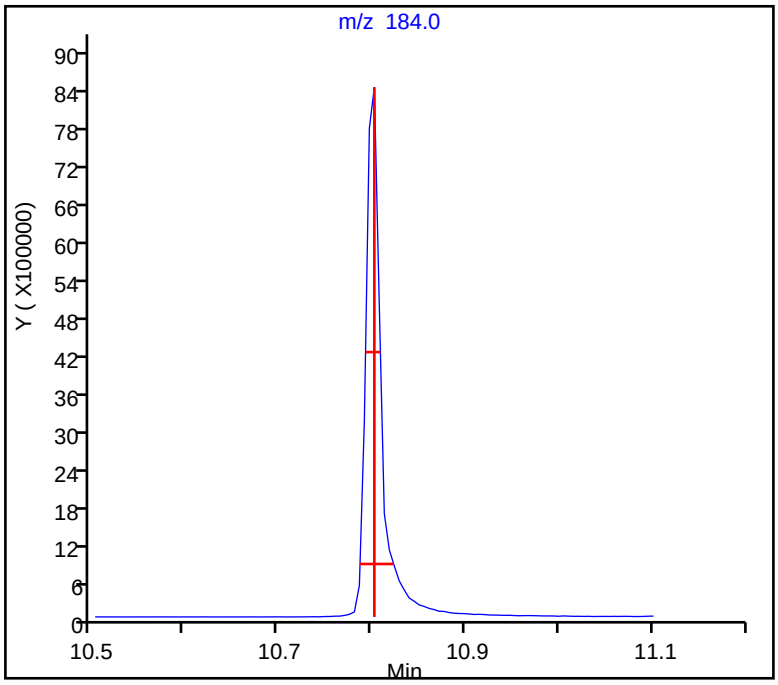
Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D
Injection Date: 22-Jul-2019 09:37:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

31 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.021 (min.)
Front Width = 0.015 (min.)

Tailing Factor = 1.4, Max. Tailing < 2.00
Passed



Peak Tailing Report

Eurofins TestAmerica, Seattle

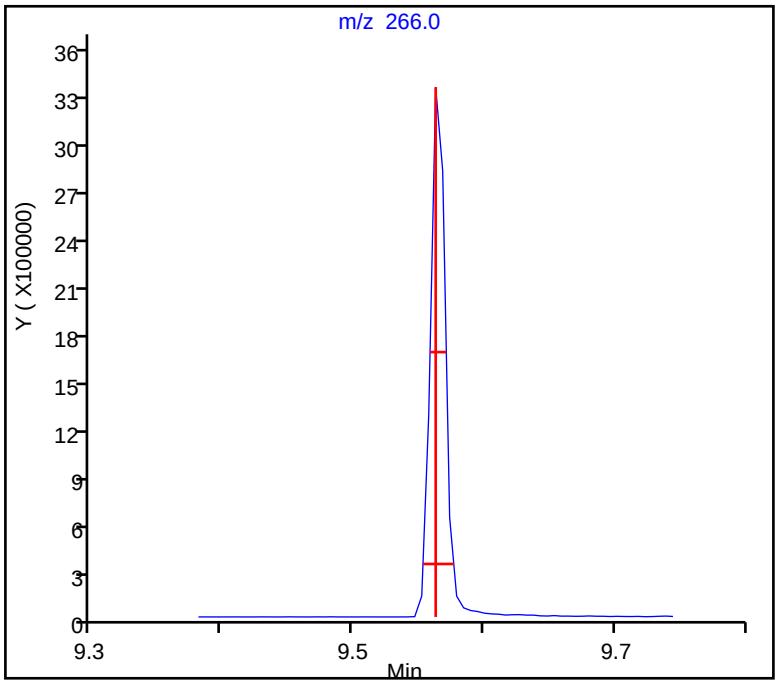
Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A002.D
Injection Date: 22-Jul-2019 09:37:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.014 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.4, Max. Tailing < 2.00
Passed



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D
Lims ID: dftpp
Client ID:
Sample Type: DFTPP
Inject. Date: 23-Jul-2019 14:55:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: dftpp
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 16:02:33 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0323

First Level Reviewer: limmere Date: 23-Jul-2019 16:02:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 Pentachlorophenol_T	266	9.568	9.568	0.000	0	2796923	NR	NR	
30 DFTPP									
31 Benzidine_T	184	10.802	10.802	0.000	0	10087024	NR	NR	e
32 4,4'-DDE	246	10.973	10.973	0.000	0	8482		NR	
33 4,4'-DDD	235	11.240	11.240	0.000	0	136921		NR	
34 4,4'-DDT	235	11.475	11.475	0.000	0	5586676	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
e - Potential Peak Saturated

Reagents:

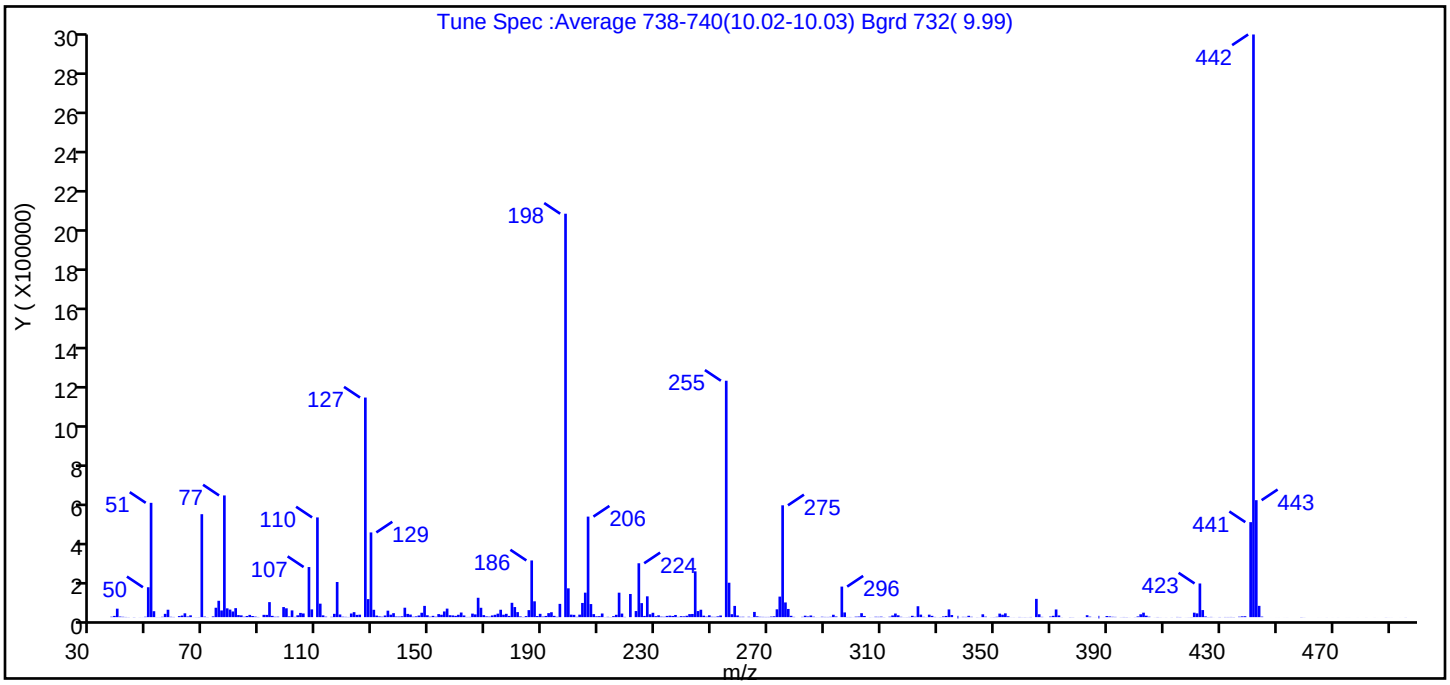
DFTPPx2_00035 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D				
Injection Date:	23-Jul-2019 14:55:30	Instrument ID:	TAC023		
Lims ID:	dftpp				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Tune Method:	DFTPP Method 525.2, BP 198				

30 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (69.2)
51	10-80% of the base peak	28.3
68	<2% of mass 69	0.0 (0.1)
69	Present	25.5
70	<2% of mass 69	0.1 (0.5)
127	10-80% of the base peak	54.4
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.1
275	10-60% of the base peak	27.7
365	>1% of the base peak	4.5
441	Present and < mass 443	23.5 (81.2)
442	base peak, or >50% of 198	144.4
443	15-24% of mass 442	29.0 (20.1)

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 23-Jul-2019 14:55:30
Spectrum: Tune Spec :Average 738-740(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 402

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2223	147.00	22440	251.00	1520	359.00	962
38.00	6334	148.00	57552	252.00	3969	360.00	412
39.00	43352	149.00	9628	253.00	8410	361.00	569
40.00	2959	150.00	2172	255.00	1208832	362.00	326
41.00	1855	151.00	6704	256.00	176000	363.00	912
42.00	939	152.00	2241	257.00	15090	365.00	93456
43.00	582	153.00	15573	258.00	57432	366.00	14750
45.00	702	154.00	12180	259.00	8563	367.00	1439
47.00	301	155.00	29128	260.00	1670	368.00	70
48.00	228	156.00	43624	261.00	1883	370.00	3102
49.00	2034	157.00	9903	262.00	98	371.00	6871
50.00	152896	158.00	8781	263.00	1917	372.00	39296
51.00	584512	159.00	6691	264.00	522	373.00	8715
52.00	30400	160.00	12156	265.00	26648	374.00	450
53.00	421	161.00	23648	266.00	4199	375.00	64
54.00	490	162.00	8570	267.00	1754	377.00	733
55.00	1756	163.00	1045	268.00	1373	378.00	533
56.00	16840	164.00	1229	269.00	1099	380.00	109
57.00	37912	165.00	18016	270.00	1191	381.00	100
58.00	1735	166.00	14031	271.00	3039	382.00	321
59.00	1025	167.00	99048	272.00	4366	383.00	9817
61.00	5417	168.00	47896	273.00	40048	384.00	2364
62.00	8076	169.00	10217	274.00	105056	385.00	151
63.00	19552	170.00	3830	275.00	571840	386.00	221
64.00	3239	171.00	2662	276.00	75176	387.00	2
65.00	9175	172.00	8761	277.00	41848	388.00	115
66.00	277	173.00	12023	278.00	6792	389.00	285
67.00	490	174.00	17768	279.00	1353	390.00	5733
68.00	782	175.00	37832	280.00	102	391.00	3577
69.00	526464	176.00	12407	282.00	1484	392.00	1931
70.00	2692	177.00	17024	283.00	7354	393.00	1357
71.00	599	178.00	6305	284.00	3588	395.00	452
73.00	3768	179.00	73352	285.00	8526	396.00	866

Report Date: 23-Jul-2019 16:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 23-Jul-2019 14:55:30
Spectrum: Tune Spec :Average 738-740(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 402

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	48072	180.00	51504	286.00	2178	397.00	712
75.00	83688	181.00	25696	287.00	449	398.00	214
76.00	34256	182.00	3583	288.00	340	400.00	486
77.00	622336	183.00	927	289.00	1978	401.00	3491
78.00	45000	184.00	5270	290.00	1206	402.00	14680
79.00	38592	185.00	35864	291.00	1089	403.00	22800
80.00	29016	186.00	289920	292.00	1758	404.00	7468
81.00	45968	187.00	80928	293.00	12207	405.00	2274
82.00	10574	188.00	5699	294.00	3200	407.00	217
83.00	9116	189.00	16944	296.00	156224	408.00	819
84.00	1900	190.00	2825	297.00	24048	409.00	326
85.00	5895	191.00	6127	298.00	897	410.00	72
86.00	11536	192.00	20560	299.00	906	411.00	262
87.00	5865	193.00	25096	300.00	280	413.00	391
88.00	2780	194.00	6542	301.00	2448	414.00	20
89.00	1005	195.00	1754	302.00	3073	415.00	1044
90.00	19	196.00	67872	303.00	20224	416.00	817
91.00	11724	198.00	2062848	304.00	5968	418.00	230
92.00	11572	199.00	147328	306.00	446	419.00	426
93.00	76824	200.00	12799	307.00	193	420.00	707
94.00	6551	201.00	11722	308.00	1994	421.00	22720
95.00	1852	202.00	1671	309.00	1685	422.00	19352
96.00	2432	203.00	12820	310.00	2410	423.00	172160
98.00	51528	204.00	72576	311.00	580	424.00	36144
99.00	45224	205.00	125168	313.00	2203	425.00	3426
100.00	3630	206.00	514112	314.00	8644	426.00	712
101.00	34488	207.00	66912	315.00	18456	427.00	1150
102.00	1418	208.00	15377	316.00	9326	428.00	194
103.00	9368	209.00	4160	317.00	1692	429.00	78
104.00	21648	210.00	4969	318.00	448	430.00	819
105.00	18824	211.00	18656	319.00	586	431.00	117
107.00	256192	212.00	453	320.00	1224	432.00	891
108.00	39672	213.00	1638	321.00	6818	433.00	856
110.00	509952	214.00	686	322.00	2165	434.00	983

Report Date: 23-Jul-2019 16:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 23-Jul-2019 14:55:30
Spectrum: Tune Spec :Average 738-740(10.02-10.03) Bgrd 732(9.99)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 402

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	68944	215.00	5072	323.00	55824	435.00	732
112.00	9113	216.00	12020	324.00	12906	437.00	2250
113.00	2417	217.00	125072	325.00	1569	438.00	4028
115.00	1580	218.00	18288	326.00	496	439.00	4664
116.00	16936	219.00	1168	327.00	12752	441.00	485760
117.00	179712	221.00	118424	328.00	6598	442.00	2979328
118.00	13691	223.00	31144	329.00	1155	443.00	598016
119.00	2265	224.00	275520	330.00	298	444.00	57664
120.00	1540	225.00	71728	331.00	742	445.00	2806
121.00	1000	226.00	6185	332.00	3594	448.00	51
122.00	18648	227.00	106464	333.00	6146	450.00	73
123.00	25480	228.00	14718	334.00	39536	451.00	80
124.00	11616	229.00	22296	335.00	10695	453.00	100
125.00	12542	230.00	4782	337.00	10	454.00	122
127.00	1122816	231.00	9353	338.00	220	459.00	712
128.00	92160	232.00	2521	339.00	1501	460.00	323
129.00	433152	233.00	1763	340.00	1208	465.00	79
130.00	37640	234.00	6294	341.00	6932	466.00	62
131.00	8061	235.00	7714	342.00	1757	468.00	163
132.00	3682	236.00	6057	343.00	69	470.00	68
133.00	2225	237.00	11084	344.00	476	472.00	128
134.00	8388	238.00	1367	345.00	323	475.00	83
135.00	33152	239.00	4962	346.00	14590	476.00	93
136.00	12597	240.00	4145	347.00	2473	479.00	81
137.00	20360	241.00	7097	349.00	364	482.00	158
138.00	3091	242.00	15508	350.00	628	485.00	121
139.00	2868	243.00	16274	351.00	1750	486.00	58
140.00	4080	244.00	234240	352.00	18072	489.00	344
141.00	48224	245.00	31072	353.00	12580	490.00	131
142.00	16600	246.00	37952	354.00	19336	491.00	145
143.00	13234	247.00	7549	355.00	4328	494.00	76
144.00	2116	248.00	2647	356.00	258	496.00	331
145.00	3956	249.00	9369	357.00	363		
146.00	8361	250.00	1886	358.00	154		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	68944	215.00	5072	323.00	55824	435.00	732
112.00	9113	216.00	12020	324.00	12906	437.00	2250
113.00	2417	217.00	125072	325.00	1569	438.00	4028
115.00	1580	218.00	18288	326.00	496	439.00	4664
116.00	16936	219.00	1168	327.00	12752	441.00	485760
117.00	179712	221.00	118424	328.00	6598	442.00	2979328
118.00	13691	223.00	31144	329.00	1155	443.00	598016
119.00	2265	224.00	275520	330.00	298	444.00	57664
120.00	1540	225.00	71728	331.00	742	445.00	2806
121.00	1000	226.00	6185	332.00	3594	448.00	51
122.00	18648	227.00	106464	333.00	6146	450.00	73
123.00	25480	228.00	14718	334.00	39536	451.00	80
124.00	11616	229.00	22296	335.00	10695	453.00	100
125.00	12542	230.00	4782	337.00	10	454.00	122
127.00	1122816	231.00	9353	338.00	220	459.00	712
128.00	92160	232.00	2521	339.00	1501	460.00	323
129.00	433152	233.00	1763	340.00	1208	465.00	79
130.00	37640	234.00	6294	341.00	6932	466.00	62
131.00	8061	235.00	7714	342.00	1757	468.00	163
132.00	3682	236.00	6057	343.00	69	470.00	68
133.00	2225	237.00	11084	344.00	476	472.00	128
134.00	8388	238.00	1367	345.00	323	475.00	83
135.00	33152	239.00	4962	346.00	14590	476.00	93
136.00	12597	240.00	4145	347.00	2473	479.00	81
137.00	20360	241.00	7097	349.00	364	482.00	158
138.00	3091	242.00	15508	350.00	628	485.00	121
139.00	2868	243.00	16274	351.00	1750	486.00	58
140.00	4080	244.00	234240	352.00	18072	489.00	344
141.00	48224	245.00	31072	353.00	12580	490.00	131
142.00	16600	246.00	37952	354.00	19336	491.00	145
143.00	13234	247.00	7549	355.00	4328	494.00	76
144.00	2116	248.00	2647	356.00	258	496.00	331
145.00	3956	249.00	9369	357.00	363		
146.00	8361	250.00	1886	358.00	154		

Report Date: 23-Jul-2019 16:02:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D

Injection Date: 23-Jul-2019 14:55:30 Instrument ID: TAC023

Lims ID: dftpp

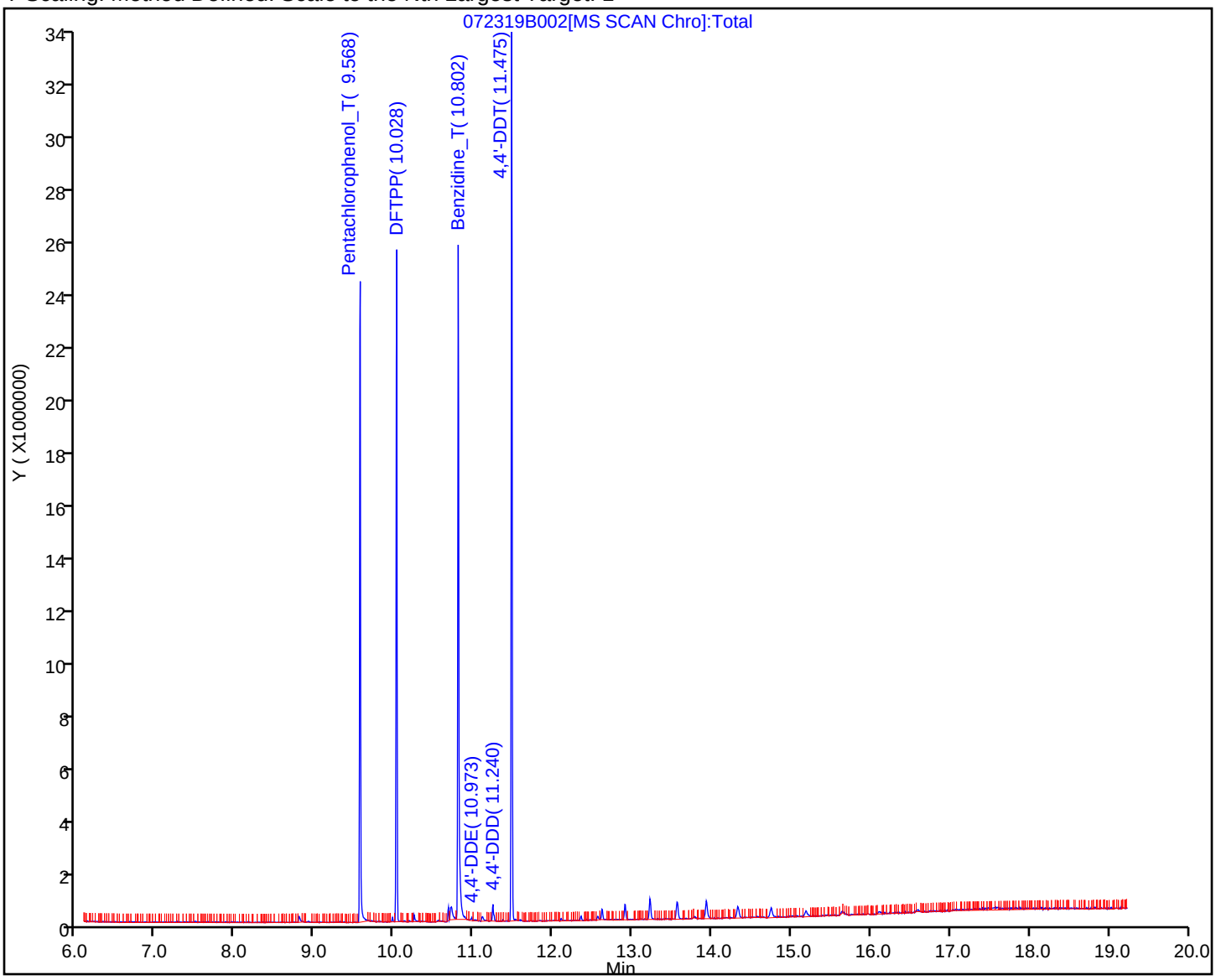
Client ID:

Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Breakdown Report

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D				
Injection Date:	23-Jul-2019 14:55:30	Instrument ID:	TAC023		
Lims ID:	dftpp				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		

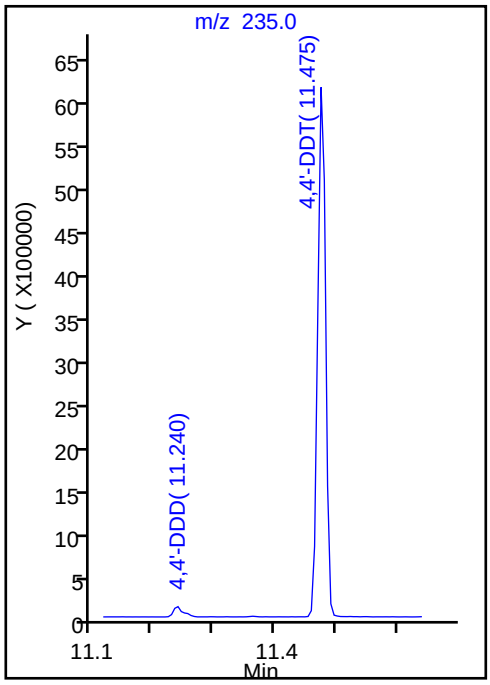
34 4,4'-DDT, Detector: MS SCAN

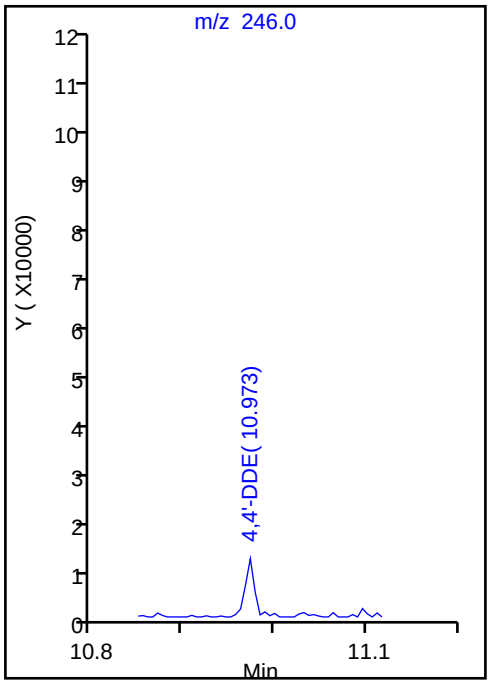
SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

34 4,4'-DDT, Area = 5586676
33 4,4'-DDD, Area = 136921
32 4,4'-DDE, Area = 8482

%Breakdown: 2.54%, <= 20.00%
Passed





Peak Tailing Report

Eurofins TestAmerica, Seattle

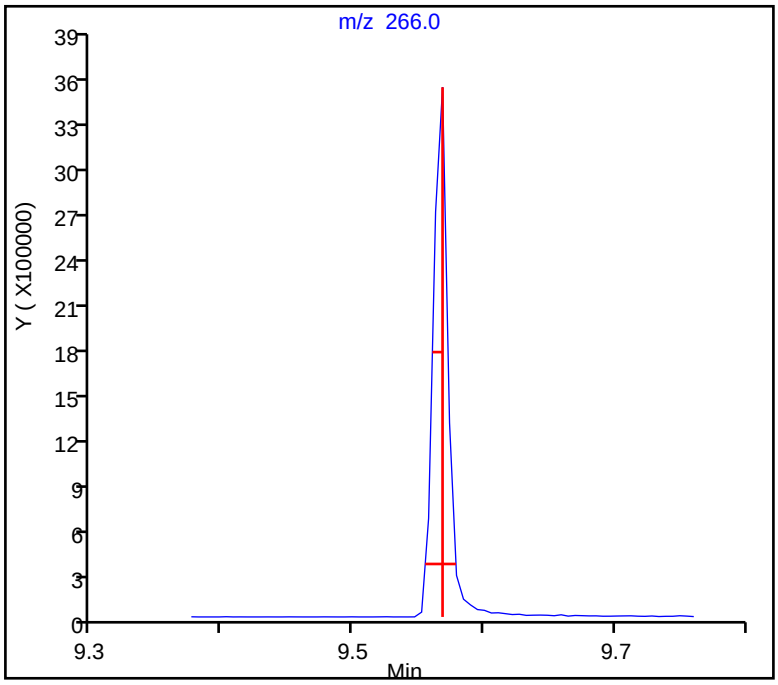
Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D
Injection Date: 23-Jul-2019 14:55:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 0.8, Max. Tailing < 2.00
Passed



Peak Tailing Report

Eurofins TestAmerica, Seattle

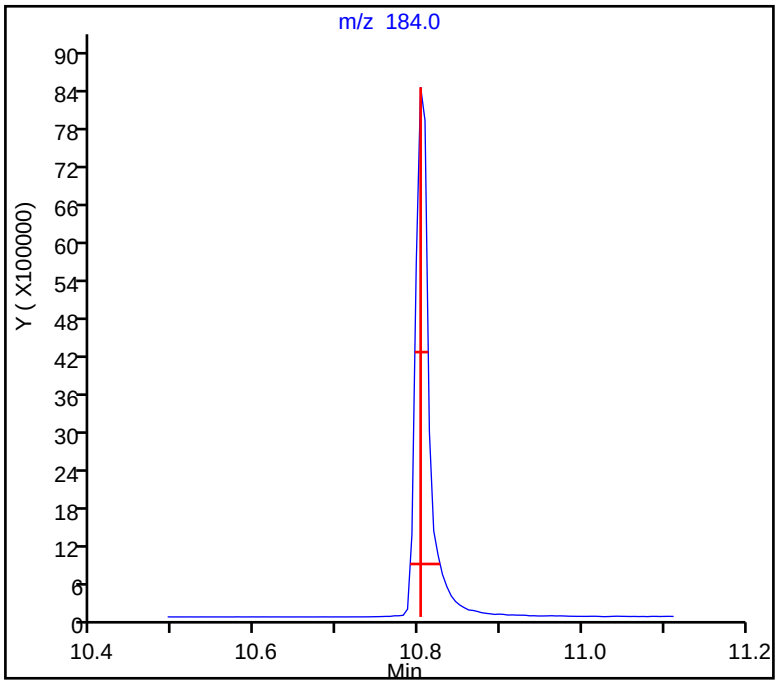
Data File: \\chromna\Seattle\ChromData\TAC023\20190723-66481.b\072319B002.D
Injection Date: 23-Jul-2019 14:55:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

31 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.024 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 1.9, Max. Tailing < 2.00
Passed



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D
Lims ID: dftpp
Client ID:
Sample Type: DFTPP
Inject. Date: 24-Jul-2019 09:16:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: dftpp
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 25-Jul-2019 10:51:57 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0321

First Level Reviewer: limwirojt Date: 25-Jul-2019 10:51:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 Pentachlorophenol_T	266	9.568	9.568	0.000	0	2483099	NR	NR	
30 DFTPP									
31 Benzidine_T	184	10.808	10.808	0.000	0	9951058	NR	NR	e
32 4,4'-DDE	246	10.973	10.973	0.000	0	9876		NR	
33 4,4'-DDD	235	11.240	11.240	0.000	0	149308		NR	
34 4,4'-DDT	235	11.481	11.481	0.000	0	5152566	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
e - Potential Peak Saturated

Reagents:

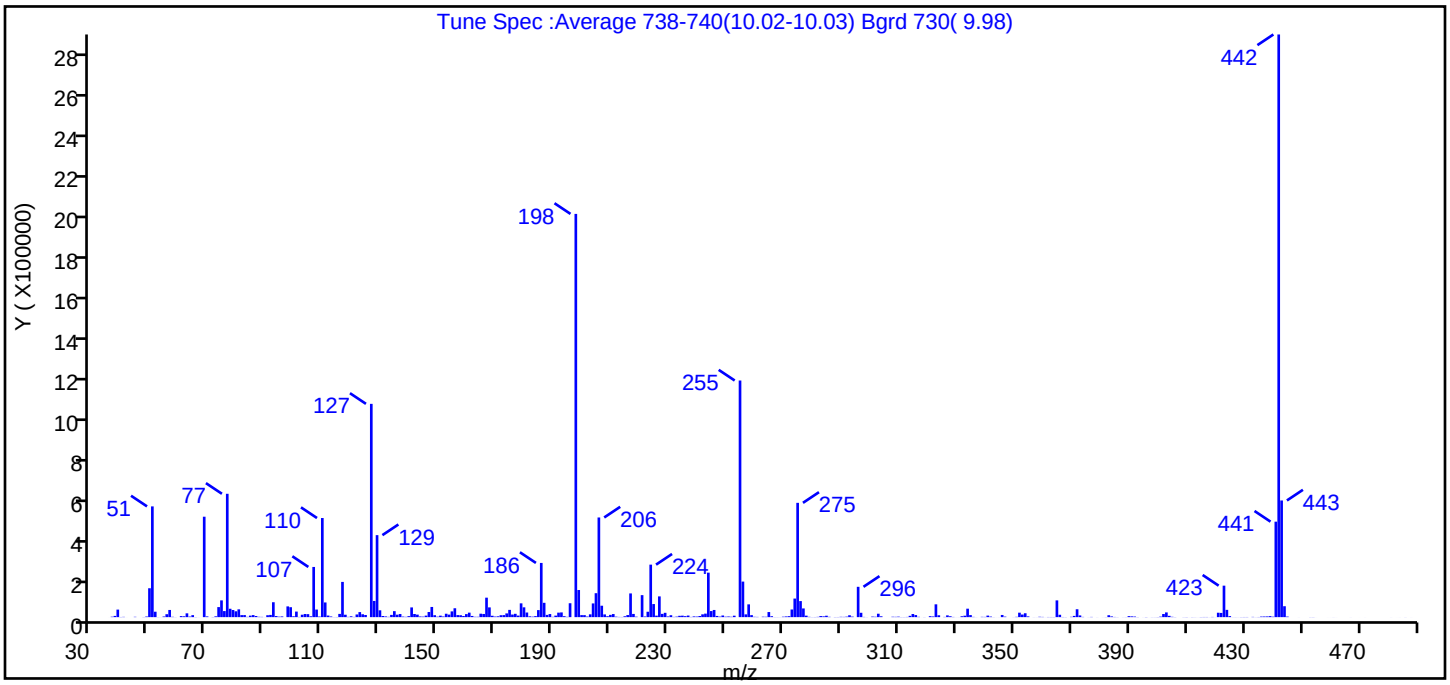
DFTPPx2_00035 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D
Injection Date: 24-Jul-2019 09:16:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM
Tune Method: DFTPP Method 525.2, BP 198

30 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (69.2)
51	10-80% of the base peak	27.5
68	<2% of mass 69	0.0 (0.0)
69	Present	24.9
70	<2% of mass 69	0.2 (0.7)
127	10-80% of the base peak	52.9
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.7
275	10-60% of the base peak	28.3
365	>1% of the base peak	4.2
441	Present and < mass 443	23.7 (81.8)
442	base peak, or >50% of 198	144.5
443	15-24% of mass 442	28.9 (20.0)

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 24-Jul-2019 09:16:30
Spectrum: Tune Spec :Average 738-740(10.02-10.03) Bgrd 730(9.98)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 397

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	67	145.00	2543	247.00	5933	357.00	252
37.00	2218	146.00	7469	248.00	2547	358.00	196
38.00	6034	147.00	25152	249.00	8090	359.00	1758
39.00	37064	148.00	50032	250.00	2222	360.00	1166
40.00	786	149.00	9497	251.00	3211	361.00	182
41.00	1353	150.00	2402	252.00	1820	362.00	844
42.00	77	151.00	7261	253.00	7122	363.00	781
45.00	1618	152.00	3198	255.00	1162752	364.00	723
48.00	535	153.00	16728	256.00	174720	365.00	82368
49.00	3070	154.00	12464	257.00	13670	366.00	11659
50.00	142016	155.00	28320	258.00	62808	367.00	798
51.00	544192	156.00	43680	259.00	9870	368.00	556
52.00	26664	157.00	10112	260.00	1645	370.00	1621
53.00	458	158.00	9363	261.00	1160	371.00	6095
54.00	233	159.00	5487	262.00	43	372.00	38808
55.00	3139	160.00	14916	263.00	2187	373.00	8403
56.00	14392	161.00	22088	264.00	1851	374.00	1132
57.00	35304	162.00	5890	265.00	25000	376.00	246
58.00	1657	163.00	1652	266.00	4522	377.00	1074
59.00	359	164.00	1745	267.00	533	378.00	13
61.00	5173	165.00	16904	268.00	461	379.00	209
62.00	4194	166.00	15616	269.00	332	381.00	172
63.00	18736	167.00	95696	270.00	2231	382.00	519
64.00	2793	168.00	47920	271.00	3405	383.00	9356
65.00	9776	169.00	6744	272.00	4757	384.00	3559
66.00	584	170.00	2815	273.00	37592	385.00	982
67.00	188	171.00	4047	274.00	91256	386.00	451
69.00	493504	172.00	9488	275.00	561664	388.00	261
70.00	3620	173.00	10017	276.00	78880	389.00	411
72.00	695	174.00	18360	277.00	42768	390.00	4896
73.00	3952	175.00	35712	278.00	7282	391.00	3751
74.00	49352	176.00	12773	279.00	1540	392.00	2828
75.00	82392	177.00	16354	280.00	533	393.00	597

Report Date: 25-Jul-2019 10:51:58 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 24-Jul-2019 09:16:30
Spectrum: Tune Spec :Average 738-740(10.02-10.03) Bgrd 730(9.98)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 397

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	29776	178.00	7612	281.00	742	395.00	146
77.00	606144	179.00	67808	282.00	1314	396.00	695
78.00	41192	180.00	48224	283.00	5237	397.00	67
79.00	35048	181.00	22768	284.00	3889	398.00	380
80.00	28760	182.00	4009	285.00	6989	399.00	368
81.00	38376	183.00	2447	286.00	1575	400.00	667
82.00	9931	184.00	5012	287.00	62	401.00	2491
83.00	10163	185.00	34600	288.00	720	402.00	15356
84.00	1470	186.00	266368	289.00	748	403.00	23224
85.00	7420	187.00	70416	290.00	1571	404.00	6413
86.00	10098	188.00	11095	291.00	1269	405.00	1662
87.00	5482	189.00	15235	292.00	2390	406.00	568
88.00	1687	190.00	1452	293.00	9272	409.00	418
89.00	1250	191.00	7502	294.00	2623	410.00	648
90.00	237	192.00	22096	296.00	149056	411.00	139
91.00	9438	193.00	23208	297.00	21408	412.00	503
92.00	10933	194.00	4655	298.00	1102	413.00	346
93.00	73264	195.00	1478	299.00	317	414.00	166
94.00	5292	196.00	68352	301.00	2782	415.00	689
95.00	2330	198.00	1981440	302.00	2002	416.00	835
96.00	3460	199.00	133248	303.00	16816	417.00	823
98.00	52856	200.00	10007	304.00	4130	418.00	274
99.00	48864	201.00	9890	307.00	50	419.00	1002
100.00	4271	202.00	2977	308.00	1962	420.00	260
101.00	27360	203.00	13797	309.00	1588	421.00	21664
102.00	1106	204.00	67408	310.00	2454	422.00	20744
103.00	11926	205.00	117704	311.00	631	423.00	154688
104.00	15457	206.00	489728	312.00	627	424.00	35792
105.00	14719	207.00	56120	313.00	1001	425.00	5021
106.00	4204	208.00	13436	314.00	6395	426.00	320
107.00	246656	209.00	4584	315.00	15371	427.00	399
108.00	37296	210.00	11252	316.00	10096	428.00	247
109.00	2955	211.00	15196	317.00	1568	429.00	595
110.00	487040	212.00	2301	318.00	69	430.00	778

Report Date: 25-Jul-2019 10:51:58 Chrom Revision: 2.3 10-Jul-2019 14:12:46
Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D\TAC23_PAH_SIM.rslt\spectra.c
Injection Date: 24-Jul-2019 09:16:30
Spectrum: Tune Spec :Average 738-740(10.02-10.03) Bgrd 730(9.98)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 397

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	72192	213.00	1131	319.00	411	431.00	808
112.00	7852	214.00	866	321.00	4682	433.00	1226
113.00	3240	215.00	4281	322.00	3324	434.00	360
114.00	524	216.00	10167	323.00	63016	435.00	791
115.00	785	217.00	116560	324.00	9108	436.00	2864
116.00	15893	218.00	15790	326.00	1101	437.00	3111
117.00	173120	219.00	2231	327.00	8707	438.00	3438
118.00	11853	221.00	108104	328.00	4386	439.00	4878
119.00	1302	222.00	3206	329.00	993	440.00	2246
120.00	4197	223.00	26496	330.00	174	441.00	469184
121.00	1079	224.00	257984	331.00	229	442.00	2863104
122.00	13143	225.00	64320	332.00	4382	443.00	573312
123.00	24808	226.00	7354	333.00	7026	444.00	53632
124.00	14192	227.00	101976	334.00	41544	445.00	2689
125.00	10574	228.00	16064	335.00	10090	449.00	123
127.00	1048064	229.00	21296	336.00	1249	453.00	413
128.00	79528	230.00	3363	337.00	268	454.00	470
129.00	402944	231.00	9379	338.00	47	455.00	70
130.00	33584	232.00	1193	339.00	1497	459.00	75
131.00	5621	233.00	2497	340.00	1144	460.00	67
132.00	3548	234.00	6572	341.00	7579	461.00	168
133.00	1459	235.00	7220	342.00	2757	462.00	96
134.00	10999	236.00	4791	343.00	405	467.00	142
135.00	29424	237.00	7772	344.00	135	470.00	53
136.00	12127	238.00	1086	345.00	193	472.00	101
137.00	15279	239.00	3583	346.00	10658	481.00	141
138.00	2705	240.00	2768	347.00	2479	483.00	57
139.00	1499	241.00	5485	350.00	259	484.00	113
140.00	4920	242.00	13770	351.00	1520	486.00	238
141.00	47800	243.00	17240	352.00	21928	488.00	92
142.00	15436	244.00	218624	353.00	12793		
143.00	12383	245.00	29824	354.00	19096		
144.00	3251	246.00	35312	355.00	3656		

Report Date: 25-Jul-2019 10:51:58 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D

Injection Date: 24-Jul-2019 09:16:30 Instrument ID: TAC023

Lims ID: dftpp

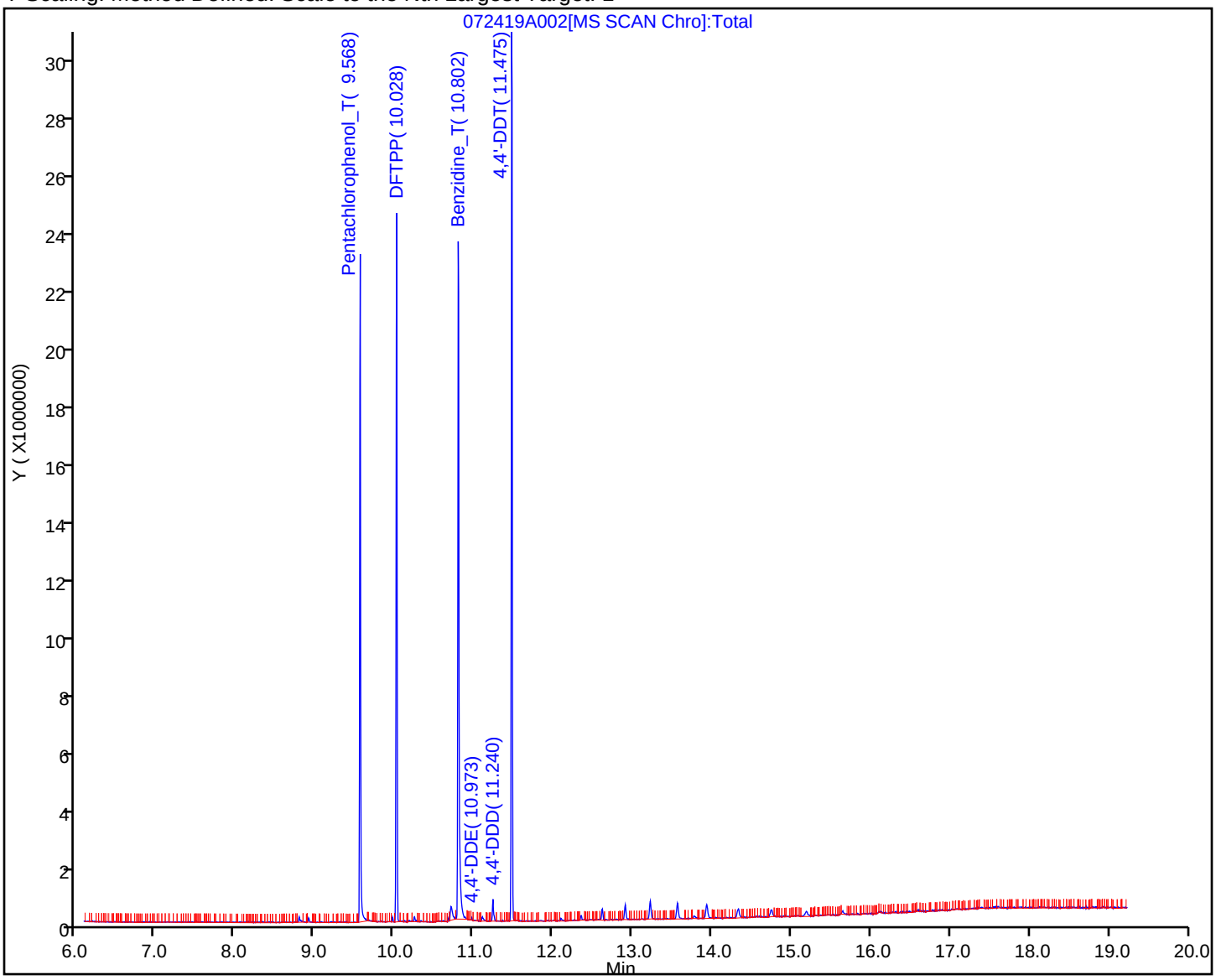
Client ID:

Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Breakdown Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D
Injection Date: 24-Jul-2019 09:16:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

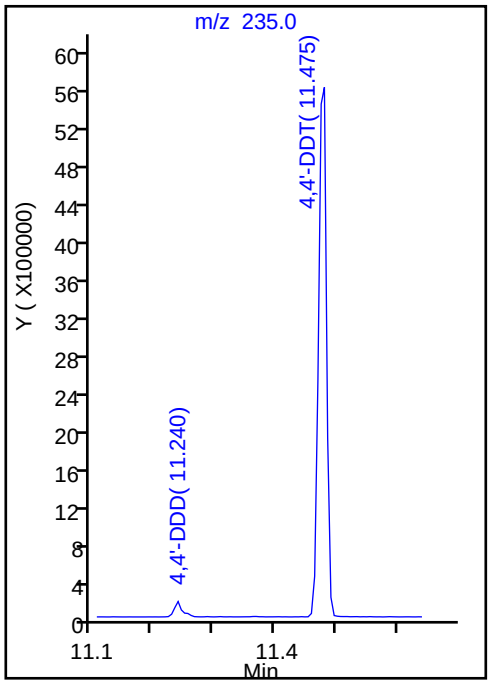
34 4,4'-DDT, Detector: MS SCAN

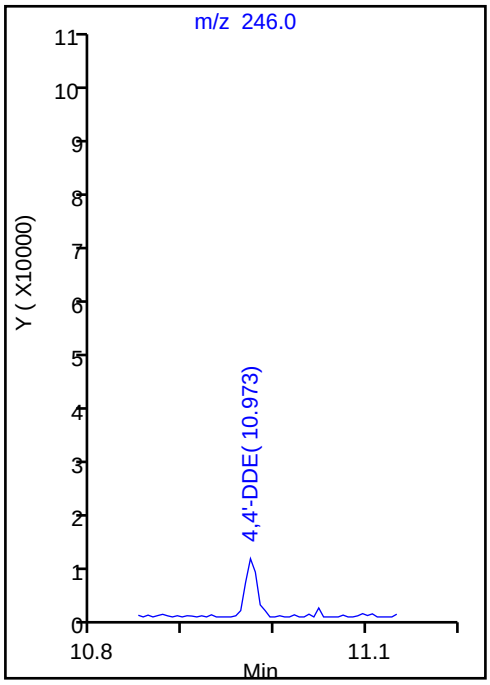
SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

34 4,4'-DDT, Area = 5152566
33 4,4'-DDD, Area = 149308
32 4,4'-DDE, Area = 9876

%Breakdown: 3.00%, <= 20.00%
Passed





Peak Tailing Report

Eurofins TestAmerica, Seattle

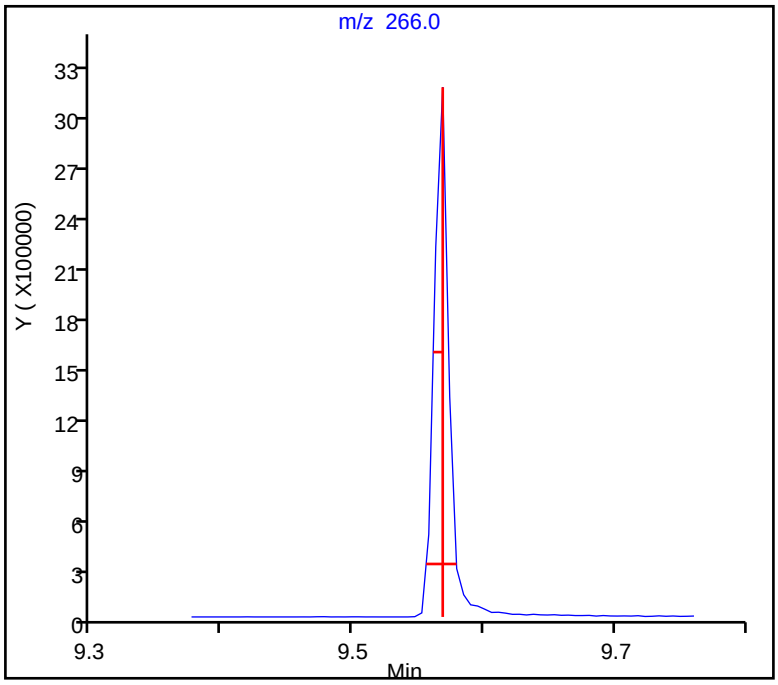
Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D
Injection Date: 24-Jul-2019 09:16:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



Peak Tailing Report

Eurofins TestAmerica, Seattle

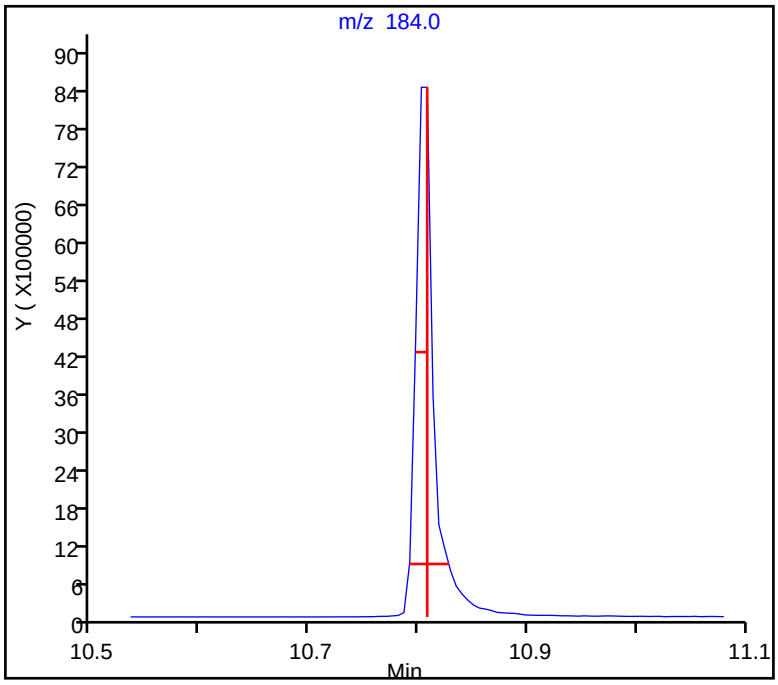
Data File: \\chromna\Seattle\ChromData\TAC023\20190724-66494.b\072419A002.D
Injection Date: 24-Jul-2019 09:16:30 Instrument ID: TAC023
Lims ID: dftpp
Client ID:
Operator ID: KFS ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TAC23_PAH_SIM Limit Group: 8270D SIM

31 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.020 (min.)
Front Width = 0.016 (min.)

Tailing Factor = 1.3, Max. Tailing < 2.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 580-306107/1-A

Matrix: Solid Lab File ID: 072219A004.D

Analysis Method: 8270D SIM Date Collected:

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10(g) Date Analyzed: 07/22/2019 12:03

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	ND		5.0	1.6
91-57-6	2-Methylnaphthalene	ND		5.0	2.1
90-12-0	1-Methylnaphthalene	ND		5.0	0.63
208-96-8	Acenaphthylene	ND		5.0	0.50
83-32-9	Acenaphthene	ND		5.0	0.60
86-73-7	Fluorene	ND		5.0	0.50
85-01-8	Phenanthrene	ND		5.0	1.6
120-12-7	Anthracene	ND		5.0	0.60
206-44-0	Fluoranthene	ND		5.0	1.4
129-00-0	Pyrene	ND		5.0	0.97
56-55-3	Benzo[a]anthracene	ND		5.0	0.76
218-01-9	Chrysene	ND		5.0	1.5
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.59
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.60
50-32-8	Benzo[a]pyrene	ND		5.0	0.84
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.60
53-70-3	Dibenz(a,h)anthracene	1.47	J	5.0	0.72
191-24-2	Benzo[g,h,i]perylene	0.668	J	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	75		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D
Lims ID: MB 580-306107/1-A
Client ID:
Sample Type: MB
Inject. Date: 22-Jul-2019 12:03:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: mb 580-306107/1-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:45:30 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:45:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	99	385839	100.0	100.0	
* 2 Acenaphthene-d10	164	8.503	8.503	0.000	100	171273	100.0	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	280257	100.0	100.0	a
* 4 Chrysene-d12	240	11.804	11.804	0.000	100	199661	100.0	100.0	
* 5 Perylene-d12	264	12.946	12.946	0.000	100	202010	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.613	7.619	-0.006	95	1901161	1000.0	766.7	
$ 7 2,4,6-Tribromophenol	330	9.148	9.148	0.000	100	180304	1000.0	519.1	
$ 8 Fluoranthene-d10 (Surr)	212	10.646	10.646	0.000	96	2451159	1000.0	792.7	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	100	1581326	1000.0	745.2	
10 Naphthalene	128	7.010	7.004	0.006	89	1395		0.3236	M
11 2-Methylnaphthalene	142	7.646	7.640	0.006	54	1463		0.5175	M
12 1-Methylnaphthalene	142	7.722	7.722	0.000	83	882		0.3342	M
13 Acenaphthylene	152	8.382	8.376	0.006	97	1164		0.3116	M
14 Acenaphthene	153	8.525	8.525	0.000	77	763		0.2814	M
15 Fluorene	166	8.947	8.947	-0.001	93	984		0.3624	M
16 Pentachlorophenol	266	9.593	9.567	0.026	44	6034		40.2	M
17 Phenanthrene	178	9.703	9.704	-0.001	29	3191		0.8387	
18 Anthracene	178	9.751	9.745	0.006	99	1057		0.2988	M
20 Pyrene	202	10.830	10.830	0.000	98	2592		0.6828	a
21 Benzo[a]anthracene	228	11.799	11.799	0.000	13	1518		0.6671	a
22 Chrysene	228	11.821	11.821	0.000	64	1728		0.5710	a
23 Benzo[b]fluoranthene	252	12.631	12.631	0.000	93	1269		0.4877	Ma
24 Benzo[k]fluoranthene	252	12.653	12.653	0.000	34	1477		0.4640	M
25 Benzo[a]pyrene	252	12.897	12.892	0.005	21	962		0.3650	a
26 Indeno[1,2,3-cd]pyrene	276	13.946	13.935	0.011	89	871		0.5497	M
27 Dibenz(a,h)anthracene	278	13.978	13.968	0.010	100	927		1.47	M
28 Benzo[g,h,i]perylene	276	14.193	14.188	0.005	95	1180		0.6679	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 13:45:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D

Injection Date: 22-Jul-2019 12:03:30 Instrument ID: TAC023

Lims ID: MB 580-306107/1-A

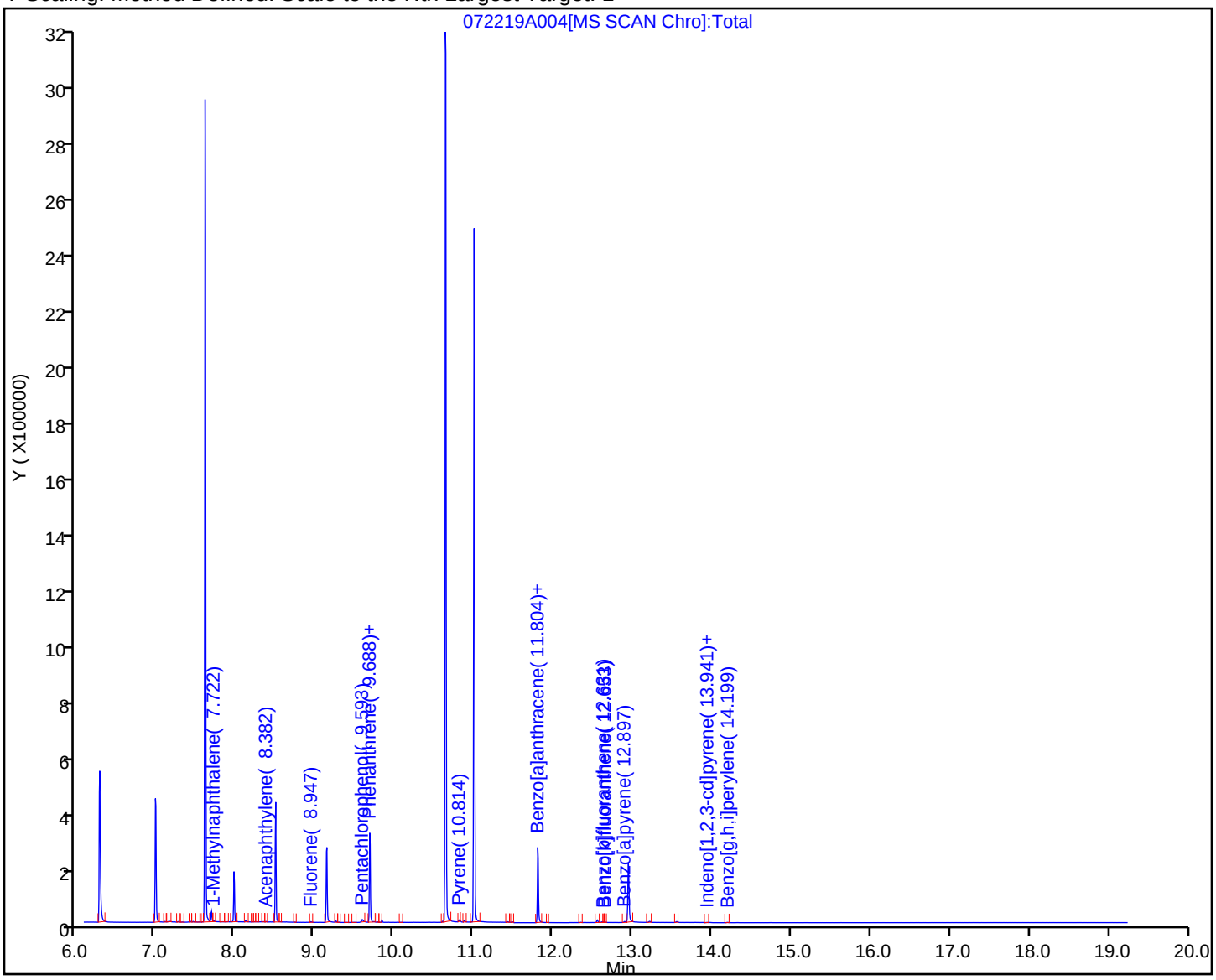
Client ID:

Operator ID: KFS ALS Bottle#: 4 Worklist Smp#: 4

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D
Lims ID: MB 580-306107/1-A
Client ID:
Sample Type: MB
Inject. Date: 22-Jul-2019 12:03:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: mb 580-306107/1-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:45:30 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:45:30

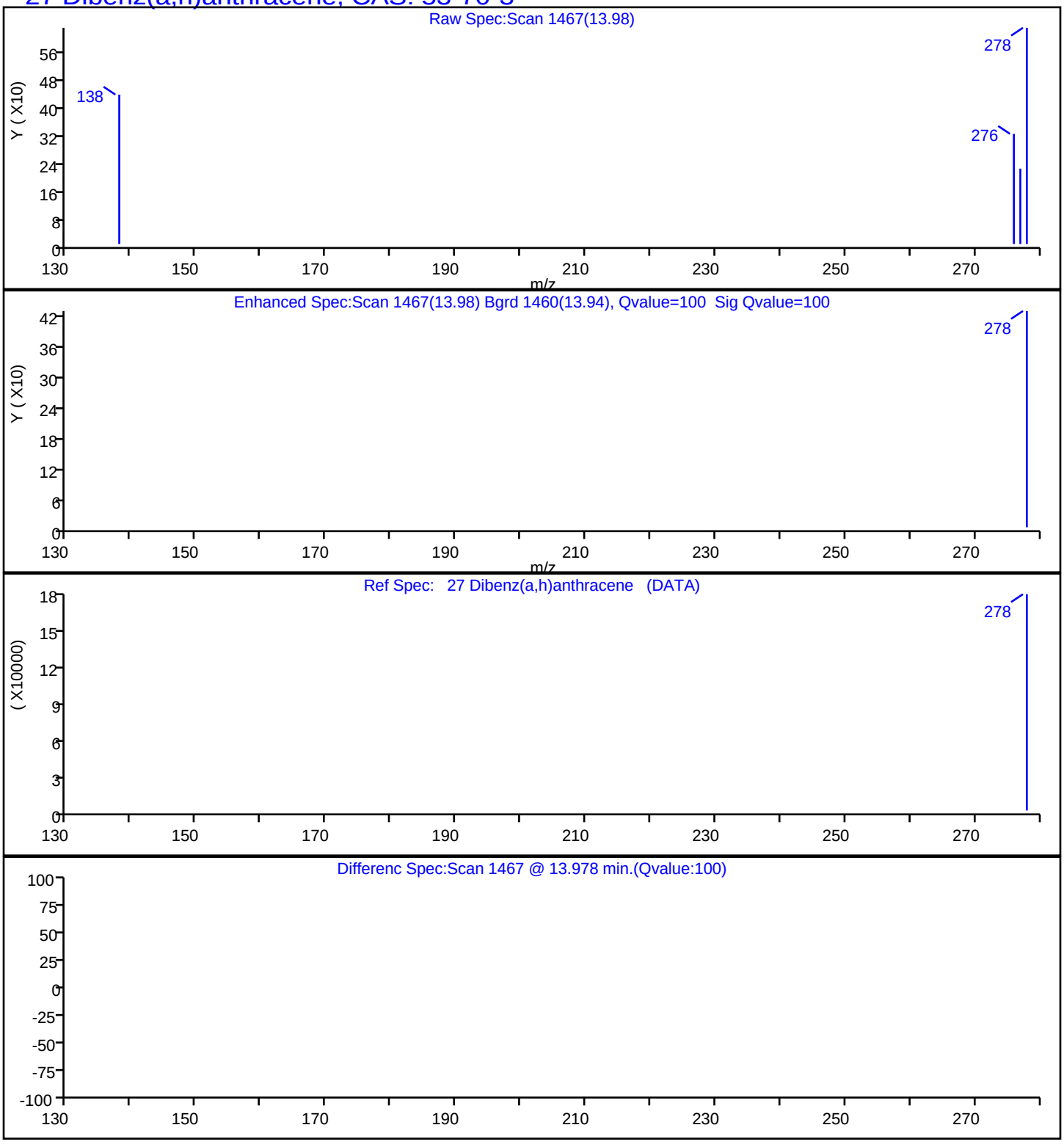
Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	1000.0	766.7	76.67
$ 7 2,4,6-Tribromophenol	1000.0	519.1	51.91
$ 8 Fluoranthene-d10 (Surr)	1000.0	792.7	79.27
$ 9 Terphenyl-d14	1000.0	745.2	74.52

Report Date: 23-Jul-2019 13:45:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

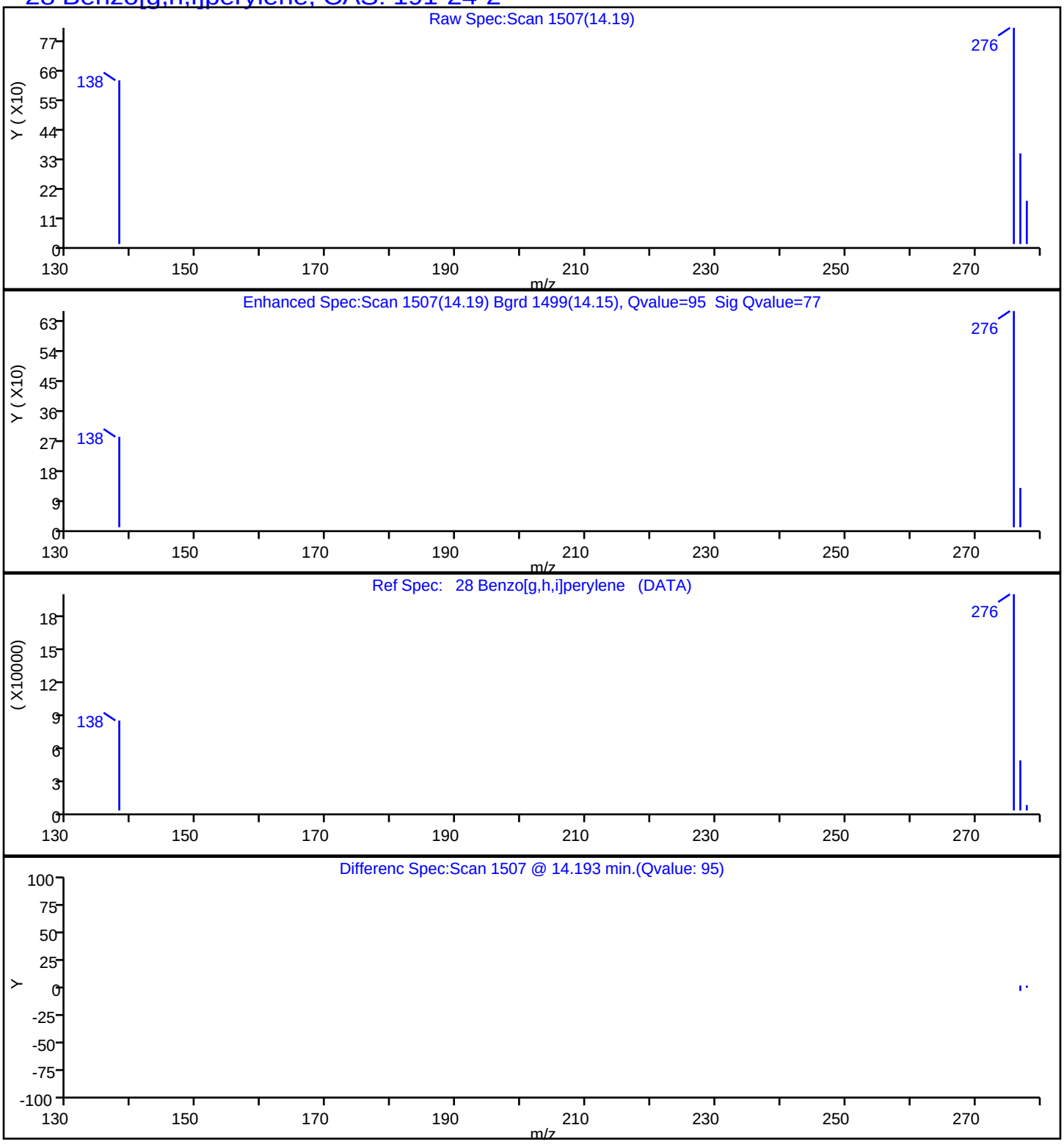


Report Date: 23-Jul-2019 13:45:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

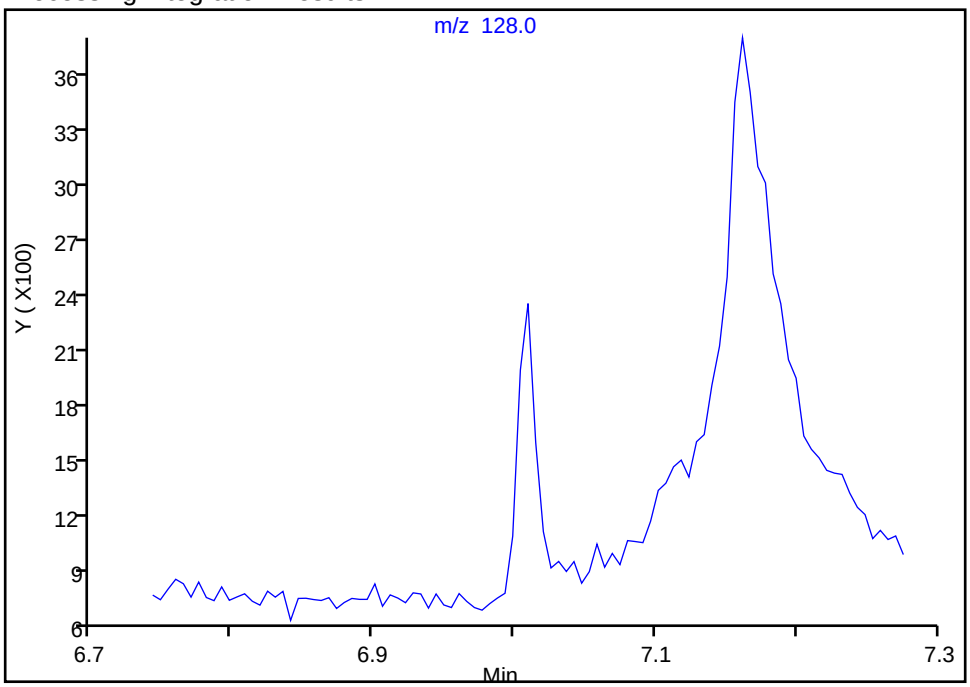
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

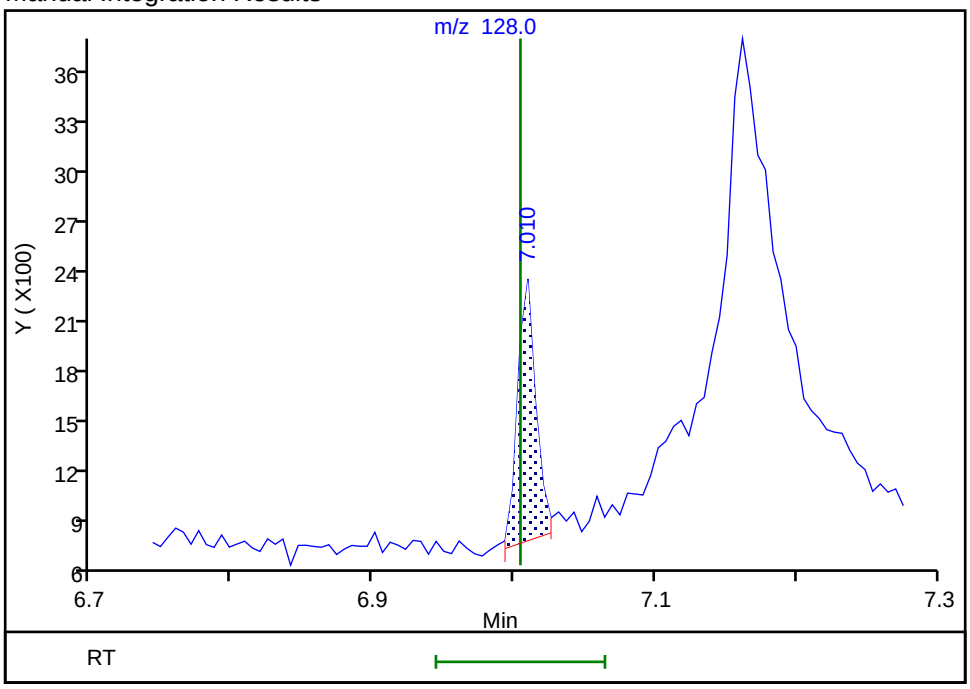
Not Detected
Expected RT: 7.00

Processing Integration Results



Manual Integration Results

RT: 7.01
Area: 1395
Amount: 0.323591
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:43:16
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

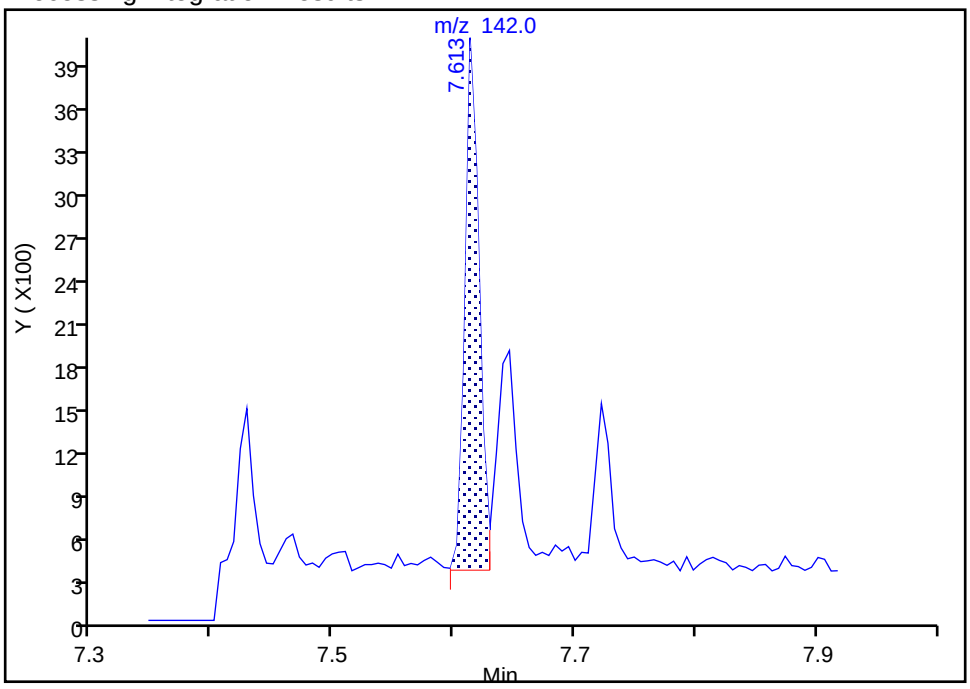
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

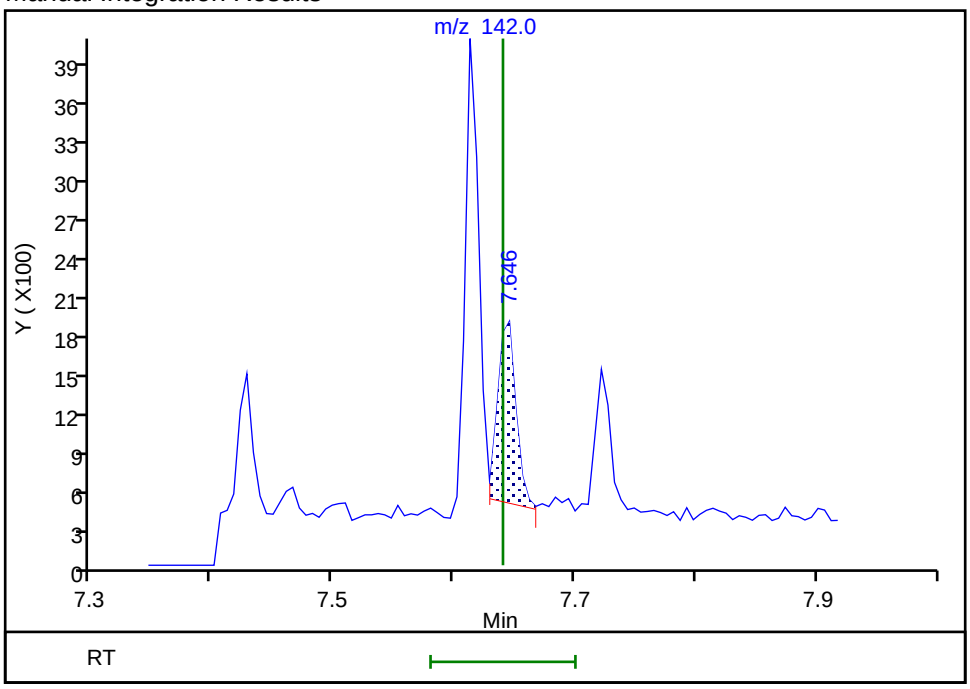
Processing Integration Results

RT: 7.61
Area: 3023
Amount: 1.069290
Amount Units: ug/L



Manual Integration Results

RT: 7.65
Area: 1463
Amount: 0.517490
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:43:24

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

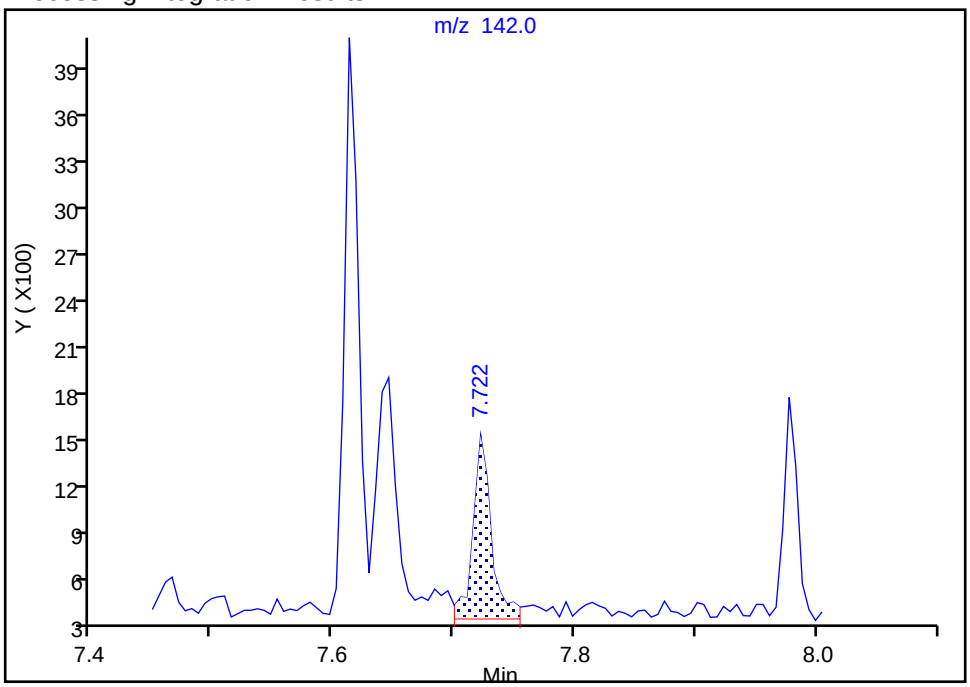
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

12 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

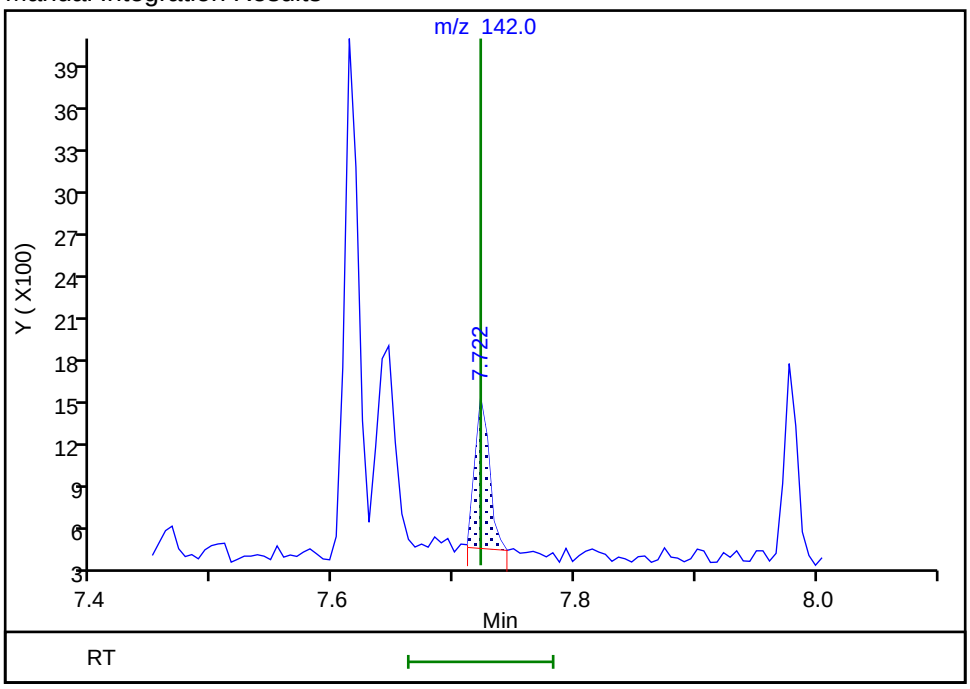
Processing Integration Results

RT: 7.72
Area: 1239
Amount: 0.469411
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 882
Amount: 0.334157
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:43:31

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

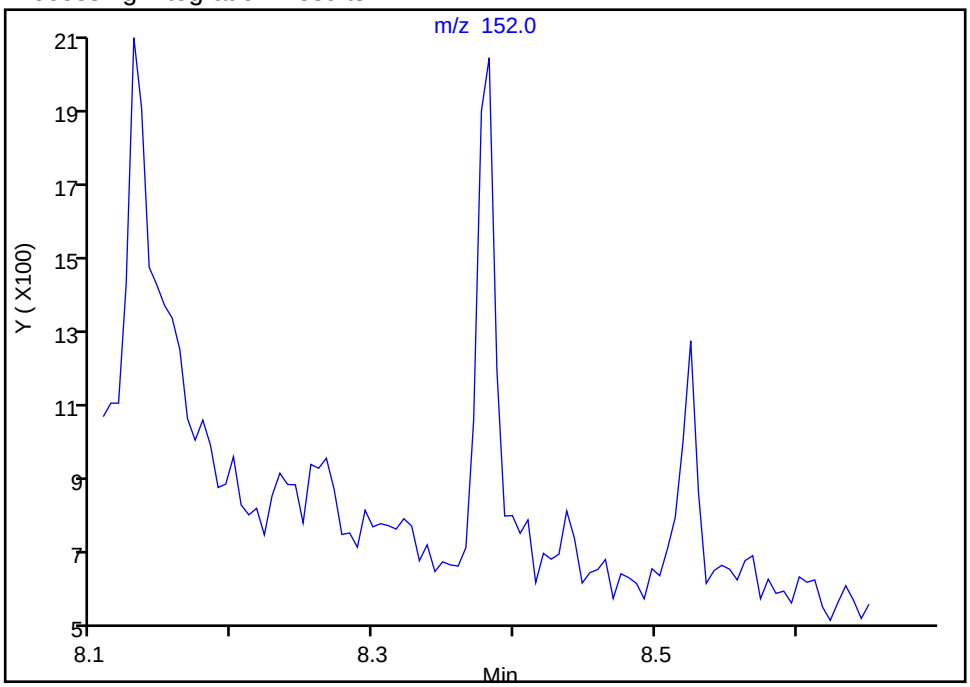
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

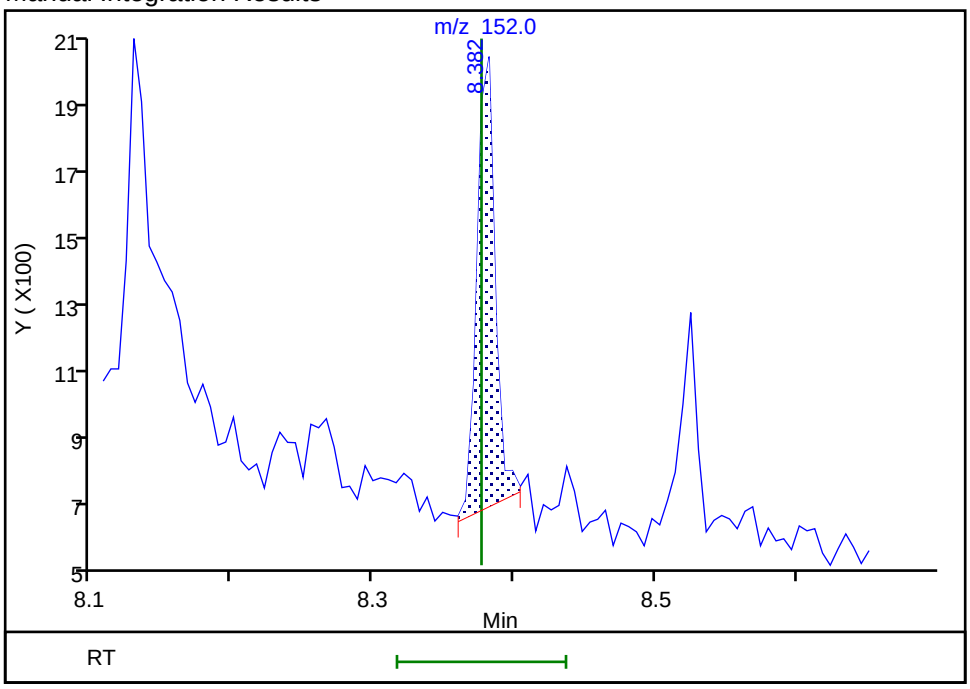
Not Detected
Expected RT: 8.38

Processing Integration Results



Manual Integration Results

RT: 8.38
Area: 1164
Amount: 0.311600
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:43:35
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

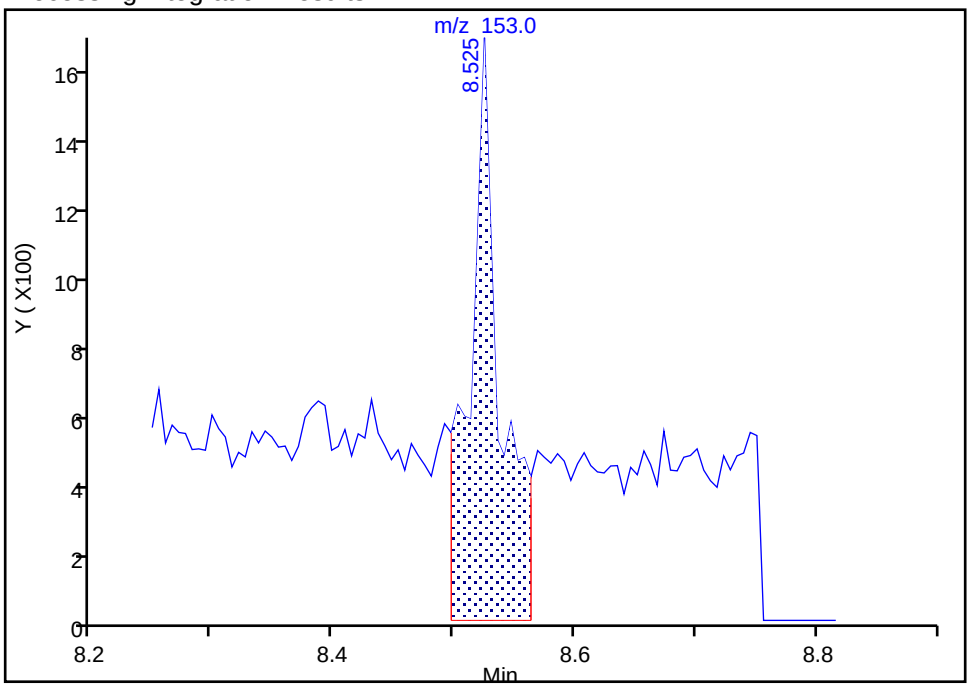
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

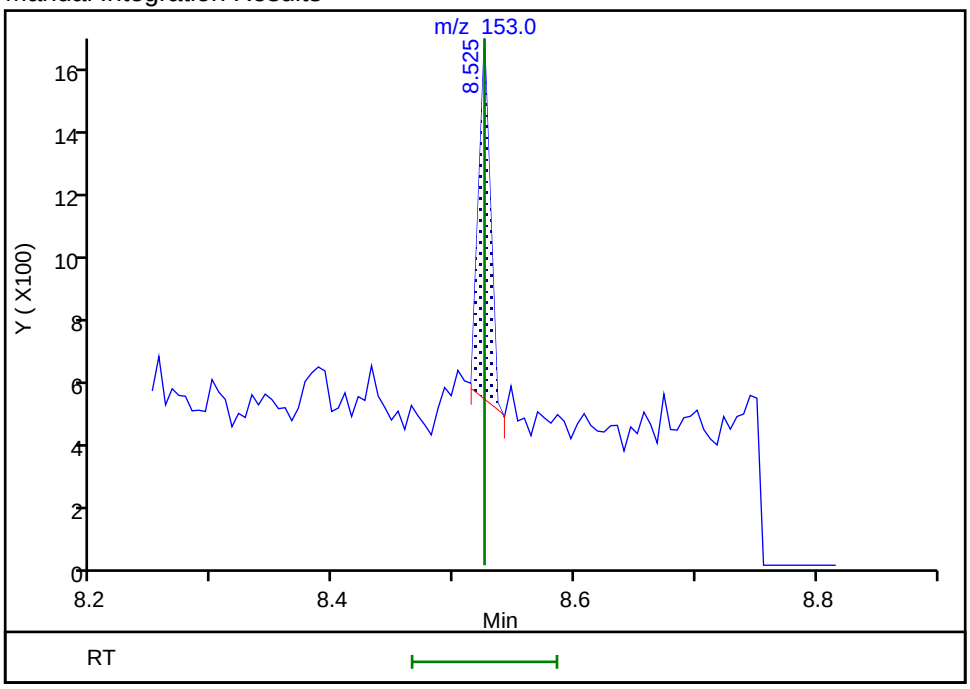
Processing Integration Results

RT: 8.53
Area: 2837
Amount: 1.046132
Amount Units: ug/L



Manual Integration Results

RT: 8.53
Area: 763
Amount: 0.281353
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:43:47

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

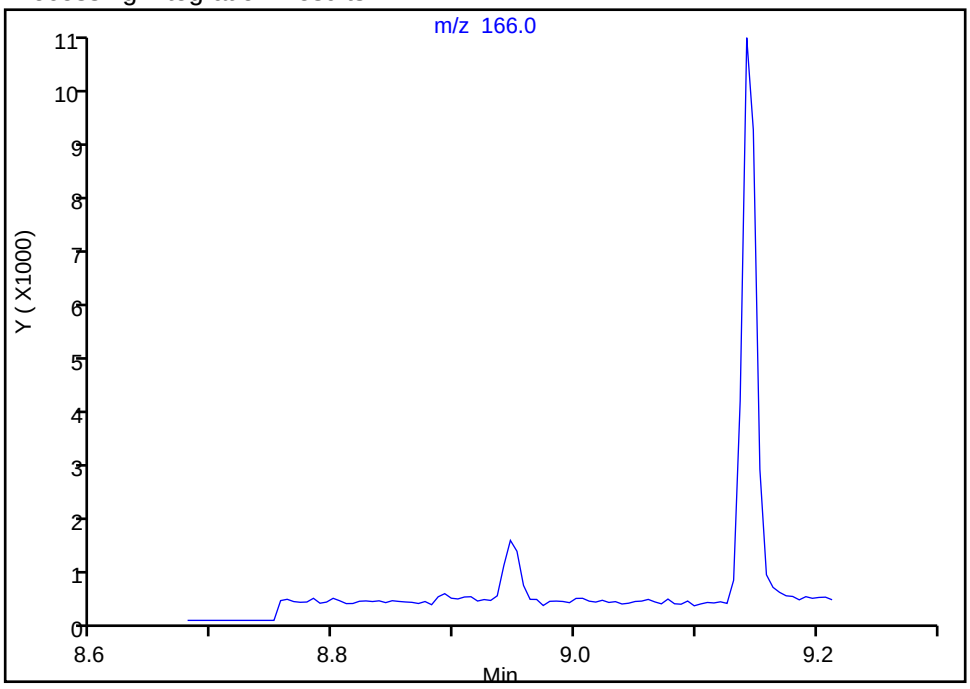
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

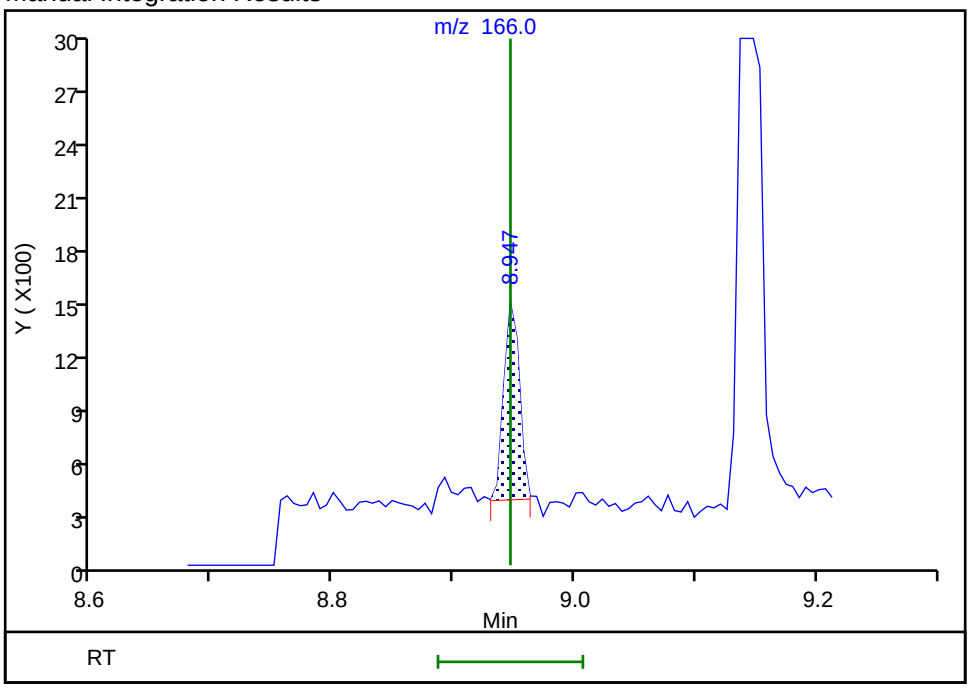
Not Detected
Expected RT: 8.95

Processing Integration Results



Manual Integration Results

RT: 8.95
Area: 984
Amount: 0.362369
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:43:56
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

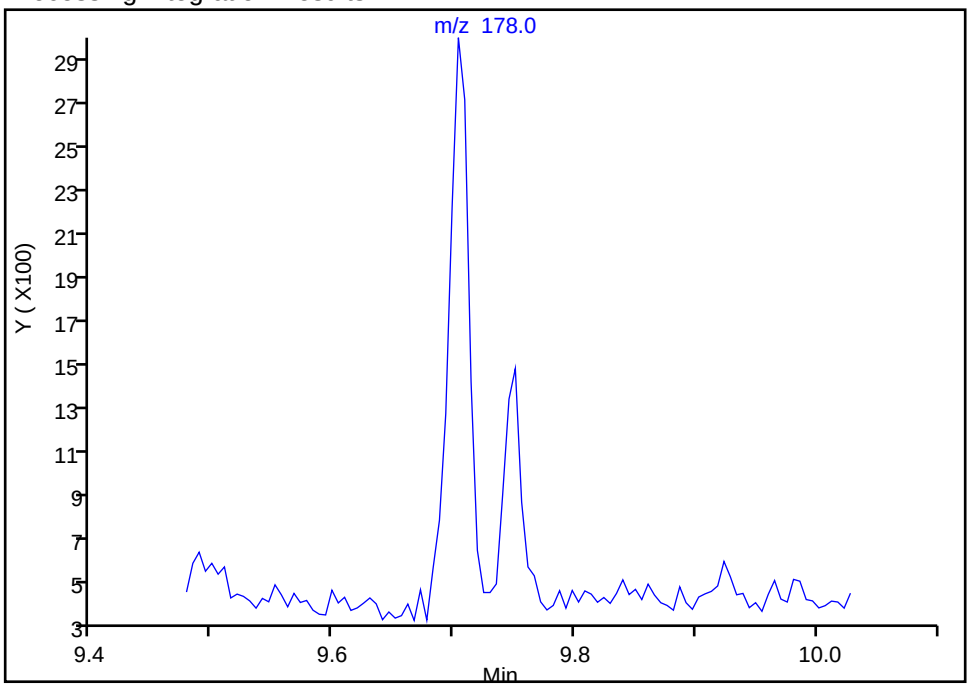
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

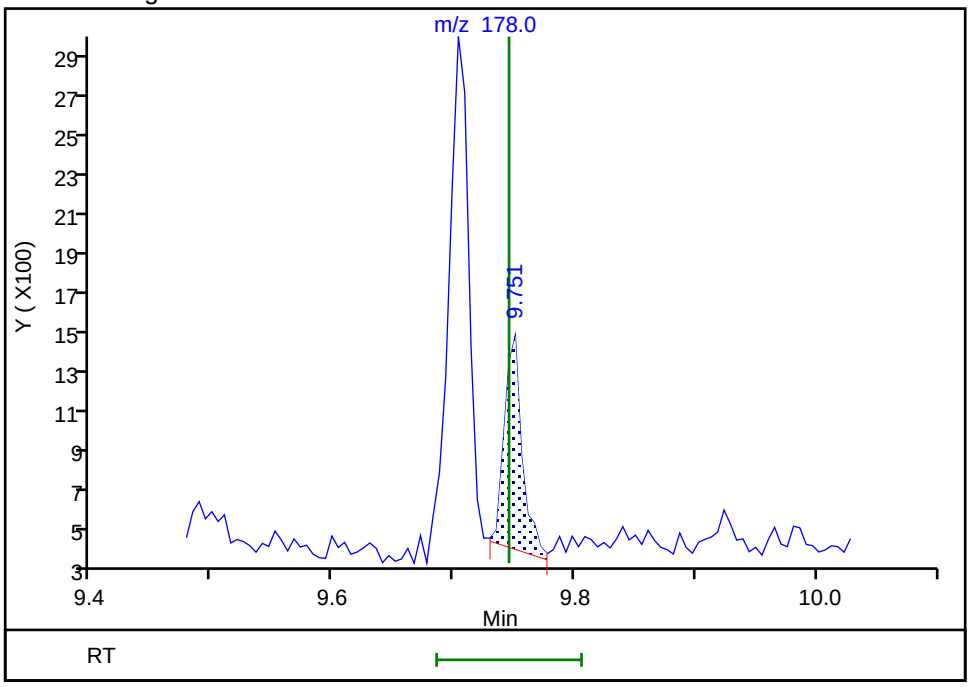
Not Detected
Expected RT: 9.75

Processing Integration Results



Manual Integration Results

RT: 9.75
Area: 1057
Amount: 0.298827
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:44:10
Audit Action: Manually Integrated Audit Reason: Assign Peak

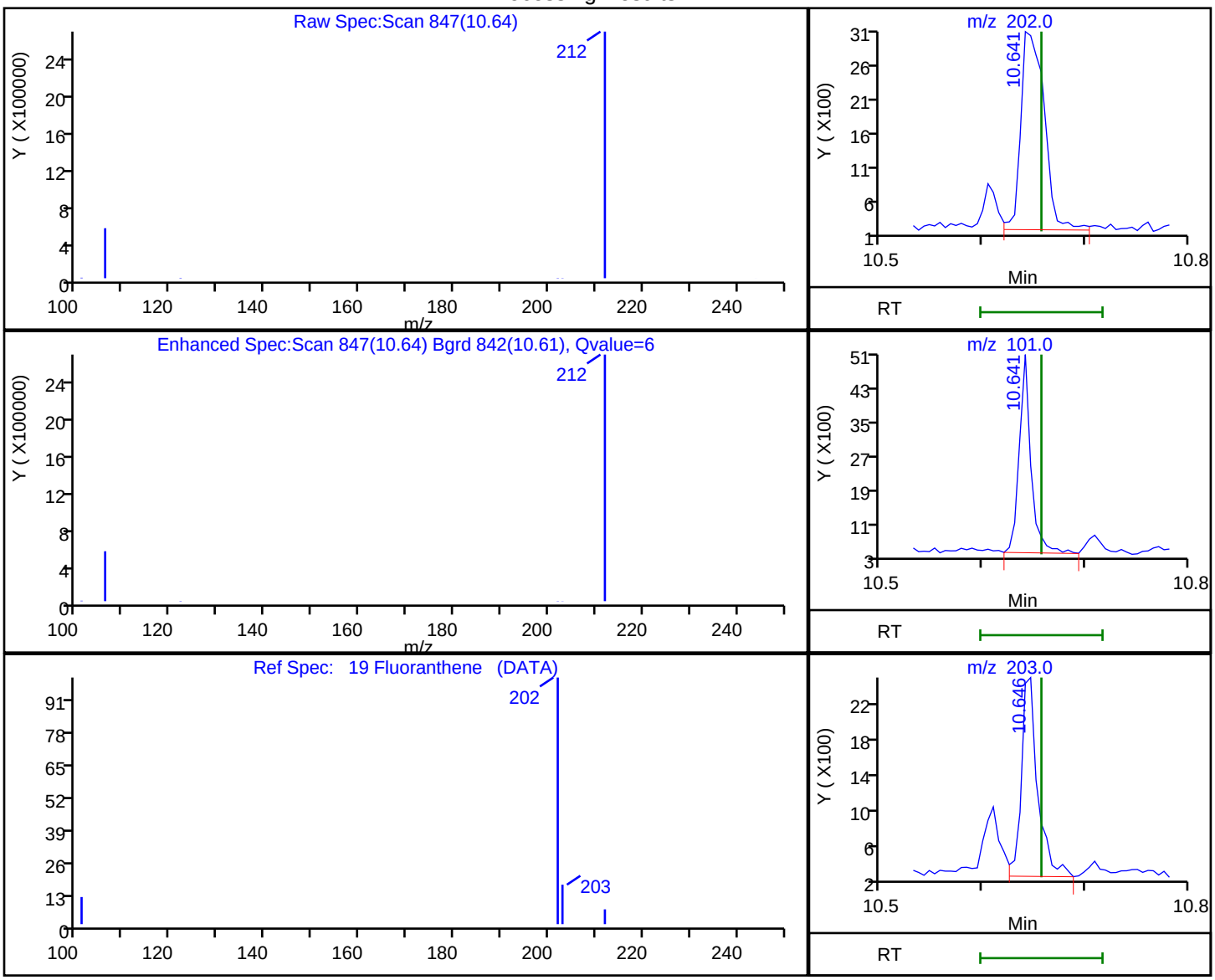
User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Processing Results



RT	Mass	Response	Amount
10.64	202.00	4514	1.252332
10.64	101.00	3791	
10.65	203.00	2505	

Reviewer: limwirojt, 23-Jul-2019 13:44:13

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

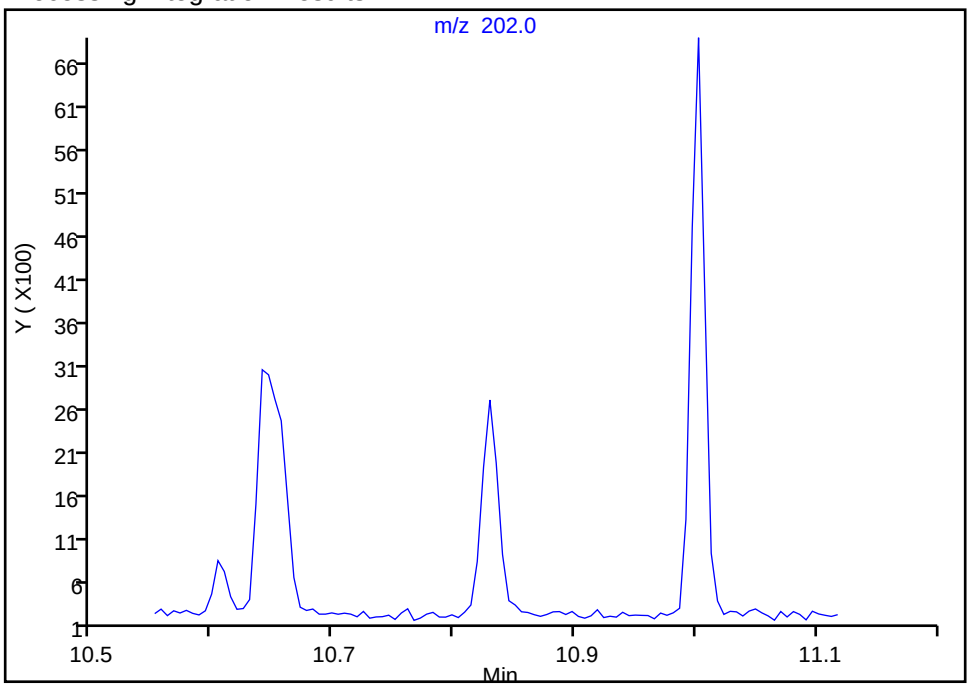
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

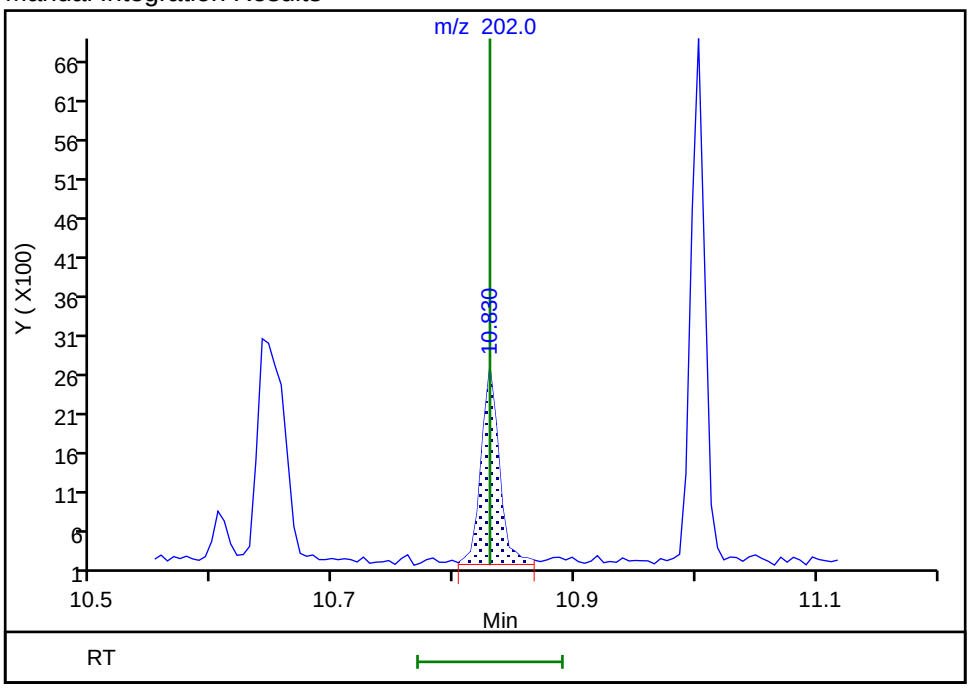
Not Detected
Expected RT: 10.83

Processing Integration Results



Manual Integration Results

RT: 10.83
Area: 2592
Amount: 0.682774
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:44:17
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

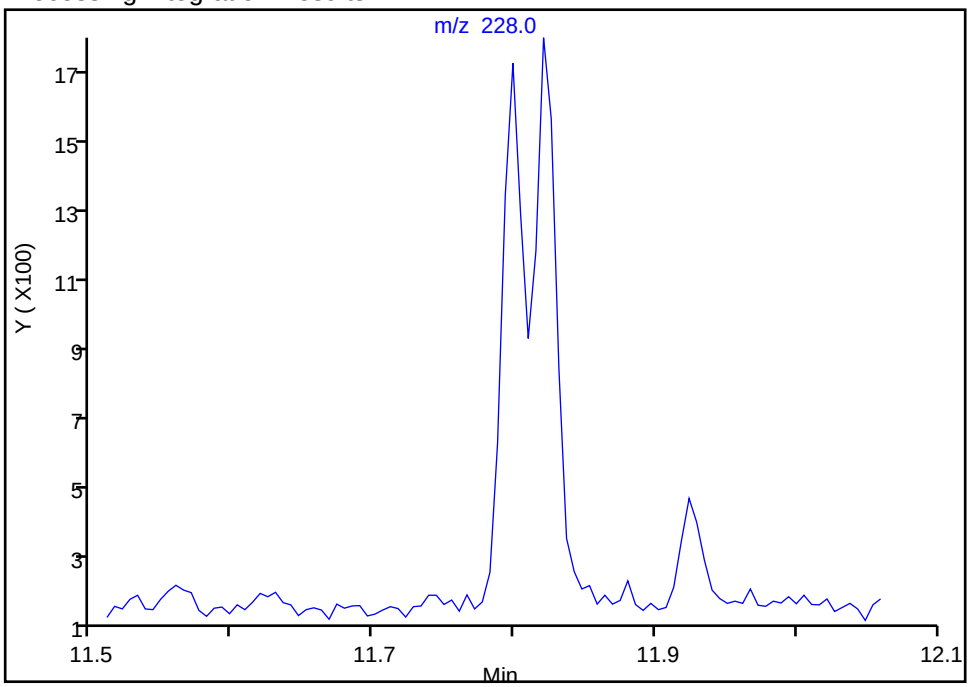
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

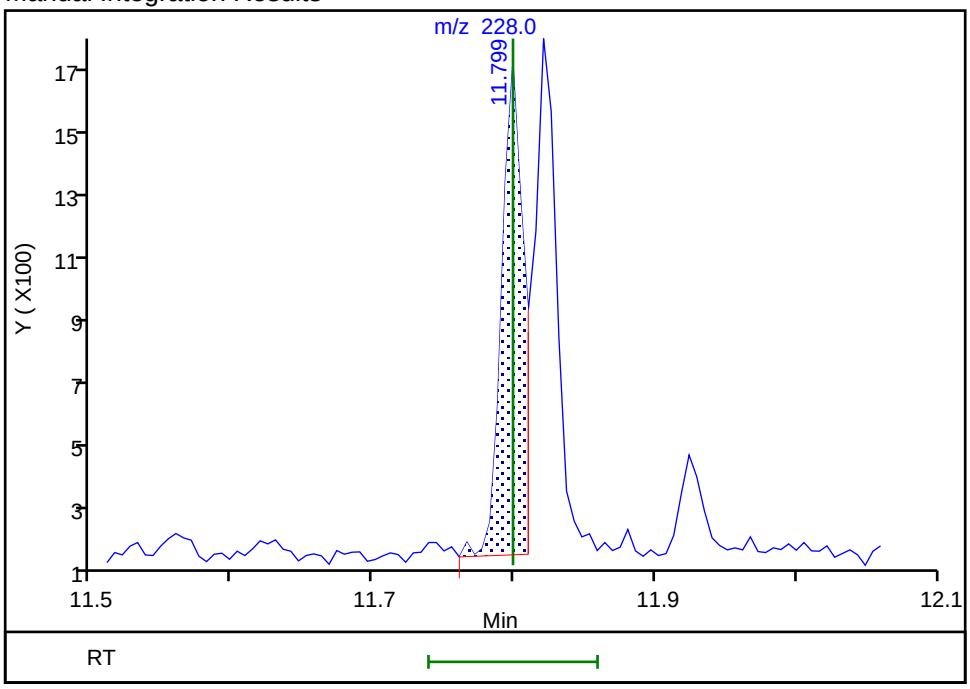
Not Detected
Expected RT: 11.80

Processing Integration Results



Manual Integration Results

RT: 11.80
Area: 1518
Amount: 0.667099
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:44:21
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

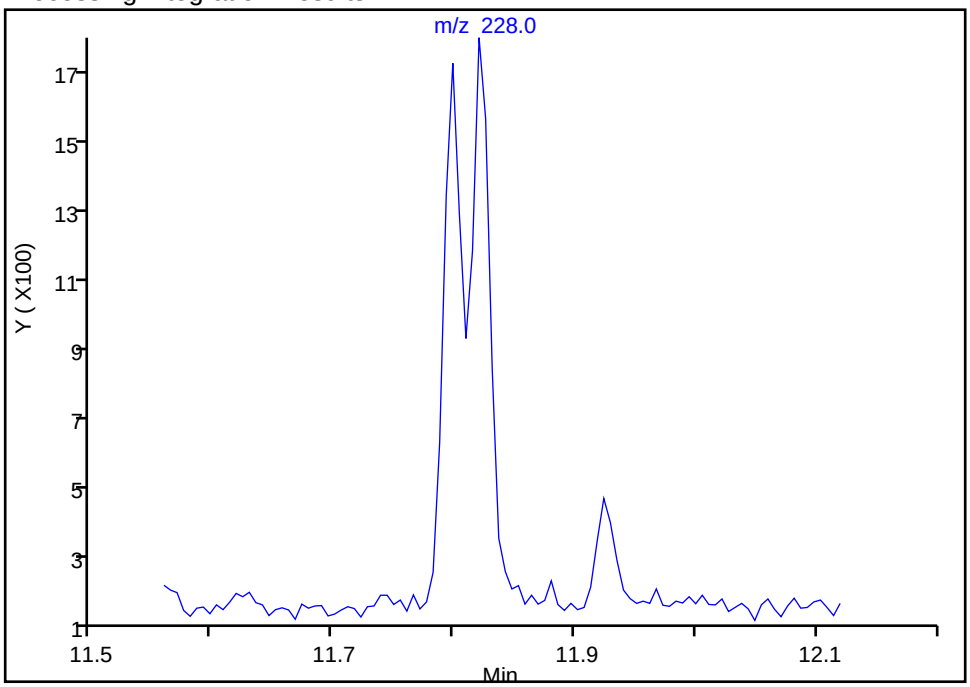
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

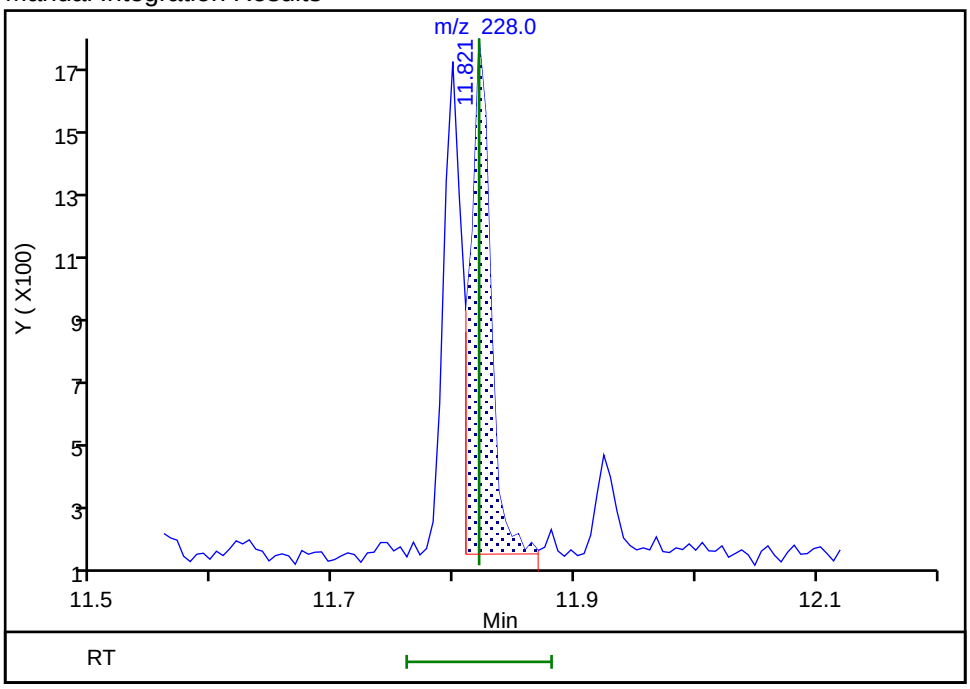
Not Detected
Expected RT: 11.82

Processing Integration Results



Manual Integration Results

RT: 11.82
Area: 1728
Amount: 0.571030
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:44:25
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

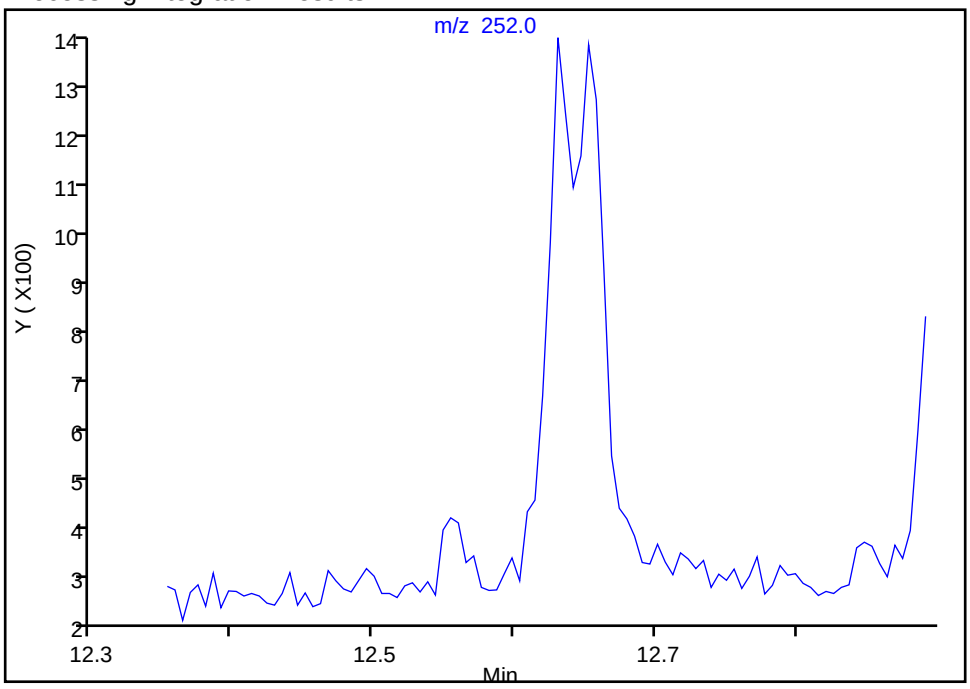
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

23 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

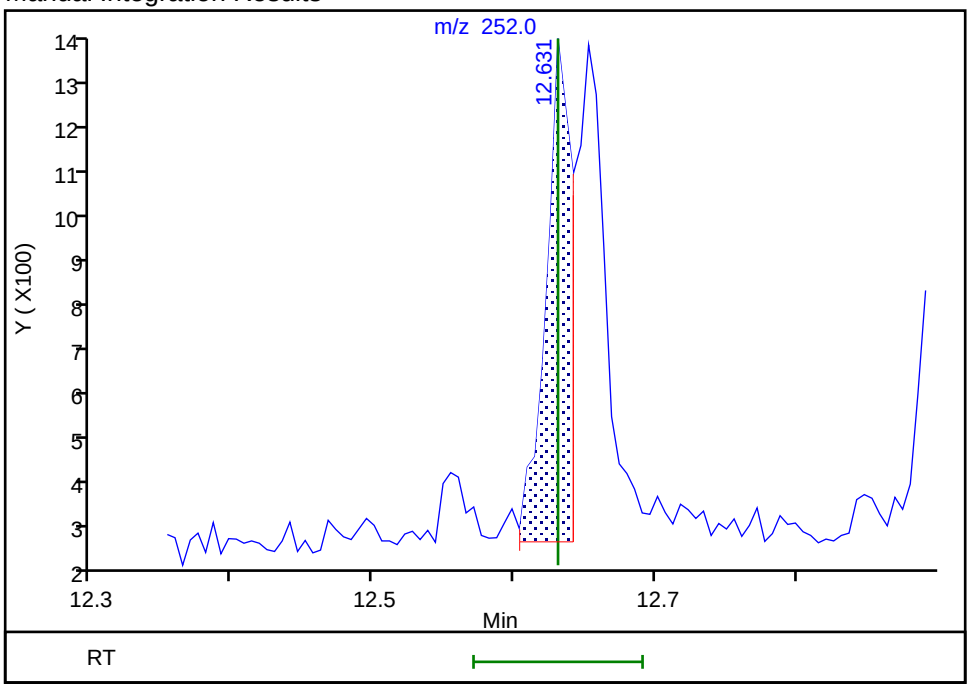
Not Detected
Expected RT: 12.63

Processing Integration Results



Manual Integration Results

RT: 12.63
Area: 1269
Amount: 0.487693
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:44:34
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

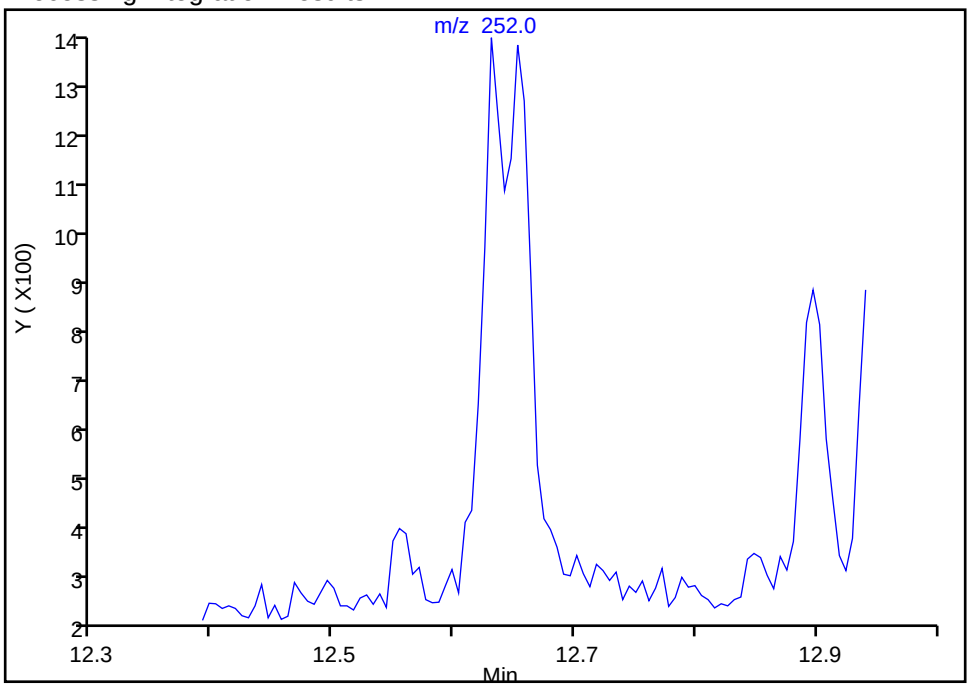
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

24 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

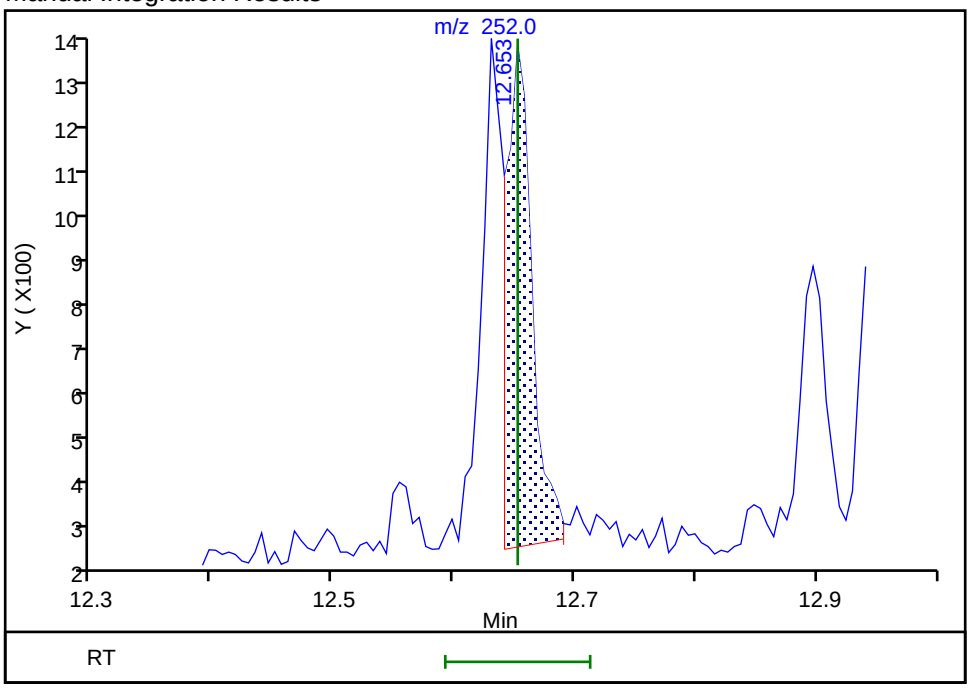
Not Detected
Expected RT: 12.65

Processing Integration Results



Manual Integration Results

RT: 12.65
Area: 1477
Amount: 0.463961
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:44:39
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

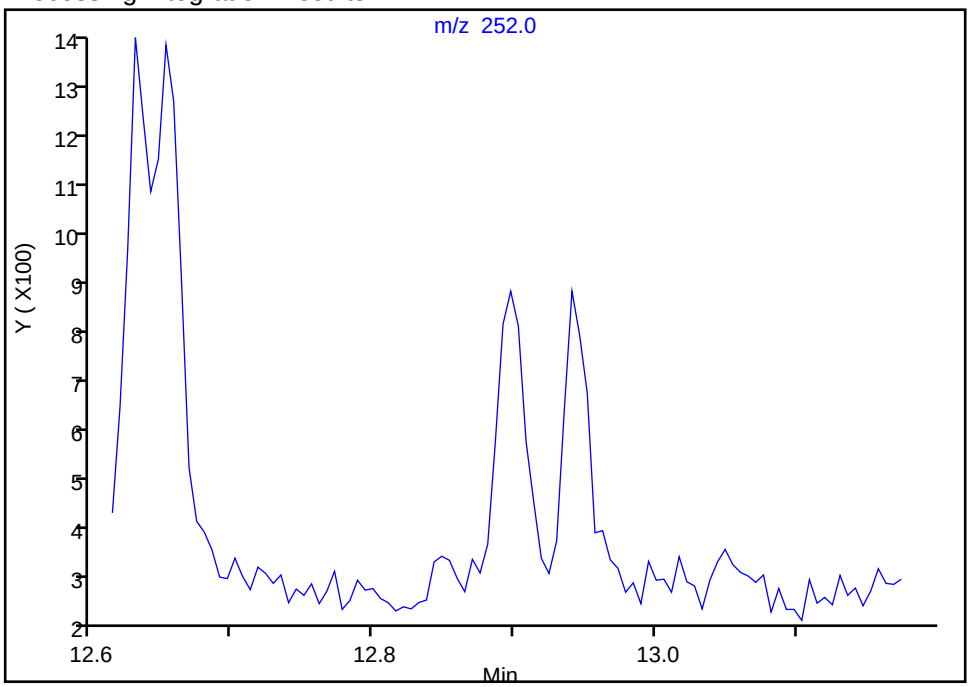
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

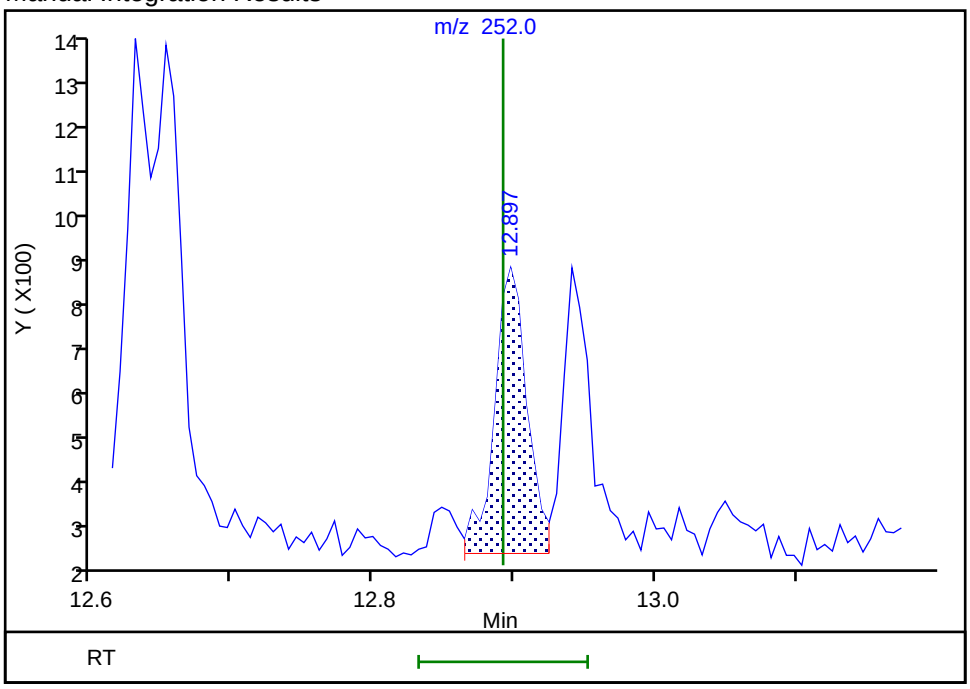
Not Detected
Expected RT: 12.89

Processing Integration Results



Manual Integration Results

RT: 12.90
Area: 962
Amount: 0.364952
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:45:07
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

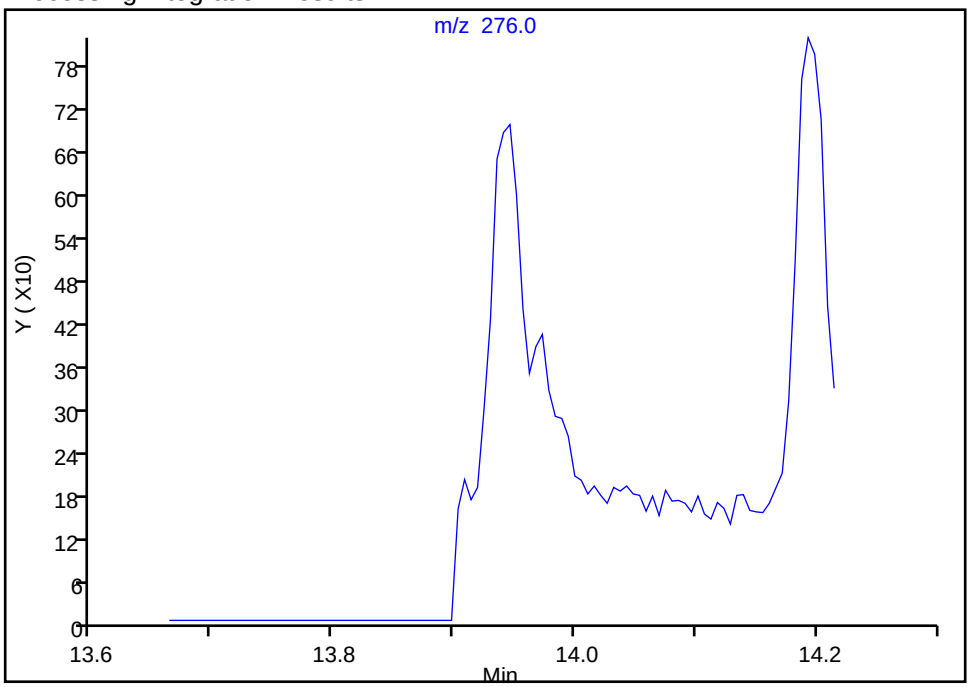
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

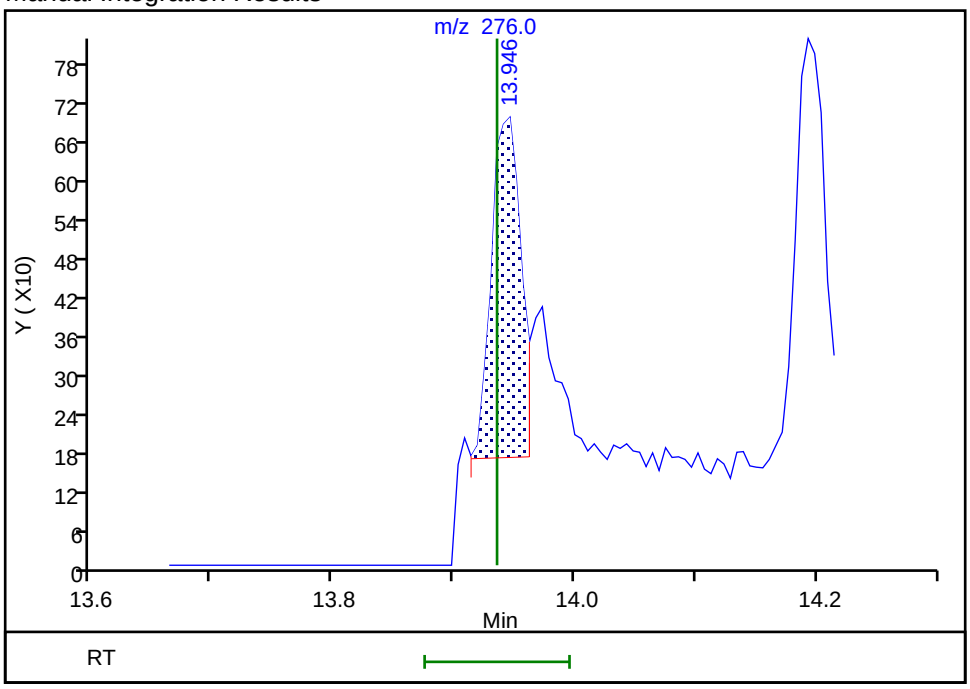
Not Detected
Expected RT: 13.94

Processing Integration Results



Manual Integration Results

RT: 13.95
Area: 871
Amount: 0.549685
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:45:16
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

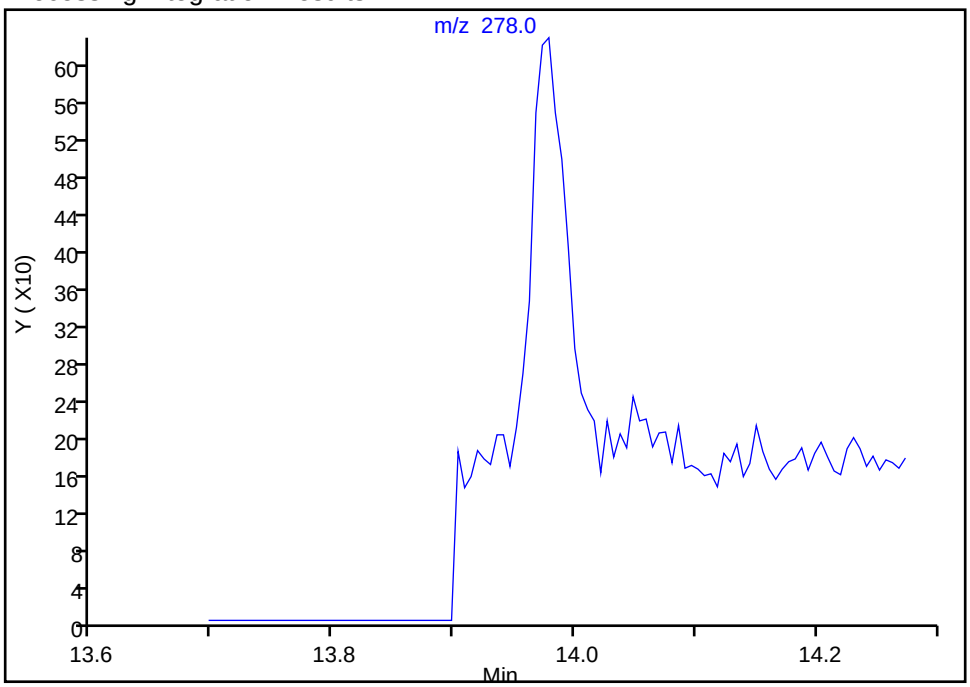
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

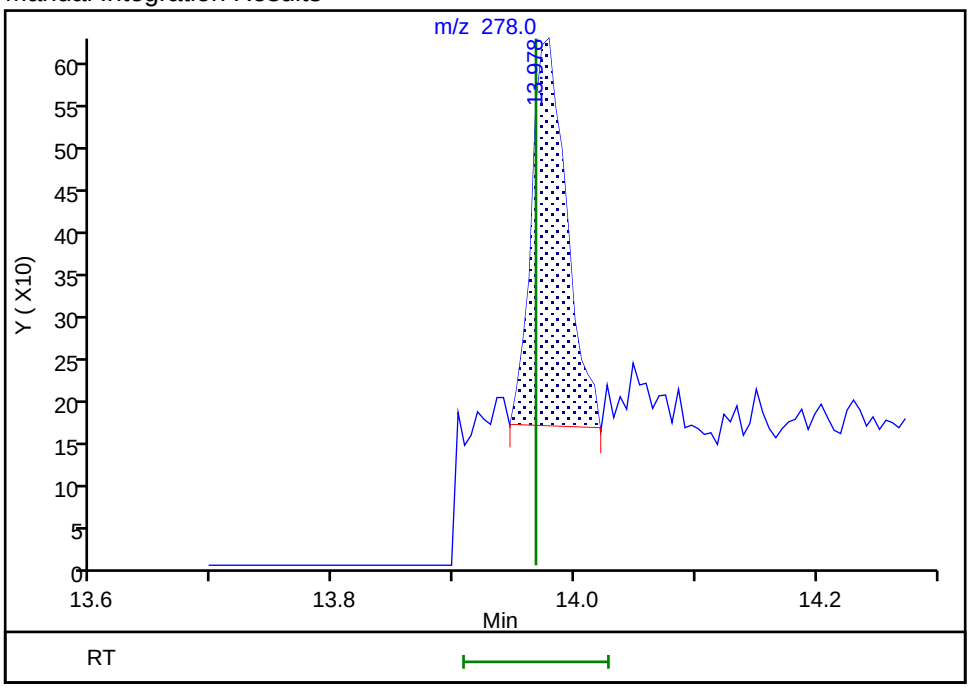
Not Detected
Expected RT: 13.97

Processing Integration Results



Manual Integration Results

RT: 13.98
Area: 927
Amount: 1.469404
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:45:23
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

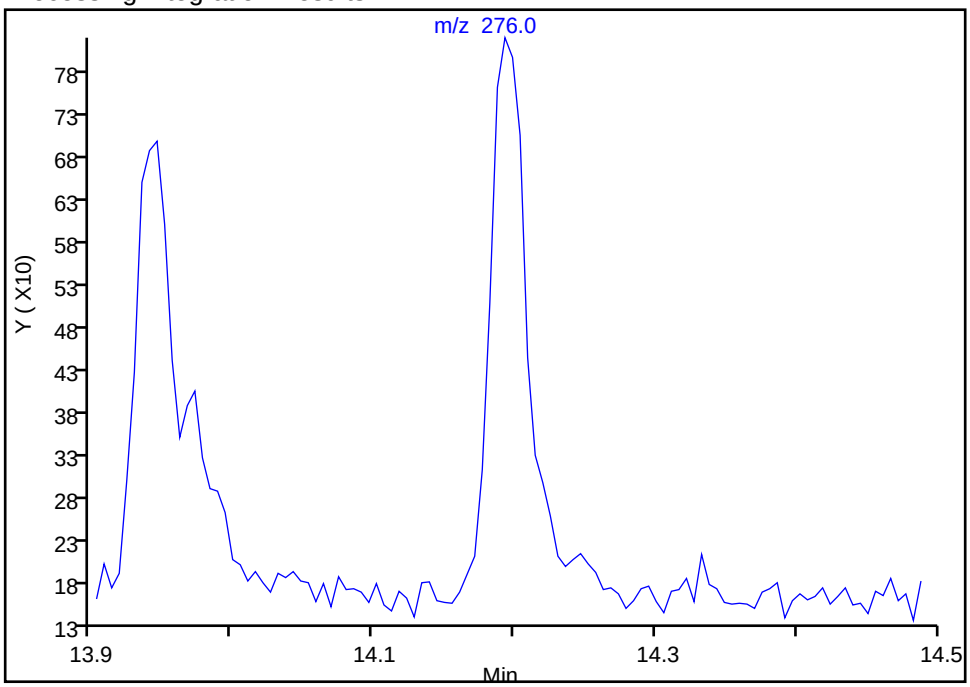
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

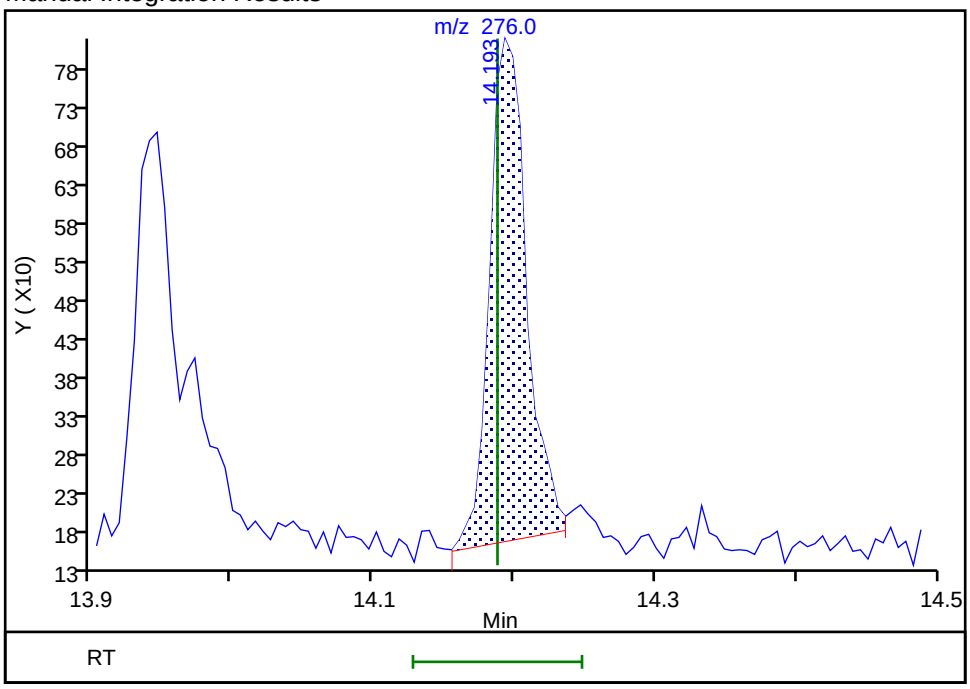
Not Detected
Expected RT: 14.19

Processing Integration Results



Manual Integration Results

RT: 14.19
Area: 1180
Amount: 0.667874
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:45:28
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

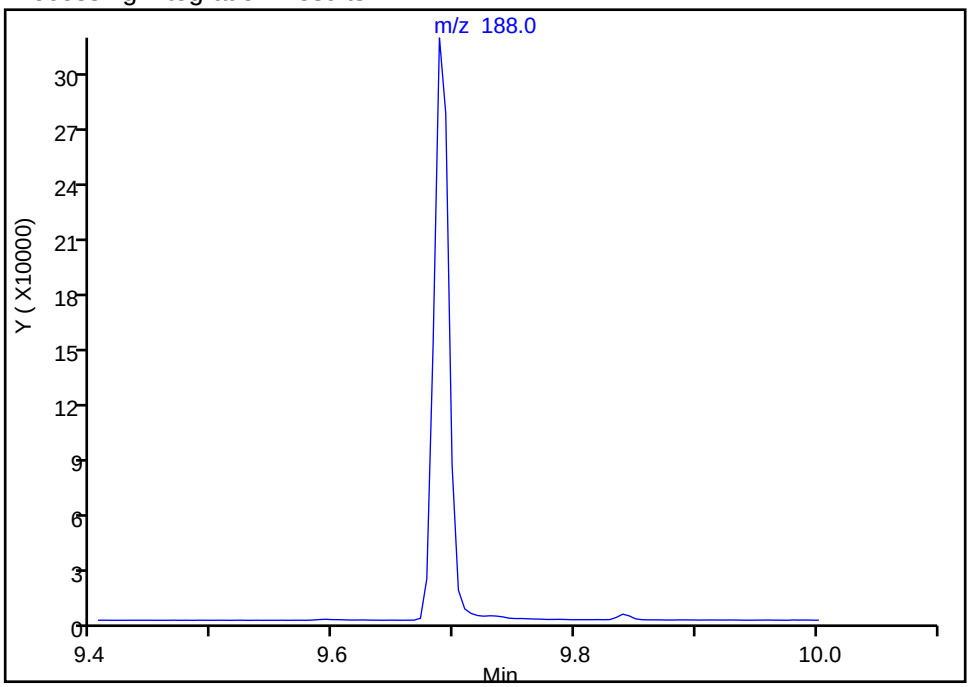
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A004.D				
Injection Date:	22-Jul-2019 12:03:30	Instrument ID:	TAC023		
Lims ID:	MB 580-306107/1-A				
Client ID:					
Operator ID:	KFS	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

* 3 Phenanthrene-d10, CAS: 1517-22-2

Signal: 1

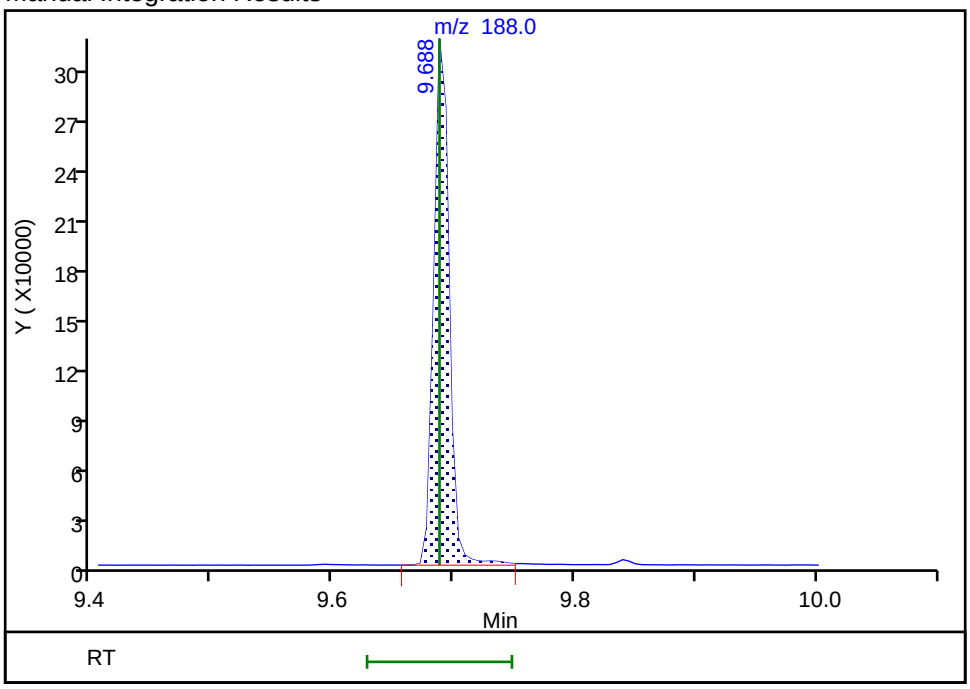
Not Detected
Expected RT: 9.69

Processing Integration Results



Manual Integration Results

RT: 9.69
Area: 280257
Amount: 100.0000
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 13:42:41
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306107/2-A

Matrix: Solid Lab File ID: 072219A005.D

Analysis Method: 8270D SIM Date Collected:

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 10(g) Date Analyzed: 07/22/2019 12:29

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	842		5.0	1.6
91-57-6	2-Methylnaphthalene	887		5.0	2.1
90-12-0	1-Methylnaphthalene	864		5.0	0.63
208-96-8	Acenaphthylene	914		5.0	0.50
83-32-9	Acenaphthene	857		5.0	0.60
86-73-7	Fluorene	912		5.0	0.50
85-01-8	Phenanthrene	864		5.0	1.6
120-12-7	Anthracene	887		5.0	0.60
206-44-0	Fluoranthene	894		5.0	1.4
129-00-0	Pyrene	847		5.0	0.97
56-55-3	Benzo[a]anthracene	975		5.0	0.76
218-01-9	Chrysene	901		5.0	1.5
205-99-2	Benzo[b]fluoranthene	1000		5.0	0.59
207-08-9	Benzo[k]fluoranthene	926		5.0	0.60
50-32-8	Benzo[a]pyrene	887		5.0	0.84
193-39-5	Indeno[1,2,3-cd]pyrene	1070		5.0	0.60
53-70-3	Dibenz(a,h)anthracene	995		5.0	0.72
191-24-2	Benzo[g,h,i]perylene	967		5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	80		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A005.D
Lims ID: LCS 580-306107/2-A
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2019 12:29:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: lcs 580-306107/2-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:45:30 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:46:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	89	348909	100.0	100.0	
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	94	152899	100.0	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	260680	100.0	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	51	197272	100.0	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	191422	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.613	7.619	-0.006	97	1840720	1000.0	820.9	
$ 7 2,4,6-Tribromophenol	330	9.142	9.148	-0.006	99	362171	1000.0	1105.8	
$ 8 Fluoranthene-d10 (Surr)	212	10.641	10.646	-0.005	98	2440719	1000.0	848.6	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1579594	1000.0	800.3	
10 Naphthalene	128	7.004	7.004	0.000	100	3282085	1000.0	841.9	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	95	2266998	1000.0	886.8	
12 1-Methylnaphthalene	142	7.716	7.722	-0.006	94	2062658	1000.0	864.2	
13 Acenaphthylene	152	8.376	8.376	0.000	100	3048610	1000.0	914.2	
14 Acenaphthene	153	8.525	8.525	0.000	94	2074208	1000.0	856.8	
15 Fluorene	166	8.941	8.947	-0.006	95	2210701	1000.0	911.9	
16 Pentachlorophenol	266	9.567	9.567	0.000	96	472254	2000.0	1390.0	
17 Phenanthrene	178	9.703	9.704	-0.001	100	3057517	1000.0	864.0	
18 Anthracene	178	9.745	9.745	0.000	99	2916893	1000.0	886.6	
19 Fluoranthene	202	10.657	10.657	0.000	98	2996644	1000.0	893.8	
20 Pyrene	202	10.824	10.830	-0.006	100	2992325	1000.0	847.4	
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	99	2191822	1000.0	974.9	
22 Chrysene	228	11.820	11.821	-0.001	96	2692489	1000.0	900.5	
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	99	2470848	1000.0	1002.1	
24 Benzo[k]fluoranthene	252	12.647	12.653	-0.006	100	2793720	1000.0	926.1	
25 Benzo[a]pyrene	252	12.886	12.892	-0.006	99	2214510	1000.0	886.6	
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	99	2170248	1000.0	1070.8	
27 Dibenz(a,h)anthracene	278	13.962	13.968	-0.006	100	2421360	1000.0	995.4	
28 Benzo[g,h,i]perylene	276	14.182	14.188	-0.006	99	2665350	1000.0	966.7	

Reagents:

8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 13:46:15 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A005.D

Injection Date: 22-Jul-2019 12:29:30 Instrument ID: TAC023

Lims ID: LCS 580-306107/2-A

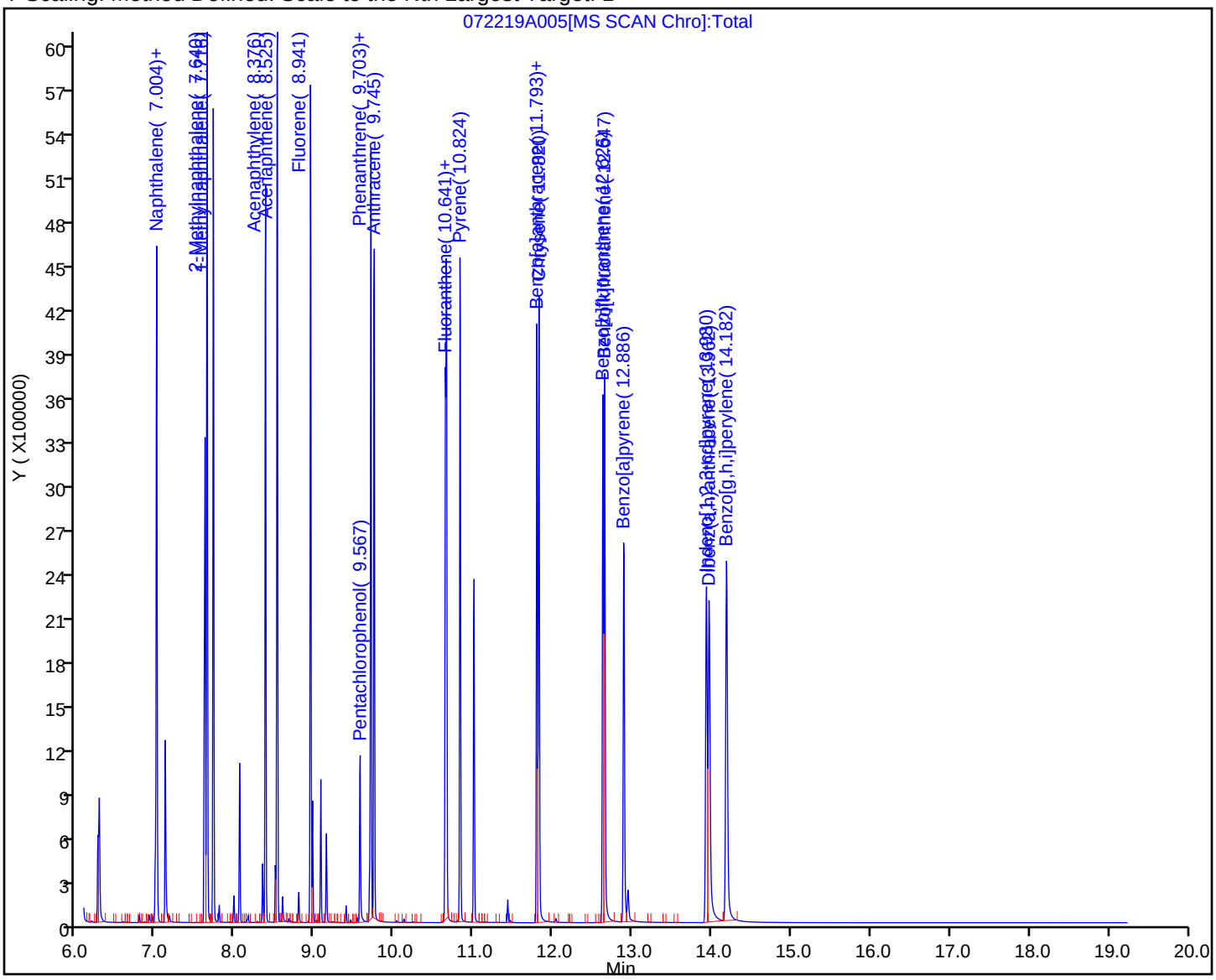
Client ID:

Operator ID: KFS ALS Bottle#: 5 Worklist Smp#: 5

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A005.D
Lims ID: LCS 580-306107/2-A
Client ID:
Sample Type: LCS
Inject. Date: 22-Jul-2019 12:29:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: lcs 580-306107/2-a
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 13:45:30 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 13:46:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	1000.0	820.9	82.09
$ 7 2,4,6-Tribromophenol	1000.0	1105.8	110.58
$ 8 Fluoranthene-d10 (Surr)	1000.0	848.6	84.86
$ 9 Terphenyl-d14	1000.0	800.3	80.03

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MS Lab Sample ID: 580-87706-5 MS

Matrix: Solid Lab File ID: 072219A011.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 09:38

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 11.437(g) Date Analyzed: 07/22/2019 15:08

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 59.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	2030		11	3.5
91-57-6	2-Methylnaphthalene	1930		11	4.4
90-12-0	1-Methylnaphthalene	1890		11	1.4
208-96-8	Acenaphthylene	1980		11	1.1
83-32-9	Acenaphthene	1860		11	1.3
86-73-7	Fluorene	2000		11	1.1
85-01-8	Phenanthrene	2220		11	3.5
120-12-7	Anthracene	2000		11	1.3
206-44-0	Fluoranthene	2410		11	3.0
129-00-0	Pyrene	2420		11	2.1
56-55-3	Benzo[a]anthracene	2410		11	1.6
218-01-9	Chrysene	1990		11	3.2
205-99-2	Benzo[b]fluoranthene	2130		11	1.3
207-08-9	Benzo[k]fluoranthene	1710		11	1.3
50-32-8	Benzo[a]pyrene	1980		11	1.8
193-39-5	Indeno[1,2,3-cd]pyrene	2470		11	1.3
53-70-3	Dibenz(a,h)anthracene	1900		11	1.6
191-24-2	Benzo[g,h,i]perylene	2000		11	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	77		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D
Lims ID: 580-87706-A-5-B MS
Client ID: 22T-SG-12_20190716
Sample Type: MS
Inject. Date: 22-Jul-2019 15:08:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-5-b ms
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:17:00 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:17:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	89	350986	100.0	100.0	
* 2 Acenaphthene-d10	164	8.498	8.503	-0.005	96	157371	100.0	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	274117	100.0	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	51	214513	100.0	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	244279	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.613	7.619	-0.006	98	1811899	1000.0	803.2	
$ 7 2,4,6-Tribromophenol	330	9.142	9.148	-0.006	100	448993	1000.0	1308.4	
$ 8 Fluoranthene-d10 (Surr)	212	10.641	10.646	-0.005	97	2521866	1000.0	833.8	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1596896	1000.0	769.4	M
10 Naphthalene	128	7.004	7.004	0.000	100	3680262	1000.0	938.5	M
11 2-Methylnaphthalene	142	7.640	7.640	0.000	93	2294408	1000.0	892.2	
12 1-Methylnaphthalene	142	7.717	7.722	-0.005	97	2093935	1000.0	872.1	
13 Acenaphthylene	152	8.377	8.376	0.001	100	3135888	1000.0	913.6	M
14 Acenaphthene	153	8.520	8.525	-0.005	98	2143876	1000.0	860.4	
15 Fluorene	166	8.941	8.947	-0.006	95	2307483	1000.0	924.8	M
16 Pentachlorophenol	266	9.562	9.567	-0.005	98	902450	2000.0	2359.2	M
17 Phenanthrene	178	9.704	9.704	0.000	100	3813390	1000.0	1024.7	
18 Anthracene	178	9.745	9.745	0.000	100	3201990	1000.0	925.5	
19 Fluoranthene	202	10.652	10.657	-0.005	99	3927960	1000.0	1114.2	M
20 Pyrene	202	10.824	10.830	-0.006	99	4155091	1000.0	1119.0	EM
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	99	2728142	1000.0	1115.9	M
22 Chrysene	228	11.821	11.821	0.000	96	2998640	1000.0	922.3	M
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	99	3099652	1000.0	985.1	
24 Benzo[k]fluoranthene	252	12.647	12.653	-0.006	99	3044134	1000.0	790.8	
25 Benzo[a]pyrene	252	12.886	12.892	-0.006	100	2914256	1000.0	914.3	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	100	2966599	1000.0	1142.3	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	2731017	1000.0	879.9	Ma
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	3250660	1000.0	923.9	M
29 Pentachlorophenol_T	266	9.562	9.563	-0.001	0	916801		NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:17:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D

Injection Date: 22-Jul-2019 15:08:30 Instrument ID: TAC023

Lims ID: 580-87706-A-5-B MS

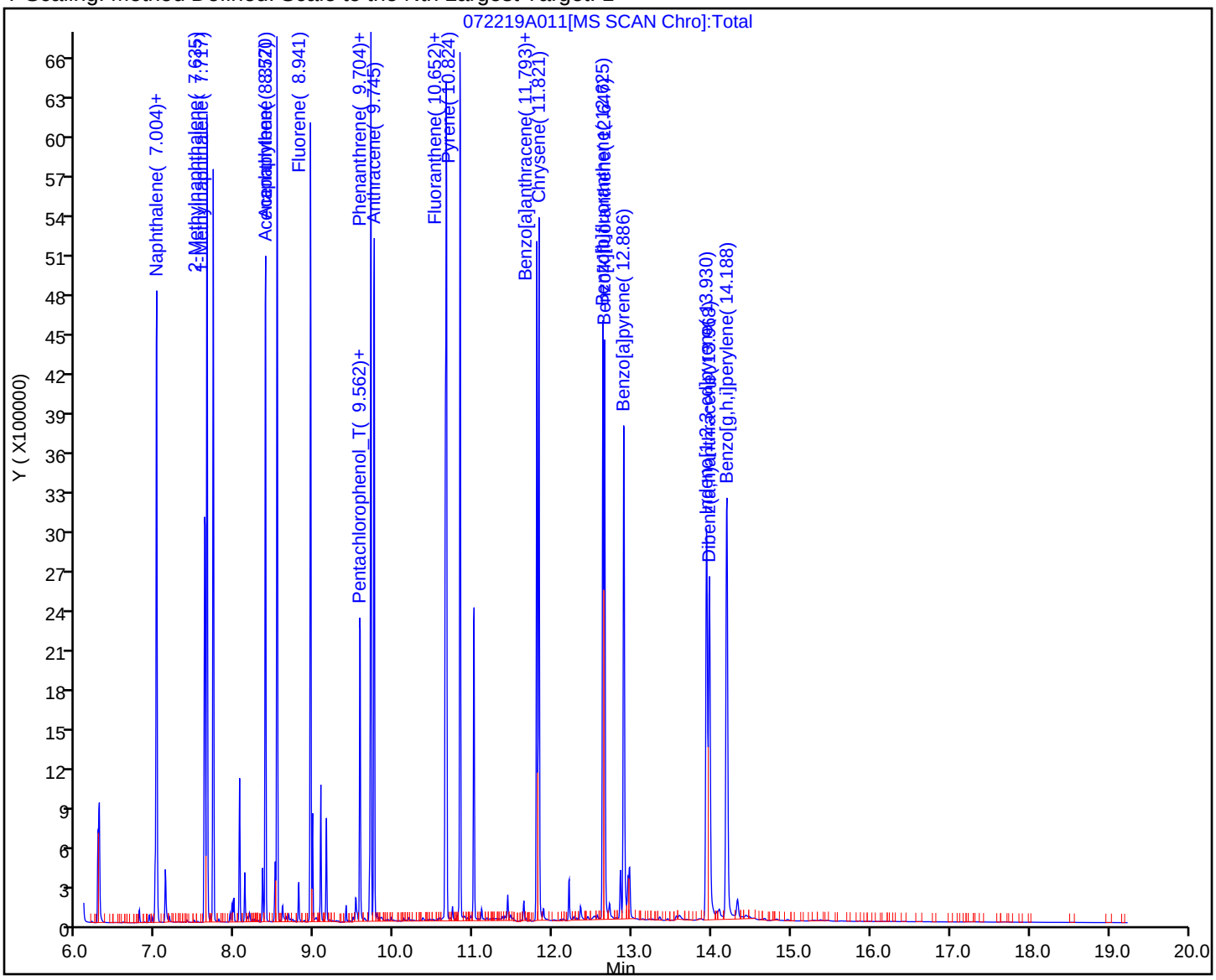
Client ID: 22T-SG-12_20190716

Operator ID: KFS ALS Bottle#: 11 Worklist Smp#: 11

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D
Lims ID: 580-87706-A-5-B MS
Client ID: 22T-SG-12_20190716
Sample Type: MS
Inject. Date: 22-Jul-2019 15:08:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-5-b ms
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:17:00 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:17:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	1000.0	803.2	80.32
$ 7 2,4,6-Tribromophenol	1000.0	1308.4	130.84
$ 8 Fluoranthene-d10 (Surr)	1000.0	833.8	83.38
$ 9 Terphenyl-d14	1000.0	769.4	76.94

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

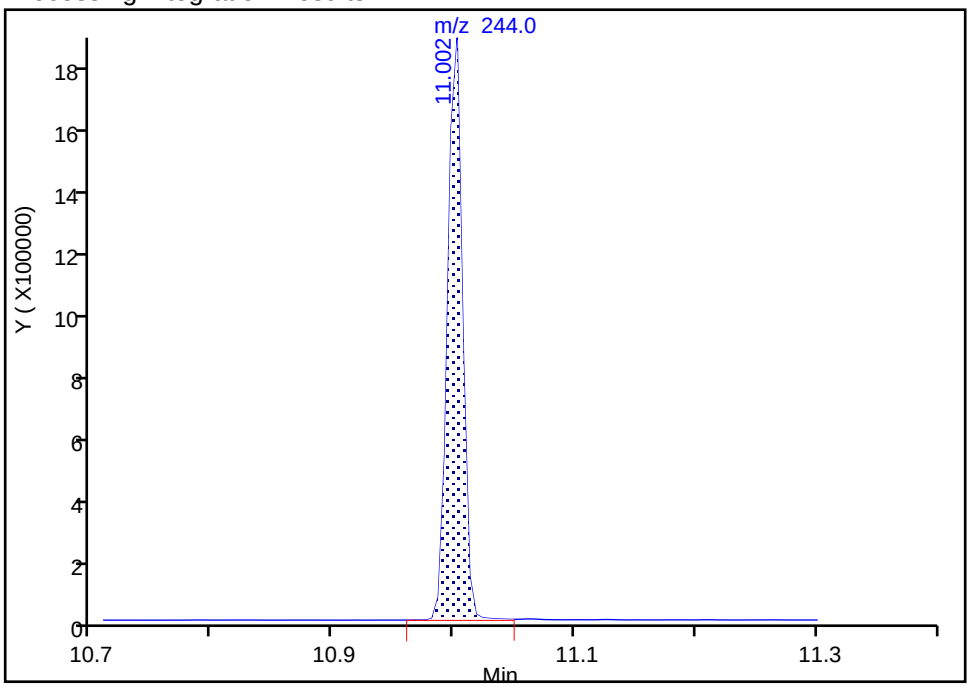
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

$ 9 Terphenyl-d14, CAS: 1718-51-0

Signal: 1

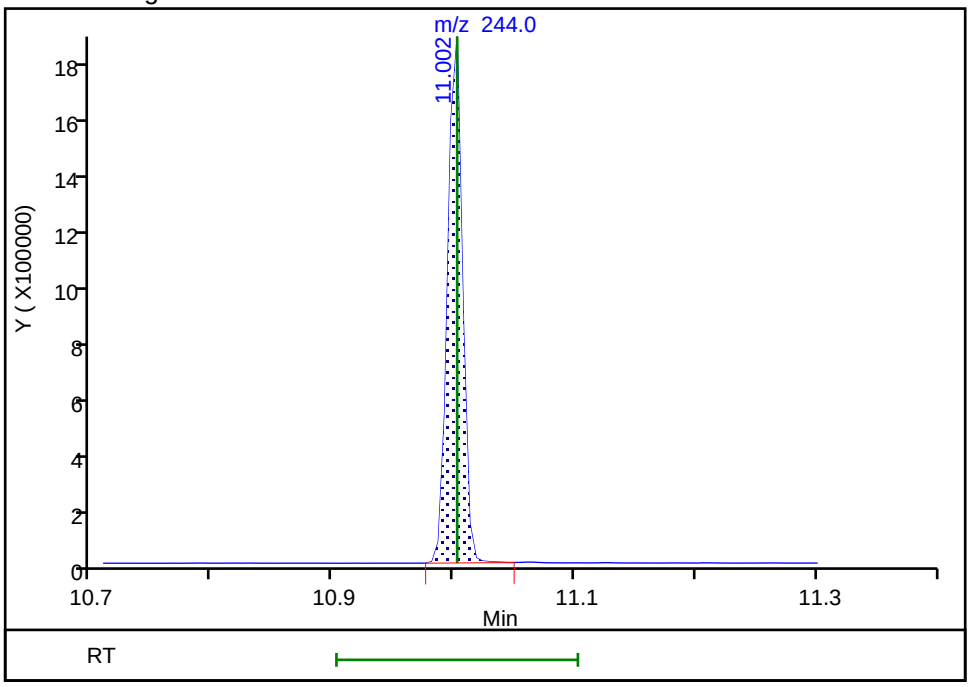
Processing Integration Results

RT: 11.00
Area: 1606755
Amount: 774.1548
Amount Units: ug/L



Manual Integration Results

RT: 11.00
Area: 1596896
Amount: 769.4047
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:13:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

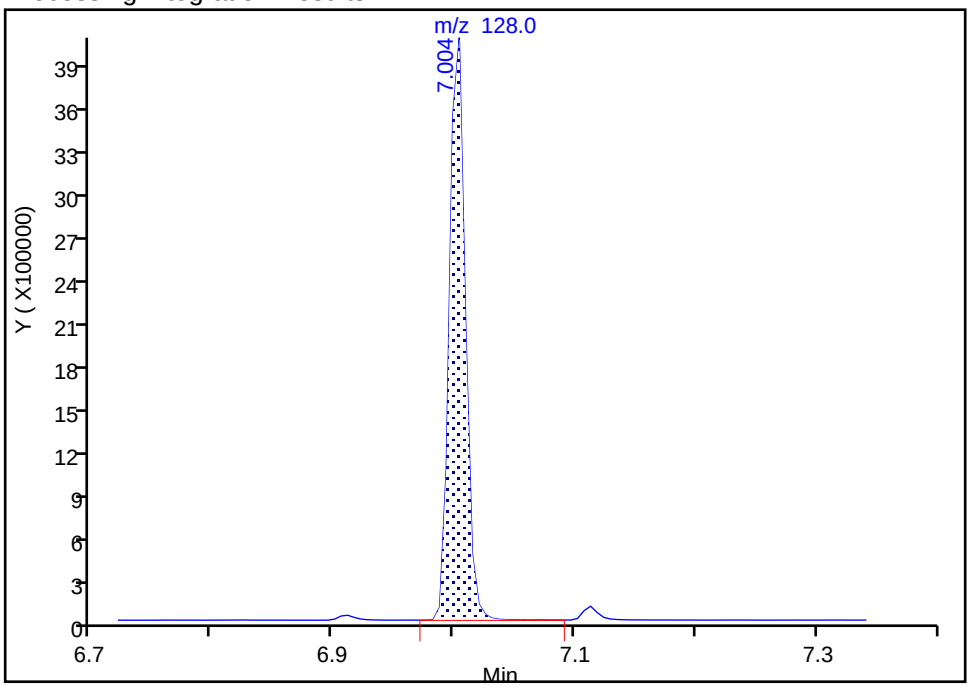
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

10 Naphthalene, CAS: 91-20-3

Signal: 1

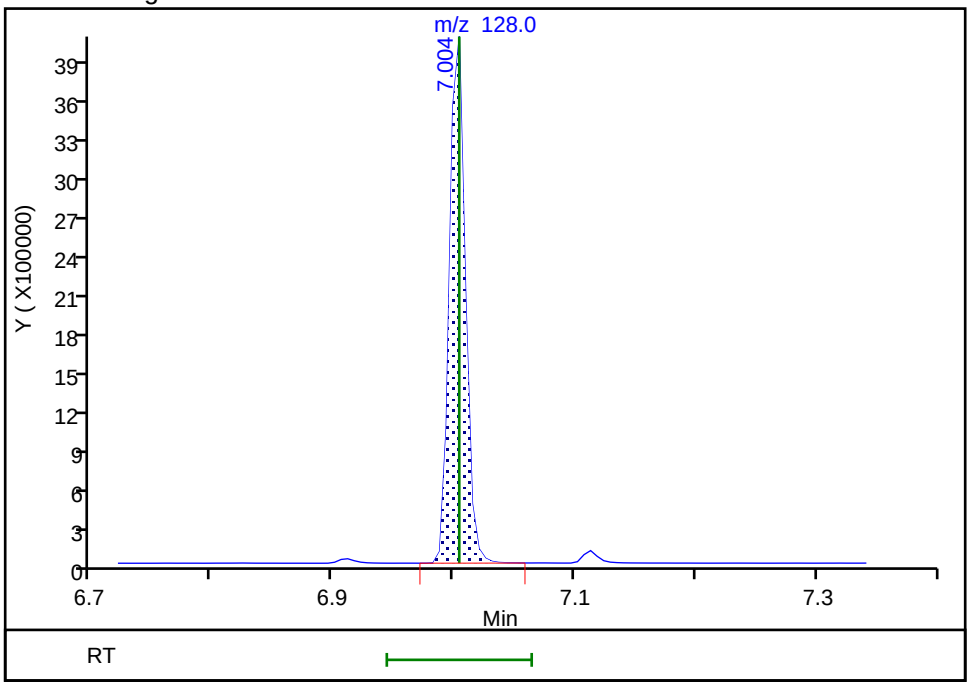
Processing Integration Results

RT: 7.00
Area: 3697370
Amount: 942.8260
Amount Units: ug/L



Manual Integration Results

RT: 7.00
Area: 3680262
Amount: 938.4635
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:13:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

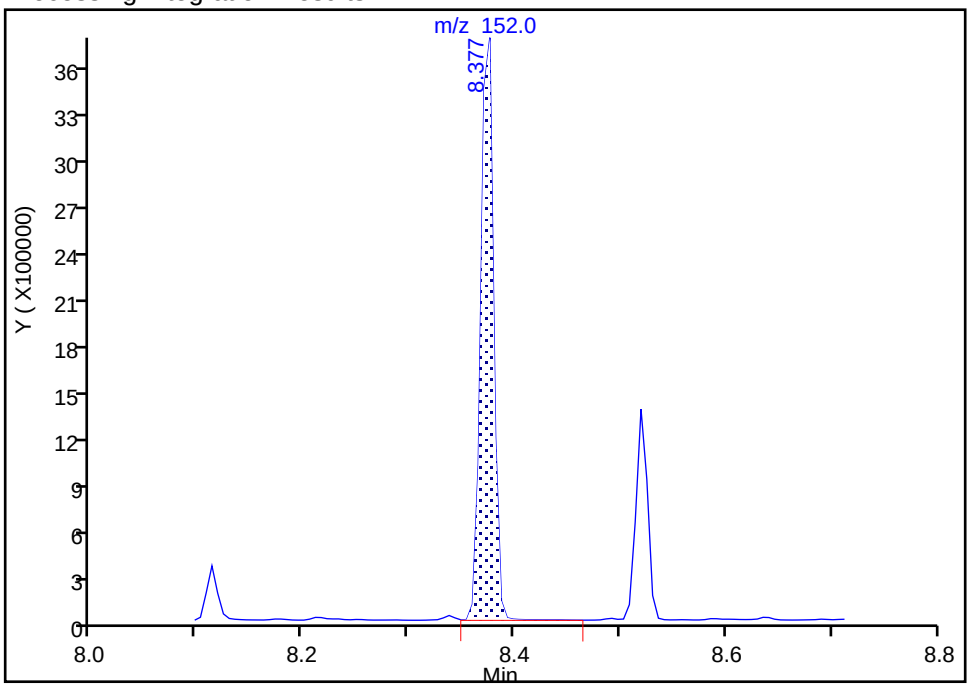
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

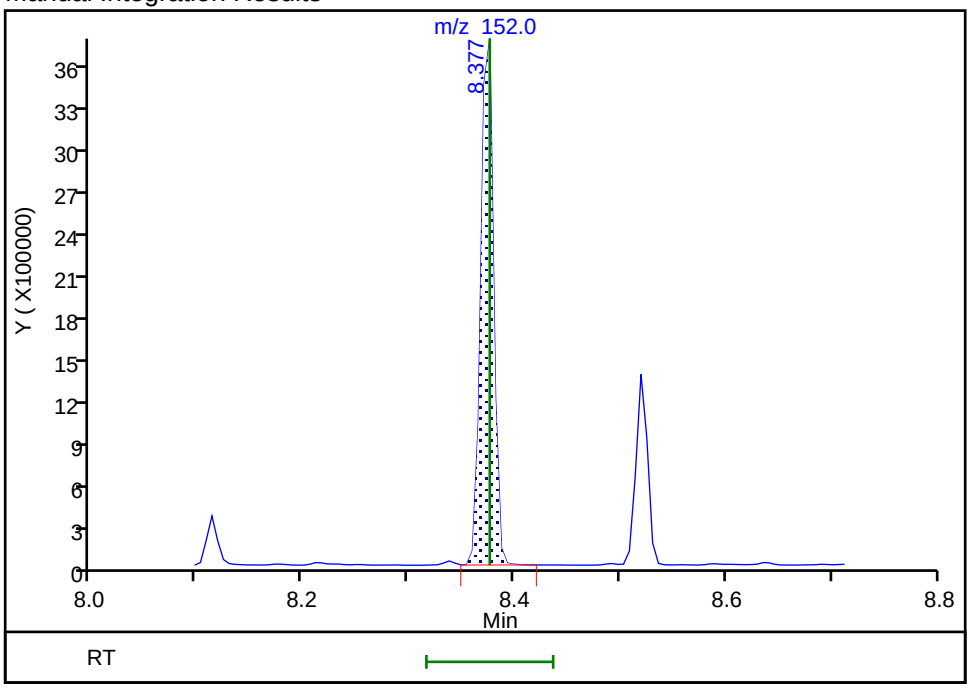
Processing Integration Results

RT: 8.38
Area: 3152742
Amount: 918.5376
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 3135888
Amount: 913.6272
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:14:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

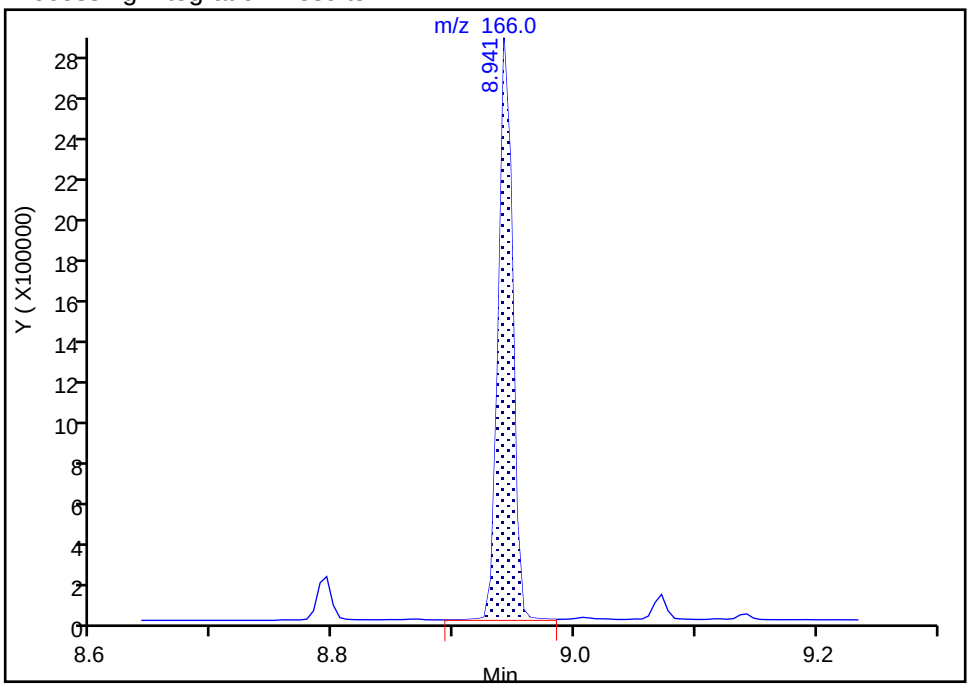
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

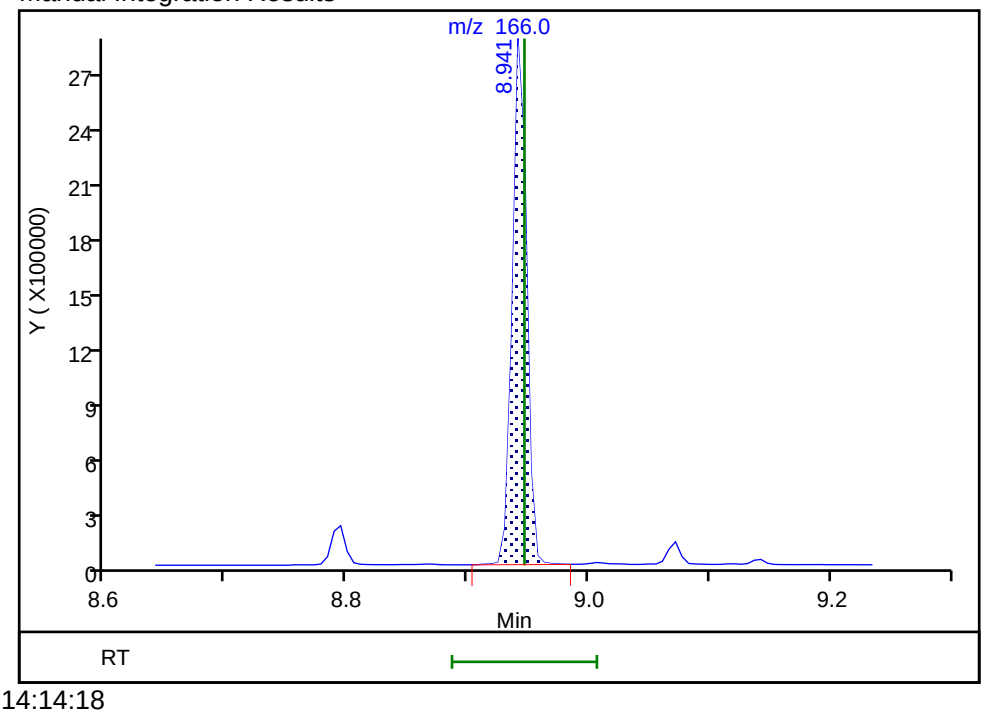
Processing Integration Results

RT: 8.94
Area: 2324958
Amount: 931.8263
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 2307483
Amount: 924.8224
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:14:18

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

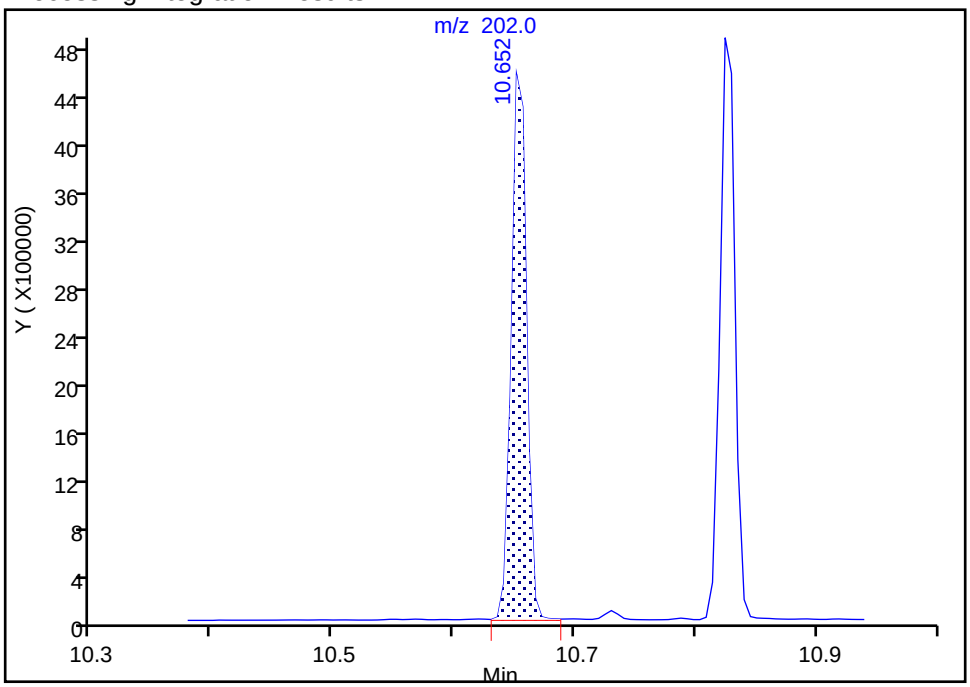
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

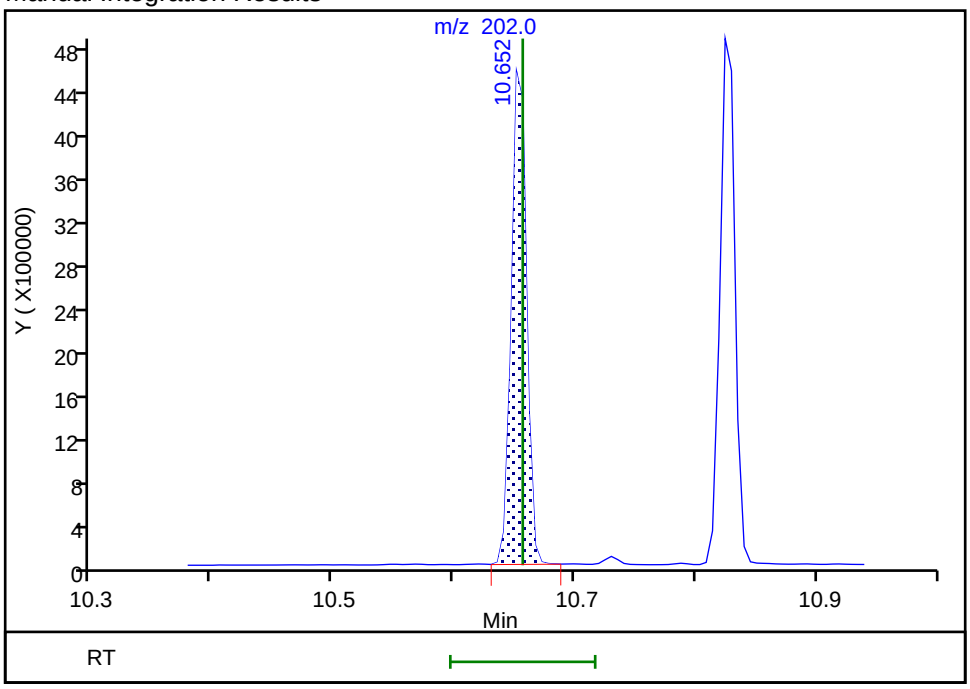
Processing Integration Results

RT: 10.65
Area: 3955223
Amount: 1121.8873
Amount Units: ug/L



Manual Integration Results

RT: 10.65
Area: 3927960
Amount: 1114.1542
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:14:37

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

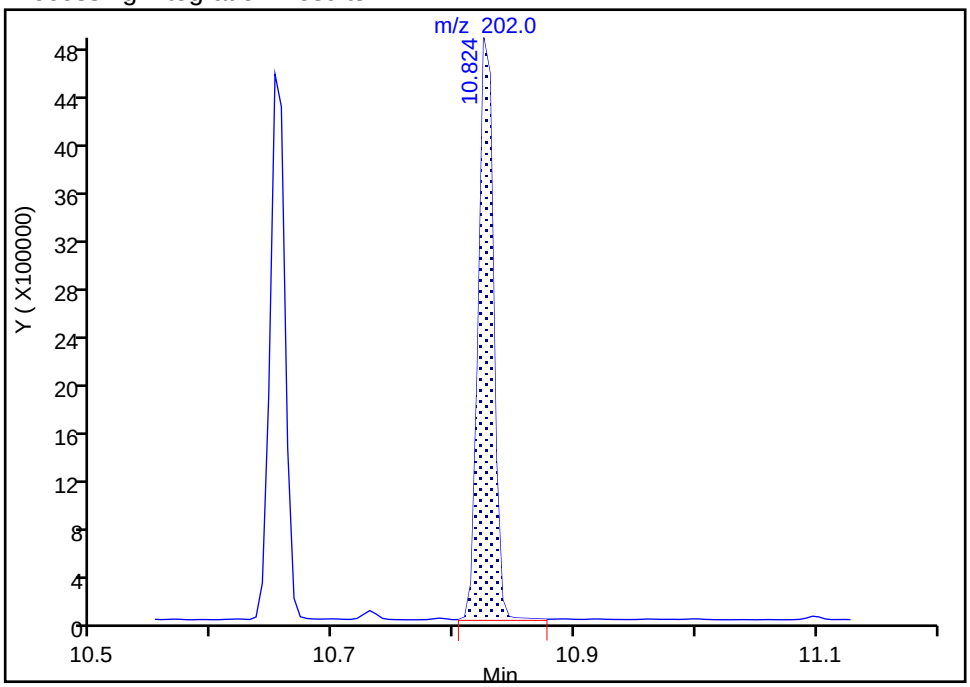
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

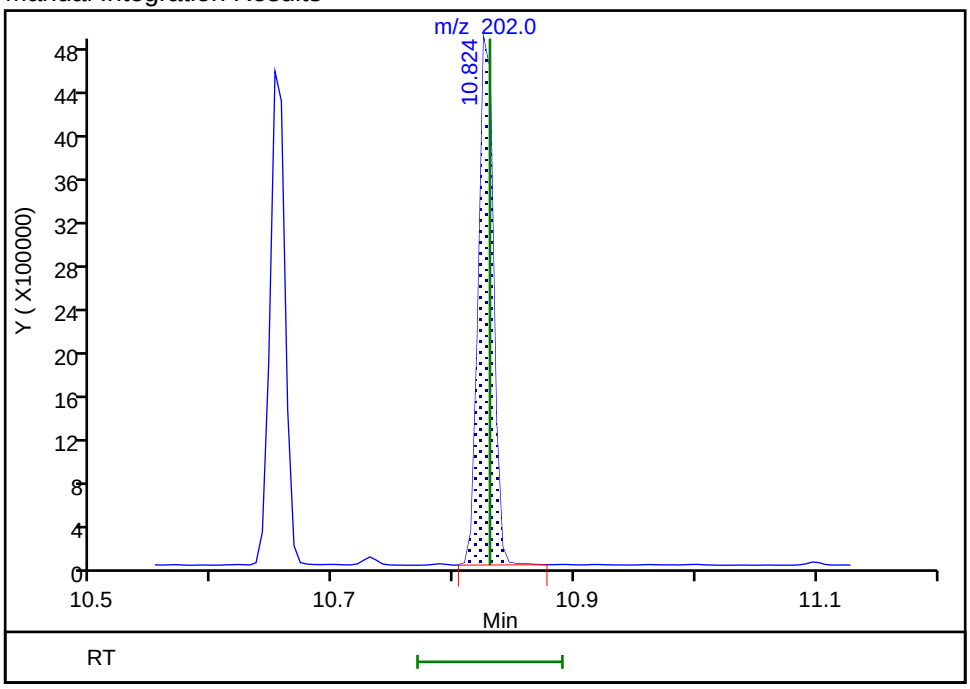
Processing Integration Results

RT: 10.82
Area: 4189162
Amount: 1128.2087
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 4155091
Amount: 1119.0328
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:14:43

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

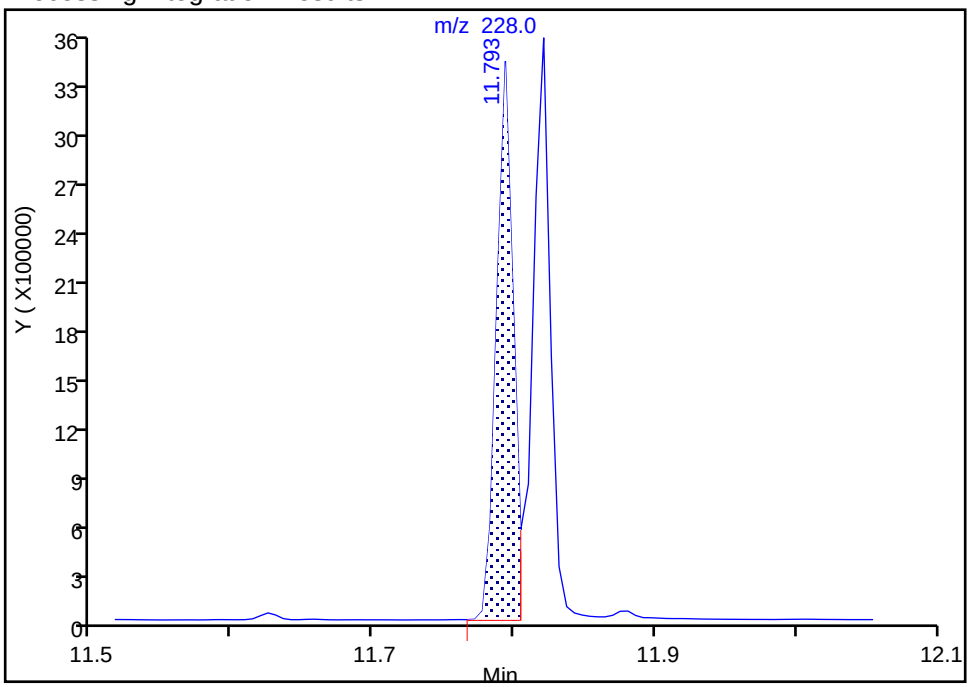
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

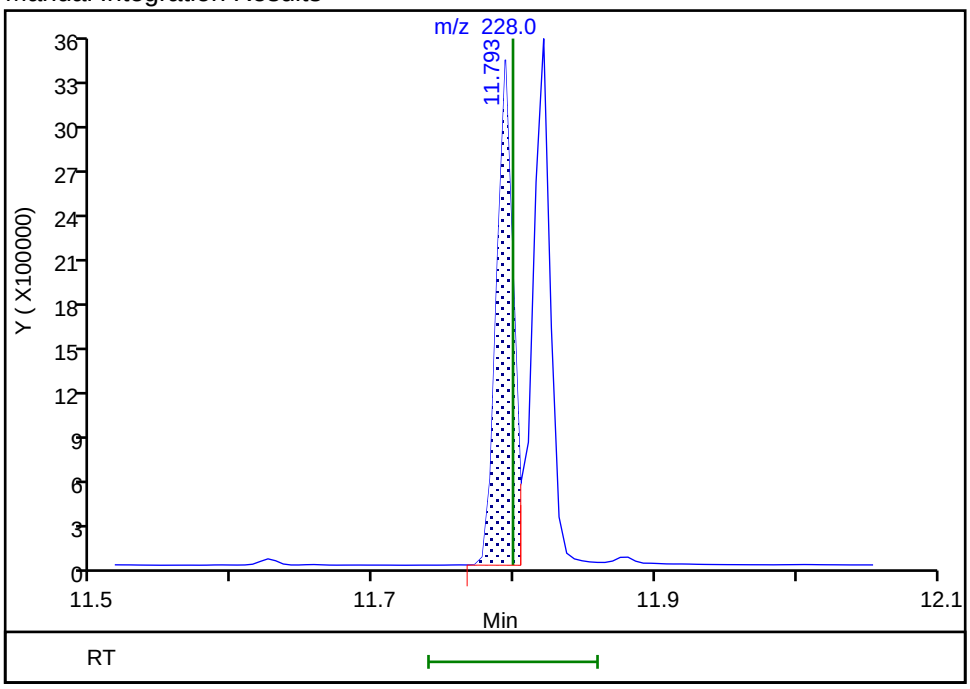
Processing Integration Results

RT: 11.79
Area: 2734599
Amount: 1118.5403
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 2728142
Amount: 1115.8992
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:14:51

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

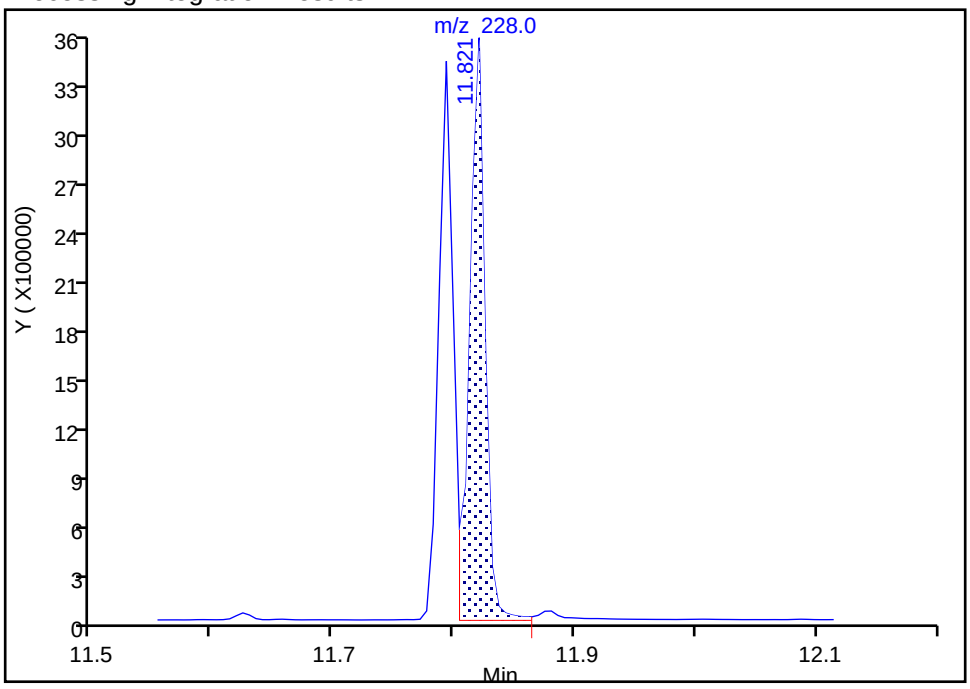
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

22 Chrysene, CAS: 218-01-9

Signal: 1

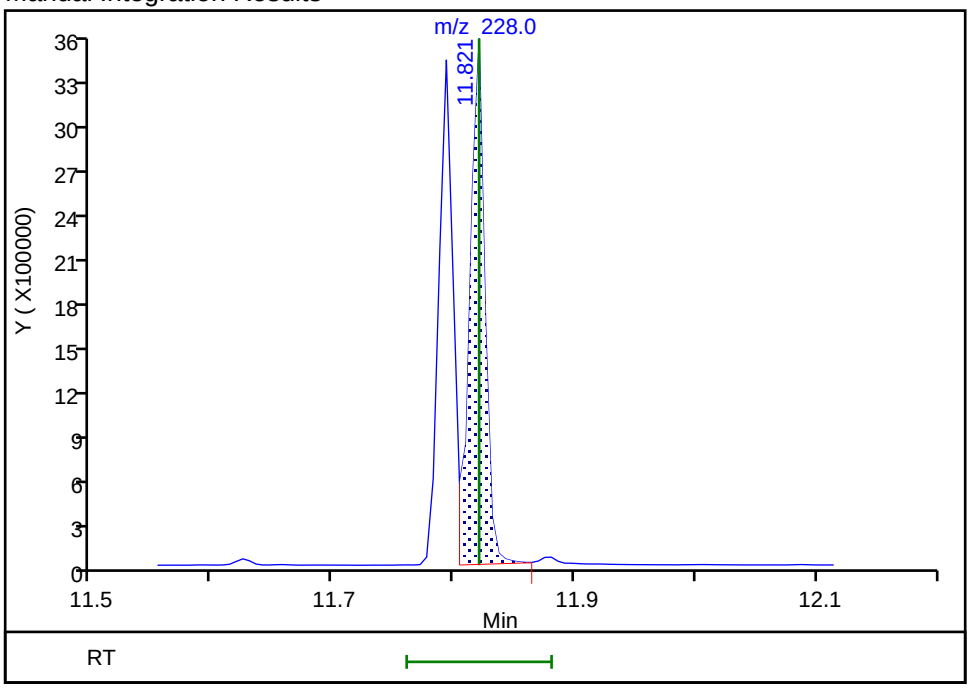
Processing Integration Results

RT: 11.82
Area: 3040710
Amount: 935.2541
Amount Units: ug/L



Manual Integration Results

RT: 11.82
Area: 2998640
Amount: 922.3144
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:14:57

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

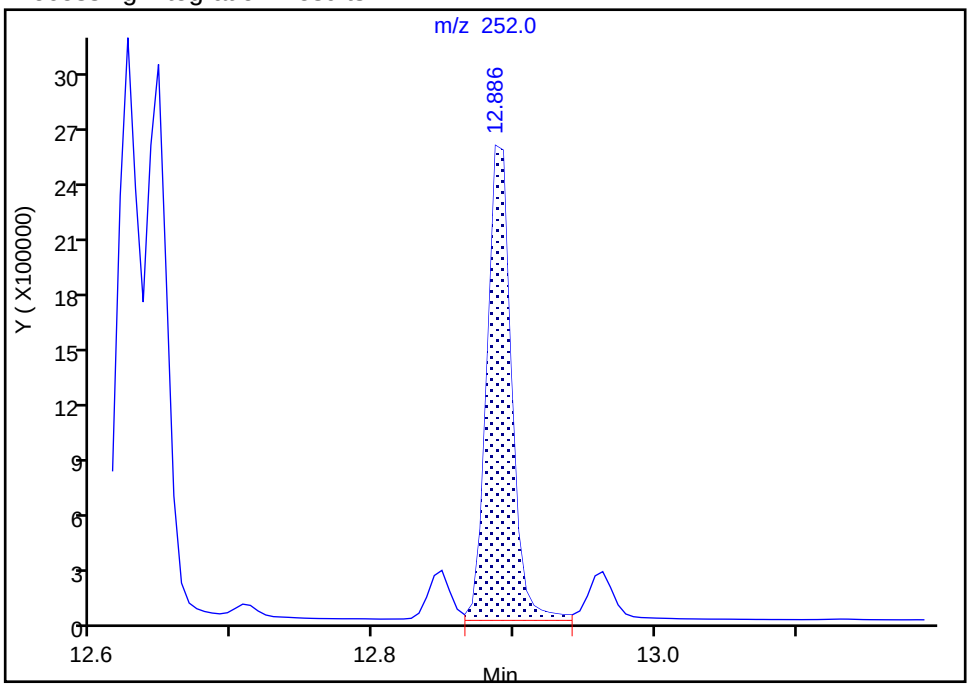
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

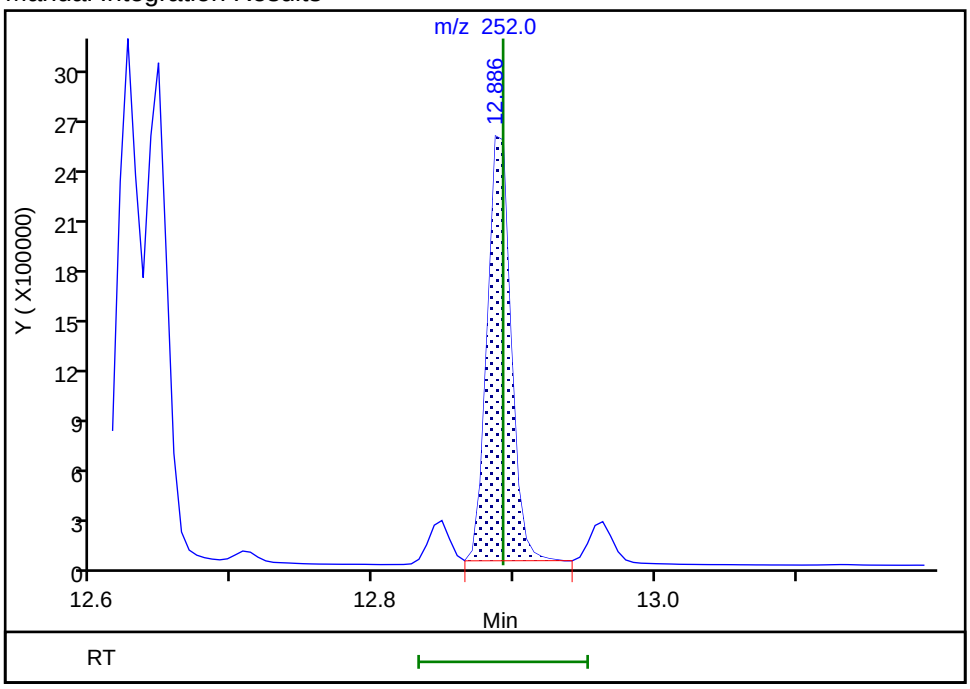
Processing Integration Results

RT: 12.89
Area: 3049461
Amount: 956.6890
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 2914256
Amount: 914.2719
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:15:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

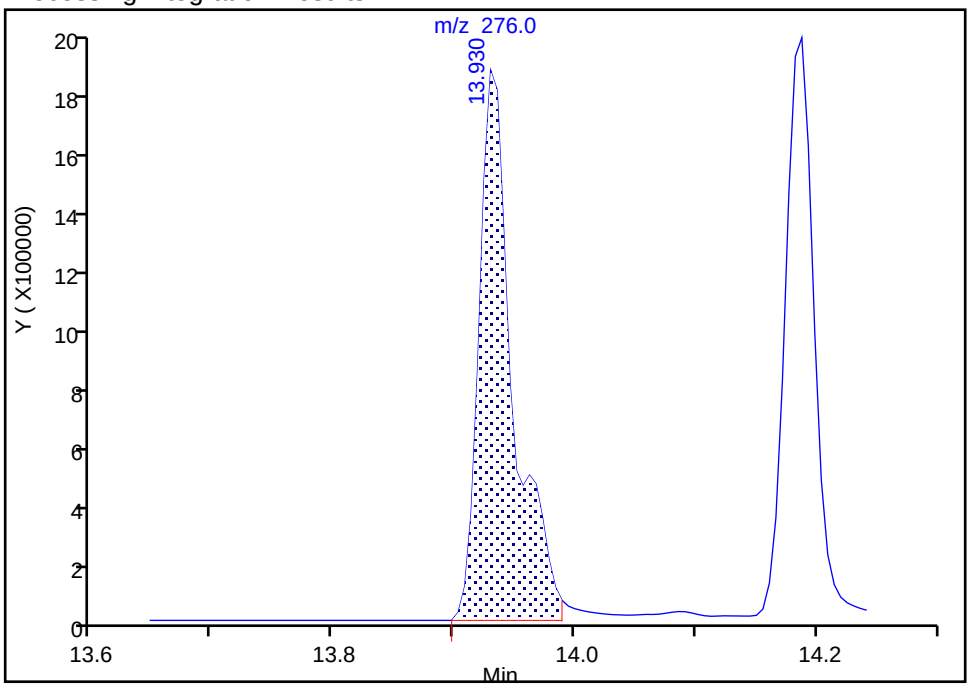
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

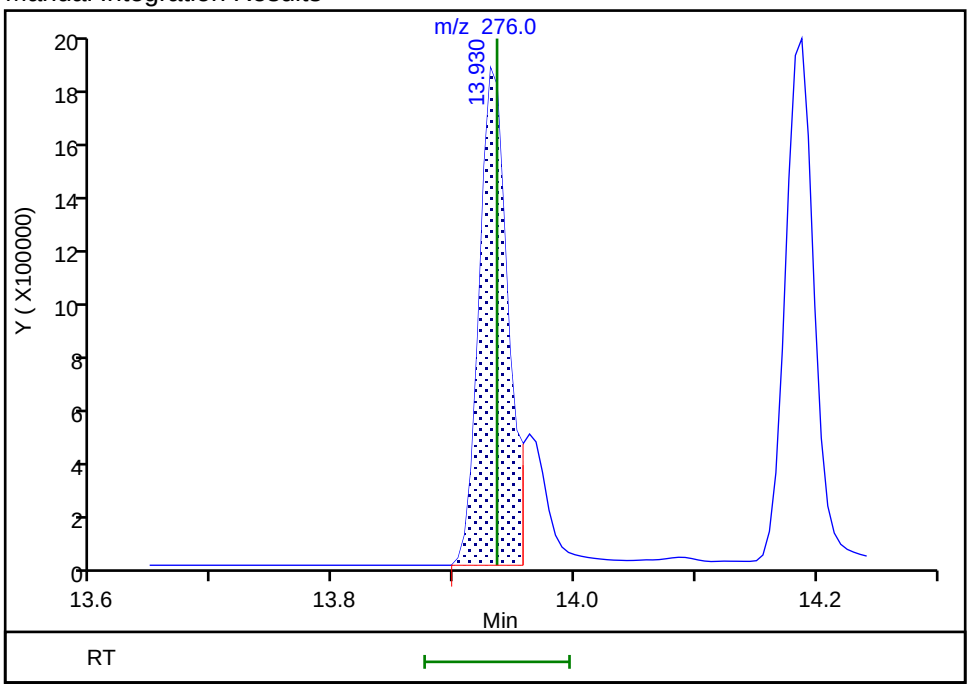
Processing Integration Results

RT: 13.93
Area: 3561862
Amount: 1355.1275
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 2966599
Amount: 1142.3243
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:15:14

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

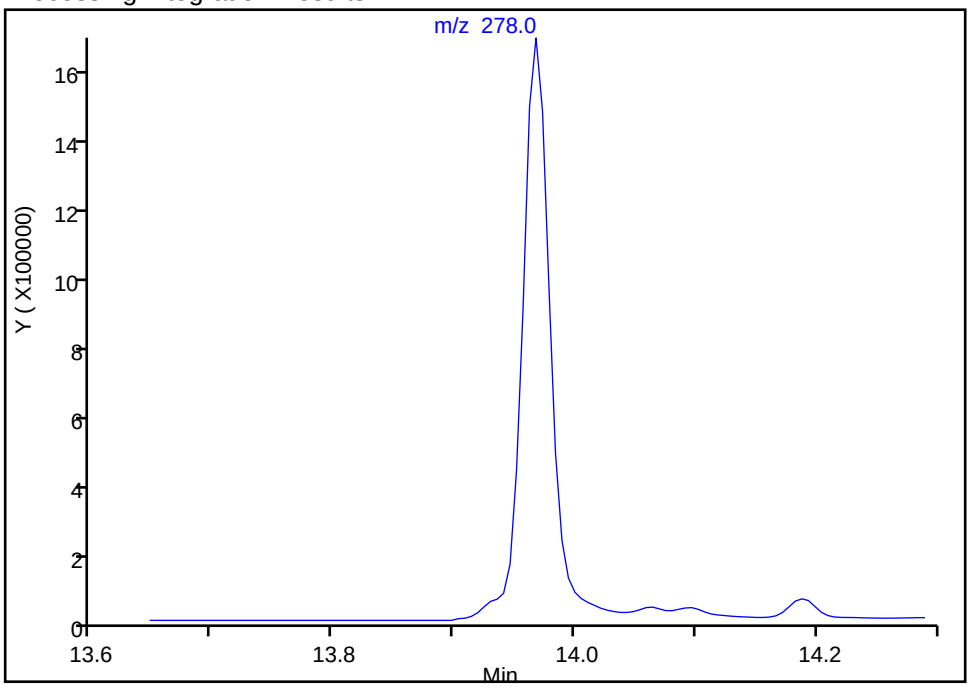
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

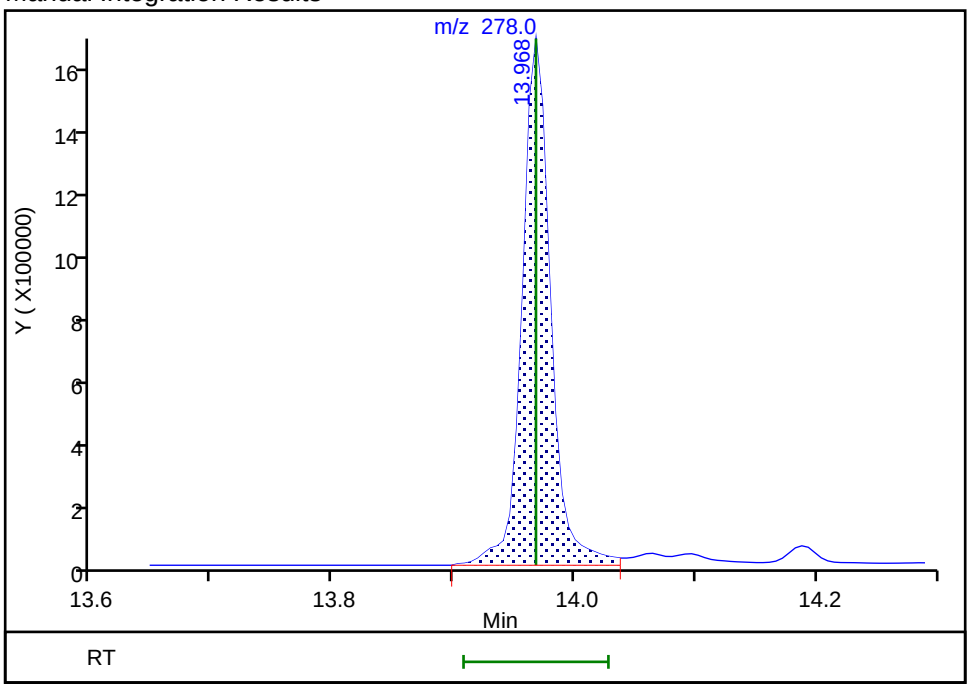
Not Detected
Expected RT: 13.97

Processing Integration Results



Manual Integration Results

RT: 13.97
Area: 2731017
Amount: 879.8751
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:16:52
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

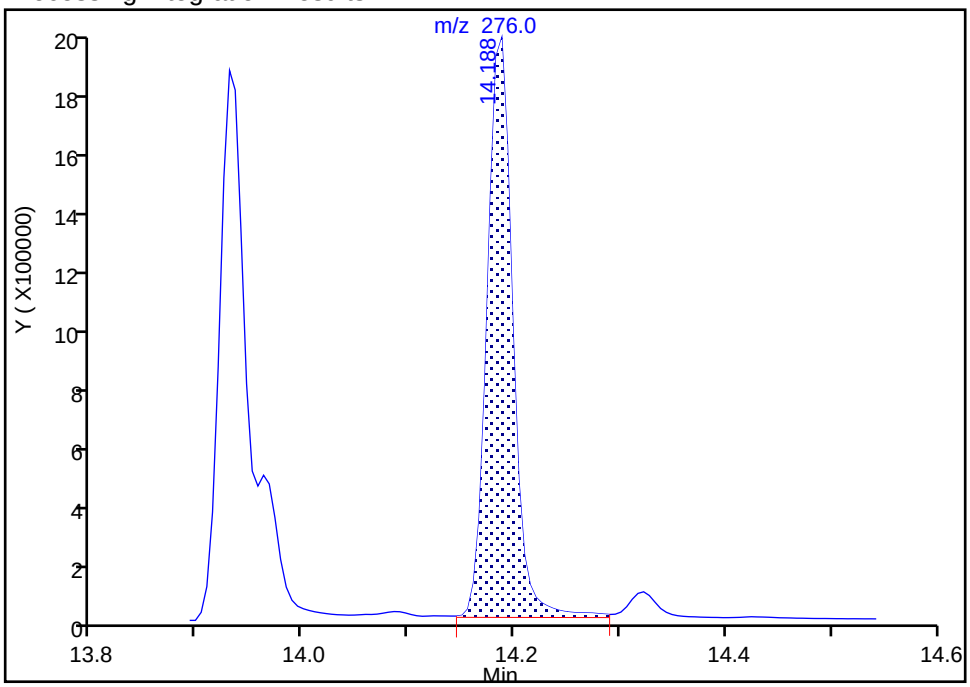
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A011.D				
Injection Date:	22-Jul-2019 15:08:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-B MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

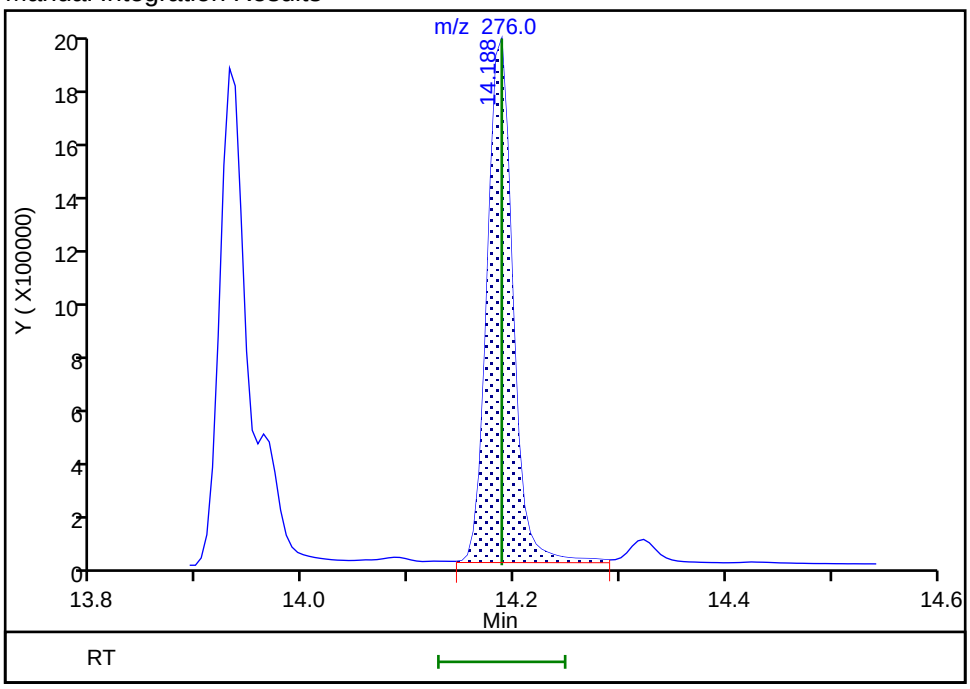
Processing Integration Results

RT: 14.19
Area: 3250681
Amount: 923.8659
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 3250660
Amount: 923.8599
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:16:58

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MSD Lab Sample ID: 580-87706-5 MSD

Matrix: Solid Lab File ID: 072219A012.D

Analysis Method: 8270D SIM Date Collected: 07/16/2019 09:38

Extract. Method: 3546 Date Extracted: 07/19/2019 09:49

Sample wt/vol: 12.585(g) Date Analyzed: 07/22/2019 15:34

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 60.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306243 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	1800		10	3.3
91-57-6	2-Methylnaphthalene	1700		10	4.1
90-12-0	1-Methylnaphthalene	1710		10	1.3
208-96-8	Acenaphthylene	1800		10	1.0
83-32-9	Acenaphthene	1680		10	1.2
86-73-7	Fluorene	1810		10	1.0
85-01-8	Phenanthrene	1960		10	3.3
120-12-7	Anthracene	1800		10	1.2
206-44-0	Fluoranthene	2190		10	2.8
129-00-0	Pyrene	2210		10	1.9
56-55-3	Benzo[a]anthracene	2180		10	1.5
218-01-9	Chrysene	1900		10	3.0
205-99-2	Benzo[b]fluoranthene	1980		10	1.2
207-08-9	Benzo[k]fluoranthene	1620		10	1.2
50-32-8	Benzo[a]pyrene	1910		10	1.7
193-39-5	Indeno[1,2,3-cd]pyrene	2340		10	1.2
53-70-3	Dibenz(a,h)anthracene	1700		10	1.4
191-24-2	Benzo[g,h,i]perylene	1880		10	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14	77		57-120

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D
Lims ID: 580-87706-A-5-C MSD
Client ID: 22T-SG-12_20190716
Sample Type: MSD
Inject. Date: 22-Jul-2019 15:34:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-5-c msd
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:20:55 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:20:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 1 Naphthalene-d8	136	6.988	6.988	0.000	89	352655	100.0	100.0	
* 2 Acenaphthene-d10	164	8.497	8.503	-0.006	94	159226	100.0	100.0	
* 3 Phenanthrene-d10	188	9.688	9.688	0.000	100	278804	100.0	100.0	
* 4 Chrysene-d12	240	11.804	11.804	0.000	46	217354	100.0	100.0	
* 5 Perylene-d12	264	12.941	12.946	-0.005	100	244979	100.0	100.0	
$ 6 2-methylnaphthalene-d10	152	7.613	7.619	-0.006	98	1855395	1000.0	818.6	
$ 7 2,4,6-Tribromophenol	330	9.142	9.148	-0.006	99	434338	1000.0	1256.6	
$ 8 Fluoranthene-d10 (Surr)	212	10.641	10.646	-0.005	98	2559683	1000.0	832.1	
$ 9 Terphenyl-d14	244	11.002	11.002	0.000	99	1632855	1000.0	773.5	
10 Naphthalene	128	7.004	7.004	0.000	100	3524721	1000.0	894.5	
11 2-Methylnaphthalene	142	7.640	7.640	0.000	95	2182491	1000.0	844.6	M
12 1-Methylnaphthalene	142	7.716	7.722	-0.006	94	2053601	1000.0	851.2	
13 Acenaphthylene	152	8.376	8.376	0.000	100	3102225	1000.0	893.3	M
14 Acenaphthene	153	8.525	8.525	0.000	94	2111246	1000.0	837.4	M
15 Fluorene	166	8.941	8.947	-0.006	94	2271992	1000.0	900.0	M
16 Pentachlorophenol	266	9.567	9.567	0.000	96	848863	2000.0	2220.0	M
17 Phenanthrene	178	9.703	9.704	-0.001	99	3697061	1000.0	976.8	
18 Anthracene	178	9.745	9.745	0.000	99	3145503	1000.0	893.9	M
19 Fluoranthene	202	10.657	10.657	0.000	98	3910524	1000.0	1090.6	M
20 Pyrene	202	10.824	10.830	-0.006	100	4144282	1000.0	1097.4	EM
21 Benzo[a]anthracene	228	11.793	11.799	-0.006	99	2693259	1000.0	1087.2	M
22 Chrysene	228	11.821	11.821	-0.001	94	3114363	1000.0	945.4	
23 Benzo[b]fluoranthene	252	12.625	12.631	-0.006	99	3105166	1000.0	984.0	
24 Benzo[k]fluoranthene	252	12.647	12.653	-0.006	94	3110472	1000.0	805.7	
25 Benzo[a]pyrene	252	12.886	12.892	-0.006	100	3042119	1000.0	951.7	M
26 Indeno[1,2,3-cd]pyrene	276	13.930	13.935	-0.005	100	3033564	1000.0	1163.4	M
27 Dibenz(a,h)anthracene	278	13.968	13.968	0.000	100	2627935	1000.0	844.3	M
28 Benzo[g,h,i]perylene	276	14.188	14.188	0.000	98	3300437	1000.0	935.3	M
29 Pentachlorophenol_T	266	9.567	9.563	0.004	0	854131		NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

8270SIM_IS_00060	Amount Added:	10.00	Units: uL	Run Reagent
MeCl2_CT_00161	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 14:20:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D

Injection Date: 22-Jul-2019 15:34:30 Instrument ID: TAC023

Lims ID: 580-87706-A-5-C MSD

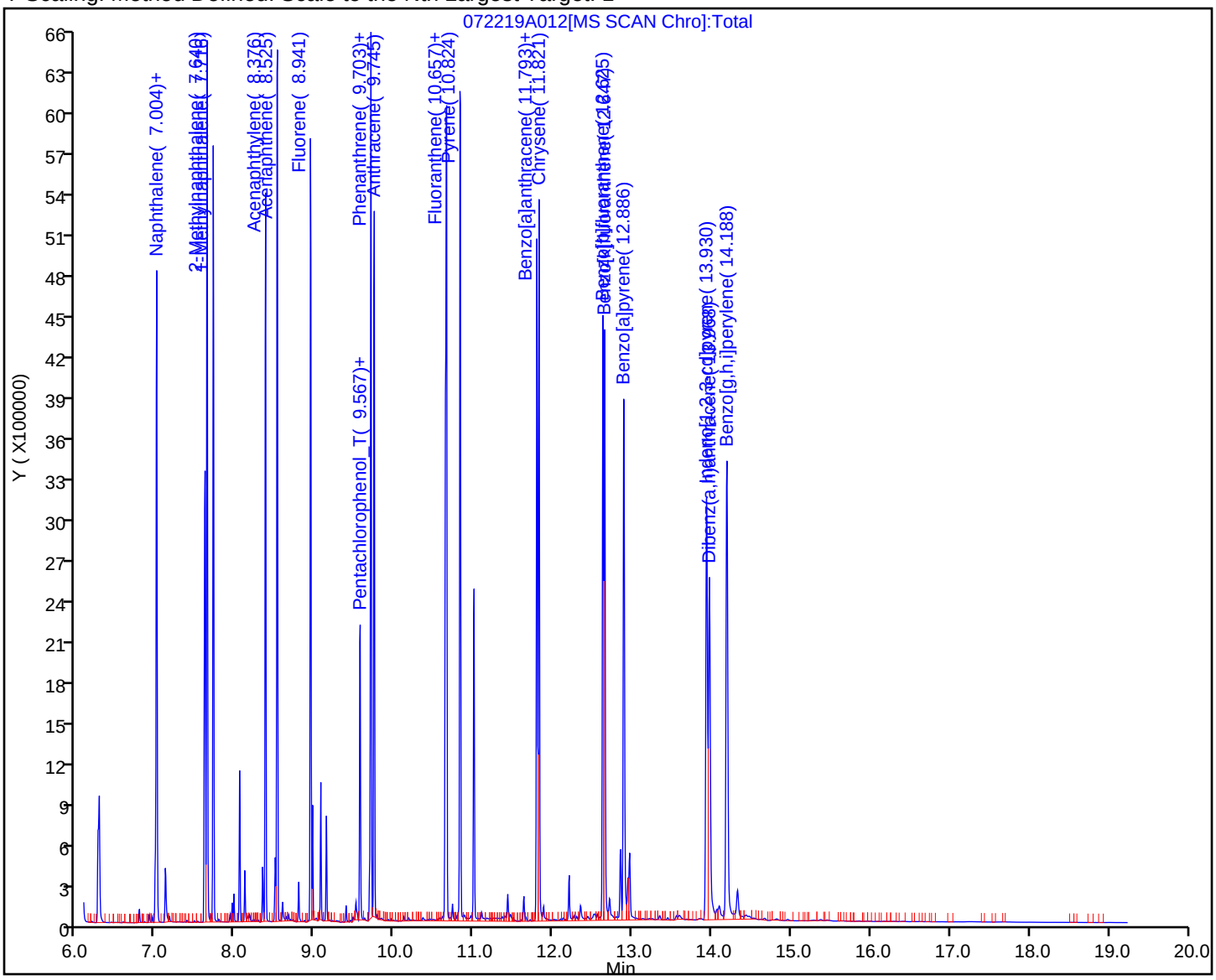
Client ID: 22T-SG-12_20190716

Operator ID: KFS ALS Bottle#: 12 Worklist Smp#: 12

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TAC23_PAH_SIM Limit Group: 8270D SIM

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D
Lims ID: 580-87706-A-5-C MSD
Client ID: 22T-SG-12_20190716
Sample Type: MSD
Inject. Date: 22-Jul-2019 15:34:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-a-5-c msd
Operator ID: KFS Instrument ID: TAC023

Method: \\chromna\Seattle\ChromData\TAC023\20190722-66450.b\TAC23_PAH_SIM.m
Limit Group: 8270D SIM
Last Update: 23-Jul-2019 14:20:55 Calib Date: 30-Jan-2019 23:34:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC023\20190130-63702.b\013019b017.D

Column 1 : Det: MS SCAN
Process Host: CTX0328

First Level Reviewer: limwirojt Date: 23-Jul-2019 14:20:55

Compound	Amount Added	Amount Recovered	% Rec.
$ 6 2-methylnaphthalene-d10	1000.0	818.6	81.86
$ 7 2,4,6-Tribromophenol	1000.0	1256.6	125.66
$ 8 Fluoranthene-d10 (Surr)	1000.0	832.1	83.21
$ 9 Terphenyl-d14	1000.0	773.5	77.35

Eurofins TestAmerica, Seattle

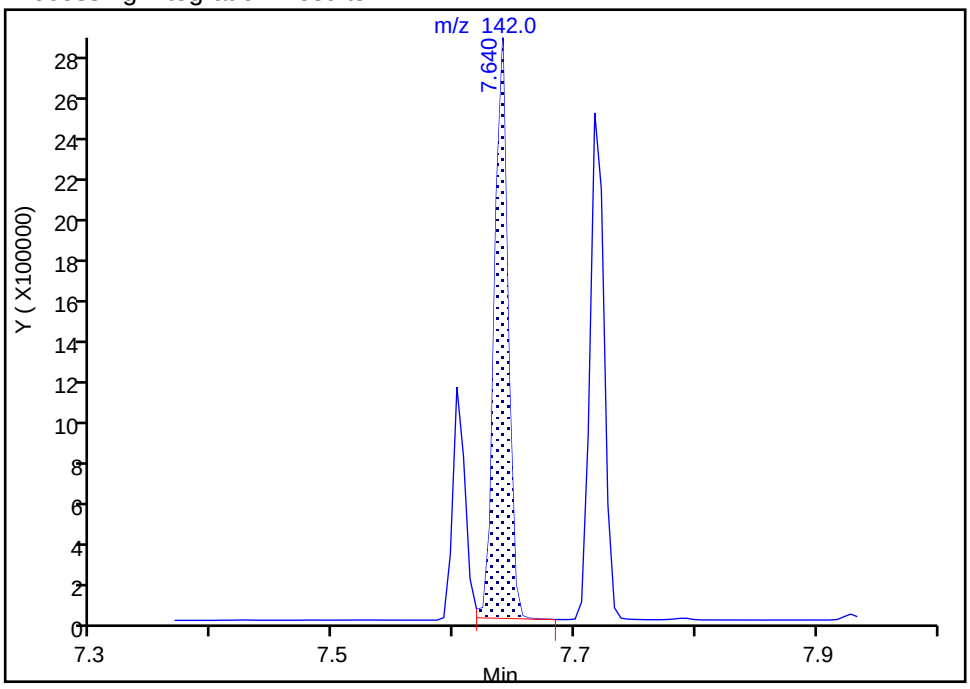
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

11 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

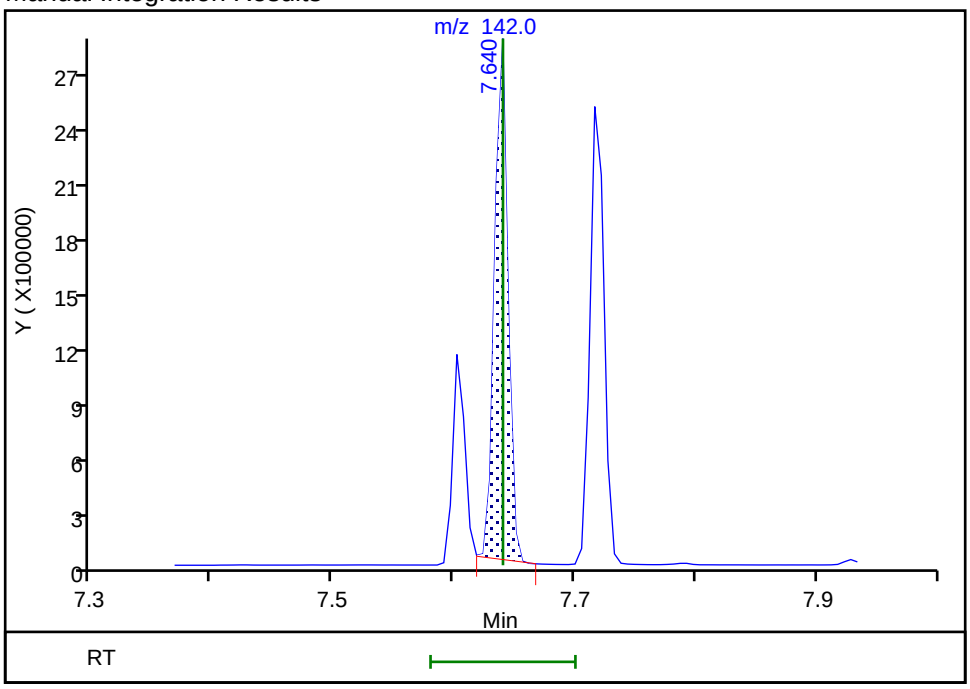
Processing Integration Results

RT: 7.64
Area: 2240539
Amount: 867.0936
Amount Units: ug/L



Manual Integration Results

RT: 7.64
Area: 2182491
Amount: 844.6289
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:17:40
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

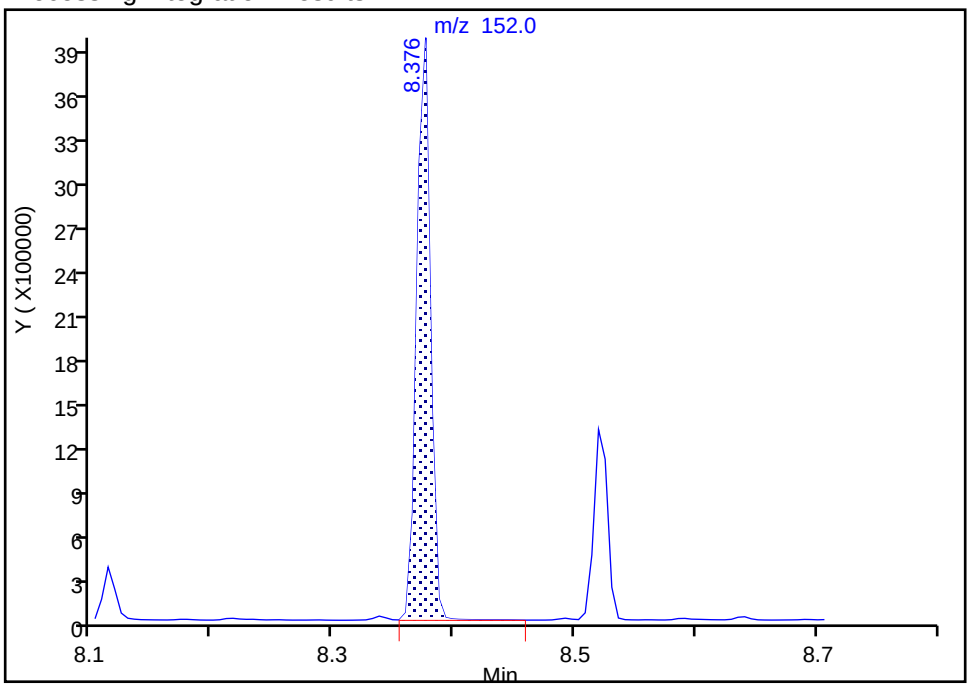
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

13 Acenaphthylene, CAS: 208-96-8

Signal: 1

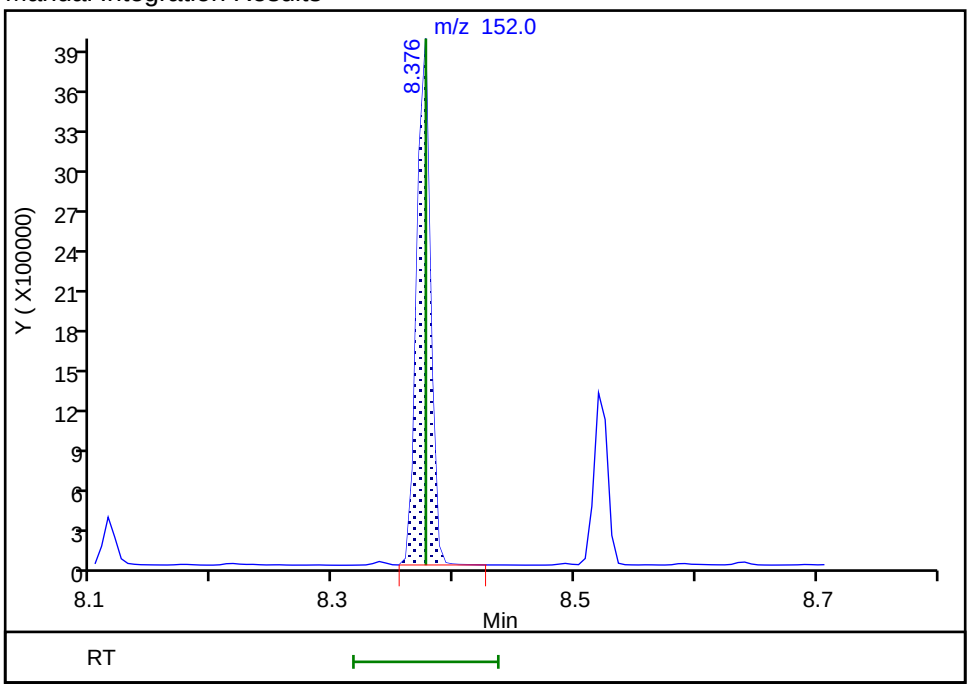
Processing Integration Results

RT: 8.38
Area: 3120221
Amount: 898.4720
Amount Units: ug/L



Manual Integration Results

RT: 8.38
Area: 3102225
Amount: 893.2901
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:17:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

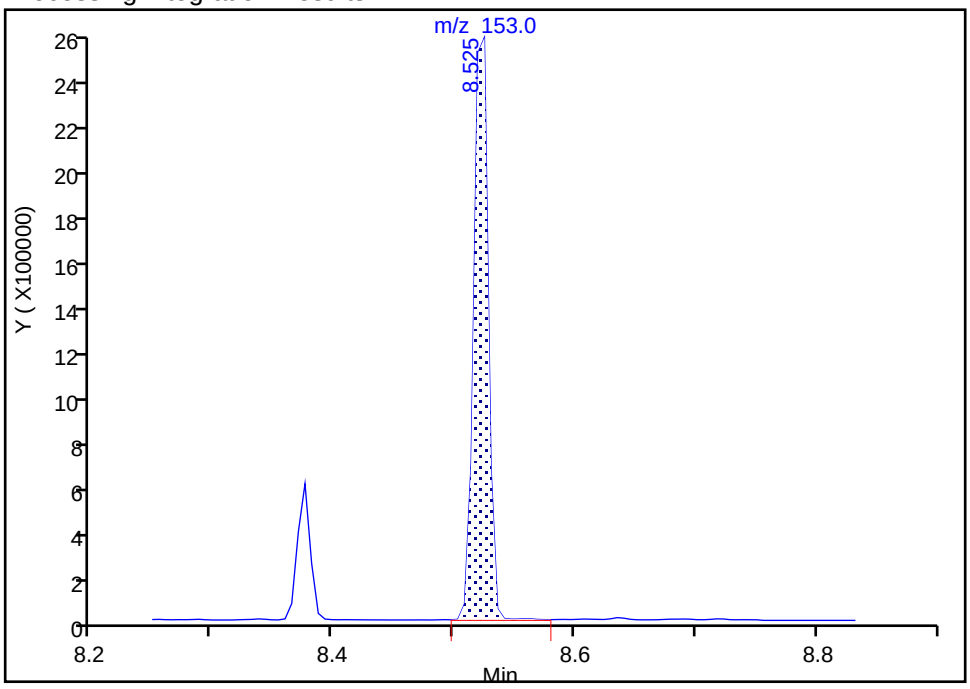
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

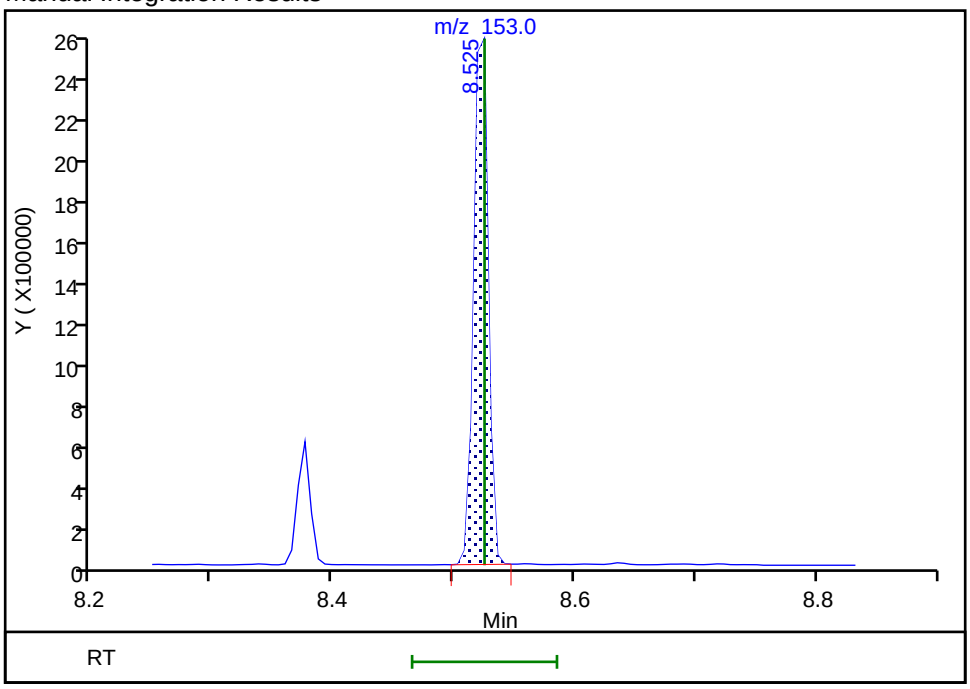
Processing Integration Results

RT: 8.52
Area: 2131997
Amount: 845.6459
Amount Units: ug/L



Manual Integration Results

RT: 8.52
Area: 2111246
Amount: 837.4151
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:17:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

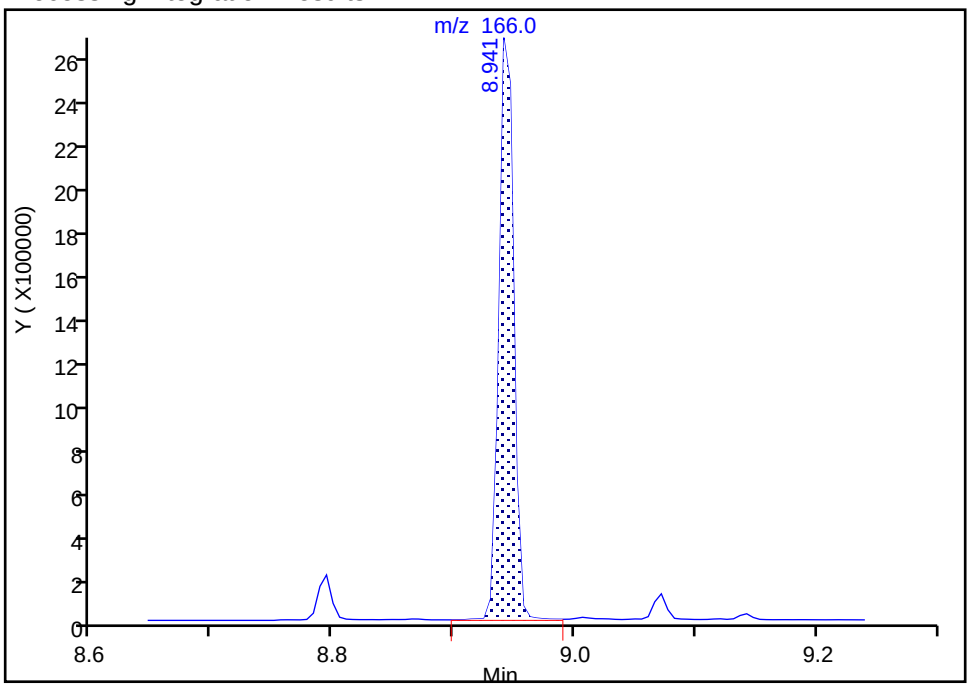
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

15 Fluorene, CAS: 86-73-7

Signal: 1

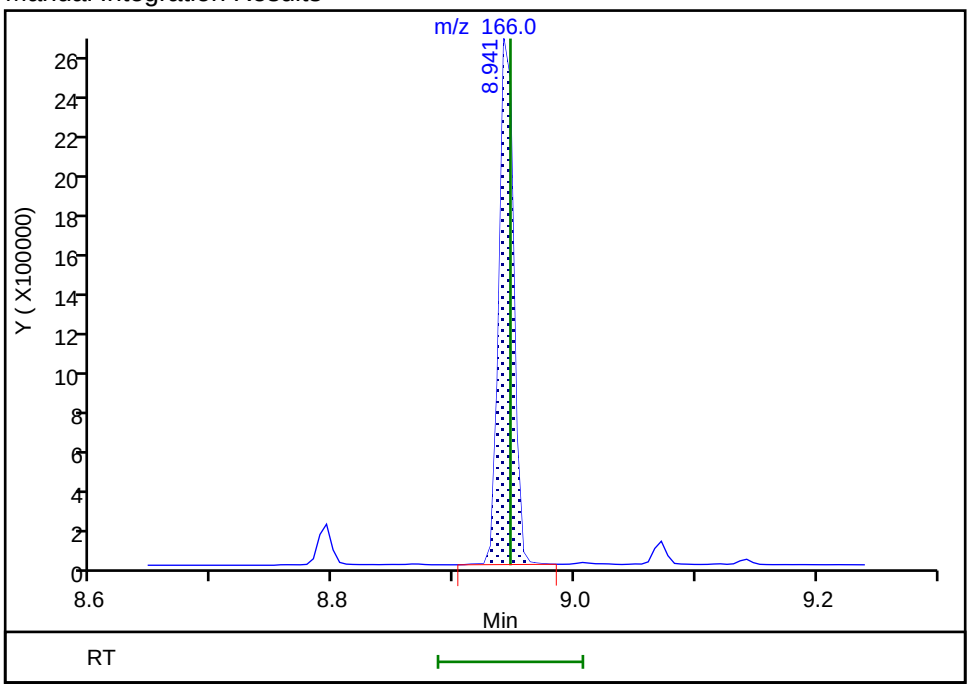
Processing Integration Results

RT: 8.94
Area: 2291838
Amount: 907.8508
Amount Units: ug/L



Manual Integration Results

RT: 8.94
Area: 2271992
Amount: 899.9893
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:18:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

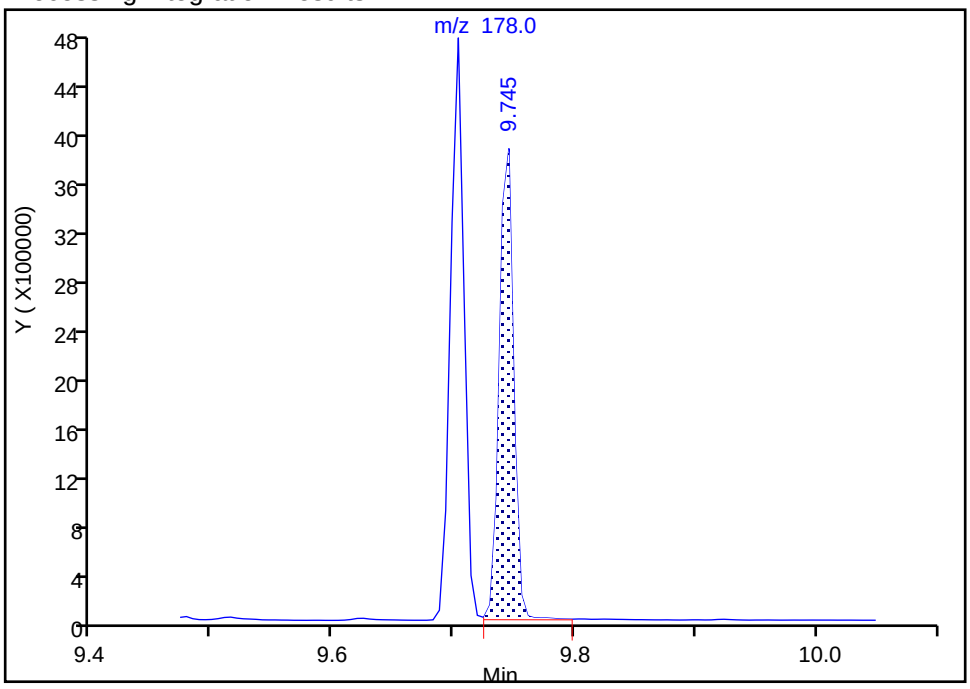
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

18 Anthracene, CAS: 120-12-7

Signal: 1

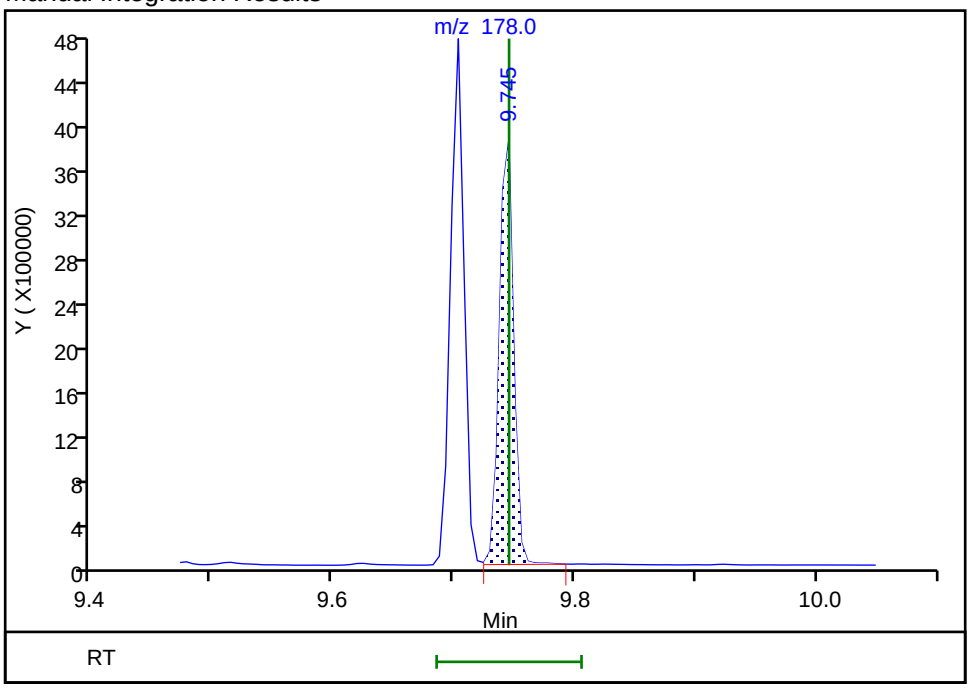
Processing Integration Results

RT: 9.75
Area: 3158088
Amount: 897.4829
Amount Units: ug/L



Manual Integration Results

RT: 9.75
Area: 3145503
Amount: 893.9065
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:18:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

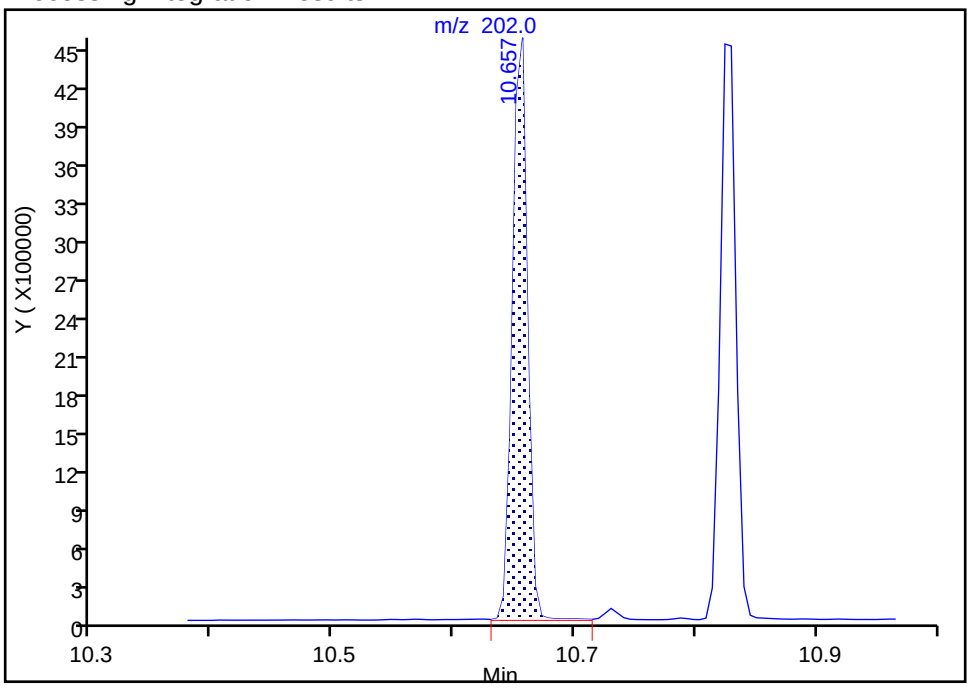
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

19 Fluoranthene, CAS: 206-44-0

Signal: 1

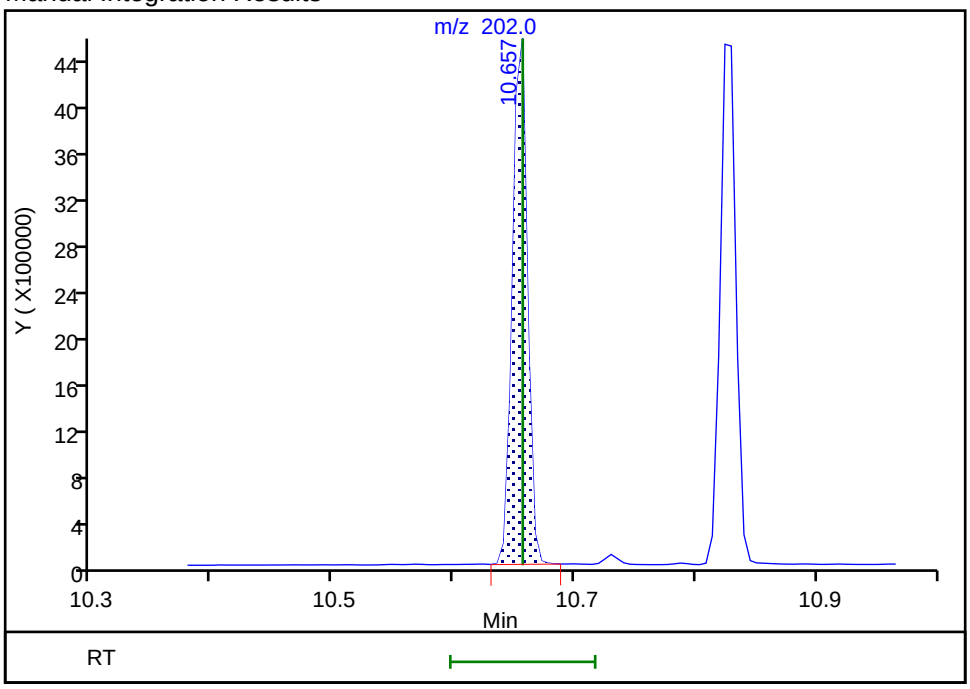
Processing Integration Results

RT: 10.66
Area: 3954213
Amount: 1102.7455
Amount Units: ug/L



Manual Integration Results

RT: 10.66
Area: 3910524
Amount: 1090.5616
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:18:31

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

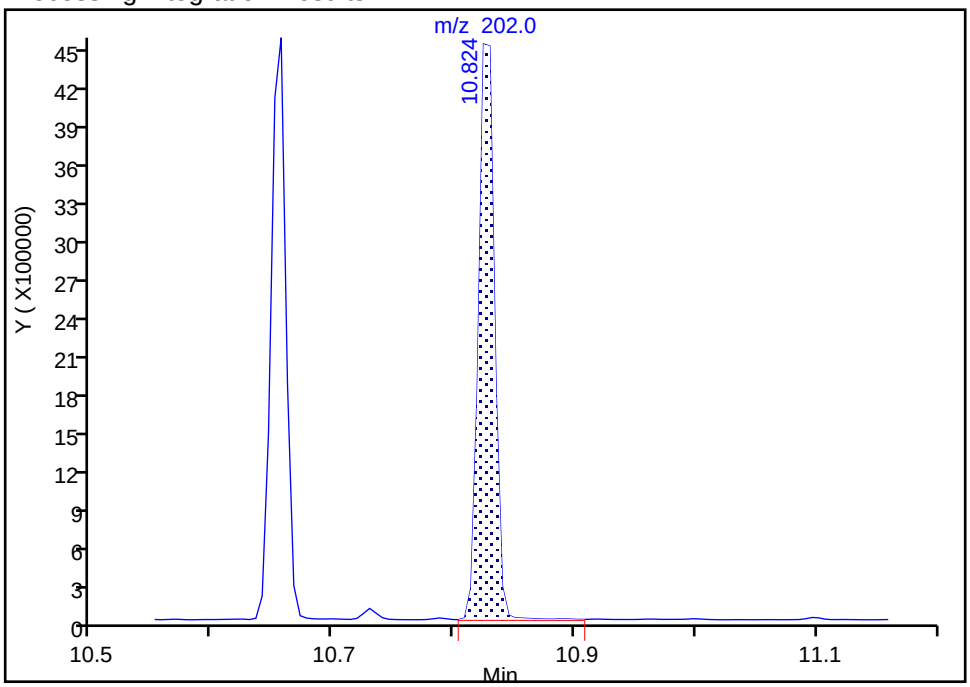
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

20 Pyrene, CAS: 129-00-0

Signal: 1

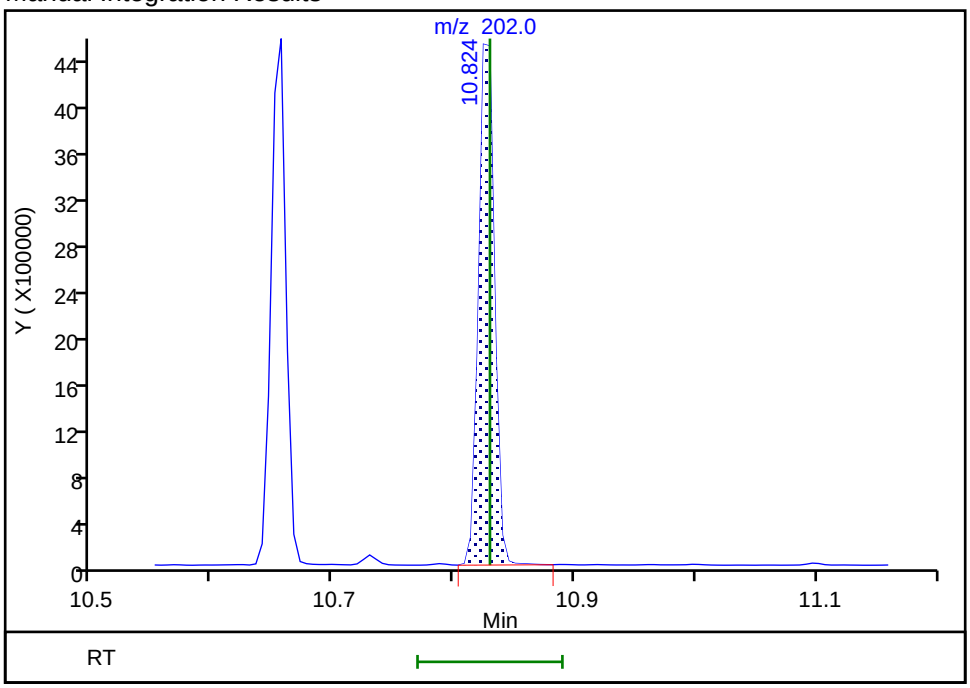
Processing Integration Results

RT: 10.82
Area: 4191866
Amount: 1109.9582
Amount Units: ug/L



Manual Integration Results

RT: 10.82
Area: 4144282
Amount: 1097.3585
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:18:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

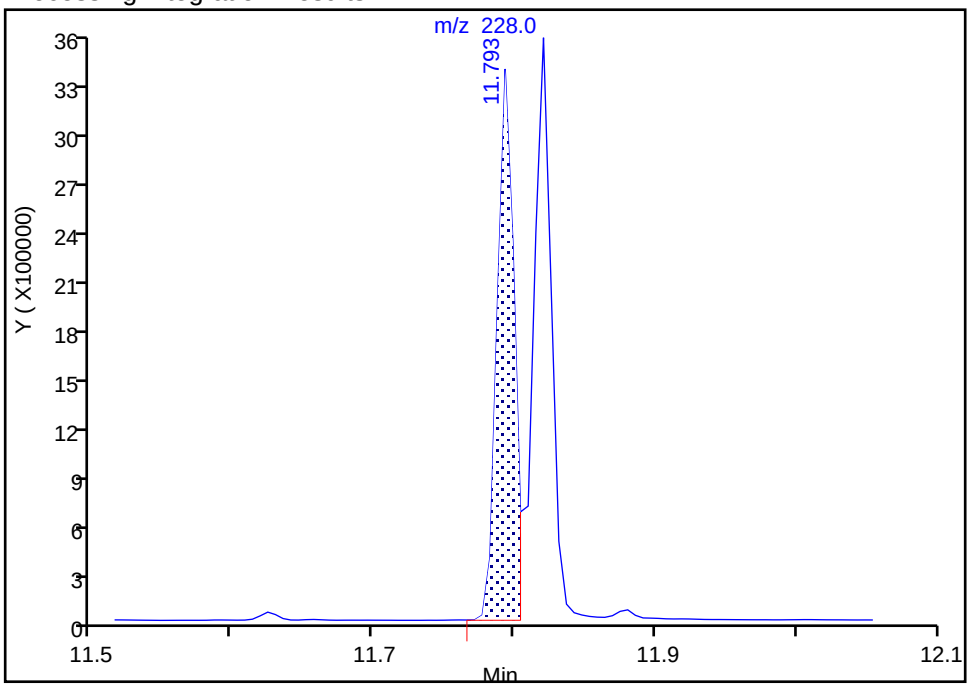
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

21 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

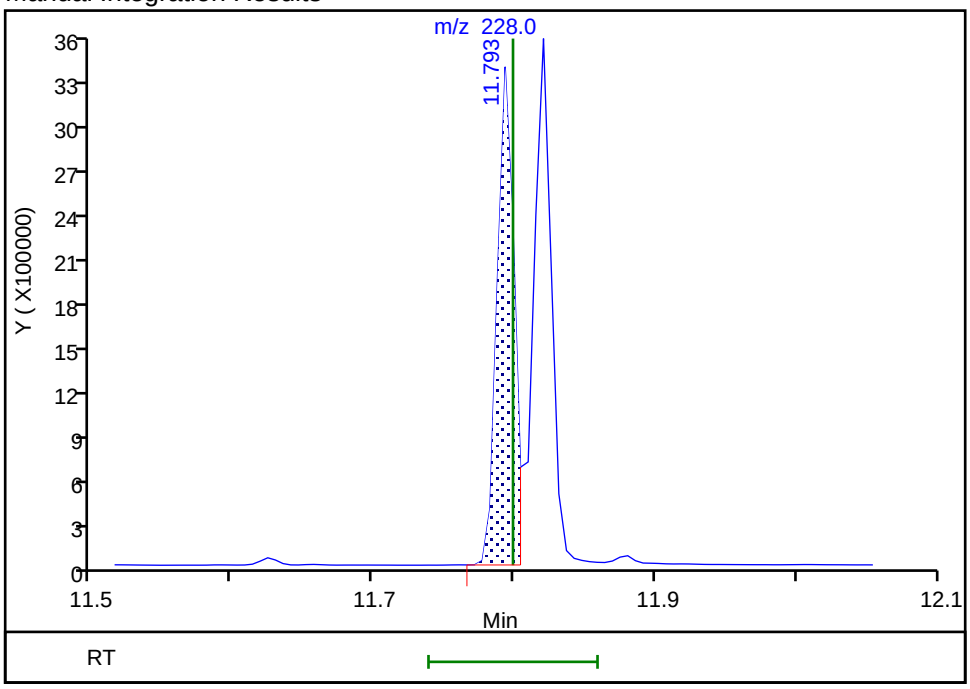
Processing Integration Results

RT: 11.79
Area: 2696079
Amount: 1088.3700
Amount Units: ug/L



Manual Integration Results

RT: 11.79
Area: 2693259
Amount: 1087.2316
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:19:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

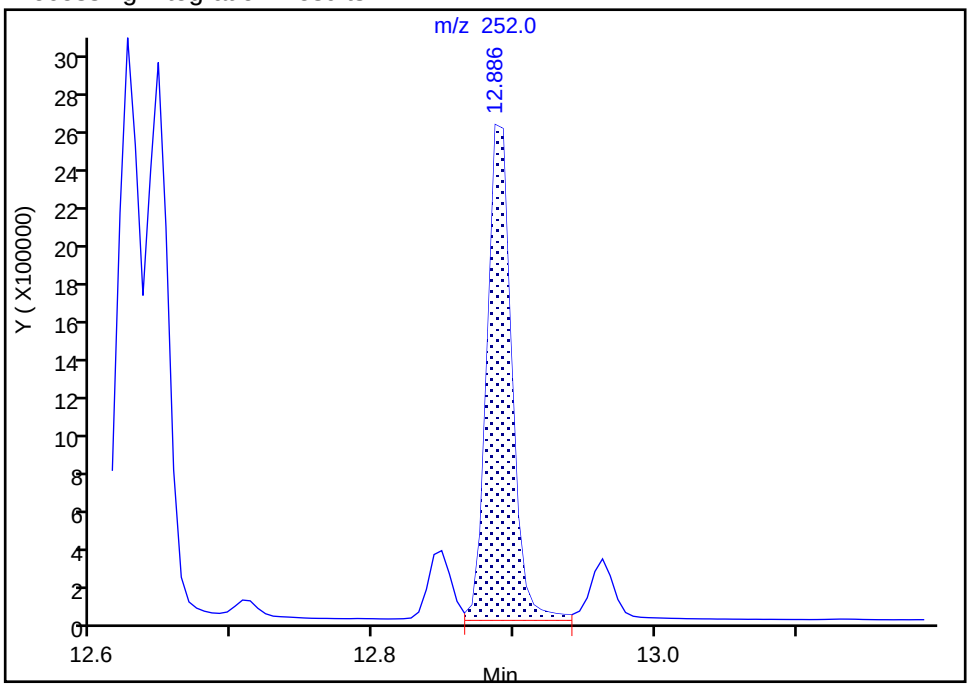
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

25 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

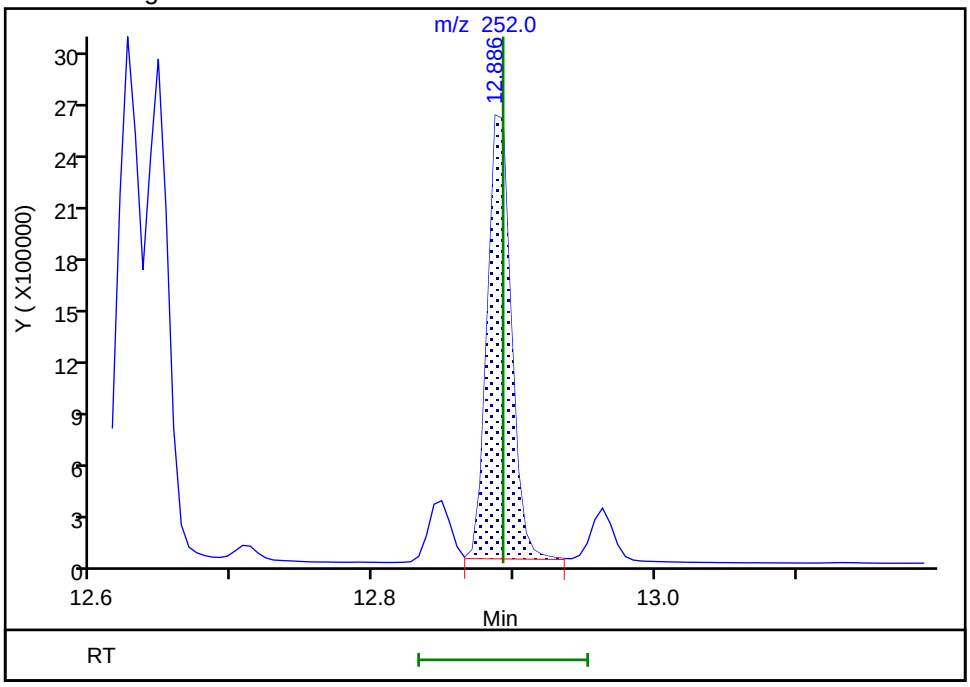
Processing Integration Results

RT: 12.89
Area: 3169251
Amount: 991.4289
Amount Units: ug/L



Manual Integration Results

RT: 12.89
Area: 3042119
Amount: 951.6585
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:19:56

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

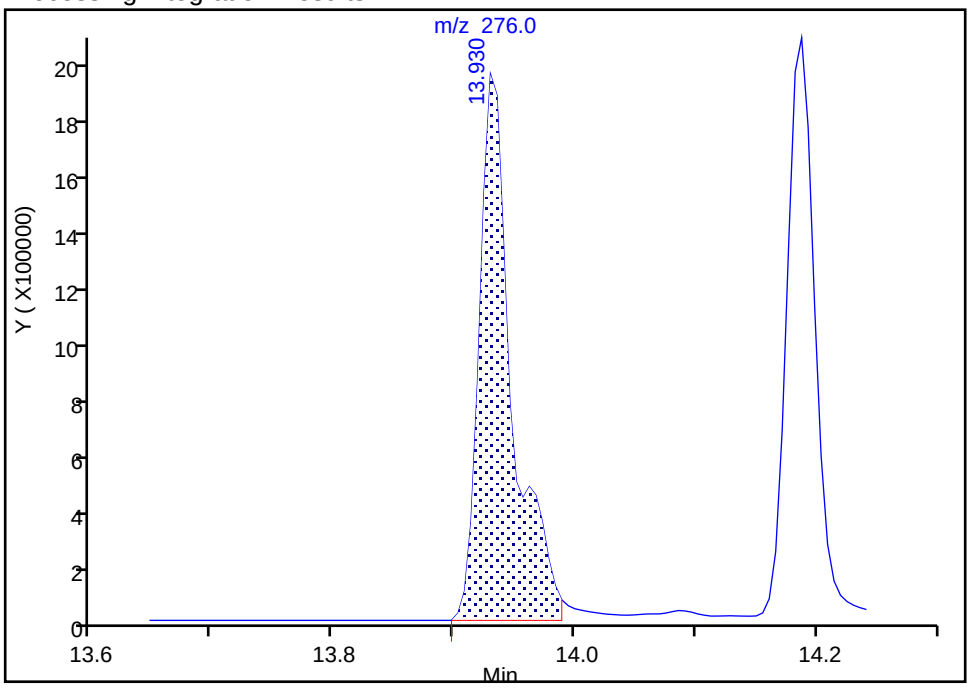
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

26 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

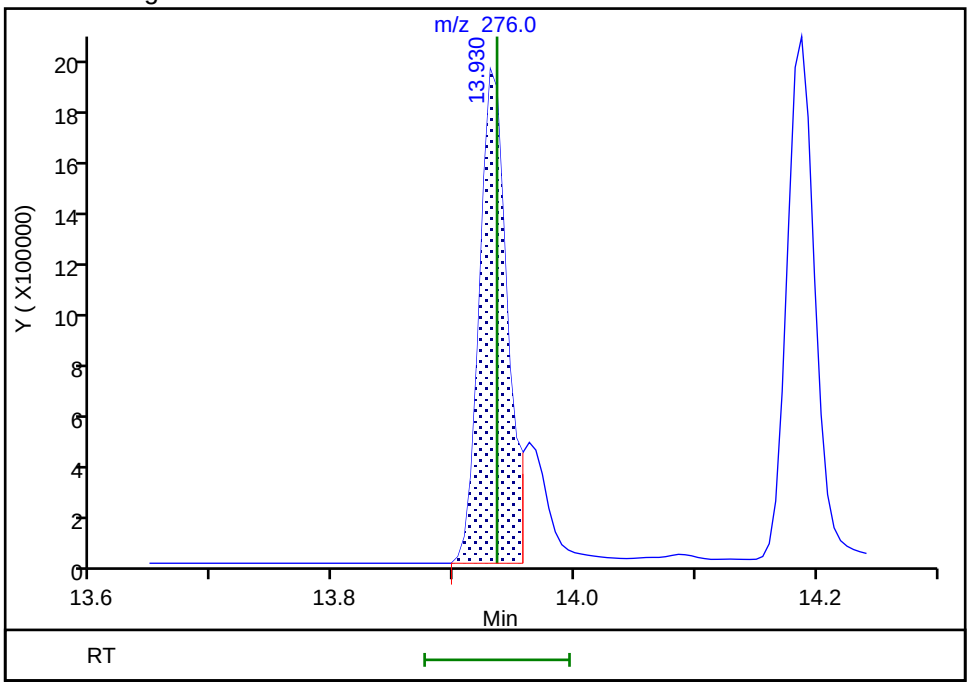
Processing Integration Results

RT: 13.93
Area: 3629856
Amount: 1375.4768
Amount Units: ug/L



Manual Integration Results

RT: 13.93
Area: 3033564
Amount: 1163.3781
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:20:03

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

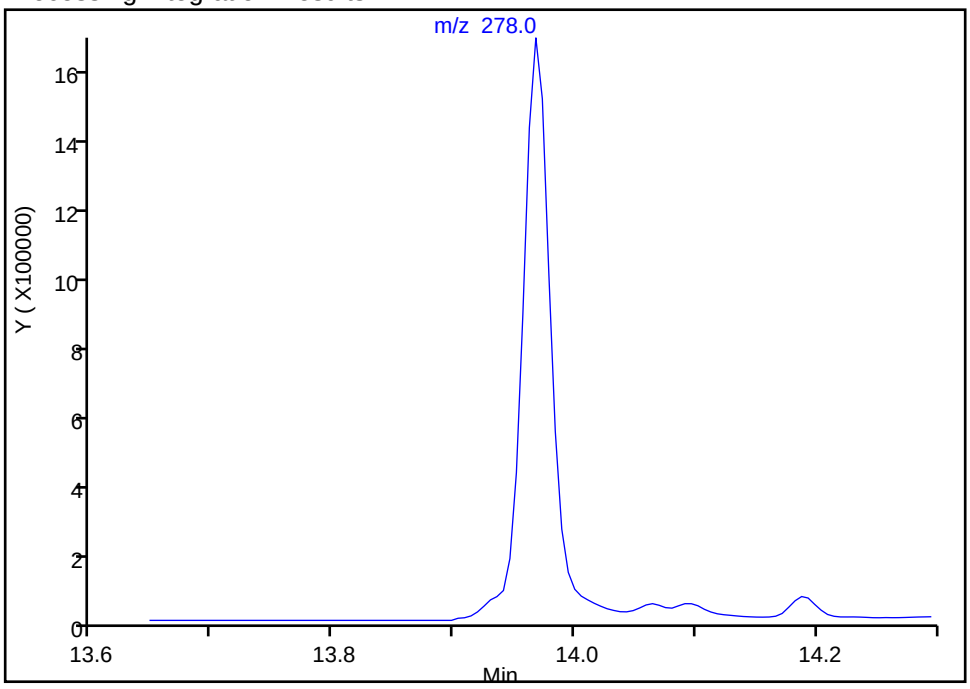
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

27 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

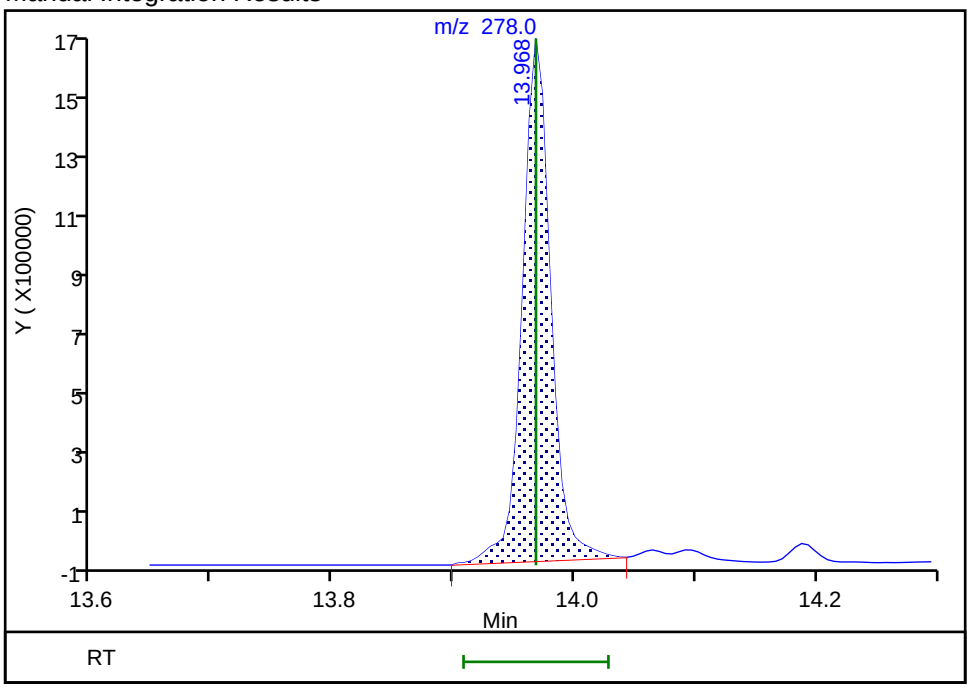
Not Detected
Expected RT: 13.97

Processing Integration Results



Manual Integration Results

RT: 13.97
Area: 2627935
Amount: 844.2899
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:20:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

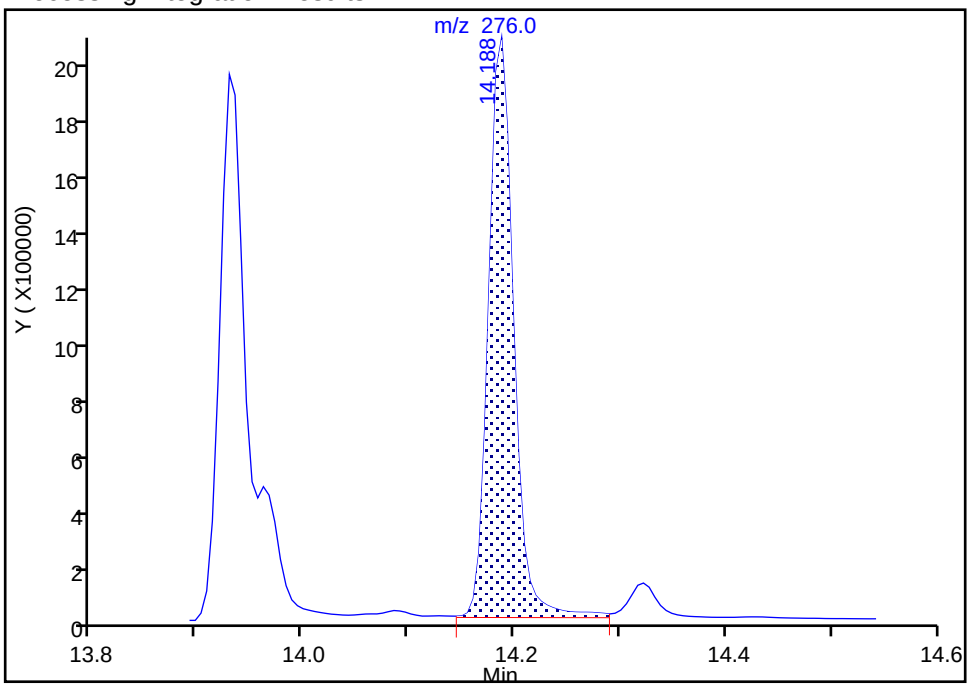
Data File:	\\chromna\Seattle\ChromData\TAC023\20190722-66450.b\072219A012.D				
Injection Date:	22-Jul-2019 15:34:30	Instrument ID:	TAC023		
Lims ID:	580-87706-A-5-C MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	KFS	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TAC23_PAH_SIM	Limit Group:	8270D SIM		
Column:		Detector	MS SCAN		

28 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

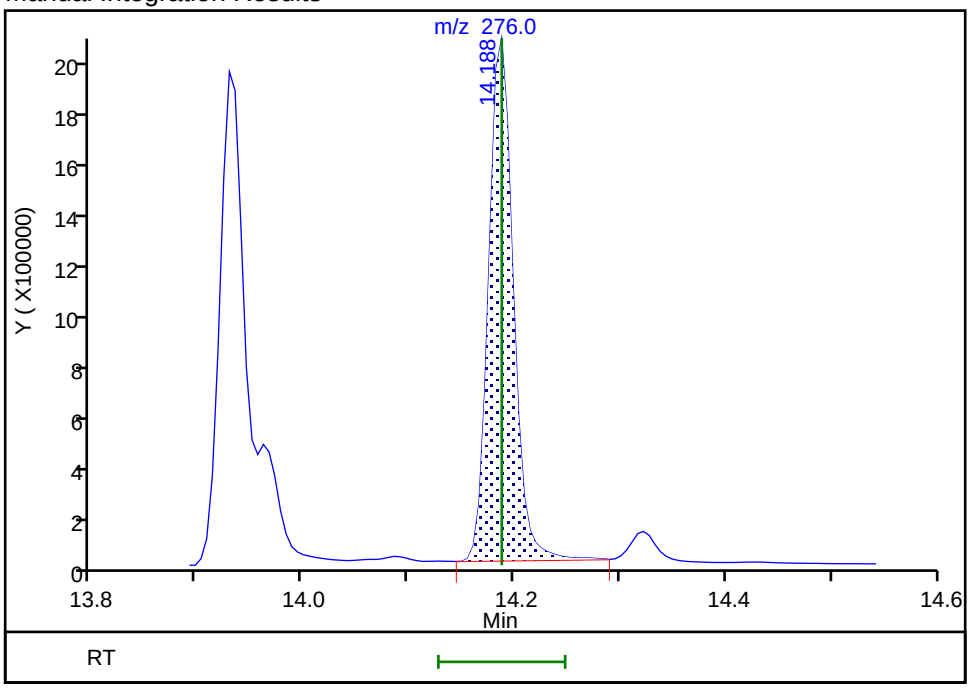
Processing Integration Results

RT: 14.19
Area: 3368433
Amount: 954.5876
Amount Units: ug/L



Manual Integration Results

RT: 14.19
Area: 3300437
Amount: 935.3234
Amount Units: ug/L



Reviewer: limwirojt, 23-Jul-2019 14:20:42

Audit Action: Manually Integrated Audit Reason: Baseline

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Start Date: 01/30/2019 17:57

Analysis Batch Number: 293966 End Date: 01/31/2019 00:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 580-293966/3		01/30/2019 17:57	1	013019b004.D	ZB-SV 0.25(mm)
STD13 580-293966/4 IC		01/30/2019 18:23	1	013019b005.D	ZB-SV 0.25(mm)
STD12 580-293966/5 IC		01/30/2019 18:49	1	013019b006.D	ZB-SV 0.25(mm)
STD11 580-293966/6 IC		01/30/2019 19:15	1	013019b007.D	ZB-SV 0.25(mm)
STD10 580-293966/7 IC		01/30/2019 19:41	1	013019b008.D	ZB-SV 0.25(mm)
STD9IS 580-293966/8 ICIS		01/30/2019 20:07	1	013019b009.D	ZB-SV 0.25(mm)
STD8 580-293966/9 IC		01/30/2019 20:33	1	013019b010.D	ZB-SV 0.25(mm)
STD7 580-293966/10 IC		01/30/2019 20:59	1	013019b011.D	ZB-SV 0.25(mm)
STD6 580-293966/11 IC		01/30/2019 21:24	1	013019b012.D	ZB-SV 0.25(mm)
STD5 580-293966/12 IC		01/30/2019 21:50	1	013019b013.D	ZB-SV 0.25(mm)
STD4 580-293966/13 IC		01/30/2019 22:16	1	013019b014.D	ZB-SV 0.25(mm)
STD3 580-293966/14 IC		01/30/2019 22:42	1	013019b015.D	ZB-SV 0.25(mm)
STD2 580-293966/15 IC		01/30/2019 23:08	1	013019b016.D	ZB-SV 0.25(mm)
STD1 580-293966/16 IC		01/30/2019 23:34	1	013019b017.D	ZB-SV 0.25(mm)
ICV 580-293966/18		01/31/2019 00:25	1	013019b019.D	ZB-SV 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Start Date: 07/22/2019 09:37

Analysis Batch Number: 306243 End Date: 07/22/2019 19:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 580-306243/2		07/22/2019 09:37	1	072219A002.D	ZB-SV 0.25(mm)
CCVIS 580-306243/3		07/22/2019 10:43	1	072219A003.D	ZB-SV 0.25(mm)
MB 580-306107/1-A		07/22/2019 12:03	1	072219A004.D	ZB-SV 0.25(mm)
LCS 580-306107/2-A		07/22/2019 12:29	1	072219A005.D	ZB-SV 0.25(mm)
580-87706-1		07/22/2019 12:55	1	072219A006.D	ZB-SV 0.25(mm)
580-87706-2		07/22/2019 13:22	1	072219A007.D	ZB-SV 0.25(mm)
580-87706-3		07/22/2019 13:48	1	072219A008.D	ZB-SV 0.25(mm)
580-87706-4		07/22/2019 14:15	1	072219A009.D	ZB-SV 0.25(mm)
580-87706-5		07/22/2019 14:41	1	072219A010.D	ZB-SV 0.25(mm)
580-87706-5 MS		07/22/2019 15:08	1	072219A011.D	ZB-SV 0.25(mm)
580-87706-5 MSD		07/22/2019 15:34	1	072219A012.D	ZB-SV 0.25(mm)
580-87706-6		07/22/2019 16:01	1	072219A013.D	ZB-SV 0.25(mm)
580-87706-7		07/22/2019 16:27	1	072219A014.D	ZB-SV 0.25(mm)
580-87706-8		07/22/2019 16:54	1	072219A015.D	ZB-SV 0.25(mm)
580-87706-9		07/22/2019 17:20	1	072219A016.D	ZB-SV 0.25(mm)
580-87706-10		07/22/2019 17:47	1	072219A017.D	ZB-SV 0.25(mm)
580-87706-11		07/22/2019 18:13	1	072219A018.D	ZB-SV 0.25(mm)
580-87706-12		07/22/2019 18:39	1	072219A019.D	ZB-SV 0.25(mm)
580-87706-13		07/22/2019 19:06	1	072219A020.D	ZB-SV 0.25(mm)
580-87706-14		07/22/2019 19:32	1	072219A021.D	ZB-SV 0.25(mm)
580-87706-15		07/22/2019 19:59	1	072219A022.D	ZB-SV 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Start Date: 07/23/2019 14:55

Analysis Batch Number: 306419 End Date: 07/24/2019 02:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 580-306419/2		07/23/2019 14:55	1	072319B002.D	ZB-SV 0.25(mm)
CCVIS 580-306419/3		07/23/2019 15:36	1	072319B003.D	ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 16:08	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 16:34	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 17:01	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 17:27	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 17:54	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 18:20	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 18:46	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 19:13	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 19:39	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 20:05	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 20:32	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 20:58	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 21:25	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 21:52	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 22:18	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 22:45	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 23:12	1		ZB-SV 0.25(mm)
ZZZZZ		07/23/2019 23:38	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 00:05	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 00:31	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 00:58	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 01:24	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 01:51	1		ZB-SV 0.25(mm)
580-87706-6 DL		07/24/2019 02:17	10	072319B027.D	ZB-SV 0.25(mm)
580-87706-14 DL		07/24/2019 02:44	10	072319B028.D	ZB-SV 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC023 Start Date: 07/24/2019 09:16

Analysis Batch Number: 306485 End Date: 07/24/2019 19:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 580-306485/2		07/24/2019 09:16	1	072419A002.D	ZB-SV 0.25(mm)
CCVIS 580-306485/3		07/24/2019 10:31	1	072419A003.D	ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 12:09	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 12:35	1		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 13:02	10		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 13:28	10		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 13:54	10		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 14:20	2.5		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 14:47	2.5		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 15:13	10		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 15:39	2.5		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 16:06	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 16:32	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 16:58	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 17:25	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 17:51	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 18:17	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 18:44	20		ZB-SV 0.25(mm)
ZZZZZ		07/24/2019 19:10	2.5		ZB-SV 0.25(mm)
580-87706-15 DL		07/24/2019 19:36	10	072419A021.D	ZB-SV 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306107 Batch Start Date: 07/19/19 09:49 Batch Analyst: Guerra, Fernando C

Batch Method: 3546 Batch End Date: 07/19/19 18:14

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	8270flspk 00252	8270Surr_Phen 00011		
MB 580-306107/1		3546, 8270D SIM		10 g	10 mL		100 uL		
LCS 580-306107/2		3546, 8270D SIM		10 g	10 mL	500 uL	100 uL		
580-87706-A-1	22T-SG-17_20190716	3546, 8270D SIM	T	10.878 g	10 mL		100 uL		
580-87706-A-2	22T-SG-18_20190716	3546, 8270D SIM	T	10.463 g	10 mL		100 uL		
580-87706-A-3	22T-SG-11_20190716	3546, 8270D SIM	T	12.361 g	10 mL		100 uL		
580-87706-A-4	22T-SG-11-D_20190716	3546, 8270D SIM	T	10.675 g	10 mL		100 uL		
580-87706-A-5	22T-SG-12_20190716	3546, 8270D SIM	T	12.452 g	10 mL		100 uL		
580-87706-A-5 MS	22T-SG-12_20190716	3546, 8270D SIM	T	11.437 g	10 mL	500 uL	100 uL		
580-87706-A-5 MSD	22T-SG-12_20190716	3546, 8270D SIM	T	12.585 g	10 mL	500 uL	100 uL		
580-87706-A-6	22T-SG-19_20190716	3546, 8270D SIM	T	12.075 g	10 mL		100 uL		
580-87706-A-7	22T-SG-20_20190716	3546, 8270D SIM	T	11.466 g	10 mL		100 uL		
580-87706-A-8	22T-SG-15_20190716	3546, 8270D SIM	T	10.351 g	10 mL		100 uL		
580-87706-A-9	22T-SG-14_20190716	3546, 8270D SIM	T	13.572 g	10 mL		100 uL		
580-87706-A-10	22T-SG-13_20190716	3546, 8270D SIM	T	13.891 g	10 mL		100 uL		
580-87706-A-11	22T-SG-22_20190716	3546, 8270D SIM	T	11.221 g	10 mL		100 uL		
580-87706-A-12	22T-SG-23_20190716	3546, 8270D SIM	T	10.604 g	10 mL		100 uL		
580-87706-A-13	22T-SG-10_20190716	3546, 8270D SIM	T	13.788 g	10 mL		100 uL		
580-87706-A-14	22T-SG-21_20190716	3546, 8270D SIM	T	12.119 g	10 mL		100 uL		
580-87706-A-15	22T-SG-16_20190716	3546, 8270D SIM	T	11.276 g	10 mL		100 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306107 Batch Start Date: 07/19/19 09:49 Batch Analyst: Guerra, Fernando C

Batch Method: 3546 Batch End Date: 07/19/19 18:14

Batch Notes	
Balance ID	SEA232 No Unit
Batch Comment	Vialed by: Nick (All except #6) and MT (#6) Hydromatrix ID: 2386683
Blank Matrix ID	2431714
Analyst ID - Concentration	MT
Concentration 1 Corrected Temperature	75-80 Degrees C
Concentration 2 Corrected Temperature	ambient Degrees C
Equipment ID - Concentration 1	Steam Bath 1
Analyst ID - Extraction	FCG
Filter ID	09-795F
Method/Fraction	3646/8270D_SIM
Microwave Oven ID	MARS2
Microwave Program ID	FUELS1 from 1430-1500
Na2SO4 ID	2424043
Pipette/Syringe/Dispenser ID	MP2
Prep Solvent ID	1;1DCM:ACE 2399544
Analyst ID - Spike Analyst	FCG
Sufficient Volume for Batch QC	Yes
Thermometer ID - Concentration 1	61013-040-1
Concentration 1 Uncorrected Temperature	75-80 Degrees C
Concentration 2 Uncorrected Temperature	ambient Degrees C
Vial Lot Number	19093213

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8081B

Organochlorine Pesticides (GC) by Method 8081B

FORM II
PESTICIDES SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB-CLPest-1 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	TCX1	#	DCBP1	#
22T-SG-17_20190716	580-87706-1	80		50	
22T-SG-18_20190716	580-87706-2	62		51	
22T-SG-11_20190716	580-87706-3	51		34	X
22T-SG-11-D_20190716	580-87706-4	67		45	
22T-SG-12_20190716	580-87706-5	58		32	X
22T-SG-19_20190716	580-87706-6	51		22	X
22T-SG-20_20190716	580-87706-7	49	X	36	
22T-SG-15_20190716	580-87706-8	55		38	
22T-SG-14_20190716	580-87706-9	75		40	
22T-SG-13_20190716	580-87706-10	109		39	
22T-SG-22_20190716	580-87706-11	54		37	
22T-SG-23_20190716	580-87706-12	67		34	X
22T-SG-10_20190716	580-87706-13	55		42	
22T-SG-21_20190716	580-87706-14	44	X	21	X
22T-SG-16_20190716	580-87706-15	67		71	
	MB 580-306126/1-A	77		92	
	LCS 580-306126/2-A	83		101	
	LCS 580-306126/4-A	71		86	
	LCSD 580-306126/5-A	59		72	
22T-SG-12_20190716 MS	580-87706-5 MS	57		32	X
22T-SG-12_20190716 MSD	580-87706-5 MSD	6	X	46	

	QC LIMITS
TCX = Tetrachloro-m-xylene	50-123
DCBP = DCB Decachlorobiphenyl	36-136

Column to be used to flag recovery values

FORM II 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 34G23PST19a0013.d

Lab ID: LCS 580-306126/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
4,4'-DDD	2.50	2.20	88	61-132	
4,4'-DDE	2.50	2.27	91	53-124	
4,4'-DDT	2.50	2.22	89	43-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 34G23PST19a0014.d

Lab ID: LCS 580-306126/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4'-DDD	2.50	2.43	97	50-150	
2,4'-DDE	2.50	2.63	105	50-150	
2,4'-DDT	2.50	2.33	93	50-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 34G23PST19a0015.d

Lab ID: LCSD 580-306126/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4'-DDD	2.50	2.04	81	18	40	50-150	
2,4'-DDE	2.50	2.19	88	18	40	50-150	
2,4'-DDT	2.50	1.90	76	20	40	50-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 34G23PST19a0021.d

Lab ID: 580-87706-5 MS Client ID: 22T-SG-12_20190716 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
4,4'-DDD	5.71	0.97 J	5.96	87	61-132	
4,4'-DDE	5.71	1.2 J	4.14	51	53-124	F1
4,4'-DDT	5.71	ND	2.61	46	43-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 34G23PST19a0022.d

Lab ID: 580-87706-5 MSD Client ID: 22T-SG-12_20190716 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
4,4'-DDD	6.03	3.74	46	46	18	61-132	F1 F2
4,4'-DDE	6.03	3.75	42	10	18	53-124	F1
4,4'-DDT	6.03	0.565 J	9	129	15	43-150	F1 F2

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM IV
PESTICIDES METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: MB 580-306126/1-A

Matrix: Solid Date Extracted: 07/19/2019 11:28

Lab File ID:(1) 34G23PST19a0012.d Lab File ID:(2) 34G23PST19a0012.d

Date Analyzed:(1) 07/23/2019 14:44 Date Analyzed:(2) 07/23/2019 14:44

Instrument ID:(1) TAC034 Instrument ID:(2) TAC034

GC Column:(1) ZB-CLPest-1 ID: 0.25(mm) GC Column:(2) ZB-CLPest-2 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
22T-SG-16_20190716	580-87706-15	07/23/2019 14:47	07/23/2019 14:47
	LCS 580-306126/2-A	07/23/2019 15:03	07/23/2019 15:03
	LCS 580-306126/4-A	07/23/2019 15:23	07/23/2019 15:23
	LCSD 580-306126/5-A	07/23/2019 15:42	07/23/2019 15:42
22T-SG-17_20190716	580-87706-1	07/23/2019 16:01	07/23/2019 16:01
22T-SG-18_20190716	580-87706-2	07/23/2019 16:21	07/23/2019 16:21
22T-SG-11_20190716	580-87706-3	07/23/2019 16:40	07/23/2019 16:40
22T-SG-11-D_20190716	580-87706-4	07/23/2019 16:59	07/23/2019 16:59
22T-SG-12_20190716	580-87706-5	07/23/2019 17:18	07/23/2019 17:18
22T-SG-12_20190716 MS	580-87706-5 MS	07/23/2019 17:38	07/23/2019 17:38
22T-SG-12_20190716 MSD	580-87706-5 MSD	07/23/2019 17:57	07/23/2019 17:57
22T-SG-19_20190716	580-87706-6	07/23/2019 18:16	07/23/2019 18:16
22T-SG-20_20190716	580-87706-7	07/23/2019 18:35	07/23/2019 18:35
22T-SG-15_20190716	580-87706-8	07/23/2019 18:55	07/23/2019 18:55
22T-SG-14_20190716	580-87706-9	07/23/2019 19:14	07/23/2019 19:14
22T-SG-13_20190716	580-87706-10	07/23/2019 19:33	07/23/2019 19:33
22T-SG-22_20190716	580-87706-11	07/23/2019 19:53	07/23/2019 19:53
22T-SG-23_20190716	580-87706-12	07/23/2019 20:12	07/23/2019 20:12
22T-SG-10_20190716	580-87706-13	07/23/2019 20:31	07/23/2019 20:31
22T-SG-21_20190716	580-87706-14	07/23/2019 20:51	07/23/2019 20:51

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-305574/25 Date Analyzed: 07/14/2019 02:20

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 34G13PST19a0029.d Heated Purge: (Y/N) N

Calibration ID: 28023

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		212014556	4.48				
UPPER LIMIT		424029112	4.98				
LOWER LIMIT		106007278	3.98				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-305574/31		173581460	4.48				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-305574/25 Date Analyzed: 07/14/2019 02:20

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 34G13PST19a0029.d Heated Purge: (Y/N) N

Calibration ID: 28024

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		717922887	4.84				
UPPER LIMIT		1435845774	5.34				
LOWER LIMIT		358961444	4.34				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-305574/31		827521273	4.84				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-305574/35 Date Analyzed: 07/14/2019 05:34

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 34G13PST19a0039.d Heated Purge: (Y/N) N

Calibration ID: 28027

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		152757460	4.48				
UPPER LIMIT		305514920	4.98				
LOWER LIMIT		76378730	3.98				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-305574/41		122645458	4.48				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-305574/35 Date Analyzed: 07/14/2019 05:34

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 34G13PST19a0039.d Heated Purge: (Y/N) N

Calibration ID: 28028

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		806036132	4.84				
UPPER LIMIT		1612072264	5.34				
LOWER LIMIT		403018066	4.34				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-305574/41		758251975	4.84				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306388/7 Date Analyzed: 07/23/2019 13:46

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 34G23PST19a0009.d Heated Purge: (Y/N) N

Calibration ID: 28027

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		130797186	4.47				
UPPER LIMIT		261594372	4.97				
LOWER LIMIT		65398593	3.97				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 580-306388/8		113354798	4.47				
CCB 580-306388/9		111745933	4.47				
MB 580-306126/1-A		113186902	4.47				
LCS 580-306126/2-A		132457351	4.47				
LCS 580-306126/4-A		128450158	4.47				
LCSD 580-306126/5-A		144624366	4.47				
580-87706-1	22T-SG-17_20190716	111919268	4.46				
580-87706-2	22T-SG-18_20190716	146384276	4.46				
580-87706-3	22T-SG-11_20190716	135952811	4.46				
580-87706-4	22T-SG-11-D_20190716	133633962	4.46				
580-87706-5	22T-SG-12_20190716	155165363	4.46				
580-87706-5 MS	22T-SG-12_20190716 MS	140781836	4.46				
580-87706-5 MSD	22T-SG-12_20190716 MSD	142508258	4.46				
580-87706-6	22T-SG-19_20190716	143080300	4.46				
580-87706-7	22T-SG-20_20190716	143847303	4.46				
580-87706-8	22T-SG-15_20190716	159686910	4.46				
580-87706-9	22T-SG-14_20190716	131331107	4.46				
580-87706-10	22T-SG-13_20190716	160404788	4.46				
580-87706-11	22T-SG-22_20190716	156322096	4.47				
580-87706-12	22T-SG-23_20190716	142927584	4.47				
580-87706-13	22T-SG-10_20190716	166142470	4.47				
580-87706-14	22T-SG-21_20190716	116479169	4.47				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306388/7 Date Analyzed: 07/23/2019 13:46

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 34G23PST19a0009.d Heated Purge: (Y/N) N

Calibration ID: 28028

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		751687087	4.83				
UPPER LIMIT		1503374174	5.33				
LOWER LIMIT		375843544	4.33				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 580-306388/8		523636570	4.83				
CCB 580-306388/9		595938783	4.83				
MB 580-306126/1-A		554840765	4.83				
LCS 580-306126/2-A		658083988	4.83				
LCS 580-306126/4-A		554484535	4.83				
LCSD 580-306126/5-A		655281173	4.83				
580-87706-1	22T-SG-17_20190716	516182114	4.83				
580-87706-2	22T-SG-18_20190716	658568225	4.83				
580-87706-3	22T-SG-11_20190716	510379935	4.83				
580-87706-4	22T-SG-11-D_20190716	587947976	4.83				
580-87706-5	22T-SG-12_20190716	608520968	4.83				
580-87706-5 MS	22T-SG-12_20190716 MS	651824036	4.83				
580-87706-5 MSD	22T-SG-12_20190716 MSD	683095616	4.83				
580-87706-6	22T-SG-19_20190716	712995302	4.83				
580-87706-7	22T-SG-20_20190716	623769376	4.83				
580-87706-8	22T-SG-15_20190716	692666753	4.83				
580-87706-9	22T-SG-14_20190716	573697300	4.83				
580-87706-10	22T-SG-13_20190716	778850826	4.83				
580-87706-11	22T-SG-22_20190716	652247625	4.83				
580-87706-12	22T-SG-23_20190716	640546570	4.83				
580-87706-13	22T-SG-10_20190716	769760942	4.83				
580-87706-14	22T-SG-21_20190716	658841172	4.83				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-295252/25 Date Analyzed: 02/27/2019 18:40

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 45B227a025.D Heated Purge: (Y/N) N

Calibration ID: 27486

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		116341867	5.07				
UPPER LIMIT		232683734	5.57				
LOWER LIMIT		58170934	4.57				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-295252/31		101700382	5.06				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-295252/25 Date Analyzed: 02/27/2019 18:40

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 45B227a025.D Heated Purge: (Y/N) N

Calibration ID: 27487

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		269656858	5.43				
UPPER LIMIT		539313716	5.93				
LOWER LIMIT		134828429	4.93				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-295252/31		242893448	5.43				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-295252/35 Date Analyzed: 02/27/2019 22:17

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 45B227a035.D Heated Purge: (Y/N) N

Calibration ID: 27490

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		107202080	5.06				
UPPER LIMIT		214404160	5.56				
LOWER LIMIT		53601040	4.56				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-295252/41		101249041	5.06				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-295252/35 Date Analyzed: 02/27/2019 22:17

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 45B227a035.D Heated Purge: (Y/N) N

Calibration ID: 27491

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		258210836	5.43				
UPPER LIMIT		516421672	5.93				
LOWER LIMIT		129105418	4.93				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-295252/41		236890849	5.43				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306340/7 Date Analyzed: 07/23/2019 11:21

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 45F072319a008.D Heated Purge: (Y/N) N

Calibration ID: 27490

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		90947580	5.02				
UPPER LIMIT		181895160	5.52				
LOWER LIMIT		45473790	4.52				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 580-306340/8		106247473	5.02				
CCB 580-306340/9		104051813	5.02				
580-87706-15	22T-SG-16_20190716	111343189	5.02				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306340/7 Date Analyzed: 07/23/2019 11:21

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 45F072319a008.D Heated Purge: (Y/N) N

Calibration ID: 27491

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		353937924	5.38				
UPPER LIMIT		707875848	5.88				
LOWER LIMIT		176968962	4.88				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 580-306340/8		426870727	5.38				
CCB 580-306340/9		403902432	5.38				
580-87706-15	22T-SG-16_20190716	455761988	5.38				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 16:01 Date Analyzed (2): 07/23/2019 16:01

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.76	6.76	6.78	0.76		5.7
	2		7.61	7.60	7.62	0.72		
4,4'-DDD	1		7.16	7.16	7.18	0.61		3.8
	2		8.06	8.05	8.07	0.59		
4,4'-DDT	1		7.36	7.36	7.38	0.47		12.4
	2		8.31	8.30	8.32	0.53		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 16:21 Date Analyzed (2): 07/23/2019 16:21

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.76	6.76	6.78	1.4		17.7
	2		7.61	7.60	7.62	1.2		
4,4'-DDD	1		7.16	7.16	7.18	1.4		3.4
	2		8.05	8.05	8.07	1.3		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 16:40 Date Analyzed (2): 07/23/2019 16:40

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	1.4		22.5
	2		7.61	7.60	7.62	1.8		
4,4'-DDD	1		7.16	7.16	7.18	0.70		37.5
	2		8.05	8.05	8.07	1.0		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 16:59 Date Analyzed (2): 07/23/2019 16:59

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.76	6.76	6.78	1.5		12.3
	2		7.61	7.60	7.62	1.3		
4,4'-DDD	1		7.16	7.16	7.18	0.78		17.0
	2		8.05	8.05	8.07	0.92		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 17:18 Date Analyzed (2): 07/23/2019 17:18

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.76	6.76	6.78	1.2		21.7
	2		7.61	7.60	7.62	1.5		
2,4'-DDD	1		6.89	6.87	6.89	1.3		43.5
	2		7.77	7.76	7.78	0.86		
4,4'-DDD	1		7.16	7.16	7.18	0.97		3.1
	2		8.05	8.05	8.07	0.94		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MS Lab Sample ID: 580-87706-5 MS

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 17:38 Date Analyzed (2): 07/23/2019 17:38

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	4.14		28.3
	2		7.61	7.60	7.62	5.50		
4,4'-DDD	1		7.16	7.16	7.18	5.96		17.4
	2		8.05	8.05	8.07	7.09		
4,4'-DDT	1		7.36	7.36	7.38	2.61		8.8
	2		8.31	8.30	8.32	2.85		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MSD Lab Sample ID: 580-87706-5 MSD

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 17:57 Date Analyzed (2): 07/23/2019 17:57

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	3.75		17.1
	2		7.61	7.60	7.62	4.46		
4,4'-DDD	1		7.16	7.16	7.18	3.74		8.4
	2		8.05	8.05	8.07	4.07		
4,4'-DDT	1		7.36	7.36	7.38	0.565		78.9
	2		8.31	8.30	8.32	1.30		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 18:16 Date Analyzed (2): 07/23/2019 18:16

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.76	6.76	6.78	1.7		35.5
	2		7.61	7.60	7.62	2.5		
2,4'-DDD	1		6.89	6.87	6.89	4.5		137.7
	2		7.77	7.76	7.78	0.83		
4,4'-DDD	1		7.16	7.16	7.18	1.9		20.5
	2		8.05	8.05	8.07	2.4		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 18:35 Date Analyzed (2): 07/23/2019 18:35

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	1.5		13.2
	2		7.61	7.60	7.62	1.7		
2,4'-DDD	1		6.89	6.87	6.89	2.4		104.1
	2		7.77	7.76	7.78	0.76		
4,4'-DDD	1		7.16	7.16	7.18	1.5		29.8
	2		8.05	8.05	8.07	2.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 18:55 Date Analyzed (2): 07/23/2019 18:55

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.76	6.76	6.78	1.4		14.3
	2		7.60	7.60	7.62	1.2		
4,4'-DDD	1		7.16	7.16	7.18	0.81		10.9
	2		8.05	8.05	8.07	0.91		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 19:14 Date Analyzed (2): 07/23/2019 19:14

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	1.7		19.1
	2		7.61	7.60	7.62	2.0		
4,4'-DDD	1		7.16	7.16	7.18	1.3		38.9
	2		8.05	8.05	8.07	1.9		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 19:33 Date Analyzed (2): 07/23/2019 19:33

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	1.5		23.5
	2		7.61	7.60	7.62	1.2		
4,4'-DDD	1		7.16	7.16	7.18	1.0		9.3
	2		8.05	8.05	8.07	0.95		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 19:53 Date Analyzed (2): 07/23/2019 19:53

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	1.1		25.9
	2		7.61	7.60	7.62	1.4		
4,4'-DDD	1		7.16	7.16	7.18	0.96		13.8
	2		8.06	8.05	8.07	1.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 20:12 Date Analyzed (2): 07/23/2019 20:12

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	1.3		8.6
	2		7.61	7.60	7.62	1.5		
2,4'-DDD	1		6.89	6.87	6.89	1.8		82.8
	2		7.77	7.76	7.78	0.77		
4,4'-DDD	1		7.17	7.16	7.18	1.3		9.2
	2		8.06	8.05	8.07	1.2		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 20:31 Date Analyzed (2): 07/23/2019 20:31

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	0.82		16.5
	2		7.61	7.60	7.62	0.97		
4,4'-DDD	1		7.17	7.16	7.18	0.62		20.3
	2		8.06	8.05	8.07	0.51		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 20:51 Date Analyzed (2): 07/23/2019 20:51

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4'-DDE	1		6.55	6.54	6.56	11		53.9
	2		7.38	7.37	7.39	6.3		
4,4'-DDE	1		6.77	6.76	6.78	7.6		16.8
	2		7.61	7.60	7.62	6.4		
2,4'-DDD	1		6.89	6.87	6.89	20		107.6
	2		7.77	7.76	7.78	5.9		
4,4'-DDD	1		7.17	7.16	7.18	15		2.3
	2		8.06	8.05	8.07	15		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Instrument ID (1): TAC045 Instrument ID (2): TAC045

Date Analyzed (1): 07/23/2019 14:47 Date Analyzed (2): 07/23/2019 14:47

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		7.52	7.51	7.53	4.1		7.9
	2		8.32	8.31	8.33	3.7		
2,4'-DDD	1		7.64	7.64	7.66	2.0		62.4
	2		8.49	8.47	8.49	1.0		
4,4'-DDD	1		7.95	7.95	7.97	4.0		41.4
	2		8.78	8.77	8.79	2.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306126/2-A

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 15:03 Date Analyzed (2): 07/23/2019 15:03

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDE	1		6.77	6.76	6.78	2.27		4.1
	2		7.61	7.60	7.62	2.37		
4,4'-DDD	1		7.17	7.16	7.18	2.20		8.3
	2		8.06	8.05	8.07	2.39		
4,4'-DDT	1		7.36	7.36	7.38	2.22		10.2
	2		8.31	8.30	8.32	2.46		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306126/4-A

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 15:23 Date Analyzed (2): 07/23/2019 15:23

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4'-DDE	1		6.55	6.54	6.56	2.63		2.2
	2		7.38	7.37	7.39	2.69		
2,4'-DDD	1		6.88	6.87	6.89	2.43		2.7
	2		7.77	7.76	7.78	2.50		
2,4'-DDT	1		7.06	7.05	7.07	2.33		9.2
	2		8.01	8.00	8.02	2.56		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 580-306126/5-A

Instrument ID (1): TAC034 Instrument ID (2): TAC034

Date Analyzed (1): 07/23/2019 15:42 Date Analyzed (2): 07/23/2019 15:42

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4'-DDE	1		6.55	6.54	6.56	2.19		0.1
	2		7.38	7.37	7.39	2.20		
2,4'-DDD	1		6.88	6.87	6.89	2.04		3.1
	2		7.77	7.76	7.78	1.97		
2,4'-DDT	1		7.06	7.05	7.07	1.90		13.1
	2		8.01	8.00	8.02	2.17		

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Matrix: Solid Lab File ID: 34G23PST19a0016.d

Analysis Method: 8081B Date Collected: 07/16/2019 08:13

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 23.034(g) Date Analyzed: 07/23/2019 16:01

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 45.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		2.4	0.52
789-02-6	2,4'-DDT	ND		2.4	0.91
72-54-8	4,4'-DDD	0.61	J	0.95	0.19
72-55-9	4,4'-DDE	0.76	J	0.95	0.25
50-29-3	4,4'-DDT	0.47	J	0.95	0.19

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	50		36-136
877-09-8	Tetrachloro-m-xylene	80		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d
Lims ID: 580-87706-A-1-B
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:01:40 ALS Bottle#: 12 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-1-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:13:46 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:13:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	111919268	100.0	
2	4.828	4.829	-0.001	516182114	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30471916	6.70	
2	5.534	5.535	-0.001	108557068	7.60	
					RPD = 12.56	
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.783	5.778	0.005	29648	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.093	6.093	0.000	18596	NC	
1	6.349	6.342	0.007	1344500	NC	
		Average of Peak Amounts =			0	
2	6.034	6.025	0.009	50553	NC	
2	0.000	6.330	-6.330	0	NC	
2	6.425	6.424	0.001	756742	NC	
2	6.543	6.548	-0.005	43990356	NC	
2	6.725	6.732	-0.007	868855	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.349	6.342	0.007	1344500	NC	
1	6.520	6.512	0.008	20144	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.960	6.957	0.003	17806	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.040	7.037	0.003	59591	NC	
2	7.167	7.164	0.003	720651	NC	
2	7.526	7.516	0.010	33413	NC	
2	7.686	7.681	0.005	37361	NC	
2	8.075	8.080	-0.005	37122	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	3463321	1.60	
2	7.607	7.607	0.000	19943213	1.51	
					RPD = 5.68	
30 PCB-1260						
1	6.891	6.894	-0.003	649387	NC	
1	7.082	7.083	-0.001	31466	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.534	7.536	-0.002	14166201	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	459636	NC	
2	0.000	7.819	-7.819	0	NC	
2	8.102	8.100	0.002	275100	NC	
2	8.405	8.414	-0.009	3088651	NC	
2	8.898	8.896	0.002	688120	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						
1	7.164	7.167	-0.003	2335118	1.29	
2	8.055	8.055	0.000	9223311	1.24	
					RPD = 3.84	
38 4,4'-DDT						M
1	7.361	7.365	-0.004	2402810	0.9888	
2	8.307	8.306	0.001	8168968	1.12	M
					RPD = 12.42	
$ 45 DCB Decachlorobiphenyl						
1	8.886	8.884	0.002	27676887	4.19	
2	10.090	10.091	-0.001	76968539	6.40	
					RPD = 41.60	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

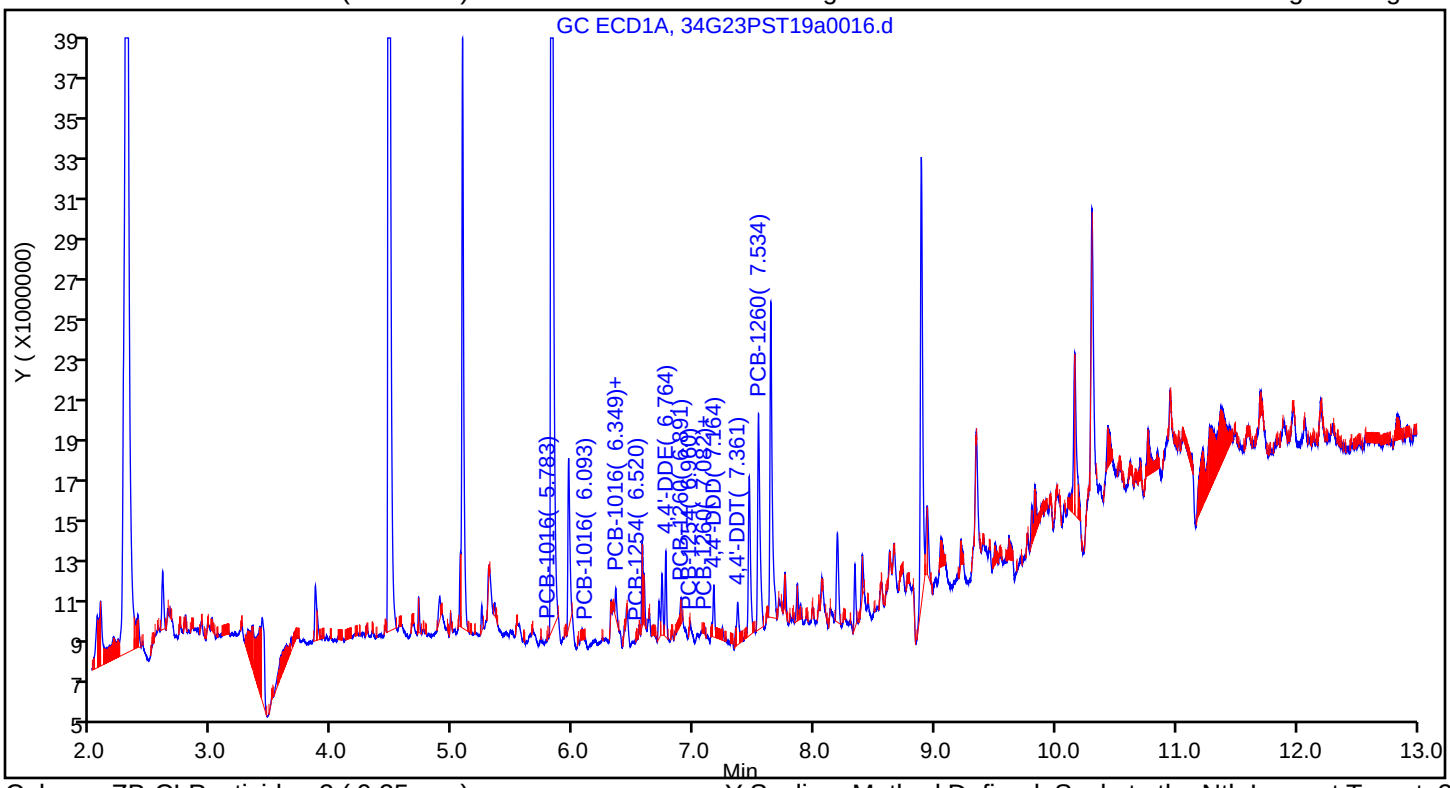
Report Date: 24-Jul-2019 11:13:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

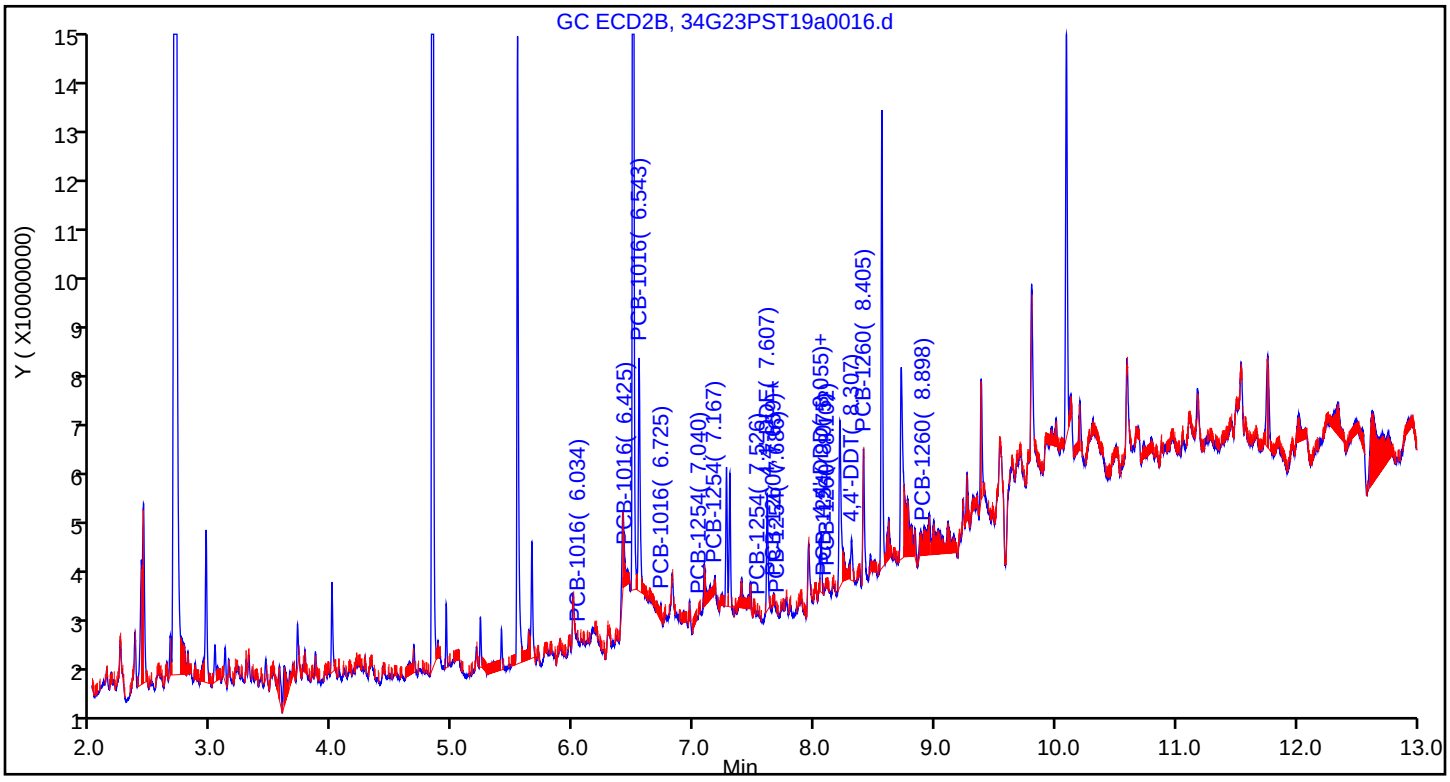
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d

Injection Date:	23-Jul-2019 16:01:40	Instrument ID:	TAC034		
Lims ID:	580-87706-A-1-B	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	CJB	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d				
Lims ID:	580-87706-A-1-B				
Client ID:	22T-SG-17_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:01:40	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-1-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:13:46	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:13:46		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	6.70	80.40
$ 45 DCB Decachlorobiphenyl	25.0	4.19	50.33

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	7.60	91.18
$ 45 DCB Decachlorobiphenyl	25.0	6.40	76.76

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d

Injection Date: 23-Jul-2019 16:01:40 Instrument ID: TAC034

Lims ID: 580-87706-A-1-B Lab Sample ID: 580-87706-1

Client ID: 22T-SG-17_20190716

Operator ID: CJB ALS Bottle#: 12 Worklist Smp#: 14

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

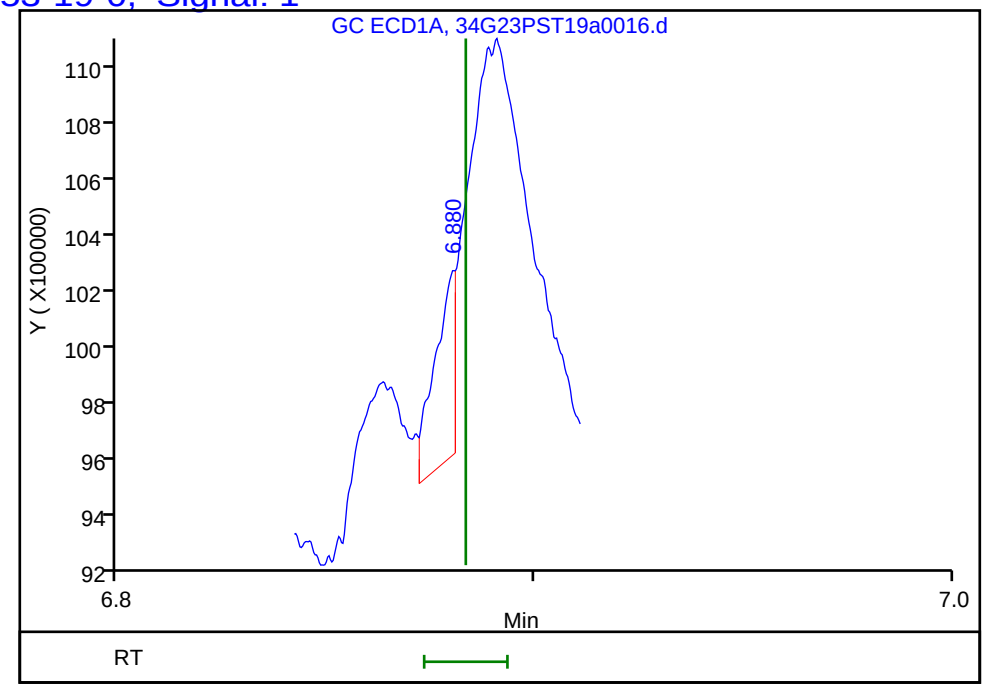
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

RT: 6.88

Response: 204076

Amount: 0.119602



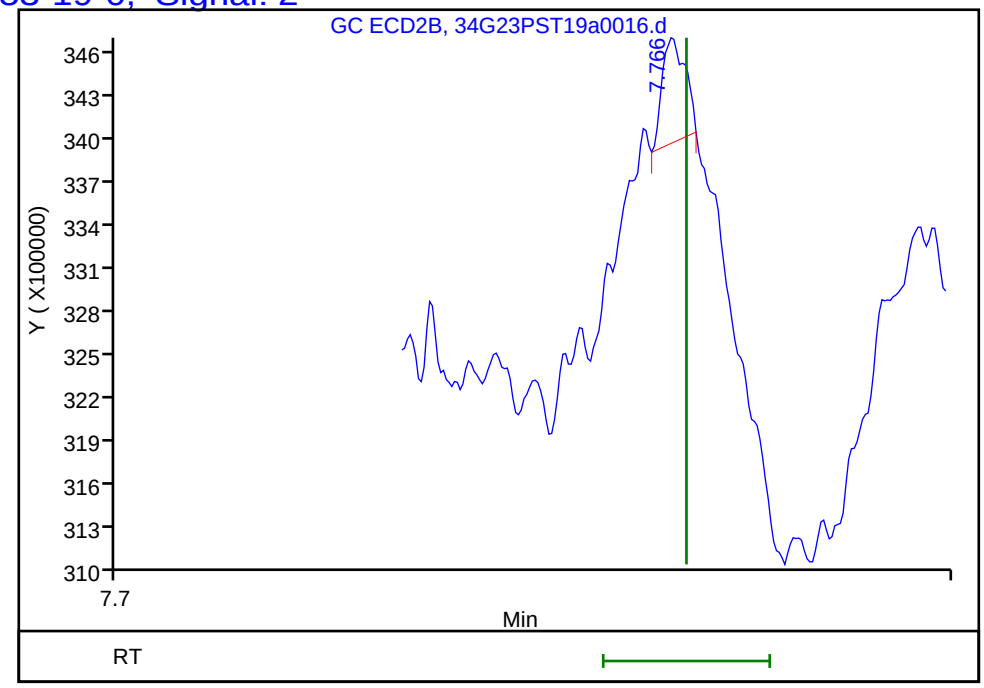
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77

Response: 135528

Amount: 0.025940



Reviewer: limwirojt, 24-Jul-2019 11:13:46

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

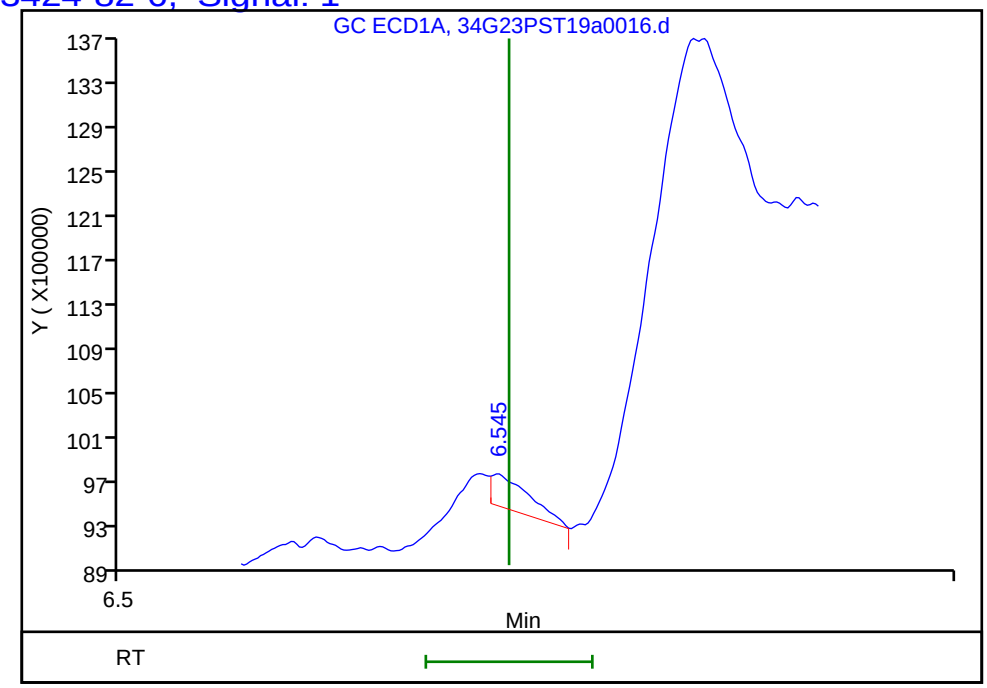
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d
Injection Date: 23-Jul-2019 16:01:40 Instrument ID: TAC034
Lims ID: 580-87706-A-1-B Lab Sample ID: 580-87706-1
Client ID: 22T-SG-17_20190716
Operator ID: CJB ALS Bottle#: 12 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

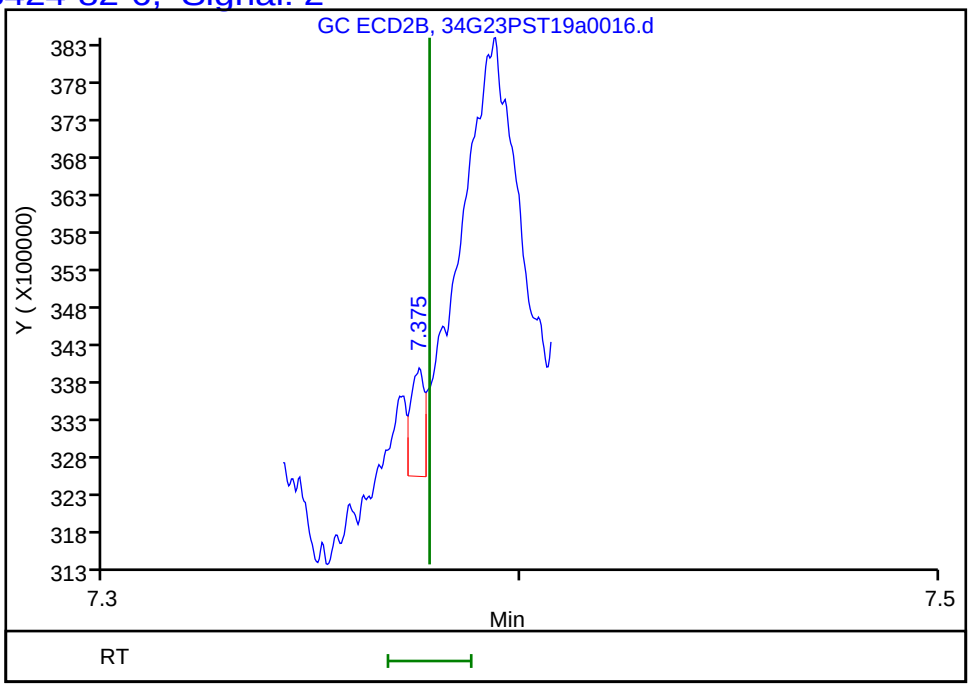
RT: 6.55
Response: 97028
Amount: 0.038672



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 315083
Amount: 0.039428



Reviewer: limwirojt, 24-Jul-2019 11:13:46
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Matrix: Solid Lab File ID: 34G23PST19a0016.d

Analysis Method: 8081B Date Collected: 07/16/2019 08:13

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 23.034(g) Date Analyzed: 07/23/2019 16:01

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 45.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		2.4	0.43

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d
Lims ID: 580-87706-A-1-B
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:01:40 ALS Bottle#: 12 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-1-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:13:46 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:13:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	111919268	100.0	
2	4.828	4.829	-0.001	516182114	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30471916	6.70	
2	5.534	5.535	-0.001	108557068	7.60	
					RPD = 12.56	
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.783	5.778	0.005	29648	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.093	6.093	0.000	18596	NC	
1	6.349	6.342	0.007	1344500	NC	
		Average of Peak Amounts =			0	
2	6.034	6.025	0.009	50553	NC	
2	0.000	6.330	-6.330	0	NC	
2	6.425	6.424	0.001	756742	NC	
2	6.543	6.548	-0.005	43990356	NC	
2	6.725	6.732	-0.007	868855	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.349	6.342	0.007	1344500	NC	
1	6.520	6.512	0.008	20144	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.960	6.957	0.003	17806	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.040	7.037	0.003	59591	NC	
2	7.167	7.164	0.003	720651	NC	
2	7.526	7.516	0.010	33413	NC	
2	7.686	7.681	0.005	37361	NC	
2	8.075	8.080	-0.005	37122	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	3463321	1.60	
2	7.607	7.607	0.000	19943213	1.51	
					RPD = 5.68	
30 PCB-1260						
1	6.891	6.894	-0.003	649387	NC	
1	7.082	7.083	-0.001	31466	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.534	7.536	-0.002	14166201	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	459636	NC	
2	0.000	7.819	-7.819	0	NC	
2	8.102	8.100	0.002	275100	NC	
2	8.405	8.414	-0.009	3088651	NC	
2	8.898	8.896	0.002	688120	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						
1	7.164	7.167	-0.003	2335118	1.29	
2	8.055	8.055	0.000	9223311	1.24	
					RPD = 3.84	
38 4,4'-DDT						M
1	7.361	7.365	-0.004	2402810	0.9888	
2	8.307	8.306	0.001	8168968	1.12	M
					RPD = 12.42	
$ 45 DCB Decachlorobiphenyl						
1	8.886	8.884	0.002	27676887	4.19	
2	10.090	10.091	-0.001	76968539	6.40	
					RPD = 41.60	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 24-Jul-2019 11:13:49 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

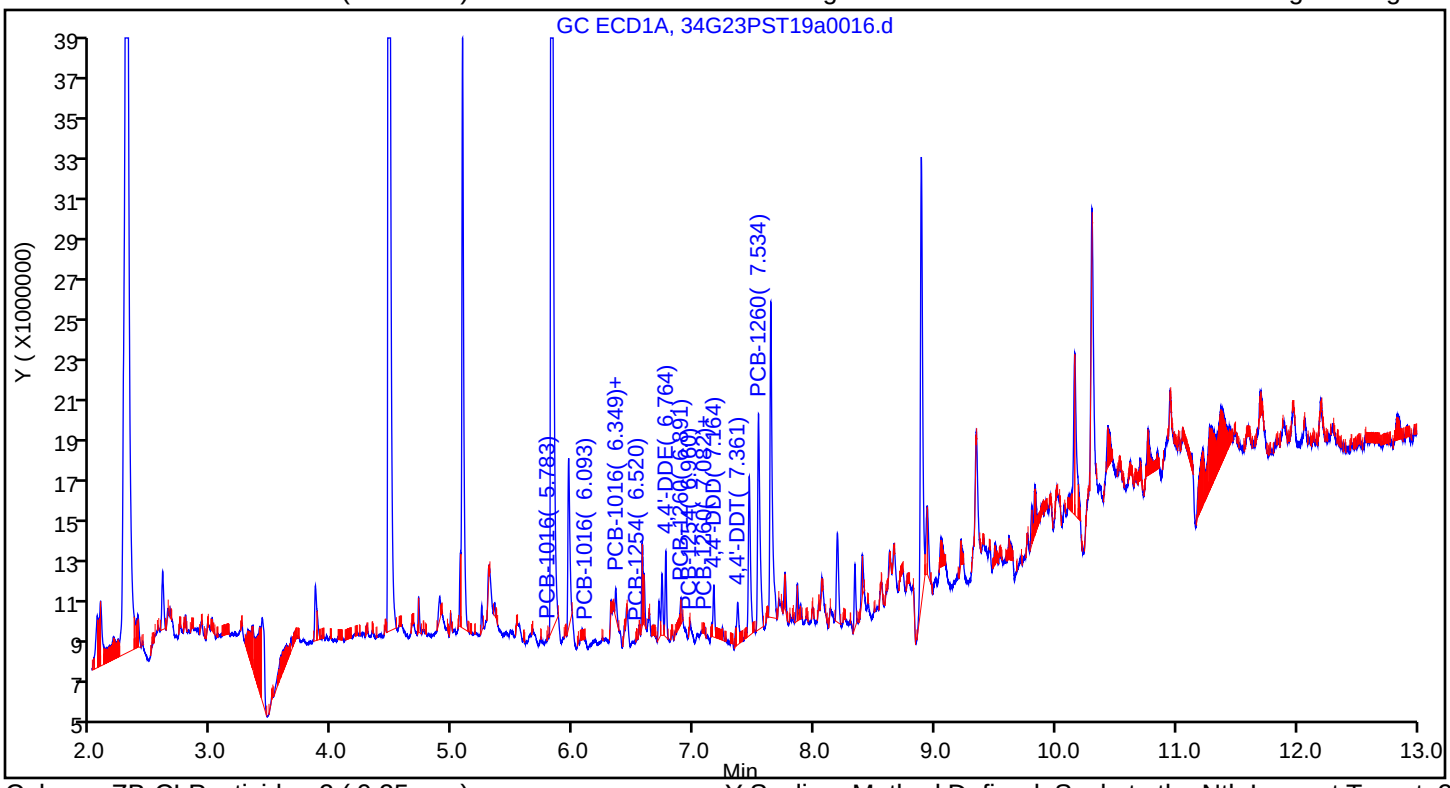
Report Date: 24-Jul-2019 11:13:49 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

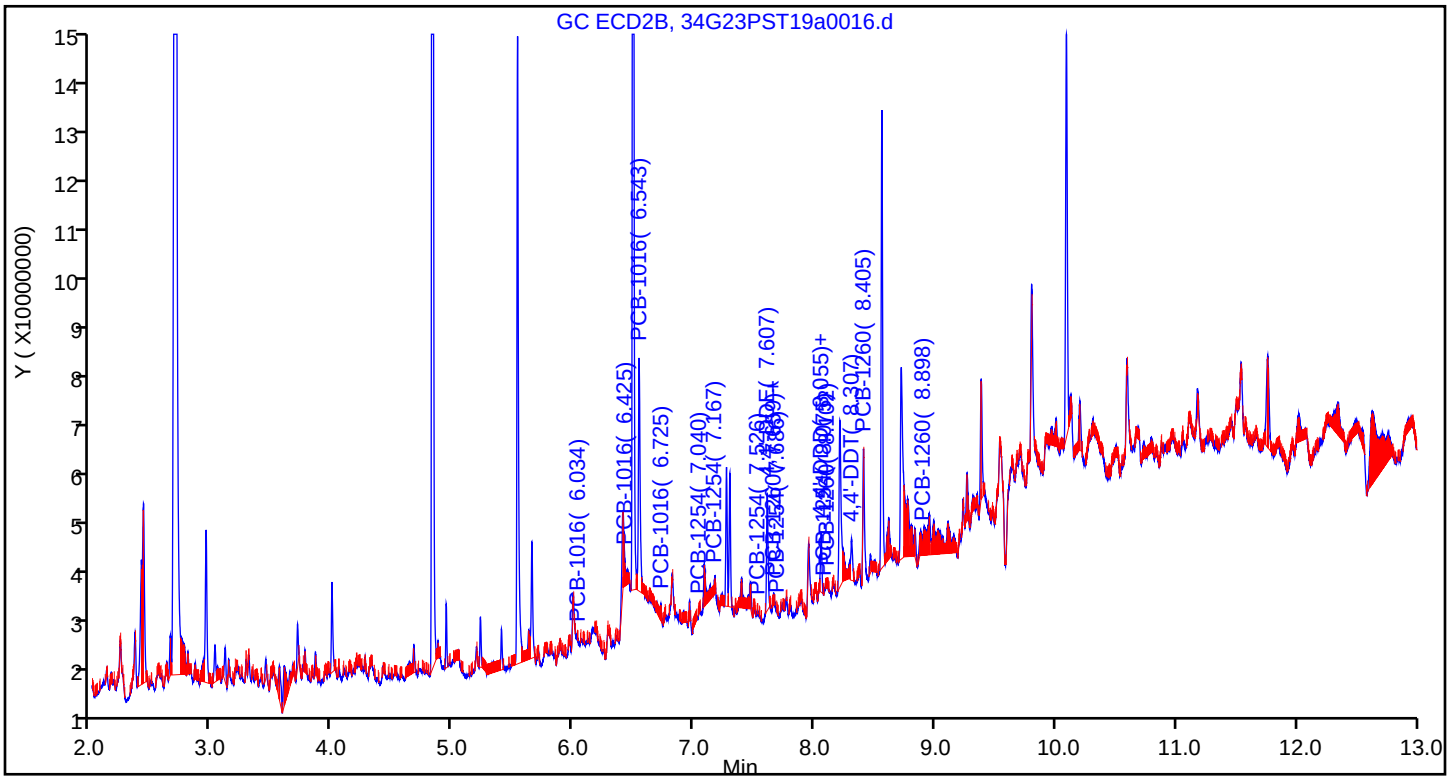
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d

Injection Date:	23-Jul-2019 16:01:40	Instrument ID:	TAC034		
Lims ID:	580-87706-A-1-B	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	CJB	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d				
Lims ID:	580-87706-A-1-B				
Client ID:	22T-SG-17_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:01:40	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-1-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:13:46	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:13:46		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	6.70	80.40
$ 45 DCB Decachlorobiphenyl	25.0	4.19	50.33

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	7.60	91.18
$ 45 DCB Decachlorobiphenyl	25.0	6.40	76.76

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d

Injection Date: 23-Jul-2019 16:01:40 Instrument ID: TAC034

Lims ID: 580-87706-A-1-B Lab Sample ID: 580-87706-1

Client ID: 22T-SG-17_20190716

Operator ID: CJB ALS Bottle#: 12 Worklist Smp#: 14

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

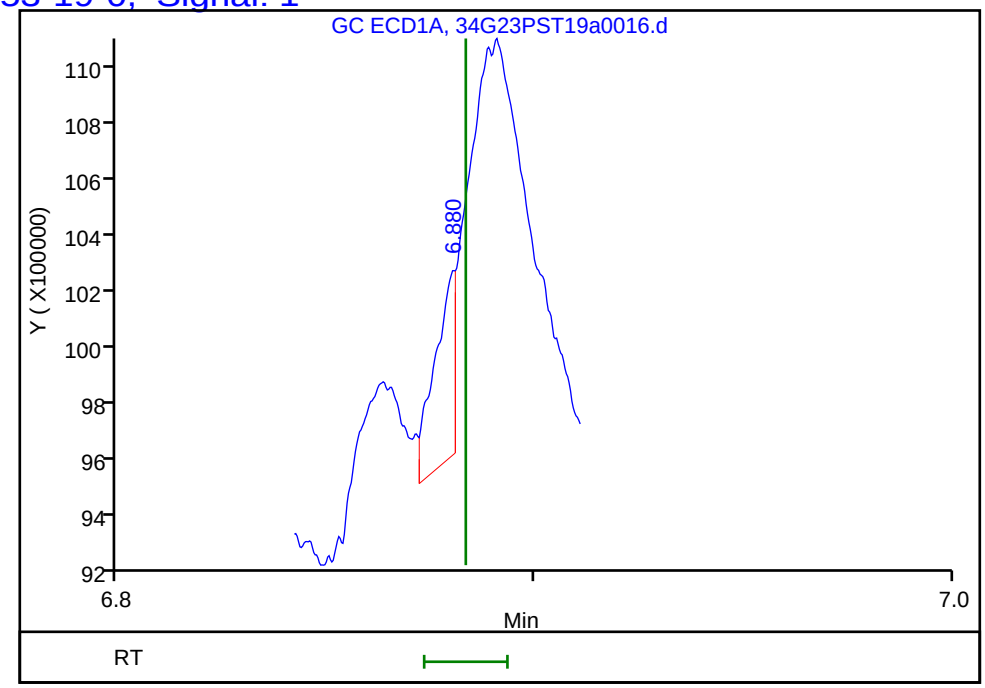
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

RT: 6.88

Response: 204076

Amount: 0.119602



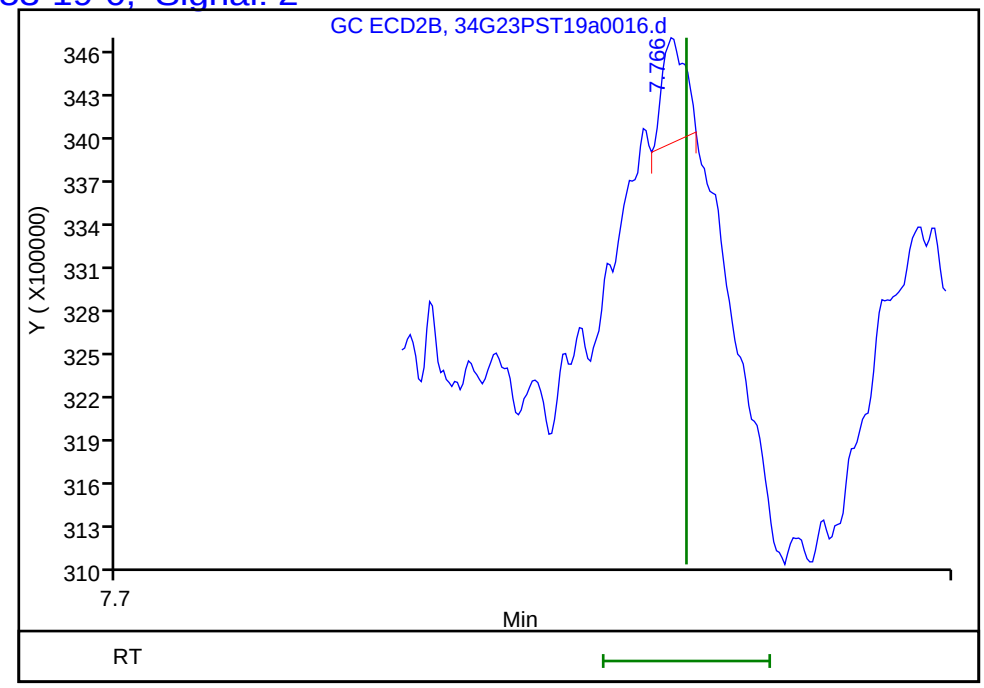
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77

Response: 135528

Amount: 0.025940



Reviewer: limwirojt, 24-Jul-2019 11:13:46

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

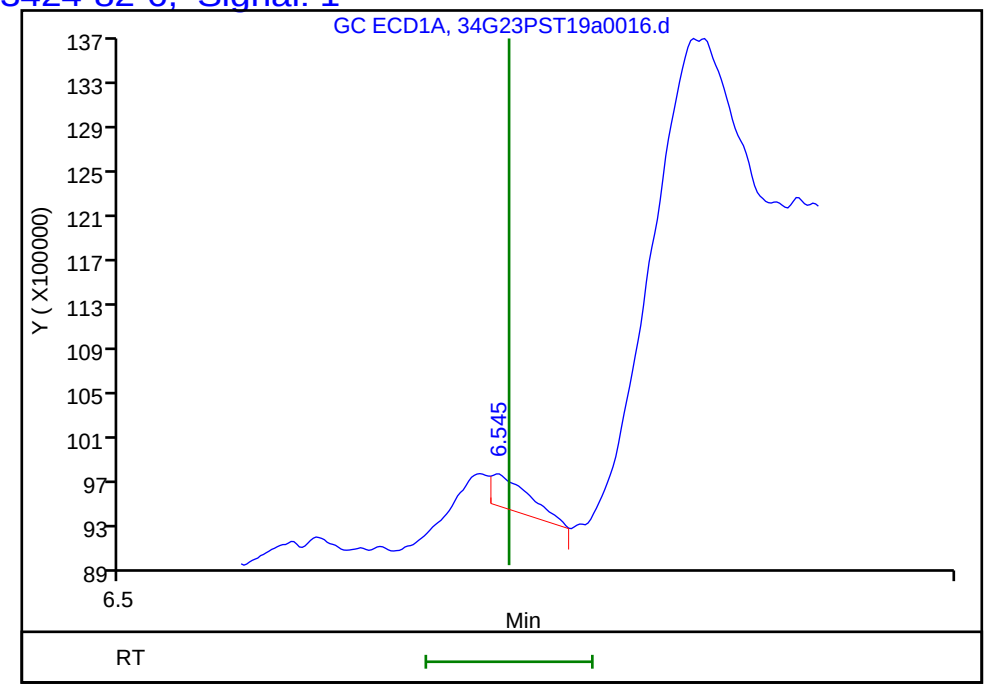
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d
Injection Date: 23-Jul-2019 16:01:40 Instrument ID: TAC034
Lims ID: 580-87706-A-1-B Lab Sample ID: 580-87706-1
Client ID: 22T-SG-17_20190716
Operator ID: CJB ALS Bottle#: 12 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

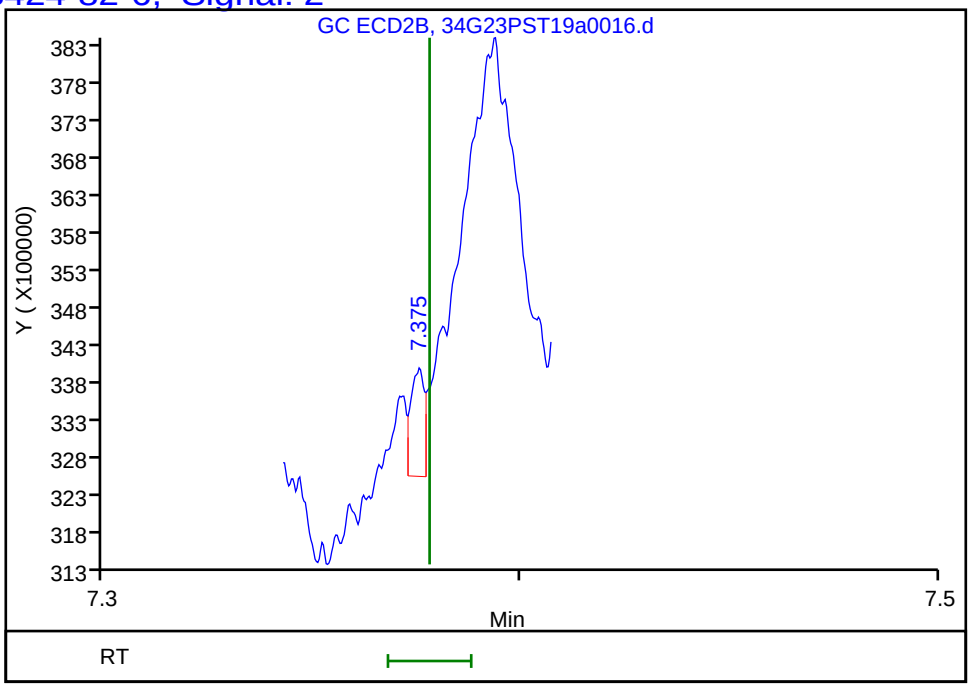
RT: 6.55
Response: 97028
Amount: 0.038672



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 315083
Amount: 0.039428



Reviewer: limwirojt, 24-Jul-2019 11:13:46
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

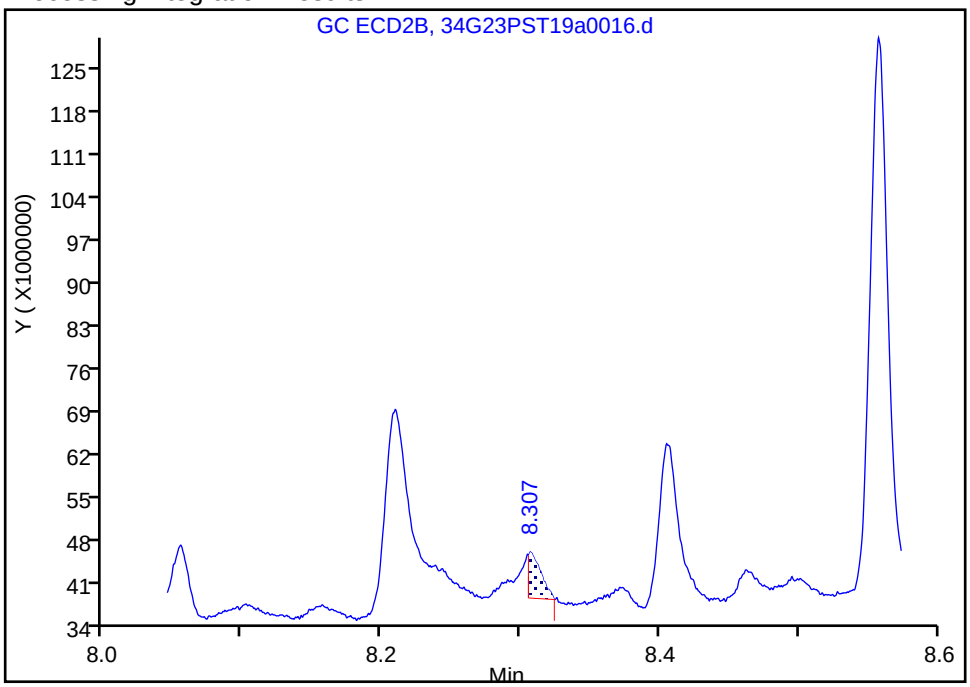
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0016.d				
Injection Date:	23-Jul-2019 16:01:40	Instrument ID:	TAC034		
Lims ID:	580-87706-A-1-B	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	CJB	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

38 4,4'-DDT, CAS: 50-29-3

Signal: 2

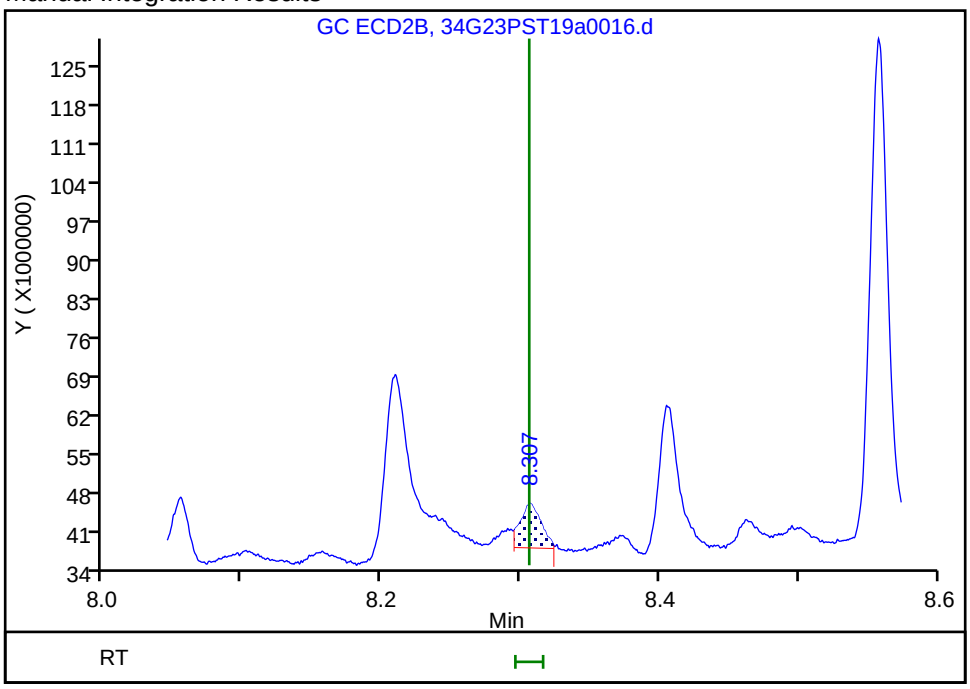
Processing Integration Results

RT: 8.31
Area: 4501707
Amount: 0.617018
Amount Units: ug/L



Manual Integration Results

RT: 8.31
Area: 8168968
Amount: 1.119665
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:13:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Matrix: Solid Lab File ID: 34G23PST19a0017.d

Analysis Method: 8081B Date Collected: 07/16/2019 08:44

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.050(g) Date Analyzed: 07/23/2019 16:21

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		4.8	1.0
789-02-6	2,4'-DDT	ND		4.8	1.8
72-54-8	4,4'-DDD	1.4	J	1.9	0.37
72-55-9	4,4'-DDE	1.4	J	1.9	0.50
50-29-3	4,4'-DDT	ND		1.9	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	51		36-136
877-09-8	Tetrachloro-m-xylene	62		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d
Lims ID: 580-87706-A-2-B
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:21:00 ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-2-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:14:47 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:14:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	146384276	100.0	
2	4.828	4.829	-0.001	658568225	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30580407	5.14	
2	5.533	5.535	-0.002	96103636	5.29	
					RPD = 2.89	
6 PCB-1232						
1	0.000	5.265	-5.265	0	NC	
1	5.500	5.500	0.000	33403	NC	
1	5.782	5.778	0.004	99112	NC	
1	5.986	5.979	0.007	277381	NC	
1	6.381	6.380	0.001	153399	NC	
		Average of Peak Amounts =			0	
2	5.741	5.740	0.001	38360	NC	
2	6.328	6.330	-0.002	36824	NC	
2	6.425	6.424	0.001	56771	NC	
2	6.749	6.746	0.003	47869	NC	
2	7.036	7.037	-0.001	92370	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.500	5.500	0.000	33403	NC	
1	5.782	5.778	0.004	99112	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.095	6.093	0.002	27849	NC	
1	6.381	6.380	0.001	153399	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	105303	NC	
2	6.328	6.330	-0.002	36824	NC	
2	6.425	6.424	0.001	56771	NC	
2	6.736	6.732	0.004	40128	NC	
2	6.993	6.994	-0.001	264836	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.500	5.500	0.000	33403	NC	
1	5.782	5.778	0.004	99112	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.095	6.093	0.002	27849	NC	
1	6.341	6.342	-0.001	108460	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	105303	NC	
2	6.328	6.330	-0.002	36824	NC	
2	6.425	6.424	0.001	56771	NC	
2	6.544	6.548	-0.004	7678332	NC	
2	6.736	6.732	0.004	40128	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.782	5.778	0.004	99112	NC	
1	5.986	5.979	0.007	277381	NC	
1	6.095	6.093	0.002	27849	NC	
1	6.381	6.380	0.001	153399	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.544	6.548	-0.004	7678332	NC	
2	6.736	6.732	0.004	40128	NC	
2	6.816	6.815	0.001	744352	NC	
2	7.036	7.037	-0.001	92370	NC	
2	7.211	7.215	-0.004	387238	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.341	6.342	-0.001	108460	NC	
1	0.000	6.512	-6.512	0	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.965	6.957	0.008	261351	NC	
1	7.289	7.288	0.001	31503	NC	
		Average of Peak Amounts =			0	
2	7.036	7.037	-0.001	92370	NC	
2	7.163	7.164	-0.001	559606	NC	
2	7.524	7.516	0.008	40279	NC	
2	7.676	7.681	-0.005	67032	NC	
2	0.000	8.080	-8.080	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	3601706	1.45	
2	7.606	7.607	-0.001	20471377	1.22	
					RPD = 17.73	
30 PCB-1260						
1	6.891	6.894	-0.003	37103	NC	
1	7.082	7.083	-0.001	151187	NC	
1	7.289	7.288	0.001	31503	NC	
1	7.533	7.536	-0.003	21097357	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	1572937	NC	
2	7.820	7.819	0.001	227856	NC	
2	8.100	8.100	0.000	453767	NC	
2	8.404	8.414	-0.010	32339788	NC	
2	8.890	8.896	-0.006	80488	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.164	7.167	-0.003	3634937	1.45	
2	8.053	8.055	-0.002	13317459	1.40	M
					RPD = 3.38	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.885	8.884	0.001	36578316	4.25	M
2	10.089	10.091	-0.002	67851116	4.30	
					RPD = 1.02	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:14:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d

Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034

Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2

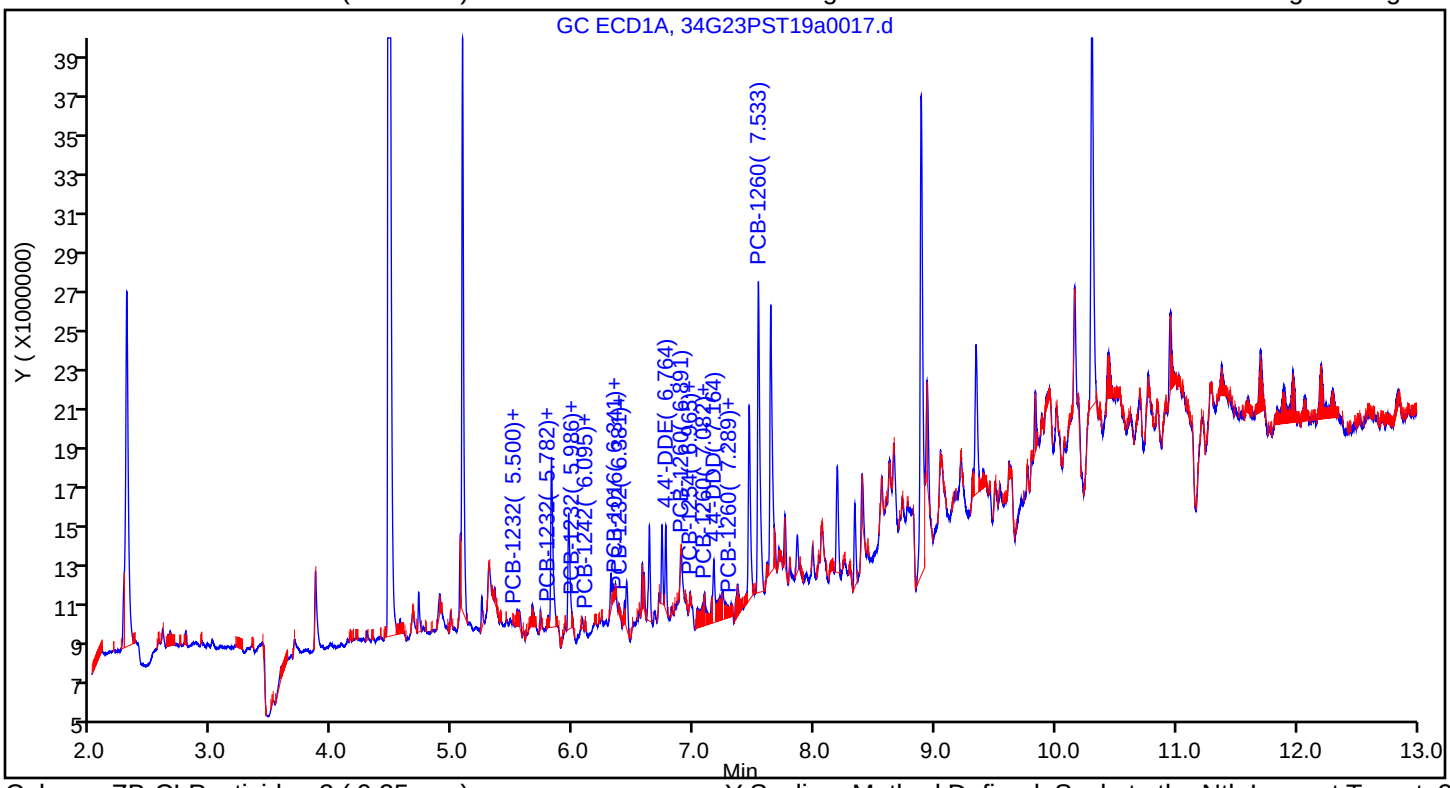
Client ID: 22T-SG-18_20190716

Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15

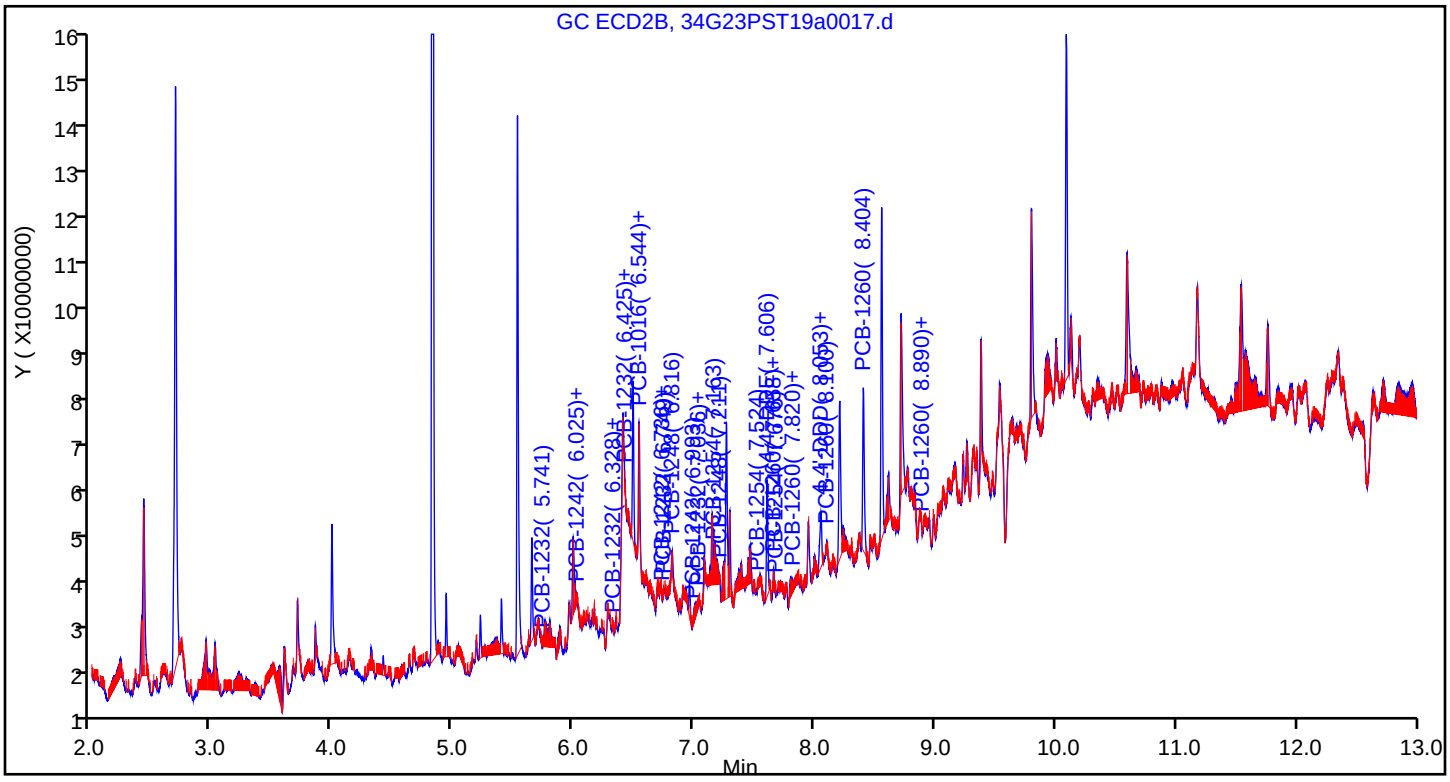
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d				
Lims ID:	580-87706-A-2-B				
Client ID:	22T-SG-18_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:21:00	ALS Bottle#:	13	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-2-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:14:47	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:14:47		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.14	61.69
$ 45 DCB Decachlorobiphenyl	25.0	4.25	51.03

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.29	63.50
$ 45 DCB Decachlorobiphenyl	25.0	4.30	51.55

User Disabled Compound Report

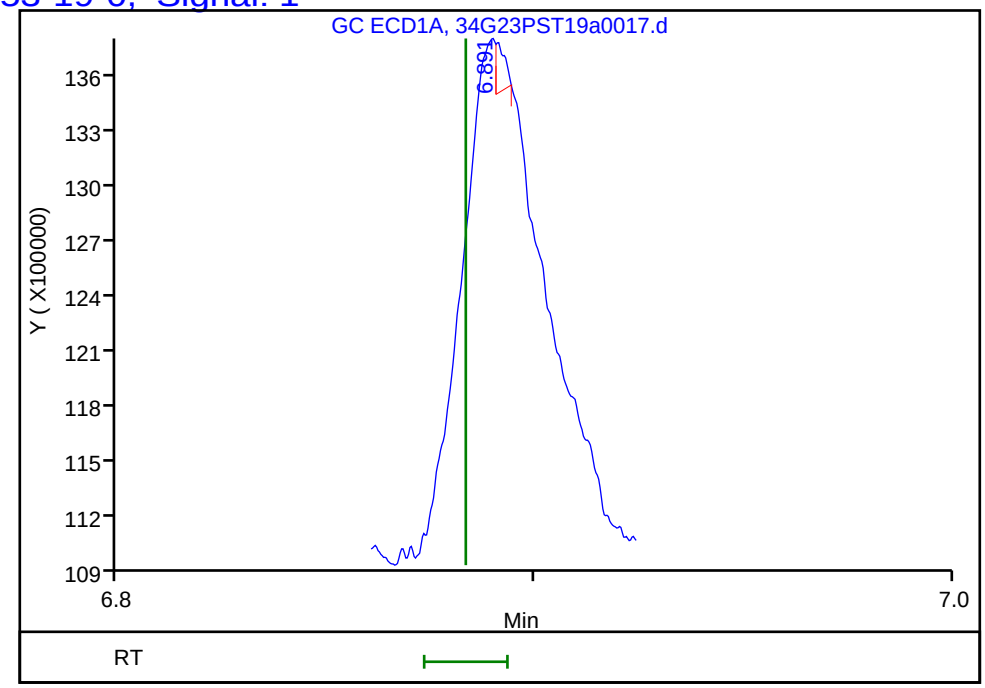
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d
Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034
Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2
Client ID: 22T-SG-18_20190716
Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

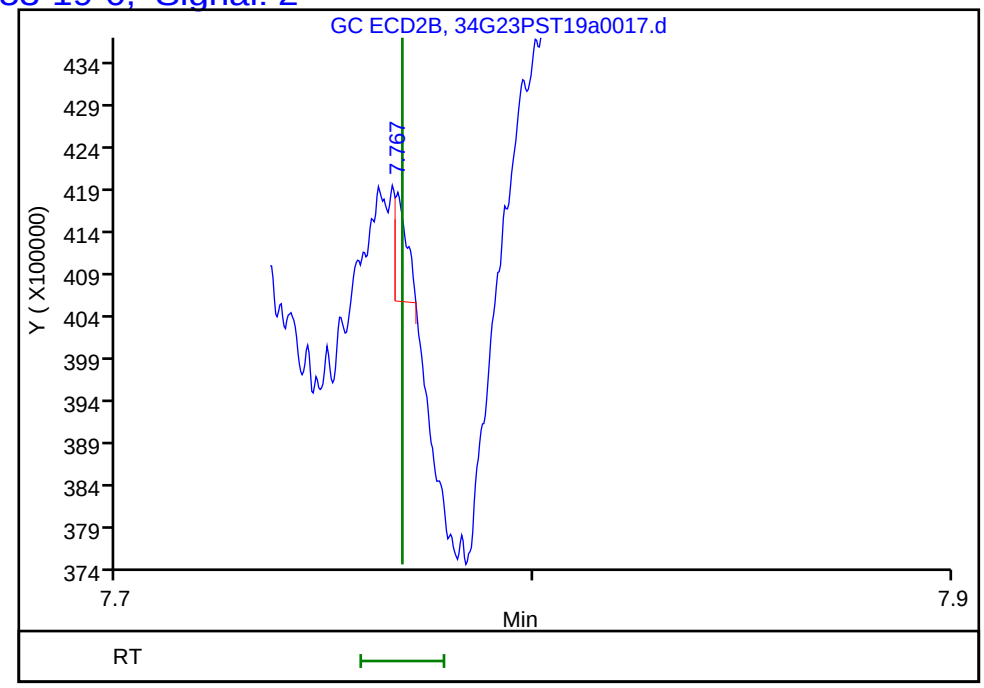
RT: 6.89
Response: 37103
Amount: 0.016625



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 232726
Amount: 0.034913



Reviewer: limwirojt, 24-Jul-2019 11:14:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

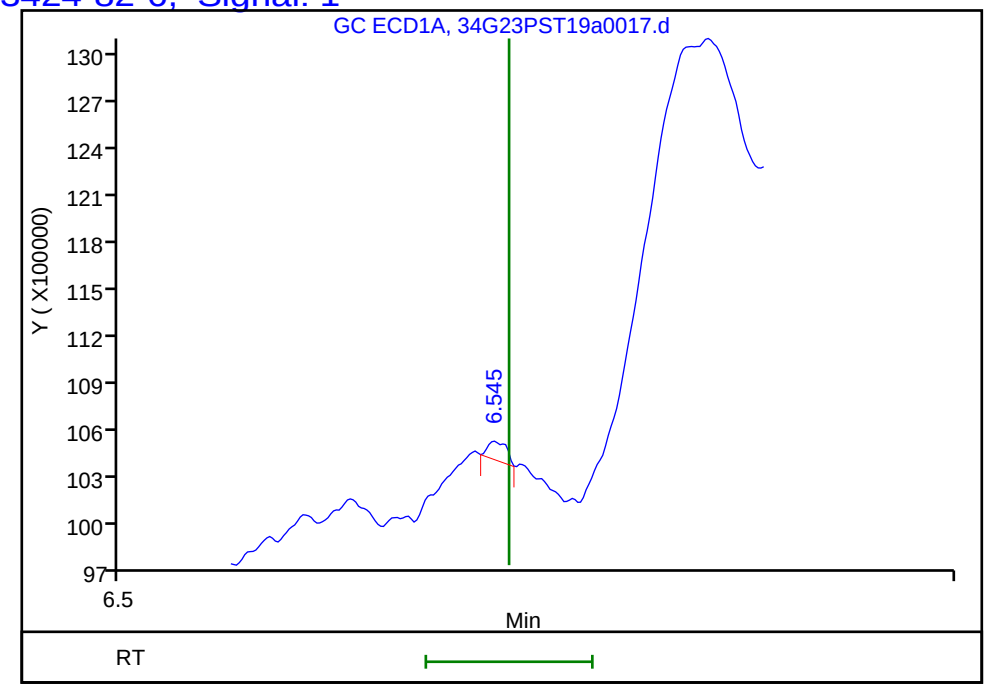
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d
Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034
Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2
Client ID: 22T-SG-18_20190716
Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

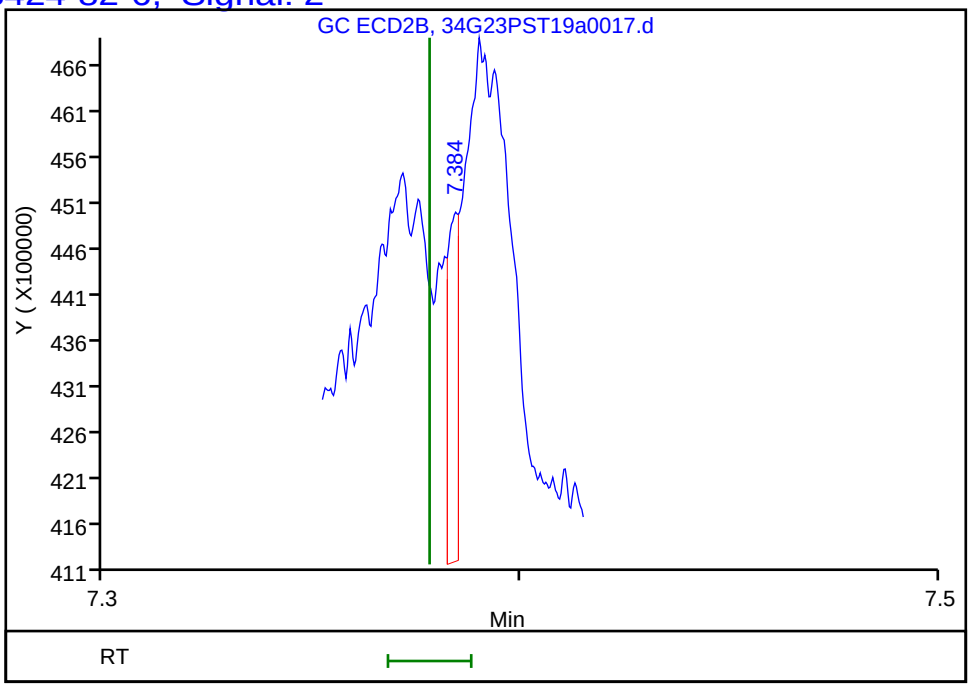
RT: 6.54
Response: 18198
Amount: 0.005545



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 576183
Amount: 0.056513



Reviewer: limwirojt, 24-Jul-2019 11:14:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d

Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034

Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2

Client ID: 22T-SG-18_20190716

Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15

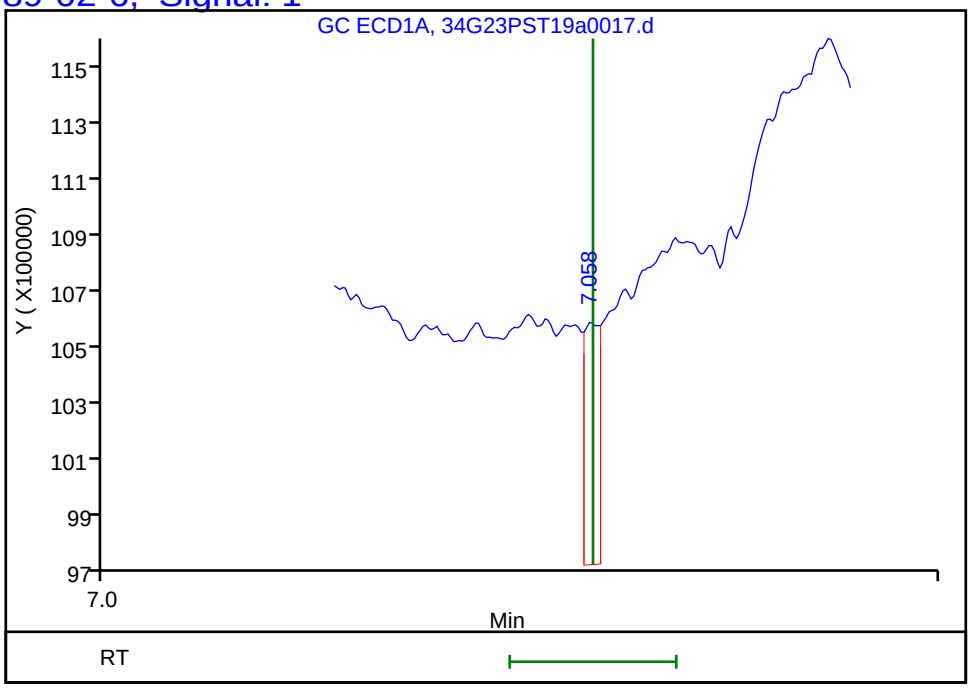
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

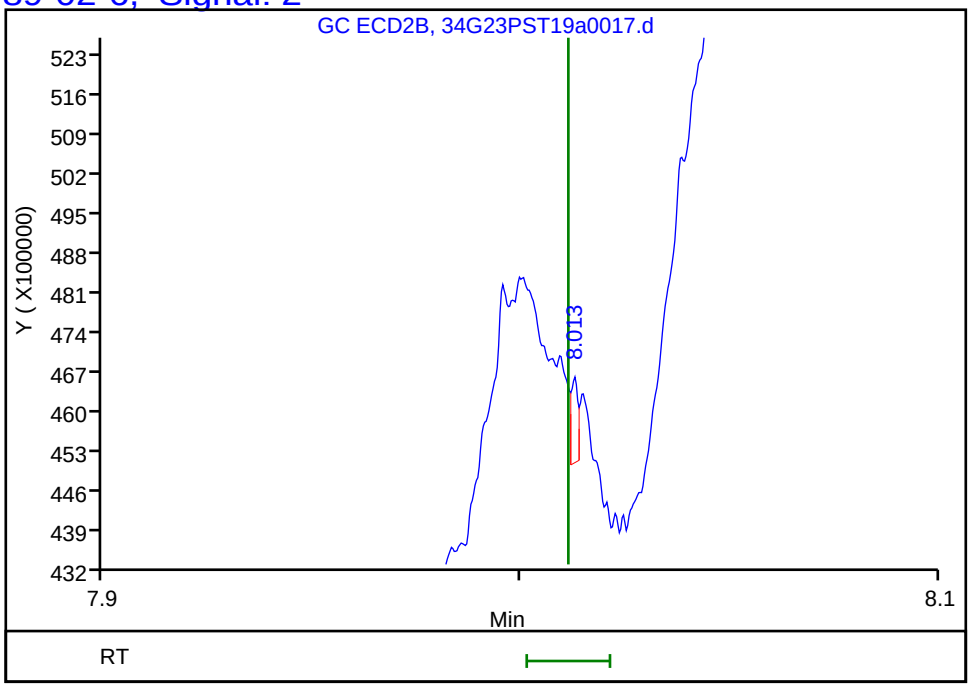
RT: 7.06
Response: 96804
Amount: 0.040496



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 155829
Amount: 0.022672



Reviewer: limwirojt, 24-Jul-2019 11:14:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d

Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034

Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2

Client ID: 22T-SG-18_20190716

Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

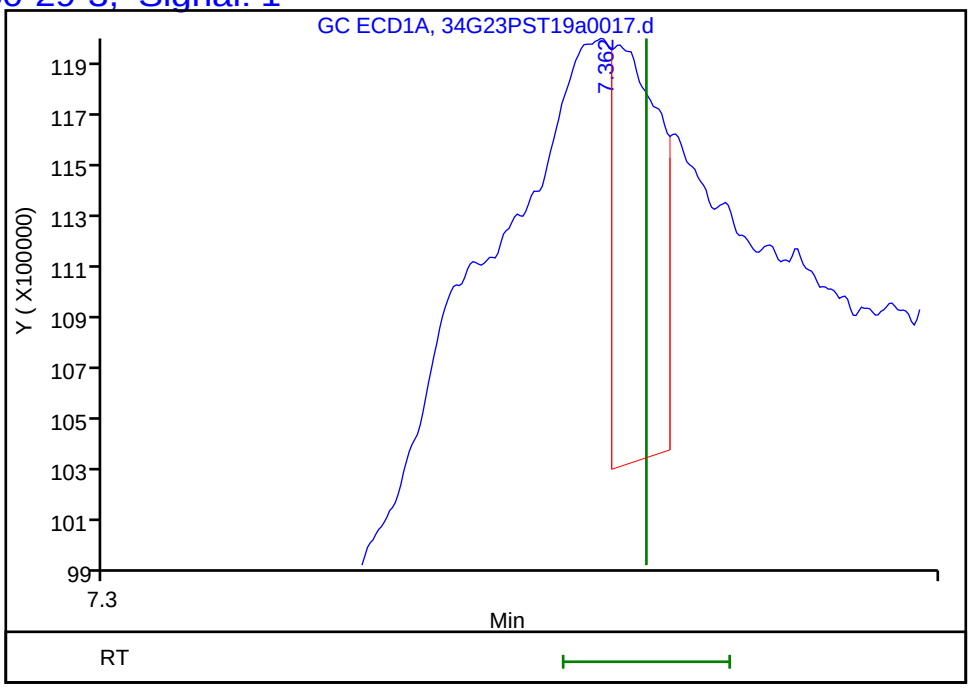
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 604074

Amount: 0.190050



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 38423

Amount: 0.004128



Reviewer: limwirojt, 24-Jul-2019 11:14:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

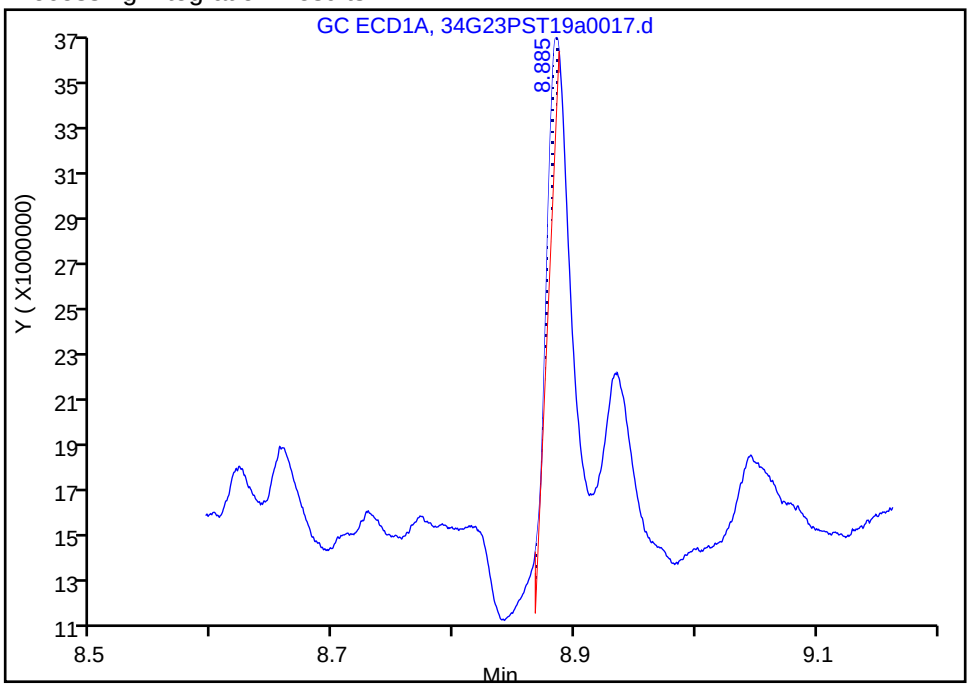
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d				
Injection Date:	23-Jul-2019 16:21:00	Instrument ID:	TAC034		
Lims ID:	580-87706-A-2-B	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	CJB	ALS Bottle#:	13	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

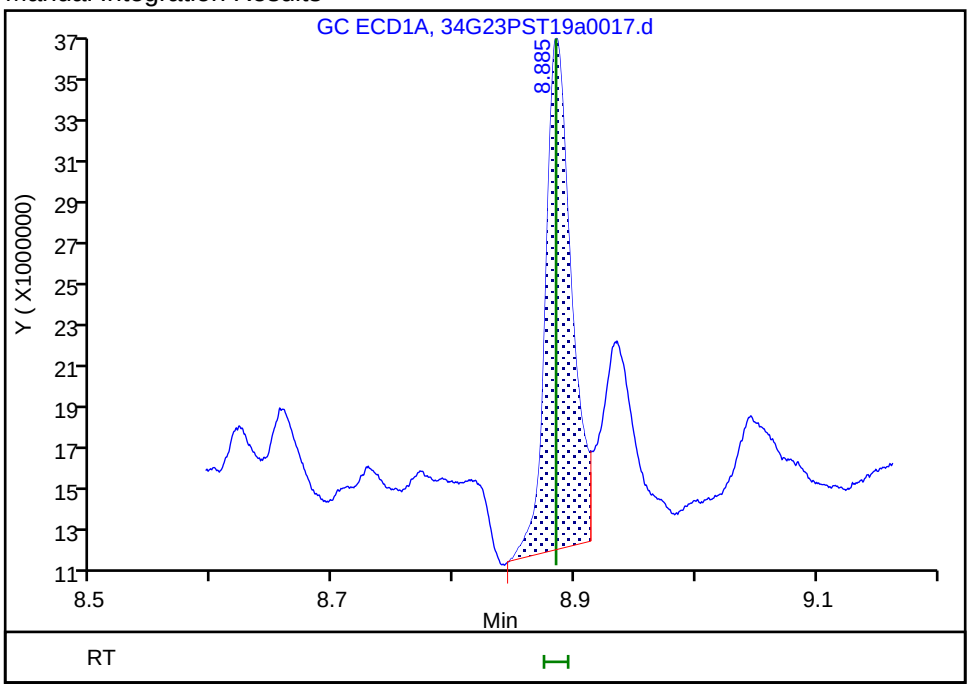
Processing Integration Results

RT: 8.88
Area: 3260462
Amount: -0.905896
Amount Units: ug/L



Manual Integration Results

RT: 8.88
Area: 36578316
Amount: 4.252516
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:14:37

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Matrix: Solid Lab File ID: 34G23PST19a0017.d

Analysis Method: 8081B Date Collected: 07/16/2019 08:44

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.050(g) Date Analyzed: 07/23/2019 16:21

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		4.8	0.86

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d
Lims ID: 580-87706-A-2-B
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:21:00 ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-2-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:14:47 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:14:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	146384276	100.0	
2	4.828	4.829	-0.001	658568225	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30580407	5.14	
2	5.533	5.535	-0.002	96103636	5.29	
					RPD = 2.89	
6 PCB-1232						
1	0.000	5.265	-5.265	0	NC	
1	5.500	5.500	0.000	33403	NC	
1	5.782	5.778	0.004	99112	NC	
1	5.986	5.979	0.007	277381	NC	
1	6.381	6.380	0.001	153399	NC	
		Average of Peak Amounts =			0	
2	5.741	5.740	0.001	38360	NC	
2	6.328	6.330	-0.002	36824	NC	
2	6.425	6.424	0.001	56771	NC	
2	6.749	6.746	0.003	47869	NC	
2	7.036	7.037	-0.001	92370	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.500	5.500	0.000	33403	NC	
1	5.782	5.778	0.004	99112	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.095	6.093	0.002	27849	NC	
1	6.381	6.380	0.001	153399	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	105303	NC	
2	6.328	6.330	-0.002	36824	NC	
2	6.425	6.424	0.001	56771	NC	
2	6.736	6.732	0.004	40128	NC	
2	6.993	6.994	-0.001	264836	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.500	5.500	0.000	33403	NC	
1	5.782	5.778	0.004	99112	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.095	6.093	0.002	27849	NC	
1	6.341	6.342	-0.001	108460	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	105303	NC	
2	6.328	6.330	-0.002	36824	NC	
2	6.425	6.424	0.001	56771	NC	
2	6.544	6.548	-0.004	7678332	NC	
2	6.736	6.732	0.004	40128	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.782	5.778	0.004	99112	NC	
1	5.986	5.979	0.007	277381	NC	
1	6.095	6.093	0.002	27849	NC	
1	6.381	6.380	0.001	153399	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.544	6.548	-0.004	7678332	NC	
2	6.736	6.732	0.004	40128	NC	
2	6.816	6.815	0.001	744352	NC	
2	7.036	7.037	-0.001	92370	NC	
2	7.211	7.215	-0.004	387238	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.341	6.342	-0.001	108460	NC	
1	0.000	6.512	-6.512	0	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.965	6.957	0.008	261351	NC	
1	7.289	7.288	0.001	31503	NC	
		Average of Peak Amounts =			0	
2	7.036	7.037	-0.001	92370	NC	
2	7.163	7.164	-0.001	559606	NC	
2	7.524	7.516	0.008	40279	NC	
2	7.676	7.681	-0.005	67032	NC	
2	0.000	8.080	-8.080	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	3601706	1.45	
2	7.606	7.607	-0.001	20471377	1.22	
					RPD = 17.73	
30 PCB-1260						
1	6.891	6.894	-0.003	37103	NC	
1	7.082	7.083	-0.001	151187	NC	
1	7.289	7.288	0.001	31503	NC	
1	7.533	7.536	-0.003	21097357	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	1572937	NC	
2	7.820	7.819	0.001	227856	NC	
2	8.100	8.100	0.000	453767	NC	
2	8.404	8.414	-0.010	32339788	NC	
2	8.890	8.896	-0.006	80488	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.164	7.167	-0.003	3634937	1.45	
2	8.053	8.055	-0.002	13317459	1.40	M
					RPD = 3.38	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.885	8.884	0.001	36578316	4.25	M
2	10.089	10.091	-0.002	67851116	4.30	
					RPD = 1.02	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:14:49 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d

Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034

Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2

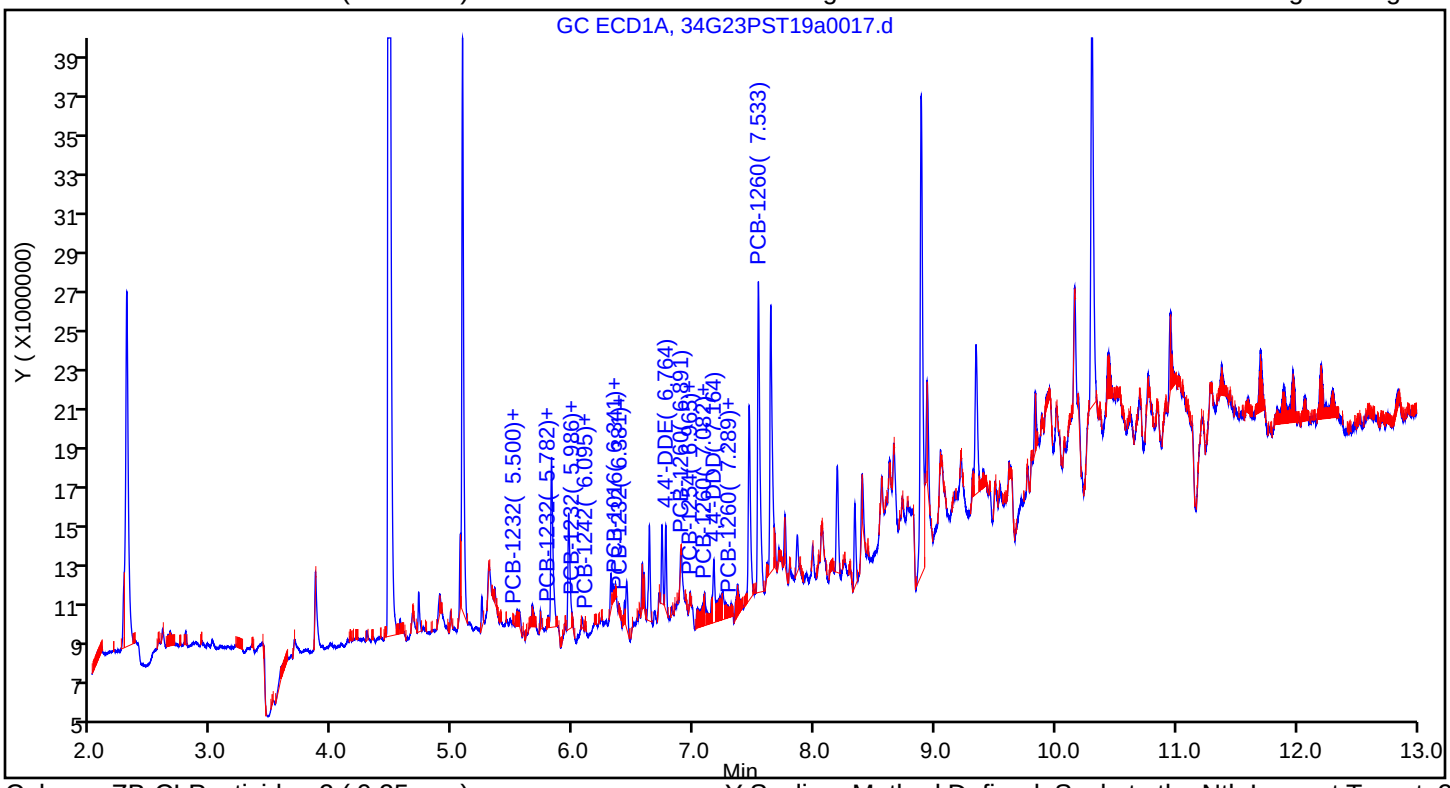
Client ID: 22T-SG-18_20190716

Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15

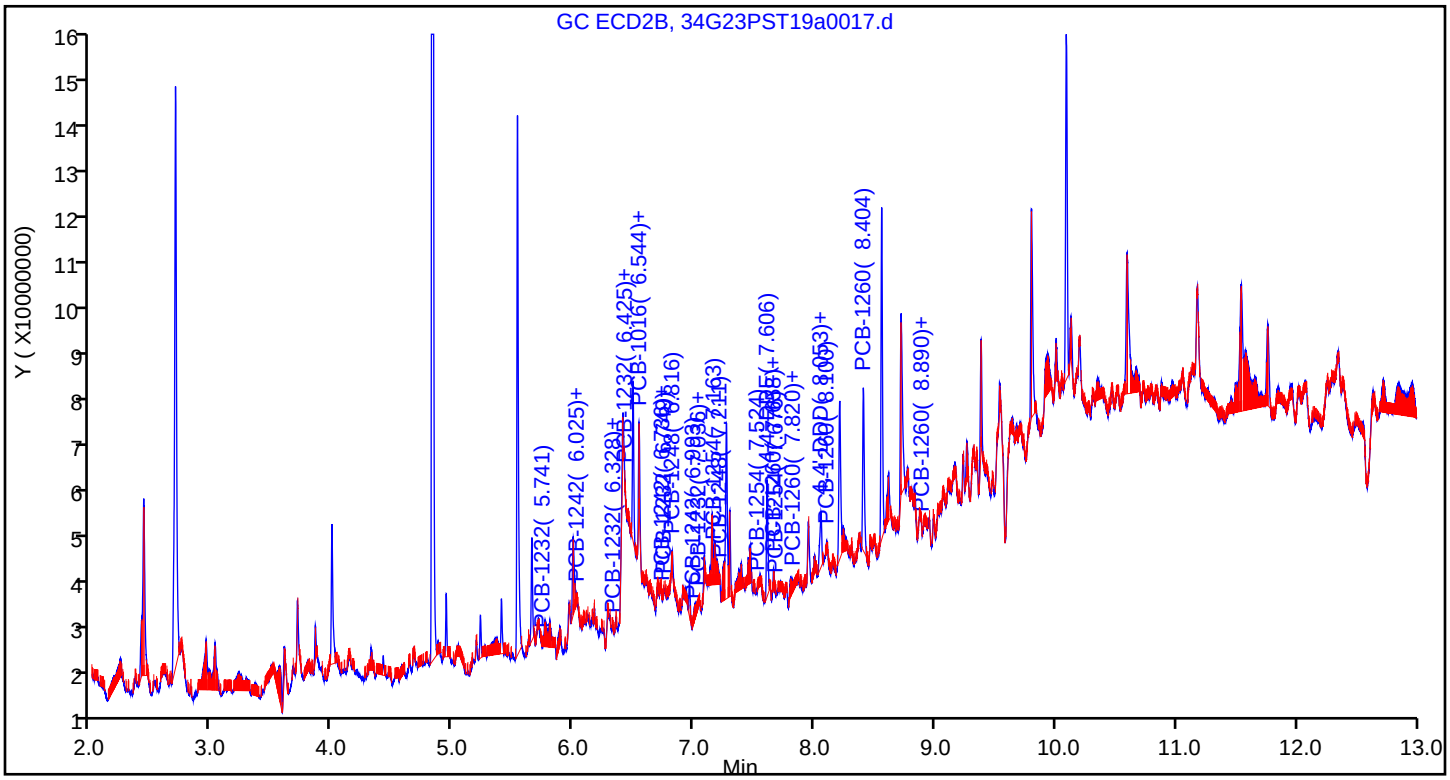
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d				
Lims ID:	580-87706-A-2-B				
Client ID:	22T-SG-18_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:21:00	ALS Bottle#:	13	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-2-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:14:47	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:14:47		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.14	61.69
$ 45 DCB Decachlorobiphenyl	25.0	4.25	51.03

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.29	63.50
$ 45 DCB Decachlorobiphenyl	25.0	4.30	51.55

User Disabled Compound Report

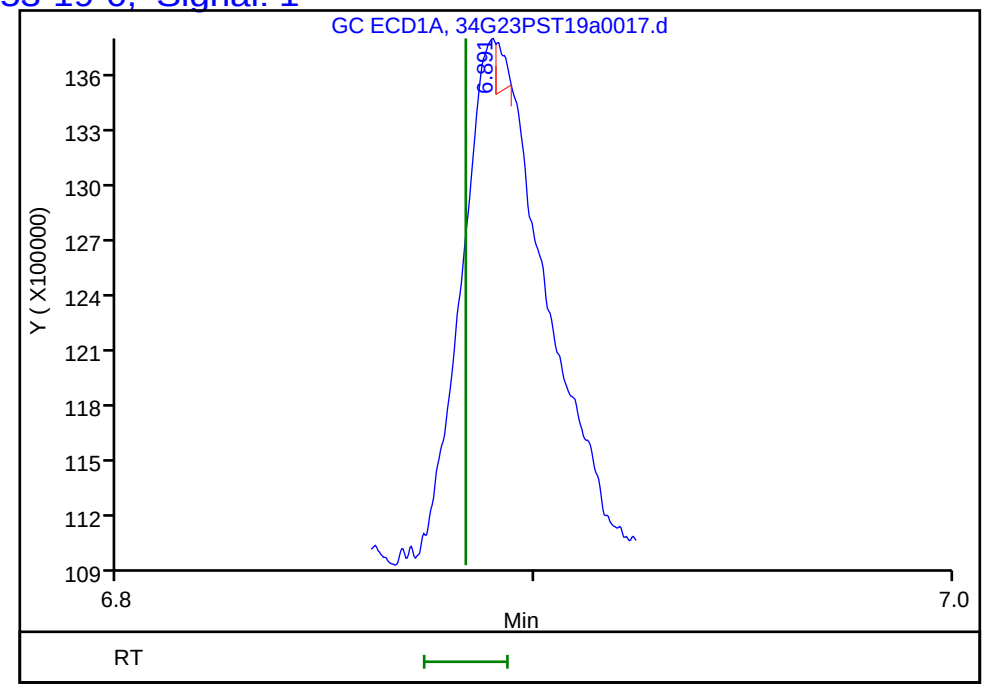
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d
Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034
Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2
Client ID: 22T-SG-18_20190716
Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

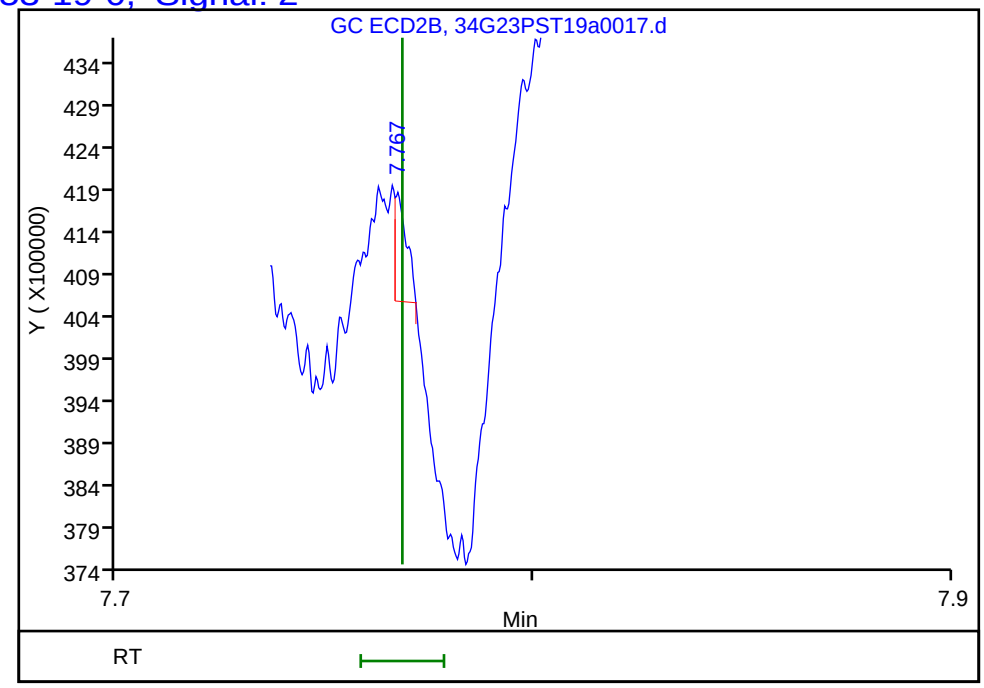
RT: 6.89
Response: 37103
Amount: 0.016625



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 232726
Amount: 0.034913



Reviewer: limwirojt, 24-Jul-2019 11:14:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

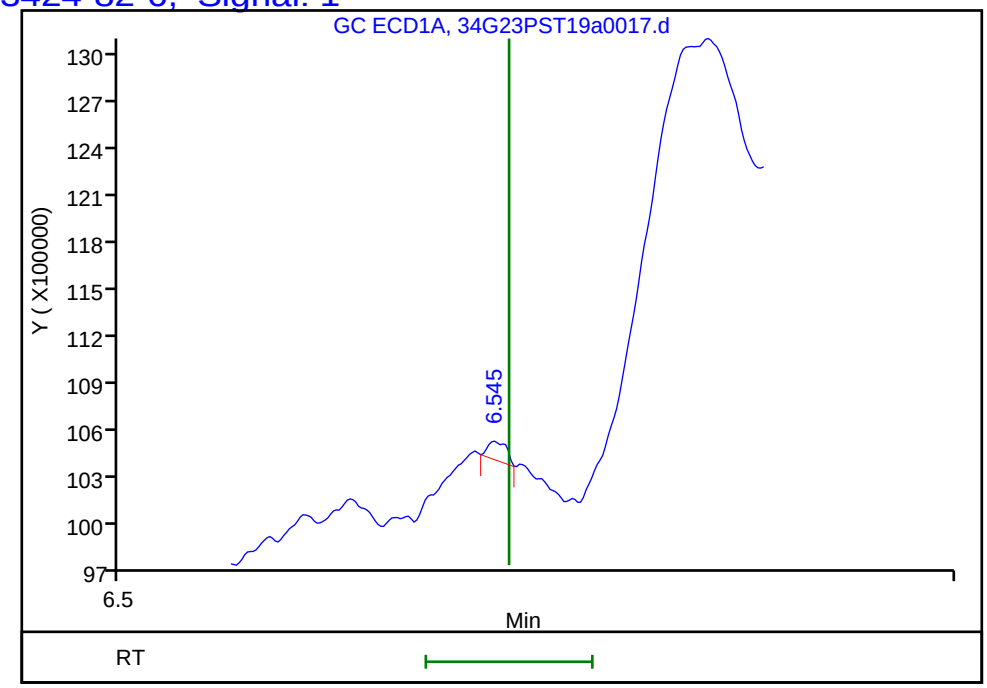
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d
Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034
Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2
Client ID: 22T-SG-18_20190716
Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

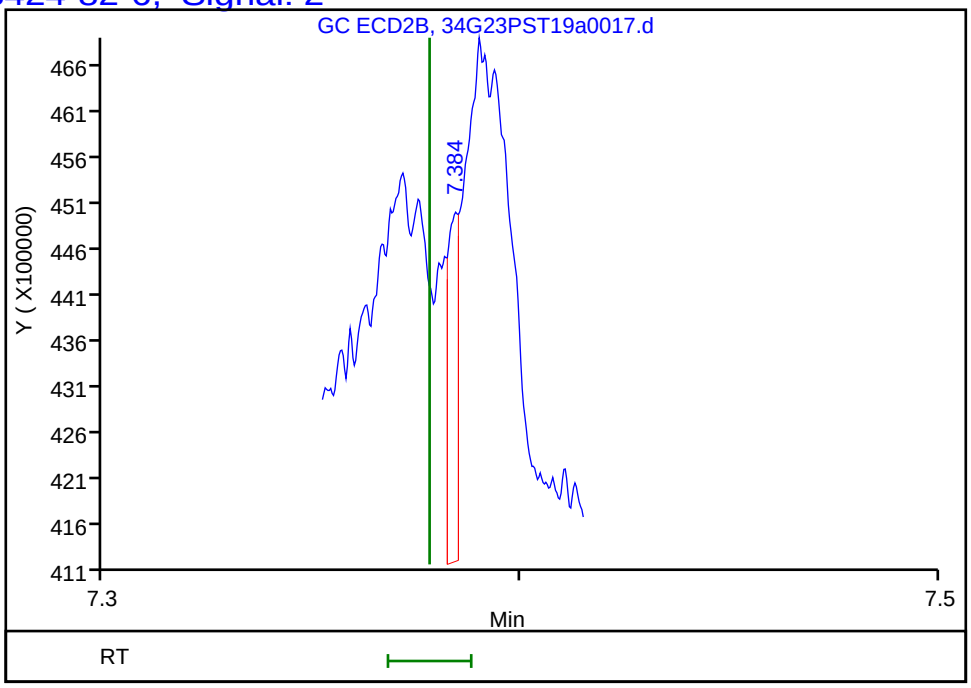
RT: 6.54
Response: 18198
Amount: 0.005545



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 576183
Amount: 0.056513



Reviewer: limwirojt, 24-Jul-2019 11:14:47
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d

Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034

Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2

Client ID: 22T-SG-18_20190716

Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15

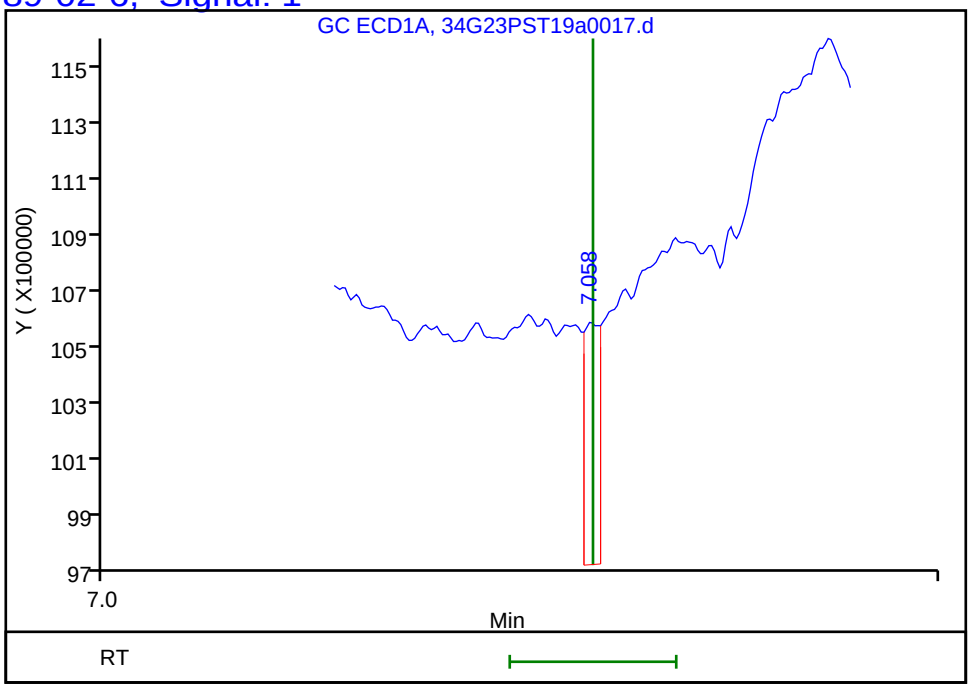
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

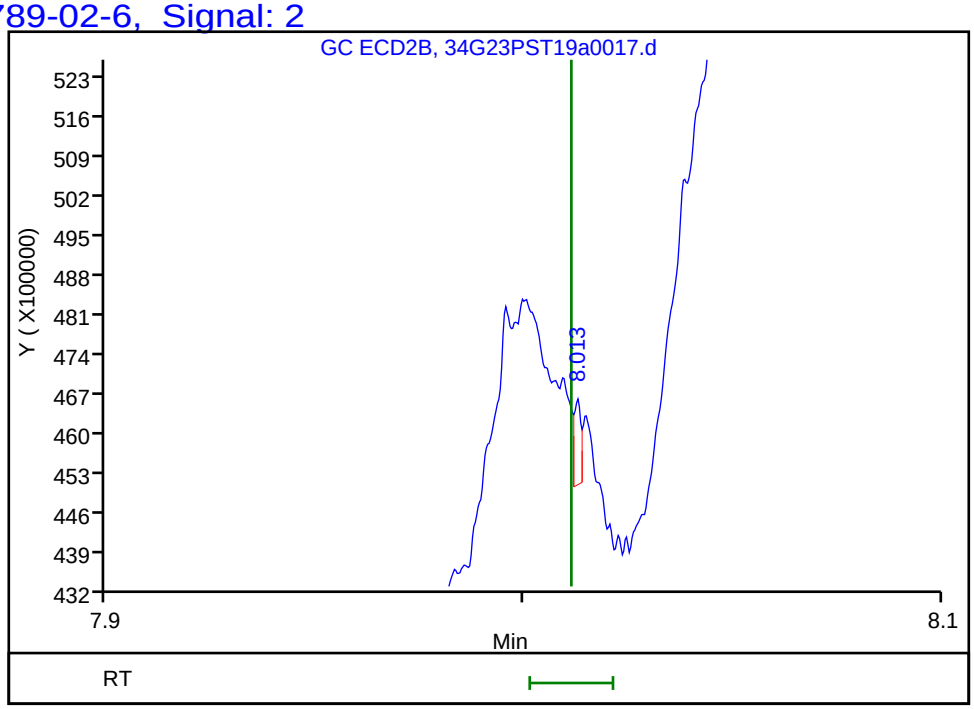
RT: 7.06
Response: 96804
Amount: 0.040496



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 155829
Amount: 0.022672



Reviewer: limwirojt, 24-Jul-2019 11:14:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

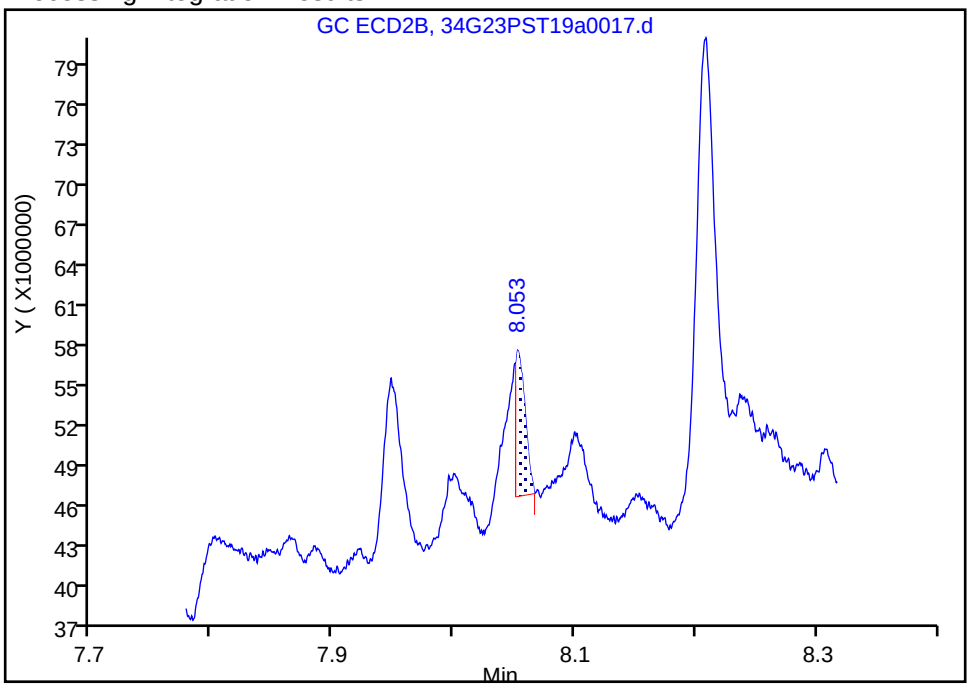
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d		
Injection Date:	23-Jul-2019 16:21:00	Instrument ID:	TAC034
Lims ID:	580-87706-A-2-B	Lab Sample ID:	580-87706-2
Client ID:	22T-SG-18_20190716		
Operator ID:	CJB	ALS Bottle#:	13 Worklist Smp#: 15
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

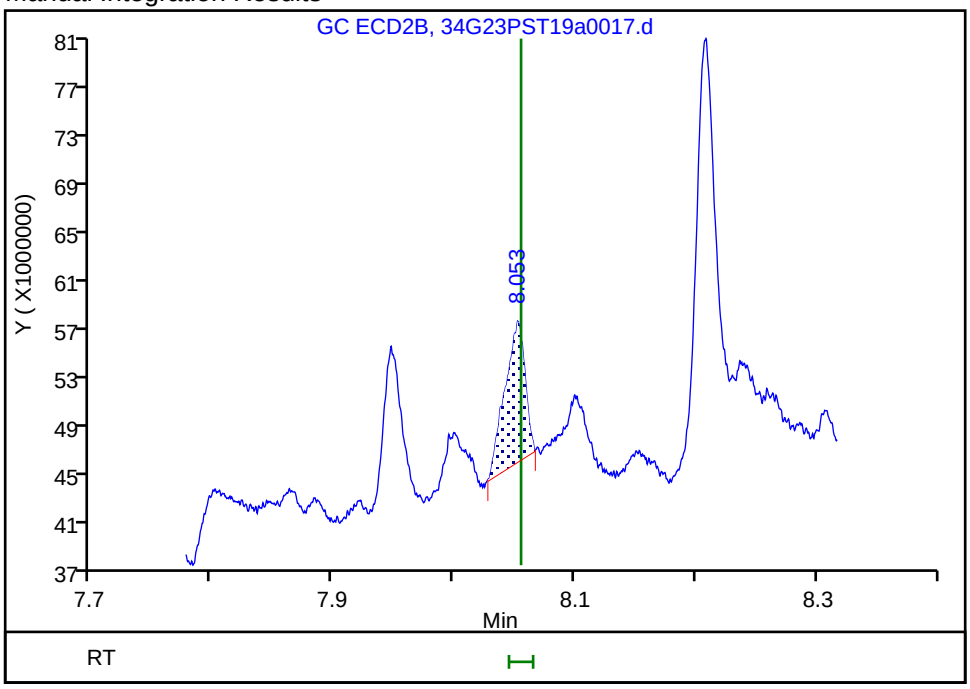
Processing Integration Results

RT: 8.05
Area: 5611380
Amount: 0.591148
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 13317459
Amount: 1.402970
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:14:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0017.d

Injection Date: 23-Jul-2019 16:21:00 Instrument ID: TAC034

Lims ID: 580-87706-A-2-B Lab Sample ID: 580-87706-2

Client ID: 22T-SG-18_20190716

Operator ID: CJB ALS Bottle#: 13 Worklist Smp#: 15

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

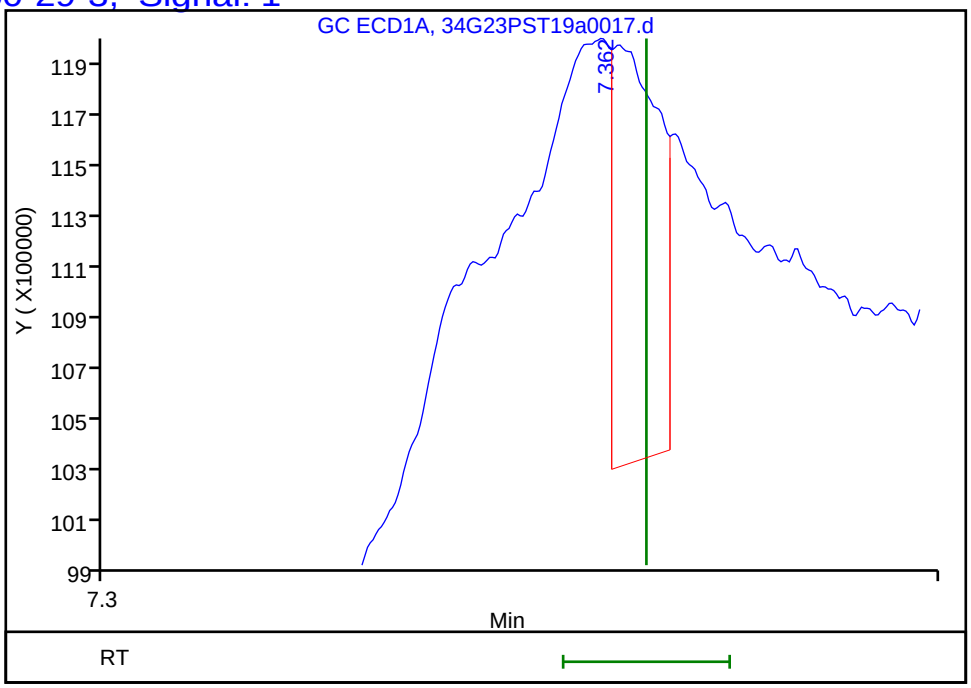
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 604074

Amount: 0.190050



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 38423

Amount: 0.004128



Reviewer: limwirojt, 24-Jul-2019 11:14:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 34G23PST19a0018.d

Analysis Method: 8081B Date Collected: 07/16/2019 08:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.515(g) Date Analyzed: 07/23/2019 16:40

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.5	0.77
789-02-6	2,4'-DDT	ND		3.5	1.3
72-54-8	4,4'-DDD	0.70	J	1.4	0.27
72-55-9	4,4'-DDE	1.4		1.4	0.37
50-29-3	4,4'-DDT	ND		1.4	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	34	X	36-136
877-09-8	Tetrachloro-m-xylene	51		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Lims ID: 580-87706-A-3-B
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:40:16 ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-3-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:15:37 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:15:37

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.463	4.467	-0.004	135952811	100.0	
2	4.827	4.829	-0.002	510379935	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	23308807	4.22	
2	5.533	5.535	-0.002	78296598	5.56	
					RPD = 27.42	
10 PCB-1242						
1	0.000	5.500	-5.500	0	NC	
1	5.783	5.778	0.005	35418	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.097	6.093	0.004	26618	NC	
1	6.384	6.380	0.004	27175	NC	
		Average of Peak Amounts =			0	
2	0.000	6.025	-6.025	0	NC	
2	6.328	6.330	-0.002	37634	NC	
2	6.423	6.424	-0.001	50937	NC	
2	6.727	6.732	-0.005	224868	NC	
2	6.997	6.994	0.003	44377	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.783	5.778	0.005	35418	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.097	6.093	0.004	26618	NC	
1	6.341	6.342	-0.001	15466	NC	
		Average of Peak Amounts =			0	
2	0.000	6.025	-6.025	0	NC	
2	6.328	6.330	-0.002	37634	NC	
2	6.423	6.424	-0.001	50937	NC	
2	6.543	6.548	-0.005	11141764	NC	
2	6.727	6.732	-0.005	224868	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.783	5.778	0.005	35418	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.097	6.093	0.004	26618	NC	
1	6.384	6.380	0.004	27175	NC	
1	6.766	6.775	-0.009	6729867	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	11141764	NC	
2	6.727	6.732	-0.005	224868	NC	
2	6.818	6.815	0.003	1686592	NC	
2	7.046	7.037	0.009	54103	NC	
2	7.216	7.215	0.001	35771	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
19 PCB-1254						
1	6.341	6.342	-0.001	15466	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.766	6.775	-0.009	6729867	NC	
1	6.956	6.957	-0.001	33007	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.046	7.037	0.009	54103	NC	
2	7.165	7.164	0.001	611957	NC	
2	7.512	7.516	-0.004	46589	NC	
2	7.681	7.681	0.000	208089	NC	
2	8.084	8.080	0.004	49488	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.766	6.768	-0.002	6729867	2.03	
2	7.606	7.607	-0.001	33206581	2.54	
					RPD = 22.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
30 PCB-1260						
1	6.889	6.894	-0.005	5114755	NC	
1	7.087	7.083	0.004	814501	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	14990338	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	2571242	NC	
2	7.818	7.819	-0.001	34970	NC	
2	8.100	8.100	0.000	52691	NC	
2	8.406	8.414	-0.008	10301468	NC	
2	8.896	8.896	0.000	34628	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						
1	7.164	7.167	-0.003	1887507	1.00	
2	8.053	8.055	-0.002	10768918	1.46	
					RPD = 37.52	
$ 45 DCB Decachlorobiphenyl						
1	8.885	8.884	0.001	25605413	2.86	
2	10.091	10.091	0.000	63192790	5.24	
					RPD = 58.93	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

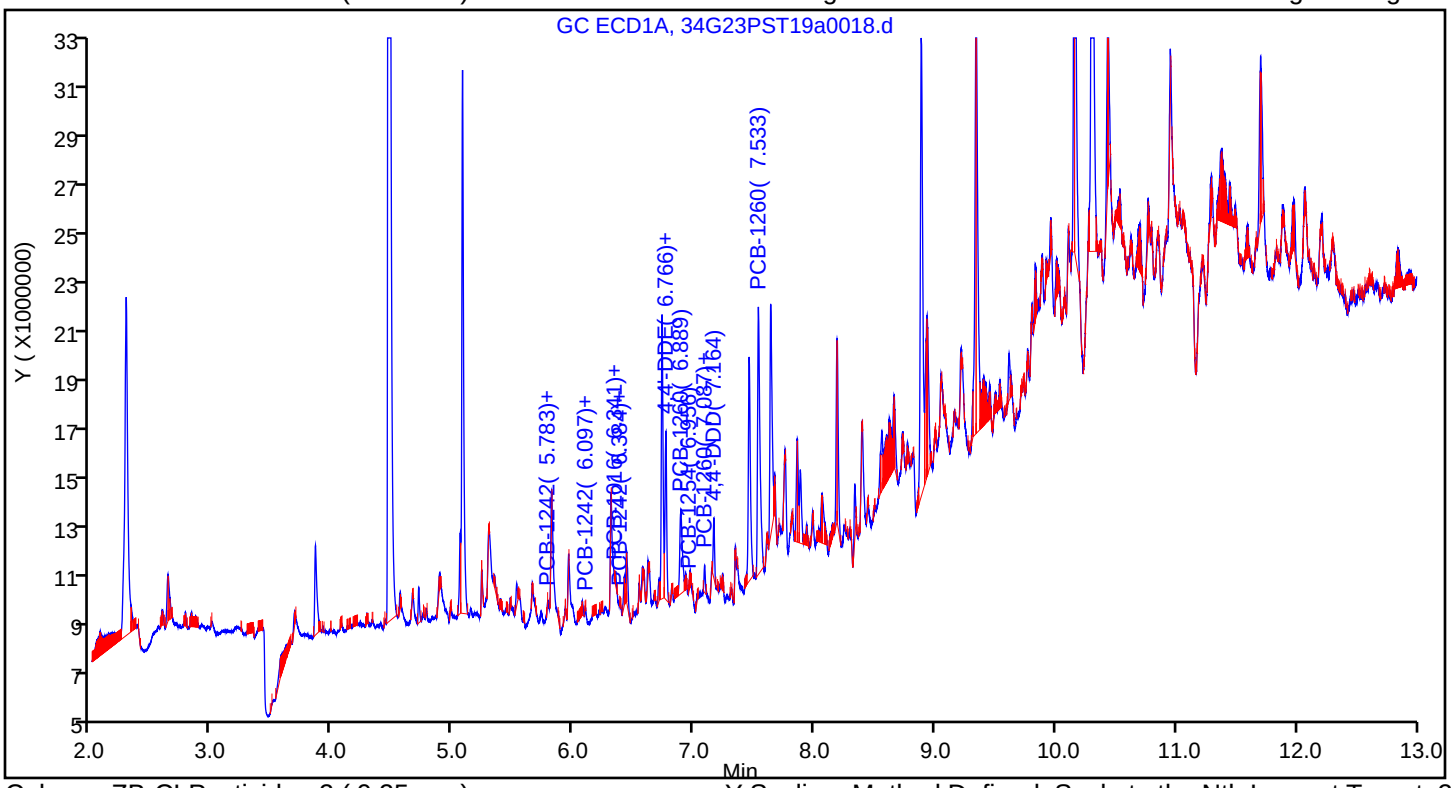
Report Date: 24-Jul-2019 11:15:38 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

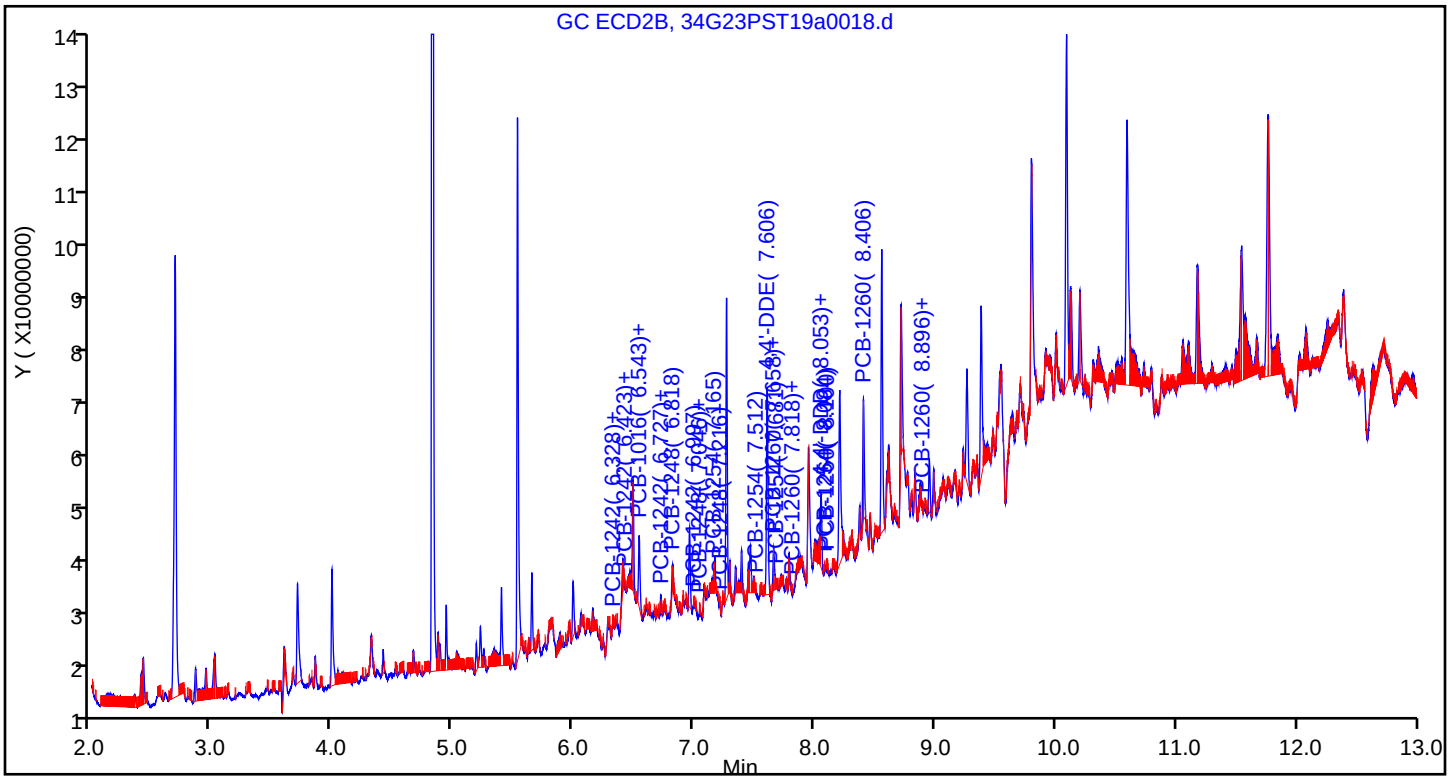
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d

Injection Date:	23-Jul-2019 16:40:16	Instrument ID:	TAC034
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3
Client ID:	22T-SG-11_20190716		
Operator ID:	CJB	ALS Bottle#:	14 Worklist Smp#: 16
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d				
Lims ID:	580-87706-A-3-B				
Client ID:	22T-SG-11_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:40:16	ALS Bottle#:	14	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-3-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:15:37	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:15:37		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.22	50.63
$ 45 DCB Decachlorobiphenyl	25.0	2.86	34.28

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.56	66.72
$ 45 DCB Decachlorobiphenyl	25.0	5.24	62.92

User Disabled Compound Report

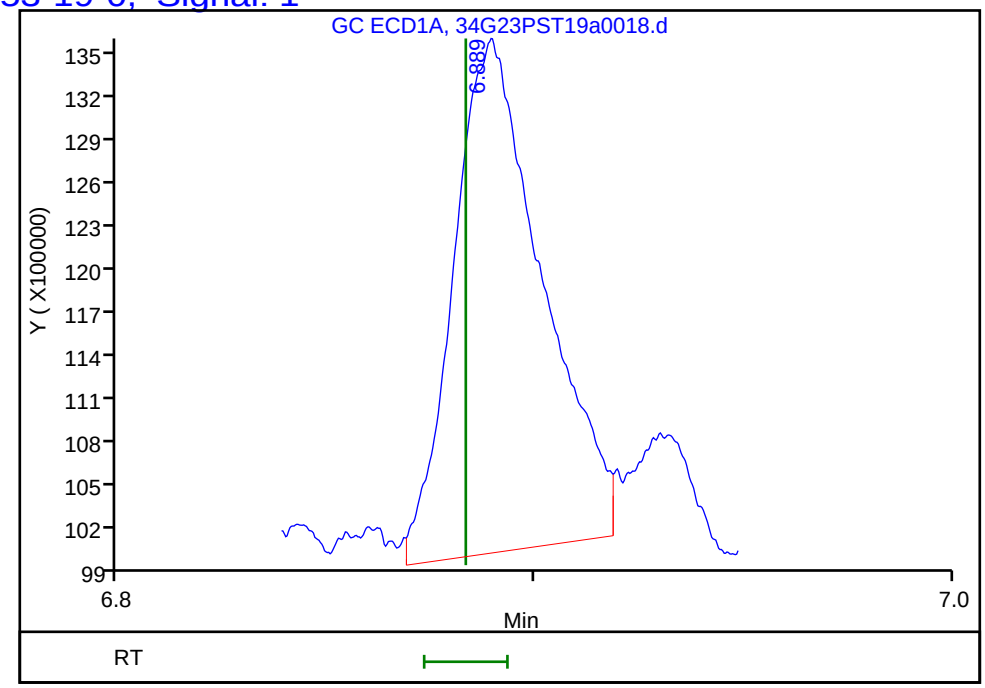
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034
Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3
Client ID: 22T-SG-11_20190716
Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

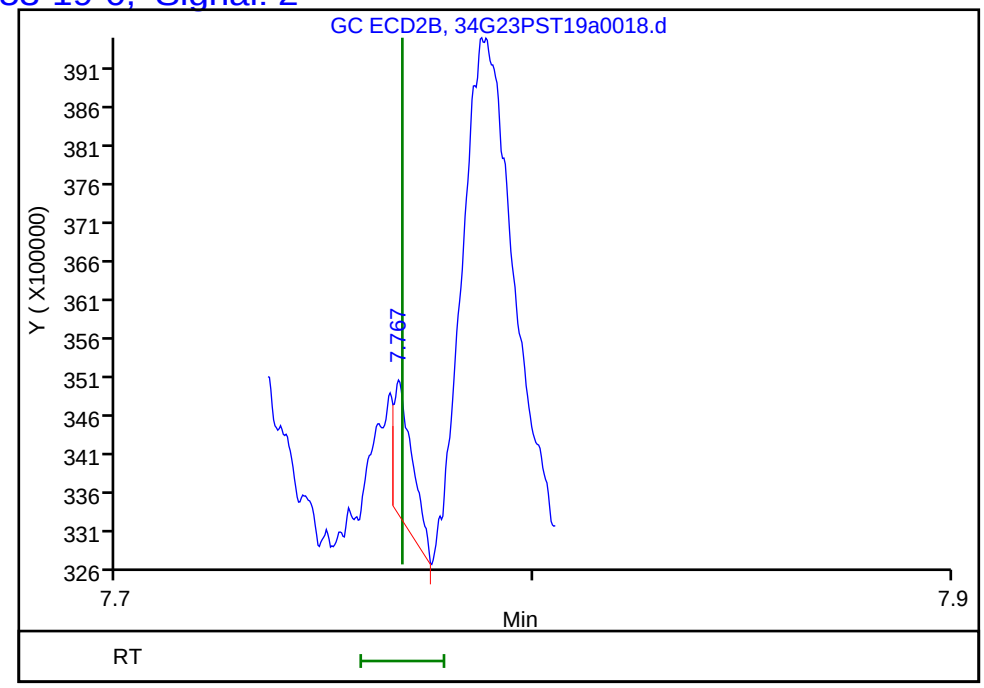
RT: 6.89
Response: 5114755
Amount: 2.467685



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 534363
Amount: 0.103439



Reviewer: limwirojt, 24-Jul-2019 11:15:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

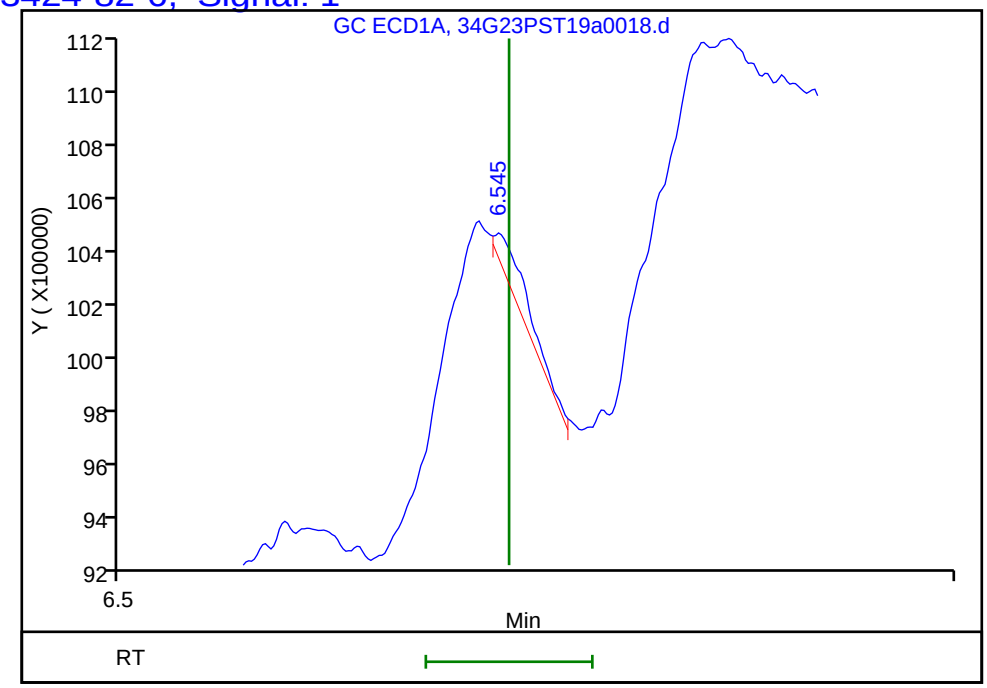
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034
Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3
Client ID: 22T-SG-11_20190716
Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

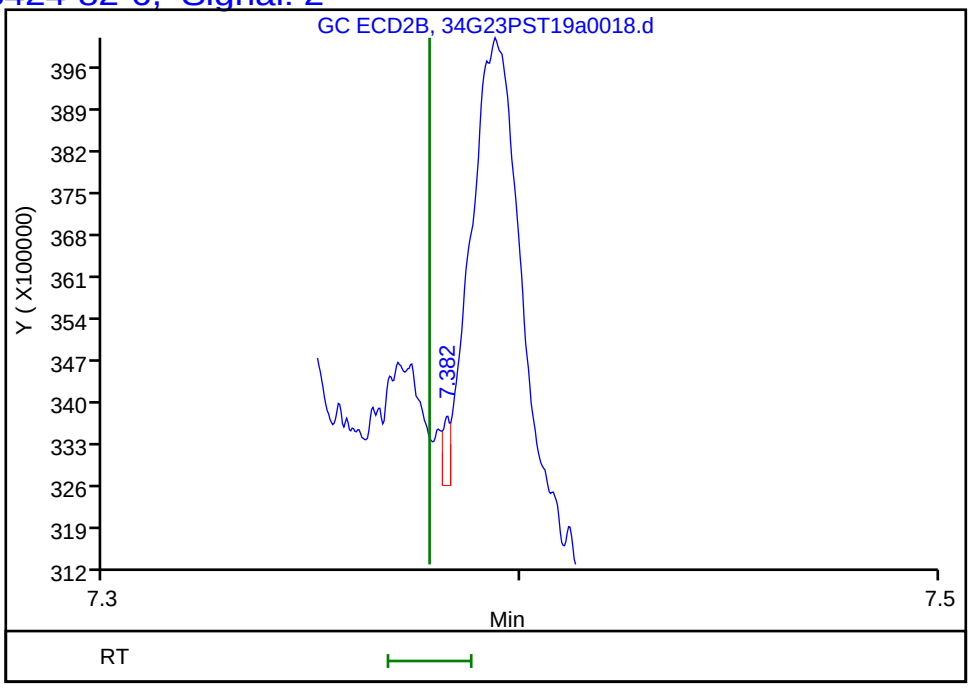
RT: 6.55
Response: 41311
Amount: 0.013554



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 126920
Amount: 0.016063



Reviewer: limwirojt, 24-Jul-2019 11:15:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

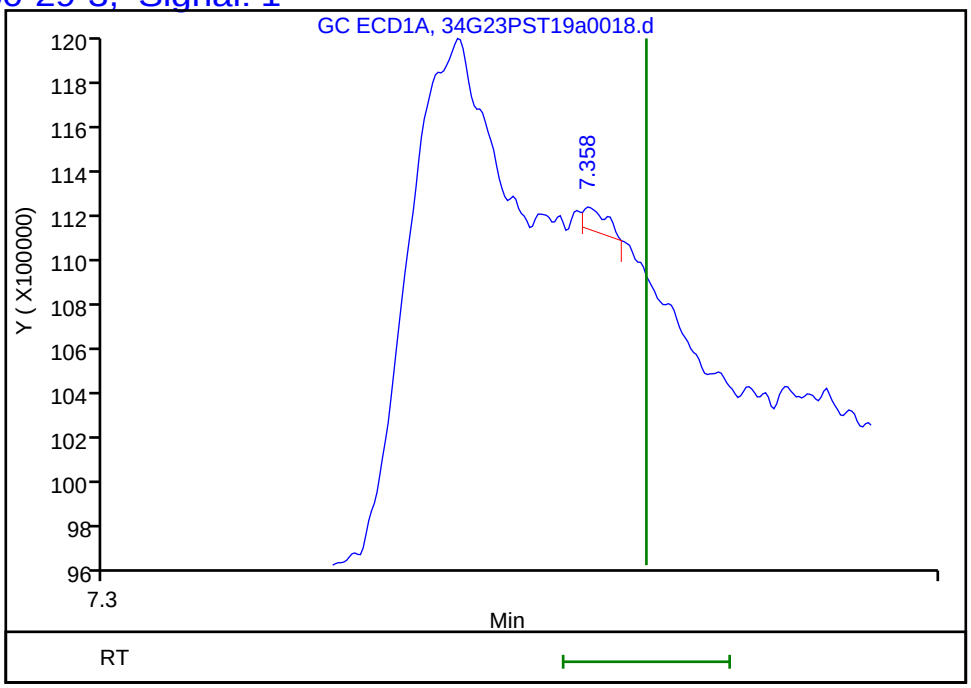
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034
Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3
Client ID: 22T-SG-11_20190716
Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

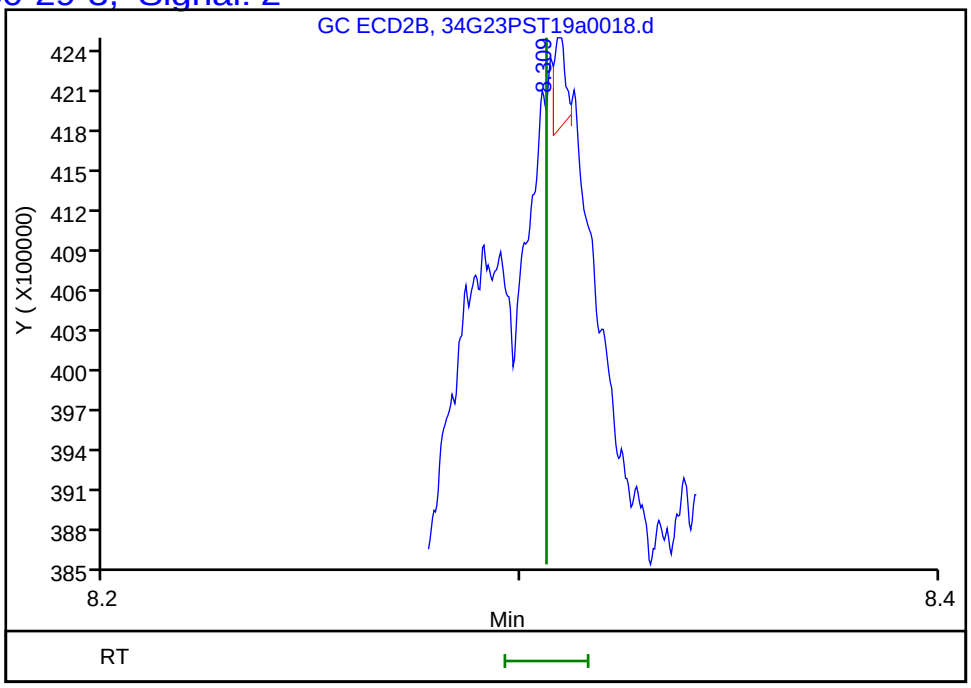
RT: 7.36
Response: 19984
Amount: 0.006770



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 118878
Amount: 0.016479



Reviewer: limwirojt, 24-Jul-2019 11:15:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 34G23PST19a0018.d

Analysis Method: 8081B Date Collected: 07/16/2019 08:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.515(g) Date Analyzed: 07/23/2019 16:40

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		3.5	0.63

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Lims ID: 580-87706-A-3-B
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:40:16 ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-3-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:15:37 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:15:37

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.463	4.467	-0.004	135952811	100.0	
2	4.827	4.829	-0.002	510379935	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	23308807	4.22	
2	5.533	5.535	-0.002	78296598	5.56	
					RPD = 27.42	
10 PCB-1242						
1	0.000	5.500	-5.500	0	NC	
1	5.783	5.778	0.005	35418	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.097	6.093	0.004	26618	NC	
1	6.384	6.380	0.004	27175	NC	
		Average of Peak Amounts =			0	
2	0.000	6.025	-6.025	0	NC	
2	6.328	6.330	-0.002	37634	NC	
2	6.423	6.424	-0.001	50937	NC	
2	6.727	6.732	-0.005	224868	NC	
2	6.997	6.994	0.003	44377	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.783	5.778	0.005	35418	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.097	6.093	0.004	26618	NC	
1	6.341	6.342	-0.001	15466	NC	
		Average of Peak Amounts =			0	
2	0.000	6.025	-6.025	0	NC	
2	6.328	6.330	-0.002	37634	NC	
2	6.423	6.424	-0.001	50937	NC	
2	6.543	6.548	-0.005	11141764	NC	
2	6.727	6.732	-0.005	224868	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.783	5.778	0.005	35418	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.097	6.093	0.004	26618	NC	
1	6.384	6.380	0.004	27175	NC	
1	6.766	6.775	-0.009	6729867	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	11141764	NC	
2	6.727	6.732	-0.005	224868	NC	
2	6.818	6.815	0.003	1686592	NC	
2	7.046	7.037	0.009	54103	NC	
2	7.216	7.215	0.001	35771	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
19 PCB-1254						
1	6.341	6.342	-0.001	15466	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.766	6.775	-0.009	6729867	NC	
1	6.956	6.957	-0.001	33007	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.046	7.037	0.009	54103	NC	
2	7.165	7.164	0.001	611957	NC	
2	7.512	7.516	-0.004	46589	NC	
2	7.681	7.681	0.000	208089	NC	
2	8.084	8.080	0.004	49488	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.766	6.768	-0.002	6729867	2.03	
2	7.606	7.607	-0.001	33206581	2.54	
					RPD = 22.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
30 PCB-1260						
1	6.889	6.894	-0.005	5114755	NC	
1	7.087	7.083	0.004	814501	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	14990338	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	2571242	NC	
2	7.818	7.819	-0.001	34970	NC	
2	8.100	8.100	0.000	52691	NC	
2	8.406	8.414	-0.008	10301468	NC	
2	8.896	8.896	0.000	34628	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						
1	7.164	7.167	-0.003	1887507	1.00	
2	8.053	8.055	-0.002	10768918	1.46	
					RPD = 37.52	
$ 45 DCB Decachlorobiphenyl						
1	8.885	8.884	0.001	25605413	2.86	
2	10.091	10.091	0.000	63192790	5.24	
					RPD = 58.93	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:15:39 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d

Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034

Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3

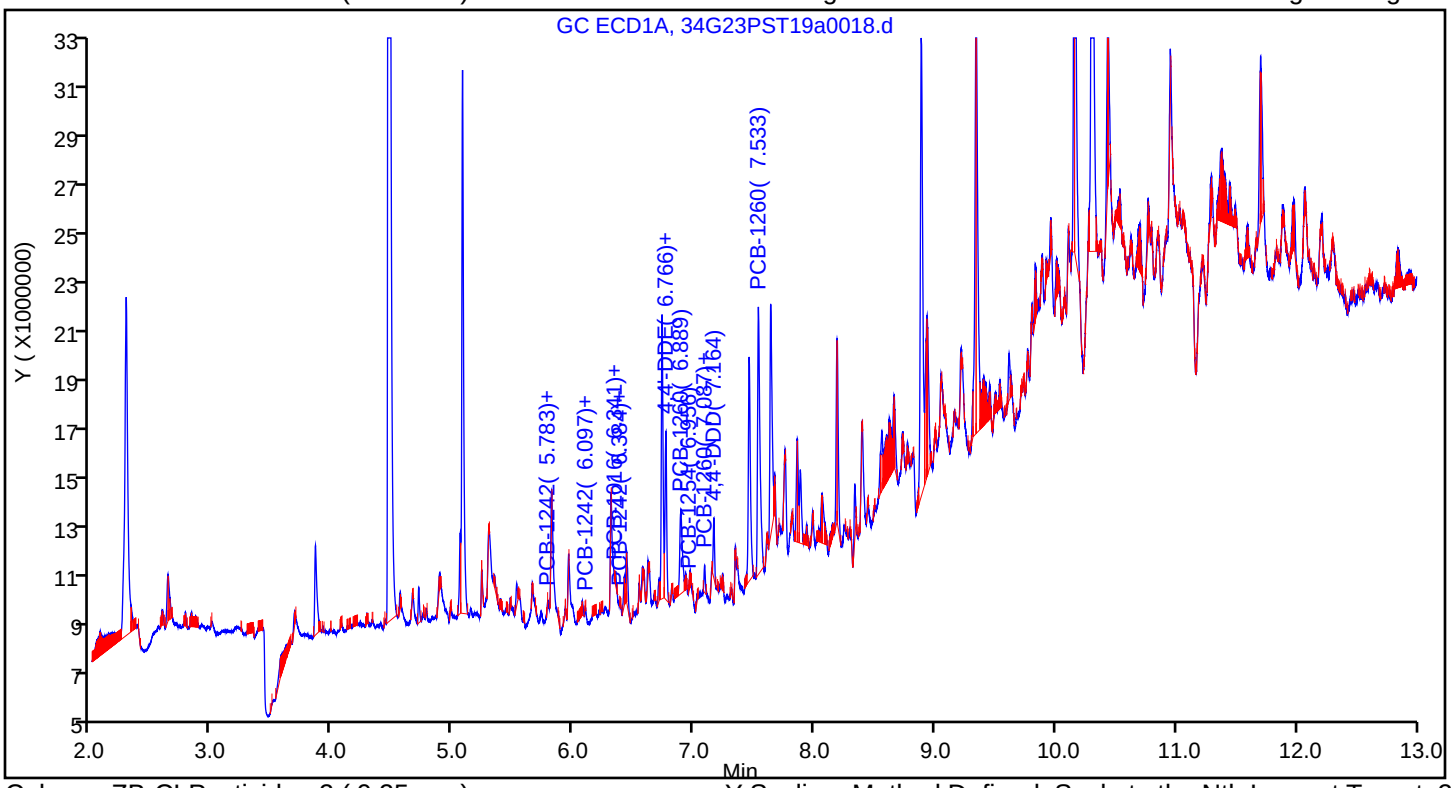
Client ID: 22T-SG-11_20190716

Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16

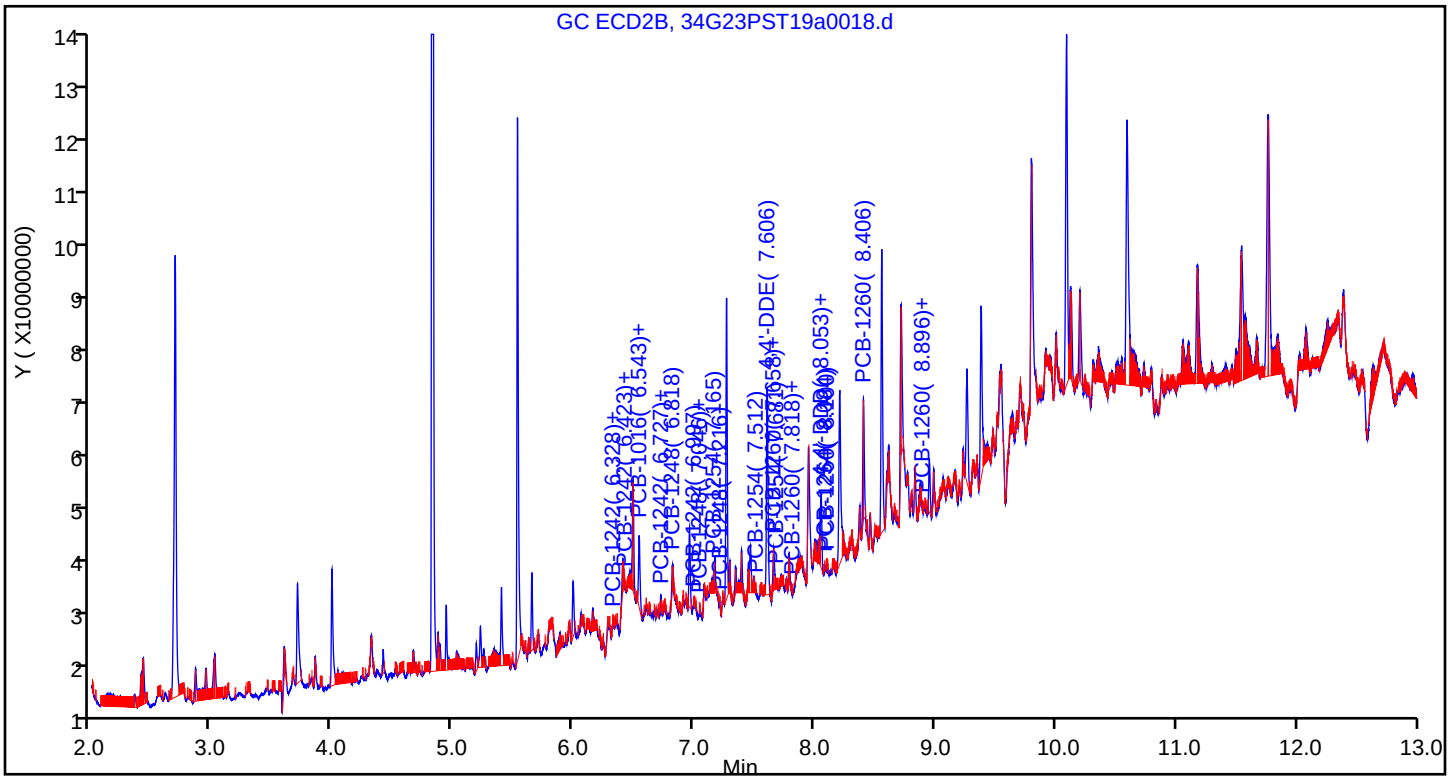
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d				
Lims ID:	580-87706-A-3-B				
Client ID:	22T-SG-11_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:40:16	ALS Bottle#:	14	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-3-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:15:37	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:15:37		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.22	50.63
$ 45 DCB Decachlorobiphenyl	25.0	2.86	34.28

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.56	66.72
$ 45 DCB Decachlorobiphenyl	25.0	5.24	62.92

User Disabled Compound Report

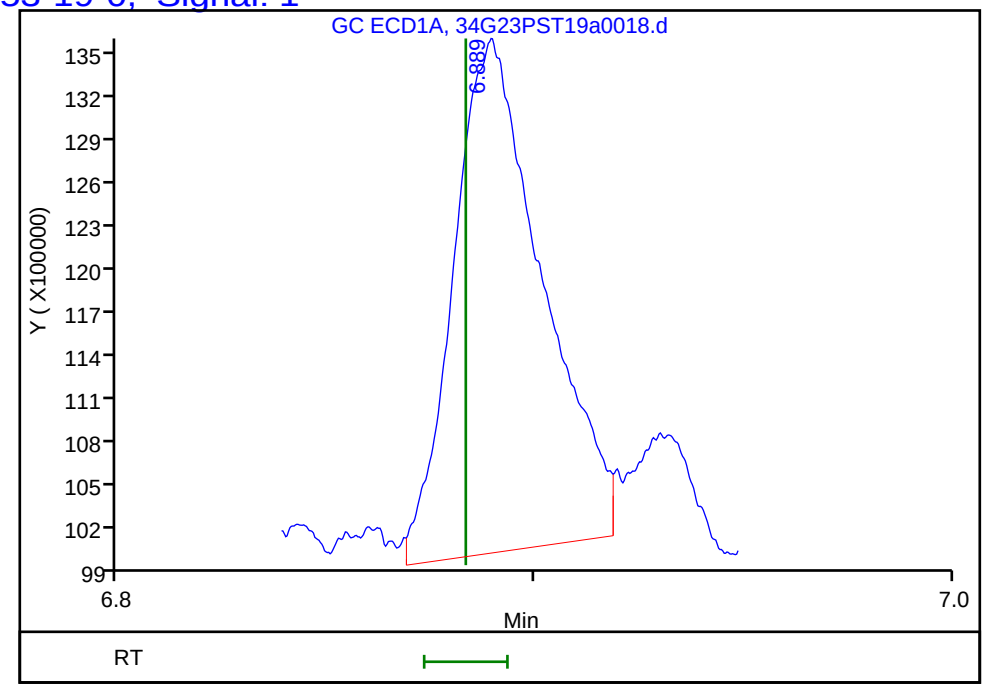
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034
Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3
Client ID: 22T-SG-11_20190716
Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

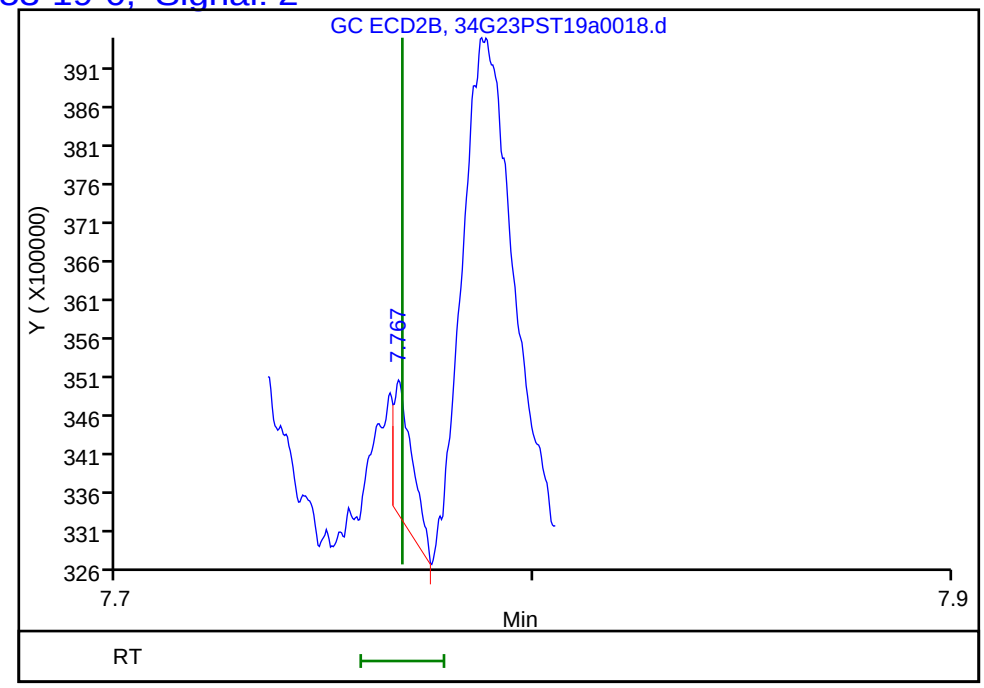
RT: 6.89
Response: 5114755
Amount: 2.467685



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 534363
Amount: 0.103439



Reviewer: limwirojt, 24-Jul-2019 11:15:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d

Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034

Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3

Client ID: 22T-SG-11_20190716

Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16

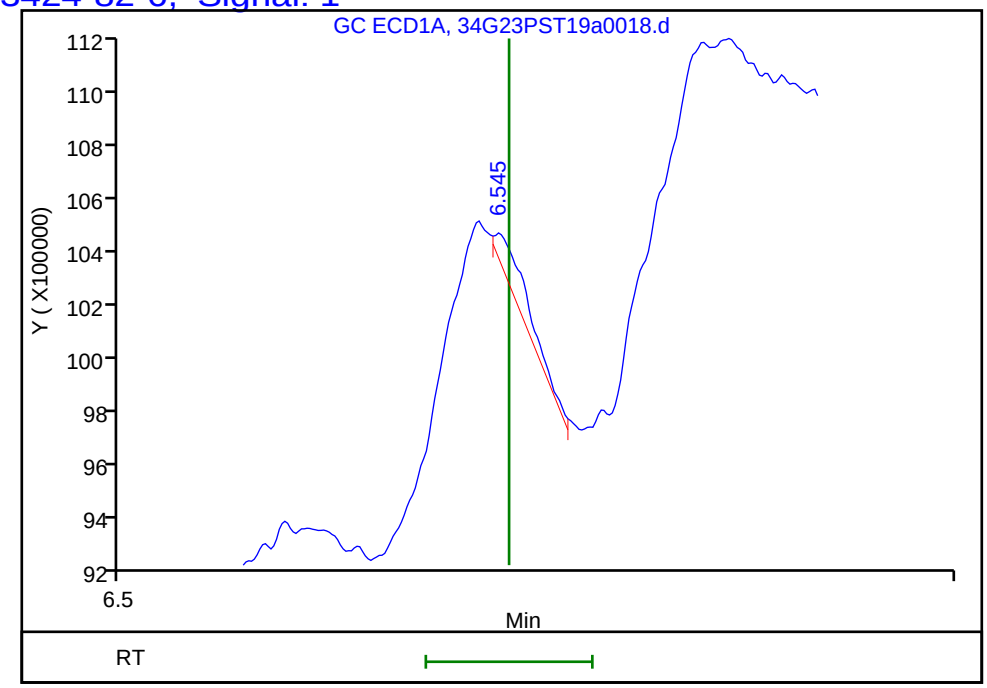
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

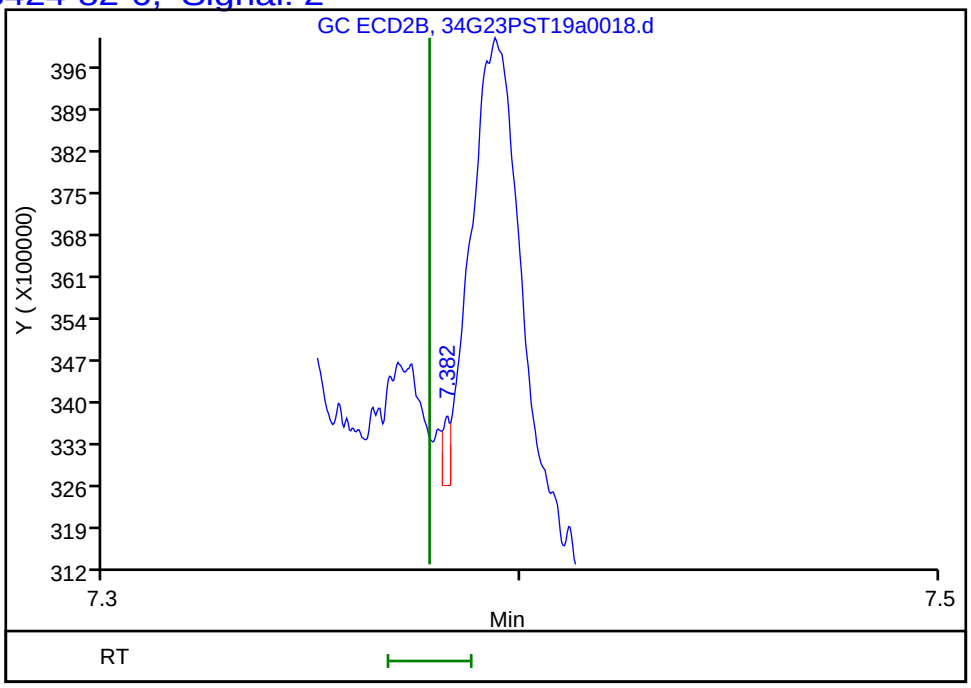
RT: 6.55
Response: 41311
Amount: 0.013554



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 126920
Amount: 0.016063



Reviewer: limwirojt, 24-Jul-2019 11:15:37

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

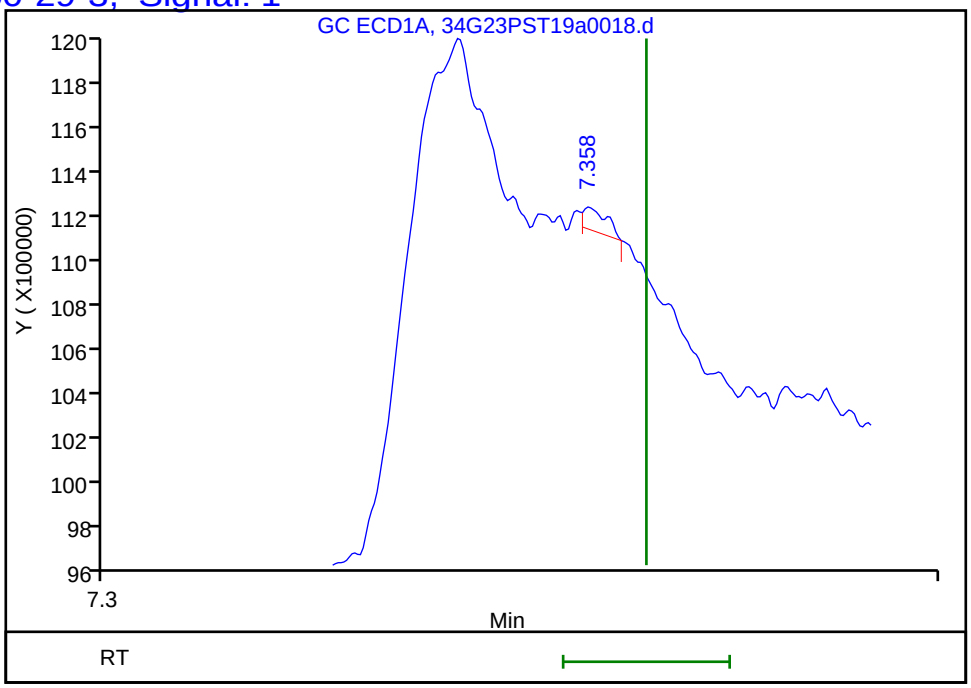
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0018.d
Injection Date: 23-Jul-2019 16:40:16 Instrument ID: TAC034
Lims ID: 580-87706-A-3-B Lab Sample ID: 580-87706-3
Client ID: 22T-SG-11_20190716
Operator ID: CJB ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

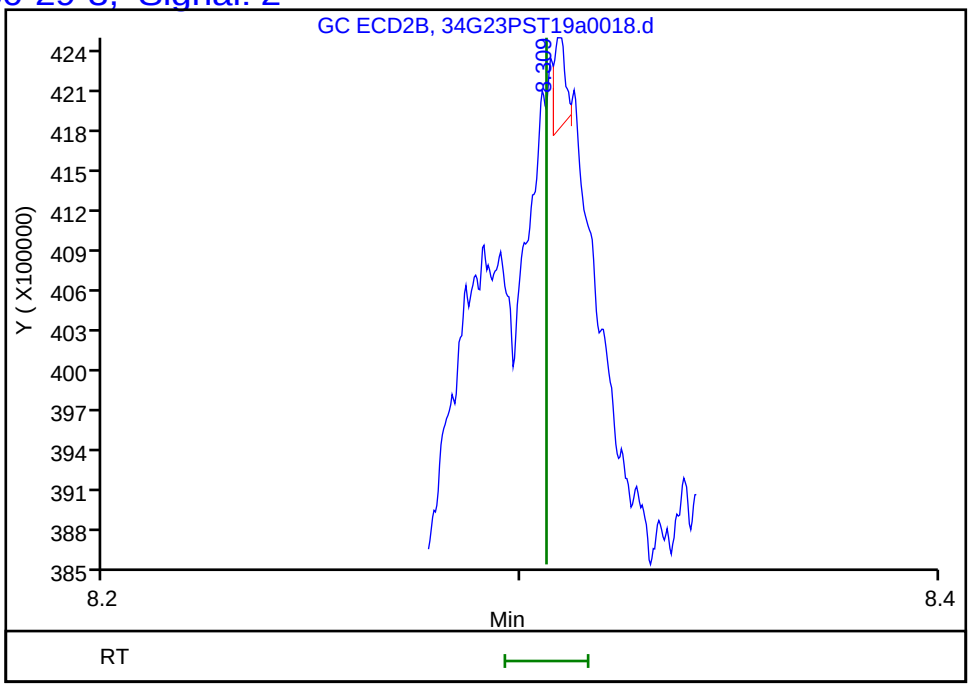
RT: 7.36
Response: 19984
Amount: 0.006770



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 118878
Amount: 0.016479



Reviewer: limwirojt, 24-Jul-2019 11:15:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Matrix: Solid Lab File ID: 34G23PST19a0019.d

Analysis Method: 8081B Date Collected: 07/16/2019 09:00

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.477(g) Date Analyzed: 07/23/2019 16:59

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 61.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.8	0.84
789-02-6	2,4'-DDT	ND		3.8	1.5
72-54-8	4,4'-DDD	0.78	J	1.5	0.30
72-55-9	4,4'-DDE	1.5		1.5	0.41
50-29-3	4,4'-DDT	ND		1.5	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	45		36-136
877-09-8	Tetrachloro-m-xylene	67		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d
Lims ID: 580-87706-A-4-B
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:59:34 ALS Bottle#: 15 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-4-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:16:36 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:16:36

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	133633962	100.0	
2	4.827	4.829	-0.002	587947976	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30165796	5.55	
2	5.534	5.535	-0.001	94413995	5.82	
					RPD = 4.60	
6 PCB-1232						
1	5.270	5.265	0.005	77124	NC	
1	5.497	5.500	-0.003	26813	NC	
1	5.782	5.778	0.004	117902	NC	
1	5.988	5.979	0.009	100383	NC	
1	0.000	6.380	-6.380	0	NC	
		Average of Peak Amounts =			0	
2	5.730	5.740	-0.010	31326	NC	
2	6.323	6.330	-0.007	191495	NC	
2	6.431	6.424	0.007	1886855	NC	
2	6.744	6.746	-0.002	52308	NC	
2	7.044	7.037	0.007	41449	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
9 PCB-1016						
1	5.497	5.500	-0.003	26813	NC	
1	5.782	5.778	0.004	117902	NC	
1	0.000	6.009	-6.009	0	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.336	6.342	-0.006	102880	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	863664	NC	
2	6.323	6.330	-0.007	191495	NC	
2	6.431	6.424	0.007	1886855	NC	
2	6.543	6.548	-0.005	23124586	NC	
2	6.736	6.732	0.004	48160	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	5842981	1.90	
2	7.606	7.607	-0.001	25193580	1.68	
					RPD = 12.32	
30 PCB-1260						
1	6.890	6.894	-0.004	2153220	NC	
1	7.088	7.083	0.005	4162099	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	16820679	NC	
1	7.961	7.966	-0.005	16187	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	834557	NC	
2	7.819	7.819	0.000	57562	NC	
2	8.101	8.100	0.001	391314	NC	
2	8.406	8.414	-0.008	25094527	NC	
2	8.891	8.896	-0.005	59802	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.162	7.167	-0.005	1901435	1.02	M
2	8.053	8.055	-0.002	10201699	1.20	M
					RPD = 16.96	
$ 45 DCB Decachlorobiphenyl						
1	8.886	8.884	0.002	30238766	3.72	
2	10.090	10.091	-0.001	70084784	5.03	
					RPD = 30.08	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:16:38 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d

Injection Date: 23-Jul-2019 16:59:34 Instrument ID: TAC034

Lims ID: 580-87706-A-4-B Lab Sample ID: 580-87706-4

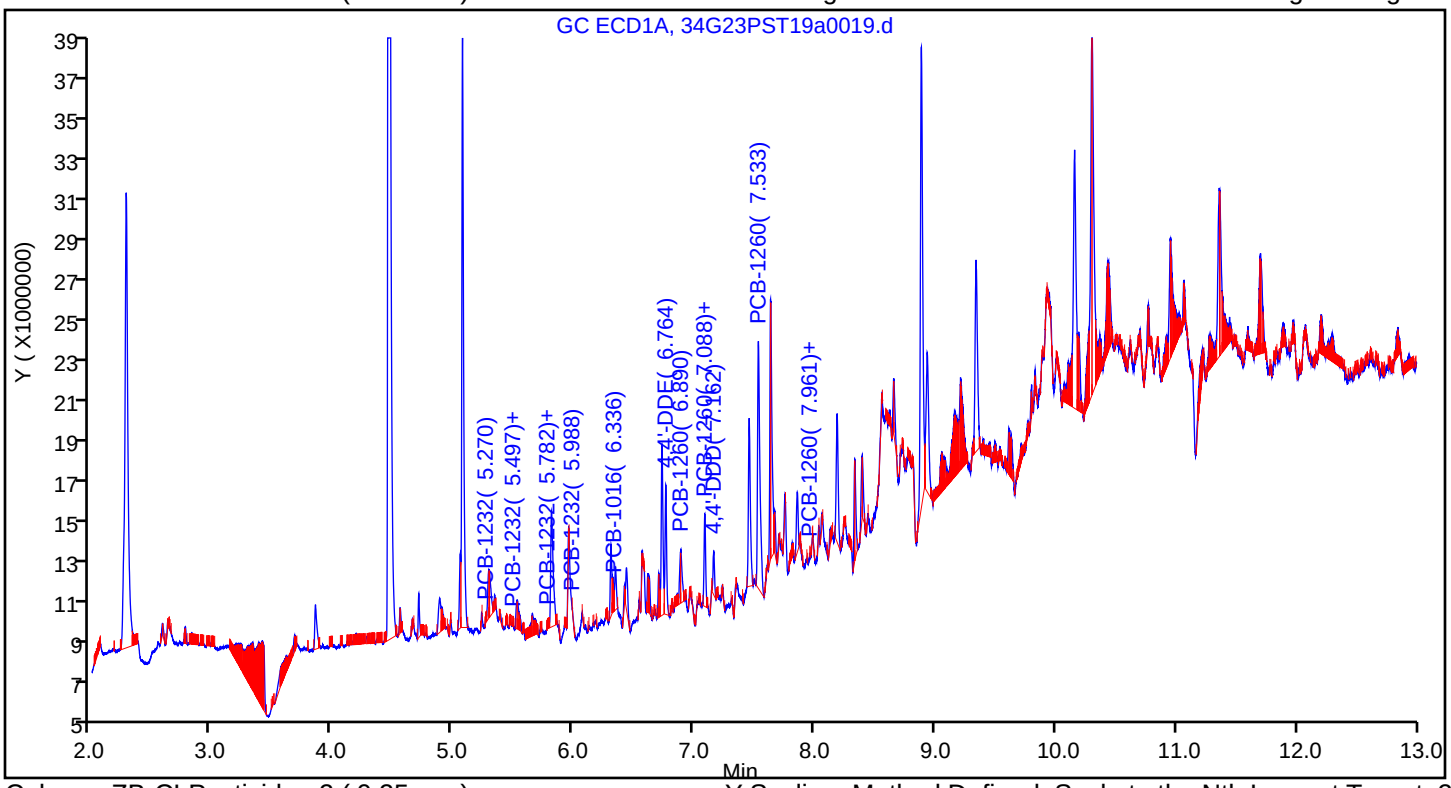
Client ID: 22T-SG-11-D_20190716

Operator ID: CJB ALS Bottle#: 15 Worklist Smp#: 17

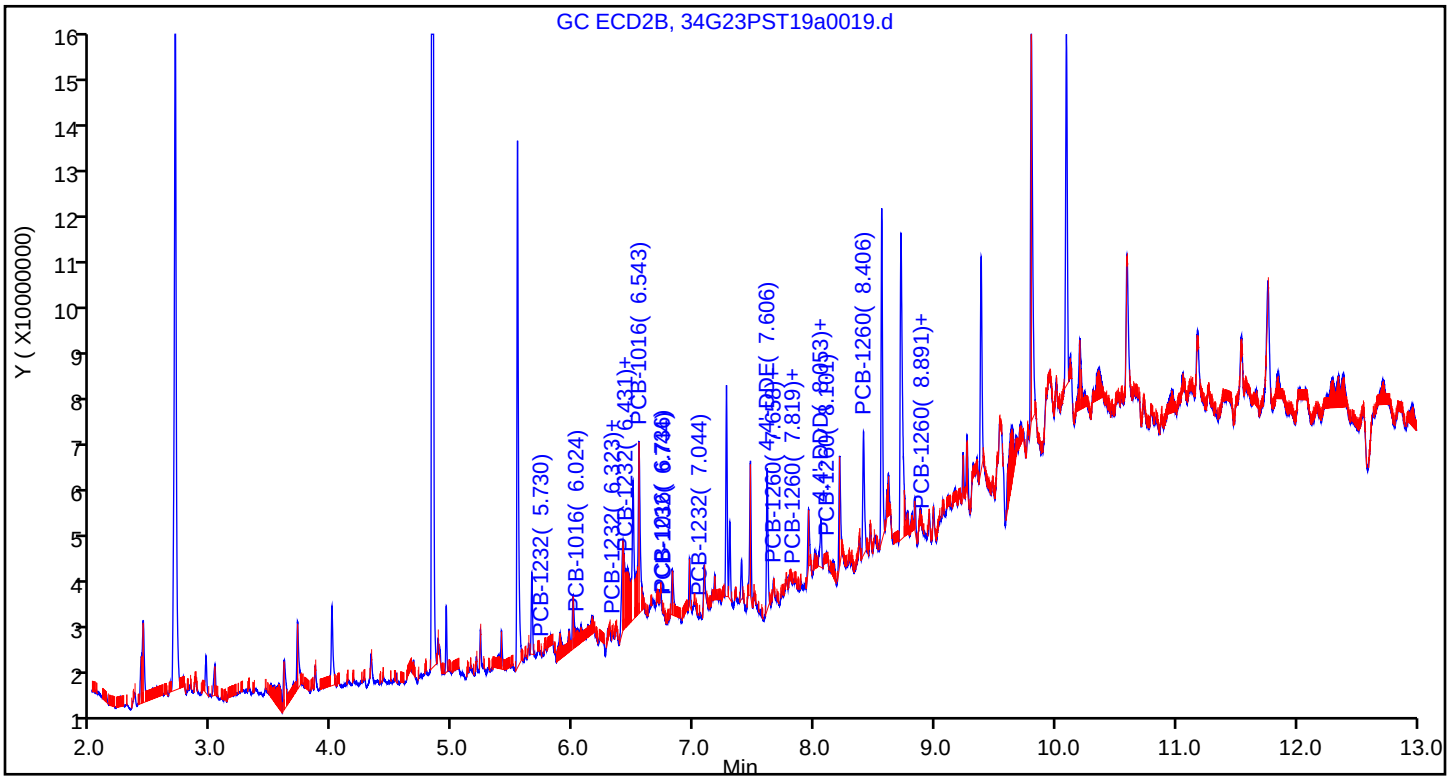
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d				
Lims ID:	580-87706-A-4-B				
Client ID:	22T-SG-11-D_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:59:34	ALS Bottle#:	15	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-4-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:16:36	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:16:36		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.55	66.66
$ 45 DCB Decachlorobiphenyl	25.0	3.72	44.61

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.82	69.80
$ 45 DCB Decachlorobiphenyl	25.0	5.03	60.40

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d

Injection Date: 23-Jul-2019 16:59:34 Instrument ID: TAC034

Lims ID: 580-87706-A-4-B Lab Sample ID: 580-87706-4

Client ID: 22T-SG-11-D_20190716

Operator ID: CJB ALS Bottle#: 15 Worklist Smp#: 17

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

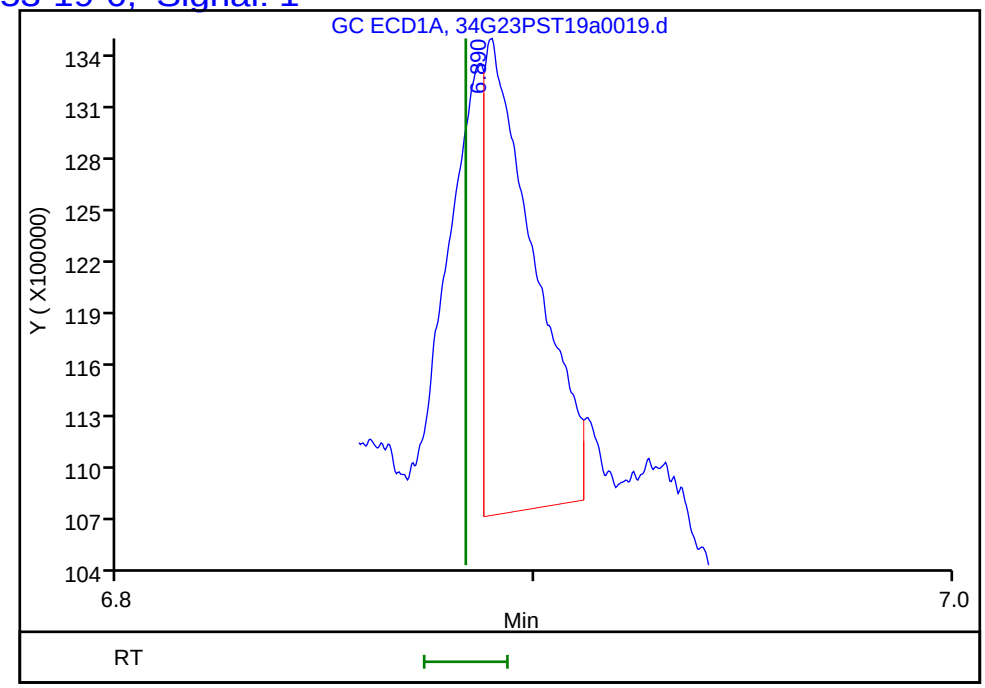
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

RT: 6.89

Response: 2153220

Amount: 1.056878



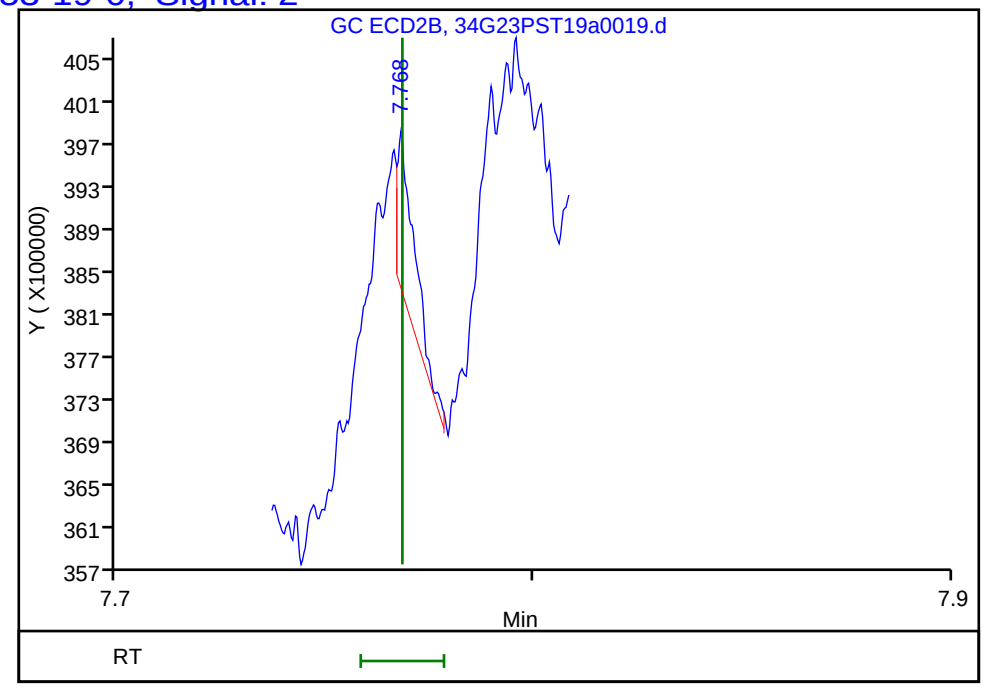
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77

Response: 405917

Amount: 0.068209



Reviewer: limwirojt, 24-Jul-2019 11:16:36

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

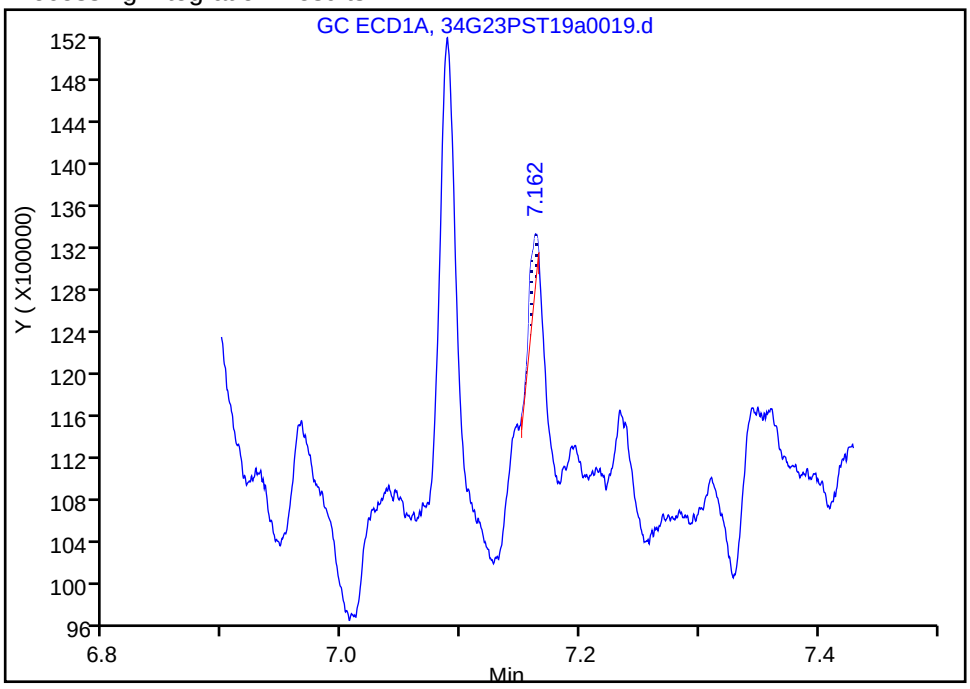
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d		
Injection Date:	23-Jul-2019 16:59:34	Instrument ID:	TAC034
Lims ID:	580-87706-A-4-B	Lab Sample ID:	580-87706-4
Client ID:	22T-SG-11-D_20190716		
Operator ID:	CJB	ALS Bottle#:	15 Worklist Smp#: 17
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

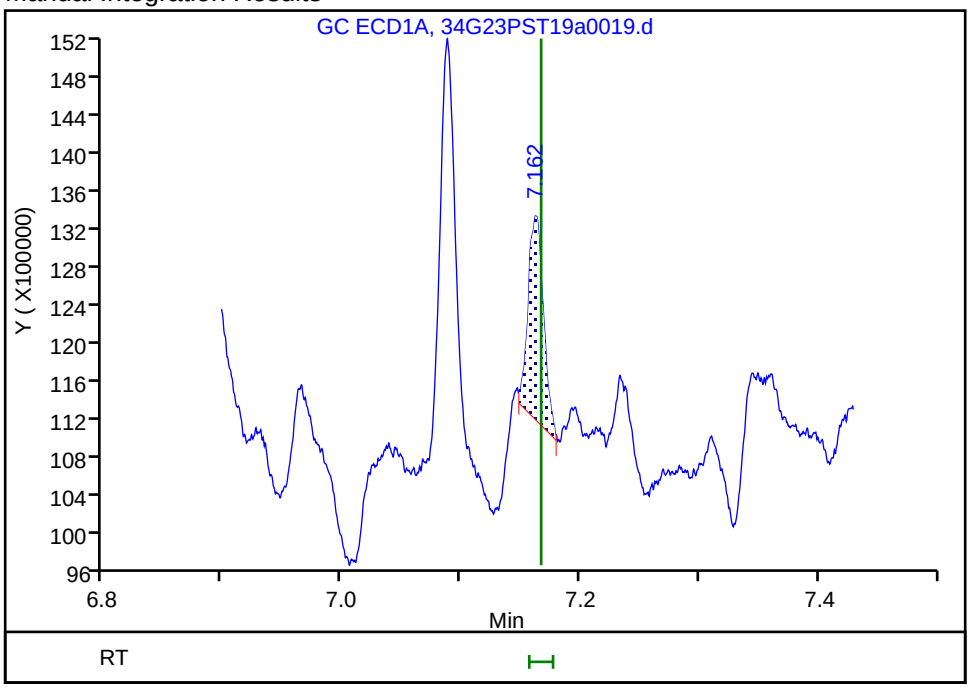
Processing Integration Results

RT: 7.16
Area: 282555
Amount: 0.517785
Amount Units: ug/L



Manual Integration Results

RT: 7.16
Area: 1901435
Amount: 1.015581
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:16:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Matrix: Solid Lab File ID: 34G23PST19a0019.d

Analysis Method: 8081B Date Collected: 07/16/2019 09:00

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.477(g) Date Analyzed: 07/23/2019 16:59

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 61.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		3.8	0.70

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d
Lims ID: 580-87706-A-4-B
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 16:59:34 ALS Bottle#: 15 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-4-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:16:36 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:16:36

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	133633962	100.0	
2	4.827	4.829	-0.002	587947976	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30165796	5.55	
2	5.534	5.535	-0.001	94413995	5.82	
					RPD = 4.60	
6 PCB-1232						
1	5.270	5.265	0.005	77124	NC	
1	5.497	5.500	-0.003	26813	NC	
1	5.782	5.778	0.004	117902	NC	
1	5.988	5.979	0.009	100383	NC	
1	0.000	6.380	-6.380	0	NC	
		Average of Peak Amounts =			0	
2	5.730	5.740	-0.010	31326	NC	
2	6.323	6.330	-0.007	191495	NC	
2	6.431	6.424	0.007	1886855	NC	
2	6.744	6.746	-0.002	52308	NC	
2	7.044	7.037	0.007	41449	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
9 PCB-1016						
1	5.497	5.500	-0.003	26813	NC	
1	5.782	5.778	0.004	117902	NC	
1	0.000	6.009	-6.009	0	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.336	6.342	-0.006	102880	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	863664	NC	
2	6.323	6.330	-0.007	191495	NC	
2	6.431	6.424	0.007	1886855	NC	
2	6.543	6.548	-0.005	23124586	NC	
2	6.736	6.732	0.004	48160	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	5842981	1.90	
2	7.606	7.607	-0.001	25193580	1.68	
					RPD = 12.32	
30 PCB-1260						
1	6.890	6.894	-0.004	2153220	NC	
1	7.088	7.083	0.005	4162099	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	16820679	NC	
1	7.961	7.966	-0.005	16187	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	834557	NC	
2	7.819	7.819	0.000	57562	NC	
2	8.101	8.100	0.001	391314	NC	
2	8.406	8.414	-0.008	25094527	NC	
2	8.891	8.896	-0.005	59802	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.162	7.167	-0.005	1901435	1.02	M
2	8.053	8.055	-0.002	10201699	1.20	M
					RPD = 16.96	
$ 45 DCB Decachlorobiphenyl						
1	8.886	8.884	0.002	30238766	3.72	
2	10.090	10.091	-0.001	70084784	5.03	
					RPD = 30.08	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:16:40 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d

Injection Date: 23-Jul-2019 16:59:34 Instrument ID: TAC034

Lims ID: 580-87706-A-4-B Lab Sample ID: 580-87706-4

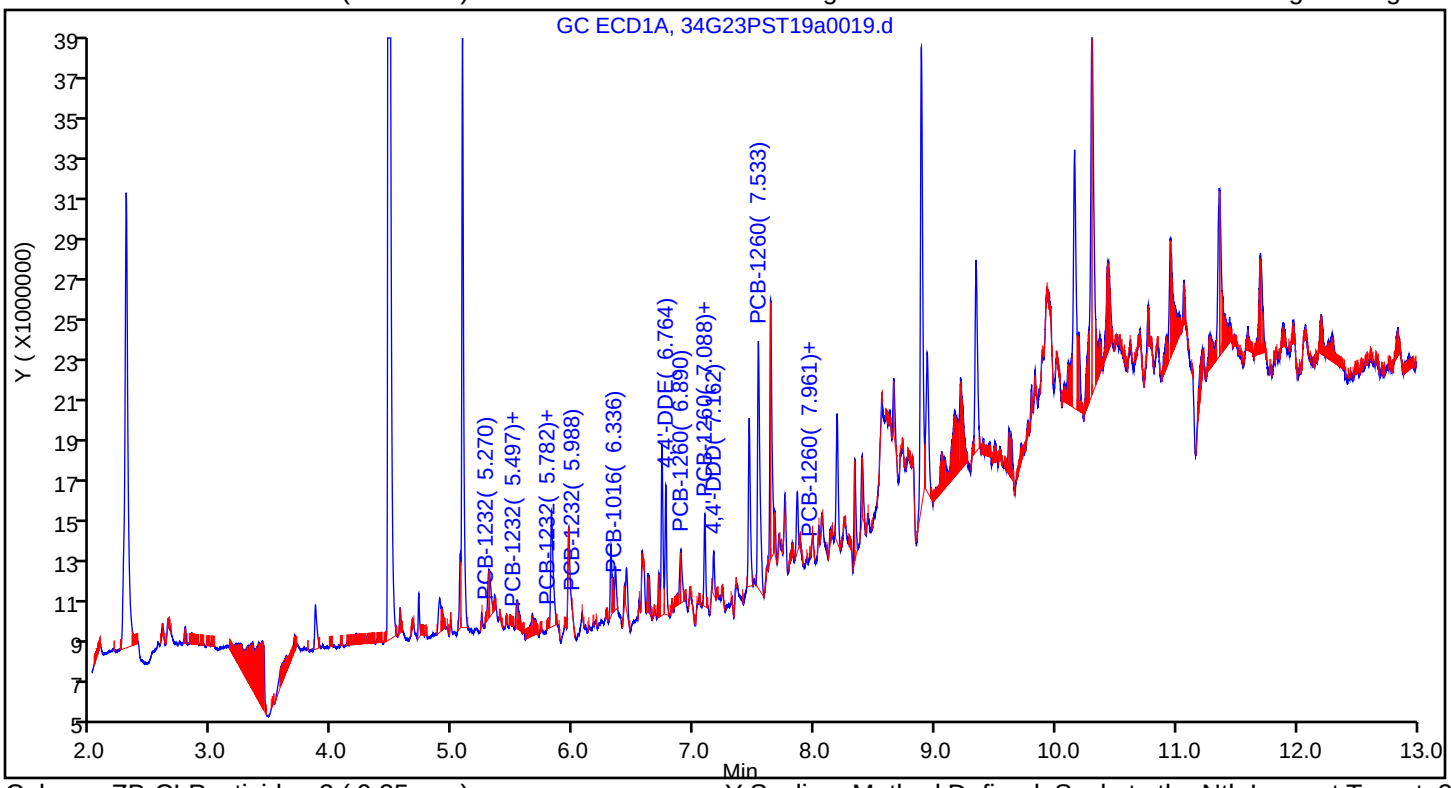
Client ID: 22T-SG-11-D_20190716

Operator ID: CJB ALS Bottle#: 15 Worklist Smp#: 17

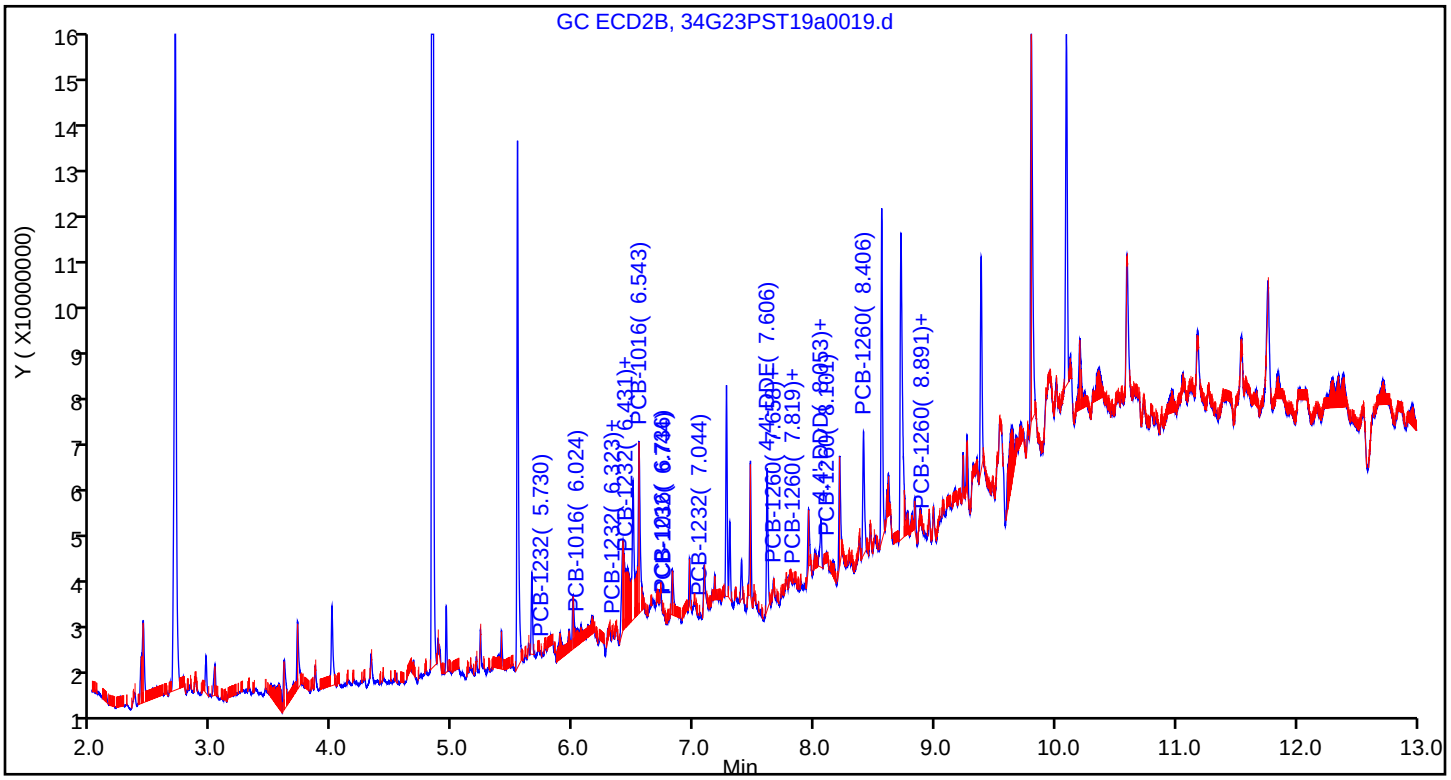
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d				
Lims ID:	580-87706-A-4-B				
Client ID:	22T-SG-11-D_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 16:59:34	ALS Bottle#:	15	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-4-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:16:36	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:16:36		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.55	66.66
$ 45 DCB Decachlorobiphenyl	25.0	3.72	44.61

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.82	69.80
$ 45 DCB Decachlorobiphenyl	25.0	5.03	60.40

User Disabled Compound Report

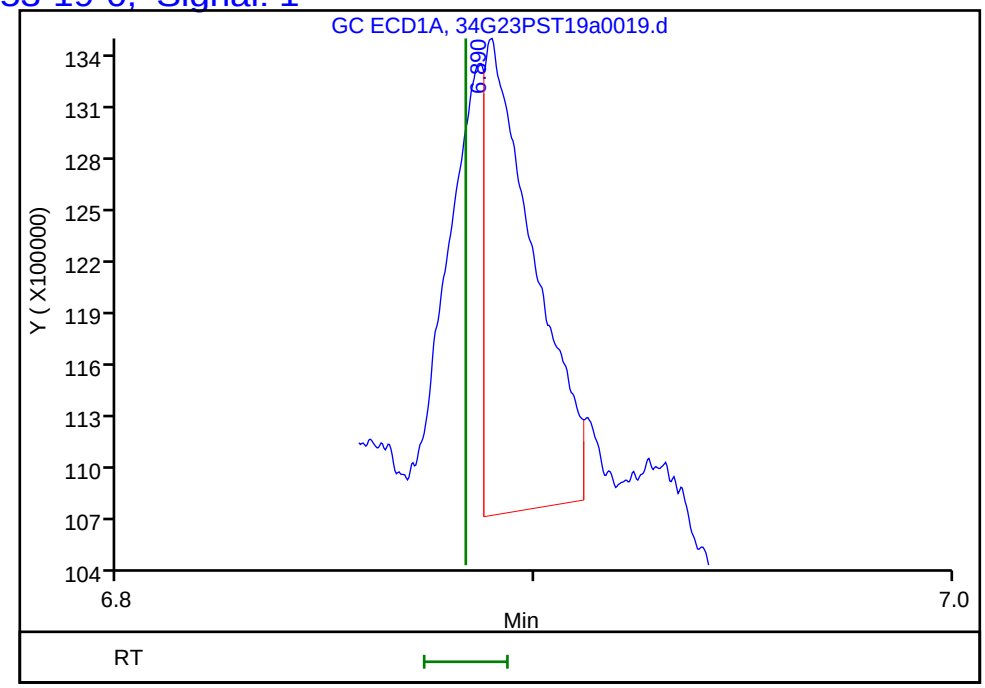
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d

Injection Date:	23-Jul-2019 16:59:34	Instrument ID:	TAC034
Lims ID:	580-87706-A-4-B	Lab Sample ID:	580-87706-4
Client ID:	22T-SG-11-D_20190716		
Operator ID:	CJB	ALS Bottle#:	15 Worklist Smp#: 17
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

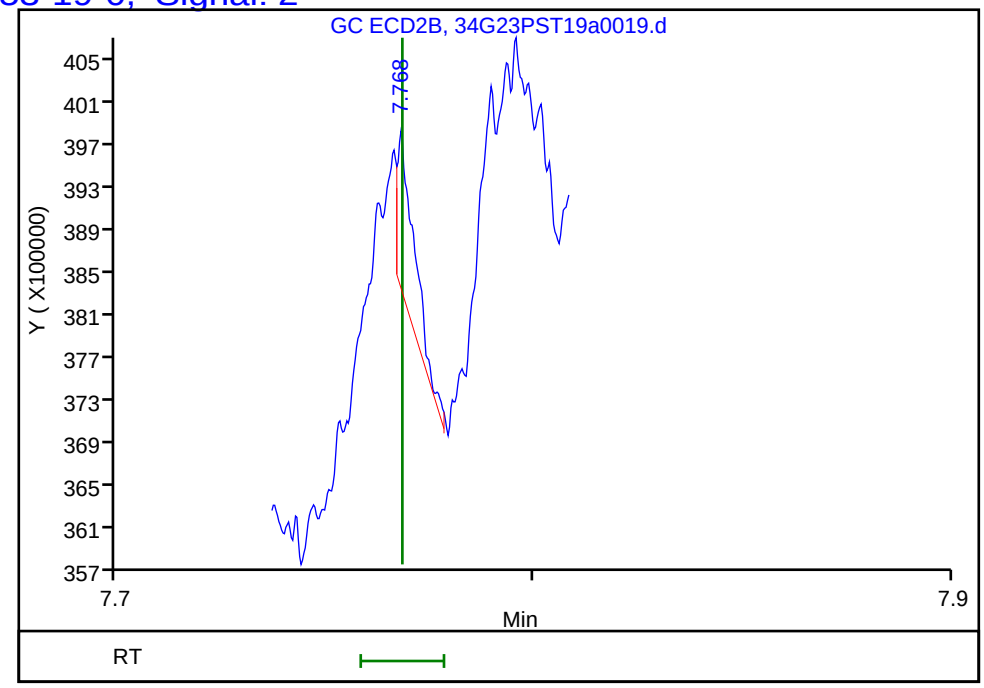
RT: 6.89
Response: 2153220
Amount: 1.056878



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 405917
Amount: 0.068209



Reviewer: limwirojt, 24-Jul-2019 11:16:36
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

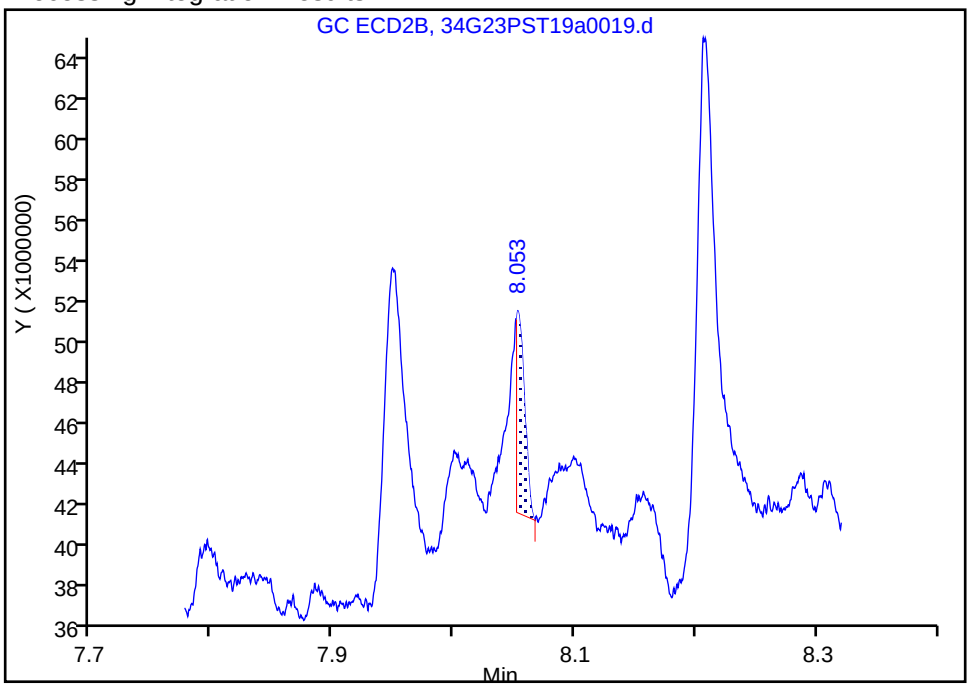
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0019.d		
Injection Date:	23-Jul-2019 16:59:34	Instrument ID:	TAC034
Lims ID:	580-87706-A-4-B	Lab Sample ID:	580-87706-4
Client ID:	22T-SG-11-D_20190716		
Operator ID:	CJB	ALS Bottle#:	15 Worklist Smp#: 17
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

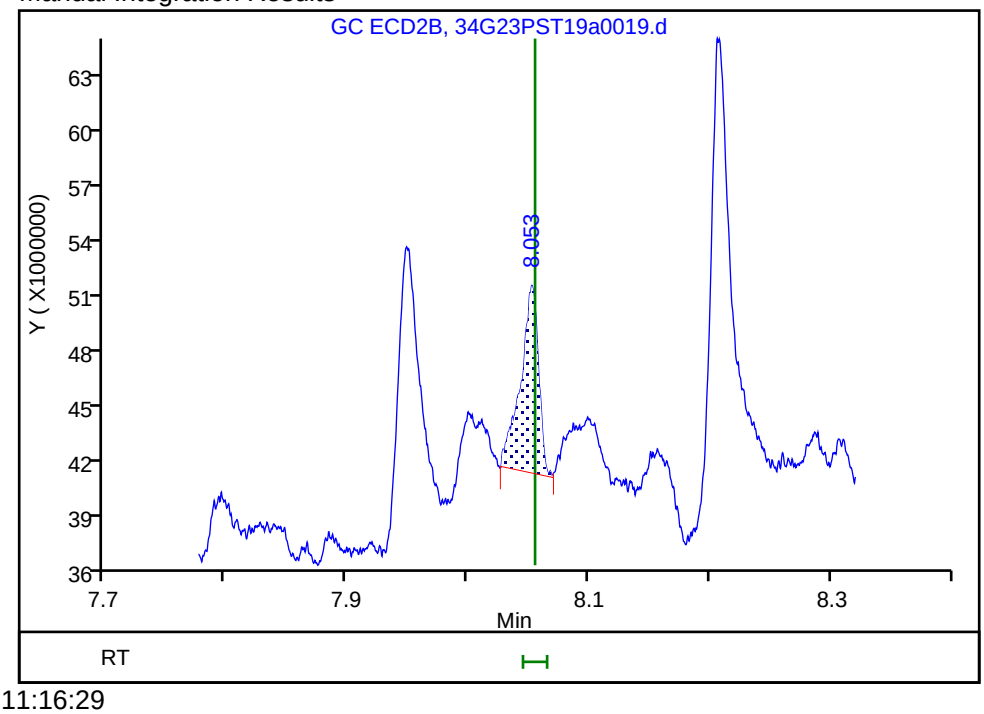
Processing Integration Results

RT: 8.05
Area: 4338117
Amount: 0.511906
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 10201699
Amount: 1.203819
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:16:29

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Matrix: Solid Lab File ID: 34G23PST19a0020.d

Analysis Method: 8081B Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.368(g) Date Analyzed: 07/23/2019 17:18

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 61.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	1.3	J p	3.8	0.83
789-02-6	2,4'-DDT	ND		3.8	1.4
72-54-8	4,4'-DDD	0.97	J F1 F2	1.5	0.30
72-55-9	4,4'-DDE	1.2	J F1	1.5	0.40
50-29-3	4,4'-DDT	ND	F1 F2	1.5	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	32	X	36-136
877-09-8	Tetrachloro-m-xylene	58		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d
Lims ID: 580-87706-A-5-D
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 17:18:47 ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-5-D
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:23:17 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:23:17

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	155165363	100.0	
2	4.827	4.829	-0.002	608520968	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30588629	4.85	
2	5.534	5.535	-0.001	98691250	5.87	
					RPD = 19.07	
6 PCB-1232						
1	5.272	5.265	0.007	51921	NC	
1	5.494	5.500	-0.006	53070	NC	
1	5.786	5.778	0.008	96201	NC	
1	5.988	5.979	0.009	24981	NC	
1	6.383	6.380	0.003	22518	NC	
		Average of Peak Amounts =			0	
2	5.741	5.740	0.001	64086	NC	
2	6.327	6.330	-0.003	42000	NC	
2	6.423	6.424	-0.001	53450	NC	
2	6.746	6.746	0.000	33565	NC	
2	7.032	7.037	-0.005	36987	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.494	5.500	-0.006	53070	NC	
1	5.786	5.778	0.008	96201	NC	
1	6.007	6.009	-0.002	20350	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.383	6.380	0.003	22518	NC	
		Average of Peak Amounts =			0	
2	6.029	6.025	0.004	35006	NC	
2	6.327	6.330	-0.003	42000	NC	
2	6.423	6.424	-0.001	53450	NC	
2	6.723	6.732	-0.009	647400	NC	
2	6.996	6.994	0.002	85092	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.494	5.500	-0.006	53070	NC	
1	5.786	5.778	0.008	96201	NC	
1	6.007	6.009	-0.002	20350	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.346	6.342	0.004	167217	NC	
		Average of Peak Amounts =			0	
2	6.029	6.025	0.004	35006	NC	
2	6.327	6.330	-0.003	42000	NC	
2	6.423	6.424	-0.001	53450	NC	
2	6.543	6.548	-0.005	20832508	NC	
2	6.723	6.732	-0.009	647400	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.786	5.778	0.008	96201	NC	
1	5.988	5.979	0.009	24981	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.383	6.380	0.003	22518	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	20832508	NC	
2	6.723	6.732	-0.009	647400	NC	
2	6.818	6.815	0.003	5997566	NC	
2	7.032	7.037	-0.005	36987	NC	
2	7.216	7.215	0.001	56086	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
23 trans-Chlordane						Ma
1	6.626	6.633	-0.007	1699387	0.2659	M
2	7.393	7.387	0.006	6374461	0.4475	M
					RPD = 50.93	
26 4,4'-DDE						
1	6.764	6.768	-0.004	4686325	1.58	
2	7.606	7.607	-0.001	30615664	1.97	
					RPD = 21.72	
28 2,4'-DDD						Ma
1	6.890	6.883	0.007	4201340	1.78	M
2	7.766	7.768	-0.002	7030914	1.14	M
					RPD = 43.50	
30 PCB-1260						M
1	6.890	6.894	-0.004	4201340	NC	M
1	7.089	7.083	0.006	349487	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.534	7.536	-0.002	12301284	NC	
1	7.959	7.966	-0.007	15743	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	2280185	NC	
2	7.823	7.819	0.004	43632	NC	
2	8.099	8.100	-0.001	424151	NC	
2	8.418	8.414	0.004	520486	NC	
2	8.895	8.896	-0.001	92840	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
35 PCB-1262						
1	7.089	7.083	0.006	349487	NC	
1	7.355	7.353	0.002	46666	NC	
1	0.000	7.554	-7.554	0	NC	
1	7.757	7.760	-0.003	1344724	NC	
1	7.959	7.966	-0.007	15743	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	2280185	NC	
2	7.823	7.819	0.004	43632	NC	
2	8.155	8.153	0.002	668823	NC	
2	8.578	8.581	-0.003	49633	NC	
2	8.872	8.873	-0.001	1468514	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						a
1	7.163	7.167	-0.004	3218192	1.28	a
2	8.053	8.055	-0.002	10907395	1.24	a
					RPD = 3.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
43 PCB-1268						
1	7.986	7.991	-0.005	251322	NC	
1	8.035	8.038	-0.003	300534	NC	
1	8.164	8.172	-0.008	21325	NC	
1	8.663	8.663	0.000	1223319	NC	
1	8.817	8.812	0.005	23008	NC	
		Average of Peak Amounts =			0	
2	8.895	8.891	0.004	92840	NC	
2	0.000	8.900	-8.900	0	NC	
2	9.142	9.144	-0.002	170294	NC	
2	9.632	9.632	0.000	422769	NC	
2	9.860	9.857	0.003	33984	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
$ 45 DCB Decachlorobiphenyl						
1	8.887	8.884	0.003	28133417	2.70	
2	10.091	10.091	0.000	84820803	5.95	
					RPD = 75.27	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:23:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d

Injection Date: 23-Jul-2019 17:18:47 Instrument ID: TAC034

Lims ID: 580-87706-A-5-D Lab Sample ID: 580-87706-5

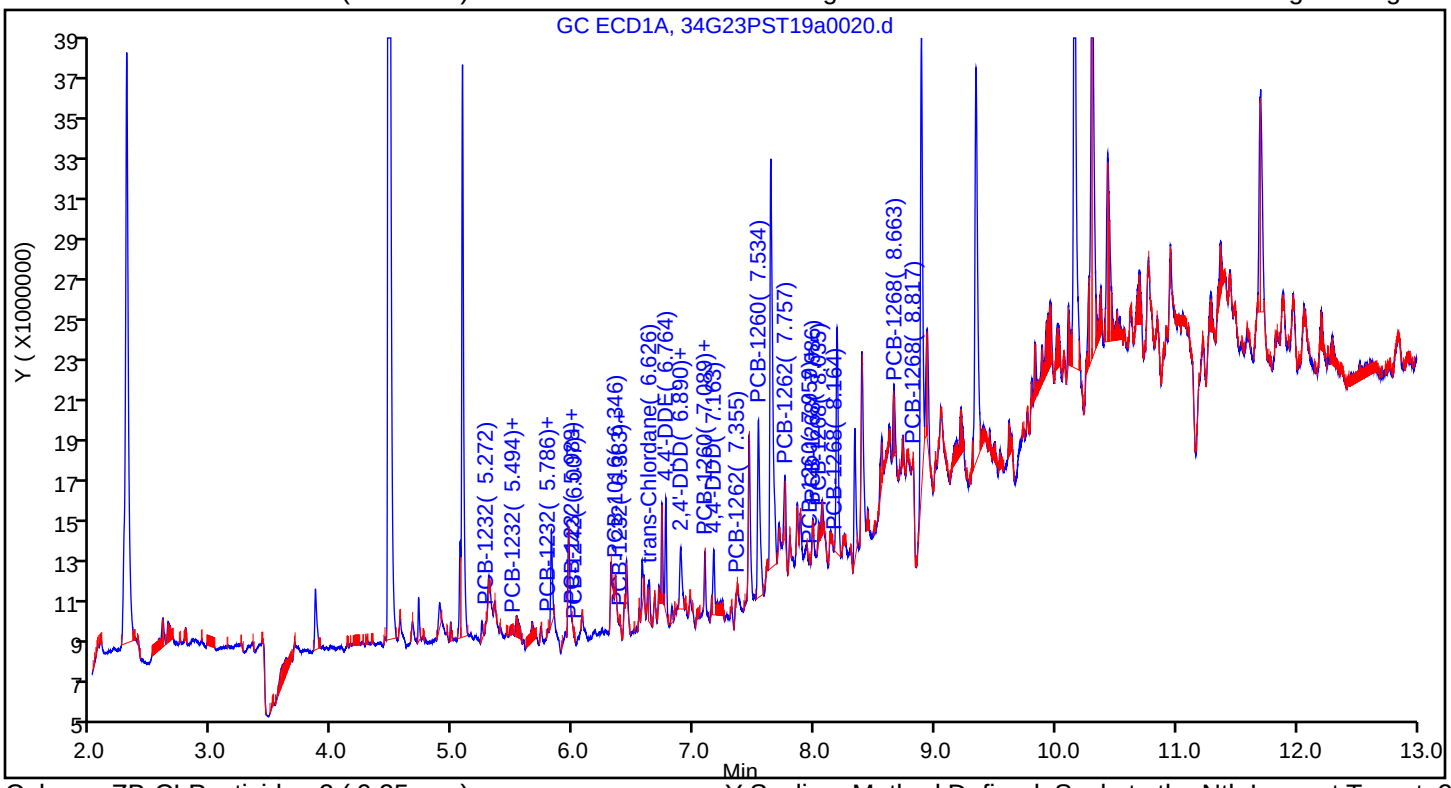
Client ID: 22T-SG-12_20190716

Operator ID: CJB ALS Bottle#: 16 Worklist Smp#: 18

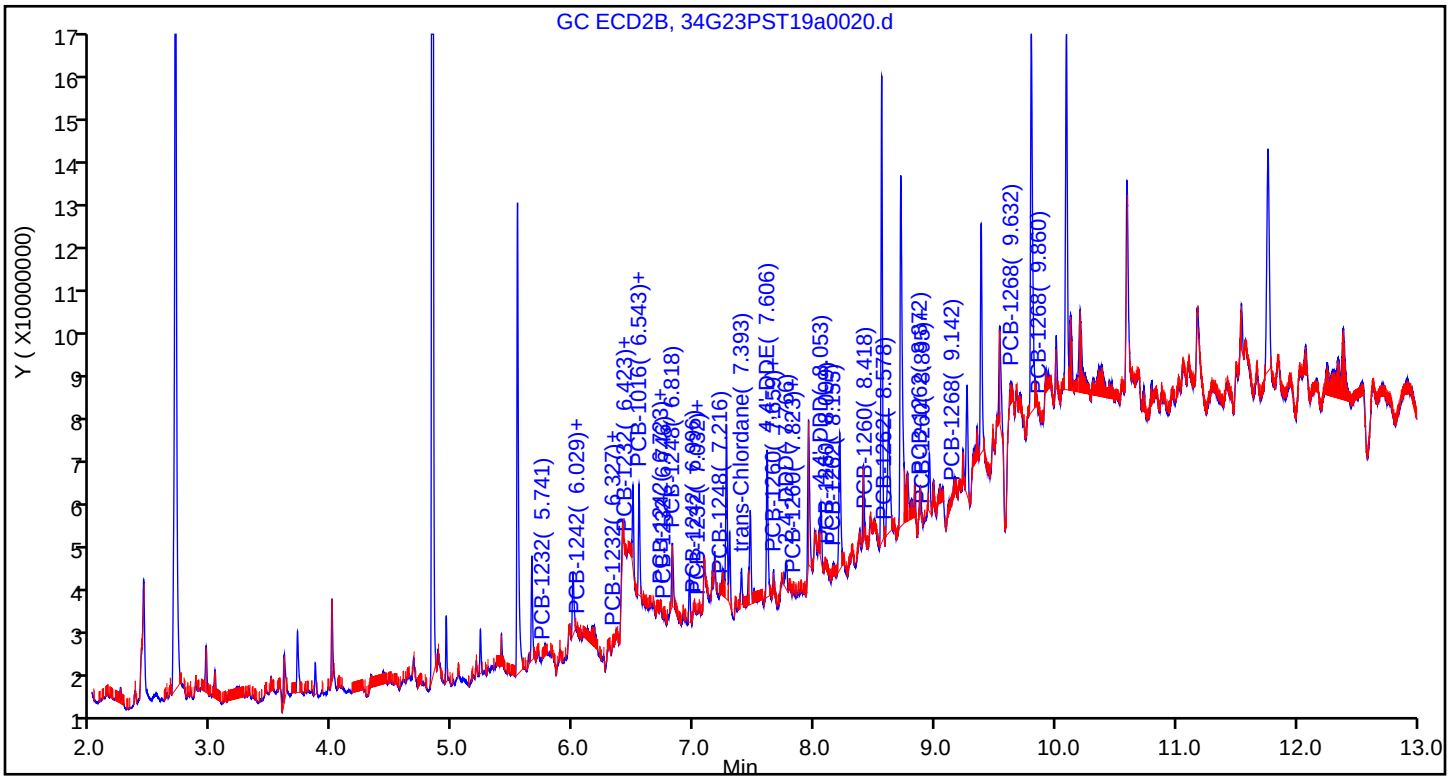
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d				
Lims ID:	580-87706-A-5-D				
Client ID:	22T-SG-12_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 17:18:47	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-5-D				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:23:17	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:23:17		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.85	58.21
$ 45 DCB Decachlorobiphenyl	25.0	2.70	32.37

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.87	70.49
$ 45 DCB Decachlorobiphenyl	25.0	5.95	71.44

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

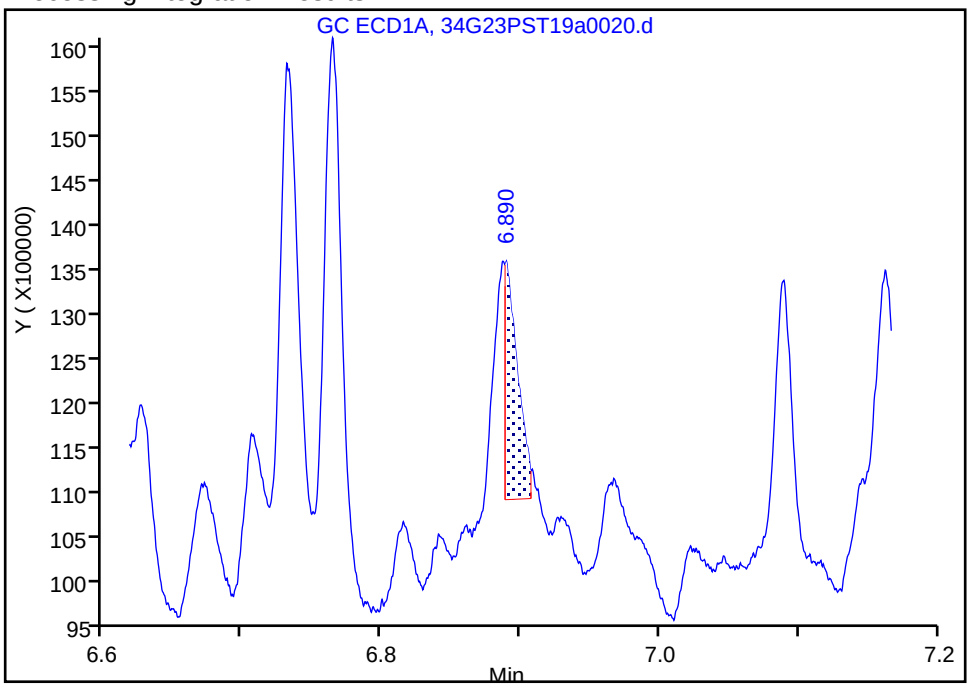
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d				
Injection Date:	23-Jul-2019 17:18:47	Instrument ID:	TAC034		
Lims ID:	580-87706-A-5-D	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	CJB	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

28 2,4'-DDD, CAS: 53-19-0

Signal: 1

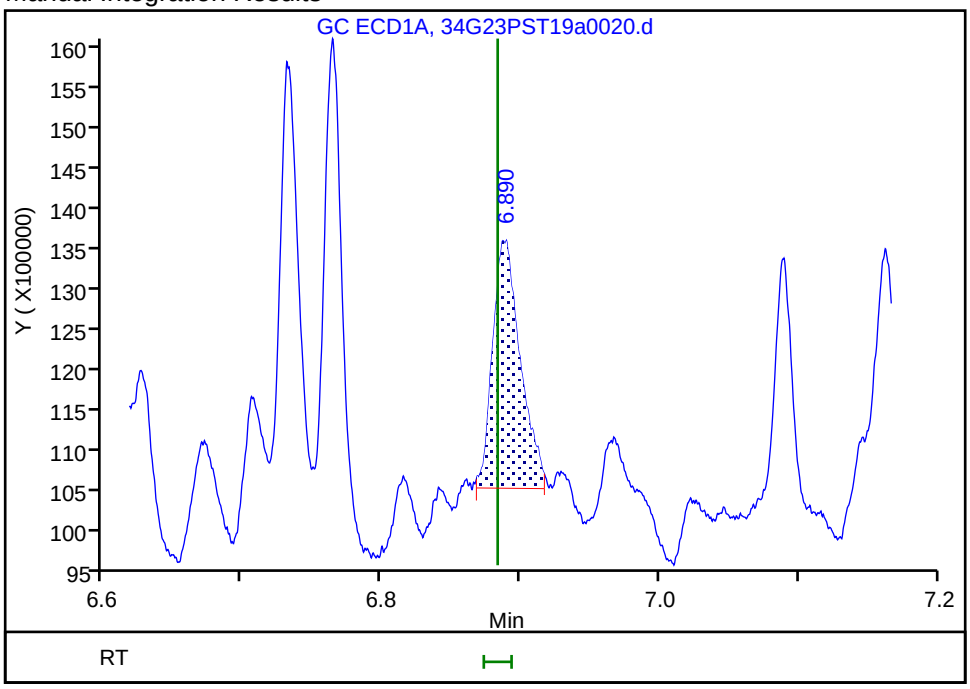
Processing Integration Results

RT: 6.89
Area: 1637058
Amount: 0.692026
Amount Units: ug/L



Manual Integration Results

RT: 6.89
Area: 4201340
Amount: 1.776013
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:21:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

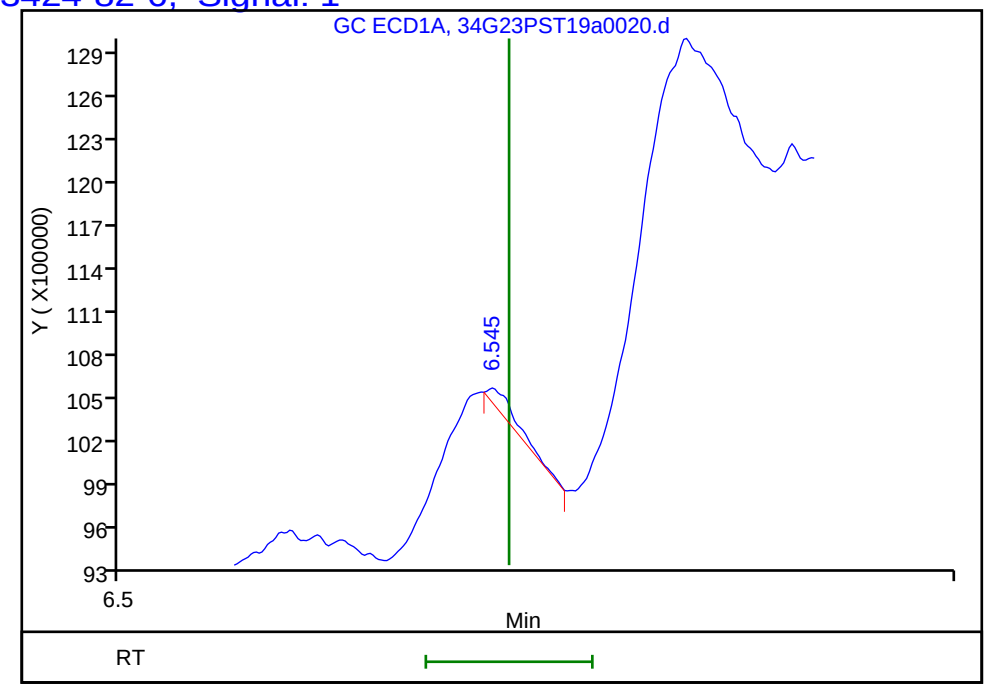
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d
Injection Date: 23-Jul-2019 17:18:47 Instrument ID: TAC034
Lims ID: 580-87706-A-5-D Lab Sample ID: 580-87706-5
Client ID: 22T-SG-12_20190716
Operator ID: CJB ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

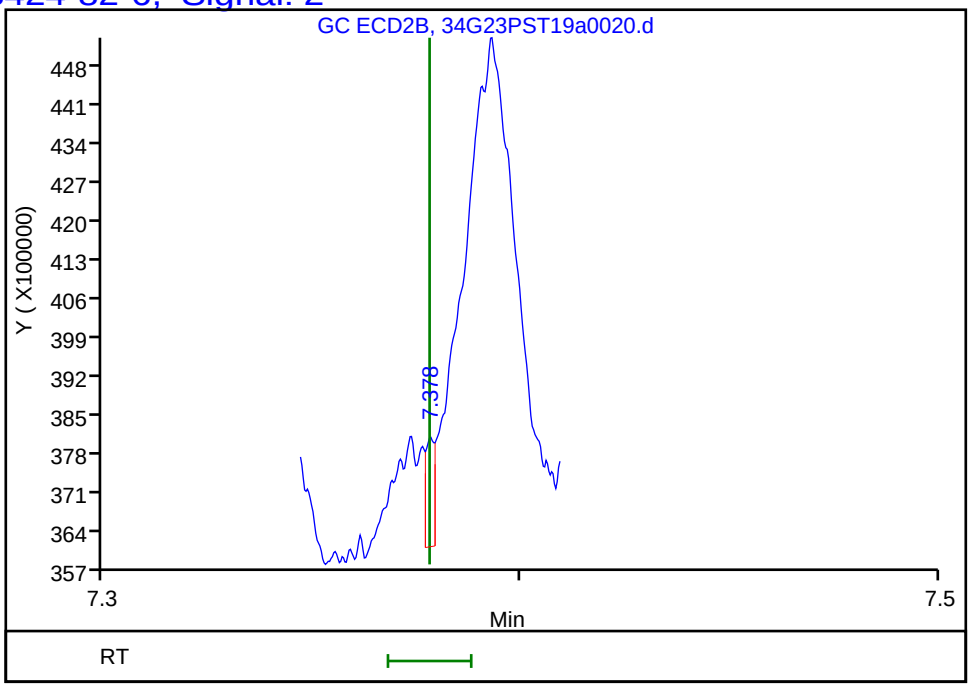
RT: 6.54
Response: 32476
Amount: 0.009336



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 262797
Amount: 0.027895



Reviewer: limwirojt, 24-Jul-2019 11:23:17
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

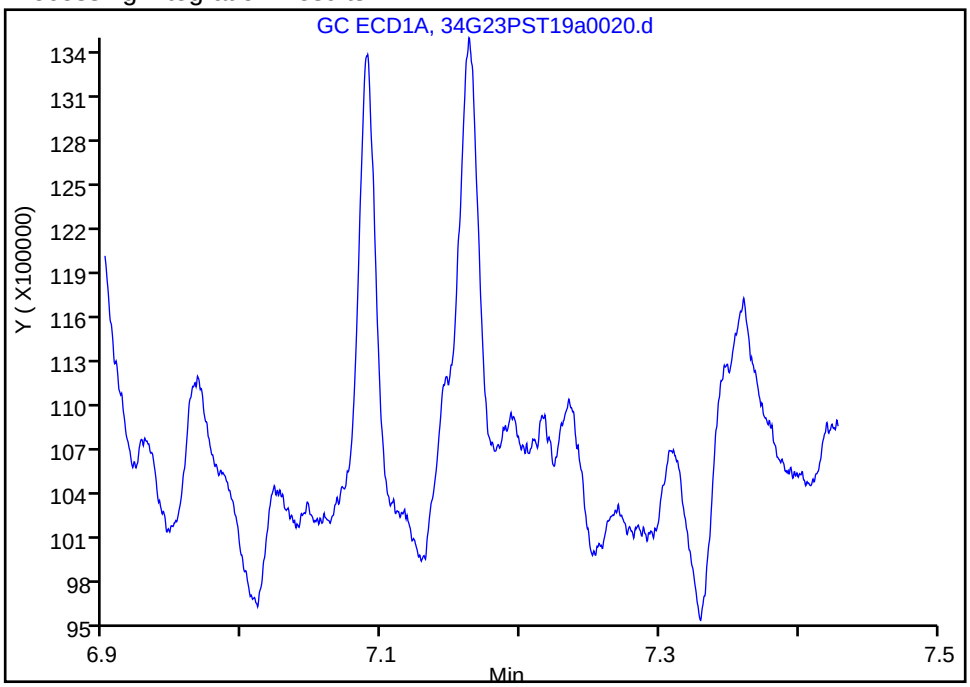
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d				
Injection Date:	23-Jul-2019 17:18:47	Instrument ID:	TAC034		
Lims ID:	580-87706-A-5-D	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	CJB	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

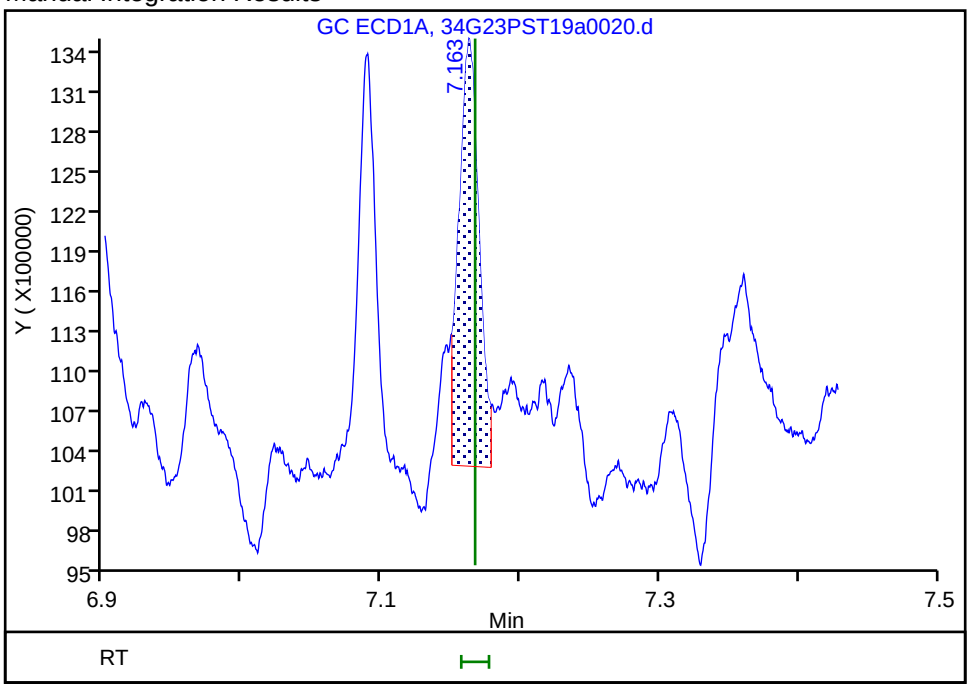
Not Detected
Expected RT: 7.17

Processing Integration Results



Manual Integration Results

RT: 7.16
Area: 3218192
Amount: 1.283159
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:22:27
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

User Disabled Compound Report

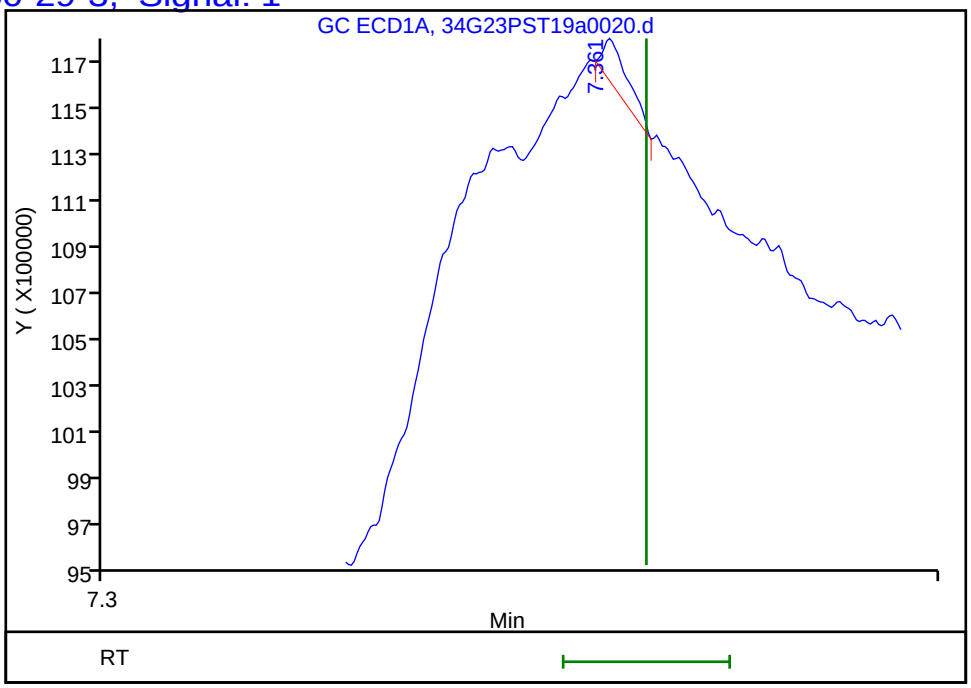
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d
Injection Date: 23-Jul-2019 17:18:47 Instrument ID: TAC034
Lims ID: 580-87706-A-5-D Lab Sample ID: 580-87706-5
Client ID: 22T-SG-12_20190716
Operator ID: CJB ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

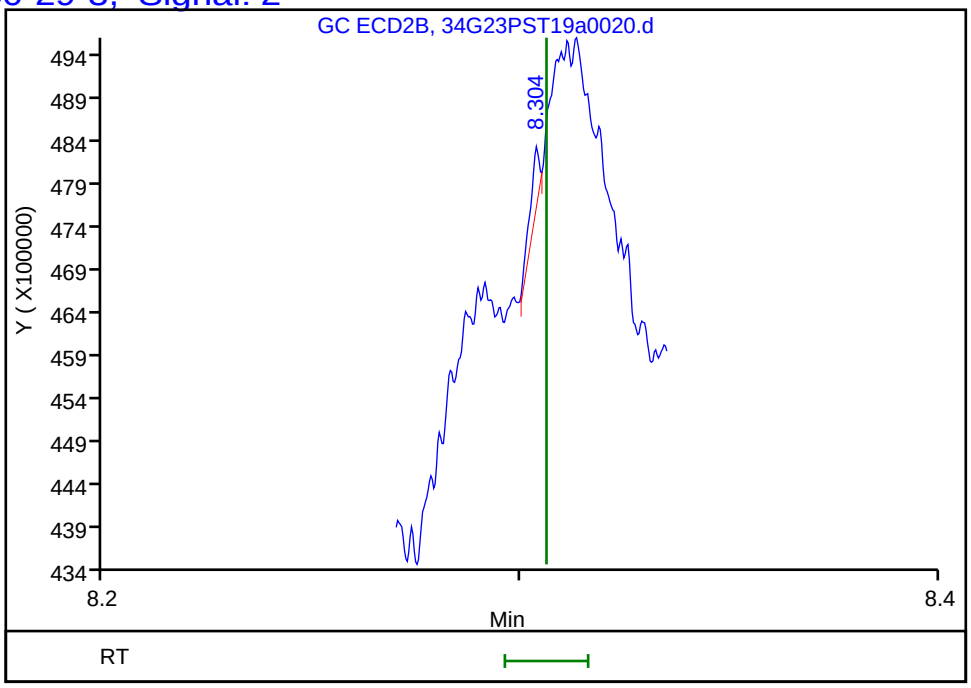
RT: 7.36
Response: 40346
Amount: 0.011975



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30
Response: 113527
Amount: 0.013199



Reviewer: limwirojt, 24-Jul-2019 11:23:17
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Matrix: Solid Lab File ID: 34G23PST19a0020.d

Analysis Method: 8081B Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.368(g) Date Analyzed: 07/23/2019 17:18

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 61.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		3.8	0.69

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d
Lims ID: 580-87706-A-5-D
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 17:18:47 ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-5-D
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:23:17 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:23:17

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	155165363	100.0	
2	4.827	4.829	-0.002	608520968	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	30588629	4.85	
2	5.534	5.535	-0.001	98691250	5.87	
					RPD = 19.07	
6 PCB-1232						
1	5.272	5.265	0.007	51921	NC	
1	5.494	5.500	-0.006	53070	NC	
1	5.786	5.778	0.008	96201	NC	
1	5.988	5.979	0.009	24981	NC	
1	6.383	6.380	0.003	22518	NC	
		Average of Peak Amounts =			0	
2	5.741	5.740	0.001	64086	NC	
2	6.327	6.330	-0.003	42000	NC	
2	6.423	6.424	-0.001	53450	NC	
2	6.746	6.746	0.000	33565	NC	
2	7.032	7.037	-0.005	36987	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.494	5.500	-0.006	53070	NC	
1	5.786	5.778	0.008	96201	NC	
1	6.007	6.009	-0.002	20350	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.383	6.380	0.003	22518	NC	
		Average of Peak Amounts =			0	
2	6.029	6.025	0.004	35006	NC	
2	6.327	6.330	-0.003	42000	NC	
2	6.423	6.424	-0.001	53450	NC	
2	6.723	6.732	-0.009	647400	NC	
2	6.996	6.994	0.002	85092	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.494	5.500	-0.006	53070	NC	
1	5.786	5.778	0.008	96201	NC	
1	6.007	6.009	-0.002	20350	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.346	6.342	0.004	167217	NC	
		Average of Peak Amounts =			0	
2	6.029	6.025	0.004	35006	NC	
2	6.327	6.330	-0.003	42000	NC	
2	6.423	6.424	-0.001	53450	NC	
2	6.543	6.548	-0.005	20832508	NC	
2	6.723	6.732	-0.009	647400	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.786	5.778	0.008	96201	NC	
1	5.988	5.979	0.009	24981	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.383	6.380	0.003	22518	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	20832508	NC	
2	6.723	6.732	-0.009	647400	NC	
2	6.818	6.815	0.003	5997566	NC	
2	7.032	7.037	-0.005	36987	NC	
2	7.216	7.215	0.001	56086	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
23 trans-Chlordane						Ma
1	6.626	6.633	-0.007	1699387	0.2659	M
2	7.393	7.387	0.006	6374461	0.4475	M
					RPD = 50.93	
26 4,4'-DDE						
1	6.764	6.768	-0.004	4686325	1.58	
2	7.606	7.607	-0.001	30615664	1.97	
					RPD = 21.72	
28 2,4'-DDD						Ma
1	6.890	6.883	0.007	4201340	1.78	M
2	7.766	7.768	-0.002	7030914	1.14	M
					RPD = 43.50	
30 PCB-1260						M
1	6.890	6.894	-0.004	4201340	NC	M
1	7.089	7.083	0.006	349487	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.534	7.536	-0.002	12301284	NC	
1	7.959	7.966	-0.007	15743	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	2280185	NC	
2	7.823	7.819	0.004	43632	NC	
2	8.099	8.100	-0.001	424151	NC	
2	8.418	8.414	0.004	520486	NC	
2	8.895	8.896	-0.001	92840	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
35 PCB-1262						
1	7.089	7.083	0.006	349487	NC	
1	7.355	7.353	0.002	46666	NC	
1	0.000	7.554	-7.554	0	NC	
1	7.757	7.760	-0.003	1344724	NC	
1	7.959	7.966	-0.007	15743	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	2280185	NC	
2	7.823	7.819	0.004	43632	NC	
2	8.155	8.153	0.002	668823	NC	
2	8.578	8.581	-0.003	49633	NC	
2	8.872	8.873	-0.001	1468514	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						a
1	7.163	7.167	-0.004	3218192	1.28	a
2	8.053	8.055	-0.002	10907395	1.24	a
					RPD = 3.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
43 PCB-1268						
1	7.986	7.991	-0.005	251322	NC	
1	8.035	8.038	-0.003	300534	NC	
1	8.164	8.172	-0.008	21325	NC	
1	8.663	8.663	0.000	1223319	NC	
1	8.817	8.812	0.005	23008	NC	
		Average of Peak Amounts =			0	
2	8.895	8.891	0.004	92840	NC	
2	0.000	8.900	-8.900	0	NC	
2	9.142	9.144	-0.002	170294	NC	
2	9.632	9.632	0.000	422769	NC	
2	9.860	9.857	0.003	33984	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
$ 45 DCB Decachlorobiphenyl						
1	8.887	8.884	0.003	28133417	2.70	
2	10.091	10.091	0.000	84820803	5.95	
					RPD = 75.27	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:23:23 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d

Injection Date: 23-Jul-2019 17:18:47 Instrument ID: TAC034

Lims ID: 580-87706-A-5-D Lab Sample ID: 580-87706-5

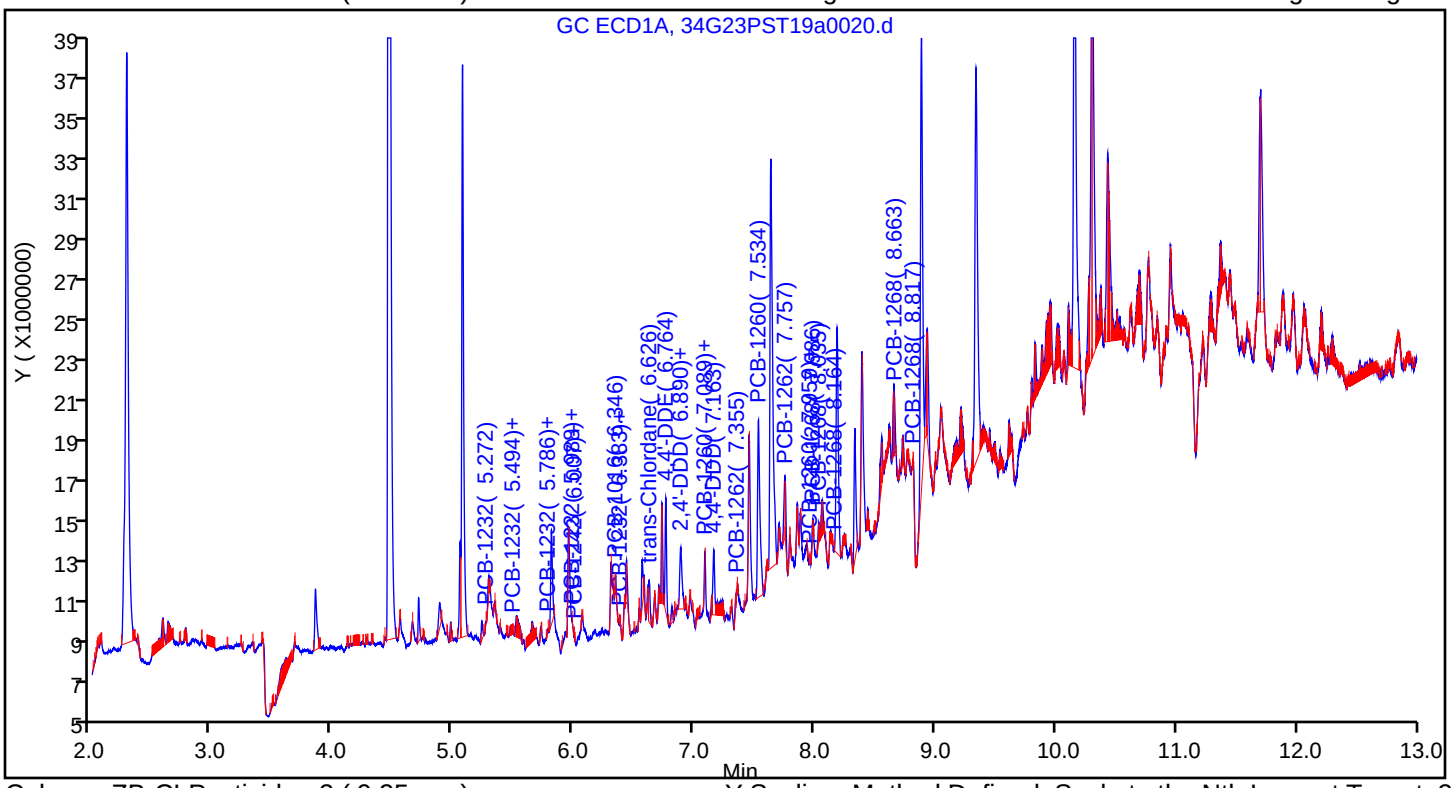
Client ID: 22T-SG-12_20190716

Operator ID: CJB ALS Bottle#: 16 Worklist Smp#: 18

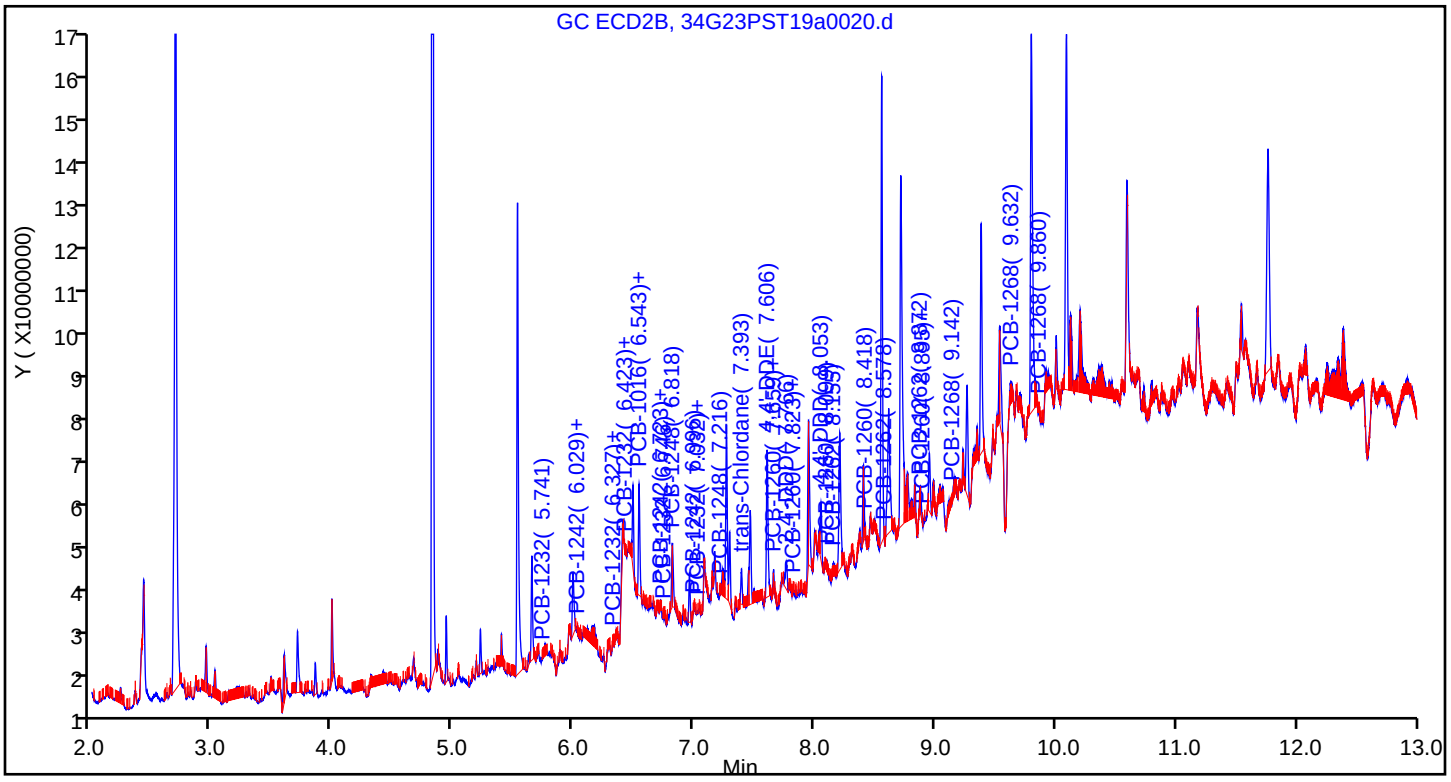
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d				
Lims ID:	580-87706-A-5-D				
Client ID:	22T-SG-12_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 17:18:47	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-5-D				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:23:17	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:23:17		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.85	58.21
$ 45 DCB Decachlorobiphenyl	25.0	2.70	32.37

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.87	70.49
$ 45 DCB Decachlorobiphenyl	25.0	5.95	71.44

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

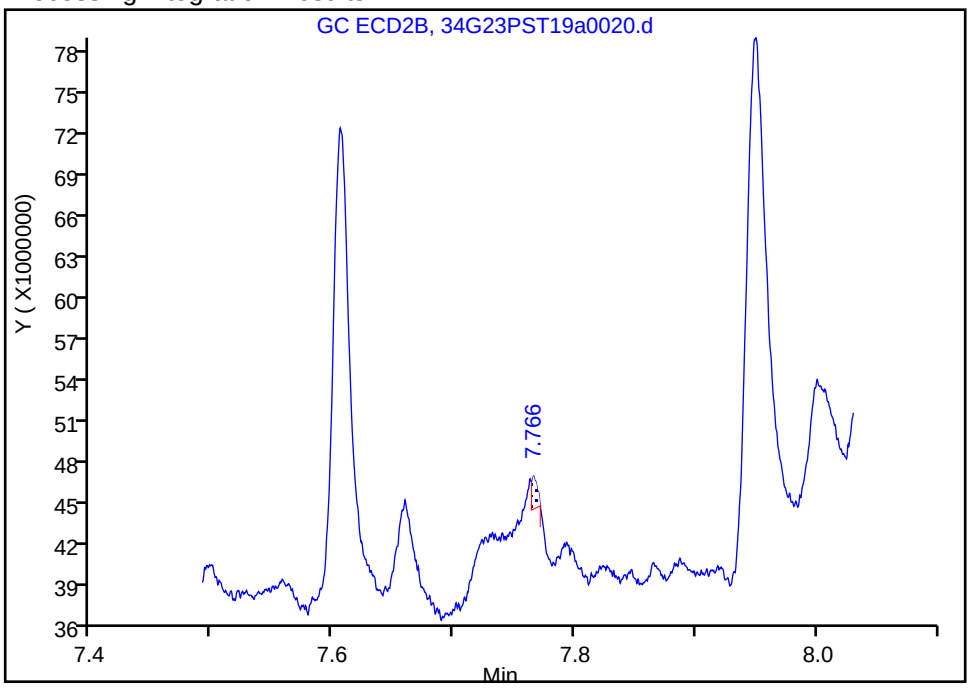
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d				
Injection Date:	23-Jul-2019 17:18:47	Instrument ID:	TAC034		
Lims ID:	580-87706-A-5-D	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	CJB	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

28 2,4'-DDD, CAS: 53-19-0

Signal: 2

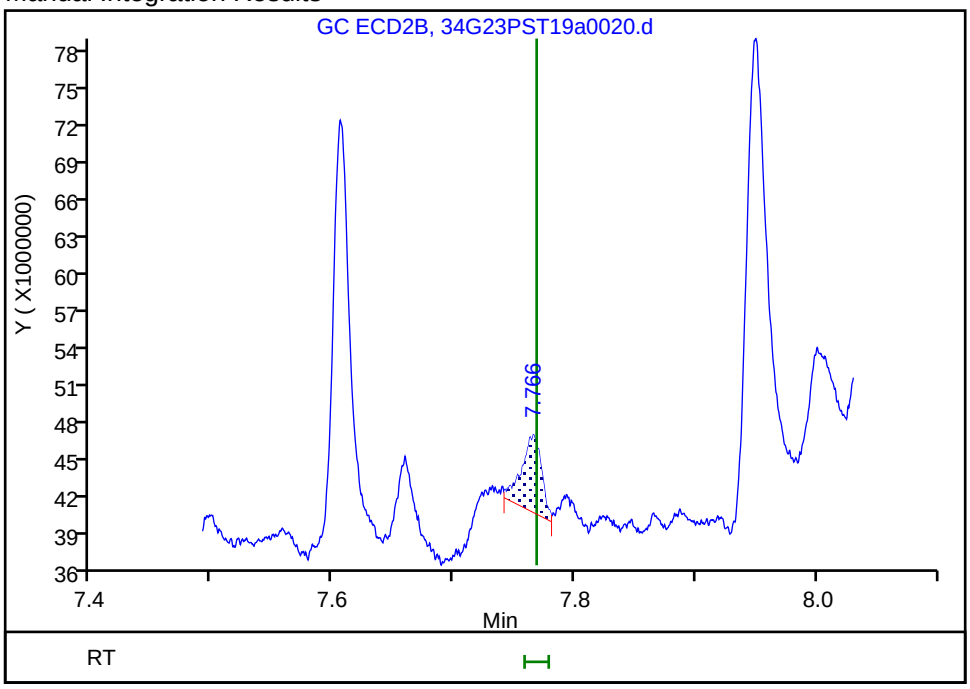
Processing Integration Results

RT: 7.77
Area: 717366
Amount: 0.116468
Amount Units: ug/L



Manual Integration Results

RT: 7.77
Area: 7030914
Amount: 1.141502
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:21:44

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Incomplete Integration

User Disabled Compound Report

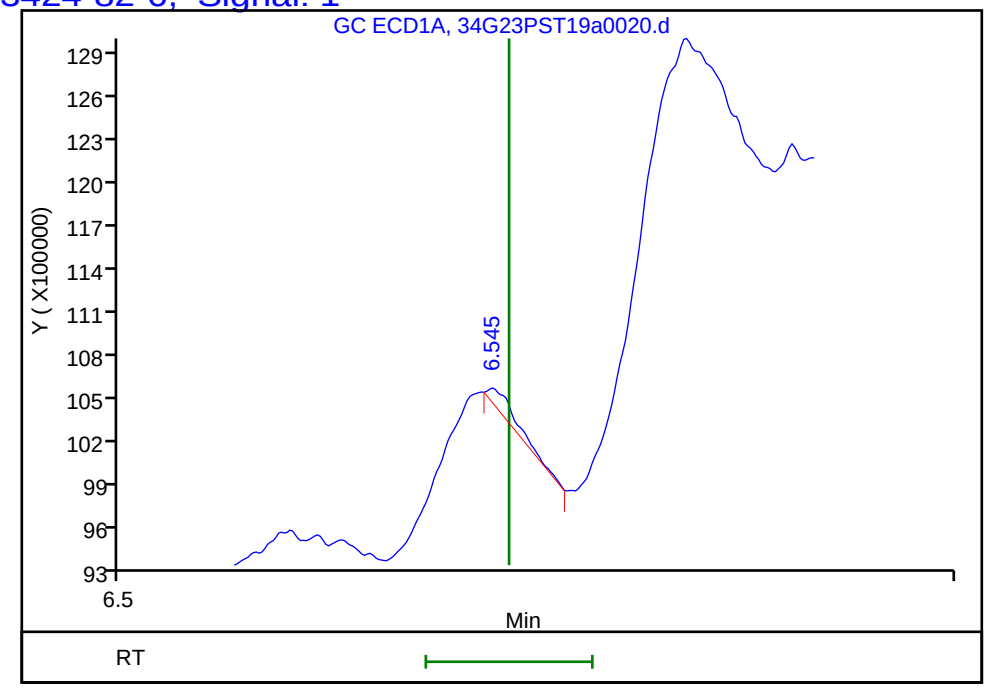
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d
Injection Date: 23-Jul-2019 17:18:47 Instrument ID: TAC034
Lims ID: 580-87706-A-5-D Lab Sample ID: 580-87706-5
Client ID: 22T-SG-12_20190716
Operator ID: CJB ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

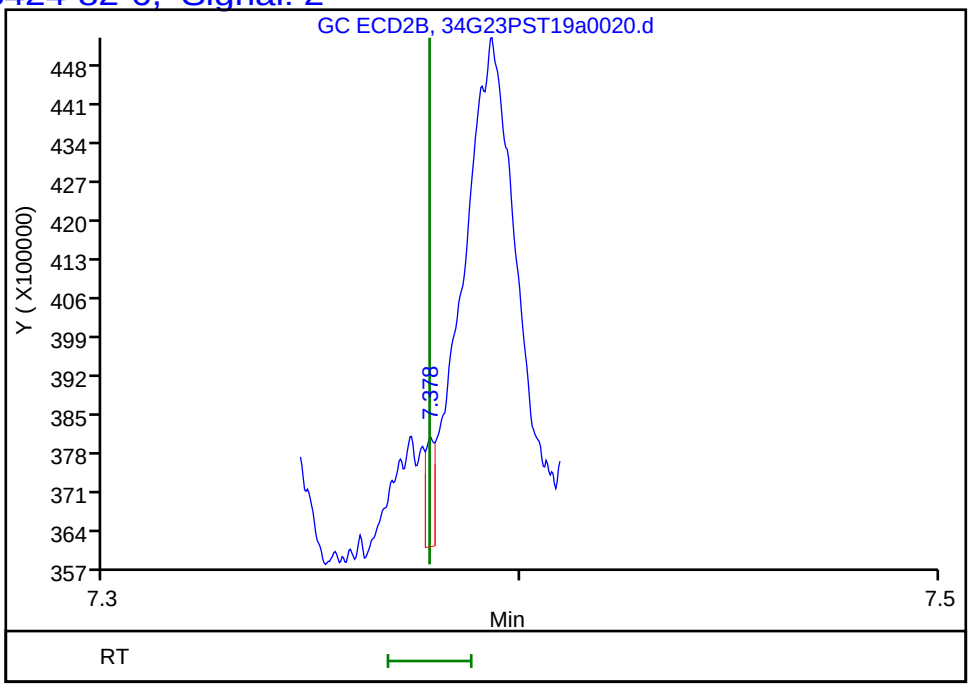
RT: 6.54
Response: 32476
Amount: 0.009336



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 262797
Amount: 0.027895



Reviewer: limwirojt, 24-Jul-2019 11:23:17
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

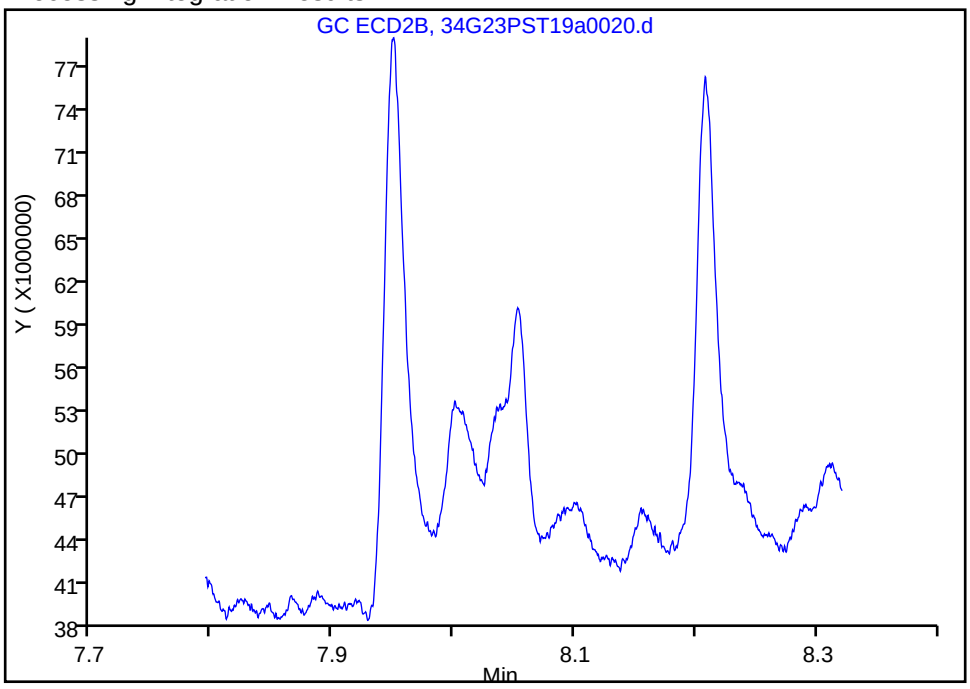
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d				
Injection Date:	23-Jul-2019 17:18:47	Instrument ID:	TAC034		
Lims ID:	580-87706-A-5-D	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	CJB	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

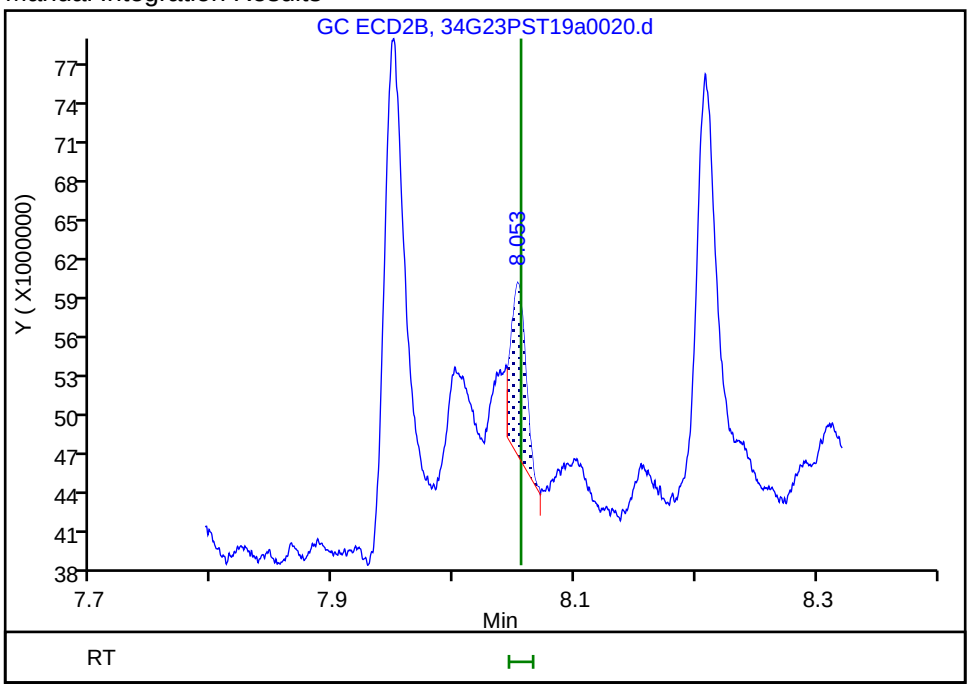
Not Detected
Expected RT: 8.06

Processing Integration Results



Manual Integration Results

RT: 8.05
Area: 10907395
Amount: 1.243578
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:22:32
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0020.d

Injection Date: 23-Jul-2019 17:18:47 Instrument ID: TAC034

Lims ID: 580-87706-A-5-D Lab Sample ID: 580-87706-5

Client ID: 22T-SG-12_20190716

Operator ID: CJB ALS Bottle#: 16 Worklist Smp#: 18

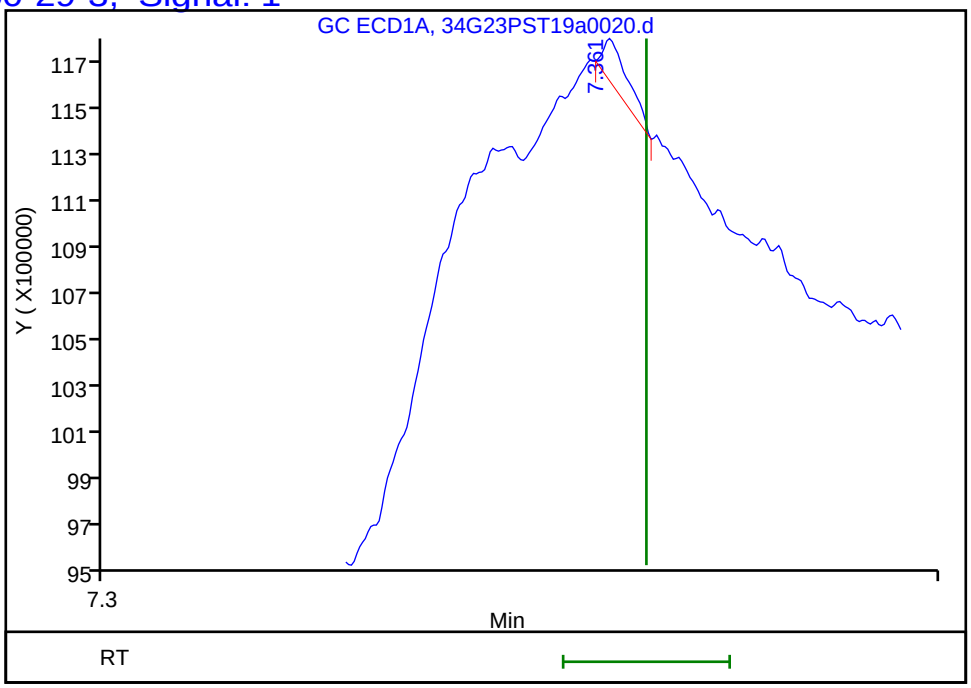
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

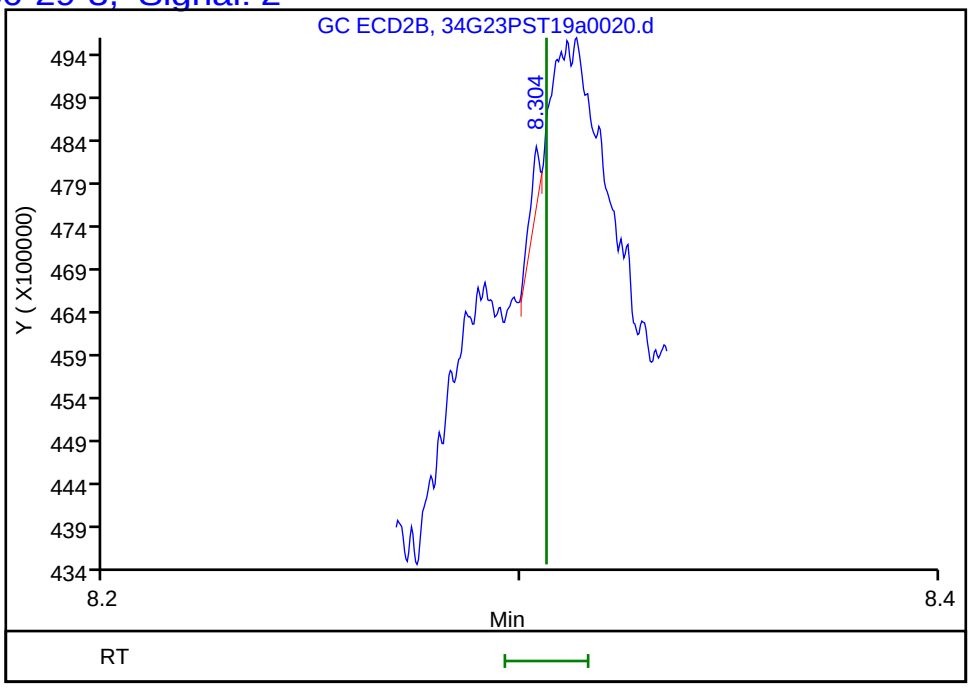
RT: 7.36
Response: 40346
Amount: 0.011975



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30
Response: 113527
Amount: 0.013199



Reviewer: limwirojt, 24-Jul-2019 11:23:17

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 34G23PST19a0023.d

Analysis Method: 8081B Date Collected: 07/16/2019 10:09

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.739(g) Date Analyzed: 07/23/2019 18:16

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
789-02-6	2,4'-DDT	ND		2.8	1.1
72-54-8	4,4'-DDD	1.9		1.1	0.22
72-55-9	4,4'-DDE	1.7		1.1	0.30
50-29-3	4,4'-DDT	ND		1.1	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	22	X	36-136
877-09-8	Tetrachloro-m-xylene	51		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d
Lims ID: 580-87706-A-6-B
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 18:16:32 ALS Bottle#: 19 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-6-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:24:12 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:24:12

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.462	4.467	-0.005	143080300	100.0	
2	4.827	4.829	-0.002	712995302	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.075	5.081	-0.006	24682493	4.25	
2	5.536	5.535	0.001	148822877	7.54	
					RPD = 55.94	
6 PCB-1232						
1	5.270	5.265	0.005	59849	NC	
1	0.000	5.500	-5.500	0	NC	
1	5.781	5.778	0.003	31745	NC	
1	5.981	5.979	0.002	16881	NC	
1	6.384	6.380	0.004	79180	NC	
		Average of Peak Amounts =			0	
2	5.750	5.740	0.010	1026616	NC	
2	6.329	6.330	-0.001	140989	NC	
2	6.425	6.424	0.001	1154366	NC	
2	6.746	6.746	0.000	73432	NC	
2	7.042	7.037	0.005	31417	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
14 PCB-1248						
1	5.781	5.778	0.003	31745	NC	
1	5.981	5.979	0.002	16881	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.384	6.380	0.004	79180	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.548	6.548	0.000	43215	NC	
2	6.736	6.732	0.004	47020	NC	
2	6.819	6.815	0.004	96253424	NC	
2	7.042	7.037	0.005	31417	NC	
2	7.216	7.215	0.001	36005	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
19 PCB-1254						
1	6.344	6.342	0.002	296494	NC	
1	6.522	6.512	0.010	243243	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.964	6.957	0.007	320360	NC	
1	7.297	7.288	0.009	113256	NC	
		Average of Peak Amounts =			0	
2	7.042	7.037	0.005	31417	NC	
2	7.170	7.164	0.006	74485437	NC	
2	7.519	7.516	0.003	35417	NC	
2	7.680	7.681	-0.001	864405	NC	
2	8.080	8.080	0.000	42522	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	13343897	3.04	
2	7.605	7.607	-0.002	79450658	4.36	
					RPD = 35.46	
28 2,4'-DDD						M
1	6.886	6.883	0.003	17187423	7.88	
2	7.766	7.768	-0.002	10497925	1.45	M
					RPD = 137.66	
30 PCB-1260						
1	6.886	6.894	-0.008	17187423	NC	
1	7.086	7.083	0.003	296898	NC	
1	7.297	7.288	0.009	113256	NC	
1	7.534	7.536	-0.002	71419	NC	
1	7.960	7.966	-0.006	131734	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	32739877	NC	
2	7.821	7.819	0.002	559037	NC	
2	8.100	8.100	0.000	167026	NC	
2	8.414	8.414	0.000	370749	NC	
2	8.897	8.896	0.001	63165	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
36 4,4'-DDD						M
1	7.161	7.167	-0.006	10325553	3.40	
2	8.052	8.055	-0.003	42883182	4.17	M
					RPD = 20.52	
$ 45 DCB Decachlorobiphenyl						
1	8.884	8.884	0.000	20515137	1.84	
2	10.088	10.091	-0.003	81712352	4.82	
					RPD = 89.65	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:24:13 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d

Injection Date: 23-Jul-2019 18:16:32 Instrument ID: TAC034

Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6

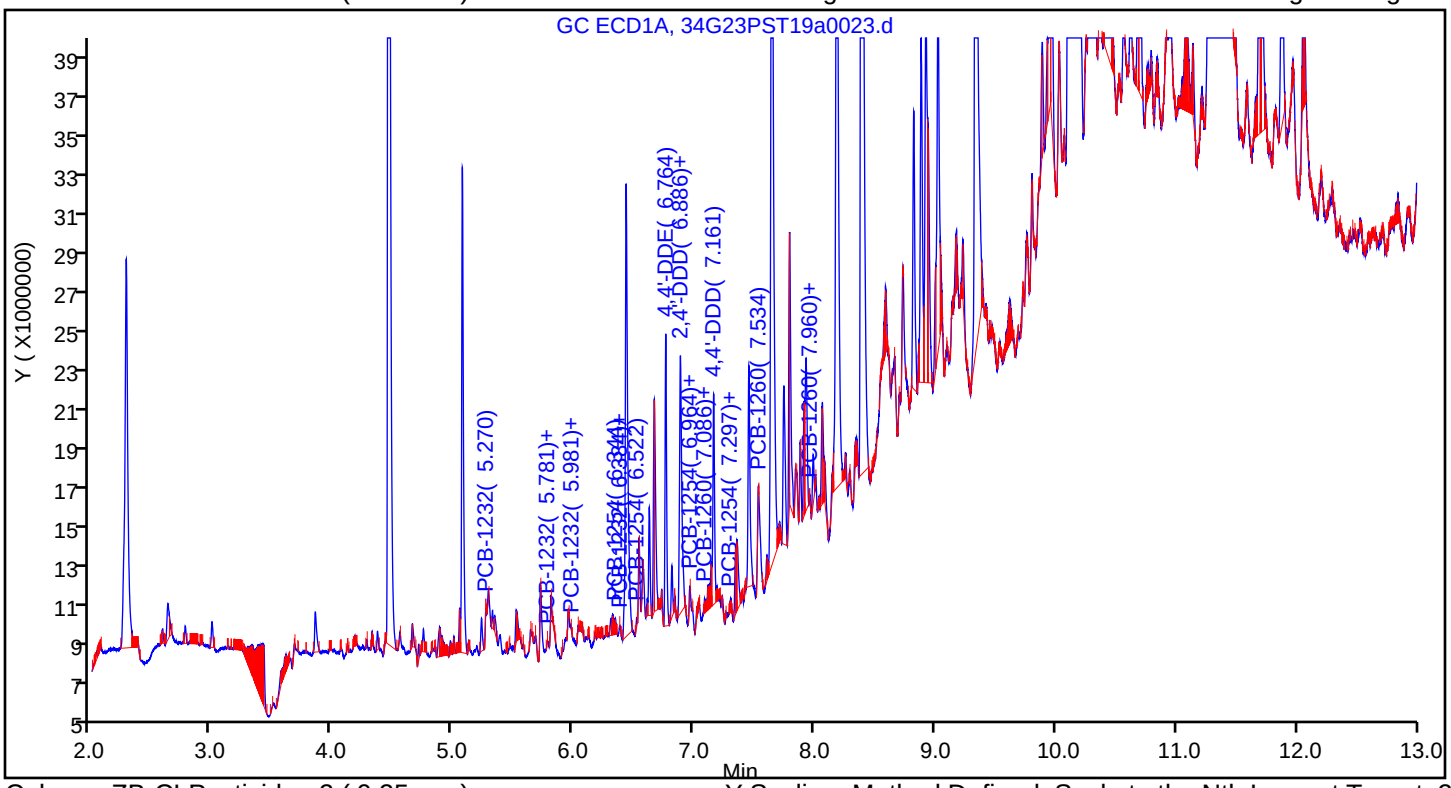
Client ID: 22T-SG-19_20190716

Operator ID: CJB ALS Bottle#: 19 Worklist Smp#: 21

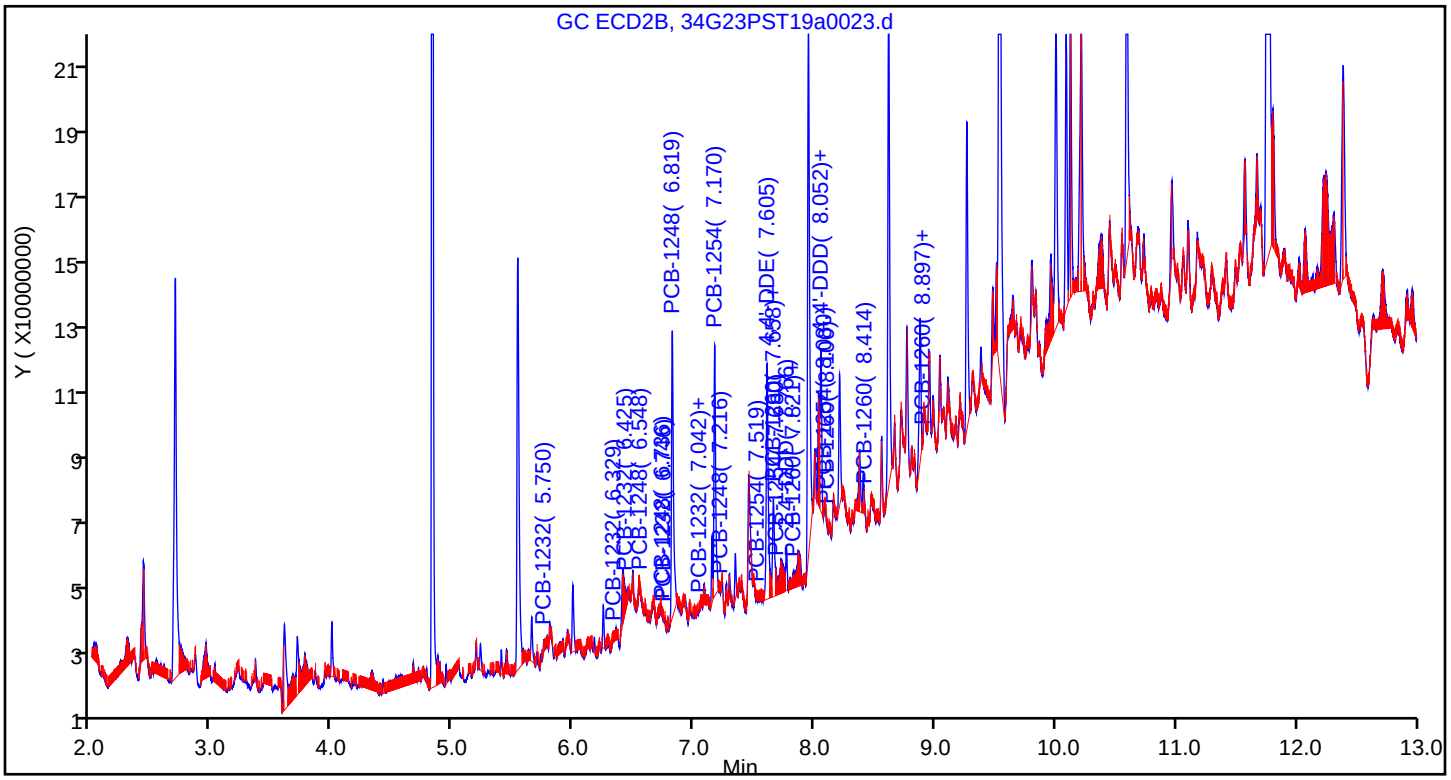
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d				
Lims ID:	580-87706-A-6-B				
Client ID:	22T-SG-19_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 18:16:32	ALS Bottle#:	19	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-6-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:24:12	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:24:12		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.25	50.94
$ 45 DCB Decachlorobiphenyl	25.0	1.84	22.05

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	7.54	90.50
$ 45 DCB Decachlorobiphenyl	25.0	4.82	57.88

User Disabled Compound Report

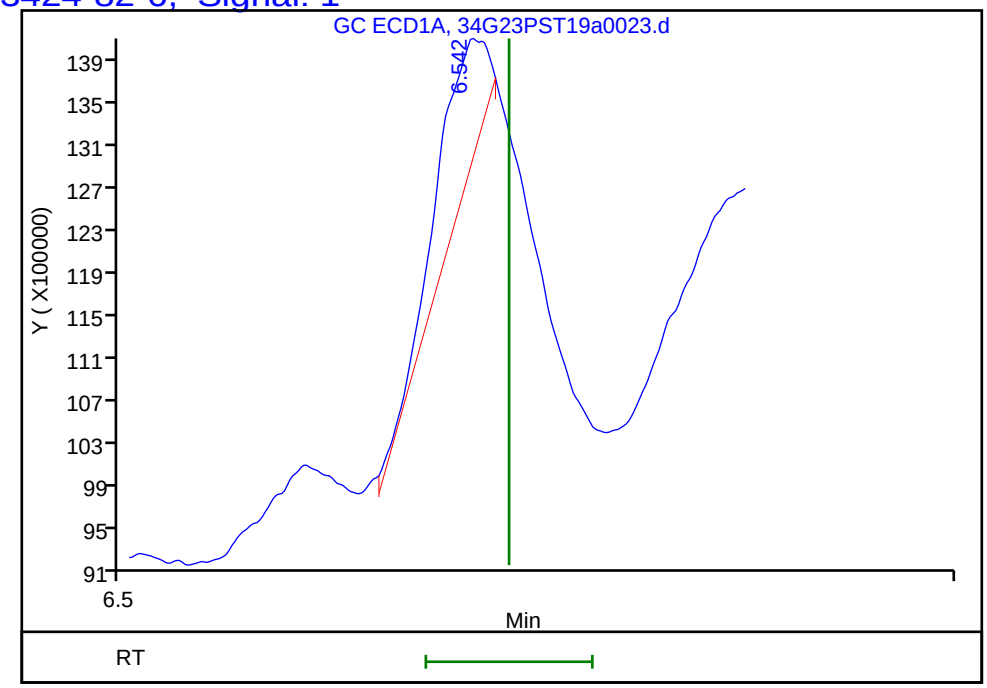
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d
Injection Date: 23-Jul-2019 18:16:32 Instrument ID: TAC034
Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6
Client ID: 22T-SG-19_20190716
Operator ID: CJB ALS Bottle#: 19 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

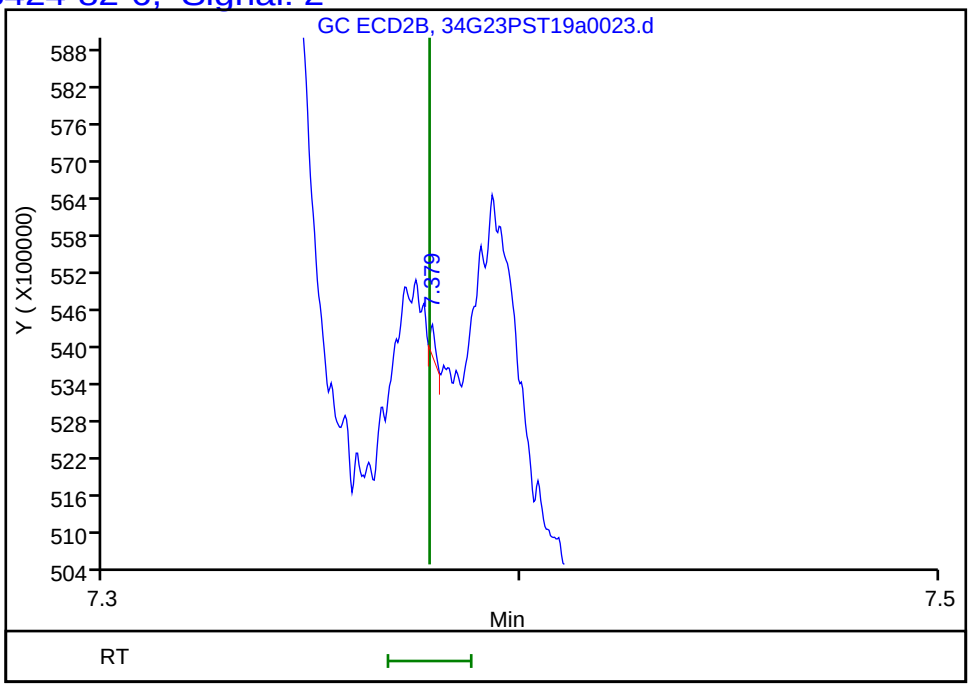
RT: 6.54
Response: 531377
Amount: 0.165662



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 40511
Amount: 0.003670



Reviewer: limwirojt, 24-Jul-2019 12:24:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

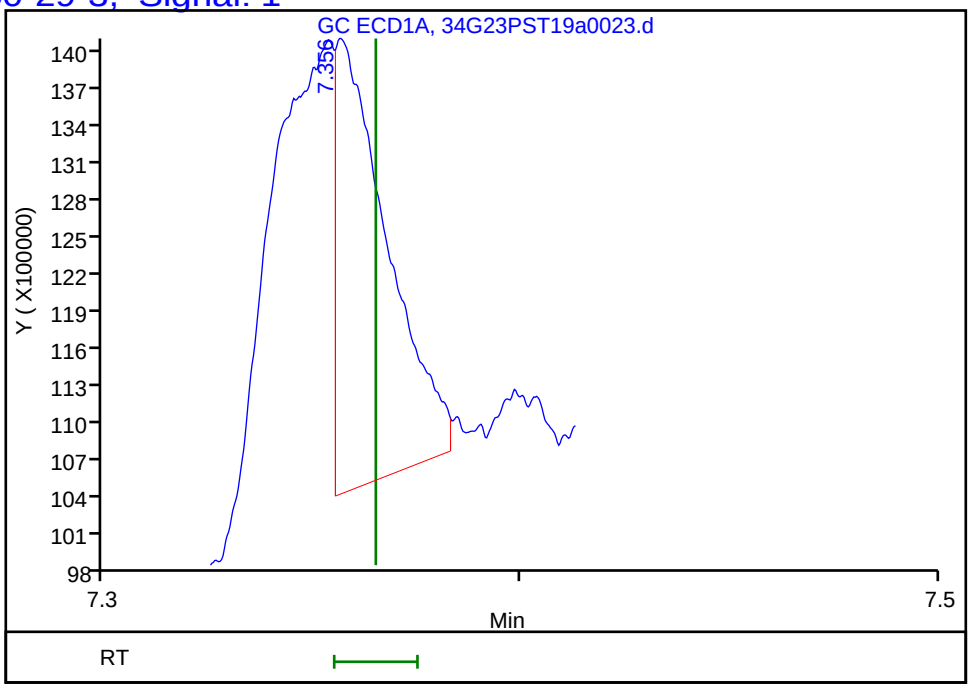
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d
Injection Date: 23-Jul-2019 18:16:32 Instrument ID: TAC034
Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6
Client ID: 22T-SG-19_20190716
Operator ID: CJB ALS Bottle#: 19 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

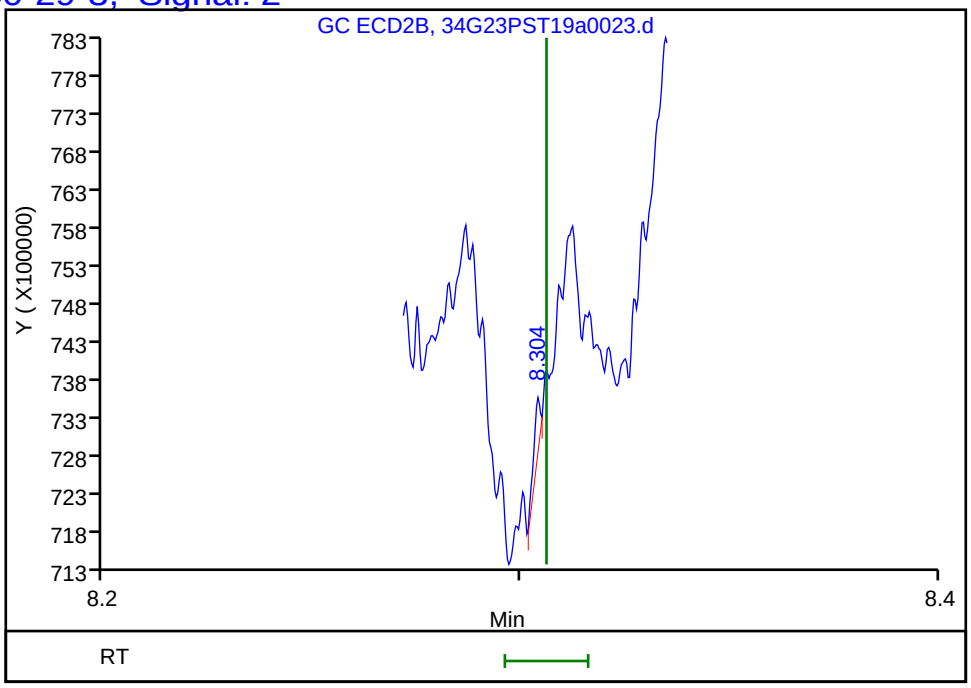
RT: 7.36
Response: 2985473
Amount: 0.960961



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30
Response: 82596
Amount: 0.008196



Reviewer: limwirojt, 24-Jul-2019 12:24:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 34G23PST19a0023.d

Analysis Method: 8081B Date Collected: 07/16/2019 10:09

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.739(g) Date Analyzed: 07/23/2019 18:16

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	0.83	J p	2.8	0.63
3424-82-6	2,4'-DDE	ND		2.8	0.52

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d
Lims ID: 580-87706-A-6-B
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 18:16:32 ALS Bottle#: 19 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-6-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:24:12 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:24:12

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.462	4.467	-0.005	143080300	100.0	
2	4.827	4.829	-0.002	712995302	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.075	5.081	-0.006	24682493	4.25	
2	5.536	5.535	0.001	148822877	7.54	
					RPD = 55.94	
6 PCB-1232						
1	5.270	5.265	0.005	59849	NC	
1	0.000	5.500	-5.500	0	NC	
1	5.781	5.778	0.003	31745	NC	
1	5.981	5.979	0.002	16881	NC	
1	6.384	6.380	0.004	79180	NC	
		Average of Peak Amounts =			0	
2	5.750	5.740	0.010	1026616	NC	
2	6.329	6.330	-0.001	140989	NC	
2	6.425	6.424	0.001	1154366	NC	
2	6.746	6.746	0.000	73432	NC	
2	7.042	7.037	0.005	31417	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
14 PCB-1248						
1	5.781	5.778	0.003	31745	NC	
1	5.981	5.979	0.002	16881	NC	
1	0.000	6.093	-6.093	0	NC	
1	6.384	6.380	0.004	79180	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.548	6.548	0.000	43215	NC	
2	6.736	6.732	0.004	47020	NC	
2	6.819	6.815	0.004	96253424	NC	
2	7.042	7.037	0.005	31417	NC	
2	7.216	7.215	0.001	36005	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
19 PCB-1254						
1	6.344	6.342	0.002	296494	NC	
1	6.522	6.512	0.010	243243	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.964	6.957	0.007	320360	NC	
1	7.297	7.288	0.009	113256	NC	
		Average of Peak Amounts =			0	
2	7.042	7.037	0.005	31417	NC	
2	7.170	7.164	0.006	74485437	NC	
2	7.519	7.516	0.003	35417	NC	
2	7.680	7.681	-0.001	864405	NC	
2	8.080	8.080	0.000	42522	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.764	6.768	-0.004	13343897	3.04	
2	7.605	7.607	-0.002	79450658	4.36	
					RPD = 35.46	
28 2,4'-DDD						M
1	6.886	6.883	0.003	17187423	7.88	
2	7.766	7.768	-0.002	10497925	1.45	M
					RPD = 137.66	
30 PCB-1260						
1	6.886	6.894	-0.008	17187423	NC	
1	7.086	7.083	0.003	296898	NC	
1	7.297	7.288	0.009	113256	NC	
1	7.534	7.536	-0.002	71419	NC	
1	7.960	7.966	-0.006	131734	NC	
		Average of Peak Amounts =			0	
2	7.658	7.658	0.000	32739877	NC	
2	7.821	7.819	0.002	559037	NC	
2	8.100	8.100	0.000	167026	NC	
2	8.414	8.414	0.000	370749	NC	
2	8.897	8.896	0.001	63165	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
36 4,4'-DDD						M
1	7.161	7.167	-0.006	10325553	3.40	
2	8.052	8.055	-0.003	42883182	4.17	M
					RPD = 20.52	
$ 45 DCB Decachlorobiphenyl						
1	8.884	8.884	0.000	20515137	1.84	
2	10.088	10.091	-0.003	81712352	4.82	
					RPD = 89.65	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:24:15 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d

Injection Date: 23-Jul-2019 18:16:32 Instrument ID: TAC034

Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6

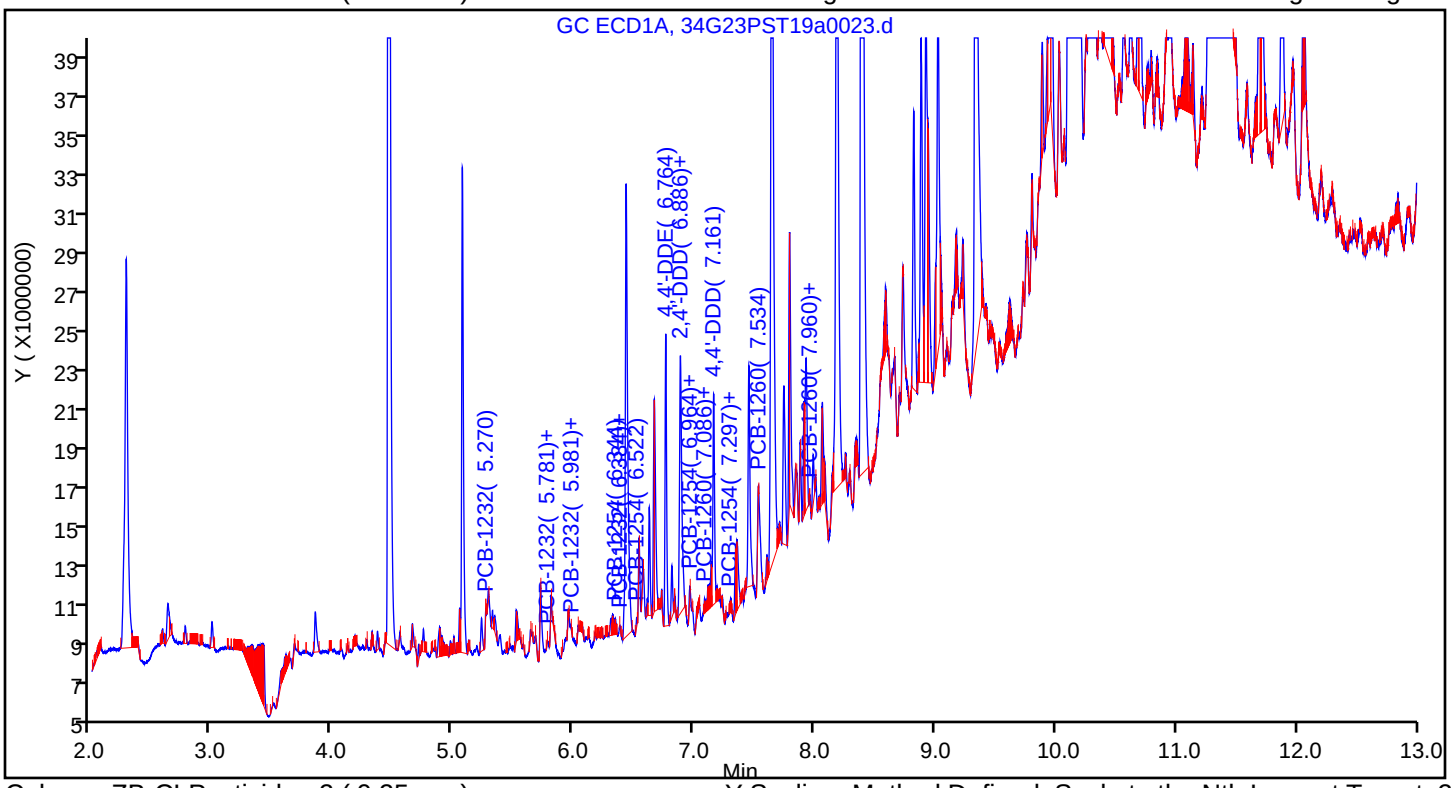
Client ID: 22T-SG-19_20190716

Operator ID: CJB ALS Bottle#: 19 Worklist Smp#: 21

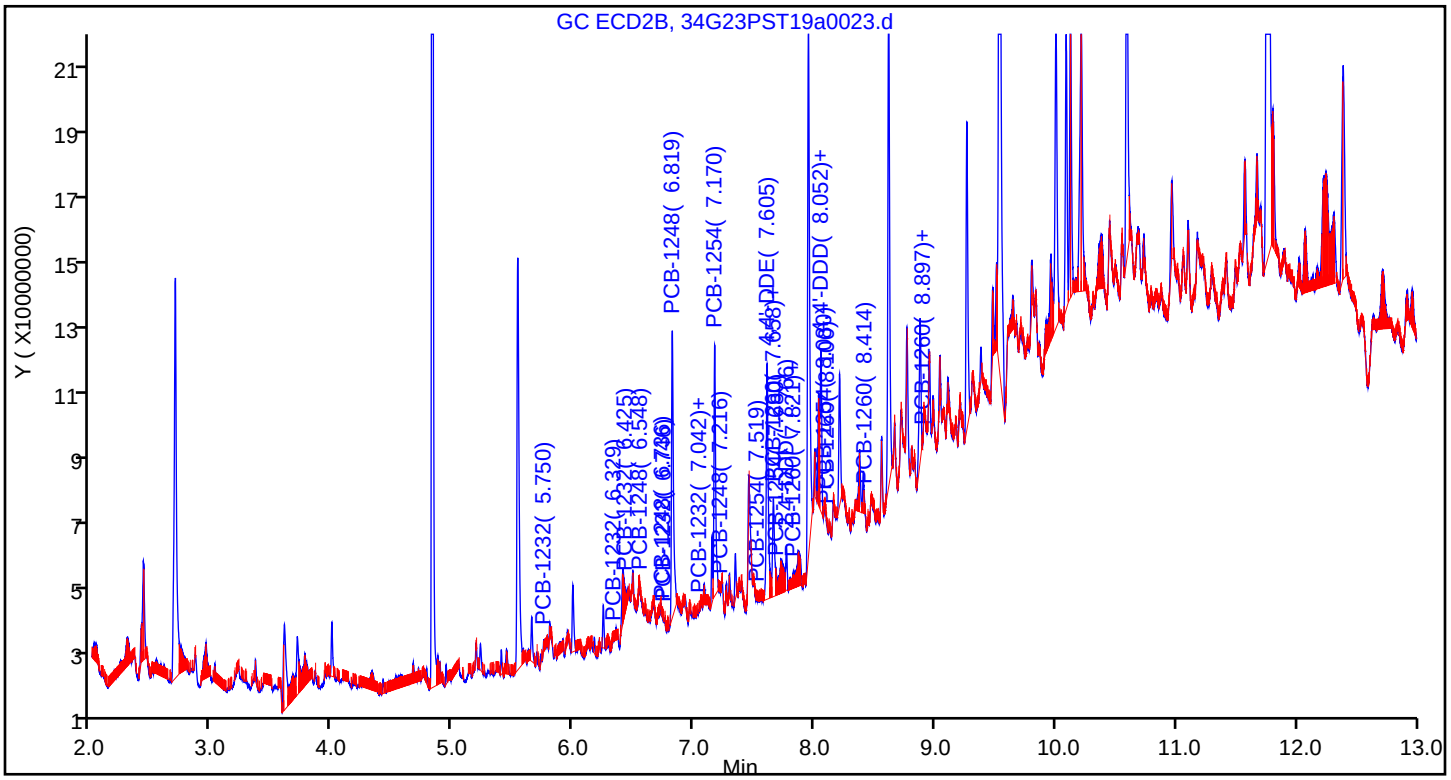
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d				
Lims ID:	580-87706-A-6-B				
Client ID:	22T-SG-19_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 18:16:32	ALS Bottle#:	19	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-6-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:24:12	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:24:12		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.25	50.94
$ 45 DCB Decachlorobiphenyl	25.0	1.84	22.05

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	7.54	90.50
$ 45 DCB Decachlorobiphenyl	25.0	4.82	57.88

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

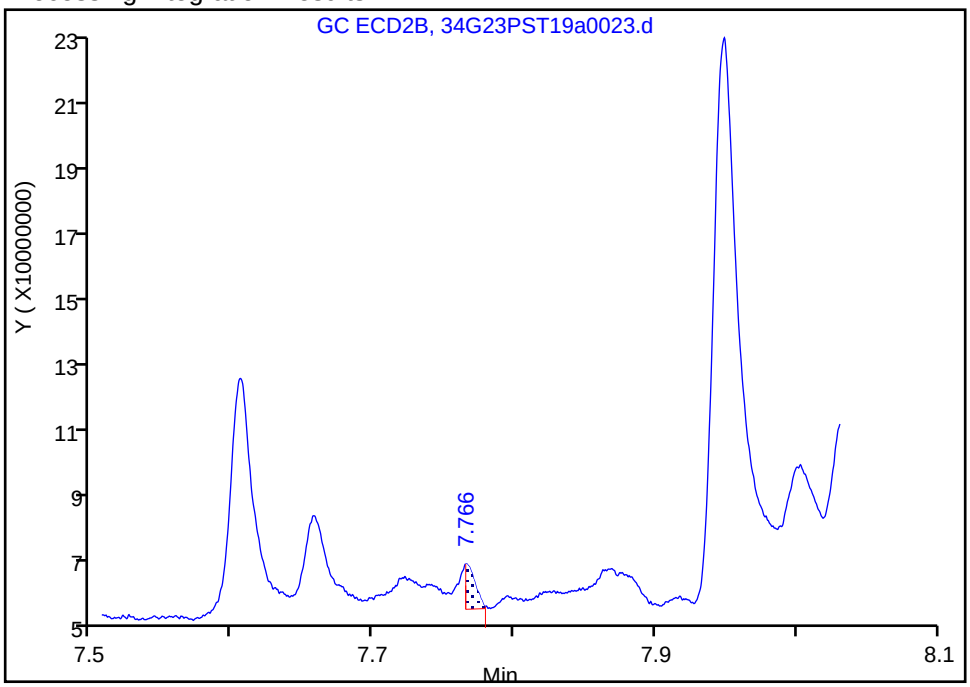
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d		
Injection Date:	23-Jul-2019 18:16:32	Instrument ID:	TAC034
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6
Client ID:	22T-SG-19_20190716		
Operator ID:	CJB	ALS Bottle#:	19 Worklist Smp#: 21
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

28 2,4'-DDD, CAS: 53-19-0

Signal: 2

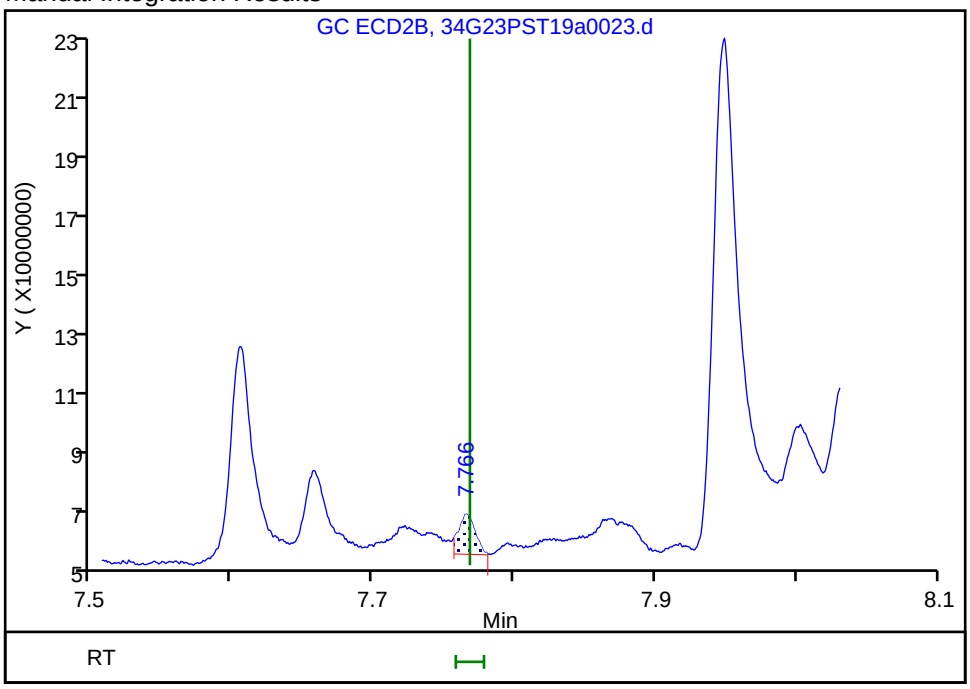
Processing Integration Results

RT: 7.77
Area: 6110997
Amount: 0.846770
Amount Units: ug/L



Manual Integration Results

RT: 7.77
Area: 10497925
Amount: 1.454645
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:23:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

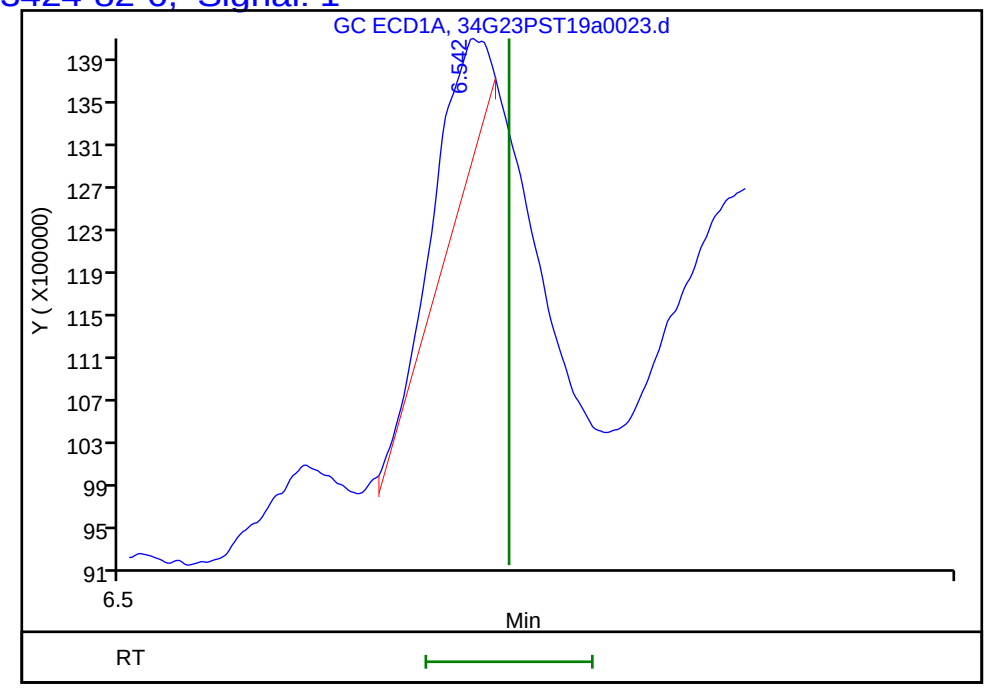
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d
Injection Date: 23-Jul-2019 18:16:32 Instrument ID: TAC034
Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6
Client ID: 22T-SG-19_20190716
Operator ID: CJB ALS Bottle#: 19 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

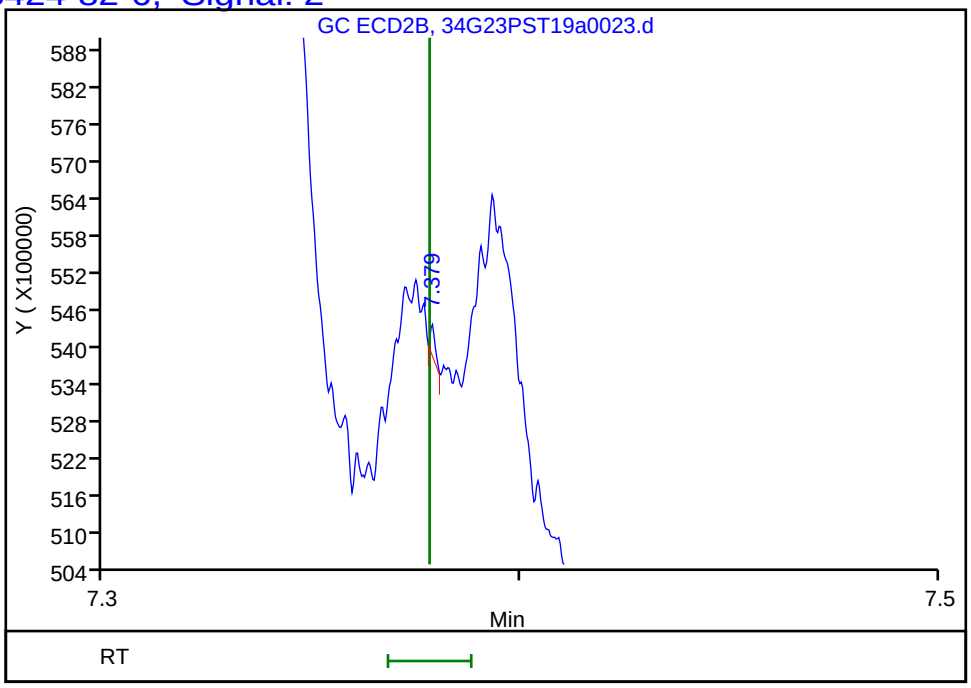
RT: 6.54
Response: 531377
Amount: 0.165662



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 40511
Amount: 0.003670



Reviewer: limwirojt, 24-Jul-2019 12:24:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

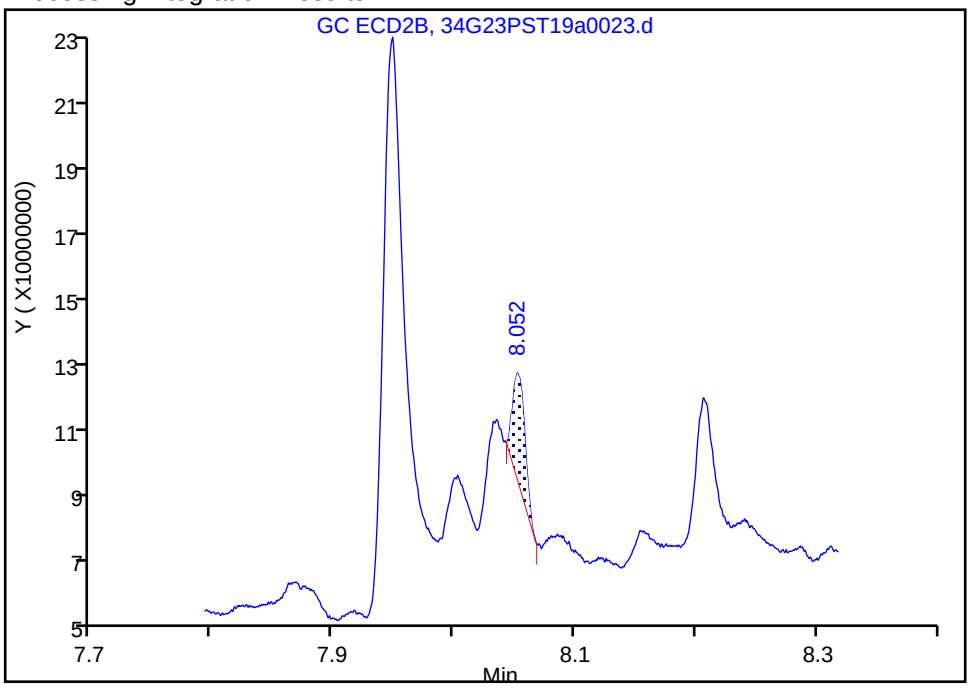
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d		
Injection Date:	23-Jul-2019 18:16:32	Instrument ID:	TAC034
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6
Client ID:	22T-SG-19_20190716		
Operator ID:	CJB	ALS Bottle#:	19 Worklist Smp#: 21
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

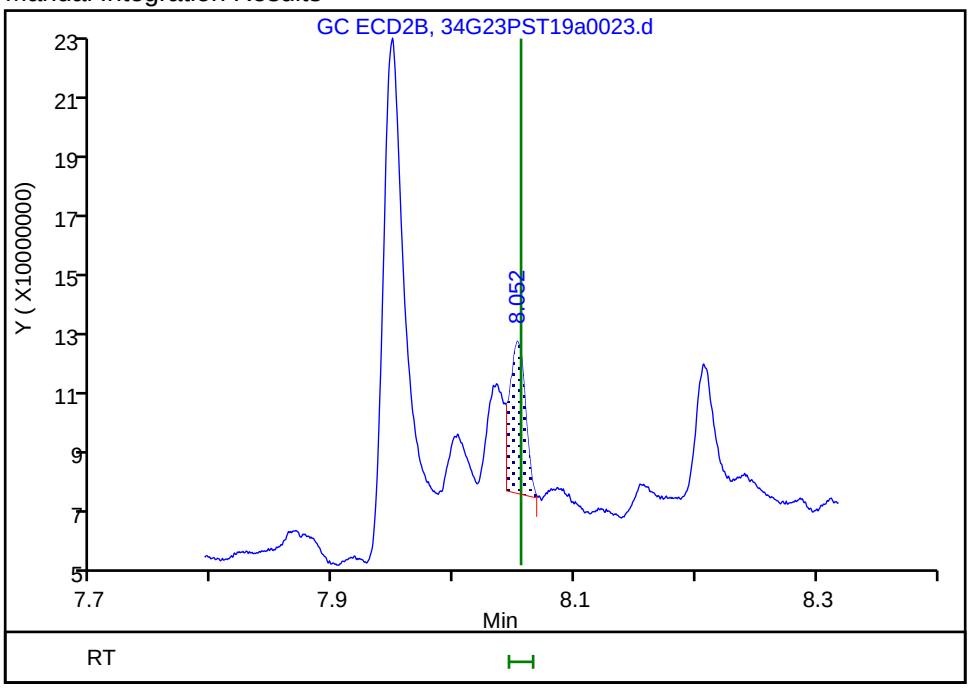
Processing Integration Results

RT: 8.05
Area: 22138639
Amount: 2.154229
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 42883182
Amount: 4.172804
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:24:05

Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

User Disabled Compound Report

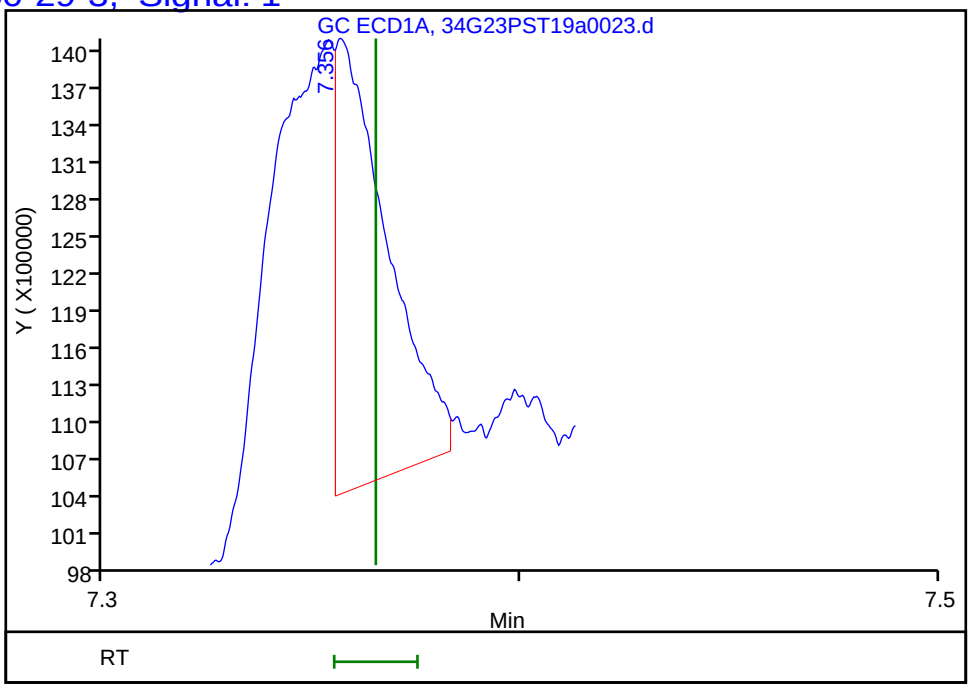
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0023.d
Injection Date: 23-Jul-2019 18:16:32 Instrument ID: TAC034
Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6
Client ID: 22T-SG-19_20190716
Operator ID: CJB ALS Bottle#: 19 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

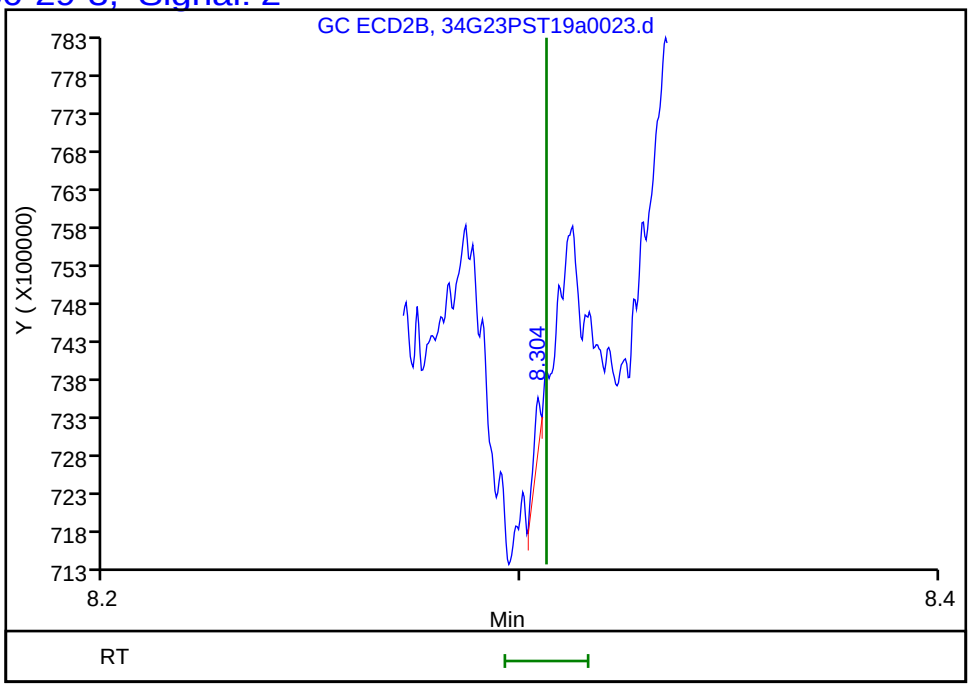
RT: 7.36
Response: 2985473
Amount: 0.960961



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30
Response: 82596
Amount: 0.008196



Reviewer: limwirojt, 24-Jul-2019 12:24:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 34G23PST19a0024.d

Analysis Method: 8081B Date Collected: 07/16/2019 10:31

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.669(g) Date Analyzed: 07/23/2019 18:35

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
789-02-6	2,4'-DDT	ND		3.1	1.2
72-54-8	4,4'-DDD	1.5		1.2	0.24
72-55-9	4,4'-DDE	1.5		1.2	0.33
50-29-3	4,4'-DDT	ND		1.2	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	36		36-136
877-09-8	Tetrachloro-m-xylene	49	X	50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Lims ID: 580-87706-A-7-B
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 18:35:55 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-7-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:26:09 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:26:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.463	4.467	-0.004	143847303	100.0	
2	4.827	4.829	-0.002	623769376	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	24095159	4.12	
2	5.534	5.535	-0.001	123921269	7.18	
					RPD = 54.13	
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.779	5.778	0.001	22277	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.098	6.093	0.005	43191	NC	
1	6.341	6.342	-0.001	351204	NC	
		Average of Peak Amounts =			0	
2	0.000	6.025	-6.025	0	NC	
2	6.325	6.330	-0.005	168384	NC	
2	6.422	6.424	-0.002	42904	NC	
2	6.543	6.548	-0.005	7823178	NC	
2	6.731	6.732	-0.001	212592	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
26 4,4'-DDE						
1	6.765	6.768	-0.003	9374972	2.39	
2	7.606	7.607	-0.001	43570436	2.73	
					RPD = 13.20	
28 2,4'-DDD						M
1	6.887	6.883	0.004	8490314	3.87	M
2	7.767	7.768	-0.001	7707422	1.22	M
					RPD = 104.11	
30 PCB-1260						M
1	6.887	6.894	-0.007	8490314	NC	M
1	7.086	7.083	0.003	439497	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.534	7.536	-0.002	6776738	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	6112971	NC	
2	7.821	7.819	0.002	35716	NC	
2	8.102	8.100	0.002	171483	NC	
2	8.415	8.414	0.001	544865	NC	
2	8.897	8.896	0.001	103904	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.162	7.167	-0.005	7095677	2.46	M
2	8.053	8.055	-0.002	29844511	3.32	
					RPD = 29.83	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.885	8.884	0.001	28050021	3.01	M
2	10.090	10.091	-0.001	91621770	6.29	
					RPD = 70.67	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

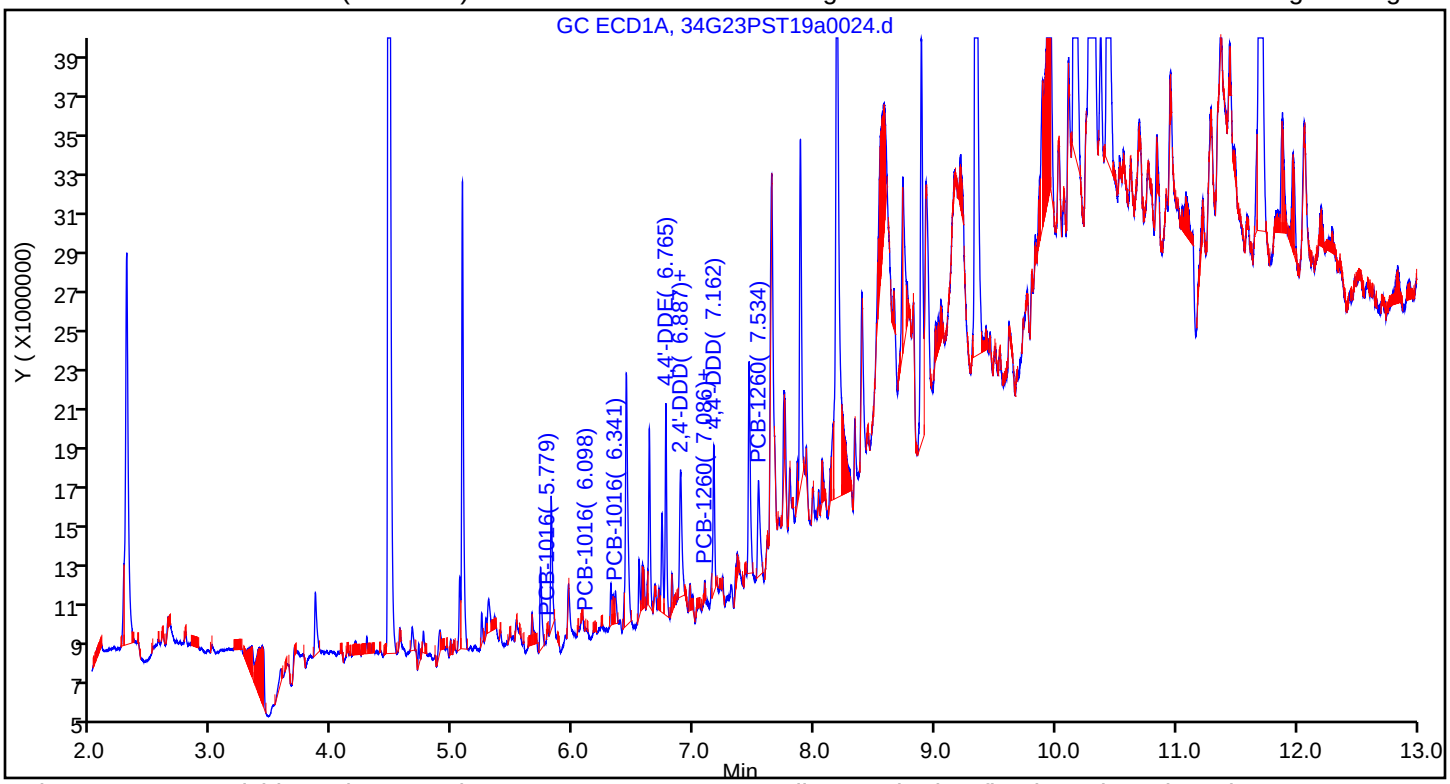
Report Date: 24-Jul-2019 12:26:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

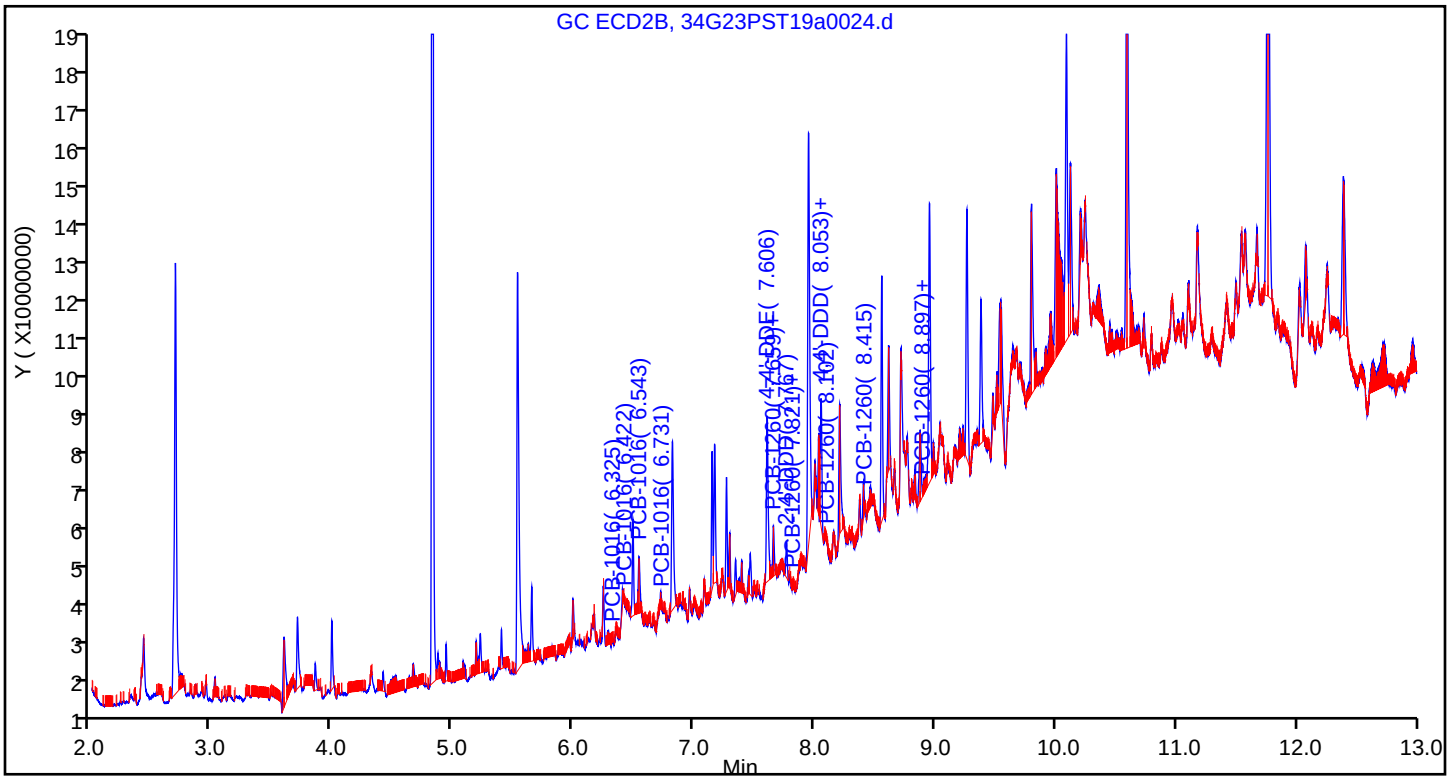
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d

Injection Date:	23-Jul-2019 18:35:55	Instrument ID:	TAC034
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7
Client ID:	22T-SG-20_20190716		
Operator ID:	CJB	ALS Bottle#:	20 Worklist Smp#: 22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d				
Lims ID:	580-87706-A-7-B				
Client ID:	22T-SG-20_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 18:35:55	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-7-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:26:09	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:26:09		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.12	49.46
$ 45 DCB Decachlorobiphenyl	25.0	3.01	36.09

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	7.18	86.17
$ 45 DCB Decachlorobiphenyl	25.0	6.29	75.54

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

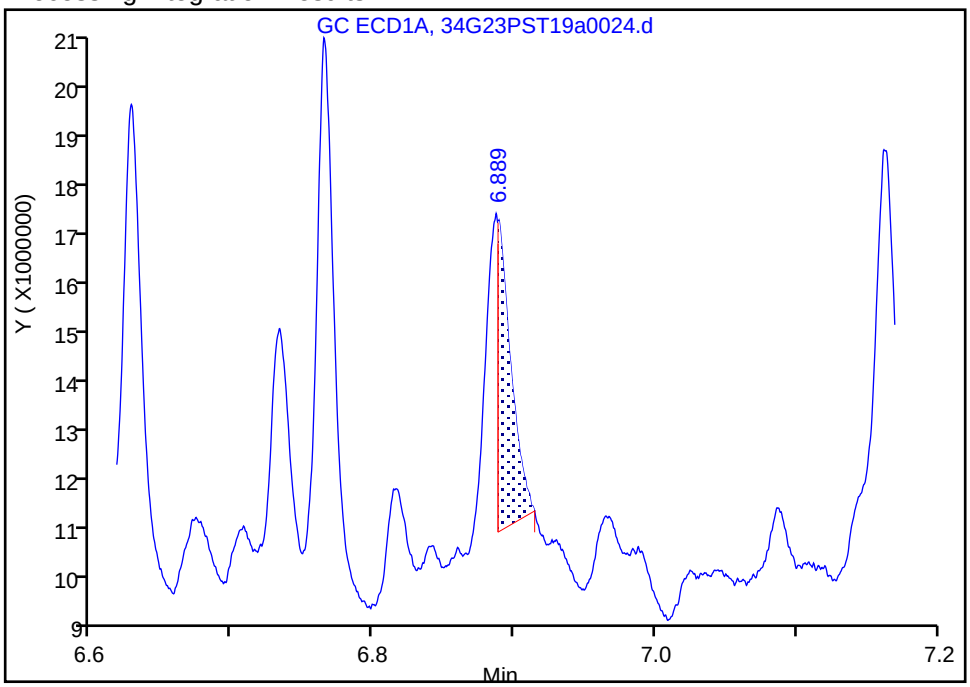
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d				
Injection Date:	23-Jul-2019 18:35:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	CJB	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

28 2,4'-DDD, CAS: 53-19-0

Signal: 1

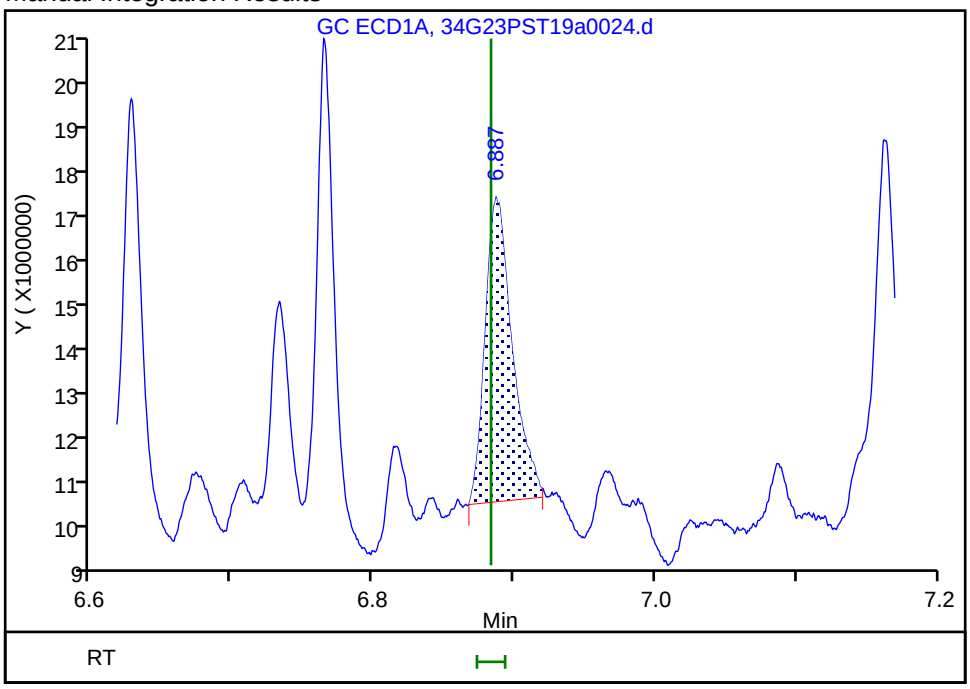
Processing Integration Results

RT: 6.89
Area: 3709845
Amount: 1.691637
Amount Units: ug/L



Manual Integration Results

RT: 6.89
Area: 8490314
Amount: 3.871464
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:25:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

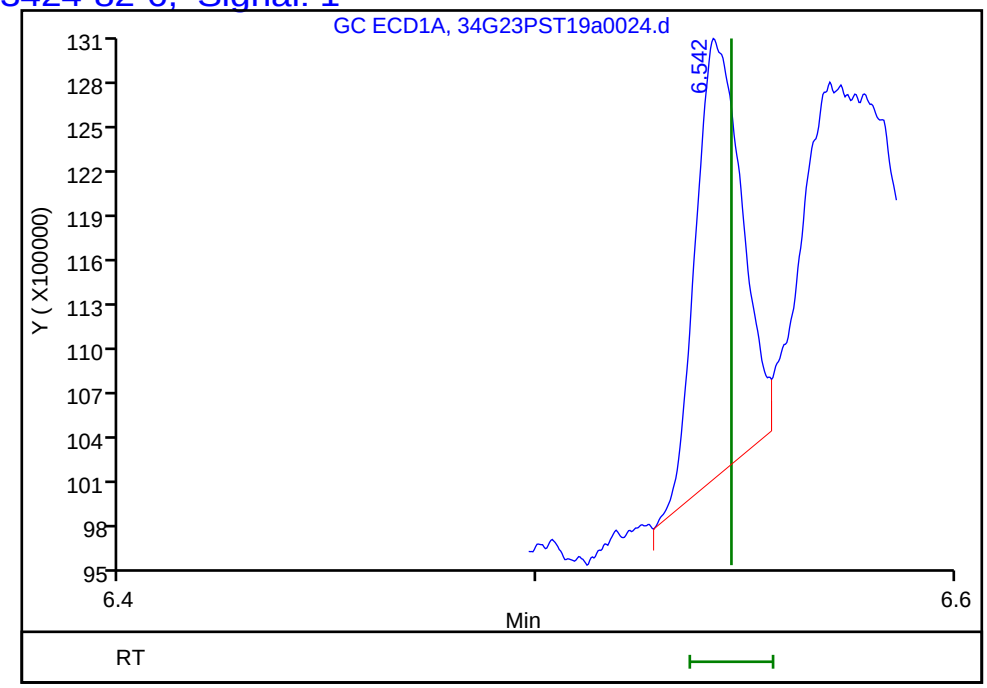
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Injection Date: 23-Jul-2019 18:35:55 Instrument ID: TAC034
Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7
Client ID: 22T-SG-20_20190716
Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

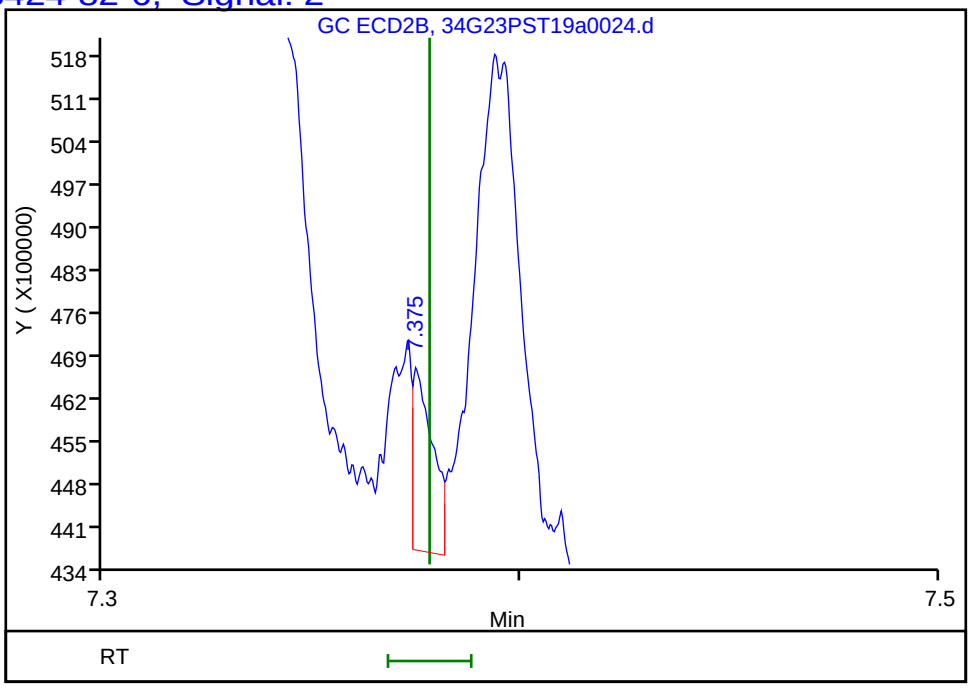
RT: 6.54
Response: 2251680
Amount: 0.698240



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37
Response: 959026
Amount: 0.099310



Reviewer: limwirojt, 24-Jul-2019 12:26:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

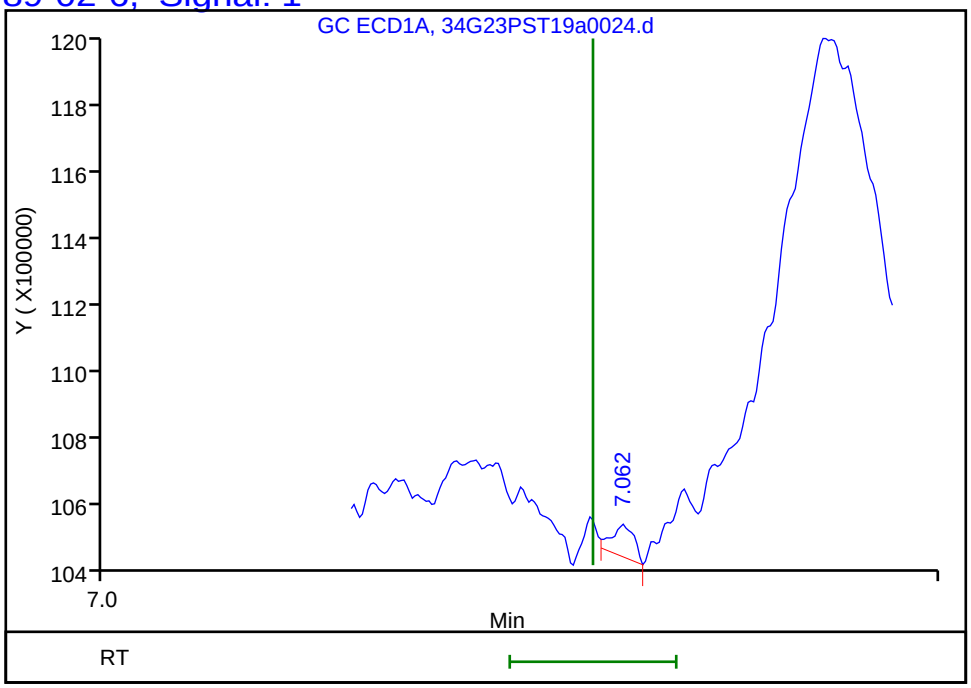
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Injection Date: 23-Jul-2019 18:35:55 Instrument ID: TAC034
Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7
Client ID: 22T-SG-20_20190716
Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

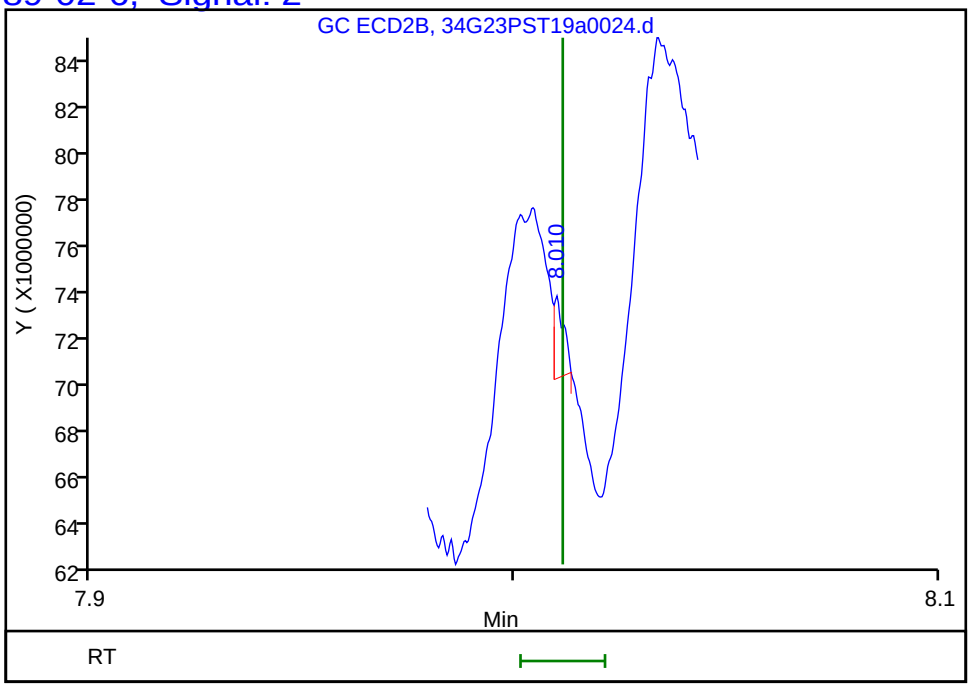
RT: 7.06
Response: 16492
Amount: 0.007021



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 511286
Amount: 0.078538



Reviewer: limwirojt, 24-Jul-2019 12:26:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

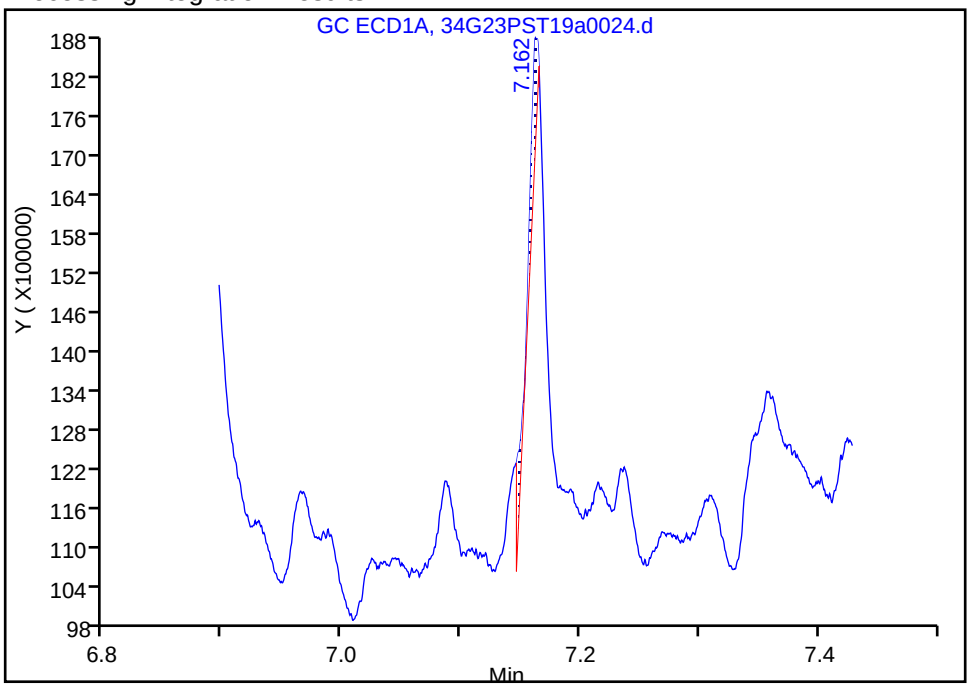
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d				
Injection Date:	23-Jul-2019 18:35:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	CJB	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

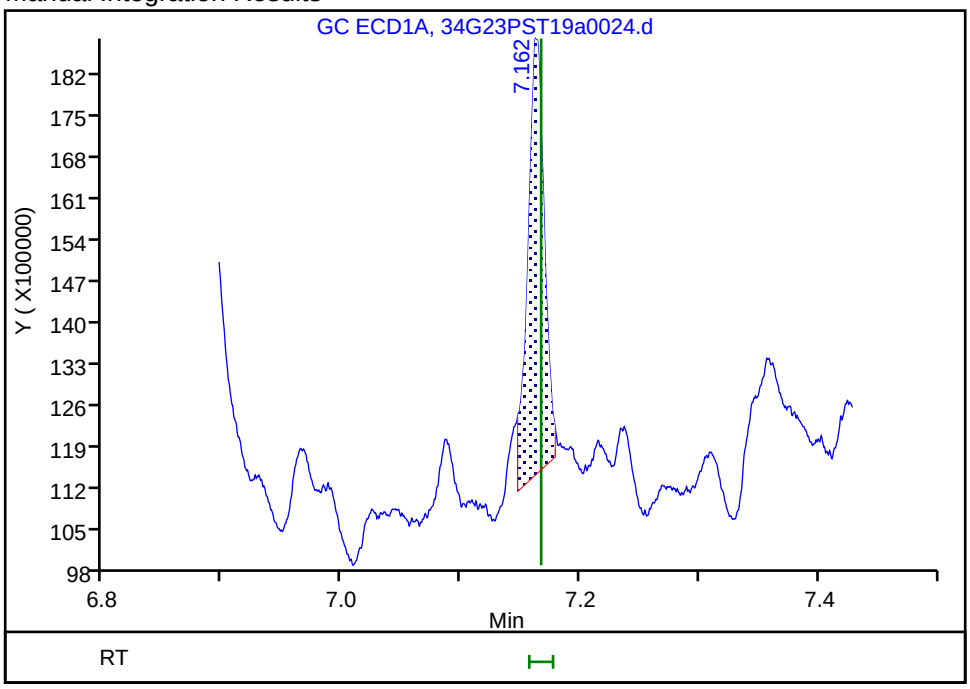
Processing Integration Results

RT: 7.16
Area: 1004903
Amount: 0.717963
Amount Units: ug/L



Manual Integration Results

RT: 7.16
Area: 7095677
Amount: 2.457864
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:26:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

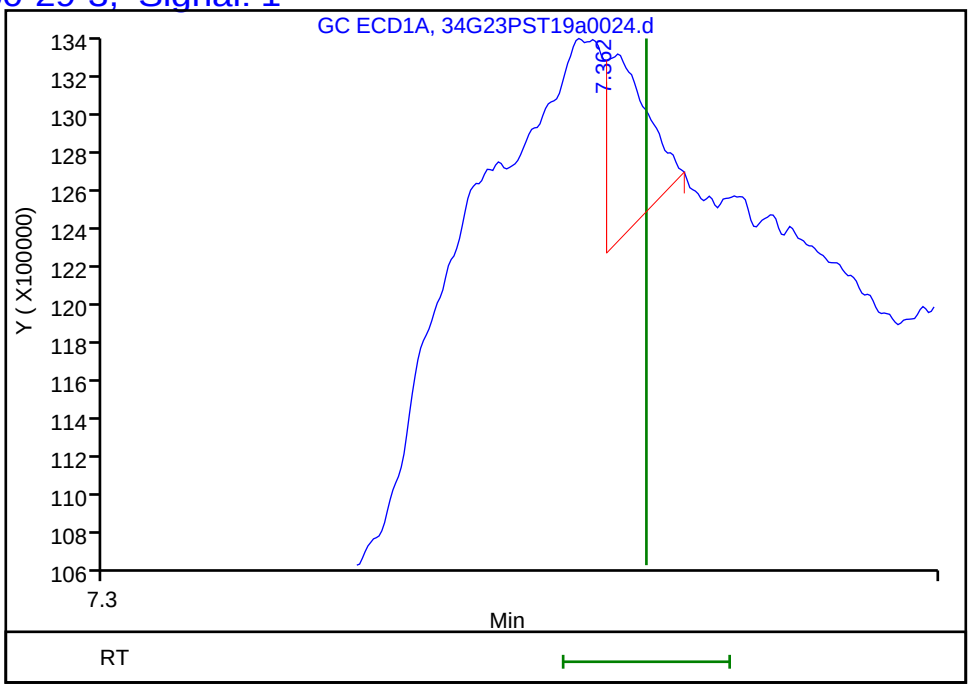
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Injection Date: 23-Jul-2019 18:35:55 Instrument ID: TAC034
Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7
Client ID: 22T-SG-20_20190716
Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36
Response: 301093
Amount: 0.096399



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 181753
Amount: 0.020615



Reviewer: limwirojt, 24-Jul-2019 12:26:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

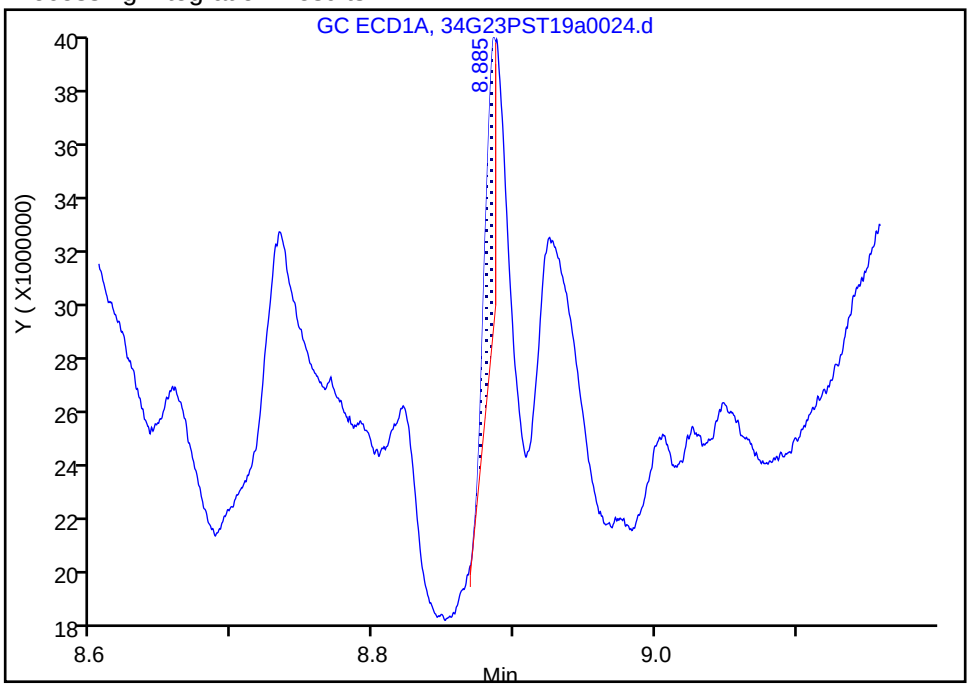
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d				
Injection Date:	23-Jul-2019 18:35:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	CJB	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

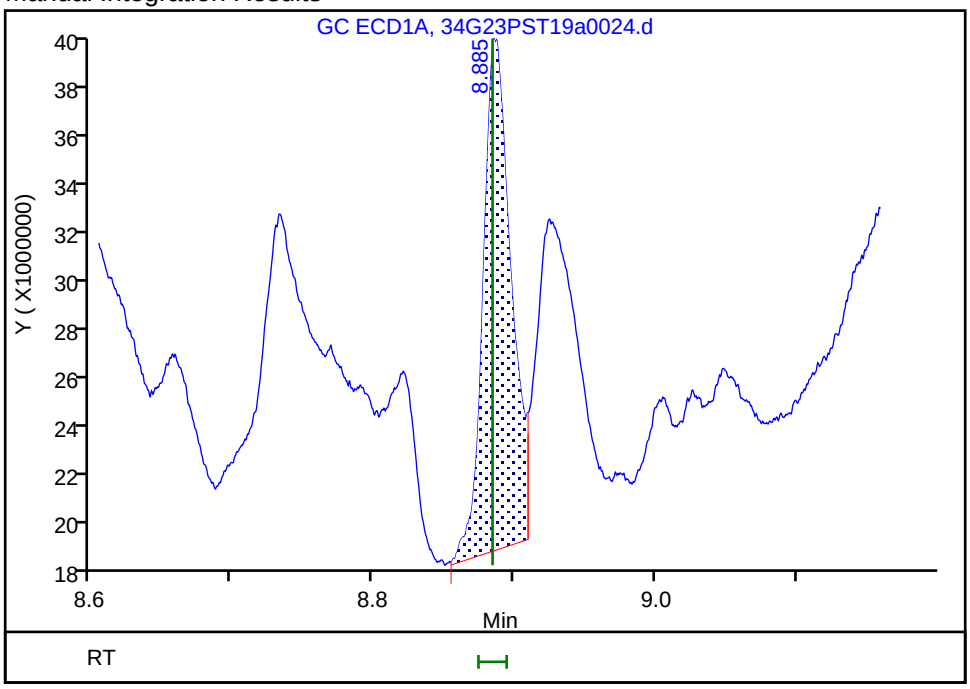
Processing Integration Results

RT: 8.89
Area: 5275407
Amount: -0.579820
Amount Units: ug/L



Manual Integration Results

RT: 8.89
Area: 28050021
Amount: 3.007823
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:25:02

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 34G23PST19a0024.d

Analysis Method: 8081B Date Collected: 07/16/2019 10:31

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.669(g) Date Analyzed: 07/23/2019 18:35

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	0.76	J p	3.1	0.68
3424-82-6	2,4'-DDE	ND		3.1	0.56

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Lims ID: 580-87706-A-7-B
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 18:35:55 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-7-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:26:09 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:26:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.463	4.467	-0.004	143847303	100.0	
2	4.827	4.829	-0.002	623769376	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	24095159	4.12	
2	5.534	5.535	-0.001	123921269	7.18	
					RPD = 54.13	
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.779	5.778	0.001	22277	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.098	6.093	0.005	43191	NC	
1	6.341	6.342	-0.001	351204	NC	
		Average of Peak Amounts =			0	
2	0.000	6.025	-6.025	0	NC	
2	6.325	6.330	-0.005	168384	NC	
2	6.422	6.424	-0.002	42904	NC	
2	6.543	6.548	-0.005	7823178	NC	
2	6.731	6.732	-0.001	212592	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
26 4,4'-DDE						
1	6.765	6.768	-0.003	9374972	2.39	
2	7.606	7.607	-0.001	43570436	2.73	
					RPD = 13.20	
28 2,4'-DDD						M
1	6.887	6.883	0.004	8490314	3.87	M
2	7.767	7.768	-0.001	7707422	1.22	M
					RPD = 104.11	
30 PCB-1260						M
1	6.887	6.894	-0.007	8490314	NC	M
1	7.086	7.083	0.003	439497	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.534	7.536	-0.002	6776738	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	6112971	NC	
2	7.821	7.819	0.002	35716	NC	
2	8.102	8.100	0.002	171483	NC	
2	8.415	8.414	0.001	544865	NC	
2	8.897	8.896	0.001	103904	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.162	7.167	-0.005	7095677	2.46	M
2	8.053	8.055	-0.002	29844511	3.32	
					RPD = 29.83	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.885	8.884	0.001	28050021	3.01	M
2	10.090	10.091	-0.001	91621770	6.29	
					RPD = 70.67	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

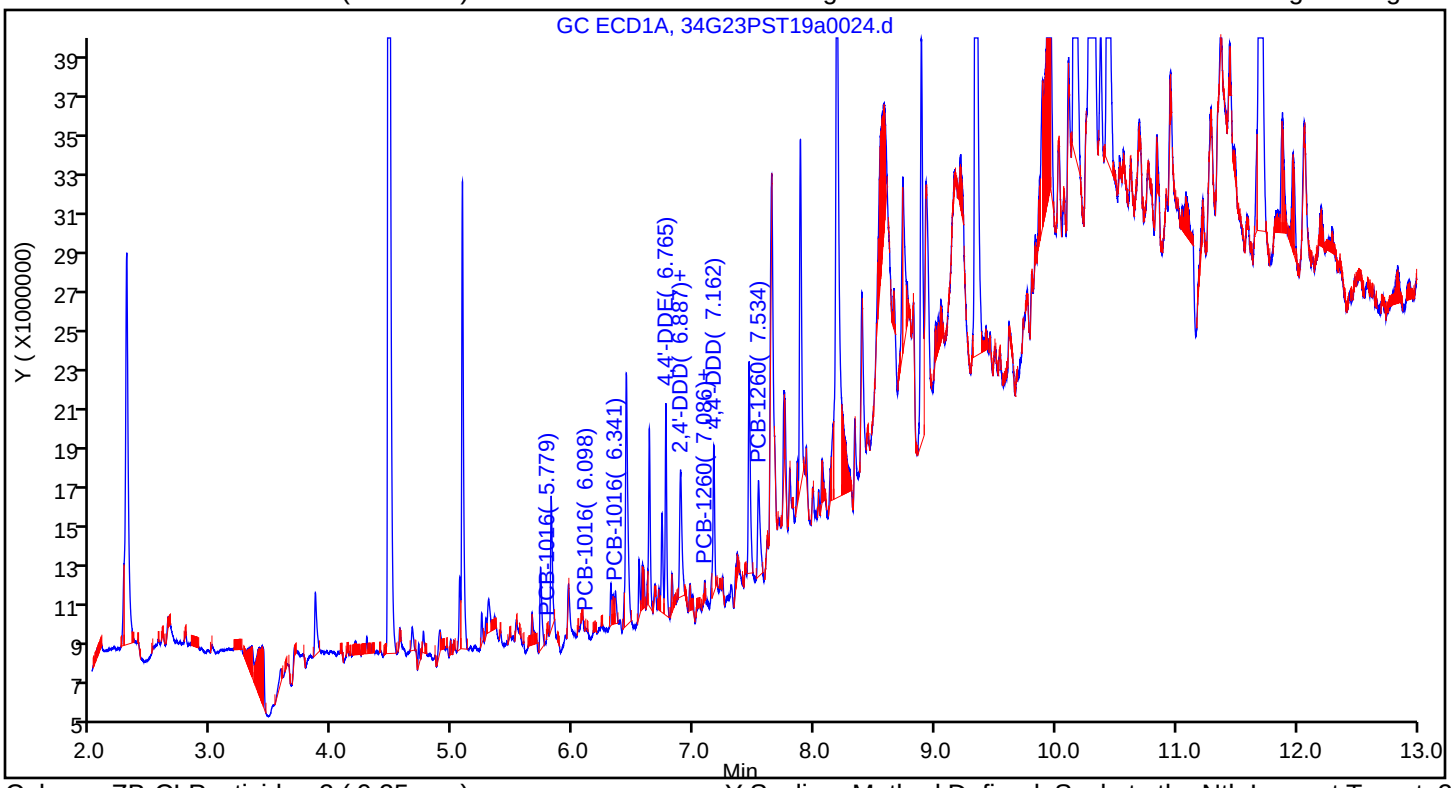
Report Date: 24-Jul-2019 12:26:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

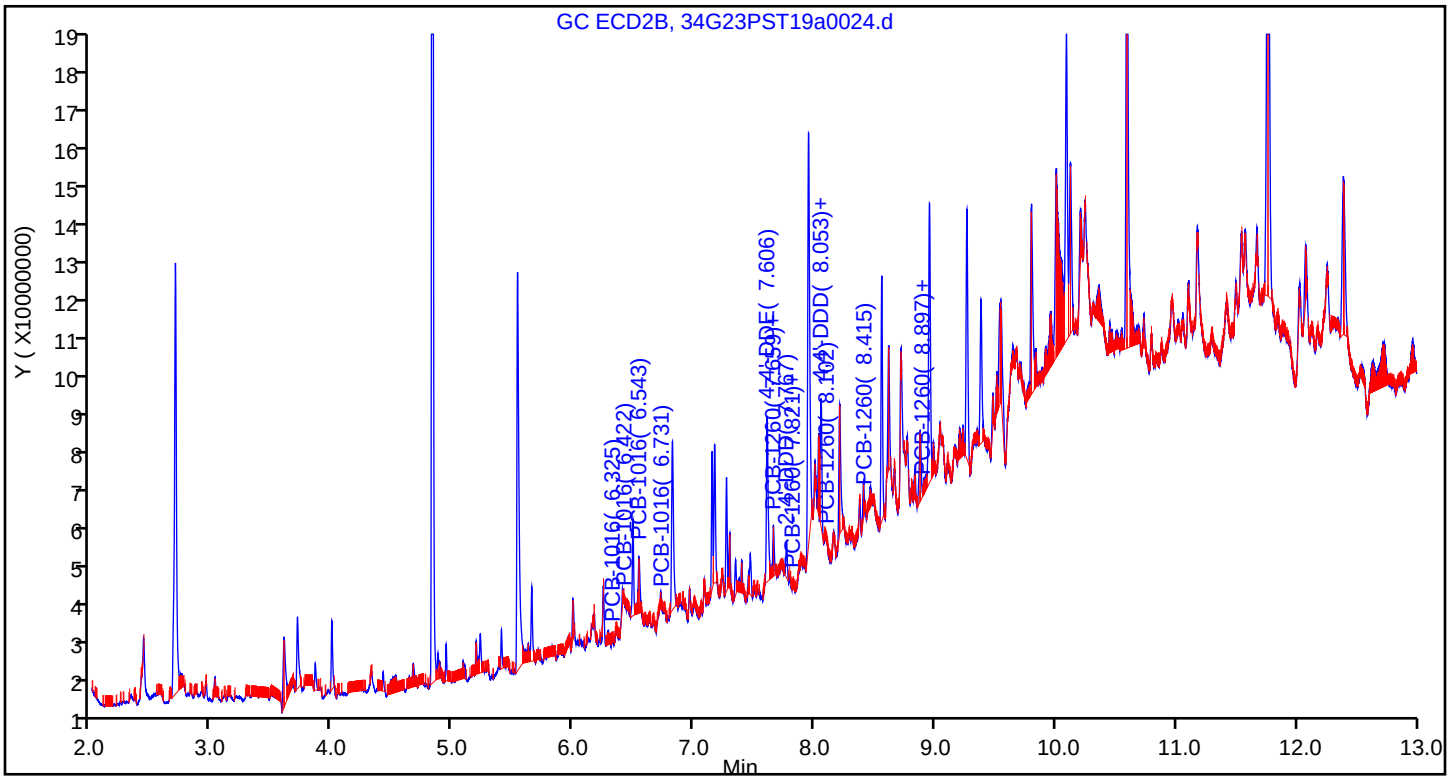
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d

Injection Date:	23-Jul-2019 18:35:55	Instrument ID:	TAC034
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7
Client ID:	22T-SG-20_20190716		
Operator ID:	CJB	ALS Bottle#:	20 Worklist Smp#: 22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d				
Lims ID:	580-87706-A-7-B				
Client ID:	22T-SG-20_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 18:35:55	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-7-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:26:09	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:26:09		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.12	49.46
$ 45 DCB Decachlorobiphenyl	25.0	3.01	36.09

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	7.18	86.17
$ 45 DCB Decachlorobiphenyl	25.0	6.29	75.54

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

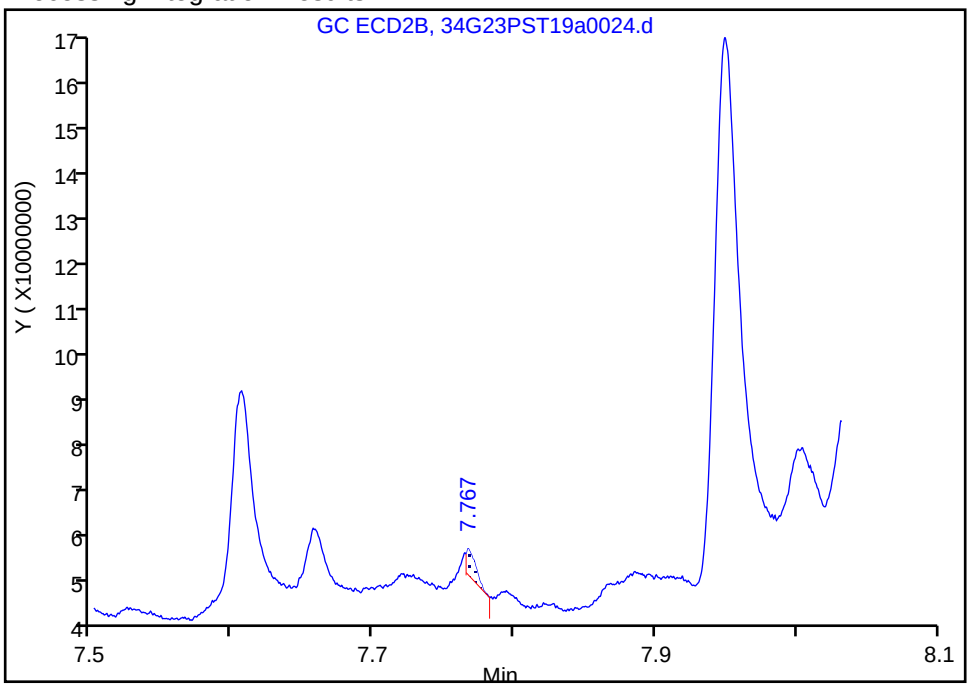
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d		
Injection Date:	23-Jul-2019 18:35:55	Instrument ID:	TAC034
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7
Client ID:	22T-SG-20_20190716		
Operator ID:	CJB	ALS Bottle#:	20 Worklist Smp#: 22
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

28 2,4'-DDD, CAS: 53-19-0

Signal: 2

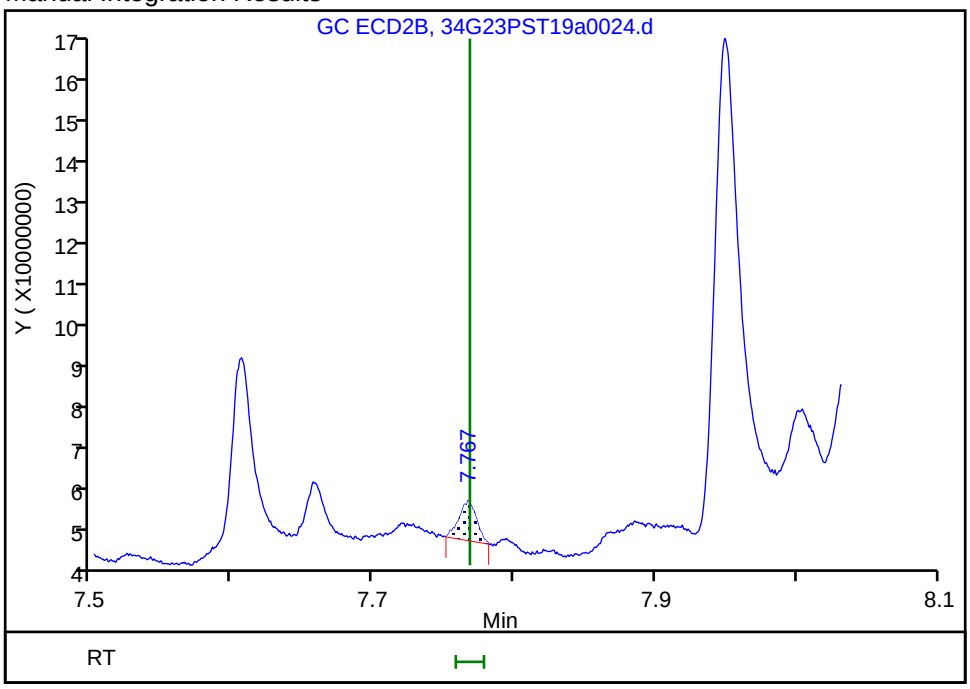
Processing Integration Results

RT: 7.77
Area: 2468320
Amount: 0.390947
Amount Units: ug/L



Manual Integration Results

RT: 7.77
Area: 7707422
Amount: 1.220746
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:25:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

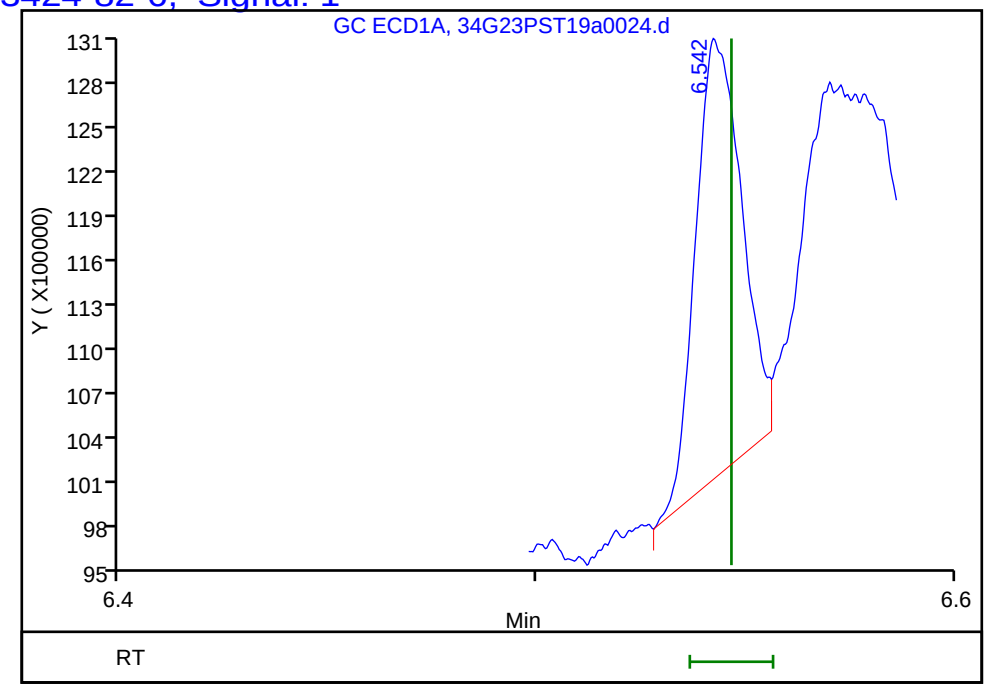
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Injection Date: 23-Jul-2019 18:35:55 Instrument ID: TAC034
Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7
Client ID: 22T-SG-20_20190716
Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

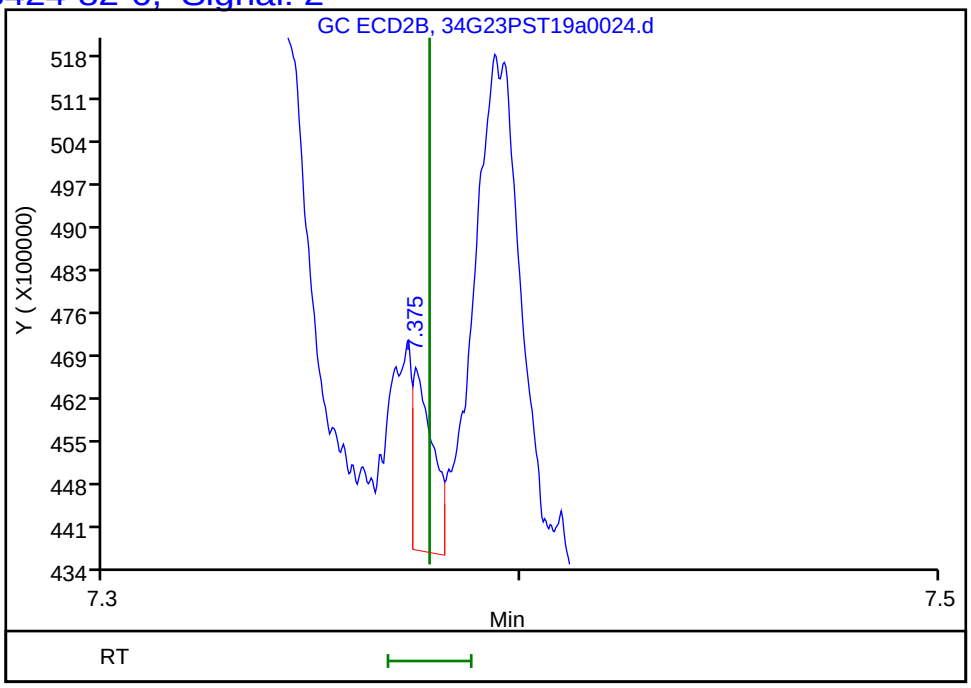
RT: 6.54
Response: 2251680
Amount: 0.698240



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37
Response: 959026
Amount: 0.099310



Reviewer: limwirojt, 24-Jul-2019 12:26:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d

Injection Date: 23-Jul-2019 18:35:55 Instrument ID: TAC034

Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7

Client ID: 22T-SG-20_20190716

Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22

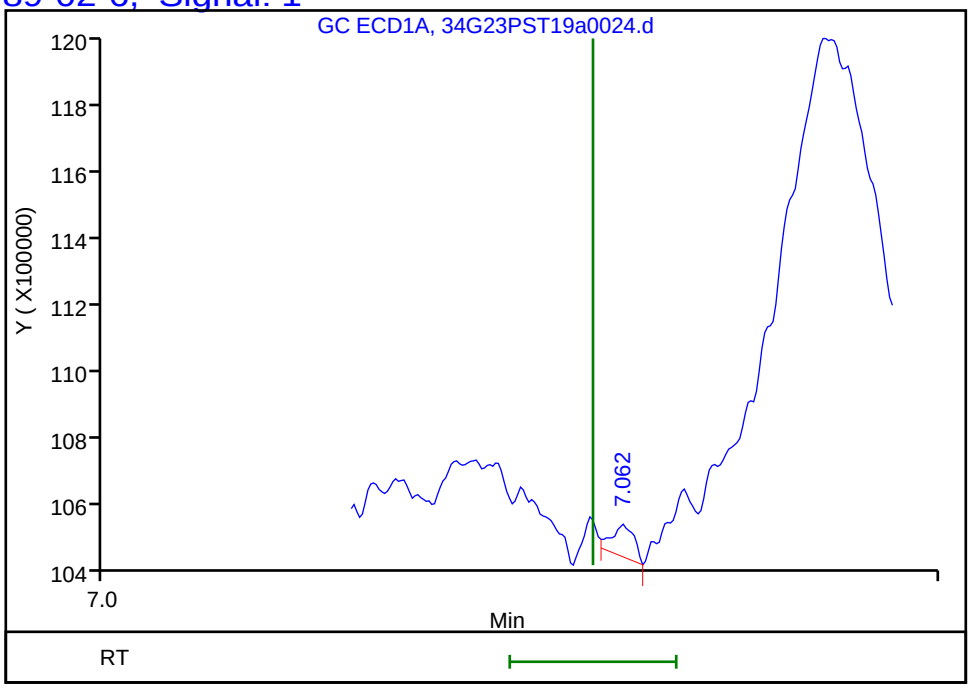
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

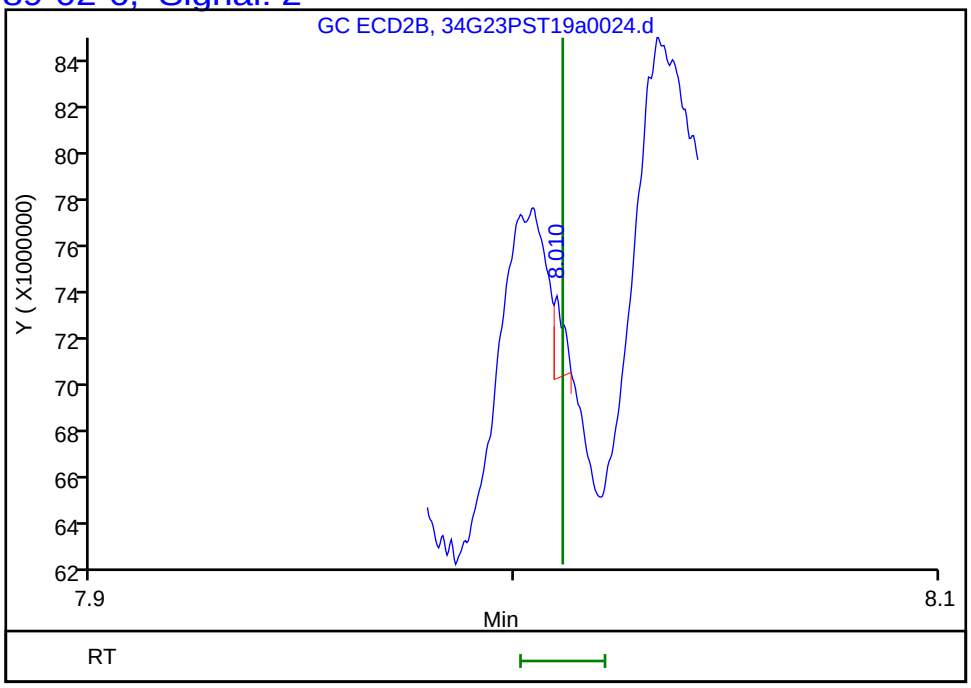
RT: 7.06
Response: 16492
Amount: 0.007021



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 511286
Amount: 0.078538



Reviewer: limwirojt, 24-Jul-2019 12:26:09

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

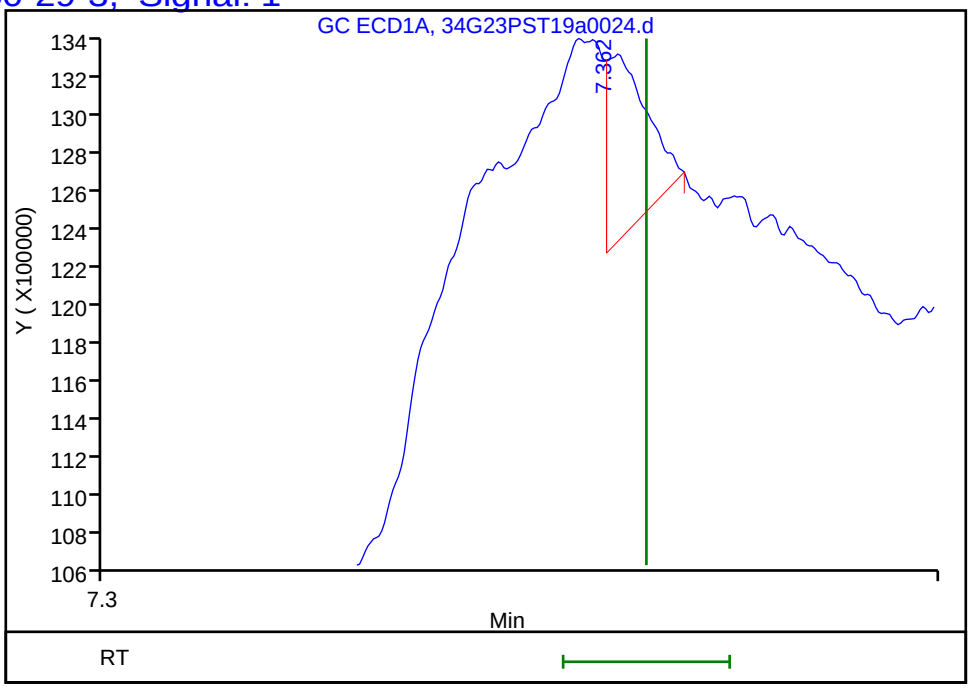
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0024.d
Injection Date: 23-Jul-2019 18:35:55 Instrument ID: TAC034
Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7
Client ID: 22T-SG-20_20190716
Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36
Response: 301093
Amount: 0.096399



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 181753
Amount: 0.020615



Reviewer: limwirojt, 24-Jul-2019 12:26:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Matrix: Solid Lab File ID: 34G23PST19a0025.d

Analysis Method: 8081B Date Collected: 07/16/2019 10:50

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.311(g) Date Analyzed: 07/23/2019 18:55

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 64.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.9	0.87
789-02-6	2,4'-DDT	ND		3.9	1.5
72-54-8	4,4'-DDD	0.81	J	1.6	0.31
72-55-9	4,4'-DDE	1.4	J	1.6	0.42
50-29-3	4,4'-DDT	ND		1.6	0.31

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	38		36-136
877-09-8	Tetrachloro-m-xylene	55		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d
Lims ID: 580-87706-A-8-B
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 18:55:11 ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-8-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:28:44 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:28:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.463	4.467	-0.004	159686910	100.0	
2	4.826	4.829	-0.003	692666753	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.075	5.081	-0.006	29710972	4.58	
2	5.532	5.535	-0.003	80514046	4.23	
					RPD = 7.96	
6 PCB-1232						
1	5.269	5.265	0.004	102570	NC	
1	5.493	5.500	-0.007	1244787	NC	
1	5.783	5.778	0.005	821340	NC	
1	5.986	5.979	0.007	396844	NC	
1	6.380	6.380	0.000	75194	NC	
		Average of Peak Amounts =			0	
2	5.743	5.740	0.003	82399	NC	
2	6.328	6.330	-0.002	48745	NC	
2	6.427	6.424	0.003	49544	NC	
2	6.747	6.746	0.001	88109	NC	
2	7.036	7.037	-0.001	33755	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.493	5.500	-0.007	1244787	NC	
1	5.783	5.778	0.005	821340	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	46274	NC	
1	6.380	6.380	0.000	75194	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	210779	NC	
2	6.328	6.330	-0.002	48745	NC	
2	6.427	6.424	0.003	49544	NC	
2	6.736	6.732	0.004	52989	NC	
2	6.992	6.994	-0.002	54116	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.493	5.500	-0.007	1244787	NC	
1	5.783	5.778	0.005	821340	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	46274	NC	
1	6.345	6.342	0.003	2588813	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	210779	NC	
2	6.328	6.330	-0.002	48745	NC	
2	6.427	6.424	0.003	49544	NC	
2	6.543	6.548	-0.005	7989280	NC	
2	6.736	6.732	0.004	52989	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.783	5.778	0.005	821340	NC	
1	5.986	5.979	0.007	396844	NC	
1	6.094	6.093	0.001	46274	NC	
1	6.380	6.380	0.000	75194	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	7989280	NC	
2	6.736	6.732	0.004	52989	NC	
2	6.815	6.815	0.000	3983291	NC	
2	7.036	7.037	-0.001	33755	NC	
2	7.213	7.215	-0.002	98018	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.345	6.342	0.003	2588813	NC	
1	6.520	6.512	0.008	35146	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.966	6.957	0.009	738196	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.036	7.037	-0.001	33755	NC	
2	7.166	7.164	0.002	251103	NC	
2	7.514	7.516	-0.002	34681	NC	
2	7.681	7.681	0.000	163900	NC	
2	8.078	8.080	-0.002	62672	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						M
1	6.763	6.768	-0.005	6028668	1.76	
2	7.604	7.607	-0.003	26956889	1.52	M
					RPD = 14.35	
30 PCB-1260						
1	6.887	6.894	-0.007	3460166	NC	
1	7.086	7.083	0.003	194952	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.531	7.536	-0.005	6677402	NC	
1	7.971	7.966	0.005	15273	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	1322037	NC	
2	7.821	7.819	0.002	70839	NC	
2	8.099	8.100	-0.001	194177	NC	
2	8.417	8.414	0.003	63849	NC	
2	8.899	8.896	0.003	88189	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.161	7.167	-0.006	2334915	1.03	M
2	8.053	8.055	-0.002	11488566	1.15	M
					RPD = 10.90	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.884	8.884	0.000	32108762	3.15	M
2	10.088	10.091	-0.003	56174956	3.30	M
					RPD = 4.69	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:28:45 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d

Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034

Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8

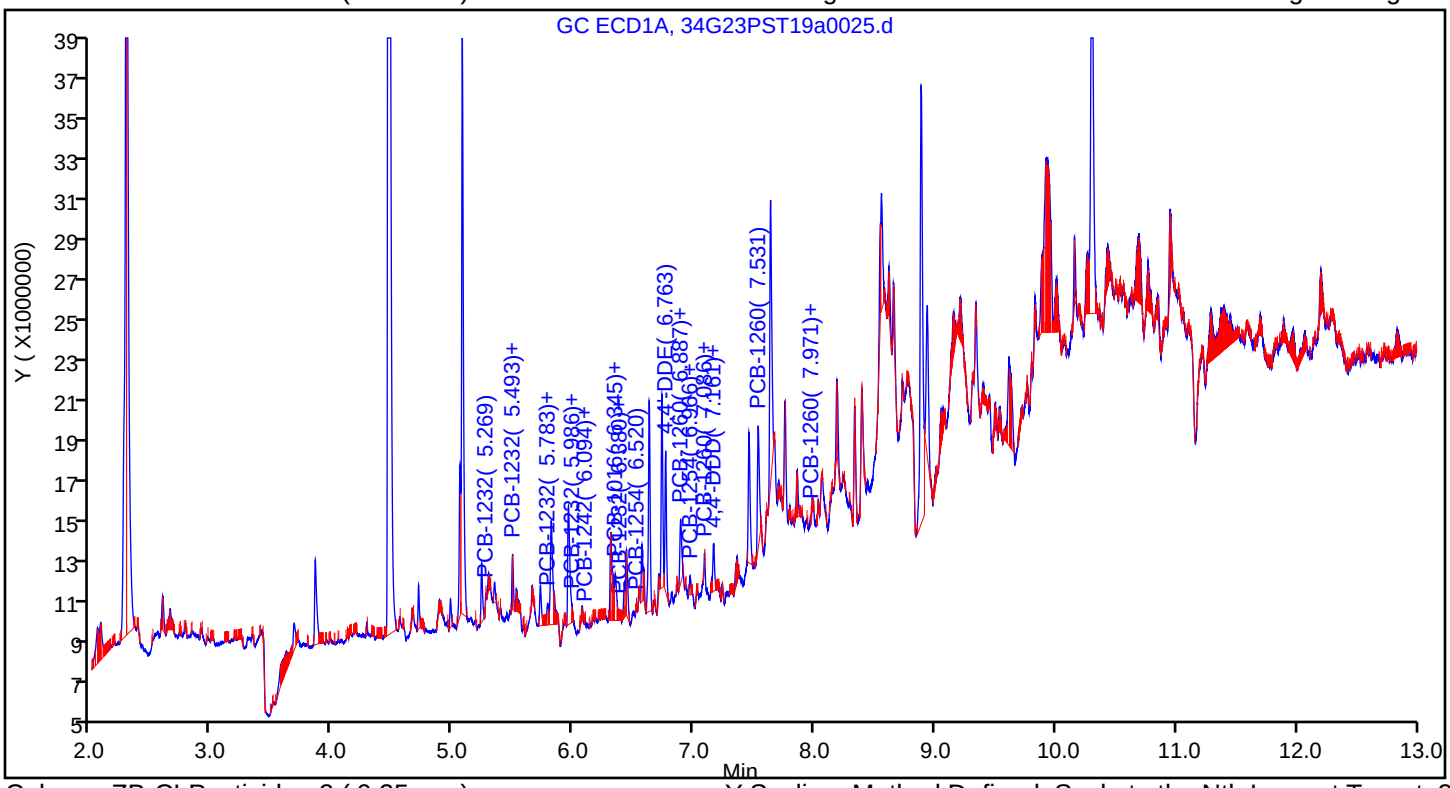
Client ID: 22T-SG-15_20190716

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

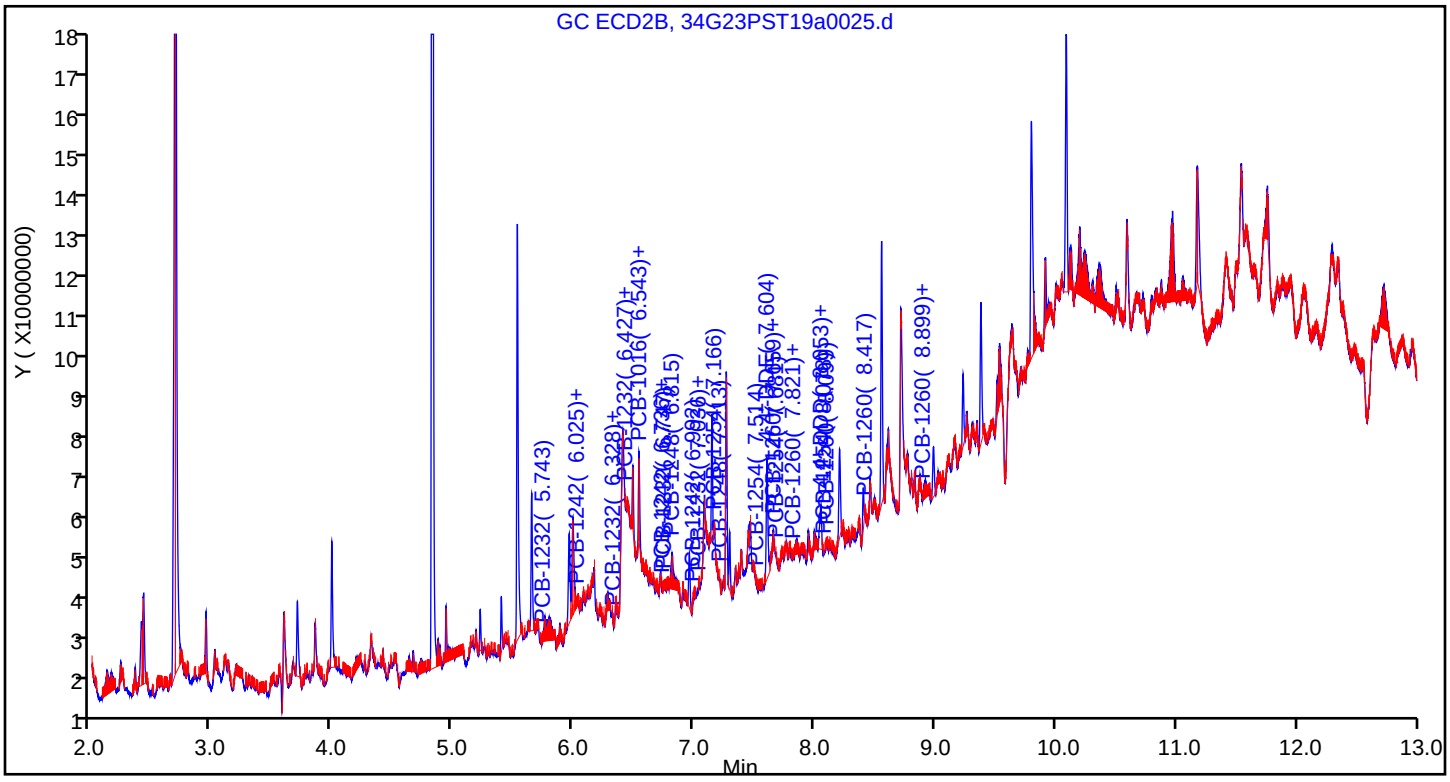
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d				
Lims ID:	580-87706-A-8-B				
Client ID:	22T-SG-15_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 18:55:11	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-8-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:28:44	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:28:44		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.58	54.94
$ 45 DCB Decachlorobiphenyl	25.0	3.15	37.75

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.23	50.74
$ 45 DCB Decachlorobiphenyl	25.0	3.30	39.56

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d

Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034

Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8

Client ID: 22T-SG-15_20190716

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

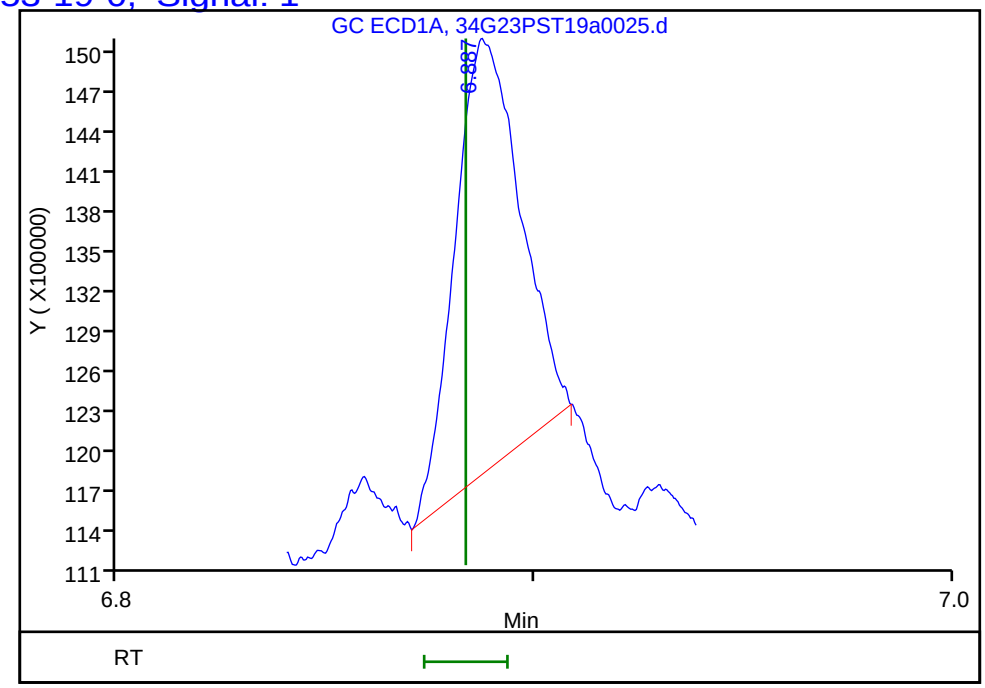
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

RT: 6.89

Response: 3460166

Amount: 1.421284



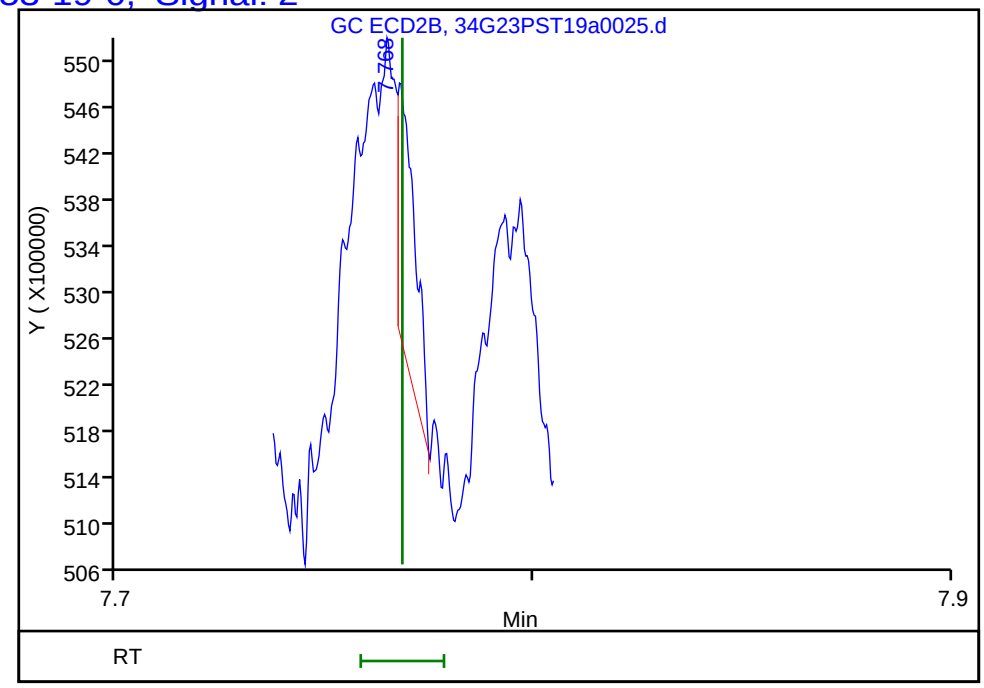
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77

Response: 624697

Amount: 0.089102



Reviewer: limwirojt, 24-Jul-2019 12:28:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d

Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034

Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8

Client ID: 22T-SG-15_20190716

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

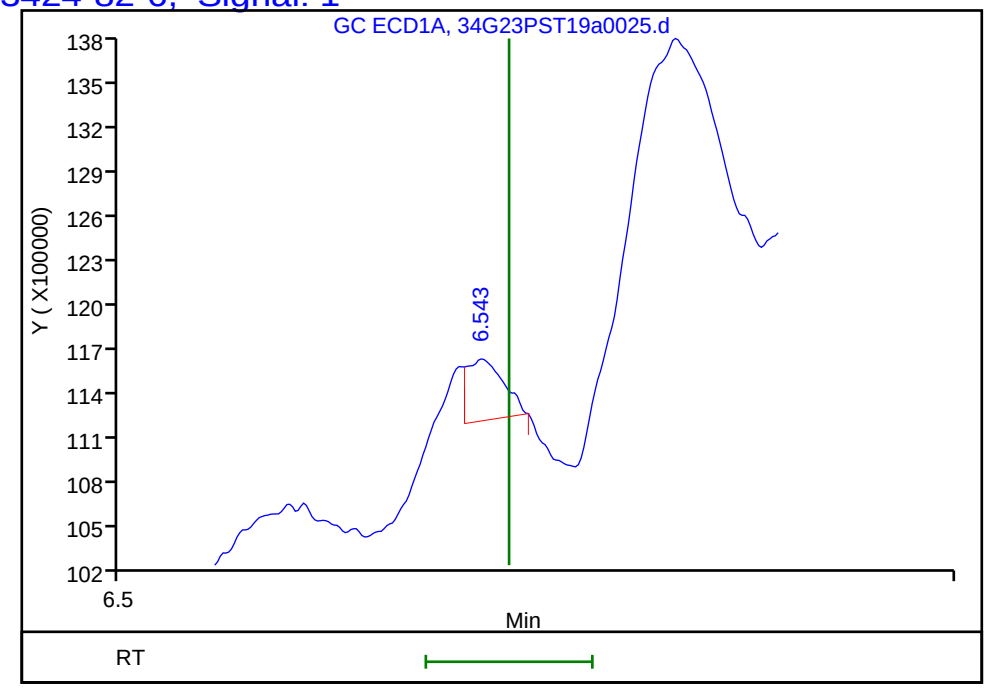
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

RT: 6.54

Response: 122491

Amount: 0.034216



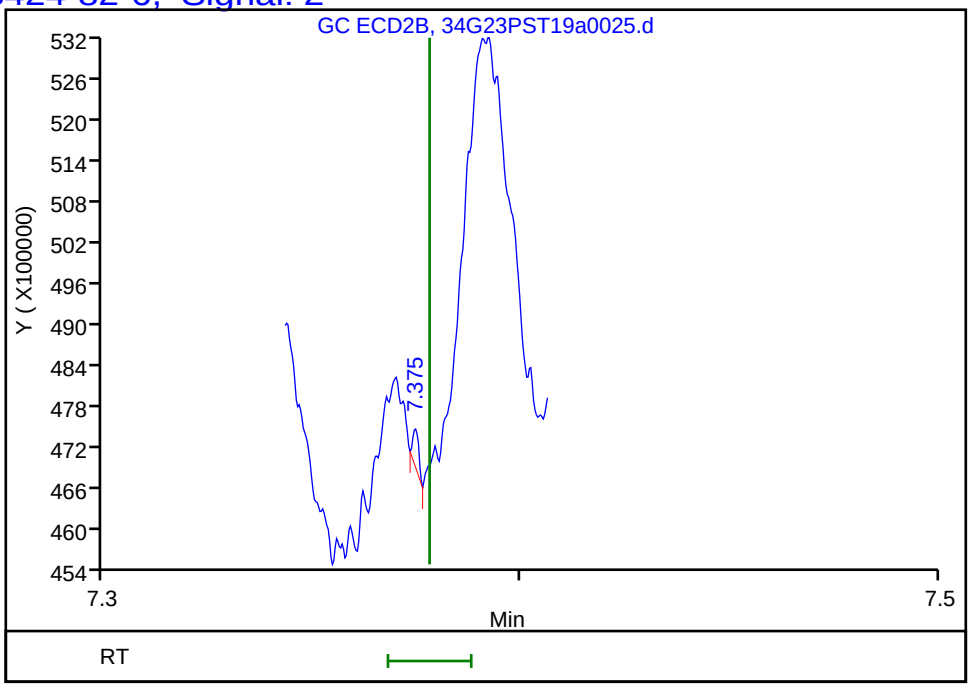
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37

Response: 55397

Amount: 0.005166



Reviewer: limwirojt, 24-Jul-2019 12:28:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

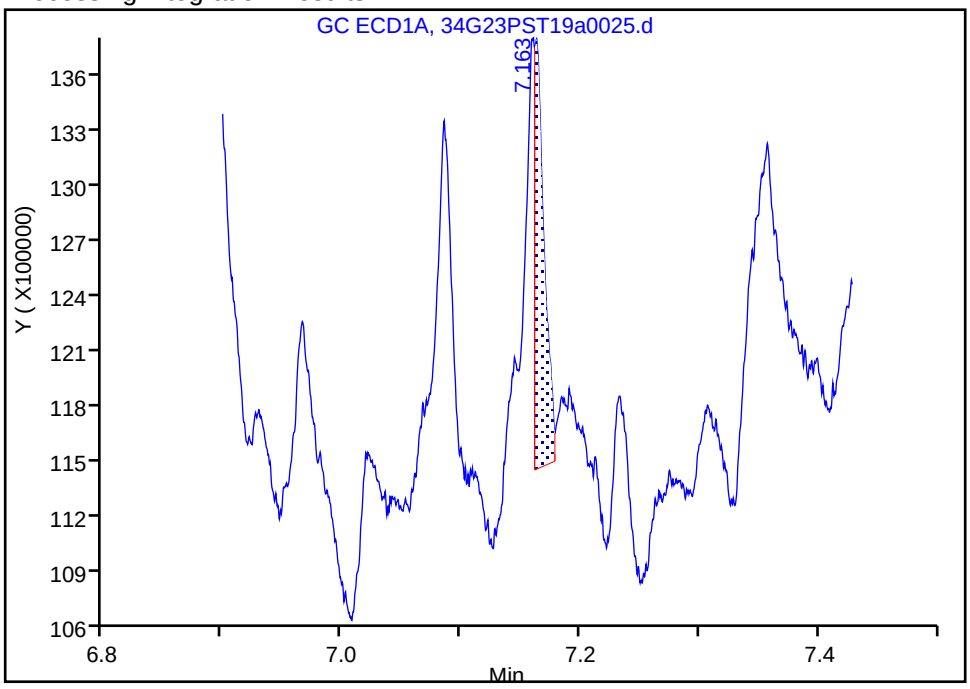
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d				
Injection Date:	23-Jul-2019 18:55:11	Instrument ID:	TAC034		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	CJB	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

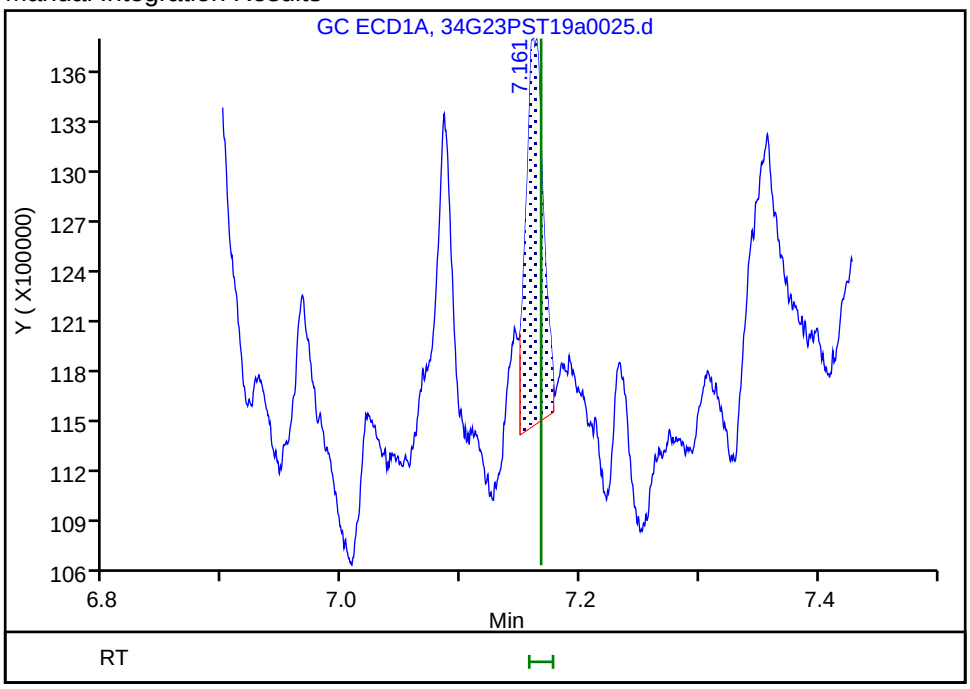
Processing Integration Results

RT: 7.16
Area: 1245962
Amount: 0.751520
Amount Units: ug/L



Manual Integration Results

RT: 7.16
Area: 2334915
Amount: 1.031736
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:28:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d

Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034

Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8

Client ID: 22T-SG-15_20190716

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

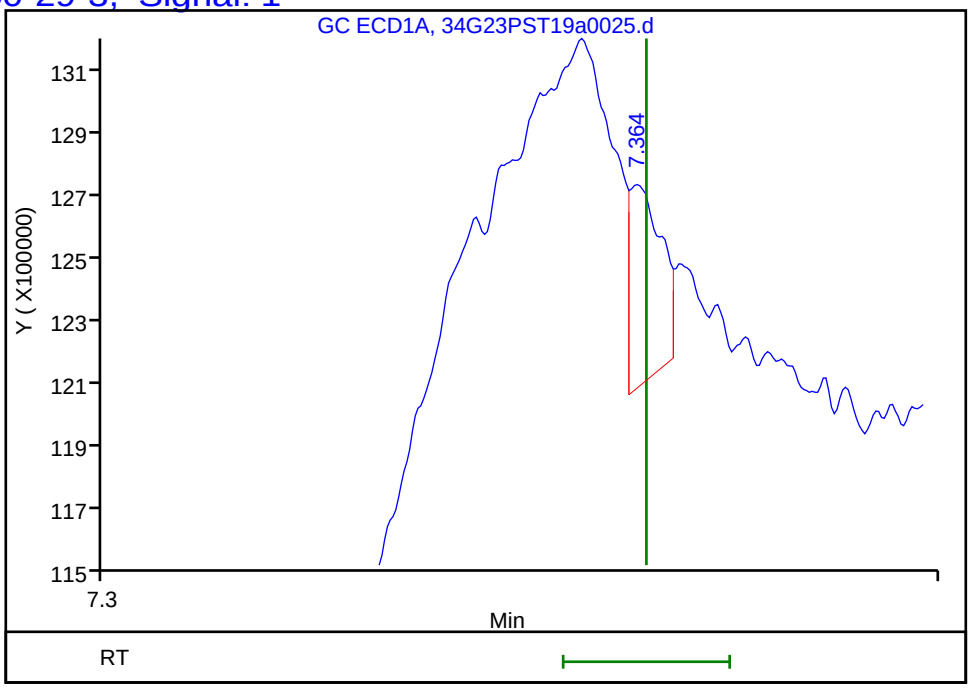
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 163792

Amount: 0.047238



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30

Response: 47830

Amount: 0.004885



Reviewer: limwirojt, 24-Jul-2019 12:28:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

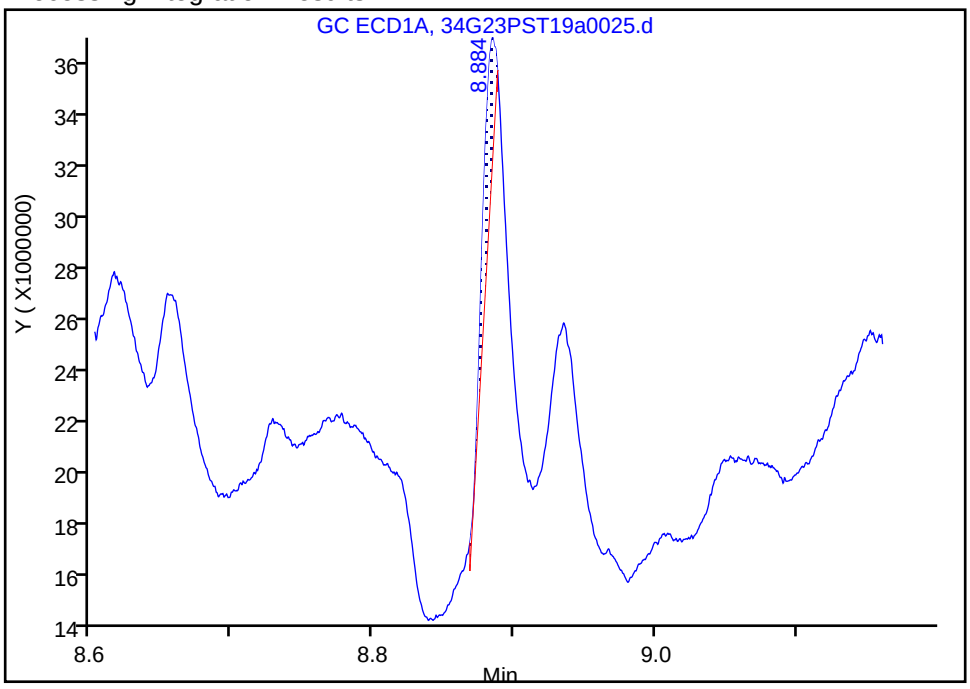
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d				
Injection Date:	23-Jul-2019 18:55:11	Instrument ID:	TAC034		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	CJB	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

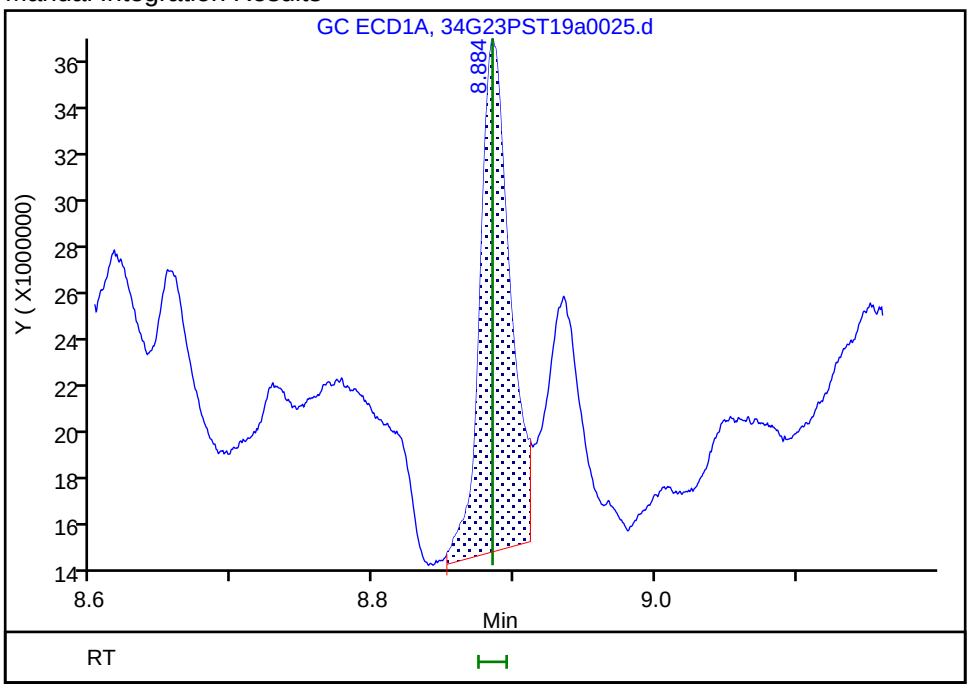
Processing Integration Results

RT: 8.88
Area: 3653787
Amount: -0.892138
Amount Units: ug/L



Manual Integration Results

RT: 8.88
Area: 32108762
Amount: 3.145569
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:28:31

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Matrix: Solid Lab File ID: 34G23PST19a0025.d

Analysis Method: 8081B Date Collected: 07/16/2019 10:50

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.311(g) Date Analyzed: 07/23/2019 18:55

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 64.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		3.9	0.72

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d
Lims ID: 580-87706-A-8-B
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 18:55:11 ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-8-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:28:44 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:28:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.463	4.467	-0.004	159686910	100.0	
2	4.826	4.829	-0.003	692666753	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.075	5.081	-0.006	29710972	4.58	
2	5.532	5.535	-0.003	80514046	4.23	
					RPD = 7.96	
6 PCB-1232						
1	5.269	5.265	0.004	102570	NC	
1	5.493	5.500	-0.007	1244787	NC	
1	5.783	5.778	0.005	821340	NC	
1	5.986	5.979	0.007	396844	NC	
1	6.380	6.380	0.000	75194	NC	
		Average of Peak Amounts =			0	
2	5.743	5.740	0.003	82399	NC	
2	6.328	6.330	-0.002	48745	NC	
2	6.427	6.424	0.003	49544	NC	
2	6.747	6.746	0.001	88109	NC	
2	7.036	7.037	-0.001	33755	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.493	5.500	-0.007	1244787	NC	
1	5.783	5.778	0.005	821340	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	46274	NC	
1	6.380	6.380	0.000	75194	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	210779	NC	
2	6.328	6.330	-0.002	48745	NC	
2	6.427	6.424	0.003	49544	NC	
2	6.736	6.732	0.004	52989	NC	
2	6.992	6.994	-0.002	54116	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.493	5.500	-0.007	1244787	NC	
1	5.783	5.778	0.005	821340	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	46274	NC	
1	6.345	6.342	0.003	2588813	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	210779	NC	
2	6.328	6.330	-0.002	48745	NC	
2	6.427	6.424	0.003	49544	NC	
2	6.543	6.548	-0.005	7989280	NC	
2	6.736	6.732	0.004	52989	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.783	5.778	0.005	821340	NC	
1	5.986	5.979	0.007	396844	NC	
1	6.094	6.093	0.001	46274	NC	
1	6.380	6.380	0.000	75194	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	7989280	NC	
2	6.736	6.732	0.004	52989	NC	
2	6.815	6.815	0.000	3983291	NC	
2	7.036	7.037	-0.001	33755	NC	
2	7.213	7.215	-0.002	98018	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.345	6.342	0.003	2588813	NC	
1	6.520	6.512	0.008	35146	NC	
1	0.000	6.775	-6.775	0	NC	
1	6.966	6.957	0.009	738196	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.036	7.037	-0.001	33755	NC	
2	7.166	7.164	0.002	251103	NC	
2	7.514	7.516	-0.002	34681	NC	
2	7.681	7.681	0.000	163900	NC	
2	8.078	8.080	-0.002	62672	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						M
1	6.763	6.768	-0.005	6028668	1.76	
2	7.604	7.607	-0.003	26956889	1.52	M
					RPD = 14.35	
30 PCB-1260						
1	6.887	6.894	-0.007	3460166	NC	
1	7.086	7.083	0.003	194952	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.531	7.536	-0.005	6677402	NC	
1	7.971	7.966	0.005	15273	NC	
		Average of Peak Amounts =			0	
2	7.659	7.658	0.001	1322037	NC	
2	7.821	7.819	0.002	70839	NC	
2	8.099	8.100	-0.001	194177	NC	
2	8.417	8.414	0.003	63849	NC	
2	8.899	8.896	0.003	88189	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.161	7.167	-0.006	2334915	1.03	M
2	8.053	8.055	-0.002	11488566	1.15	M
					RPD = 10.90	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.884	8.884	0.000	32108762	3.15	M
2	10.088	10.091	-0.003	56174956	3.30	M
					RPD = 4.69	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

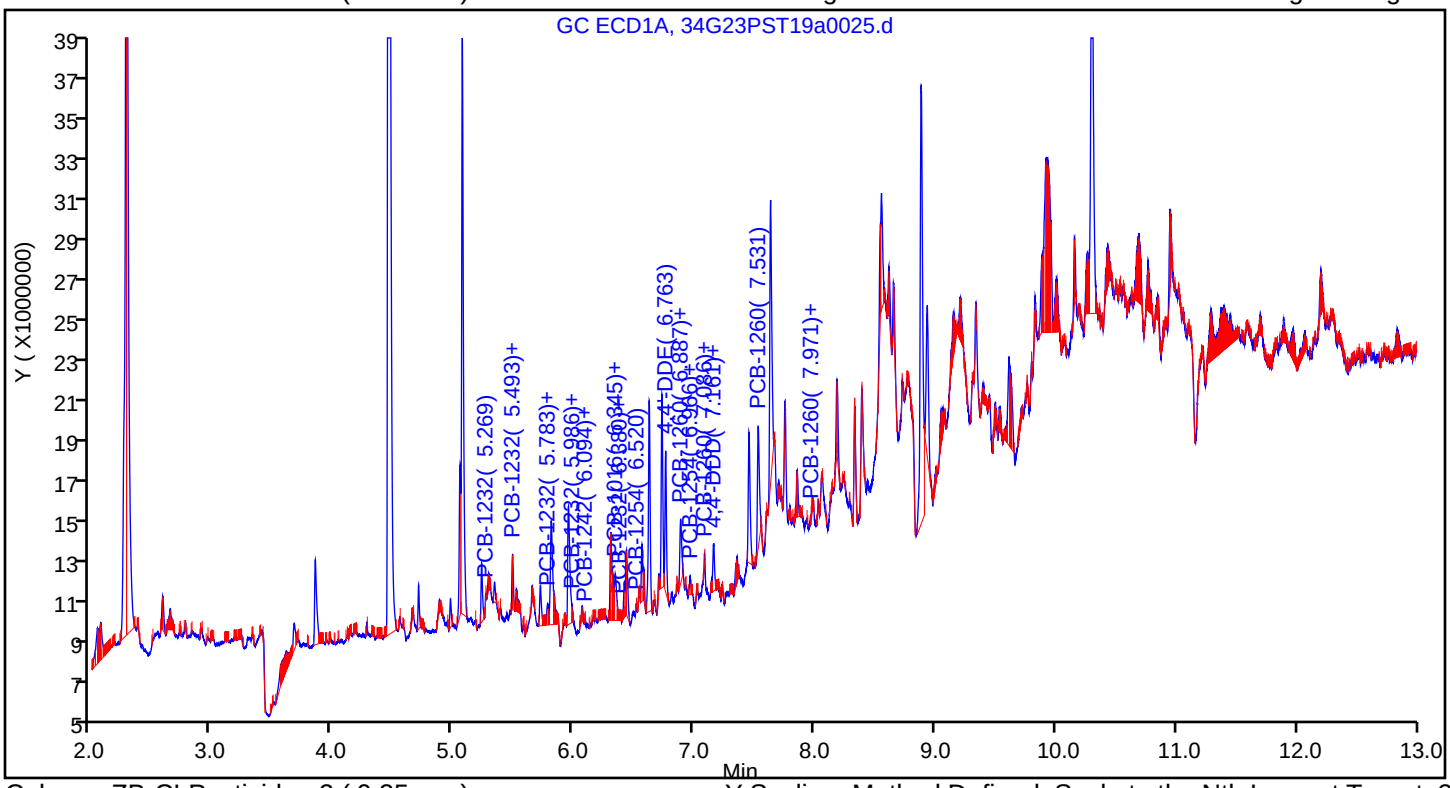
Report Date: 24-Jul-2019 12:28:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

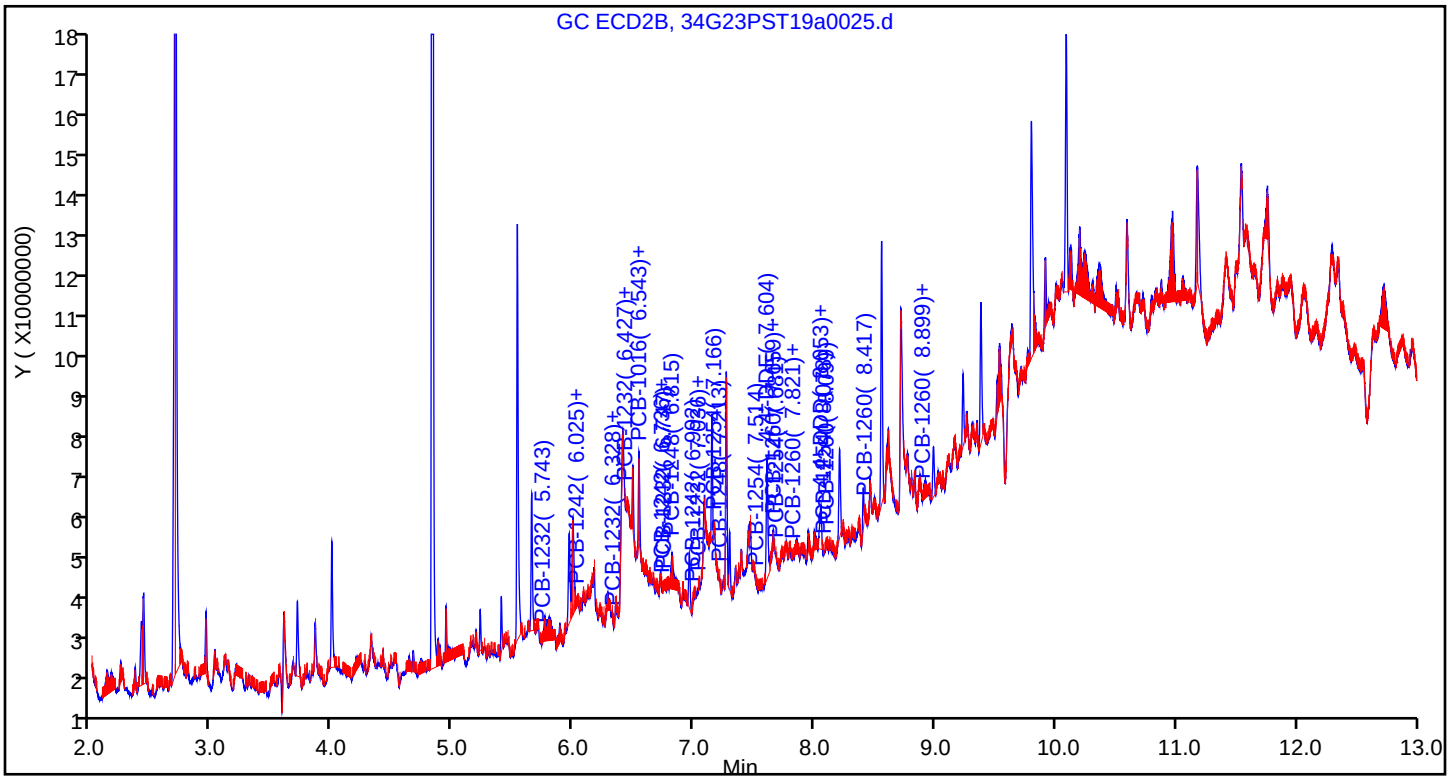
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d

Injection Date:	23-Jul-2019 18:55:11	Instrument ID:	TAC034		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	CJB	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d				
Lims ID:	580-87706-A-8-B				
Client ID:	22T-SG-15_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 18:55:11	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-8-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:28:44	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:28:44		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.58	54.94
$ 45 DCB Decachlorobiphenyl	25.0	3.15	37.75

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.23	50.74
$ 45 DCB Decachlorobiphenyl	25.0	3.30	39.56

User Disabled Compound Report

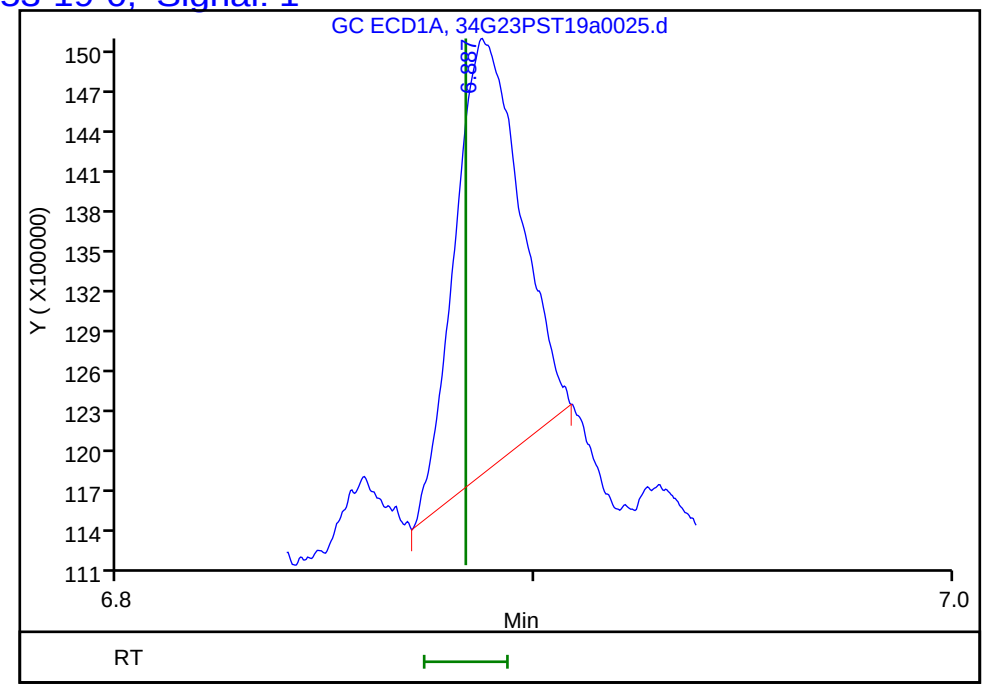
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d
Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034
Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8
Client ID: 22T-SG-15_20190716
Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

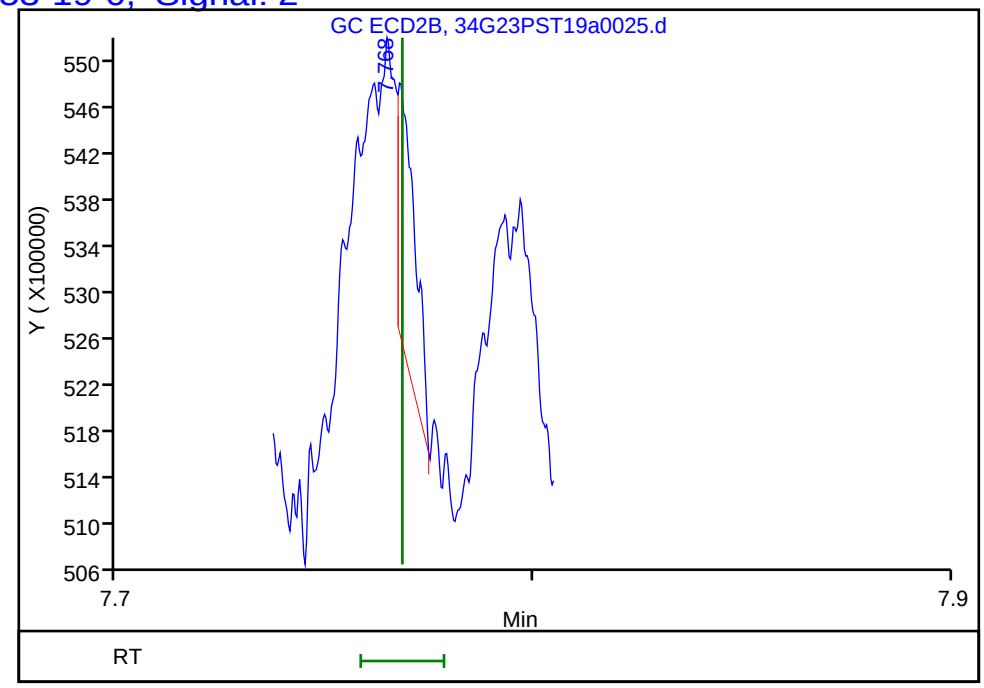
RT: 6.89
Response: 3460166
Amount: 1.421284



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 624697
Amount: 0.089102



Reviewer: limwirojt, 24-Jul-2019 12:28:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

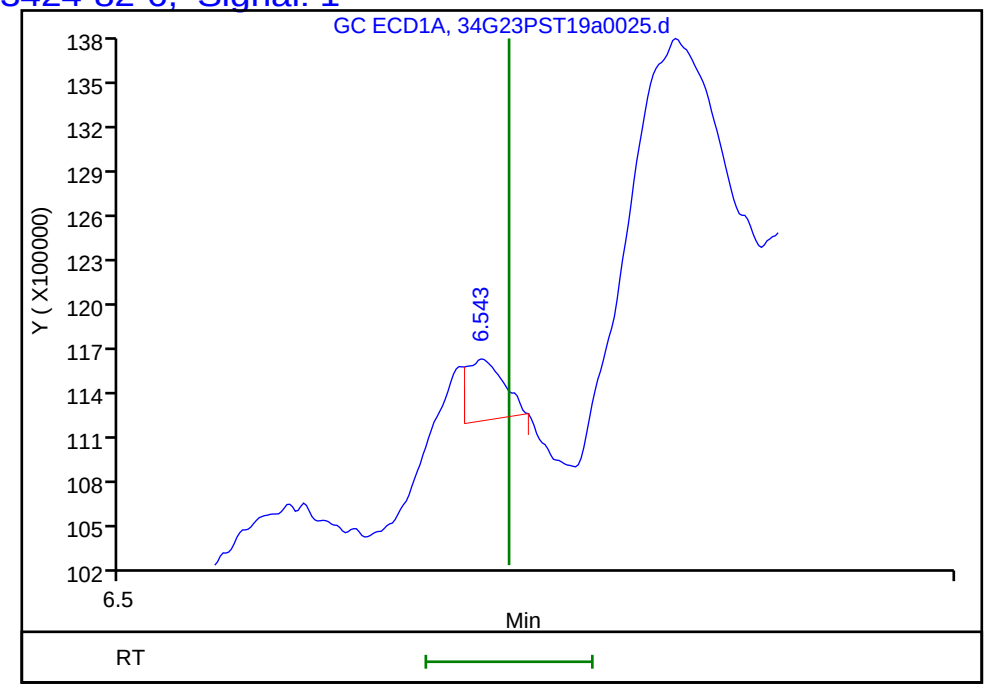
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d
Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034
Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8
Client ID: 22T-SG-15_20190716
Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

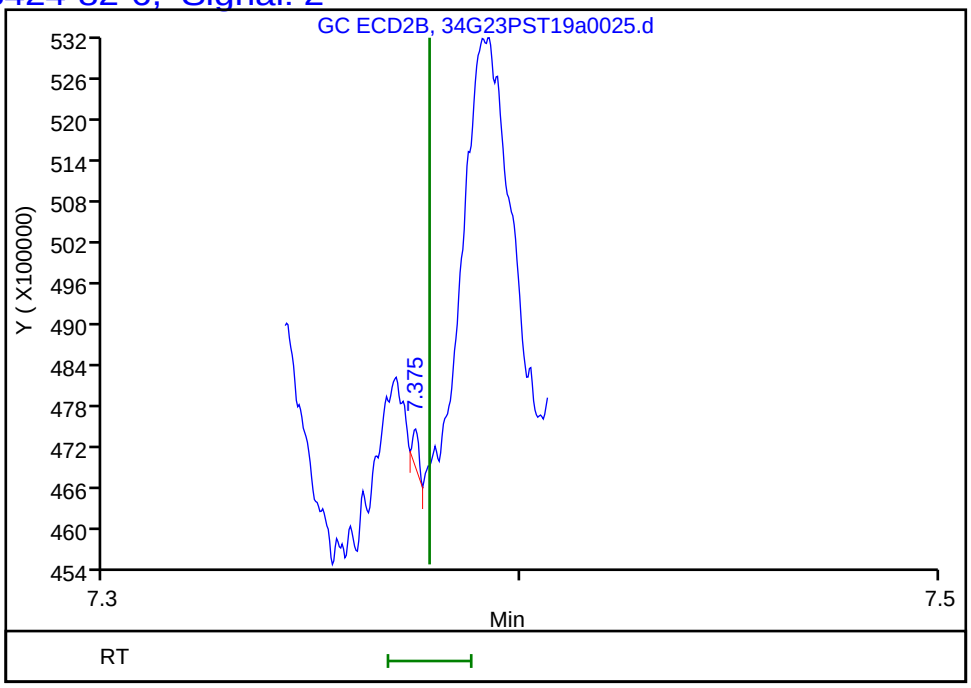
RT: 6.54
Response: 122491
Amount: 0.034216



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37
Response: 55397
Amount: 0.005166



Reviewer: limwirojt, 24-Jul-2019 12:28:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

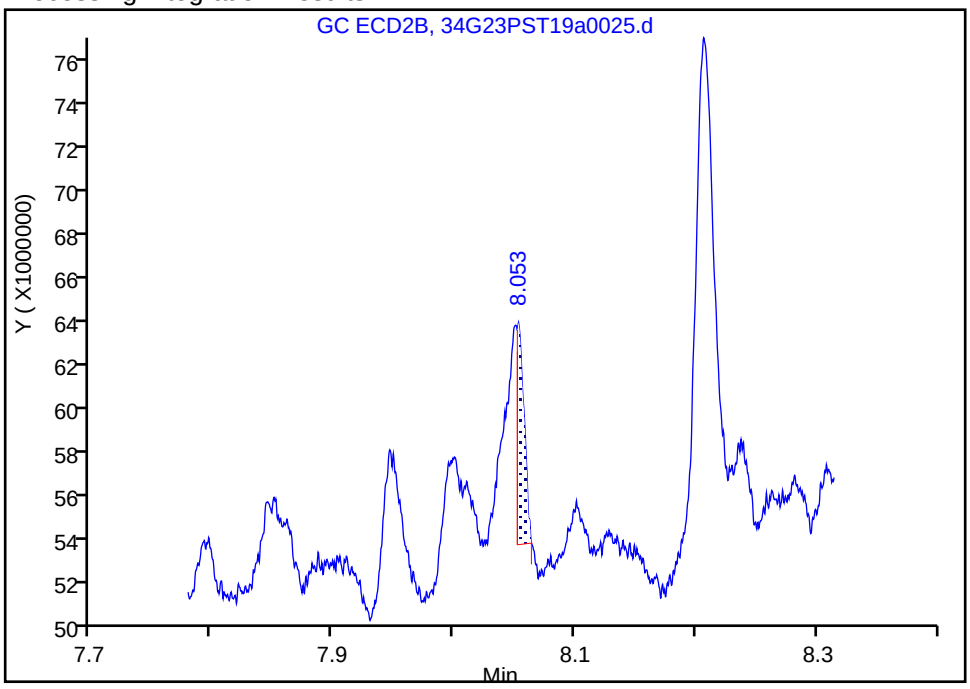
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d				
Injection Date:	23-Jul-2019 18:55:11	Instrument ID:	TAC034		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	CJB	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

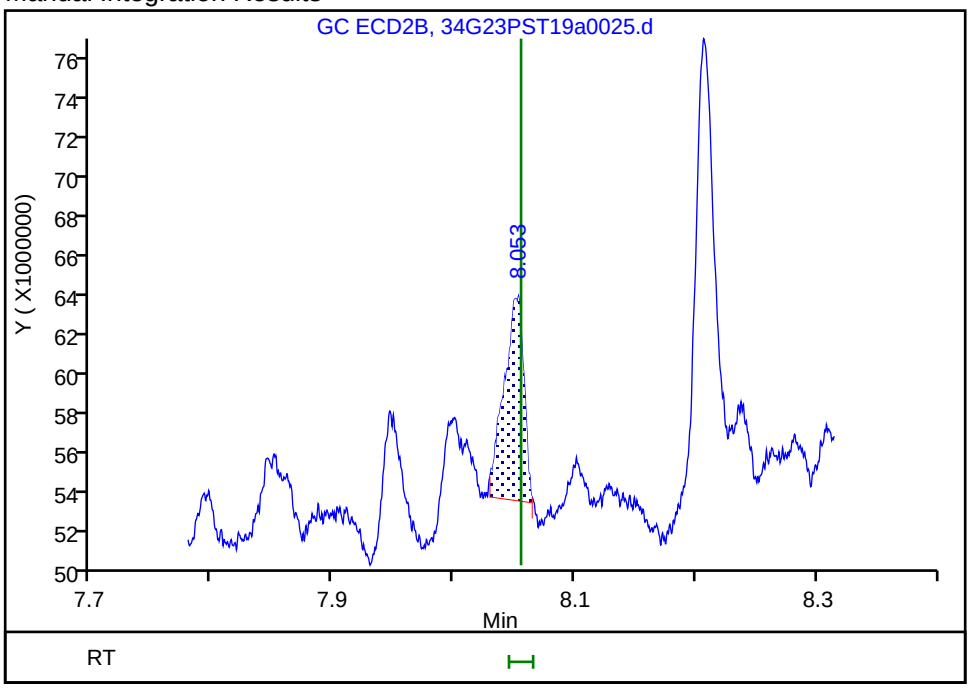
Processing Integration Results

RT: 8.05
Area: 3751791
Amount: 0.375787
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 11488566
Amount: 1.150719
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:28:15

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

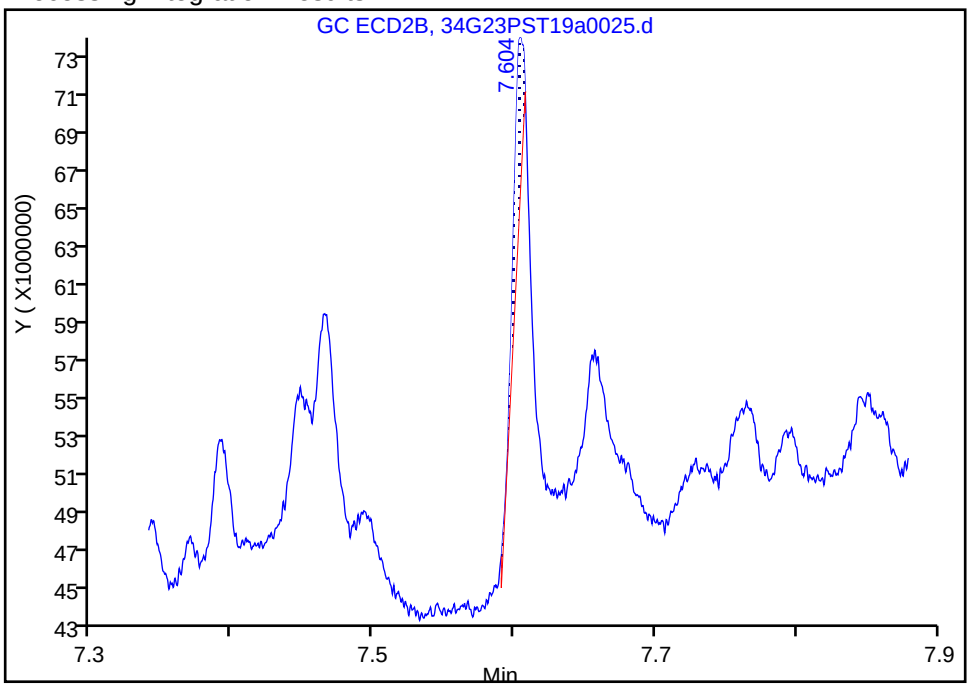
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d		
Injection Date:	23-Jul-2019 18:55:11	Instrument ID:	TAC034
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8
Client ID:	22T-SG-15_20190716		
Operator ID:	CJB	ALS Bottle#:	21 Worklist Smp#: 23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

26 4,4'-DDE, CAS: 72-55-9

Signal: 2

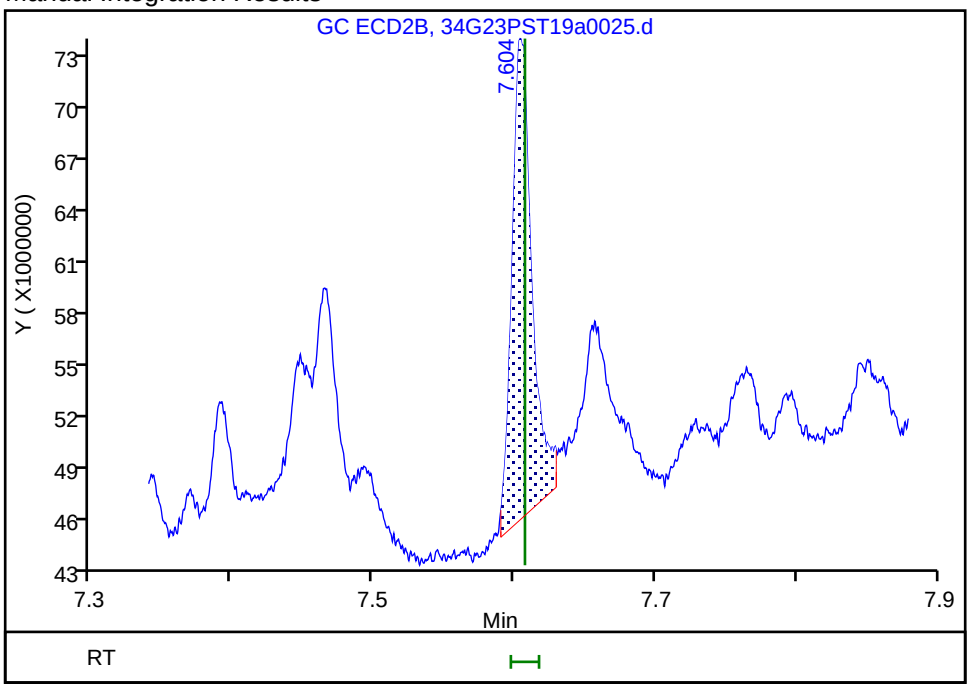
Processing Integration Results

RT: 7.60
Area: 4260153
Amount: 0.240505
Amount Units: ug/L



Manual Integration Results

RT: 7.60
Area: 26956889
Amount: 1.521841
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:27:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d

Injection Date: 23-Jul-2019 18:55:11 Instrument ID: TAC034

Lims ID: 580-87706-A-8-B Lab Sample ID: 580-87706-8

Client ID: 22T-SG-15_20190716

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

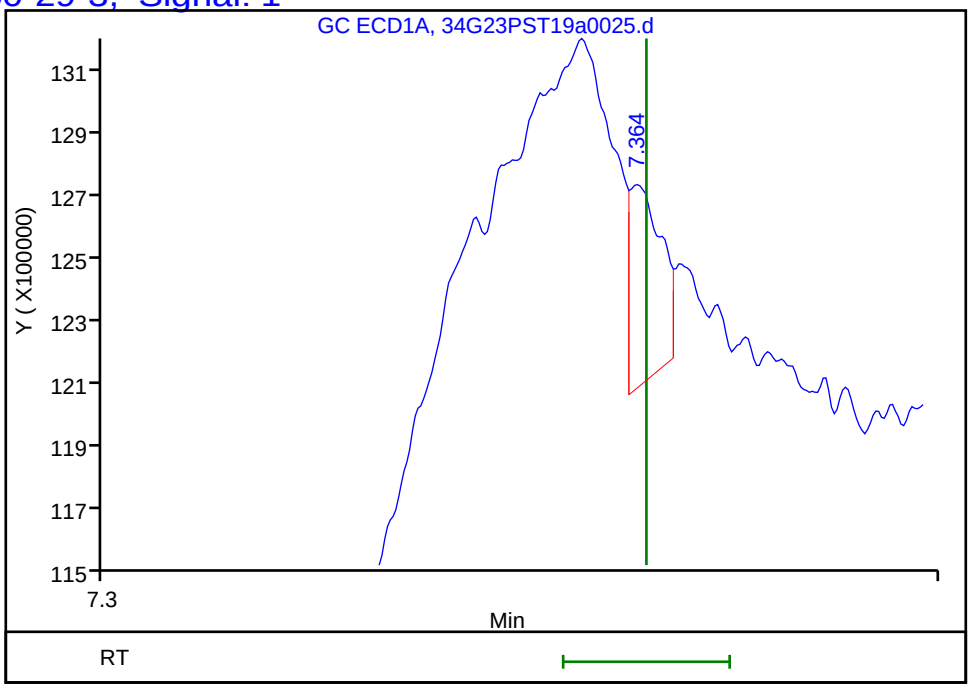
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 163792

Amount: 0.047238



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30

Response: 47830

Amount: 0.004885



Reviewer: limwirojt, 24-Jul-2019 12:28:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

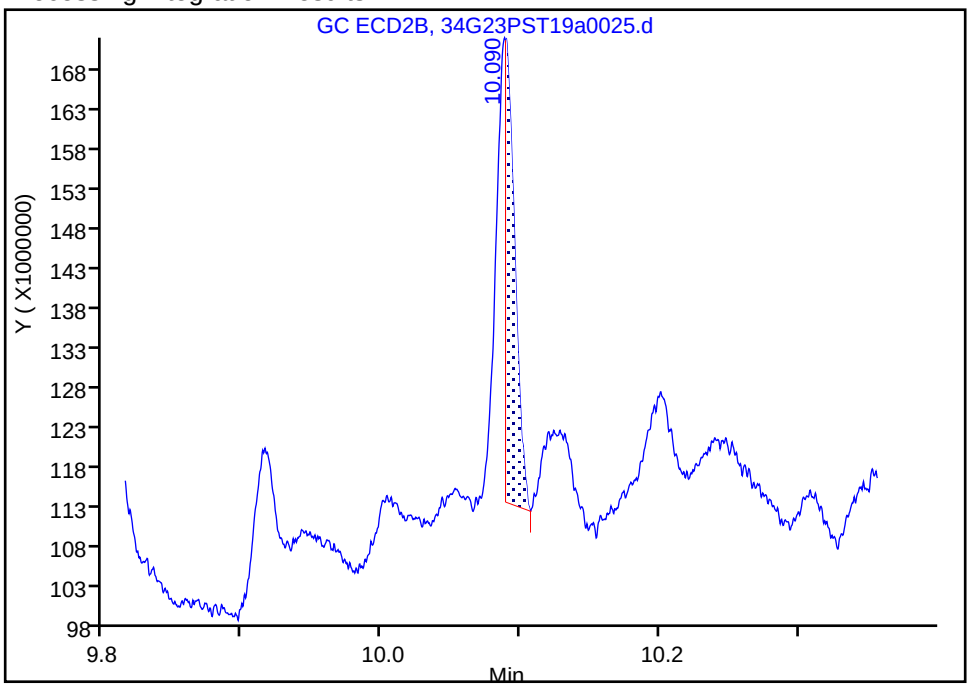
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0025.d				
Injection Date:	23-Jul-2019 18:55:11	Instrument ID:	TAC034		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	CJB	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

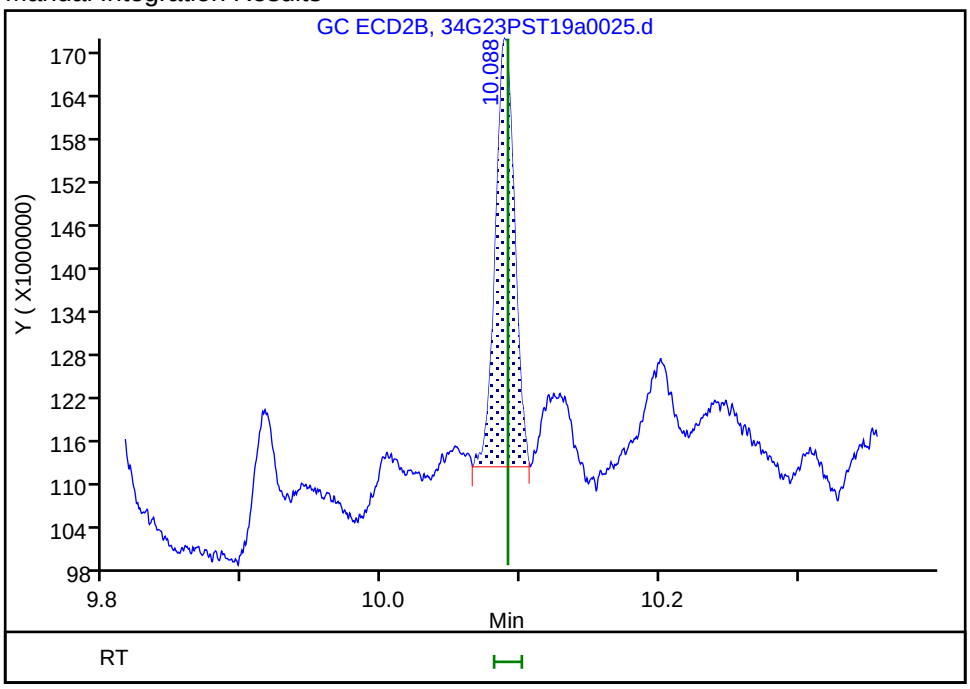
Processing Integration Results

RT: 10.09
Area: 26581329
Amount: 1.349424
Amount Units: ug/L



Manual Integration Results

RT: 10.09
Area: 56174956
Amount: 3.296676
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:28:34

Audit Action: Manually Integrated Audit Reason: Assign Peak

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 34G23PST19a0026.d

Analysis Method: 8081B Date Collected: 07/16/2019 11:06

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.377(g) Date Analyzed: 07/23/2019 19:14

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
789-02-6	2,4'-DDT	ND		3.8	1.4
72-54-8	4,4'-DDD	1.3	J	1.5	0.30
72-55-9	4,4'-DDE	1.7		1.5	0.40
50-29-3	4,4'-DDT	ND		1.5	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	40		36-136
877-09-8	Tetrachloro-m-xylene	75		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d
Lims ID: 580-87706-A-9-B
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 19:14:31 ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-9-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:30:44 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:30:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	131331107	100.0	
2	4.827	4.829	-0.002	573697300	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.076	5.081	-0.005	33356700	6.25	
2	5.534	5.535	-0.001	92780090	5.86	
					RPD = 6.49	
6 PCB-1232						
1	5.271	5.265	0.006	9023440	NC	
1	5.501	5.500	0.001	15927	NC	
1	5.782	5.778	0.004	16472	NC	
1	5.984	5.979	0.005	63565	NC	
1	0.000	6.380	-6.380	0	NC	
		Average of Peak Amounts =			0	
2	5.745	5.740	0.005	32045	NC	
2	6.331	6.330	0.001	51049	NC	
2	6.424	6.424	0.000	1494157	NC	
2	6.749	6.746	0.003	61736	NC	
2	7.042	7.037	0.005	93553	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.501	5.500	0.001	15927	NC	
1	5.782	5.778	0.004	16472	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	16617	NC	
1	0.000	6.380	-6.380	0	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	44669	NC	
2	6.331	6.330	0.001	51049	NC	
2	6.424	6.424	0.000	1494157	NC	
2	6.725	6.732	-0.007	137797	NC	
2	6.993	6.994	-0.001	49840	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.501	5.500	0.001	15927	NC	
1	5.782	5.778	0.004	16472	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	16617	NC	
1	6.344	6.342	0.002	52789	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	44669	NC	
2	6.331	6.330	0.001	51049	NC	
2	6.424	6.424	0.000	1494157	NC	
2	6.543	6.548	-0.005	15502070	NC	
2	6.725	6.732	-0.007	137797	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.782	5.778	0.004	16472	NC	
1	5.984	5.979	0.005	63565	NC	
1	6.094	6.093	0.001	16617	NC	
1	0.000	6.380	-6.380	0	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	15502070	NC	
2	6.725	6.732	-0.007	137797	NC	
2	6.815	6.815	0.000	1293742	NC	
2	7.042	7.037	0.005	93553	NC	
2	7.212	7.215	-0.003	155415	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
26 4,4'-DDE						
1	6.765	6.768	-0.003	7578246	2.22	
2	7.606	7.607	-0.001	39448572	2.69	
					RPD = 19.11	
28 2,4'-DDD						M
1	6.886	6.883	0.003	4949402	2.47	M
2	7.766	7.768	-0.002	5129472	0.8833	M
					RPD = 94.69	
30 PCB-1260						M
1	6.886	6.894	-0.008	4949402	NC	M
1	7.087	7.083	0.004	980646	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	5514981	NC	
1	7.971	7.966	0.005	15519	NC	
		Average of Peak Amounts =			0	
2	7.657	7.658	-0.001	2356175	NC	
2	7.820	7.819	0.001	37008	NC	
2	8.100	8.100	0.000	280947	NC	
2	8.407	8.414	-0.007	1112354	NC	
2	8.893	8.896	-0.003	44219	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.163	7.167	-0.004	4029620	1.69	
2	8.053	8.055	-0.002	20745727	2.51	M
					RPD = 38.91	
$ 45 DCB Decachlorobiphenyl						M
1	8.886	8.884	0.002	27732817	3.37	
2	10.090	10.091	-0.001	69847204	5.15	M
					RPD = 41.65	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:30:45 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d

Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034

Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9

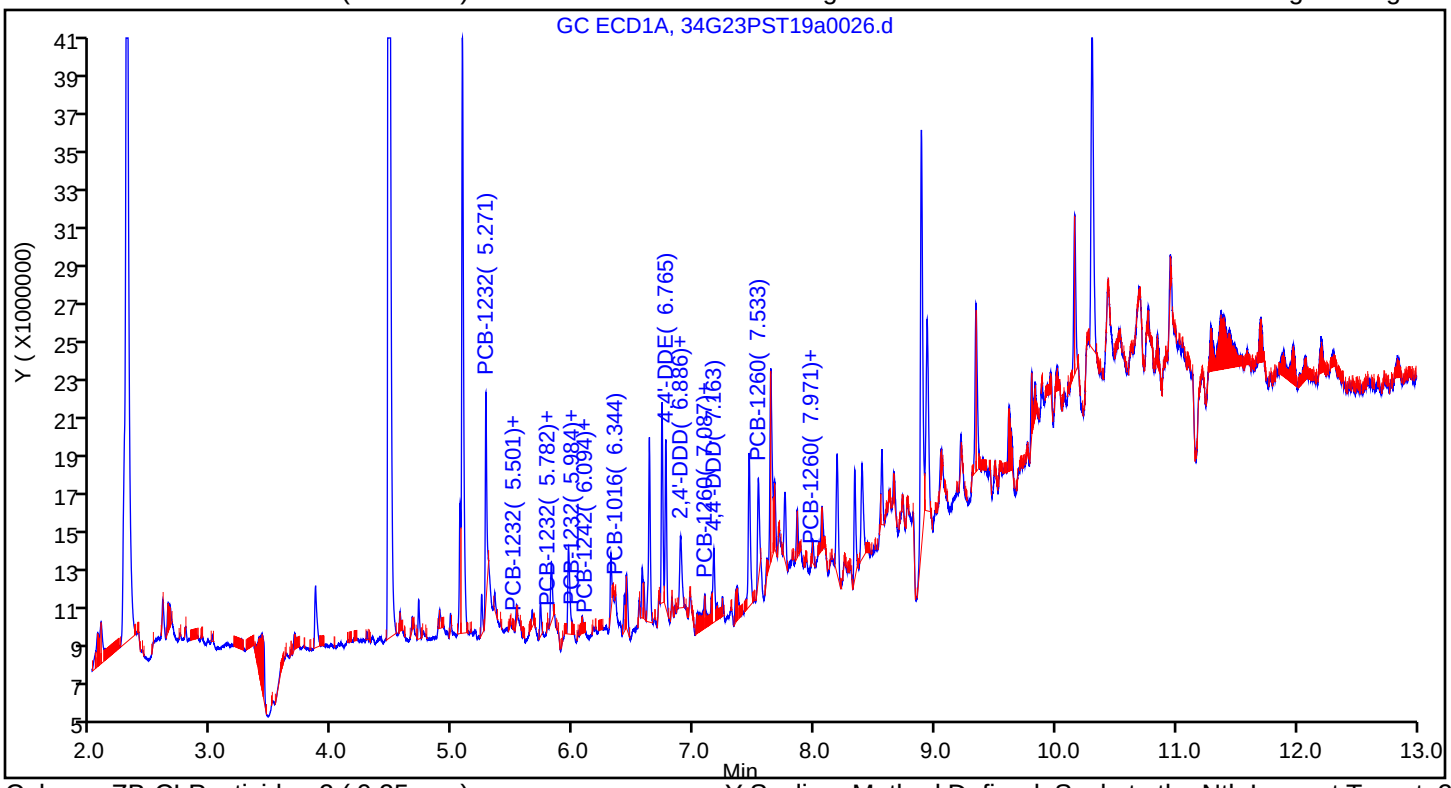
Client ID: 22T-SG-14_20190716

Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24

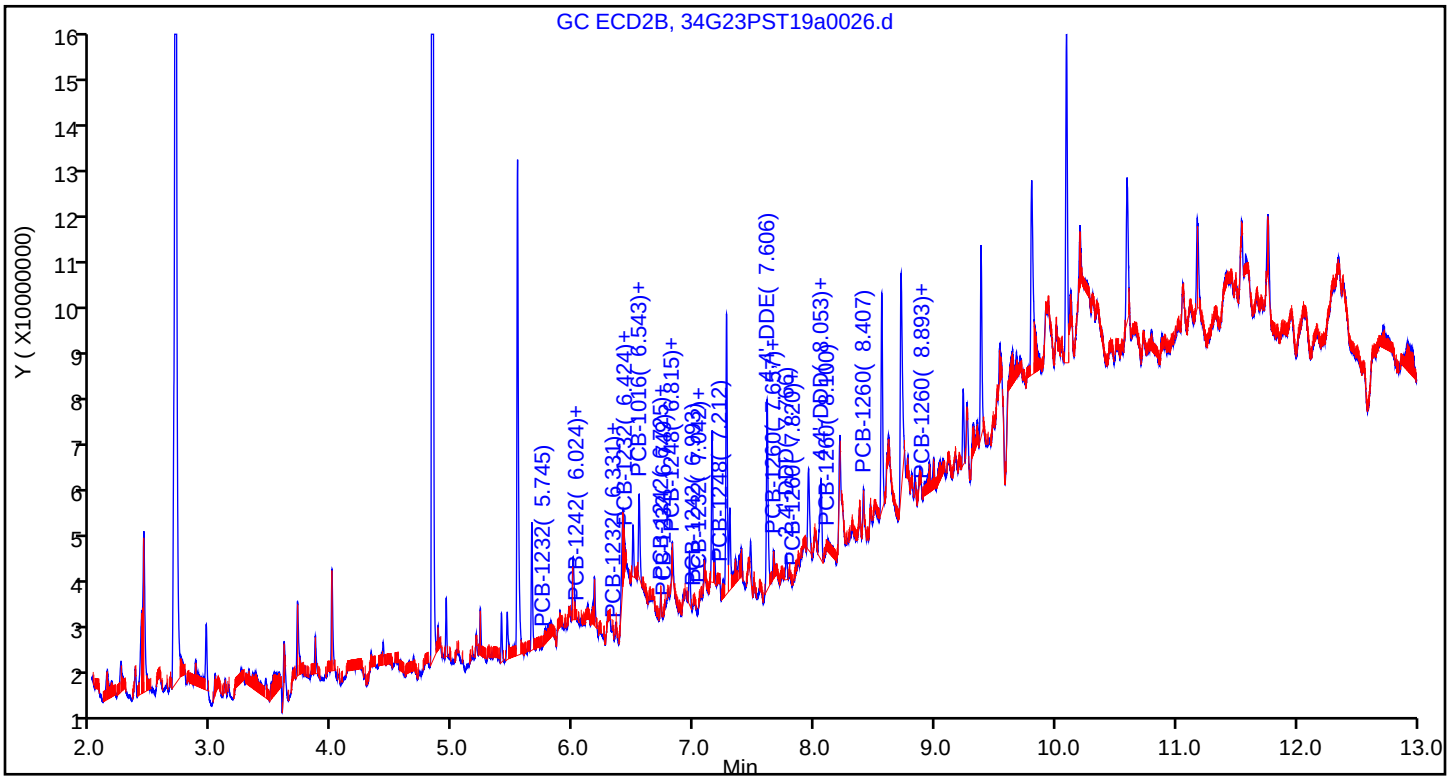
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d				
Lims ID:	580-87706-A-9-B				
Client ID:	22T-SG-14_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 19:14:31	ALS Bottle#:	22	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-9-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:30:44	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:30:44		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	6.25	75.00
$ 45 DCB Decachlorobiphenyl	25.0	3.37	40.49

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.86	70.29
$ 45 DCB Decachlorobiphenyl	25.0	5.15	61.79

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

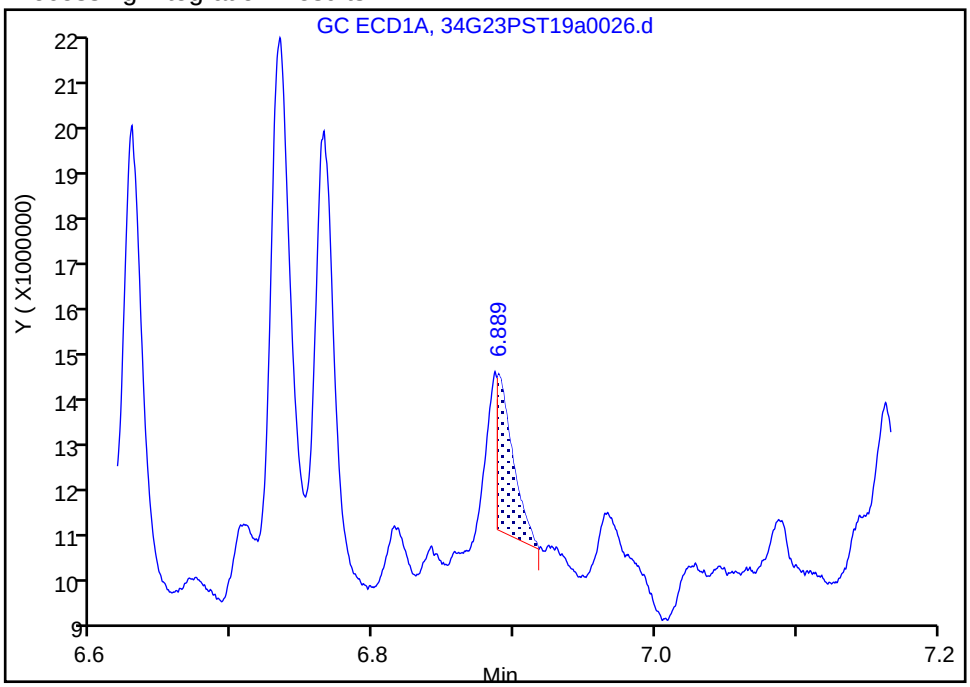
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d		
Injection Date:	23-Jul-2019 19:14:31	Instrument ID:	TAC034
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9
Client ID:	22T-SG-14_20190716		
Operator ID:	CJB	ALS Bottle#:	22 Worklist Smp#: 24
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

28 2,4'-DDD, CAS: 53-19-0

Signal: 1

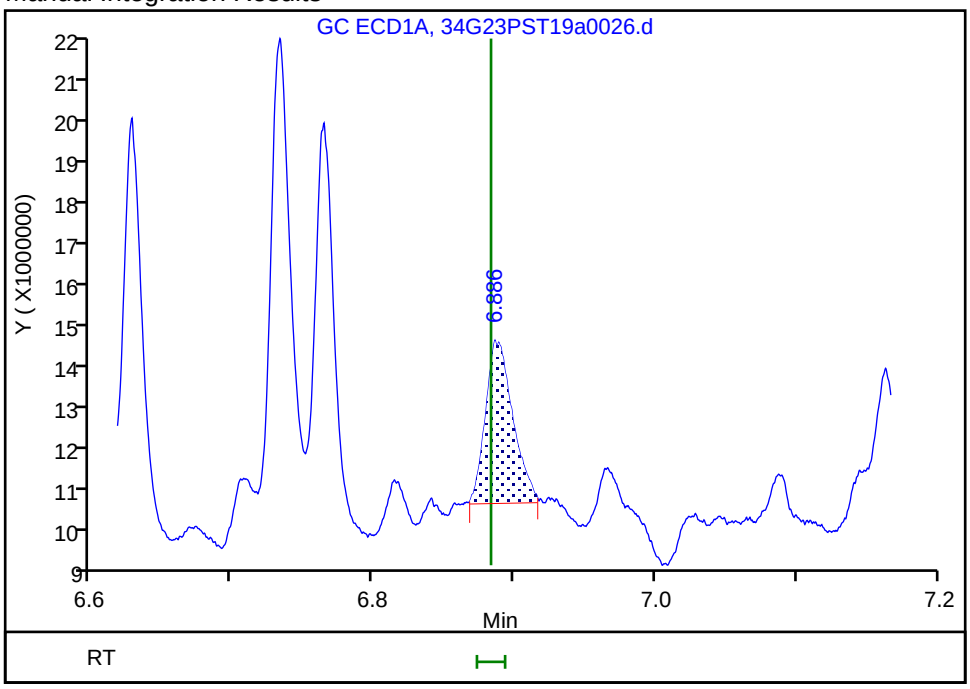
Processing Integration Results

RT: 6.89
Area: 2406165
Amount: 1.201741
Amount Units: ug/L



Manual Integration Results

RT: 6.89
Area: 4949402
Amount: 2.471942
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:29:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d

Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034

Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9

Client ID: 22T-SG-14_20190716

Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

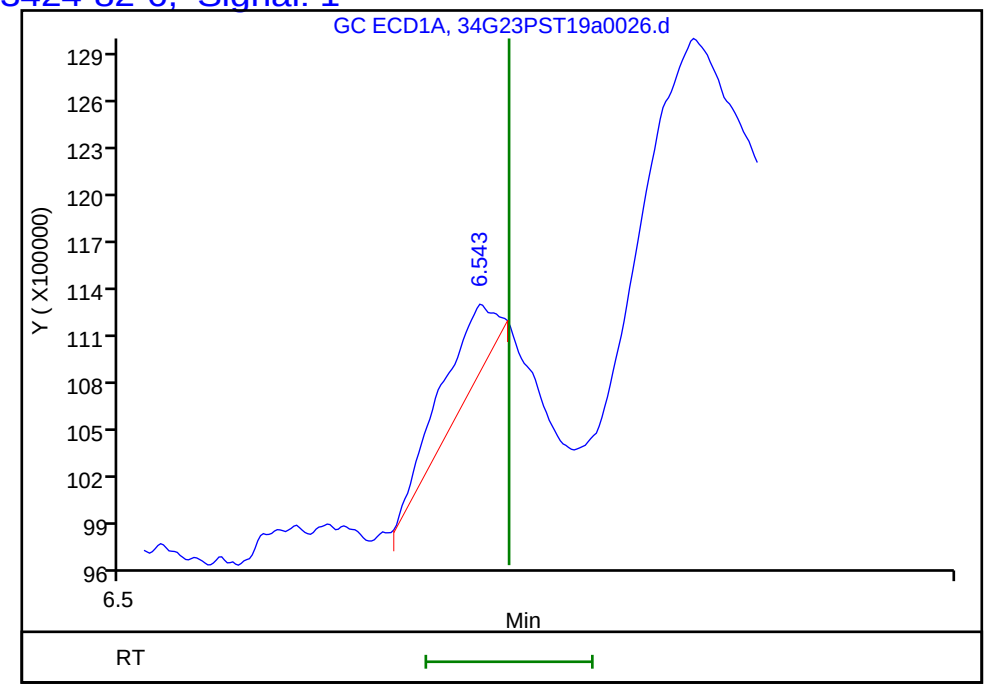
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

RT: 6.54

Response: 216038

Amount: 0.073377



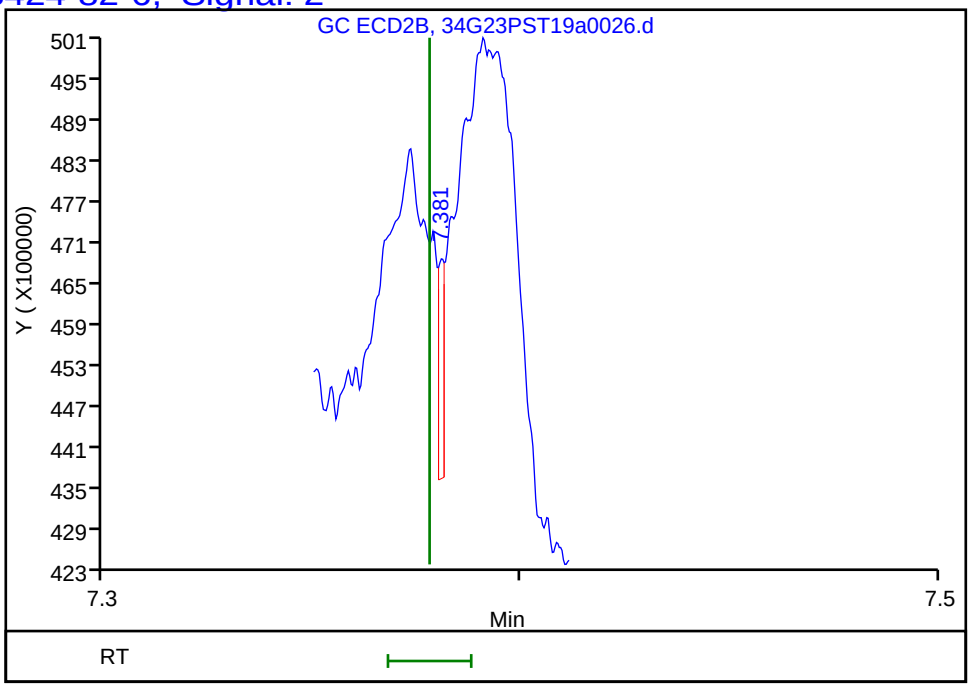
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38

Response: 254698

Amount: 0.028677



Reviewer: limwirojt, 24-Jul-2019 12:30:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

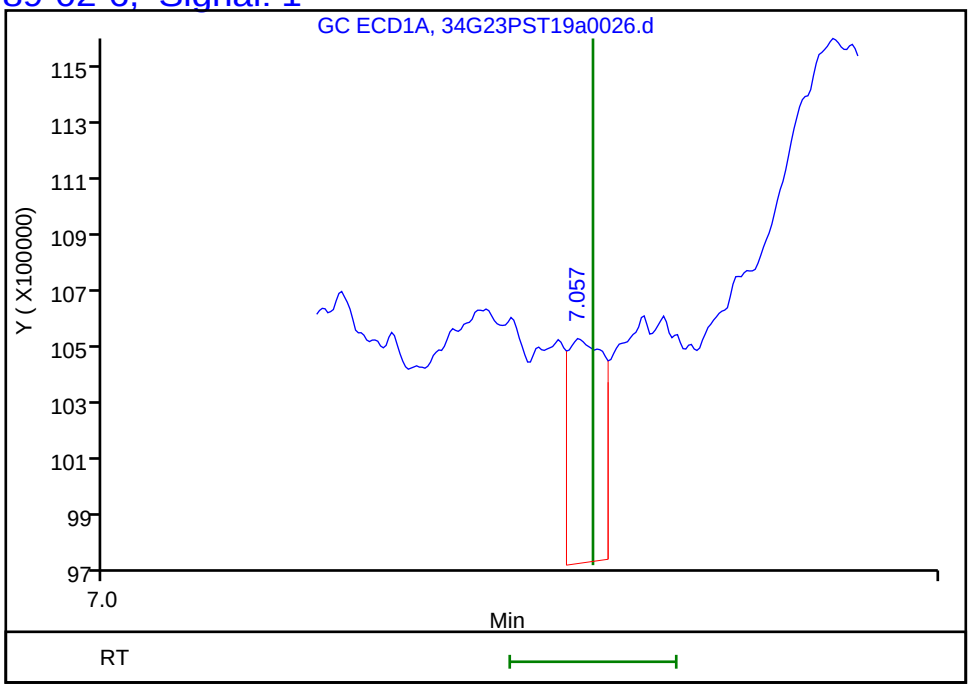
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d
Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034
Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9
Client ID: 22T-SG-14_20190716
Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

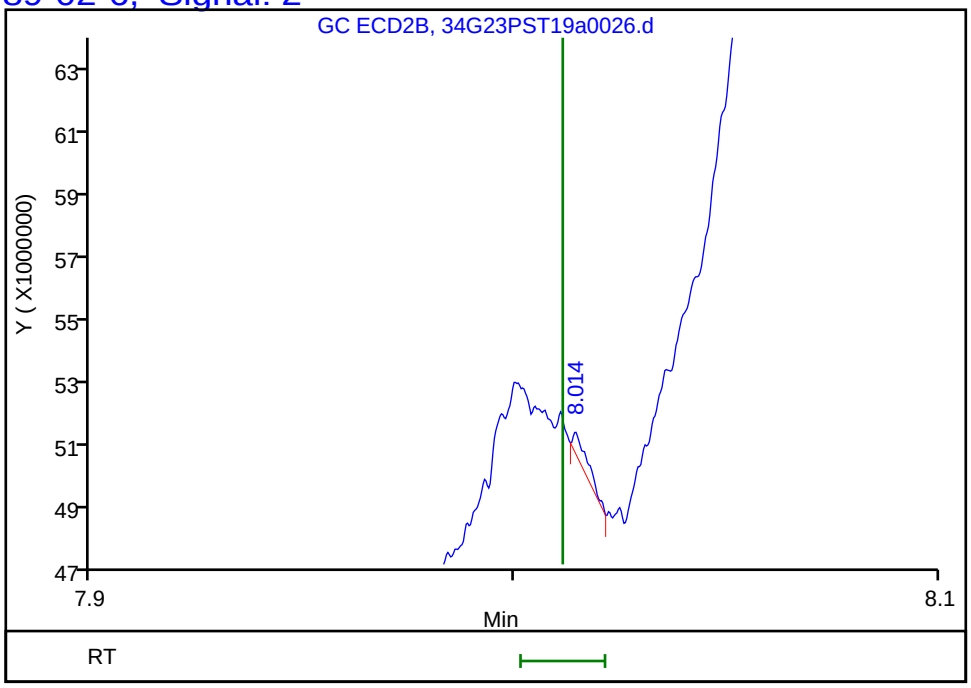
RT: 7.06
Response: 227720
Amount: 0.106180



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 185457
Amount: 0.030974



Reviewer: limwirojt, 24-Jul-2019 12:30:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d

Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034

Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9

Client ID: 22T-SG-14_20190716

Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

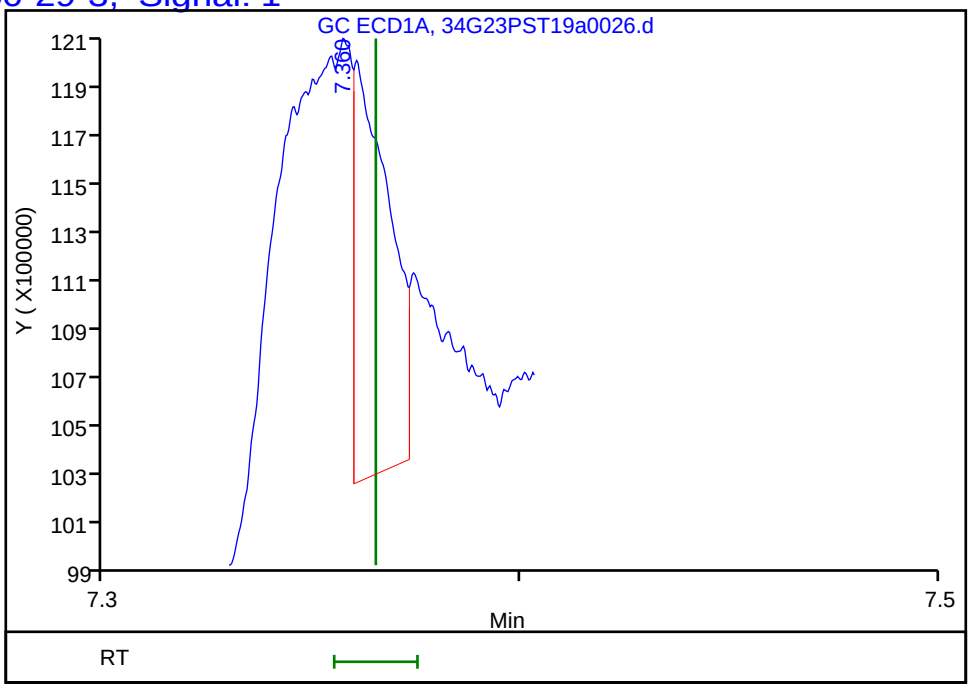
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 944885

Amount: 0.331348



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 79355

Amount: 0.009786



Reviewer: limwirojt, 24-Jul-2019 12:30:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 34G23PST19a0026.d

Analysis Method: 8081B Date Collected: 07/16/2019 11:06

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.377(g) Date Analyzed: 07/23/2019 19:14

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.8	0.84
3424-82-6	2,4'-DDE	ND		3.8	0.69

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d
Lims ID: 580-87706-A-9-B
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 19:14:31 ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-9-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:30:44 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:30:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	131331107	100.0	
2	4.827	4.829	-0.002	573697300	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.076	5.081	-0.005	33356700	6.25	
2	5.534	5.535	-0.001	92780090	5.86	
					RPD = 6.49	
6 PCB-1232						
1	5.271	5.265	0.006	9023440	NC	
1	5.501	5.500	0.001	15927	NC	
1	5.782	5.778	0.004	16472	NC	
1	5.984	5.979	0.005	63565	NC	
1	0.000	6.380	-6.380	0	NC	
		Average of Peak Amounts =			0	
2	5.745	5.740	0.005	32045	NC	
2	6.331	6.330	0.001	51049	NC	
2	6.424	6.424	0.000	1494157	NC	
2	6.749	6.746	0.003	61736	NC	
2	7.042	7.037	0.005	93553	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.501	5.500	0.001	15927	NC	
1	5.782	5.778	0.004	16472	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	16617	NC	
1	0.000	6.380	-6.380	0	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	44669	NC	
2	6.331	6.330	0.001	51049	NC	
2	6.424	6.424	0.000	1494157	NC	
2	6.725	6.732	-0.007	137797	NC	
2	6.993	6.994	-0.001	49840	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.501	5.500	0.001	15927	NC	
1	5.782	5.778	0.004	16472	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	16617	NC	
1	6.344	6.342	0.002	52789	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	44669	NC	
2	6.331	6.330	0.001	51049	NC	
2	6.424	6.424	0.000	1494157	NC	
2	6.543	6.548	-0.005	15502070	NC	
2	6.725	6.732	-0.007	137797	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.782	5.778	0.004	16472	NC	
1	5.984	5.979	0.005	63565	NC	
1	6.094	6.093	0.001	16617	NC	
1	0.000	6.380	-6.380	0	NC	
1	0.000	6.775	-6.775	0	NC	
		Average of Peak Amounts =			0	
2	6.543	6.548	-0.005	15502070	NC	
2	6.725	6.732	-0.007	137797	NC	
2	6.815	6.815	0.000	1293742	NC	
2	7.042	7.037	0.005	93553	NC	
2	7.212	7.215	-0.003	155415	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
26 4,4'-DDE						
1	6.765	6.768	-0.003	7578246	2.22	
2	7.606	7.607	-0.001	39448572	2.69	
					RPD = 19.11	
28 2,4'-DDD						M
1	6.886	6.883	0.003	4949402	2.47	M
2	7.766	7.768	-0.002	5129472	0.8833	M
					RPD = 94.69	
30 PCB-1260						M
1	6.886	6.894	-0.008	4949402	NC	M
1	7.087	7.083	0.004	980646	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	5514981	NC	
1	7.971	7.966	0.005	15519	NC	
		Average of Peak Amounts =			0	
2	7.657	7.658	-0.001	2356175	NC	
2	7.820	7.819	0.001	37008	NC	
2	8.100	8.100	0.000	280947	NC	
2	8.407	8.414	-0.007	1112354	NC	
2	8.893	8.896	-0.003	44219	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.163	7.167	-0.004	4029620	1.69	
2	8.053	8.055	-0.002	20745727	2.51	M
					RPD = 38.91	
$ 45 DCB Decachlorobiphenyl						M
1	8.886	8.884	0.002	27732817	3.37	
2	10.090	10.091	-0.001	69847204	5.15	M
					RPD = 41.65	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:30:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d

Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034

Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9

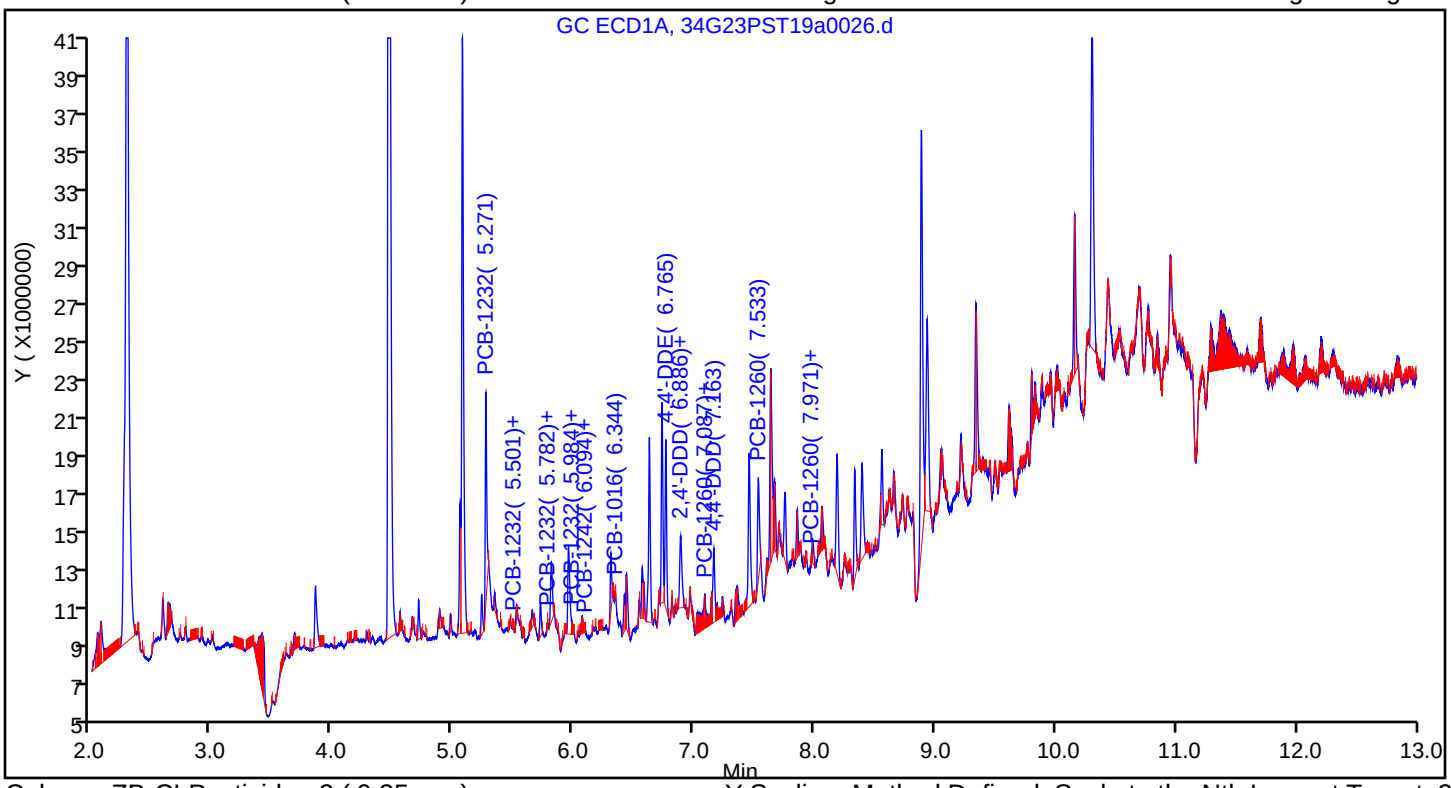
Client ID: 22T-SG-14_20190716

Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24

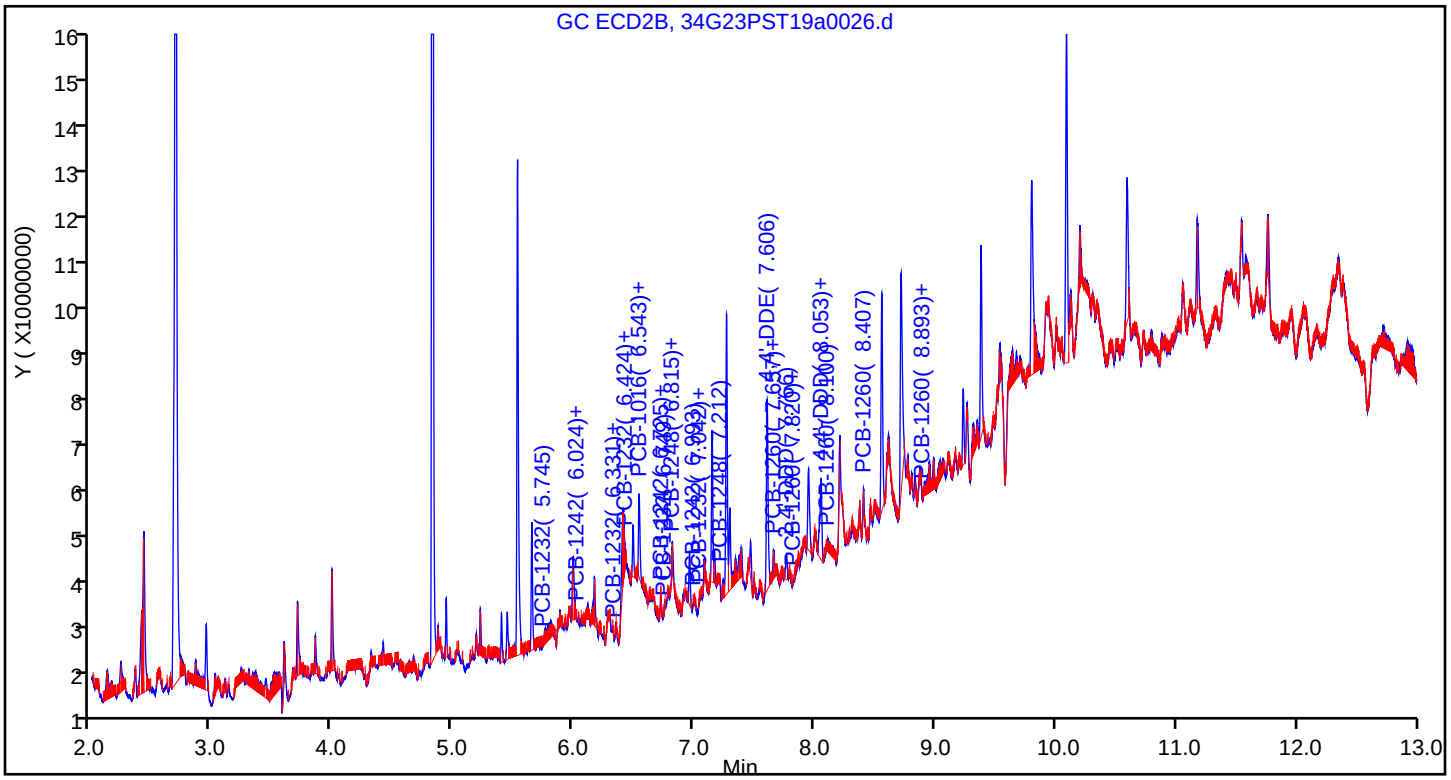
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d				
Lims ID:	580-87706-A-9-B				
Client ID:	22T-SG-14_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 19:14:31	ALS Bottle#:	22	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-9-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:30:44	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:30:44		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	6.25	75.00
$ 45 DCB Decachlorobiphenyl	25.0	3.37	40.49

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.86	70.29
$ 45 DCB Decachlorobiphenyl	25.0	5.15	61.79

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

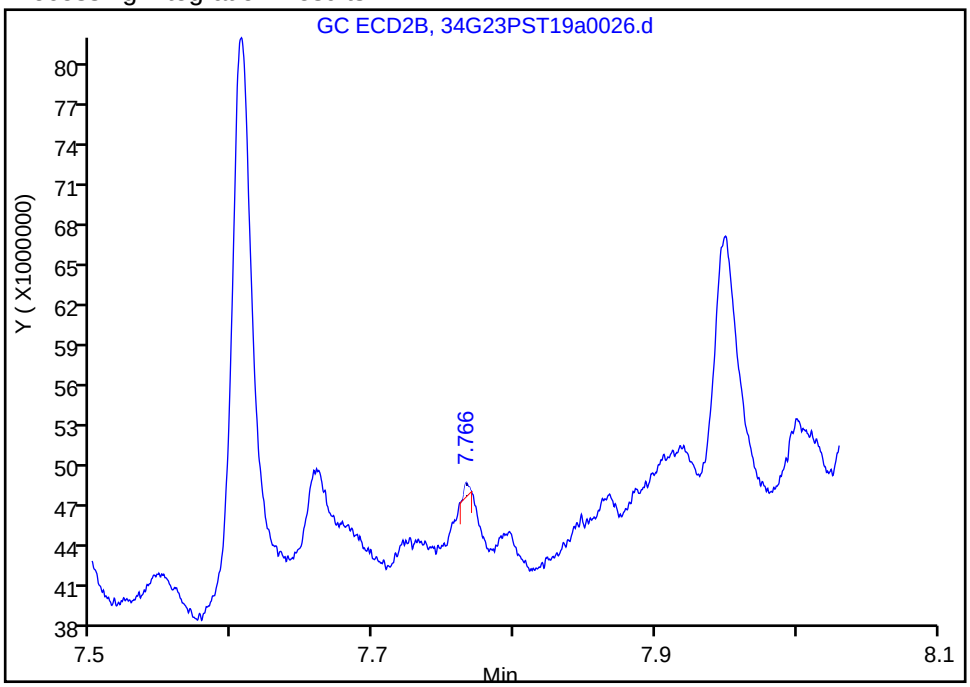
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d		
Injection Date:	23-Jul-2019 19:14:31	Instrument ID:	TAC034
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9
Client ID:	22T-SG-14_20190716		
Operator ID:	CJB	ALS Bottle#:	22 Worklist Smp#: 24
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

28 2,4'-DDD, CAS: 53-19-0

Signal: 2

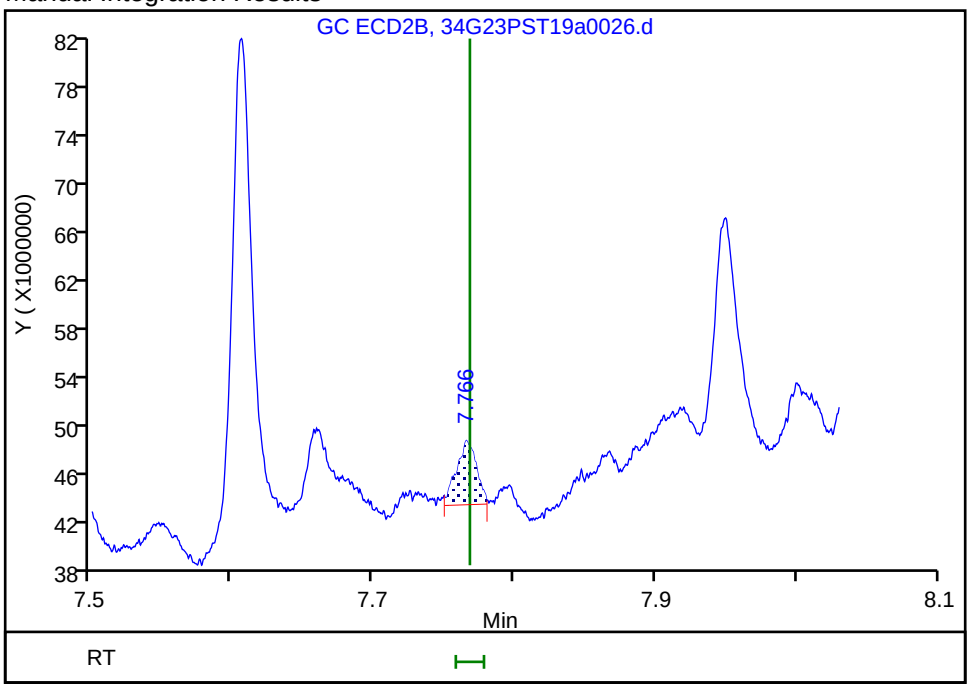
Processing Integration Results

RT: 7.77
Area: 225412
Amount: 0.038818
Amount Units: ug/L



Manual Integration Results

RT: 7.77
Area: 5129472
Amount: 0.883345
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:29:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

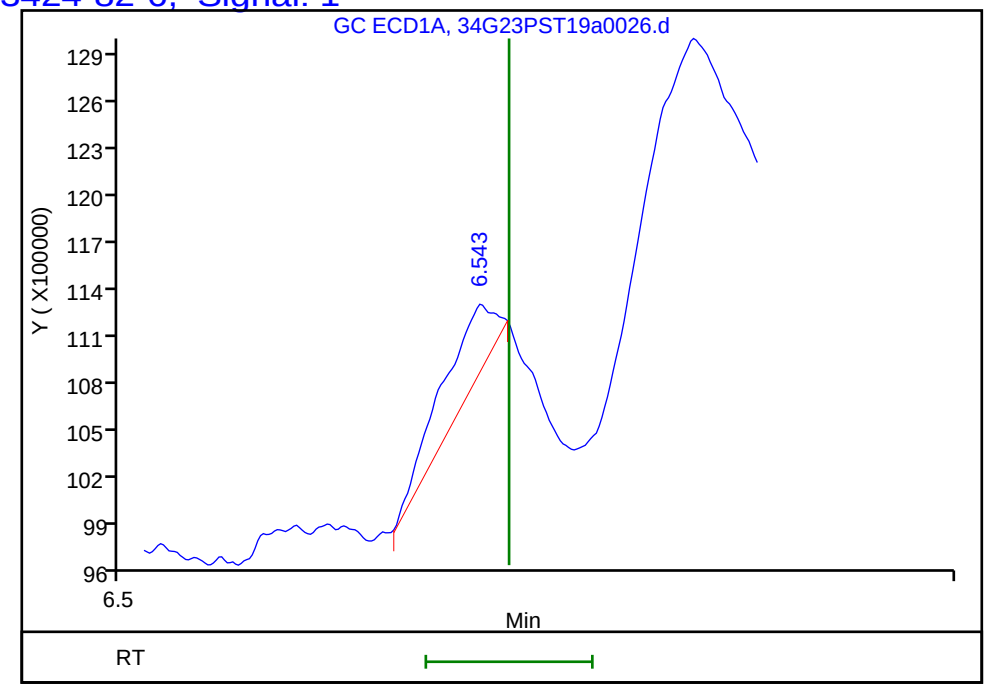
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d
Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034
Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9
Client ID: 22T-SG-14_20190716
Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

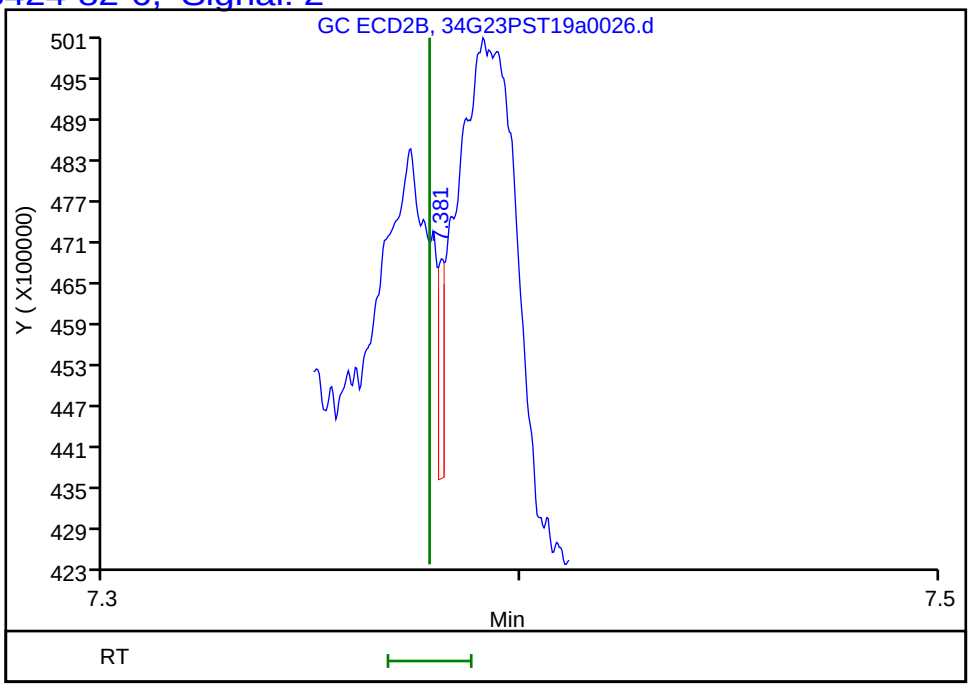
RT: 6.54
Response: 216038
Amount: 0.073377



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 254698
Amount: 0.028677



Reviewer: limwirojt, 24-Jul-2019 12:30:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

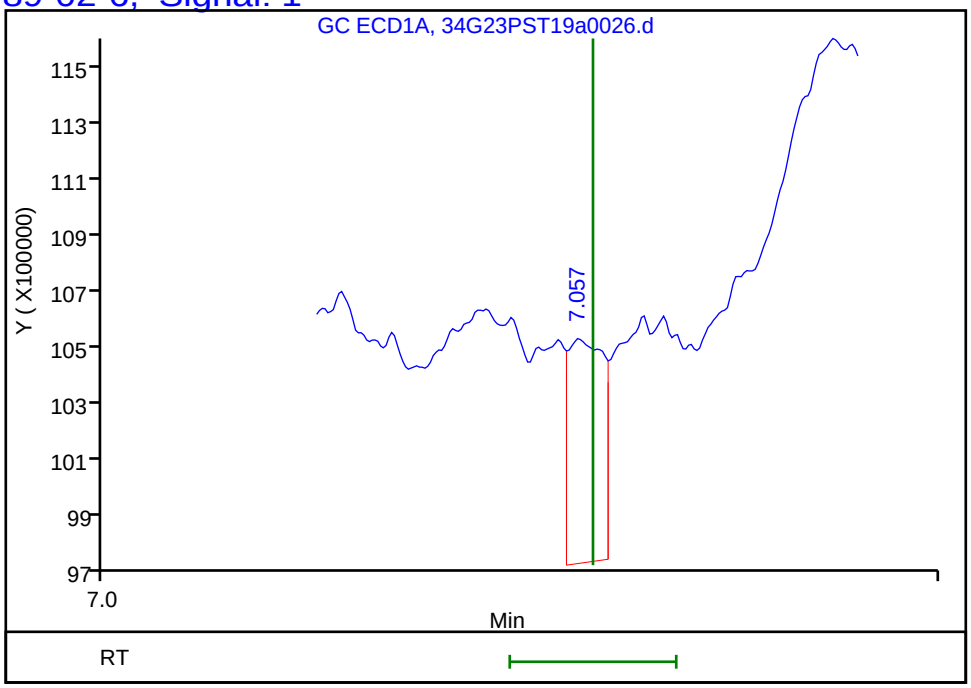
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d
Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034
Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9
Client ID: 22T-SG-14_20190716
Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

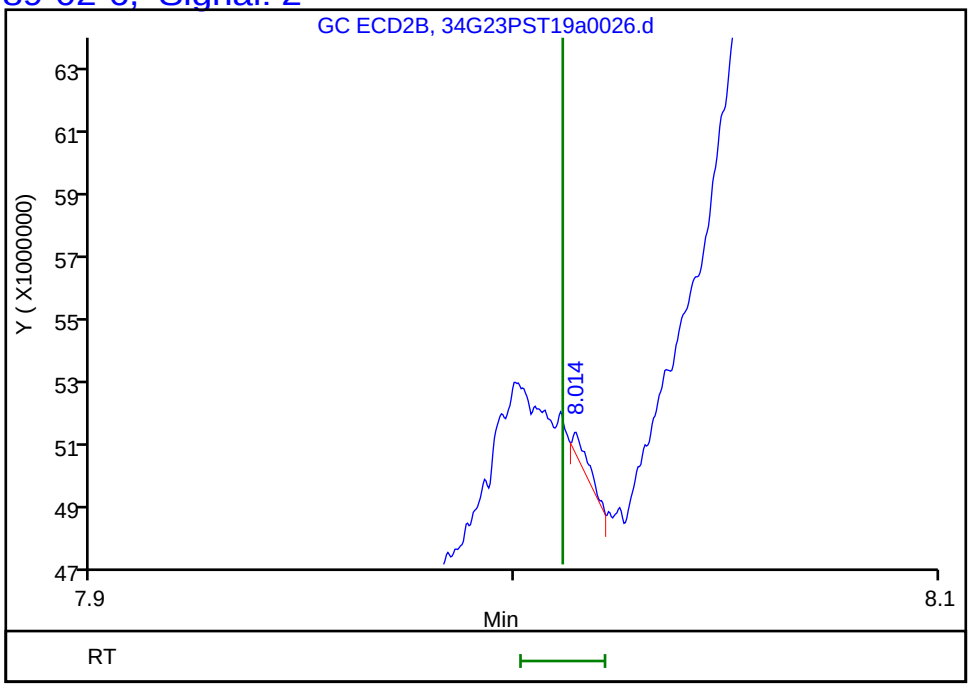
RT: 7.06
Response: 227720
Amount: 0.106180



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 185457
Amount: 0.030974



Reviewer: limwirojt, 24-Jul-2019 12:30:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

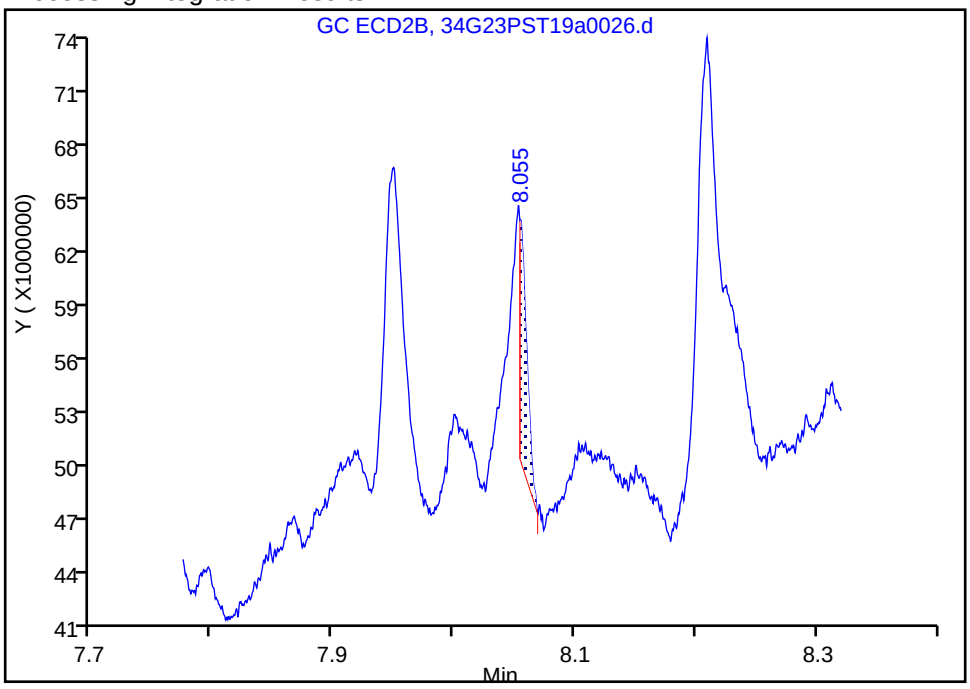
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d				
Injection Date:	23-Jul-2019 19:14:31	Instrument ID:	TAC034		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	CJB	ALS Bottle#:	22	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

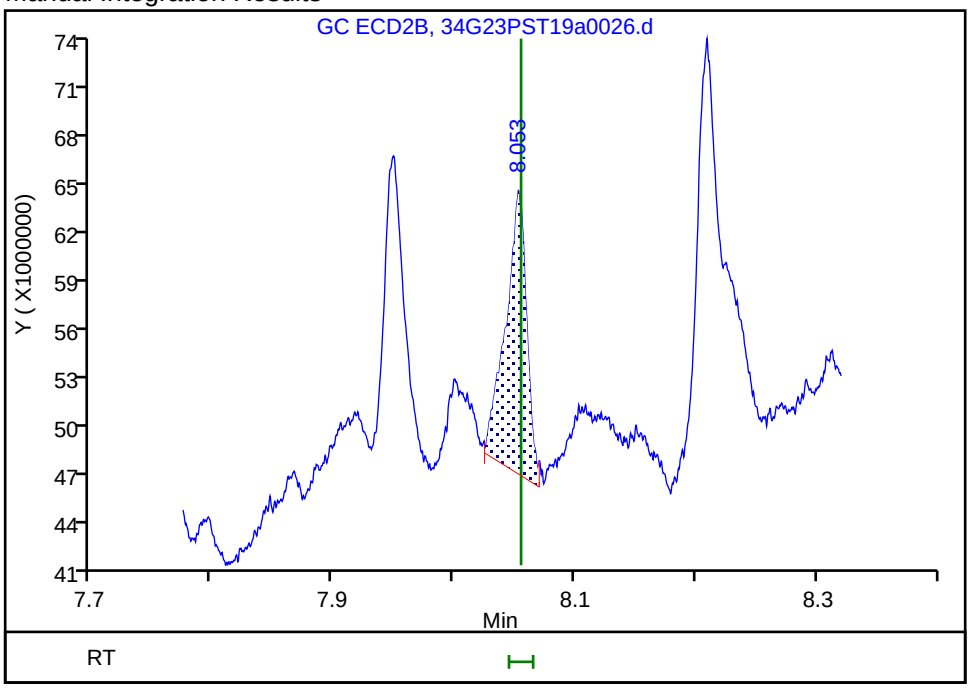
Processing Integration Results

RT: 8.06
Area: 5077124
Amount: 0.613992
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 20745727
Amount: 2.508843
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:30:32

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

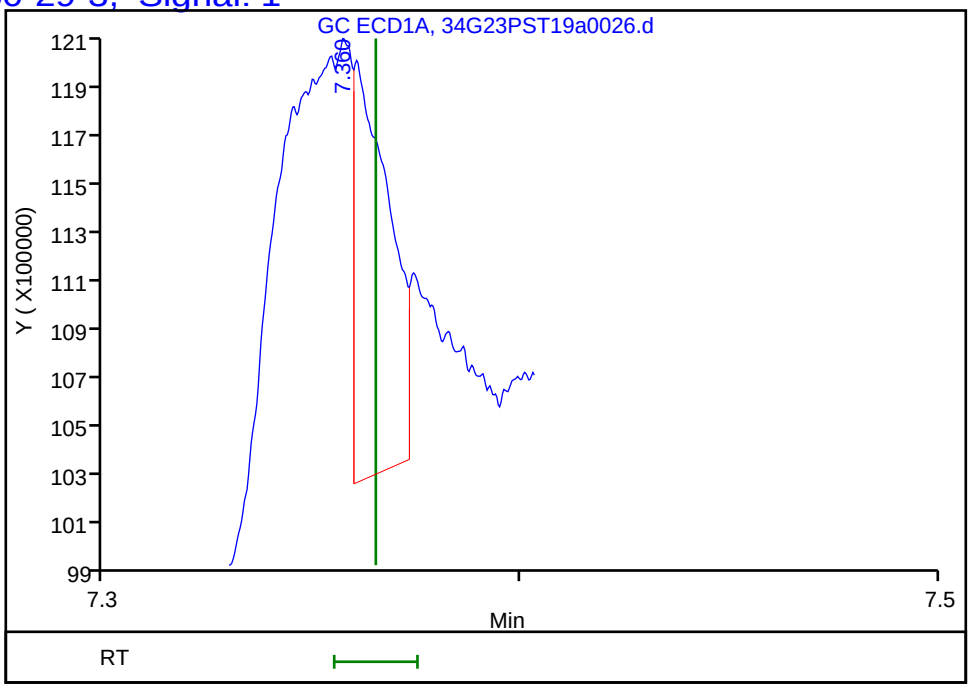
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d
Injection Date: 23-Jul-2019 19:14:31 Instrument ID: TAC034
Lims ID: 580-87706-A-9-B Lab Sample ID: 580-87706-9
Client ID: 22T-SG-14_20190716
Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36
Response: 944885
Amount: 0.331348



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 79355
Amount: 0.009786



Reviewer: limwirojt, 24-Jul-2019 12:30:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

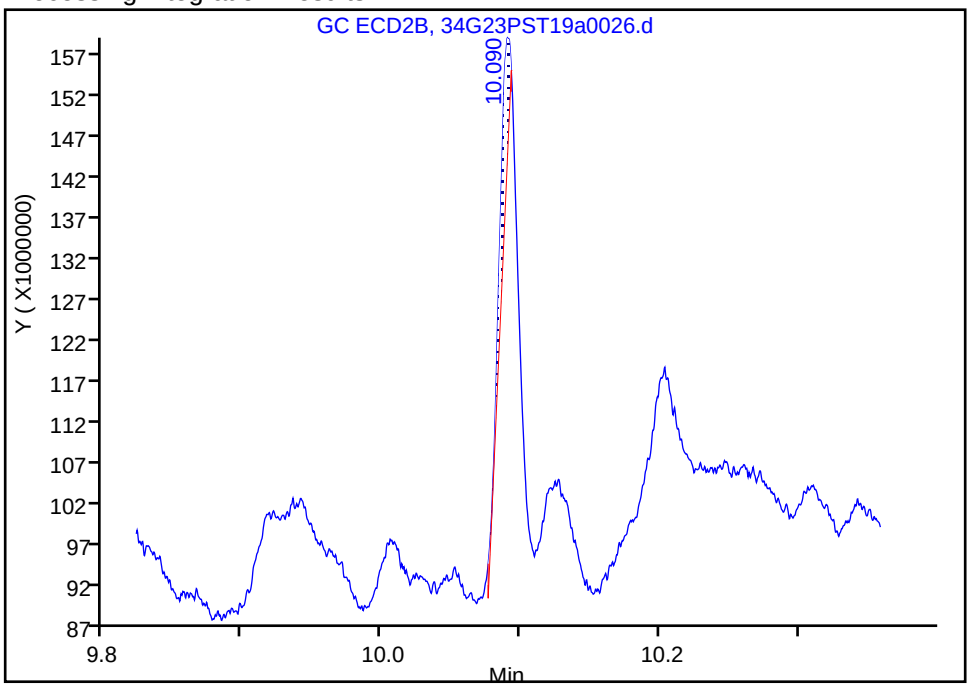
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0026.d				
Injection Date:	23-Jul-2019 19:14:31	Instrument ID:	TAC034		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	CJB	ALS Bottle#:	22	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

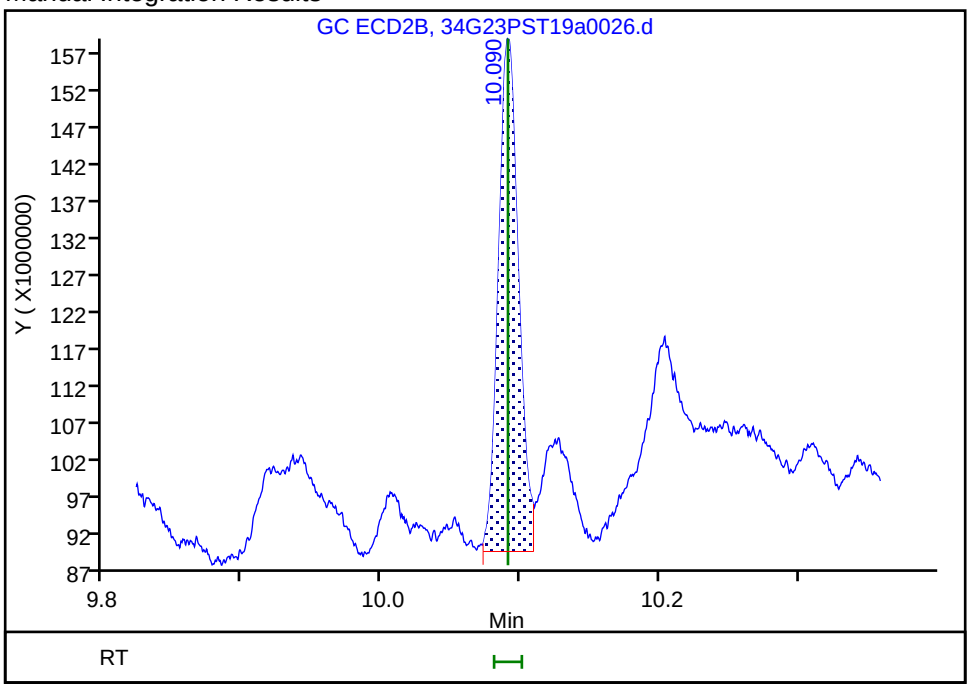
Processing Integration Results

RT: 10.09
Area: 8640718
Amount: 0.286840
Amount Units: ug/L



Manual Integration Results

RT: 10.09
Area: 69847204
Amount: 5.149378
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:30:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Matrix: Solid Lab File ID: 34G23PST19a0027.d

Analysis Method: 8081B Date Collected: 07/16/2019 12:12

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.081(g) Date Analyzed: 07/23/2019 19:33

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 60.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.7	0.82
789-02-6	2,4'-DDT	ND		3.7	1.4
72-54-8	4,4'-DDD	1.0	J	1.5	0.29
72-55-9	4,4'-DDE	1.5		1.5	0.40
50-29-3	4,4'-DDT	ND		1.5	0.29

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	39		36-136
877-09-8	Tetrachloro-m-xylene	109		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Lims ID: 580-87706-A-10-B
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 19:33:39 ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-10-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:34:03 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:34:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	160404788	100.0	
2	4.829	4.829	0.000	778850826	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	58965140	9.05	
2	5.534	5.535	-0.001	140274754	6.52	
					RPD = 32.51	
6 PCB-1232						
1	5.256	5.265	-0.009	3611503	NC	
1	5.499	5.500	-0.001	17232	NC	
1	5.783	5.778	0.005	108401	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.375	6.380	-0.005	33372	NC	
		Average of Peak Amounts =			0	
2	0.000	5.740	-5.740	0	NC	
2	6.332	6.330	0.002	37360	NC	
2	6.424	6.424	0.000	493679	NC	
2	6.748	6.746	0.002	218923	NC	
2	7.038	7.037	0.001	46293	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.499	5.500	-0.001	17232	NC	
1	5.783	5.778	0.005	108401	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	31414	NC	
1	6.375	6.380	-0.005	33372	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	31949	NC	
2	6.332	6.330	0.002	37360	NC	
2	6.424	6.424	0.000	493679	NC	
2	6.726	6.732	-0.006	613978	NC	
2	6.991	6.994	-0.003	30726	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.499	5.500	-0.001	17232	NC	
1	5.783	5.778	0.005	108401	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	31414	NC	
1	6.346	6.342	0.004	296947	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	31949	NC	
2	6.332	6.330	0.002	37360	NC	
2	6.424	6.424	0.000	493679	NC	
2	6.544	6.548	-0.004	9450015	NC	
2	6.726	6.732	-0.006	613978	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.783	5.778	0.005	108401	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.094	6.093	0.001	31414	NC	
1	6.375	6.380	-0.005	33372	NC	
1	6.765	6.775	-0.010	7661508	NC	
		Average of Peak Amounts =			0	
2	6.544	6.548	-0.004	9450015	NC	
2	6.726	6.732	-0.006	613978	NC	
2	6.814	6.815	-0.001	7574669	NC	
2	7.038	7.037	0.001	46293	NC	
2	7.213	7.215	-0.002	111151	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.346	6.342	0.004	296947	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.765	6.775	-0.010	7661508	NC	
1	6.965	6.957	0.008	486590	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.038	7.037	0.001	46293	NC	
2	7.165	7.164	0.001	335139	NC	
2	7.523	7.516	0.007	34152	NC	
2	7.680	7.681	-0.001	111843	NC	
2	8.083	8.080	0.003	98371	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.765	6.768	-0.003	7661508	1.99	
2	7.606	7.607	-0.001	31297344	1.57	
					RPD = 23.48	
30 PCB-1260						M
1	6.891	6.894	-0.003	4392539	NC	M
1	7.089	7.083	0.006	2073191	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	13736015	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.660	7.658	0.002	5296141	NC	
2	7.817	7.819	-0.002	106207	NC	
2	8.101	8.100	0.001	231860	NC	
2	8.418	8.414	0.004	1583854	NC	
2	8.898	8.896	0.002	55866	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.163	7.167	-0.004	3776093	1.40	
2	8.052	8.055	-0.003	14298333	1.27	M
					RPD = 9.32	
$ 45 DCB Decachlorobiphenyl						
1	8.886	8.884	0.002	33117421	3.27	
2	10.090	10.091	-0.001	95581774	5.19	
					RPD = 45.52	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:34:05 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d

Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034

Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10

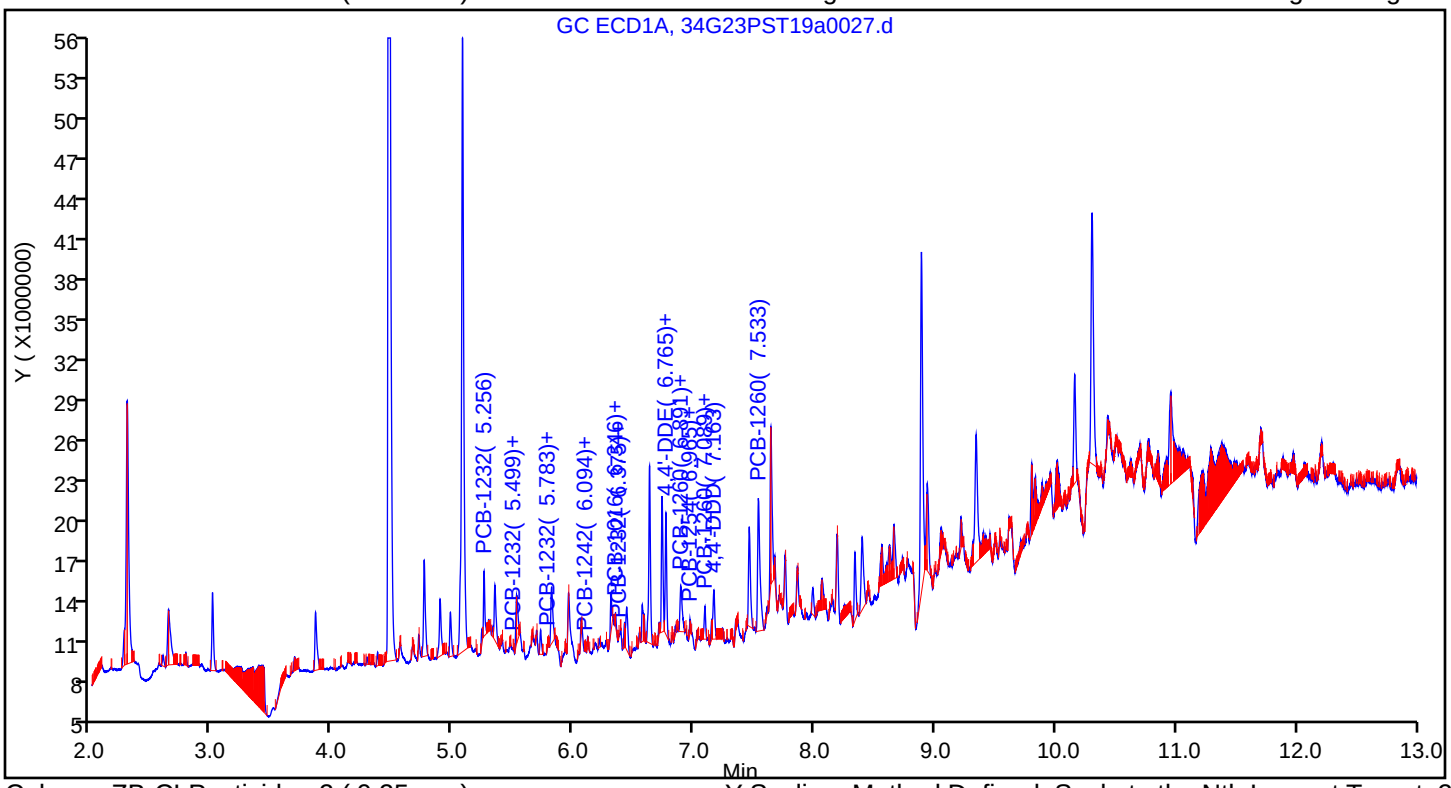
Client ID: 22T-SG-13_20190716

Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25

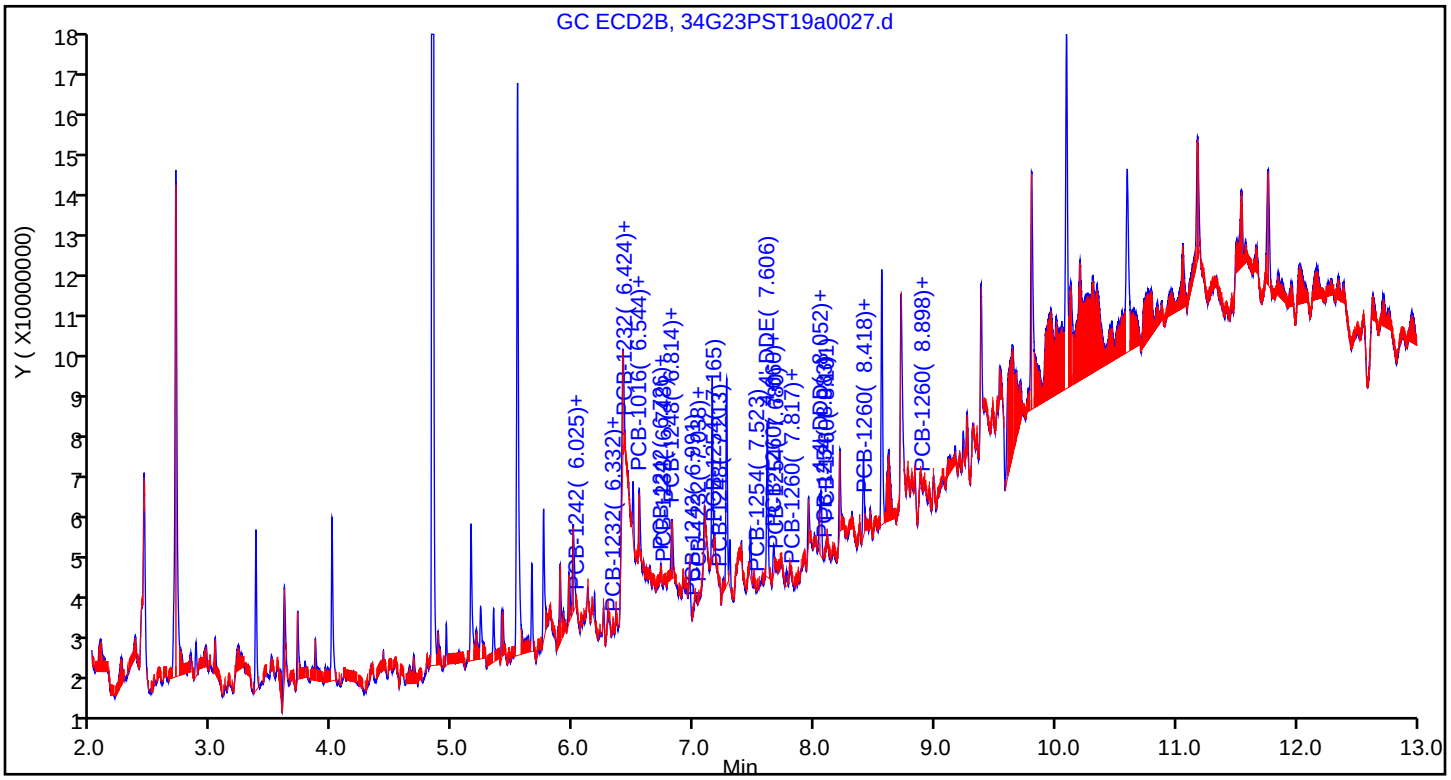
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d				
Lims ID:	580-87706-A-10-B				
Client ID:	22T-SG-13_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 19:33:39	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-10-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:34:03	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:34:03		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	9.05	108.55
$ 45 DCB Decachlorobiphenyl	25.0	3.27	39.21

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	6.52	78.19
$ 45 DCB Decachlorobiphenyl	25.0	5.19	62.32

User Disabled Compound Report

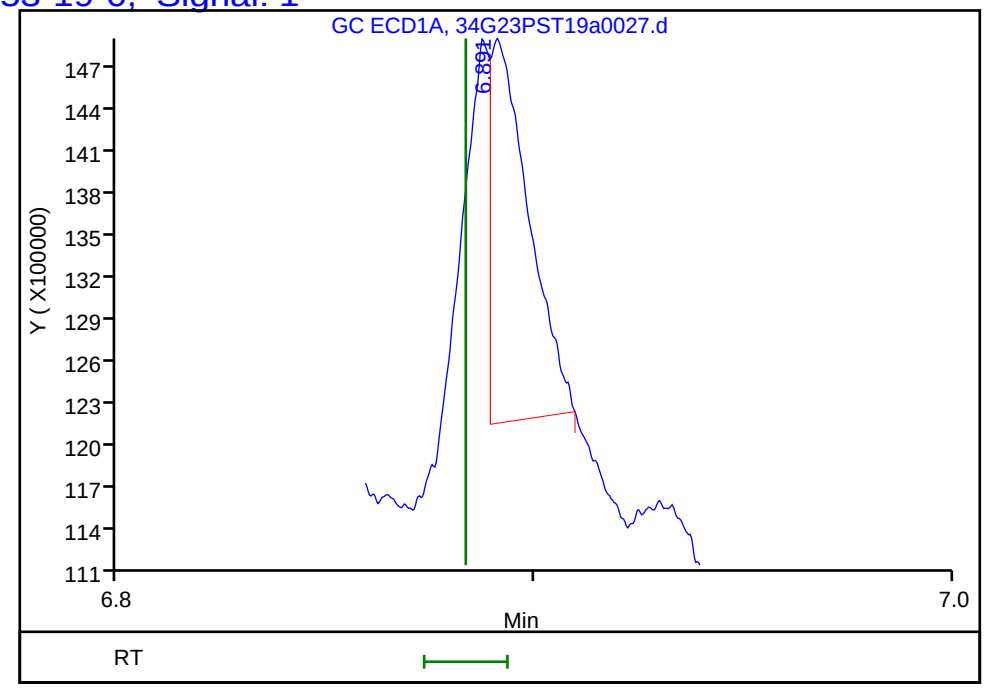
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

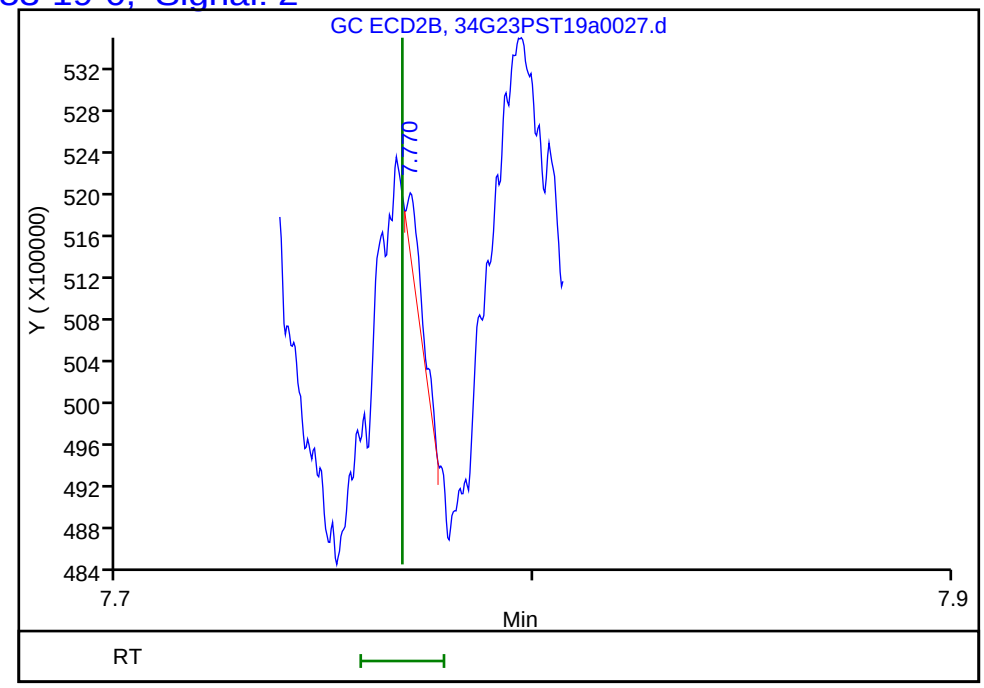
RT: 6.89
Response: 1649086
Amount: 0.674340



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 155445
Amount: 0.019718



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

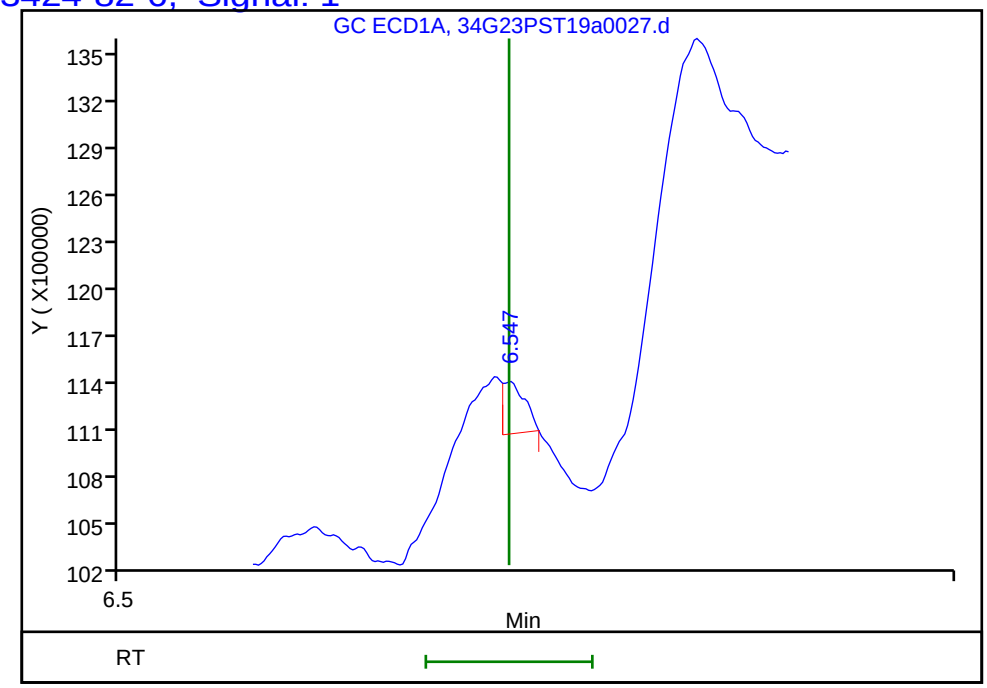
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

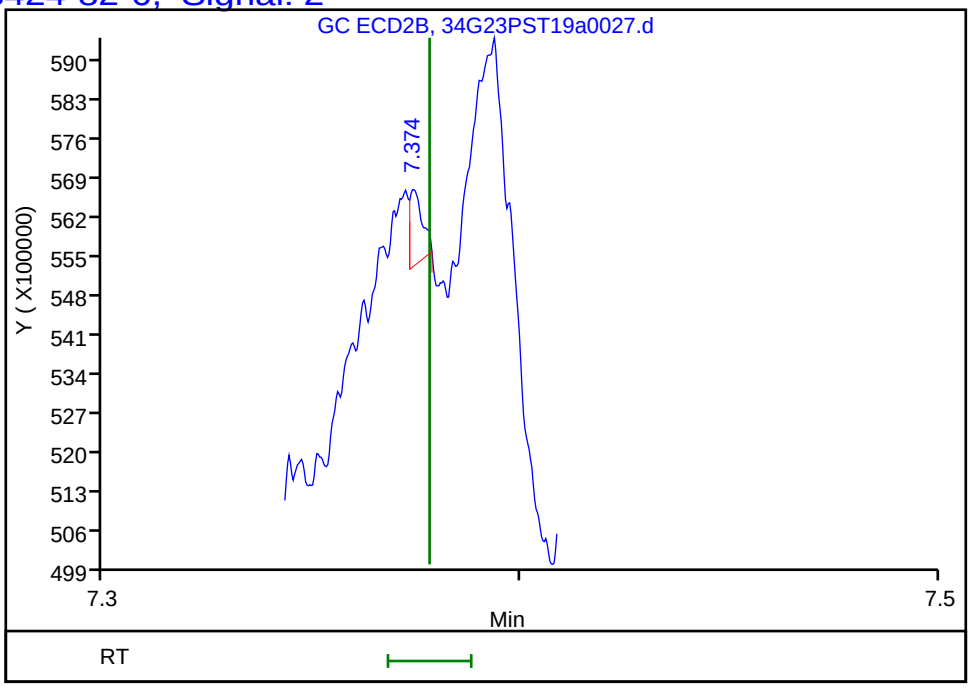
RT: 6.55
Response: 56287
Amount: 0.015653



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37
Response: 266428
Amount: 0.022096



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

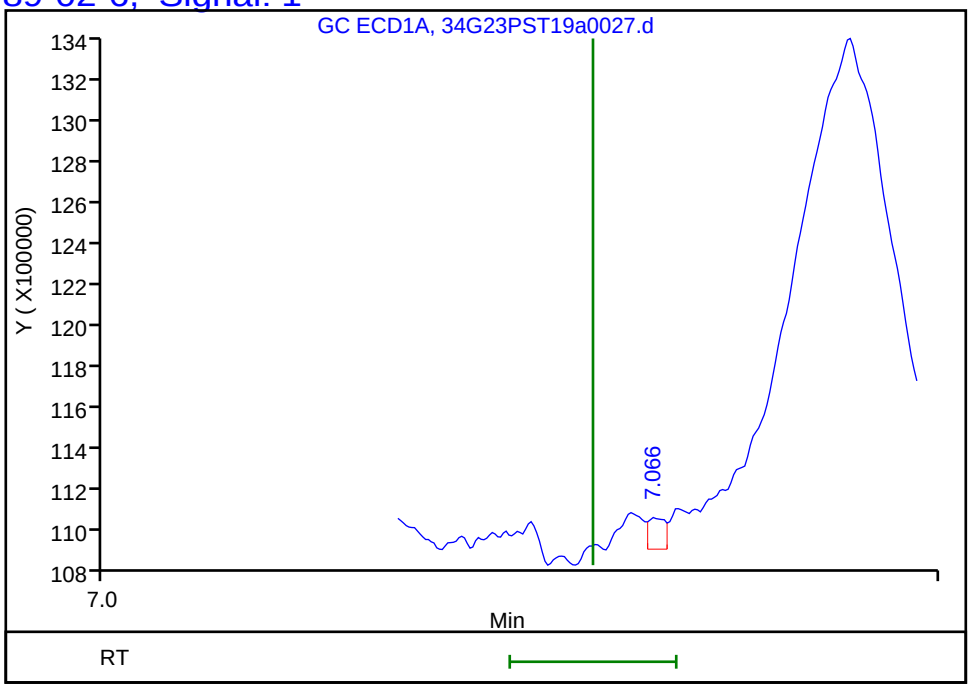
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

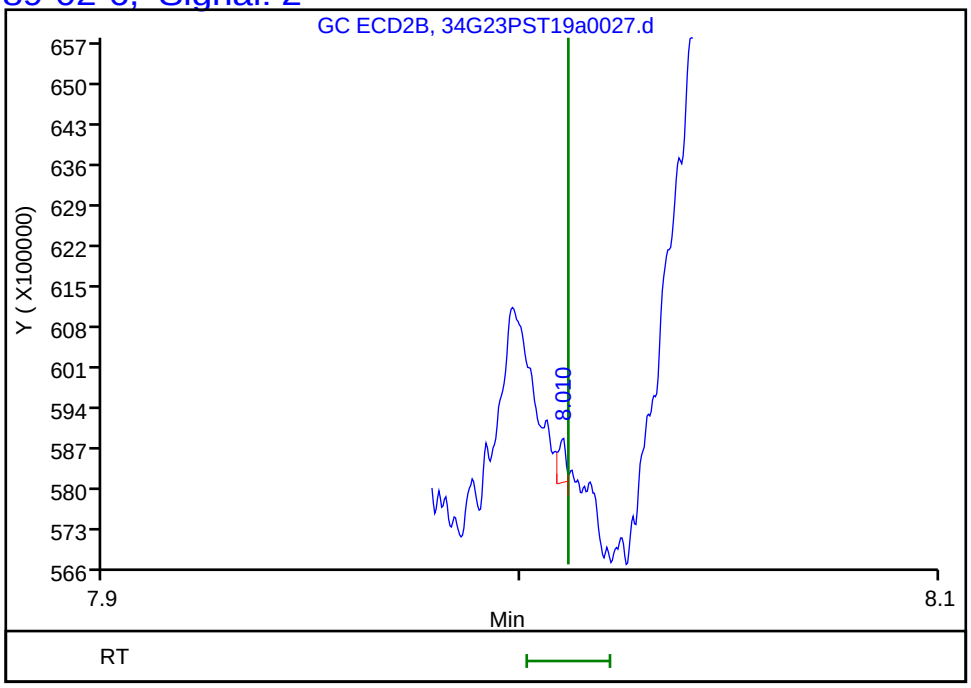
RT: 7.07
Response: 19966
Amount: 0.007622



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 89775
Amount: 0.011044



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

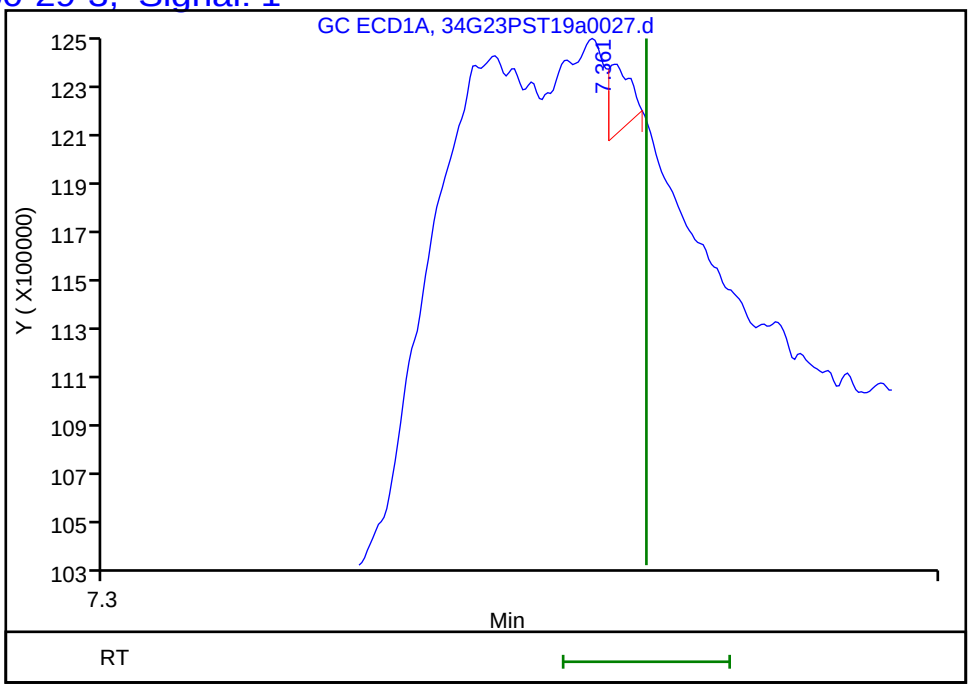
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

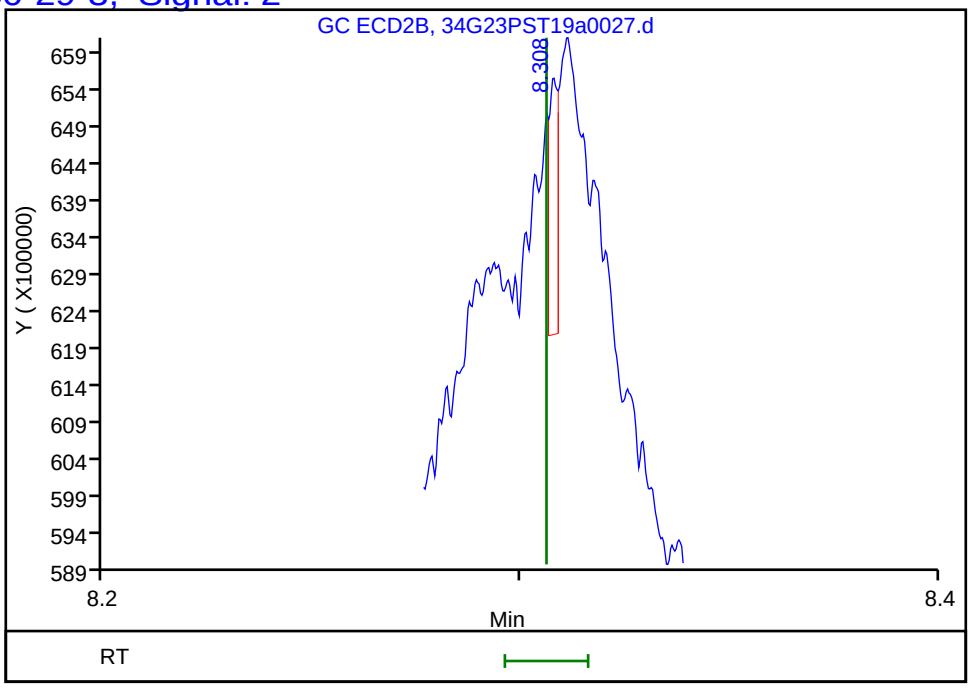
RT: 7.36
Response: 45175
Amount: 0.012970



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 460405
Amount: 0.041822



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Matrix: Solid Lab File ID: 34G23PST19a0027.d

Analysis Method: 8081B Date Collected: 07/16/2019 12:12

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.081(g) Date Analyzed: 07/23/2019 19:33

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 60.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		3.7	0.68

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Lims ID: 580-87706-A-10-B
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 19:33:39 ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-10-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:34:03 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:34:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.464	4.467	-0.003	160404788	100.0	
2	4.829	4.829	0.000	778850826	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.077	5.081	-0.004	58965140	9.05	
2	5.534	5.535	-0.001	140274754	6.52	
					RPD = 32.51	
6 PCB-1232						
1	5.256	5.265	-0.009	3611503	NC	
1	5.499	5.500	-0.001	17232	NC	
1	5.783	5.778	0.005	108401	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.375	6.380	-0.005	33372	NC	
		Average of Peak Amounts =			0	
2	0.000	5.740	-5.740	0	NC	
2	6.332	6.330	0.002	37360	NC	
2	6.424	6.424	0.000	493679	NC	
2	6.748	6.746	0.002	218923	NC	
2	7.038	7.037	0.001	46293	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.499	5.500	-0.001	17232	NC	
1	5.783	5.778	0.005	108401	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	31414	NC	
1	6.375	6.380	-0.005	33372	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	31949	NC	
2	6.332	6.330	0.002	37360	NC	
2	6.424	6.424	0.000	493679	NC	
2	6.726	6.732	-0.006	613978	NC	
2	6.991	6.994	-0.003	30726	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.499	5.500	-0.001	17232	NC	
1	5.783	5.778	0.005	108401	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.094	6.093	0.001	31414	NC	
1	6.346	6.342	0.004	296947	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	31949	NC	
2	6.332	6.330	0.002	37360	NC	
2	6.424	6.424	0.000	493679	NC	
2	6.544	6.548	-0.004	9450015	NC	
2	6.726	6.732	-0.006	613978	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.783	5.778	0.005	108401	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.094	6.093	0.001	31414	NC	
1	6.375	6.380	-0.005	33372	NC	
1	6.765	6.775	-0.010	7661508	NC	
		Average of Peak Amounts =			0	
2	6.544	6.548	-0.004	9450015	NC	
2	6.726	6.732	-0.006	613978	NC	
2	6.814	6.815	-0.001	7574669	NC	
2	7.038	7.037	0.001	46293	NC	
2	7.213	7.215	-0.002	111151	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.346	6.342	0.004	296947	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.765	6.775	-0.010	7661508	NC	
1	6.965	6.957	0.008	486590	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.038	7.037	0.001	46293	NC	
2	7.165	7.164	0.001	335139	NC	
2	7.523	7.516	0.007	34152	NC	
2	7.680	7.681	-0.001	111843	NC	
2	8.083	8.080	0.003	98371	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.765	6.768	-0.003	7661508	1.99	
2	7.606	7.607	-0.001	31297344	1.57	
					RPD = 23.48	
30 PCB-1260						M
1	6.891	6.894	-0.003	4392539	NC	M
1	7.089	7.083	0.006	2073191	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.533	7.536	-0.003	13736015	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.660	7.658	0.002	5296141	NC	
2	7.817	7.819	-0.002	106207	NC	
2	8.101	8.100	0.001	231860	NC	
2	8.418	8.414	0.004	1583854	NC	
2	8.898	8.896	0.002	55866	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.163	7.167	-0.004	3776093	1.40	
2	8.052	8.055	-0.003	14298333	1.27	M
					RPD = 9.32	
$ 45 DCB Decachlorobiphenyl						
1	8.886	8.884	0.002	33117421	3.27	
2	10.090	10.091	-0.001	95581774	5.19	
					RPD = 45.52	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:34:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d

Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034

Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10

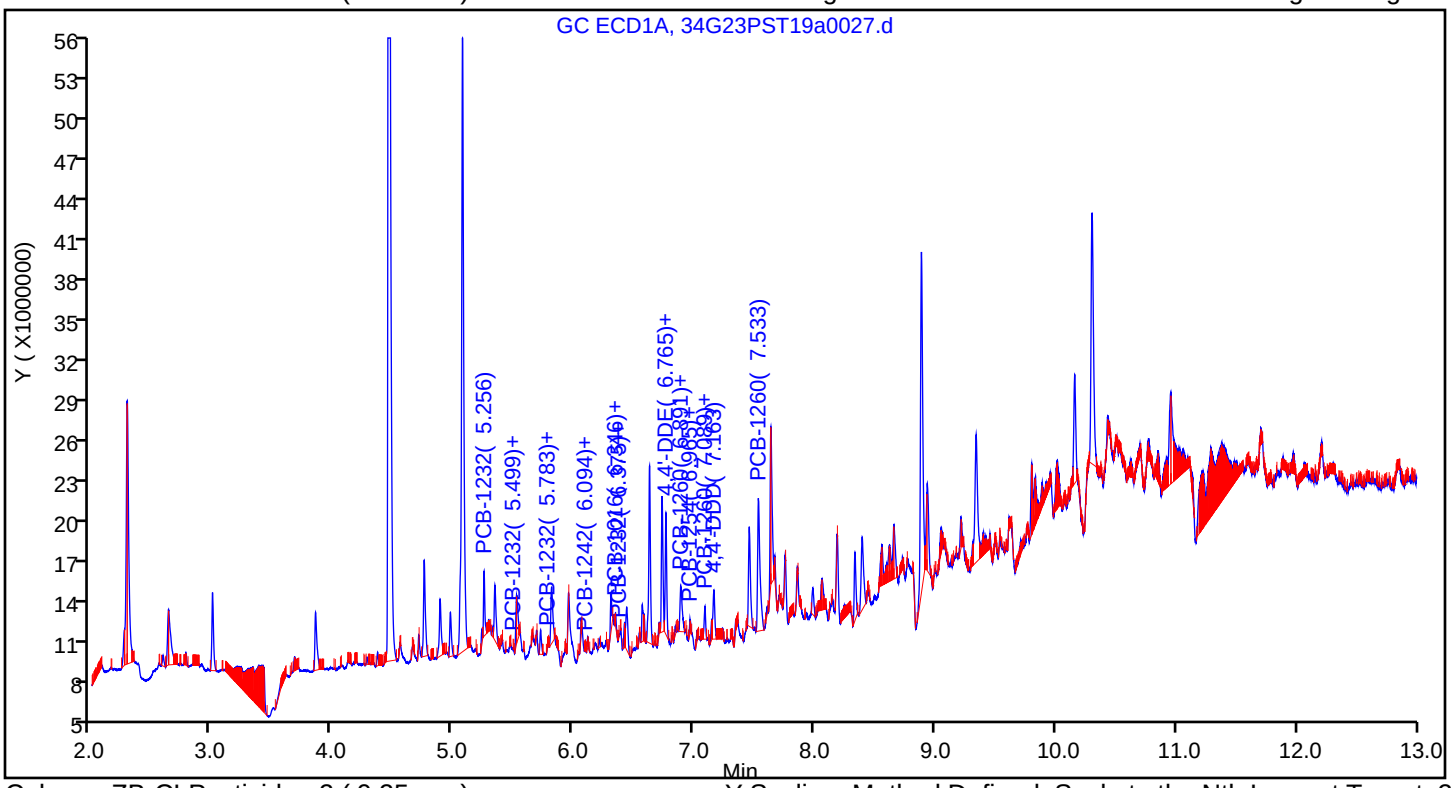
Client ID: 22T-SG-13_20190716

Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25

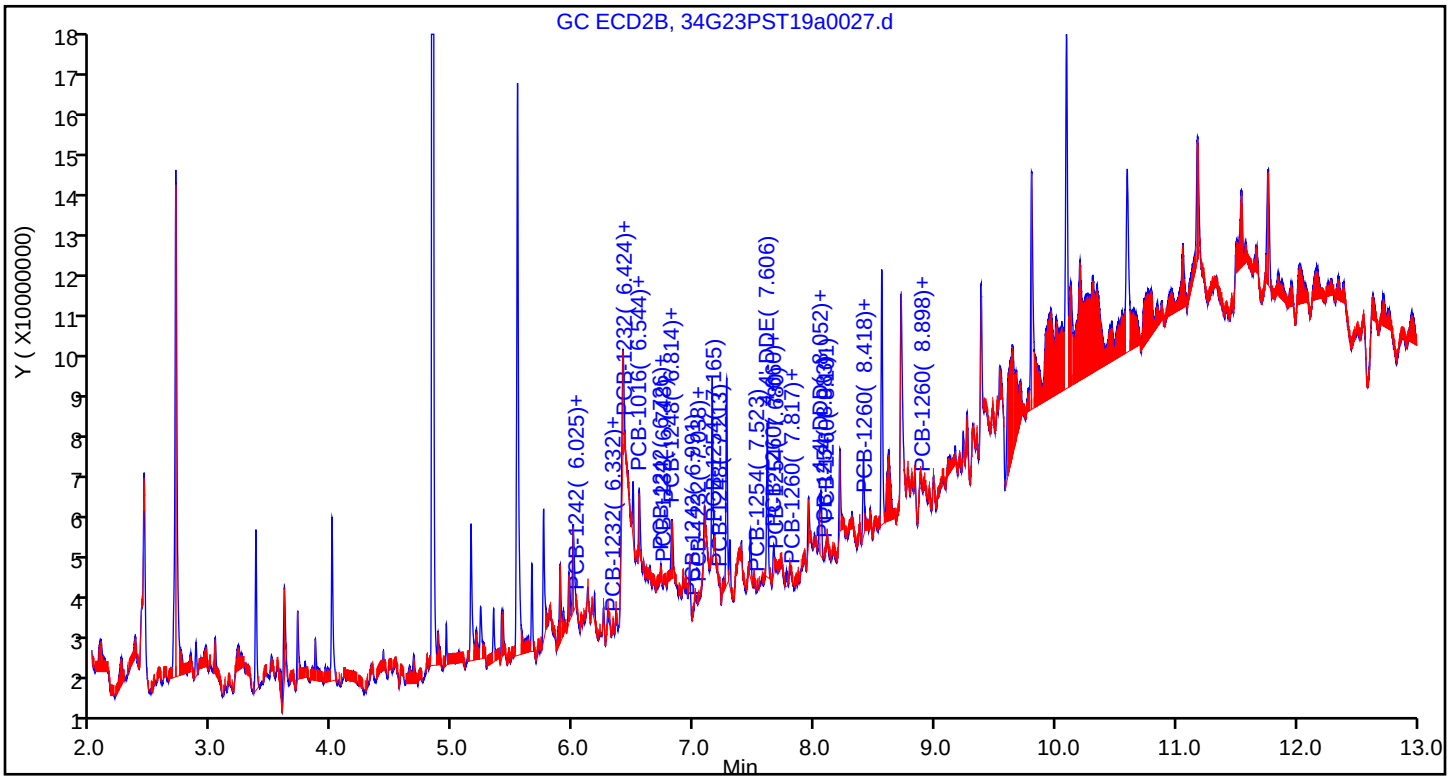
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d				
Lims ID:	580-87706-A-10-B				
Client ID:	22T-SG-13_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 19:33:39	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-10-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:34:03	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:34:03		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	9.05	108.55
$ 45 DCB Decachlorobiphenyl	25.0	3.27	39.21

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	6.52	78.19
$ 45 DCB Decachlorobiphenyl	25.0	5.19	62.32

User Disabled Compound Report

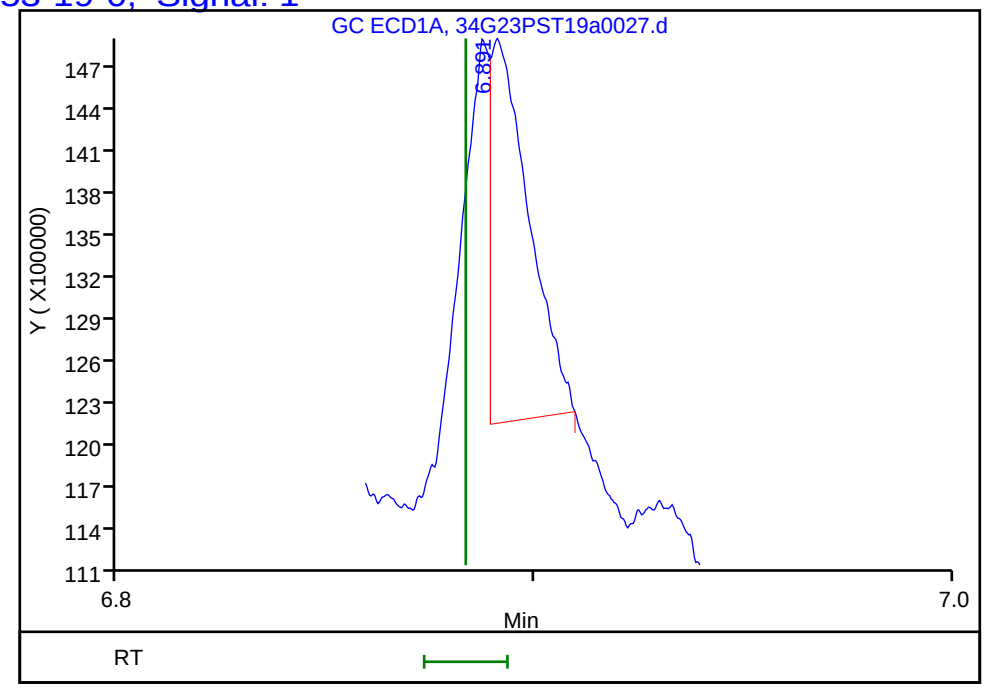
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

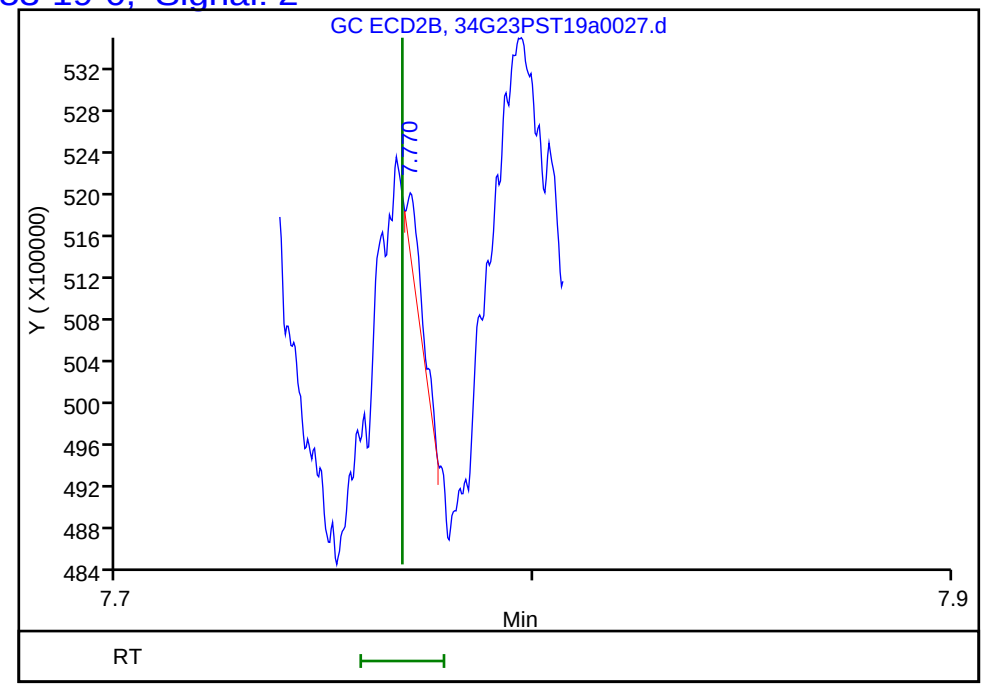
RT: 6.89
Response: 1649086
Amount: 0.674340



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 155445
Amount: 0.019718



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

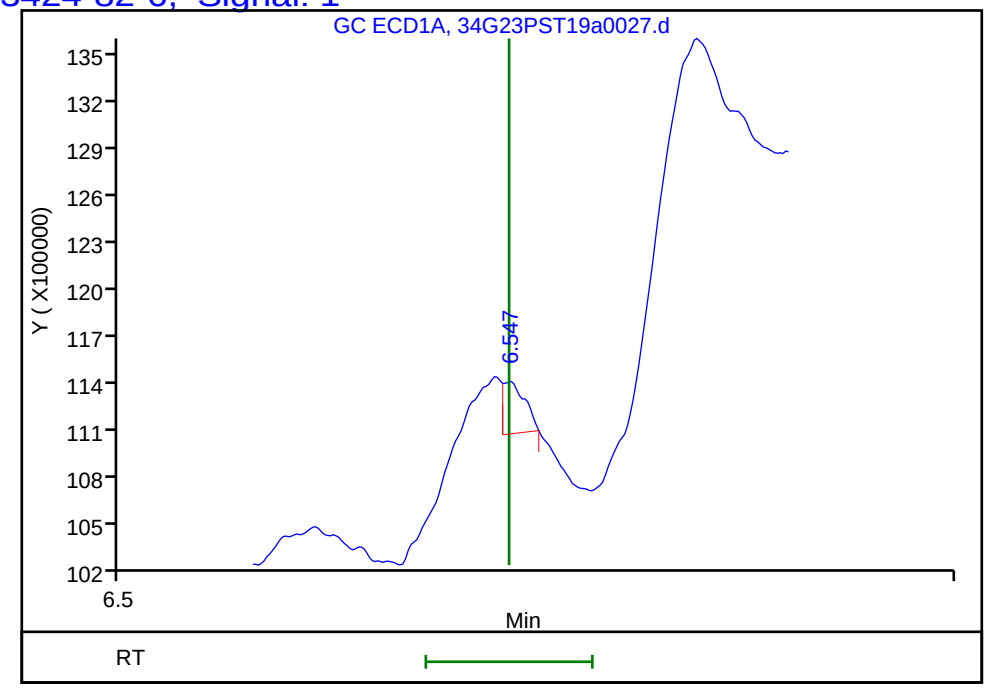
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

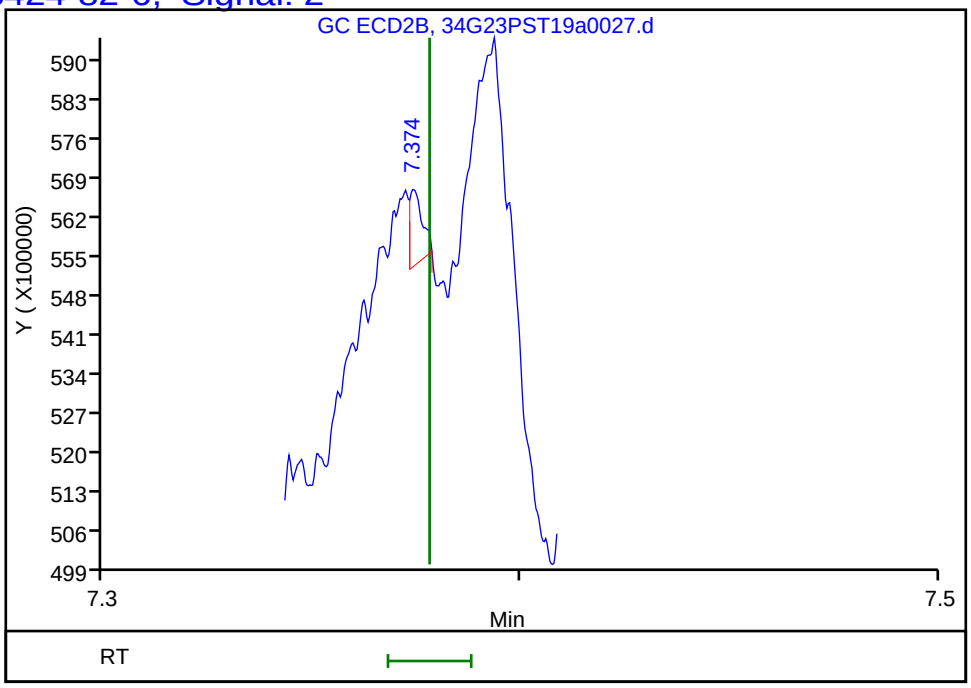
RT: 6.55
Response: 56287
Amount: 0.015653



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37
Response: 266428
Amount: 0.022096



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

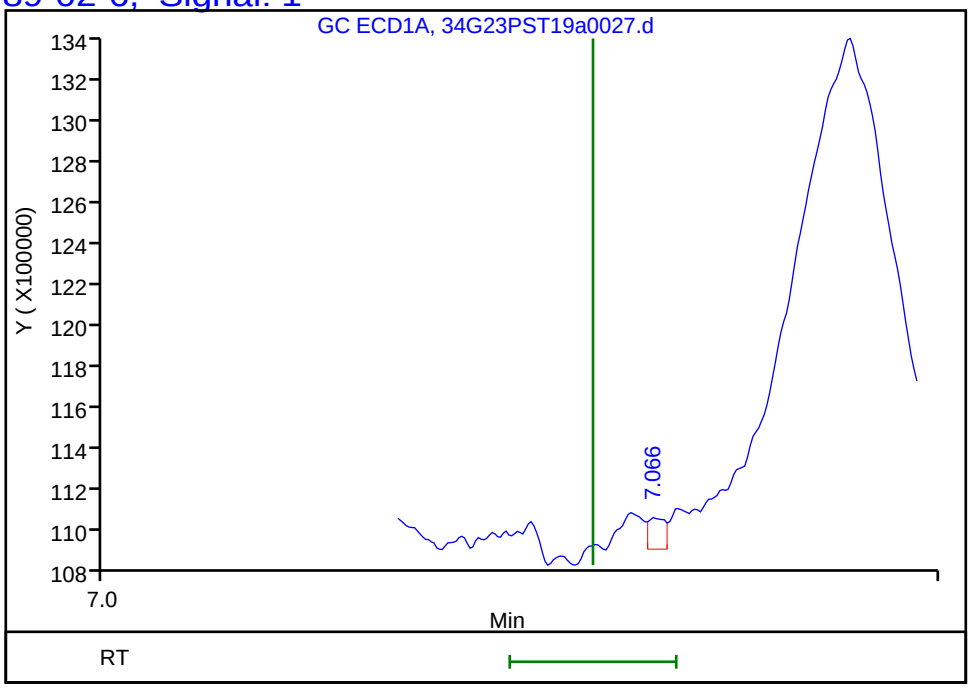
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

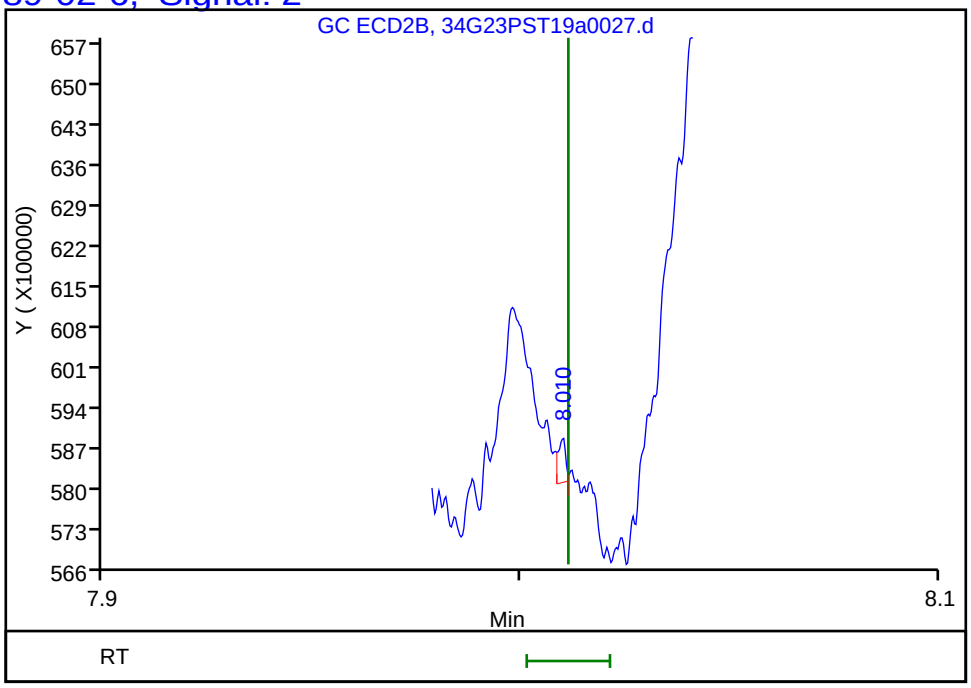
RT: 7.07
Response: 19966
Amount: 0.007622



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 89775
Amount: 0.011044



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

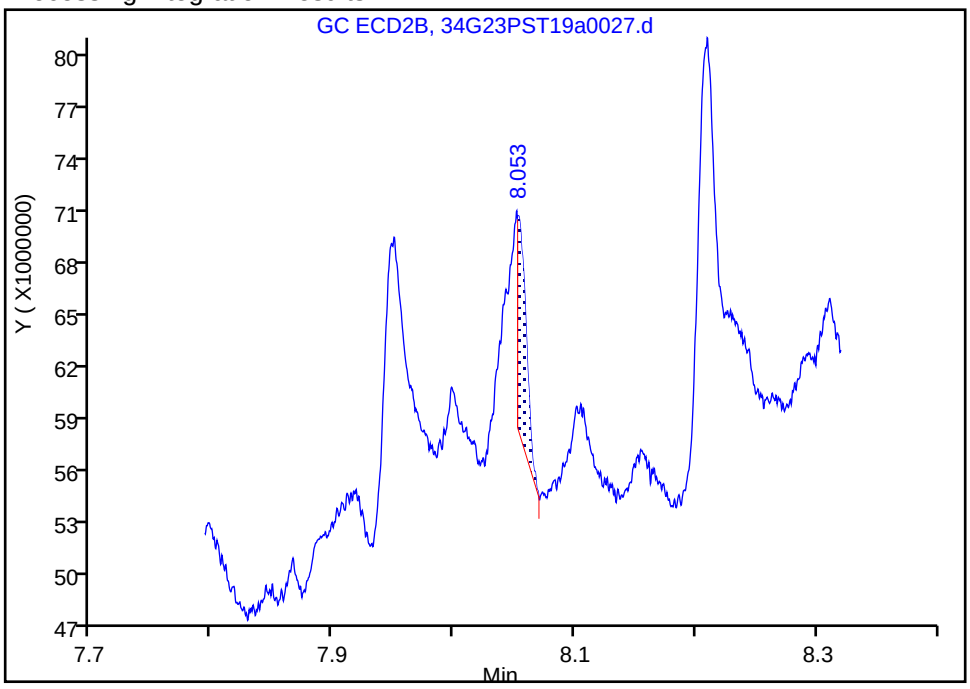
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d				
Injection Date:	23-Jul-2019 19:33:39	Instrument ID:	TAC034		
Lims ID:	580-87706-A-10-B	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	CJB	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

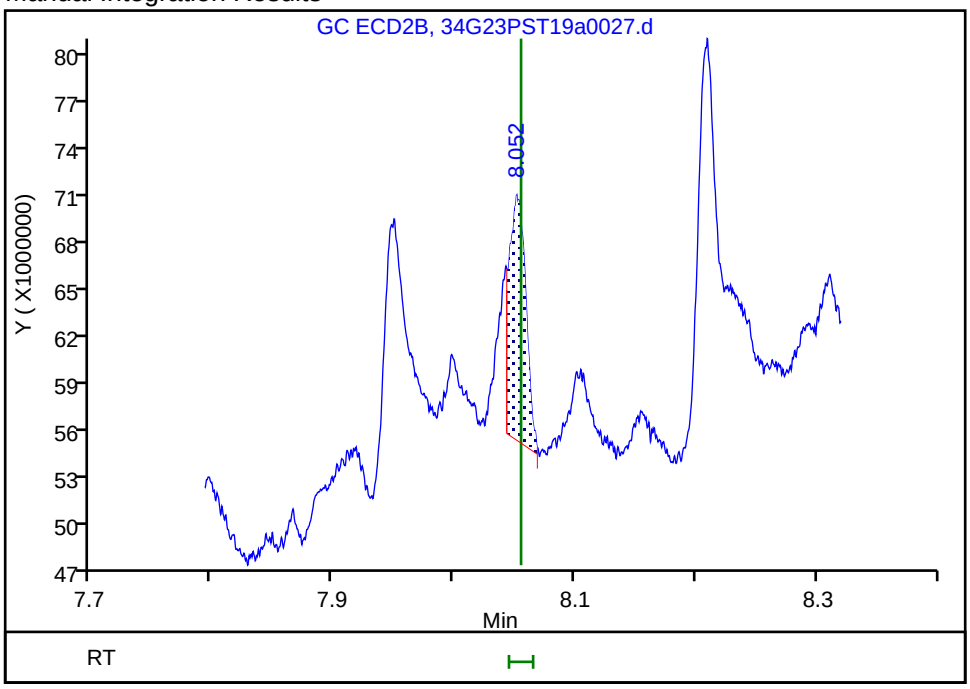
Processing Integration Results

RT: 8.05
Area: 5815743
Amount: 0.518058
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 14298333
Amount: 1.273676
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:33:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

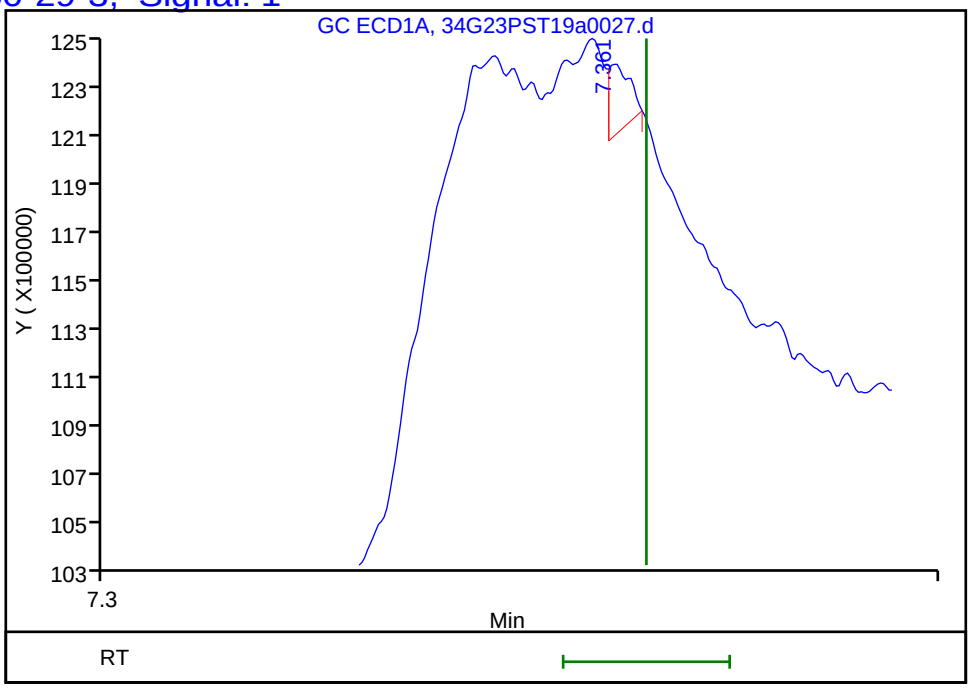
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0027.d
Injection Date: 23-Jul-2019 19:33:39 Instrument ID: TAC034
Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10
Client ID: 22T-SG-13_20190716
Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

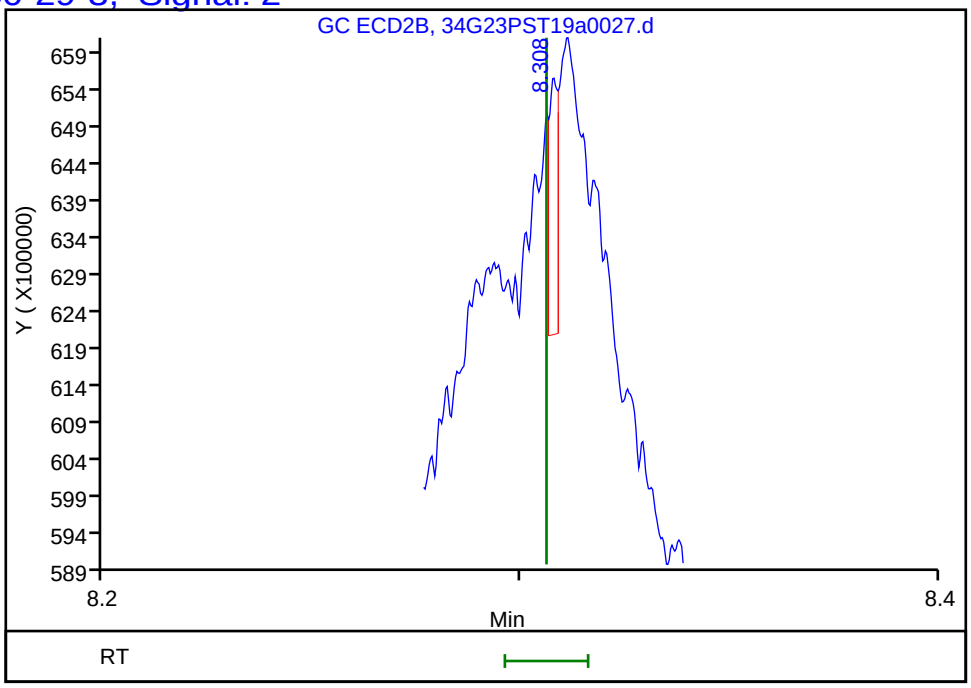
RT: 7.36
Response: 45175
Amount: 0.012970



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31
Response: 460405
Amount: 0.041822



Reviewer: limwirojt, 24-Jul-2019 12:34:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Matrix: Solid Lab File ID: 34G23PST19a0028.d

Analysis Method: 8081B Date Collected: 07/16/2019 12:30

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 22.662(g) Date Analyzed: 07/23/2019 19:53

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 60.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
789-02-6	2,4'-DDT	ND		3.4	1.3
72-54-8	4,4'-DDD	0.96	J	1.3	0.26
72-55-9	4,4'-DDE	1.1	J	1.3	0.36
50-29-3	4,4'-DDT	ND		1.3	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	37		36-136
877-09-8	Tetrachloro-m-xylene	54		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d
Lims ID: 580-87706-A-11-B
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 19:53:03 ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-11-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:37:00 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:37:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.465	4.467	-0.002	156322096	100.0	
2	4.829	4.829	0.000	652247625	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.078	5.081	-0.003	28713232	4.52	
2	5.534	5.535	-0.001	87617953	4.88	
					RPD = 7.58	
6 PCB-1232						
1	0.000	5.265	-5.265	0	NC	
1	5.492	5.500	-0.008	18556	NC	
1	5.782	5.778	0.004	81566	NC	
1	5.984	5.979	0.005	166538	NC	
1	6.389	6.380	0.009	87777	NC	
		Average of Peak Amounts =			0	
2	5.737	5.740	-0.003	38762	NC	
2	6.332	6.330	0.002	77320	NC	
2	6.427	6.424	0.003	1017855	NC	
2	0.000	6.746	-6.746	0	NC	
2	7.035	7.037	-0.002	30348	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.492	5.500	-0.008	18556	NC	
1	5.782	5.778	0.004	81566	NC	
1	6.010	6.009	0.001	21024	NC	
1	6.102	6.093	0.009	18076	NC	
1	6.389	6.380	0.009	87777	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	49462	NC	
2	6.332	6.330	0.002	77320	NC	
2	6.427	6.424	0.003	1017855	NC	
2	6.725	6.732	-0.007	967864	NC	
2	6.999	6.994	0.005	54939	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.492	5.500	-0.008	18556	NC	
1	5.782	5.778	0.004	81566	NC	
1	6.010	6.009	0.001	21024	NC	
1	6.102	6.093	0.009	18076	NC	
1	6.344	6.342	0.002	42392	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	49462	NC	
2	6.332	6.330	0.002	77320	NC	
2	6.427	6.424	0.003	1017855	NC	
2	6.545	6.548	-0.003	16678306	NC	
2	6.725	6.732	-0.007	967864	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.782	5.778	0.004	81566	NC	
1	5.984	5.979	0.005	166538	NC	
1	6.102	6.093	0.009	18076	NC	
1	6.389	6.380	0.009	87777	NC	
1	6.766	6.775	-0.009	4608671	NC	
		Average of Peak Amounts =			0	
2	6.545	6.548	-0.003	16678306	NC	
2	6.725	6.732	-0.007	967864	NC	
2	6.820	6.815	0.005	3371373	NC	
2	7.035	7.037	-0.002	30348	NC	
2	7.217	7.215	0.002	104102	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.344	6.342	0.002	42392	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.766	6.775	-0.009	4608671	NC	
1	6.967	6.957	0.010	219983	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.035	7.037	-0.002	30348	NC	
2	7.171	7.164	0.007	3980563	NC	
2	7.516	7.516	0.000	41861	NC	
2	7.680	7.681	-0.001	321291	NC	
2	0.000	8.080	-8.080	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						M
1	6.766	6.768	-0.002	4608671	1.57	
2	7.608	7.607	0.001	33860437	2.03	M
					RPD = 25.86	
28 2,4'-DDD						M
1	6.889	6.883	0.006	4749179	1.99	
2	7.768	7.768	0.000	4324930	0.6551	M
					RPD = 101.04	
30 PCB-1260						
1	6.889	6.894	-0.005	4749179	NC	
1	7.086	7.083	0.003	233596	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.535	7.536	-0.001	912243	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.660	7.658	0.002	2368353	NC	
2	0.000	7.819	-7.819	0	NC	
2	8.102	8.100	0.002	94421	NC	
2	8.408	8.414	-0.006	845069	NC	
2	8.897	8.896	0.001	33772	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.163	7.167	-0.004	3759598	1.42	M
2	8.057	8.055	0.002	15313135	1.63	M
					RPD = 13.76	
$ 45 DCB Decachlorobiphenyl						
1	8.887	8.884	0.003	30888337	3.07	
2	10.094	10.091	0.003	58417006	3.68	
					RPD = 18.25	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 24-Jul-2019 12:37:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:37:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d

Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034

Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11

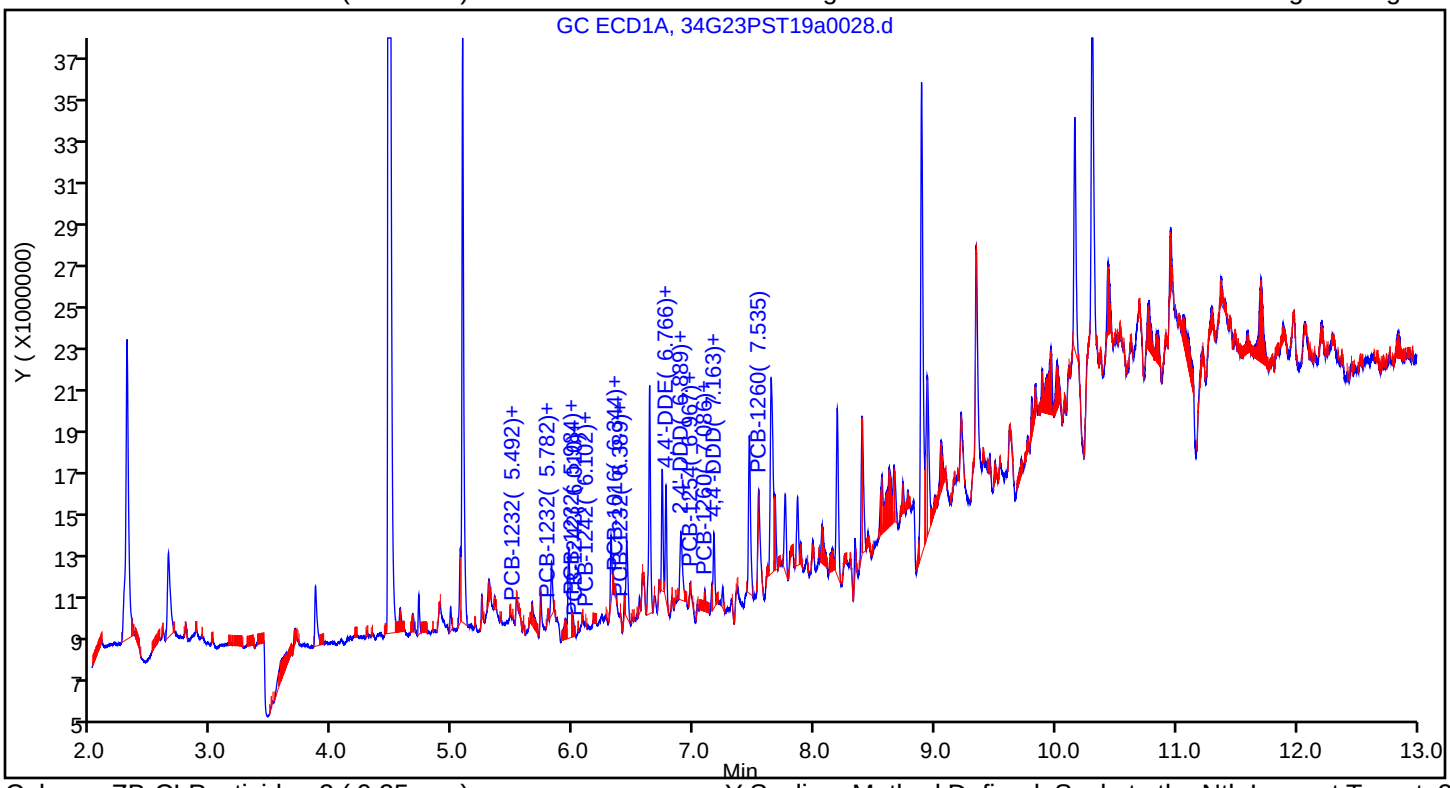
Client ID: 22T-SG-22_20190716

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

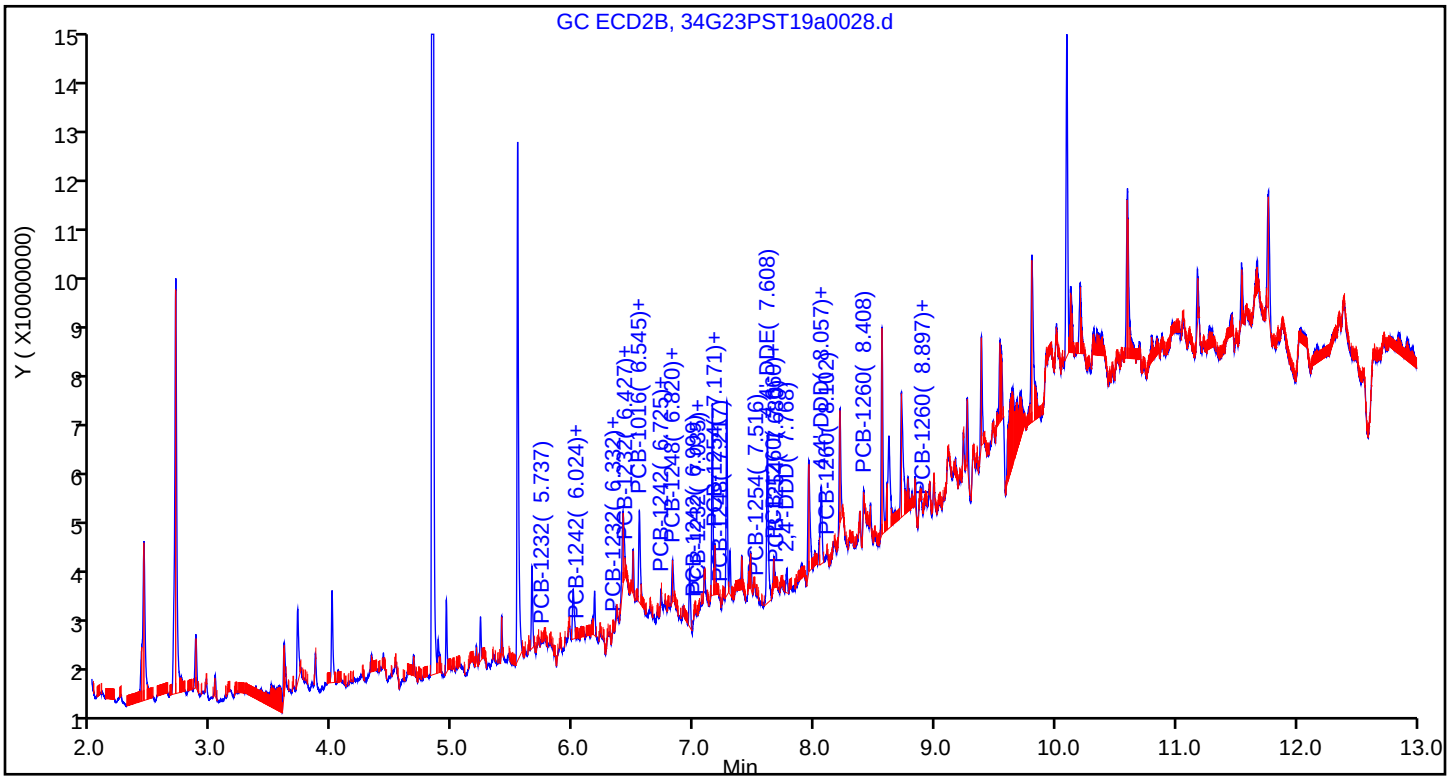
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d				
Lims ID:	580-87706-A-11-B				
Client ID:	22T-SG-22_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 19:53:03	ALS Bottle#:	24	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-11-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:37:00	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:37:00		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.52	54.24
$ 45 DCB Decachlorobiphenyl	25.0	3.07	36.80

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.88	58.52
$ 45 DCB Decachlorobiphenyl	25.0	3.68	44.19

User Disabled Compound Report

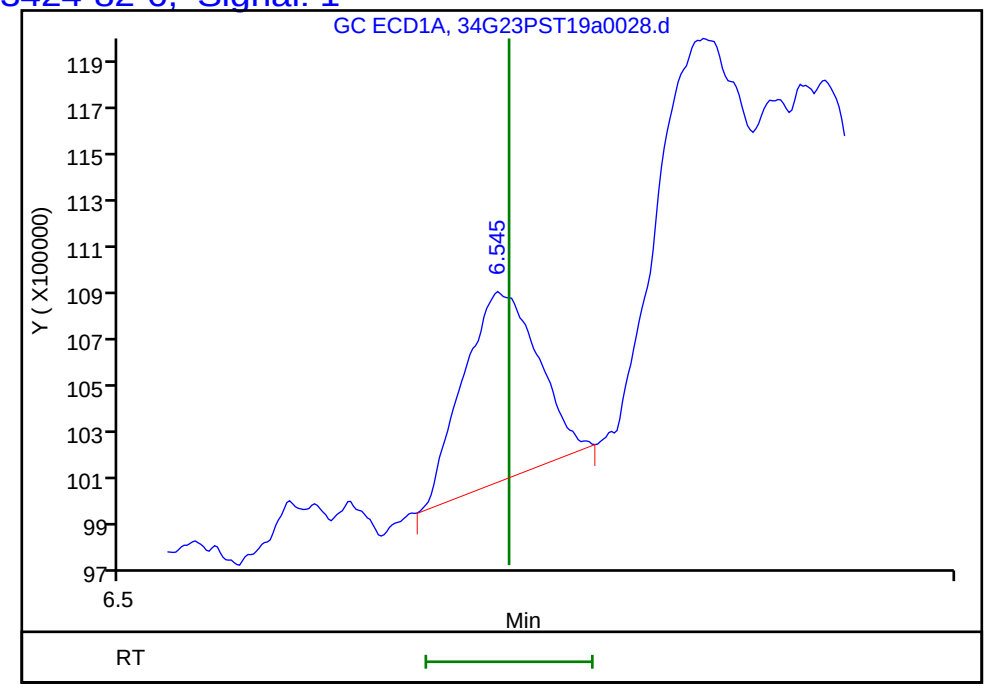
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d
Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034
Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11
Client ID: 22T-SG-22_20190716
Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

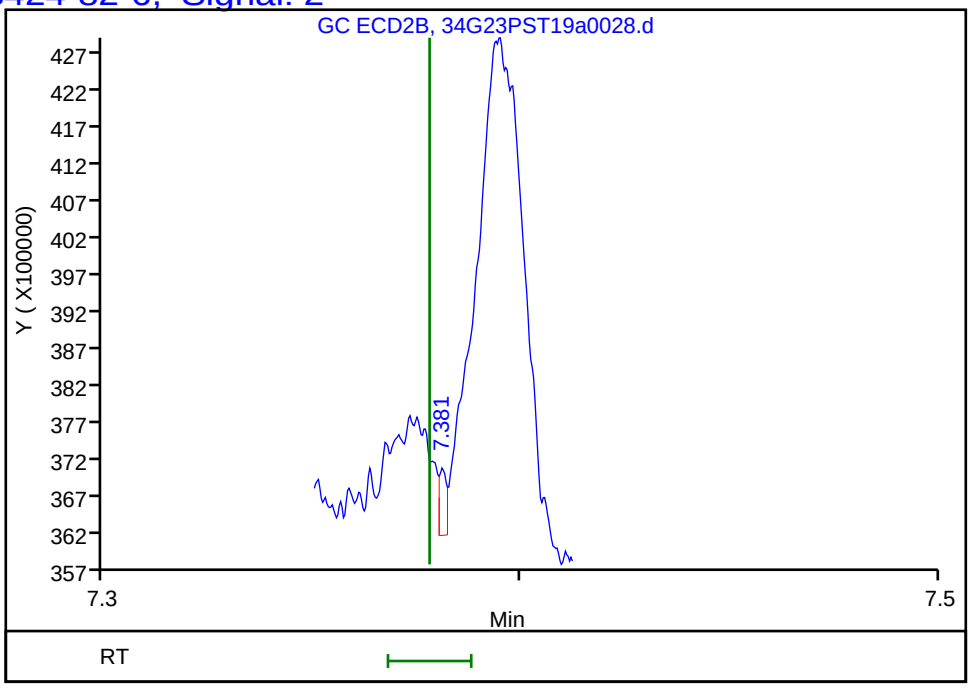
RT: 6.55
Response: 508439
Amount: 0.145084



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 97115
Amount: 0.009617



Reviewer: limwirojt, 24-Jul-2019 12:37:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d

Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034

Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11

Client ID: 22T-SG-22_20190716

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

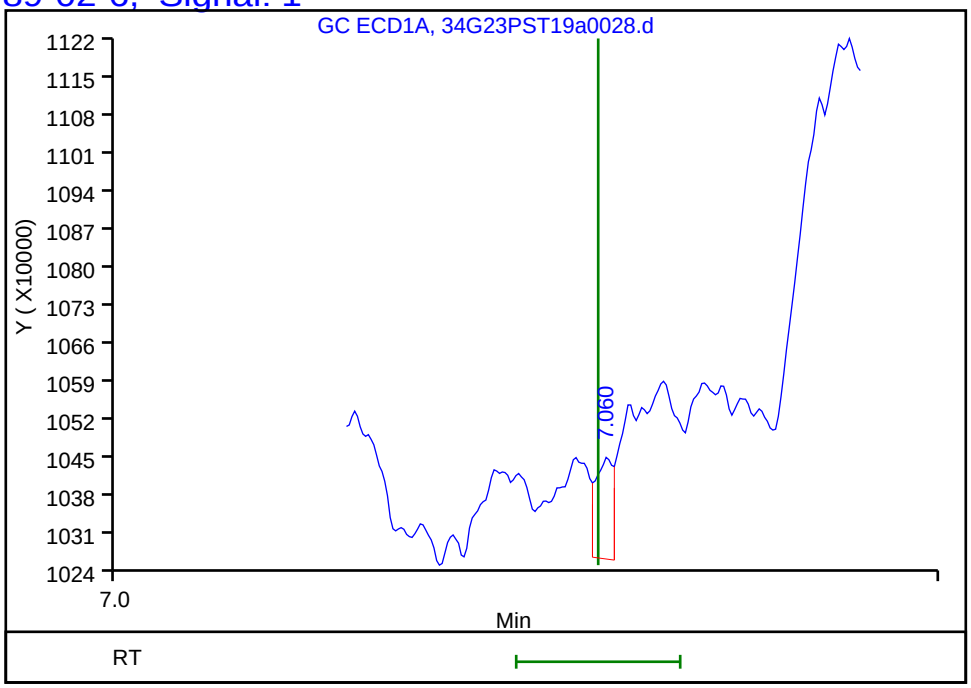
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

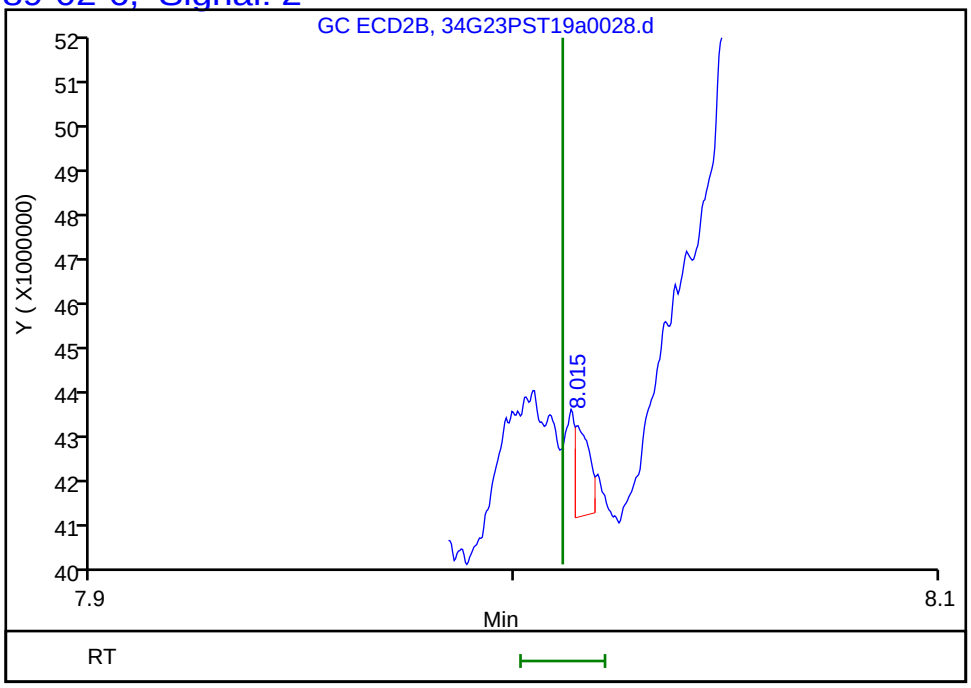
RT: 7.06
Response: 26692
Amount: 0.010456



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 411498
Amount: 0.060450



Reviewer: limwirojt, 24-Jul-2019 12:37:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

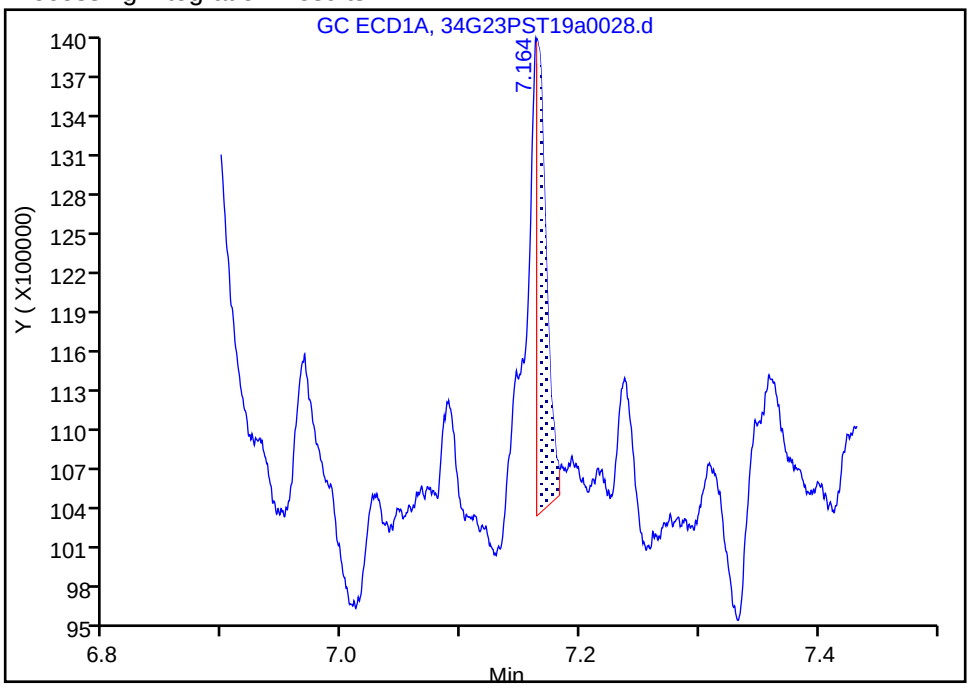
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d		
Injection Date:	23-Jul-2019 19:53:03	Instrument ID:	TAC034
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11
Client ID:	22T-SG-22_20190716		
Operator ID:	CJB	ALS Bottle#:	24 Worklist Smp#: 26
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

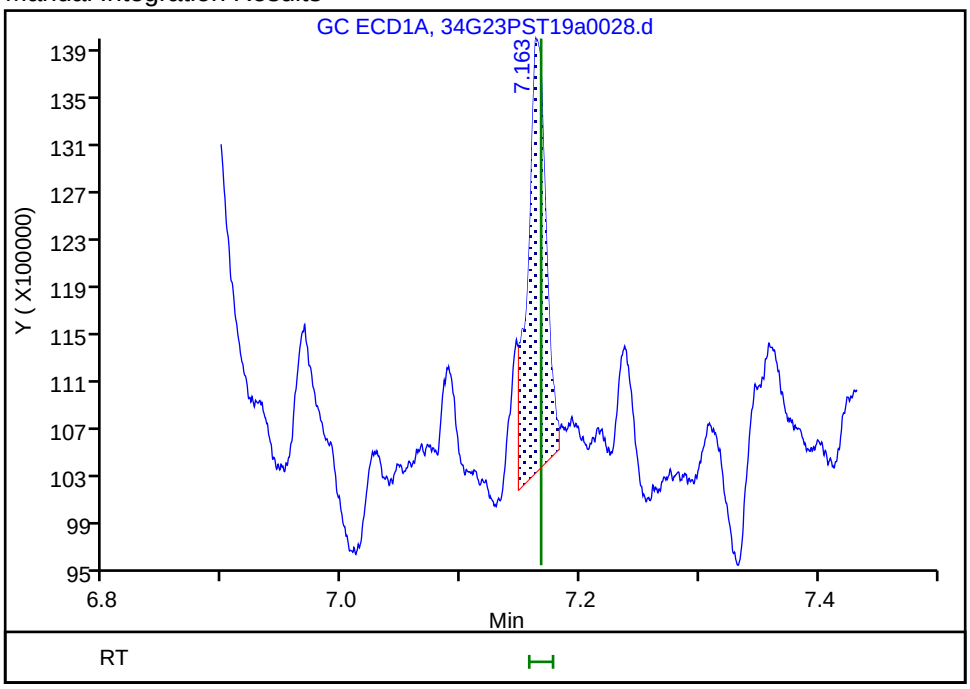
Processing Integration Results

RT: 7.16
Area: 1957582
Amount: 0.945481
Amount Units: ug/L



Manual Integration Results

RT: 7.16
Area: 3759598
Amount: 1.419169
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:36:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d

Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034

Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11

Client ID: 22T-SG-22_20190716

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

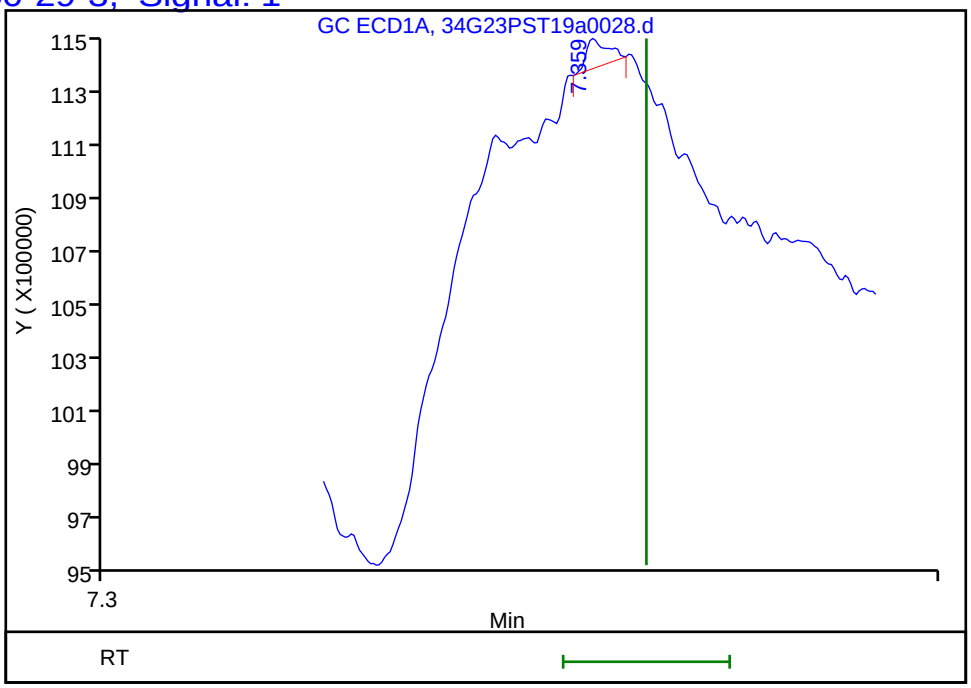
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 17557

Amount: 0.005173



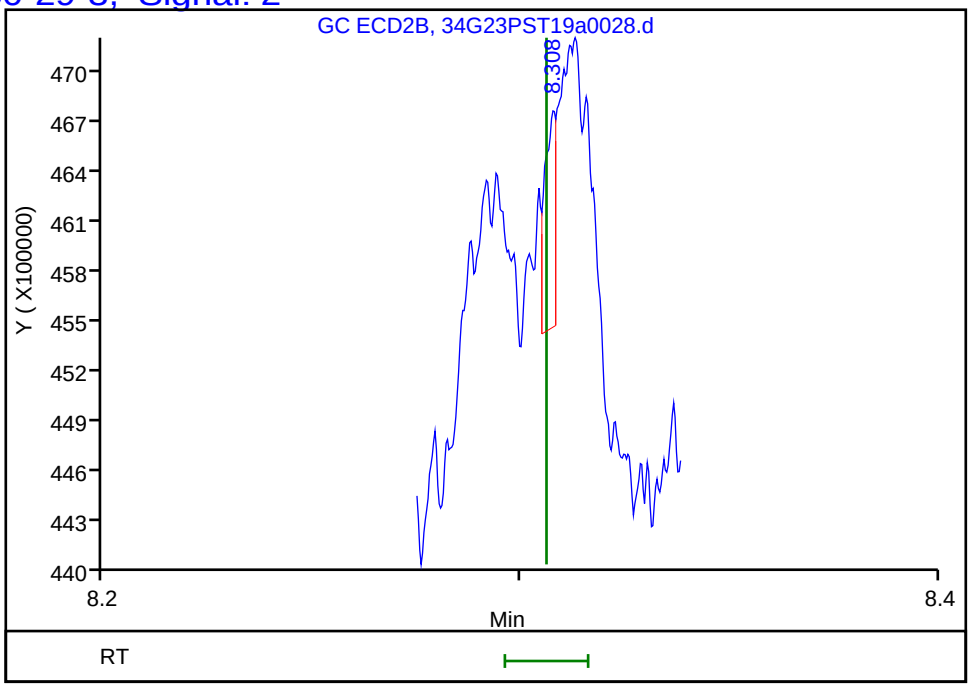
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 215973

Amount: 0.023427



Reviewer: limwirojt, 24-Jul-2019 12:37:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Matrix: Solid Lab File ID: 34G23PST19a0028.d

Analysis Method: 8081B Date Collected: 07/16/2019 12:30

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 22.662(g) Date Analyzed: 07/23/2019 19:53

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 60.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.4	0.74
3424-82-6	2,4'-DDE	ND		3.4	0.61

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d
Lims ID: 580-87706-A-11-B
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 19:53:03 ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-11-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:37:00 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:37:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.465	4.467	-0.002	156322096	100.0	
2	4.829	4.829	0.000	652247625	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.078	5.081	-0.003	28713232	4.52	
2	5.534	5.535	-0.001	87617953	4.88	
					RPD = 7.58	
6 PCB-1232						
1	0.000	5.265	-5.265	0	NC	
1	5.492	5.500	-0.008	18556	NC	
1	5.782	5.778	0.004	81566	NC	
1	5.984	5.979	0.005	166538	NC	
1	6.389	6.380	0.009	87777	NC	
		Average of Peak Amounts =			0	
2	5.737	5.740	-0.003	38762	NC	
2	6.332	6.330	0.002	77320	NC	
2	6.427	6.424	0.003	1017855	NC	
2	0.000	6.746	-6.746	0	NC	
2	7.035	7.037	-0.002	30348	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.492	5.500	-0.008	18556	NC	
1	5.782	5.778	0.004	81566	NC	
1	6.010	6.009	0.001	21024	NC	
1	6.102	6.093	0.009	18076	NC	
1	6.389	6.380	0.009	87777	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	49462	NC	
2	6.332	6.330	0.002	77320	NC	
2	6.427	6.424	0.003	1017855	NC	
2	6.725	6.732	-0.007	967864	NC	
2	6.999	6.994	0.005	54939	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.492	5.500	-0.008	18556	NC	
1	5.782	5.778	0.004	81566	NC	
1	6.010	6.009	0.001	21024	NC	
1	6.102	6.093	0.009	18076	NC	
1	6.344	6.342	0.002	42392	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	49462	NC	
2	6.332	6.330	0.002	77320	NC	
2	6.427	6.424	0.003	1017855	NC	
2	6.545	6.548	-0.003	16678306	NC	
2	6.725	6.732	-0.007	967864	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.782	5.778	0.004	81566	NC	
1	5.984	5.979	0.005	166538	NC	
1	6.102	6.093	0.009	18076	NC	
1	6.389	6.380	0.009	87777	NC	
1	6.766	6.775	-0.009	4608671	NC	
		Average of Peak Amounts =			0	
2	6.545	6.548	-0.003	16678306	NC	
2	6.725	6.732	-0.007	967864	NC	
2	6.820	6.815	0.005	3371373	NC	
2	7.035	7.037	-0.002	30348	NC	
2	7.217	7.215	0.002	104102	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.344	6.342	0.002	42392	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.766	6.775	-0.009	4608671	NC	
1	6.967	6.957	0.010	219983	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	7.035	7.037	-0.002	30348	NC	
2	7.171	7.164	0.007	3980563	NC	
2	7.516	7.516	0.000	41861	NC	
2	7.680	7.681	-0.001	321291	NC	
2	0.000	8.080	-8.080	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						M
1	6.766	6.768	-0.002	4608671	1.57	
2	7.608	7.607	0.001	33860437	2.03	M
					RPD = 25.86	
28 2,4'-DDD						M
1	6.889	6.883	0.006	4749179	1.99	
2	7.768	7.768	0.000	4324930	0.6551	M
					RPD = 101.04	
30 PCB-1260						
1	6.889	6.894	-0.005	4749179	NC	
1	7.086	7.083	0.003	233596	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.535	7.536	-0.001	912243	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.660	7.658	0.002	2368353	NC	
2	0.000	7.819	-7.819	0	NC	
2	8.102	8.100	0.002	94421	NC	
2	8.408	8.414	-0.006	845069	NC	
2	8.897	8.896	0.001	33772	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.163	7.167	-0.004	3759598	1.42	M
2	8.057	8.055	0.002	15313135	1.63	M
					RPD = 13.76	
$ 45 DCB Decachlorobiphenyl						
1	8.887	8.884	0.003	30888337	3.07	
2	10.094	10.091	0.003	58417006	3.68	
					RPD = 18.25	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 24-Jul-2019 12:37:03 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:37:03 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d

Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034

Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11

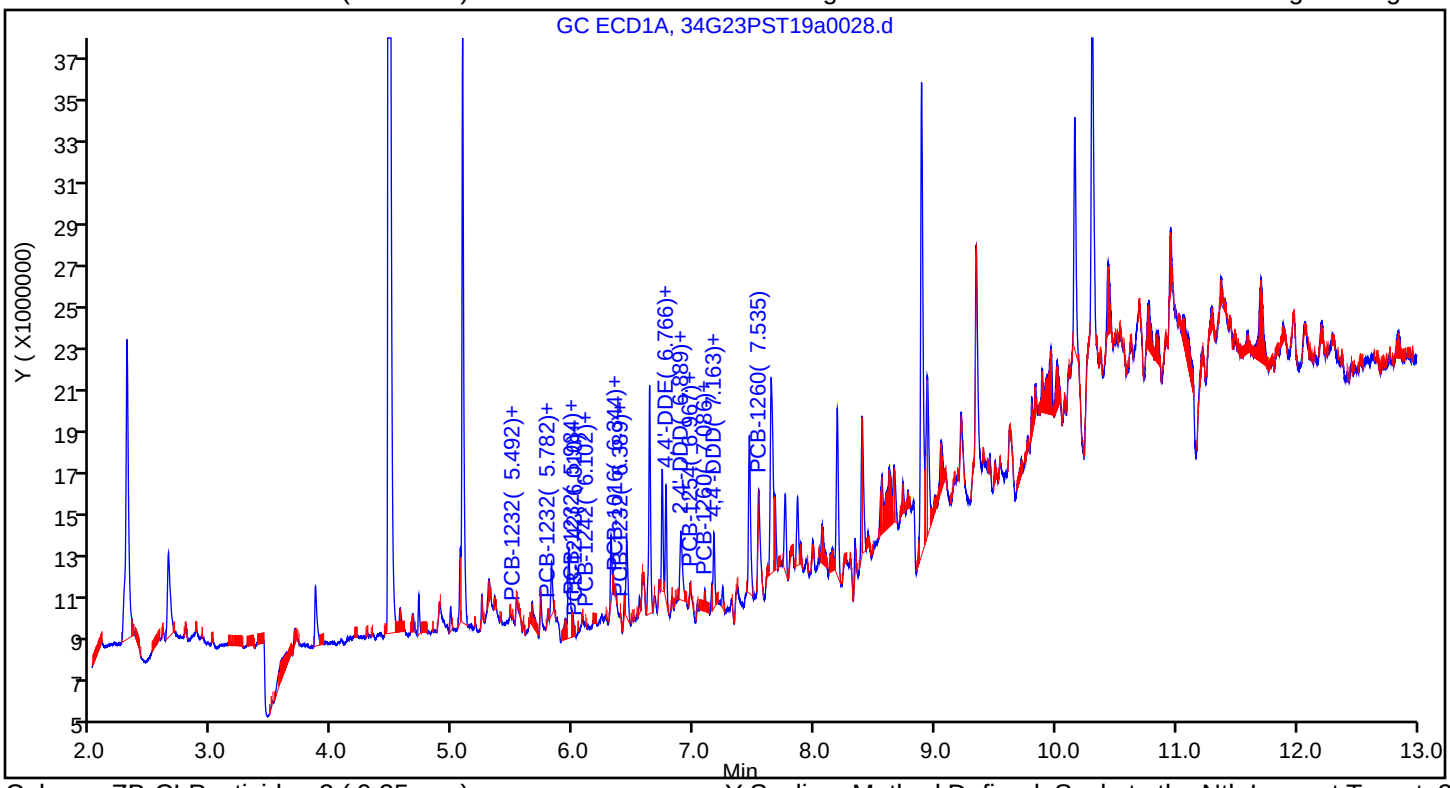
Client ID: 22T-SG-22_20190716

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

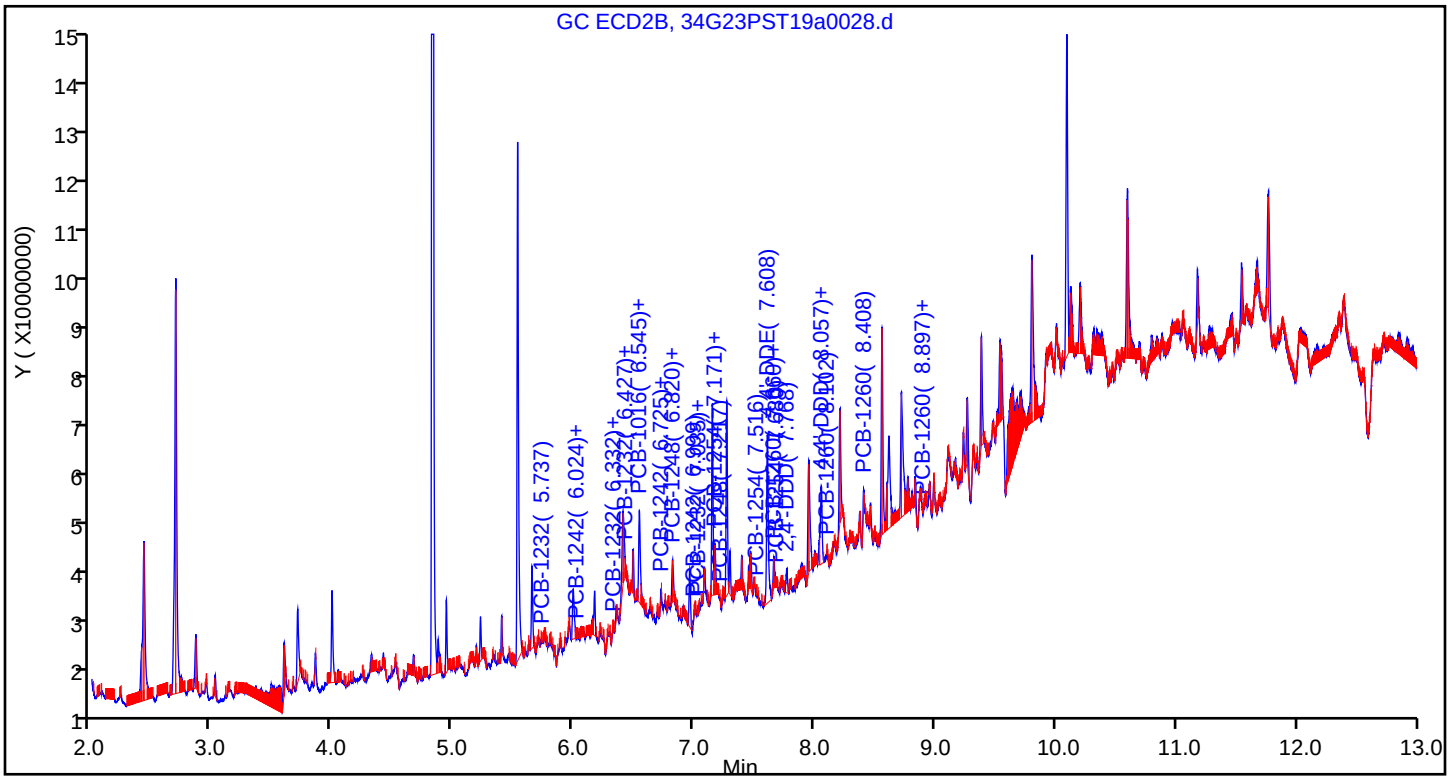
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d				
Lims ID:	580-87706-A-11-B				
Client ID:	22T-SG-22_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 19:53:03	ALS Bottle#:	24	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-11-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:37:00	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:37:00		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.52	54.24
$ 45 DCB Decachlorobiphenyl	25.0	3.07	36.80

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.88	58.52
$ 45 DCB Decachlorobiphenyl	25.0	3.68	44.19

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

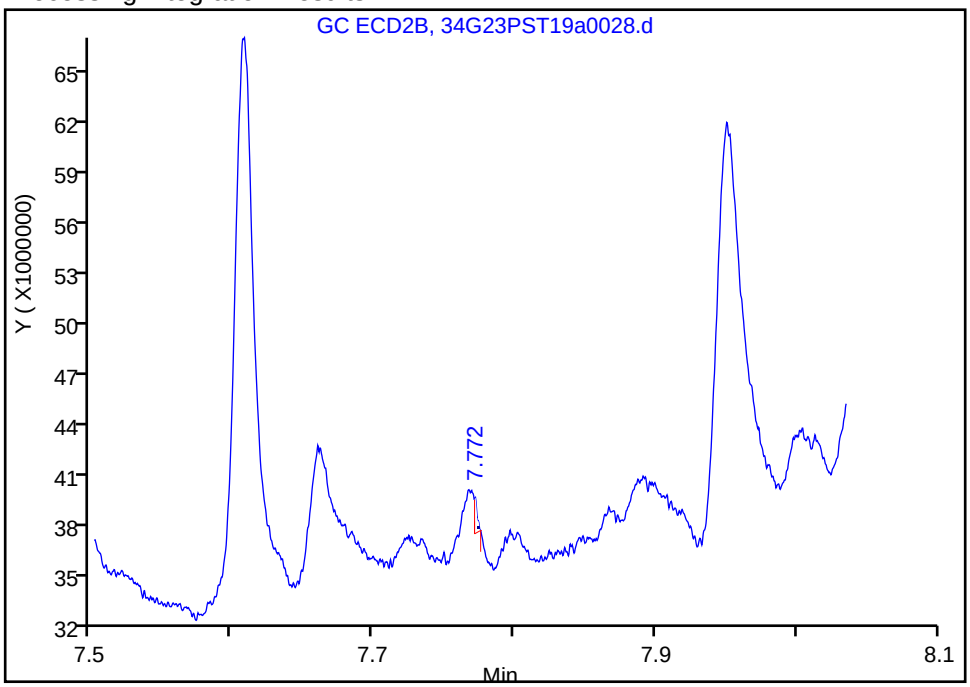
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d		
Injection Date:	23-Jul-2019 19:53:03	Instrument ID:	TAC034
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11
Client ID:	22T-SG-22_20190716		
Operator ID:	CJB	ALS Bottle#:	24 Worklist Smp#: 26
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

28 2,4'-DDD, CAS: 53-19-0

Signal: 2

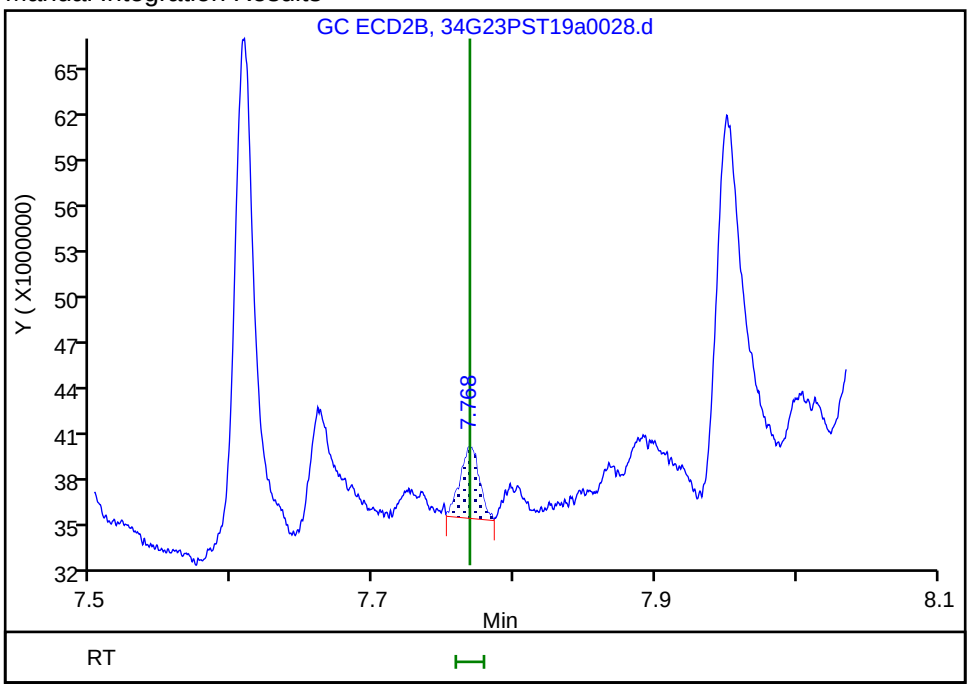
Processing Integration Results

RT: 7.77
Area: 252189
Amount: 0.038199
Amount Units: ug/L



Manual Integration Results

RT: 7.77
Area: 4324930
Amount: 0.655099
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:36:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

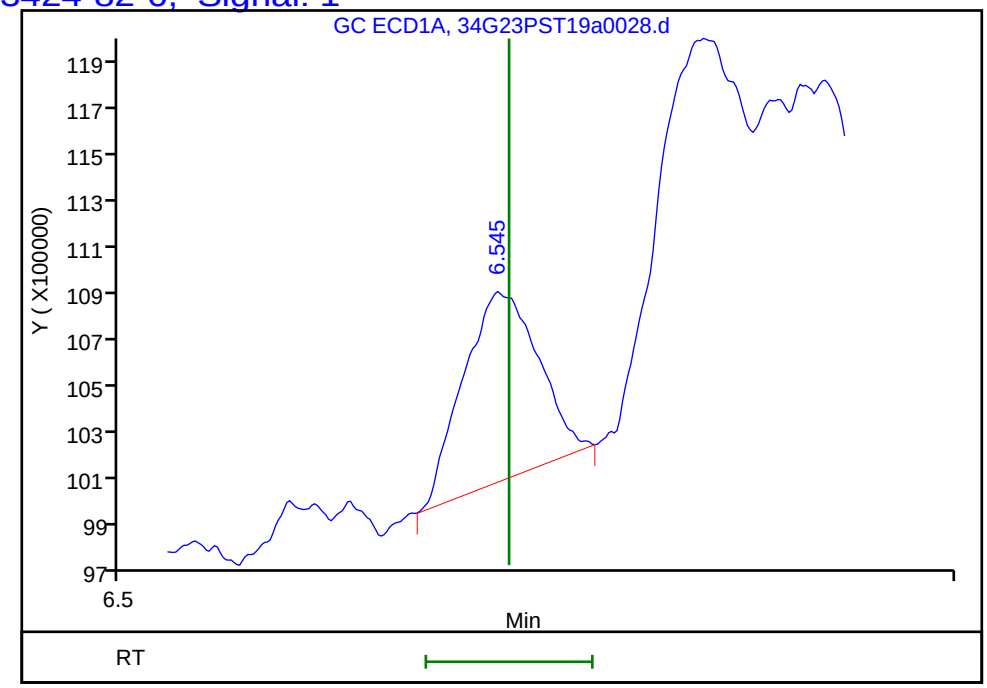
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d
Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034
Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11
Client ID: 22T-SG-22_20190716
Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

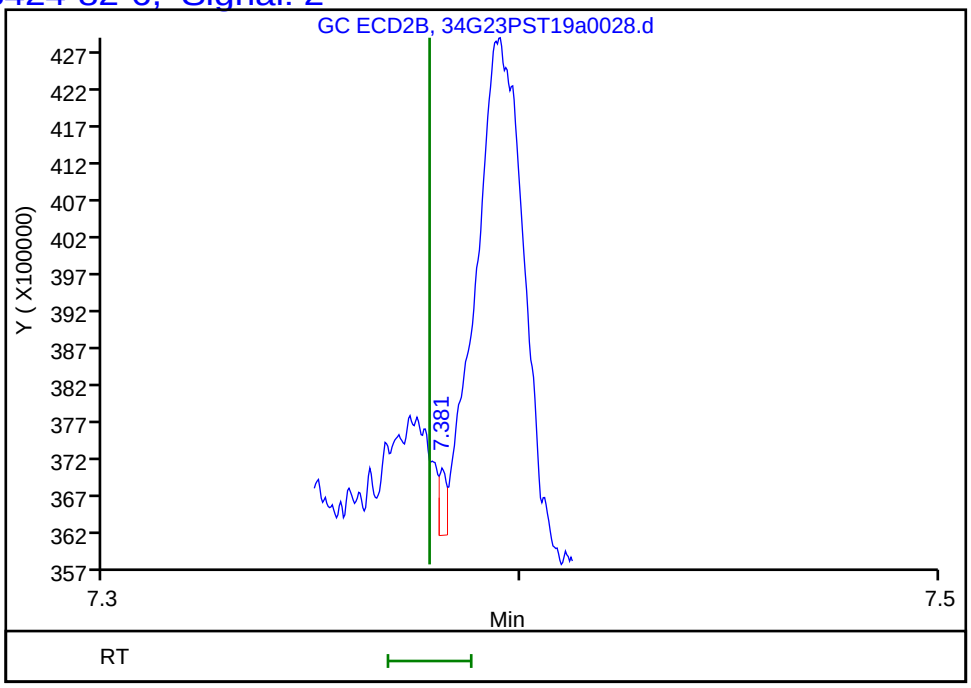
RT: 6.55
Response: 508439
Amount: 0.145084



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 97115
Amount: 0.009617



Reviewer: limwirojt, 24-Jul-2019 12:37:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d

Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034

Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11

Client ID: 22T-SG-22_20190716

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

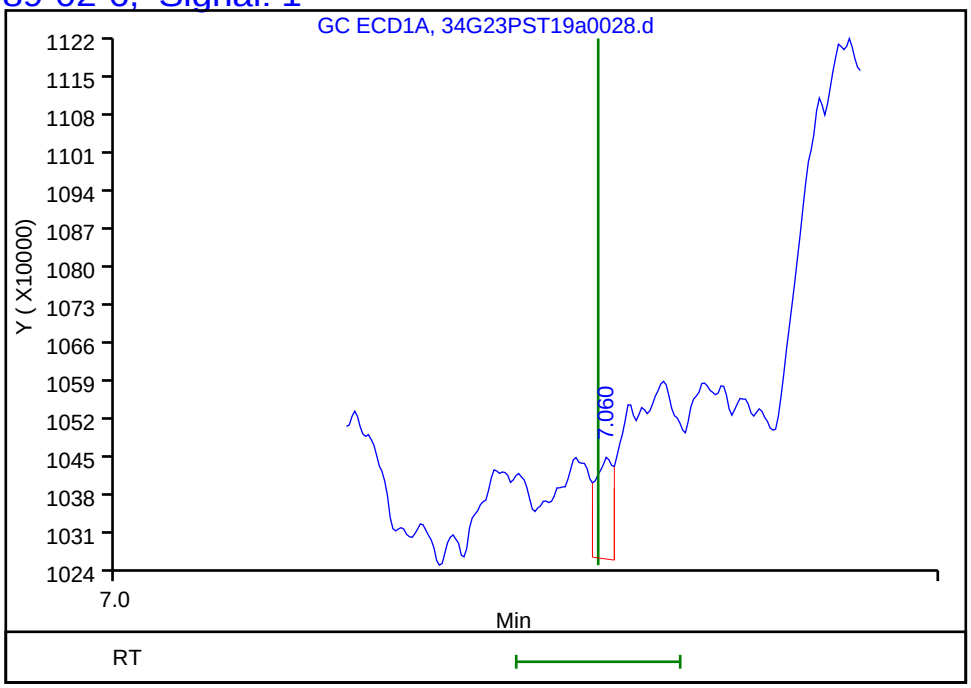
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

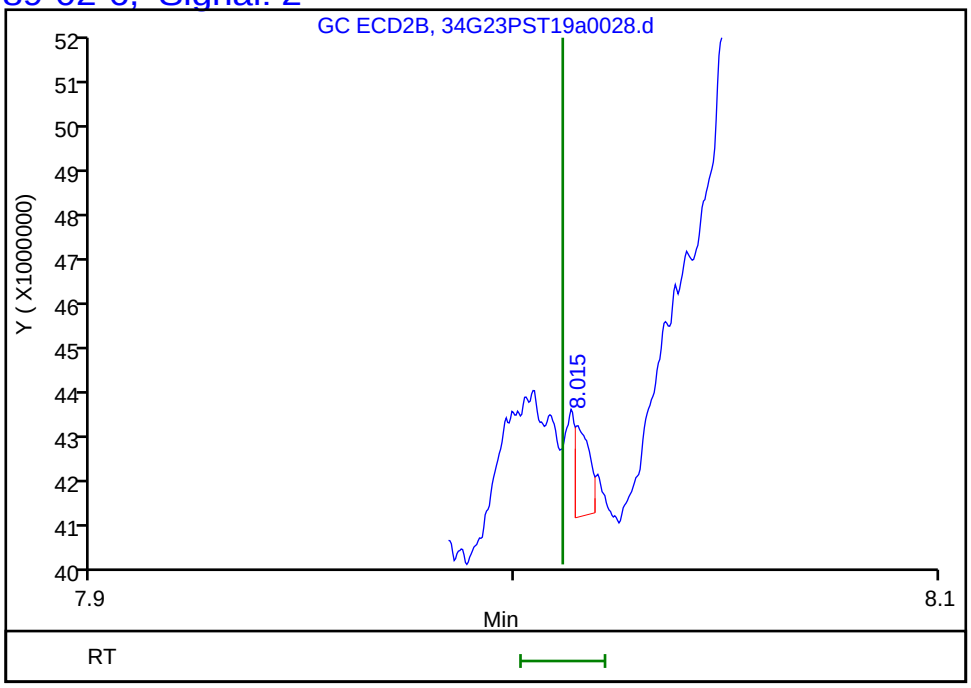
RT: 7.06
Response: 26692
Amount: 0.010456



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01
Response: 411498
Amount: 0.060450



Reviewer: limwirojt, 24-Jul-2019 12:37:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

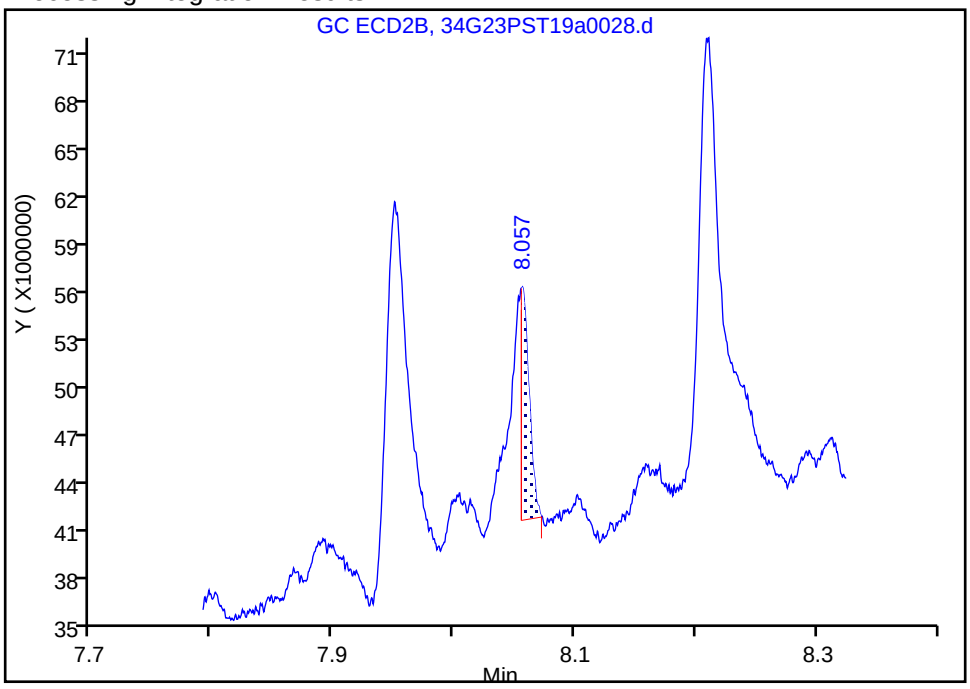
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d		
Injection Date:	23-Jul-2019 19:53:03	Instrument ID:	TAC034
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11
Client ID:	22T-SG-22_20190716		
Operator ID:	CJB	ALS Bottle#:	24 Worklist Smp#: 26
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

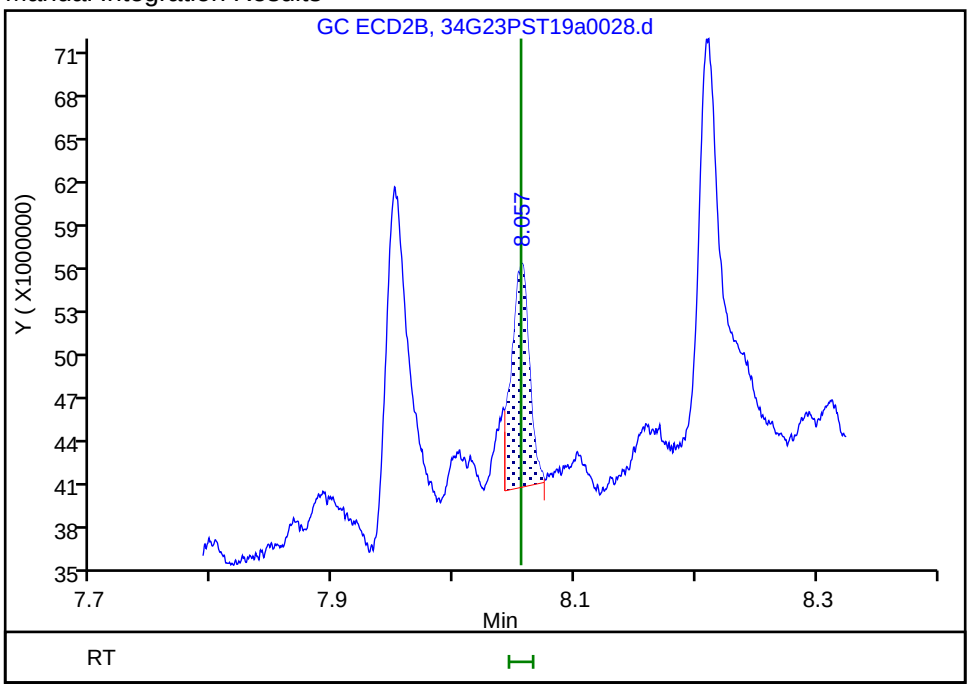
Processing Integration Results

RT: 8.06
Area: 6258562
Amount: 0.665717
Amount Units: ug/L



Manual Integration Results

RT: 8.06
Area: 15313135
Amount: 1.628843
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:36:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

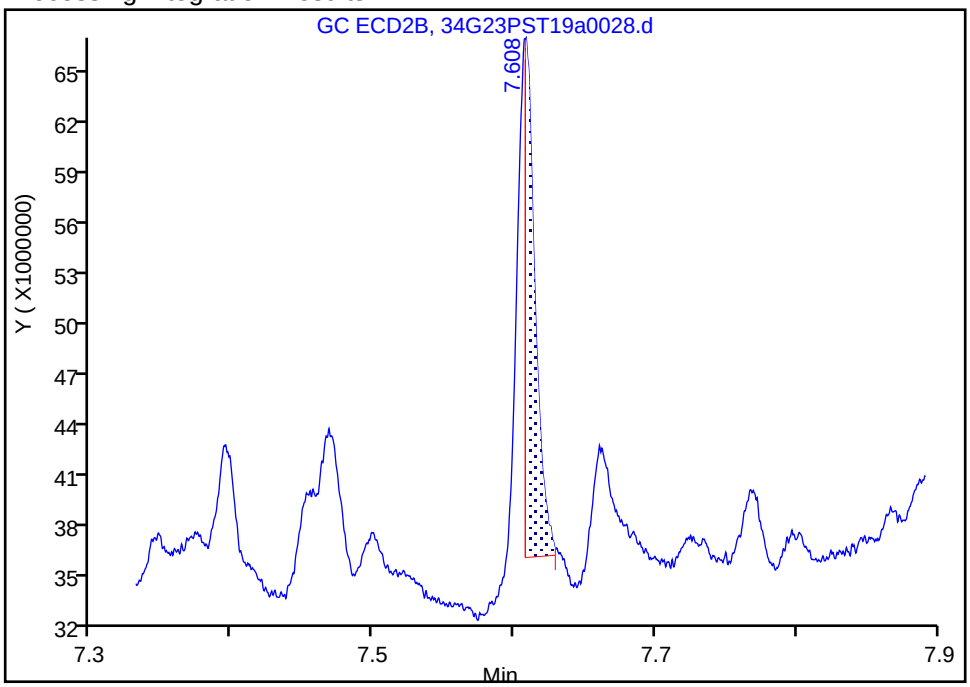
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d		
Injection Date:	23-Jul-2019 19:53:03	Instrument ID:	TAC034
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11
Client ID:	22T-SG-22_20190716		
Operator ID:	CJB	ALS Bottle#:	24 Worklist Smp#: 26
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

26 4,4'-DDE, CAS: 72-55-9

Signal: 2

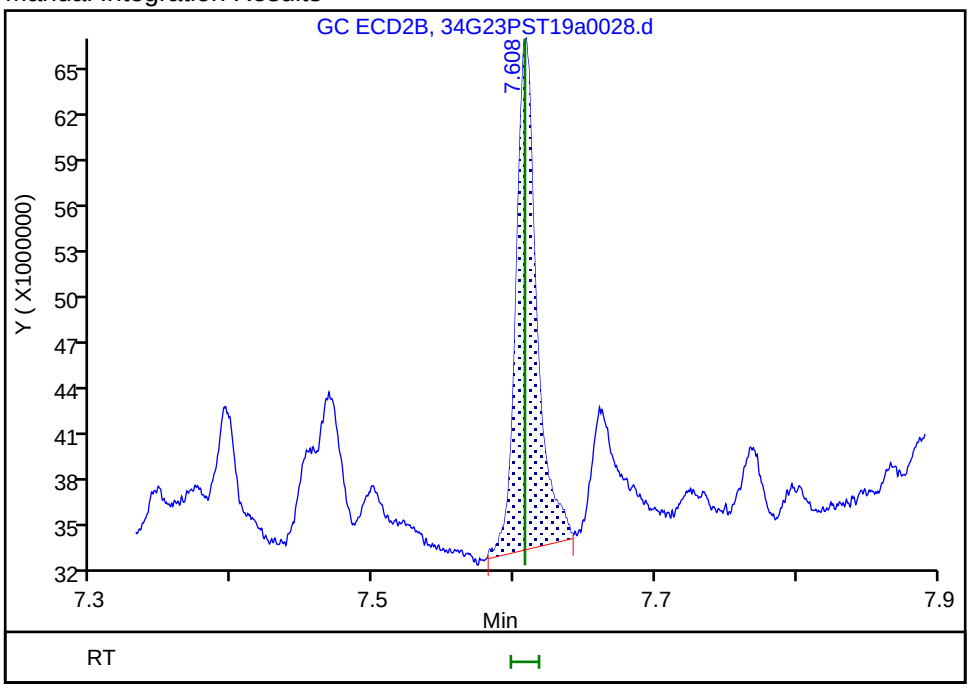
Processing Integration Results

RT: 7.61
Area: 14601022
Amount: 0.875376
Amount Units: ug/L



Manual Integration Results

RT: 7.61
Area: 33860437
Amount: 2.030037
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:36:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0028.d

Injection Date: 23-Jul-2019 19:53:03 Instrument ID: TAC034

Lims ID: 580-87706-A-11-B Lab Sample ID: 580-87706-11

Client ID: 22T-SG-22_20190716

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

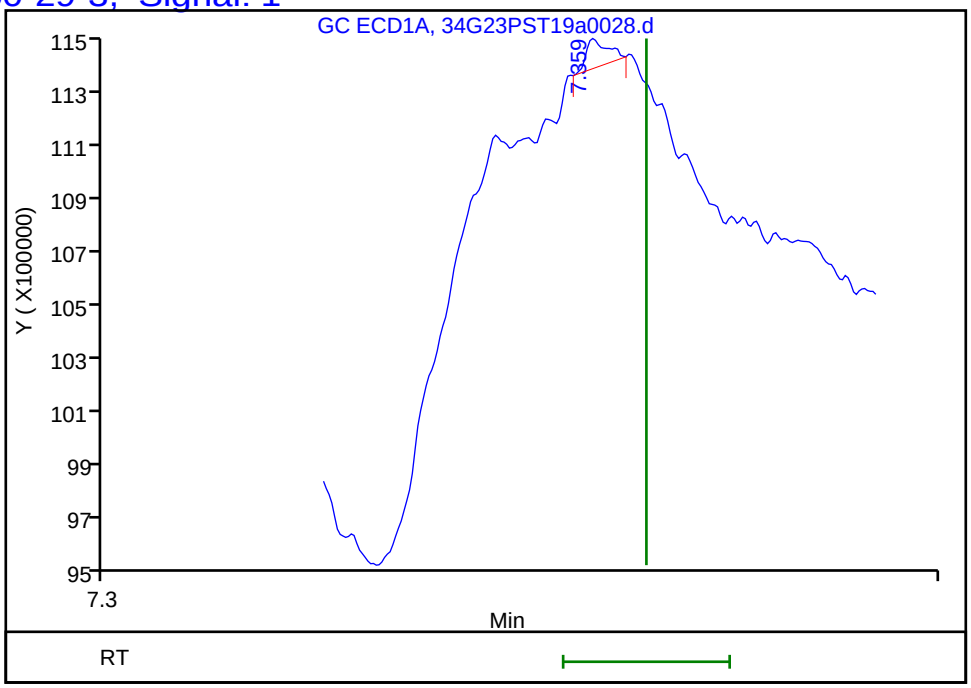
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 17557

Amount: 0.005173



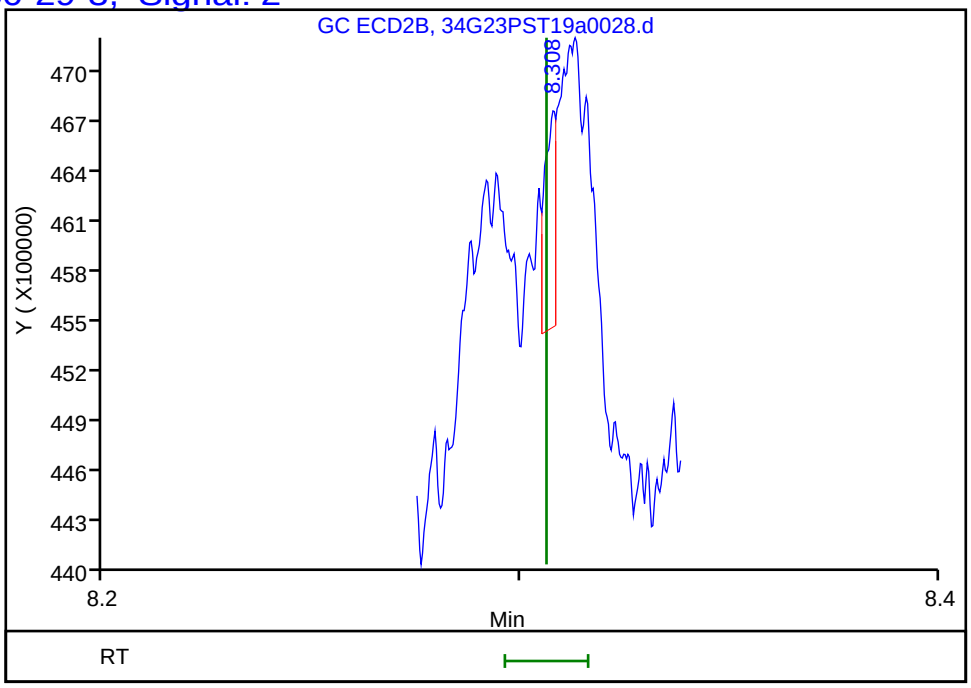
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 215973

Amount: 0.023427



Reviewer: limwirojt, 24-Jul-2019 12:37:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 34G23PST19a0029.d

Analysis Method: 8081B Date Collected: 07/16/2019 12:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.590(g) Date Analyzed: 07/23/2019 20:12

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
789-02-6	2,4'-DDT	ND		3.0	1.1
72-54-8	4,4'-DDD	1.3		1.2	0.24
72-55-9	4,4'-DDE	1.3		1.2	0.32
50-29-3	4,4'-DDT	ND		1.2	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	34	X	36-136
877-09-8	Tetrachloro-m-xylene	67		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d
Lims ID: 580-87706-A-12-B
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 20:12:27 ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-12-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:37:58 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:37:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.465	4.467	-0.002	142927584	100.0	
2	4.829	4.829	0.000	640546570	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.078	5.081	-0.003	32245176	5.55	
2	5.536	5.535	0.001	94303745	5.34	
					RPD = 3.92	
6 PCB-1232						
1	5.274	5.265	0.009	198463	NC	
1	5.497	5.500	-0.003	20355	NC	
1	5.785	5.778	0.007	349352	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.389	6.380	0.009	57583	NC	
		Average of Peak Amounts =			0	
2	0.000	5.740	-5.740	0	NC	
2	6.328	6.330	-0.002	57177	NC	
2	6.424	6.424	0.000	2489131	NC	
2	6.752	6.746	0.006	40103	NC	
2	7.036	7.037	-0.001	38140	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.497	5.500	-0.003	20355	NC	
1	5.785	5.778	0.007	349352	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.096	6.093	0.003	24330	NC	
1	6.389	6.380	0.009	57583	NC	
		Average of Peak Amounts =			0	
2	6.017	6.025	-0.008	39039	NC	
2	6.328	6.330	-0.002	57177	NC	
2	6.424	6.424	0.000	2489131	NC	
2	6.726	6.732	-0.006	818429	NC	
2	6.994	6.994	0.000	52641	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.497	5.500	-0.003	20355	NC	
1	5.785	5.778	0.007	349352	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.096	6.093	0.003	24330	NC	
1	6.346	6.342	0.004	105624	NC	
		Average of Peak Amounts =			0	
2	6.017	6.025	-0.008	39039	NC	
2	6.328	6.330	-0.002	57177	NC	
2	6.424	6.424	0.000	2489131	NC	
2	6.546	6.548	-0.002	11783307	NC	
2	6.726	6.732	-0.006	818429	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.785	5.778	0.007	349352	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.096	6.093	0.003	24330	NC	
1	6.389	6.380	0.009	57583	NC	
1	6.766	6.775	-0.009	8323518	NC	
		Average of Peak Amounts =			0	
2	6.546	6.548	-0.002	11783307	NC	
2	6.726	6.732	-0.006	818429	NC	
2	6.820	6.815	0.005	10778562	NC	
2	7.036	7.037	-0.001	38140	NC	
2	7.214	7.215	-0.001	34708	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.346	6.342	0.004	105624	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.766	6.775	-0.009	8323518	NC	
1	6.966	6.957	0.009	354380	NC	
1	7.288	7.288	0.000	33867	NC	
		Average of Peak Amounts =			0	
2	7.036	7.037	-0.001	38140	NC	
2	7.167	7.164	0.003	717399	NC	
2	7.517	7.516	0.001	146315	NC	
2	7.677	7.681	-0.004	77358	NC	
2	8.079	8.080	-0.001	38701	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.766	6.768	-0.002	8323518	2.23	
2	7.608	7.607	0.001	39847261	2.43	
					RPD = 8.59	
28 2,4'-DDD						M
1	6.890	6.883	0.007	6671093	3.06	M
2	7.771	7.768	0.003	8224746	1.27	M
					RPD = 82.81	
30 PCB-1260						M
1	6.890	6.894	-0.004	6671093	NC	M
1	7.083	7.083	0.000	213620	NC	
1	7.288	7.288	0.000	33867	NC	
1	7.536	7.536	0.000	871005	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.662	7.658	0.004	3369012	NC	
2	7.816	7.819	-0.003	44616	NC	
2	8.099	8.100	-0.001	356780	NC	
2	8.407	8.414	-0.007	7490253	NC	
2	8.891	8.896	-0.005	56683	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.165	7.167	-0.002	5773767	2.09	
2	8.055	8.055	0.000	17610308	1.91	M
					RPD = 9.18	
$ 45 DCB Decachlorobiphenyl						
1	8.889	8.884	0.005	26907481	2.86	
2	10.092	10.091	0.001	68983990	4.51	
					RPD = 44.92	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 24-Jul-2019 12:37:59 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:37:59 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d

Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034

Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12

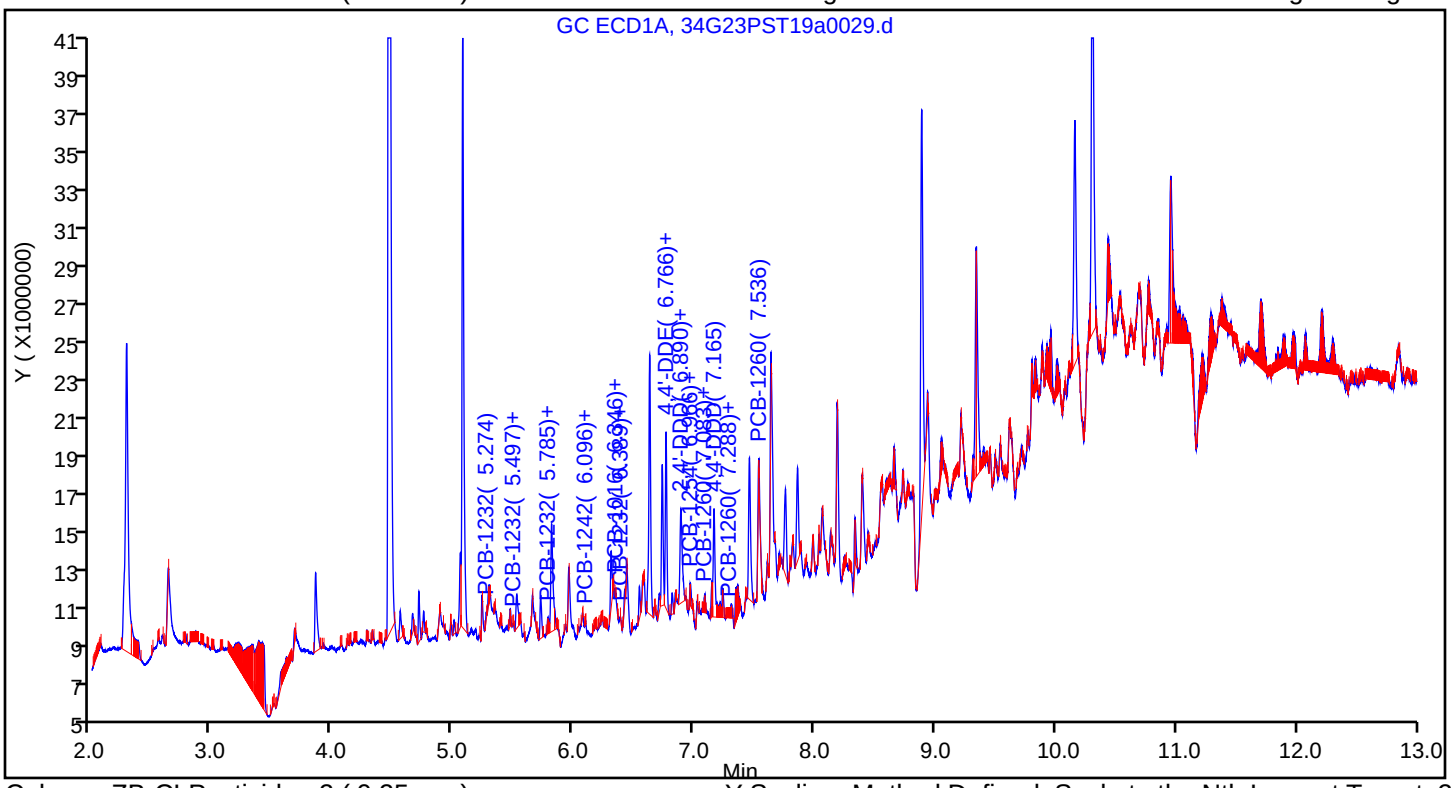
Client ID: 22T-SG-23_20190716

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

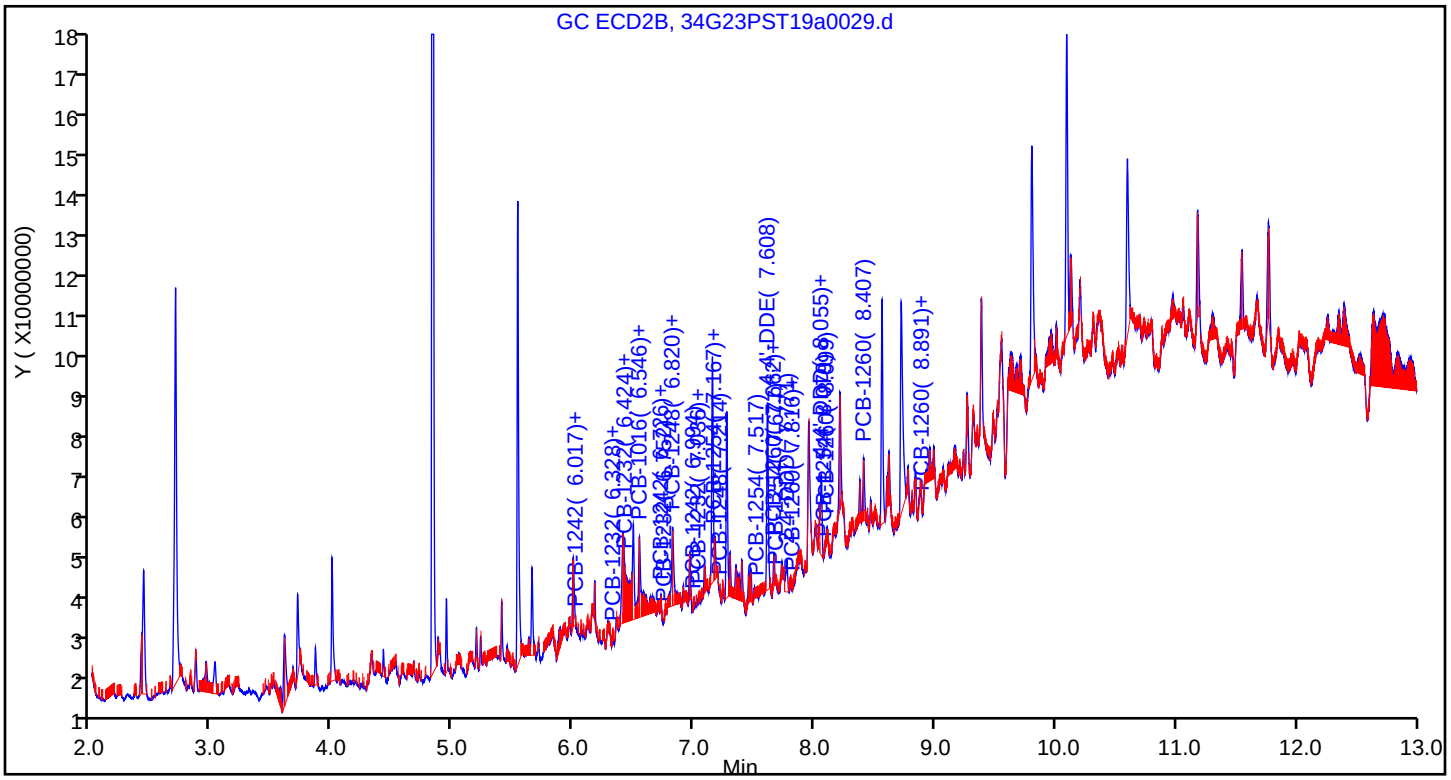
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d				
Lims ID:	580-87706-A-12-B				
Client ID:	22T-SG-23_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 20:12:27	ALS Bottle#:	25	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-12-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:37:58	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:37:58		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.55	66.62
$ 45 DCB Decachlorobiphenyl	25.0	2.86	34.26

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.34	64.06
$ 45 DCB Decachlorobiphenyl	25.0	4.51	54.11

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

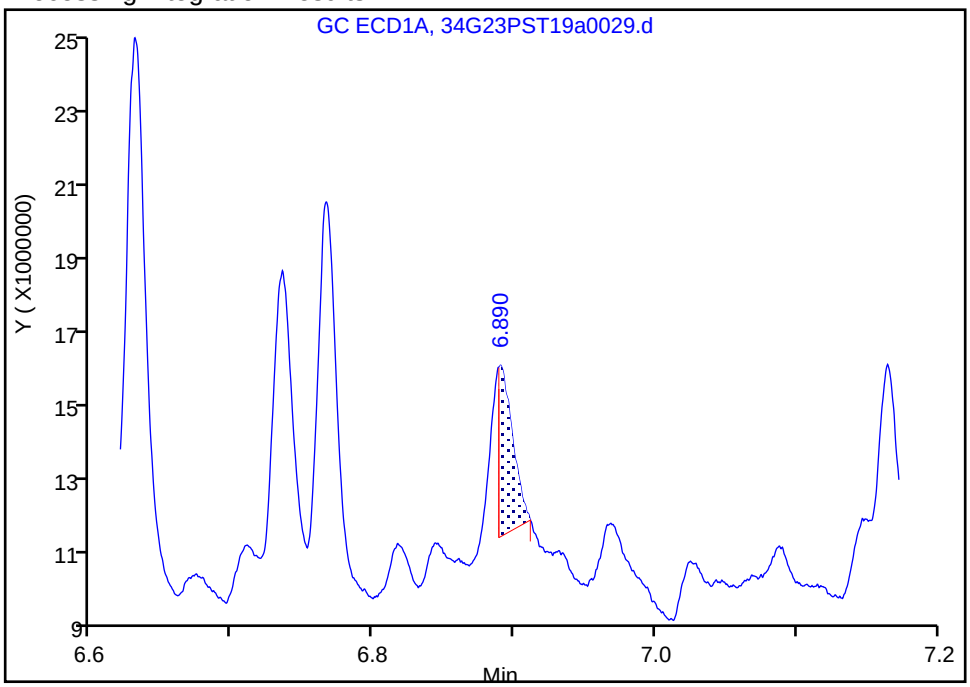
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d				
Injection Date:	23-Jul-2019 20:12:27	Instrument ID:	TAC034		
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	CJB	ALS Bottle#:	25	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

28 2,4'-DDD, CAS: 53-19-0

Signal: 1

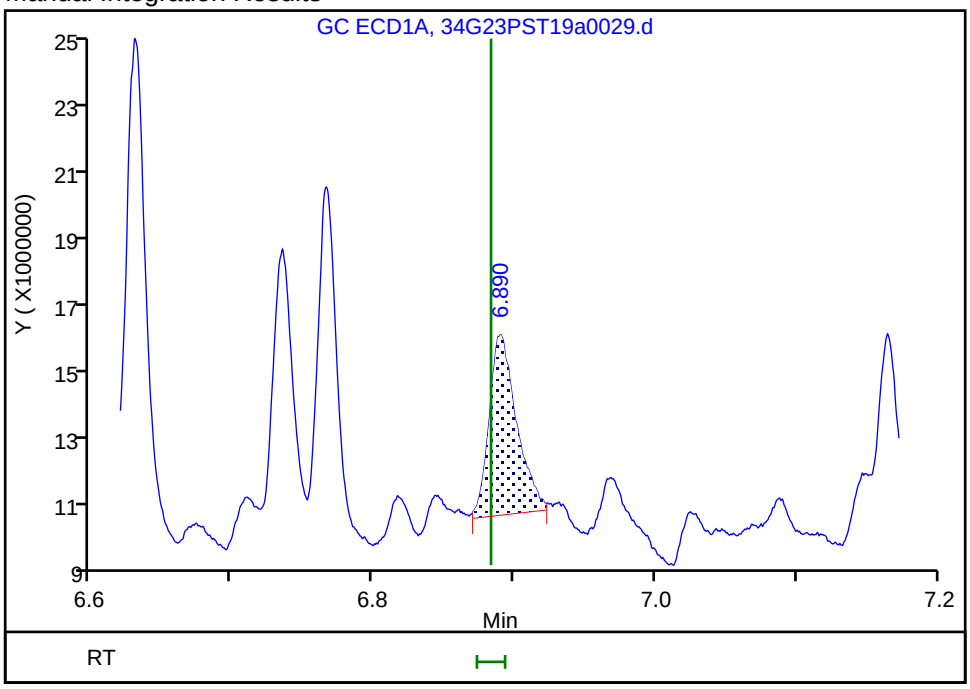
Processing Integration Results

RT: 6.89
Area: 2799023
Amount: 1.284528
Amount Units: ug/L



Manual Integration Results

RT: 6.89
Area: 6671093
Amount: 3.061499
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:37:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

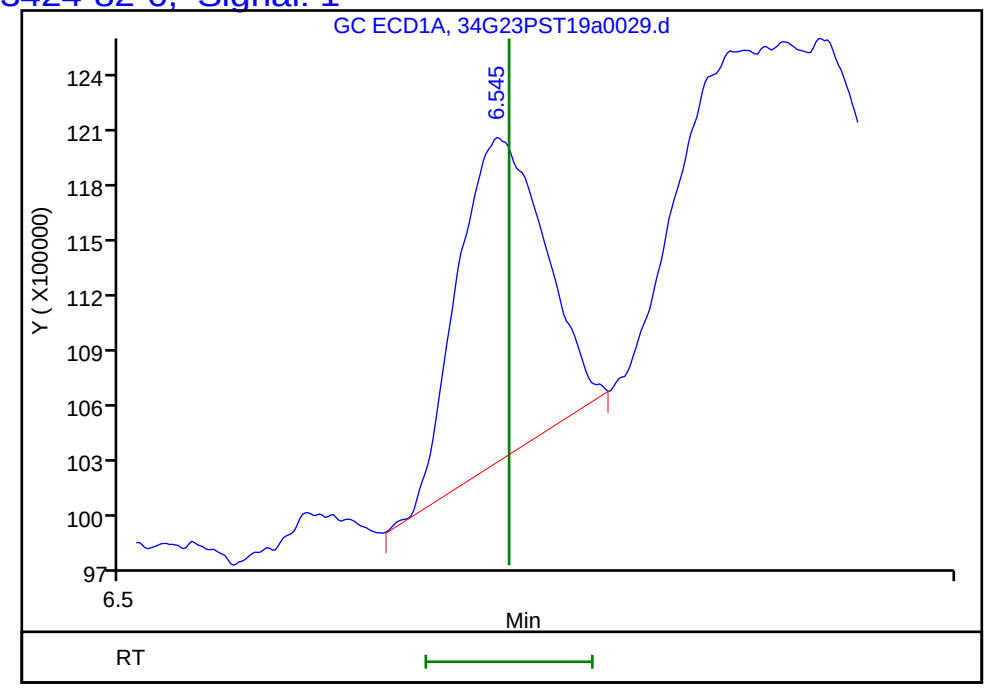
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d
Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034
Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12
Client ID: 22T-SG-23_20190716
Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

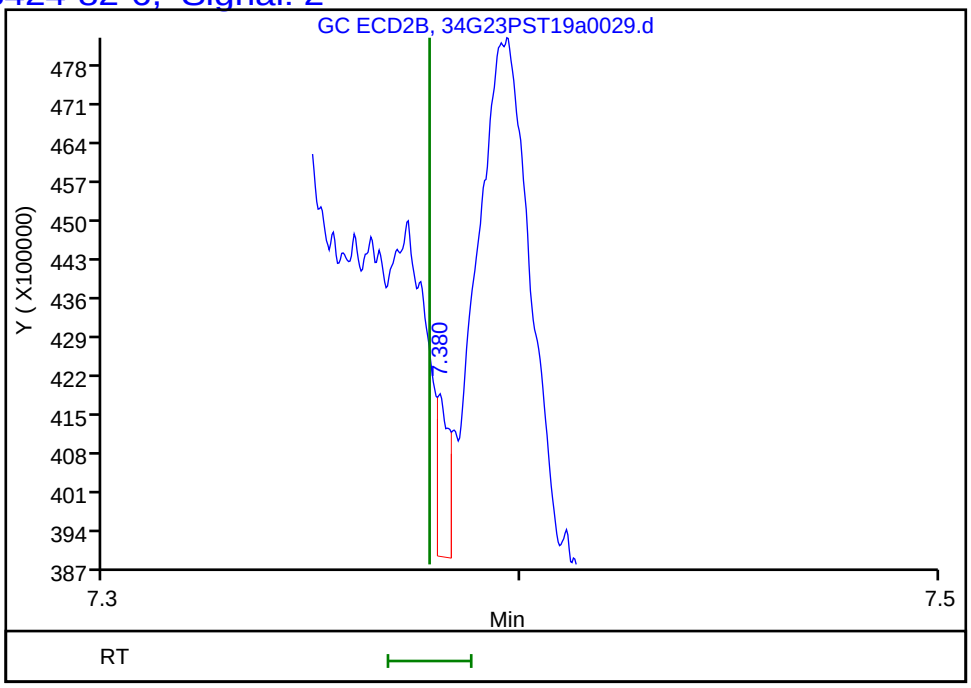
RT: 6.55
Response: 1252326
Amount: 0.390842



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 514981
Amount: 0.051931



Reviewer: limwirojt, 24-Jul-2019 12:37:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d

Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034

Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12

Client ID: 22T-SG-23_20190716

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

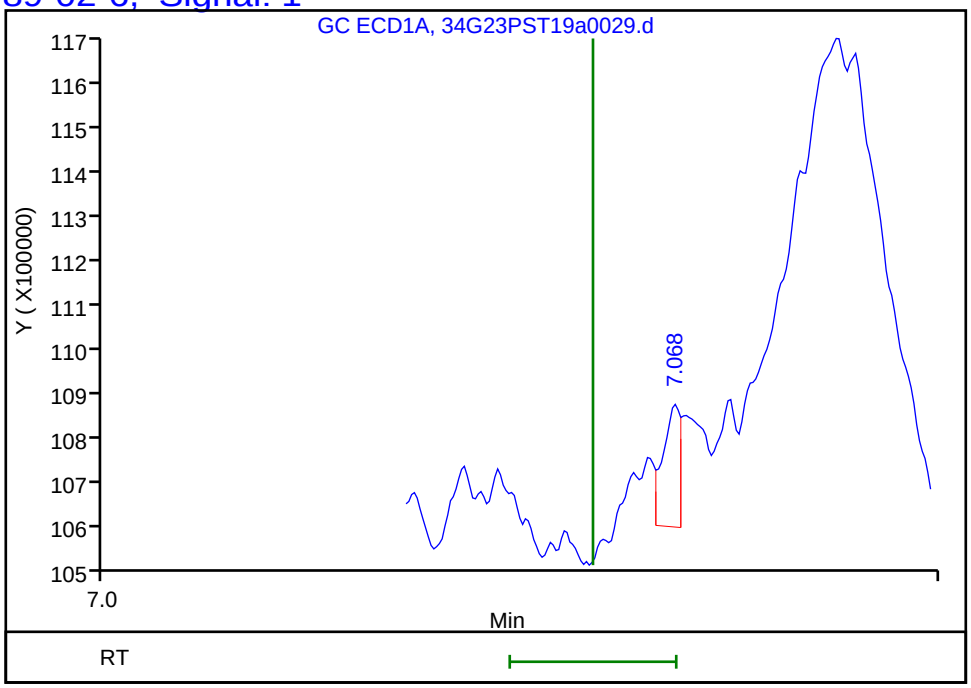
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

RT: 7.07

Response: 32651

Amount: 0.013989



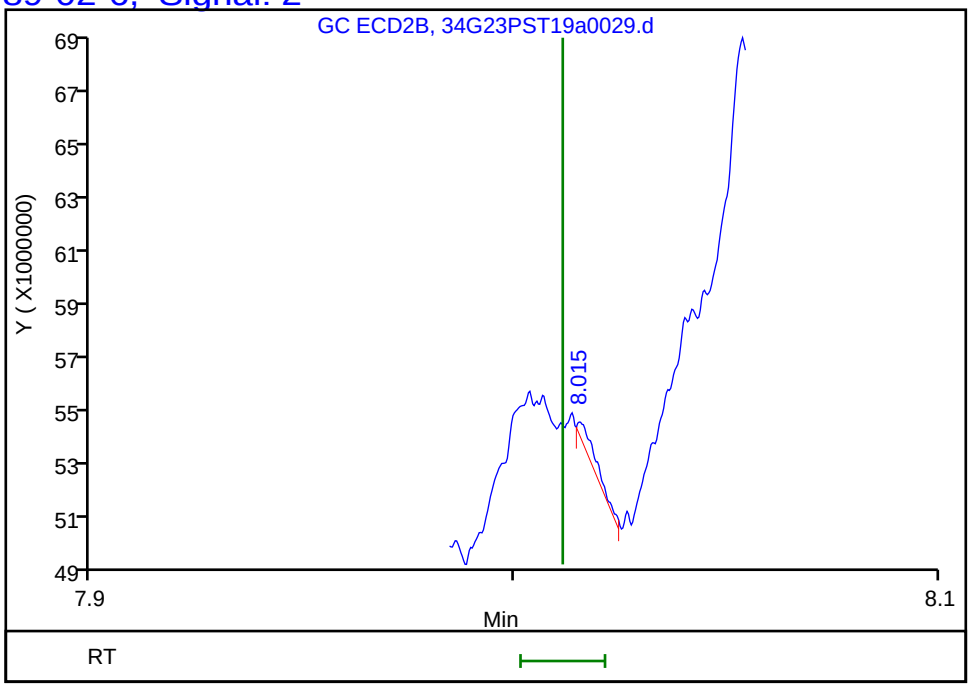
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.02

Response: 242643

Amount: 0.036296



Reviewer: limwirojt, 24-Jul-2019 12:37:58

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d

Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034

Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12

Client ID: 22T-SG-23_20190716

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

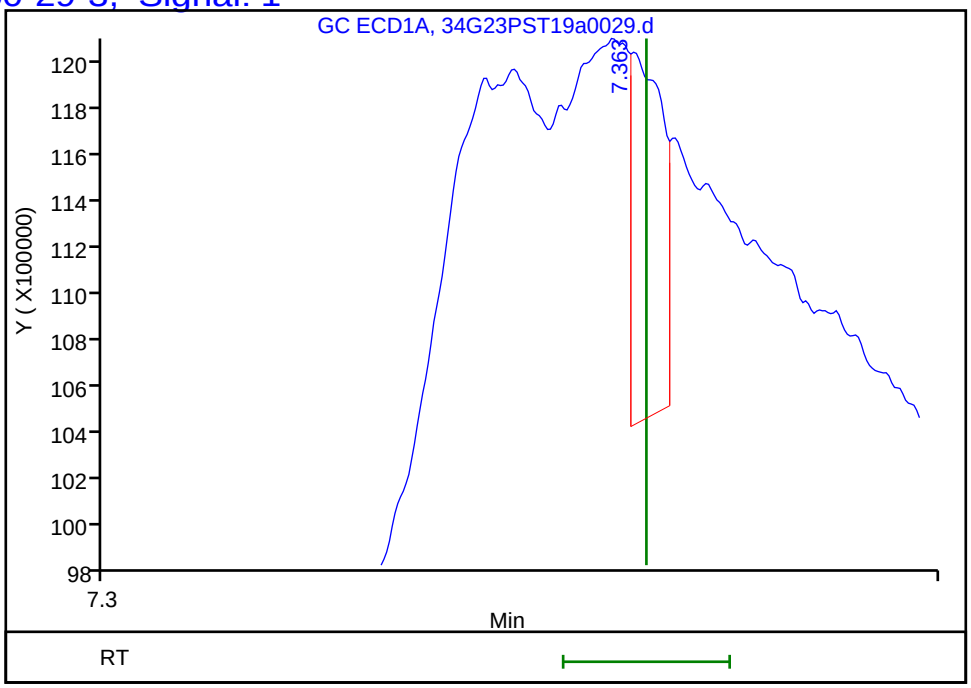
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 396417

Amount: 0.127735



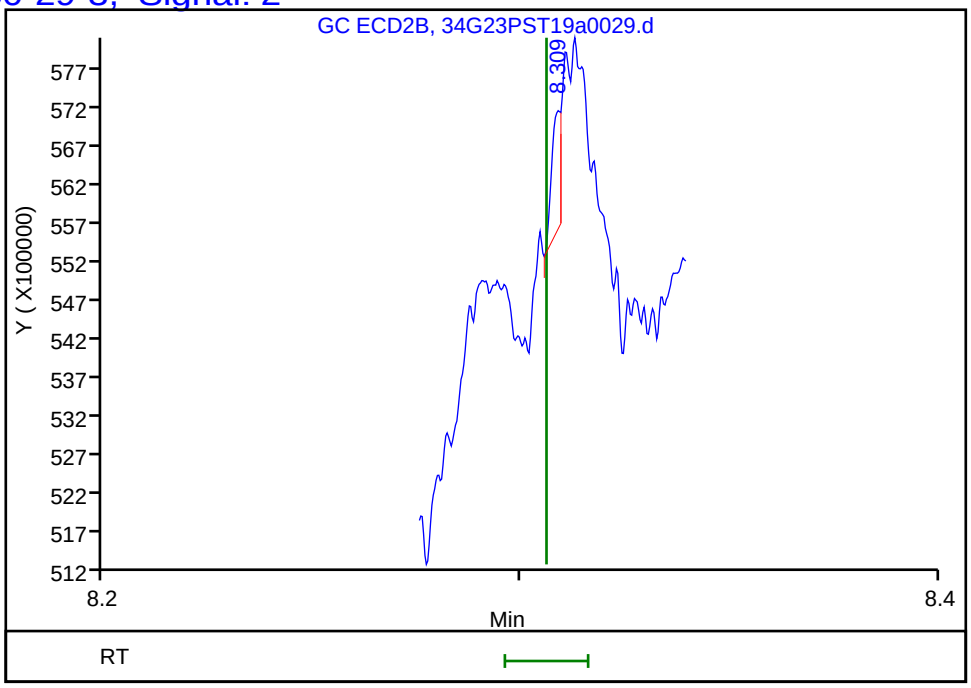
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 226642

Amount: 0.025033



Reviewer: limwirojt, 24-Jul-2019 12:37:58

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 34G23PST19a0029.d

Analysis Method: 8081B Date Collected: 07/16/2019 12:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.590(g) Date Analyzed: 07/23/2019 20:12

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	0.77	J p	3.0	0.66
3424-82-6	2,4'-DDE	ND		3.0	0.55

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d
Lims ID: 580-87706-A-12-B
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 20:12:27 ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-12-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:37:58 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:37:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.465	4.467	-0.002	142927584	100.0	
2	4.829	4.829	0.000	640546570	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.078	5.081	-0.003	32245176	5.55	
2	5.536	5.535	0.001	94303745	5.34	
					RPD = 3.92	
6 PCB-1232						
1	5.274	5.265	0.009	198463	NC	
1	5.497	5.500	-0.003	20355	NC	
1	5.785	5.778	0.007	349352	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.389	6.380	0.009	57583	NC	
		Average of Peak Amounts =			0	
2	0.000	5.740	-5.740	0	NC	
2	6.328	6.330	-0.002	57177	NC	
2	6.424	6.424	0.000	2489131	NC	
2	6.752	6.746	0.006	40103	NC	
2	7.036	7.037	-0.001	38140	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	5.497	5.500	-0.003	20355	NC	
1	5.785	5.778	0.007	349352	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.096	6.093	0.003	24330	NC	
1	6.389	6.380	0.009	57583	NC	
		Average of Peak Amounts =			0	
2	6.017	6.025	-0.008	39039	NC	
2	6.328	6.330	-0.002	57177	NC	
2	6.424	6.424	0.000	2489131	NC	
2	6.726	6.732	-0.006	818429	NC	
2	6.994	6.994	0.000	52641	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	5.497	5.500	-0.003	20355	NC	
1	5.785	5.778	0.007	349352	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.096	6.093	0.003	24330	NC	
1	6.346	6.342	0.004	105624	NC	
		Average of Peak Amounts =			0	
2	6.017	6.025	-0.008	39039	NC	
2	6.328	6.330	-0.002	57177	NC	
2	6.424	6.424	0.000	2489131	NC	
2	6.546	6.548	-0.002	11783307	NC	
2	6.726	6.732	-0.006	818429	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	5.785	5.778	0.007	349352	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.096	6.093	0.003	24330	NC	
1	6.389	6.380	0.009	57583	NC	
1	6.766	6.775	-0.009	8323518	NC	
		Average of Peak Amounts =			0	
2	6.546	6.548	-0.002	11783307	NC	
2	6.726	6.732	-0.006	818429	NC	
2	6.820	6.815	0.005	10778562	NC	
2	7.036	7.037	-0.001	38140	NC	
2	7.214	7.215	-0.001	34708	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						
1	6.346	6.342	0.004	105624	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.766	6.775	-0.009	8323518	NC	
1	6.966	6.957	0.009	354380	NC	
1	7.288	7.288	0.000	33867	NC	
		Average of Peak Amounts =			0	
2	7.036	7.037	-0.001	38140	NC	
2	7.167	7.164	0.003	717399	NC	
2	7.517	7.516	0.001	146315	NC	
2	7.677	7.681	-0.004	77358	NC	
2	8.079	8.080	-0.001	38701	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						
1	6.766	6.768	-0.002	8323518	2.23	
2	7.608	7.607	0.001	39847261	2.43	
					RPD = 8.59	
28 2,4'-DDD						M
1	6.890	6.883	0.007	6671093	3.06	M
2	7.771	7.768	0.003	8224746	1.27	M
					RPD = 82.81	
30 PCB-1260						M
1	6.890	6.894	-0.004	6671093	NC	M
1	7.083	7.083	0.000	213620	NC	
1	7.288	7.288	0.000	33867	NC	
1	7.536	7.536	0.000	871005	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.662	7.658	0.004	3369012	NC	
2	7.816	7.819	-0.003	44616	NC	
2	8.099	8.100	-0.001	356780	NC	
2	8.407	8.414	-0.007	7490253	NC	
2	8.891	8.896	-0.005	56683	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.165	7.167	-0.002	5773767	2.09	
2	8.055	8.055	0.000	17610308	1.91	M
					RPD = 9.18	
$ 45 DCB Decachlorobiphenyl						
1	8.889	8.884	0.005	26907481	2.86	
2	10.092	10.091	0.001	68983990	4.51	
					RPD = 44.92	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 24-Jul-2019 12:38:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:38:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d

Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034

Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12

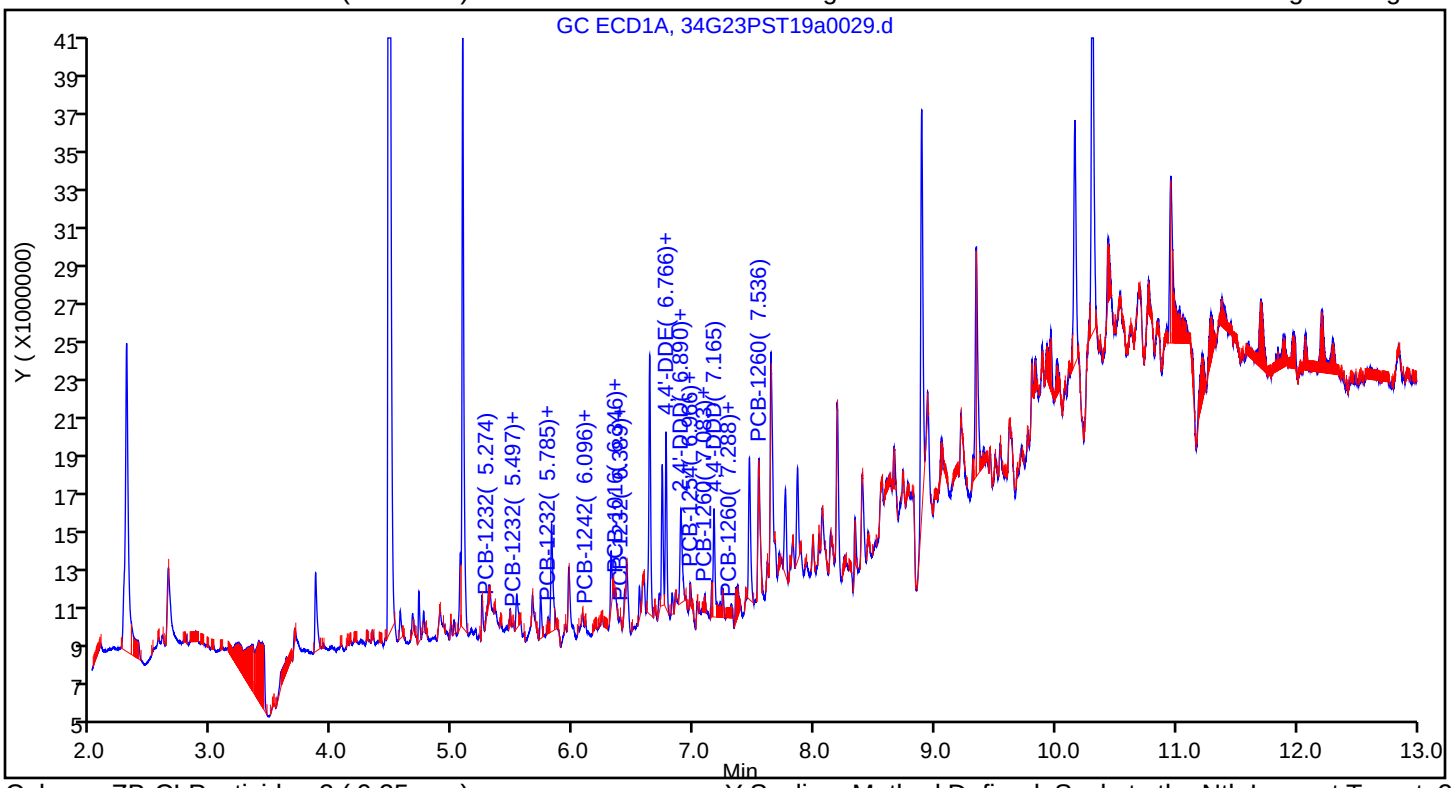
Client ID: 22T-SG-23_20190716

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

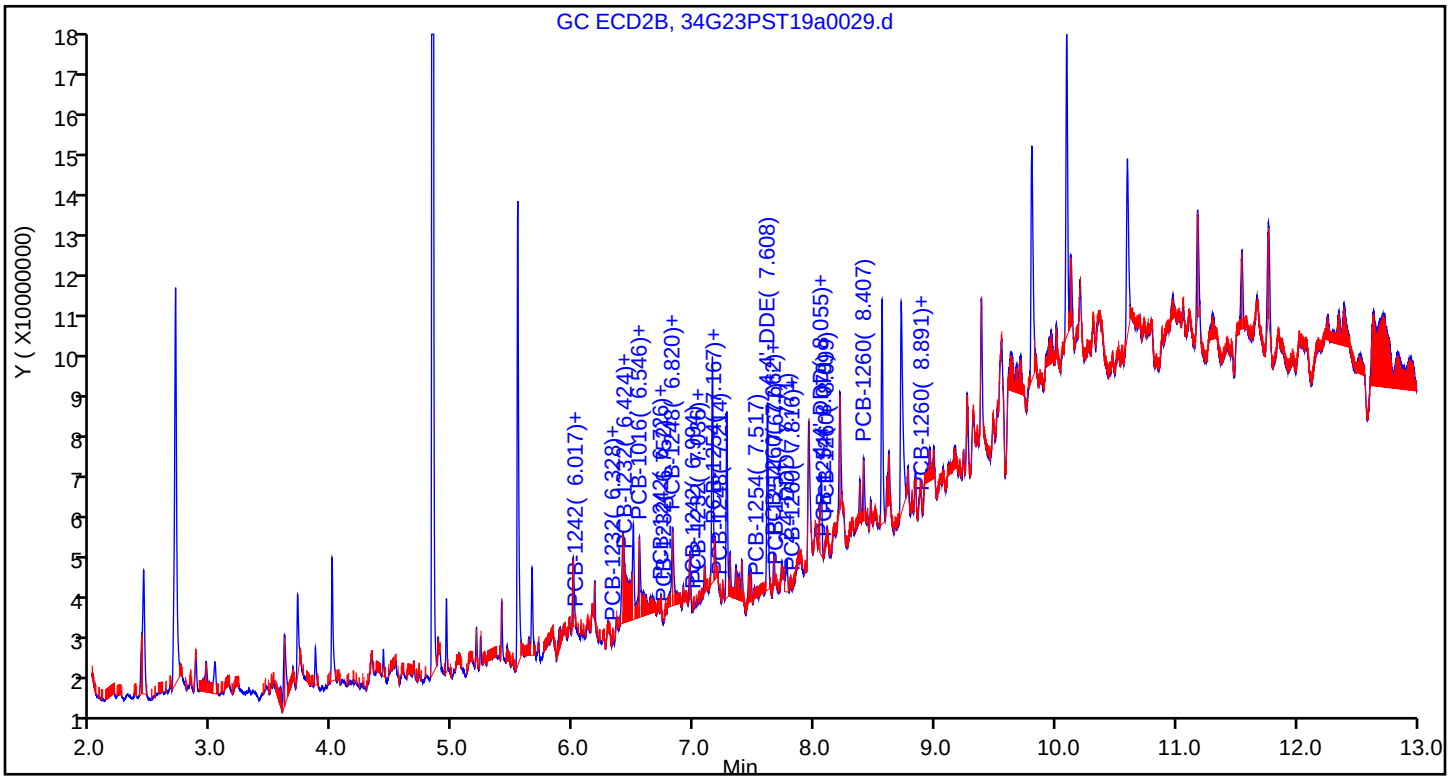
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d				
Lims ID:	580-87706-A-12-B				
Client ID:	22T-SG-23_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 20:12:27	ALS Bottle#:	25	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-12-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:37:58	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:37:58		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.55	66.62
$ 45 DCB Decachlorobiphenyl	25.0	2.86	34.26

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.34	64.06
$ 45 DCB Decachlorobiphenyl	25.0	4.51	54.11

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

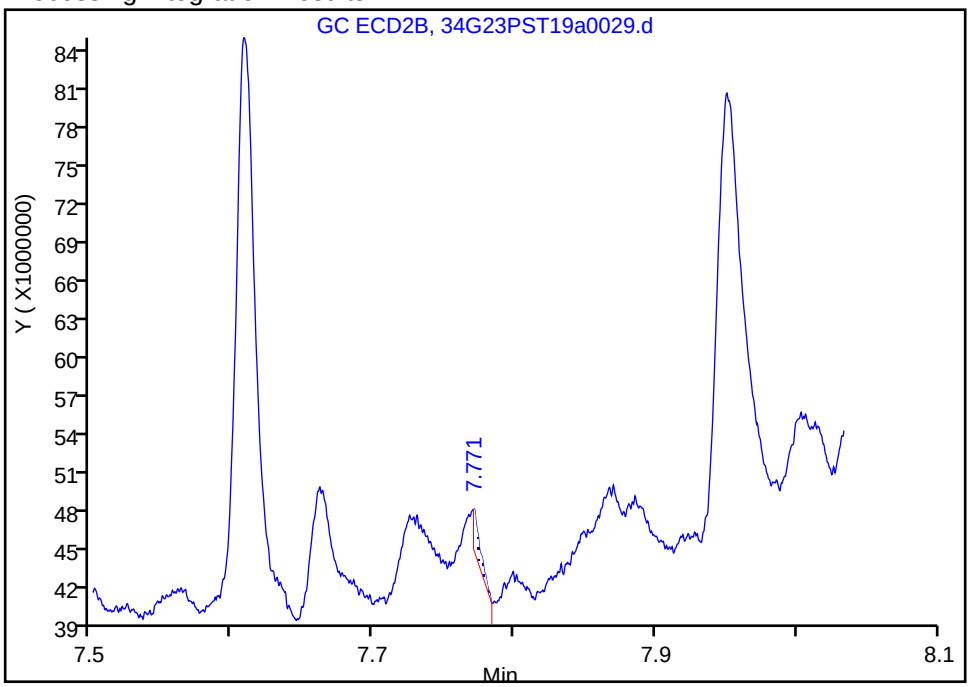
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d		
Injection Date:	23-Jul-2019 20:12:27	Instrument ID:	TAC034
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12
Client ID:	22T-SG-23_20190716		
Operator ID:	CJB	ALS Bottle#:	25 Worklist Smp#: 27
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

28 2,4'-DDD, CAS: 53-19-0

Signal: 2

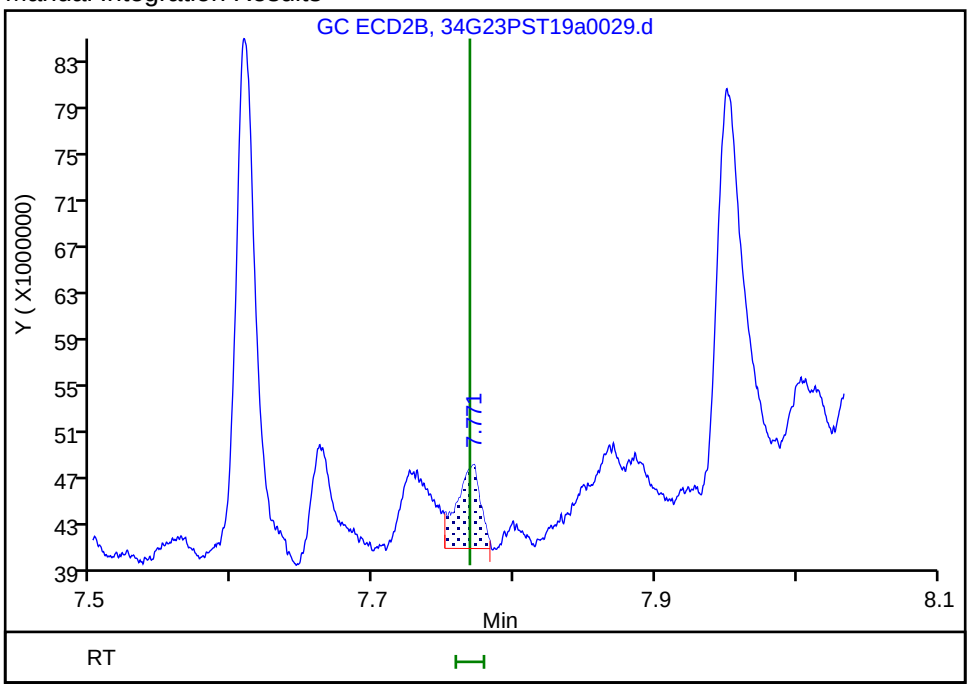
Processing Integration Results

RT: 7.77
Area: 1049316
Amount: 0.161844
Amount Units: ug/L



Manual Integration Results

RT: 7.77
Area: 8224746
Amount: 1.268563
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:37:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

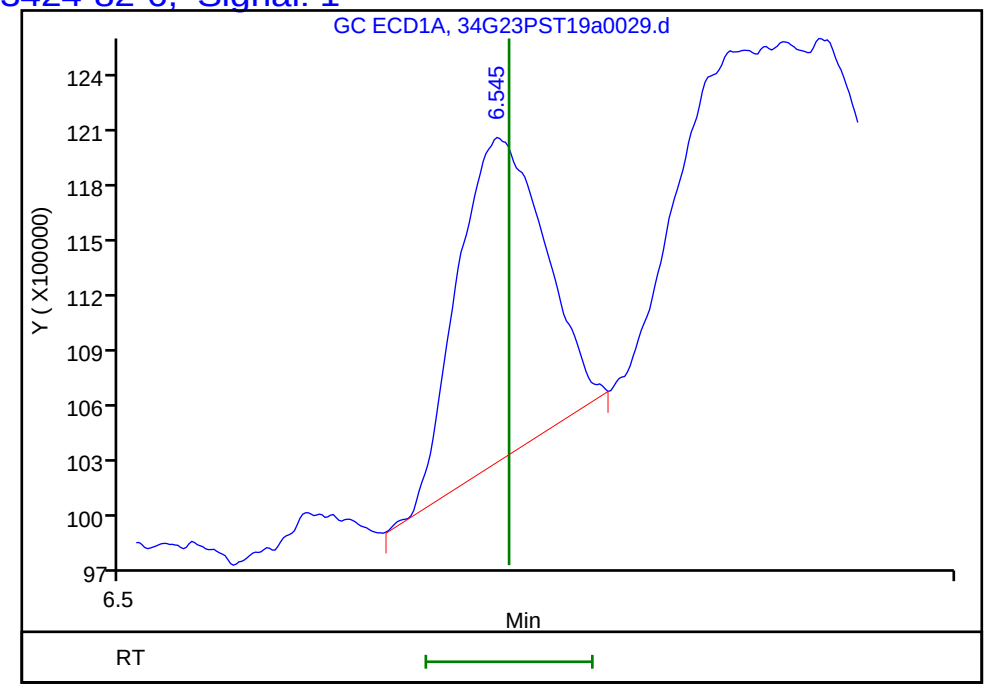
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d
Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034
Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12
Client ID: 22T-SG-23_20190716
Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

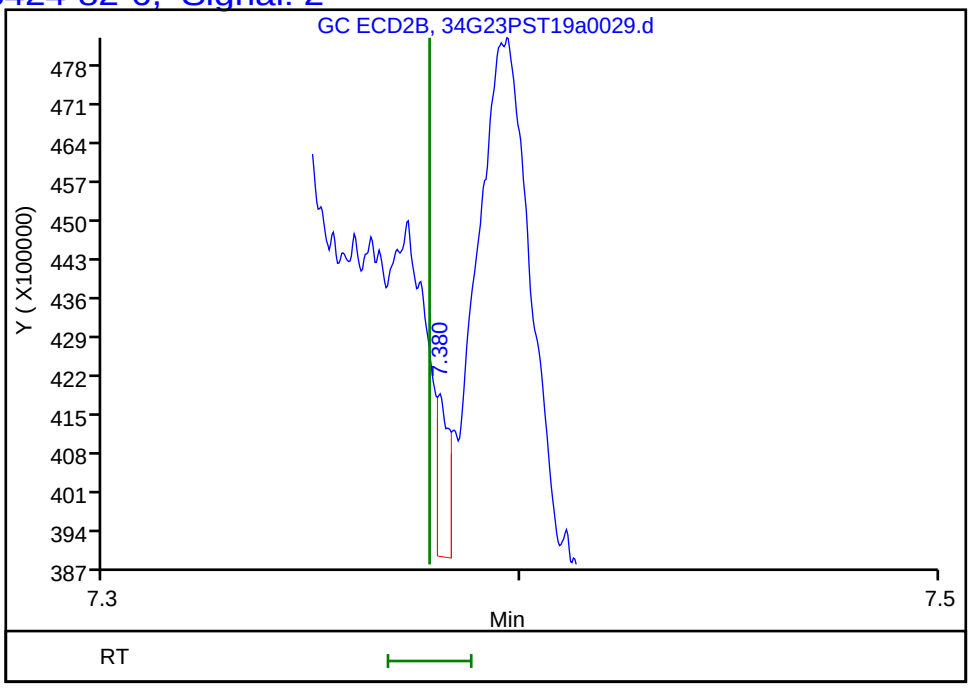
RT: 6.55
Response: 1252326
Amount: 0.390842



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 514981
Amount: 0.051931



Reviewer: limwirojt, 24-Jul-2019 12:37:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

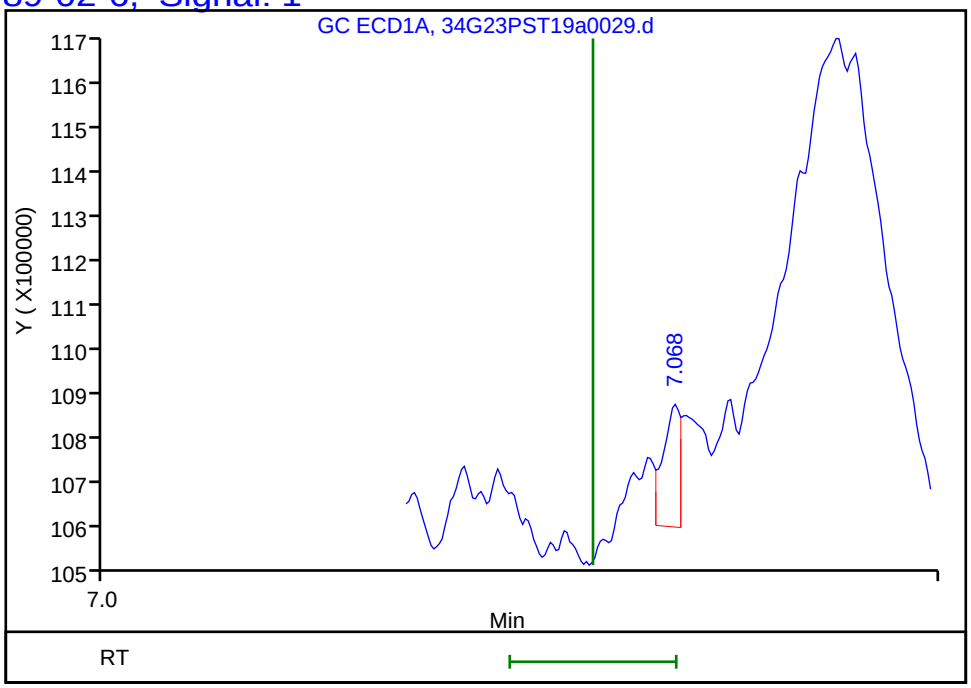
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d
Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034
Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12
Client ID: 22T-SG-23_20190716
Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

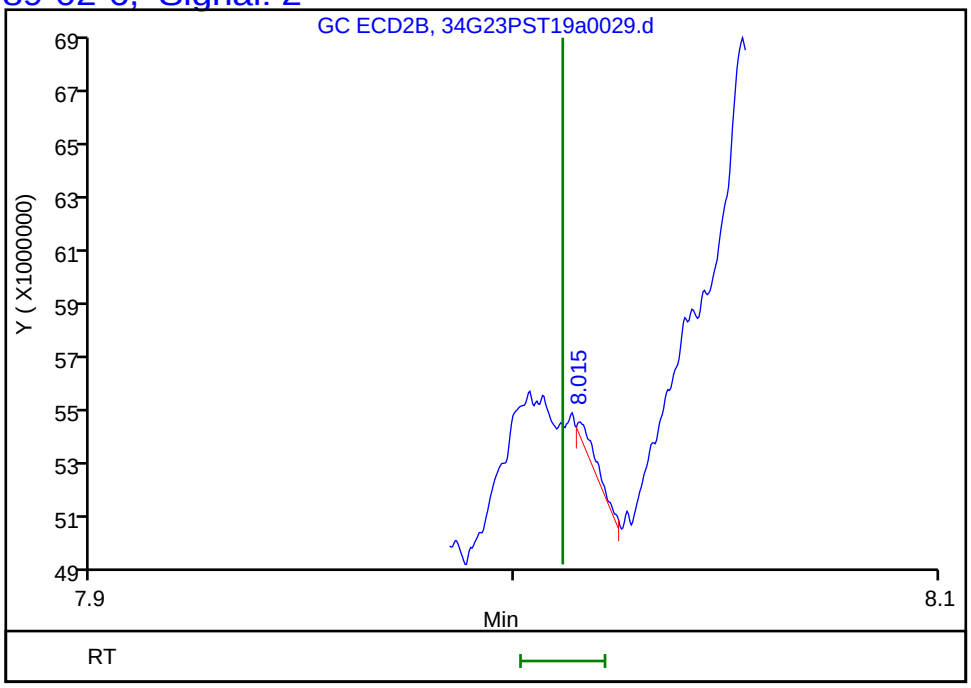
RT: 7.07
Response: 32651
Amount: 0.013989



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.02
Response: 242643
Amount: 0.036296



Reviewer: limwirojt, 24-Jul-2019 12:37:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

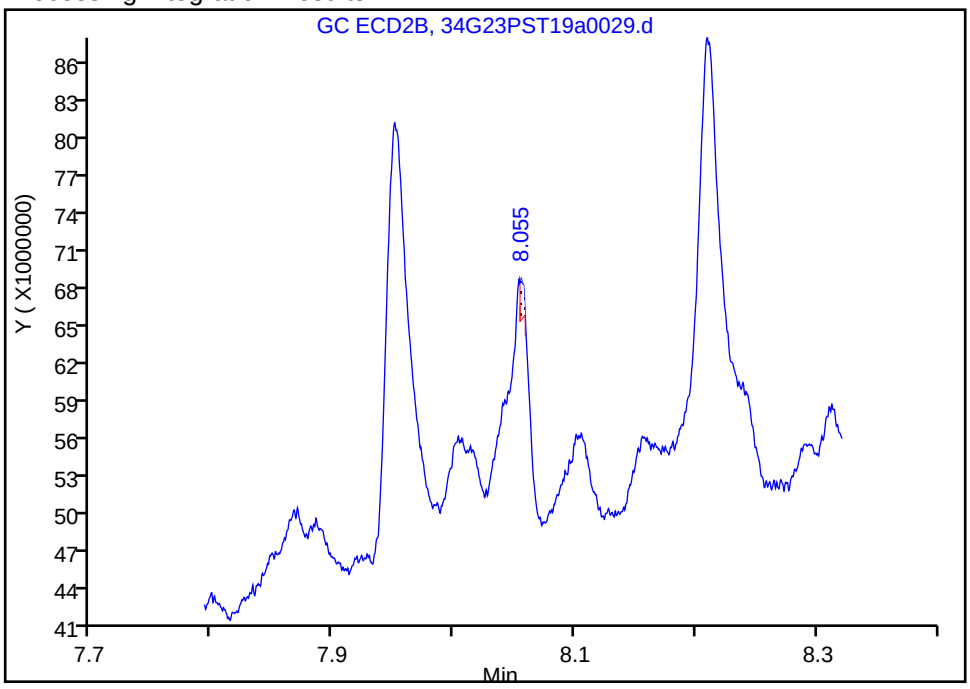
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d		
Injection Date:	23-Jul-2019 20:12:27	Instrument ID:	TAC034
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12
Client ID:	22T-SG-23_20190716		
Operator ID:	CJB	ALS Bottle#:	25 Worklist Smp#: 27
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

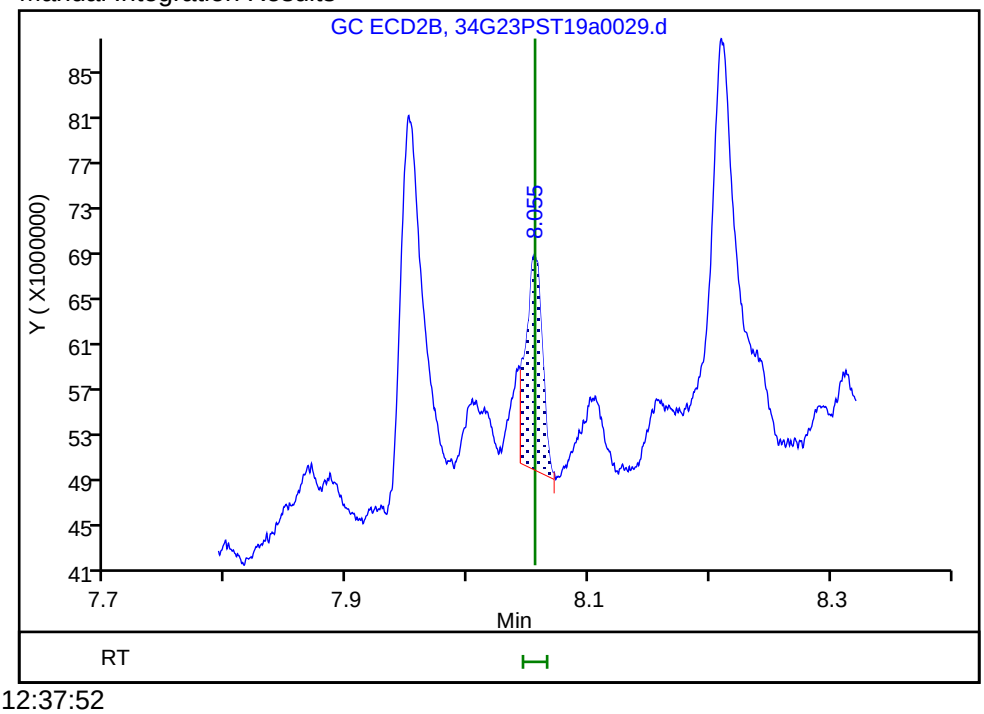
Processing Integration Results

RT: 8.06
Area: 632838
Amount: 0.068544
Amount Units: ug/L



Manual Integration Results

RT: 8.06
Area: 17610308
Amount: 1.907409
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:37:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0029.d

Injection Date: 23-Jul-2019 20:12:27 Instrument ID: TAC034

Lims ID: 580-87706-A-12-B Lab Sample ID: 580-87706-12

Client ID: 22T-SG-23_20190716

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

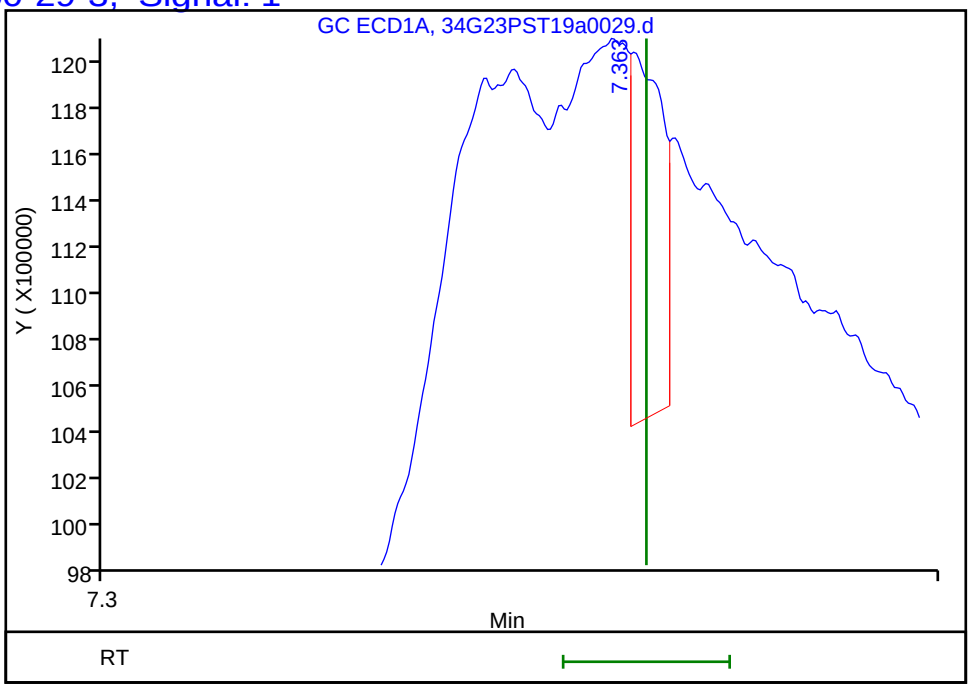
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

RT: 7.36

Response: 396417

Amount: 0.127735



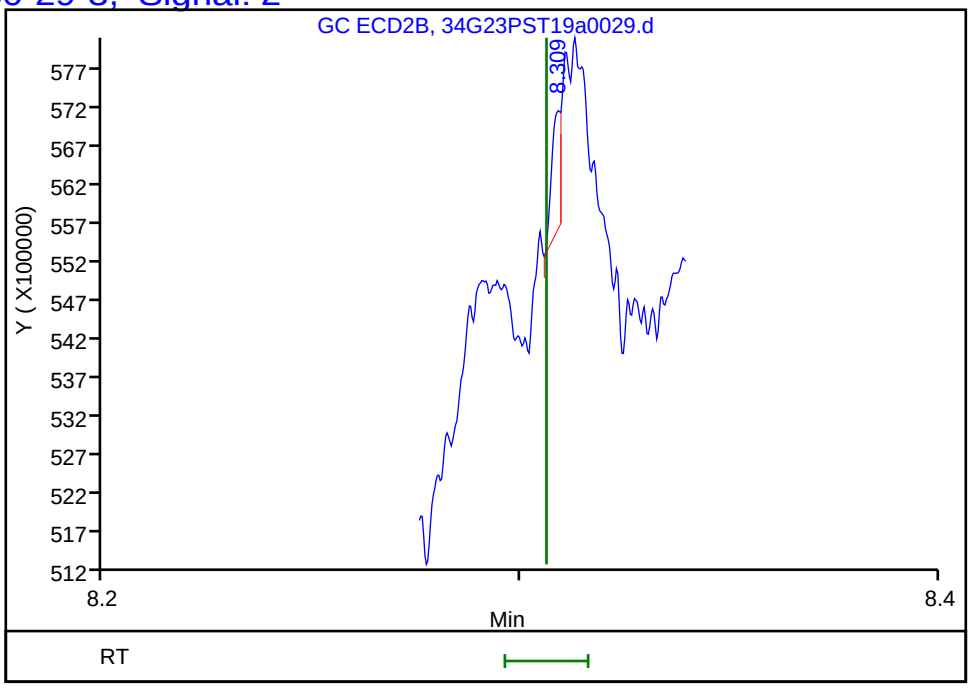
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.31

Response: 226642

Amount: 0.025033



Reviewer: limwirojt, 24-Jul-2019 12:37:58

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Matrix: Solid Lab File ID: 34G23PST19a0030.d

Analysis Method: 8081B Date Collected: 07/16/2019 13:15

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 20.515(g) Date Analyzed: 07/23/2019 20:31

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		2.6	0.58
789-02-6	2,4'-DDT	ND		2.6	1.0
72-54-8	4,4'-DDD	0.62	J	1.0	0.20
72-55-9	4,4'-DDE	0.82	J	1.0	0.28
50-29-3	4,4'-DDT	ND		1.0	0.20

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	42		36-136
877-09-8	Tetrachloro-m-xylene	55		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d
Lims ID: 580-87706-A-13-B
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 20:31:55 ALS Bottle#: 26 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-13-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:41:18 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:41:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.466	4.467	-0.001	166142470	100.0	
2	4.830	4.829	0.001	769760942	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.079	5.081	-0.002	30762356	4.56	
2	5.536	5.535	0.001	94073148	4.44	
					RPD = 2.54	
6 PCB-1232						
1	5.272	5.265	0.007	25112	NC	
1	0.000	5.500	-5.500	0	NC	
1	5.784	5.778	0.006	29225	NC	
1	5.982	5.979	0.003	56654	NC	
1	6.389	6.380	0.009	80786	NC	
		Average of Peak Amounts =			0	
2	5.736	5.740	-0.004	37200	NC	
2	6.329	6.330	-0.001	76805	NC	
2	6.423	6.424	-0.001	126294	NC	
2	6.752	6.746	0.006	32599	NC	
2	0.000	7.037	-7.037	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	0.000	5.500	-5.500	0	NC	
1	5.784	5.778	0.006	29225	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.098	6.093	0.005	32382	NC	
1	6.389	6.380	0.009	80786	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	679011	NC	
2	6.329	6.330	-0.001	76805	NC	
2	6.423	6.424	-0.001	126294	NC	
2	6.731	6.732	-0.001	150035	NC	
2	6.996	6.994	0.002	67703	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.784	5.778	0.006	29225	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.098	6.093	0.005	32382	NC	
1	6.341	6.342	-0.001	44363	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	679011	NC	
2	6.329	6.330	-0.001	76805	NC	
2	6.423	6.424	-0.001	126294	NC	
2	6.545	6.548	-0.003	16493528	NC	
2	6.731	6.732	-0.001	150035	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						M
1	5.784	5.778	0.006	29225	NC	
1	5.982	5.979	0.003	56654	NC	
1	6.098	6.093	0.005	32382	NC	
1	6.389	6.380	0.009	80786	NC	
1	6.767	6.775	-0.008	4957414	NC	M
		Average of Peak Amounts =			0	
2	6.545	6.548	-0.003	16493528	NC	
2	6.731	6.732	-0.001	150035	NC	
2	6.820	6.815	0.005	2587694	NC	
2	0.000	7.037	-7.037	0	NC	
2	7.213	7.215	-0.002	37605	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						M
1	6.341	6.342	-0.001	44363	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.767	6.775	-0.008	4957414	NC	M
1	6.965	6.957	0.008	143838	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	0.000	7.037	-7.037	0	NC	
2	7.167	7.164	0.003	108695	NC	
2	0.000	7.516	-7.516	0	NC	
2	7.679	7.681	-0.002	33652	NC	
2	8.082	8.080	0.002	52192	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						M
1	6.767	6.768	-0.001	4957414	1.57	M
2	7.609	7.607	0.002	36545718	1.86	M
					RPD = 16.50	
30 PCB-1260						M
1	6.890	6.894	-0.004	3357767	NC	M
1	7.088	7.083	0.005	61624	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.535	7.536	-0.001	904761	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.662	7.658	0.004	553905	NC	
2	7.823	7.819	0.004	93791	NC	
2	8.099	8.100	-0.001	207925	NC	
2	8.409	8.414	-0.005	6218334	NC	
2	8.897	8.896	0.001	57104	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.165	7.167	-0.002	3063956	1.19	
2	8.056	8.055	0.001	10763365	0.9701	M
					RPD = 20.25	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.887	8.884	0.003	35878416	3.48	M
2	10.094	10.091	0.003	67961776	3.62	M
					RPD = 3.98	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

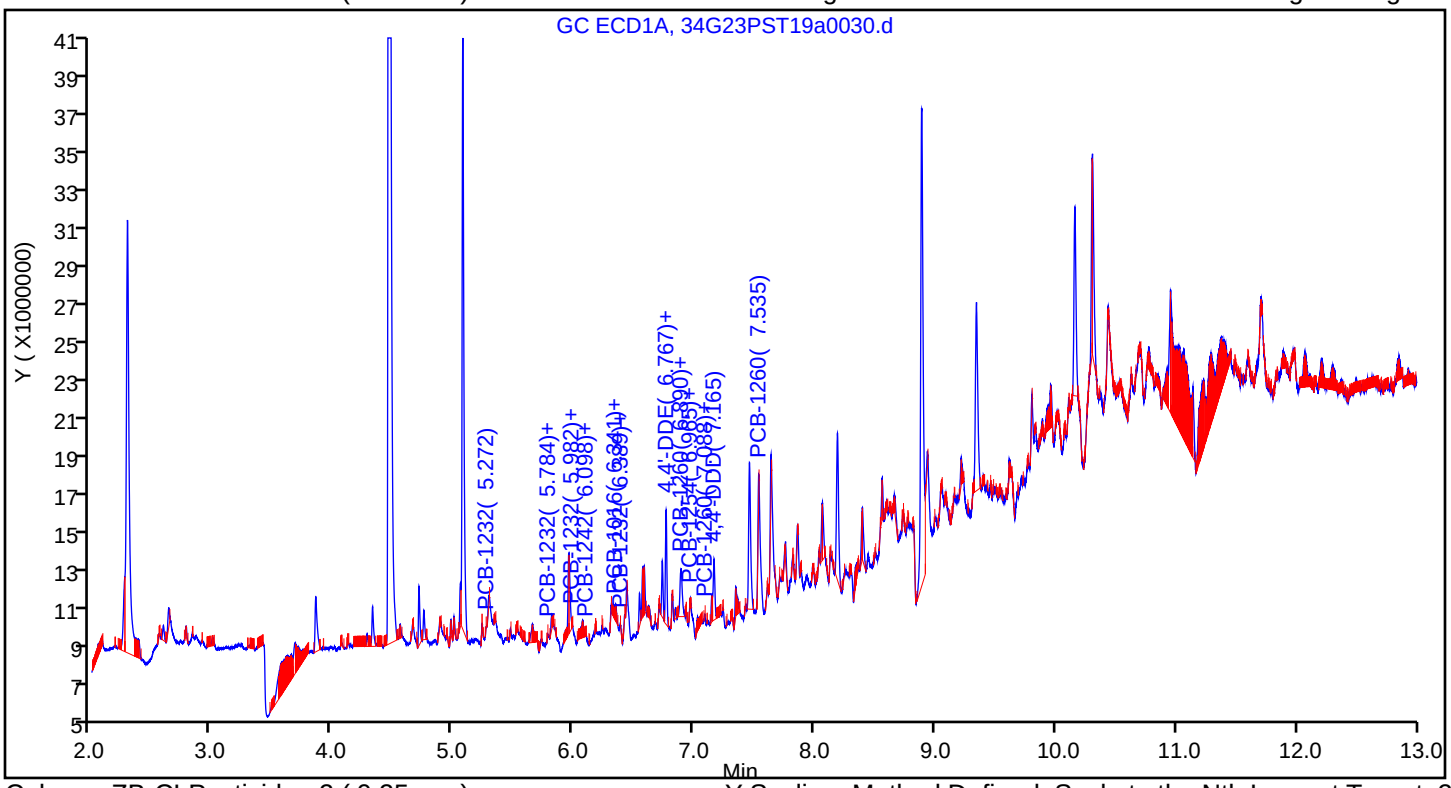
Report Date: 24-Jul-2019 12:41:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

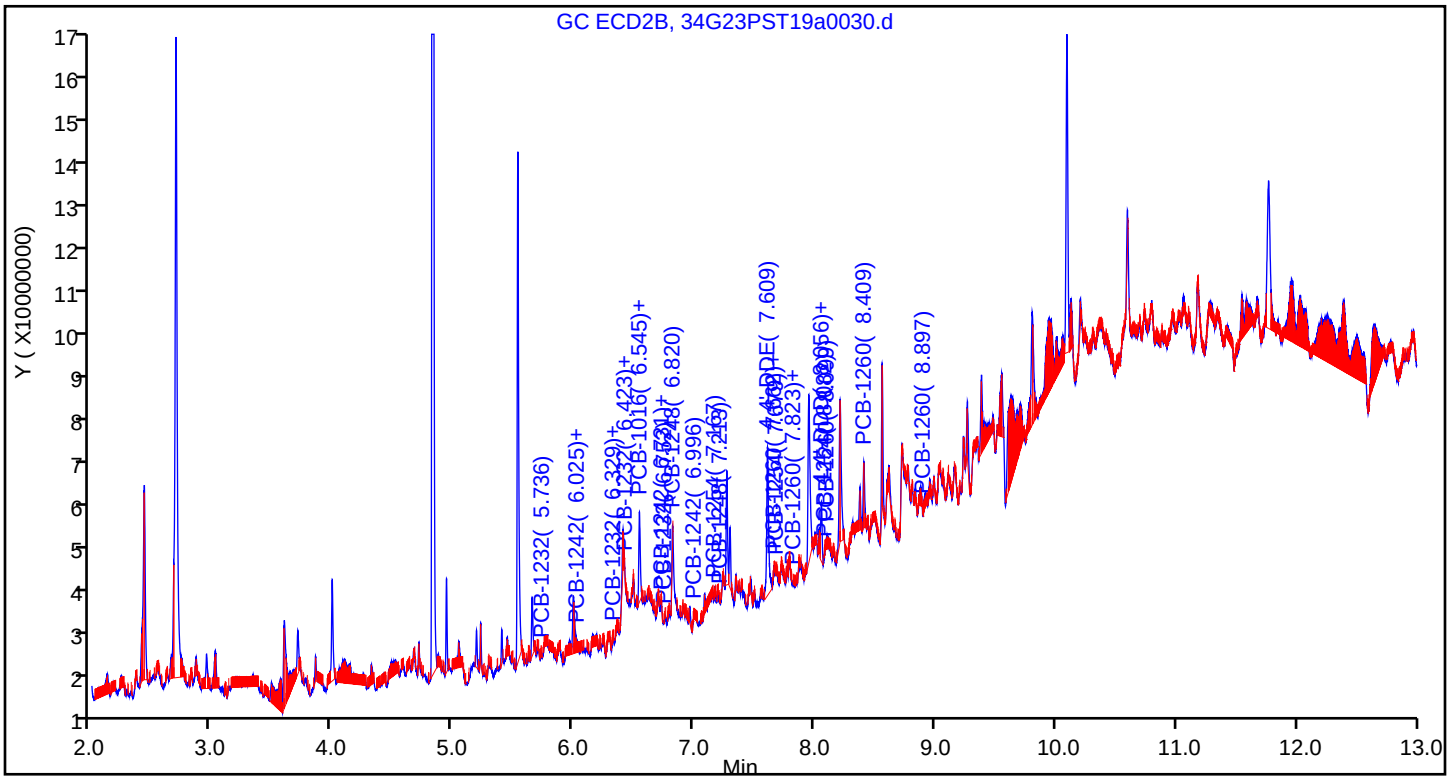
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	CJB	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d				
Lims ID:	580-87706-A-13-B				
Client ID:	22T-SG-10_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 20:31:55	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-13-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:41:18	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:41:18		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.56	54.68
$ 45 DCB Decachlorobiphenyl	25.0	3.48	41.80

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.44	53.30
$ 45 DCB Decachlorobiphenyl	25.0	3.62	43.49

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

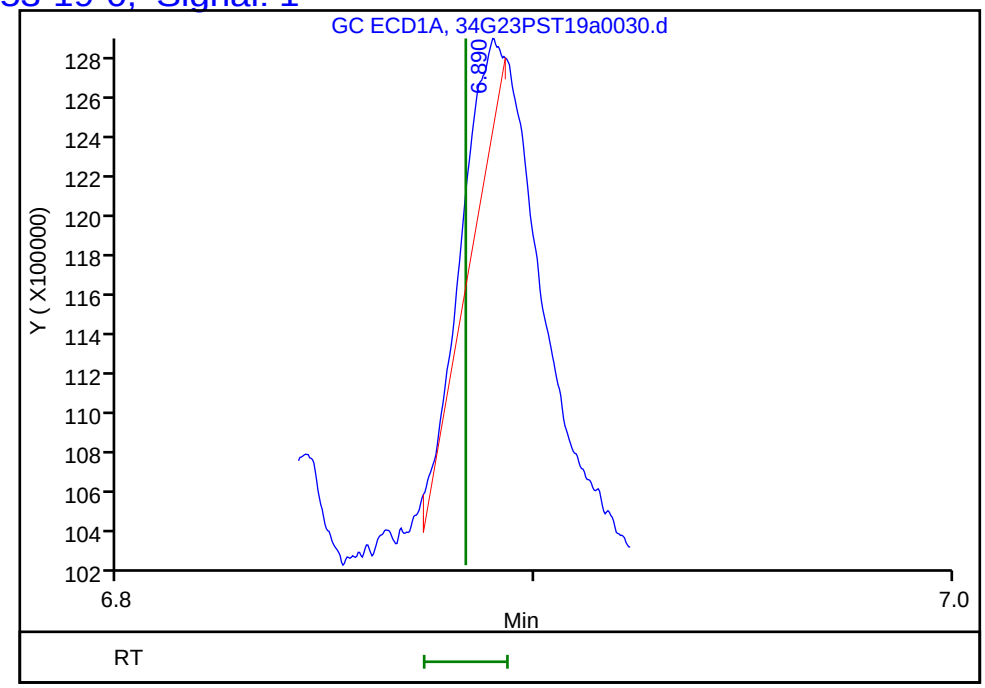
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

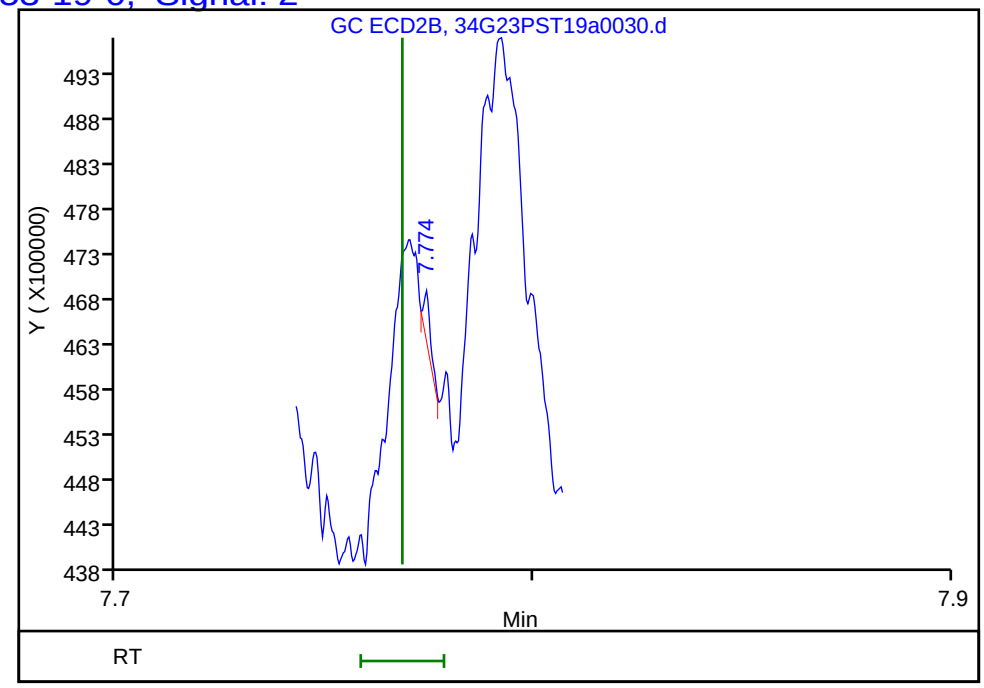
RT: 6.89
Response: 339245
Amount: 0.133932



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 60785
Amount: 0.007802



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

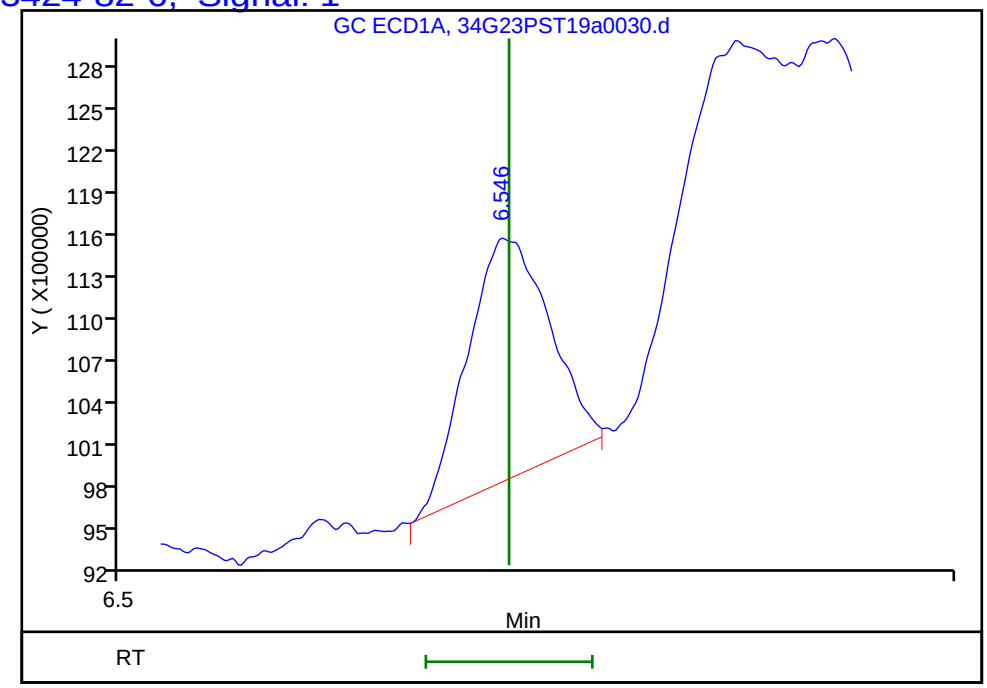
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

RT: 6.55

Response: 1163871

Amount: 0.312481



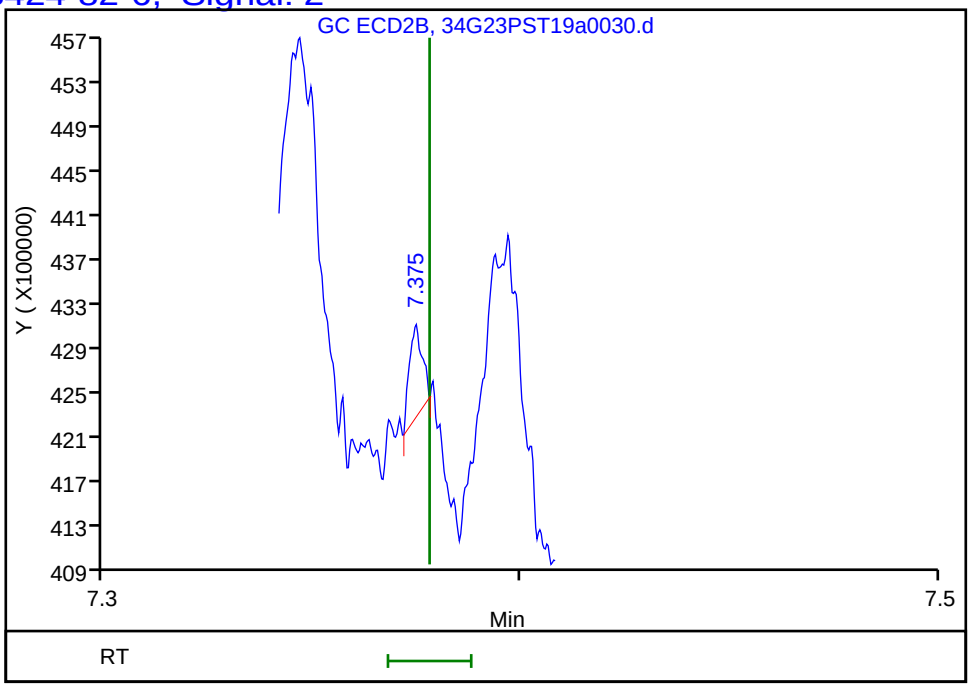
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37

Response: 176941

Amount: 0.014848



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

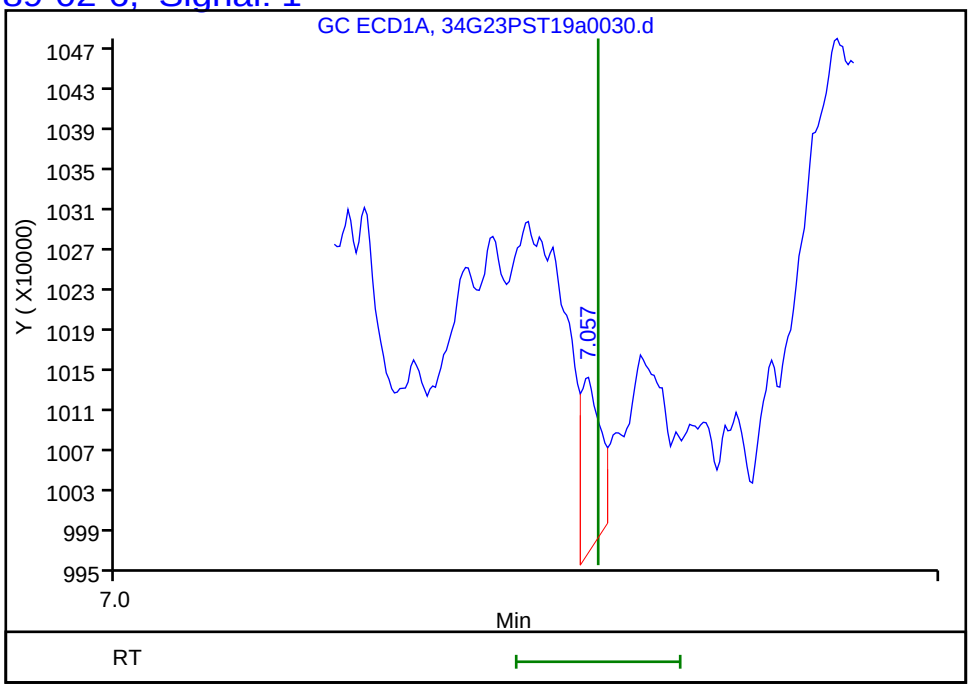
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

RT: 7.06

Response: 26889

Amount: 0.009911



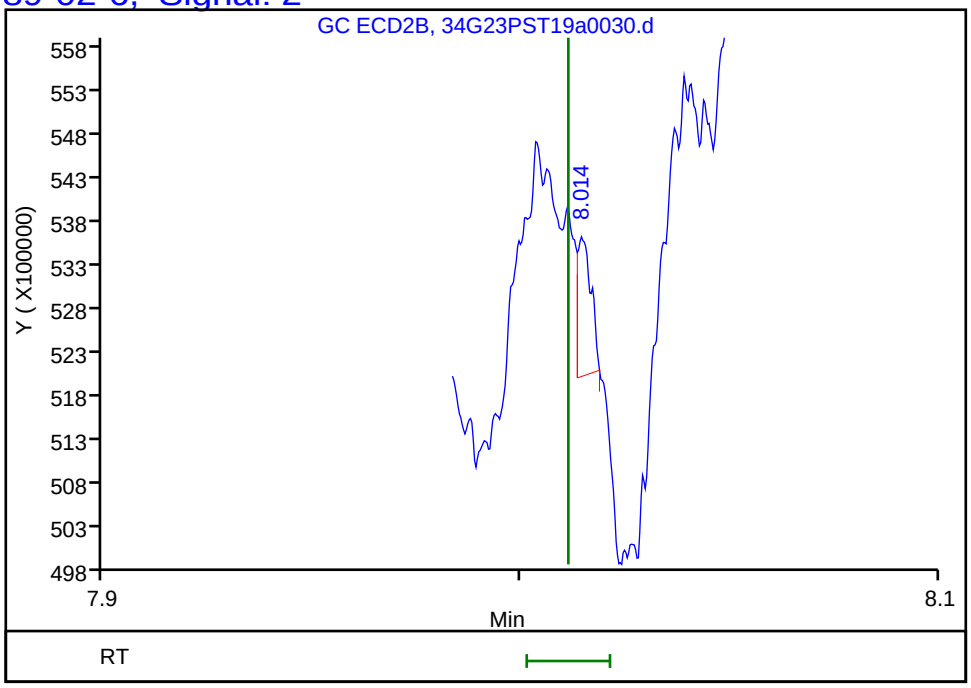
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01

Response: 337530

Amount: 0.042014



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

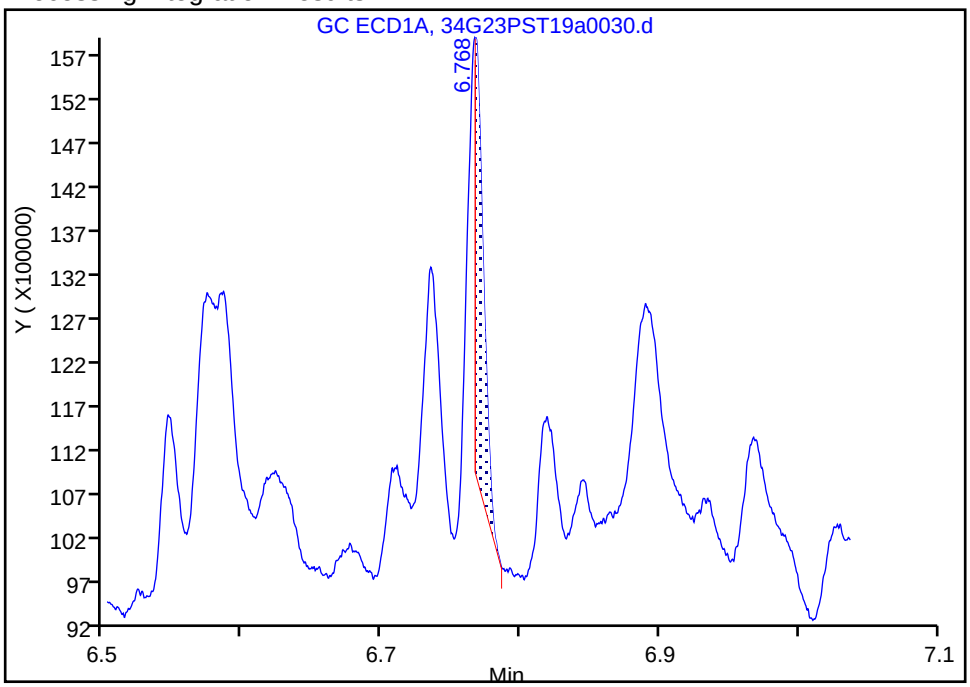
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d		
Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13
Client ID:	22T-SG-10_20190716		
Operator ID:	CJB	ALS Bottle#:	26 Worklist Smp#: 28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

26 4,4'-DDE, CAS: 72-55-9

Signal: 1

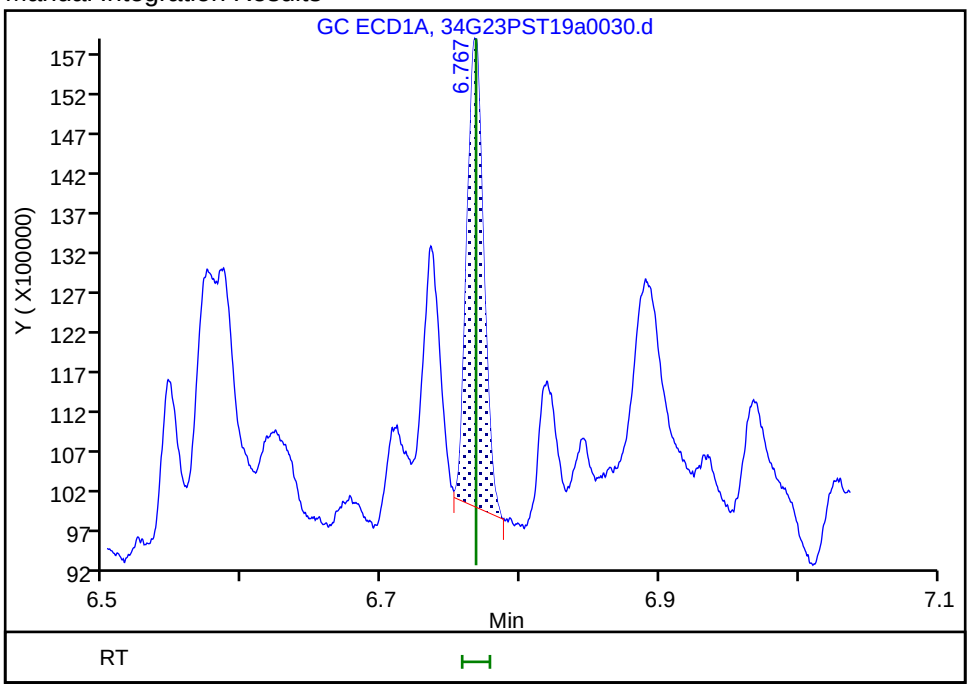
Processing Integration Results

RT: 6.77
Area: 2019066
Amount: 1.163179
Amount Units: ug/L



Manual Integration Results

RT: 6.77
Area: 4957414
Amount: 1.573481
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:39:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

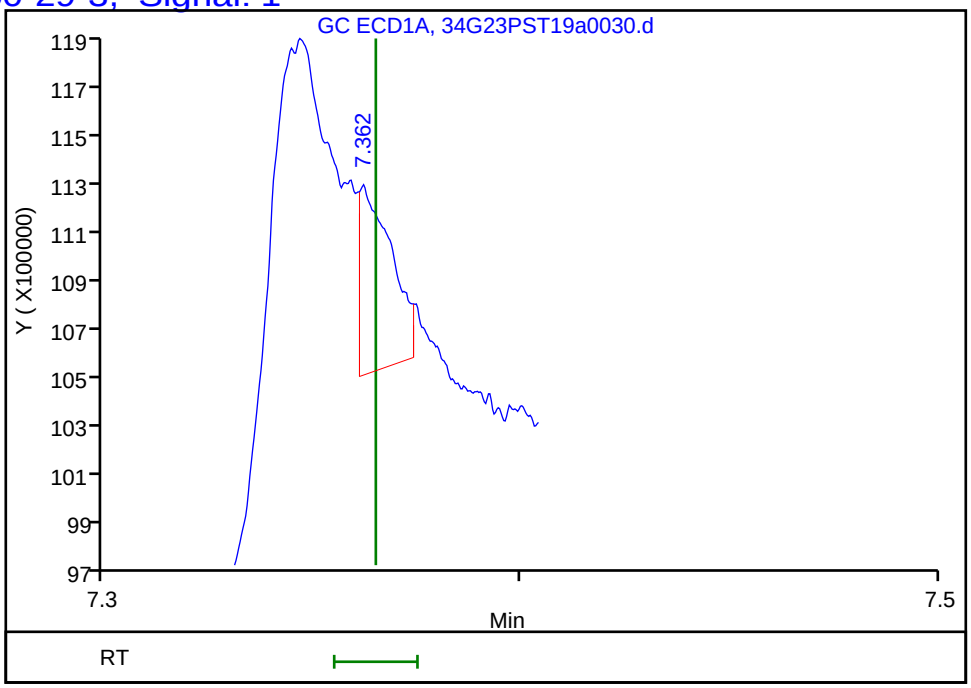
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

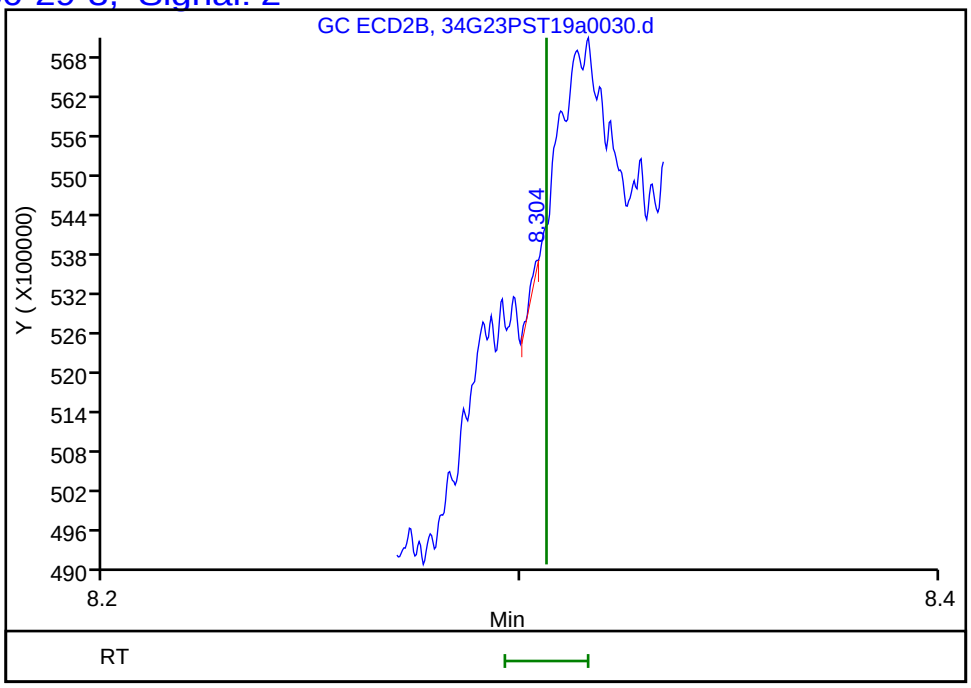
RT: 7.36
Response: 397354
Amount: 0.110146



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30
Response: 33662
Amount: 0.003094



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

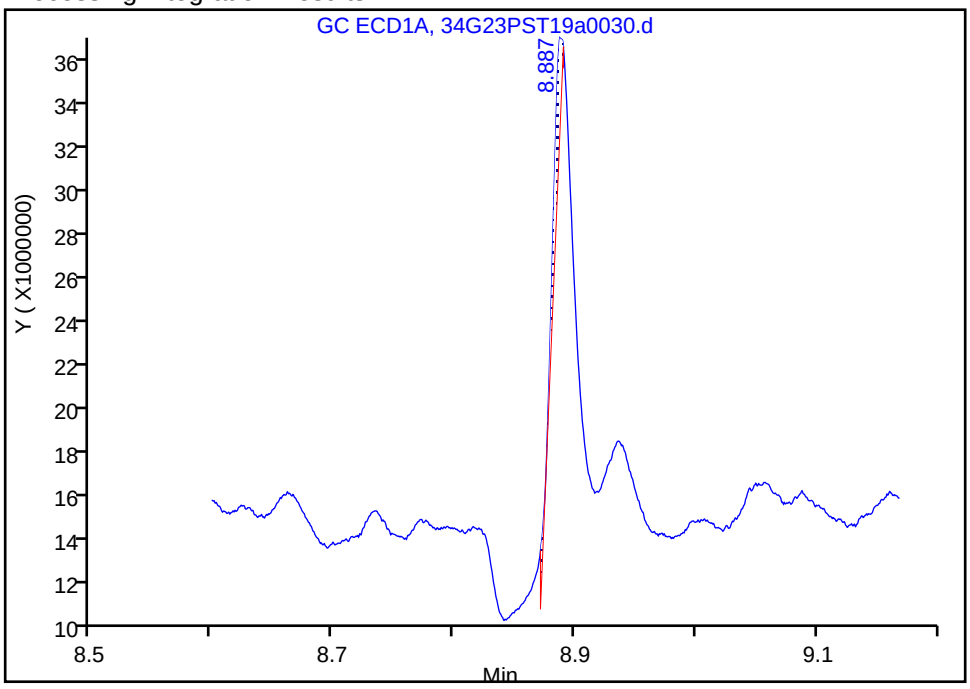
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d				
Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	CJB	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

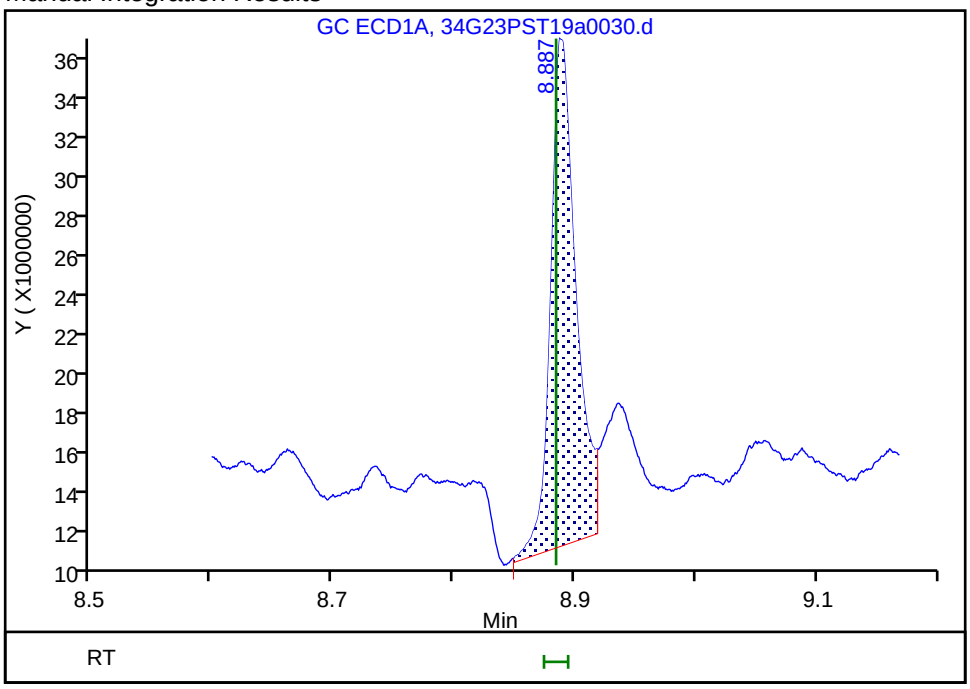
Processing Integration Results

RT: 8.89
Area: 2648185
Amount: -1.049310
Amount Units: ug/L



Manual Integration Results

RT: 8.89
Area: 35878416
Amount: 3.482931
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:41:05

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Matrix: Solid Lab File ID: 34G23PST19a0030.d

Analysis Method: 8081B Date Collected: 07/16/2019 13:15

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 20.515(g) Date Analyzed: 07/23/2019 20:31

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		2.6	0.48

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d
Lims ID: 580-87706-A-13-B
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 20:31:55 ALS Bottle#: 26 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-13-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:41:18 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:41:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.466	4.467	-0.001	166142470	100.0	
2	4.830	4.829	0.001	769760942	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						
1	5.079	5.081	-0.002	30762356	4.56	
2	5.536	5.535	0.001	94073148	4.44	
					RPD = 2.54	
6 PCB-1232						
1	5.272	5.265	0.007	25112	NC	
1	0.000	5.500	-5.500	0	NC	
1	5.784	5.778	0.006	29225	NC	
1	5.982	5.979	0.003	56654	NC	
1	6.389	6.380	0.009	80786	NC	
		Average of Peak Amounts =			0	
2	5.736	5.740	-0.004	37200	NC	
2	6.329	6.330	-0.001	76805	NC	
2	6.423	6.424	-0.001	126294	NC	
2	6.752	6.746	0.006	32599	NC	
2	0.000	7.037	-7.037	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
10 PCB-1242						
1	0.000	5.500	-5.500	0	NC	
1	5.784	5.778	0.006	29225	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.098	6.093	0.005	32382	NC	
1	6.389	6.380	0.009	80786	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	679011	NC	
2	6.329	6.330	-0.001	76805	NC	
2	6.423	6.424	-0.001	126294	NC	
2	6.731	6.732	-0.001	150035	NC	
2	6.996	6.994	0.002	67703	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	5.784	5.778	0.006	29225	NC	
1	0.000	6.009	-6.009	0	NC	
1	6.098	6.093	0.005	32382	NC	
1	6.341	6.342	-0.001	44363	NC	
		Average of Peak Amounts =			0	
2	6.025	6.025	0.000	679011	NC	
2	6.329	6.330	-0.001	76805	NC	
2	6.423	6.424	-0.001	126294	NC	
2	6.545	6.548	-0.003	16493528	NC	
2	6.731	6.732	-0.001	150035	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						M
1	5.784	5.778	0.006	29225	NC	
1	5.982	5.979	0.003	56654	NC	
1	6.098	6.093	0.005	32382	NC	
1	6.389	6.380	0.009	80786	NC	
1	6.767	6.775	-0.008	4957414	NC	M
		Average of Peak Amounts =			0	
2	6.545	6.548	-0.003	16493528	NC	
2	6.731	6.732	-0.001	150035	NC	
2	6.820	6.815	0.005	2587694	NC	
2	0.000	7.037	-7.037	0	NC	
2	7.213	7.215	-0.002	37605	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
19 PCB-1254						M
1	6.341	6.342	-0.001	44363	NC	
1	0.000	6.512	-6.512	0	NC	
1	6.767	6.775	-0.008	4957414	NC	M
1	6.965	6.957	0.008	143838	NC	
1	0.000	7.288	-7.288	0	NC	
		Average of Peak Amounts =			0	
2	0.000	7.037	-7.037	0	NC	
2	7.167	7.164	0.003	108695	NC	
2	0.000	7.516	-7.516	0	NC	
2	7.679	7.681	-0.002	33652	NC	
2	8.082	8.080	0.002	52192	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
26 4,4'-DDE						M
1	6.767	6.768	-0.001	4957414	1.57	M
2	7.609	7.607	0.002	36545718	1.86	M
					RPD = 16.50	
30 PCB-1260						M
1	6.890	6.894	-0.004	3357767	NC	M
1	7.088	7.083	0.005	61624	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.535	7.536	-0.001	904761	NC	
1	0.000	7.966	-7.966	0	NC	
		Average of Peak Amounts =			0	
2	7.662	7.658	0.004	553905	NC	
2	7.823	7.819	0.004	93791	NC	
2	8.099	8.100	-0.001	207925	NC	
2	8.409	8.414	-0.005	6218334	NC	
2	8.897	8.896	0.001	57104	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						M
1	7.165	7.167	-0.002	3063956	1.19	
2	8.056	8.055	0.001	10763365	0.9701	M
					RPD = 20.25	
$ 45 DCB Decachlorobiphenyl						Ma
1	8.887	8.884	0.003	35878416	3.48	M
2	10.094	10.091	0.003	67961776	3.62	M
					RPD = 3.98	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

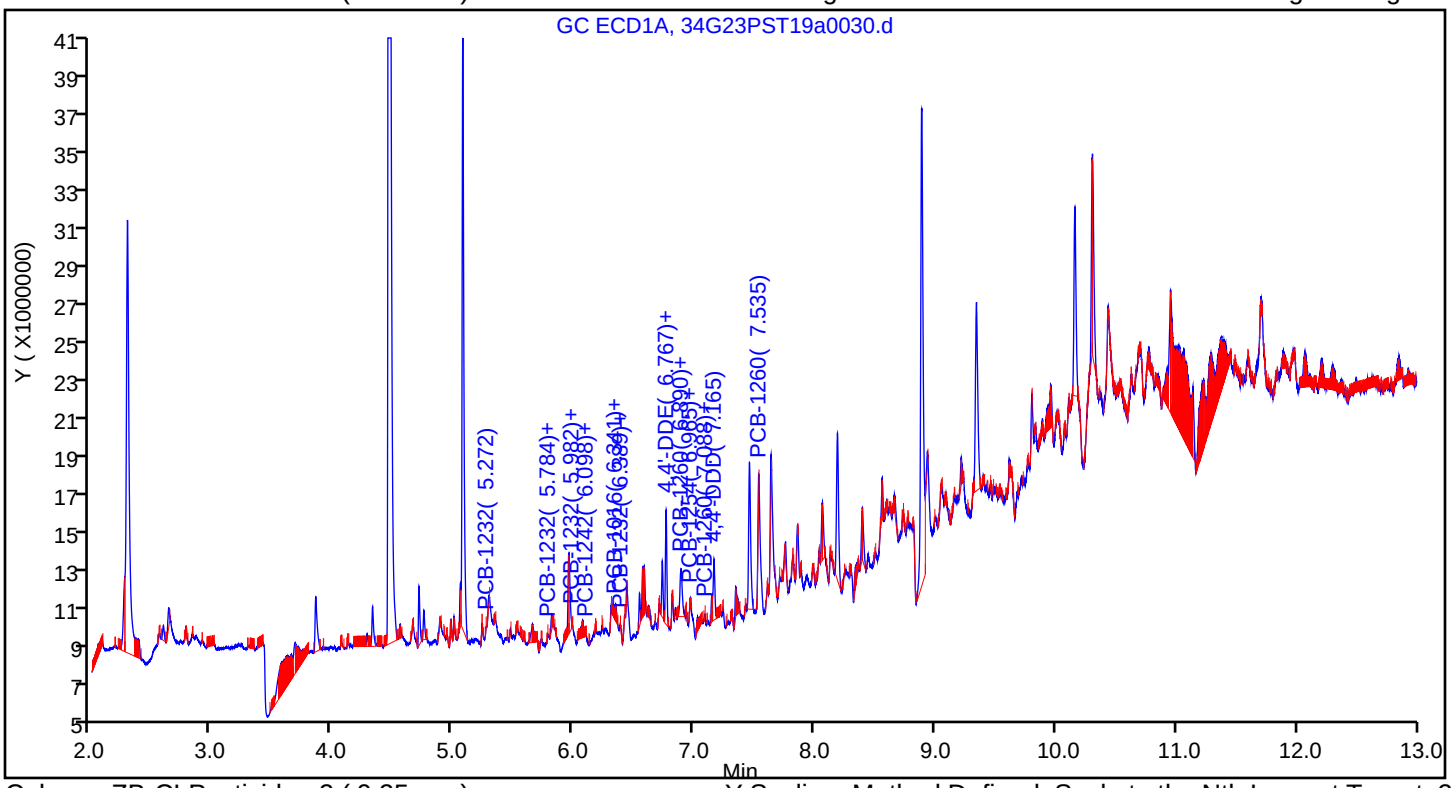
Report Date: 24-Jul-2019 12:41:21 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

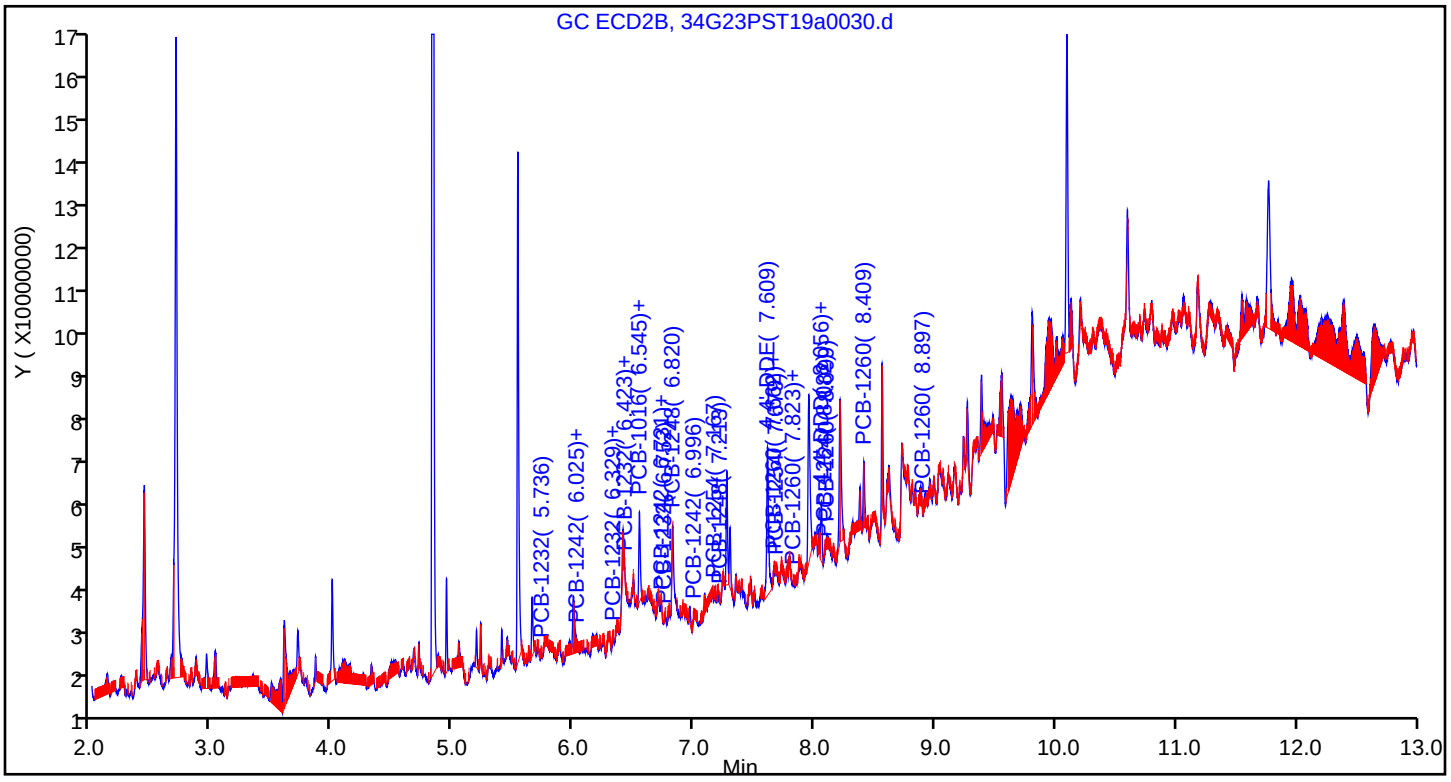
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13
Client ID:	22T-SG-10_20190716		
Operator ID:	CJB	ALS Bottle#:	26 Worklist Smp#: 28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d				
Lims ID:	580-87706-A-13-B				
Client ID:	22T-SG-10_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 20:31:55	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-13-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:41:18	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:41:18		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.56	54.68
$ 45 DCB Decachlorobiphenyl	25.0	3.48	41.80

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.44	53.30
$ 45 DCB Decachlorobiphenyl	25.0	3.62	43.49

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

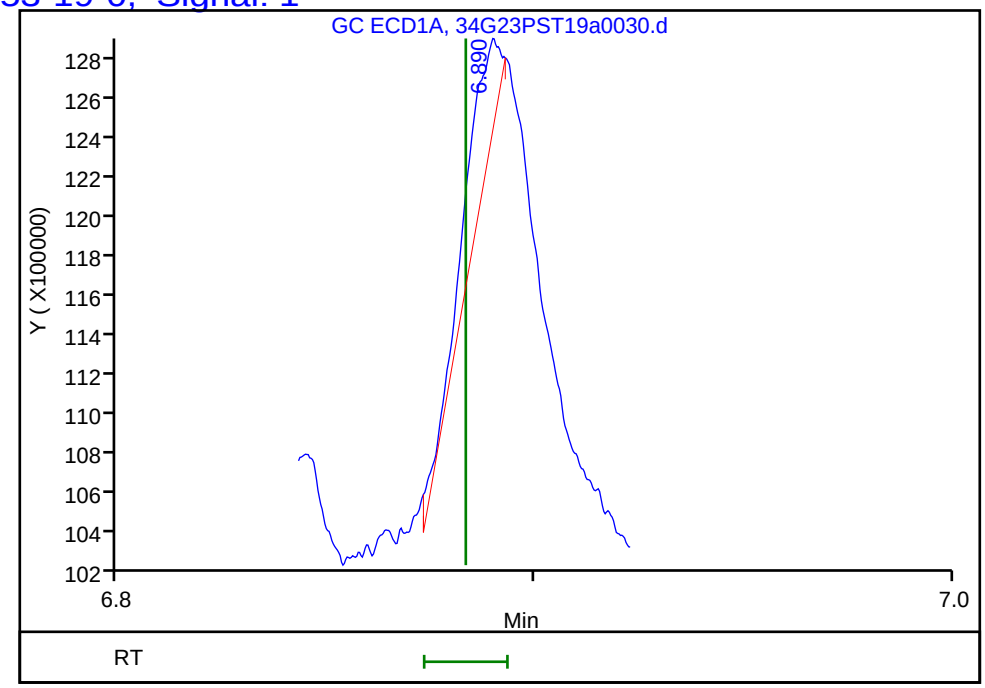
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

28 2,4'-DDD, CAS: 53-19-0, Signal: 1

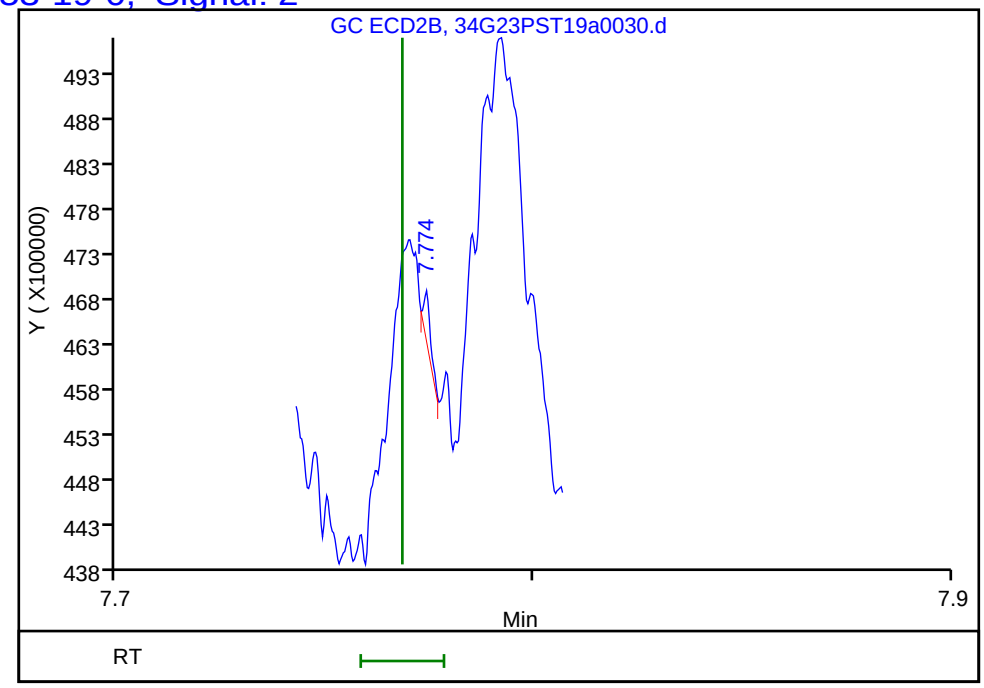
RT: 6.89
Response: 339245
Amount: 0.133932



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

28 2,4'-DDD, CAS: 53-19-0, Signal: 2

RT: 7.77
Response: 60785
Amount: 0.007802



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

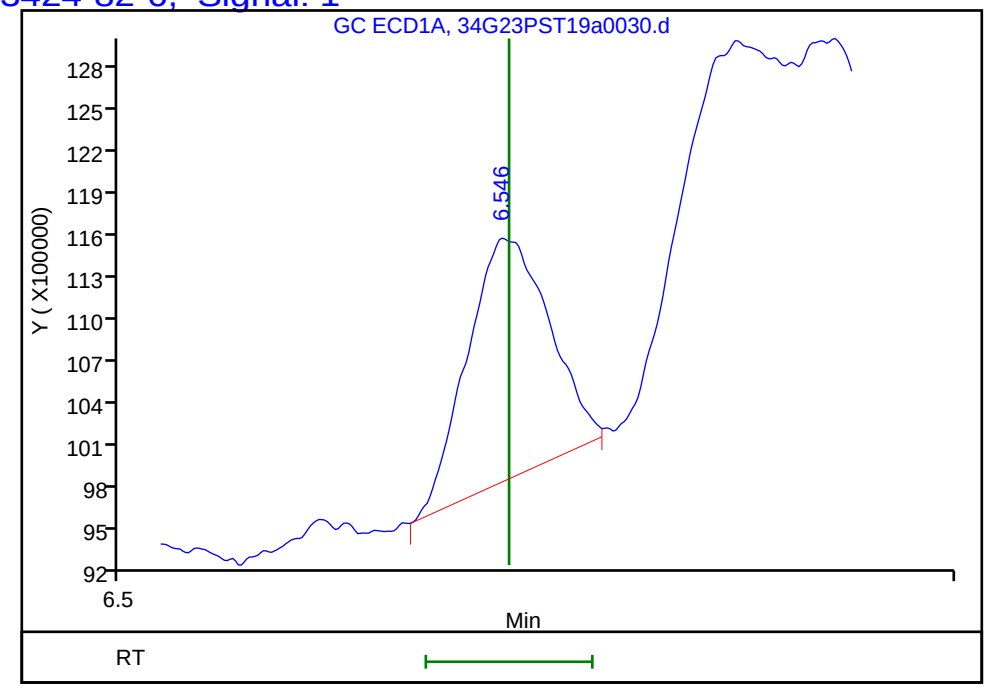
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

RT: 6.55

Response: 1163871

Amount: 0.312481



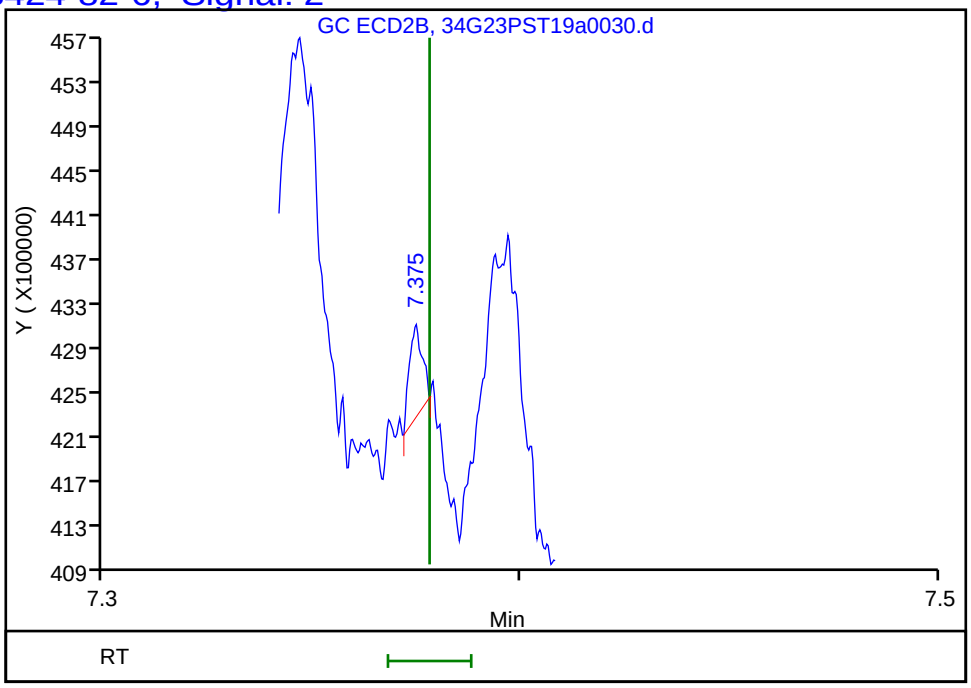
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.37

Response: 176941

Amount: 0.014848



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

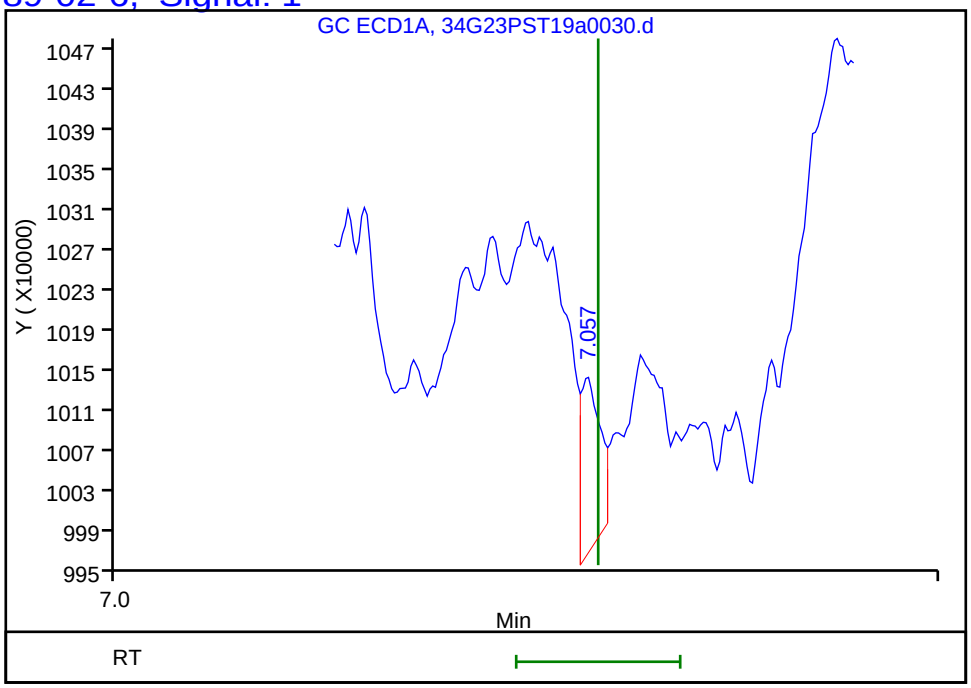
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

RT: 7.06

Response: 26889

Amount: 0.009911



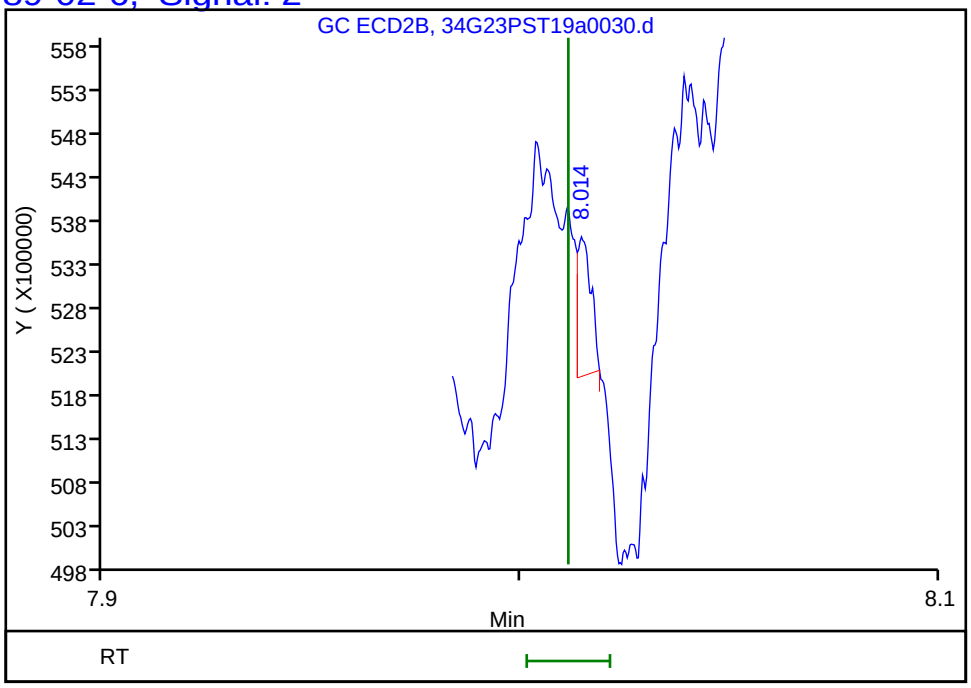
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01

Response: 337530

Amount: 0.042014



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

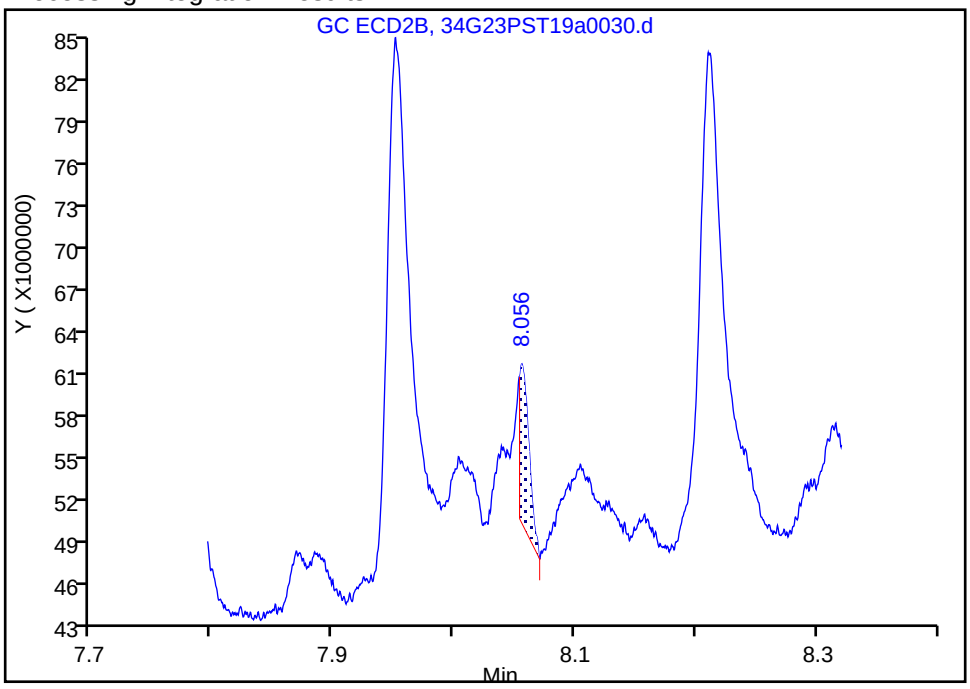
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d		
Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13
Client ID:	22T-SG-10_20190716		
Operator ID:	CJB	ALS Bottle#:	26 Worklist Smp#: 28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

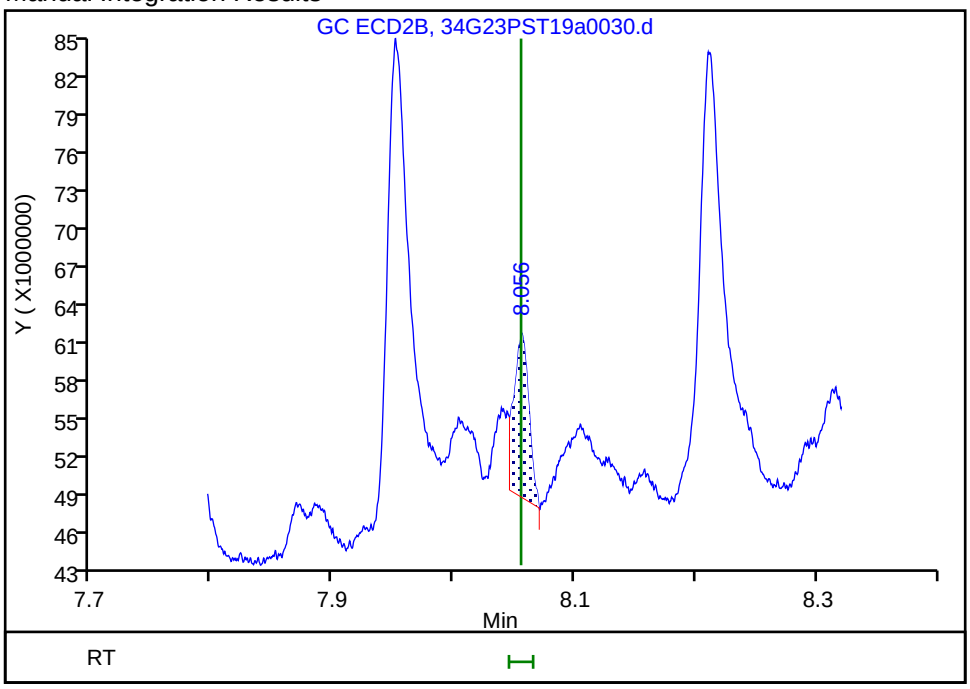
Processing Integration Results

RT: 8.06
Area: 5833927
Amount: 0.525815
Amount Units: ug/L



Manual Integration Results

RT: 8.06
Area: 10763365
Amount: 0.970108
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:40:47

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

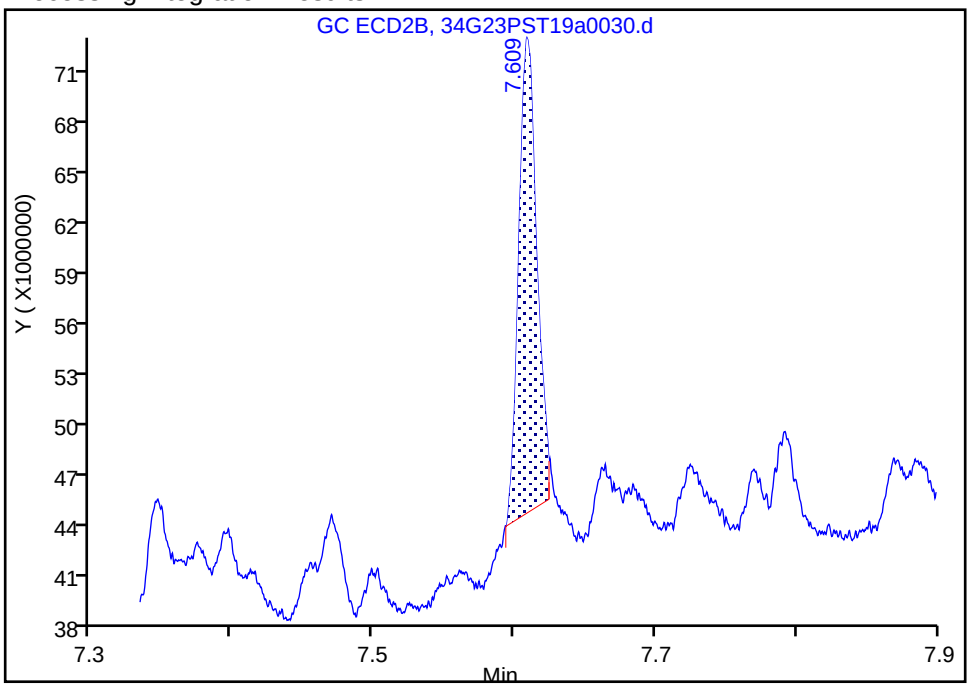
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d				
Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	CJB	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 4,4'-DDE, CAS: 72-55-9

Signal: 2

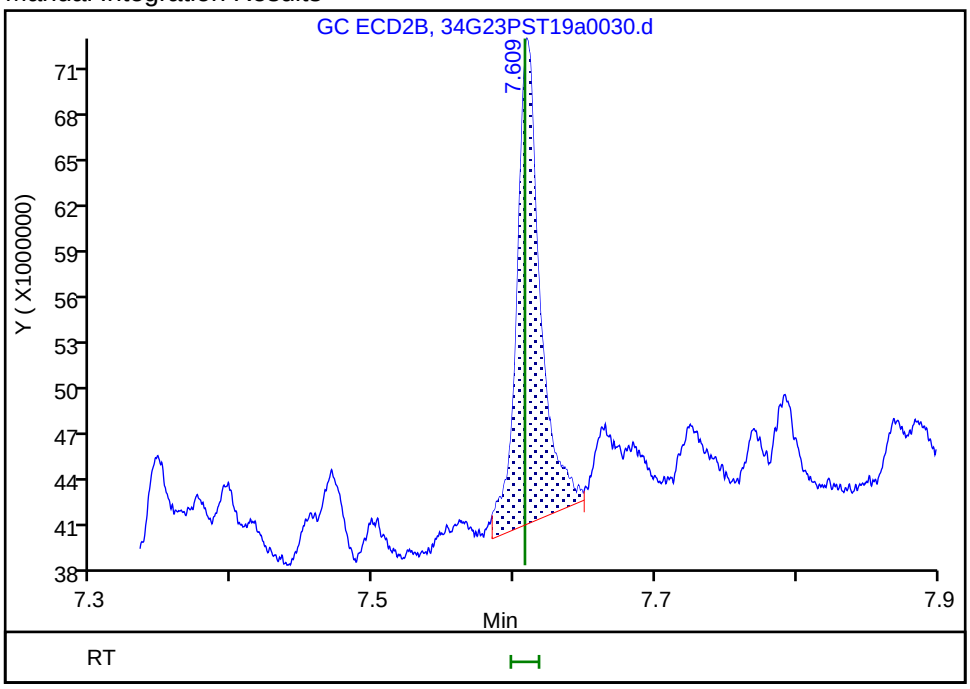
Processing Integration Results

RT: 7.61
Area: 24738892
Amount: 1.256748
Amount Units: ug/L



Manual Integration Results

RT: 7.61
Area: 36545718
Amount: 1.856541
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:40:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d

Injection Date: 23-Jul-2019 20:31:55 Instrument ID: TAC034

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

Client ID: 22T-SG-10_20190716

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

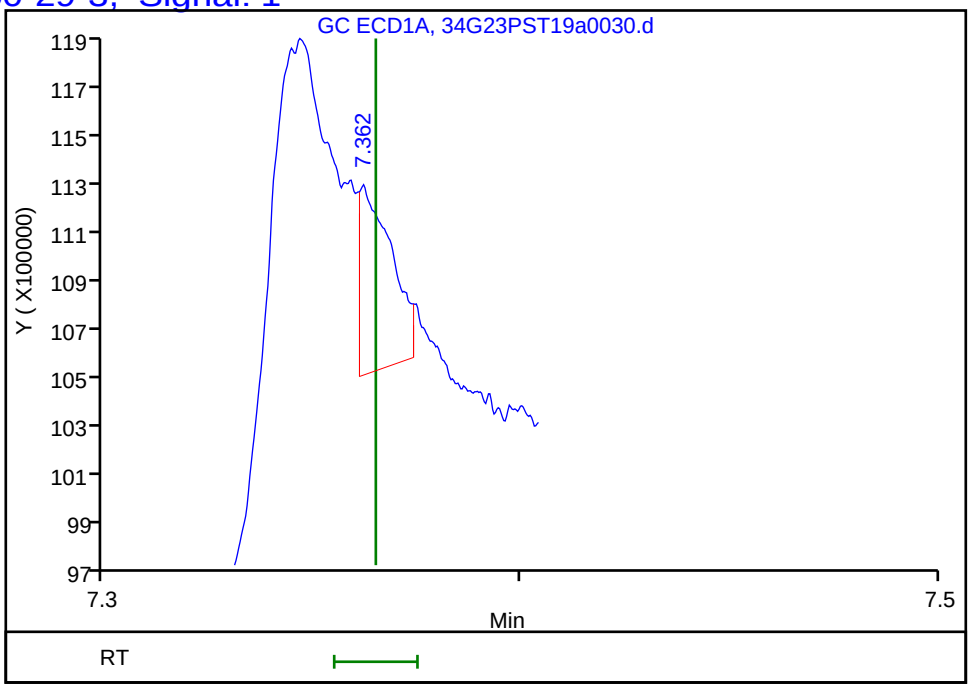
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 4,4'-DDT, CAS: 50-29-3, Signal: 1

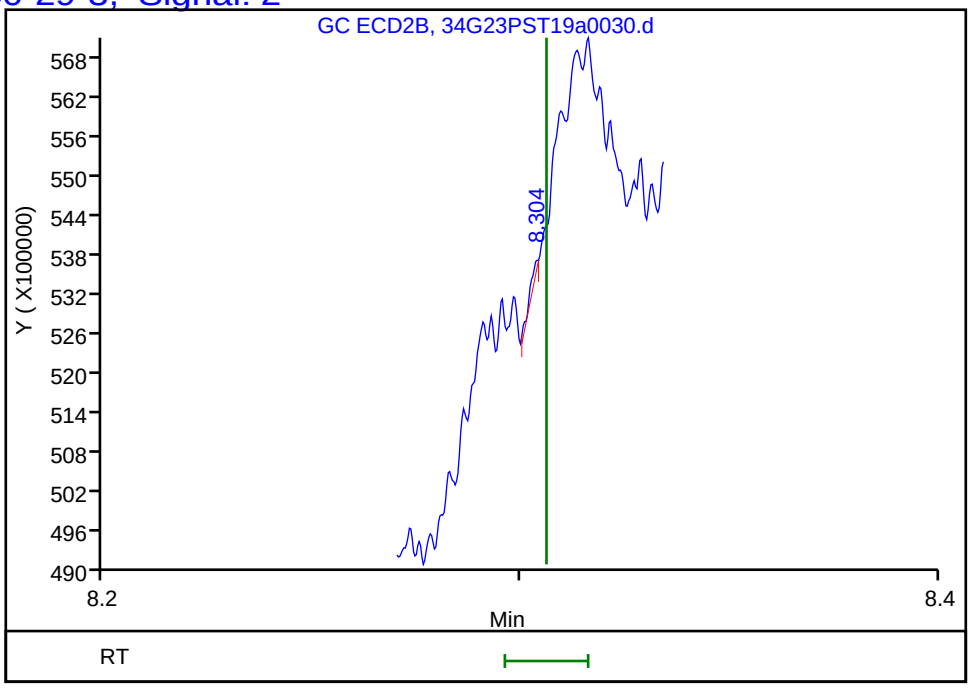
RT: 7.36
Response: 397354
Amount: 0.110146



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

38 4,4'-DDT, CAS: 50-29-3, Signal: 2

RT: 8.30
Response: 33662
Amount: 0.003094



Reviewer: limwirojt, 24-Jul-2019 12:41:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

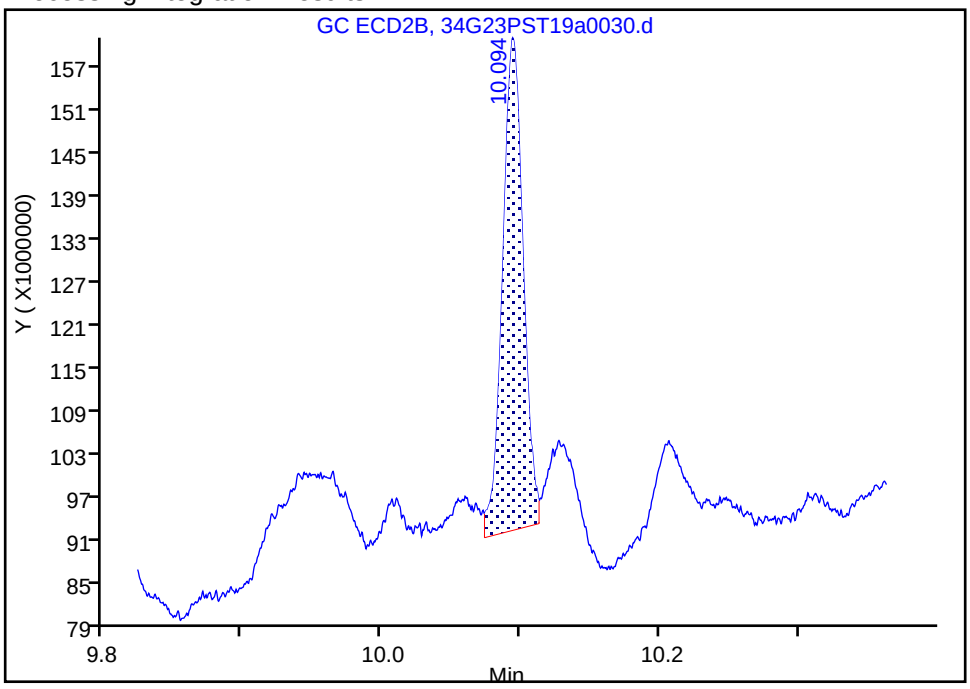
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0030.d				
Injection Date:	23-Jul-2019 20:31:55	Instrument ID:	TAC034		
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	CJB	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

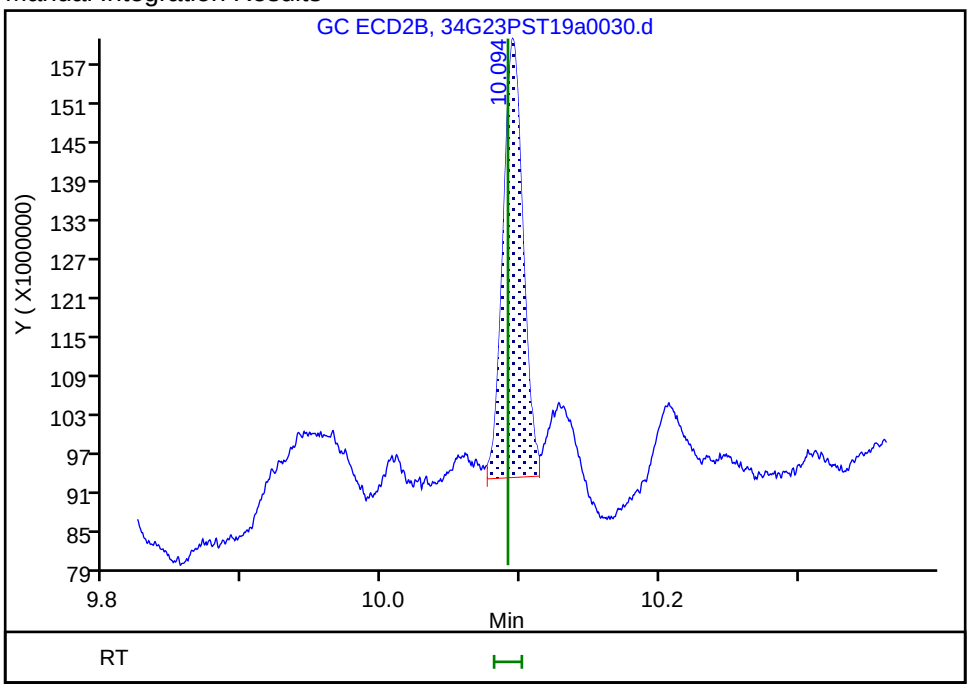
Processing Integration Results

RT: 10.09
Area: 70527042
Amount: 3.776261
Amount Units: ug/L



Manual Integration Results

RT: 10.09
Area: 67961776
Amount: 3.624373
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:41:03

Audit Action: Manually Integrated Audit Reason: Assign Peak

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 34G23PST19a0031.d

Analysis Method: 8081B Date Collected: 07/16/2019 14:08

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.660(g) Date Analyzed: 07/23/2019 20:51

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
789-02-6	2,4'-DDT	ND		3.2	1.2
72-54-8	4,4'-DDD	15		1.3	0.25
72-55-9	4,4'-DDE	7.6		1.3	0.34
50-29-3	4,4'-DDT	ND		1.3	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	21	X	36-136
877-09-8	Tetrachloro-m-xylene	44	X	50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d
Lims ID: 580-87706-A-14-B
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 20:51:26 ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-14-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:42:24 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:42:24

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.466	4.467	-0.001	116479169	100.0	
2	4.831	4.829	0.002	658841172	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						a
1	5.080	5.081	-0.001	17269909	3.65	a
2	5.546	5.535	0.011	559962117	30.5	a
					RPD = 157.28	
10 PCB-1242						
1	0.000	5.500	-5.500	0	NC	
1	0.000	5.778	-5.778	0	NC	
1	6.010	6.009	0.001	50933	NC	
1	6.090	6.093	-0.003	33724	NC	
1	6.390	6.380	0.010	650604	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	4552599	NC	
2	6.329	6.330	-0.001	68424	NC	
2	6.424	6.424	0.000	585747	NC	
2	6.733	6.732	0.001	1090304	NC	
2	6.995	6.994	0.001	135420	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	0.000	5.778	-5.778	0	NC	
1	6.010	6.009	0.001	50933	NC	
1	6.090	6.093	-0.003	33724	NC	
1	6.341	6.342	-0.001	144483	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	4552599	NC	
2	6.329	6.330	-0.001	68424	NC	
2	6.424	6.424	0.000	585747	NC	
2	6.549	6.548	0.001	1249614	NC	
2	6.733	6.732	0.001	1090304	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	0.000	5.778	-5.778	0	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.090	6.093	-0.003	33724	NC	
1	6.390	6.380	0.010	650604	NC	
1	6.770	6.775	-0.005	55081665	NC	
		Average of Peak Amounts =			0	
2	6.549	6.548	0.001	1249614	NC	
2	6.733	6.732	0.001	1090304	NC	
2	0.000	6.815	-6.815	0	NC	
2	7.039	7.037	0.002	64033	NC	
2	7.216	7.215	0.001	57250	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
21 2,4'-DDE						
1	6.550	6.547	0.003	44713202	17.1	
2	7.381	7.378	0.003	100522878	9.86	
					RPD = 53.88	
26 4,4'-DDE						
1	6.770	6.768	0.002	55081665	11.9	
2	7.612	7.607	0.005	168670948	10.0	
					RPD = 16.84	
28 2,4'-DDD						M
1	6.891	6.883	0.008	53923055	30.4	M
2	7.772	7.768	0.004	60806930	9.12	
					RPD = 107.62	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
30 PCB-1260						M
1	6.891	6.894	-0.003	53923055	NC	M
1	7.089	7.083	0.006	26716	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.539	7.536	0.003	506416	NC	
1	7.966	7.966	0.000	20758	NC	
		Average of Peak Amounts =			0	
2	7.657	7.658	-0.001	1530839	NC	
2	7.818	7.819	-0.001	35555	NC	
2	8.099	8.100	-0.001	2099823	NC	
2	8.412	8.414	-0.002	2120447	NC	
2	0.000	8.896	-8.896	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						
1	7.169	7.167	0.002	64593306	23.2	
2	8.059	8.055	0.004	225657632	23.8	
					RPD = 2.32	
$ 45 DCB Decachlorobiphenyl						M
1	8.892	8.884	0.008	16115884	1.72	
2	10.095	10.091	0.004	110007193	7.21	M
					RPD = 122.82	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:42:25 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d

Injection Date: 23-Jul-2019 20:51:26 Instrument ID: TAC034

Lims ID: 580-87706-A-14-B Lab Sample ID: 580-87706-14

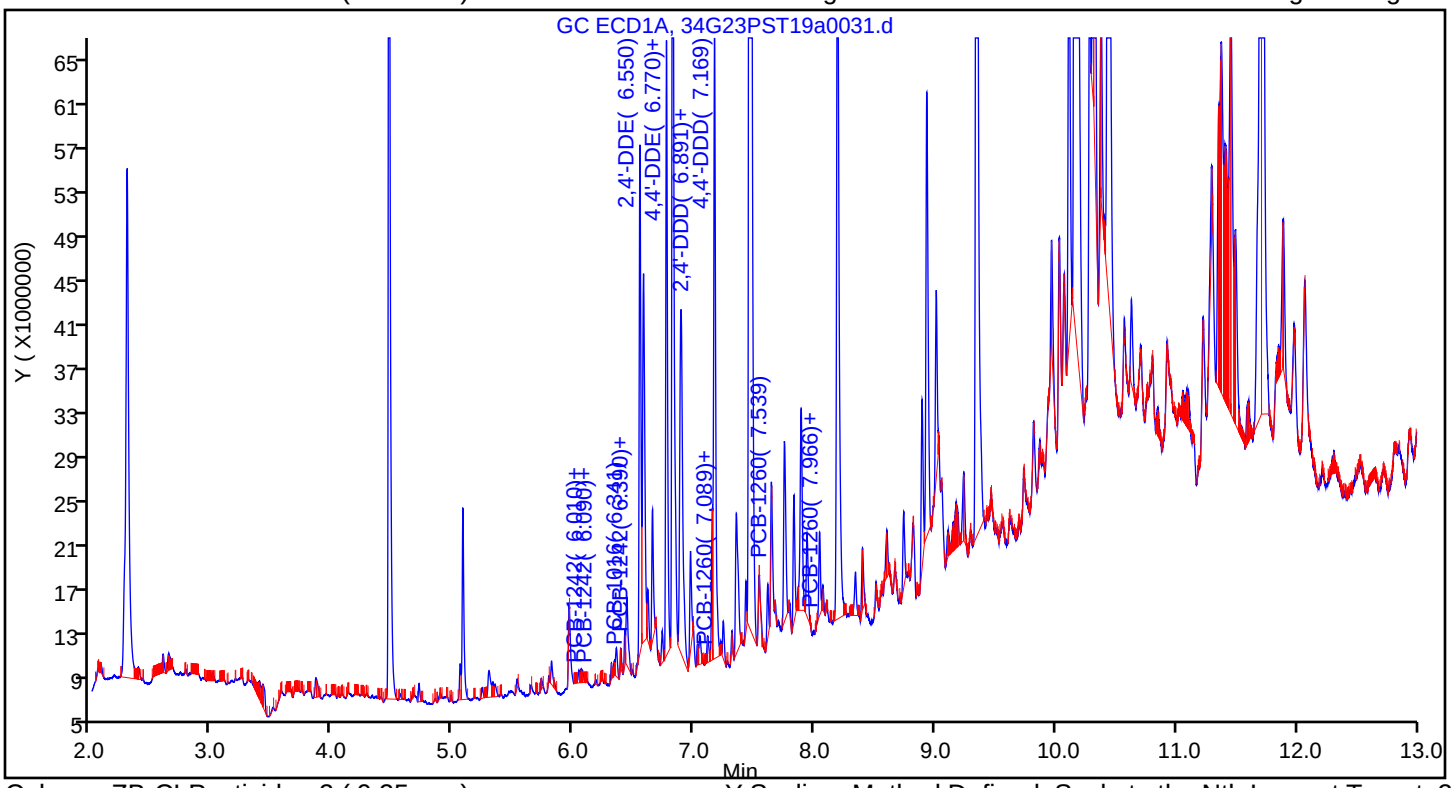
Client ID: 22T-SG-21_20190716

Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29

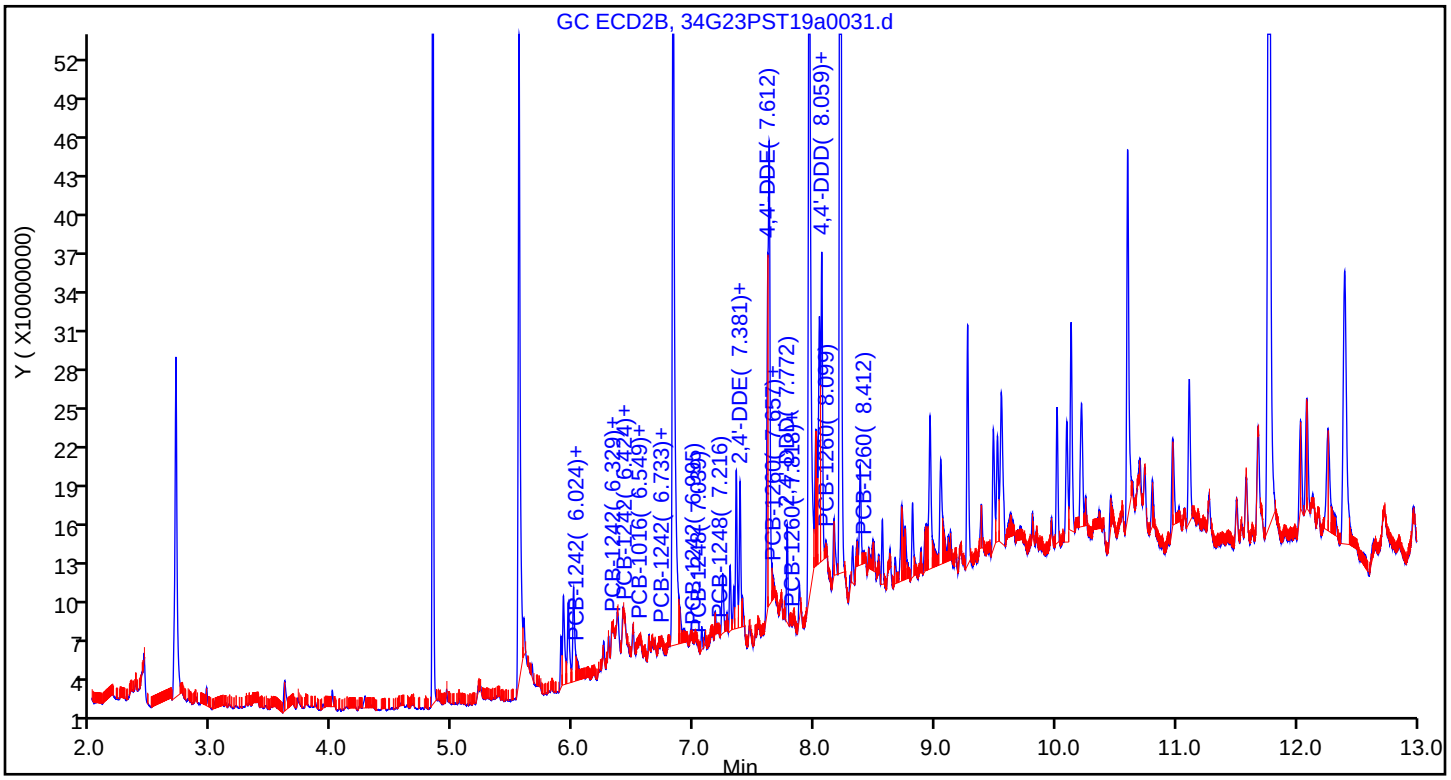
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d				
Lims ID:	580-87706-A-14-B				
Client ID:	22T-SG-21_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 20:51:26	ALS Bottle#:	27	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-14-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:42:24	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:42:24		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	3.65	43.78
$ 45 DCB Decachlorobiphenyl	25.0	1.72	20.69

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	30.5	366.14
$ 45 DCB Decachlorobiphenyl	25.0	7.21	86.53

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

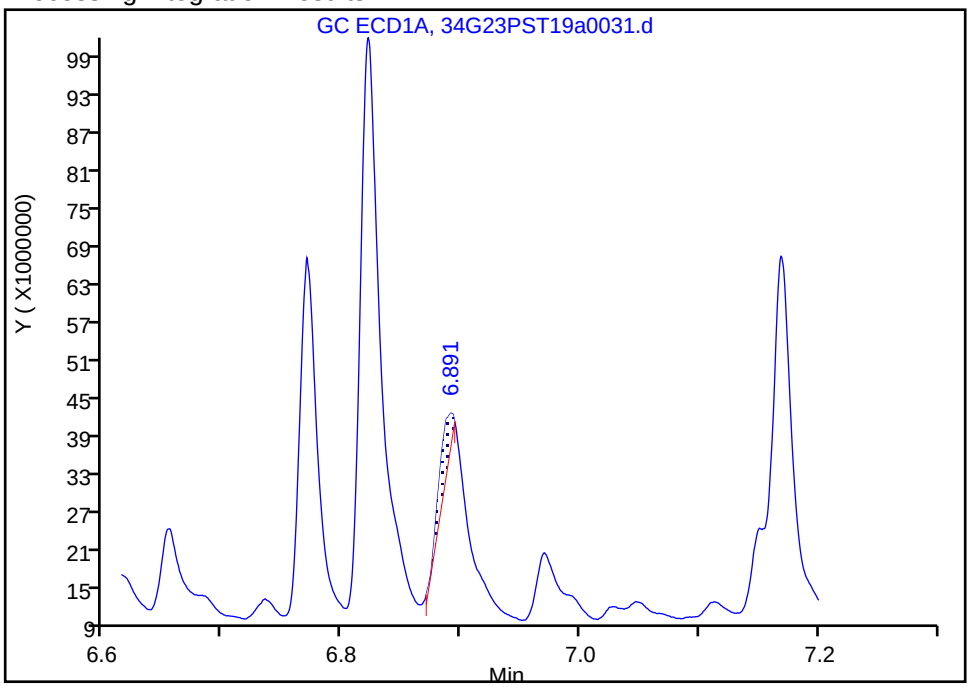
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d				
Injection Date:	23-Jul-2019 20:51:26	Instrument ID:	TAC034		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	CJB	ALS Bottle#:	27	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

28 2,4'-DDD, CAS: 53-19-0

Signal: 1

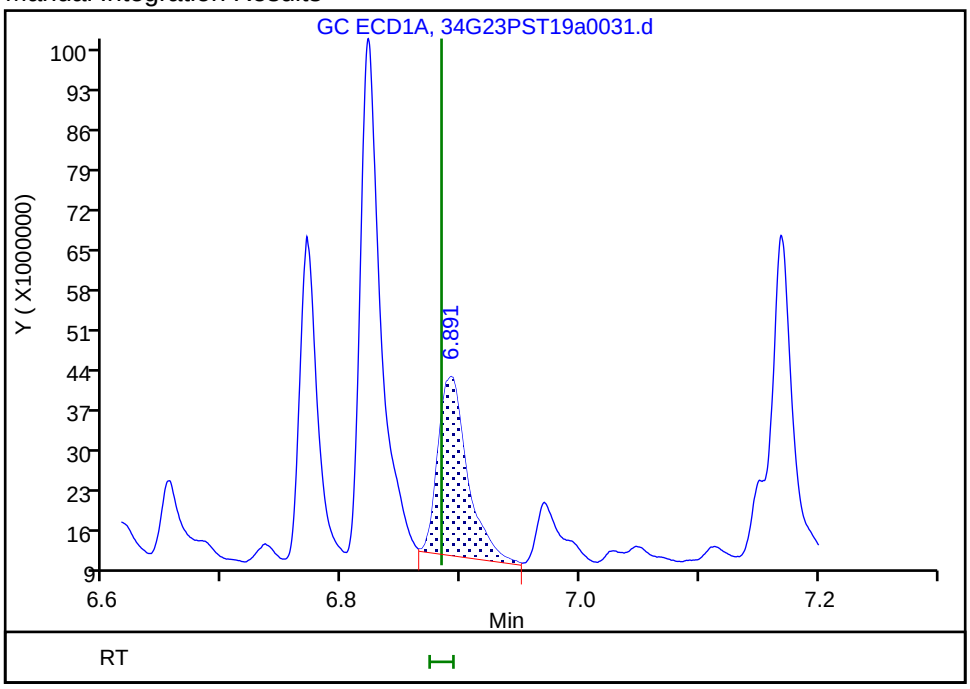
Processing Integration Results

RT: 6.89
Area: 6660495
Amount: 3.750692
Amount Units: ug/L



Manual Integration Results

RT: 6.89
Area: 53923055
Amount: 30.365425
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:41:53

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d

Injection Date: 23-Jul-2019 20:51:26 Instrument ID: TAC034

Lims ID: 580-87706-A-14-B Lab Sample ID: 580-87706-14

Client ID: 22T-SG-21_20190716

Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

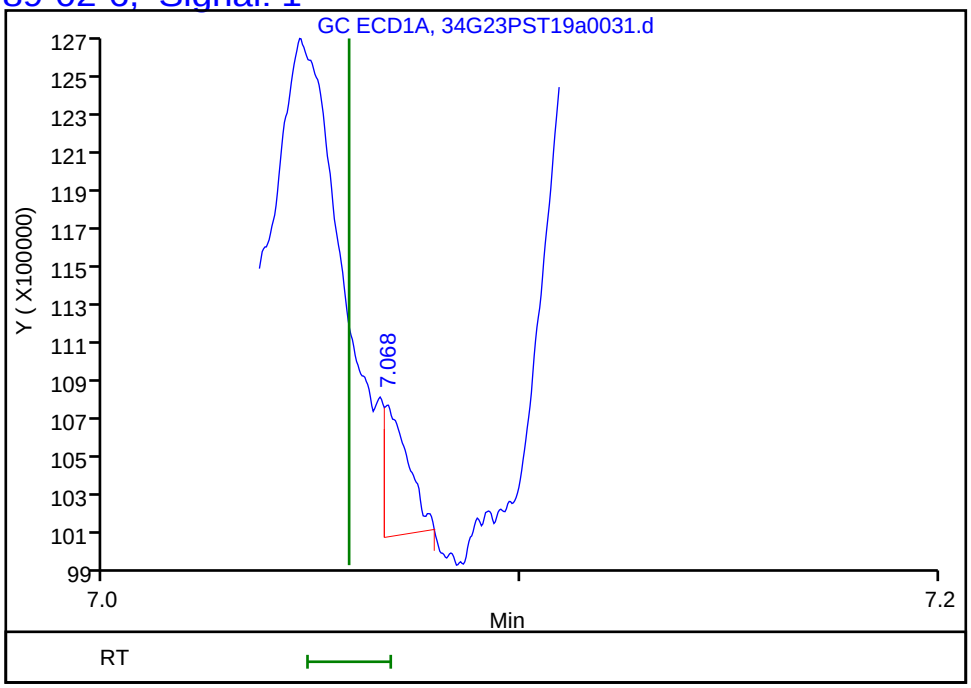
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

RT: 7.07

Response: 254306

Amount: 0.133696



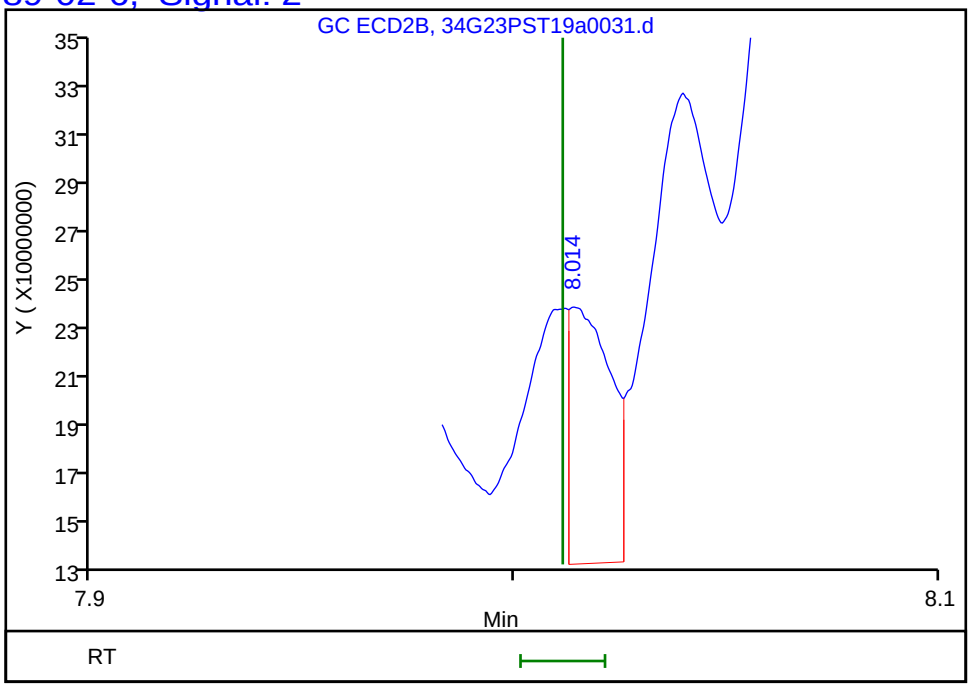
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01

Response: 69271056

Amount: 10.074181



Reviewer: limwirojt, 24-Jul-2019 12:42:24

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

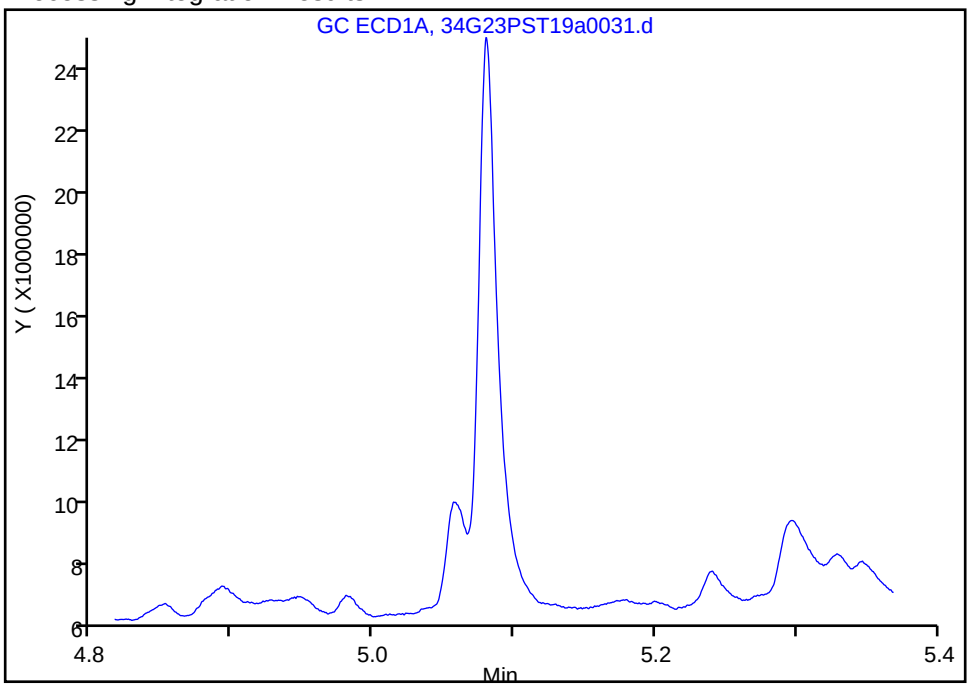
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d		
Injection Date:	23-Jul-2019 20:51:26	Instrument ID:	TAC034
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14
Client ID:	22T-SG-21_20190716		
Operator ID:	CJB	ALS Bottle#:	27 Worklist Smp#: 29
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

$ 4 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

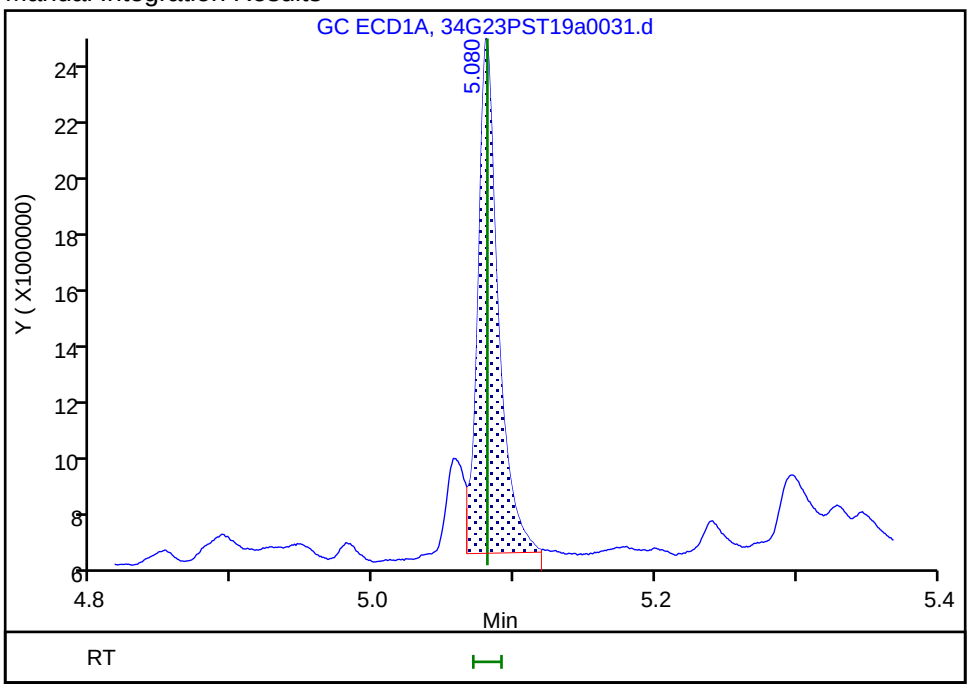
Not Detected
Expected RT: 5.08

Processing Integration Results



Manual Integration Results

RT: 5.08
Area: 17269909
Amount: 3.648517
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:41:32
Audit Action: Assigned Compound ID Audit Reason:

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 34G23PST19a0031.d

Analysis Method: 8081B Date Collected: 07/16/2019 14:08

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.660(g) Date Analyzed: 07/23/2019 20:51

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	5.9	p	3.2	0.71
3424-82-6	2,4'-DDE	6.3	p	3.2	0.58

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d
Lims ID: 580-87706-A-14-B
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 20:51:26 ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-14-B
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:42:24 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:42:24

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene						
1	4.466	4.467	-0.001	116479169	100.0	
2	4.831	4.829	0.002	658841172	100.0	
					RPD = 0.00	
$ 4 Tetrachloro-m-xylene						a
1	5.080	5.081	-0.001	17269909	3.65	a
2	5.546	5.535	0.011	559962117	30.5	a
					RPD = 157.28	
10 PCB-1242						
1	0.000	5.500	-5.500	0	NC	
1	0.000	5.778	-5.778	0	NC	
1	6.010	6.009	0.001	50933	NC	
1	6.090	6.093	-0.003	33724	NC	
1	6.390	6.380	0.010	650604	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	4552599	NC	
2	6.329	6.330	-0.001	68424	NC	
2	6.424	6.424	0.000	585747	NC	
2	6.733	6.732	0.001	1090304	NC	
2	6.995	6.994	0.001	135420	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
9 PCB-1016						
1	0.000	5.500	-5.500	0	NC	
1	0.000	5.778	-5.778	0	NC	
1	6.010	6.009	0.001	50933	NC	
1	6.090	6.093	-0.003	33724	NC	
1	6.341	6.342	-0.001	144483	NC	
		Average of Peak Amounts =			0	
2	6.024	6.025	-0.001	4552599	NC	
2	6.329	6.330	-0.001	68424	NC	
2	6.424	6.424	0.000	585747	NC	
2	6.549	6.548	0.001	1249614	NC	
2	6.733	6.732	0.001	1090304	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
14 PCB-1248						
1	0.000	5.778	-5.778	0	NC	
1	0.000	5.979	-5.979	0	NC	
1	6.090	6.093	-0.003	33724	NC	
1	6.390	6.380	0.010	650604	NC	
1	6.770	6.775	-0.005	55081665	NC	
		Average of Peak Amounts =			0	
2	6.549	6.548	0.001	1249614	NC	
2	6.733	6.732	0.001	1090304	NC	
2	0.000	6.815	-6.815	0	NC	
2	7.039	7.037	0.002	64033	NC	
2	7.216	7.215	0.001	57250	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
21 2,4'-DDE						
1	6.550	6.547	0.003	44713202	17.1	
2	7.381	7.378	0.003	100522878	9.86	
					RPD = 53.88	
26 4,4'-DDE						
1	6.770	6.768	0.002	55081665	11.9	
2	7.612	7.607	0.005	168670948	10.0	
					RPD = 16.84	
28 2,4'-DDD						M
1	6.891	6.883	0.008	53923055	30.4	M
2	7.772	7.768	0.004	60806930	9.12	
					RPD = 107.62	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
30 PCB-1260						M
1	6.891	6.894	-0.003	53923055	NC	M
1	7.089	7.083	0.006	26716	NC	
1	0.000	7.288	-7.288	0	NC	
1	7.539	7.536	0.003	506416	NC	
1	7.966	7.966	0.000	20758	NC	
		Average of Peak Amounts =			0	
2	7.657	7.658	-0.001	1530839	NC	
2	7.818	7.819	-0.001	35555	NC	
2	8.099	8.100	-0.001	2099823	NC	
2	8.412	8.414	-0.002	2120447	NC	
2	0.000	8.896	-8.896	0	NC	
		Average of Peak Amounts =			0	
					RPD = 0.00	
36 4,4'-DDD						
1	7.169	7.167	0.002	64593306	23.2	
2	8.059	8.055	0.004	225657632	23.8	
					RPD = 2.32	
$ 45 DCB Decachlorobiphenyl						M
1	8.892	8.884	0.008	16115884	1.72	
2	10.095	10.091	0.004	110007193	7.21	M
					RPD = 122.82	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:42:26 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d

Injection Date: 23-Jul-2019 20:51:26 Instrument ID: TAC034

Lims ID: 580-87706-A-14-B Lab Sample ID: 580-87706-14

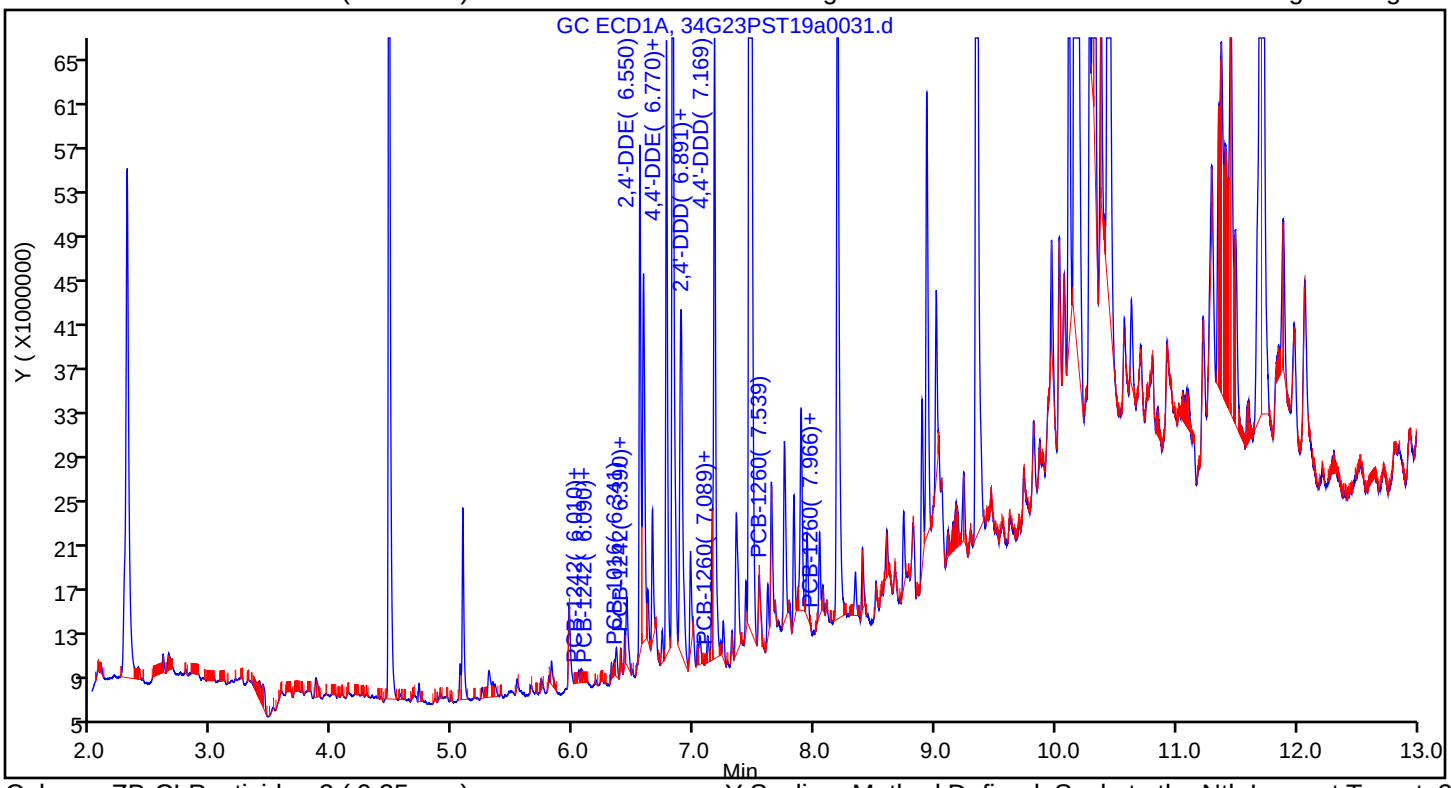
Client ID: 22T-SG-21_20190716

Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29

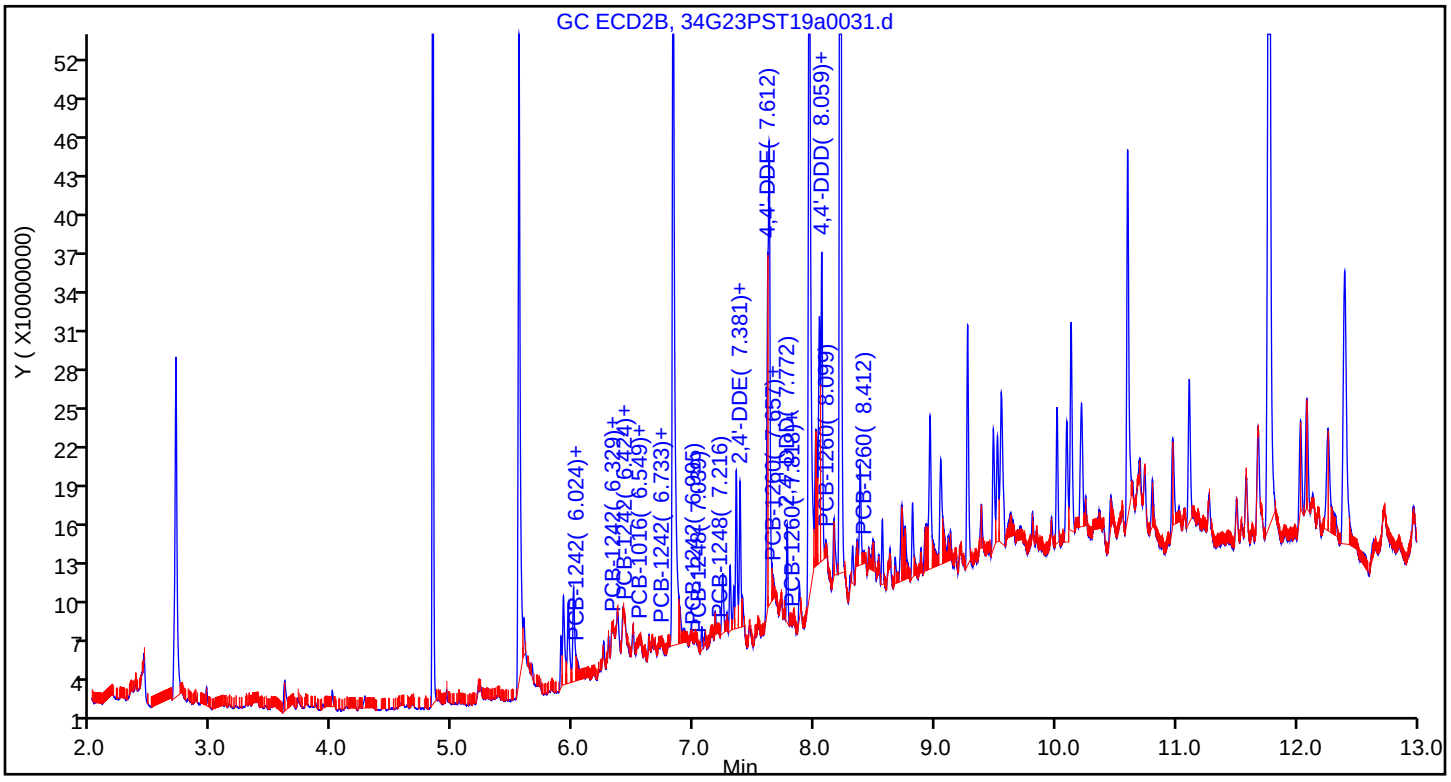
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d				
Lims ID:	580-87706-A-14-B				
Client ID:	22T-SG-21_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 20:51:26	ALS Bottle#:	27	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-14-B				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:42:24	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:42:24		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	3.65	43.78
$ 45 DCB Decachlorobiphenyl	25.0	1.72	20.69

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	30.5	366.14
$ 45 DCB Decachlorobiphenyl	25.0	7.21	86.53

User Disabled Compound Report

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d

Injection Date: 23-Jul-2019 20:51:26 Instrument ID: TAC034

Lims ID: 580-87706-A-14-B Lab Sample ID: 580-87706-14

Client ID: 22T-SG-21_20190716

Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29

Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

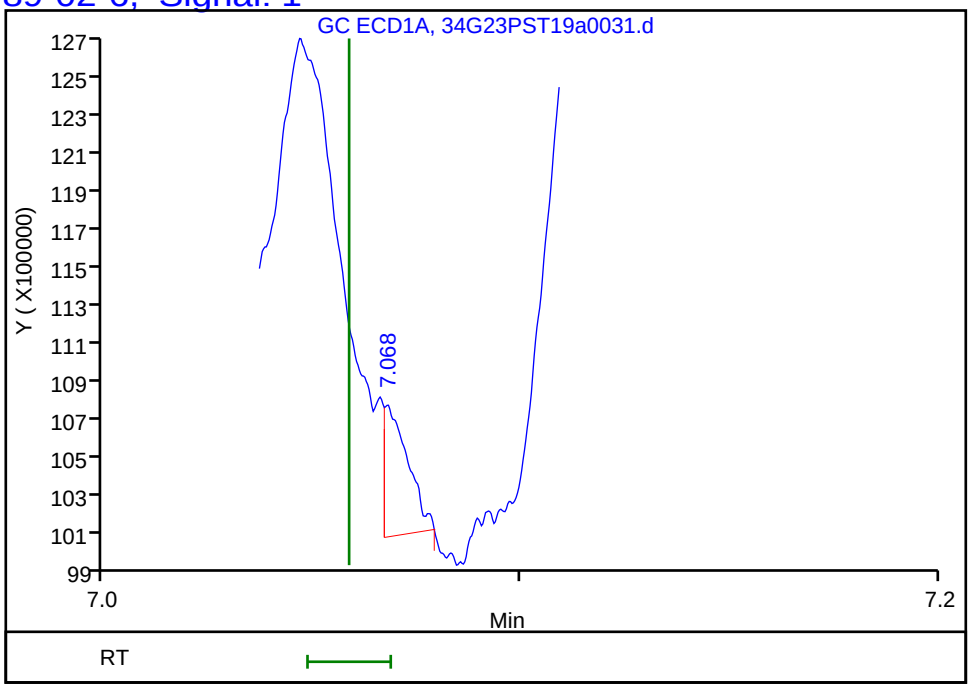
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

32 2,4'-DDT, CAS: 789-02-6, Signal: 1

RT: 7.07

Response: 254306

Amount: 0.133696



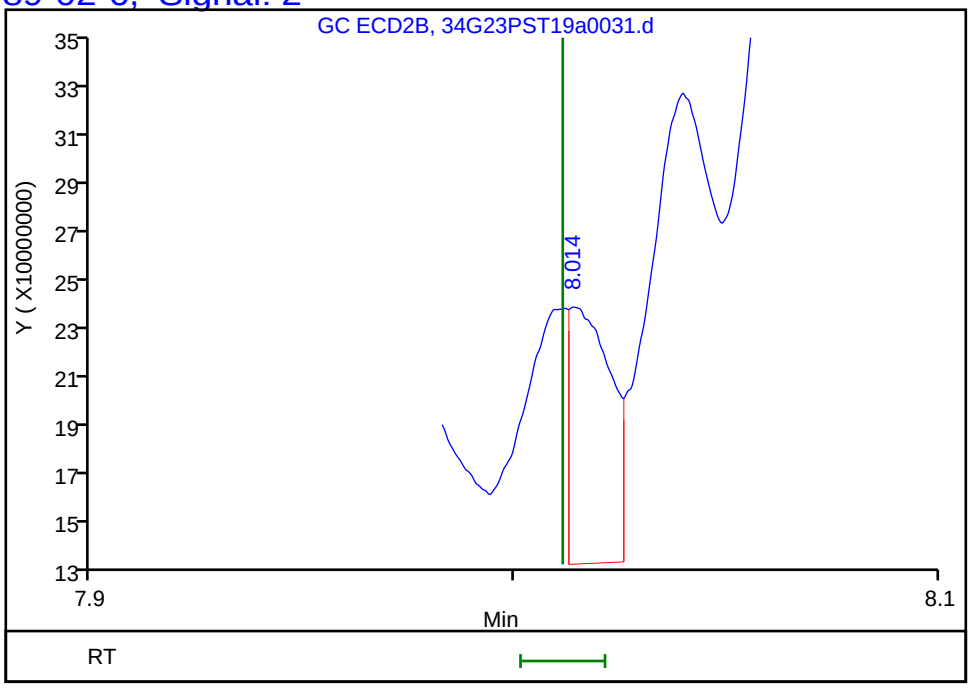
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

32 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.01

Response: 69271056

Amount: 10.074181



Reviewer: limwirojt, 24-Jul-2019 12:42:24

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

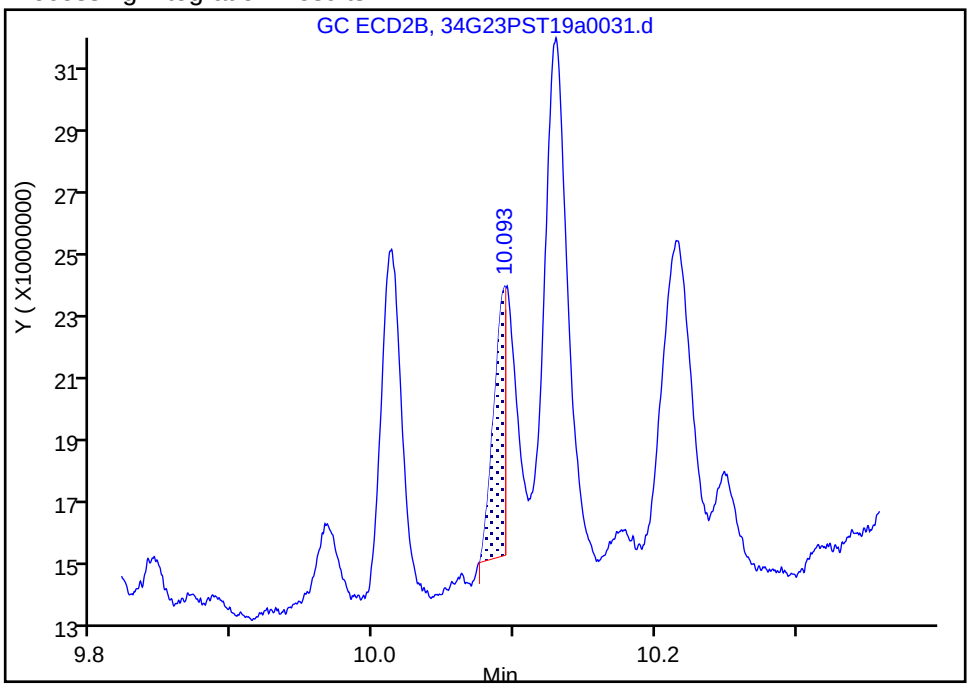
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d				
Injection Date:	23-Jul-2019 20:51:26	Instrument ID:	TAC034		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	CJB	ALS Bottle#:	27	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

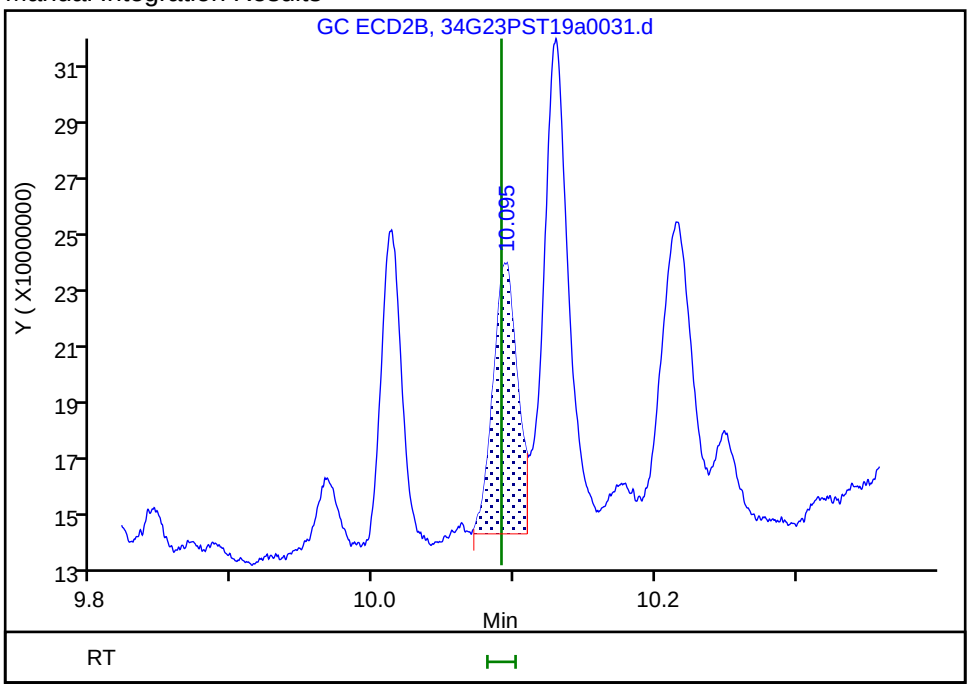
Processing Integration Results

RT: 10.09
Area: 46270847
Amount: 2.801302
Amount Units: ug/L



Manual Integration Results

RT: 10.09
Area: 110007193
Amount: 7.210451
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:42:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

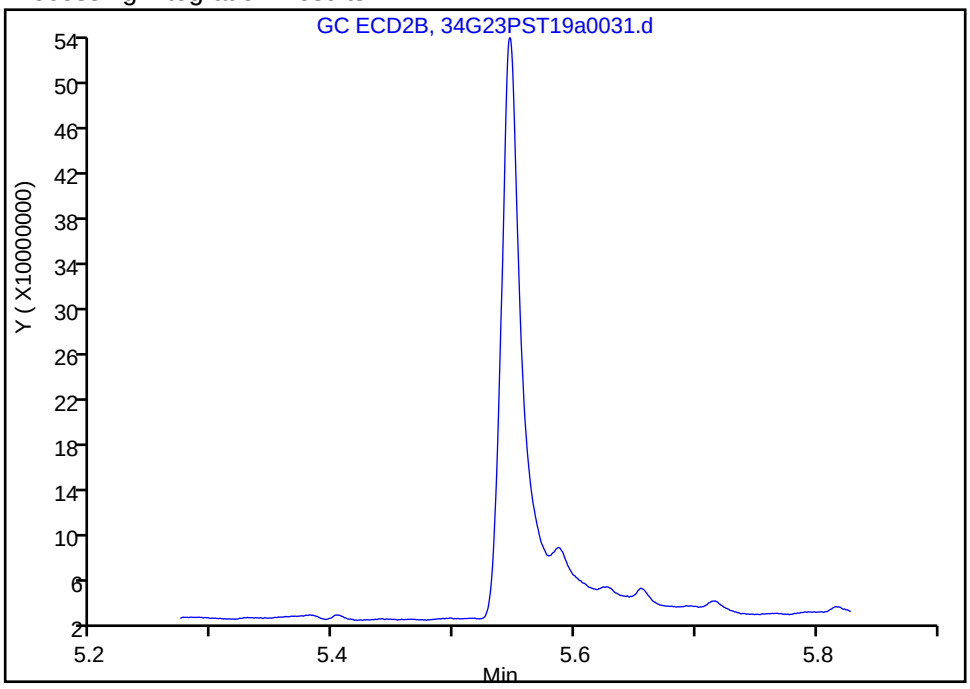
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0031.d		
Injection Date:	23-Jul-2019 20:51:26	Instrument ID:	TAC034
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14
Client ID:	22T-SG-21_20190716		
Operator ID:	CJB	ALS Bottle#:	27 Worklist Smp#: 29
Injection Vol:	1.0 ul	Dil. Factor:	3.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

$ 4 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 2

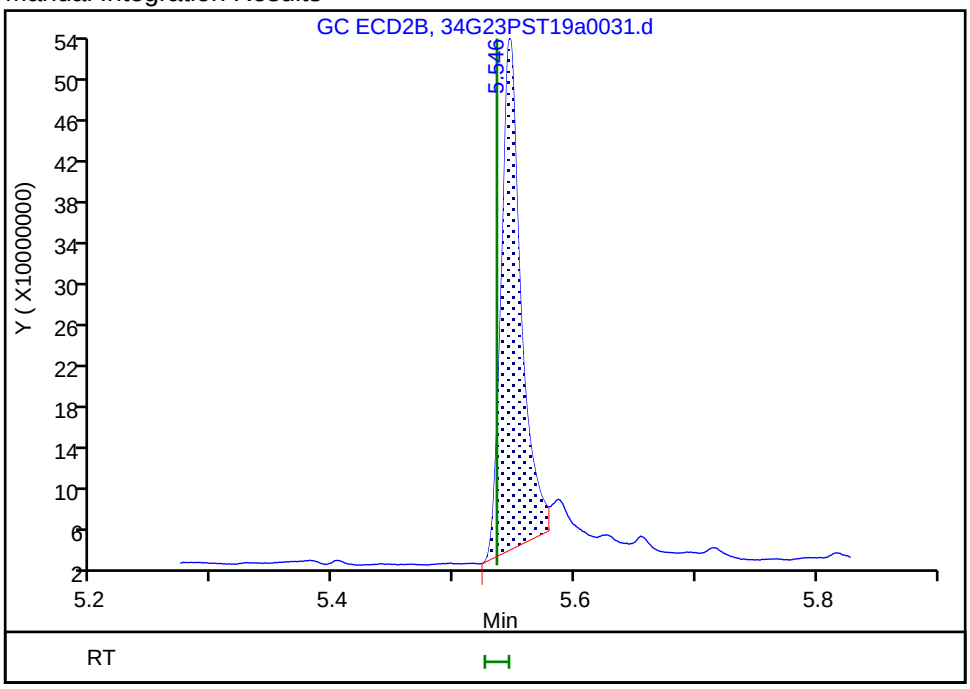
Not Detected
Expected RT: 5.54

Processing Integration Results



Manual Integration Results

RT: 5.55
Area: 559962117
Amount: 30.511648
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:41:36
Audit Action: Assigned Compound ID Audit Reason:

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Matrix: Solid Lab File ID: 45F072319a013.D

Analysis Method: 8081B Date Collected: 07/16/2019 14:24

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 22.863(g) Date Analyzed: 07/23/2019 14:47

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306340 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
3424-82-6	2,4'-DDE	ND		3.0	0.55
789-02-6	2,4'-DDT	ND		3.0	1.1
50-29-3	4,4'-DDT	ND		1.2	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	71		36-136
877-09-8	Tetrachloro-m-xylene	67		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D
Lims ID: 580-87706-A-15-B
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:47:32 ALS Bottle#: 10 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-15-B
Misc. Info.: TBA 3X
Operator ID: erz Instrument ID: TAC045

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 14:12:45 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:51:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene						
1	5.017	5.019	-0.002	111343189	100.0	
2	5.377	5.380	-0.003	455761988	100.0	
					RPD = 0.00	
$ 9 Tetrachloro-m-xylene						
1	5.656	5.661	-0.005	14829647	5.55	
2	6.133	6.137	-0.004	25569224	3.40	
					RPD = 47.94	
29 4,4'-DDE						
1	7.520	7.523	-0.003	15795809	6.77	
2	8.316	8.316	0.000	44079403	6.25	
					RPD = 7.90	
31 2,4'-DDD						M
1	7.642	7.648	-0.006	3826791	3.31	
2	8.485	8.484	0.001	5298627	1.74	M
					RPD = 62.39	
39 4,4'-DDD						
1	7.953	7.956	-0.003	10888081	6.73	
2	8.779	8.778	0.001	20543248	4.42	
					RPD = 41.39	
$ 45 DCB Decachlorobiphenyl						
1	9.771	9.771	0.000	11489302	5.88	
2	10.899	10.899	0.000	51565521	7.82	
					RPD = 28.23	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013 Amount Added: 10.00 Units: uL Run Reagent

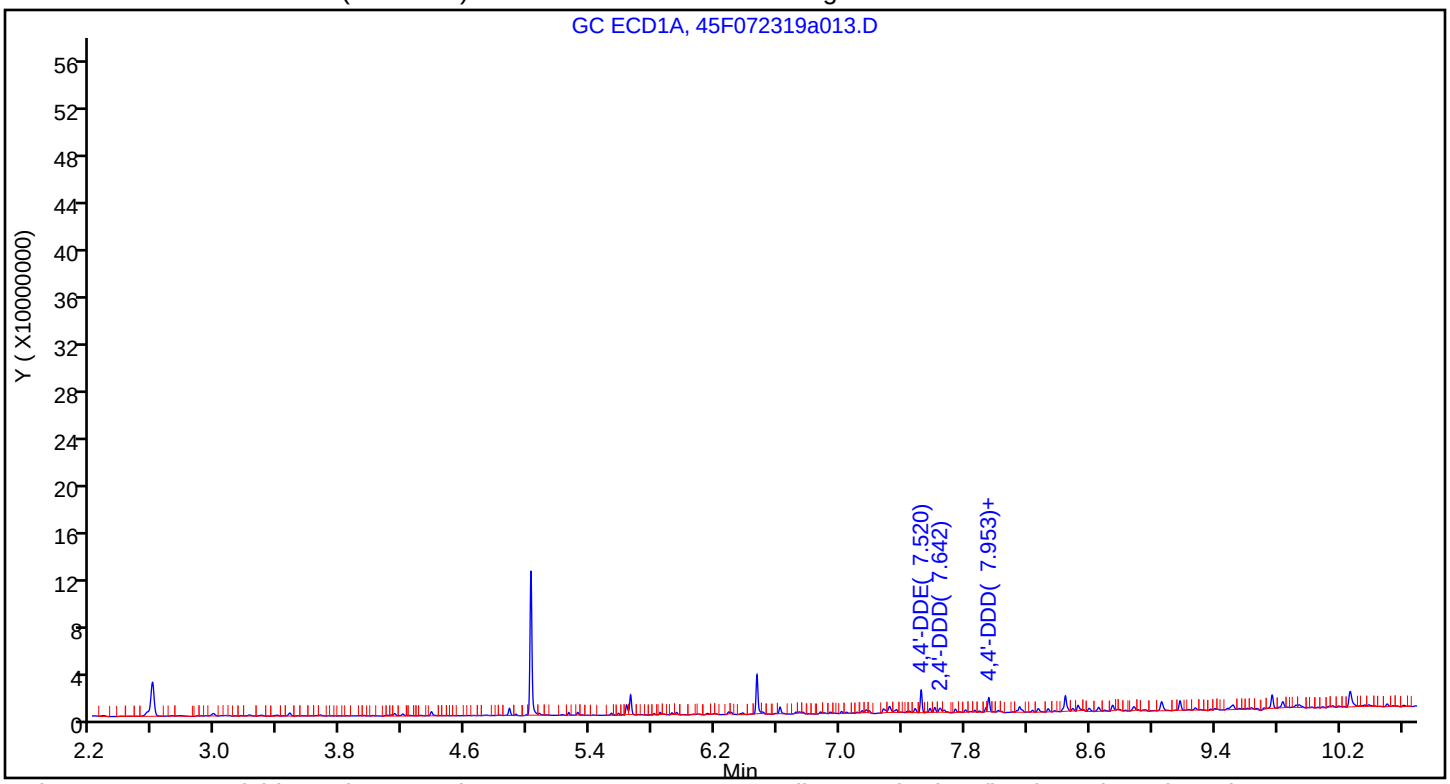
Report Date: 24-Jul-2019 15:42:40 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

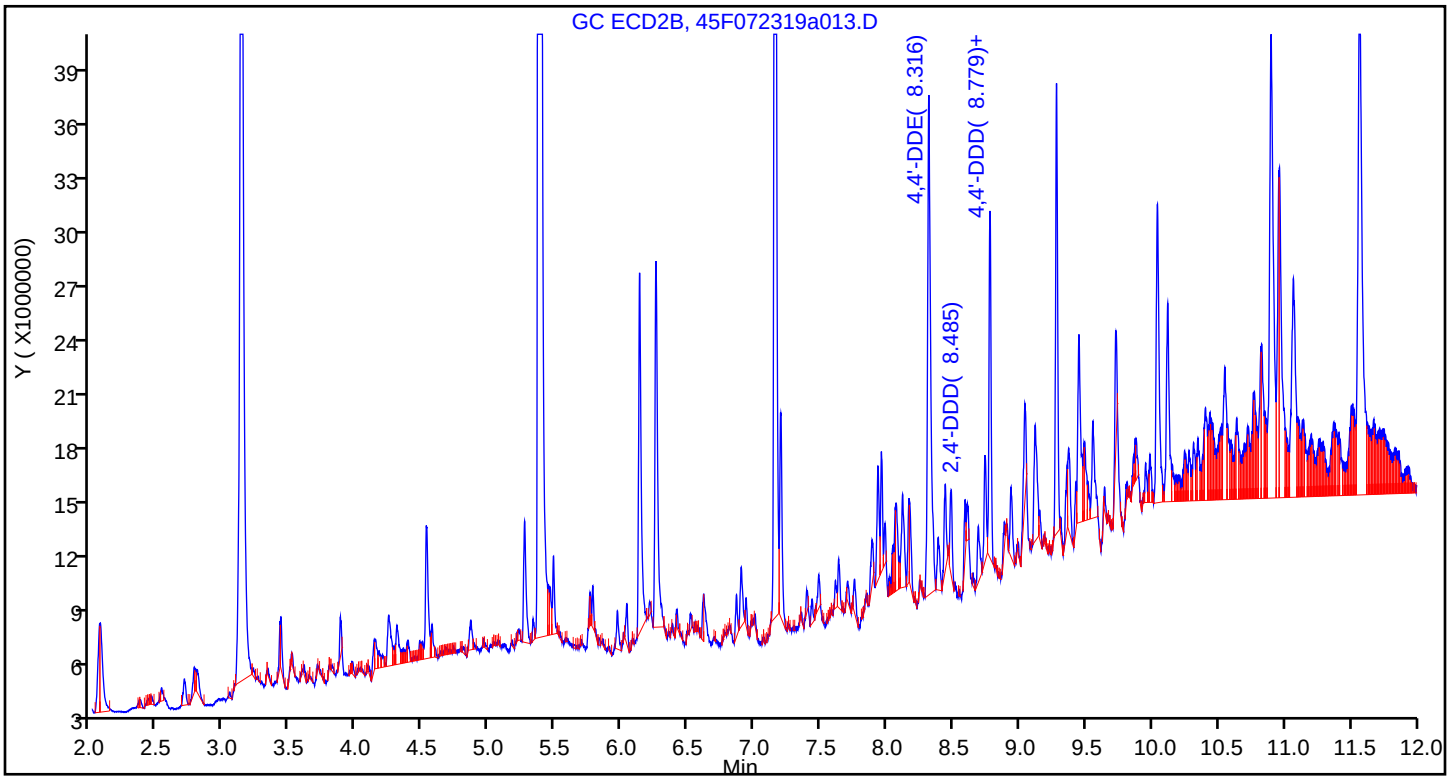
Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D

Injection Date:	23-Jul-2019 14:47:32	Instrument ID:	TAC045		
Lims ID:	580-87706-A-15-B	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	erz	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D				
Lims ID:	580-87706-A-15-B				
Client ID:	22T-SG-16_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:47:32	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-15-B				
Misc. Info.:	TBA 3X				
Operator ID:	erz	Instrument ID:	TAC045		
Method:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 14:12:45	Calib Date:	27-Feb-2019 23:59:58		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:51:18		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	5.55	66.62
$ 45 DCB Decachlorobiphenyl	25.0	5.88	70.59

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	3.40	40.86
$ 45 DCB Decachlorobiphenyl	25.0	7.82	93.79

User Disabled Compound Report

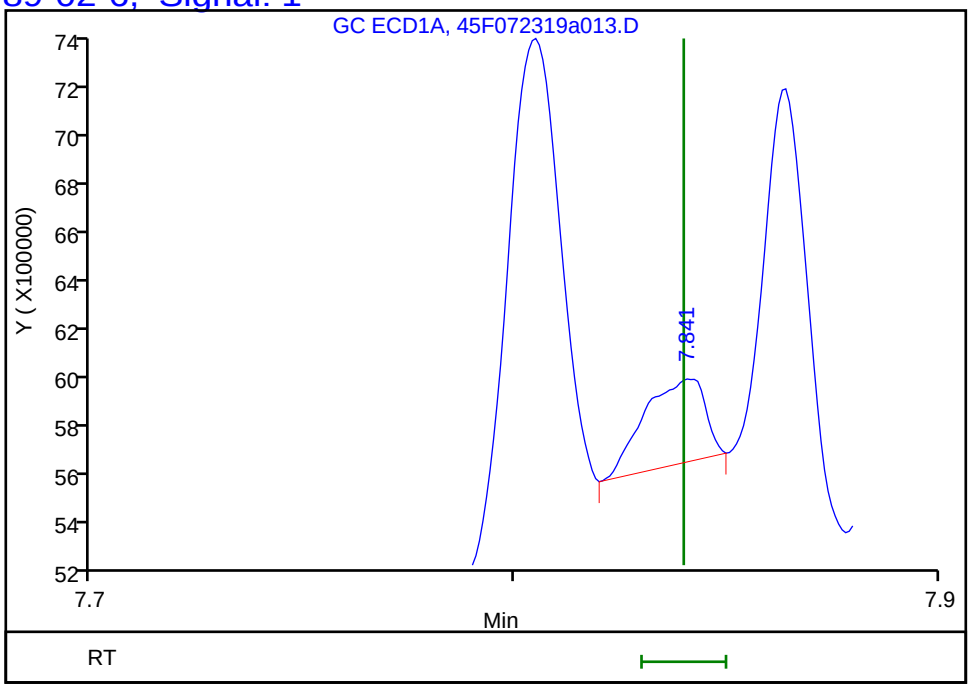
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D
Injection Date: 23-Jul-2019 14:47:32 Instrument ID: TAC045
Lims ID: 580-87706-A-15-B Lab Sample ID: 580-87706-15
Client ID: 22T-SG-16_20190716
Operator ID: erz ALS Bottle#: 10 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

36 2,4'-DDT, CAS: 789-02-6, Signal: 1

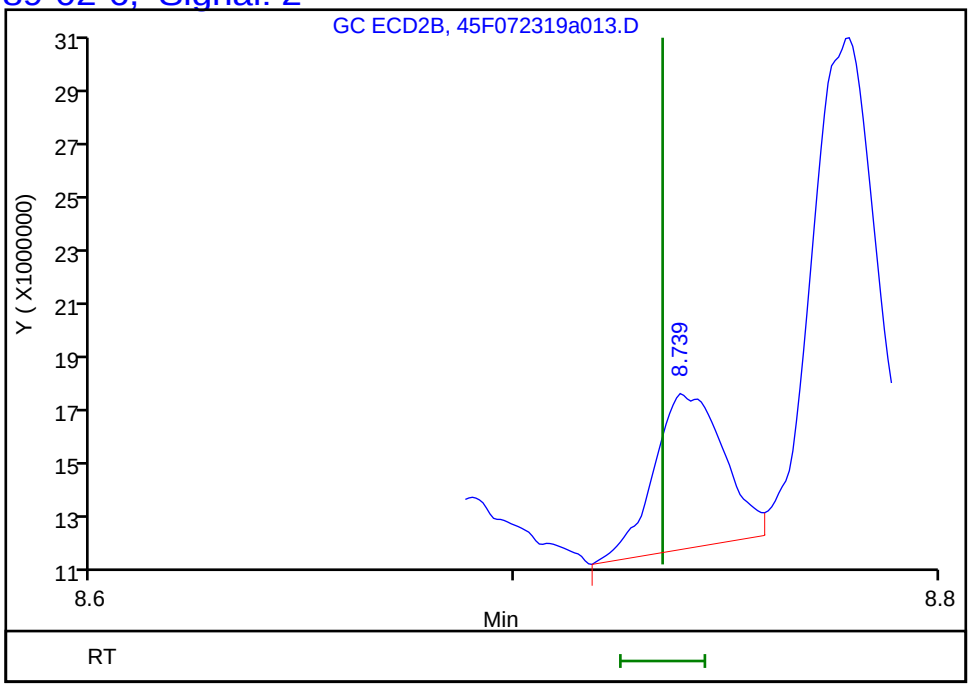
RT: 7.84
Response: 323980
Amount: -0.027440



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

36 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.74
Response: 6659086
Amount: 1.880097



Reviewer: limwirojt, 24-Jul-2019 12:51:18
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Matrix: Solid Lab File ID: 45F072319a013.D

Analysis Method: 8081B Date Collected: 07/16/2019 14:24

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 22.863(g) Date Analyzed: 07/23/2019 14:47

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306340 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	1.0	J p	3.0	0.66
72-54-8	4,4'-DDD	2.7	p	1.2	0.23
72-55-9	4,4'-DDE	3.7		1.2	0.32

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D
Lims ID: 580-87706-A-15-B
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:47:32 ALS Bottle#: 10 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-15-B
Misc. Info.: TBA 3X
Operator ID: erz Instrument ID: TAC045

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 14:12:45 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:51:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene						
1	5.017	5.019	-0.002	111343189	100.0	
2	5.377	5.380	-0.003	455761988	100.0	
					RPD = 0.00	
$ 9 Tetrachloro-m-xylene						
1	5.656	5.661	-0.005	14829647	5.55	
2	6.133	6.137	-0.004	25569224	3.40	
					RPD = 47.94	
29 4,4'-DDE						
1	7.520	7.523	-0.003	15795809	6.77	
2	8.316	8.316	0.000	44079403	6.25	
					RPD = 7.90	
31 2,4'-DDD						M
1	7.642	7.648	-0.006	3826791	3.31	
2	8.485	8.484	0.001	5298627	1.74	M
					RPD = 62.39	
39 4,4'-DDD						
1	7.953	7.956	-0.003	10888081	6.73	
2	8.779	8.778	0.001	20543248	4.42	
					RPD = 41.39	
$ 45 DCB Decachlorobiphenyl						
1	9.771	9.771	0.000	11489302	5.88	
2	10.899	10.899	0.000	51565521	7.82	
					RPD = 28.23	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013 Amount Added: 10.00 Units: uL Run Reagent

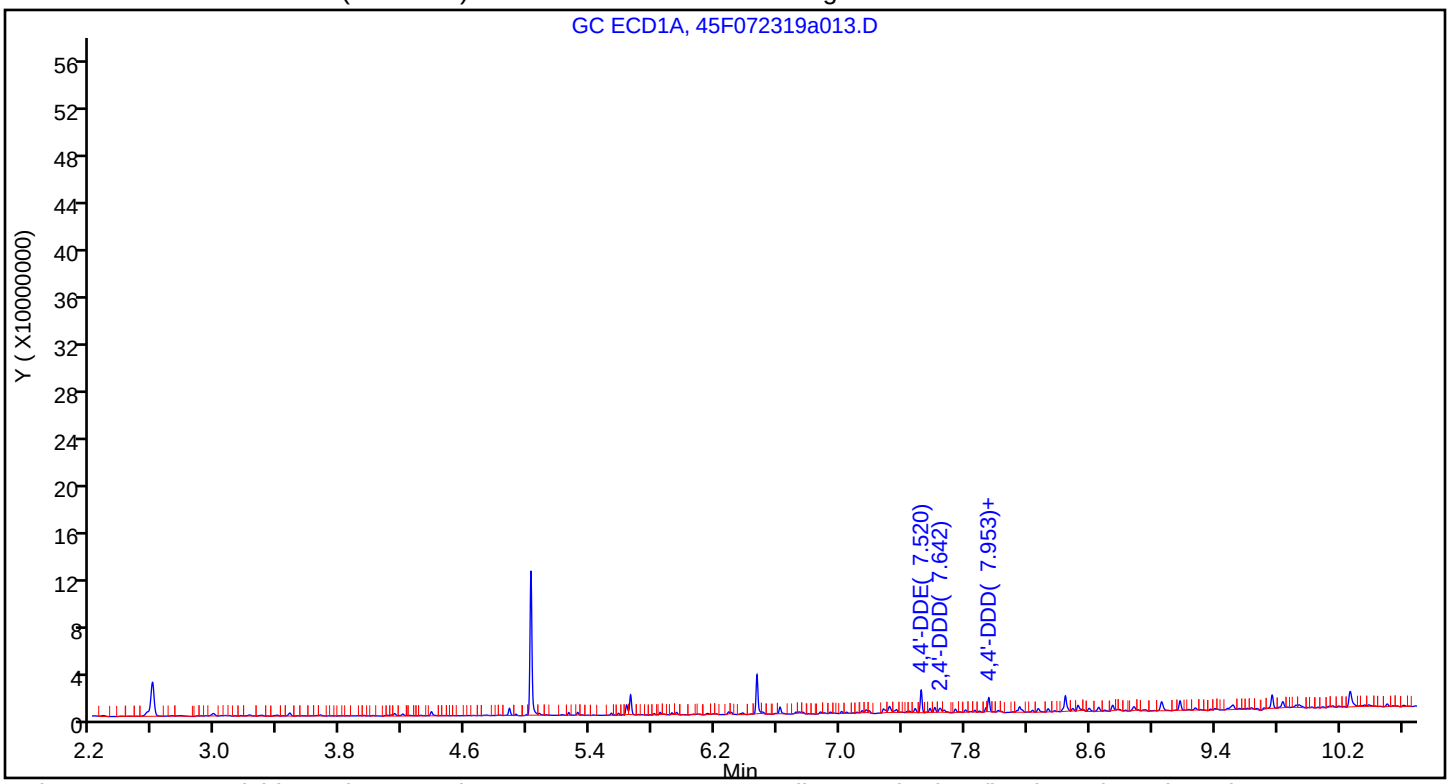
Report Date: 24-Jul-2019 15:42:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

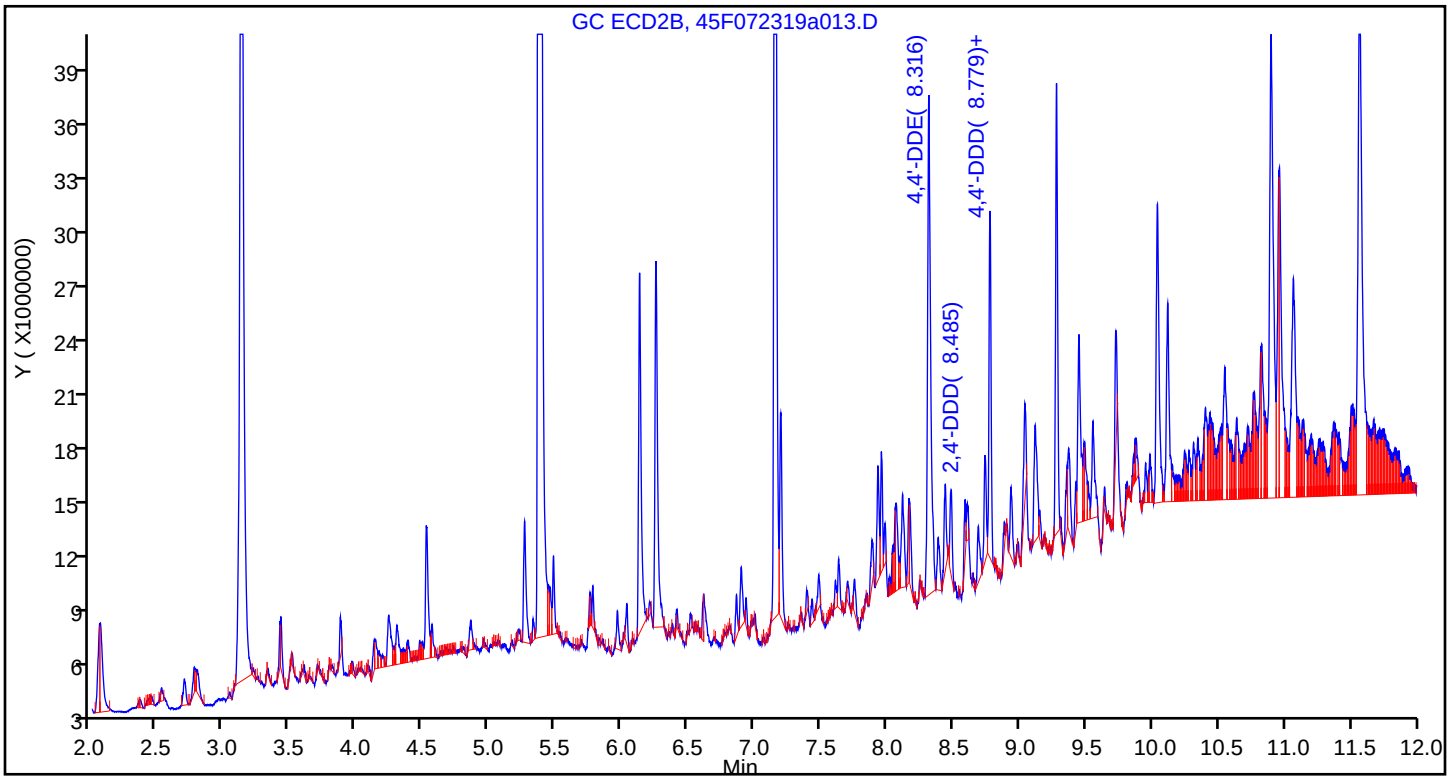
Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D

Injection Date:	23-Jul-2019 14:47:32	Instrument ID:	TAC045		
Lims ID:	580-87706-A-15-B	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	erz	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D				
Lims ID:	580-87706-A-15-B				
Client ID:	22T-SG-16_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:47:32	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-15-B				
Misc. Info.:	TBA 3X				
Operator ID:	erz	Instrument ID:	TAC045		
Method:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 14:12:45	Calib Date:	27-Feb-2019 23:59:58		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:51:18		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	5.55	66.62
$ 45 DCB Decachlorobiphenyl	25.0	5.88	70.59

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	3.40	40.86
$ 45 DCB Decachlorobiphenyl	25.0	7.82	93.79

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

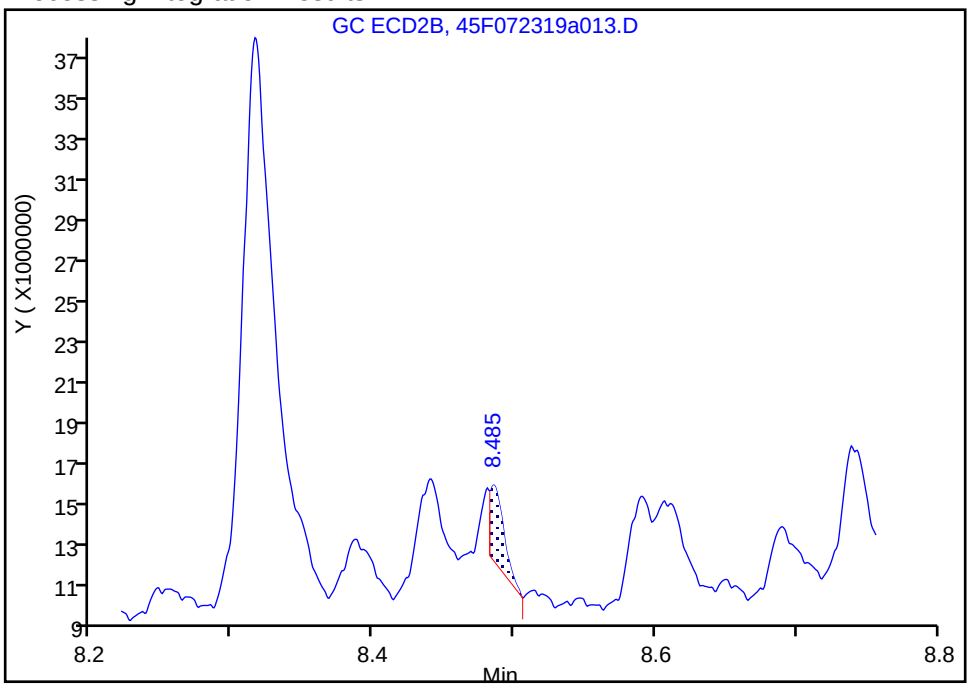
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D				
Injection Date:	23-Jul-2019 14:47:32	Instrument ID:	TAC045		
Lims ID:	580-87706-A-15-B	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	erz	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

31 2,4'-DDD, CAS: 53-19-0

Signal: 2

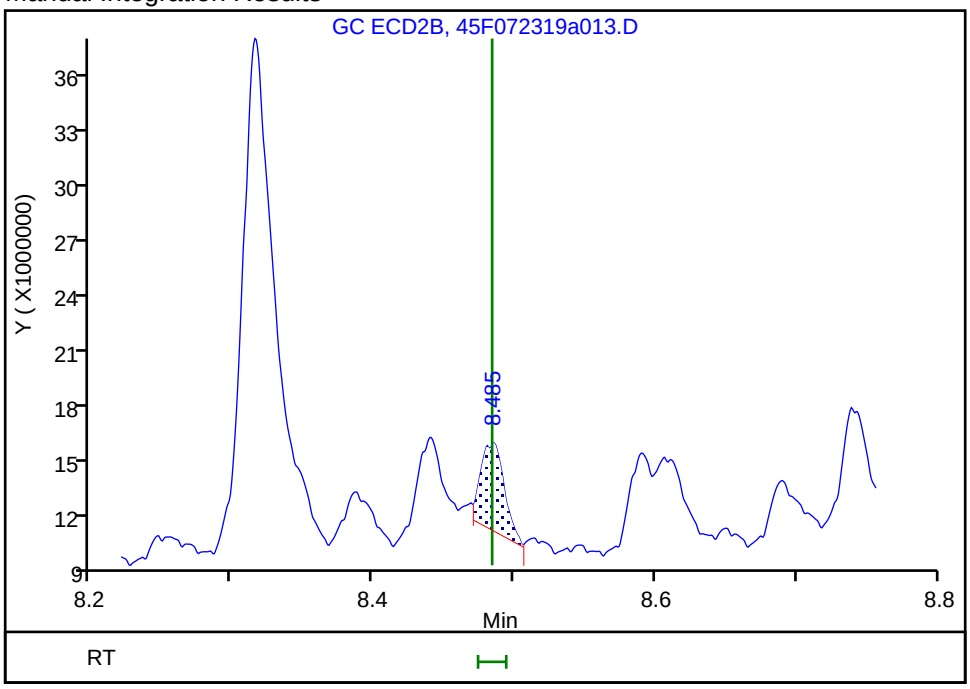
Processing Integration Results

RT: 8.48
Area: 2408398
Amount: 0.943942
Amount Units: ug/L



Manual Integration Results

RT: 8.48
Area: 5298627
Amount: 1.737020
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 12:51:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

User Disabled Compound Report

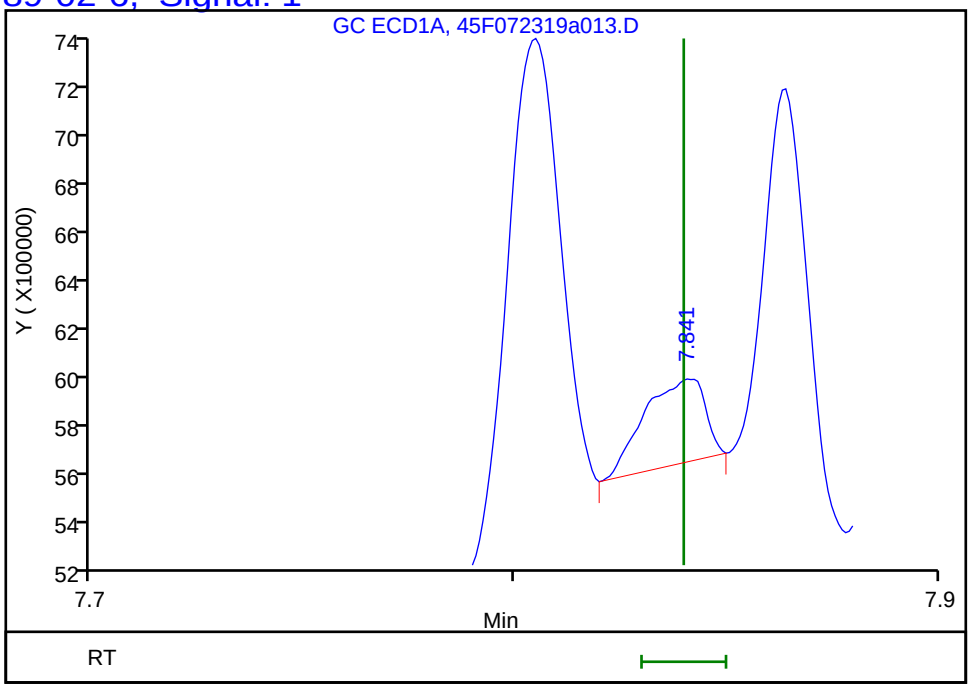
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a013.D
Injection Date: 23-Jul-2019 14:47:32 Instrument ID: TAC045
Lims ID: 580-87706-A-15-B Lab Sample ID: 580-87706-15
Client ID: 22T-SG-16_20190716
Operator ID: erz ALS Bottle#: 10 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

36 2,4'-DDT, CAS: 789-02-6, Signal: 1

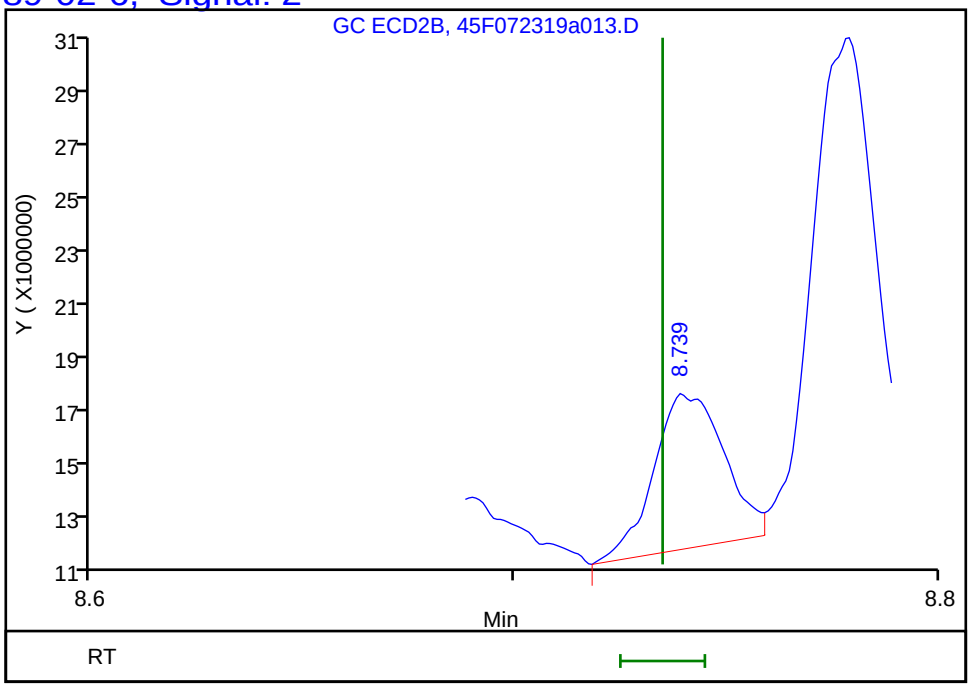
RT: 7.84
Response: 323980
Amount: -0.027440



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

36 2,4'-DDT, CAS: 789-02-6, Signal: 2

RT: 8.74
Response: 6659086
Amount: 1.880097



Reviewer: limwirojt, 24-Jul-2019 12:51:18
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 01:22 Calibration End Date: 07/14/2019 03:58 Calibration ID: 28023

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/30	34G13PST19a0034.d
Level 2	IC 580-305574/29	34G13PST19a0033.d
Level 3	IC 580-305574/28	34G13PST19a0032.d
Level 4	IC 580-305574/27	34G13PST19a0031.d
Level 5	IC 580-305574/26	34G13PST19a0030.d
Level 6	ICIS 580-305574/25	34G13PST19a0029.d
Level 7	IC 580-305574/24	34G13PST19a0028.d
Level 8	IC 580-305574/23	34G13PST19a0027.d
Level 9	IC 580-305574/22	34G13PST19a0026.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
oxy-Chlordane	3.2334 3.0204	3.1184 3.2111	3.0091 2.9257	3.1967 2.7061	3.1770	Ave		3.0664				5.6		20.0			
2,4'-DDE	2.0131 2.3843	2.0250 2.5438	2.0331 2.3063	2.3294 2.0393	2.5021	Ave		2.2418				9.7		20.0			
trans-Nonachlor	3.4817 3.6112	3.4906 4.0025	3.4786 3.7651	3.7340 +++++	3.7540	Ave		3.6647				5.0		20.0			
2,4'-DDD	1.2920 1.5911	1.4295 1.7606	1.4317 1.5211	1.6043 1.3666	1.7242	Ave		1.5246				10.4		20.0			
2,4'-DDT	1.4236 1.6758	1.5069 1.8662	1.5658 1.6396	1.6725 1.5041	1.8428	Ave		1.6330				9.3		20.0			
cis-Nonachlor	3.3683 3.6992	3.5828 4.3967	3.6046 4.0371	3.8561 +++++	4.0830	Ave		3.8285				8.7		20.0			
Mirex	3.9845 2.6172	4.0485 3.0524	3.5503 2.7660	3.4532 2.5905	3.0762	Ave		3.2376				17.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 01:22 Calibration End Date: 07/14/2019 03:58 Calibration ID: 28023

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/30	34G13PST19a0034.d
Level 2	IC 580-305574/29	34G13PST19a0033.d
Level 3	IC 580-305574/28	34G13PST19a0032.d
Level 4	IC 580-305574/27	34G13PST19a0031.d
Level 5	IC 580-305574/26	34G13PST19a0030.d
Level 6	ICIS 580-305574/25	34G13PST19a0029.d
Level 7	IC 580-305574/24	34G13PST19a0028.d
Level 8	IC 580-305574/23	34G13PST19a0027.d
Level 9	IC 580-305574/22	34G13PST19a0026.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
oxy-Chlordane	BNB	Ave	5849202 320180961	10727925 653751840	27043315 1294868234	57008421 2627575384	150810716	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDE	BNB	Ave	3641699 252756095	6966255 517904730	18272169 1020734624	41541002 1980135561	118769753	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Nonachlor	BNB	Ave	6298391 382817675	12008288 814883132	31262904 1666374665	66590532 +++++	178197643	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
2,4'-DDD	BNB	Ave	2337193 168667404	4917861 358439058	12866860 673212866	28610398 1326996517	81846855	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDT	BNB	Ave	2575244 177645329	5183960 379951548	14072214 725639054	29826146 1460488636	87473438	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Nonachlor	BNB	Ave	6093313 392143096	12325427 895145993	32395160 1786762175	68767670 +++++	193814784	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
Mirex	BNB	Ave	7207952 277447396	13927632 621440237	31907743 1224166666	61581895 2515368093	146024503	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

Curve Type Legend:
Ave = Average ISTD

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0026.d
Lims ID: IC EXT 400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-Jul-2019 01:22:41 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 400
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:29 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:22:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	242749557	100.0	100.0	
2	4.838	4.837	0.001	769272679	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.495	6.494	0.001	2627575384	400.0	353.0	
2	7.192	7.186	0.006	6412821414	400.0	427.0	M
						RPD = 18.97	
21 2,4'-DDE							
1	6.557	6.556	0.001	1980135561	400.0	363.9	
2	7.393	7.389	0.004	4332602861	400.0	363.8	
						RPD = 0.02	
24 trans-Nonachlor							
1	6.721	6.720	0.001	3547748225	400.0	398.8	
2	7.469	7.461	0.008	6841943661	400.0	425.5	
						RPD = 6.48	
28 2,4'-DDD							
1	6.892	6.892	0.000	1326996517	400.0	358.6	
2	7.783	7.780	0.003	2869756510	400.0	368.6	
						RPD = 2.75	
32 2,4'-DDT							
1	7.068	7.068	0.000	1460488636	400.0	368.4	
2	8.025	8.023	0.002	3135854422	400.0	390.6	
						RPD = 5.84	
34 cis-Nonachlor							
1	7.165	7.164	0.001	3819819448	400.0	411.0	
2	8.072	8.063	0.009	7271162353	400.0	432.6	
						RPD = 5.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.853	7.851	0.002	2515368093	400.0	320.0	
2	9.103	9.100	0.003	4648165608	400.0	415.1	
						RPD = 25.86	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0026.d

Injection Date: 14-Jul-2019 01:22:41 Instrument ID: TAC034

Lims ID: IC EXT 400

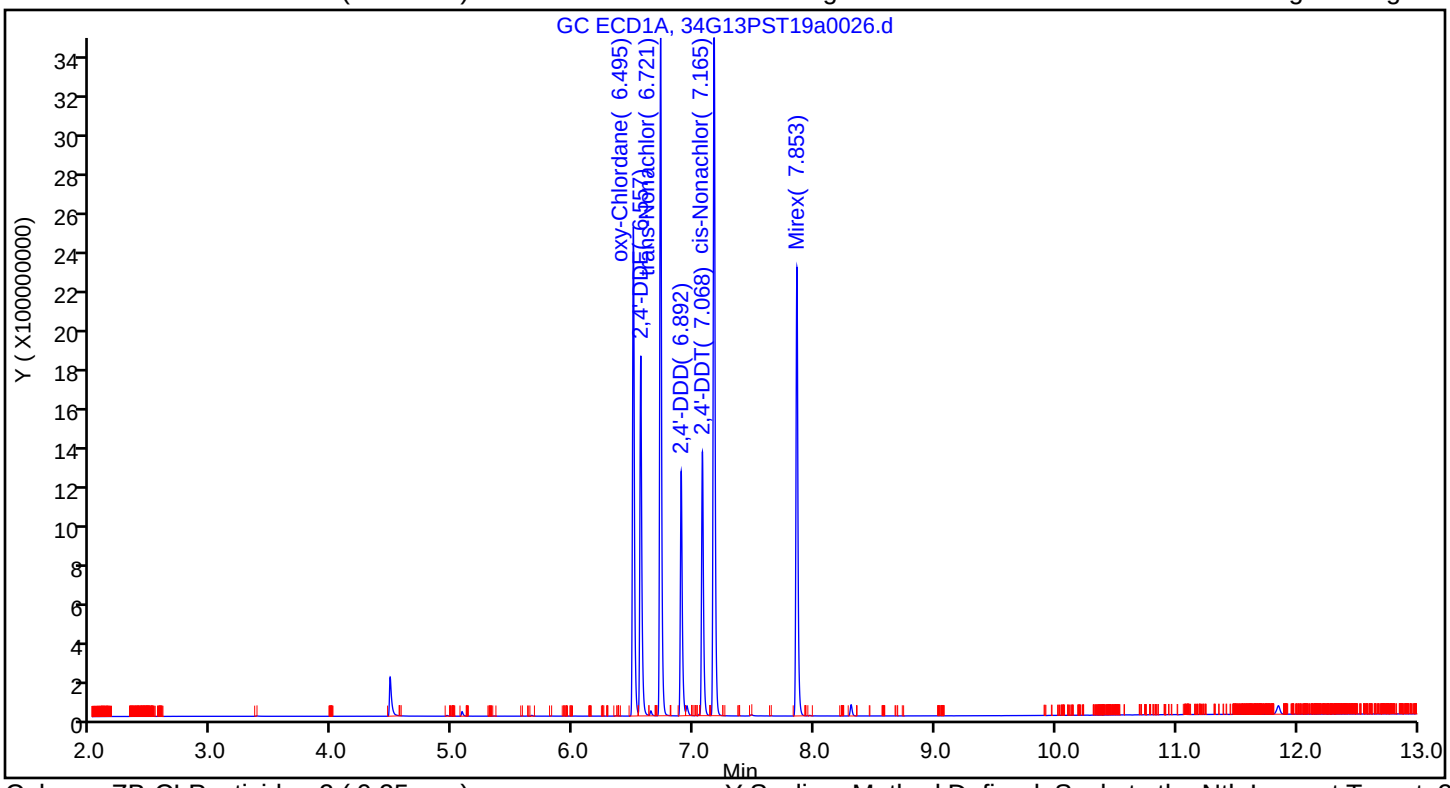
Client ID:

Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22

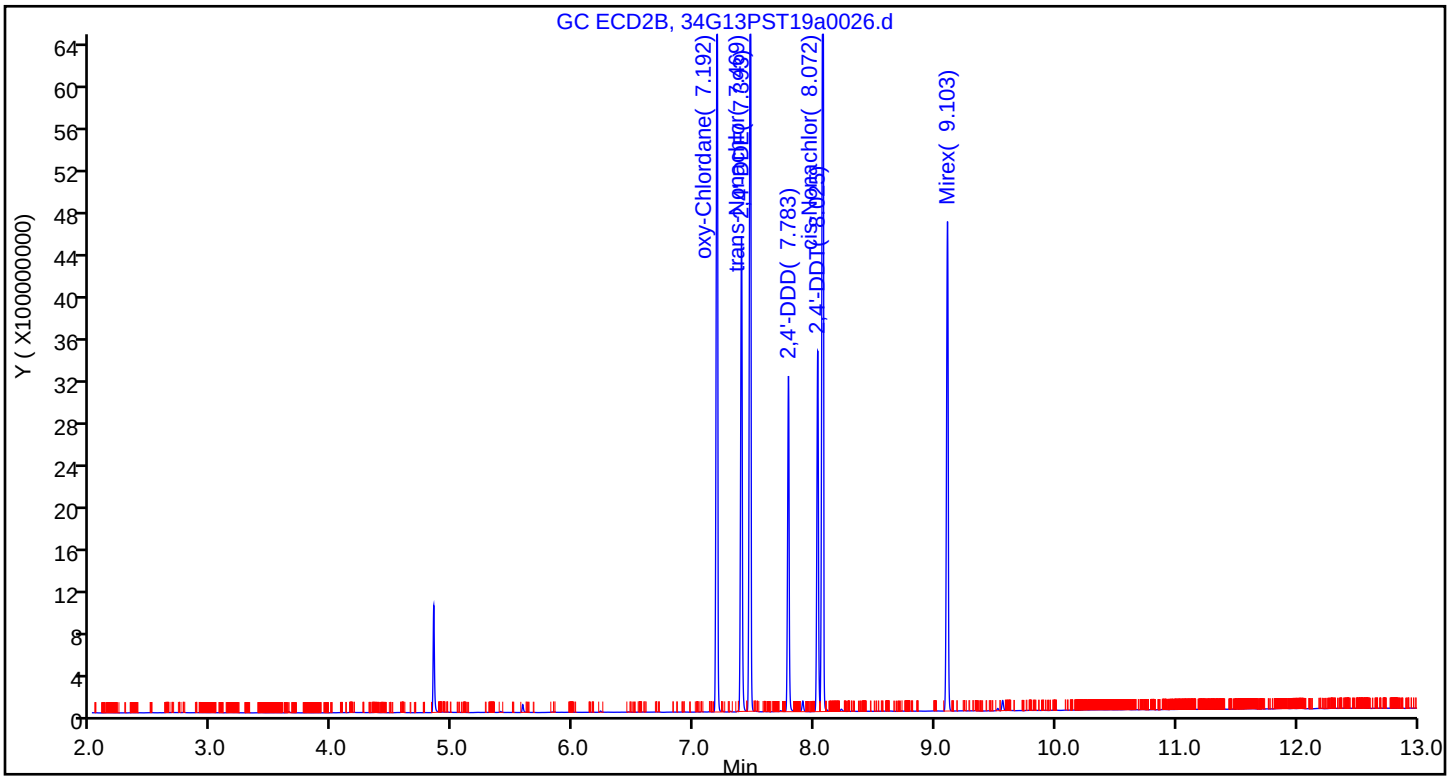
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0027.d
Lims ID: IC EXT 200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-Jul-2019 01:42:05 ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 200
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:35 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:22:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	221290919	100.0	100.0	
2	4.837	4.837	0.000	800186089	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.494	6.494	0.000	1294868234	200.0	190.8	
2	7.189	7.186	0.003	3112134263	200.0	199.2	M
						RPD = 4.27	
21 2,4'-DDE							
1	6.555	6.556	-0.001	1020734624	200.0	205.8	
2	7.391	7.389	0.002	2156749160	200.0	174.1	
						RPD = 16.67	
24 trans-Nonachlor							
1	6.720	6.720	0.000	1666374665	200.0	205.5	
2	7.464	7.461	0.003	3279727275	200.0	196.1	
						RPD = 4.68	
28 2,4'-DDD							
1	6.891	6.892	-0.001	673212866	200.0	199.5	
2	7.781	7.780	0.001	1409590787	200.0	174.0	
						RPD = 13.66	
32 2,4'-DDT							
1	7.067	7.068	-0.001	725639054	200.0	200.8	
2	8.024	8.023	0.001	1481809098	200.0	177.4	
						RPD = 12.36	
34 cis-Nonachlor							
1	7.164	7.164	0.000	1786762175	200.0	210.9	
2	8.066	8.063	0.003	3510186118	200.0	200.8	
						RPD = 4.91	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.852	7.851	0.001	1224166666	200.0	170.9	
2	9.101	9.100	0.001	2157636629	200.0	185.1	
						RPD = 8.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0027.d

Injection Date: 14-Jul-2019 01:42:05 Instrument ID: TAC034

Lims ID: IC EXT 200

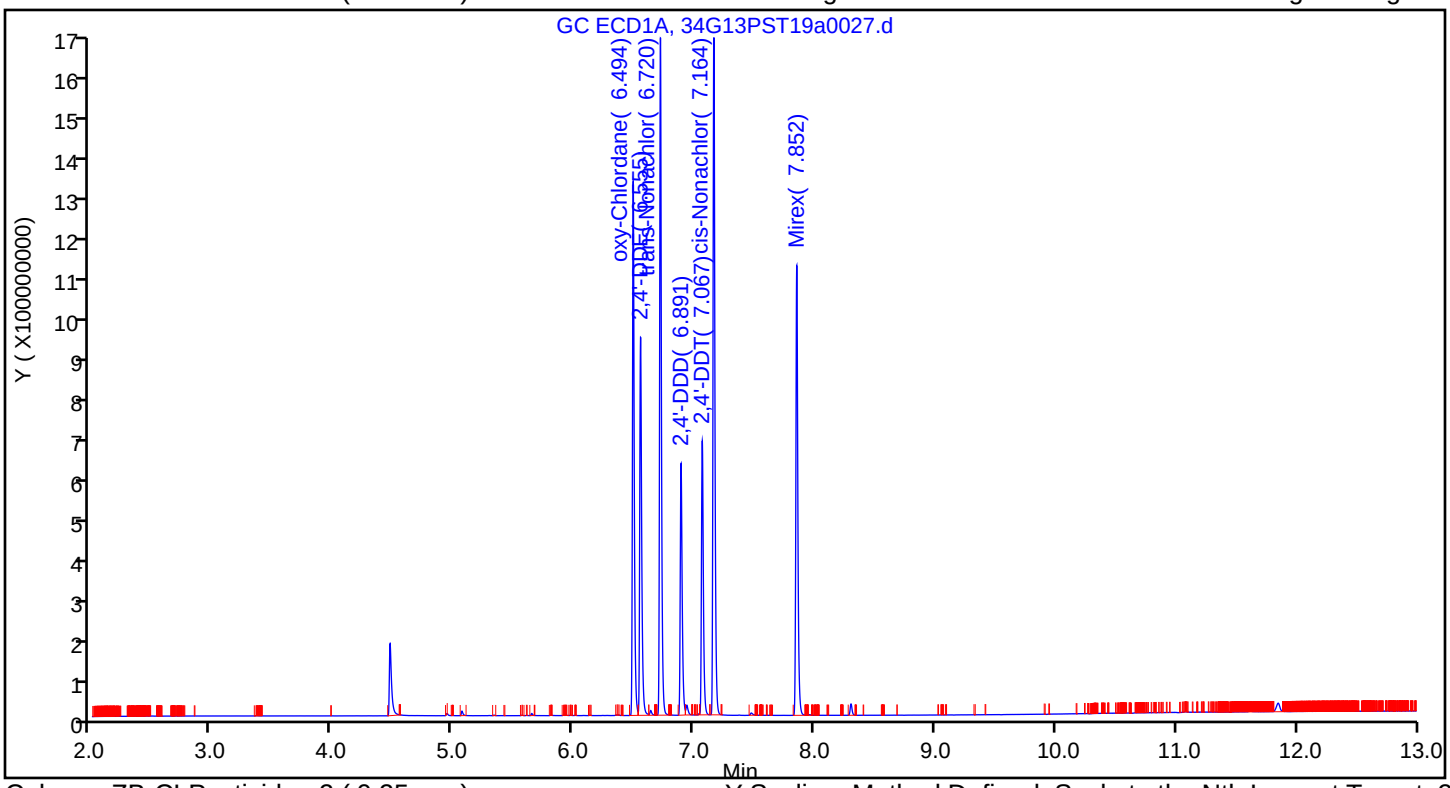
Client ID:

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

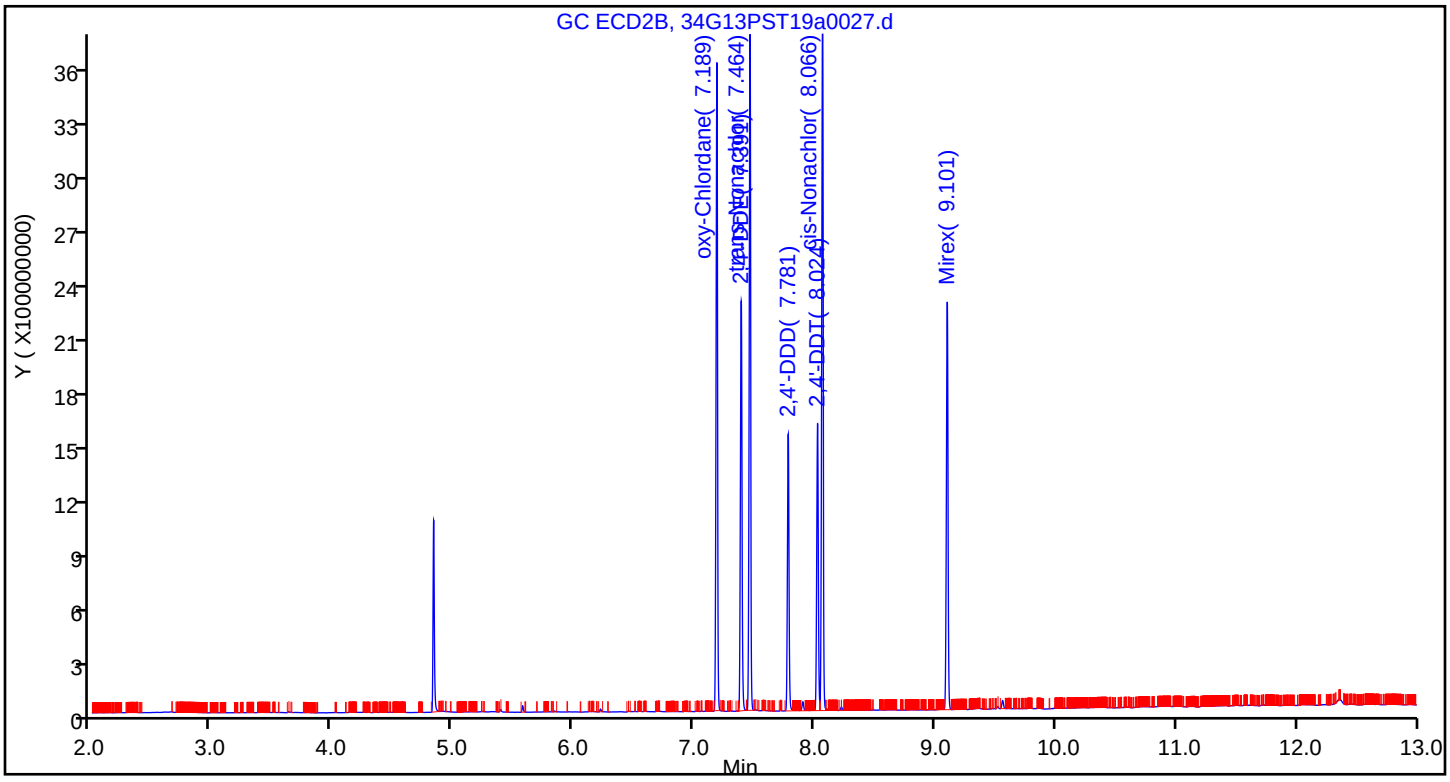
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0028.d
Lims ID: IC EXT 100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-Jul-2019 02:01:30 ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 100
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:40 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:23:07

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	203592970	100.0	100.0	
2	4.837	4.837	0.000	668023383	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.493	6.494	-0.001	653751840	100.0	104.7	
2	7.187	7.186	0.001	1409786740	100.0	108.0	M
						RPD = 3.10	
21 2,4'-DDE							
1	6.556	6.556	0.000	517904730	100.0	113.5	
2	7.390	7.389	0.001	1089225982	100.0	105.3	
						RPD = 7.45	
24 trans-Nonachlor							
1	6.720	6.720	0.000	814883132	100.0	109.2	
2	7.463	7.461	0.002	1547513527	100.0	110.8	
						RPD = 1.46	
28 2,4'-DDD							
1	6.892	6.892	0.000	358439058	100.0	115.5	
2	7.781	7.780	0.001	713107205	100.0	105.5	
						RPD = 9.07	
32 2,4'-DDT							
1	7.068	7.068	0.000	379951548	100.0	114.3	
2	8.023	8.023	0.000	797957186	100.0	114.5	
						RPD = 0.15	
34 cis-Nonachlor							
1	7.164	7.164	0.000	895145993	100.0	114.8	
2	8.064	8.063	0.001	1652203488	100.0	113.2	
						RPD = 1.44	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.852	7.851	0.001	621440237	100.0	94.3	
2	9.100	9.100	0.000	1033070879	100.0	106.1	
						RPD = 11.82	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.25	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0028.d

Injection Date: 14-Jul-2019 02:01:30 Instrument ID: TAC034

Lims ID: IC EXT 100

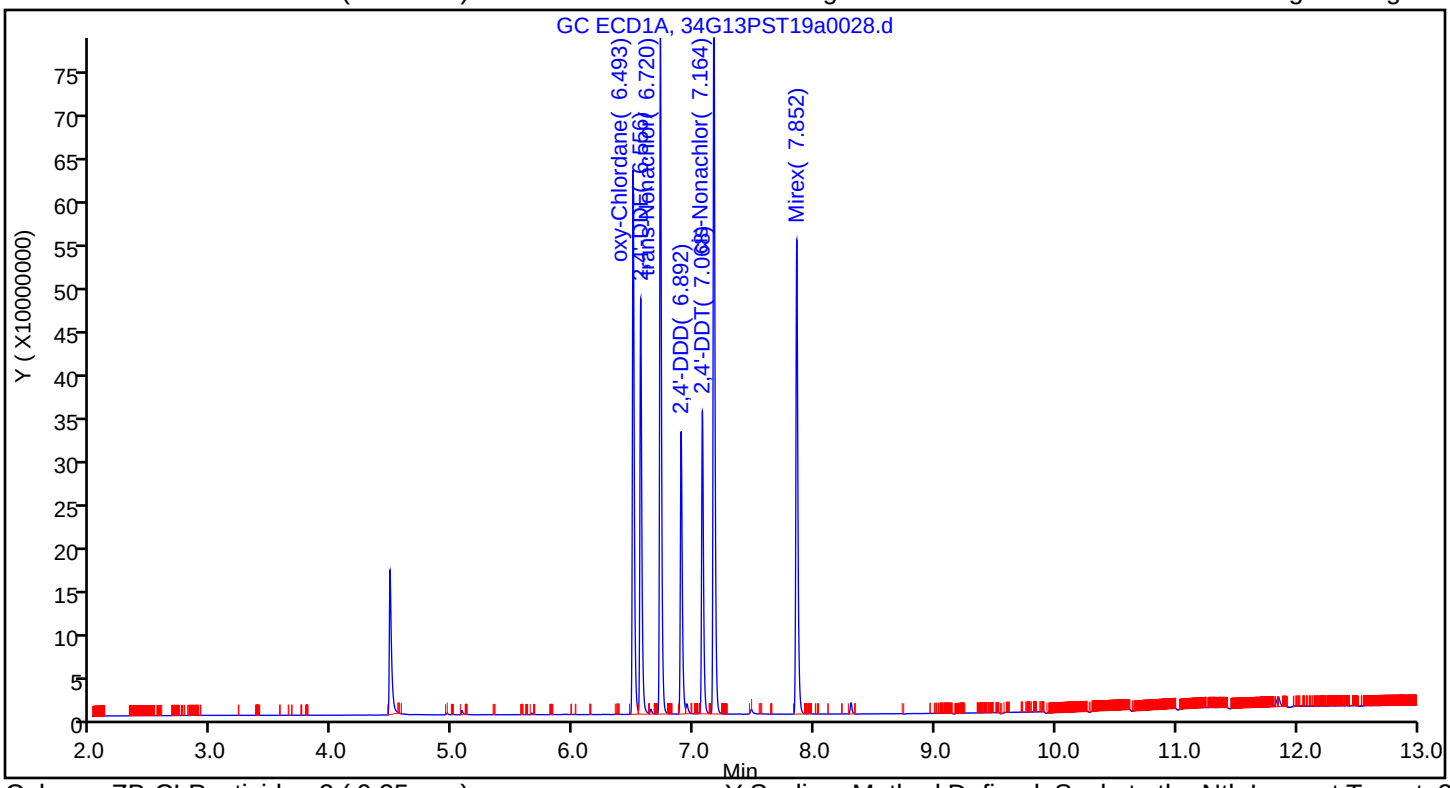
Client ID:

Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24

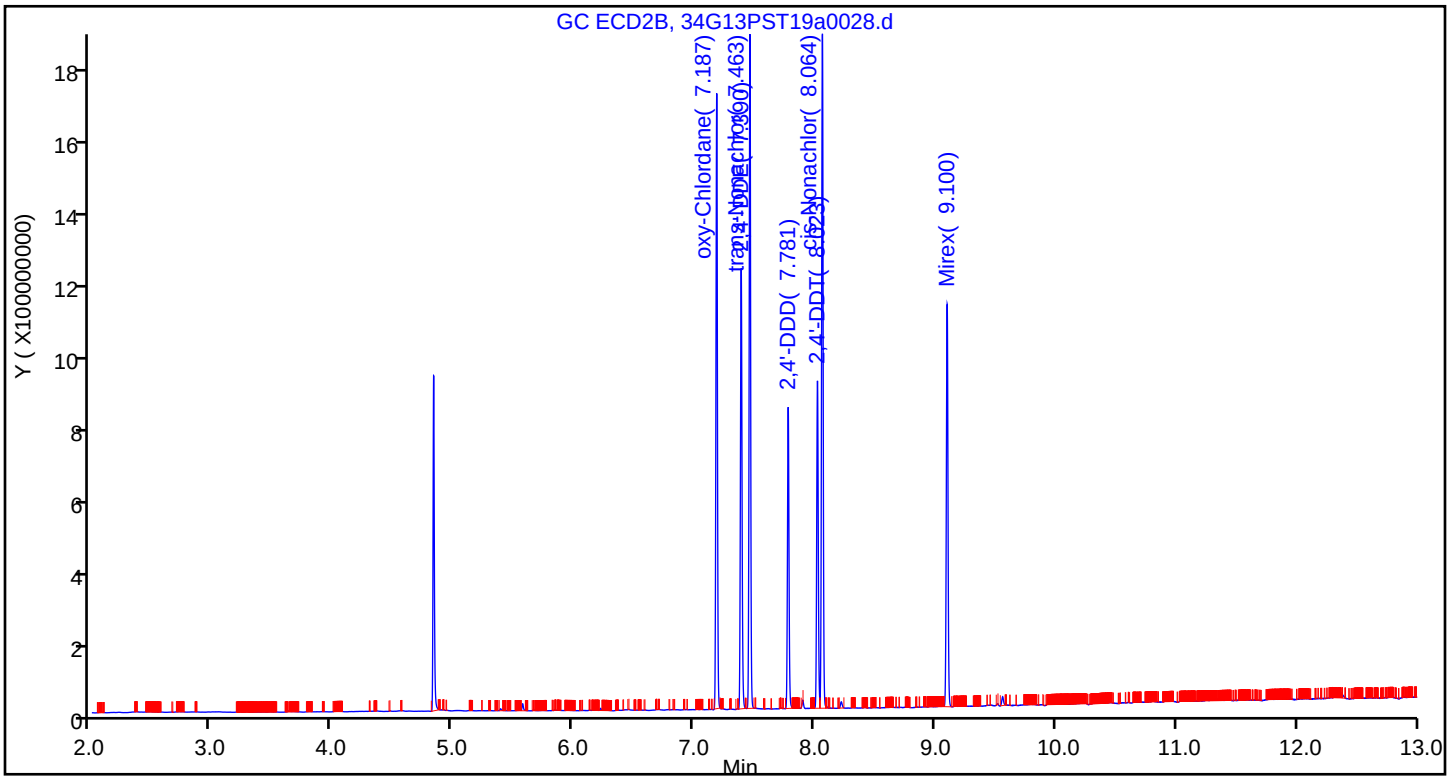
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0029.d
Lims ID: ICIS EXT 50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 14-Jul-2019 02:20:57 ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS EXT 50
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:46 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:23:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	212014556	100.0	100.0	
2	4.837	4.837	0.000	717922887	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.493	6.494	-0.001	320180961	50.0	49.2	
2	7.186	7.186	0.000	661330389	50.0	47.1	M
						RPD = 4.49	
21 2,4'-DDE							
1	6.556	6.556	0.000	252756095	50.0	53.2	
2	7.389	7.389	0.000	493255833	50.0	44.4	
						RPD = 18.04	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	382817675	50.0	49.3	
2	7.461	7.461	0.000	714656454	50.0	47.6	
						RPD = 3.40	
28 2,4'-DDD							
1	6.892	6.892	0.000	168667404	50.0	52.2	
2	7.780	7.780	0.000	376995667	50.0	51.9	
						RPD = 0.58	
32 2,4'-DDT							
1	7.067	7.068	-0.001	177645329	50.0	51.3	
2	8.023	8.023	0.000	402265965	50.0	53.7	
						RPD = 4.53	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	392143096	50.0	48.3	
2	8.063	8.063	0.000	772959000	50.0	49.3	
						RPD = 1.99	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	277447396	50.0	40.4	
2	9.099	9.100	-0.001	491330058	50.0	46.9	
						RPD = 14.78	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:48 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0029.d

Injection Date: 14-Jul-2019 02:20:57 Instrument ID: TAC034

Lims ID: ICIS EXT 50

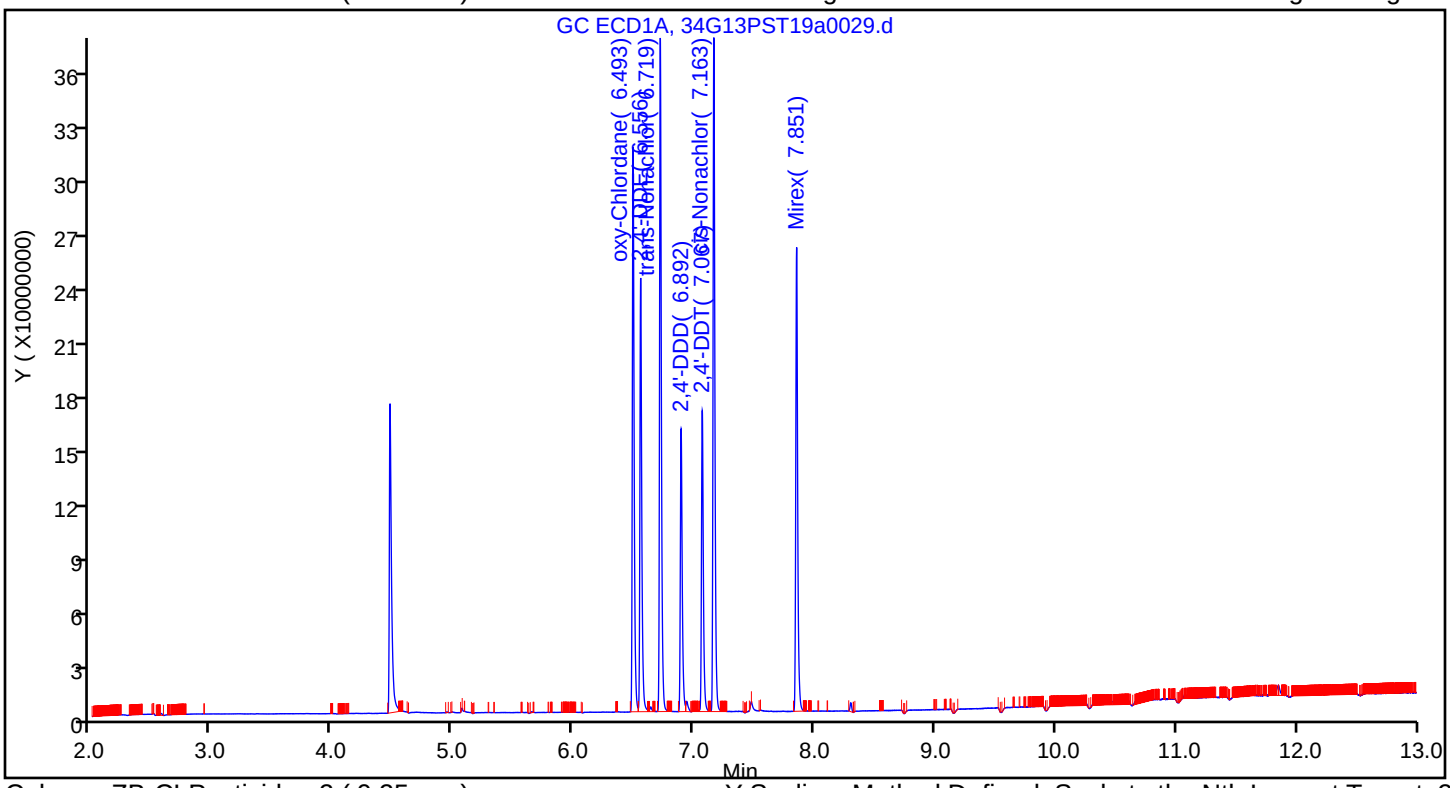
Client ID:

Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25

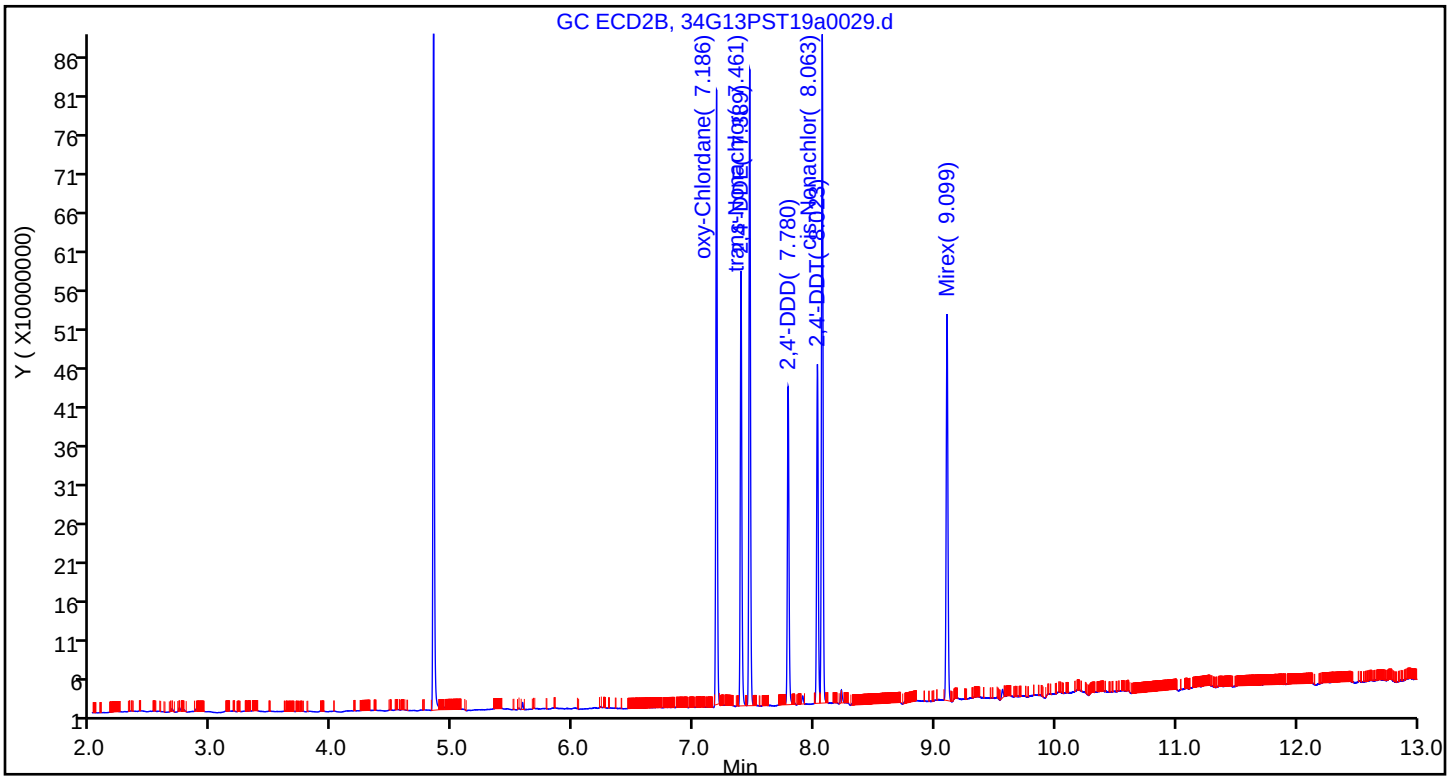
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0030.d
Lims ID: IC EXT 25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-Jul-2019 02:40:28 ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 25
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:52 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:23:49

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	189875665	100.0	100.0	
2	4.837	4.837	0.000	615682662	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.494	6.494	0.000	150810716	25.0	25.9	
2	7.186	7.186	0.000	316399569	25.0	26.2	M
						RPD = 1.22	
21 2,4'-DDE							
1	6.556	6.556	0.000	118769753	25.0	27.9	
2	7.389	7.389	0.000	251936503	25.0	26.4	
						RPD = 5.41	
24 trans-Nonachlor							
1	6.720	6.720	0.000	178197643	25.0	25.6	
2	7.461	7.461	0.000	324251978	25.0	25.2	
						RPD = 1.63	
28 2,4'-DDD							M
1	6.892	6.892	0.000	81846855	25.0	28.3	M
2	7.780	7.780	0.000	157359343	25.0	25.3	
						RPD = 11.30	
32 2,4'-DDT							
1	7.068	7.068	0.000	87473438	25.0	28.2	
2	8.023	8.023	0.000	176952881	25.0	27.5	
						RPD = 2.41	
34 cis-Nonachlor							
1	7.164	7.164	0.000	193814784	25.0	26.7	
2	8.063	8.063	0.000	352494293	25.0	26.2	
						RPD = 1.73	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	146024503	25.0	23.8	
2	9.100	9.100	0.000	243214655	25.0	27.0	
						RPD = 12.73	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:54 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0030.d

Injection Date: 14-Jul-2019 02:40:28 Instrument ID: TAC034

Lims ID: IC EXT 25

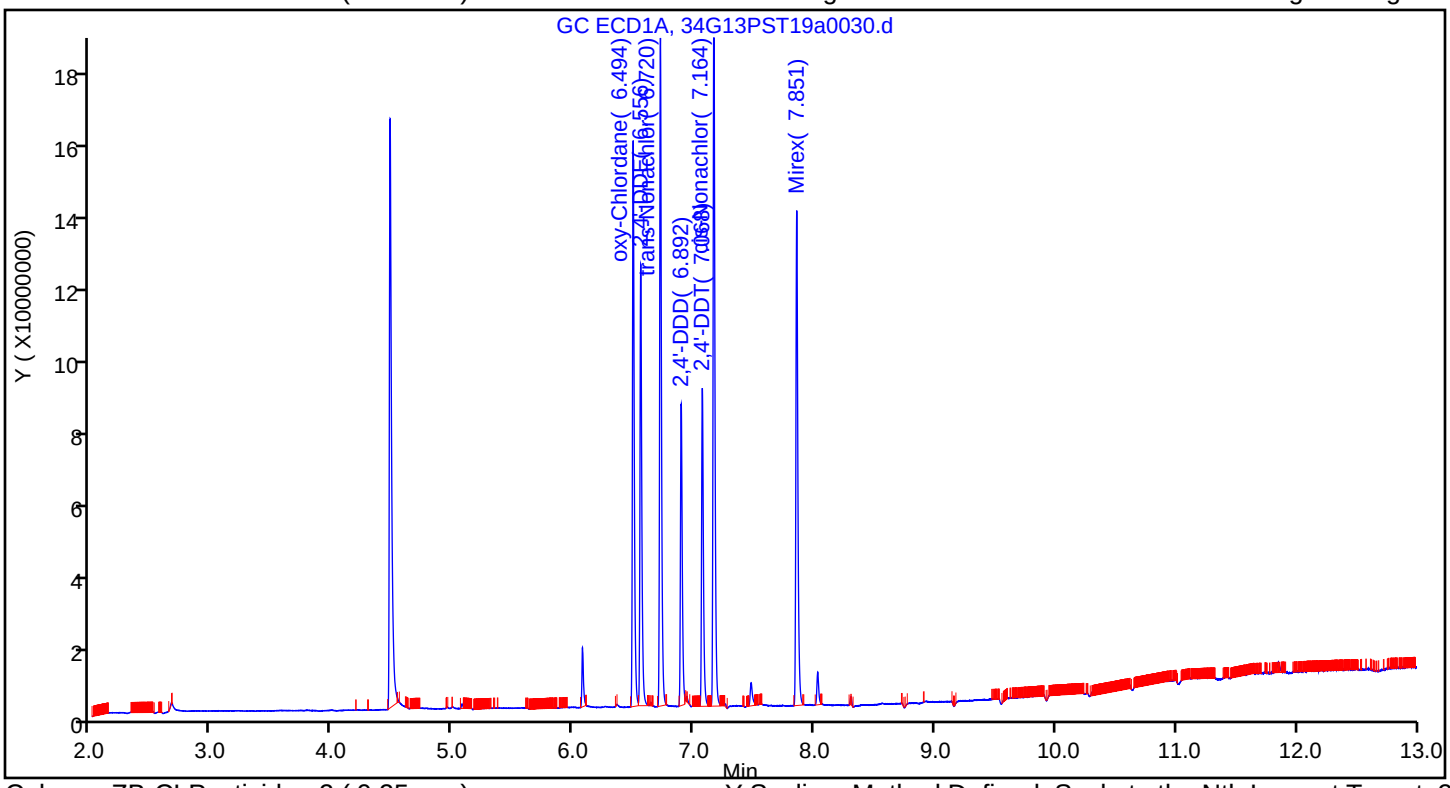
Client ID:

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

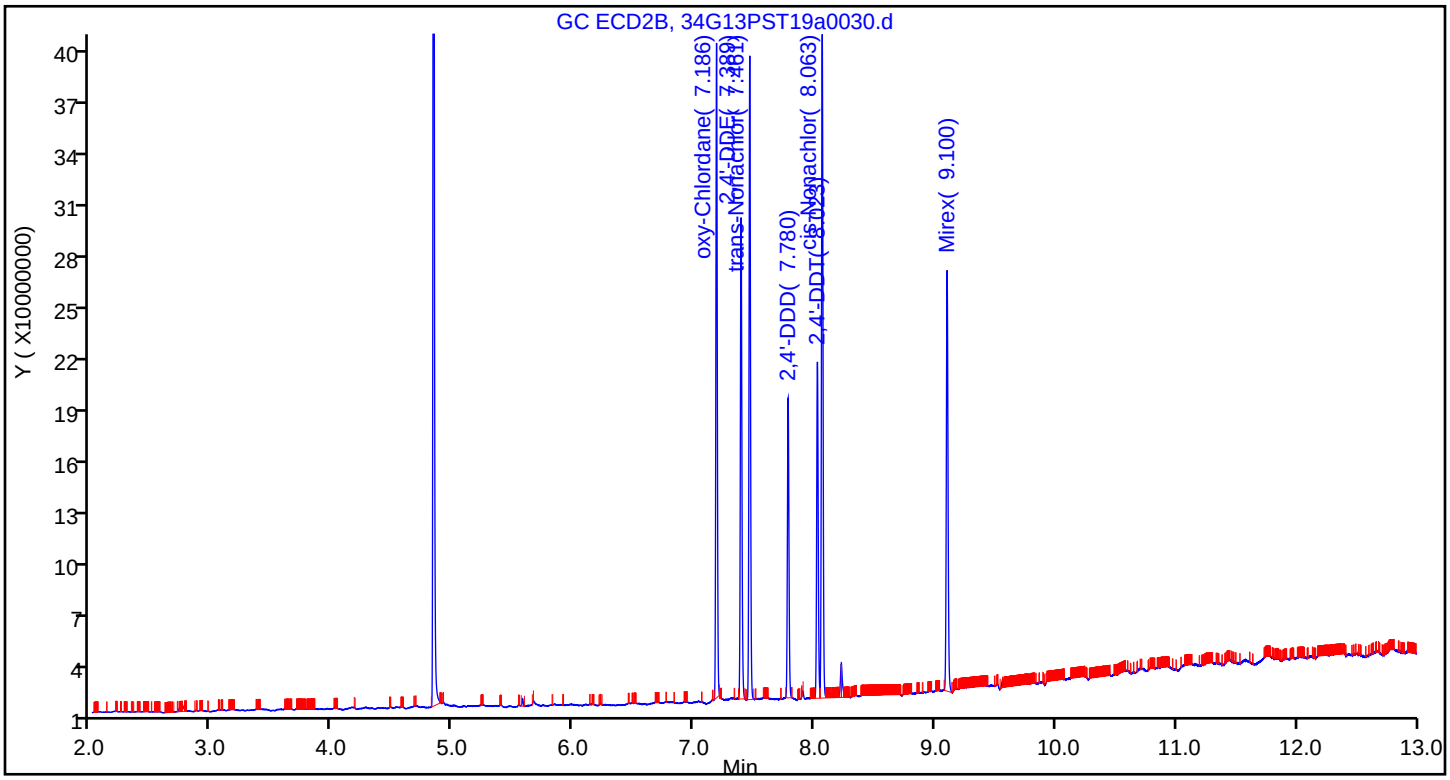
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

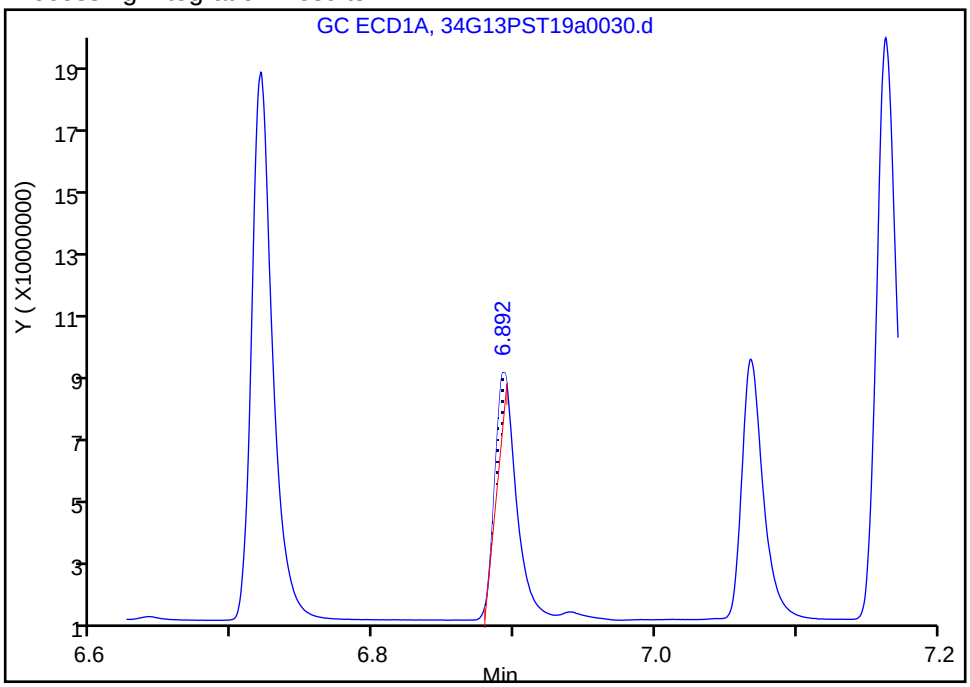
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0030.d				
Injection Date:	14-Jul-2019 02:40:28	Instrument ID:	TAC034		
Lims ID:	IC EXT 25				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	24	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

28 2,4'-DDD, CAS: 53-19-0

Signal: 1

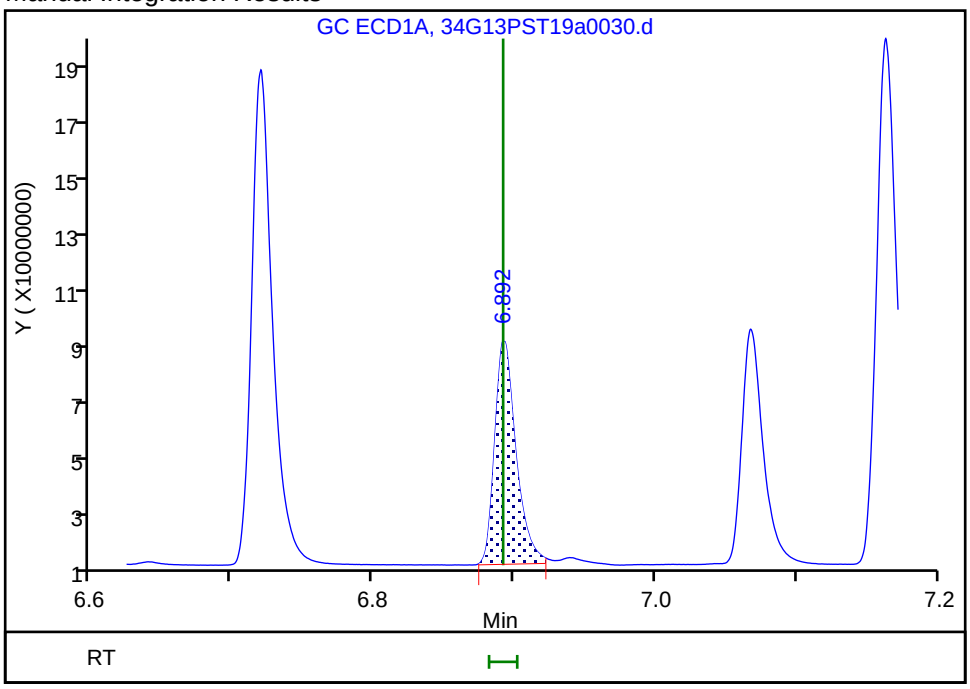
Processing Integration Results

RT: 6.89
Area: 8765873
Amount: 3.410873
Amount Units: ug/L



Manual Integration Results

RT: 6.89
Area: 81846855
Amount: 28.273907
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 13:20:45

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0031.d
Lims ID: IC EXT 10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Jul-2019 02:59:54 ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 10
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:58 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:24:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	178334920	100.0	100.0	
2	4.837	4.837	0.000	652045863	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	57008421	10.0	10.4	
2	7.184	7.186	-0.002	128997557	10.0	10.0	M
						RPD = 3.91	
21 2,4'-DDE							
1	6.556	6.556	0.000	41541002	10.0	10.4	
2	7.388	7.389	-0.001	108118028	10.0	10.7	
						RPD = 3.03	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	66590532	10.0	10.2	
2	7.460	7.461	-0.001	142450905	10.0	10.5	
						RPD = 2.54	
28 2,4'-DDD							
1	6.893	6.892	0.001	28610398	10.0	10.5	
2	7.779	7.780	-0.001	70859493	10.0	10.7	
						RPD = 2.01	
32 2,4'-DDT							
1	7.068	7.068	0.000	29826146	10.0	10.2	
2	8.022	8.023	-0.001	74048498	10.0	10.9	
						RPD = 6.06	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	68767670	10.0	10.1	
2	8.062	8.063	-0.001	150707389	10.0	10.6	
						RPD = 4.91	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.850	7.851	-0.001	61581895	10.0	10.7	
2	9.098	9.100	-0.002	103395664	10.0	10.7	
						RPD = 0.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:59 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0031.d

Injection Date: 14-Jul-2019 02:59:54 Instrument ID: TAC034

Lims ID: IC EXT 10

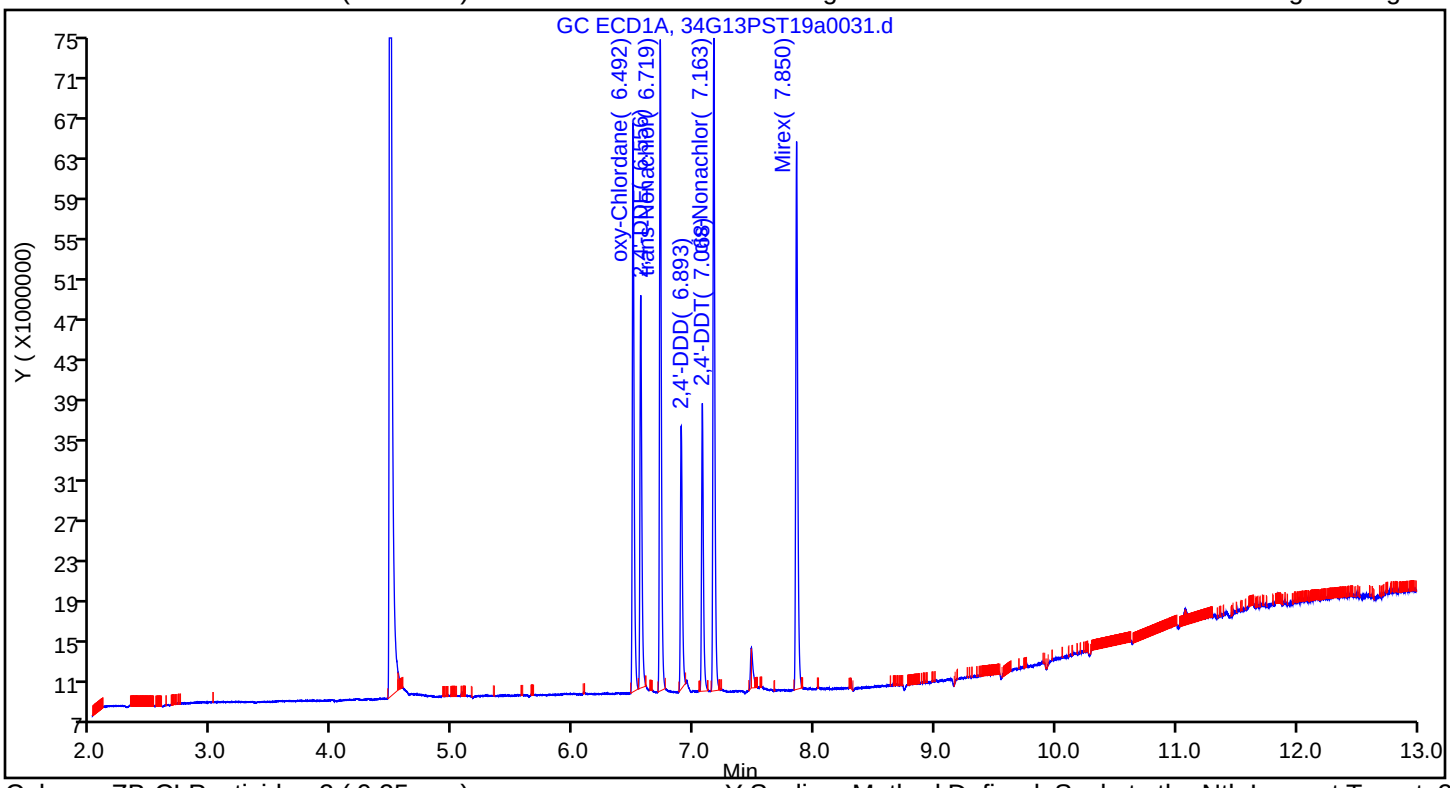
Client ID:

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

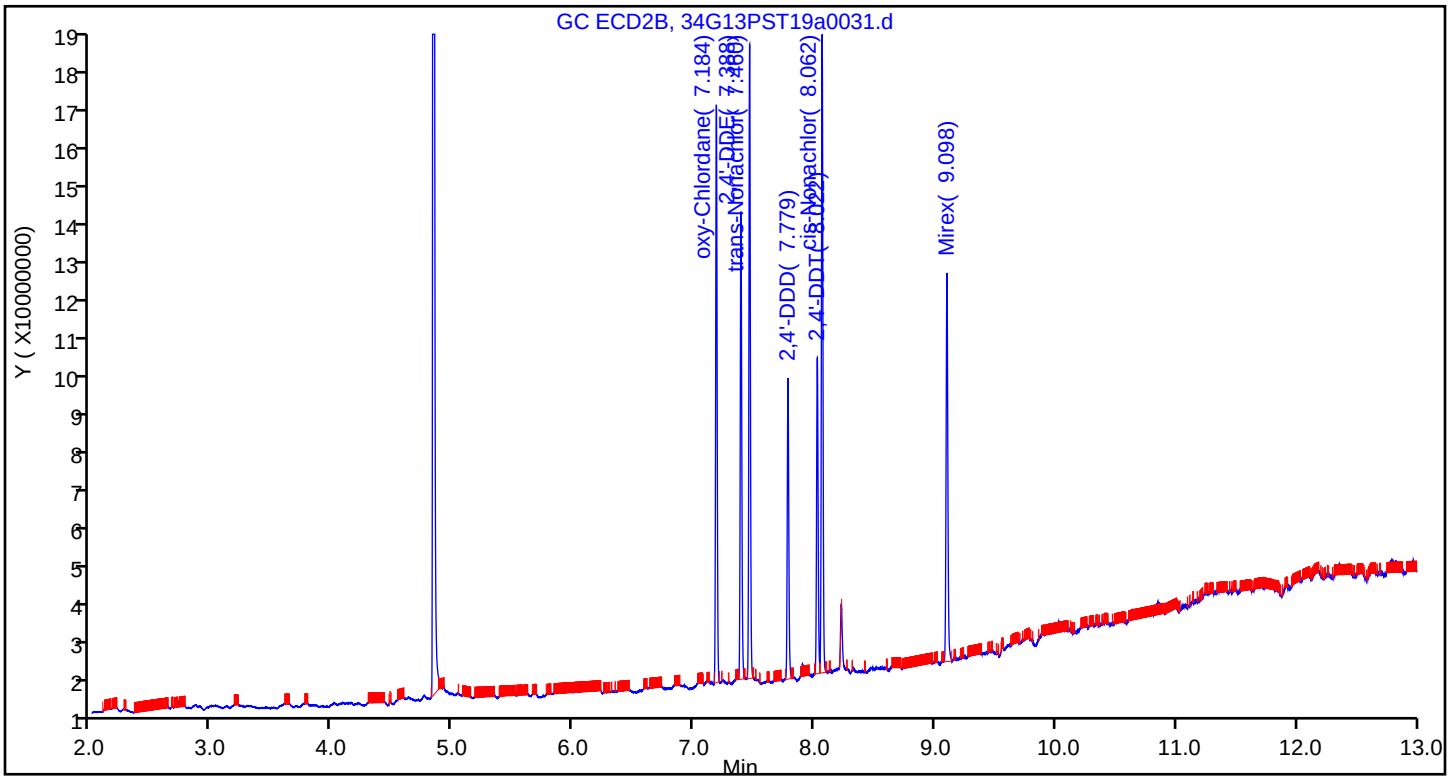
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0032.d
Lims ID: IC EXT 5
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Jul-2019 03:19:20 ALS Bottle#: 26 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 5
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:04 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:24:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	179744808	100.0	100.0	
2	4.837	4.837	0.000	713402530	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	27043315	5.00	4.91	
2	7.185	7.186	-0.001	70353840	5.00	4.94	M
						RPD = 0.73	
21 2,4'-DDE							
1	6.557	6.556	0.001	18272169	5.00	4.53	
2	7.388	7.389	-0.001	58319945	5.00	5.28	
						RPD = 15.20	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	31262904	5.00	4.75	
2	7.460	7.461	-0.001	74019462	5.00	4.96	
						RPD = 4.48	
28 2,4'-DDD							
1	6.894	6.892	0.002	12866860	5.00	4.70	
2	7.780	7.780	0.000	34729603	5.00	4.81	
						RPD = 2.40	
32 2,4'-DDT							
1	7.068	7.068	0.000	14072214	5.00	4.79	
2	8.021	8.023	-0.002	35862624	5.00	4.82	
						RPD = 0.47	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	32395160	5.00	4.71	
2	8.062	8.063	-0.001	71590320	5.00	4.59	
						RPD = 2.46	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.850	7.851	-0.001	31907743	5.00	5.48	
2	9.098	9.100	-0.002	52743256	5.00	4.91	
						RPD = 10.96	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:05 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0032.d

Injection Date: 14-Jul-2019 03:19:20 Instrument ID: TAC034

Lims ID: IC EXT 5

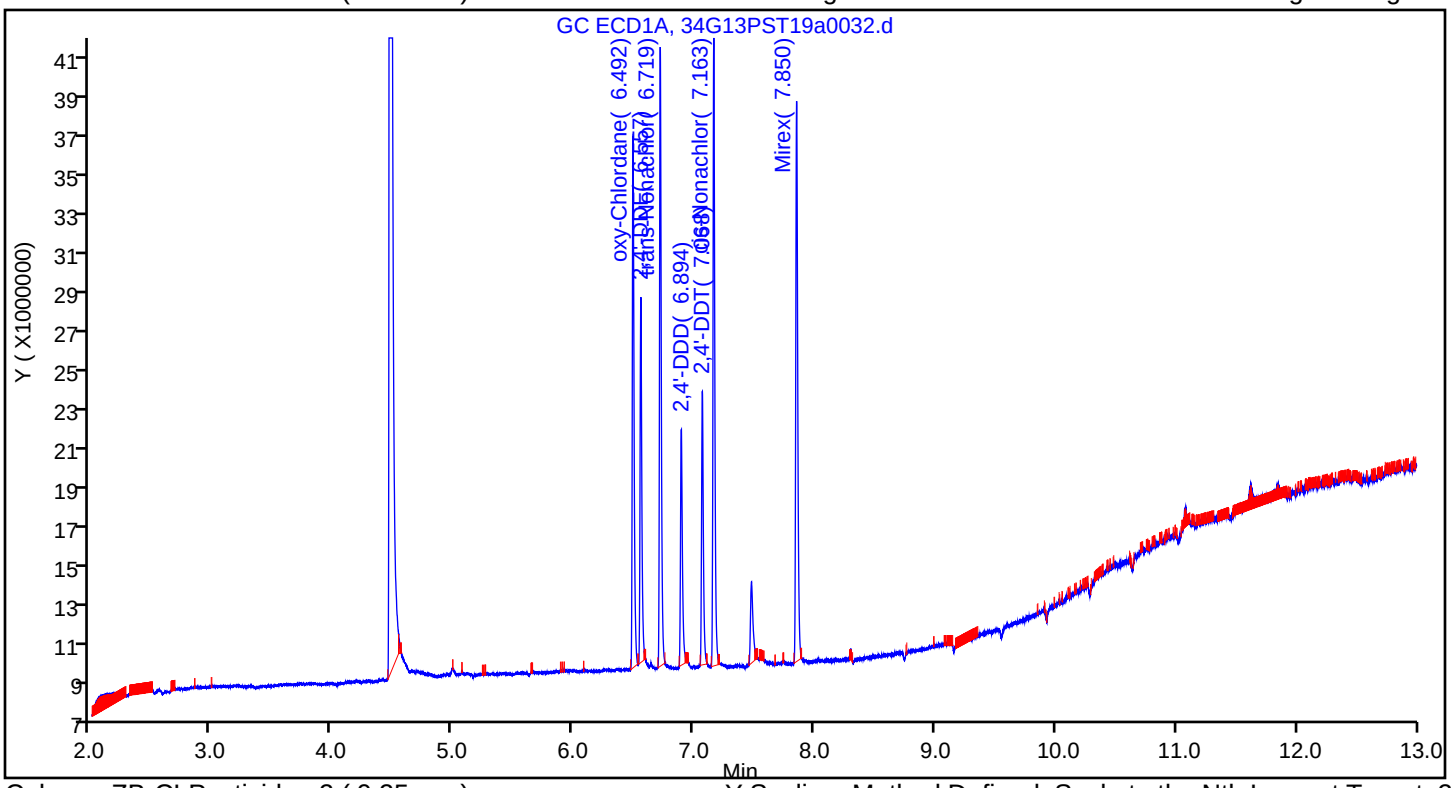
Client ID:

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

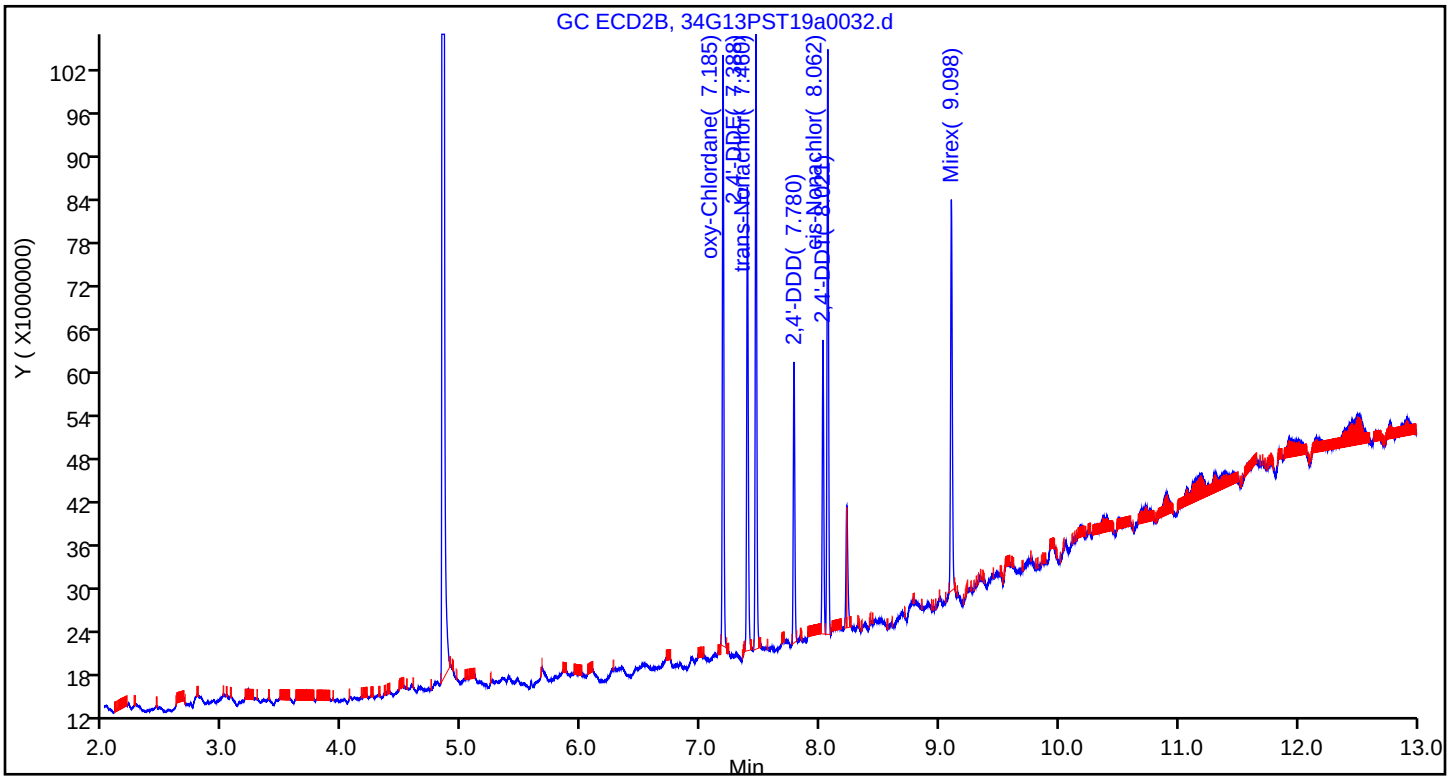
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0033.d
Lims ID: IC EXT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Jul-2019 03:38:43 ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 2
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:09 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:25:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	172008699	100.0	100.0	
2	4.837	4.837	0.000	794971735	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	10727925	2.00	2.03	
2	7.184	7.186	-0.002	28893968	2.00	1.75	M
						RPD = 14.90	
21 2,4'-DDE							
1	6.556	6.556	0.000	6966255	2.00	1.81	
2	7.389	7.389	0.000	27726350	2.00	2.25	
						RPD = 21.99	
24 trans-Nonachlor							
1	6.718	6.720	-0.002	12008288	2.00	1.90	
2	7.460	7.461	-0.001	32151765	2.00	1.93	
						RPD = 1.56	
28 2,4'-DDD							
1	6.892	6.892	0.000	4917861	2.00	1.88	
2	7.779	7.780	-0.001	17527193	2.00	2.18	
						RPD = 14.94	
32 2,4'-DDT							
1	7.067	7.068	-0.001	5183960	2.00	1.85	
2	8.021	8.023	-0.002	15717570	2.00	1.89	
						RPD = 2.61	
34 cis-Nonachlor							
1	7.162	7.164	-0.002	12325427	2.00	1.87	
2	8.062	8.063	-0.001	33043238	2.00	1.90	
						RPD = 1.64	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							M
1	7.851	7.851	0.000	13927632	2.00	2.50	M
2	9.098	9.100	-0.002	20873585	2.00	1.64	
						RPD = 41.78	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:10 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0033.d

Injection Date: 14-Jul-2019 03:38:43 Instrument ID: TAC034

Lims ID: IC EXT 2

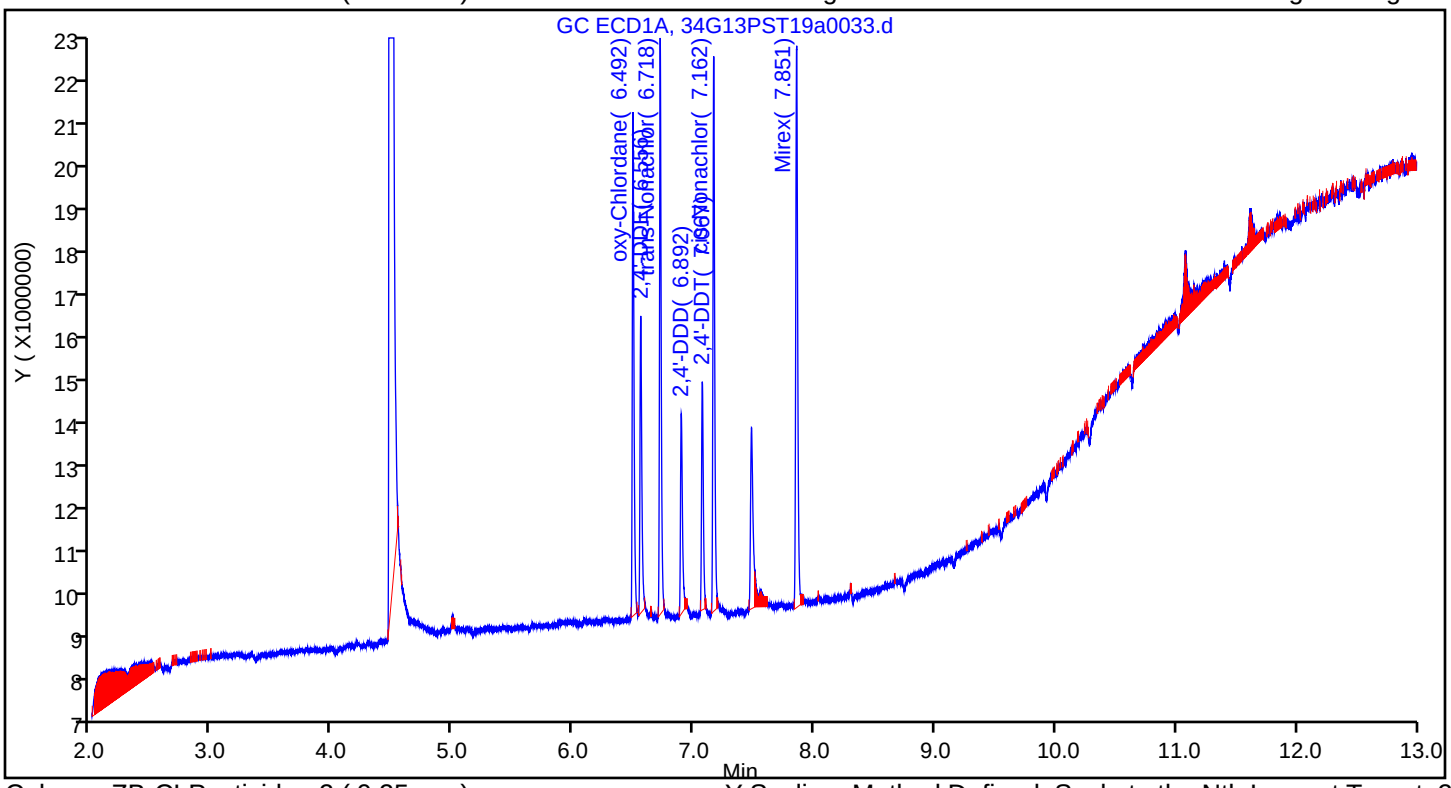
Client ID:

Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29

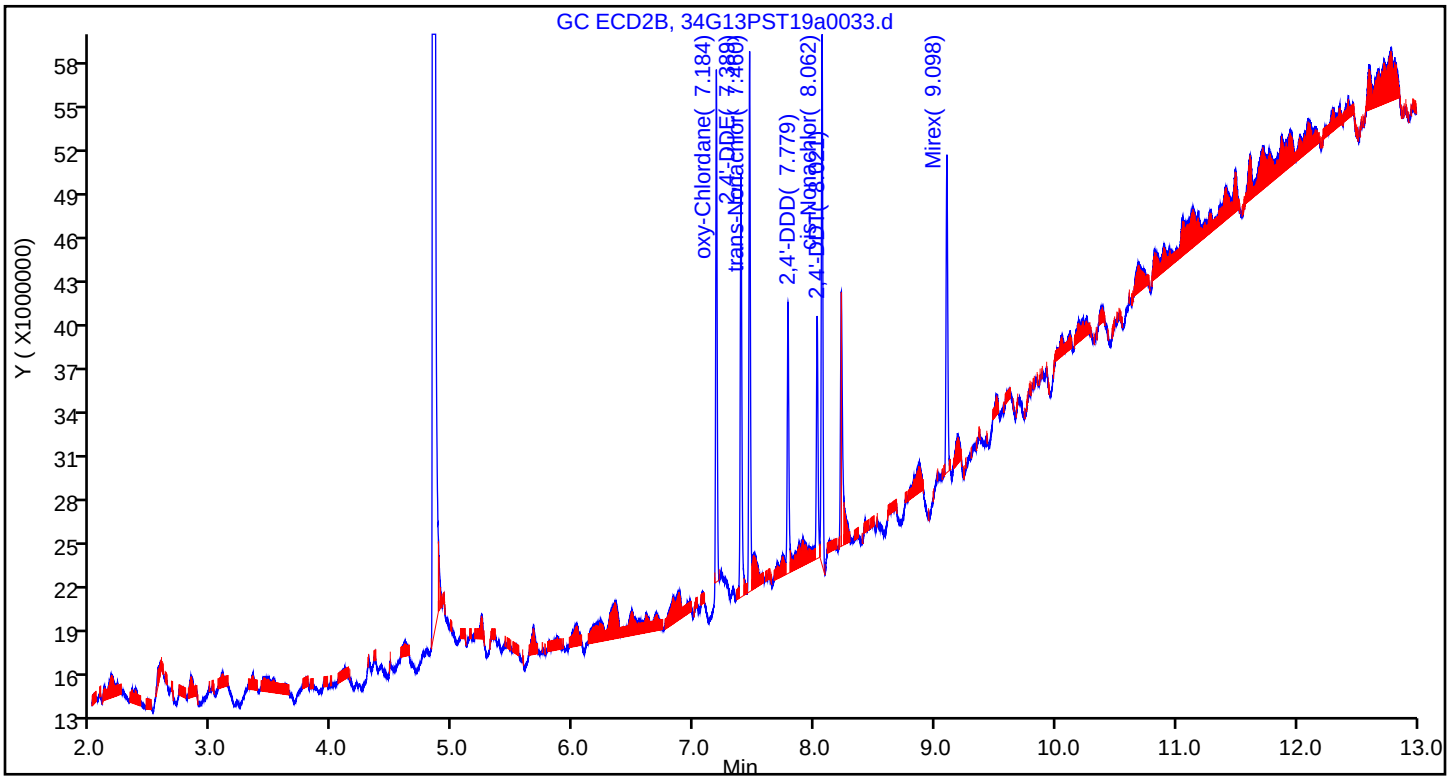
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

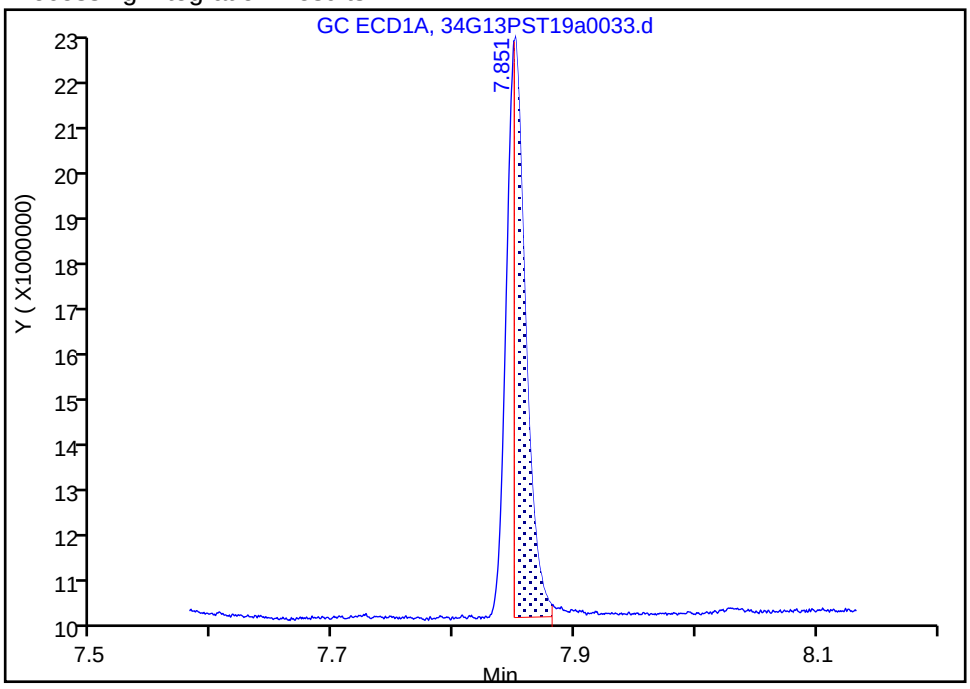
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0033.d				
Injection Date:	14-Jul-2019 03:38:43	Instrument ID:	TAC034		
Lims ID:	IC EXT 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	27	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

41 Mirex, CAS: 2385-85-5

Signal: 1

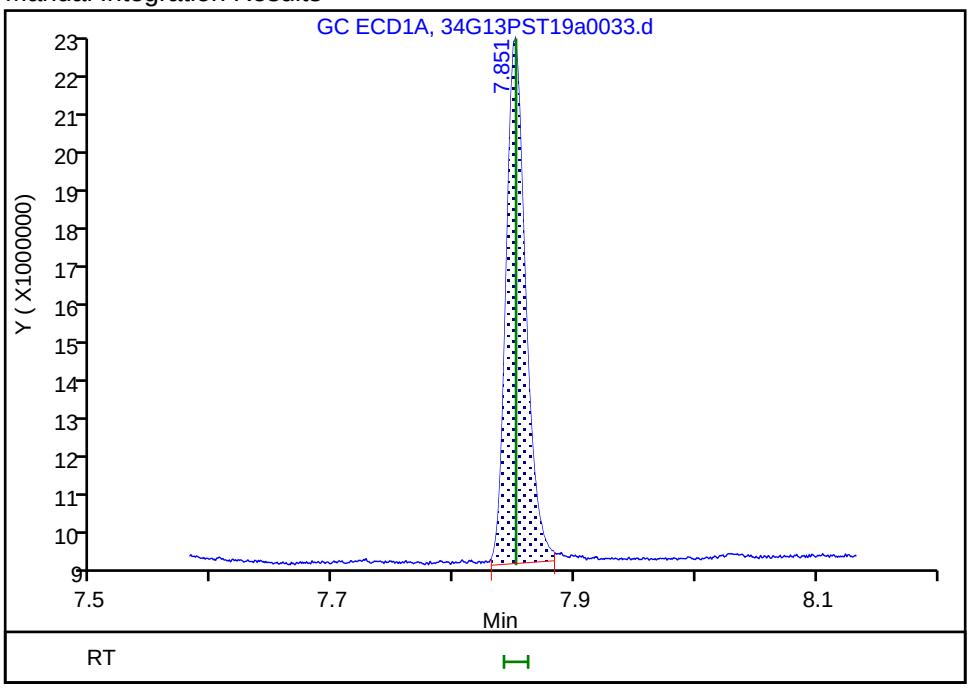
Processing Integration Results

RT: 7.85
Area: 8169562
Amount: 1.556364
Amount Units: ug/L



Manual Integration Results

RT: 7.85
Area: 13927632
Amount: 2.500909
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:25:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d
Lims ID: IC EXT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Jul-2019 03:58:13 ALS Bottle#: 28 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 1
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:15 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:27:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	180901089	100.0	100.0	
2	4.837	4.837	0.000	817641961	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	5849202	1.00	1.05	
2	7.185	7.186	-0.001	18716174	1.00	1.06	M
						RPD = 0.76	
21 2,4'-DDE							
1	6.556	6.556	0.000	3641699	1.00	0.8980	
2	7.389	7.389	0.000	12258868	1.00	0.9684	
						RPD = 7.55	
24 trans-Nonachlor							M
1	6.718	6.720	-0.002	6298391	1.00	0.9501	M
2	7.459	7.461	-0.002	16163950	1.00	0.9458	
						RPD = 0.45	
28 2,4'-DDD							
1	6.894	6.892	0.002	2337193	1.00	0.8474	
2	7.779	7.780	-0.001	8122831	1.00	0.9815	
						RPD = 14.66	
32 2,4'-DDT							M
1	7.068	7.068	0.000	2575244	1.00	0.8717	
2	8.020	8.023	-0.003	6979434	1.00	0.8179	M
						RPD = 6.37	
34 cis-Nonachlor							M
1	7.162	7.164	-0.002	6093313	1.00	0.8798	
2	8.061	8.063	-0.002	16118510	1.00	0.9023	M
						RPD = 2.53	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	7207952	1.00	1.23	
2	9.098	9.100	-0.002	14903906	1.00	1.08	
						RPD = 12.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:16 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d

Injection Date: 14-Jul-2019 03:58:13 Instrument ID: TAC034

Lims ID: IC EXT 1

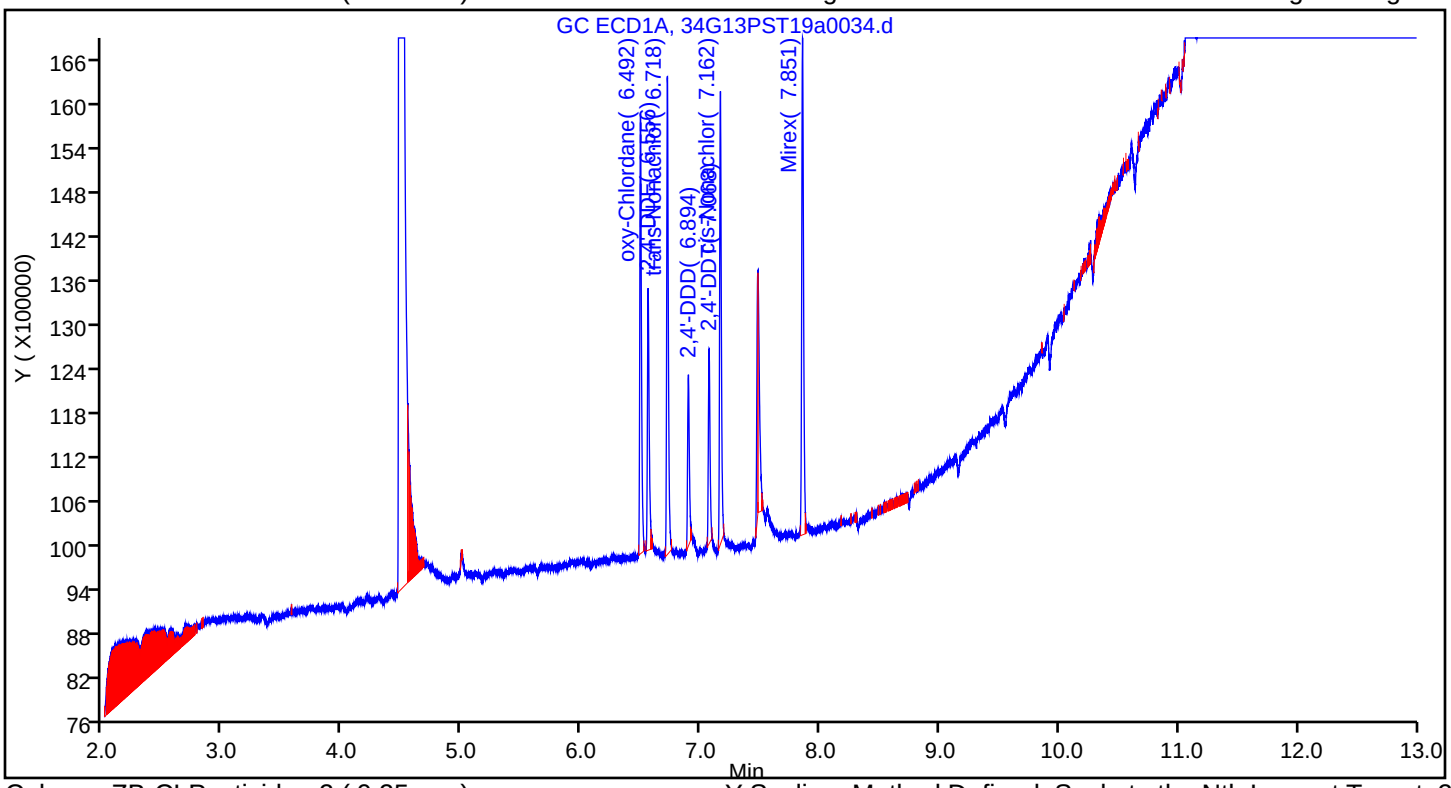
Client ID:

Operator ID: CJB ALS Bottle#: 28 Worklist Smp#: 30

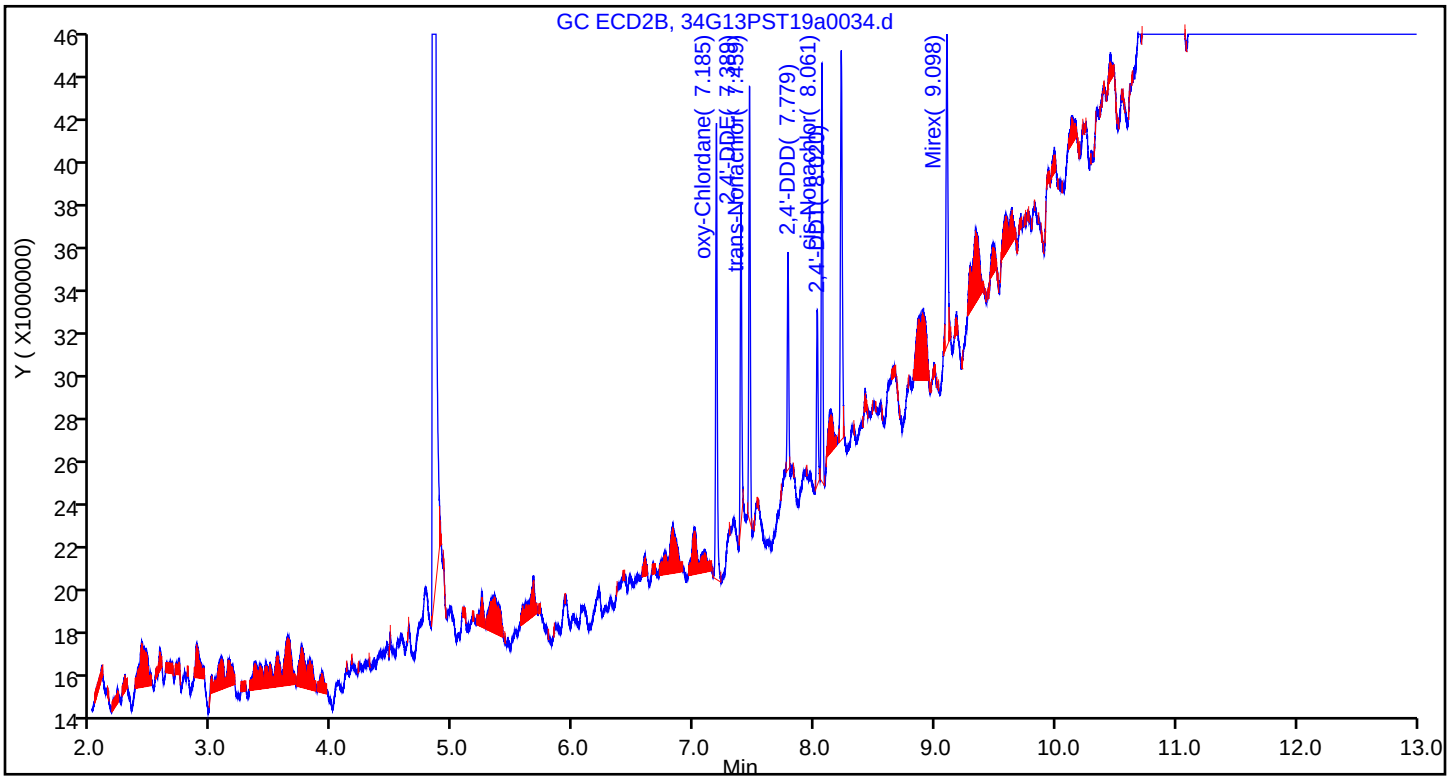
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

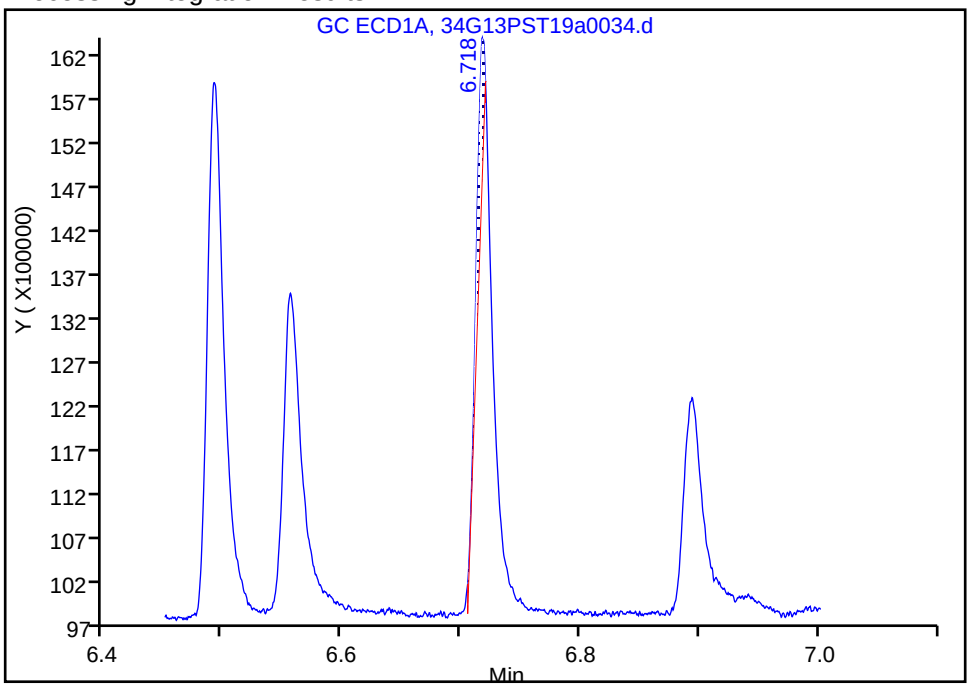
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d				
Injection Date:	14-Jul-2019 03:58:13	Instrument ID:	TAC034		
Lims ID:	IC EXT 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	28	Worklist Smp#:	30
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

24 trans-Nonachlor, CAS: 39765-80-5

Signal: 1

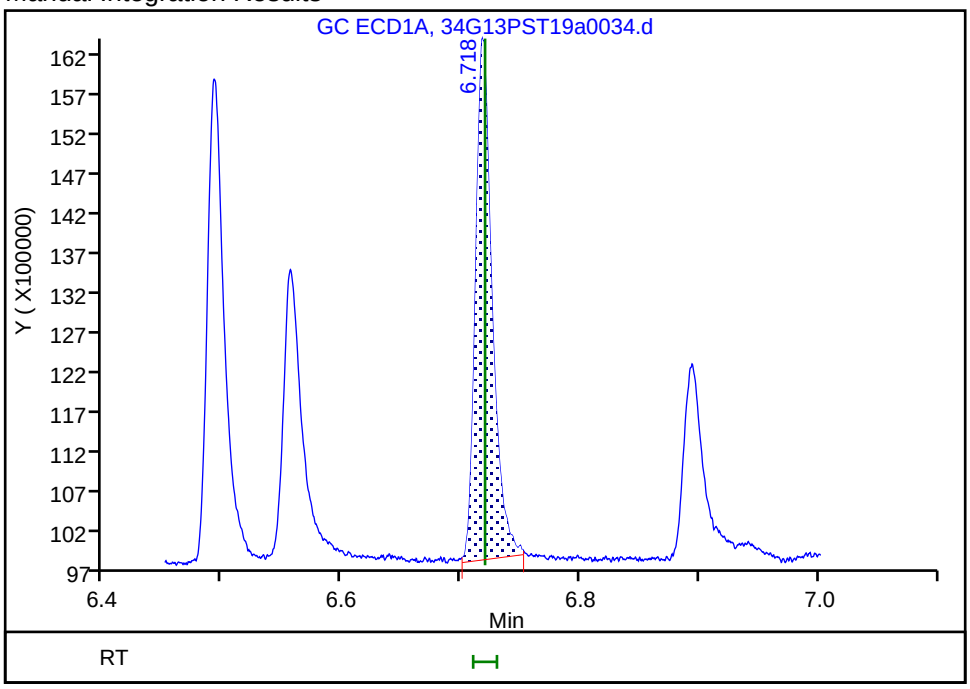
Processing Integration Results

RT: 6.72
Area: 766720
Amount: 0.127517
Amount Units: ug/L



Manual Integration Results

RT: 6.72
Area: 6298391
Amount: 0.950053
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:26:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 01:22 Calibration End Date: 07/14/2019 03:58 Calibration ID: 28024

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/30	34G13PST19a0034.d
Level 2	IC 580-305574/29	34G13PST19a0033.d
Level 3	IC 580-305574/28	34G13PST19a0032.d
Level 4	IC 580-305574/27	34G13PST19a0031.d
Level 5	IC 580-305574/26	34G13PST19a0030.d
Level 6	ICIS 580-305574/25	34G13PST19a0029.d
Level 7	IC 580-305574/24	34G13PST19a0028.d
Level 8	IC 580-305574/23	34G13PST19a0027.d
Level 9	IC 580-305574/22	34G13PST19a0026.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
oxy-Chlordane	2.2890 1.8423	1.8173 2.1104	1.9723 +++++	1.9784 +++++	2.0556	Lin2	0.2152	1.9518				8.0		20.0	0.9930		0.9900
2,4'-DDE	1.4993 1.3741	1.7439 1.6305	1.6350 1.3477	1.6581 1.4080	1.6368	Ave		1.5482				9.3		20.0			
trans-Nonachlor	1.9769 1.9909	2.0222 2.3166	2.0751 2.0494	2.1847 +++++	2.1066	Ave		2.0903				5.4		20.0			
2,4'-DDD	0.9934 1.0502	1.1024 1.0675	0.9736 0.8808	1.0867 0.9326	1.0223	Ave		1.0122				7.3		20.0			
2,4'-DDT	0.8536 1.1206	0.9886 1.1945	1.0054 0.9259	1.1356 1.0191	1.1496	Ave		1.0437				10.9		20.0			
cis-Nonachlor	1.9713 2.1533	2.0783 2.4733	2.0070 2.1934	2.3113 +++++	2.2901	Ave		2.1847				7.7		20.0			
Mirex	1.8228 1.3688	1.3129 1.5465	1.4786 1.3482	1.5857 1.5106	1.5801	Lin2	0.2444	1.4550				9.8		20.0	0.9900		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 01:22 Calibration End Date: 07/14/2019 03:58 Calibration ID: 28024

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/30	34G13PST19a0034.d
Level 2	IC 580-305574/29	34G13PST19a0033.d
Level 3	IC 580-305574/28	34G13PST19a0032.d
Level 4	IC 580-305574/27	34G13PST19a0031.d
Level 5	IC 580-305574/26	34G13PST19a0030.d
Level 6	ICIS 580-305574/25	34G13PST19a0029.d
Level 7	IC 580-305574/24	34G13PST19a0028.d
Level 8	IC 580-305574/23	34G13PST19a0027.d
Level 9	IC 580-305574/22	34G13PST19a0026.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
oxy-Chlordane	BNB	Lin2	18716174 661330389	28893968 1409786740	70353840 +++++	128997557 +++++	316399569	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	25.0
2,4'-DDE	BNB	Ave	12258868 493255833	27726350 1089225982	58319945 2156749160	108118028 4332602861	251936503	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Nonachlor	BNB	Ave	16163950 714656454	32151765 1547513527	74019462 3279727275	142450905 +++++	324251978	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
2,4'-DDD	BNB	Ave	8122831 376995667	17527193 713107205	34729603 1409590787	70859493 2869756510	157359343	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDT	BNB	Ave	6979434 402265965	15717570 797957186	35862624 1481809098	74048498 3135854422	176952881	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Nonachlor	BNB	Ave	16118510 772959000	33043238 1652203488	71590320 3510186118	150707389 +++++	352494293	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
Mirex	BNB	Lin2	14903906 491330058	20873585 1033070879	52743256 2157636629	103395664 4648165608	243214655	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0026.d
Lims ID: IC EXT 400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-Jul-2019 01:22:41 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 400
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:29 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:22:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	242749557	100.0	100.0	
2	4.838	4.837	0.001	769272679	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.495	6.494	0.001	2627575384	400.0	353.0	
2	7.192	7.186	0.006	6412821414	400.0	427.0	M
						RPD = 18.97	
21 2,4'-DDE							
1	6.557	6.556	0.001	1980135561	400.0	363.9	
2	7.393	7.389	0.004	4332602861	400.0	363.8	
						RPD = 0.02	
24 trans-Nonachlor							
1	6.721	6.720	0.001	3547748225	400.0	398.8	
2	7.469	7.461	0.008	6841943661	400.0	425.5	
						RPD = 6.48	
28 2,4'-DDD							
1	6.892	6.892	0.000	1326996517	400.0	358.6	
2	7.783	7.780	0.003	2869756510	400.0	368.6	
						RPD = 2.75	
32 2,4'-DDT							
1	7.068	7.068	0.000	1460488636	400.0	368.4	
2	8.025	8.023	0.002	3135854422	400.0	390.6	
						RPD = 5.84	
34 cis-Nonachlor							
1	7.165	7.164	0.001	3819819448	400.0	411.0	
2	8.072	8.063	0.009	7271162353	400.0	432.6	
						RPD = 5.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.853	7.851	0.002	2515368093	400.0	320.0	
2	9.103	9.100	0.003	4648165608	400.0	415.1	
						RPD = 25.86	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0026.d

Injection Date: 14-Jul-2019 01:22:41 Instrument ID: TAC034

Lims ID: IC EXT 400

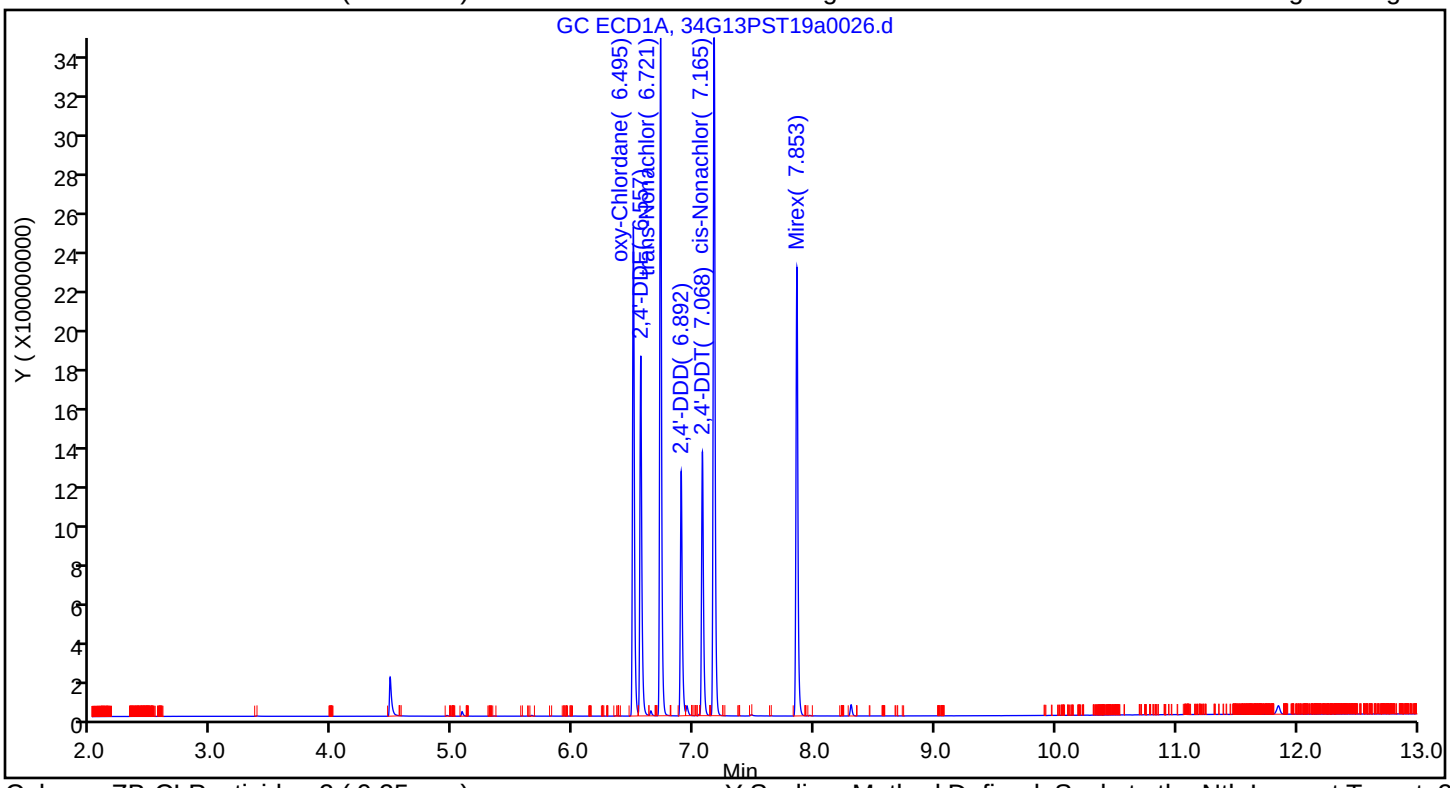
Client ID:

Operator ID: CJB ALS Bottle#: 20 Worklist Smp#: 22

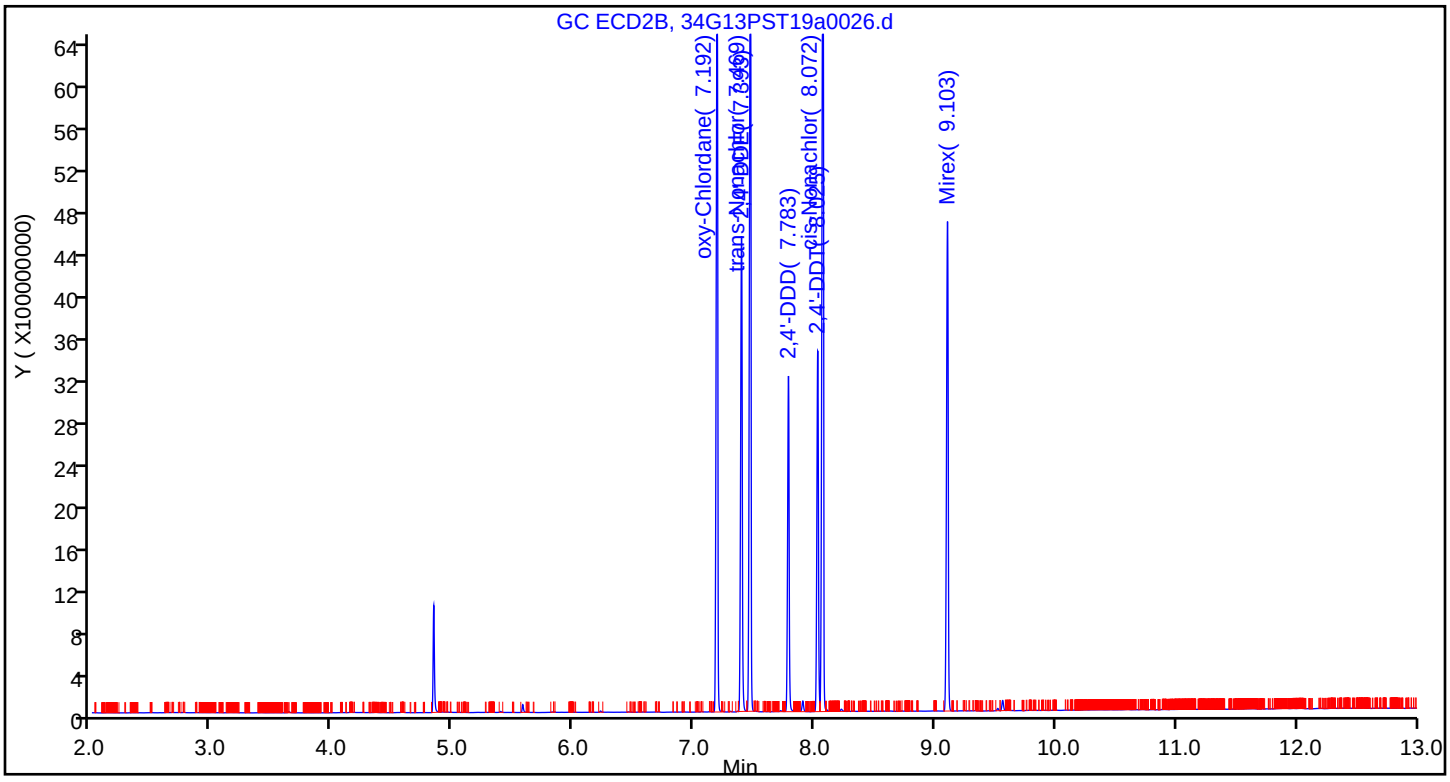
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

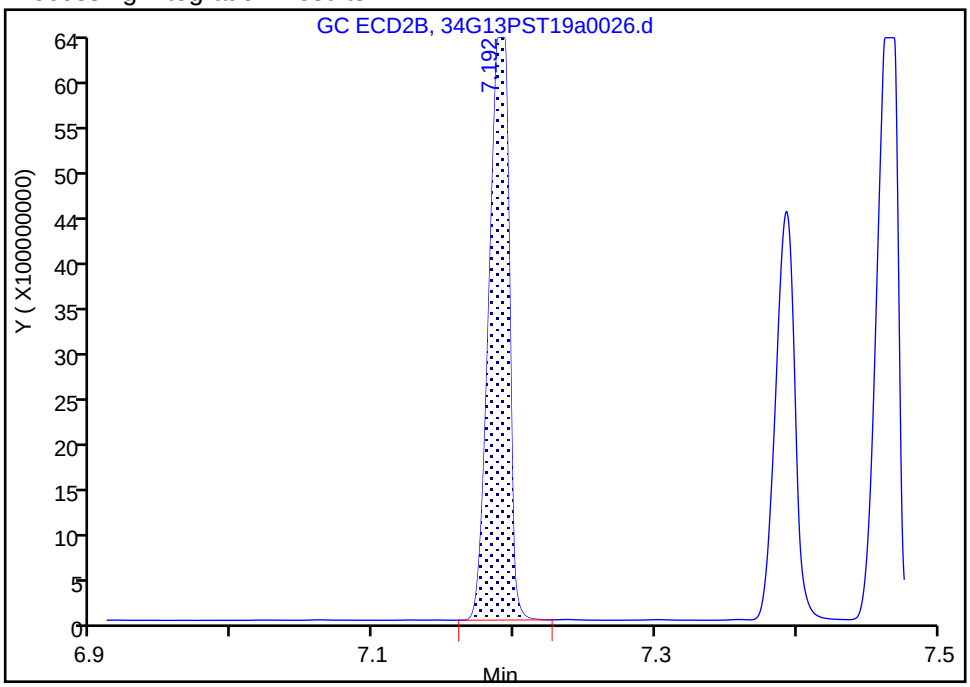
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0026.d				
Injection Date:	14-Jul-2019 01:22:41	Instrument ID:	TAC034		
Lims ID:	IC EXT 400				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

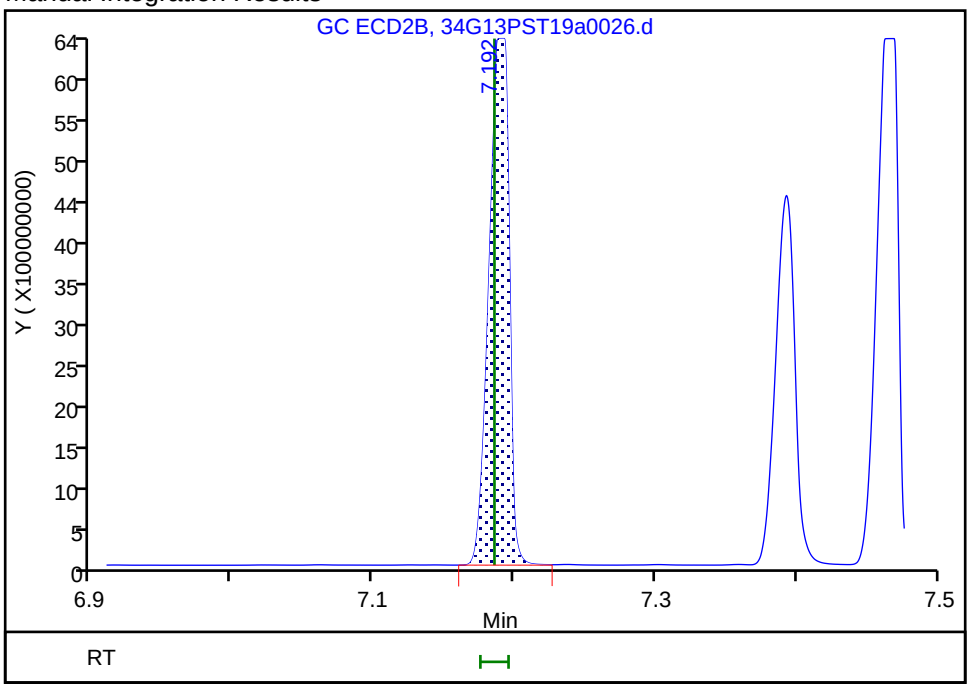
Processing Integration Results

RT: 7.19
Area: 6403999489
Amount: 401.7632
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 6412821414
Amount: 426.9830
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:51:21
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0027.d
Lims ID: IC EXT 200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-Jul-2019 01:42:05 ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 200
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:35 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:22:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	221290919	100.0	100.0	
2	4.837	4.837	0.000	800186089	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.494	6.494	0.000	1294868234	200.0	190.8	
2	7.189	7.186	0.003	3112134263	200.0	199.2	M
						RPD = 4.27	
21 2,4'-DDE							
1	6.555	6.556	-0.001	1020734624	200.0	205.8	
2	7.391	7.389	0.002	2156749160	200.0	174.1	
						RPD = 16.67	
24 trans-Nonachlor							
1	6.720	6.720	0.000	1666374665	200.0	205.5	
2	7.464	7.461	0.003	3279727275	200.0	196.1	
						RPD = 4.68	
28 2,4'-DDD							
1	6.891	6.892	-0.001	673212866	200.0	199.5	
2	7.781	7.780	0.001	1409590787	200.0	174.0	
						RPD = 13.66	
32 2,4'-DDT							
1	7.067	7.068	-0.001	725639054	200.0	200.8	
2	8.024	8.023	0.001	1481809098	200.0	177.4	
						RPD = 12.36	
34 cis-Nonachlor							
1	7.164	7.164	0.000	1786762175	200.0	210.9	
2	8.066	8.063	0.003	3510186118	200.0	200.8	
						RPD = 4.91	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.852	7.851	0.001	1224166666	200.0	170.9	
2	9.101	9.100	0.001	2157636629	200.0	185.1	
						RPD = 8.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:37 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0027.d

Injection Date: 14-Jul-2019 01:42:05 Instrument ID: TAC034

Lims ID: IC EXT 200

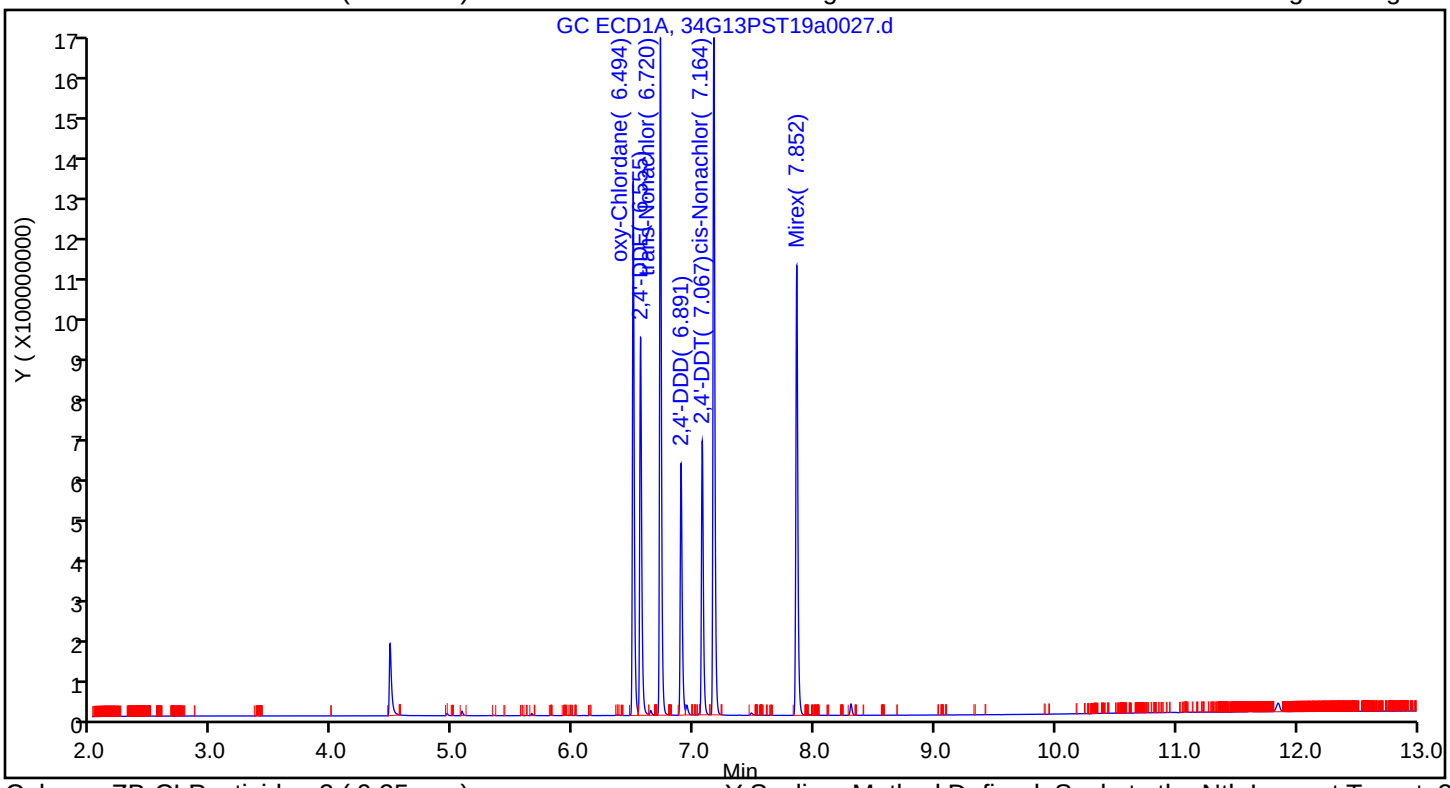
Client ID:

Operator ID: CJB ALS Bottle#: 21 Worklist Smp#: 23

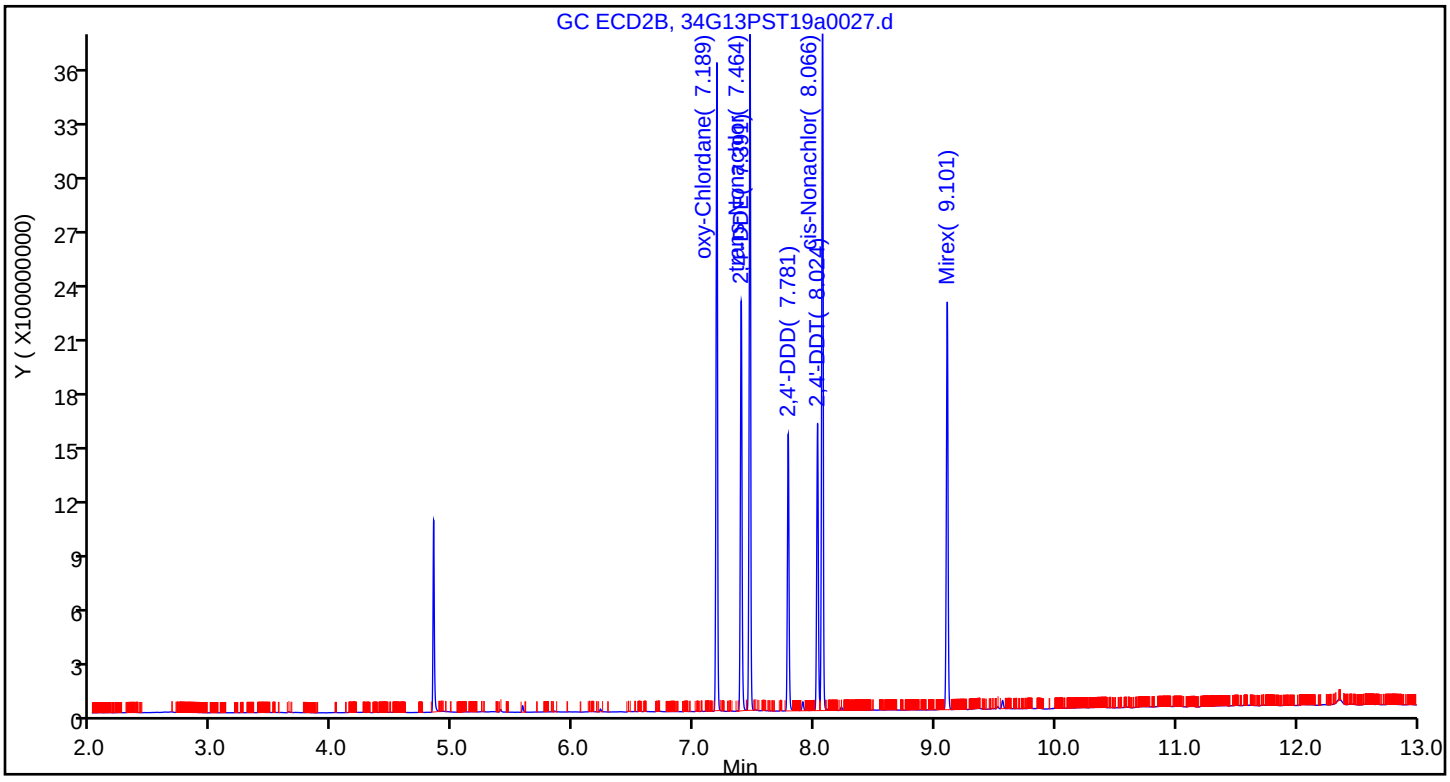
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

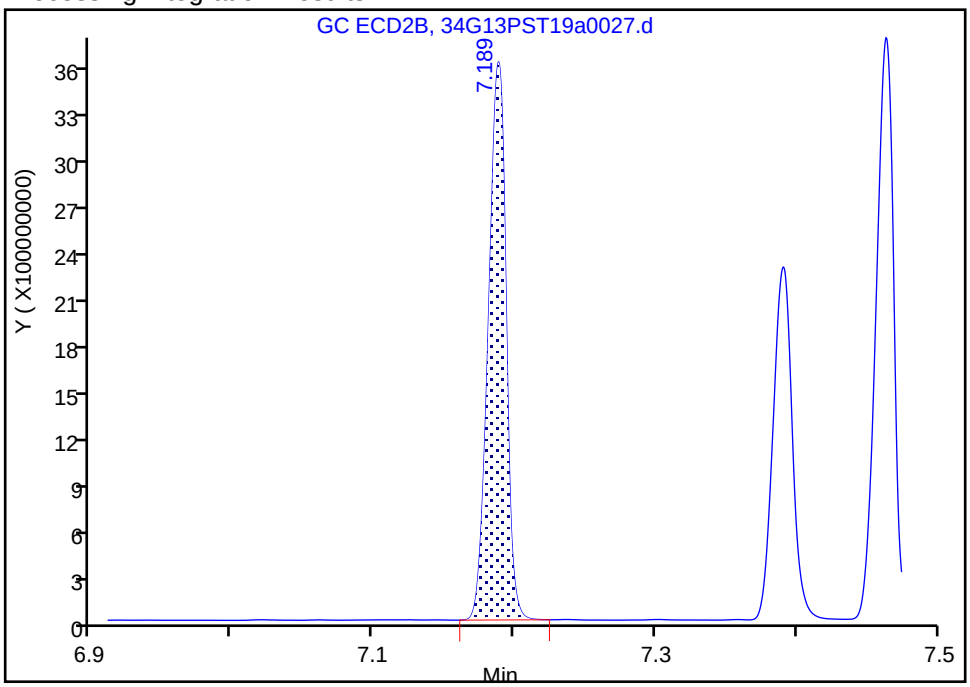
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0027.d				
Injection Date:	14-Jul-2019 01:42:05	Instrument ID:	TAC034		
Lims ID:	IC EXT 200				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	21	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

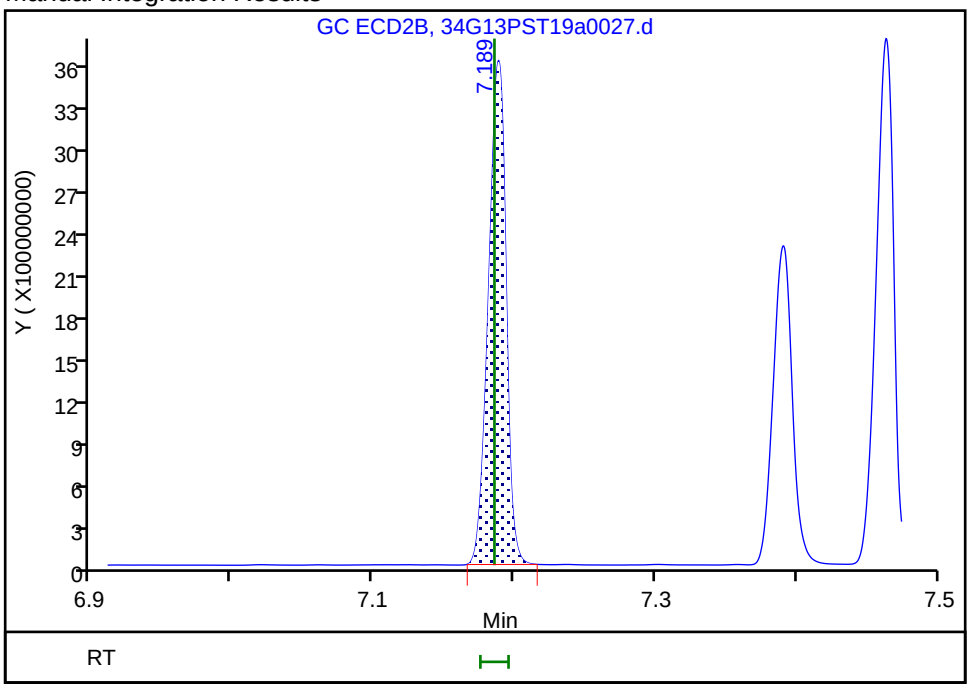
Processing Integration Results

RT: 7.19
Area: 3121690085
Amount: 195.9659
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 3112134263
Amount: 199.1502
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:05:34

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0028.d
Lims ID: IC EXT 100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-Jul-2019 02:01:30 ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 100
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:40 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:23:07

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	203592970	100.0	100.0	
2	4.837	4.837	0.000	668023383	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.493	6.494	-0.001	653751840	100.0	104.7	
2	7.187	7.186	0.001	1409786740	100.0	108.0	M
						RPD = 3.10	
21 2,4'-DDE							
1	6.556	6.556	0.000	517904730	100.0	113.5	
2	7.390	7.389	0.001	1089225982	100.0	105.3	
						RPD = 7.45	
24 trans-Nonachlor							
1	6.720	6.720	0.000	814883132	100.0	109.2	
2	7.463	7.461	0.002	1547513527	100.0	110.8	
						RPD = 1.46	
28 2,4'-DDD							
1	6.892	6.892	0.000	358439058	100.0	115.5	
2	7.781	7.780	0.001	713107205	100.0	105.5	
						RPD = 9.07	
32 2,4'-DDT							
1	7.068	7.068	0.000	379951548	100.0	114.3	
2	8.023	8.023	0.000	797957186	100.0	114.5	
						RPD = 0.15	
34 cis-Nonachlor							
1	7.164	7.164	0.000	895145993	100.0	114.8	
2	8.064	8.063	0.001	1652203488	100.0	113.2	
						RPD = 1.44	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.852	7.851	0.001	621440237	100.0	94.3	
2	9.100	9.100	0.000	1033070879	100.0	106.1	
						RPD = 11.82	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.25	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:43 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0028.d

Injection Date: 14-Jul-2019 02:01:30 Instrument ID: TAC034

Lims ID: IC EXT 100

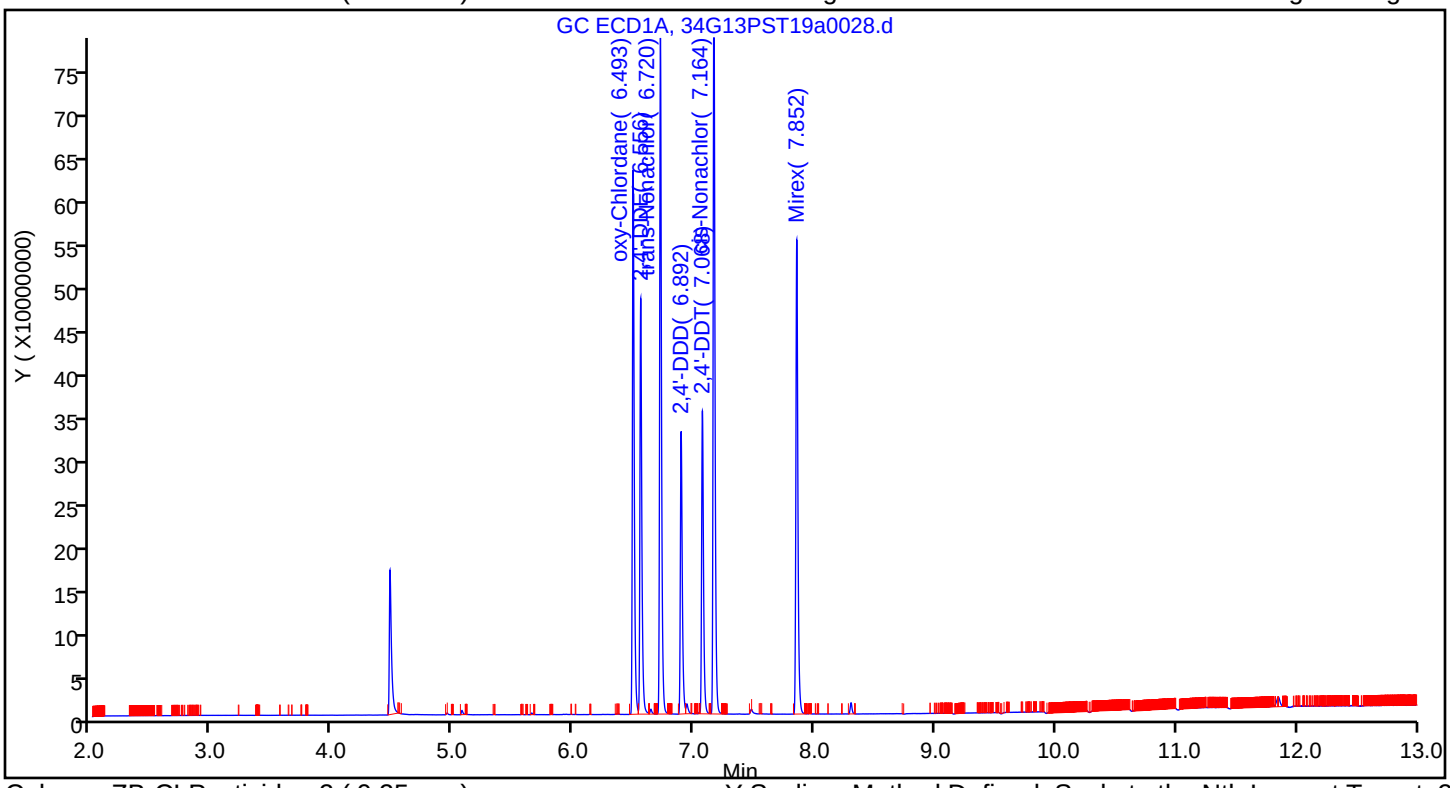
Client ID:

Operator ID: CJB ALS Bottle#: 22 Worklist Smp#: 24

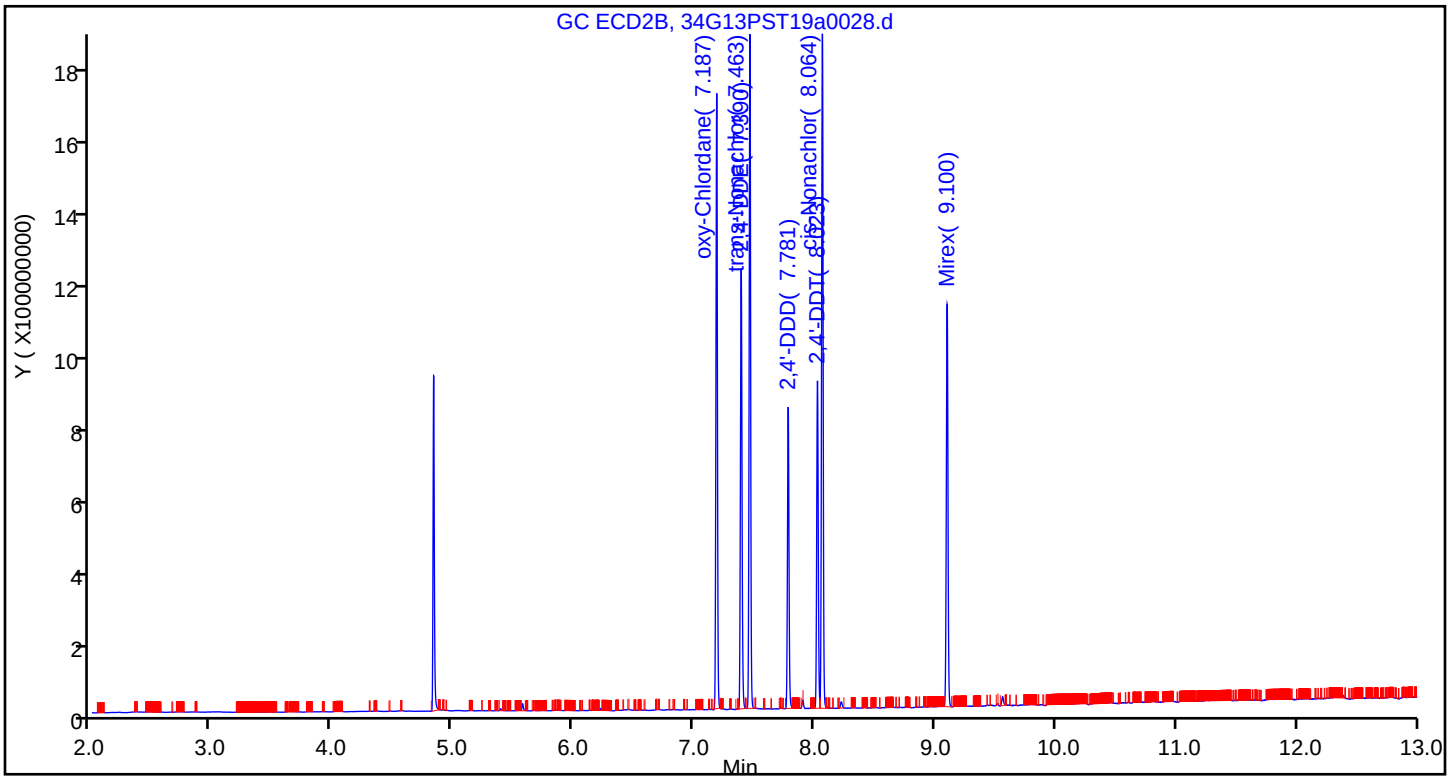
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

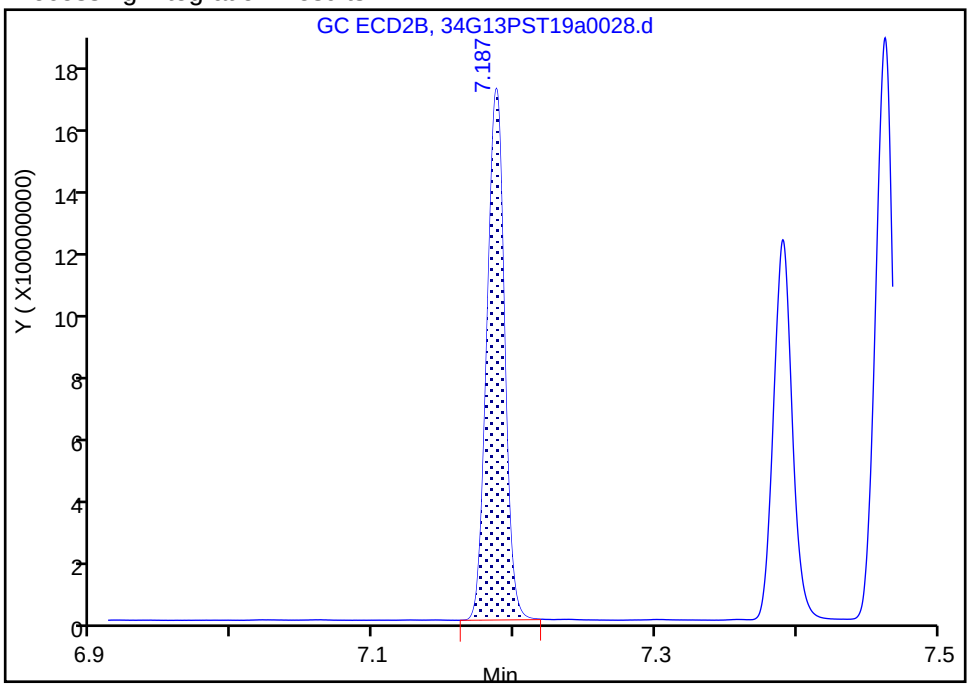
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0028.d				
Injection Date:	14-Jul-2019 02:01:30	Instrument ID:	TAC034		
Lims ID:	IC EXT 100				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	22	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

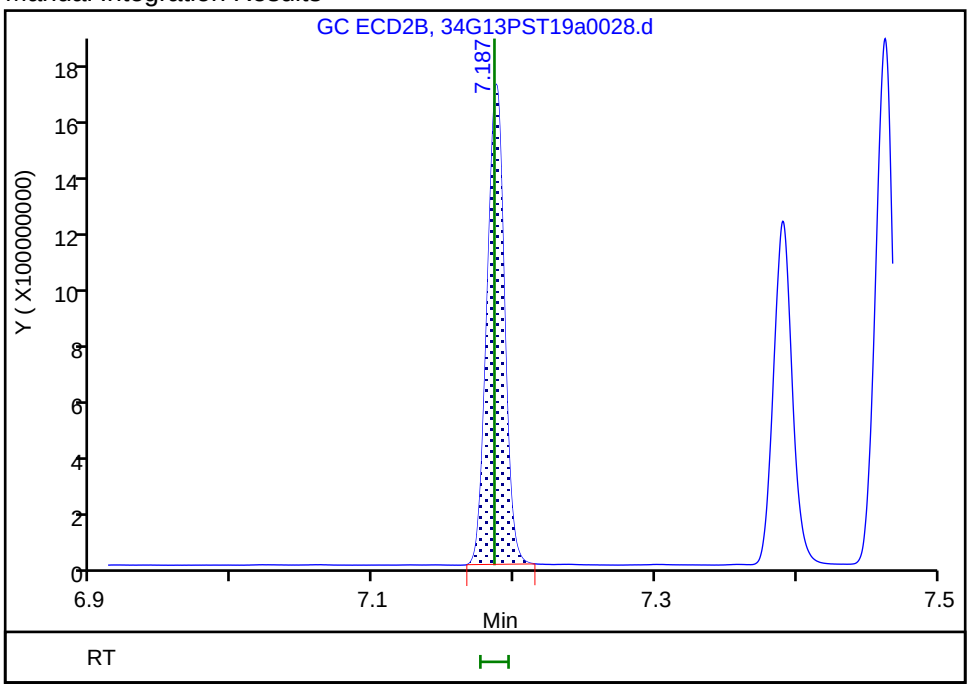
Processing Integration Results

RT: 7.19
Area: 1416308898
Amount: 106.4074
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 1409786740
Amount: 108.0121
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:30:49

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0029.d
Lims ID: ICIS EXT 50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 14-Jul-2019 02:20:57 ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS EXT 50
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:46 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:23:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	212014556	100.0	100.0	
2	4.837	4.837	0.000	717922887	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.493	6.494	-0.001	320180961	50.0	49.2	
2	7.186	7.186	0.000	661330389	50.0	47.1	M
						RPD = 4.49	
21 2,4'-DDE							
1	6.556	6.556	0.000	252756095	50.0	53.2	
2	7.389	7.389	0.000	493255833	50.0	44.4	
						RPD = 18.04	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	382817675	50.0	49.3	
2	7.461	7.461	0.000	714656454	50.0	47.6	
						RPD = 3.40	
28 2,4'-DDD							
1	6.892	6.892	0.000	168667404	50.0	52.2	
2	7.780	7.780	0.000	376995667	50.0	51.9	
						RPD = 0.58	
32 2,4'-DDT							
1	7.067	7.068	-0.001	177645329	50.0	51.3	
2	8.023	8.023	0.000	402265965	50.0	53.7	
						RPD = 4.53	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	392143096	50.0	48.3	
2	8.063	8.063	0.000	772959000	50.0	49.3	
						RPD = 1.99	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	277447396	50.0	40.4	
2	9.099	9.100	-0.001	491330058	50.0	46.9	
						RPD = 14.78	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:49 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0029.d

Injection Date: 14-Jul-2019 02:20:57 Instrument ID: TAC034

Lims ID: ICIS EXT 50

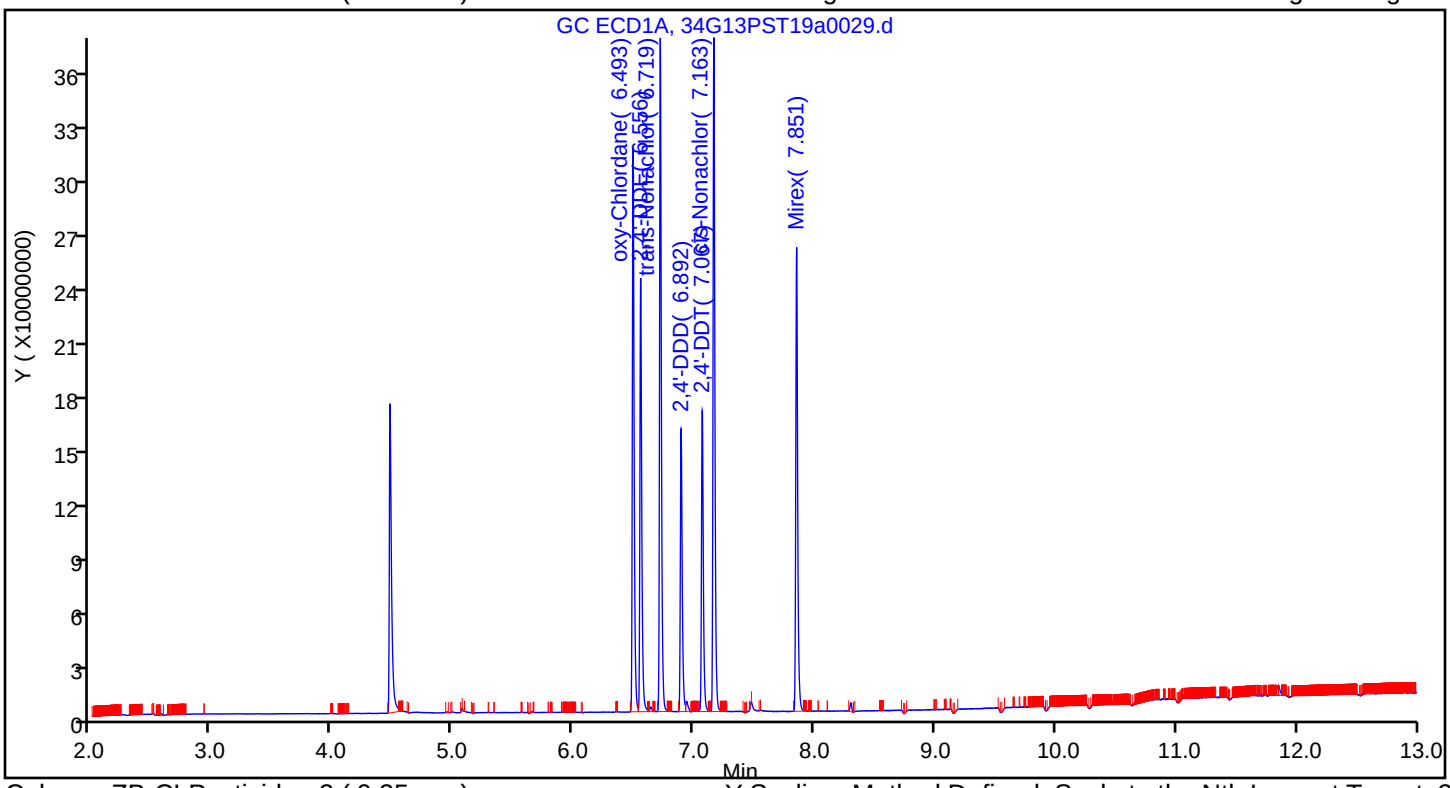
Client ID:

Operator ID: CJB ALS Bottle#: 23 Worklist Smp#: 25

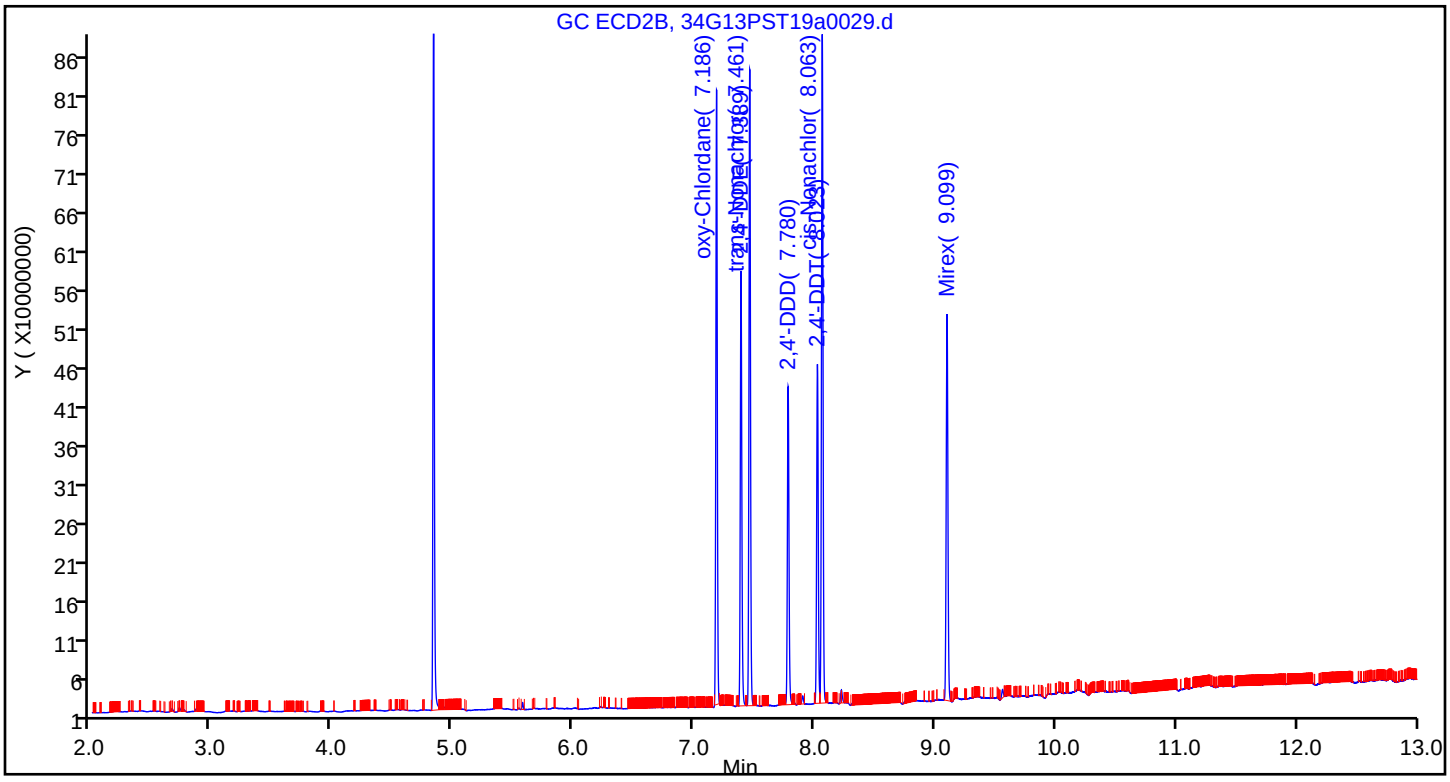
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

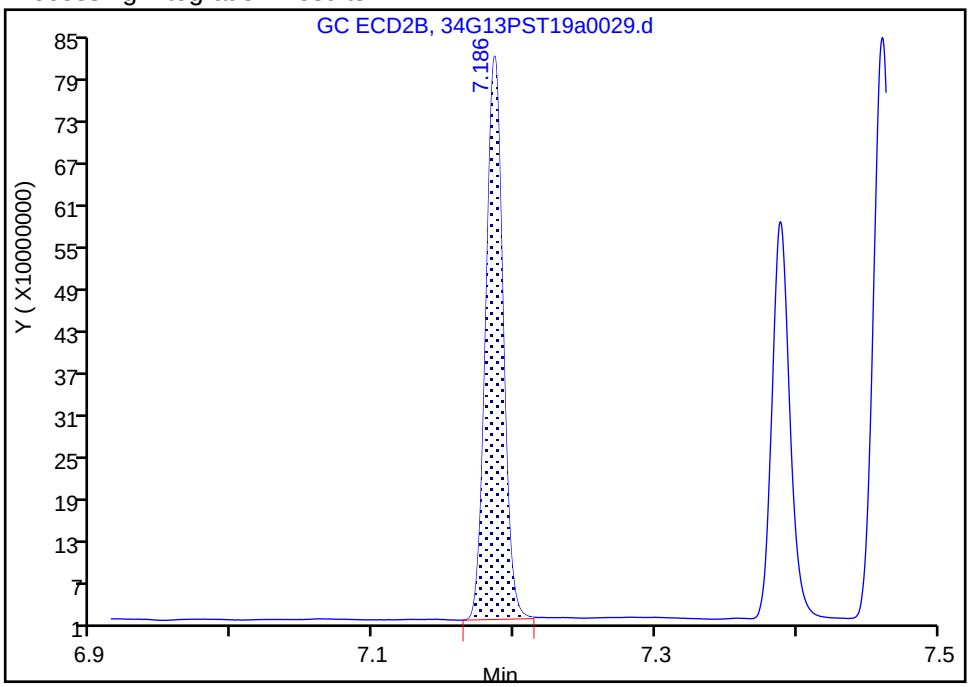
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0029.d				
Injection Date:	14-Jul-2019 02:20:57	Instrument ID:	TAC034		
Lims ID:	ICIS EXT 50				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

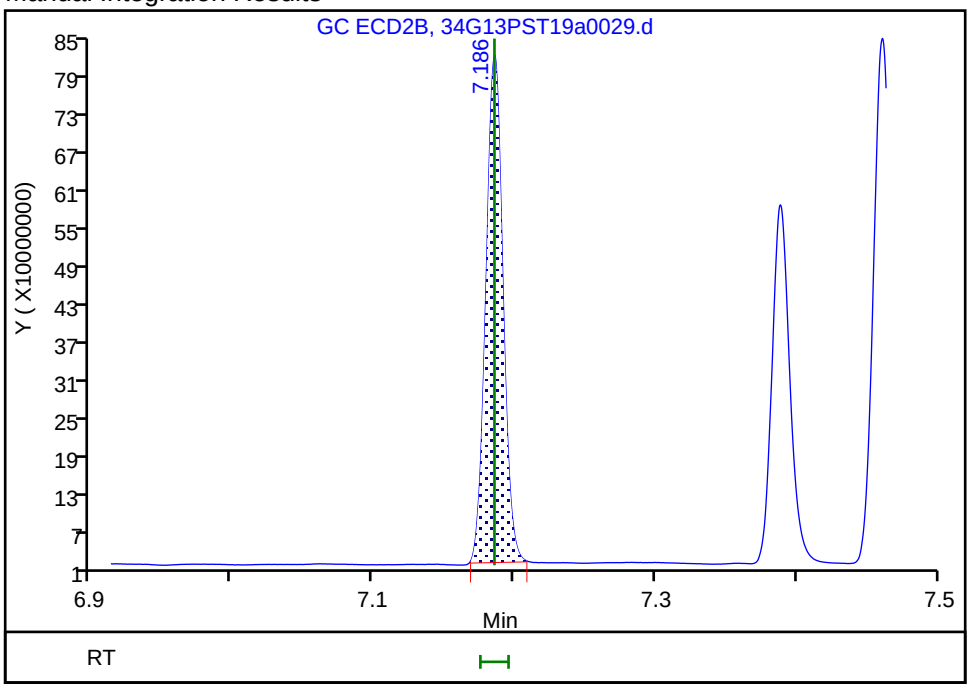
Processing Integration Results

RT: 7.19
Area: 669517966
Amount: 47.239538
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 661330389
Amount: 47.084585
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:10:22
Audit Action: Manually Integrated Audit Reason: Peak Tail

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0030.d
Lims ID: IC EXT 25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-Jul-2019 02:40:28 ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 25
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:52 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:23:49

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	189875665	100.0	100.0	
2	4.837	4.837	0.000	615682662	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.494	6.494	0.000	150810716	25.0	25.9	
2	7.186	7.186	0.000	316399569	25.0	26.2	M
						RPD = 1.22	
21 2,4'-DDE							
1	6.556	6.556	0.000	118769753	25.0	27.9	
2	7.389	7.389	0.000	251936503	25.0	26.4	
						RPD = 5.41	
24 trans-Nonachlor							
1	6.720	6.720	0.000	178197643	25.0	25.6	
2	7.461	7.461	0.000	324251978	25.0	25.2	
						RPD = 1.63	
28 2,4'-DDD							M
1	6.892	6.892	0.000	81846855	25.0	28.3	M
2	7.780	7.780	0.000	157359343	25.0	25.3	
						RPD = 11.30	
32 2,4'-DDT							
1	7.068	7.068	0.000	87473438	25.0	28.2	
2	8.023	8.023	0.000	176952881	25.0	27.5	
						RPD = 2.41	
34 cis-Nonachlor							
1	7.164	7.164	0.000	193814784	25.0	26.7	
2	8.063	8.063	0.000	352494293	25.0	26.2	
						RPD = 1.73	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	146024503	25.0	23.8	
2	9.100	9.100	0.000	243214655	25.0	27.0	
						RPD = 12.73	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:39:55 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0030.d

Injection Date: 14-Jul-2019 02:40:28 Instrument ID: TAC034

Lims ID: IC EXT 25

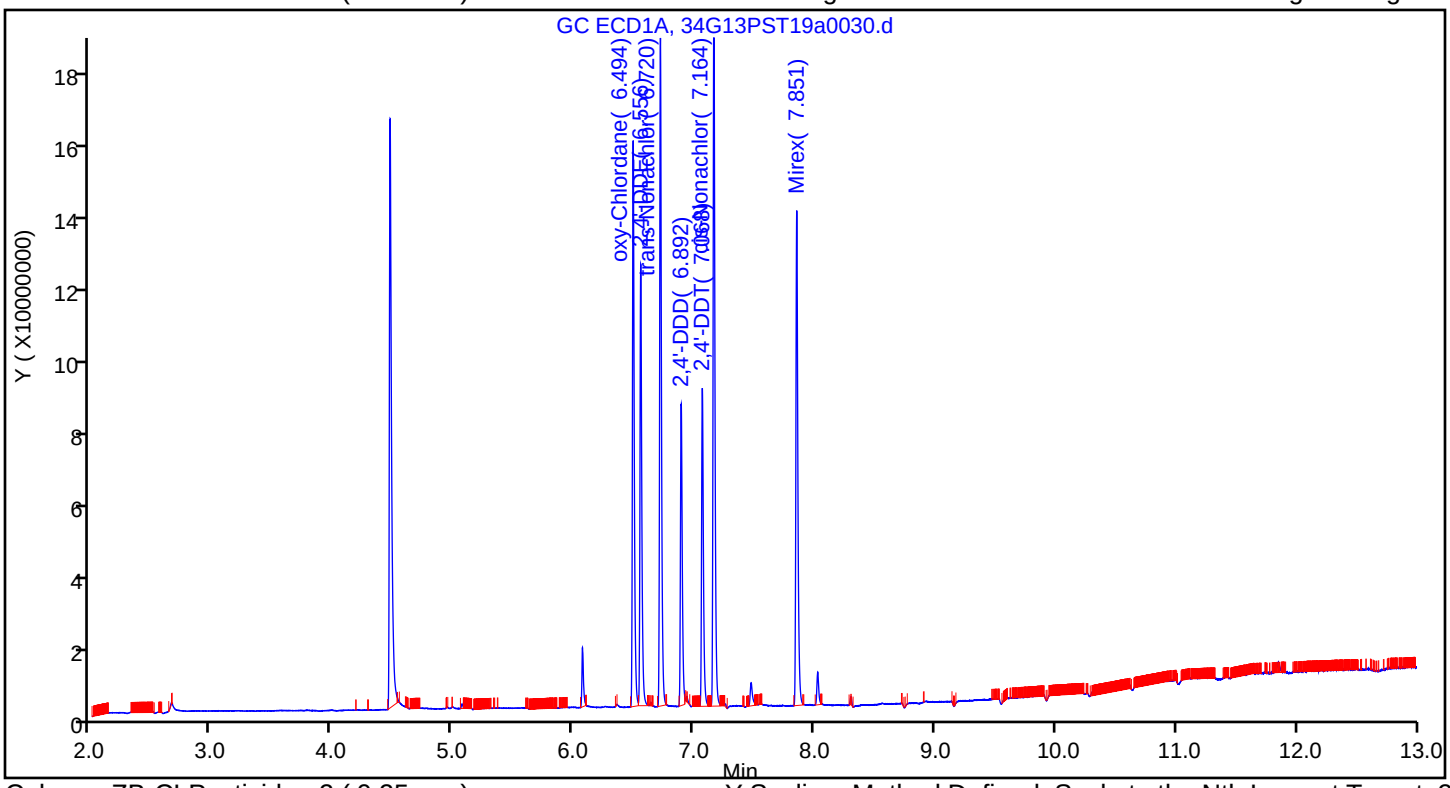
Client ID:

Operator ID: CJB ALS Bottle#: 24 Worklist Smp#: 26

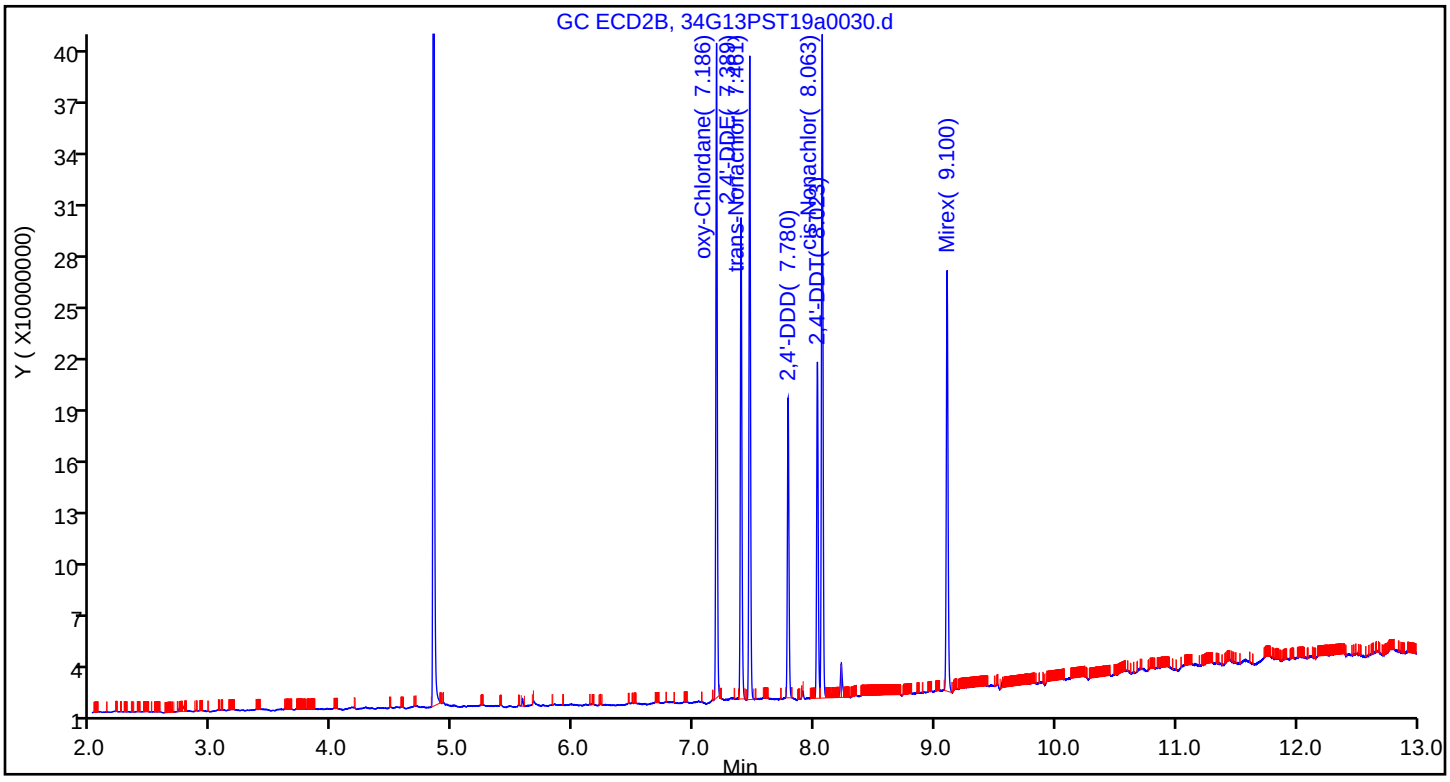
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

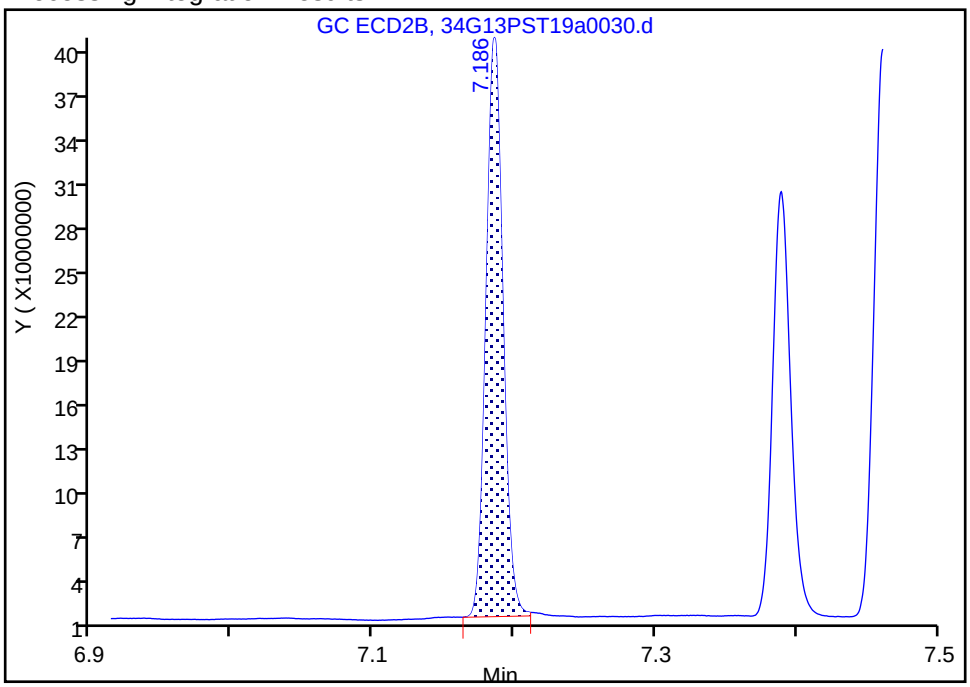
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0030.d				
Injection Date:	14-Jul-2019 02:40:28	Instrument ID:	TAC034		
Lims ID:	IC EXT 25				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	24	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

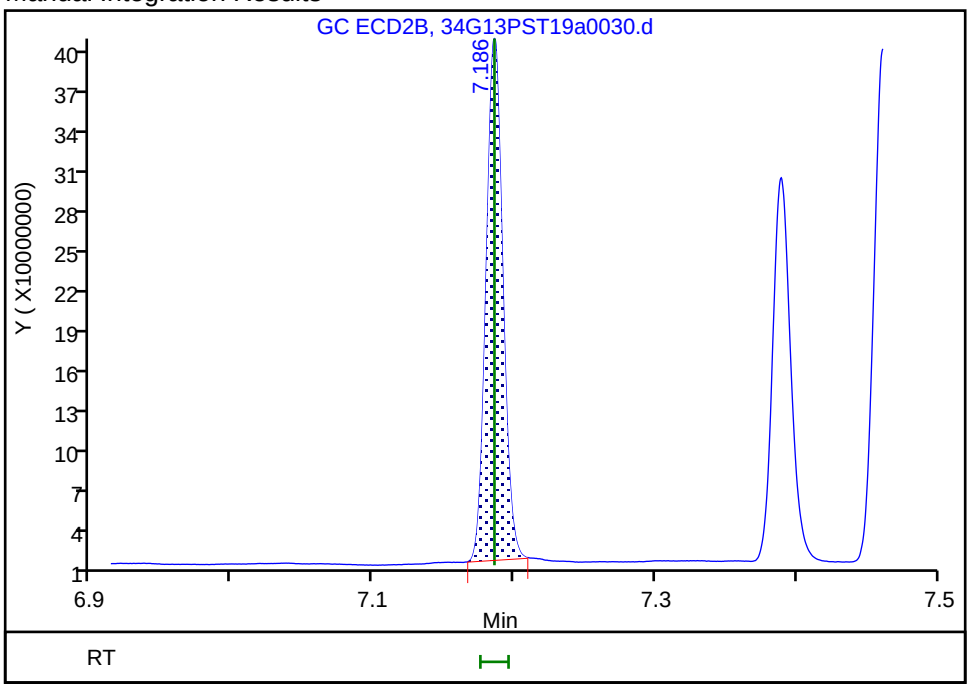
Processing Integration Results

RT: 7.19
Area: 319784452
Amount: 26.035020
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 316399569
Amount: 26.218650
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:48:35

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0031.d
Lims ID: IC EXT 10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Jul-2019 02:59:54 ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 10
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:39:58 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:24:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	178334920	100.0	100.0	
2	4.837	4.837	0.000	652045863	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	57008421	10.0	10.4	
2	7.184	7.186	-0.002	128997557	10.0	10.0	M
						RPD = 3.91	
21 2,4'-DDE							
1	6.556	6.556	0.000	41541002	10.0	10.4	
2	7.388	7.389	-0.001	108118028	10.0	10.7	
						RPD = 3.03	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	66590532	10.0	10.2	
2	7.460	7.461	-0.001	142450905	10.0	10.5	
						RPD = 2.54	
28 2,4'-DDD							
1	6.893	6.892	0.001	28610398	10.0	10.5	
2	7.779	7.780	-0.001	70859493	10.0	10.7	
						RPD = 2.01	
32 2,4'-DDT							
1	7.068	7.068	0.000	29826146	10.0	10.2	
2	8.022	8.023	-0.001	74048498	10.0	10.9	
						RPD = 6.06	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	68767670	10.0	10.1	
2	8.062	8.063	-0.001	150707389	10.0	10.6	
						RPD = 4.91	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.850	7.851	-0.001	61581895	10.0	10.7	
2	9.098	9.100	-0.002	103395664	10.0	10.7	
						RPD = 0.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0031.d

Injection Date: 14-Jul-2019 02:59:54 Instrument ID: TAC034

Lims ID: IC EXT 10

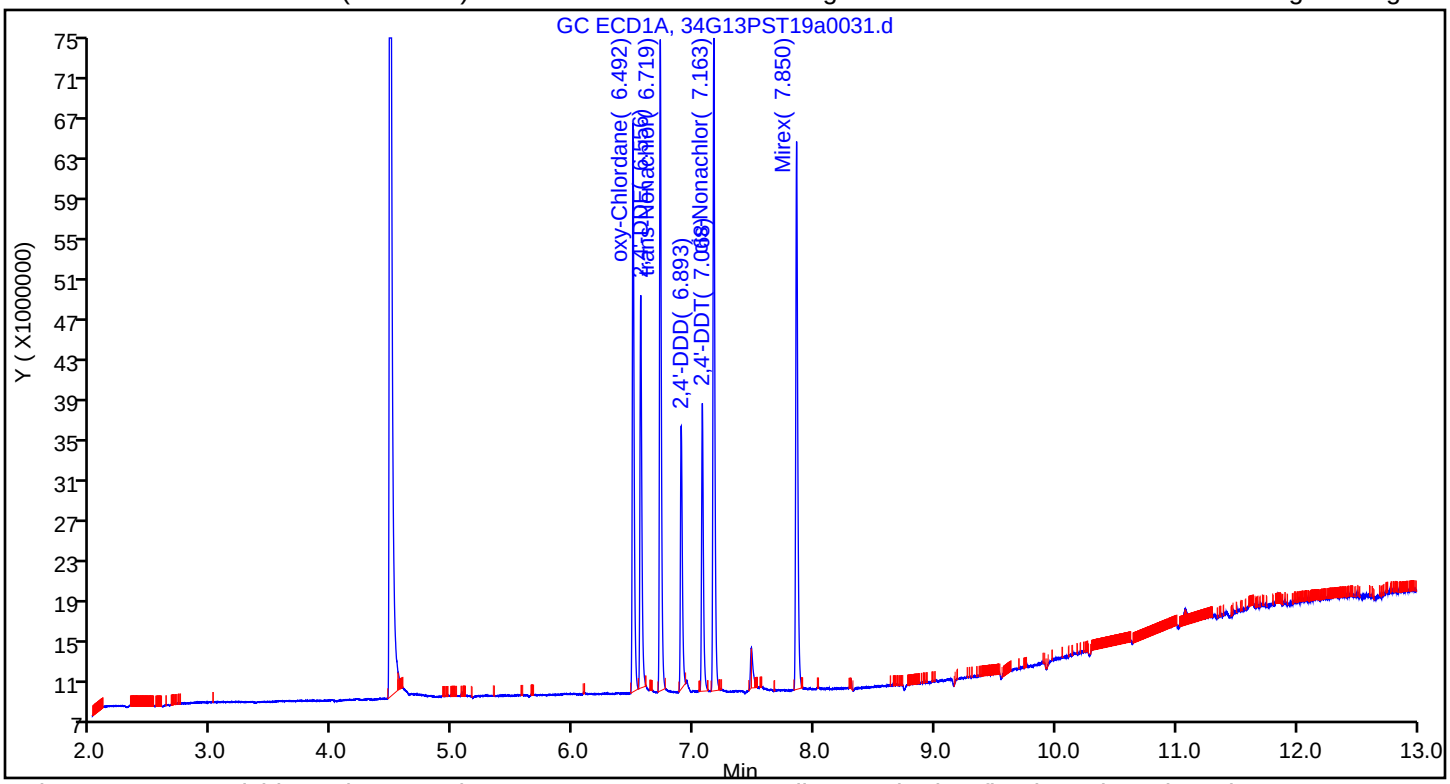
Client ID:

Operator ID: CJB ALS Bottle#: 25 Worklist Smp#: 27

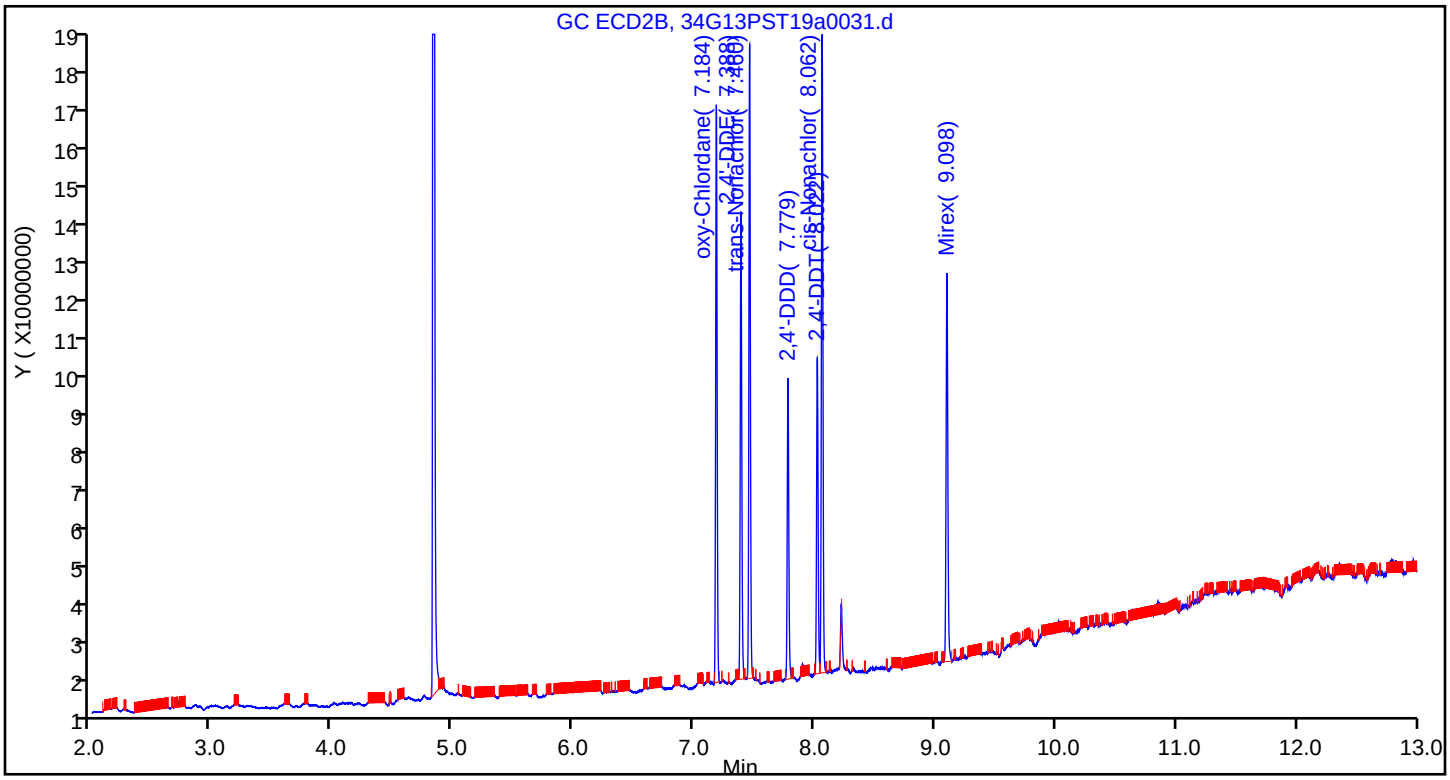
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle

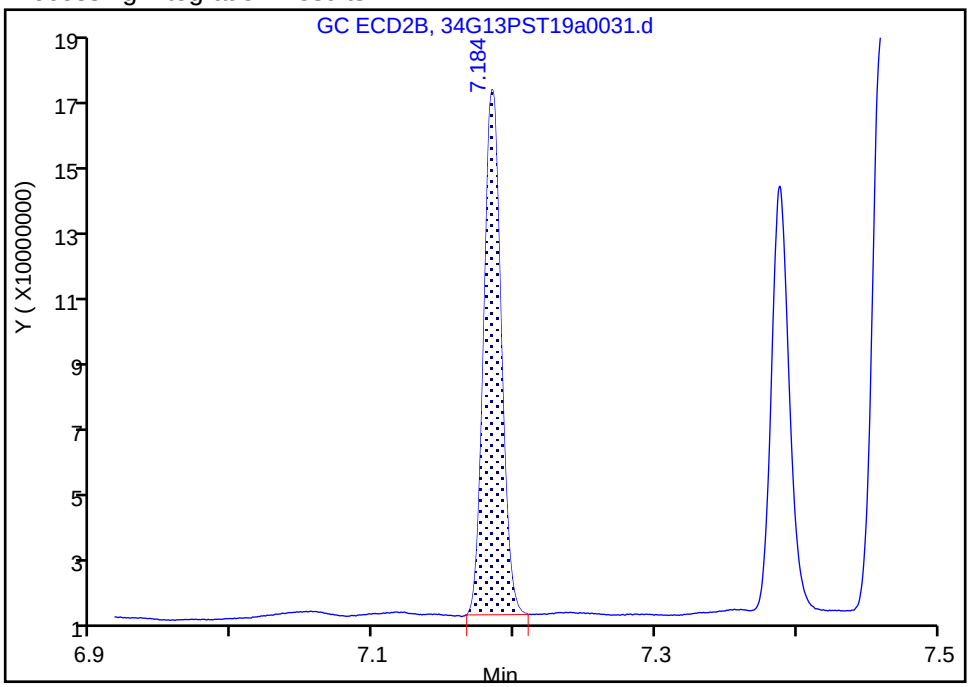
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0031.d		
Injection Date:	14-Jul-2019 02:59:54	Instrument ID:	TAC034
Lims ID:	IC EXT 10		
Client ID:			
Operator ID:	CJB	ALS Bottle#:	25 Worklist Smp#: 27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

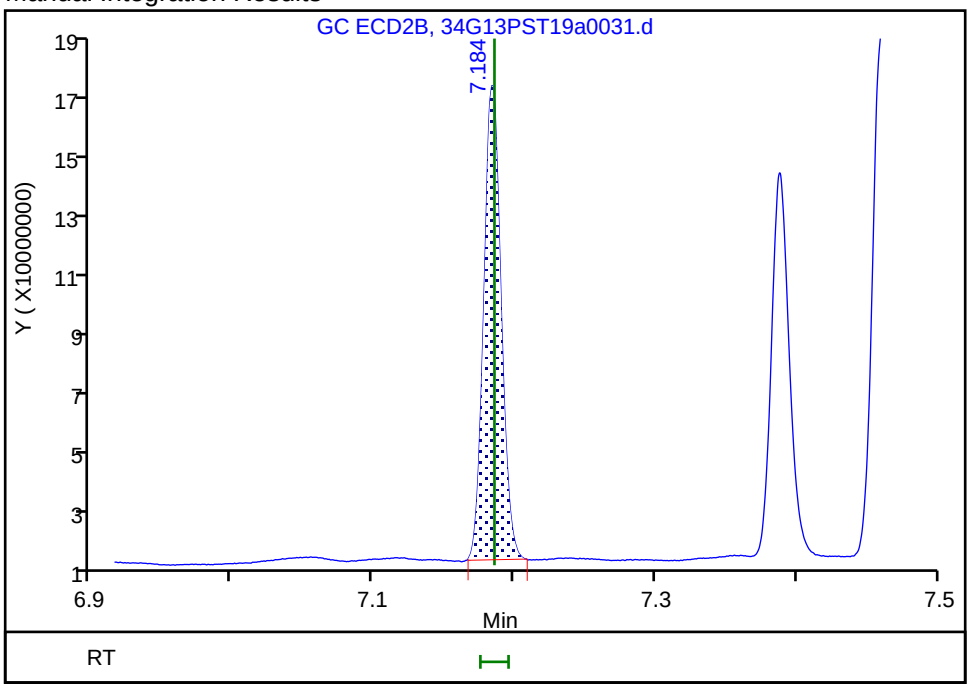
Processing Integration Results

RT: 7.18
Area: 129383569
Amount: 9.918338
Amount Units: ug/L



Manual Integration Results

RT: 7.18
Area: 128997557
Amount: 10.025525
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:38:41
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0032.d
Lims ID: IC EXT 5
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Jul-2019 03:19:20 ALS Bottle#: 26 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 5
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:04 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:24:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	179744808	100.0	100.0	
2	4.837	4.837	0.000	713402530	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	27043315	5.00	4.91	
2	7.185	7.186	-0.001	70353840	5.00	4.94	M
						RPD = 0.73	
21 2,4'-DDE							
1	6.557	6.556	0.001	18272169	5.00	4.53	
2	7.388	7.389	-0.001	58319945	5.00	5.28	
						RPD = 15.20	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	31262904	5.00	4.75	
2	7.460	7.461	-0.001	74019462	5.00	4.96	
						RPD = 4.48	
28 2,4'-DDD							
1	6.894	6.892	0.002	12866860	5.00	4.70	
2	7.780	7.780	0.000	34729603	5.00	4.81	
						RPD = 2.40	
32 2,4'-DDT							
1	7.068	7.068	0.000	14072214	5.00	4.79	
2	8.021	8.023	-0.002	35862624	5.00	4.82	
						RPD = 0.47	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	32395160	5.00	4.71	
2	8.062	8.063	-0.001	71590320	5.00	4.59	
						RPD = 2.46	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.850	7.851	-0.001	31907743	5.00	5.48	
2	9.098	9.100	-0.002	52743256	5.00	4.91	
						RPD = 10.96	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:06 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0032.d

Injection Date: 14-Jul-2019 03:19:20 Instrument ID: TAC034

Lims ID: IC EXT 5

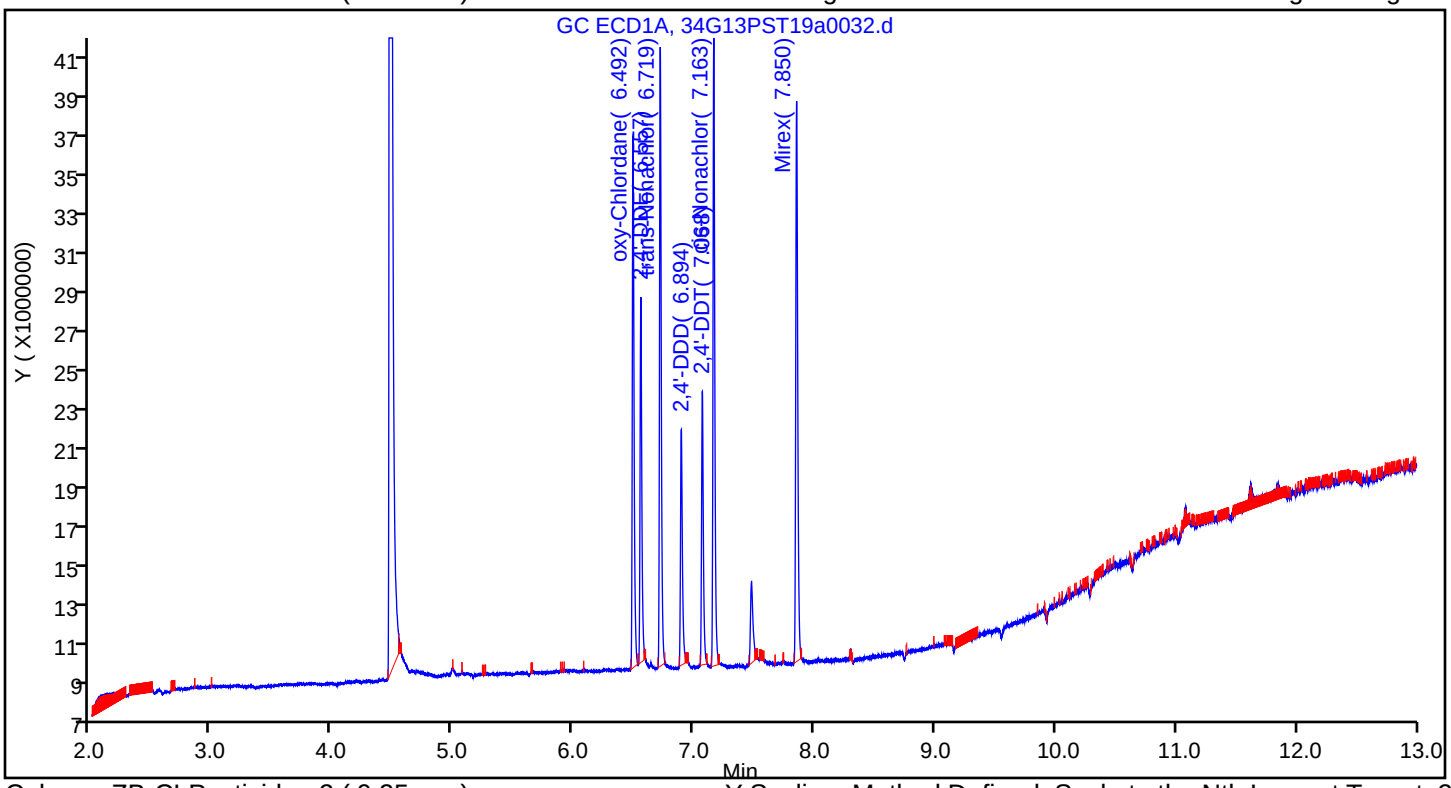
Client ID:

Operator ID: CJB ALS Bottle#: 26 Worklist Smp#: 28

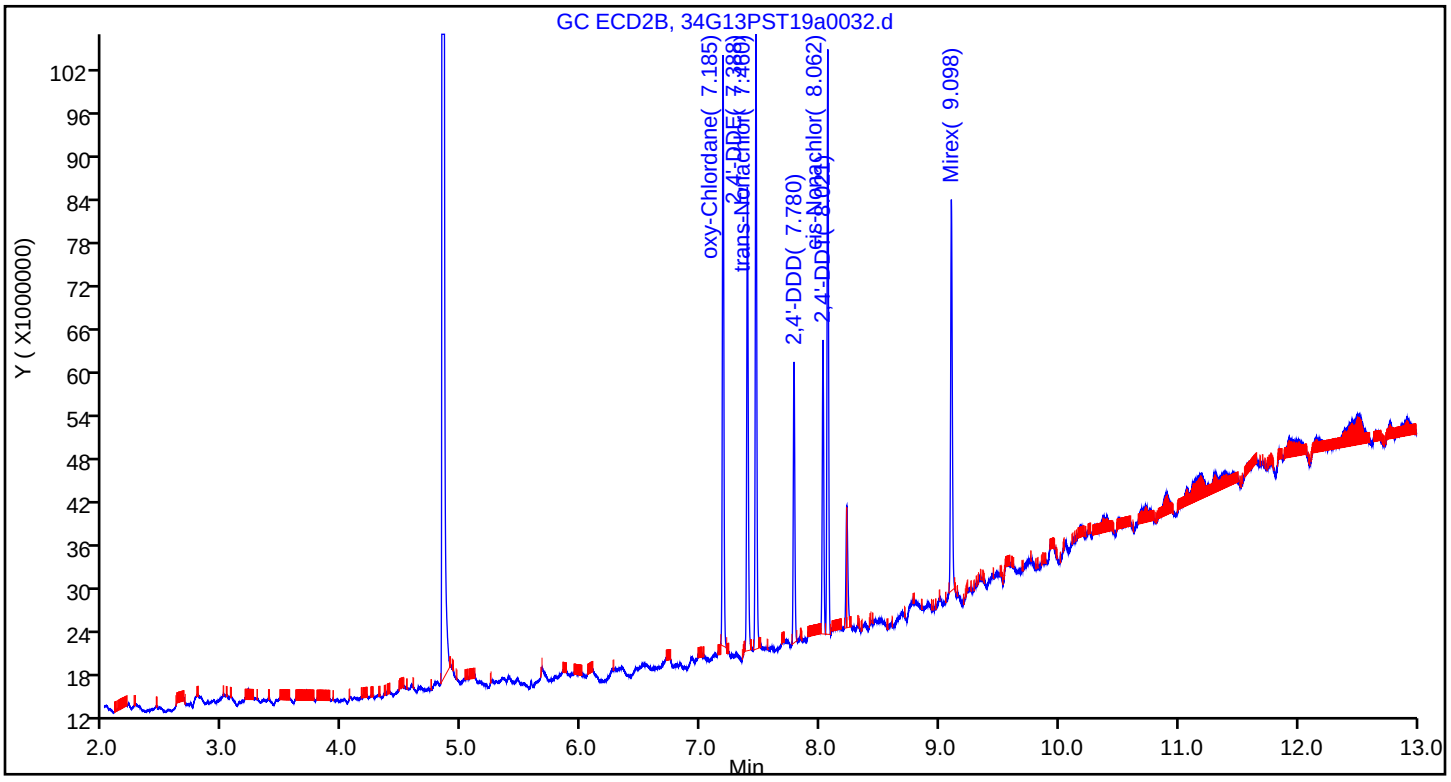
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

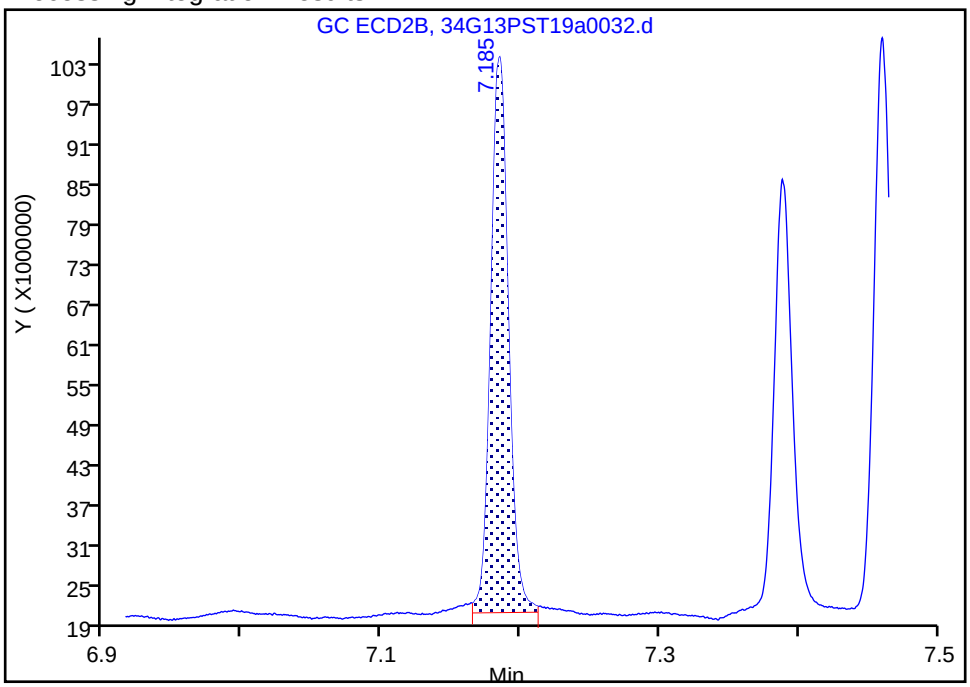
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0032.d				
Injection Date:	14-Jul-2019 03:19:20	Instrument ID:	TAC034		
Lims ID:	IC EXT 5				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	26	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

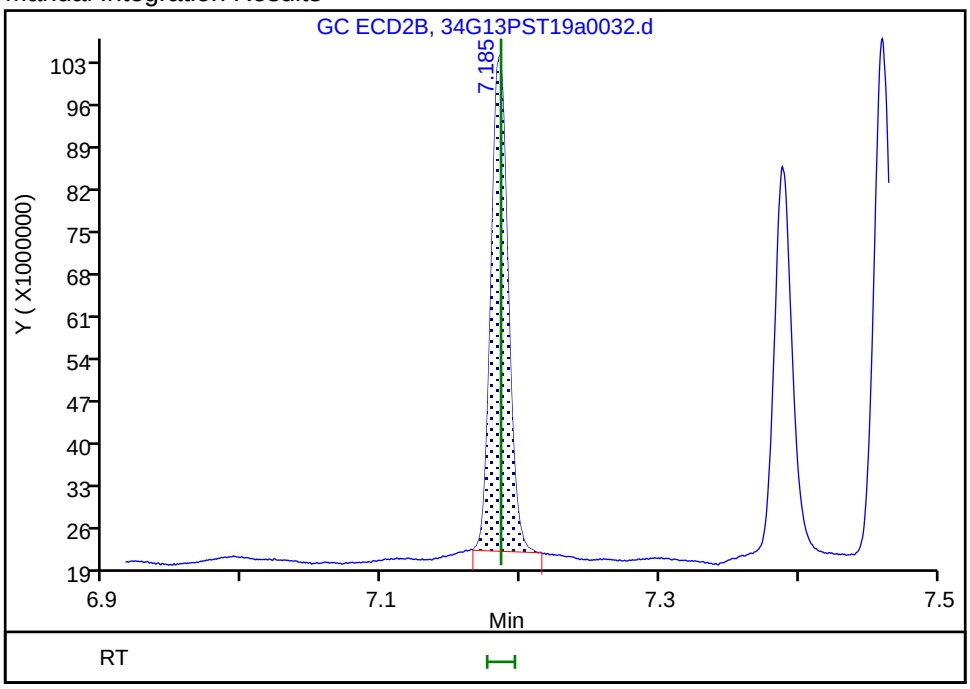
Processing Integration Results

RT: 7.18
Area: 73509806
Amount: 5.107399
Amount Units: ug/L



Manual Integration Results

RT: 7.18
Area: 70353840
Amount: 4.942253
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:39:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0033.d
Lims ID: IC EXT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Jul-2019 03:38:43 ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 2
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:09 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:25:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	172008699	100.0	100.0	
2	4.837	4.837	0.000	794971735	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	10727925	2.00	2.03	
2	7.184	7.186	-0.002	28893968	2.00	1.75	M
						RPD = 14.90	
21 2,4'-DDE							
1	6.556	6.556	0.000	6966255	2.00	1.81	
2	7.389	7.389	0.000	27726350	2.00	2.25	
						RPD = 21.99	
24 trans-Nonachlor							
1	6.718	6.720	-0.002	12008288	2.00	1.90	
2	7.460	7.461	-0.001	32151765	2.00	1.93	
						RPD = 1.56	
28 2,4'-DDD							
1	6.892	6.892	0.000	4917861	2.00	1.88	
2	7.779	7.780	-0.001	17527193	2.00	2.18	
						RPD = 14.94	
32 2,4'-DDT							
1	7.067	7.068	-0.001	5183960	2.00	1.85	
2	8.021	8.023	-0.002	15717570	2.00	1.89	
						RPD = 2.61	
34 cis-Nonachlor							
1	7.162	7.164	-0.002	12325427	2.00	1.87	
2	8.062	8.063	-0.001	33043238	2.00	1.90	
						RPD = 1.64	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							M
1	7.851	7.851	0.000	13927632	2.00	2.50	M
2	9.098	9.100	-0.002	20873585	2.00	1.64	
						RPD = 41.78	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0033.d

Injection Date: 14-Jul-2019 03:38:43 Instrument ID: TAC034

Lims ID: IC EXT 2

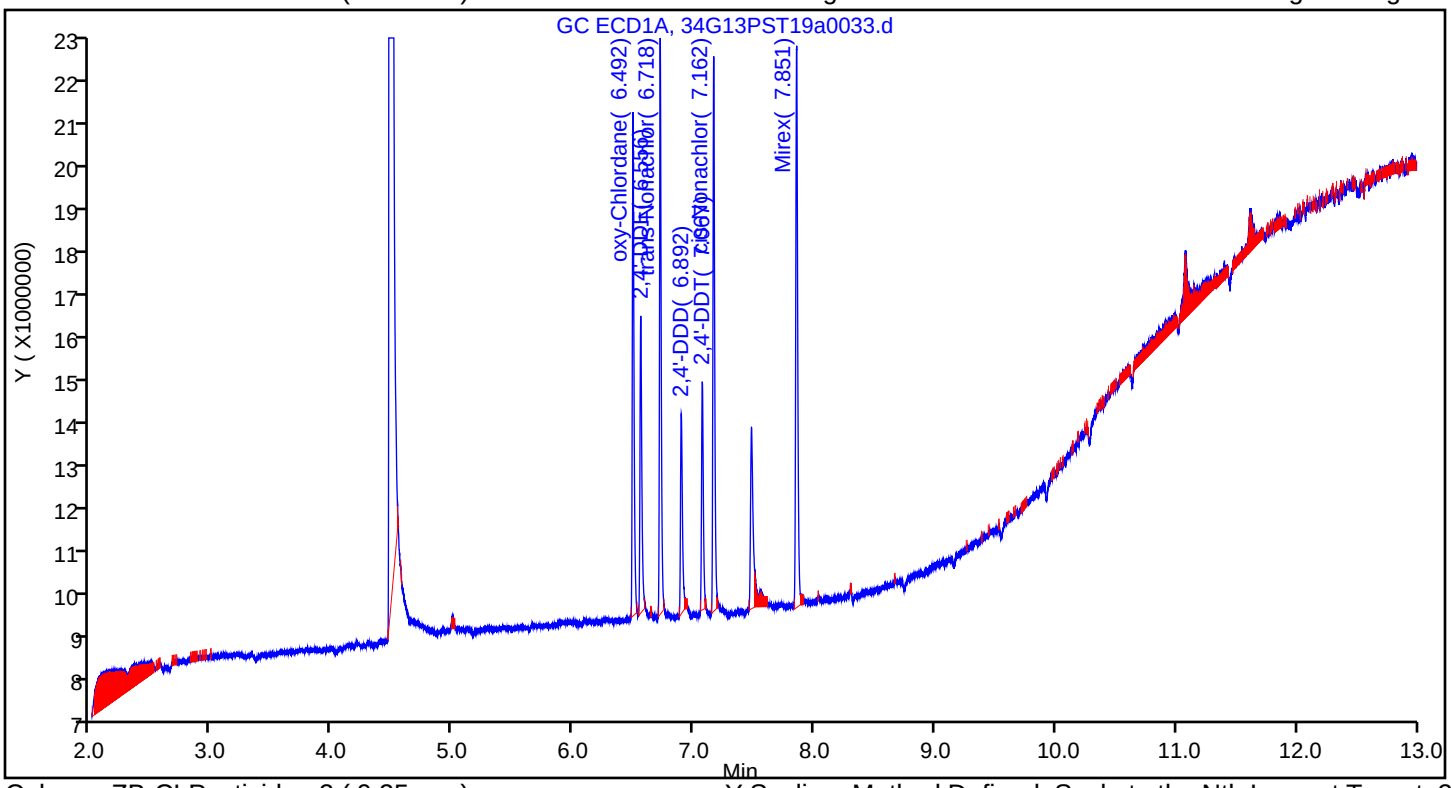
Client ID:

Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29

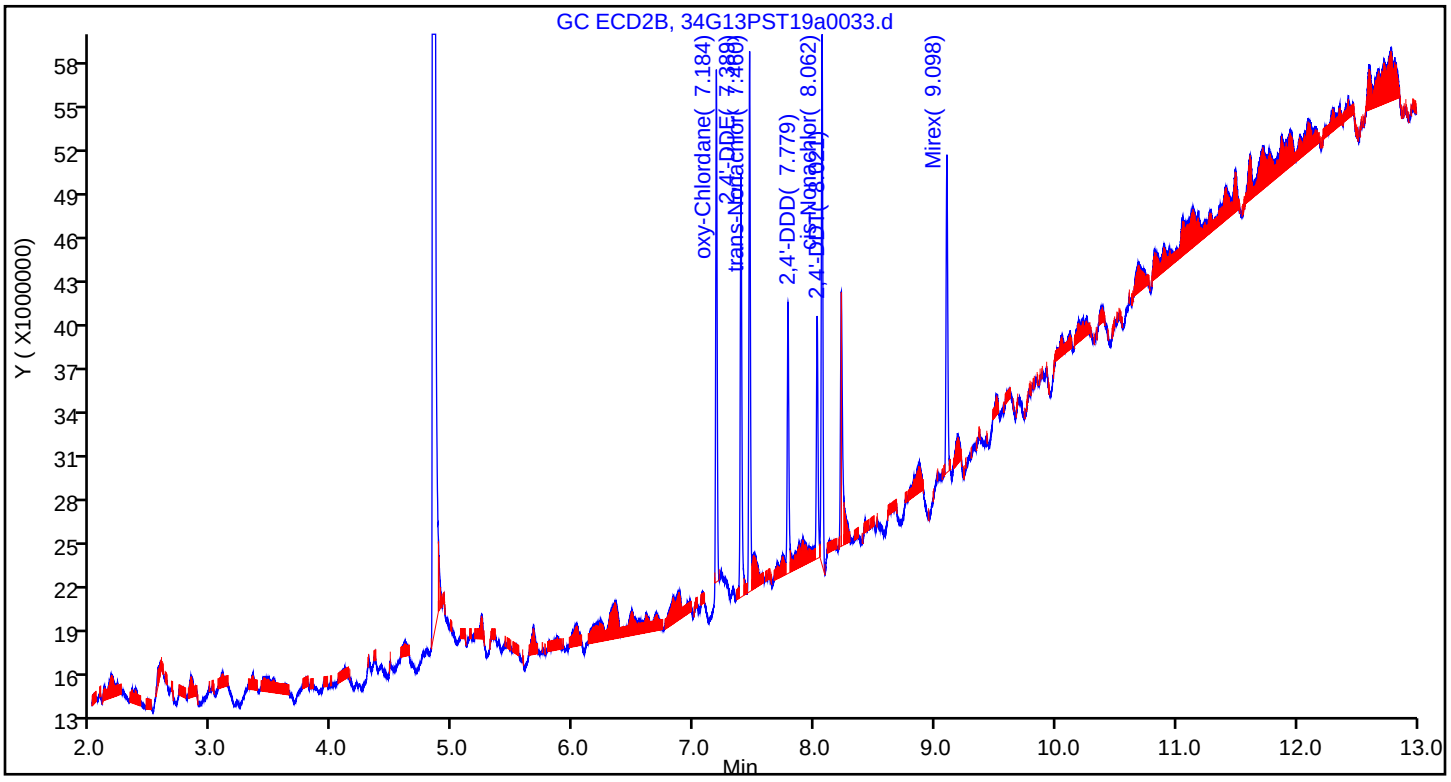
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

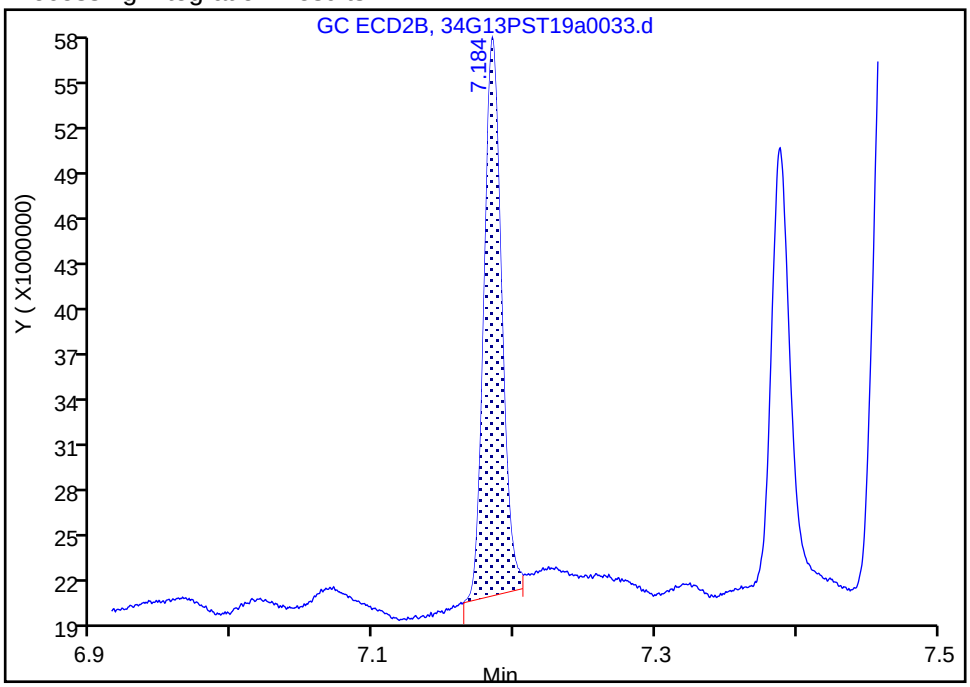
Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0033.d
Injection Date: 14-Jul-2019 03:38:43 Instrument ID: TAC034
Lims ID: IC EXT 2
Client ID:
Operator ID: CJB ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

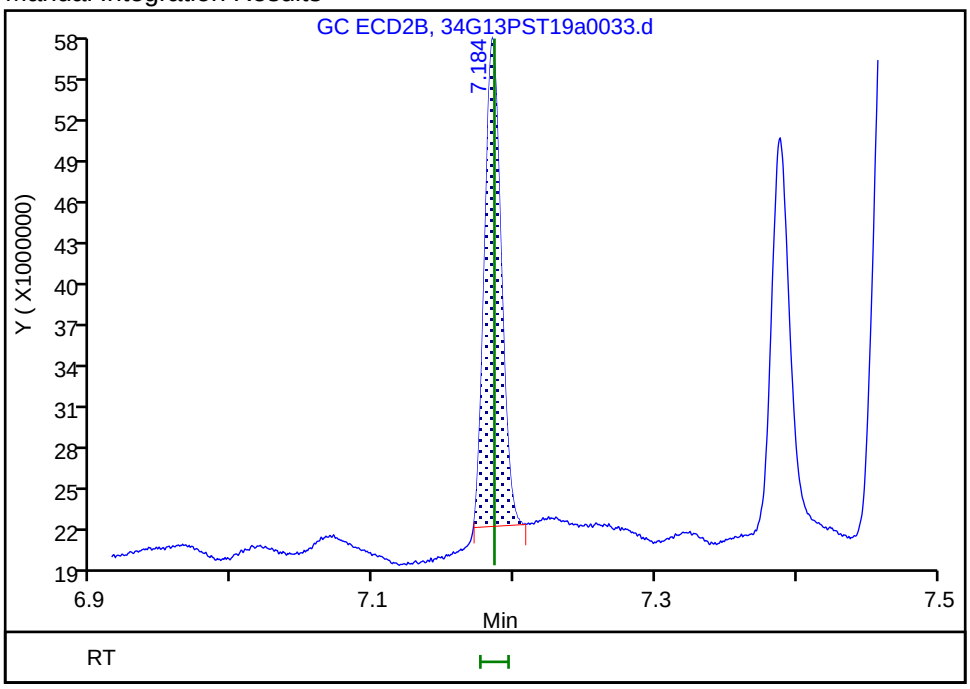
Processing Integration Results

RT: 7.18
Area: 31475865
Amount: 1.898558
Amount Units: ug/L



Manual Integration Results

RT: 7.18
Area: 28893968
Amount: 1.751873
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:00:19
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d
Lims ID: IC EXT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Jul-2019 03:58:13 ALS Bottle#: 28 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT 1
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:15 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:27:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	180901089	100.0	100.0	
2	4.837	4.837	0.000	817641961	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.492	6.494	-0.002	5849202	1.00	1.05	
2	7.185	7.186	-0.001	18716174	1.00	1.06	M
						RPD = 0.76	
21 2,4'-DDE							
1	6.556	6.556	0.000	3641699	1.00	0.8980	
2	7.389	7.389	0.000	12258868	1.00	0.9684	
						RPD = 7.55	
24 trans-Nonachlor							M
1	6.718	6.720	-0.002	6298391	1.00	0.9501	M
2	7.459	7.461	-0.002	16163950	1.00	0.9458	
						RPD = 0.45	
28 2,4'-DDD							
1	6.894	6.892	0.002	2337193	1.00	0.8474	
2	7.779	7.780	-0.001	8122831	1.00	0.9815	
						RPD = 14.66	
32 2,4'-DDT							M
1	7.068	7.068	0.000	2575244	1.00	0.8717	
2	8.020	8.023	-0.003	6979434	1.00	0.8179	M
						RPD = 6.37	
34 cis-Nonachlor							M
1	7.162	7.164	-0.002	6093313	1.00	0.8798	
2	8.061	8.063	-0.002	16118510	1.00	0.9023	M
						RPD = 2.53	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	7207952	1.00	1.23	
2	9.098	9.100	-0.002	14903906	1.00	1.08	
						RPD = 12.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:17 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d

Injection Date: 14-Jul-2019 03:58:13 Instrument ID: TAC034

Lims ID: IC EXT 1

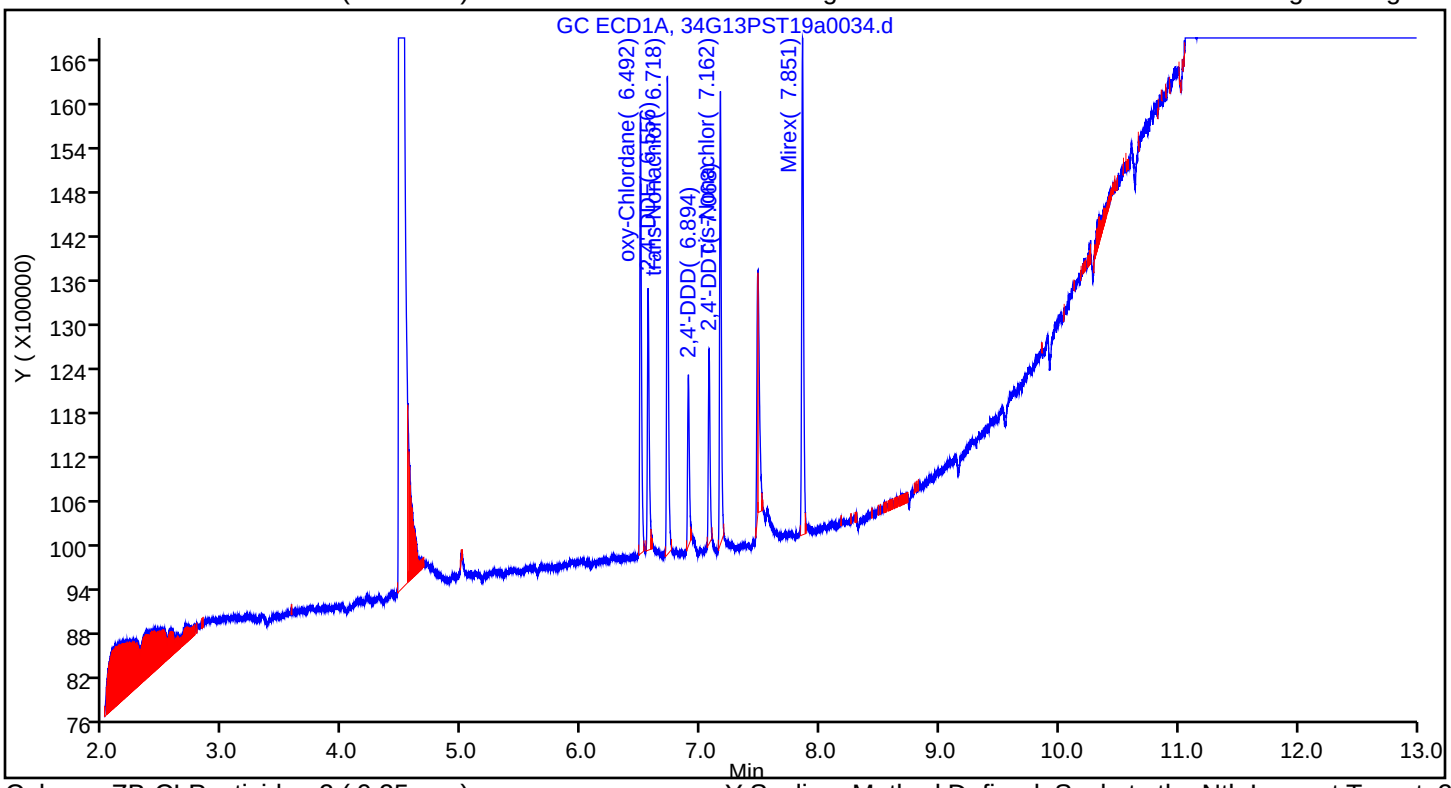
Client ID:

Operator ID: CJB ALS Bottle#: 28 Worklist Smp#: 30

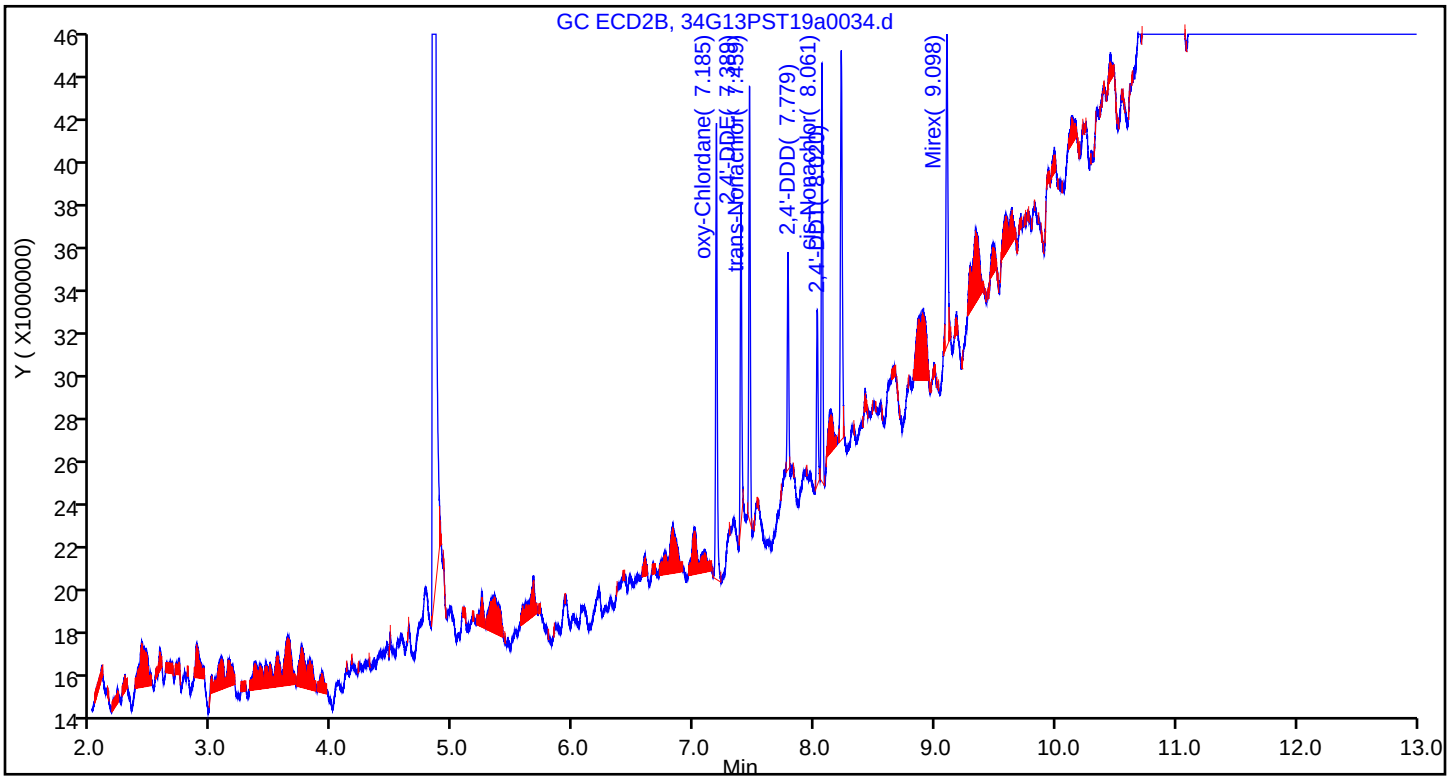
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

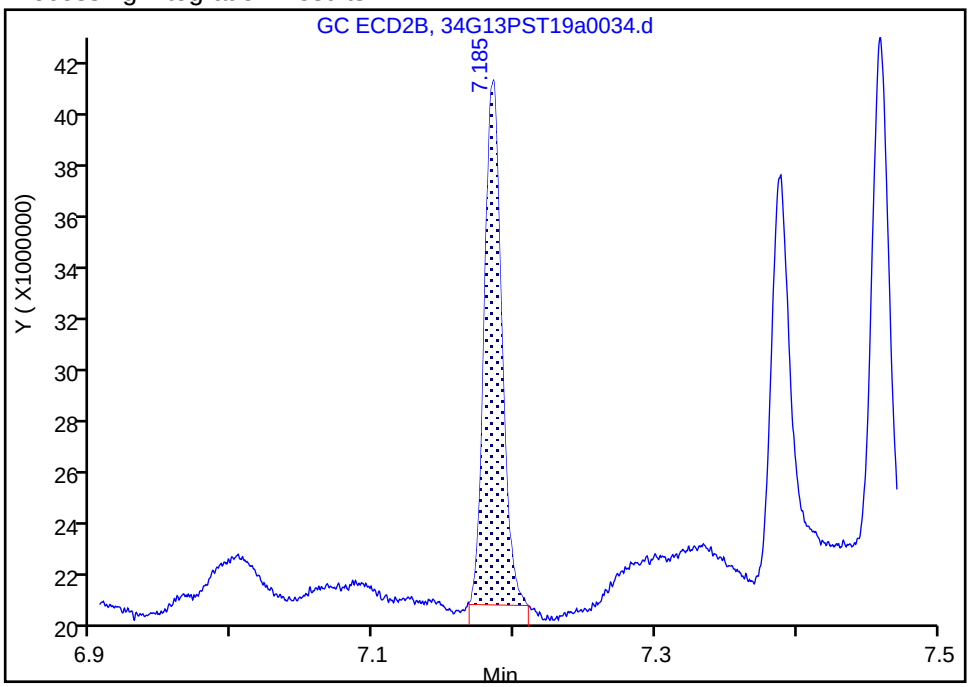
Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d
Injection Date: 14-Jul-2019 03:58:13 Instrument ID: TAC034
Lims ID: IC EXT 1
Client ID:
Operator ID: CJB ALS Bottle#: 28 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

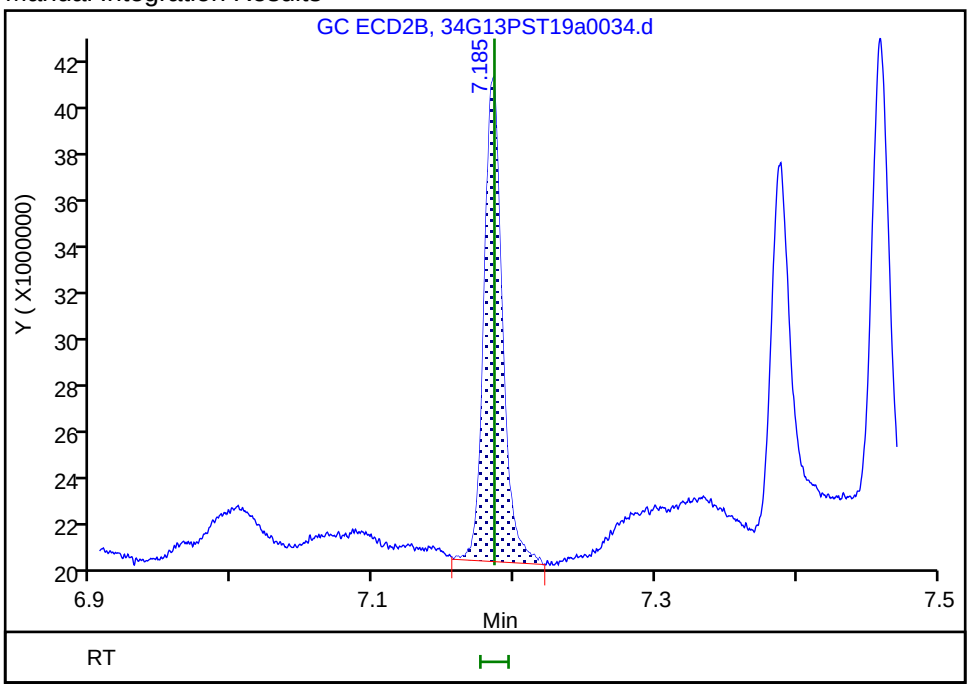
Processing Integration Results

RT: 7.19
Area: 17282062
Amount: 0.919256
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 18716174
Amount: 1.062502
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:01:22
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

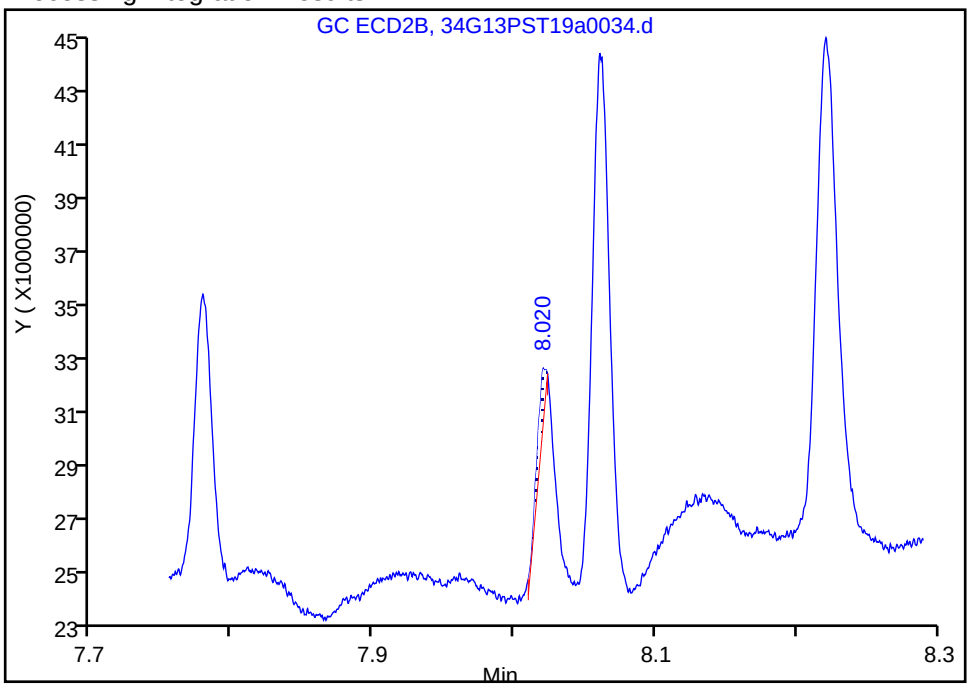
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d				
Injection Date:	14-Jul-2019 03:58:13	Instrument ID:	TAC034		
Lims ID:	IC EXT 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	28	Worklist Smp#:	30
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

32 2,4'-DDT, CAS: 789-02-6

Signal: 2

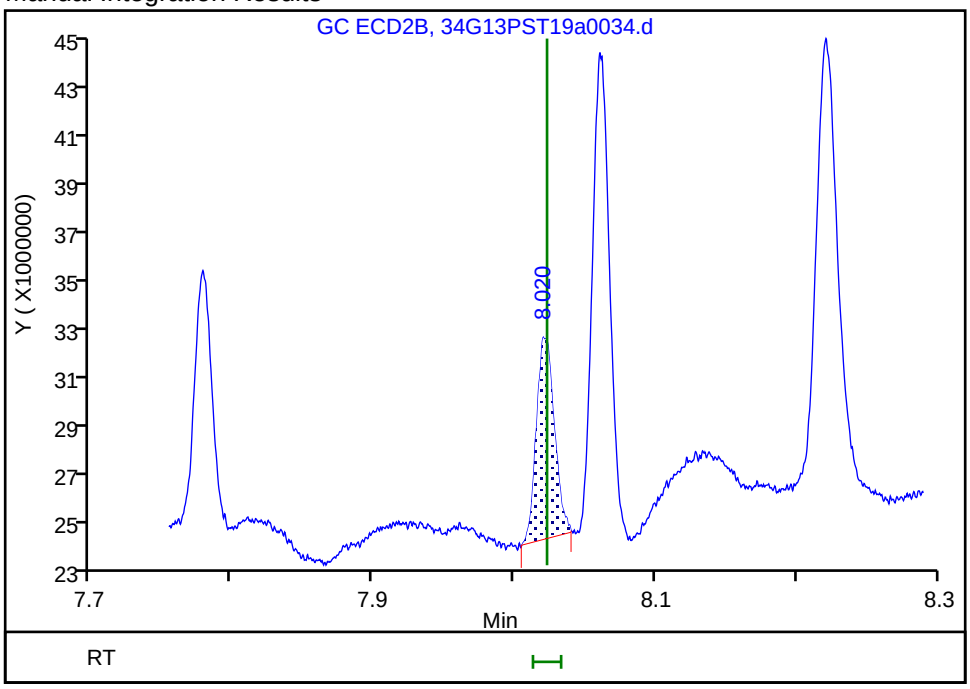
Processing Integration Results

RT: 8.02
Area: 888339
Amount: 0.113068
Amount Units: ug/L



Manual Integration Results

RT: 8.02
Area: 6979434
Amount: 0.817892
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:21:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle

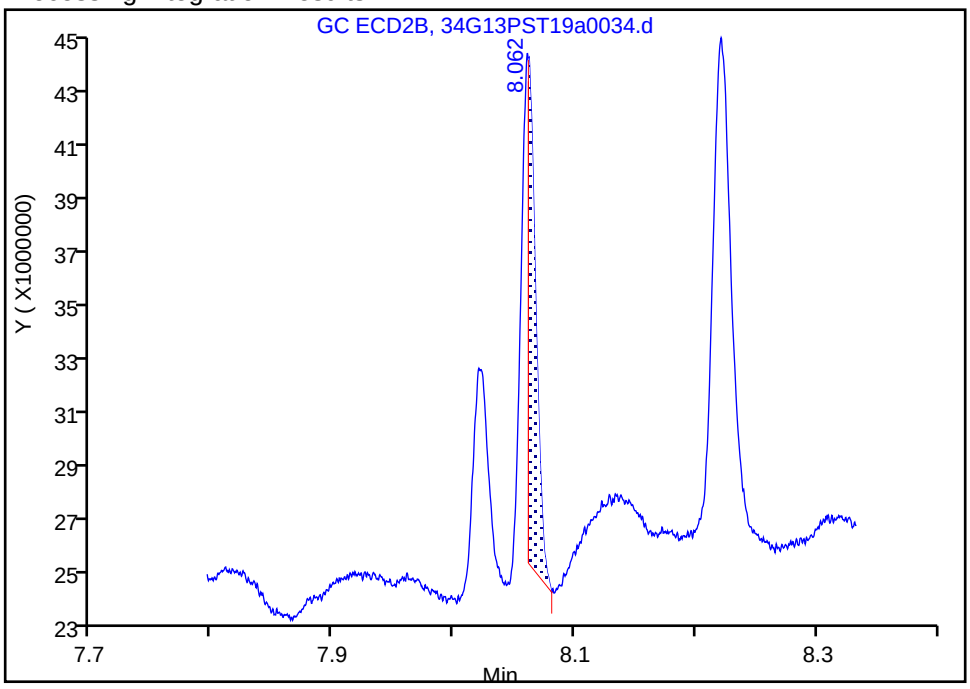
Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d
Injection Date: 14-Jul-2019 03:58:13 Instrument ID: TAC034
Lims ID: IC EXT 1
Client ID:
Operator ID: CJB ALS Bottle#: 28 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

34 cis-Nonachlor, CAS: 5103-73-1

Signal: 2

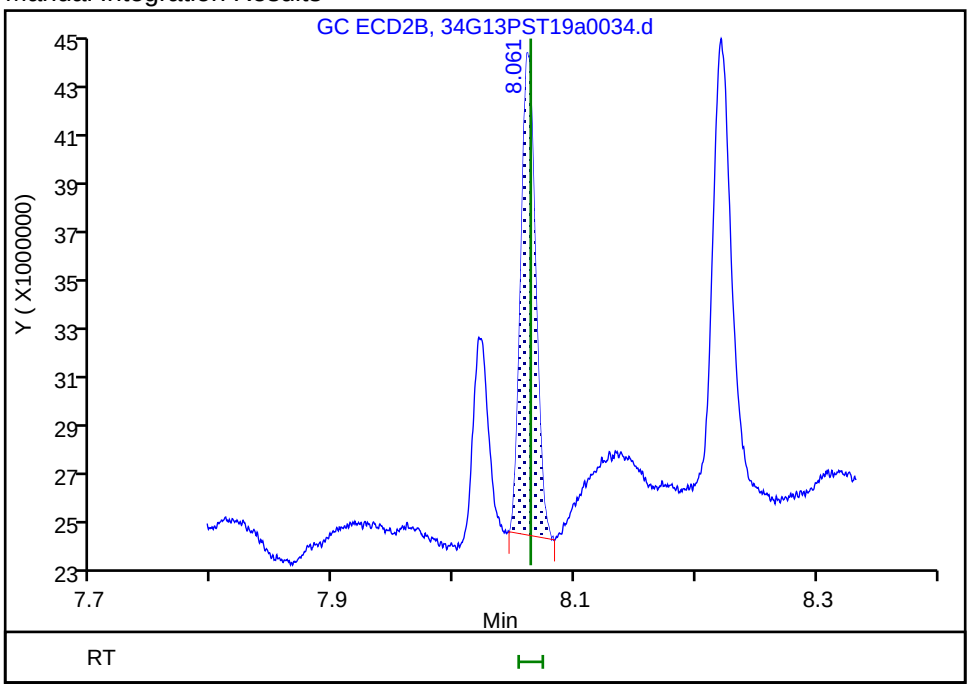
Processing Integration Results

RT: 8.06
Area: 7660256
Amount: 0.448347
Amount Units: ug/L



Manual Integration Results

RT: 8.06
Area: 16118510
Amount: 0.902320
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:22:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28027

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/40	34G13PST19a0044.d
Level 2	IC 580-305574/39	34G13PST19a0043.d
Level 3	IC 580-305574/38	34G13PST19a0042.d
Level 4	IC 580-305574/37	34G13PST19a0041.d
Level 5	IC 580-305574/36	34G13PST19a0040.d
Level 6	ICIS 580-305574/35	34G13PST19a0039.d
Level 7	IC 580-305574/34	34G13PST19a0038.d
Level 8	IC 580-305574/33	34G13PST19a0037.d
Level 9	IC 580-305574/32	34G13PST19a0036.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene	3.4841 5.4972	4.2035 5.2228	4.6886 6.0969	4.5976 5.9730	5.5129	Lin2	-2.234	5.4967				8.0		20.0	0.9930		0.9900
Hexachlorobenzene	4.4194 4.8674	4.3669 4.3250	4.9099 4.8290	4.4450 4.4921	5.0676	Ave		4.6358				6.0		20.0			
alpha-BHC	1.4777 3.8655	1.9430 3.6114	2.3804 +++++	2.4657 +++++	3.4621	Qua1	-3.080	3.5104	0.0020326			20.2			0.9940		0.9900
gamma-BHC (Lindane)	1.8610 3.2920	2.0217 2.6158	2.3426 2.8144	2.3543 2.8850	2.9848	Lin1	-1.388	2.8642				10.7		20.0	0.9970		0.9900
beta-BHC	1.6548 1.6850	1.6595 1.5397	1.5980 1.6769	1.5232 1.6555	1.5066	Ave		1.6110				4.4		20.0			
delta-BHC	1.8702 3.3914	2.0595 3.1403	2.2732 3.7090	2.2784 +++++	3.0478	Qua	-0.572	2.8465	0.0042745			16.1			0.9990		0.9900
Heptachlor	2.0494 2.6648	2.3850 2.4238	2.4330 2.5744	2.1915 2.4338	2.6685	Ave		2.4249				8.5		20.0			
Aldrin	2.6994 4.1241	2.9402 3.8342	3.3810 4.2275	3.3313 3.9728	3.9325	Ave		3.6048				15.0		20.0			
Heptachlor epoxide	3.1143 3.2706	3.0269 2.8545	3.3052 2.9201	2.9823 2.7121	3.3698	Ave		3.0617				7.2		20.0			
trans-Chlordane	3.8250 4.3889	3.9713 3.8452	4.2693 4.3695	3.7739 4.2444	4.3879	Ave		4.1195				6.4		20.0			
cis-Chlordane	4.1856 4.5389	4.2009 3.9794	4.4653 4.4579	4.0349 4.2654	4.5947	Ave		4.3026				5.2		20.0			
4,4'-DDE	+++++ 4.6339	2.6630 4.2088	3.1807 4.5431	3.2761 4.3677	4.2768	Lin2	-3.799	4.3104				8.9		20.0	0.9910		0.9900
Endosulfan I	3.2692 3.6828	2.7550 3.3427	3.6718 3.4589	3.4369 3.2220	3.8121	Ave		3.4057				9.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28027

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dieldrin	3.0590 4.1086	3.1547 3.5742	3.3630 3.7664	3.2858 3.5036	3.8989	Ave		3.5238				9.9		20.0			
Endrin	1.8964 2.5521	2.0637 2.2078	2.3632 2.2476	2.1728 2.0145	2.5820	Ave		2.2333				10.4		20.0			
4,4'-DDD	1.6349 2.7165	1.6092 2.4078	2.0468 2.5482	1.9943 2.3326	2.6430	Lin1	-1.049	2.4336				10.7		20.0	0.9970		0.9900
Endosulfan II	2.1681 2.7962	2.4701 2.4709	2.6560 2.5366	2.3903 2.4361	2.5848	Ave		2.5010				7.0		20.0			
4,4'-DDT	1.6439 2.5435	1.9141 2.2568	2.1136 2.4190	2.0193 2.1833	2.4486	Ave		2.1713				13.2		20.0			
Endrin aldehyde	3.1486 2.7818	2.8000 2.4085	3.0613 2.6042	2.5248 2.4498	3.0096	Ave		2.7543				10.0		20.0			
Methoxychlor	1.1042 1.1118	1.1482 0.9159	1.2059 0.9047	1.0704 0.7874	1.1676	Ave		1.0462				13.6		20.0			
Endosulfan sulfate	3.4296 3.4103	3.5681 2.9278	3.4633 3.1032	3.1189 2.7897	3.5052	Qua1	0.3793	3.2871	-0.001236			6.5			0.9980		0.9900
Endrin ketone	2.3487 2.7455	2.8497 2.4540	2.9009 2.4693	2.6285 2.2584	3.0571	Qua1	0.1104	2.7142	-0.001164			10.0			0.9990		0.9900
Tetrachloro-m-xylene	3.1966 4.4215	3.7172 4.0649	4.1298 4.5039	3.9118 4.1133	4.5146	Ave		4.0637				10.4		20.0			
DCB Decachlorobiphenyl	+++++ 4.7196	6.3211 3.9867	6.2929 4.3324	5.0923 4.1109	5.2657	Qua1	6.2276	4.4150	-0.000814			15.9			0.9970		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28027

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/40	34G13PST19a0044.d
Level 2	IC 580-305574/39	34G13PST19a0043.d
Level 3	IC 580-305574/38	34G13PST19a0042.d
Level 4	IC 580-305574/37	34G13PST19a0041.d
Level 5	IC 580-305574/36	34G13PST19a0040.d
Level 6	ICIS 580-305574/35	34G13PST19a0039.d
Level 7	IC 580-305574/34	34G13PST19a0038.d
Level 8	IC 580-305574/33	34G13PST19a0037.d
Level 9	IC 580-305574/32	34G13PST19a0036.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Hexachlorobutadiene	BNB	Lin2	4270177 419872564	9488961 884124501	26039068 1969071881	64466989 4105770235	184398738	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Hexachlorobenzene	BNB	Ave	5416396 371769083	9857747 732145147	27268319 1559583602	62327308 3087766752	169504110	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
alpha-BHC	BNB	Qua1	1811020 295245109	4386106 611340104	13220259 +++++	34574291 +++++	115804338	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	25.0
gamma-BHC (Lindane)	BNB	Lin1	2280836 251441179	4563777 442813583	13009896 908956612	33011775 1983100090	99838614	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
beta-BHC	BNB	Ave	2028102 128697840	3746057 260648426	8874756 541581570	21358091 1137952263	50393225	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
delta-BHC	BNB	Qua	2292144 259030266	4649194 531596053	12624858 1197882427	31948156 +++++	101946198	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
Heptachlor	BNB	Ave	2511796 203537700	5383921 410311740	13512394 831445412	30728569 1672969291	89258029	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Aldrin	BNB	Ave	3308389 314991866	6637157 649057700	18777294 1365324142	46711416 2730846254	131537330	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Heptachlor epoxide	BNB	Ave	3816921 249801214	6832897 483211794	18356264 943084302	41817519 1864237359	112716403	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Chlordane	BNB	Ave	4687973 335218816	8964760 650934339	23710550 1411178618	52917289 2917512645	146770502	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Chlordane	BNB	Ave	5129879 346675701	9483073 673648380	24799062 1439744923	56577643 2931959989	153687656	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDE	BNB	Lin2	+++++ 353932095	6011520 712475920	17664845 1467258420	45936732 3002297236	143052493	+++++ 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan I	BNB	Ave	4006753 281285874	6219080 565869901	20392158 1117083141	48191662 2214763890	127509848	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Dieldrin	BNB	Ave	3749075 313806262	7121407 605055736	18676986 1216414779	46073688 2408342962	130414135	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28027

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Endrin	BNB	Ave	2324172 194927169	4658546 373742712	13124707 725877456	30467411 1384740207	86365421	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDD	BNB	Lin1	2003782 207482300	3632684 407596304	11367537 822986425	27964229 1603386253	88405754	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan II	BNB	Ave	2657242 213570055	5575979 418275704	14750437 819218536	33516842 1674510148	86457979	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDT	BNB	Ave	2014777 194269294	4320844 382034521	11738149 781255419	28314603 1500780066	81901500	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin aldehyde	BNB	Ave	3858903 212471241	6320716 407713559	17001657 841058131	35402669 1683963541	100667469	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Methoxychlor	BNB	Ave	1353330 84915530	2591980 155054322	6697071 292187509	15008681 541275104	39053435	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan sulfate	BNB	Qua1	4203365 260476577	8054597 495619364	19234043 1002205573	43732431 1917612016	117246032	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin ketone	BNB	Qua1	2878516 209695479	6432941 415419395	16110939 797478687	36856191 1552367330	102257692	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Tetrachloro-m-xylene	BNB	Ave	3945206 340068924	8450006 692930813	23096609 1464783896	55234662 2847172806	152066077	1.01 50.4	2.01 101	5.04 201	10.1 403	25.2
DCB Decachlorobiphenyl	BNB	Qua1	+++++ 361561464	14312112 676906728	35053801 1403408707	71617657 2834265530	176660851	+++++ 50.2	2.01 100	5.02 201	10.0 401	25.1

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD
Qua1 = Quadratic 1/conc ISTD

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d
Lims ID: IC OCP 400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-Jul-2019 04:36:55 ALS Bottle#: 30 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 400
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:29 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:29:12

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1	Hexachlorobutadiene						a
	1	3.615	3.613	0.002	4105770235	400.0	435.1	a
	2	3.963	3.948	0.015	10842686737	400.0	374.8	a
							RPD = 14.89	
*	2	1-Bromo-2-nitrobenzene						
	1	4.475	4.476	-0.001	171845844	100.0	100.0	
	2	4.837	4.837	0.000	706585055	100.0	100.0	
							RPD = 0.00	
$	4	Tetrachloro-m-xylene						
	1	5.088	5.089	-0.001	2847172806	402.8	407.7	
	2	5.553	5.543	0.010	8423100542	402.8	427.1	
							RPD = 4.65	
	7	Hexachlorobenzene						
	1	5.356	5.358	-0.002	3087766752	400.0	387.6	
	2	5.910	5.898	0.012	9493364018	400.0	381.4	
							RPD = 1.62	
	8	alpha-BHC						
	1	5.463	5.462	0.001	3074800521	400.0	412.2	
	2	6.010	6.001	0.009	6898102493	400.0	421.8	
							RPD = 2.31	
	11	gamma-BHC (Lindane)						
	1	5.666	5.667	-0.001	1983100090	400.0	403.4	
	2	6.268	6.263	0.005	5579742392	400.0	437.5	
							RPD = 8.10	
	12	beta-BHC						
	1	5.721	5.724	-0.003	1137952263	400.0	411.0	
	2	6.317	6.315	0.002	2568434996	400.0	NQ	
							RPD = 18.53	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.838	5.839	-0.001	2652824017	400.0	354.2	
2	6.546	6.541	0.005	6395513256	400.0	401.4	
						RPD = 12.52	
15 Heptachlor							
1	5.979	5.979	0.000	1672969291	400.0	401.5	
2	6.592	6.589	0.003	4072226699	400.0	364.7	
						RPD = 9.60	
18 Aldrin							
1	6.174	6.172	0.002	2730846254	400.0	440.8	
2	6.843	6.835	0.008	7291783775	400.0	417.1	
						RPD = 5.52	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	1864237359	400.0	354.3	
2	7.259	7.256	0.003	4744205066	400.0	352.0	
						RPD = 0.65	
23 trans-Chlordane							
1	6.642	6.641	0.001	2917512645	400.0	412.1	
2	7.402	7.397	0.005	6447075472	400.0	389.8	
						RPD = 5.56	
25 cis-Chlordane							
1	6.729	6.728	0.001	2931959989	400.0	396.5	
2	7.515	7.507	0.008	7071484534	400.0	413.6	
						RPD = 4.22	
26 4,4'-DDE							
1	6.777	6.778	-0.001	3002297236	400.0	406.2	
2	7.625	7.617	0.008	7230640332	400.0	400.2	
						RPD = 1.50	
27 Endosulfan I							
1	6.816	6.815	0.001	2214763890	400.0	378.4	
2	7.564	7.560	0.004	5152645561	400.0	408.5	
						RPD = 7.64	
29 Dieldrin							
1	6.980	6.979	0.001	2408342962	400.0	397.7	
2	7.774	7.770	0.004	6120047358	400.0	388.7	
						RPD = 2.28	
33 Endrin							
1	7.136	7.135	0.001	1384740207	400.0	360.8	
2	8.018	8.016	0.002	4175867913	400.0	362.7	
						RPD = 0.52	
36 4,4'-DDD							
1	7.174	7.176	-0.002	1603386253	400.0	383.8	
2	8.068	8.065	0.003	3755177270	400.0	368.7	
						RPD = 4.02	
37 Endosulfan II							
1	7.289	7.290	-0.001	1674510148	400.0	389.6	
2	8.180	8.178	0.002	4121856016	400.0	402.3	
						RPD = 3.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	1500780066	400.0	402.2	
2	8.320	8.317	0.003	4165502941	400.0	417.1	
						RPD = 3.63	
39 Endrin aldehyde							
1	7.577	7.576	0.001	1683963541	400.0	355.8	
2	8.443	8.441	0.002	3943218863	400.0	415.3	
						RPD = 15.45	
40 Methoxychlor							M
1	7.728	7.730	-0.002	541275104	400.0	301.1	M
2	8.872	8.871	0.001	1383779269	400.0	NQ	
						RPD = 7.94	
42 Endosulfan sulfate							
1	7.890	7.888	0.002	1917612016	400.0	399.3	
2	8.660	8.656	0.004	4357920143	400.0	408.2	
						RPD = 2.19	
44 Endrin ketone							
1	8.103	8.103	0.000	1552367330	400.0	402.1	
2	9.117	9.115	0.002	3747492993	400.0	403.3	
						RPD = 0.29	
$ 45 DCB Decachlorobiphenyl							
1	8.895	8.894	0.001	2834265530	401.2	402.0	
2	10.105	10.100	0.005	6727362759	401.2	433.5	
						RPD = 7.56	

QC Flag Legend

Processing Flags
NQ - Not Quantifiable
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 1.00	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d

Injection Date: 14-Jul-2019 04:36:55 Instrument ID: TAC034

Lims ID: IC OCP 400

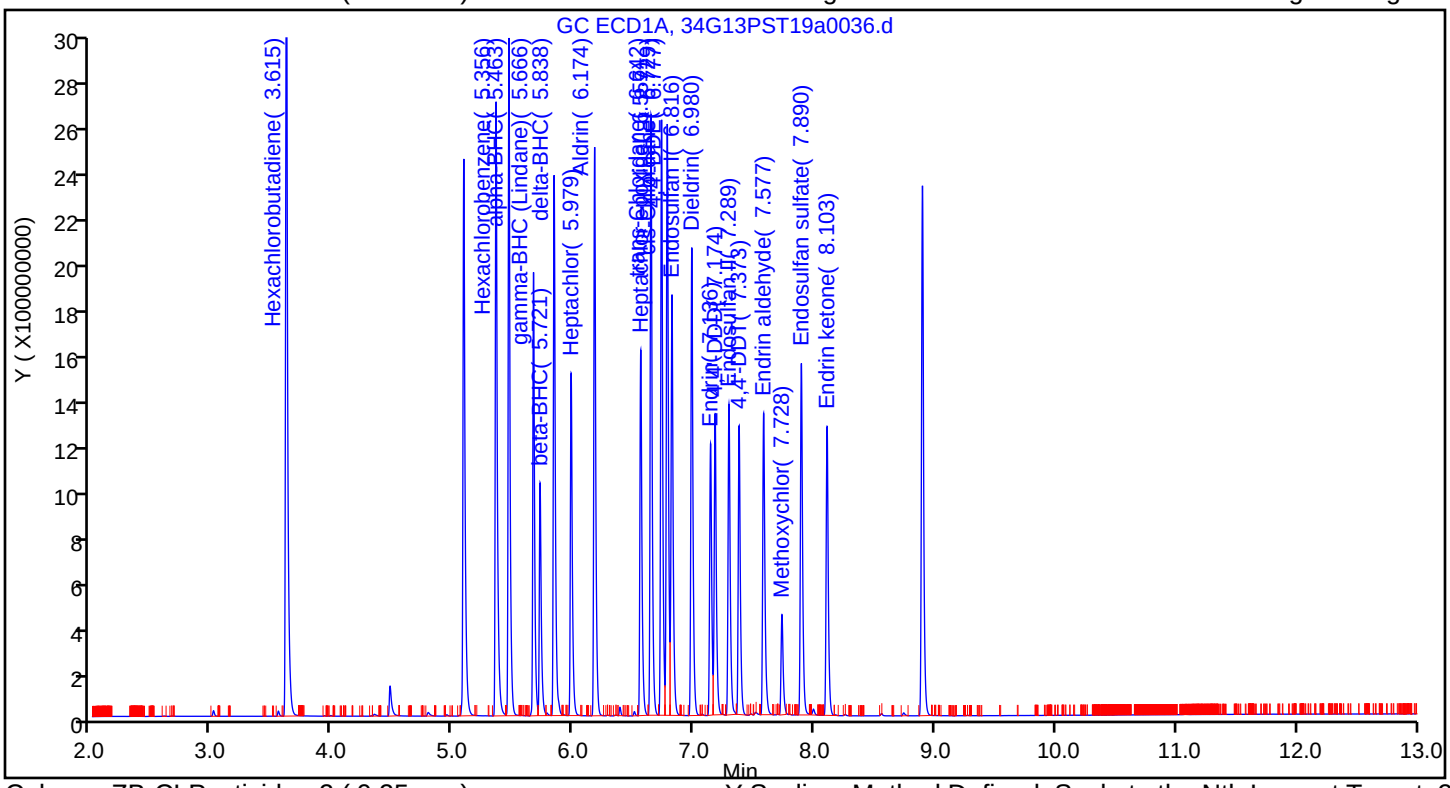
Client ID:

Operator ID: CJB ALS Bottle#: 30 Worklist Smp#: 32

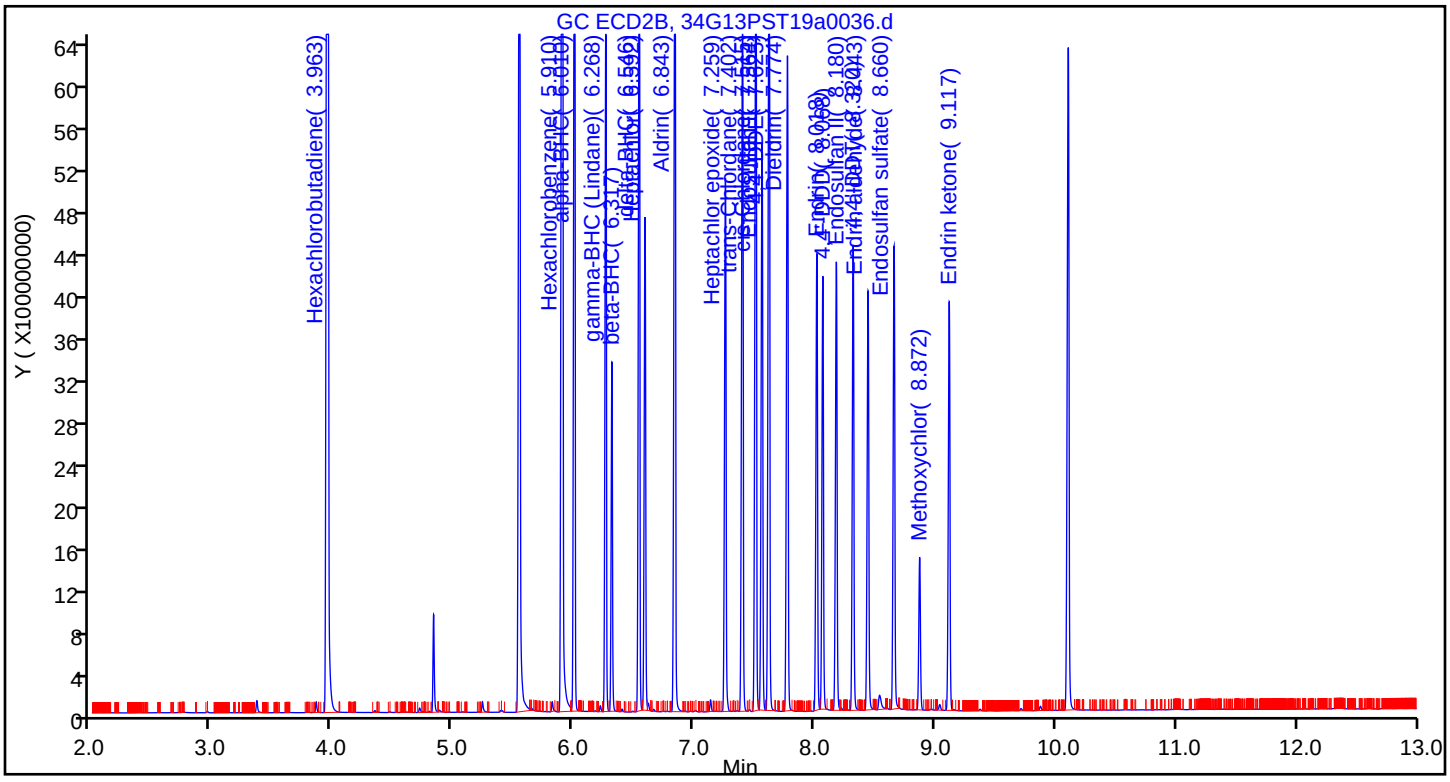
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

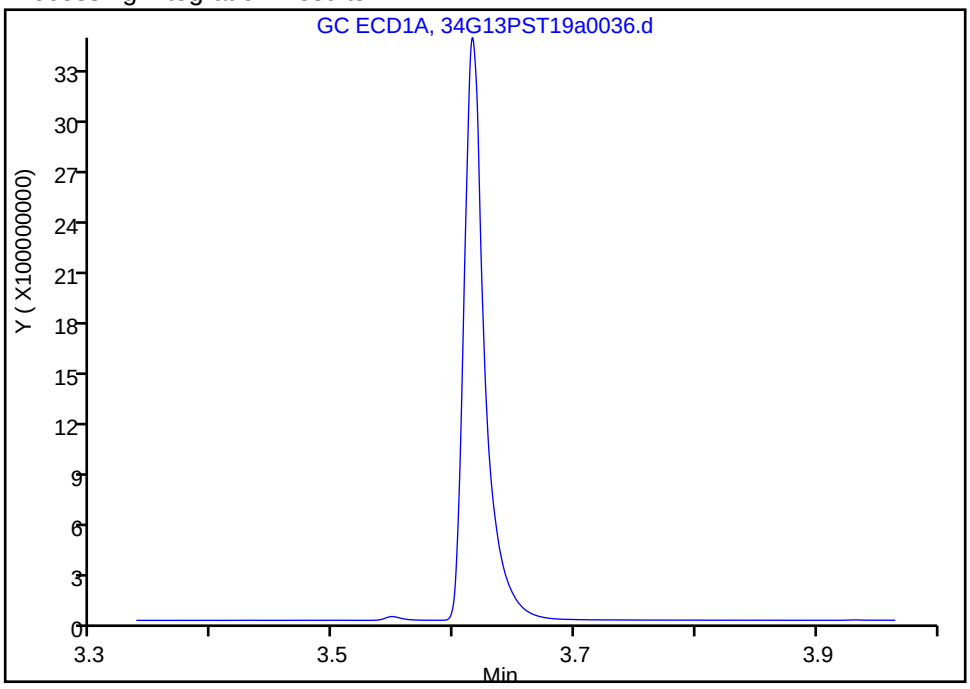
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d				
Injection Date:	14-Jul-2019 04:36:55	Instrument ID:	TAC034		
Lims ID:	IC OCP 400				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	30	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

1 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

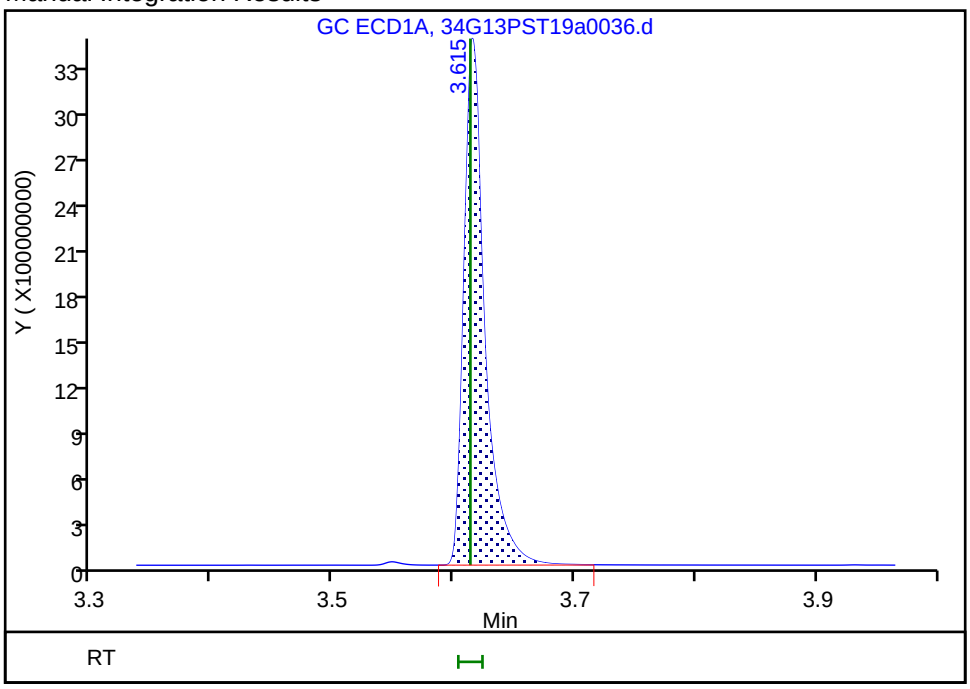
Not Detected
Expected RT: 3.61

Processing Integration Results



Manual Integration Results

RT: 3.61
Area: 4105770235
Amount: 435.0690
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:28:24
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

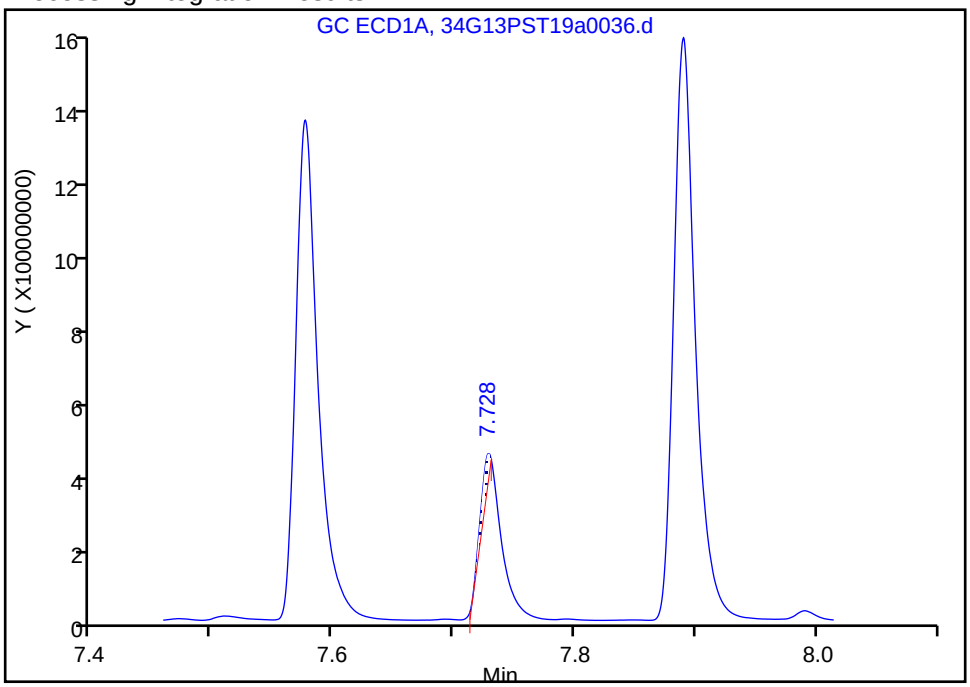
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d		
Injection Date:	14-Jul-2019 04:36:55	Instrument ID:	TAC034
Lims ID:	IC OCP 400		
Client ID:			
Operator ID:	CJB	ALS Bottle#:	30 Worklist Smp#: 32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

40 Methoxychlor, CAS: 72-43-5

Signal: 1

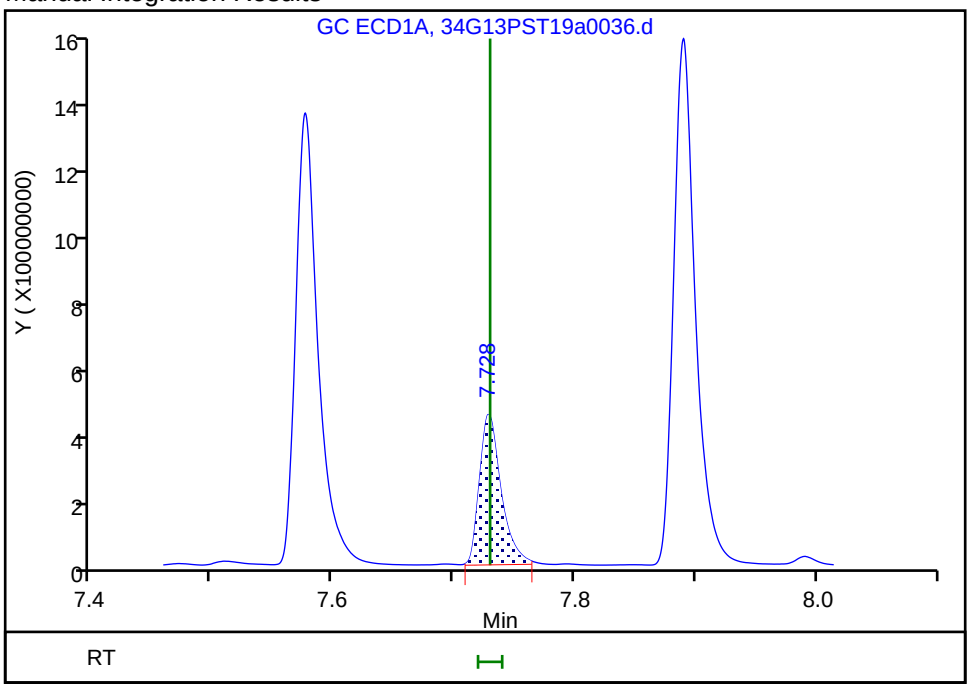
Processing Integration Results

RT: 7.73
Area: 53766874
Amount: 32.341178
Amount Units: ug/L



Manual Integration Results

RT: 7.73
Area: 541275104
Amount: 301.0582
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 13:33:12

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0037.d
Lims ID: IC OCP 200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-Jul-2019 04:56:16 ALS Bottle#: 31 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 200
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:35 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:30:16

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	1969071881	200.0	222.2	
	2	3.952	3.948	0.004	6406441393	200.0	204.9	
							RPD = 8.11	
*	2 1-Bromo-2-nitrobenzene							
	1	4.476	4.476	0.000	161481371	100.0	100.0	
	2	4.837	4.837	0.000	763526363	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.087	5.089	-0.002	1464783896	201.4	223.2	
	2	5.546	5.543	0.003	4242662584	201.4	199.1	
							RPD = 11.41	
	7 Hexachlorobenzene							
	1	5.355	5.358	-0.003	1559583602	200.0	208.3	
	2	5.900	5.898	0.002	5207944968	200.0	193.6	
							RPD = 7.32	
	8 alpha-BHC							
	1	5.462	5.462	0.000	1351715535	200.0	213.1	
	2	6.004	6.001	0.003	3625701795	200.0	205.2	
							RPD = 3.76	
	11 gamma-BHC (Lindane)							
	1	5.666	5.667	-0.001	908956612	200.0	197.0	
	2	6.265	6.263	0.002	2826537311	200.0	205.1	
							RPD = 4.01	
	12 beta-BHC							
	1	5.721	5.724	-0.003	541581570	200.0	208.2	
	2	6.315	6.315	0.000	1363125776	200.0	NQ	
							RPD = 20.47	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.838	5.839	-0.001	1197882427	200.0	200.5	
2	6.542	6.541	0.001	3192726143	200.0	198.3	
						RPD = 1.08	
15 Heptachlor							
1	5.979	5.979	0.000	831445412	200.0	212.3	
2	6.591	6.589	0.002	2036585465	200.0	168.8	
						RPD = 22.85	
18 Aldrin							
1	6.174	6.172	0.002	1365324142	200.0	234.5	
2	6.838	6.835	0.003	3625912058	200.0	192.0	
						RPD = 19.97	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	943084302	200.0	190.7	
2	7.258	7.256	0.002	2454481984	200.0	168.5	
						RPD = 12.36	
23 trans-Chlordane							
1	6.642	6.641	0.001	1411178618	200.0	212.1	
2	7.399	7.397	0.002	3163554348	200.0	177.0	
						RPD = 18.05	
25 cis-Chlordane							
1	6.728	6.728	0.000	1439744923	200.0	207.2	
2	7.509	7.507	0.002	3456194259	200.0	187.1	
						RPD = 10.21	
26 4,4'-DDE							
1	6.777	6.778	-0.001	1467258420	200.0	211.7	
2	7.620	7.617	0.003	3601308008	200.0	184.4	
						RPD = 13.75	
27 Endosulfan I							
1	6.815	6.815	0.000	1117083141	200.0	203.1	
2	7.562	7.560	0.002	2637773154	200.0	193.2	
						RPD = 5.02	
29 Dieldrin							
1	6.979	6.979	0.000	1216414779	200.0	213.8	
2	7.772	7.770	0.002	3128658267	200.0	183.9	
						RPD = 15.02	
33 Endrin							
1	7.135	7.135	0.000	725877456	200.0	201.3	
2	8.017	8.016	0.001	2111861816	200.0	169.7	
						RPD = 17.00	
36 4,4'-DDD							
1	7.174	7.176	-0.002	822986425	200.0	209.9	
2	8.066	8.065	0.001	1956184843	200.0	177.8	
						RPD = 16.56	
37 Endosulfan II							
1	7.289	7.290	-0.001	819218536	200.0	202.8	
2	8.179	8.178	0.001	2097794238	200.0	196.4	
						RPD = 3.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	781255419	200.0	222.8	
2	8.319	8.317	0.002	2024343570	200.0	187.6	
						RPD = 17.17	
39 Endrin aldehyde							
1	7.577	7.576	0.001	841058131	200.0	189.1	
2	8.442	8.441	0.001	1956797940	200.0	190.5	
						RPD = 0.75	
40 Methoxychlor							
1	7.729	7.730	-0.001	292187509	200.0	172.9	
2	8.871	8.871	0.000	757782412	200.0	203.9	
						RPD = 16.45	
42 Endosulfan sulfate							M
1	7.889	7.888	0.001	1002205573	200.0	204.4	M
2	8.657	8.656	0.001	2245786059	200.0	194.5	
						RPD = 4.97	
44 Endrin ketone							
1	8.103	8.103	0.000	797478687	200.0	198.9	
2	9.115	9.115	0.000	1872172152	200.0	186.4	
						RPD = 6.45	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	1403408707	200.6	203.0	
2	10.103	10.100	0.003	3153708897	200.6	187.9	
						RPD = 7.77	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Review Flags

M - Manually Integrated

Reagents:

OCP_IC400_00017	Amount Added: 0.50	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:37 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0037.d

Injection Date: 14-Jul-2019 04:56:16 Instrument ID: TAC034

Lims ID: IC OCP 200

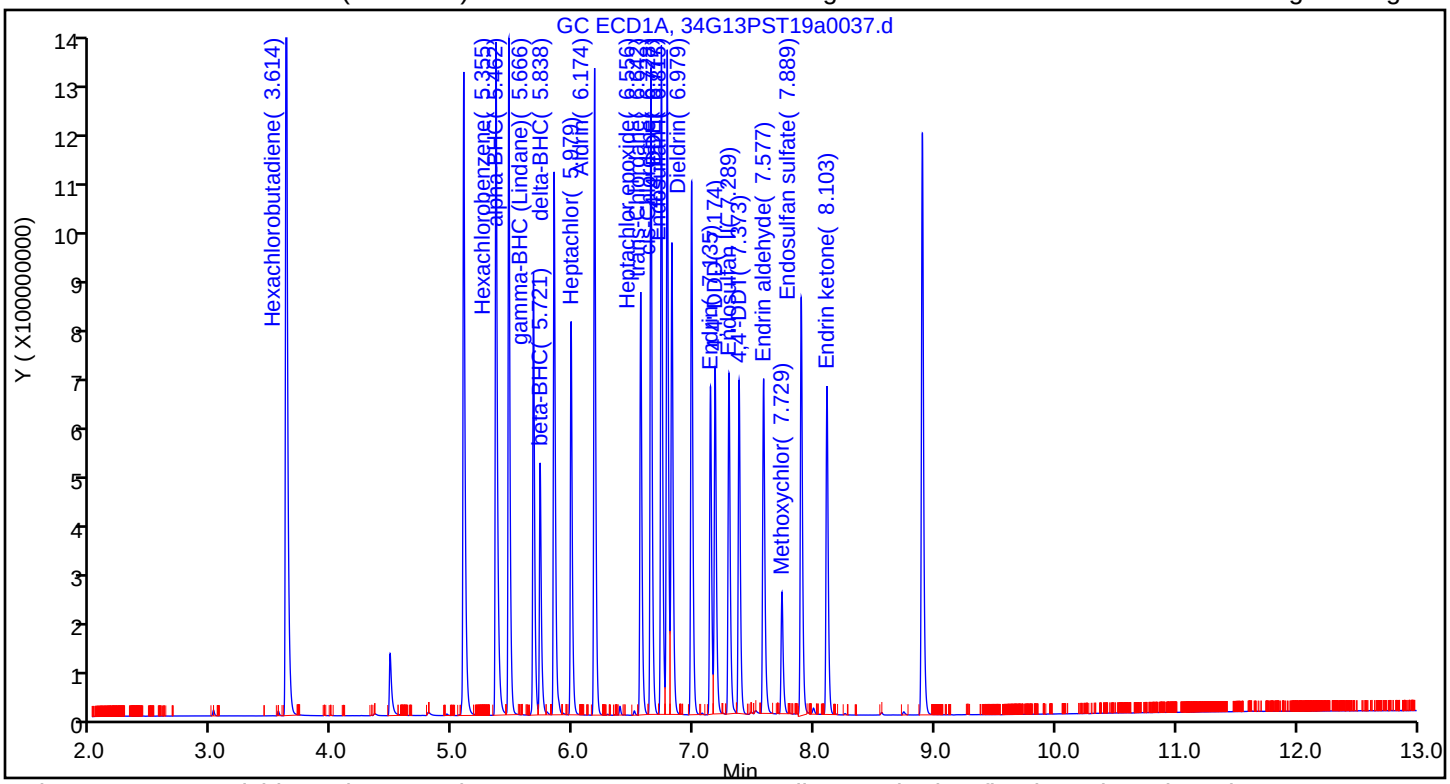
Client ID:

Operator ID: CJB ALS Bottle#: 31 Worklist Smp#: 33

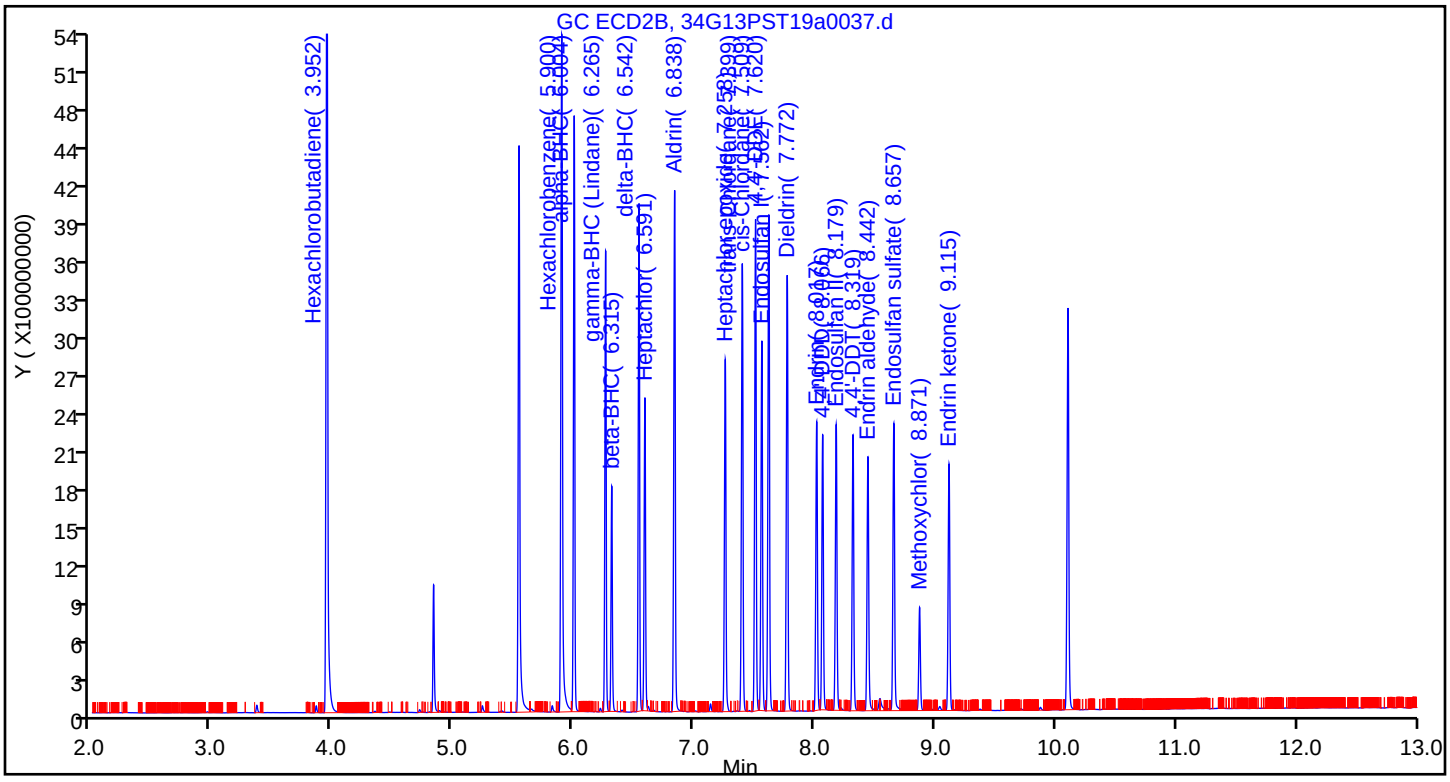
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

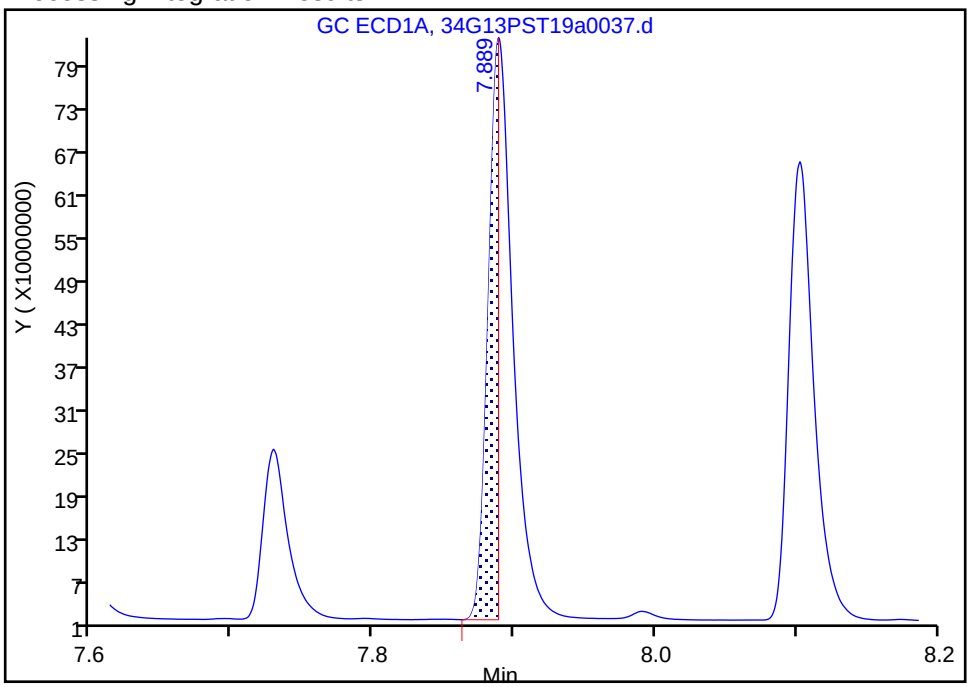
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0037.d				
Injection Date:	14-Jul-2019 04:56:16	Instrument ID:	TAC034		
Lims ID:	IC OCP 200				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	31	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

42 Endosulfan sulfate, CAS: 1031-07-8

Signal: 1

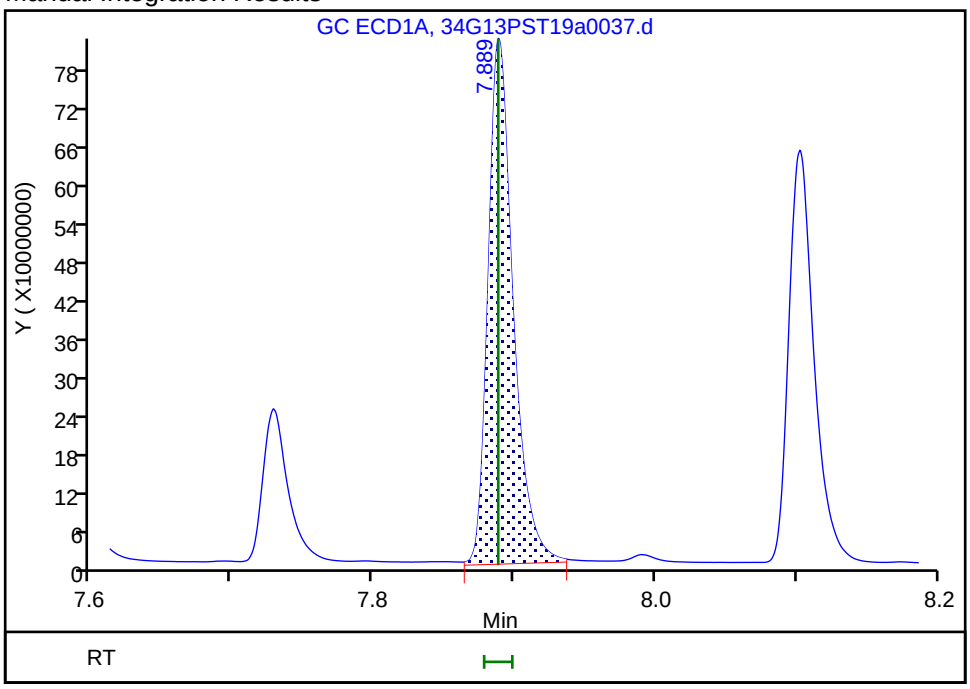
Processing Integration Results

RT: 7.89
Area: 402590622
Amount: 107.7792
Amount Units: ug/L



Manual Integration Results

RT: 7.89
Area: 1002205573
Amount: 204.4020
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:30:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0038.d
Lims ID: IC OCP 100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-Jul-2019 05:15:41 ALS Bottle#: 32 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 100
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:43 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:31:07

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.614	3.613	0.001	884124501	100.0	95.4	
2	3.950	3.948	0.002	2891696227	100.0	88.9	
						RPD = 7.05	
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	169282969	100.0	100.0	
2	4.837	4.837	0.000	794165829	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.087	5.089	-0.002	692930813	100.7	100.7	
2	5.545	5.543	0.002	1888462307	100.7	85.3	
						RPD = 16.64	
7 Hexachlorobenzene							
1	5.356	5.358	-0.002	732145147	100.0	93.3	
2	5.899	5.898	0.001	2396143436	100.0	85.6	
						RPD = 8.55	
8 alpha-BHC							
1	5.461	5.462	-0.001	611340104	100.0	98.2	
2	6.004	6.001	0.003	1739729209	100.0	94.7	
						RPD = 3.65	
11 gamma-BHC (Lindane)							
1	5.666	5.667	-0.001	442813583	100.0	91.8	
2	6.265	6.263	0.002	1223306150	100.0	85.3	
						RPD = 7.32	
12 beta-BHC							
1	5.722	5.724	-0.002	260648426	100.0	95.6	
2	6.315	6.315	0.000	641639011	100.0	100.2	
						RPD = 4.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.838	5.839	-0.001	531596053	100.0	96.5	
2	6.541	6.541	0.000	1536644206	100.0	95.0	
						RPD = 1.65	
15 Heptachlor							
1	5.978	5.979	-0.001	410311740	100.0	100.0	
2	6.590	6.589	0.001	1067999292	100.0	85.1	
						RPD = 16.06	
18 Aldrin							
1	6.173	6.172	0.001	649057700	100.0	106.4	
2	6.837	6.835	0.002	1766063978	100.0	89.9	
						RPD = 16.79	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	483211794	100.0	93.2	
2	7.257	7.256	0.001	1242420078	100.0	82.0	
						RPD = 12.79	
23 trans-Chlordane							
1	6.642	6.641	0.001	650934339	100.0	93.3	
2	7.399	7.397	0.002	1553041804	100.0	83.5	
						RPD = 11.07	
25 cis-Chlordane							
1	6.728	6.728	0.000	673648380	100.0	92.5	
2	7.509	7.507	0.002	1645676029	100.0	85.6	
						RPD = 7.68	
26 4,4'-DDE							
1	6.777	6.778	-0.001	712475920	100.0	98.5	
2	7.618	7.617	0.001	1723711625	100.0	84.9	
						RPD = 14.88	
27 Endosulfan I							
1	6.815	6.815	0.000	565869901	100.0	98.2	
2	7.561	7.560	0.001	1334786899	100.0	93.6	
						RPD = 4.71	
29 Dieldrin							
1	6.978	6.979	-0.001	605055736	100.0	101.4	
2	7.772	7.770	0.002	1548433672	100.0	87.5	
						RPD = 14.74	
33 Endrin							
1	7.136	7.135	0.001	373742712	100.0	98.9	
2	8.016	8.016	0.000	1090309014	100.0	84.3	
						RPD = 15.95	
36 4,4'-DDD							
1	7.174	7.176	-0.002	407596304	100.0	99.4	
2	8.067	8.065	0.002	976805125	100.0	85.3	
						RPD = 15.20	
37 Endosulfan II							
1	7.289	7.290	-0.001	418275704	100.0	98.8	
2	8.179	8.178	0.001	1048850012	100.0	95.6	
						RPD = 3.31	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	382034521	100.0	103.9	
2	8.318	8.317	0.001	1052133728	100.0	93.7	
						RPD = 10.32	
39 Endrin aldehyde							
1	7.576	7.576	0.000	407713559	100.0	87.4	
2	8.442	8.441	0.001	982761159	100.0	91.8	
						RPD = 4.86	
40 Methoxychlor							
1	7.728	7.730	-0.002	155054322	100.0	87.5	
2	8.871	8.871	0.000	395502527	100.0	92.9	
						RPD = 5.94	
42 Endosulfan sulfate							
1	7.889	7.888	0.001	495619364	100.0	92.1	
2	8.657	8.656	0.001	1126462517	100.0	93.6	
						RPD = 1.60	
44 Endrin ketone							
1	8.102	8.103	-0.001	415419395	100.0	94.2	
2	9.116	9.115	0.001	954620697	100.0	91.4	
						RPD = 2.99	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	676906728	100.3	90.7	
2	10.102	10.100	0.002	1495882013	100.3	85.4	
						RPD = 5.93	

Reagents:

OCP_IC400_00017	Amount Added: 0.25	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:44 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0038.d

Injection Date: 14-Jul-2019 05:15:41 Instrument ID: TAC034

Lims ID: IC OCP 100

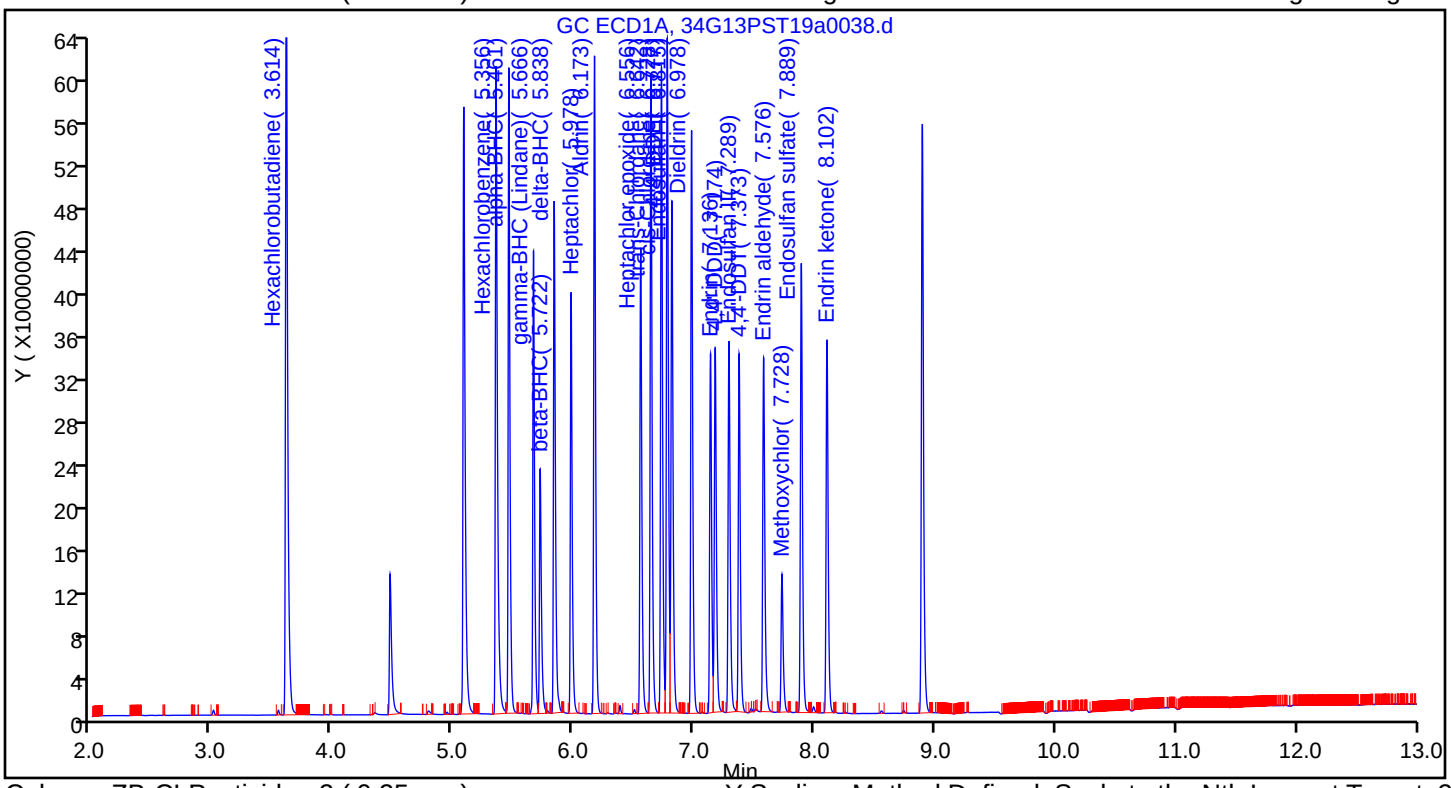
Client ID:

Operator ID: CJB ALS Bottle#: 32 Worklist Smp#: 34

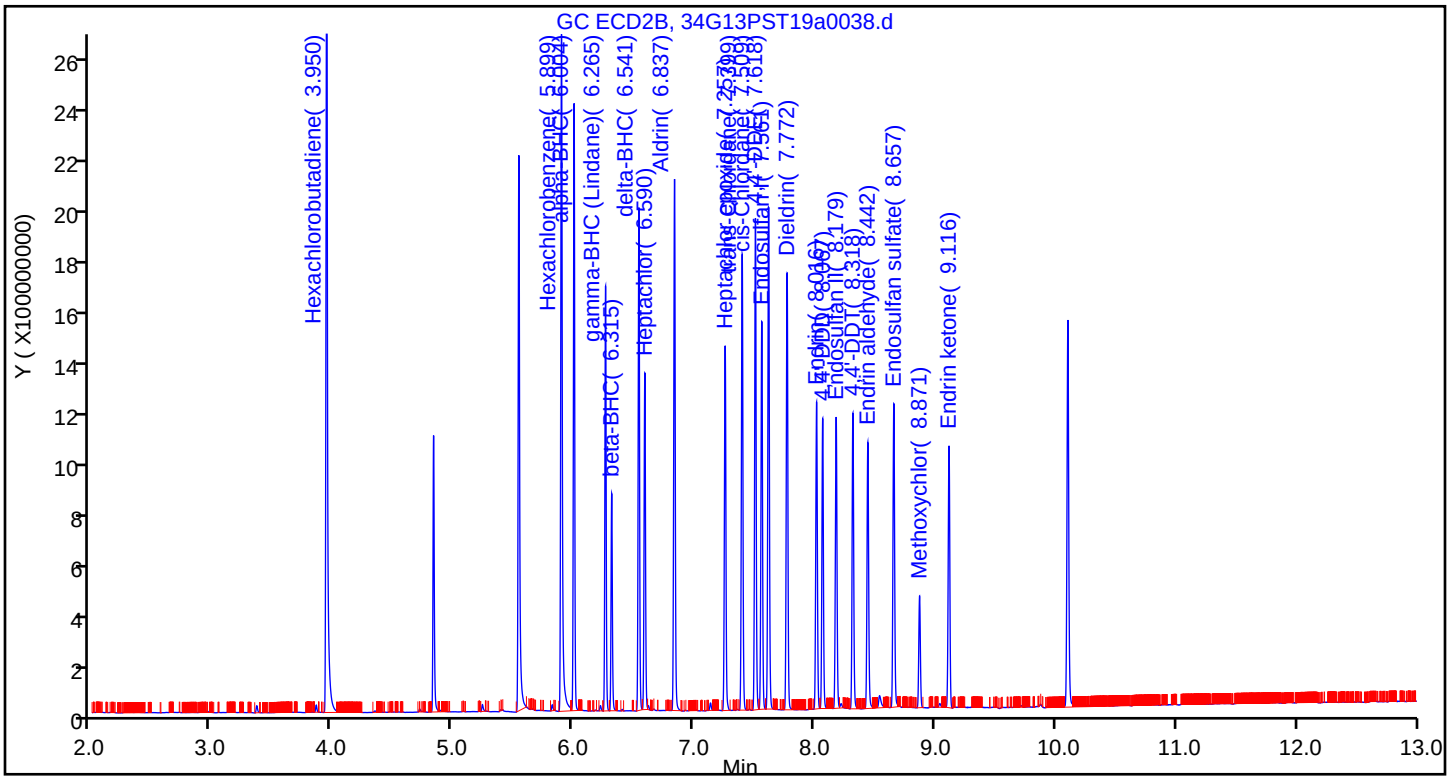
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0039.d
Lims ID: ICIS OCP 50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 14-Jul-2019 05:34:59 ALS Bottle#: 33 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS OCP 50
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:49 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:31:47

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	419872564	50.0	50.4	
	2	3.948	3.948	0.000	1442117602	50.0	43.7	
							RPD = 14.27	
*	2 1-Bromo-2-nitrobenzene							
	1	4.476	4.476	0.000	152757460	100.0	100.0	
	2	4.836	4.837	-0.001	806036132	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.088	5.089	-0.001	340068924	50.4	54.8	
	2	5.544	5.543	0.001	957808881	50.4	42.6	
							RPD = 24.94	
	7 Hexachlorobenzene							
	1	5.356	5.358	-0.002	371769083	50.0	52.5	
	2	5.898	5.898	0.000	1216094653	50.0	42.8	
							RPD = 20.29	
	8 alpha-BHC							
	1	5.462	5.462	0.000	295245109	50.0	54.2	
	2	6.002	6.001	0.001	922676650	50.0	49.5	
							RPD = 9.20	
	11 gamma-BHC (Lindane)							
	1	5.666	5.667	-0.001	251441179	50.0	58.0	
	2	6.263	6.263	0.000	718173877	50.0	49.4	
							RPD = 16.02	
	12 beta-BHC							M
	1	5.723	5.724	-0.001	128697840	50.0	52.3	
	2	6.315	6.315	0.000	359507829	50.0	49.2	M
							RPD = 6.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.839	5.839	0.000	259030266	50.0	55.2	
2	6.540	6.541	-0.001	850052278	50.0	52.4	
						RPD = 5.27	
15 Heptachlor							
1	5.978	5.979	-0.001	203537700	50.0	54.9	
2	6.589	6.589	0.000	594899820	50.0	46.7	
						RPD = 16.22	
18 Aldrin							
1	6.172	6.172	0.000	314991866	50.0	57.2	
2	6.835	6.835	0.000	914154791	50.0	45.8	
						RPD = 22.05	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	249801214	50.0	53.4	
2	7.256	7.256	0.000	713020918	50.0	46.4	
						RPD = 14.09	
23 trans-Chlordane							
1	6.641	6.641	0.000	335218816	50.0	53.3	
2	7.397	7.397	0.000	862884997	50.0	45.7	
						RPD = 15.22	
25 cis-Chlordane							
1	6.728	6.728	0.000	346675701	50.0	52.7	
2	7.507	7.507	0.000	856349481	50.0	43.9	
						RPD = 18.28	
26 4,4'-DDE							
1	6.776	6.778	-0.002	353932095	50.0	54.6	
2	7.617	7.617	0.000	911447678	50.0	44.2	
						RPD = 21.07	
27 Endosulfan I							
1	6.814	6.815	-0.001	281285874	50.0	54.1	
2	7.560	7.560	0.000	728528238	50.0	50.0	
						RPD = 7.73	
29 Dieldrin							
1	6.978	6.979	-0.001	313806262	50.0	58.3	
2	7.770	7.770	0.000	839905599	50.0	46.8	
						RPD = 21.95	
33 Endrin							
1	7.134	7.135	-0.001	194927169	50.0	57.1	
2	8.015	8.016	-0.001	609999574	50.0	46.4	
						RPD = 20.65	
36 4,4'-DDD							
1	7.175	7.176	-0.001	207482300	50.0	56.2	
2	8.065	8.065	0.000	560141433	50.0	48.2	
						RPD = 15.37	
37 Endosulfan II							
1	7.288	7.290	-0.002	213570055	50.0	55.9	
2	8.178	8.178	0.000	576649930	50.0	51.5	
						RPD = 8.11	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							M
1	7.372	7.373	-0.001	194269294	50.0	58.6	M
2	8.316	8.317	-0.001	555521080	50.0	48.8	
						RPD = 18.28	
39 Endrin aldehyde							
1	7.576	7.576	0.000	212471241	50.0	50.5	
2	8.440	8.441	-0.001	537925666	50.0	49.3	
						RPD = 2.34	
40 Methoxychlor							
1	7.729	7.730	-0.001	84915530	50.0	53.1	
2	8.870	8.871	-0.001	220836684	50.0	48.9	
						RPD = 8.21	
42 Endosulfan sulfate							
1	7.888	7.888	0.000	260476577	50.0	52.8	
2	8.656	8.656	0.000	609058232	50.0	49.7	
						RPD = 6.00	
44 Endrin ketone							
1	8.103	8.103	0.000	209695479	50.0	51.7	
2	9.114	9.115	-0.001	506357288	50.0	47.8	
						RPD = 7.86	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	361561464	50.2	52.7	
2	10.101	10.100	0.001	781024645	50.2	43.8	
						RPD = 18.55	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:50 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0039.d

Injection Date: 14-Jul-2019 05:34:59 Instrument ID: TAC034

Lims ID: ICIS OCP 50

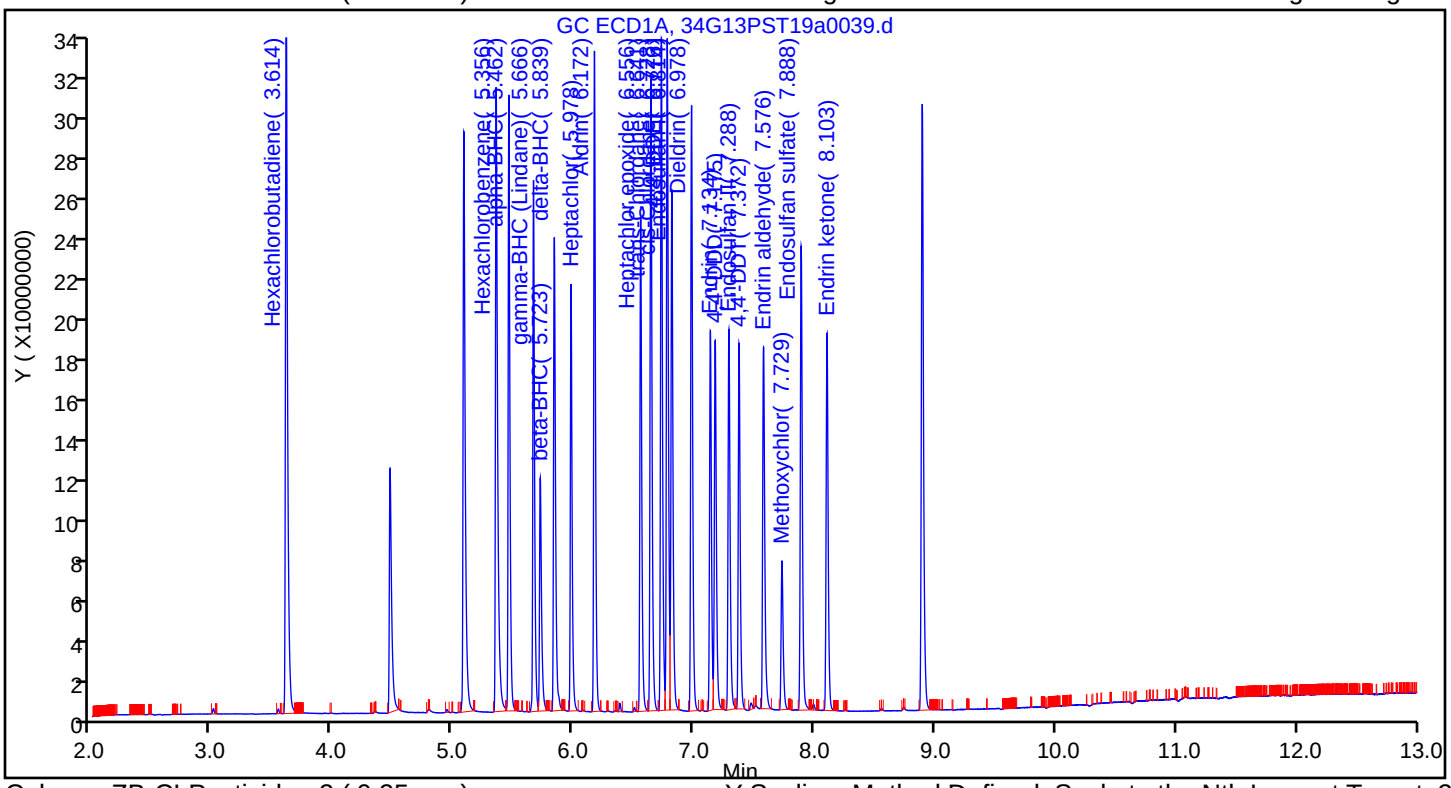
Client ID:

Operator ID: CJB ALS Bottle#: 33 Worklist Smp#: 35

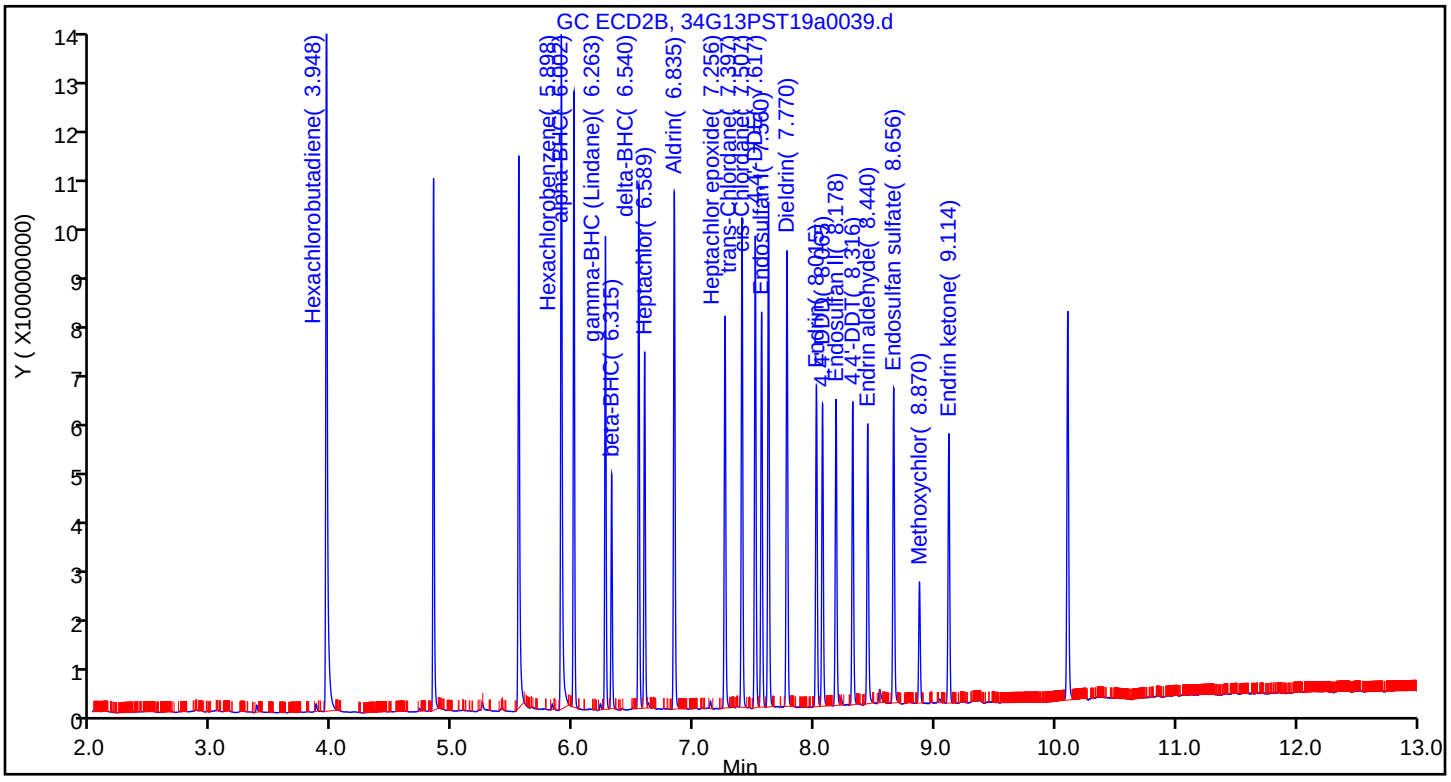
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

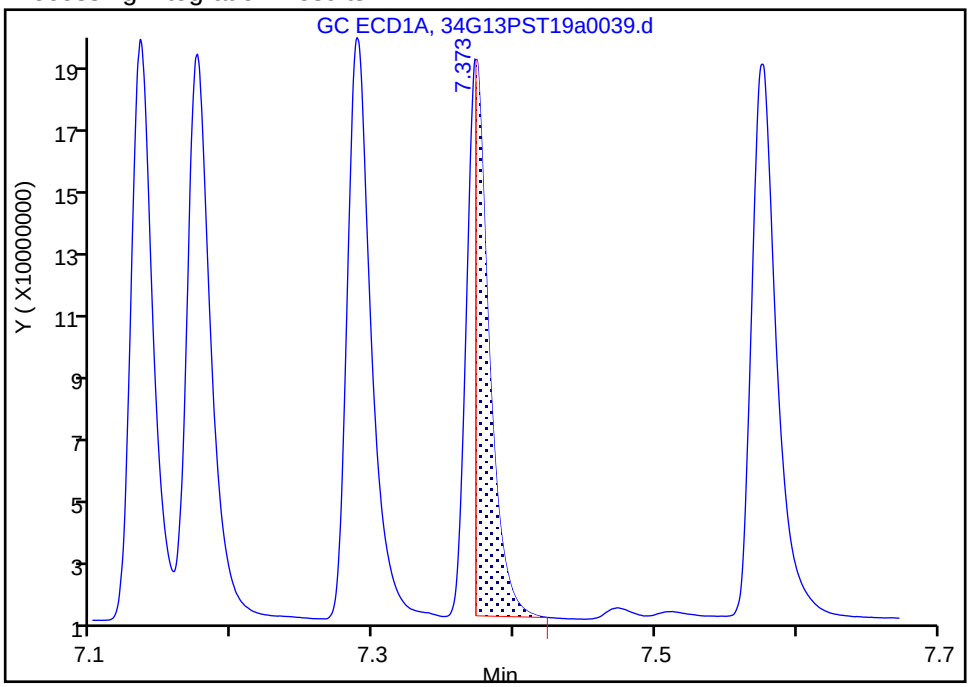
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0039.d				
Injection Date:	14-Jul-2019 05:34:59	Instrument ID:	TAC034		
Lims ID:	ICIS OCP 50				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	33	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

38 4,4'-DDT, CAS: 50-29-3

Signal: 1

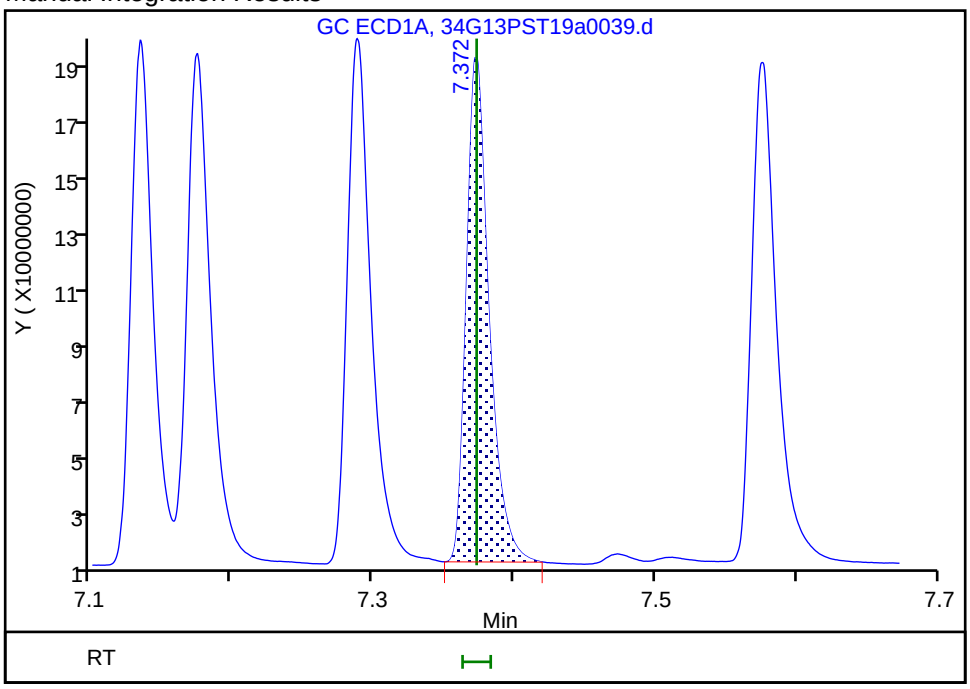
Processing Integration Results

RT: 7.37
Area: 114291157
Amount: 36.408277
Amount Units: ug/L



Manual Integration Results

RT: 7.37
Area: 194269294
Amount: 58.569849
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:26:27

Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0040.d
Lims ID: IC OCP 25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-Jul-2019 05:54:17 ALS Bottle#: 34 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 25
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:55 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:33:06

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.613	3.613	0.000	184398738	25.0	25.5	
	2	3.948	3.948	0.000	681010308	25.0	25.1	
							RPD = 1.55	
*	2 1-Bromo-2-nitrobenzene							
	1	4.476	4.476	0.000	133795495	100.0	100.0	
	2	4.837	4.837	0.000	662946912	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.089	5.089	0.000	152066077	25.2	28.0	
	2	5.543	5.543	0.000	480618815	25.2	26.0	
							RPD = 7.16	
	7 Hexachlorobenzene							
	1	5.358	5.358	0.000	169504110	25.0	27.3	
	2	5.898	5.898	0.000	553057402	25.0	23.7	
							RPD = 14.30	
	8 alpha-BHC							
	1	5.462	5.462	0.000	115804338	25.0	25.2	
	2	6.001	6.001	0.000	408170168	25.0	26.6	
							RPD = 5.55	
	11 gamma-BHC (Lindane)							
	1	5.667	5.667	0.000	99838614	25.0	26.5	
	2	6.263	6.263	0.000	319970491	25.0	26.7	
							RPD = 0.75	
	12 beta-BHC							M
	1	5.724	5.724	0.000	50393225	25.0	23.4	M
	2	6.315	6.315	0.000	164778503	25.0	25.8	
							RPD = 9.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.839	5.839	0.000	101946198	25.0	26.0	
2	6.541	6.541	0.000	352308031	25.0	26.4	
						RPD = 1.79	
15 Heptachlor							
1	5.979	5.979	0.000	89258029	25.0	27.5	
2	6.589	6.589	0.000	277483997	25.0	26.5	
						RPD = 3.80	
18 Aldrin							
1	6.172	6.172	0.000	131537330	25.0	27.3	
2	6.835	6.835	0.000	421780738	25.0	25.7	
						RPD = 5.87	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	112716403	25.0	27.5	
2	7.256	7.256	0.000	337108590	25.0	26.7	
						RPD = 3.15	
23 trans-Chlordane							
1	6.641	6.641	0.000	146770502	25.0	26.6	
2	7.397	7.397	0.000	393730127	25.0	25.4	
						RPD = 4.83	
25 cis-Chlordane							
1	6.728	6.728	0.000	153687656	25.0	26.7	
2	7.507	7.507	0.000	408736394	25.0	25.5	
						RPD = 4.66	
26 4,4'-DDE							
1	6.778	6.778	0.000	143052493	25.0	25.7	
2	7.617	7.617	0.000	439298423	25.0	25.9	
						RPD = 0.88	
27 Endosulfan I							
1	6.815	6.815	0.000	127509848	25.0	28.0	
2	7.560	7.560	0.000	345070108	25.0	28.5	
						RPD = 1.97	
29 Dieldrin							
1	6.979	6.979	0.000	130414135	25.0	27.7	
2	7.770	7.770	0.000	399078882	25.0	27.0	
						RPD = 2.36	
33 Endrin							
1	7.135	7.135	0.000	86365421	25.0	28.9	
2	8.016	8.016	0.000	292149210	25.0	27.0	
						RPD = 6.65	
36 4,4'-DDD							
1	7.176	7.176	0.000	88405754	25.0	27.6	
2	8.065	8.065	0.000	274995632	25.0	28.8	
						RPD = 4.25	
37 Endosulfan II							
1	7.290	7.290	0.000	86457979	25.0	25.8	
2	8.178	8.178	0.000	270190679	25.0	28.8	
						RPD = 11.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	81901500	25.0	28.2	
2	8.317	8.317	0.000	259323462	25.0	27.7	
						RPD = 1.85	
39 Endrin aldehyde							
1	7.576	7.576	0.000	100667469	25.0	27.3	
2	8.441	8.441	0.000	248714862	25.0	27.6	
						RPD = 0.89	
40 Methoxychlor							
1	7.730	7.730	0.000	39053435	25.0	27.9	
2	8.871	8.871	0.000	110783796	25.0	29.0	
						RPD = 3.88	
42 Endosulfan sulfate							
1	7.888	7.888	0.000	117246032	25.0	26.8	
2	8.656	8.656	0.000	286221591	25.0	28.3	
						RPD = 5.33	
44 Endrin ketone							
1	8.103	8.103	0.000	102257692	25.0	28.5	
2	9.115	9.115	0.000	229538649	25.0	26.3	
						RPD = 7.78	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	176660851	25.1	28.6	
2	10.100	10.100	0.000	381522034	25.1	25.8	
						RPD = 10.34	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0040.d

Injection Date: 14-Jul-2019 05:54:17 Instrument ID: TAC034

Lims ID: IC OCP 25

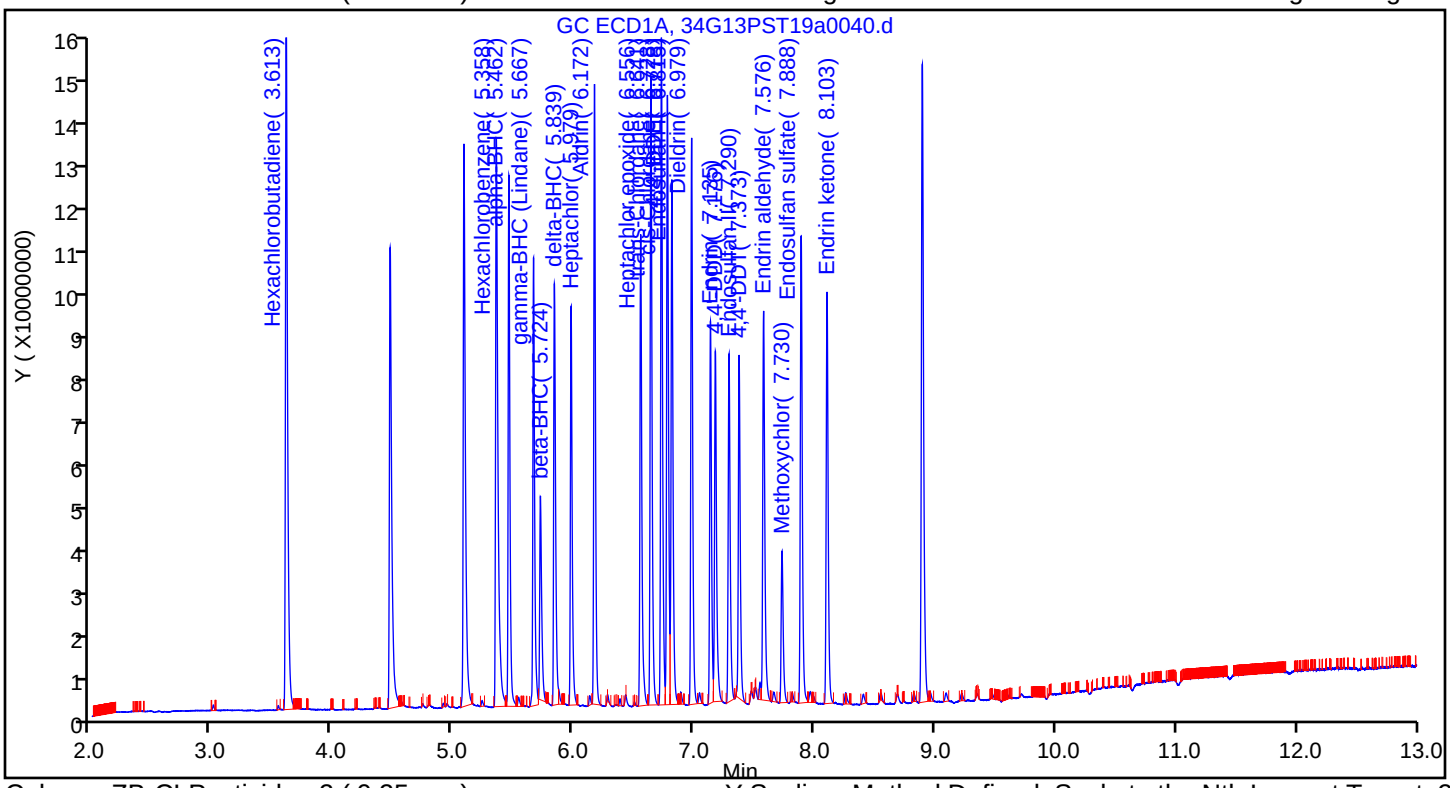
Client ID:

Operator ID: CJB ALS Bottle#: 34 Worklist Smp#: 36

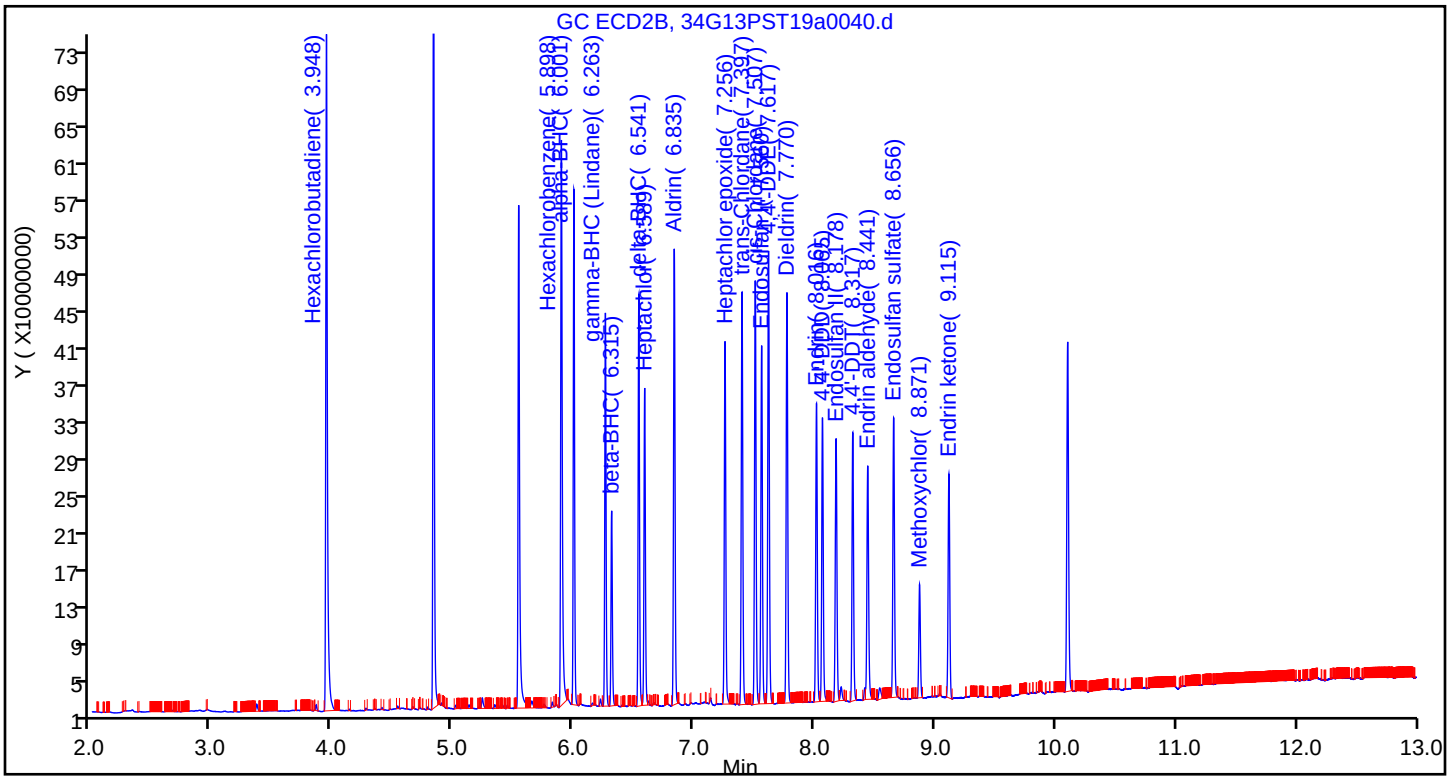
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

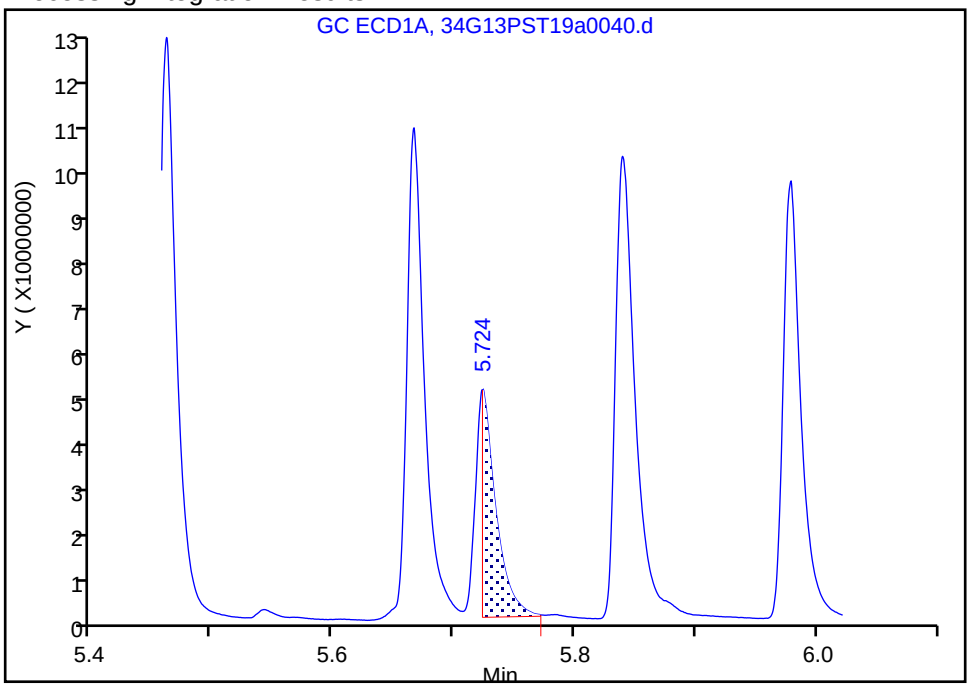
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0040.d				
Injection Date:	14-Jul-2019 05:54:17	Instrument ID:	TAC034		
Lims ID:	IC OCP 25				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	34	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

12 beta-BHC, CAS: 319-85-7

Signal: 1

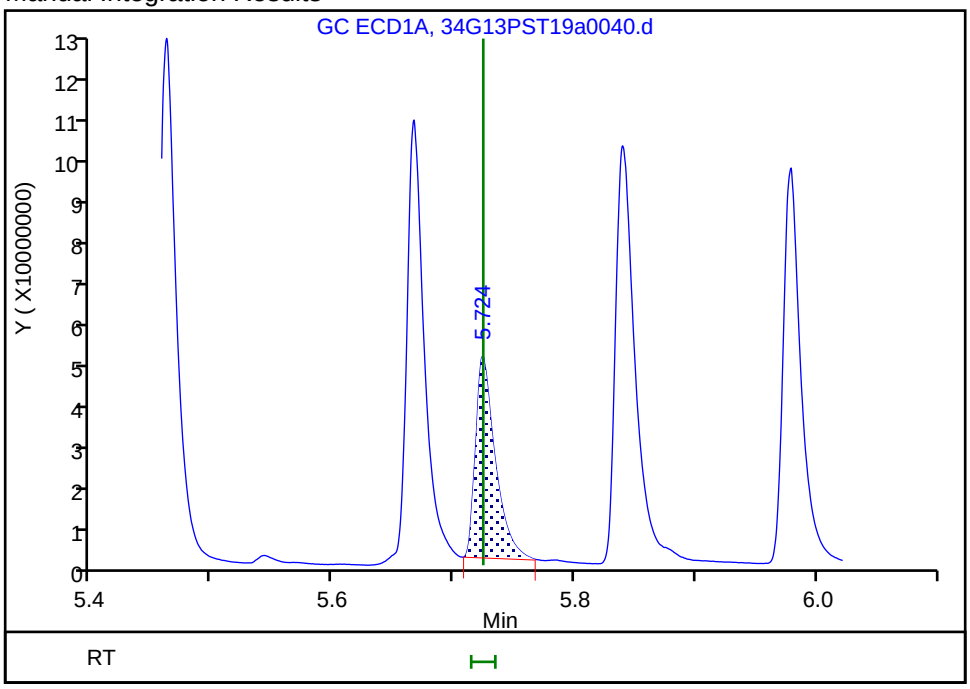
Processing Integration Results

RT: 5.72
Area: 34977364
Amount: 16.239340
Amount Units: ug/L



Manual Integration Results

RT: 5.72
Area: 50393225
Amount: 23.379325
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:28:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0041.d
Lims ID: IC OCP 10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Jul-2019 06:13:36 ALS Bottle#: 35 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 10
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:02 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:34:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.613	3.613	0.000	64466989	10.0	8.77	
2	3.947	3.948	-0.001	288961220	10.0	9.67	
						RPD = 9.71	
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	140218958	100.0	100.0	
2	4.837	4.837	0.000	730098545	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.092	5.089	0.003	55234662	10.1	9.69	
2	5.544	5.543	0.001	189609568	10.1	9.37	
						RPD = 3.42	
7 Hexachlorobenzene							
1	5.360	5.358	0.002	62327308	10.0	9.59	
2	5.897	5.898	-0.001	250954451	10.0	9.76	
						RPD = 1.74	
8 alpha-BHC							
1	5.462	5.462	0.000	34574291	10.0	7.87	
2	6.002	6.001	0.001	161902890	10.0	9.58	
						RPD = 19.67	
11 gamma-BHC (Lindane)							M
1	5.668	5.667	0.001	33011775	10.0	8.70	M
2	6.263	6.263	0.000	133163180	10.0	10.1	
						RPD = 14.88	
12 beta-BHC							
1	5.725	5.724	0.001	21358091	10.0	9.45	
2	6.315	6.315	0.000	80474759	10.0	10.6	
						RPD = 11.71	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.840	5.839	0.001	31948156	10.0	8.11	
2	6.540	6.541	-0.001	171295829	10.0	11.5	
						RPD = 34.53	
15 Heptachlor							
1	5.979	5.979	0.000	30728569	10.0	9.04	
2	6.589	6.589	0.000	126538051	10.0	11.0	
						RPD = 19.29	
18 Aldrin							
1	6.172	6.172	0.000	46711416	10.0	9.24	
2	6.835	6.835	0.000	181674878	10.0	10.1	
						RPD = 8.47	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	41817519	10.0	9.74	
2	7.256	7.256	0.000	146366095	10.0	10.5	
						RPD = 7.61	
23 trans-Chlordane							
1	6.641	6.641	0.000	52917289	10.0	9.16	
2	7.398	7.397	0.001	171279412	10.0	10.0	
						RPD = 8.98	
25 cis-Chlordane							
1	6.728	6.728	0.000	56577643	10.0	9.38	
2	7.508	7.507	0.001	173464908	10.0	9.82	
						RPD = 4.60	
26 4,4'-DDE							
1	6.778	6.778	0.000	45936732	10.0	8.48	
2	7.617	7.617	0.000	179998408	10.0	9.64	
						RPD = 12.79	
27 Endosulfan I							
1	6.815	6.815	0.000	48191662	10.0	10.1	
2	7.560	7.560	0.000	149167888	10.0	10.8	
						RPD = 6.76	
29 Dieldrin							
1	6.979	6.979	0.000	46073688	10.0	9.32	
2	7.771	7.770	0.001	161270581	10.0	9.91	
						RPD = 6.12	
33 Endrin							
1	7.136	7.135	0.001	30467411	10.0	9.73	
2	8.015	8.016	-0.001	120773929	10.0	10.2	
						RPD = 4.25	
36 4,4'-DDD							
1	7.178	7.176	0.002	27964229	10.0	8.63	
2	8.066	8.065	0.001	103784369	10.0	9.86	
						RPD = 13.37	
37 Endosulfan II							
1	7.289	7.290	-0.001	33516842	10.0	9.56	
2	8.179	8.178	0.001	116606784	10.0	10.4	
						RPD = 8.59	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.374	7.373	0.001	28314603	10.0	9.30	
2	8.317	8.317	0.000	102946873	10.0	9.98	
						RPD = 7.02	
39 Endrin aldehyde							
1	7.577	7.576	0.001	35402669	10.0	9.17	
2	8.440	8.441	-0.001	99271114	10.0	9.74	
						RPD = 6.09	
40 Methoxychlor							
1	7.731	7.730	0.001	15008681	10.0	10.2	
2	8.871	8.871	0.000	47707821	10.0	10.6	
						RPD = 3.21	
42 Endosulfan sulfate							
1	7.889	7.888	0.001	43732431	10.0	9.41	
2	8.656	8.656	0.000	115749741	10.0	10.2	
						RPD = 7.99	
44 Endrin ketone							
1	8.103	8.103	0.000	36856191	10.0	9.68	
2	9.115	9.115	0.000	96667590	10.0	10.1	
						RPD = 3.97	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	71617657	10.0	10.2	
2	10.101	10.100	0.001	160941627	10.0	9.65	
						RPD = 5.34	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:03 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0041.d

Injection Date: 14-Jul-2019 06:13:36 Instrument ID: TAC034

Lims ID: IC OCP 10

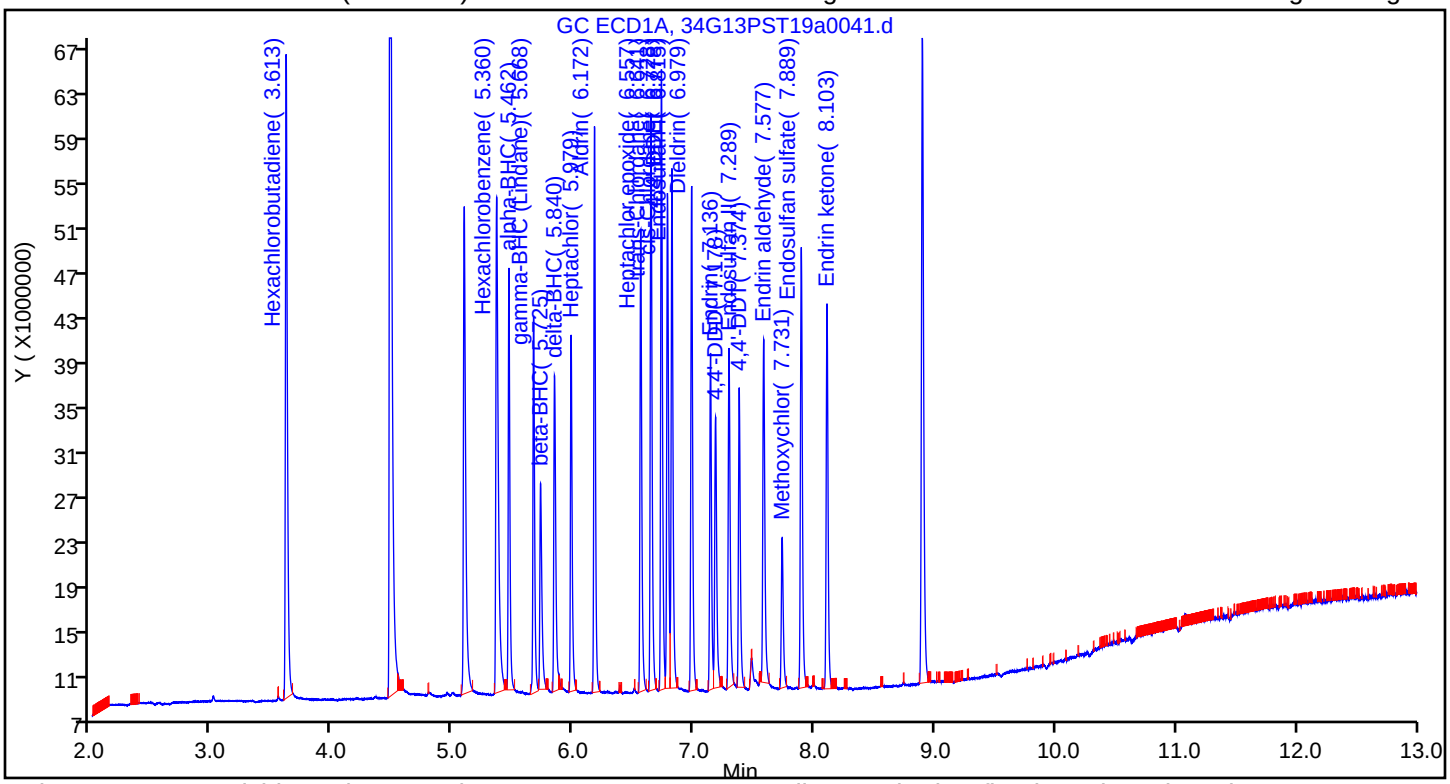
Client ID:

Operator ID: CJB ALS Bottle#: 35 Worklist Smp#: 37

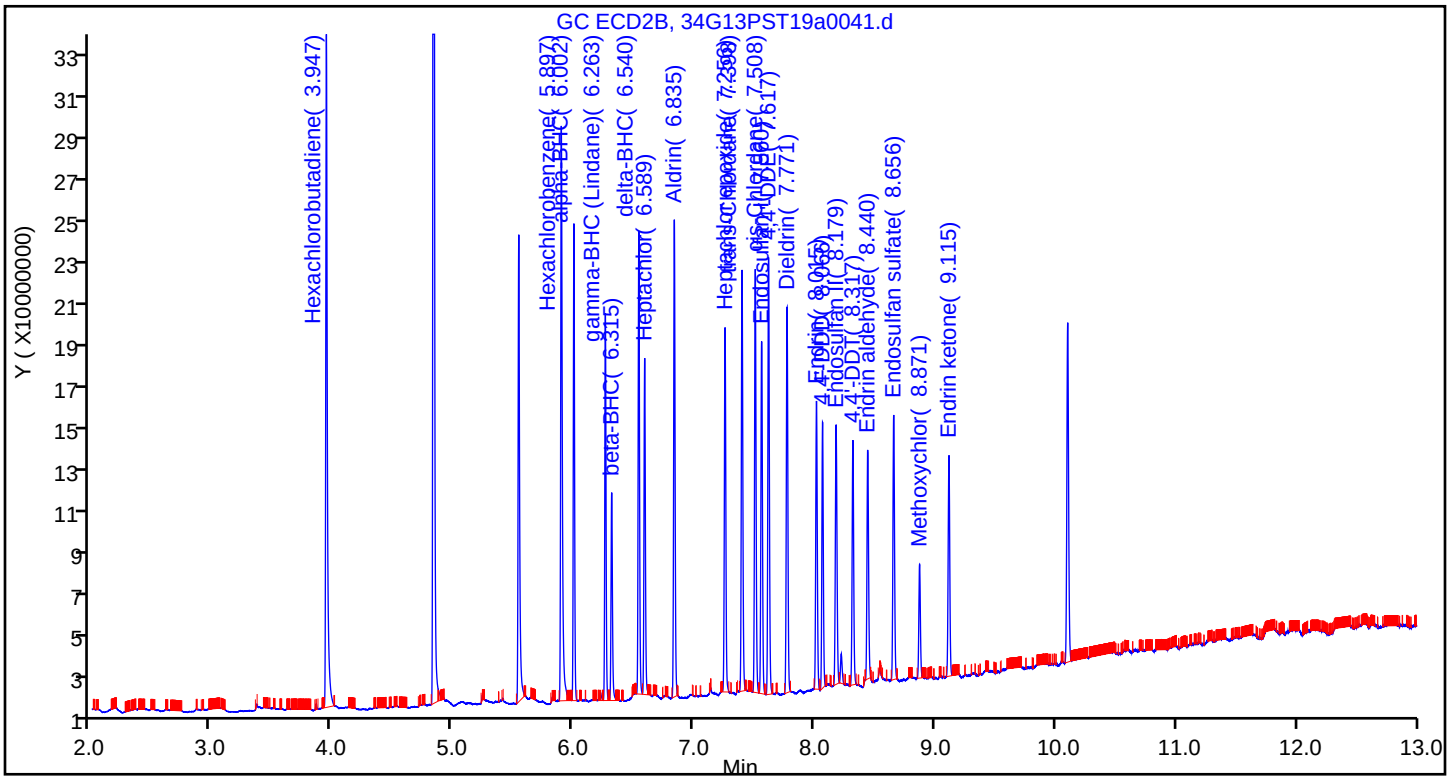
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

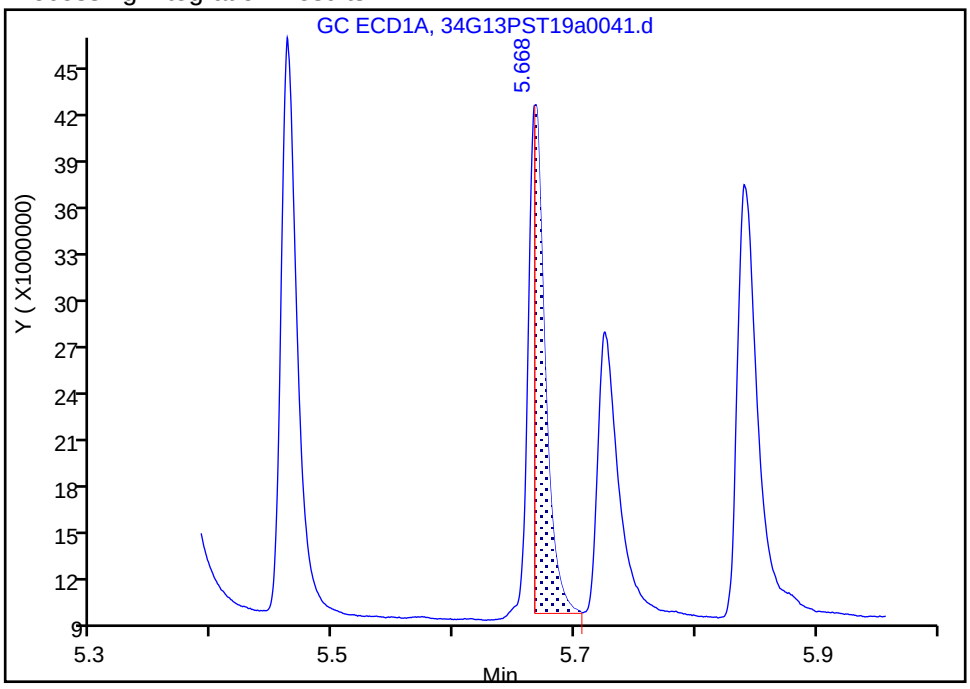
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0041.d				
Injection Date:	14-Jul-2019 06:13:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 10				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	35	Worklist Smp#:	37
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

11 gamma-BHC (Lindane), CAS: 58-89-9

Signal: 1

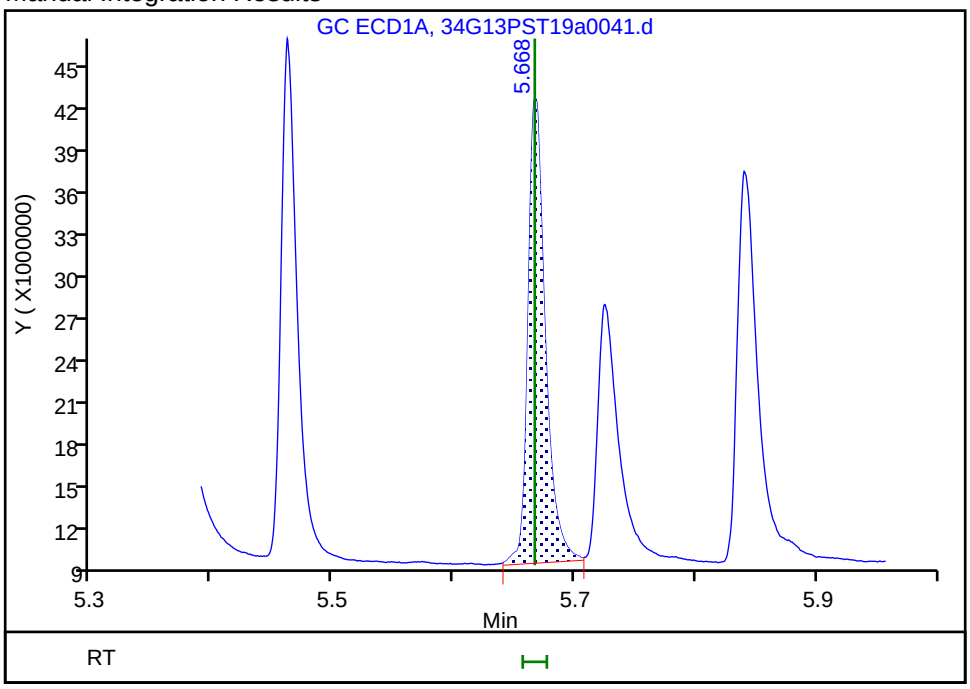
Processing Integration Results

RT: 5.67
Area: 19713469
Amount: 4.764328
Amount Units: ug/L



Manual Integration Results

RT: 5.67
Area: 33011775
Amount: 8.704335
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:33:52

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d
Lims ID: IC OCP 5
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Jul-2019 06:33:04 ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 5
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:07 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:43:10

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1	Hexachlorobutadiene						
	1	3.614	3.613	0.001	26039068	5.00	4.67	
	2	3.948	3.948	0.000	137719874	5.00	5.68	
							RPD = 19.53	
*	2	1-Bromo-2-nitrobenzene						
	1	4.478	4.476	0.002	111074578	100.0	100.0	
	2	4.838	4.837	0.001	591933666	100.0	100.0	
							RPD = 0.00	
$	4	Tetrachloro-m-xylene						
	1	5.092	5.089	0.003	23096609	5.04	5.12	
	2	5.544	5.543	0.001	95368622	5.04	5.84	
							RPD = 13.13	
	7	Hexachlorobenzene						M
	1	5.362	5.358	0.004	27268319	5.00	5.30	
	2	5.898	5.898	0.000	121424203	5.00	5.82	M
							RPD = 9.48	
	8	alpha-BHC						M
	1	5.462	5.462	0.000	13220259	5.00	4.26	
	2	6.002	6.001	0.001	73970428	5.00	5.40	M
							RPD = 23.65	
	11	gamma-BHC (Lindane)						
	1	5.667	5.667	0.000	13009896	5.00	4.57	
	2	6.264	6.263	0.001	58414522	5.00	5.47	
							RPD = 17.78	
	12	beta-BHC						M
	1	5.726	5.724	0.002	8874756	5.00	4.96	
	2	6.315	6.315	0.000	32602648	5.00	4.84	M
							RPD = 2.51	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							M
1	5.841	5.839	0.002	12624858	5.00	4.17	
2	6.541	6.541	0.000	67899175	5.00	5.41	M
						RPD = 25.90	
15 Heptachlor							
1	5.978	5.979	-0.001	13512394	5.00	5.02	
2	6.589	6.589	0.000	52534930	5.00	5.62	
						RPD = 11.27	
18 Aldrin							
1	6.172	6.172	0.000	18777294	5.00	4.69	
2	6.836	6.835	0.001	82120315	5.00	5.61	
						RPD = 17.83	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	18356264	5.00	5.40	
2	7.257	7.256	0.001	63557396	5.00	5.63	
						RPD = 4.21	
23 trans-Chlordane							
1	6.641	6.641	0.000	23710550	5.00	5.18	
2	7.397	7.397	0.000	76364454	5.00	5.51	
						RPD = 6.17	
25 cis-Chlordane							M
1	6.728	6.728	0.000	24799062	5.00	5.19	M
2	7.508	7.507	0.001	78287345	5.00	5.47	
						RPD = 5.20	
26 4,4'-DDE							M
1	6.779	6.778	0.001	17664845	5.00	4.57	M
2	7.618	7.617	0.001	86507367	5.00	5.71	
						RPD = 22.25	
27 Endosulfan I							M
1	6.815	6.815	0.000	20392158	5.00	5.39	M
2	7.561	7.560	0.001	67252167	5.00	5.71	
						RPD = 5.74	
29 Dieldrin							
1	6.979	6.979	0.000	18676986	5.00	4.77	
2	7.771	7.770	0.001	73124931	5.00	5.54	
						RPD = 14.98	
33 Endrin							
1	7.135	7.135	0.000	13124707	5.00	5.29	
2	8.016	8.016	0.000	56458340	5.00	5.85	
						RPD = 10.09	
36 4,4'-DDD							
1	7.178	7.176	0.002	11367537	5.00	4.64	
2	8.066	8.065	0.001	49246593	5.00	5.77	
						RPD = 21.82	
37 Endosulfan II							M
1	7.289	7.290	-0.001	14750437	5.00	5.31	
2	8.179	8.178	0.001	55472262	5.00	5.48	M
						RPD = 3.23	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.374	7.373	0.001	11738149	5.00	4.87	
2	8.318	8.317	0.001	43351221	5.00	5.18	
						RPD = 6.26	
39 Endrin aldehyde							
1	7.578	7.576	0.002	17001657	5.00	5.56	
2	8.441	8.441	0.000	47764262	5.00	5.62	
						RPD = 1.21	
40 Methoxychlor							M
1	7.732	7.730	0.002	6697071	5.00	5.76	M
2	8.872	8.871	0.001	21178656	5.00	5.30	
						RPD = 8.34	
42 Endosulfan sulfate							
1	7.890	7.888	0.002	19234043	5.00	5.16	
2	8.657	8.656	0.001	53892918	5.00	5.72	
						RPD = 10.23	
44 Endrin ketone							
1	8.103	8.103	0.000	16110939	5.00	5.32	
2	9.115	9.115	0.000	43466145	5.00	5.59	
						RPD = 5.06	
$ 45 DCB Decachlorobiphenyl							
1	8.895	8.894	0.001	35053801	5.02	5.74	
2	10.102	10.100	0.002	86257608	5.02	6.24	
						RPD = 8.32	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d

Injection Date: 14-Jul-2019 06:33:04 Instrument ID: TAC034

Lims ID: IC OCP 5

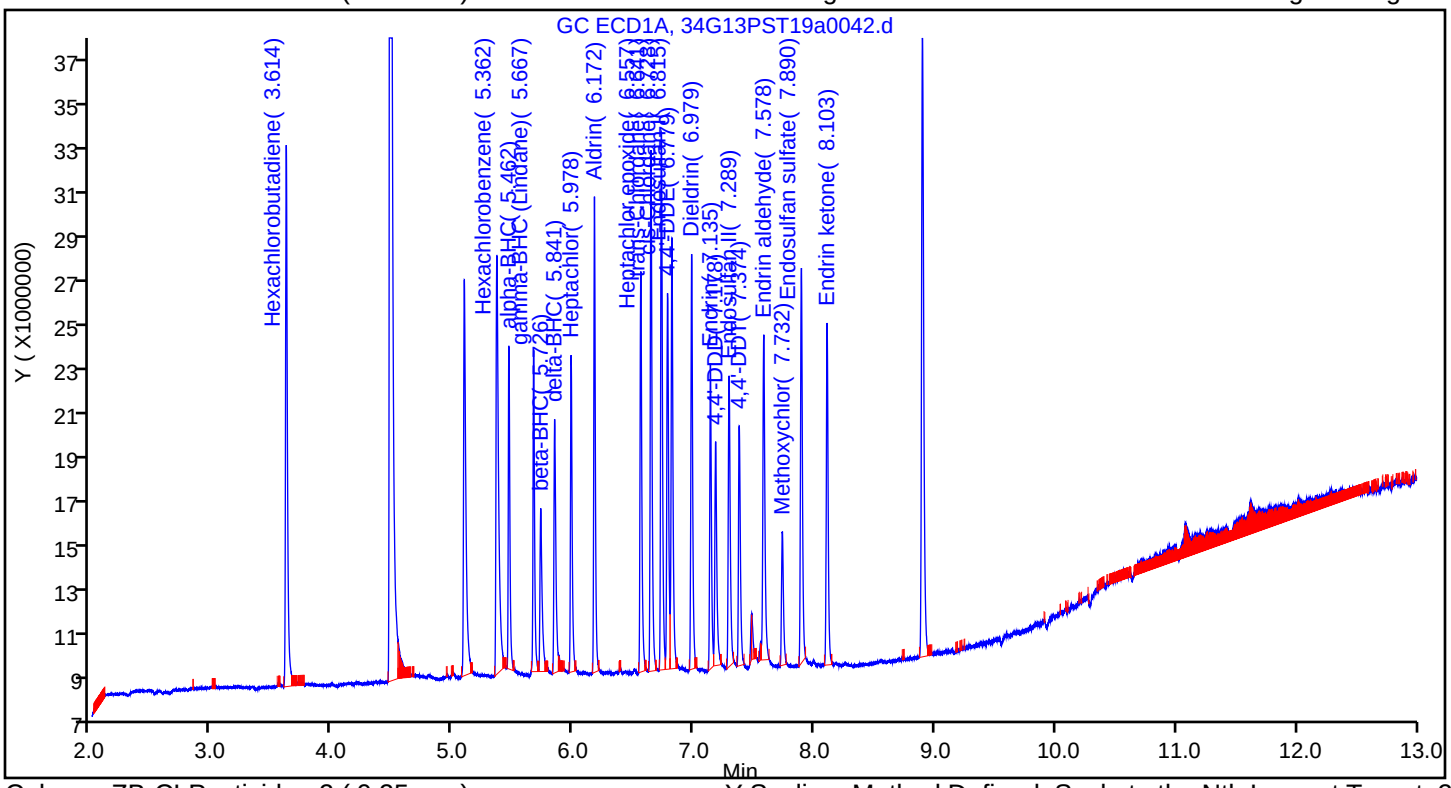
Client ID:

Operator ID: CJB ALS Bottle#: 36 Worklist Smp#: 38

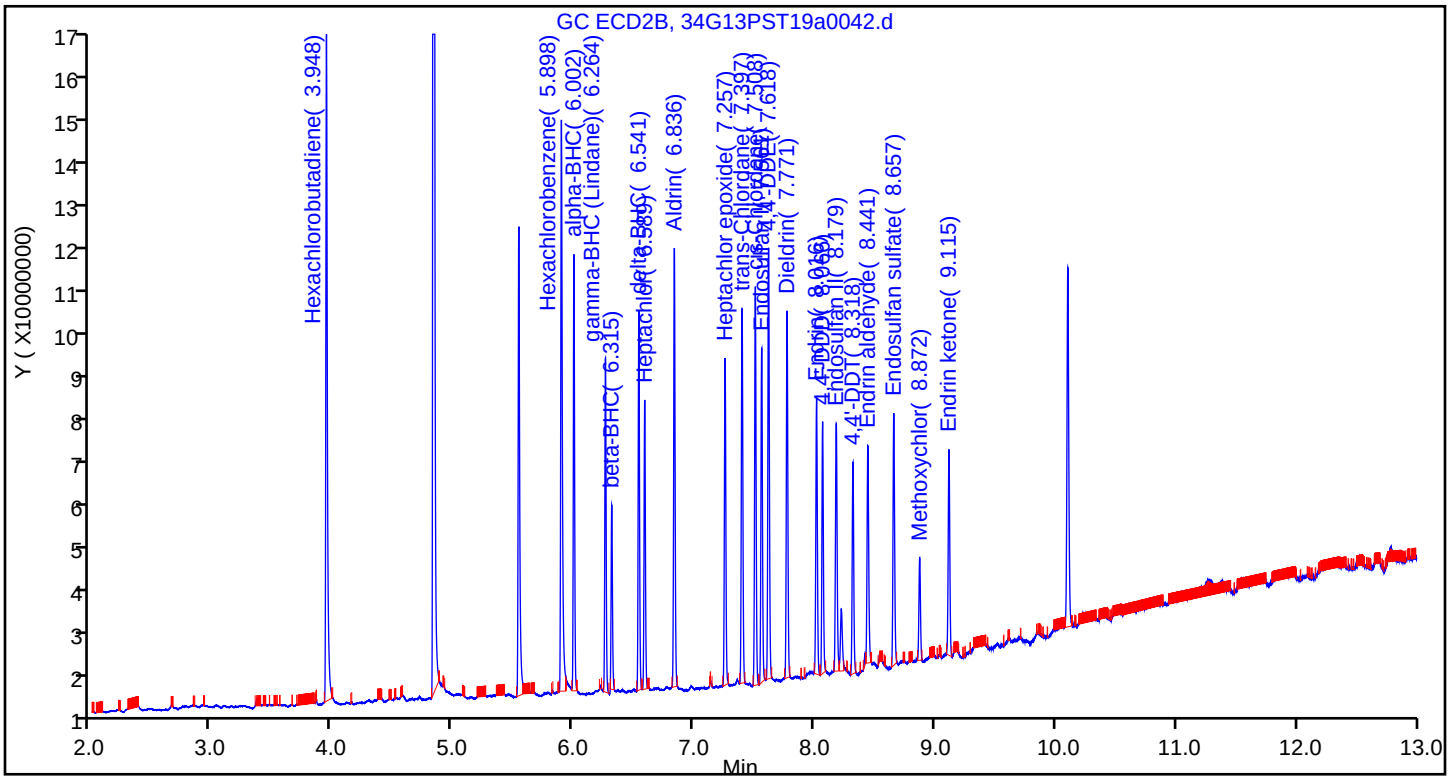
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

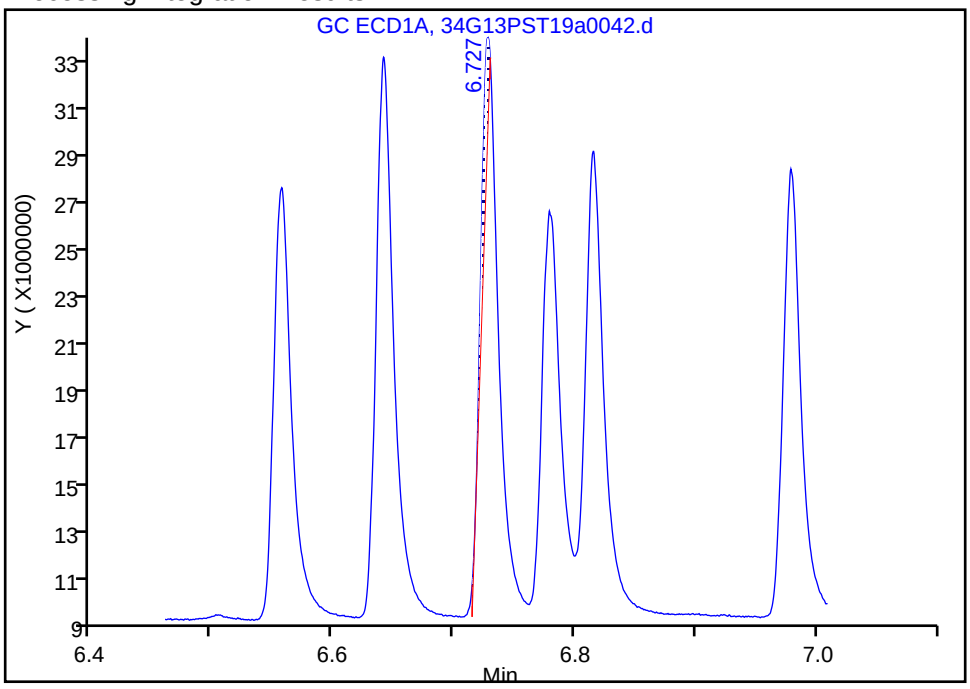
Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d
Injection Date: 14-Jul-2019 06:33:04 Instrument ID: TAC034
Lims ID: IC OCP 5
Client ID:
Operator ID: CJB ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

25 cis-Chlordane, CAS: 5103-71-9

Signal: 1

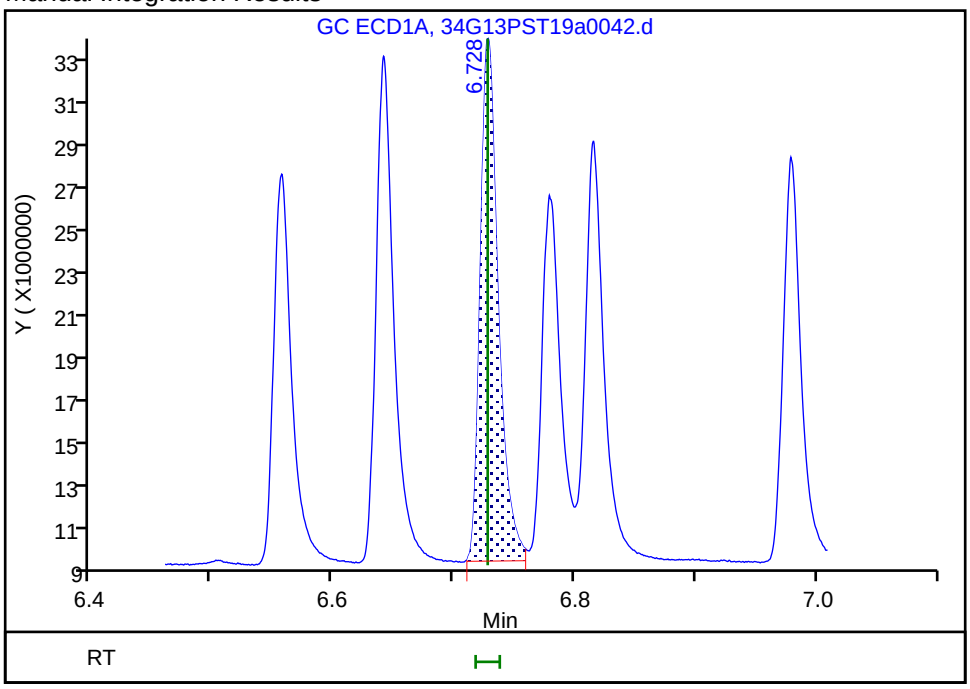
Processing Integration Results

RT: 6.73
Area: 2421677
Amount: 0.482798
Amount Units: ug/L



Manual Integration Results

RT: 6.73
Area: 24799062
Amount: 5.189114
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:39:59
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

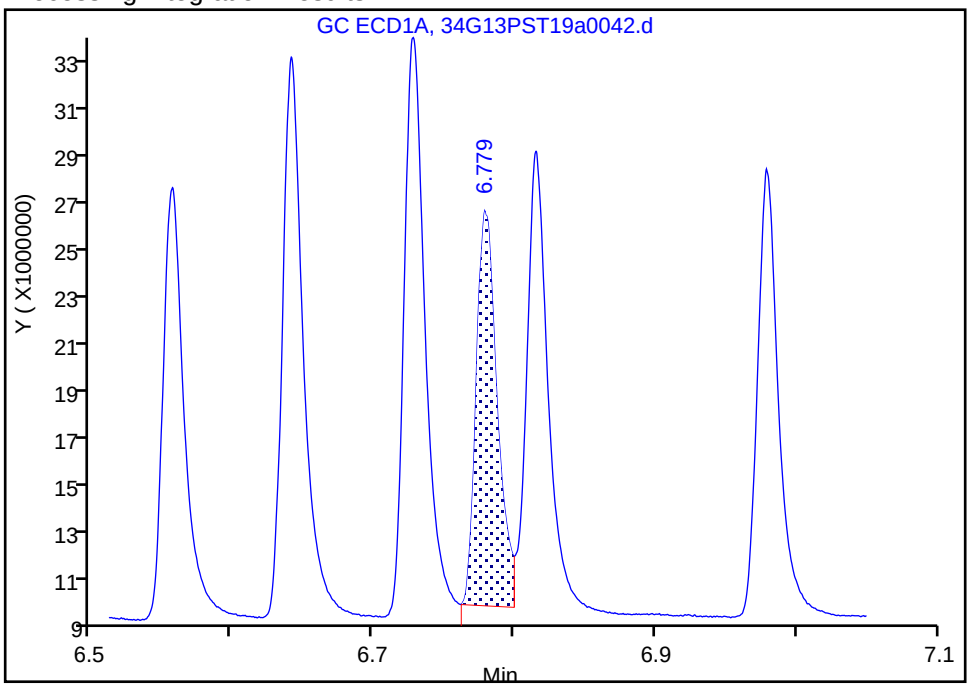
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d		
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034
Lims ID:	IC OCP 5		
Client ID:			
Operator ID:	CJB	ALS Bottle#:	36 Worklist Smp#: 38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

26 4,4'-DDE, CAS: 72-55-9

Signal: 1

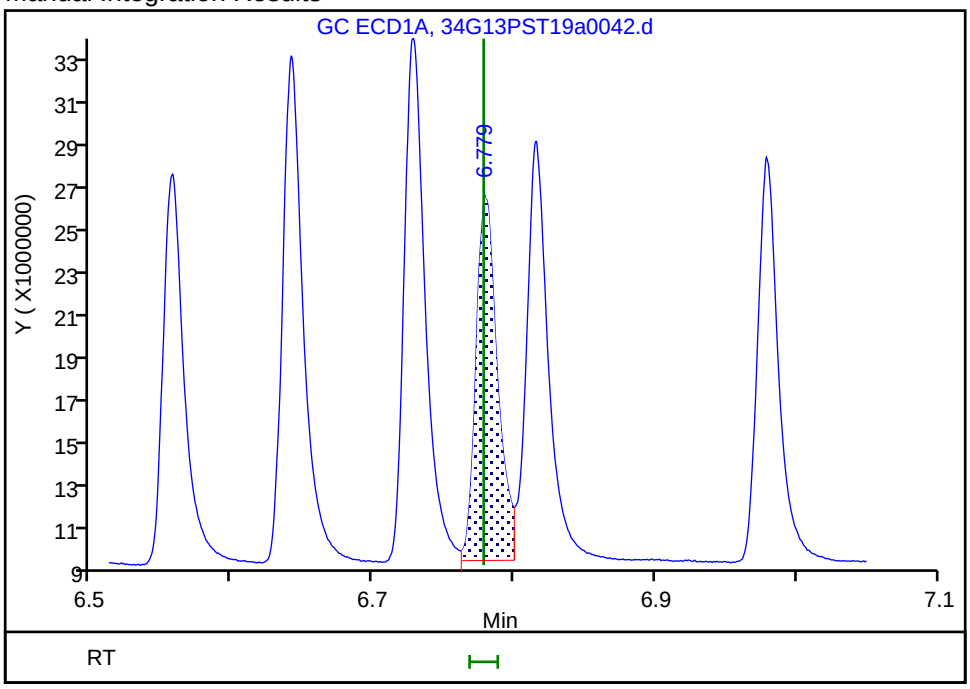
Processing Integration Results

RT: 6.78
Area: 16814673
Amount: 4.055799
Amount Units: ug/L



Manual Integration Results

RT: 6.78
Area: 17664845
Amount: 4.570817
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:39:59
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

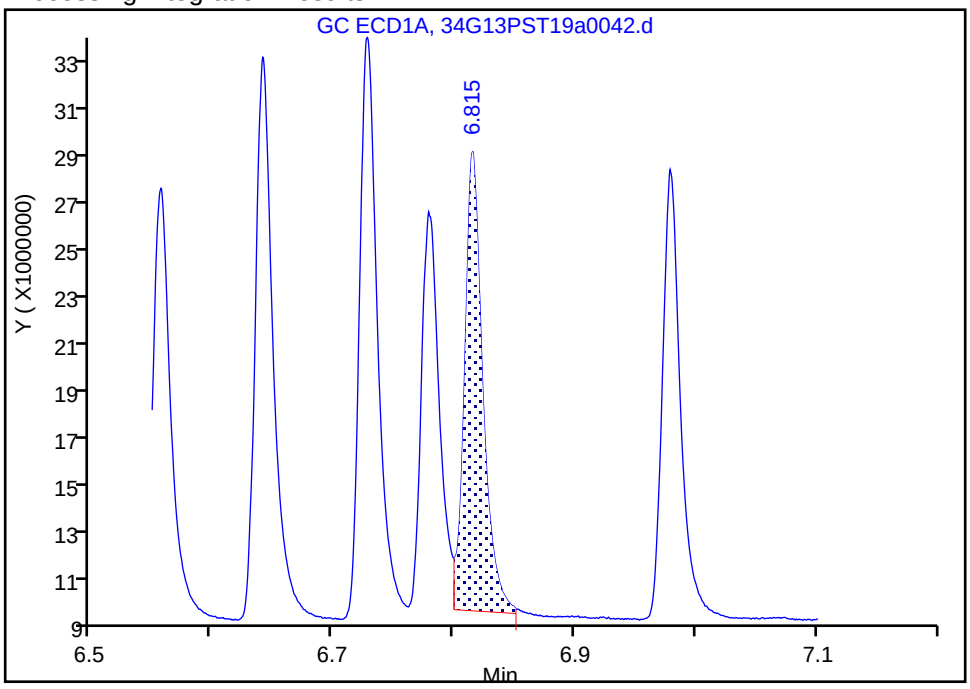
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d		
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034
Lims ID:	IC OCP 5		
Client ID:			
Operator ID:	CJB	ALS Bottle#:	36 Worklist Smp#: 38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

27 Endosulfan I, CAS: 959-98-8

Signal: 1

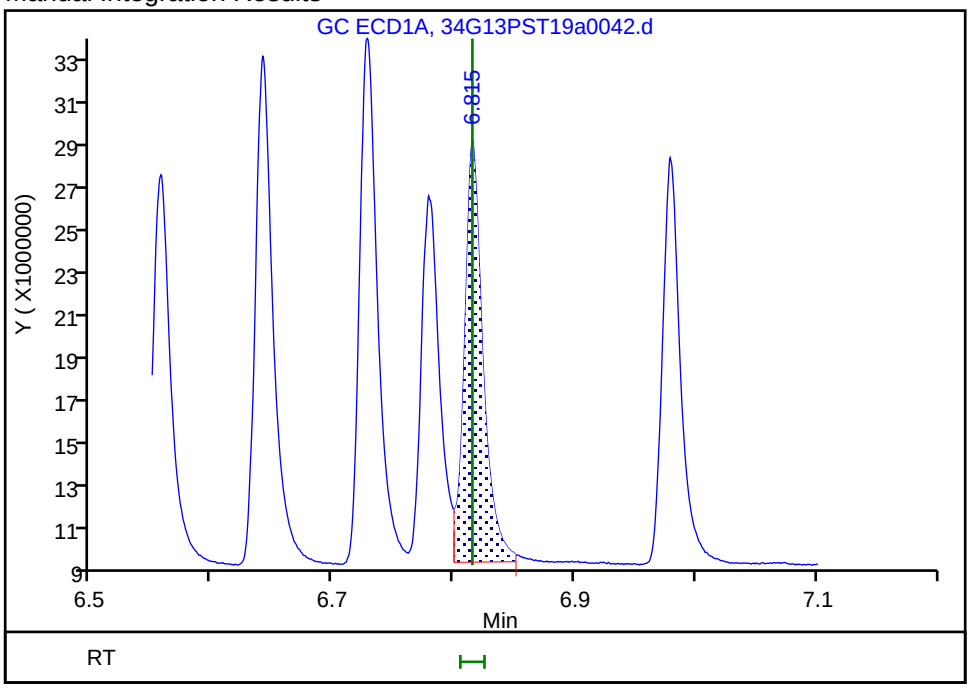
Processing Integration Results

RT: 6.82
Area: 19730448
Amount: 5.236083
Amount Units: ug/L



Manual Integration Results

RT: 6.82
Area: 20392158
Amount: 5.390652
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:39:59
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

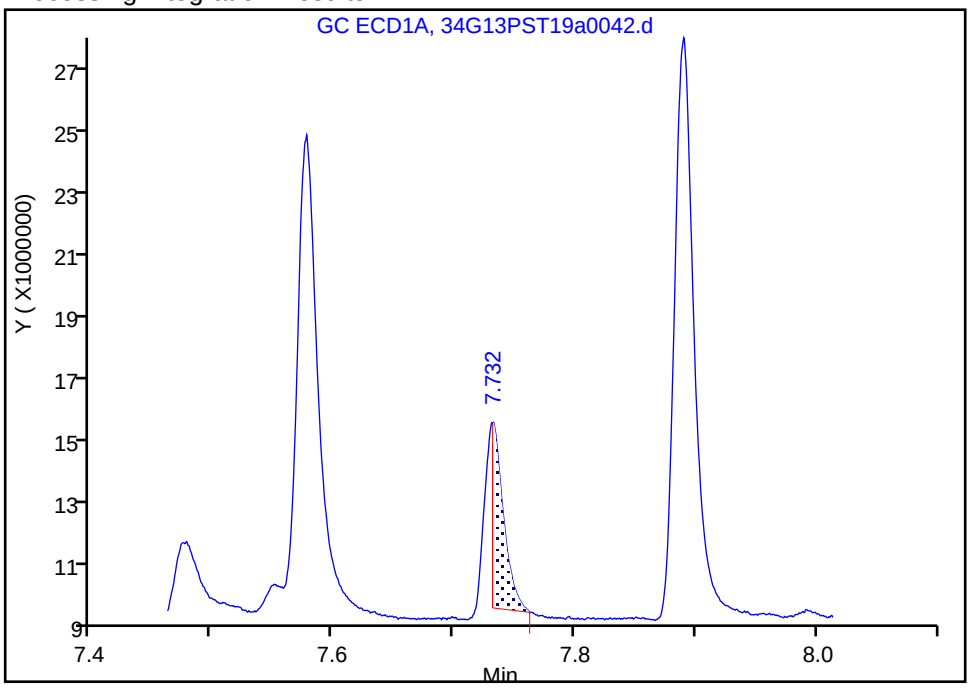
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d				
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034		
Lims ID:	IC OCP 5				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	36	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

40 Methoxychlor, CAS: 72-43-5

Signal: 1

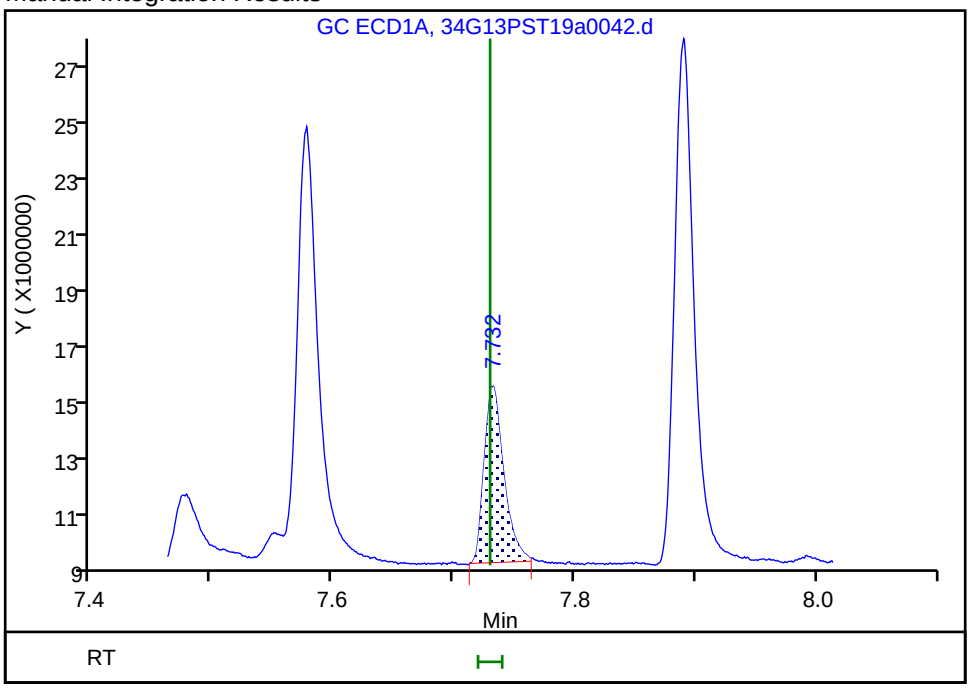
Processing Integration Results

RT: 7.73
Area: 3507526
Amount: 3.906500
Amount Units: ug/L



Manual Integration Results

RT: 7.73
Area: 6697071
Amount: 5.762908
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:36:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d
Lims ID: IC OCP 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Jul-2019 06:52:20 ALS Bottle#: 37 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 2
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:13 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:47:01

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	9488961	2.00	1.94	
	2	3.947	3.948	-0.001	58784472	2.00	2.15	
							RPD = 10.71	
*	2 1-Bromo-2-nitrobenzene							
	1	4.476	4.476	0.000	112870011	100.0	100.0	
	2	4.837	4.837	0.000	666237594	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.093	5.089	0.004	8450006	2.01	1.84	
	2	5.544	5.543	0.001	37168536	2.01	2.06	
							RPD = 11.28	
	7 Hexachlorobenzene							
	1	5.363	5.358	0.005	9857747	2.00	1.88	
	2	5.898	5.898	0.000	51618245	2.00	2.20	
							RPD = 15.44	
	8 alpha-BHC							
	1	5.462	5.462	0.000	4386106	2.00	1.98	
	2	6.002	6.001	0.001	28854715	2.00	1.87	
							RPD = 5.75	
	11 gamma-BHC (Lindane)							
	1	5.667	5.667	0.000	4563777	2.00	1.90	
	2	6.264	6.263	0.001	24635186	2.00	2.05	
							RPD = 7.71	
	12 beta-BHC							M
	1	5.728	5.724	0.004	3746057	2.00	2.06	
	2	6.316	6.315	0.001	17850083	2.00	1.91	M
							RPD = 7.41	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.844	5.839	0.005	4649194	2.00	1.64	
2	6.540	6.541	-0.001	29967086	2.00	1.86	
						RPD = 12.29	
15 Heptachlor							
1	5.979	5.979	0.000	5383921	2.00	1.97	
2	6.589	6.589	0.000	22673189	2.00	2.15	
						RPD = 9.04	
18 Aldrin							
1	6.172	6.172	0.000	6637157	2.00	1.63	
2	6.834	6.835	-0.001	34867442	2.00	2.12	
						RPD = 25.85	
22 Heptachlor epoxide							
1	6.558	6.556	0.002	6832897	2.00	1.98	
2	7.256	7.256	0.000	26463193	2.00	2.08	
						RPD = 5.19	
23 trans-Chlordane							
1	6.642	6.641	0.001	8964760	2.00	1.93	
2	7.397	7.397	0.000	34060308	2.00	2.18	
						RPD = 12.46	
25 cis-Chlordane							M
1	6.728	6.728	0.000	9483073	2.00	1.95	M
2	7.508	7.507	0.001	35089606	2.00	2.18	
						RPD = 10.85	
26 4,4'-DDE							M
1	6.780	6.778	0.002	6011520	2.00	2.12	M
2	7.617	7.617	0.000	38778472	2.00	2.28	
						RPD = 7.25	
27 Endosulfan I							
1	6.815	6.815	0.000	6219080	2.00	1.62	
2	7.560	7.560	0.000	29472443	2.00	1.82	
						RPD = 11.57	
29 Dieldrin							
1	6.979	6.979	0.000	7121407	2.00	1.79	
2	7.770	7.770	0.000	30801124	2.00	2.07	
						RPD = 14.72	
33 Endrin							
1	7.136	7.135	0.001	4658546	2.00	1.85	
2	8.015	8.016	-0.001	23341083	2.00	2.15	
						RPD = 15.10	
36 4,4'-DDD							
1	7.179	7.176	0.003	3632684	2.00	1.75	
2	8.065	8.065	0.000	20329339	2.00	2.12	
						RPD = 18.79	
37 Endosulfan II							M
1	7.291	7.290	0.001	5575979	2.00	1.98	M
2	8.178	8.178	0.000	26677423	2.00	1.47	
						RPD = 29.58	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.376	7.373	0.003	4320844	2.00	1.76	
2	8.317	8.317	0.000	16587792	2.00	1.76	
						RPD = 0.09	
39 Endrin aldehyde							
1	7.577	7.576	0.001	6320716	2.00	2.03	
2	8.441	8.441	0.000	24168737	2.00	2.32	
						RPD = 13.01	
40 Methoxychlor							M
1	7.733	7.730	0.003	2591980	2.00	2.19	M
2	8.872	8.871	0.001	9867816	2.00	1.59	
						RPD = 31.75	
42 Endosulfan sulfate							
1	7.891	7.888	0.003	8054597	2.00	2.06	
2	8.657	8.656	0.001	23700542	2.00	2.05	
						RPD = 0.58	
44 Endrin ketone							
1	8.103	8.103	0.000	6432941	2.00	2.06	
2	9.114	9.115	-0.001	18687747	2.00	2.14	
						RPD = 3.81	
$ 45 DCB Decachlorobiphenyl							M
1	8.895	8.894	0.001	14312112	2.01	1.46	
2	10.101	10.100	0.001	35801833	2.01	2.05	M
						RPD = 33.47	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:14 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d

Injection Date: 14-Jul-2019 06:52:20 Instrument ID: TAC034

Lims ID: IC OCP 2

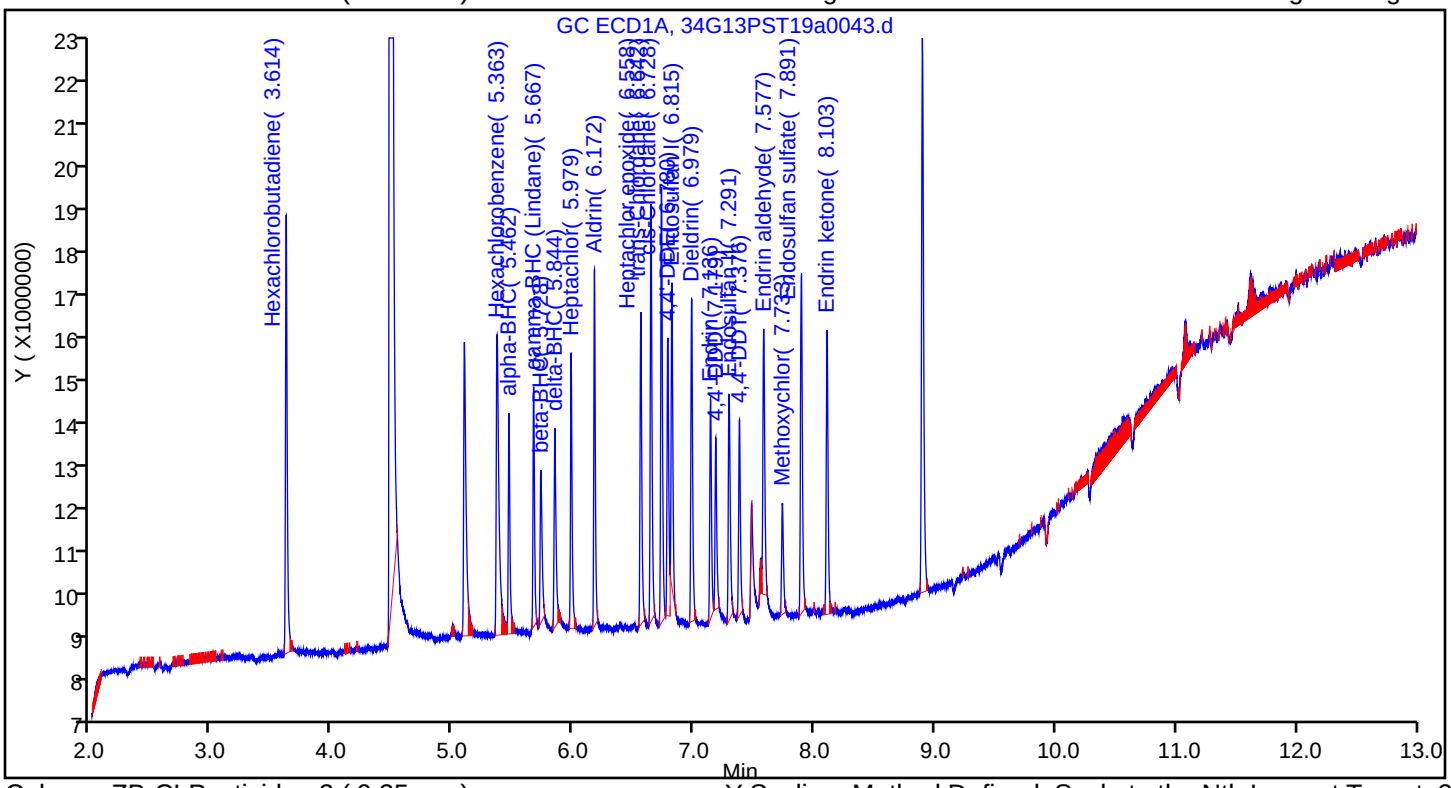
Client ID:

Operator ID: CJB ALS Bottle#: 37 Worklist Smp#: 39

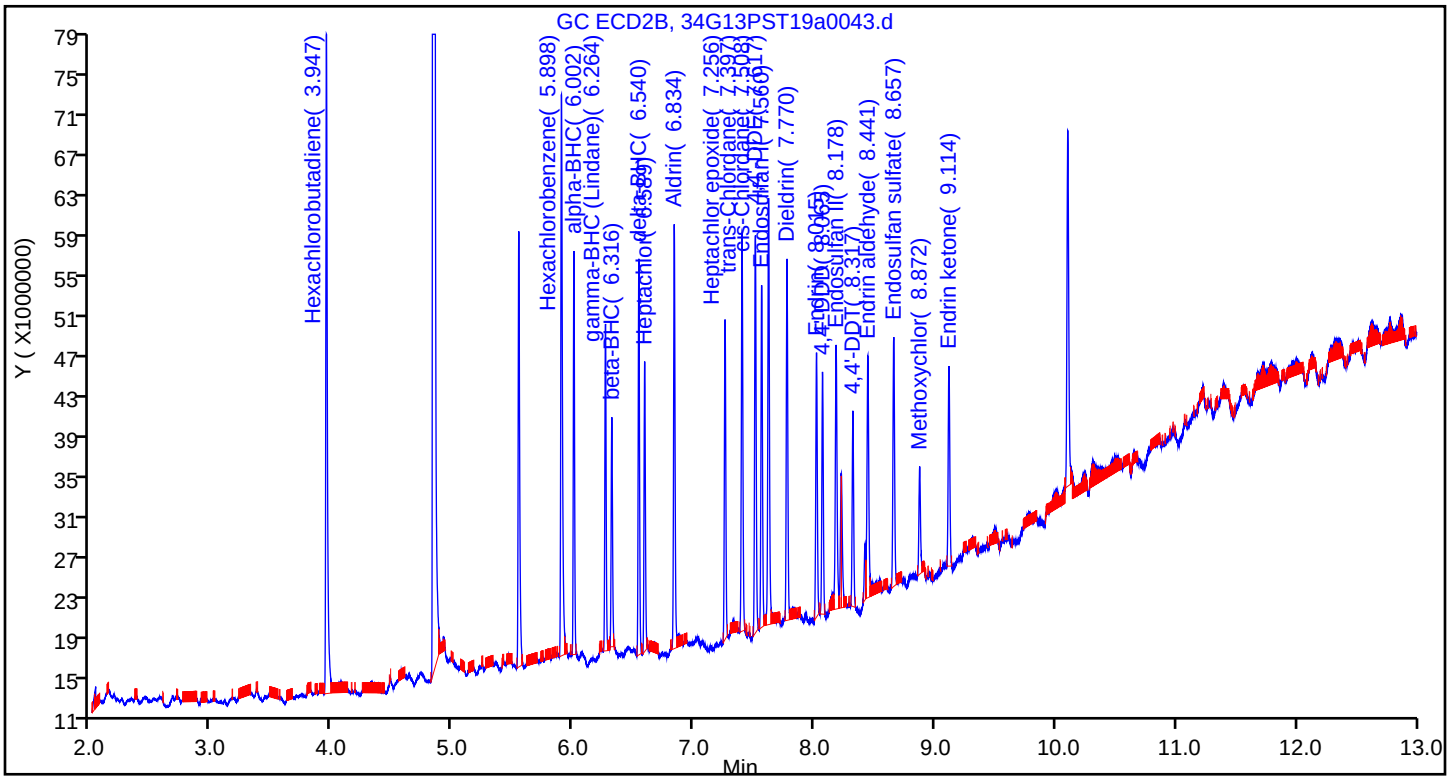
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

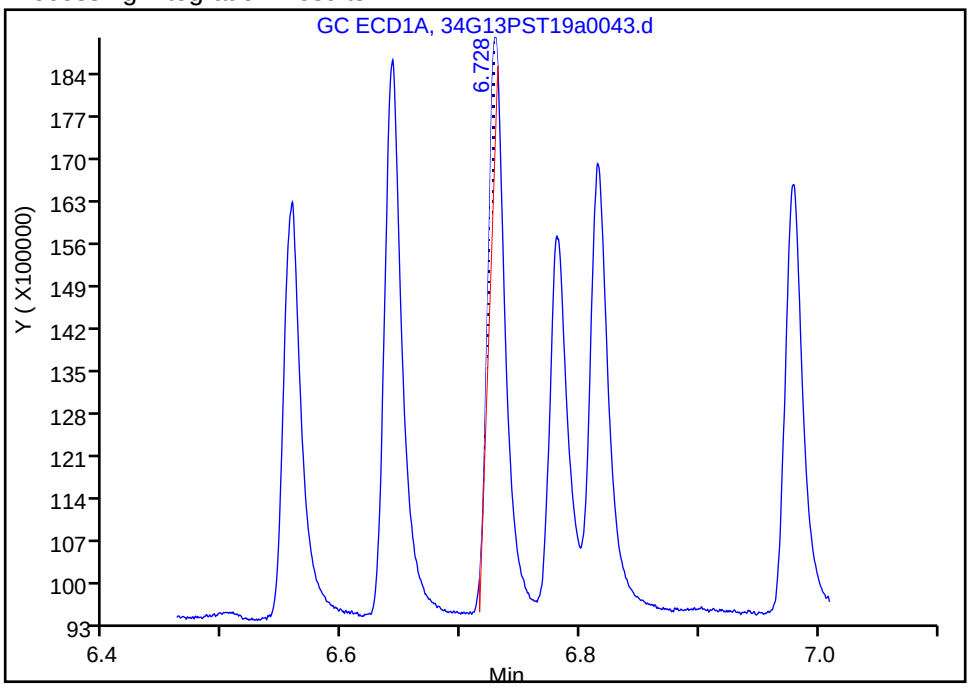
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d				
Injection Date:	14-Jul-2019 06:52:20	Instrument ID:	TAC034		
Lims ID:	IC OCP 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

25 cis-Chlordane, CAS: 5103-71-9

Signal: 1

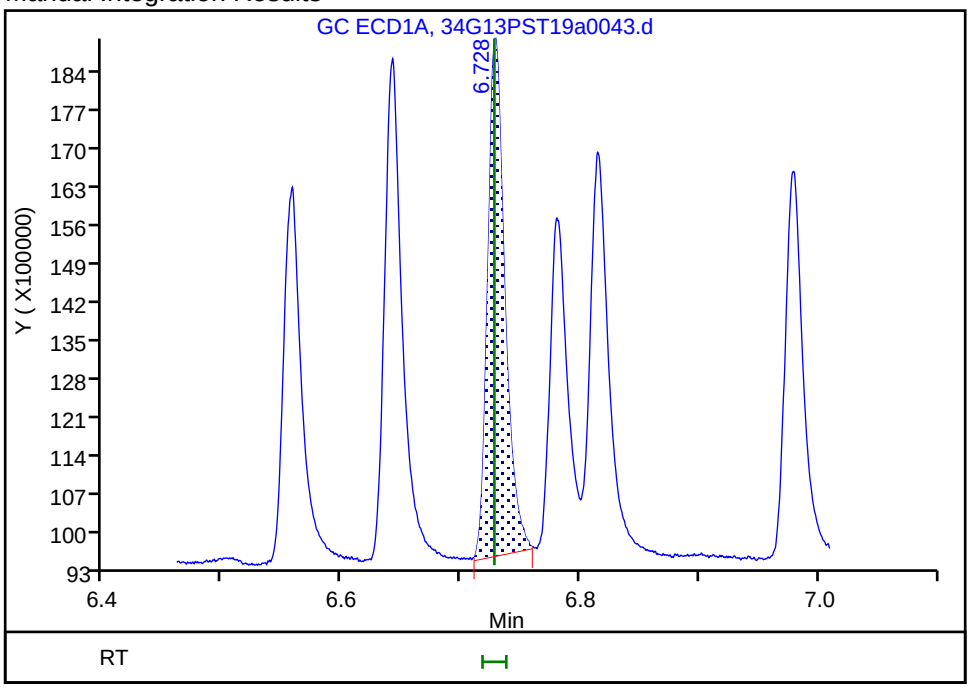
Processing Integration Results

RT: 6.73
Area: 1062117
Amount: 0.189928
Amount Units: ug/L



Manual Integration Results

RT: 6.73
Area: 9483073
Amount: 1.952734
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:44:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

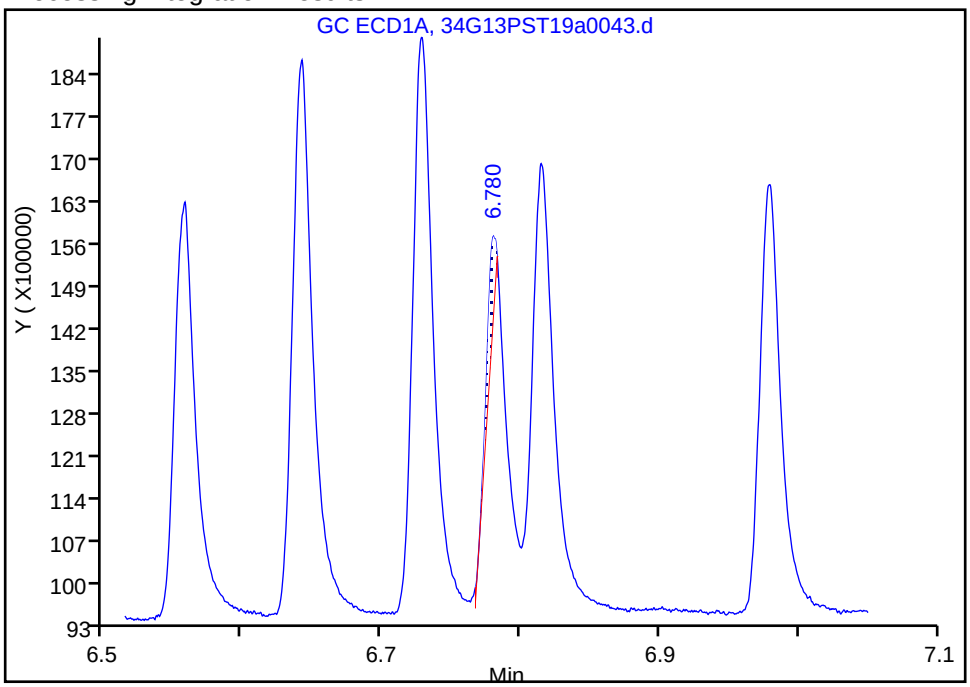
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d				
Injection Date:	14-Jul-2019 06:52:20	Instrument ID:	TAC034		
Lims ID:	IC OCP 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 4,4'-DDE, CAS: 72-55-9

Signal: 1

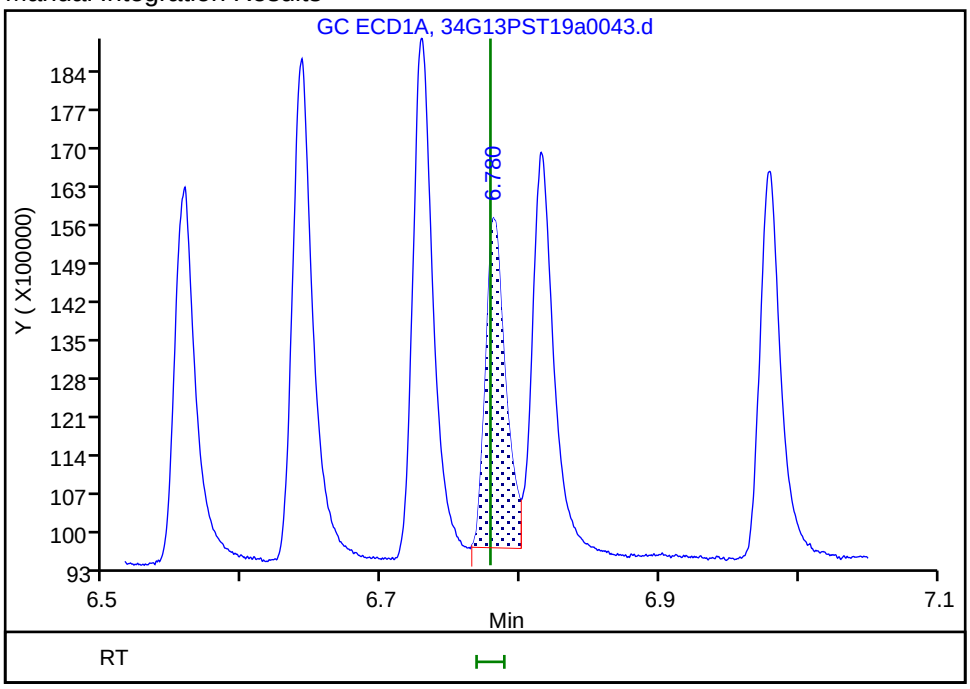
Processing Integration Results

RT: 6.78
Area: 634359
Amount: 0.136151
Amount Units: ug/L



Manual Integration Results

RT: 6.78
Area: 6011520
Amount: 2.116868
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:45:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

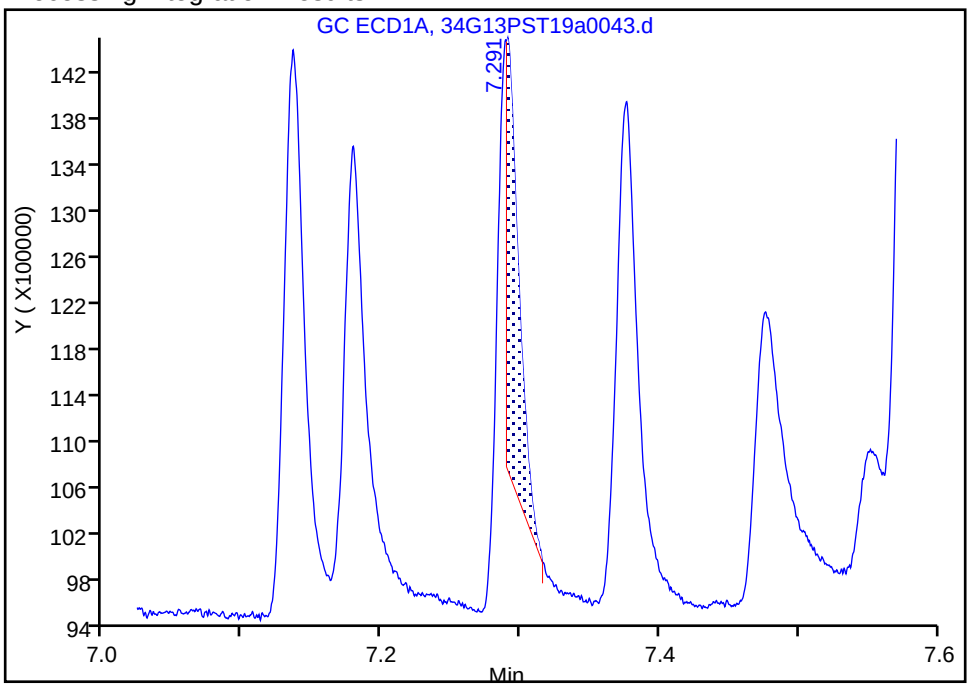
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d				
Injection Date:	14-Jul-2019 06:52:20	Instrument ID:	TAC034		
Lims ID:	IC OCP 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

37 Endosulfan II, CAS: 33213-65-9

Signal: 1

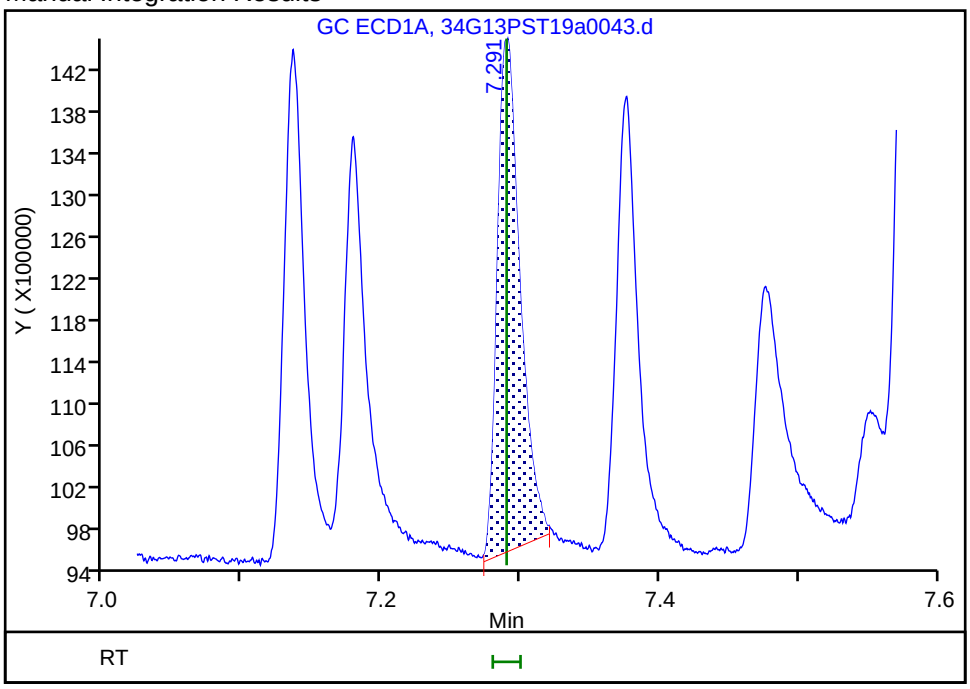
Processing Integration Results

RT: 7.29
Area: 2236890
Amount: 0.684875
Amount Units: ug/L



Manual Integration Results

RT: 7.29
Area: 5575979
Amount: 1.975285
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:45:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

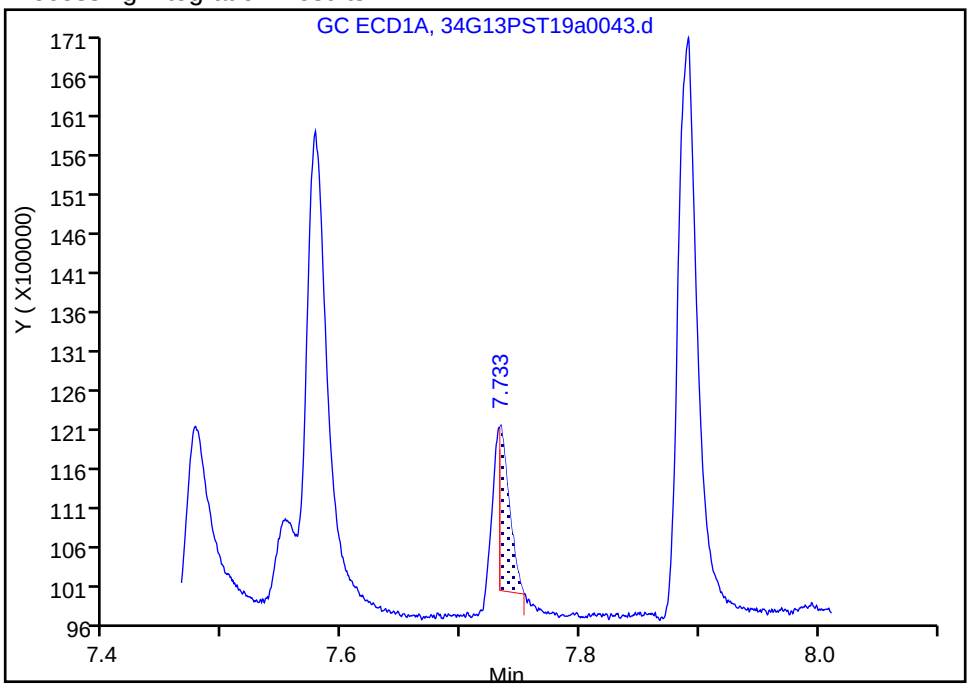
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d				
Injection Date:	14-Jul-2019 06:52:20	Instrument ID:	TAC034		
Lims ID:	IC OCP 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

40 Methoxychlor, CAS: 72-43-5

Signal: 1

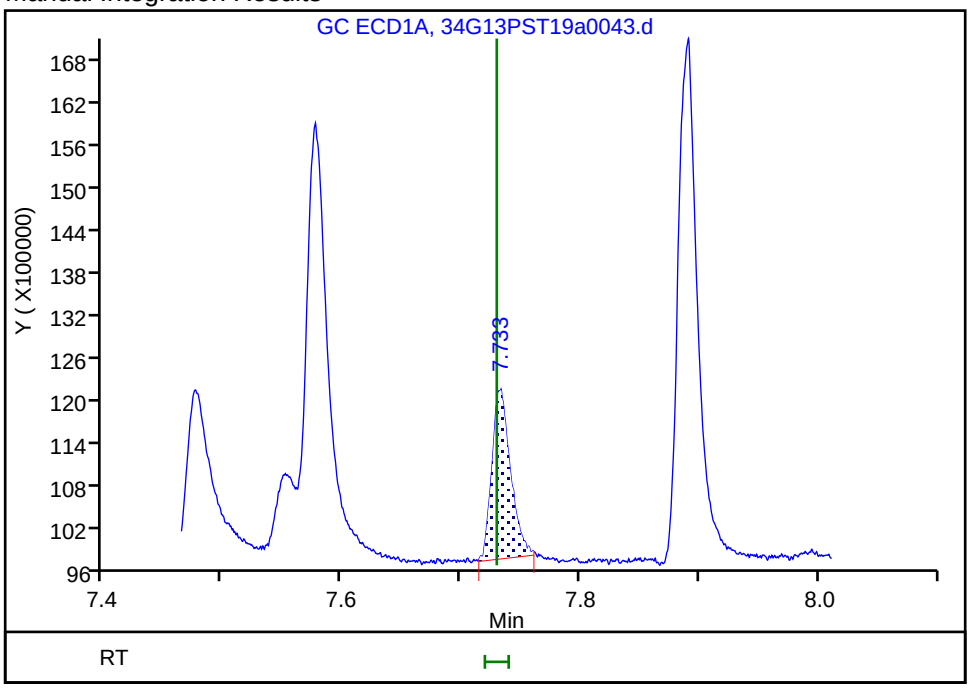
Processing Integration Results

RT: 7.73
Area: 1140415
Amount: 1.158479
Amount Units: ug/L



Manual Integration Results

RT: 7.73
Area: 2591980
Amount: 2.194949
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:46:19

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d
Lims ID: IC OCP 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Jul-2019 07:11:36 ALS Bottle#: 38 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 1
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:20 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 13:13:53

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	4270177	1.00	1.04	
	2	3.947	3.948	-0.001	32202297	1.00	1.09	
							RPD = 4.81	
*	2 1-Bromo-2-nitrobenzene							M
	1	4.477	4.476	0.001	122560201	100.0	100.0	M
	2	4.837	4.837	0.000	720528830	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							M
	1	5.093	5.089	0.004	3945206	1.01	0.7921	M
	2	5.544	5.543	0.001	21196837	1.01	1.12	
							RPD = 34.10	
	7 Hexachlorobenzene							M
	1	5.366	5.358	0.008	5416396	1.00	0.9533	M
	2	5.898	5.898	0.000	28727687	1.00	1.13	
							RPD = 17.12	
	8 alpha-BHC							M
	1	5.463	5.462	0.001	1811020	1.00	1.30	M
	2	6.001	6.001	0.000	16684654	1.00	1.00	
							RPD = 25.83	
	11 gamma-BHC (Lindane)							
	1	5.668	5.667	0.001	2280836	1.00	1.13	
	2	6.262	6.263	-0.001	12184781	1.00	0.9368	
							RPD = 19.08	
	12 beta-BHC							M
	1	5.730	5.724	0.006	2028102	1.00	1.03	
	2	6.315	6.315	0.000	9408644	1.00	0.5048	M
							RPD = 68.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							M
1	5.845	5.839	0.006	2292144	1.00	0.8569	
2	6.540	6.541	-0.001	17305174	1.00	0.7905	M
						RPD = 8.06	
15 Heptachlor							M
1	5.978	5.979	-0.001	2511796	1.00	0.8452	
2	6.589	6.589	0.000	12565424	1.00	1.10	M
						RPD = 26.51	
18 Aldrin							
1	6.172	6.172	0.000	3308389	1.00	0.7488	
2	6.835	6.835	0.000	18015196	1.00	1.01	
						RPD = 29.76	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	3816921	1.00	1.02	
2	7.256	7.256	0.000	17104124	1.00	1.24	
						RPD = 20.11	
23 trans-Chlordane							
1	6.641	6.641	0.000	4687973	1.00	0.9285	
2	7.398	7.397	0.001	19444739	1.00	1.15	
						RPD = 21.57	
25 cis-Chlordane							
1	6.728	6.728	0.000	5129879	1.00	0.9728	
2	7.507	7.507	0.000	19996455	1.00	1.15	
						RPD = 16.44	
26 4,4'-DDE							M
1	6.781	6.778	0.003	3180786	1.00	1.48	M
2	7.617	7.617	0.000	19581254	1.00	1.06	
						RPD = 33.04	
27 Endosulfan I							M
1	6.815	6.815	0.000	4006753	1.00	0.9599	M
2	7.560	7.560	0.000	18875610	1.00	0.8043	
						RPD = 17.64	
29 Dieldrin							M
1	6.979	6.979	0.000	3749075	1.00	0.8681	M
2	7.770	7.770	0.000	17336217	1.00	1.08	
						RPD = 21.74	
33 Endrin							
1	7.136	7.135	0.001	2324172	1.00	0.8491	
2	8.015	8.016	-0.001	13275395	1.00	1.13	
						RPD = 28.44	
36 4,4'-DDD							M
1	7.179	7.176	0.003	2003782	1.00	1.10	M
2	8.065	8.065	0.000	10608982	1.00	1.02	M
						RPD = 7.64	
37 Endosulfan II							
1	7.290	7.290	0.000	2657242	1.00	0.8669	
2	8.179	8.178	0.001	13704441	1.00	-0.1092	
						RPD = 257.62	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							M
1	7.375	7.373	0.002	2014777	1.00	0.7571	M
2	8.317	8.317	0.000	11052165	1.00	1.09	M
						RPD = 35.62	
39 Endrin aldehyde							M
1	7.576	7.576	0.000	3858903	1.00	1.14	M
2	8.441	8.441	0.000	10937842	1.00	0.7446	M
						RPD = 42.23	
40 Methoxychlor							M
1	7.732	7.730	0.002	1353330	1.00	1.06	M
2	8.870	8.871	-0.001	4304890	1.00	0.0369	M
						RPD = 186.50	
42 Endosulfan sulfate							
1	7.889	7.888	0.001	4203365	1.00	0.9283	
2	8.656	8.656	0.000	11645220	1.00	0.7596	
						RPD = 19.98	
44 Endrin ketone							
1	8.103	8.103	0.000	2878516	1.00	0.8249	
2	9.115	9.115	0.000	8831442	1.00	0.9402	
						RPD = 13.07	
$ 45 DCB Decachlorobiphenyl							
1		8.894			1.00	ND(<0)	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:21 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Injection Date: 14-Jul-2019 07:11:36 Instrument ID: TAC034

Lims ID: IC OCP 1

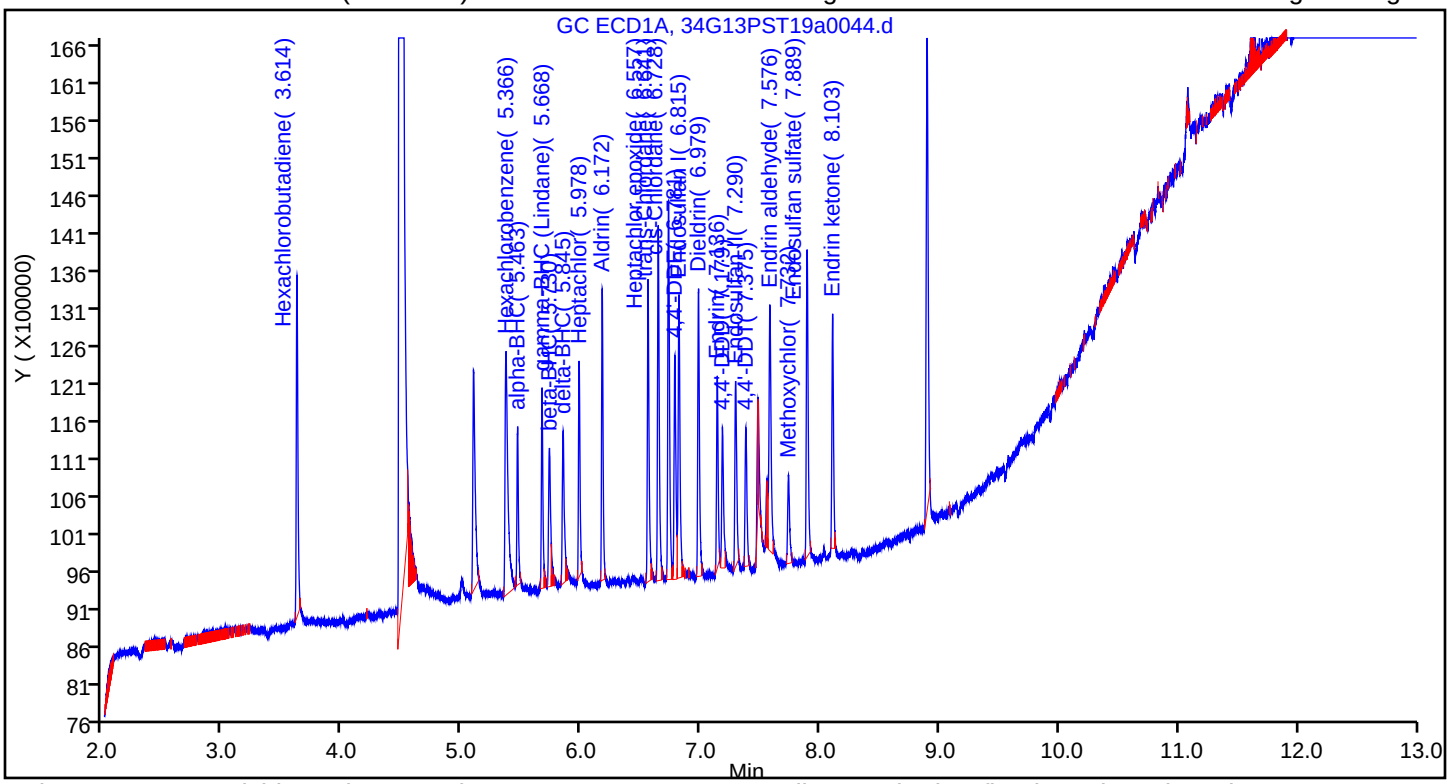
Client ID:

Operator ID: CJB ALS Bottle#: 38 Worklist Smp#: 40

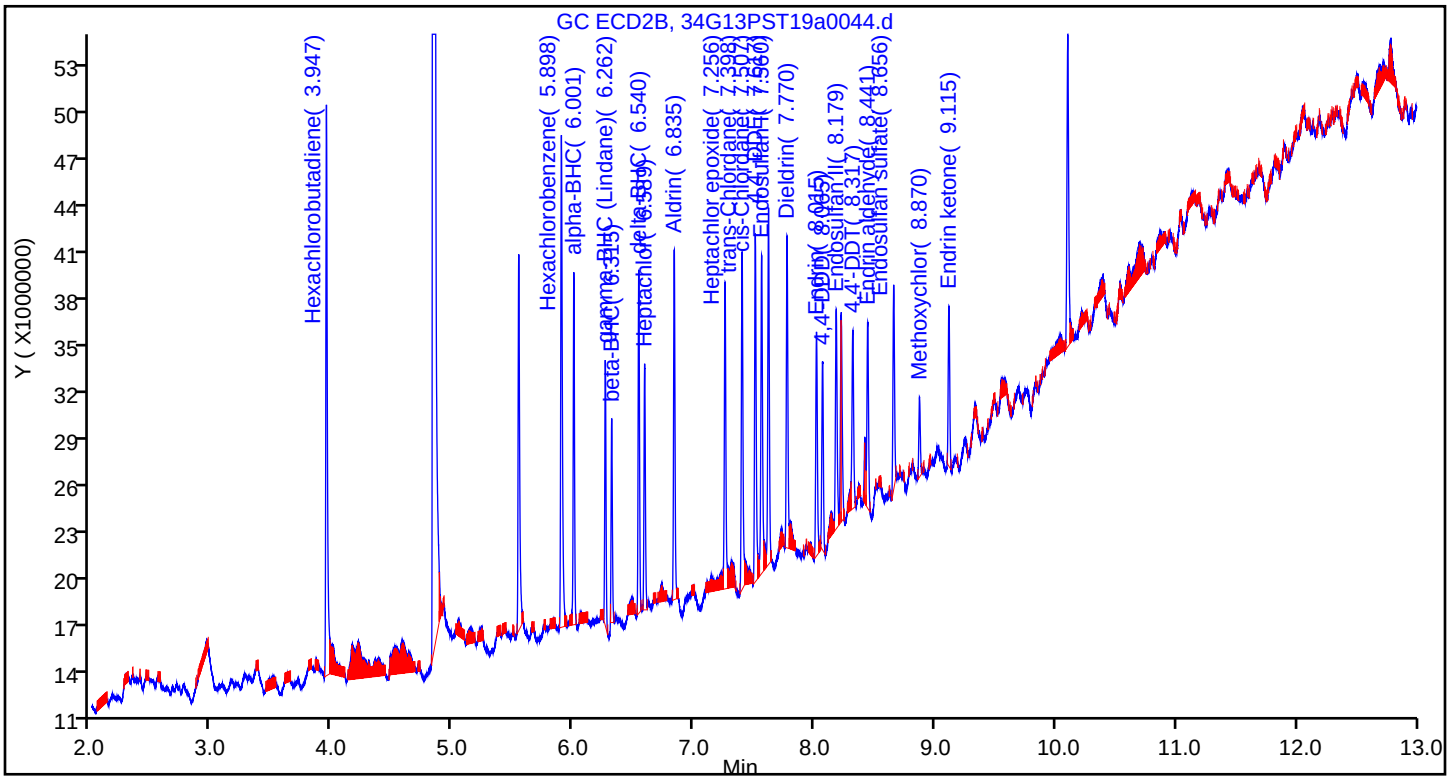
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

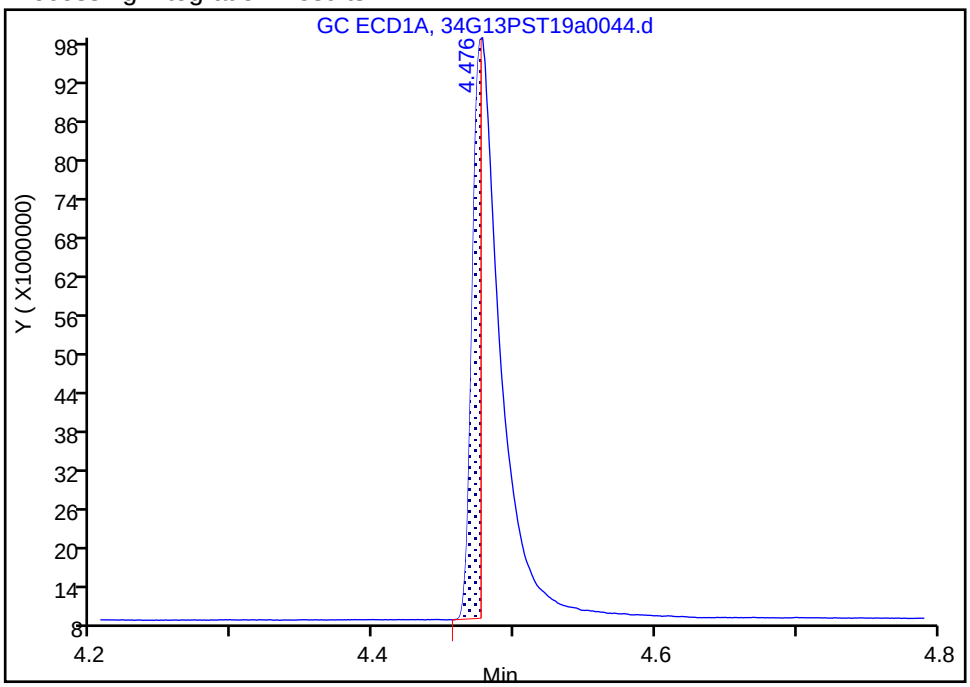
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 2 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

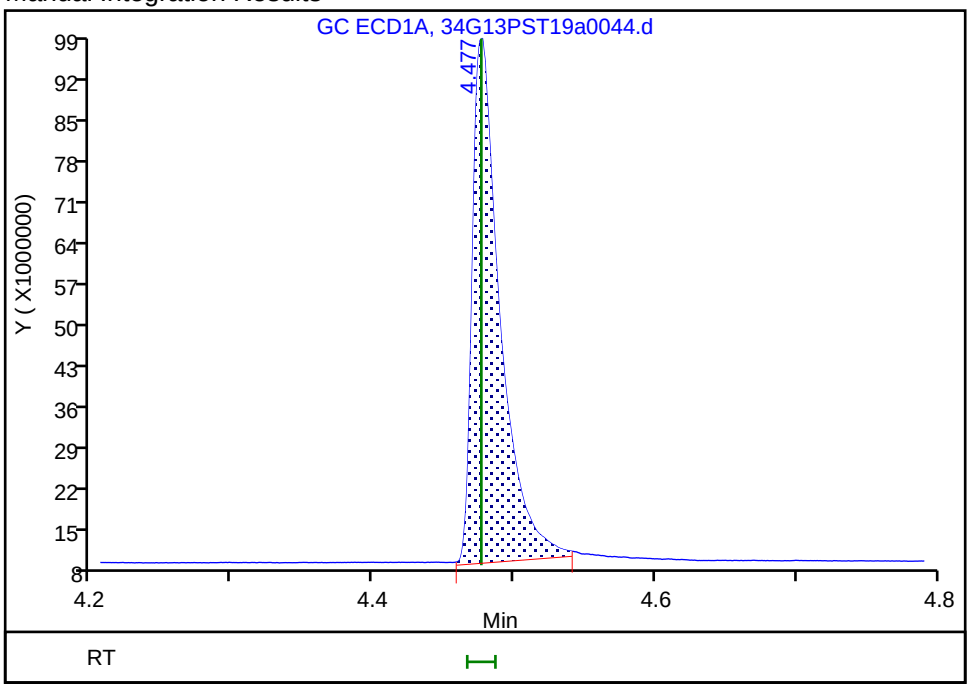
Processing Integration Results

RT: 4.48
Area: 37000170
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.48
Area: 122560201
Amount: 100.0000
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:47:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

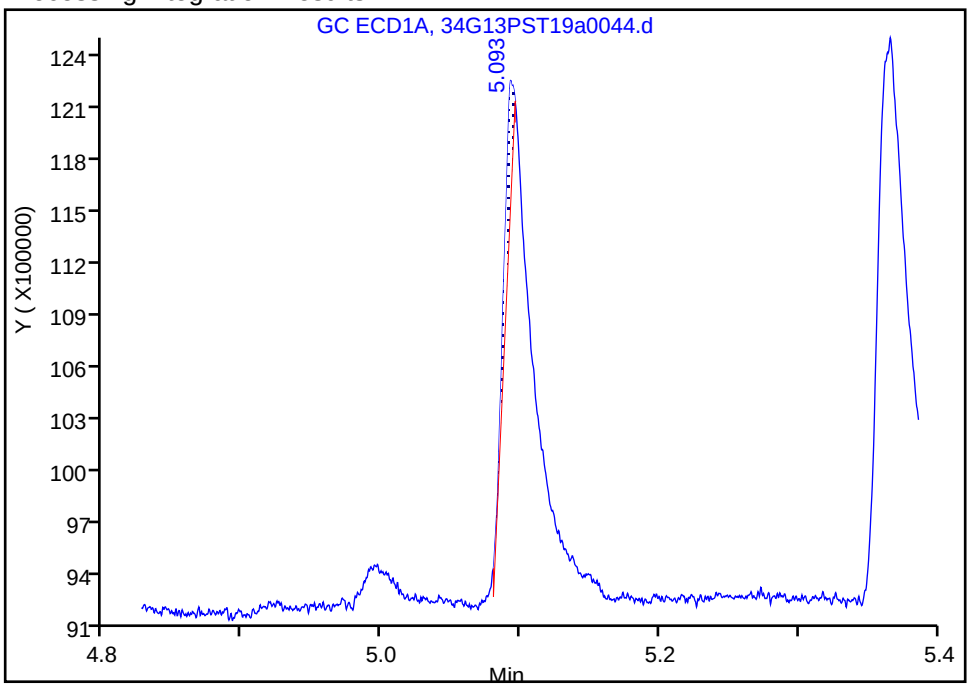
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 4 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

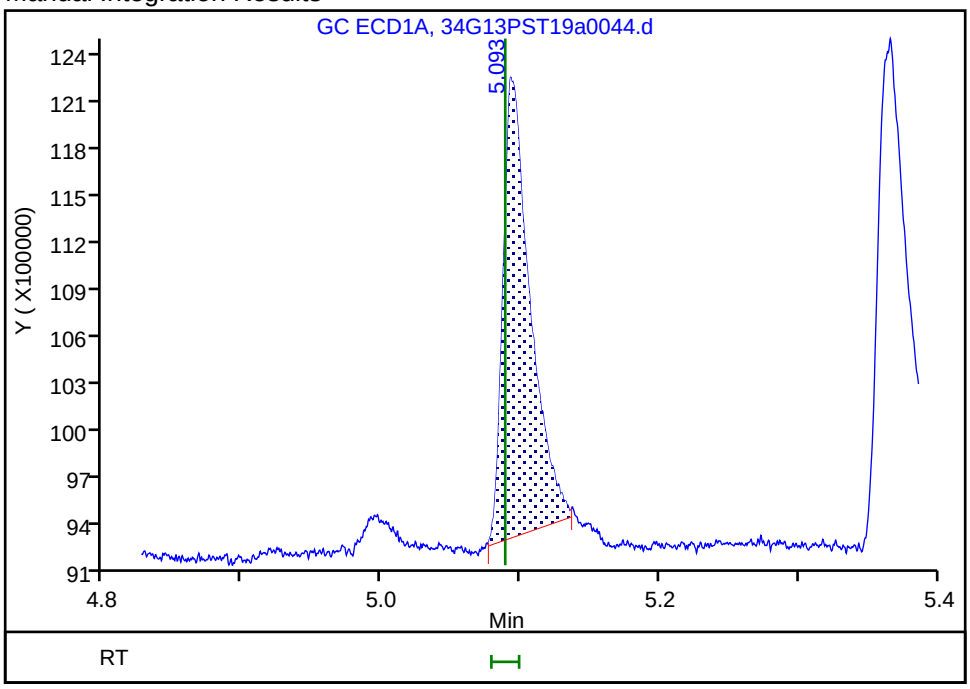
Processing Integration Results

RT: 5.09
Area: 343962
Amount: 0.075049
Amount Units: ug/L



Manual Integration Results

RT: 5.09
Area: 3945206
Amount: 0.792127
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:33:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

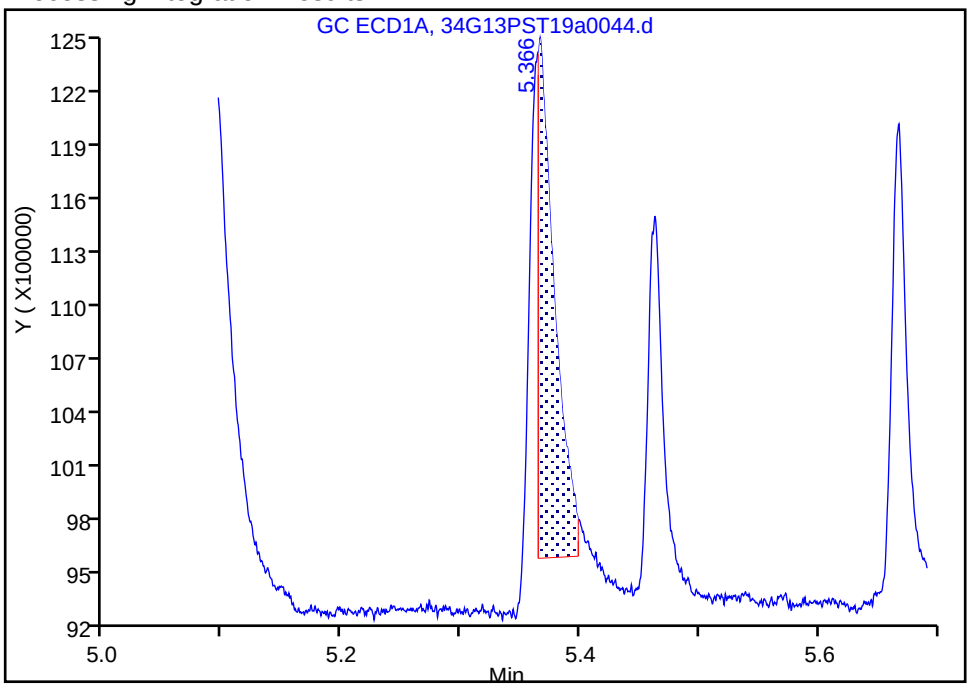
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

7 Hexachlorobenzene, CAS: 118-74-1

Signal: 1

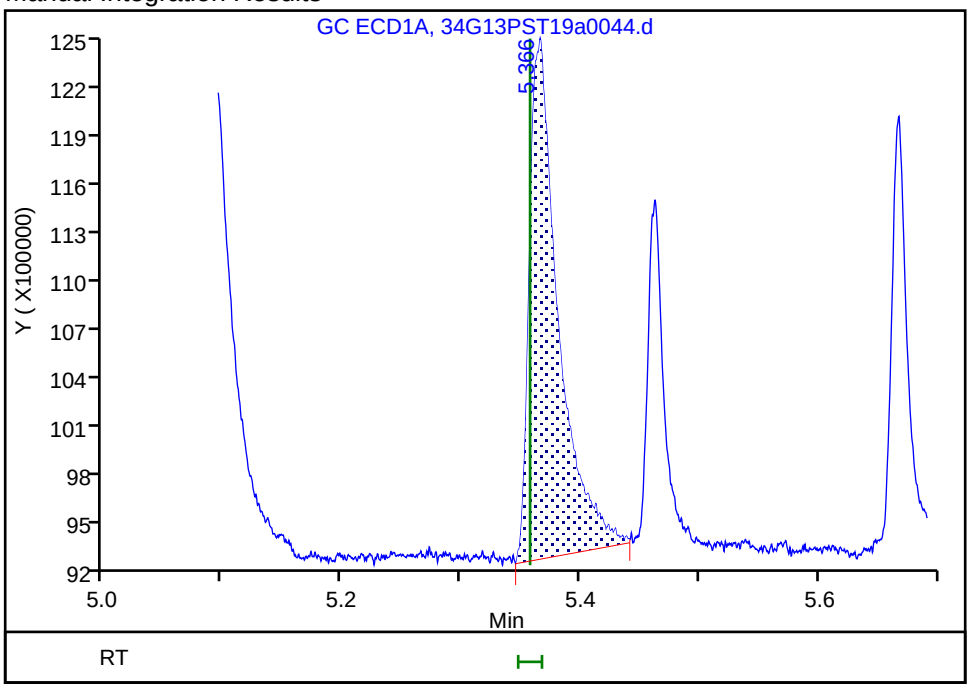
Processing Integration Results

RT: 5.37
Area: 2725984
Amount: 0.506434
Amount Units: ug/L



Manual Integration Results

RT: 5.37
Area: 5416396
Amount: 0.953315
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:48:24

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

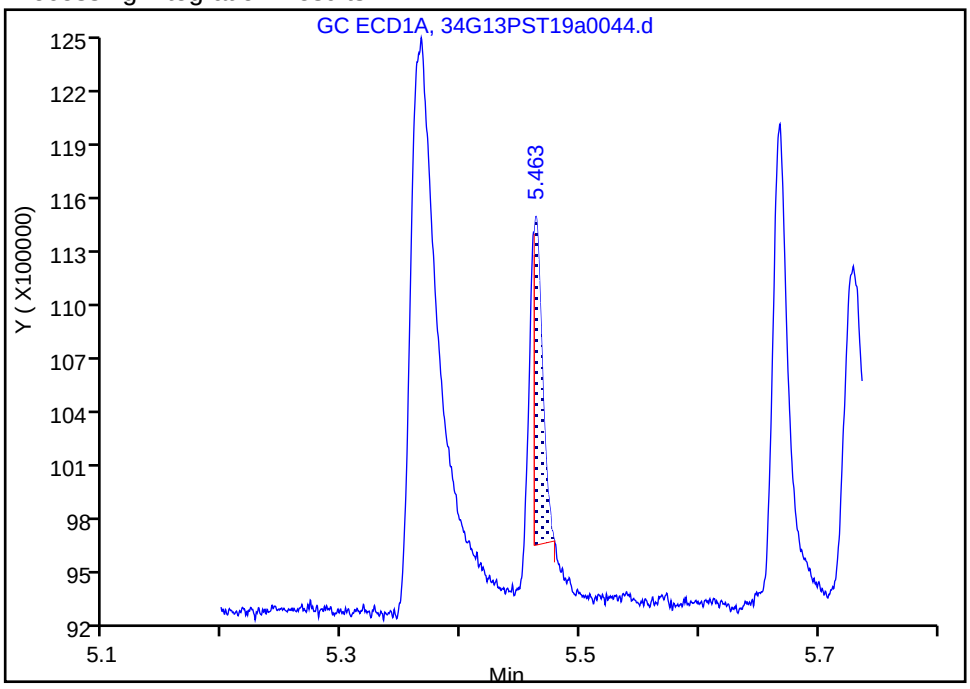
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

8 alpha-BHC, CAS: 319-84-6

Signal: 1

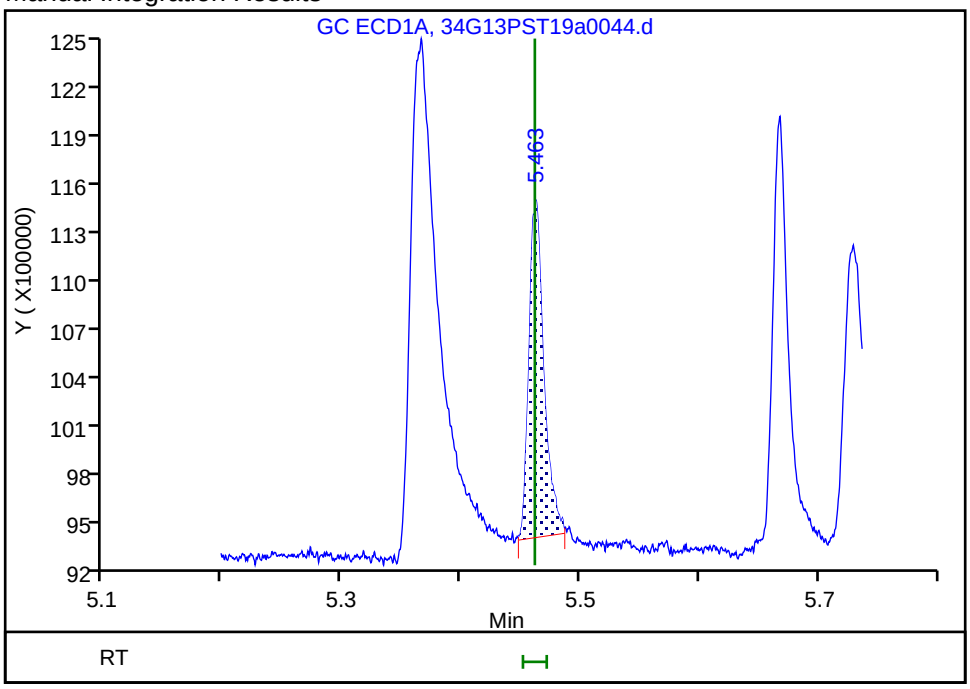
Processing Integration Results

RT: 5.46
Area: 848065
Amount: 0.229982
Amount Units: ug/L



Manual Integration Results

RT: 5.46
Area: 1811020
Amount: 1.297295
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:48:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

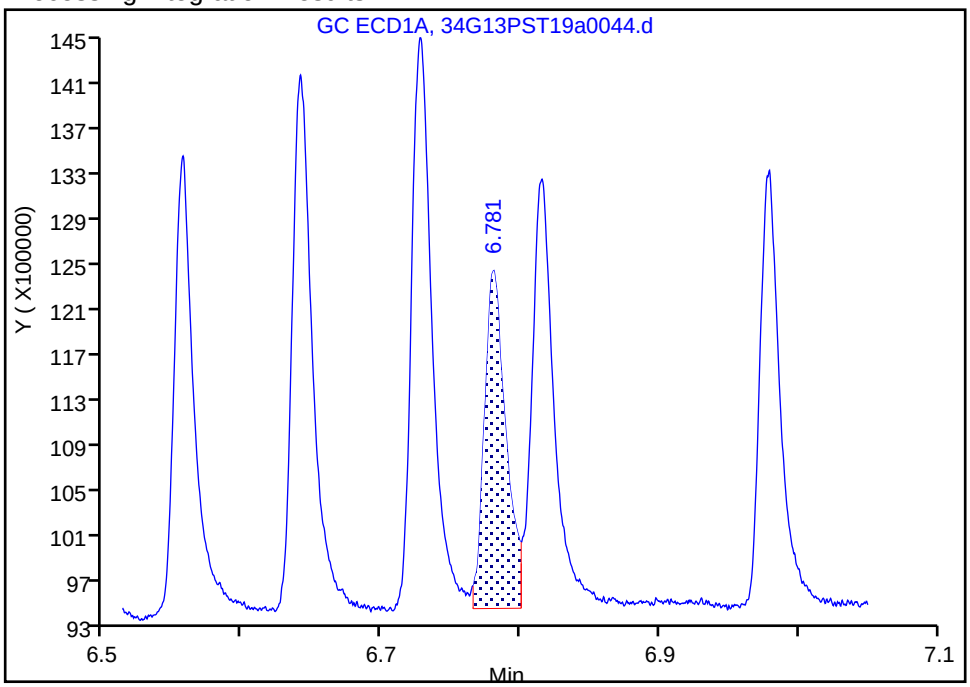
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 4,4'-DDE, CAS: 72-55-9

Signal: 1

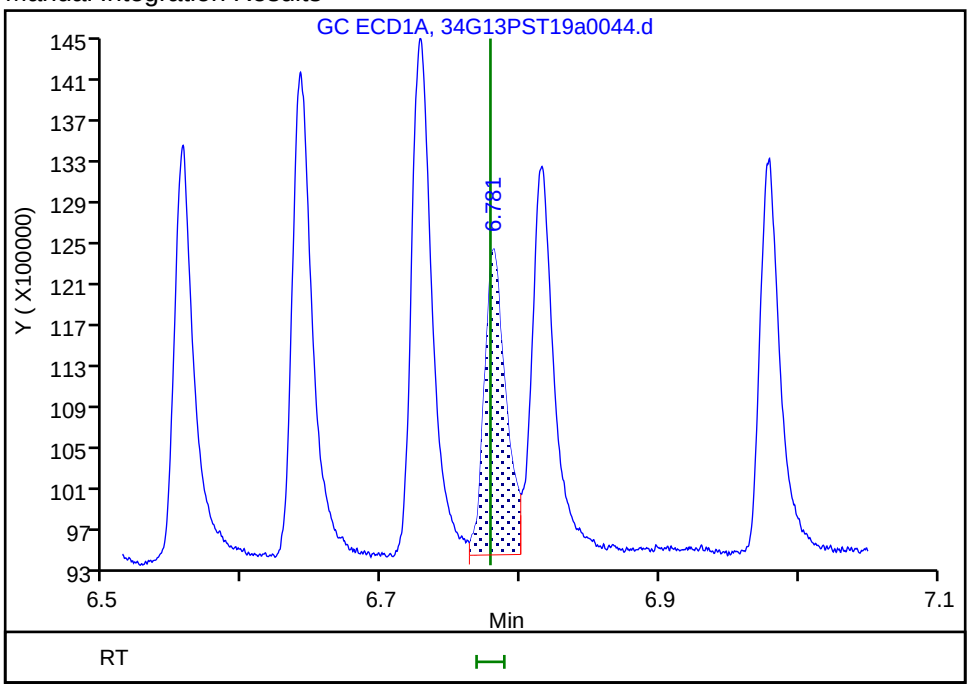
Processing Integration Results

RT: 6.78
Area: 3158579
Amount: 0.690843
Amount Units: ug/L



Manual Integration Results

RT: 6.78
Area: 3180786
Amount: 1.483339
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:38:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

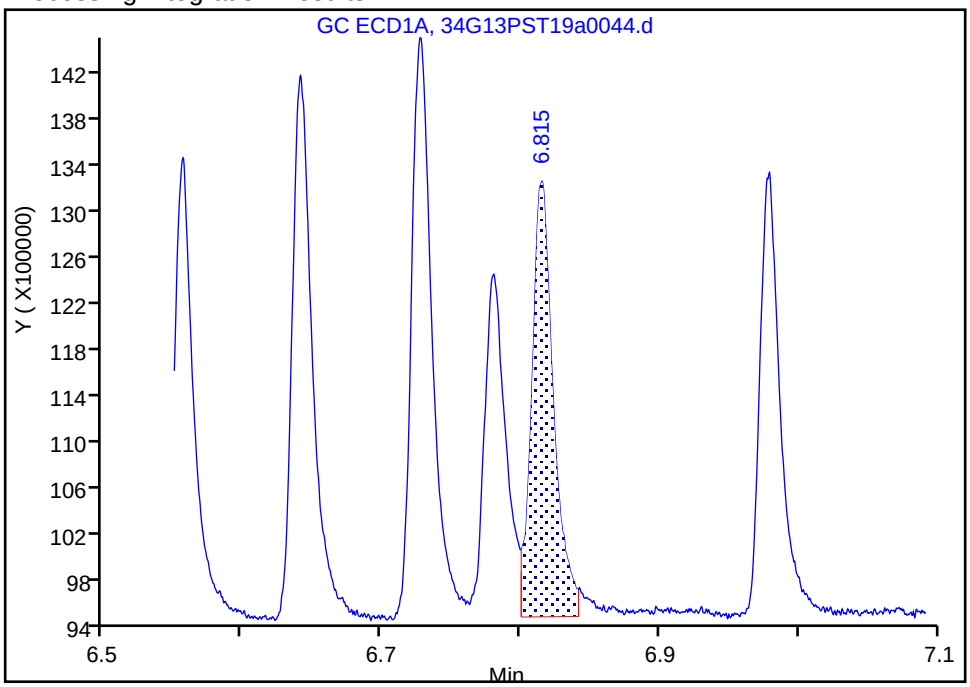
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

27 Endosulfan I, CAS: 959-98-8

Signal: 1

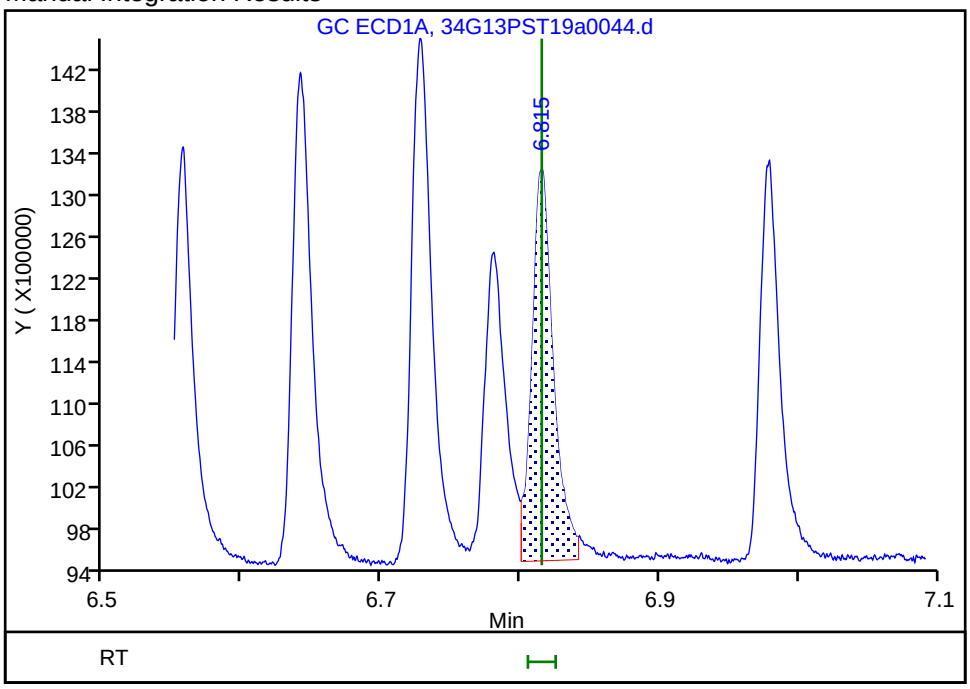
Processing Integration Results

RT: 6.82
Area: 4039928
Amount: 0.970786
Amount Units: ug/L



Manual Integration Results

RT: 6.82
Area: 4006753
Amount: 0.959922
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:38:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

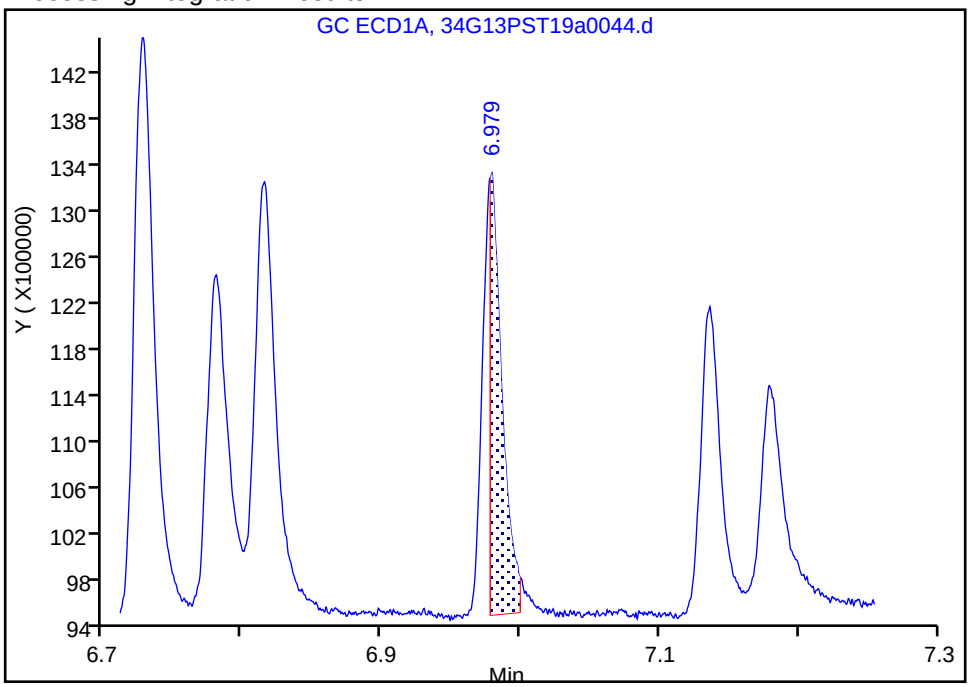
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

29 Dieldrin, CAS: 60-57-1

Signal: 1

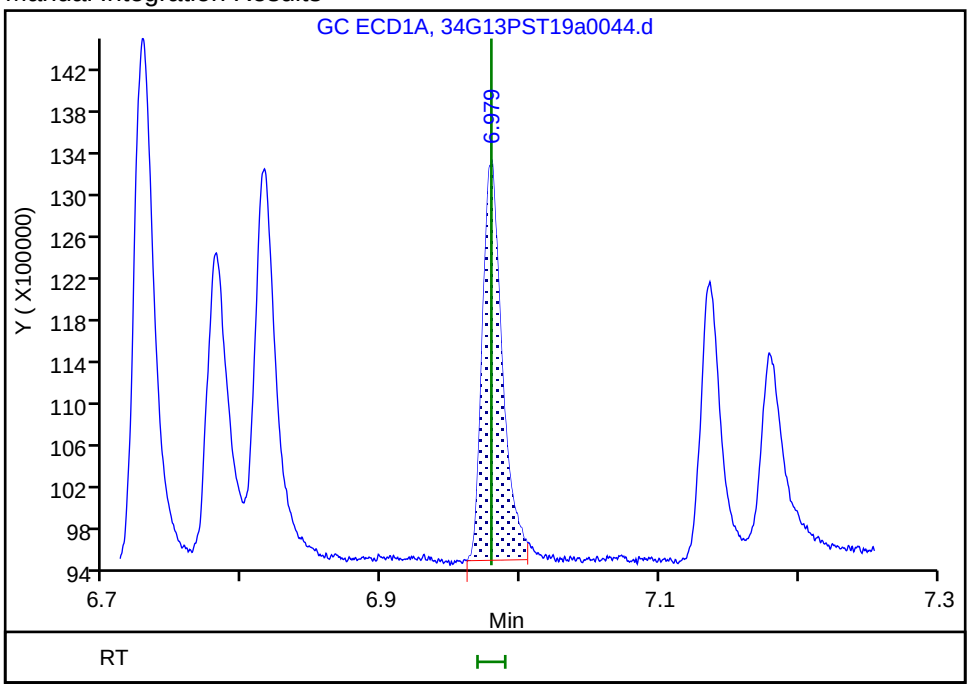
Processing Integration Results

RT: 6.98
Area: 2221806
Amount: 0.535493
Amount Units: ug/L



Manual Integration Results

RT: 6.98
Area: 3749075
Amount: 0.868087
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:34:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

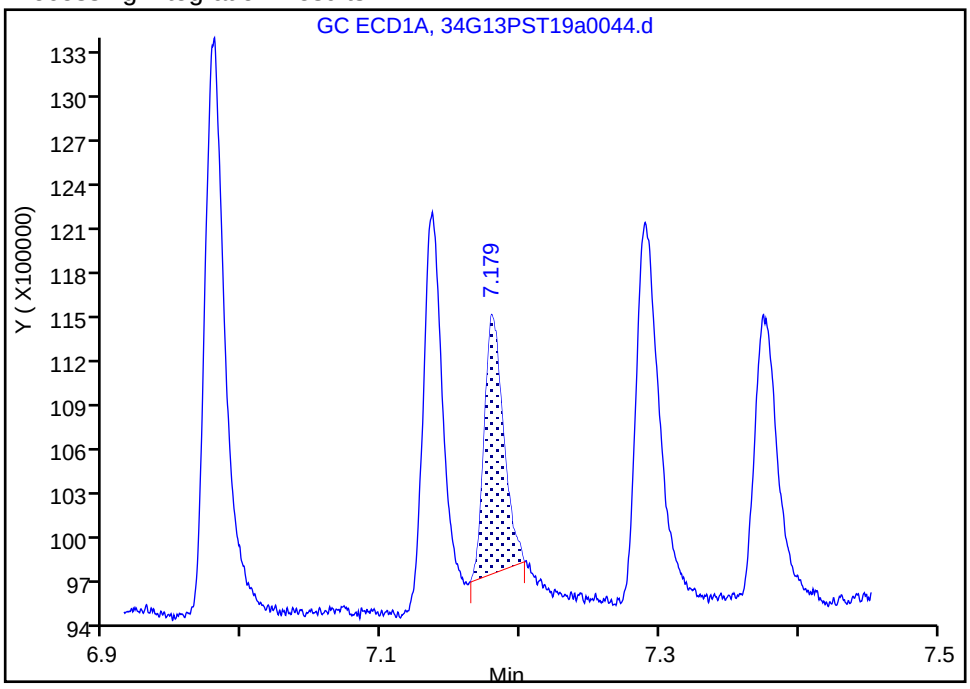
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

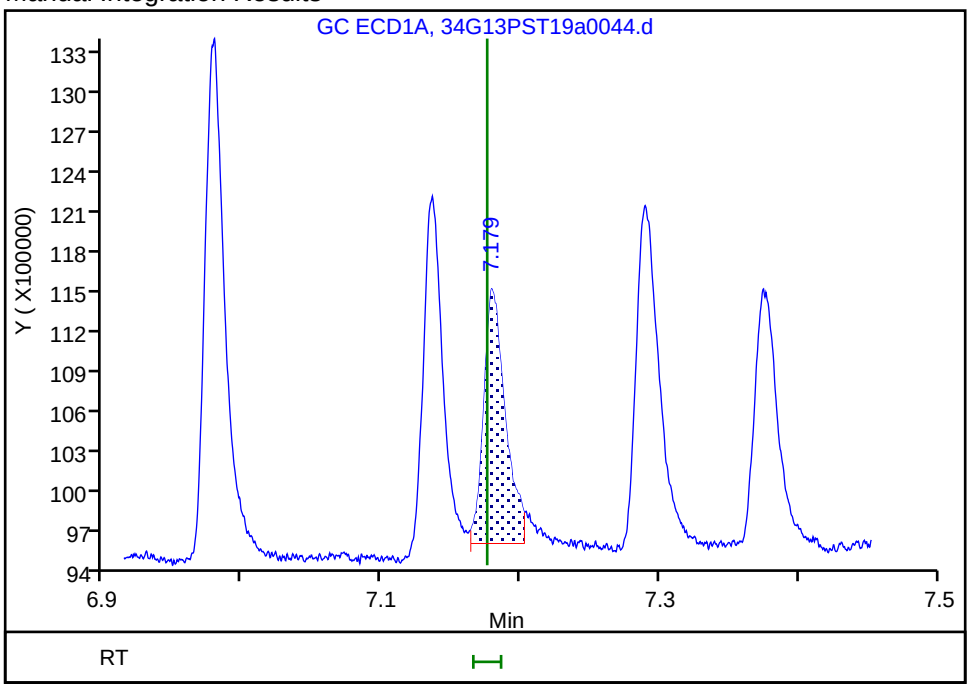
Processing Integration Results

RT: 7.18
Area: 1629784
Amount: 0.609734
Amount Units: ug/L



Manual Integration Results

RT: 7.18
Area: 2003782
Amount: 1.102724
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:34:57
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

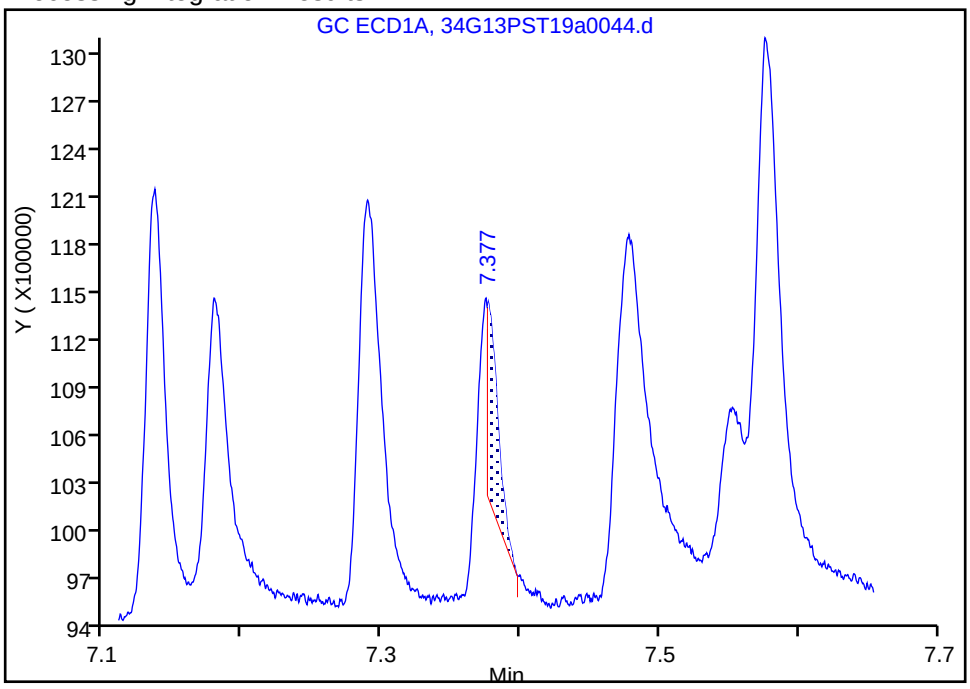
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

38 4,4'-DDT, CAS: 50-29-3

Signal: 1

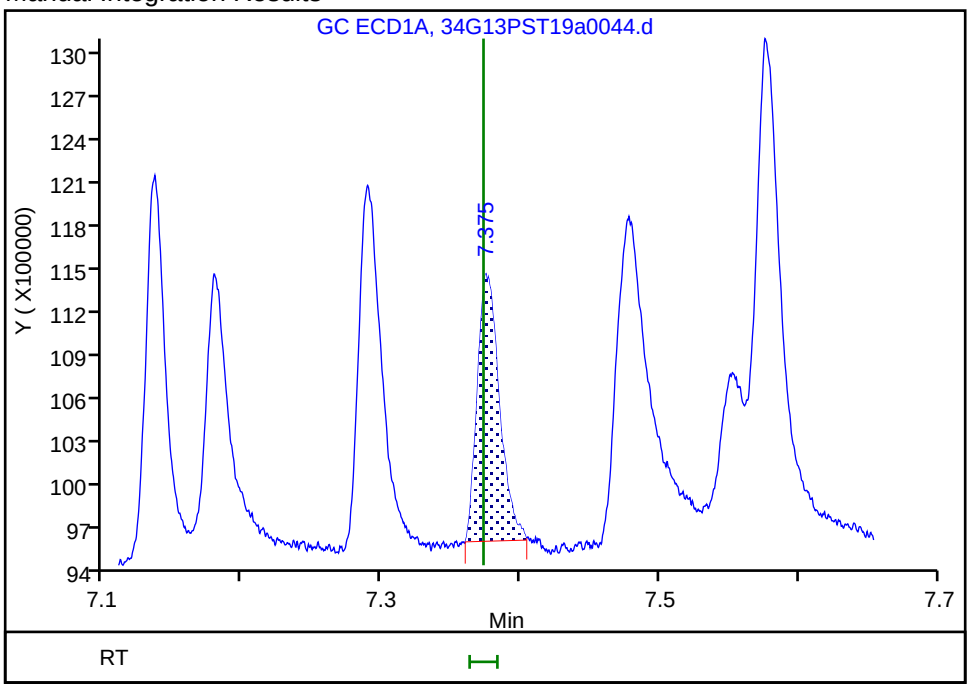
Processing Integration Results

RT: 7.38
Area: 628506
Amount: 0.265801
Amount Units: ug/L



Manual Integration Results

RT: 7.37
Area: 2014777
Amount: 0.757094
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 13:11:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

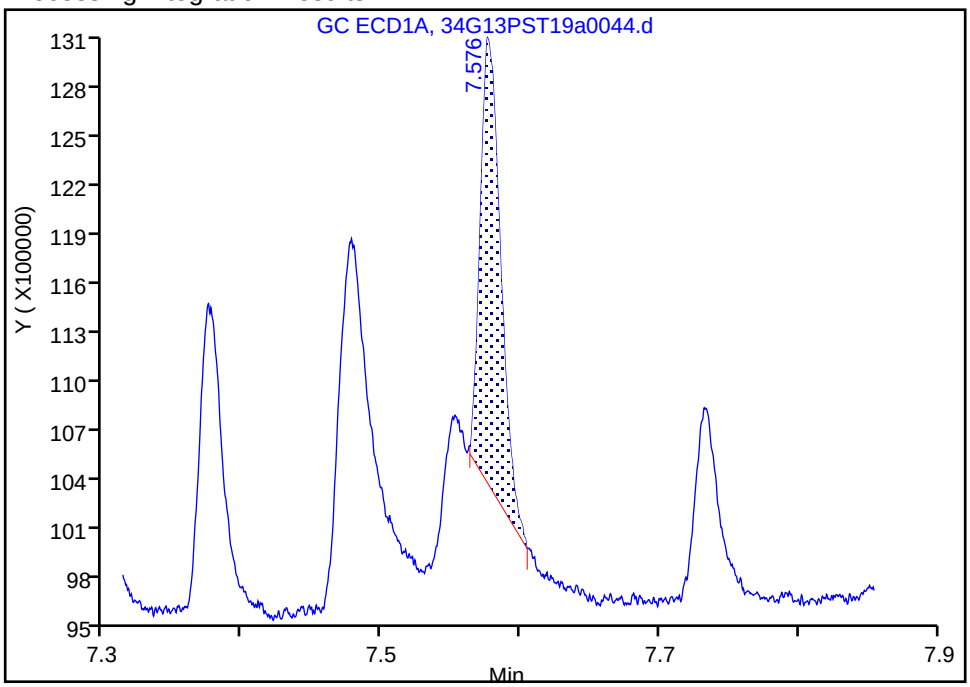
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

39 Endrin aldehyde, CAS: 7421-93-4

Signal: 1

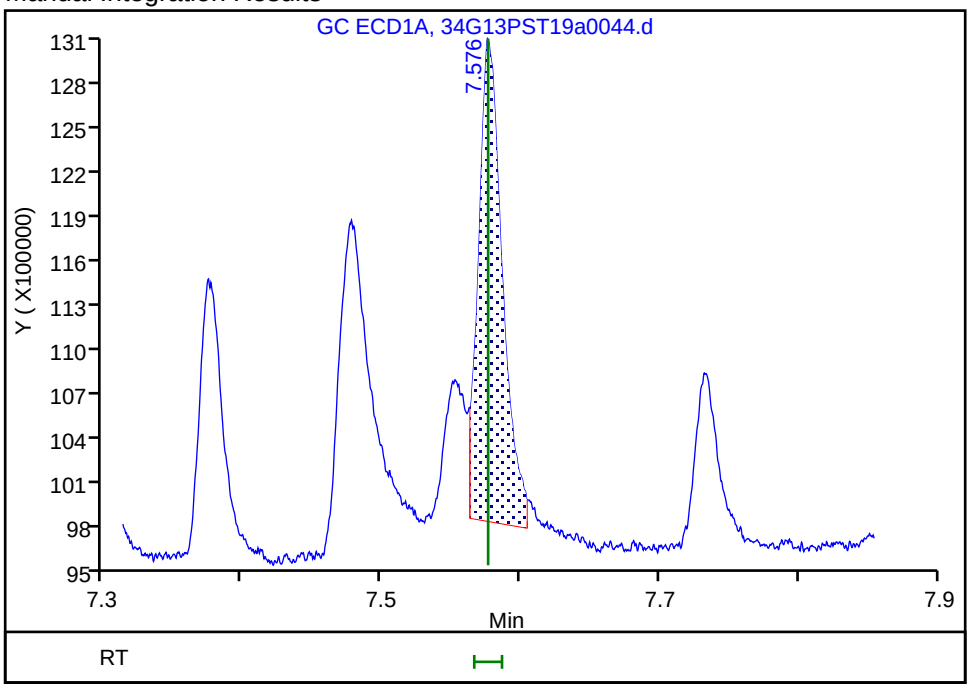
Processing Integration Results

RT: 7.58
Area: 2761150
Amount: 0.848622
Amount Units: ug/L



Manual Integration Results

RT: 7.58
Area: 3858903
Amount: 1.143155
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:34:41
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

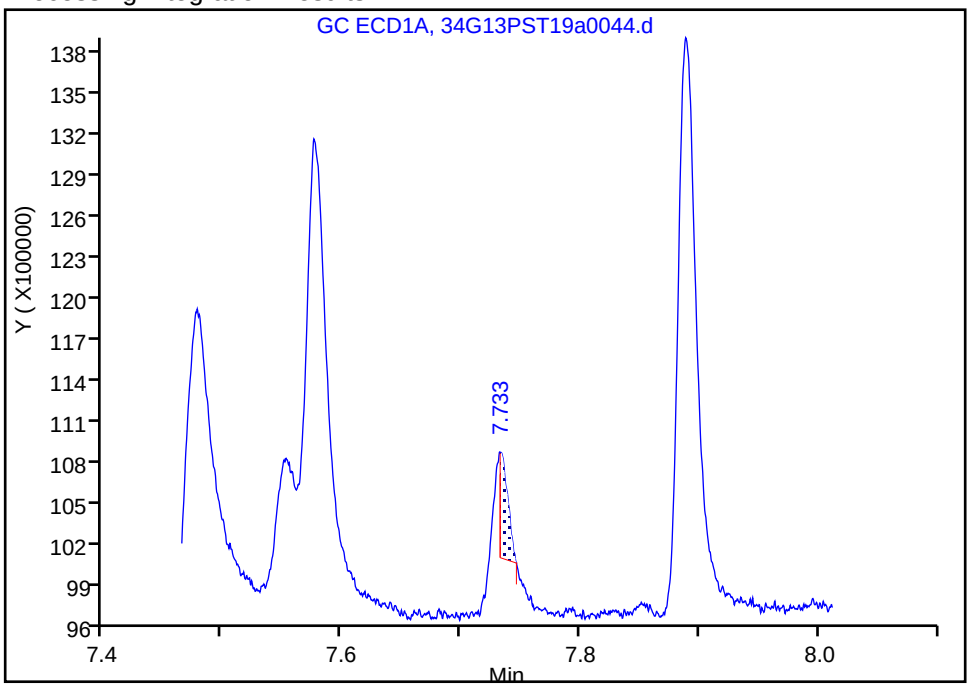
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

40 Methoxychlor, CAS: 72-43-5

Signal: 1

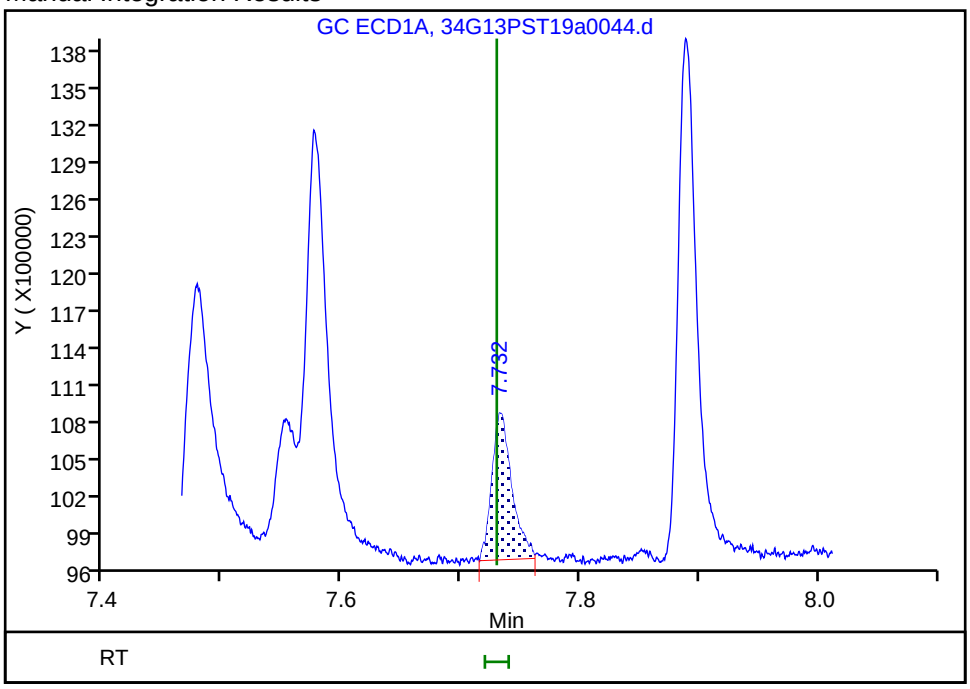
Processing Integration Results

RT: 7.73
Area: 329229
Amount: 0.307146
Amount Units: ug/L



Manual Integration Results

RT: 7.73
Area: 1353330
Amount: 1.055421
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 13:12:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28028

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/40	34G13PST19a0044.d
Level 2	IC 580-305574/39	34G13PST19a0043.d
Level 3	IC 580-305574/38	34G13PST19a0042.d
Level 4	IC 580-305574/37	34G13PST19a0041.d
Level 5	IC 580-305574/36	34G13PST19a0040.d
Level 6	ICIS 580-305574/35	34G13PST19a0039.d
Level 7	IC 580-305574/34	34G13PST19a0038.d
Level 8	IC 580-305574/33	34G13PST19a0037.d
Level 9	IC 580-305574/32	34G13PST19a0036.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene	4.4693 3.5783	4.4117 3.6412	4.6532 4.1953	3.9578 3.8363	4.1090	Ave		4.0947				9.1		20.0			
Hexachlorobenzene	3.9870 3.0175	3.8739 3.0172	4.1026 3.4105	3.4373 +++++	3.3370	Ave		3.5229				11.9		20.0			
alpha-BHC	2.3156 2.2894	2.1655 2.1906	2.4993 2.3743	2.2175 +++++	2.4628	Ave		2.3144				5.3		20.0			
gamma-BHC (Lindane)	1.6911 1.7820	1.8488 1.5404	1.9737 1.8510	1.8239 +++++	1.9306	Ave		1.8052				7.6		20.0			
beta-BHC	1.3058 0.8920	1.3396 0.8079	1.1016 +++++	1.1022 +++++	0.9942	Qua	0.8116	0.9798	-0.001811			25.2			1.0000		0.9900
delta-BHC	2.4017 2.1092	2.2490 1.9349	2.2941 2.0908	2.3462 2.2628	2.1257	Qua1	0.8523	1.9595	0.0007300			12.0			0.9990		0.9900
Heptachlor	1.7439 1.4761	1.7016 1.3448	1.7750 1.3337	1.7332 1.4408	1.6742	Ave		1.5804				11.4		20.0			
Aldrin	2.5003 2.2683	2.6167 2.2238	2.7746 2.3745	2.4884 +++++	2.5449	Ave		2.4739				7.4		20.0			
Heptachlor epoxide	2.3738 1.7692	1.9860 1.5644	2.1474 1.6073	2.0047 1.6786	2.0340	Ave		1.9073				14.2		20.0			
trans-Chlordane	2.6987 2.1411	2.5562 1.9556	2.5802 2.0717	2.3460 +++++	2.3756	Ave		2.3406				11.3		20.0			
cis-Chlordane	2.7752 2.1248	2.6334 2.0722	2.6451 2.2633	2.3759 +++++	2.4662	Ave		2.4195				10.6		20.0			
Endosulfan I	2.6197 1.8077	2.2119 1.6807	2.2723 1.7274	2.0431 1.8231	2.0820	Lin1	1.1862	1.7823				11.9		20.0	0.9980		0.9900
4,4'-DDE	2.7176 2.2616	2.9103 2.1705	2.9229 2.3583	2.4654 2.5583	2.6506	Ave		2.5573				10.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28028

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dieldrin	2.4060 2.0840	2.3116 1.9498	2.4707 2.0488	2.2089 2.1654	2.4079	Ave		2.2281				8.2		20.0			
Endrin	1.8425 1.5136	1.7517 1.3729	1.9076 1.3830	1.6542 1.4775	1.7627	Ave		1.6295				12.3		20.0			
4,4'-DDD	1.4724 1.3899	1.5257 1.2300	1.6639 1.2810	1.4215 1.3286	1.6592	Ave		1.4414				10.7		20.0			
Endosulfan II	+++++ 1.4308	2.0021 1.3207	1.8743 1.3738	1.5971 1.4584	1.6302	Qua1	2.0476	1.3340	0.0002763			14.8			0.9990		0.9900
4,4'-DDT	1.5339 1.3784	1.2449 1.3248	1.4647 1.3257	1.4100 1.4738	1.5647	Ave		1.4134				7.5		20.0			
Endrin aldehyde	1.5180 1.3347	1.8138 1.2375	1.6138 1.2814	1.3597 1.3952	1.5007	Lin1	0.5185	1.3424				13.5		20.0	0.9970		0.9900
Endosulfan sulfate	1.6162 1.5112	1.7787 1.4184	1.8209 1.4707	1.5854 1.5419	1.7270	Lin1	0.4692	1.5099				12.1		20.0	0.9980		0.9900
Methoxychlor	+++++ 0.5480	0.7406 0.4980	0.7156 0.4962	0.6534 +++++	0.6684	Qua1	0.5765	0.5683	-0.000414			14.1			0.9960		0.9900
Endrin ketone	1.2257 1.2564	1.4025 1.2020	1.4686 1.2260	1.3240 1.3259	1.3850	Lin2	-0.011	1.3152				7.5		20.0	0.9940		0.9900
Tetrachloro-m-xylene	2.9214 2.3601	2.7700 2.3614	3.1999 2.7590	2.5790 2.9595	2.8797	Lin1	-0.178	2.7914				11.6		20.0	0.9930		0.9900
DCB Decachlorobiphenyl	+++++ 1.9321	2.6788 1.8780	2.9057 2.0590	2.1978 2.3731	2.2951	Lin1	0.8768	2.1941				13.6		20.0	0.9910		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28028

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-305574/40	34G13PST19a0044.d
Level 2	IC 580-305574/39	34G13PST19a0043.d
Level 3	IC 580-305574/38	34G13PST19a0042.d
Level 4	IC 580-305574/37	34G13PST19a0041.d
Level 5	IC 580-305574/36	34G13PST19a0040.d
Level 6	ICIS 580-305574/35	34G13PST19a0039.d
Level 7	IC 580-305574/34	34G13PST19a0038.d
Level 8	IC 580-305574/33	34G13PST19a0037.d
Level 9	IC 580-305574/32	34G13PST19a0036.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Hexachlorobutadiene	BNB	Ave	32202297 1442117602	58784472 2891696227	137719874 6406441393	288961220 0842686737	681010308	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Hexachlorobenzene	BNB	Ave	28727687 1216094653	51618245 2396143436	121424203 5207944968	250954451 +++++	553057402	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
alpha-BHC	BNB	Ave	16684654 922676650	28854715 1739729209	73970428 3625701795	161902890 +++++	408170168	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
gamma-BHC (Lindane)	BNB	Ave	12184781 718173877	24635186 1223306150	58414522 2826537311	133163180 +++++	319970491	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
beta-BHC	BNB	Qua	9408644 359507829	17850083 641639011	32602648 +++++	80474759 +++++	164778503	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	25.0
delta-BHC	BNB	Qua1	17305174 850052278	29967086 1536644206	67899175 3192726143	171295829 6395513256	352308031	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Heptachlor	BNB	Ave	12565424 594899820	22673189 1067999292	52534930 2036585465	126538051 4072226699	277483997	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Aldrin	BNB	Ave	18015196 914154791	34867442 1766063978	82120315 3625912058	181674878 +++++	421780738	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
Heptachlor epoxide	BNB	Ave	17104124 713020918	26463193 1242420078	63557396 2454481984	146366095 4744205066	337108590	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Chlordane	BNB	Ave	19444739 862884997	34060308 1553041804	76364454 3163554348	171279412 +++++	393730127	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
cis-Chlordane	BNB	Ave	19996455 856349481	35089606 1645676029	78287345 3456194259	173464908 +++++	408736394	1.00 50.0	2.00 100	5.00 200	10.0 +++++	25.0
Endosulfan I	BNB	Lin1	18875610 728528238	29472443 1334786899	67252167 2637773154	149167888 5152645561	345070108	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDE	BNB	Ave	19581254 911447678	38778472 1723711625	86507367 3601308008	179998408 7230640332	439298423	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Dieldrin	BNB	Ave	17336217 839905599	30801124 1548433672	73124931 3128658267	161270581 6120047358	399078882	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 305574

SDG No.:

Instrument ID: TAC034 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2019 04:36 Calibration End Date: 07/14/2019 07:11 Calibration ID: 28028

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Endrin	BNB	Ave	13275395 609999574	23341083 1090309014	56458340 2111861816	120773929 4175867913	292149210	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDD	BNB	Ave	10608982 560141433	20329339 976805125	49246593 1956184843	103784369 3755177270	274995632	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan II	BNB	Qua1	+++++ 576649930	26677423 1048850012	55472262 2097794238	116606784 4121856016	270190679	+++++ 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDT	BNB	Ave	11052165 555521080	16587792 1052133728	43351221 2024343570	102946873 4165502941	259323462	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin aldehyde	BNB	Lin1	10937842 537925666	24168737 982761159	47764262 1956797940	99271114 3943218863	248714862	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan sulfate	BNB	Lin1	11645220 609058232	23700542 1126462517	53892918 2245786059	115749741 4357920143	286221591	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Methoxychlor	BNB	Qua1	+++++ 220836684	9867816 395502527	21178656 757782412	47707821 +++++	110783796	+++++ 50.0	2.00 100	5.00 200	10.0 +++++	25.0
Endrin ketone	BNB	Lin2	8831442 506357288	18687747 954620697	43466145 1872172152	96667590 3747492993	229538649	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Tetrachloro-m-xylene	BNB	Lin1	21196837 957808881	37168536 1888462307	95368622 4242662584	189609568 8423100542	480618815	1.01 50.4	2.01 101	5.04 201	10.1 403	25.2
DCB Decachlorobiphenyl	BNB	Lin1	+++++ 781024645	35801833 1495882013	86257608 3153708897	160941627 6727362759	381522034	+++++ 50.2	2.01 100	5.02 201	10.0 401	25.1

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD
Qua1 = Quadratic 1/conc ISTD

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d
Lims ID: IC OCP 400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-Jul-2019 04:36:55 ALS Bottle#: 30 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 400
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:29 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:29:12

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							a
1	3.615	3.613	0.002	4105770235	400.0	435.1	a
2	3.963	3.948	0.015	10842686737	400.0	374.8	a
						RPD = 14.89	
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	171845844	100.0	100.0	
2	4.837	4.837	0.000	706585055	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.088	5.089	-0.001	2847172806	402.8	407.7	
2	5.553	5.543	0.010	8423100542	402.8	427.1	
						RPD = 4.65	
7 Hexachlorobenzene							
1	5.356	5.358	-0.002	3087766752	400.0	387.6	
2	5.910	5.898	0.012	9493364018	400.0	381.4	
						RPD = 1.62	
8 alpha-BHC							
1	5.463	5.462	0.001	3074800521	400.0	412.2	
2	6.010	6.001	0.009	6898102493	400.0	421.8	
						RPD = 2.31	
11 gamma-BHC (Lindane)							
1	5.666	5.667	-0.001	1983100090	400.0	403.4	
2	6.268	6.263	0.005	5579742392	400.0	437.5	
						RPD = 8.10	
12 beta-BHC							
1	5.721	5.724	-0.003	1137952263	400.0	411.0	
2	6.317	6.315	0.002	2568434996	400.0	NQ	
						RPD = 18.53	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.838	5.839	-0.001	2652824017	400.0	354.2	
2	6.546	6.541	0.005	6395513256	400.0	401.4	
						RPD = 12.52	
15 Heptachlor							
1	5.979	5.979	0.000	1672969291	400.0	401.5	
2	6.592	6.589	0.003	4072226699	400.0	364.7	
						RPD = 9.60	
18 Aldrin							
1	6.174	6.172	0.002	2730846254	400.0	440.8	
2	6.843	6.835	0.008	7291783775	400.0	417.1	
						RPD = 5.52	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	1864237359	400.0	354.3	
2	7.259	7.256	0.003	4744205066	400.0	352.0	
						RPD = 0.65	
23 trans-Chlordane							
1	6.642	6.641	0.001	2917512645	400.0	412.1	
2	7.402	7.397	0.005	6447075472	400.0	389.8	
						RPD = 5.56	
25 cis-Chlordane							
1	6.729	6.728	0.001	2931959989	400.0	396.5	
2	7.515	7.507	0.008	7071484534	400.0	413.6	
						RPD = 4.22	
26 4,4'-DDE							
1	6.777	6.778	-0.001	3002297236	400.0	406.2	
2	7.625	7.617	0.008	7230640332	400.0	400.2	
						RPD = 1.50	
27 Endosulfan I							
1	6.816	6.815	0.001	2214763890	400.0	378.4	
2	7.564	7.560	0.004	5152645561	400.0	408.5	
						RPD = 7.64	
29 Dieldrin							
1	6.980	6.979	0.001	2408342962	400.0	397.7	
2	7.774	7.770	0.004	6120047358	400.0	388.7	
						RPD = 2.28	
33 Endrin							
1	7.136	7.135	0.001	1384740207	400.0	360.8	
2	8.018	8.016	0.002	4175867913	400.0	362.7	
						RPD = 0.52	
36 4,4'-DDD							
1	7.174	7.176	-0.002	1603386253	400.0	383.8	
2	8.068	8.065	0.003	3755177270	400.0	368.7	
						RPD = 4.02	
37 Endosulfan II							
1	7.289	7.290	-0.001	1674510148	400.0	389.6	
2	8.180	8.178	0.002	4121856016	400.0	402.3	
						RPD = 3.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	1500780066	400.0	402.2	
2	8.320	8.317	0.003	4165502941	400.0	417.1	
						RPD = 3.63	
39 Endrin aldehyde							
1	7.577	7.576	0.001	1683963541	400.0	355.8	
2	8.443	8.441	0.002	3943218863	400.0	415.3	
						RPD = 15.45	
40 Methoxychlor							M
1	7.728	7.730	-0.002	541275104	400.0	301.1	M
2	8.872	8.871	0.001	1383779269	400.0	NQ	
						RPD = 7.94	
42 Endosulfan sulfate							
1	7.890	7.888	0.002	1917612016	400.0	399.3	
2	8.660	8.656	0.004	4357920143	400.0	408.2	
						RPD = 2.19	
44 Endrin ketone							
1	8.103	8.103	0.000	1552367330	400.0	402.1	
2	9.117	9.115	0.002	3747492993	400.0	403.3	
						RPD = 0.29	
$ 45 DCB Decachlorobiphenyl							
1	8.895	8.894	0.001	2834265530	401.2	402.0	
2	10.105	10.100	0.005	6727362759	401.2	433.5	
						RPD = 7.56	

QC Flag Legend

Processing Flags
NQ - Not Quantifiable
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 1.00	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d

Injection Date: 14-Jul-2019 04:36:55 Instrument ID: TAC034

Lims ID: IC OCP 400

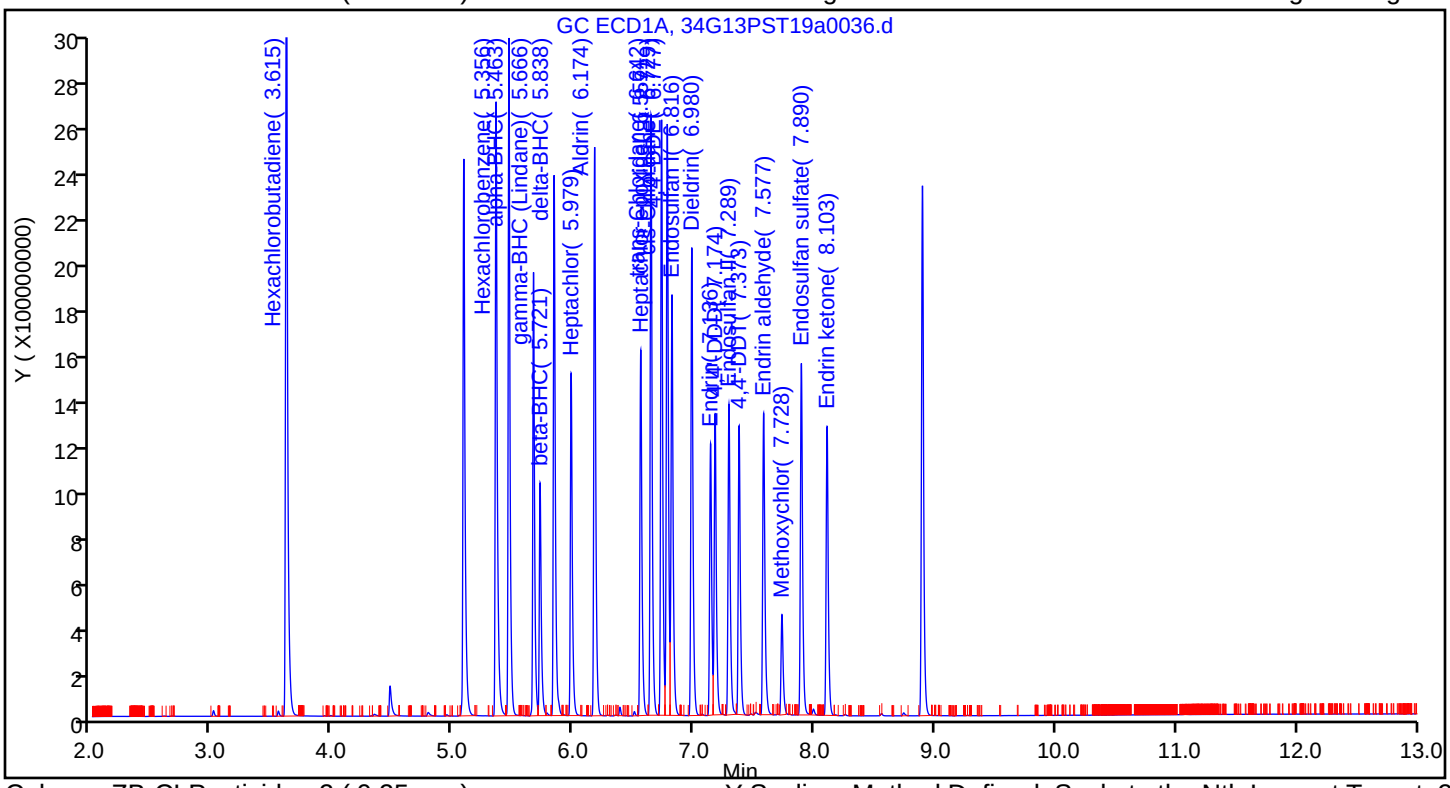
Client ID:

Operator ID: CJB ALS Bottle#: 30 Worklist Smp#: 32

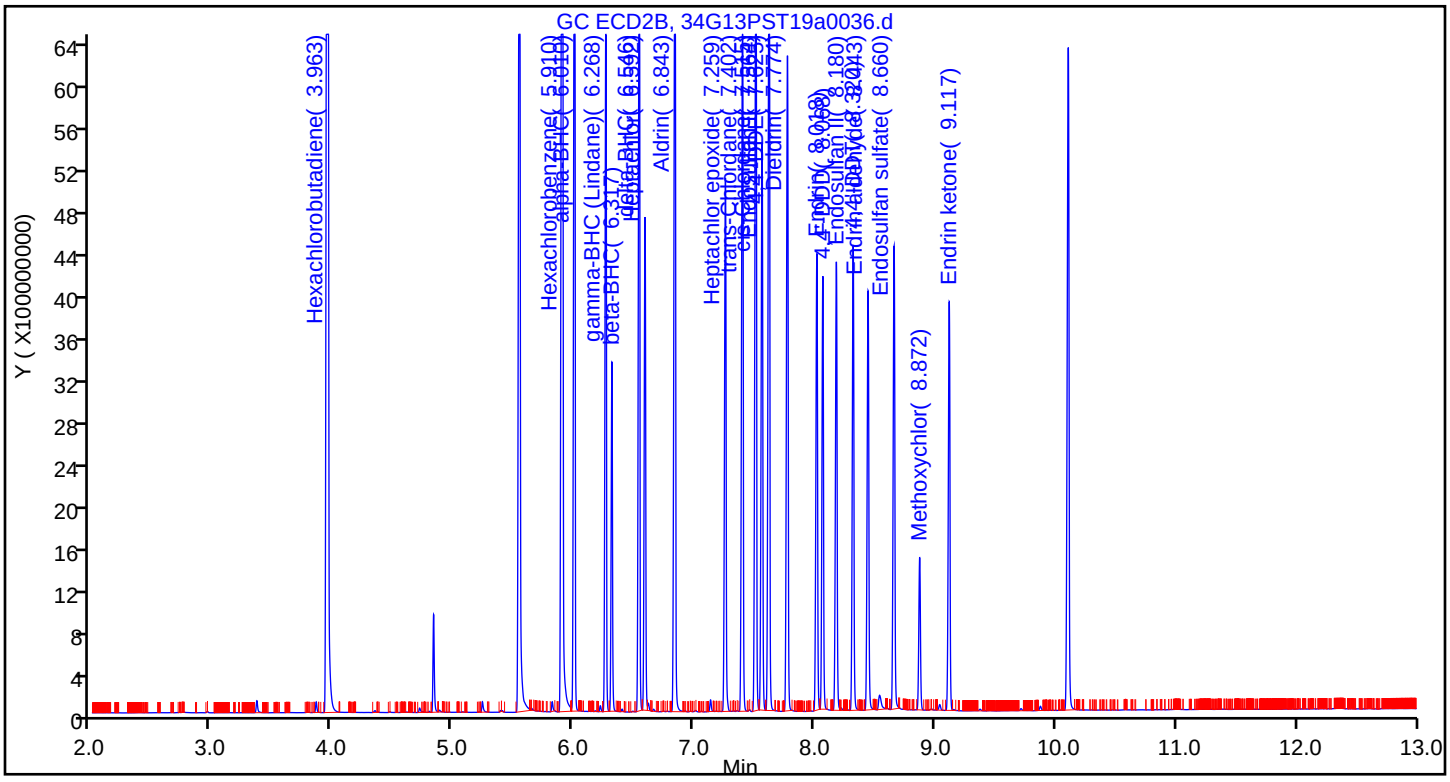
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

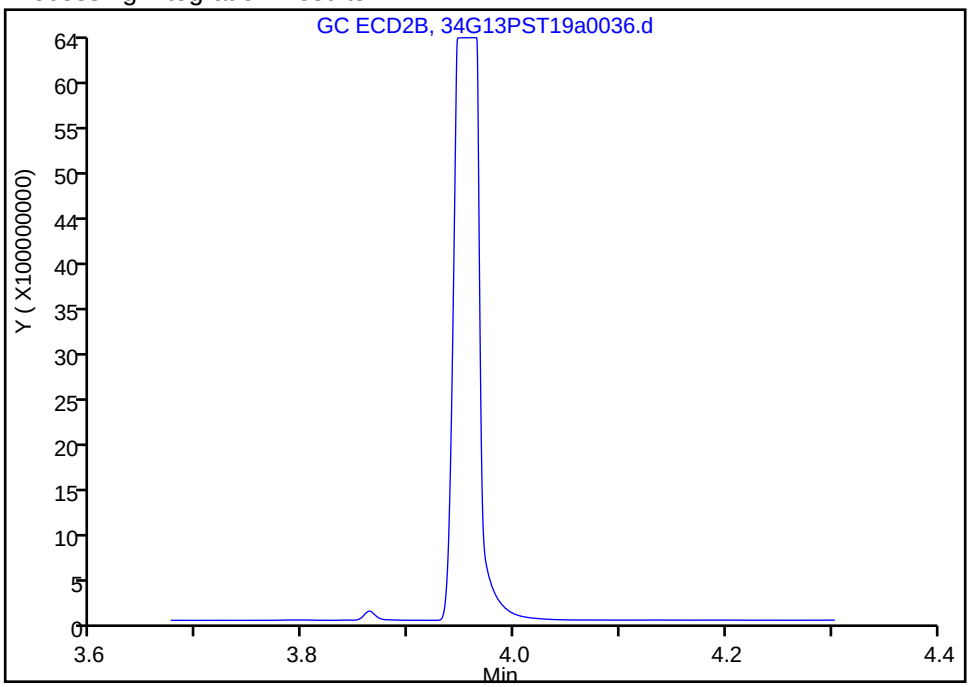
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0036.d				
Injection Date:	14-Jul-2019 04:36:55	Instrument ID:	TAC034		
Lims ID:	IC OCP 400				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	30	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

1 Hexachlorobutadiene, CAS: 87-68-3

Signal: 2

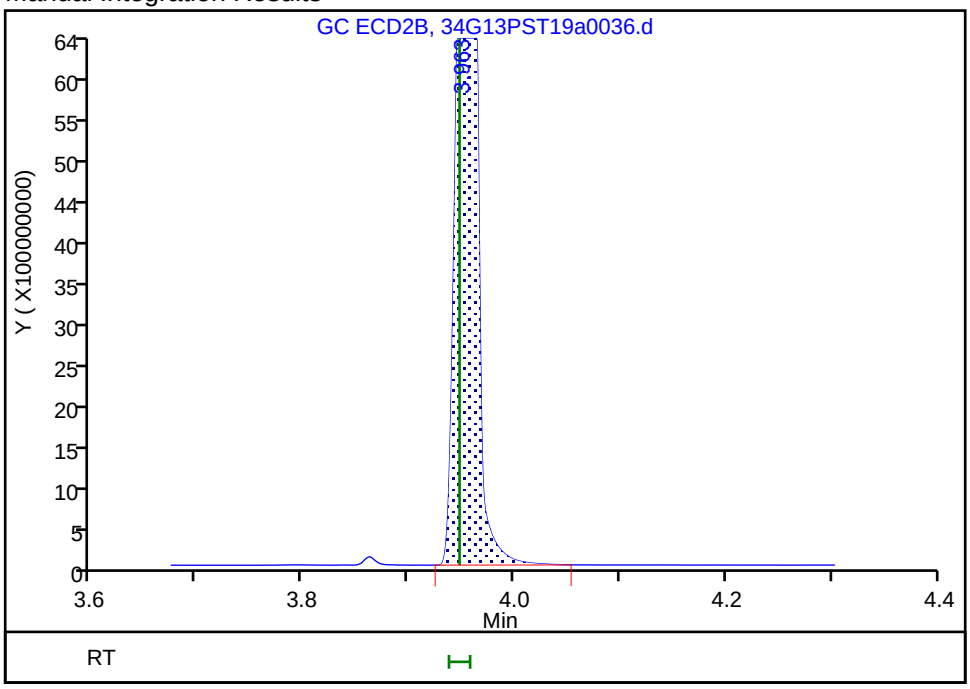
Not Detected
Expected RT: 3.95

Processing Integration Results



Manual Integration Results

RT: 3.96
Area: 10842686737
Amount: 374.7601
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:28:35
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0037.d
Lims ID: IC OCP 200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-Jul-2019 04:56:16 ALS Bottle#: 31 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 200
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:35 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:30:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.614	3.613	0.001	1969071881	200.0	222.2	
2	3.952	3.948	0.004	6406441393	200.0	204.9	
						RPD = 8.11	
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	161481371	100.0	100.0	
2	4.837	4.837	0.000	763526363	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.087	5.089	-0.002	1464783896	201.4	223.2	
2	5.546	5.543	0.003	4242662584	201.4	199.1	
						RPD = 11.41	
7 Hexachlorobenzene							
1	5.355	5.358	-0.003	1559583602	200.0	208.3	
2	5.900	5.898	0.002	5207944968	200.0	193.6	
						RPD = 7.32	
8 alpha-BHC							
1	5.462	5.462	0.000	1351715535	200.0	213.1	
2	6.004	6.001	0.003	3625701795	200.0	205.2	
						RPD = 3.76	
11 gamma-BHC (Lindane)							
1	5.666	5.667	-0.001	908956612	200.0	197.0	
2	6.265	6.263	0.002	2826537311	200.0	205.1	
						RPD = 4.01	
12 beta-BHC							
1	5.721	5.724	-0.003	541581570	200.0	208.2	
2	6.315	6.315	0.000	1363125776	200.0	NQ	
						RPD = 20.47	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.838	5.839	-0.001	1197882427	200.0	200.5	
2	6.542	6.541	0.001	3192726143	200.0	198.3	
						RPD = 1.08	
15 Heptachlor							
1	5.979	5.979	0.000	831445412	200.0	212.3	
2	6.591	6.589	0.002	2036585465	200.0	168.8	
						RPD = 22.85	
18 Aldrin							
1	6.174	6.172	0.002	1365324142	200.0	234.5	
2	6.838	6.835	0.003	3625912058	200.0	192.0	
						RPD = 19.97	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	943084302	200.0	190.7	
2	7.258	7.256	0.002	2454481984	200.0	168.5	
						RPD = 12.36	
23 trans-Chlordane							
1	6.642	6.641	0.001	1411178618	200.0	212.1	
2	7.399	7.397	0.002	3163554348	200.0	177.0	
						RPD = 18.05	
25 cis-Chlordane							
1	6.728	6.728	0.000	1439744923	200.0	207.2	
2	7.509	7.507	0.002	3456194259	200.0	187.1	
						RPD = 10.21	
26 4,4'-DDE							
1	6.777	6.778	-0.001	1467258420	200.0	211.7	
2	7.620	7.617	0.003	3601308008	200.0	184.4	
						RPD = 13.75	
27 Endosulfan I							
1	6.815	6.815	0.000	1117083141	200.0	203.1	
2	7.562	7.560	0.002	2637773154	200.0	193.2	
						RPD = 5.02	
29 Dieldrin							
1	6.979	6.979	0.000	1216414779	200.0	213.8	
2	7.772	7.770	0.002	3128658267	200.0	183.9	
						RPD = 15.02	
33 Endrin							
1	7.135	7.135	0.000	725877456	200.0	201.3	
2	8.017	8.016	0.001	2111861816	200.0	169.7	
						RPD = 17.00	
36 4,4'-DDD							
1	7.174	7.176	-0.002	822986425	200.0	209.9	
2	8.066	8.065	0.001	1956184843	200.0	177.8	
						RPD = 16.56	
37 Endosulfan II							
1	7.289	7.290	-0.001	819218536	200.0	202.8	
2	8.179	8.178	0.001	2097794238	200.0	196.4	
						RPD = 3.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	781255419	200.0	222.8	
2	8.319	8.317	0.002	2024343570	200.0	187.6	
						RPD = 17.17	
39 Endrin aldehyde							
1	7.577	7.576	0.001	841058131	200.0	189.1	
2	8.442	8.441	0.001	1956797940	200.0	190.5	
						RPD = 0.75	
40 Methoxychlor							
1	7.729	7.730	-0.001	292187509	200.0	172.9	
2	8.871	8.871	0.000	757782412	200.0	203.9	
						RPD = 16.45	
42 Endosulfan sulfate							M
1	7.889	7.888	0.001	1002205573	200.0	204.4	M
2	8.657	8.656	0.001	2245786059	200.0	194.5	
						RPD = 4.97	
44 Endrin ketone							
1	8.103	8.103	0.000	797478687	200.0	198.9	
2	9.115	9.115	0.000	1872172152	200.0	186.4	
						RPD = 6.45	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	1403408707	200.6	203.0	
2	10.103	10.100	0.003	3153708897	200.6	187.9	
						RPD = 7.77	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Review Flags

M - Manually Integrated

Reagents:

OCP_IC400_00017	Amount Added: 0.50	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:38 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0037.d

Injection Date: 14-Jul-2019 04:56:16 Instrument ID: TAC034

Lims ID: IC OCP 200

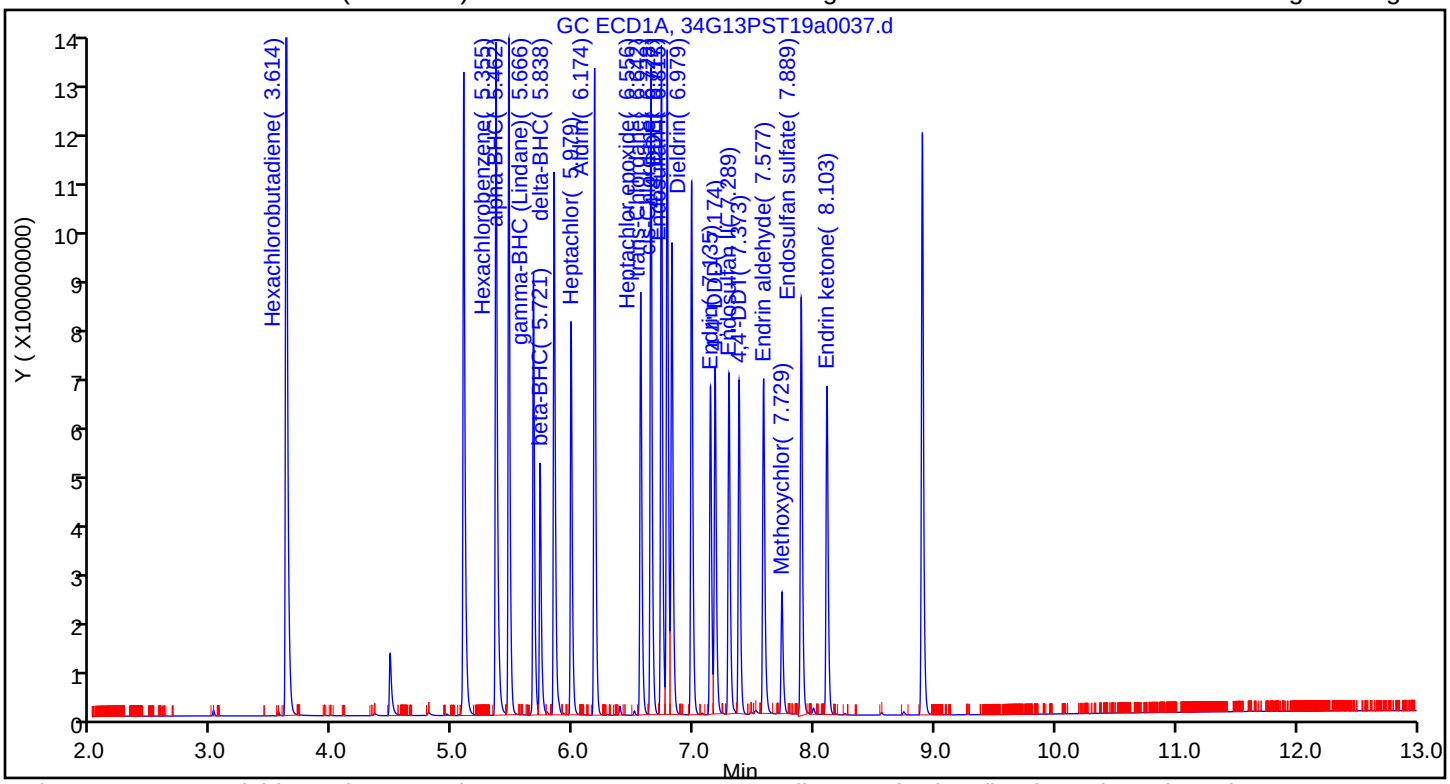
Client ID:

Operator ID: CJB ALS Bottle#: 31 Worklist Smp#: 33

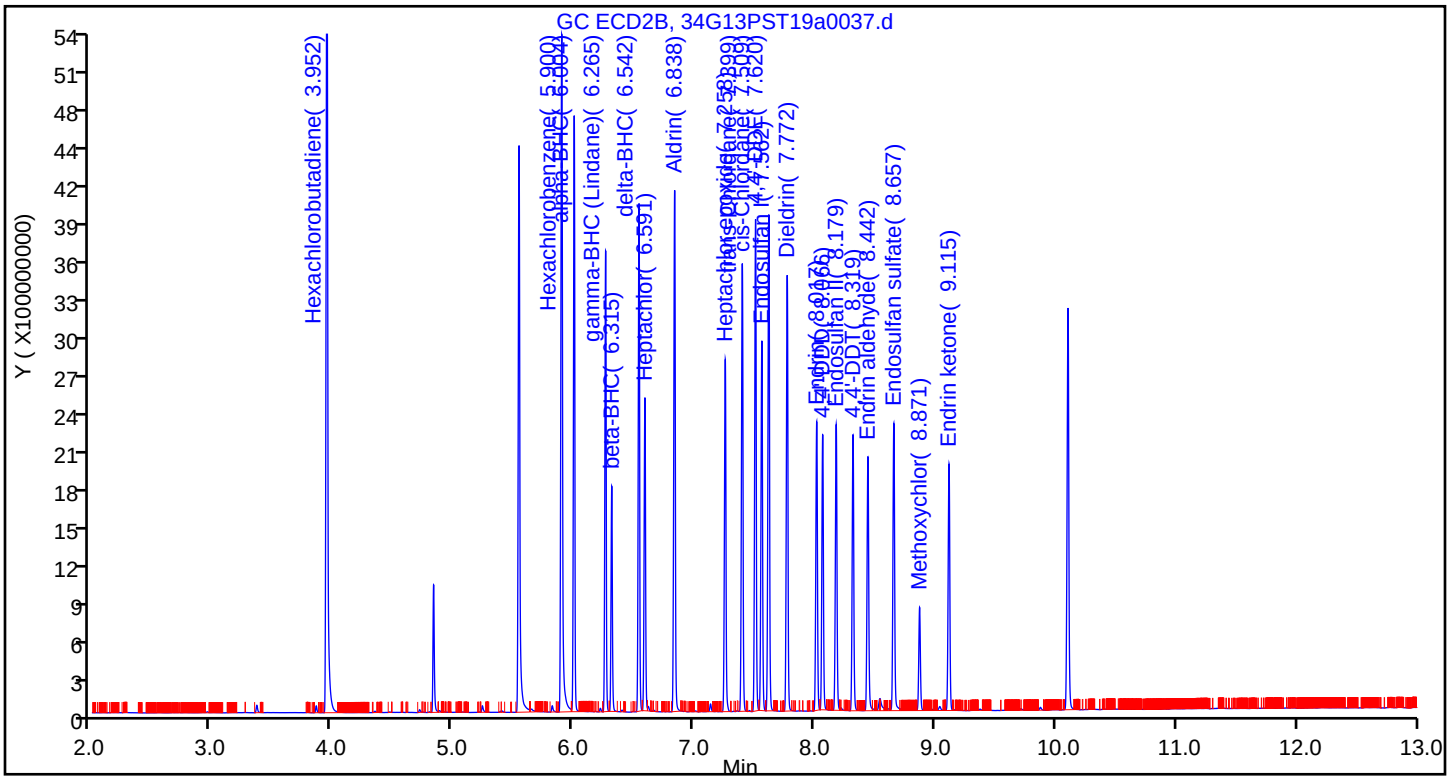
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0038.d
Lims ID: IC OCP 100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-Jul-2019 05:15:41 ALS Bottle#: 32 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 100
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:43 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:31:07

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.614	3.613	0.001	884124501	100.0	95.4	
2	3.950	3.948	0.002	2891696227	100.0	88.9	
						RPD = 7.05	
* 2 1-Bromo-2-nitrobenzene							
1	4.475	4.476	-0.001	169282969	100.0	100.0	
2	4.837	4.837	0.000	794165829	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.087	5.089	-0.002	692930813	100.7	100.7	
2	5.545	5.543	0.002	1888462307	100.7	85.3	
						RPD = 16.64	
7 Hexachlorobenzene							
1	5.356	5.358	-0.002	732145147	100.0	93.3	
2	5.899	5.898	0.001	2396143436	100.0	85.6	
						RPD = 8.55	
8 alpha-BHC							
1	5.461	5.462	-0.001	611340104	100.0	98.2	
2	6.004	6.001	0.003	1739729209	100.0	94.7	
						RPD = 3.65	
11 gamma-BHC (Lindane)							
1	5.666	5.667	-0.001	442813583	100.0	91.8	
2	6.265	6.263	0.002	1223306150	100.0	85.3	
						RPD = 7.32	
12 beta-BHC							
1	5.722	5.724	-0.002	260648426	100.0	95.6	
2	6.315	6.315	0.000	641639011	100.0	100.2	
						RPD = 4.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.838	5.839	-0.001	531596053	100.0	96.5	
2	6.541	6.541	0.000	1536644206	100.0	95.0	
						RPD = 1.65	
15 Heptachlor							
1	5.978	5.979	-0.001	410311740	100.0	100.0	
2	6.590	6.589	0.001	1067999292	100.0	85.1	
						RPD = 16.06	
18 Aldrin							
1	6.173	6.172	0.001	649057700	100.0	106.4	
2	6.837	6.835	0.002	1766063978	100.0	89.9	
						RPD = 16.79	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	483211794	100.0	93.2	
2	7.257	7.256	0.001	1242420078	100.0	82.0	
						RPD = 12.79	
23 trans-Chlordane							
1	6.642	6.641	0.001	650934339	100.0	93.3	
2	7.399	7.397	0.002	1553041804	100.0	83.5	
						RPD = 11.07	
25 cis-Chlordane							
1	6.728	6.728	0.000	673648380	100.0	92.5	
2	7.509	7.507	0.002	1645676029	100.0	85.6	
						RPD = 7.68	
26 4,4'-DDE							
1	6.777	6.778	-0.001	712475920	100.0	98.5	
2	7.618	7.617	0.001	1723711625	100.0	84.9	
						RPD = 14.88	
27 Endosulfan I							
1	6.815	6.815	0.000	565869901	100.0	98.2	
2	7.561	7.560	0.001	1334786899	100.0	93.6	
						RPD = 4.71	
29 Dieldrin							
1	6.978	6.979	-0.001	605055736	100.0	101.4	
2	7.772	7.770	0.002	1548433672	100.0	87.5	
						RPD = 14.74	
33 Endrin							
1	7.136	7.135	0.001	373742712	100.0	98.9	
2	8.016	8.016	0.000	1090309014	100.0	84.3	
						RPD = 15.95	
36 4,4'-DDD							
1	7.174	7.176	-0.002	407596304	100.0	99.4	
2	8.067	8.065	0.002	976805125	100.0	85.3	
						RPD = 15.20	
37 Endosulfan II							
1	7.289	7.290	-0.001	418275704	100.0	98.8	
2	8.179	8.178	0.001	1048850012	100.0	95.6	
						RPD = 3.31	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	382034521	100.0	103.9	
2	8.318	8.317	0.001	1052133728	100.0	93.7	
						RPD = 10.32	
39 Endrin aldehyde							
1	7.576	7.576	0.000	407713559	100.0	87.4	
2	8.442	8.441	0.001	982761159	100.0	91.8	
						RPD = 4.86	
40 Methoxychlor							
1	7.728	7.730	-0.002	155054322	100.0	87.5	
2	8.871	8.871	0.000	395502527	100.0	92.9	
						RPD = 5.94	
42 Endosulfan sulfate							
1	7.889	7.888	0.001	495619364	100.0	92.1	
2	8.657	8.656	0.001	1126462517	100.0	93.6	
						RPD = 1.60	
44 Endrin ketone							
1	8.102	8.103	-0.001	415419395	100.0	94.2	
2	9.116	9.115	0.001	954620697	100.0	91.4	
						RPD = 2.99	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	676906728	100.3	90.7	
2	10.102	10.100	0.002	1495882013	100.3	85.4	
						RPD = 5.93	

Reagents:

OCP_IC400_00017	Amount Added: 0.25	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:45 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0038.d

Injection Date: 14-Jul-2019 05:15:41 Instrument ID: TAC034

Lims ID: IC OCP 100

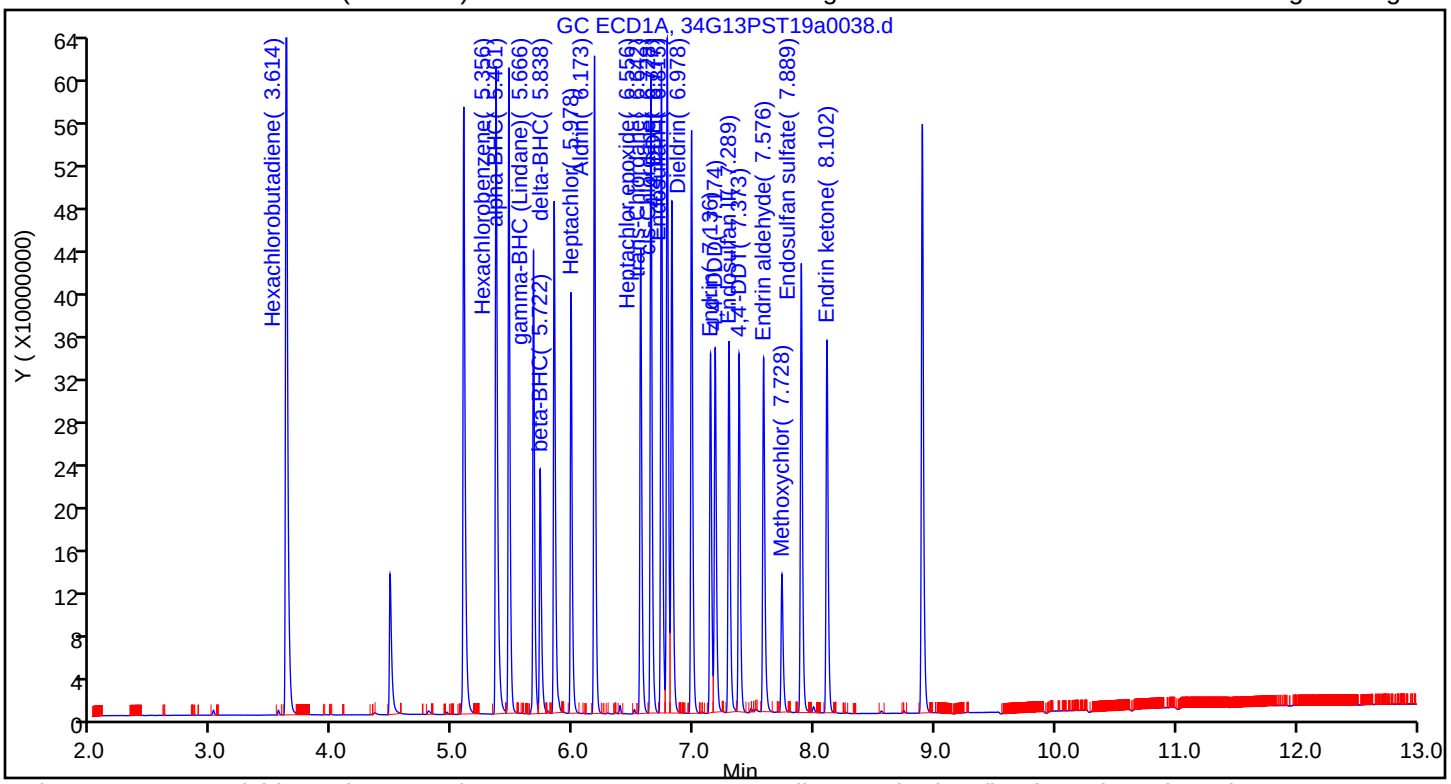
Client ID:

Operator ID: CJB ALS Bottle#: 32 Worklist Smp#: 34

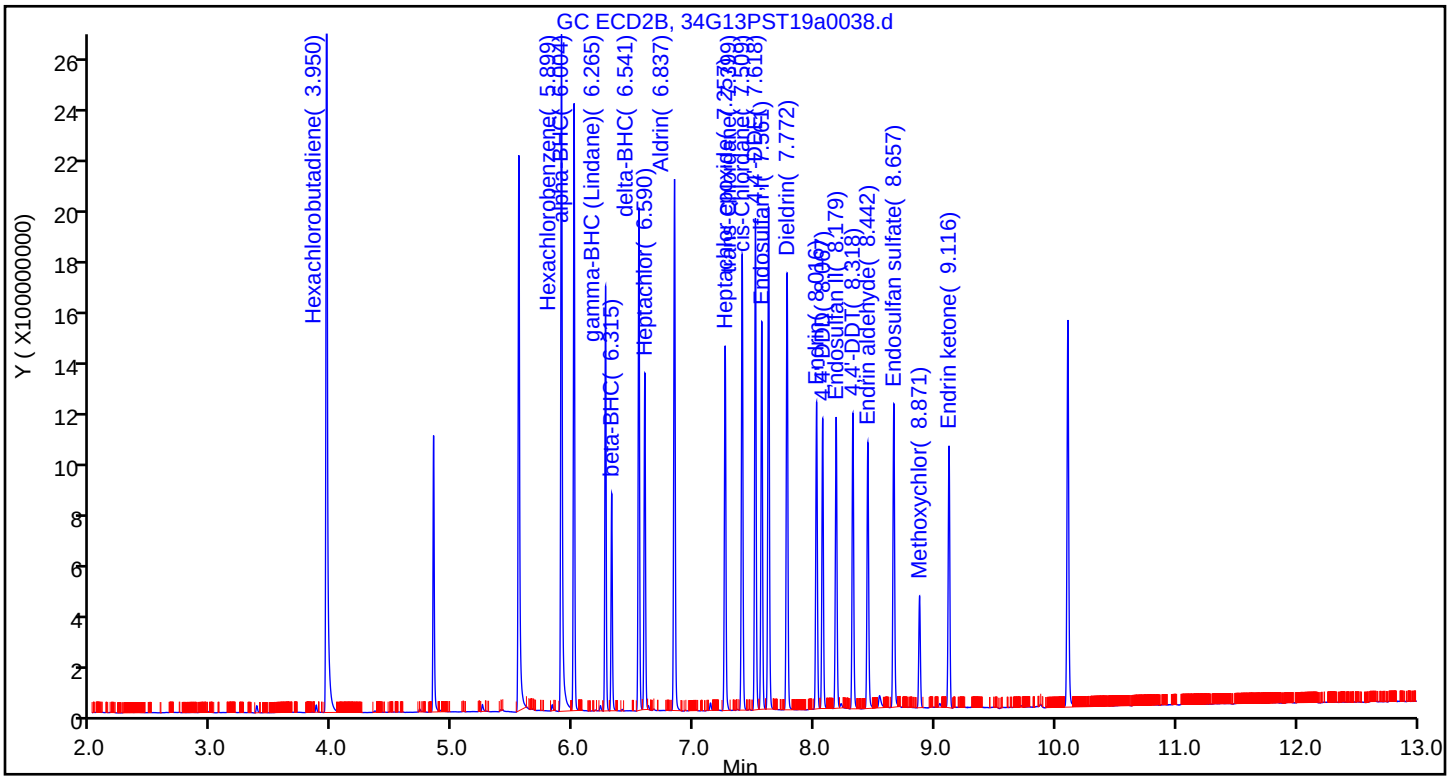
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0039.d
Lims ID: ICIS OCP 50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 14-Jul-2019 05:34:59 ALS Bottle#: 33 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS OCP 50
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:49 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:31:47

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	419872564	50.0	50.4	
	2	3.948	3.948	0.000	1442117602	50.0	43.7	
							RPD = 14.27	
*	2 1-Bromo-2-nitrobenzene							
	1	4.476	4.476	0.000	152757460	100.0	100.0	
	2	4.836	4.837	-0.001	806036132	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.088	5.089	-0.001	340068924	50.4	54.8	
	2	5.544	5.543	0.001	957808881	50.4	42.6	
							RPD = 24.94	
	7 Hexachlorobenzene							
	1	5.356	5.358	-0.002	371769083	50.0	52.5	
	2	5.898	5.898	0.000	1216094653	50.0	42.8	
							RPD = 20.29	
	8 alpha-BHC							
	1	5.462	5.462	0.000	295245109	50.0	54.2	
	2	6.002	6.001	0.001	922676650	50.0	49.5	
							RPD = 9.20	
	11 gamma-BHC (Lindane)							
	1	5.666	5.667	-0.001	251441179	50.0	58.0	
	2	6.263	6.263	0.000	718173877	50.0	49.4	
							RPD = 16.02	
	12 beta-BHC							M
	1	5.723	5.724	-0.001	128697840	50.0	52.3	
	2	6.315	6.315	0.000	359507829	50.0	49.2	M
							RPD = 6.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.839	5.839	0.000	259030266	50.0	55.2	
2	6.540	6.541	-0.001	850052278	50.0	52.4	
						RPD = 5.27	
15 Heptachlor							
1	5.978	5.979	-0.001	203537700	50.0	54.9	
2	6.589	6.589	0.000	594899820	50.0	46.7	
						RPD = 16.22	
18 Aldrin							
1	6.172	6.172	0.000	314991866	50.0	57.2	
2	6.835	6.835	0.000	914154791	50.0	45.8	
						RPD = 22.05	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	249801214	50.0	53.4	
2	7.256	7.256	0.000	713020918	50.0	46.4	
						RPD = 14.09	
23 trans-Chlordane							
1	6.641	6.641	0.000	335218816	50.0	53.3	
2	7.397	7.397	0.000	862884997	50.0	45.7	
						RPD = 15.22	
25 cis-Chlordane							
1	6.728	6.728	0.000	346675701	50.0	52.7	
2	7.507	7.507	0.000	856349481	50.0	43.9	
						RPD = 18.28	
26 4,4'-DDE							
1	6.776	6.778	-0.002	353932095	50.0	54.6	
2	7.617	7.617	0.000	911447678	50.0	44.2	
						RPD = 21.07	
27 Endosulfan I							
1	6.814	6.815	-0.001	281285874	50.0	54.1	
2	7.560	7.560	0.000	728528238	50.0	50.0	
						RPD = 7.73	
29 Dieldrin							
1	6.978	6.979	-0.001	313806262	50.0	58.3	
2	7.770	7.770	0.000	839905599	50.0	46.8	
						RPD = 21.95	
33 Endrin							
1	7.134	7.135	-0.001	194927169	50.0	57.1	
2	8.015	8.016	-0.001	609999574	50.0	46.4	
						RPD = 20.65	
36 4,4'-DDD							
1	7.175	7.176	-0.001	207482300	50.0	56.2	
2	8.065	8.065	0.000	560141433	50.0	48.2	
						RPD = 15.37	
37 Endosulfan II							
1	7.288	7.290	-0.002	213570055	50.0	55.9	
2	8.178	8.178	0.000	576649930	50.0	51.5	
						RPD = 8.11	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							M
1	7.372	7.373	-0.001	194269294	50.0	58.6	M
2	8.316	8.317	-0.001	555521080	50.0	48.8	
						RPD = 18.28	
39 Endrin aldehyde							
1	7.576	7.576	0.000	212471241	50.0	50.5	
2	8.440	8.441	-0.001	537925666	50.0	49.3	
						RPD = 2.34	
40 Methoxychlor							
1	7.729	7.730	-0.001	84915530	50.0	53.1	
2	8.870	8.871	-0.001	220836684	50.0	48.9	
						RPD = 8.21	
42 Endosulfan sulfate							
1	7.888	7.888	0.000	260476577	50.0	52.8	
2	8.656	8.656	0.000	609058232	50.0	49.7	
						RPD = 6.00	
44 Endrin ketone							
1	8.103	8.103	0.000	209695479	50.0	51.7	
2	9.114	9.115	-0.001	506357288	50.0	47.8	
						RPD = 7.86	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	361561464	50.2	52.7	
2	10.101	10.100	0.001	781024645	50.2	43.8	
						RPD = 18.55	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:51 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0039.d

Injection Date: 14-Jul-2019 05:34:59 Instrument ID: TAC034

Lims ID: ICIS OCP 50

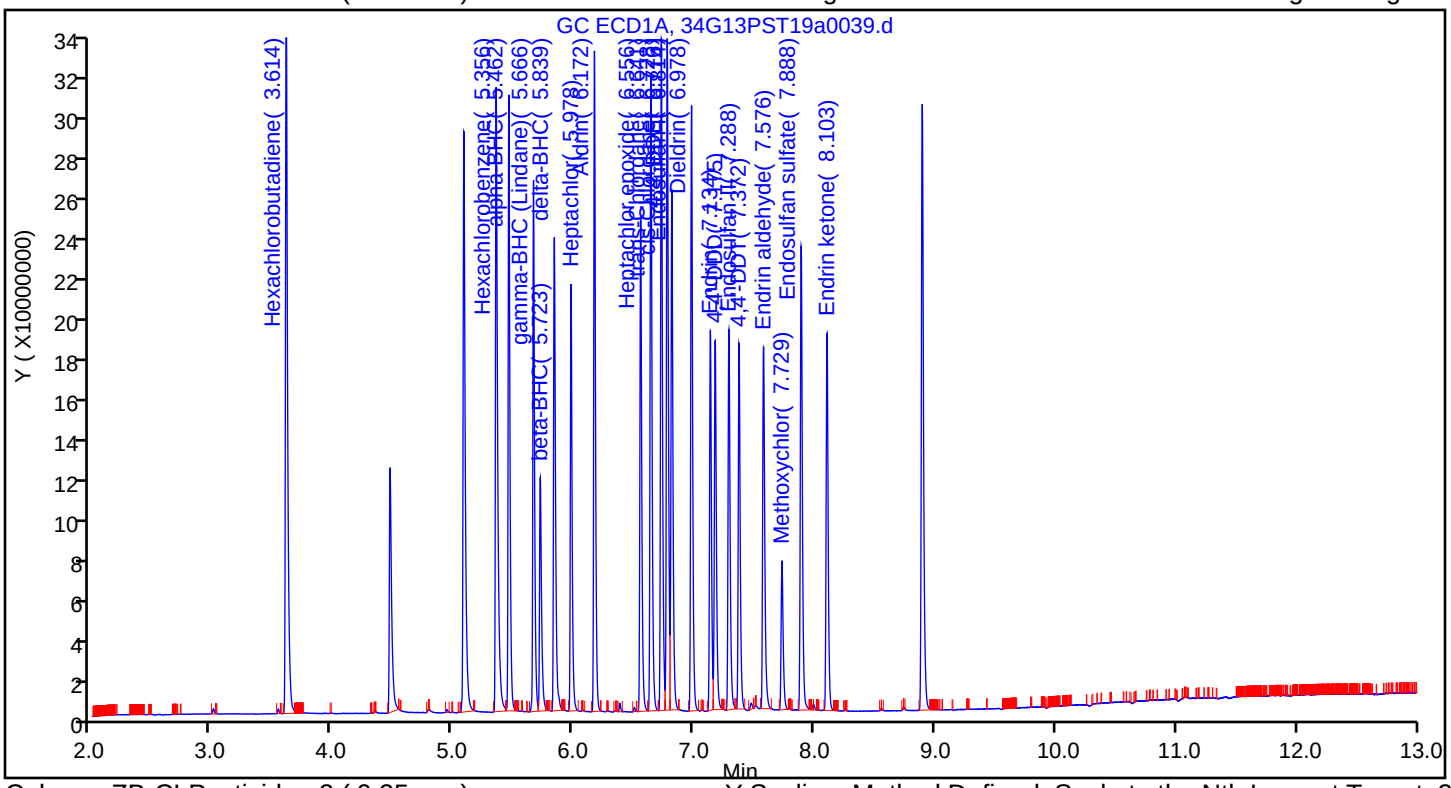
Client ID:

Operator ID: CJB ALS Bottle#: 33 Worklist Smp#: 35

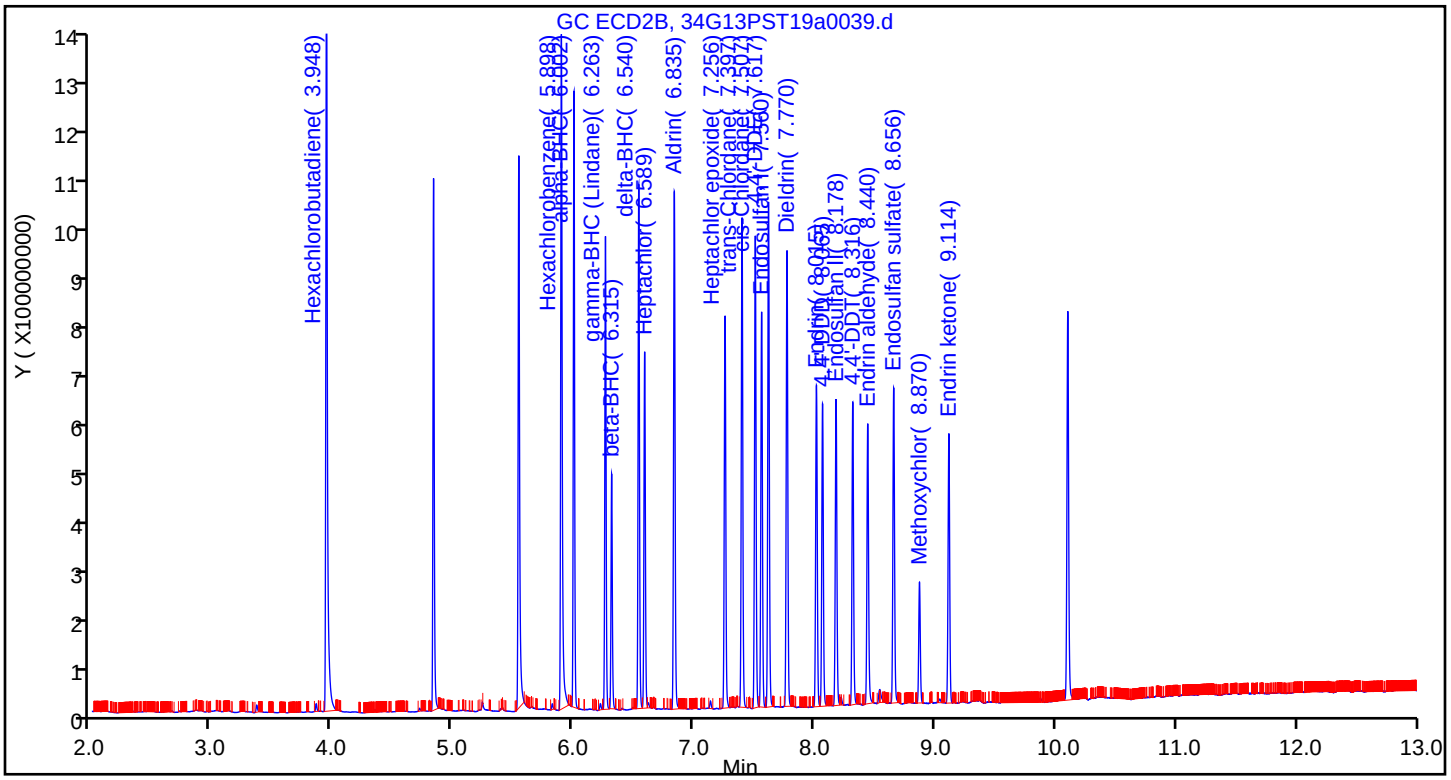
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

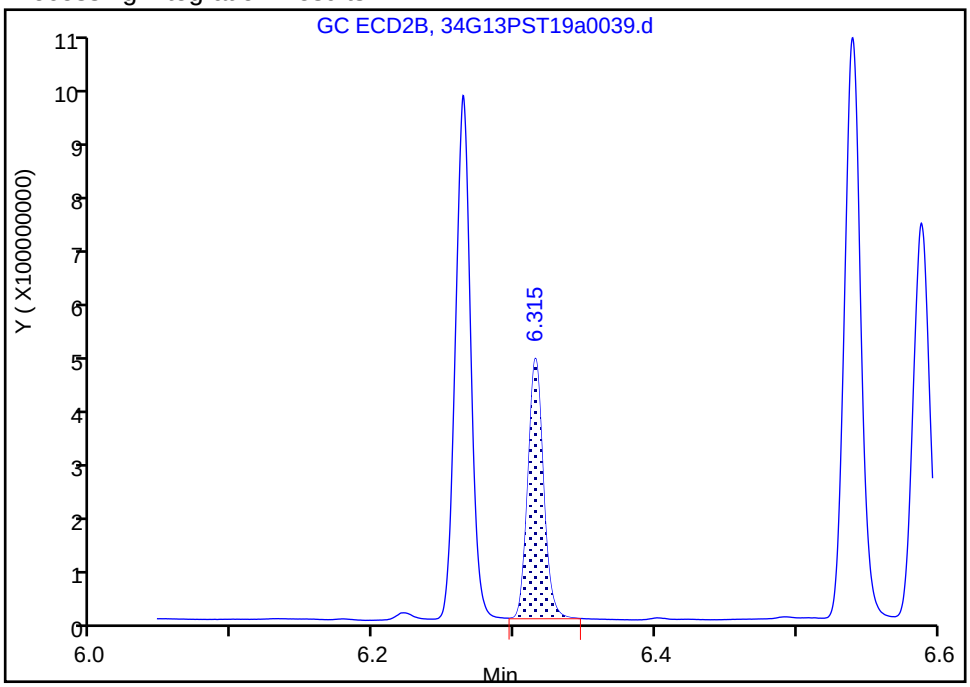
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0039.d				
Injection Date:	14-Jul-2019 05:34:59	Instrument ID:	TAC034		
Lims ID:	ICIS OCP 50				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	33	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

12 beta-BHC, CAS: 319-85-7

Signal: 2

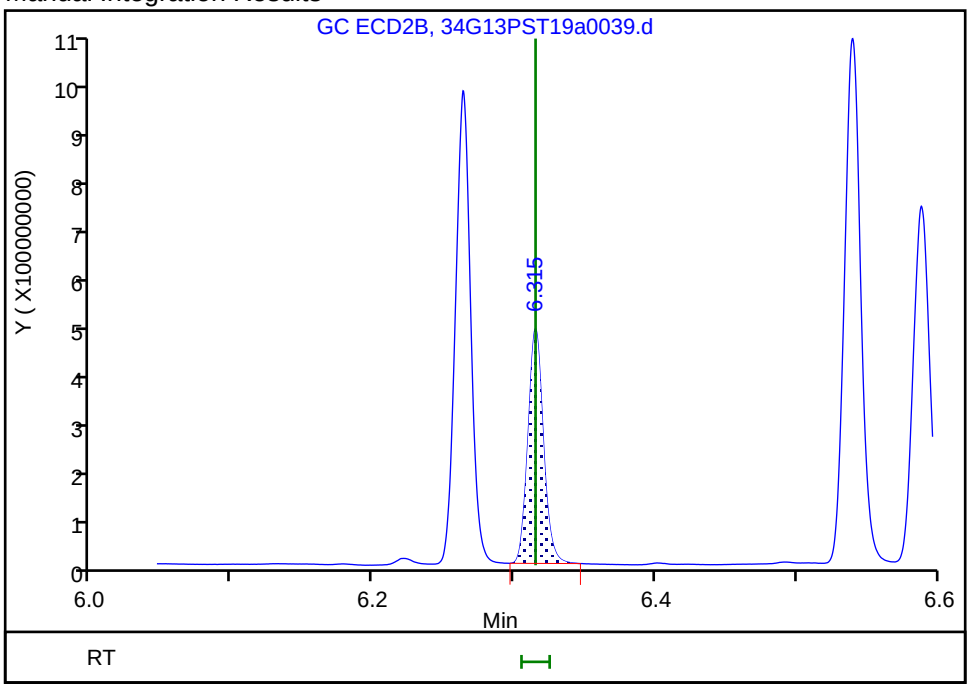
Processing Integration Results

RT: 6.31
Area: 361648369
Amount: 48.462085
Amount Units: ug/L



Manual Integration Results

RT: 6.31
Area: 359507829
Amount: 49.163160
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:28:08
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0040.d
Lims ID: IC OCP 25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-Jul-2019 05:54:17 ALS Bottle#: 34 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 25
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:41:55 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:33:06

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1	Hexachlorobutadiene						
	1	3.613	3.613	0.000	184398738	25.0	25.5	
	2	3.948	3.948	0.000	681010308	25.0	25.1	
							RPD = 1.55	
*	2	1-Bromo-2-nitrobenzene						
	1	4.476	4.476	0.000	133795495	100.0	100.0	
	2	4.837	4.837	0.000	662946912	100.0	100.0	
							RPD = 0.00	
$	4	Tetrachloro-m-xylene						
	1	5.089	5.089	0.000	152066077	25.2	28.0	
	2	5.543	5.543	0.000	480618815	25.2	26.0	
							RPD = 7.16	
	7	Hexachlorobenzene						
	1	5.358	5.358	0.000	169504110	25.0	27.3	
	2	5.898	5.898	0.000	553057402	25.0	23.7	
							RPD = 14.30	
	8	alpha-BHC						
	1	5.462	5.462	0.000	115804338	25.0	25.2	
	2	6.001	6.001	0.000	408170168	25.0	26.6	
							RPD = 5.55	
	11	gamma-BHC (Lindane)						
	1	5.667	5.667	0.000	99838614	25.0	26.5	
	2	6.263	6.263	0.000	319970491	25.0	26.7	
							RPD = 0.75	
	12	beta-BHC						M
	1	5.724	5.724	0.000	50393225	25.0	23.4	M
	2	6.315	6.315	0.000	164778503	25.0	25.8	
							RPD = 9.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.839	5.839	0.000	101946198	25.0	26.0	
2	6.541	6.541	0.000	352308031	25.0	26.4	
						RPD = 1.79	
15 Heptachlor							
1	5.979	5.979	0.000	89258029	25.0	27.5	
2	6.589	6.589	0.000	277483997	25.0	26.5	
						RPD = 3.80	
18 Aldrin							
1	6.172	6.172	0.000	131537330	25.0	27.3	
2	6.835	6.835	0.000	421780738	25.0	25.7	
						RPD = 5.87	
22 Heptachlor epoxide							
1	6.556	6.556	0.000	112716403	25.0	27.5	
2	7.256	7.256	0.000	337108590	25.0	26.7	
						RPD = 3.15	
23 trans-Chlordane							
1	6.641	6.641	0.000	146770502	25.0	26.6	
2	7.397	7.397	0.000	393730127	25.0	25.4	
						RPD = 4.83	
25 cis-Chlordane							
1	6.728	6.728	0.000	153687656	25.0	26.7	
2	7.507	7.507	0.000	408736394	25.0	25.5	
						RPD = 4.66	
26 4,4'-DDE							
1	6.778	6.778	0.000	143052493	25.0	25.7	
2	7.617	7.617	0.000	439298423	25.0	25.9	
						RPD = 0.88	
27 Endosulfan I							
1	6.815	6.815	0.000	127509848	25.0	28.0	
2	7.560	7.560	0.000	345070108	25.0	28.5	
						RPD = 1.97	
29 Dieldrin							
1	6.979	6.979	0.000	130414135	25.0	27.7	
2	7.770	7.770	0.000	399078882	25.0	27.0	
						RPD = 2.36	
33 Endrin							
1	7.135	7.135	0.000	86365421	25.0	28.9	
2	8.016	8.016	0.000	292149210	25.0	27.0	
						RPD = 6.65	
36 4,4'-DDD							
1	7.176	7.176	0.000	88405754	25.0	27.6	
2	8.065	8.065	0.000	274995632	25.0	28.8	
						RPD = 4.25	
37 Endosulfan II							
1	7.290	7.290	0.000	86457979	25.0	25.8	
2	8.178	8.178	0.000	270190679	25.0	28.8	
						RPD = 11.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.373	7.373	0.000	81901500	25.0	28.2	
2	8.317	8.317	0.000	259323462	25.0	27.7	
						RPD = 1.85	
39 Endrin aldehyde							
1	7.576	7.576	0.000	100667469	25.0	27.3	
2	8.441	8.441	0.000	248714862	25.0	27.6	
						RPD = 0.89	
40 Methoxychlor							
1	7.730	7.730	0.000	39053435	25.0	27.9	
2	8.871	8.871	0.000	110783796	25.0	29.0	
						RPD = 3.88	
42 Endosulfan sulfate							
1	7.888	7.888	0.000	117246032	25.0	26.8	
2	8.656	8.656	0.000	286221591	25.0	28.3	
						RPD = 5.33	
44 Endrin ketone							
1	8.103	8.103	0.000	102257692	25.0	28.5	
2	9.115	9.115	0.000	229538649	25.0	26.3	
						RPD = 7.78	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	176660851	25.1	28.6	
2	10.100	10.100	0.000	381522034	25.1	25.8	
						RPD = 10.34	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:41:57 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0040.d

Injection Date: 14-Jul-2019 05:54:17 Instrument ID: TAC034

Lims ID: IC OCP 25

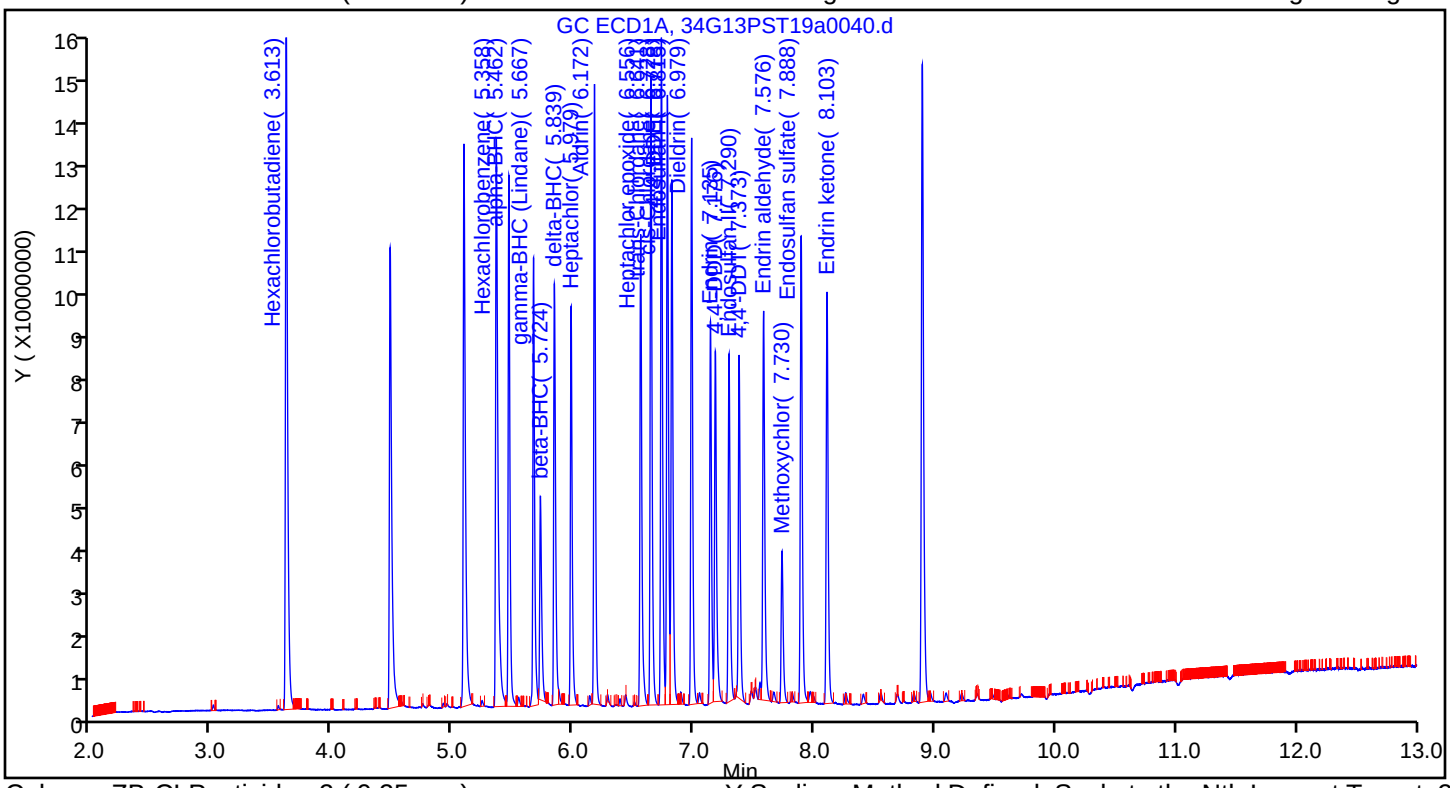
Client ID:

Operator ID: CJB ALS Bottle#: 34 Worklist Smp#: 36

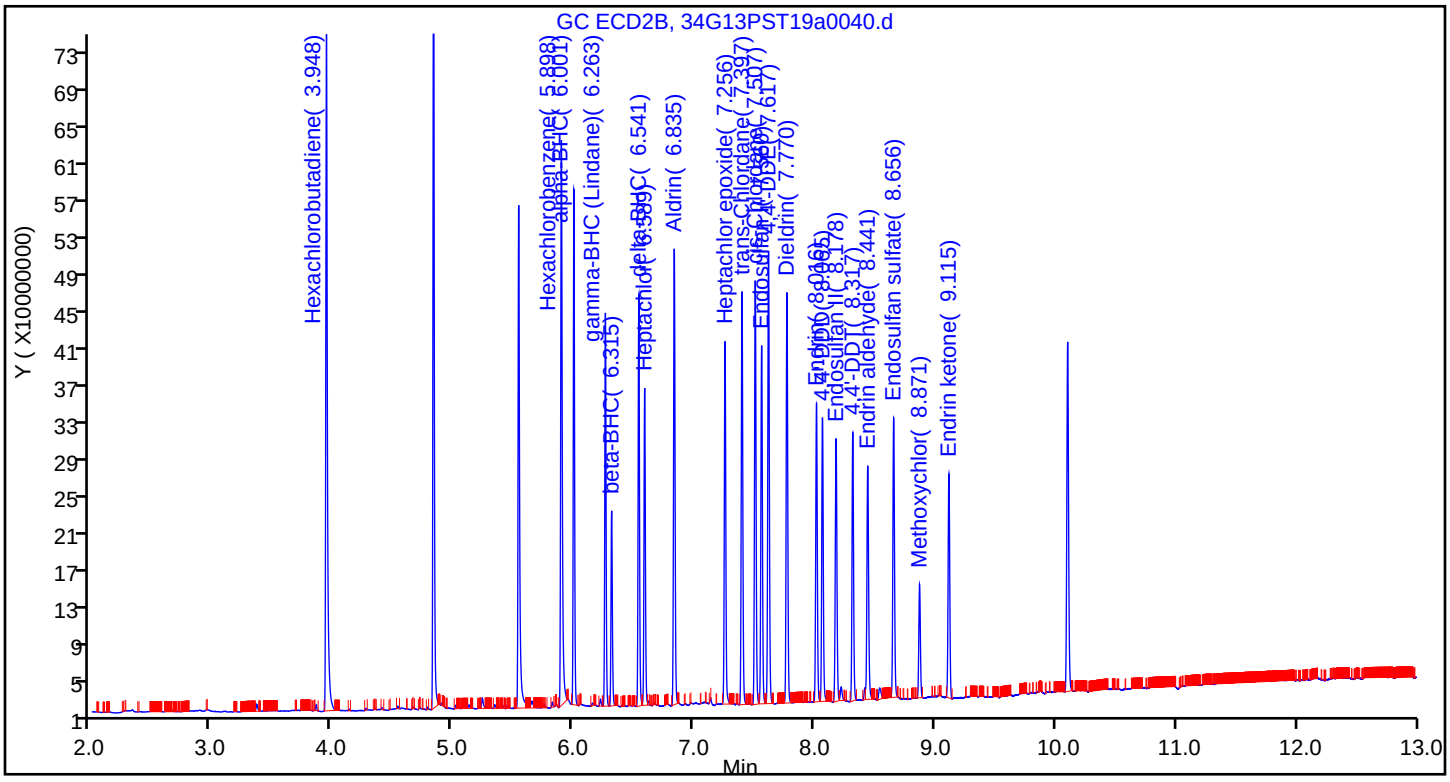
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0041.d
Lims ID: IC OCP 10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Jul-2019 06:13:36 ALS Bottle#: 35 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 10
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:02 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:34:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.613	3.613	0.000	64466989	10.0	8.77	
2	3.947	3.948	-0.001	288961220	10.0	9.67	
						RPD = 9.71	
* 2 1-Bromo-2-nitrobenzene							
1	4.476	4.476	0.000	140218958	100.0	100.0	
2	4.837	4.837	0.000	730098545	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.092	5.089	0.003	55234662	10.1	9.69	
2	5.544	5.543	0.001	189609568	10.1	9.37	
						RPD = 3.42	
7 Hexachlorobenzene							
1	5.360	5.358	0.002	62327308	10.0	9.59	
2	5.897	5.898	-0.001	250954451	10.0	9.76	
						RPD = 1.74	
8 alpha-BHC							
1	5.462	5.462	0.000	34574291	10.0	7.87	
2	6.002	6.001	0.001	161902890	10.0	9.58	
						RPD = 19.67	
11 gamma-BHC (Lindane)							M
1	5.668	5.667	0.001	33011775	10.0	8.70	M
2	6.263	6.263	0.000	133163180	10.0	10.1	
						RPD = 14.88	
12 beta-BHC							
1	5.725	5.724	0.001	21358091	10.0	9.45	
2	6.315	6.315	0.000	80474759	10.0	10.6	
						RPD = 11.71	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.840	5.839	0.001	31948156	10.0	8.11	
2	6.540	6.541	-0.001	171295829	10.0	11.5	
						RPD = 34.53	
15 Heptachlor							
1	5.979	5.979	0.000	30728569	10.0	9.04	
2	6.589	6.589	0.000	126538051	10.0	11.0	
						RPD = 19.29	
18 Aldrin							
1	6.172	6.172	0.000	46711416	10.0	9.24	
2	6.835	6.835	0.000	181674878	10.0	10.1	
						RPD = 8.47	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	41817519	10.0	9.74	
2	7.256	7.256	0.000	146366095	10.0	10.5	
						RPD = 7.61	
23 trans-Chlordane							
1	6.641	6.641	0.000	52917289	10.0	9.16	
2	7.398	7.397	0.001	171279412	10.0	10.0	
						RPD = 8.98	
25 cis-Chlordane							
1	6.728	6.728	0.000	56577643	10.0	9.38	
2	7.508	7.507	0.001	173464908	10.0	9.82	
						RPD = 4.60	
26 4,4'-DDE							
1	6.778	6.778	0.000	45936732	10.0	8.48	
2	7.617	7.617	0.000	179998408	10.0	9.64	
						RPD = 12.79	
27 Endosulfan I							
1	6.815	6.815	0.000	48191662	10.0	10.1	
2	7.560	7.560	0.000	149167888	10.0	10.8	
						RPD = 6.76	
29 Dieldrin							
1	6.979	6.979	0.000	46073688	10.0	9.32	
2	7.771	7.770	0.001	161270581	10.0	9.91	
						RPD = 6.12	
33 Endrin							
1	7.136	7.135	0.001	30467411	10.0	9.73	
2	8.015	8.016	-0.001	120773929	10.0	10.2	
						RPD = 4.25	
36 4,4'-DDD							
1	7.178	7.176	0.002	27964229	10.0	8.63	
2	8.066	8.065	0.001	103784369	10.0	9.86	
						RPD = 13.37	
37 Endosulfan II							
1	7.289	7.290	-0.001	33516842	10.0	9.56	
2	8.179	8.178	0.001	116606784	10.0	10.4	
						RPD = 8.59	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.374	7.373	0.001	28314603	10.0	9.30	
2	8.317	8.317	0.000	102946873	10.0	9.98	
						RPD = 7.02	
39 Endrin aldehyde							
1	7.577	7.576	0.001	35402669	10.0	9.17	
2	8.440	8.441	-0.001	99271114	10.0	9.74	
						RPD = 6.09	
40 Methoxychlor							
1	7.731	7.730	0.001	15008681	10.0	10.2	
2	8.871	8.871	0.000	47707821	10.0	10.6	
						RPD = 3.21	
42 Endosulfan sulfate							
1	7.889	7.888	0.001	43732431	10.0	9.41	
2	8.656	8.656	0.000	115749741	10.0	10.2	
						RPD = 7.99	
44 Endrin ketone							
1	8.103	8.103	0.000	36856191	10.0	9.68	
2	9.115	9.115	0.000	96667590	10.0	10.1	
						RPD = 3.97	
$ 45 DCB Decachlorobiphenyl							
1	8.894	8.894	0.000	71617657	10.0	10.2	
2	10.101	10.100	0.001	160941627	10.0	9.65	
						RPD = 5.34	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:04 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0041.d

Injection Date: 14-Jul-2019 06:13:36 Instrument ID: TAC034

Lims ID: IC OCP 10

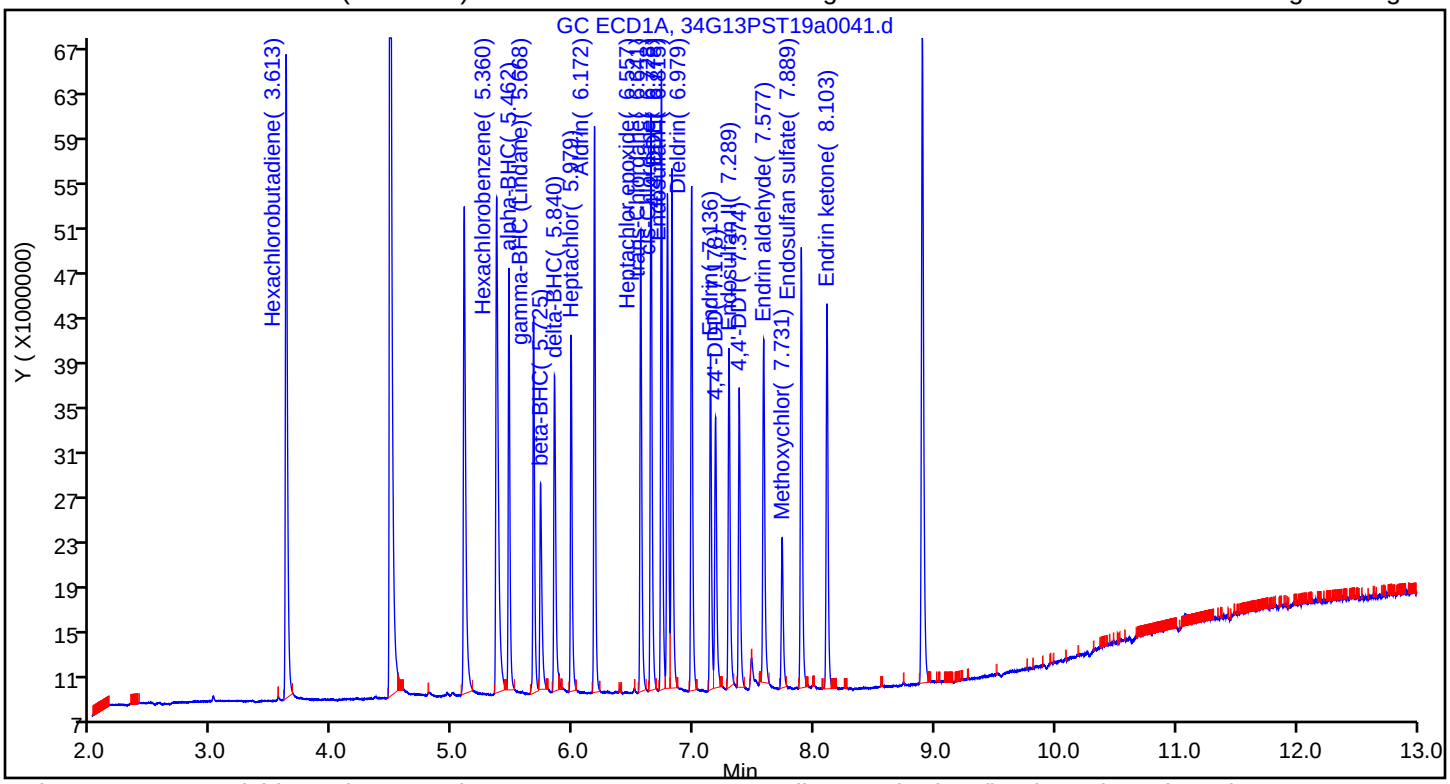
Client ID:

Operator ID: CJB ALS Bottle#: 35 Worklist Smp#: 37

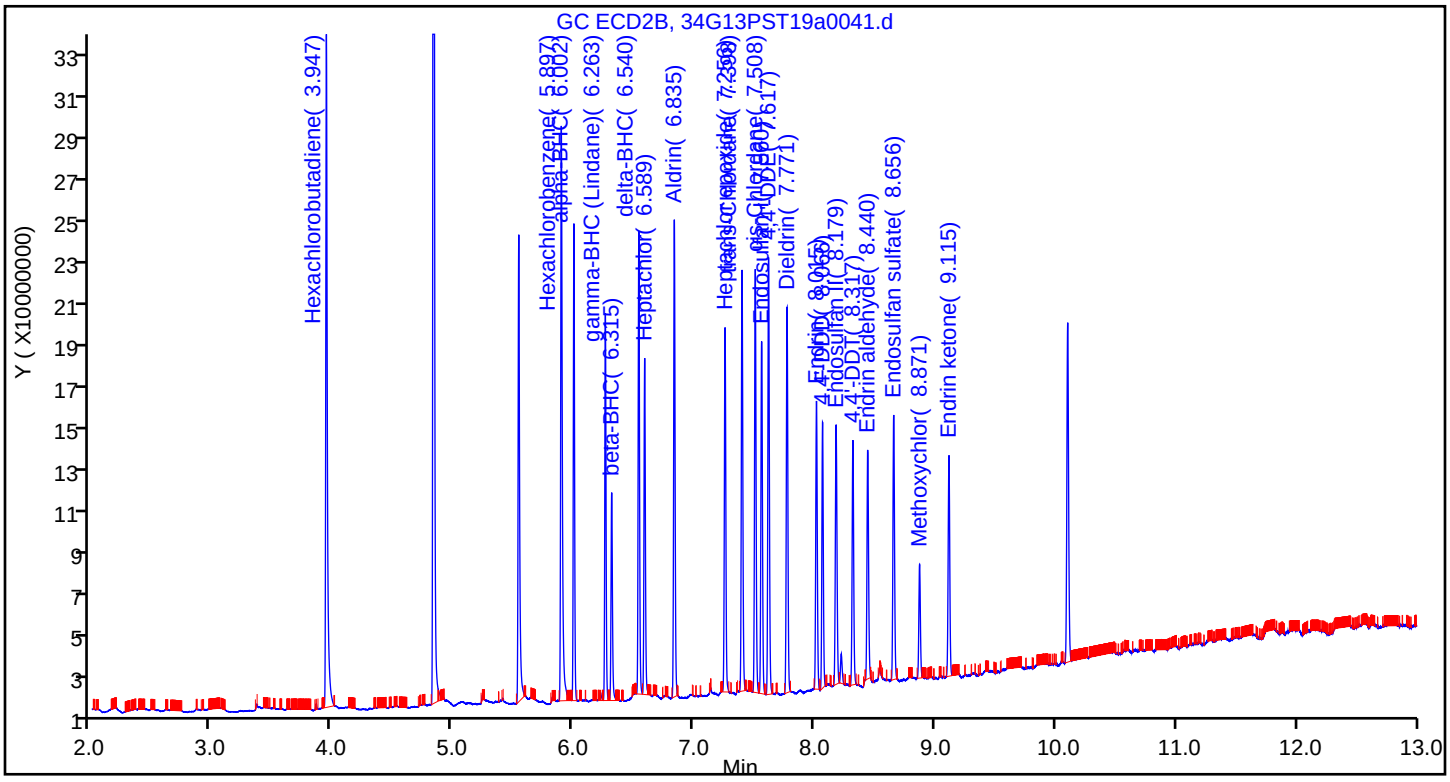
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d
Lims ID: IC OCP 5
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Jul-2019 06:33:04 ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 5
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:07 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:43:10

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	26039068	5.00	4.67	
	2	3.948	3.948	0.000	137719874	5.00	5.68	
							RPD = 19.53	
*	2 1-Bromo-2-nitrobenzene							
	1	4.478	4.476	0.002	111074578	100.0	100.0	
	2	4.838	4.837	0.001	591933666	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.092	5.089	0.003	23096609	5.04	5.12	
	2	5.544	5.543	0.001	95368622	5.04	5.84	
							RPD = 13.13	
	7 Hexachlorobenzene							M
	1	5.362	5.358	0.004	27268319	5.00	5.30	
	2	5.898	5.898	0.000	121424203	5.00	5.82	M
							RPD = 9.48	
	8 alpha-BHC							M
	1	5.462	5.462	0.000	13220259	5.00	4.26	
	2	6.002	6.001	0.001	73970428	5.00	5.40	M
							RPD = 23.65	
	11 gamma-BHC (Lindane)							
	1	5.667	5.667	0.000	13009896	5.00	4.57	
	2	6.264	6.263	0.001	58414522	5.00	5.47	
							RPD = 17.78	
	12 beta-BHC							M
	1	5.726	5.724	0.002	8874756	5.00	4.96	
	2	6.315	6.315	0.000	32602648	5.00	4.84	M
							RPD = 2.51	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							M
1	5.841	5.839	0.002	12624858	5.00	4.17	
2	6.541	6.541	0.000	67899175	5.00	5.41	M
						RPD = 25.90	
15 Heptachlor							
1	5.978	5.979	-0.001	13512394	5.00	5.02	
2	6.589	6.589	0.000	52534930	5.00	5.62	
						RPD = 11.27	
18 Aldrin							
1	6.172	6.172	0.000	18777294	5.00	4.69	
2	6.836	6.835	0.001	82120315	5.00	5.61	
						RPD = 17.83	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	18356264	5.00	5.40	
2	7.257	7.256	0.001	63557396	5.00	5.63	
						RPD = 4.21	
23 trans-Chlordane							
1	6.641	6.641	0.000	23710550	5.00	5.18	
2	7.397	7.397	0.000	76364454	5.00	5.51	
						RPD = 6.17	
25 cis-Chlordane							M
1	6.728	6.728	0.000	24799062	5.00	5.19	M
2	7.508	7.507	0.001	78287345	5.00	5.47	
						RPD = 5.20	
26 4,4'-DDE							M
1	6.779	6.778	0.001	17664845	5.00	4.57	M
2	7.618	7.617	0.001	86507367	5.00	5.71	
						RPD = 22.25	
27 Endosulfan I							M
1	6.815	6.815	0.000	20392158	5.00	5.39	M
2	7.561	7.560	0.001	67252167	5.00	5.71	
						RPD = 5.74	
29 Dieldrin							
1	6.979	6.979	0.000	18676986	5.00	4.77	
2	7.771	7.770	0.001	73124931	5.00	5.54	
						RPD = 14.98	
33 Endrin							
1	7.135	7.135	0.000	13124707	5.00	5.29	
2	8.016	8.016	0.000	56458340	5.00	5.85	
						RPD = 10.09	
36 4,4'-DDD							
1	7.178	7.176	0.002	11367537	5.00	4.64	
2	8.066	8.065	0.001	49246593	5.00	5.77	
						RPD = 21.82	
37 Endosulfan II							M
1	7.289	7.290	-0.001	14750437	5.00	5.31	
2	8.179	8.178	0.001	55472262	5.00	5.48	M
						RPD = 3.23	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.374	7.373	0.001	11738149	5.00	4.87	
2	8.318	8.317	0.001	43351221	5.00	5.18	
						RPD = 6.26	
39 Endrin aldehyde							
1	7.578	7.576	0.002	17001657	5.00	5.56	
2	8.441	8.441	0.000	47764262	5.00	5.62	
						RPD = 1.21	
40 Methoxychlor							M
1	7.732	7.730	0.002	6697071	5.00	5.76	M
2	8.872	8.871	0.001	21178656	5.00	5.30	
						RPD = 8.34	
42 Endosulfan sulfate							
1	7.890	7.888	0.002	19234043	5.00	5.16	
2	8.657	8.656	0.001	53892918	5.00	5.72	
						RPD = 10.23	
44 Endrin ketone							
1	8.103	8.103	0.000	16110939	5.00	5.32	
2	9.115	9.115	0.000	43466145	5.00	5.59	
						RPD = 5.06	
$ 45 DCB Decachlorobiphenyl							
1	8.895	8.894	0.001	35053801	5.02	5.74	
2	10.102	10.100	0.002	86257608	5.02	6.24	
						RPD = 8.32	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d

Injection Date: 14-Jul-2019 06:33:04 Instrument ID: TAC034

Lims ID: IC OCP 5

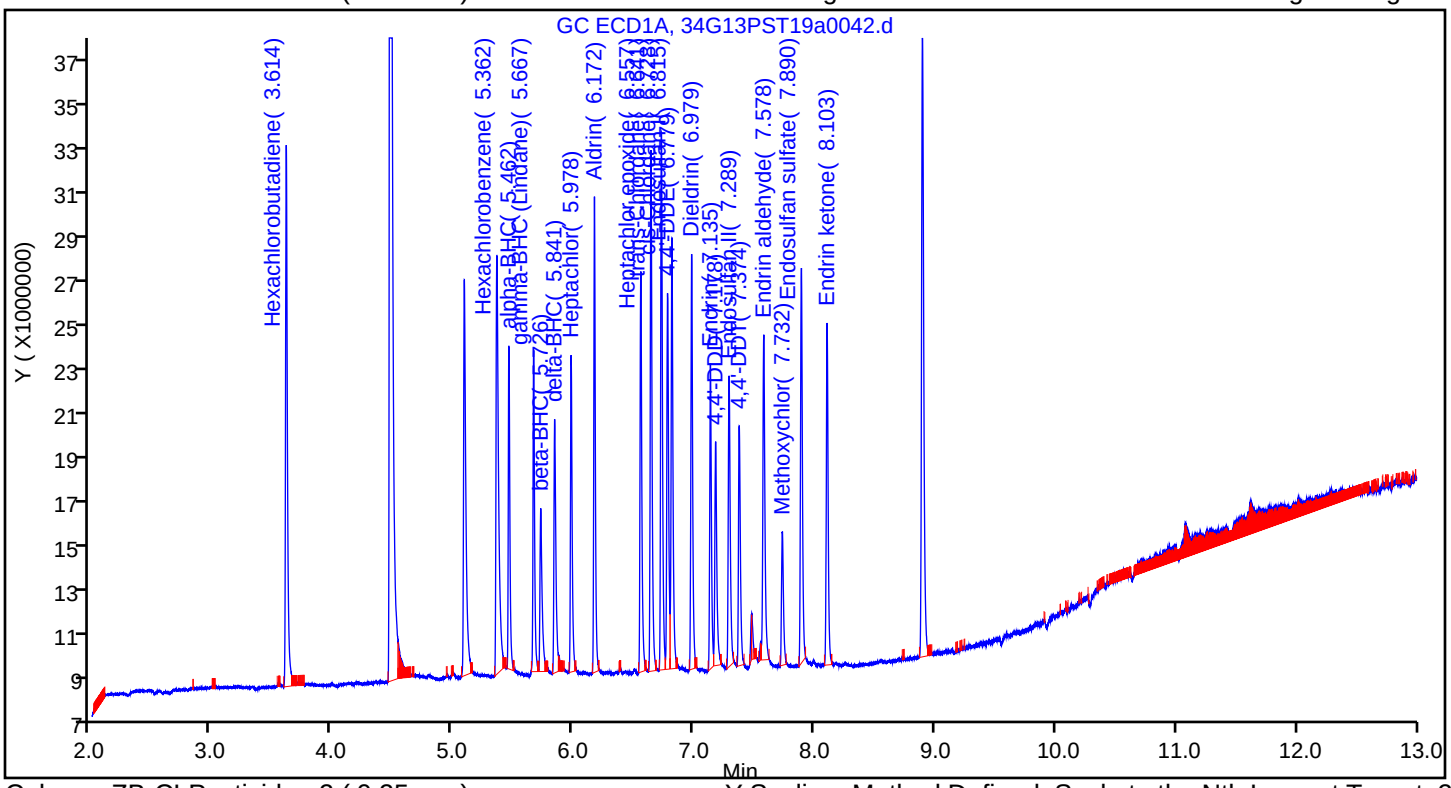
Client ID:

Operator ID: CJB ALS Bottle#: 36 Worklist Smp#: 38

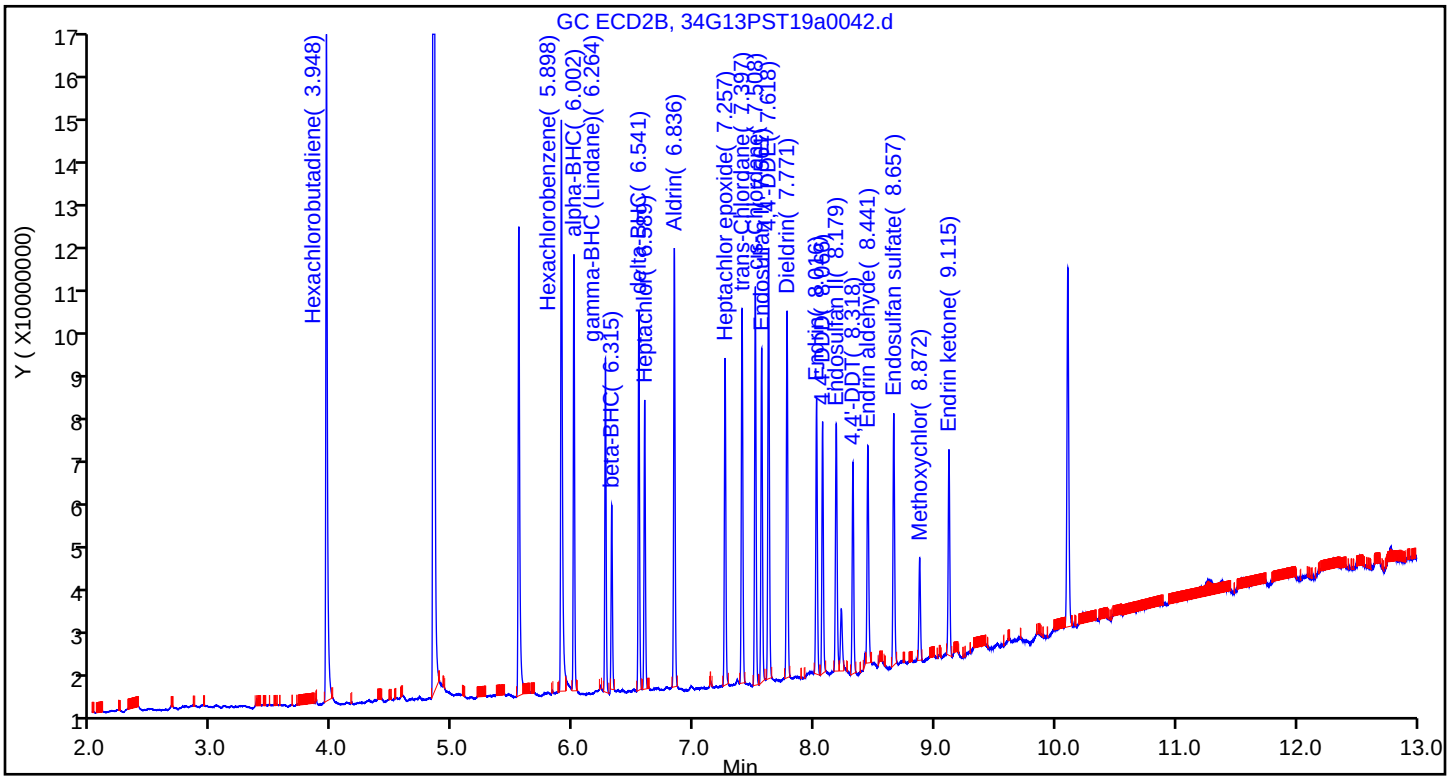
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

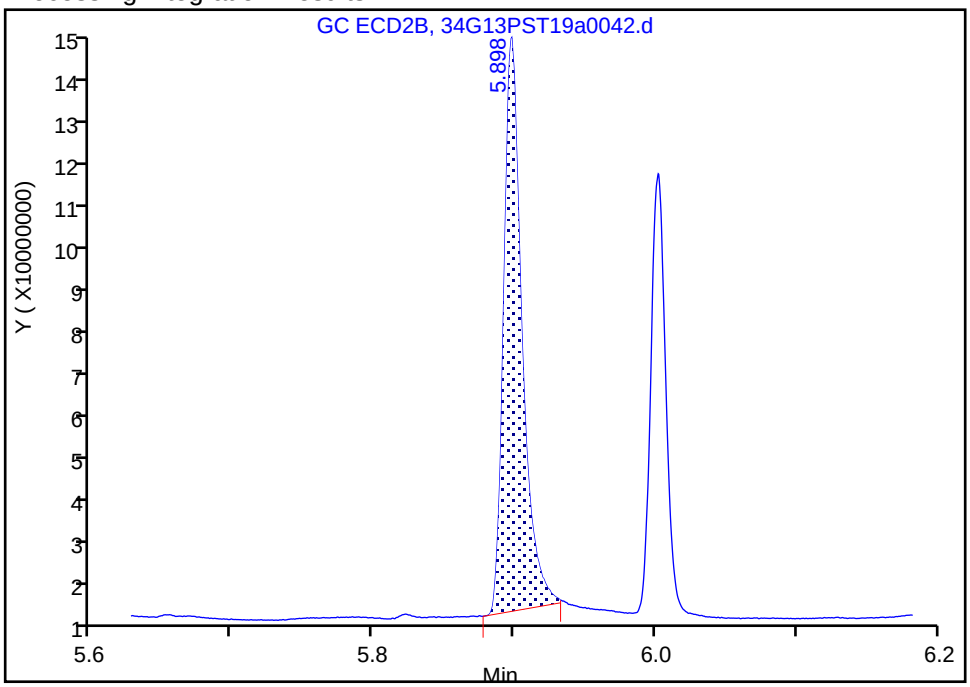
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d				
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034		
Lims ID:	IC OCP 5				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	36	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

7 Hexachlorobenzene, CAS: 118-74-1

Signal: 2

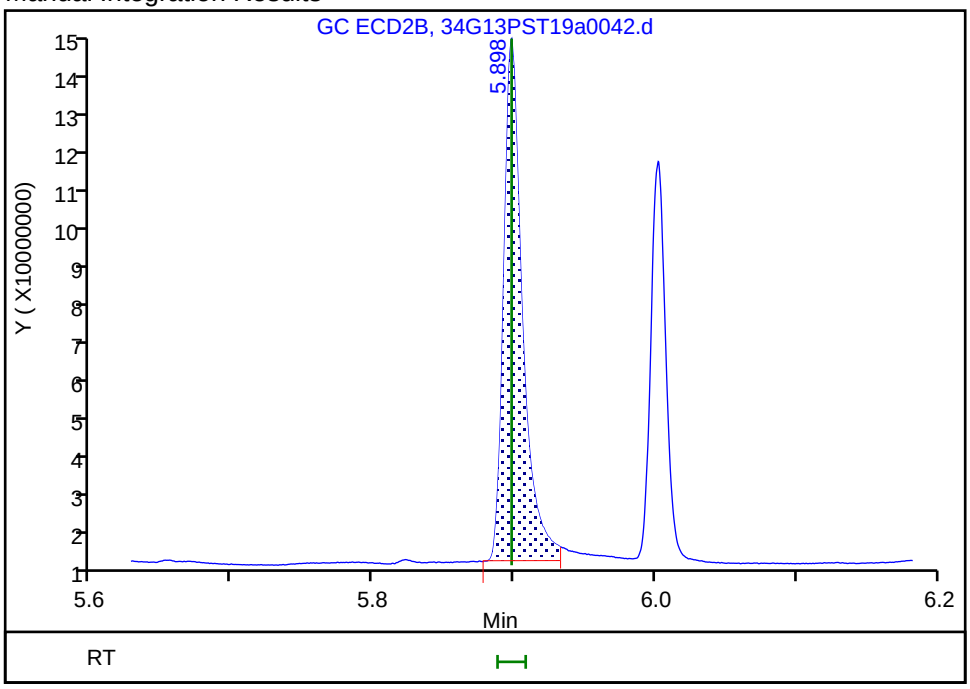
Processing Integration Results

RT: 5.90
Area: 117128080
Amount: 5.645931
Amount Units: ug/L



Manual Integration Results

RT: 5.90
Area: 121424203
Amount: 5.822871
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:40:20
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

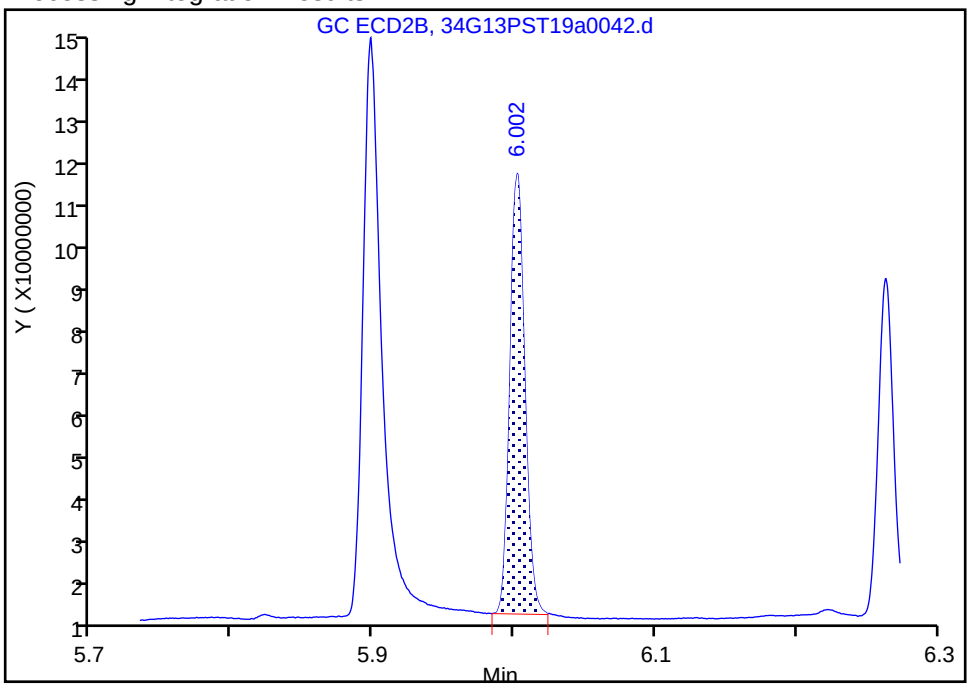
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d				
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034		
Lims ID:	IC OCP 5				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	36	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

8 alpha-BHC, CAS: 319-84-6

Signal: 2

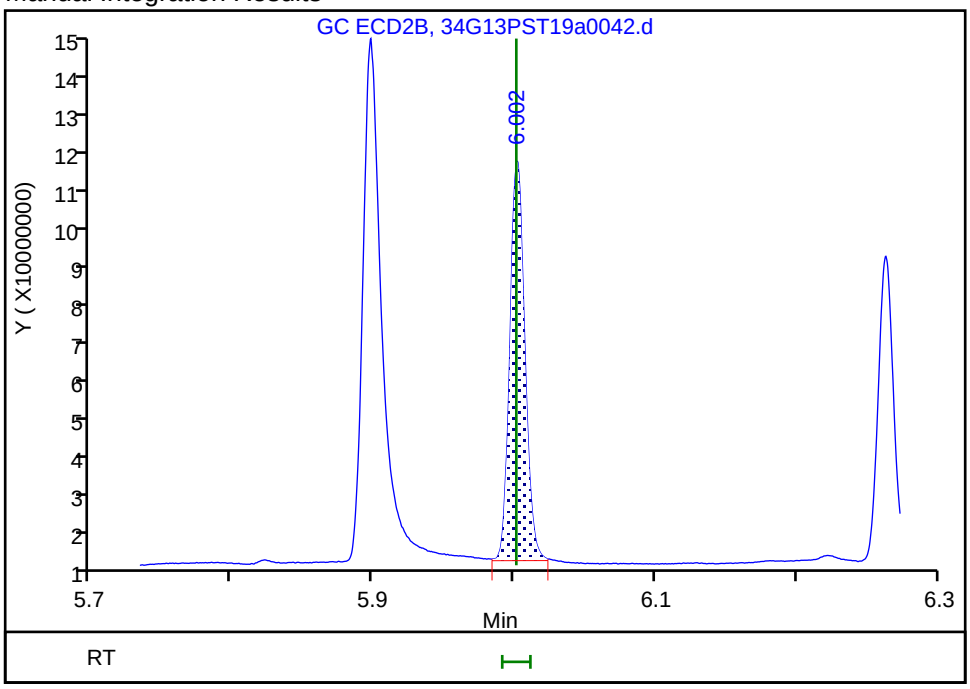
Processing Integration Results

RT: 6.00
Area: 73316623
Amount: 5.358121
Amount Units: ug/L



Manual Integration Results

RT: 6.00
Area: 73970428
Amount: 5.399453
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:40:20
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

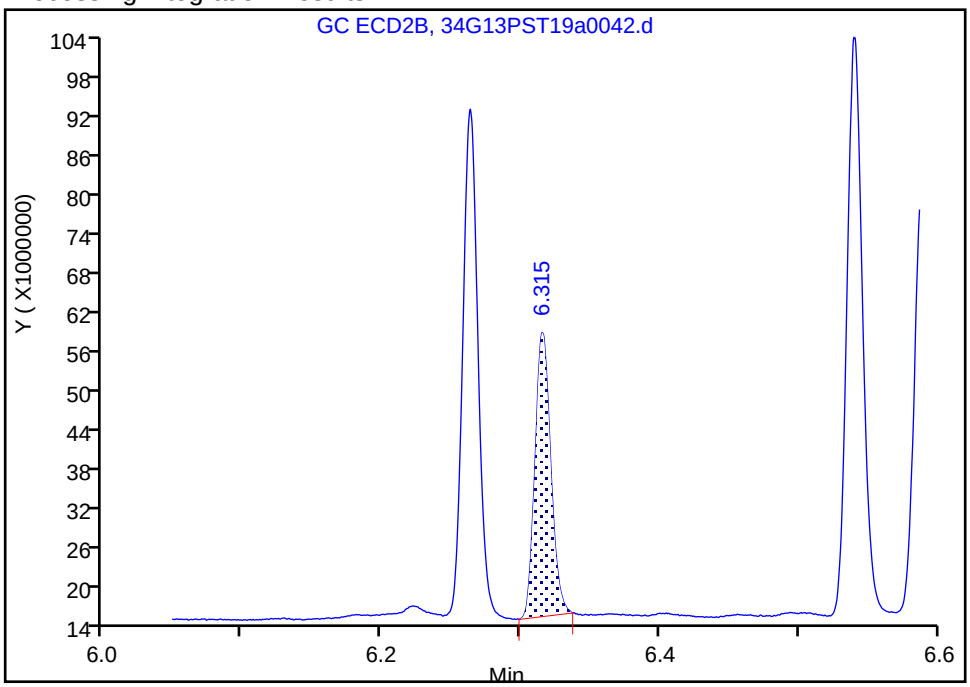
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d				
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034		
Lims ID:	IC OCP 5				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	36	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

12 beta-BHC, CAS: 319-85-7

Signal: 2

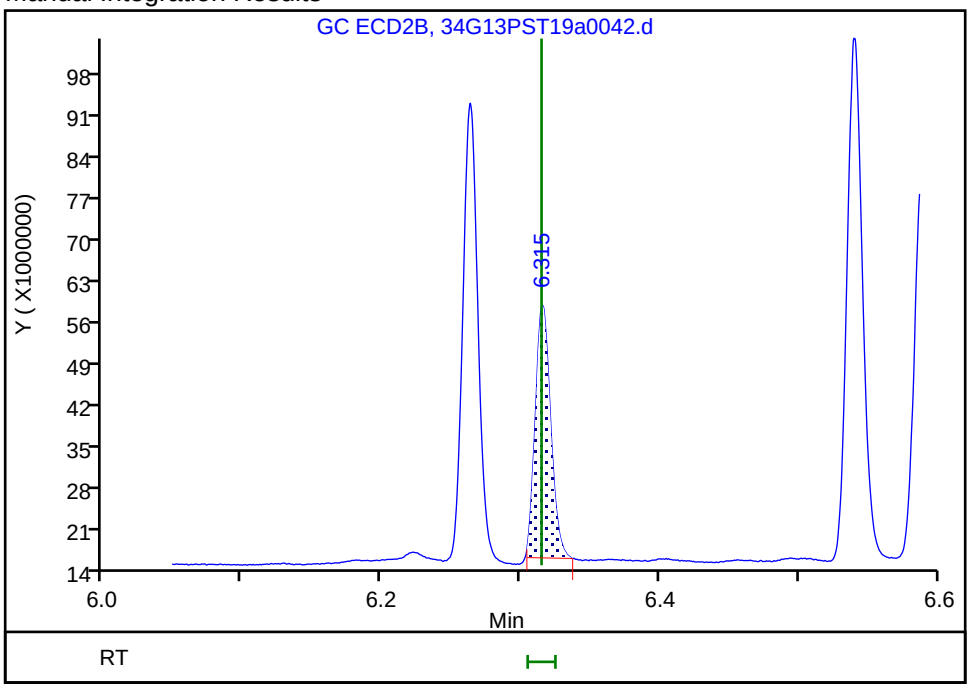
Processing Integration Results

RT: 6.32
Area: 33822596
Amount: 5.475884
Amount Units: ug/L



Manual Integration Results

RT: 6.32
Area: 32602648
Amount: 4.836425
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:21:58
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

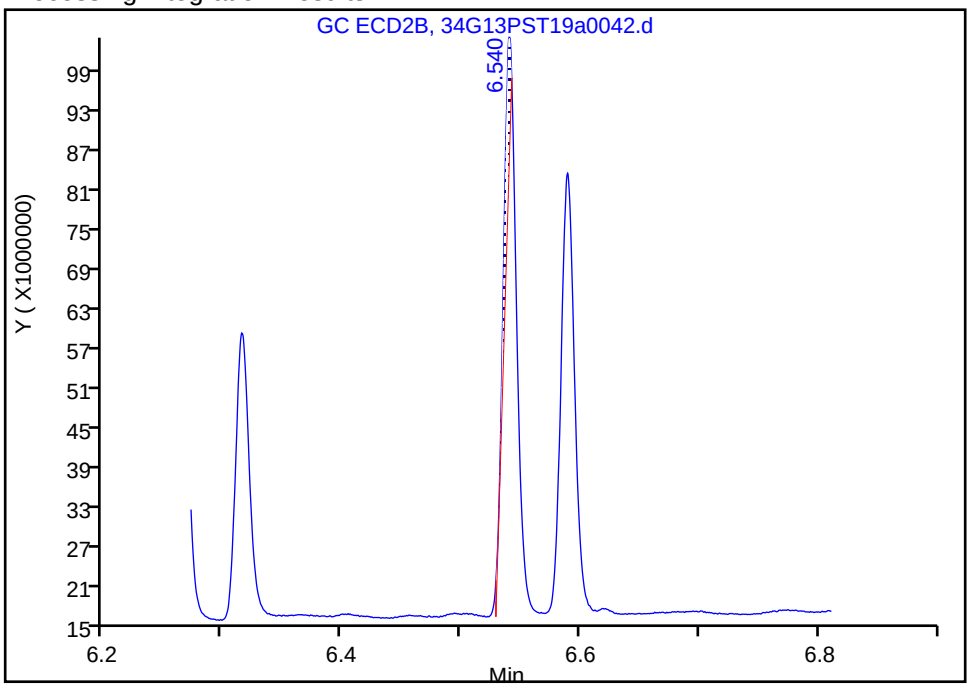
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d				
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034		
Lims ID:	IC OCP 5				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	36	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

13 delta-BHC, CAS: 319-86-8

Signal: 2

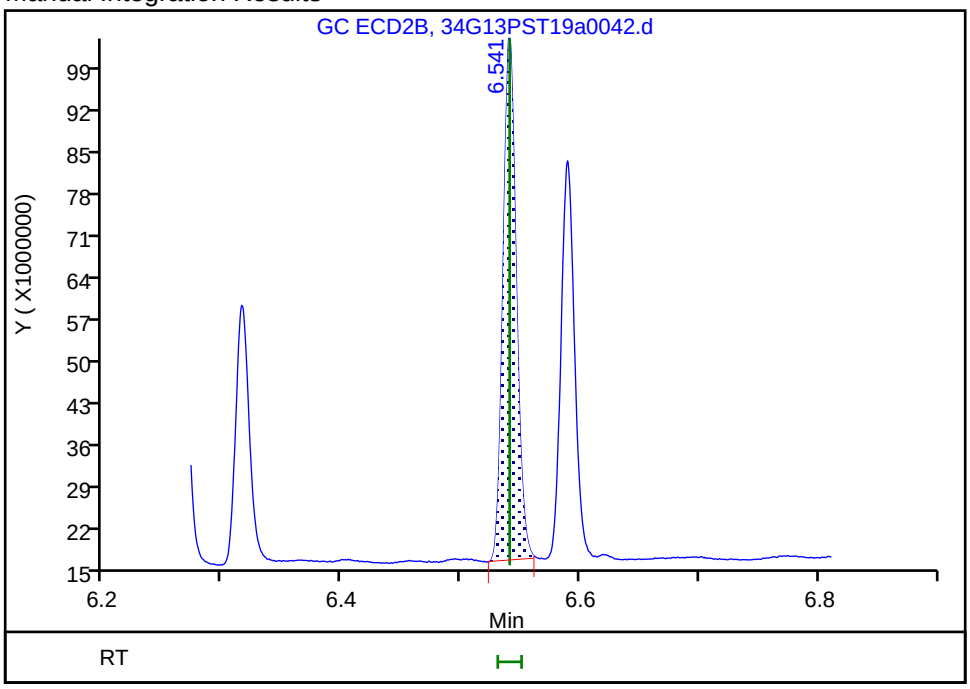
Processing Integration Results

RT: 6.54
Area: 9065159
Amount: 0.872515
Amount Units: ug/L



Manual Integration Results

RT: 6.54
Area: 67899175
Amount: 5.408076
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:35:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

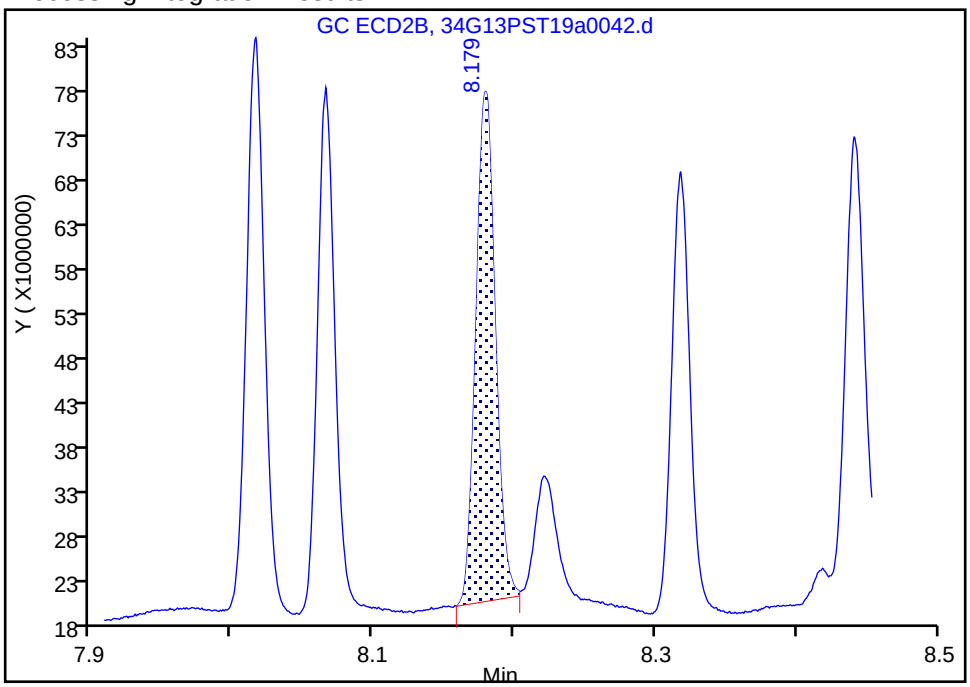
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0042.d		
Injection Date:	14-Jul-2019 06:33:04	Instrument ID:	TAC034
Lims ID:	IC OCP 5		
Client ID:			
Operator ID:	CJB	ALS Bottle#:	36 Worklist Smp#: 38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

37 Endosulfan II, CAS: 33213-65-9

Signal: 2

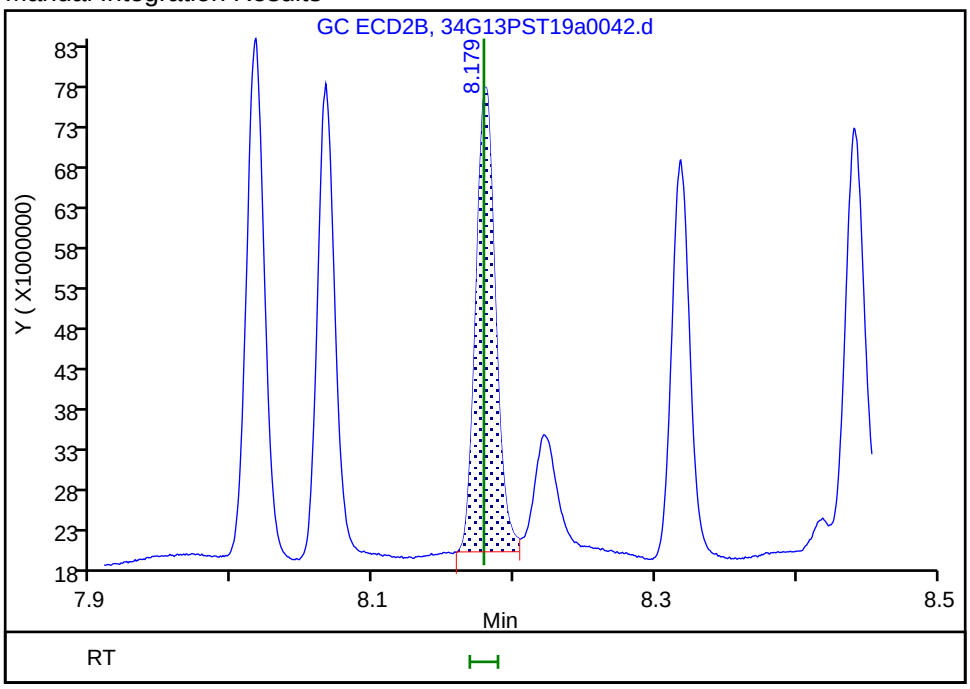
Processing Integration Results

RT: 8.18
Area: 54148186
Amount: 5.660437
Amount Units: ug/L



Manual Integration Results

RT: 8.18
Area: 55472262
Amount: 5.483962
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 12:40:33

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d
Lims ID: IC OCP 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Jul-2019 06:52:20 ALS Bottle#: 37 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 2
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:13 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:47:01

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	9488961	2.00	1.94	
	2	3.947	3.948	-0.001	58784472	2.00	2.15	
							RPD = 10.71	
*	2 1-Bromo-2-nitrobenzene							
	1	4.476	4.476	0.000	112870011	100.0	100.0	
	2	4.837	4.837	0.000	666237594	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							
	1	5.093	5.089	0.004	8450006	2.01	1.84	
	2	5.544	5.543	0.001	37168536	2.01	2.06	
							RPD = 11.28	
	7 Hexachlorobenzene							
	1	5.363	5.358	0.005	9857747	2.00	1.88	
	2	5.898	5.898	0.000	51618245	2.00	2.20	
							RPD = 15.44	
	8 alpha-BHC							
	1	5.462	5.462	0.000	4386106	2.00	1.98	
	2	6.002	6.001	0.001	28854715	2.00	1.87	
							RPD = 5.75	
	11 gamma-BHC (Lindane)							
	1	5.667	5.667	0.000	4563777	2.00	1.90	
	2	6.264	6.263	0.001	24635186	2.00	2.05	
							RPD = 7.71	
	12 beta-BHC							M
	1	5.728	5.724	0.004	3746057	2.00	2.06	
	2	6.316	6.315	0.001	17850083	2.00	1.91	M
							RPD = 7.41	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.844	5.839	0.005	4649194	2.00	1.64	
2	6.540	6.541	-0.001	29967086	2.00	1.86	
						RPD = 12.29	
15 Heptachlor							
1	5.979	5.979	0.000	5383921	2.00	1.97	
2	6.589	6.589	0.000	22673189	2.00	2.15	
						RPD = 9.04	
18 Aldrin							
1	6.172	6.172	0.000	6637157	2.00	1.63	
2	6.834	6.835	-0.001	34867442	2.00	2.12	
						RPD = 25.85	
22 Heptachlor epoxide							
1	6.558	6.556	0.002	6832897	2.00	1.98	
2	7.256	7.256	0.000	26463193	2.00	2.08	
						RPD = 5.19	
23 trans-Chlordane							
1	6.642	6.641	0.001	8964760	2.00	1.93	
2	7.397	7.397	0.000	34060308	2.00	2.18	
						RPD = 12.46	
25 cis-Chlordane							M
1	6.728	6.728	0.000	9483073	2.00	1.95	M
2	7.508	7.507	0.001	35089606	2.00	2.18	
						RPD = 10.85	
26 4,4'-DDE							M
1	6.780	6.778	0.002	6011520	2.00	2.12	M
2	7.617	7.617	0.000	38778472	2.00	2.28	
						RPD = 7.25	
27 Endosulfan I							
1	6.815	6.815	0.000	6219080	2.00	1.62	
2	7.560	7.560	0.000	29472443	2.00	1.82	
						RPD = 11.57	
29 Dieldrin							
1	6.979	6.979	0.000	7121407	2.00	1.79	
2	7.770	7.770	0.000	30801124	2.00	2.07	
						RPD = 14.72	
33 Endrin							
1	7.136	7.135	0.001	4658546	2.00	1.85	
2	8.015	8.016	-0.001	23341083	2.00	2.15	
						RPD = 15.10	
36 4,4'-DDD							
1	7.179	7.176	0.003	3632684	2.00	1.75	
2	8.065	8.065	0.000	20329339	2.00	2.12	
						RPD = 18.79	
37 Endosulfan II							M
1	7.291	7.290	0.001	5575979	2.00	1.98	M
2	8.178	8.178	0.000	26677423	2.00	1.47	
						RPD = 29.58	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.376	7.373	0.003	4320844	2.00	1.76	
2	8.317	8.317	0.000	16587792	2.00	1.76	
						RPD = 0.09	
39 Endrin aldehyde							
1	7.577	7.576	0.001	6320716	2.00	2.03	
2	8.441	8.441	0.000	24168737	2.00	2.32	
						RPD = 13.01	
40 Methoxychlor							M
1	7.733	7.730	0.003	2591980	2.00	2.19	M
2	8.872	8.871	0.001	9867816	2.00	1.59	
						RPD = 31.75	
42 Endosulfan sulfate							
1	7.891	7.888	0.003	8054597	2.00	2.06	
2	8.657	8.656	0.001	23700542	2.00	2.05	
						RPD = 0.58	
44 Endrin ketone							
1	8.103	8.103	0.000	6432941	2.00	2.06	
2	9.114	9.115	-0.001	18687747	2.00	2.14	
						RPD = 3.81	
$ 45 DCB Decachlorobiphenyl							M
1	8.895	8.894	0.001	14312112	2.01	1.46	
2	10.101	10.100	0.001	35801833	2.01	2.05	M
						RPD = 33.47	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:16 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d

Injection Date: 14-Jul-2019 06:52:20 Instrument ID: TAC034

Lims ID: IC OCP 2

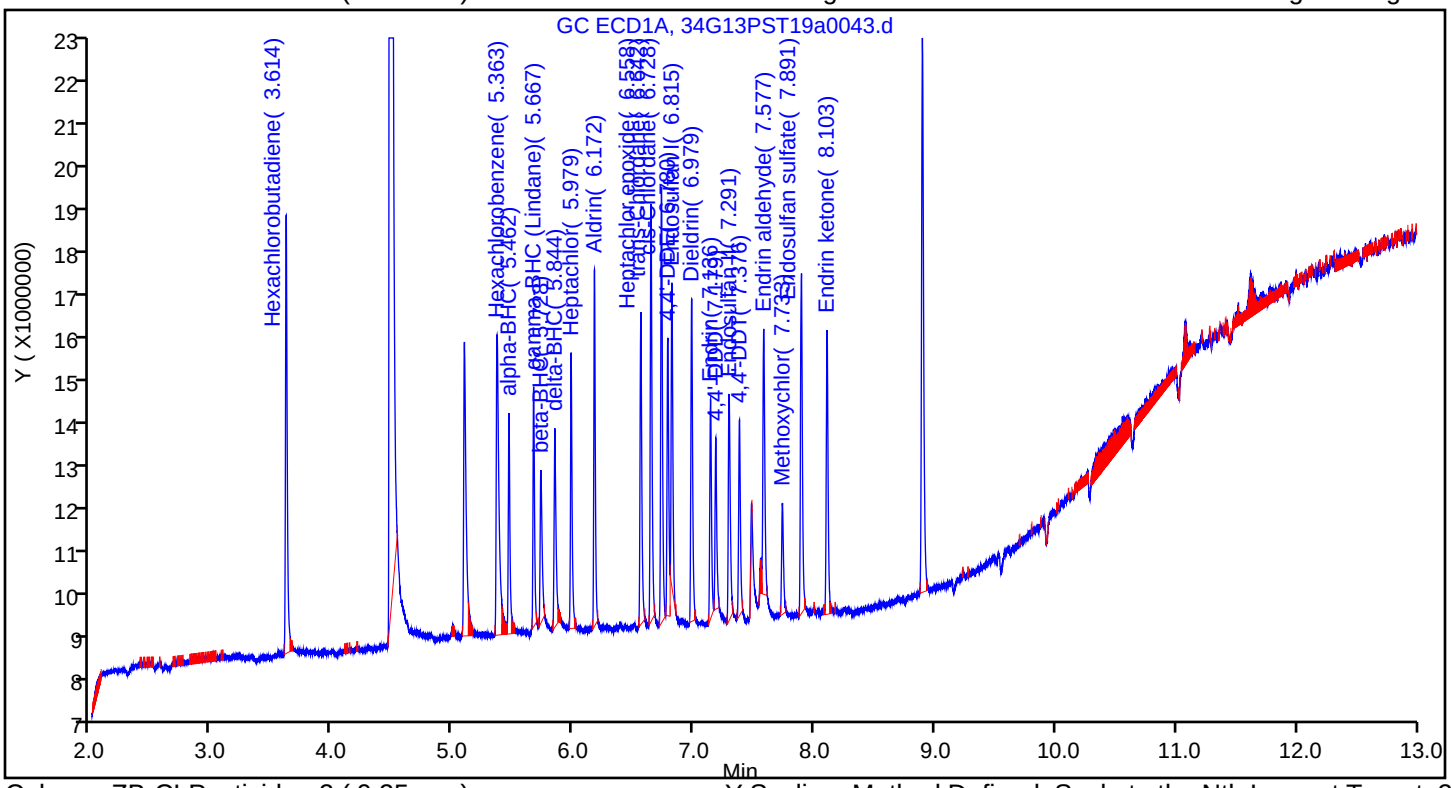
Client ID:

Operator ID: CJB ALS Bottle#: 37 Worklist Smp#: 39

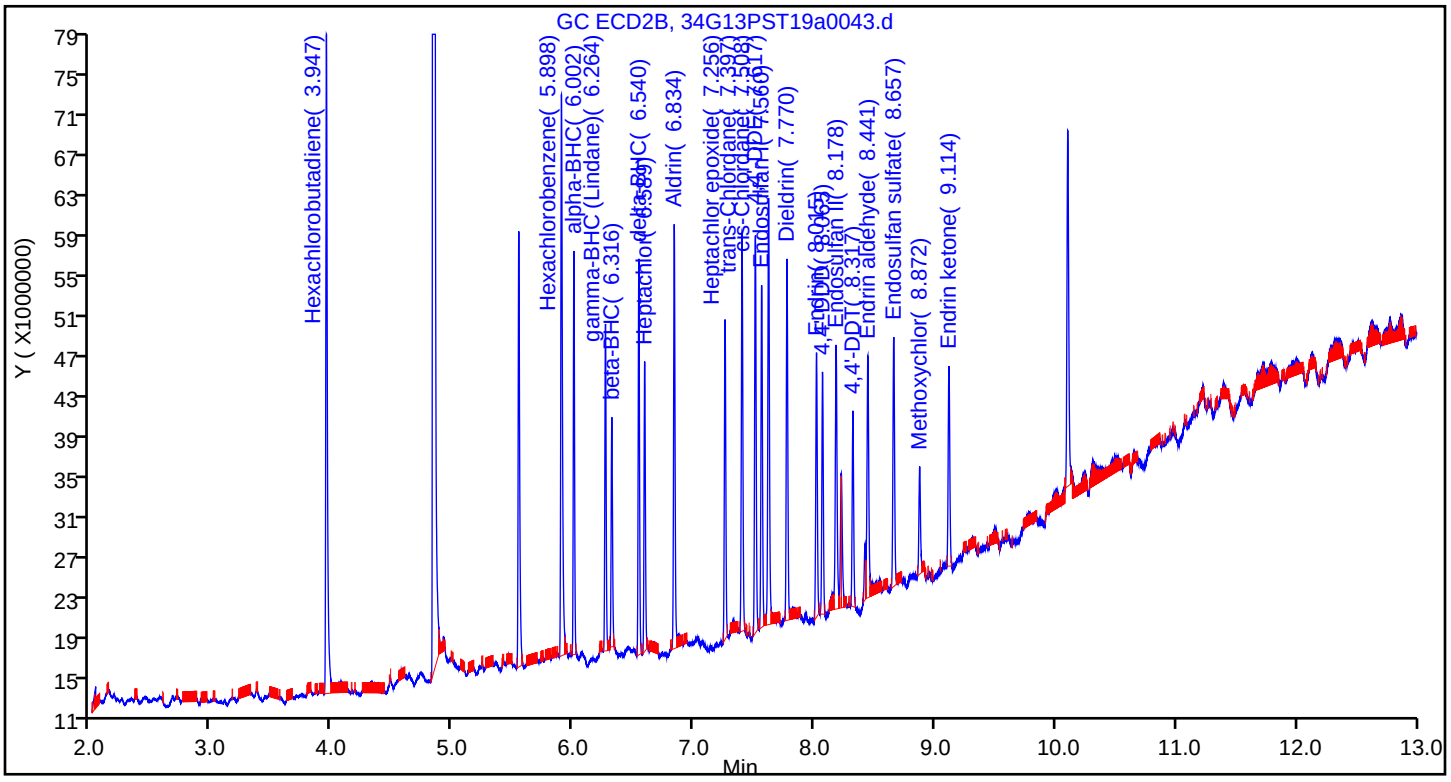
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

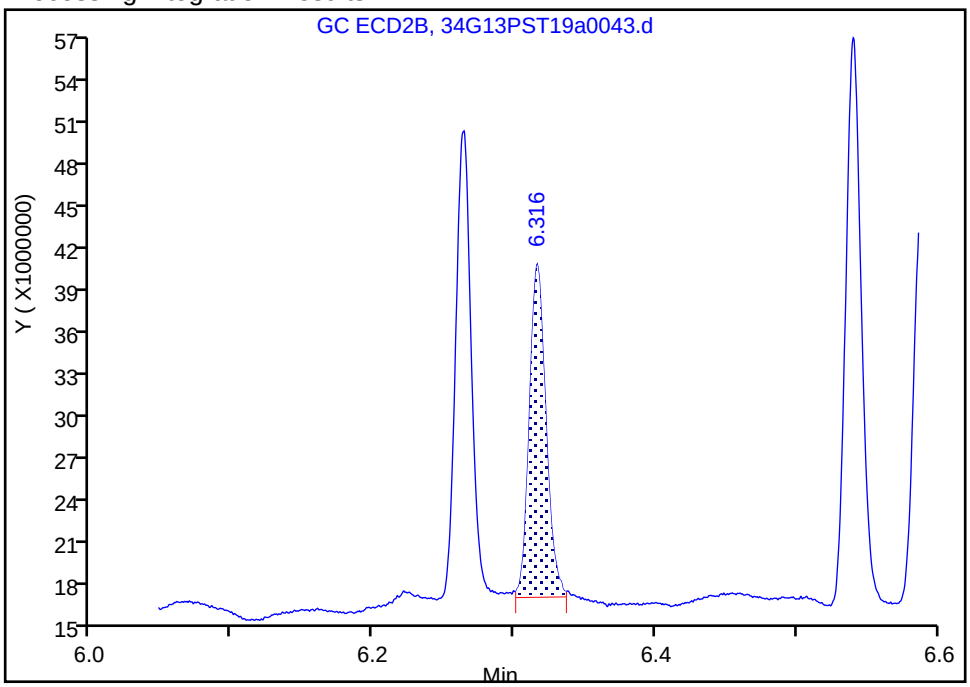
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d				
Injection Date:	14-Jul-2019 06:52:20	Instrument ID:	TAC034		
Lims ID:	IC OCP 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

12 beta-BHC, CAS: 319-85-7

Signal: 2

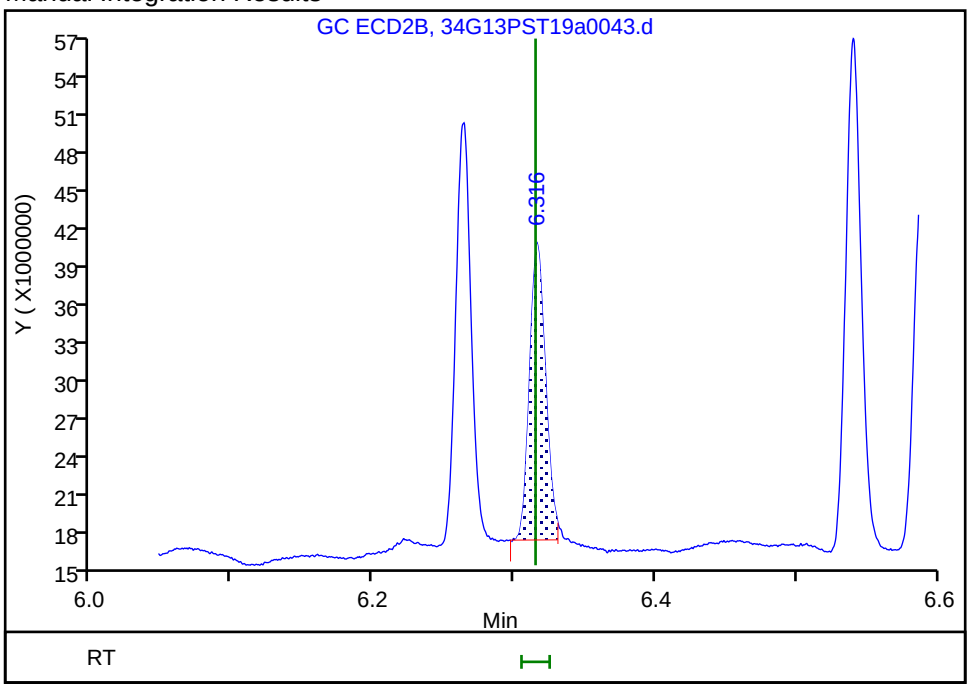
Processing Integration Results

RT: 6.32
Area: 18754792
Amount: 2.709654
Amount Units: ug/L



Manual Integration Results

RT: 6.32
Area: 17850083
Amount: 1.912944
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:23:36
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

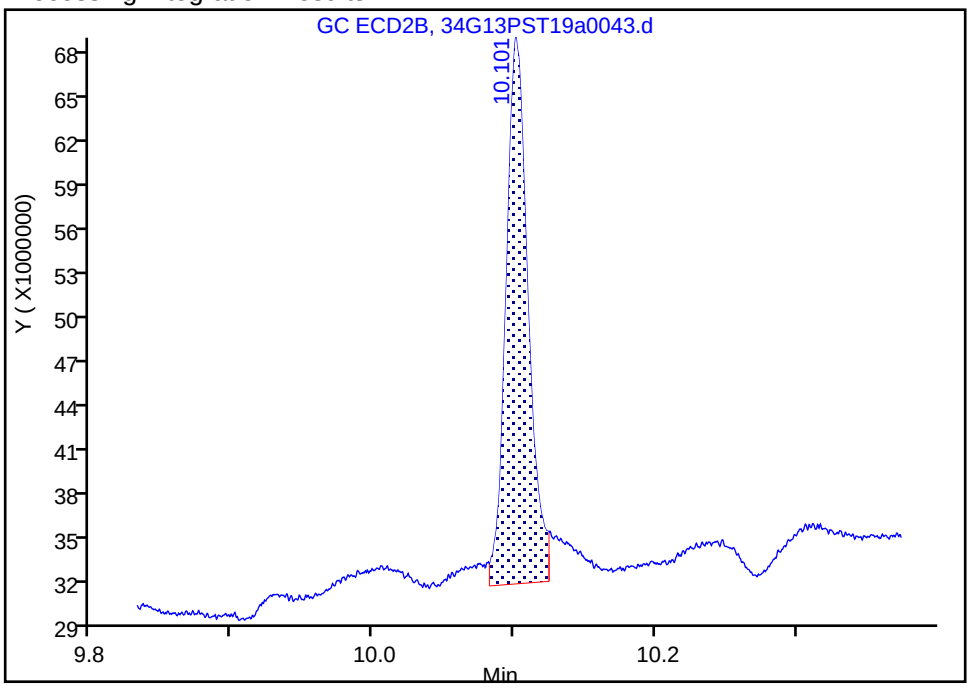
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0043.d				
Injection Date:	14-Jul-2019 06:52:20	Instrument ID:	TAC034		
Lims ID:	IC OCP 2				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

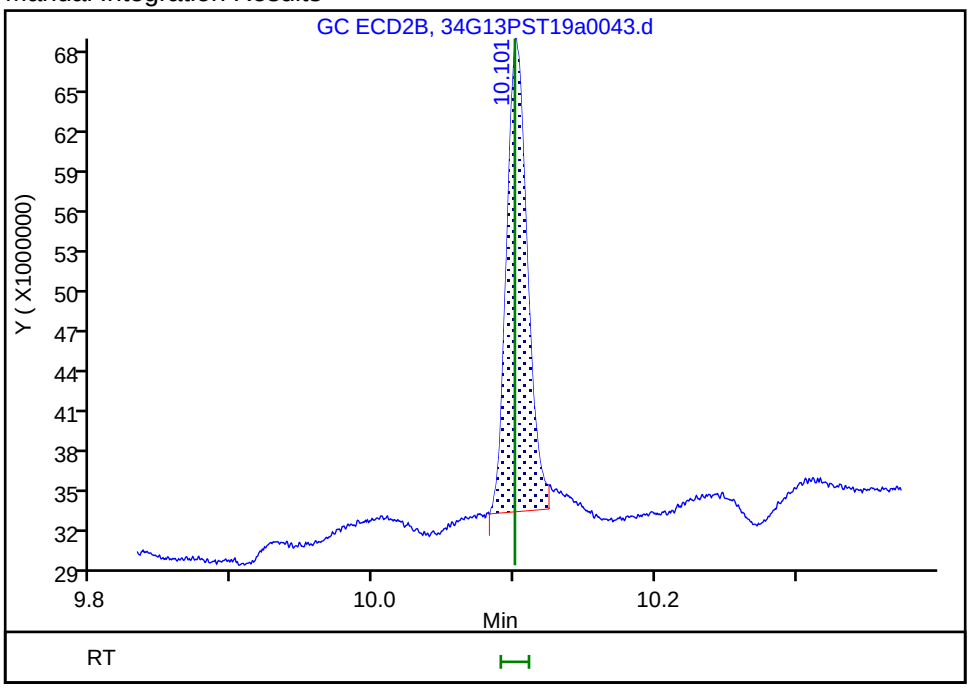
Processing Integration Results

RT: 10.10
Area: 39688268
Amount: 2.514890
Amount Units: ug/L



Manual Integration Results

RT: 10.10
Area: 35801833
Amount: 2.049581
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:14:31
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d
Lims ID: IC OCP 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Jul-2019 07:11:36 ALS Bottle#: 38 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 1
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:42:20 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 13:13:53

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	3.614	3.613	0.001	4270177	1.00	1.04	
	2	3.947	3.948	-0.001	32202297	1.00	1.09	
							RPD = 4.81	
*	2 1-Bromo-2-nitrobenzene							M
	1	4.477	4.476	0.001	122560201	100.0	100.0	M
	2	4.837	4.837	0.000	720528830	100.0	100.0	
							RPD = 0.00	
$	4 Tetrachloro-m-xylene							M
	1	5.093	5.089	0.004	3945206	1.01	0.7921	M
	2	5.544	5.543	0.001	21196837	1.01	1.12	
							RPD = 34.10	
	7 Hexachlorobenzene							M
	1	5.366	5.358	0.008	5416396	1.00	0.9533	M
	2	5.898	5.898	0.000	28727687	1.00	1.13	
							RPD = 17.12	
	8 alpha-BHC							M
	1	5.463	5.462	0.001	1811020	1.00	1.30	M
	2	6.001	6.001	0.000	16684654	1.00	1.00	
							RPD = 25.83	
	11 gamma-BHC (Lindane)							
	1	5.668	5.667	0.001	2280836	1.00	1.13	
	2	6.262	6.263	-0.001	12184781	1.00	0.9368	
							RPD = 19.08	
	12 beta-BHC							M
	1	5.730	5.724	0.006	2028102	1.00	1.03	
	2	6.315	6.315	0.000	9408644	1.00	0.5048	M
							RPD = 68.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							M
1	5.845	5.839	0.006	2292144	1.00	0.8569	
2	6.540	6.541	-0.001	17305174	1.00	0.7905	M
						RPD = 8.06	
15 Heptachlor							M
1	5.978	5.979	-0.001	2511796	1.00	0.8452	
2	6.589	6.589	0.000	12565424	1.00	1.10	M
						RPD = 26.51	
18 Aldrin							
1	6.172	6.172	0.000	3308389	1.00	0.7488	
2	6.835	6.835	0.000	18015196	1.00	1.01	
						RPD = 29.76	
22 Heptachlor epoxide							
1	6.557	6.556	0.001	3816921	1.00	1.02	
2	7.256	7.256	0.000	17104124	1.00	1.24	
						RPD = 20.11	
23 trans-Chlordane							
1	6.641	6.641	0.000	4687973	1.00	0.9285	
2	7.398	7.397	0.001	19444739	1.00	1.15	
						RPD = 21.57	
25 cis-Chlordane							
1	6.728	6.728	0.000	5129879	1.00	0.9728	
2	7.507	7.507	0.000	19996455	1.00	1.15	
						RPD = 16.44	
26 4,4'-DDE							M
1	6.781	6.778	0.003	3180786	1.00	1.48	M
2	7.617	7.617	0.000	19581254	1.00	1.06	
						RPD = 33.04	
27 Endosulfan I							M
1	6.815	6.815	0.000	4006753	1.00	0.9599	M
2	7.560	7.560	0.000	18875610	1.00	0.8043	
						RPD = 17.64	
29 Dieldrin							M
1	6.979	6.979	0.000	3749075	1.00	0.8681	M
2	7.770	7.770	0.000	17336217	1.00	1.08	
						RPD = 21.74	
33 Endrin							
1	7.136	7.135	0.001	2324172	1.00	0.8491	
2	8.015	8.016	-0.001	13275395	1.00	1.13	
						RPD = 28.44	
36 4,4'-DDD							M
1	7.179	7.176	0.003	2003782	1.00	1.10	M
2	8.065	8.065	0.000	10608982	1.00	1.02	M
						RPD = 7.64	
37 Endosulfan II							
1	7.290	7.290	0.000	2657242	1.00	0.8669	
2	8.179	8.178	0.001	13704441	1.00	-0.1092	
						RPD = 257.62	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							M
1	7.375	7.373	0.002	2014777	1.00	0.7571	M
2	8.317	8.317	0.000	11052165	1.00	1.09	M
						RPD = 35.62	
39 Endrin aldehyde							M
1	7.576	7.576	0.000	3858903	1.00	1.14	M
2	8.441	8.441	0.000	10937842	1.00	0.7446	M
						RPD = 42.23	
40 Methoxychlor							M
1	7.732	7.730	0.002	1353330	1.00	1.06	M
2	8.870	8.871	-0.001	4304890	1.00	0.0369	M
						RPD = 186.50	
42 Endosulfan sulfate							
1	7.889	7.888	0.001	4203365	1.00	0.9283	
2	8.656	8.656	0.000	11645220	1.00	0.7596	
						RPD = 19.98	
44 Endrin ketone							
1	8.103	8.103	0.000	2878516	1.00	0.8249	
2	9.115	9.115	0.000	8831442	1.00	0.9402	
						RPD = 13.07	
$ 45 DCB Decachlorobiphenyl							
1		8.894			1.00	ND(<0)	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_IC050_00027	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:42:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Injection Date: 14-Jul-2019 07:11:36 Instrument ID: TAC034

Lims ID: IC OCP 1

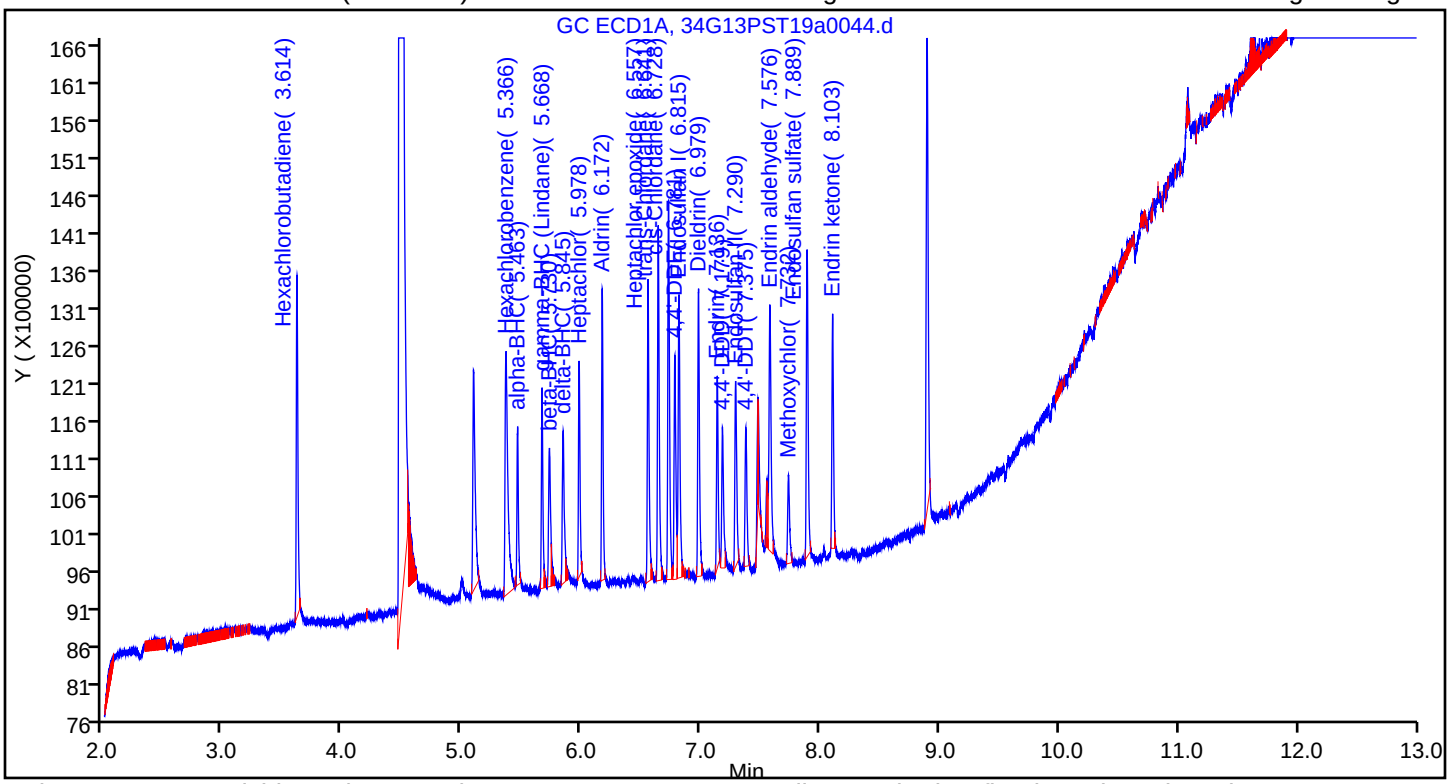
Client ID:

Operator ID: CJB ALS Bottle#: 38 Worklist Smp#: 40

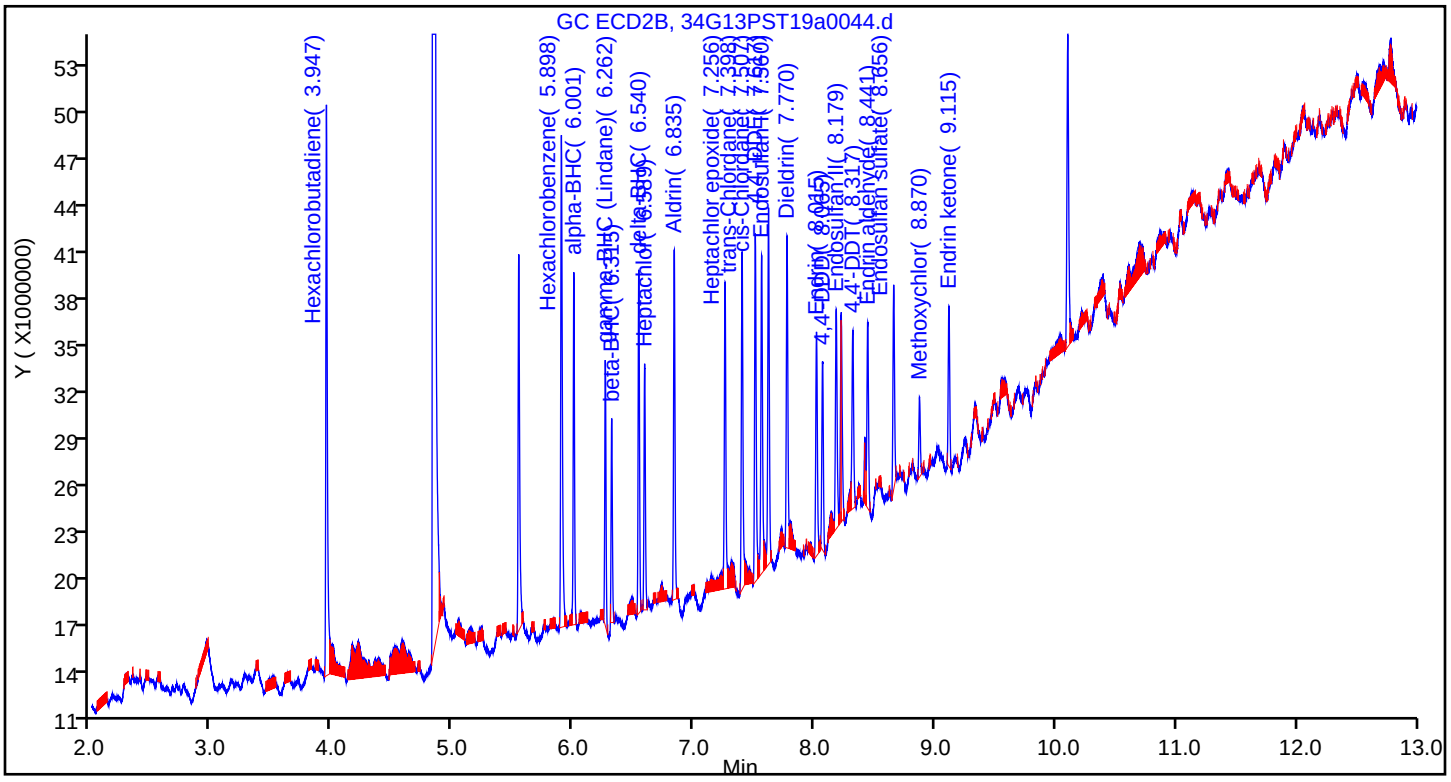
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

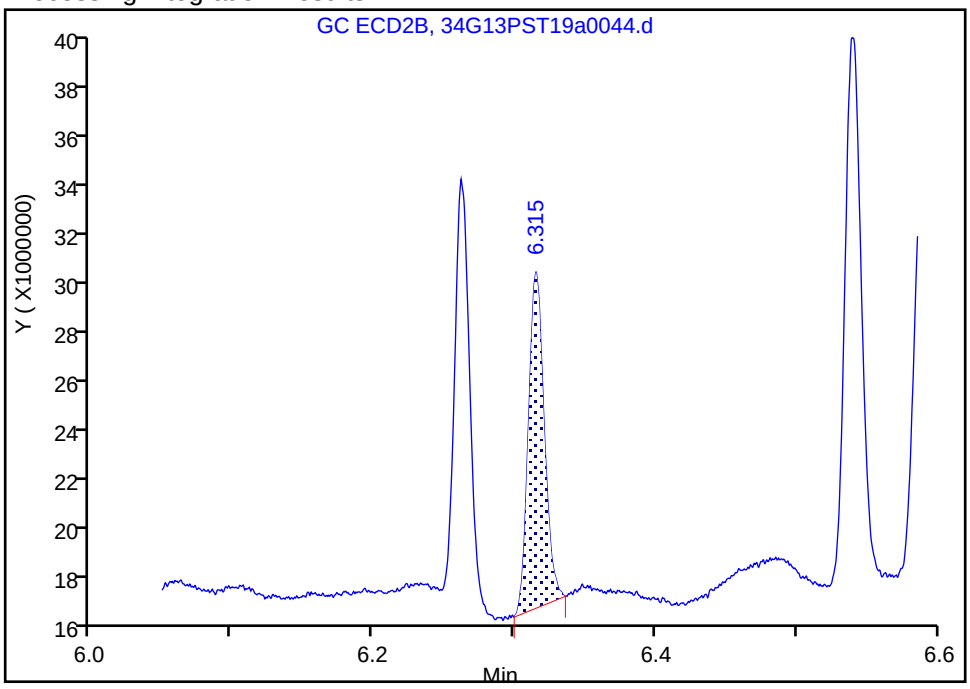
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

12 beta-BHC, CAS: 319-85-7

Signal: 2

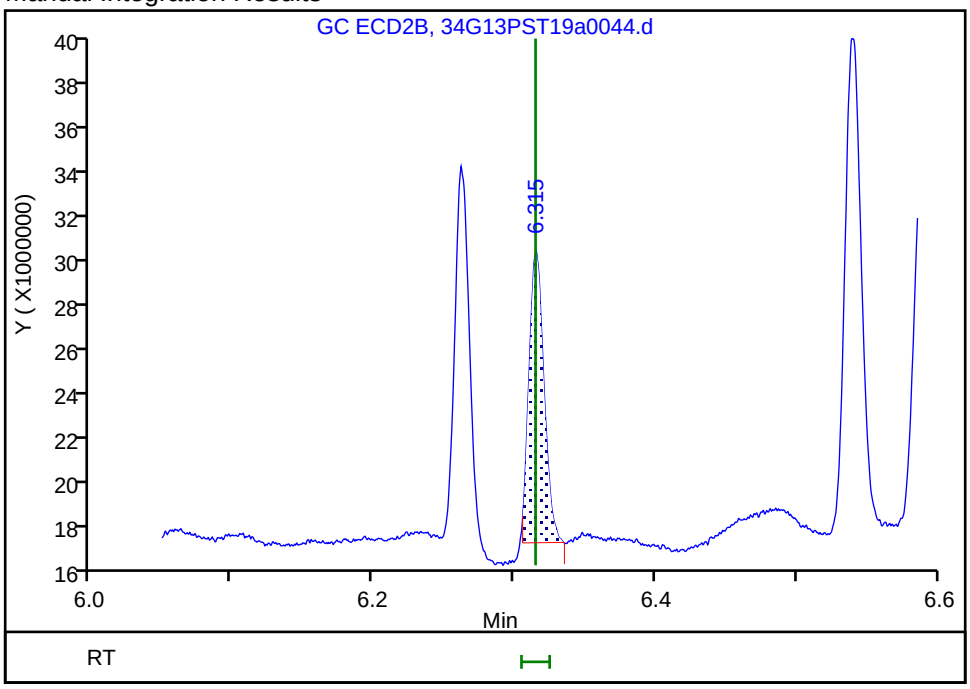
Processing Integration Results

RT: 6.32
Area: 10309208
Amount: 0.844896
Amount Units: ug/L



Manual Integration Results

RT: 6.32
Area: 9408644
Amount: 0.504845
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:25:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

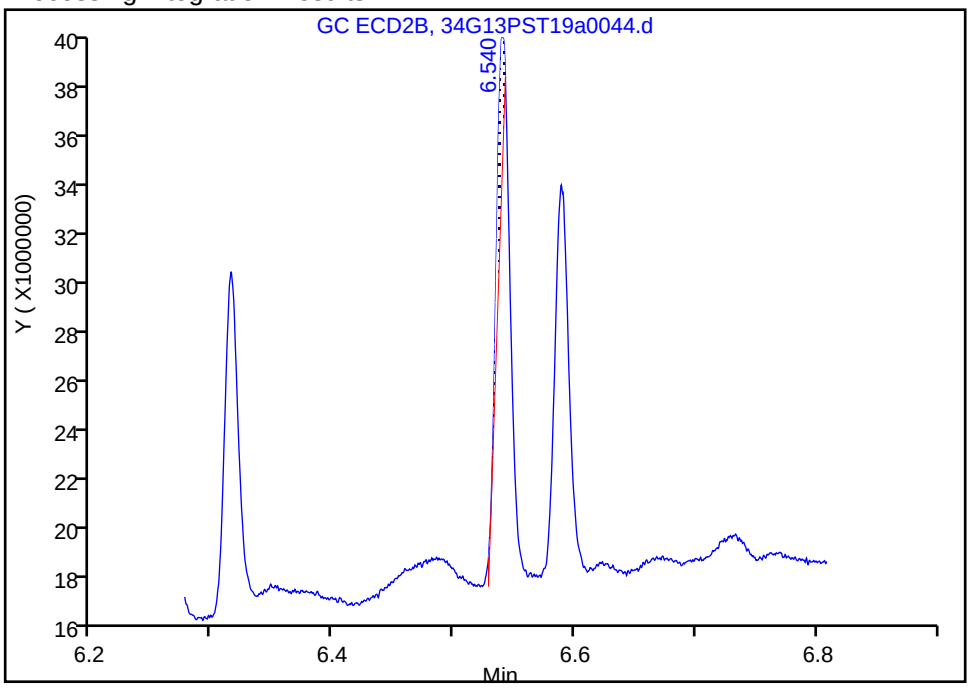
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

13 delta-BHC, CAS: 319-86-8

Signal: 2

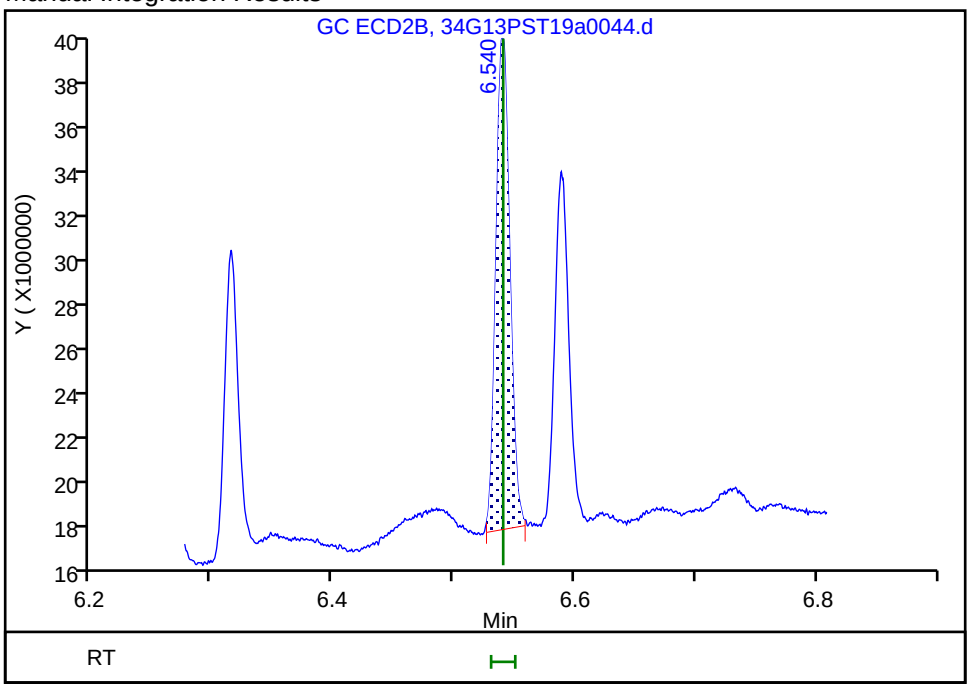
Processing Integration Results

RT: 6.54
Area: 2680298
Amount: 0.188246
Amount Units: ug/L



Manual Integration Results

RT: 6.54
Area: 17305174
Amount: 0.790484
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:35:21
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

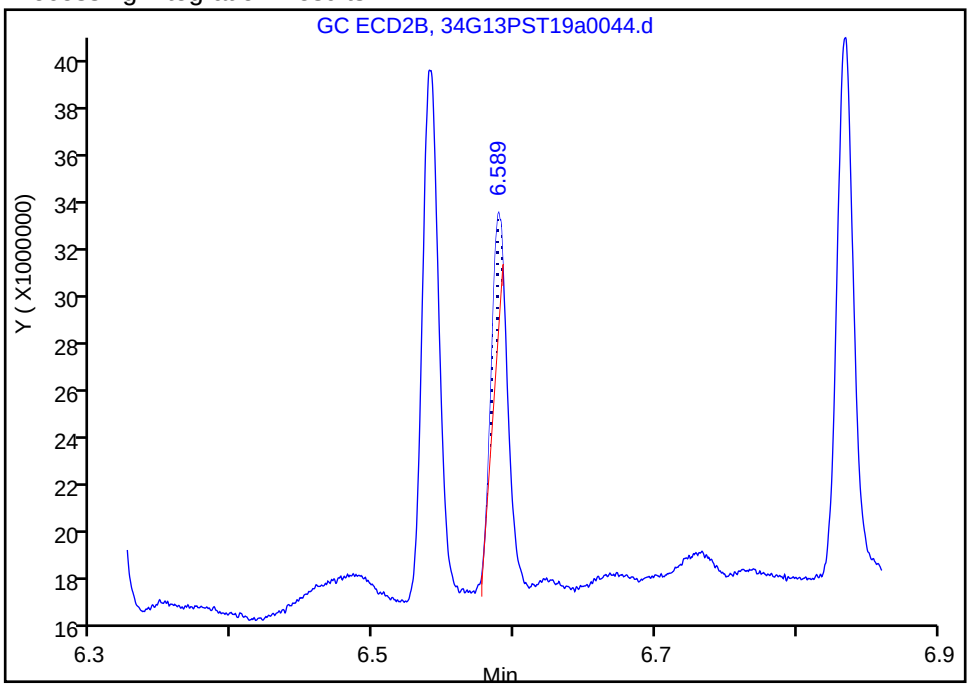
Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d
Injection Date: 14-Jul-2019 07:11:36 Instrument ID: TAC034
Lims ID: IC OCP 1
Client ID:
Operator ID: CJB ALS Bottle#: 38 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

15 Heptachlor, CAS: 76-44-8

Signal: 2

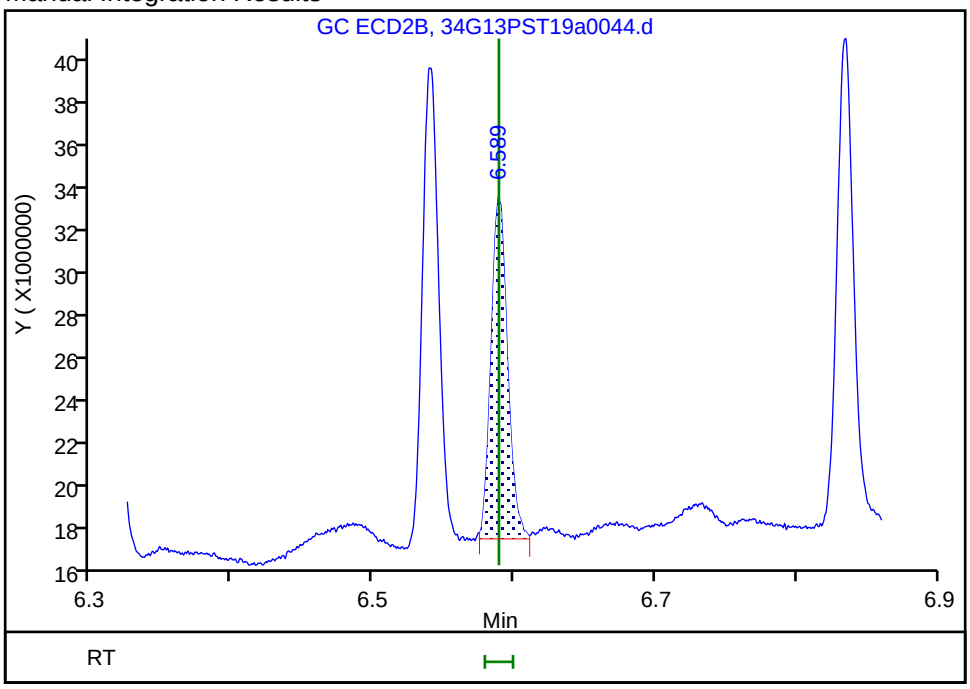
Processing Integration Results

RT: 6.59
Area: 2220316
Amount: 0.216879
Amount Units: ug/L



Manual Integration Results

RT: 6.59
Area: 12565424
Amount: 1.103486
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:49:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

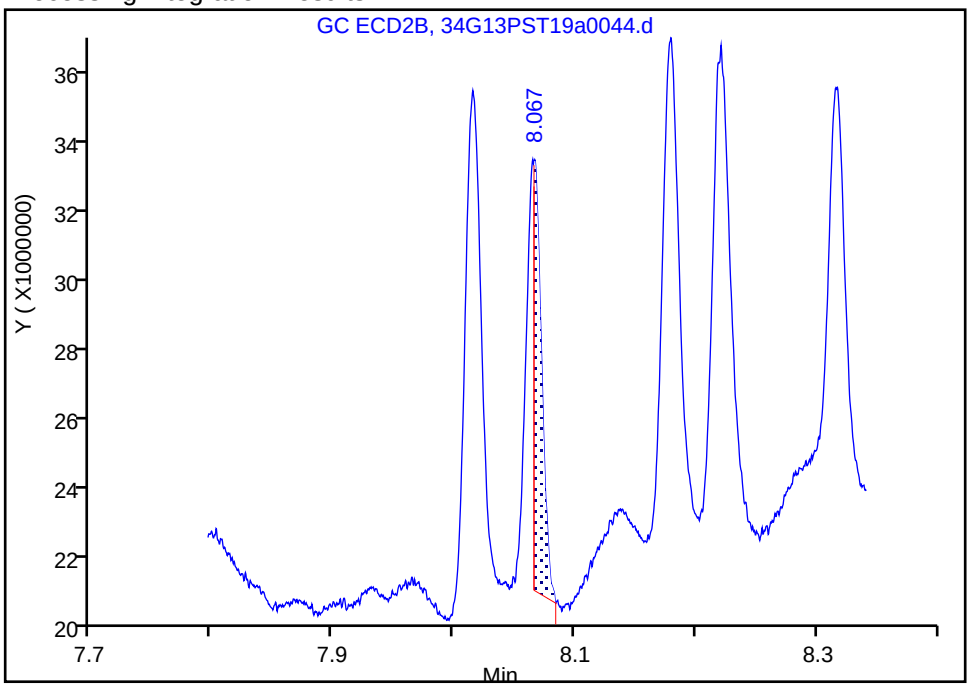
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

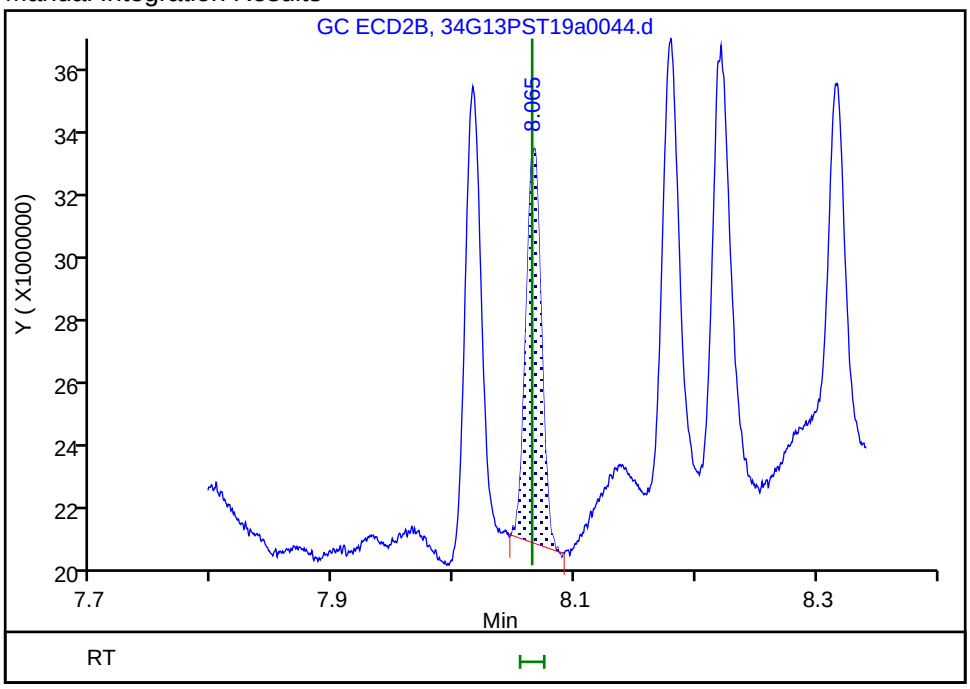
Processing Integration Results

RT: 8.07
Area: 5093661
Amount: 0.521219
Amount Units: ug/L



Manual Integration Results

RT: 8.07
Area: 10608982
Amount: 1.021527
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 12:49:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

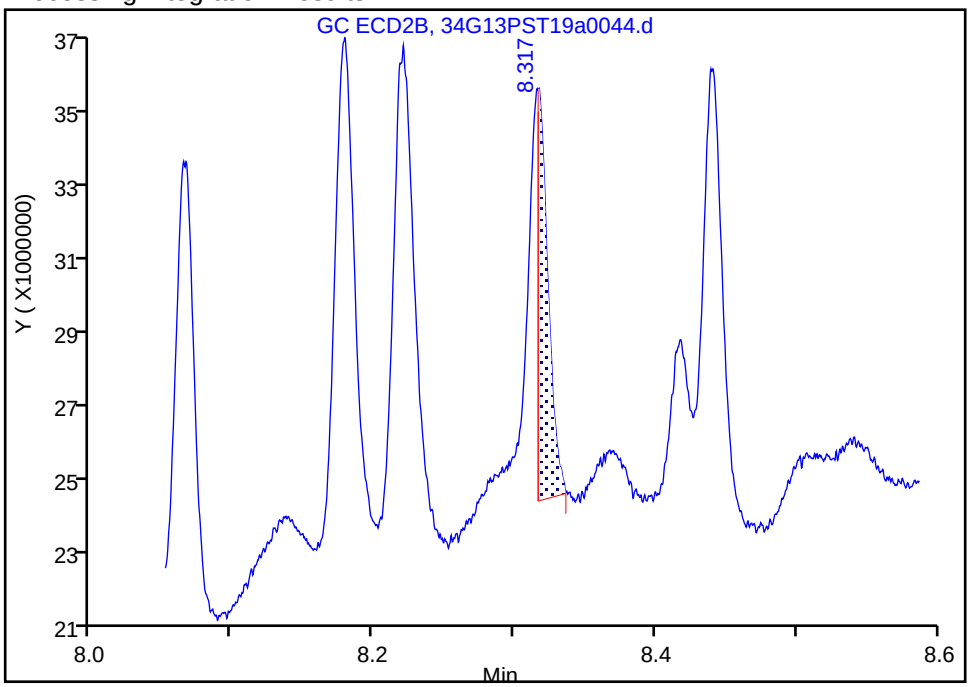
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

38 4,4'-DDT, CAS: 50-29-3

Signal: 2

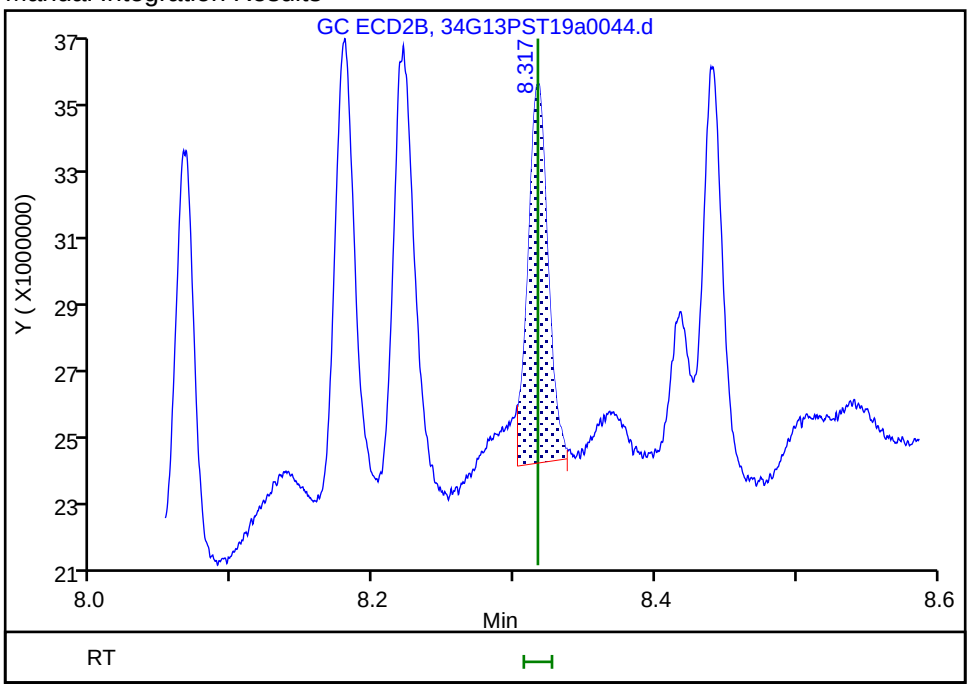
Processing Integration Results

RT: 8.32
Area: 5293253
Amount: 0.554596
Amount Units: ug/L



Manual Integration Results

RT: 8.32
Area: 11052165
Amount: 1.085225
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:35:07
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

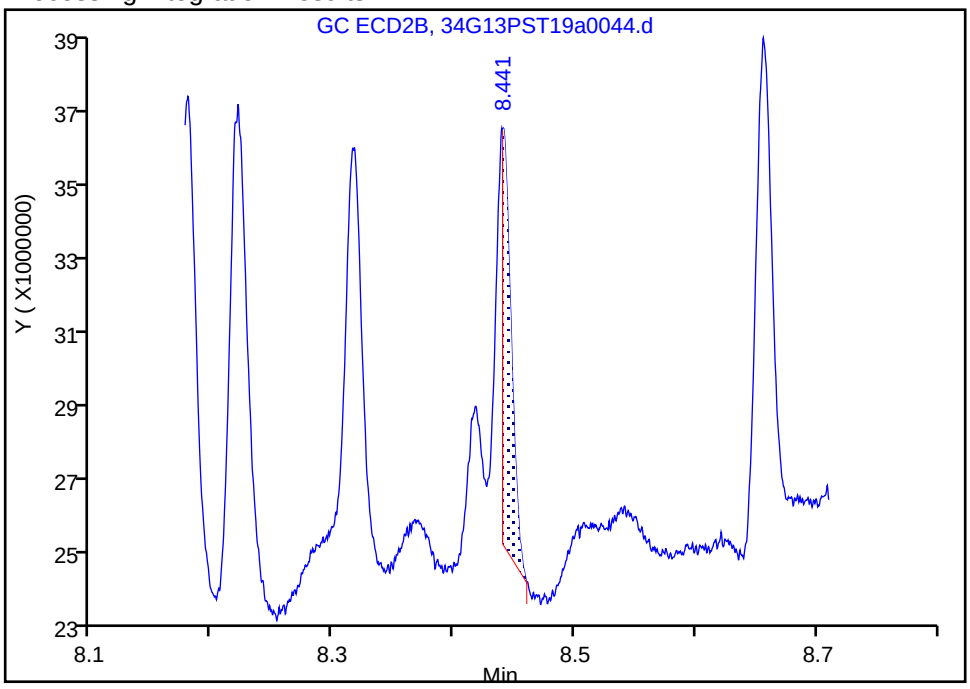
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

39 Endrin aldehyde, CAS: 7421-93-4

Signal: 2

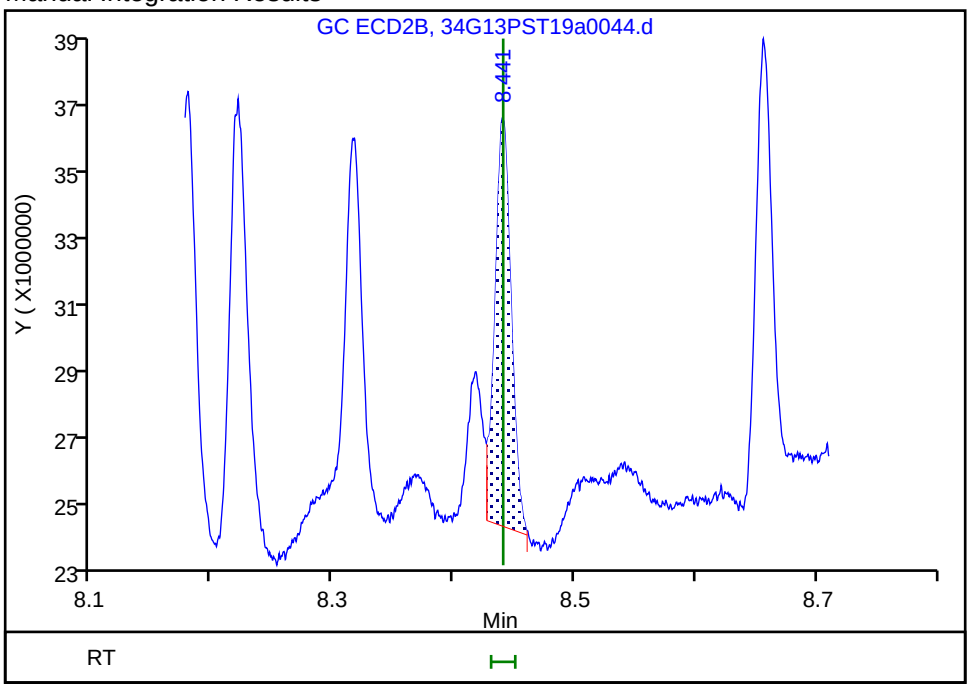
Processing Integration Results

RT: 8.44
Area: 5293302
Amount: 0.538792
Amount Units: ug/L



Manual Integration Results

RT: 8.44
Area: 10937842
Amount: 0.744578
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 11:34:45
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

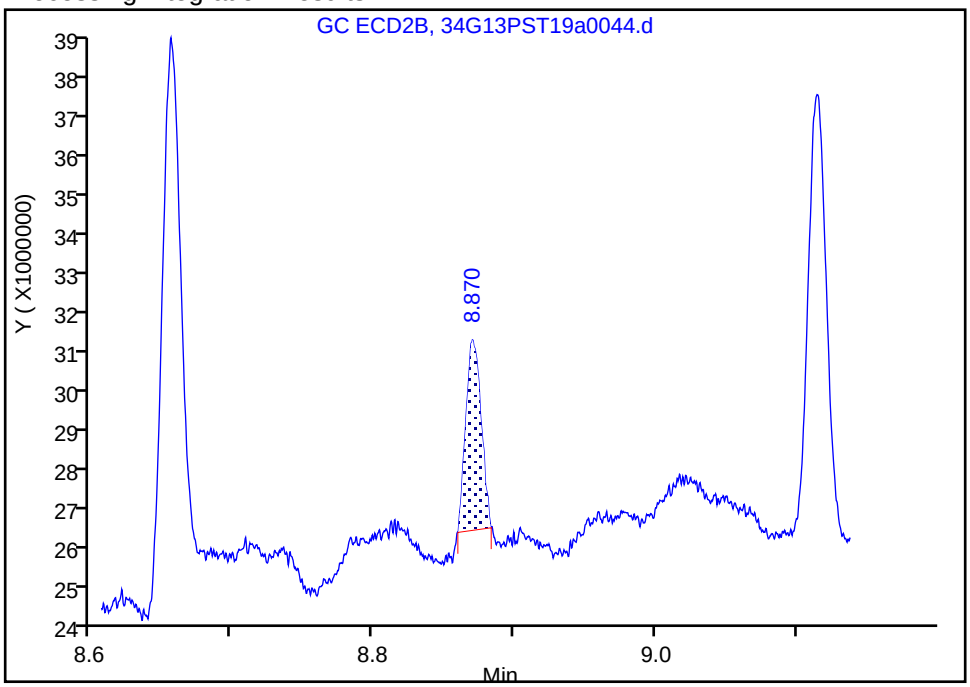
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Injection Date:	14-Jul-2019 07:11:36	Instrument ID:	TAC034		
Lims ID:	IC OCP 1				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

40 Methoxychlor, CAS: 72-43-5

Signal: 2

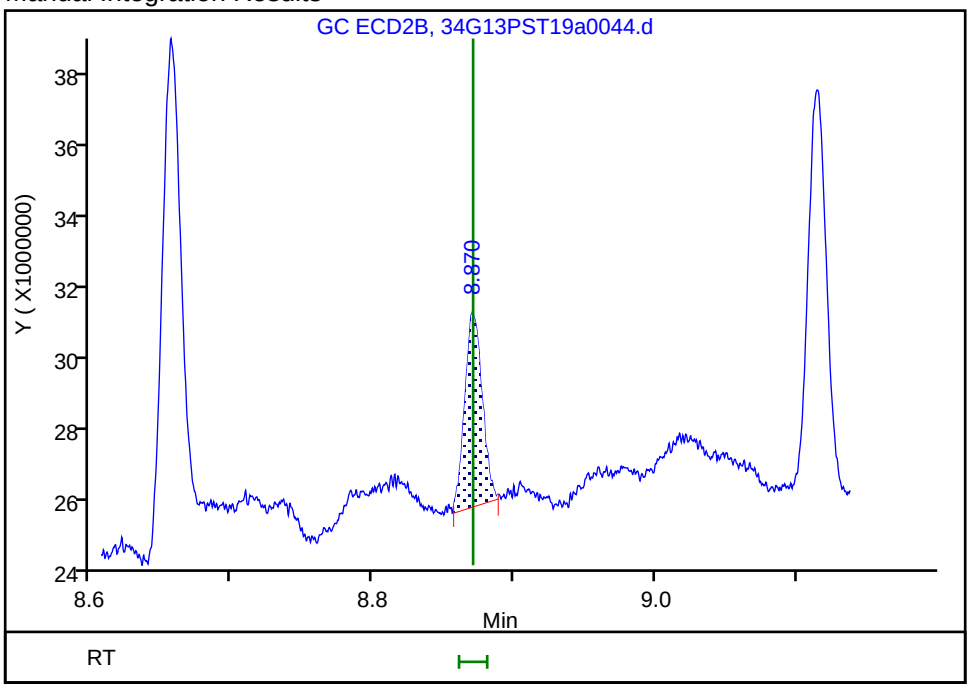
Processing Integration Results

RT: 8.87
Area: 3303849
Amount: 0.355102
Amount Units: ug/L



Manual Integration Results

RT: 8.87
Area: 4304890
Amount: 0.036851
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 13:13:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 17:34 Calibration End Date: 02/27/2019 20:29 Calibration ID: 27486

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/30	45B227a030.D
Level 2	IC 580-295252/29	45B227a029.D
Level 3	IC 580-295252/28	45B227a028.D
Level 4	IC 580-295252/27	45B227a027.D
Level 5	IC 580-295252/26	45B227a026.D
Level 6	ICIS 580-295252/25	45B227a025.D
Level 7	IC 580-295252/24	45B227a024.D
Level 8	IC 580-295252/23	45B227a023.D
Level 9	IC 580-295252/22	45B227a022.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
oxy-Chlordane	2.1861 1.6738	2.1035 1.6822	2.0170 1.6244	1.9055 1.6383	1.7779	Ave		1.8454				11.6		20.0			
2,4'-DDE	1.5306 1.2957	1.5542 1.2566	1.5442 1.2336	1.4554 1.2537	1.3679	Qua1	0.5798	1.2733	-0.000071			12.4			0.9990		0.9900
trans-Nonachlor	2.1860 1.8013	2.1423 1.8176	2.0417 1.7490	1.9690 1.7352	1.8841	Ave		1.9251				8.7		20.0			
2,4'-DDD	1.1200 0.8980	1.1401 0.9026	1.0886 0.8530	1.0343 0.8434	0.9626	Qua1	0.4301	0.9085	-0.000178			11.6			0.9990		0.9900
2,4'-DDT	1.1703 1.0021	1.1961 1.0190	1.1572 0.9810	1.1053 0.9773	1.0476	Qua1	0.3188	1.0157	-0.000106			7.8			1.0000		0.9900
cis-Nonachlor	2.2647 1.8591	2.2204 1.8558	2.1373 1.8043	2.0526 1.8640	1.9446	Lin1	0.7335	1.8473				7.8		20.0	1.0000		0.9900
Mirex	1.7727 1.2046	1.6534 1.2259	1.5247 1.1877	1.4093 1.2032	1.2785	Ave		1.3844				15.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 17:34 Calibration End Date: 02/27/2019 20:29 Calibration ID: 27486

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/30	45B227a030.D
Level 2	IC 580-295252/29	45B227a029.D
Level 3	IC 580-295252/28	45B227a028.D
Level 4	IC 580-295252/27	45B227a027.D
Level 5	IC 580-295252/26	45B227a026.D
Level 6	ICIS 580-295252/25	45B227a025.D
Level 7	IC 580-295252/24	45B227a024.D
Level 8	IC 580-295252/23	45B227a023.D
Level 9	IC 580-295252/22	45B227a022.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
oxy-Chlordane	BNB	Ave	2332152 97369033	4603773 199575524	11391626 388181640	20941312 808718766	49922926	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDE	BNB	Qua1	1632890 75370724	3401584 149090048	8721252 294793860	15995330 618838157	38411592	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Nonachlor	BNB	Ave	2332075 104785229	4688703 215644179	11530955 417964458	21639538 856557499	52905504	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDD	BNB	Qua1	1194853 52239704	2495351 107081231	6148229 203843993	11366944 416328505	27028867	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDT	BNB	Qua1	1248533 58295636	2617881 120896307	6535533 234418413	12146848 482398766	29416864	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Nonachlor	BNB	Lin1	2416006 108145723	4859777 220174258	12071128 431159652	22558372 920102922	54605611	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Mirex	BNB	Ave	1891087 70074438	3618668 145444545	8611095 283818628	15488790 593919989	35899187	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua1 = Quadratic 1/conc ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a022.D
Lims ID: ic ext400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 27-Feb-2019 17:34:54 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT400
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:56:50 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 11:54:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.066	-0.001	123406162	100.0	100.0	
2	5.433	5.433	0.000	289764669	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							M
1	7.279	7.279	0.000	808718766	400.0	355.1	M
2	7.958	7.959	-0.001	2077307280	400.0	463.1	
						RPD = 26.40	
27 2,4'-DDE							M
1	7.332	7.332	0.000	618838157	400.0	402.4	M
2	8.158	8.158	0.000	1319083452	400.0	462.9	
						RPD = 13.96	
28 trans-Nonachlor							
1	7.526	7.526	0.000	856557499	400.0	360.5	
2	8.247	8.246	0.001	2196437323	400.0	489.7	
						RPD = 30.38	
31 2,4'-DDD							
1	7.702	7.703	-0.001	416328505	400.0	402.6	
2	8.562	8.562	0.000	1040469001	400.0	449.3	
						RPD = 10.97	
36 2,4'-DDT							
1	7.896	7.896	0.000	482398766	400.0	401.4	
2	8.816	8.816	0.000	1169516469	400.0	519.4	
						RPD = 25.63	
38 cis-Nonachlor							
1	8.011	8.011	0.000	920102922	400.0	403.2	
2	8.870	8.870	0.000	2344453459	400.0	495.9	
						RPD = 20.63	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	593919989	400.0	347.6	
2	9.955	9.956	-0.001	1325388381	400.0	394.9	
						RPD = 12.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:56:51 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a022.D

Injection Date: 27-Feb-2019 17:34:54 Instrument ID: TAC045

Lims ID: ic ext400

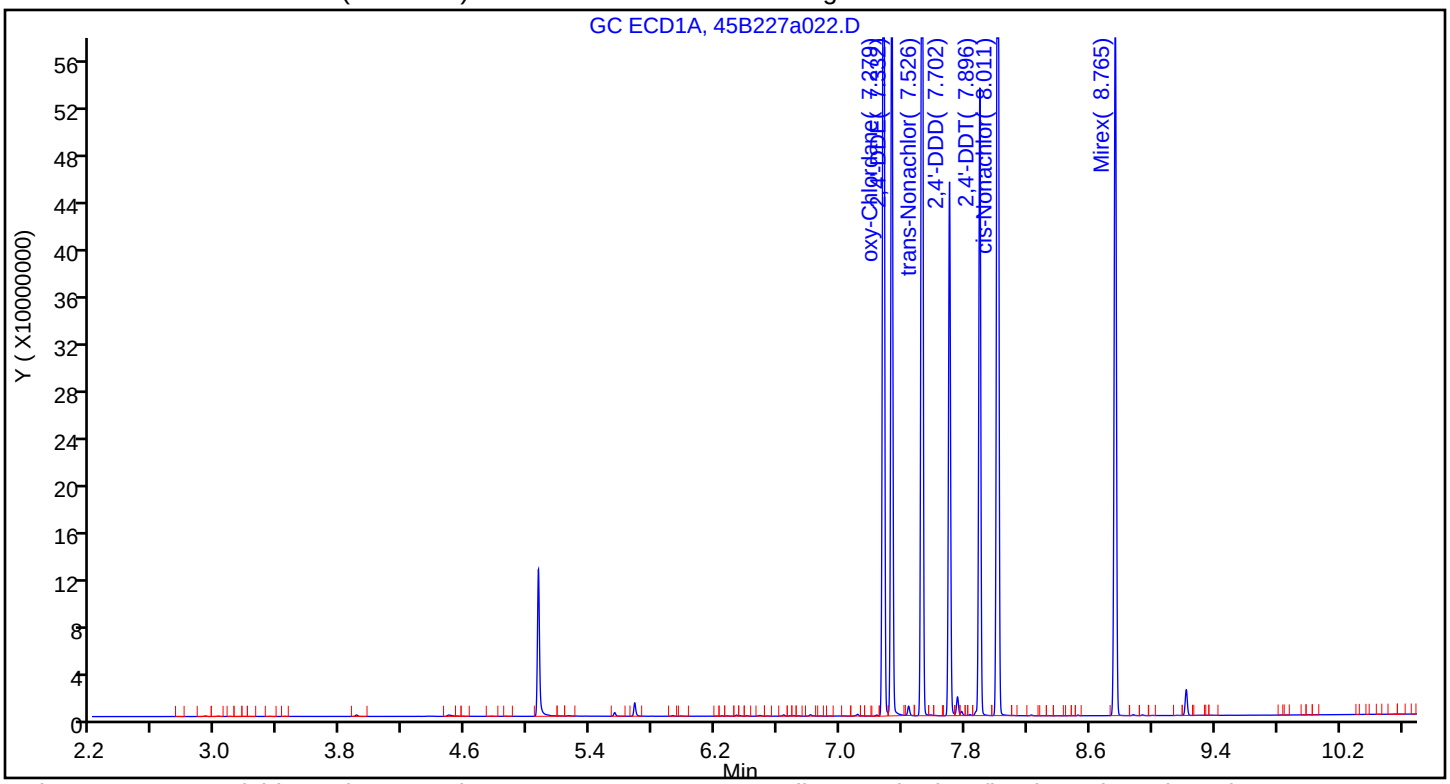
Client ID:

Operator ID: AR ALS Bottle#: 20 Worklist Smp#: 22

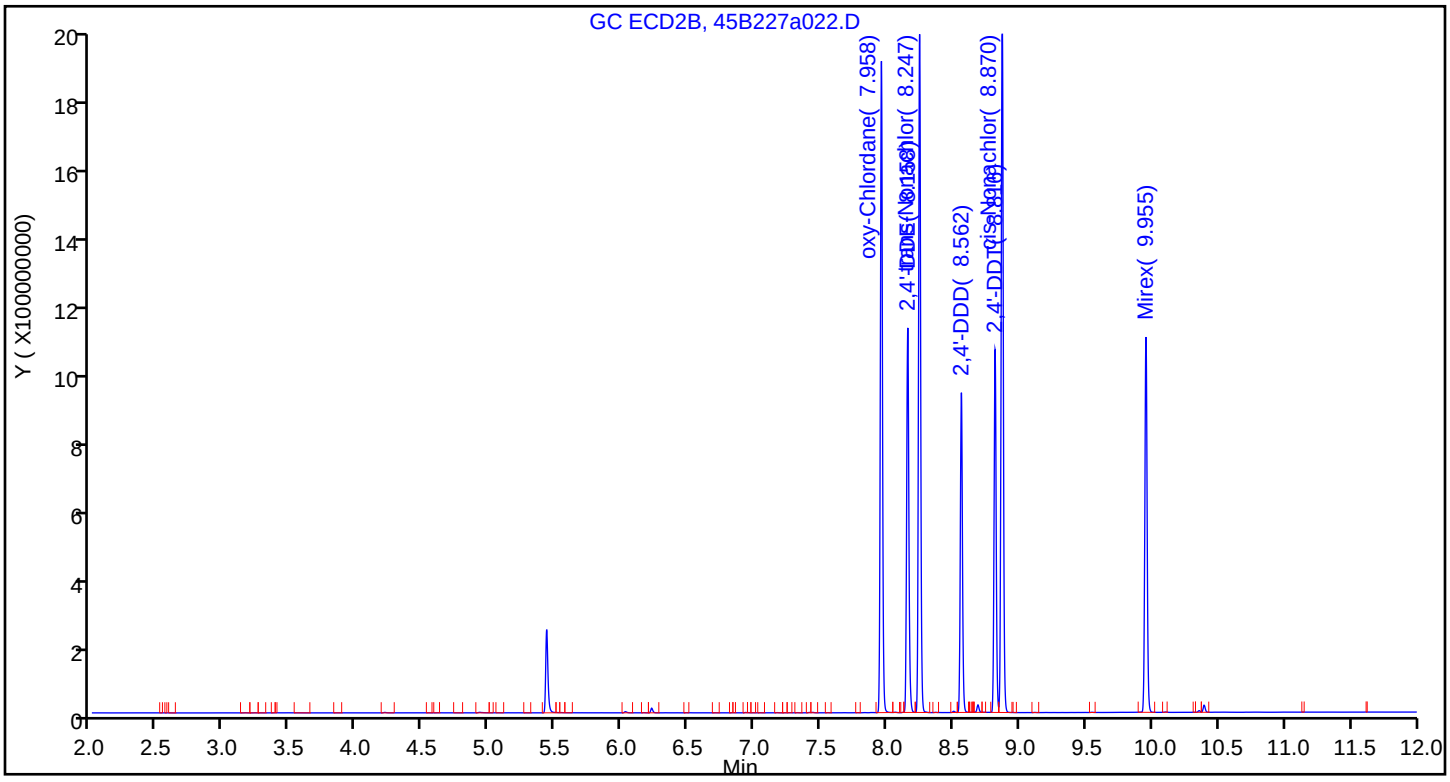
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

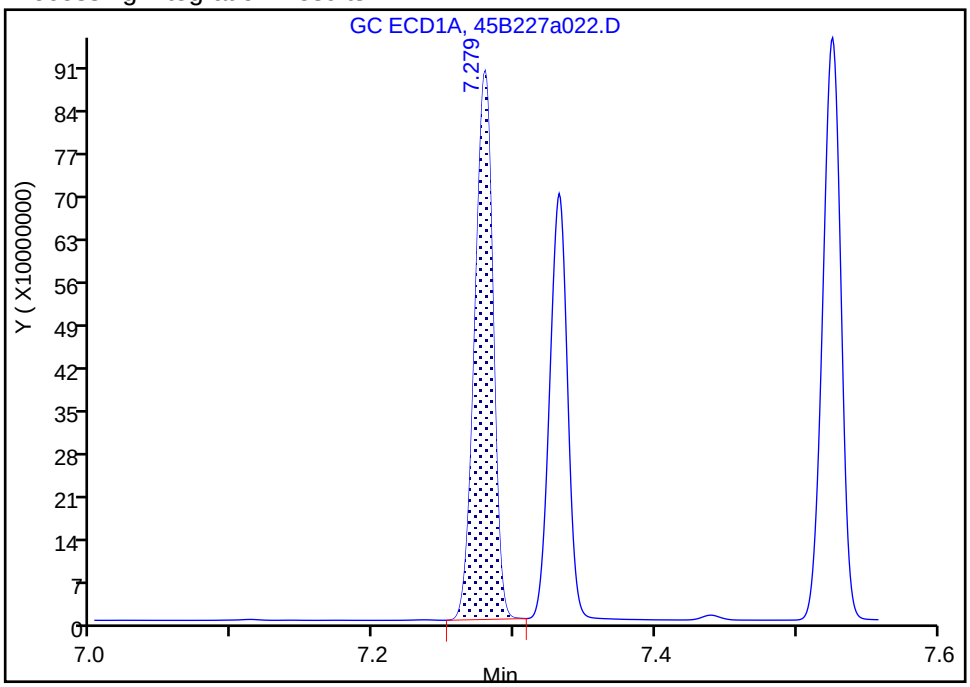
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a022.D				
Injection Date:	27-Feb-2019 17:34:54	Instrument ID:	TAC045		
Lims ID:	ic ext400				
Client ID:					
Operator ID:	AR	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 oxy-Chlordane, CAS: 27304-13-8

Signal: 1

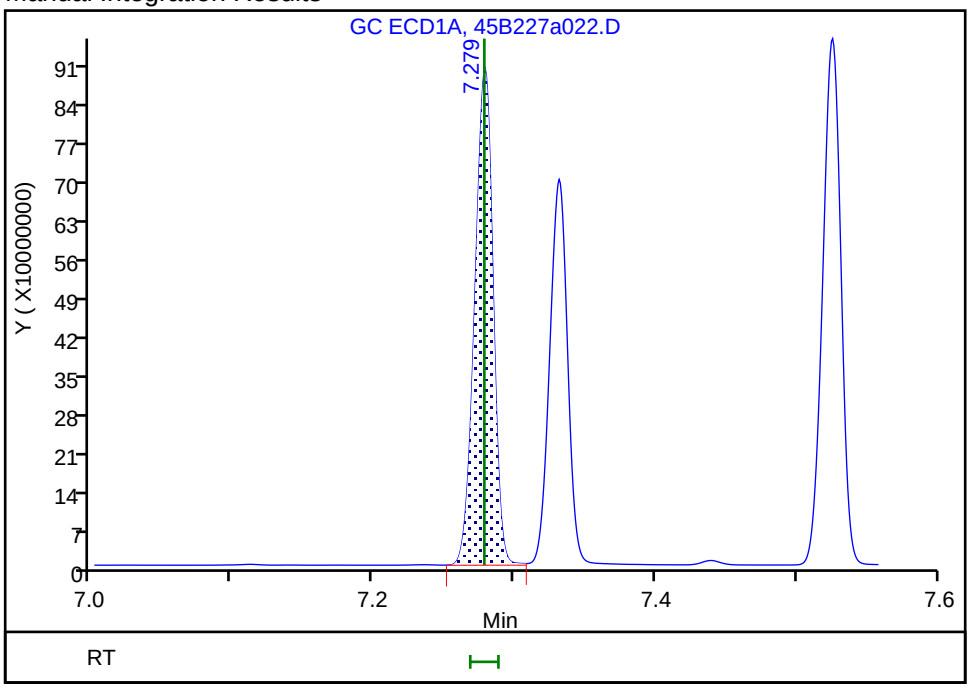
Processing Integration Results

RT: 7.28
Area: 803554229
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 7.28
Area: 808718766
Amount: 355.1137
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:53:29

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Seattle

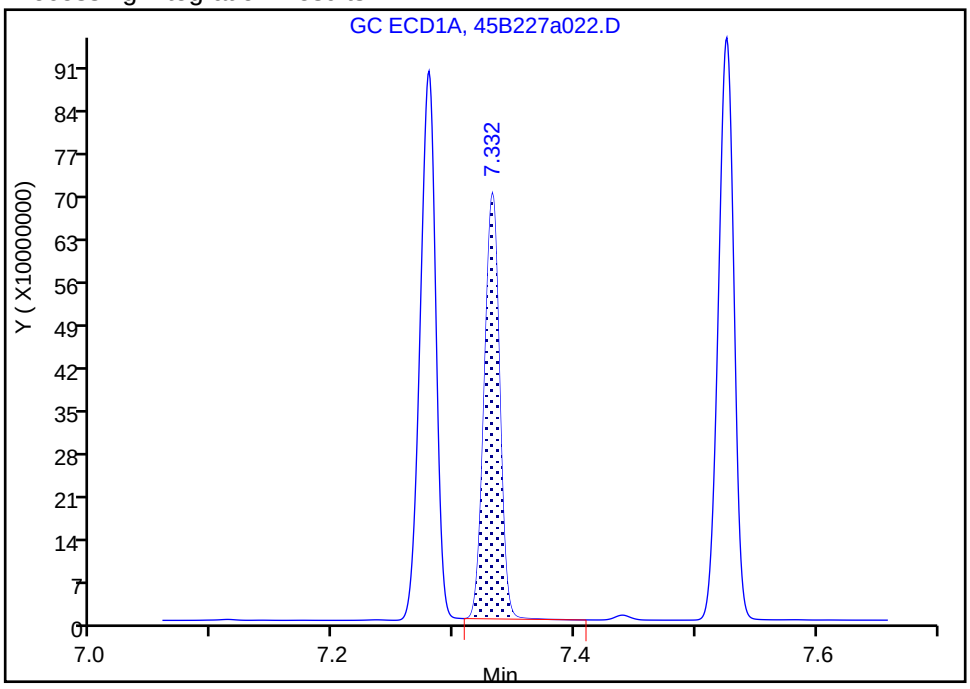
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a022.D				
Injection Date:	27-Feb-2019 17:34:54	Instrument ID:	TAC045		
Lims ID:	ic ext400				
Client ID:					
Operator ID:	AR	ALS Bottle#:	20	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

27 2,4'-DDE, CAS: 3424-82-6

Signal: 1

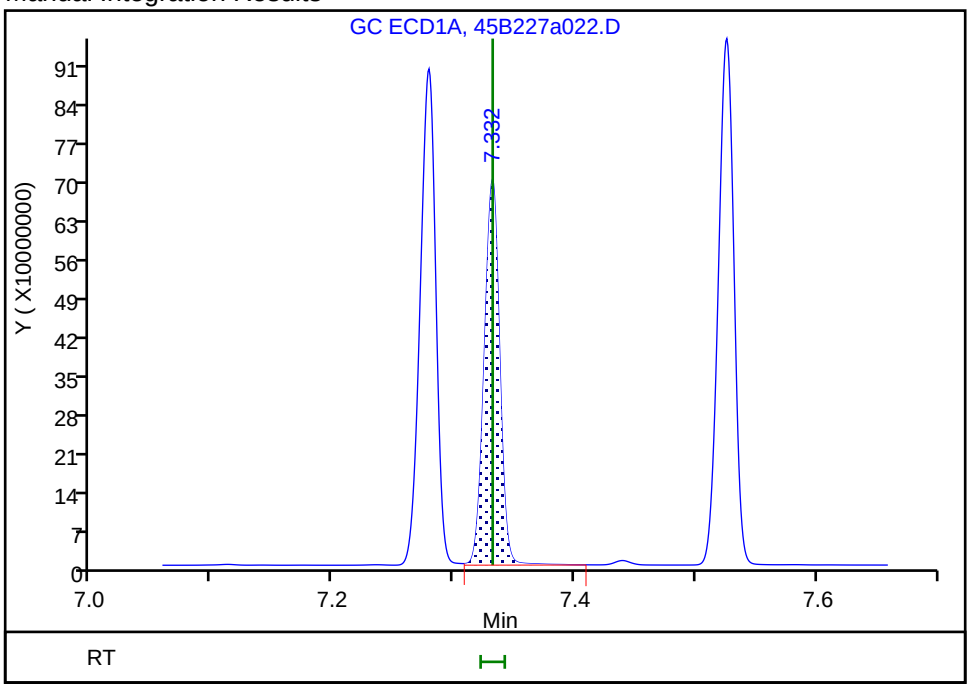
Processing Integration Results

RT: 7.33
Area: 609726584
Amount: 356.4935
Amount Units: ug/L



Manual Integration Results

RT: 7.33
Area: 618838157
Amount: 402.4457
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:53:29

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a023.D
Lims ID: ic ext200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Feb-2019 17:56:54 ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT200
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:56:53 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 11:54:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.066	-0.002	119483411	100.0	100.0	
2	5.431	5.433	-0.002	285003944	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.277	7.279	-0.002	388181640	200.0	176.0	
2	7.958	7.959	-0.001	955683240	200.0	216.6	
						RPD = 20.66	
27 2,4'-DDE							
1	7.331	7.332	-0.001	294793860	200.0	195.4	
2	8.156	8.158	-0.002	622344928	200.0	222.0	
						RPD = 12.73	
28 trans-Nonachlor							
1	7.525	7.526	-0.001	417964458	200.0	181.7	
2	8.245	8.246	-0.001	974166678	200.0	220.8	
						RPD = 19.43	
31 2,4'-DDD							
1	7.701	7.703	-0.002	203843993	200.0	194.7	
2	8.561	8.562	-0.001	480363717	200.0	211.1	
						RPD = 8.05	
36 2,4'-DDT							
1	7.895	7.896	-0.001	234418413	200.0	196.9	
2	8.816	8.816	0.000	520663888	200.0	235.1	
						RPD = 17.68	
38 cis-Nonachlor							
1	8.011	8.011	0.000	431159652	200.0	194.9	
2	8.869	8.870	-0.001	1074835936	200.0	231.2	
						RPD = 17.00	

Report Date: 06-Mar-2019 13:56:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a023.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	283818628	200.0	171.6	
2	9.955	9.956	-0.001	612318409	200.0	185.5	
						RPD = 7.78	

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:56:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a023.D

Injection Date: 27-Feb-2019 17:56:54 Instrument ID: TAC045

Lims ID: ic ext200

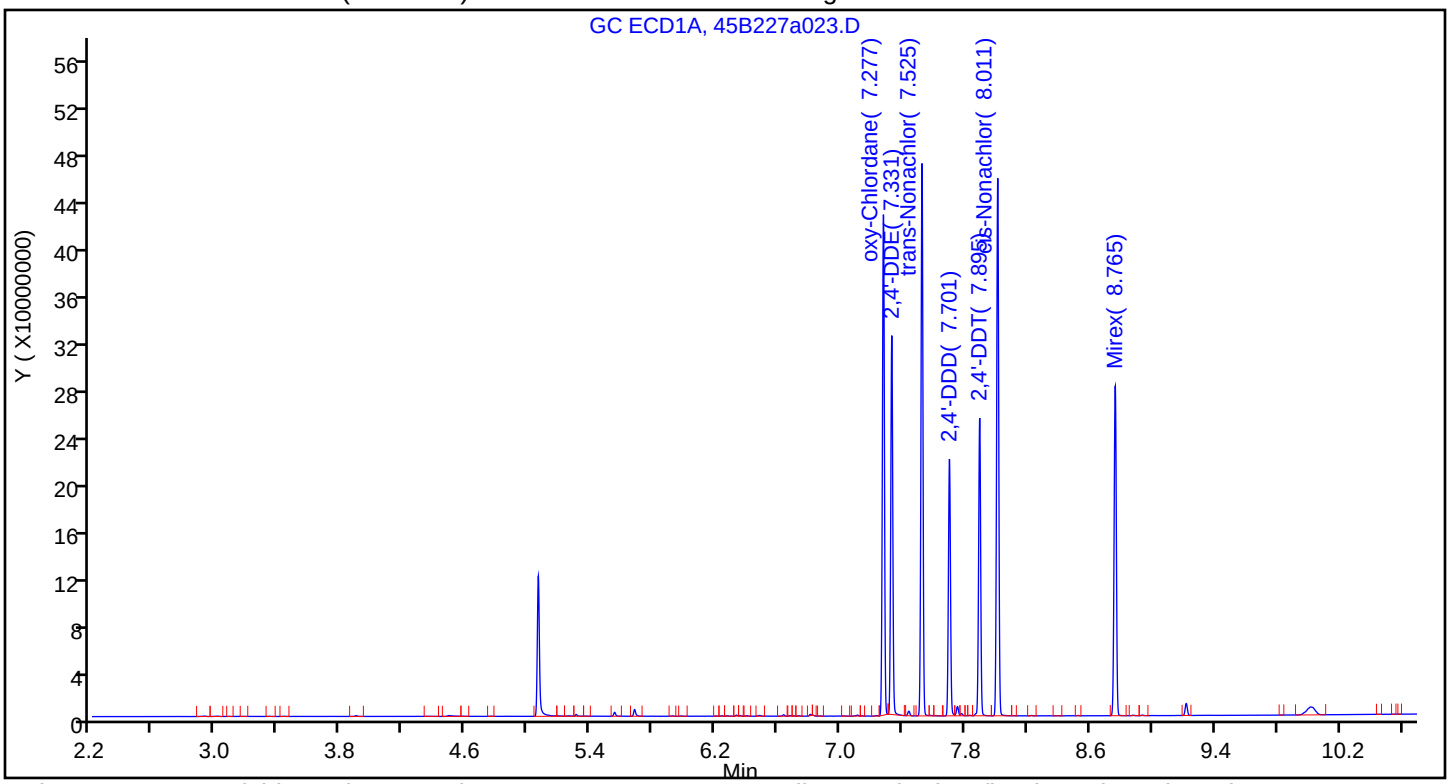
Client ID:

Operator ID: AR ALS Bottle#: 21 Worklist Smp#: 23

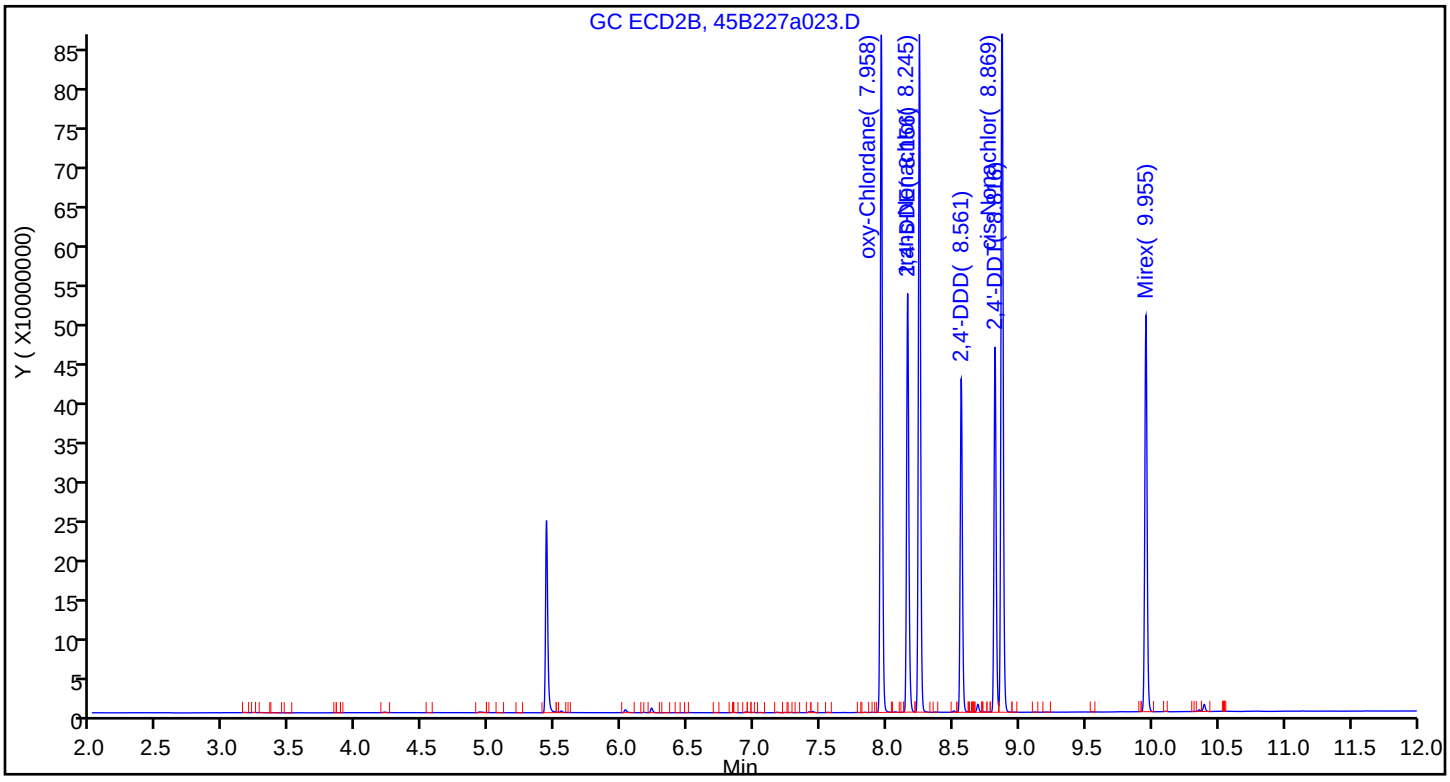
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a024.D
Lims ID: ic ext100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Feb-2019 18:18:58 ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT100
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:56:57 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.066	-0.001	118641631	100.0	100.0	
2	5.433	5.433	0.000	281973285	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.279	7.279	0.000	199575524	100.0	91.2	
2	7.958	7.959	-0.001	452711753	100.0	103.7	
						RPD = 12.89	
27 2,4'-DDE							
1	7.333	7.332	0.001	149090048	100.0	98.8	
2	8.158	8.158	0.000	315301600	100.0	113.7	
						RPD = 14.04	
28 trans-Nonachlor							
1	7.527	7.526	0.001	215644179	100.0	94.4	
2	8.246	8.246	0.000	468162807	100.0	107.3	
						RPD = 12.74	
31 2,4'-DDD							
1	7.704	7.703	0.001	107081231	100.0	100.9	
2	8.561	8.562	-0.001	236373863	100.0	105.1	
						RPD = 4.13	
36 2,4'-DDT							
1	7.897	7.896	0.001	120896307	100.0	101.1	
2	8.817	8.816	0.001	253254839	100.0	115.6	
						RPD = 13.38	
38 cis-Nonachlor							
1	8.012	8.011	0.001	220174258	100.0	100.1	
2	8.869	8.870	-0.001	520661450	100.0	113.2	
						RPD = 12.31	

Report Date: 06-Mar-2019 13:56:58 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a024.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.766	8.765	0.001	145444545	100.0	88.5	
2	9.955	9.956	-0.001	290580834	100.0	89.0	
						RPD = 0.47	

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.25	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:56:58 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a024.D

Injection Date: 27-Feb-2019 18:18:58 Instrument ID: TAC045

Lims ID: ic ext100

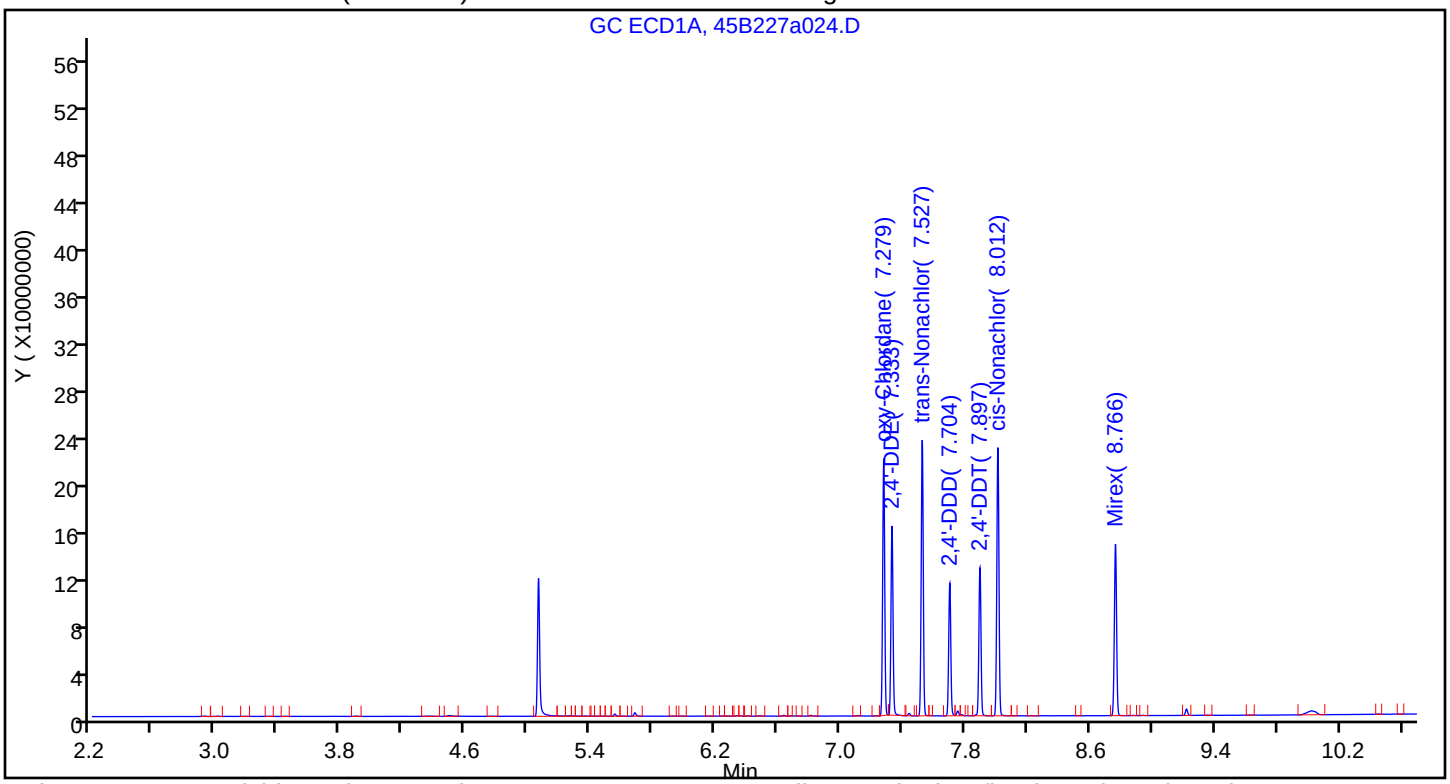
Client ID:

Operator ID: AR ALS Bottle#: 22 Worklist Smp#: 24

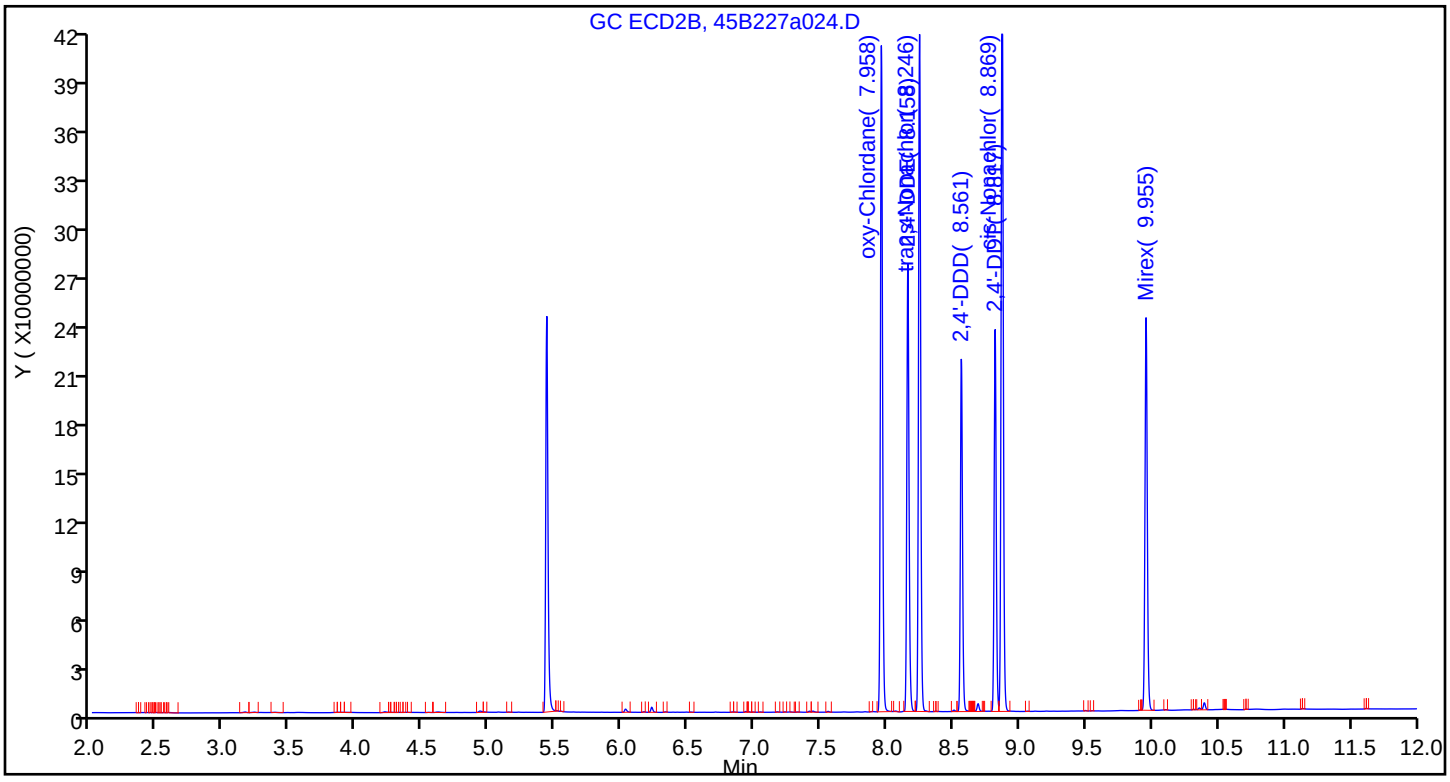
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D
Lims ID: icis ext50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 27-Feb-2019 18:40:49 ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS EXT50
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:00 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: bohnc Date: 06-Mar-2019 12:54:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.065	0.000	116341867	100.0	100.0	
2	5.433	5.433	0.000	269656858	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							a
1	7.279	7.279	0.000	97369033	50.0	45.4	a
2	7.959	7.959	0.000	201768600	50.0	48.3	a
						RPD = 6.37	
27 2,4'-DDE							
1	7.332	7.332	0.000	75370724	50.0	50.6	
2	8.158	8.158	0.000	135743790	50.0	51.2	
						RPD = 1.22	
28 trans-Nonachlor							a
1	7.526	7.526	0.000	104785229	50.0	46.8	a
2	8.246	8.246	0.000	209955671	50.0	50.3	a
						RPD = 7.24	
31 2,4'-DDD							
1	7.703	7.703	0.000	52239704	50.0	49.4	
2	8.562	8.562	0.000	107071533	50.0	49.9	
						RPD = 1.03	
36 2,4'-DDT							
1	7.896	7.896	0.000	58295636	50.0	49.3	
2	8.816	8.816	0.000	112060042	50.0	53.5	
						RPD = 8.18	
38 cis-Nonachlor							
1	8.011	8.011	0.000	108145723	50.0	49.9	
2	8.870	8.870	0.000	224668105	50.0	51.1	
						RPD = 2.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							a
1	8.765	8.765	0.000	70074438	50.0	43.5	a
2	9.956	9.956	0.000	133397137	50.0	42.7	a
						RPD = 1.86	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

EXTOCP_IC50_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:01 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D

Injection Date: 27-Feb-2019 18:40:49 Instrument ID: TAC045

Lims ID: icis ext50

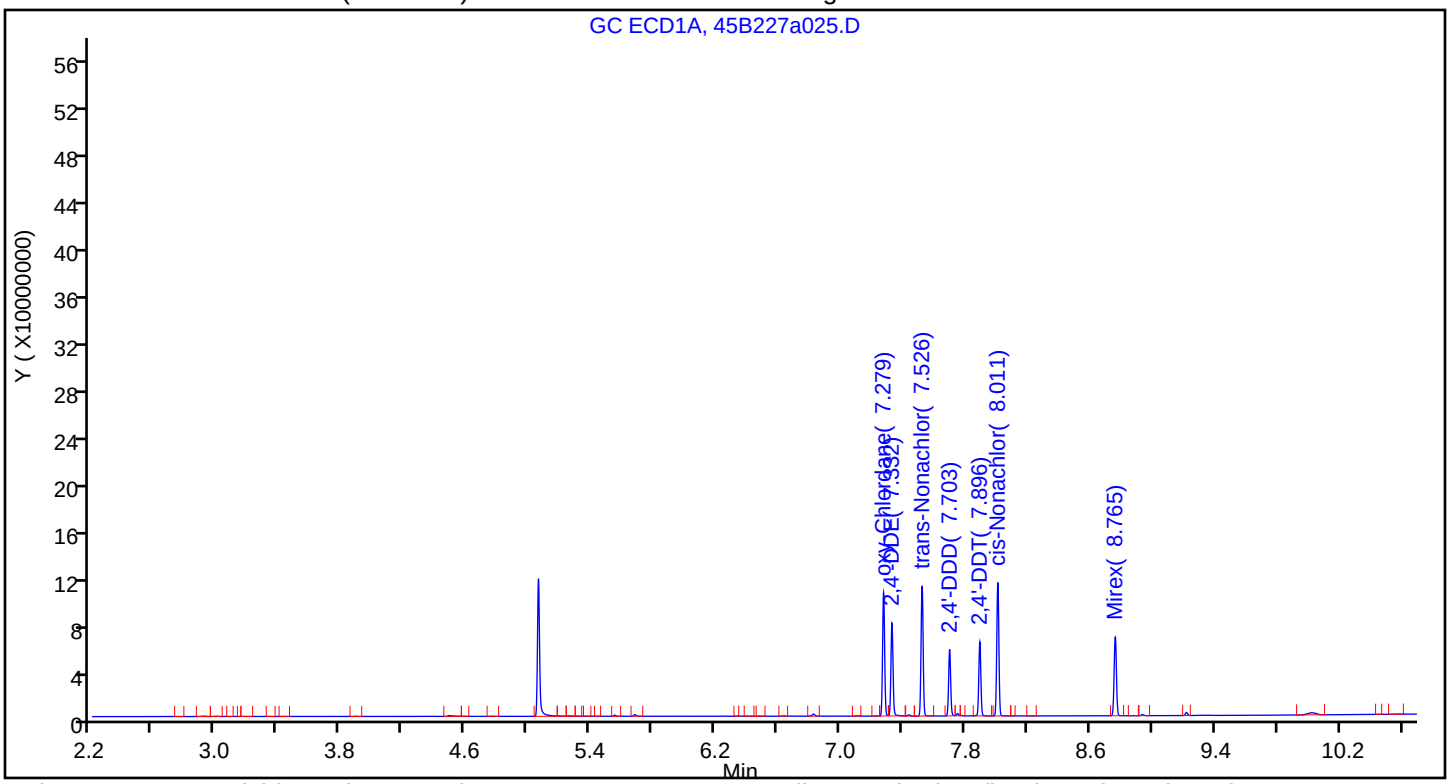
Client ID:

Operator ID: AR ALS Bottle#: 23 Worklist Smp#: 25

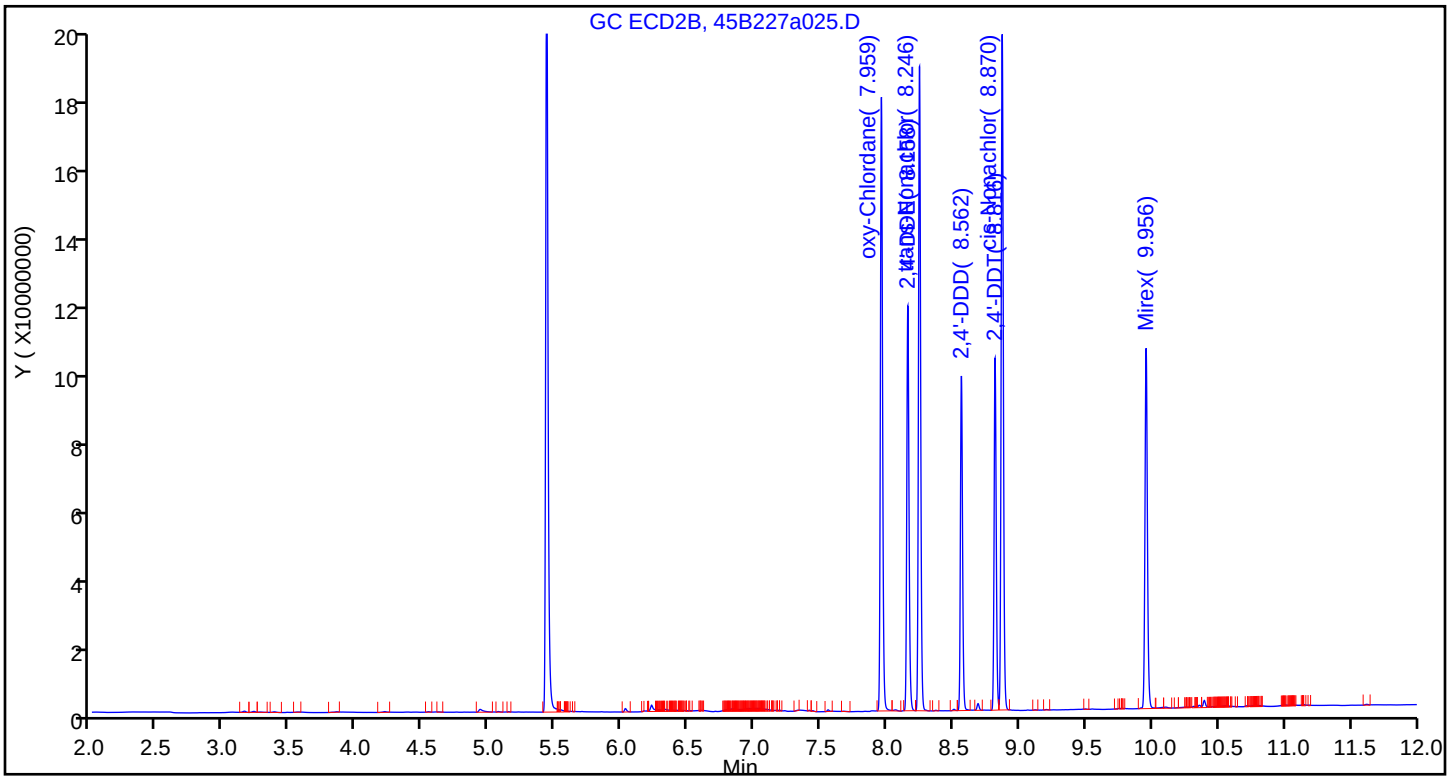
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

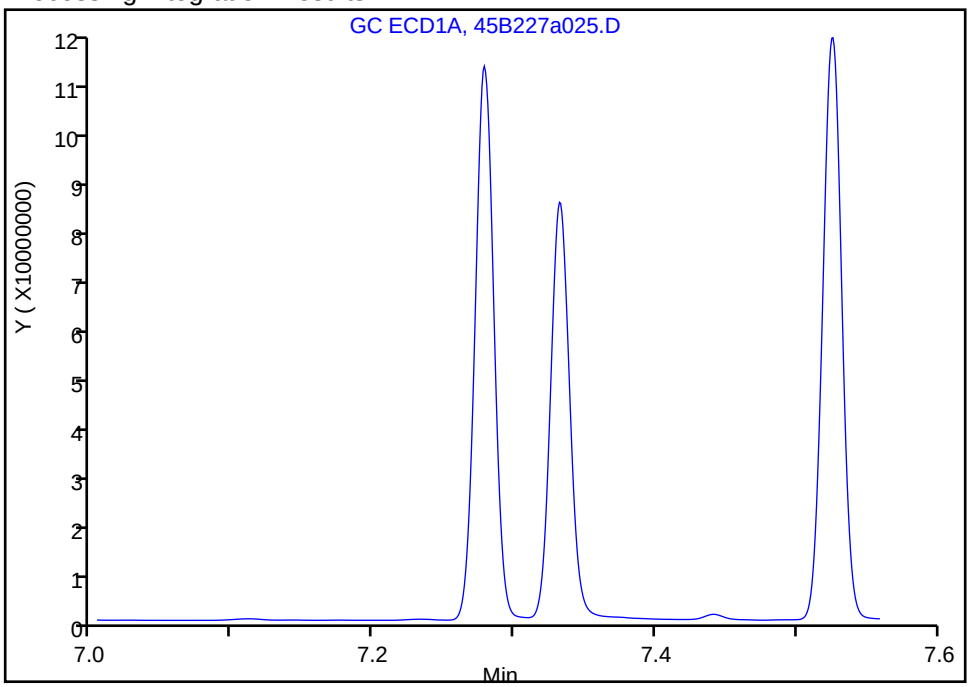
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D				
Injection Date:	27-Feb-2019 18:40:49	Instrument ID:	TAC045		
Lims ID:	icis ext50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 oxy-Chlordane, CAS: 27304-13-8

Signal: 1

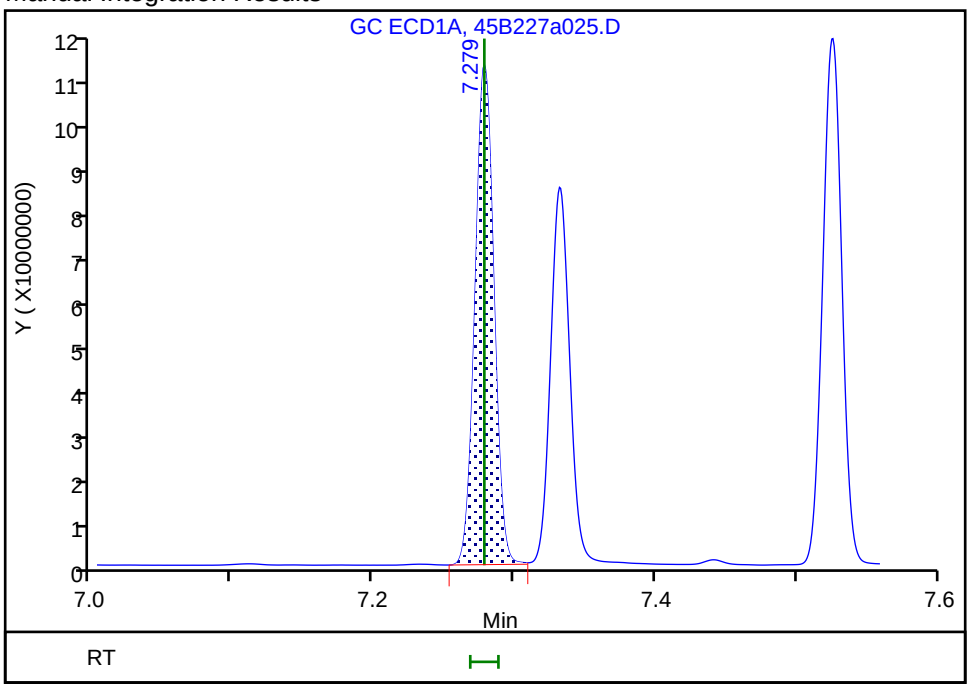
Not Detected
Expected RT: 7.28

Processing Integration Results



Manual Integration Results

RT: 7.28
Area: 97369033
Amount: 45.351489
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:46:03
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

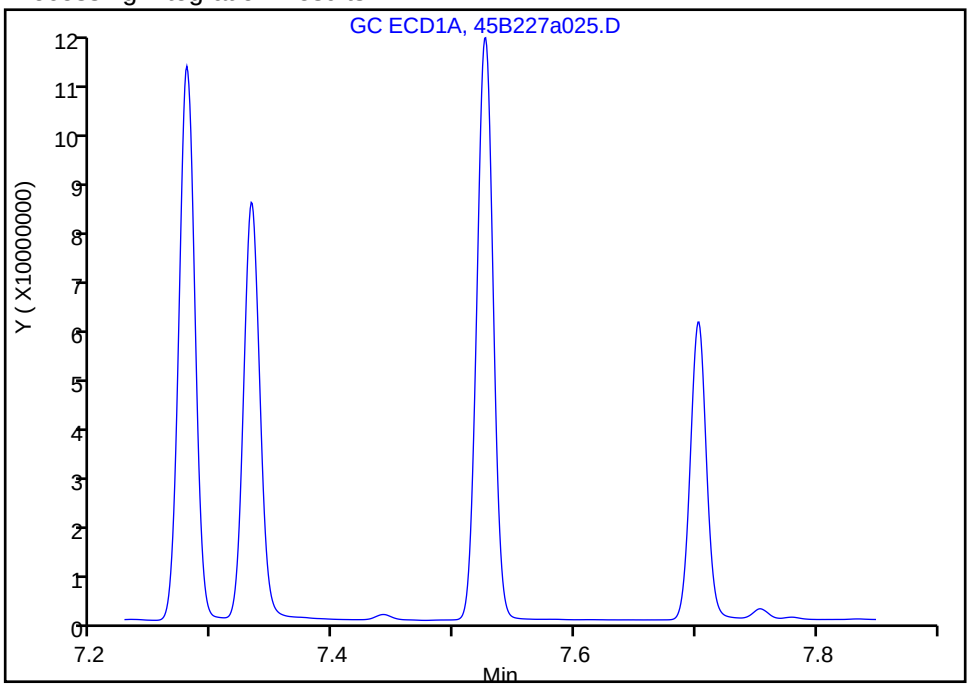
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D				
Injection Date:	27-Feb-2019 18:40:49	Instrument ID:	TAC045		
Lims ID:	icis ext50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

28 trans-Nonachlor, CAS: 39765-80-5

Signal: 1

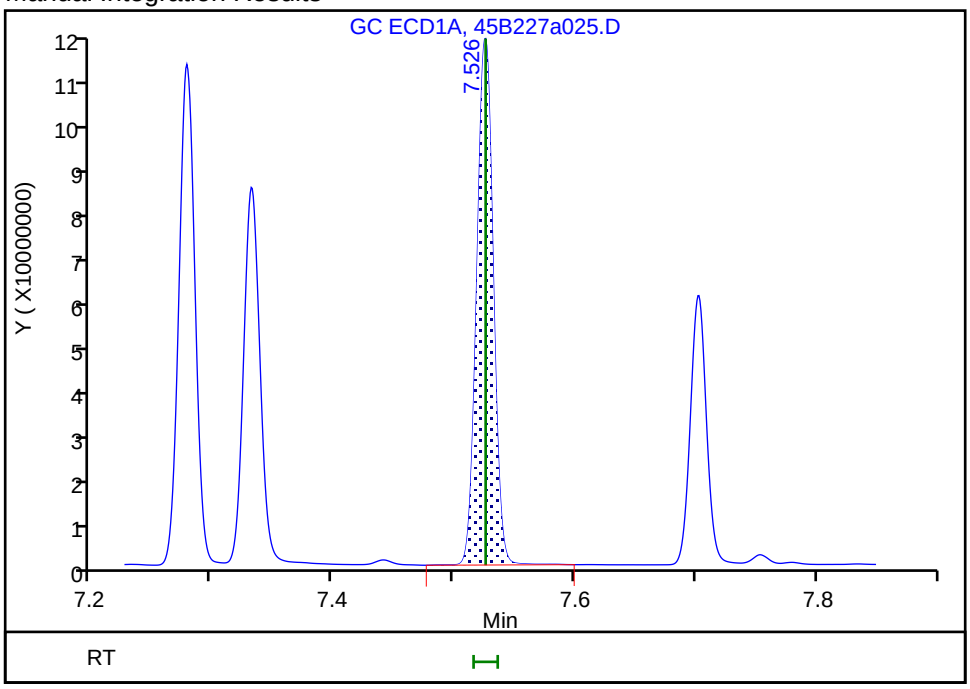
Not Detected
Expected RT: 7.53

Processing Integration Results



Manual Integration Results

RT: 7.53
Area: 104785229
Amount: 46.784280
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:46:28
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

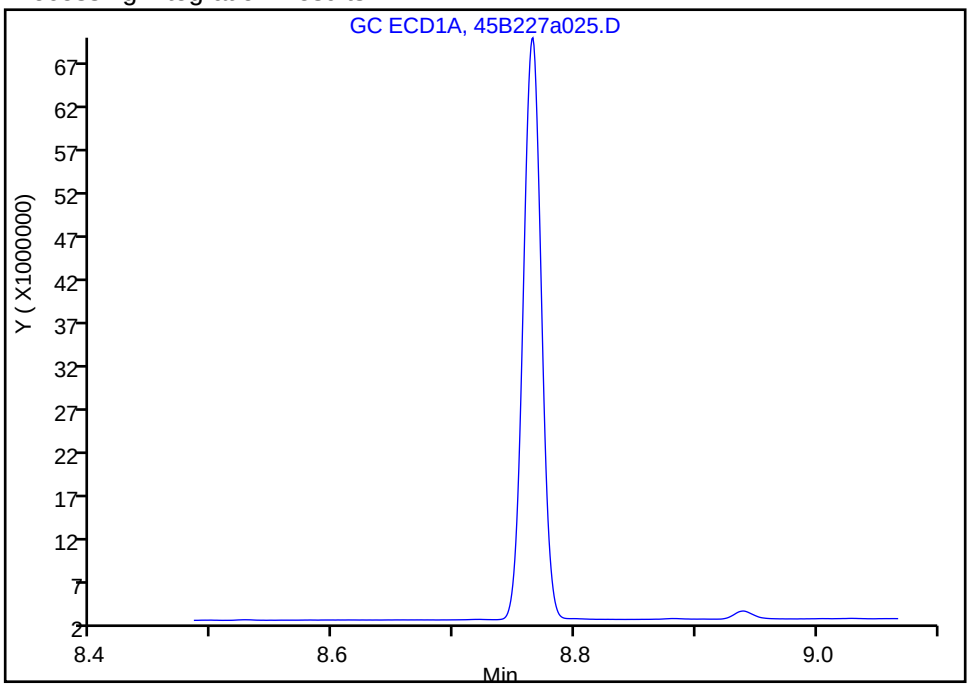
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D				
Injection Date:	27-Feb-2019 18:40:49	Instrument ID:	TAC045		
Lims ID:	icis ext50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

42 Mirex, CAS: 2385-85-5

Signal: 1

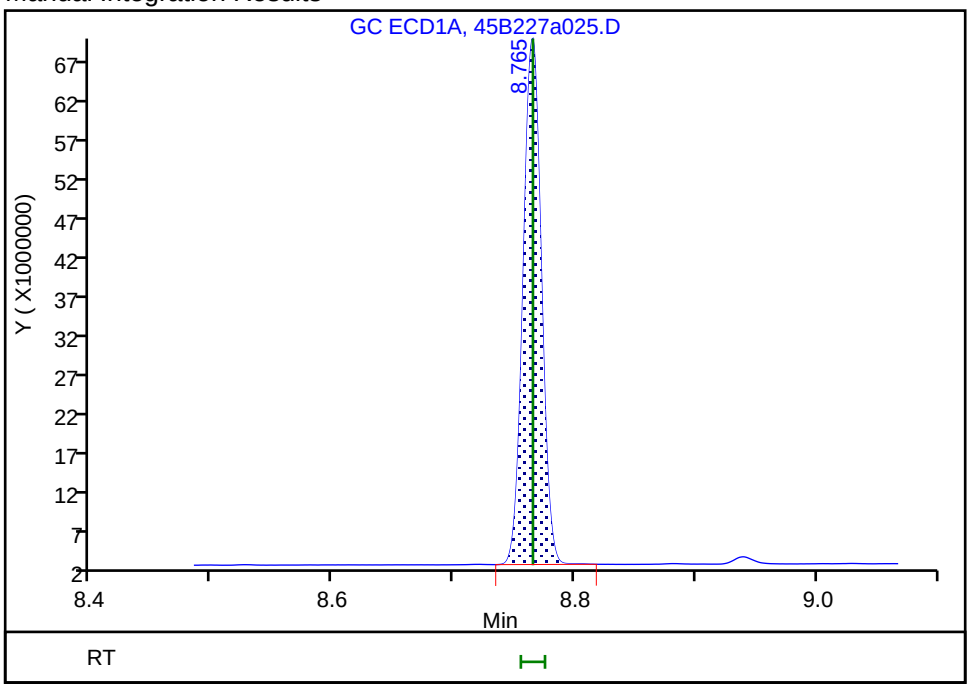
Not Detected
Expected RT: 8.77

Processing Integration Results



Manual Integration Results

RT: 8.77
Area: 70074438
Amount: 43.506075
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:46:55
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a026.D
Lims ID: ic ext25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Feb-2019 19:02:37 ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT25
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:04 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	112319919	100.0	100.0	
2	5.432	5.433	-0.001	264989869	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.279	7.279	0.000	49922926	25.0	24.1	
2	7.957	7.959	-0.002	99977730	25.0	24.4	
						RPD = 1.19	
27 2,4'-DDE							
1	7.332	7.332	0.000	38411592	25.0	26.4	
2	8.156	8.158	-0.002	66211879	25.0	25.4	
						RPD = 4.00	
28 trans-Nonachlor							
1	7.526	7.526	0.000	52905504	25.0	24.5	
2	8.245	8.246	-0.001	100350314	25.0	24.5	
						RPD = 0.01	
31 2,4'-DDD							
1	7.703	7.703	0.000	27028867	25.0	26.1	
2	8.561	8.562	-0.001	50165351	25.0	24.0	
						RPD = 8.75	
36 2,4'-DDT							
1	7.896	7.896	0.000	29416864	25.0	25.5	
2	8.815	8.816	-0.001	51625446	25.0	25.1	
						RPD = 1.86	
38 cis-Nonachlor							
1	8.011	8.011	0.000	54605611	25.0	25.9	
2	8.868	8.870	-0.002	106499319	25.0	24.6	
						RPD = 5.09	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	35899187	25.0	23.1	
2	9.955	9.956	-0.001	68959708	25.0	22.5	
						RPD = 2.72	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:04 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a026.D

Injection Date: 27-Feb-2019 19:02:37 Instrument ID: TAC045

Lims ID: ic ext25

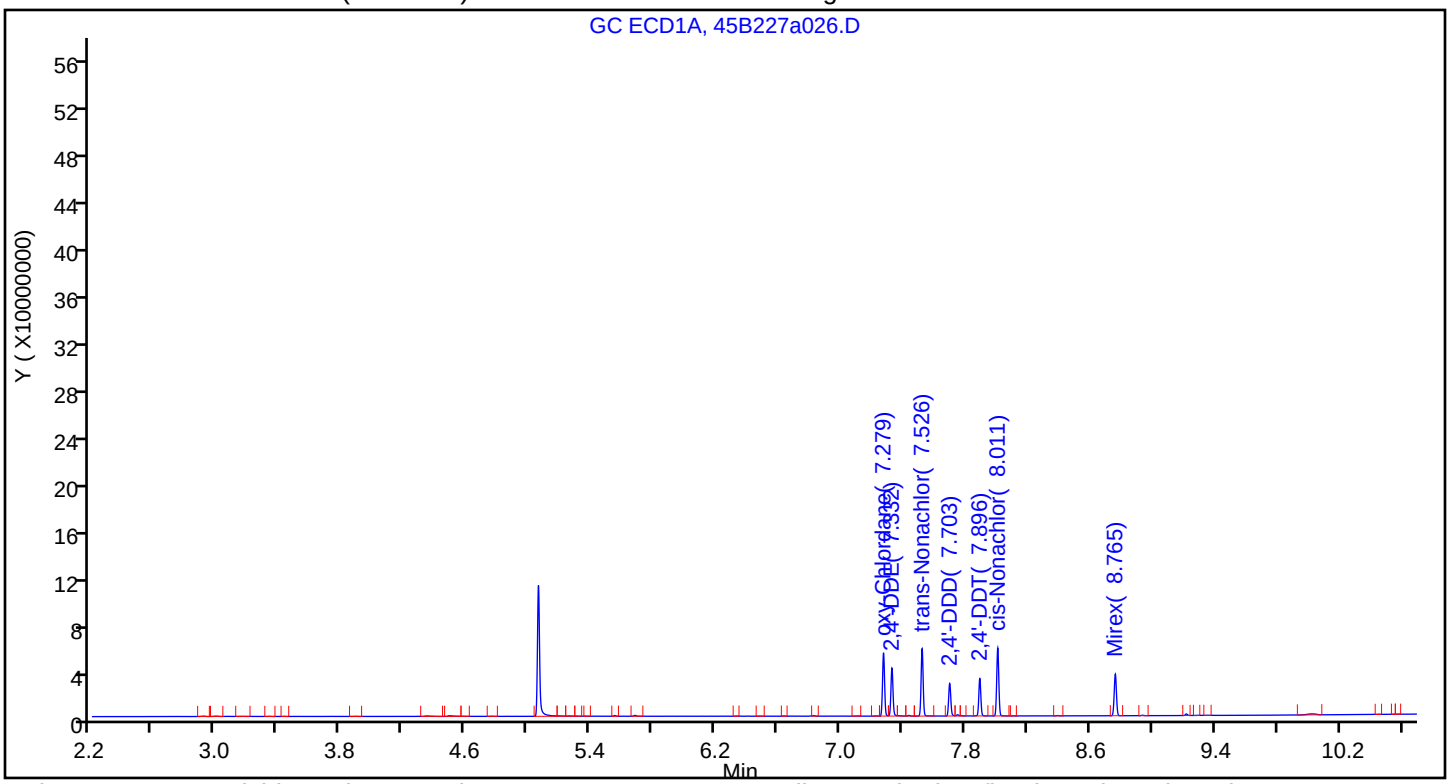
Client ID:

Operator ID: AR ALS Bottle#: 24 Worklist Smp#: 26

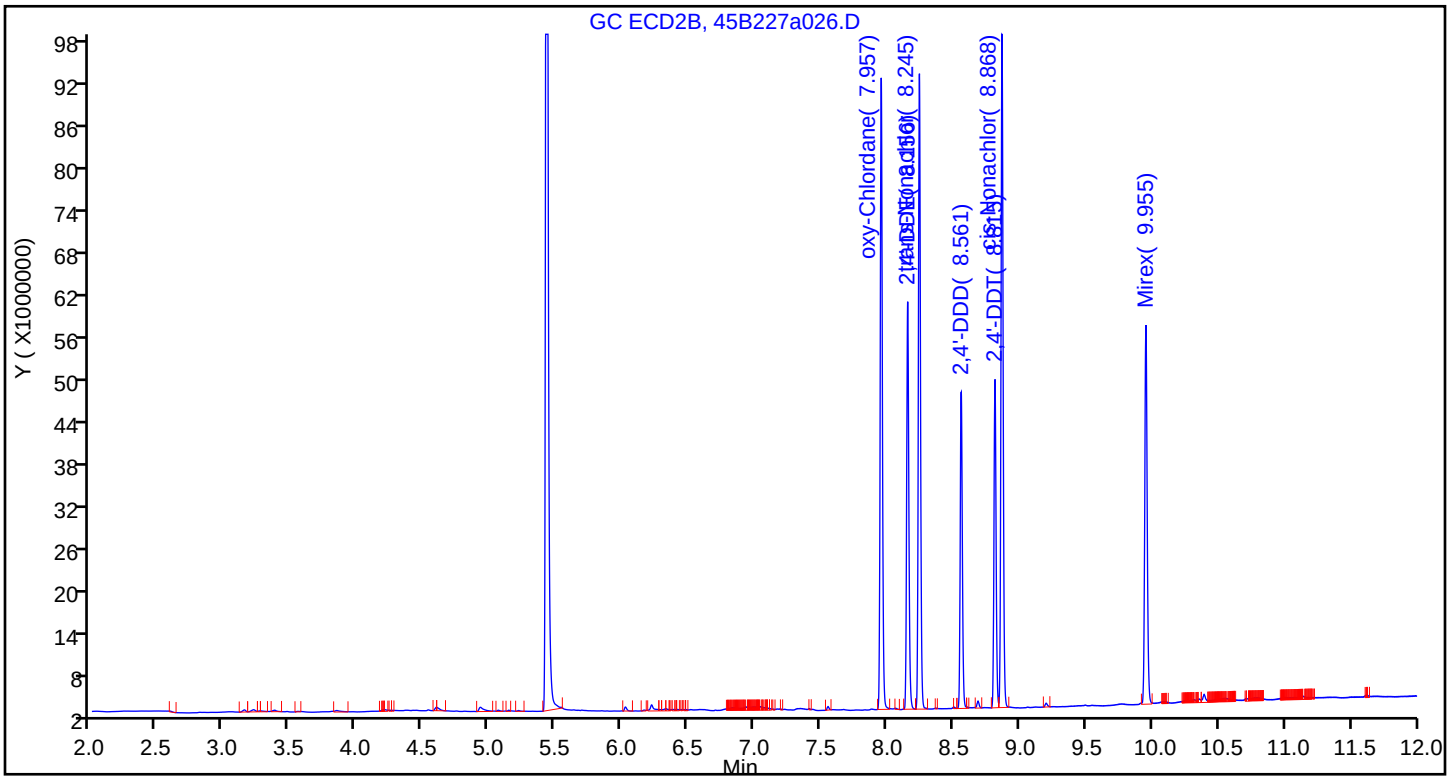
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a027.D
Lims ID: ic ext10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Feb-2019 19:24:27 ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT10
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:07 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.065	0.000	109900334	100.0	100.0	
2	5.433	5.433	0.000	261298686	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	20941312	10.0	10.3	
2	7.959	7.959	0.000	37655410	10.0	9.31	
						RPD = 10.35	
27 2,4'-DDE							
1	7.333	7.333	0.000	15995330	10.0	11.0	
2	8.158	8.158	0.000	24321576	10.0	9.46	
						RPD = 14.84	
28 trans-Nonachlor							
1	7.526	7.526	0.000	21639538	10.0	10.2	
2	8.245	8.245	0.000	38624100	10.0	9.55	
						RPD = 6.86	
31 2,4'-DDD							
1	7.703	7.703	0.000	11366944	10.0	10.9	
2	8.563	8.563	0.000	18347987	10.0	9.06	
						RPD = 18.71	
36 2,4'-DDT							
1	7.896	7.896	0.000	12146848	10.0	10.6	
2	8.817	8.817	0.000	18319777	10.0	9.02	
						RPD = 15.89	
38 cis-Nonachlor							
1	8.011	8.011	0.000	22558372	10.0	10.7	
2	8.870	8.870	0.000	39333241	10.0	9.23	
						RPD = 14.92	

Report Date: 06-Mar-2019 13:57:08 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a027.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	15488790	10.0	10.2	
2	9.956	9.956	0.000	29031172	10.0	9.59	
						RPD = 5.95	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:08 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a027.D

Injection Date: 27-Feb-2019 19:24:27 Instrument ID: TAC045

Lims ID: ic ext10

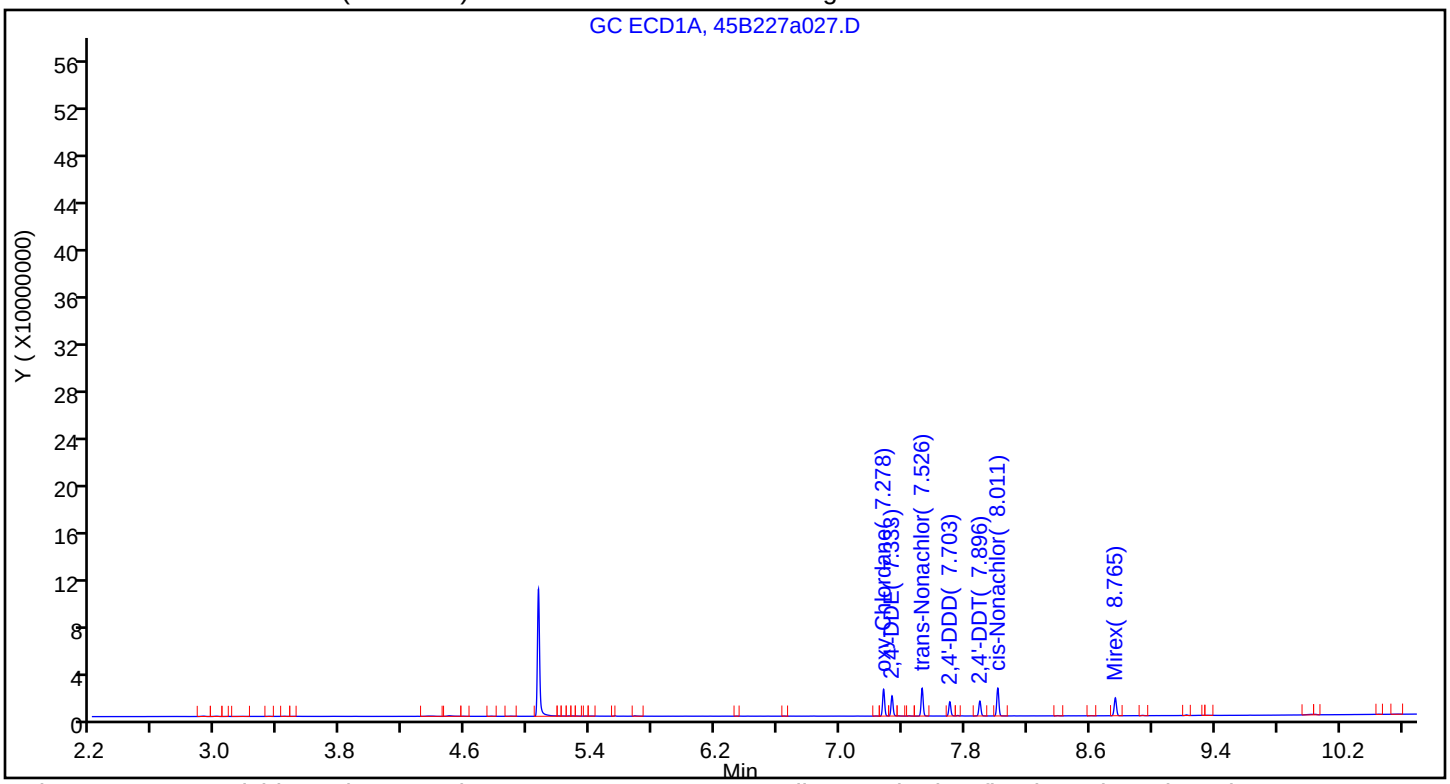
Client ID:

Operator ID: AR ALS Bottle#: 25 Worklist Smp#: 27

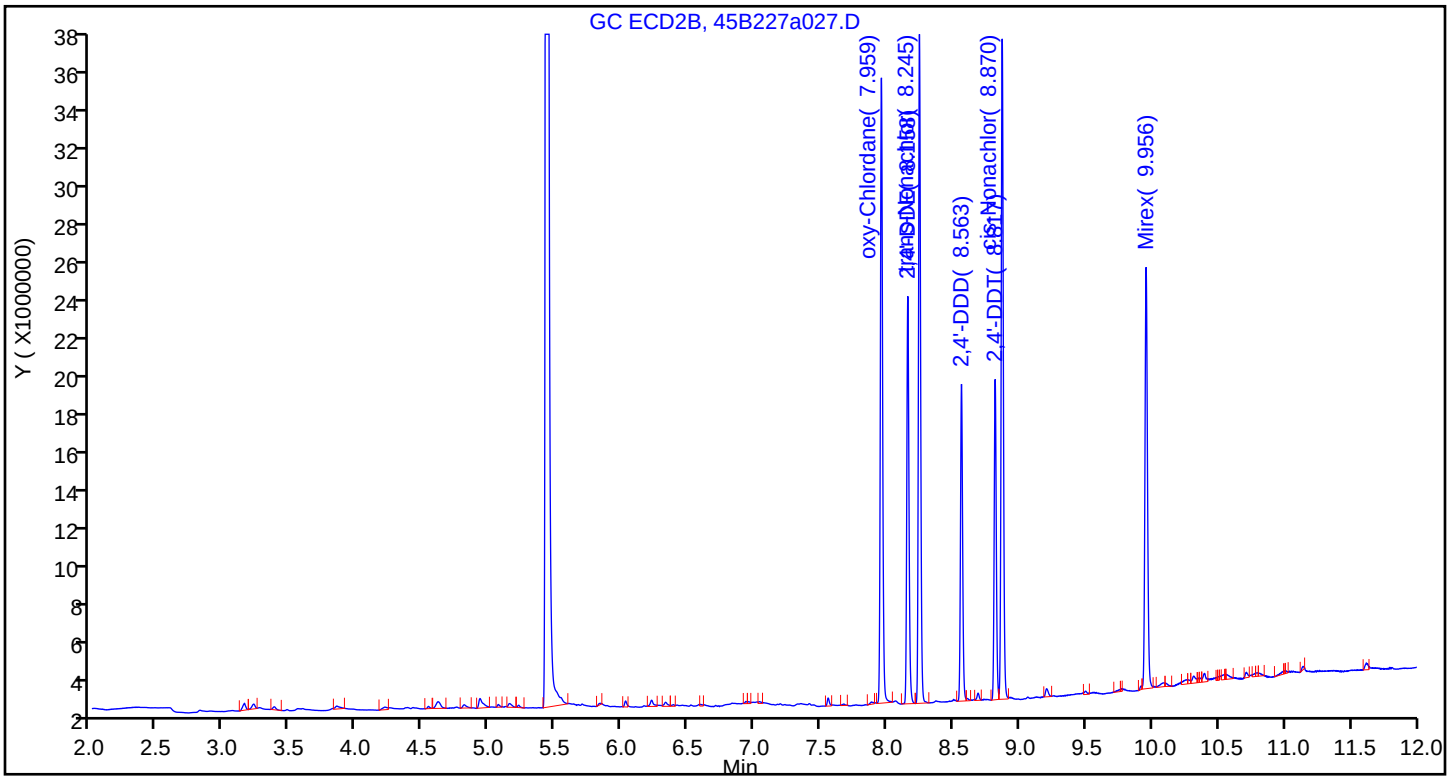
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a028.D
Lims ID: ic ext5
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Feb-2019 19:46:19 ALS Bottle#: 26 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT5
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:10 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.065	0.000	112955640	100.0	100.0	
2	5.433	5.433	0.000	271237944	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.279	7.278	0.001	11391626	5.00	5.46	
2	7.959	7.959	0.000	19714351	5.00	4.70	
						RPD = 15.15	
27 2,4'-DDE							
1	7.333	7.333	0.000	8721252	5.00	5.61	
2	8.157	8.158	-0.001	12044467	5.00	4.51	
						RPD = 21.63	
28 trans-Nonachlor							
1	7.526	7.526	0.000	11530955	5.00	5.30	
2	8.246	8.245	0.001	19335031	5.00	4.61	
						RPD = 14.08	
31 2,4'-DDD							
1	7.703	7.703	0.000	6148229	5.00	5.52	
2	8.562	8.563	-0.001	9136305	5.00	4.50	
						RPD = 20.53	
36 2,4'-DDT							
1	7.897	7.896	0.001	6535533	5.00	5.39	
2	8.816	8.817	-0.001	9007302	5.00	4.27	
						RPD = 23.03	
38 cis-Nonachlor							
1	8.011	8.011	0.000	12071128	5.00	5.39	
2	8.868	8.870	-0.002	19534815	5.00	4.41	
						RPD = 19.86	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.766	8.765	0.001	8611095	5.00	5.51	
2	9.955	9.956	-0.001	16017491	5.00	5.10	
						RPD = 7.70	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:11 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a028.D

Injection Date: 27-Feb-2019 19:46:19 Instrument ID: TAC045

Lims ID: ic ext5

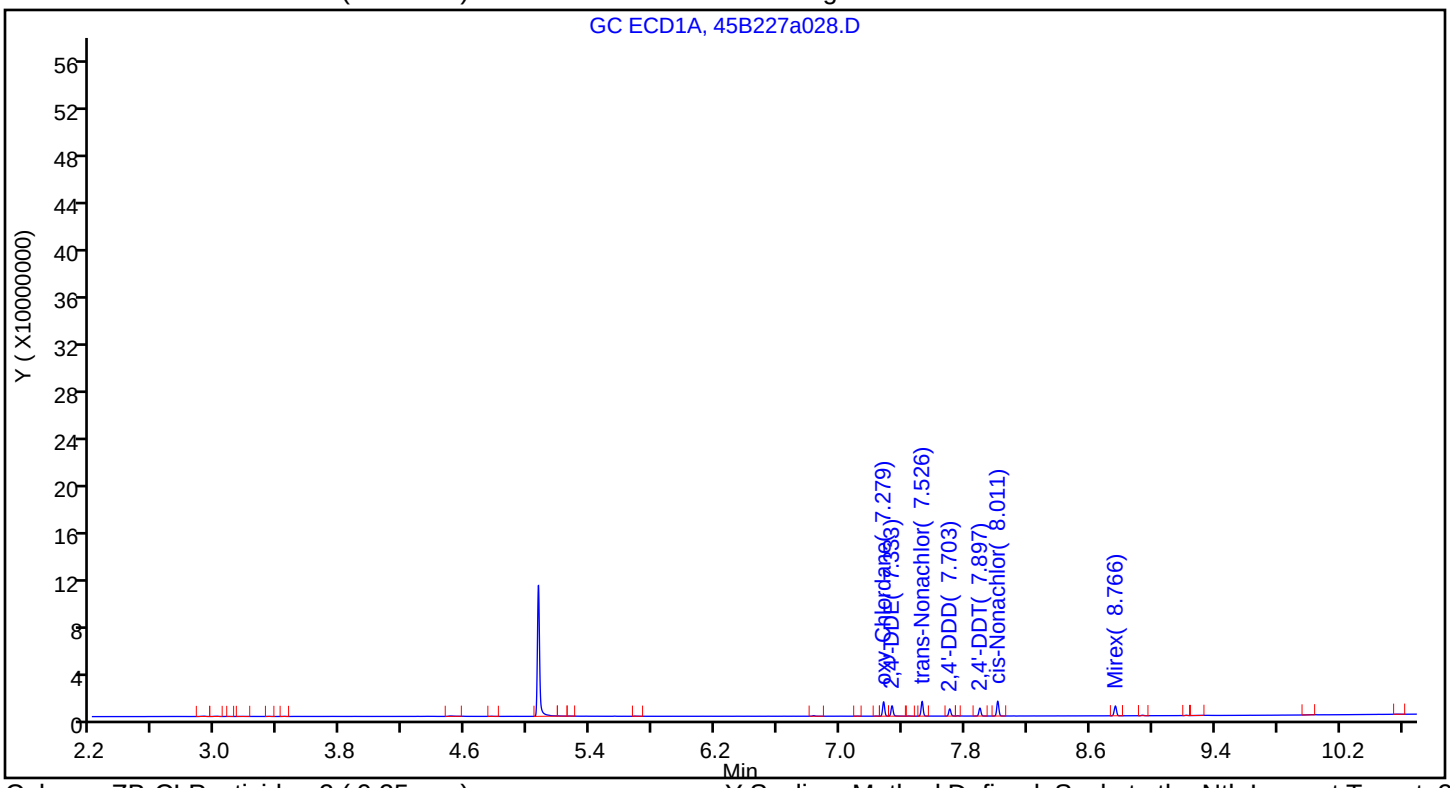
Client ID:

Operator ID: AR ALS Bottle#: 26 Worklist Smp#: 28

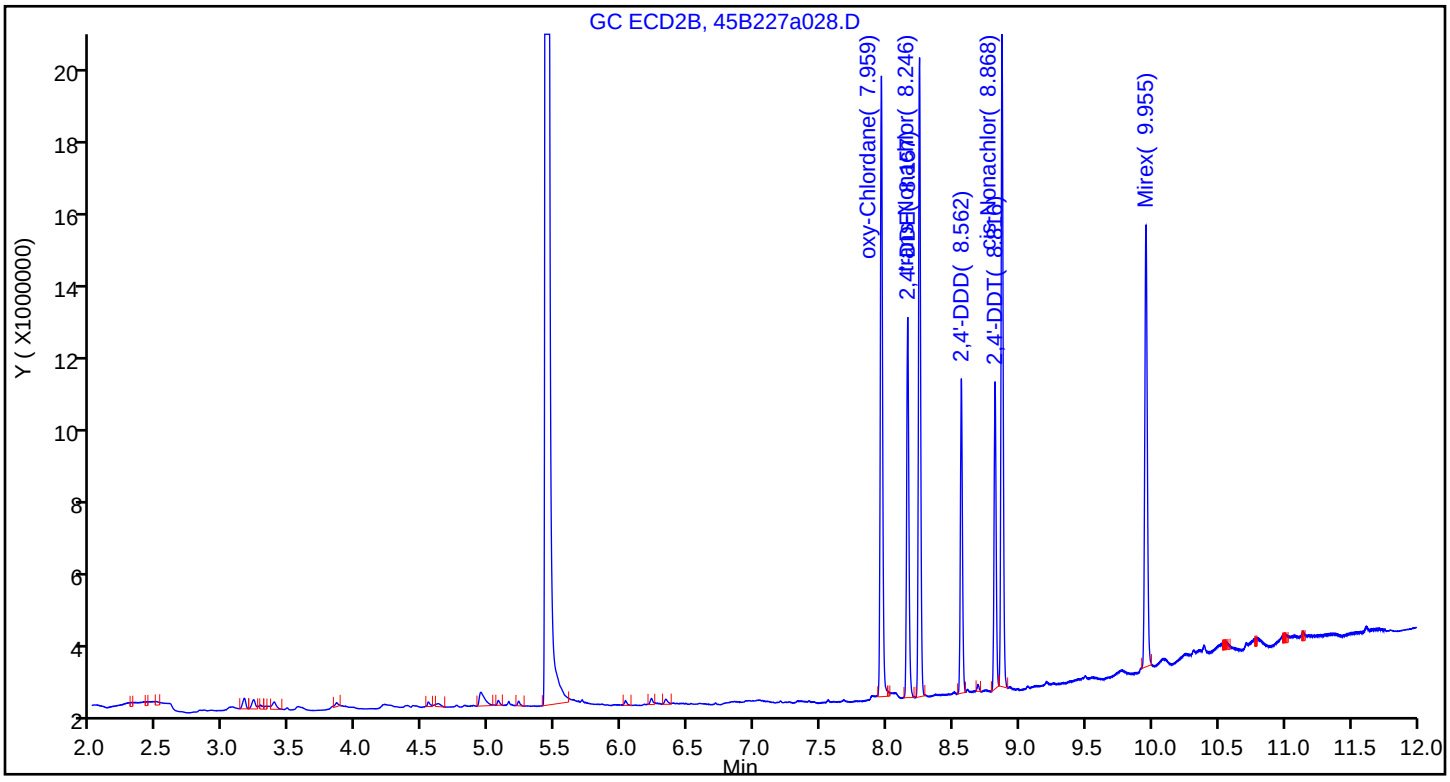
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a029.D
Lims ID: ic ext2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Feb-2019 20:07:56 ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT2
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:13 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	109433236	100.0	100.0	
2	5.432	5.433	-0.001	251931826	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	4603773	2.00	2.28	
2	7.957	7.959	-0.002	7496754	2.00	1.92	
						RPD = 17.01	
27 2,4'-DDE							
1	7.333	7.333	0.000	3401584	2.00	1.99	
2	8.156	8.158	-0.002	4347761	2.00	1.75	
						RPD = 12.37	
28 trans-Nonachlor							
1	7.525	7.526	-0.001	4688703	2.00	2.23	
2	8.245	8.245	0.000	7006255	2.00	1.80	
						RPD = 21.33	
31 2,4'-DDD							
1	7.703	7.703	0.000	2495351	2.00	2.04	
2	8.561	8.563	-0.002	3275339	2.00	1.91	
						RPD = 6.51	
36 2,4'-DDT							
1	7.896	7.896	0.000	2617881	2.00	2.04	
2	8.816	8.817	-0.001	3109452	2.00	1.59	
						RPD = 24.99	
38 cis-Nonachlor							
1	8.011	8.011	0.000	4859777	2.00	2.01	
2	8.868	8.870	-0.002	7007590	2.00	1.70	
						RPD = 16.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	3618668	2.00	2.39	
2	9.955	9.956	-0.001	6682921	2.00	2.29	
						RPD = 4.21	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:14 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a029.D

Injection Date: 27-Feb-2019 20:07:56 Instrument ID: TAC045

Lims ID: ic ext2

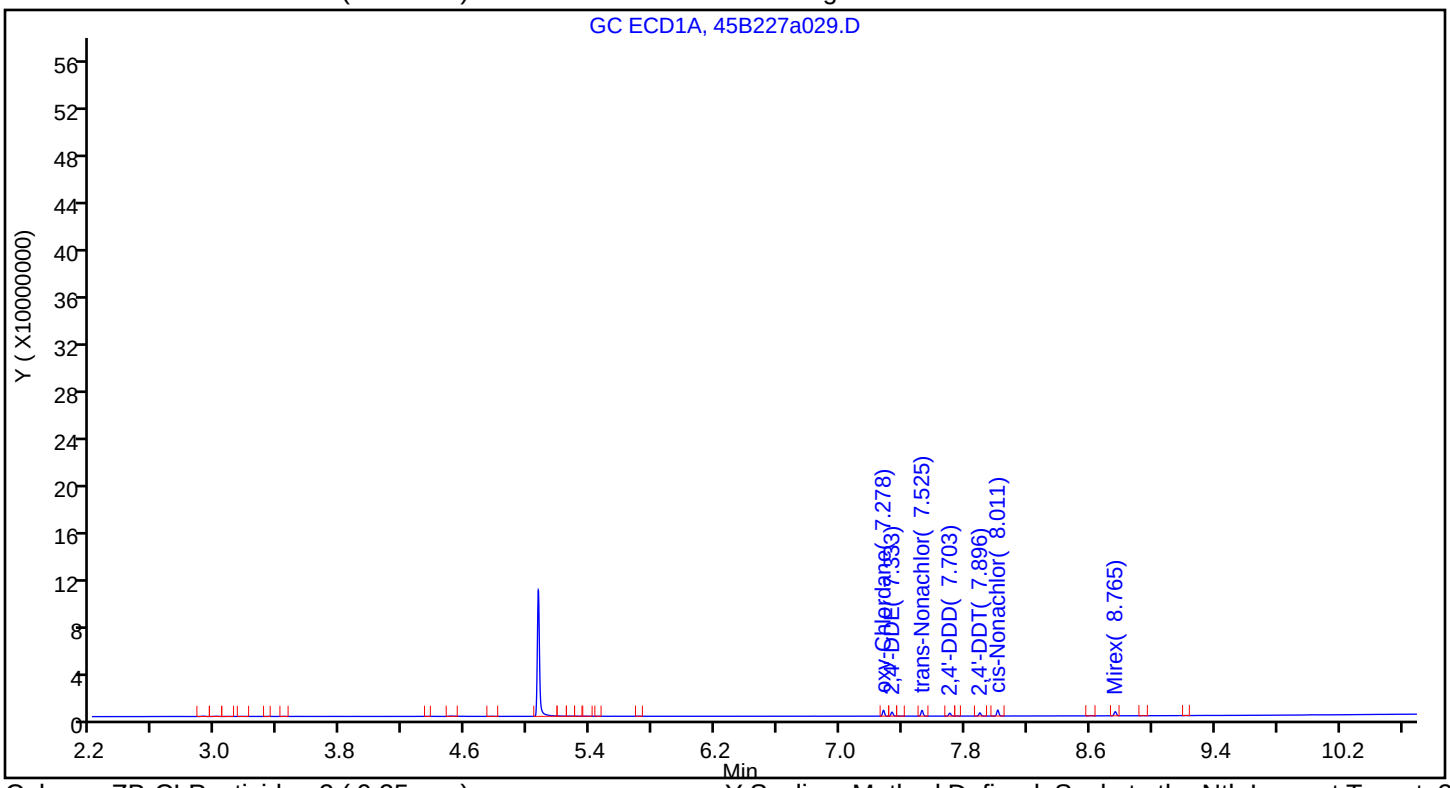
Client ID:

Operator ID: AR ALS Bottle#: 27 Worklist Smp#: 29

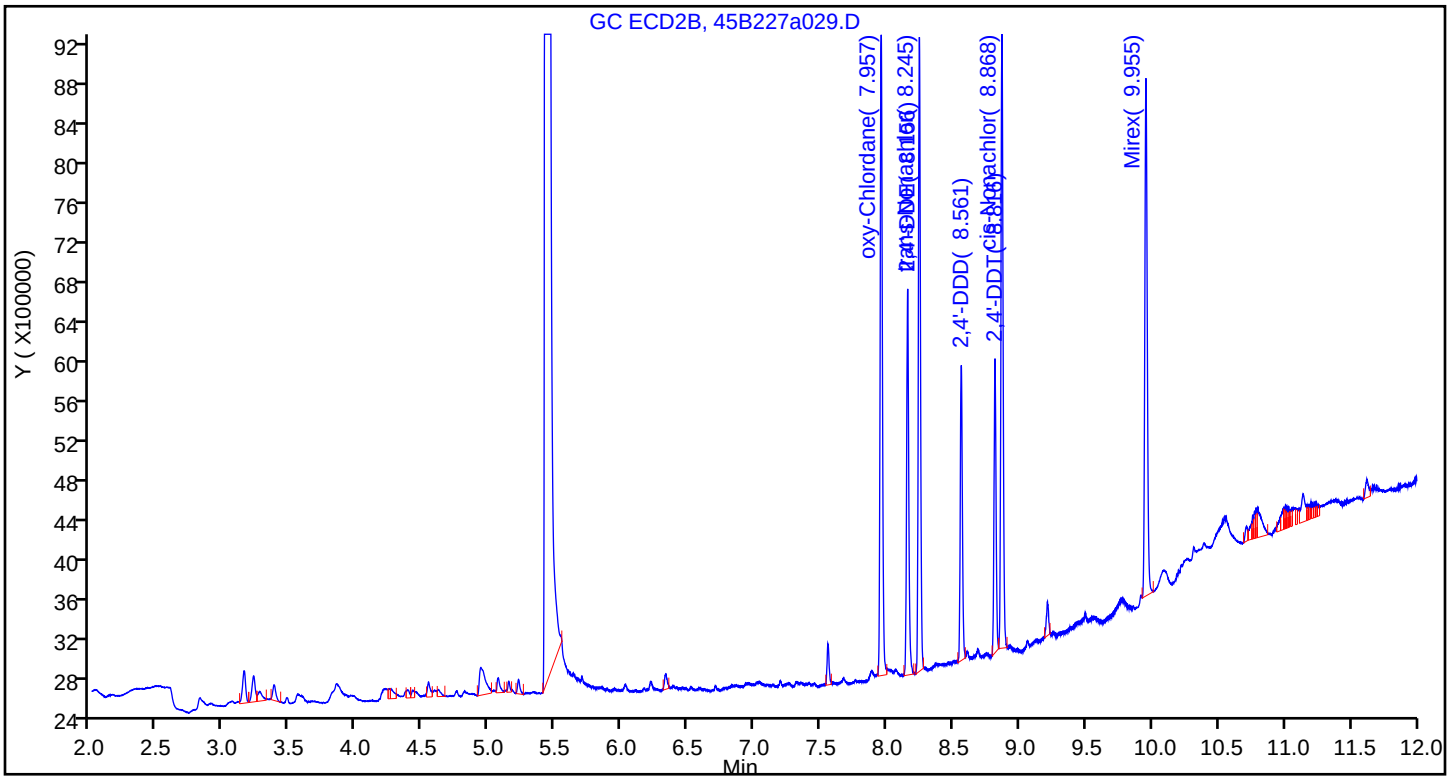
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a030.D
Lims ID: ic ext1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Feb-2019 20:29:31 ALS Bottle#: 28 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT1
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:16 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	106680402	100.0	100.0	
2	5.433	5.433	0.000	248157719	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	2332152	1.00	1.18	
2	7.957	7.959	-0.002	3646379	1.00	0.9492	
						RPD = 22.06	
27 2,4'-DDE							
1	7.333	7.333	0.000	1632890	1.00	0.7468	
2	8.157	8.158	-0.001	2023719	1.00	0.8292	
						RPD = 10.46	
28 trans-Nonachlor							
1	7.526	7.526	0.000	2332075	1.00	1.14	
2	8.245	8.245	0.000	3227349	1.00	0.8402	
						RPD = 29.90	
31 2,4'-DDD							
1	7.703	7.703	0.000	1194853	1.00	0.7596	
2	8.562	8.563	-0.001	1527508	1.00	1.05	
						RPD = 32.36	
36 2,4'-DDT							
1	7.897	7.896	0.001	1248533	1.00	0.8384	
2	8.814	8.817	-0.003	1441305	1.00	0.7474	
						RPD = 11.48	
38 cis-Nonachlor							
1	8.011	8.011	0.000	2416006	1.00	0.8289	
2	8.869	8.870	-0.001	3269520	1.00	0.8076	
						RPD = 2.60	

Report Date: 06-Mar-2019 13:57:16 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a030.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	1891087	1.00	1.28	
2	9.955	9.956	-0.001	3792541	1.00	1.32	
						RPD = 2.99	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:16 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a030.D

Injection Date: 27-Feb-2019 20:29:31 Instrument ID: TAC045

Lims ID: ic ext1

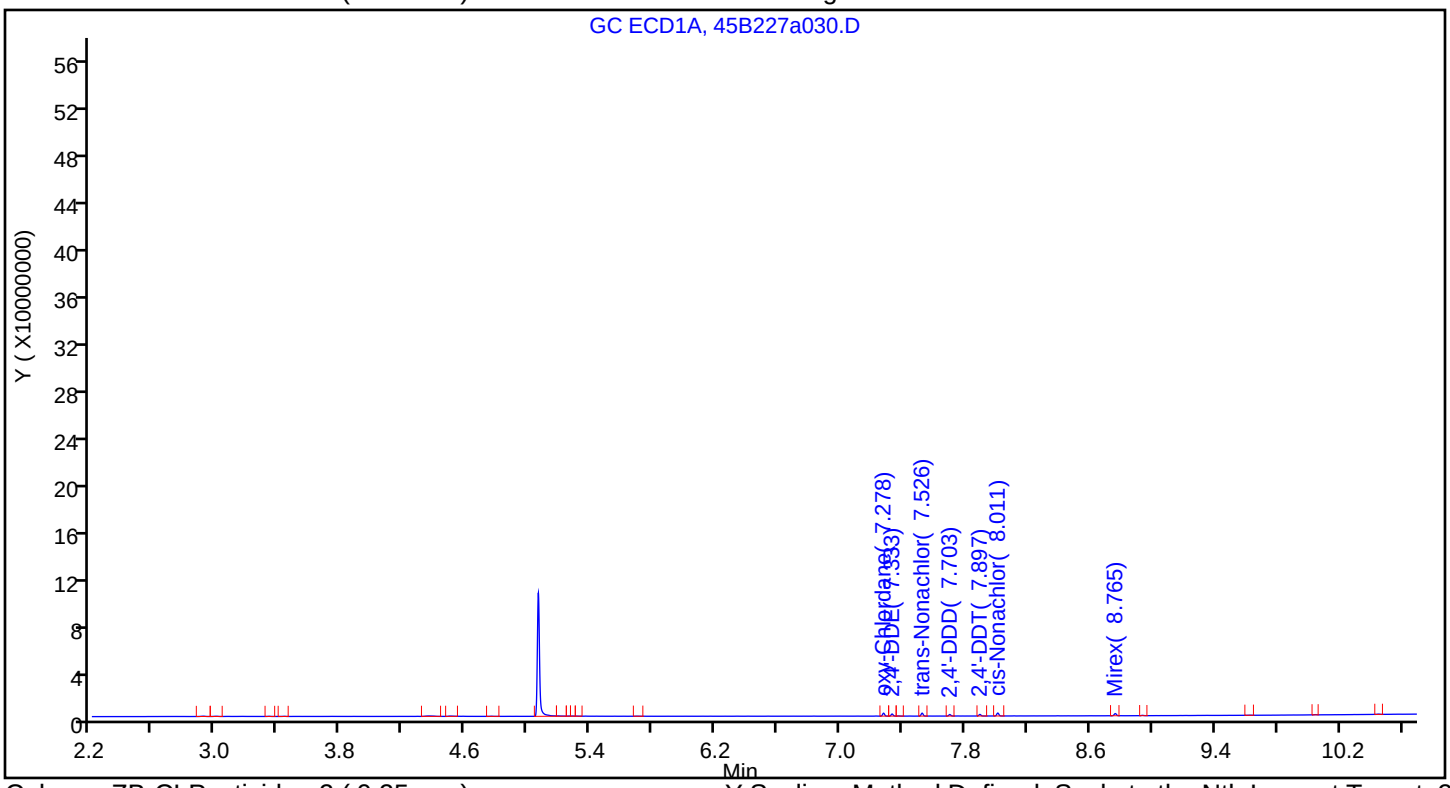
Client ID:

Operator ID: AR ALS Bottle#: 28 Worklist Smp#: 30

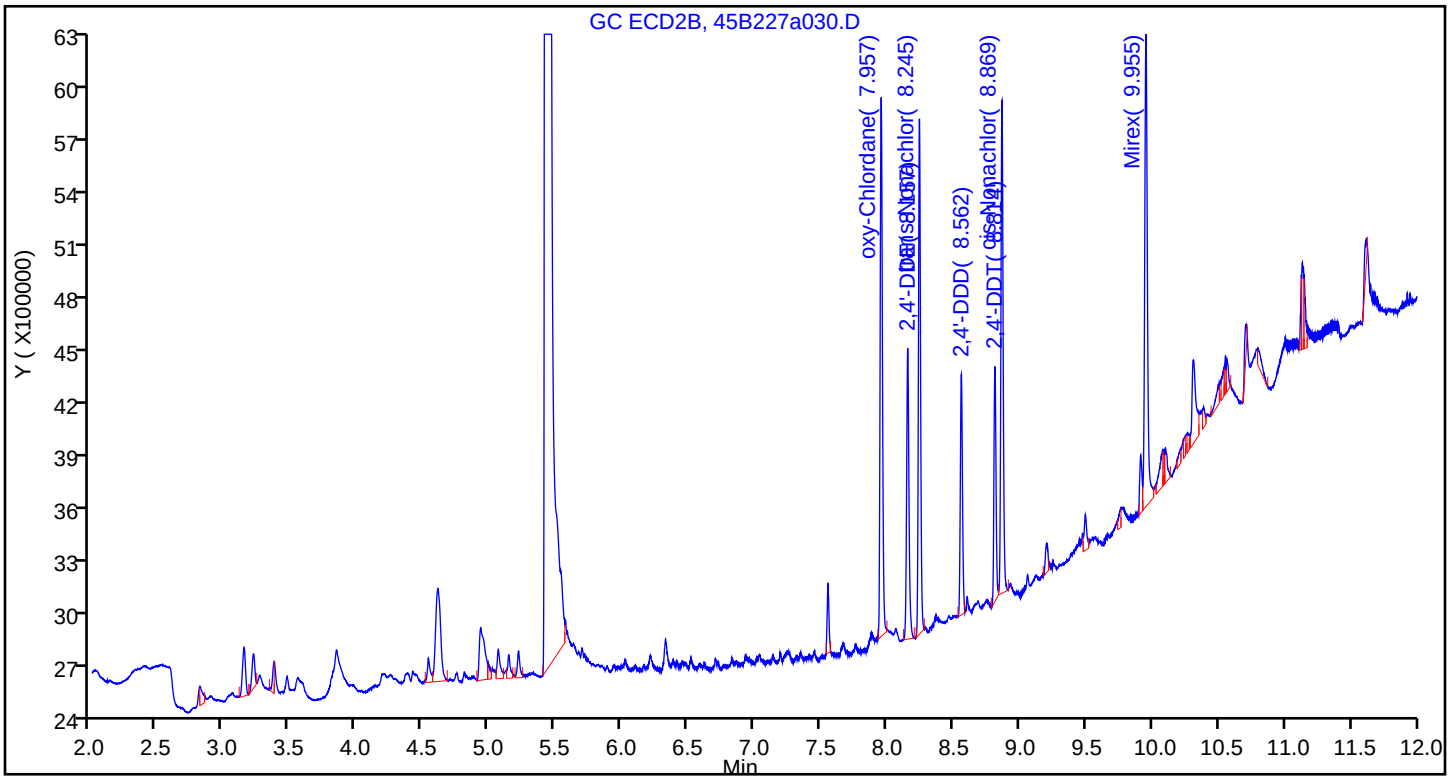
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 17:34 Calibration End Date: 02/27/2019 20:29 Calibration ID: 27487

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/30	45B227a030.D
Level 2	IC 580-295252/29	45B227a029.D
Level 3	IC 580-295252/28	45B227a028.D
Level 4	IC 580-295252/27	45B227a027.D
Level 5	IC 580-295252/26	45B227a026.D
Level 6	ICIS 580-295252/25	45B227a025.D
Level 7	IC 580-295252/24	45B227a024.D
Level 8	IC 580-295252/23	45B227a023.D
Level 9	IC 580-295252/22	45B227a022.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
oxy-Chlordane	1.4694 1.4965	1.4879 1.6055	1.4537 1.6766	1.4411 1.7922	1.5092	Ave		1.5480				7.7		20.0			
2,4'-DDE	0.8155 1.0068	0.8629 1.1182	0.8881 1.0918	0.9308 1.1381	0.9995	Ave		0.9835				11.9		20.0			
trans-Nonachlor	1.3005 1.5572	1.3905 1.6603	1.4257 1.7090	1.4782 1.8950	1.5148	Ave		1.5479				11.8		20.0			
2,4'-DDD	0.6155 0.7941	0.6500 0.8383	0.6737 0.8427	0.7022 0.8977	0.7572	Lin2	-0.226	0.7996				8.1		20.0	0.9930		0.9900
2,4'-DDT	0.5808 0.8311	0.6171 0.8982	0.6642 0.9134	0.7011 1.0090	0.7793	Ave		0.7771				18.9		20.0			
cis-Nonachlor	1.3175 1.6663	1.3908 1.8465	1.4404 1.8857	1.5053 2.0227	1.6076	Ave		1.6314				14.9		20.0			
Mirex	1.5283 0.9894	1.3263 1.0305	1.1811 1.0742	1.1110 1.1435	1.0409	Ave		1.1584				14.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 17:34 Calibration End Date: 02/27/2019 20:29 Calibration ID: 27487

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/30	45B227a030.D
Level 2	IC 580-295252/29	45B227a029.D
Level 3	IC 580-295252/28	45B227a028.D
Level 4	IC 580-295252/27	45B227a027.D
Level 5	IC 580-295252/26	45B227a026.D
Level 6	ICIS 580-295252/25	45B227a025.D
Level 7	IC 580-295252/24	45B227a024.D
Level 8	IC 580-295252/23	45B227a023.D
Level 9	IC 580-295252/22	45B227a022.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
oxy-Chlordane	BNB	Ave	3646379 201768600	7496754 452711753	19714351 955683240	37655410 2077307280	99977730	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDE	BNB	Ave	2023719 135743790	4347761 315301600	12044467 622344928	24321576 1319083452	66211879	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Nonachlor	BNB	Ave	3227349 209955671	7006255 468162807	19335031 974166678	38624100 2196437323	100350314	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDD	BNB	Lin2	1527508 107071533	3275339 236373863	9136305 480363717	18347987 1040469001	50165351	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
2,4'-DDT	BNB	Ave	1441305 112060042	3109452 253254839	9007302 520663888	18319777 1169516469	51625446	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Nonachlor	BNB	Ave	3269520 224668105	7007590 520661450	19534815 1074835936	39333241 2344453459	106499319	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Mirex	BNB	Ave	3792541 133397137	6682921 290580834	16017491 612318409	29031172 1325388381	68959708	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a022.D
Lims ID: ic ext400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 27-Feb-2019 17:34:54 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT400
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:56:50 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 11:54:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.066	-0.001	123406162	100.0	100.0	
2	5.433	5.433	0.000	289764669	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							M
1	7.279	7.279	0.000	808718766	400.0	355.1	M
2	7.958	7.959	-0.001	2077307280	400.0	463.1	
						RPD = 26.40	
27 2,4'-DDE							M
1	7.332	7.332	0.000	618838157	400.0	402.4	M
2	8.158	8.158	0.000	1319083452	400.0	462.9	
						RPD = 13.96	
28 trans-Nonachlor							
1	7.526	7.526	0.000	856557499	400.0	360.5	
2	8.247	8.246	0.001	2196437323	400.0	489.7	
						RPD = 30.38	
31 2,4'-DDD							
1	7.702	7.703	-0.001	416328505	400.0	402.6	
2	8.562	8.562	0.000	1040469001	400.0	449.3	
						RPD = 10.97	
36 2,4'-DDT							
1	7.896	7.896	0.000	482398766	400.0	401.4	
2	8.816	8.816	0.000	1169516469	400.0	519.4	
						RPD = 25.63	
38 cis-Nonachlor							
1	8.011	8.011	0.000	920102922	400.0	403.2	
2	8.870	8.870	0.000	2344453459	400.0	495.9	
						RPD = 20.63	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	593919989	400.0	347.6	
2	9.955	9.956	-0.001	1325388381	400.0	394.9	
						RPD = 12.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC400_00008	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:56:51 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a022.D

Injection Date: 27-Feb-2019 17:34:54 Instrument ID: TAC045

Lims ID: ic ext400

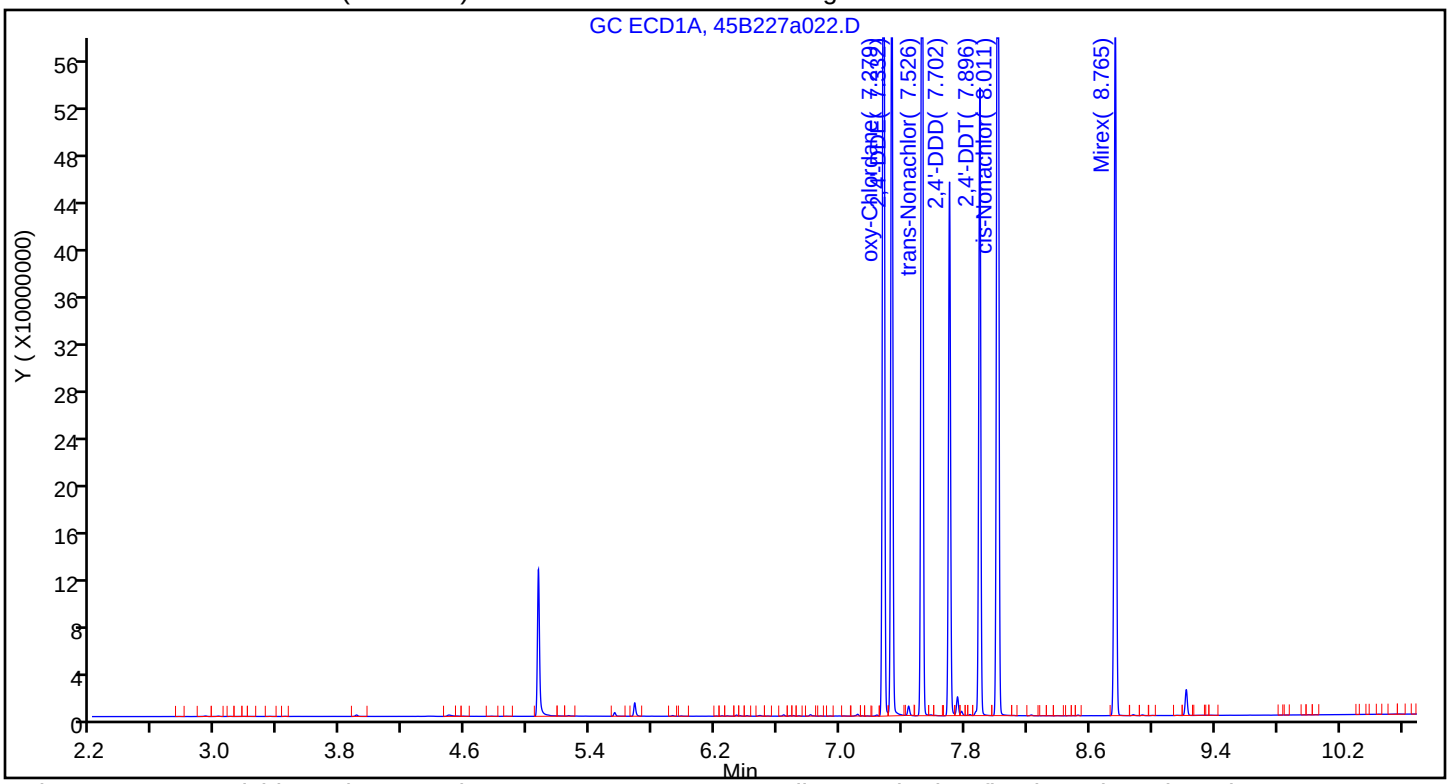
Client ID:

Operator ID: AR ALS Bottle#: 20 Worklist Smp#: 22

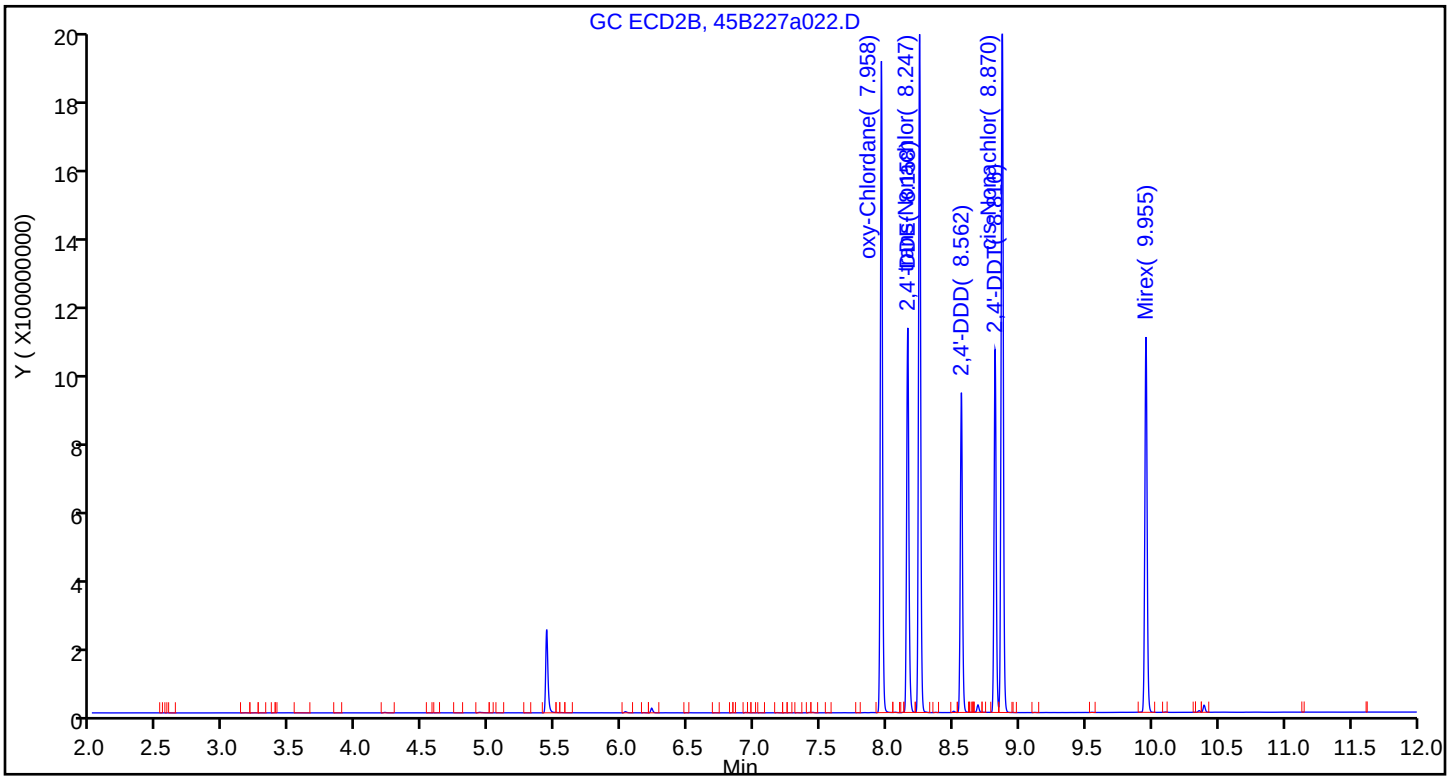
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a023.D
Lims ID: ic ext200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Feb-2019 17:56:54 ALS Bottle#: 21 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT200
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:56:53 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 11:54:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.066	-0.002	119483411	100.0	100.0	
2	5.431	5.433	-0.002	285003944	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.277	7.279	-0.002	388181640	200.0	176.0	
2	7.958	7.959	-0.001	955683240	200.0	216.6	
						RPD = 20.66	
27 2,4'-DDE							
1	7.331	7.332	-0.001	294793860	200.0	195.4	
2	8.156	8.158	-0.002	622344928	200.0	222.0	
						RPD = 12.73	
28 trans-Nonachlor							
1	7.525	7.526	-0.001	417964458	200.0	181.7	
2	8.245	8.246	-0.001	974166678	200.0	220.8	
						RPD = 19.43	
31 2,4'-DDD							
1	7.701	7.703	-0.002	203843993	200.0	194.7	
2	8.561	8.562	-0.001	480363717	200.0	211.1	
						RPD = 8.05	
36 2,4'-DDT							
1	7.895	7.896	-0.001	234418413	200.0	196.9	
2	8.816	8.816	0.000	520663888	200.0	235.1	
						RPD = 17.68	
38 cis-Nonachlor							
1	8.011	8.011	0.000	431159652	200.0	194.9	
2	8.869	8.870	-0.001	1074835936	200.0	231.2	
						RPD = 17.00	

Report Date: 06-Mar-2019 13:56:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a023.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	283818628	200.0	171.6	
2	9.955	9.956	-0.001	612318409	200.0	185.5	
						RPD = 7.78	

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:56:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a023.D

Injection Date: 27-Feb-2019 17:56:54 Instrument ID: TAC045

Lims ID: ic ext200

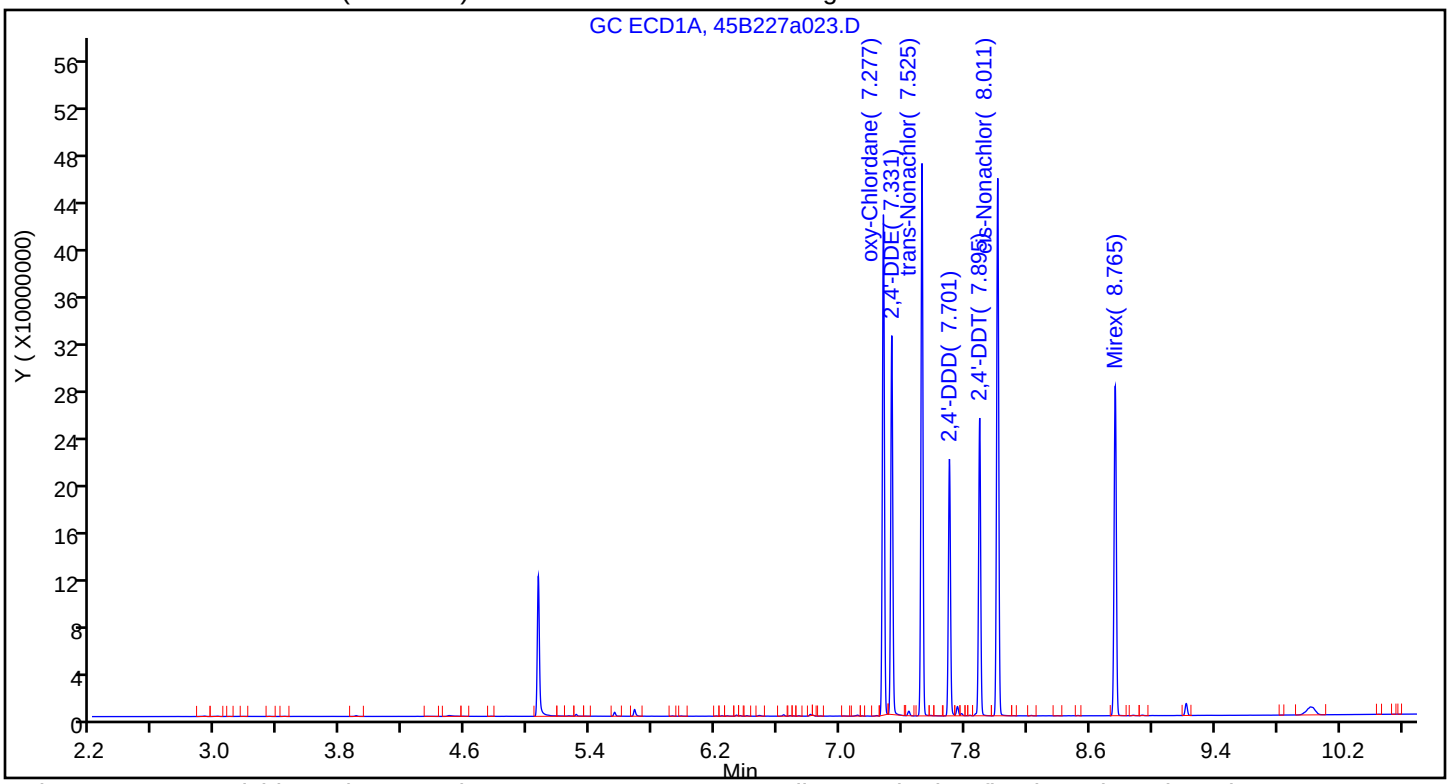
Client ID:

Operator ID: AR ALS Bottle#: 21 Worklist Smp#: 23

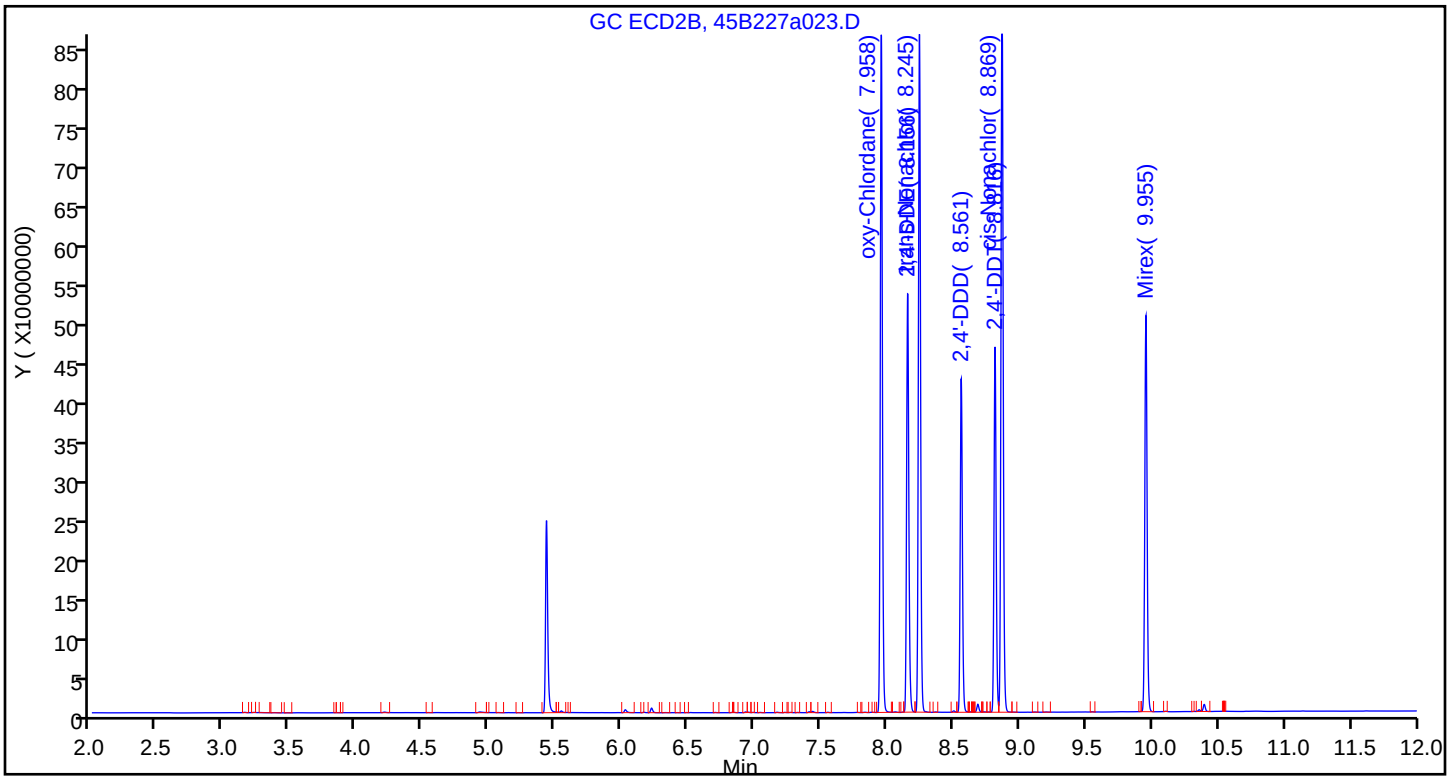
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a024.D
Lims ID: ic ext100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Feb-2019 18:18:58 ALS Bottle#: 22 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT100
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:56:57 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.066	-0.001	118641631	100.0	100.0	
2	5.433	5.433	0.000	281973285	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.279	7.279	0.000	199575524	100.0	91.2	
2	7.958	7.959	-0.001	452711753	100.0	103.7	
						RPD = 12.89	
27 2,4'-DDE							
1	7.333	7.332	0.001	149090048	100.0	98.8	
2	8.158	8.158	0.000	315301600	100.0	113.7	
						RPD = 14.04	
28 trans-Nonachlor							
1	7.527	7.526	0.001	215644179	100.0	94.4	
2	8.246	8.246	0.000	468162807	100.0	107.3	
						RPD = 12.74	
31 2,4'-DDD							
1	7.704	7.703	0.001	107081231	100.0	100.9	
2	8.561	8.562	-0.001	236373863	100.0	105.1	
						RPD = 4.13	
36 2,4'-DDT							
1	7.897	7.896	0.001	120896307	100.0	101.1	
2	8.817	8.816	0.001	253254839	100.0	115.6	
						RPD = 13.38	
38 cis-Nonachlor							
1	8.012	8.011	0.001	220174258	100.0	100.1	
2	8.869	8.870	-0.001	520661450	100.0	113.2	
						RPD = 12.31	

Report Date: 06-Mar-2019 13:56:58 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a024.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.766	8.765	0.001	145444545	100.0	88.5	
2	9.955	9.956	-0.001	290580834	100.0	89.0	
						RPD = 0.47	

Reagents:

EXTOCP_IC400_00008	Amount Added: 0.25	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:56:58 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a024.D

Injection Date: 27-Feb-2019 18:18:58 Instrument ID: TAC045

Lims ID: ic ext100

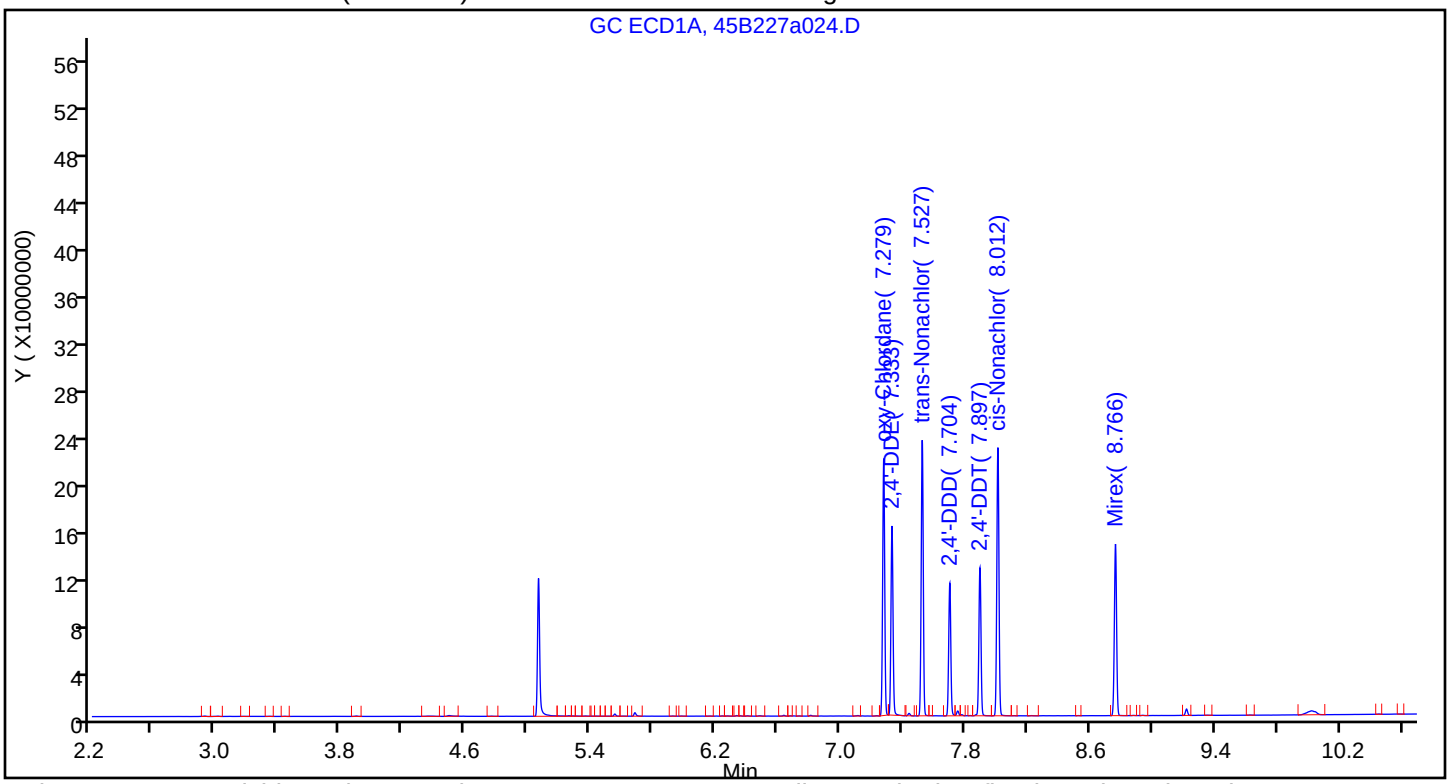
Client ID:

Operator ID: AR ALS Bottle#: 22 Worklist Smp#: 24

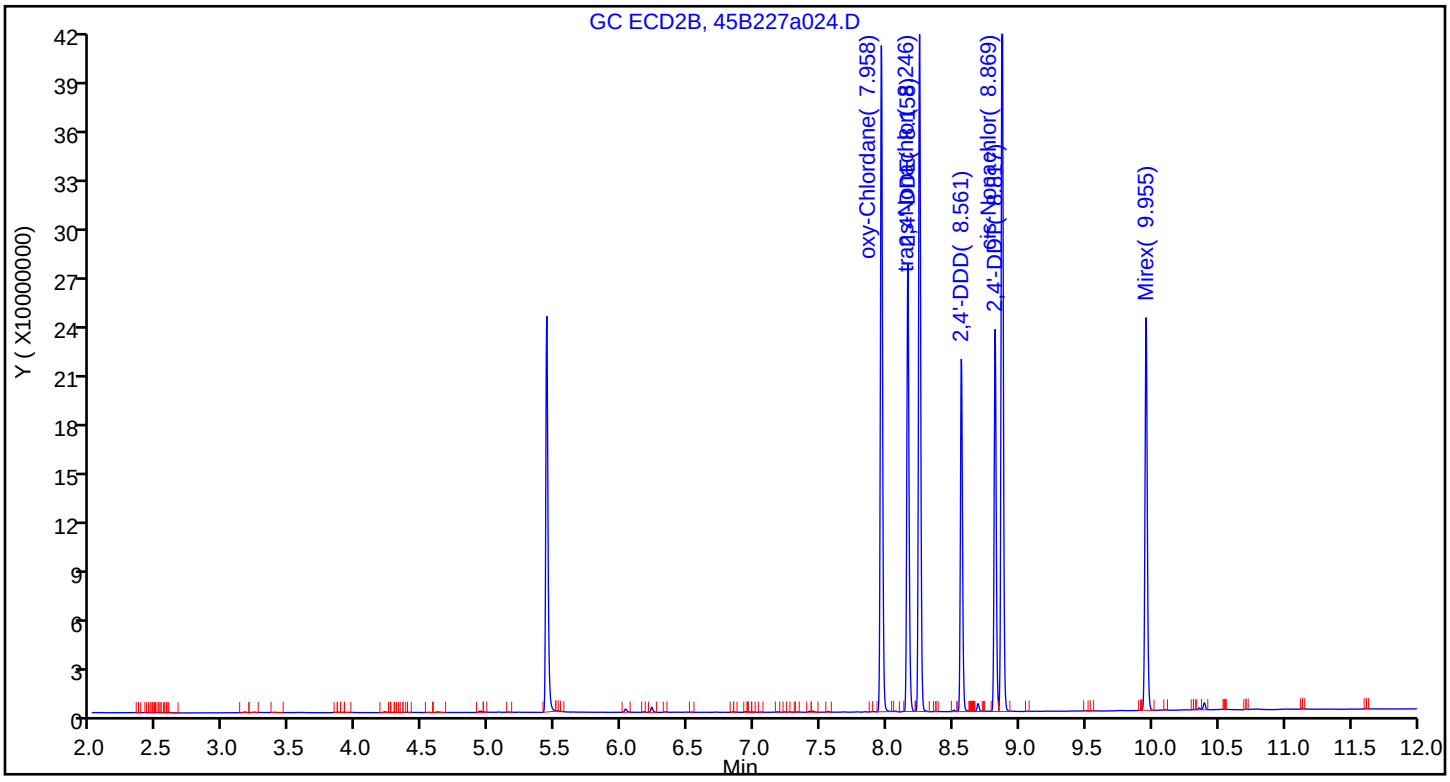
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D
Lims ID: icis ext50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 27-Feb-2019 18:40:49 ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS EXT50
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:00 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: bohnc Date: 06-Mar-2019 12:54:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.065	0.000	116341867	100.0	100.0	
2	5.433	5.433	0.000	269656858	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							a
1	7.279	7.279	0.000	97369033	50.0	45.4	a
2	7.959	7.959	0.000	201768600	50.0	48.3	a
						RPD = 6.37	
27 2,4'-DDE							
1	7.332	7.332	0.000	75370724	50.0	50.6	
2	8.158	8.158	0.000	135743790	50.0	51.2	
						RPD = 1.22	
28 trans-Nonachlor							a
1	7.526	7.526	0.000	104785229	50.0	46.8	a
2	8.246	8.246	0.000	209955671	50.0	50.3	a
						RPD = 7.24	
31 2,4'-DDD							
1	7.703	7.703	0.000	52239704	50.0	49.4	
2	8.562	8.562	0.000	107071533	50.0	49.9	
						RPD = 1.03	
36 2,4'-DDT							
1	7.896	7.896	0.000	58295636	50.0	49.3	
2	8.816	8.816	0.000	112060042	50.0	53.5	
						RPD = 8.18	
38 cis-Nonachlor							
1	8.011	8.011	0.000	108145723	50.0	49.9	
2	8.870	8.870	0.000	224668105	50.0	51.1	
						RPD = 2.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							a
1	8.765	8.765	0.000	70074438	50.0	43.5	a
2	9.956	9.956	0.000	133397137	50.0	42.7	a
						RPD = 1.86	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

EXTOCP_IC50_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:02 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D

Injection Date: 27-Feb-2019 18:40:49 Instrument ID: TAC045

Lims ID: icis ext50

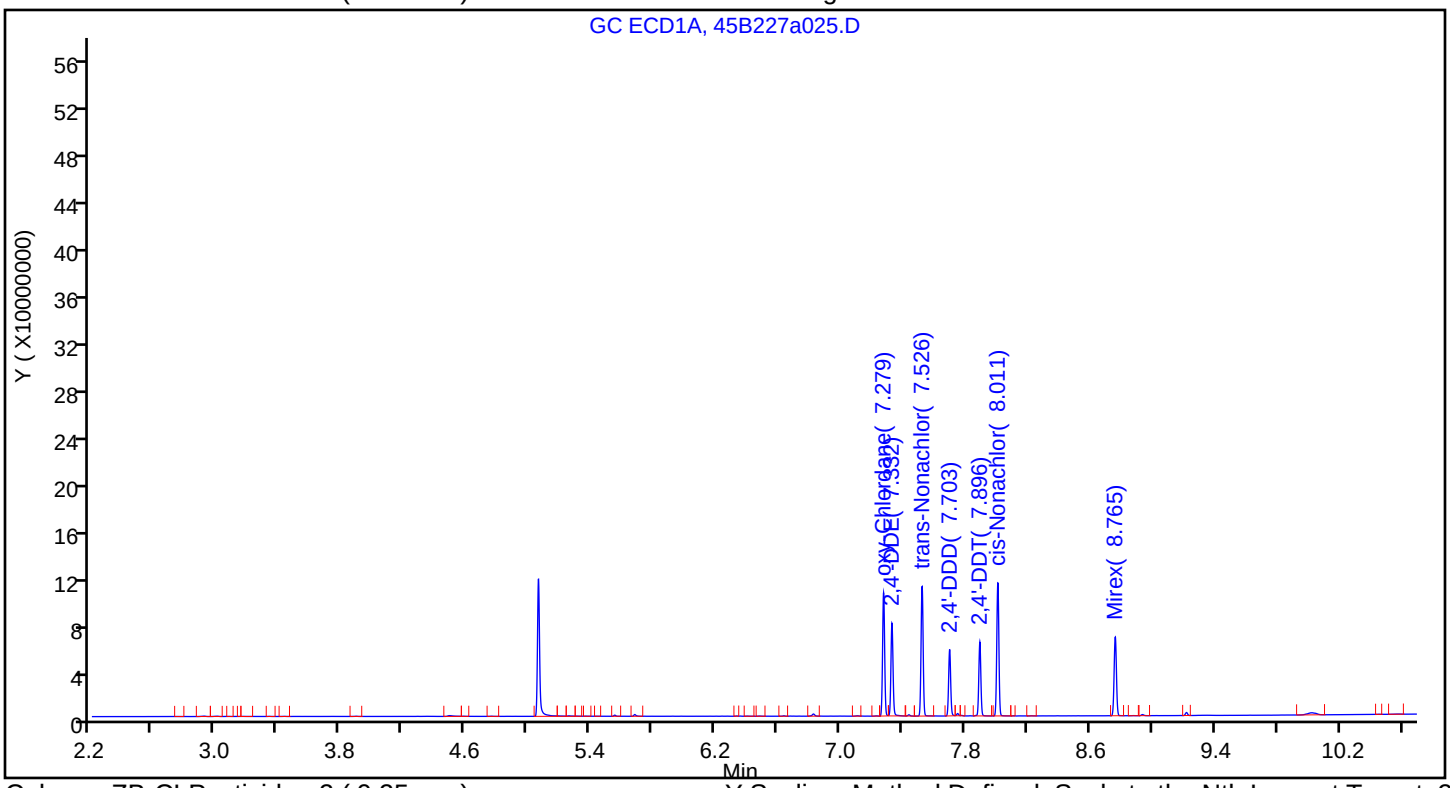
Client ID:

Operator ID: AR ALS Bottle#: 23 Worklist Smp#: 25

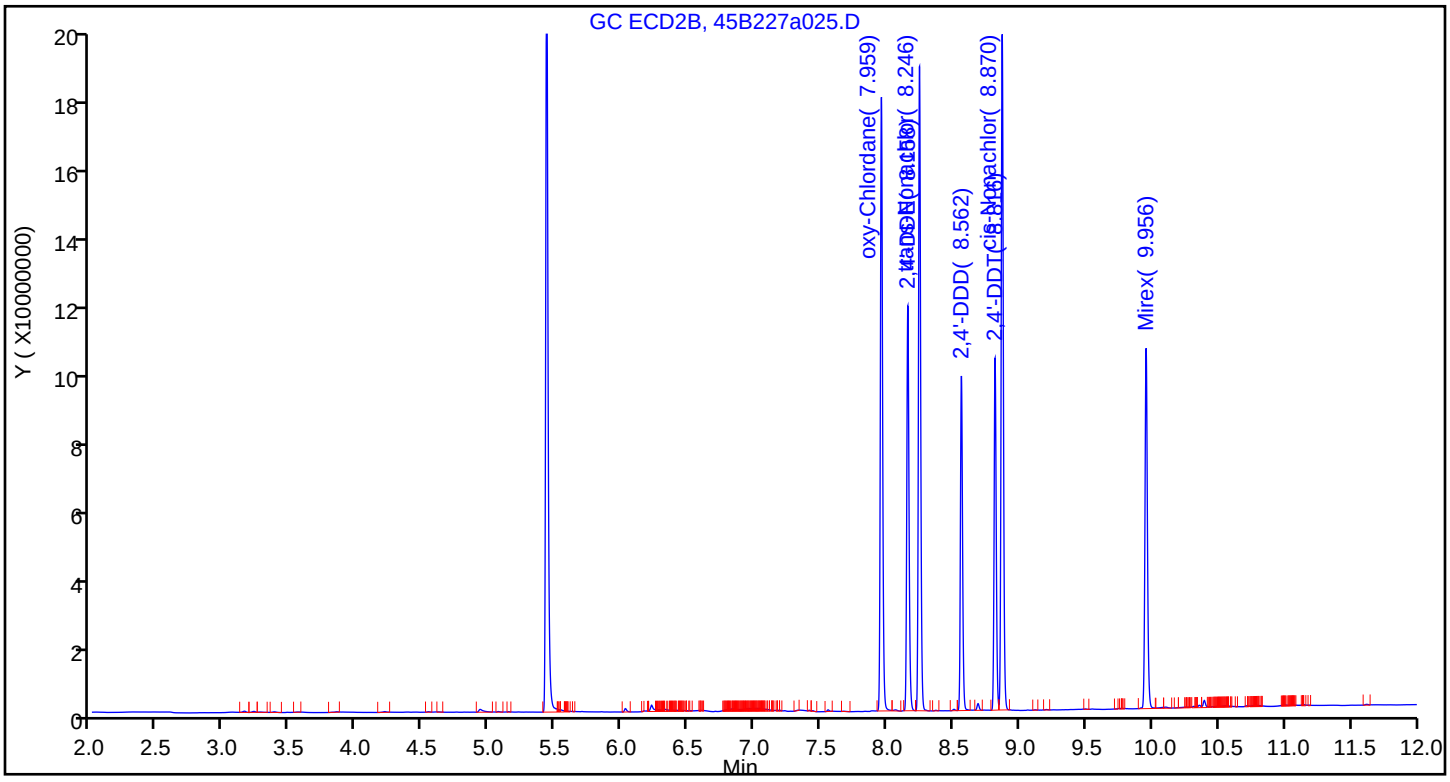
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

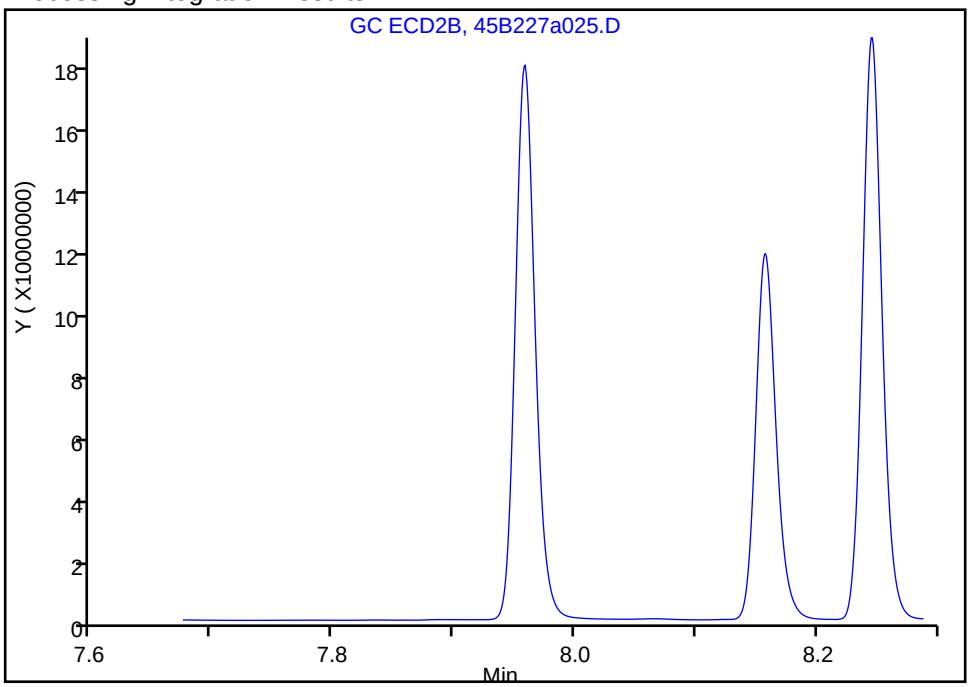
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D
Injection Date: 27-Feb-2019 18:40:49 Instrument ID: TAC045
Lims ID: icis ext50
Client ID:
Operator ID: AR ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

26 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

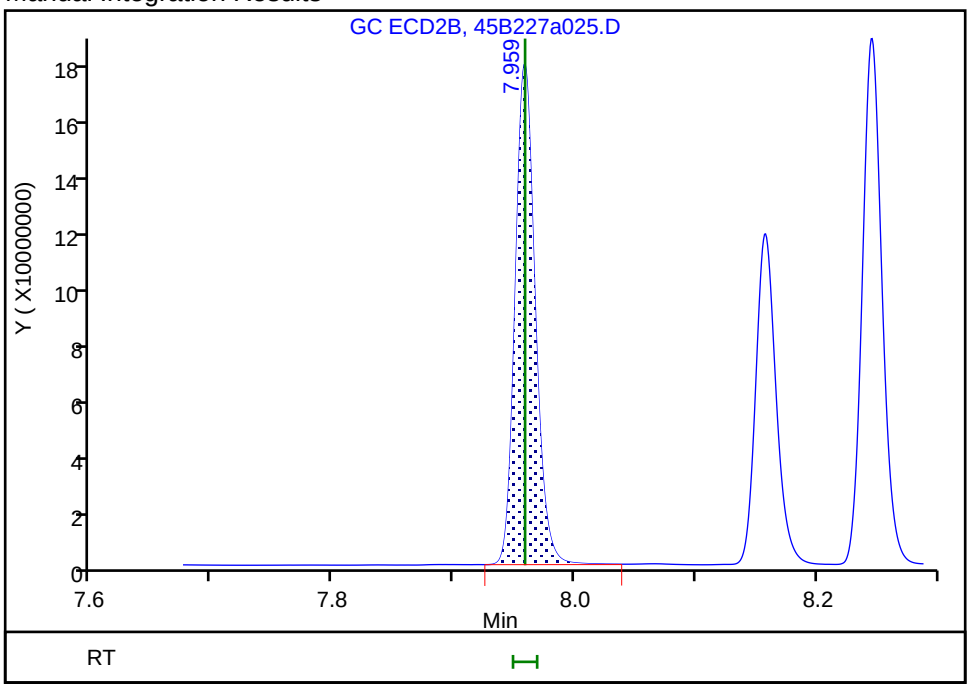
Not Detected
Expected RT: 7.96

Processing Integration Results



Manual Integration Results

RT: 7.96
Area: 201768600
Amount: 48.336117
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:46:16
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

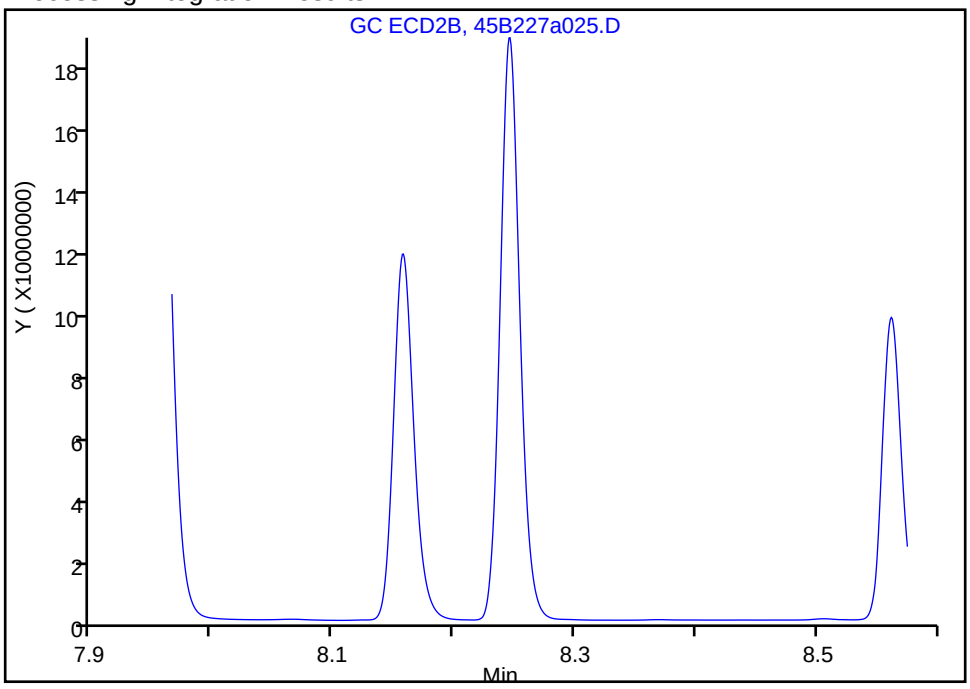
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D				
Injection Date:	27-Feb-2019 18:40:49	Instrument ID:	TAC045		
Lims ID:	icis ext50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	23	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

28 trans-Nonachlor, CAS: 39765-80-5

Signal: 2

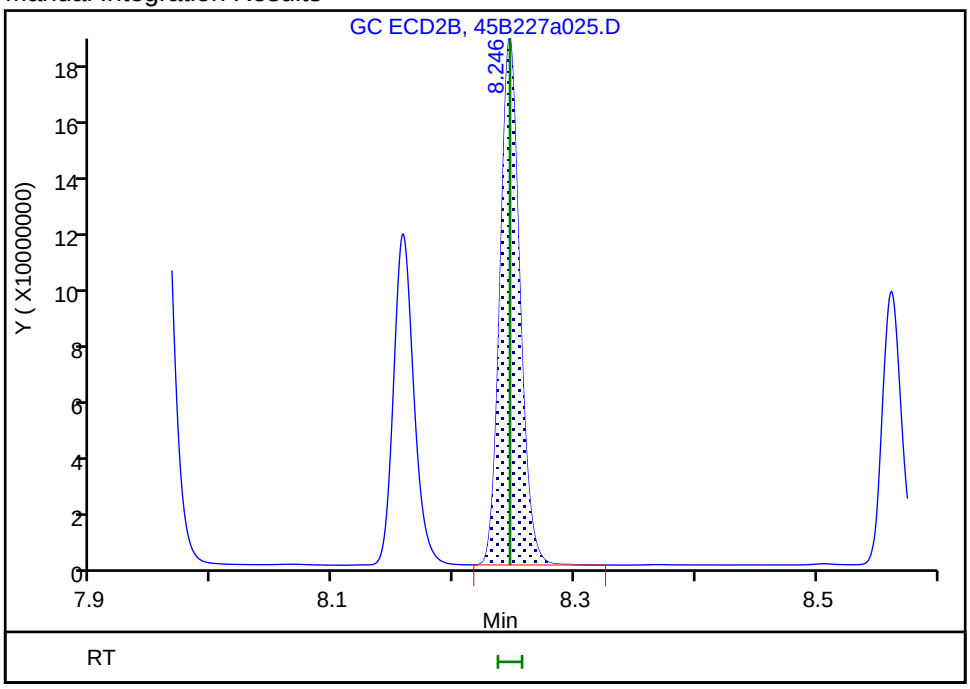
Not Detected
Expected RT: 8.25

Processing Integration Results



Manual Integration Results

RT: 8.25
Area: 209955671
Amount: 50.300139
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:46:32
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

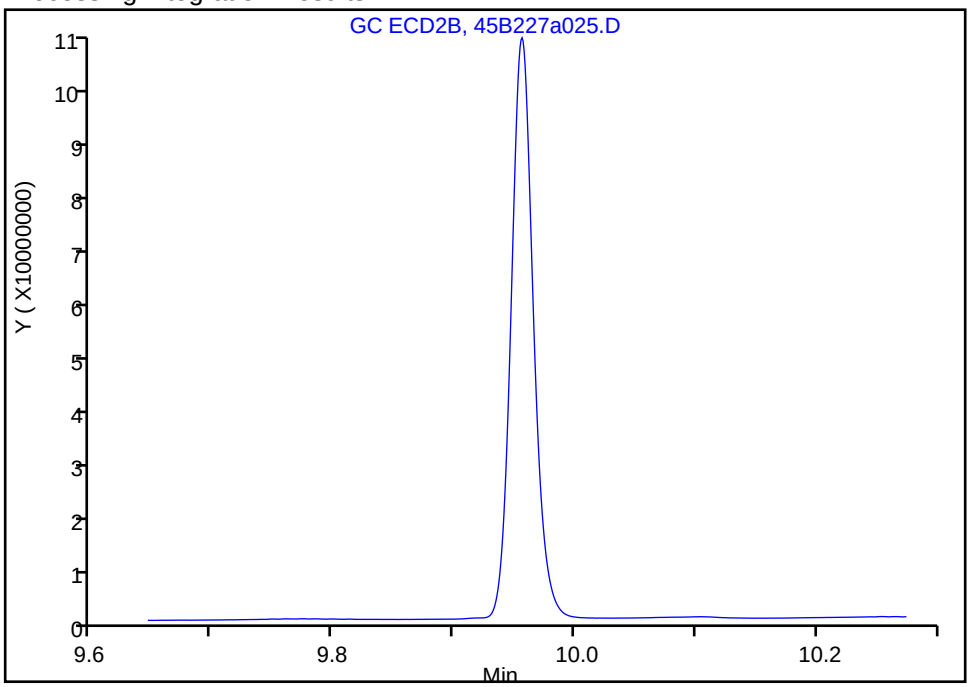
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a025.D
Injection Date: 27-Feb-2019 18:40:49 Instrument ID: TAC045
Lims ID: icis ext50
Client ID:
Operator ID: AR ALS Bottle#: 23 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

42 Mirex, CAS: 2385-85-5

Signal: 2

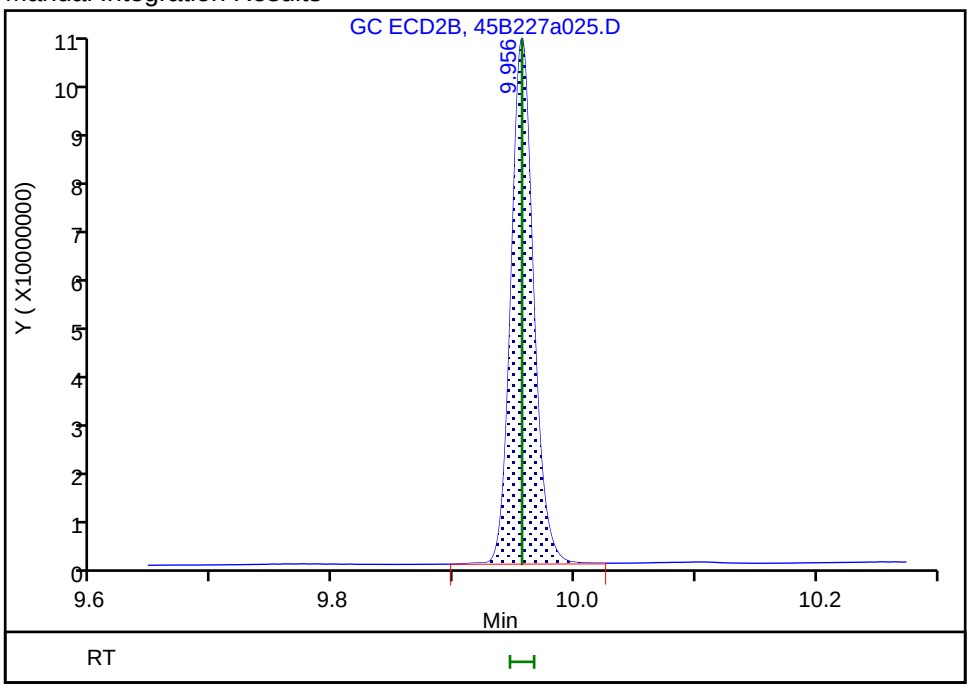
Not Detected
Expected RT: 9.96

Processing Integration Results



Manual Integration Results

RT: 9.96
Area: 133397137
Amount: 42.706022
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 11:46:59
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a026.D
Lims ID: ic ext25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Feb-2019 19:02:37 ALS Bottle#: 24 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT25
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:04 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	112319919	100.0	100.0	
2	5.432	5.433	-0.001	264989869	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.279	7.279	0.000	49922926	25.0	24.1	
2	7.957	7.959	-0.002	99977730	25.0	24.4	
						RPD = 1.19	
27 2,4'-DDE							
1	7.332	7.332	0.000	38411592	25.0	26.4	
2	8.156	8.158	-0.002	66211879	25.0	25.4	
						RPD = 4.00	
28 trans-Nonachlor							
1	7.526	7.526	0.000	52905504	25.0	24.5	
2	8.245	8.246	-0.001	100350314	25.0	24.5	
						RPD = 0.01	
31 2,4'-DDD							
1	7.703	7.703	0.000	27028867	25.0	26.1	
2	8.561	8.562	-0.001	50165351	25.0	24.0	
						RPD = 8.75	
36 2,4'-DDT							
1	7.896	7.896	0.000	29416864	25.0	25.5	
2	8.815	8.816	-0.001	51625446	25.0	25.1	
						RPD = 1.86	
38 cis-Nonachlor							
1	8.011	8.011	0.000	54605611	25.0	25.9	
2	8.868	8.870	-0.002	106499319	25.0	24.6	
						RPD = 5.09	

Report Date: 06-Mar-2019 13:57:05 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a026.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	35899187	25.0	23.1	
2	9.955	9.956	-0.001	68959708	25.0	22.5	
						RPD = 2.72	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:05 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a026.D

Injection Date: 27-Feb-2019 19:02:37 Instrument ID: TAC045

Lims ID: ic ext25

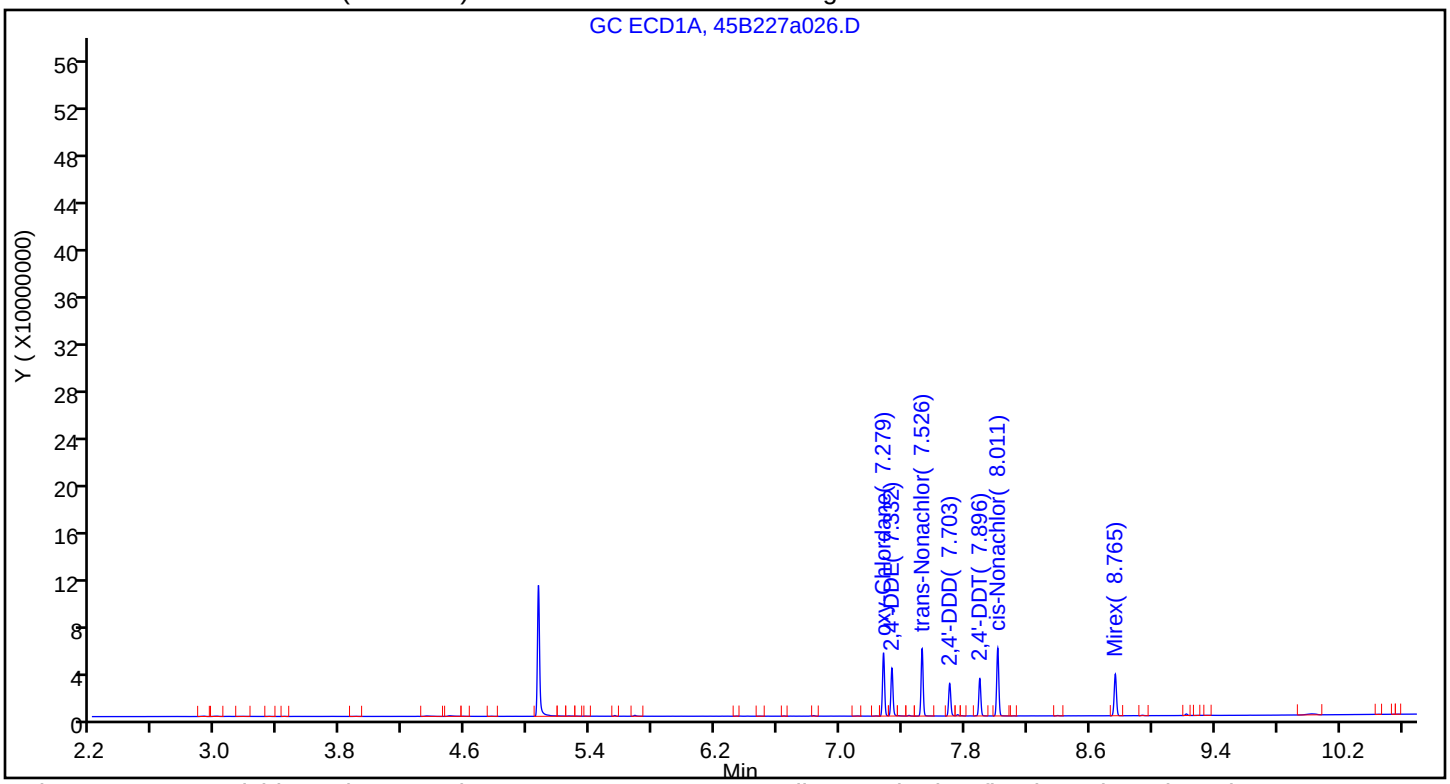
Client ID:

Operator ID: AR ALS Bottle#: 24 Worklist Smp#: 26

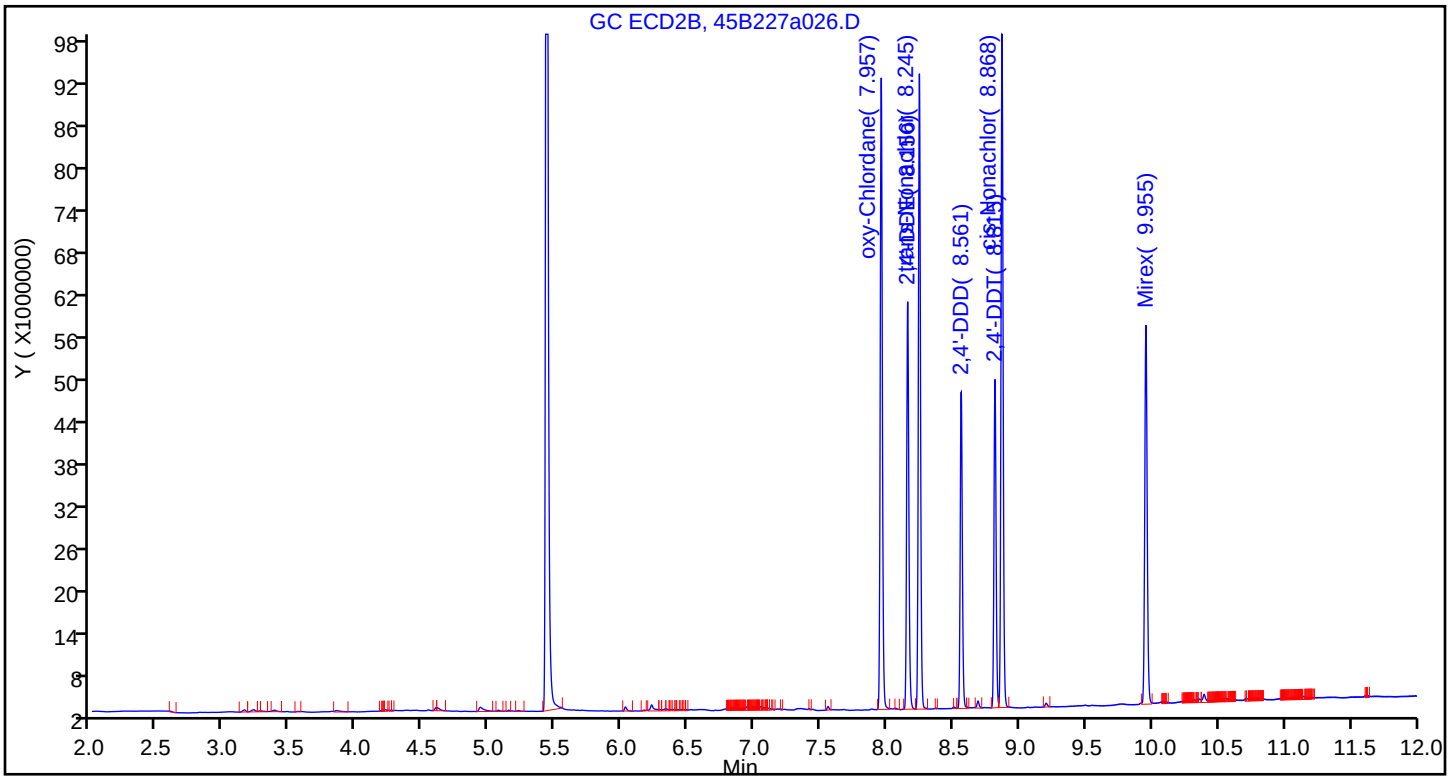
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a027.D
Lims ID: ic ext10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Feb-2019 19:24:27 ALS Bottle#: 25 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT10
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:07 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.065	0.000	109900334	100.0	100.0	
2	5.433	5.433	0.000	261298686	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	20941312	10.0	10.3	
2	7.959	7.959	0.000	37655410	10.0	9.31	
						RPD = 10.35	
27 2,4'-DDE							
1	7.333	7.333	0.000	15995330	10.0	11.0	
2	8.158	8.158	0.000	24321576	10.0	9.46	
						RPD = 14.84	
28 trans-Nonachlor							
1	7.526	7.526	0.000	21639538	10.0	10.2	
2	8.245	8.245	0.000	38624100	10.0	9.55	
						RPD = 6.86	
31 2,4'-DDD							
1	7.703	7.703	0.000	11366944	10.0	10.9	
2	8.563	8.563	0.000	18347987	10.0	9.06	
						RPD = 18.71	
36 2,4'-DDT							
1	7.896	7.896	0.000	12146848	10.0	10.6	
2	8.817	8.817	0.000	18319777	10.0	9.02	
						RPD = 15.89	
38 cis-Nonachlor							
1	8.011	8.011	0.000	22558372	10.0	10.7	
2	8.870	8.870	0.000	39333241	10.0	9.23	
						RPD = 14.92	

Report Date: 06-Mar-2019 13:57:08 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a027.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	15488790	10.0	10.2	
2	9.956	9.956	0.000	29031172	10.0	9.59	
						RPD = 5.95	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:08 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a027.D

Injection Date: 27-Feb-2019 19:24:27 Instrument ID: TAC045

Lims ID: ic ext10

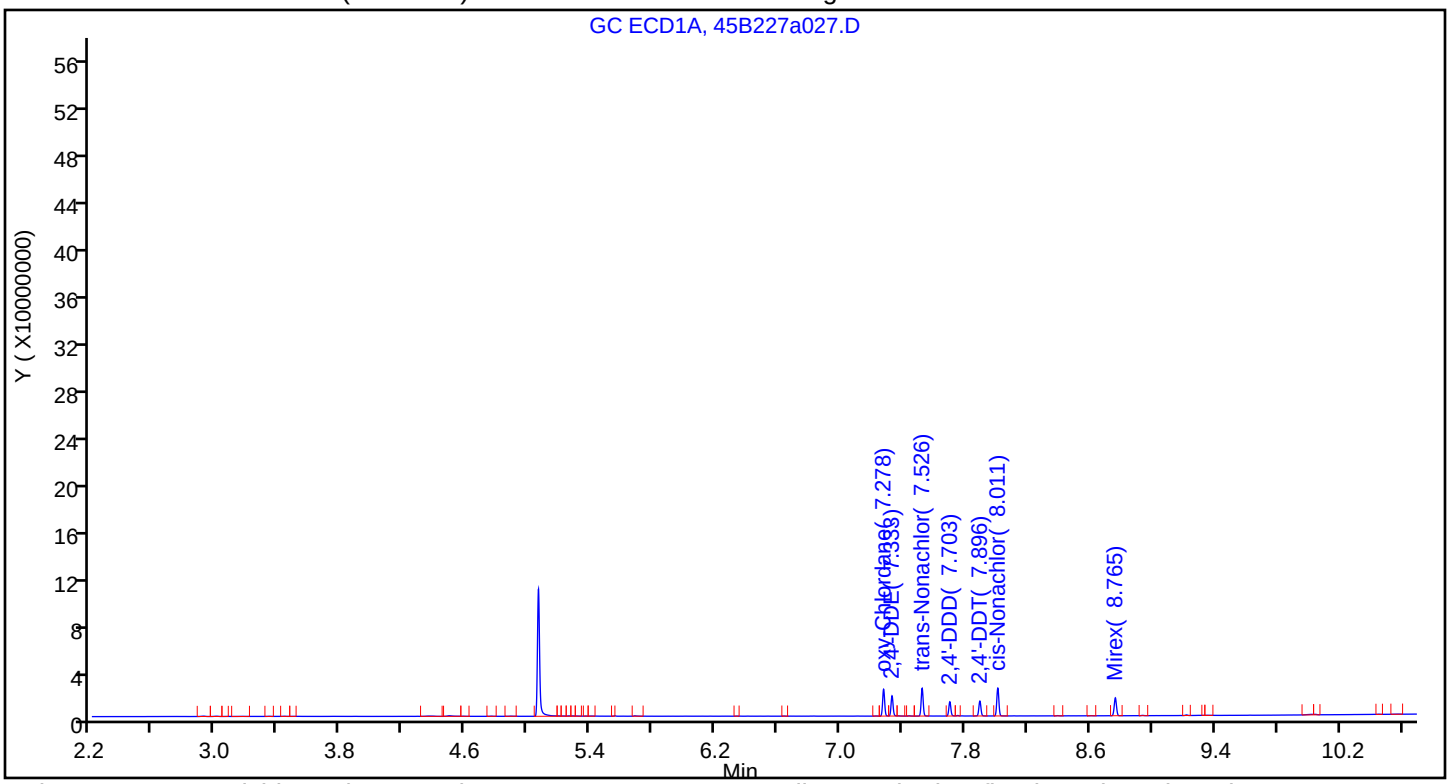
Client ID:

Operator ID: AR ALS Bottle#: 25 Worklist Smp#: 27

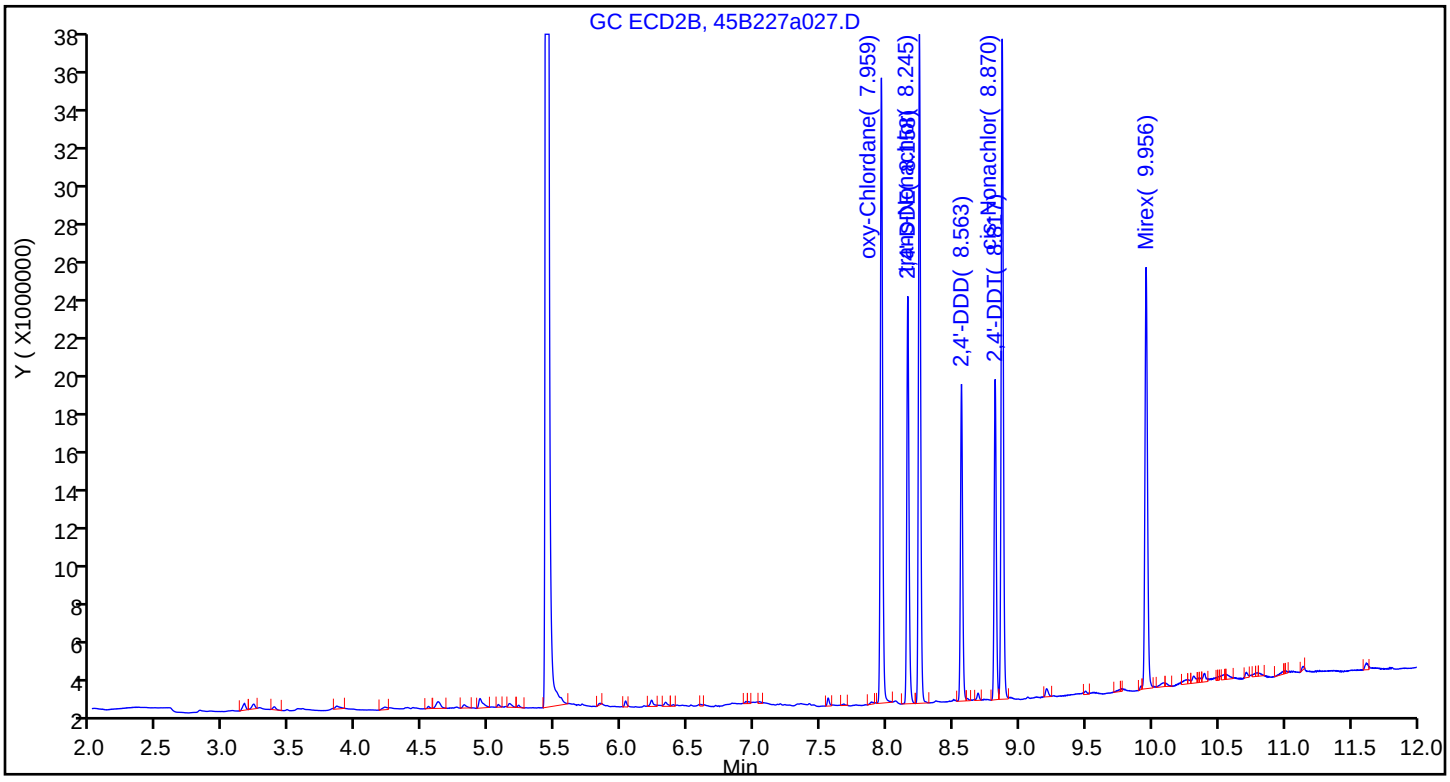
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a028.D
Lims ID: ic ext5
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Feb-2019 19:46:19 ALS Bottle#: 26 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT5
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:10 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.065	5.065	0.000	112955640	100.0	100.0	
2	5.433	5.433	0.000	271237944	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.279	7.278	0.001	11391626	5.00	5.46	
2	7.959	7.959	0.000	19714351	5.00	4.70	
						RPD = 15.15	
27 2,4'-DDE							
1	7.333	7.333	0.000	8721252	5.00	5.61	
2	8.157	8.158	-0.001	12044467	5.00	4.51	
						RPD = 21.63	
28 trans-Nonachlor							
1	7.526	7.526	0.000	11530955	5.00	5.30	
2	8.246	8.245	0.001	19335031	5.00	4.61	
						RPD = 14.08	
31 2,4'-DDD							
1	7.703	7.703	0.000	6148229	5.00	5.52	
2	8.562	8.563	-0.001	9136305	5.00	4.50	
						RPD = 20.53	
36 2,4'-DDT							
1	7.897	7.896	0.001	6535533	5.00	5.39	
2	8.816	8.817	-0.001	9007302	5.00	4.27	
						RPD = 23.03	
38 cis-Nonachlor							
1	8.011	8.011	0.000	12071128	5.00	5.39	
2	8.868	8.870	-0.002	19534815	5.00	4.41	
						RPD = 19.86	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.766	8.765	0.001	8611095	5.00	5.51	
2	9.955	9.956	-0.001	16017491	5.00	5.10	
						RPD = 7.70	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:11 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a028.D

Injection Date: 27-Feb-2019 19:46:19 Instrument ID: TAC045

Lims ID: ic ext5

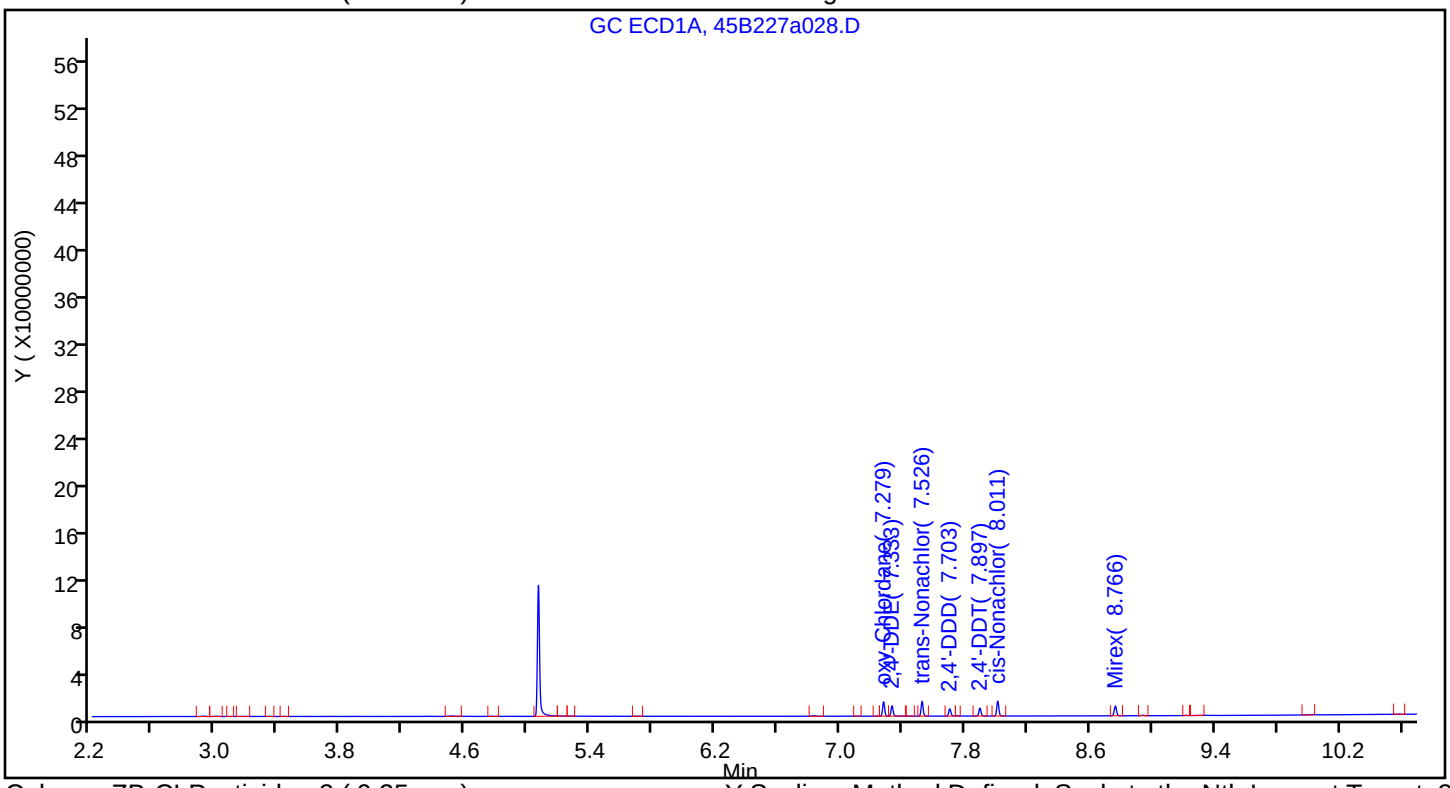
Client ID:

Operator ID: AR ALS Bottle#: 26 Worklist Smp#: 28

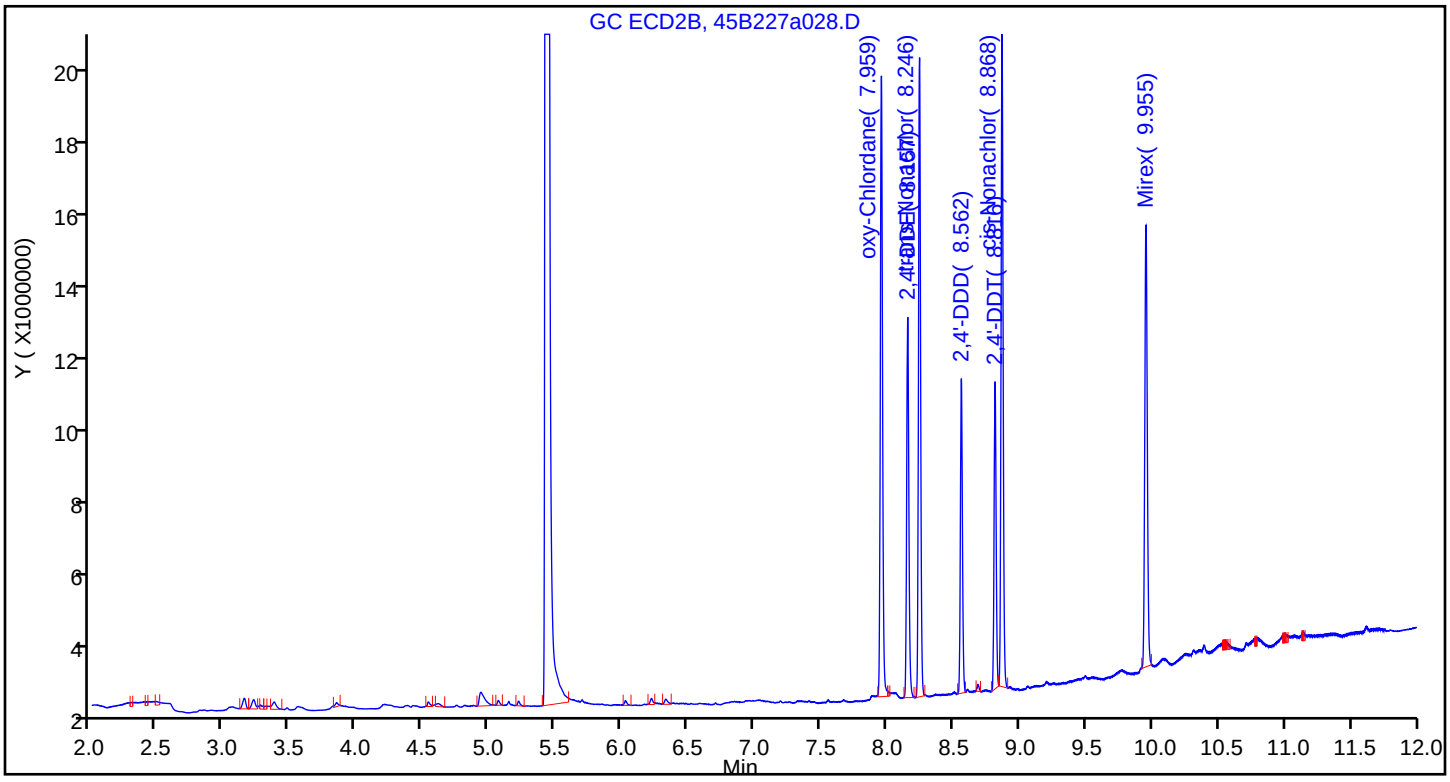
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a029.D
Lims ID: ic ext2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Feb-2019 20:07:56 ALS Bottle#: 27 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT2
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:13 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	109433236	100.0	100.0	
2	5.432	5.433	-0.001	251931826	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	4603773	2.00	2.28	
2	7.957	7.959	-0.002	7496754	2.00	1.92	
						RPD = 17.01	
27 2,4'-DDE							
1	7.333	7.333	0.000	3401584	2.00	1.99	
2	8.156	8.158	-0.002	4347761	2.00	1.75	
						RPD = 12.37	
28 trans-Nonachlor							
1	7.525	7.526	-0.001	4688703	2.00	2.23	
2	8.245	8.245	0.000	7006255	2.00	1.80	
						RPD = 21.33	
31 2,4'-DDD							
1	7.703	7.703	0.000	2495351	2.00	2.04	
2	8.561	8.563	-0.002	3275339	2.00	1.91	
						RPD = 6.51	
36 2,4'-DDT							
1	7.896	7.896	0.000	2617881	2.00	2.04	
2	8.816	8.817	-0.001	3109452	2.00	1.59	
						RPD = 24.99	
38 cis-Nonachlor							
1	8.011	8.011	0.000	4859777	2.00	2.01	
2	8.868	8.870	-0.002	7007590	2.00	1.70	
						RPD = 16.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	3618668	2.00	2.39	
2	9.955	9.956	-0.001	6682921	2.00	2.29	
						RPD = 4.21	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:14 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a029.D

Injection Date: 27-Feb-2019 20:07:56 Instrument ID: TAC045

Lims ID: ic ext2

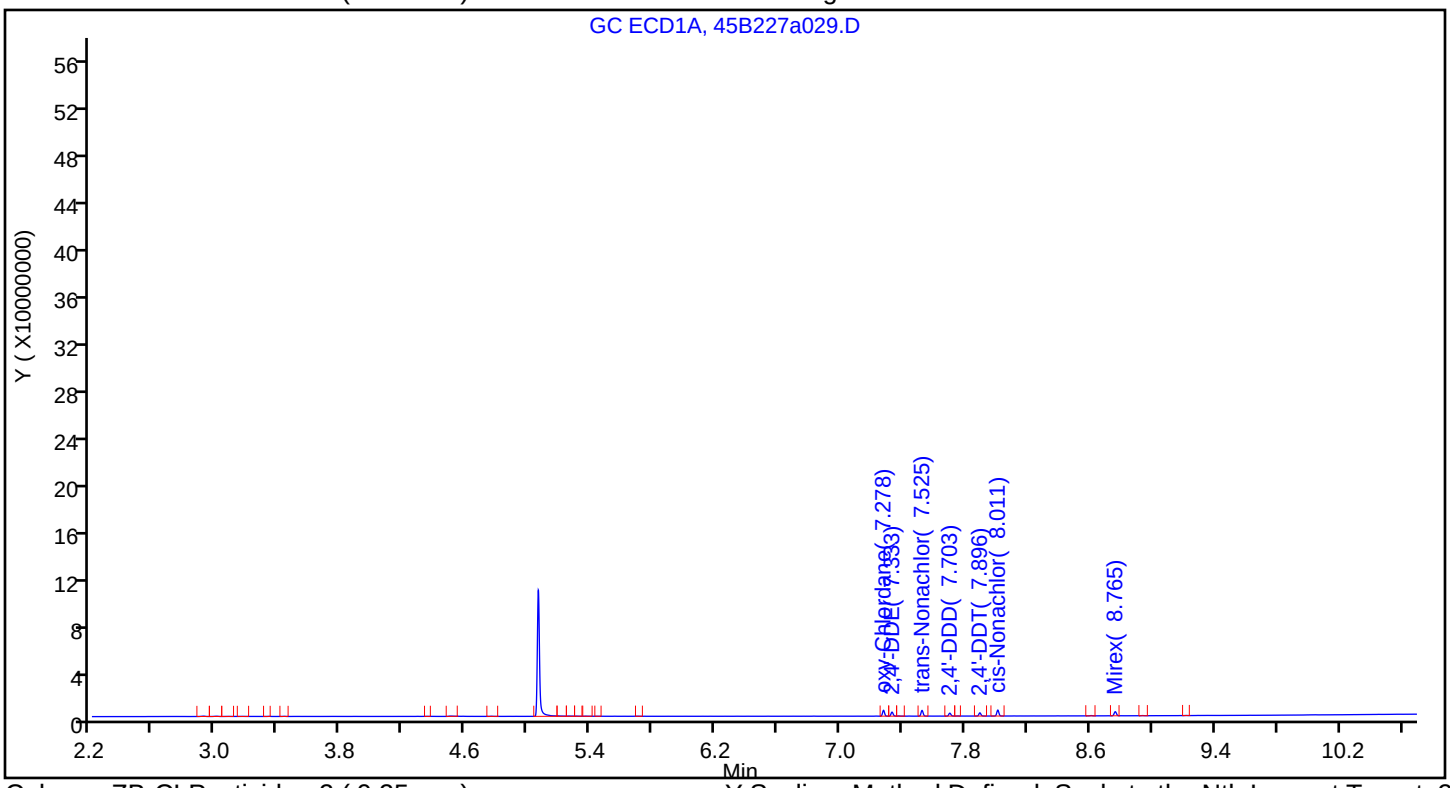
Client ID:

Operator ID: AR ALS Bottle#: 27 Worklist Smp#: 29

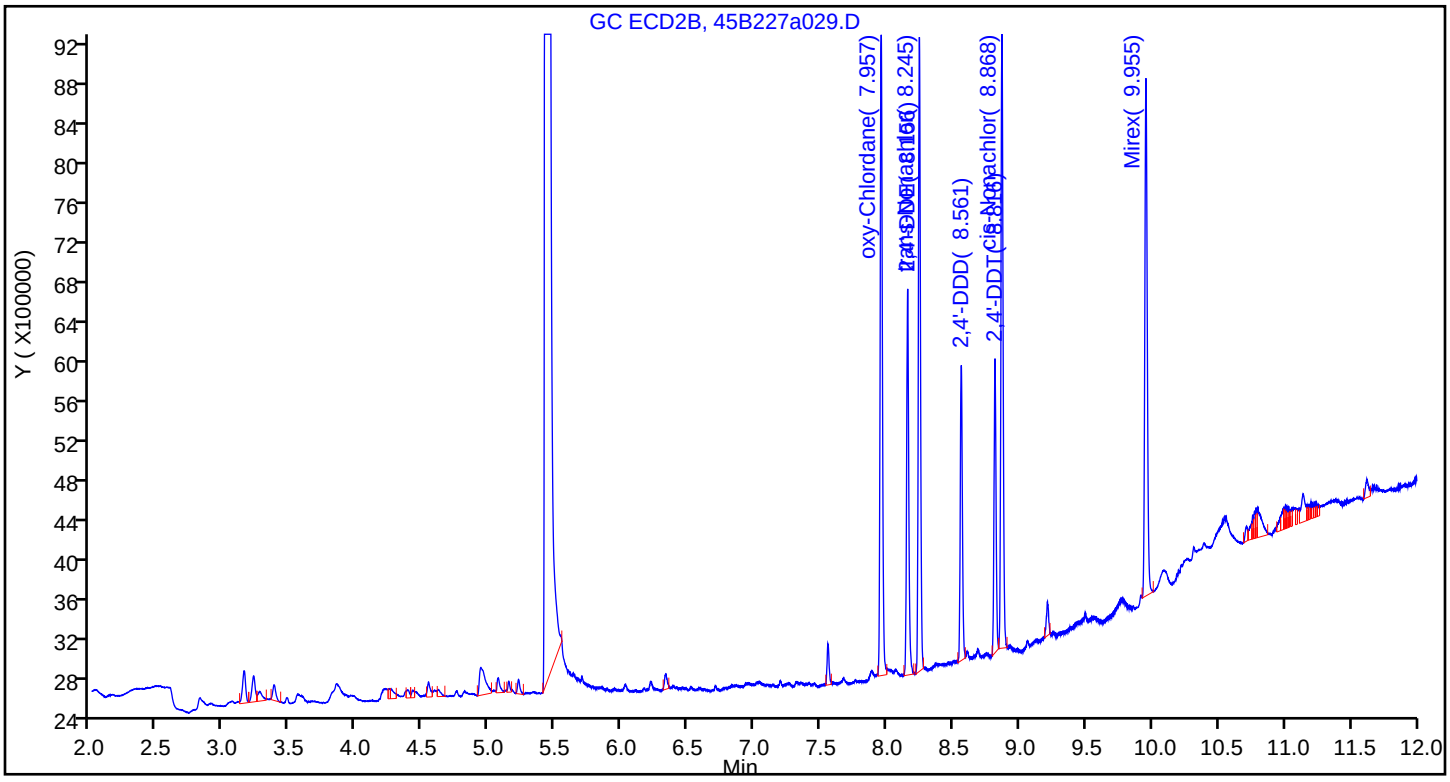
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a030.D
Lims ID: ic ext1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Feb-2019 20:29:31 ALS Bottle#: 28 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC EXT1
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:16 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	106680402	100.0	100.0	
2	5.433	5.433	0.000	248157719	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	2332152	1.00	1.18	
2	7.957	7.959	-0.002	3646379	1.00	0.9492	
						RPD = 22.06	
27 2,4'-DDE							
1	7.333	7.333	0.000	1632890	1.00	0.7468	
2	8.157	8.158	-0.001	2023719	1.00	0.8292	
						RPD = 10.46	
28 trans-Nonachlor							
1	7.526	7.526	0.000	2332075	1.00	1.14	
2	8.245	8.245	0.000	3227349	1.00	0.8402	
						RPD = 29.90	
31 2,4'-DDD							
1	7.703	7.703	0.000	1194853	1.00	0.7596	
2	8.562	8.563	-0.001	1527508	1.00	1.05	
						RPD = 32.36	
36 2,4'-DDT							
1	7.897	7.896	0.001	1248533	1.00	0.8384	
2	8.814	8.817	-0.003	1441305	1.00	0.7474	
						RPD = 11.48	
38 cis-Nonachlor							
1	8.011	8.011	0.000	2416006	1.00	0.8289	
2	8.869	8.870	-0.001	3269520	1.00	0.8076	
						RPD = 2.60	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.765	8.765	0.000	1891087	1.00	1.28	
2	9.955	9.956	-0.001	3792541	1.00	1.32	
						RPD = 2.99	

Reagents:

EXTOCP_IC50_00014	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:16 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a030.D

Injection Date: 27-Feb-2019 20:29:31 Instrument ID: TAC045

Lims ID: ic ext1

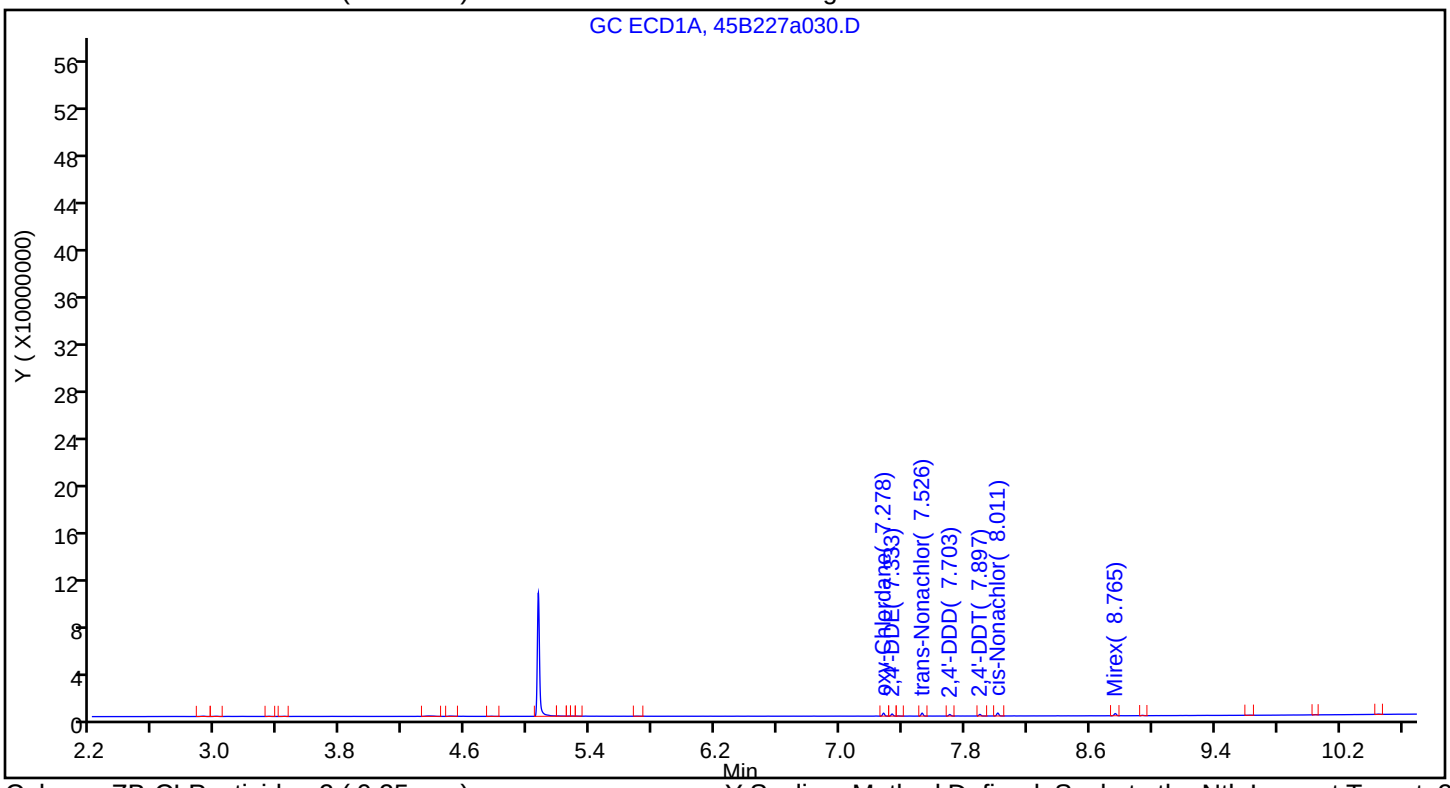
Client ID:

Operator ID: AR ALS Bottle#: 28 Worklist Smp#: 30

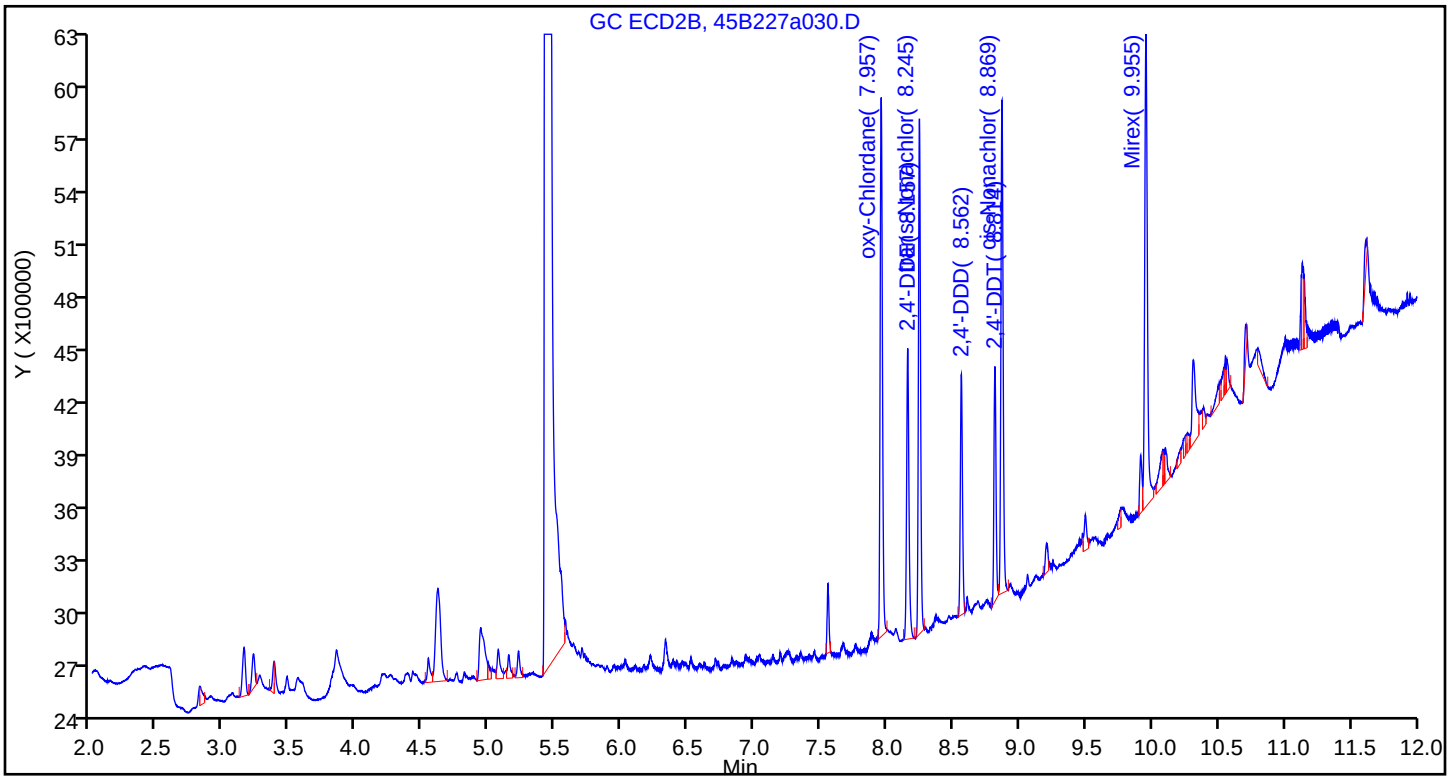
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/40	45B227a040.D
Level 2	IC 580-295252/39	45B227a039.D
Level 3	IC 580-295252/38	45B227a038.D
Level 4	IC 580-295252/37	45B227a037.D
Level 5	IC 580-295252/36	45B227a036.D
Level 6	ICIS 580-295252/35	45B227a035.D
Level 7	IC 580-295252/34	45B227a034.D
Level 8	IC 580-295252/33	45B227a033.D
Level 9	IC 580-295252/32	45B227a032.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene	3.9560 3.4809	4.0124 3.3712	3.8341 3.2396	3.8094 3.3013	3.7640	Ave		3.6410				8.1		20.0			
Hexachlorobenzene	3.1199 2.5093	3.0571 2.3971	2.7980 2.3122	2.7720 2.3389	2.6894	Ave		2.6660				11.2		20.0			
alpha-BHC	2.5551 2.5067	2.6327 2.4131	2.5464 2.3699	2.6646 2.3808	2.5688	Ave		2.5153				4.2		20.0			
gamma-BHC (Lindane)	2.2523 2.0524	2.2920 1.9408	2.1896 1.9084	2.2138 2.0023	2.1734	Ave		2.1139				6.7		20.0			
beta-BHC	1.1479 0.8811	1.1300 0.8367	0.9933 0.8162	0.9968 0.7759	0.9328	Ave		0.9456				14.1		20.0			
delta-BHC	2.3378 2.1281	2.3156 2.0554	2.2151 2.0293	2.2707 2.0651	2.2070	Ave		2.1805				5.3		20.0			
Heptachlor	2.1278 1.8229	2.1203 1.7450	2.0077 1.6988	2.0102 1.7281	1.9210	Ave		1.9091				8.8		20.0			
Aldrin	2.4838 2.1422	2.5070 2.0343	2.3963 1.9859	2.3864 2.0007	2.3139	Ave		2.2501				9.4		20.0			
Heptachlor epoxide	2.2188 1.7917	2.2247 1.6994	2.1049 1.6483	2.0620 1.6550	1.9614	Ave		1.9296				12.2		20.0			
trans-Chlordane	2.4549 1.9594	2.3305 1.8721	2.2168 1.8355	2.1866 1.8500	2.1336	Ave		2.0933				10.8		20.0			
cis-Chlordane	2.4007 1.9503	2.3632 1.8647	2.1981 1.8240	2.1903 1.8381	2.1486	Ave		2.0864				10.7		20.0			
4,4'-DDE	2.2146 2.0152	2.2695 1.9716	2.1393 1.8723	2.2019 1.9490	2.2396	Ave		2.0970				7.0		20.0			
Endosulfan I	2.1640 1.7431	2.1852 1.6383	2.0256 1.5931	2.0157 1.5987	1.9766	Ave		1.8823				12.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27490

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dieldrin	2.2924 1.9592	2.2446 1.8609	2.1263 1.8163	2.1038 1.8095	2.1099	Ave		2.0359				8.9		20.0			
Endrin	1.6589 1.3344	1.6534 1.3195	1.5192 1.2993	1.5019 1.3647	1.3503	Ave		1.4446				9.9		20.0			
4,4'-DDD	1.5856 1.3905	1.6263 1.3355	1.4834 1.2962	1.5155 1.2868	1.5609	Ave		1.4534				8.9		20.0			
Endosulfan II	1.9283 1.4508	1.8386 1.3751	1.6968 1.3432	1.6461 1.3133	1.6042	Ave		1.5774				14.0		20.0			
4,4'-DDT	1.4475 1.2748	1.4500 1.2565	1.3827 1.2361	1.3759 1.2653	1.3393	Ave		1.3365				6.2		20.0			
Endrin aldehyde	1.8051 1.4178	1.8150 1.3343	1.6654 1.2969	1.6216 1.2985	1.6072	Ave		1.5402				13.5		20.0			
Methoxychlor	0.8383 0.6174	0.8379 0.5897	0.7725 0.5745	0.7193 0.5826	0.6662	Ave		0.6887				15.6		20.0			
Endosulfan sulfate	2.1780 1.5878	2.0332 1.5099	1.8960 1.4840	1.8262 1.4836	1.7646	Ave		1.7515				14.5		20.0			
Endrin ketone	2.0608 1.6028	2.0238 1.5161	1.8816 1.4857	1.8276 1.4882	1.8012	Ave		1.7431				13.0		20.0			
Tetrachloro-m-xylene	2.7263 2.2882	2.6012 2.1870	2.5743 2.0912	2.5232 2.1142	2.4864	Ave		2.3991				9.7		20.0			
DCB Decachlorobiphenyl	2.1858 1.5734	2.0457 1.5009	1.9013 1.4962	1.7809 1.5172	1.7867	Ave		1.7542				14.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27490

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/40	45B227a040.D
Level 2	IC 580-295252/39	45B227a039.D
Level 3	IC 580-295252/38	45B227a038.D
Level 4	IC 580-295252/37	45B227a037.D
Level 5	IC 580-295252/36	45B227a036.D
Level 6	ICIS 580-295252/35	45B227a035.D
Level 7	IC 580-295252/34	45B227a034.D
Level 8	IC 580-295252/33	45B227a033.D
Level 9	IC 580-295252/32	45B227a032.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Hexachlorobutadiene	BNB	Ave	4527674 186580272	9108219 369516233	21218058 690234000	41952424 1341647991	96289022	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Hexachlorobenzene	BNB	Ave	3570793 134499994	6939703 262747682	15484464 492627894	30527579 950547108	68799663	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
alpha-BHC	BNB	Ave	2924358 134359418	5976157 264495962	14092091 504930962	29344986 967561542	65714911	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
gamma-BHC (Lindane)	BNB	Ave	2577749 110010705	5202894 212725207	12117700 406592056	24379975 813721355	55599024	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
beta-BHC	BNB	Ave	1313812 47228681	2565027 91710052	5497228 173891840	10977922 315330677	23863554	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
delta-BHC	BNB	Ave	2675590 114070710	5256368 225295712	12258864 432362195	25006625 839277688	56457605	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Heptachlor	BNB	Ave	2435286 97710978	4813158 191265134	11110752 361937463	22137678 702301045	49141652	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Aldrin	BNB	Ave	2842683 114825105	5690808 222974683	13261466 423107201	26280833 813100943	59194137	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Heptachlor epoxide	BNB	Ave	2539414 96037029	5050096 186272022	11648873 351174848	22708149 672608268	50176225	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Chlordane	BNB	Ave	2809588 105023976	5290269 205195499	12267985 391068432	24080505 751830152	54580844	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Chlordane	BNB	Ave	2747609 104535956	5364346 204393954	12164259 388616945	24121115 747025608	54964898	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDE	BNB	Ave	2534630 108017697	5151789 216101953	11839175 398911613	24248619 792066377	57292707	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan I	BNB	Ave	2476728 93432132	4960273 179574762	11209884 339427596	22198864 649726653	50563608	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Dieldrin	BNB	Ave	2623688 105015551	5095253 203967882	11766916 386983682	23168992 735376973	53975547	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27490

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Endrin	BNB	Ave	1898593 71525243	3753269 144626095	8407270 276824283	16539623 554621594	34542235	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDD	BNB	Ave	1814734 74533403	3691713 146380195	8209098 276171136	16689421 522973551	39929156	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan II	BNB	Ave	2206931 77764283	4173507 150721070	9390347 286183103	18127716 533722407	41038666	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDT	BNB	Ave	1656617 68329814	3291423 137725136	7652031 263368364	15152831 514238719	34261522	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin aldehyde	BNB	Ave	2065951 75994356	4119961 146248508	9216281 276322756	17858333 527709328	41115414	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Methoxychlor	BNB	Ave	959443 33095335	1901975 64633005	4275215 122402298	7921923 236769352	17042224	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan sulfate	BNB	Ave	2492718 85109397	4615247 165495547	10492682 316180693	20111441 602953070	45142095	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin ketone	BNB	Ave	2358579 85914272	4594046 166173584	10413130 316548743	20126934 604826304	46078030	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Tetrachloro-m-xylene	BNB	Ave	3142147 123509926	5945934 241398886	14346095 448656470	27981583 865216433	64050370	1.01 50.4	2.01 101	5.04 201	10.1 403	25.2
DCB Decachlorobiphenyl	BNB	Ave	2509122 84586338	4657750 165009414	10553825 319726107	19671800 618432794	45844539	1.00 50.2	2.01 100	5.02 201	10.0 401	25.1

Curve Type Legend:
Ave = Average ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a032.D
Lims ID: ic ocp400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 27-Feb-2019 21:12:33 ALS Bottle#: 30 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP400
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:18 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:51:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.169	4.167	0.002	1341647991	400.0	362.7	
2	4.536	4.532	0.004	3503115758	400.0	511.8	
						RPD = 34.10	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	101600530	100.0	100.0	
2	5.431	5.433	-0.002	250360734	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	865216433	402.8	355.0	
2	6.195	6.195	0.000	2038229857	402.8	494.1	
						RPD = 32.77	
11 Hexachlorobenzene							
1	5.996	5.996	0.000	950547108	400.0	350.9	
2	6.582	6.580	0.002	2305698776	400.0	464.4	
						RPD = 27.84	
4 alpha-BHC							
1	6.115	6.114	0.001	967561542	400.0	378.6	
2	6.688	6.687	0.001	2497071285	400.0	400.0	
						RPD = 5.49	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	813721355	400.0	378.9	
2	6.969	6.969	0.000	2117146615	400.0	399.3	
						RPD = 5.26	
7 beta-BHC							
1	6.398	6.400	-0.002	315330677	400.0	328.2	
2	7.017	7.018	-0.001	927206719	400.0	481.1	
						RPD = 37.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	839277688	400.0	378.8	
2	7.261	7.260	0.001	2255756016	400.0	399.8	
						RPD = 5.38	
10 Heptachlor							
1	6.700	6.700	0.000	702301045	400.0	362.1	
2	7.327	7.326	0.001	1776103242	400.0	476.6	
						RPD = 27.31	
12 Aldrin							
1	6.923	6.921	0.002	813100943	400.0	355.7	
2	7.594	7.592	0.002	2107973843	400.0	400.0	
						RPD = 11.73	
17 Heptachlor epoxide							
1	7.347	7.346	0.001	672608268	400.0	343.1	
2	8.031	8.030	0.001	1711038934	400.0	463.2	
						RPD = 29.79	
18 trans-Chlordane							
1	7.440	7.440	0.000	751830152	400.0	353.5	
2	8.180	8.178	0.002	1957593562	400.0	494.4	
						RPD = 33.24	
19 cis-Chlordane							
1	7.536	7.535	0.001	747025608	400.0	352.4	
2	8.295	8.291	0.004	1909401578	400.0	478.9	
						RPD = 30.43	
29 4,4'-DDE							
1	7.575	7.574	0.001	792066377	400.0	371.8	
2	8.393	8.391	0.002	2048119388	400.0	398.4	
						RPD = 6.92	
20 Endosulfan I							
1	7.639	7.638	0.001	649726653	400.0	339.7	
2	8.354	8.352	0.002	1618602395	400.0	467.8	
						RPD = 31.71	
23 Dieldrin							
1	7.815	7.813	0.002	735376973	400.0	355.5	
2	8.571	8.570	0.001	1790859510	400.0	495.1	
						RPD = 32.81	
37 Endrin							
1	7.988	7.987	0.001	554621594	400.0	377.9	
2	8.825	8.824	0.001	1184925814	400.0	487.5	
						RPD = 25.34	
39 4,4'-DDD							
1	8.010	8.010	0.000	522973551	400.0	354.2	
2	8.856	8.855	0.001	1395797121	400.0	399.9	
						RPD = 12.13	
24 Endosulfan II							
1	8.154	8.153	0.001	533722407	400.0	333.0	
2	8.990	8.987	0.003	1452958252	400.0	481.4	
						RPD = 36.43	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	514238719	400.0	378.7	
2	9.118	9.115	0.003	1268267659	400.0	399.0	
						RPD = 5.22	
41 Endrin aldehyde							
1	8.462	8.460	0.002	527709328	400.0	337.2	
2	9.256	9.255	0.001	1299390655	400.0	448.1	
						RPD = 28.24	
30 Methoxychlor							a
1	8.589	8.589	0.000	236769352	400.0	338.4	
2	9.670	9.668	0.002	530310798	400.0	472.5	a
						RPD = 33.08	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	602953070	400.0	338.8	
2	9.480	9.478	0.002	1533034467	400.0	461.1	a
						RPD = 30.57	
43 Endrin ketone							
1	9.027	9.026	0.001	604826304	400.0	341.5	
2	9.956	9.953	0.003	1435186542	400.0	468.7	
						RPD = 31.40	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	618432794	401.2	347.0	
2	11.001	11.000	0.001	1427726443	401.2	393.9	
						RPD = 12.68	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:19 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a032.D

Injection Date: 27-Feb-2019 21:12:33 Instrument ID: TAC045

Lims ID: ic ocp400

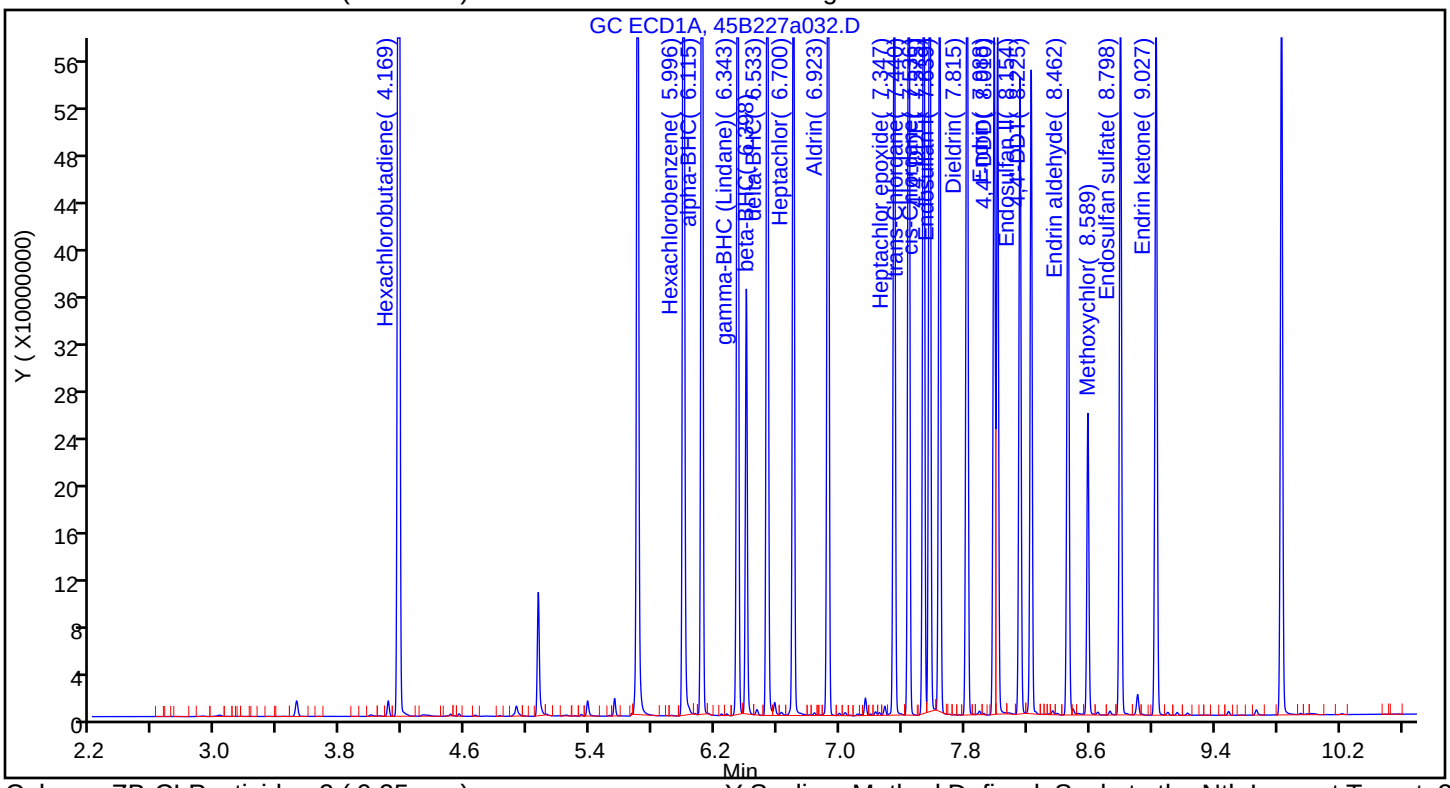
Client ID:

Operator ID: AR ALS Bottle#: 30 Worklist Smp#: 32

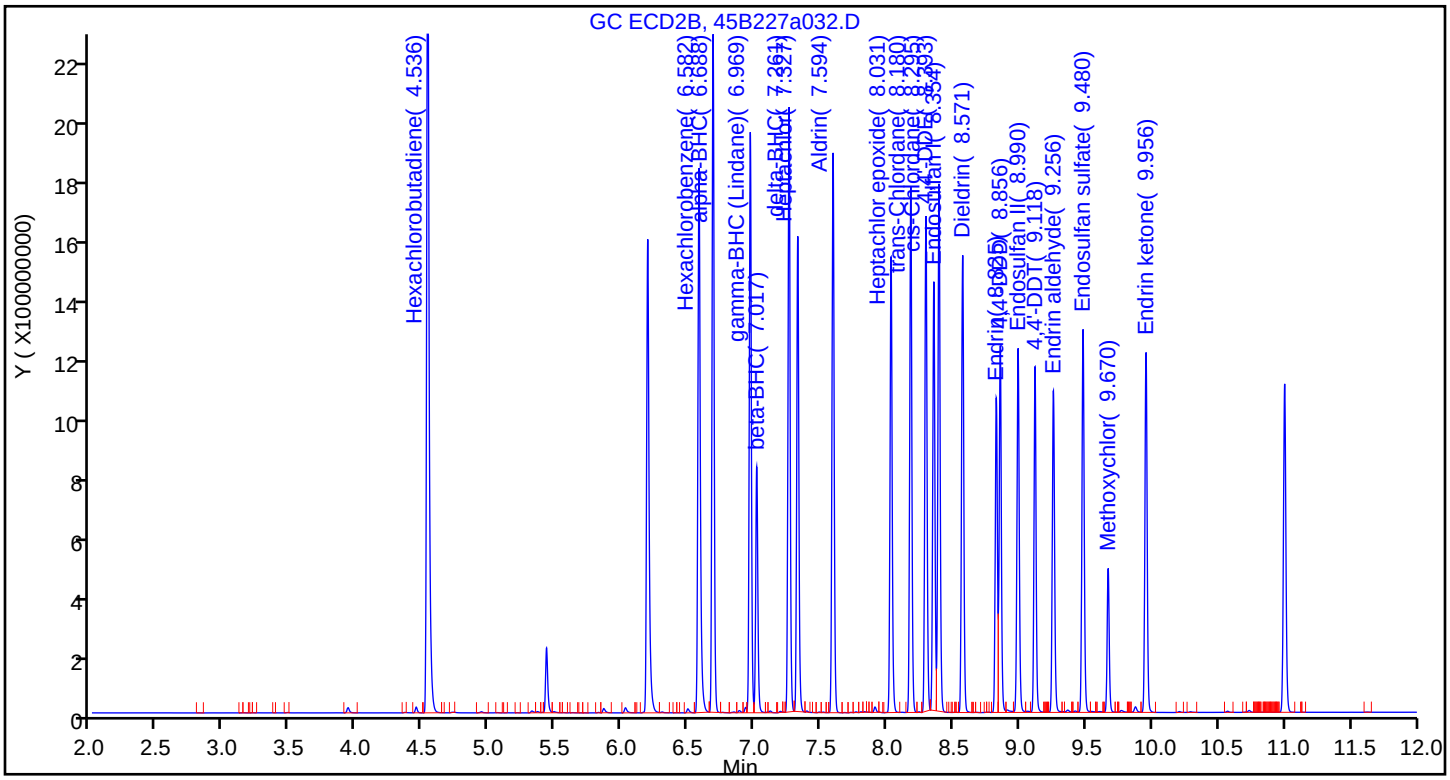
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a033.D
Lims ID: ic ocp200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Feb-2019 21:34:08 ALS Bottle#: 31 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP200
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:23 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:13:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.169	4.167	0.002	690234000	200.0	178.0	
2	4.534	4.532	0.002	1625254099	200.0	226.8	
						RPD = 24.14	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	106529280	100.0	100.0	
2	5.431	5.433	-0.002	262089130	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	448656470	201.4	175.5	
2	6.195	6.195	0.000	962773256	201.4	222.9	
						RPD = 23.78	
11 Hexachlorobenzene							
1	5.995	5.996	-0.001	492627894	200.0	173.5	
2	6.581	6.580	0.001	1079963876	200.0	207.8	
						RPD = 18.01	
4 alpha-BHC							
1	6.114	6.114	0.000	504930962	200.0	188.4	
2	6.687	6.687	0.000	1170576805	200.0	199.2	
						RPD = 5.56	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	406592056	200.0	180.6	
2	6.970	6.969	0.001	1027753584	200.0	200.7	
						RPD = 10.56	
7 beta-BHC							
1	6.399	6.400	-0.001	173891840	200.0	172.6	
2	7.017	7.018	-0.001	429525429	200.0	212.9	
						RPD = 20.90	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	432362195	200.0	186.1	
2	7.261	7.260	0.001	1067144305	200.0	199.5	
						RPD = 6.94	
10 Heptachlor							
1	6.701	6.700	0.001	361937463	200.0	178.0	
2	7.326	7.326	0.000	864202539	200.0	221.5	
						RPD = 21.80	
12 Aldrin							
1	6.922	6.921	0.001	423107201	200.0	176.5	
2	7.593	7.592	0.001	1016125904	200.0	199.2	
						RPD = 12.06	
17 Heptachlor epoxide							
1	7.347	7.346	0.001	351174848	200.0	170.8	
2	8.031	8.030	0.001	837472632	200.0	216.6	
						RPD = 23.61	
18 trans-Chlordane							
1	7.440	7.440	0.000	391068432	200.0	175.4	
2	8.180	8.178	0.002	937599425	200.0	226.2	
						RPD = 25.32	
19 cis-Chlordane							
1	7.536	7.535	0.001	388616945	200.0	174.8	
2	8.293	8.291	0.002	917403803	200.0	219.8	
						RPD = 22.78	
29 4,4'-DDE							
1	7.575	7.574	0.001	398911613	200.0	178.6	
2	8.392	8.391	0.001	1013548223	200.0	203.8	
						RPD = 13.21	
20 Endosulfan I							
1	7.638	7.638	0.000	339427596	200.0	169.3	
2	8.353	8.352	0.001	791299776	200.0	218.4	
						RPD = 25.36	
23 Dieldrin							
1	7.815	7.813	0.002	386983682	200.0	178.4	
2	8.570	8.570	0.000	863196911	200.0	227.9	
						RPD = 24.37	
37 Endrin							
1	7.988	7.987	0.001	276824283	200.0	179.9	
2	8.826	8.824	0.002	566236414	200.0	222.6	
						RPD = 21.21	
39 4,4'-DDD							
1	8.010	8.010	0.000	276171136	200.0	178.4	
2	8.856	8.855	0.001	675682675	200.0	199.1	
						RPD = 11.00	
24 Endosulfan II							
1	8.153	8.153	0.000	286183103	200.0	170.3	
2	8.990	8.987	0.003	685794170	200.0	217.0	
						RPD = 24.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	263368364	200.0	185.0	
2	9.117	9.115	0.002	594984839	200.0	201.2	
						RPD = 8.37	
41 Endrin aldehyde							
1	8.462	8.460	0.002	276322756	200.0	168.4	
2	9.256	9.255	0.001	642832038	200.0	211.8	
						RPD = 22.81	
30 Methoxychlor							a
1	8.590	8.589	0.001	122402298	200.0	166.8	
2	9.668	9.668	0.000	254684580	200.0	216.8	a
						RPD = 26.03	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	316180693	200.0	169.5	
2	9.480	9.478	0.002	734348244	200.0	211.0	a
						RPD = 21.83	
43 Endrin ketone							
1	9.027	9.026	0.001	316548743	200.0	170.5	
2	9.955	9.953	0.002	699978192	200.0	218.4	
						RPD = 24.64	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	319726107	200.6	171.1	
2	11.001	11.000	0.001	692400646	200.6	182.5	
						RPD = 6.45	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:24 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a033.D

Injection Date: 27-Feb-2019 21:34:08 Instrument ID: TAC045

Lims ID: ic ocp200

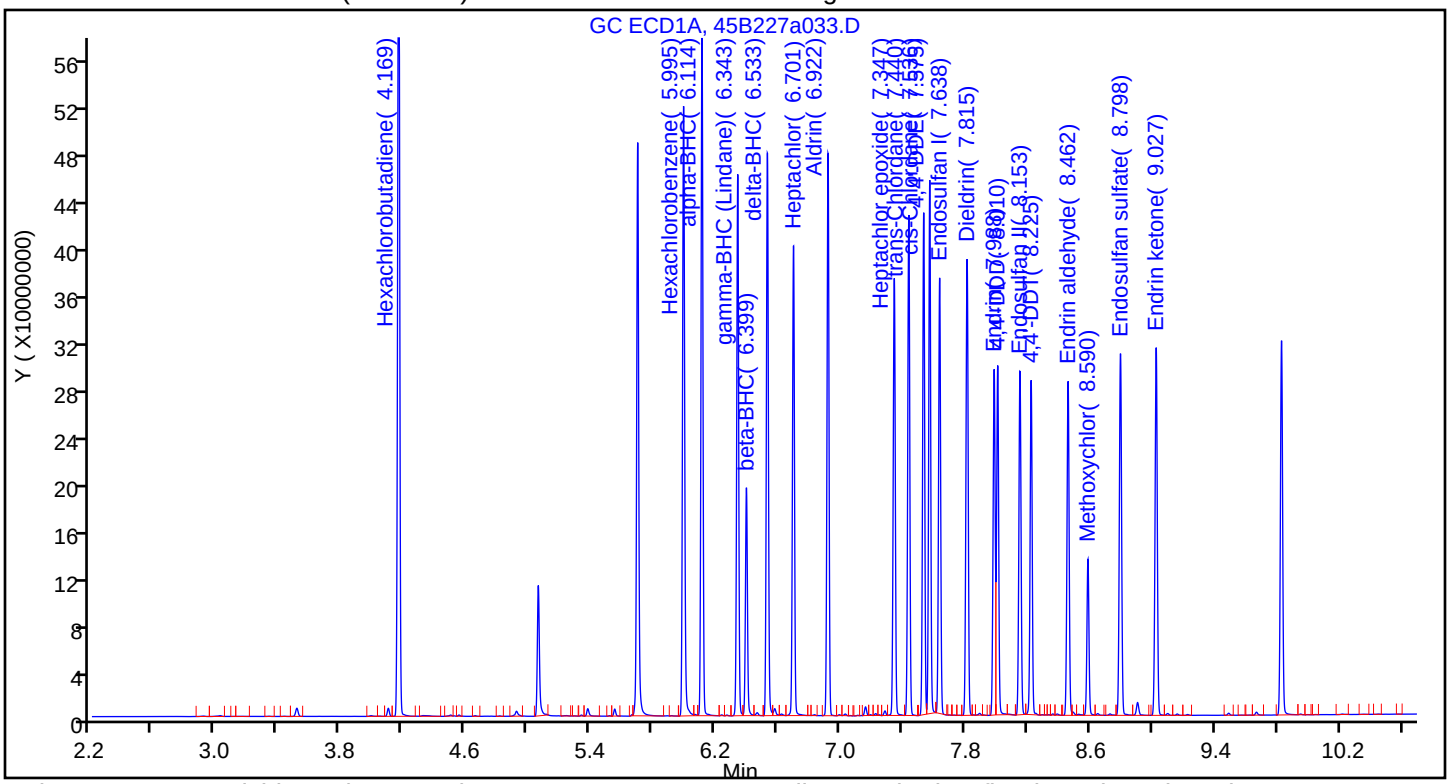
Client ID:

Operator ID: AR ALS Bottle#: 31 Worklist Smp#: 33

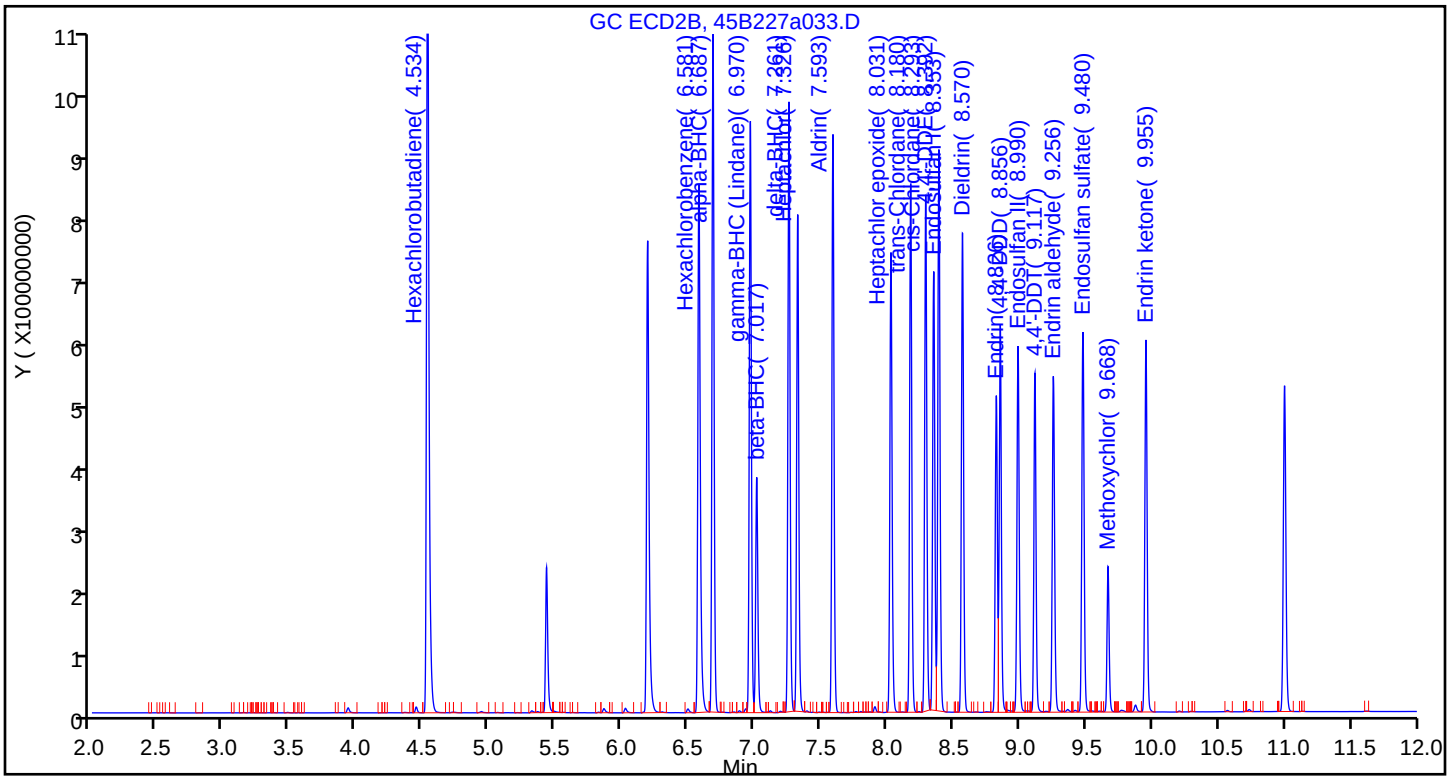
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a034.D
Lims ID: ic ocp100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Feb-2019 21:55:47 ALS Bottle#: 32 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP100
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:27 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:13:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.168	4.167	0.001	369516233	100.0	92.6	
2	4.534	4.532	0.002	795533150	100.0	111.4	
						RPD = 18.46	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	109609435	100.0	100.0	
2	5.431	5.433	-0.002	261131820	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	241398886	100.7	91.8	
2	6.194	6.195	-0.001	479924048	100.7	111.5	
						RPD = 19.41	
11 Hexachlorobenzene							
1	5.995	5.996	-0.001	262747682	100.0	89.9	
2	6.581	6.580	0.001	535500023	100.0	103.4	
						RPD = 13.96	
4 alpha-BHC							
1	6.113	6.114	-0.001	264495962	100.0	95.9	
2	6.687	6.687	0.000	562607129	100.0	101.9	
						RPD = 6.01	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	212725207	100.0	91.8	
2	6.969	6.969	0.000	499457676	100.0	102.4	
						RPD = 10.87	
7 beta-BHC							
1	6.398	6.400	-0.002	91710052	100.0	88.5	
2	7.017	7.018	-0.001	210367688	100.0	104.7	
						RPD = 16.75	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	225295712	100.0	94.3	
2	7.259	7.260	-0.001	516952891	100.0	102.4	
						RPD = 8.30	
10 Heptachlor							
1	6.699	6.700	-0.001	191265134	100.0	91.4	
2	7.325	7.326	-0.001	428753238	100.0	110.3	
						RPD = 18.74	
12 Aldrin							
1	6.922	6.921	0.001	222974683	100.0	90.4	
2	7.592	7.592	0.000	496875108	100.0	102.0	
						RPD = 12.01	
17 Heptachlor epoxide							
1	7.347	7.346	0.001	186272022	100.0	88.1	
2	8.031	8.030	0.001	391057340	100.0	101.5	
						RPD = 14.16	
18 trans-Chlordane							
1	7.440	7.440	0.000	205195499	100.0	89.4	
2	8.179	8.178	0.001	453312686	100.0	109.8	
						RPD = 20.42	
19 cis-Chlordane							
1	7.535	7.535	0.000	204393954	100.0	89.4	
2	8.293	8.291	0.002	448514075	100.0	107.9	
						RPD = 18.74	
29 4,4'-DDE							
1	7.574	7.574	0.000	216101953	100.0	94.0	
2	8.392	8.391	0.001	473289418	100.0	100.2	
						RPD = 6.34	
20 Endosulfan I							
1	7.637	7.638	-0.001	179574762	100.0	87.0	
2	8.352	8.352	0.000	391184833	100.0	108.4	
						RPD = 21.85	
23 Dieldrin							
1	7.813	7.813	0.000	203967882	100.0	91.4	
2	8.570	8.570	0.000	421807375	100.0	111.8	
						RPD = 20.07	
37 Endrin							
1	7.988	7.987	0.001	144626095	100.0	91.3	
2	8.824	8.824	0.000	287942164	100.0	113.6	
						RPD = 21.72	
39 4,4'-DDD							
1	8.009	8.010	-0.001	146380195	100.0	91.9	
2	8.856	8.855	0.001	332943783	100.0	102.5	
						RPD = 10.93	
24 Endosulfan II							
1	8.153	8.153	0.000	150721070	100.0	87.2	
2	8.989	8.987	0.002	336512996	100.0	106.9	
						RPD = 20.32	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	137725136	100.0	94.0	
2	9.118	9.115	0.003	286382516	100.0	103.8	
						RPD = 9.87	
41 Endrin aldehyde							
1	8.462	8.460	0.002	146248508	100.0	86.6	
2	9.257	9.255	0.002	313451683	100.0	103.6	
						RPD = 17.89	
30 Methoxychlor							a
1	8.590	8.589	0.001	64633005	100.0	85.6	
2	9.669	9.668	0.001	125460563	100.0	107.2	a
						RPD = 22.36	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	165495547	100.0	86.2	
2	9.479	9.478	0.001	360266010	100.0	103.9	a
						RPD = 18.61	
43 Endrin ketone							
1	9.028	9.026	0.002	166173584	100.0	87.0	
2	9.955	9.953	0.002	320643966	100.0	100.4	
						RPD = 14.33	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	165009414	100.3	85.8	
2	11.003	11.000	0.003	333717472	100.3	88.3	
						RPD = 2.83	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 0.25	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:28 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a034.D

Injection Date: 27-Feb-2019 21:55:47 Instrument ID: TAC045

Lims ID: ic ocp100

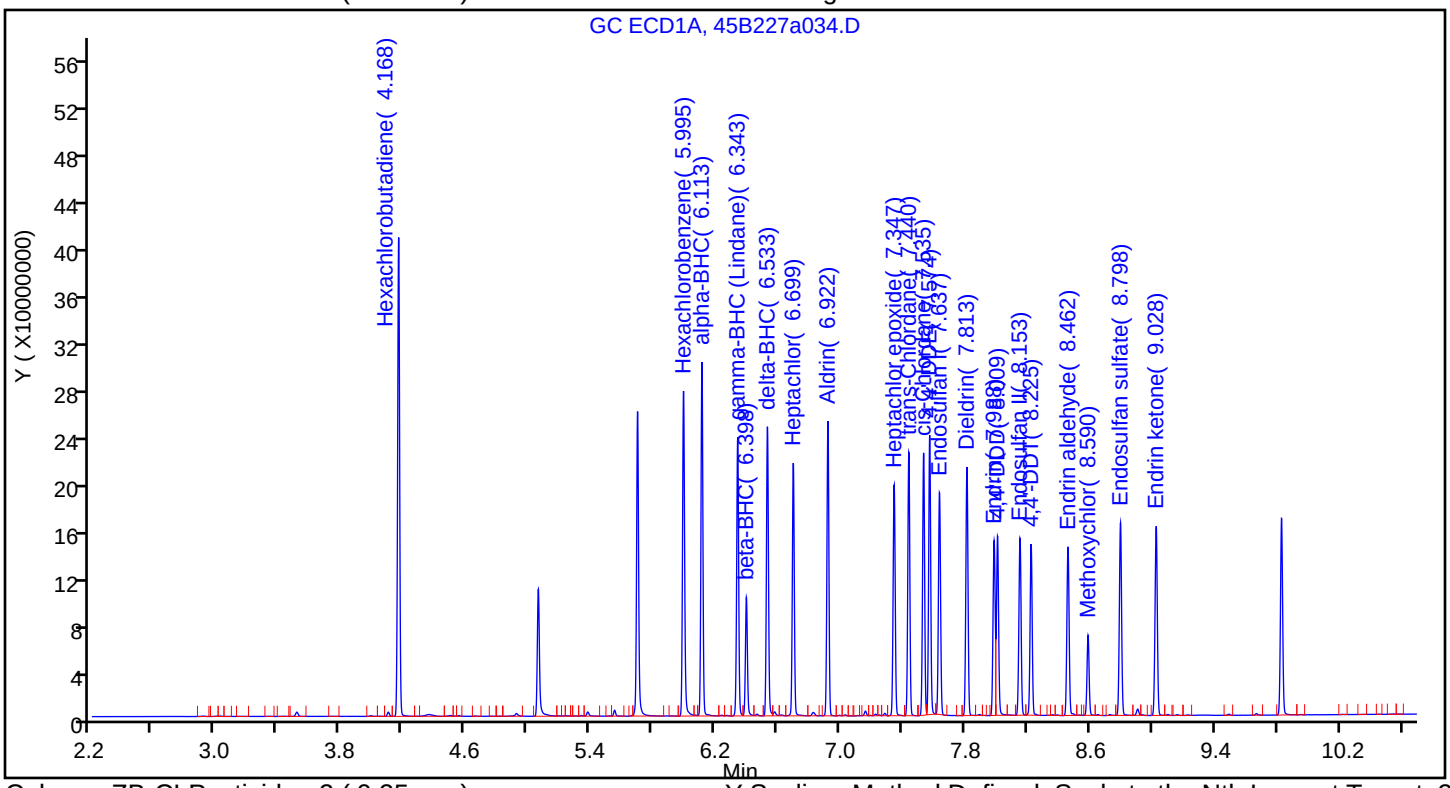
Client ID:

Operator ID: AR ALS Bottle#: 32 Worklist Smp#: 34

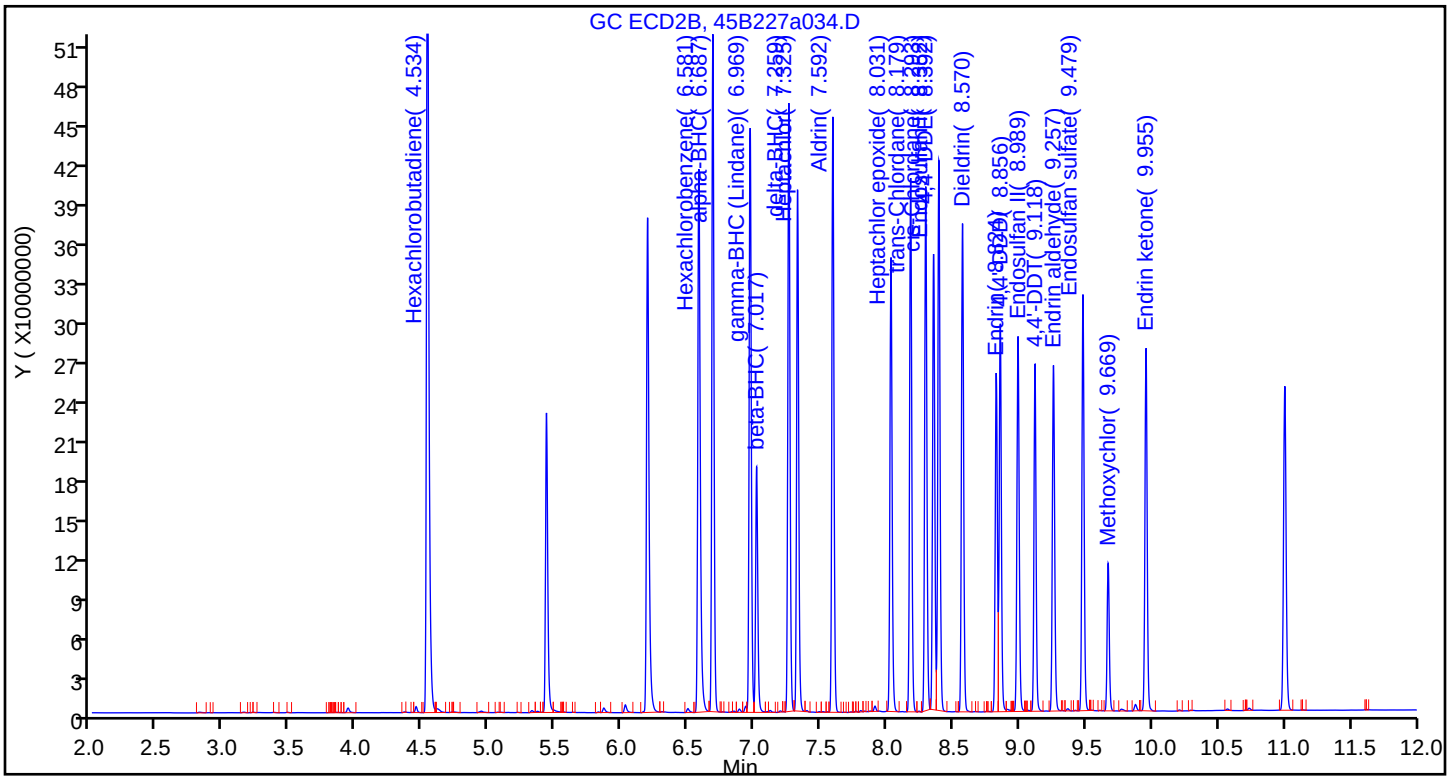
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D
Lims ID: icis ocp50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 27-Feb-2019 22:17:12 ALS Bottle#: 33 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS OCP50
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:32 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 12:50:33

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	4.168	4.168	0.000	186580272	50.0	47.8	
	2	4.533	4.533	0.000	369391056	50.0	52.3	
							RPD = 9.03	
*	3 1-Bromo-2-nitrobenzene							
	1	5.064	5.064	0.000	107202080	100.0	100.0	
	2	5.432	5.432	0.000	258210836	100.0	100.0	
							RPD = 0.00	
$	9 Tetrachloro-m-xylene							
	1	5.701	5.701	0.000	123509926	50.4	48.0	
	2	6.195	6.195	0.000	226767882	50.4	53.3	
							RPD = 10.41	
	11 Hexachlorobenzene							Ma
	1	5.996	5.996	0.000	134499994	50.0	47.1	M
	2	6.580	6.580	0.000	257010964	50.0	50.2	M
							RPD = 6.44	
	4 alpha-BHC							
	1	6.114	6.114	0.000	134359418	50.0	49.8	
	2	6.688	6.688	0.000	264027188	50.0	50.2	
							RPD = 0.78	
	6 gamma-BHC (Lindane)							
	1	6.344	6.344	0.000	110010705	50.0	48.5	
	2	6.968	6.968	0.000	230612426	50.0	49.3	
							RPD = 1.52	
	7 beta-BHC							
	1	6.399	6.399	0.000	47228681	50.0	46.6	
	2	7.018	7.018	0.000	101464545	50.0	51.0	
							RPD = 9.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.534	6.534	0.000	114070710	50.0	48.8	
2	7.260	7.260	0.000	240884746	50.0	50.0	
						RPD = 2.52	
10 Heptachlor							
1	6.700	6.700	0.000	97710978	50.0	47.7	
2	7.325	7.325	0.000	204244817	50.0	53.1	
						RPD = 10.70	
12 Aldrin							
1	6.922	6.922	0.000	114825105	50.0	47.6	
2	7.593	7.593	0.000	231589104	50.0	49.4	
						RPD = 3.76	
17 Heptachlor epoxide							
1	7.347	7.347	0.000	96037029	50.0	46.4	
2	8.030	8.030	0.000	196573118	50.0	51.6	
						RPD = 10.55	
18 trans-Chlordane							
1	7.440	7.440	0.000	105023976	50.0	46.8	
2	8.180	8.180	0.000	214024918	50.0	52.4	
						RPD = 11.31	
19 cis-Chlordane							
1	7.535	7.535	0.000	104535956	50.0	46.7	
2	8.293	8.293	0.000	213351968	50.0	51.9	
						RPD = 10.44	
29 4,4'-DDE							
1	7.574	7.574	0.000	108017697	50.0	48.1	
2	8.393	8.393	0.000	221795385	50.0	48.9	
						RPD = 1.80	
20 Endosulfan I							
1	7.639	7.639	0.000	93432132	50.0	46.3	
2	8.352	8.352	0.000	188004004	50.0	52.7	
						RPD = 12.89	
23 Dieldrin							
1	7.814	7.814	0.000	105015551	50.0	48.1	
2	8.570	8.570	0.000	199925172	50.0	53.6	
						RPD = 10.76	
37 Endrin							
1	7.987	7.987	0.000	71525243	50.0	46.2	
2	8.825	8.825	0.000	136175648	50.0	54.3	
						RPD = 16.20	
39 4,4'-DDD							
1	8.010	8.010	0.000	74533403	50.0	47.8	
2	8.855	8.855	0.000	154752460	50.0	49.5	
						RPD = 3.51	
24 Endosulfan II							
1	8.153	8.153	0.000	77764283	50.0	46.0	
2	8.988	8.988	0.000	160105706	50.0	51.4	
						RPD = 11.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	68329814	50.0	47.7	
2	9.117	9.117	0.000	127428857	50.0	48.8	
						RPD = 2.36	
41 Endrin aldehyde							
1	8.461	8.461	0.000	75994356	50.0	46.0	
2	9.255	9.255	0.000	151743559	50.0	50.7	
						RPD = 9.75	
30 Methoxychlor							a
1	8.590	8.590	0.000	33095335	50.0	44.8	
2	9.669	9.669	0.000	57895635	50.0	50.0	a
						RPD = 10.94	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	85109397	50.0	45.3	
2	9.479	9.479	0.000	172640307	50.0	50.3	a
						RPD = 10.49	
43 Endrin ketone							
1	9.026	9.026	0.000	85914272	50.0	46.0	
2	9.954	9.954	0.000	161180575	50.0	51.0	
						RPD = 10.44	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.831	0.000	84586338	50.2	45.0	
2	11.000	11.000	0.000	170902198	50.2	45.7	
						RPD = 1.64	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:33 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D

Injection Date: 27-Feb-2019 22:17:12 Instrument ID: TAC045

Lims ID: icis ocp50

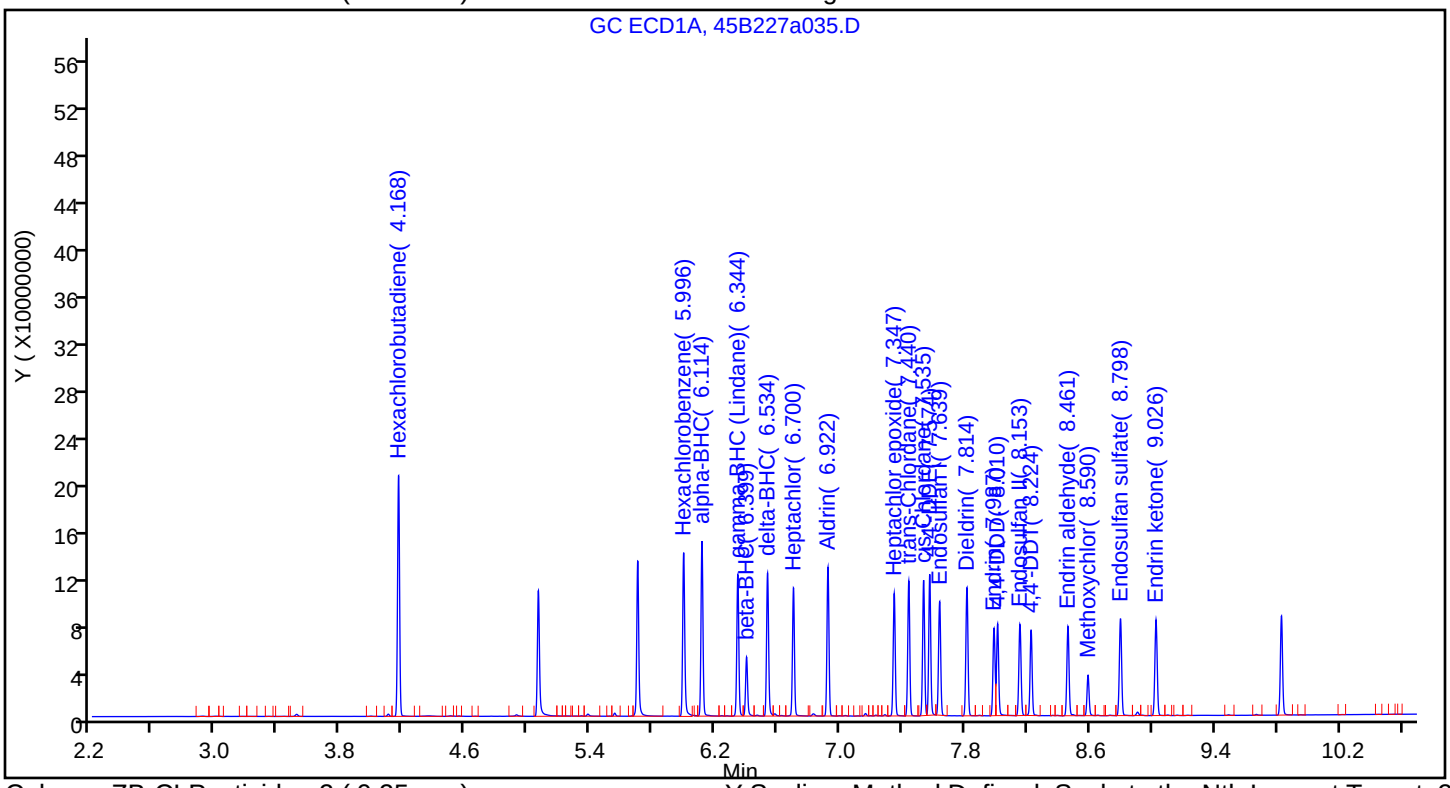
Client ID:

Operator ID: AR ALS Bottle#: 33 Worklist Smp#: 35

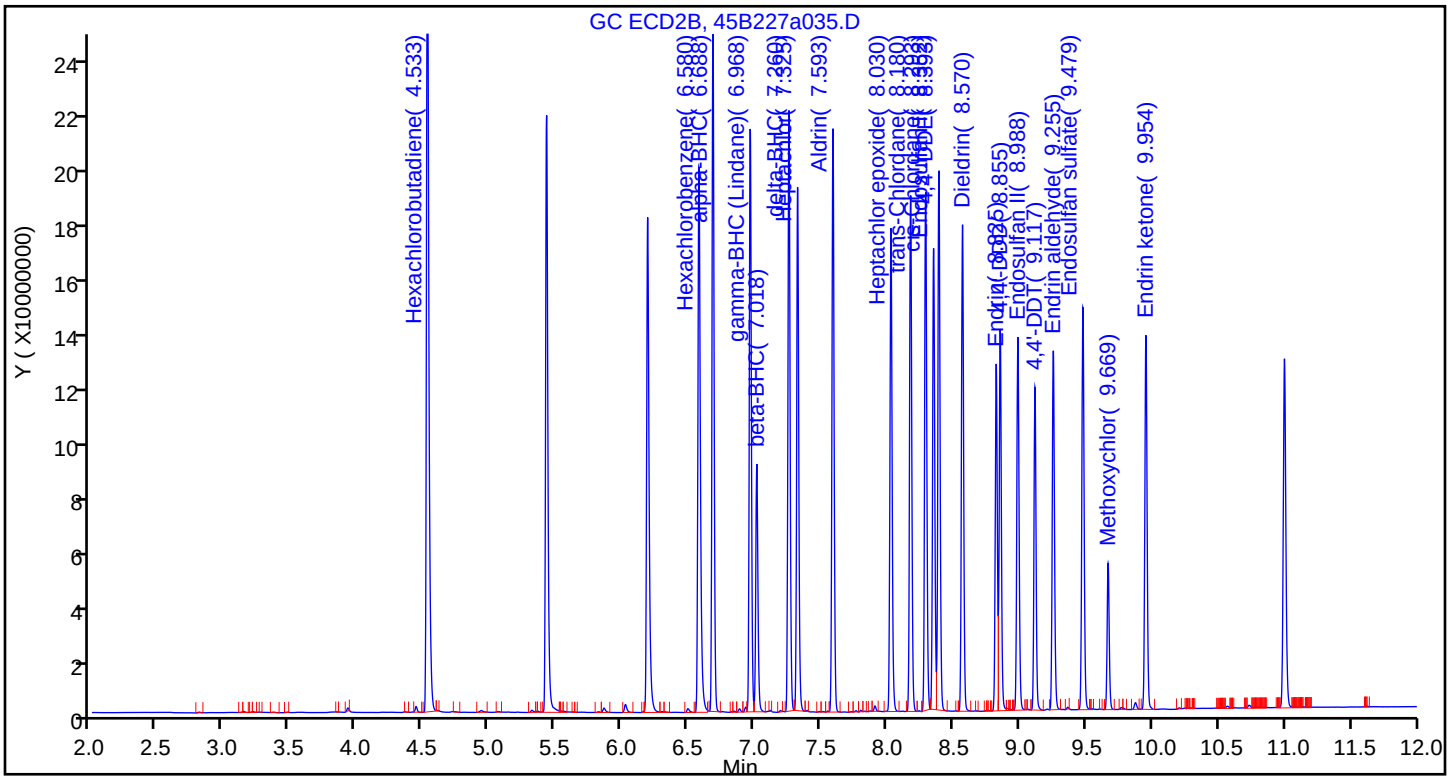
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

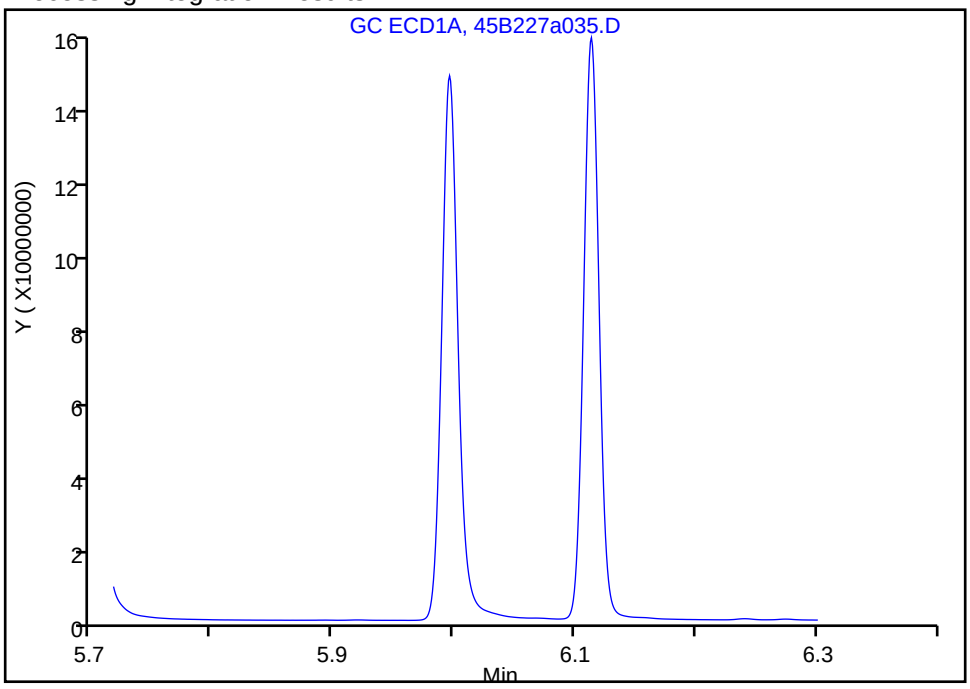
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D				
Injection Date:	27-Feb-2019 22:17:12	Instrument ID:	TAC045		
Lims ID:	icis ocp50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	33	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

11 Hexachlorobenzene, CAS: 118-74-1

Signal: 1

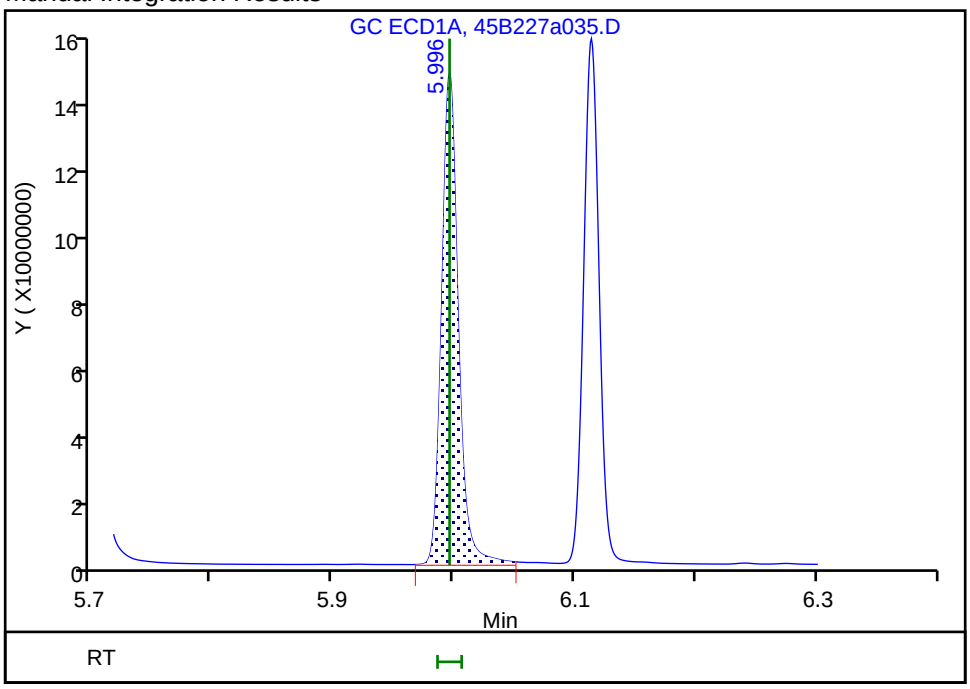
Not Detected
Expected RT: 6.00

Processing Integration Results



Manual Integration Results

RT: 6.00
Area: 134499994
Amount: 47.060638
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 12:49:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a036.D
Lims ID: ic ocp 25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Feb-2019 22:37:42 ALS Bottle#: 34 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 25
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:36 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:14:11

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.166	4.168	-0.002	96289022	25.0	25.8	
2	4.532	4.533	-0.001	177478752	25.0	26.4	
						RPD = 2.28	
* 3 1-Bromo-2-nitrobenzene							
1	5.063	5.064	-0.001	102326440	100.0	100.0	
2	5.431	5.432	-0.001	245511703	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	64050370	25.2	26.1	
2	6.193	6.195	-0.002	107847906	25.2	26.7	
						RPD = 2.15	
11 Hexachlorobenzene							
1	5.996	5.996	0.000	68799663	25.0	25.2	
2	6.581	6.580	0.001	124551774	25.0	25.6	
						RPD = 1.43	
4 alpha-BHC							
1	6.113	6.114	-0.001	65714911	25.0	25.5	
2	6.686	6.688	-0.002	120293062	25.0	24.8	
						RPD = 2.87	
6 gamma-BHC (Lindane)							
1	6.342	6.344	-0.002	55599024	25.0	25.7	
2	6.967	6.968	-0.001	105940628	25.0	24.4	
						RPD = 5.03	
7 beta-BHC							
1	6.399	6.399	0.000	23863554	25.0	24.7	
2	7.016	7.018	-0.002	47924483	25.0	25.4	
						RPD = 2.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	56457605	25.0	25.3	
2	7.259	7.260	-0.001	108836260	25.0	24.5	
						RPD = 3.22	
10 Heptachlor							
1	6.699	6.700	-0.001	49141652	25.0	25.2	
2	7.324	7.325	-0.001	95249054	25.0	26.1	
						RPD = 3.54	
12 Aldrin							
1	6.921	6.922	-0.001	59194137	25.0	25.7	
2	7.591	7.593	-0.002	110923073	25.0	25.4	
						RPD = 1.06	
17 Heptachlor epoxide							
1	7.345	7.347	-0.002	50176225	25.0	25.4	
2	8.030	8.030	0.000	95095692	25.0	26.3	
						RPD = 3.25	
18 trans-Chlordane							
1	7.438	7.440	-0.002	54580844	25.0	25.5	
2	8.178	8.180	-0.002	100639522	25.0	25.9	
						RPD = 1.71	
19 cis-Chlordane							
1	7.535	7.535	0.000	54964898	25.0	25.7	
2	8.291	8.293	-0.002	102624963	25.0	26.2	
						RPD = 1.93	
29 4,4'-DDE							
1	7.573	7.574	-0.001	57292707	25.0	26.7	
2	8.392	8.393	-0.001	105296614	25.0	25.0	
						RPD = 6.40	
20 Endosulfan I							
1	7.636	7.639	-0.003	50563608	25.0	26.3	
2	8.350	8.352	-0.002	90558922	25.0	26.7	
						RPD = 1.65	
23 Dieldrin							
1	7.812	7.814	-0.002	53975547	25.0	25.9	
2	8.569	8.570	-0.001	97530289	25.0	27.5	
						RPD = 5.94	
37 Endrin							
1	7.986	7.987	-0.001	34542235	25.0	23.4	
2	8.824	8.825	-0.001	60976429	25.0	25.6	
						RPD = 9.06	
39 4,4'-DDD							
1	8.009	8.010	-0.001	39929156	25.0	26.8	
2	8.854	8.855	-0.001	74265640	25.0	25.6	
						RPD = 4.84	
24 Endosulfan II							
1	8.151	8.153	-0.002	41038666	25.0	25.4	
2	8.988	8.988	0.000	77903688	25.0	26.3	
						RPD = 3.46	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.223	8.224	-0.001	34261522	25.0	25.1	
2	9.115	9.117	-0.002	56463217	25.0	23.5	
						RPD = 6.29	
41 Endrin aldehyde							
1	8.461	8.461	0.000	41115414	25.0	26.1	
2	9.255	9.255	0.000	77777465	25.0	27.4	
						RPD = 4.74	
30 Methoxychlor							a
1	8.588	8.590	-0.002	17042224	25.0	24.2	
2	9.667	9.669	-0.002	27266692	25.0	24.8	a
						RPD = 2.41	
33 Endosulfan sulfate							a
1	8.796	8.798	-0.002	45142095	25.0	25.2	
2	9.477	9.479	-0.002	84987385	25.0	26.1	a
						RPD = 3.43	
43 Endrin ketone							
1	9.026	9.026	0.000	46078030	25.0	25.8	
2	9.952	9.954	-0.002	80611678	25.0	26.8	
						RPD = 3.85	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.831	-0.001	45844539	25.1	25.5	
2	11.000	11.000	0.000	90626990	25.1	25.5	
						RPD = 0.16	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:37 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a036.D

Injection Date: 27-Feb-2019 22:37:42 Instrument ID: TAC045

Lims ID: ic ocp 25

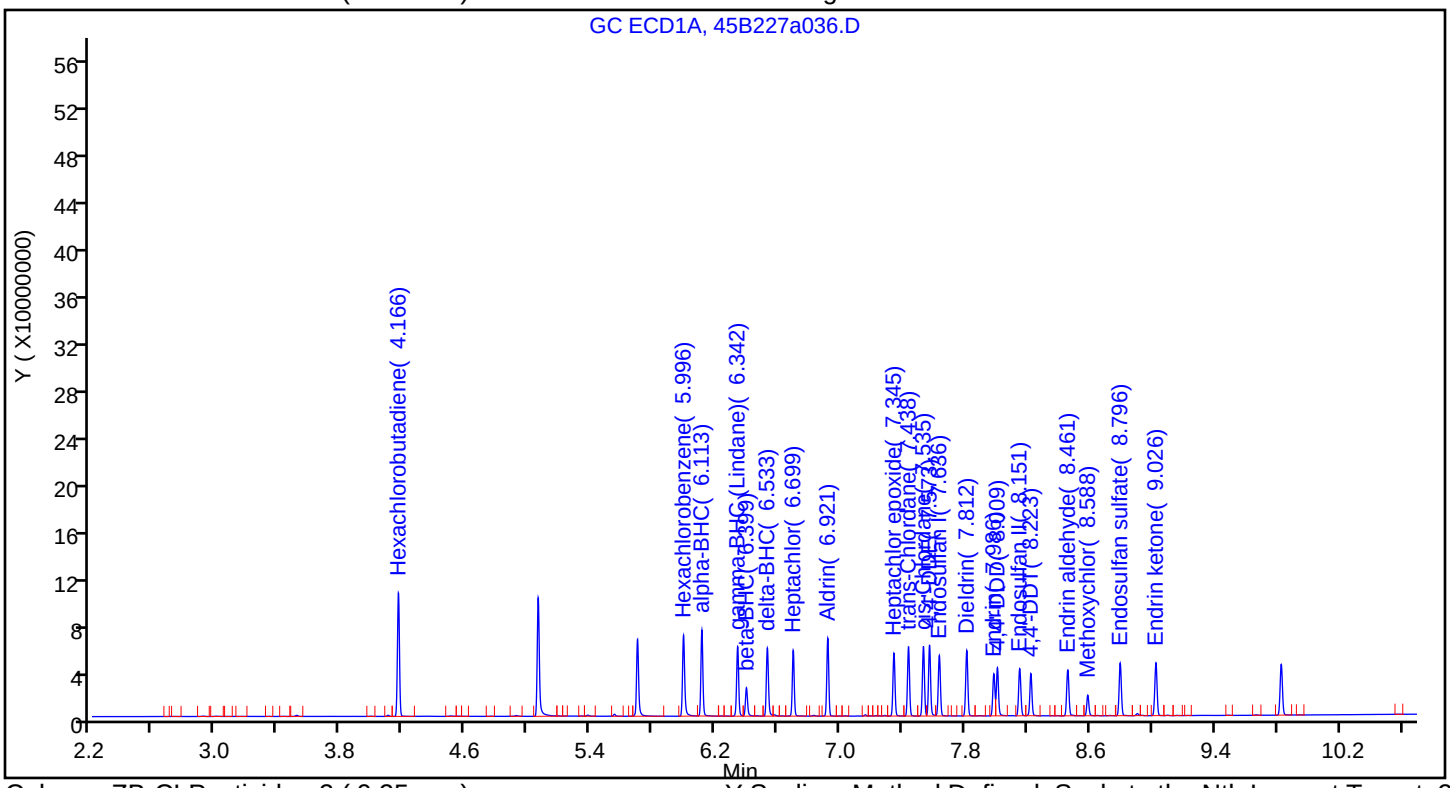
Client ID:

Operator ID: AR ALS Bottle#: 34 Worklist Smp#: 36

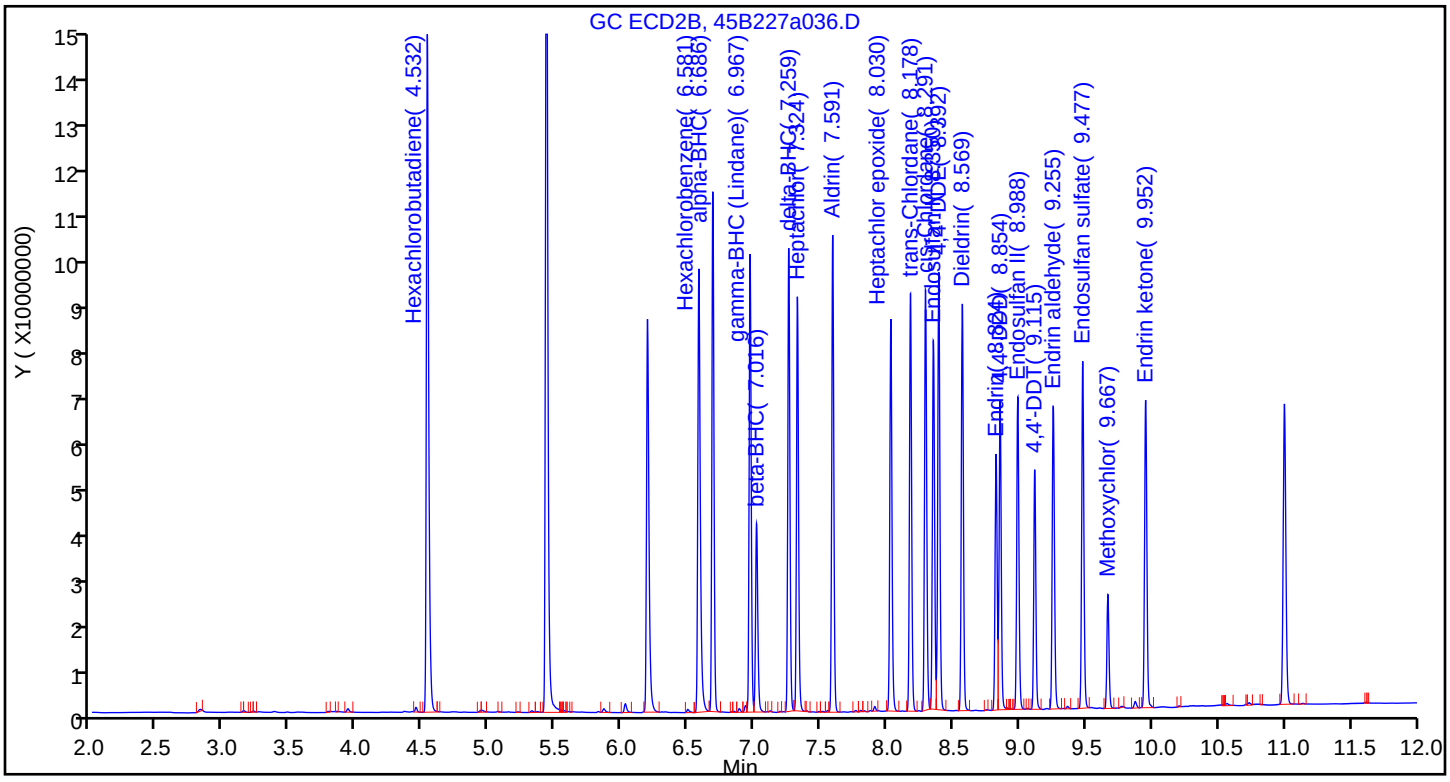
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a037.D
Lims ID: ic ocp10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Feb-2019 22:58:07 ALS Bottle#: 35 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP10
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:40 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:14:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	41952424	10.0	10.5	
2	4.532	4.532	0.000	69615492	10.0	9.51	
						RPD = 9.56	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	110127300	100.0	100.0	
2	5.430	5.430	0.000	267785415	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	27981583	10.1	10.6	
2	6.195	6.195	0.000	42480040	10.1	9.63	
						RPD = 9.53	
11 Hexachlorobenzene							
1	5.996	5.996	0.000	30527579	10.0	10.4	
2	6.580	6.580	0.000	51229627	10.0	9.65	
						RPD = 7.49	
4 alpha-BHC							
1	6.114	6.114	0.000	29344986	10.0	10.6	
2	6.687	6.687	0.000	46416196	10.0	9.33	
						RPD = 12.69	
6 gamma-BHC (Lindane)							
1	6.344	6.344	0.000	24379975	10.0	10.5	
2	6.969	6.969	0.000	41301488	10.0	9.25	
						RPD = 12.37	
7 beta-BHC							
1	6.400	6.400	0.000	10977922	10.0	10.5	
2	7.018	7.018	0.000	20161226	10.0	9.78	
						RPD = 7.49	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.534	6.534	0.000	25006625	10.0	10.4	
2	7.260	7.260	0.000	42063367	10.0	9.23	
						RPD = 12.09	
10 Heptachlor							
1	6.700	6.700	0.000	22137678	10.0	10.5	
2	7.326	7.326	0.000	39166646	10.0	9.83	
						RPD = 6.92	
12 Aldrin							
1	6.921	6.921	0.000	26280833	10.0	10.6	
2	7.592	7.592	0.000	42828496	10.0	9.44	
						RPD = 11.61	
17 Heptachlor epoxide							
1	7.346	7.346	0.000	22708149	10.0	10.7	
2	8.030	8.030	0.000	38620097	10.0	9.77	
						RPD = 8.91	
18 trans-Chlordane							
1	7.440	7.440	0.000	24080505	10.0	10.4	
2	8.178	8.178	0.000	40265257	10.0	9.51	
						RPD = 9.40	
19 cis-Chlordane							
1	7.535	7.535	0.000	24121115	10.0	10.5	
2	8.291	8.291	0.000	41027775	10.0	9.62	
						RPD = 8.72	
29 4,4'-DDE							
1	7.574	7.574	0.000	24248619	10.0	10.5	
2	8.391	8.391	0.000	39120412	10.0	9.06	
						RPD = 14.68	
20 Endosulfan I							
1	7.638	7.638	0.000	22198864	10.0	10.7	
2	8.352	8.352	0.000	35941835	10.0	9.71	
						RPD = 9.77	
23 Dieldrin							
1	7.813	7.813	0.000	23168992	10.0	10.3	
2	8.570	8.570	0.000	38528763	10.0	9.96	
						RPD = 3.70	
37 Endrin							
1	7.987	7.987	0.000	16539623	10.0	10.4	
2	8.824	8.824	0.000	24859174	10.0	9.56	
						RPD = 8.35	
39 4,4'-DDD							
1	8.010	8.010	0.000	16689421	10.0	10.4	
2	8.855	8.855	0.000	26776921	10.0	8.97	
						RPD = 15.08	
24 Endosulfan II							
1	8.153	8.153	0.000	18127716	10.0	10.4	
2	8.987	8.987	0.000	30931775	10.0	9.58	
						RPD = 8.54	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	15152831	10.0	10.3	
2	9.115	9.115	0.000	21851798	10.0	8.88	
						RPD = 14.74	
41 Endrin aldehyde							
1	8.460	8.460	0.000	17858333	10.0	10.5	
2	9.255	9.255	0.000	30106595	10.0	9.71	
						RPD = 8.11	
30 Methoxychlor							a
1	8.589	8.589	0.000	7921923	10.0	10.4	
2	9.668	9.668	0.000	11492477	10.0	9.57	a
						RPD = 8.71	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	20111441	10.0	10.4	
2	9.478	9.478	0.000	34202396	10.0	9.62	a
						RPD = 8.07	
43 Endrin ketone							
1	9.026	9.026	0.000	20126934	10.0	10.5	
2	9.953	9.953	0.000	31300102	10.0	9.56	
						RPD = 9.25	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.830	0.000	19671800	10.0	10.2	
2	11.000	11.000	0.000	37634046	10.0	9.71	
						RPD = 4.77	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:41 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a037.D

Injection Date: 27-Feb-2019 22:58:07 Instrument ID: TAC045

Lims ID: ic ocp10

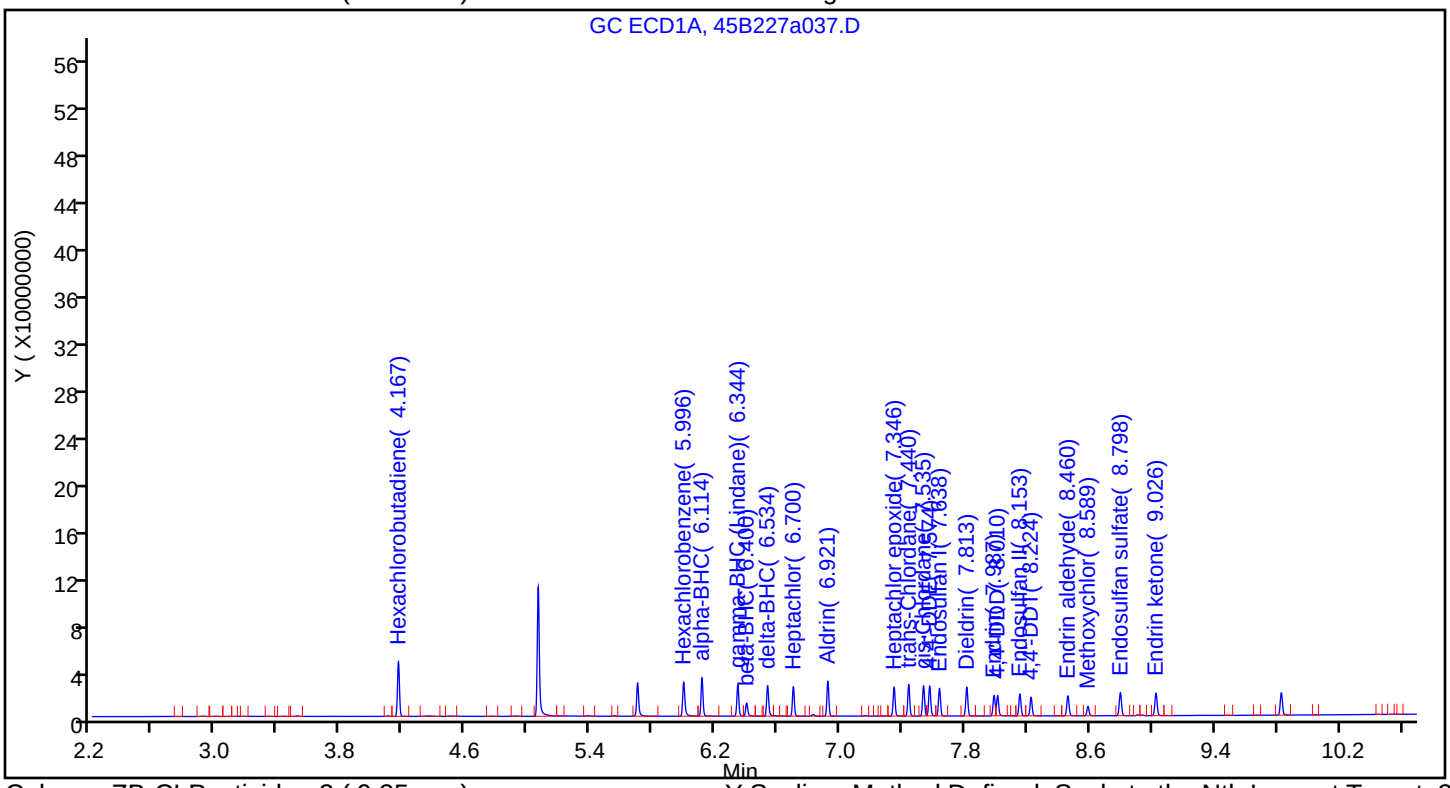
Client ID:

Operator ID: AR ALS Bottle#: 35 Worklist Smp#: 37

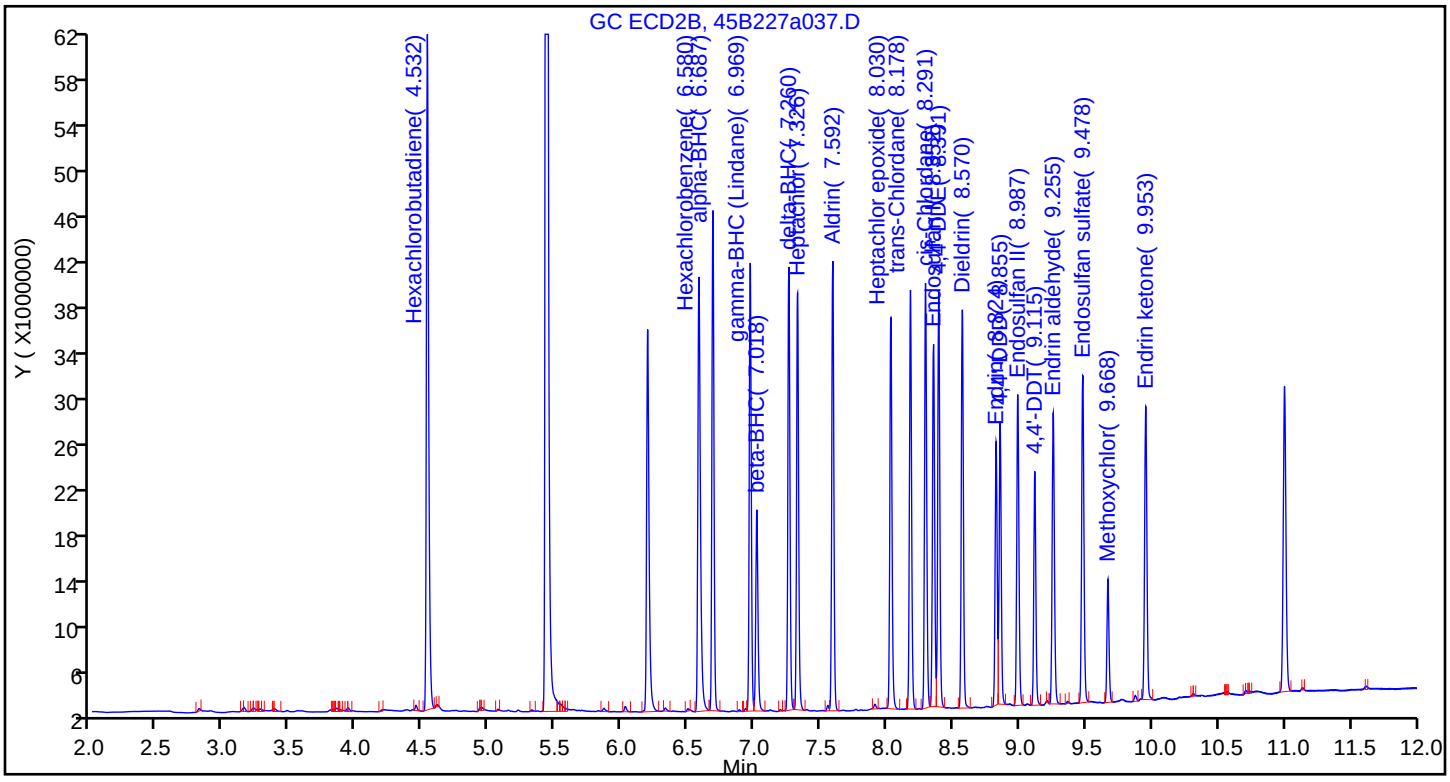
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D
Lims ID: ic ocp05
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Feb-2019 23:18:34 ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP05
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:44 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:49:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	21218058	5.00	5.27	
2	4.531	4.532	-0.001	32485585	5.00	4.41	
						RPD = 17.71	
* 3 1-Bromo-2-nitrobenzene							
1	5.063	5.064	-0.001	110682051	100.0	100.0	
2	5.431	5.430	0.001	269496975	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.701	5.701	0.000	14346095	5.04	5.40	
2	6.194	6.195	-0.001	19694620	5.04	4.44	M
						RPD = 19.67	
11 Hexachlorobenzene							
1	5.997	5.996	0.001	15484464	5.00	5.25	
2	6.581	6.580	0.001	25052213	5.00	4.69	
						RPD = 11.27	
4 alpha-BHC							
1	6.114	6.114	0.000	14092091	5.00	5.06	
2	6.685	6.687	-0.002	19931791	5.00	4.41	
						RPD = 13.75	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	12117700	5.00	5.18	
2	6.968	6.969	-0.001	17872944	5.00	4.39	
						RPD = 16.40	
7 beta-BHC							
1	6.400	6.400	0.000	5497228	5.00	5.25	
2	7.016	7.018	-0.002	9545593	5.00	4.60	
						RPD = 13.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.535	6.534	0.001	12258864	5.00	5.08	
2	7.259	7.260	-0.001	17617140	5.00	4.28	
						RPD = 17.17	
10 Heptachlor							
1	6.699	6.700	-0.001	11110752	5.00	5.26	
2	7.324	7.326	-0.002	17878695	5.00	4.46	
						RPD = 16.50	
12 Aldrin							
1	6.921	6.921	0.000	13261466	5.00	5.33	
2	7.590	7.592	-0.002	18707857	5.00	4.44	
						RPD = 18.21	
17 Heptachlor epoxide							
1	7.345	7.346	-0.001	11648873	5.00	5.45	
2	8.029	8.030	-0.001	18307629	5.00	4.60	
						RPD = 16.90	
18 trans-Chlordane							
1	7.440	7.440	0.000	12267985	5.00	5.30	
2	8.178	8.178	0.000	18657674	5.00	4.38	
						RPD = 18.97	
19 cis-Chlordane							
1	7.534	7.535	-0.001	12164259	5.00	5.27	
2	8.291	8.291	0.000	19139647	5.00	4.46	
						RPD = 16.61	
29 4,4'-DDE							
1	7.574	7.574	0.000	11839175	5.00	5.10	
2	8.391	8.391	0.000	16596634	5.00	4.24	
						RPD = 18.32	
20 Endosulfan I							
1	7.637	7.638	-0.001	11209884	5.00	5.38	
2	8.352	8.352	0.000	16299494	5.00	4.38	
						RPD = 20.60	
23 Dieldrin							
1	7.812	7.813	-0.001	11766916	5.00	5.22	
2	8.568	8.570	-0.002	16864735	5.00	4.33	
						RPD = 18.65	
37 Endrin							
1	7.987	7.987	0.000	8407270	5.00	5.26	
2	8.823	8.824	-0.001	11156887	5.00	4.26	
						RPD = 20.87	
39 4,4'-DDD							
1	8.010	8.010	0.000	8209098	5.00	5.10	
2	8.853	8.855	-0.002	11230868	5.00	4.14	
						RPD = 20.86	
24 Endosulfan II							
1	8.152	8.153	-0.001	9390347	5.00	5.38	
2	8.988	8.987	0.001	14563347	5.00	4.48	
						RPD = 18.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	7652031	5.00	5.17	
2	9.116	9.115	0.001	9831118	5.00	4.37	
						RPD = 16.87	
41 Endrin aldehyde							
1	8.460	8.460	0.000	9216281	5.00	5.41	
2	9.254	9.255	-0.001	14349075	5.00	4.60	
						RPD = 16.17	
30 Methoxychlor							a
1	8.589	8.589	0.000	4275215	5.00	5.61	
2	9.668	9.668	0.000	5677951	5.00	4.70	a
						RPD = 17.63	
33 Endosulfan sulfate							a
1	8.797	8.798	-0.001	10492682	5.00	5.41	
2	9.478	9.478	0.000	16435092	5.00	4.59	a
						RPD = 16.40	
43 Endrin ketone							
1	9.025	9.026	-0.001	10413130	5.00	5.40	
2	9.952	9.953	-0.001	14842238	5.00	4.50	
						RPD = 18.06	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.830	0.000	10553825	5.02	5.44	
2	10.999	11.000	-0.001	20128121	5.02	5.16	
						RPD = 5.21	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:45 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D

Injection Date: 27-Feb-2019 23:18:34 Instrument ID: TAC045

Lims ID: ic ocp05

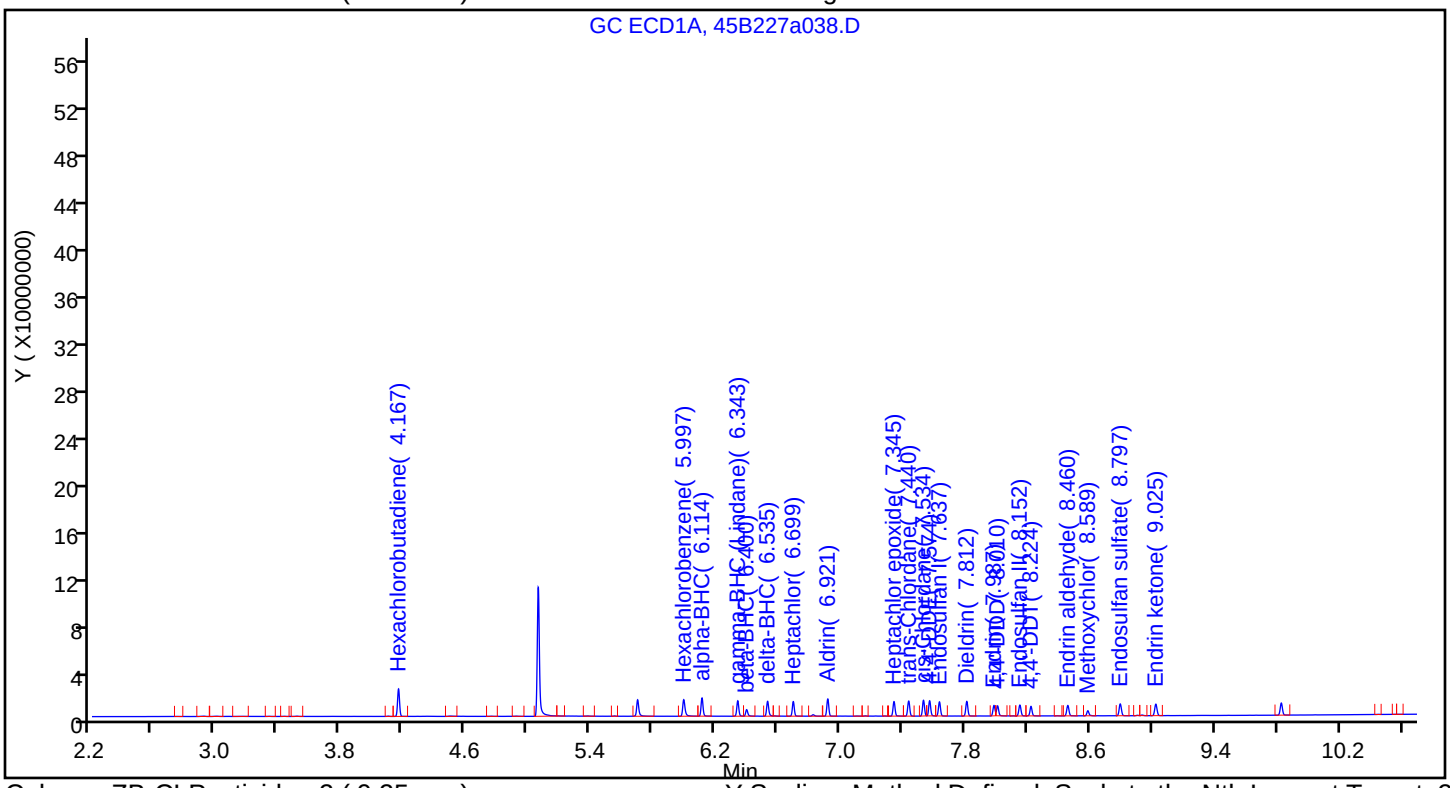
Client ID:

Operator ID: AR ALS Bottle#: 36 Worklist Smp#: 38

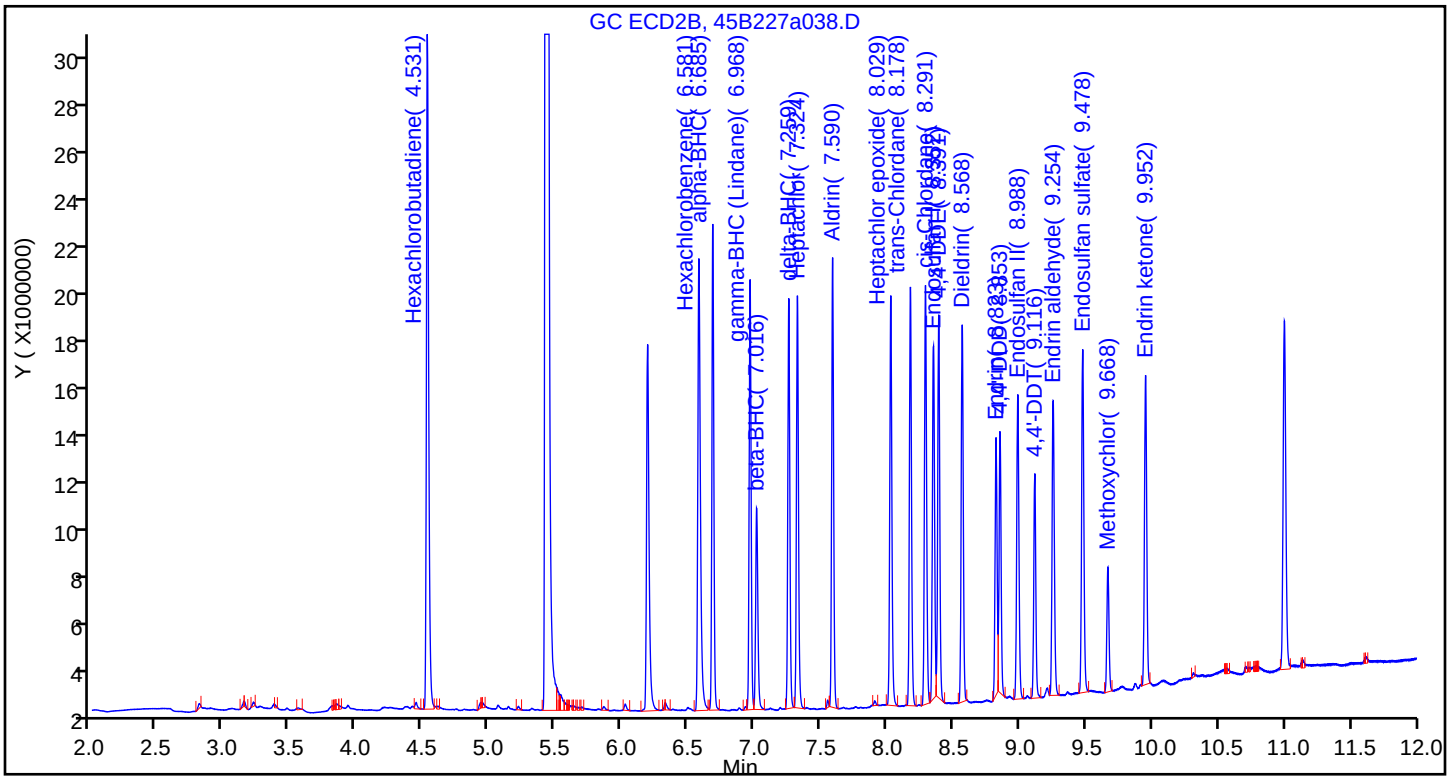
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D
Lims ID: ic ocp02
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Feb-2019 23:39:40 ALS Bottle#: 37 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP02
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:49 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:48:41

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
	1 Hexachlorobutadiene							
	1	4.167	4.167	0.000	9108219	2.00	2.20	
	2	4.532	4.532	0.000	12303630	2.00	1.63	
							RPD = 30.15	
*	3 1-Bromo-2-nitrobenzene							
	1	5.064	5.064	0.000	113499568	100.0	100.0	
	2	5.432	5.430	0.002	276654832	100.0	100.0	
							RPD = 0.00	
$	9 Tetrachloro-m-xylene							M
	1	5.702	5.701	0.001	5945934	2.01	2.18	M
	2	6.194	6.195	-0.001	7560805	2.01	1.66	M
							RPD = 27.33	
	11 Hexachlorobenzene							
	1	5.999	5.996	0.003	6939703	2.00	2.29	
	2	6.583	6.580	0.003	10360888	2.00	1.89	
							RPD = 19.36	
	4 alpha-BHC							
	1	6.114	6.114	0.000	5976157	2.00	2.09	
	2	6.685	6.687	-0.002	6698833	2.00	1.94	
							RPD = 7.74	
	6 gamma-BHC (Lindane)							
	1	6.344	6.344	0.000	5202894	2.00	2.17	
	2	6.968	6.969	-0.001	6128832	2.00	1.95	
							RPD = 10.87	
	7 beta-BHC							
	1	6.403	6.400	0.003	2565027	2.00	2.39	
	2	7.018	7.018	0.000	3731505	2.00	1.75	
							RPD = 30.79	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.536	6.534	0.002	5256368	2.00	2.12	
2	7.259	7.260	-0.001	6001052	2.00	1.91	
						RPD = 10.67	
10 Heptachlor							
1	6.700	6.700	0.000	4813158	2.00	2.22	
2	7.325	7.326	-0.001	6893000	2.00	1.67	
						RPD = 28.11	
12 Aldrin							
1	6.922	6.921	0.001	5690808	2.00	2.23	
2	7.590	7.592	-0.002	6613313	2.00	1.91	
						RPD = 15.32	
17 Heptachlor epoxide							
1	7.346	7.346	0.000	5050096	2.00	2.31	
2	8.029	8.030	-0.001	7254745	2.00	1.78	
						RPD = 25.89	
18 trans-Chlordane							
1	7.440	7.440	0.000	5290269	2.00	2.23	
2	8.179	8.178	0.001	7274756	2.00	1.66	
						RPD = 29.00	
19 cis-Chlordane							
1	7.536	7.535	0.001	5364346	2.00	2.27	
2	8.292	8.291	0.001	7657735	2.00	1.74	
						RPD = 26.34	
29 4,4'-DDE							
1	7.575	7.574	0.001	5151789	2.00	2.16	
2	8.391	8.391	0.000	5736217	2.00	1.91	
						RPD = 12.61	
20 Endosulfan I							
1	7.637	7.638	-0.001	4960273	2.00	2.32	
2	8.350	8.352	-0.002	6689999	2.00	1.75	
						RPD = 28.11	
23 Dieldrin							
1	7.814	7.813	0.001	5095253	2.00	2.21	
2	8.569	8.570	-0.001	6148715	2.00	1.54	
						RPD = 35.63	
37 Endrin							
1	7.988	7.987	0.001	3753269	2.00	2.29	
2	8.824	8.824	0.000	4411117	2.00	1.64	
						RPD = 32.89	
39 4,4'-DDD							
1	8.011	8.010	0.001	3691713	2.00	2.24	
2	8.855	8.855	0.000	4095310	2.00	1.91	
						RPD = 15.86	
24 Endosulfan II							
1	8.154	8.153	0.001	4173507	2.00	2.33	
2	8.989	8.987	0.002	5798249	2.00	1.74	
						RPD = 29.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	3291423	2.00	2.17	
2	9.115	9.115	0.000	3538071	2.00	1.99	
						RPD = 8.80	
41 Endrin aldehyde							
1	8.461	8.460	0.001	4119961	2.00	2.36	
2	9.255	9.255	0.000	5773275	2.00	1.80	
						RPD = 26.69	
30 Methoxychlor							a
1	8.590	8.589	0.001	1901975	2.00	2.43	
2	9.669	9.668	0.001	2169183	2.00	1.75	a
						RPD = 32.72	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	4615247	2.00	2.32	
2	9.478	9.478	0.000	6530379	2.00	1.78	a
						RPD = 26.55	
43 Endrin ketone							
1	9.026	9.026	0.000	4594046	2.00	2.32	
2	9.954	9.953	0.001	5958355	2.00	1.76	
						RPD = 27.48	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	4657750	2.01	2.34	
2	11.000	11.000	0.000	8735832	2.01	2.18	
						RPD = 6.99	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:50 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D

Injection Date: 27-Feb-2019 23:39:40 Instrument ID: TAC045

Lims ID: ic ocp02

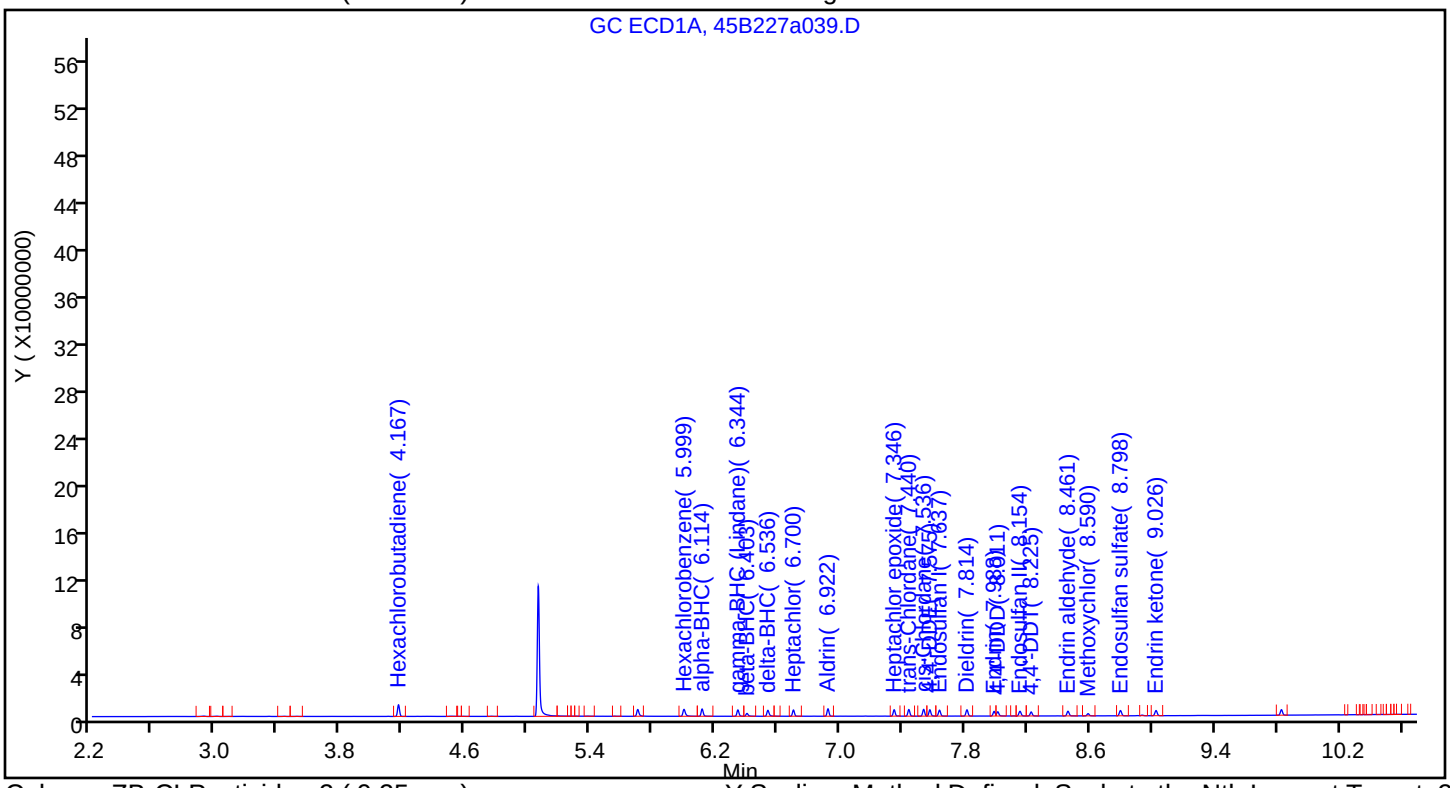
Client ID:

Operator ID: AR ALS Bottle#: 37 Worklist Smp#: 39

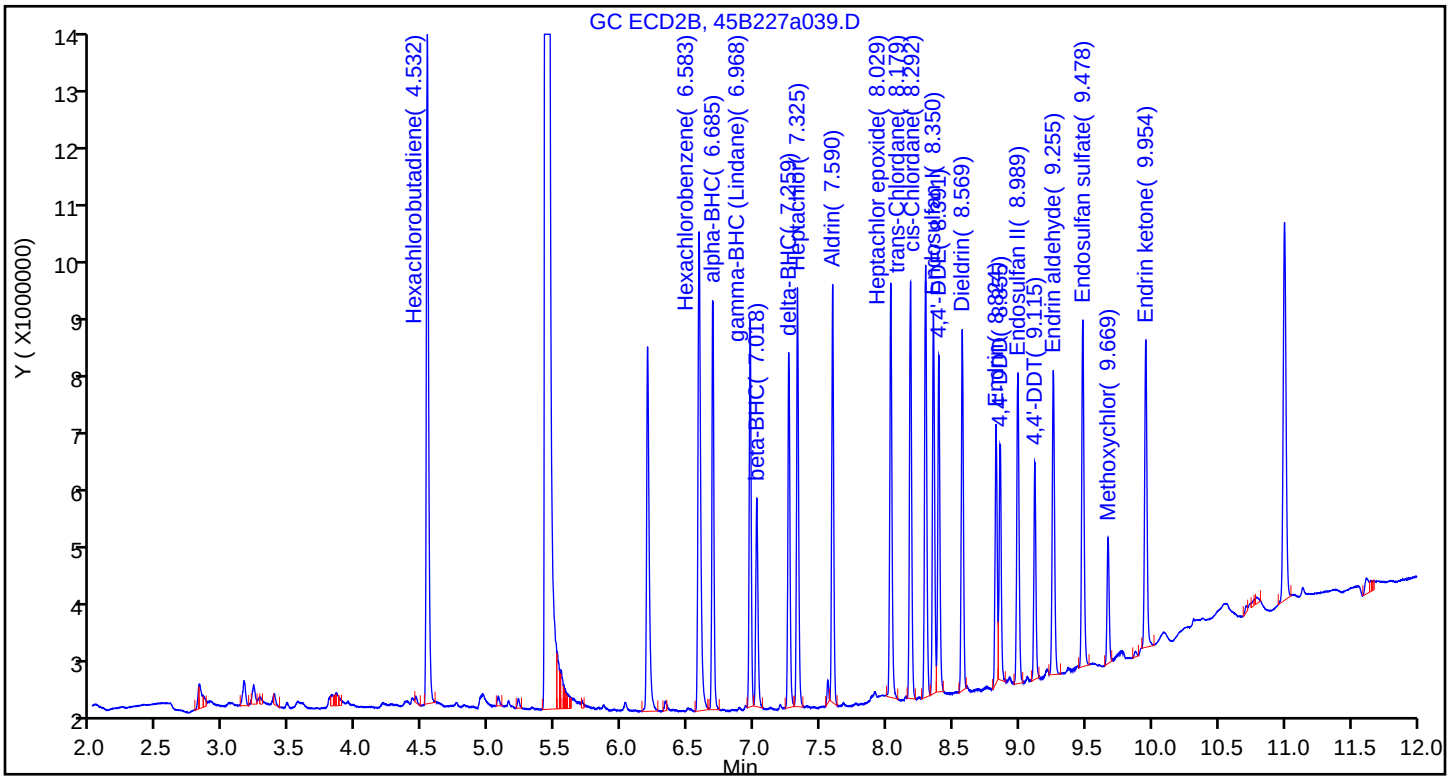
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

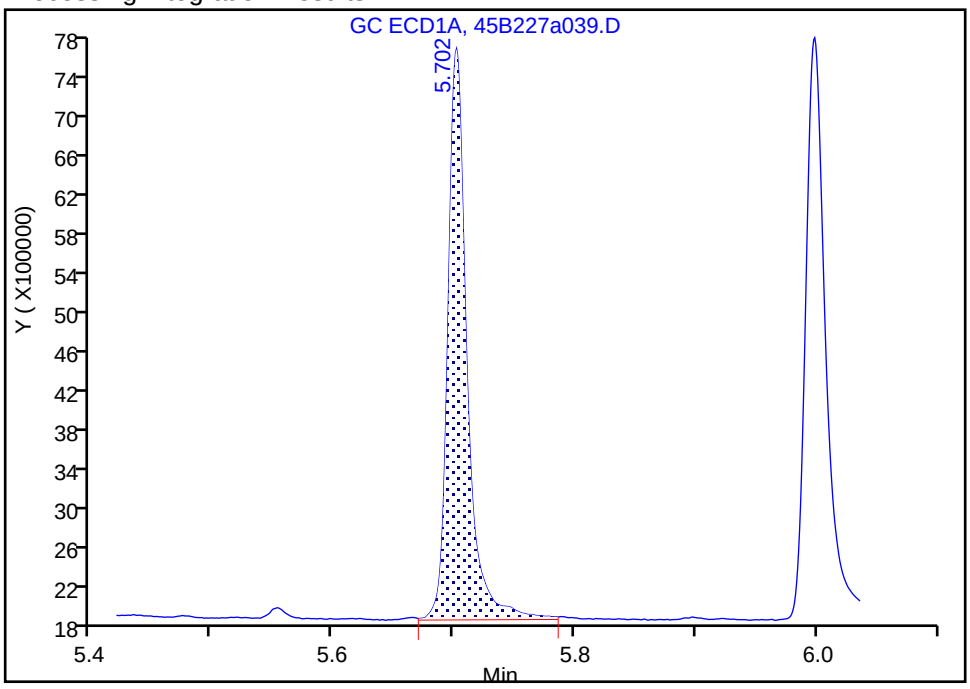
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D				
Injection Date:	27-Feb-2019 23:39:40	Instrument ID:	TAC045		
Lims ID:	ic ocp02				
Client ID:					
Operator ID:	AR	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

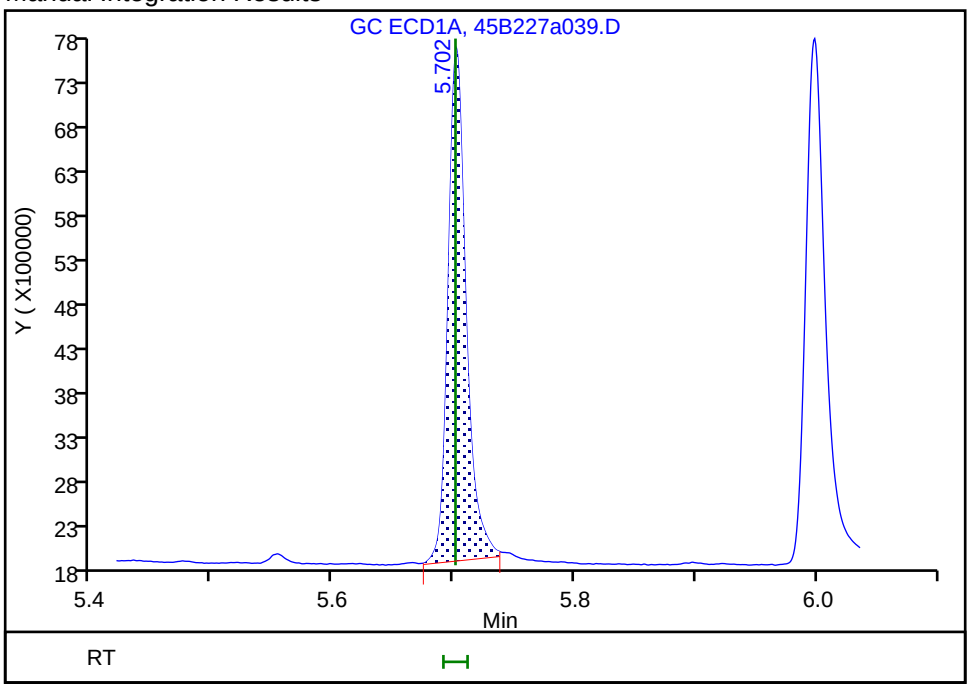
Processing Integration Results

RT: 5.70
Area: 6330285
Amount: 2.306809
Amount Units: ug/L



Manual Integration Results

RT: 5.70
Area: 5945934
Amount: 2.183621
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 15:48:24

Audit Action: Manually Integrated Audit Reason: Peak Tail

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D
Lims ID: ic ocp1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Feb-2019 23:59:58 ALS Bottle#: 38 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP1
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:53 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:48:06

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	4527674	1.00	1.09	
2	4.532	4.532	0.000	5555771	1.00	0.7225	
						RPD = 40.25	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	114450408	100.0	100.0	
2	5.431	5.430	0.001	281245360	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.702	5.701	0.001	3142147	1.01	1.14	M
2	6.195	6.195	0.000	3644814	1.01	0.7865	M
						RPD = 37.07	
11 Hexachlorobenzene							
1	5.999	5.996	0.003	3570793	1.00	1.17	
2	6.582	6.580	0.002	4976229	1.00	0.8922	
						RPD = 26.96	
4 alpha-BHC							
1	6.115	6.114	0.001	2924358	1.00	1.02	
2	6.685	6.687	-0.002	2674984	1.00	1.20	
						RPD = 17.02	
6 gamma-BHC (Lindane)							
1	6.344	6.344	0.000	2577749	1.00	1.07	
2	6.967	6.969	-0.002	2631484	1.00	1.23	
						RPD = 14.69	
7 beta-BHC							
1	6.401	6.400	0.001	1313812	1.00	1.21	
2	7.019	7.018	0.001	1898164	1.00	0.8767	
						RPD = 32.26	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.535	6.534	0.001	2675590	1.00	1.07	
2	7.261	7.260	0.001	2766014	1.00	1.27	
						RPD = 16.51	
10 Heptachlor							
1	6.700	6.700	0.000	2435286	1.00	1.11	
2	7.326	7.326	0.000	3273161	1.00	0.7818	
						RPD = 35.09	
12 Aldrin							
1	6.920	6.921	-0.001	2842683	1.00	1.10	
2	7.589	7.592	-0.003	3077706	1.00	1.19	
						RPD = 7.61	
17 Heptachlor epoxide							
1	7.346	7.346	0.000	2539414	1.00	1.15	
2	8.029	8.030	-0.001	3631941	1.00	0.8752	
						RPD = 27.12	
18 trans-Chlordane							
1	7.440	7.440	0.000	2809588	1.00	1.17	
2	8.178	8.178	0.000	3523206	1.00	0.7922	
						RPD = 38.74	
19 cis-Chlordane							
1	7.535	7.535	0.000	2747609	1.00	1.15	
2	8.291	8.291	0.000	3649047	1.00	0.8147	
						RPD = 34.18	
29 4,4'-DDE							
1	7.574	7.574	0.000	2534630	1.00	1.06	
2	8.391	8.391	0.000	2815862	1.00	1.29	
						RPD = 20.21	
20 Endosulfan I							
1	7.637	7.638	-0.001	2476728	1.00	1.15	
2	8.351	8.352	-0.001	3157041	1.00	0.8122	
						RPD = 34.41	
23 Dieldrin							
1	7.813	7.813	0.000	2623688	1.00	1.13	
2	8.568	8.570	-0.002	2852246	1.00	0.7019	
						RPD = 46.40	
37 Endrin							
1	7.988	7.987	0.001	1898593	1.00	1.15	
2	8.824	8.824	0.000	2162779	1.00	0.7922	
						RPD = 36.71	
39 4,4'-DDD							
1	8.010	8.010	0.000	1814734	1.00	1.09	
2	8.853	8.855	-0.002	2055772	1.00	1.29	
						RPD = 16.44	
24 Endosulfan II							
1	8.153	8.153	0.000	2206931	1.00	1.22	
2	8.987	8.987	0.000	2838612	1.00	0.8372	
						RPD = 37.41	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	1656617	1.00	1.08	
2	9.116	9.115	0.001	1638663	1.00	1.29	
						RPD = 17.11	
41 Endrin aldehyde							
1	8.460	8.460	0.000	2065951	1.00	1.17	
2	9.255	9.255	0.000	2879628	1.00	0.8841	
						RPD = 28.01	
30 Methoxychlor							a
1	8.589	8.589	0.000	959443	1.00	1.22	
2	9.667	9.668	-0.001	1135321	1.00	0.9004	a
						RPD = 29.92	
33 Endosulfan sulfate							a
1	8.797	8.798	-0.001	2492718	1.00	1.24	
2	9.477	9.478	-0.001	3491559	1.00	0.9348	a
						RPD = 28.34	
43 Endrin ketone							
1	9.026	9.026	0.000	2358579	1.00	1.18	
2	9.952	9.953	-0.001	3097276	1.00	0.9005	
						RPD = 27.06	
$ 45 DCB Decachlorobiphenyl							
1	9.829	9.830	-0.001	2509122	1.00	1.25	
2	11.000	11.000	0.000	4963046	1.00	1.22	
						RPD = 2.49	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:54 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Injection Date: 27-Feb-2019 23:59:58 Instrument ID: TAC045

Lims ID: ic ocp1

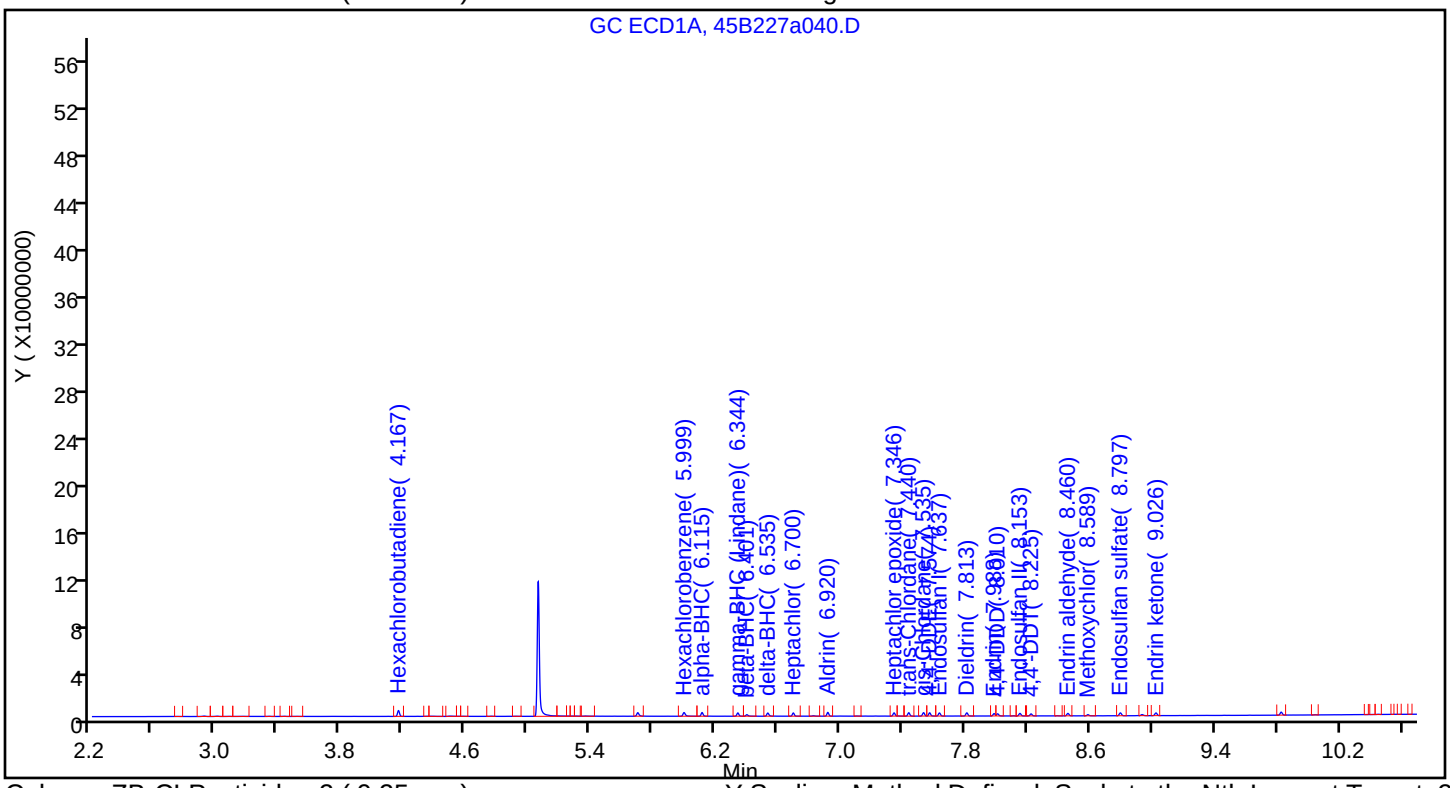
Client ID:

Operator ID: AR ALS Bottle#: 38 Worklist Smp#: 40

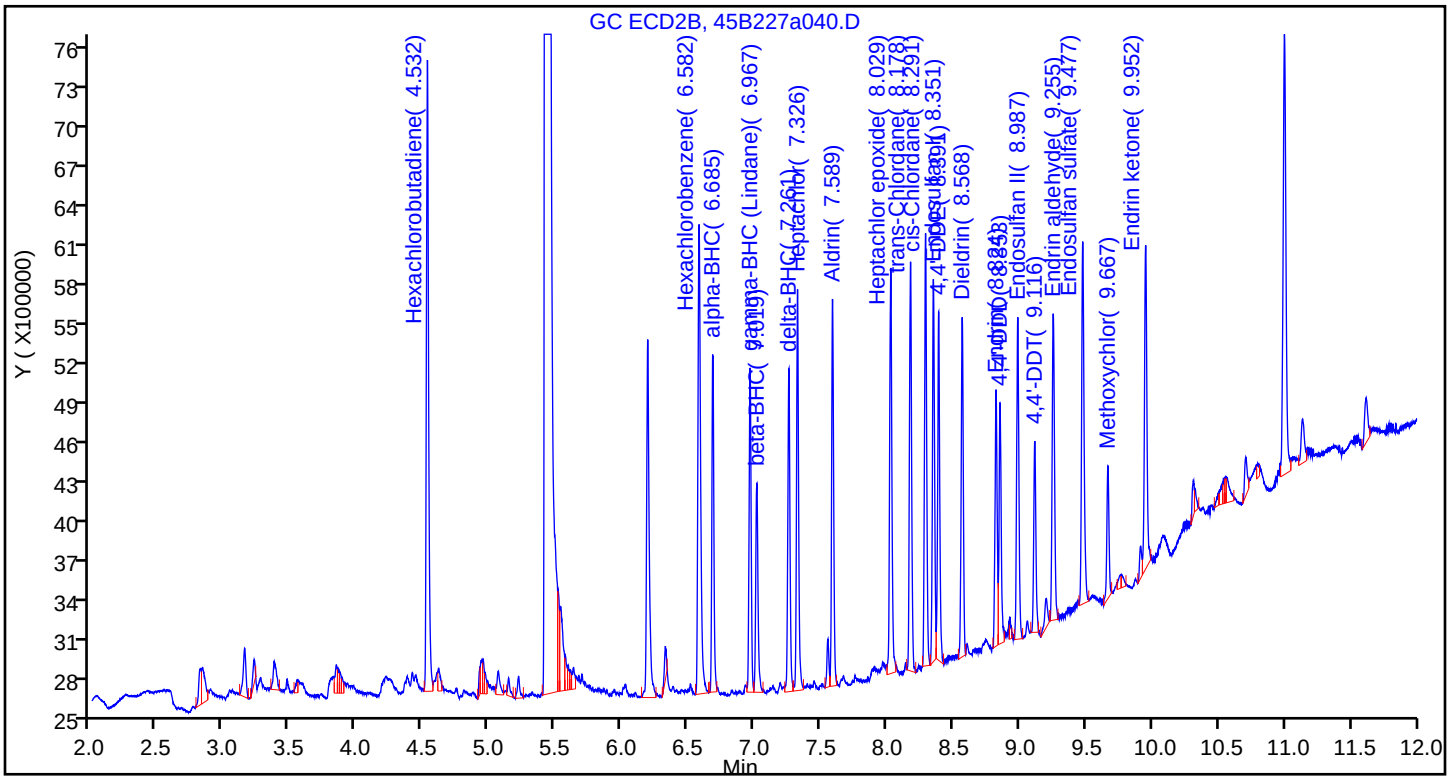
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

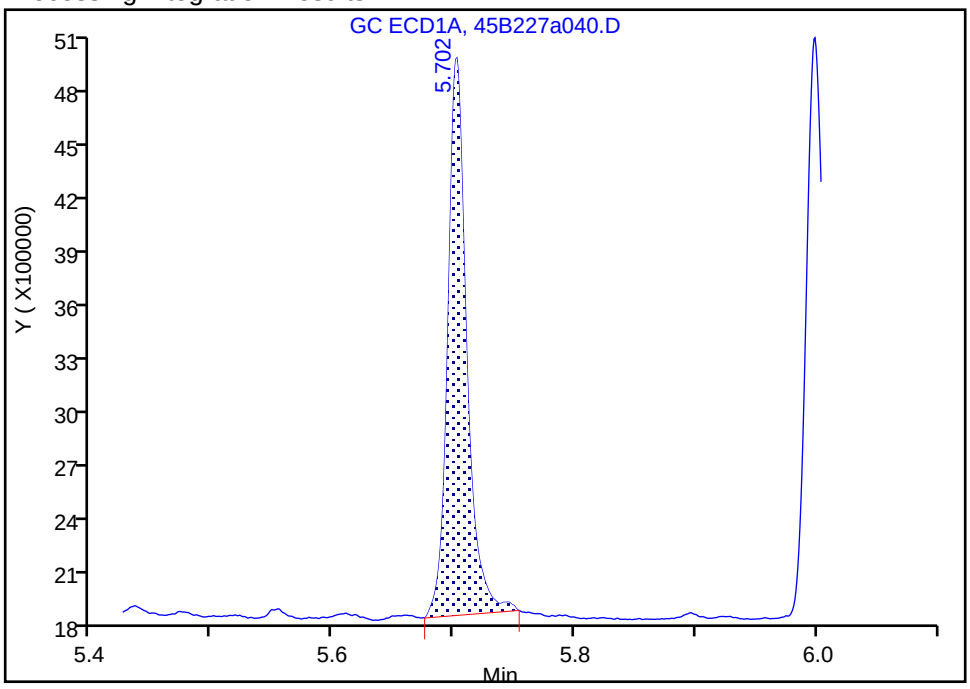
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Injection Date:	27-Feb-2019 23:59:58	Instrument ID:	TAC045		
Lims ID:	ic ocp1				
Client ID:					
Operator ID:	AR	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

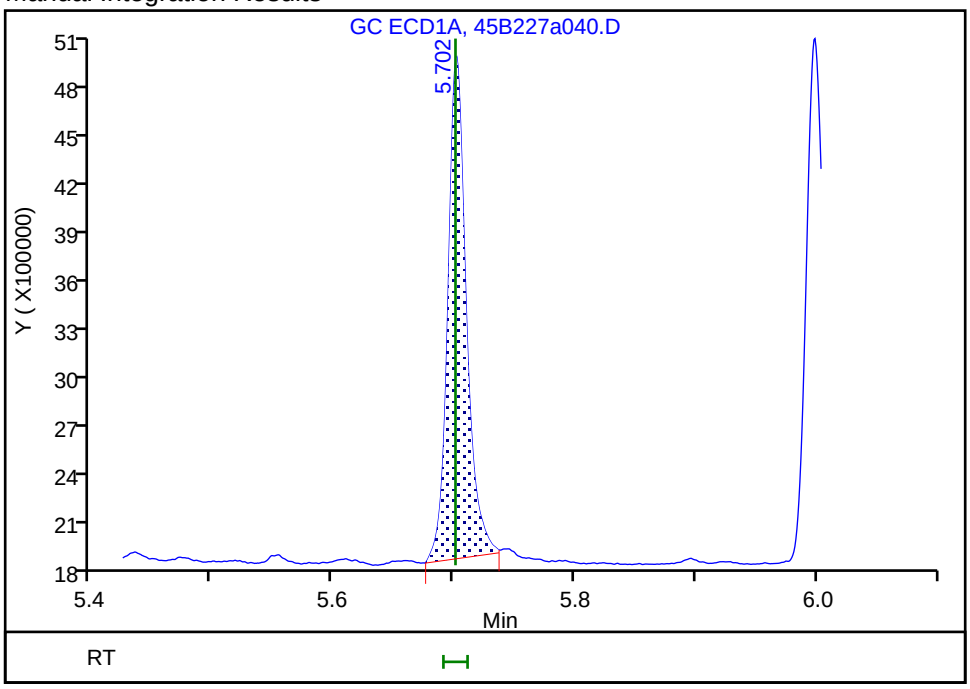
Processing Integration Results

RT: 5.70
Area: 3231260
Amount: 0.779544
Amount Units: ug/L



Manual Integration Results

RT: 5.70
Area: 3142147
Amount: 1.144354
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 15:47:59

Audit Action: Manually Integrated Audit Reason: Peak Tail

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27491

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/40	45B227a040.D
Level 2	IC 580-295252/39	45B227a039.D
Level 3	IC 580-295252/38	45B227a038.D
Level 4	IC 580-295252/37	45B227a037.D
Level 5	IC 580-295252/36	45B227a036.D
Level 6	ICIS 580-295252/35	45B227a035.D
Level 7	IC 580-295252/34	45B227a034.D
Level 8	IC 580-295252/33	45B227a033.D
Level 9	IC 580-295252/32	45B227a032.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene	1.9754 2.8612	2.2236 3.0465	2.4108 3.1006	2.5997 3.4981	2.8916	Ave		2.7342				17.4		20.0			
Hexachlorobenzene	1.7694 1.9907	1.8725 2.0507	1.8592 2.0603	1.9131 2.3024	2.0293	Ave		1.9831				7.8		20.0			
alpha-BHC	0.9511 2.0451	1.2107 2.1545	1.4792 2.2332	1.7333 2.4935	1.9599	Qua1	-1.464	2.0034	0.0012346			10.1			1.0000		0.9900
gamma-BHC (Lindane)	0.9357 1.7862	1.1077 1.9127	1.3264 1.9607	1.5423 2.1141	1.7260	Qua1	-1.285	1.7983	0.0008075			11.3			1.0000		0.9900
beta-BHC	0.6749 0.7859	0.6744 0.8056	0.7084 0.8194	0.7529 0.9259	0.7808	Ave		0.7698				10.3		20.0			
delta-BHC	0.9835 1.8658	1.0846 1.9797	1.3074 2.0358	1.5708 2.2525	1.7732	Qua1	-1.344	1.8385	0.0010473			12.9			1.0000		0.9900
Heptachlor	1.1638 1.5820	1.2458 1.6419	1.3268 1.6487	1.4626 1.7735	1.5518	Ave		1.4886				13.7		20.0			
Aldrin	1.0943 1.7938	1.1952 1.9028	1.3884 1.9385	1.5994 2.1049	1.8072	Qua1	-1.048	1.7975	0.0007748			9.6			1.0000		0.9900
Heptachlor epoxide	1.2914 1.5226	1.3112 1.4975	1.3587 1.5977	1.4422 1.7086	1.5493	Ave		1.4755				9.4		20.0			
trans-Chlordane	1.2527 1.6578	1.3148 1.7360	1.3846 1.7887	1.5036 1.9548	1.6397	Ave		1.5814				14.8		20.0			
cis-Chlordane	1.2975 1.6525	1.3840 1.7176	1.4204 1.7502	1.5321 1.9067	1.6720	Ave		1.5925				12.4		20.0			
Endosulfan I	1.1225 1.4562	1.2091 1.4980	1.2096 1.5096	1.3422 1.6163	1.4754	Ave		1.3821				12.2		20.0			
4,4'-DDE	1.0012 1.7179	1.0367 1.8125	1.2317 1.9336	1.4609 2.0452	1.7155	Qua1	-1.255	1.7430	0.0007867			14.2			1.0000		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27491

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dieldrin	1.0141 1.5485	1.1113 1.6153	1.2516 1.6468	1.4388 1.7883	1.5890	Ave		1.4449				18.2		20.0			
Endrin	0.7690 1.0548	0.7972 1.1027	0.8280 1.0802	0.9283 1.1832	0.9935	Ave		0.9708				15.2		20.0			
4,4'-DDD	0.7310 1.1987	0.7401 1.2750	0.8335 1.2890	0.9999 1.3938	1.2100	Qua1	-0.816	1.2021	0.0004853			14.5			1.0000		0.9900
Endosulfan II	1.0093 1.2401	1.0479 1.2887	1.0808 1.3083	1.1551 1.4509	1.2692	Ave		1.2056				11.9		20.0			
4,4'-DDT	0.5826 0.9870	0.6394 1.0967	0.7296 1.1351	0.8160 1.2664	0.9199	Qua1	-0.692	0.9904	0.0007039			13.9			0.9990		0.9900
Endrin aldehyde	1.0239 1.1753	1.0434 1.2004	1.0649 1.2264	1.1243 1.2975	1.2672	Ave		1.1581				8.6		20.0			
Endosulfan sulfate	1.2415 1.3372	1.1802 1.3796	1.2197 1.4010	1.2772 1.5308	1.3847	Ave		1.3280				8.3		20.0			
Methoxychlor	0.4037 0.4484	0.3920 0.4804	0.4214 0.4859	0.4292 0.5295	0.4442	Ave		0.4483				9.8		20.0			
Endrin ketone	1.1013 1.2484	1.0769 1.2279	1.1015 1.3354	1.1689 1.4331	1.3134	Ave		1.2230				10.0		20.0			
Tetrachloro-m-xylene	1.2869 1.7442	1.3570 1.8251	1.4514 1.8240	1.5753 2.0211	1.7449	Ave		1.6478				14.9		20.0			
DCB Decachlorobiphenyl	1.7594 1.3198	1.5741 1.2741	1.4893 1.3170	1.4012 1.4214	1.4721	Ave		1.4476				10.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27491

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-295252/40	45B227a040.D
Level 2	IC 580-295252/39	45B227a039.D
Level 3	IC 580-295252/38	45B227a038.D
Level 4	IC 580-295252/37	45B227a037.D
Level 5	IC 580-295252/36	45B227a036.D
Level 6	ICIS 580-295252/35	45B227a035.D
Level 7	IC 580-295252/34	45B227a034.D
Level 8	IC 580-295252/33	45B227a033.D
Level 9	IC 580-295252/32	45B227a032.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Hexachlorobutadiene	BNB	Ave	5555771 369391056	12303630 795533150	32485585 1625254099	69615492 3503115758	177478752	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Hexachlorobenzene	BNB	Ave	4976229 257010964	10360888 535500023	25052213 1079963876	51229627 2305698776	124551774	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
alpha-BHC	BNB	Qua1	2674984 264027188	6698833 562607129	19931791 1170576805	46416196 2497071285	120293062	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
gamma-BHC (Lindane)	BNB	Qua1	2631484 230612426	6128832 499457676	17872944 1027753584	41301488 2117146615	105940628	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
beta-BHC	BNB	Ave	1898164 101464545	3731505 210367688	9545593 429525429	20161226 927206719	47924483	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
delta-BHC	BNB	Qua1	2766014 240884746	6001052 516952891	17617140 1067144305	42063367 2255756016	108836260	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Heptachlor	BNB	Ave	3273161 204244817	6893000 428753238	17878695 864202539	39166646 1776103242	95249054	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Aldrin	BNB	Qua1	3077706 231589104	6613313 496875108	18707857 1016125904	42828496 2107973843	110923073	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Heptachlor epoxide	BNB	Ave	3631941 196573118	7254745 391057340	18307629 837472632	38620097 1711038934	95095692	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
trans-Chlordane	BNB	Ave	3523206 214024918	7274756 453312686	18657674 937599425	40265257 1957593562	100639522	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
cis-Chlordane	BNB	Ave	3649047 213351968	7657735 448514075	19139647 917403803	41027775 1909401578	102624963	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan I	BNB	Ave	3157041 188004004	6689999 391184833	16299494 791299776	35941835 1618602395	90558922	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDE	BNB	Qua1	2815862 221795385	5736217 473289418	16596634 1013548223	39120412 2048119388	105296614	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Dieldrin	BNB	Ave	2852246 199925172	6148715 421807375	16864735 863196911	38528763 1790859510	97530289	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 295252

SDG No.:

Instrument ID: TAC045 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/27/2019 21:12 Calibration End Date: 02/27/2019 23:59 Calibration ID: 27491

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Endrin	BNB	Ave	2162779 136175648	4411117 287942164	11156887 566236414	24859174 1184925814	60976429	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDD	BNB	Qua1	2055772 154752460	4095310 332943783	11230868 675682675	26776921 1395797121	74265640	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan II	BNB	Ave	2838612 160105706	5798249 336512996	14563347 685794170	30931775 1452958252	77903688	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
4,4'-DDT	BNB	Qua1	1638663 127428857	3538071 286382516	9831118 594984839	21851798 1268267659	56463217	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin aldehyde	BNB	Ave	2879628 151743559	5773275 313451683	14349075 642832038	30106595 1299390655	77777465	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endosulfan sulfate	BNB	Ave	3491559 172640307	6530379 360266010	16435092 734348244	34202396 1533034467	84987385	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Methoxychlor	BNB	Ave	1135321 57895635	2169183 125460563	5677951 254684580	11492477 530310798	27266692	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Endrin ketone	BNB	Ave	3097276 161180575	5958355 320643966	14842238 699978192	31300102 1435186542	80611678	1.00 50.0	2.00 100	5.00 200	10.0 400	25.0
Tetrachloro-m-xylene	BNB	Ave	3644814 226767882	7560805 479924048	19694620 962773256	42480040 2038229857	107847906	1.01 50.4	2.01 101	5.04 201	10.1 403	25.2
DCB Decachlorobiphenyl	BNB	Ave	4963046 170902198	8735832 333717472	20128121 692400646	37634046 1427726443	90626990	1.00 50.2	2.01 100	5.02 201	10.0 401	25.1

Curve Type Legend:

Ave = Average ISTD
Qua1 = Quadratic 1/conc ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a032.D
Lims ID: ic ocp400
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 27-Feb-2019 21:12:33 ALS Bottle#: 30 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP400
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:18 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:51:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.169	4.167	0.002	1341647991	400.0	362.7	
2	4.536	4.532	0.004	3503115758	400.0	511.8	
						RPD = 34.10	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	101600530	100.0	100.0	
2	5.431	5.433	-0.002	250360734	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	865216433	402.8	355.0	
2	6.195	6.195	0.000	2038229857	402.8	494.1	
						RPD = 32.77	
11 Hexachlorobenzene							
1	5.996	5.996	0.000	950547108	400.0	350.9	
2	6.582	6.580	0.002	2305698776	400.0	464.4	
						RPD = 27.84	
4 alpha-BHC							
1	6.115	6.114	0.001	967561542	400.0	378.6	
2	6.688	6.687	0.001	2497071285	400.0	400.0	
						RPD = 5.49	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	813721355	400.0	378.9	
2	6.969	6.969	0.000	2117146615	400.0	399.3	
						RPD = 5.26	
7 beta-BHC							
1	6.398	6.400	-0.002	315330677	400.0	328.2	
2	7.017	7.018	-0.001	927206719	400.0	481.1	
						RPD = 37.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	839277688	400.0	378.8	
2	7.261	7.260	0.001	2255756016	400.0	399.8	
						RPD = 5.38	
10 Heptachlor							
1	6.700	6.700	0.000	702301045	400.0	362.1	
2	7.327	7.326	0.001	1776103242	400.0	476.6	
						RPD = 27.31	
12 Aldrin							
1	6.923	6.921	0.002	813100943	400.0	355.7	
2	7.594	7.592	0.002	2107973843	400.0	400.0	
						RPD = 11.73	
17 Heptachlor epoxide							
1	7.347	7.346	0.001	672608268	400.0	343.1	
2	8.031	8.030	0.001	1711038934	400.0	463.2	
						RPD = 29.79	
18 trans-Chlordane							
1	7.440	7.440	0.000	751830152	400.0	353.5	
2	8.180	8.178	0.002	1957593562	400.0	494.4	
						RPD = 33.24	
19 cis-Chlordane							
1	7.536	7.535	0.001	747025608	400.0	352.4	
2	8.295	8.291	0.004	1909401578	400.0	478.9	
						RPD = 30.43	
29 4,4'-DDE							
1	7.575	7.574	0.001	792066377	400.0	371.8	
2	8.393	8.391	0.002	2048119388	400.0	398.4	
						RPD = 6.92	
20 Endosulfan I							
1	7.639	7.638	0.001	649726653	400.0	339.7	
2	8.354	8.352	0.002	1618602395	400.0	467.8	
						RPD = 31.71	
23 Dieldrin							
1	7.815	7.813	0.002	735376973	400.0	355.5	
2	8.571	8.570	0.001	1790859510	400.0	495.1	
						RPD = 32.81	
37 Endrin							
1	7.988	7.987	0.001	554621594	400.0	377.9	
2	8.825	8.824	0.001	1184925814	400.0	487.5	
						RPD = 25.34	
39 4,4'-DDD							
1	8.010	8.010	0.000	522973551	400.0	354.2	
2	8.856	8.855	0.001	1395797121	400.0	399.9	
						RPD = 12.13	
24 Endosulfan II							
1	8.154	8.153	0.001	533722407	400.0	333.0	
2	8.990	8.987	0.003	1452958252	400.0	481.4	
						RPD = 36.43	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	514238719	400.0	378.7	
2	9.118	9.115	0.003	1268267659	400.0	399.0	
						RPD = 5.22	
41 Endrin aldehyde							
1	8.462	8.460	0.002	527709328	400.0	337.2	
2	9.256	9.255	0.001	1299390655	400.0	448.1	
						RPD = 28.24	
30 Methoxychlor							a
1	8.589	8.589	0.000	236769352	400.0	338.4	
2	9.670	9.668	0.002	530310798	400.0	472.5	a
						RPD = 33.08	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	602953070	400.0	338.8	
2	9.480	9.478	0.002	1533034467	400.0	461.1	a
						RPD = 30.57	
43 Endrin ketone							
1	9.027	9.026	0.001	604826304	400.0	341.5	
2	9.956	9.953	0.003	1435186542	400.0	468.7	
						RPD = 31.40	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	618432794	401.2	347.0	
2	11.001	11.000	0.001	1427726443	401.2	393.9	
						RPD = 12.68	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:20 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a032.D

Injection Date: 27-Feb-2019 21:12:33 Instrument ID: TAC045

Lims ID: ic ocp400

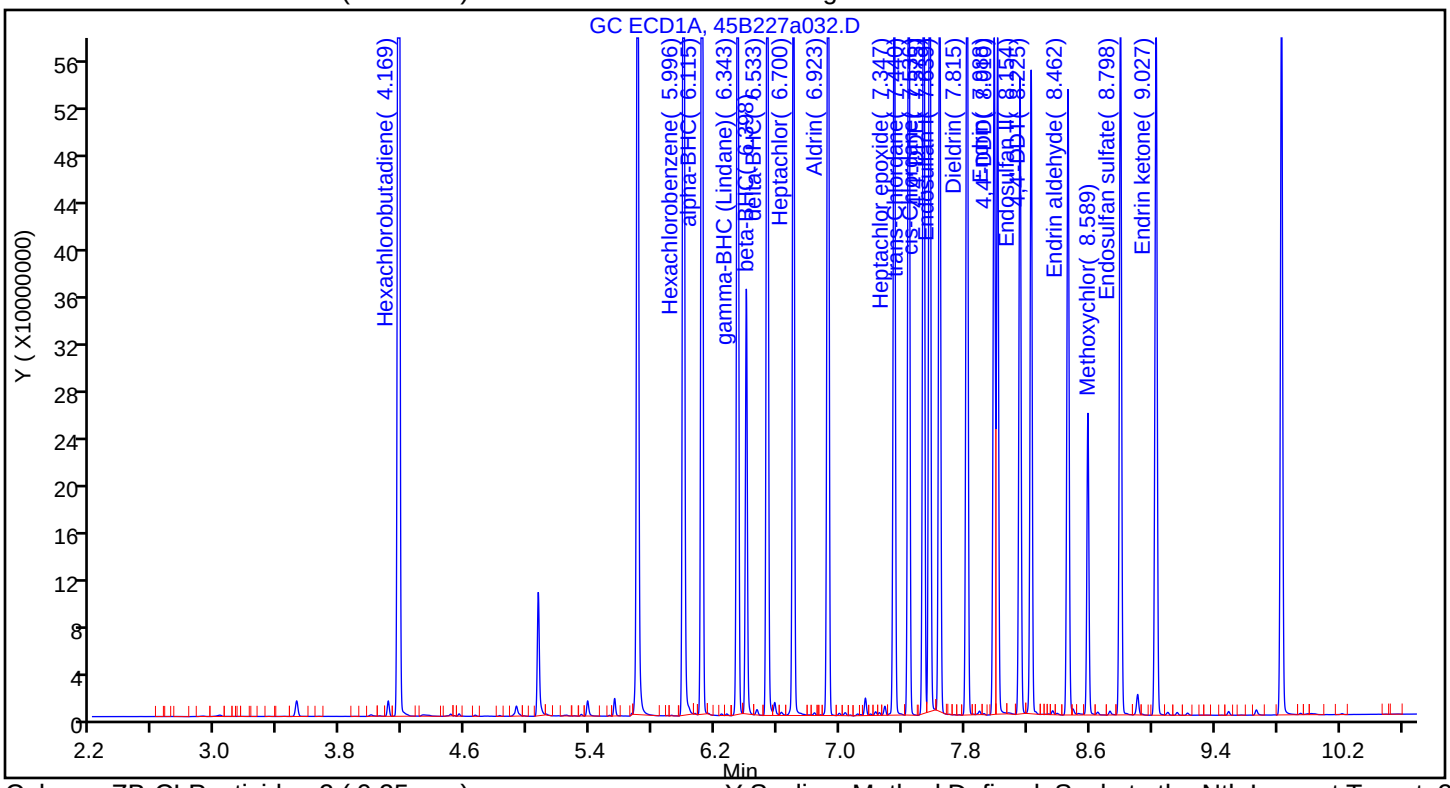
Client ID:

Operator ID: AR ALS Bottle#: 30 Worklist Smp#: 32

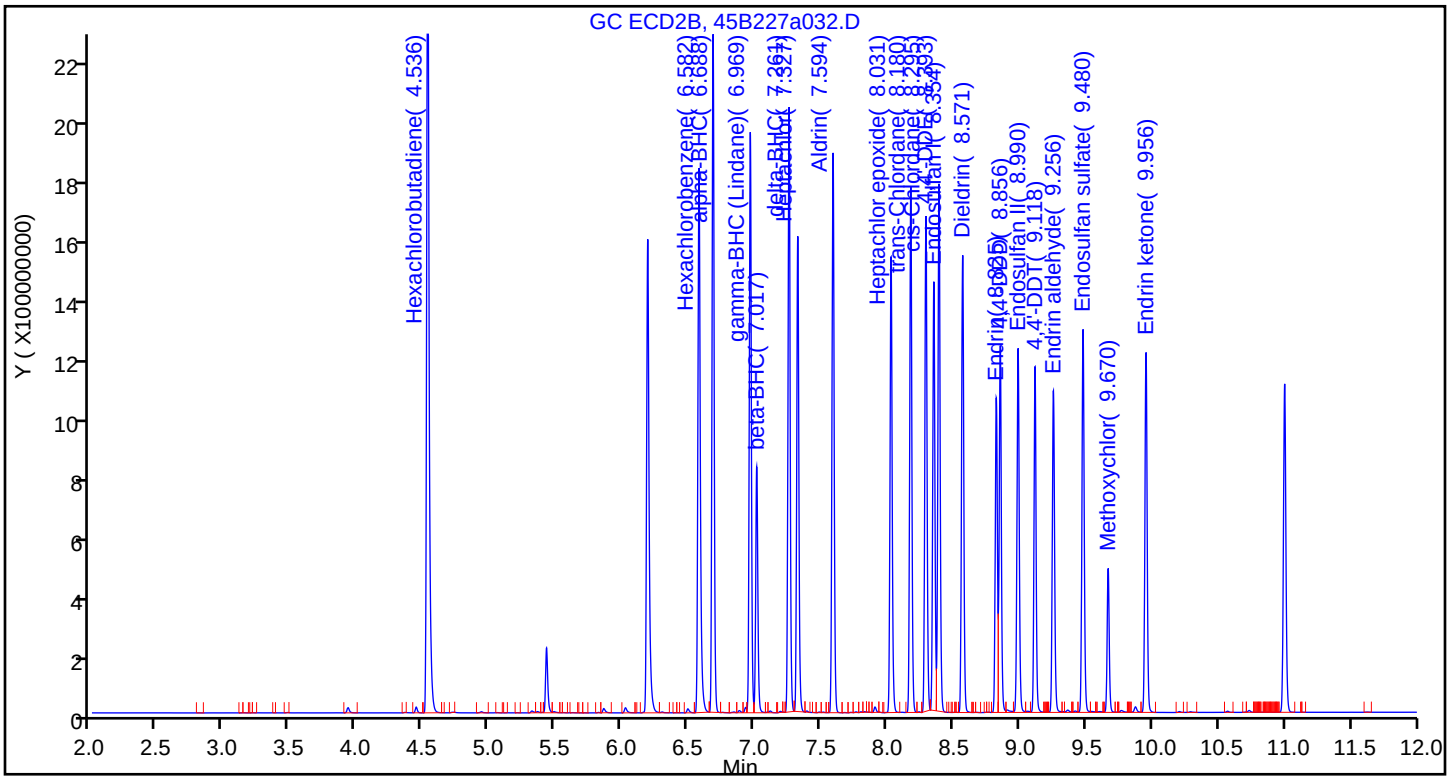
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

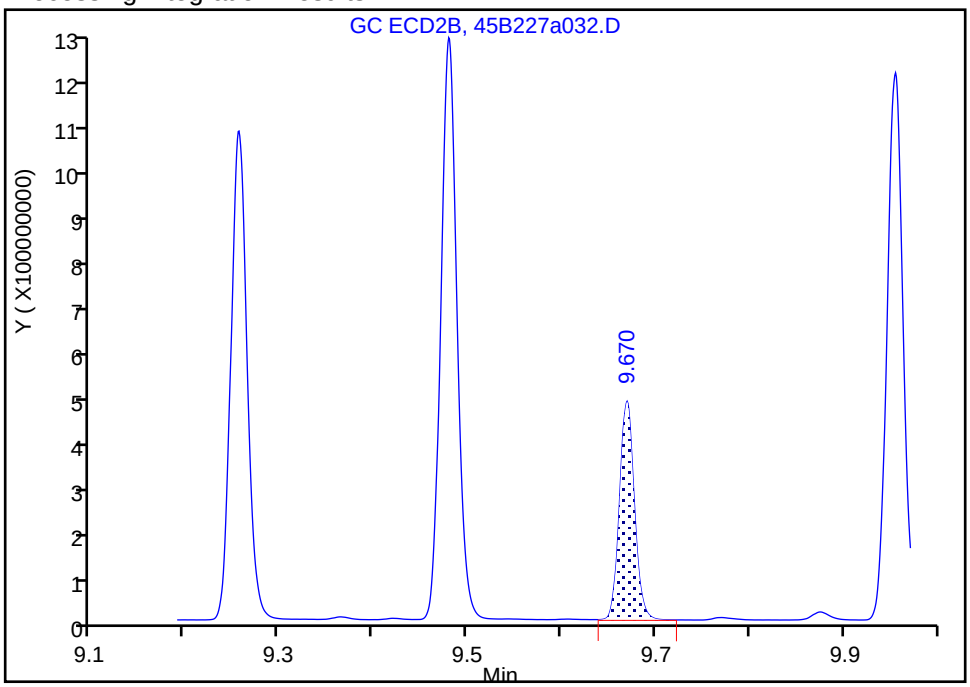
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a032.D				
Injection Date:	27-Feb-2019 21:12:33	Instrument ID:	TAC045		
Lims ID:	ic ocp400				
Client ID:					
Operator ID:	AR	ALS Bottle#:	30	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

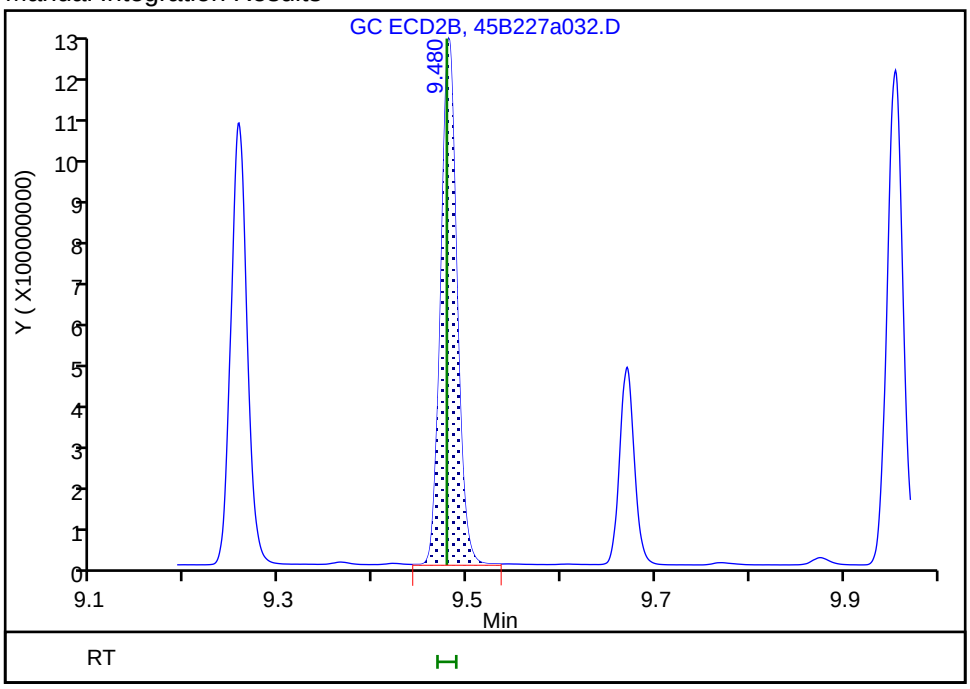
Processing Integration Results

RT: 9.67
Area: 530310798
Amount: 387.1921
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 1533034467
Amount: 461.0962
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:12:56
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

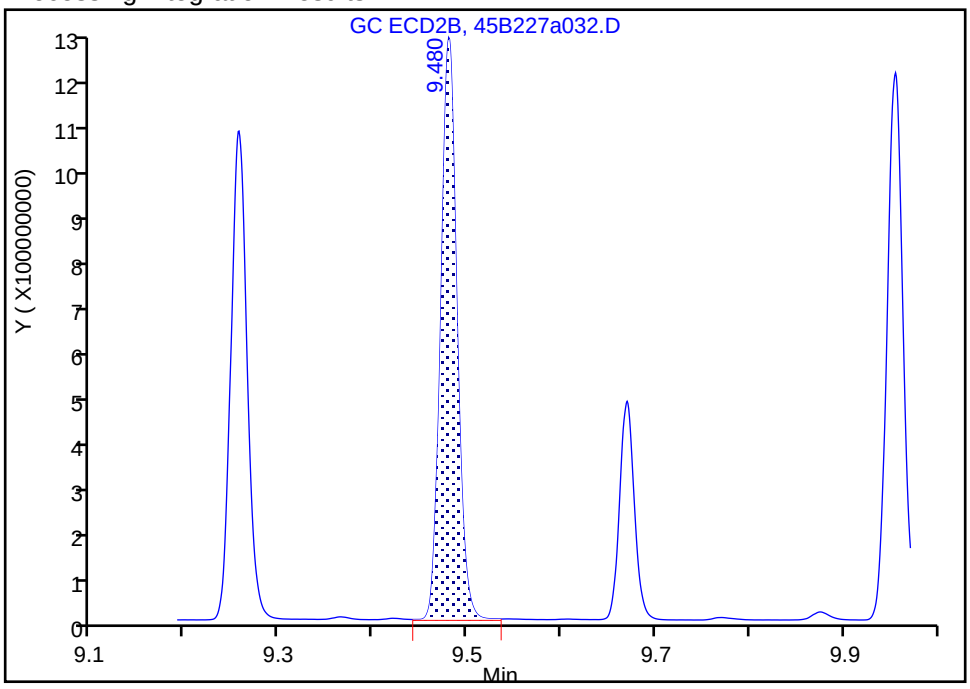
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a032.D
Injection Date: 27-Feb-2019 21:12:33 Instrument ID: TAC045
Lims ID: ic ocp400
Client ID:
Operator ID: AR ALS Bottle#: 30 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

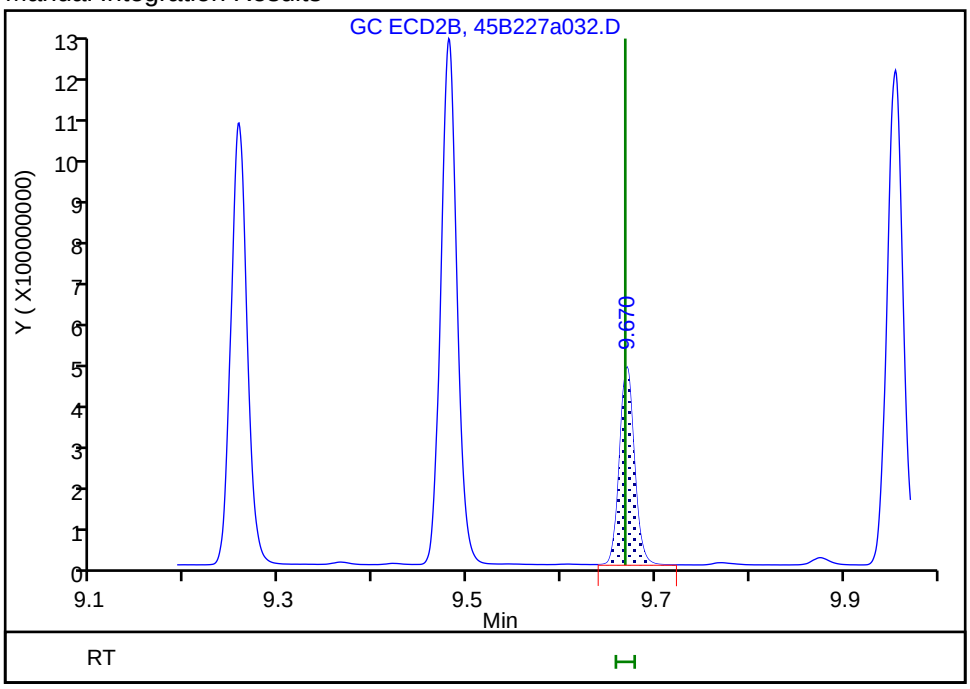
Processing Integration Results

RT: 9.48
Area: 1533034467
Amount: 498.1388
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 530310798
Amount: 472.4809
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:12:52
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a033.D
Lims ID: ic ocp200
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Feb-2019 21:34:08 ALS Bottle#: 31 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP200
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:23 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:13:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.169	4.167	0.002	690234000	200.0	178.0	
2	4.534	4.532	0.002	1625254099	200.0	226.8	
						RPD = 24.14	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	106529280	100.0	100.0	
2	5.431	5.433	-0.002	262089130	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	448656470	201.4	175.5	
2	6.195	6.195	0.000	962773256	201.4	222.9	
						RPD = 23.78	
11 Hexachlorobenzene							
1	5.995	5.996	-0.001	492627894	200.0	173.5	
2	6.581	6.580	0.001	1079963876	200.0	207.8	
						RPD = 18.01	
4 alpha-BHC							
1	6.114	6.114	0.000	504930962	200.0	188.4	
2	6.687	6.687	0.000	1170576805	200.0	199.2	
						RPD = 5.56	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	406592056	200.0	180.6	
2	6.970	6.969	0.001	1027753584	200.0	200.7	
						RPD = 10.56	
7 beta-BHC							
1	6.399	6.400	-0.001	173891840	200.0	172.6	
2	7.017	7.018	-0.001	429525429	200.0	212.9	
						RPD = 20.90	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	432362195	200.0	186.1	
2	7.261	7.260	0.001	1067144305	200.0	199.5	
						RPD = 6.94	
10 Heptachlor							
1	6.701	6.700	0.001	361937463	200.0	178.0	
2	7.326	7.326	0.000	864202539	200.0	221.5	
						RPD = 21.80	
12 Aldrin							
1	6.922	6.921	0.001	423107201	200.0	176.5	
2	7.593	7.592	0.001	1016125904	200.0	199.2	
						RPD = 12.06	
17 Heptachlor epoxide							
1	7.347	7.346	0.001	351174848	200.0	170.8	
2	8.031	8.030	0.001	837472632	200.0	216.6	
						RPD = 23.61	
18 trans-Chlordane							
1	7.440	7.440	0.000	391068432	200.0	175.4	
2	8.180	8.178	0.002	937599425	200.0	226.2	
						RPD = 25.32	
19 cis-Chlordane							
1	7.536	7.535	0.001	388616945	200.0	174.8	
2	8.293	8.291	0.002	917403803	200.0	219.8	
						RPD = 22.78	
29 4,4'-DDE							
1	7.575	7.574	0.001	398911613	200.0	178.6	
2	8.392	8.391	0.001	1013548223	200.0	203.8	
						RPD = 13.21	
20 Endosulfan I							
1	7.638	7.638	0.000	339427596	200.0	169.3	
2	8.353	8.352	0.001	791299776	200.0	218.4	
						RPD = 25.36	
23 Dieldrin							
1	7.815	7.813	0.002	386983682	200.0	178.4	
2	8.570	8.570	0.000	863196911	200.0	227.9	
						RPD = 24.37	
37 Endrin							
1	7.988	7.987	0.001	276824283	200.0	179.9	
2	8.826	8.824	0.002	566236414	200.0	222.6	
						RPD = 21.21	
39 4,4'-DDD							
1	8.010	8.010	0.000	276171136	200.0	178.4	
2	8.856	8.855	0.001	675682675	200.0	199.1	
						RPD = 11.00	
24 Endosulfan II							
1	8.153	8.153	0.000	286183103	200.0	170.3	
2	8.990	8.987	0.003	685794170	200.0	217.0	
						RPD = 24.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	263368364	200.0	185.0	
2	9.117	9.115	0.002	594984839	200.0	201.2	
						RPD = 8.37	
41 Endrin aldehyde							
1	8.462	8.460	0.002	276322756	200.0	168.4	
2	9.256	9.255	0.001	642832038	200.0	211.8	
						RPD = 22.81	
30 Methoxychlor							a
1	8.590	8.589	0.001	122402298	200.0	166.8	
2	9.668	9.668	0.000	254684580	200.0	216.8	a
						RPD = 26.03	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	316180693	200.0	169.5	
2	9.480	9.478	0.002	734348244	200.0	211.0	a
						RPD = 21.83	
43 Endrin ketone							
1	9.027	9.026	0.001	316548743	200.0	170.5	
2	9.955	9.953	0.002	699978192	200.0	218.4	
						RPD = 24.64	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	319726107	200.6	171.1	
2	11.001	11.000	0.001	692400646	200.6	182.5	
						RPD = 6.45	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:24 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a033.D

Injection Date: 27-Feb-2019 21:34:08 Instrument ID: TAC045

Lims ID: ic ocp200

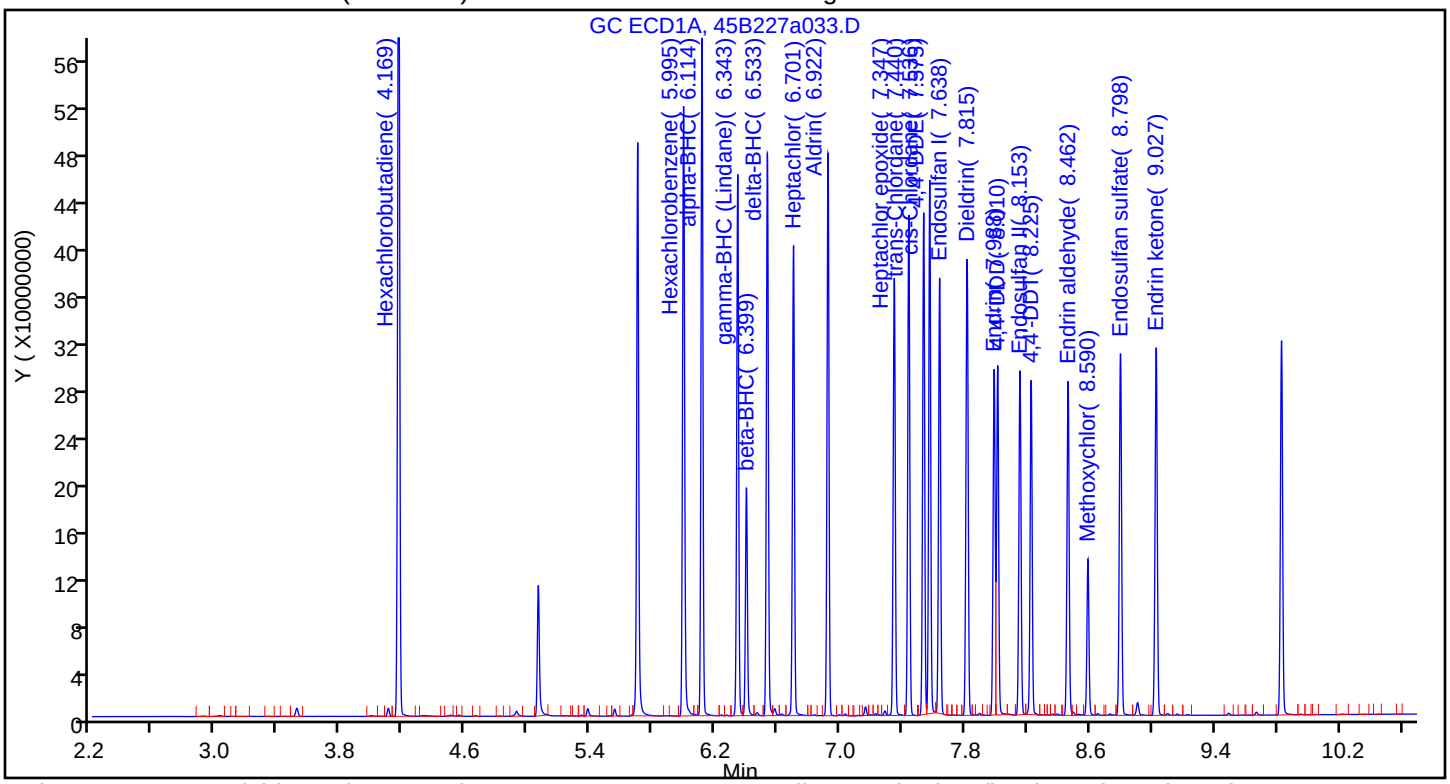
Client ID:

Operator ID: AR ALS Bottle#: 31 Worklist Smp#: 33

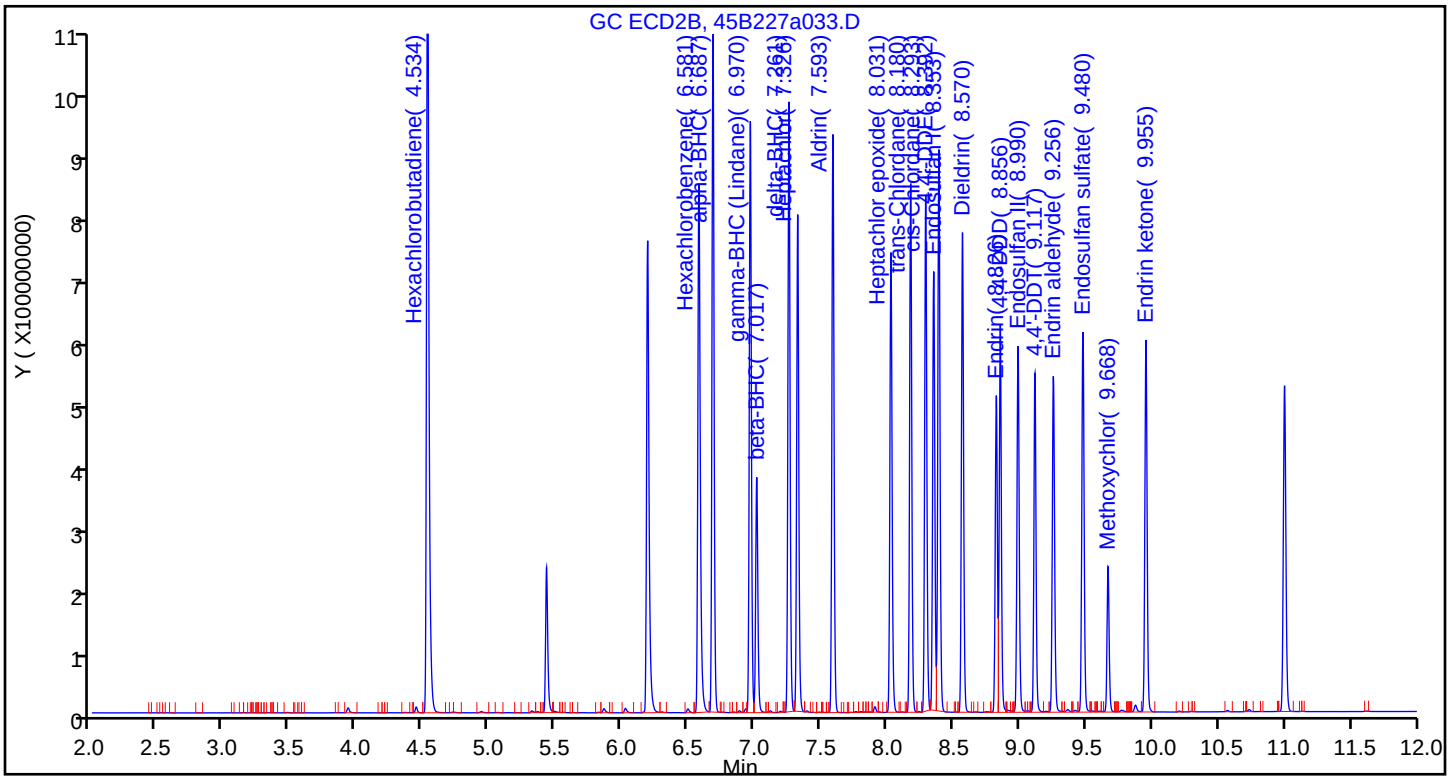
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

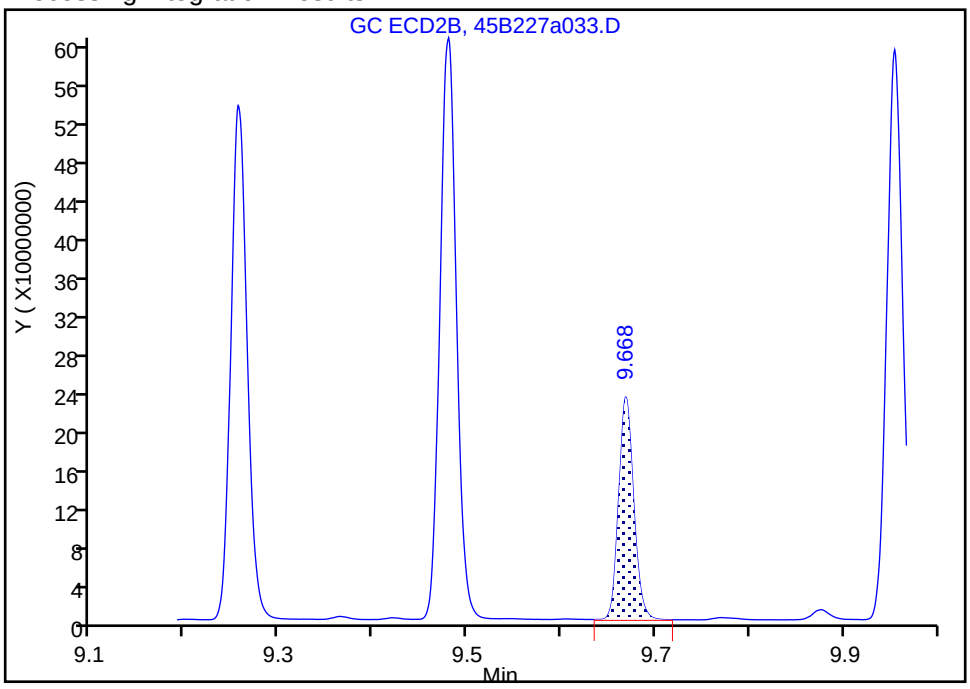
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a033.D				
Injection Date:	27-Feb-2019 21:34:08	Instrument ID:	TAC045		
Lims ID:	ic ocp200				
Client ID:					
Operator ID:	AR	ALS Bottle#:	31	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

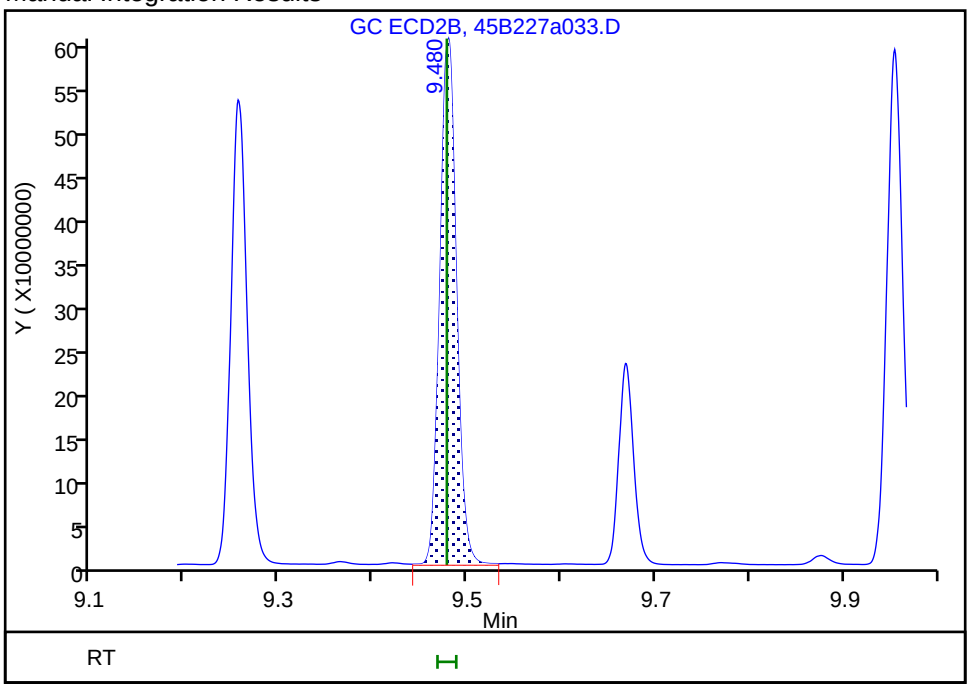
Processing Integration Results

RT: 9.67
Area: 254684580
Amount: 147.6110
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 734348244
Amount: 210.9886
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:13:09
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

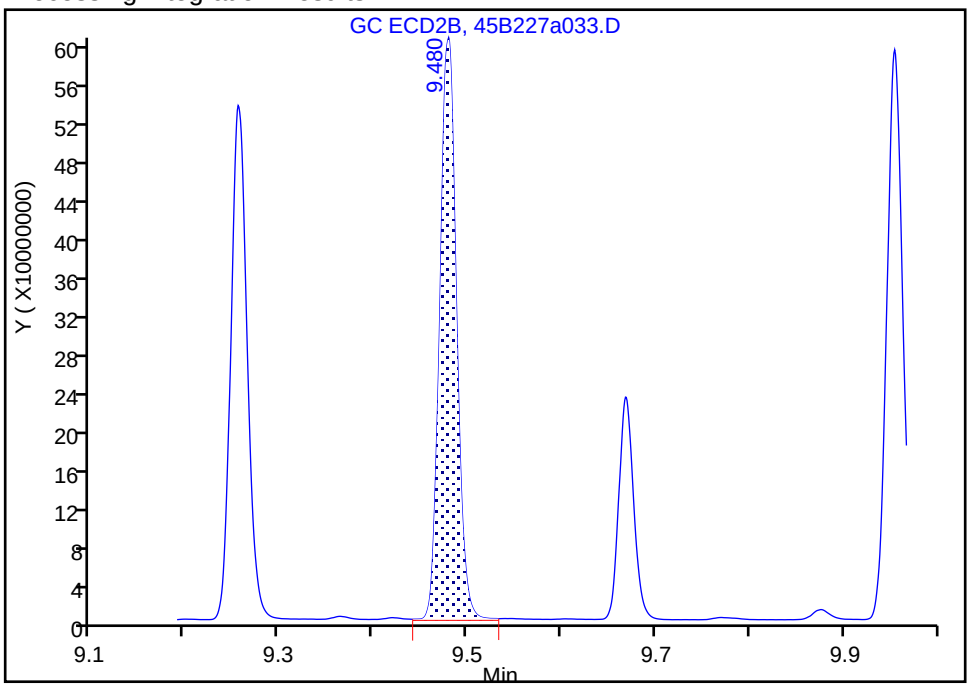
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a033.D				
Injection Date:	27-Feb-2019 21:34:08	Instrument ID:	TAC045		
Lims ID:	ic ocp200				
Client ID:					
Operator ID:	AR	ALS Bottle#:	31	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

30 Methoxychlor, CAS: 72-43-5

Signal: 2

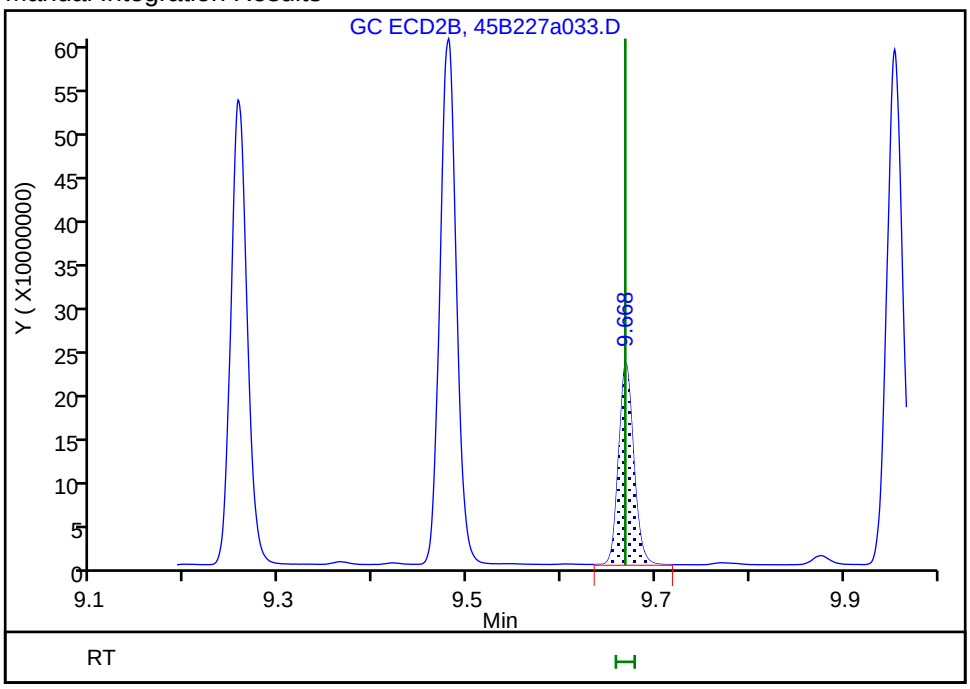
Processing Integration Results

RT: 9.48
Area: 734348244
Amount: 250.6213
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 254684580
Amount: 216.7572
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:13:07
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a034.D
Lims ID: ic ocp100
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Feb-2019 21:55:47 ALS Bottle#: 32 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP100
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:27 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:13:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.168	4.167	0.001	369516233	100.0	92.6	
2	4.534	4.532	0.002	795533150	100.0	111.4	
						RPD = 18.46	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.065	-0.001	109609435	100.0	100.0	
2	5.431	5.433	-0.002	261131820	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	241398886	100.7	91.8	
2	6.194	6.195	-0.001	479924048	100.7	111.5	
						RPD = 19.41	
11 Hexachlorobenzene							
1	5.995	5.996	-0.001	262747682	100.0	89.9	
2	6.581	6.580	0.001	535500023	100.0	103.4	
						RPD = 13.96	
4 alpha-BHC							
1	6.113	6.114	-0.001	264495962	100.0	95.9	
2	6.687	6.687	0.000	562607129	100.0	101.9	
						RPD = 6.01	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	212725207	100.0	91.8	
2	6.969	6.969	0.000	499457676	100.0	102.4	
						RPD = 10.87	
7 beta-BHC							
1	6.398	6.400	-0.002	91710052	100.0	88.5	
2	7.017	7.018	-0.001	210367688	100.0	104.7	
						RPD = 16.75	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	225295712	100.0	94.3	
2	7.259	7.260	-0.001	516952891	100.0	102.4	
						RPD = 8.30	
10 Heptachlor							
1	6.699	6.700	-0.001	191265134	100.0	91.4	
2	7.325	7.326	-0.001	428753238	100.0	110.3	
						RPD = 18.74	
12 Aldrin							
1	6.922	6.921	0.001	222974683	100.0	90.4	
2	7.592	7.592	0.000	496875108	100.0	102.0	
						RPD = 12.01	
17 Heptachlor epoxide							
1	7.347	7.346	0.001	186272022	100.0	88.1	
2	8.031	8.030	0.001	391057340	100.0	101.5	
						RPD = 14.16	
18 trans-Chlordane							
1	7.440	7.440	0.000	205195499	100.0	89.4	
2	8.179	8.178	0.001	453312686	100.0	109.8	
						RPD = 20.42	
19 cis-Chlordane							
1	7.535	7.535	0.000	204393954	100.0	89.4	
2	8.293	8.291	0.002	448514075	100.0	107.9	
						RPD = 18.74	
29 4,4'-DDE							
1	7.574	7.574	0.000	216101953	100.0	94.0	
2	8.392	8.391	0.001	473289418	100.0	100.2	
						RPD = 6.34	
20 Endosulfan I							
1	7.637	7.638	-0.001	179574762	100.0	87.0	
2	8.352	8.352	0.000	391184833	100.0	108.4	
						RPD = 21.85	
23 Dieldrin							
1	7.813	7.813	0.000	203967882	100.0	91.4	
2	8.570	8.570	0.000	421807375	100.0	111.8	
						RPD = 20.07	
37 Endrin							
1	7.988	7.987	0.001	144626095	100.0	91.3	
2	8.824	8.824	0.000	287942164	100.0	113.6	
						RPD = 21.72	
39 4,4'-DDD							
1	8.009	8.010	-0.001	146380195	100.0	91.9	
2	8.856	8.855	0.001	332943783	100.0	102.5	
						RPD = 10.93	
24 Endosulfan II							
1	8.153	8.153	0.000	150721070	100.0	87.2	
2	8.989	8.987	0.002	336512996	100.0	106.9	
						RPD = 20.32	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	137725136	100.0	94.0	
2	9.118	9.115	0.003	286382516	100.0	103.8	
						RPD = 9.87	
41 Endrin aldehyde							
1	8.462	8.460	0.002	146248508	100.0	86.6	
2	9.257	9.255	0.002	313451683	100.0	103.6	
						RPD = 17.89	
30 Methoxychlor							a
1	8.590	8.589	0.001	64633005	100.0	85.6	
2	9.669	9.668	0.001	125460563	100.0	107.2	a
						RPD = 22.36	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	165495547	100.0	86.2	
2	9.479	9.478	0.001	360266010	100.0	103.9	a
						RPD = 18.61	
43 Endrin ketone							
1	9.028	9.026	0.002	166173584	100.0	87.0	
2	9.955	9.953	0.002	320643966	100.0	100.4	
						RPD = 14.33	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	165009414	100.3	85.8	
2	11.003	11.000	0.003	333717472	100.3	88.3	
						RPD = 2.83	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC400_00017	Amount Added: 0.25	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:29 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a034.D

Injection Date: 27-Feb-2019 21:55:47 Instrument ID: TAC045

Lims ID: ic ocp100

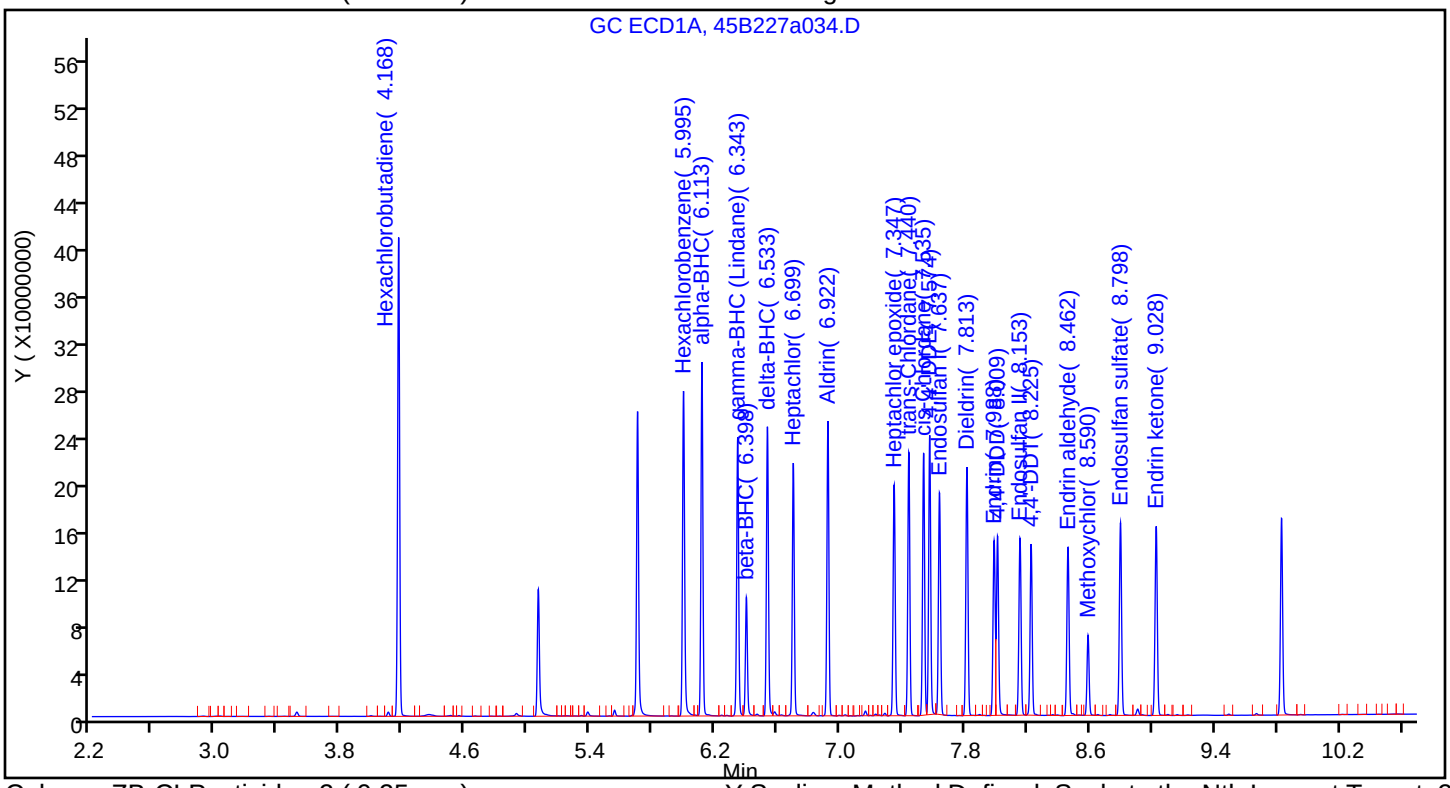
Client ID:

Operator ID: AR ALS Bottle#: 32 Worklist Smp#: 34

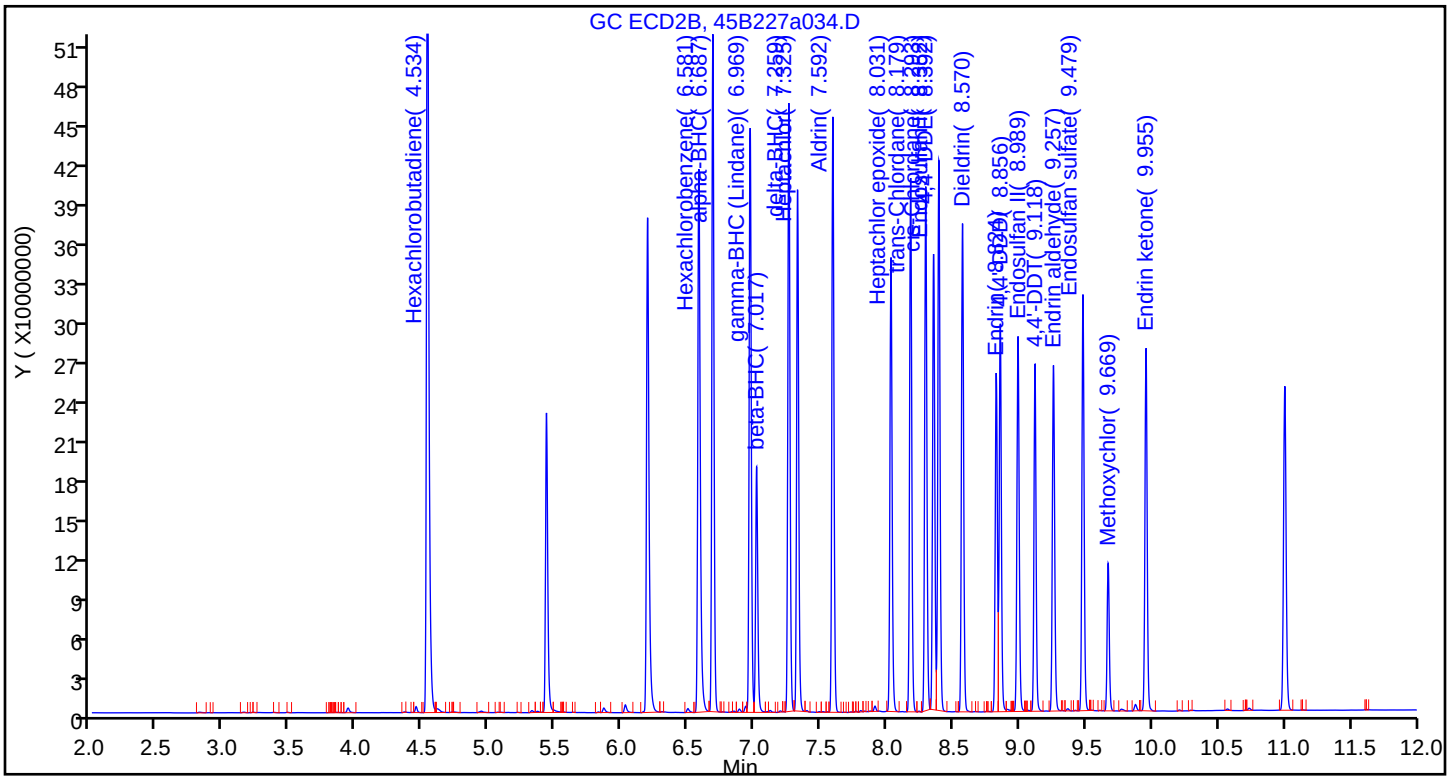
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

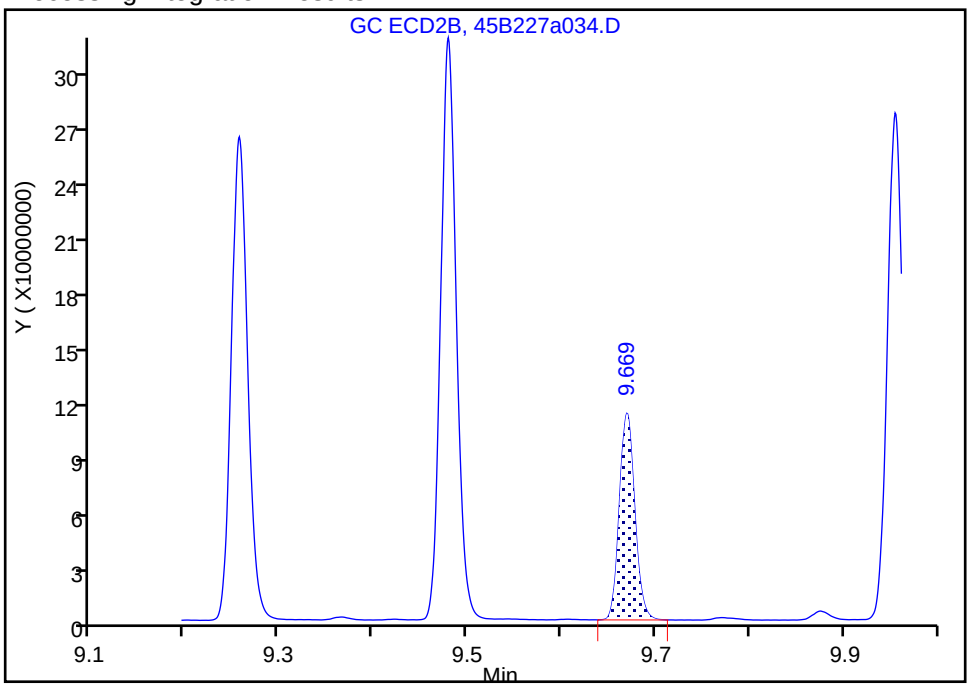
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a034.D				
Injection Date:	27-Feb-2019 21:55:47	Instrument ID:	TAC045		
Lims ID:	ic ocp100				
Client ID:					
Operator ID:	AR	ALS Bottle#:	32	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

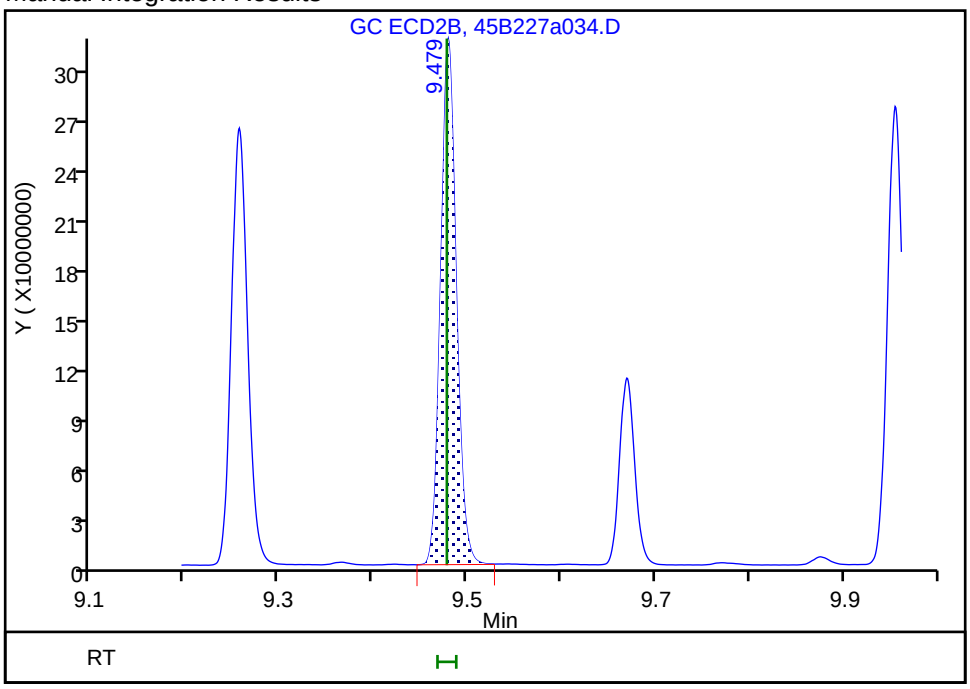
Processing Integration Results

RT: 9.67
Area: 125460563
Amount: 63.217655
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 360266010
Amount: 103.8889
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:13:24
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

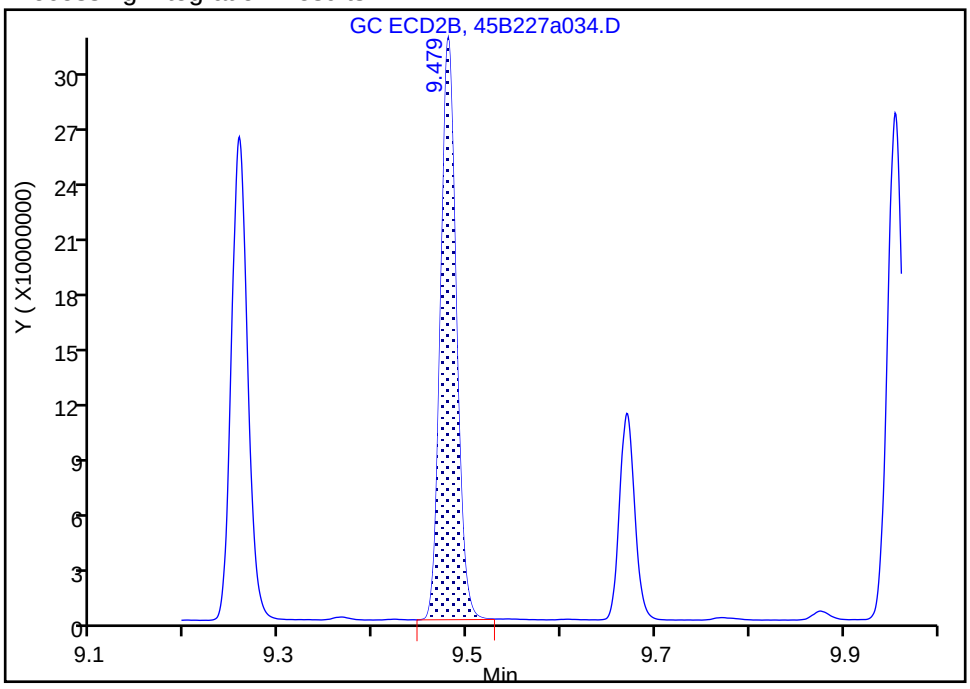
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a034.D
Injection Date: 27-Feb-2019 21:55:47 Instrument ID: TAC045
Lims ID: ic ocp100
Client ID:
Operator ID: AR ALS Bottle#: 32 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

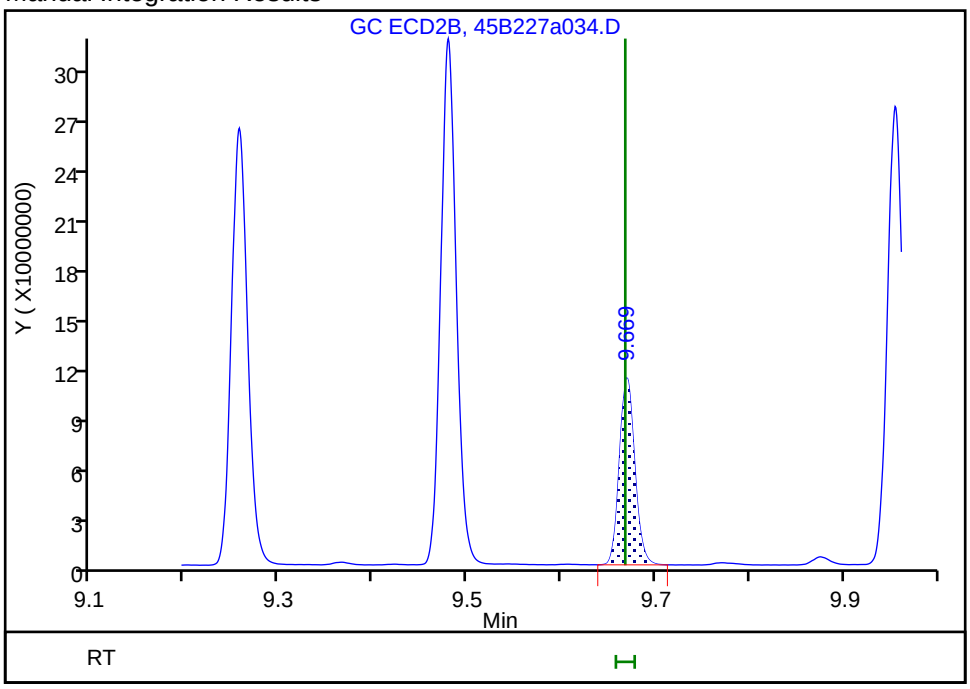
Processing Integration Results

RT: 9.48
Area: 360266010
Amount: 135.7495
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 125460563
Amount: 107.1686
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:13:27
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D
Lims ID: icis ocp50
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 27-Feb-2019 22:17:12 ALS Bottle#: 33 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS OCP50
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:32 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 12:50:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.168	4.168	0.000	186580272	50.0	47.8	
2	4.533	4.533	0.000	369391056	50.0	52.3	
						RPD = 9.03	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	107202080	100.0	100.0	
2	5.432	5.432	0.000	258210836	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	123509926	50.4	48.0	
2	6.195	6.195	0.000	226767882	50.4	53.3	
						RPD = 10.41	
11 Hexachlorobenzene							Ma
1	5.996	5.996	0.000	134499994	50.0	47.1	M
2	6.580	6.580	0.000	257010964	50.0	50.2	M
						RPD = 6.44	
4 alpha-BHC							
1	6.114	6.114	0.000	134359418	50.0	49.8	
2	6.688	6.688	0.000	264027188	50.0	50.2	
						RPD = 0.78	
6 gamma-BHC (Lindane)							
1	6.344	6.344	0.000	110010705	50.0	48.5	
2	6.968	6.968	0.000	230612426	50.0	49.3	
						RPD = 1.52	
7 beta-BHC							
1	6.399	6.399	0.000	47228681	50.0	46.6	
2	7.018	7.018	0.000	101464545	50.0	51.0	
						RPD = 9.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.534	6.534	0.000	114070710	50.0	48.8	
2	7.260	7.260	0.000	240884746	50.0	50.0	
						RPD = 2.52	
10 Heptachlor							
1	6.700	6.700	0.000	97710978	50.0	47.7	
2	7.325	7.325	0.000	204244817	50.0	53.1	
						RPD = 10.70	
12 Aldrin							
1	6.922	6.922	0.000	114825105	50.0	47.6	
2	7.593	7.593	0.000	231589104	50.0	49.4	
						RPD = 3.76	
17 Heptachlor epoxide							
1	7.347	7.347	0.000	96037029	50.0	46.4	
2	8.030	8.030	0.000	196573118	50.0	51.6	
						RPD = 10.55	
18 trans-Chlordane							
1	7.440	7.440	0.000	105023976	50.0	46.8	
2	8.180	8.180	0.000	214024918	50.0	52.4	
						RPD = 11.31	
19 cis-Chlordane							
1	7.535	7.535	0.000	104535956	50.0	46.7	
2	8.293	8.293	0.000	213351968	50.0	51.9	
						RPD = 10.44	
29 4,4'-DDE							
1	7.574	7.574	0.000	108017697	50.0	48.1	
2	8.393	8.393	0.000	221795385	50.0	48.9	
						RPD = 1.80	
20 Endosulfan I							
1	7.639	7.639	0.000	93432132	50.0	46.3	
2	8.352	8.352	0.000	188004004	50.0	52.7	
						RPD = 12.89	
23 Dieldrin							
1	7.814	7.814	0.000	105015551	50.0	48.1	
2	8.570	8.570	0.000	199925172	50.0	53.6	
						RPD = 10.76	
37 Endrin							
1	7.987	7.987	0.000	71525243	50.0	46.2	
2	8.825	8.825	0.000	136175648	50.0	54.3	
						RPD = 16.20	
39 4,4'-DDD							
1	8.010	8.010	0.000	74533403	50.0	47.8	
2	8.855	8.855	0.000	154752460	50.0	49.5	
						RPD = 3.51	
24 Endosulfan II							
1	8.153	8.153	0.000	77764283	50.0	46.0	
2	8.988	8.988	0.000	160105706	50.0	51.4	
						RPD = 11.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	68329814	50.0	47.7	
2	9.117	9.117	0.000	127428857	50.0	48.8	
						RPD = 2.36	
41 Endrin aldehyde							
1	8.461	8.461	0.000	75994356	50.0	46.0	
2	9.255	9.255	0.000	151743559	50.0	50.7	
						RPD = 9.75	
30 Methoxychlor							a
1	8.590	8.590	0.000	33095335	50.0	44.8	
2	9.669	9.669	0.000	57895635	50.0	50.0	a
						RPD = 10.94	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	85109397	50.0	45.3	
2	9.479	9.479	0.000	172640307	50.0	50.3	a
						RPD = 10.49	
43 Endrin ketone							
1	9.026	9.026	0.000	85914272	50.0	46.0	
2	9.954	9.954	0.000	161180575	50.0	51.0	
						RPD = 10.44	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.831	0.000	84586338	50.2	45.0	
2	11.000	11.000	0.000	170902198	50.2	45.7	
						RPD = 1.64	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:33 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D

Injection Date: 27-Feb-2019 22:17:12 Instrument ID: TAC045

Lims ID: icis ocp50

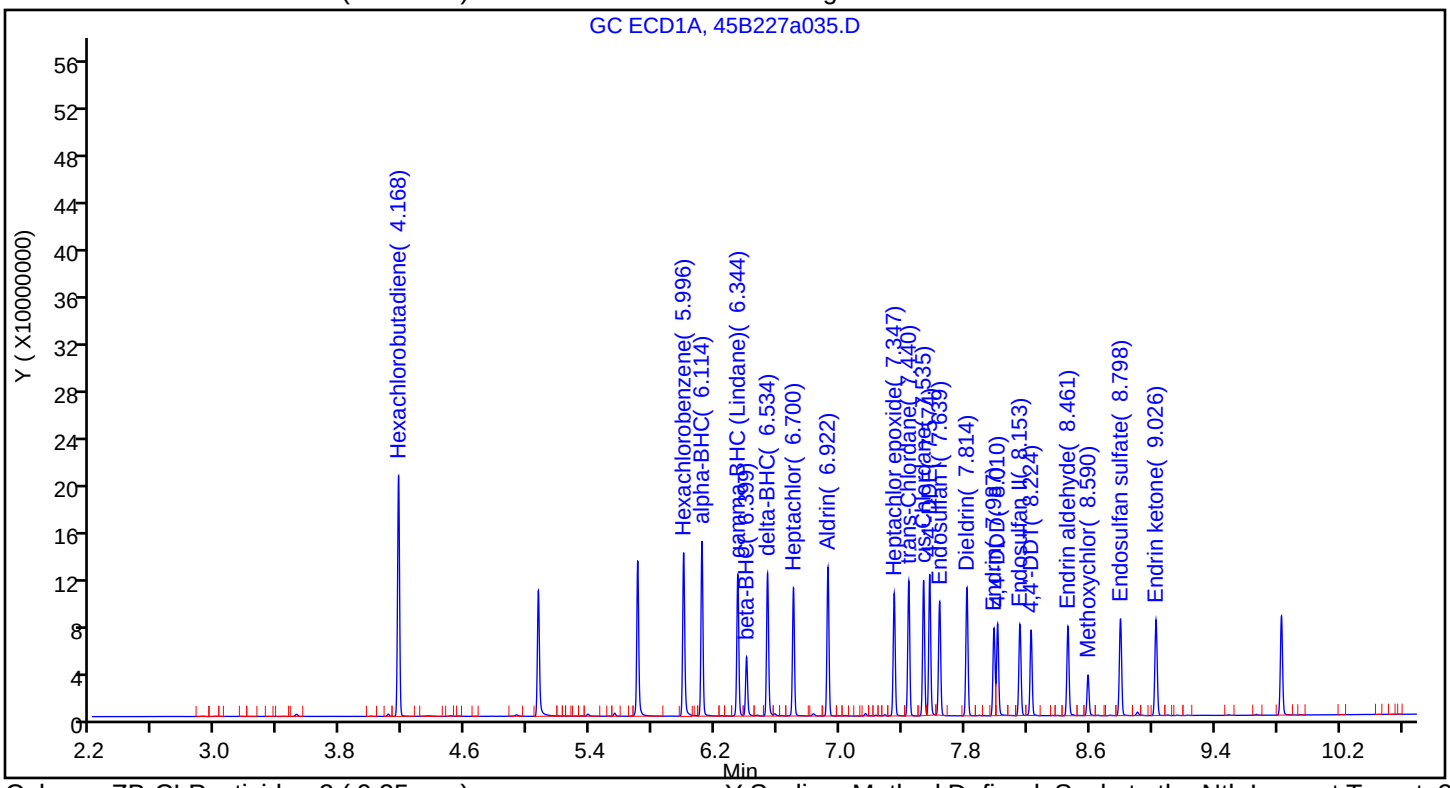
Client ID:

Operator ID: AR ALS Bottle#: 33 Worklist Smp#: 35

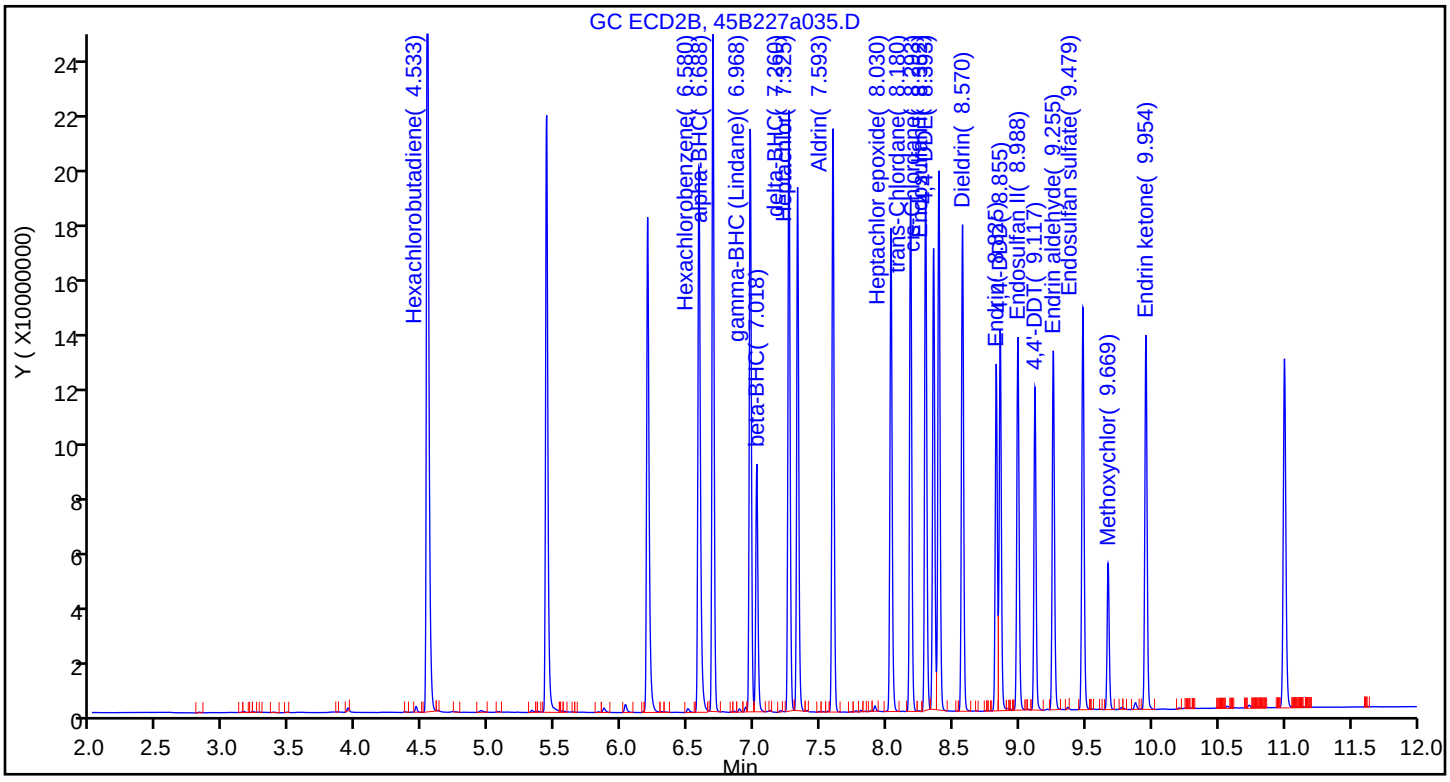
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

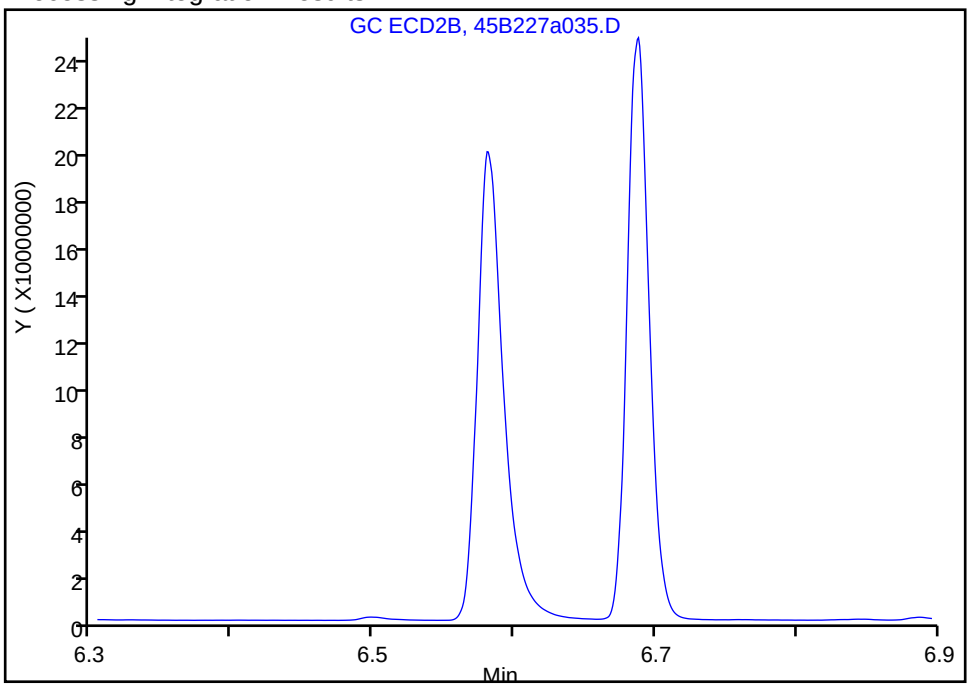
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D				
Injection Date:	27-Feb-2019 22:17:12	Instrument ID:	TAC045		
Lims ID:	icis ocp50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	33	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

11 Hexachlorobenzene, CAS: 118-74-1

Signal: 2

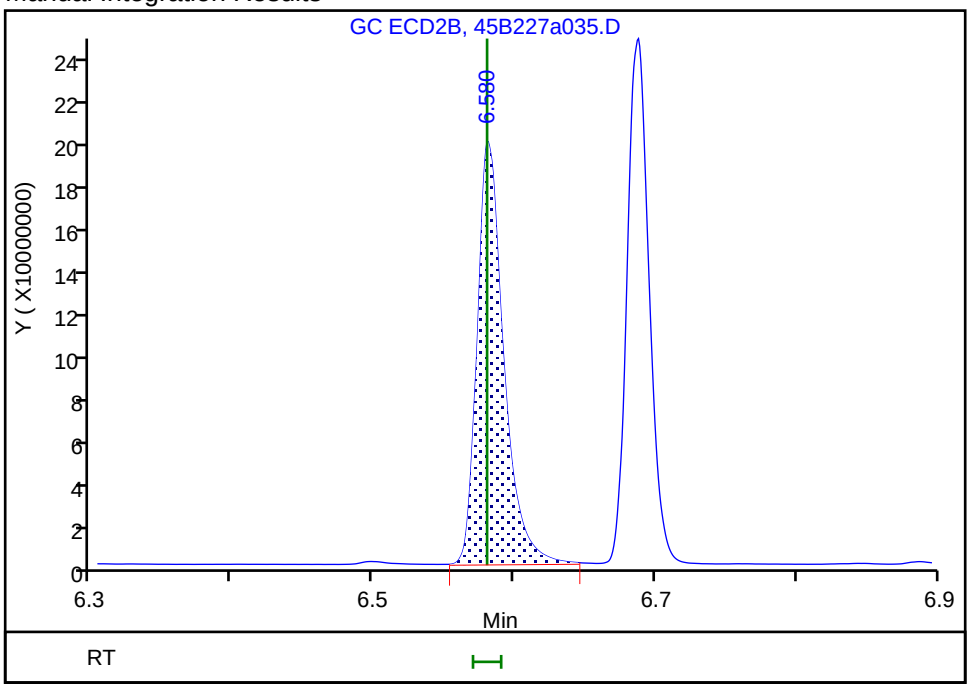
Not Detected
Expected RT: 6.58

Processing Integration Results



Manual Integration Results

RT: 6.58
Area: 257010964
Amount: 50.192949
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 12:49:16
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Seattle

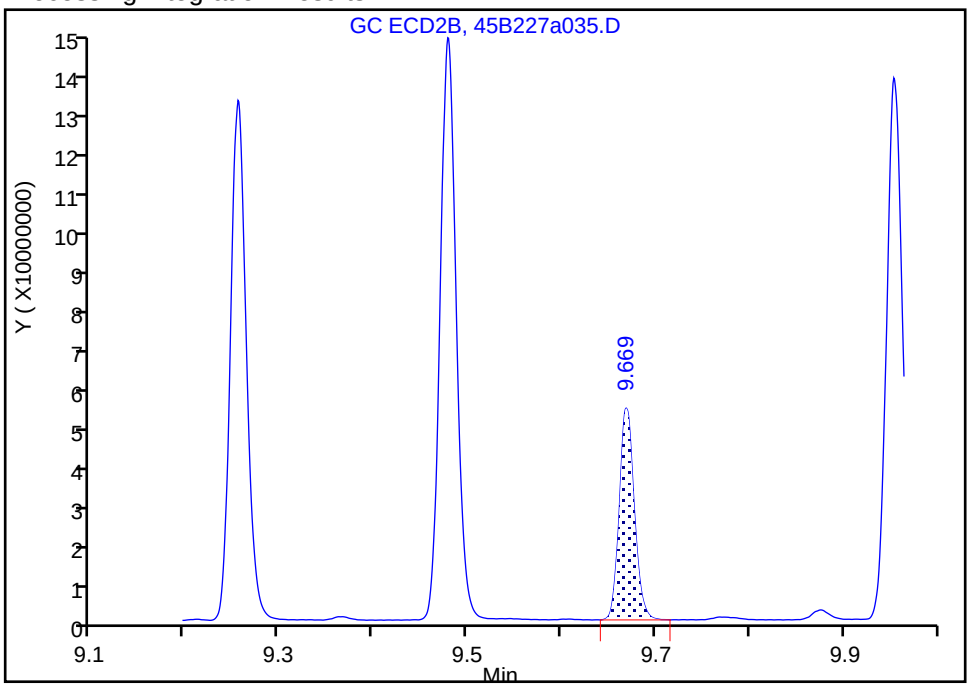
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D				
Injection Date:	27-Feb-2019 22:17:12	Instrument ID:	TAC045		
Lims ID:	icis ocp50				
Client ID:					
Operator ID:	AR	ALS Bottle#:	33	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

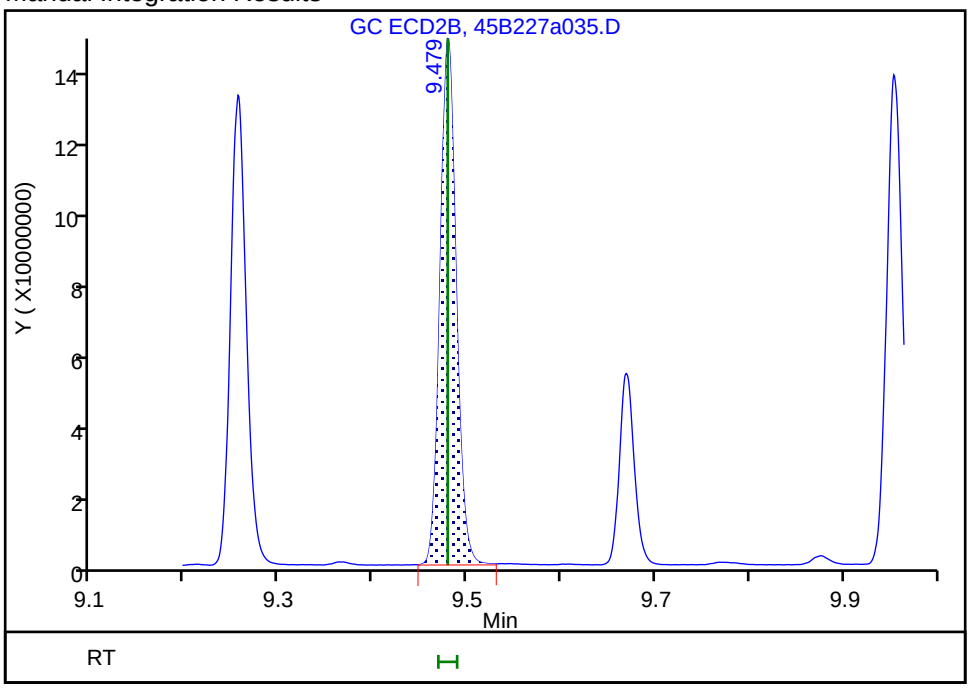
Processing Integration Results

RT: 9.67
Area: 57895635
Amount: 50.013969
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 172640307
Amount: 50.346998
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:12:21
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

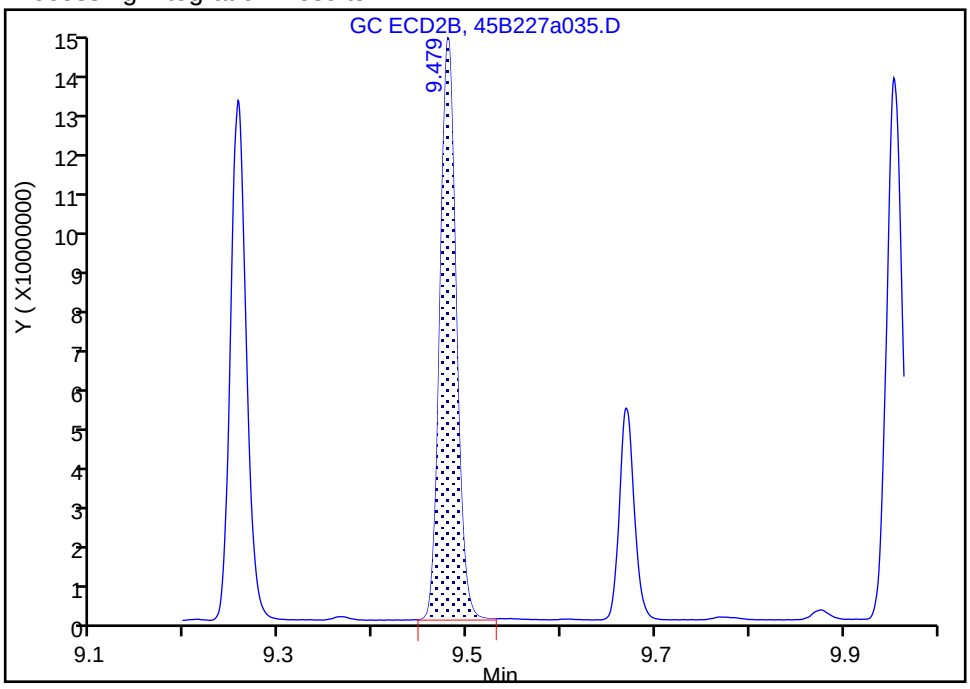
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a035.D
Injection Date: 27-Feb-2019 22:17:12 Instrument ID: TAC045
Lims ID: icis ocp50
Client ID:
Operator ID: AR ALS Bottle#: 33 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

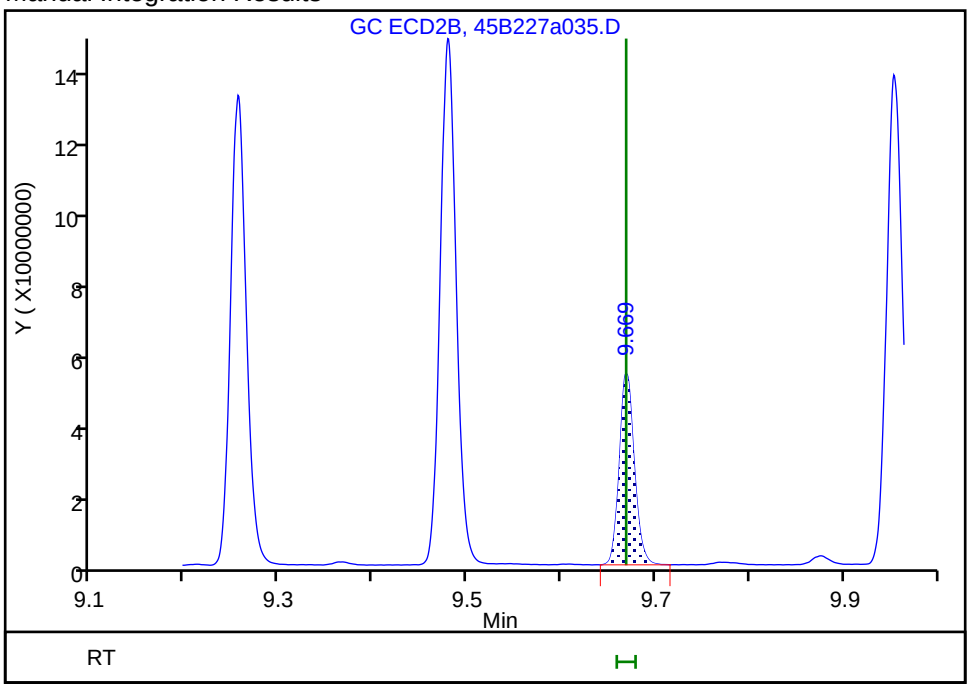
Processing Integration Results

RT: 9.48
Area: 172640307
Amount: 50.346998
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 57895635
Amount: 50.013969
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:12:29
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a036.D
Lims ID: ic ocp 25
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Feb-2019 22:37:42 ALS Bottle#: 34 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP 25
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:36 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:14:11

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.166	4.168	-0.002	96289022	25.0	25.8	
2	4.532	4.533	-0.001	177478752	25.0	26.4	
						RPD = 2.28	
* 3 1-Bromo-2-nitrobenzene							
1	5.063	5.064	-0.001	102326440	100.0	100.0	
2	5.431	5.432	-0.001	245511703	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	64050370	25.2	26.1	
2	6.193	6.195	-0.002	107847906	25.2	26.7	
						RPD = 2.15	
11 Hexachlorobenzene							
1	5.996	5.996	0.000	68799663	25.0	25.2	
2	6.581	6.580	0.001	124551774	25.0	25.6	
						RPD = 1.43	
4 alpha-BHC							
1	6.113	6.114	-0.001	65714911	25.0	25.5	
2	6.686	6.688	-0.002	120293062	25.0	24.8	
						RPD = 2.87	
6 gamma-BHC (Lindane)							
1	6.342	6.344	-0.002	55599024	25.0	25.7	
2	6.967	6.968	-0.001	105940628	25.0	24.4	
						RPD = 5.03	
7 beta-BHC							
1	6.399	6.399	0.000	23863554	25.0	24.7	
2	7.016	7.018	-0.002	47924483	25.0	25.4	
						RPD = 2.78	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.533	6.534	-0.001	56457605	25.0	25.3	
2	7.259	7.260	-0.001	108836260	25.0	24.5	
						RPD = 3.22	
10 Heptachlor							
1	6.699	6.700	-0.001	49141652	25.0	25.2	
2	7.324	7.325	-0.001	95249054	25.0	26.1	
						RPD = 3.54	
12 Aldrin							
1	6.921	6.922	-0.001	59194137	25.0	25.7	
2	7.591	7.593	-0.002	110923073	25.0	25.4	
						RPD = 1.06	
17 Heptachlor epoxide							
1	7.345	7.347	-0.002	50176225	25.0	25.4	
2	8.030	8.030	0.000	95095692	25.0	26.3	
						RPD = 3.25	
18 trans-Chlordane							
1	7.438	7.440	-0.002	54580844	25.0	25.5	
2	8.178	8.180	-0.002	100639522	25.0	25.9	
						RPD = 1.71	
19 cis-Chlordane							
1	7.535	7.535	0.000	54964898	25.0	25.7	
2	8.291	8.293	-0.002	102624963	25.0	26.2	
						RPD = 1.93	
29 4,4'-DDE							
1	7.573	7.574	-0.001	57292707	25.0	26.7	
2	8.392	8.393	-0.001	105296614	25.0	25.0	
						RPD = 6.40	
20 Endosulfan I							
1	7.636	7.639	-0.003	50563608	25.0	26.3	
2	8.350	8.352	-0.002	90558922	25.0	26.7	
						RPD = 1.65	
23 Dieldrin							
1	7.812	7.814	-0.002	53975547	25.0	25.9	
2	8.569	8.570	-0.001	97530289	25.0	27.5	
						RPD = 5.94	
37 Endrin							
1	7.986	7.987	-0.001	34542235	25.0	23.4	
2	8.824	8.825	-0.001	60976429	25.0	25.6	
						RPD = 9.06	
39 4,4'-DDD							
1	8.009	8.010	-0.001	39929156	25.0	26.8	
2	8.854	8.855	-0.001	74265640	25.0	25.6	
						RPD = 4.84	
24 Endosulfan II							
1	8.151	8.153	-0.002	41038666	25.0	25.4	
2	8.988	8.988	0.000	77903688	25.0	26.3	
						RPD = 3.46	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.223	8.224	-0.001	34261522	25.0	25.1	
2	9.115	9.117	-0.002	56463217	25.0	23.5	
						RPD = 6.29	
41 Endrin aldehyde							
1	8.461	8.461	0.000	41115414	25.0	26.1	
2	9.255	9.255	0.000	77777465	25.0	27.4	
						RPD = 4.74	
30 Methoxychlor							a
1	8.588	8.590	-0.002	17042224	25.0	24.2	
2	9.667	9.669	-0.002	27266692	25.0	24.8	a
						RPD = 2.41	
33 Endosulfan sulfate							a
1	8.796	8.798	-0.002	45142095	25.0	25.2	
2	9.477	9.479	-0.002	84987385	25.0	26.1	a
						RPD = 3.43	
43 Endrin ketone							
1	9.026	9.026	0.000	46078030	25.0	25.8	
2	9.952	9.954	-0.002	80611678	25.0	26.8	
						RPD = 3.85	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.831	-0.001	45844539	25.1	25.5	
2	11.000	11.000	0.000	90626990	25.1	25.5	
						RPD = 0.16	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.50	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:37 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a036.D

Injection Date: 27-Feb-2019 22:37:42 Instrument ID: TAC045

Lims ID: ic ocp 25

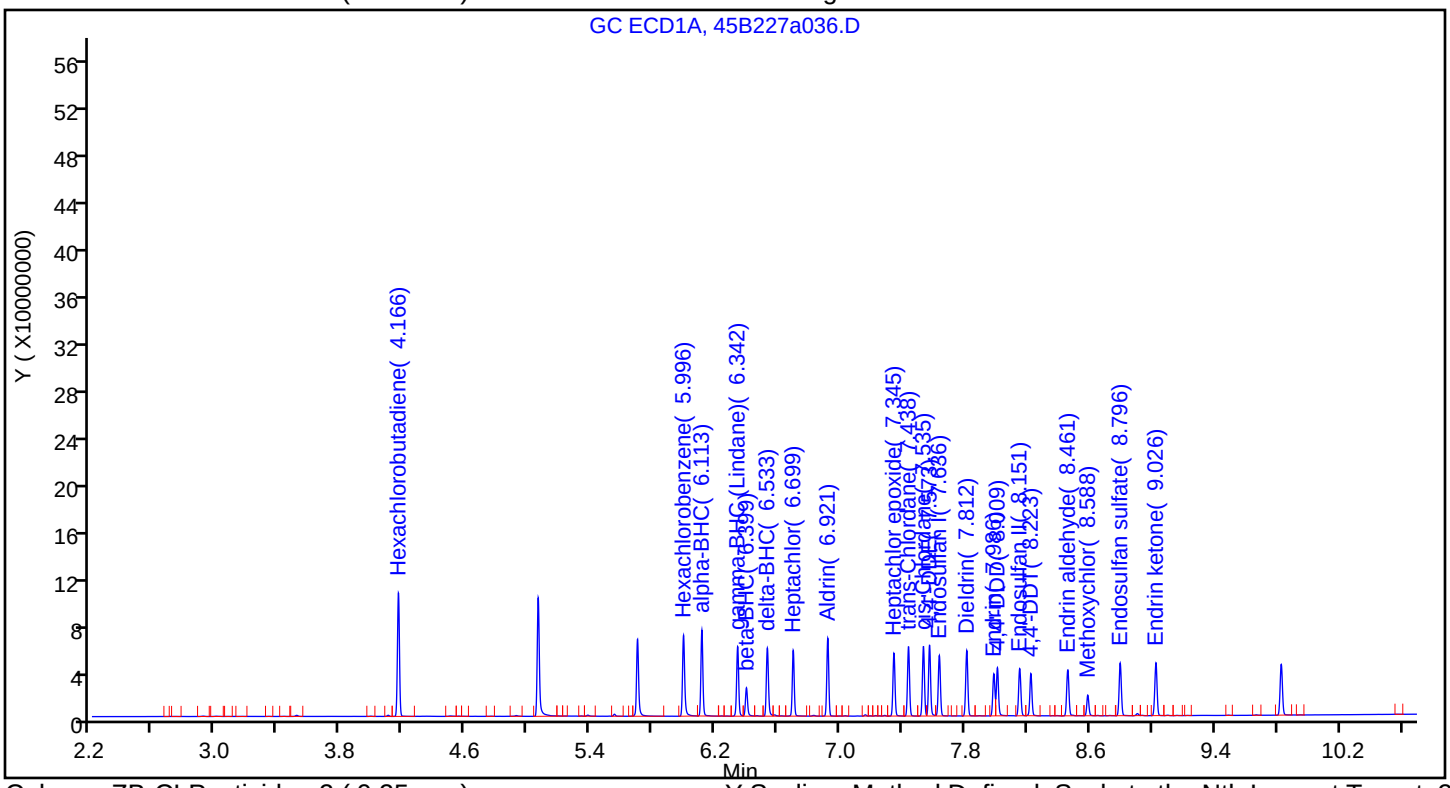
Client ID:

Operator ID: AR ALS Bottle#: 34 Worklist Smp#: 36

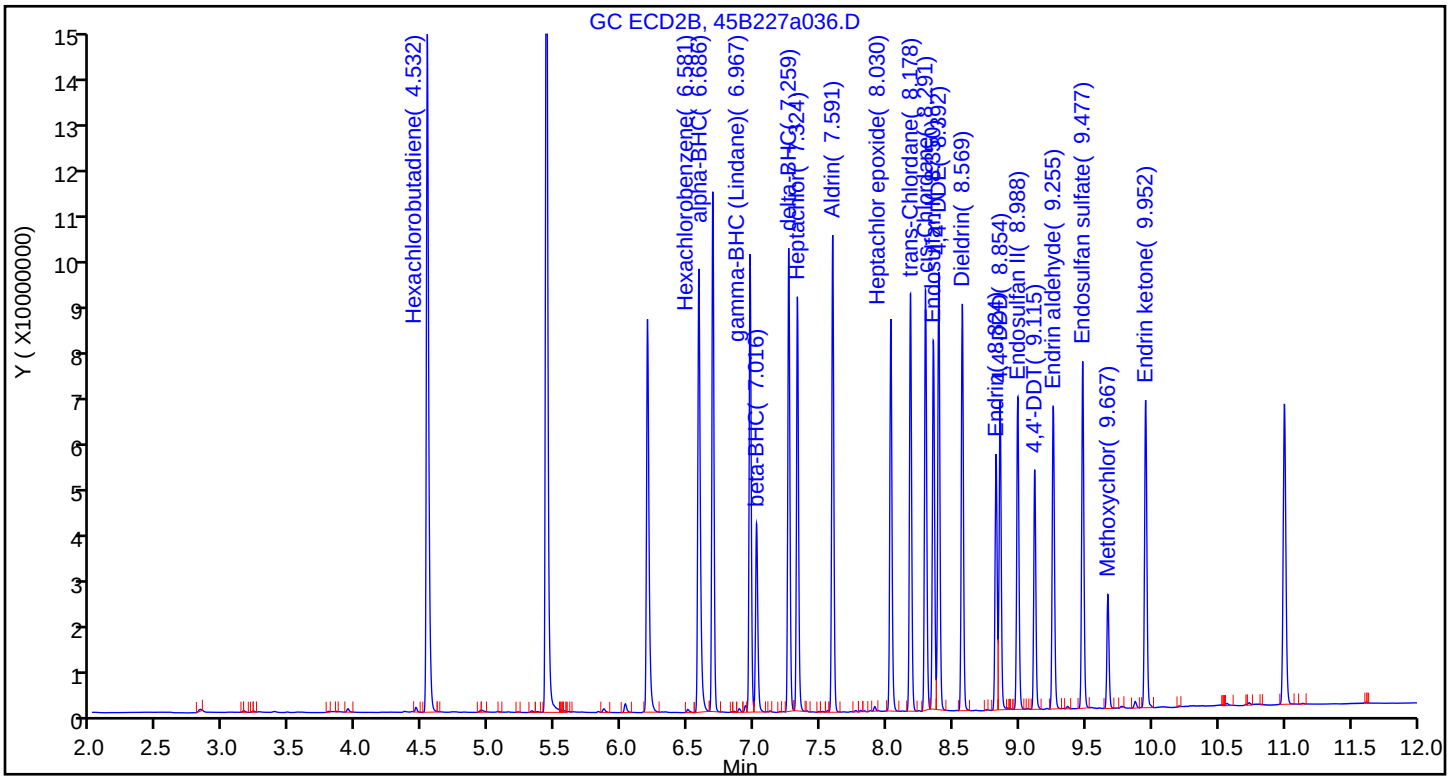
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

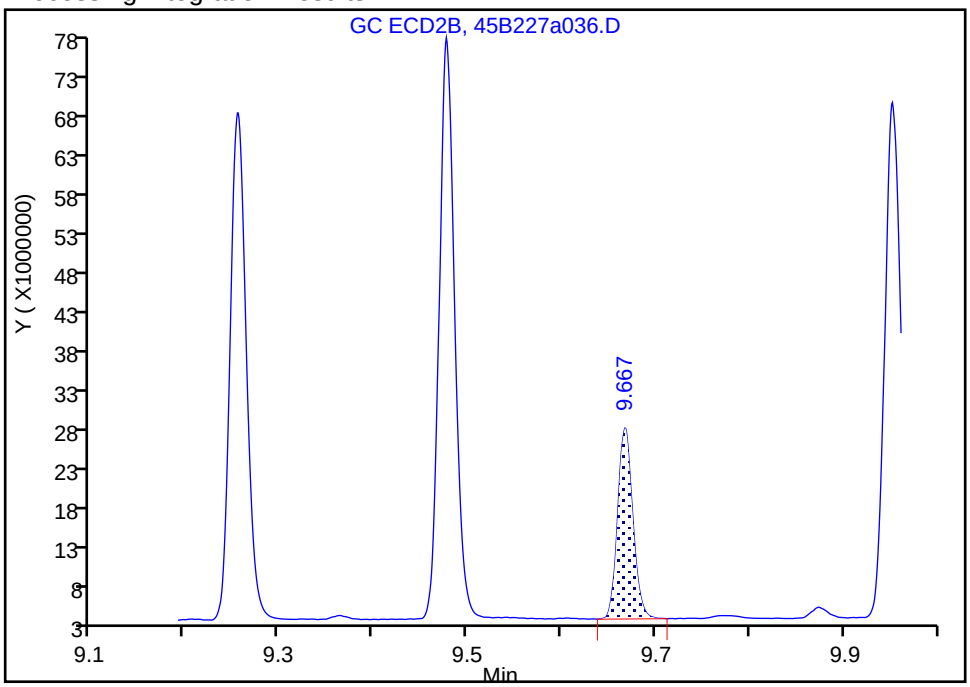
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a036.D				
Injection Date:	27-Feb-2019 22:37:42	Instrument ID:	TAC045		
Lims ID:	ic ocp 25				
Client ID:					
Operator ID:	AR	ALS Bottle#:	34	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

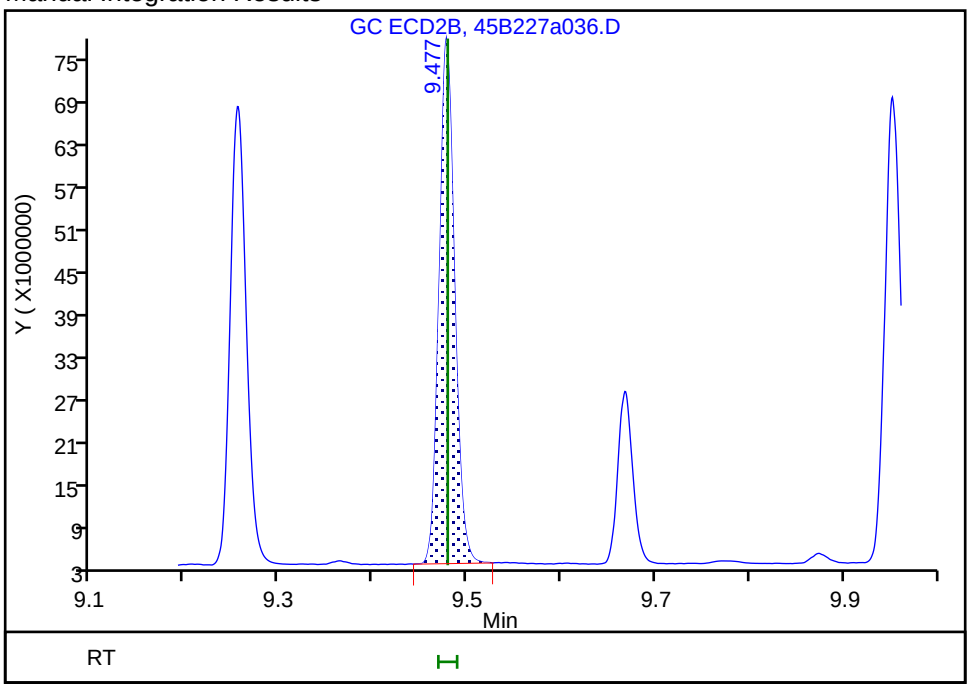
Processing Integration Results

RT: 9.67
Area: 27266692
Amount: 12.915512
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 84987385
Amount: 26.066823
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:10
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

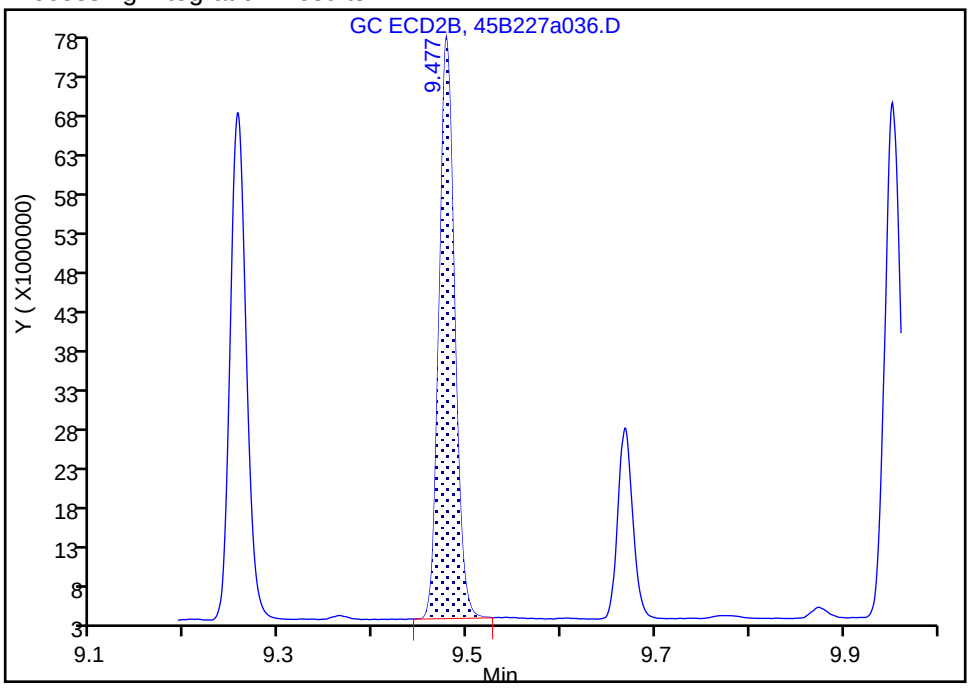
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a036.D
Injection Date: 27-Feb-2019 22:37:42 Instrument ID: TAC045
Lims ID: ic ocp 25
Client ID:
Operator ID: AR ALS Bottle#: 34 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

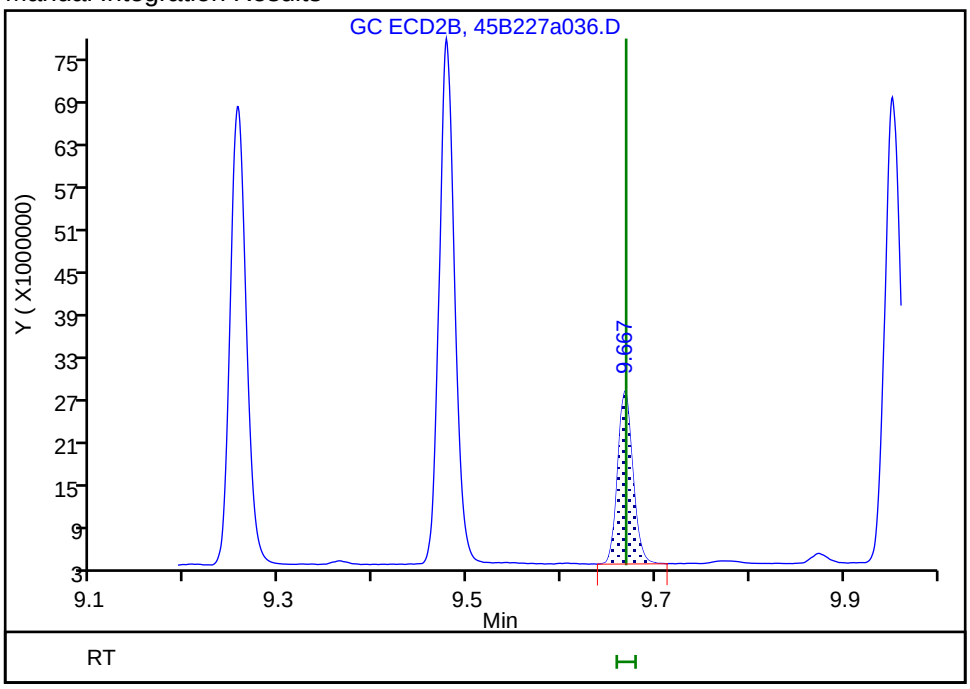
Processing Integration Results

RT: 9.48
Area: 84987385
Amount: 37.774435
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 27266692
Amount: 24.773092
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:07
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a037.D
Lims ID: ic ocp10
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Feb-2019 22:58:07 ALS Bottle#: 35 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP10
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:40 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:14:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	41952424	10.0	10.5	
2	4.532	4.532	0.000	69615492	10.0	9.51	
						RPD = 9.56	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	110127300	100.0	100.0	
2	5.430	5.430	0.000	267785415	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.701	5.701	0.000	27981583	10.1	10.6	
2	6.195	6.195	0.000	42480040	10.1	9.63	
						RPD = 9.53	
11 Hexachlorobenzene							
1	5.996	5.996	0.000	30527579	10.0	10.4	
2	6.580	6.580	0.000	51229627	10.0	9.65	
						RPD = 7.49	
4 alpha-BHC							
1	6.114	6.114	0.000	29344986	10.0	10.6	
2	6.687	6.687	0.000	46416196	10.0	9.33	
						RPD = 12.69	
6 gamma-BHC (Lindane)							
1	6.344	6.344	0.000	24379975	10.0	10.5	
2	6.969	6.969	0.000	41301488	10.0	9.25	
						RPD = 12.37	
7 beta-BHC							
1	6.400	6.400	0.000	10977922	10.0	10.5	
2	7.018	7.018	0.000	20161226	10.0	9.78	
						RPD = 7.49	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.534	6.534	0.000	25006625	10.0	10.4	
2	7.260	7.260	0.000	42063367	10.0	9.23	
						RPD = 12.09	
10 Heptachlor							
1	6.700	6.700	0.000	22137678	10.0	10.5	
2	7.326	7.326	0.000	39166646	10.0	9.83	
						RPD = 6.92	
12 Aldrin							
1	6.921	6.921	0.000	26280833	10.0	10.6	
2	7.592	7.592	0.000	42828496	10.0	9.44	
						RPD = 11.61	
17 Heptachlor epoxide							
1	7.346	7.346	0.000	22708149	10.0	10.7	
2	8.030	8.030	0.000	38620097	10.0	9.77	
						RPD = 8.91	
18 trans-Chlordane							
1	7.440	7.440	0.000	24080505	10.0	10.4	
2	8.178	8.178	0.000	40265257	10.0	9.51	
						RPD = 9.40	
19 cis-Chlordane							
1	7.535	7.535	0.000	24121115	10.0	10.5	
2	8.291	8.291	0.000	41027775	10.0	9.62	
						RPD = 8.72	
29 4,4'-DDE							
1	7.574	7.574	0.000	24248619	10.0	10.5	
2	8.391	8.391	0.000	39120412	10.0	9.06	
						RPD = 14.68	
20 Endosulfan I							
1	7.638	7.638	0.000	22198864	10.0	10.7	
2	8.352	8.352	0.000	35941835	10.0	9.71	
						RPD = 9.77	
23 Dieldrin							
1	7.813	7.813	0.000	23168992	10.0	10.3	
2	8.570	8.570	0.000	38528763	10.0	9.96	
						RPD = 3.70	
37 Endrin							
1	7.987	7.987	0.000	16539623	10.0	10.4	
2	8.824	8.824	0.000	24859174	10.0	9.56	
						RPD = 8.35	
39 4,4'-DDD							
1	8.010	8.010	0.000	16689421	10.0	10.4	
2	8.855	8.855	0.000	26776921	10.0	8.97	
						RPD = 15.08	
24 Endosulfan II							
1	8.153	8.153	0.000	18127716	10.0	10.4	
2	8.987	8.987	0.000	30931775	10.0	9.58	
						RPD = 8.54	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	15152831	10.0	10.3	
2	9.115	9.115	0.000	21851798	10.0	8.88	
						RPD = 14.74	
41 Endrin aldehyde							
1	8.460	8.460	0.000	17858333	10.0	10.5	
2	9.255	9.255	0.000	30106595	10.0	9.71	
						RPD = 8.11	
30 Methoxychlor							a
1	8.589	8.589	0.000	7921923	10.0	10.4	
2	9.668	9.668	0.000	11492477	10.0	9.57	a
						RPD = 8.71	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	20111441	10.0	10.4	
2	9.478	9.478	0.000	34202396	10.0	9.62	a
						RPD = 8.07	
43 Endrin ketone							
1	9.026	9.026	0.000	20126934	10.0	10.5	
2	9.953	9.953	0.000	31300102	10.0	9.56	
						RPD = 9.25	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.830	0.000	19671800	10.0	10.2	
2	11.000	11.000	0.000	37634046	10.0	9.71	
						RPD = 4.77	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.20	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:42 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a037.D

Injection Date: 27-Feb-2019 22:58:07 Instrument ID: TAC045

Lims ID: ic ocp10

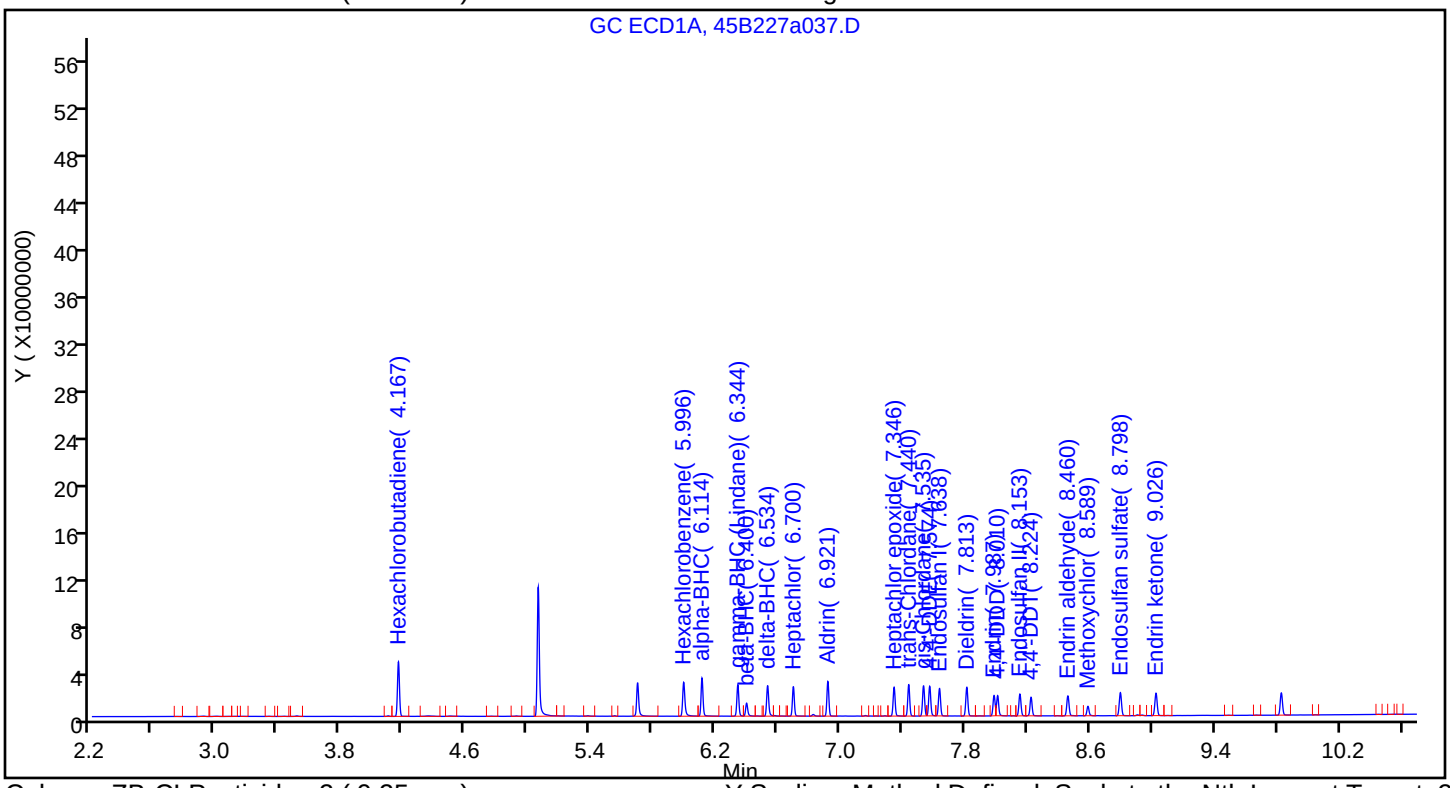
Client ID:

Operator ID: AR ALS Bottle#: 35 Worklist Smp#: 37

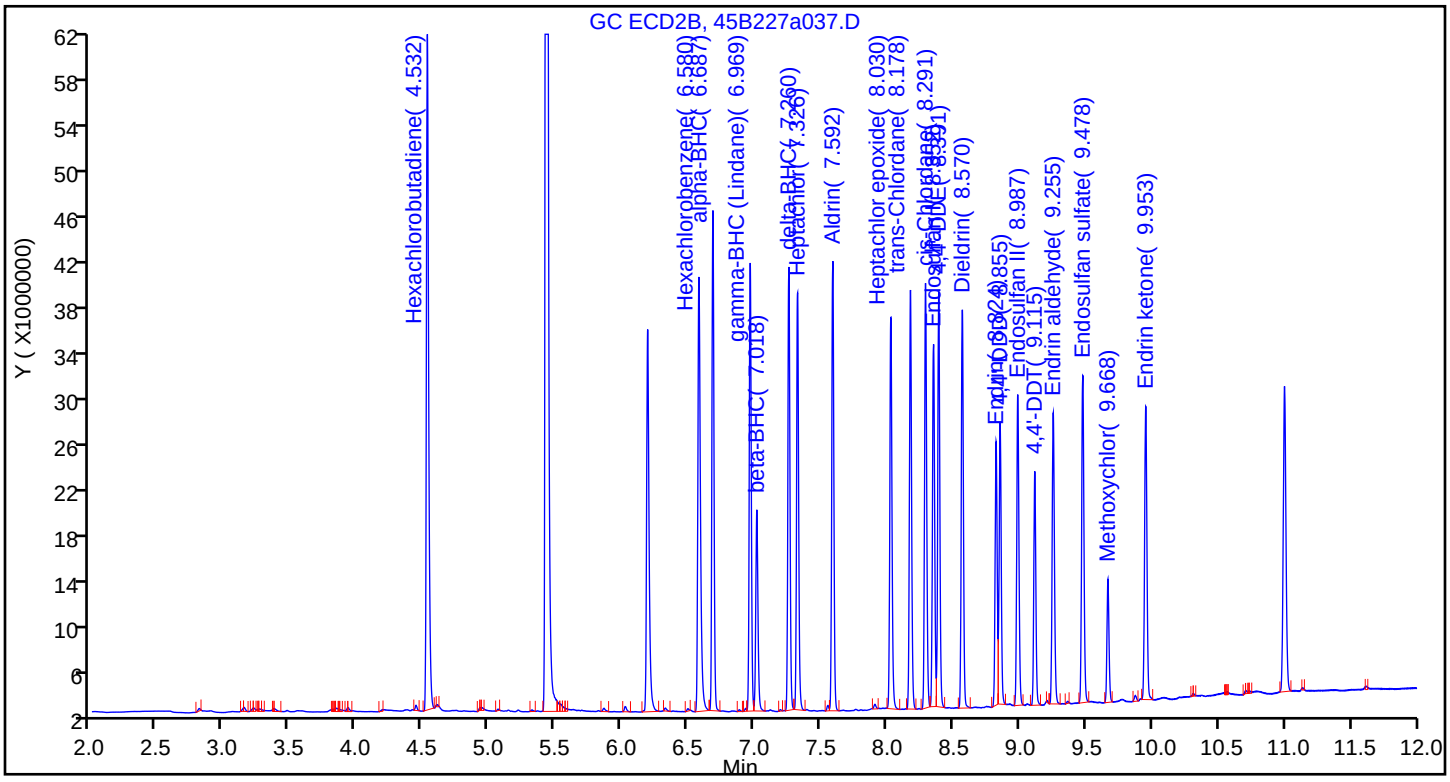
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

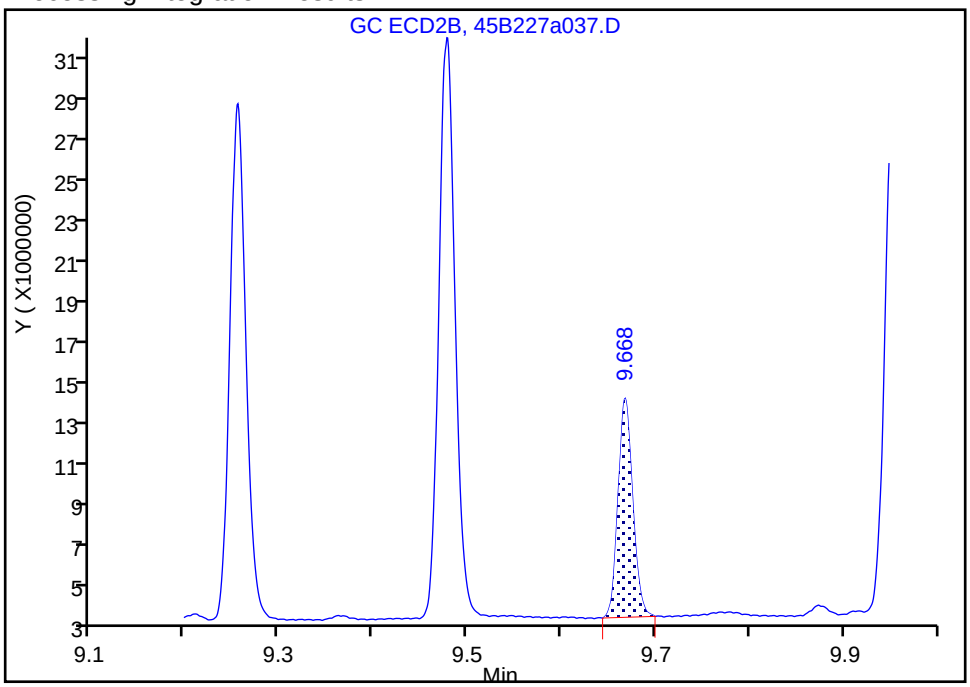
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a037.D
Injection Date: 27-Feb-2019 22:58:07 Instrument ID: TAC045
Lims ID: ic ocp10
Client ID:
Operator ID: AR ALS Bottle#: 35 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

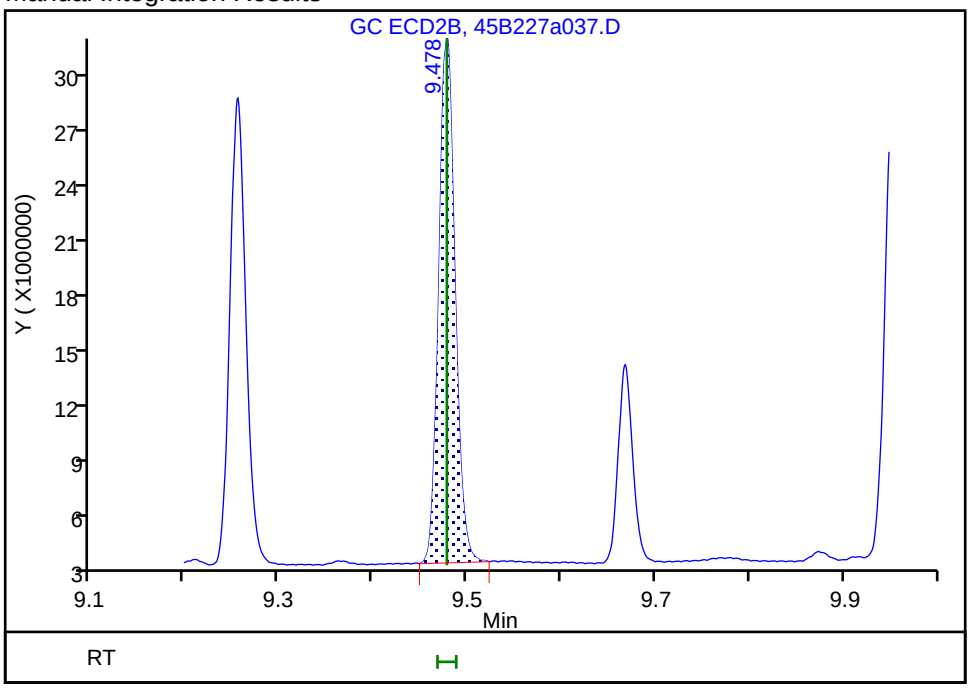
Processing Integration Results

RT: 9.67
Area: 11492477
Amount: 4.450135
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 34202396
Amount: 9.617794
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:26
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

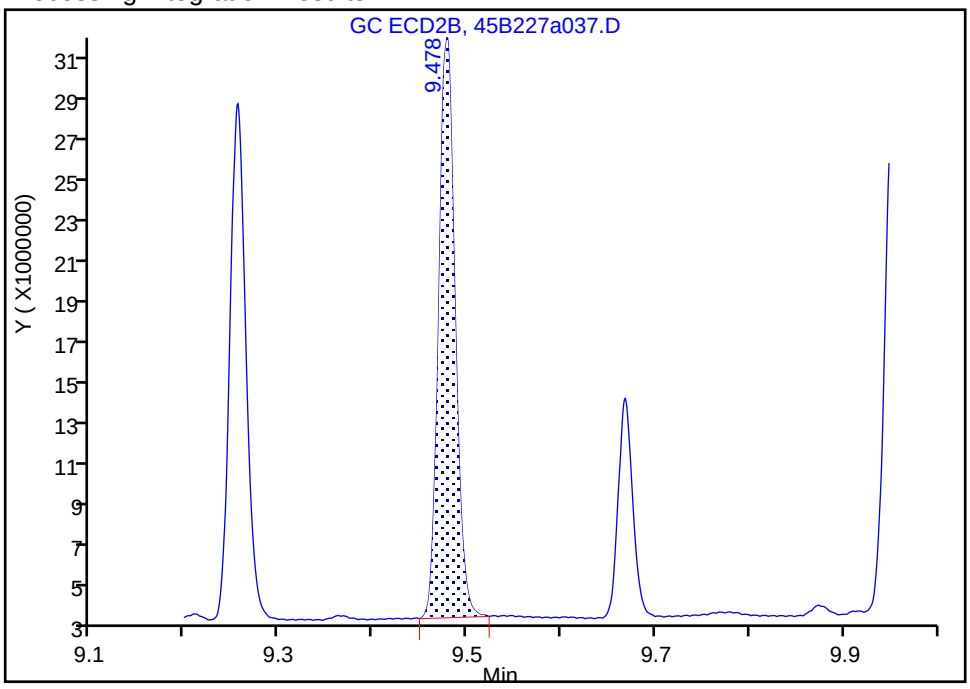
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a037.D
Injection Date: 27-Feb-2019 22:58:07 Instrument ID: TAC045
Lims ID: ic ocp10
Client ID:
Operator ID: AR ALS Bottle#: 35 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

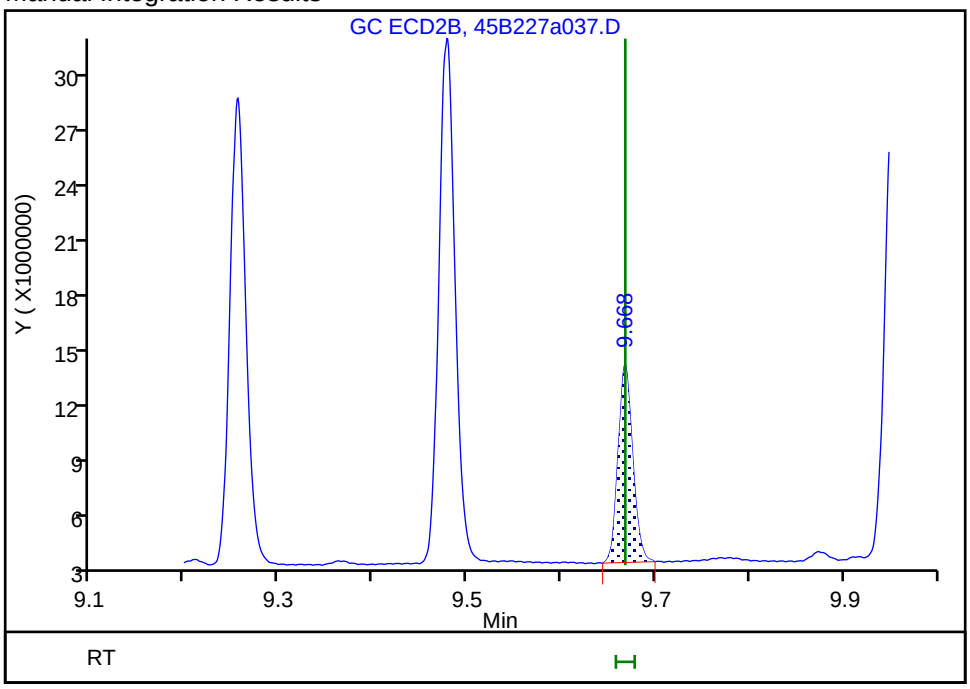
Processing Integration Results

RT: 9.48
Area: 34202396
Amount: 15.731237
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 11492477
Amount: 9.572970
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:23
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D
Lims ID: ic ocp05
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Feb-2019 23:18:34 ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP05
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:44 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:49:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	21218058	5.00	5.27	
2	4.531	4.532	-0.001	32485585	5.00	4.41	
						RPD = 17.71	
* 3 1-Bromo-2-nitrobenzene							
1	5.063	5.064	-0.001	110682051	100.0	100.0	
2	5.431	5.430	0.001	269496975	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.701	5.701	0.000	14346095	5.04	5.40	
2	6.194	6.195	-0.001	19694620	5.04	4.44	M
						RPD = 19.67	
11 Hexachlorobenzene							
1	5.997	5.996	0.001	15484464	5.00	5.25	
2	6.581	6.580	0.001	25052213	5.00	4.69	
						RPD = 11.27	
4 alpha-BHC							
1	6.114	6.114	0.000	14092091	5.00	5.06	
2	6.685	6.687	-0.002	19931791	5.00	4.41	
						RPD = 13.75	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	12117700	5.00	5.18	
2	6.968	6.969	-0.001	17872944	5.00	4.39	
						RPD = 16.40	
7 beta-BHC							
1	6.400	6.400	0.000	5497228	5.00	5.25	
2	7.016	7.018	-0.002	9545593	5.00	4.60	
						RPD = 13.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.535	6.534	0.001	12258864	5.00	5.08	
2	7.259	7.260	-0.001	17617140	5.00	4.28	
						RPD = 17.17	
10 Heptachlor							
1	6.699	6.700	-0.001	11110752	5.00	5.26	
2	7.324	7.326	-0.002	17878695	5.00	4.46	
						RPD = 16.50	
12 Aldrin							
1	6.921	6.921	0.000	13261466	5.00	5.33	
2	7.590	7.592	-0.002	18707857	5.00	4.44	
						RPD = 18.21	
17 Heptachlor epoxide							
1	7.345	7.346	-0.001	11648873	5.00	5.45	
2	8.029	8.030	-0.001	18307629	5.00	4.60	
						RPD = 16.90	
18 trans-Chlordane							
1	7.440	7.440	0.000	12267985	5.00	5.30	
2	8.178	8.178	0.000	18657674	5.00	4.38	
						RPD = 18.97	
19 cis-Chlordane							
1	7.534	7.535	-0.001	12164259	5.00	5.27	
2	8.291	8.291	0.000	19139647	5.00	4.46	
						RPD = 16.61	
29 4,4'-DDE							
1	7.574	7.574	0.000	11839175	5.00	5.10	
2	8.391	8.391	0.000	16596634	5.00	4.24	
						RPD = 18.32	
20 Endosulfan I							
1	7.637	7.638	-0.001	11209884	5.00	5.38	
2	8.352	8.352	0.000	16299494	5.00	4.38	
						RPD = 20.60	
23 Dieldrin							
1	7.812	7.813	-0.001	11766916	5.00	5.22	
2	8.568	8.570	-0.002	16864735	5.00	4.33	
						RPD = 18.65	
37 Endrin							
1	7.987	7.987	0.000	8407270	5.00	5.26	
2	8.823	8.824	-0.001	11156887	5.00	4.26	
						RPD = 20.87	
39 4,4'-DDD							
1	8.010	8.010	0.000	8209098	5.00	5.10	
2	8.853	8.855	-0.002	11230868	5.00	4.14	
						RPD = 20.86	
24 Endosulfan II							
1	8.152	8.153	-0.001	9390347	5.00	5.38	
2	8.988	8.987	0.001	14563347	5.00	4.48	
						RPD = 18.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	7652031	5.00	5.17	
2	9.116	9.115	0.001	9831118	5.00	4.37	
						RPD = 16.87	
41 Endrin aldehyde							
1	8.460	8.460	0.000	9216281	5.00	5.41	
2	9.254	9.255	-0.001	14349075	5.00	4.60	
						RPD = 16.17	
30 Methoxychlor							a
1	8.589	8.589	0.000	4275215	5.00	5.61	
2	9.668	9.668	0.000	5677951	5.00	4.70	a
						RPD = 17.63	
33 Endosulfan sulfate							a
1	8.797	8.798	-0.001	10492682	5.00	5.41	
2	9.478	9.478	0.000	16435092	5.00	4.59	a
						RPD = 16.40	
43 Endrin ketone							
1	9.025	9.026	-0.001	10413130	5.00	5.40	
2	9.952	9.953	-0.001	14842238	5.00	4.50	
						RPD = 18.06	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.830	0.000	10553825	5.02	5.44	
2	10.999	11.000	-0.001	20128121	5.02	5.16	
						RPD = 5.21	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.10	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:46 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D

Injection Date: 27-Feb-2019 23:18:34 Instrument ID: TAC045

Lims ID: ic ocp05

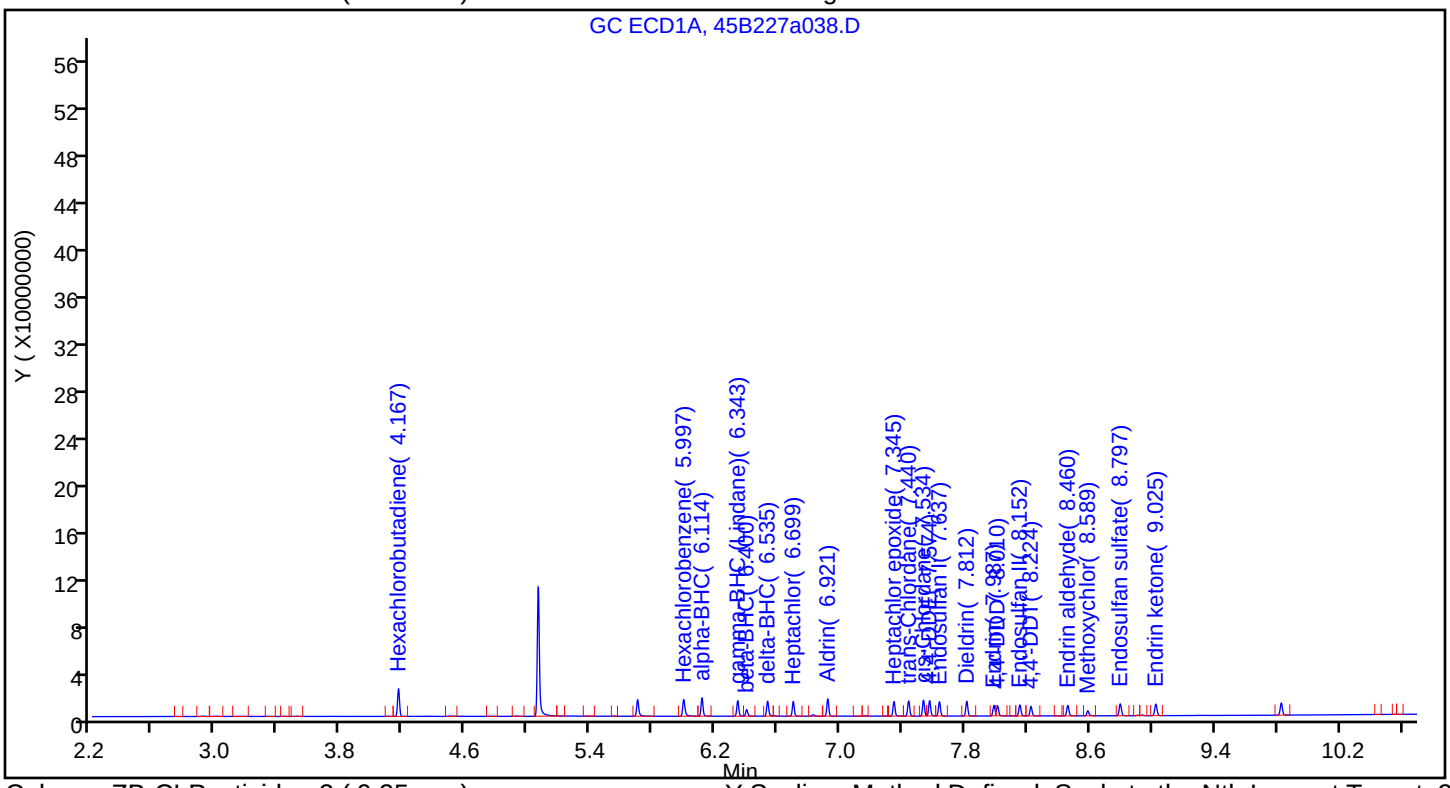
Client ID:

Operator ID: AR ALS Bottle#: 36 Worklist Smp#: 38

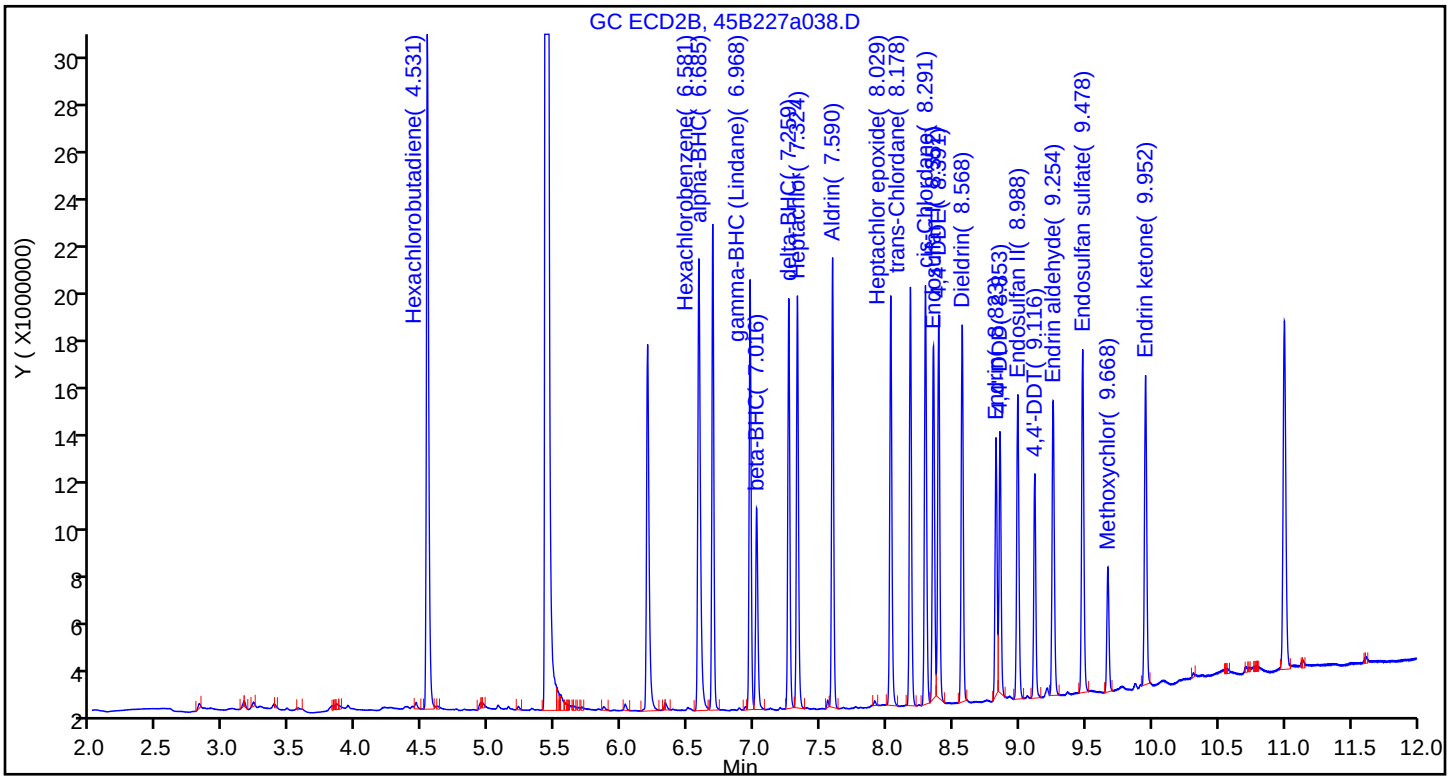
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

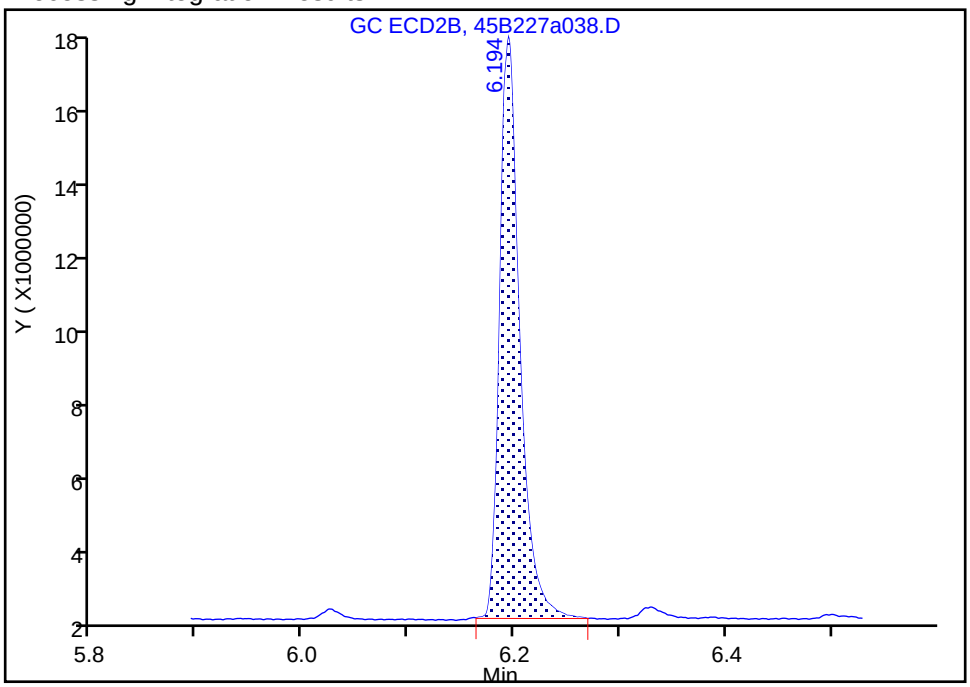
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D
Injection Date: 27-Feb-2019 23:18:34 Instrument ID: TAC045
Lims ID: ic ocp05
Client ID:
Operator ID: AR ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 2

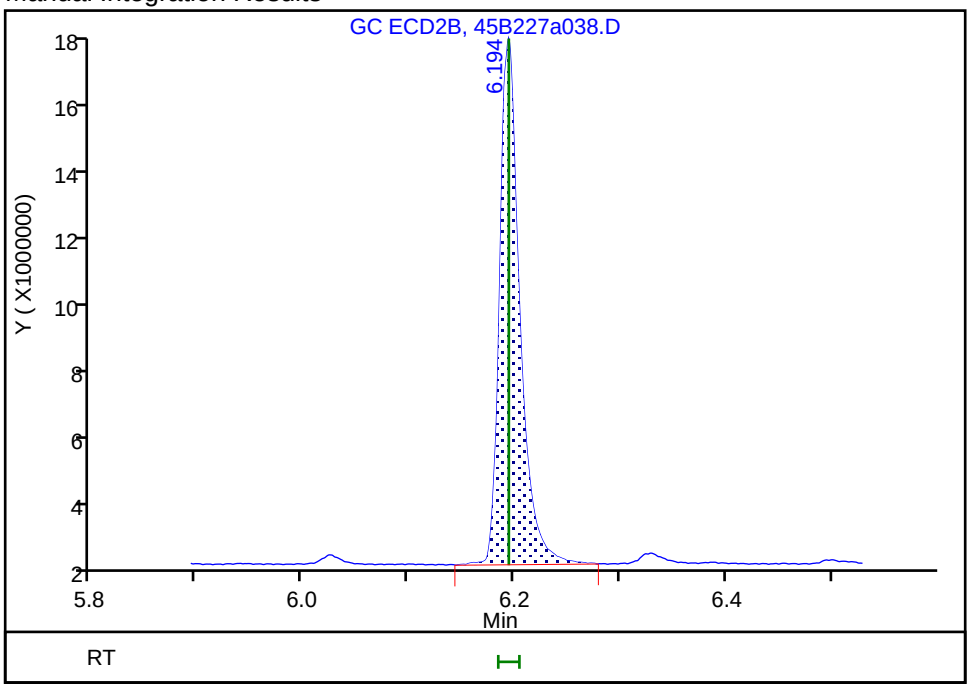
Processing Integration Results

RT: 6.19
Area: 19440209
Amount: 4.383267
Amount Units: ug/L



Manual Integration Results

RT: 6.19
Area: 19694620
Amount: 4.435016
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 15:49:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Seattle

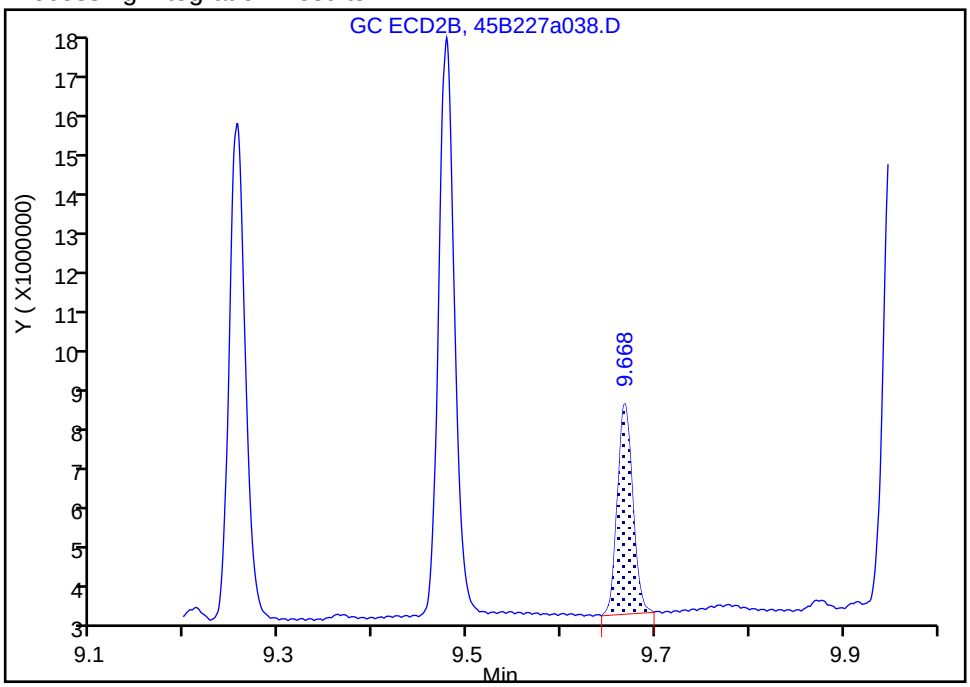
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D
Injection Date: 27-Feb-2019 23:18:34 Instrument ID: TAC045
Lims ID: ic ocp05
Client ID:
Operator ID: AR ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

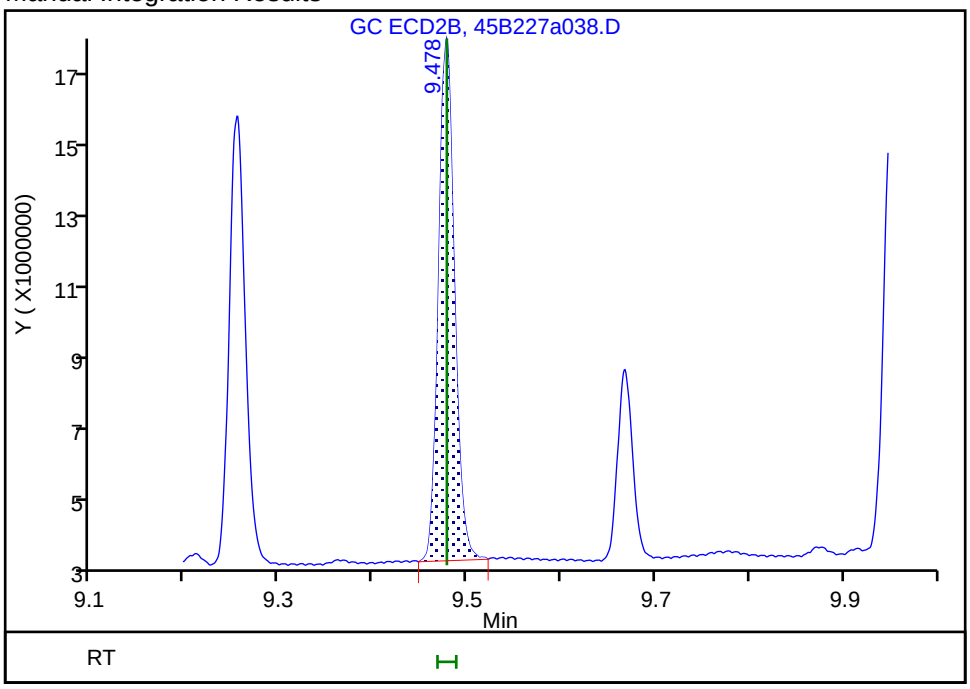
Processing Integration Results

RT: 9.67
Area: 5677951
Amount: 1.990202
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 16435092
Amount: 4.592235
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:39
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

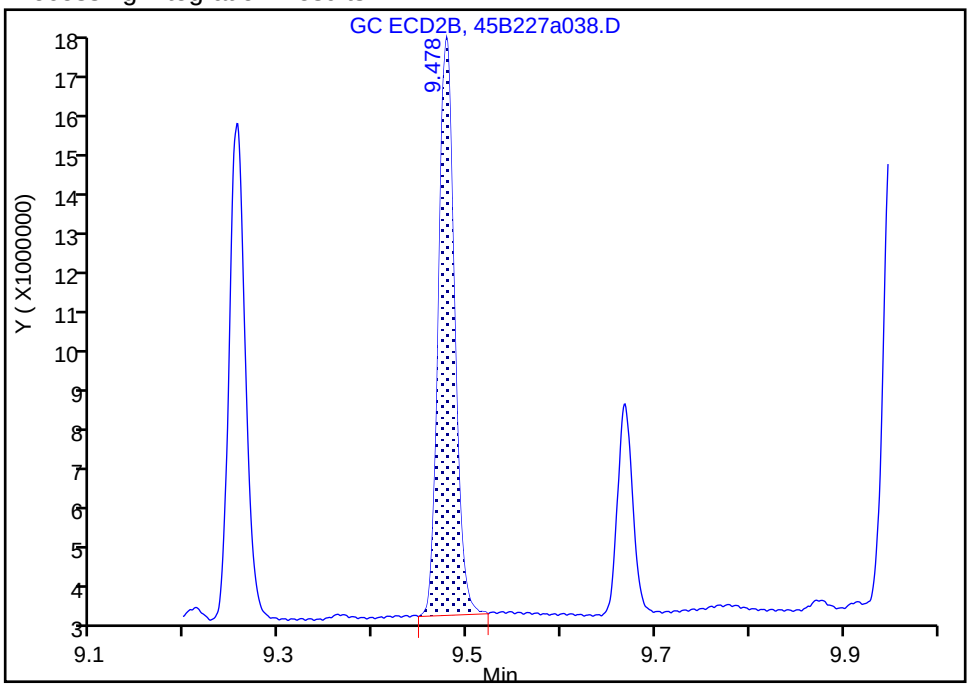
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a038.D
Injection Date: 27-Feb-2019 23:18:34 Instrument ID: TAC045
Lims ID: ic ocp05
Client ID:
Operator ID: AR ALS Bottle#: 36 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

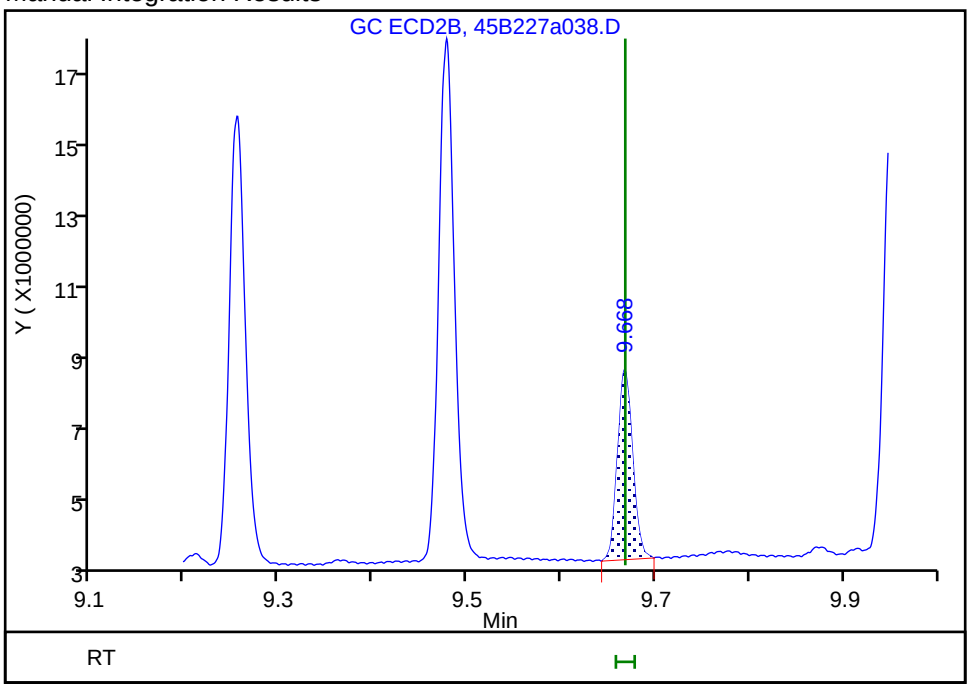
Processing Integration Results

RT: 9.48
Area: 16435092
Amount: 8.497444
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 5677951
Amount: 4.699566
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:36
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D
Lims ID: ic ocp02
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Feb-2019 23:39:40 ALS Bottle#: 37 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP02
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:49 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:48:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	9108219	2.00	2.20	
2	4.532	4.532	0.000	12303630	2.00	1.63	
						RPD = 30.15	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	113499568	100.0	100.0	
2	5.432	5.430	0.002	276654832	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.702	5.701	0.001	5945934	2.01	2.18	M
2	6.194	6.195	-0.001	7560805	2.01	1.66	M
						RPD = 27.33	
11 Hexachlorobenzene							
1	5.999	5.996	0.003	6939703	2.00	2.29	
2	6.583	6.580	0.003	10360888	2.00	1.89	
						RPD = 19.36	
4 alpha-BHC							
1	6.114	6.114	0.000	5976157	2.00	2.09	
2	6.685	6.687	-0.002	6698833	2.00	1.94	
						RPD = 7.74	
6 gamma-BHC (Lindane)							
1	6.344	6.344	0.000	5202894	2.00	2.17	
2	6.968	6.969	-0.001	6128832	2.00	1.95	
						RPD = 10.87	
7 beta-BHC							
1	6.403	6.400	0.003	2565027	2.00	2.39	
2	7.018	7.018	0.000	3731505	2.00	1.75	
						RPD = 30.79	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.536	6.534	0.002	5256368	2.00	2.12	
2	7.259	7.260	-0.001	6001052	2.00	1.91	
						RPD = 10.67	
10 Heptachlor							
1	6.700	6.700	0.000	4813158	2.00	2.22	
2	7.325	7.326	-0.001	6893000	2.00	1.67	
						RPD = 28.11	
12 Aldrin							
1	6.922	6.921	0.001	5690808	2.00	2.23	
2	7.590	7.592	-0.002	6613313	2.00	1.91	
						RPD = 15.32	
17 Heptachlor epoxide							
1	7.346	7.346	0.000	5050096	2.00	2.31	
2	8.029	8.030	-0.001	7254745	2.00	1.78	
						RPD = 25.89	
18 trans-Chlordane							
1	7.440	7.440	0.000	5290269	2.00	2.23	
2	8.179	8.178	0.001	7274756	2.00	1.66	
						RPD = 29.00	
19 cis-Chlordane							
1	7.536	7.535	0.001	5364346	2.00	2.27	
2	8.292	8.291	0.001	7657735	2.00	1.74	
						RPD = 26.34	
29 4,4'-DDE							
1	7.575	7.574	0.001	5151789	2.00	2.16	
2	8.391	8.391	0.000	5736217	2.00	1.91	
						RPD = 12.61	
20 Endosulfan I							
1	7.637	7.638	-0.001	4960273	2.00	2.32	
2	8.350	8.352	-0.002	6689999	2.00	1.75	
						RPD = 28.11	
23 Dieldrin							
1	7.814	7.813	0.001	5095253	2.00	2.21	
2	8.569	8.570	-0.001	6148715	2.00	1.54	
						RPD = 35.63	
37 Endrin							
1	7.988	7.987	0.001	3753269	2.00	2.29	
2	8.824	8.824	0.000	4411117	2.00	1.64	
						RPD = 32.89	
39 4,4'-DDD							
1	8.011	8.010	0.001	3691713	2.00	2.24	
2	8.855	8.855	0.000	4095310	2.00	1.91	
						RPD = 15.86	
24 Endosulfan II							
1	8.154	8.153	0.001	4173507	2.00	2.33	
2	8.989	8.987	0.002	5798249	2.00	1.74	
						RPD = 29.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	3291423	2.00	2.17	
2	9.115	9.115	0.000	3538071	2.00	1.99	
						RPD = 8.80	
41 Endrin aldehyde							
1	8.461	8.460	0.001	4119961	2.00	2.36	
2	9.255	9.255	0.000	5773275	2.00	1.80	
						RPD = 26.69	
30 Methoxychlor							a
1	8.590	8.589	0.001	1901975	2.00	2.43	
2	9.669	9.668	0.001	2169183	2.00	1.75	a
						RPD = 32.72	
33 Endosulfan sulfate							a
1	8.798	8.798	0.000	4615247	2.00	2.32	
2	9.478	9.478	0.000	6530379	2.00	1.78	a
						RPD = 26.55	
43 Endrin ketone							
1	9.026	9.026	0.000	4594046	2.00	2.32	
2	9.954	9.953	0.001	5958355	2.00	1.76	
						RPD = 27.48	
$ 45 DCB Decachlorobiphenyl							
1	9.831	9.830	0.001	4657750	2.01	2.34	
2	11.000	11.000	0.000	8735832	2.01	2.18	
						RPD = 6.99	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.04	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:50 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D

Injection Date: 27-Feb-2019 23:39:40 Instrument ID: TAC045

Lims ID: ic ocp02

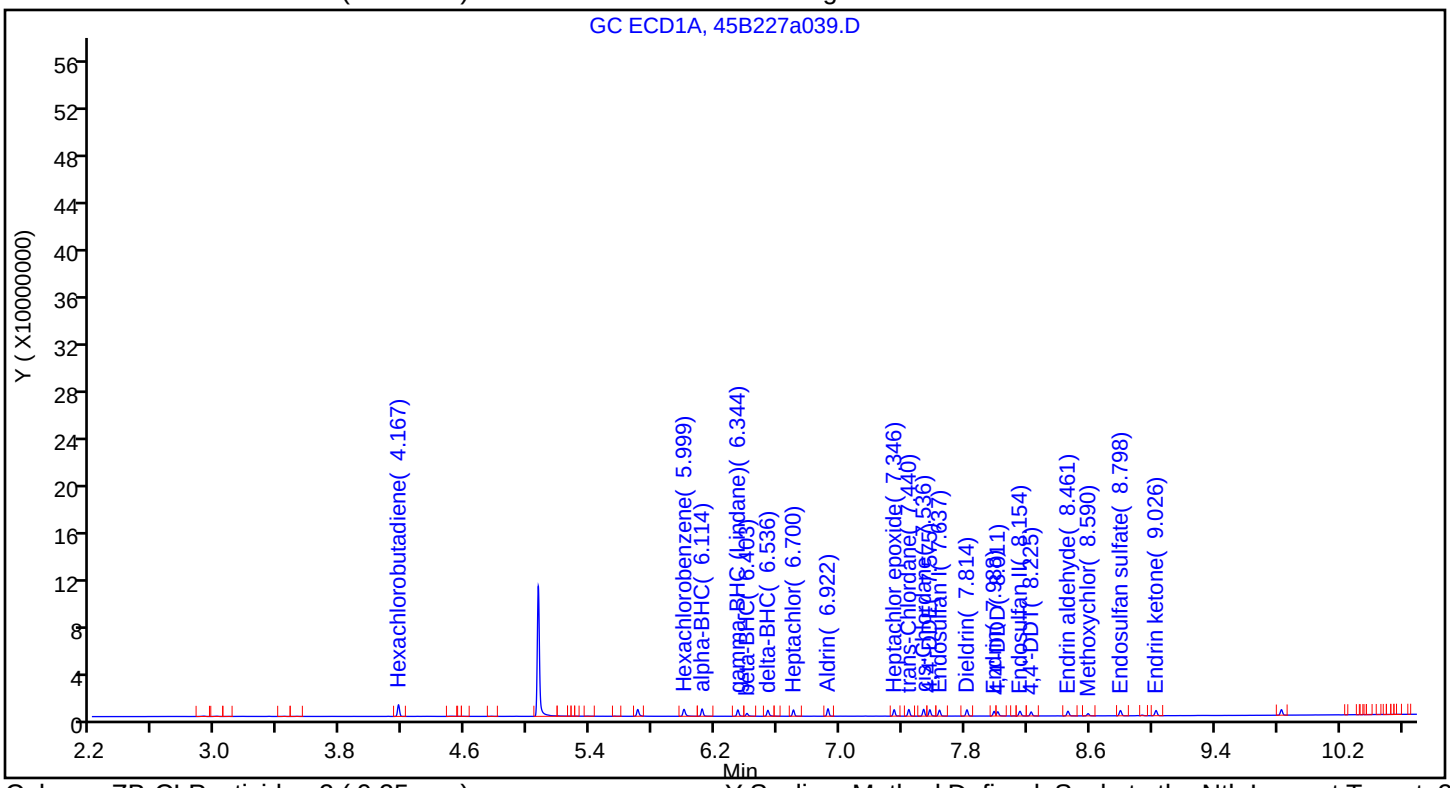
Client ID:

Operator ID: AR ALS Bottle#: 37 Worklist Smp#: 39

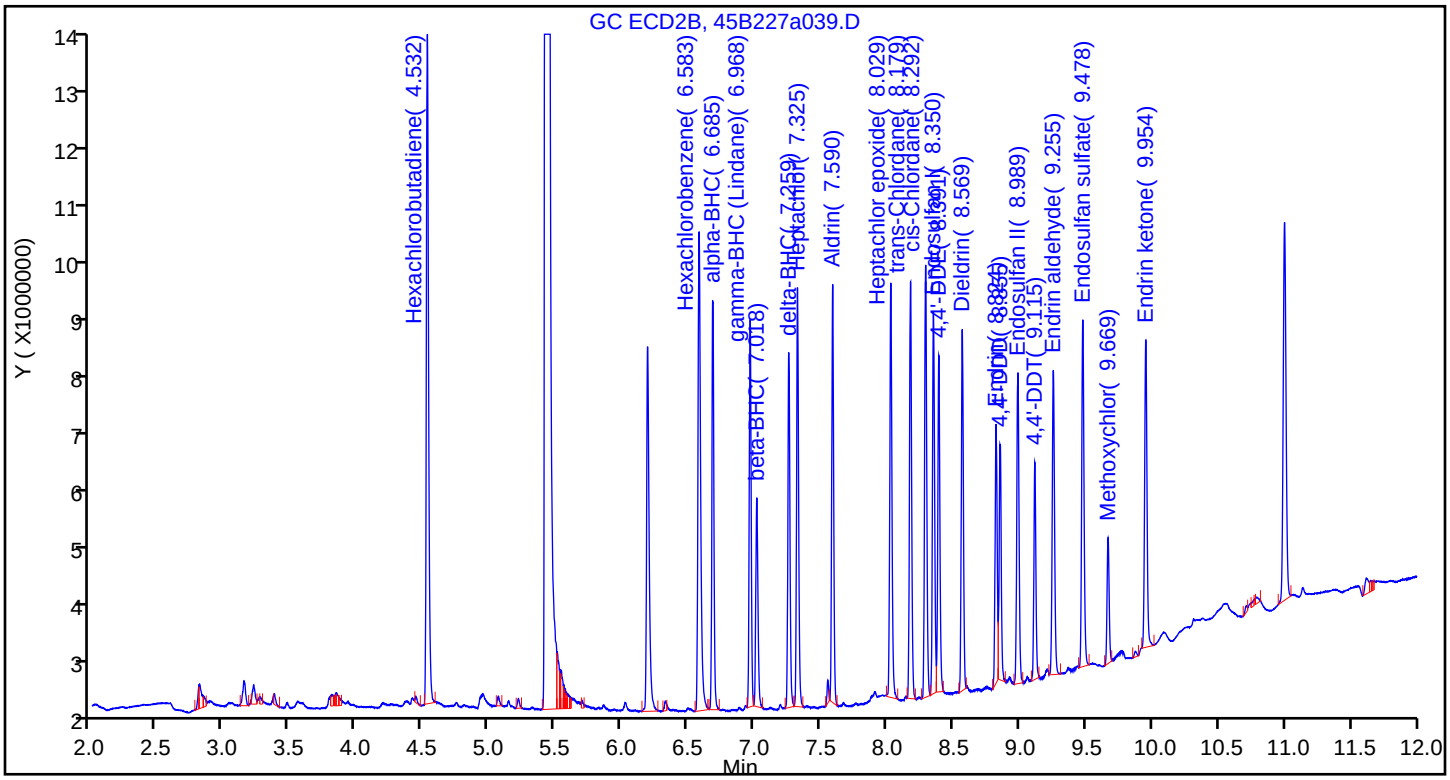
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

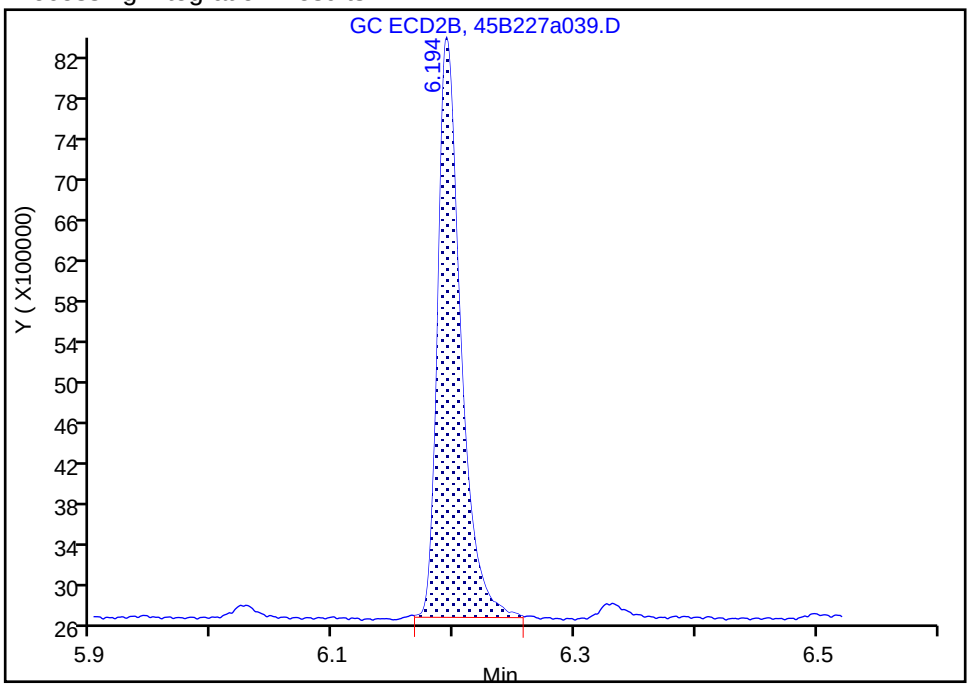
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D
Injection Date: 27-Feb-2019 23:39:40 Instrument ID: TAC045
Lims ID: ic ocp02
Client ID:
Operator ID: AR ALS Bottle#: 37 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 2

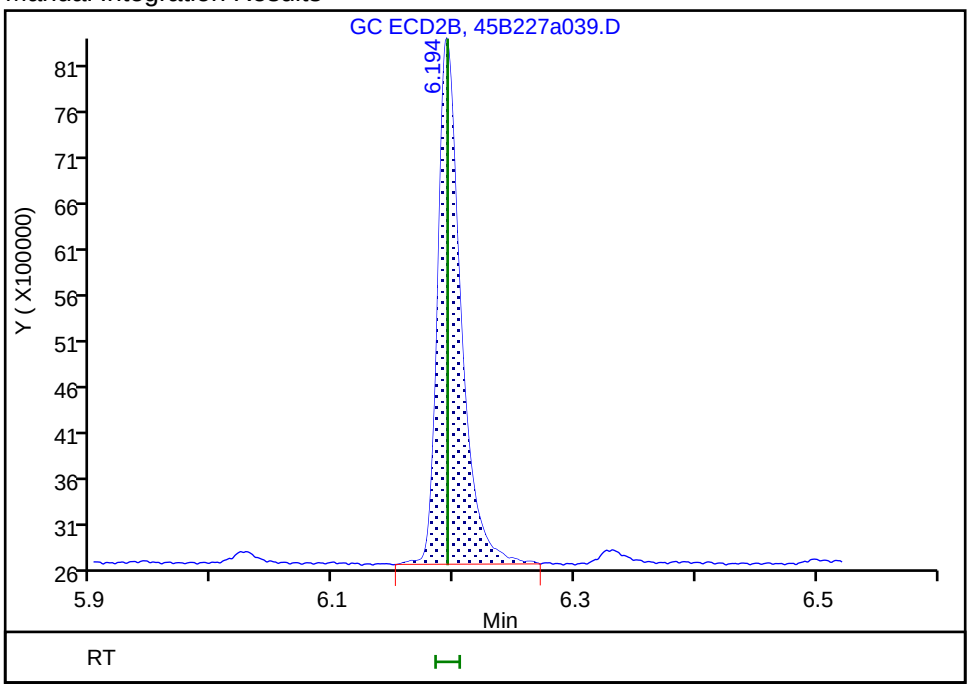
Processing Integration Results

RT: 6.19
Area: 7434314
Amount: 1.972120
Amount Units: ug/L



Manual Integration Results

RT: 6.19
Area: 7560805
Amount: 1.658560
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 15:49:38
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Seattle

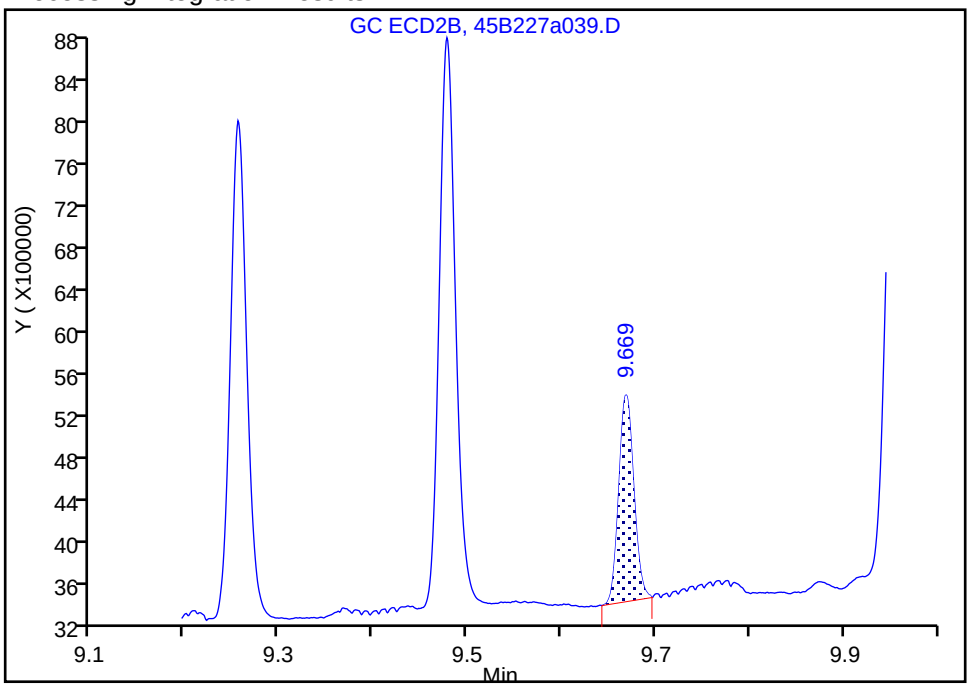
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D				
Injection Date:	27-Feb-2019 23:39:40	Instrument ID:	TAC045		
Lims ID:	ic ocp02				
Client ID:					
Operator ID:	AR	ALS Bottle#:	37	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

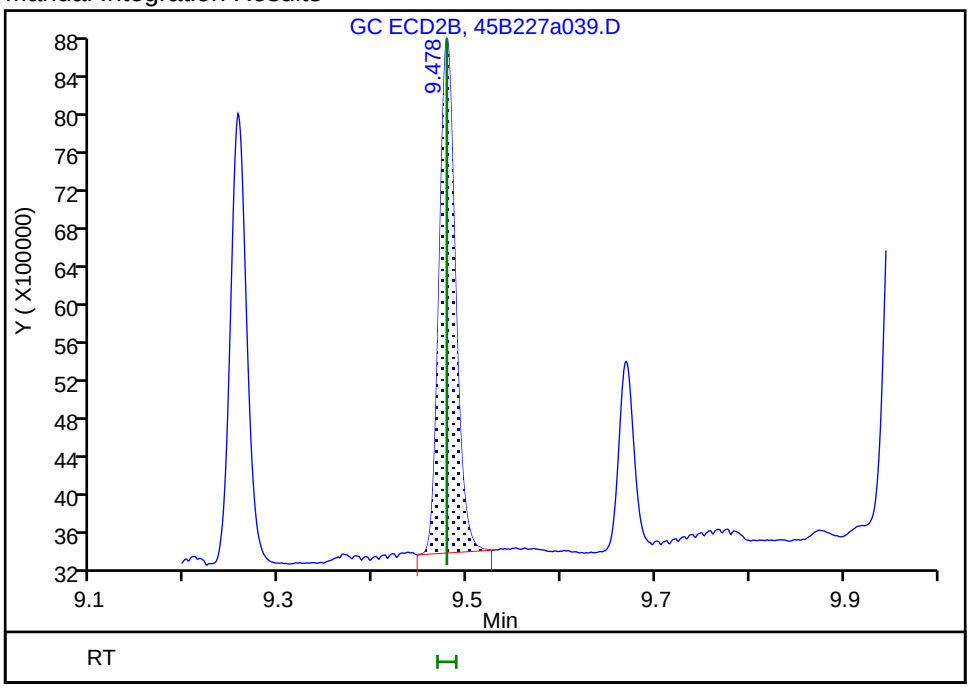
Processing Integration Results

RT: 9.67
Area: 2169183
Amount: 0.683396
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 6530379
Amount: 1.777485
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:51
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

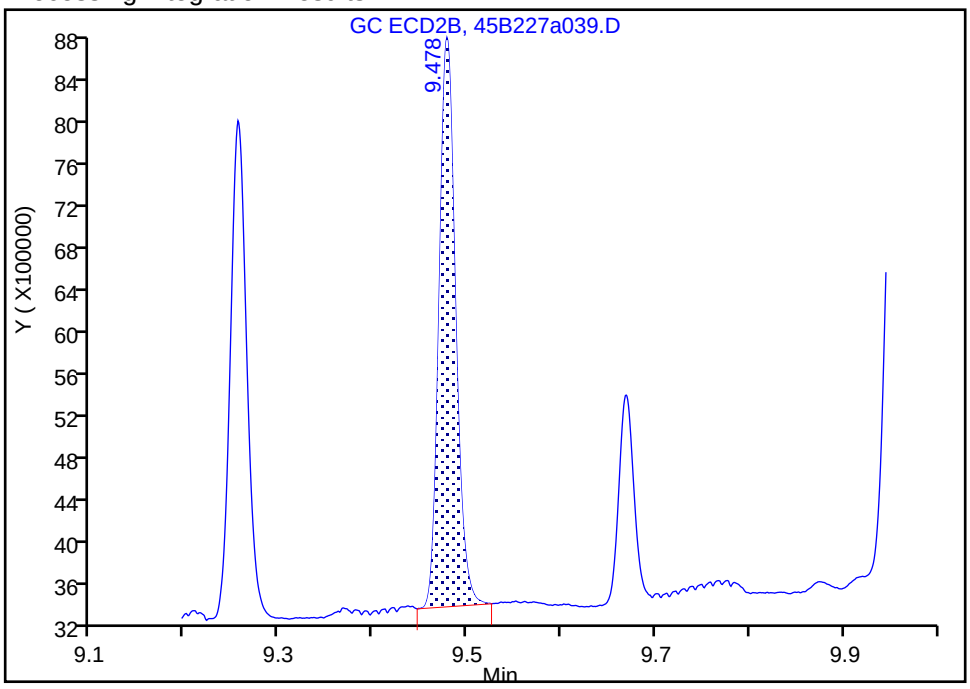
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a039.D
Injection Date: 27-Feb-2019 23:39:40 Instrument ID: TAC045
Lims ID: ic ocp02
Client ID:
Operator ID: AR ALS Bottle#: 37 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

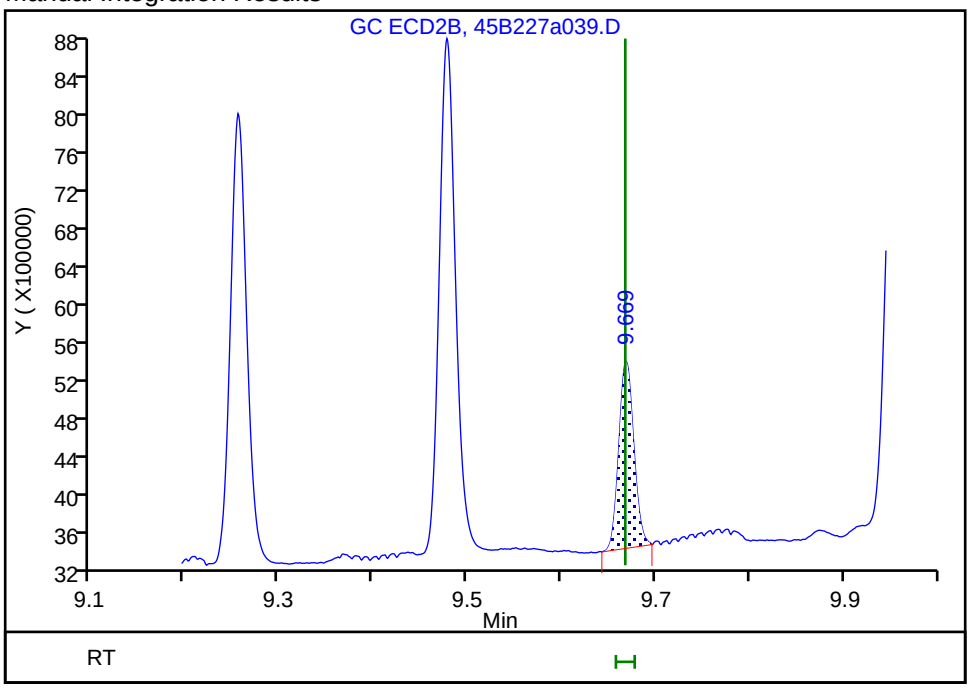
Processing Integration Results

RT: 9.48
Area: 6530379
Amount: 3.752885
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 2169183
Amount: 1.748952
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:14:49
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D
Lims ID: ic ocp1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Feb-2019 23:59:58 ALS Bottle#: 38 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC OCP1
Operator ID: AR Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 06-Mar-2019 13:57:53 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 15:48:06

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	4527674	1.00	1.09	
2	4.532	4.532	0.000	5555771	1.00	0.7225	
						RPD = 40.25	
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	114450408	100.0	100.0	
2	5.431	5.430	0.001	281245360	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.702	5.701	0.001	3142147	1.01	1.14	M
2	6.195	6.195	0.000	3644814	1.01	0.7865	M
						RPD = 37.07	
11 Hexachlorobenzene							
1	5.999	5.996	0.003	3570793	1.00	1.17	
2	6.582	6.580	0.002	4976229	1.00	0.8922	
						RPD = 26.96	
4 alpha-BHC							
1	6.115	6.114	0.001	2924358	1.00	1.02	
2	6.685	6.687	-0.002	2674984	1.00	1.20	
						RPD = 17.02	
6 gamma-BHC (Lindane)							
1	6.344	6.344	0.000	2577749	1.00	1.07	
2	6.967	6.969	-0.002	2631484	1.00	1.23	
						RPD = 14.69	
7 beta-BHC							
1	6.401	6.400	0.001	1313812	1.00	1.21	
2	7.019	7.018	0.001	1898164	1.00	0.8767	
						RPD = 32.26	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.535	6.534	0.001	2675590	1.00	1.07	
2	7.261	7.260	0.001	2766014	1.00	1.27	
						RPD = 16.51	
10 Heptachlor							
1	6.700	6.700	0.000	2435286	1.00	1.11	
2	7.326	7.326	0.000	3273161	1.00	0.7818	
						RPD = 35.09	
12 Aldrin							
1	6.920	6.921	-0.001	2842683	1.00	1.10	
2	7.589	7.592	-0.003	3077706	1.00	1.19	
						RPD = 7.61	
17 Heptachlor epoxide							
1	7.346	7.346	0.000	2539414	1.00	1.15	
2	8.029	8.030	-0.001	3631941	1.00	0.8752	
						RPD = 27.12	
18 trans-Chlordane							
1	7.440	7.440	0.000	2809588	1.00	1.17	
2	8.178	8.178	0.000	3523206	1.00	0.7922	
						RPD = 38.74	
19 cis-Chlordane							
1	7.535	7.535	0.000	2747609	1.00	1.15	
2	8.291	8.291	0.000	3649047	1.00	0.8147	
						RPD = 34.18	
29 4,4'-DDE							
1	7.574	7.574	0.000	2534630	1.00	1.06	
2	8.391	8.391	0.000	2815862	1.00	1.29	
						RPD = 20.21	
20 Endosulfan I							
1	7.637	7.638	-0.001	2476728	1.00	1.15	
2	8.351	8.352	-0.001	3157041	1.00	0.8122	
						RPD = 34.41	
23 Dieldrin							
1	7.813	7.813	0.000	2623688	1.00	1.13	
2	8.568	8.570	-0.002	2852246	1.00	0.7019	
						RPD = 46.40	
37 Endrin							
1	7.988	7.987	0.001	1898593	1.00	1.15	
2	8.824	8.824	0.000	2162779	1.00	0.7922	
						RPD = 36.71	
39 4,4'-DDD							
1	8.010	8.010	0.000	1814734	1.00	1.09	
2	8.853	8.855	-0.002	2055772	1.00	1.29	
						RPD = 16.44	
24 Endosulfan II							
1	8.153	8.153	0.000	2206931	1.00	1.22	
2	8.987	8.987	0.000	2838612	1.00	0.8372	
						RPD = 37.41	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.225	8.224	0.001	1656617	1.00	1.08	
2	9.116	9.115	0.001	1638663	1.00	1.29	
						RPD = 17.11	
41 Endrin aldehyde							
1	8.460	8.460	0.000	2065951	1.00	1.17	
2	9.255	9.255	0.000	2879628	1.00	0.8841	
						RPD = 28.01	
30 Methoxychlor							a
1	8.589	8.589	0.000	959443	1.00	1.22	
2	9.667	9.668	-0.001	1135321	1.00	0.9004	a
						RPD = 29.92	
33 Endosulfan sulfate							a
1	8.797	8.798	-0.001	2492718	1.00	1.24	
2	9.477	9.478	-0.001	3491559	1.00	0.9348	a
						RPD = 28.34	
43 Endrin ketone							
1	9.026	9.026	0.000	2358579	1.00	1.18	
2	9.952	9.953	-0.001	3097276	1.00	0.9005	
						RPD = 27.06	
$ 45 DCB Decachlorobiphenyl							
1	9.829	9.830	-0.001	2509122	1.00	1.25	
2	11.000	11.000	0.000	4963046	1.00	1.22	
						RPD = 2.49	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00027	Amount Added: 0.02	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 06-Mar-2019 13:57:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Injection Date: 27-Feb-2019 23:59:58 Instrument ID: TAC045

Lims ID: ic ocp1

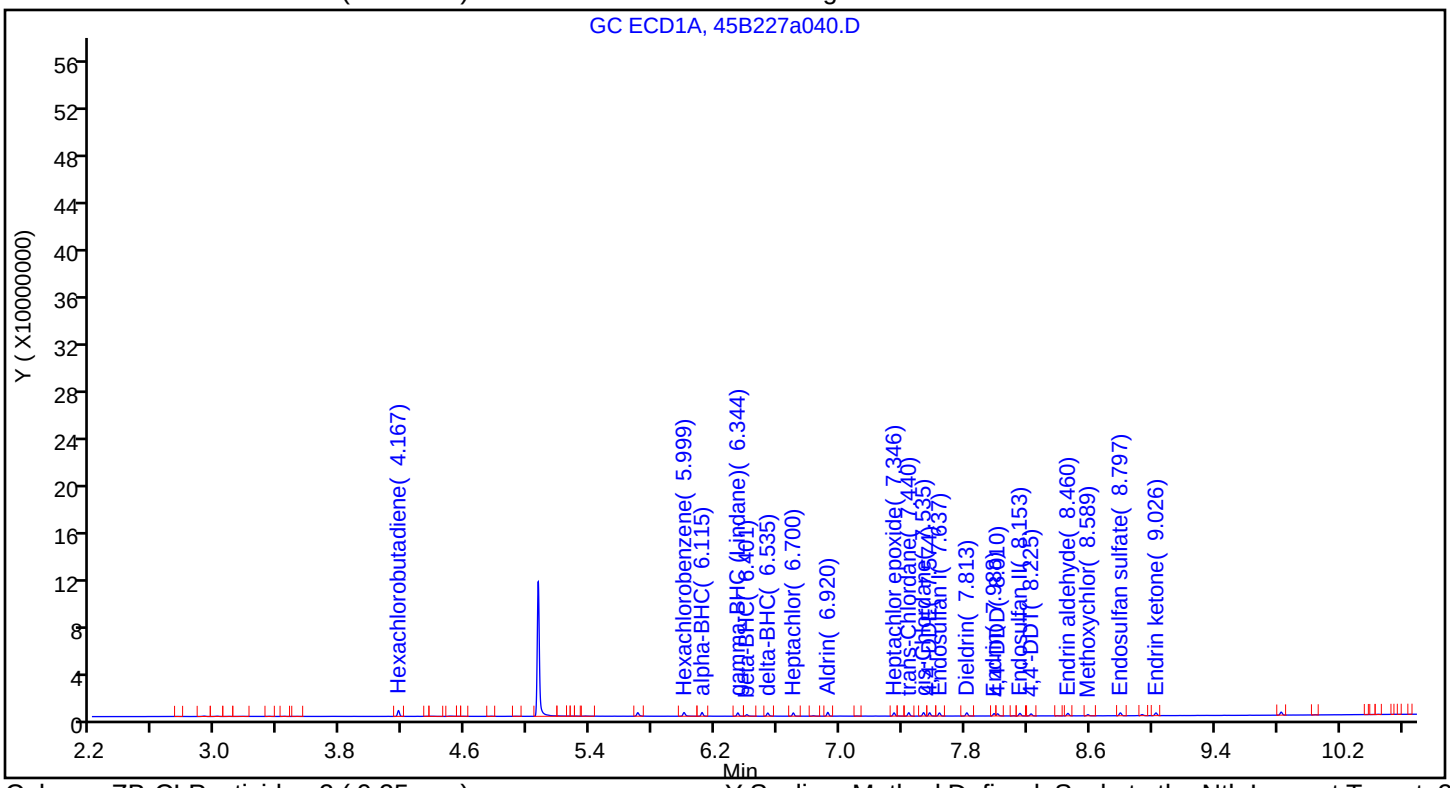
Client ID:

Operator ID: AR ALS Bottle#: 38 Worklist Smp#: 40

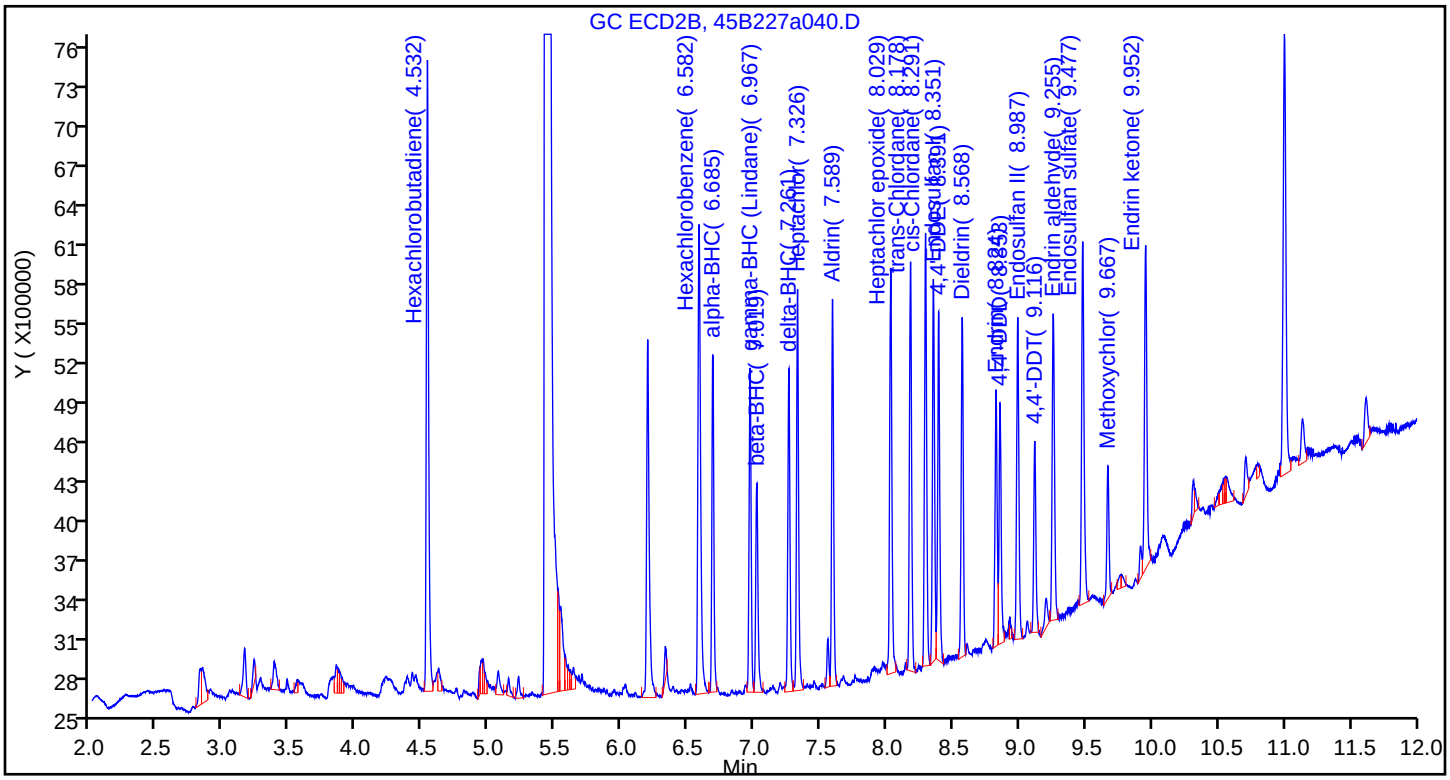
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

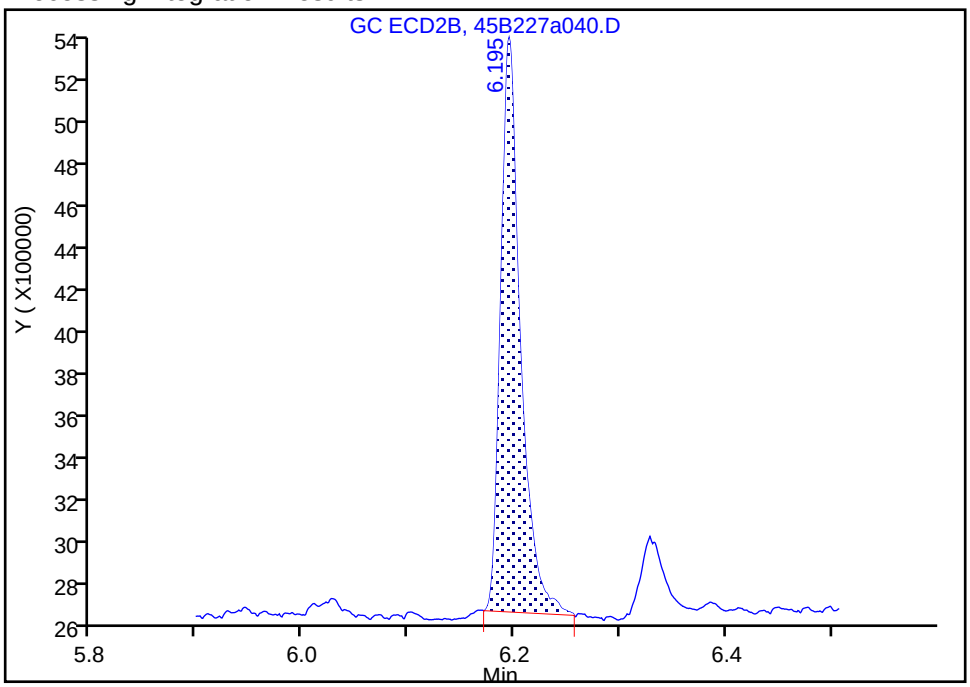
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Injection Date:	27-Feb-2019 23:59:58	Instrument ID:	TAC045		
Lims ID:	ic ocp1				
Client ID:					
Operator ID:	AR	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 2

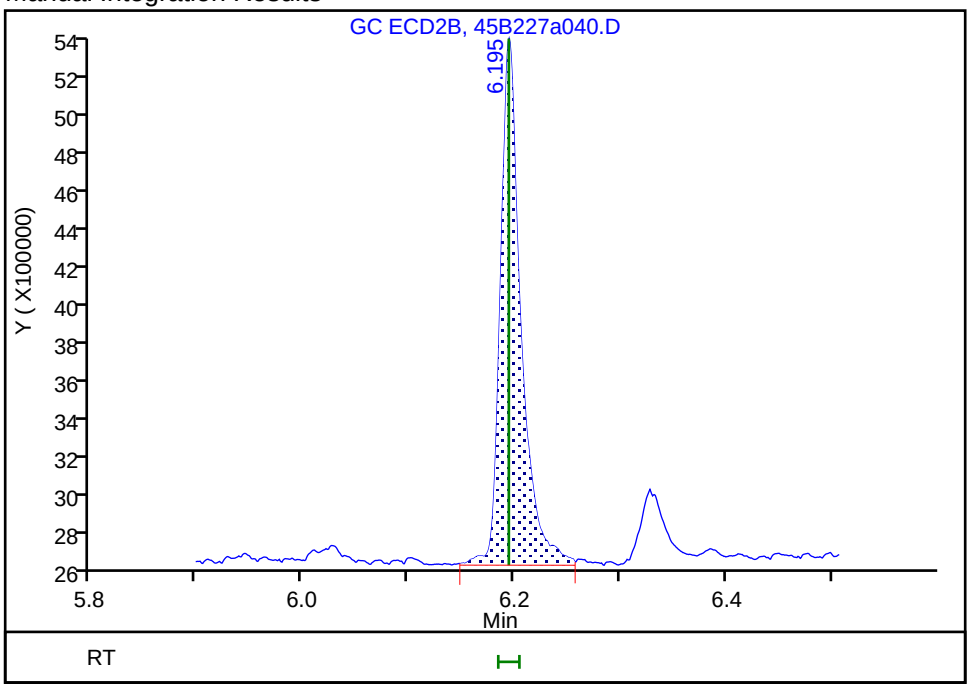
Processing Integration Results

RT: 6.19
Area: 3431921
Amount: 1.115072
Amount Units: ug/L



Manual Integration Results

RT: 6.19
Area: 3644814
Amount: 0.786487
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 15:49:16

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Seattle

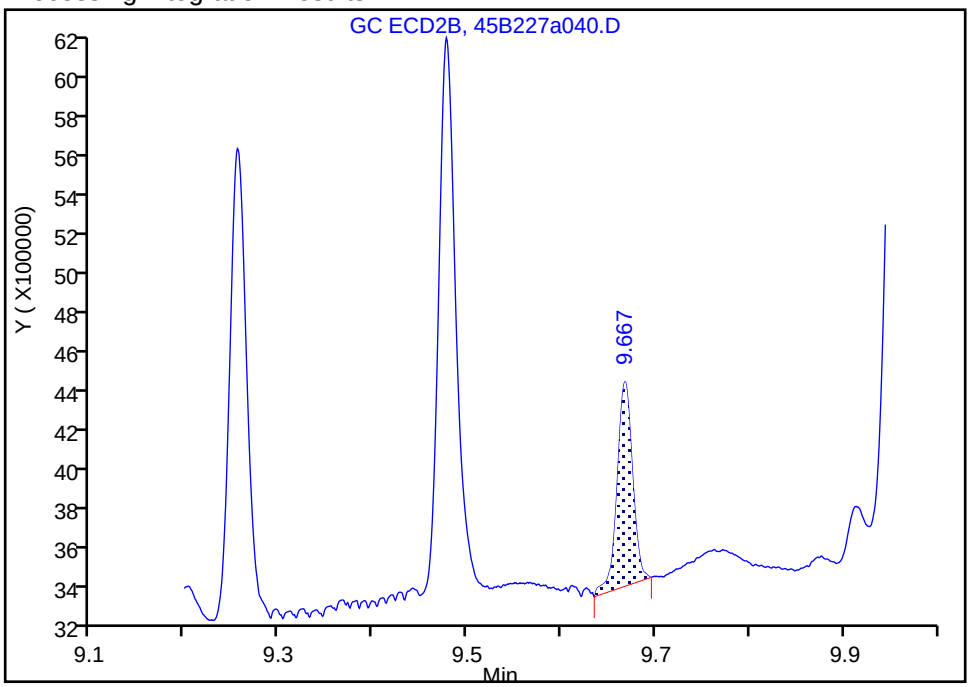
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Injection Date:	27-Feb-2019 23:59:58	Instrument ID:	TAC045		
Lims ID:	ic ocp1				
Client ID:					
Operator ID:	AR	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

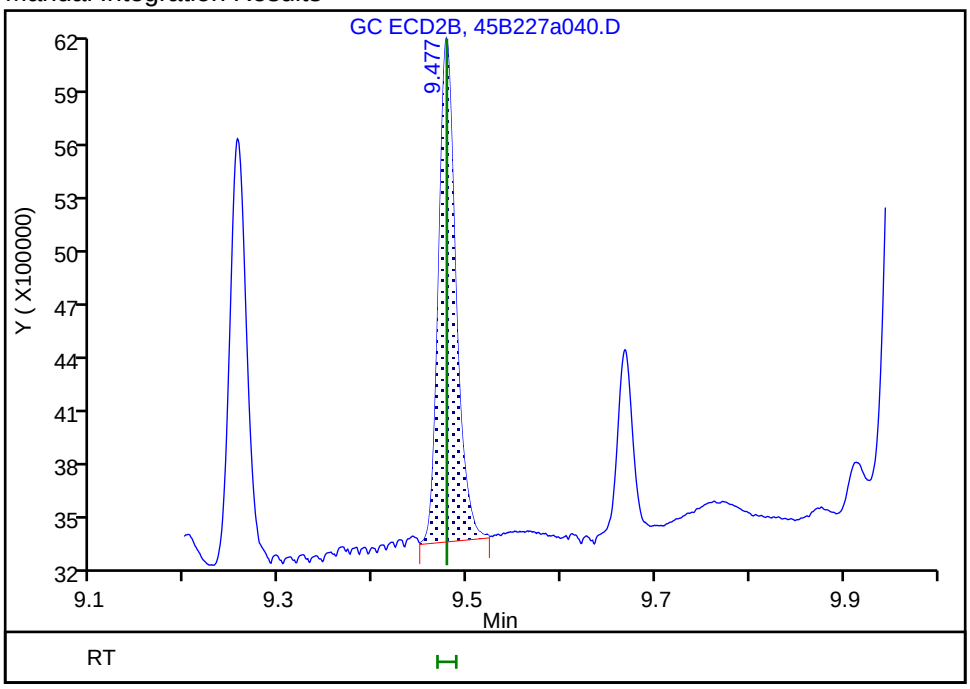
Processing Integration Results

RT: 9.67
Area: 1135321
Amount: 0.326890
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 3491559
Amount: 0.934846
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:15:04
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

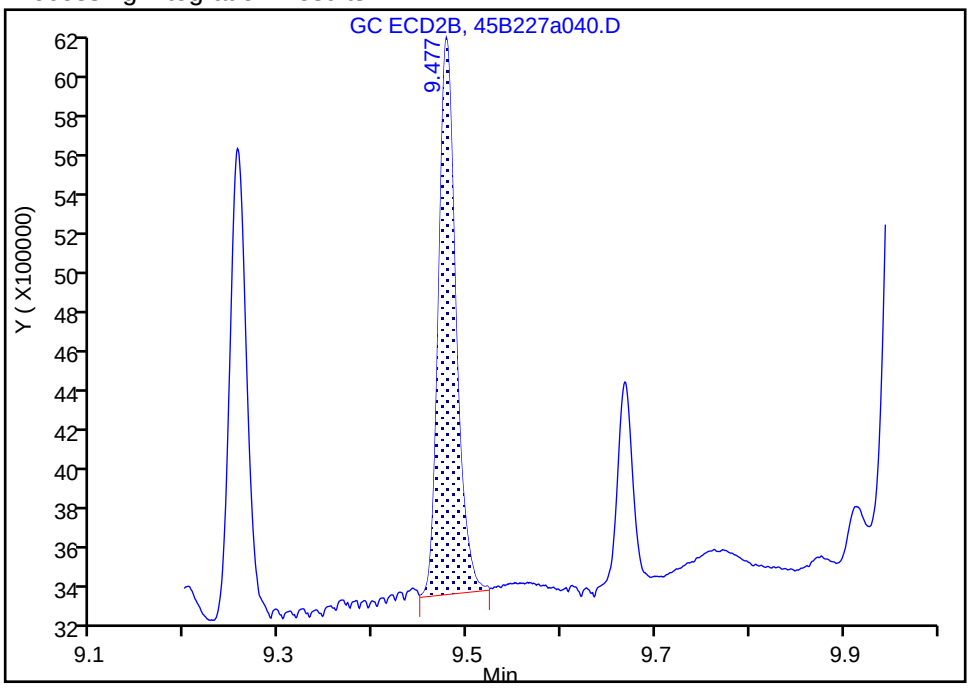
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Injection Date:	27-Feb-2019 23:59:58	Instrument ID:	TAC045		
Lims ID:	ic ocp1				
Client ID:					
Operator ID:	AR	ALS Bottle#:	38	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

30 Methoxychlor, CAS: 72-43-5

Signal: 2

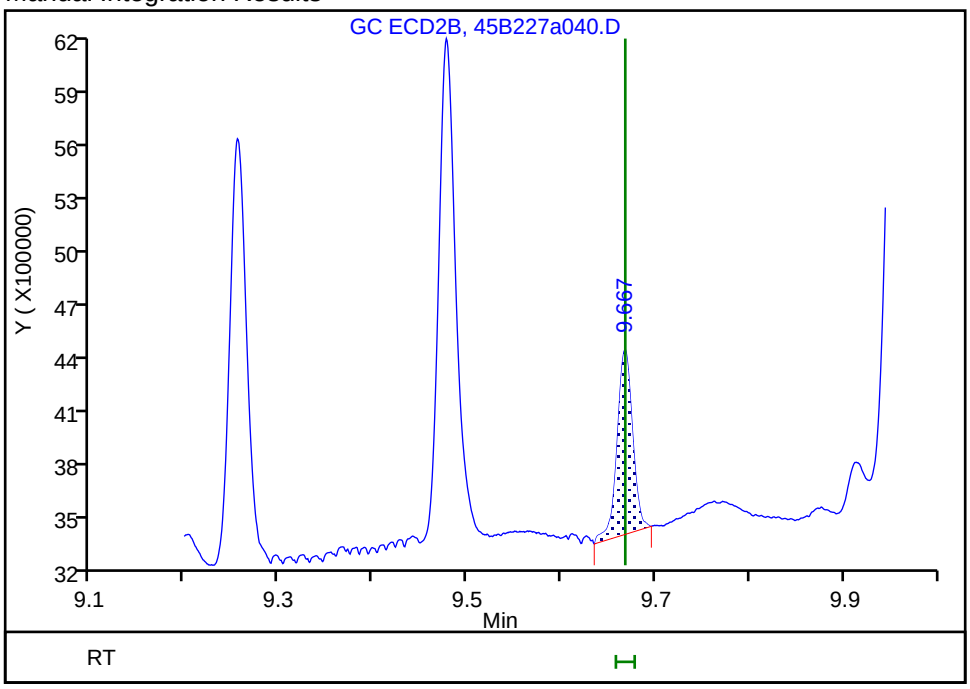
Processing Integration Results

RT: 9.48
Area: 3491559
Amount: 2.293065
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 1135321
Amount: 0.900437
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:15:01
Audit Action: Assigned Compound ID Audit Reason:

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: PEM 580-306388/3 Calibration Date: 07/23/2019 12:30

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0005.d Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	7.13	317223498	2.57	15	
Endrin aldehyde	7.56	3146031			
Endrin ketone	8.09	5212562			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	7.36	577913061	1.15	15	
4,4'-DDD	7.16	4481100			
4,4'-DDE	6.77	2254769			

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d
Lims ID: pem
Client ID:
Sample Type: PEM
Inject. Date: 23-Jul-2019 12:30:03 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: PEM
Operator ID: CJB Instrument ID: TAC034
Sublist:

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 10:50:37 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 10:52:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 4,4'-DDE							M
1	6.767	6.768	-0.001	2254769		NR	M
2	7.606	7.607	-0.001	15802603		NR	
						RPD = NaN	
33 Endrin							Ma
1	7.126	7.127	-0.001	317223498	NR	NR	M
2	8.003	8.005	-0.002	912360808	NR	NR	
						RPD = NaN	
36 4,4'-DDD							Ma
1	7.163	7.167	-0.004	4481100		NR	M
2	8.053	8.055	-0.002	15957649		NR	M
						RPD = NaN	
38 4,4'-DDT							
1	7.363	7.365	-0.002	577913061	NR	NR	
2	8.307	8.306	0.001	1646614484	NR	NR	
						RPD = NaN	
39 Endrin aldehyde							M
1	7.564	7.568	-0.004	3146031		NR	M
2	8.427	8.430	-0.003	9426017		NR	M
						RPD = NaN	
44 Endrin ketone							M
1	8.092	8.094	-0.002	5212562		NR	
2	9.102	9.104	-0.002	24490838		NR	M
						RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8081PEMstd_00023 Amount Added: 1.00 Units: mL

Report Date: 24-Jul-2019 10:52:48 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d

Injection Date: 23-Jul-2019 12:30:03 Instrument ID: TAC034

Lims ID: pem

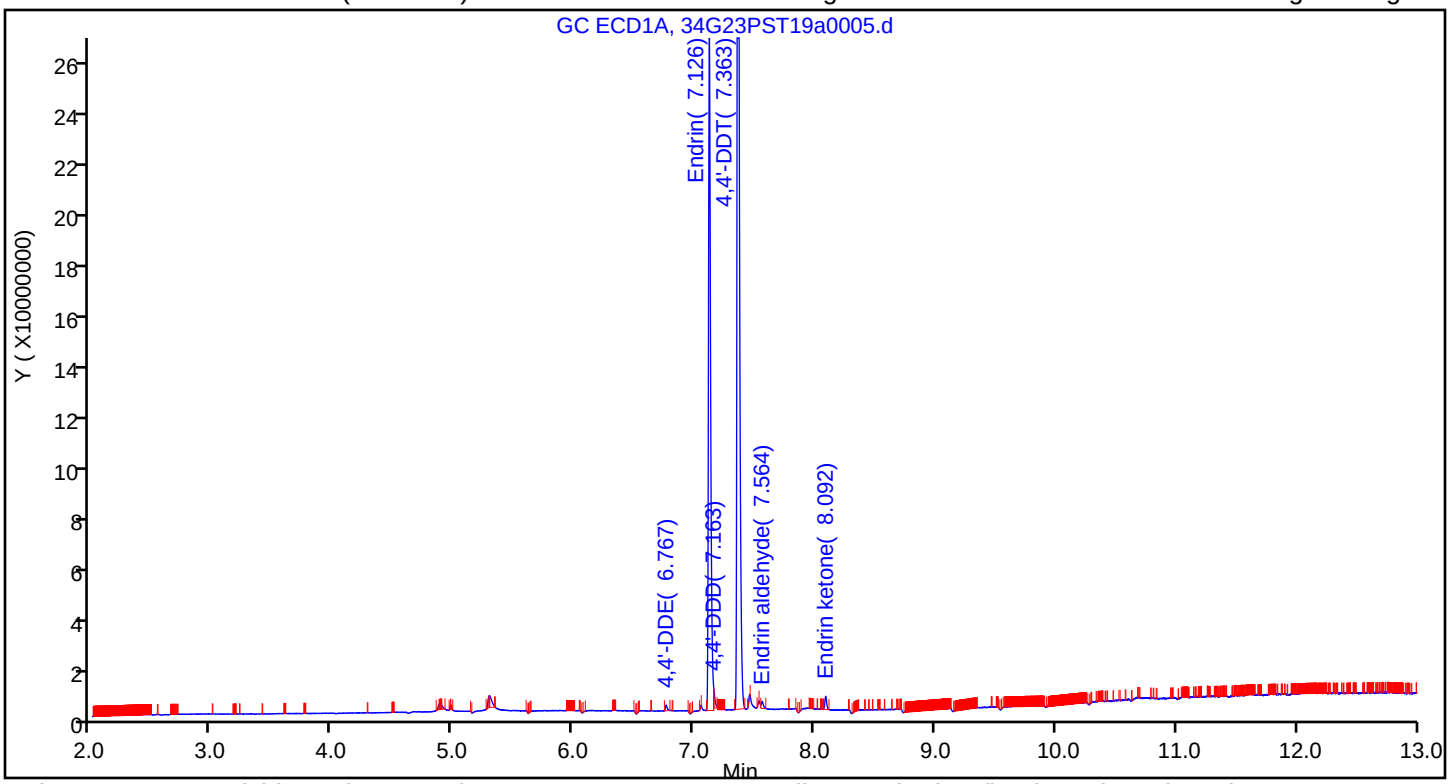
Client ID:

Operator ID: CJB ALS Bottle#: 1 Worklist Smp#: 3

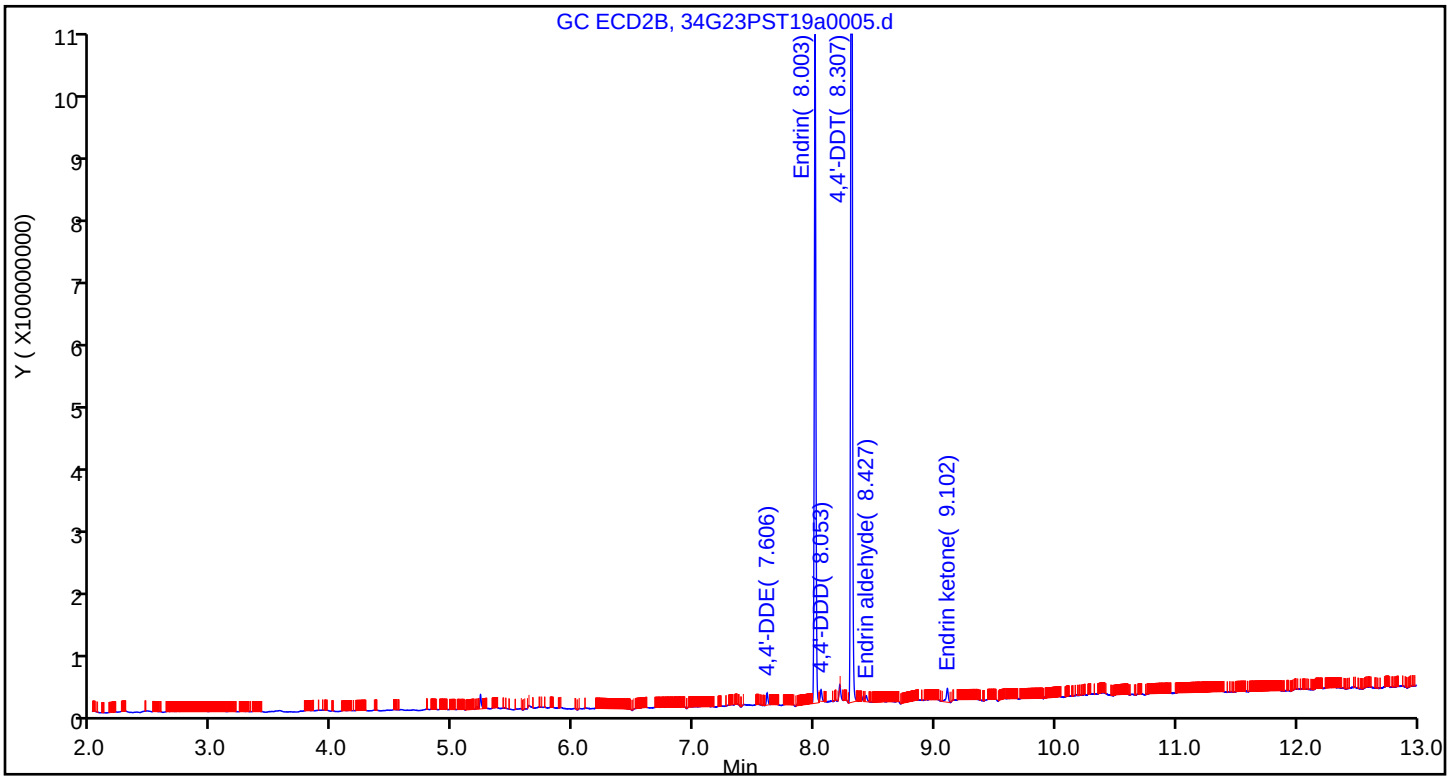
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

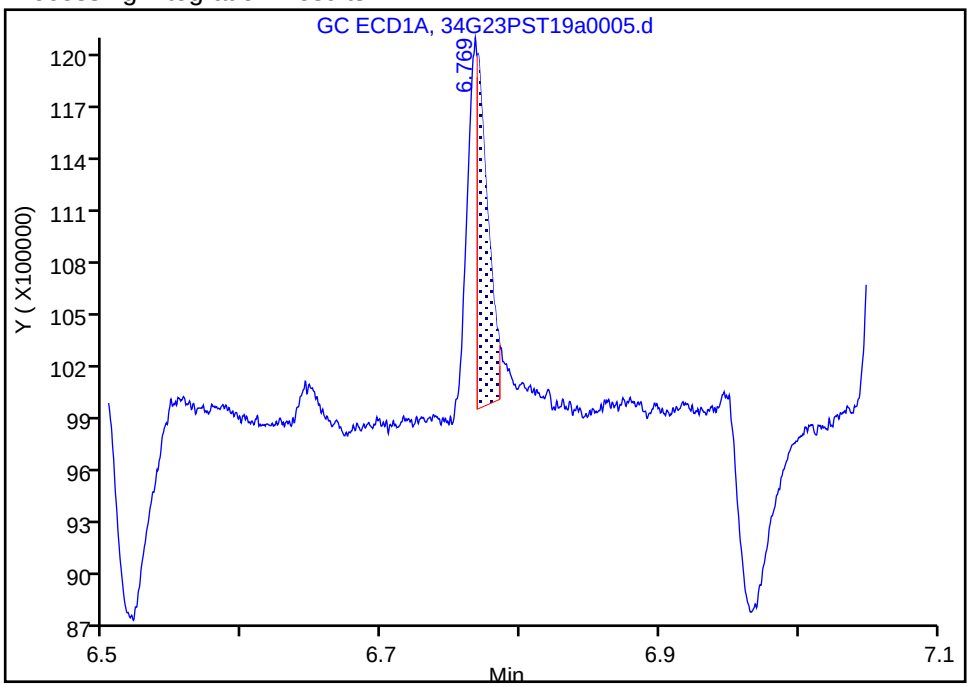
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d
Injection Date: 23-Jul-2019 12:30:03 Instrument ID: TAC034
Lims ID: pem
Client ID:
Operator ID: CJB ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

26 4,4'-DDE, CAS: 72-55-9

Signal: 1

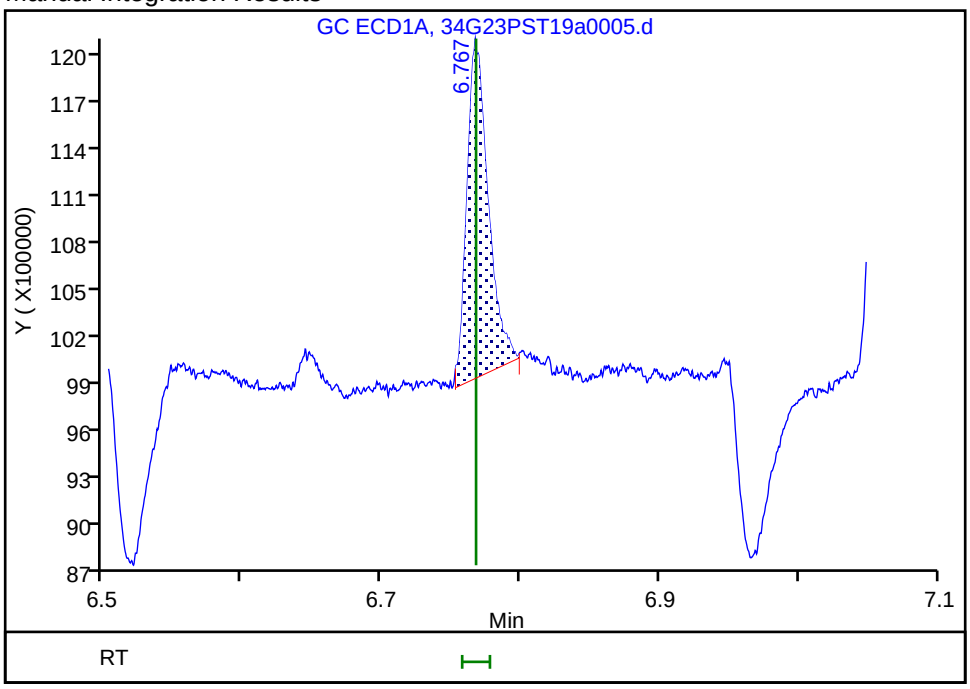
Processing Integration Results

RT: 6.77
Area: 1078805
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 6.77
Area: 2254769
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:44:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

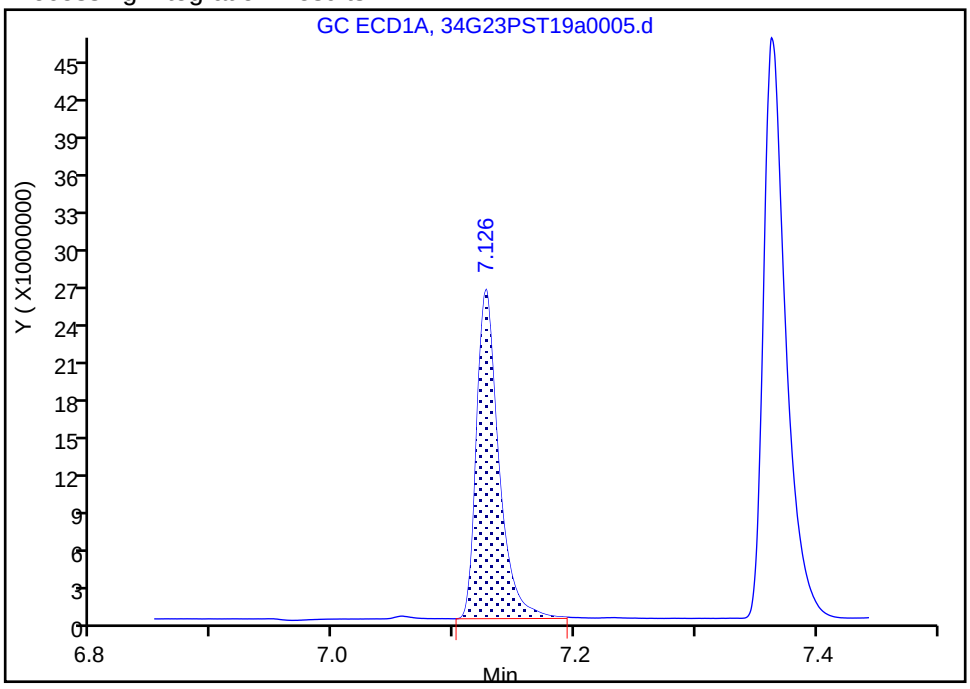
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d				
Injection Date:	23-Jul-2019 12:30:03	Instrument ID:	TAC034		
Lims ID:	pem				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

33 Endrin, CAS: 72-20-8

Signal: 1

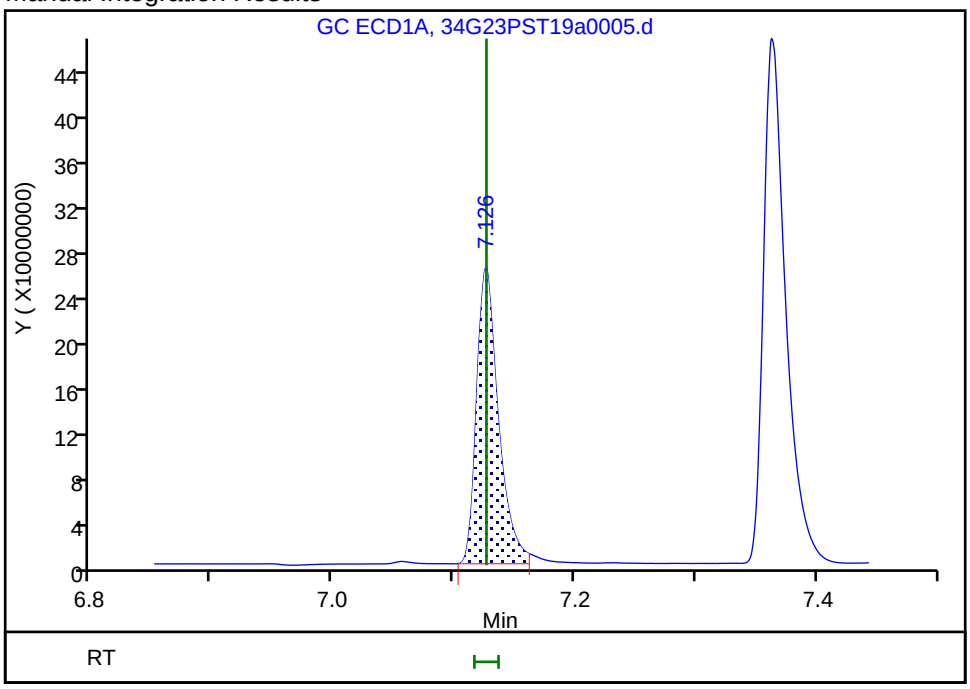
Processing Integration Results

RT: 7.13
Area: 323300039
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 7.13
Area: 317223498
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:50:30

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

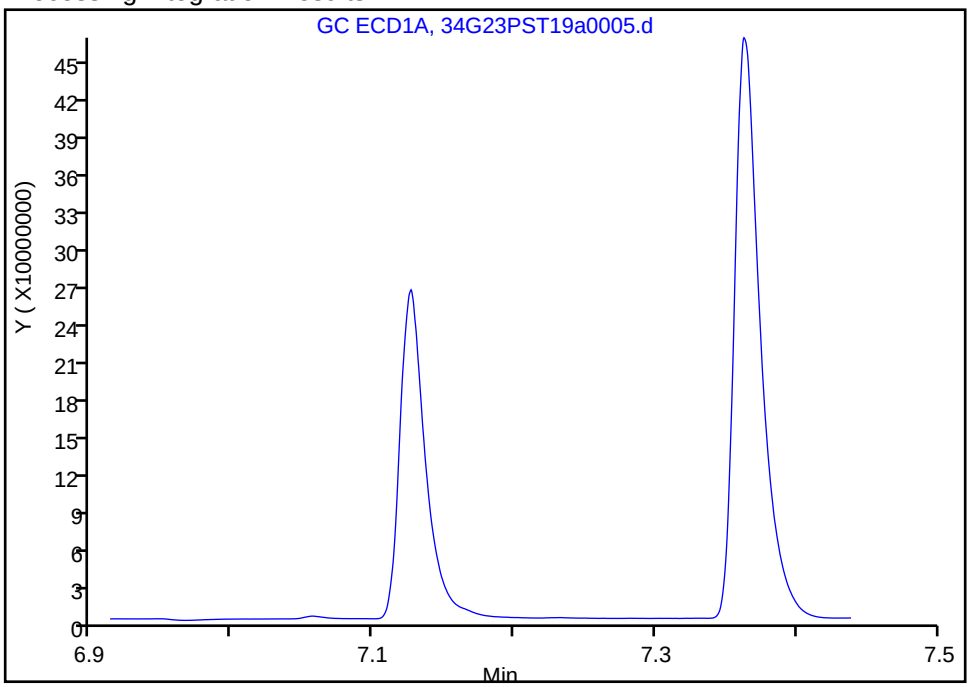
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d				
Injection Date:	23-Jul-2019 12:30:03	Instrument ID:	TAC034		
Lims ID:	pem				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

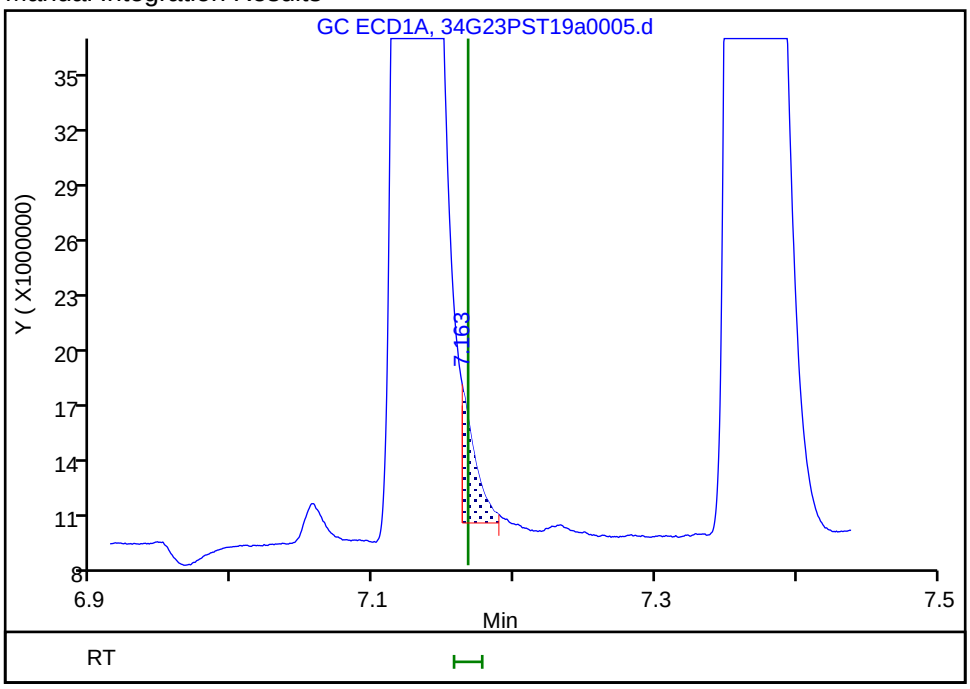
Processing Integration Results

RT: 7.17
Area: 0
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 7.16
Area: 4481100
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:44:46

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

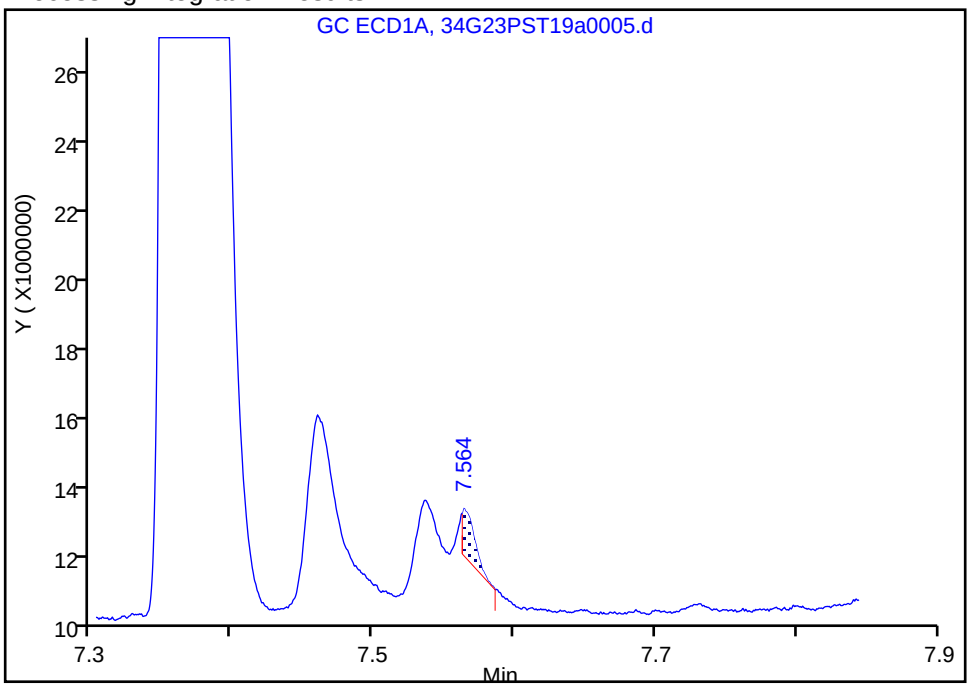
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d				
Injection Date:	23-Jul-2019 12:30:03	Instrument ID:	TAC034		
Lims ID:	pem				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

39 Endrin aldehyde, CAS: 7421-93-4

Signal: 1

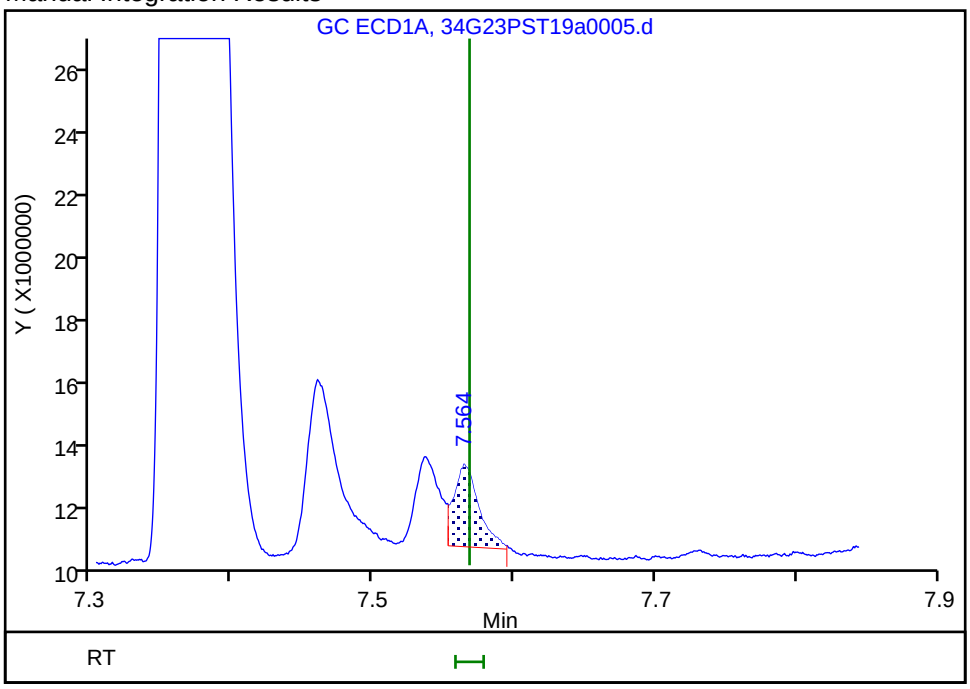
Processing Integration Results

RT: 7.56
Area: 823807
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 7.56
Area: 3146031
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:44:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: PEM 580-306388/3 Calibration Date: 07/23/2019 12:30

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0005.d Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	8.00	912360808	3.58	15	
Endrin aldehyde	8.43	9426017			
Endrin ketone	9.10	24490838			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	8.31	1646614484	1.89	15	
4,4'-DDD	8.05	15957649			
4,4'-DDE	7.61	15802603			

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d
Lims ID: pem
Client ID:
Sample Type: PEM
Inject. Date: 23-Jul-2019 12:30:03 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: PEM
Operator ID: CJB Instrument ID: TAC034
Sublist:

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 10:50:37 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 10:52:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 4,4'-DDE							M
1	6.767	6.768	-0.001	2254769		NR	M
2	7.606	7.607	-0.001	15802603		NR	
						RPD = NaN	
33 Endrin							Ma
1	7.126	7.127	-0.001	317223498	NR	NR	M
2	8.003	8.005	-0.002	912360808	NR	NR	
						RPD = NaN	
36 4,4'-DDD							Ma
1	7.163	7.167	-0.004	4481100		NR	M
2	8.053	8.055	-0.002	15957649		NR	M
						RPD = NaN	
38 4,4'-DDT							
1	7.363	7.365	-0.002	577913061	NR	NR	
2	8.307	8.306	0.001	1646614484	NR	NR	
						RPD = NaN	
39 Endrin aldehyde							M
1	7.564	7.568	-0.004	3146031		NR	M
2	8.427	8.430	-0.003	9426017		NR	M
						RPD = NaN	
44 Endrin ketone							M
1	8.092	8.094	-0.002	5212562		NR	
2	9.102	9.104	-0.002	24490838		NR	M
						RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8081PEMstd_00023 Amount Added: 1.00 Units: mL

Report Date: 24-Jul-2019 10:52:50 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d

Injection Date: 23-Jul-2019 12:30:03 Instrument ID: TAC034

Lims ID: pem

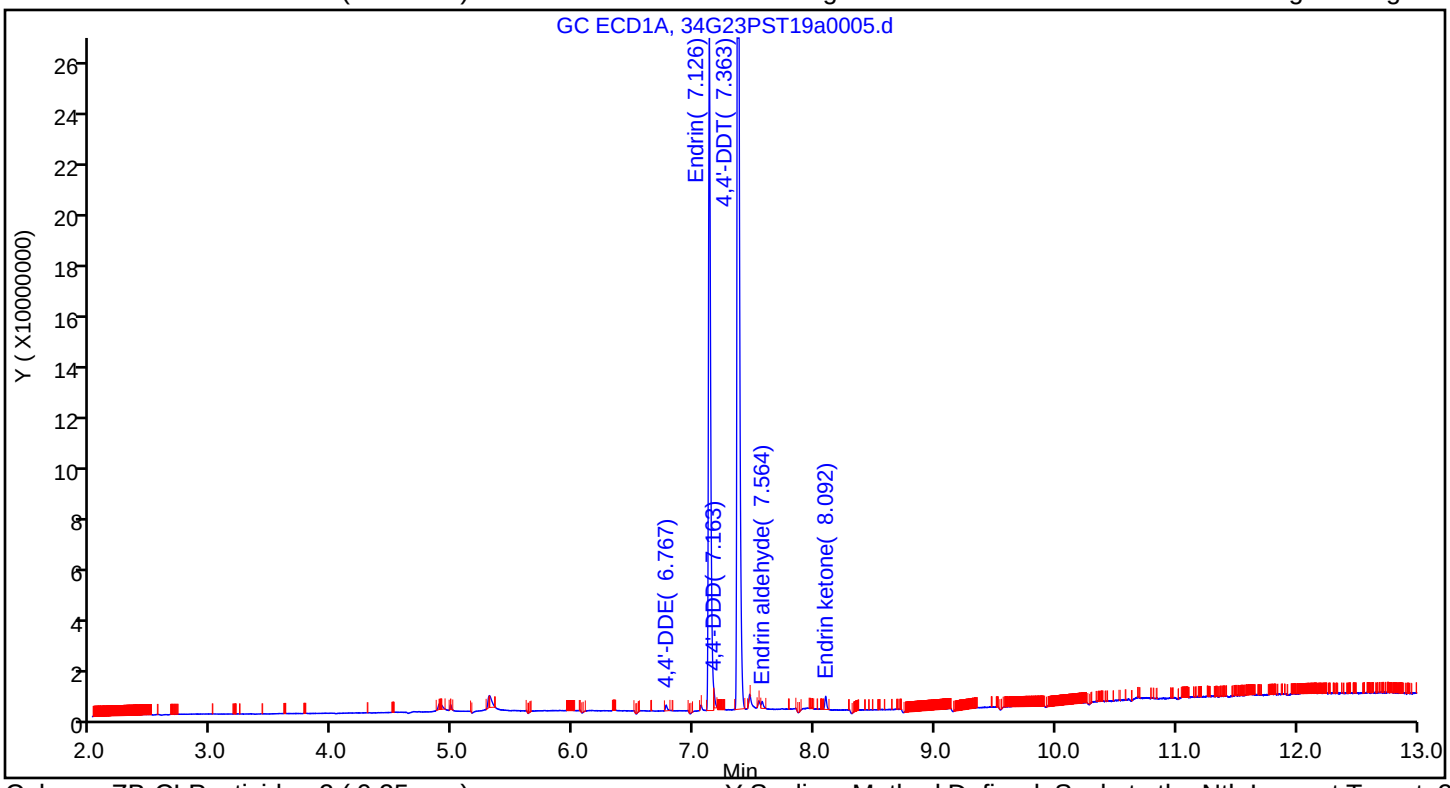
Client ID:

Operator ID: CJB ALS Bottle#: 1 Worklist Smp#: 3

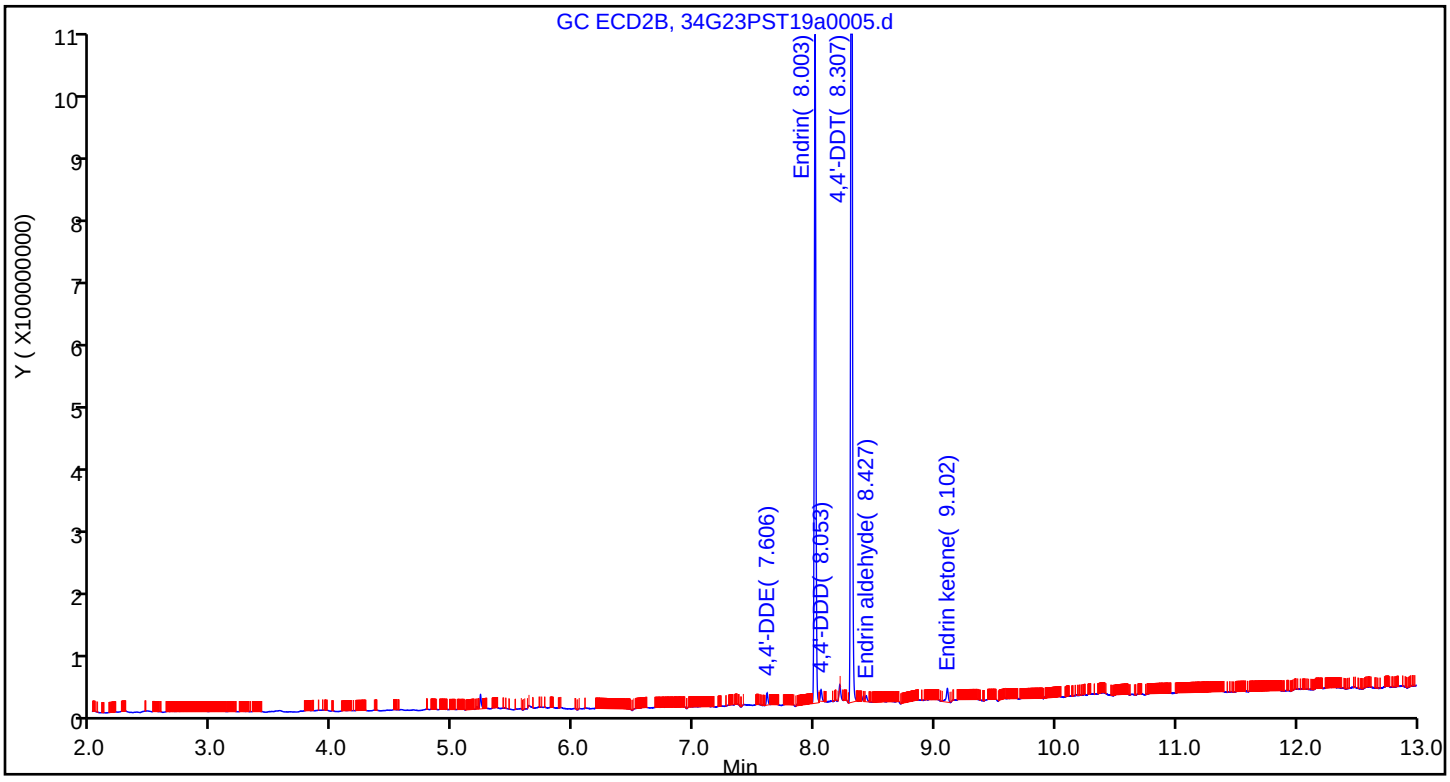
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

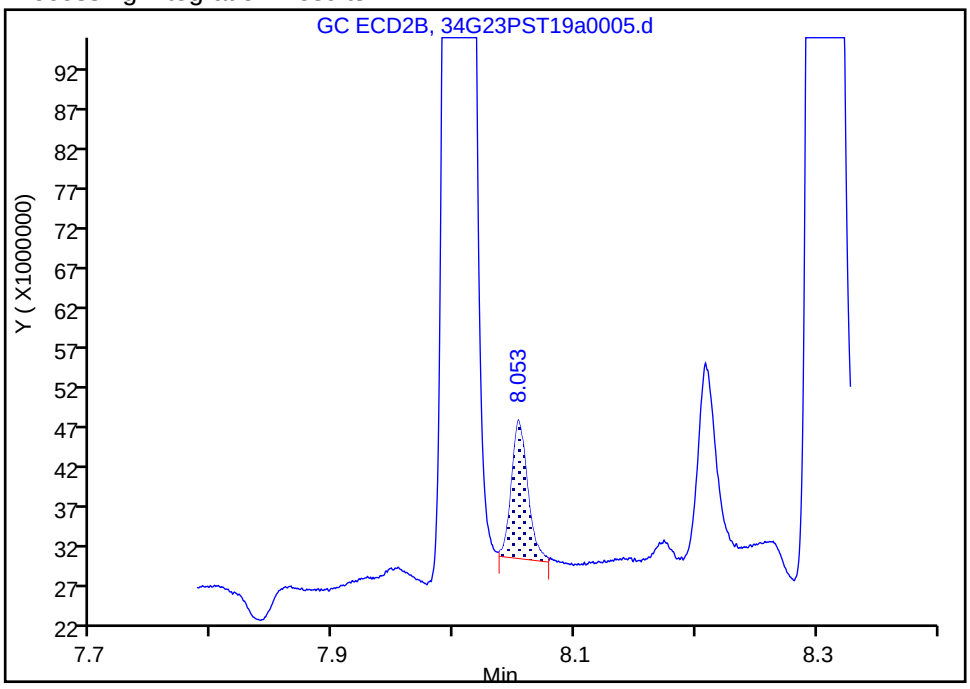
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d				
Injection Date:	23-Jul-2019 12:30:03	Instrument ID:	TAC034		
Lims ID:	pem				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

36 4,4'-DDD, CAS: 72-54-8

Signal: 2

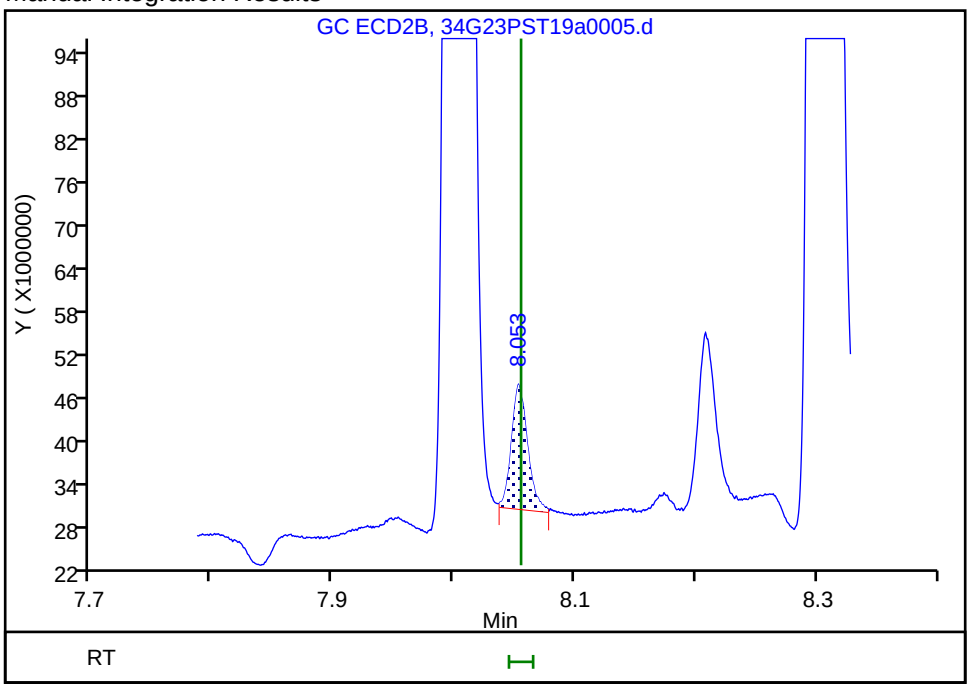
Processing Integration Results

RT: 8.05
Area: 15957649
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 8.05
Area: 15957649
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:44:28

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

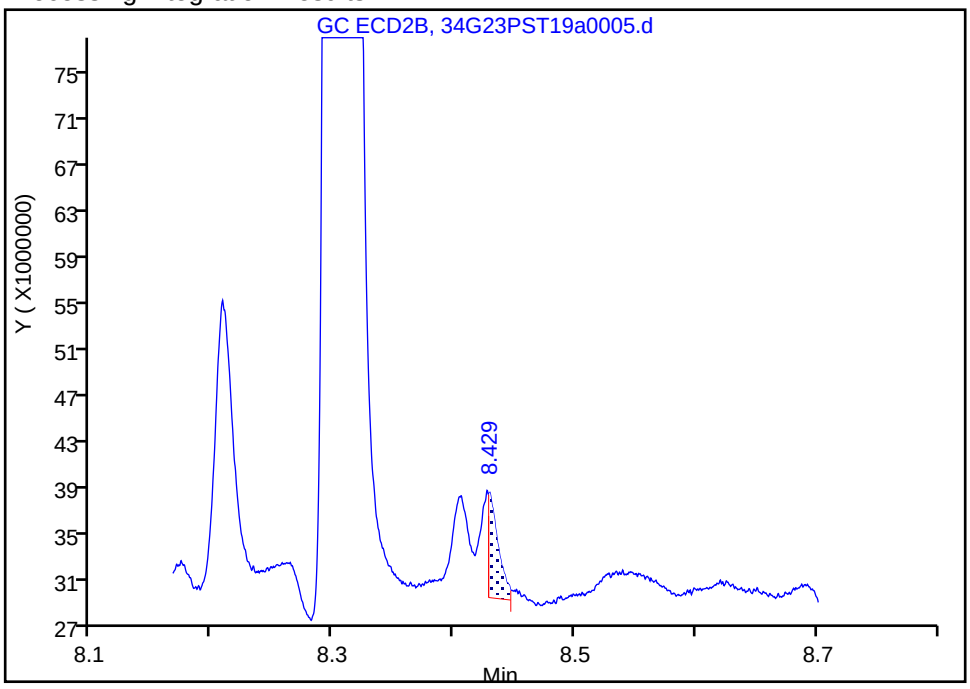
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d				
Injection Date:	23-Jul-2019 12:30:03	Instrument ID:	TAC034		
Lims ID:	pem				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

39 Endrin aldehyde, CAS: 7421-93-4

Signal: 2

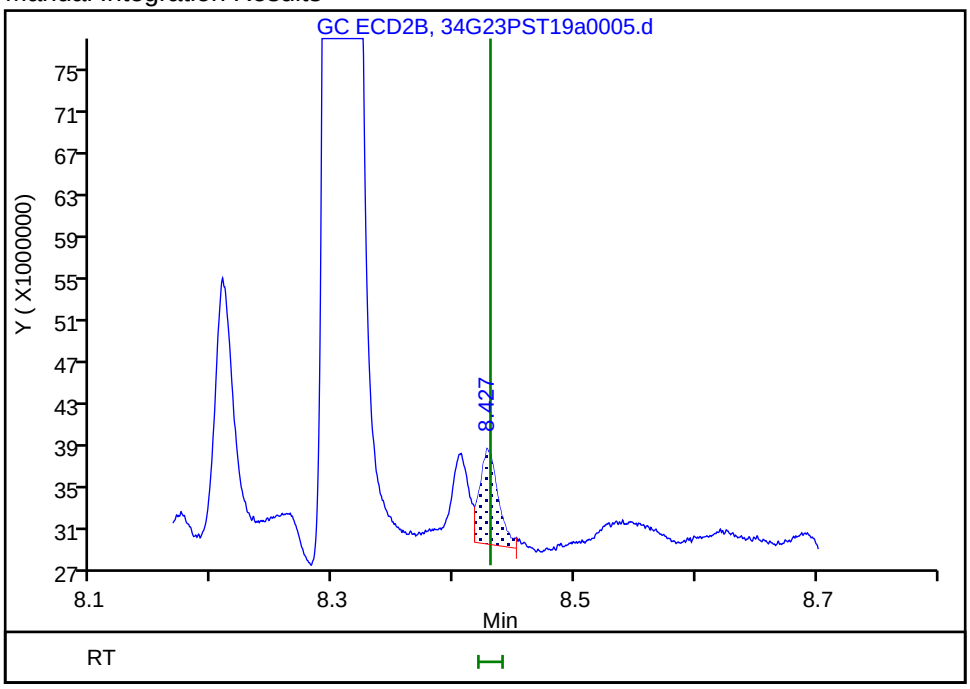
Processing Integration Results

RT: 8.43
Area: 4814418
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 8.43
Area: 9426017
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:45:02

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

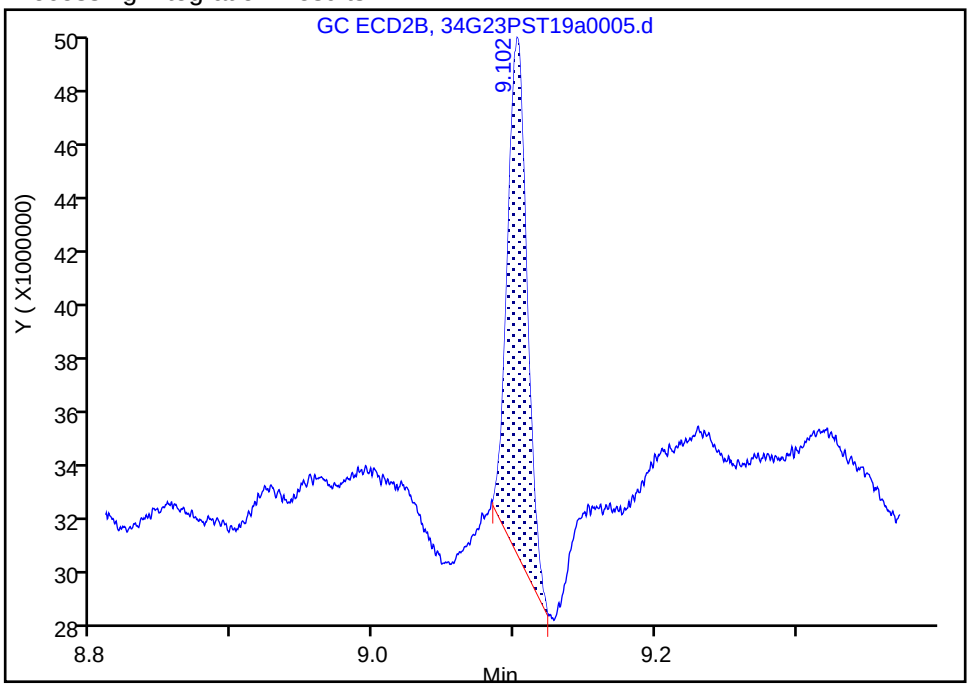
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0005.d				
Injection Date:	23-Jul-2019 12:30:03	Instrument ID:	TAC034		
Lims ID:	pem				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

44 Endrin ketone, CAS: 53494-70-5

Signal: 2

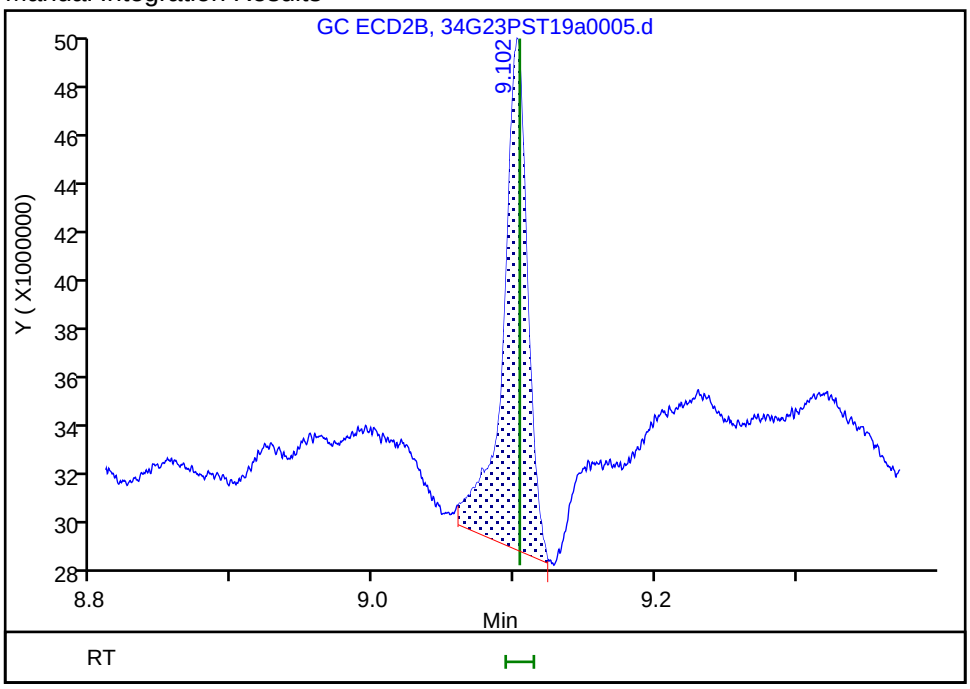
Processing Integration Results

RT: 9.10
Area: 17915919
Amount: 0
Amount Units: ug/L



Manual Integration Results

RT: 9.10
Area: 24490838
Amount: 0
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 10:45:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: PEM 580-306340/3 Calibration Date: 07/23/2019 08:33

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a004.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	7.93	173568810	3.16	15	
Endrin aldehyde	8.40	1110189			
Endrin ketone	8.96	4555273			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	8.17	277245060	3.52	15	
4,4'-DDD	7.96	8656128			
4,4'-DDE	7.52	1453120			

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a004.D
Lims ID: PEM
Client ID:
Sample Type: PEM
Inject. Date: 23-Jul-2019 08:33:09 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: pem
Operator ID: erz Instrument ID: TAC045
Sublist:

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:36:50 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 11:07:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 4,4'-DDE							
1	7.523	7.523	0.000	1453120		NR	
2	8.316	8.316	0.000	2125546		NR	
						RPD = NaN	
37 Endrin							
1	7.930	7.928	0.002	173568810	NR	NR	
2	8.743	8.743	0.000	474900240	NR	NR	
						RPD = NaN	
39 4,4'-DDD							a
1	7.957	7.956	0.001	8656128		NR	a
2	0.000	8.778	0.000	0		NR	
						RPD = NaN	
40 4,4'-DDT							
1	8.171	8.170	0.001	277245060	NR	NR	
2	9.038	9.038	0.000	816381342	NR	NR	
						RPD = NaN	
41 Endrin aldehyde							
1	8.401	8.401	0.000	1110189		NR	
2	9.173	9.175	-0.002	3023872		NR	
						RPD = NaN	
43 Endrin ketone							
1	8.963	8.963	0.000	4555273		NR	
2	9.869	9.869	0.000	8488529		NR	
						RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

a - User Assigned ID

Reagents:

8081PEMstd_00023 Amount Added: 1.00 Units: mL

Report Date: 23-Jul-2019 14:37:50 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a004.D

Injection Date: 23-Jul-2019 08:33:09 Instrument ID: TAC045

Lims ID: PEM

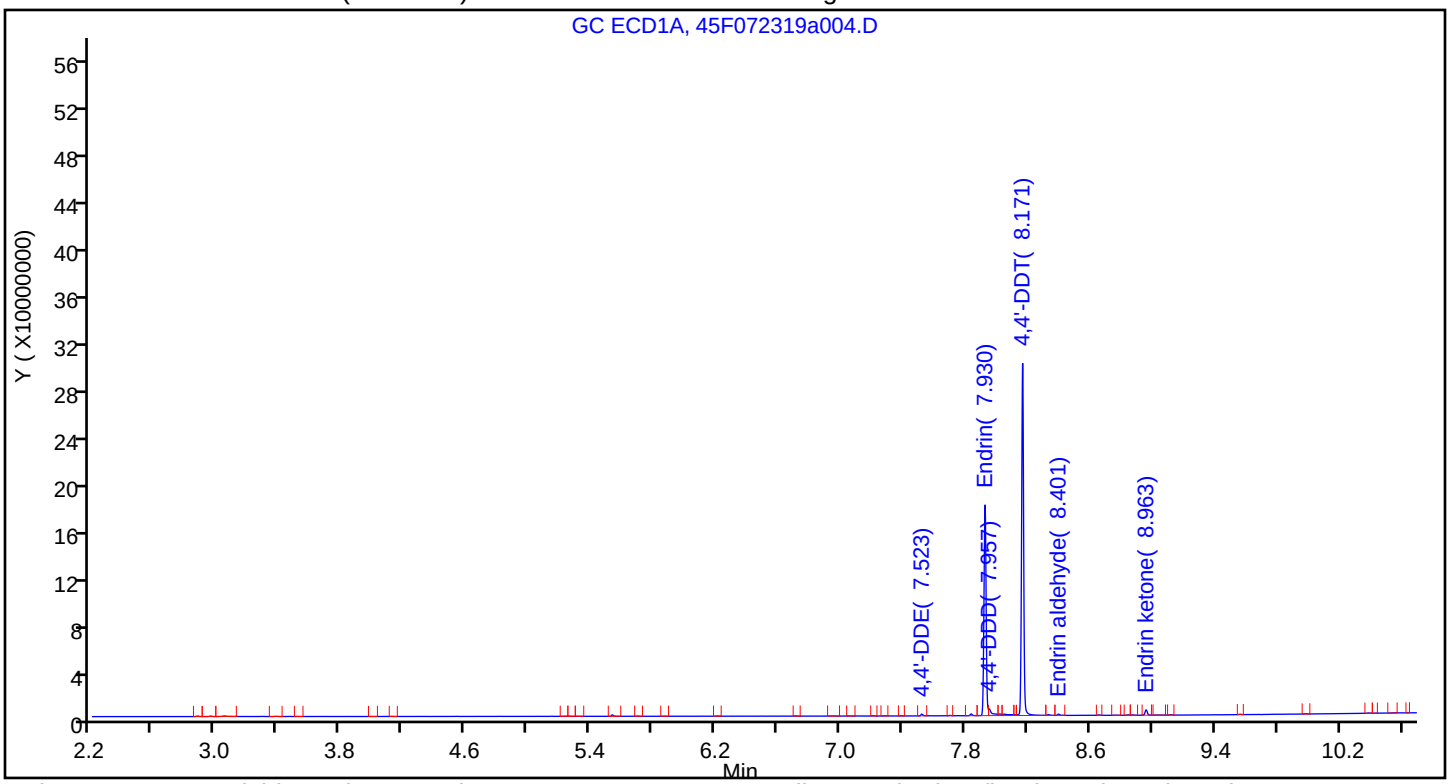
Client ID:

Operator ID: erz ALS Bottle#: 1 Worklist Smp#: 3

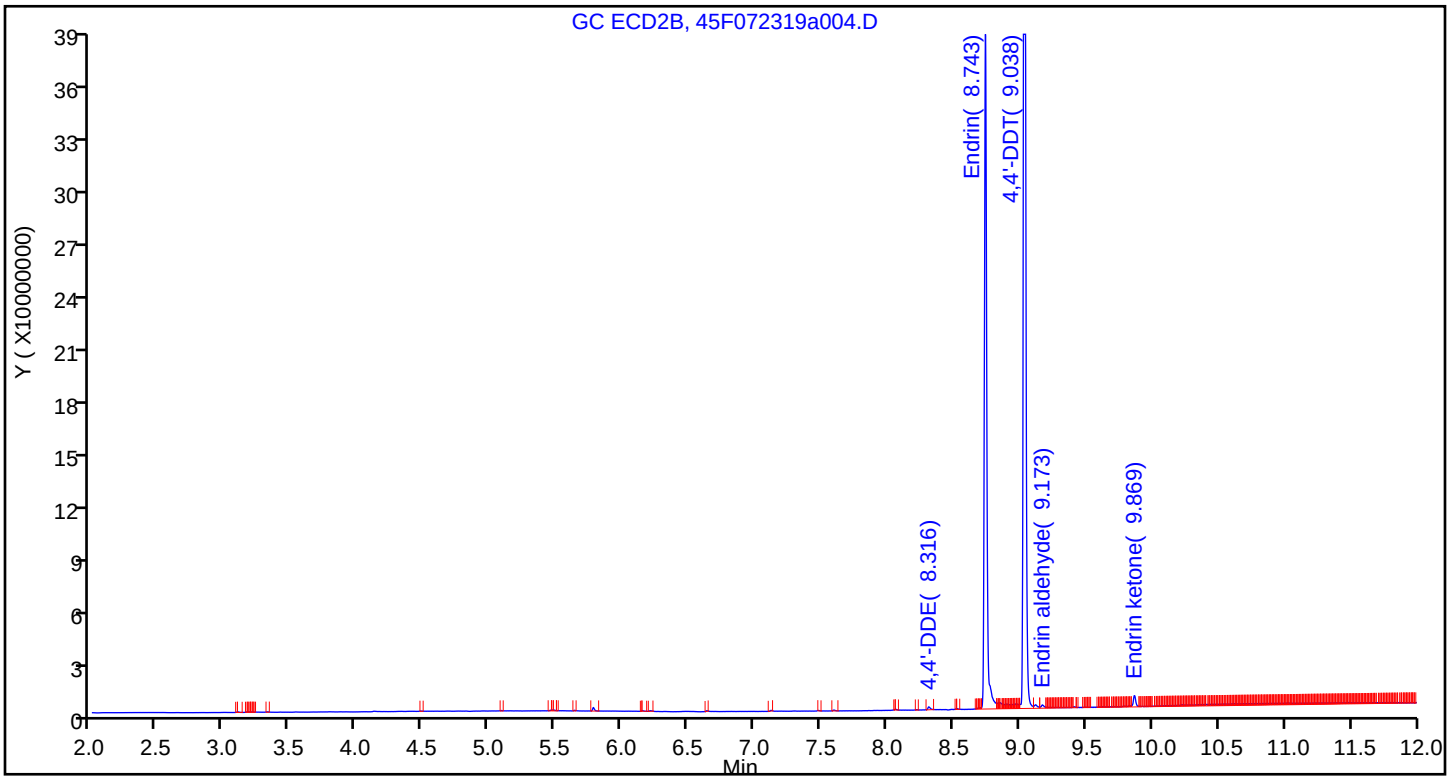
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

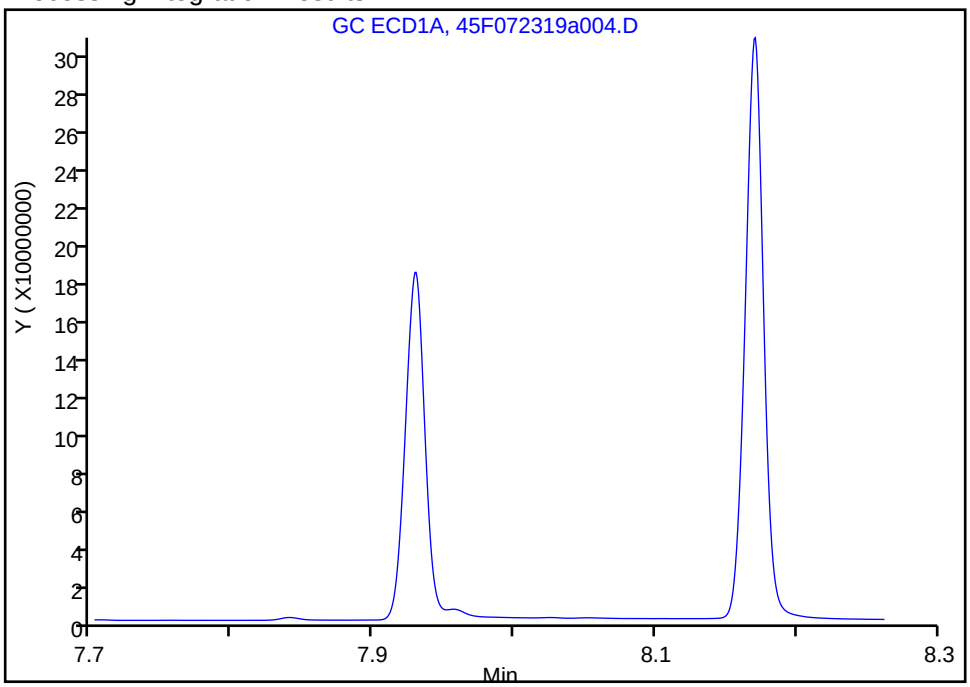
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a004.D				
Injection Date:	23-Jul-2019 08:33:09	Instrument ID:	TAC045		
Lims ID:	PEM				
Client ID:					
Operator ID:	erz	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

39 4,4'-DDD, CAS: 72-54-8

Signal: 1

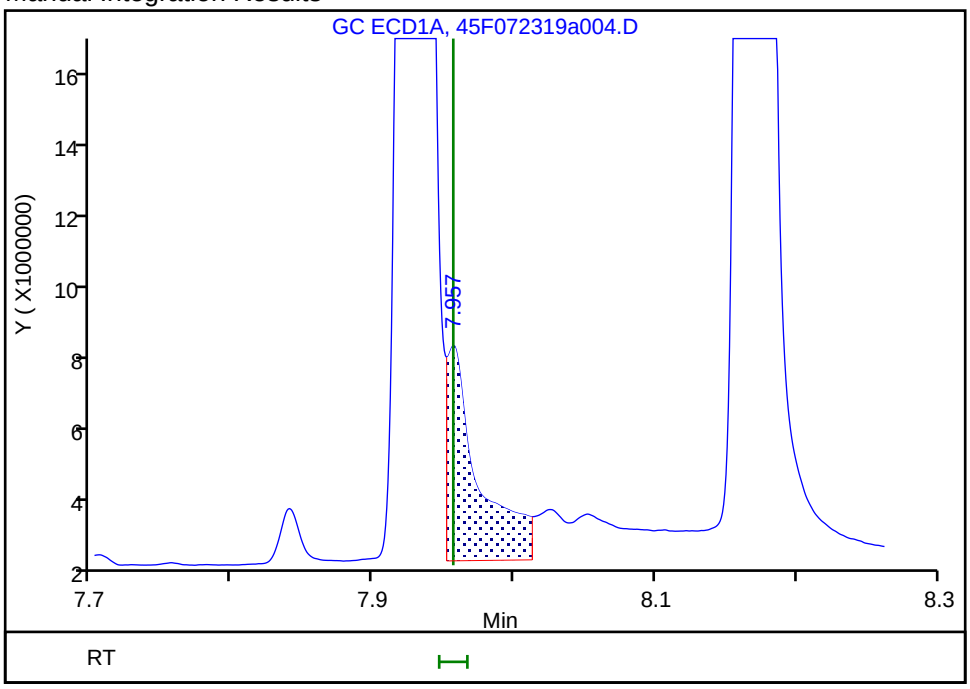
Not Detected
Expected RT: 7.96

Processing Integration Results



Manual Integration Results

RT: 7.96
Area: 8656128
Amount: 0
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 11:03:39
Audit Action: Assigned Compound ID Audit Reason:

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: PEM 580-306340/3 Calibration Date: 07/23/2019 08:33

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a004.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	8.74	474900240	2.37	15	
Endrin aldehyde	9.17	3023872			
Endrin ketone	9.87	8488529			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	9.04	816381342	0.26	15	
4,4'-DDD	8.78	0			
4,4'-DDE	8.32	2125546			

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a004.D
Lims ID: PEM
Client ID:
Sample Type: PEM
Inject. Date: 23-Jul-2019 08:33:09 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: pem
Operator ID: erz Instrument ID: TAC045
Sublist:

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:36:50 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 11:07:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 4,4'-DDE							
1	7.523	7.523	0.000	1453120		NR	
2	8.316	8.316	0.000	2125546		NR	
						RPD = NaN	
37 Endrin							
1	7.930	7.928	0.002	173568810	NR	NR	
2	8.743	8.743	0.000	474900240	NR	NR	
						RPD = NaN	
39 4,4'-DDD							a
1	7.957	7.956	0.001	8656128		NR	a
2	0.000	8.778	0.000	0		NR	
						RPD = NaN	
40 4,4'-DDT							
1	8.171	8.170	0.001	277245060	NR	NR	
2	9.038	9.038	0.000	816381342	NR	NR	
						RPD = NaN	
41 Endrin aldehyde							
1	8.401	8.401	0.000	1110189		NR	
2	9.173	9.175	-0.002	3023872		NR	
						RPD = NaN	
43 Endrin ketone							
1	8.963	8.963	0.000	4555273		NR	
2	9.869	9.869	0.000	8488529		NR	
						RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

a - User Assigned ID

Reagents:

8081PEMstd_00023 Amount Added: 1.00 Units: mL

Report Date: 23-Jul-2019 14:37:50 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a004.D

Injection Date: 23-Jul-2019 08:33:09 Instrument ID: TAC045

Lims ID: PEM

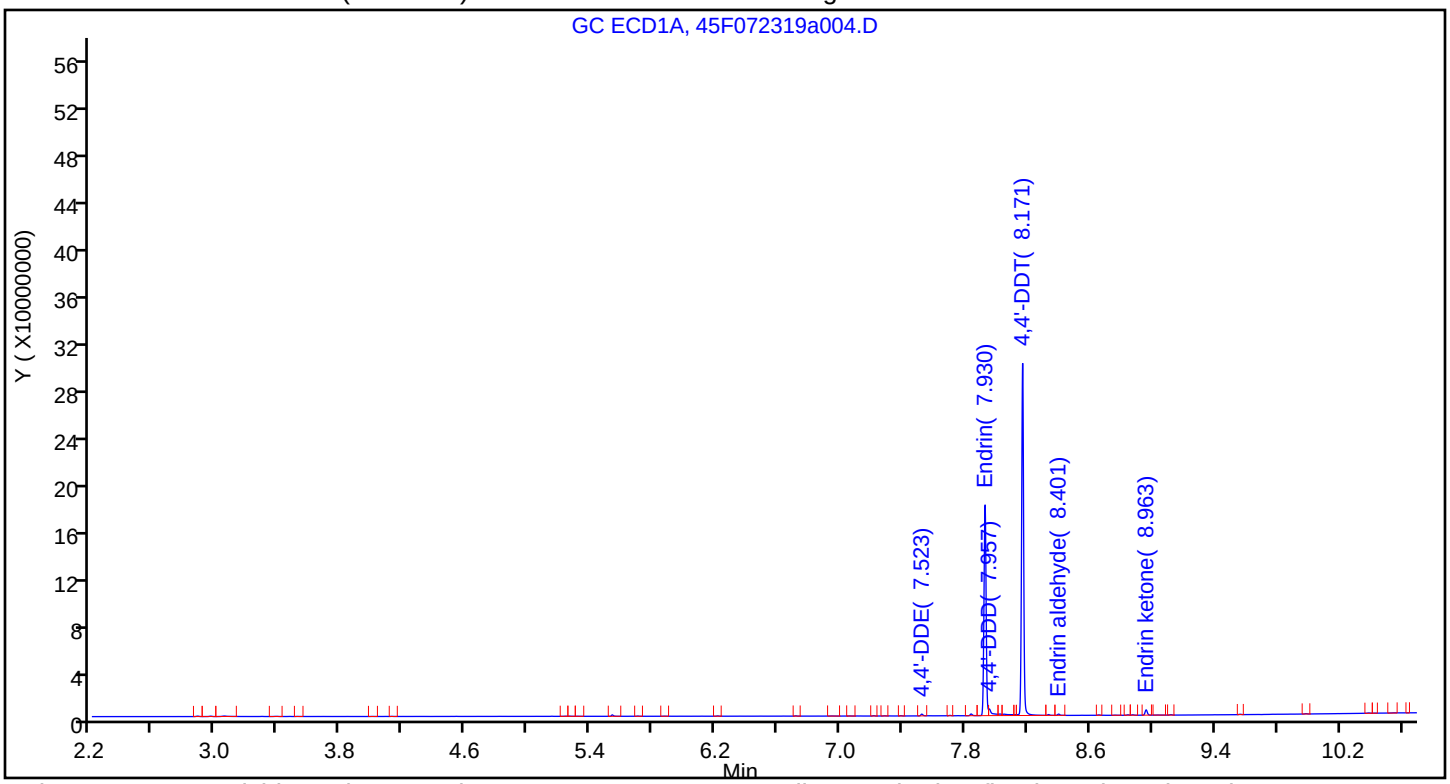
Client ID:

Operator ID: erz ALS Bottle#: 1 Worklist Smp#: 3

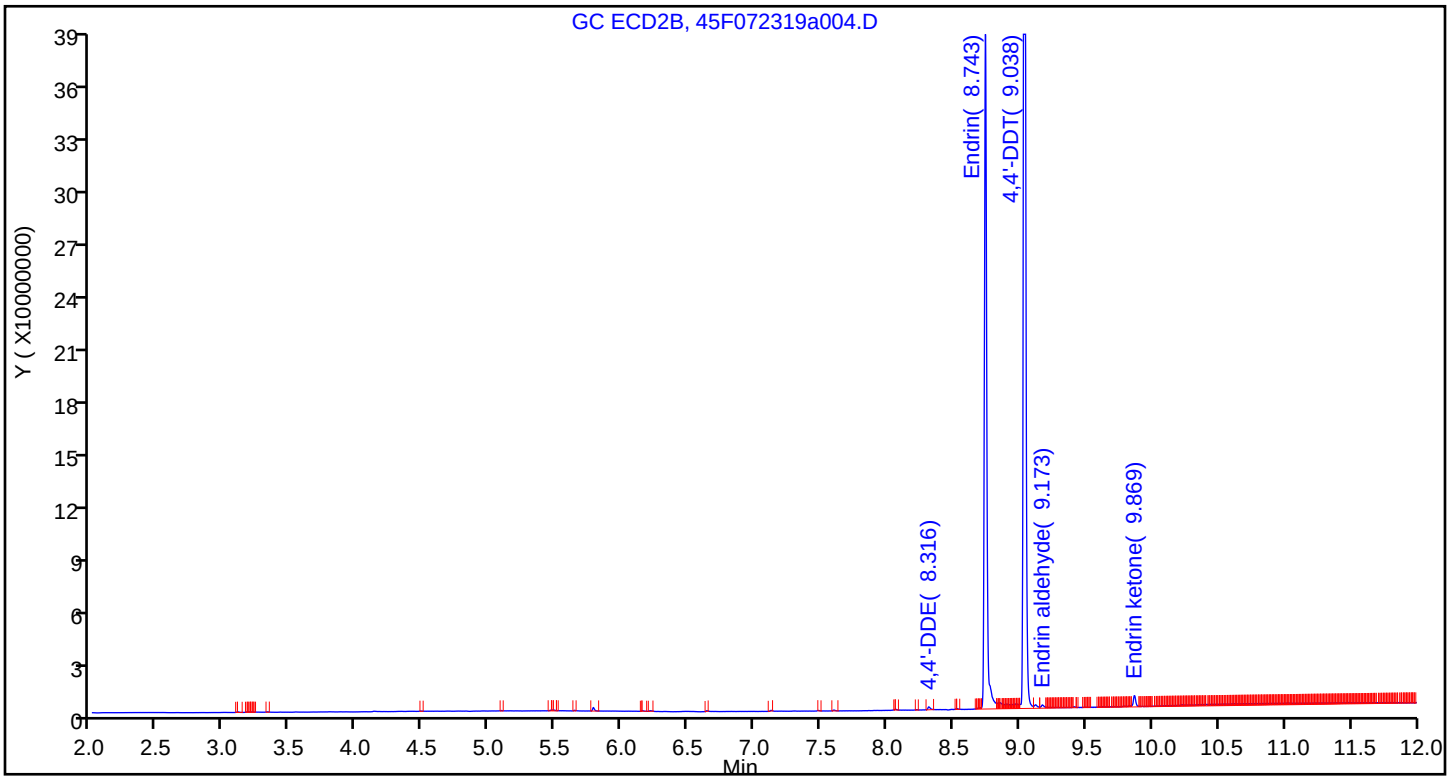
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/31 Calibration Date: 07/14/2019 04:17

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G13PST19a0035.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Ave	3.066	2.911		47.5	50.0	-5.1	20.0
2,4'-DDE	Ave	2.242	2.651		59.1	50.0	18.3	20.0
trans-Nonachlor	Ave	3.665	4.102		56.0	50.0	11.9	20.0
2,4'-DDD	Ave	1.525	1.763		57.8	50.0	15.7	20.0
2,4'-DDT	Ave	1.633	1.826		55.9	50.0	11.8	20.0
cis-Nonachlor	Ave	3.828	4.130		53.9	50.0	7.9	20.0
Mirex	Ave	3.238	3.200			50.0	-1.2	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/31 Calibration Date: 07/14/2019 04:17

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G13PST19a0035.d

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	6.49	6.48	6.50
2,4'-DDE	6.56	6.55	6.57
trans-Nonachlor	6.72	6.71	6.73
2,4'-DDD	6.89	6.88	6.90
2,4'-DDT	7.07	7.06	7.08
cis-Nonachlor	7.16	7.15	7.17
Mirex	7.85	7.84	7.86

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d
Lims ID: ICV EXT
Client ID:
Sample Type: ICV
Inject. Date: 14-Jul-2019 04:17:36 ALS Bottle#: 29 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV EXT
Operator ID: CJB Instrument ID: TAC034
Sublist:

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:15 Calib Date: 14-Jul-2019 03:58:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:27:36

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							M
1	4.475	4.476	-0.001	173581460	100.0	100.0	
2	4.837	4.837	0.000	827521273	100.0	100.0	M
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.493	6.494	-0.001	252658231	50.0	47.5	
2	7.185	7.186	-0.001	644659216	50.0	39.8	M
						RPD = 17.57	
21 2,4'-DDE							M
1	6.556	6.556	0.000	230083126	50.0	59.1	M
2	7.389	7.389	0.000	577973085	50.0	45.1	
						RPD = 26.88	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	356002331	50.0	56.0	
2	7.460	7.461	-0.001	774909242	50.0	44.8	
						RPD = 22.16	
28 2,4'-DDD							
1	6.891	6.892	-0.001	153052649	50.0	57.8	
2	7.779	7.780	-0.001	393646724	50.0	47.0	
						RPD = 20.68	
32 2,4'-DDT							
1	7.067	7.068	-0.001	158492030	50.0	55.9	
2	8.022	8.023	-0.001	387669629	50.0	44.9	
						RPD = 21.88	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	358437849	50.0	53.9	
2	8.062	8.063	-0.001	786418929	50.0	43.5	
						RPD = 21.43	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	277757441	50.0	49.4	
2	9.098	9.100	-0.002	511009603	50.0	42.3	
						RPD = 15.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_ICV_00026	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d

Injection Date: 14-Jul-2019 04:17:36 Instrument ID: TAC034

Lims ID: ICV EXT

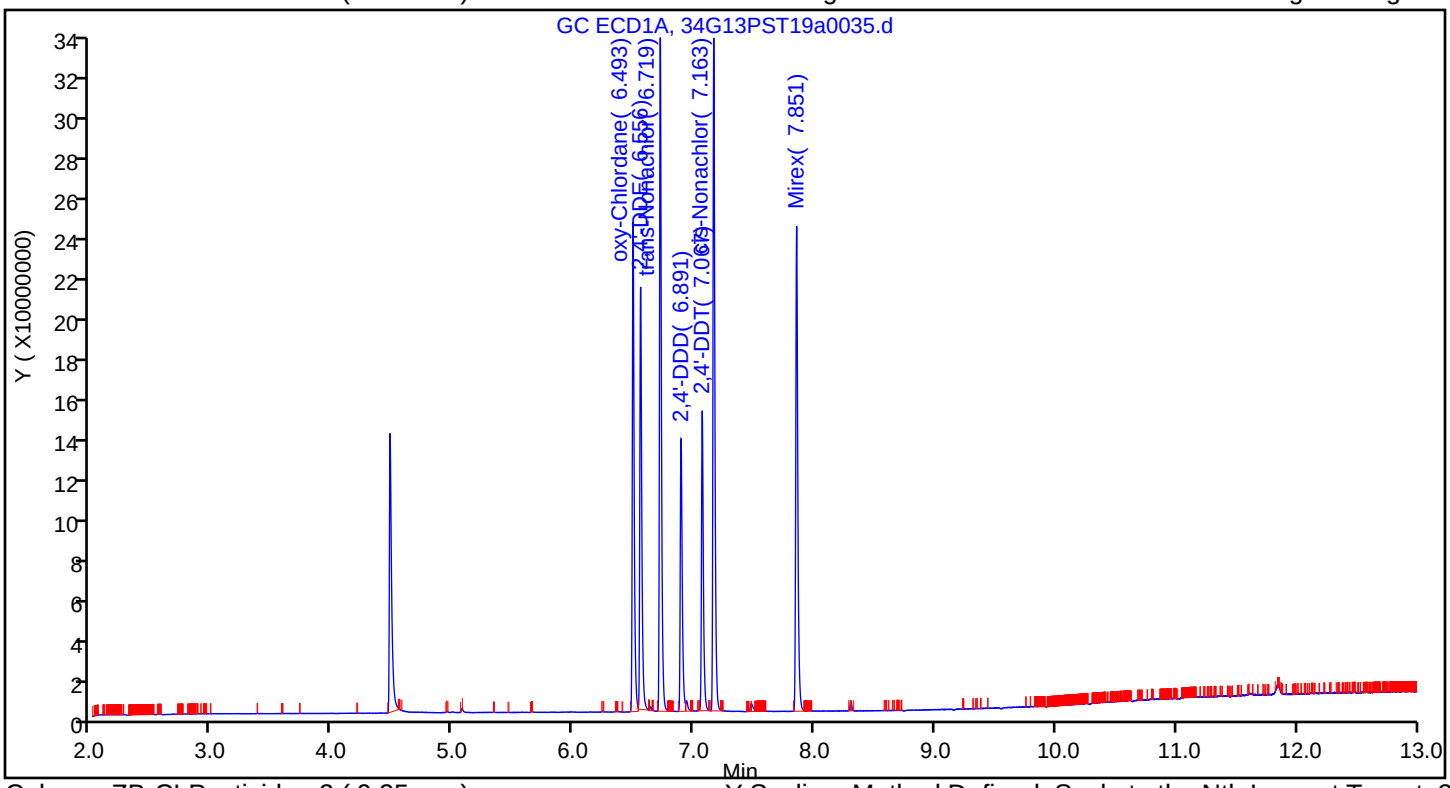
Client ID:

Operator ID: CJB ALS Bottle#: 29 Worklist Smp#: 31

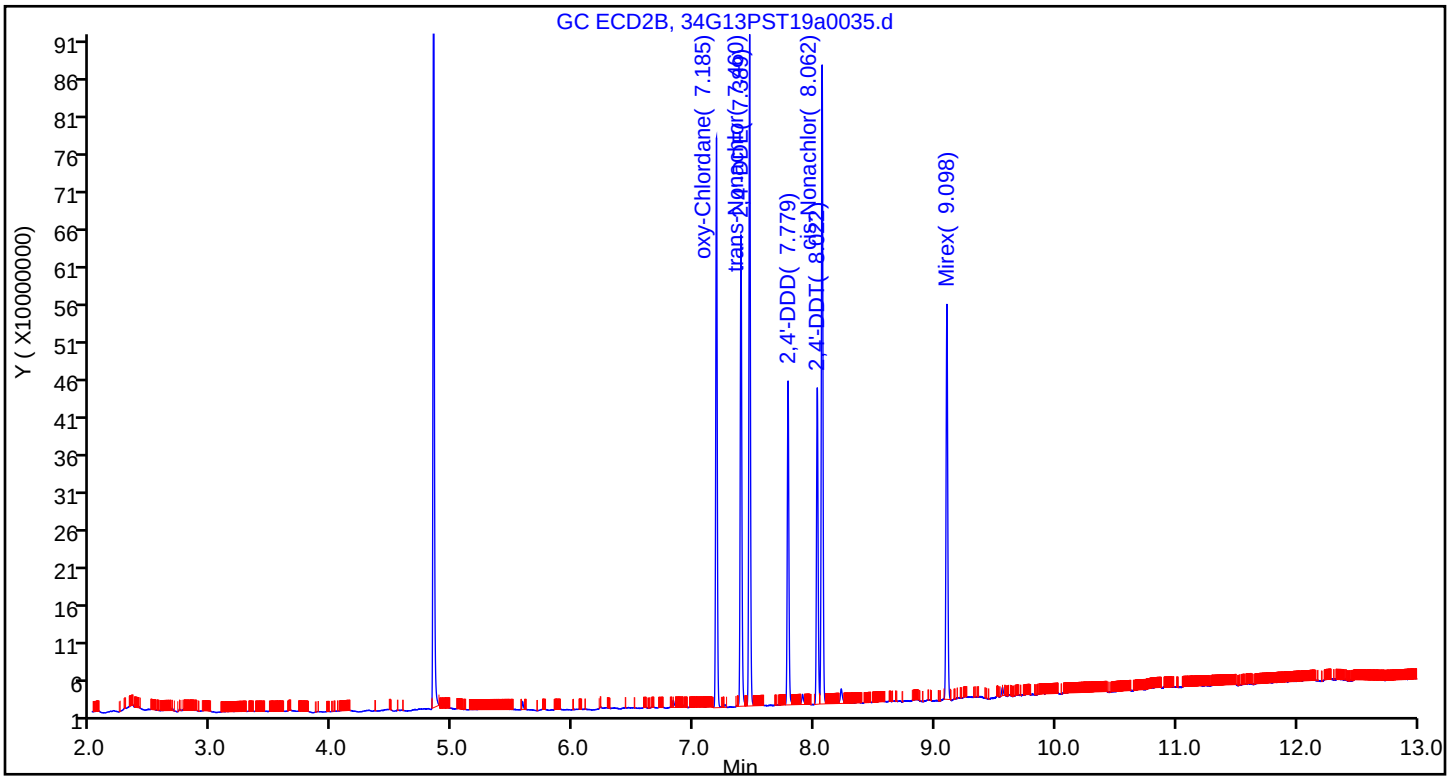
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

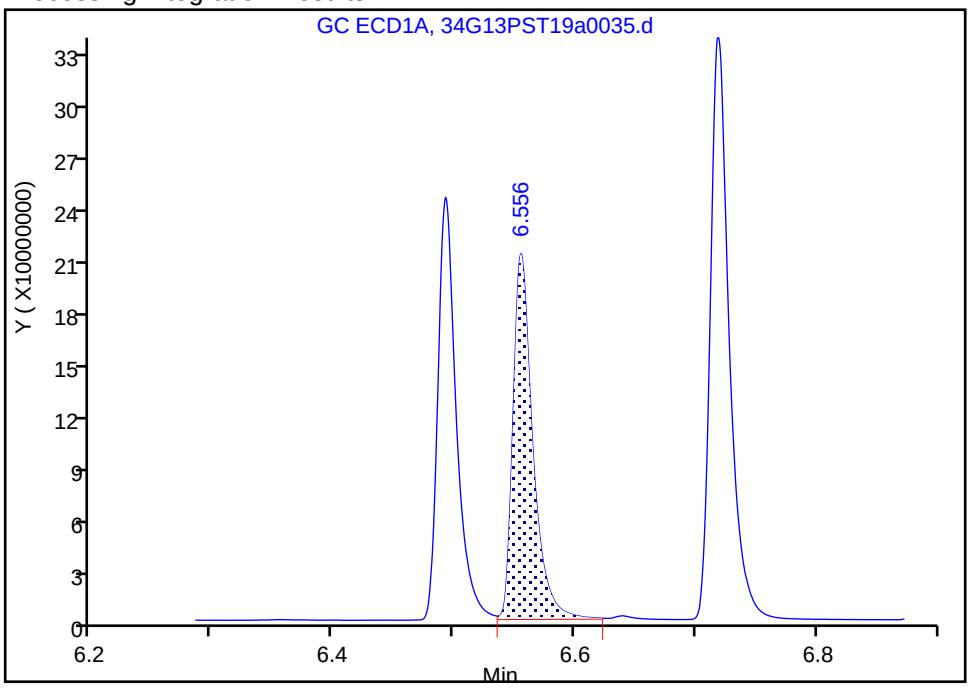
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d				
Injection Date:	14-Jul-2019 04:17:36	Instrument ID:	TAC034		
Lims ID:	ICV EXT				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	29	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

21 2,4'-DDE, CAS: 3424-82-6

Signal: 1

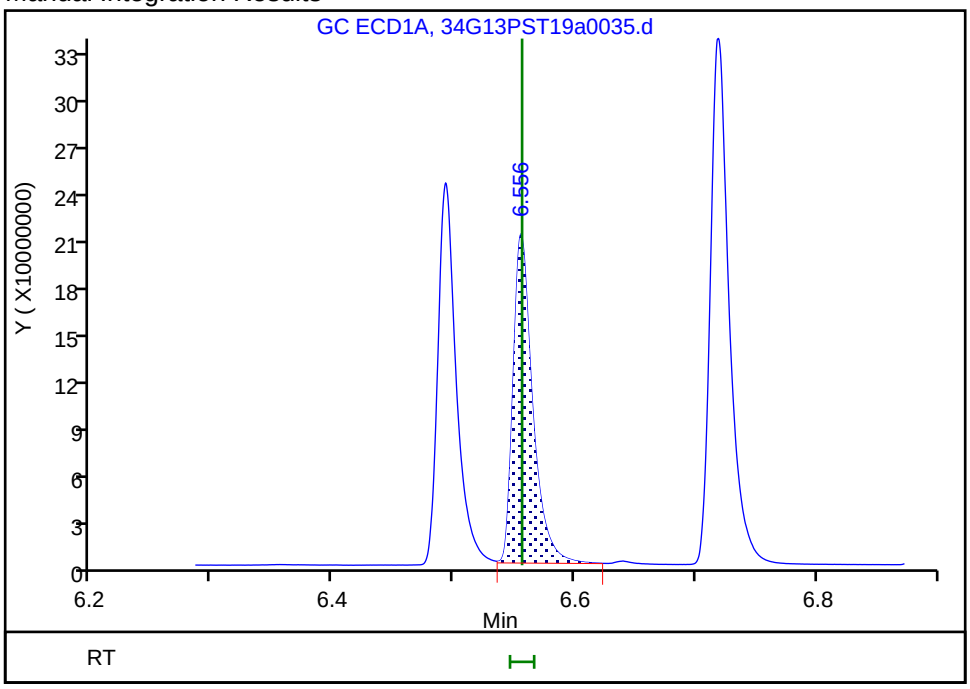
Processing Integration Results

RT: 6.56
Area: 233626587
Amount: 60.036930
Amount Units: ug/L



Manual Integration Results

RT: 6.56
Area: 230083126
Amount: 59.126338
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:02:01
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/31 Calibration Date: 07/14/2019 04:17

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G13PST19a0035.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Lin2		1.558		39.8	50.0	-20.4*	20.0
2,4'-DDE	Ave	1.548	1.397		45.1	50.0	-9.8	20.0
trans-Nonachlor	Ave	2.090	1.873		44.8	50.0	-10.4	20.0
2,4'-DDD	Ave	1.012	0.9514		47.0	50.0	-6.0	20.0
2,4'-DDT	Ave	1.044	0.9369		44.9	50.0	-10.2	20.0
cis-Nonachlor	Ave	2.185	1.901		43.5	50.0	-13.0	20.0
Mirex	Lin2		1.235			50.0	-15.5	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/31 Calibration Date: 07/14/2019 04:17

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G13PST19a0035.d

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	7.19	7.18	7.20
2,4'-DDE	7.39	7.38	7.40
trans-Nonachlor	7.46	7.45	7.47
2,4'-DDD	7.78	7.77	7.79
2,4'-DDT	8.02	8.01	8.03
cis-Nonachlor	8.06	8.05	8.07
Mirex	9.10	9.09	9.11

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d
Lims ID: ICV EXT
Client ID:
Sample Type: ICV
Inject. Date: 14-Jul-2019 04:17:36 ALS Bottle#: 29 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV EXT
Operator ID: CJB Instrument ID: TAC034
Sublist:

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 16-Jul-2019 16:40:15 Calib Date: 14-Jul-2019 03:58:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0034.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: brennanr Date: 15-Jul-2019 12:27:36

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							M
1	4.475	4.476	-0.001	173581460	100.0	100.0	
2	4.837	4.837	0.000	827521273	100.0	100.0	M
						RPD = 0.00	
20 oxy-Chlordane							M
1	6.493	6.494	-0.001	252658231	50.0	47.5	
2	7.185	7.186	-0.001	644659216	50.0	39.8	M
						RPD = 17.57	
21 2,4'-DDE							M
1	6.556	6.556	0.000	230083126	50.0	59.1	M
2	7.389	7.389	0.000	577973085	50.0	45.1	
						RPD = 26.88	
24 trans-Nonachlor							
1	6.719	6.720	-0.001	356002331	50.0	56.0	
2	7.460	7.461	-0.001	774909242	50.0	44.8	
						RPD = 22.16	
28 2,4'-DDD							
1	6.891	6.892	-0.001	153052649	50.0	57.8	
2	7.779	7.780	-0.001	393646724	50.0	47.0	
						RPD = 20.68	
32 2,4'-DDT							
1	7.067	7.068	-0.001	158492030	50.0	55.9	
2	8.022	8.023	-0.001	387669629	50.0	44.9	
						RPD = 21.88	
34 cis-Nonachlor							
1	7.163	7.164	-0.001	358437849	50.0	53.9	
2	8.062	8.063	-0.001	786418929	50.0	43.5	
						RPD = 21.43	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.851	7.851	0.000	277757441	50.0	49.4	
2	9.098	9.100	-0.002	511009603	50.0	42.3	
						RPD = 15.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_ICV_00026	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 16-Jul-2019 16:40:24 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d

Injection Date: 14-Jul-2019 04:17:36 Instrument ID: TAC034

Lims ID: ICV EXT

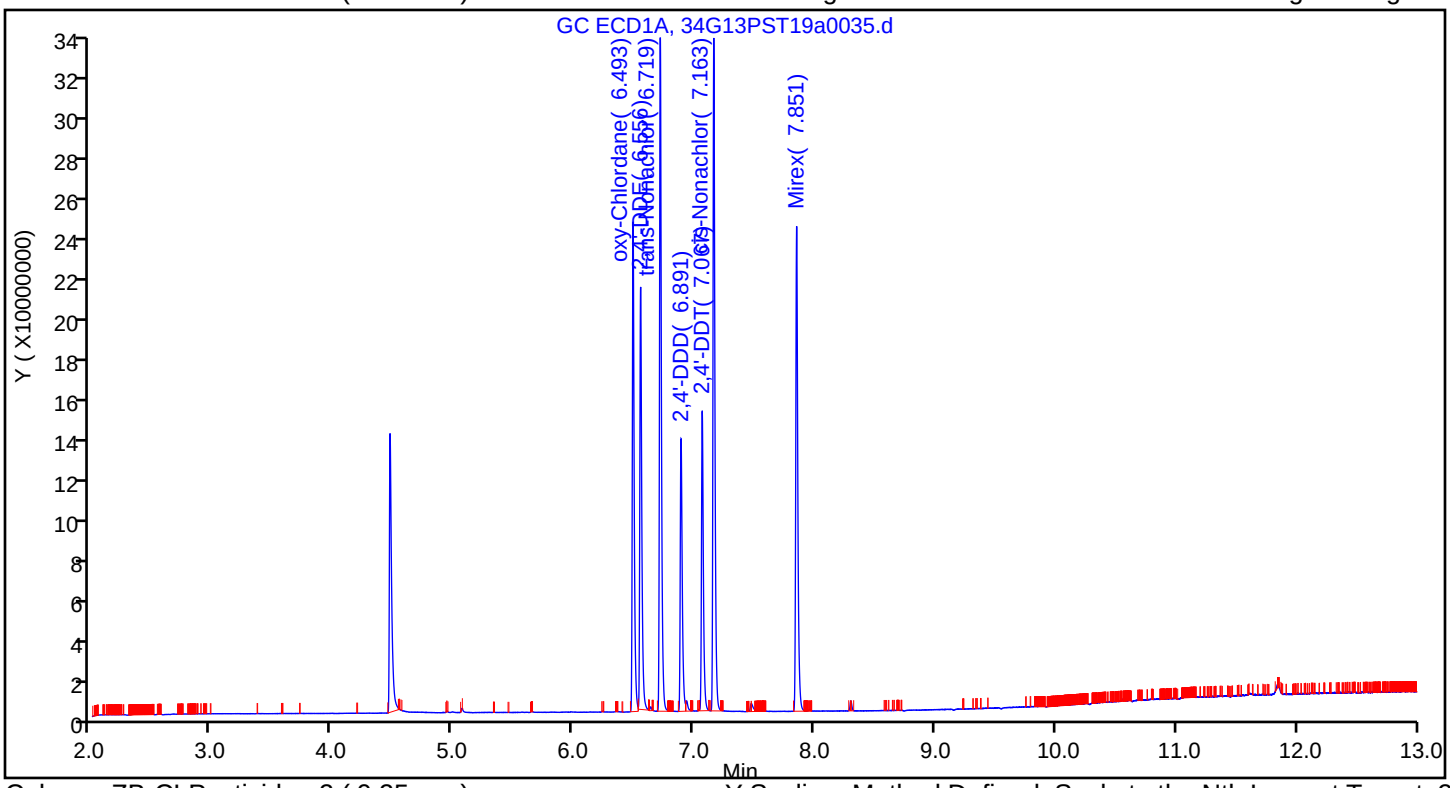
Client ID:

Operator ID: CJB ALS Bottle#: 29 Worklist Smp#: 31

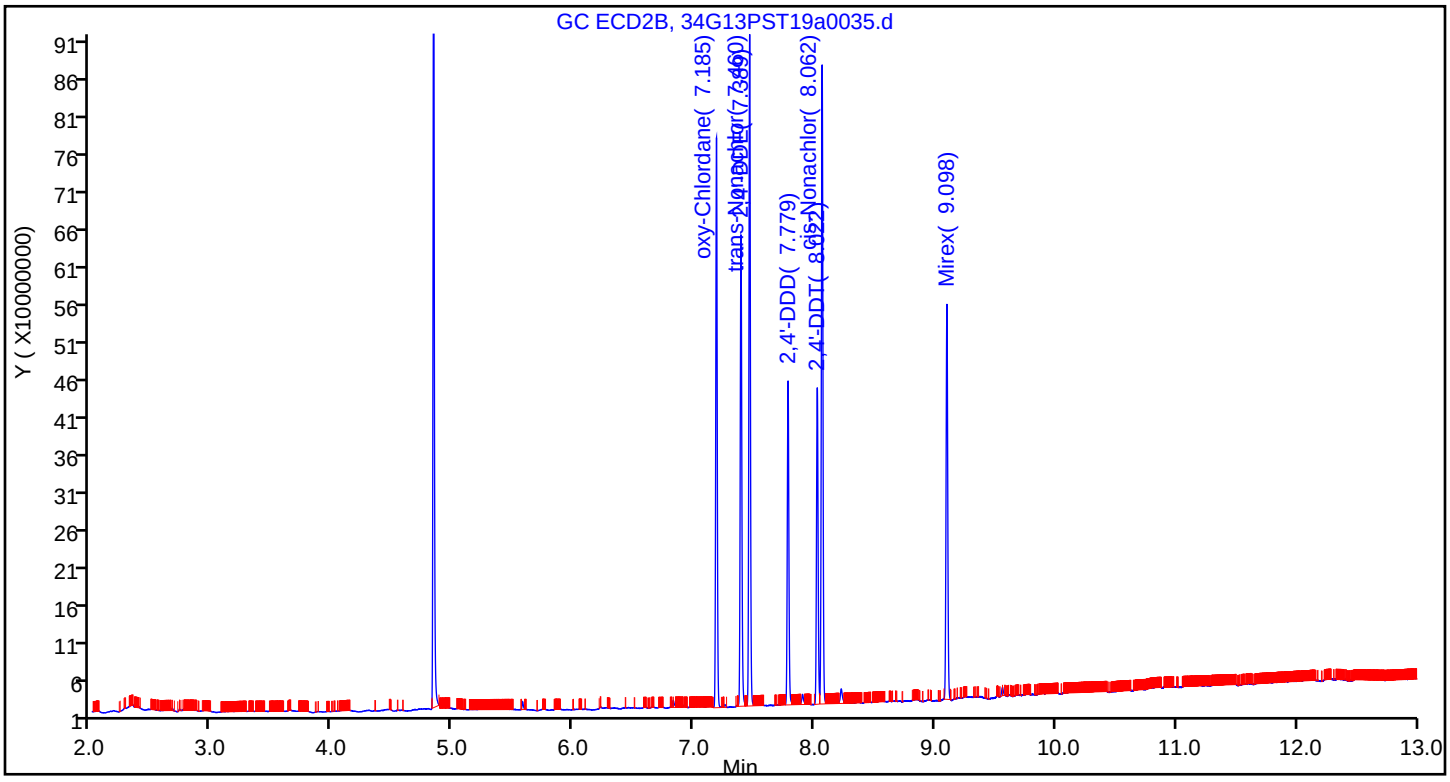
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

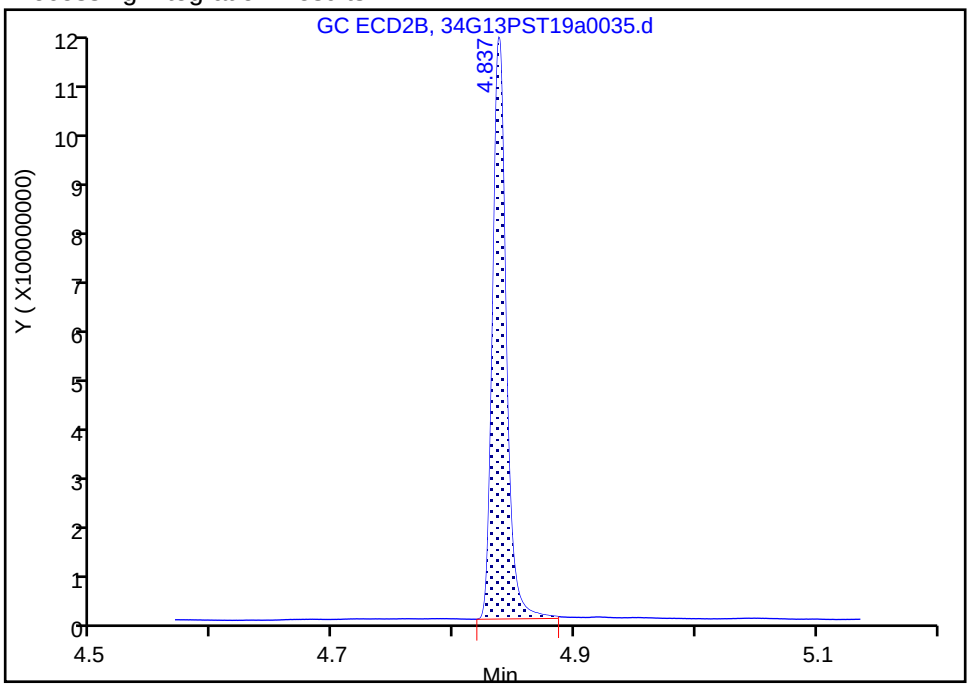
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d				
Injection Date:	14-Jul-2019 04:17:36	Instrument ID:	TAC034		
Lims ID:	ICV EXT				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	29	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 2 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

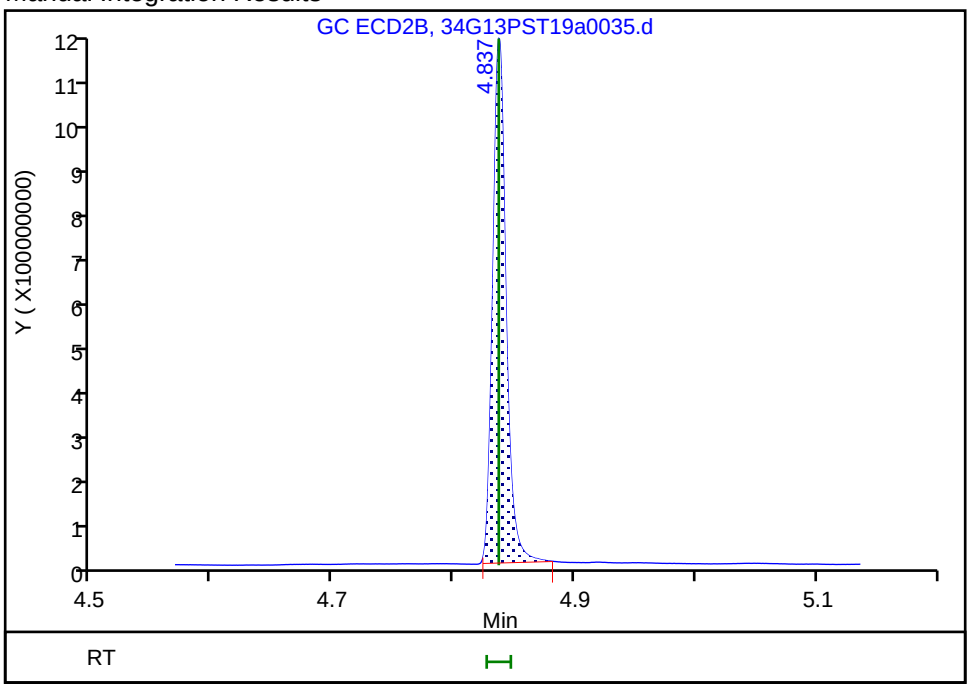
Processing Integration Results

RT: 4.84
Area: 839312042
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.84
Area: 827521273
Amount: 100.0000
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:07:48
Audit Action: Manually Integrated Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

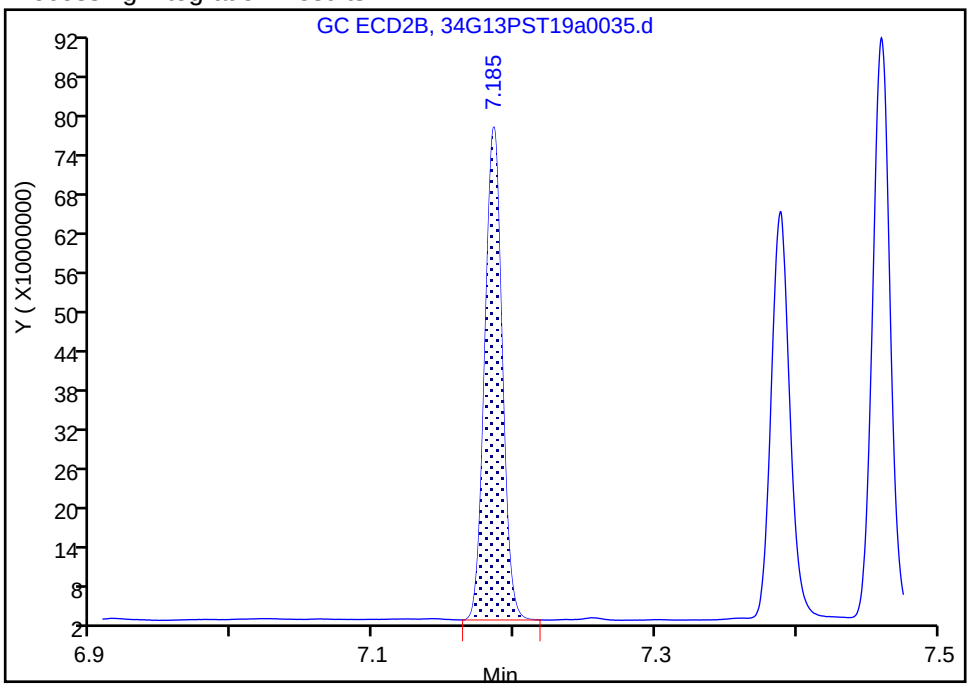
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0035.d				
Injection Date:	14-Jul-2019 04:17:36	Instrument ID:	TAC034		
Lims ID:	ICV EXT				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	29	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

20 oxy-Chlordane, CAS: 27304-13-8

Signal: 2

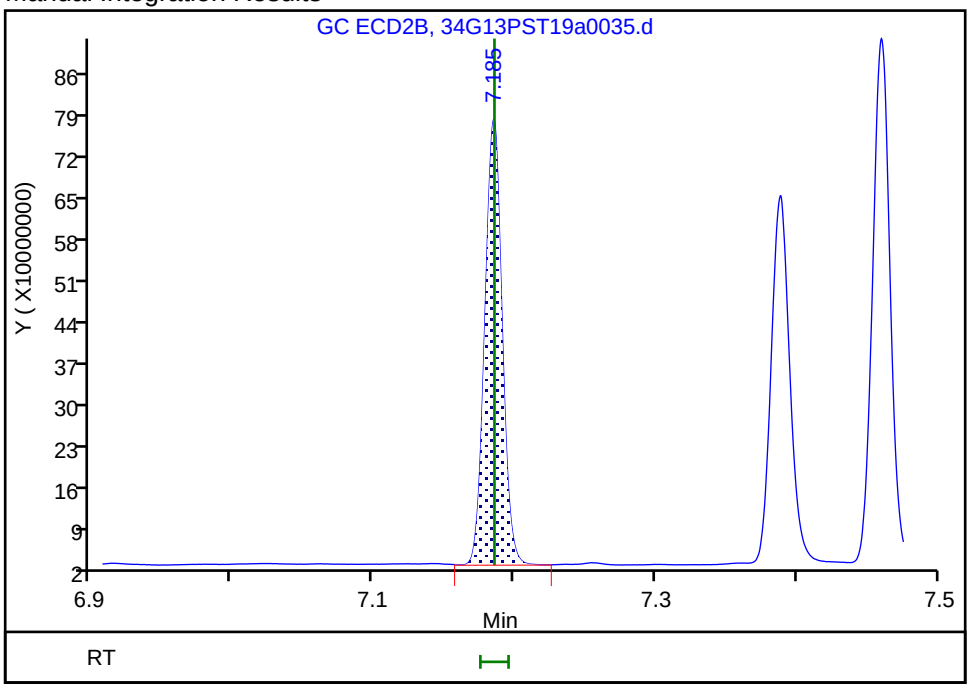
Processing Integration Results

RT: 7.19
Area: 641702793
Amount: 38.810961
Amount Units: ug/L



Manual Integration Results

RT: 7.19
Area: 644659216
Amount: 39.801871
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:02:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/41 Calibration Date: 07/14/2019 07:30

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G13PST19a0045.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Qua1		3.199		45.3	50.0	-9.5	20.0
gamma-BHC (Lindane)	Lin1		2.945		51.9	50.0	3.8	20.0
beta-BHC	Ave	1.611	1.455		45.2	50.0	-9.7	20.0
delta-BHC	Qua		2.668		44.1	50.0	-11.7	20.0
Heptachlor	Ave	2.425	2.512		51.8	50.0	3.6	20.0
Aldrin	Ave	3.605	3.964		55.0	50.0	10.0	20.0
Heptachlor epoxide	Ave	3.062	2.968		48.5	50.0	-3.1	20.0
trans-Chlordane	Ave	4.119	4.115		49.9	50.0	-0.1	20.0
cis-Chlordane	Ave	4.303	4.120		47.9	50.0	-4.2	20.0
4,4'-DDE	Lin2		4.184		49.4	50.0	-1.2	20.0
Endosulfan I	Ave	3.406	3.708		54.4	50.0	8.9	20.0
Dieldrin	Ave	3.524	3.678		52.2	50.0	4.4	20.0
Endrin	Ave	2.233	2.158		48.3	50.0	-3.4	20.0
4,4'-DDD	Lin1		2.442		50.6	50.0	1.2	20.0
Endosulfan II	Ave	2.501	2.751		55.0	50.0	10.0	20.0
4,4'-DDT	Ave	2.171	2.357		54.3	50.0	8.6	20.0
Endrin aldehyde	Ave	2.754	2.324		42.2	50.0	-15.6	20.0
Methoxychlor	Ave	1.046	0.9831		47.0	50.0	-6.0	20.0
Endosulfan sulfate	Qua1		2.669		41.1	50.0	-17.8	20.0
Endrin ketone	Qua1		2.544		47.8	50.0	-4.4	20.0
Tetrachloro-m-xylene	Ave	4.064	4.570		56.2	50.0	12.4	20.0
DCB Decachlorobiphenyl	Qua1		4.905		54.7	50.0	9.4	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/41 Calibration Date: 07/14/2019 07:30

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G13PST19a0045.d

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	5.46	5.45	5.47
gamma-BHC (Lindane)	5.67	5.66	5.68
beta-BHC	5.72	5.71	5.73
delta-BHC	5.84	5.83	5.85
Heptachlor	5.98	5.97	5.99
Aldrin	6.17	6.16	6.18
Heptachlor epoxide	6.56	6.55	6.57
trans-Chlordane	6.64	6.63	6.65
cis-Chlordane	6.73	6.72	6.74
4,4'-DDE	6.78	6.77	6.79
Endosulfan I	6.82	6.81	6.83
Dieldrin	6.98	6.97	6.99
Endrin	7.14	7.13	7.15
4,4'-DDD	7.18	7.17	7.19
Endosulfan II	7.29	7.28	7.30
4,4'-DDT	7.37	7.36	7.38
Endrin aldehyde	7.58	7.57	7.59
Methoxychlor	7.73	7.72	7.74
Endosulfan sulfate	7.89	7.88	7.90
Endrin ketone	8.10	8.09	8.11
Tetrachloro-m-xylene	5.09	5.08	5.10
DCB Decachlorobiphenyl	8.90	8.88	8.90

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d
Lims ID: ICV OCP
Client ID:
Sample Type: ICV
Inject. Date: 14-Jul-2019 07:30:56 ALS Bottle#: 39 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV OCP
Operator ID: CJB Instrument ID: TAC034
Sublist:

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 17-Jul-2019 11:55:31 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: brennanr Date: 15-Jul-2019 13:16:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							M
1	4.477	4.476	0.001	122645458	100.0	100.0	
2	4.838	4.837	0.001	758251975	100.0	100.0	M
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.089	5.089	0.000	280219538	50.0	56.2	
2	5.544	5.543	0.001	896985893	50.0	42.4	
						RPD = 27.93	
8 alpha-BHC							
1	5.463	5.462	0.001	196181239	50.0	45.3	
2	6.002	6.001	0.001	744861229	50.0	42.4	
						RPD = 6.42	
11 gamma-BHC (Lindane)							M
1	5.667	5.667	0.000	180592375	50.0	51.9	
2	6.263	6.263	0.000	606367783	50.0	44.3	M
						RPD = 15.79	
12 beta-BHC							M
1	5.724	5.724	0.000	89216451	50.0	45.2	
2	6.316	6.315	0.001	280761354	50.0	39.9	M
						RPD = 12.33	
13 delta-BHC							M
1	5.840	5.839	0.001	163627376	50.0	44.1	
2	6.540	6.541	-0.001	619454991	50.0	40.6	M
						RPD = 8.26	
15 Heptachlor							M
1	5.979	5.979	0.000	154059514	50.0	51.8	
2	6.589	6.589	0.000	500874900	50.0	41.8	M
						RPD = 21.37	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
18 Aldrin							
1	6.173	6.172	0.001	243059217	50.0	55.0	
2	6.836	6.835	0.001	811682593	50.0	43.3	
						RPD = 23.83	
22 Heptachlor epoxide							M
1	6.556	6.556	0.000	181981870	50.0	48.5	
2	7.257	7.256	0.001	587695096	50.0	40.6	M
						RPD = 17.57	
23 trans-Chlordane							
1	6.642	6.641	0.001	252347448	50.0	49.9	
2	7.398	7.397	0.001	738530380	50.0	41.6	
						RPD = 18.20	
25 cis-Chlordane							
1	6.729	6.728	0.001	252671473	50.0	47.9	
2	7.508	7.507	0.001	747361712	50.0	40.7	
						RPD = 16.13	
26 4,4'-DDE							M
1	6.777	6.778	-0.001	256579960	50.0	49.4	
2	7.617	7.617	0.000	781780545	50.0	40.3	M
						RPD = 20.28	
27 Endosulfan I							
1	6.815	6.815	0.000	227364551	50.0	54.4	
2	7.560	7.560	0.000	642052550	50.0	46.8	
						RPD = 14.99	
29 Dieldrin							
1	6.980	6.979	0.001	225534552	50.0	52.2	
2	7.771	7.770	0.001	705873951	50.0	41.8	
						RPD = 22.15	
33 Endrin							M
1	7.136	7.135	0.001	132333895	50.0	48.3	
2	8.016	8.016	0.000	500955117	50.0	40.5	M
						RPD = 17.49	
36 4,4'-DDD							
1	7.176	7.176	0.000	149751502	50.0	50.6	
2	8.066	8.065	0.001	477021319	50.0	43.6	
						RPD = 14.76	
37 Endosulfan II							
1	7.290	7.290	0.000	168699550	50.0	55.0	
2	8.179	8.178	0.001	533274047	50.0	50.7	
						RPD = 8.22	
38 4,4'-DDT							
1	7.374	7.373	0.001	144557330	50.0	54.3	
2	8.317	8.317	0.000	479571106	50.0	44.7	
						RPD = 19.26	
39 Endrin aldehyde							M
1	7.577	7.576	0.001	142539787	50.0	42.2	M
2	8.441	8.441	0.000	426431895	50.0	41.5	M
						RPD = 1.64	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 Methoxychlor							
1	7.730	7.730	0.000	60283811	50.0	47.0	
2	8.871	8.871	0.000	198480256	50.0	46.6	
						RPD = 0.75	
42 Endosulfan sulfate							M
1	7.890	7.888	0.002	163639667	50.0	41.1	
2	8.656	8.656	0.000	466210587	50.0	40.4	M
						RPD = 1.72	
44 Endrin ketone							
1	8.103	8.103	0.000	156020423	50.0	47.8	
2	9.115	9.115	0.000	412495860	50.0	41.4	
						RPD = 14.44	
$ 45 DCB Decachlorobiphenyl							
1	8.895	8.894	0.001	300785384	50.0	54.7	
2	10.101	10.100	0.001	705971197	50.0	42.0	
						RPD = 26.17	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_ICV_50_00035	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 17-Jul-2019 15:40:55 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d

Injection Date: 14-Jul-2019 07:30:56 Instrument ID: TAC034

Lims ID: ICV OCP

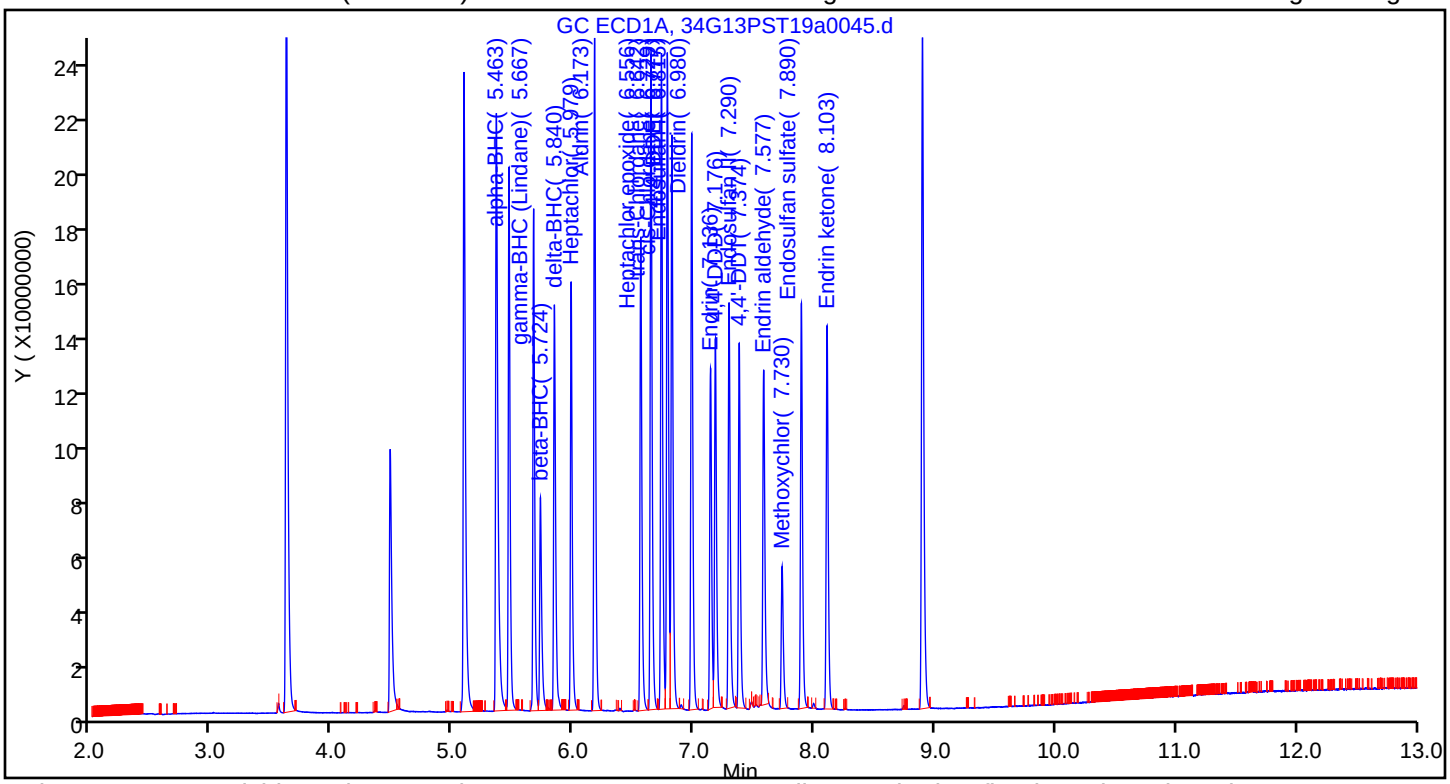
Client ID:

Operator ID: CJB ALS Bottle#: 39 Worklist Smp#: 41

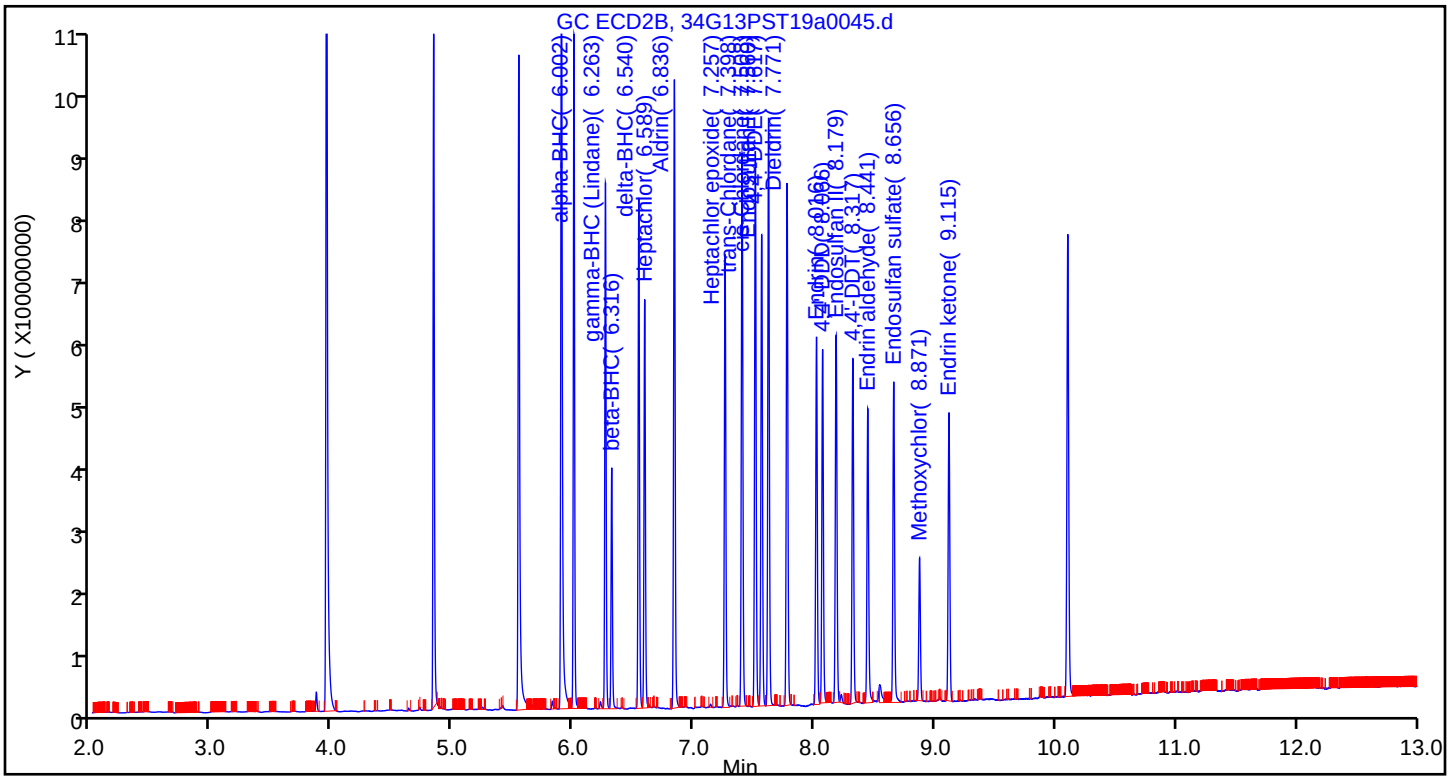
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

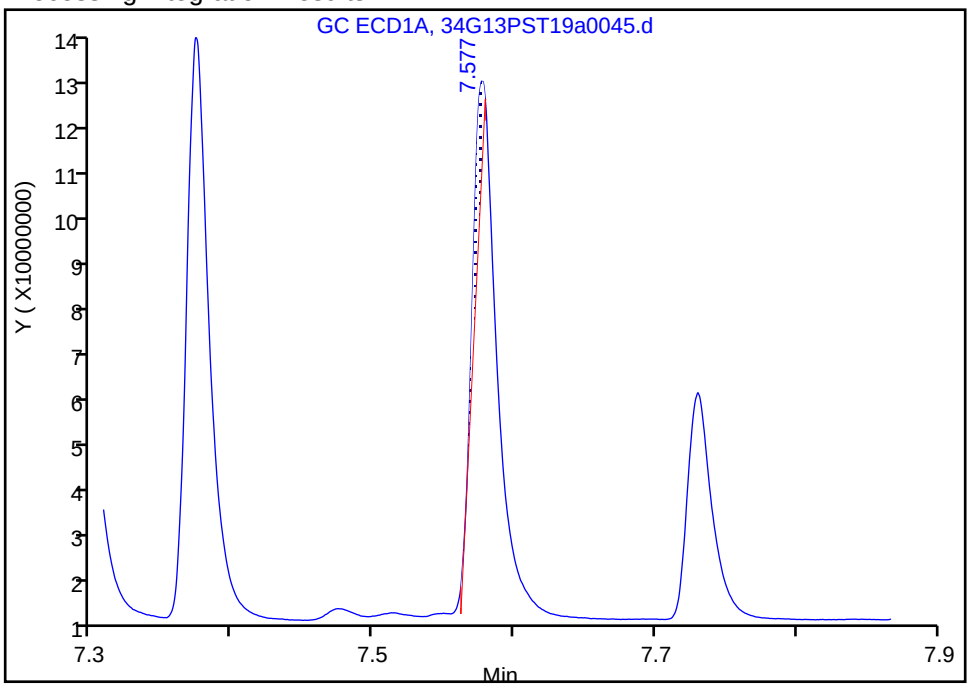
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

39 Endrin aldehyde, CAS: 7421-93-4

Signal: 1

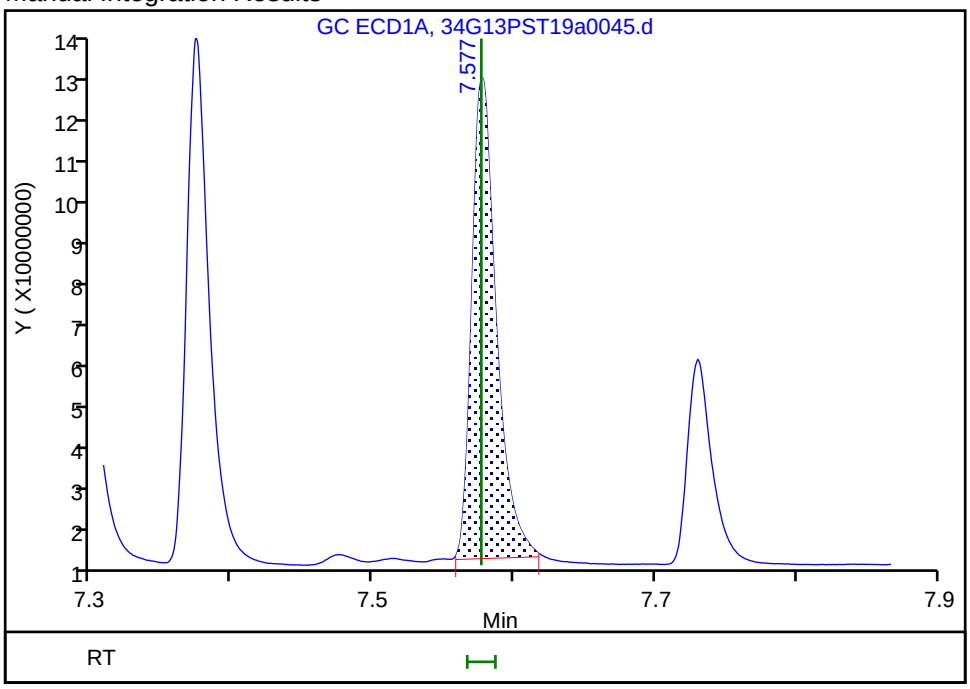
Processing Integration Results

RT: 7.58
Area: 14152504
Amount: 4.346658
Amount Units: ug/L



Manual Integration Results

RT: 7.58
Area: 142539787
Amount: 42.196403
Amount Units: ug/L



Reviewer: brennanr, 15-Jul-2019 13:15:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/41 Calibration Date: 07/14/2019 07:30

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G13PST19a0045.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	2.314	1.965		42.4	50.0	-15.1	20.0
gamma-BHC (Lindane)	Ave	1.805	1.599		44.3	50.0	-11.4	20.0
beta-BHC	Qua		0.7406		39.9	50.0	-20.2*	20.0
delta-BHC	Qua1		1.634		40.6	50.0	-18.7	20.0
Heptachlor	Ave	1.580	1.321		41.8	50.0	-16.4	20.0
Aldrin	Ave	2.474	2.141		43.3	50.0	-13.5	20.0
Heptachlor epoxide	Ave	1.907	1.550		40.6	50.0	-18.7	20.0
trans-Chlordane	Ave	2.341	1.948		41.6	50.0	-16.8	20.0
cis-Chlordane	Ave	2.420	1.971		40.7	50.0	-18.5	20.0
Endosulfan I	Lin1		1.694		46.8	50.0	-6.3	20.0
4,4'-DDE	Ave	2.557	2.062		40.3	50.0	-19.4	20.0
Dieldrin	Ave	2.228	1.862		41.8	50.0	-16.4	20.0
Endrin	Ave	1.630	1.321		40.5	50.0	-18.9	20.0
4,4'-DDD	Ave	1.441	1.258		43.6	50.0	-12.7	20.0
Endosulfan II	Qua1		1.407		50.7	50.0	1.3	20.0
4,4'-DDT	Ave	1.413	1.265		44.7	50.0	-10.5	20.0
Endrin aldehyde	Lin1		1.125		41.5	50.0	-17.0	20.0
Endosulfan sulfate	Lin1		1.230		40.4	50.0	-19.2	20.0
Methoxychlor	Qua1		0.5235		46.6	50.0	-6.7	20.0
Endrin ketone	Lin2		1.088		41.4	50.0	-17.3	20.0
Tetrachloro-m-xylene	Lin1		2.366		42.4	50.0	-15.1	20.0
DCB Decachlorobiphenyl	Lin1		1.862		42.0	50.0	-15.9	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-305574/41 Calibration Date: 07/14/2019 07:30

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G13PST19a0045.d

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	6.00	5.99	6.01
gamma-BHC (Lindane)	6.26	6.25	6.27
beta-BHC	6.32	6.31	6.33
delta-BHC	6.54	6.53	6.55
Heptachlor	6.59	6.58	6.60
Aldrin	6.84	6.83	6.85
Heptachlor epoxide	7.26	7.25	7.27
trans-Chlordane	7.40	7.39	7.41
cis-Chlordane	7.51	7.50	7.52
Endosulfan I	7.56	7.55	7.57
4,4'-DDE	7.62	7.61	7.63
Dieldrin	7.77	7.76	7.78
Endrin	8.02	8.01	8.03
4,4'-DDD	8.07	8.06	8.08
Endosulfan II	8.18	8.17	8.19
4,4'-DDT	8.32	8.31	8.33
Endrin aldehyde	8.44	8.43	8.45
Endosulfan sulfate	8.66	8.65	8.67
Methoxychlor	8.87	8.86	8.88
Endrin ketone	9.12	9.11	9.13
Tetrachloro-m-xylene	5.54	5.53	5.55
DCB Decachlorobiphenyl	10.10	10.09	10.11

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d
Lims ID: ICV OCP
Client ID:
Sample Type: ICV
Inject. Date: 14-Jul-2019 07:30:56 ALS Bottle#: 39 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV OCP
Operator ID: CJB Instrument ID: TAC034
Sublist:

Method: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 17-Jul-2019 11:55:31 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: brennanr Date: 15-Jul-2019 13:16:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							M
1	4.477	4.476	0.001	122645458	100.0	100.0	
2	4.838	4.837	0.001	758251975	100.0	100.0	M
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.089	5.089	0.000	280219538	50.0	56.2	
2	5.544	5.543	0.001	896985893	50.0	42.4	
						RPD = 27.93	
8 alpha-BHC							
1	5.463	5.462	0.001	196181239	50.0	45.3	
2	6.002	6.001	0.001	744861229	50.0	42.4	
						RPD = 6.42	
11 gamma-BHC (Lindane)							M
1	5.667	5.667	0.000	180592375	50.0	51.9	
2	6.263	6.263	0.000	606367783	50.0	44.3	M
						RPD = 15.79	
12 beta-BHC							M
1	5.724	5.724	0.000	89216451	50.0	45.2	
2	6.316	6.315	0.001	280761354	50.0	39.9	M
						RPD = 12.33	
13 delta-BHC							M
1	5.840	5.839	0.001	163627376	50.0	44.1	
2	6.540	6.541	-0.001	619454991	50.0	40.6	M
						RPD = 8.26	
15 Heptachlor							M
1	5.979	5.979	0.000	154059514	50.0	51.8	
2	6.589	6.589	0.000	500874900	50.0	41.8	M
						RPD = 21.37	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
18 Aldrin							
1	6.173	6.172	0.001	243059217	50.0	55.0	
2	6.836	6.835	0.001	811682593	50.0	43.3	
						RPD = 23.83	
22 Heptachlor epoxide							M
1	6.556	6.556	0.000	181981870	50.0	48.5	
2	7.257	7.256	0.001	587695096	50.0	40.6	M
						RPD = 17.57	
23 trans-Chlordane							
1	6.642	6.641	0.001	252347448	50.0	49.9	
2	7.398	7.397	0.001	738530380	50.0	41.6	
						RPD = 18.20	
25 cis-Chlordane							
1	6.729	6.728	0.001	252671473	50.0	47.9	
2	7.508	7.507	0.001	747361712	50.0	40.7	
						RPD = 16.13	
26 4,4'-DDE							M
1	6.777	6.778	-0.001	256579960	50.0	49.4	
2	7.617	7.617	0.000	781780545	50.0	40.3	M
						RPD = 20.28	
27 Endosulfan I							
1	6.815	6.815	0.000	227364551	50.0	54.4	
2	7.560	7.560	0.000	642052550	50.0	46.8	
						RPD = 14.99	
29 Dieldrin							
1	6.980	6.979	0.001	225534552	50.0	52.2	
2	7.771	7.770	0.001	705873951	50.0	41.8	
						RPD = 22.15	
33 Endrin							M
1	7.136	7.135	0.001	132333895	50.0	48.3	
2	8.016	8.016	0.000	500955117	50.0	40.5	M
						RPD = 17.49	
36 4,4'-DDD							
1	7.176	7.176	0.000	149751502	50.0	50.6	
2	8.066	8.065	0.001	477021319	50.0	43.6	
						RPD = 14.76	
37 Endosulfan II							
1	7.290	7.290	0.000	168699550	50.0	55.0	
2	8.179	8.178	0.001	533274047	50.0	50.7	
						RPD = 8.22	
38 4,4'-DDT							
1	7.374	7.373	0.001	144557330	50.0	54.3	
2	8.317	8.317	0.000	479571106	50.0	44.7	
						RPD = 19.26	
39 Endrin aldehyde							M
1	7.577	7.576	0.001	142539787	50.0	42.2	M
2	8.441	8.441	0.000	426431895	50.0	41.5	M
						RPD = 1.64	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 Methoxychlor							
1	7.730	7.730	0.000	60283811	50.0	47.0	
2	8.871	8.871	0.000	198480256	50.0	46.6	
						RPD = 0.75	
42 Endosulfan sulfate							M
1	7.890	7.888	0.002	163639667	50.0	41.1	
2	8.656	8.656	0.000	466210587	50.0	40.4	M
						RPD = 1.72	
44 Endrin ketone							
1	8.103	8.103	0.000	156020423	50.0	47.8	
2	9.115	9.115	0.000	412495860	50.0	41.4	
						RPD = 14.44	
$ 45 DCB Decachlorobiphenyl							
1	8.895	8.894	0.001	300785384	50.0	54.7	
2	10.101	10.100	0.001	705971197	50.0	42.0	
						RPD = 26.17	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

OCP_ICV_50_00035	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 17-Jul-2019 15:40:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d

Injection Date: 14-Jul-2019 07:30:56 Instrument ID: TAC034

Lims ID: ICV OCP

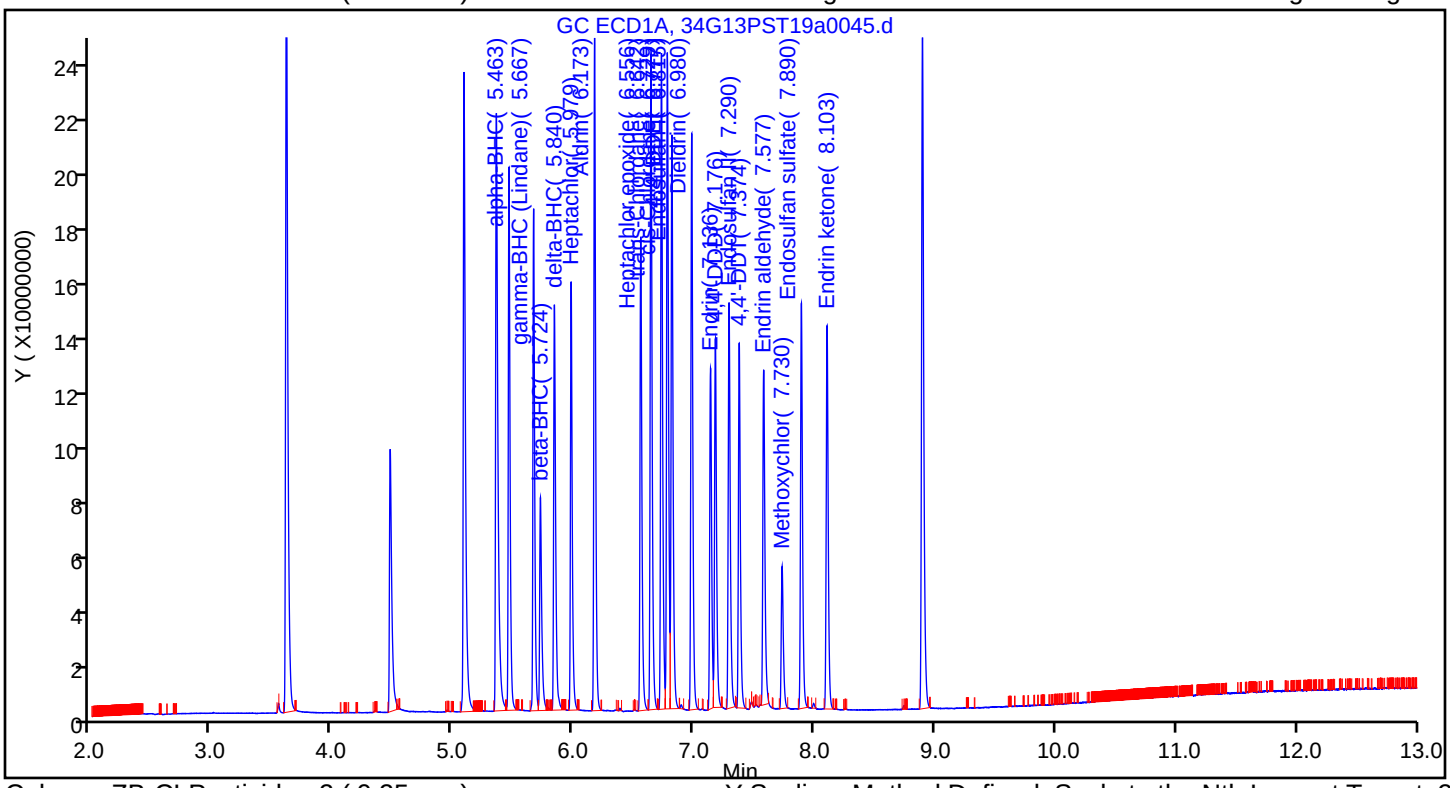
Client ID:

Operator ID: CJB ALS Bottle#: 39 Worklist Smp#: 41

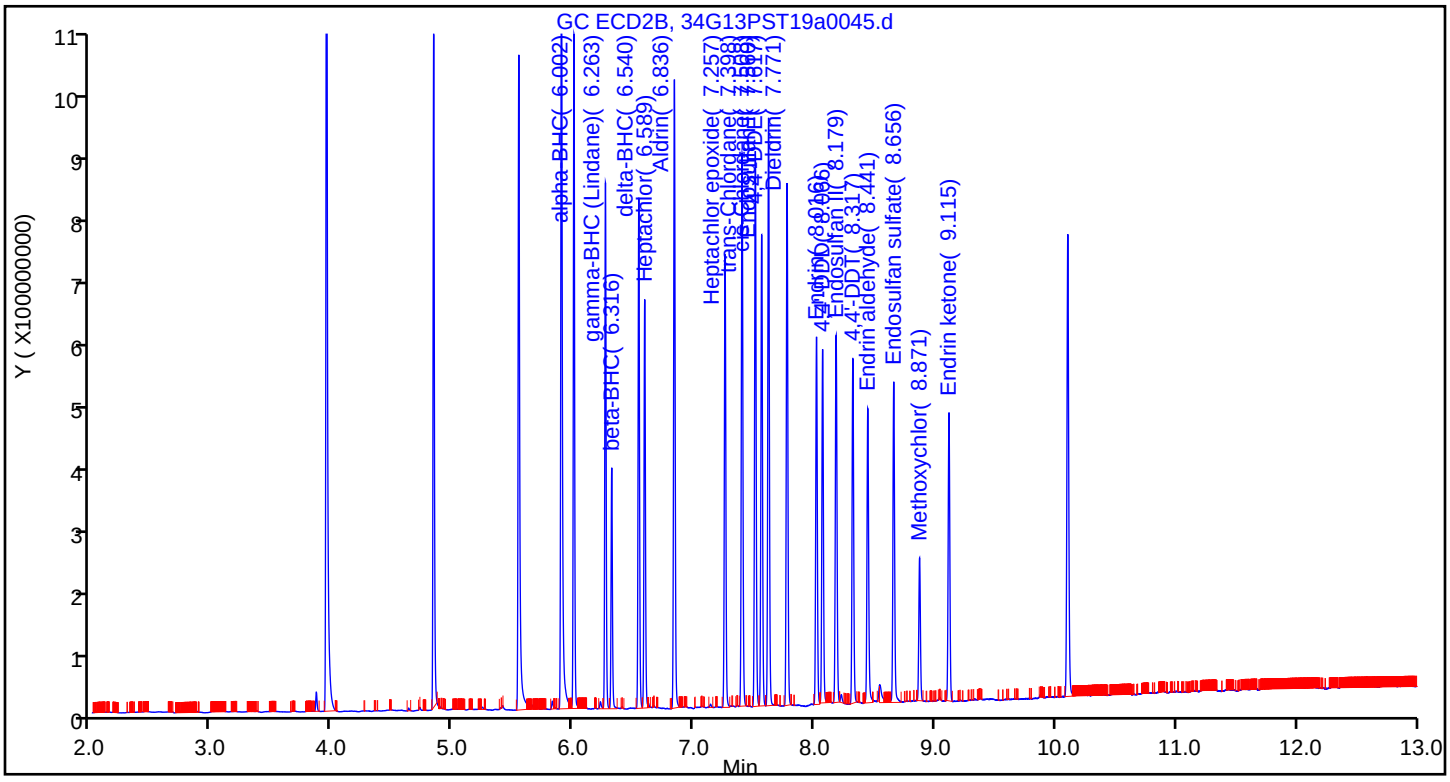
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

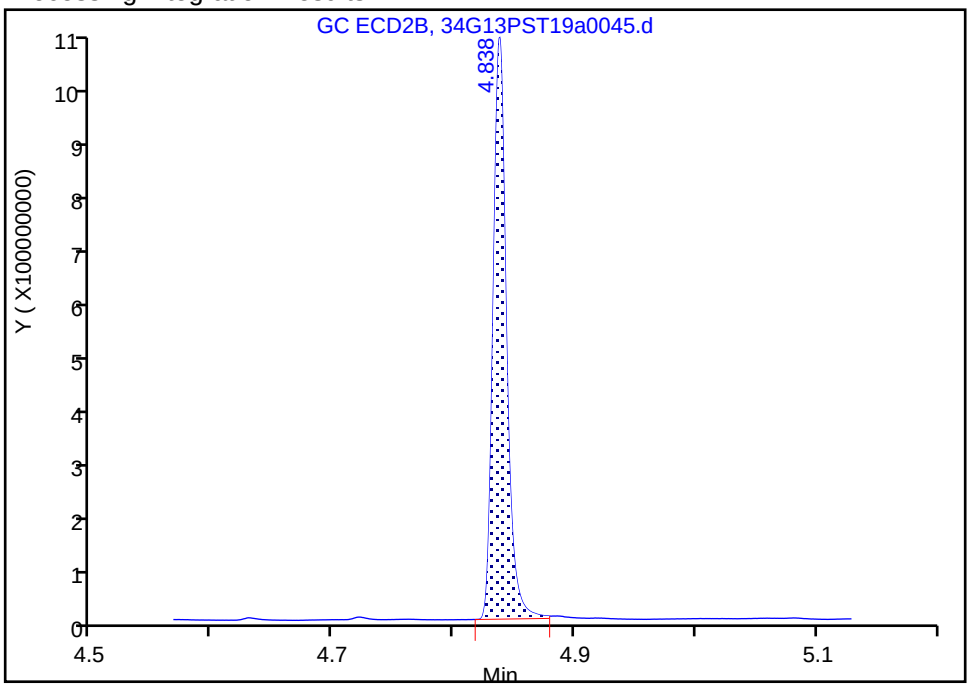
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 2 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

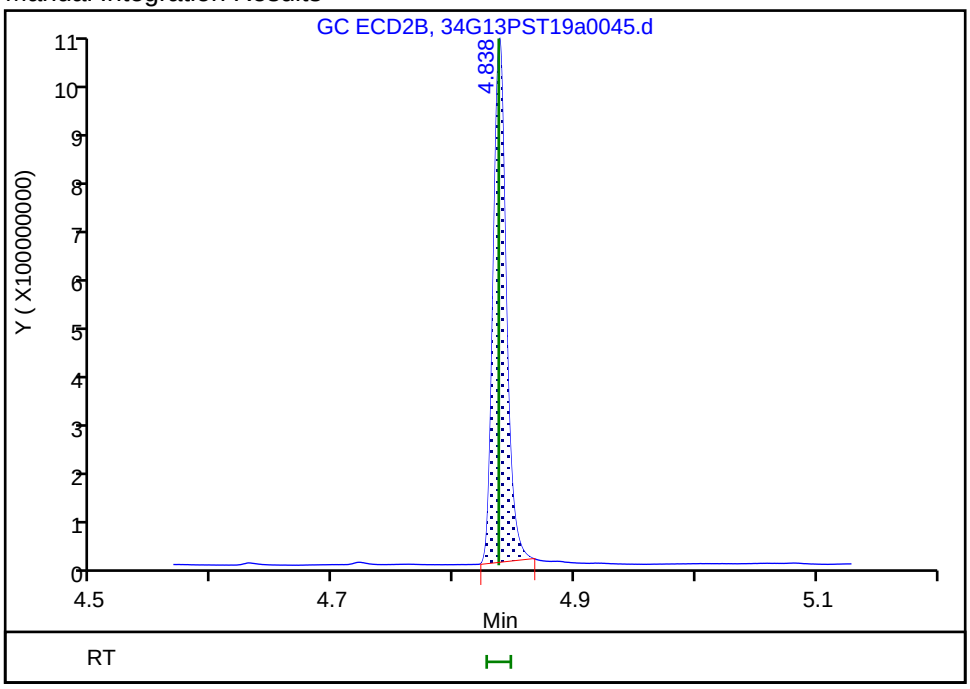
Processing Integration Results

RT: 4.84
Area: 776220747
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.84
Area: 758251975
Amount: 100.0000
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:24:14
Audit Action: Manually Integrated Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

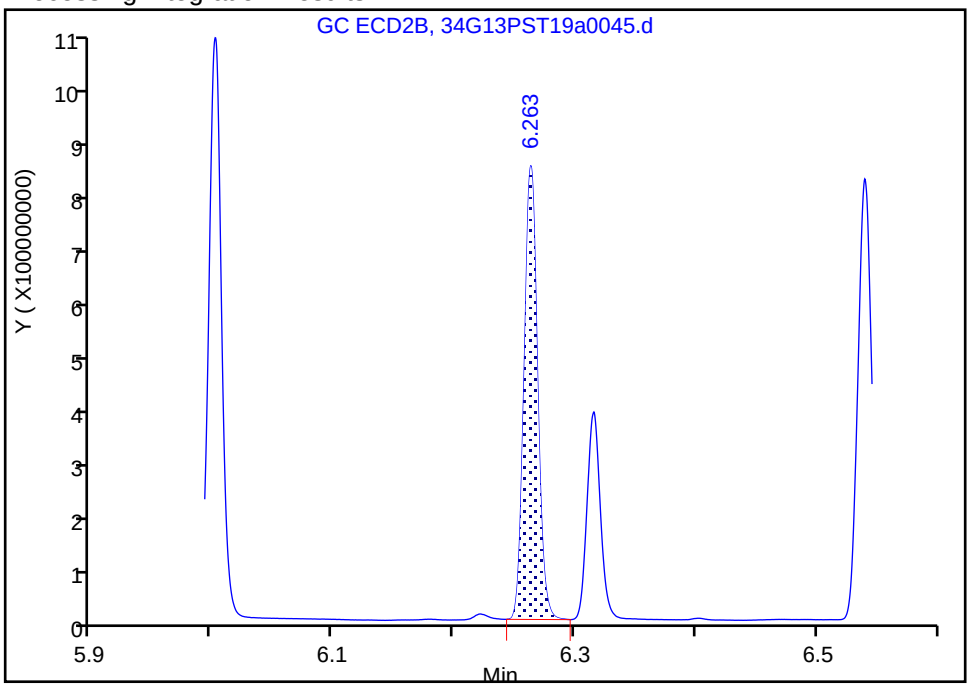
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

11 gamma-BHC (Lindane), CAS: 58-89-9

Signal: 2

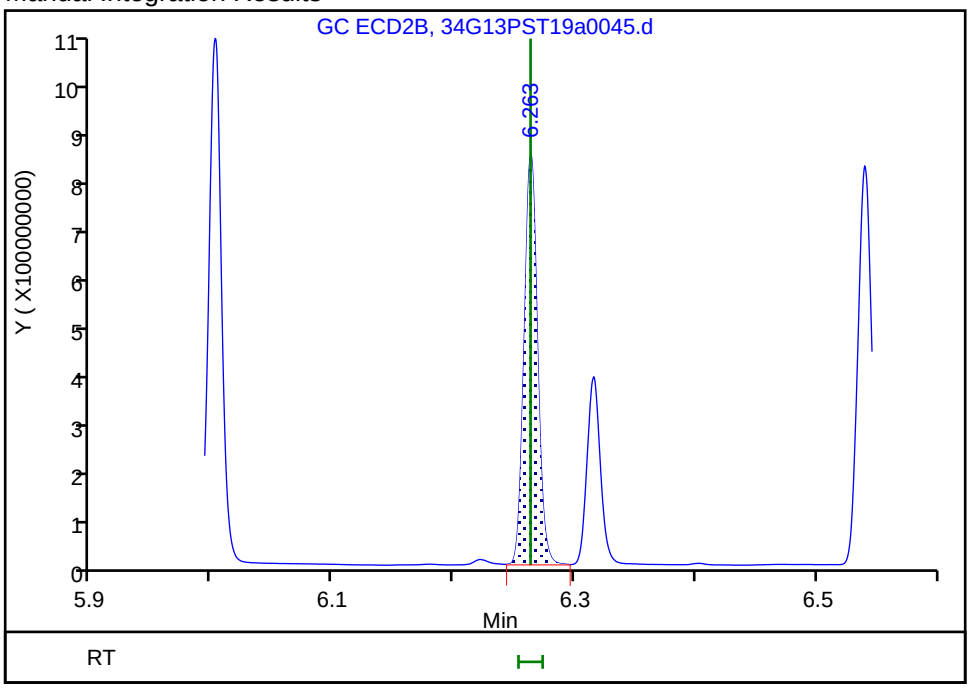
Processing Integration Results

RT: 6.26
Area: 603479012
Amount: 44.088798
Amount Units: ug/L



Manual Integration Results

RT: 6.26
Area: 606367783
Amount: 44.299845
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:15:51
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

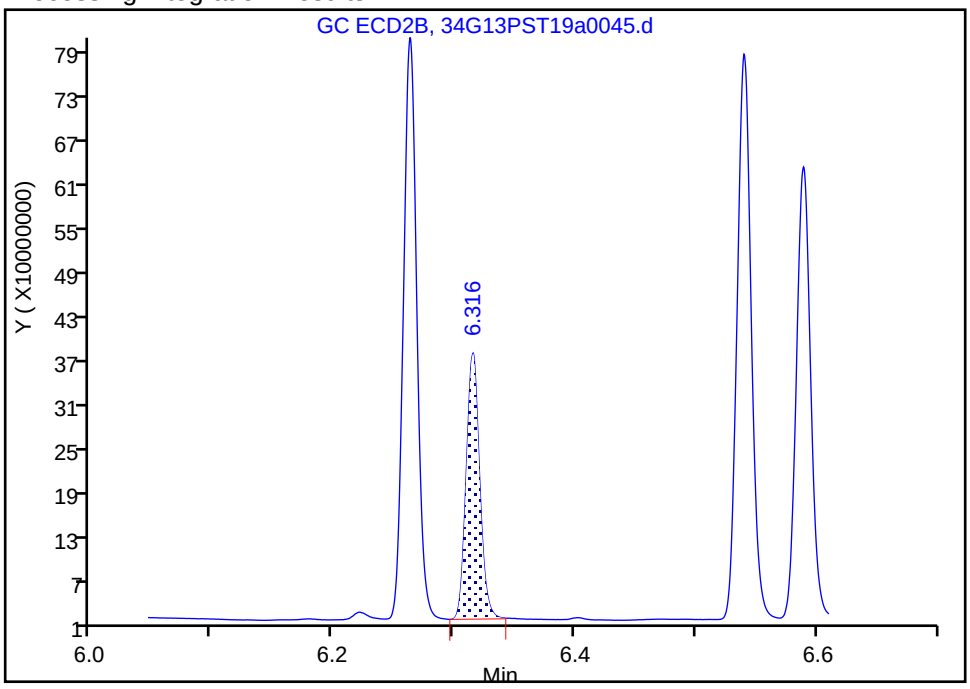
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

12 beta-BHC, CAS: 319-85-7

Signal: 2

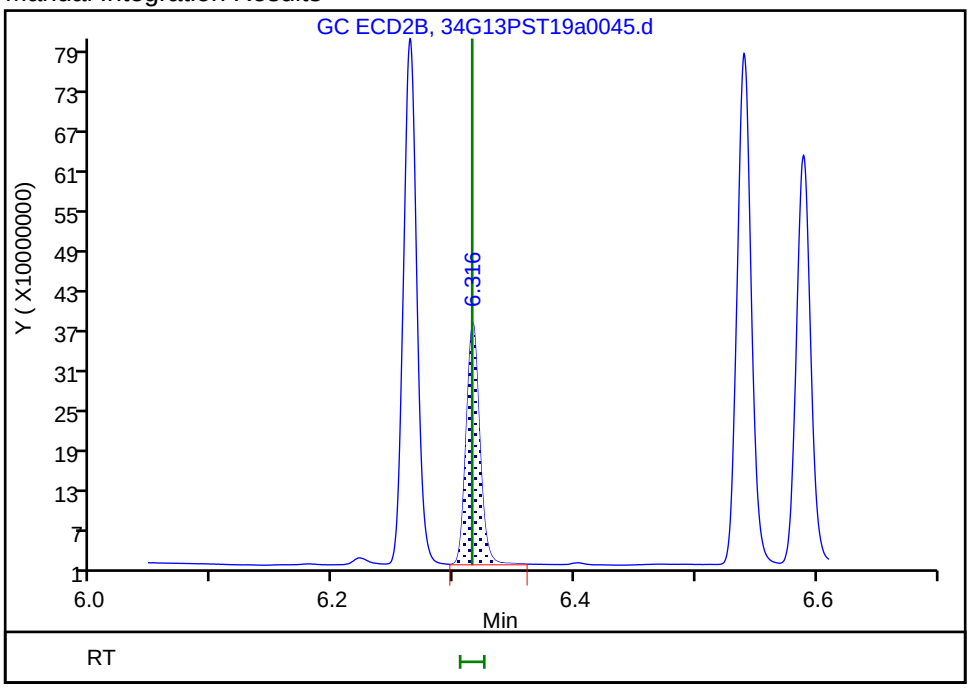
Processing Integration Results

RT: 6.32
Area: 275938977
Amount: 39.992949
Amount Units: ug/L



Manual Integration Results

RT: 6.32
Area: 280761354
Amount: 39.908207
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 16:15:51
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

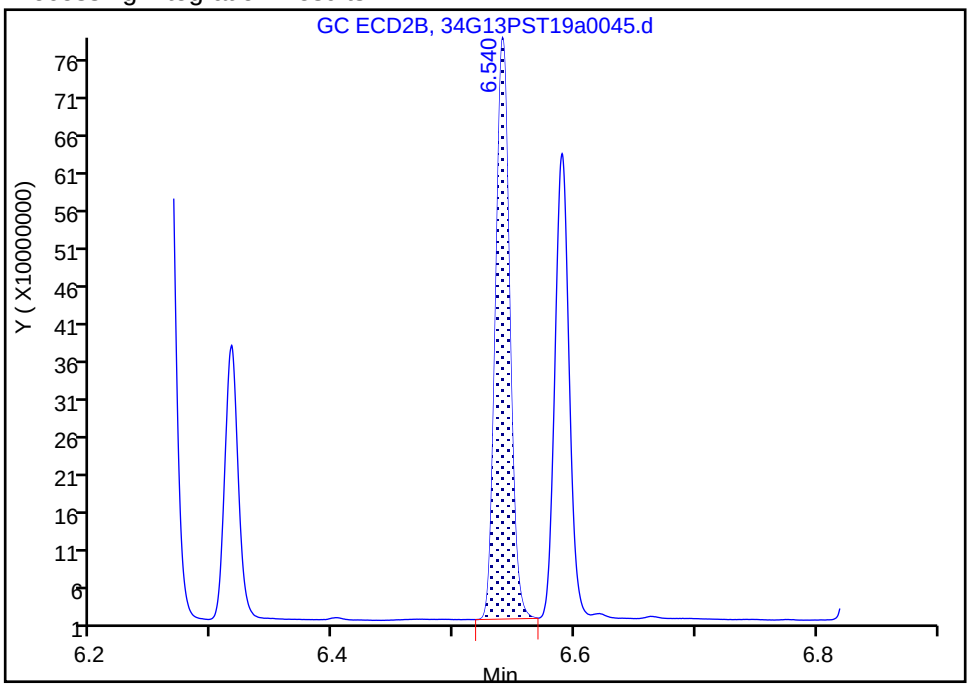
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

13 delta-BHC, CAS: 319-86-8

Signal: 2

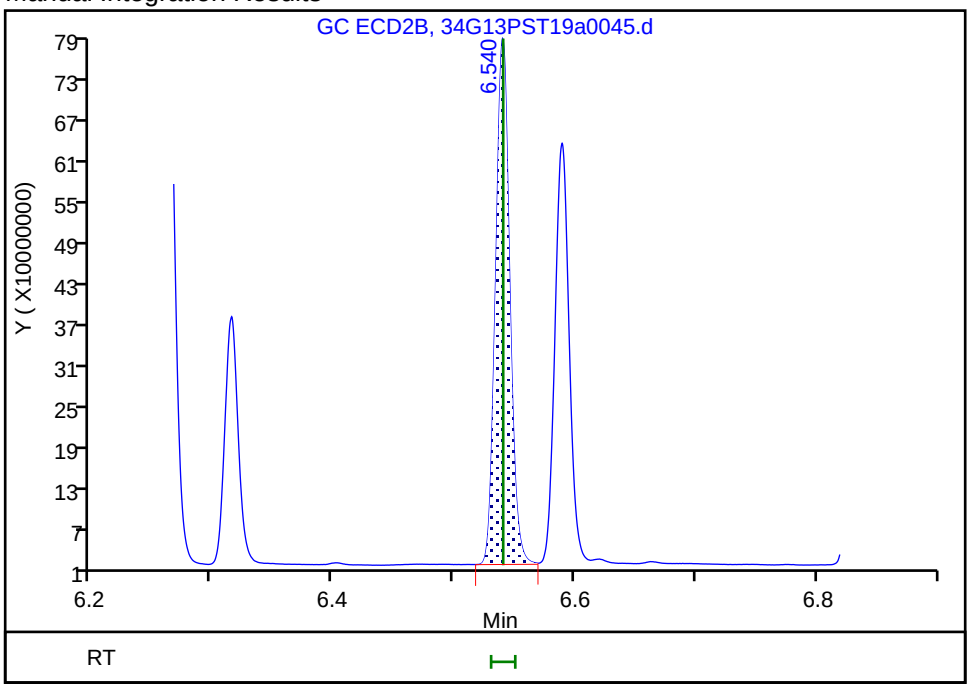
Processing Integration Results

RT: 6.54
Area: 617365478
Amount: 36.981805
Amount Units: ug/L



Manual Integration Results

RT: 6.54
Area: 619454991
Amount: 40.641791
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:24:51
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

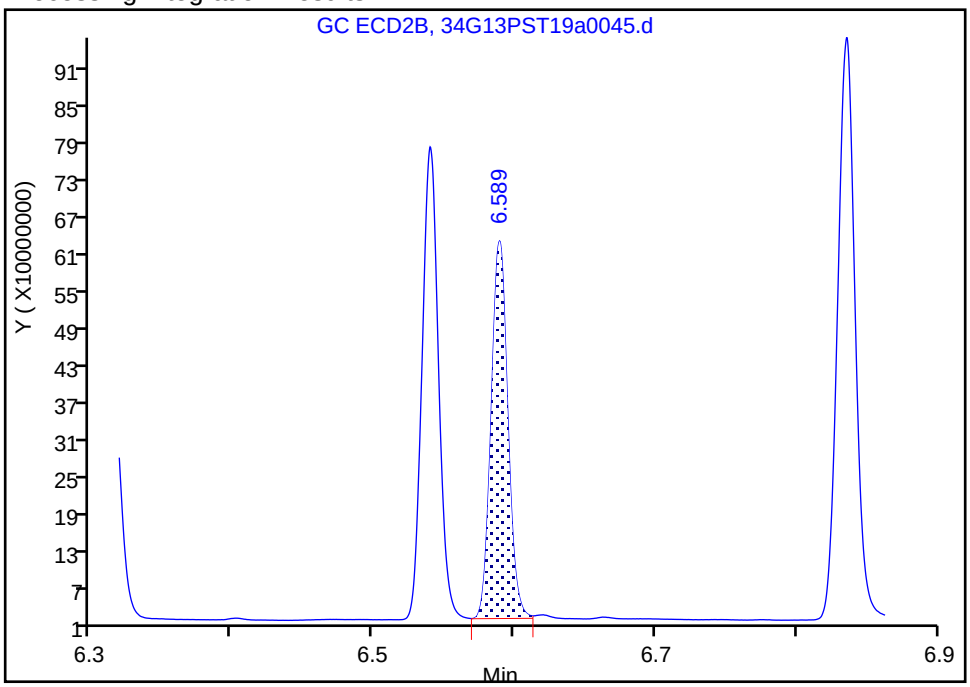
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

15 Heptachlor, CAS: 76-44-8

Signal: 2

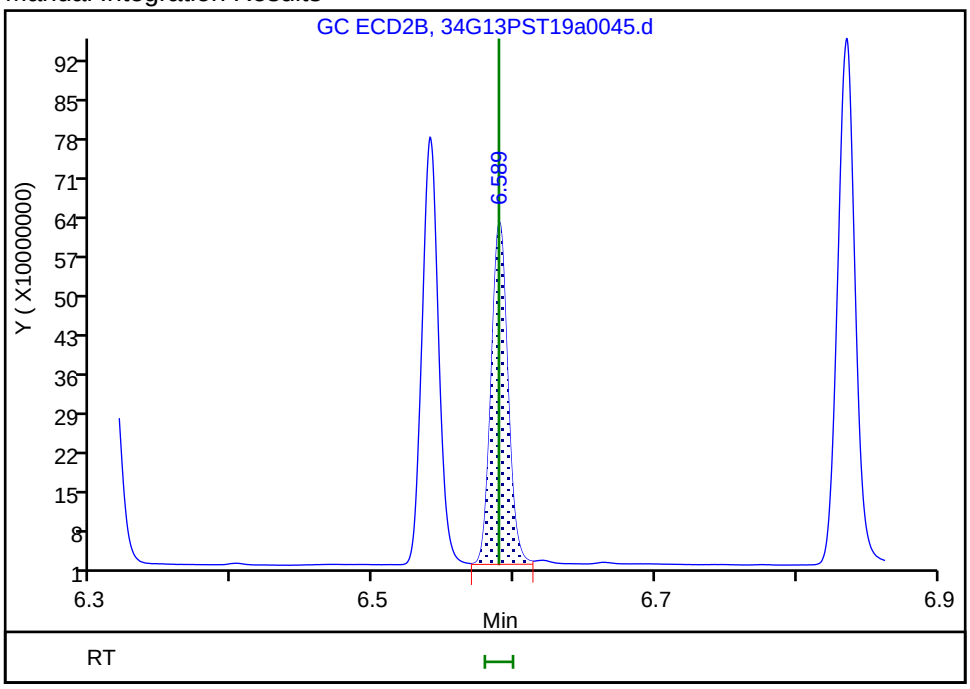
Processing Integration Results

RT: 6.59
Area: 497343970
Amount: 41.503452
Amount Units: ug/L



Manual Integration Results

RT: 6.59
Area: 500874900
Amount: 41.798108
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:24:51
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

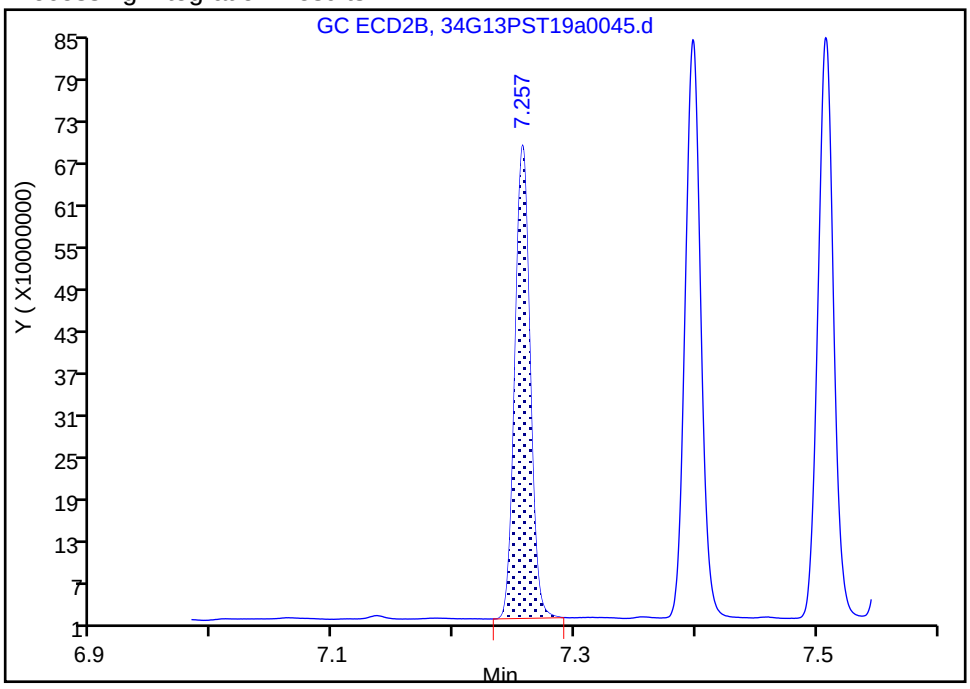
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

22 Heptachlor epoxide, CAS: 1024-57-3

Signal: 2

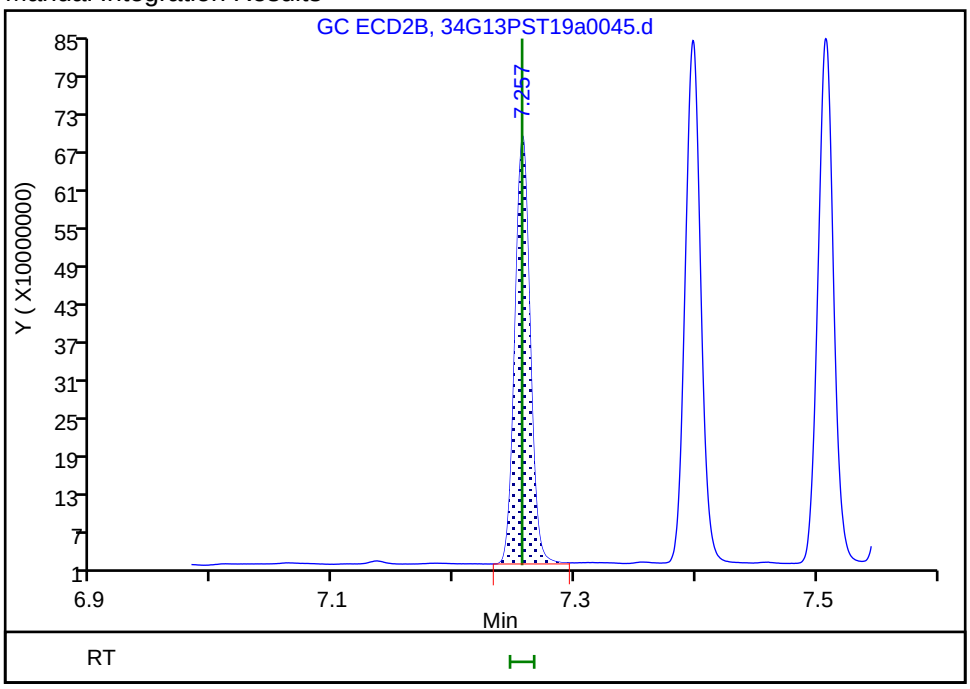
Processing Integration Results

RT: 7.26
Area: 584029521
Amount: 39.833348
Amount Units: ug/L



Manual Integration Results

RT: 7.26
Area: 587695096
Amount: 40.637084
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:08:14
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

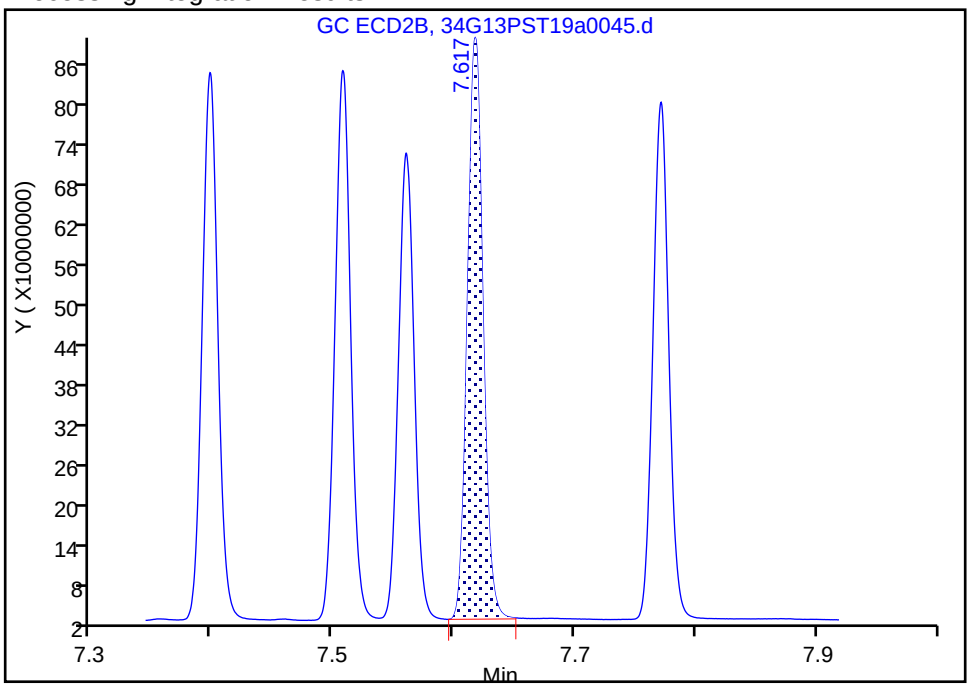
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 4,4'-DDE, CAS: 72-55-9

Signal: 2

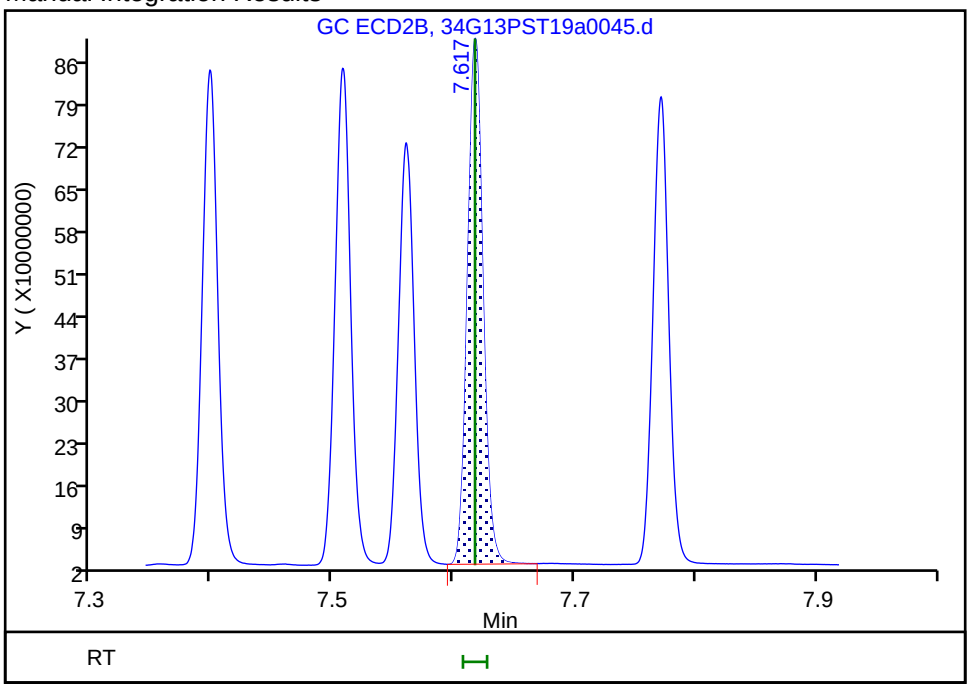
Processing Integration Results

RT: 7.62
Area: 781077320
Amount: 39.732509
Amount Units: ug/L



Manual Integration Results

RT: 7.62
Area: 781780545
Amount: 40.317656
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:06:18

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

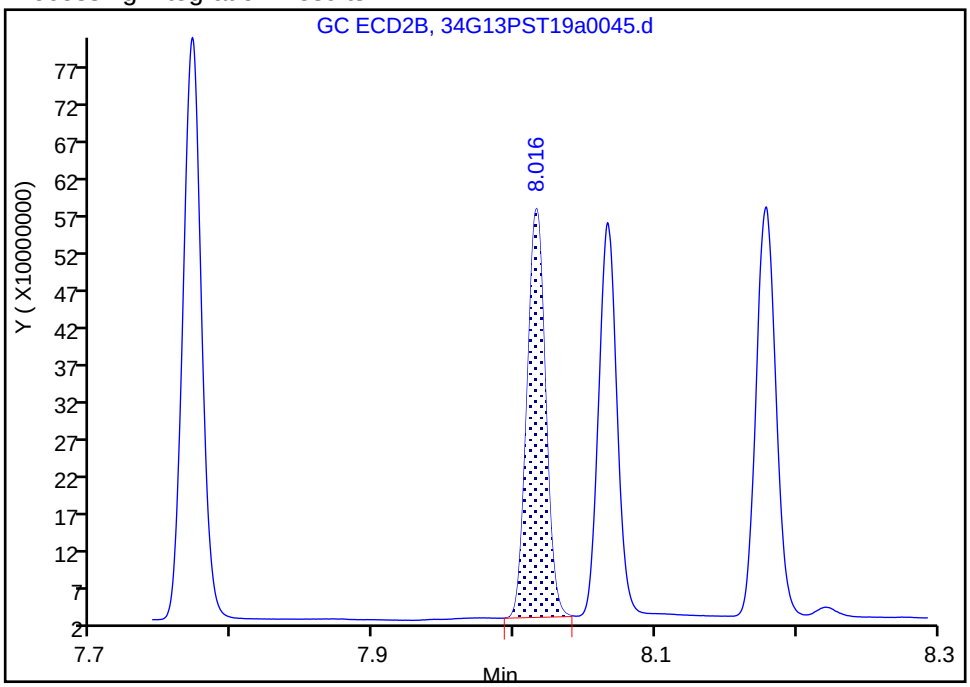
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endrin, CAS: 72-20-8

Signal: 2

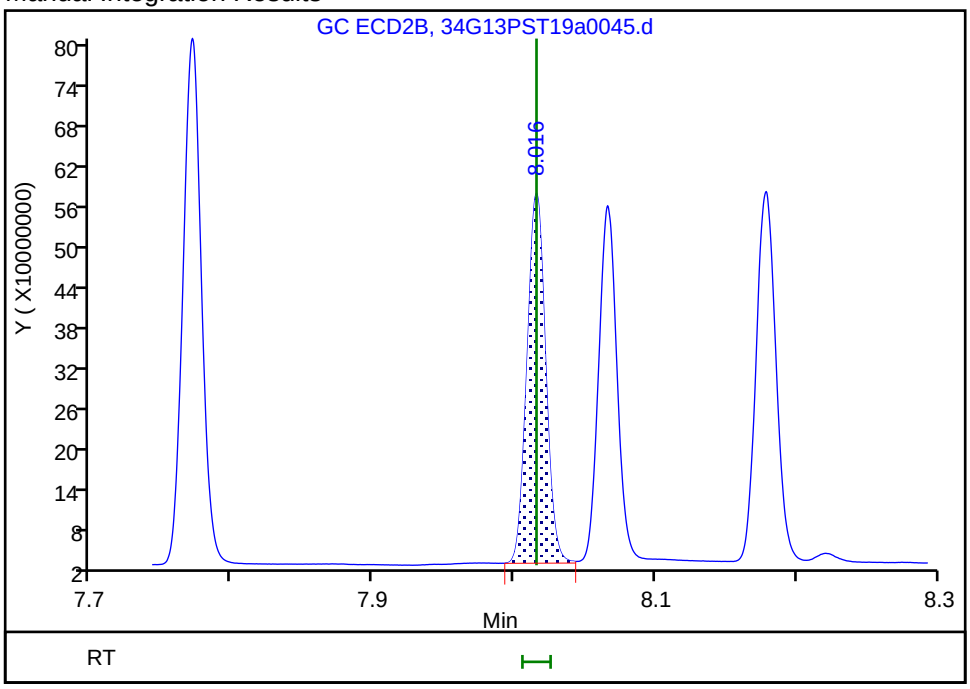
Processing Integration Results

RT: 8.02
Area: 497691936
Amount: 39.731107
Amount Units: ug/L



Manual Integration Results

RT: 8.02
Area: 500955117
Amount: 40.544069
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:06:39

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

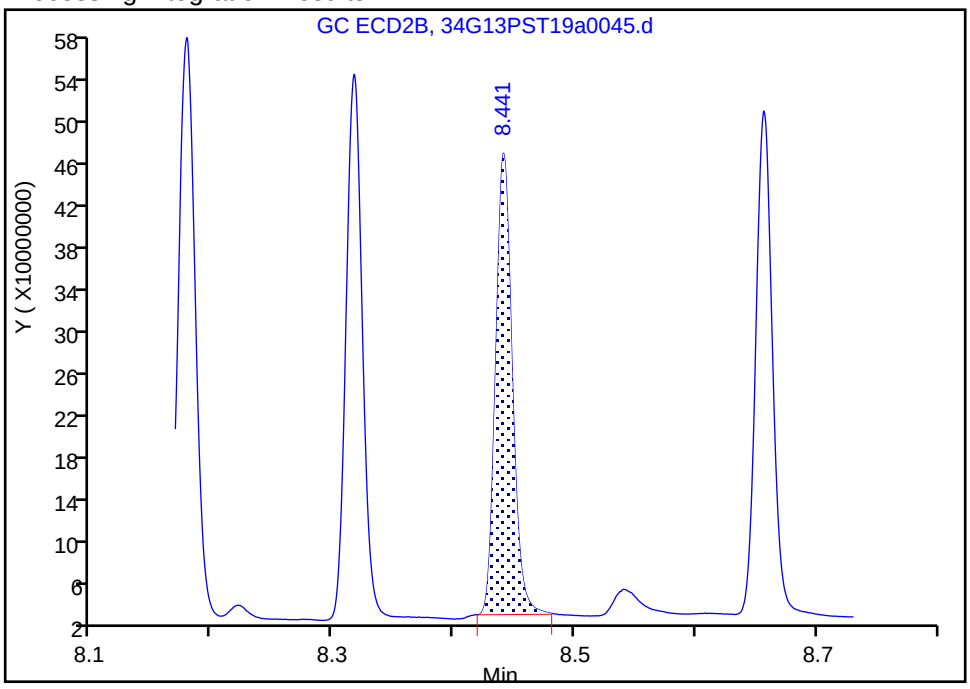
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

39 Endrin aldehyde, CAS: 7421-93-4

Signal: 2

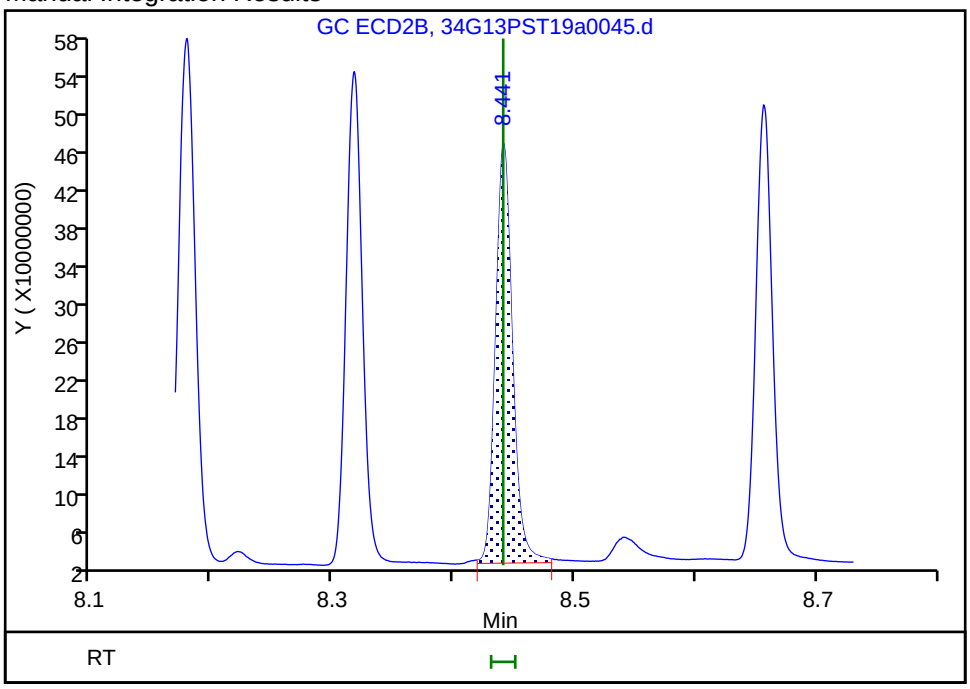
Processing Integration Results

RT: 8.44
Area: 414580654
Amount: 37.746462
Amount Units: ug/L



Manual Integration Results

RT: 8.44
Area: 426431895
Amount: 41.508948
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 15:16:24
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

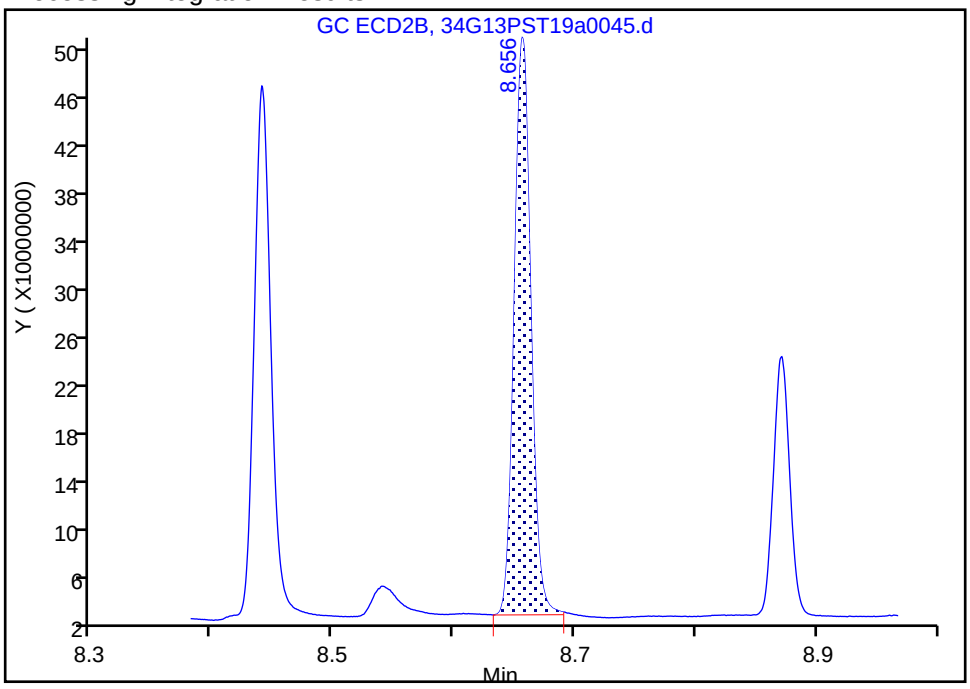
Data File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0045.d				
Injection Date:	14-Jul-2019 07:30:56	Instrument ID:	TAC034		
Lims ID:	ICV OCP				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

42 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

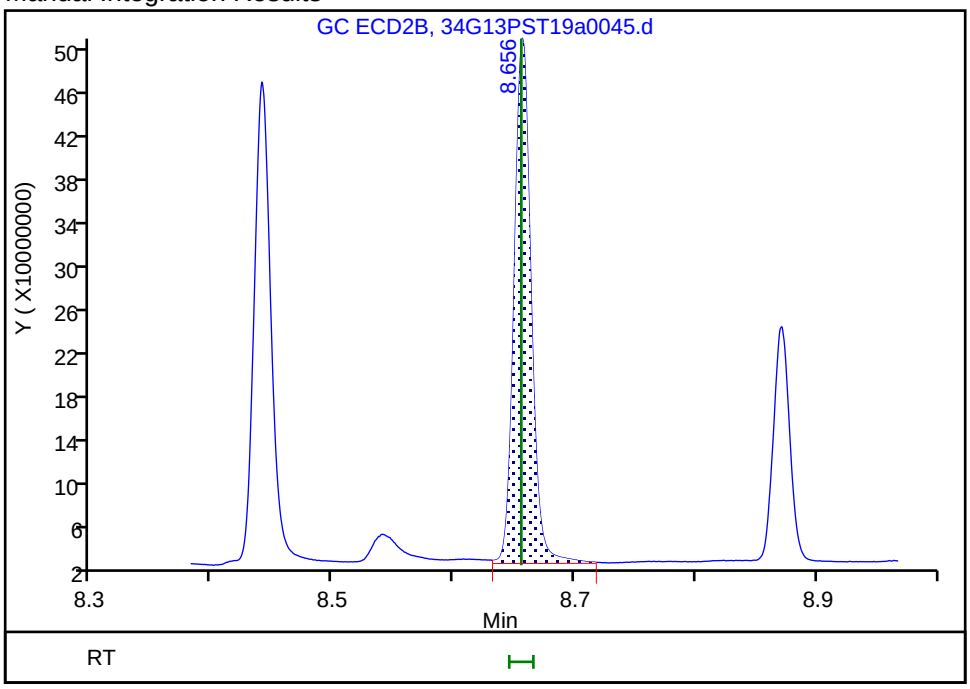
Processing Integration Results

RT: 8.66
Area: 451673750
Amount: 36.191102
Amount Units: ug/L



Manual Integration Results

RT: 8.66
Area: 466210587
Amount: 40.409461
Amount Units: ug/L



Reviewer: bohnc, 16-Jul-2019 14:23:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306388/6 Calibration Date: 07/23/2019 13:27

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G23PST19a0008.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Ave	3.066	3.581		58.4	50.0	16.8	20.0
2,4'-DDE	Ave	2.242	2.905		64.8	50.0	29.6*	20.0
trans-Nonachlor	Ave	3.665	3.936		53.7	50.0	7.4	20.0
2,4'-DDD	Ave	1.525	1.654		54.2	50.0	8.5	20.0
2,4'-DDT	Ave	1.633	1.620		49.6	50.0	-0.8	20.0
cis-Nonachlor	Ave	3.828	4.276		55.8	50.0	11.7	20.0
Mirex	Ave	3.238	3.173			50.0	-2.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306388/6 Calibration Date: 07/23/2019 13:27

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G23PST19a0008.d

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	6.48	6.47	6.49
2,4'-DDE	6.55	6.54	6.56
trans-Nonachlor	6.71	6.70	6.72
2,4'-DDD	6.88	6.87	6.89
2,4'-DDT	7.06	7.05	7.07
cis-Nonachlor	7.16	7.15	7.17
Mirex	7.84	7.83	7.85

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0008.d
Lims ID: ccv ext
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 13:27:33 ALS Bottle#: 4 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ext
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:00:36 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:00:36

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.467	4.467	0.000	129042753	100.0	100.0	
2	4.829	4.829	0.000	665132965	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							
1	6.484	6.484	0.000	231022467	50.0	58.4	
2	7.175	7.175	0.000	602438356	50.0	46.3	
						RPD = 23.10	
21 2,4'-DDE							
1	6.547	6.547	0.000	187405643	50.0	64.8	
2	7.378	7.378	0.000	459514491	50.0	44.6	
						RPD = 36.85	
24 trans-Nonachlor							
1	6.710	6.710	0.000	253932136	50.0	53.7	
2	7.450	7.450	0.000	623807895	50.0	44.9	
						RPD = 17.91	
28 2,4'-DDD							
1	6.883	6.883	0.000	106709335	50.0	54.2	
2	7.768	7.768	0.000	307729457	50.0	45.7	
						RPD = 17.07	
32 2,4'-DDT							
1	7.059	7.059	0.000	104503975	50.0	49.6	
2	8.011	8.011	0.000	345258074	50.0	49.7	
						RPD = 0.29	
34 cis-Nonachlor							
1	7.155	7.155	0.000	275873827	50.0	55.8	
2	8.051	8.051	0.000	675544542	50.0	46.5	
						RPD = 18.28	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.841	7.841	0.000	204704713	50.0	49.0	
2	9.086	9.086	0.000	456684657	50.0	47.0	
						RPD = 4.12	

Reagents:

EXTOCP_IC50_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:00:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0008.d

Injection Date: 23-Jul-2019 13:27:33 Instrument ID: TAC034

Lims ID: ccv ext

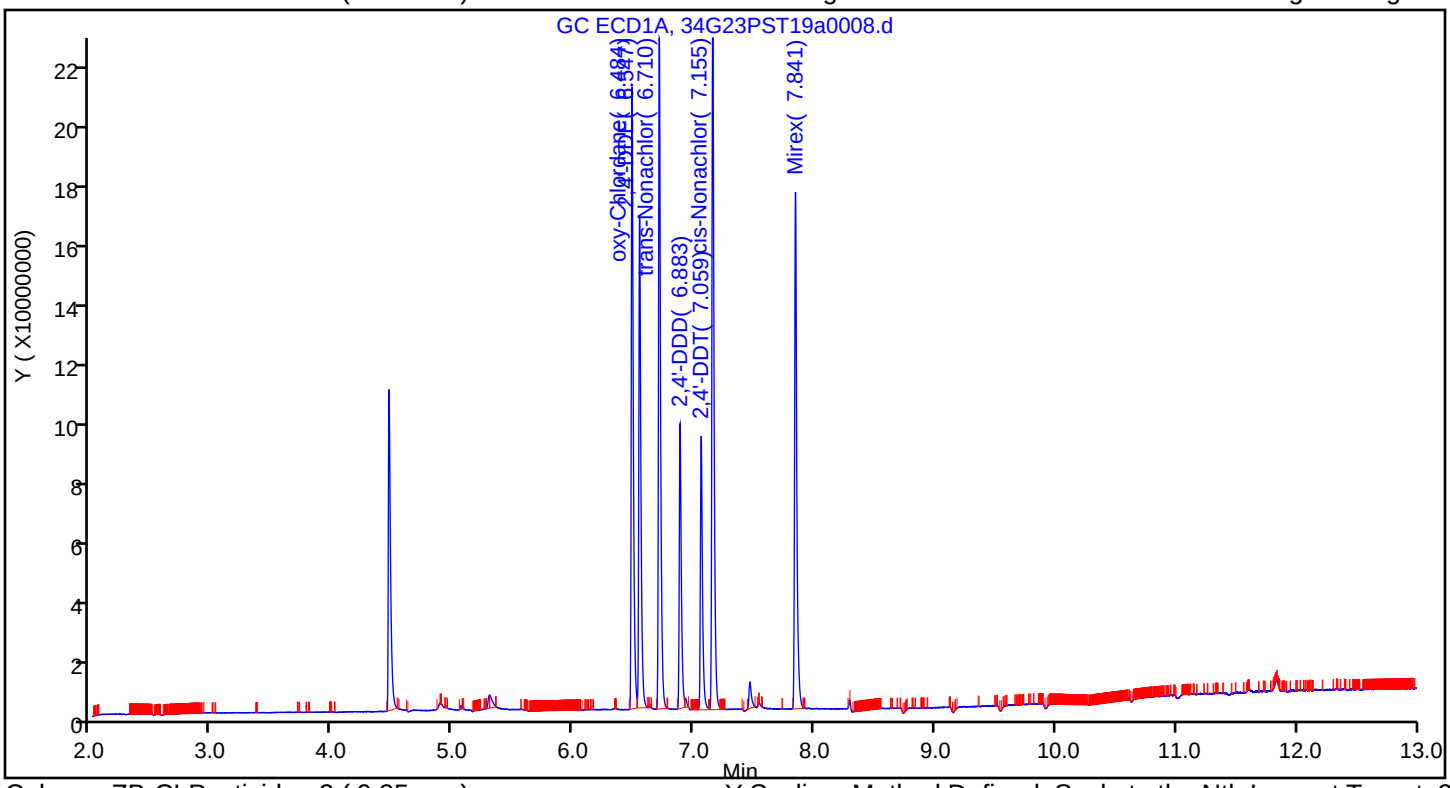
Client ID:

Operator ID: CJB ALS Bottle#: 4 Worklist Smp#: 6

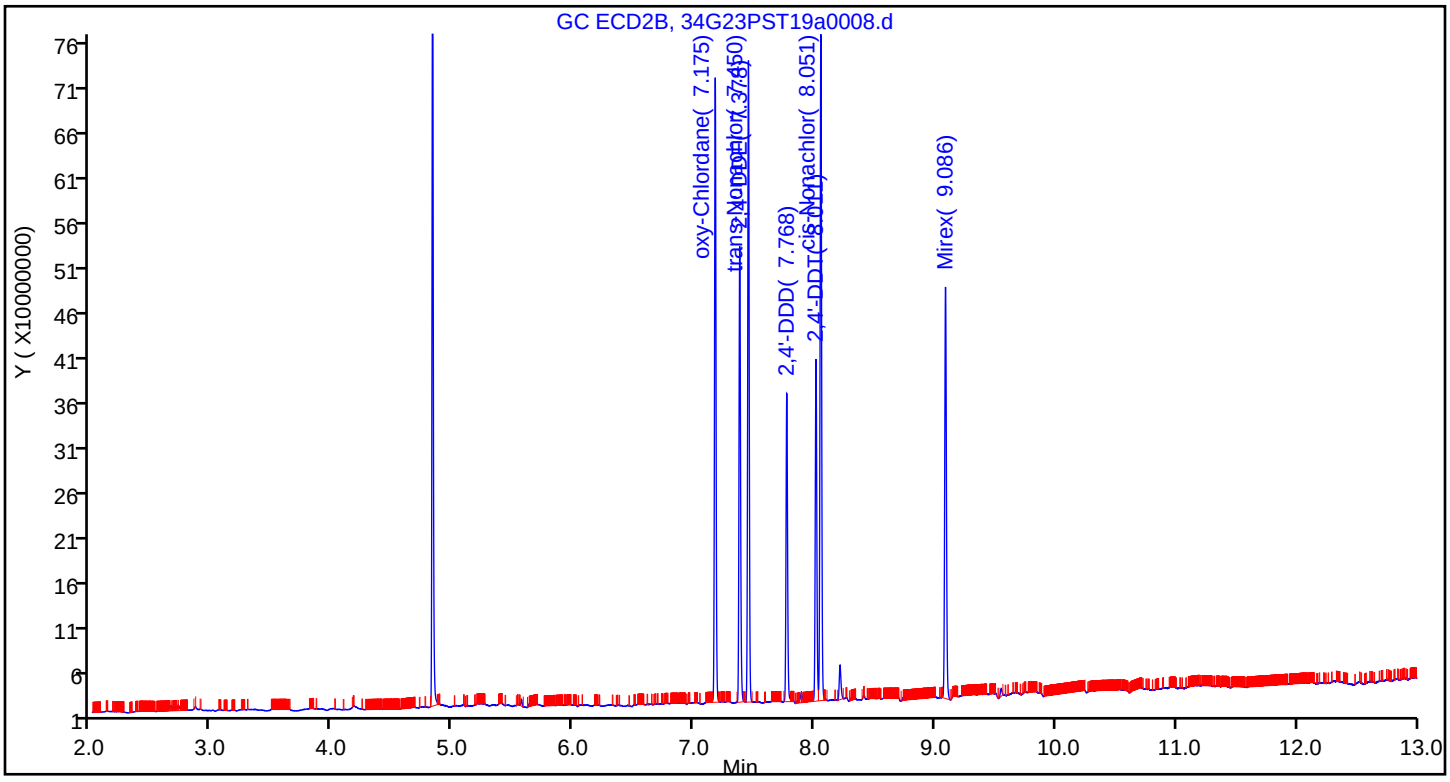
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306388/6 Calibration Date: 07/23/2019 13:27

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G23PST19a0008.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Lin2		1.811		46.3	50.0	-7.4	20.0
2,4'-DDE	Ave	1.548	1.382		44.6	50.0	-10.8	20.0
trans-Nonachlor	Ave	2.090	1.876		44.9	50.0	-10.3	20.0
2,4'-DDD	Ave	1.012	0.9253		45.7	50.0	-8.6	20.0
2,4'-DDT	Ave	1.044	1.038		49.7	50.0	-0.5	20.0
cis-Nonachlor	Ave	2.185	2.031		46.5	50.0	-7.0	20.0
Mirex	Lin2		1.373			50.0	-6.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306388/6 Calibration Date: 07/23/2019 13:27

Instrument ID: TAC034 Calib Start Date: 07/14/2019 01:22

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 03:58

Lab File ID: 34G23PST19a0008.d

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	7.18	7.17	7.19
2,4'-DDE	7.38	7.37	7.39
trans-Nonachlor	7.45	7.44	7.46
2,4'-DDD	7.77	7.76	7.78
2,4'-DDT	8.01	8.00	8.02
cis-Nonachlor	8.05	8.04	8.06
Mirex	9.09	9.08	9.10

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0008.d
Lims ID: ccv ext
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 13:27:33 ALS Bottle#: 4 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ext
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub4

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:00:36 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:00:36

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.467	4.467	0.000	129042753	100.0	100.0	
2	4.829	4.829	0.000	665132965	100.0	100.0	
						RPD = 0.00	
20 oxy-Chlordane							
1	6.484	6.484	0.000	231022467	50.0	58.4	
2	7.175	7.175	0.000	602438356	50.0	46.3	
						RPD = 23.10	
21 2,4'-DDE							
1	6.547	6.547	0.000	187405643	50.0	64.8	
2	7.378	7.378	0.000	459514491	50.0	44.6	
						RPD = 36.85	
24 trans-Nonachlor							
1	6.710	6.710	0.000	253932136	50.0	53.7	
2	7.450	7.450	0.000	623807895	50.0	44.9	
						RPD = 17.91	
28 2,4'-DDD							
1	6.883	6.883	0.000	106709335	50.0	54.2	
2	7.768	7.768	0.000	307729457	50.0	45.7	
						RPD = 17.07	
32 2,4'-DDT							
1	7.059	7.059	0.000	104503975	50.0	49.6	
2	8.011	8.011	0.000	345258074	50.0	49.7	
						RPD = 0.29	
34 cis-Nonachlor							
1	7.155	7.155	0.000	275873827	50.0	55.8	
2	8.051	8.051	0.000	675544542	50.0	46.5	
						RPD = 18.28	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
41 Mirex							
1	7.841	7.841	0.000	204704713	50.0	49.0	
2	9.086	9.086	0.000	456684657	50.0	47.0	
						RPD = 4.12	

Reagents:

EXTOCP_IC50_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:00:43 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0008.d

Injection Date: 23-Jul-2019 13:27:33 Instrument ID: TAC034

Lims ID: ccv ext

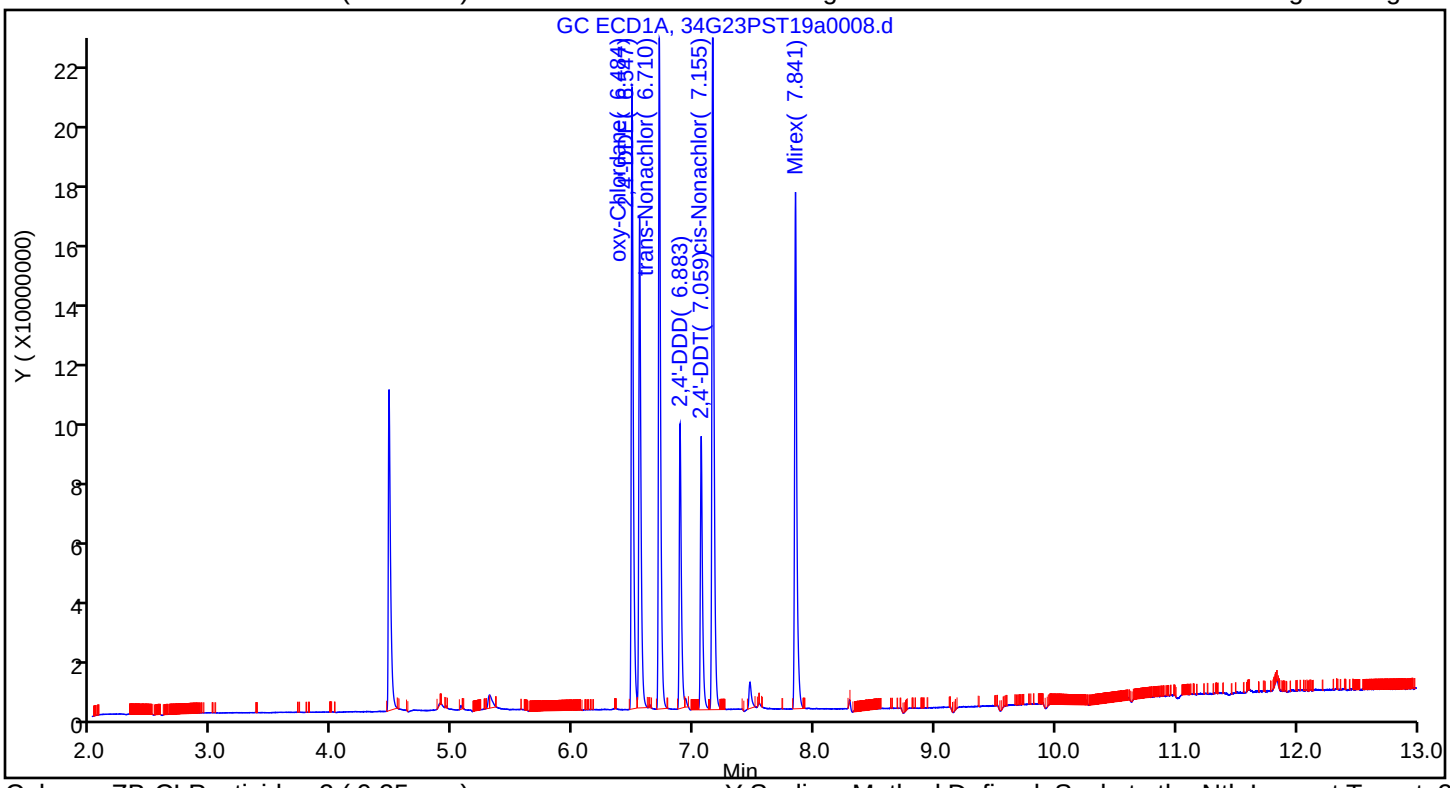
Client ID:

Operator ID: CJB ALS Bottle#: 4 Worklist Smp#: 6

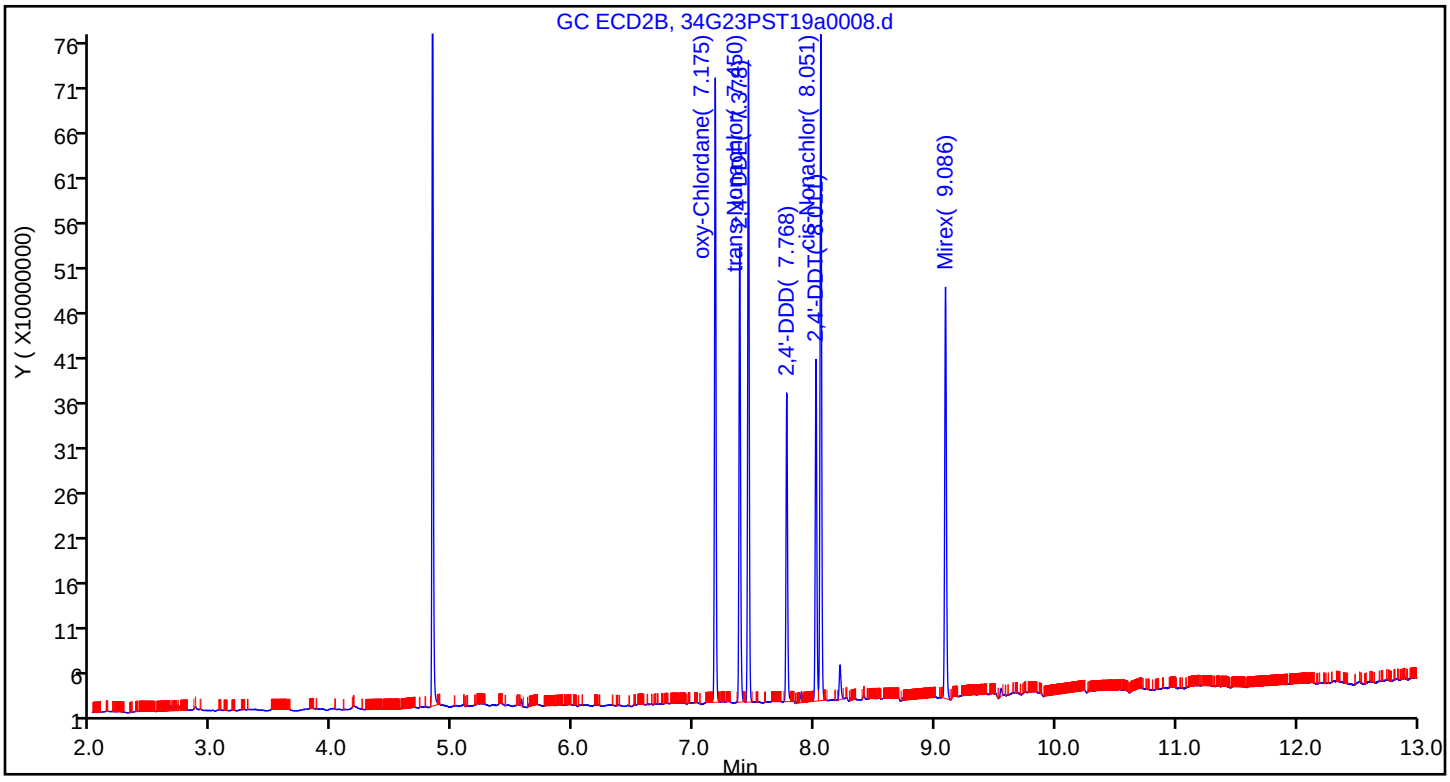
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306388/7 Calibration Date: 07/23/2019 13:46

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0009.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Lin2		5.438		49.9	50.0	-0.3	20.0
Hexachlorobenzene	Ave	4.636	4.898		52.8	50.0	5.6	20.0
alpha-BHC	Qua1		3.570		50.3	50.0	0.5	20.0
gamma-BHC (Lindane)	Lin1		3.097		54.5	50.0	9.1	20.0
beta-BHC	Ave	1.611	1.459		45.3	50.0	-9.4	20.0
delta-BHC	Qua		3.093		50.7	50.0	1.3	20.0
Heptachlor	Ave	2.425	2.403		49.5	50.0	-0.9	20.0
Aldrin	Ave	3.605	3.855		53.5	50.0	6.9	20.0
Heptachlor epoxide	Ave	3.062	3.282		53.6	50.0	7.2	20.0
trans-Chlordane	Ave	4.119	4.121		50.0	50.0	0.0	20.0
cis-Chlordane	Ave	4.303	4.390		51.0	50.0	2.0	20.0
4,4'-DDE	Lin2		4.629		54.6	50.0	9.2	20.0
Endosulfan I	Ave	3.406	3.932		57.7	50.0	15.5	20.0
Dieldrin	Ave	3.524	3.982		56.5	50.0	13.0	20.0
Endrin	Ave	2.233	2.575		57.6	50.0	15.3	20.0
4,4'-DDD	Lin1		2.560		53.0	50.0	6.1	20.0
Endosulfan II	Ave	2.501	2.714		54.3	50.0	8.5	20.0
4,4'-DDT	Ave	2.171	2.252		51.9	50.0	3.7	20.0
Endrin aldehyde	Ave	2.754	2.737		49.7	50.0	-0.6	20.0
Methoxychlor	Ave	1.046	0.9680		46.3	50.0	-7.5	20.0
Endosulfan sulfate	Qua1		3.505		54.3	50.0	8.6	20.0
Endrin ketone	Qua1		2.517		47.3	50.0	-5.4	20.0
Tetrachloro-m-xylene	Ave	4.064	4.504		55.8	50.4	10.8	20.0
DCB Decachlorobiphenyl	Qua1		5.079		56.9	50.2	13.4	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306388/7 Calibration Date: 07/23/2019 13:46

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0009.d

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobutadiene	3.61	3.60	3.62
Hexachlorobenzene	5.35	5.34	5.36
alpha-BHC	5.45	5.44	5.46
gamma-BHC (Lindane)	5.66	5.65	5.67
beta-BHC	5.71	5.70	5.72
delta-BHC	5.83	5.82	5.84
Heptachlor	5.97	5.96	5.98
Aldrin	6.17	6.16	6.18
Heptachlor epoxide	6.55	6.54	6.56
trans-Chlordane	6.63	6.62	6.64
cis-Chlordane	6.72	6.71	6.73
4,4'-DDE	6.77	6.76	6.78
Endosulfan I	6.81	6.80	6.82
Dieldrin	6.97	6.96	6.98
Endrin	7.13	7.12	7.14
4,4'-DDD	7.17	7.16	7.18
Endosulfan II	7.28	7.27	7.29
4,4'-DDT	7.37	7.36	7.38
Endrin aldehyde	7.57	7.56	7.58
Methoxychlor	7.72	7.71	7.73
Endosulfan sulfate	7.88	7.87	7.89
Endrin ketone	8.09	8.08	8.10
Tetrachloro-m-xylene	5.08	5.07	5.09
DCB Decachlorobiphenyl	8.88	8.87	8.89

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0009.d
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 13:46:52 ALS Bottle#: 5 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ocp
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 09:19:27 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0309

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.606	3.606	0.000	355644383	50.0	49.9	
2	3.940	3.940	0.000	1317590212	50.0	42.8	
						RPD = 15.25	
* 2 1-Bromo-2-nitrobenzene							
1	4.467	4.467	0.000	130797186	100.0	100.0	
2	4.829	4.829	0.000	751687087	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.081	5.081	0.000	296648047	50.4	55.8	
2	5.535	5.535	0.000	907086339	50.4	43.3	
						RPD = 25.26	
7 Hexachlorobenzene							
1	5.349	5.349	0.000	320290961	50.0	52.8	
2	5.889	5.889	0.000	1133691126	50.0	42.8	
						RPD = 20.94	
8 alpha-BHC							
1	5.454	5.454	0.000	233447561	50.0	50.3	
2	5.993	5.993	0.000	773239834	50.0	44.4	
						RPD = 12.27	
11 gamma-BHC (Lindane)							
1	5.658	5.658	0.000	202512316	50.0	54.5	
2	6.254	6.254	0.000	566333811	50.0	41.7	
						RPD = 26.60	
12 beta-BHC							
1	5.714	5.714	0.000	95410159	50.0	45.3	
2	6.306	6.306	0.000	285302861	50.0	41.0	
						RPD = 9.87	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.831	5.831	0.000	202244948	50.0	50.7	
2	6.531	6.531	0.000	658601608	50.0	43.6	
						RPD = 15.06	
15 Heptachlor							
1	5.970	5.970	0.000	157153939	50.0	49.5	
2	6.579	6.579	0.000	506268748	50.0	42.6	
						RPD = 15.04	
18 Aldrin							
1	6.165	6.165	0.000	252108123	50.0	53.5	
2	6.826	6.826	0.000	840980613	50.0	45.2	
						RPD = 16.71	
22 Heptachlor epoxide							
1	6.549	6.549	0.000	214654881	50.0	53.6	
2	7.246	7.246	0.000	579284664	50.0	40.4	
						RPD = 28.07	
23 trans-Chlordane							
1	6.633	6.633	0.000	269498492	50.0	50.0	
2	7.387	7.387	0.000	768181531	50.0	43.7	
						RPD = 13.57	
25 cis-Chlordane							
1	6.720	6.720	0.000	287102175	50.0	51.0	
2	7.497	7.497	0.000	781016837	50.0	42.9	
						RPD = 17.19	
26 4,4'-DDE							
1	6.768	6.768	0.000	302739110	50.0	54.6	
2	7.607	7.607	0.000	869398143	50.0	45.2	
						RPD = 18.74	
27 Endosulfan I							
1	6.807	6.807	0.000	257145318	50.0	57.7	
2	7.550	7.550	0.000	642521563	50.0	47.3	
						RPD = 19.87	
29 Dieldrin							
1	6.970	6.970	0.000	260389950	50.0	56.5	
2	7.761	7.761	0.000	722982547	50.0	43.2	
						RPD = 26.75	
33 Endrin							
1	7.127	7.127	0.000	168399749	50.0	57.6	
2	8.005	8.005	0.000	552996984	50.0	45.1	
						RPD = 24.32	
36 4,4'-DDD							
1	7.167	7.167	0.000	167443512	50.0	53.0	
2	8.055	8.055	0.000	496051259	50.0	45.8	
						RPD = 14.68	
37 Endosulfan II							
1	7.280	7.280	0.000	177505989	50.0	54.3	
2	8.168	8.168	0.000	477705583	50.0	45.7	
						RPD = 17.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.365	7.365	0.000	147276908	50.0	51.9	
2	8.306	8.306	0.000	493830605	50.0	46.5	
						RPD = 10.94	
39 Endrin aldehyde							
1	7.568	7.568	0.000	178979009	50.0	49.7	
2	8.430	8.430	0.000	443864198	50.0	43.6	
						RPD = 13.03	
40 Methoxychlor							
1	7.720	7.720	0.000	63305205	50.0	46.3	
2	8.860	8.860	0.000	197065440	50.0	46.7	
						RPD = 0.96	
42 Endosulfan sulfate							
1	7.879	7.879	0.000	229216249	50.0	54.3	
2	8.646	8.646	0.000	495223064	50.0	43.3	
						RPD = 22.50	
44 Endrin ketone							
1	8.094	8.094	0.000	164598154	50.0	47.3	
2	9.104	9.104	0.000	444710677	50.0	45.0	
						RPD = 4.97	
$ 45 DCB Decachlorobiphenyl							
1	8.884	8.884	0.000	333140851	50.2	56.9	
2	10.091	10.091	0.000	742904057	50.2	44.6	
						RPD = 24.09	

Reagents:

OCP_IC050_00027	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:19:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0009.d

Injection Date: 23-Jul-2019 13:46:52 Instrument ID: TAC034

Lims ID: ccvis

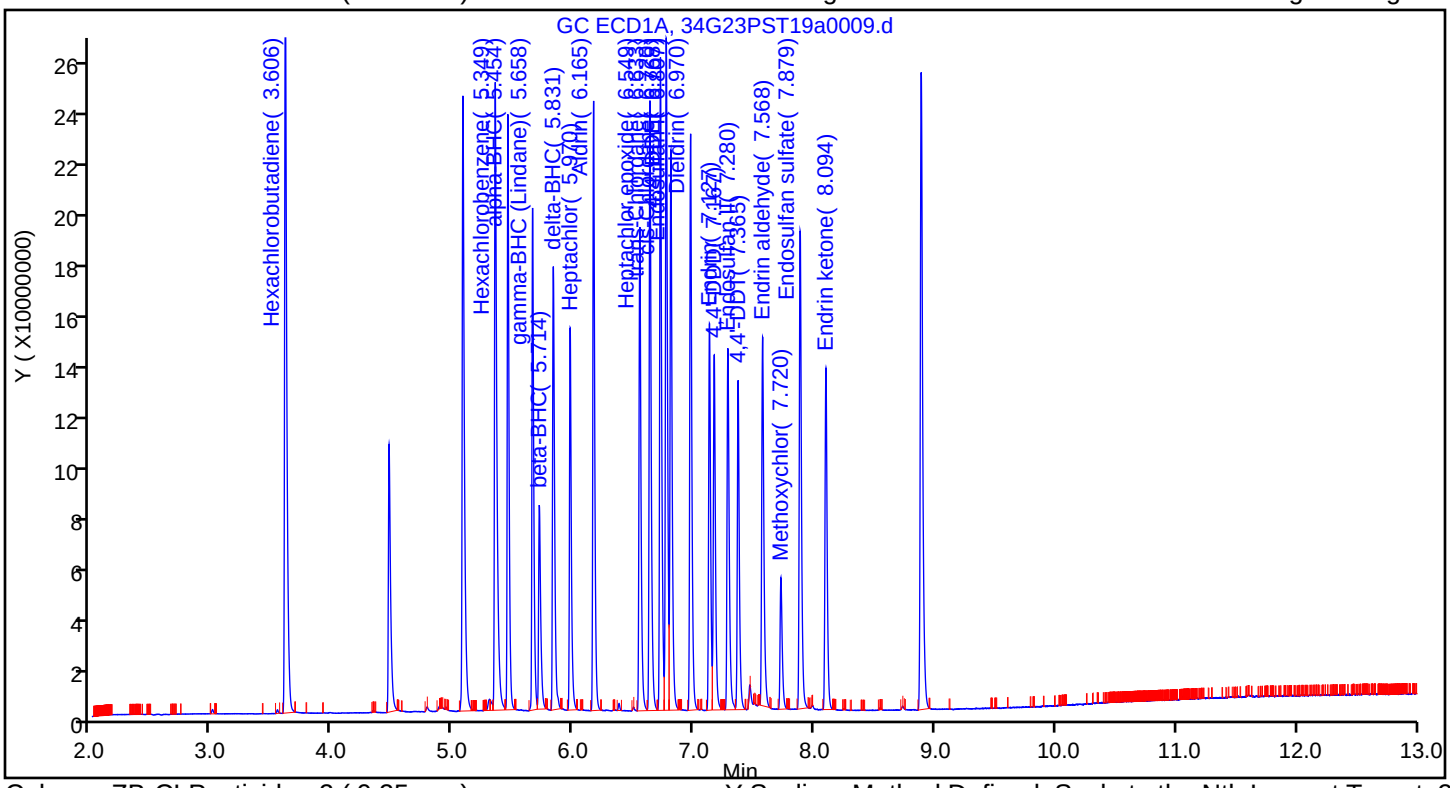
Client ID:

Operator ID: CJB ALS Bottle#: 5 Worklist Smp#: 7

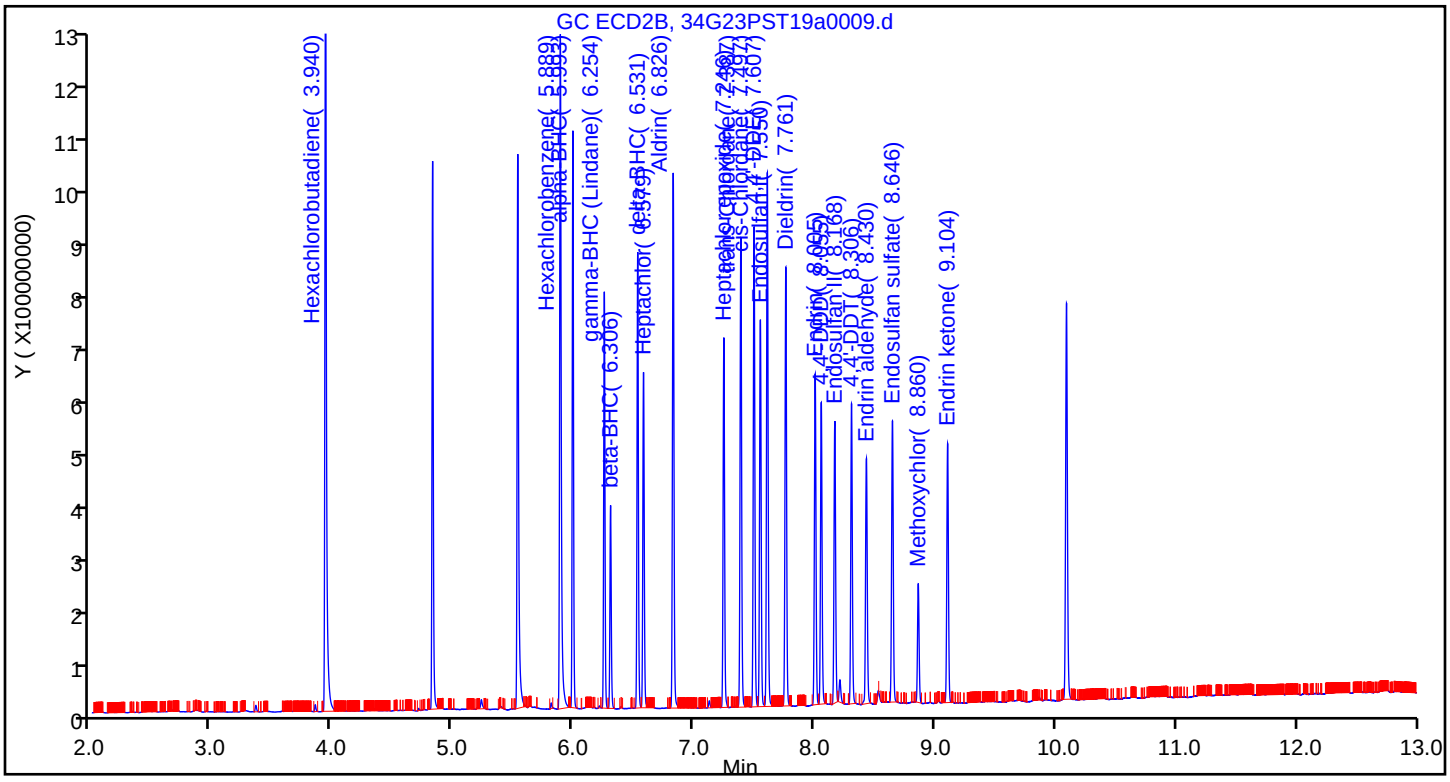
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306388/7 Calibration Date: 07/23/2019 13:46

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0009.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	4.095	3.506		42.8	50.0	-14.4	20.0
Hexachlorobenzene	Ave	3.523	3.016		42.8	50.0	-14.4	20.0
alpha-BHC	Ave	2.314	2.057		44.4	50.0	-11.1	20.0
gamma-BHC (Lindane)	Ave	1.805	1.507		41.7	50.0	-16.5	20.0
beta-BHC	Qua		0.7591		41.0	50.0	-18.0	20.0
delta-BHC	Qua1		1.752		43.6	50.0	-12.9	20.0
Heptachlor	Ave	1.580	1.347		42.6	50.0	-14.8	20.0
Aldrin	Ave	2.474	2.238		45.2	50.0	-9.6	20.0
Heptachlor epoxide	Ave	1.907	1.541		40.4	50.0	-19.2	20.0
trans-Chlordane	Ave	2.341	2.044		43.7	50.0	-12.7	20.0
cis-Chlordane	Ave	2.420	2.078		42.9	50.0	-14.1	20.0
Endosulfan I	Lin1		1.710		47.3	50.0	-5.4	20.0
4,4'-DDE	Ave	2.557	2.313		45.2	50.0	-9.5	20.0
Dieldrin	Ave	2.228	1.924		43.2	50.0	-13.7	20.0
Endrin	Ave	1.630	1.471		45.1	50.0	-9.7	20.0
4,4'-DDD	Ave	1.441	1.320		45.8	50.0	-8.4	20.0
Endosulfan II	Qua1		1.271		45.7	50.0	-8.7	20.0
4,4'-DDT	Ave	1.413	1.314		46.5	50.0	-7.0	20.0
Endrin aldehyde	Lin1		1.181		43.6	50.0	-12.8	20.0
Endosulfan sulfate	Lin1		1.318		43.3	50.0	-13.4	20.0
Methoxychlor	Qua1		0.5243		46.7	50.0	-6.6	20.0
Endrin ketone	Lin2		1.183		45.0	50.0	-10.0	20.0
Tetrachloro-m-xylene	Lin1		2.397		43.3	50.4	-14.0	20.0
DCB Decachlorobiphenyl	Lin1		1.971		44.6	50.2	-11.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306388/7 Calibration Date: 07/23/2019 13:46

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0009.d

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobutadiene	3.94	3.93	3.95
Hexachlorobenzene	5.89	5.88	5.90
alpha-BHC	5.99	5.98	6.00
gamma-BHC (Lindane)	6.25	6.24	6.26
beta-BHC	6.31	6.30	6.32
delta-BHC	6.53	6.52	6.54
Heptachlor	6.58	6.57	6.59
Aldrin	6.83	6.82	6.84
Heptachlor epoxide	7.25	7.24	7.26
trans-Chlordane	7.39	7.38	7.40
cis-Chlordane	7.50	7.49	7.51
Endosulfan I	7.55	7.54	7.56
4,4'-DDE	7.61	7.60	7.62
Dieldrin	7.76	7.75	7.77
Endrin	8.01	8.00	8.02
4,4'-DDD	8.06	8.05	8.07
Endosulfan II	8.17	8.16	8.18
4,4'-DDT	8.31	8.30	8.32
Endrin aldehyde	8.43	8.42	8.44
Endosulfan sulfate	8.65	8.64	8.66
Methoxychlor	8.86	8.85	8.87
Endrin ketone	9.10	9.09	9.11
Tetrachloro-m-xylene	5.54	5.53	5.55
DCB Decachlorobiphenyl	10.09	10.08	10.10

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0009.d
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 13:46:52 ALS Bottle#: 5 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ocp
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub1

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 09:19:27 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0309

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.606	3.606	0.000	355644383	50.0	49.9	
2	3.940	3.940	0.000	1317590212	50.0	42.8	
						RPD = 15.25	
* 2 1-Bromo-2-nitrobenzene							
1	4.467	4.467	0.000	130797186	100.0	100.0	
2	4.829	4.829	0.000	751687087	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.081	5.081	0.000	296648047	50.4	55.8	
2	5.535	5.535	0.000	907086339	50.4	43.3	
						RPD = 25.26	
7 Hexachlorobenzene							
1	5.349	5.349	0.000	320290961	50.0	52.8	
2	5.889	5.889	0.000	1133691126	50.0	42.8	
						RPD = 20.94	
8 alpha-BHC							
1	5.454	5.454	0.000	233447561	50.0	50.3	
2	5.993	5.993	0.000	773239834	50.0	44.4	
						RPD = 12.27	
11 gamma-BHC (Lindane)							
1	5.658	5.658	0.000	202512316	50.0	54.5	
2	6.254	6.254	0.000	566333811	50.0	41.7	
						RPD = 26.60	
12 beta-BHC							
1	5.714	5.714	0.000	95410159	50.0	45.3	
2	6.306	6.306	0.000	285302861	50.0	41.0	
						RPD = 9.87	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.831	5.831	0.000	202244948	50.0	50.7	
2	6.531	6.531	0.000	658601608	50.0	43.6	
						RPD = 15.06	
15 Heptachlor							
1	5.970	5.970	0.000	157153939	50.0	49.5	
2	6.579	6.579	0.000	506268748	50.0	42.6	
						RPD = 15.04	
18 Aldrin							
1	6.165	6.165	0.000	252108123	50.0	53.5	
2	6.826	6.826	0.000	840980613	50.0	45.2	
						RPD = 16.71	
22 Heptachlor epoxide							
1	6.549	6.549	0.000	214654881	50.0	53.6	
2	7.246	7.246	0.000	579284664	50.0	40.4	
						RPD = 28.07	
23 trans-Chlordane							
1	6.633	6.633	0.000	269498492	50.0	50.0	
2	7.387	7.387	0.000	768181531	50.0	43.7	
						RPD = 13.57	
25 cis-Chlordane							
1	6.720	6.720	0.000	287102175	50.0	51.0	
2	7.497	7.497	0.000	781016837	50.0	42.9	
						RPD = 17.19	
26 4,4'-DDE							
1	6.768	6.768	0.000	302739110	50.0	54.6	
2	7.607	7.607	0.000	869398143	50.0	45.2	
						RPD = 18.74	
27 Endosulfan I							
1	6.807	6.807	0.000	257145318	50.0	57.7	
2	7.550	7.550	0.000	642521563	50.0	47.3	
						RPD = 19.87	
29 Dieldrin							
1	6.970	6.970	0.000	260389950	50.0	56.5	
2	7.761	7.761	0.000	722982547	50.0	43.2	
						RPD = 26.75	
33 Endrin							
1	7.127	7.127	0.000	168399749	50.0	57.6	
2	8.005	8.005	0.000	552996984	50.0	45.1	
						RPD = 24.32	
36 4,4'-DDD							
1	7.167	7.167	0.000	167443512	50.0	53.0	
2	8.055	8.055	0.000	496051259	50.0	45.8	
						RPD = 14.68	
37 Endosulfan II							
1	7.280	7.280	0.000	177505989	50.0	54.3	
2	8.168	8.168	0.000	477705583	50.0	45.7	
						RPD = 17.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.365	7.365	0.000	147276908	50.0	51.9	
2	8.306	8.306	0.000	493830605	50.0	46.5	
						RPD = 10.94	
39 Endrin aldehyde							
1	7.568	7.568	0.000	178979009	50.0	49.7	
2	8.430	8.430	0.000	443864198	50.0	43.6	
						RPD = 13.03	
40 Methoxychlor							
1	7.720	7.720	0.000	63305205	50.0	46.3	
2	8.860	8.860	0.000	197065440	50.0	46.7	
						RPD = 0.96	
42 Endosulfan sulfate							
1	7.879	7.879	0.000	229216249	50.0	54.3	
2	8.646	8.646	0.000	495223064	50.0	43.3	
						RPD = 22.50	
44 Endrin ketone							
1	8.094	8.094	0.000	164598154	50.0	47.3	
2	9.104	9.104	0.000	444710677	50.0	45.0	
						RPD = 4.97	
$ 45 DCB Decachlorobiphenyl							
1	8.884	8.884	0.000	333140851	50.2	56.9	
2	10.091	10.091	0.000	742904057	50.2	44.6	
						RPD = 24.09	

Reagents:

OCP_IC050_00027	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:19:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0009.d

Injection Date: 23-Jul-2019 13:46:52 Instrument ID: TAC034

Lims ID: ccvis

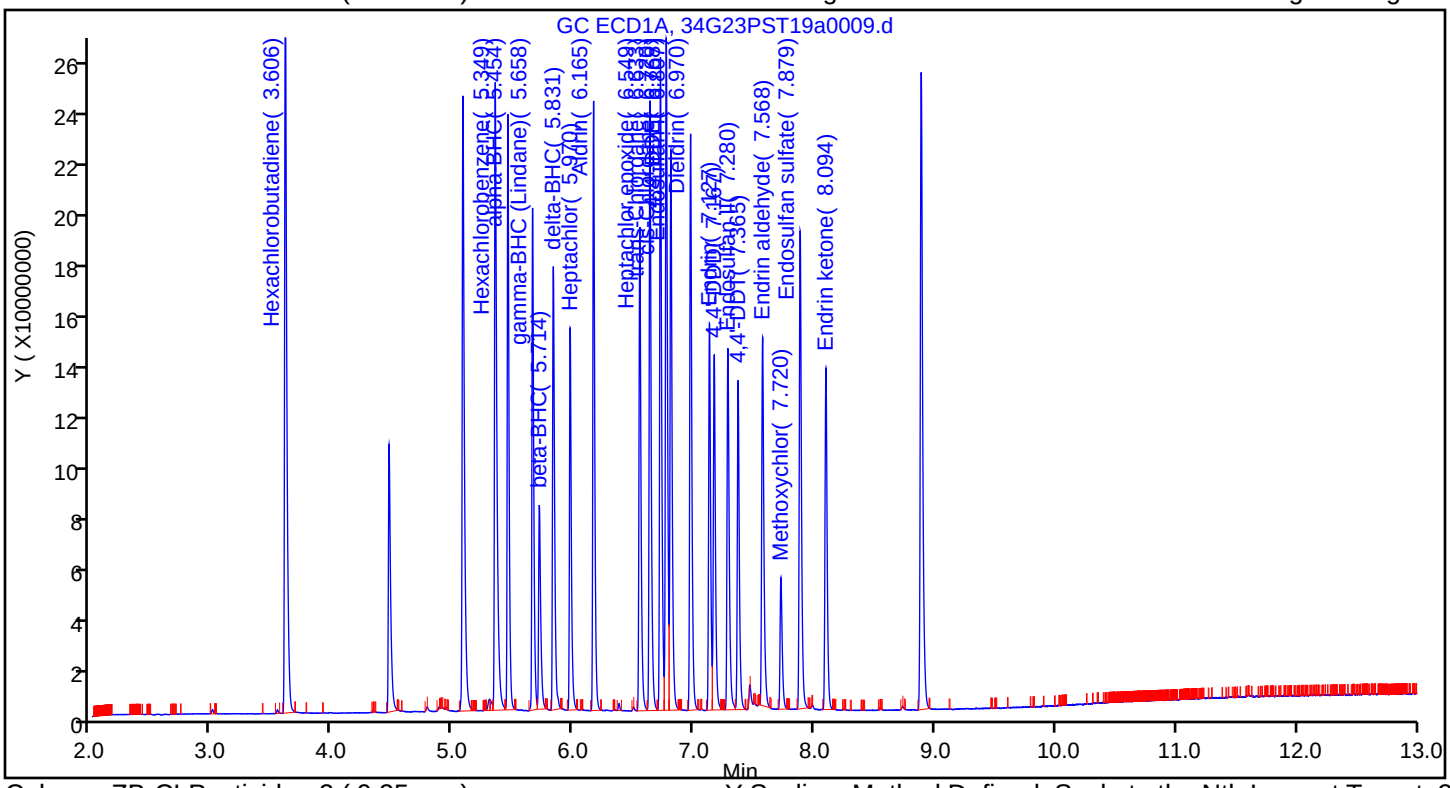
Client ID:

Operator ID: CJB ALS Bottle#: 5 Worklist Smp#: 7

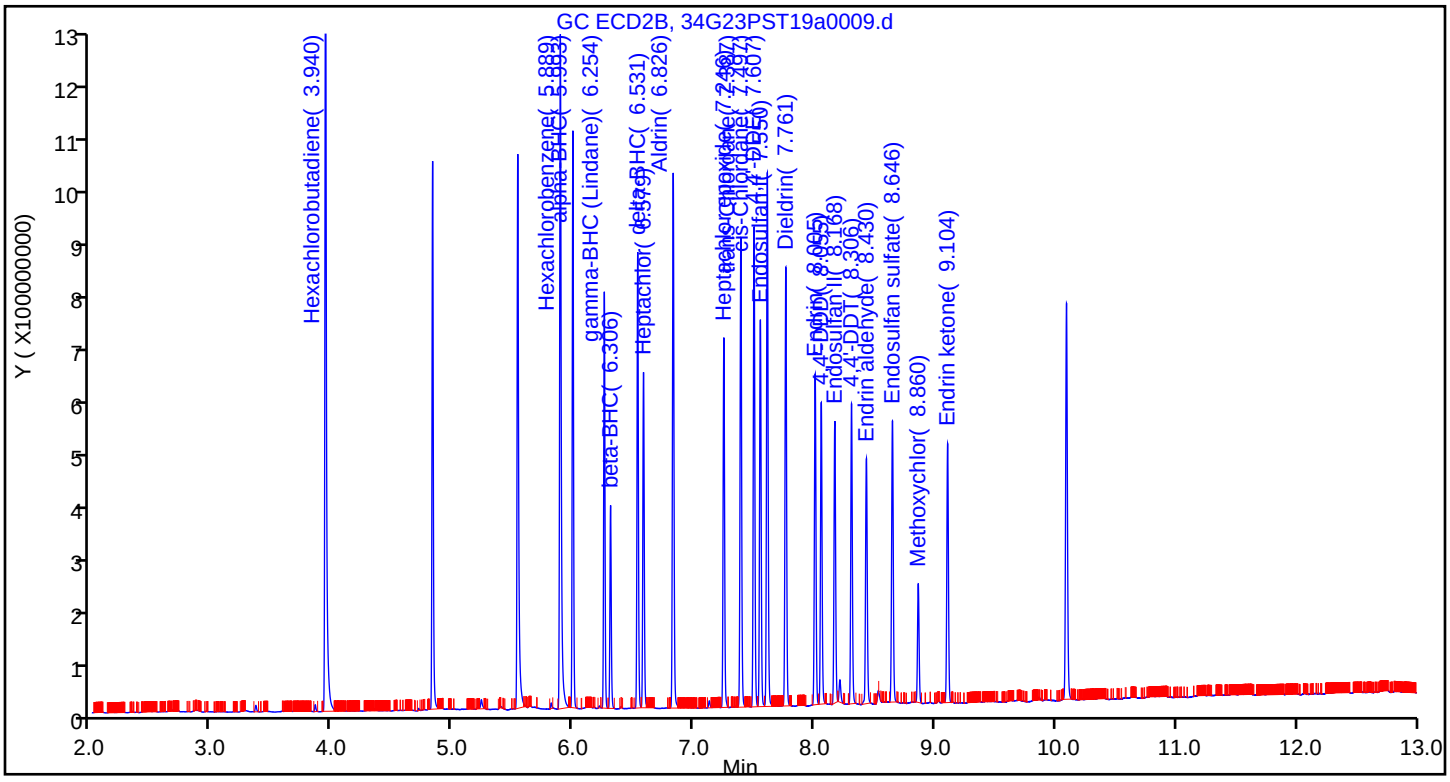
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVL 580-306388/8 Calibration Date: 07/23/2019 14:06

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0010.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Qua1		1.542		1.32	1.00	31.6	
gamma-BHC (Lindane)	Lin1		1.426		0.982	1.00	-1.8	
beta-BHC	Ave	1.611	1.272			1.00	-21.0	
delta-BHC	Qua		1.962		0.889	1.00	-11.1	
Heptachlor	Ave	2.425	1.737		0.716	1.00	-28.4	
Aldrin	Ave	3.605	1.877			1.00	-47.9	
Heptachlor epoxide	Ave	3.062	2.329		0.761	1.00	-23.9	
trans-Chlordane	Ave	4.119	2.751		0.668	1.00	-33.2	
cis-Chlordane	Ave	4.303	3.426			1.00	-20.4	
4,4'-DDE	Lin2		2.087		1.37	1.00	36.5	
Endosulfan I	Ave	3.406	2.366		0.695	1.00	-30.5	
Dieldrin	Ave	3.524	2.090		0.593	1.00	-40.7	
Endrin	Ave	2.233	1.733		0.776	1.00	-22.4	
4,4'-DDD	Lin1		1.230		0.936	1.00	-6.4	
Endosulfan II	Ave	2.501	1.728		0.691	1.00	-30.9	
4,4'-DDT	Ave	2.171	1.595		0.735	1.00	-26.5	
Endrin aldehyde	Ave	2.754	1.958			1.00	-28.9	
Methoxychlor	Ave	1.046	1.016			1.00	-2.9	
Endosulfan sulfate	Qua1		2.612		0.679	1.00	-32.1	
Endrin ketone	Qua1		2.432		0.856	1.00	-14.4	
Tetrachloro-m-xylene	Ave	4.064	3.461		0.852	1.00	-14.8	
DCB Decachlorobiphenyl	Qua1		6.240		0.00276	1.00	-99.7	

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVL 580-306388/8 Calibration Date: 07/23/2019 14:06

Instrument ID: TAC034 Calib Start Date: 07/14/2019 04:36

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 07/14/2019 07:11

Lab File ID: 34G23PST19a0010.d

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	5.45	5.44	5.46
gamma-BHC (Lindane)	5.66	5.65	5.67
beta-BHC	5.72	5.70	5.72
delta-BHC	5.83	5.82	5.84
Heptachlor	5.97	5.96	5.98
Aldrin	6.16	6.16	6.18
Heptachlor epoxide	6.55	6.54	6.56
trans-Chlordane	6.63	6.62	6.64
cis-Chlordane	6.72	6.71	6.73
4,4'-DDE	6.77	6.76	6.78
Endosulfan I	6.80	6.80	6.82
Dieldrin	6.97	6.96	6.98
Endrin	7.13	7.12	7.14
4,4'-DDD	7.17	7.16	7.18
Endosulfan II	7.28	7.27	7.29
4,4'-DDT	7.36	7.36	7.38
Endrin aldehyde	7.57	7.56	7.58
Methoxychlor	7.72	7.71	7.73
Endosulfan sulfate	7.88	7.87	7.89
Endrin ketone	8.09	8.08	8.10
Tetrachloro-m-xylene	5.08	5.07	5.09
DCB Decachlorobiphenyl	8.88	8.87	8.89

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d
Lims ID: ccvl
Client ID:
Sample Type: CCVL
Inject. Date: 23-Jul-2019 14:06:12 ALS Bottle#: 6 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvl
Operator ID: CJB Instrument ID: TAC034
Sublist: chrom-8182ISTD_TAC034*sub24

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:07:30 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:07:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.468	4.467	0.001	113354798	100.0	100.0	
2	4.829	4.829	0.000	523636570	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							M
1	5.082	5.081	0.001	3923718	1.00	0.8518	M
2	5.535	5.535	0.000	16527927	1.00	1.19	
						RPD = 33.51	
8 alpha-BHC							
1	5.453	5.454	-0.001	1747601	1.00	1.32	
2	5.992	5.993	-0.001	10854891	1.00	0.8957	
						RPD = 37.97	
11 gamma-BHC (Lindane)							M
1	5.658	5.658	0.000	1616026	1.00	0.9824	
2	6.253	6.254	-0.001	11900535	1.00	1.26	M
						RPD = 24.67	
12 beta-BHC							M
1	5.718	5.714	0.004	1442109	1.00	0.7897	
2	6.307	6.306	0.001	7162646	1.00	0.5683	M
						RPD = 32.60	
13 delta-BHC							M
1	5.831	5.831	0.000	2224247	1.00	0.8891	M
2	6.530	6.531	-0.001	11706623	1.00	0.7058	
						RPD = 22.99	
15 Heptachlor							
1	5.970	5.970	0.000	1968461	1.00	0.7161	
2	6.579	6.579	0.000	8892130	1.00	1.07	
						RPD = 40.03	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
18 Aldrin							M
1	6.164	6.165	-0.001	2128022	1.00	0.5208	
2	6.825	6.826	-0.001	14487797	1.00	1.12	M
						RPD = 72.91	
22 Heptachlor epoxide							M
1	6.547	6.549	-0.002	2639617	1.00	0.7606	
2	7.247	7.246	0.001	10846052	1.00	1.09	M
						RPD = 35.25	
23 trans-Chlordane							
1	6.632	6.633	-0.001	3118681	1.00	0.6679	
2	7.387	7.387	0.000	12740162	1.00	1.04	
						RPD = 43.53	
25 cis-Chlordane							M
1	6.718	6.720	-0.002	3883269	1.00	0.7962	M
2	7.496	7.497	-0.001	14982568	1.00	1.18	
						RPD = 39.05	
26 4,4'-DDE							
1	6.768	6.768	0.000	2365351	1.00	1.37	
2	7.606	7.607	-0.001	17122726	1.00	1.28	
						RPD = 6.55	
27 Endosulfan I							
1	6.804	6.807	-0.003	2682409	1.00	0.6948	
2	7.550	7.550	0.000	11189906	1.00	0.5335	
						RPD = 26.28	
29 Dieldrin							
1	6.969	6.970	-0.001	2368779	1.00	0.5930	
2	7.760	7.761	-0.001	11130956	1.00	0.9540	
						RPD = 46.67	
33 Endrin							
1	7.126	7.127	-0.001	1964954	1.00	0.7762	
2	8.004	8.005	-0.001	9752564	1.00	1.14	
						RPD = 38.22	
36 4,4'-DDD							M
1	7.168	7.167	0.001	1393869	1.00	0.9362	M
2	8.055	8.055	0.000	8138512	1.00	1.08	
						RPD = 14.11	
37 Endosulfan II							M
1	7.279	7.280	-0.001	1958480	1.00	0.6908	
2	8.167	8.168	-0.001	9801776	1.00	-0.1317	M
						RPD = 294.25	
38 4,4'-DDT							M
1	7.363	7.365	-0.002	1807933	1.00	0.7345	M
2	8.306	8.306	0.000	6391952	1.00	0.8636	
						RPD = 16.15	
39 Endrin aldehyde							
1	7.568	7.568	0.000	2219679	1.00	0.7110	
2	8.431	8.430	0.001	6029443	1.00	0.4715	
						RPD = 40.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 Methoxychlor							M
1	7.722	7.720	0.002	1151216	1.00	0.9707	M
2	8.861	8.860	0.001	5551136	1.00	0.8515	M
						RPD = 13.09	
42 Endosulfan sulfate							
1	7.877	7.879	-0.002	2961158	1.00	0.6795	
2	8.645	8.646	-0.001	8530414	1.00	0.7681	
						RPD = 12.25	
44 Endrin ketone							M
1	8.093	8.094	-0.001	2756987	1.00	0.8557	M
2	9.103	9.104	-0.001	7844832	1.00	1.15	
						RPD = 29.12	
$ 45 DCB Decachlorobiphenyl							Ma
1	8.884	8.884	0.000	7073053	1.00	0.002759	M
2	10.089	10.091	-0.002	18493473	1.00	1.21	M
						RPD = 199.09	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC001_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:07:33 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d

Injection Date: 23-Jul-2019 14:06:12 Instrument ID: TAC034

Lims ID: ccvl

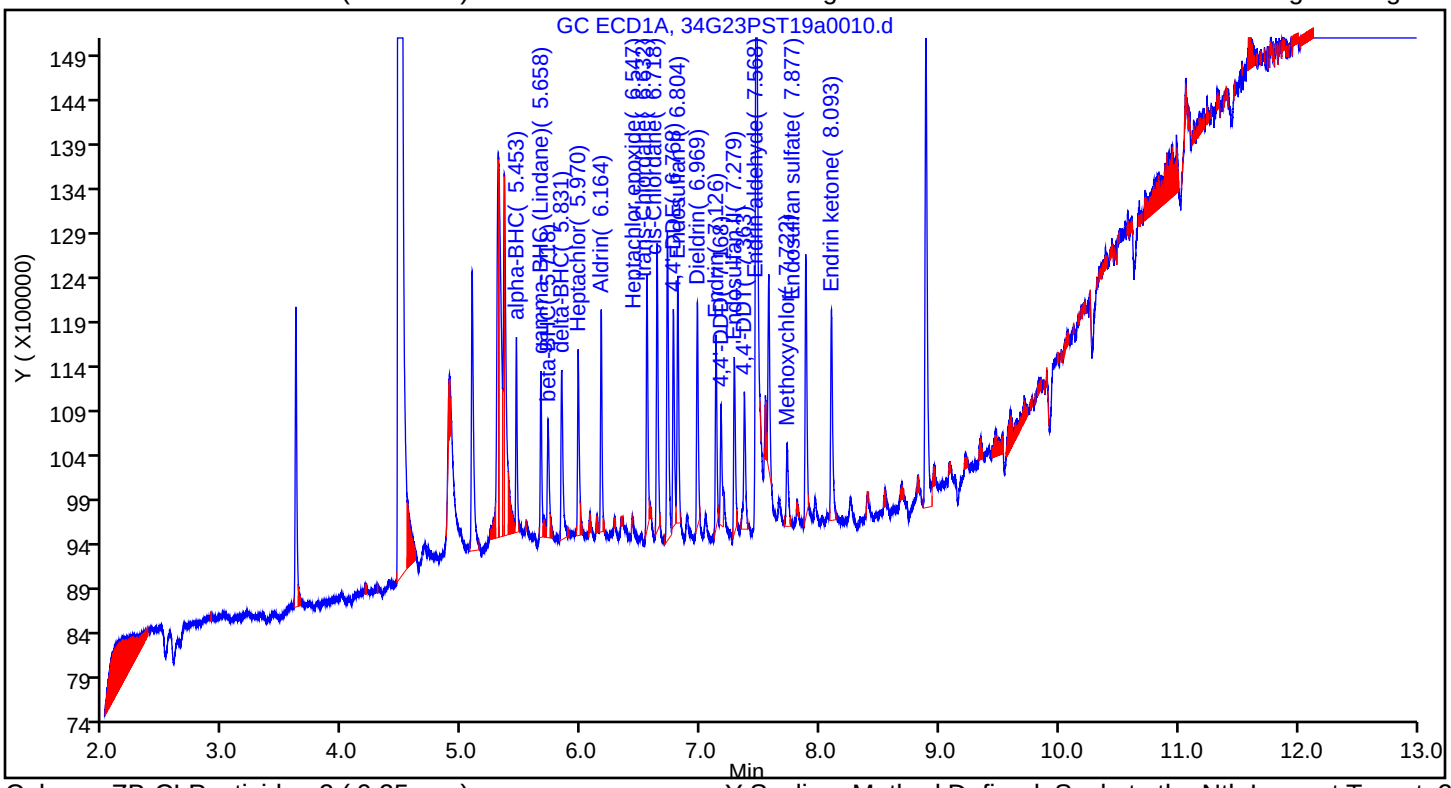
Client ID:

Operator ID: CJB ALS Bottle#: 6 Worklist Smp#: 8

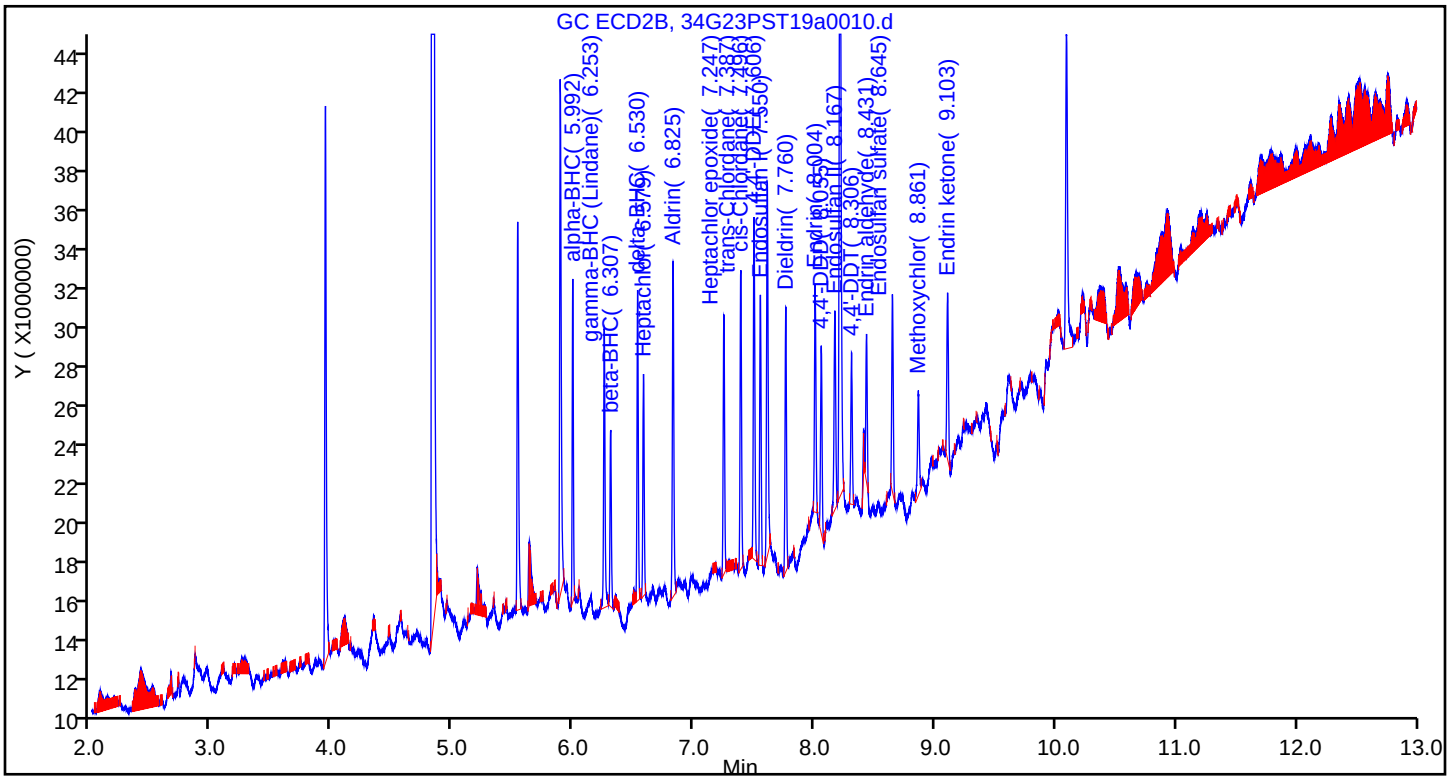
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

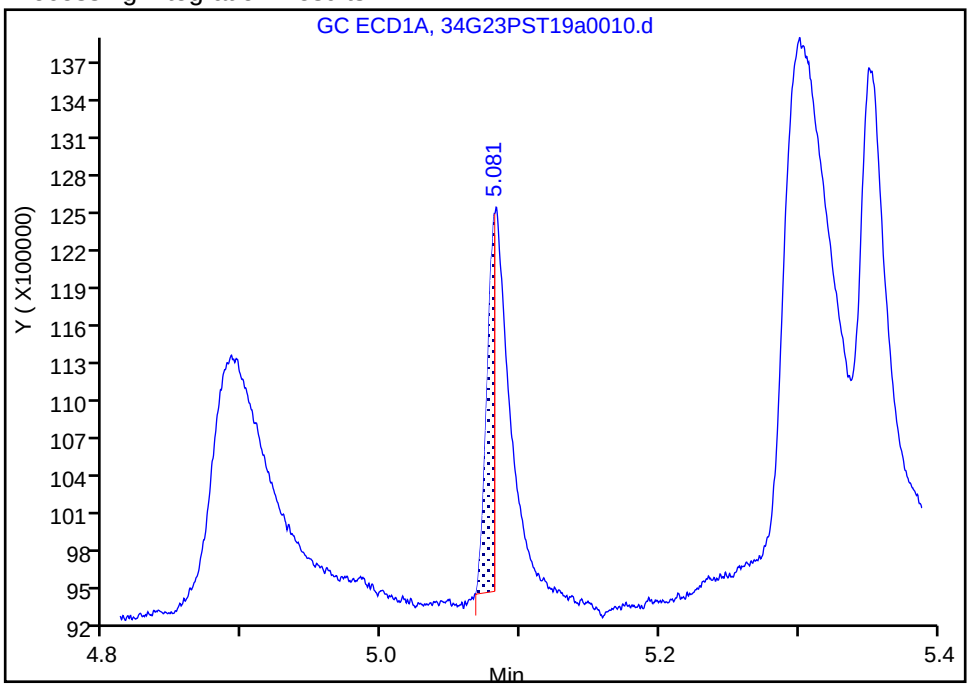
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 4 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

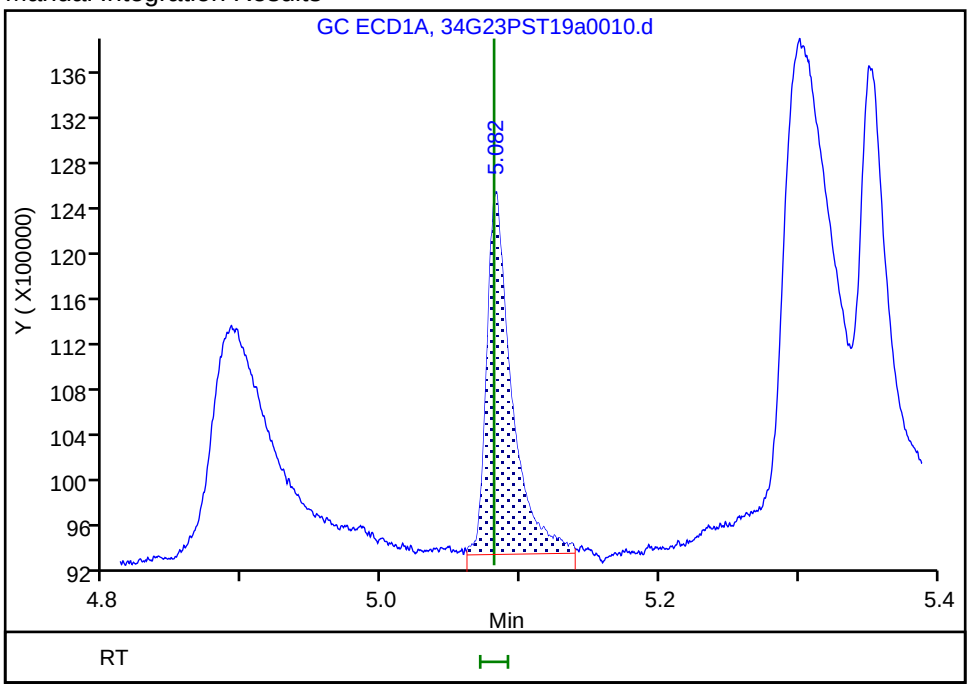
Processing Integration Results

RT: 5.08
Area: 1106517
Amount: 0.240211
Amount Units: ug/L



Manual Integration Results

RT: 5.08
Area: 3923718
Amount: 0.851790
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:05:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

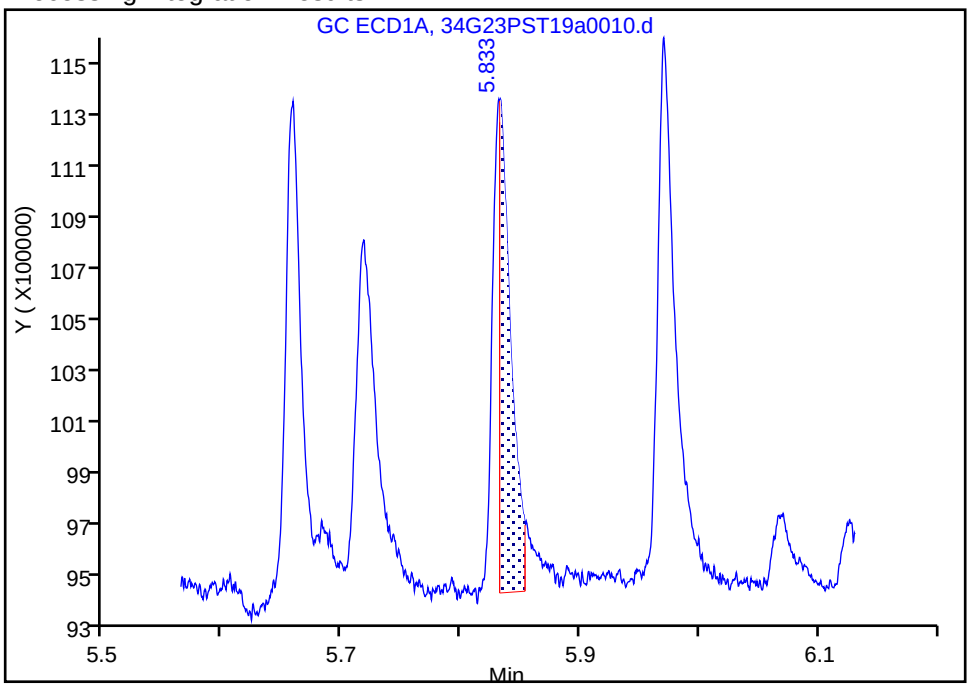
Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d
Injection Date: 23-Jul-2019 14:06:12 Instrument ID: TAC034
Lims ID: ccvl
Client ID:
Operator ID: CJB ALS Bottle#: 6 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

13 delta-BHC, CAS: 319-86-8

Signal: 1

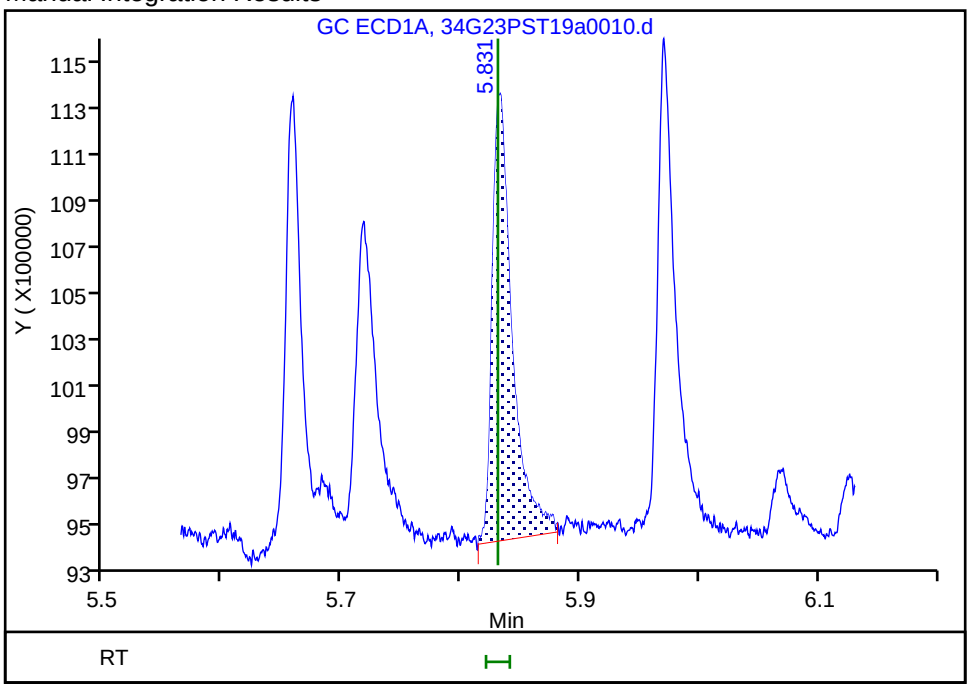
Processing Integration Results

RT: 5.83
Area: 1239381
Amount: 0.584557
Amount Units: ug/L



Manual Integration Results

RT: 5.83
Area: 2224247
Amount: 0.889110
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:05:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

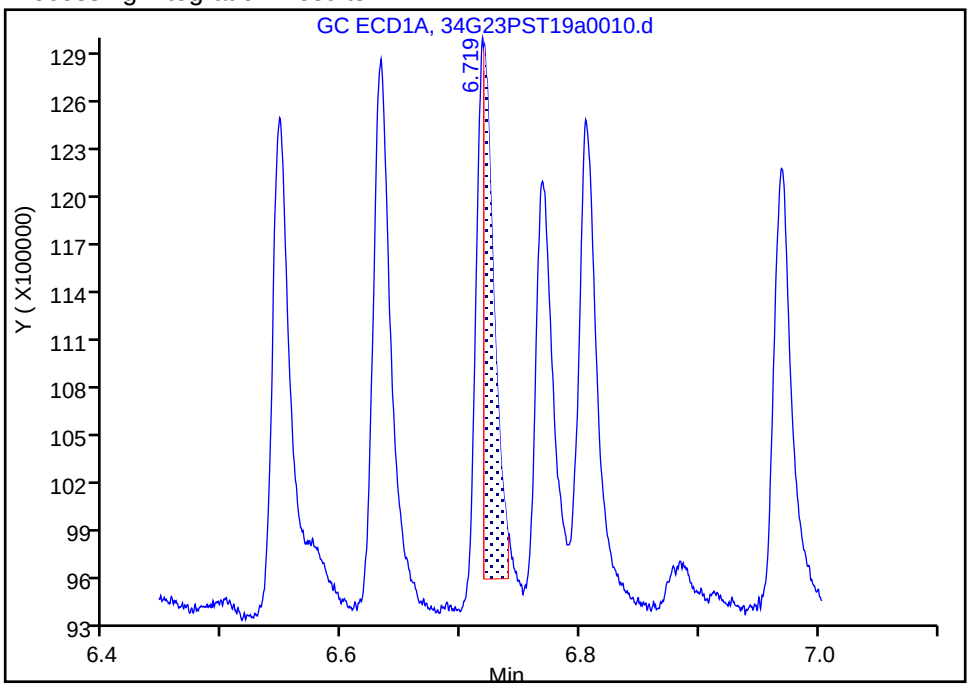
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

25 cis-Chlordane, CAS: 5103-71-9

Signal: 1

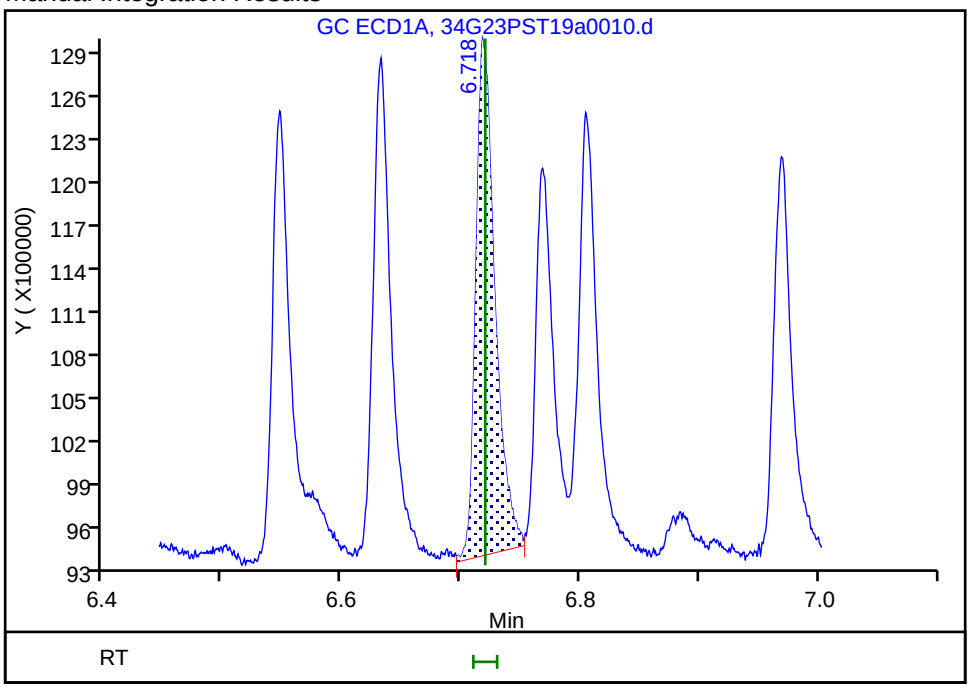
Processing Integration Results

RT: 6.72
Area: 1959114
Amount: 0.401691
Amount Units: ug/L



Manual Integration Results

RT: 6.72
Area: 3883269
Amount: 0.796215
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:06:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

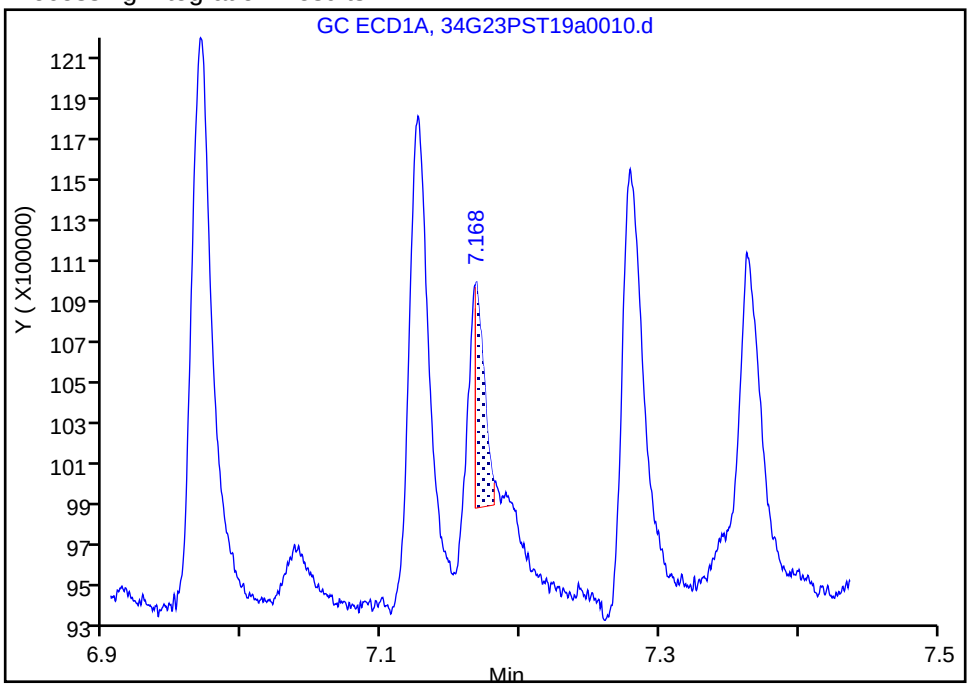
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

36 4,4'-DDD, CAS: 72-54-8

Signal: 1

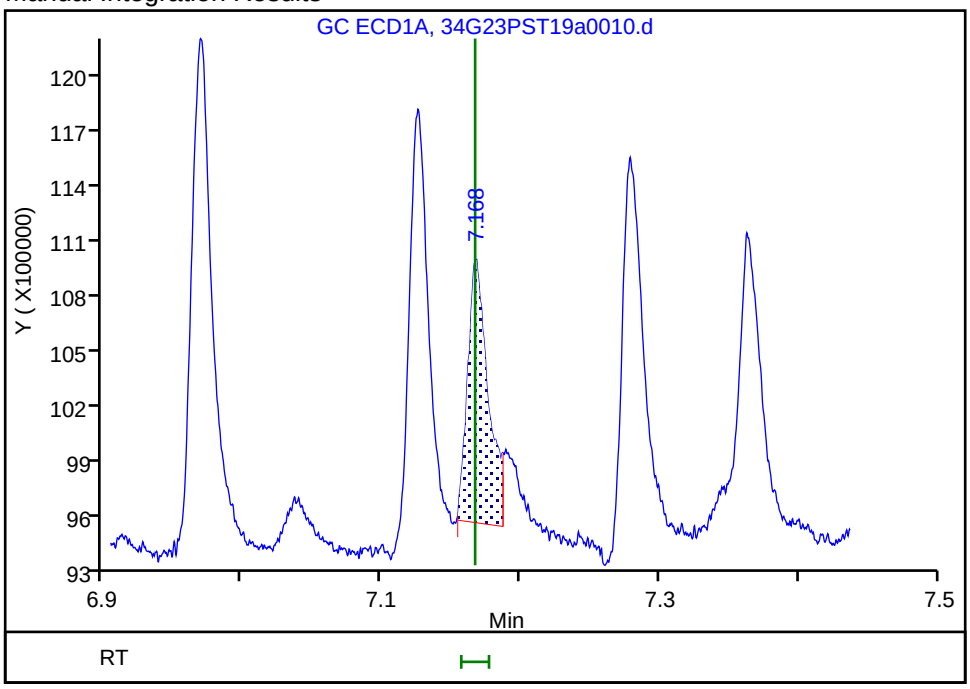
Processing Integration Results

RT: 7.17
Area: 467220
Amount: 0.600271
Amount Units: ug/L



Manual Integration Results

RT: 7.17
Area: 1393869
Amount: 0.936185
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:06:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

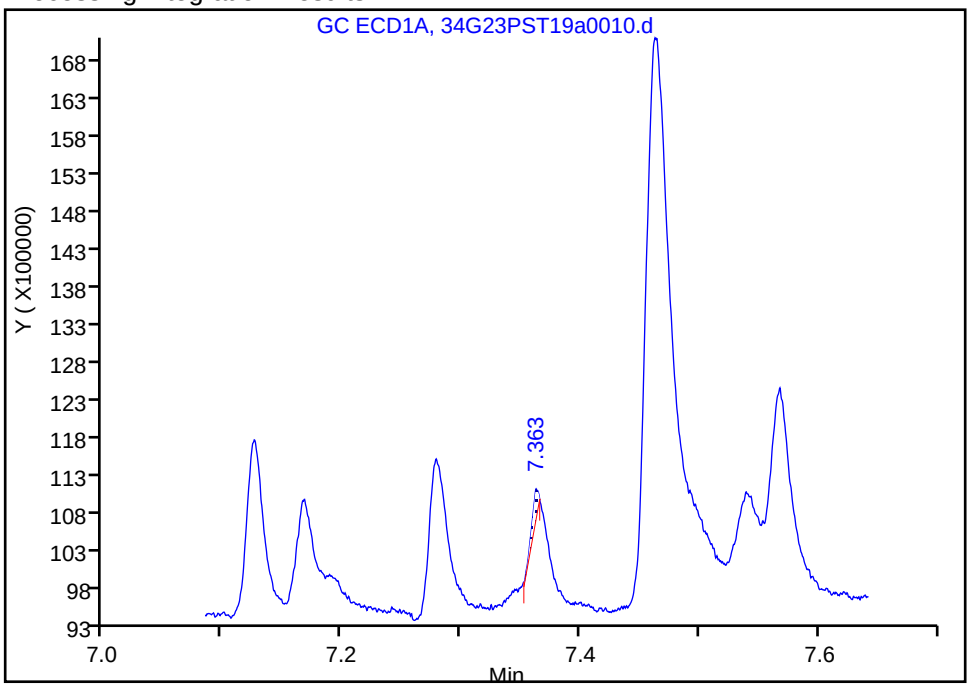
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

38 4,4'-DDT, CAS: 50-29-3

Signal: 1

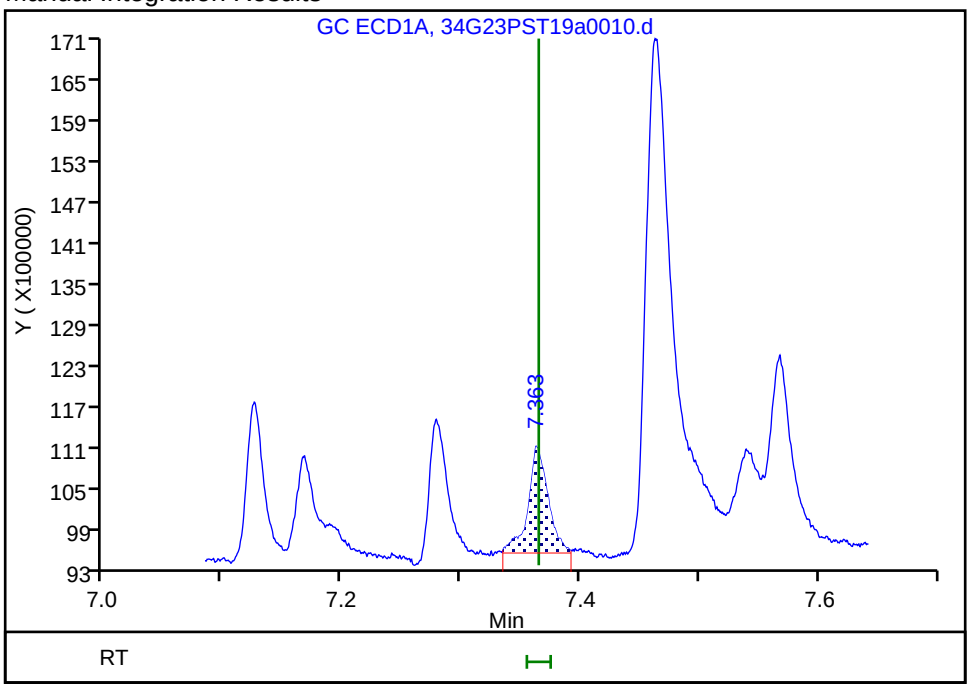
Processing Integration Results

RT: 7.36
Area: 149093
Amount: 0.060574
Amount Units: ug/L



Manual Integration Results

RT: 7.36
Area: 1807933
Amount: 0.734539
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:06:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

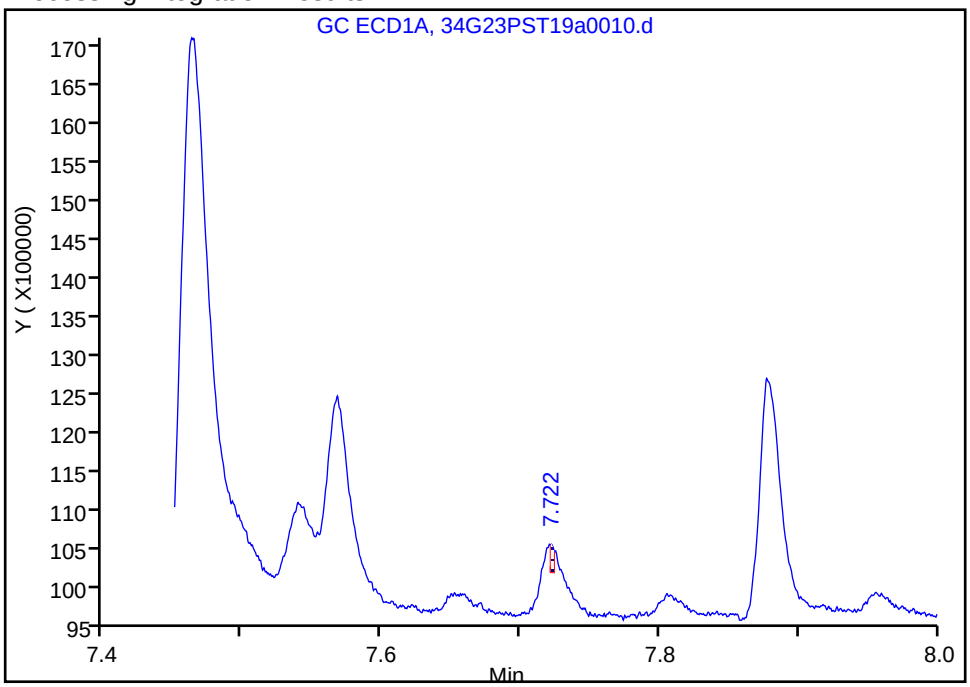
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

40 Methoxychlor, CAS: 72-43-5

Signal: 1

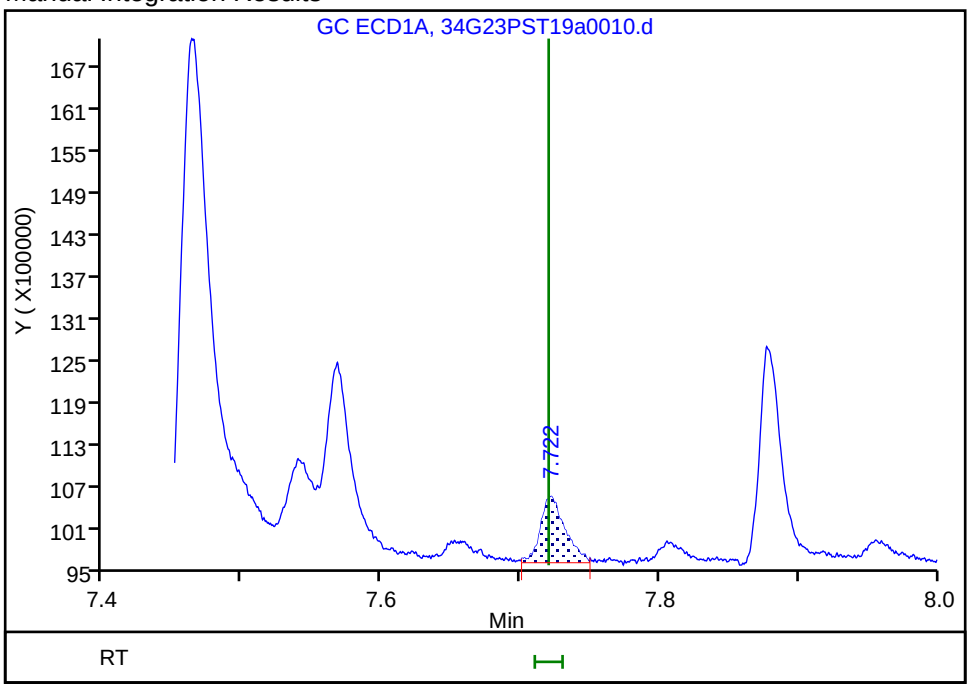
Processing Integration Results

RT: 7.72
Area: 60367
Amount: 0.050902
Amount Units: ug/L



Manual Integration Results

RT: 7.72
Area: 1151216
Amount: 0.970707
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:06:44

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

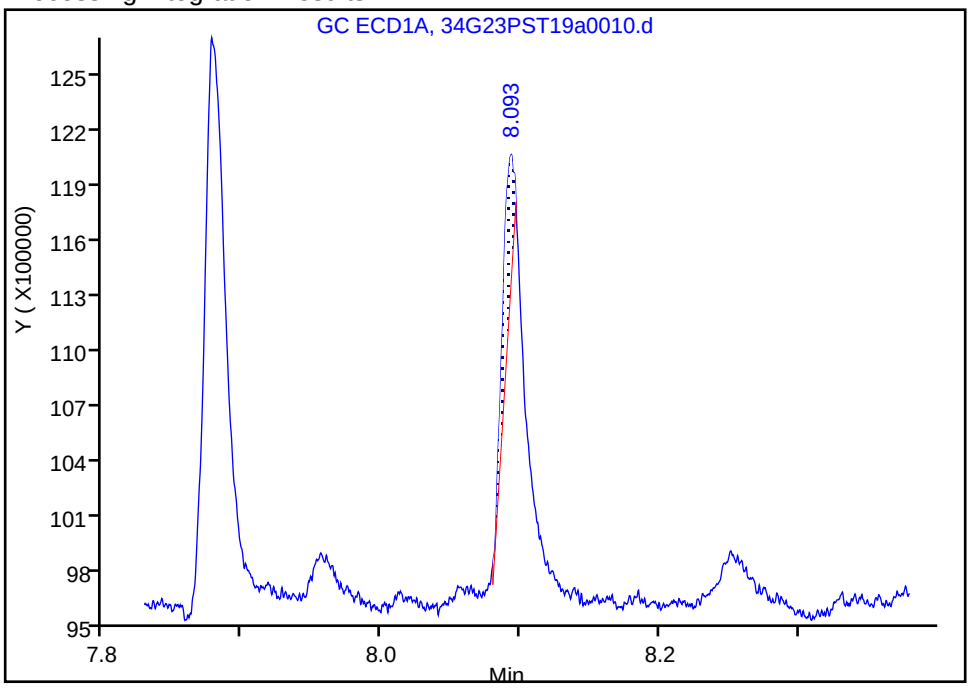
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

44 Endrin ketone, CAS: 53494-70-5

Signal: 1

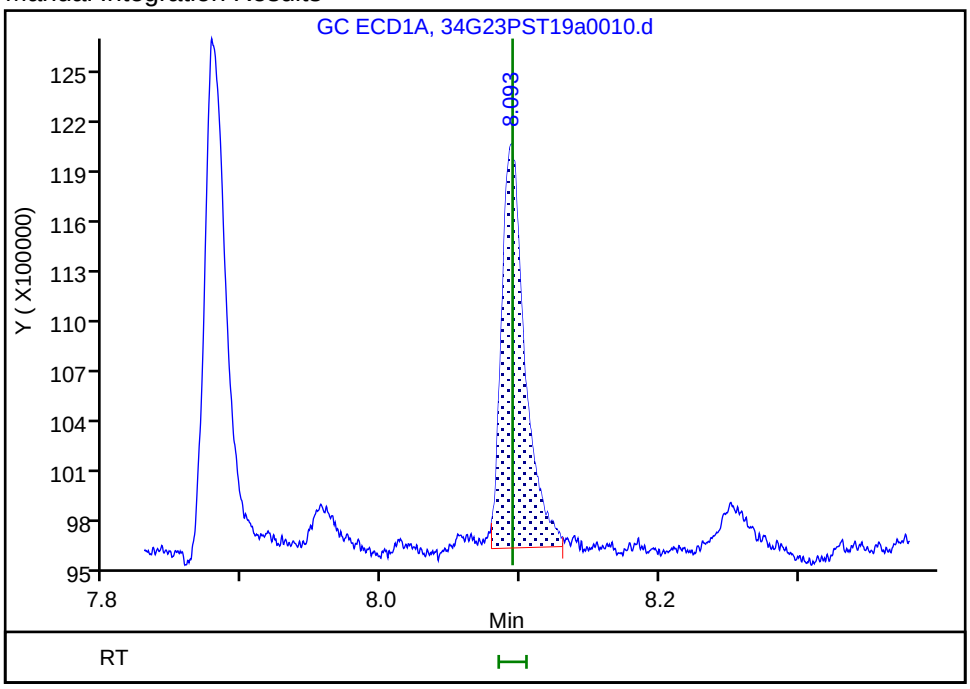
Processing Integration Results

RT: 8.09
Area: 460474
Amount: 0.108986
Amount Units: ug/L



Manual Integration Results

RT: 8.09
Area: 2756987
Amount: 0.855728
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:06:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

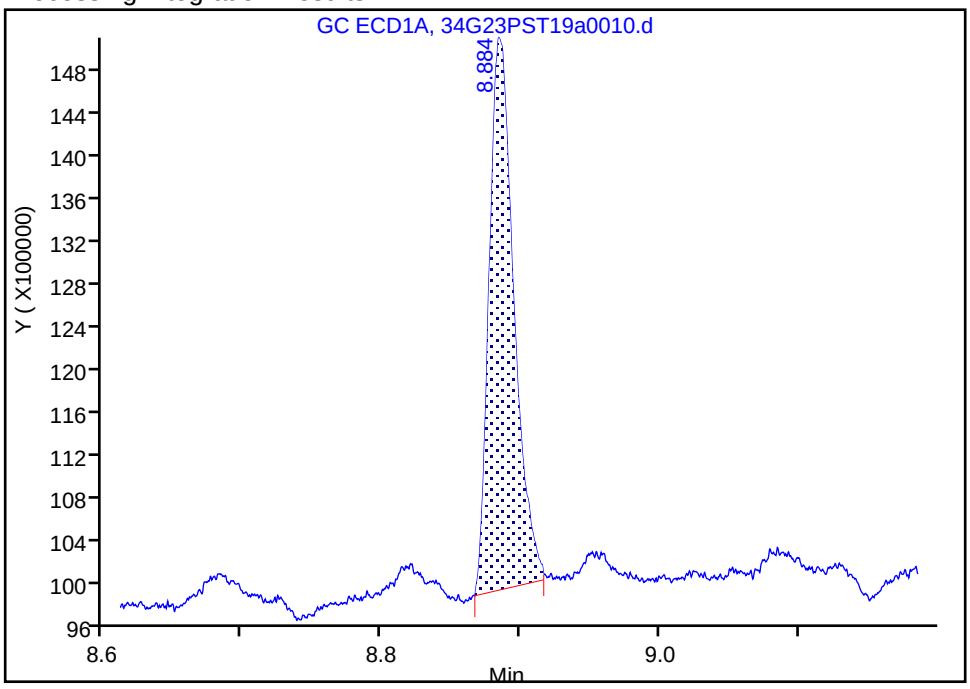
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0010.d				
Injection Date:	23-Jul-2019 14:06:12	Instrument ID:	TAC034		
Lims ID:	ccvl				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

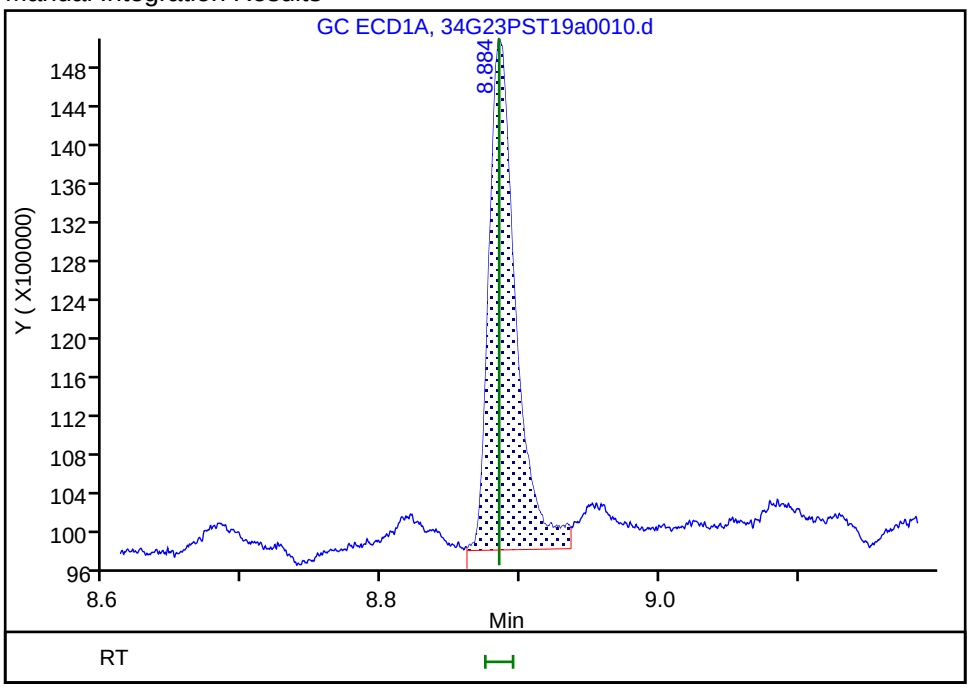
Processing Integration Results

RT: 8.88
Area: 6339860
Amount: -0.143740
Amount Units: ug/L



Manual Integration Results

RT: 8.88
Area: 7073053
Amount: 0.002759
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:07:26

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/31 Calibration Date: 02/27/2019 20:51

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45B227a031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Ave	1.845	1.571		42.6	50.0	-14.9	20.0
2,4'-DDE	Qua1		1.391		54.3	50.0	8.7	20.0
trans-Nonachlor	Ave	1.925	1.871		48.6	50.0	-2.8	20.0
2,4'-DDD	Qua1		0.9695		53.4	50.0	6.9	20.0
2,4'-DDT	Qua1		1.048		51.6	50.0	3.1	20.0
cis-Nonachlor	Lin1		1.895		50.9	50.0	1.8	20.0
Mirex	Ave	1.384	1.261			50.0	-8.9	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/31 Calibration Date: 02/27/2019 20:51

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45B227a031.D

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	7.28	7.27	7.29
2,4'-DDE	7.33	7.32	7.34
trans-Nonachlor	7.53	7.52	7.54
2,4'-DDD	7.70	7.69	7.71
2,4'-DDT	7.90	7.89	7.91
cis-Nonachlor	8.01	8.00	8.02
Mirex	8.76	8.76	8.78

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a031.D
Lims ID: icv ext
Client ID:
Sample Type: ICV
Inject. Date: 27-Feb-2019 20:51:06 ALS Bottle#: 29 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV EXT
Operator ID: AR Instrument ID: TAC045
Sublist:

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 01-Mar-2019 16:20:54 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	101700382	100.0	100.0	
2	5.431	5.430	0.001	242893448	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	79865167	50.0	42.6	
2	7.957	7.959	-0.002	154339997	50.0	41.0	
						RPD = 3.60	
27 2,4'-DDE							
1	7.332	7.333	-0.001	70754714	50.0	54.3	
2	8.157	8.158	-0.001	130690309	50.0	54.7	
						RPD = 0.66	
28 trans-Nonachlor							
1	7.525	7.526	-0.001	95160356	50.0	48.6	
2	8.245	8.245	0.000	192130978	50.0	51.1	
						RPD = 5.01	
31 2,4'-DDD							
1	7.701	7.703	-0.002	49298614	50.0	53.4	
2	8.560	8.563	-0.003	100503510	50.0	52.0	
						RPD = 2.68	
36 2,4'-DDT							
1	7.895	7.896	-0.001	53304339	50.0	51.6	
2	8.815	8.817	-0.002	103069573	50.0	54.6	
						RPD = 5.72	
38 cis-Nonachlor							
1	8.009	8.011	-0.002	96347029	50.0	50.9	
2	8.868	8.870	-0.002	204011773	50.0	51.5	
						RPD = 1.17	

Report Date: 01-Mar-2019 16:20:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a031.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.764	8.765	-0.001	64124611	50.0	45.5	
2	9.954	9.956	-0.002	118516534	50.0	42.1	
						RPD = 7.80	

Reagents:

EXTOCP_ICV_00026	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 01-Mar-2019 16:20:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a031.D

Injection Date: 27-Feb-2019 20:51:06 Instrument ID: TAC045

Lims ID: icv ext

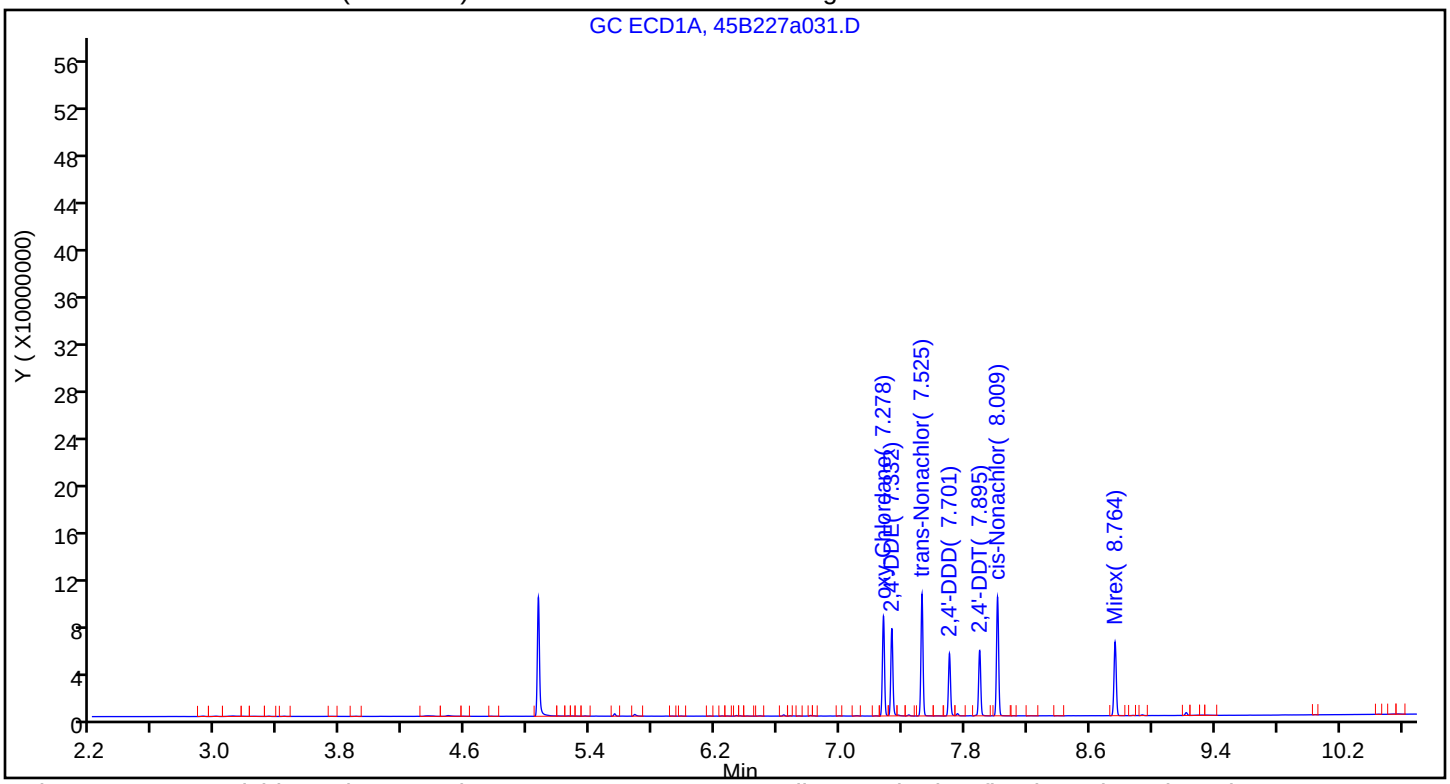
Client ID:

Operator ID: AR ALS Bottle#: 29 Worklist Smp#: 31

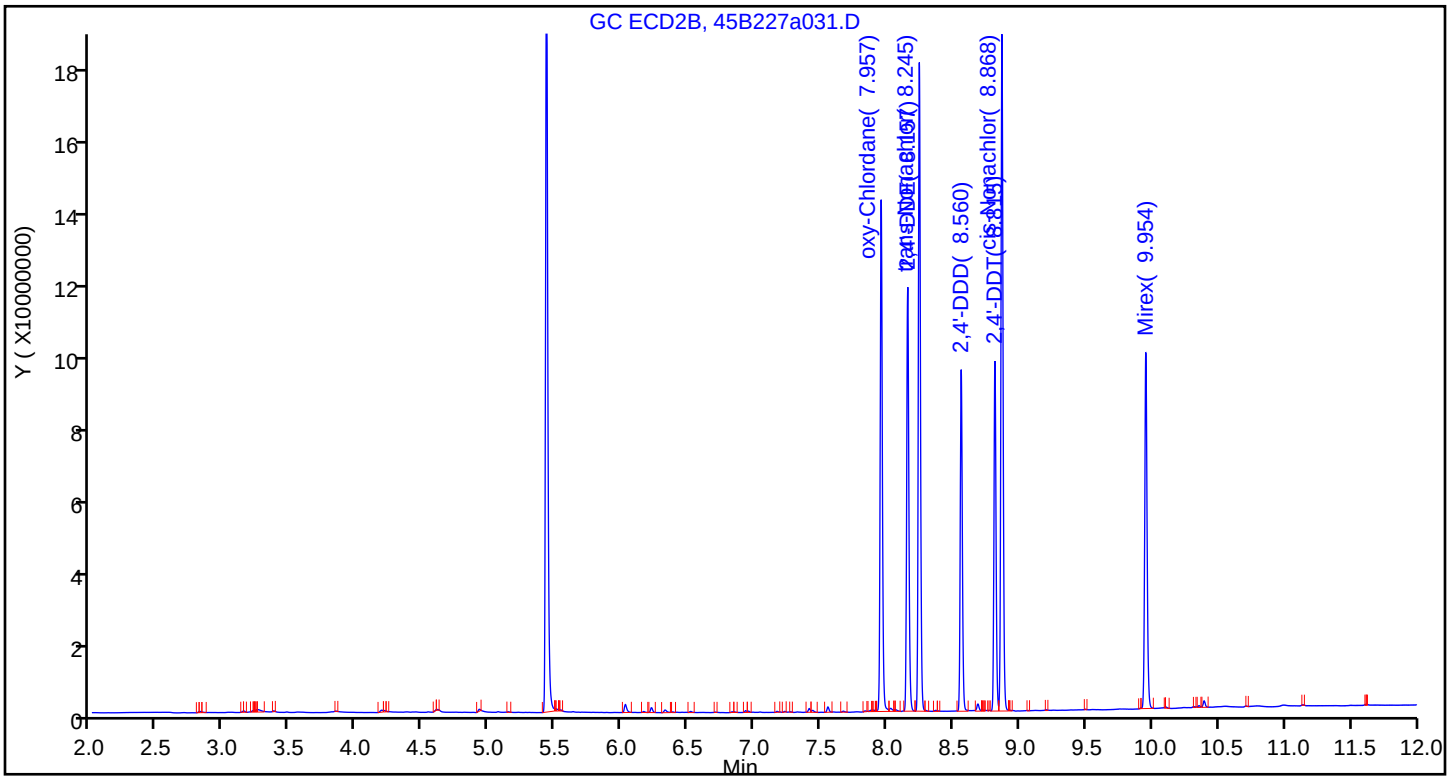
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/31 Calibration Date: 02/27/2019 20:51

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45B227a031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Ave	1.548	1.271		41.0	50.0	-17.9	20.0
2,4'-DDE	Ave	0.9835	1.076		54.7	50.0	9.4	20.0
trans-Nonachlor	Ave	1.548	1.582		51.1	50.0	2.2	20.0
2,4'-DDD	Lin2		0.8276		52.0	50.0	4.1	20.0
2,4'-DDT	Ave	0.7771	0.8487		54.6	50.0	9.2	20.0
cis-Nonachlor	Ave	1.631	1.680		51.5	50.0	3.0	20.0
Mirex	Ave	1.158	0.9759			50.0	-15.8	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/31 Calibration Date: 02/27/2019 20:51

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45B227a031.D

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	7.96	7.95	7.97
2,4'-DDE	8.16	8.15	8.17
trans-Nonachlor	8.25	8.24	8.26
2,4'-DDD	8.56	8.55	8.57
2,4'-DDT	8.82	8.81	8.83
cis-Nonachlor	8.87	8.86	8.88
Mirex	9.95	9.95	9.97

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a031.D
Lims ID: icv ext
Client ID:
Sample Type: ICV
Inject. Date: 27-Feb-2019 20:51:06 ALS Bottle#: 29 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV EXT
Operator ID: AR Instrument ID: TAC045
Sublist:

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 01-Mar-2019 16:20:54 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.064	5.064	0.000	101700382	100.0	100.0	
2	5.431	5.430	0.001	242893448	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.278	7.278	0.000	79865167	50.0	42.6	
2	7.957	7.959	-0.002	154339997	50.0	41.0	
						RPD = 3.60	
27 2,4'-DDE							
1	7.332	7.333	-0.001	70754714	50.0	54.3	
2	8.157	8.158	-0.001	130690309	50.0	54.7	
						RPD = 0.66	
28 trans-Nonachlor							
1	7.525	7.526	-0.001	95160356	50.0	48.6	
2	8.245	8.245	0.000	192130978	50.0	51.1	
						RPD = 5.01	
31 2,4'-DDD							
1	7.701	7.703	-0.002	49298614	50.0	53.4	
2	8.560	8.563	-0.003	100503510	50.0	52.0	
						RPD = 2.68	
36 2,4'-DDT							
1	7.895	7.896	-0.001	53304339	50.0	51.6	
2	8.815	8.817	-0.002	103069573	50.0	54.6	
						RPD = 5.72	
38 cis-Nonachlor							
1	8.009	8.011	-0.002	96347029	50.0	50.9	
2	8.868	8.870	-0.002	204011773	50.0	51.5	
						RPD = 1.17	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.764	8.765	-0.001	64124611	50.0	45.5	
2	9.954	9.956	-0.002	118516534	50.0	42.1	
						RPD = 7.80	

Reagents:

EXTOCP_ICV_00026	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 01-Mar-2019 16:20:55 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a031.D

Injection Date: 27-Feb-2019 20:51:06 Instrument ID: TAC045

Lims ID: icv ext

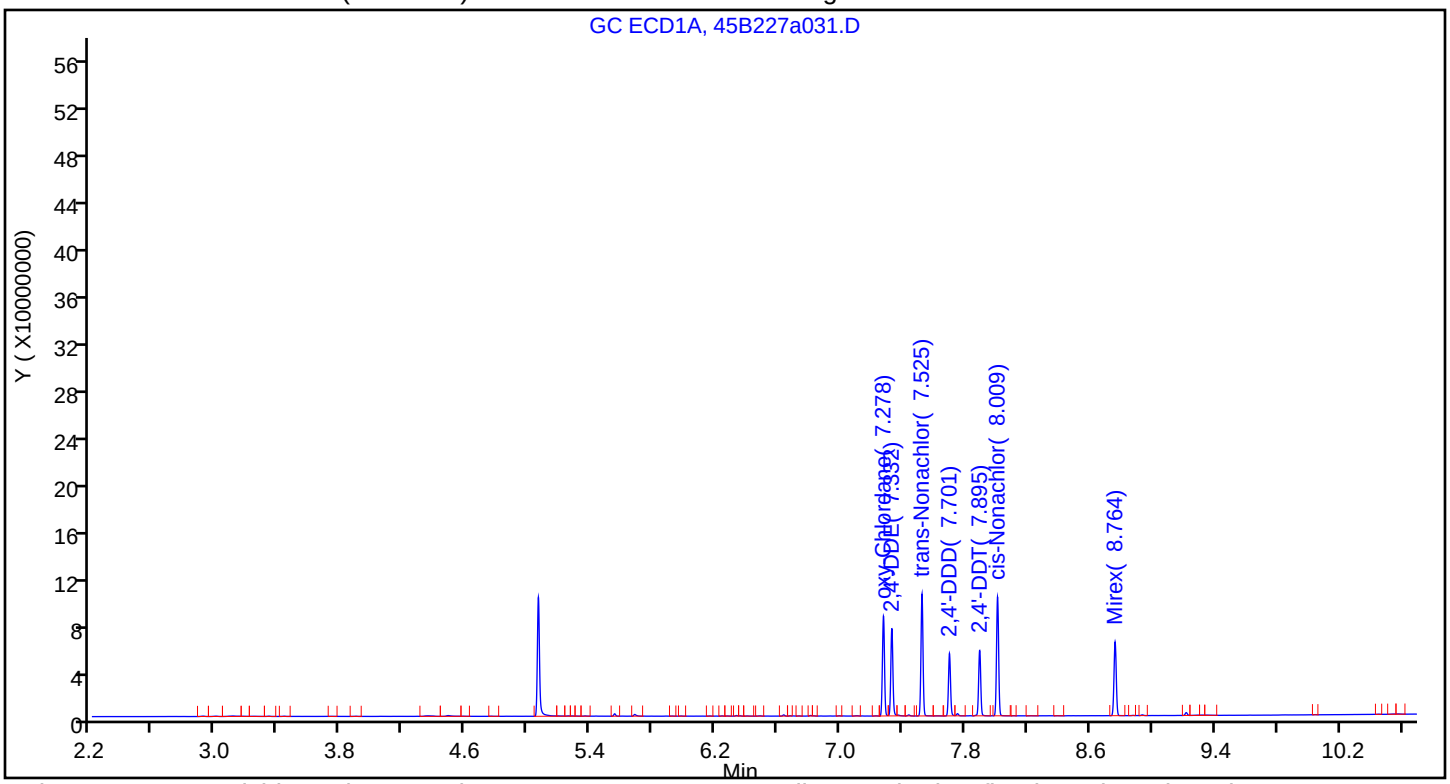
Client ID:

Operator ID: AR ALS Bottle#: 29 Worklist Smp#: 31

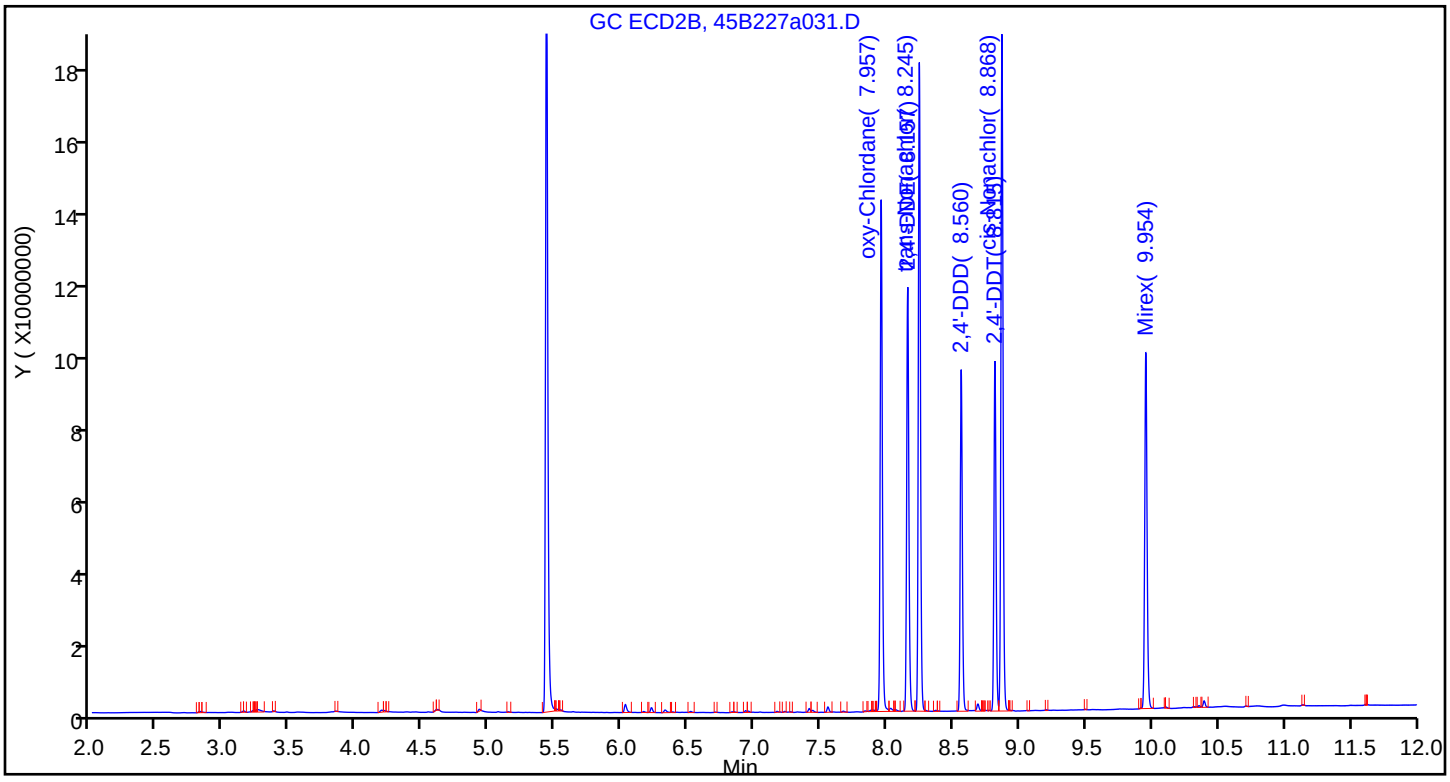
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/41 Calibration Date: 02/28/2019 00:20

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45B227a041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	3.641	3.720		51.1	50.0	2.2	20.0
Hexachlorobenzene	Ave	2.666	2.560		48.0	50.0	-4.0	20.0
alpha-BHC	Ave	2.515	2.492		49.5	50.0	-0.9	20.0
gamma-BHC (Lindane)	Ave	2.114	2.100		49.7	50.0	-0.7	20.0
beta-BHC	Ave	0.9456	0.8837		46.7	50.0	-6.5	20.0
delta-BHC	Ave	2.180	2.121		48.6	50.0	-2.7	20.0
Heptachlor	Ave	1.909	1.810		47.4	50.0	-5.2	20.0
Aldrin	Ave	2.250	2.279		50.6	50.0	1.3	20.0
Heptachlor epoxide	Ave	1.930	1.855		48.1	50.0	-3.9	20.0
trans-Chlordane	Ave	2.093	2.042		48.8	50.0	-2.5	20.0
cis-Chlordane	Ave	2.086	2.031		48.7	50.0	-2.6	20.0
4,4'-DDE	Ave	2.097	2.125		50.7	50.0	1.3	20.0
Endosulfan I	Ave	1.882	1.842		48.9	50.0	-2.1	20.0
Dieldrin	Ave	2.036	2.035		50.0	50.0	-0.0	20.0
Endrin	Ave	1.445	1.422		49.2	50.0	-1.5	20.0
4,4'-DDD	Ave	1.453	1.486		51.1	50.0	2.2	20.0
Endosulfan II	Ave	1.577	1.656		52.5	50.0	5.0	20.0
4,4'-DDT	Ave	1.336	1.346		50.4	50.0	0.7	20.0
Endrin aldehyde	Ave	1.540	1.455		47.2	50.0	-5.5	20.0
Methoxychlor	Ave	0.6887	0.6701		48.6	50.0	-2.7	20.0
Endosulfan sulfate	Ave	1.751	1.622		46.3	50.0	-7.4	20.0
Endrin ketone	Ave	1.743	1.679		48.2	50.0	-3.7	20.0
Tetrachloro-m-xylene	Ave	2.399	2.416		50.7	50.4	0.7	20.0
DCB Decachlorobiphenyl	Ave	1.754	1.732		49.5	50.2	-1.3	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/41 Calibration Date: 02/28/2019 00:20

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45B227a041.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobutadiene	4.17	4.16	4.18
Hexachlorobenzene	6.00	5.99	6.01
alpha-BHC	6.11	6.10	6.12
gamma-BHC (Lindane)	6.34	6.33	6.35
beta-BHC	6.40	6.39	6.41
delta-BHC	6.53	6.52	6.54
Heptachlor	6.70	6.69	6.71
Aldrin	6.92	6.91	6.93
Heptachlor epoxide	7.35	7.34	7.36
trans-Chlordane	7.44	7.43	7.45
cis-Chlordane	7.53	7.53	7.55
4,4'-DDE	7.57	7.56	7.58
Endosulfan I	7.64	7.63	7.65
Dieldrin	7.81	7.80	7.82
Endrin	7.99	7.98	8.00
4,4'-DDD	8.01	8.00	8.02
Endosulfan II	8.15	8.14	8.16
4,4'-DDT	8.22	8.21	8.23
Endrin aldehyde	8.46	8.45	8.47
Methoxychlor	8.59	8.58	8.60
Endosulfan sulfate	8.80	8.79	8.81
Endrin ketone	9.03	9.02	9.04
Tetrachloro-m-xylene	5.70	5.69	5.71
DCB Decachlorobiphenyl	9.83	9.82	9.84

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a041.D
Lims ID: icv ocp
Client ID:
Sample Type: ICV
Inject. Date: 28-Feb-2019 00:20:20 ALS Bottle#: 39 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV OCP
Operator ID: AR Instrument ID: TAC045
Sublist:

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 01-Mar-2019 16:17:48 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:06:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	188300512	50.0	51.1	
2	4.533	4.532	0.001	357310512	50.0	55.2	
						RPD = 7.69	
* 3 1-Bromo-2-nitrobenzene							
1	5.063	5.064	-0.001	101249041	100.0	100.0	
2	5.432	5.430	0.002	236890849	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.700	5.701	-0.001	123155507	50.4	50.7	
2	6.194	6.195	-0.001	222196834	50.4	56.9	
						RPD = 11.56	
11 Hexachlorobenzene							
1	5.995	5.996	-0.001	129591351	50.0	48.0	
2	6.580	6.580	0.000	244452229	50.0	52.0	
						RPD = 8.05	
4 alpha-BHC							
1	6.113	6.114	-0.001	126180572	50.0	49.5	
2	6.687	6.687	0.000	246624979	50.0	51.1	
						RPD = 3.07	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	106306049	50.0	49.7	
2	6.969	6.969	0.000	216815843	50.0	50.5	
						RPD = 1.59	
7 beta-BHC							
1	6.399	6.400	-0.001	44738687	50.0	46.7	
2	7.017	7.018	-0.001	95923630	50.0	52.6	
						RPD = 11.83	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.534	6.534	0.000	107399355	50.0	48.6	
2	7.260	7.260	0.000	228139955	50.0	51.6	
						RPD = 5.89	
10 Heptachlor							
1	6.699	6.700	-0.001	91655034	50.0	47.4	
2	7.326	7.326	0.000	187721273	50.0	53.2	
						RPD = 11.56	
12 Aldrin							
1	6.921	6.921	0.000	115386125	50.0	50.6	
2	7.592	7.592	0.000	236539114	50.0	54.8	
						RPD = 7.94	
17 Heptachlor epoxide							
1	7.345	7.346	-0.001	93895568	50.0	48.1	
2	8.030	8.030	0.000	187988419	50.0	53.8	
						RPD = 11.24	
18 trans-Chlordane							
1	7.439	7.440	-0.001	103357576	50.0	48.8	
2	8.179	8.178	0.001	210729089	50.0	56.3	
						RPD = 14.25	
19 cis-Chlordane							
1	7.534	7.535	-0.001	102840431	50.0	48.7	
2	8.293	8.291	0.002	209208047	50.0	55.5	
						RPD = 13.01	
29 4,4'-DDE							
1	7.573	7.574	-0.001	107578532	50.0	50.7	
2	8.393	8.391	0.002	220557917	50.0	52.9	
						RPD = 4.26	
20 Endosulfan I							
1	7.637	7.638	-0.001	93256986	50.0	48.9	
2	8.352	8.352	0.000	187219903	50.0	57.2	
						RPD = 15.55	
23 Dieldrin							
1	7.813	7.813	0.000	103032092	50.0	50.0	
2	8.570	8.570	0.000	199414906	50.0	58.3	
						RPD = 15.30	
37 Endrin							
1	7.987	7.987	0.000	72011479	50.0	49.2	
2	8.825	8.824	0.001	135125558	50.0	58.8	
						RPD = 17.64	
39 4,4'-DDD							
1	8.009	8.010	-0.001	75206685	50.0	51.1	
2	8.855	8.855	0.000	156087348	50.0	54.3	
						RPD = 6.06	
24 Endosulfan II							
1	8.153	8.153	0.000	83847953	50.0	52.5	
2	8.990	8.987	0.003	158542774	50.0	55.5	
						RPD = 5.58	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	68149403	50.0	50.4	
2	9.117	9.115	0.002	126547847	50.0	52.7	
						RPD = 4.47	
41 Endrin aldehyde							
1	8.460	8.460	0.000	73663894	50.0	47.2	
2	9.256	9.255	0.001	152745439	50.0	55.7	
						RPD = 16.40	
30 Methoxychlor							a
1	8.589	8.589	0.000	33923078	50.0	48.6	
2	9.669	9.668	0.001	57655967	50.0	54.3	a
						RPD = 10.96	
33 Endosulfan sulfate							a
1	8.797	8.798	-0.001	82105088	50.0	46.3	
2	9.479	9.478	0.001	167435208	50.0	53.2	a
						RPD = 13.92	
43 Endrin ketone							
1	9.025	9.026	-0.001	85019716	50.0	48.2	
2	9.954	9.953	0.001	155335986	50.0	53.6	
						RPD = 10.70	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.830	0.000	87952762	50.2	49.5	
2	11.001	11.000	0.001	176667556	50.2	51.5	
						RPD = 3.96	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_ICV_50_00034	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 01-Mar-2019 16:17:52 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a041.D

Injection Date: 28-Feb-2019 00:20:20 Instrument ID: TAC045

Lims ID: icv ocp

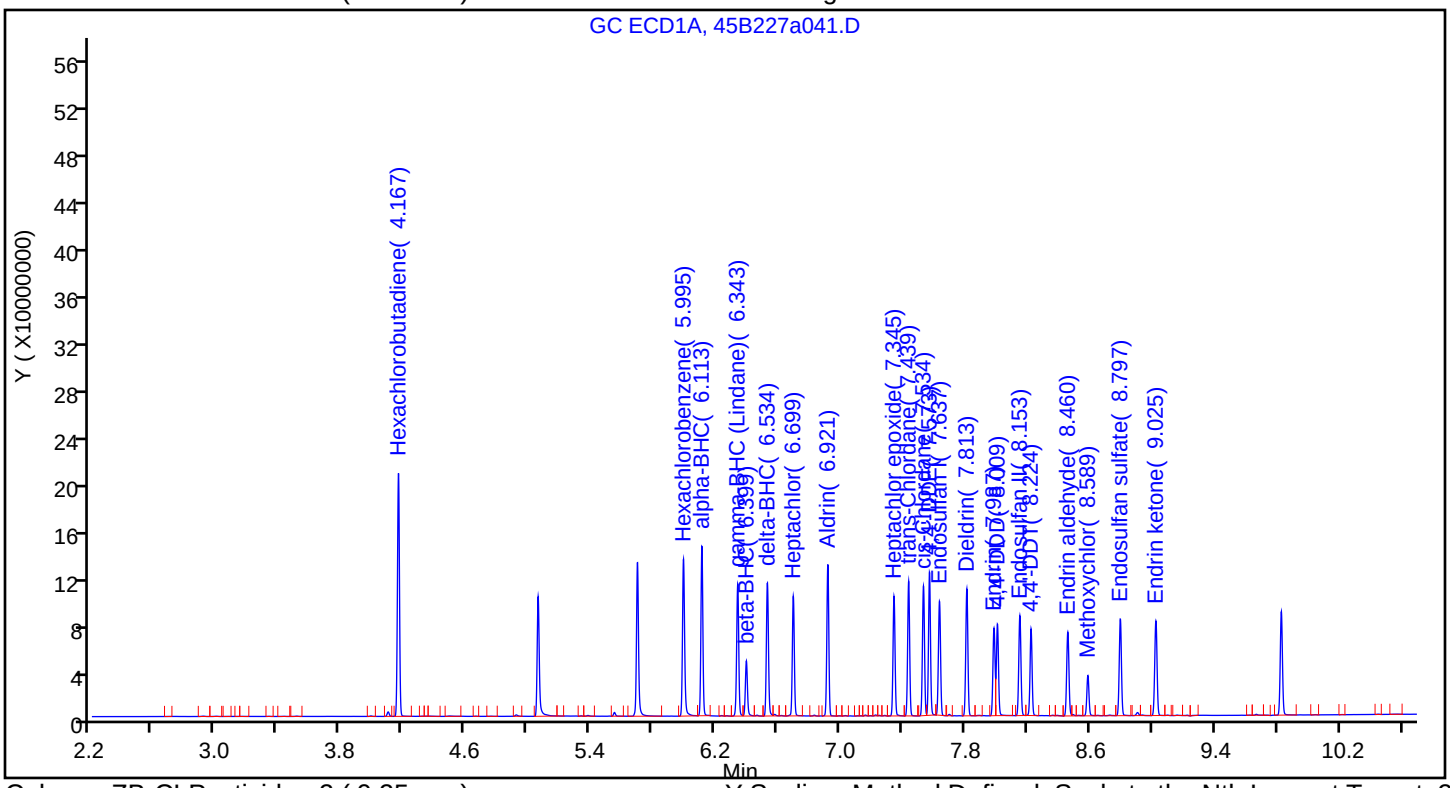
Client ID:

Operator ID: AR ALS Bottle#: 39 Worklist Smp#: 41

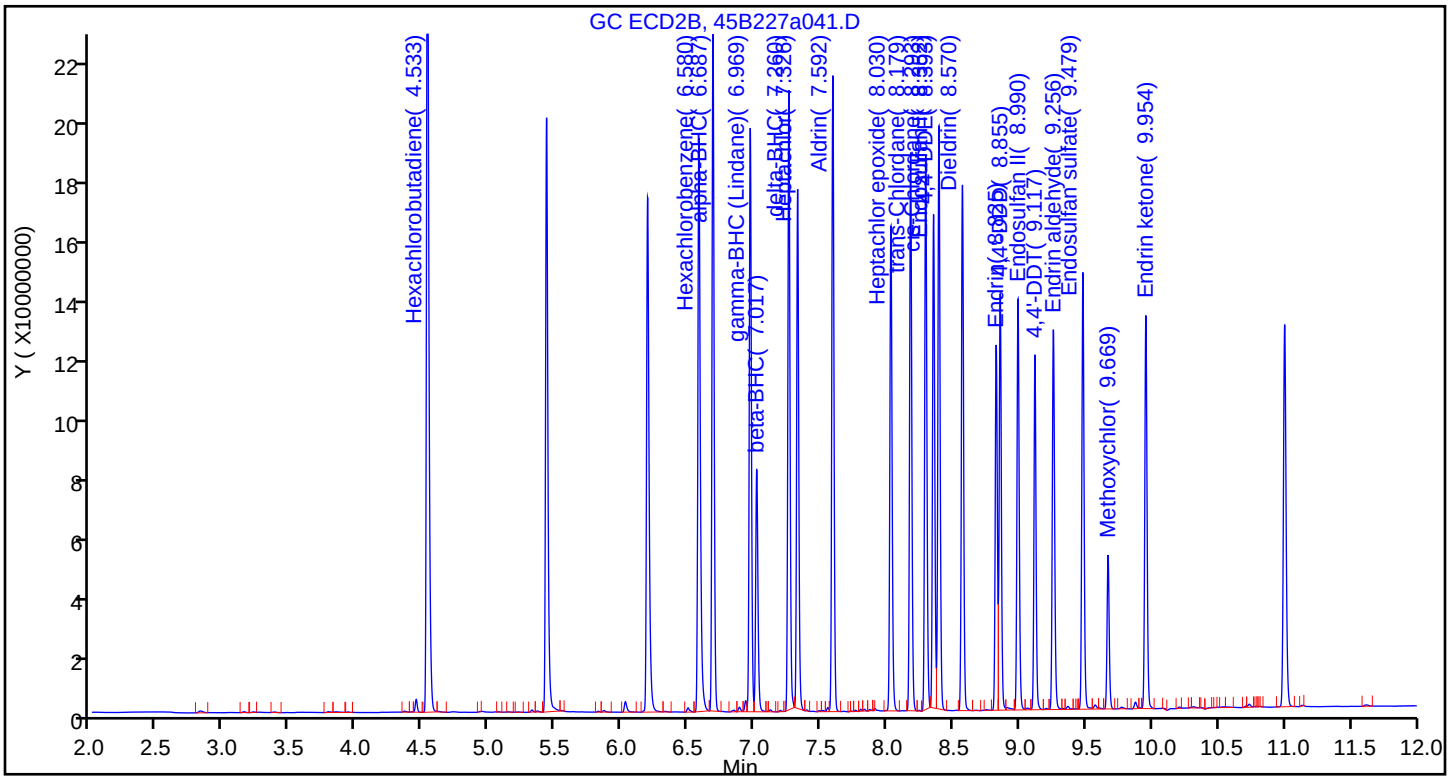
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/41 Calibration Date: 02/28/2019 00:20

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45B227a041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	2.734	3.017		55.2	50.0	10.3	20.0
Hexachlorobenzene	Ave	1.983	2.064		52.0	50.0	4.1	20.0
alpha-BHC	Qua1		2.082		51.1	50.0	2.2	20.0
gamma-BHC (Lindane)	Qua1		1.831		50.5	50.0	0.9	20.0
beta-BHC	Ave	0.7698	0.8099		52.6	50.0	5.2	20.0
delta-BHC	Qua1		1.926		51.6	50.0	3.2	20.0
Heptachlor	Ave	1.489	1.585		53.2	50.0	6.5	20.0
Aldrin	Qua1		1.997		54.8	50.0	9.7	20.0
Heptachlor epoxide	Ave	1.475	1.587		53.8	50.0	7.6	20.0
trans-Chlordane	Ave	1.581	1.779		56.3	50.0	12.5	20.0
cis-Chlordane	Ave	1.593	1.766		55.5	50.0	10.9	20.0
Endosulfan I	Ave	1.382	1.581		57.2	50.0	14.4	20.0
4,4'-DDE	Qua1		1.862		52.9	50.0	5.8	20.0
Dieldrin	Ave	1.445	1.684		58.3	50.0	16.5	20.0
Endrin	Ave	0.9708	1.141		58.8	50.0	17.5	20.0
4,4'-DDD	Qua1		1.318		54.3	50.0	8.6	20.0
Endosulfan II	Ave	1.206	1.339		55.5	50.0	11.0	20.0
4,4'-DDT	Qua1		1.068		52.7	50.0	5.3	20.0
Endrin aldehyde	Ave	1.158	1.290		55.7	50.0	11.4	20.0
Endosulfan sulfate	Ave	1.328	1.414		53.2	50.0	6.4	20.0
Methoxychlor	Ave	0.4483	0.4868		54.3	50.0	8.6	20.0
Endrin ketone	Ave	1.223	1.311		53.6	50.0	7.2	20.0
Tetrachloro-m-xylene	Ave	1.648	1.863		56.9	50.4	13.1	20.0
DCB Decachlorobiphenyl	Ave	1.448	1.487		51.5	50.2	2.7	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-295252/41 Calibration Date: 02/28/2019 00:20

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45B227a041.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobutadiene	4.53	4.52	4.54
Hexachlorobenzene	6.58	6.57	6.59
alpha-BHC	6.69	6.68	6.70
gamma-BHC (Lindane)	6.97	6.96	6.98
beta-BHC	7.02	7.01	7.03
delta-BHC	7.26	7.25	7.27
Heptachlor	7.33	7.32	7.34
Aldrin	7.59	7.58	7.60
Heptachlor epoxide	8.03	8.02	8.04
trans-Chlordane	8.18	8.17	8.19
cis-Chlordane	8.29	8.28	8.30
Endosulfan I	8.35	8.34	8.36
4,4'-DDE	8.39	8.38	8.40
Dieldrin	8.57	8.56	8.58
Endrin	8.83	8.81	8.83
4,4'-DDD	8.86	8.85	8.87
Endosulfan II	8.99	8.98	9.00
4,4'-DDT	9.12	9.11	9.13
Endrin aldehyde	9.26	9.25	9.27
Endosulfan sulfate	9.48	9.47	9.49
Methoxychlor	9.67	9.66	9.68
Endrin ketone	9.95	9.94	9.96
Tetrachloro-m-xylene	6.19	6.19	6.21
DCB Decachlorobiphenyl	11.00	10.99	11.01

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a041.D
Lims ID: icv ocp
Client ID:
Sample Type: ICV
Inject. Date: 28-Feb-2019 00:20:20 ALS Bottle#: 39 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV OCP
Operator ID: AR Instrument ID: TAC045
Sublist:

Method: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 01-Mar-2019 16:17:48 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0312

First Level Reviewer: ruslandera Date: 01-Mar-2019 16:06:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	4.167	4.167	0.000	188300512	50.0	51.1	
2	4.533	4.532	0.001	357310512	50.0	55.2	
						RPD = 7.69	
* 3 1-Bromo-2-nitrobenzene							
1	5.063	5.064	-0.001	101249041	100.0	100.0	
2	5.432	5.430	0.002	236890849	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.700	5.701	-0.001	123155507	50.4	50.7	
2	6.194	6.195	-0.001	222196834	50.4	56.9	
						RPD = 11.56	
11 Hexachlorobenzene							
1	5.995	5.996	-0.001	129591351	50.0	48.0	
2	6.580	6.580	0.000	244452229	50.0	52.0	
						RPD = 8.05	
4 alpha-BHC							
1	6.113	6.114	-0.001	126180572	50.0	49.5	
2	6.687	6.687	0.000	246624979	50.0	51.1	
						RPD = 3.07	
6 gamma-BHC (Lindane)							
1	6.343	6.344	-0.001	106306049	50.0	49.7	
2	6.969	6.969	0.000	216815843	50.0	50.5	
						RPD = 1.59	
7 beta-BHC							
1	6.399	6.400	-0.001	44738687	50.0	46.7	
2	7.017	7.018	-0.001	95923630	50.0	52.6	
						RPD = 11.83	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							
1	6.534	6.534	0.000	107399355	50.0	48.6	
2	7.260	7.260	0.000	228139955	50.0	51.6	
						RPD = 5.89	
10 Heptachlor							
1	6.699	6.700	-0.001	91655034	50.0	47.4	
2	7.326	7.326	0.000	187721273	50.0	53.2	
						RPD = 11.56	
12 Aldrin							
1	6.921	6.921	0.000	115386125	50.0	50.6	
2	7.592	7.592	0.000	236539114	50.0	54.8	
						RPD = 7.94	
17 Heptachlor epoxide							
1	7.345	7.346	-0.001	93895568	50.0	48.1	
2	8.030	8.030	0.000	187988419	50.0	53.8	
						RPD = 11.24	
18 trans-Chlordane							
1	7.439	7.440	-0.001	103357576	50.0	48.8	
2	8.179	8.178	0.001	210729089	50.0	56.3	
						RPD = 14.25	
19 cis-Chlordane							
1	7.534	7.535	-0.001	102840431	50.0	48.7	
2	8.293	8.291	0.002	209208047	50.0	55.5	
						RPD = 13.01	
29 4,4'-DDE							
1	7.573	7.574	-0.001	107578532	50.0	50.7	
2	8.393	8.391	0.002	220557917	50.0	52.9	
						RPD = 4.26	
20 Endosulfan I							
1	7.637	7.638	-0.001	93256986	50.0	48.9	
2	8.352	8.352	0.000	187219903	50.0	57.2	
						RPD = 15.55	
23 Dieldrin							
1	7.813	7.813	0.000	103032092	50.0	50.0	
2	8.570	8.570	0.000	199414906	50.0	58.3	
						RPD = 15.30	
37 Endrin							
1	7.987	7.987	0.000	72011479	50.0	49.2	
2	8.825	8.824	0.001	135125558	50.0	58.8	
						RPD = 17.64	
39 4,4'-DDD							
1	8.009	8.010	-0.001	75206685	50.0	51.1	
2	8.855	8.855	0.000	156087348	50.0	54.3	
						RPD = 6.06	
24 Endosulfan II							
1	8.153	8.153	0.000	83847953	50.0	52.5	
2	8.990	8.987	0.003	158542774	50.0	55.5	
						RPD = 5.58	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							
1	8.224	8.224	0.000	68149403	50.0	50.4	
2	9.117	9.115	0.002	126547847	50.0	52.7	
						RPD = 4.47	
41 Endrin aldehyde							
1	8.460	8.460	0.000	73663894	50.0	47.2	
2	9.256	9.255	0.001	152745439	50.0	55.7	
						RPD = 16.40	
30 Methoxychlor							a
1	8.589	8.589	0.000	33923078	50.0	48.6	
2	9.669	9.668	0.001	57655967	50.0	54.3	a
						RPD = 10.96	
33 Endosulfan sulfate							a
1	8.797	8.798	-0.001	82105088	50.0	46.3	
2	9.479	9.478	0.001	167435208	50.0	53.2	a
						RPD = 13.92	
43 Endrin ketone							
1	9.025	9.026	-0.001	85019716	50.0	48.2	
2	9.954	9.953	0.001	155335986	50.0	53.6	
						RPD = 10.70	
$ 45 DCB Decachlorobiphenyl							
1	9.830	9.830	0.000	87952762	50.2	49.5	
2	11.001	11.000	0.001	176667556	50.2	51.5	
						RPD = 3.96	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

OCP_ICV_50_00034	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 01-Mar-2019 16:17:52 Chrom Revision: 2.3 11-Feb-2019 16:31:10

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a041.D

Injection Date: 28-Feb-2019 00:20:20 Instrument ID: TAC045

Lims ID: icv ocp

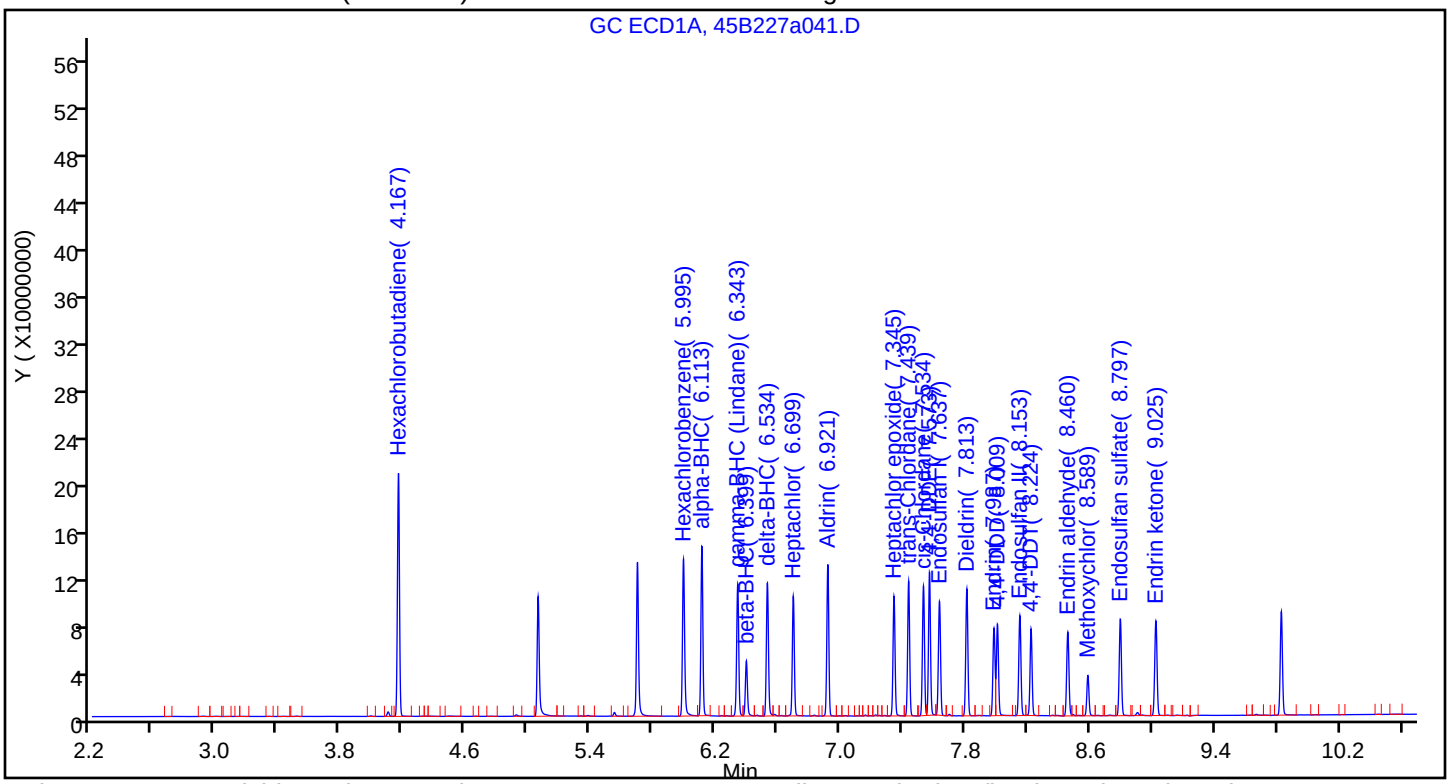
Client ID:

Operator ID: AR ALS Bottle#: 39 Worklist Smp#: 41

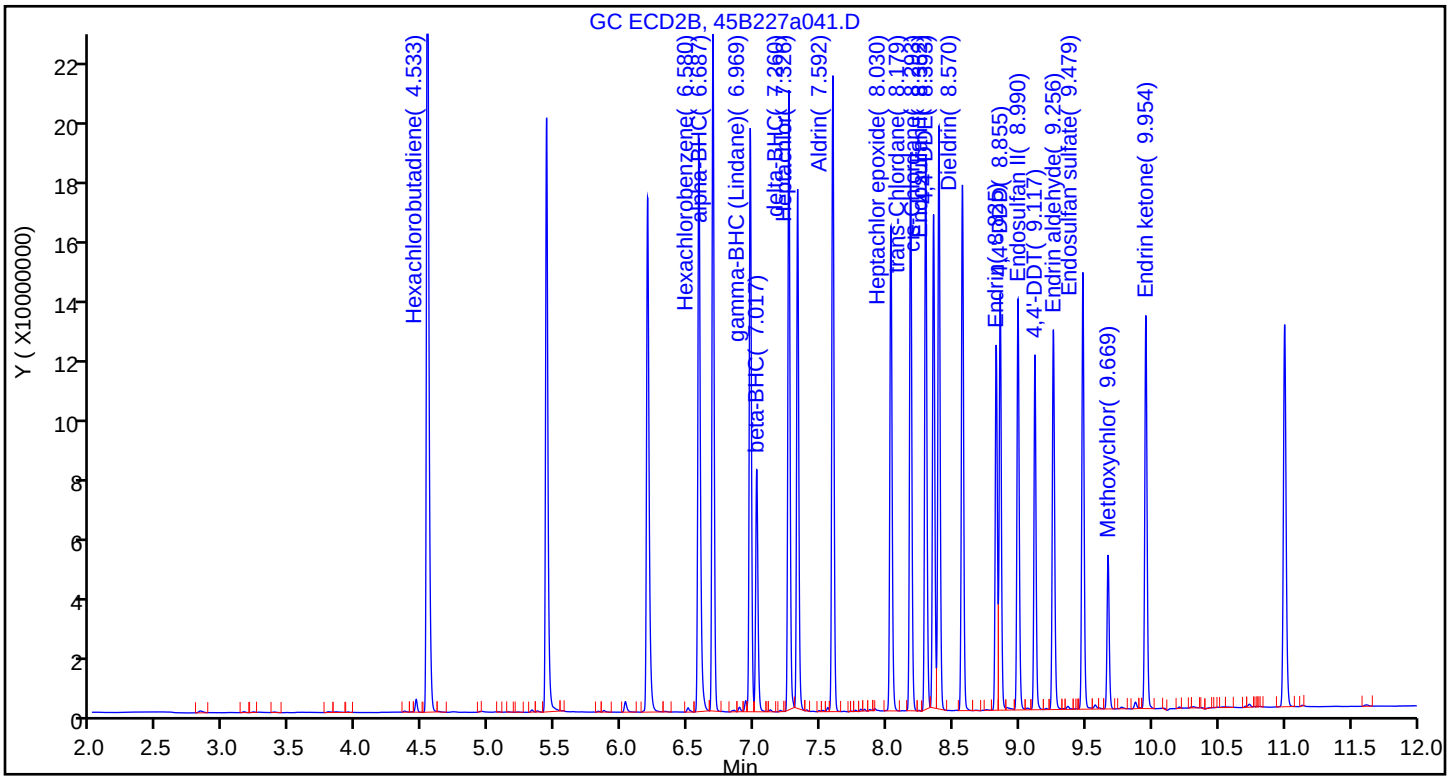
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

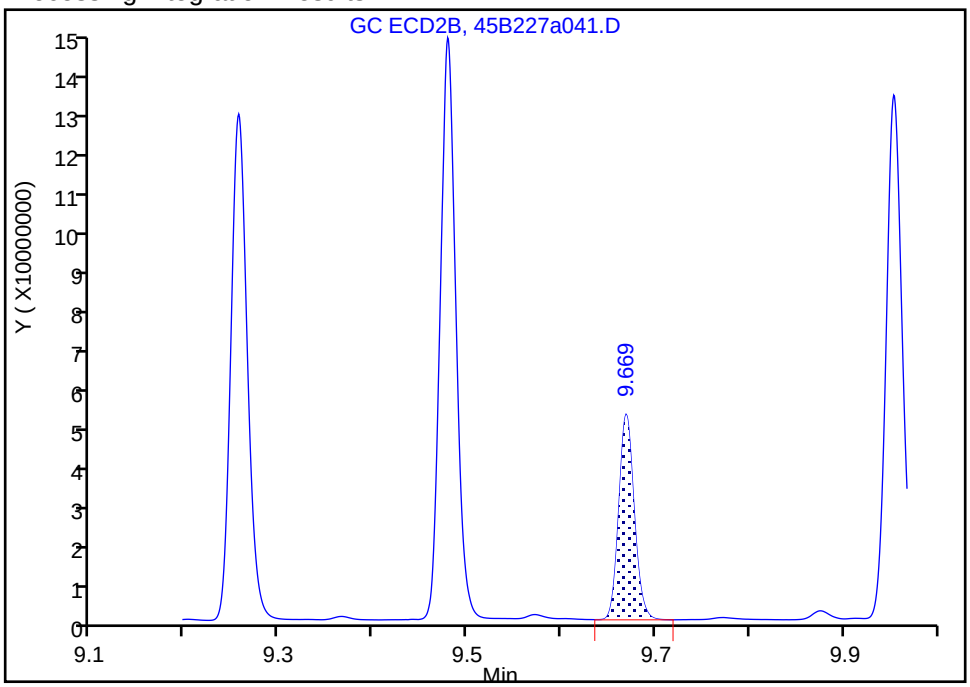
Data File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a041.D				
Injection Date:	28-Feb-2019 00:20:20	Instrument ID:	TAC045		
Lims ID:	icv ocp				
Client ID:					
Operator ID:	AR	ALS Bottle#:	39	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 2

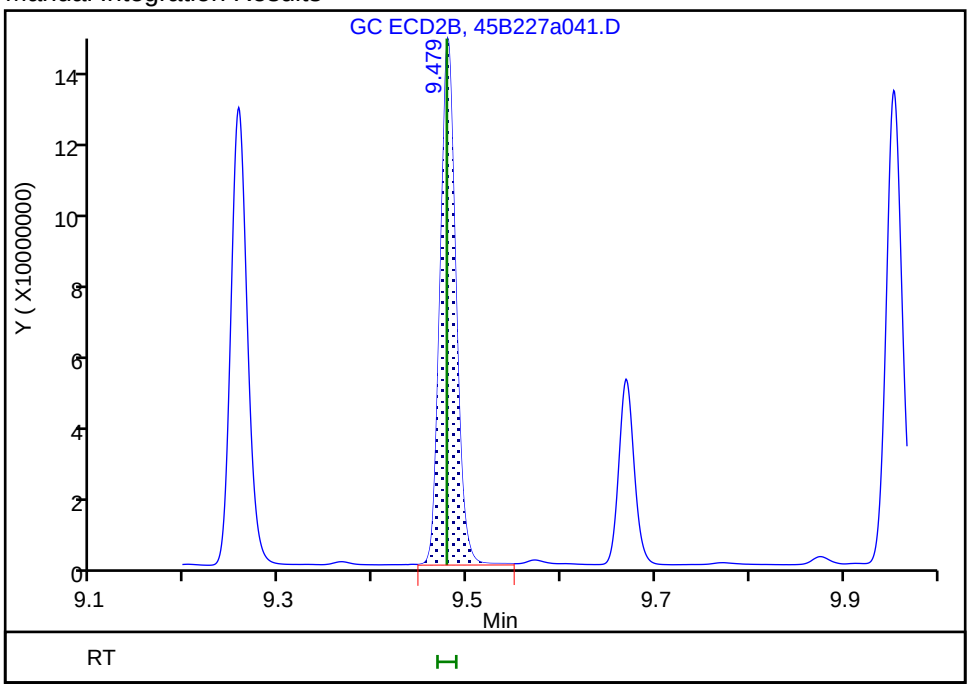
Processing Integration Results

RT: 9.67
Area: 57655967
Amount: 18.327440
Amount Units: ug/L



Manual Integration Results

RT: 9.48
Area: 167435208
Amount: 53.223612
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:15:20
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

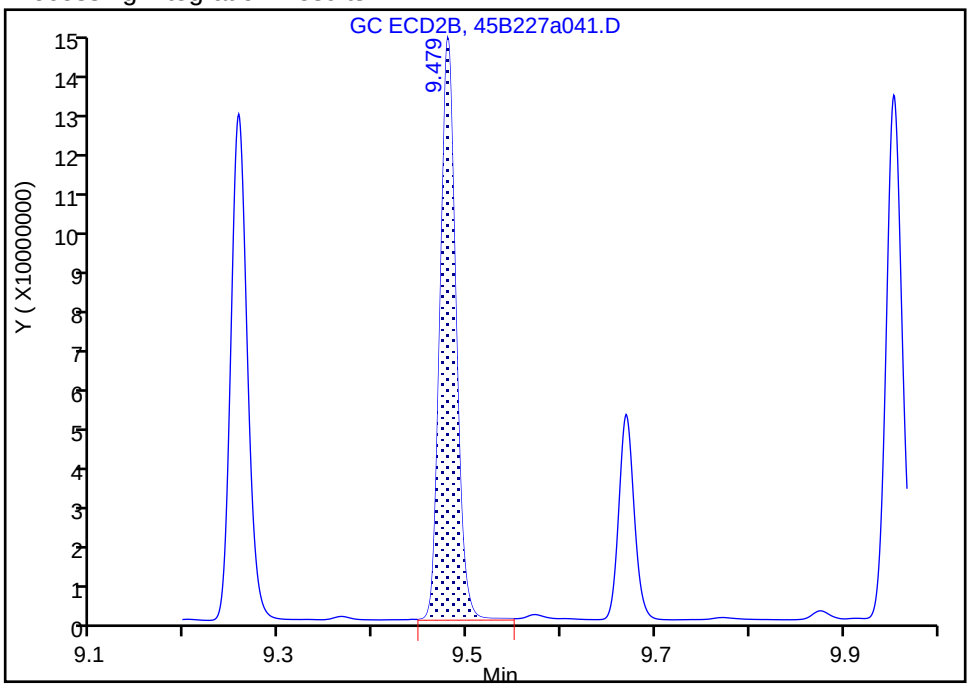
Data File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a041.D
Injection Date: 28-Feb-2019 00:20:20 Instrument ID: TAC045
Lims ID: icv ocp
Client ID:
Operator ID: AR ALS Bottle#: 39 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

30 Methoxychlor, CAS: 72-43-5

Signal: 2

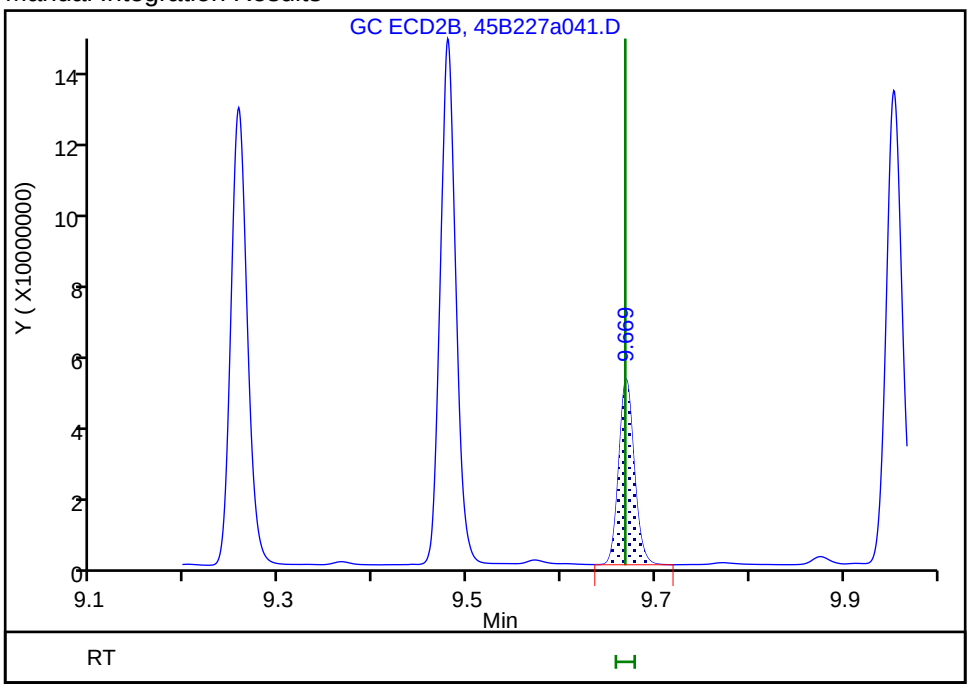
Processing Integration Results

RT: 9.48
Area: 167435208
Amount: 157.6589
Amount Units: ug/L



Manual Integration Results

RT: 9.67
Area: 57655967
Amount: 54.289512
Amount Units: ug/L



Reviewer: ruslandera, 01-Mar-2019 16:15:18
Audit Action: Assigned Compound ID Audit Reason:

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306340/6 Calibration Date: 07/23/2019 10:39

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45F072319a007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Ave	1.845	1.880		50.9	50.0	1.9	20.0
2,4'-DDE	Qua1		1.518		59.3	50.0	18.7	20.0
trans-Nonachlor	Ave	1.925	2.262		58.7	50.0	17.5	20.0
2,4'-DDD	Qua1		1.071		59.2	50.0	18.3	20.0
2,4'-DDT	Qua1		1.107		54.5	50.0	9.0	20.0
cis-Nonachlor	Lin1		2.345		63.1	50.0	26.1*	20.0
Mirex	Ave	1.384	1.515		54.7	50.0	9.4	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306340/6 Calibration Date: 07/23/2019 10:39

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45F072319a007.D

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	7.22	7.21	7.23
2,4'-DDE	7.28	7.27	7.29
trans-Nonachlor	7.47	7.46	7.48
2,4'-DDD	7.65	7.64	7.66
2,4'-DDT	7.84	7.83	7.85
cis-Nonachlor	7.95	7.94	7.96
Mirex	8.70	8.69	8.71

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a007.D
Lims ID: CCV EXT
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 10:39:29 ALS Bottle#: 4 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccv ext
Operator ID: erz Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:38:02 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 12:46:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.019	5.019	0.000	104338891	100.0	100.0	
2	5.378	5.378	0.000	417090551	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.224	7.224	0.000	98057384	50.0	50.9	
2	7.882	7.882	0.000	277742915	50.0	43.0	
						RPD = 16.84	
27 2,4'-DDE							M
1	7.279	7.279	0.000	79178009	50.0	59.3	M
2	8.082	8.082	0.000	195455020	50.0	47.6	
						RPD = 21.85	
28 trans-Nonachlor							
1	7.470	7.470	0.000	117985413	50.0	58.7	
2	8.168	8.168	0.000	288913983	50.0	44.7	
						RPD = 27.03	
31 2,4'-DDD							
1	7.648	7.648	0.000	55868286	50.0	59.2	
2	8.484	8.484	0.000	145450354	50.0	43.9	
						RPD = 29.61	
36 2,4'-DDT							
1	7.840	7.840	0.000	57766558	50.0	54.5	
2	8.735	8.735	0.000	136816938	50.0	42.2	
						RPD = 25.42	
38 cis-Nonachlor							M
1	7.954	7.954	0.000	122334034	50.0	63.1	M
2	8.788	8.788	0.000	306789816	50.0	45.1	
						RPD = 33.26	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.704	8.704	0.000	79038633	50.0	54.7	
2	9.867	9.867	0.000	185998929	50.0	38.5	
						RPD = 34.80	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00017	Amount Added: 1.00	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Jul-2019 14:38:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a007.D

Injection Date: 23-Jul-2019 10:39:29 Instrument ID: TAC045

Lims ID: CCV EXT

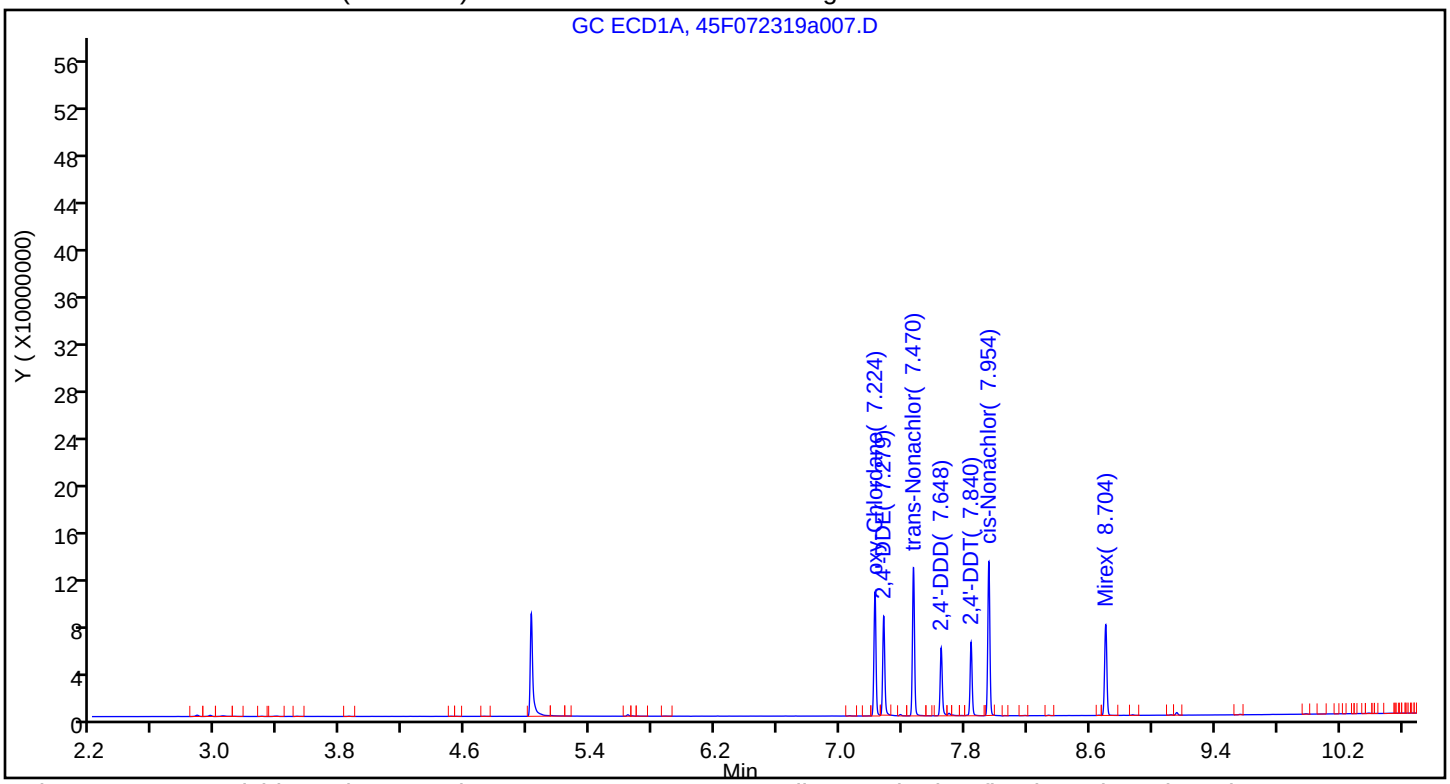
Client ID:

Operator ID: erz ALS Bottle#: 4 Worklist Smp#: 6

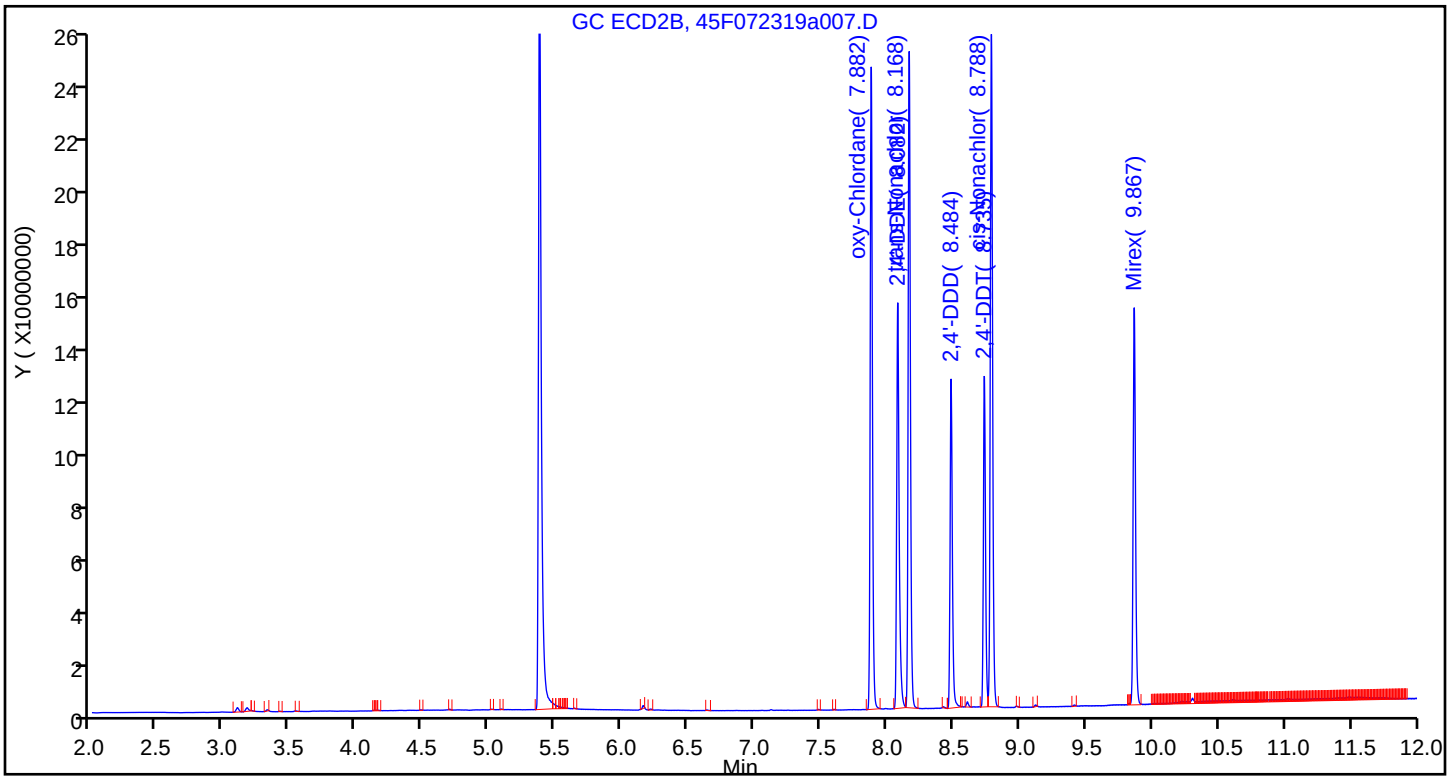
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

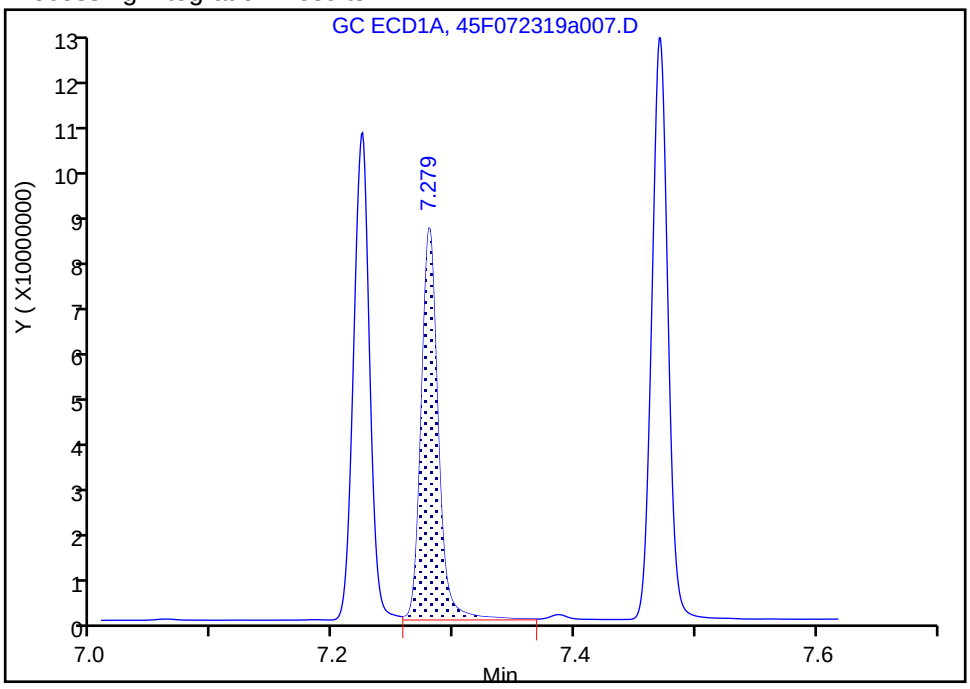
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a007.D				
Injection Date:	23-Jul-2019 10:39:29	Instrument ID:	TAC045		
Lims ID:	CCV EXT				
Client ID:					
Operator ID:	erz	ALS Bottle#:	4	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

27 2,4'-DDE, CAS: 3424-82-6

Signal: 1

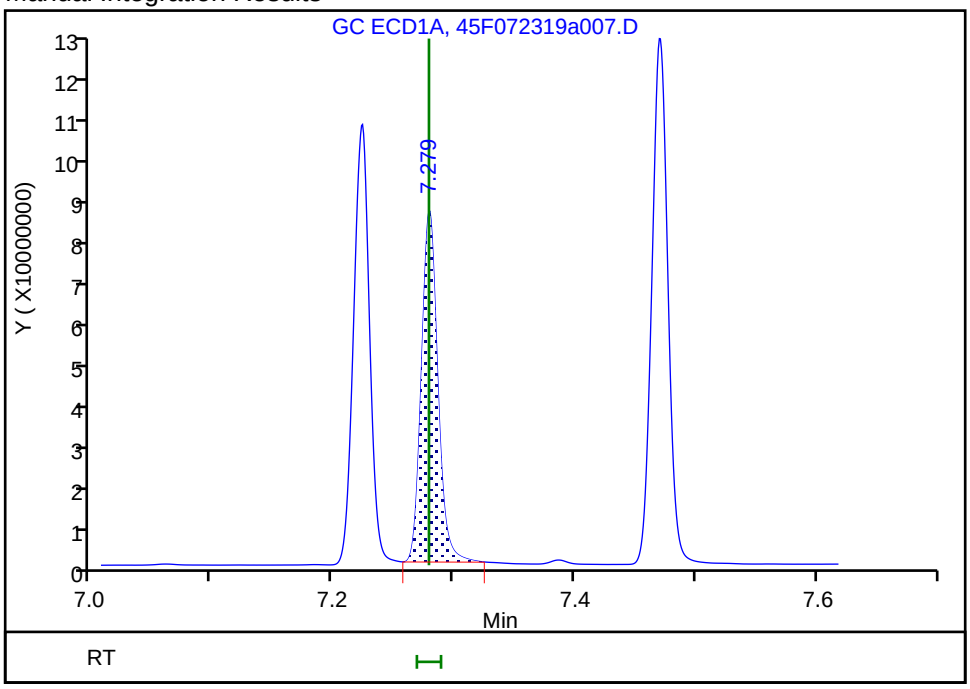
Processing Integration Results

RT: 7.28
Area: 82876696
Amount: 62.140637
Amount Units: ug/L



Manual Integration Results

RT: 7.28
Area: 79178009
Amount: 59.337623
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 11:12:38
Audit Action: Manually Integrated Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

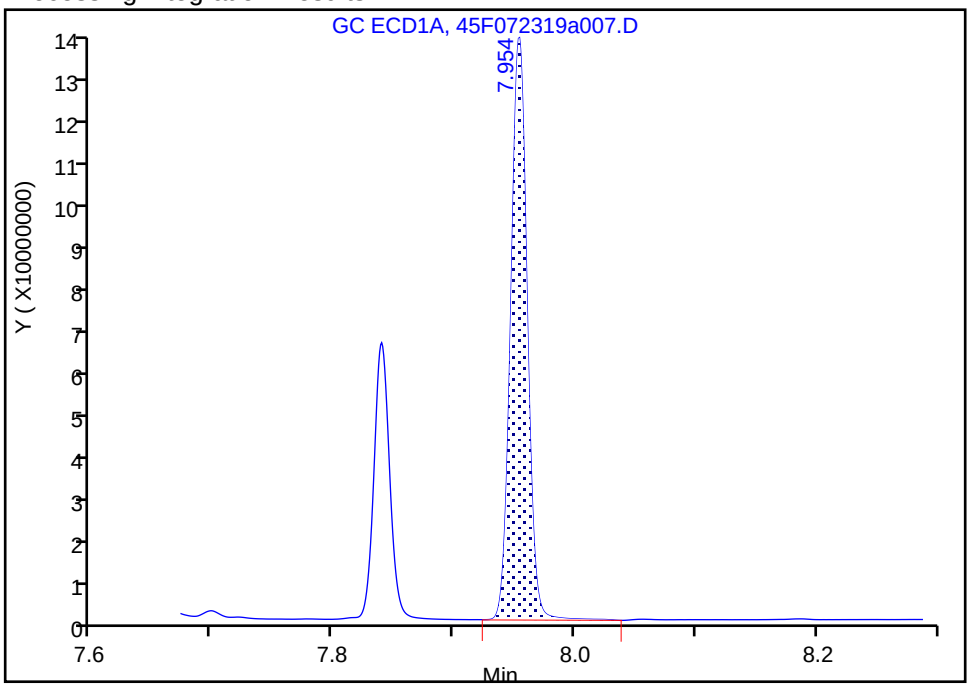
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a007.D				
Injection Date:	23-Jul-2019 10:39:29	Instrument ID:	TAC045		
Lims ID:	CCV EXT				
Client ID:					
Operator ID:	erz	ALS Bottle#:	4	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

38 cis-Nonachlor, CAS: 5103-73-1

Signal: 1

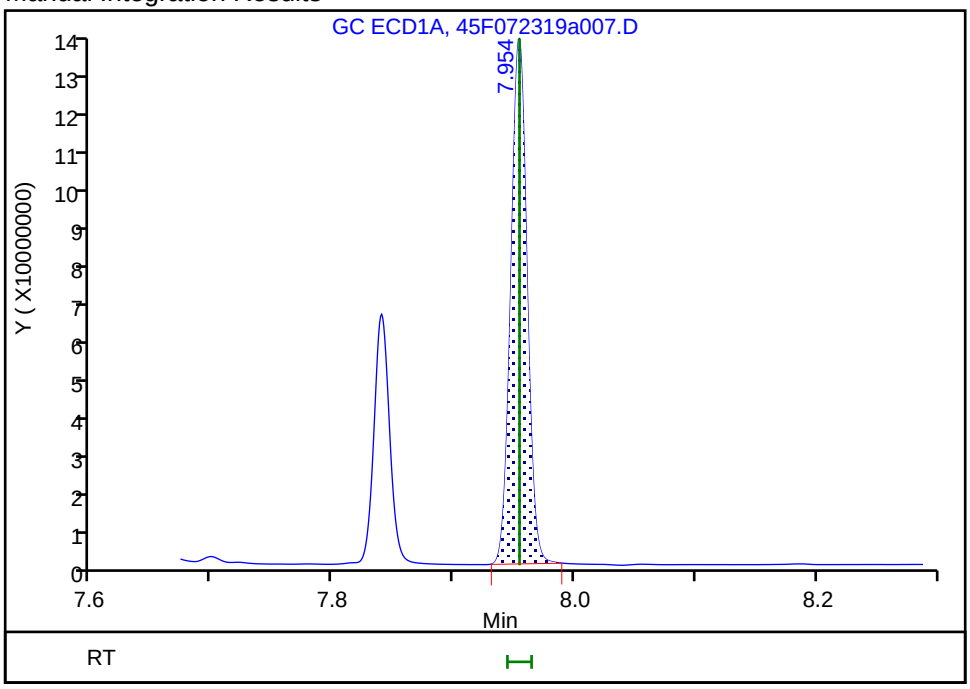
Processing Integration Results

RT: 7.95
Area: 124049763
Amount: 63.962344
Amount Units: ug/L



Manual Integration Results

RT: 7.95
Area: 122334034
Amount: 63.072191
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 11:13:07
Audit Action: Manually Integrated Audit Reason: Peak Tail

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306340/6 Calibration Date: 07/23/2019 10:39

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45F072319a007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
oxy-Chlordane	Ave	1.548	1.332		43.0	50.0	-14.0	20.0
2,4'-DDE	Ave	0.9835	0.9372		47.6	50.0	-4.7	20.0
trans-Nonachlor	Ave	1.548	1.385		44.7	50.0	-10.5	20.0
2,4'-DDD	Lin2		0.6975		43.9	50.0	-12.2	20.0
2,4'-DDT	Ave	0.7771	0.6561		42.2	50.0	-15.6	20.0
cis-Nonachlor	Ave	1.631	1.471		45.1	50.0	-9.8	20.0
Mirex	Ave	1.158	0.8919			50.0	-23.0*	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306340/6 Calibration Date: 07/23/2019 10:39

Instrument ID: TAC045 Calib Start Date: 02/27/2019 17:34

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 20:29

Lab File ID: 45F072319a007.D

Analyte	RT	RT WINDOW	
		FROM	TO
oxy-Chlordane	7.88	7.87	7.89
2,4'-DDE	8.08	8.07	8.09
trans-Nonachlor	8.17	8.16	8.18
2,4'-DDD	8.48	8.47	8.49
2,4'-DDT	8.74	8.73	8.75
cis-Nonachlor	8.79	8.78	8.80
Mirex	9.87	9.86	9.88

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a007.D
Lims ID: CCV EXT
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 10:39:29 ALS Bottle#: 4 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccv ext
Operator ID: erz Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub10

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:38:02 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 12:46:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.019	5.019	0.000	104338891	100.0	100.0	
2	5.378	5.378	0.000	417090551	100.0	100.0	
						RPD = 0.00	
26 oxy-Chlordane							
1	7.224	7.224	0.000	98057384	50.0	50.9	
2	7.882	7.882	0.000	277742915	50.0	43.0	
						RPD = 16.84	
27 2,4'-DDE							M
1	7.279	7.279	0.000	79178009	50.0	59.3	M
2	8.082	8.082	0.000	195455020	50.0	47.6	
						RPD = 21.85	
28 trans-Nonachlor							
1	7.470	7.470	0.000	117985413	50.0	58.7	
2	8.168	8.168	0.000	288913983	50.0	44.7	
						RPD = 27.03	
31 2,4'-DDD							
1	7.648	7.648	0.000	55868286	50.0	59.2	
2	8.484	8.484	0.000	145450354	50.0	43.9	
						RPD = 29.61	
36 2,4'-DDT							
1	7.840	7.840	0.000	57766558	50.0	54.5	
2	8.735	8.735	0.000	136816938	50.0	42.2	
						RPD = 25.42	
38 cis-Nonachlor							M
1	7.954	7.954	0.000	122334034	50.0	63.1	M
2	8.788	8.788	0.000	306789816	50.0	45.1	
						RPD = 33.26	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
42 Mirex							
1	8.704	8.704	0.000	79038633	50.0	54.7	
2	9.867	9.867	0.000	185998929	50.0	38.5	
						RPD = 34.80	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

EXTOCP_IC50_00017	Amount Added: 1.00	Units: ml	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Jul-2019 14:38:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a007.D

Injection Date: 23-Jul-2019 10:39:29 Instrument ID: TAC045

Lims ID: CCV EXT

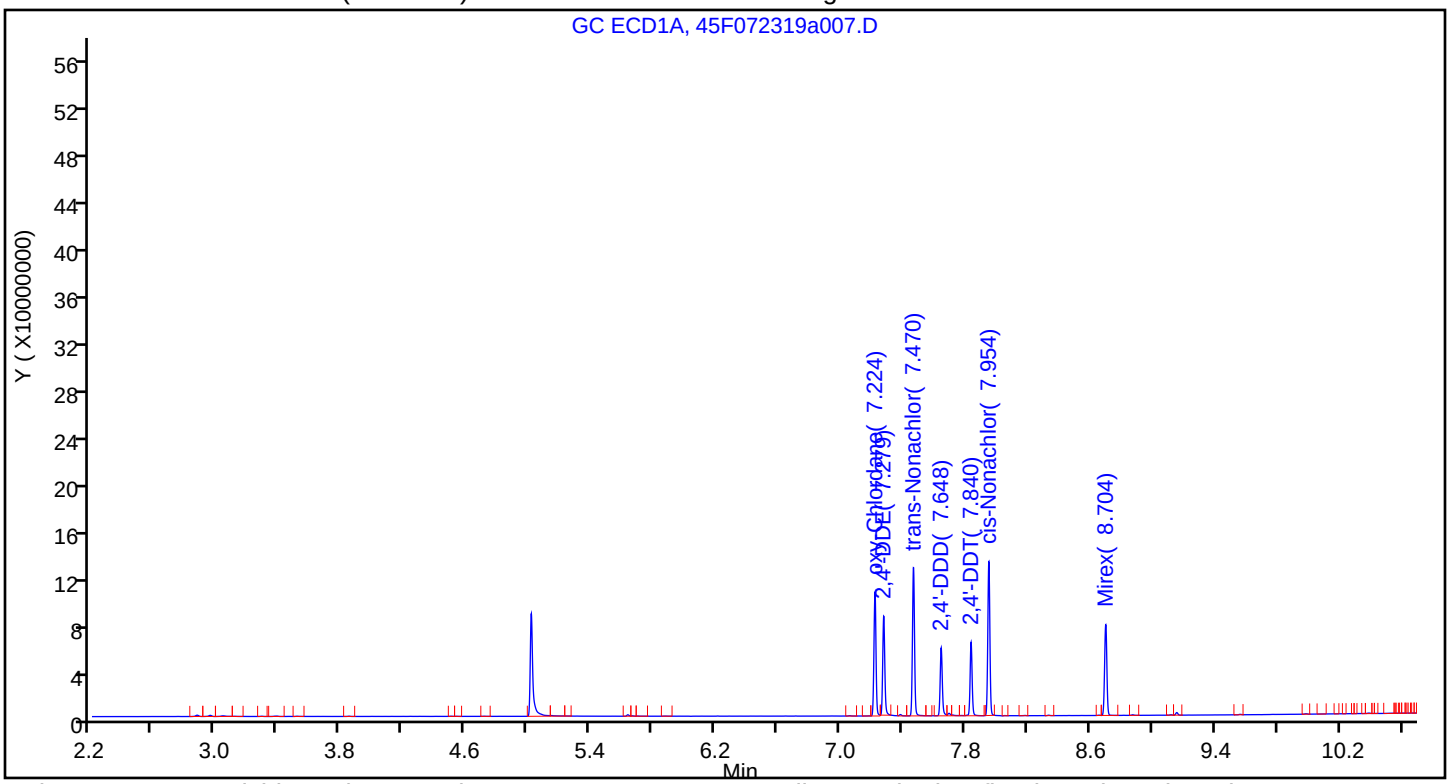
Client ID:

Operator ID: erz ALS Bottle#: 4 Worklist Smp#: 6

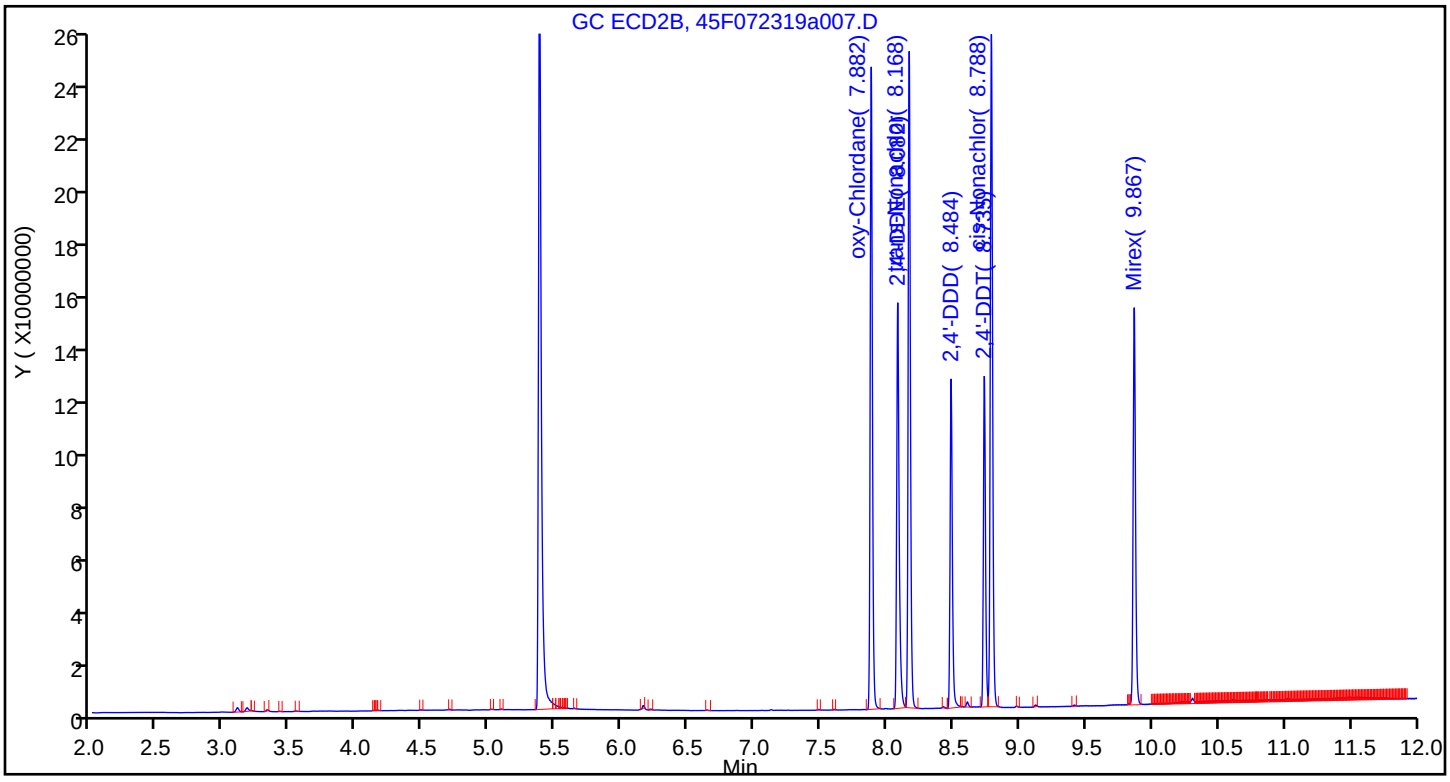
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306340/7 Calibration Date: 07/23/2019 11:21

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a008.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	3.641	5.158		70.8	50.0	41.7*	20.0
Hexachlorobenzene	Ave	2.666	3.221		60.4	50.0	20.8*	20.0
alpha-BHC	Ave	2.515	3.154		62.7	50.0	25.4*	20.0
gamma-BHC (Lindane)	Ave	2.114	2.539		60.1	50.0	20.1*	20.0
beta-BHC	Ave	0.9456	1.031		54.5	50.0	9.0	20.0
delta-BHC	Ave	2.180	2.631		60.3	50.0	20.7*	20.0
Heptachlor	Ave	1.909	2.185		57.2	50.0	14.4	20.0
Aldrin	Ave	2.250	3.168		70.4	50.0	40.8*	20.0
Heptachlor epoxide	Ave	1.930	2.356		61.1	50.0	22.1*	20.0
trans-Chlordane	Ave	2.093	2.935		70.1	50.0	40.2*	20.0
cis-Chlordane	Ave	2.086	2.915		69.8	50.0	39.7*	20.0
4,4'-DDE	Ave	2.097	2.929		69.8	50.0	39.7*	20.0
Endosulfan I	Ave	1.882	2.521		67.0	50.0	33.9*	20.0
Dieldrin	Ave	2.036	2.752		67.6	50.0	35.2*	20.0
Endrin	Ave	1.445	2.153		74.5	50.0	49.0*	20.0
4,4'-DDD	Ave	1.453	1.933		66.5	50.0	33.0*	20.0
Endosulfan II	Ave	1.577	2.085		66.1	50.0	32.2*	20.0
4,4'-DDT	Ave	1.336	1.586		59.3	50.0	18.7	20.0
Endrin aldehyde	Ave	1.540	1.849		60.0	50.0	20.0	20.0
Methoxychlor	Ave	0.6887	0.7646		55.5	50.0	11.0	20.0
Endosulfan sulfate	Ave	1.751	2.339		66.8	50.0	33.6*	20.0
Endrin ketone	Ave	1.743	2.124		60.9	50.0	21.8*	20.0
Tetrachloro-m-xylene	Ave	2.399	2.956		62.0	50.4	23.2*	20.0
DCB Decachlorobiphenyl	Ave	1.754	2.298		65.7	50.2	31.0*	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306340/7 Calibration Date: 07/23/2019 11:21

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a008.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobutadiene	4.12	4.11	4.13
Hexachlorobenzene	5.96	5.95	5.97
alpha-BHC	6.07	6.06	6.08
gamma-BHC (Lindane)	6.30	6.29	6.31
beta-BHC	6.36	6.35	6.37
delta-BHC	6.49	6.48	6.50
Heptachlor	6.65	6.64	6.66
Aldrin	6.87	6.86	6.88
Heptachlor epoxide	7.29	7.28	7.30
trans-Chlordane	7.39	7.38	7.40
cis-Chlordane	7.48	7.47	7.49
4,4'-DDE	7.52	7.51	7.53
Endosulfan I	7.58	7.57	7.59
Dieldrin	7.76	7.75	7.77
Endrin	7.93	7.92	7.94
4,4'-DDD	7.96	7.95	7.97
Endosulfan II	8.09	8.08	8.10
4,4'-DDT	8.17	8.16	8.18
Endrin aldehyde	8.40	8.39	8.41
Methoxychlor	8.54	8.53	8.55
Endosulfan sulfate	8.74	8.73	8.75
Endrin ketone	8.96	8.95	8.97
Tetrachloro-m-xylene	5.66	5.65	5.67
DCB Decachlorobiphenyl	9.77	9.76	9.78

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 11:21:23 ALS Bottle#: 5 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: erz Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:38:04 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 12:53:31

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							Ma
1	4.124	4.124	0.000	234568072	50.0	70.8	M
2	4.478	4.478	0.000	556286873	50.0	57.5	a
						RPD = 20.81	
* 3 1-Bromo-2-nitrobenzene							
1	5.019	5.019	0.000	90947580	100.0	100.0	
2	5.380	5.380	0.000	353937924	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.661	5.661	0.000	135364989	50.4	62.0	M
2	6.137	6.137	0.000	314207386	50.4	53.9	
						RPD = 14.09	
11 Hexachlorobenzene							M
1	5.956	5.956	0.000	146460062	50.0	60.4	M
2	6.523	6.523	0.000	402380280	50.0	57.3	
						RPD = 5.22	
4 alpha-BHC							
1	6.068	6.068	0.000	143414584	50.0	62.7	
2	6.624	6.624	0.000	410192735	50.0	56.6	
						RPD = 10.20	
6 gamma-BHC (Lindane)							
1	6.296	6.296	0.000	115465181	50.0	60.1	
2	6.903	6.903	0.000	330441481	50.0	51.4	
						RPD = 15.46	
7 beta-BHC							
1	6.358	6.358	0.000	46890600	50.0	54.5	
2	6.959	6.959	0.000	142341154	50.0	52.2	
						RPD = 4.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							M
1	6.491	6.491	0.000	119662856	50.0	60.3	M
2	7.197	7.197	0.000	338062378	50.0	51.2	
						RPD = 16.41	
10 Heptachlor							
1	6.650	6.650	0.000	99356400	50.0	57.2	
2	7.255	7.255	0.000	288038336	50.0	54.7	
						RPD = 4.56	
12 Aldrin							
1	6.870	6.870	0.000	144039388	50.0	70.4	
2	7.519	7.519	0.000	351187770	50.0	54.5	
						RPD = 25.44	
17 Heptachlor epoxide							M
1	7.291	7.291	0.000	107141423	50.0	61.1	M
2	7.954	7.954	0.000	295291809	50.0	56.5	
						RPD = 7.67	
18 trans-Chlordane							
1	7.386	7.386	0.000	133477200	50.0	70.1	
2	8.103	8.103	0.000	317282147	50.0	56.7	
						RPD = 21.18	
19 cis-Chlordane							
1	7.481	7.481	0.000	132539747	50.0	69.8	
2	8.216	8.216	0.000	310473283	50.0	55.1	
						RPD = 23.64	
29 4,4'-DDE							
1	7.523	7.523	0.000	133204751	50.0	69.8	
2	8.316	8.316	0.000	351868872	50.0	56.3	
						RPD = 21.43	
20 Endosulfan I							
1	7.581	7.581	0.000	114629790	50.0	67.0	
2	8.274	8.274	0.000	275803233	50.0	56.4	
						RPD = 17.16	
23 Dieldrin							
1	7.755	7.755	0.000	125142245	50.0	67.6	
2	8.490	8.490	0.000	298138505	50.0	58.3	
						RPD = 14.75	
37 Endrin							
1	7.928	7.928	0.000	97890362	50.0	74.5	
2	8.743	8.743	0.000	231215686	50.0	67.3	
						RPD = 10.17	
39 4,4'-DDD							
1	7.956	7.956	0.000	87886823	50.0	66.5	
2	8.778	8.778	0.000	231537284	50.0	53.9	
						RPD = 20.86	
24 Endosulfan II							
1	8.094	8.094	0.000	94791291	50.0	66.1	
2	8.909	8.909	0.000	238210077	50.0	55.8	
						RPD = 16.82	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							M
1	8.170	8.170	0.000	72134027	50.0	59.3	M
2	9.038	9.038	0.000	171843997	50.0	48.1	
						RPD = 20.98	
41 Endrin aldehyde							M
1	8.401	8.401	0.000	84061326	50.0	60.0	M
2	9.175	9.175	0.000	206343581	50.0	50.3	
						RPD = 17.53	
30 Methoxychlor							
1	8.535	8.535	0.000	34768191	50.0	55.5	
2	9.587	9.587	0.000	86587549	50.0	54.6	
						RPD = 1.70	
33 Endosulfan sulfate							M
1	8.736	8.736	0.000	106378710	50.0	66.8	M
2	9.397	9.397	0.000	260029104	50.0	55.3	
						RPD = 18.77	
43 Endrin ketone							
1	8.963	8.963	0.000	96582345	50.0	60.9	
2	9.869	9.869	0.000	236515446	50.0	54.6	
						RPD = 10.87	
$ 45 DCB Decachlorobiphenyl							
1	9.771	9.771	0.000	104795179	50.2	65.7	
2	10.899	10.899	0.000	286524439	50.2	55.9	
						RPD = 16.05	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00028	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Jul-2019 14:38:05 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D

Injection Date: 23-Jul-2019 11:21:23 Instrument ID: TAC045

Lims ID: CCVIS

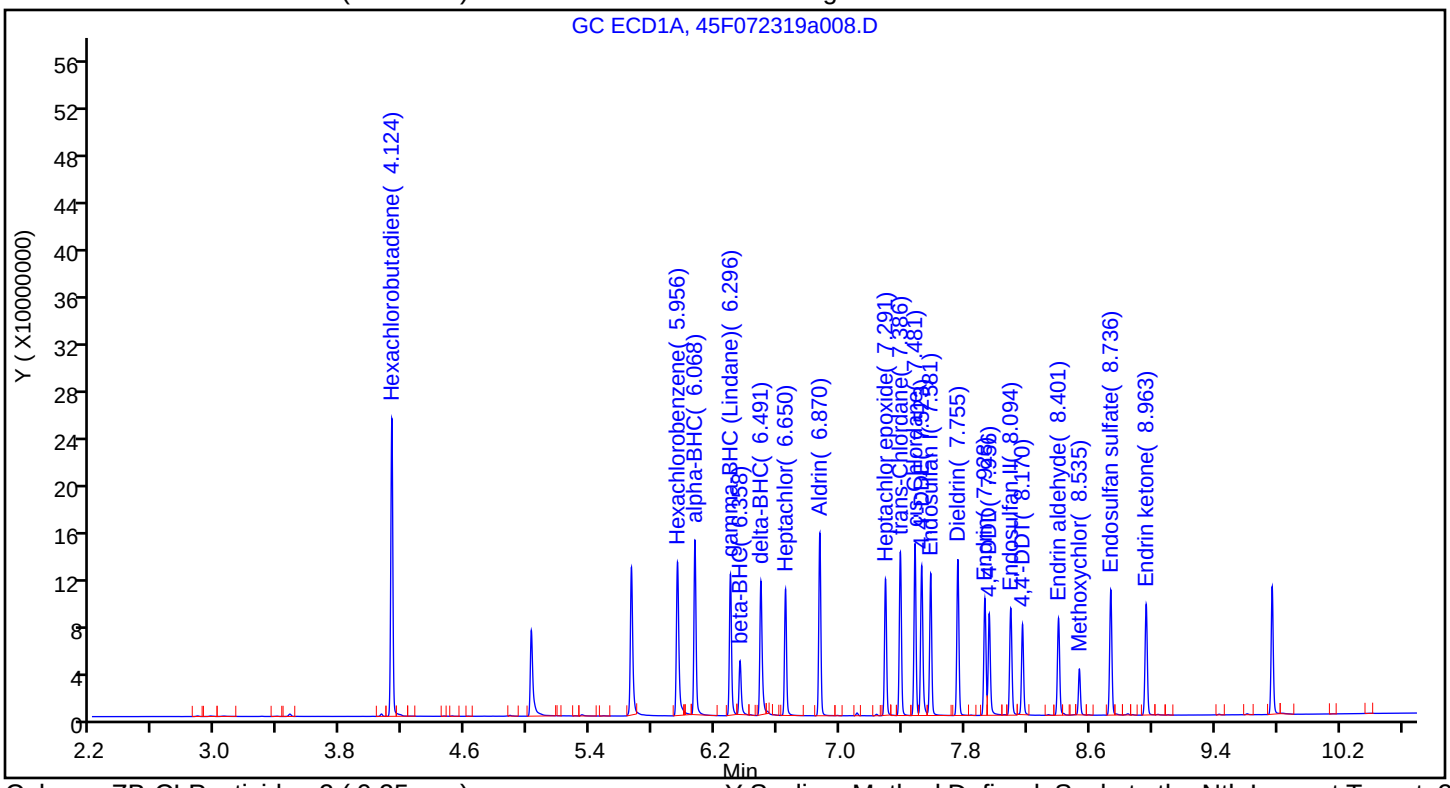
Client ID:

Operator ID: erz ALS Bottle#: 5 Worklist Smp#: 7

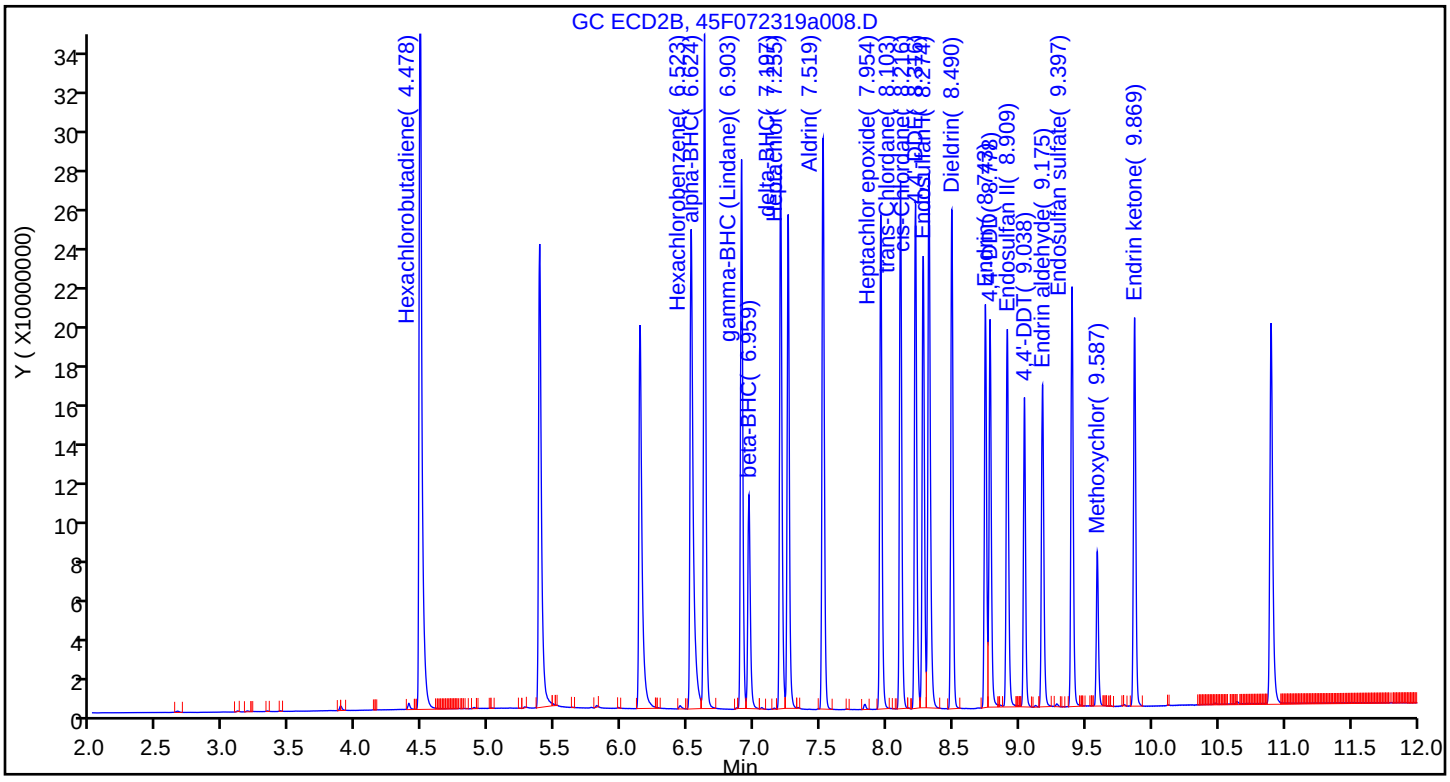
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

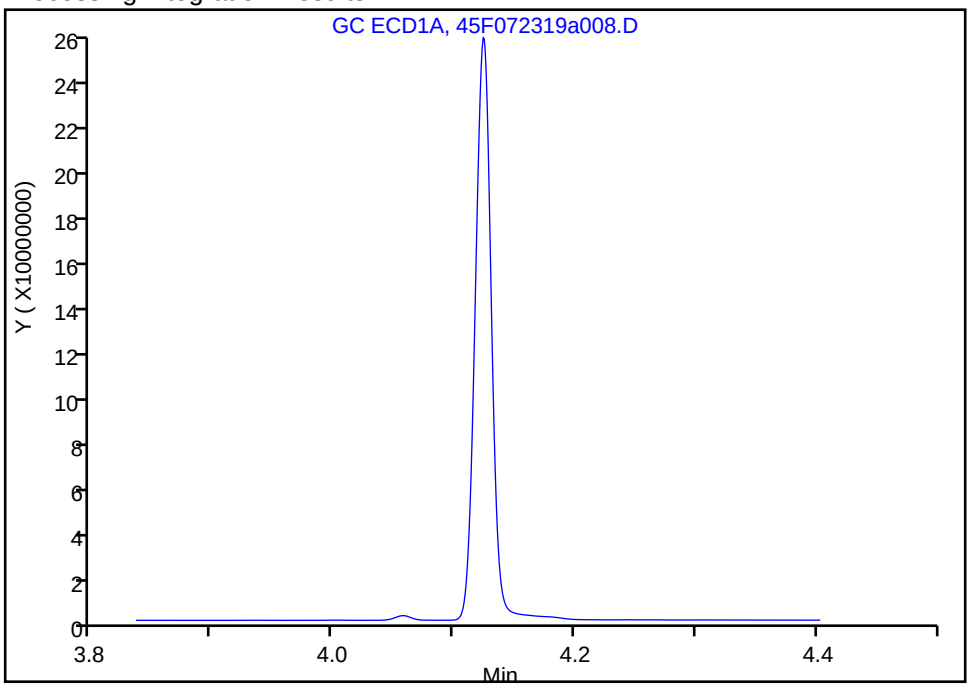
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

1 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

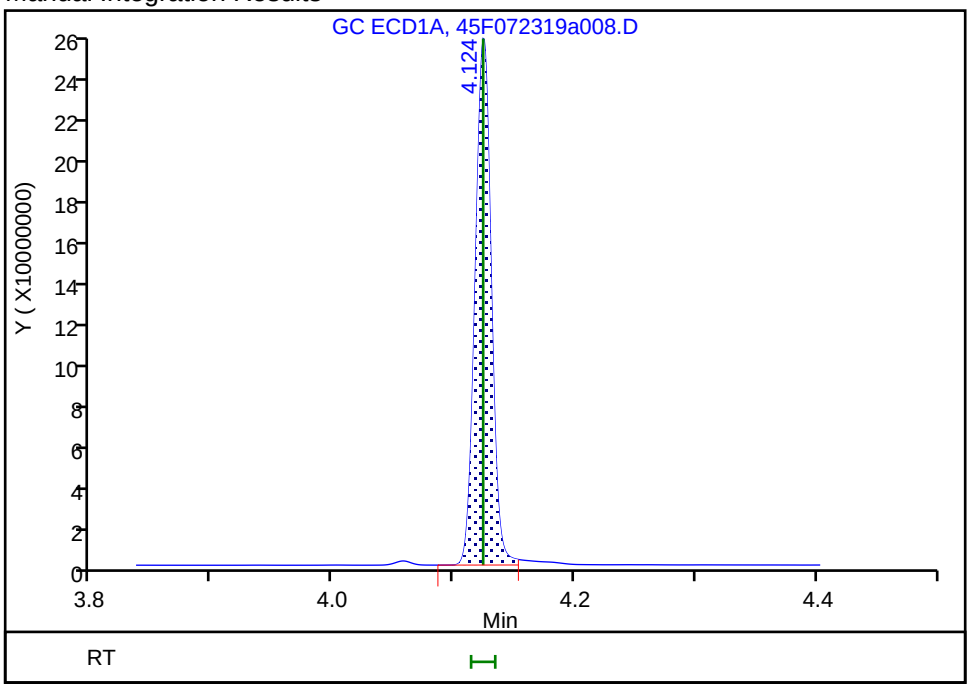
Not Detected
Expected RT: 4.12

Processing Integration Results



Manual Integration Results

RT: 4.12
Area: 234568072
Amount: 70.836495
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:53:14
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

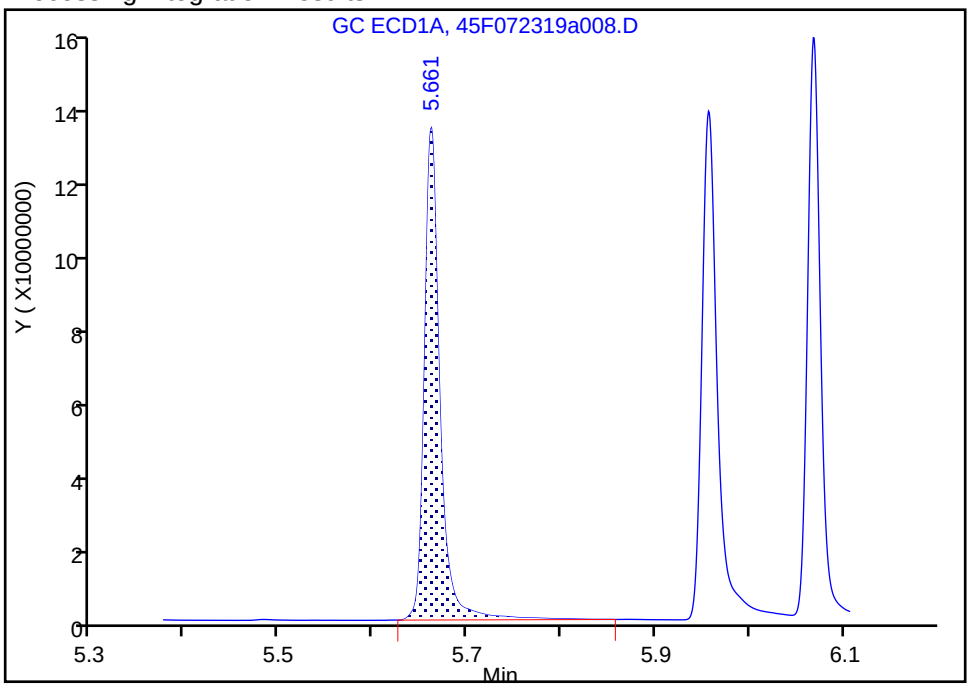
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

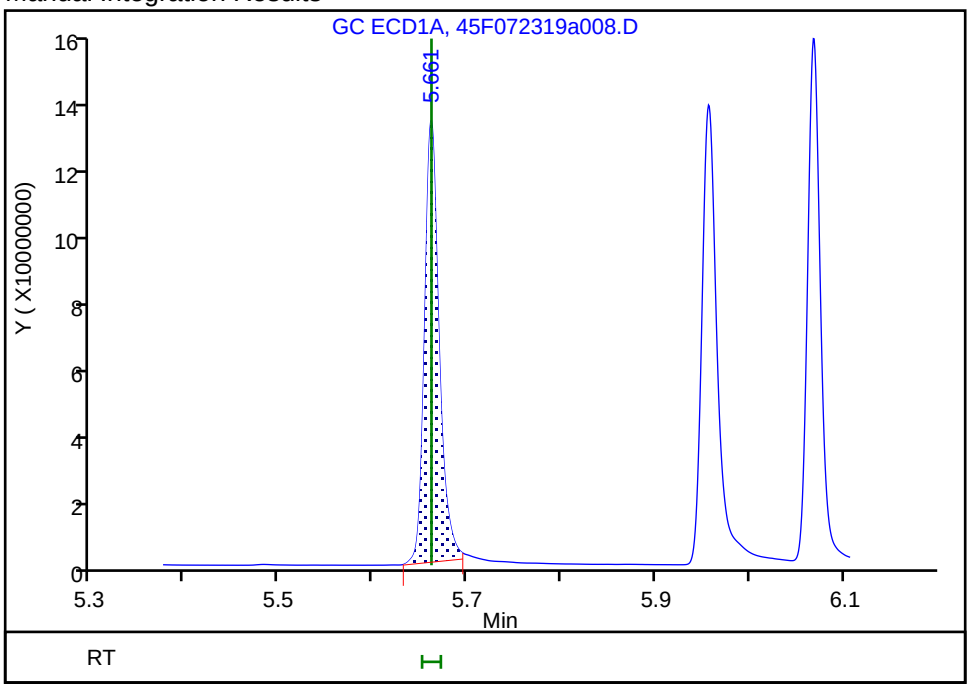
Processing Integration Results

RT: 5.66
Area: 144938131
Amount: 66.426736
Amount Units: ug/L



Manual Integration Results

RT: 5.66
Area: 135364989
Amount: 62.039260
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:52:37

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

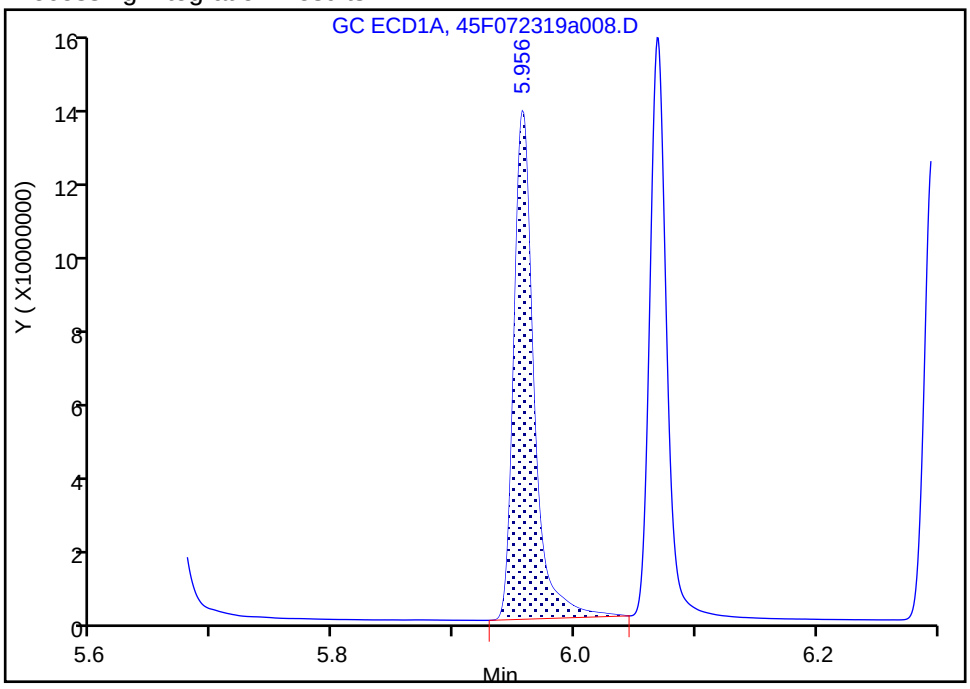
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

11 Hexachlorobenzene, CAS: 118-74-1

Signal: 1

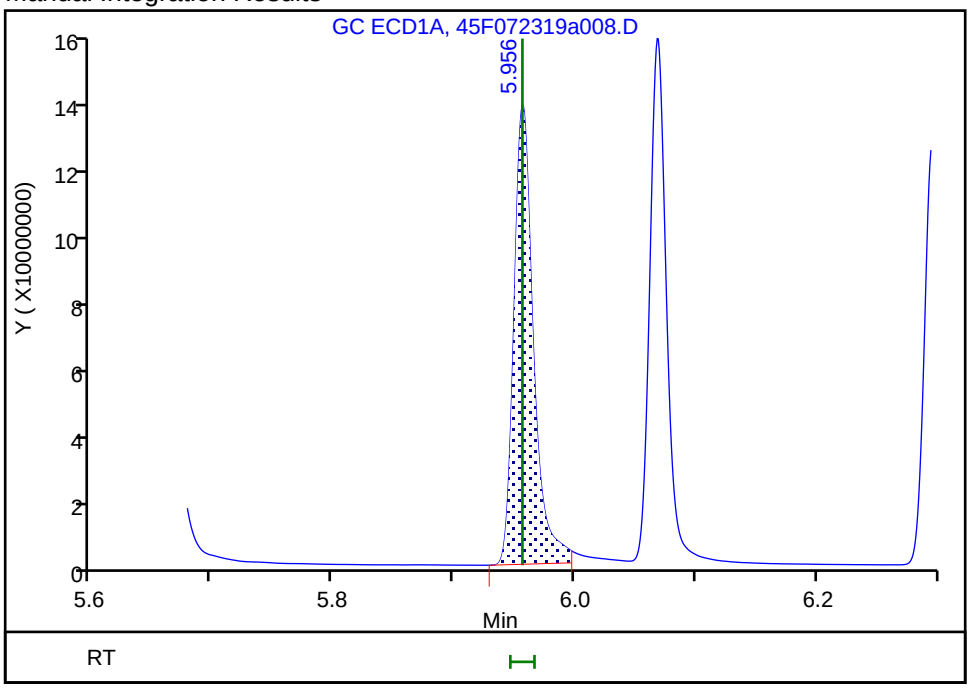
Processing Integration Results

RT: 5.96
Area: 149830313
Amount: 61.794141
Amount Units: ug/L



Manual Integration Results

RT: 5.96
Area: 146460062
Amount: 60.404157
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:51:46

Audit Action: Split an Integrated Peak Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

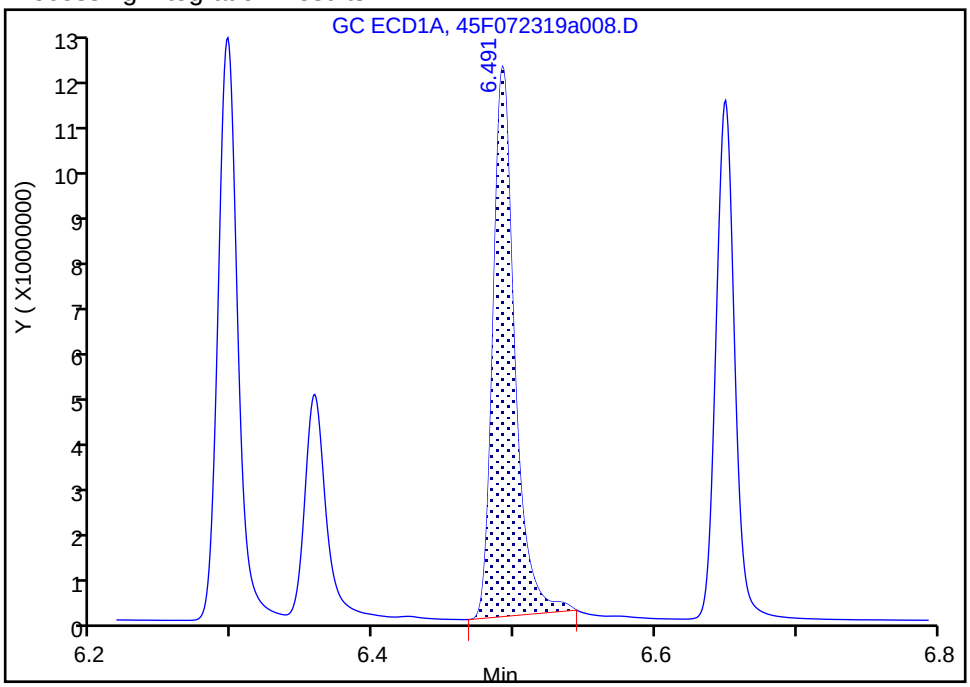
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

8 delta-BHC, CAS: 319-86-8

Signal: 1

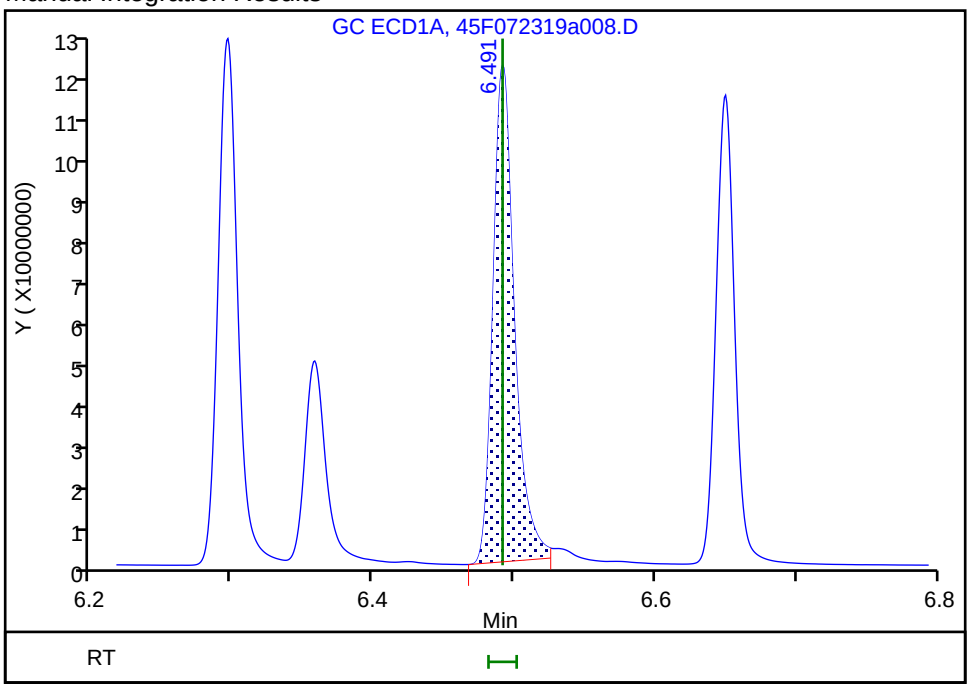
Processing Integration Results

RT: 6.49
Area: 121305775
Amount: 61.170305
Amount Units: ug/L



Manual Integration Results

RT: 6.49
Area: 119662856
Amount: 60.341838
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:51:18

Audit Action: Split an Integrated Peak Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

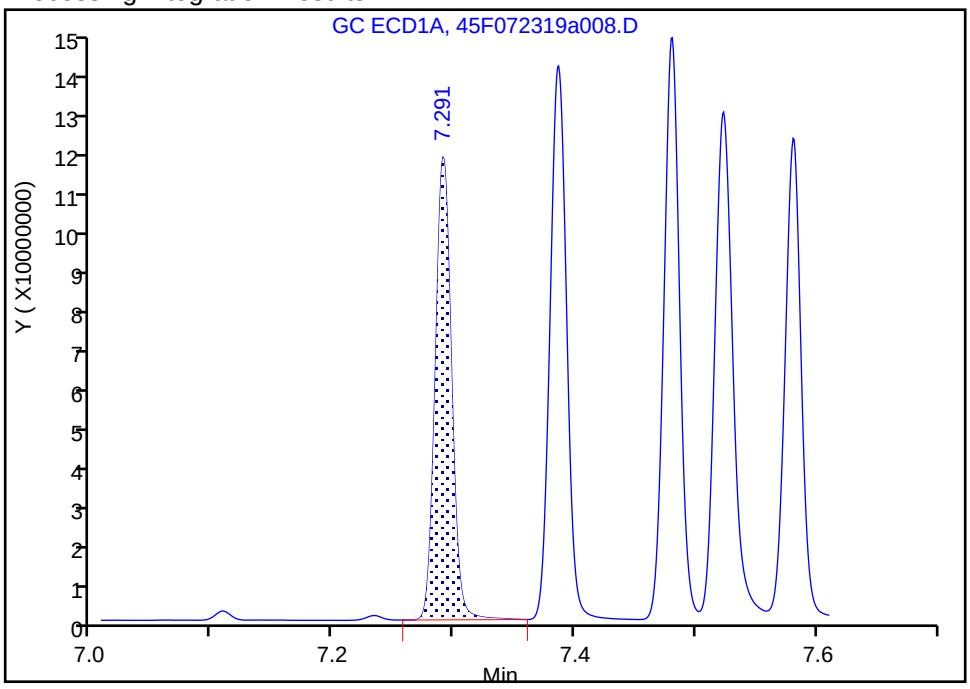
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

17 Heptachlor epoxide, CAS: 1024-57-3

Signal: 1

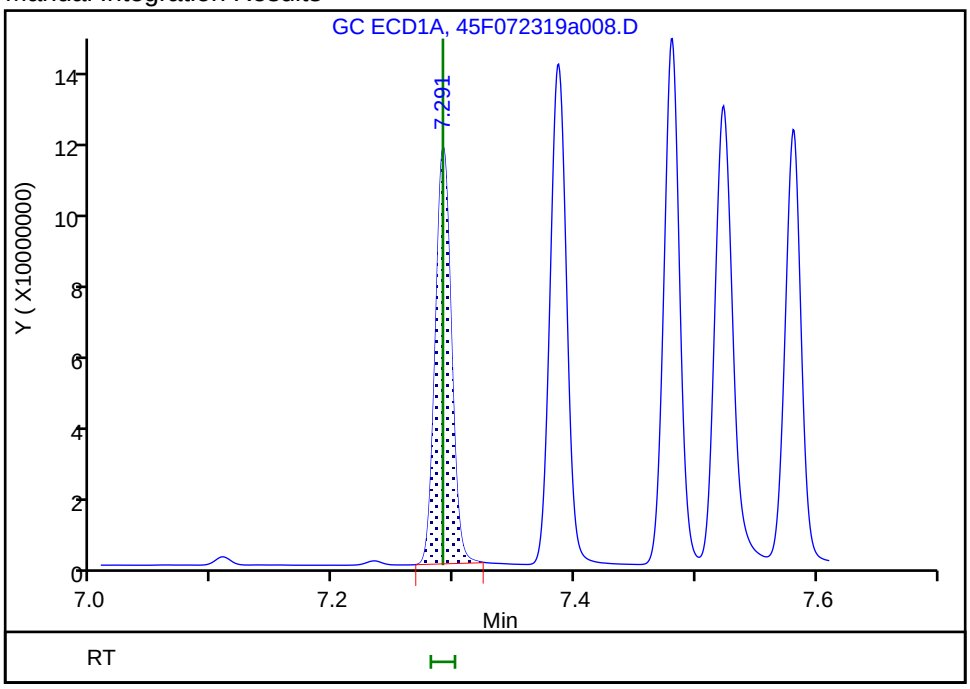
Processing Integration Results

RT: 7.29
Area: 108684638
Amount: 61.931777
Amount Units: ug/L



Manual Integration Results

RT: 7.29
Area: 107141423
Amount: 61.052406
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:52:10

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

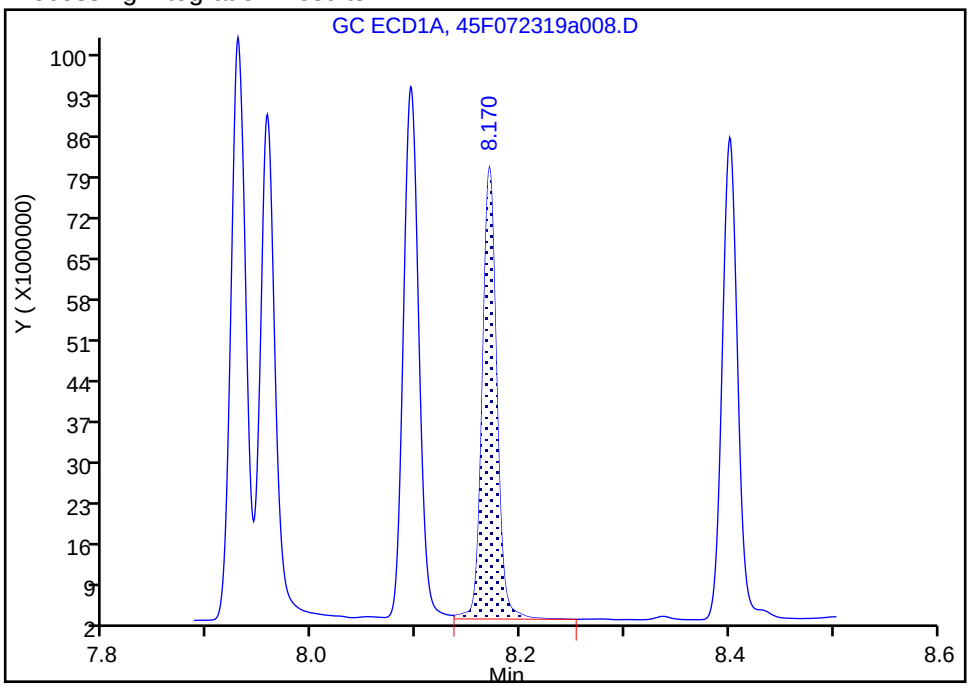
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

40 4,4'-DDT, CAS: 50-29-3

Signal: 1

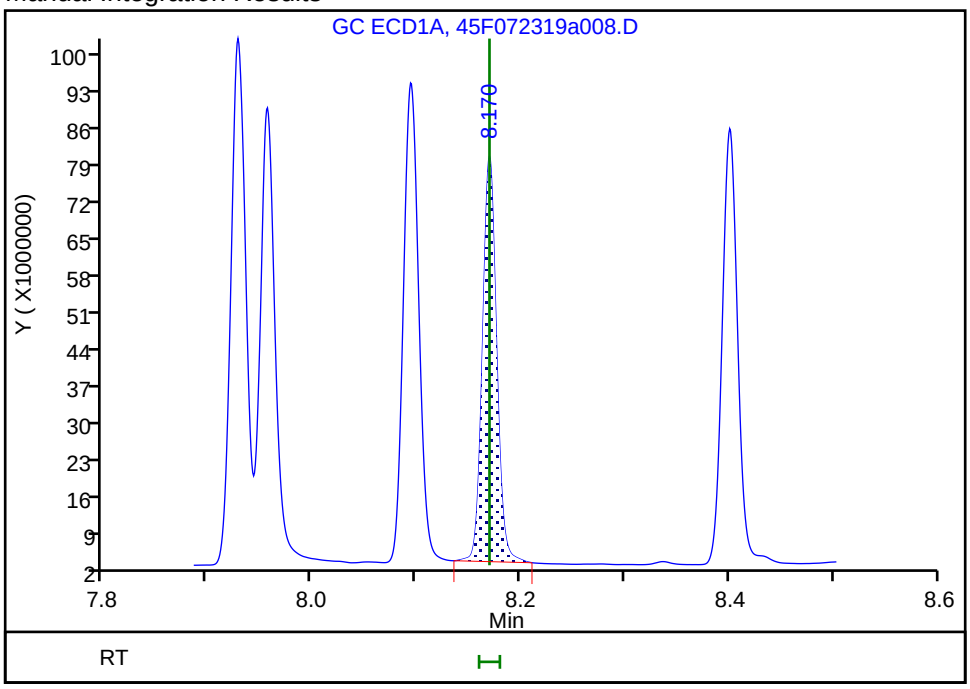
Processing Integration Results

RT: 8.17
Area: 74312838
Amount: 61.138774
Amount Units: ug/L



Manual Integration Results

RT: 8.17
Area: 72134027
Amount: 59.346219
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:50:41
Audit Action: Manually Integrated Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

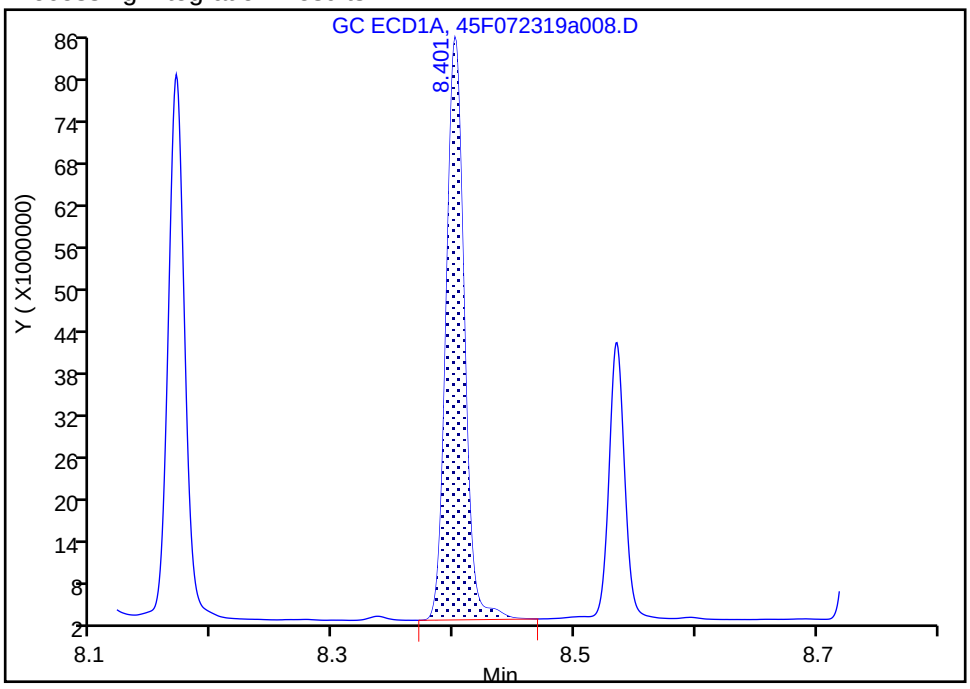
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

41 Endrin aldehyde, CAS: 7421-93-4

Signal: 1

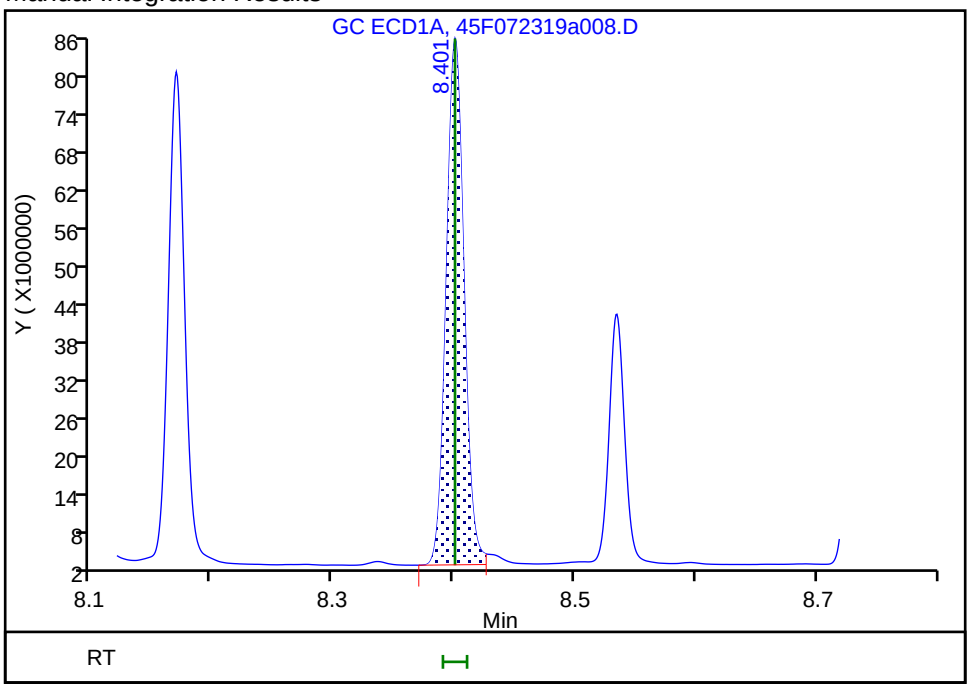
Processing Integration Results

RT: 8.40
Area: 85553667
Amount: 61.076235
Amount Units: ug/L



Manual Integration Results

RT: 8.40
Area: 84061326
Amount: 60.010862
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:51:29

Audit Action: Split an Integrated Peak Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

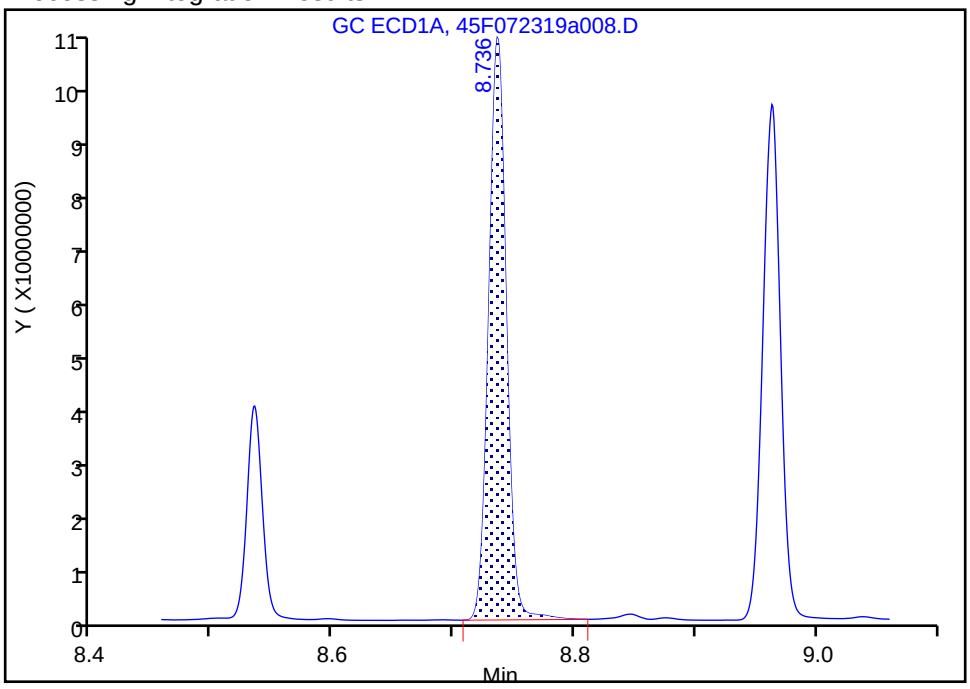
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

33 Endosulfan sulfate, CAS: 1031-07-8

Signal: 1

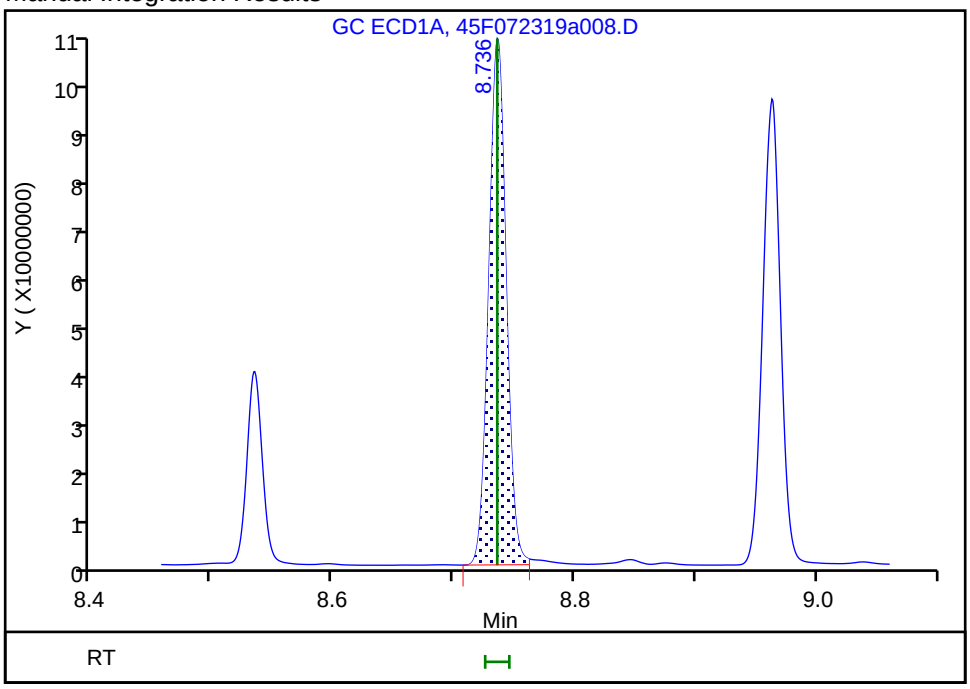
Processing Integration Results

RT: 8.74
Area: 107641208
Amount: 67.574396
Amount Units: ug/L



Manual Integration Results

RT: 8.74
Area: 106378710
Amount: 66.781832
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:52:55

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306340/7 Calibration Date: 07/23/2019 11:21

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a008.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	2.734	3.143		57.5	50.0	15.0	20.0
Hexachlorobenzene	Ave	1.983	2.274		57.3	50.0	14.7	20.0
alpha-BHC	Qua1		2.318		56.6	50.0	13.2	20.0
gamma-BHC (Lindane)	Qua1		1.867		51.4	50.0	2.9	20.0
beta-BHC	Ave	0.7698	0.8043		52.2	50.0	4.5	20.0
delta-BHC	Qua1		1.910		51.2	50.0	2.4	20.0
Heptachlor	Ave	1.489	1.628		54.7	50.0	9.3	20.0
Aldrin	Qua1		1.984		54.5	50.0	9.0	20.0
Heptachlor epoxide	Ave	1.475	1.669		56.5	50.0	13.1	20.0
trans-Chlordane	Ave	1.581	1.793		56.7	50.0	13.4	20.0
cis-Chlordane	Ave	1.593	1.754		55.1	50.0	10.2	20.0
Endosulfan I	Ave	1.382	1.558		56.4	50.0	12.8	20.0
4,4'-DDE	Qua1		1.988		56.3	50.0	12.7	20.0
Dieldrin	Ave	1.445	1.685		58.3	50.0	16.6	20.0
Endrin	Ave	0.9708	1.307		67.3	50.0	34.6*	20.0
4,4'-DDD	Qua1		1.308		53.9	50.0	7.9	20.0
Endosulfan II	Ave	1.206	1.346		55.8	50.0	11.7	20.0
4,4'-DDT	Qua1		0.9710		48.1	50.0	-3.8	20.0
Endrin aldehyde	Ave	1.158	1.166		50.3	50.0	0.7	20.0
Endosulfan sulfate	Ave	1.328	1.469		55.3	50.0	10.6	20.0
Methoxychlor	Ave	0.4483	0.4893		54.6	50.0	9.1	20.0
Endrin ketone	Ave	1.223	1.336		54.6	50.0	9.3	20.0
Tetrachloro-m-xylene	Ave	1.648	1.763		53.9	50.4	7.0	20.0
DCB Decachlorobiphenyl	Ave	1.448	1.614		55.9	50.2	11.5	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306340/7 Calibration Date: 07/23/2019 11:21

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a008.D

Analyte	RT	RT WINDOW	
		FROM	TO
Hexachlorobutadiene	4.48	4.47	4.49
Hexachlorobenzene	6.52	6.51	6.53
alpha-BHC	6.62	6.61	6.63
gamma-BHC (Lindane)	6.90	6.89	6.91
beta-BHC	6.96	6.95	6.97
delta-BHC	7.20	7.19	7.21
Heptachlor	7.26	7.25	7.27
Aldrin	7.52	7.51	7.53
Heptachlor epoxide	7.95	7.94	7.96
trans-Chlordane	8.10	8.09	8.11
cis-Chlordane	8.22	8.21	8.23
Endosulfan I	8.27	8.26	8.28
4,4'-DDE	8.32	8.31	8.33
Dieldrin	8.49	8.48	8.50
Endrin	8.74	8.73	8.75
4,4'-DDD	8.78	8.77	8.79
Endosulfan II	8.91	8.90	8.92
4,4'-DDT	9.04	9.03	9.05
Endrin aldehyde	9.18	9.17	9.19
Endosulfan sulfate	9.40	9.39	9.41
Methoxychlor	9.59	9.58	9.60
Endrin ketone	9.87	9.86	9.88
Tetrachloro-m-xylene	6.14	6.13	6.15
DCB Decachlorobiphenyl	10.90	10.89	10.91

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 11:21:23 ALS Bottle#: 5 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: erz Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub11

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:38:04 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 12:53:31

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							Ma
1	4.124	4.124	0.000	234568072	50.0	70.8	M
2	4.478	4.478	0.000	556286873	50.0	57.5	a
						RPD = 20.81	
* 3 1-Bromo-2-nitrobenzene							
1	5.019	5.019	0.000	90947580	100.0	100.0	
2	5.380	5.380	0.000	353937924	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							M
1	5.661	5.661	0.000	135364989	50.4	62.0	M
2	6.137	6.137	0.000	314207386	50.4	53.9	
						RPD = 14.09	
11 Hexachlorobenzene							M
1	5.956	5.956	0.000	146460062	50.0	60.4	M
2	6.523	6.523	0.000	402380280	50.0	57.3	
						RPD = 5.22	
4 alpha-BHC							
1	6.068	6.068	0.000	143414584	50.0	62.7	
2	6.624	6.624	0.000	410192735	50.0	56.6	
						RPD = 10.20	
6 gamma-BHC (Lindane)							
1	6.296	6.296	0.000	115465181	50.0	60.1	
2	6.903	6.903	0.000	330441481	50.0	51.4	
						RPD = 15.46	
7 beta-BHC							
1	6.358	6.358	0.000	46890600	50.0	54.5	
2	6.959	6.959	0.000	142341154	50.0	52.2	
						RPD = 4.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 delta-BHC							M
1	6.491	6.491	0.000	119662856	50.0	60.3	M
2	7.197	7.197	0.000	338062378	50.0	51.2	
						RPD = 16.41	
10 Heptachlor							
1	6.650	6.650	0.000	99356400	50.0	57.2	
2	7.255	7.255	0.000	288038336	50.0	54.7	
						RPD = 4.56	
12 Aldrin							
1	6.870	6.870	0.000	144039388	50.0	70.4	
2	7.519	7.519	0.000	351187770	50.0	54.5	
						RPD = 25.44	
17 Heptachlor epoxide							M
1	7.291	7.291	0.000	107141423	50.0	61.1	M
2	7.954	7.954	0.000	295291809	50.0	56.5	
						RPD = 7.67	
18 trans-Chlordane							
1	7.386	7.386	0.000	133477200	50.0	70.1	
2	8.103	8.103	0.000	317282147	50.0	56.7	
						RPD = 21.18	
19 cis-Chlordane							
1	7.481	7.481	0.000	132539747	50.0	69.8	
2	8.216	8.216	0.000	310473283	50.0	55.1	
						RPD = 23.64	
29 4,4'-DDE							
1	7.523	7.523	0.000	133204751	50.0	69.8	
2	8.316	8.316	0.000	351868872	50.0	56.3	
						RPD = 21.43	
20 Endosulfan I							
1	7.581	7.581	0.000	114629790	50.0	67.0	
2	8.274	8.274	0.000	275803233	50.0	56.4	
						RPD = 17.16	
23 Dieldrin							
1	7.755	7.755	0.000	125142245	50.0	67.6	
2	8.490	8.490	0.000	298138505	50.0	58.3	
						RPD = 14.75	
37 Endrin							
1	7.928	7.928	0.000	97890362	50.0	74.5	
2	8.743	8.743	0.000	231215686	50.0	67.3	
						RPD = 10.17	
39 4,4'-DDD							
1	7.956	7.956	0.000	87886823	50.0	66.5	
2	8.778	8.778	0.000	231537284	50.0	53.9	
						RPD = 20.86	
24 Endosulfan II							
1	8.094	8.094	0.000	94791291	50.0	66.1	
2	8.909	8.909	0.000	238210077	50.0	55.8	
						RPD = 16.82	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
40 4,4'-DDT							M
1	8.170	8.170	0.000	72134027	50.0	59.3	M
2	9.038	9.038	0.000	171843997	50.0	48.1	
						RPD = 20.98	
41 Endrin aldehyde							M
1	8.401	8.401	0.000	84061326	50.0	60.0	M
2	9.175	9.175	0.000	206343581	50.0	50.3	
						RPD = 17.53	
30 Methoxychlor							
1	8.535	8.535	0.000	34768191	50.0	55.5	
2	9.587	9.587	0.000	86587549	50.0	54.6	
						RPD = 1.70	
33 Endosulfan sulfate							M
1	8.736	8.736	0.000	106378710	50.0	66.8	M
2	9.397	9.397	0.000	260029104	50.0	55.3	
						RPD = 18.77	
43 Endrin ketone							
1	8.963	8.963	0.000	96582345	50.0	60.9	
2	9.869	9.869	0.000	236515446	50.0	54.6	
						RPD = 10.87	
$ 45 DCB Decachlorobiphenyl							
1	9.771	9.771	0.000	104795179	50.2	65.7	
2	10.899	10.899	0.000	286524439	50.2	55.9	
						RPD = 16.05	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

OCP_IC050_00028	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Jul-2019 14:38:06 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D

Injection Date: 23-Jul-2019 11:21:23 Instrument ID: TAC045

Lims ID: CCVIS

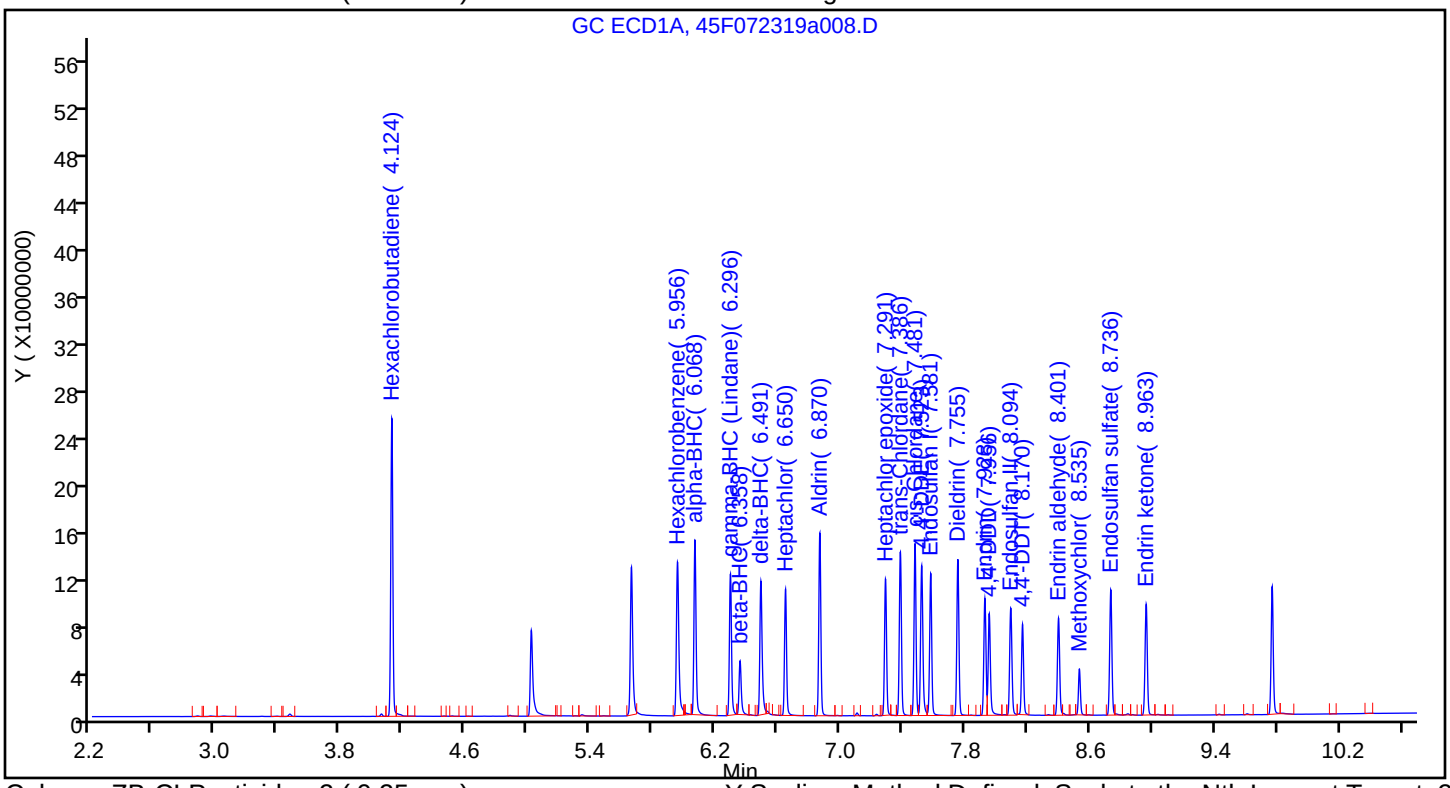
Client ID:

Operator ID: erz ALS Bottle#: 5 Worklist Smp#: 7

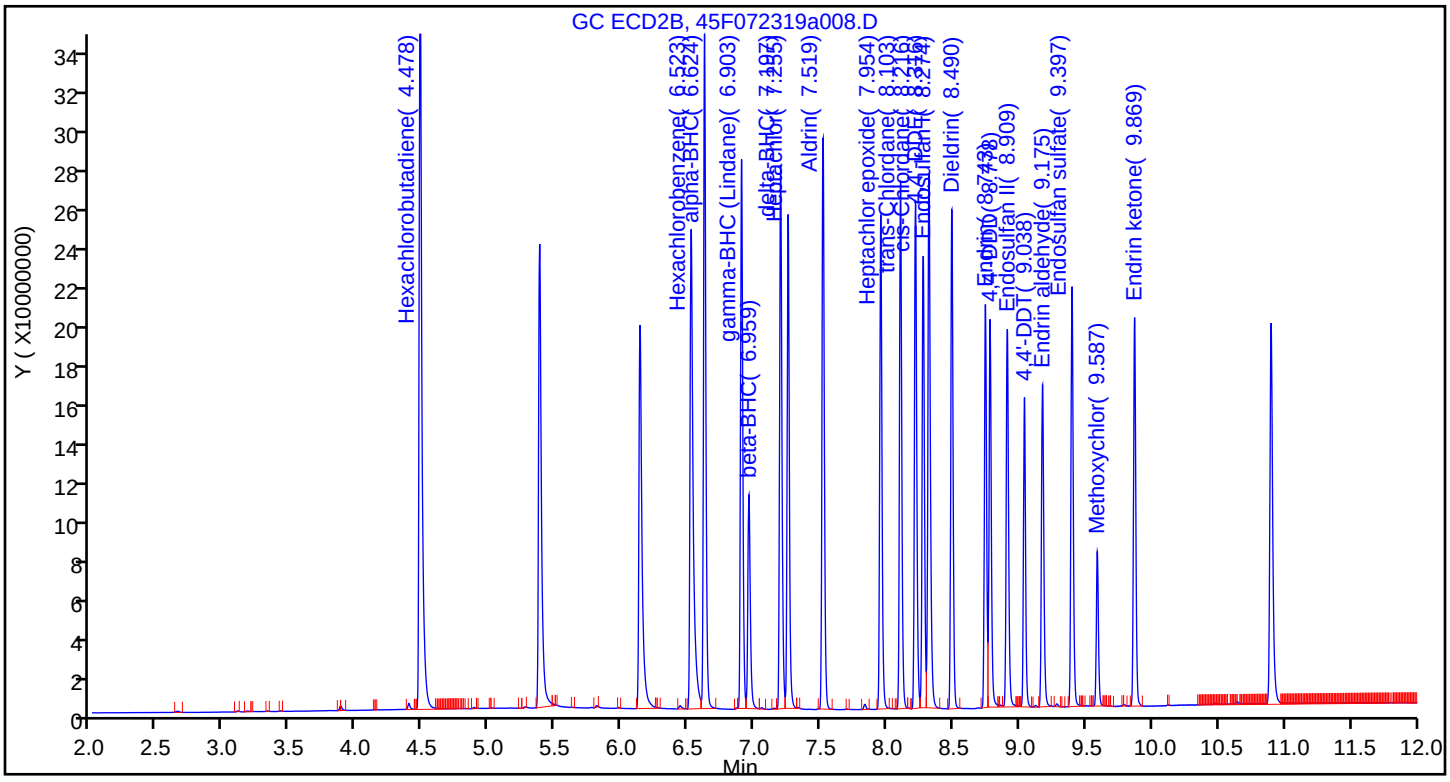
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

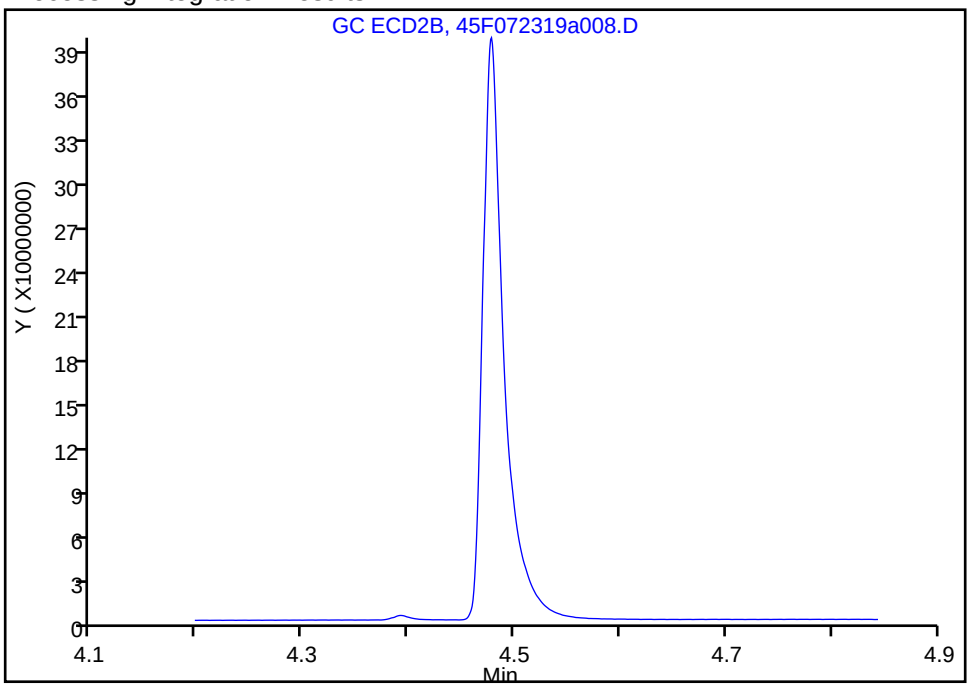
Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a008.D				
Injection Date:	23-Jul-2019 11:21:23	Instrument ID:	TAC045		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	erz	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC045	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

1 Hexachlorobutadiene, CAS: 87-68-3

Signal: 2

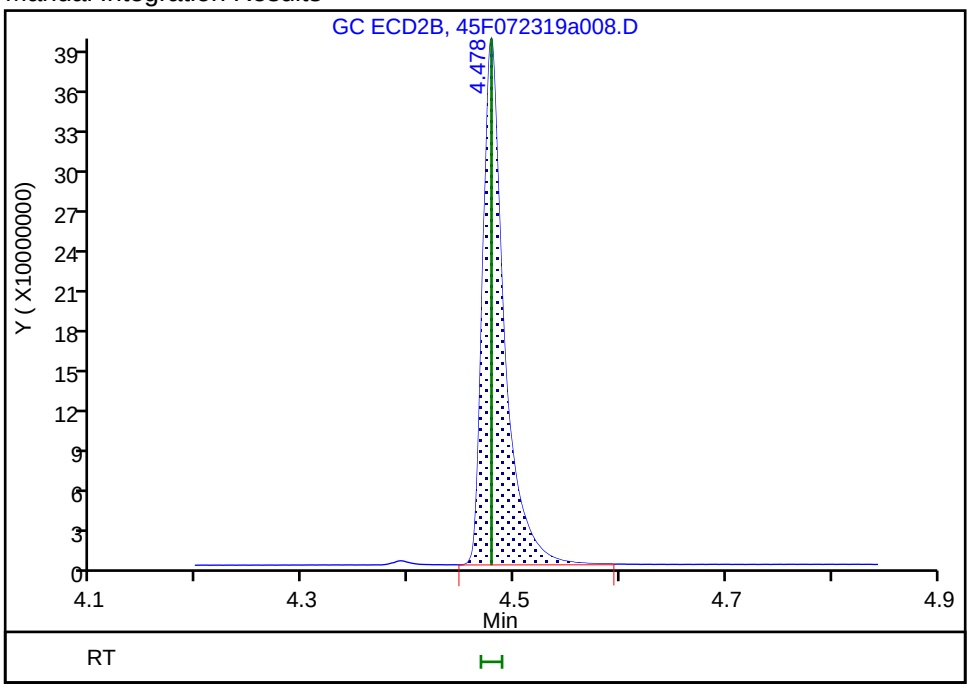
Not Detected
Expected RT: 4.48

Processing Integration Results



Manual Integration Results

RT: 4.48
Area: 556286873
Amount: 57.484148
Amount Units: ug/L



Reviewer: bohnc, 23-Jul-2019 12:49:54
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVL 580-306340/8 Calibration Date: 07/23/2019 12:02

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a009.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	2.515	2.694		1.07	1.00	7.1	
gamma-BHC (Lindane)	Ave	2.114	2.163		1.02	1.00	2.3	
beta-BHC	Ave	0.9456	1.209		1.28	1.00	27.8	
delta-BHC	Ave	2.180	2.678		1.23	1.00	22.8	
Heptachlor	Ave	1.909	1.897		0.994	1.00	-0.6	
Aldrin	Ave	2.250	2.711		1.20	1.00	20.5	
Heptachlor epoxide	Ave	1.930	2.306		1.19	1.00	19.5	
trans-Chlordane	Ave	2.093	2.556		1.22	1.00	22.1	
cis-Chlordane	Ave	2.086	2.565		1.23	1.00	22.9	
4,4'-DDE	Ave	2.097	2.399		1.14	1.00	14.4	
Endosulfan I	Ave	1.882	2.271		1.21	1.00	20.6	
Dieldrin	Ave	2.036	2.392		1.17	1.00	17.5	
Endrin	Ave	1.445	1.929		1.34	1.00	33.5	
4,4'-DDD	Ave	1.453	1.732		1.19	1.00	19.2	
Endosulfan II	Ave	1.577	2.621		1.66	1.00	66.1	
4,4'-DDT	Ave	1.336	1.578		1.18	1.00	18.1	
Endrin aldehyde	Ave	1.540	2.146			1.00	39.3	
Methoxychlor	Ave	0.6887	0.8645			1.00	25.5	
Endosulfan sulfate	Ave	1.751	2.515		1.44	1.00	43.6	
Endrin ketone	Ave	1.743	2.090		1.20	1.00	19.9	
Tetrachloro-m-xylene	Ave	2.399	2.910		1.21	1.00	21.3	
DCB Decachlorobiphenyl	Ave	1.754	2.536		1.45	1.00	44.6	

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVL 580-306340/8 Calibration Date: 07/23/2019 12:02

Instrument ID: TAC045 Calib Start Date: 02/27/2019 21:12

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 02/27/2019 23:59

Lab File ID: 45F072319a009.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	6.07	6.06	6.08
gamma-BHC (Lindane)	6.30	6.29	6.31
beta-BHC	6.36	6.35	6.37
delta-BHC	6.50	6.49	6.51
Heptachlor	6.65	6.64	6.66
Aldrin	6.87	6.86	6.88
Heptachlor epoxide	7.29	7.28	7.30
trans-Chlordane	7.39	7.38	7.40
cis-Chlordane	7.48	7.47	7.49
4,4'-DDE	7.52	7.51	7.53
Endosulfan I	7.58	7.57	7.59
Dieldrin	7.76	7.75	7.77
Endrin	7.93	7.92	7.94
4,4'-DDD	7.96	7.95	7.97
Endosulfan II	8.10	8.09	8.11
4,4'-DDT	8.17	8.16	8.18
Endrin aldehyde	8.40	8.39	8.41
Methoxychlor	8.54	8.53	8.55
Endosulfan sulfate	8.74	8.73	8.75
Endrin ketone	8.96	8.95	8.97
Tetrachloro-m-xylene	5.67	5.66	5.68
DCB Decachlorobiphenyl	9.77	9.76	9.78

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a009.D
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 23-Jul-2019 12:02:49 ALS Bottle#: 6 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccvl
Operator ID: erz Instrument ID: TAC045
Sublist: chrom-8182ISTD_TAC045*sub29

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:38:08 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 12:54:19

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.019	5.019	0.000	106247473	100.0	100.0	
2	5.379	5.379	0.000	426870727	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.667	5.667	0.000	3091745	1.00	1.21	
2	6.141	6.141	0.000	4098310	1.00	0.5827	
						RPD = 70.20	
4 alpha-BHC							
1	6.070	6.070	0.000	2862627	1.00	1.07	
2	6.623	6.623	0.000	4151784	1.00	1.22	
						RPD = 12.63	
6 gamma-BHC (Lindane)							
1	6.298	6.298	0.000	2298030	1.00	1.02	
2	6.904	6.904	0.000	3879081	1.00	1.22	
						RPD = 17.50	
7 beta-BHC							
1	6.363	6.363	0.000	1284369	1.00	1.28	
2	6.959	6.959	0.000	1065992	1.00	0.3244	
						RPD = 119.04	
8 delta-BHC							
1	6.495	6.495	0.000	2845352	1.00	1.23	
2	7.199	7.199	0.000	4250576	1.00	1.27	
						RPD = 3.49	
10 Heptachlor							
1	6.650	6.650	0.000	2015874	1.00	0.99	
2	7.254	7.254	0.000	3629560	1.00	0.5712	
						RPD = 54.01	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
12 Aldrin							
1	6.870	6.870	0.000	2880333	1.00	1.20	
2	7.518	7.518	0.000	3876169	1.00	1.09	
						RPD = 10.22	
17 Heptachlor epoxide							
1	7.292	7.292	0.000	2449796	1.00	1.19	
2	7.953	7.953	0.000	4152764	1.00	0.6593	
						RPD = 57.77	
18 trans-Chlordane							
1	7.387	7.387	0.000	2716112	1.00	1.22	
2	8.102	8.102	0.000	4510569	1.00	0.6682	
						RPD = 58.54	
19 cis-Chlordane							
1	7.482	7.482	0.000	2725107	1.00	1.23	
2	8.215	8.215	0.000	4454055	1.00	0.6552	
						RPD = 60.93	
29 4,4'-DDE							
1	7.524	7.524	0.000	2548881	1.00	1.14	
2	8.317	8.317	0.000	3574737	1.00	1.20	
						RPD = 4.74	
20 Endosulfan I							
1	7.582	7.582	0.000	2412390	1.00	1.21	
2	8.274	8.274	0.000	3617287	1.00	0.6131	
						RPD = 65.20	
23 Dieldrin							
1	7.756	7.756	0.000	2541284	1.00	1.17	
2	8.490	8.490	0.000	4107798	1.00	0.6660	
						RPD = 55.28	
37 Endrin							
1	7.929	7.929	0.000	2049181	1.00	1.34	
2	8.740	8.740	0.000	1513437	1.00	0.3652	
						RPD = 114.08	
39 4,4'-DDD							
1	7.958	7.958	0.000	1840238	1.00	1.19	
2	8.776	8.776	0.000	1254905	1.00	0.9232	
						RPD = 25.39	
24 Endosulfan II							
1	8.096	8.096	0.000	2784250	1.00	1.66	
2	8.906	8.906	0.000	1746413	1.00	0.3394	
						RPD = 132.15	
40 4,4'-DDT							
1	8.170	8.170	0.000	1676766	1.00	1.18	
2	9.039	9.039	0.000	916954	1.00	0.9149	
						RPD = 25.38	
41 Endrin aldehyde							
1	8.401	8.401	0.000	2280346	1.00	1.39	
2	9.174	9.174	0.000	3518405	1.00	0.7117	
						RPD = 64.77	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
30 Methoxychlor							
1	8.536	8.536	0.000	918535	1.00	1.26	
2	9.590	9.590	0.000	1167339	1.00	0.6100	
						RPD = 69.19	
33 Endosulfan sulfate							
1	8.735	8.735	0.000	2671596	1.00	1.44	
2	9.398	9.398	0.000	4056515	1.00	0.7156	
						RPD = 66.94	
43 Endrin ketone							
1	8.963	8.963	0.000	2220103	1.00	1.20	
2	9.865	9.865	0.000	1511310	1.00	0.2895	
						RPD = 122.19	
$ 45 DCB Decachlorobiphenyl							
1	9.770	9.770	0.000	2694448	1.00	1.45	
2	10.900	10.900	0.000	6657504	1.00	1.08	
						RPD = 29.19	

Reagents:

OCP_IC001_00014	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Jul-2019 14:38:09 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a009.D

Injection Date: 23-Jul-2019 12:02:49 Instrument ID: TAC045

Lims ID: CCVL

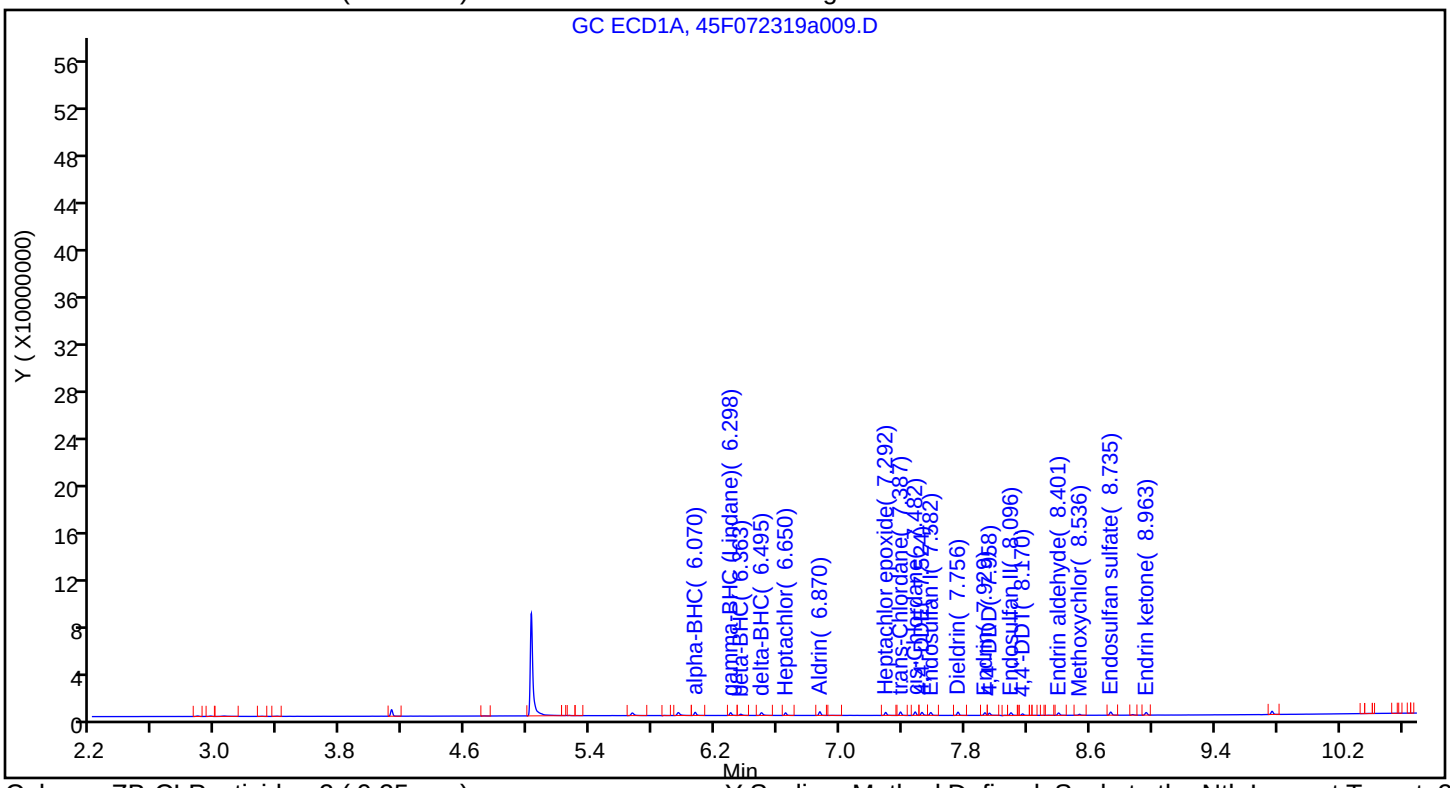
Client ID:

Operator ID: erz ALS Bottle#: 6 Worklist Smp#: 8

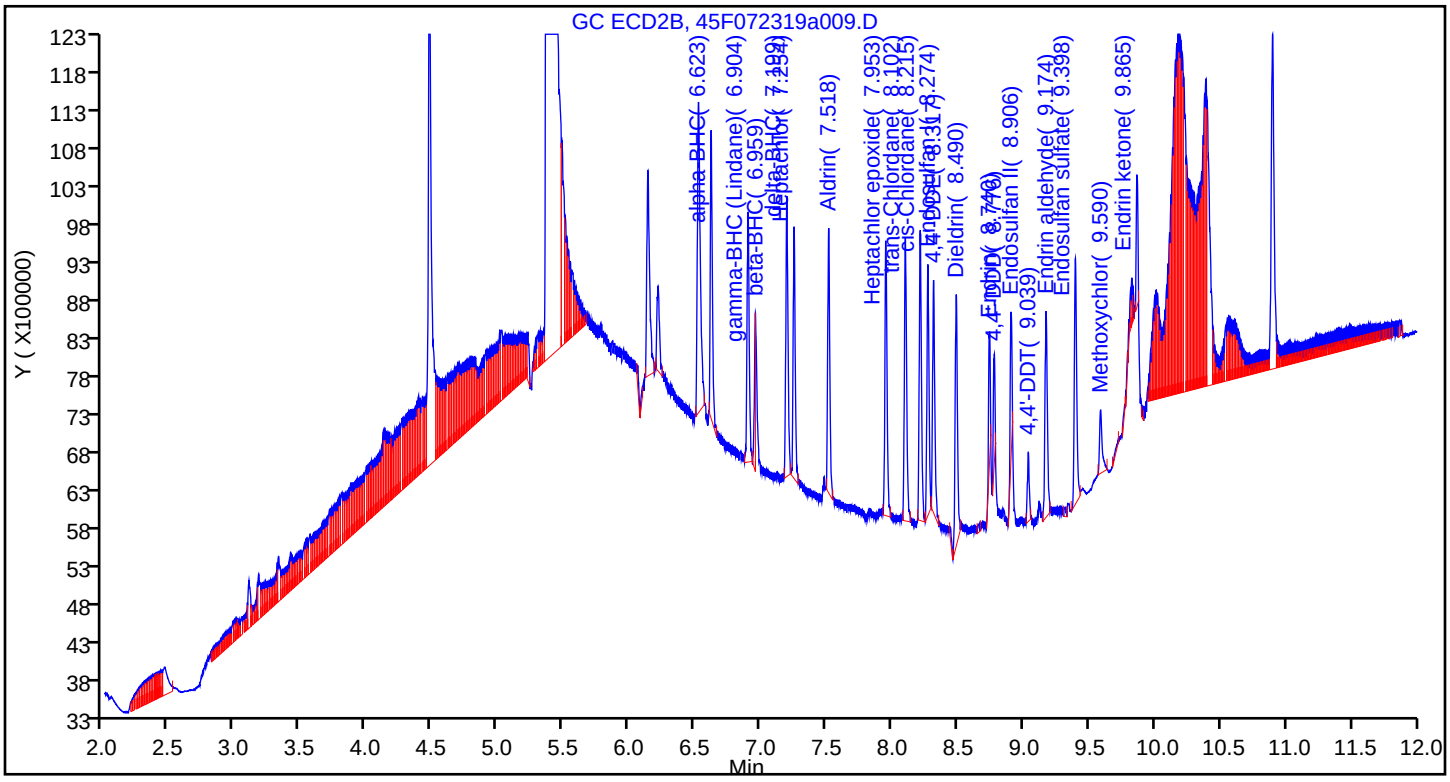
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 580-306126/1-A

Matrix: Solid Lab File ID: 34G23PST19a0012.d

Analysis Method: 8081B Date Collected:

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20(g) Date Analyzed: 07/23/2019 14:44

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		0.50	0.11
3424-82-6	2,4'-DDE	ND		0.50	0.091
789-02-6	2,4'-DDT	ND		0.50	0.19
72-54-8	4,4'-DDD	ND		0.20	0.039
72-55-9	4,4'-DDE	ND		0.20	0.053
50-29-3	4,4'-DDT	ND		0.20	0.039

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	92		36-136
877-09-8	Tetrachloro-m-xylene	77		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0012.d
Lims ID: MB 580-306126/1-A
Client ID:
Sample Type: MB
Inject. Date: 23-Jul-2019 14:44:40 ALS Bottle#: 8 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 580-306126/1-A
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:10:21 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:10:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.466	4.467	-0.001	113186902	100.0	100.0	
2	4.828	4.829	-0.001	554840765	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.080	5.081	-0.001	89088922	25.0	19.4	
2	5.535	5.535	0.000	299987777	25.0	19.4	
						RPD = 0.33	
6 PCB-1232							
1	5.270	5.265	0.005	50135		NC	
1	5.500	5.500	0.000	27971		NC	
1	0.000	5.778	-5.778	0		NC	
1	0.000	5.979	-5.979	0		NC	
1	6.376	6.380	-0.004	874506		NC	
		Average of Peak Amounts =				0	
2	5.741	5.740	0.001	50348		NC	
2	6.327	6.330	-0.003	7689598		NC	
2	0.000	6.424	-6.424	0		NC	
2	6.746	6.746	0.000	63657		NC	
2	7.030	7.037	-0.007	44646		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
7 Hexachlorobenzene							M
1	5.347	5.349	-0.002	1721234		0.3280	M
2	5.886	5.889	-0.003	4408531		0.2255	M
						RPD = 37.03	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
43 PCB-1268							
1	0.000	7.991	-7.991	0		NC	
1	8.037	8.038	-0.001	702720		NC	
1	8.181	8.172	0.009	22866		NC	
1	8.663	8.663	0.000	16394		NC	
1	8.812	8.812	0.000	188469		NC	
		Average of Peak Amounts =				0	
2	8.886	8.891	-0.005	138844		NC	
2	8.900	8.900	0.000	33090		NC	
2	0.000	9.144	-9.144	0		NC	
2	9.632	9.632	0.000	68587		NC	
2	9.857	9.857	0.000	148638		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
$ 45 DCB Decachlorobiphenyl							
1	8.885	8.884	0.001	121222772	25.0	22.9	
2	10.090	10.091	-0.001	304364233	25.0	24.6	
						RPD = 6.97	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:10:22 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0012.d

Injection Date: 23-Jul-2019 14:44:40 Instrument ID: TAC034

Lims ID: MB 580-306126/1-A

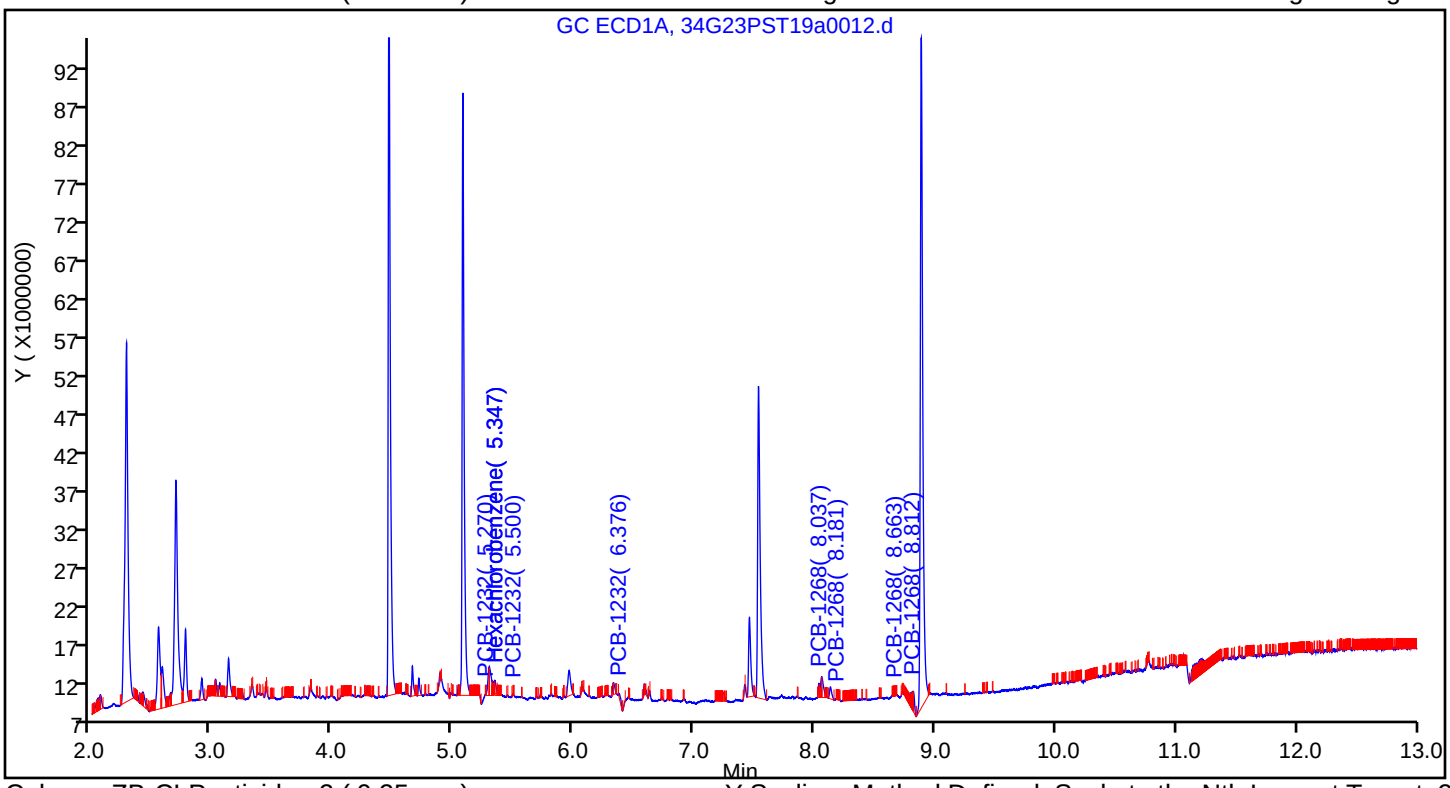
Client ID:

Operator ID: CJB ALS Bottle#: 8 Worklist Smp#: 10

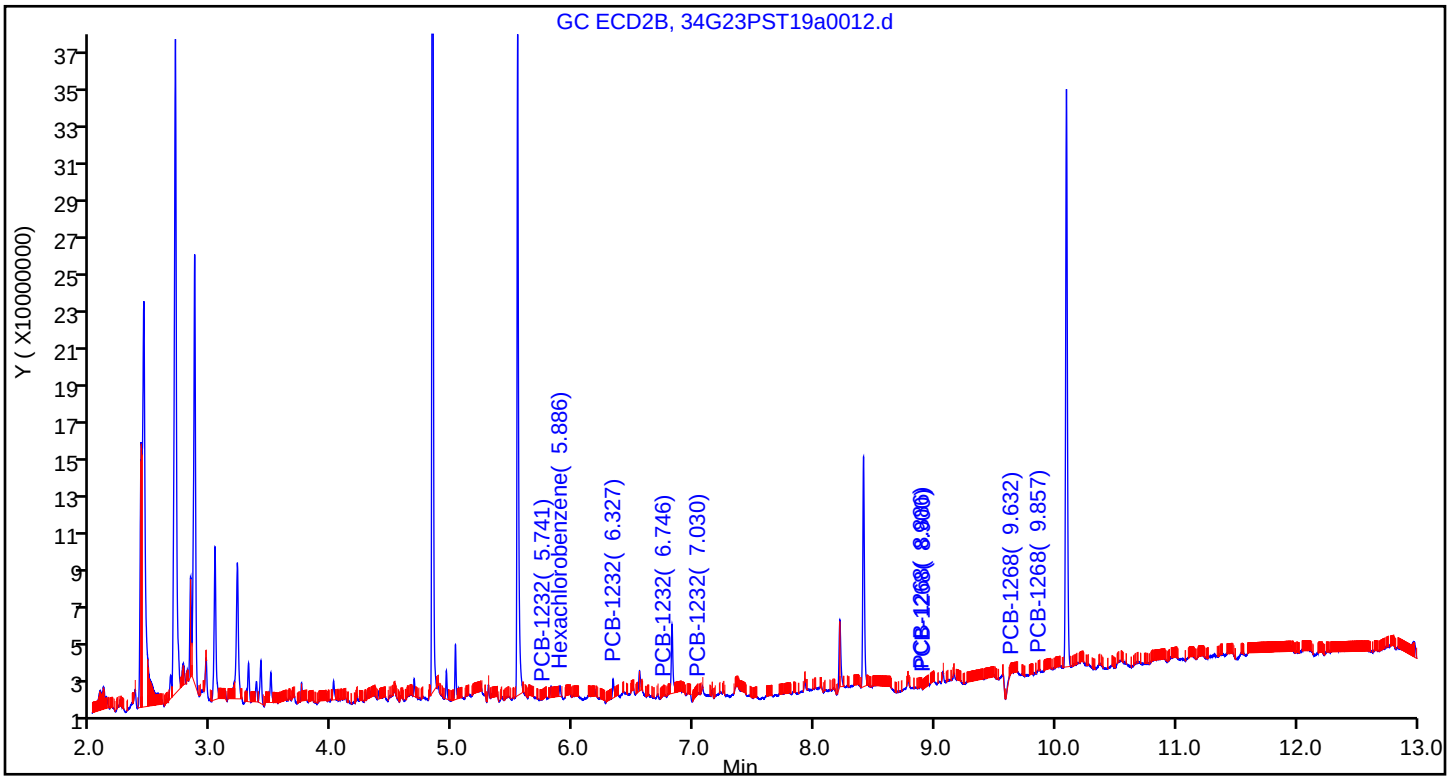
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0012.d				
Lims ID:	MB 580-306126/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	23-Jul-2019 14:44:40	ALS Bottle#:	8	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 580-306126/1-A				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:10:21	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:10:21		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	19.4	77.48
$ 45 DCB Decachlorobiphenyl	25.0	22.9	91.78

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	19.4	77.73
$ 45 DCB Decachlorobiphenyl	25.0	24.6	98.41

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 580-306340/9

Matrix: Solid Lab File ID: 45F072319a010.D

Analysis Method: 8081B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/23/2019 12:43

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306340 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.0	0.90
3424-82-6	2,4'-DDE	ND		3.0	0.50
789-02-6	2,4'-DDT	ND		3.0	0.90
72-54-8	4,4'-DDD	ND		1.5	0.60
72-55-9	4,4'-DDE	ND		1.0	0.30
50-29-3	4,4'-DDT	ND		2.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	232	X	36-136
877-09-8	Tetrachloro-m-xylene	248	X	50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a010.D
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 23-Jul-2019 12:43:29 ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccb
Operator ID: erz Instrument ID: TAC045

Method: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 23-Jul-2019 14:38:08 Calib Date: 27-Feb-2019 23:59:58
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 14:36:25

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 3 1-Bromo-2-nitrobenzene							
1	5.019	5.019	0.000	104051813	200.0	200.0	
2	5.379	5.380	-0.001	403902432	200.0	200.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	5.664	5.661	0.003	62422565	20.1	50.0	
2	6.139	6.137	0.002	117038935	20.1	35.2	
						RPD = 34.84	
$ 45 DCB Decachlorobiphenyl							
1	9.770	9.771	-0.001	42491841	20.1	46.6	
2	10.899	10.899	0.000	111204355	20.1	38.0	
						RPD = 20.14	

Reagents:

8182_CCB_IS_00017 Amount Added: 1.00 Units: mL
8182_ISTD_ULT_00013 Amount Added: 10.00 Units: uL

Report Date: 23-Jul-2019 14:38:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a010.D

Injection Date: 23-Jul-2019 12:43:29 Instrument ID: TAC045

Lims ID: CCB

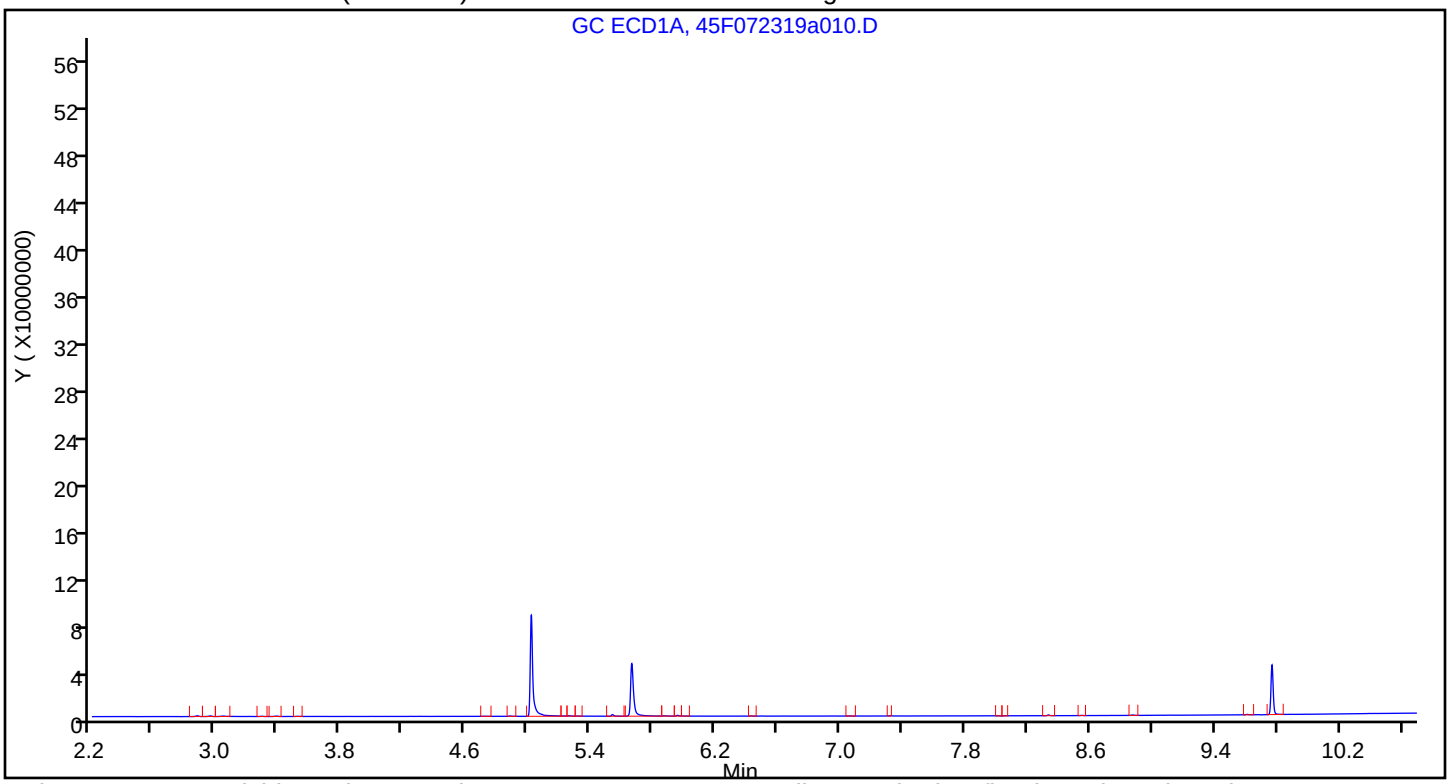
Client ID:

Operator ID: erz ALS Bottle#: 7 Worklist Smp#: 9

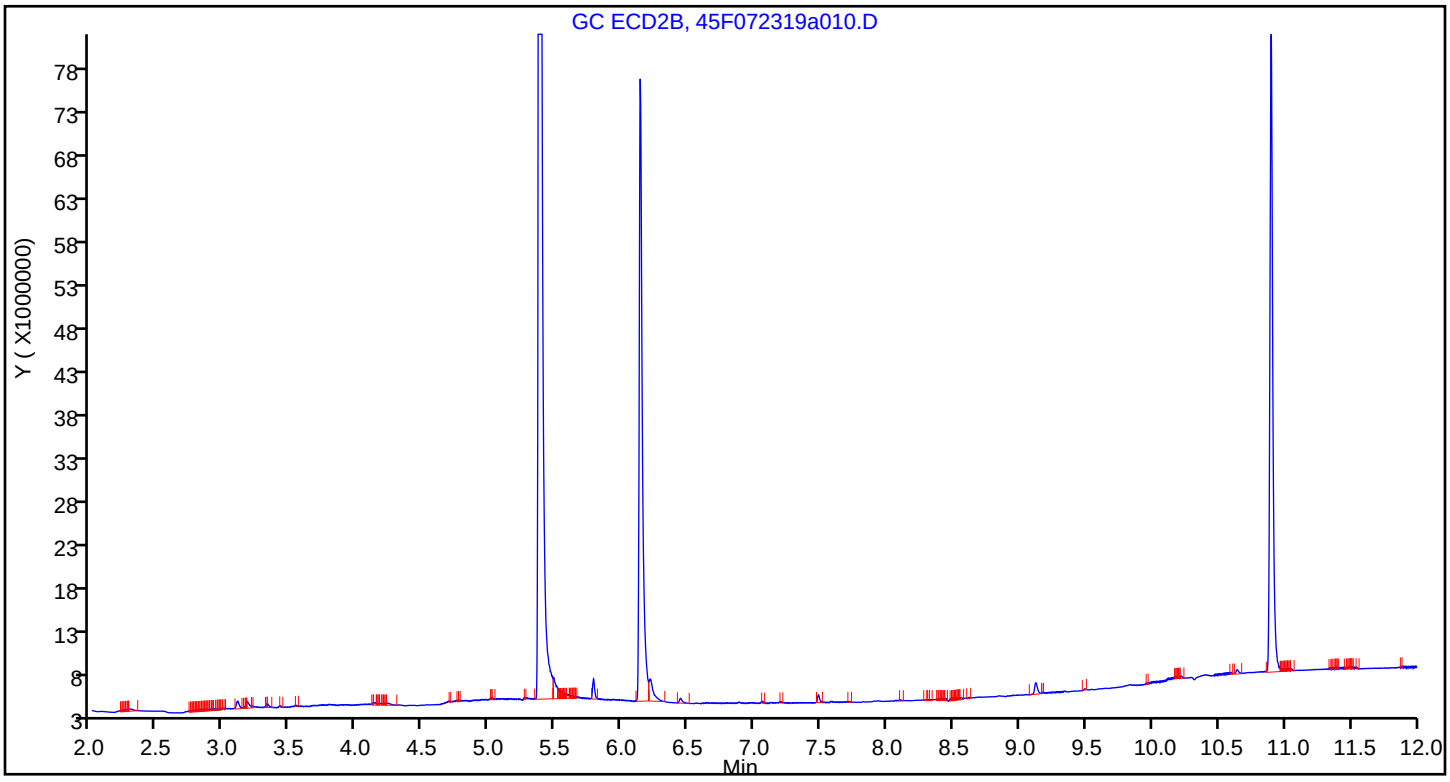
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC045 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\45F072319a010.D				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	23-Jul-2019 12:43:29	ALS Bottle#:	7	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccb				
Operator ID:	erz	Instrument ID:	TAC045		
Method:	\\chromna\Seattle\ChromData\TAC045\20190723-66468.b\8182ISTD_TAC045.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	23-Jul-2019 14:38:08	Calib Date:	27-Feb-2019 23:59:58		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC045\20190227-63993.b\45B227a040.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 14:36:25		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	20.1	50.0	248.32
$ 45 DCB Decachlorobiphenyl	20.1	46.6	232.10

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	20.1	35.2	174.63
$ 45 DCB Decachlorobiphenyl	20.1	38.0	189.63

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 580-306388/9

Matrix: Solid Lab File ID: 34G23PST19a0011.d

Analysis Method: 8081B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/23/2019 14:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.0	0.90
3424-82-6	2,4'-DDE	ND		3.0	0.50
789-02-6	2,4'-DDT	ND		3.0	0.90
72-54-8	4,4'-DDD	ND		1.5	0.60
72-55-9	4,4'-DDE	ND		1.0	0.30
50-29-3	4,4'-DDT	ND		2.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	117		36-136
877-09-8	Tetrachloro-m-xylene	115		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0011.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-Jul-2019 14:25:30 ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccb
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 09:18:12 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0309

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.468	4.467	0.001	111745933	100.0	100.0	
2	4.829	4.829	0.000	595938783	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.082	5.081	0.001	105554987	20.1	23.2	
2	5.535	5.535	0.000	368611679	20.1	22.2	
						RPD = 4.50	
$ 45 DCB Decachlorobiphenyl							M
1	8.886	8.884	0.002	121835831	20.1	23.4	M
2	10.091	10.091	0.000	294147514	20.1	22.1	
						RPD = 5.67	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8182_CCB_IS_00017 Amount Added: 1.00 Units: mL

Report Date: 24-Jul-2019 09:18:17 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0011.d

Injection Date: 23-Jul-2019 14:25:30 Instrument ID: TAC034

Lims ID: ccb

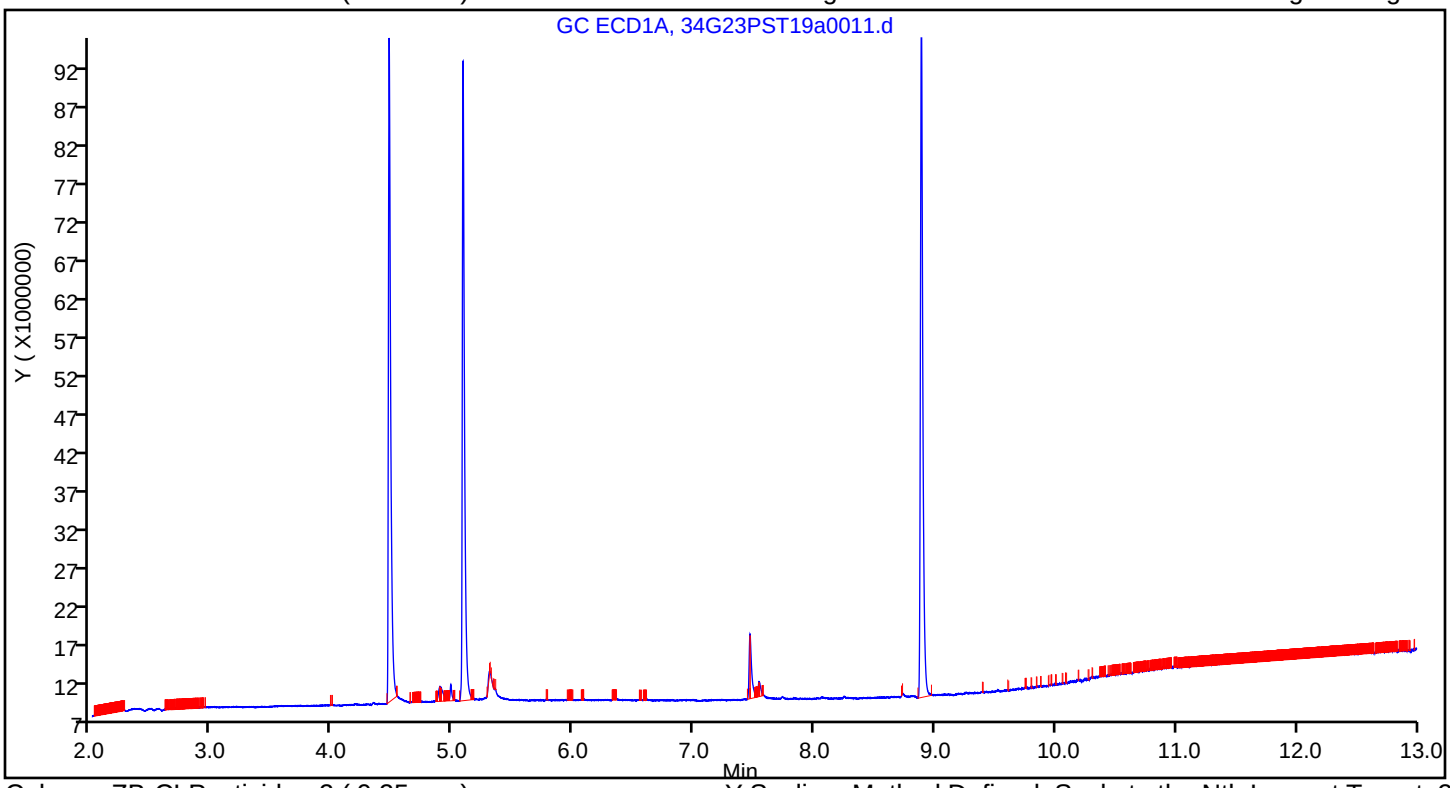
Client ID:

Operator ID: CJB ALS Bottle#: 7 Worklist Smp#: 9

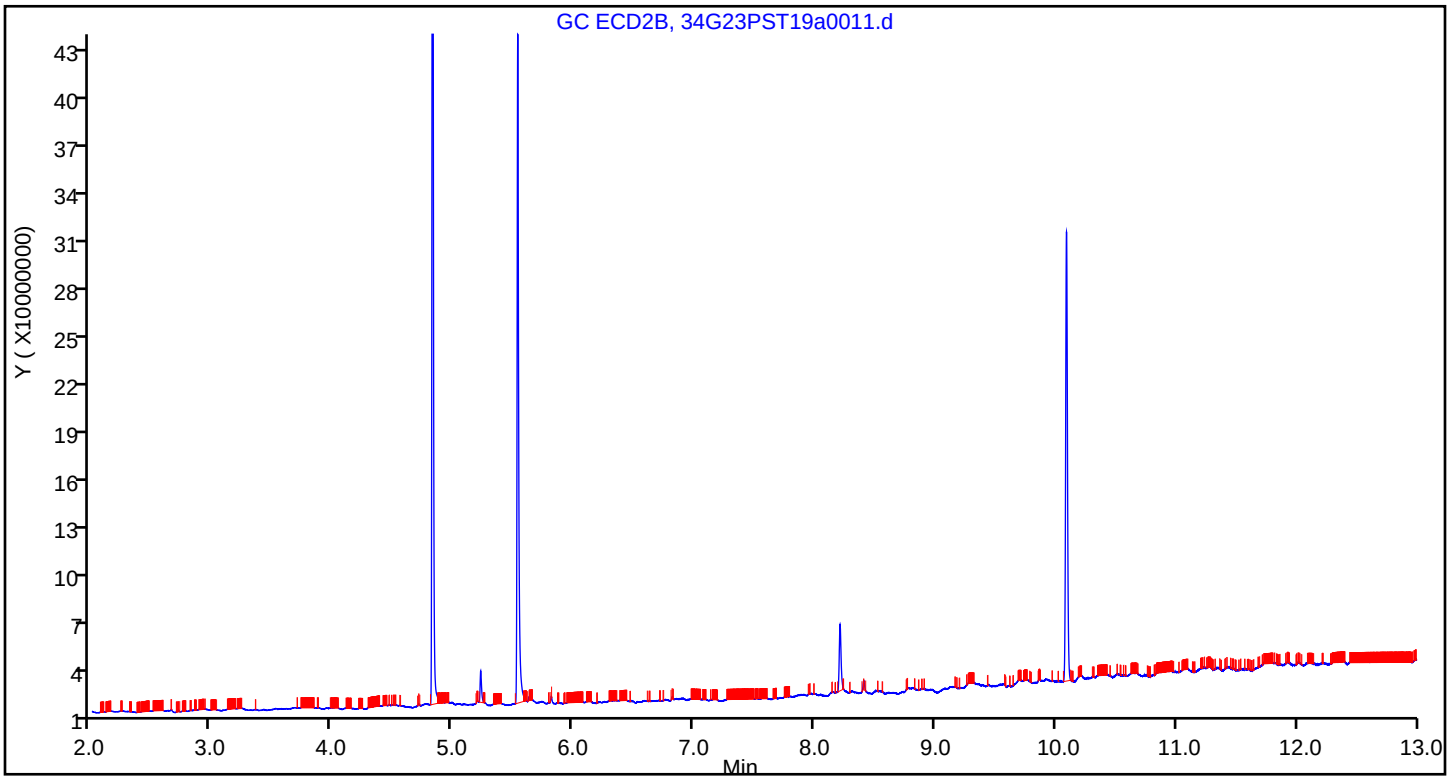
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0011.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	23-Jul-2019 14:25:30	ALS Bottle#:	7	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	ccb				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 09:18:12	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0309				

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	20.1	23.2	115.42
$ 45 DCB Decachlorobiphenyl	20.1	23.4	116.58

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	20.1	22.2	110.34
$ 45 DCB Decachlorobiphenyl	20.1	22.1	110.15

User Disabled Compound Report

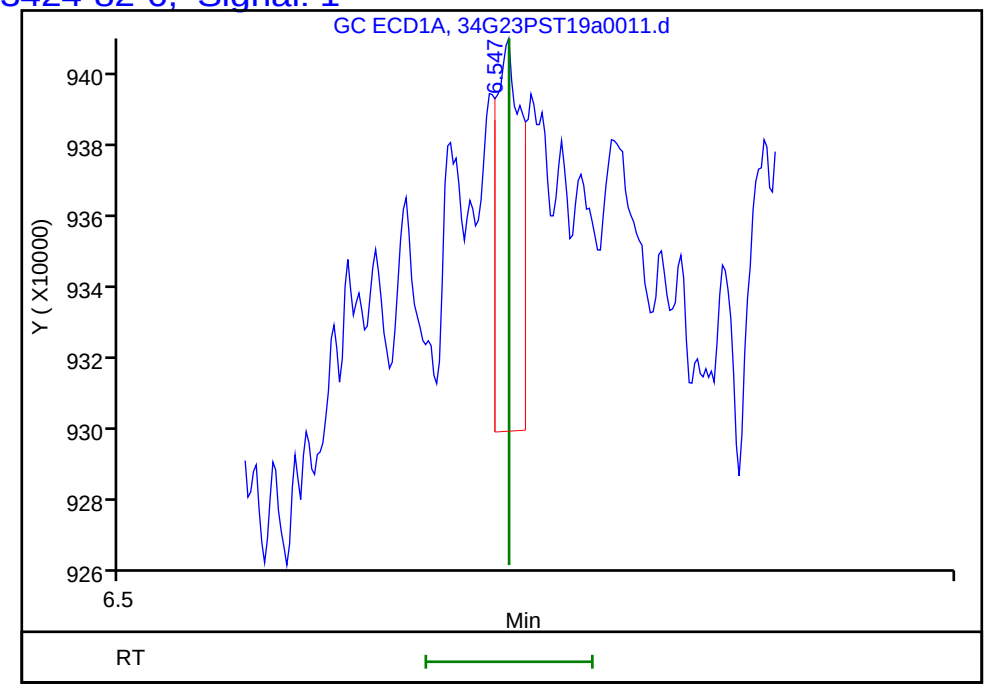
Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0011.d
Injection Date: 23-Jul-2019 14:25:30 Instrument ID: TAC034
Lims ID: ccb
Client ID:
Operator ID: CJB ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

21 2,4'-DDE, CAS: 3424-82-6, Signal: 1

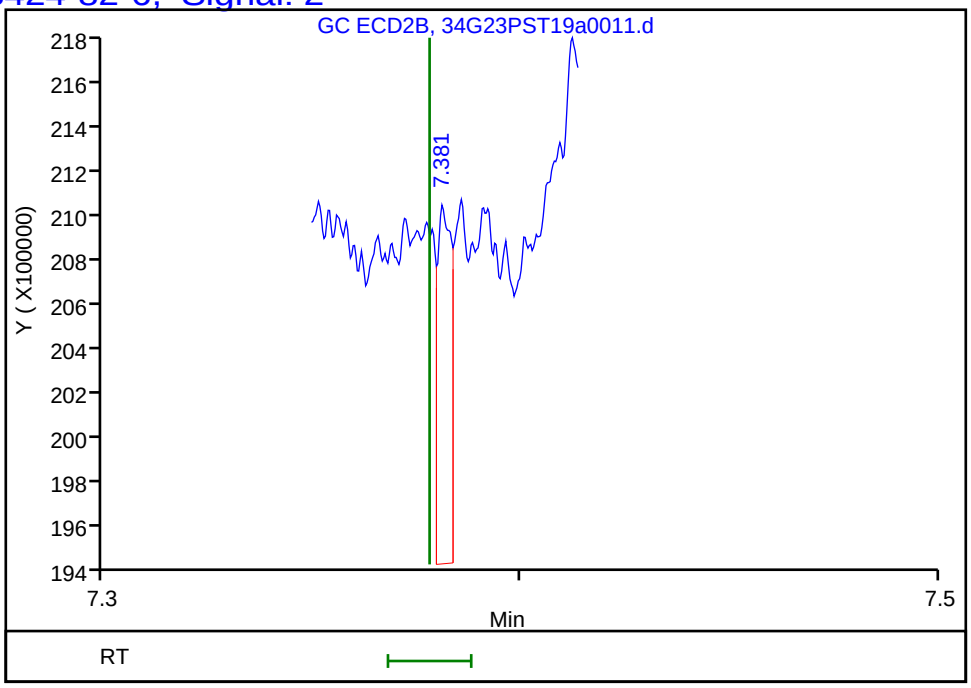
RT: 6.55
Response: 20092
Amount: 0.008020



Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

21 2,4'-DDE, CAS: 3424-82-6, Signal: 2

RT: 7.38
Response: 344249
Amount: 0.037313



Reviewer: limwirojt, 24-Jul-2019 11:09:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

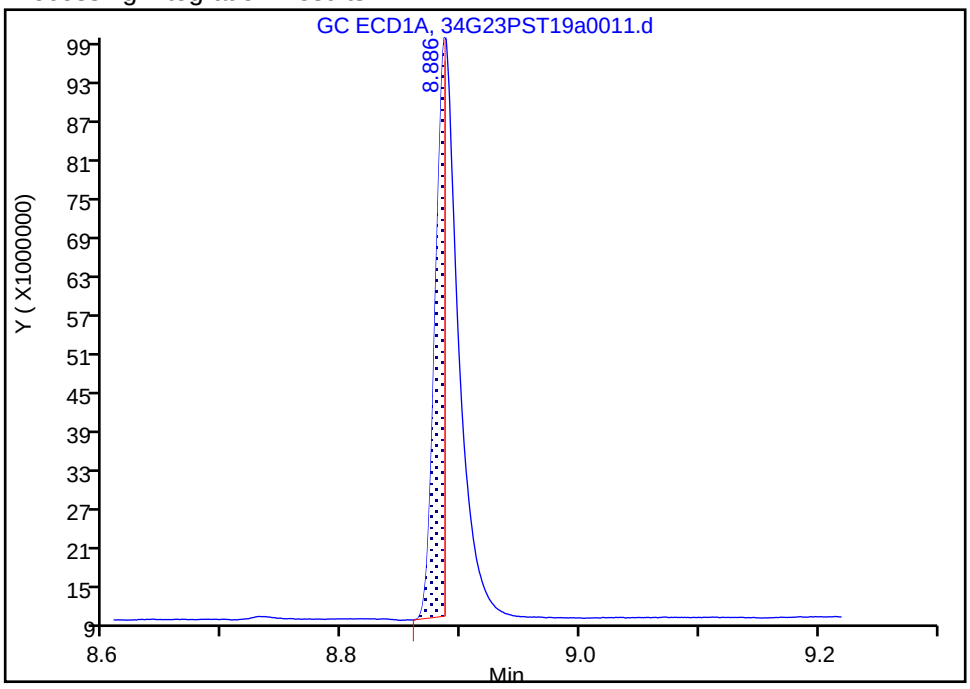
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0011.d				
Injection Date:	23-Jul-2019 14:25:30	Instrument ID:	TAC034		
Lims ID:	ccb				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	7	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

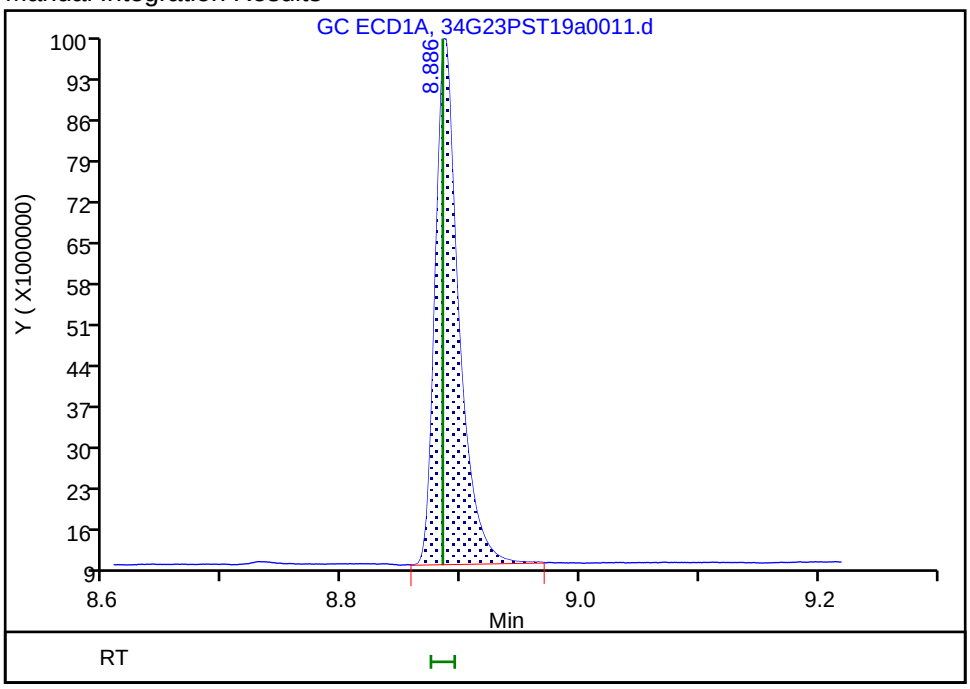
Processing Integration Results

RT: 8.89
Area: 48563621
Amount: 8.446013
Amount Units: ug/L



Manual Integration Results

RT: 8.89
Area: 121835831
Amount: 23.385320
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:08:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306126/2-A

Matrix: Solid Lab File ID: 34G23PST19a0013.d

Analysis Method: 8081B Date Collected:

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20(g) Date Analyzed: 07/23/2019 15:03

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	2.20		0.20	0.039
72-55-9	4,4'-DDE	2.27		0.20	0.053
50-29-3	4,4'-DDT	2.22		0.20	0.039

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	101		36-136
877-09-8	Tetrachloro-m-xylene	83		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0013.d
Lims ID: LCS 580-306126/2-A
Client ID:
Sample Type: LCS
Inject. Date: 23-Jul-2019 15:03:54 ALS Bottle#: 9 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 580-306126/2-A
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 11:12:25 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0316

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:12:25

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.605	3.606	-0.001	110461003	25.0	15.6	
2	3.939	3.940	-0.001	464456924	25.0	17.2	
						RPD = 10.11	
* 2 1-Bromo-2-nitrobenzene							
1	4.466	4.467	-0.001	132457351	100.0	100.0	
2	4.828	4.829	-0.001	658083988	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.080	5.081	-0.001	111725983	25.0	20.8	
2	5.535	5.535	0.000	361353349	25.0	19.7	
						RPD = 5.05	
7 Hexachlorobenzene							
1	5.349	5.349	0.000	106865175	25.0	17.4	
2	5.888	5.889	-0.001	431586889	25.0	18.6	
						RPD = 6.73	
8 alpha-BHC							
1	5.453	5.454	-0.001	74213211	25.0	16.7	
2	5.992	5.993	-0.001	282872820	25.0	18.6	
						RPD = 10.76	
11 gamma-BHC (Lindane)							
1	5.657	5.658	-0.001	69481301	25.0	18.8	
2	6.254	6.254	0.000	215255603	25.0	18.1	
						RPD = 3.68	
12 beta-BHC							
1	5.714	5.714	0.000	44535885	25.0	20.9	
2	6.306	6.306	0.000	119525197	25.0	18.3	
						RPD = 12.96	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
13 delta-BHC							
1	5.830	5.831	-0.001	69166613	25.0	18.1	
2	6.531	6.531	0.000	280011418	25.0	21.1	
						RPD = 15.61	
15 Heptachlor							
1	5.970	5.970	0.000	59127812	25.0	18.4	
2	6.579	6.579	0.000	211790280	25.0	20.4	
						RPD = 10.09	
18 Aldrin							
1	6.164	6.165	-0.001	92541329	25.0	19.4	
2	6.825	6.826	-0.001	329698122	25.0	20.3	
						RPD = 4.39	
22 Heptachlor epoxide							
1	6.547	6.549	-0.002	92439272	25.0	22.8	
2	7.245	7.246	-0.001	268555755	25.0	21.4	
						RPD = 6.32	
23 trans-Chlordane							
1	6.632	6.633	-0.001	127844610	25.0	23.4	
2	7.387	7.387	0.000	334333248	25.0	21.7	
						RPD = 7.64	
25 cis-Chlordane							
1	6.719	6.720	-0.001	114044154	25.0	20.0	
2	7.497	7.497	0.000	319864620	25.0	20.1	
						RPD = 0.39	
26 4,4'-DDE							
1	6.768	6.768	0.000	124580471	25.0	22.7	
2	7.607	7.607	0.000	398106068	25.0	23.7	
						RPD = 4.12	
27 Endosulfan I							
1	6.806	6.807	-0.001	100525460	25.0	22.3	
2	7.549	7.550	-0.001	290327846	25.0	24.1	
						RPD = 7.78	
29 Dieldrin							
1	6.969	6.970	-0.001	104583292	25.0	22.4	
2	7.760	7.761	-0.001	337719792	25.0	23.0	
						RPD = 2.75	
33 Endrin							
1	7.126	7.127	-0.001	72568647	25.0	24.5	
2	8.004	8.005	-0.001	242689312	25.0	22.6	
						RPD = 8.06	
36 4,4'-DDD							
1	7.166	7.167	-0.001	69394914	25.0	22.0	
2	8.055	8.055	0.000	226304782	25.0	23.9	
						RPD = 8.29	
37 Endosulfan II							
1	7.280	7.280	0.000	82073158	25.0	24.8	
2	8.166	8.168	-0.002	236563590	25.0	25.3	
						RPD = 2.02	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.364	7.365	-0.001	63989457	25.0	22.2	
2	8.306	8.306	0.000	229221391	25.0	24.6	
						RPD = 10.21	
39 Endrin aldehyde							
1	7.567	7.568	-0.001	74175460	25.0	20.3	
2	8.430	8.430	0.000	183335255	25.0	20.4	
						RPD = 0.17	
40 Methoxychlor							
1	7.719	7.720	-0.001	35009050	25.0	25.3	
2	8.860	8.860	0.000	102582040	25.0	26.9	
						RPD = 6.44	
42 Endosulfan sulfate							M
1	7.879	7.879	0.000	95110853	25.0	21.9	M
2	8.645	8.646	-0.001	231899503	25.0	23.0	
						RPD = 4.97	
44 Endrin ketone							
1	8.093	8.094	-0.001	83280487	25.0	23.4	
2	9.103	9.104	-0.001	231514740	25.0	26.8	
						RPD = 13.57	
$ 45 DCB Decachlorobiphenyl							
1	8.885	8.884	0.001	155751370	25.0	25.3	
2	10.090	10.091	-0.001	390177106	25.0	26.6	
						RPD = 4.93	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 11:12:27 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0013.d

Injection Date: 23-Jul-2019 15:03:54 Instrument ID: TAC034

Lims ID: LCS 580-306126/2-A

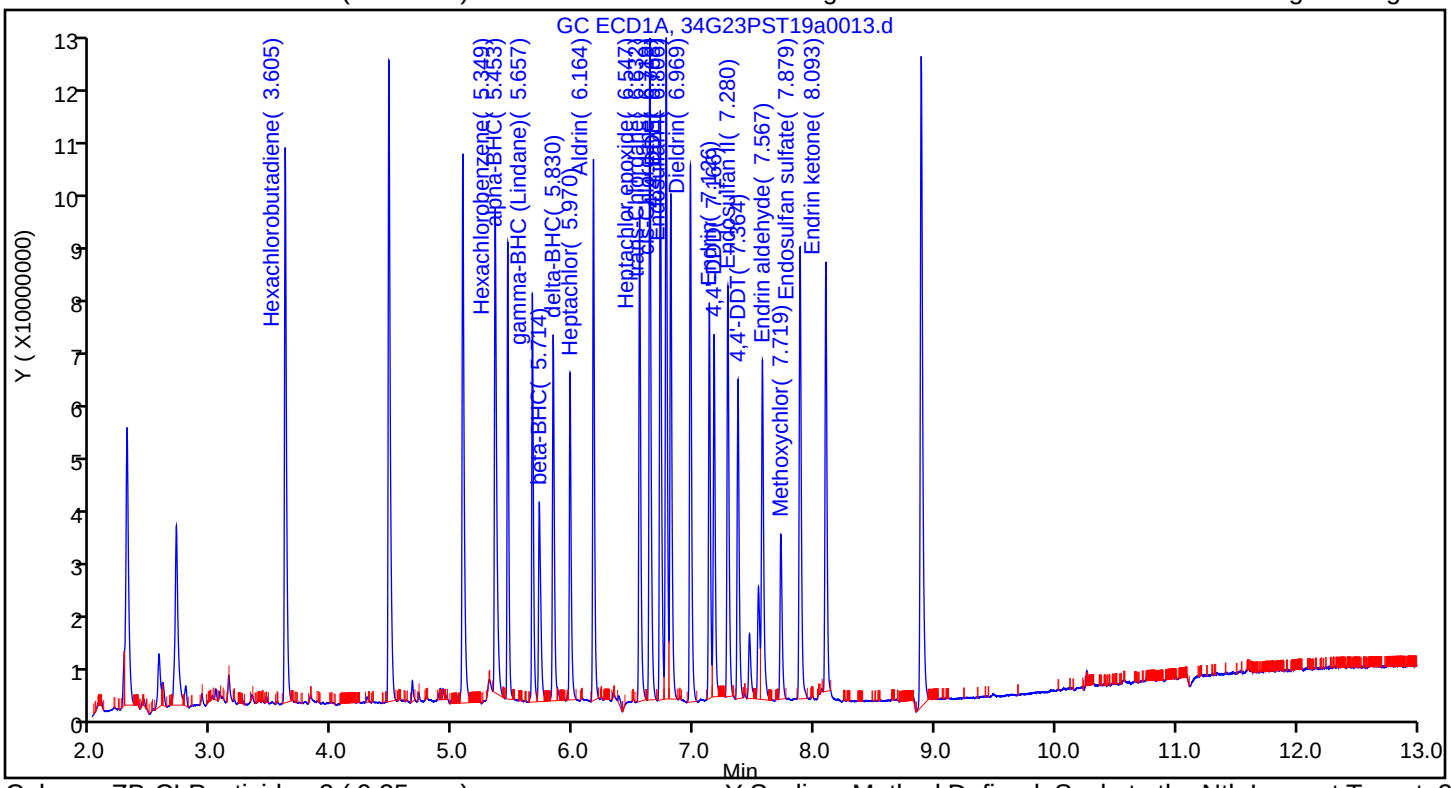
Client ID:

Operator ID: CJB ALS Bottle#: 9 Worklist Smp#: 11

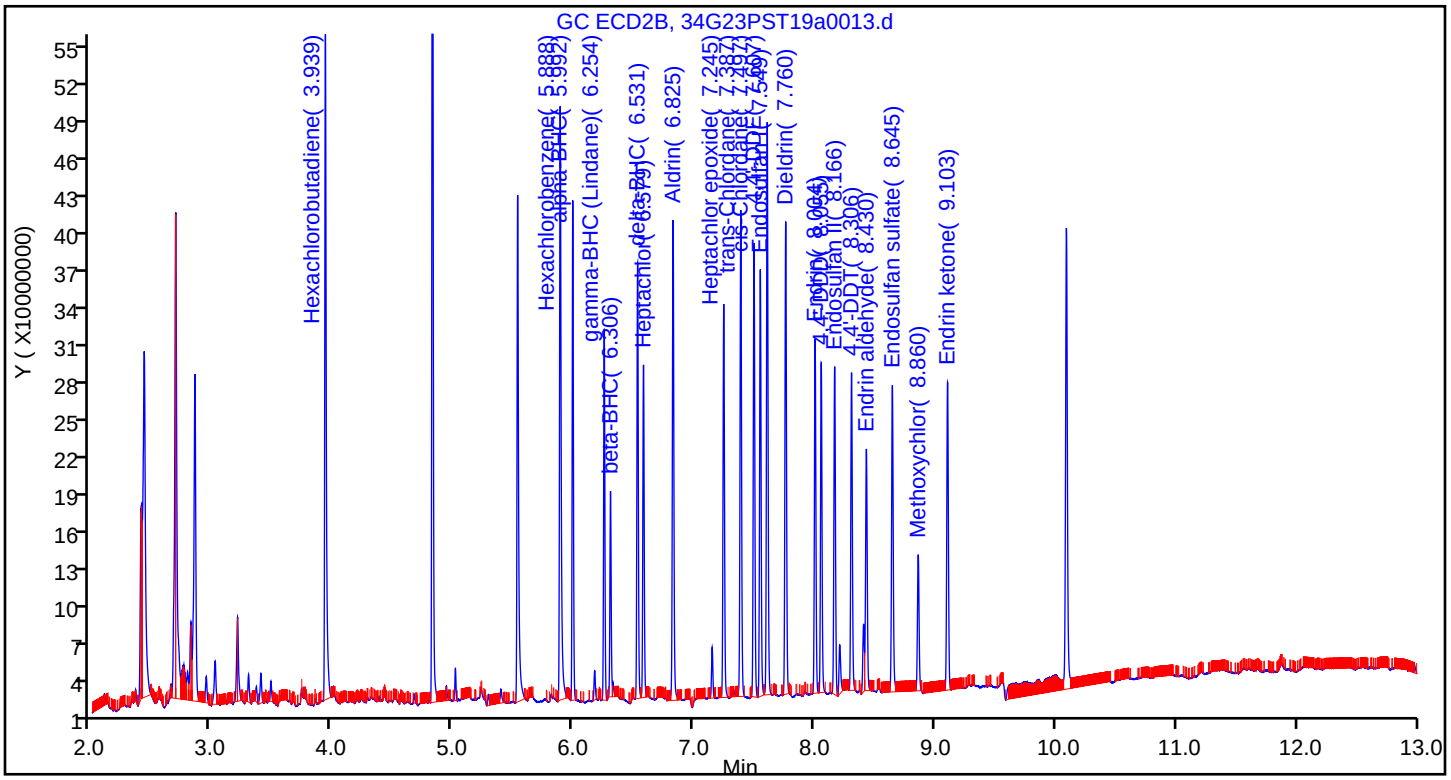
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0013.d				
Lims ID:	LCS 580-306126/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-Jul-2019 15:03:54	ALS Bottle#:	9	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 580-306126/2-A				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 11:12:25	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0316				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:12:25		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	20.8	83.03
$ 45 DCB Decachlorobiphenyl	25.0	25.3	101.36

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	19.7	78.94
$ 45 DCB Decachlorobiphenyl	25.0	26.6	106.49

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306126/4-A

Matrix: Solid Lab File ID: 34G23PST19a0014.d

Analysis Method: 8081B Date Collected:

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20(g) Date Analyzed: 07/23/2019 15:23

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	2.43		0.50	0.11
3424-82-6	2,4'-DDE	2.63		0.50	0.091
789-02-6	2,4'-DDT	2.33		0.50	0.19

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	86		36-136
877-09-8	Tetrachloro-m-xylene	71		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0014.d
Lims ID: LCS 580-306126/4-A
Client ID:
Sample Type: LCS
Inject. Date: 23-Jul-2019 15:23:13 ALS Bottle#: 10 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 580-306126/4-A
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 09:21:19 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0309

First Level Reviewer: bohnc Date: 24-Jul-2019 09:17:31

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.466	4.467	-0.001	128450158	100.0	100.0	
2	4.828	4.829	-0.001	554484535	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.080	5.081	-0.001	92836015	25.0	17.8	
2	5.535	5.535	0.000	309653468	25.0	20.1	
						RPD = 12.07	
20 oxy-Chlordane							
1	6.484	6.484	0.000	96590017	25.0	24.5	
2	7.174	7.175	-0.001	245165679	25.0	22.5	
						RPD = 8.41	
21 2,4'-DDE							
1	6.547	6.547	0.000	75797626	25.0	26.3	
2	7.377	7.378	-0.001	231074494	25.0	26.9	
						RPD = 2.24	
24 trans-Nonachlor							
1	6.710	6.710	0.000	109551086	25.0	23.3	
2	7.449	7.450	-0.001	271595856	25.0	23.4	
						RPD = 0.69	
28 2,4'-DDD							
1	6.882	6.883	-0.001	47626210	25.0	24.3	
2	7.769	7.768	0.001	140276647	25.0	25.0	
						RPD = 2.73	
32 2,4'-DDT							
1	7.057	7.059	-0.002	48930756	25.0	23.3	
2	8.011	8.011	0.000	147992724	25.0	25.6	
						RPD = 9.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
34 cis-Nonachlor							
1	7.154	7.155	-0.001	116282262	25.0	23.6	
2	8.051	8.051	0.000	276738536	25.0	22.8	
						RPD = 3.45	
41 Mirex							
1	7.841	7.841	0.000	104760514	25.0	25.2	
2	9.087	9.086	0.001	199726595	25.0	24.6	
						RPD = 2.42	
$ 45 DCB Decachlorobiphenyl							
1	8.886	8.884	0.002	129713536	25.0	21.5	
2	10.091	10.091	0.000	306131764	25.0	24.8	
						RPD = 13.89	

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:21:42 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0014.d

Injection Date: 23-Jul-2019 15:23:13 Instrument ID: TAC034

Lims ID: LCS 580-306126/4-A

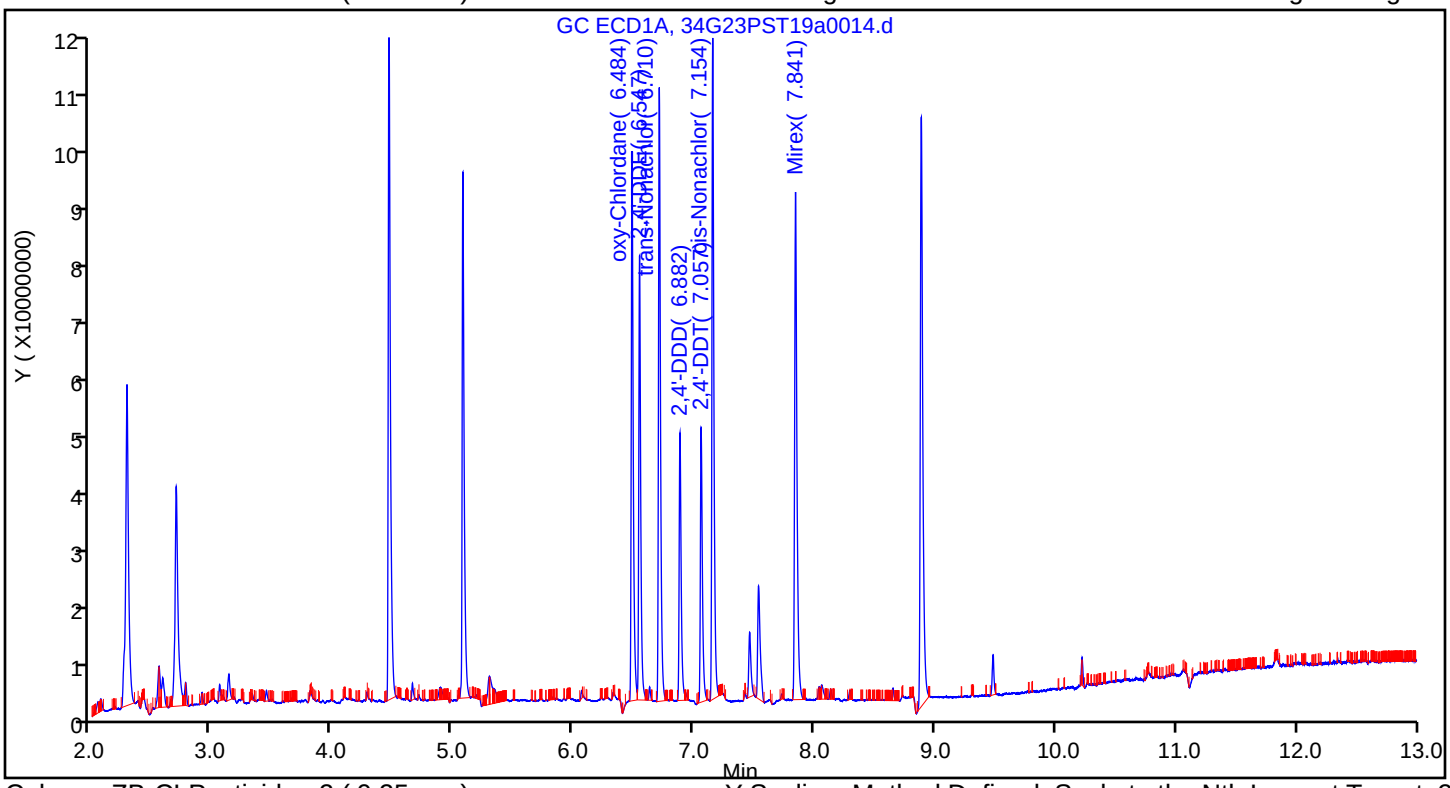
Client ID:

Operator ID: CJB ALS Bottle#: 10 Worklist Smp#: 12

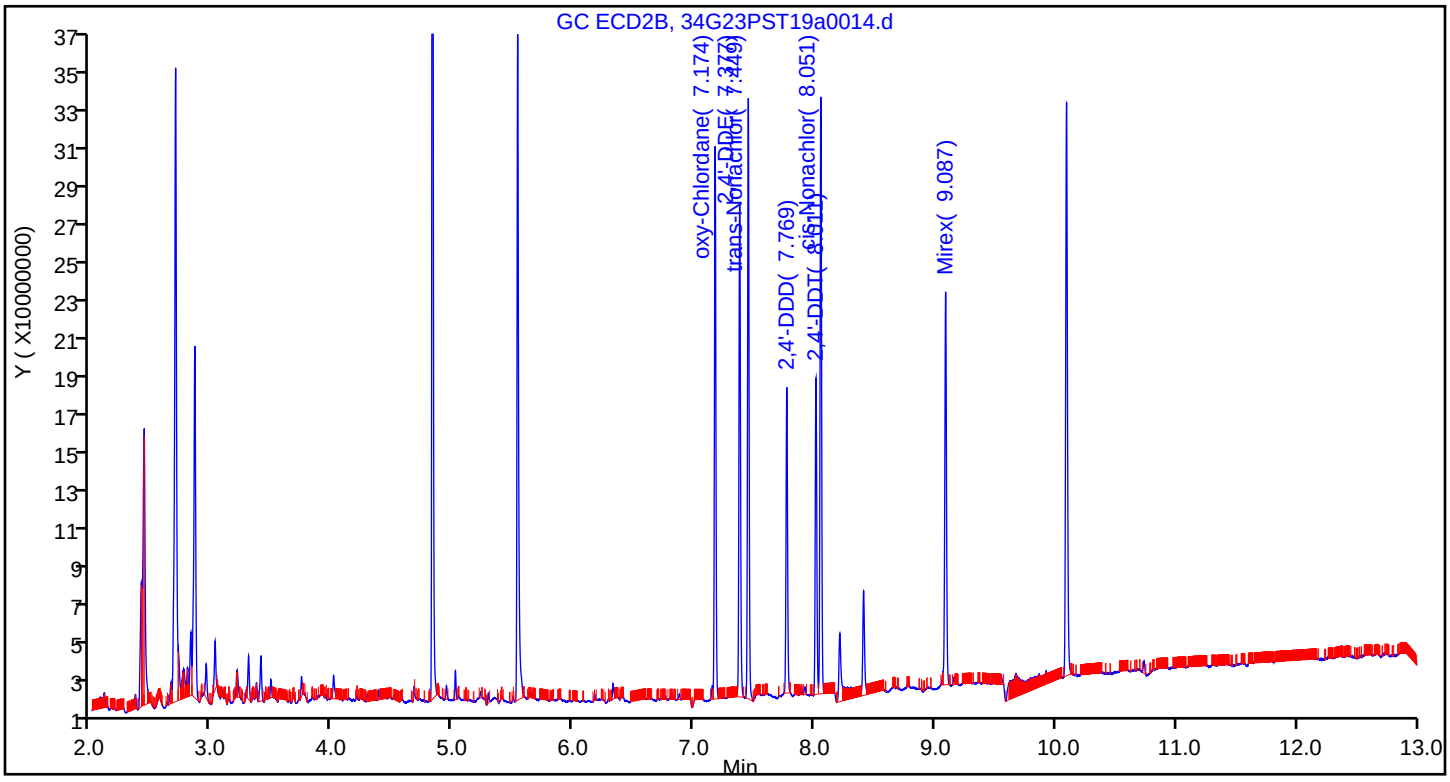
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0014.d				
Lims ID:	LCS 580-306126/4-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-Jul-2019 15:23:13	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 580-306126/4-A				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 09:21:19	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0309				
First Level Reviewer: bohnc		Date:	24-Jul-2019 09:17:31		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	17.8	71.14
$ 45 DCB Decachlorobiphenyl	25.0	21.5	86.19

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	20.1	80.28
$ 45 DCB Decachlorobiphenyl	25.0	24.8	99.05

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 580-306126/5-A

Matrix: Solid Lab File ID: 34G23PST19a0015.d

Analysis Method: 8081B Date Collected:

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20(g) Date Analyzed: 07/23/2019 15:42

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	2.04		0.50	0.11
3424-82-6	2,4'-DDE	2.19		0.50	0.091
789-02-6	2,4'-DDT	1.90		0.50	0.19

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	72		36-136
877-09-8	Tetrachloro-m-xylene	59		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0015.d
Lims ID: LCSD 580-306126/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 23-Jul-2019 15:42:31 ALS Bottle#: 11 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 580-306126/5-A
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 09:21:19 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0309

First Level Reviewer: bohnc Date: 24-Jul-2019 09:17:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 2 1-Bromo-2-nitrobenzene							
1	4.466	4.467	-0.001	144624366	100.0	100.0	
2	4.828	4.829	-0.001	655281173	100.0	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.080	5.081	-0.001	86920136	25.0	14.8	
2	5.535	5.535	0.000	311706663	25.0	17.1	
						RPD = 14.52	
20 oxy-Chlordane							
1	6.485	6.484	0.001	90591187	25.0	20.4	
2	7.174	7.175	-0.001	241676433	25.0	18.8	
						RPD = 8.37	
21 2,4'-DDE							
1	6.546	6.547	-0.001	71158672	25.0	21.9	
2	7.377	7.378	-0.001	222980845	25.0	22.0	
						RPD = 0.15	
24 trans-Nonachlor							
1	6.710	6.710	0.000	101056226	25.0	19.1	
2	7.449	7.450	-0.001	267389439	25.0	19.5	
						RPD = 2.36	
28 2,4'-DDD							
1	6.883	6.883	0.000	44890085	25.0	20.4	
2	7.768	7.768	0.000	130857910	25.0	19.7	
						RPD = 3.14	
32 2,4'-DDT							
1	7.058	7.059	-0.001	44862120	25.0	19.0	
2	8.012	8.011	0.001	148167713	25.0	21.7	
						RPD = 13.13	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
34 cis-Nonachlor							
1	7.153	7.155	-0.002	104002038	25.0	18.8	
2	8.051	8.051	0.000	268965018	25.0	18.8	
						RPD = 0.02	
41 Mirex							
1	7.842	7.841	0.001	103314810	25.0	22.1	
2	9.086	9.086	0.000	201432254	25.0	21.0	
						RPD = 5.14	
$ 45 DCB Decachlorobiphenyl							M
1	8.886	8.884	0.002	123021088	25.0	17.9	M
2	10.090	10.091	-0.001	305993786	25.0	20.9	
						RPD = 15.30	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00013	Amount Added: 10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:21:46 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0015.d

Injection Date: 23-Jul-2019 15:42:31 Instrument ID: TAC034

Lims ID: LCSD 580-306126/5-A

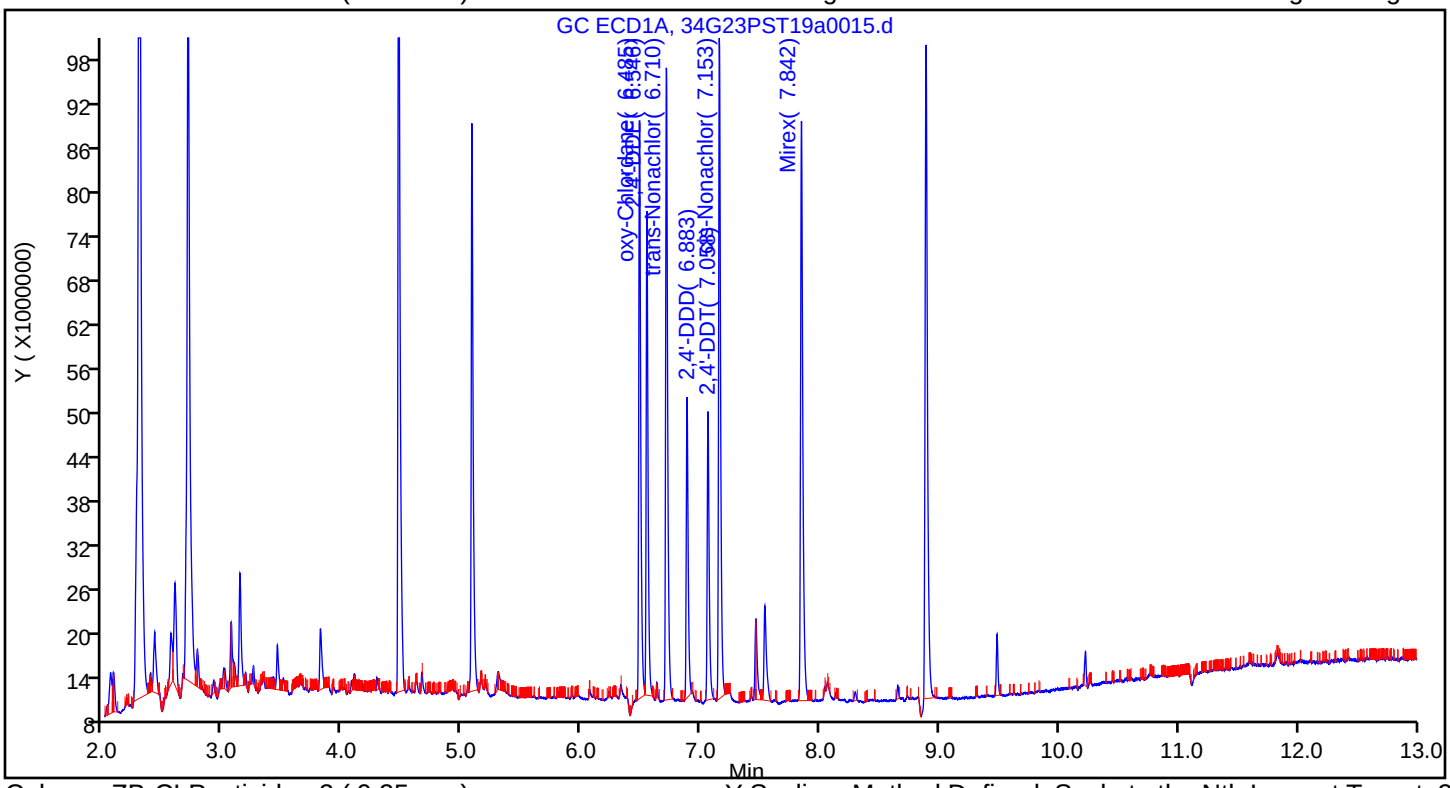
Client ID:

Operator ID: CJB ALS Bottle#: 11 Worklist Smp#: 13

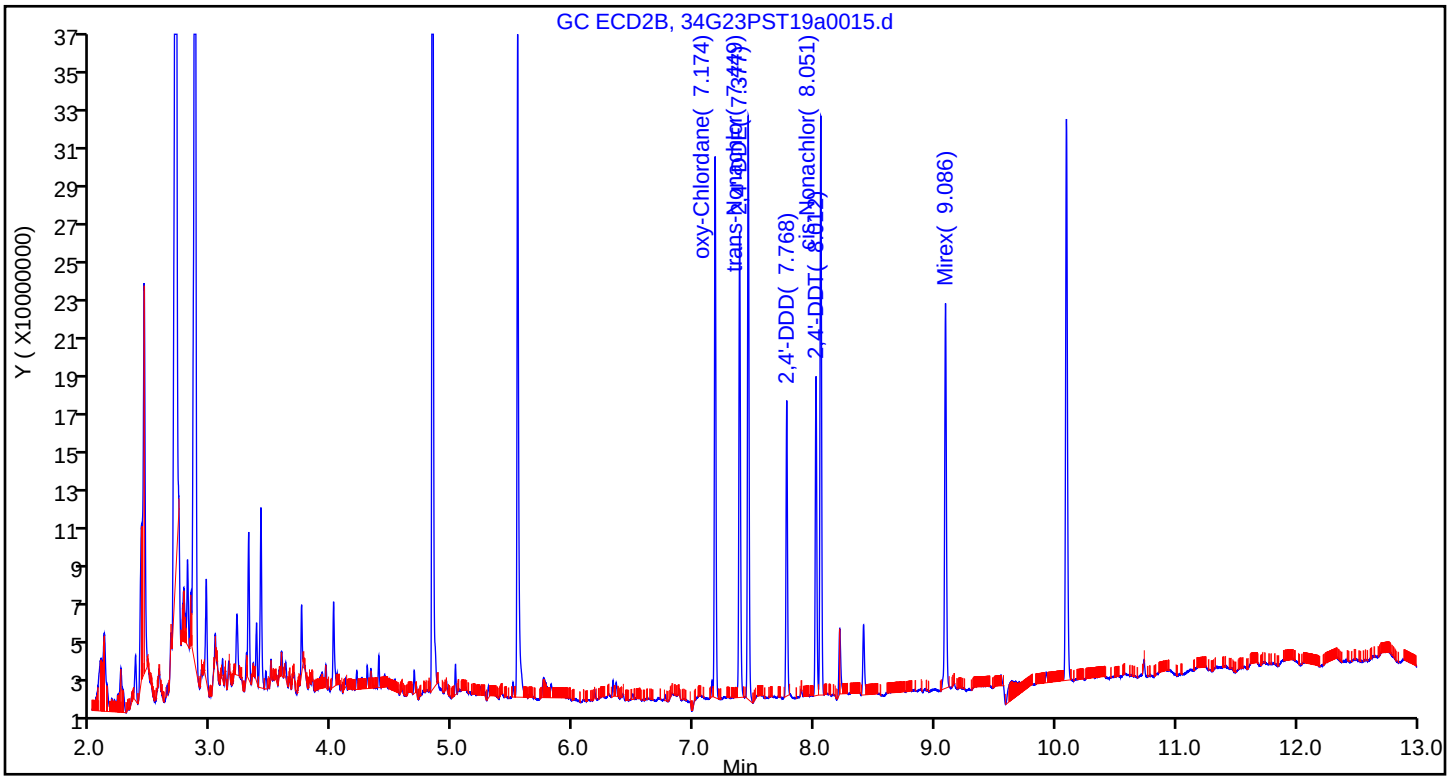
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0015.d
Lims ID: LCSD 580-306126/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 23-Jul-2019 15:42:31 ALS Bottle#: 11 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 580-306126/5-A
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 09:21:19 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0309

First Level Reviewer: bohnc Date: 24-Jul-2019 09:17:50

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	14.8	59.16
$ 45 DCB Decachlorobiphenyl	25.0	17.9	71.66

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	17.1	68.42
$ 45 DCB Decachlorobiphenyl	25.0	20.9	83.53

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

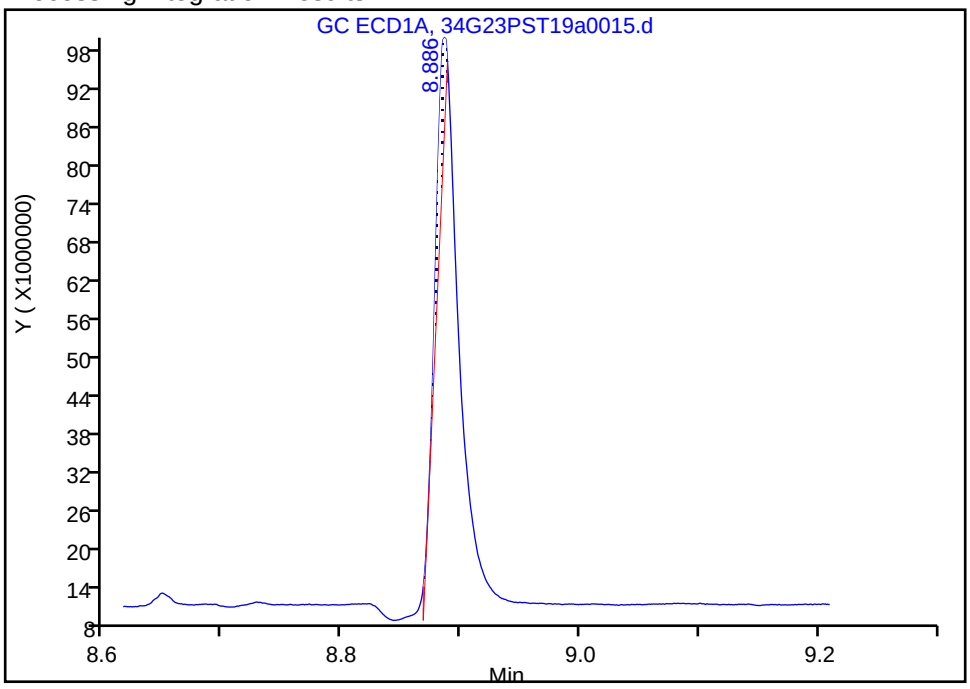
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0015.d				
Injection Date:	23-Jul-2019 15:42:31	Instrument ID:	TAC034		
Lims ID:	LCSD 580-306126/5-A				
Client ID:					
Operator ID:	CJB	ALS Bottle#:	11	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

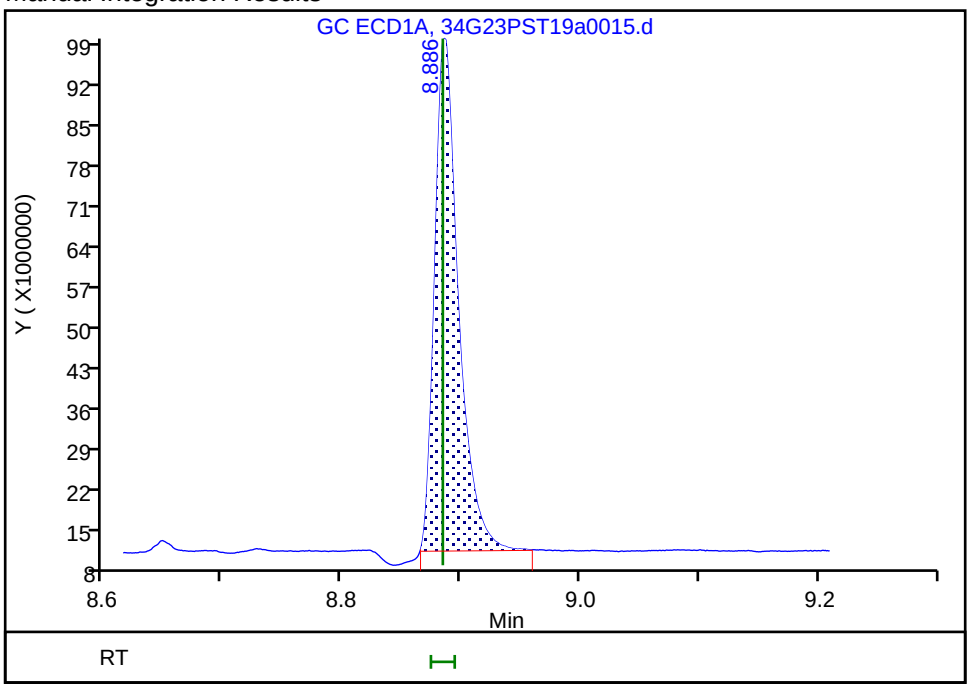
Processing Integration Results

RT: 8.89
Area: 11642215
Amount: 0.412802
Amount Units: ug/L



Manual Integration Results

RT: 8.89
Area: 123021088
Amount: 17.915195
Amount Units: ug/L



Reviewer: bohnc, 24-Jul-2019 09:21:01

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MS Lab Sample ID: 580-87706-5 MS

Matrix: Solid Lab File ID: 34G23PST19a0021.d

Analysis Method: 8081B Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.643(g) Date Analyzed: 07/23/2019 17:38

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 59.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.4	0.75
3424-82-6	2,4'-DDE	ND		3.4	0.62
789-02-6	2,4'-DDT	ND		3.4	1.3
72-54-8	4,4'-DDD	5.96		1.4	0.27
72-55-9	4,4'-DDE	4.14		1.4	0.36
50-29-3	4,4'-DDT	2.61		1.4	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	32	X	36-136
877-09-8	Tetrachloro-m-xylene	57		50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0021.d
Lims ID: 580-87706-A-5-E MS
Client ID: 22T-SG-12_20190716
Sample Type: MS
Inject. Date: 23-Jul-2019 17:38:04 ALS Bottle#: 17 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-5-E MS
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:11:05 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 11:27:19

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.604	3.606	-0.002	19886932	8.33	2.98	
2	3.938	3.940	-0.002	95515324	8.33	3.58	
						RPD = 18.38	
* 2 1-Bromo-2-nitrobenzene							
1	4.464	4.467	-0.003	140781836	33.3	100.0	
2	4.827	4.829	-0.002	651824036	33.3	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.076	5.081	-0.005	27115824	8.33	4.74	
2	5.533	5.535	-0.002	89437541	8.33	4.98	
						RPD = 4.93	
6 PCB-1232							
1	5.270	5.265	0.005	46047		NC	
1	0.000	5.500	-5.500	0		NC	
1	5.782	5.778	0.004	49612		NC	
1	0.000	5.979	-5.979	0		NC	
1	6.381	6.380	0.001	19445		NC	
		Average of Peak Amounts =				0	
2	0.000	5.740	-5.740	0		NC	
2	0.000	6.330	-6.330	0		NC	
2	6.421	6.424	-0.003	243260		NC	
2	6.747	6.746	0.001	30061		NC	
2	7.029	7.037	-0.008	30779		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
7 Hexachlorobenzene							
1	5.346	5.349	-0.003	31244092	8.33	4.79	
2	5.887	5.889	-0.002	113006287	8.33	4.92	
						RPD = 2.76	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 alpha-BHC							
1	5.451	5.454	-0.003	15035114	8.33	3.91	
2	5.991	5.993	-0.002	79567838	8.33	5.27	
						RPD = 29.69	
10 PCB-1242							
1	0.000	5.500	-5.500	0		NC	
1	5.782	5.778	0.004	49612		NC	
1	0.000	6.009	-6.009	0		NC	
1	6.093	6.093	0.000	38745		NC	
1	6.381	6.380	0.001	19445		NC	
		Average of Peak Amounts =				0	
2	6.024	6.025	-0.001	539205		NC	
2	0.000	6.330	-6.330	0		NC	
2	6.421	6.424	-0.003	243260		NC	
2	6.731	6.732	-0.001	43558		NC	
2	6.994	6.994	0.000	37744		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
9 PCB-1016							
1	0.000	5.500	-5.500	0		NC	
1	5.782	5.778	0.004	49612		NC	
1	0.000	6.009	-6.009	0		NC	
1	6.093	6.093	0.000	38745		NC	
1	6.346	6.342	0.004	2454486		NC	
		Average of Peak Amounts =				0	
2	6.024	6.025	-0.001	539205		NC	
2	0.000	6.330	-6.330	0		NC	
2	6.421	6.424	-0.003	243260		NC	
2	6.542	6.548	-0.006	13844481		NC	
2	6.731	6.732	-0.001	43558		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
11 gamma-BHC (Lindane)							
1	5.655	5.658	-0.003	10064018	8.33	2.98	
2	6.252	6.254	-0.002	39205558	8.33	3.33	
						RPD = 11.13	
12 beta-BHC							
1	5.713	5.714	-0.001	7532127	8.33	3.32	
2	6.305	6.306	-0.001	20216634	8.33	2.35	
						RPD = 34.35	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
14 PCB-1248							
1	5.782	5.778	0.004	49612		NC	
1	0.000	5.979	-5.979	0		NC	
1	6.093	6.093	0.000	38745		NC	
1	6.381	6.380	0.001	19445		NC	
1	6.765	6.775	-0.010	31281877		NC	
		Average of Peak Amounts =				0	
2	6.542	6.548	-0.006	13844481		NC	
2	6.731	6.732	-0.001	43558		NC	
2	6.824	6.815	0.009	90598878		NC	
2	7.029	7.037	-0.008	30779		NC	
2	7.211	7.215	-0.004	182138		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
13 delta-BHC							
1	5.825	5.831	-0.006	7348354	8.33	2.03	
2	6.529	6.531	-0.002	11194196	8.33	0.4414	
						RPD = 128.52	
15 Heptachlor							
1	5.969	5.970	-0.001	17770873	8.33	5.21	
2	6.578	6.579	-0.001	38333038	8.33	3.72	
						RPD = 33.26	
18 Aldrin							
1	6.162	6.165	-0.003	19114337	8.33	3.77	
2	6.824	6.826	-0.002	90598878	8.33	5.62	
						RPD = 39.46	
19 PCB-1254							
1	6.346	6.342	0.004	2454486		NC	
1	6.518	6.512	0.006	40539		NC	
1	6.765	6.775	-0.010	31281877		NC	
1	0.000	6.957	-6.957	0		NC	
1	7.278	7.288	-0.010	13865397		NC	
		Average of Peak Amounts =				0	
2	7.029	7.037	-0.008	30779		NC	
2	7.166	7.164	0.002	1281451		NC	
2	0.000	7.516	-7.516	0		NC	
2	7.684	7.681	0.003	49499		NC	
2	8.085	8.080	0.005	75057		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
22 Heptachlor epoxide							a
1	6.546	6.549	-0.003	27129497	8.33	6.29	a
2	7.245	7.246	-0.001	55362811	8.33	4.45	a
						RPD = 34.26	
23 trans-Chlordane							
1	6.631	6.633	-0.002	24881657	8.33	4.29	
2	7.386	7.387	-0.001	84524298	8.33	5.54	
						RPD = 25.43	
25 cis-Chlordane							
1	6.718	6.720	-0.002	29025792	8.33	4.79	
2	7.496	7.497	-0.001	61366493	8.33	3.89	
						RPD = 20.75	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 4,4'-DDE							
1	6.765	6.768	-0.003	31281877	8.33	6.04	
2	7.606	7.607	-0.001	133780344	8.33	8.03	
						RPD = 28.30	
27 Endosulfan I							
1	6.806	6.807	-0.001	19348693	8.33	4.04	
2	7.548	7.550	-0.002	57326782	8.33	4.27	
						RPD = 5.62	
30 PCB-1260							
1	0.000	6.894	-6.894	0		NC	
1	7.088	7.083	0.005	1557472		NC	
1	7.278	7.288	-0.010	13865397		NC	
1	7.532	7.536	-0.004	9438576		NC	
1	0.000	7.966	-7.966	0		NC	
		Average of Peak Amounts =				0	
2	7.657	7.658	-0.001	1081459		NC	
2	7.818	7.819	-0.001	41333		NC	
2	8.100	8.100	0.000	166954		NC	
2	8.418	8.414	0.004	262991		NC	
2	8.895	8.896	-0.001	43024		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
29 Dieldrin							M
1	6.967	6.970	-0.003	21029353	8.33	4.24	
2	7.760	7.761	-0.001	74824907	8.33	5.15	M
						RPD = 19.44	
35 PCB-1262							M
1	7.088	7.083	0.005	1557472		NC	
1	7.362	7.353	0.009	11632013		NC	
1	7.556	7.554	0.002	443998		NC	
1	7.754	7.760	-0.006	2770870		NC	
1	0.000	7.966	-7.966	0		NC	
		Average of Peak Amounts =				0	
2	7.657	7.658	-0.001	1081459		NC	
2	7.818	7.819	-0.001	41333		NC	
2	8.146	8.153	-0.007	61748		NC	
2	8.583	8.581	0.002	33730		NC	
2	8.861	8.873	-0.012	7671404		NC	M
		Average of Peak Amounts =				0	
						RPD = 0.00	
33 Endrin							
1	7.124	7.127	-0.003	11896568	8.33	3.78	
2	8.004	8.005	-0.001	54850490	8.33	5.16	
						RPD = 30.85	
36 4,4'-DDD							
1	7.163	7.167	-0.004	28277698	8.33	8.68	
2	8.053	8.055	-0.002	97135259	8.33	10.3	
						RPD = 17.39	
37 Endosulfan II							
1	7.278	7.280	-0.002	13865397	8.33	3.94	
2	8.165	8.168	-0.003	45445286	8.33	3.69	
						RPD = 6.54	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 4,4'-DDT							
1	7.362	7.365	-0.003	11632013	8.33	3.81	
2	8.306	8.306	0.000	38297997	8.33	4.16	
						RPD = 8.83	
40 Methoxychlor							M
1	7.718	7.720	-0.002	4872879	8.33	3.31	M
2	8.861	8.860	0.001	7671404	8.33	1.06	M
						RPD = 103.13	
42 Endosulfan sulfate							M
1	7.878	7.879	-0.001	8510146	8.33	1.72	M
2	8.643	8.646	-0.003	18982833	8.33	1.62	M
						RPD = 6.39	
43 PCB-1268							
1	7.996	7.991	0.005	23220		NC	
1	8.034	8.038	-0.004	15843		NC	
1	8.165	8.172	-0.007	113143		NC	
1	8.658	8.663	-0.005	3320264		NC	
1	8.812	8.812	0.000	16773		NC	
		Average of Peak Amounts =				0	
2	8.889	8.891	-0.002	123205		NC	
2	8.900	8.900	0.000	46632		NC	
2	9.142	9.144	-0.002	116329		NC	
2	9.631	9.632	-0.001	657928		NC	
2	9.859	9.857	0.002	170266		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
44 Endrin ketone							
1	8.091	8.094	-0.003	9623715	8.33	2.48	
2	9.103	9.104	-0.001	32188896	8.33	3.76	
						RPD = 41.08	
$ 45 DCB Decachlorobiphenyl							M
1	8.885	8.884	0.001	25124083	8.33	2.63	M
2	10.089	10.091	-0.002	65482082	8.33	4.18	M
						RPD = 45.40	
47 1260 Res 2							
1	7.996	7.997	-0.001	23220		NR	
2	8.964	8.967	-0.003	169093		NR	
						RPD = 0.00	
46 1260 Res 1							
1	8.034	8.042	-0.008	15843		NR	
2	8.978	8.973	0.005	61608		NR	
						RPD = 0.00	
48 1260 Res 3							
1	8.152	8.153	-0.001	15348		NR	
2	9.120	9.120	0.000	59108		NR	
						RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:19:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0021.d

Injection Date: 23-Jul-2019 17:38:04 Instrument ID: TAC034

Lims ID: 580-87706-A-5-E MS

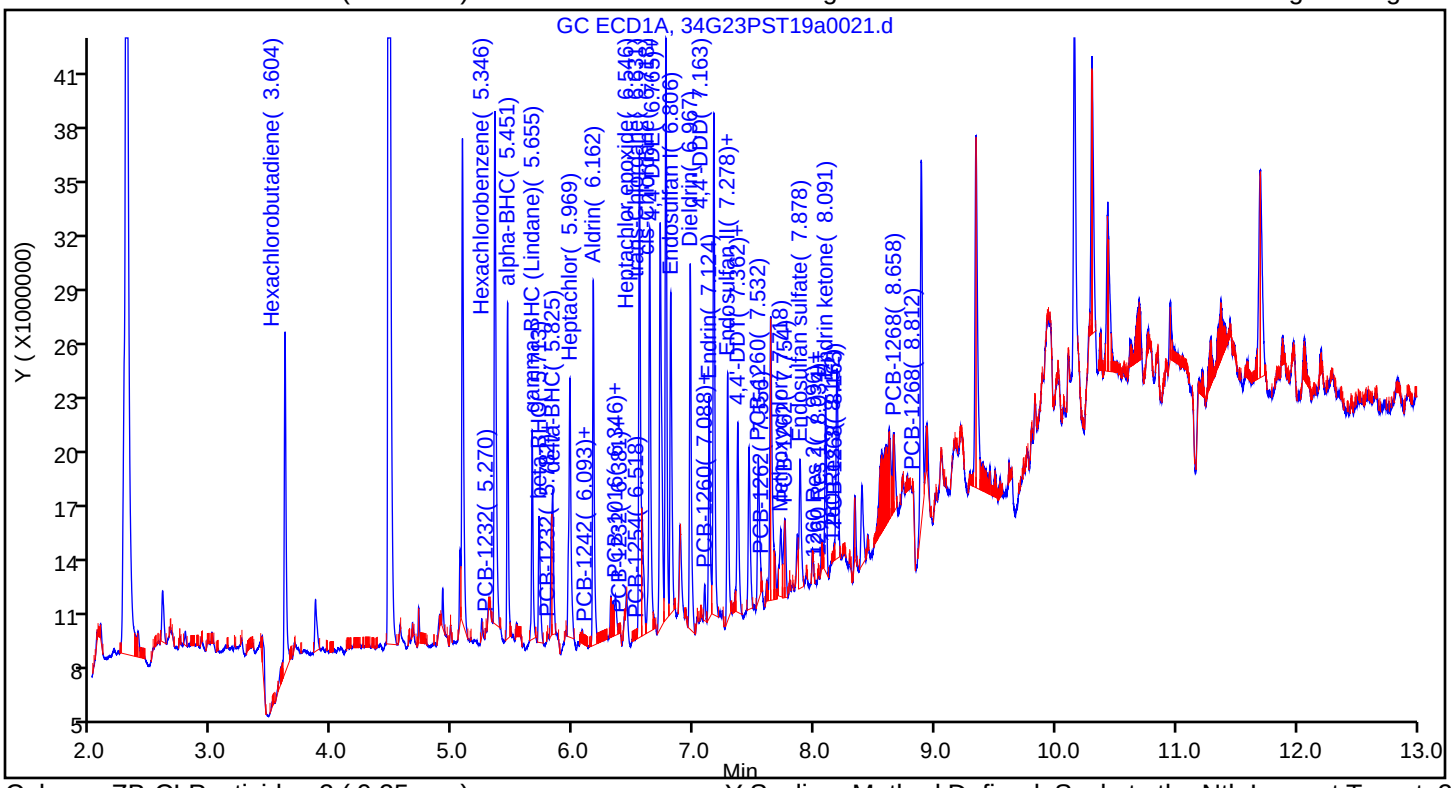
Client ID: 22T-SG-12_20190716

Operator ID: CJB ALS Bottle#: 17 Worklist Smp#: 19

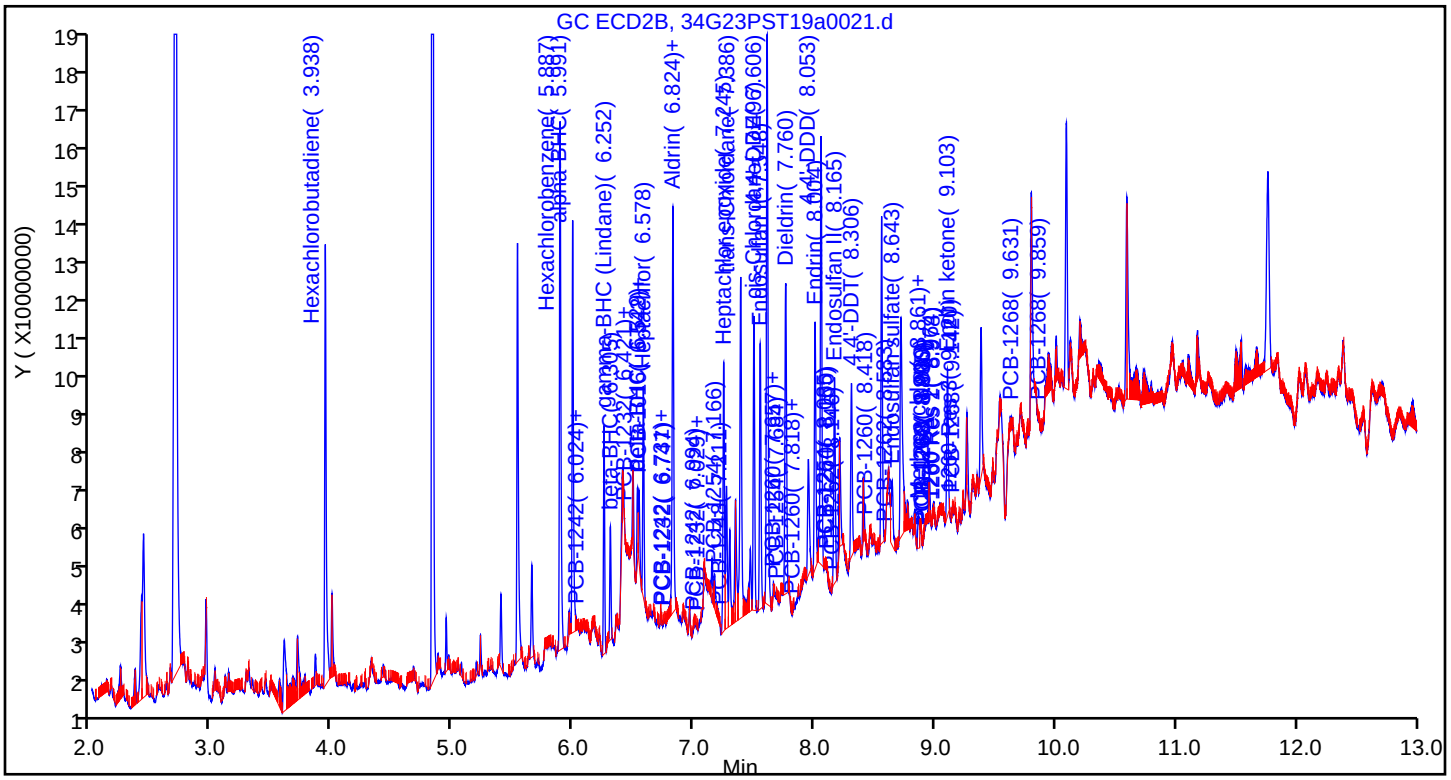
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0021.d				
Lims ID:	580-87706-A-5-E MS				
Client ID:	22T-SG-12_20190716				
Sample Type:	MS				
Inject. Date:	23-Jul-2019 17:38:04	ALS Bottle#:	17	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-5-E MS				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:11:05	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 11:27:19		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.74	56.88
$ 45 DCB Decachlorobiphenyl	25.0	2.63	31.59

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	4.98	59.75
$ 45 DCB Decachlorobiphenyl	25.0	4.18	50.15

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

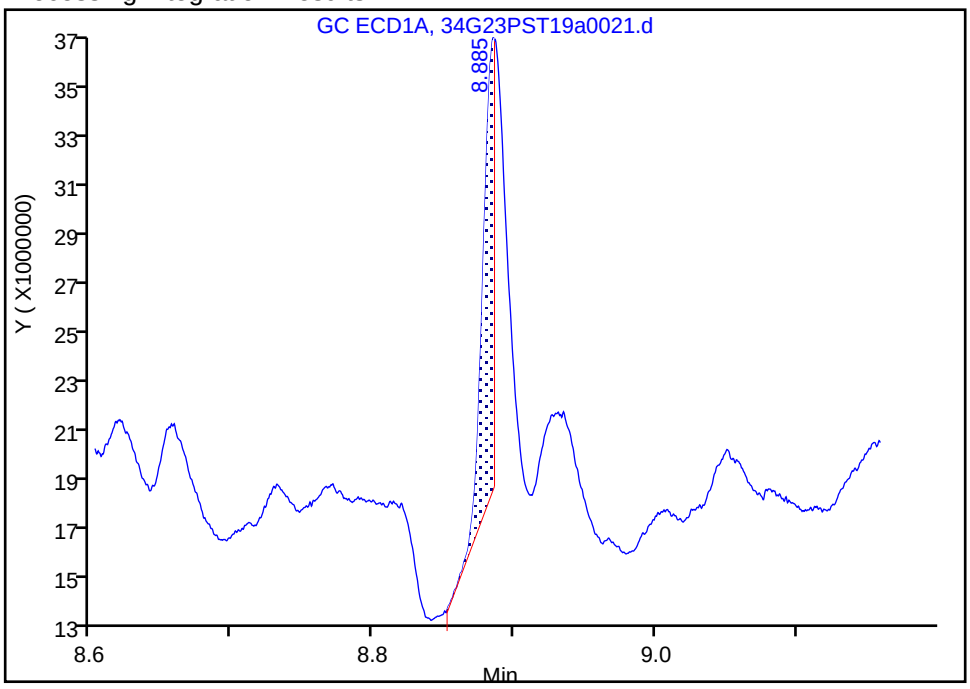
Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0021.d				
Injection Date:	23-Jul-2019 17:38:04	Instrument ID:	TAC034		
Lims ID:	580-87706-A-5-E MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	CJB	ALS Bottle#:	17	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Method:	8182ISTD_TAC034	Limit Group:	8081A_B, DOD ISTD Pesticides		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 45 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

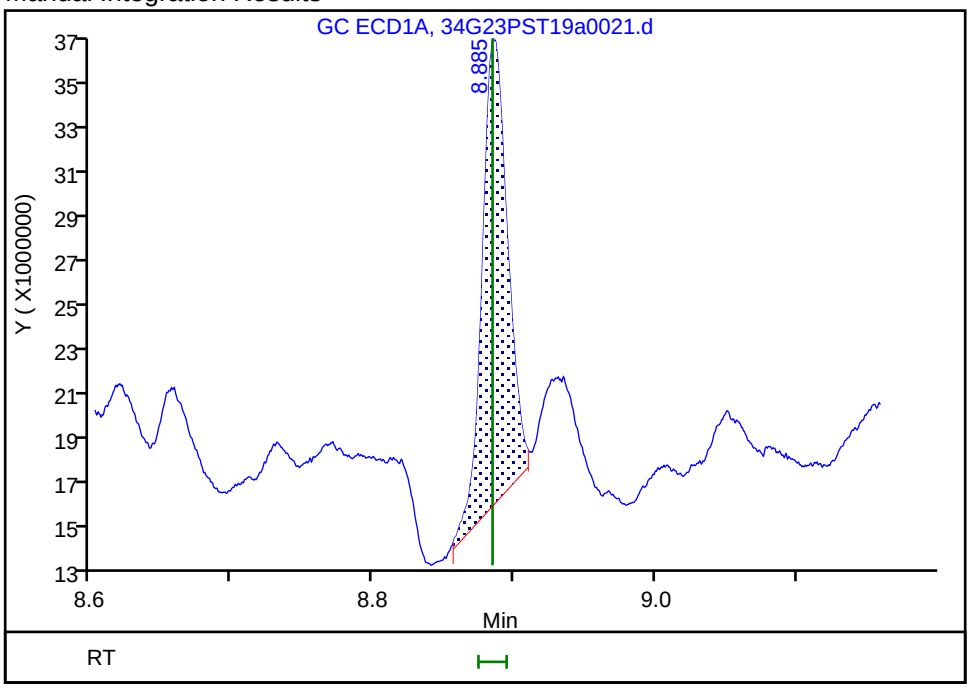
Processing Integration Results

RT: 8.89
Area: 9663438
Amount: 0.144183
Amount Units: ug/L



Manual Integration Results

RT: 8.88
Area: 25124083
Amount: 2.632861
Amount Units: ug/L



Reviewer: limwirojt, 24-Jul-2019 11:26:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MSD Lab Sample ID: 580-87706-5 MSD

Matrix: Solid Lab File ID: 34G23PST19a0022.d

Analysis Method: 8081B Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.958(g) Date Analyzed: 07/23/2019 17:57

Con. Extract Vol.: 2(mL) Dilution Factor: 3

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 60.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306388 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
53-19-0	2,4'-DDD	ND		3.6	0.80
3424-82-6	2,4'-DDE	ND		3.6	0.66
789-02-6	2,4'-DDT	ND		3.6	1.4
72-54-8	4,4'-DDD	3.74		1.4	0.28
72-55-9	4,4'-DDE	3.75		1.4	0.38
50-29-3	4,4'-DDT	0.565	J	1.4	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	46		36-136
877-09-8	Tetrachloro-m-xylene	6	X	50-123

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0022.d
Lims ID: 580-87706-A-5-F MSD
Client ID: 22T-SG-12_20190716
Sample Type: MSD
Inject. Date: 23-Jul-2019 17:57:22 ALS Bottle#: 18 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 3.0000
Sample Info: 580-87706-A-5-F MSD
Misc. Info.: TBA 3X
Operator ID: CJB Instrument ID: TAC034

Method: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m
Limit Group: 8081A_B, DOD ISTD Pesticides
Last Update: 24-Jul-2019 12:22:03 Calib Date: 14-Jul-2019 07:11:36
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0305

First Level Reviewer: limwirojt Date: 24-Jul-2019 12:22:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
1 Hexachlorobutadiene							
1	3.603	3.606	-0.003	24772558	8.33	3.57	
2	3.937	3.940	-0.003	105123943	8.33	3.76	
						RPD = 5.17	
* 2 1-Bromo-2-nitrobenzene							
1	4.464	4.467	-0.003	142508258	33.3	100.0	
2	4.827	4.829	-0.002	683095616	33.3	100.0	
						RPD = 0.00	
$ 4 Tetrachloro-m-xylene							
1	5.076	5.081	-0.005	2727925	8.33	0.4711	
2	5.533	5.535	-0.002	94533656	8.33	5.02	
						RPD = 165.70	
6 PCB-1232							
1	5.272	5.265	0.007	417921		NC	
1	0.000	5.500	-5.500	0		NC	
1	5.782	5.778	0.004	17457		NC	
1	0.000	5.979	-5.979	0		NC	
1	6.380	6.380	0.000	26801		NC	
		Average of Peak Amounts =				0	
2	5.741	5.740	0.001	48688		NC	
2	6.330	6.330	0.000	37711		NC	
2	6.423	6.424	-0.001	58689		NC	
2	6.747	6.746	0.001	254244		NC	
2	7.037	7.037	0.000	37432		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
7 Hexachlorobenzene							
1	5.345	5.349	-0.004	39111682	8.33	5.92	
2	5.888	5.889	-0.001	139870947	8.33	5.81	
						RPD = 1.84	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
8 alpha-BHC							
1	5.452	5.454	-0.002	15626517	8.33	3.99	
2	5.991	5.993	-0.002	85970538	8.33	5.44	
						RPD = 30.67	
10 PCB-1242							
1	0.000	5.500	-5.500	0		NC	
1	5.782	5.778	0.004	17457		NC	
1	0.000	6.009	-6.009	0		NC	
1	6.100	6.093	0.007	17801		NC	
1	6.380	6.380	0.000	26801		NC	
		Average of Peak Amounts =				0	
2	6.024	6.025	-0.001	675184		NC	
2	6.330	6.330	0.000	37711		NC	
2	6.423	6.424	-0.001	58689		NC	
2	6.732	6.732	0.000	116630		NC	
2	6.993	6.994	-0.001	302421		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
9 PCB-1016							
1	0.000	5.500	-5.500	0		NC	
1	5.782	5.778	0.004	17457		NC	
1	0.000	6.009	-6.009	0		NC	
1	6.100	6.093	0.007	17801		NC	
1	6.347	6.342	0.005	1667400		NC	
		Average of Peak Amounts =				0	
2	6.024	6.025	-0.001	675184		NC	
2	6.330	6.330	0.000	37711		NC	
2	6.423	6.424	-0.001	58689		NC	
2	6.543	6.548	-0.005	12115529		NC	
2	6.732	6.732	0.000	116630		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
11 gamma-BHC (Lindane)							
1	5.656	5.658	-0.002	10260913	8.33	3.00	
2	6.252	6.254	-0.002	40141528	8.33	3.26	
						RPD = 8.21	
12 beta-BHC							
1	5.713	5.714	-0.001	7293571	8.33	3.18	
2	6.303	6.306	-0.003	18501109	8.33	1.94	
						RPD = 48.20	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
14 PCB-1248							
1	5.782	5.778	0.004	17457		NC	
1	0.000	5.979	-5.979	0		NC	
1	6.100	6.093	0.007	17801		NC	
1	6.380	6.380	0.000	26801		NC	
1	6.765	6.775	-0.010	26441054		NC	
		Average of Peak Amounts =				0	
2	6.543	6.548	-0.005	12115529		NC	
2	6.732	6.732	0.000	116630		NC	
2	6.823	6.815	0.008	93754451		NC	
2	7.037	7.037	0.000	37432		NC	
2	7.214	7.215	-0.001	92487		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
13 delta-BHC							
1	5.826	5.831	-0.005	11791012	8.33	3.09	
2	6.528	6.531	-0.003	15461604	8.33	0.7200	
						RPD = 124.48	
15 Heptachlor							
1	5.968	5.970	-0.002	19960088	8.33	5.78	
2	6.578	6.579	-0.001	35704246	8.33	3.31	
						RPD = 54.35	
18 Aldrin							
1	6.163	6.165	-0.002	19394348	8.33	3.78	
2	6.823	6.826	-0.003	93754451	8.33	5.55	
						RPD = 38.02	
19 PCB-1254							
1	6.347	6.342	0.005	1667400		NC	
1	0.000	6.512	-6.512	0		NC	
1	6.765	6.775	-0.010	26441054		NC	
1	0.000	6.957	-6.957	0		NC	
1	7.279	7.288	-0.009	15717012		NC	
		Average of Peak Amounts =				0	
2	7.037	7.037	0.000	37432		NC	
2	7.168	7.164	0.004	4284969		NC	
2	0.000	7.516	-7.516	0		NC	
2	7.684	7.681	0.003	34903		NC	
2	8.082	8.080	0.002	80062		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
20 oxy-Chlordane							
1	6.488	6.484	0.004	18491		0.004231	
2	7.171	7.175	-0.004	5842619		0.3280	
						RPD = 194.90	
LOD = 0.0800							
22 Heptachlor epoxide							a
1	6.546	6.549	-0.003	16126057	8.33	3.70	a
2	7.245	7.246	-0.001	54120480	8.33	4.15	a
						RPD = 11.67	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
23 trans-Chlordane							
1	6.630	6.633	-0.003	20070333	8.33	3.42	
2	7.386	7.387	-0.001	69146106	8.33	4.32	
						RPD = 23.40	
25 cis-Chlordane							
1	6.719	6.720	-0.001	30242655	8.33	4.93	
2	7.496	7.497	-0.001	64299835	8.33	3.89	
						RPD = 23.62	
26 4,4'-DDE							
1	6.765	6.768	-0.003	26441054	8.33	5.19	
2	7.606	7.607	-0.001	107494509	8.33	6.15	
						RPD = 17.07	
27 Endosulfan I							
1	6.806	6.807	-0.001	17389151	8.33	3.58	
2	7.549	7.550	-0.001	58504495	8.33	4.14	
						RPD = 14.42	
30 PCB-1260							
1	6.887	6.894	-0.007	793330		NC	
1	7.087	7.083	0.004	174790		NC	
1	7.279	7.288	-0.009	15717012		NC	
1	7.533	7.536	-0.003	1429664		NC	
1	0.000	7.966	-7.966	0		NC	
		Average of Peak Amounts =				0	
2	7.658	7.658	0.000	332008		NC	
2	7.815	7.819	-0.004	45802		NC	
2	8.100	8.100	0.000	225930		NC	
2	8.421	8.414	0.007	514213		NC	
2	8.896	8.896	0.000	32664		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
29 Dieldrin							
1	6.968	6.970	-0.002	21192626	8.33	4.22	
2	7.759	7.761	-0.002	71634973	8.33	4.71	
						RPD = 10.90	
35 PCB-1262							
1	7.087	7.083	0.004	174790		NC	
1	7.349	7.353	-0.004	32902		NC	
1	7.561	7.554	0.007	26254		NC	
1	7.755	7.760	-0.005	223245		NC	
1	0.000	7.966	-7.966	0		NC	
		Average of Peak Amounts =				0	
2	7.658	7.658	0.000	332008		NC	
2	7.815	7.819	-0.004	45802		NC	
2	8.147	8.153	-0.006	536347		NC	
2	0.000	8.581	-8.581	0		NC	
2	8.873	8.873	0.000	1046317		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
33 Endrin							M
1	7.125	7.127	-0.002	11527491	8.33	3.62	
2	8.004	8.005	-0.001	55059959	8.33	4.95	M
						RPD = 30.92	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
36 4,4'-DDD							
1	7.164	7.167	-0.003	16435489	8.33	5.17	
2	8.054	8.055	-0.001	55379493	8.33	5.62	
						RPD = 8.42	
37 Endosulfan II							
1	7.279	7.280	-0.001	15717012	8.33	4.41	
2	8.165	8.168	-0.003	50357836	8.33	3.99	
						RPD = 10.04	
38 4,4'-DDT							M
1	7.362	7.365	-0.003	2413977	8.33	0.7801	
2	8.306	8.306	0.000	17349845	8.33	1.80	M
						RPD = 78.91	
40 Methoxychlor							M
1	7.713	7.720	-0.007	5689373	8.33	3.82	M
2	8.862	8.860	0.002	6485117	8.33	0.6564	M
						RPD = 141.29	
42 Endosulfan sulfate							M
1	7.880	7.879	0.001	6733659	8.33	1.32	
2	8.644	8.646	-0.002	13476129	8.33	1.00	M
						RPD = 28.20	
43 PCB-1268							
1	7.984	7.991	-0.007	1986694		NC	
1	8.035	8.038	-0.003	162295		NC	
1	0.000	8.172	-8.172	0		NC	
1	8.656	8.663	-0.007	14595799		NC	
1	8.813	8.812	0.001	54539		NC	
		Average of Peak Amounts =				0	
2	8.886	8.891	-0.005	572977		NC	
2	8.901	8.900	0.001	95094		NC	
2	9.144	9.144	0.000	60145		NC	
2	9.633	9.632	0.001	1080766		NC	
2	9.856	9.857	-0.001	60425		NC	
		Average of Peak Amounts =				0	
						RPD = 0.00	
44 Endrin ketone							M
1	8.092	8.094	-0.002	8673853	8.33	2.20	
2	9.102	9.104	-0.002	35459248	8.33	3.96	M
						RPD = 56.87	
$ 45 DCB Decachlorobiphenyl							
1	8.885	8.884	0.001	33064139	8.33	3.85	
2	10.089	10.091	-0.002	66301291	8.33	4.02	
						RPD = 4.49	
48 1260 Res 3							M
1	8.160	8.153	0.007	21090		NR	
2	0.000	9.120	-9.120	0		NR	
						RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8182_ISTD_ULT_00013	Amount Added:	10.00	Units: uL	Run Reagent
Hexanes_00006	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 12:22:04 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0022.d

Injection Date: 23-Jul-2019 17:57:22 Instrument ID: TAC034

Lims ID: 580-87706-A-5-F MSD

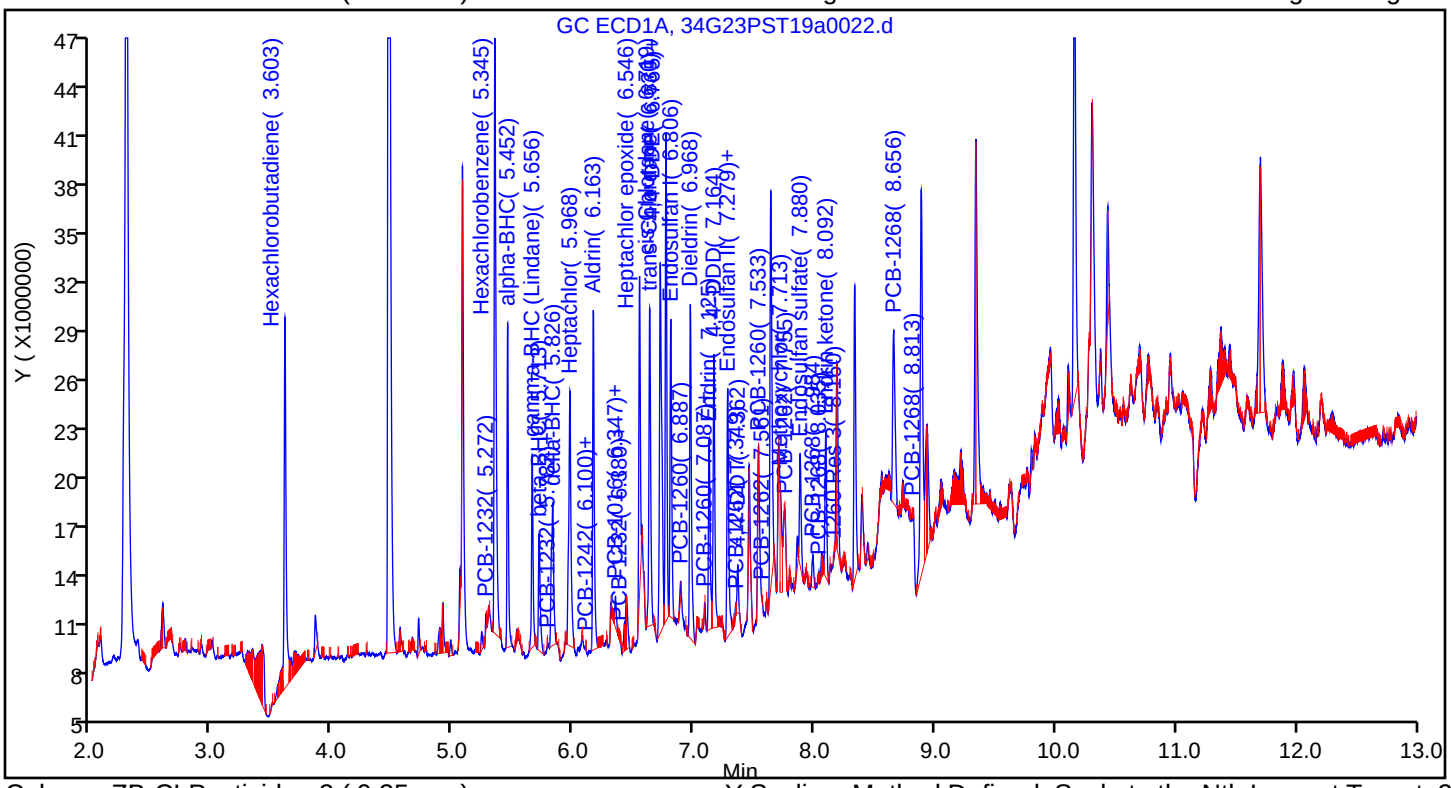
Client ID: 22T-SG-12_20190716

Operator ID: CJB ALS Bottle#: 18 Worklist Smp#: 20

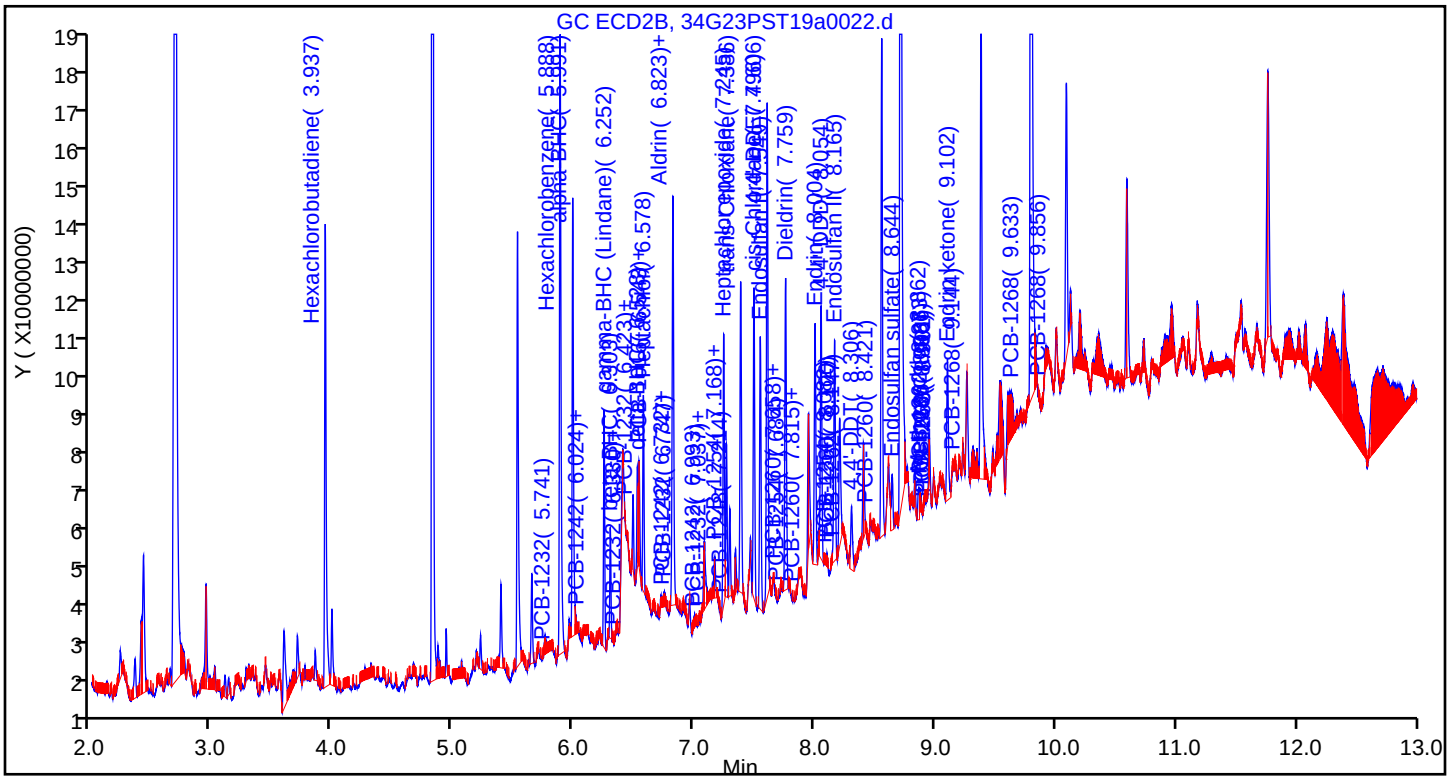
Injection Vol: 1.0 ul Dil. Factor: 3.0000

Method: 8182ISTD_TAC034 Limit Group: 8081A_B, DOD ISTD Pesticides

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\34G23PST19a0022.d				
Lims ID:	580-87706-A-5-F MSD				
Client ID:	22T-SG-12_20190716				
Sample Type:	MSD				
Inject. Date:	23-Jul-2019 17:57:22	ALS Bottle#:	18	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	3.0000		
Sample Info:	580-87706-A-5-F MSD				
Misc. Info.:	TBA 3X				
Operator ID:	CJB	Instrument ID:	TAC034		
Method:	\\chromna\Seattle\ChromData\TAC034\20190723-66479.b\8182ISTD_TAC034.m				
Limit Group:	8081A_B, DOD ISTD Pesticides				
Last Update:	24-Jul-2019 12:22:03	Calib Date:	14-Jul-2019 07:11:36		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC034\20190713-66306.b\34G13PST19a0044.d				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0305				
First Level Reviewer: limwirojt		Date:	24-Jul-2019 12:22:03		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	0.4711	5.65
$ 45 DCB Decachlorobiphenyl	25.0	3.85	46.17

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Tetrachloro-m-xylene	25.0	5.02	60.26
$ 45 DCB Decachlorobiphenyl	25.0	4.02	48.29

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Start Date: 02/27/2019 10:36

Analysis Batch Number: 295252 End Date: 02/28/2019 00:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 580-295252/3		02/27/2019 10:36	1		ZB-CLPest-1 0.25(mm)
PEM 580-295252/3		02/27/2019 10:36	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/4		02/27/2019 10:58	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/4		02/27/2019 10:58	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/5		02/27/2019 11:19	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/5		02/27/2019 11:19	1		ZB-CLPest-2 0.25(mm)
ICIS 580-295252/6		02/27/2019 11:41	1		ZB-CLPest-1 0.25(mm)
ICIS 580-295252/6		02/27/2019 11:41	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/7		02/27/2019 12:03	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/7		02/27/2019 12:03	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/8		02/27/2019 12:24	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/8		02/27/2019 12:24	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/9		02/27/2019 12:46	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/9		02/27/2019 12:46	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/10		02/27/2019 13:08	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/10		02/27/2019 13:08	1		ZB-CLPest-2 0.25(mm)
ICV 580-295252/11		02/27/2019 13:30	1	45B227a011.D	ZB-CLPest-1 0.25(mm)
ICV 580-295252/11		02/27/2019 13:30	1	45B227a011.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/12		02/27/2019 13:53	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/12		02/27/2019 13:53	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/13		02/27/2019 14:15	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/13		02/27/2019 14:15	1		ZB-CLPest-2 0.25(mm)
ICIS 580-295252/14		02/27/2019 14:37	1		ZB-CLPest-1 0.25(mm)
ICIS 580-295252/14		02/27/2019 14:37	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/15		02/27/2019 14:59	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/15		02/27/2019 14:59	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/16		02/27/2019 15:22	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/16		02/27/2019 15:22	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/17		02/27/2019 15:44	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/17		02/27/2019 15:44	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/18		02/27/2019 16:06	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/18		02/27/2019 16:06	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/19		02/27/2019 16:28	1		ZB-CLPest-1 0.25(mm)
IC 580-295252/19		02/27/2019 16:28	1		ZB-CLPest-2 0.25(mm)
ICV 580-295252/20		02/27/2019 16:50	1	45B227a020.D	ZB-CLPest-1 0.25(mm)
ICV 580-295252/20		02/27/2019 16:50	1	45B227a020.D	ZB-CLPest-2 0.25(mm)
PEM 580-295252/21		02/27/2019 17:12	1		ZB-CLPest-1 0.25(mm)
PEM 580-295252/21		02/27/2019 17:12	1		ZB-CLPest-2 0.25(mm)
IC 580-295252/22		02/27/2019 17:34	1	45B227a022.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/22		02/27/2019 17:34	1	45B227a022.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/23		02/27/2019 17:56	1	45B227a023.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/23		02/27/2019 17:56	1	45B227a023.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/24		02/27/2019 18:18	1	45B227a024.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/24		02/27/2019 18:18	1	45B227a024.D	ZB-CLPest-2 0.25(mm)
ICIS 580-295252/25		02/27/2019 18:40	1	45B227a025.D	ZB-CLPest-1 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Start Date: 02/27/2019 10:36

Analysis Batch Number: 295252 End Date: 02/28/2019 00:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICIS 580-295252/25		02/27/2019 18:40	1	45B227a025.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/26		02/27/2019 19:02	1	45B227a026.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/26		02/27/2019 19:02	1	45B227a026.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/27		02/27/2019 19:24	1	45B227a027.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/27		02/27/2019 19:24	1	45B227a027.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/28		02/27/2019 19:46	1	45B227a028.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/28		02/27/2019 19:46	1	45B227a028.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/29		02/27/2019 20:07	1	45B227a029.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/29		02/27/2019 20:07	1	45B227a029.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/30		02/27/2019 20:29	1	45B227a030.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/30		02/27/2019 20:29	1	45B227a030.D	ZB-CLPest-2 0.25(mm)
ICV 580-295252/31		02/27/2019 20:51	1	45B227a031.D	ZB-CLPest-1 0.25(mm)
ICV 580-295252/31		02/27/2019 20:51	1	45B227a031.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/32		02/27/2019 21:12	1	45B227a032.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/32		02/27/2019 21:12	1	45B227a032.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/33		02/27/2019 21:34	1	45B227a033.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/33		02/27/2019 21:34	1	45B227a033.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/34		02/27/2019 21:55	1	45B227a034.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/34		02/27/2019 21:55	1	45B227a034.D	ZB-CLPest-2 0.25(mm)
ICIS 580-295252/35		02/27/2019 22:17	1	45B227a035.D	ZB-CLPest-1 0.25(mm)
ICIS 580-295252/35		02/27/2019 22:17	1	45B227a035.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/36		02/27/2019 22:37	1	45B227a036.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/36		02/27/2019 22:37	1	45B227a036.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/37		02/27/2019 22:58	1	45B227a037.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/37		02/27/2019 22:58	1	45B227a037.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/38		02/27/2019 23:18	1	45B227a038.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/38		02/27/2019 23:18	1	45B227a038.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/39		02/27/2019 23:39	1	45B227a039.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/39		02/27/2019 23:39	1	45B227a039.D	ZB-CLPest-2 0.25(mm)
IC 580-295252/40		02/27/2019 23:59	1	45B227a040.D	ZB-CLPest-1 0.25(mm)
IC 580-295252/40		02/27/2019 23:59	1	45B227a040.D	ZB-CLPest-2 0.25(mm)
ICV 580-295252/41		02/28/2019 00:20	1	45B227a041.D	ZB-CLPest-1 0.25(mm)
ICV 580-295252/41		02/28/2019 00:20	1	45B227a041.D	ZB-CLPest-2 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Start Date: 07/13/2019 19:12

Analysis Batch Number: 305574 End Date: 07/14/2019 07:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 580-305574/3		07/13/2019 19:12	1		ZB-CLPest-1 0.25(mm)
PEM 580-305574/3		07/13/2019 19:12	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/4		07/13/2019 19:32	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/4		07/13/2019 19:32	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/5		07/13/2019 19:51	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/5		07/13/2019 19:51	1		ZB-CLPest-2 0.25(mm)
ICIS 580-305574/6		07/13/2019 20:11	1		ZB-CLPest-1 0.25(mm)
ICIS 580-305574/6		07/13/2019 20:11	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/7		07/13/2019 20:30	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/7		07/13/2019 20:30	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/8		07/13/2019 20:50	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/8		07/13/2019 20:50	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/9		07/13/2019 21:09	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/9		07/13/2019 21:09	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/10		07/13/2019 21:29	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/10		07/13/2019 21:29	1		ZB-CLPest-2 0.25(mm)
ICV 580-305574/11		07/13/2019 21:48	1	34G13PST19a0015.d	ZB-CLPest-1 0.25(mm)
ICV 580-305574/11		07/13/2019 21:48	1	34G13PST19a0015.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/12		07/13/2019 22:08	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/12		07/13/2019 22:08	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/13		07/13/2019 22:27	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/13		07/13/2019 22:27	1		ZB-CLPest-2 0.25(mm)
ICIS 580-305574/14		07/13/2019 22:47	1		ZB-CLPest-1 0.25(mm)
ICIS 580-305574/14		07/13/2019 22:47	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/15		07/13/2019 23:06	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/15		07/13/2019 23:06	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/16		07/13/2019 23:25	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/16		07/13/2019 23:25	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/17		07/13/2019 23:45	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/17		07/13/2019 23:45	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/18		07/14/2019 00:04	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/18		07/14/2019 00:04	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/19		07/14/2019 00:24	1		ZB-CLPest-1 0.25(mm)
IC 580-305574/19		07/14/2019 00:24	1		ZB-CLPest-2 0.25(mm)
ICV 580-305574/20		07/14/2019 00:43	1	34G13PST19a0024.d	ZB-CLPest-1 0.25(mm)
ICV 580-305574/20		07/14/2019 00:43	1	34G13PST19a0024.d	ZB-CLPest-2 0.25(mm)
PEM 580-305574/21		07/14/2019 01:03	1		ZB-CLPest-1 0.25(mm)
PEM 580-305574/21		07/14/2019 01:03	1		ZB-CLPest-2 0.25(mm)
IC 580-305574/22		07/14/2019 01:22	1	34G13PST19a0026.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/22		07/14/2019 01:22	1	34G13PST19a0026.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/23		07/14/2019 01:42	1	34G13PST19a0027.d	ZB-CLPest-1 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Start Date: 07/13/2019 19:12

Analysis Batch Number: 305574 End Date: 07/14/2019 07:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 580-305574/23		07/14/2019 01:42	1	34G13PST19a0027.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/24		07/14/2019 02:01	1	34G13PST19a0028.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/24		07/14/2019 02:01	1	34G13PST19a0028.d	ZB-CLPest-2 0.25(mm)
ICIS 580-305574/25		07/14/2019 02:20	1	34G13PST19a0029.d	ZB-CLPest-1 0.25(mm)
ICIS 580-305574/25		07/14/2019 02:20	1	34G13PST19a0029.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/26		07/14/2019 02:40	1	34G13PST19a0030.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/26		07/14/2019 02:40	1	34G13PST19a0030.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/27		07/14/2019 02:59	1	34G13PST19a0031.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/27		07/14/2019 02:59	1	34G13PST19a0031.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/28		07/14/2019 03:19	1	34G13PST19a0032.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/28		07/14/2019 03:19	1	34G13PST19a0032.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/29		07/14/2019 03:38	1	34G13PST19a0033.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/29		07/14/2019 03:38	1	34G13PST19a0033.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/30		07/14/2019 03:58	1	34G13PST19a0034.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/30		07/14/2019 03:58	1	34G13PST19a0034.d	ZB-CLPest-2 0.25(mm)
ICV 580-305574/31		07/14/2019 04:17	1	34G13PST19a0035.d	ZB-CLPest-1 0.25(mm)
ICV 580-305574/31		07/14/2019 04:17	1	34G13PST19a0035.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/32		07/14/2019 04:36	1	34G13PST19a0036.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/32		07/14/2019 04:36	1	34G13PST19a0036.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/33		07/14/2019 04:56	1	34G13PST19a0037.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/33		07/14/2019 04:56	1	34G13PST19a0037.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/34		07/14/2019 05:15	1	34G13PST19a0038.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/34		07/14/2019 05:15	1	34G13PST19a0038.d	ZB-CLPest-2 0.25(mm)
ICIS 580-305574/35		07/14/2019 05:34	1	34G13PST19a0039.d	ZB-CLPest-1 0.25(mm)
ICIS 580-305574/35		07/14/2019 05:34	1	34G13PST19a0039.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/36		07/14/2019 05:54	1	34G13PST19a0040.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/36		07/14/2019 05:54	1	34G13PST19a0040.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/37		07/14/2019 06:13	1	34G13PST19a0041.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/37		07/14/2019 06:13	1	34G13PST19a0041.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/38		07/14/2019 06:33	1	34G13PST19a0042.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/38		07/14/2019 06:33	1	34G13PST19a0042.d	ZB-CLPest-2 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Start Date: 07/13/2019 19:12

Analysis Batch Number: 305574 End Date: 07/14/2019 07:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 580-305574/39		07/14/2019 06:52	1	34G13PST19a0043.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/39		07/14/2019 06:52	1	34G13PST19a0043.d	ZB-CLPest-2 0.25(mm)
IC 580-305574/40		07/14/2019 07:11	1	34G13PST19a0044.d	ZB-CLPest-1 0.25(mm)
IC 580-305574/40		07/14/2019 07:11	1	34G13PST19a0044.d	ZB-CLPest-2 0.25(mm)
ICV 580-305574/41		07/14/2019 07:30	1	34G13PST19a0045.d	ZB-CLPest-1 0.25(mm)
ICV 580-305574/41		07/14/2019 07:30	1	34G13PST19a0045.d	ZB-CLPest-2 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC045 Start Date: 07/23/2019 08:33

Analysis Batch Number: 306340 End Date: 07/23/2019 21:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 580-306340/3		07/23/2019 08:33	1	45F072319a004.D	ZB-CLPest-1 0.25(mm)
PEM 580-306340/3		07/23/2019 08:33	1	45F072319a004.D	ZB-CLPest-2 0.25(mm)
CCV 580-306340/4		07/23/2019 09:15	1	45F072319a005.D	ZB-CLPest-1 0.25(mm)
CCV 580-306340/4		07/23/2019 09:15	1	45F072319a005.D	ZB-CLPest-2 0.25(mm)
CCV 580-306340/5		07/23/2019 09:58	1	45F072319a006.D	ZB-CLPest-1 0.25(mm)
CCV 580-306340/5		07/23/2019 09:58	1	45F072319a006.D	ZB-CLPest-2 0.25(mm)
CCV 580-306340/6		07/23/2019 10:39	1	45F072319a007.D	ZB-CLPest-1 0.25(mm)
CCV 580-306340/6		07/23/2019 10:39	1	45F072319a007.D	ZB-CLPest-2 0.25(mm)
CCVIS 580-306340/7		07/23/2019 11:21	1	45F072319a008.D	ZB-CLPest-1 0.25(mm)
CCVIS 580-306340/7		07/23/2019 11:21	1	45F072319a008.D	ZB-CLPest-2 0.25(mm)
CCVL 580-306340/8		07/23/2019 12:02	1	45F072319a009.D	ZB-CLPest-1 0.25(mm)
CCVL 580-306340/8		07/23/2019 12:02	1	45F072319a009.D	ZB-CLPest-2 0.25(mm)
CCB 580-306340/9		07/23/2019 12:43	1	45F072319a010.D	ZB-CLPest-1 0.25(mm)
CCB 580-306340/9		07/23/2019 12:43	1	45F072319a010.D	ZB-CLPest-2 0.25(mm)
580-87706-15		07/23/2019 14:47	3	45F072319a013.D	ZB-CLPest-1 0.25(mm)
580-87706-15		07/23/2019 14:47	3	45F072319a013.D	ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 16:57	1		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 16:57	1		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 17:37	1		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 17:37	1		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 18:18	1		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 18:18	1		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 19:00	3		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 19:00	3		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 19:42	3		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 19:42	3		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 20:04	3		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 20:04	3		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 20:55	3		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 20:55	3		ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 21:41	3		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 21:41	3		ZB-CLPest-2 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Start Date: 07/23/2019 12:30

Analysis Batch Number: 306388 End Date: 07/23/2019 20:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 580-306388/3		07/23/2019 12:30	1	34G23PST19a0005.d	ZB-CLPest-1 0.25(mm)
PEM 580-306388/3		07/23/2019 12:30	1	34G23PST19a0005.d	ZB-CLPest-2 0.25(mm)
CCV 580-306388/4		07/23/2019 12:49	1	34G23PST19a0006.d	ZB-CLPest-1 0.25(mm)
CCV 580-306388/4		07/23/2019 12:49	1	34G23PST19a0006.d	ZB-CLPest-2 0.25(mm)
CCV 580-306388/5		07/23/2019 13:08	1	34G23PST19a0007.d	ZB-CLPest-1 0.25(mm)
CCV 580-306388/5		07/23/2019 13:08	1	34G23PST19a0007.d	ZB-CLPest-2 0.25(mm)
CCV 580-306388/6		07/23/2019 13:27	1	34G23PST19a0008.d	ZB-CLPest-1 0.25(mm)
CCV 580-306388/6		07/23/2019 13:27	1	34G23PST19a0008.d	ZB-CLPest-2 0.25(mm)
CCVIS 580-306388/7		07/23/2019 13:46	1	34G23PST19a0009.d	ZB-CLPest-1 0.25(mm)
CCVIS 580-306388/7		07/23/2019 13:46	1	34G23PST19a0009.d	ZB-CLPest-2 0.25(mm)
CCVL 580-306388/8		07/23/2019 14:06	1	34G23PST19a0010.d	ZB-CLPest-1 0.25(mm)
CCVL 580-306388/8		07/23/2019 14:06	1	34G23PST19a0010.d	ZB-CLPest-2 0.25(mm)
CCB 580-306388/9		07/23/2019 14:25	1	34G23PST19a0011.d	ZB-CLPest-1 0.25(mm)
CCB 580-306388/9		07/23/2019 14:25	1	34G23PST19a0011.d	ZB-CLPest-2 0.25(mm)
MB 580-306126/1-A		07/23/2019 14:44	1	34G23PST19a0012.d	ZB-CLPest-1 0.25(mm)
MB 580-306126/1-A		07/23/2019 14:44	1	34G23PST19a0012.d	ZB-CLPest-2 0.25(mm)
LCS 580-306126/2-A		07/23/2019 15:03	1	34G23PST19a0013.d	ZB-CLPest-1 0.25(mm)
LCS 580-306126/2-A		07/23/2019 15:03	1	34G23PST19a0013.d	ZB-CLPest-2 0.25(mm)
LCS 580-306126/4-A		07/23/2019 15:23	1	34G23PST19a0014.d	ZB-CLPest-1 0.25(mm)
LCS 580-306126/4-A		07/23/2019 15:23	1	34G23PST19a0014.d	ZB-CLPest-2 0.25(mm)
LCSD 580-306126/5-A		07/23/2019 15:42	1	34G23PST19a0015.d	ZB-CLPest-1 0.25(mm)
LCSD 580-306126/5-A		07/23/2019 15:42	1	34G23PST19a0015.d	ZB-CLPest-2 0.25(mm)
580-87706-1		07/23/2019 16:01	3	34G23PST19a0016.d	ZB-CLPest-1 0.25(mm)
580-87706-1		07/23/2019 16:01	3	34G23PST19a0016.d	ZB-CLPest-2 0.25(mm)
580-87706-2		07/23/2019 16:21	3	34G23PST19a0017.d	ZB-CLPest-1 0.25(mm)
580-87706-2		07/23/2019 16:21	3	34G23PST19a0017.d	ZB-CLPest-2 0.25(mm)
580-87706-3		07/23/2019 16:40	3	34G23PST19a0018.d	ZB-CLPest-1 0.25(mm)
580-87706-3		07/23/2019 16:40	3	34G23PST19a0018.d	ZB-CLPest-2 0.25(mm)
580-87706-4		07/23/2019 16:59	3	34G23PST19a0019.d	ZB-CLPest-1 0.25(mm)
580-87706-4		07/23/2019 16:59	3	34G23PST19a0019.d	ZB-CLPest-2 0.25(mm)
580-87706-5		07/23/2019 17:18	3	34G23PST19a0020.d	ZB-CLPest-1 0.25(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC034 Start Date: 07/23/2019 12:30

Analysis Batch Number: 306388 End Date: 07/23/2019 20:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
580-87706-5		07/23/2019 17:18	3	34G23PST19a0020.d	ZB-CLPest-2 0.25(mm)
580-87706-5 MS		07/23/2019 17:38	3	34G23PST19a0021.d	ZB-CLPest-1 0.25(mm)
580-87706-5 MS		07/23/2019 17:38	3	34G23PST19a0021.d	ZB-CLPest-2 0.25(mm)
580-87706-5 MSD		07/23/2019 17:57	3	34G23PST19a0022.d	ZB-CLPest-1 0.25(mm)
580-87706-5 MSD		07/23/2019 17:57	3	34G23PST19a0022.d	ZB-CLPest-2 0.25(mm)
580-87706-6		07/23/2019 18:16	3	34G23PST19a0023.d	ZB-CLPest-1 0.25(mm)
580-87706-6		07/23/2019 18:16	3	34G23PST19a0023.d	ZB-CLPest-2 0.25(mm)
580-87706-7		07/23/2019 18:35	3	34G23PST19a0024.d	ZB-CLPest-1 0.25(mm)
580-87706-7		07/23/2019 18:35	3	34G23PST19a0024.d	ZB-CLPest-2 0.25(mm)
580-87706-8		07/23/2019 18:55	3	34G23PST19a0025.d	ZB-CLPest-1 0.25(mm)
580-87706-8		07/23/2019 18:55	3	34G23PST19a0025.d	ZB-CLPest-2 0.25(mm)
580-87706-9		07/23/2019 19:14	3	34G23PST19a0026.d	ZB-CLPest-1 0.25(mm)
580-87706-9		07/23/2019 19:14	3	34G23PST19a0026.d	ZB-CLPest-2 0.25(mm)
580-87706-10		07/23/2019 19:33	3	34G23PST19a0027.d	ZB-CLPest-1 0.25(mm)
580-87706-10		07/23/2019 19:33	3	34G23PST19a0027.d	ZB-CLPest-2 0.25(mm)
580-87706-11		07/23/2019 19:53	3	34G23PST19a0028.d	ZB-CLPest-1 0.25(mm)
580-87706-11		07/23/2019 19:53	3	34G23PST19a0028.d	ZB-CLPest-2 0.25(mm)
580-87706-12		07/23/2019 20:12	3	34G23PST19a0029.d	ZB-CLPest-1 0.25(mm)
580-87706-12		07/23/2019 20:12	3	34G23PST19a0029.d	ZB-CLPest-2 0.25(mm)
580-87706-13		07/23/2019 20:31	3	34G23PST19a0030.d	ZB-CLPest-1 0.25(mm)
580-87706-13		07/23/2019 20:31	3	34G23PST19a0030.d	ZB-CLPest-2 0.25(mm)
580-87706-14		07/23/2019 20:51	3	34G23PST19a0031.d	ZB-CLPest-1 0.25(mm)
580-87706-14		07/23/2019 20:51	3	34G23PST19a0031.d	ZB-CLPest-2 0.25(mm)

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306126 Batch Start Date: 07/19/19 11:28 Batch Analyst: Guerra, Fernando C

Batch Method: 3550B Batch End Date: 07/22/19 19:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LVI_8081MS 00029	LVI_81Ext_MS 00002	LVI81/82_Surr 00027	AnalysisComment
MB 580-306126/1		3550B, 8081B		20 g	2 mL			100 uL	
LCS 580-306126/2		3550B, 8081B		20 g	2 mL	100 uL		100 uL	81
LCS 580-306126/4		3550B, 8081B		20 g	2 mL		100 uL	100 uL	EXT
LCSD 580-306126/5		3550B, 8081B		20 g	2 mL		100 uL	100 uL	EXT
580-87706-A-1	22T-SG-17_20190716	3550B, 8081B	T	23.034 g	2 mL			100 uL	
580-87706-A-2	22T-SG-18_20190716	3550B, 8081B	T	21.050 g	2 mL			100 uL	
580-87706-A-3	22T-SG-11_20190716	3550B, 8081B	T	21.515 g	2 mL			100 uL	
580-87706-A-4	22T-SG-11-D_20190716	3550B, 8081B	T	20.477 g	2 mL			100 uL	
580-87706-A-5	22T-SG-12_20190716	3550B, 8081B	T	20.368 g	2 mL			100 uL	
580-87706-A-5 MS	22T-SG-12_20190716	3550B, 8081B	T	21.643 g	2 mL	100 uL		100 uL	81
580-87706-A-5 MSD	22T-SG-12_20190716	3550B, 8081B	T	20.958 g	2 mL	100 uL		100 uL	81
580-87706-A-6	22T-SG-19_20190716	3550B, 8081B	T	20.739 g	2 mL			100 uL	
580-87706-A-7	22T-SG-20_20190716	3550B, 8081B	T	21.669 g	2 mL			100 uL	
580-87706-A-8	22T-SG-15_20190716	3550B, 8081B	T	21.311 g	2 mL			100 uL	
580-87706-A-9	22T-SG-14_20190716	3550B, 8081B	T	20.377 g	2 mL			100 uL	
580-87706-A-10	22T-SG-13_20190716	3550B, 8081B	T	20.081 g	2 mL			100 uL	
580-87706-A-11	22T-SG-22_20190716	3550B, 8081B	T	22.662 g	2 mL			100 uL	
580-87706-A-12	22T-SG-23_20190716	3550B, 8081B	T	21.590 g	2 mL			100 uL	
580-87706-A-13	22T-SG-10_20190716	3550B, 8081B	T	20.515 g	2 mL			100 uL	
580-87706-A-14	22T-SG-21_20190716	3550B, 8081B	T	21.660 g	2 mL			100 uL	
580-87706-A-15	22T-SG-16_20190716	3550B, 8081B	T	22.863 g	2 mL			100 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306126 Batch Start Date: 07/19/19 11:28 Batch Analyst: Guerra, Fernando C

Batch Method: 3550B Batch End Date: 07/22/19 19:45

Batch Notes	
Acid used for Clean Up ID	2402719
Balance ID	SEA232 No Unit
Batch Comment	Vialed by: FCG Hydromatrix ID: 2386636
Blank Matrix ID	2431714
Analyst ID - Concentration	MT
Concentration 1 Corrected Temperature	90+ Degrees C
Concentration 2 Corrected Temperature	ambient Degrees C
Analyst ID - Clean Up	FCG
Equipment ID - Concentration 1	Steam Bath 1
Equipment ID - Concentration 2	N-EVAP 1
Exchange Solvent ID	2398331
Analyst ID - Extraction	MT
Filter ID	09-795F
Method/Fraction	3550B/8081/8082
Na2SO4 ID	2424043
Nominal Amount Used	20 g
Pipette/Syringe/Dispenser ID	MP2
Prep Solvent ID	1;1DCM:ACE 2399544
Sonicator ID#	48738T, 48741T, 18252F, S/N148151B, S/N20558
Analyst ID - Spike Analyst	FCG
Analyst ID - Spike Witness Analyst	MT
Sufficient Volume for Batch QC	Yes
Thermometer ID - Concentration 1	61013-040-1
Thermometer ID - Concentration 2	TAC001
Concentration 1 Uncorrected Temperature	90+ Degrees C
Concentration 2 Uncorrected Temperature	ambient Degrees C
Vial Lot Number	18137413

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB-CLPest-1 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCBP1 #
22T-SG-17_20190716	580-87706-1	81	94
22T-SG-18_20190716	580-87706-2	66	77
22T-SG-11_20190716	580-87706-3	62	83
22T-SG-11-D_20190716	580-87706-4	61	74
22T-SG-12_20190716	580-87706-5	62	80
22T-SG-19_20190716	580-87706-6	54	72
22T-SG-20_20190716	580-87706-7	58	68
22T-SG-15_20190716	580-87706-8	50	59
22T-SG-14_20190716	580-87706-9	65	83
22T-SG-13_20190716	580-87706-10	64	82
22T-SG-22_20190716	580-87706-11	55	68
22T-SG-23_20190716	580-87706-12	62	77
22T-SG-10_20190716	580-87706-13	59	63
22T-SG-21_20190716	580-87706-14	62	82
22T-SG-16_20190716	580-87706-15	53	72
	MB 580-306126/1-A	81	106
	LCS 580-306126/3-A	75	95
22T-SG-12_20190716 MS	580-87706-5 MS	51	64
22T-SG-12_20190716 MSD	580-87706-5 MSD	59	71

	QC LIMITS
TCX = Tetrachloro-m-xylene	35-129
DCBP = DCB Decachlorobiphenyl	39-142

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 57G2319A012.D

Lab ID: LCS 580-306126/3-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	0.0125	0.0103	83	41-138	
PCB-1260	0.0125	0.0113	91	47-142	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 57G2319A015.D

Lab ID: 580-87706-5 MS Client ID: 22T-SG-12_20190716 MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
PCB-1016	0.0270	ND	0.0155	57	41-138	
PCB-1260	0.0270	ND	0.0178	66	47-142	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 57G2319A016.D

Lab ID: 580-87706-5 MSD Client ID: 22T-SG-12_20190716 MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	0.0287	0.0181	63	16	21	41-138	
PCB-1260	0.0287	0.0211	73	17	19	47-142	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: MB 580-306126/1-A

Matrix: Solid Date Extracted: 07/19/2019 11:28

Lab File ID:(1) 57G2319A011.D Lab File ID:(2) 57G2319A011.D

Date Analyzed:(1) 07/23/2019 09:48 Date Analyzed:(2) 07/23/2019 09:48

Instrument ID:(1) TAC057 Instrument ID:(2) TAC057

GC Column:(1) ZB-CLPest-1 ID: 0.25(mm) GC Column:(2) ZB-CLPest-2 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 580-306126/3-A	07/23/2019 10:06	07/23/2019 10:06
22T-SG-12_20190716	580-87706-5	07/23/2019 10:42	07/23/2019 10:42
22T-SG-12_20190716 MS	580-87706-5 MS	07/23/2019 11:00	07/23/2019 11:00
22T-SG-12_20190716 MSD	580-87706-5 MSD	07/23/2019 11:19	07/23/2019 11:19
22T-SG-17_20190716	580-87706-1	07/23/2019 11:37	07/23/2019 11:37
22T-SG-18_20190716	580-87706-2	07/23/2019 11:55	07/23/2019 11:55
22T-SG-11_20190716	580-87706-3	07/23/2019 12:13	07/23/2019 12:13
22T-SG-11-D_20190716	580-87706-4	07/23/2019 12:31	07/23/2019 12:31
22T-SG-19_20190716	580-87706-6	07/23/2019 12:49	07/23/2019 12:49
22T-SG-20_20190716	580-87706-7	07/23/2019 13:07	07/23/2019 13:07
22T-SG-15_20190716	580-87706-8	07/23/2019 13:25	07/23/2019 13:25
22T-SG-14_20190716	580-87706-9	07/23/2019 13:43	07/23/2019 13:43
22T-SG-13_20190716	580-87706-10	07/23/2019 14:01	07/23/2019 14:01
22T-SG-22_20190716	580-87706-11	07/23/2019 14:19	07/23/2019 14:19
22T-SG-23_20190716	580-87706-12	07/23/2019 14:37	07/23/2019 14:37
22T-SG-10_20190716	580-87706-13	07/23/2019 14:55	07/23/2019 14:55
22T-SG-21_20190716	580-87706-14	07/23/2019 15:13	07/23/2019 15:13
22T-SG-16_20190716	580-87706-15	07/23/2019 15:32	07/23/2019 15:32

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/7 Date Analyzed: 12/22/2018 18:39

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B006.D Heated Purge: (Y/N) N

Calibration ID: 27218

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		168767146	4.28				
UPPER LIMIT		337534292	4.78				
LOWER LIMIT		84383573	3.78				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/12		172661784	4.28				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/7 Date Analyzed: 12/22/2018 18:39

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B006.D Heated Purge: (Y/N) N

Calibration ID: 27219

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1045088087	4.60				
UPPER LIMIT		2090176174	5.10				
LOWER LIMIT		522544044	4.10				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/12		1061107726	4.60				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/16 Date Analyzed: 12/22/2018 21:18

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B015.D Heated Purge: (Y/N) N

Calibration ID: 27222

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		183658173	4.28				
UPPER LIMIT		367316346	4.78				
LOWER LIMIT		91829087	3.78				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/21		186294094	4.28				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/16 Date Analyzed: 12/22/2018 21:18

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B015.D Heated Purge: (Y/N) N

Calibration ID: 27223

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1118083048	4.60				
UPPER LIMIT		2236166096	5.10				
LOWER LIMIT		559041524	4.10				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/21		1120239971	4.60				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/25 Date Analyzed: 12/22/2018 23:55

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B024.D Heated Purge: (Y/N) N

Calibration ID: 27226

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		187993764	4.28				
UPPER LIMIT		375987528	4.78				
LOWER LIMIT		93996882	3.78				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/30		191713510	4.28				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/25 Date Analyzed: 12/22/2018 23:55

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B024.D Heated Purge: (Y/N) N

Calibration ID: 27227

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1131258122	4.60				
UPPER LIMIT		2262516244	5.10				
LOWER LIMIT		565629061	4.10				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/30		1152870632	4.60				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/34 Date Analyzed: 12/23/2018 02:33

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B033.D Heated Purge: (Y/N) N

Calibration ID: 27230

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192963759	4.28				
UPPER LIMIT		385927518	4.78				
LOWER LIMIT		96481880	3.78				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/39		193408206	4.28				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/34 Date Analyzed: 12/23/2018 02:33

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B033.D Heated Purge: (Y/N) N

Calibration ID: 27231

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1151680499	4.60				
UPPER LIMIT		2303360998	5.10				
LOWER LIMIT		575840250	4.10				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/39		1150893023	4.60				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/43 Date Analyzed: 12/23/2018 05:11

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B042.D Heated Purge: (Y/N) N

Calibration ID: 27234

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		193454103	4.28				
UPPER LIMIT		386908206	4.78				
LOWER LIMIT		96727052	3.78				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/48		197980143	4.28				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: ICIS 580-291937/43 Date Analyzed: 12/23/2018 05:11

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 57L2218B042.D Heated Purge: (Y/N) N

Calibration ID: 27235

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1163292204	4.60				
UPPER LIMIT		2326584408	5.10				
LOWER LIMIT		581646102	4.10				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 580-291937/48		1192476120	4.60				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306344/8 Date Analyzed: 07/23/2019 09:12

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm)

Lab File ID (Standard): 57G2319A009.D Heated Purge: (Y/N) N

Calibration ID: 27234

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		198939016	4.11				
UPPER LIMIT		397878032	4.61				
LOWER LIMIT		99469508	3.61				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 580-306344/9		191452496	4.11				
MB 580-306126/1-A		161607725	4.11				
LCS 580-306126/3-A		182603492	4.11				
580-87706-5	22T-SG-12_20190716	178413998	4.11				
580-87706-5 MS	22T-SG-12_20190716 MS	182928785	4.11				
580-87706-5 MSD	22T-SG-12_20190716 MSD	183184765	4.11				
580-87706-1	22T-SG-17_20190716	151567269	4.11				
580-87706-2	22T-SG-18_20190716	170515889	4.11				
580-87706-3	22T-SG-11_20190716	176500429	4.11				
580-87706-4	22T-SG-11-D_20190716	175053093	4.11				
580-87706-6	22T-SG-19_20190716	184186723	4.11				
580-87706-7	22T-SG-20_20190716	178207589	4.11				
580-87706-8	22T-SG-15_20190716	180431126	4.11				
580-87706-9	22T-SG-14_20190716	167630363	4.11				
580-87706-10	22T-SG-13_20190716	179131436	4.11				
580-87706-11	22T-SG-22_20190716	198783061	4.11				
580-87706-12	22T-SG-23_20190716	182765824	4.11				
580-87706-13	22T-SG-10_20190716	177990477	4.11				
580-87706-14	22T-SG-21_20190716	177163015	4.11				
580-87706-15	22T-SG-16_20190716	175592414	4.11				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Sample No.: CCVIS 580-306344/8 Date Analyzed: 07/23/2019 09:12

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm)

Lab File ID (Standard): 57G2319A009.D Heated Purge: (Y/N) N

Calibration ID: 27235

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		2459130201	4.45				
UPPER LIMIT		4918260402	4.95				
LOWER LIMIT		1229565101	3.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 580-306344/9		2242851285	4.45				
MB 580-306126/1-A		1866842593	4.45				
LCS 580-306126/3-A		2258119244	4.45				
580-87706-5	22T-SG-12_20190716	1715607196	4.45				
580-87706-5 MS	22T-SG-12_20190716 MS	1748548362	4.45				
580-87706-5 MSD	22T-SG-12_20190716 MSD	1686221886	4.45				
580-87706-1	22T-SG-17_20190716	1431121234	4.45				
580-87706-2	22T-SG-18_20190716	1577259494	4.45				
580-87706-3	22T-SG-11_20190716	1684962765	4.45				
580-87706-4	22T-SG-11-D_20190716	1602401158	4.45				
580-87706-6	22T-SG-19_20190716	1569806018	4.45				
580-87706-7	22T-SG-20_20190716	1503882738	4.45				
580-87706-8	22T-SG-15_20190716	1550273653	4.45				
580-87706-9	22T-SG-14_20190716	1385631946	4.45				
580-87706-10	22T-SG-13_20190716	1514234179	4.45				
580-87706-11	22T-SG-22_20190716	1608960846	4.45				
580-87706-12	22T-SG-23_20190716	1450040243	4.45				
580-87706-13	22T-SG-10_20190716	1315696996	4.45				
580-87706-14	22T-SG-21_20190716	1338808815	4.45				
580-87706-15	22T-SG-16_20190716	1251175374	4.45				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 12:13 Date Analyzed (2): 07/23/2019 12:13

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.0106	0.0046	86.1
		2	6.82	6.72	6.92	0.00249		
		3	7.03	6.93	7.13	0.00260		
		4	7.32	7.22	7.42	0.00369		
		5	7.51	7.41	7.61	0.00376		
	2	2	7.64	7.55	7.75	0.00225	0.0018	
		3	7.94	7.84	8.04	0.00207		
		5	8.42	8.32	8.52	0.00211		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MS Lab Sample ID: 580-87706-5 MS

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 11:00 Date Analyzed (2): 07/23/2019 11:00

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	5.27	5.18	5.38	0.0136	0.0155	13.6
		2	5.59	5.51	5.71	0.0141		
		3	5.68	5.60	5.80	0.0140		
		4	5.96	5.87	6.07	0.0171		
		5	6.02	5.93	6.13	0.0187		
	2	1	5.87	5.78	5.98	0.0135	0.0135	
		2	6.21	6.12	6.32	0.0119		
		3	6.31	6.22	6.42	0.0131		
		4	6.66	6.57	6.77	0.0133		
		5	6.76	6.67	6.87	0.0156		
PCB-1260	1	1	6.72	6.62	6.82	0.0221	0.0178	25.7
		2	6.82	6.72	6.92	0.0193		
		3	7.02	6.93	7.13	0.0165		
		4	7.32	7.22	7.42	0.0153		
		5	7.51	7.41	7.61	0.0157		
	2	1	7.52	7.42	7.62	0.0125	0.0137	
		2	7.64	7.55	7.75	0.0154		
		3	7.94	7.84	8.04	0.0152		
		4	8.17	8.07	8.27	0.0117		
		5	8.42	8.32	8.52	0.0139		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MSD Lab Sample ID: 580-87706-5 MSD

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 11:19 Date Analyzed (2): 07/23/2019 11:19

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	5.27	5.18	5.38	0.0155	0.0181	7.6
		2	5.59	5.51	5.71	0.0163		
		3	5.68	5.60	5.80	0.0163		
		4	5.96	5.87	6.07	0.0199		
		5	6.02	5.93	6.13	0.0227		
	2	1	5.87	5.78	5.98	0.0161	0.0168	
		2	6.21	6.12	6.32	0.0155		
		3	6.31	6.22	6.42	0.0159		
		4	6.66	6.57	6.77	0.0166		
		5	6.76	6.67	6.87	0.0198		
PCB-1260	1	1	6.72	6.62	6.82	0.0258	0.0211	22.4
		2	6.82	6.72	6.92	0.0239		
		3	7.02	6.93	7.13	0.0199		
		4	7.32	7.22	7.42	0.0174		
		5	7.51	7.41	7.61	0.0184		
	2	1	7.52	7.42	7.62	0.0169	0.0168	
		2	7.64	7.55	7.75	0.0175		
		3	7.94	7.84	8.04	0.0192		
		4	8.17	8.07	8.27	0.0142		
		5	8.42	8.32	8.52	0.0164		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 12:49 Date Analyzed (2): 07/23/2019 12:49

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.0201	0.0079	75.4
		2	6.82	6.72	6.92	0.00502		
		3	7.03	6.93	7.13	0.00354		
		4	7.32	7.22	7.42	0.00504		
		5	7.50	7.41	7.61	0.00582		
	2	1	7.52	7.42	7.62	0.00291	0.0036	
		2	7.64	7.55	7.75	0.00371		
		3	7.94	7.84	8.04	0.00437		
		4	8.17	8.07	8.27	0.00311		
		5	8.42	8.32	8.52	0.00374		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 13:07 Date Analyzed (2): 07/23/2019 13:07

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.0168	0.0063	86.8
		2	6.82	6.72	6.92	0.00275		
		3	7.03	6.93	7.13	0.00275		
		4	7.32	7.22	7.42	0.00420		
		5	7.51	7.41	7.61	0.00509		
	2	1	7.52	7.42	7.62	0.00195	0.0025	
		2	7.64	7.55	7.75	0.00235		
		3	7.94	7.84	8.04	0.00245		
		4	8.17	8.07	8.27	0.00238		
		5	8.42	8.32	8.52	0.00333		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 13:43 Date Analyzed (2): 07/23/2019 13:43

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.00990	0.0044	65.2
		2	6.82	6.72	6.92	0.00288		
		3	7.02	6.93	7.13	0.00227		
		4	7.32	7.22	7.42	0.00306		
		5	7.51	7.41	7.61	0.00405		
	2	1	7.51	7.42	7.62	0.00195	0.0023	
		2	7.64	7.55	7.75	0.00226		
		3	7.94	7.84	8.04	0.00232		
		5	8.42	8.32	8.52	0.00289		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 14:01 Date Analyzed (2): 07/23/2019 14:01

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.00993	0.0054	89.5
		2	6.82	6.72	6.92	0.00428		
		3	7.02	6.93	7.13	0.00242		
		4	7.32	7.22	7.42	0.00225		
		5	7.50	7.41	7.61	0.00824		
	2	1	7.52	7.42	7.62	0.00187	0.0021	
		2	7.64	7.55	7.75	0.00221		
		3	7.94	7.84	8.04	0.00373		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 14:37 Date Analyzed (2): 07/23/2019 14:37

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.0111	0.0043	60.4
		2	6.82	6.72	6.92	0.00255		
		3	7.02	6.93	7.13	0.00228		
		4	7.32	7.22	7.42	0.00242		
		5	7.52	7.41	7.61	0.00314		
	2	1	7.51	7.42	7.62	0.00177	0.0023	
		2	7.64	7.55	7.75	0.00250		
		3	7.94	7.84	8.04	0.00248		
		4	8.17	8.07	8.27	0.00188		
		5	8.42	8.32	8.52	0.00290		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 14:55 Date Analyzed (2): 07/23/2019 14:55

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.00447	0.0025	27.9
		2	6.82	6.72	6.92	0.00205		
		3	7.02	6.93	7.13	0.00184		
		4	7.32	7.22	7.42	0.00196		
		5	7.51	7.41	7.61	0.00195		
	2	1	7.51	7.42	7.62	0.00147	0.0019	
		2	7.64	7.55	7.75	0.00197		
		3	7.94	7.84	8.04	0.00187		
		4	8.17	8.07	8.27	0.00157		
		5	8.42	8.32	8.52	0.00239		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 15:13 Date Analyzed (2): 07/23/2019 15:13

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	6.73	6.62	6.82	0.199	0.064	87.9
		2	6.82	6.72	6.92	0.0321		
		3	7.02	6.93	7.13	0.0250		
		4	7.32	7.22	7.42	0.0336		
		5	7.51	7.41	7.61	0.0279		
	2	1	7.52	7.42	7.62	0.0222	0.025	
		2	7.64	7.55	7.75	0.0281		
		3	7.94	7.84	8.04	0.0267		
		4	8.17	8.07	8.27	0.0215		
		5	8.42	8.32	8.52	0.0254		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 15:32 Date Analyzed (2): 07/23/2019 15:32

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1254	1	1	6.22	6.13	6.33	0.0166	0.022	28.1
		2	6.40	6.31	6.51	0.0208		
		3	6.69	4.70	8.70	0.0156		
		4	6.89	4.90	8.90	0.0292		
		5	7.24	5.24	9.24	0.0286		
	2	1	6.99	4.99	8.99	0.0209	0.017	
		2	7.12	5.12	9.12	0.0142		
		3	7.49	5.50	9.50	0.0145		
		4	7.66	5.67	9.67	0.0114		
		5	8.10	6.10	10.10	0.0226		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306126/3-A

Instrument ID (1): TAC057 Instrument ID (2): TAC057

Date Analyzed (1): 07/23/2019 10:06 Date Analyzed (2): 07/23/2019 10:06

GC Column (1): ZB-CLPest-1 ID: 0.25(mm) GC Column (2): ZB-CLPest-2 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	5.28	5.18	5.38	0.00947	0.0103	11.6
		2	5.61	5.51	5.71	0.0122		
		3	5.69	5.60	5.80	0.00923		
		4	5.97	5.87	6.07	0.0100		
		5	6.03	5.93	6.13	0.0107		
	2	1	5.88	5.78	5.98	0.00780	0.00918	
		2	6.22	6.12	6.32	0.00971		
		3	6.32	6.22	6.42	0.00915		
		4	6.67	6.57	6.77	0.00908		
		5	6.76	6.67	6.87	0.0102		
PCB-1260	1	1	6.72	6.62	6.82	0.0109	0.0113	5.7
		2	6.82	6.72	6.92	0.0123		
		3	7.03	6.93	7.13	0.0129		
		4	7.32	7.22	7.42	0.0103		
		5	7.51	7.41	7.61	0.0102		
	2	1	7.52	7.42	7.62	0.0105	0.0107	
		2	7.65	7.55	7.75	0.0114		
		3	7.94	7.84	8.04	0.0118		
		4	8.17	8.07	8.27	0.00958		
		5	8.42	8.32	8.52	0.0103		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Matrix: Solid Lab File ID: 57G2319A017.D

Analysis Method: 8082A Date Collected: 07/16/2019 08:13

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 23.034(g) Date Analyzed: 07/23/2019 11:37

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 45.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0032	0.0012
11104-28-2	PCB-1221	ND		0.0032	0.0015
11141-16-5	PCB-1232	ND		0.0032	0.0015
53469-21-9	PCB-1242	ND		0.0032	0.00078
12672-29-6	PCB-1248	ND		0.0032	0.00057
11097-69-1	PCB-1254	ND		0.0032	0.0013
11096-82-5	PCB-1260	0.0028	J	0.0032	0.0012

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	94		39-142
877-09-8	Tetrachloro-m-xylene	81		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A017.D
Lims ID: 580-87706-A-1-B
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 11:37:09 ALS Bottle#: 13 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-1-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 08:37:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 08:37:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.109	4.109	0.000	151567269	100.0	
2	4.450	4.451	-0.001	1431121234	100.0	
					RPD = 0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	67677864	20.2	
2	5.191	5.193	-0.002	360412894	19.7	
					RPD = 2.71	
26 PCB-1260						M
1	6.729	6.724	0.005	3014040	44.2	M
1	6.820	6.824	-0.004	1469889	9.84	M
1	7.022	7.028	-0.006	1714926	7.57	M
1	7.318	7.322	-0.004	1444917	9.82	M
1	7.511	7.513	-0.002	1934064	15.4	M
		Average of Peak Amounts =			17.4	
2	7.515	7.518	-0.003	2712248	4.87	M
2	7.644	7.645	-0.001	7581417	7.15	M
2	7.937	7.939	-0.002	4094459	4.62	M
2	8.166	8.168	-0.002	4670938	5.15	M
2	8.420	8.422	-0.002	7096952	7.95	M
		Average of Peak Amounts =			5.95	
					RPD = 97.94	
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	57697823	23.6	
2	9.925	9.925	0.000	195343646	19.6	
					RPD = 18.68	
13 2,4'-DDE						
1	5.401	5.389	0.012	514098	NR	
2	5.681	5.681	0.000	163735	NR	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.590	5.571	0.019	264411	NR	
2	5.806	5.791	0.015	39924753	NR	
					RPD = 0.00	
22 2,4'-DDT						
1	5.818	5.821	-0.003	3382054	NR	
2	6.121	6.146	-0.025	419148	NR	
					RPD = 0.00	
35 4,4'-DDT						
1	6.017	6.019	-0.002	410600	NR	
2	6.393	6.393	0.000	1075498	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 08:37:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A017.D

Injection Date: 23-Jul-2019 11:37:09 Instrument ID: TAC057

Lims ID: 580-87706-A-1-B Lab Sample ID: 580-87706-1

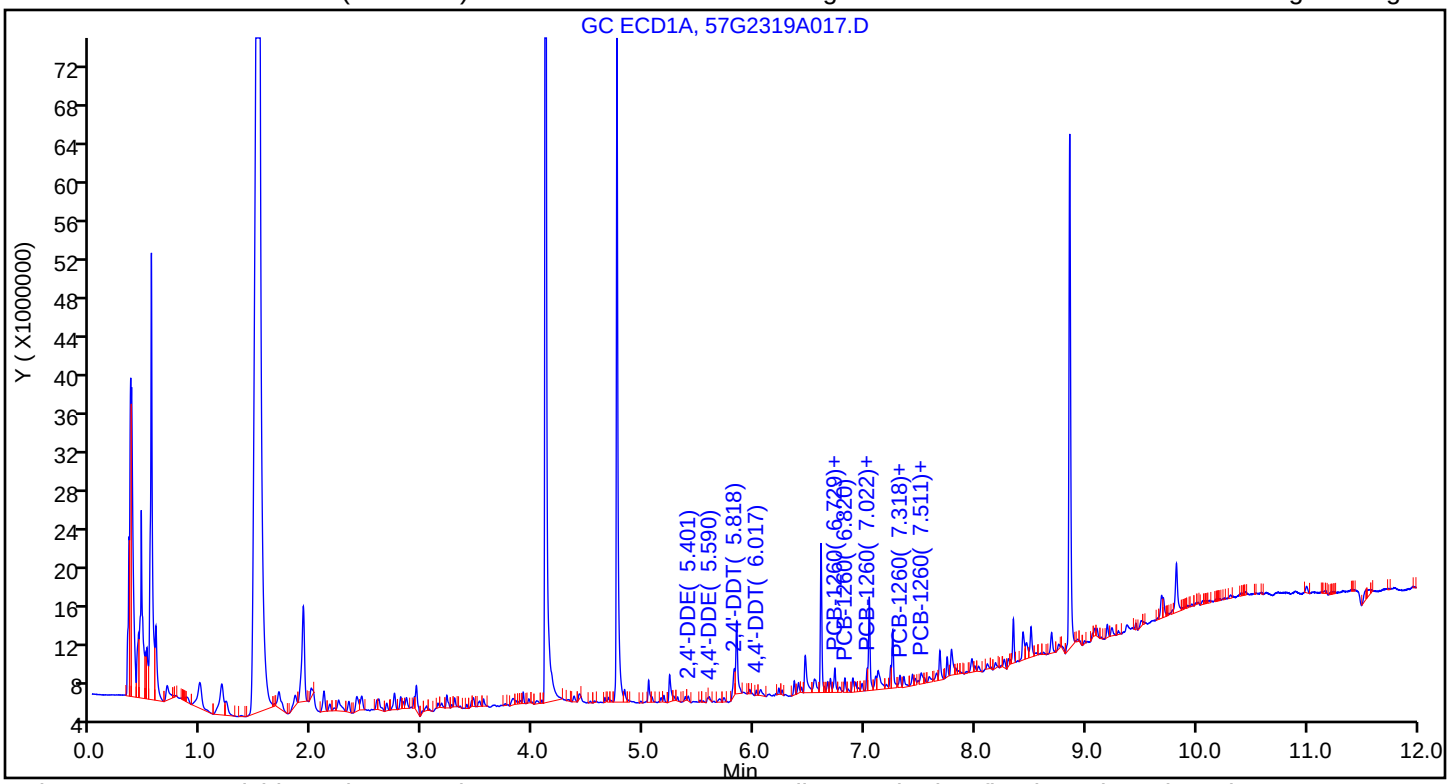
Client ID: 22T-SG-17_20190716

Operator ID: cjb ALS Bottle#: 13 Worklist Smp#: 16

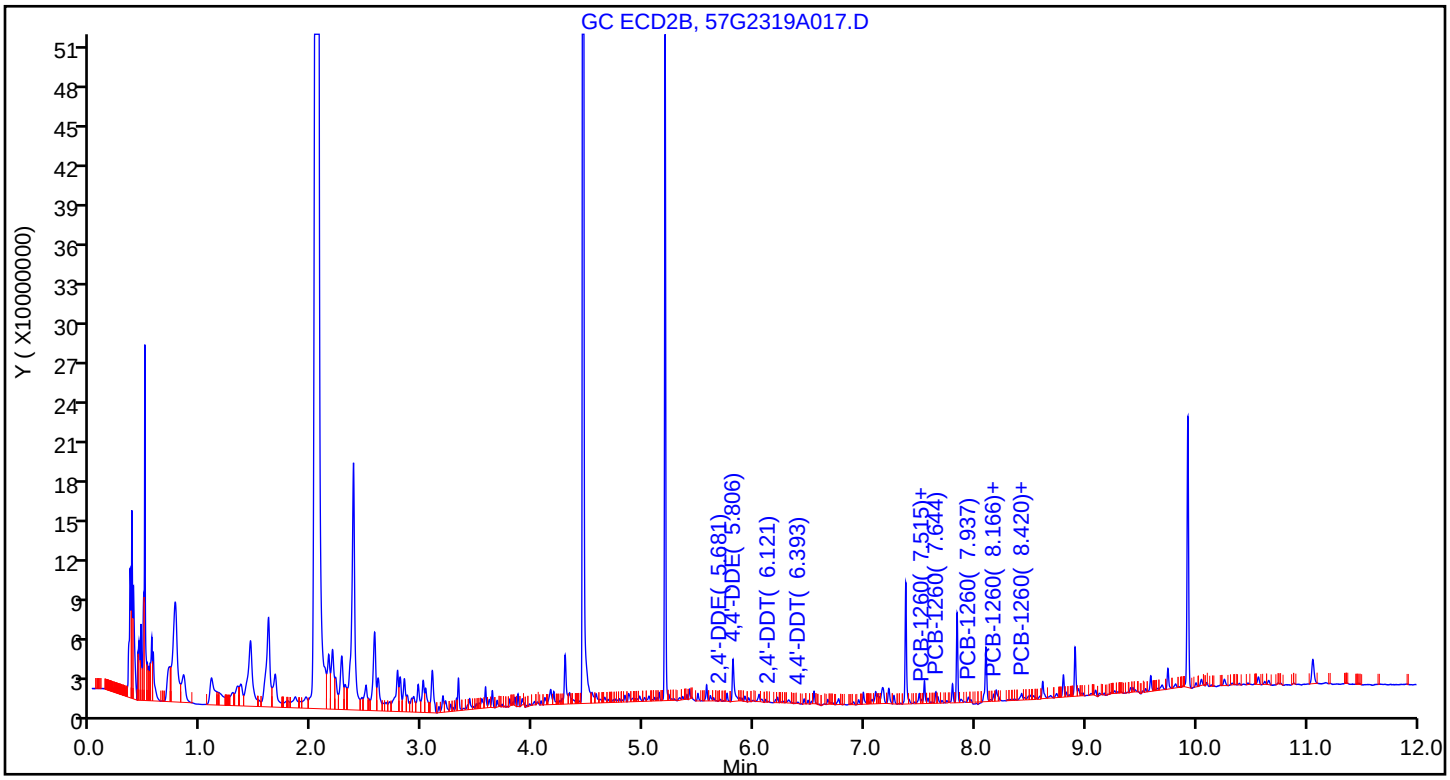
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A017.D				
Lims ID:	580-87706-A-1-B				
Client ID:	22T-SG-17_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 11:37:09	ALS Bottle#:	13	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-1-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 08:37:50	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 08:37:50		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	20.2	80.92
$ 43 DCB Decachlorobiphenyl	25.0	23.6	94.35

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	19.7	78.75
$ 43 DCB Decachlorobiphenyl	25.0	19.6	78.23

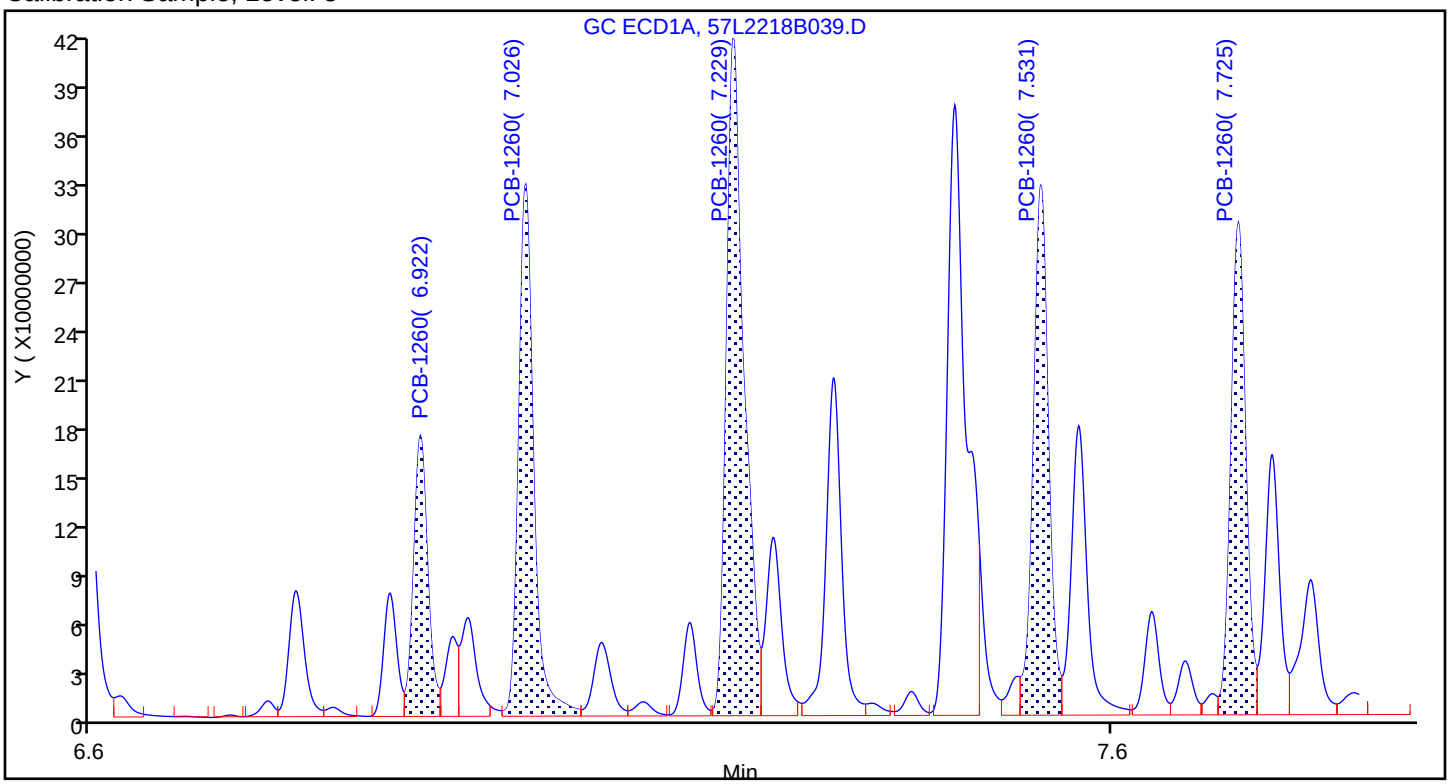
Report Date: 24-Jul-2019 08:37:57 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

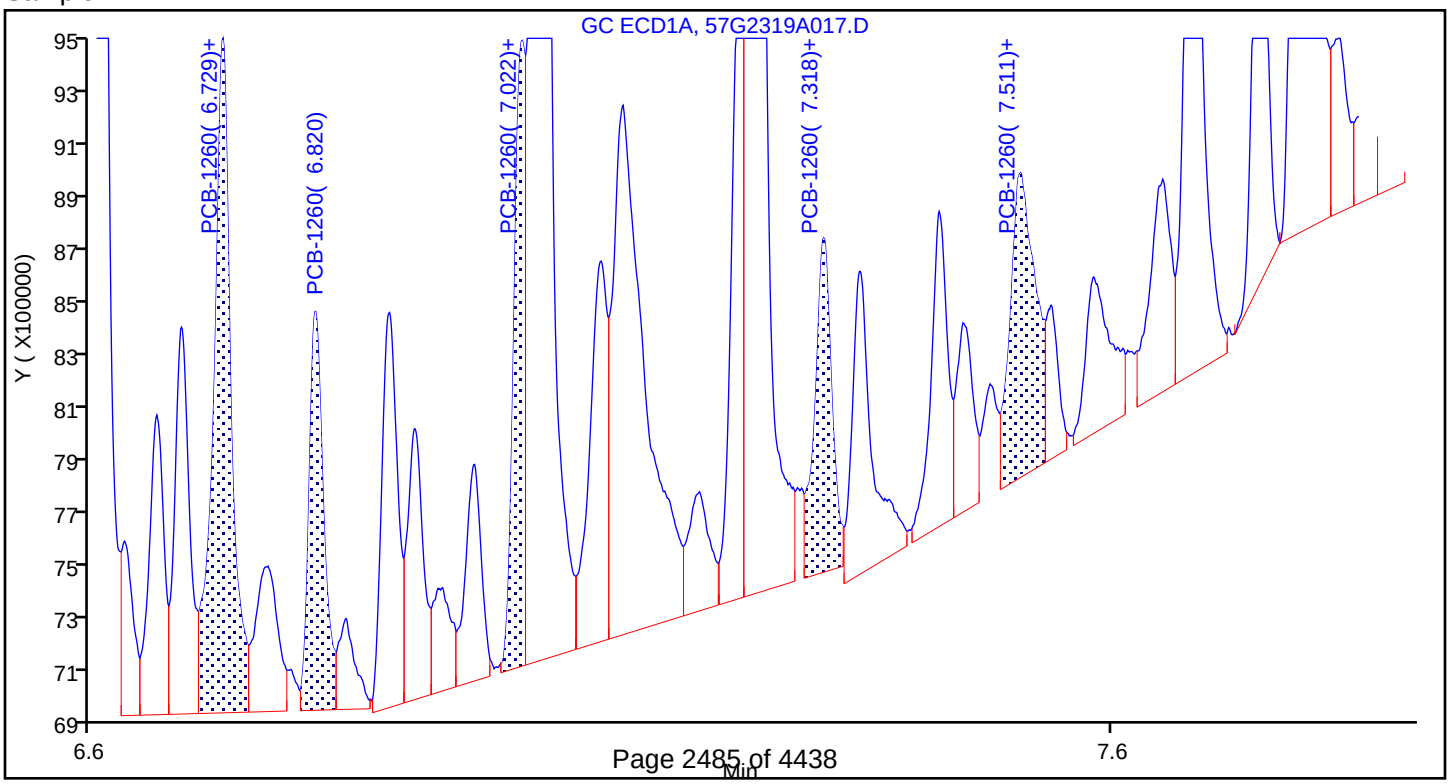
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A017.D				
Injection Date:	23-Jul-2019 11:37:09	Instrument ID:	TAC057		
Lims ID:	580-87706-A-1-B	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	cjb	ALS Bottle#:	13	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



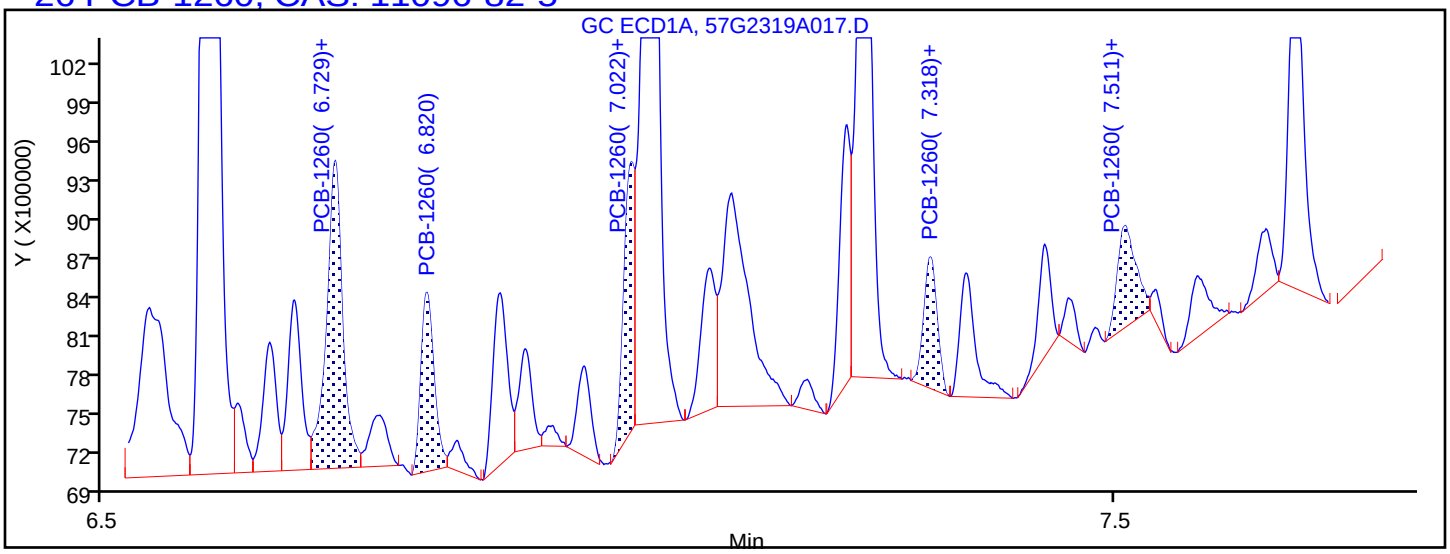
Report Date: 24-Jul-2019 08:37:57 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A017.D

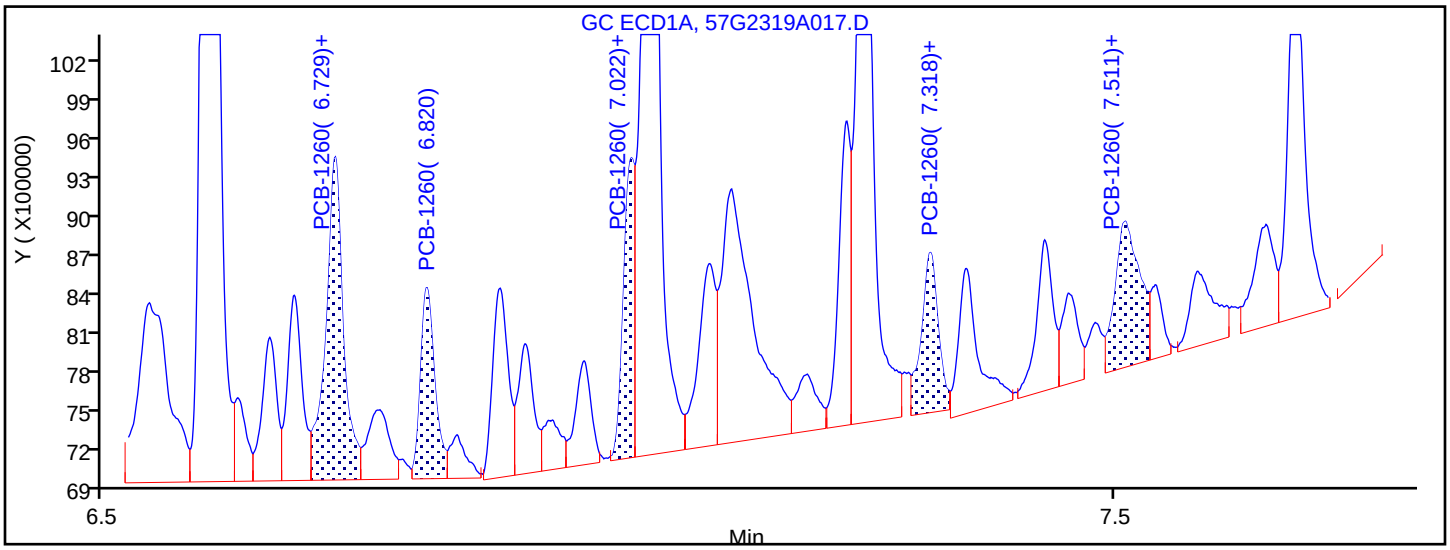
Injection Date:	23-Jul-2019 11:37:09	Instrument ID:	TAC057		
Lims ID:	580-87706-A-1-B	Lab Sample ID:	580-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	cjb	ALS Bottle#:	13	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.729	Response = 2617407
6.820	Response = 1251937
7.022	Response = 1493878
7.318	Response = 921895
7.511	Response = 999183



Manual Integration Results

6.729	Response = 3014040	M
6.820	Response = 1469889	M
7.022	Response = 1714926	M
7.318	Response = 1444917	M
7.511	Response = 1934064	M

Reviewer: thaneeratw, 24-Jul-2019 08:37:17

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Matrix: Solid Lab File ID: 57G2319A018.D

Analysis Method: 8082A Date Collected: 07/16/2019 08:44

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.050(g) Date Analyzed: 07/23/2019 11:55

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0063	0.0023
11104-28-2	PCB-1221	ND		0.0063	0.0030
11141-16-5	PCB-1232	ND		0.0063	0.0030
53469-21-9	PCB-1242	ND		0.0063	0.0016
12672-29-6	PCB-1248	ND		0.0063	0.0011
11097-69-1	PCB-1254	ND		0.0063	0.0025
11096-82-5	PCB-1260	0.0043	J	0.0063	0.0024

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	77		39-142
877-09-8	Tetrachloro-m-xylene	66		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A018.D
Lims ID: 580-87706-A-2-B
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 11:55:09 ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-2-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 08:57:26 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 08:44:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	170515889	100.0	
2	4.450	4.451	-0.001	1577259494	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.756	4.758	-0.002	62199713	16.5	
2	5.192	5.193	-0.001	335257796	16.6	
				RPD =	0.55	
26 PCB-1260						Ma
1	6.728	6.724	0.004	2476104	31.8	M
1	6.820	6.824	-0.004	1342006	7.78	M
1	7.025	7.028	-0.003	1666605	6.39	M
1	7.317	7.322	-0.005	876134	4.77	M
1	7.498	7.513	-0.015	2309606	16.4	M
		Average of Peak Amounts =			13.4	
2	7.517	7.518	-0.001	3842053	7.00	M
2	7.642	7.645	-0.003	8093103	6.85	M
2	7.938	7.939	-0.001	7869772	9.64	M
2	8.166	8.168	-0.002	4419446	4.07	M
2	8.419	8.422	-0.003	3549228	2.40	M
		Average of Peak Amounts =			5.99	
				RPD =	76.66	
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	53319549	19.4	
2	9.924	9.925	-0.001	183265571	16.6	
				RPD =	15.14	
13 2,4'-DDE						
1	5.376	5.389	-0.013	795110	NR	
2	5.677	5.681	-0.004	233958	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.574	5.571	0.003	159901	NR	
2	5.806	5.791	0.015	24081326	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.634	5.625	0.009	130171	NR	
2	5.945	5.955	-0.010	6977692	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.820	5.821	-0.001	3412082	NR	
2	6.157	6.146	0.011	1182043	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.898	5.891	0.007	550948	NR	
2	6.192	6.189	0.003	184075	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.016	6.019	-0.003	1261910	NR	
2	6.398	6.393	0.005	3161816	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

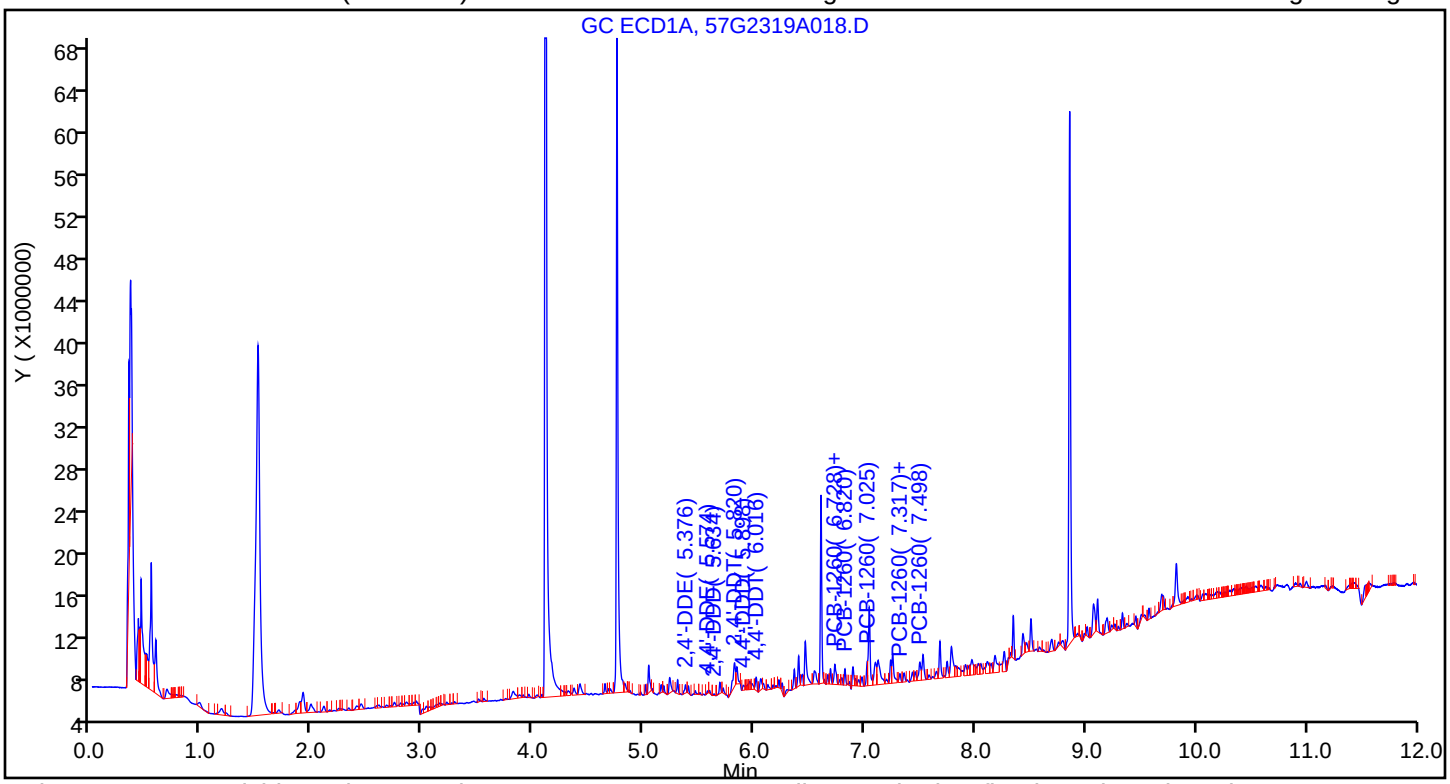
Report Date: 24-Jul-2019 08:57:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

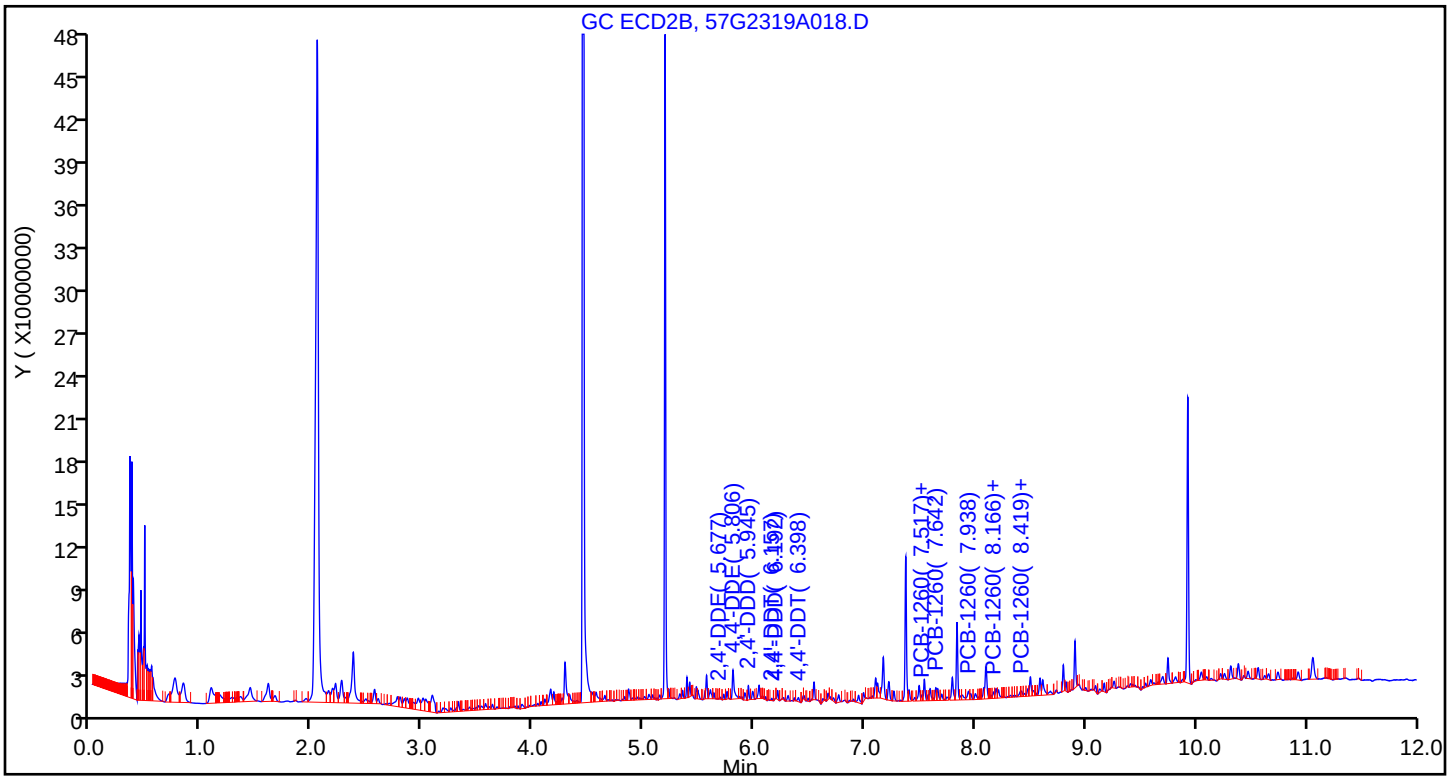
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A018.D

Injection Date:	23-Jul-2019 11:55:09	Instrument ID:	TAC057		
Lims ID:	580-87706-A-2-B	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	cjb	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A018.D				
Lims ID:	580-87706-A-2-B				
Client ID:	22T-SG-18_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 11:55:09	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-2-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 08:57:26	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 08:44:02		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.5	66.10
$ 43 DCB Decachlorobiphenyl	25.0	19.4	77.50

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.6	66.47
$ 43 DCB Decachlorobiphenyl	25.0	16.6	66.59

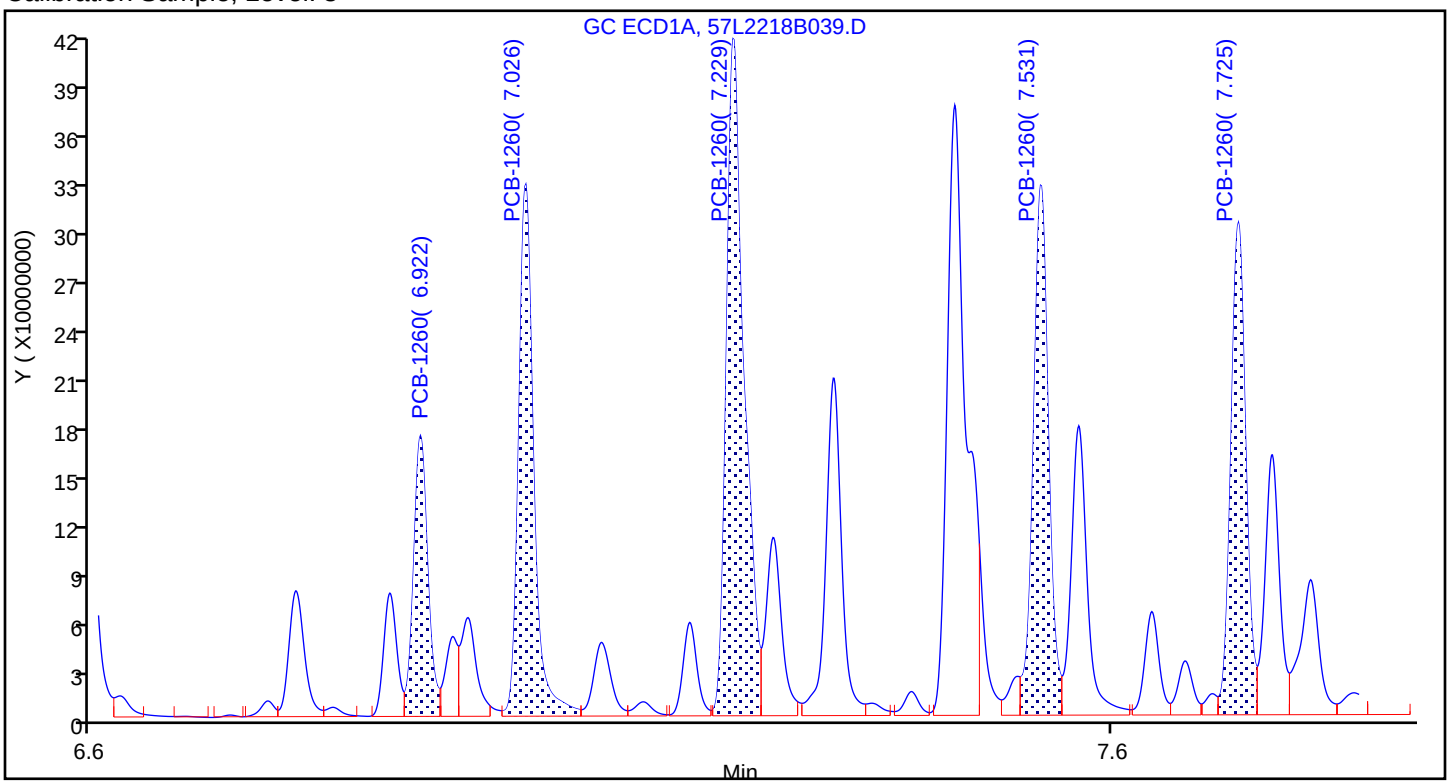
Report Date: 24-Jul-2019 08:57:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

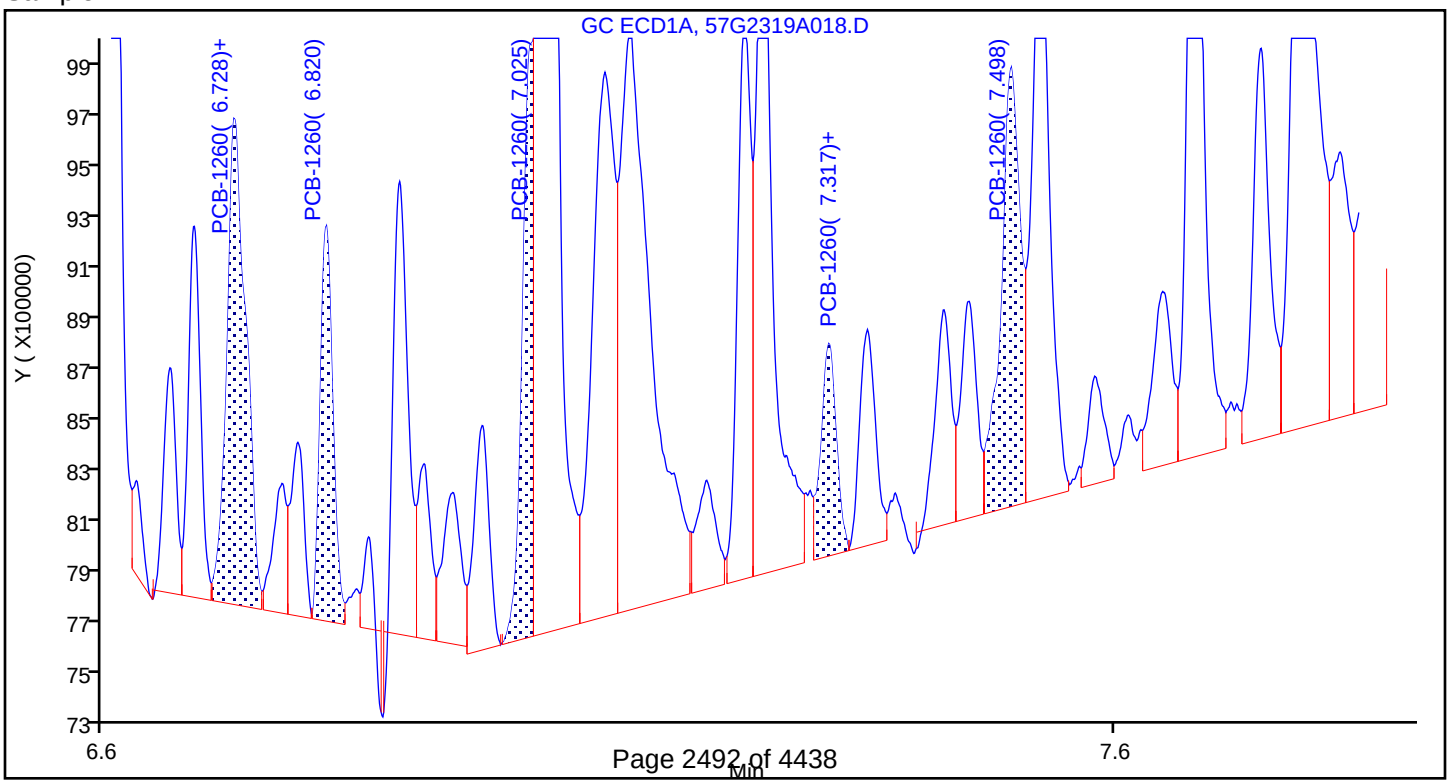
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A018.D				
Injection Date:	23-Jul-2019 11:55:09	Instrument ID:	TAC057		
Lims ID:	580-87706-A-2-B	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	cjb	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



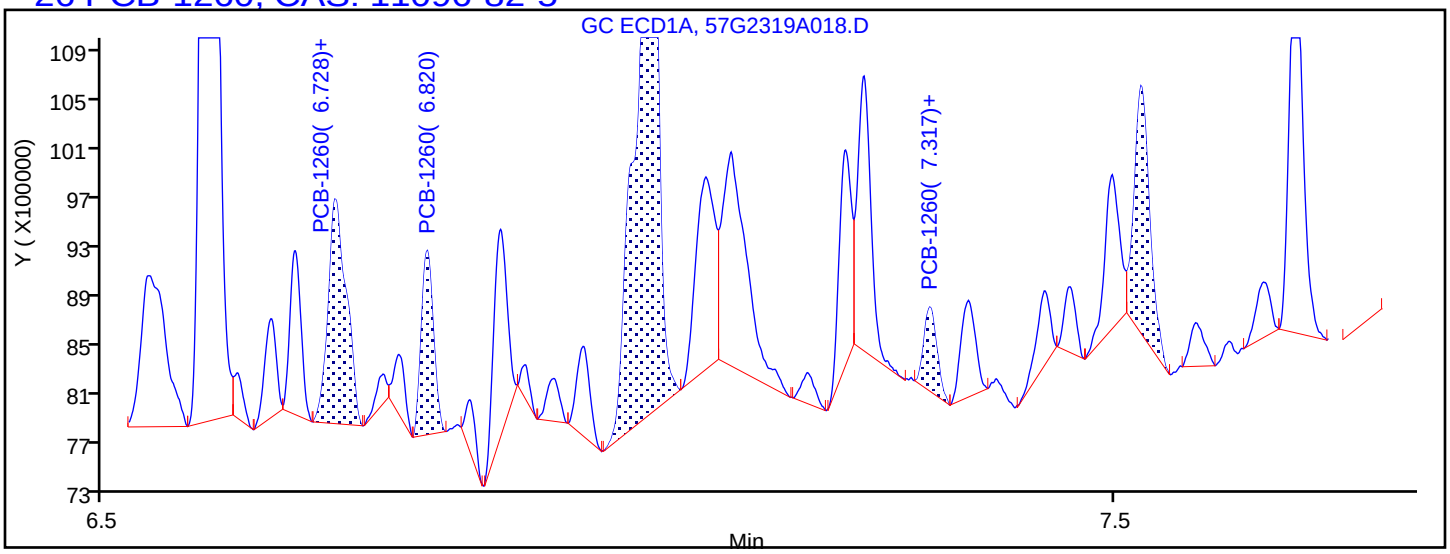
Report Date: 24-Jul-2019 08:57:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A018.D

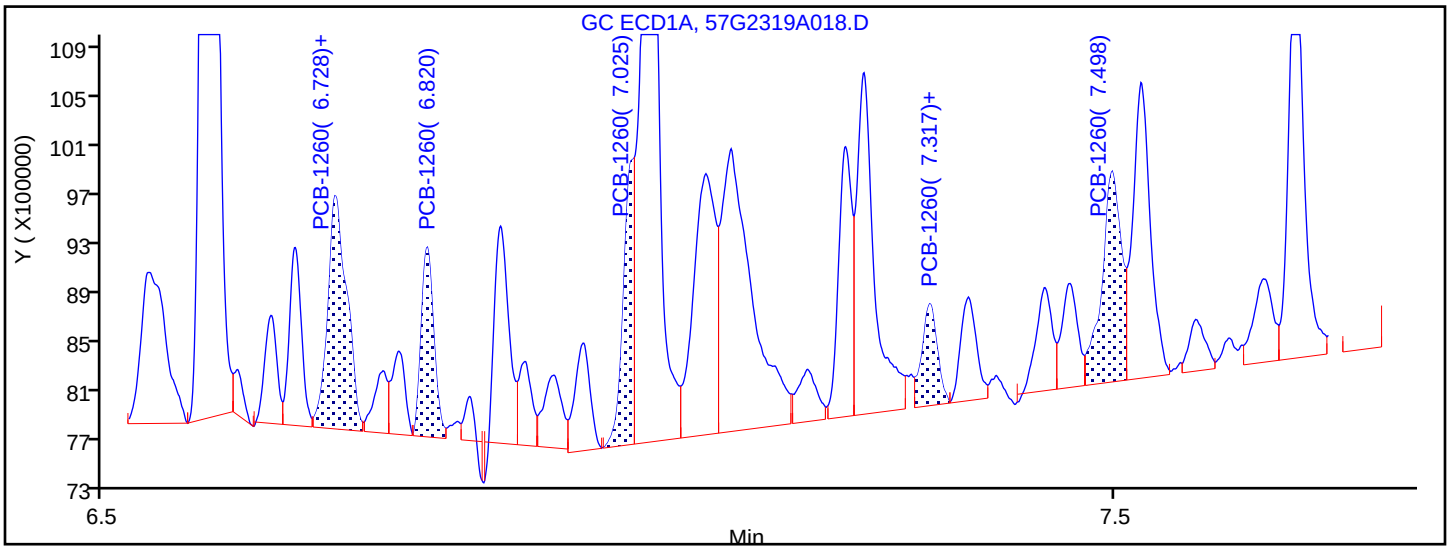
Injection Date:	23-Jul-2019 11:55:09	Instrument ID:	TAC057		
Lims ID:	580-87706-A-2-B	Lab Sample ID:	580-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	cjb	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 2269993
6.820	Response = 1246577
7.040	Response = 8894228
7.317	Response = 607634
7.527	Response = 2141027



Manual Integration Results

6.728	Response = 2476104	M
6.820	Response = 1342006	M
7.025	Response = 1666605	M
7.317	Response = 876134	M
7.498	Response = 2309606	M

Reviewer: thaneeratw, 24-Jul-2019 08:43:25

Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 57G2319A019.D

Analysis Method: 8082A Date Collected: 07/16/2019 08:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.515(g) Date Analyzed: 07/23/2019 12:13

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0046	0.0017
11104-28-2	PCB-1221	ND		0.0046	0.0022
11141-16-5	PCB-1232	ND		0.0046	0.0022
53469-21-9	PCB-1242	ND		0.0046	0.0011
12672-29-6	PCB-1248	ND		0.0046	0.00084
11097-69-1	PCB-1254	ND		0.0046	0.0018

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	83		39-142
877-09-8	Tetrachloro-m-xylene	62		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D
Lims ID: 580-87706-A-3-B
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 12:13:11 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-3-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 08:59:18 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 08:59:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	176500429	100.0	
2	4.450	4.451	-0.001	1684962765	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60061874	15.4	
2	5.191	5.193	-0.002	306549248	14.2	
				RPD =	8.05	
26 PCB-1260						M
1	6.727	6.724	0.003	3643141	45.9	M
1	6.820	6.824	-0.004	1855375	10.8	M
1	7.026	7.028	-0.002	2834372	11.2	M
1	7.316	7.322	-0.006	2619541	15.9	M
1	7.514	7.513	0.001	2360157	16.2	M
		Average of Peak Amounts =			20.0	
2	7.515	7.518	-0.003	3705926	6.07	M
2	7.643	7.645	-0.002	11293006	9.70	M
2	7.939	7.939	0.000	7899110	8.93	M
2	8.166	8.168	-0.002	6118443	6.00	M
2	8.420	8.422	-0.002	9305255	9.11	M
		Average of Peak Amounts =			7.96	
				RPD =	86.10	
$ 43 DCB Decachlorobiphenyl						M
1	8.856	8.855	0.001	58863160	20.7	M
2	9.926	9.925	0.001	187193631	15.9	
				RPD =	25.95	
13 2,4'-DDE						
1	5.401	5.389	0.012	331888	NR	
2	5.692	5.681	0.011	1766784	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.575	5.571	0.004	105389	NR	
2	5.805	5.791	0.014	15457085	NR	
					RPD = NaN	
32	4,4'-DDD					M
1	5.895	5.891	0.004	1353408	NR	M
2	6.193	6.189	0.004	983218	NR	
					RPD = NaN	
35	4,4'-DDT					M
1	6.016	6.019	-0.003	1537226	NR	M
2	6.396	6.393	0.003	679955	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

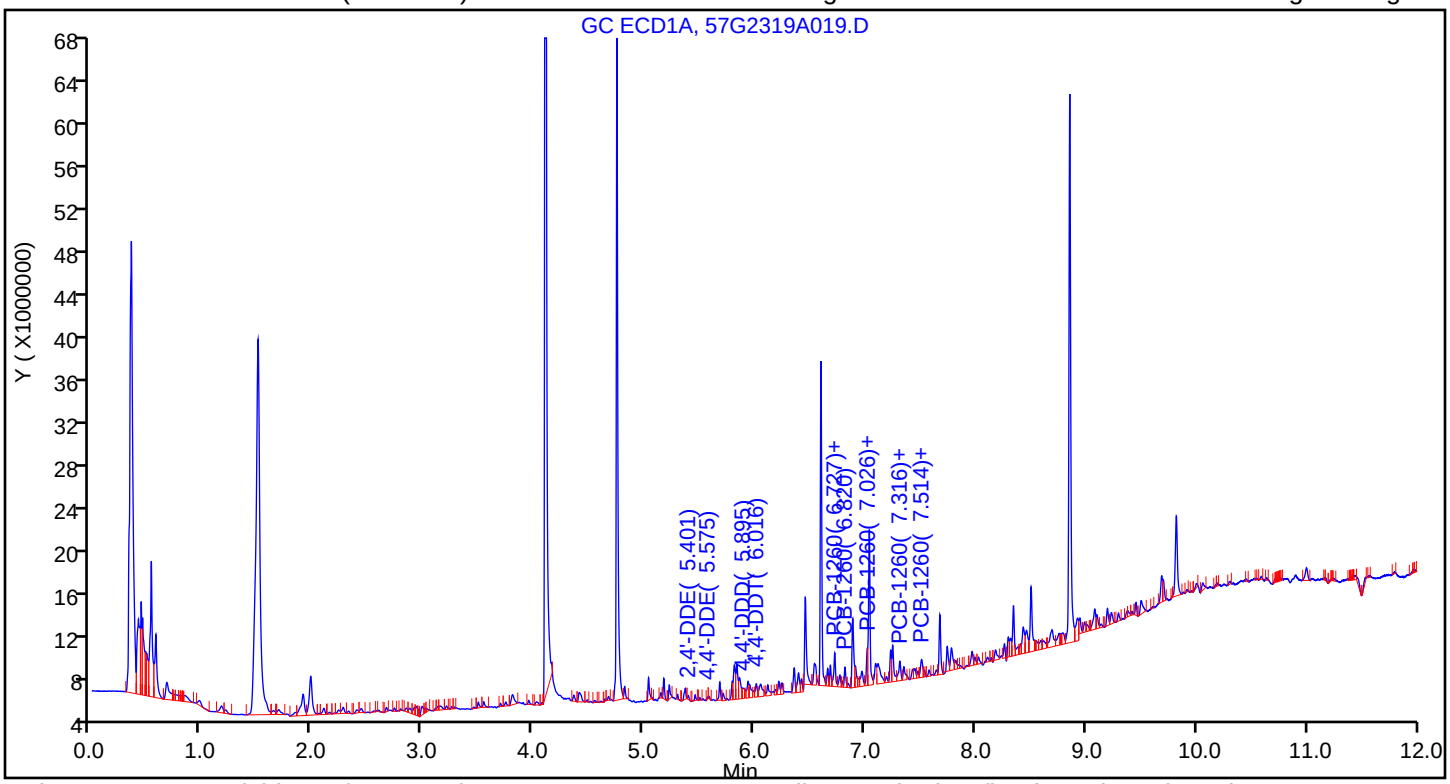
Report Date: 24-Jul-2019 08:59:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

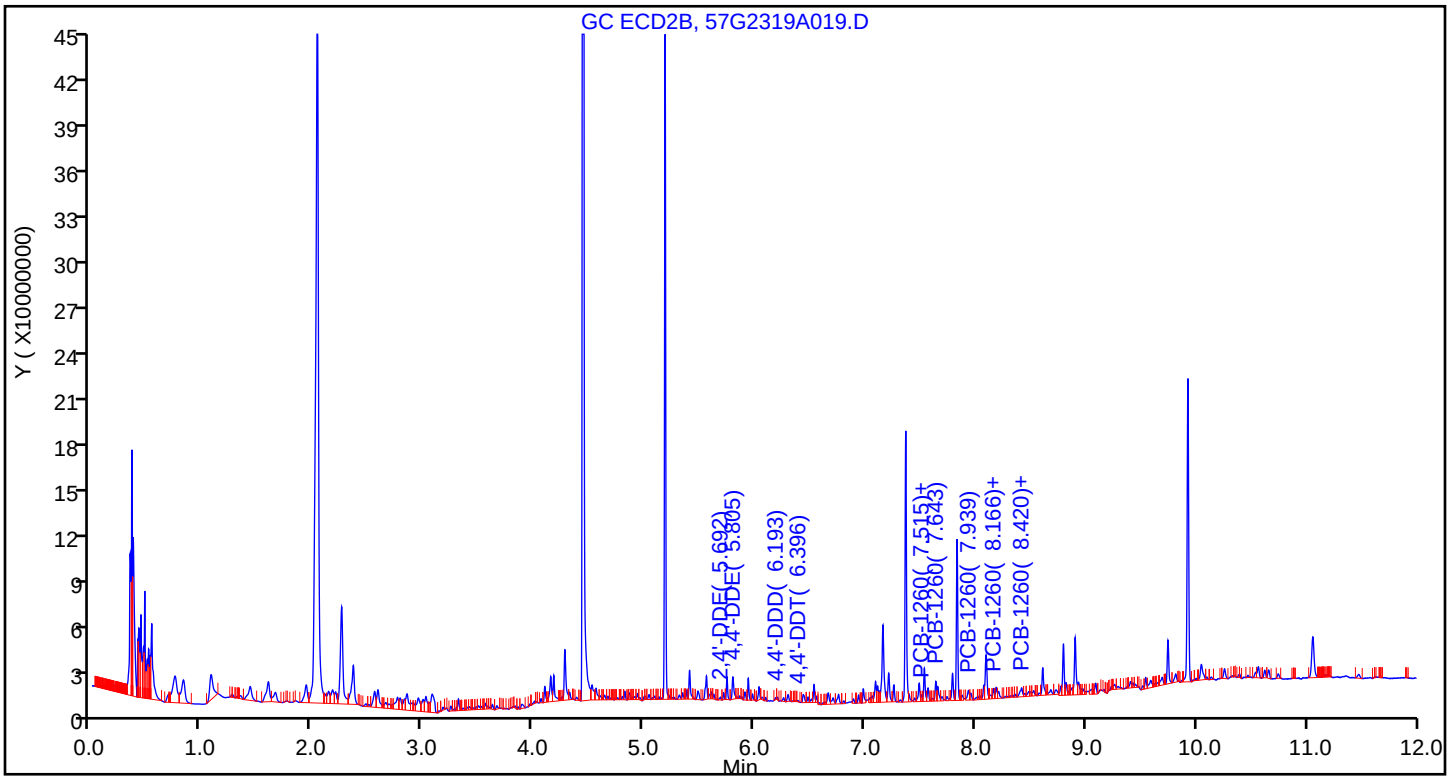
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D

Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057		
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	cjb	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D				
Lims ID:	580-87706-A-3-B				
Client ID:	22T-SG-11_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 12:13:11	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-3-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 08:59:18	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 08:59:18		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.4	61.67
$ 43 DCB Decachlorobiphenyl	25.0	20.7	82.66

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.2	56.89
$ 43 DCB Decachlorobiphenyl	25.0	15.9	63.67

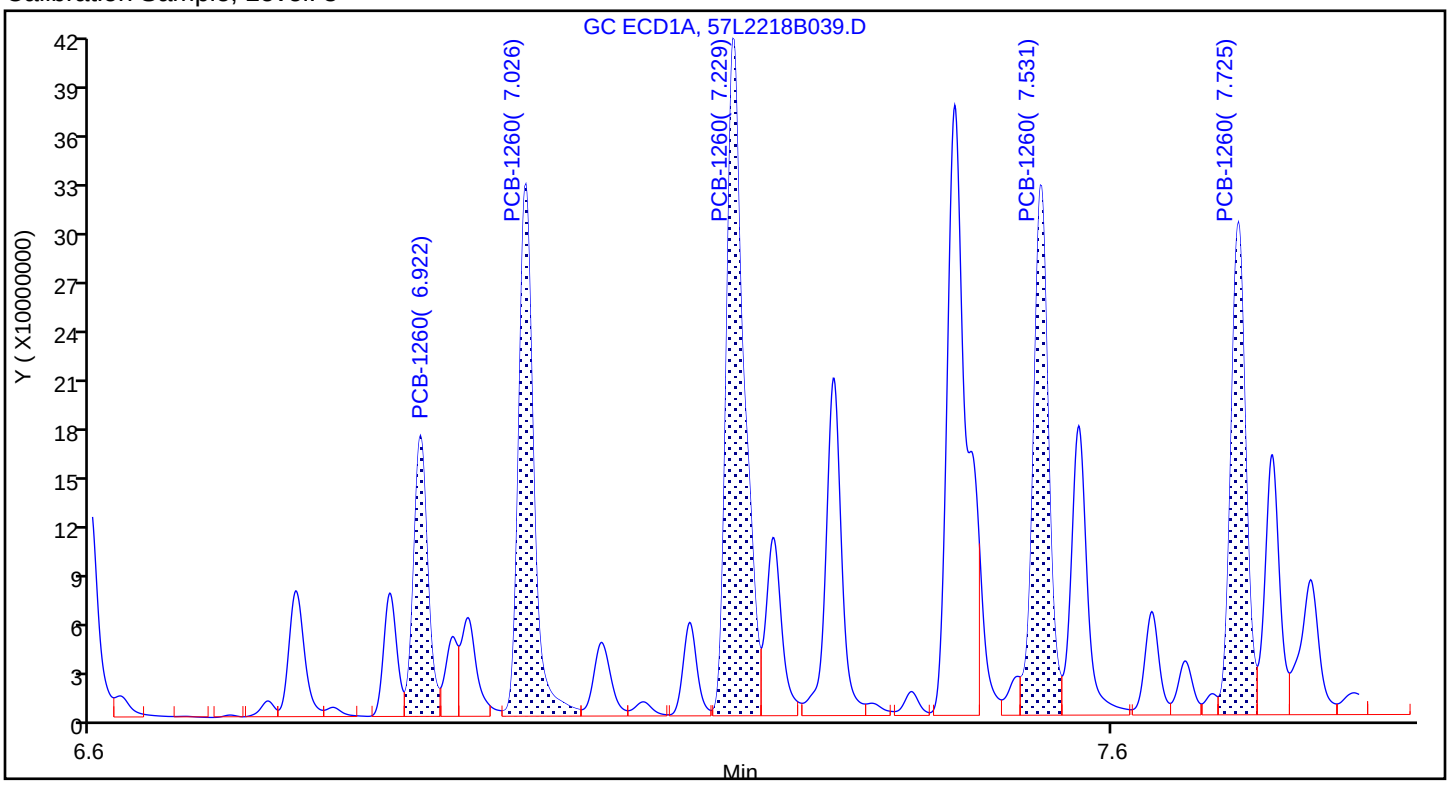
Report Date: 24-Jul-2019 08:59:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

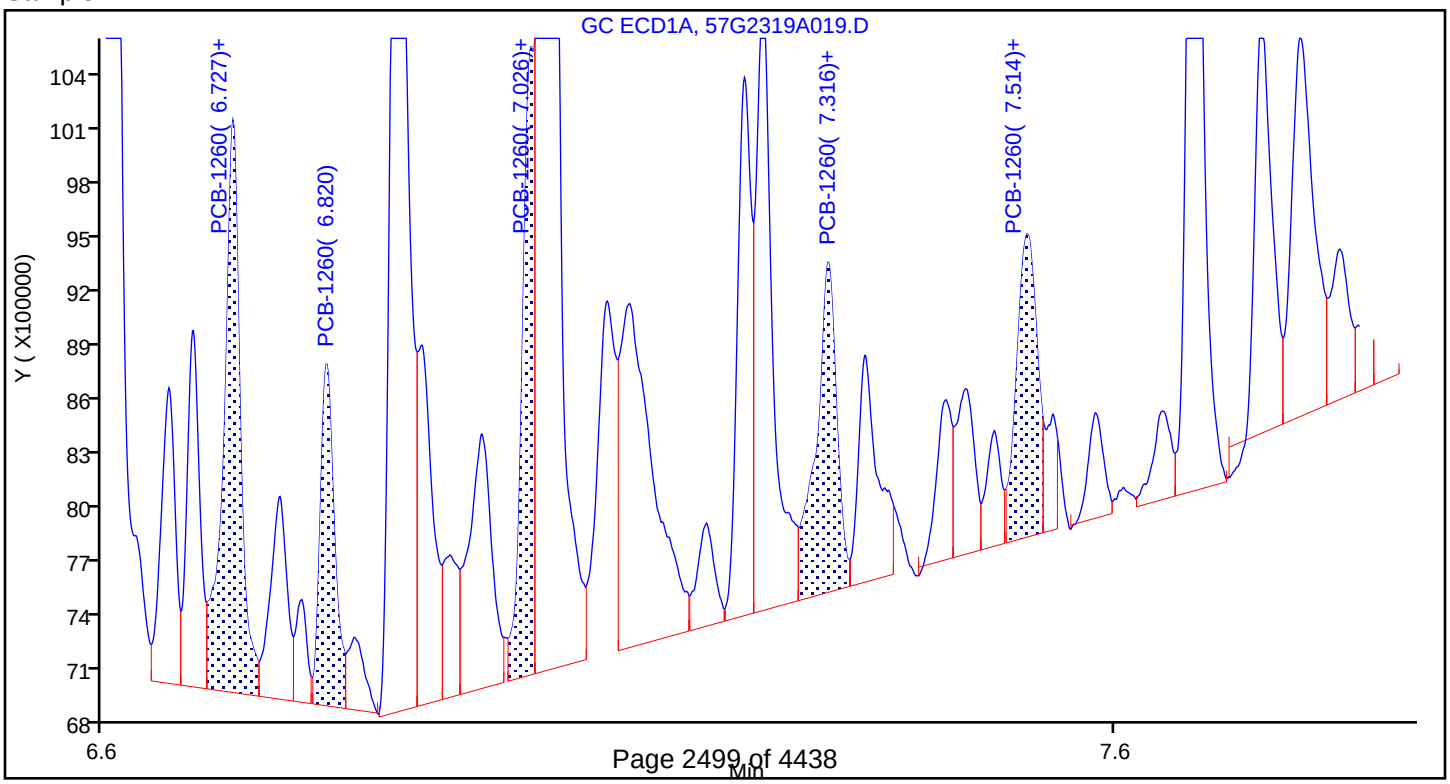
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D				
Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057		
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	cjb	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

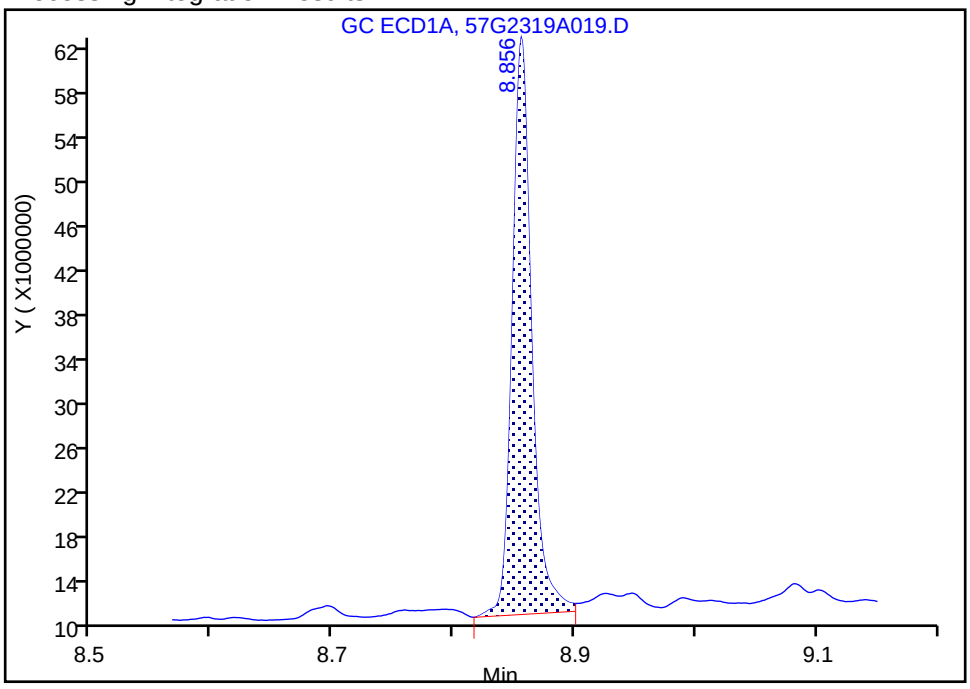
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D				
Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057		
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	cjb	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 43 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

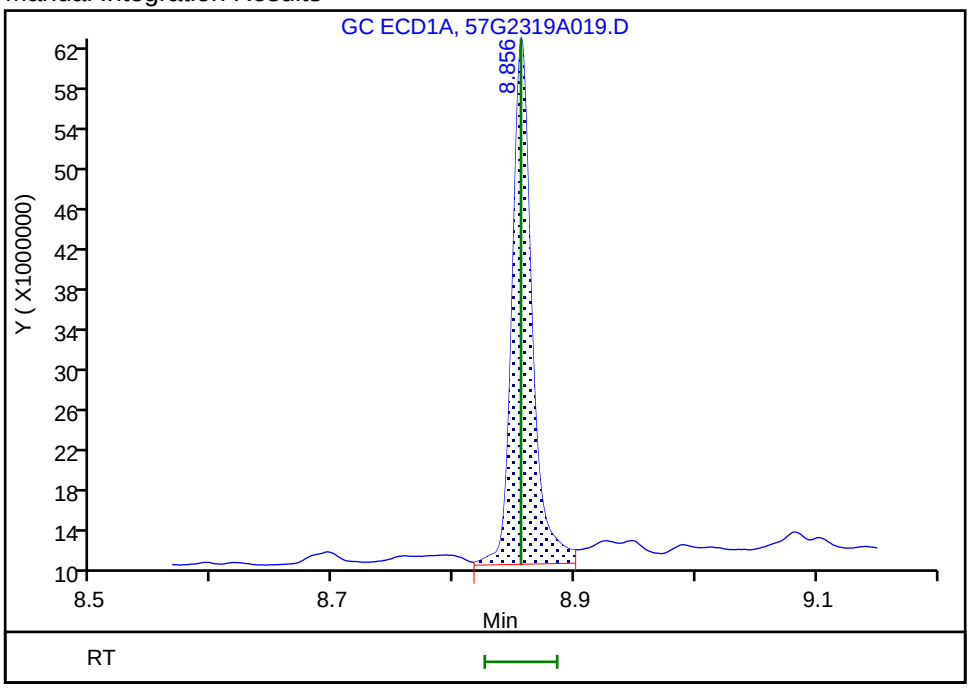
Processing Integration Results

RT: 8.86
Area: 56599454
Amount: 19.869203
Amount Units: ug/L



Manual Integration Results

RT: 8.86
Area: 58863160
Amount: 20.663876
Amount Units: ug/L



Reviewer: thaneeratw, 24-Jul-2019 08:50:12

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

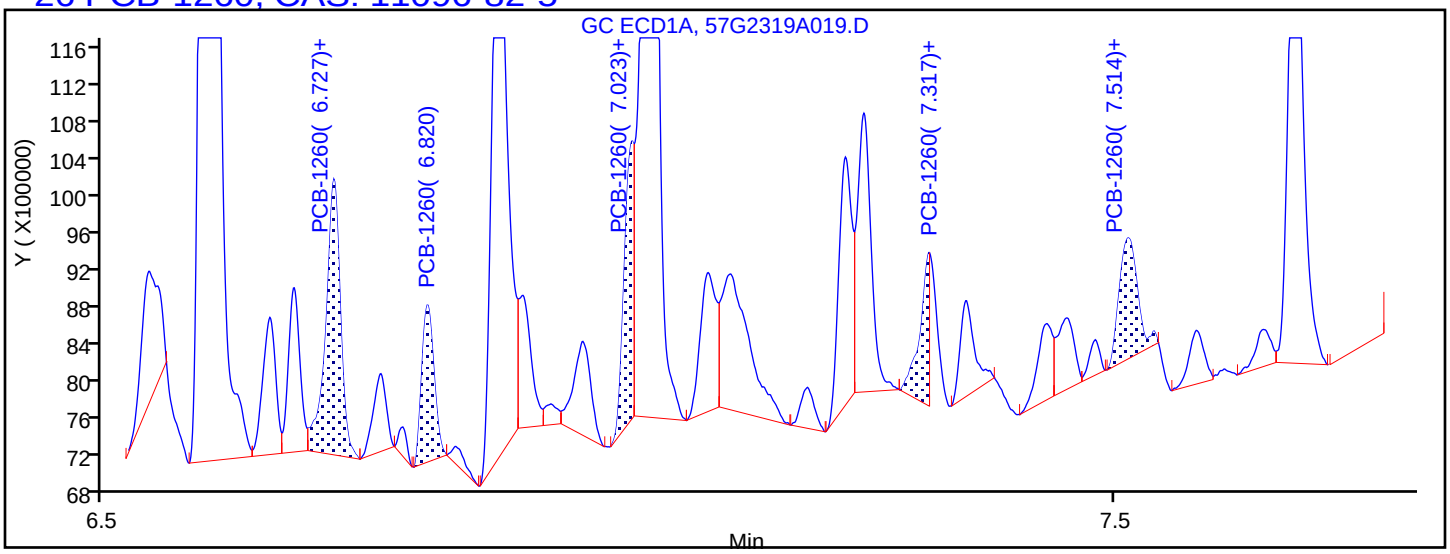
Report Date: 24-Jul-2019 08:59:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D

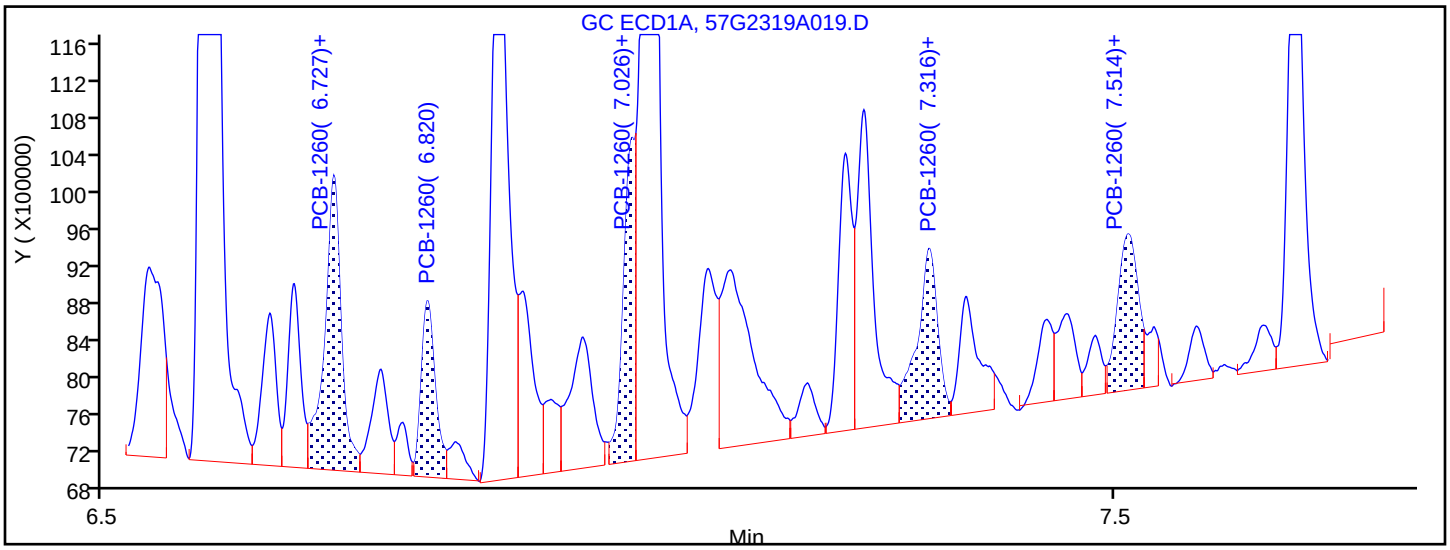
Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3
Client ID:	22T-SG-11_20190716		
Operator ID:	cjb	ALS Bottle#:	15 Worklist Smp#: 18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.727	Response = 2976636
6.820	Response = 1418835
7.023	Response = 1929715
7.317	Response = 1046432
7.514	Response = 1637875



Manual Integration Results

6.727	Response = 3643141	M
6.820	Response = 1855375	M
7.026	Response = 2834372	M
7.316	Response = 2619541	M
7.514	Response = 2360157	M

Reviewer: thaneeratw, 24-Jul-2019 08:52:55

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 57G2319A019.D

Analysis Method: 8082A Date Collected: 07/16/2019 08:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.515(g) Date Analyzed: 07/23/2019 12:13

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.0018	J p	0.0046	0.0018

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D
Lims ID: 580-87706-A-3-B
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 12:13:11 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-3-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 08:59:18 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 08:59:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	176500429	100.0	
2	4.450	4.451	-0.001	1684962765	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60061874	15.4	
2	5.191	5.193	-0.002	306549248	14.2	
				RPD =	8.05	
26 PCB-1260						M
1	6.727	6.724	0.003	3643141	45.9	M
1	6.820	6.824	-0.004	1855375	10.8	M
1	7.026	7.028	-0.002	2834372	11.2	M
1	7.316	7.322	-0.006	2619541	15.9	M
1	7.514	7.513	0.001	2360157	16.2	M
		Average of Peak Amounts =			20.0	
2	7.515	7.518	-0.003	3705926	6.07	M
2	7.643	7.645	-0.002	11293006	9.70	M
2	7.939	7.939	0.000	7899110	8.93	M
2	8.166	8.168	-0.002	6118443	6.00	M
2	8.420	8.422	-0.002	9305255	9.11	M
		Average of Peak Amounts =			7.96	
				RPD =	86.10	
$ 43 DCB Decachlorobiphenyl						M
1	8.856	8.855	0.001	58863160	20.7	M
2	9.926	9.925	0.001	187193631	15.9	
				RPD =	25.95	
13 2,4'-DDE						
1	5.401	5.389	0.012	331888	NR	
2	5.692	5.681	0.011	1766784	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.575	5.571	0.004	105389	NR	
2	5.805	5.791	0.014	15457085	NR	
					RPD = NaN	
32	4,4'-DDD					M
1	5.895	5.891	0.004	1353408	NR	M
2	6.193	6.189	0.004	983218	NR	
					RPD = NaN	
35	4,4'-DDT					M
1	6.016	6.019	-0.003	1537226	NR	M
2	6.396	6.393	0.003	679955	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

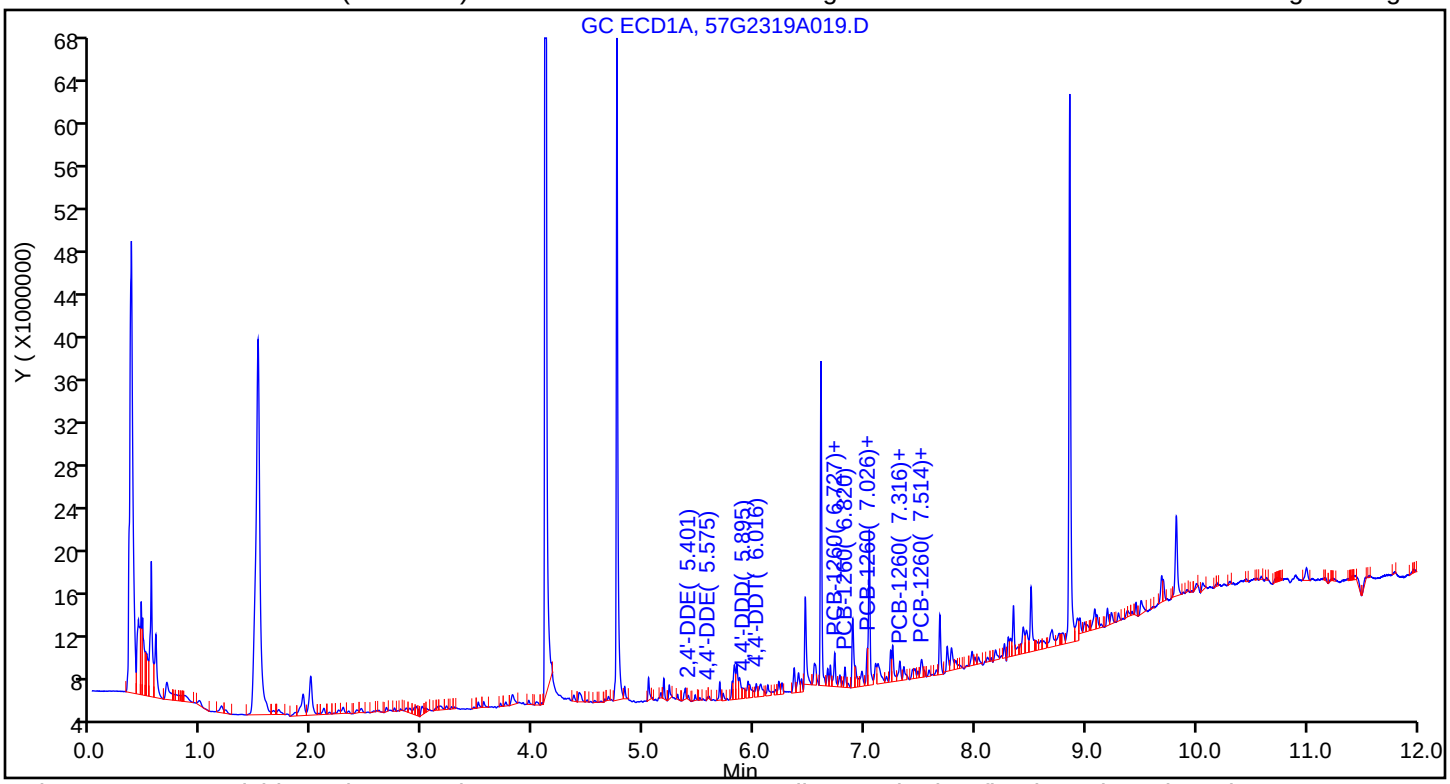
Report Date: 24-Jul-2019 08:59:19 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

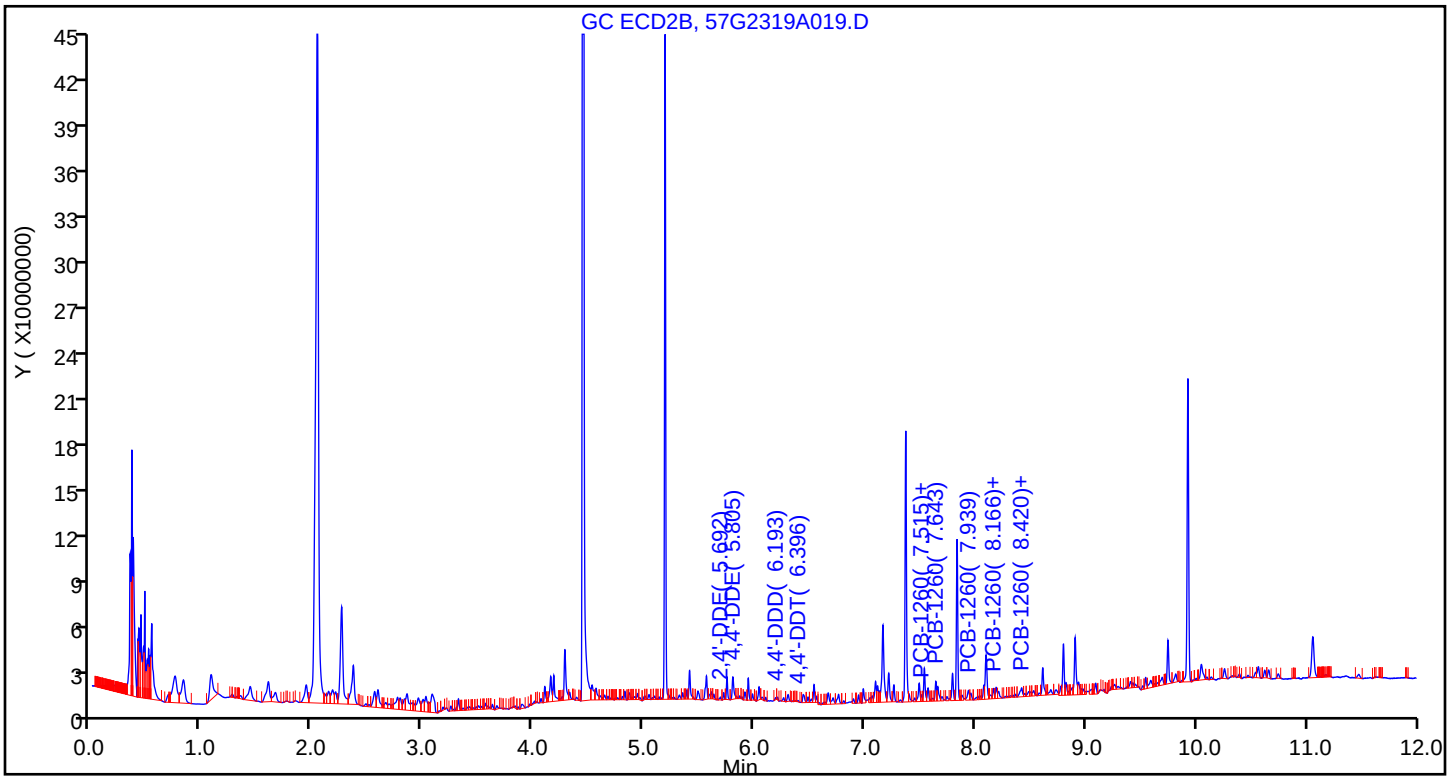
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D

Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057		
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	cjb	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D				
Lims ID:	580-87706-A-3-B				
Client ID:	22T-SG-11_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 12:13:11	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-3-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 08:59:18	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 08:59:18		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.4	61.67
$ 43 DCB Decachlorobiphenyl	25.0	20.7	82.66

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.2	56.89
$ 43 DCB Decachlorobiphenyl	25.0	15.9	63.67

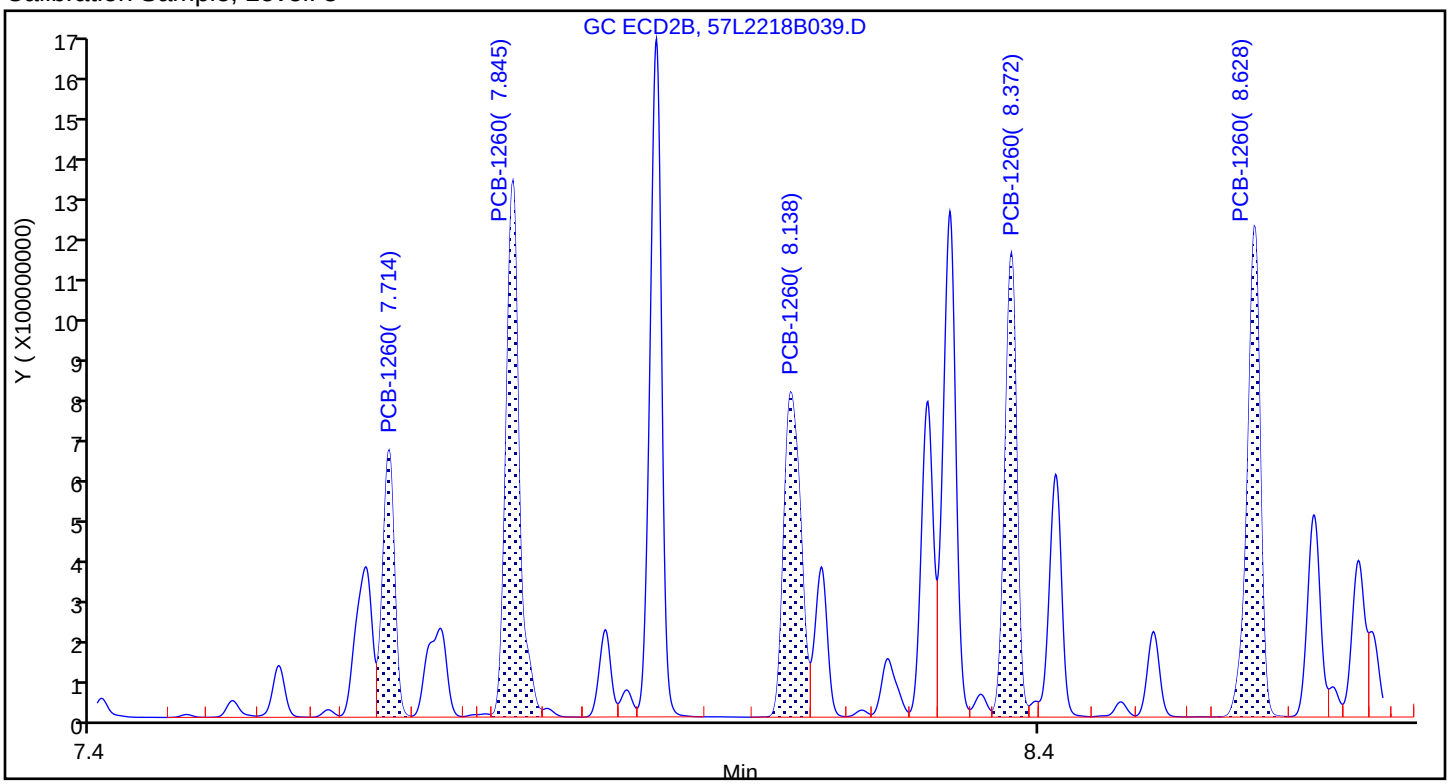
Report Date: 24-Jul-2019 08:59:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

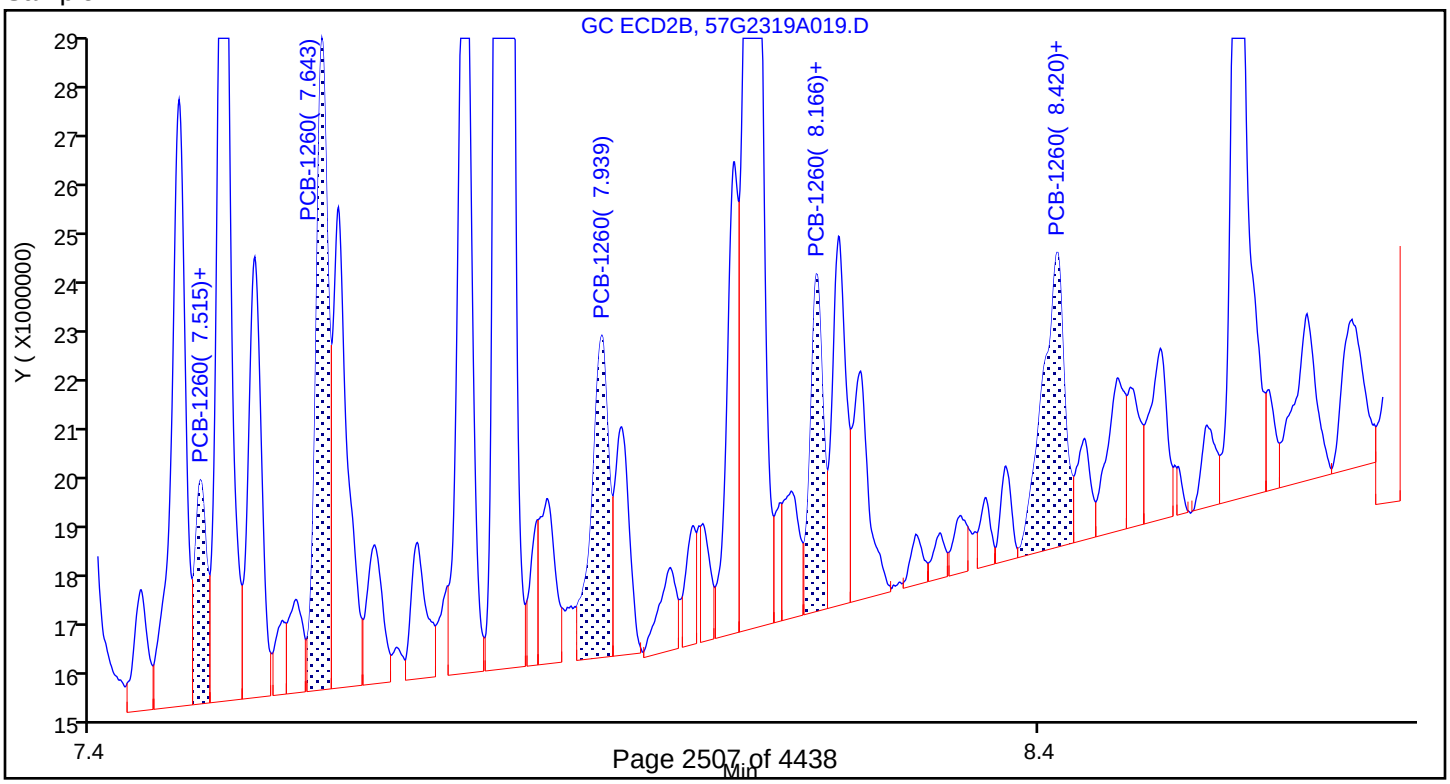
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D				
Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057		
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	cjb	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



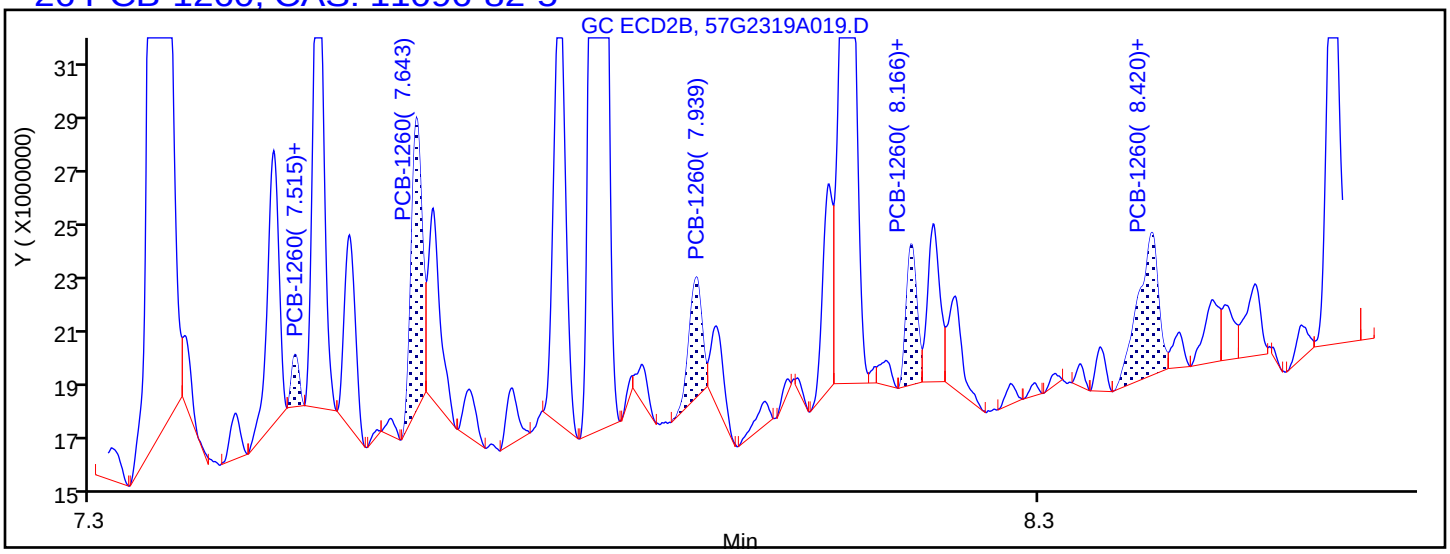
Report Date: 24-Jul-2019 08:59:20 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A019.D

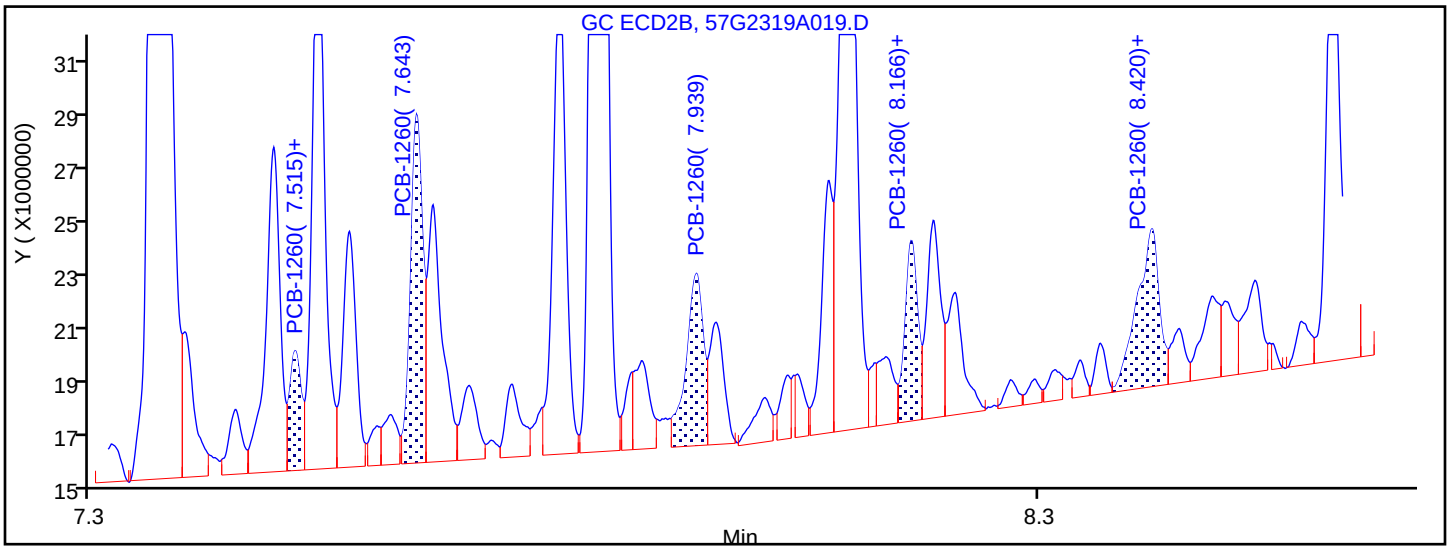
Injection Date:	23-Jul-2019 12:13:11	Instrument ID:	TAC057		
Lims ID:	580-87706-A-3-B	Lab Sample ID:	580-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	cjb	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.515	Response = 1031086
7.643	Response = 8437411
7.939	Response = 4130448
8.166	Response = 3972903
8.420	Response = 7770475



Manual Integration Results

7.515	Response = 3705926	M
7.643	Response = 11293006	M
7.939	Response = 7899110	M
8.166	Response = 6118443	M
8.420	Response = 9305255	M

Reviewer: thaneeratw, 24-Jul-2019 08:53:30

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Matrix: Solid Lab File ID: 57G2319A020.D

Analysis Method: 8082A Date Collected: 07/16/2019 09:00

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.477(g) Date Analyzed: 07/23/2019 12:31

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 61.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0051	0.0019
11104-28-2	PCB-1221	ND		0.0051	0.0024
11141-16-5	PCB-1232	ND		0.0051	0.0024
53469-21-9	PCB-1242	ND		0.0051	0.0013
12672-29-6	PCB-1248	ND		0.0051	0.00092
11097-69-1	PCB-1254	ND		0.0051	0.0020
11096-82-5	PCB-1260	0.0037	J	0.0051	0.0020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	74		39-142
877-09-8	Tetrachloro-m-xylene	61		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A020.D
Lims ID: 580-87706-A-4-B
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 12:31:17 ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-4-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:04:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:04:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	175053093	100.0	
2	4.450	4.451	-0.001	1602401158	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.756	4.758	-0.002	59153319	15.3	
2	5.192	5.193	-0.001	310210076	15.1	
				RPD =	1.15	
26 PCB-1260						M
1	6.728	6.724	0.004	3086458	39.0	M
1	6.820	6.824	-0.004	1527555	8.75	M
1	7.021	7.028	-0.007	1894451	7.20	M
1	7.317	7.322	-0.005	1212330	6.82	M
1	7.515	7.513	0.002	1629458	11.1	M
		Average of Peak Amounts =			14.6	
2	7.516	7.518	-0.002	2746466	4.16	M
2	7.644	7.645	-0.001	8444086	7.10	M
2	7.939	7.939	0.000	6052070	6.78	M
2	8.166	8.168	-0.002	4849263	4.59	M
2	8.419	8.422	-0.003	7904815	7.90	M
		Average of Peak Amounts =			6.11	
				RPD =	81.84	
$ 43 DCB Decachlorobiphenyl						
1	8.856	8.855	0.001	52451196	18.6	
2	9.925	9.925	0.000	171701177	15.4	
				RPD =	18.94	
13 2,4'-DDE						
1	5.402	5.389	0.013	226330	NR	
2	5.694	5.681	0.013	825181	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.592	5.571	0.021	139891		NR
2	5.806	5.791	0.015	11891280		NR
					RPD = 0.00	
19 2,4'-DDD						
1	5.636	5.625	0.011	104011		NR
2	5.946	5.955	-0.009	4800830		NR
					RPD = 0.00	
22 2,4'-DDT						
1	5.822	5.821	0.001	1366193		NR
2	6.127	6.146	-0.019	103899		NR
					RPD = 0.00	
32 4,4'-DDD						
1	5.903	5.891	0.012	114376		NR
2	6.194	6.189	0.005	1899469		NR
					RPD = 0.00	
35 4,4'-DDT						
1	6.017	6.019	-0.002	420688		NR
2	6.396	6.393	0.003	831299		NR
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

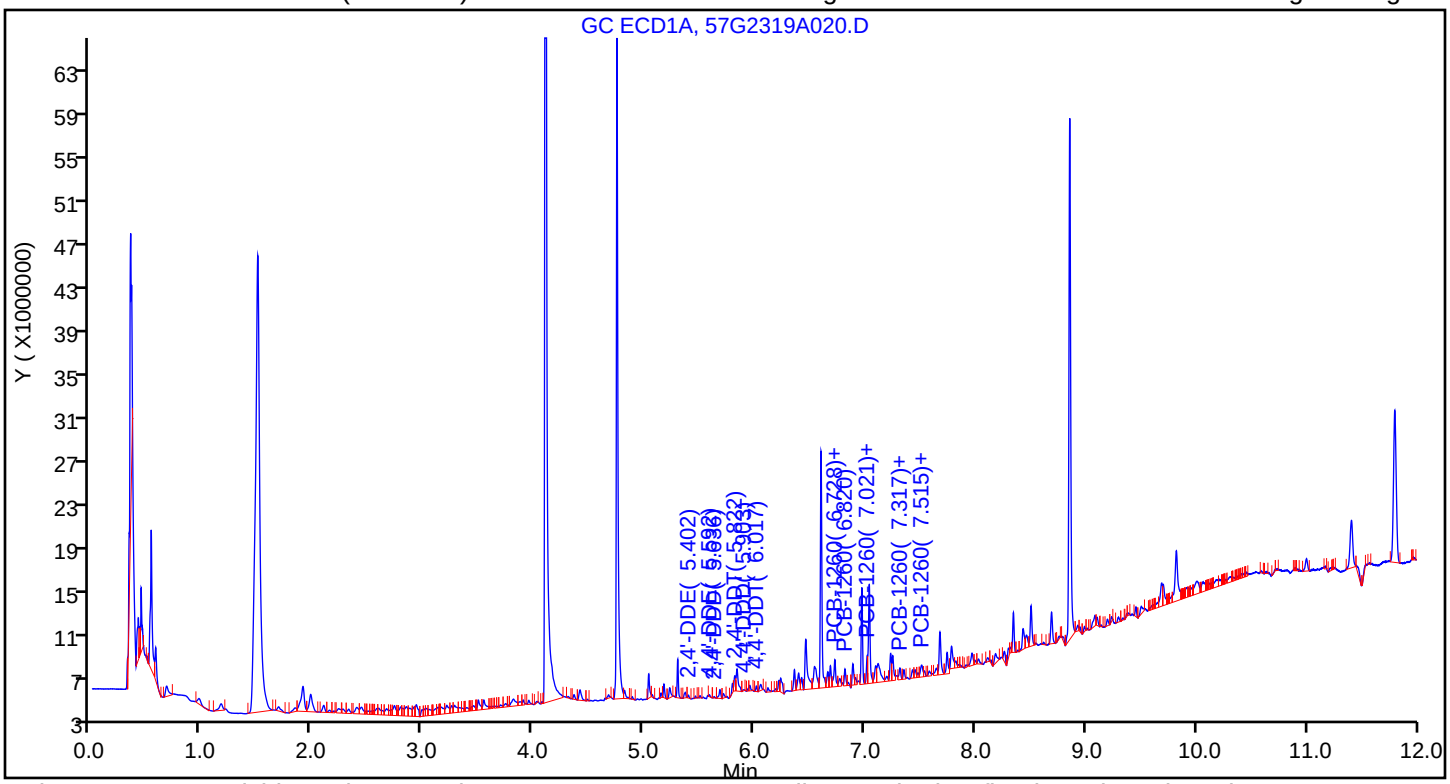
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:04:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

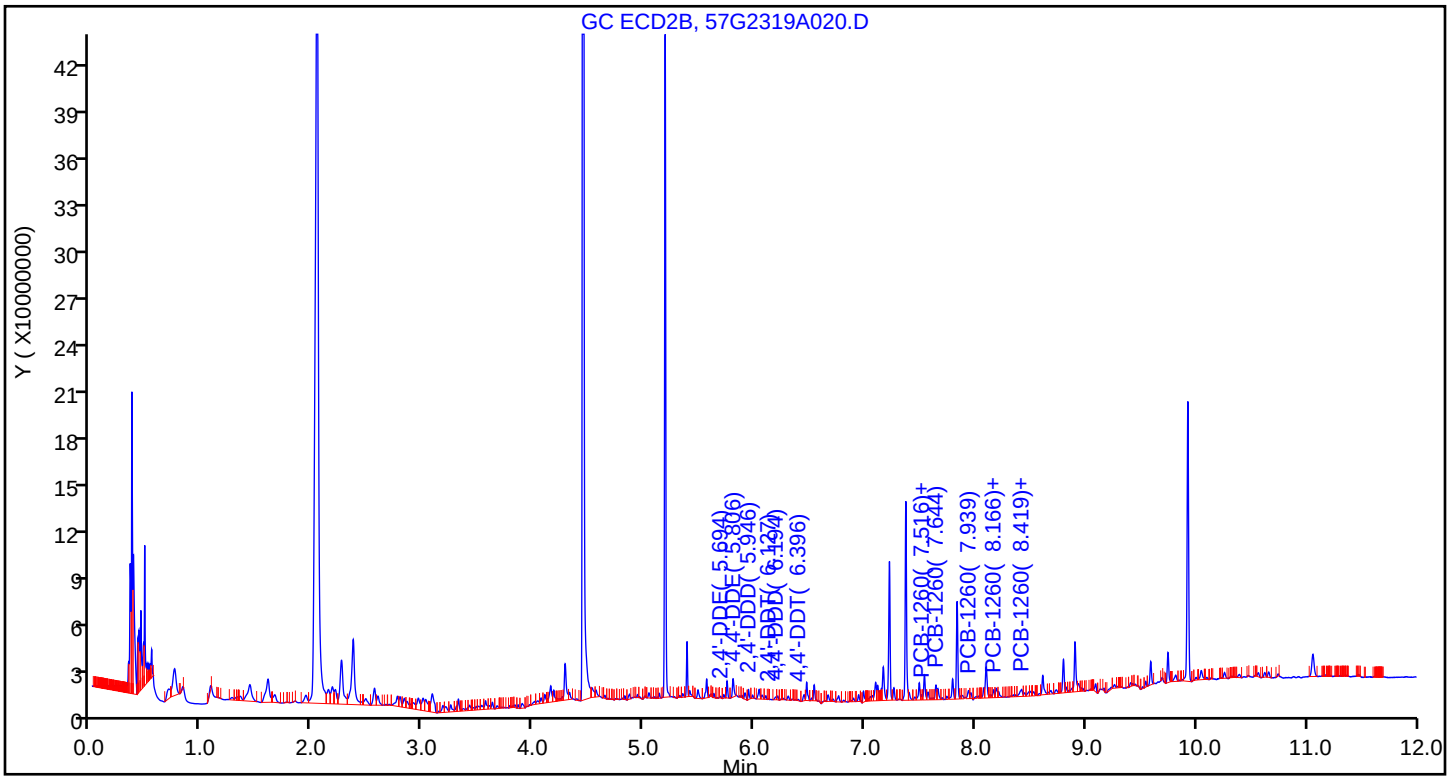
Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A020.D				
Injection Date:	23-Jul-2019 12:31:17	Instrument ID:	TAC057		
Lims ID:	580-87706-A-4-B	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	cjb	ALS Bottle#:	16	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A020.D				
Lims ID:	580-87706-A-4-B				
Client ID:	22T-SG-11-D_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 12:31:17	ALS Bottle#:	16	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-4-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:04:27	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:04:26		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.3	61.24
$ 43 DCB Decachlorobiphenyl	25.0	18.6	74.26

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.1	60.54
$ 43 DCB Decachlorobiphenyl	25.0	15.4	61.41

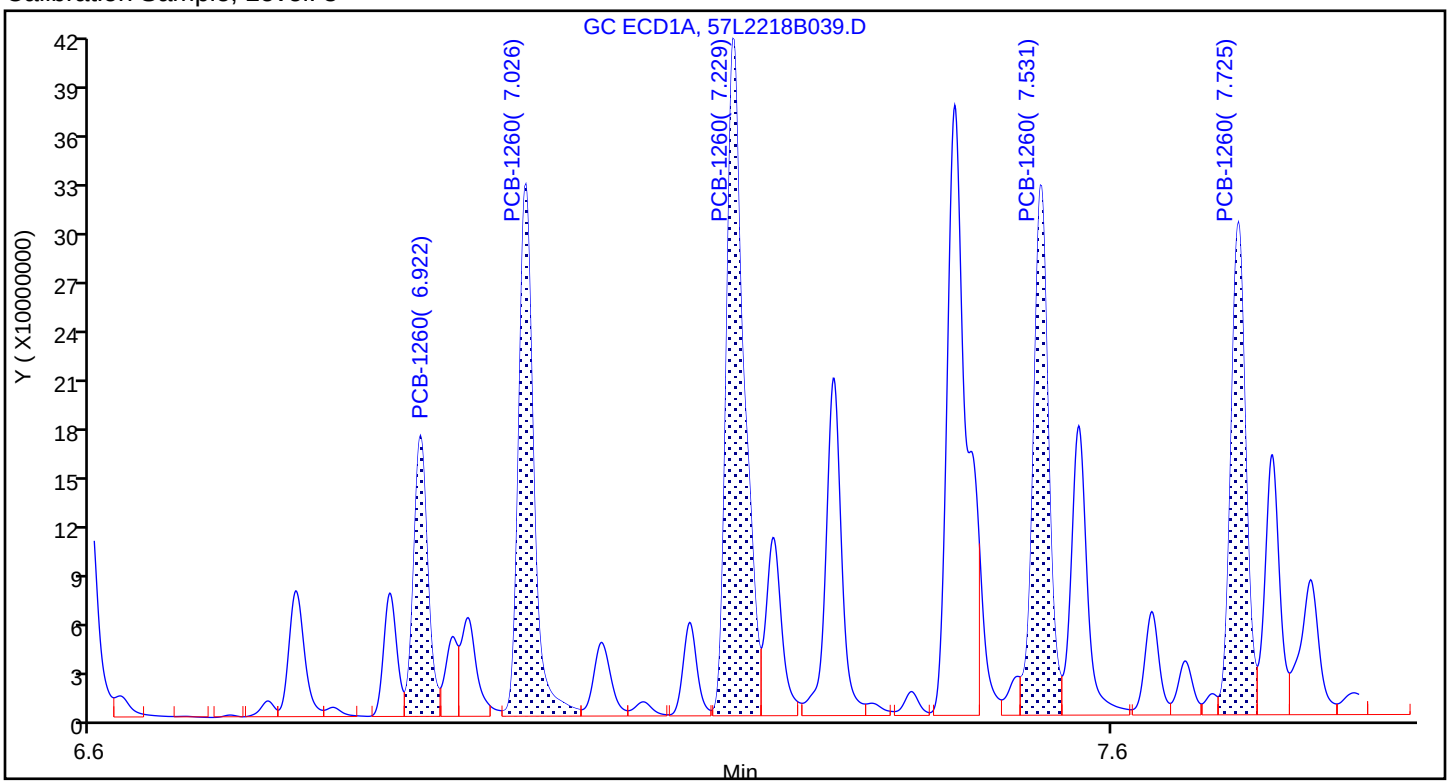
Report Date: 24-Jul-2019 09:04:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

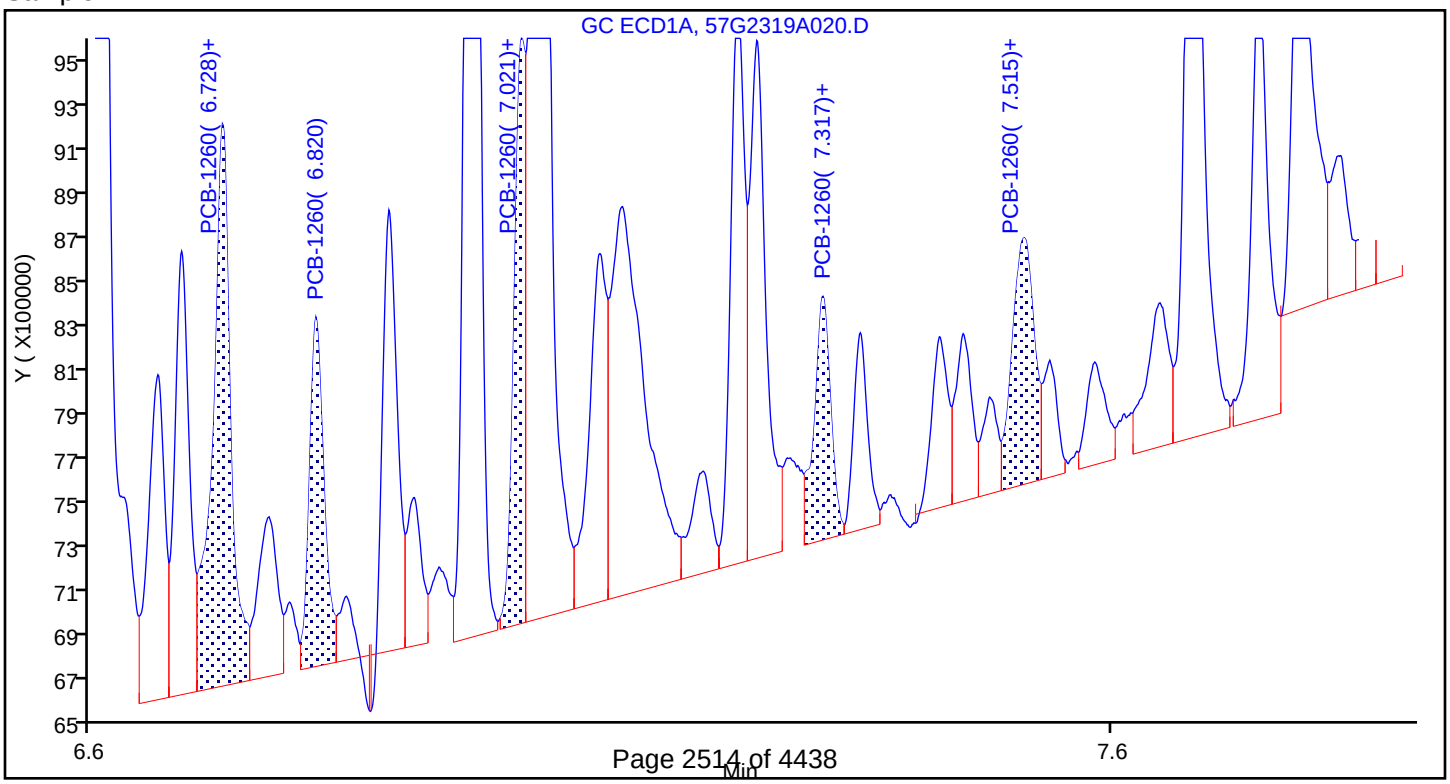
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A020.D				
Injection Date:	23-Jul-2019 12:31:17	Instrument ID:	TAC057		
Lims ID:	580-87706-A-4-B	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	cjb	ALS Bottle#:	16	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



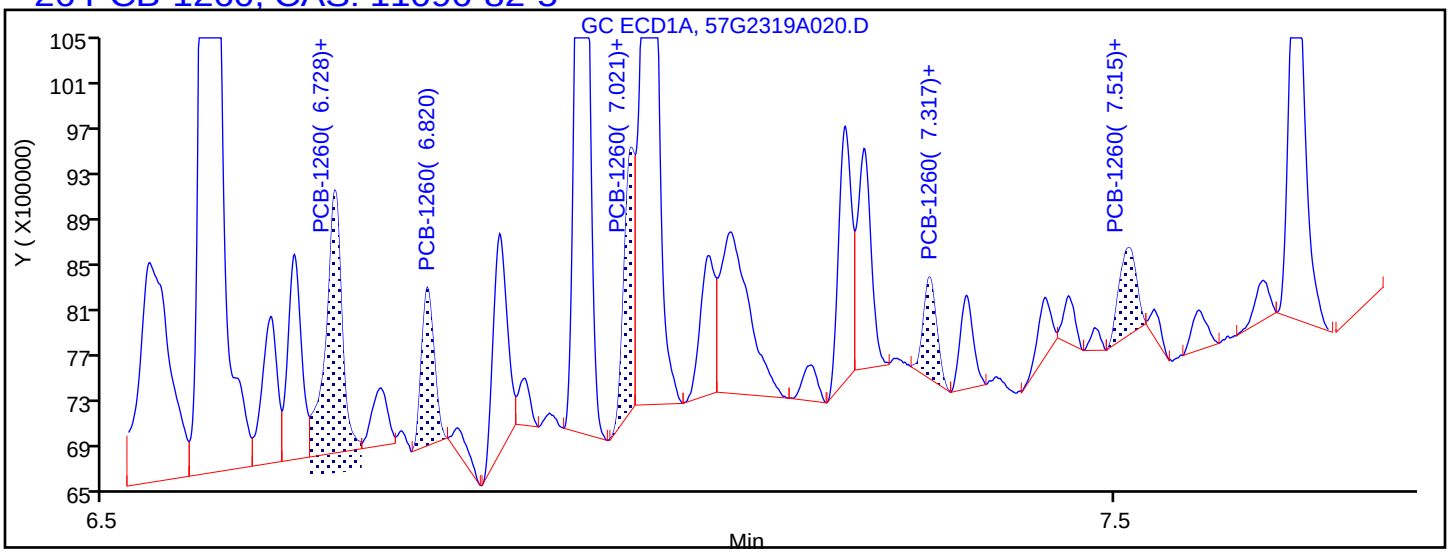
Report Date: 24-Jul-2019 09:04:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A020.D

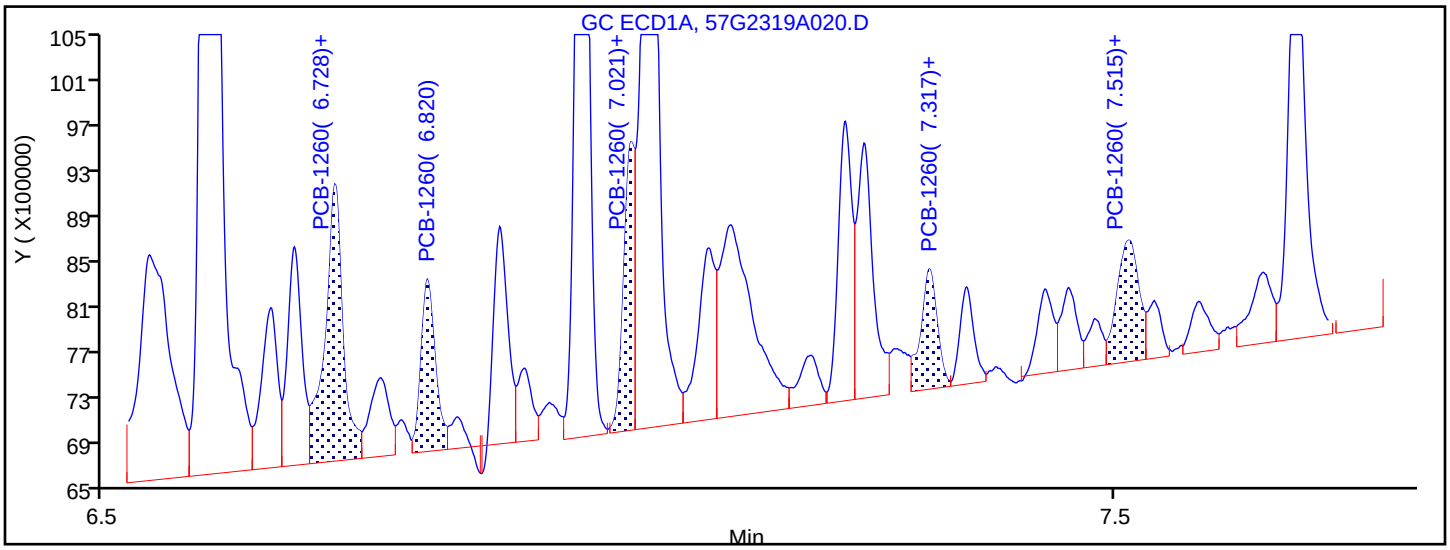
Injection Date:	23-Jul-2019 12:31:17	Instrument ID:	TAC057		
Lims ID:	580-87706-A-4-B	Lab Sample ID:	580-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	cjb	ALS Bottle#:	16	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 2544564
6.820	Response = 1195983
7.021	Response = 1634301
7.317	Response = 806292
7.515	Response = 912391



Manual Integration Results

6.728	Response = 3086458	M
6.820	Response = 1527555	M
7.021	Response = 1894451	M
7.317	Response = 1212330	M
7.515	Response = 1629458	M

Reviewer: thaneeratw, 24-Jul-2019 09:04:03

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Matrix: Solid Lab File ID: 57G2319A014.D

Analysis Method: 8082A Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.368(g) Date Analyzed: 07/23/2019 10:42

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 61.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0051	0.0019
11104-28-2	PCB-1221	ND		0.0051	0.0024
11141-16-5	PCB-1232	ND		0.0051	0.0024
53469-21-9	PCB-1242	ND		0.0051	0.0012
12672-29-6	PCB-1248	ND		0.0051	0.00091
11097-69-1	PCB-1254	ND		0.0051	0.0020
11096-82-5	PCB-1260	ND		0.0051	0.0019

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	80		39-142
877-09-8	Tetrachloro-m-xylene	62		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A014.D
Lims ID: 580-87706-A-5-D
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 10:42:59 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-5-D
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 11:02:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	178413998	100.0	
2	4.449	4.451	-0.002	1715607196	100.0	
					RPD = 0.00	
S 3 Polychlorinated biphenyls, Total						
1					5.59	
2					4.47	
					RPD = 22.27	
$ 9 Tetrachloro-m-xylene						
1	4.754	4.758	-0.004	60908447	15.5	
2	5.191	5.193	-0.002	320406829	14.6	
					RPD = 5.76	
26 PCB-1260						
1	0.000	6.724	0.000	0	0	
1	6.820	6.824	-0.004	1358360	7.49	
1	7.021	7.028	-0.007	1508936	5.38	
1	7.318	7.322	-0.004	843590	4.30	
1	7.514	7.513	0.001	822907	5.18	
		Average of Peak Amounts =			5.59	
2	7.515	7.518	-0.003	1968347	1.93	
2	7.643	7.645	-0.002	7321231	5.29	
2	7.938	7.939	-0.001	5373901	5.26	
2	8.165	8.168	-0.003	4135407	3.16	
2	8.419	8.422	-0.003	7459917	6.70	
		Average of Peak Amounts =			4.47	
					RPD = 22.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	57900905	20.1	
2	9.925	9.925	0.000	208010891	17.4	
					RPD = 14.60	
1 Hexachlorobutadiene						
1	2.669	2.658	0.011	1505868	NR	
2	2.768	2.751	0.017	12298535	NR	
					RPD = 0.00	
4 Hexachlorobenzene						
1	4.311	4.326	-0.015	229304	NR	
2	4.529	4.522	0.007	7216451	NR	
					RPD = 0.00	
12 alpha-BHC						
1	4.419	4.410	0.009	798443	NR	
2	4.603	4.599	0.004	1542485	NR	
					RPD = NaN	
14 gamma-BHC (Lindane)						
1	4.550	4.563	-0.013	311588	NR	
2	4.826	4.821	0.005	2194221	NR	
					RPD = NaN	
18 beta-BHC						
1	4.646	4.628	0.018	102740	NR	
2	4.869	4.846	0.023	4640238	NR	
					RPD = NaN	
21 Heptachlor						
1	4.854	4.878	-0.024	240811	NR	
2	5.077	5.072	0.005	1709697	NR	
					RPD = NaN	
24 Aldrin						
1	5.041	5.035	0.006	2917699	NR	
2	5.244	5.244	0.000	1513673	NR	
					RPD = NaN	
11 oxy-Chlordane						
1	5.304	5.301	0.003	2470545	NR	
2	5.566	5.561	0.005	17296889	NR	
					RPD = 0.00	
27 Heptachlor epoxide						
1	5.374	5.351	0.023	611507	NR	
2	5.601	5.606	-0.005	4978210	NR	
					RPD = NaN	
13 2,4'-DDE						
1	5.402	5.389	0.013	451320	NR	
2	5.679	5.681	-0.002	918107	NR	
					RPD = NaN	
15 trans-Nonachlor						
1	5.506	5.513	-0.007	146144	NR	
2	5.721	5.719	0.002	2261212	NR	
					RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.574	5.571	0.003	194968	NR	
2	5.804	5.791	0.013	21355519	NR	
					RPD = NaN	
33 Endosulfan I						
1	5.590	5.588	0.002	171511	NR	
2	5.850	5.858	-0.008	984239	NR	
					RPD = NaN	
19 2,4'-DDD						
1	5.634	5.625	0.009	121928	NR	
2	5.944	5.955	-0.011	5301306	NR	
					RPD = NaN	
36 Dieldrin						
1	5.717	5.740	-0.023	399315	NR	
2	5.913	5.930	-0.017	4774842	NR	
					RPD = NaN	
28 Endrin						
1	5.839	5.847	-0.008	4528575	NR	
2	6.121	6.112	0.009	353609	NR	
					RPD = NaN	
32 4,4'-DDD						
1	5.894	5.891	0.003	435107	NR	
2	6.192	6.189	0.003	1683108	NR	
					RPD = NaN	
39 Endosulfan II						
1	5.942	5.950	-0.008	364249	NR	
2	6.264	6.280	-0.016	2477355	NR	
					RPD = NaN	
35 4,4'-DDT						
1	6.017	6.019	-0.002	564444	NR	
2	6.393	6.393	0.000	1188751	NR	
					RPD = NaN	
34 Endrin aldehyde						
1	6.220	6.219	0.001	380002	NR	
2	6.449	6.437	0.012	3485311	NR	
					RPD = NaN	
37 Mirex						
1	6.428	6.428	0.000	754129	NR	
2	6.944	6.927	0.017	3737568	NR	
					RPD = 0.00	
41 Endosulfan sulfate						
1	6.464	6.450	0.014	7695150	NR	
2	6.561	6.588	-0.027	1864271	NR	
					RPD = NaN	
40 Endrin ketone						
1	6.603	6.591	0.012	20915904	NR	
2	6.964	6.975	-0.011	274496	NR	
					RPD = NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

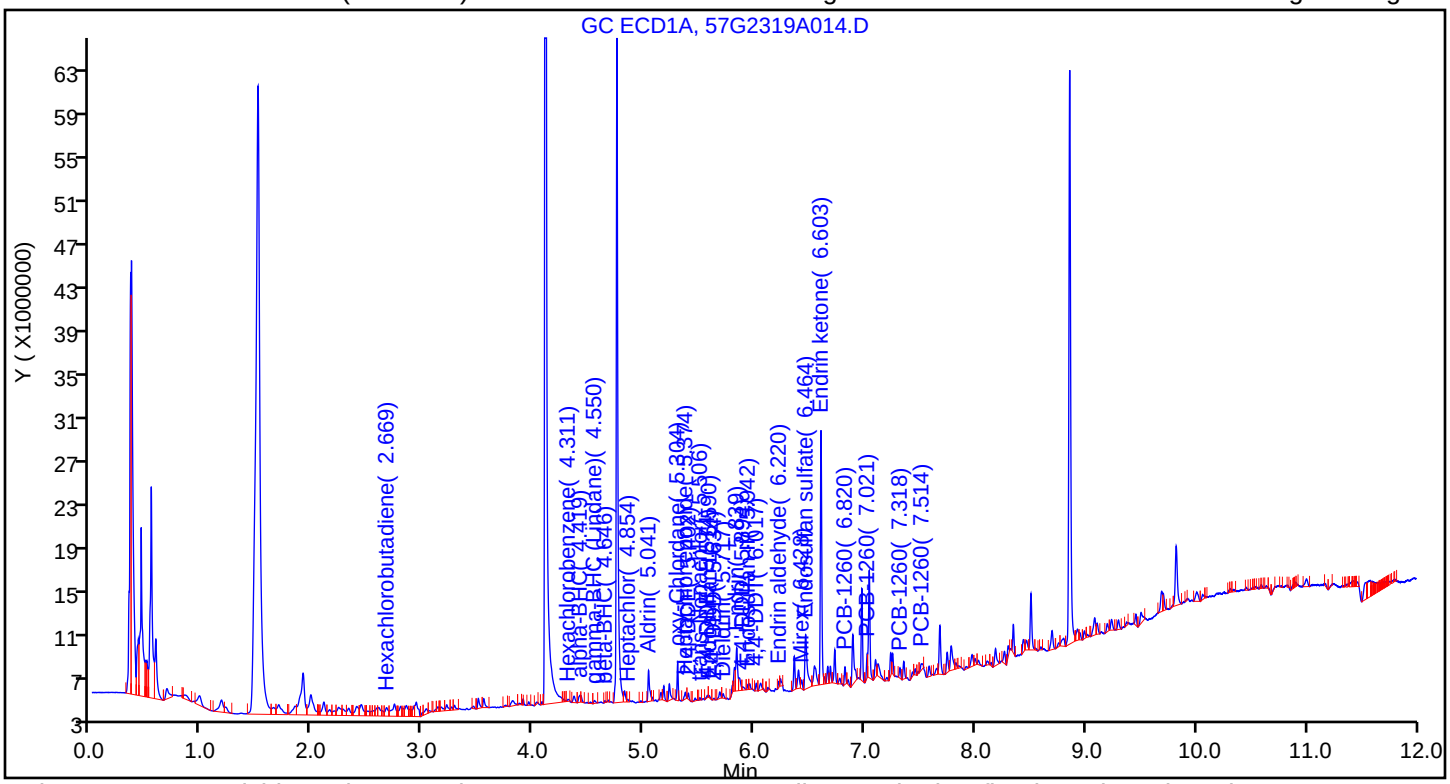
Report Date: 23-Jul-2019 15:12:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

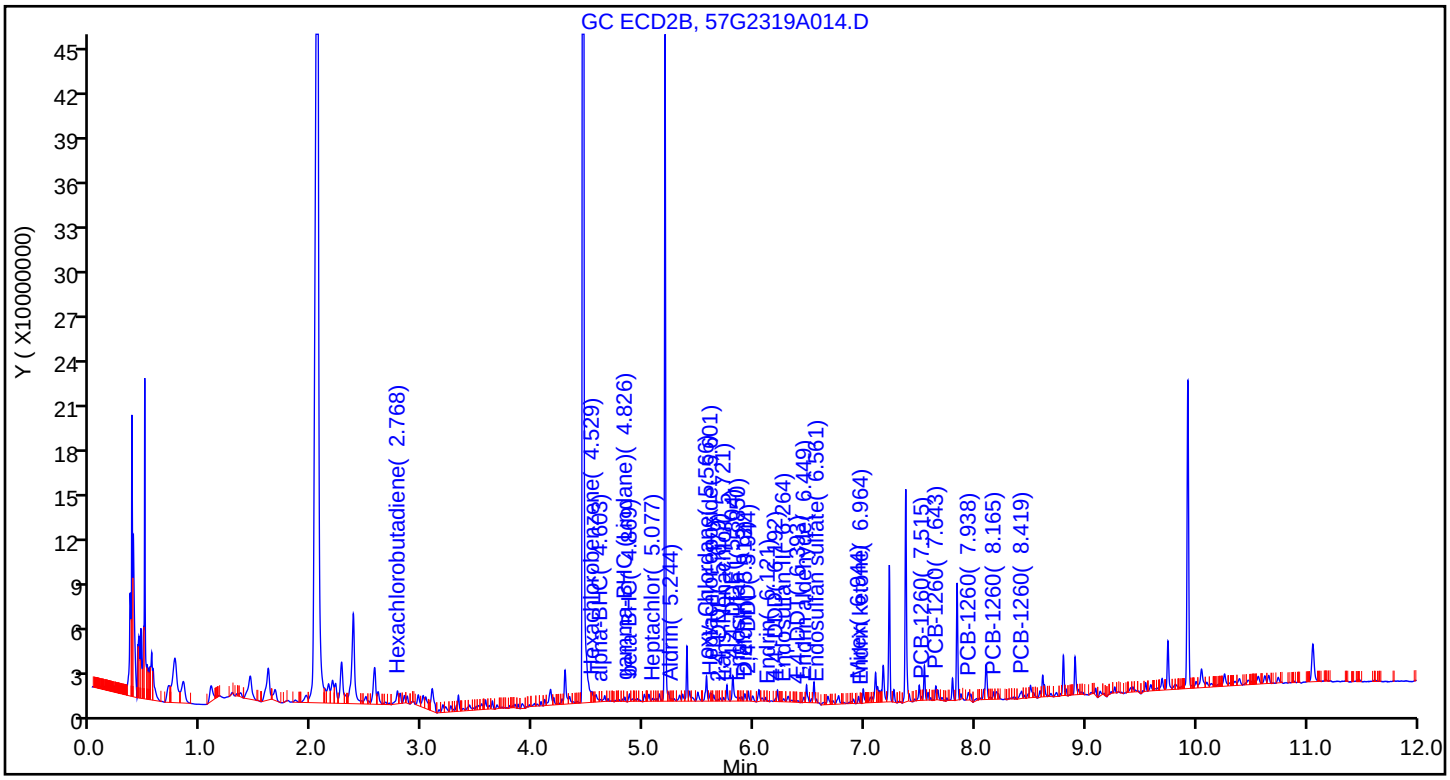
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A014.D

Injection Date:	23-Jul-2019 10:42:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-D	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	10	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A014.D				
Lims ID:	580-87706-A-5-D				
Client ID:	22T-SG-12_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 10:42:59	ALS Bottle#:	10	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-5-D				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	23-Jul-2019 15:11:50	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 11:02:52		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.5	61.87
$ 43 DCB Decachlorobiphenyl	25.0	20.1	80.43

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.6	58.40
$ 43 DCB Decachlorobiphenyl	25.0	17.4	69.49

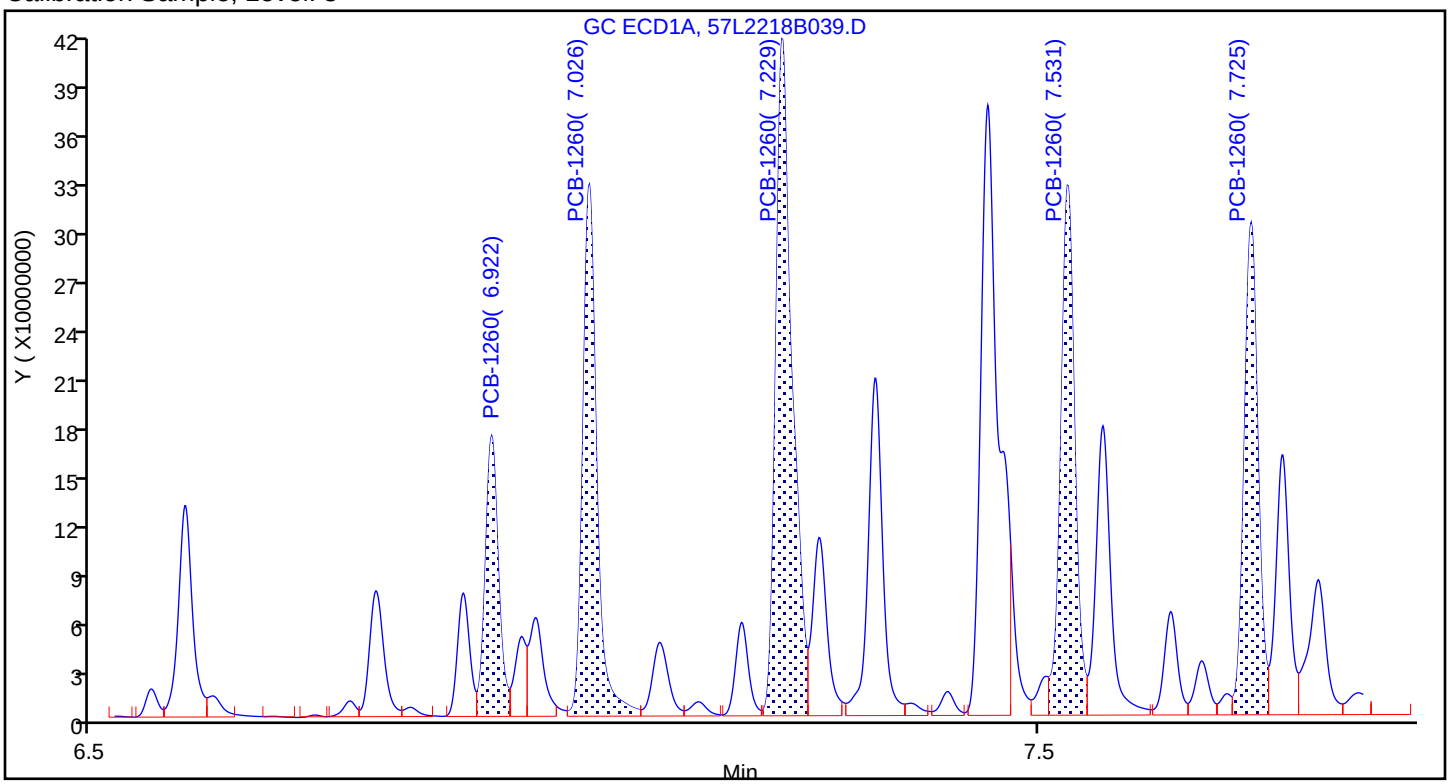
Report Date: 23-Jul-2019 15:12:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

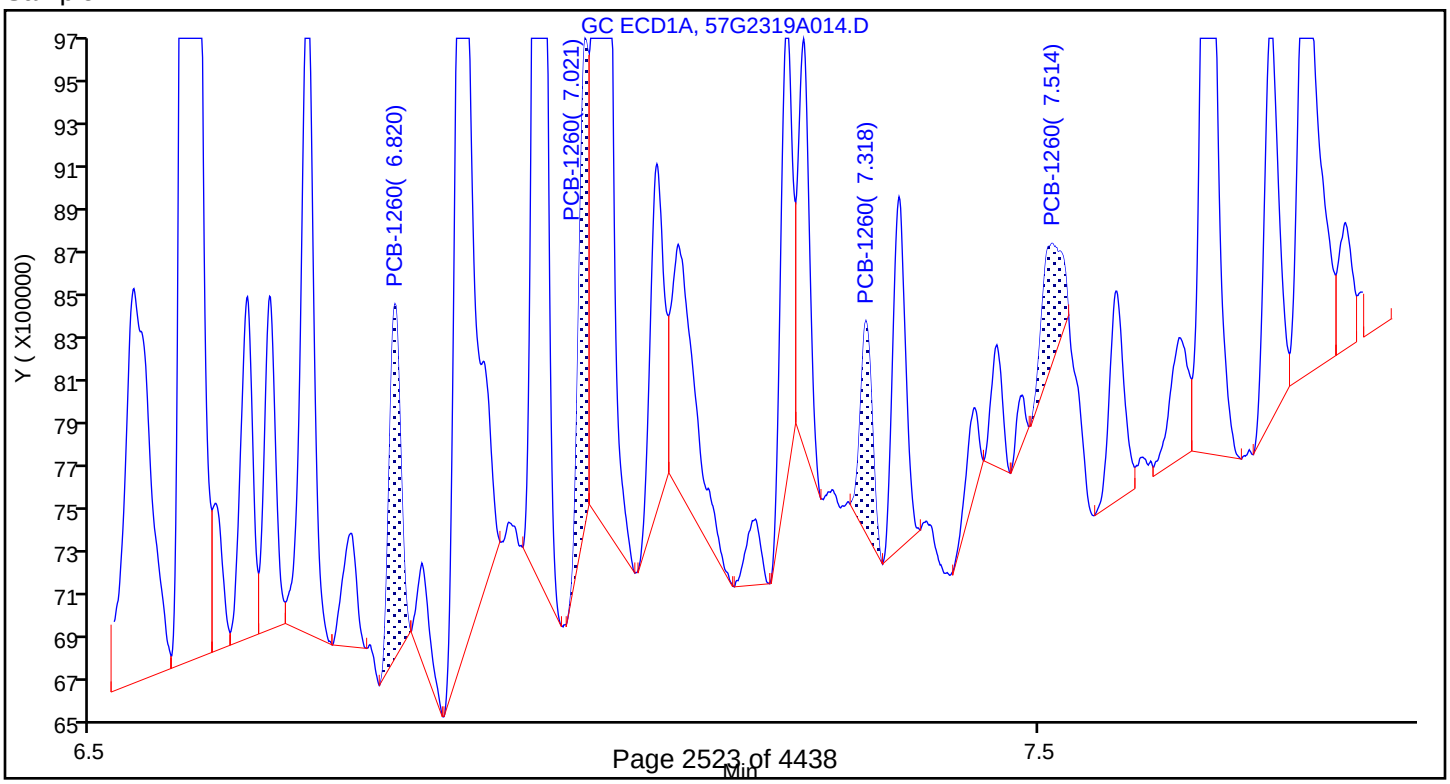
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A014.D				
Injection Date:	23-Jul-2019 10:42:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-D	Lab Sample ID:	580-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	10	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 57G2319A021.D

Analysis Method: 8082A Date Collected: 07/16/2019 10:09

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.739(g) Date Analyzed: 07/23/2019 12:49

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0038	0.0014
11104-28-2	PCB-1221	ND		0.0038	0.0018
11141-16-5	PCB-1232	ND		0.0038	0.0018
53469-21-9	PCB-1242	ND		0.0038	0.00093
12672-29-6	PCB-1248	ND		0.0038	0.00068
11097-69-1	PCB-1254	ND		0.0038	0.0015

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	72		39-142
877-09-8	Tetrachloro-m-xylene	54		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D
Lims ID: 580-87706-A-6-B
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 12:49:24 ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-6-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:33:28 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:33:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	184186723	100.0	
2	4.450	4.451	-0.001	1569806018	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	54462106	13.4	
2	5.192	5.193	-0.001	270025176	13.4	
				RPD =	0.38	
26 PCB-1260						M
1	6.728	6.724	0.004	8590240	105.6	M
1	6.820	6.824	-0.004	4496752	26.4	M
1	7.026	7.028	-0.002	4738807	18.6	M
1	7.318	7.322	-0.004	4437513	26.6	M
1	7.502	7.513	-0.011	4575740	30.7	M
		Average of Peak Amounts =			41.6	
2	7.516	7.518	-0.002	7149710	15.3	M
2	7.644	7.645	-0.001	19052811	19.6	M
2	7.940	7.939	0.001	16737332	23.0	M
2	8.167	8.168	-0.001	12699366	16.4	M
2	8.420	8.422	-0.002	16787320	19.7	M
		Average of Peak Amounts =			18.8	
				RPD =	75.45	
$ 43 DCB Decachlorobiphenyl						
1	8.857	8.855	0.002	53544168	18.0	
2	9.925	9.925	0.000	167933619	15.3	
				RPD =	16.10	
13 2,4'-DDE						
1	5.382	5.389	-0.007	2012704	NR	
2	5.677	5.681	-0.004	921032	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.573	5.571	0.002	145091	NR	
2	5.805	5.791	0.014	18792109	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.628	5.625	0.003	176959	NR	
2	5.950	5.955	-0.005	4701285	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.821	5.821	0.000	2499046	NR	
2	6.155	6.146	0.009	2141698	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.865	5.891	-0.026	1135701	NR	
2	6.194	6.189	0.005	414080	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.017	6.019	-0.002	2897509	NR	
2	6.393	6.393	0.000	351505	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

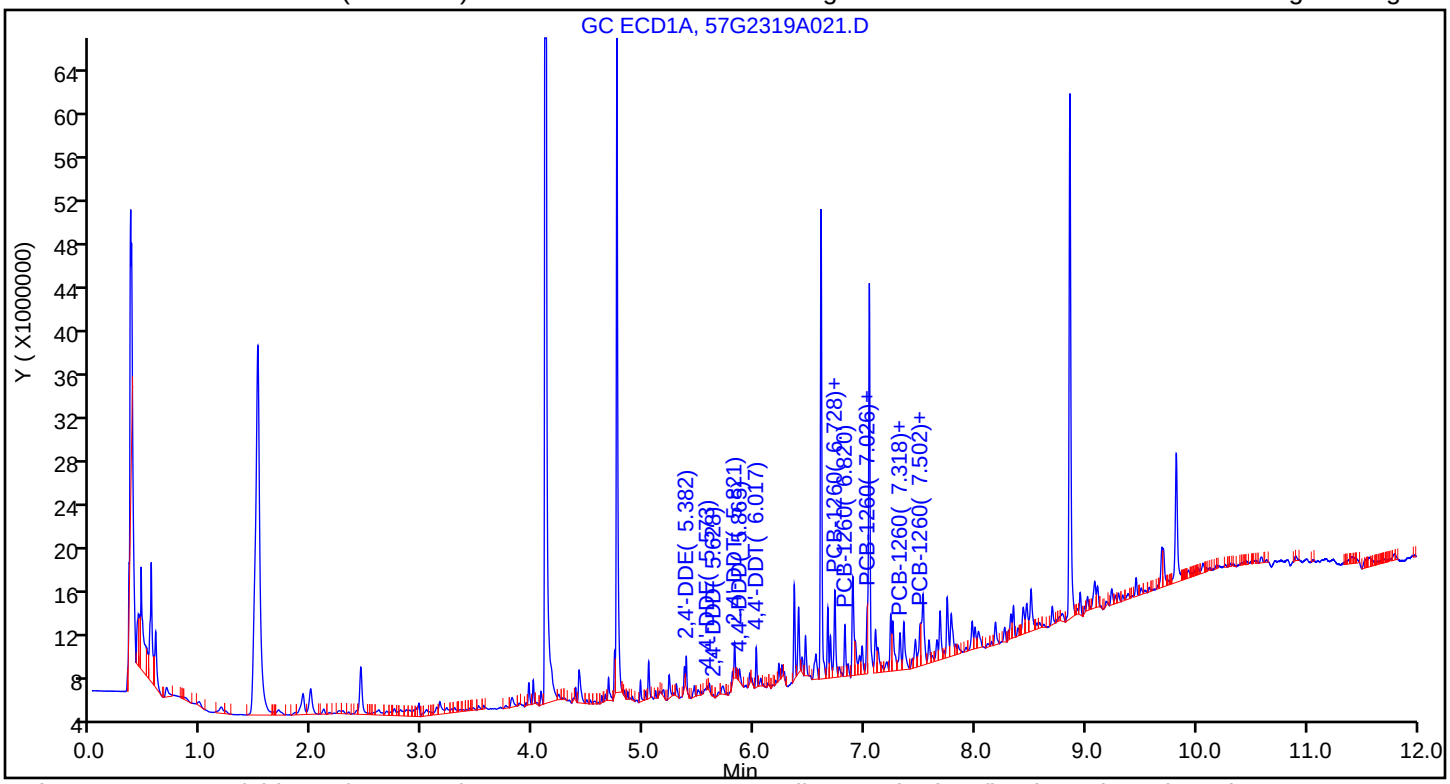
Report Date: 24-Jul-2019 09:33:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

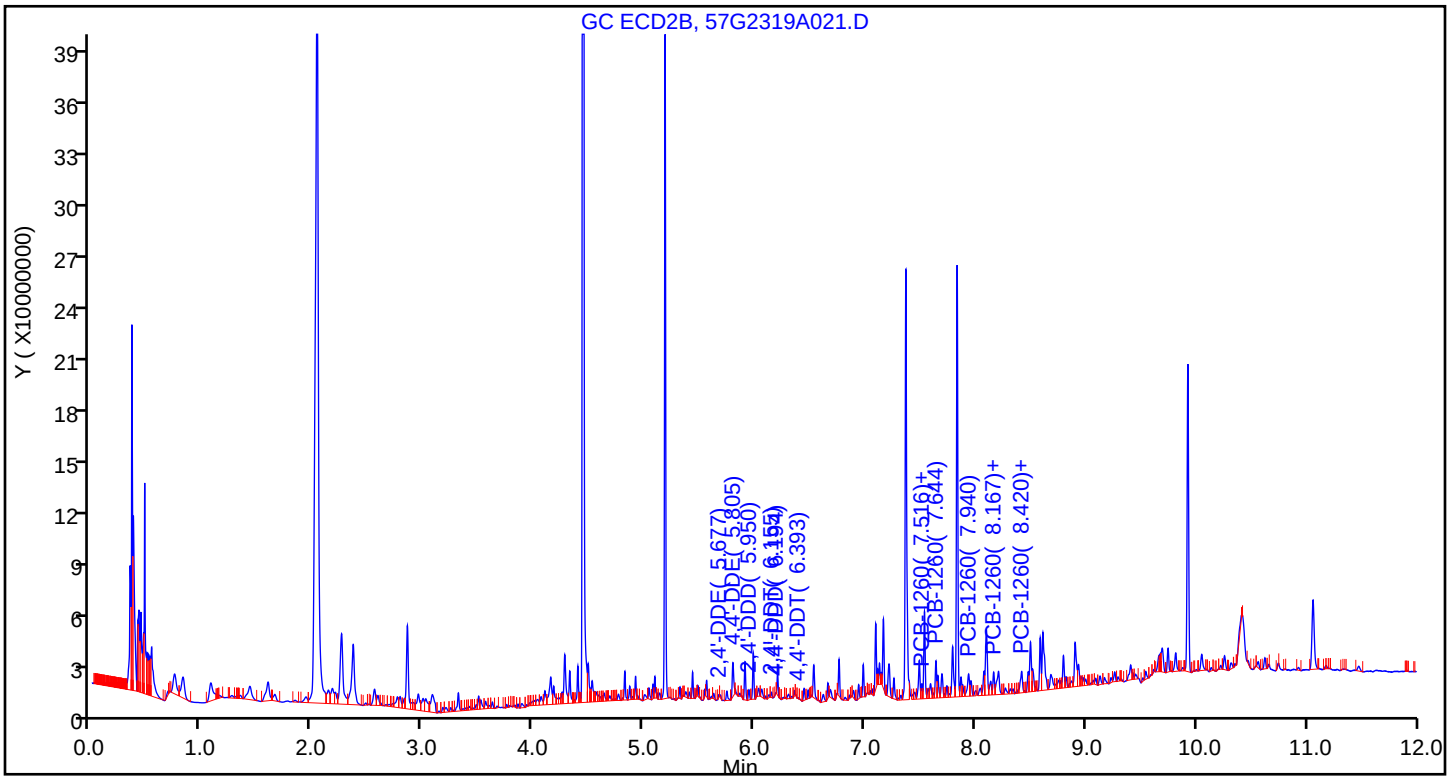
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D

Injection Date:	23-Jul-2019 12:49:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	cjb	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D				
Lims ID:	580-87706-A-6-B				
Client ID:	22T-SG-19_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 12:49:24	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-6-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:33:28	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:33:28		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.4	53.58
$ 43 DCB Decachlorobiphenyl	25.0	18.0	72.05

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.4	53.79
$ 43 DCB Decachlorobiphenyl	25.0	15.3	61.31

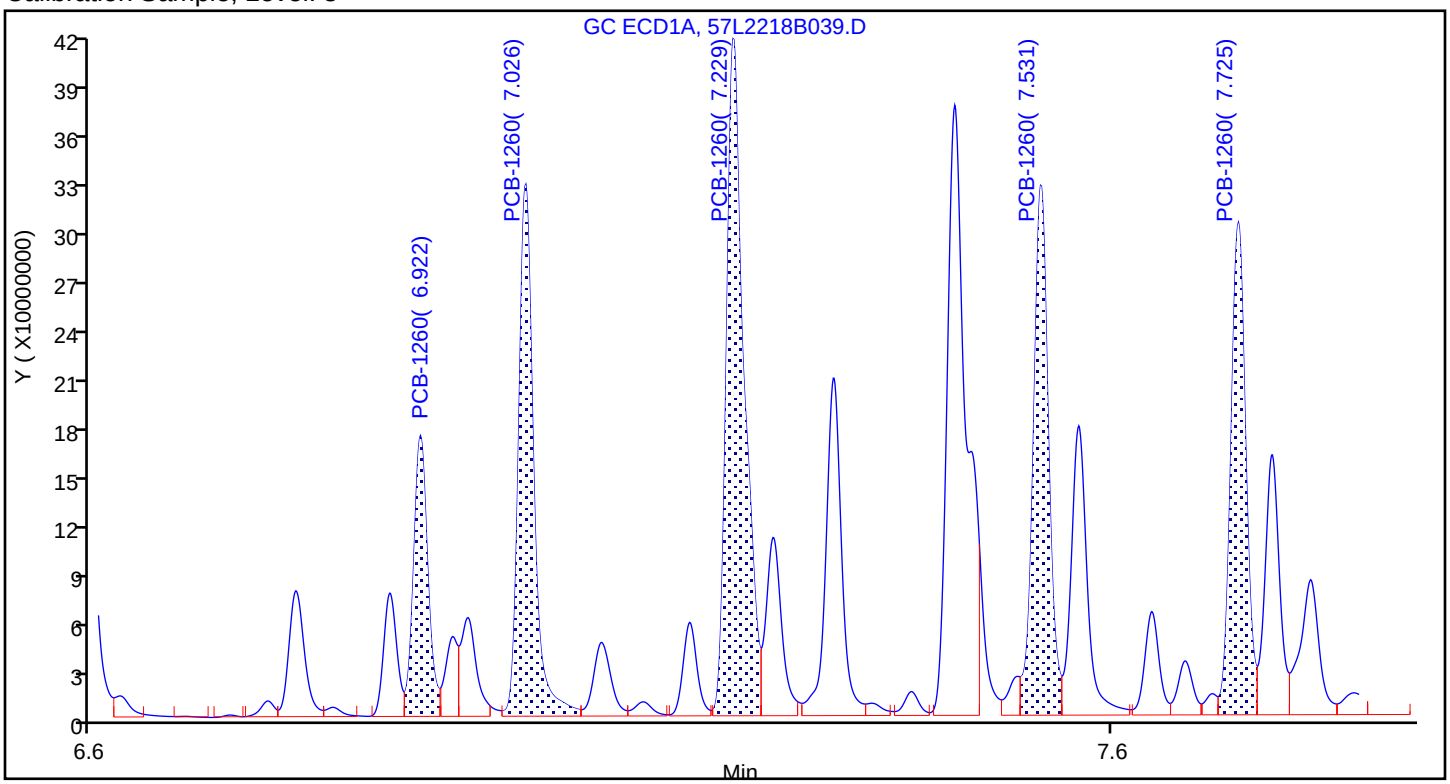
Report Date: 24-Jul-2019 09:33:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

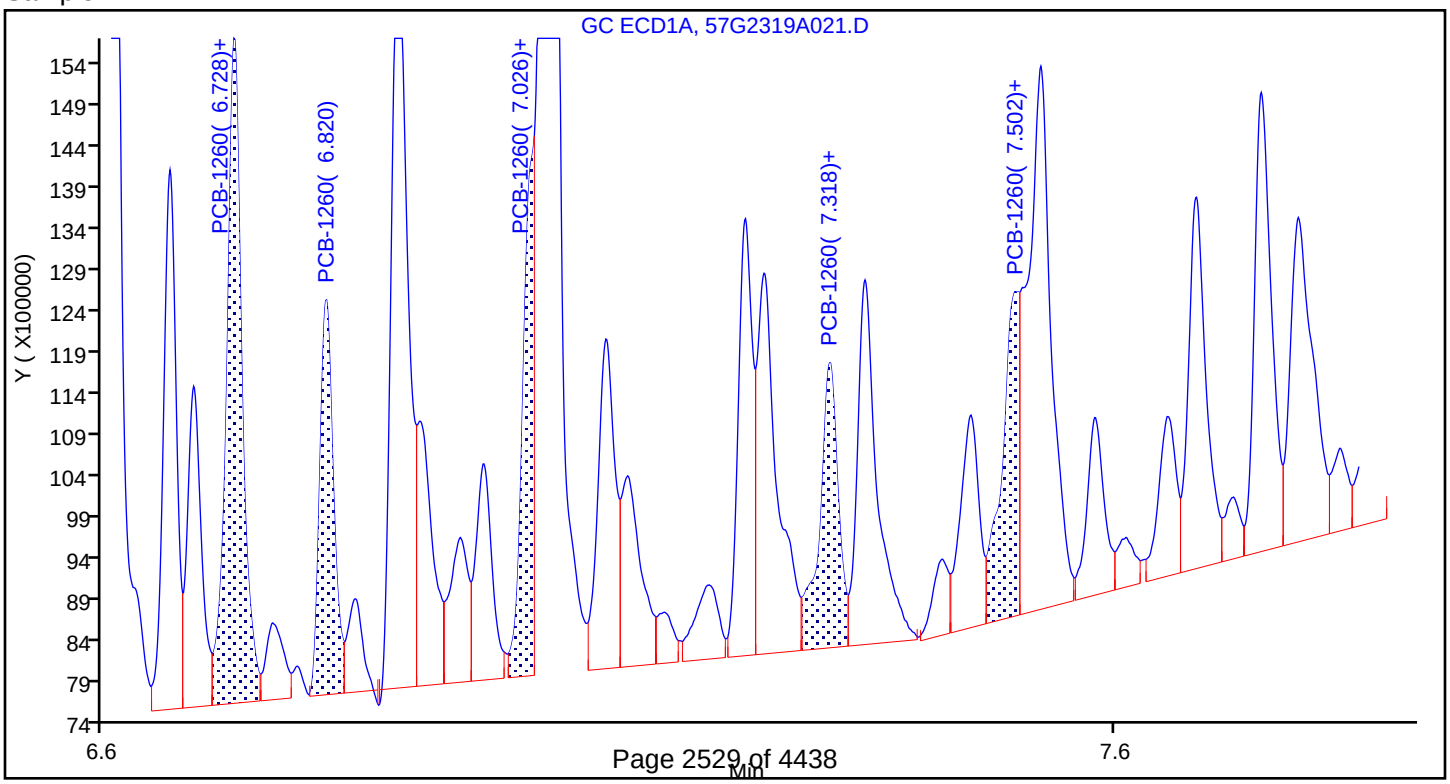
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D				
Injection Date:	23-Jul-2019 12:49:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	cjb	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



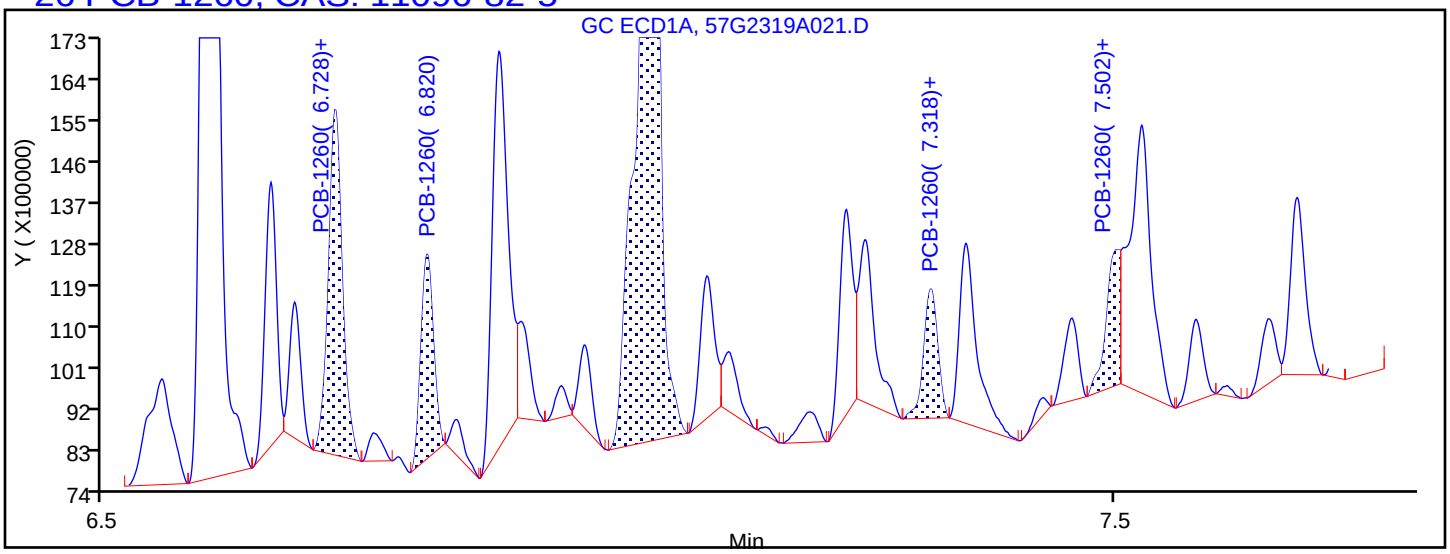
Report Date: 24-Jul-2019 09:33:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D

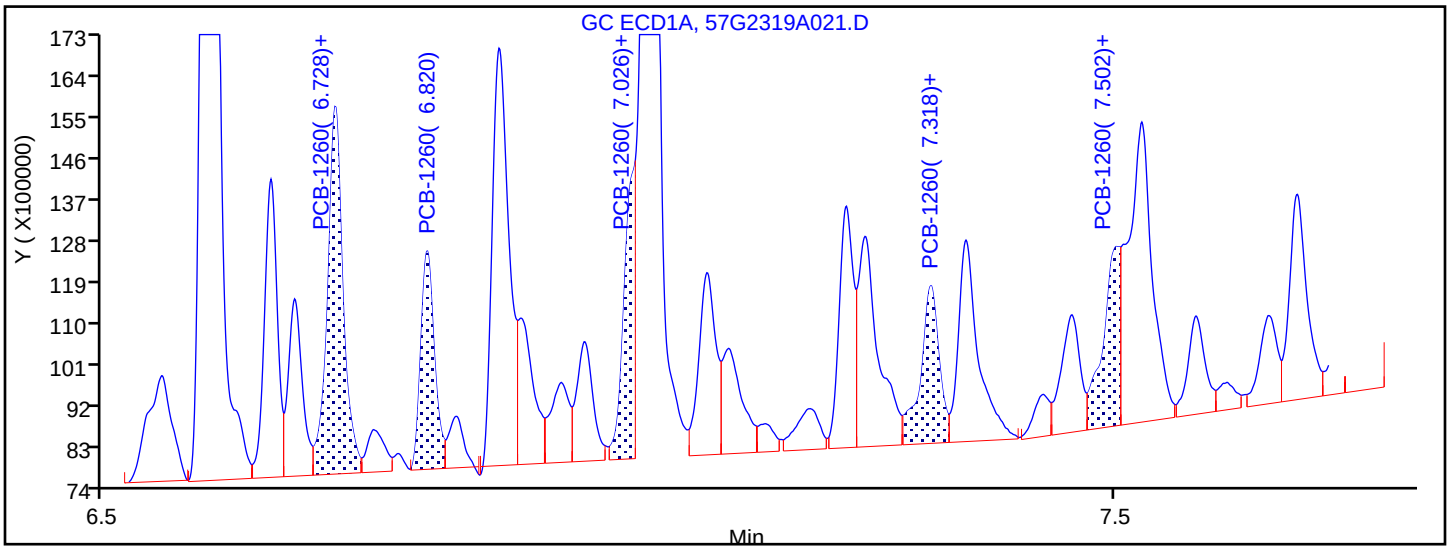
Injection Date:	23-Jul-2019 12:49:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	cjb	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 7245321
6.820	Response = 3845534
7.041	Response = 37118282
7.318	Response = 2727830
7.502	Response = 2798586



Manual Integration Results

6.728	Response = 8590240	M
6.820	Response = 4496752	M
7.026	Response = 4738807	M
7.318	Response = 4437513	M
7.502	Response = 4575740	M

Reviewer: thaneeratw, 24-Jul-2019 09:31:52

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 57G2319A021.D

Analysis Method: 8082A Date Collected: 07/16/2019 10:09

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.739(g) Date Analyzed: 07/23/2019 12:49

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.0036	J p	0.0038	0.0015

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D
Lims ID: 580-87706-A-6-B
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 12:49:24 ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-6-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:33:28 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:33:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	184186723	100.0	
2	4.450	4.451	-0.001	1569806018	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	54462106	13.4	
2	5.192	5.193	-0.001	270025176	13.4	
				RPD =	0.38	
26 PCB-1260						M
1	6.728	6.724	0.004	8590240	105.6	M
1	6.820	6.824	-0.004	4496752	26.4	M
1	7.026	7.028	-0.002	4738807	18.6	M
1	7.318	7.322	-0.004	4437513	26.6	M
1	7.502	7.513	-0.011	4575740	30.7	M
		Average of Peak Amounts =			41.6	
2	7.516	7.518	-0.002	7149710	15.3	M
2	7.644	7.645	-0.001	19052811	19.6	M
2	7.940	7.939	0.001	16737332	23.0	M
2	8.167	8.168	-0.001	12699366	16.4	M
2	8.420	8.422	-0.002	16787320	19.7	M
		Average of Peak Amounts =			18.8	
				RPD =	75.45	
$ 43 DCB Decachlorobiphenyl						
1	8.857	8.855	0.002	53544168	18.0	
2	9.925	9.925	0.000	167933619	15.3	
				RPD =	16.10	
13 2,4'-DDE						
1	5.382	5.389	-0.007	2012704	NR	
2	5.677	5.681	-0.004	921032	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.573	5.571	0.002	145091	NR	
2	5.805	5.791	0.014	18792109	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.628	5.625	0.003	176959	NR	
2	5.950	5.955	-0.005	4701285	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.821	5.821	0.000	2499046	NR	
2	6.155	6.146	0.009	2141698	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.865	5.891	-0.026	1135701	NR	
2	6.194	6.189	0.005	414080	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.017	6.019	-0.002	2897509	NR	
2	6.393	6.393	0.000	351505	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

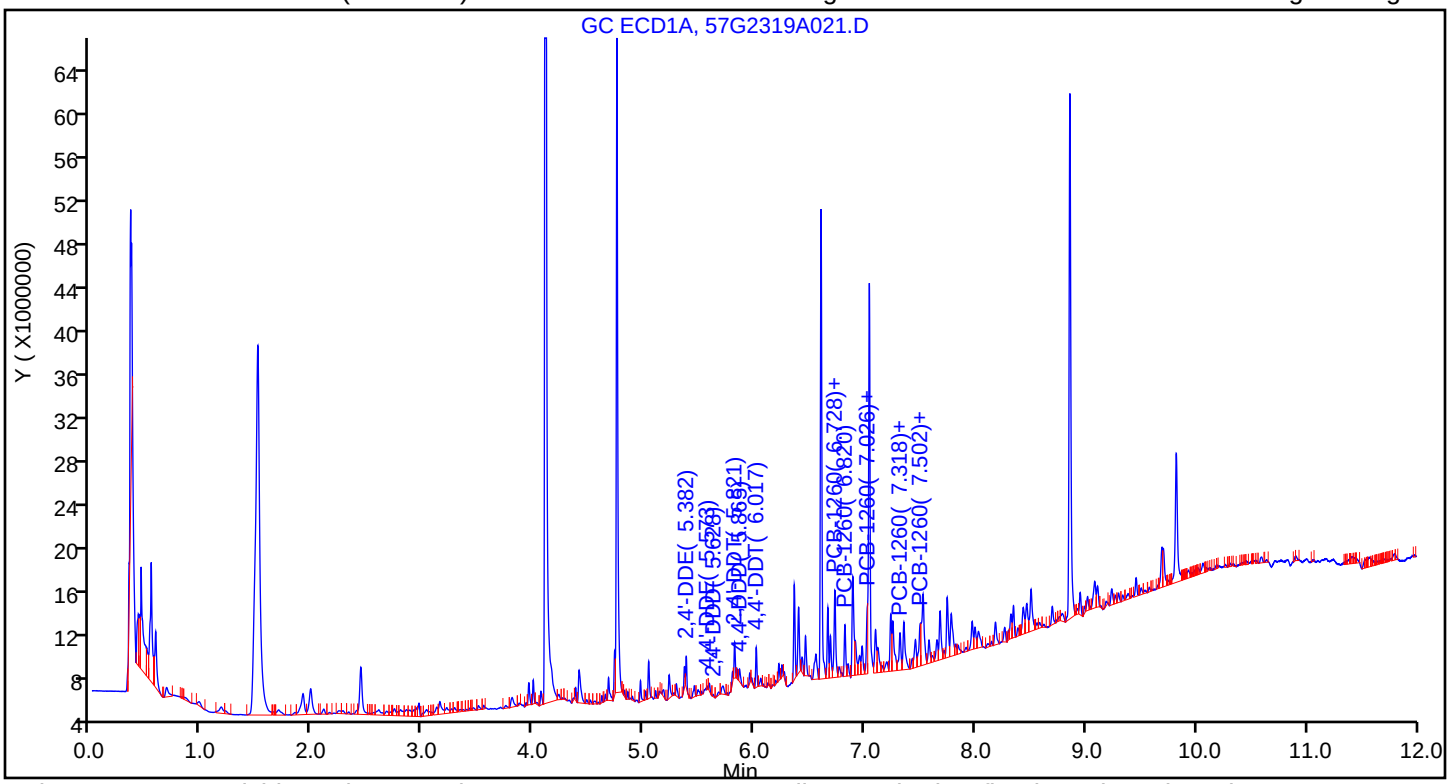
Report Date: 24-Jul-2019 09:33:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

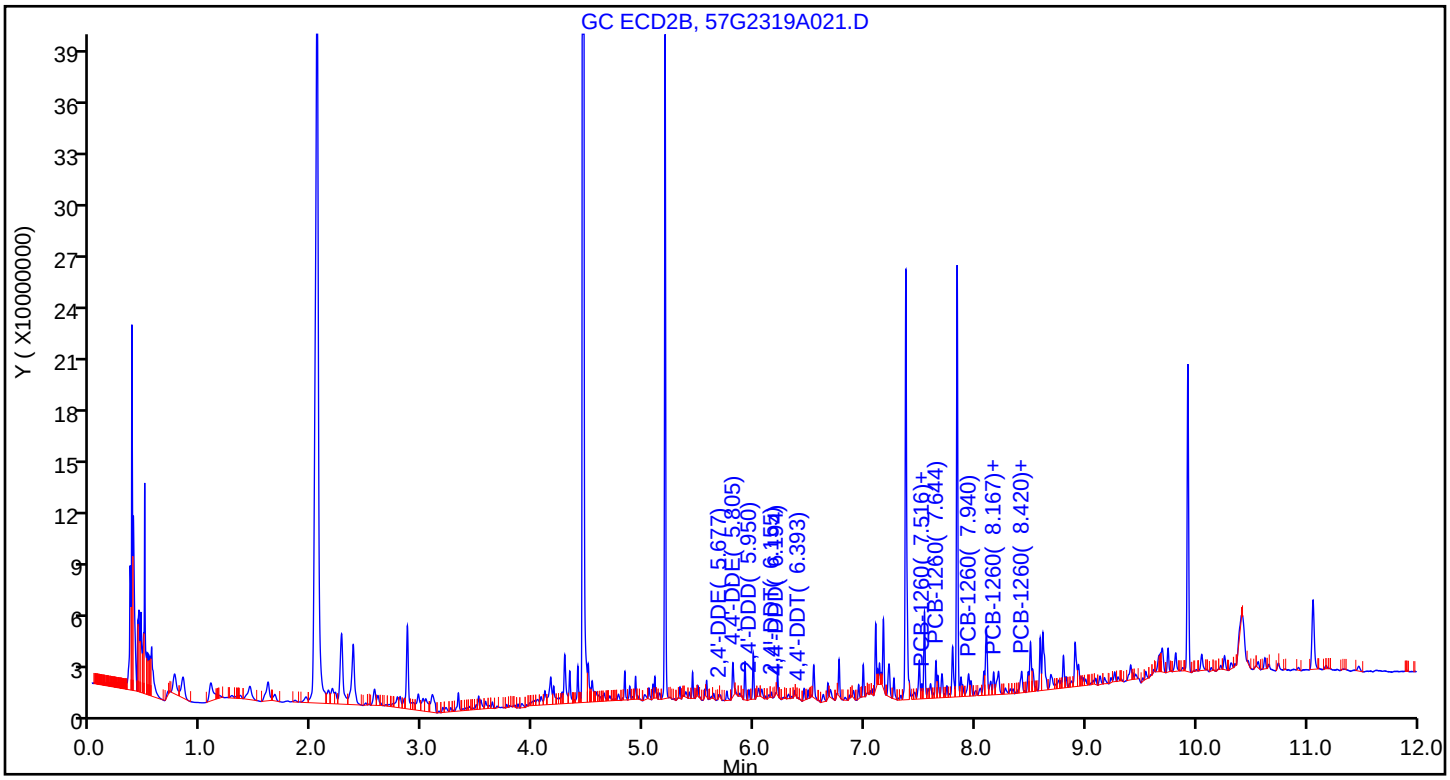
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D

Injection Date:	23-Jul-2019 12:49:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	cjb	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D				
Lims ID:	580-87706-A-6-B				
Client ID:	22T-SG-19_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 12:49:24	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-6-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:33:28	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:33:28		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.4	53.58
$ 43 DCB Decachlorobiphenyl	25.0	18.0	72.05

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.4	53.79
$ 43 DCB Decachlorobiphenyl	25.0	15.3	61.31

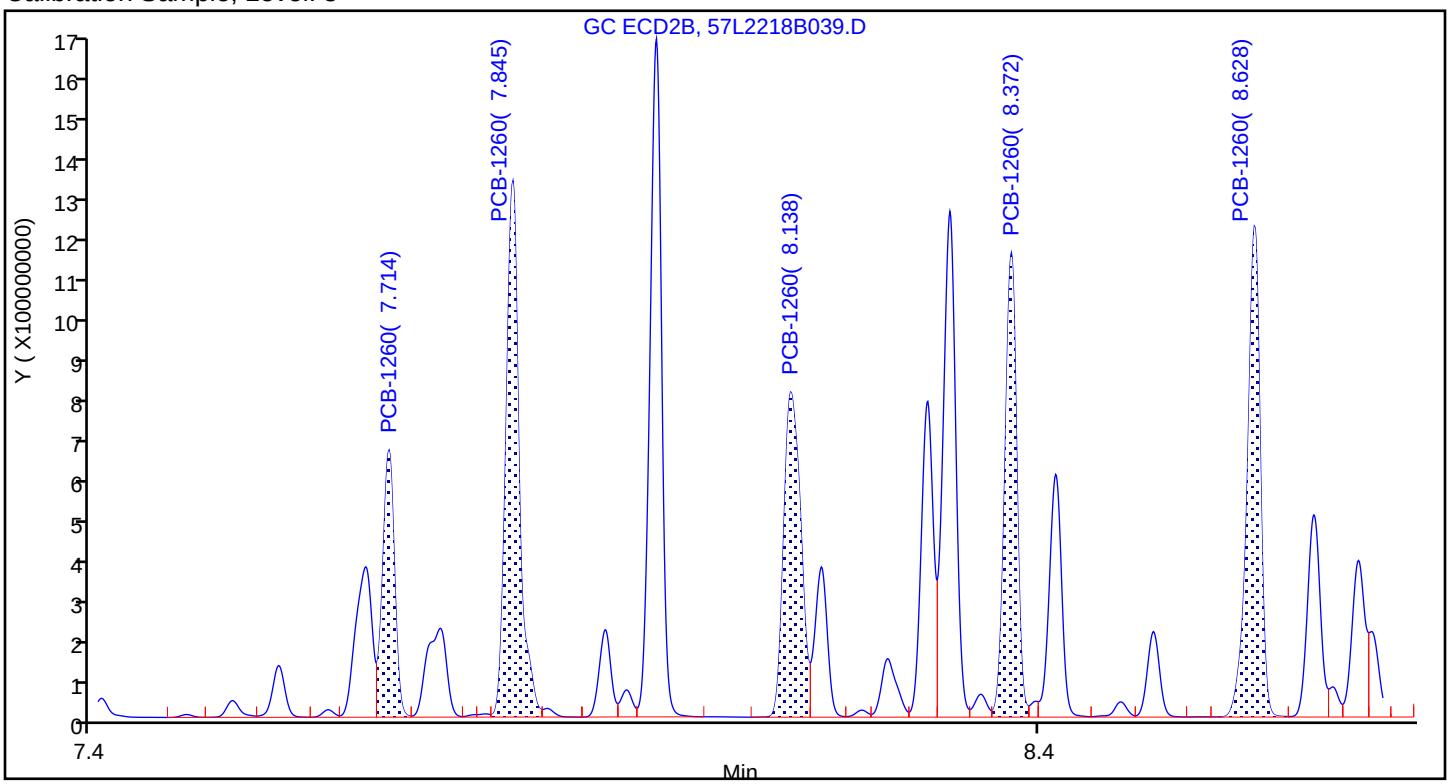
Report Date: 24-Jul-2019 09:33:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

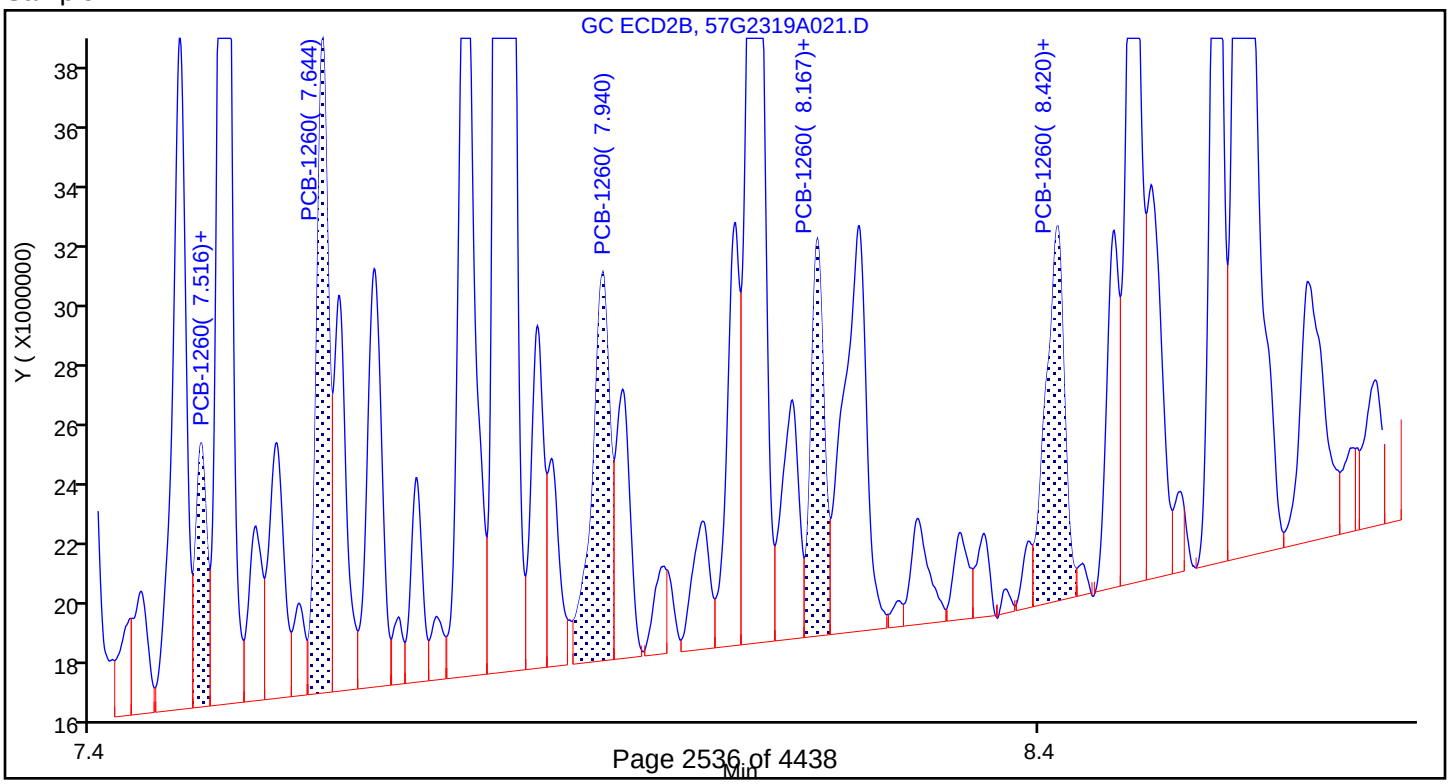
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D				
Injection Date:	23-Jul-2019 12:49:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-6-B	Lab Sample ID:	580-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	cjb	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



Report Date: 24-Jul-2019 09:33:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A021.D

Injection Date: 23-Jul-2019 12:49:24 Instrument ID: TAC057

Lims ID: 580-87706-A-6-B Lab Sample ID: 580-87706-6

Client ID: 22T-SG-19_20190716

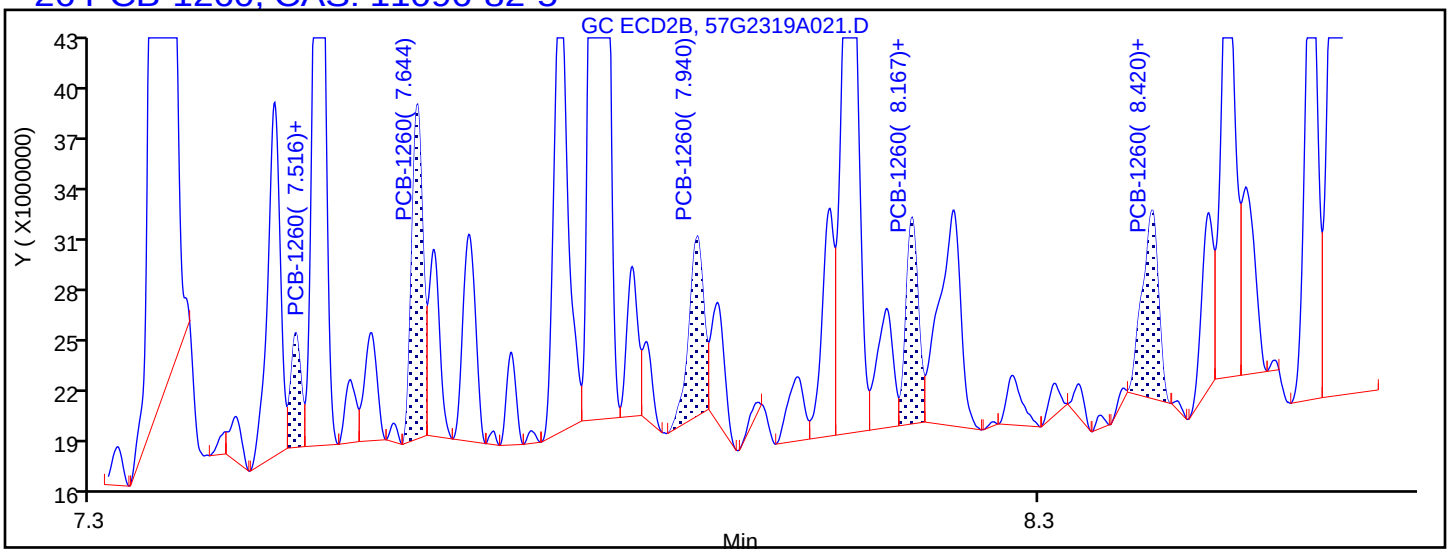
Operator ID: cjb ALS Bottle#: 17 Worklist Smp#: 20

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

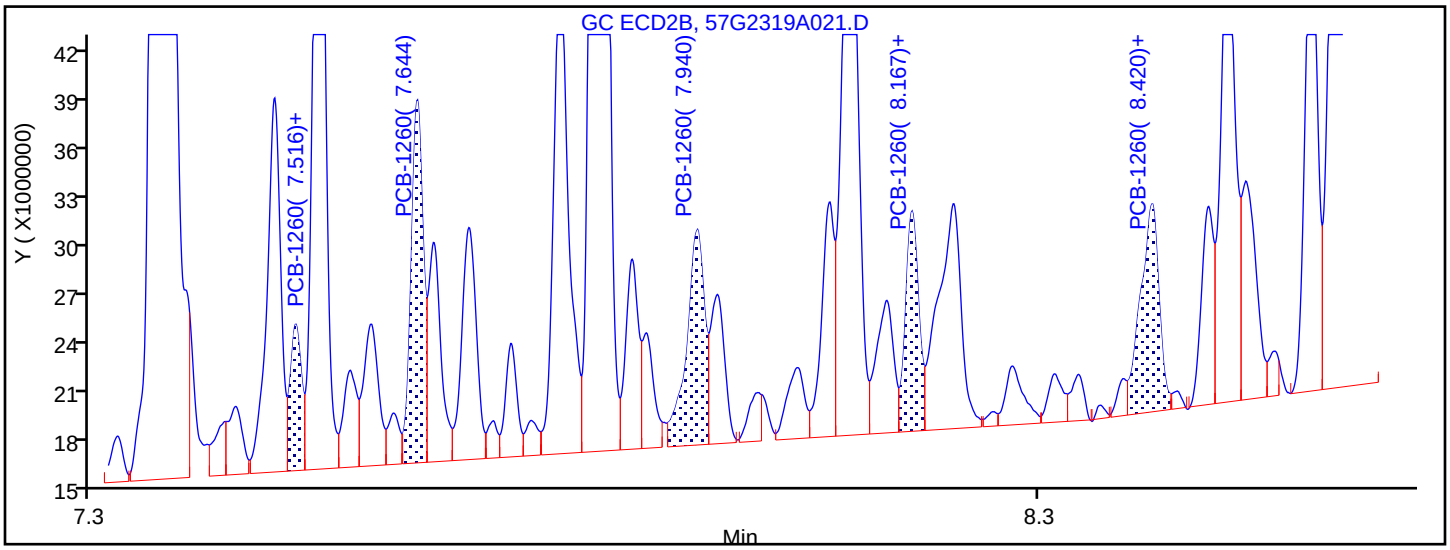
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.516	Response = 4968531
7.644	Response = 15993007
7.940	Response = 11506357
8.167	Response = 11003520
8.420	Response = 12899286



Manual Integration Results

7.516	Response = 7149710	M
7.644	Response = 19052811	M
7.940	Response = 16737332	M
8.167	Response = 12699366	M
8.420	Response = 16787320	M

Reviewer: thaneeratw, 24-Jul-2019 09:32:05

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 57G2319A022.D

Analysis Method: 8082A Date Collected: 07/16/2019 10:31

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.669(g) Date Analyzed: 07/23/2019 13:07

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0041	0.0015
11104-28-2	PCB-1221	ND		0.0041	0.0020
11141-16-5	PCB-1232	ND		0.0041	0.0020
53469-21-9	PCB-1242	ND		0.0041	0.0010
12672-29-6	PCB-1248	ND		0.0041	0.00074
11097-69-1	PCB-1254	ND		0.0041	0.0016

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	68		39-142
877-09-8	Tetrachloro-m-xylene	58		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D
Lims ID: 580-87706-A-7-B
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 13:07:22 ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-7-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:36:52 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:36:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	178207589	100.0	
2	4.450	4.451	-0.001	1503882738	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	56823154	14.4	
2	5.191	5.193	-0.002	250834072	13.0	
				RPD =	10.23	
26 PCB-1260						M
1	6.728	6.724	0.004	6433811	81.4	M
1	6.820	6.824	-0.004	2282624	13.3	M
1	7.026	7.028	-0.002	3357457	13.3	M
1	7.318	7.322	-0.004	3330278	20.3	M
1	7.512	7.513	-0.001	3579389	24.7	M
		Average of Peak Amounts =			30.6	
2	7.515	7.518	-0.003	4603270	9.46	M
2	7.642	7.645	-0.003	11490440	11.4	M
2	7.938	7.939	-0.001	8932087	11.9	M
2	8.166	8.168	-0.002	9034375	11.5	M
2	8.421	8.422	-0.001	13458778	16.1	M
		Average of Peak Amounts =			12.1	
				RPD =	86.84	
$ 43 DCB Decachlorobiphenyl						
1	8.856	8.855	0.001	49057731	17.1	
2	9.926	9.925	0.001	154909898	14.8	
				RPD =	14.44	
13 2,4'-DDE						
1	5.399	5.389	0.010	332816	NR	
2	5.691	5.681	0.010	1393408	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.574	5.571	0.003	204800	NR	
2	5.805	5.791	0.014	17129038	NR	
					RPD = 0.00	
22 2,4'-DDT						
1	5.819	5.821	-0.002	3446707	NR	
2	6.146	6.146	0.000	135859	NR	
					RPD = 0.00	
32 4,4'-DDD						
1	5.906	5.891	0.015	282161	NR	
2	6.192	6.189	0.003	824065	NR	
					RPD = 0.00	
35 4,4'-DDT						
1	6.017	6.019	-0.002	572085	NR	
2	6.392	6.393	-0.001	1128188	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:36:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D

Injection Date: 23-Jul-2019 13:07:22 Instrument ID: TAC057

Lims ID: 580-87706-A-7-B Lab Sample ID: 580-87706-7

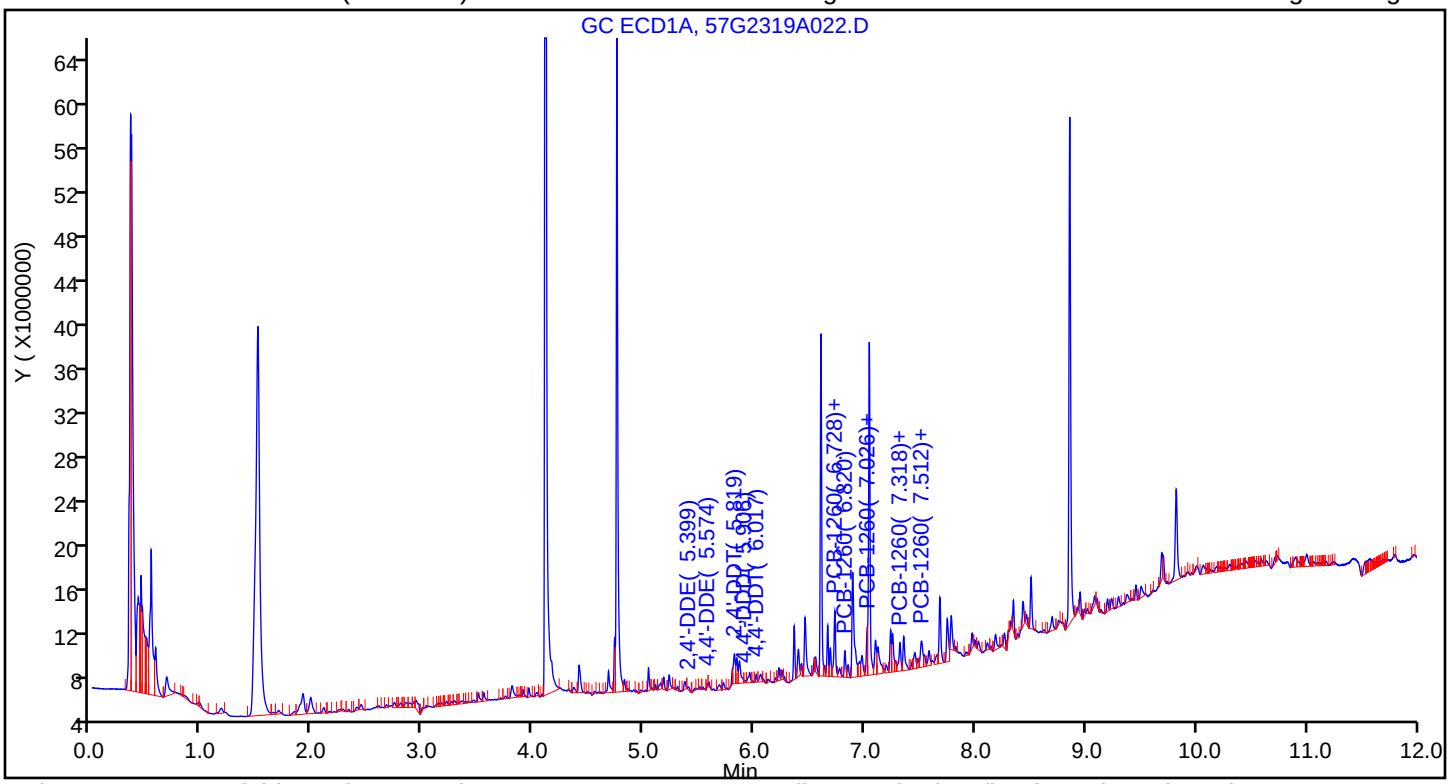
Client ID: 22T-SG-20_20190716

Operator ID: cjb ALS Bottle#: 18 Worklist Smp#: 21

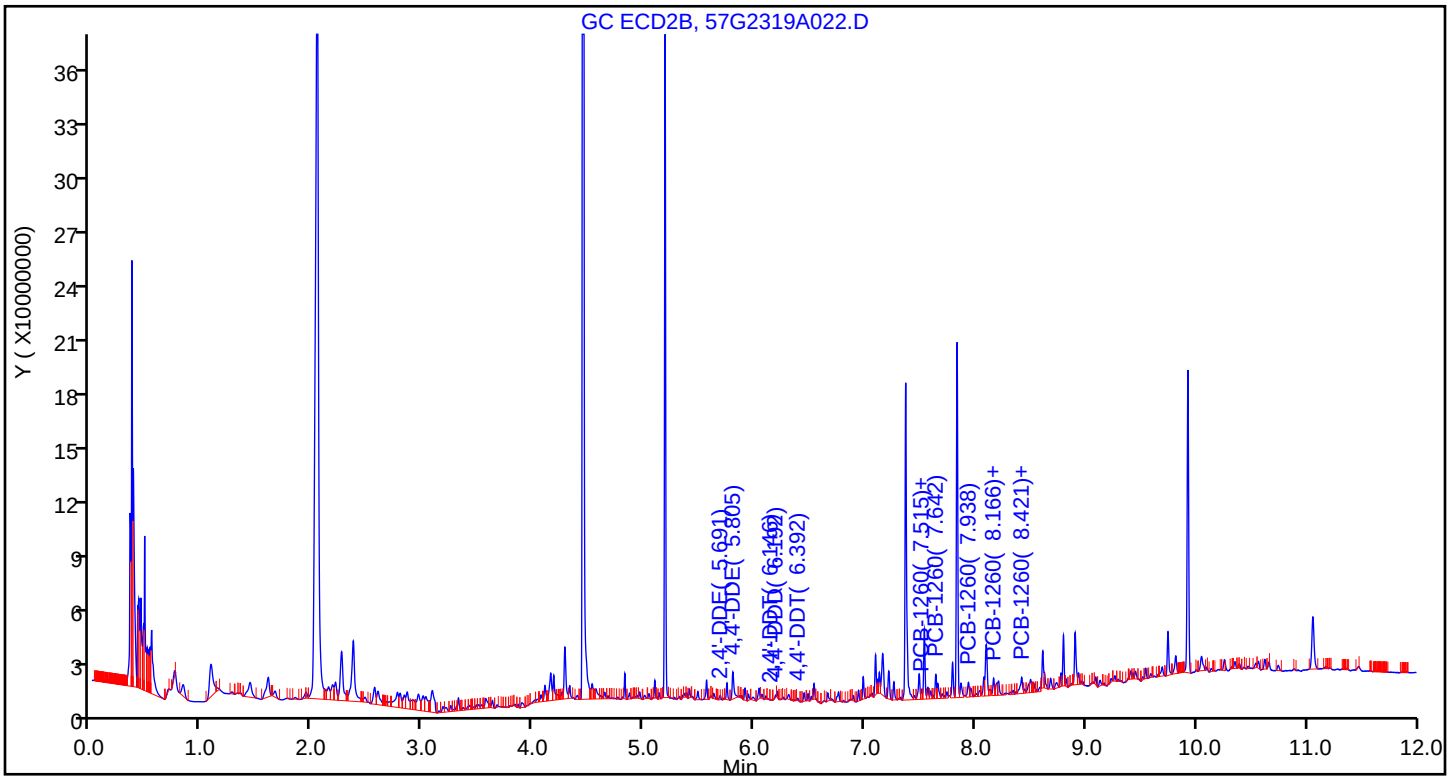
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D				
Lims ID:	580-87706-A-7-B				
Client ID:	22T-SG-20_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 13:07:22	ALS Bottle#:	18	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-7-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:36:52	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:36:52		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.4	57.78
$ 43 DCB Decachlorobiphenyl	25.0	17.1	68.23

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.0	52.16
$ 43 DCB Decachlorobiphenyl	25.0	14.8	59.04

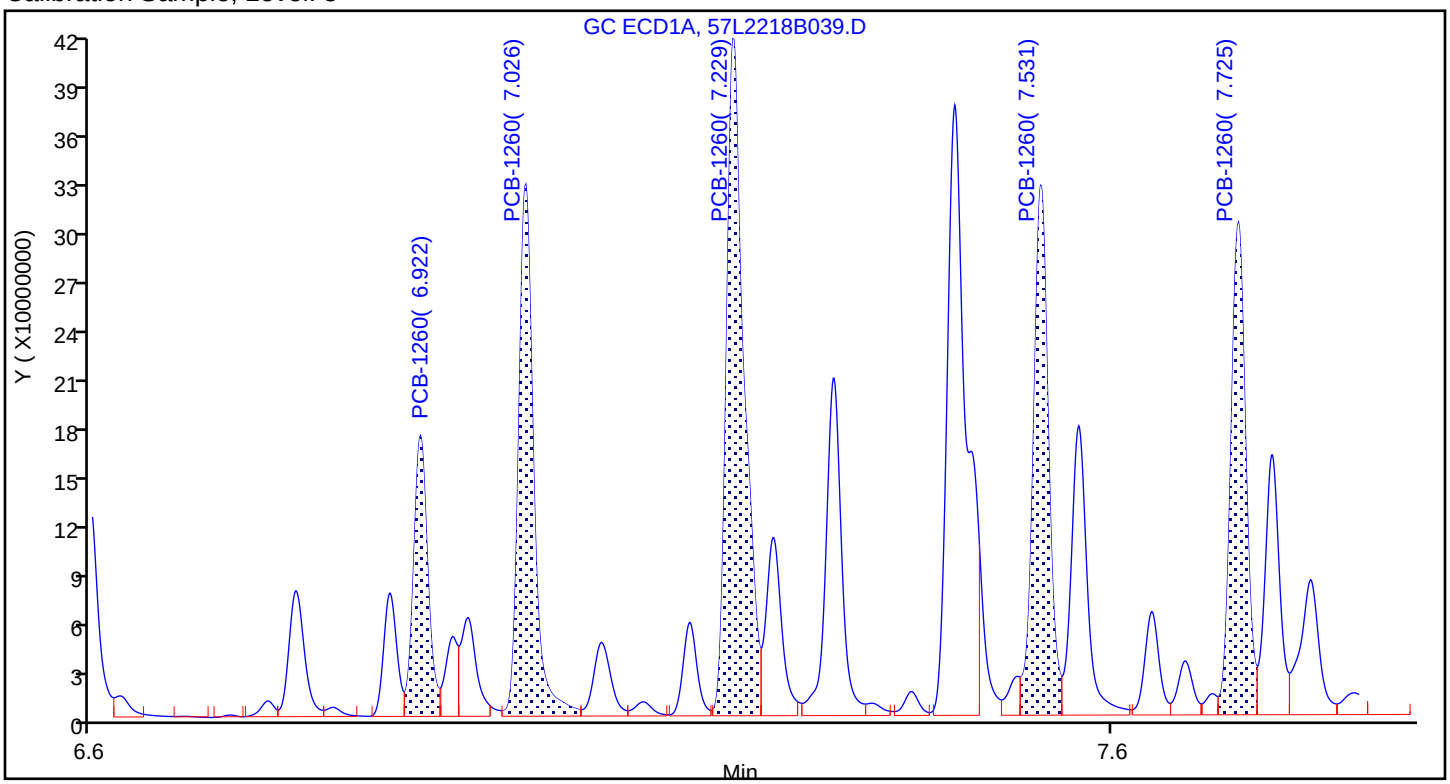
Report Date: 24-Jul-2019 09:36:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

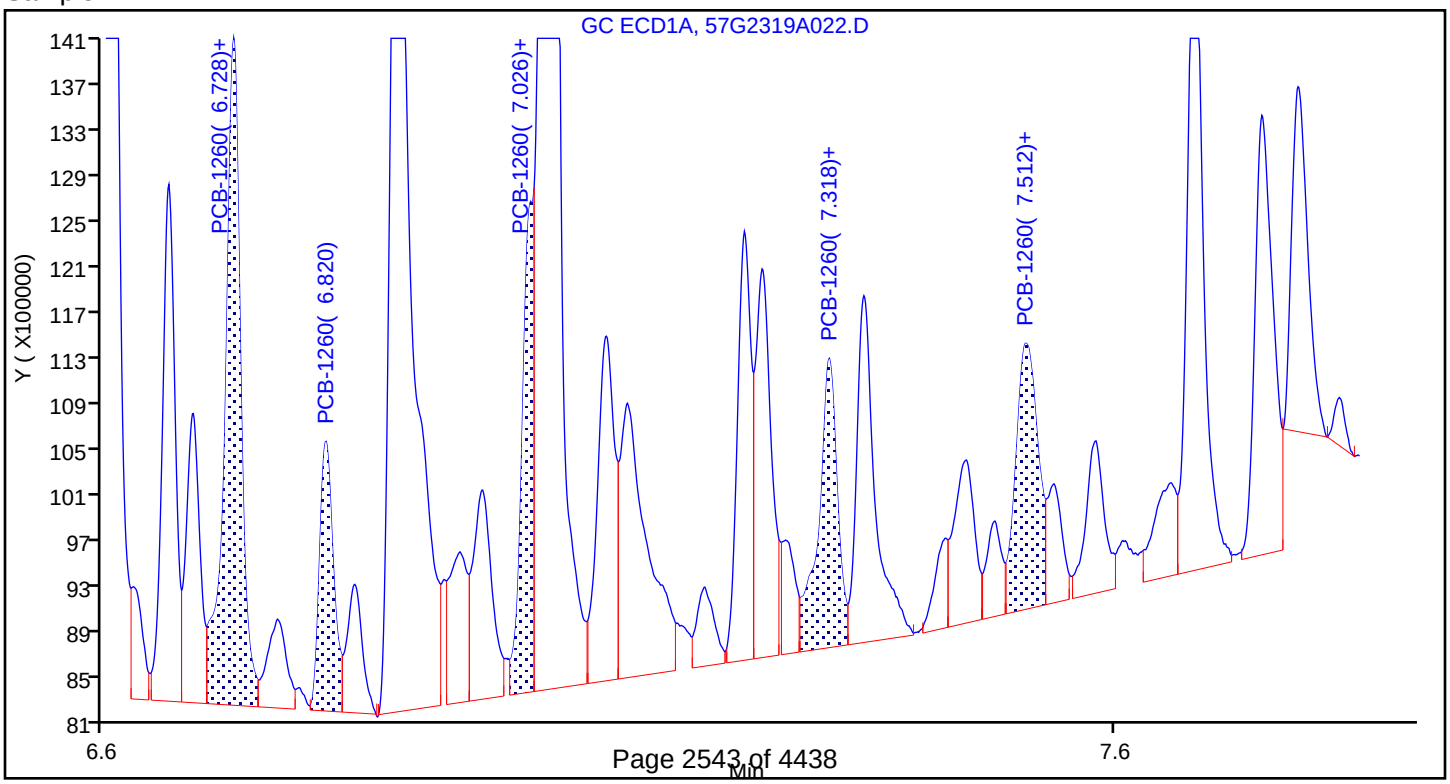
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D				
Injection Date:	23-Jul-2019 13:07:22	Instrument ID:	TAC057		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	cjb	ALS Bottle#:	18	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



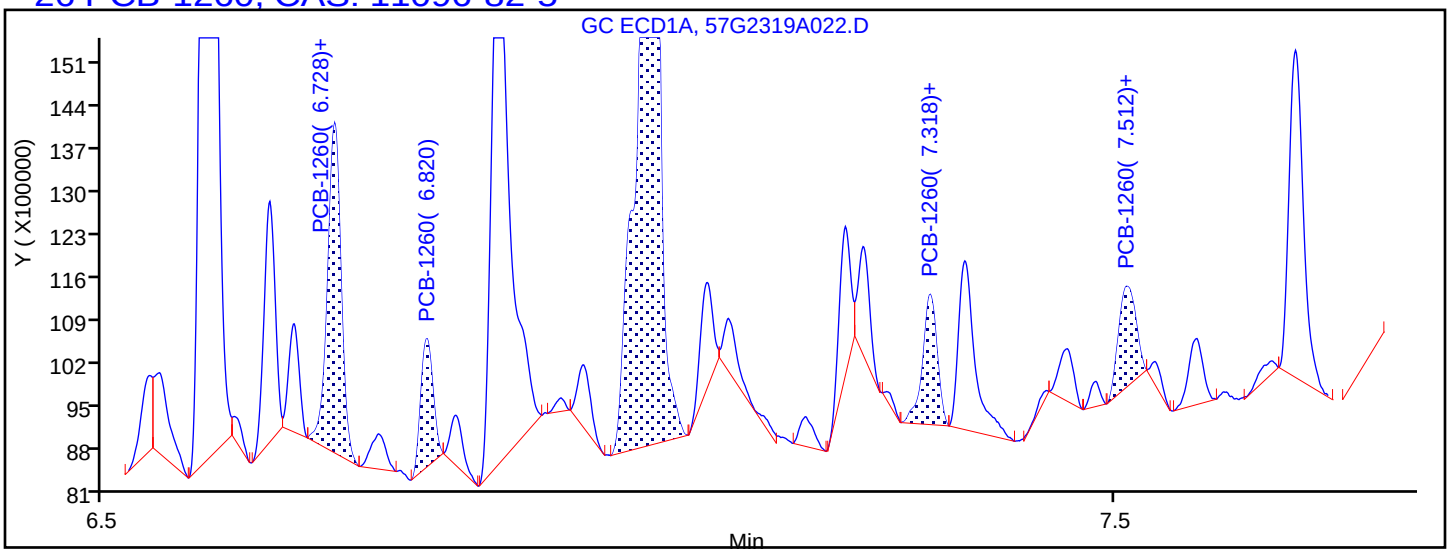
Report Date: 24-Jul-2019 09:36:56 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D

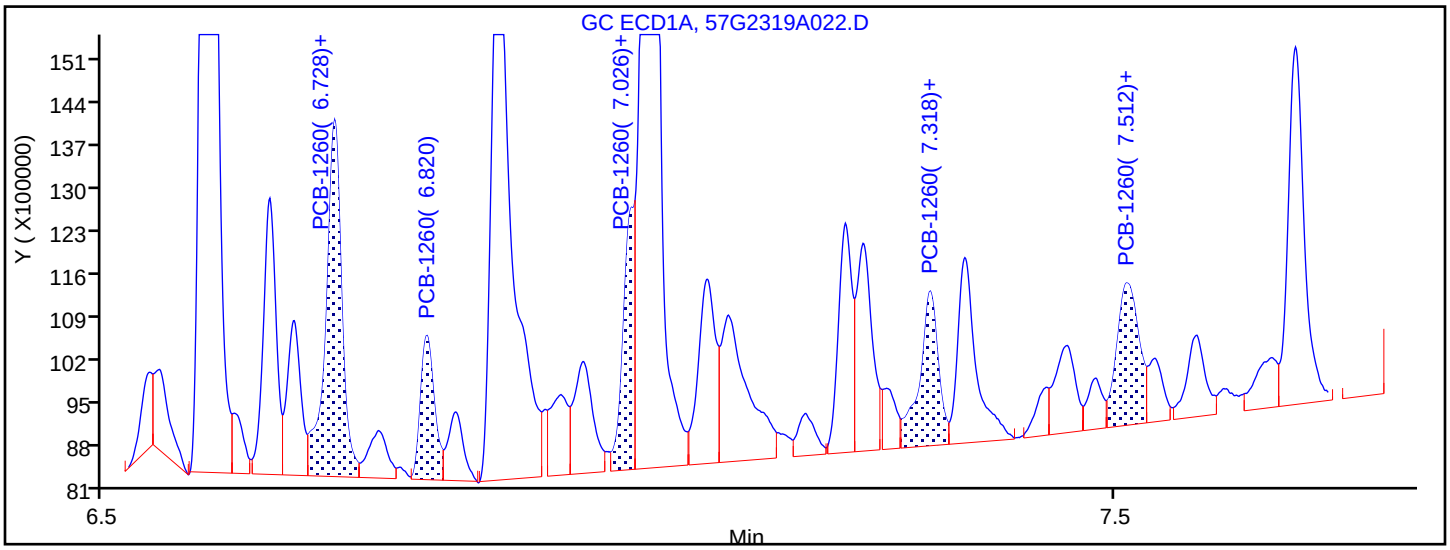
Injection Date:	23-Jul-2019 13:07:22	Instrument ID:	TAC057		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	cjb	ALS Bottle#:	18	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 5043385
6.820	Response = 1772794
7.041	Response = 29618957
7.318	Response = 2143419
7.512	Response = 1966679



Manual Integration Results

6.728	Response = 6433811	M
6.820	Response = 2282624	M
7.026	Response = 3357457	M
7.318	Response = 3330278	M
7.512	Response = 3579389	M

Reviewer: thaneeratw, 24-Jul-2019 09:36:28

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 57G2319A022.D

Analysis Method: 8082A Date Collected: 07/16/2019 10:31

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.669(g) Date Analyzed: 07/23/2019 13:07

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.0025	J p	0.0041	0.0016

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D
Lims ID: 580-87706-A-7-B
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 13:07:22 ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-7-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:36:52 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:36:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	178207589	100.0	
2	4.450	4.451	-0.001	1503882738	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	56823154	14.4	
2	5.191	5.193	-0.002	250834072	13.0	
				RPD =	10.23	
26 PCB-1260						M
1	6.728	6.724	0.004	6433811	81.4	M
1	6.820	6.824	-0.004	2282624	13.3	M
1	7.026	7.028	-0.002	3357457	13.3	M
1	7.318	7.322	-0.004	3330278	20.3	M
1	7.512	7.513	-0.001	3579389	24.7	M
		Average of Peak Amounts =			30.6	
2	7.515	7.518	-0.003	4603270	9.46	M
2	7.642	7.645	-0.003	11490440	11.4	M
2	7.938	7.939	-0.001	8932087	11.9	M
2	8.166	8.168	-0.002	9034375	11.5	M
2	8.421	8.422	-0.001	13458778	16.1	M
		Average of Peak Amounts =			12.1	
				RPD =	86.84	
$ 43 DCB Decachlorobiphenyl						
1	8.856	8.855	0.001	49057731	17.1	
2	9.926	9.925	0.001	154909898	14.8	
				RPD =	14.44	
13 2,4'-DDE						
1	5.399	5.389	0.010	332816	NR	
2	5.691	5.681	0.010	1393408	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.574	5.571	0.003	204800	NR	
2	5.805	5.791	0.014	17129038	NR	
					RPD = 0.00	
22	2,4'-DDT					
1	5.819	5.821	-0.002	3446707	NR	
2	6.146	6.146	0.000	135859	NR	
					RPD = 0.00	
32	4,4'-DDD					
1	5.906	5.891	0.015	282161	NR	
2	6.192	6.189	0.003	824065	NR	
					RPD = 0.00	
35	4,4'-DDT					
1	6.017	6.019	-0.002	572085	NR	
2	6.392	6.393	-0.001	1128188	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

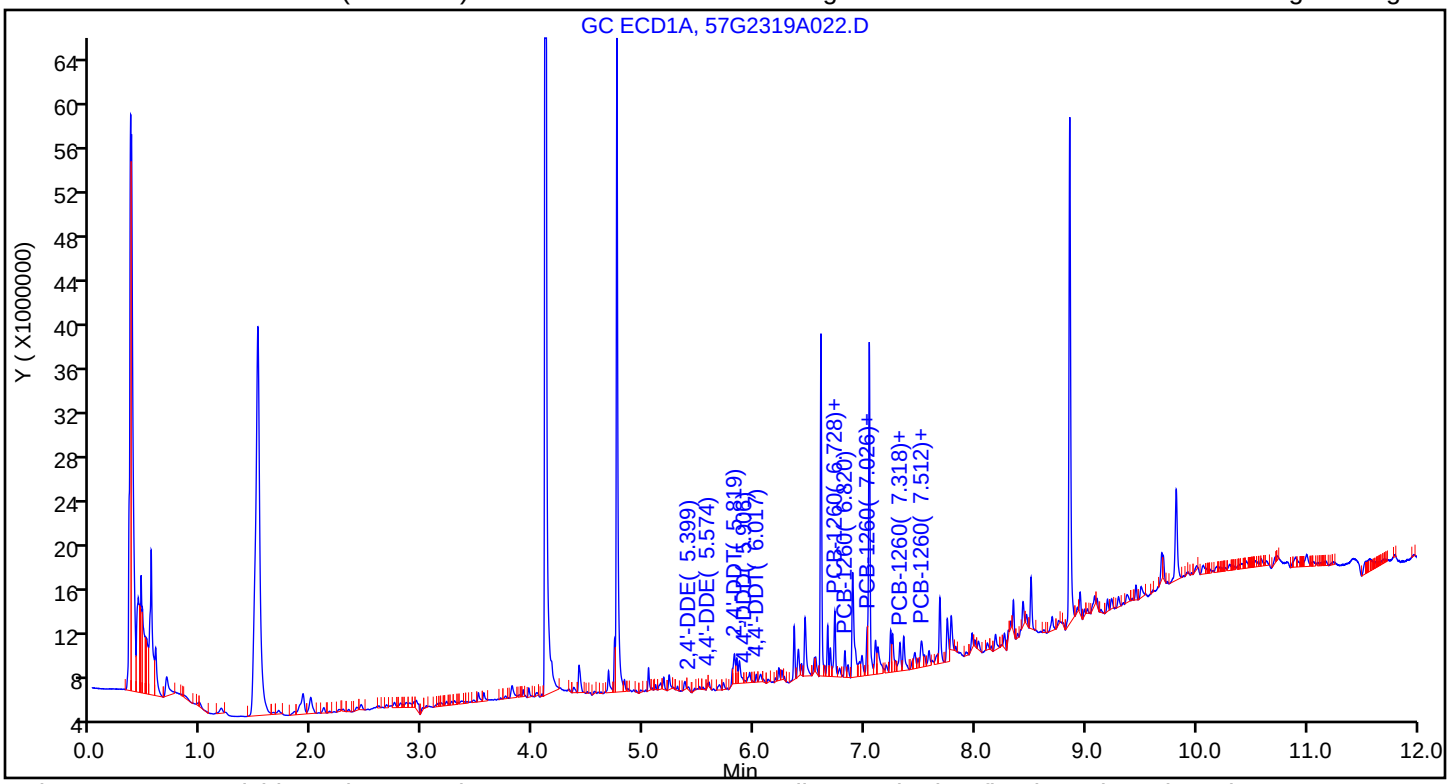
Report Date: 24-Jul-2019 09:36:57 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

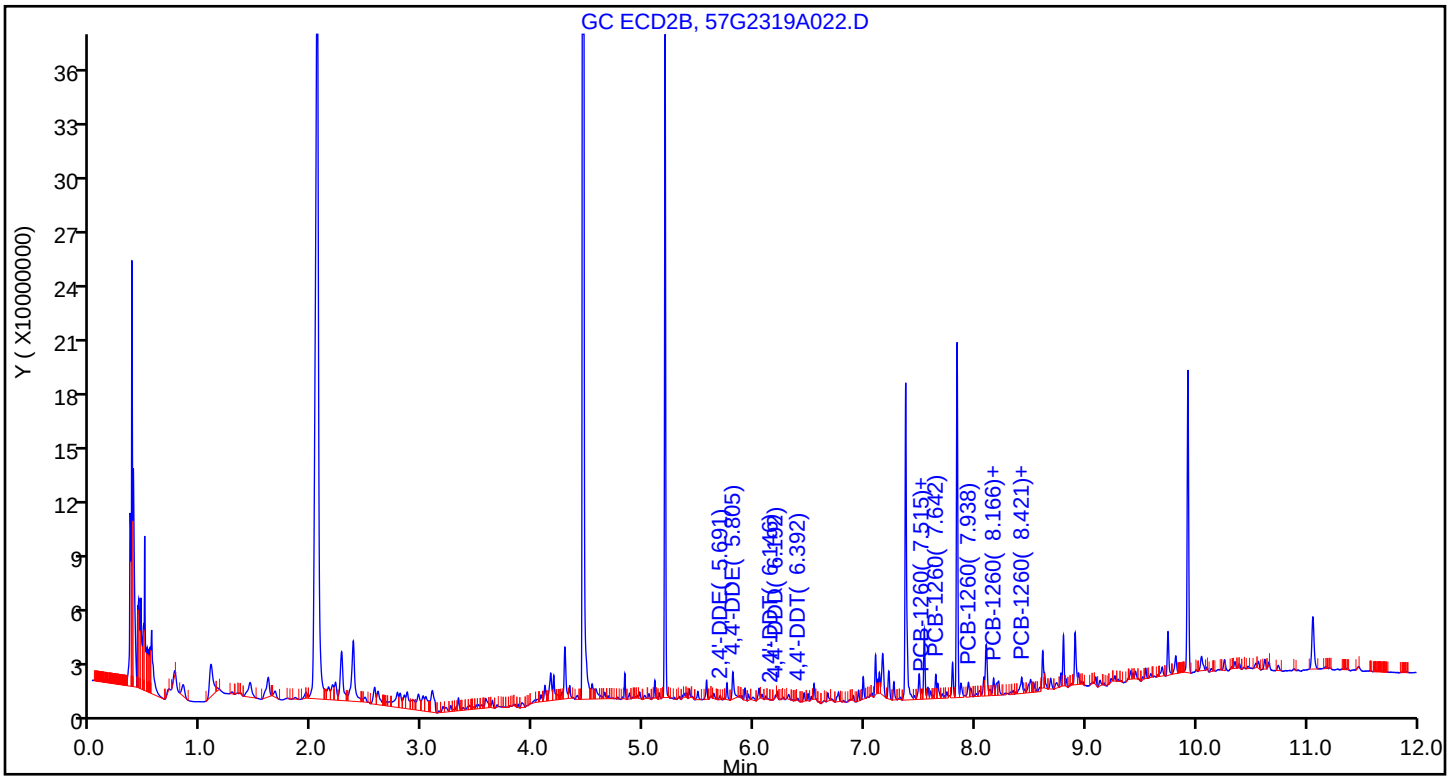
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D

Injection Date:	23-Jul-2019 13:07:22	Instrument ID:	TAC057		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	cjb	ALS Bottle#:	18	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D				
Lims ID:	580-87706-A-7-B				
Client ID:	22T-SG-20_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 13:07:22	ALS Bottle#:	18	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-7-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:36:52	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:36:52		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.4	57.78
$ 43 DCB Decachlorobiphenyl	25.0	17.1	68.23

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.0	52.16
$ 43 DCB Decachlorobiphenyl	25.0	14.8	59.04

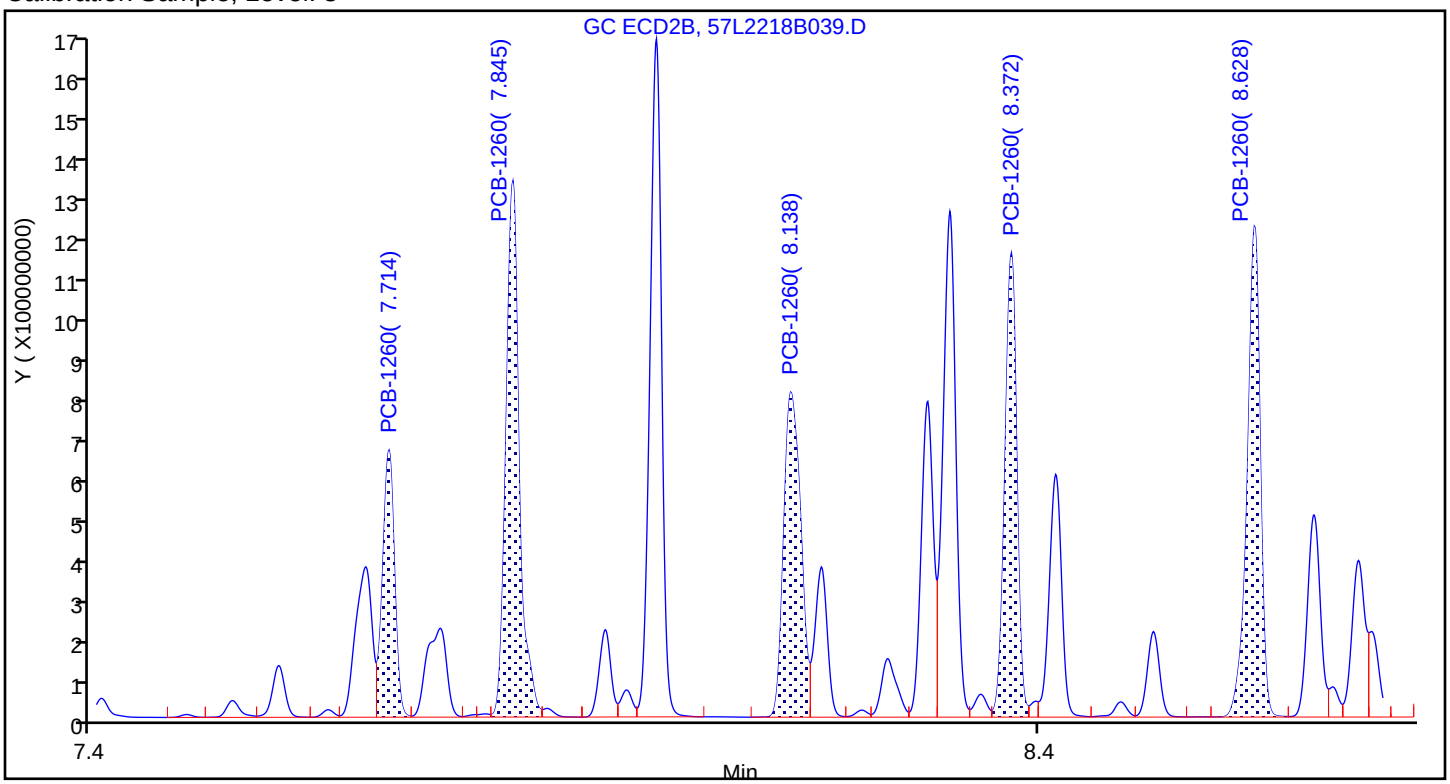
Report Date: 24-Jul-2019 09:36:57 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

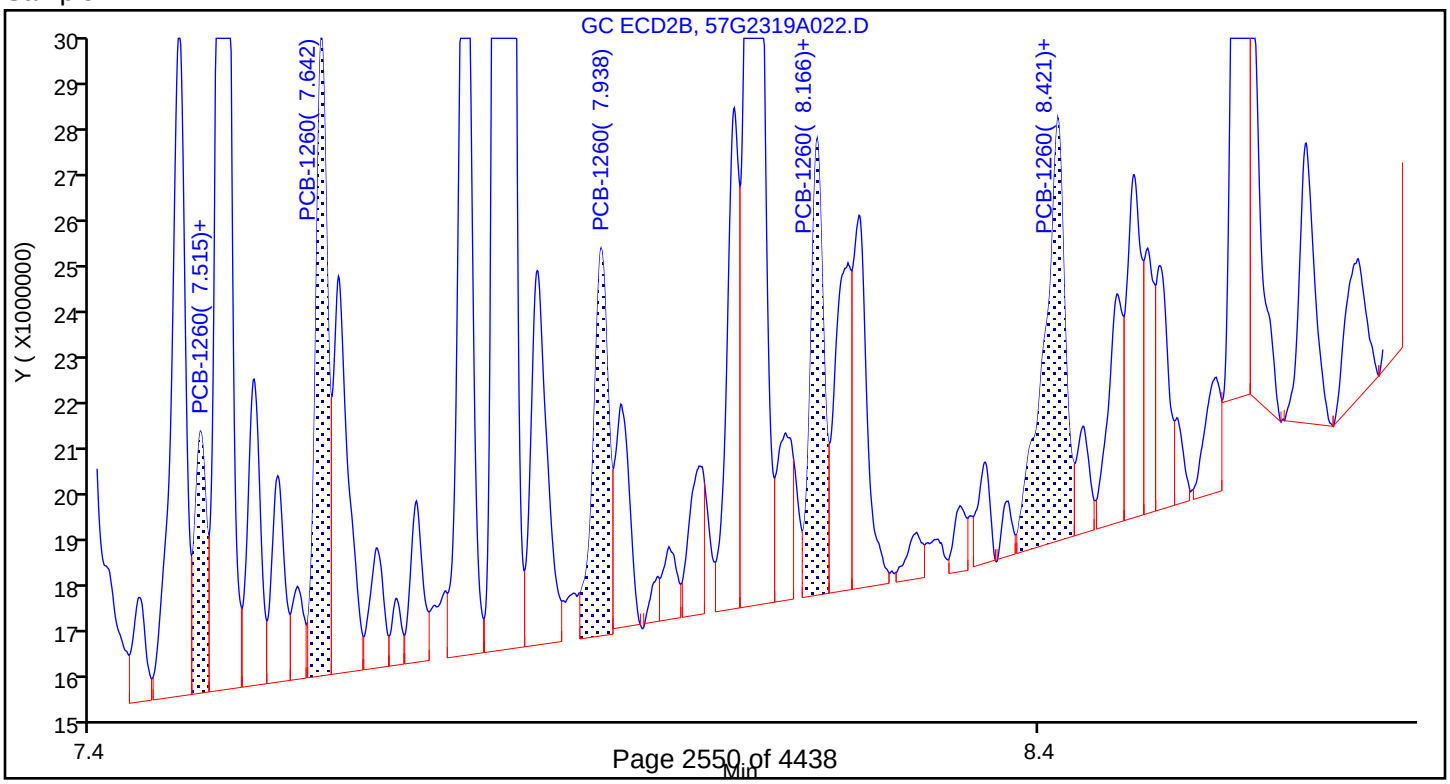
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D				
Injection Date:	23-Jul-2019 13:07:22	Instrument ID:	TAC057		
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	cjb	ALS Bottle#:	18	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



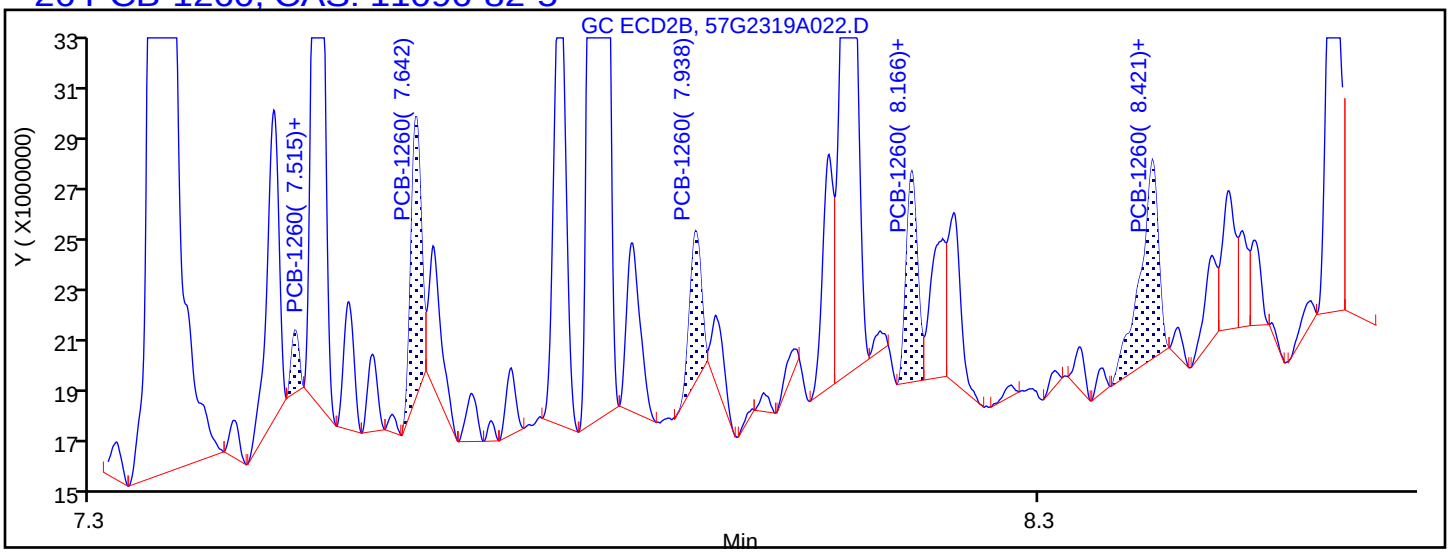
Report Date: 24-Jul-2019 09:36:57 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A022.D

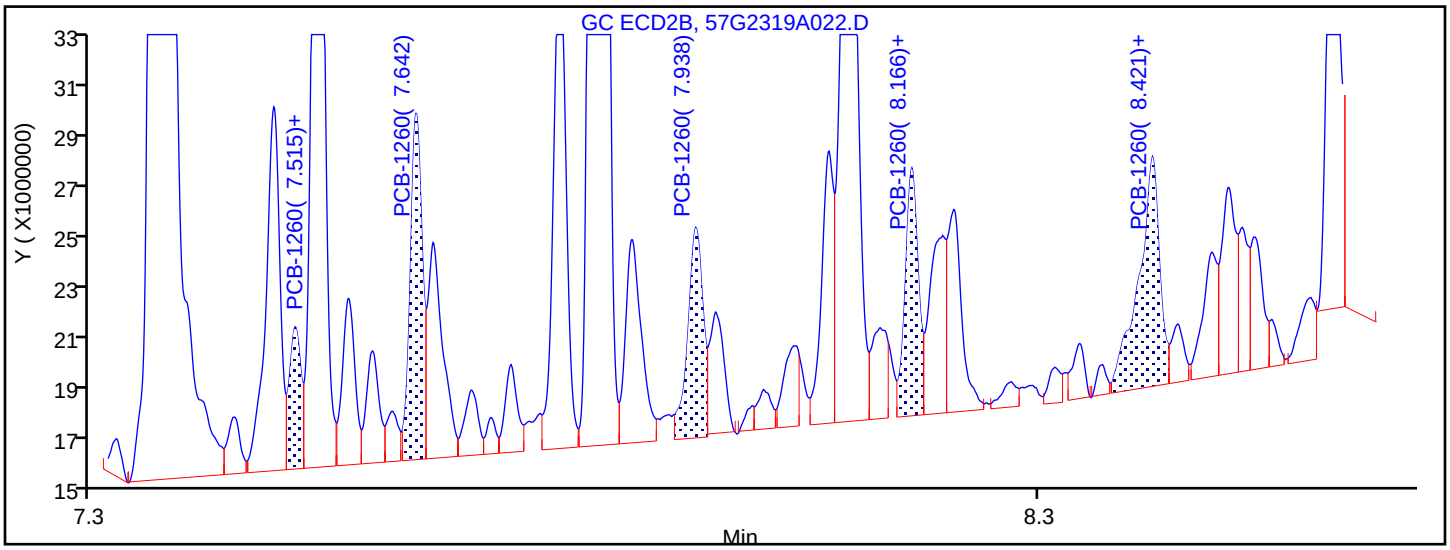
Injection Date:	23-Jul-2019 13:07:22	Instrument ID:	TAC057
Lims ID:	580-87706-A-7-B	Lab Sample ID:	580-87706-7
Client ID:	22T-SG-20_20190716		
Operator ID:	cjb	ALS Bottle#:	18 Worklist Smp#: 21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.515	Response = 1300933
7.642	Response = 8076220
7.938	Response = 4861644
8.166	Response = 6668652
8.421	Response = 10060523



Manual Integration Results

7.515	Response = 4603270	M
7.642	Response = 11490440	M
7.938	Response = 8932087	M
8.166	Response = 9034375	M
8.421	Response = 13458778	M

Reviewer: thaneeratw, 24-Jul-2019 09:36:41

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Matrix: Solid Lab File ID: 57G2319A023.D

Analysis Method: 8082A Date Collected: 07/16/2019 10:50

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.311(g) Date Analyzed: 07/23/2019 13:25

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 64.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0053	0.0019
11104-28-2	PCB-1221	ND		0.0053	0.0025
11141-16-5	PCB-1232	ND		0.0053	0.0025
53469-21-9	PCB-1242	ND		0.0053	0.0013
12672-29-6	PCB-1248	ND		0.0053	0.00095
11097-69-1	PCB-1254	ND		0.0053	0.0021
11096-82-5	PCB-1260	0.0029	J	0.0053	0.0020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	59		39-142
877-09-8	Tetrachloro-m-xylene	50		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A023.D
Lims ID: 580-87706-A-8-B
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 13:25:24 ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-8-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:42:31 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:42:31

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	180431126	100.0	
2	4.449	4.451	-0.002	1550273653	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	50058184	12.6	
2	5.191	5.193	-0.002	248276257	12.5	
				RPD =	0.39	
26 PCB-1260						M
1	6.728	6.724	0.004	2362274	28.6	M
1	6.820	6.824	-0.004	1036414	5.39	M
1	7.023	7.028	-0.005	1533142	5.41	M
1	7.318	7.322	-0.004	1073398	5.70	M
1	7.518	7.513	0.005	1519568	9.98	M
		Average of Peak Amounts =			11.0	
2	7.515	7.518	-0.003	1603582	1.49	M
2	7.643	7.645	-0.002	4670085	3.01	M
2	7.939	7.939	0.000	5134607	5.69	M
2	8.166	8.168	-0.002	4446175	4.22	M
2	8.419	8.422	-0.003	6682762	6.63	M
		Average of Peak Amounts =			4.21	
				RPD =	89.40	
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	42817255	14.7	
2	9.925	9.925	0.000	142852775	13.2	
				RPD =	10.75	
13 2,4'-DDE						
1	5.402	5.389	0.013	335105	NR	
2	5.681	5.681	0.000	173735	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.590	5.571	0.019	103522	NR	
2	5.806	5.791	0.015	11858523	NR	
					RPD = NaN	
19 2,4'-DDD						
1	5.635	5.625	0.010	116332	NR	
2	5.945	5.955	-0.010	4474656	NR	
					RPD = NaN	
35 4,4'-DDT						
1	6.018	6.019	-0.001	447427	NR	
2	6.391	6.393	-0.002	100612	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

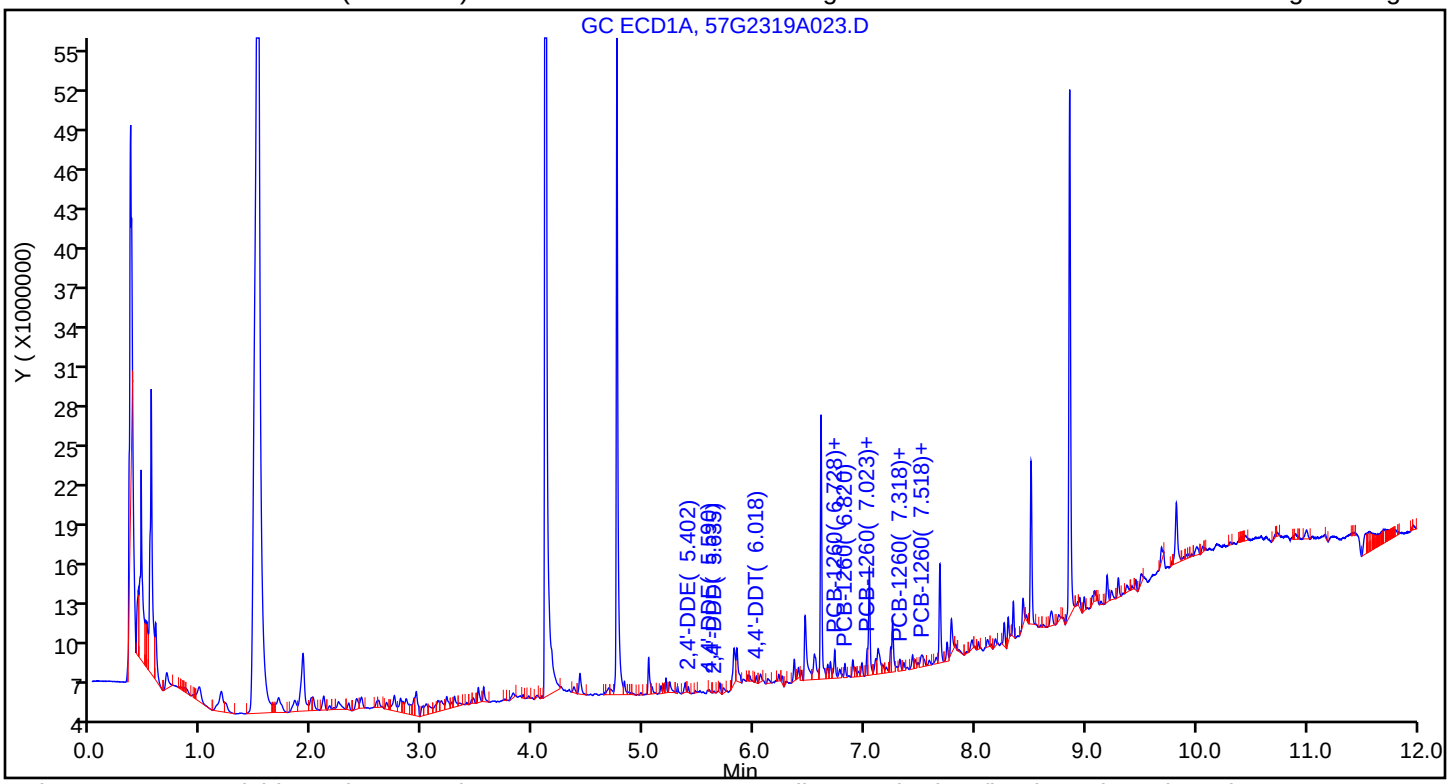
Report Date: 24-Jul-2019 09:42:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

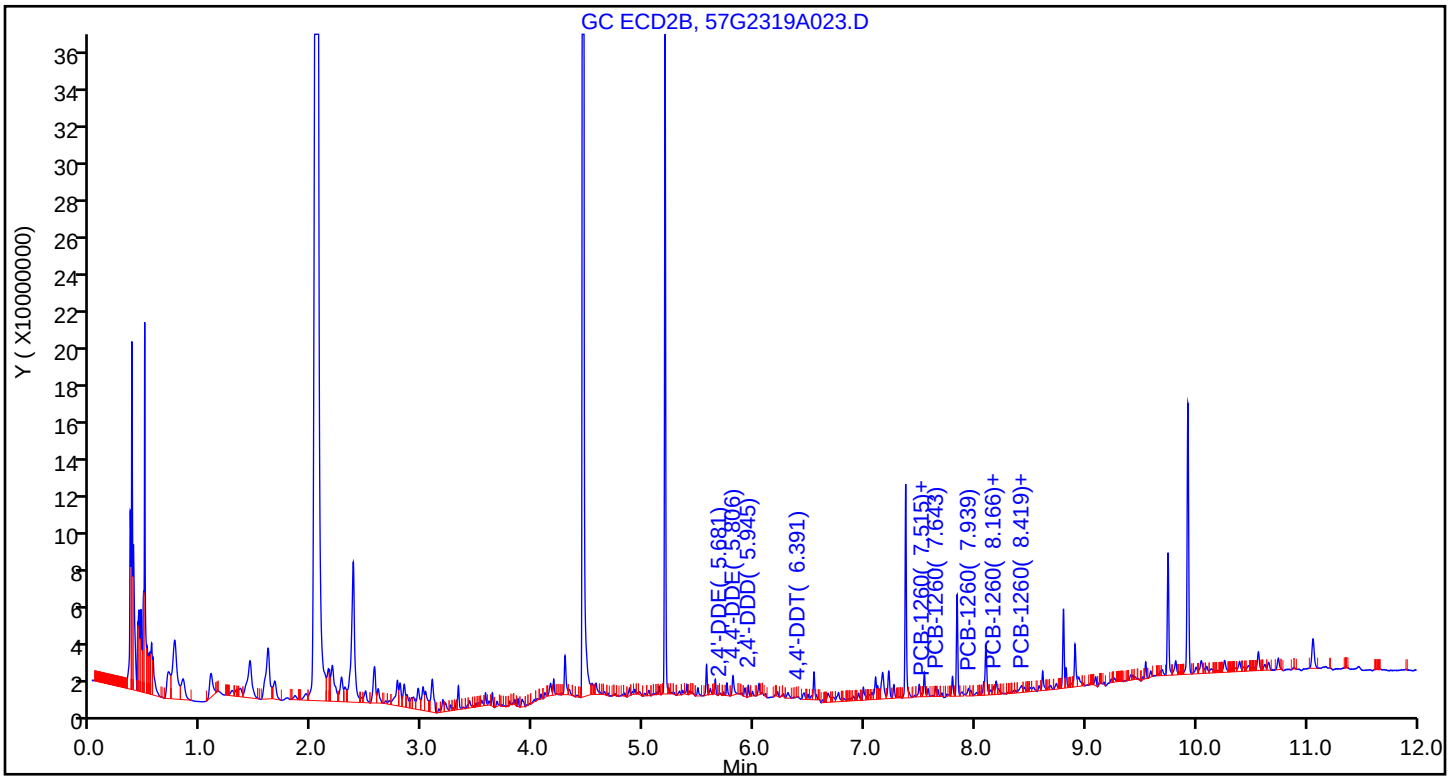
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A023.D

Injection Date:	23-Jul-2019 13:25:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	cjb	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A023.D				
Lims ID:	580-87706-A-8-B				
Client ID:	22T-SG-15_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 13:25:24	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-8-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:42:31	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:42:31		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	12.6	50.28
$ 43 DCB Decachlorobiphenyl	25.0	14.7	58.81

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	12.5	50.08
$ 43 DCB Decachlorobiphenyl	25.0	13.2	52.81

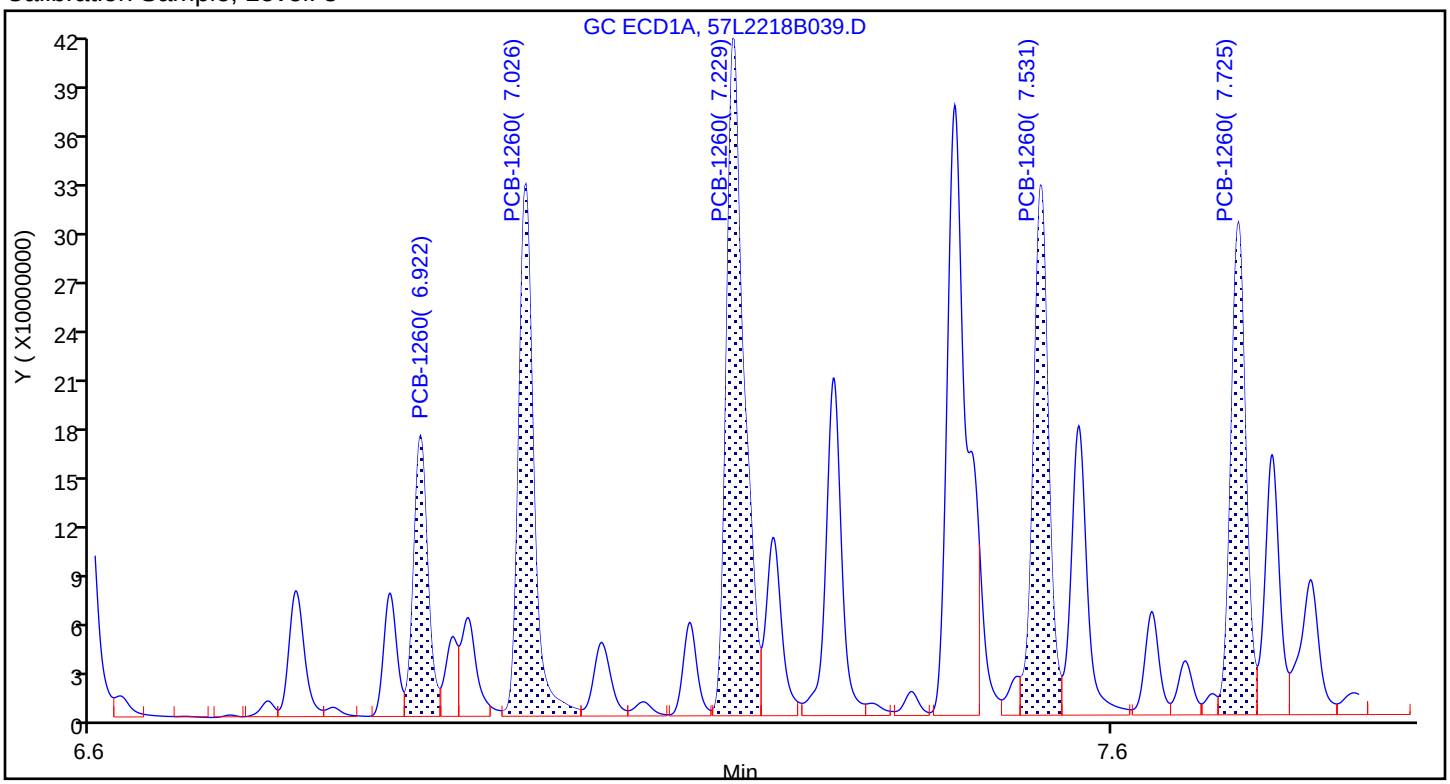
Report Date: 24-Jul-2019 09:42:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

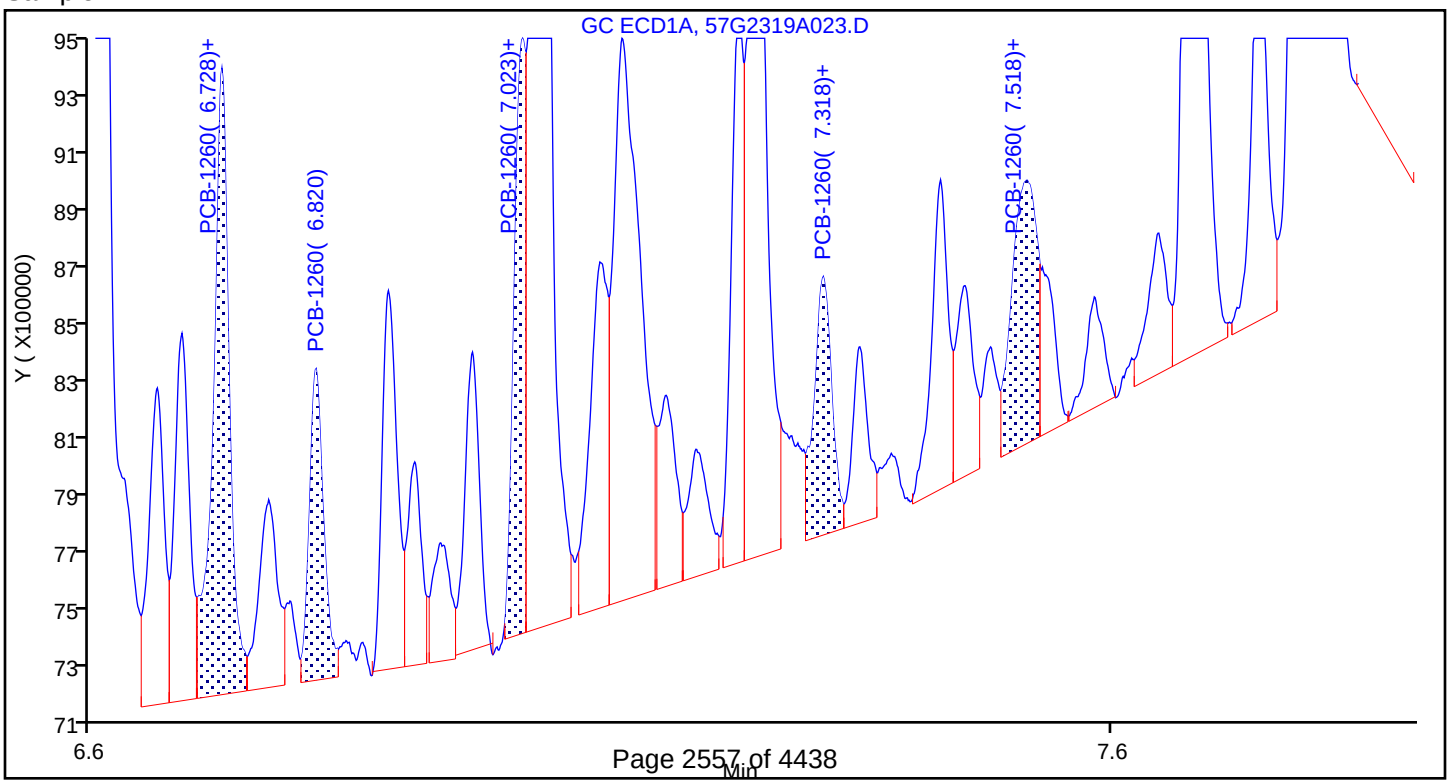
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A023.D				
Injection Date:	23-Jul-2019 13:25:24	Instrument ID:	TAC057		
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	cjb	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



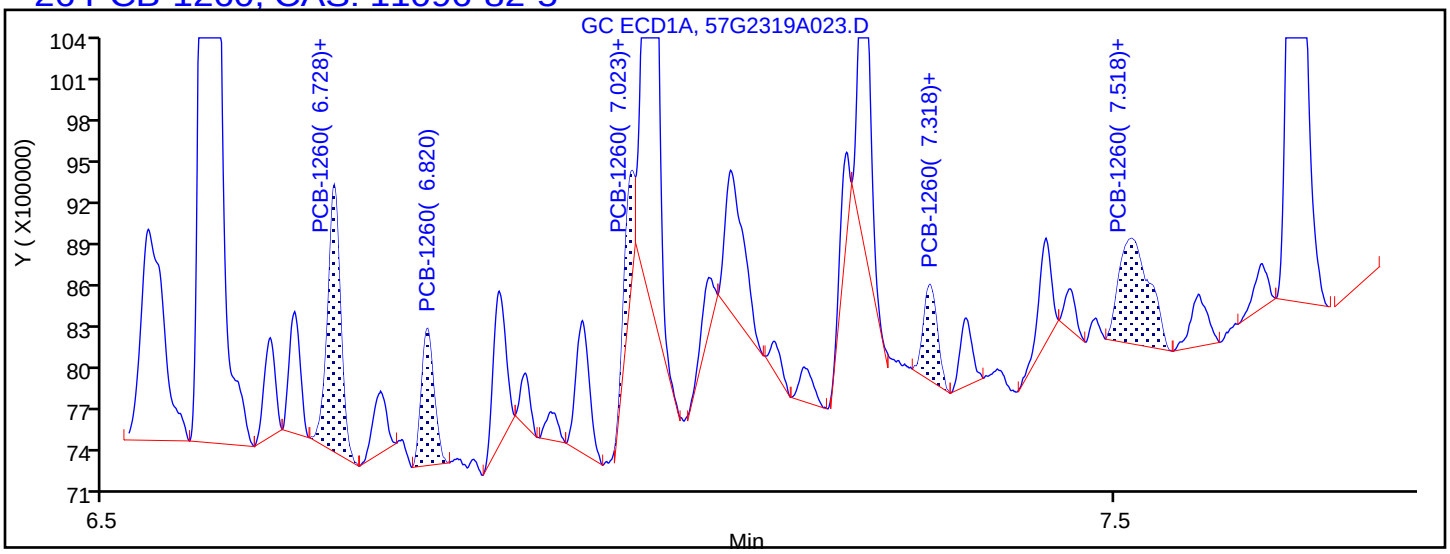
Report Date: 24-Jul-2019 09:42:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A023.D

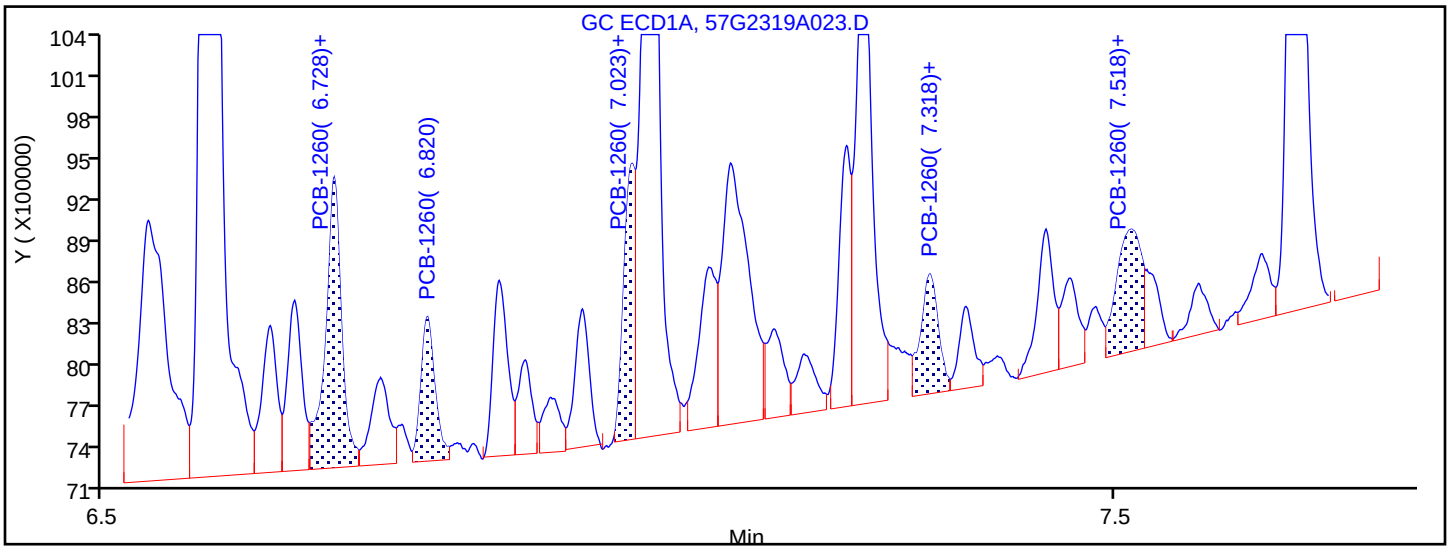
Injection Date:	23-Jul-2019 13:25:24	Instrument ID:	TAC057
Lims ID:	580-87706-A-8-B	Lab Sample ID:	580-87706-8
Client ID:	22T-SG-15_20190716		
Operator ID:	cjb	ALS Bottle#:	19 Worklist Smp#: 22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 1694078
6.820	Response = 846977
7.023	Response = 611936
7.318	Response = 648096
7.518	Response = 1576710



Manual Integration Results

6.728	Response = 2362274	M
6.820	Response = 1036414	M
7.023	Response = 1533142	M
7.318	Response = 1073398	M
7.518	Response = 1519568	M

Reviewer: thaneeratw, 24-Jul-2019 09:40:44

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 57G2319A024.D

Analysis Method: 8082A Date Collected: 07/16/2019 11:06

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.377(g) Date Analyzed: 07/23/2019 13:43

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0051	0.0019
11104-28-2	PCB-1221	ND		0.0051	0.0024
11141-16-5	PCB-1232	ND		0.0051	0.0024
53469-21-9	PCB-1242	ND		0.0051	0.0012
12672-29-6	PCB-1248	ND		0.0051	0.00091
11097-69-1	PCB-1254	ND		0.0051	0.0020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	83		39-142
877-09-8	Tetrachloro-m-xylene	65		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D
Lims ID: 580-87706-A-9-B
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 13:43:29 ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-9-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:44:52 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:44:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	167630363	100.0	
2	4.450	4.451	-0.001	1385631946	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60316002	16.3	
2	5.192	5.193	-0.001	306956308	17.3	
				RPD =	6.05	
26 PCB-1260						M
1	6.728	6.724	0.004	2955859	39.0	M
1	6.820	6.824	-0.004	1849453	11.3	M
1	7.022	7.028	-0.006	2193207	8.93	M
1	7.318	7.322	-0.004	1924627	12.1	M
1	7.512	7.513	-0.001	2207958	16.0	M
		Average of Peak Amounts =			17.5	
2	7.514	7.518	-0.004	3617714	7.69	M
2	7.643	7.645	-0.002	8675184	8.90	M
2	7.939	7.939	0.000	6625565	9.15	M
2	8.167	8.168	-0.001	5764551	7.23	M
2	8.419	8.422	-0.003	9196620	11.4	M
		Average of Peak Amounts =			8.87	
				RPD =	65.20	
$ 43 DCB Decachlorobiphenyl						
1	8.856	8.855	0.001	56339453	20.8	
2	9.925	9.925	0.000	187811799	19.4	
				RPD =	6.98	
13 2,4'-DDE						
1	5.400	5.389	0.011	324924	NR	
2	5.680	5.681	-0.001	345336	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.590	5.571	0.019	203943	NR	
2	5.806	5.791	0.015	15711866	NR	
					RPD = 0.00	
19	2,4'-DDD					
1	5.631	5.625	0.006	151022	NR	
2	5.945	5.955	-0.010	4717998	NR	
					RPD = 0.00	
22	2,4'-DDT					
1	5.815	5.821	-0.006	5638071	NR	
2	6.145	6.146	-0.001	227656	NR	
					RPD = 0.00	
32	4,4'-DDD					
1	5.899	5.891	0.008	882912	NR	
2	6.192	6.189	0.003	1099772	NR	
					RPD = 0.00	
35	4,4'-DDT					
1	6.017	6.019	-0.002	762524	NR	
2	6.392	6.393	-0.001	1095403	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

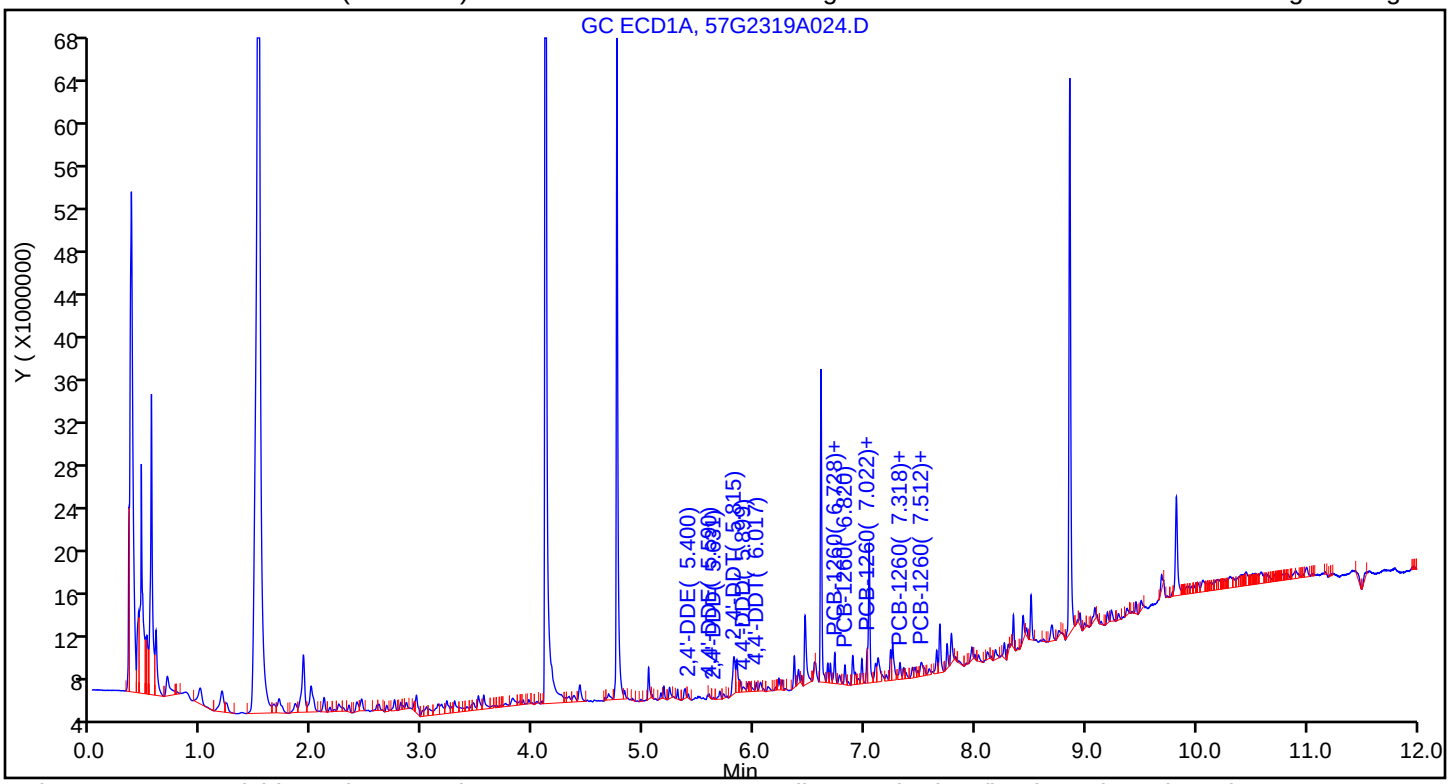
Report Date: 24-Jul-2019 09:44:52 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

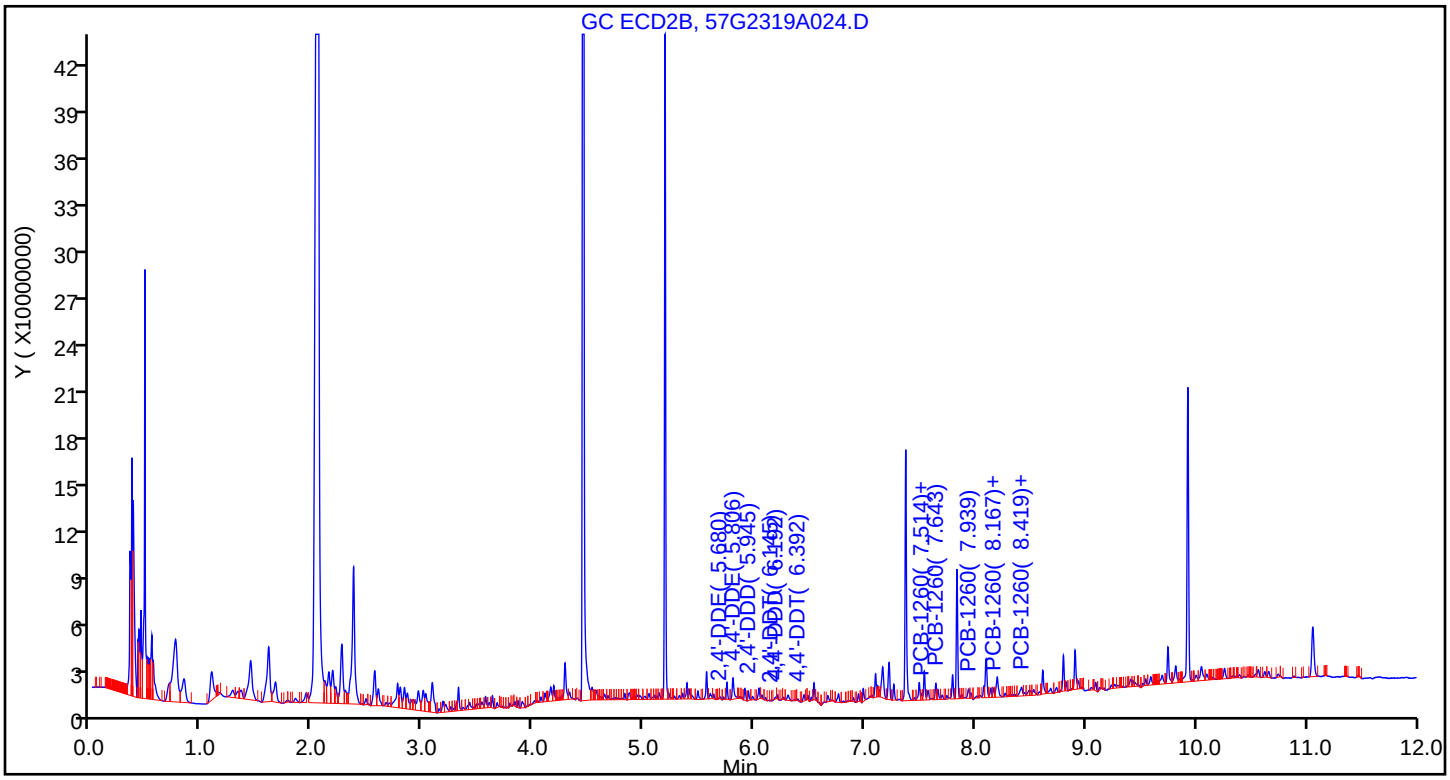
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D

Injection Date:	23-Jul-2019 13:43:29	Instrument ID:	TAC057		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	cjb	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D				
Lims ID:	580-87706-A-9-B				
Client ID:	22T-SG-14_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 13:43:29	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-9-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:44:52	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:44:52		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.3	65.20
$ 43 DCB Decachlorobiphenyl	25.0	20.8	83.30

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	17.3	69.27
$ 43 DCB Decachlorobiphenyl	25.0	19.4	77.68

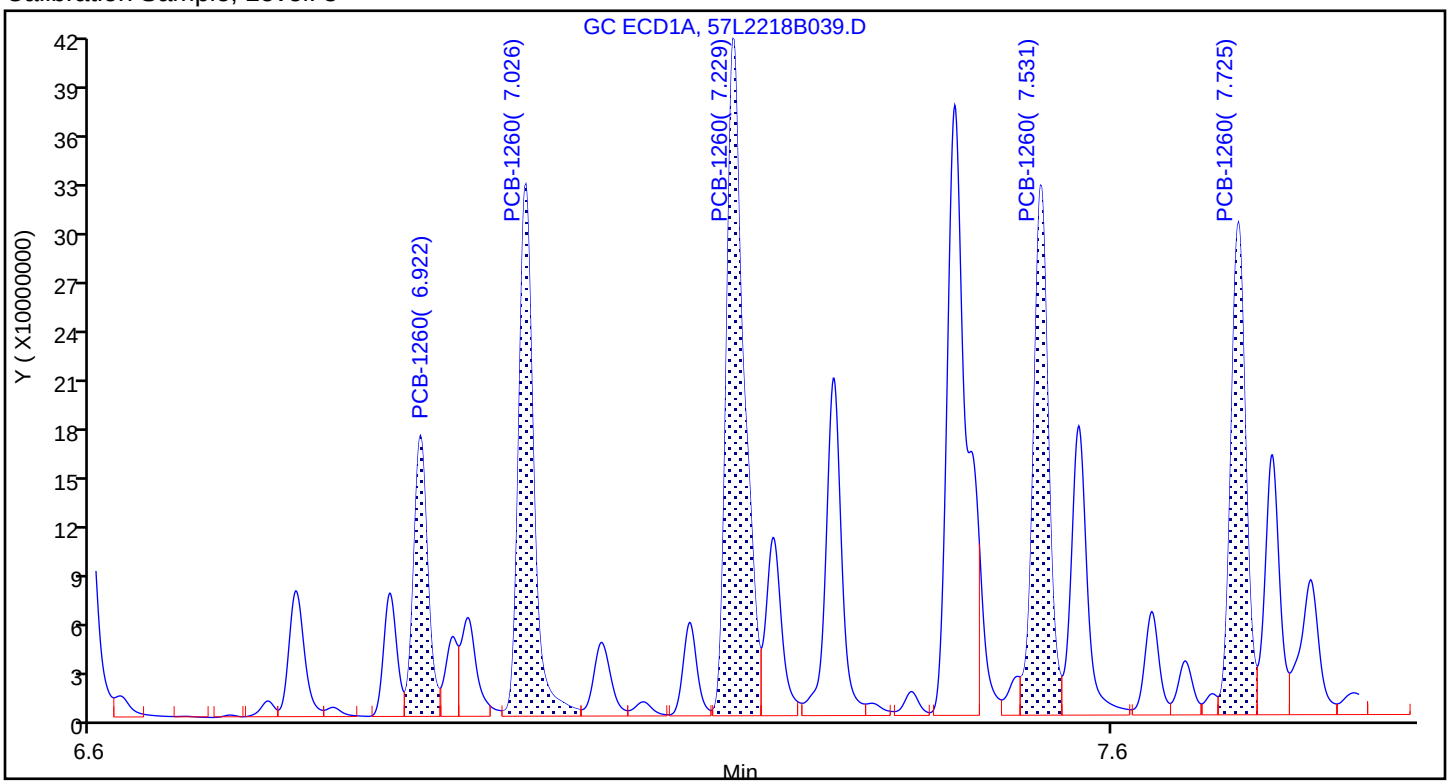
Report Date: 24-Jul-2019 09:44:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

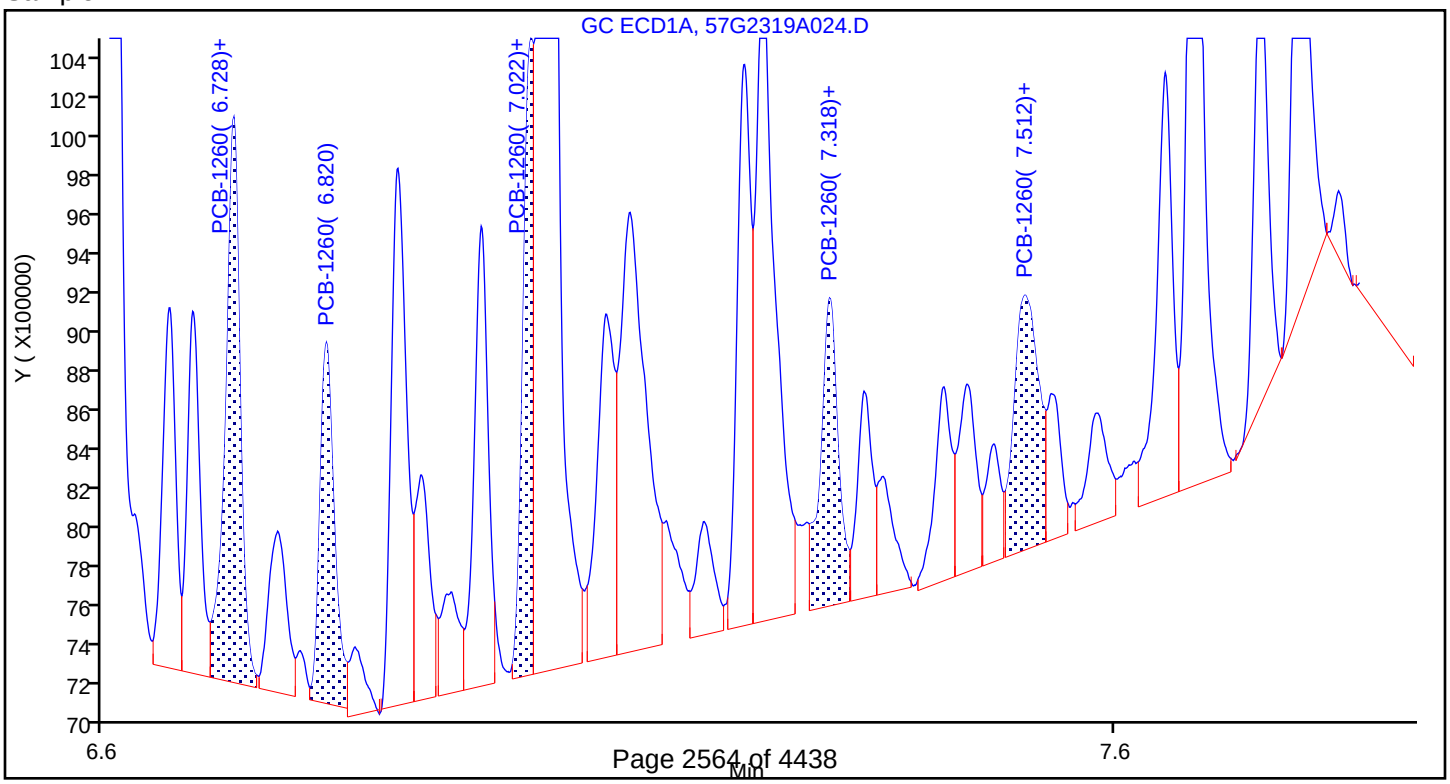
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D				
Injection Date:	23-Jul-2019 13:43:29	Instrument ID:	TAC057		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	cjb	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



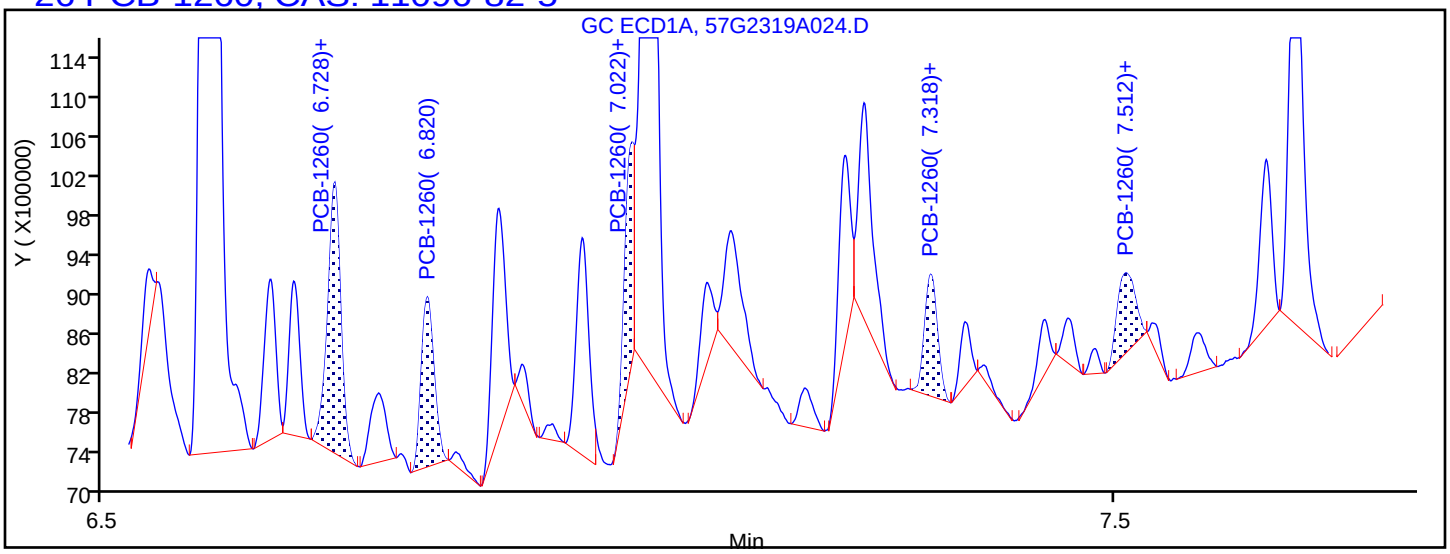
Report Date: 24-Jul-2019 09:44:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D

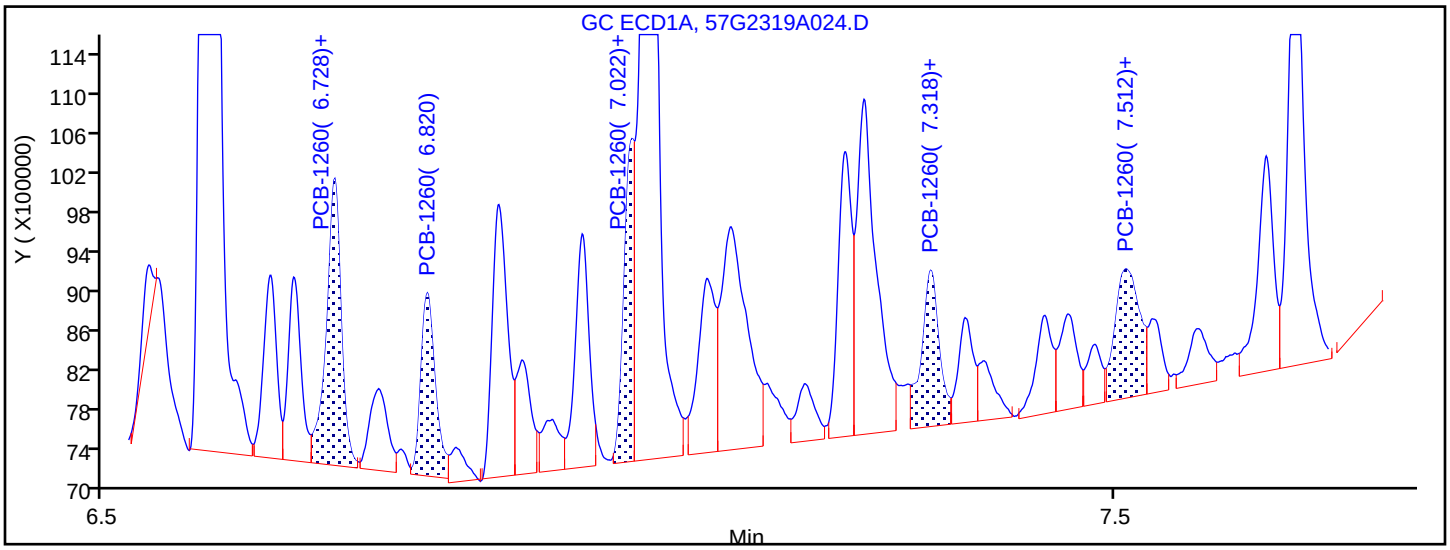
Injection Date:	23-Jul-2019 13:43:29	Instrument ID:	TAC057		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	cjb	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 2488842
6.820	Response = 1516260
7.022	Response = 1439260
7.318	Response = 1081296
7.512	Response = 999334



Manual Integration Results

6.728	Response = 2955859	M
6.820	Response = 1849453	M
7.022	Response = 2193207	M
7.318	Response = 1924627	M
7.512	Response = 2207958	M

Reviewer: thaneeratw, 24-Jul-2019 09:44:23

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 57G2319A024.D

Analysis Method: 8082A Date Collected: 07/16/2019 11:06

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.377(g) Date Analyzed: 07/23/2019 13:43

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.0023	J p	0.0051	0.0020

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D
Lims ID: 580-87706-A-9-B
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 13:43:29 ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-9-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:44:52 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:44:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	167630363	100.0	
2	4.450	4.451	-0.001	1385631946	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60316002	16.3	
2	5.192	5.193	-0.001	306956308	17.3	
				RPD =	6.05	
26 PCB-1260						M
1	6.728	6.724	0.004	2955859	39.0	M
1	6.820	6.824	-0.004	1849453	11.3	M
1	7.022	7.028	-0.006	2193207	8.93	M
1	7.318	7.322	-0.004	1924627	12.1	M
1	7.512	7.513	-0.001	2207958	16.0	M
		Average of Peak Amounts =			17.5	
2	7.514	7.518	-0.004	3617714	7.69	M
2	7.643	7.645	-0.002	8675184	8.90	M
2	7.939	7.939	0.000	6625565	9.15	M
2	8.167	8.168	-0.001	5764551	7.23	M
2	8.419	8.422	-0.003	9196620	11.4	M
		Average of Peak Amounts =			8.87	
				RPD =	65.20	
$ 43 DCB Decachlorobiphenyl						
1	8.856	8.855	0.001	56339453	20.8	
2	9.925	9.925	0.000	187811799	19.4	
				RPD =	6.98	
13 2,4'-DDE						
1	5.400	5.389	0.011	324924	NR	
2	5.680	5.681	-0.001	345336	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.590	5.571	0.019	203943	NR	
2	5.806	5.791	0.015	15711866	NR	
					RPD = 0.00	
19	2,4'-DDD					
1	5.631	5.625	0.006	151022	NR	
2	5.945	5.955	-0.010	4717998	NR	
					RPD = 0.00	
22	2,4'-DDT					
1	5.815	5.821	-0.006	5638071	NR	
2	6.145	6.146	-0.001	227656	NR	
					RPD = 0.00	
32	4,4'-DDD					
1	5.899	5.891	0.008	882912	NR	
2	6.192	6.189	0.003	1099772	NR	
					RPD = 0.00	
35	4,4'-DDT					
1	6.017	6.019	-0.002	762524	NR	
2	6.392	6.393	-0.001	1095403	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

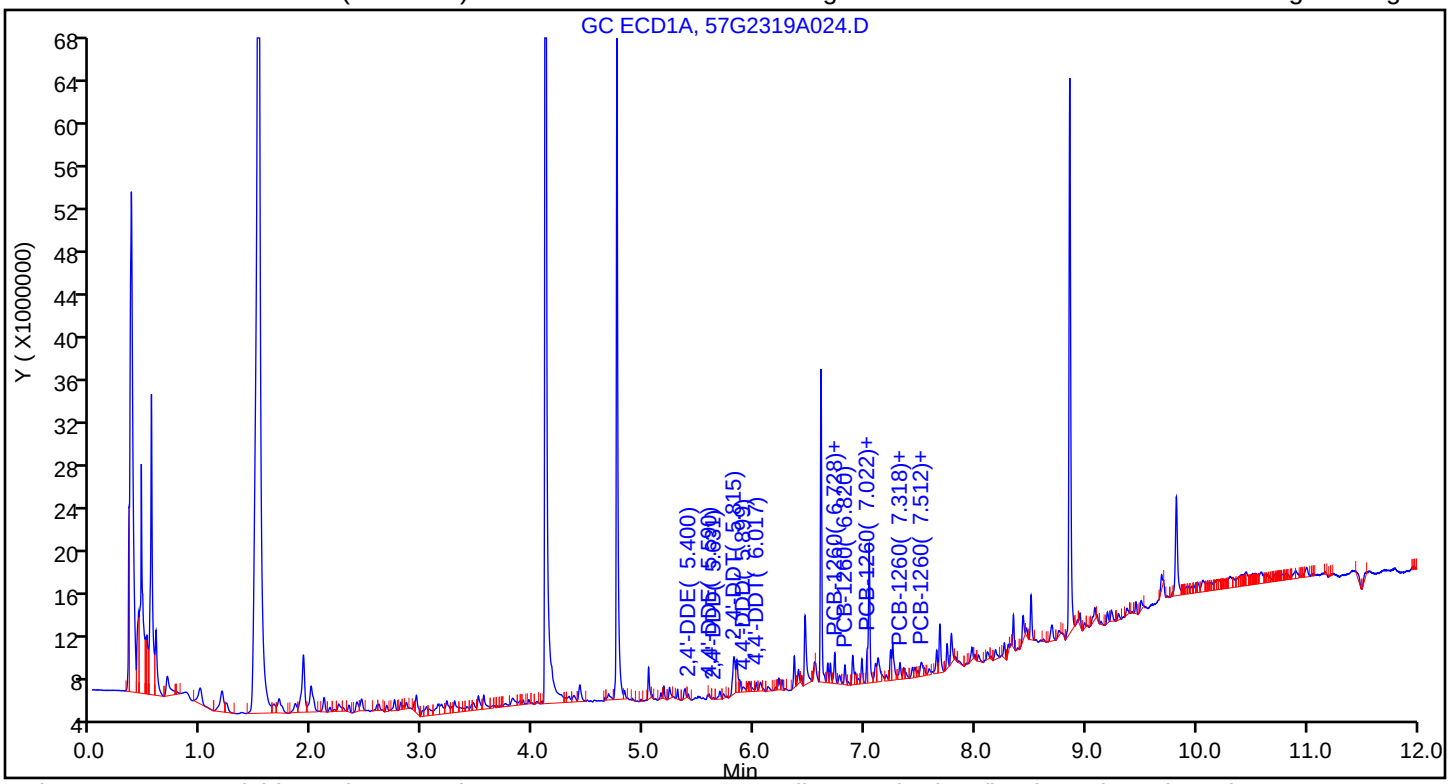
Report Date: 24-Jul-2019 09:44:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

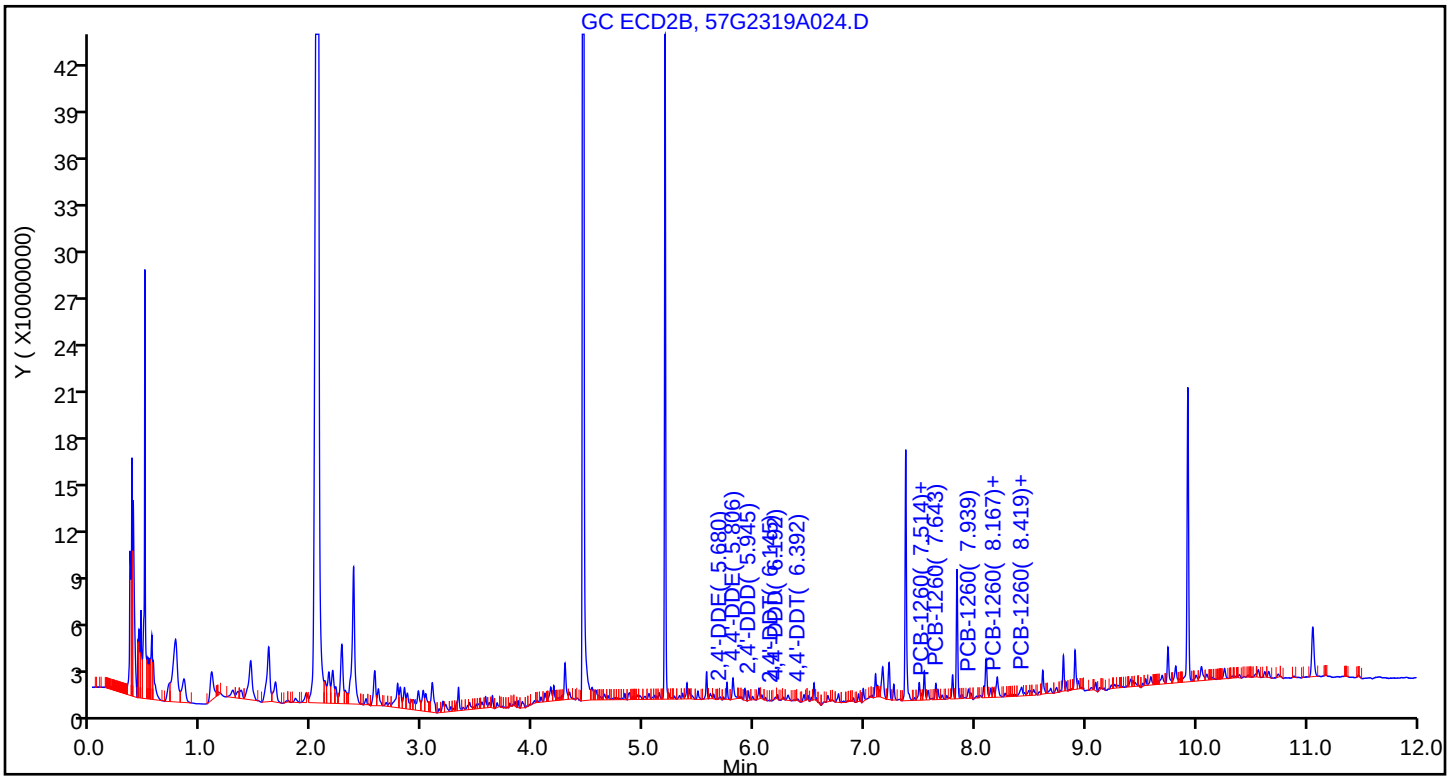
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D

Injection Date:	23-Jul-2019 13:43:29	Instrument ID:	TAC057		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	cjb	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D				
Lims ID:	580-87706-A-9-B				
Client ID:	22T-SG-14_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 13:43:29	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-9-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:44:52	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:44:52		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.3	65.20
$ 43 DCB Decachlorobiphenyl	25.0	20.8	83.30

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	17.3	69.27
$ 43 DCB Decachlorobiphenyl	25.0	19.4	77.68

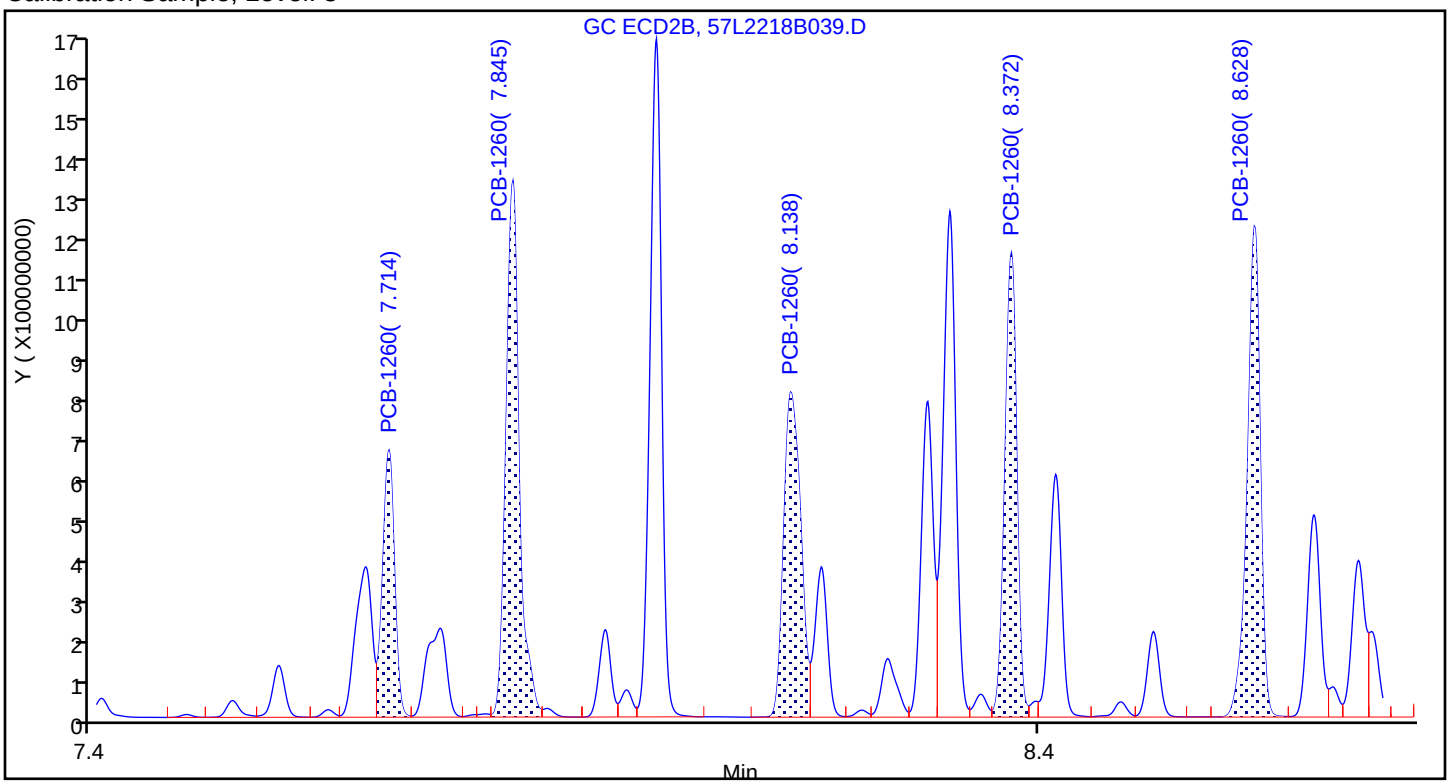
Report Date: 24-Jul-2019 09:44:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

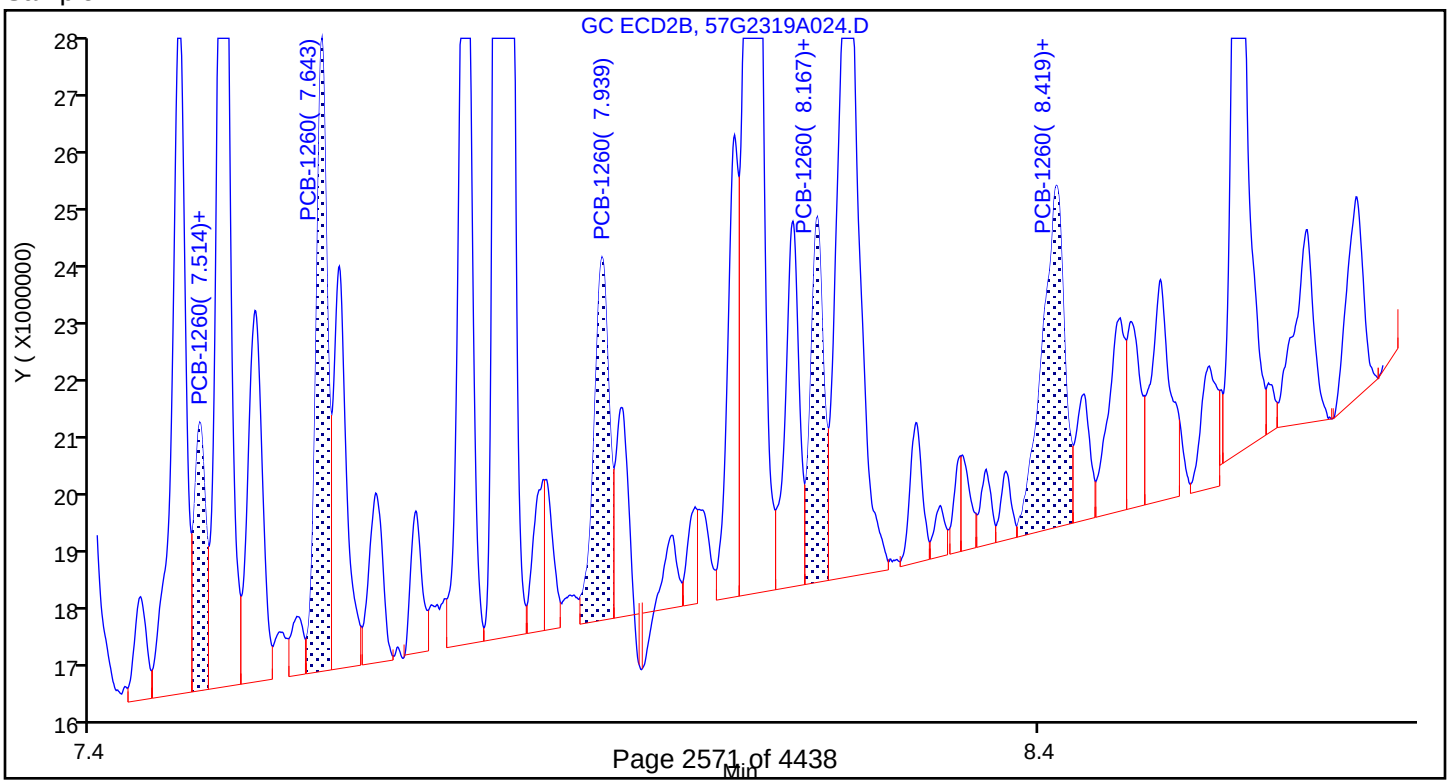
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D				
Injection Date:	23-Jul-2019 13:43:29	Instrument ID:	TAC057		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	cjb	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



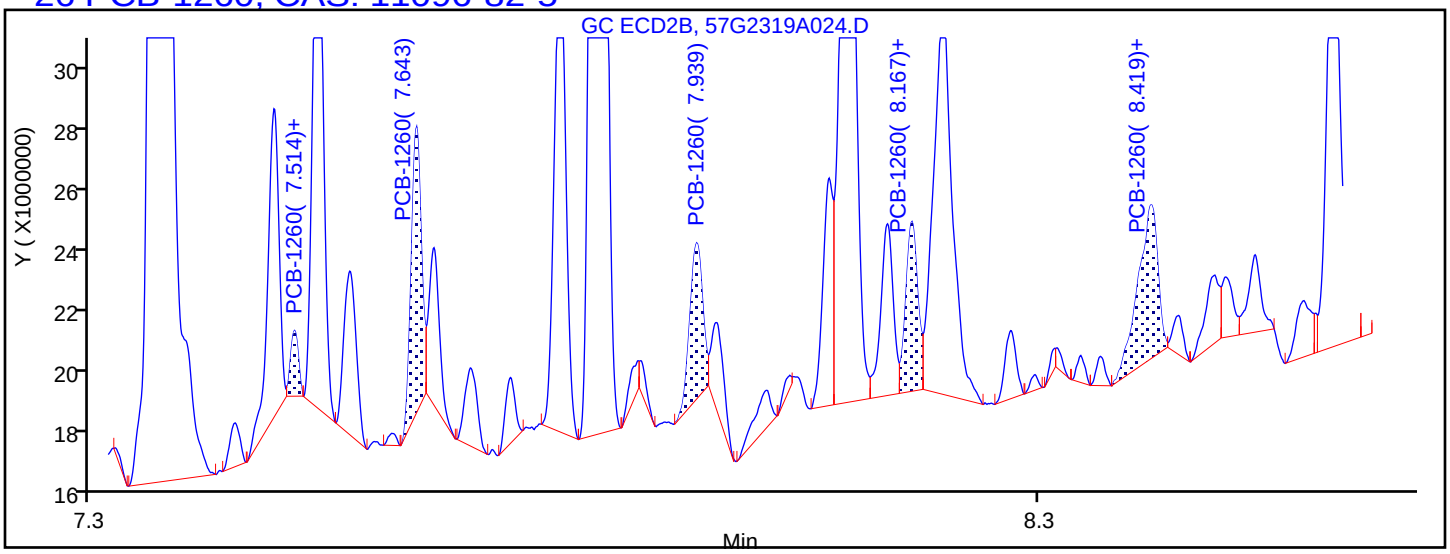
Report Date: 24-Jul-2019 09:44:53 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A024.D

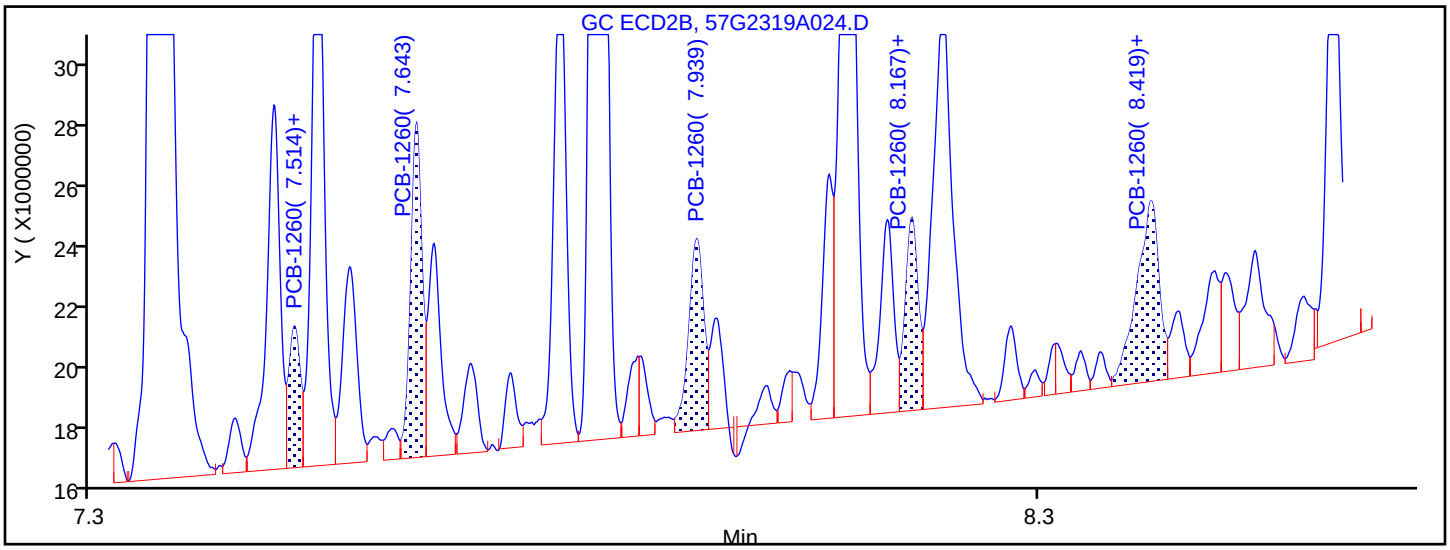
Injection Date:	23-Jul-2019 13:43:29	Instrument ID:	TAC057		
Lims ID:	580-87706-A-9-B	Lab Sample ID:	580-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	cjb	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.514	Response = 1153463
7.643	Response = 6535420
7.939	Response = 4579567
8.167	Response = 4660914
8.419	Response = 6897611



Manual Integration Results

7.514	Response = 3617714	M
7.643	Response = 8675184	M
7.939	Response = 6625565	M
8.167	Response = 5764551	M
8.419	Response = 9196620	M

Reviewer: thaneeratw, 24-Jul-2019 09:44:43

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Matrix: Solid Lab File ID: 57G2319A025.D

Analysis Method: 8082A Date Collected: 07/16/2019 12:12

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.081(g) Date Analyzed: 07/23/2019 14:01

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 60.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0050	0.0018
11104-28-2	PCB-1221	ND		0.0050	0.0024
11141-16-5	PCB-1232	ND		0.0050	0.0024
53469-21-9	PCB-1242	ND		0.0050	0.0012
12672-29-6	PCB-1248	ND		0.0050	0.00090
11097-69-1	PCB-1254	ND		0.0050	0.0020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	82		39-142
877-09-8	Tetrachloro-m-xylene	64		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D
Lims ID: 580-87706-A-10-B
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:01:39 ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-10-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:51:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:51:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.109	4.109	0.000	179131436	100.0	
2	4.450	4.451	-0.001	1514234179	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	63149126	16.0	
2	5.191	5.193	-0.002	320529228	16.5	
				RPD =	3.55	
26 PCB-1260						Ma
1	6.729	6.724	0.005	3227893	39.9	M
1	6.820	6.824	-0.004	2906081	17.2	M
1	7.024	7.028	-0.004	2530631	9.73	M
1	7.318	7.322	-0.004	1583411	9.02	M
1	7.499	7.513	-0.014	4796751	33.1	M
		Average of Peak Amounts =			21.8	
2	7.517	7.518	-0.001	3886306	7.51	M
2	7.644	7.645	-0.001	9477774	8.90	M
2	7.940	7.939	0.001	10992200	15.0	M
2	8.166	8.168	-0.002	5454122	5.93	M
2	8.420	8.422	-0.002	4765746	4.24	M
		Average of Peak Amounts =			8.32	
				RPD =	89.49	
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	59627658	20.6	
2	9.925	9.925	0.000	181226041	17.1	
				RPD =	18.41	
13 2,4'-DDE						
1	5.384	5.389	-0.005	2187550	NR	
2	5.678	5.681	-0.003	3369854	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.568	5.571	-0.003	1029462	NR	
2	5.806	5.791	0.015	18087008	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.595	5.625	-0.030	464612	NR	
2	5.948	5.955	-0.007	22071668	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.827	5.821	0.006	30913314	NR	
2	6.155	6.146	0.009	2156190	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.887	5.891	-0.004	17881861	NR	
2	6.194	6.189	0.005	2141961	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.017	6.019	-0.002	3205088	NR	
2	6.397	6.393	0.004	1472798	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:51:28 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D

Injection Date: 23-Jul-2019 14:01:39 Instrument ID: TAC057

Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10

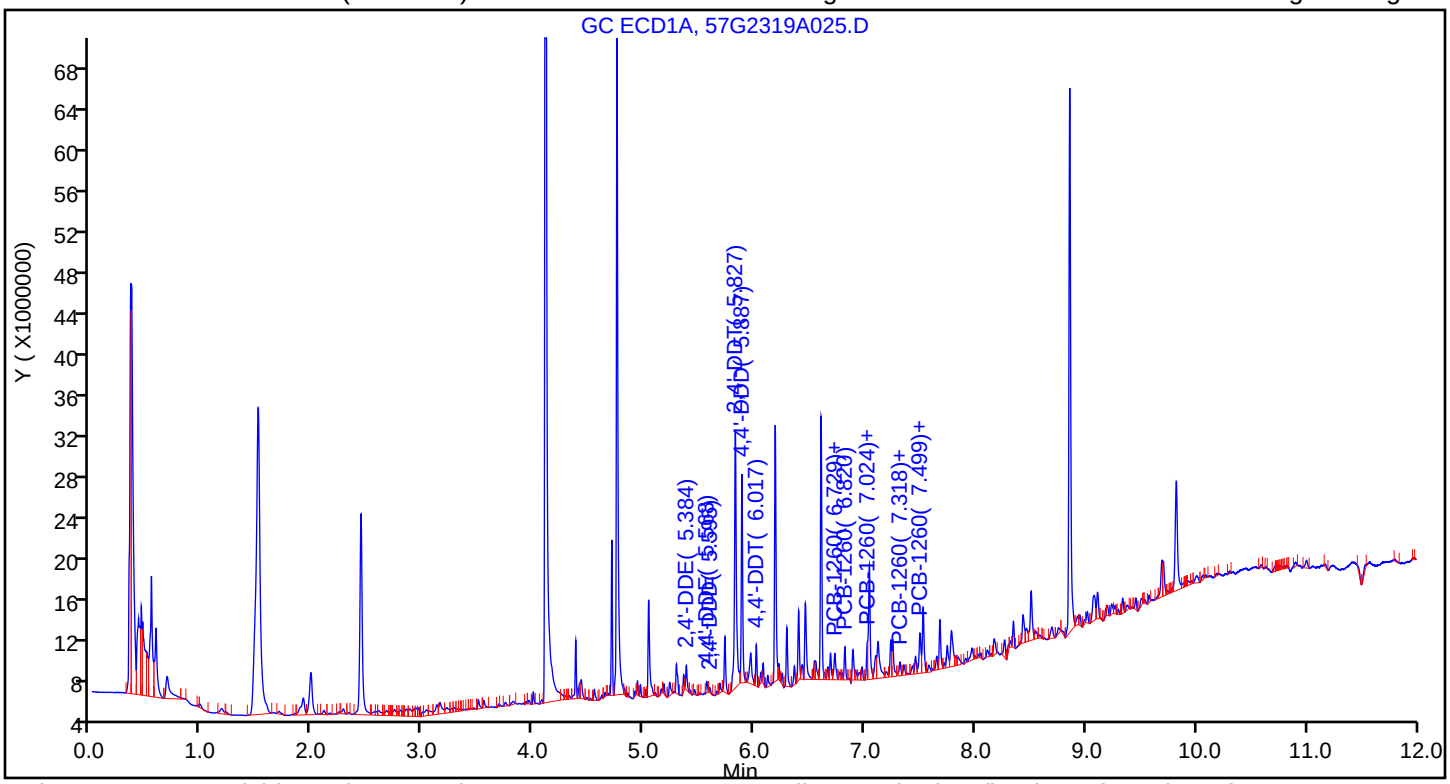
Client ID: 22T-SG-13_20190716

Operator ID: cjb ALS Bottle#: 21 Worklist Smp#: 24

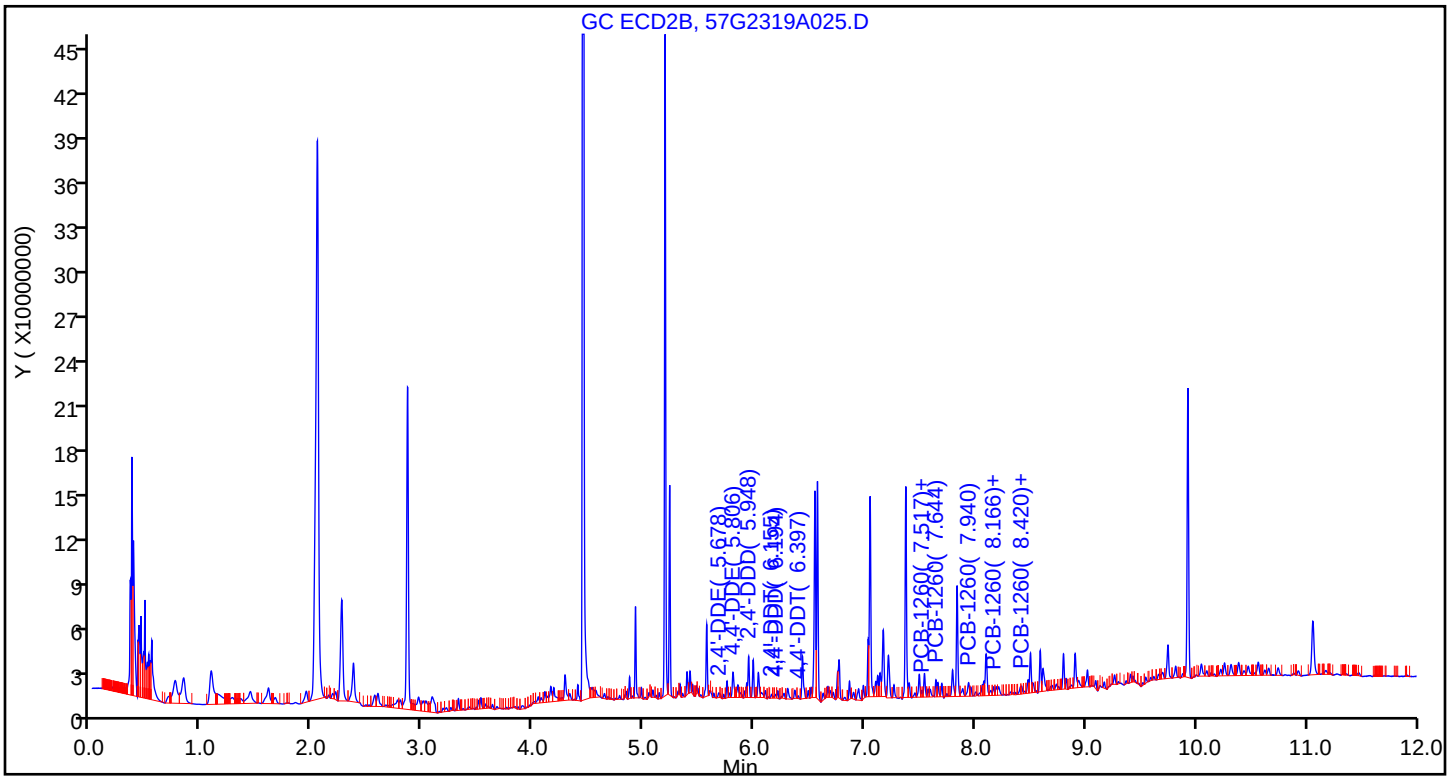
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D				
Lims ID:	580-87706-A-10-B				
Client ID:	22T-SG-13_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:01:39	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-10-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:51:27	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:51:27		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.0	63.88
$ 43 DCB Decachlorobiphenyl	25.0	20.6	82.50

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.5	66.19
$ 43 DCB Decachlorobiphenyl	25.0	17.1	68.59

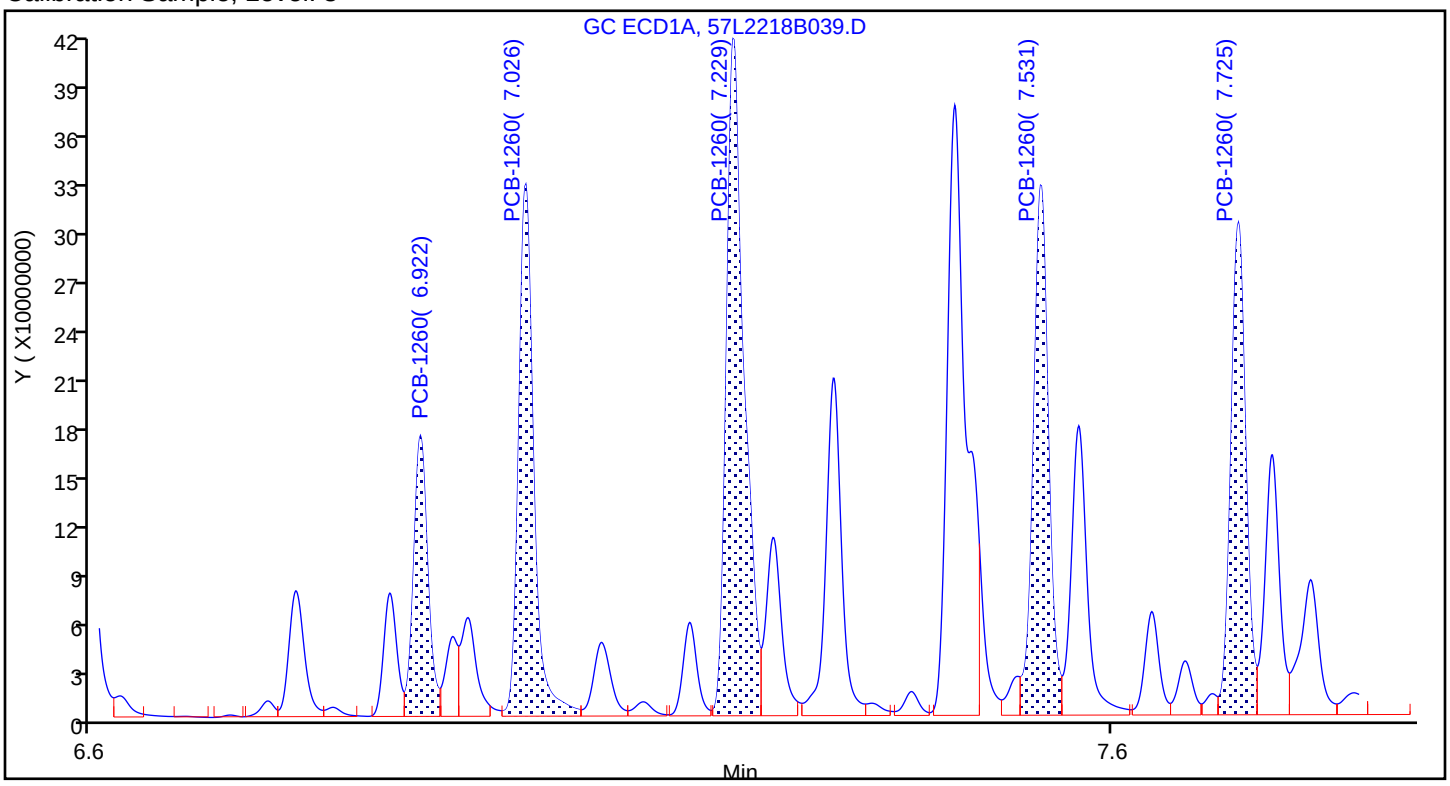
Report Date: 24-Jul-2019 09:51:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

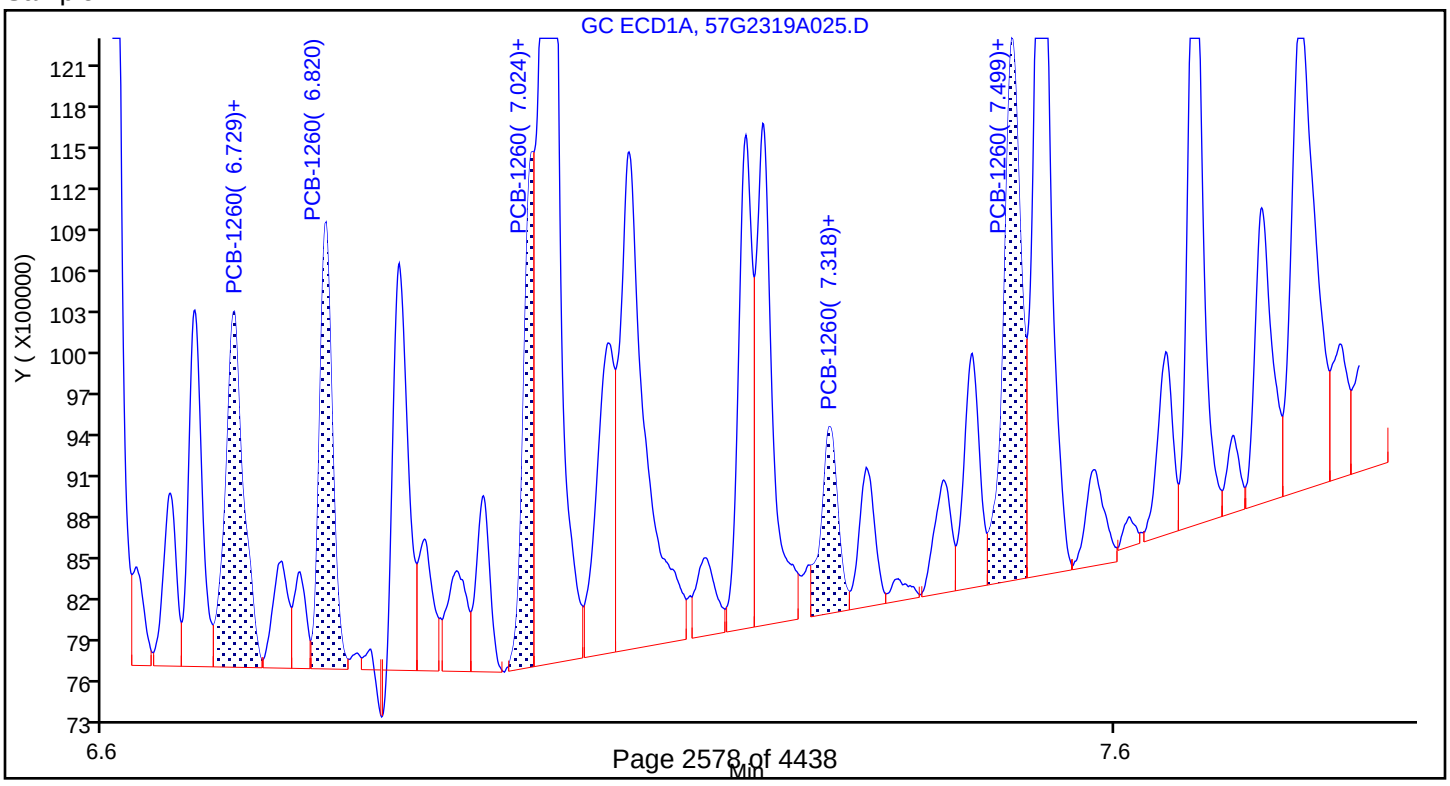
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D				
Injection Date:	23-Jul-2019 14:01:39	Instrument ID:	TAC057		
Lims ID:	580-87706-A-10-B	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	cjb	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



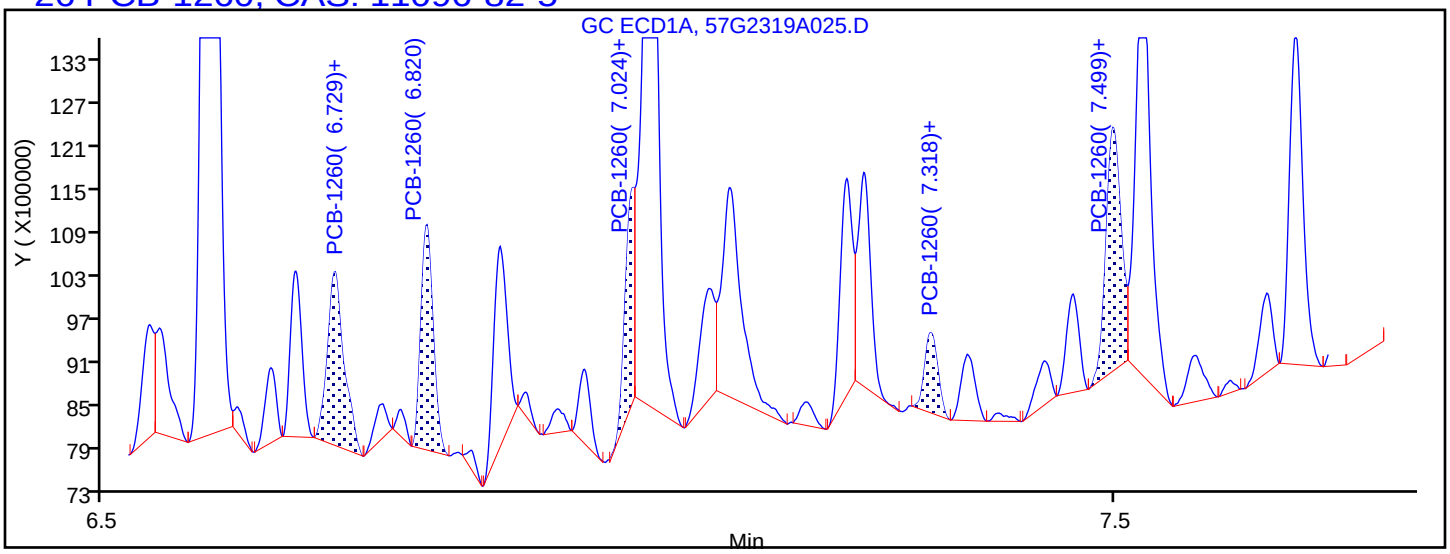
Report Date: 24-Jul-2019 09:51:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D

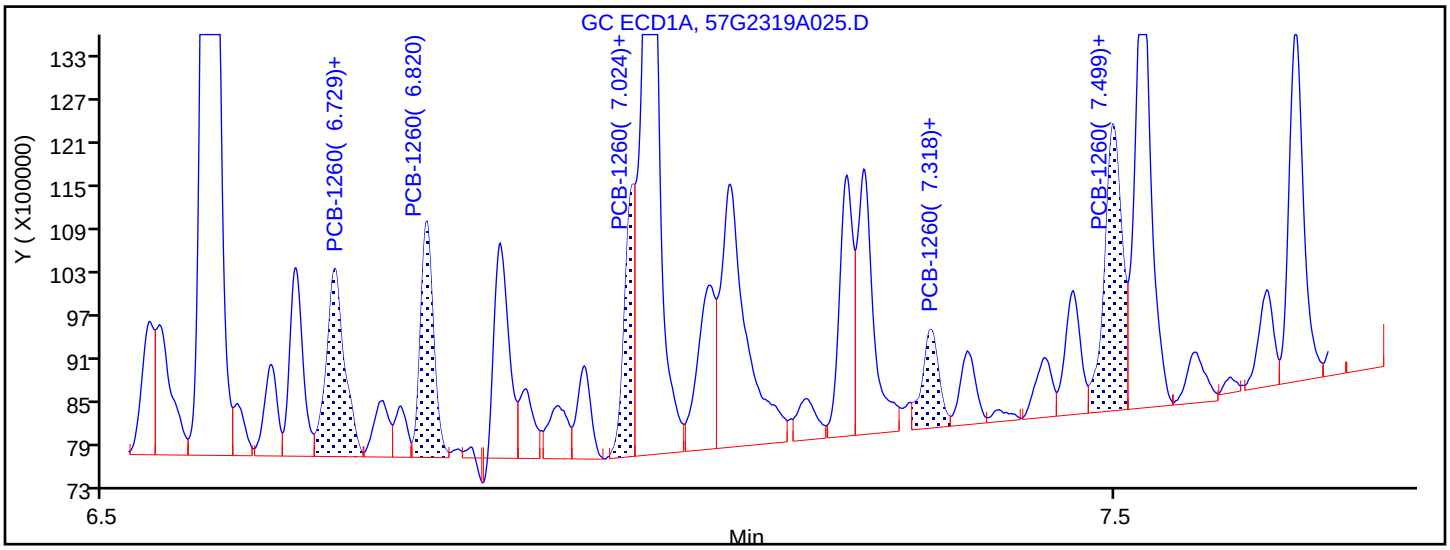
Injection Date:	23-Jul-2019 14:01:39	Instrument ID:	TAC057		
Lims ID:	580-87706-A-10-B	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	cjb	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.729	Response = 2708799
6.820	Response = 2608903
7.024	Response = 1887456
7.318	Response = 1002390
7.499	Response = 3509709



Manual Integration Results

6.729	Response = 3227893	M
6.820	Response = 2906081	M
7.024	Response = 2530631	M
7.318	Response = 1583411	M
7.499	Response = 4796751	M

Reviewer: thaneeratw, 24-Jul-2019 09:50:56

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Matrix: Solid Lab File ID: 57G2319A025.D

Analysis Method: 8082A Date Collected: 07/16/2019 12:12

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20.081(g) Date Analyzed: 07/23/2019 14:01

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 60.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.0021	J p	0.0050	0.0019

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D
Lims ID: 580-87706-A-10-B
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:01:39 ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-10-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:51:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:51:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.109	4.109	0.000	179131436	100.0	
2	4.450	4.451	-0.001	1514234179	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	63149126	16.0	
2	5.191	5.193	-0.002	320529228	16.5	
				RPD =	3.55	
26 PCB-1260						Ma
1	6.729	6.724	0.005	3227893	39.9	M
1	6.820	6.824	-0.004	2906081	17.2	M
1	7.024	7.028	-0.004	2530631	9.73	M
1	7.318	7.322	-0.004	1583411	9.02	M
1	7.499	7.513	-0.014	4796751	33.1	M
		Average of Peak Amounts =			21.8	
2	7.517	7.518	-0.001	3886306	7.51	M
2	7.644	7.645	-0.001	9477774	8.90	M
2	7.940	7.939	0.001	10992200	15.0	M
2	8.166	8.168	-0.002	5454122	5.93	M
2	8.420	8.422	-0.002	4765746	4.24	M
		Average of Peak Amounts =			8.32	
				RPD =	89.49	
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	59627658	20.6	
2	9.925	9.925	0.000	181226041	17.1	
				RPD =	18.41	
13 2,4'-DDE						
1	5.384	5.389	-0.005	2187550	NR	
2	5.678	5.681	-0.003	3369854	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.568	5.571	-0.003	1029462	NR	
2	5.806	5.791	0.015	18087008	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.595	5.625	-0.030	464612	NR	
2	5.948	5.955	-0.007	22071668	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.827	5.821	0.006	30913314	NR	
2	6.155	6.146	0.009	2156190	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.887	5.891	-0.004	17881861	NR	
2	6.194	6.189	0.005	2141961	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.017	6.019	-0.002	3205088	NR	
2	6.397	6.393	0.004	1472798	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 09:51:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D

Injection Date: 23-Jul-2019 14:01:39 Instrument ID: TAC057

Lims ID: 580-87706-A-10-B Lab Sample ID: 580-87706-10

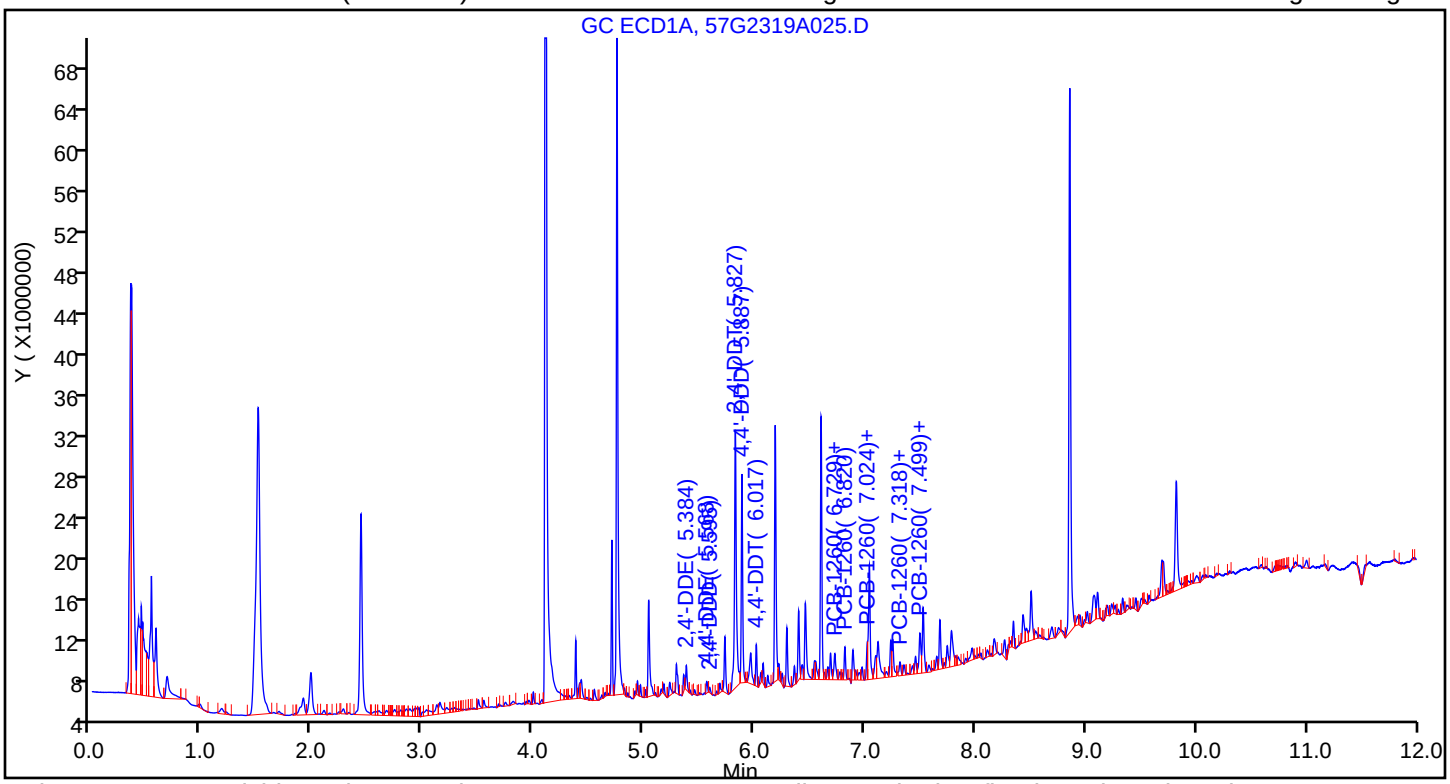
Client ID: 22T-SG-13_20190716

Operator ID: cjb ALS Bottle#: 21 Worklist Smp#: 24

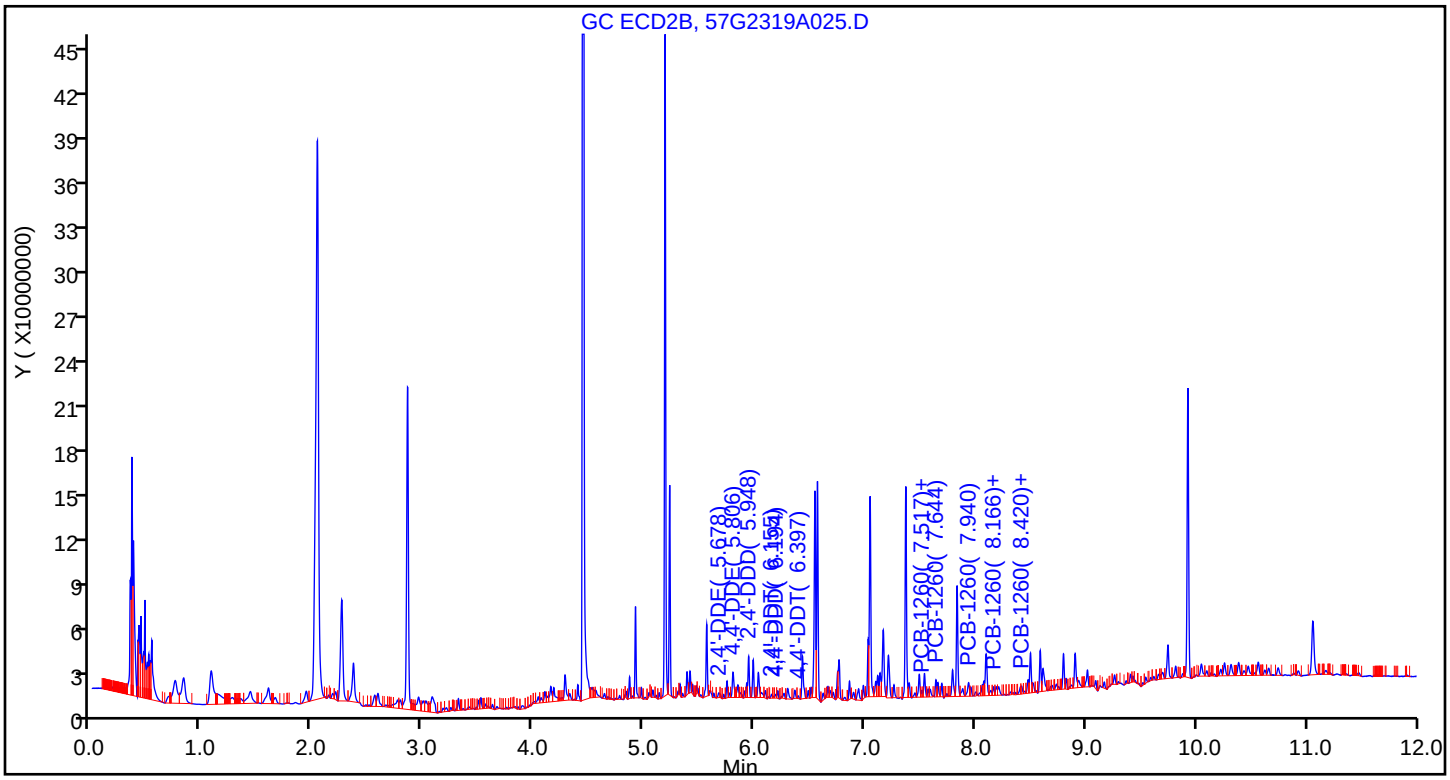
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D				
Lims ID:	580-87706-A-10-B				
Client ID:	22T-SG-13_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:01:39	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-10-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:51:27	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:51:27		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.0	63.88
$ 43 DCB Decachlorobiphenyl	25.0	20.6	82.50

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.5	66.19
$ 43 DCB Decachlorobiphenyl	25.0	17.1	68.59

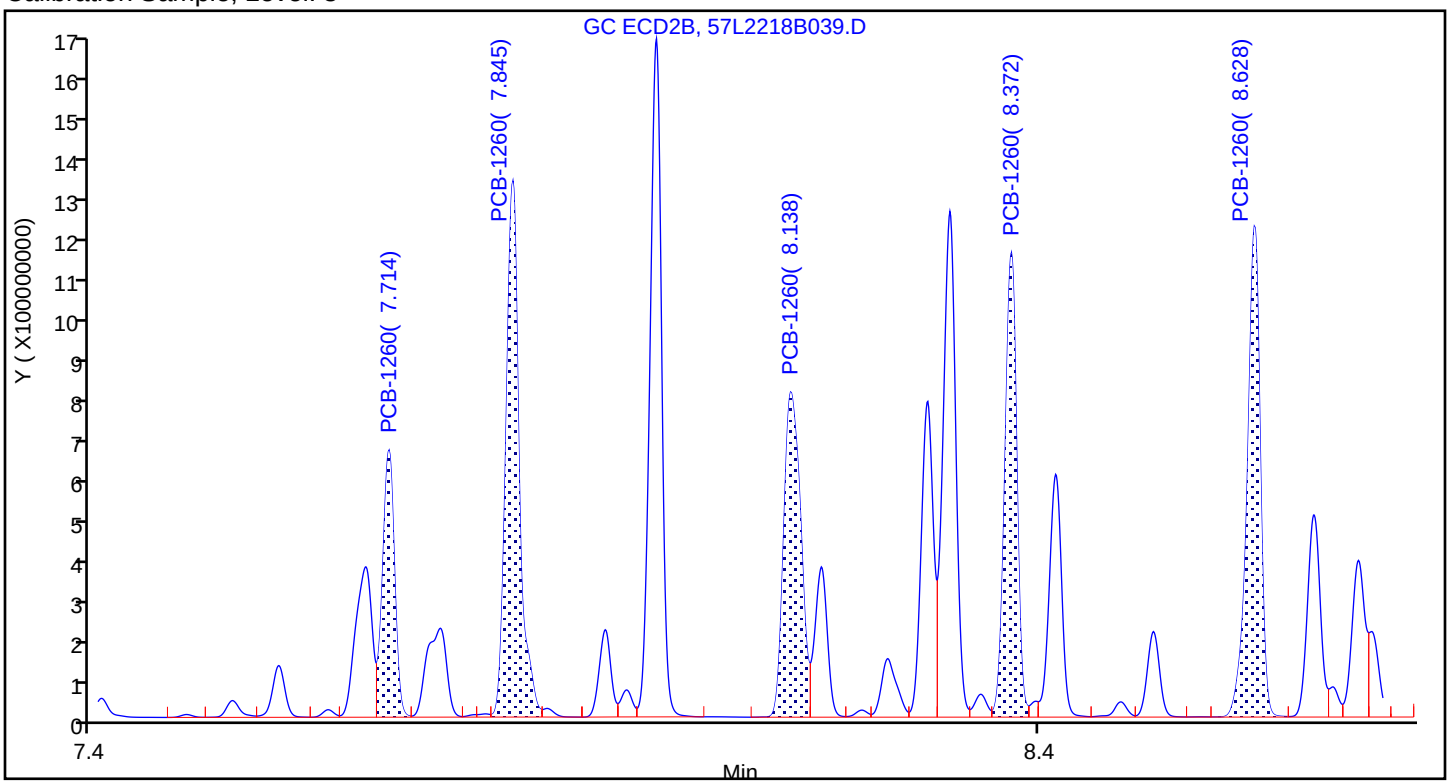
Report Date: 24-Jul-2019 09:51:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

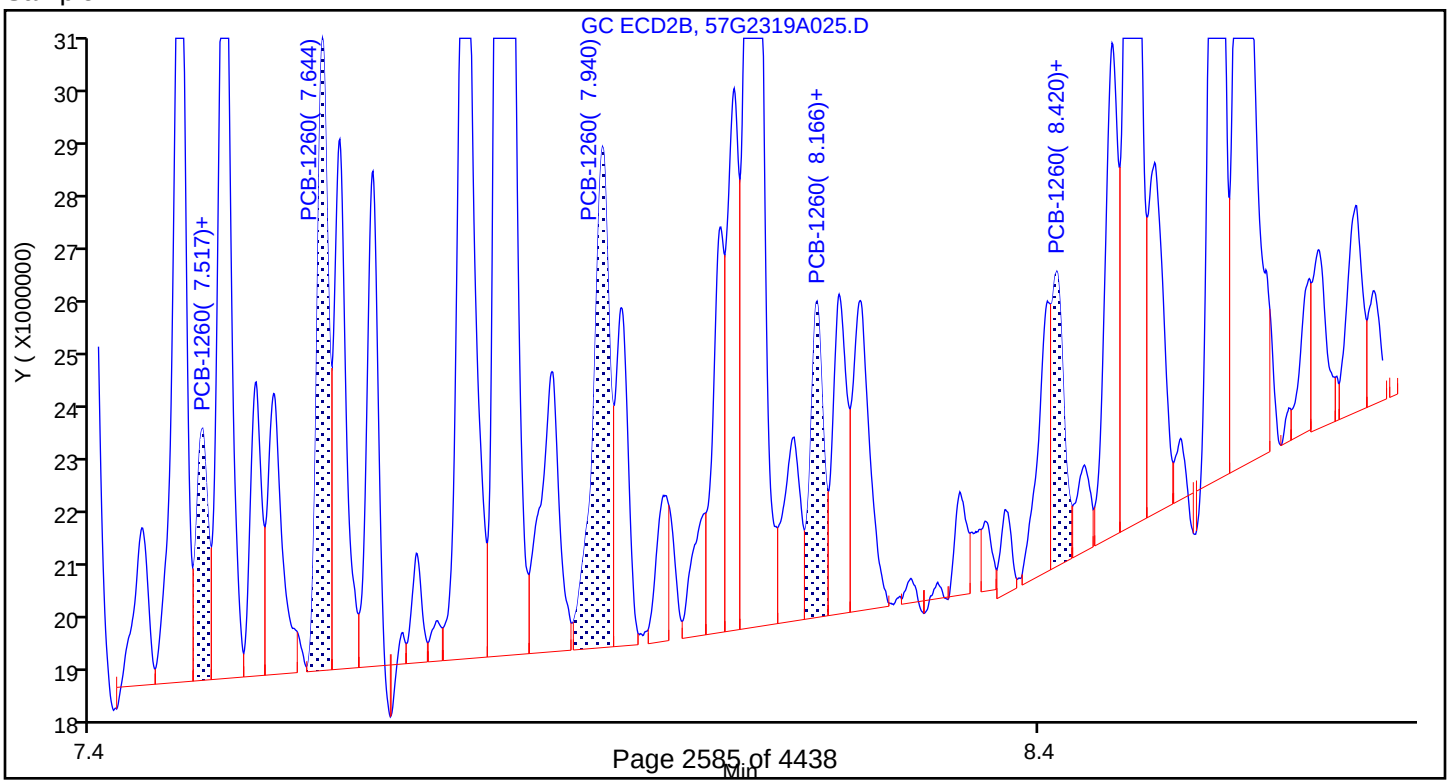
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D				
Injection Date:	23-Jul-2019 14:01:39	Instrument ID:	TAC057		
Lims ID:	580-87706-A-10-B	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	cjb	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



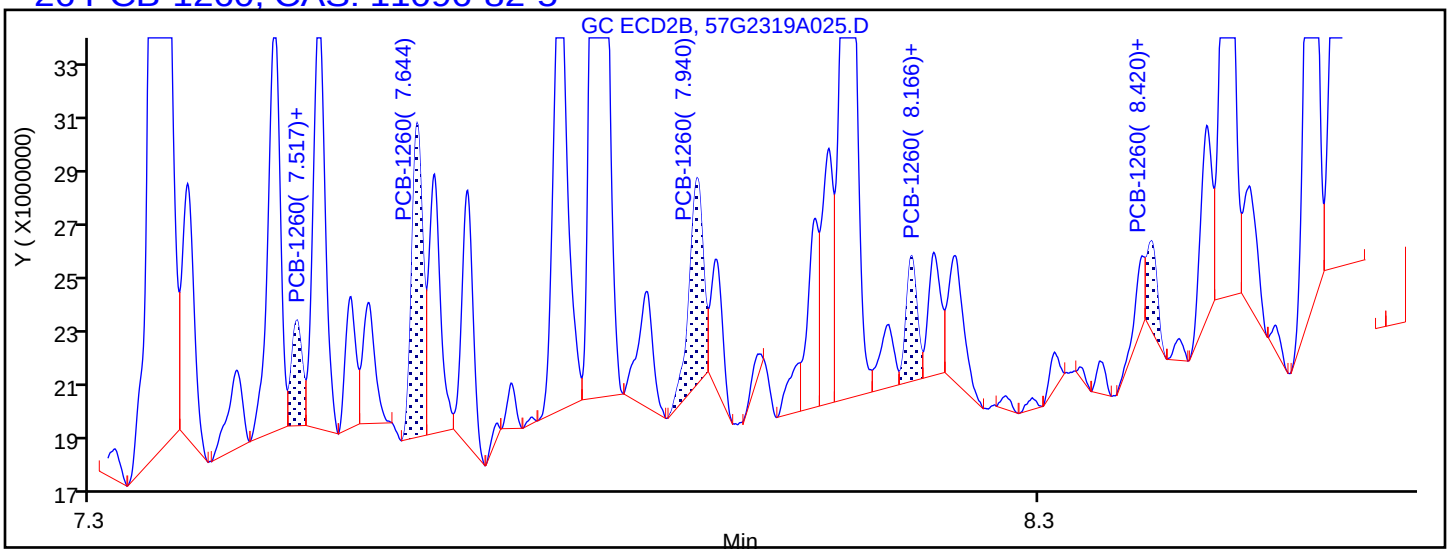
Report Date: 24-Jul-2019 09:51:31 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A025.D

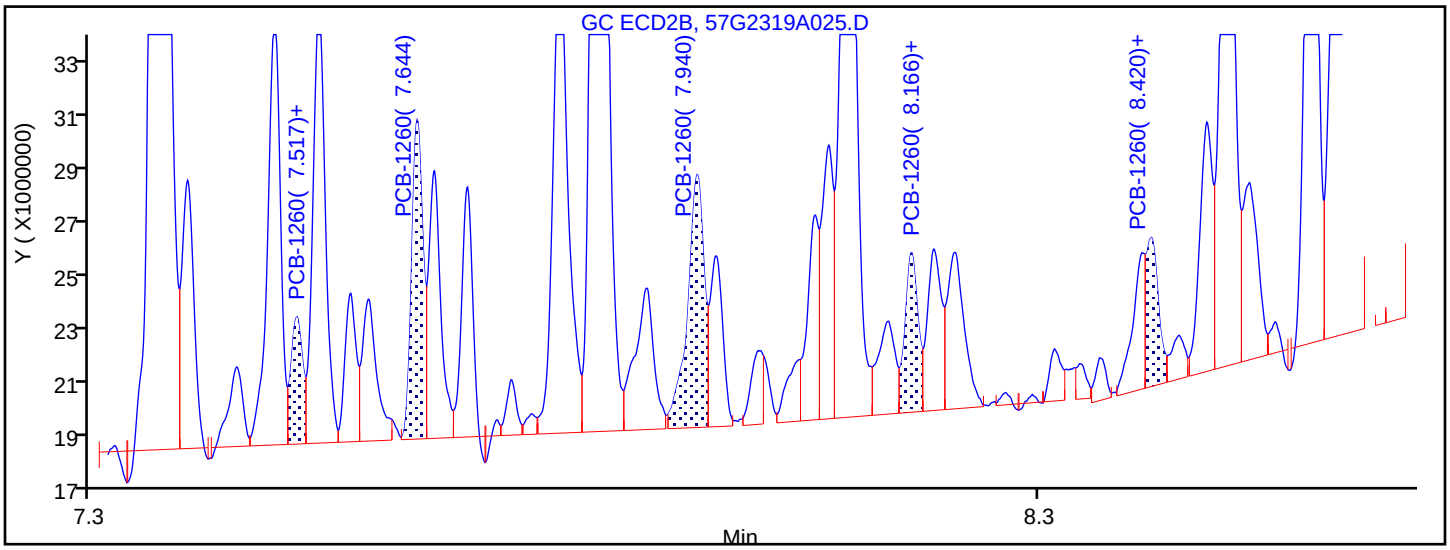
Injection Date:	23-Jul-2019 14:01:39	Instrument ID:	TAC057		
Lims ID:	580-87706-A-10-B	Lab Sample ID:	580-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	cjb	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.517	Response = 3007606
7.644	Response = 9221052
7.940	Response = 7709619
8.166	Response = 3640837
8.420	Response = 2392304



Manual Integration Results

7.517	Response = 3886306	M
7.644	Response = 9477774	M
7.940	Response = 10992200	M
8.166	Response = 5454122	M
8.420	Response = 4765746	M

Reviewer: thaneeratw, 24-Jul-2019 09:51:19

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Matrix: Solid Lab File ID: 57G2319A026.D

Analysis Method: 8082A Date Collected: 07/16/2019 12:30

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 22.662(g) Date Analyzed: 07/23/2019 14:19

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 60.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0045	0.0017
11104-28-2	PCB-1221	ND		0.0045	0.0021
11141-16-5	PCB-1232	ND		0.0045	0.0021
53469-21-9	PCB-1242	ND		0.0045	0.0011
12672-29-6	PCB-1248	ND		0.0045	0.00081
11097-69-1	PCB-1254	ND		0.0045	0.0018
11096-82-5	PCB-1260	0.0038	J	0.0045	0.0017

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	68		39-142
877-09-8	Tetrachloro-m-xylene	55		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A026.D
Lims ID: 580-87706-A-11-B
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:19:45 ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-11-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 09:57:15 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 09:57:15

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	198783061	100.0	
2	4.449	4.451	-0.002	1608960846	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60151362	13.7	
2	5.191	5.193	-0.002	310121085	15.1	
				RPD =	9.45	
26 PCB-1260						M
1	6.728	6.724	0.004	4179266	46.8	M
1	6.819	6.824	-0.005	1718818	8.66	M
1	7.025	7.028	-0.003	2241391	7.54	M
1	7.317	7.322	-0.005	1512603	7.61	M
1	7.515	7.513	0.002	2362461	14.3	M
		Average of Peak Amounts =			17.0	
2	7.514	7.518	-0.004	3223090	5.30	M
2	7.643	7.645	-0.002	7971398	6.53	M
2	7.938	7.939	-0.001	5712477	6.25	M
2	8.165	8.168	-0.003	4259930	3.71	M
2	8.419	8.422	-0.003	5109572	4.30	M
		Average of Peak Amounts =			5.22	
				RPD =	106.00	
$ 43 DCB Decachlorobiphenyl						
1	8.854	8.855	-0.001	54338855	16.9	
2	9.924	9.925	-0.001	169032570	15.1	
				RPD =	11.78	
13 2,4'-DDE						
1	5.401	5.389	0.012	453032	NR	
2	5.678	5.681	-0.003	1439432	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.577	5.571	0.006	177560	NR	
2	5.806	5.791	0.015	21763518	NR	
					RPD = NaN	
22 2,4'-DDT						
1	5.822	5.821	0.001	2322561	NR	
2	6.123	6.146	-0.023	419470	NR	
					RPD = NaN	
35 4,4'-DDT						
1	6.017	6.019	-0.002	660537	NR	
2	6.393	6.393	0.000	1120904	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

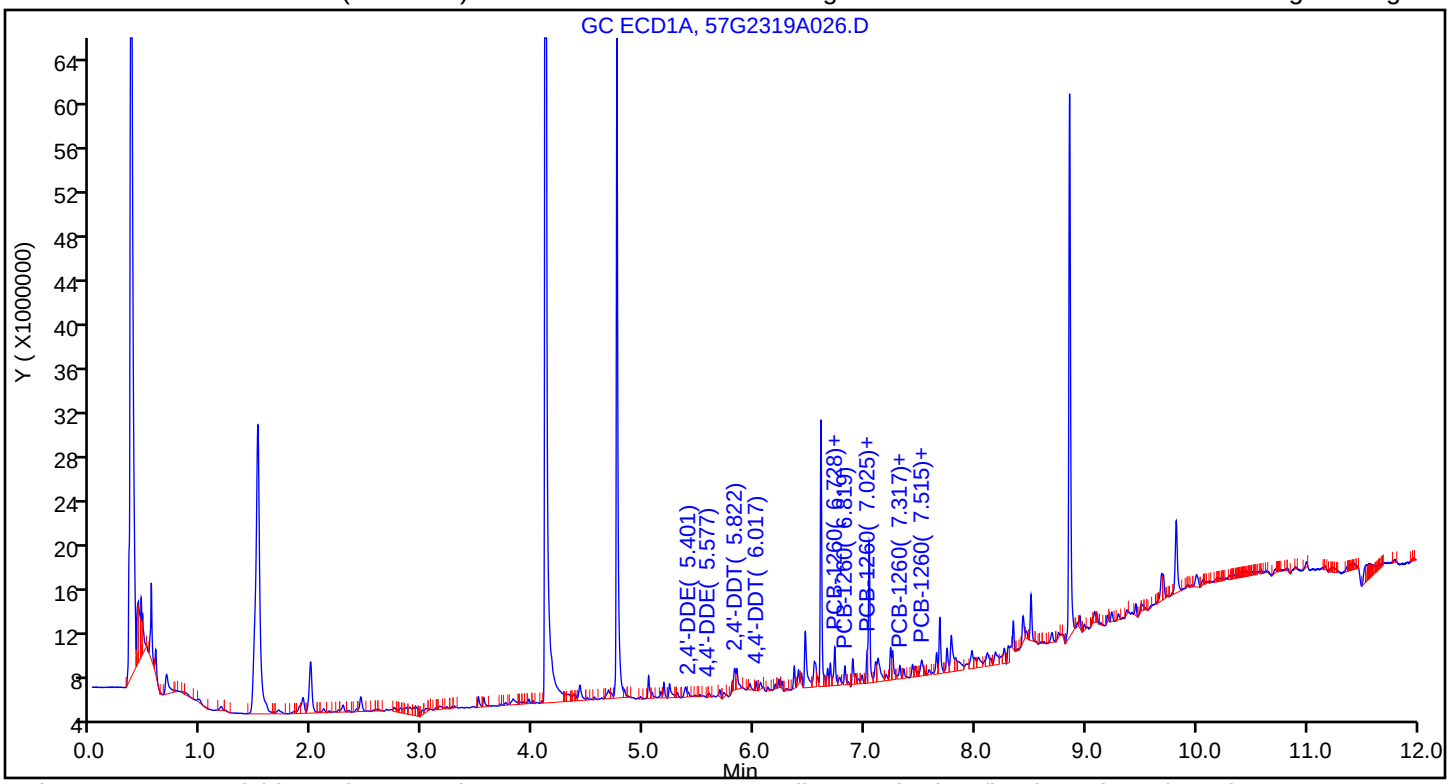
Report Date: 24-Jul-2019 09:57:17 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

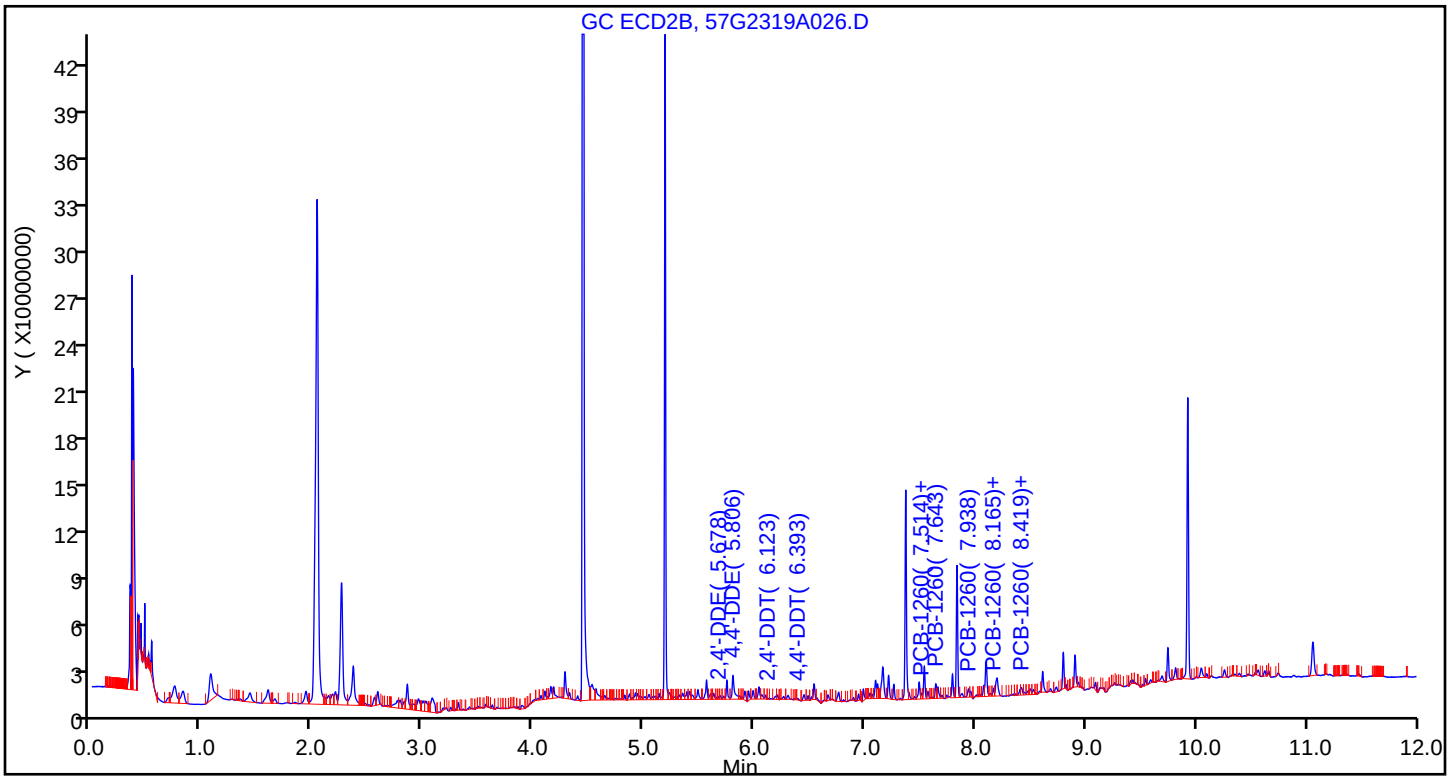
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A026.D

Injection Date:	23-Jul-2019 14:19:45	Instrument ID:	TAC057
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11
Client ID:	22T-SG-22_20190716		
Operator ID:	cjb	ALS Bottle#:	22 Worklist Smp#: 25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A026.D				
Lims ID:	580-87706-A-11-B				
Client ID:	22T-SG-22_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:19:45	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-11-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 09:57:15	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 09:57:15		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.7	54.84
$ 43 DCB Decachlorobiphenyl	25.0	16.9	67.75

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.1	60.27
$ 43 DCB Decachlorobiphenyl	25.0	15.1	60.21

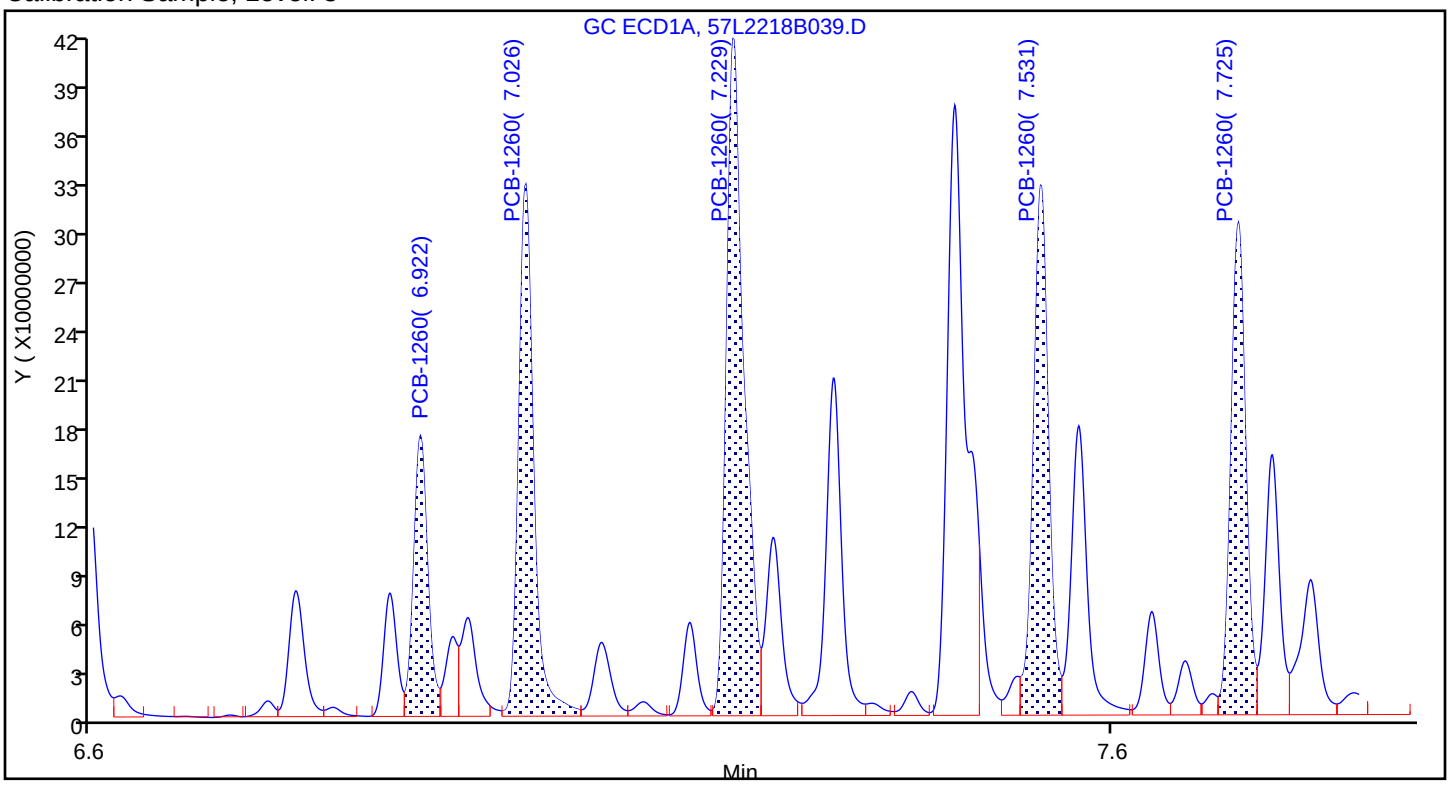
Report Date: 24-Jul-2019 09:57:18 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

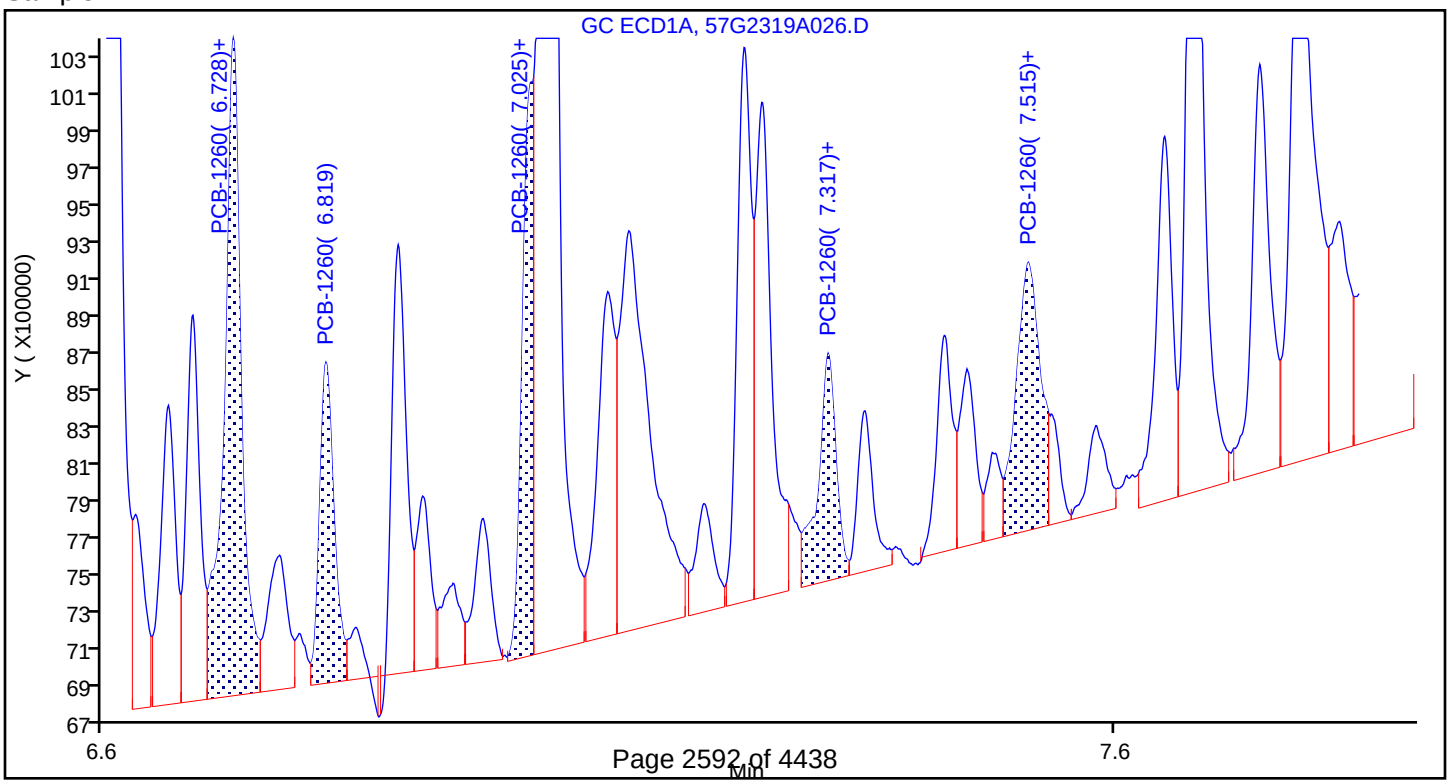
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A026.D				
Injection Date:	23-Jul-2019 14:19:45	Instrument ID:	TAC057		
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	cjb	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



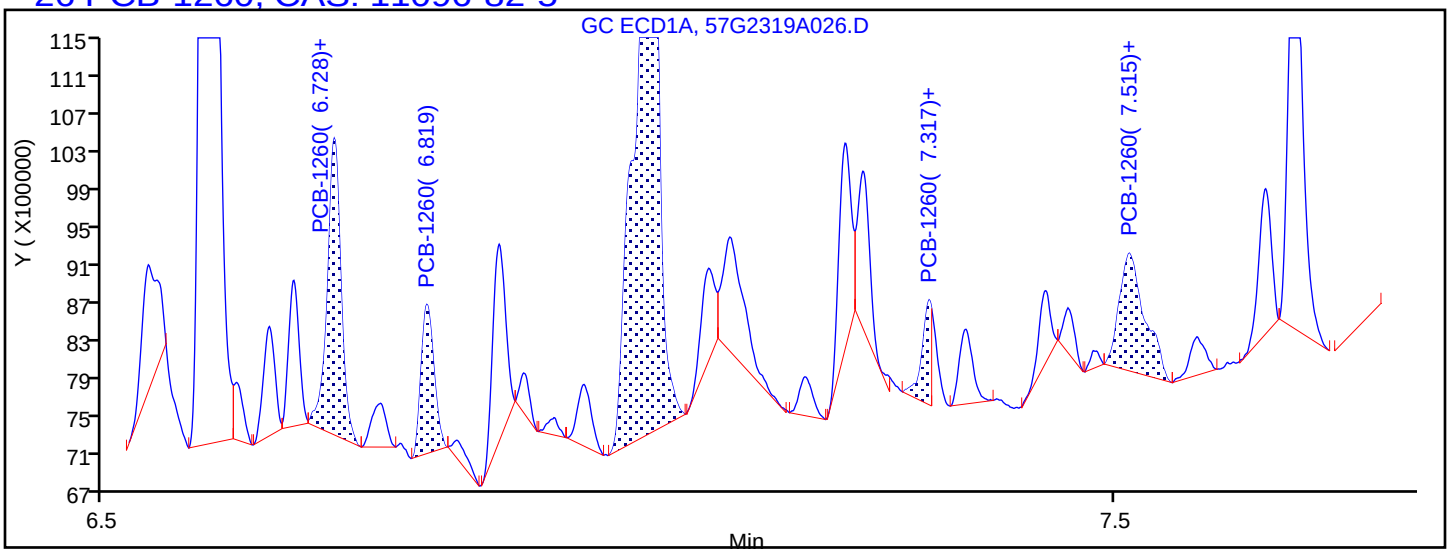
Report Date: 24-Jul-2019 09:57:18 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A026.D

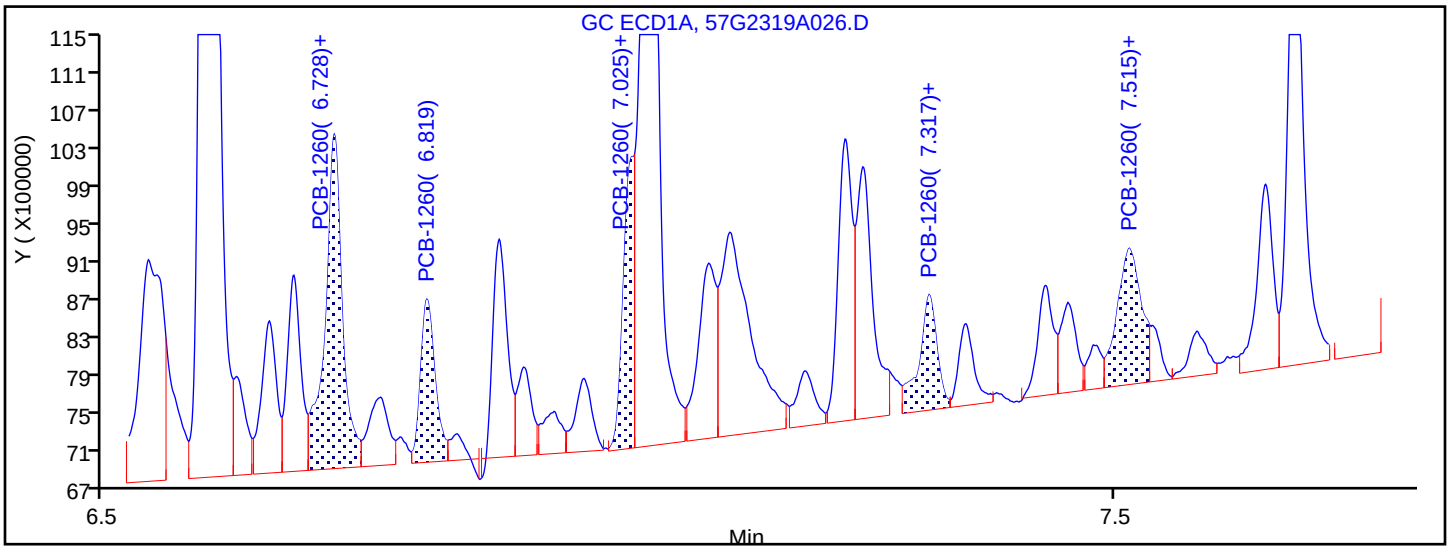
Injection Date:	23-Jul-2019 14:19:45	Instrument ID:	TAC057		
Lims ID:	580-87706-A-11-B	Lab Sample ID:	580-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	cjb	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 2875028
6.819	Response = 1362982
7.039	Response = 14322419
7.317	Response = 680619
7.515	Response = 2117232



Manual Integration Results

6.728	Response = 4179266	M
6.819	Response = 1718818	M
7.025	Response = 2241391	M
7.317	Response = 1512603	M
7.515	Response = 2362461	M

Reviewer: thaneeratw, 24-Jul-2019 09:56:52

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 57G2319A027.D

Analysis Method: 8082A Date Collected: 07/16/2019 12:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.590(g) Date Analyzed: 07/23/2019 14:37

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0040	0.0015
11104-28-2	PCB-1221	ND		0.0040	0.0019
11141-16-5	PCB-1232	ND		0.0040	0.0019
53469-21-9	PCB-1242	ND		0.0040	0.00099
12672-29-6	PCB-1248	ND		0.0040	0.00072
11097-69-1	PCB-1254	ND		0.0040	0.0016

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	77		39-142
877-09-8	Tetrachloro-m-xylene	62		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D
Lims ID: 580-87706-A-12-B
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:37:50 ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-12-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 10:05:08 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 10:05:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	182765824	100.0	
2	4.449	4.451	-0.002	1450040243	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	62803524	15.6	
2	5.191	5.193	-0.002	305975369	16.5	
				RPD =	5.79	
26 PCB-1260						M
1	6.728	6.724	0.004	4509275	55.2	M
1	6.819	6.824	-0.005	2231551	12.7	M
1	7.023	7.028	-0.005	2962006	11.3	M
1	7.318	7.322	-0.004	2094231	12.0	M
1	7.515	7.513	0.002	2355832	15.6	M
		Average of Peak Amounts =			21.4	
2	7.514	7.518	-0.004	4201430	8.81	M
2	7.642	7.645	-0.003	11886228	12.4	M
2	7.938	7.939	-0.001	8868088	12.3	M
2	8.166	8.168	-0.002	7334616	9.32	M
2	8.418	8.422	-0.004	11749721	14.4	M
		Average of Peak Amounts =			11.4	
				RPD =	60.41	
$ 43 DCB Decachlorobiphenyl						
1	8.854	8.855	-0.001	56645969	19.2	
2	9.925	9.925	0.000	179574827	17.7	
				RPD =	7.90	
13 2,4'-DDE						
1	5.401	5.389	0.012	372128	NR	
2	5.681	5.681	0.000	533273	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.576	5.571	0.005	127550	NR	
2	5.805	5.791	0.014	28239004	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.633	5.625	0.008	158729	NR	
2	5.945	5.955	-0.010	3450525	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.814	5.821	-0.007	6123339	NR	
2	6.147	6.146	0.001	147864	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.899	5.891	0.008	217954	NR	
2	6.192	6.189	0.003	2386658	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.018	6.019	-0.001	664484	NR	
2	6.392	6.393	-0.001	1250465	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

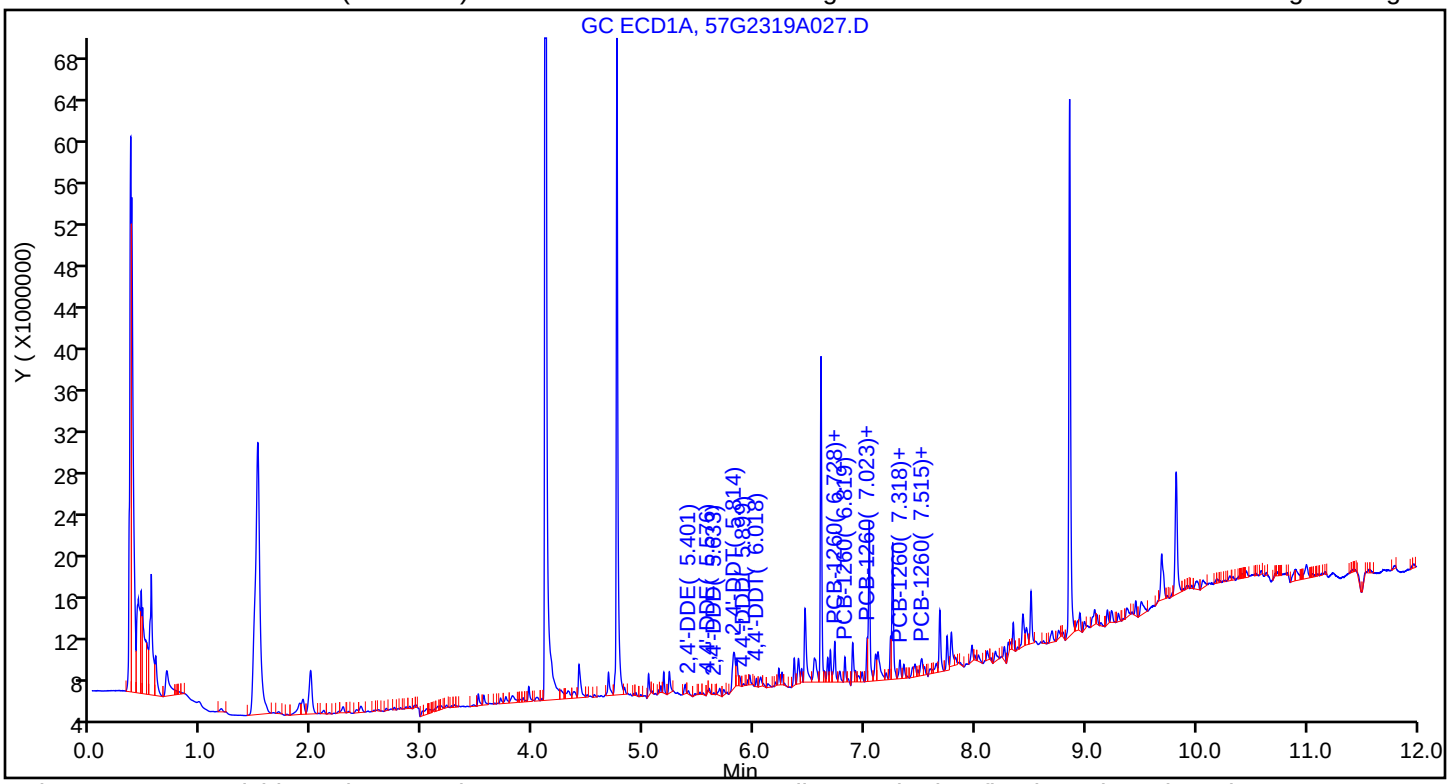
Report Date: 24-Jul-2019 10:05:11 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

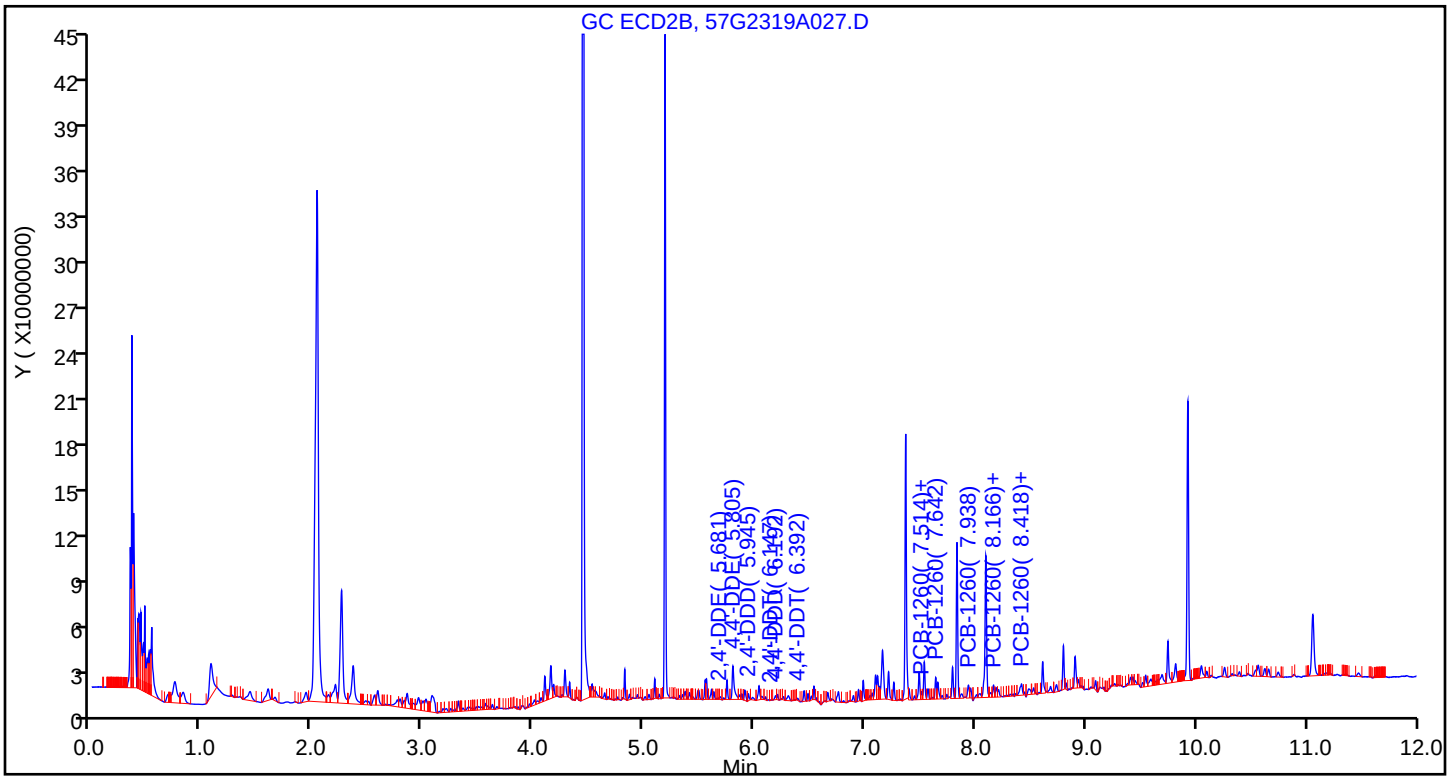
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D

Injection Date:	23-Jul-2019 14:37:50	Instrument ID:	TAC057		
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	cjb	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D				
Lims ID:	580-87706-A-12-B				
Client ID:	22T-SG-23_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:37:50	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-12-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 10:05:08	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 10:05:08		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.6	62.27
$ 43 DCB Decachlorobiphenyl	25.0	19.2	76.82

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.5	65.99
$ 43 DCB Decachlorobiphenyl	25.0	17.7	70.98

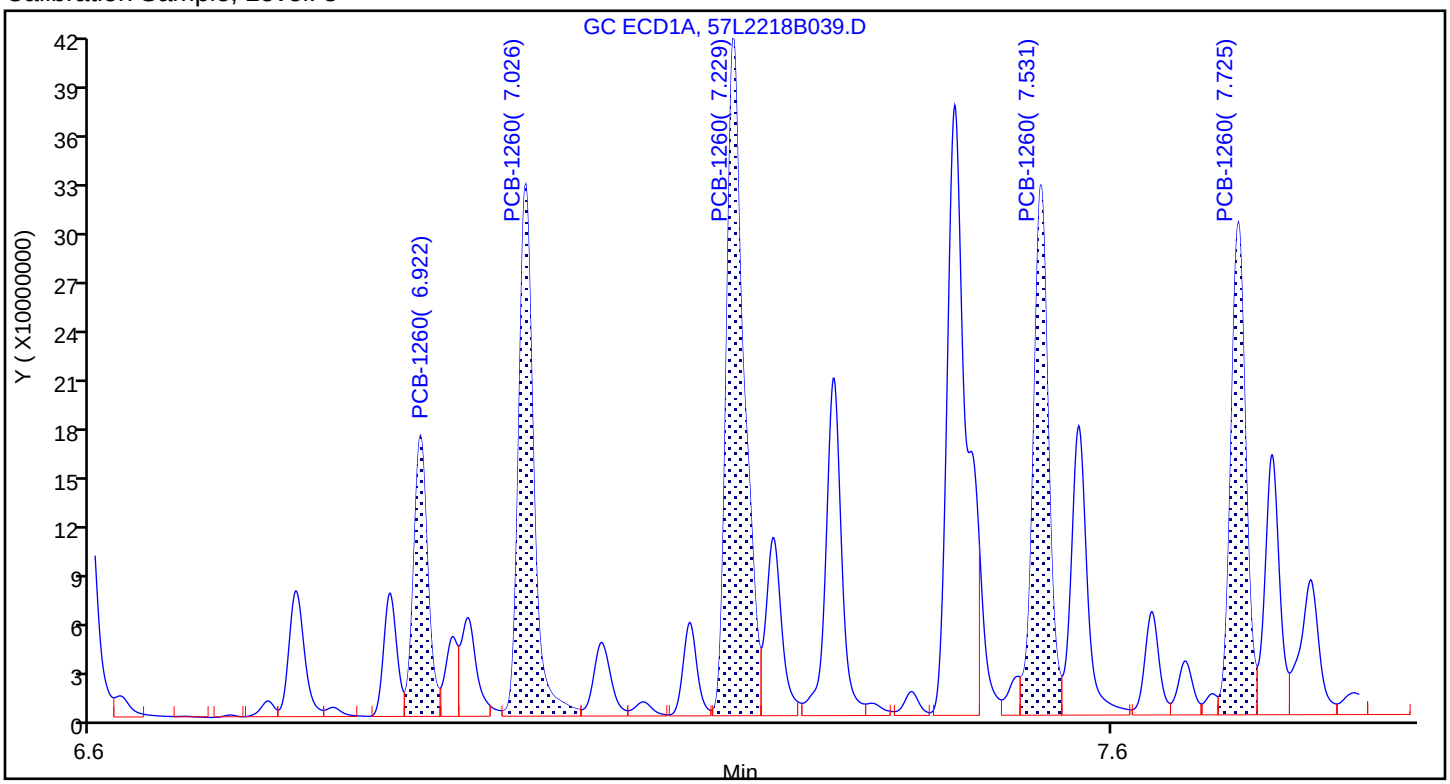
Report Date: 24-Jul-2019 10:05:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

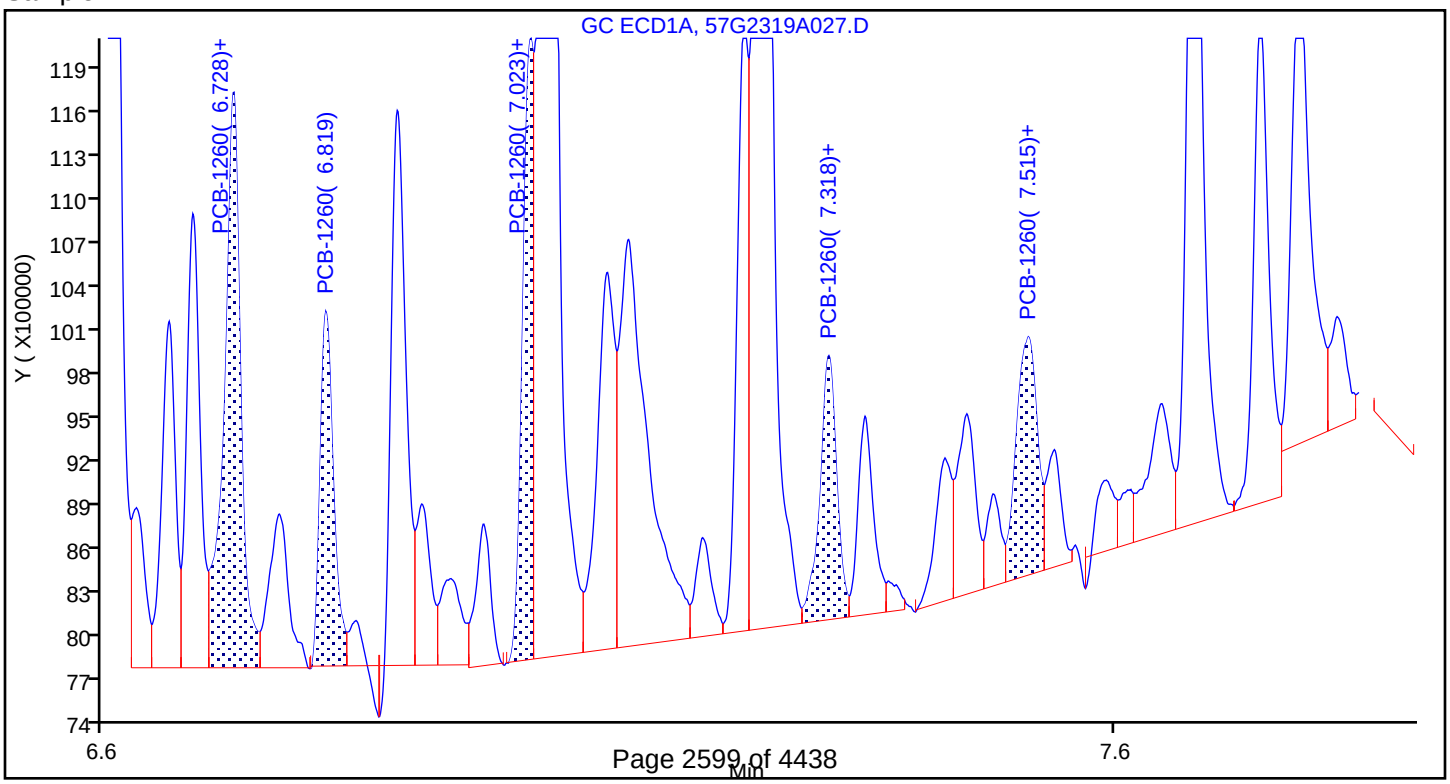
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D				
Injection Date:	23-Jul-2019 14:37:50	Instrument ID:	TAC057		
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	cjb	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



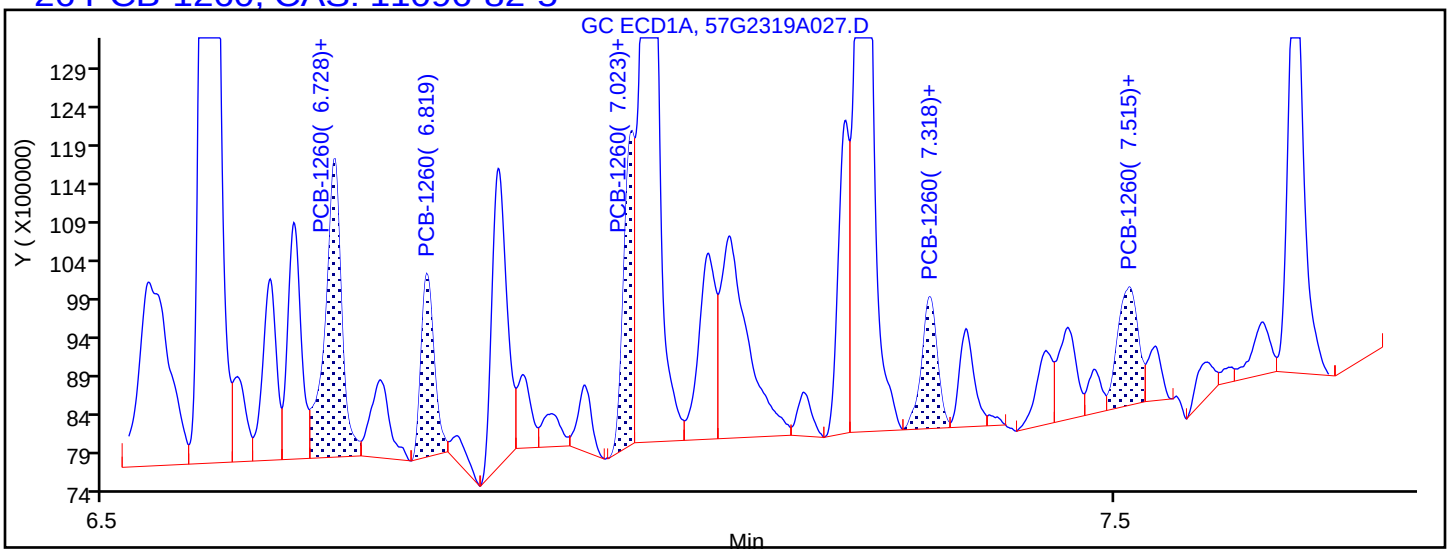
Report Date: 24-Jul-2019 10:05:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D

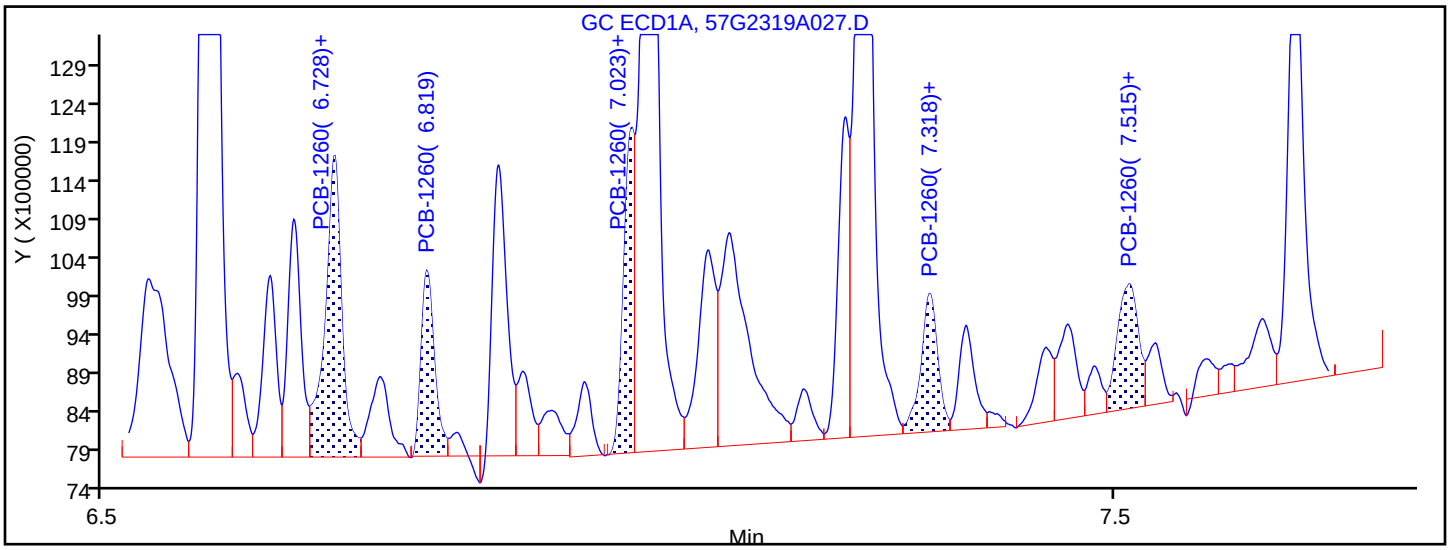
Injection Date:	23-Jul-2019 14:37:50	Instrument ID:	TAC057
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12
Client ID:	22T-SG-23_20190716		
Operator ID:	cjb	ALS Bottle#:	23 Worklist Smp#: 26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 4380710
6.819	Response = 2143844
7.023	Response = 2841502
7.318	Response = 1853084
7.515	Response = 2168658



Manual Integration Results

6.728	Response = 4509275	M
6.819	Response = 2231551	M
7.023	Response = 2962006	M
7.318	Response = 2094231	M
7.515	Response = 2355832	M

Reviewer: thaneeratw, 24-Jul-2019 10:02:53

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 57G2319A027.D

Analysis Method: 8082A Date Collected: 07/16/2019 12:58

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.590(g) Date Analyzed: 07/23/2019 14:37

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.0023	J p	0.0040	0.0016

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D
Lims ID: 580-87706-A-12-B
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:37:50 ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-12-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 10:05:08 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 10:05:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	182765824	100.0	
2	4.449	4.451	-0.002	1450040243	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	62803524	15.6	
2	5.191	5.193	-0.002	305975369	16.5	
				RPD =	5.79	
26 PCB-1260						M
1	6.728	6.724	0.004	4509275	55.2	M
1	6.819	6.824	-0.005	2231551	12.7	M
1	7.023	7.028	-0.005	2962006	11.3	M
1	7.318	7.322	-0.004	2094231	12.0	M
1	7.515	7.513	0.002	2355832	15.6	M
		Average of Peak Amounts =			21.4	
2	7.514	7.518	-0.004	4201430	8.81	M
2	7.642	7.645	-0.003	11886228	12.4	M
2	7.938	7.939	-0.001	8868088	12.3	M
2	8.166	8.168	-0.002	7334616	9.32	M
2	8.418	8.422	-0.004	11749721	14.4	M
		Average of Peak Amounts =			11.4	
				RPD =	60.41	
$ 43 DCB Decachlorobiphenyl						
1	8.854	8.855	-0.001	56645969	19.2	
2	9.925	9.925	0.000	179574827	17.7	
				RPD =	7.90	
13 2,4'-DDE						
1	5.401	5.389	0.012	372128	NR	
2	5.681	5.681	0.000	533273	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.576	5.571	0.005	127550	NR	
2	5.805	5.791	0.014	28239004	NR	
					RPD = NaN	
19	2,4'-DDD					
1	5.633	5.625	0.008	158729	NR	
2	5.945	5.955	-0.010	3450525	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.814	5.821	-0.007	6123339	NR	
2	6.147	6.146	0.001	147864	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.899	5.891	0.008	217954	NR	
2	6.192	6.189	0.003	2386658	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.018	6.019	-0.001	664484	NR	
2	6.392	6.393	-0.001	1250465	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

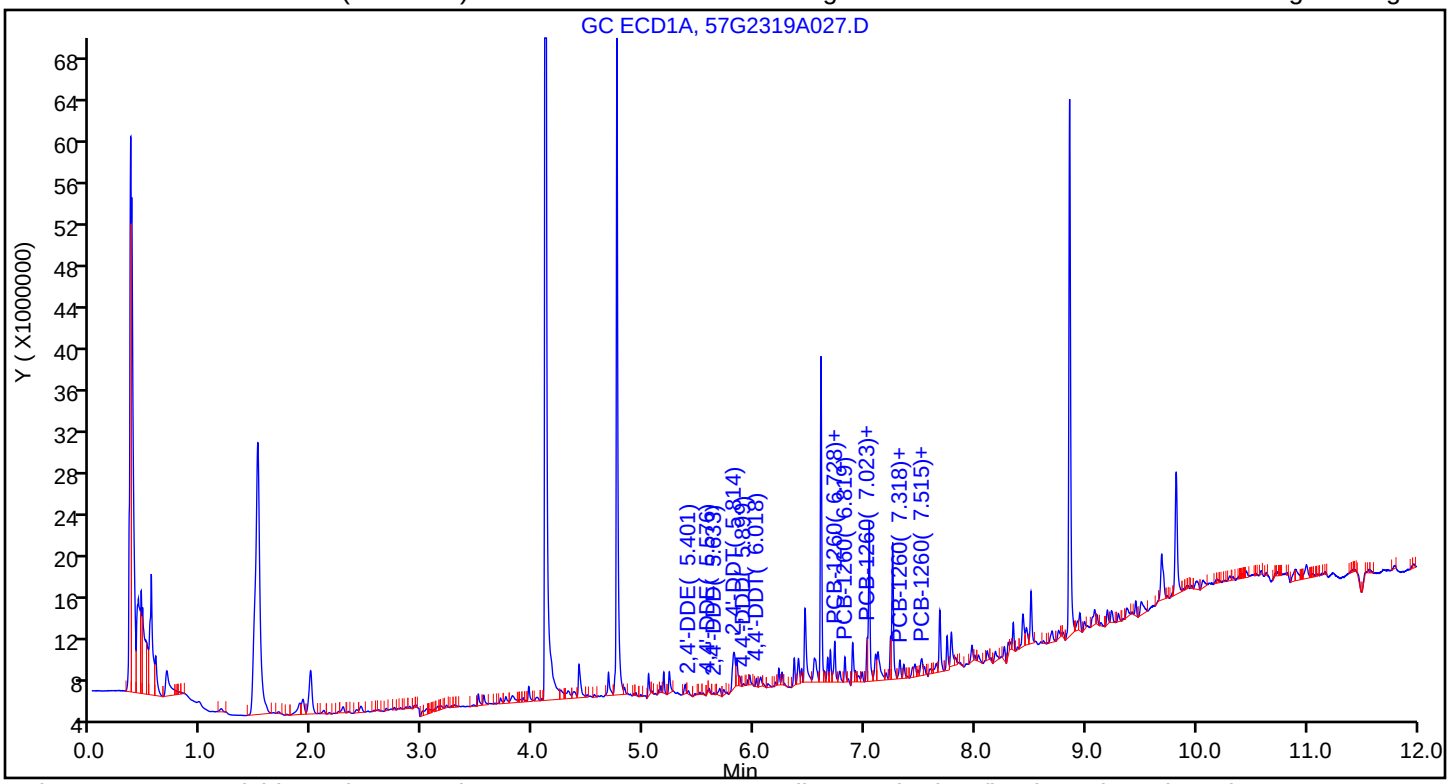
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 10:05:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

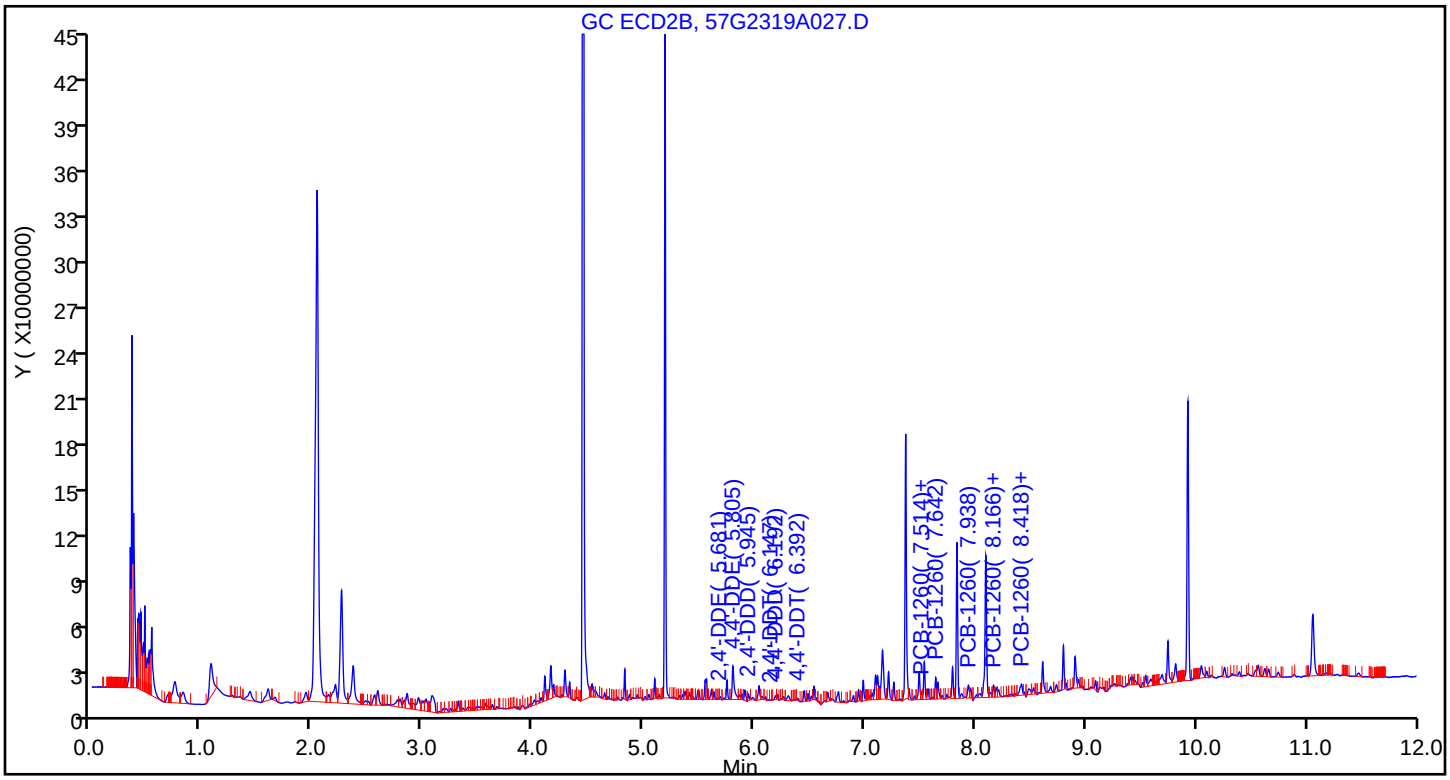
Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D				
Injection Date:	23-Jul-2019 14:37:50	Instrument ID:	TAC057		
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	cjb	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D				
Lims ID:	580-87706-A-12-B				
Client ID:	22T-SG-23_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:37:50	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-12-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 10:05:08	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 10:05:08		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.6	62.27
$ 43 DCB Decachlorobiphenyl	25.0	19.2	76.82

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	16.5	65.99
$ 43 DCB Decachlorobiphenyl	25.0	17.7	70.98

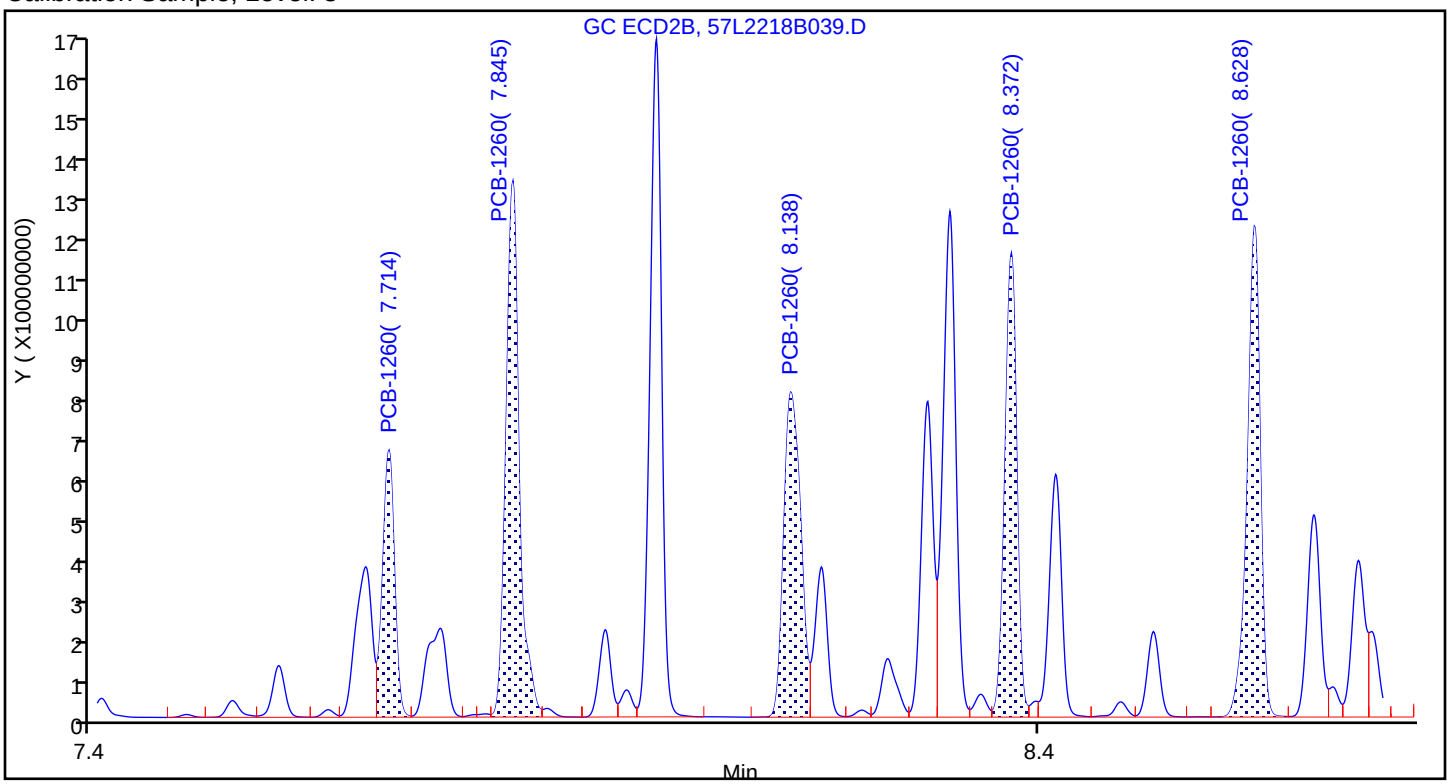
Report Date: 24-Jul-2019 10:05:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

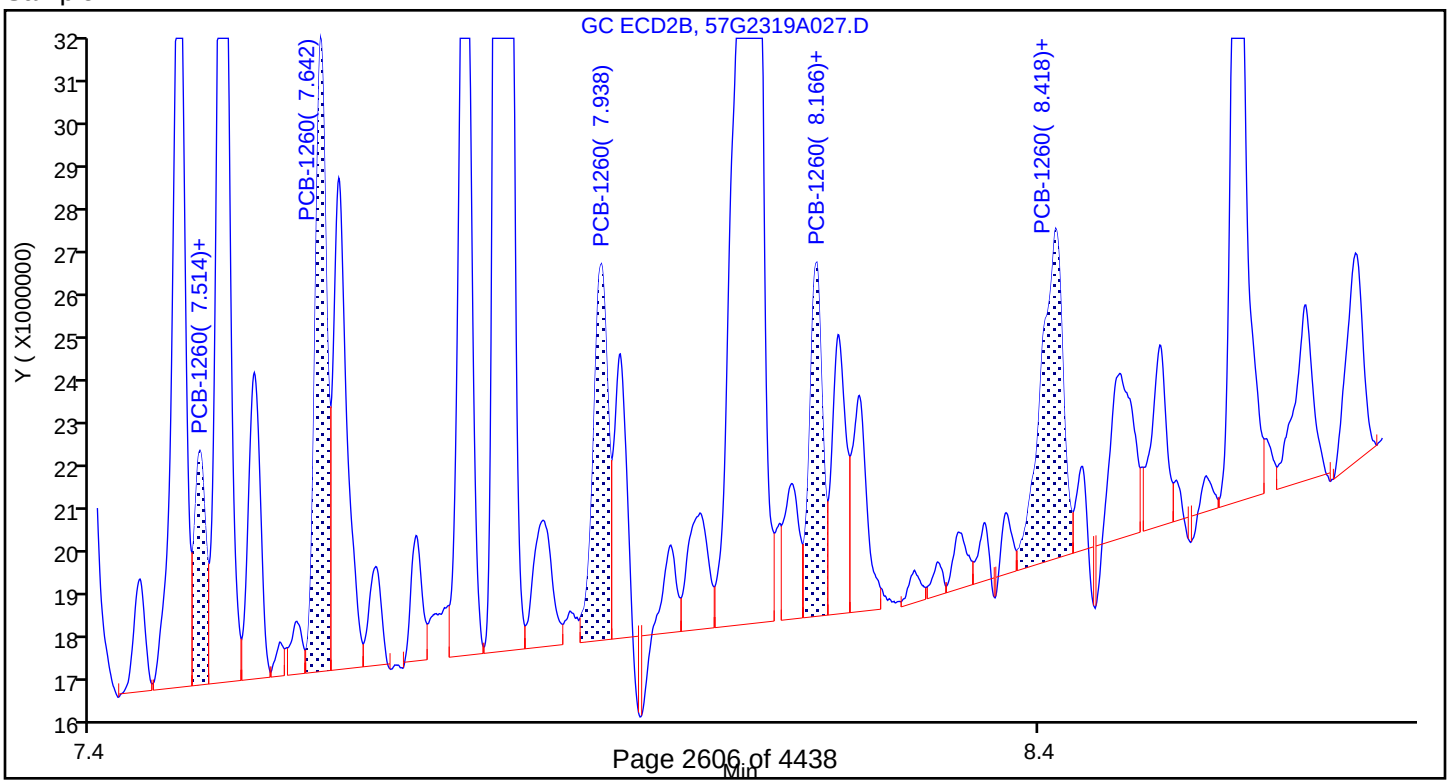
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D				
Injection Date:	23-Jul-2019 14:37:50	Instrument ID:	TAC057		
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	cjb	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample

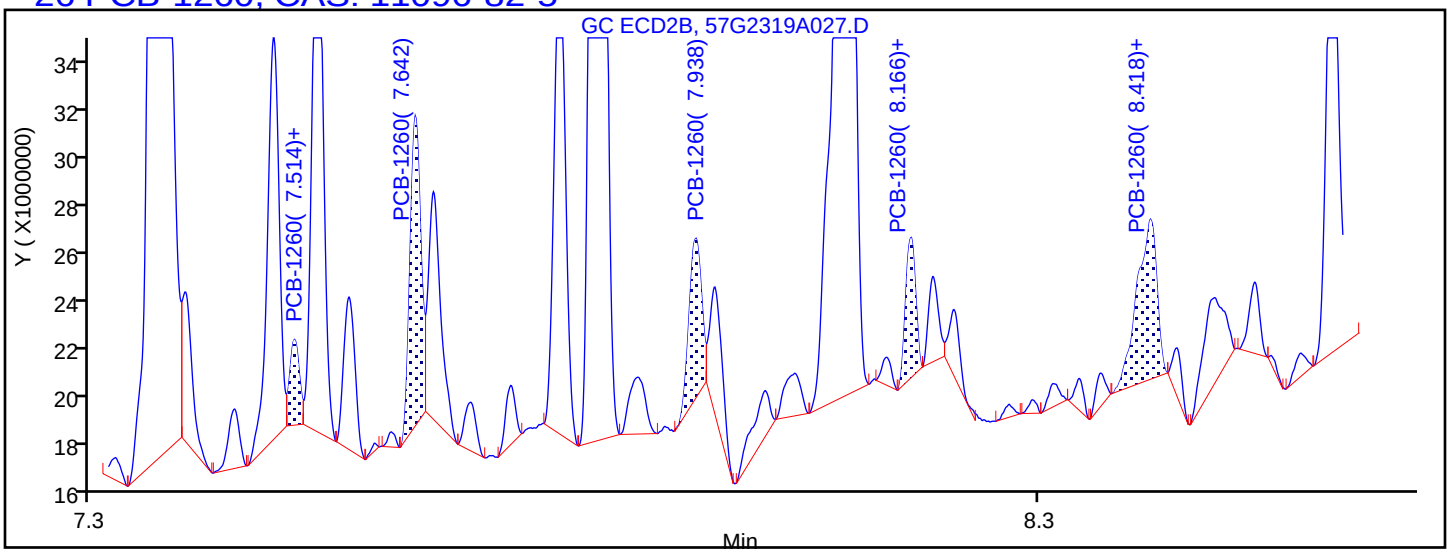


Report Date: 24-Jul-2019 10:05:12 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

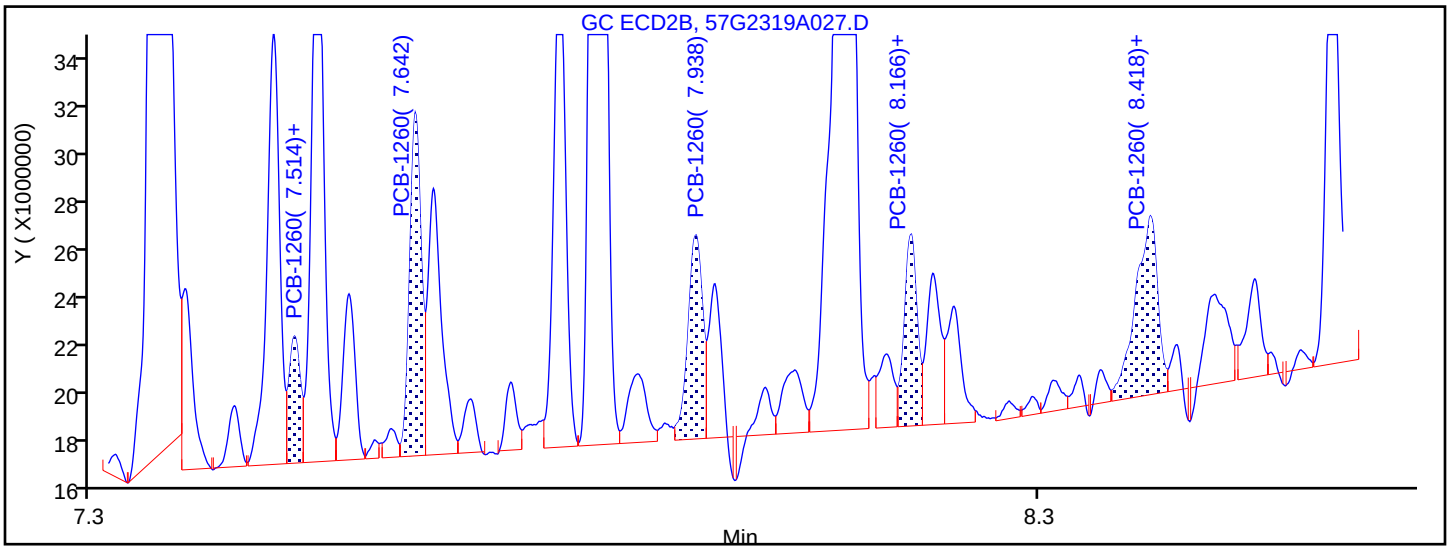
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A027.D				
Injection Date:	23-Jul-2019 14:37:50	Instrument ID:	TAC057		
Lims ID:	580-87706-A-12-B	Lab Sample ID:	580-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	cjb	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.514	Response = 2452940
7.642	Response = 9955722
7.938	Response = 5959846
8.166	Response = 4165799
8.418	Response = 9390057



Manual Integration Results

7.514	Response = 4201430	M
7.642	Response = 11886228	M
7.938	Response = 8868088	M
8.166	Response = 7334616	M
8.418	Response = 11749721	M

Reviewer: thaneeratw, 24-Jul-2019 10:03:21

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Matrix: Solid Lab File ID: 57G2319A028.D

Analysis Method: 8082A Date Collected: 07/16/2019 13:15

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 20.515(g) Date Analyzed: 07/23/2019 14:55

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0035	0.0013
11104-28-2	PCB-1221	ND		0.0035	0.0017
11141-16-5	PCB-1232	ND		0.0035	0.0017
53469-21-9	PCB-1242	ND		0.0035	0.00086
12672-29-6	PCB-1248	ND		0.0035	0.00063
11097-69-1	PCB-1254	ND		0.0035	0.0014
11096-82-5	PCB-1260	0.0025	J	0.0035	0.0013

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	63		39-142
877-09-8	Tetrachloro-m-xylene	59		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A028.D
Lims ID: 580-87706-A-13-B
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 14:55:51 ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-13-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 10:14:00 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 10:14:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	177990477	100.0	
2	4.450	4.451	-0.001	1315696996	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	58067273	14.8	
2	5.191	5.193	-0.002	288524595	17.1	
				RPD =	14.81	
26 PCB-1260						M
1	6.728	6.724	0.004	2098319	25.6	M
1	6.820	6.824	-0.004	2029303	11.8	M
1	7.020	7.028	-0.008	2694436	10.5	M
1	7.318	7.322	-0.004	1916370	11.2	M
1	7.512	7.513	-0.001	1667871	11.2	M
		Average of Peak Amounts =			14.0	
2	7.514	7.518	-0.004	3680561	8.42	M
2	7.643	7.645	-0.002	9942734	11.3	M
2	7.938	7.939	-0.001	7170141	10.7	M
2	8.165	8.168	-0.003	6450056	8.96	M
2	8.420	8.422	-0.002	10201968	13.7	M
		Average of Peak Amounts =			10.6	
				RPD =	27.90	
$ 43 DCB Decachlorobiphenyl						
1	8.855	8.855	0.000	45097814	15.7	
2	9.925	9.925	0.000	139716160	15.2	
				RPD =	3.13	
13 2,4'-DDE						
1	5.407	5.389	0.018	640009	NR	
2	5.681	5.681	0.000	166784	NR	
				RPD =	NaN	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.561	5.571	-0.010	1744826	NR	
2	5.805	5.791	0.014	16192969	NR	
					RPD = NaN	
22	2,4'-DDT					
1	5.820	5.821	-0.001	2153777	NR	
2	6.155	6.146	0.009	1336632	NR	
					RPD = NaN	
32	4,4'-DDD					
1	5.900	5.891	0.009	663203	NR	
2	6.193	6.189	0.004	2360530	NR	
					RPD = NaN	
35	4,4'-DDT					
1	6.018	6.019	-0.001	1166423	NR	
2	6.392	6.393	-0.001	538976	NR	
					RPD = NaN	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 10:14:00 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A028.D

Injection Date: 23-Jul-2019 14:55:51 Instrument ID: TAC057

Lims ID: 580-87706-A-13-B Lab Sample ID: 580-87706-13

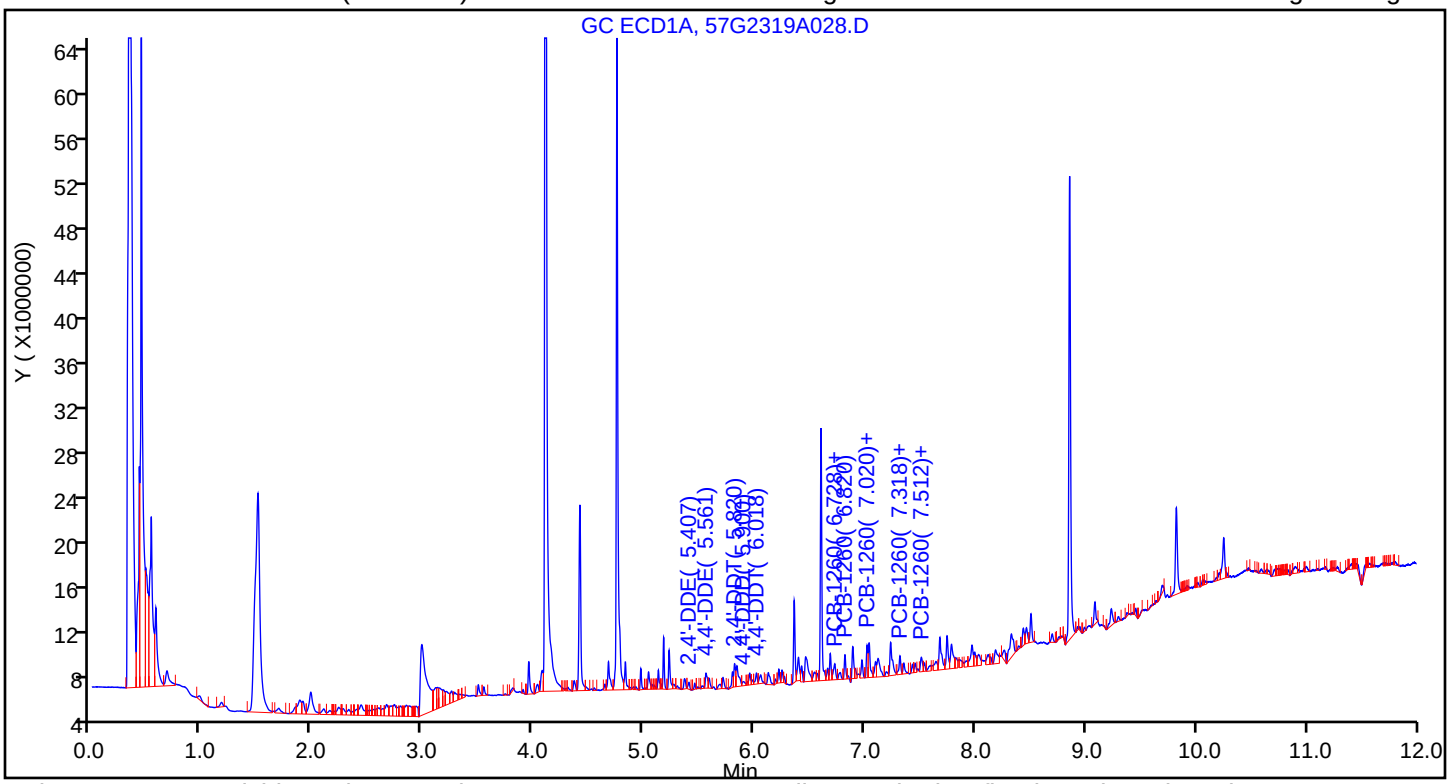
Client ID: 22T-SG-10_20190716

Operator ID: cjb ALS Bottle#: 24 Worklist Smp#: 27

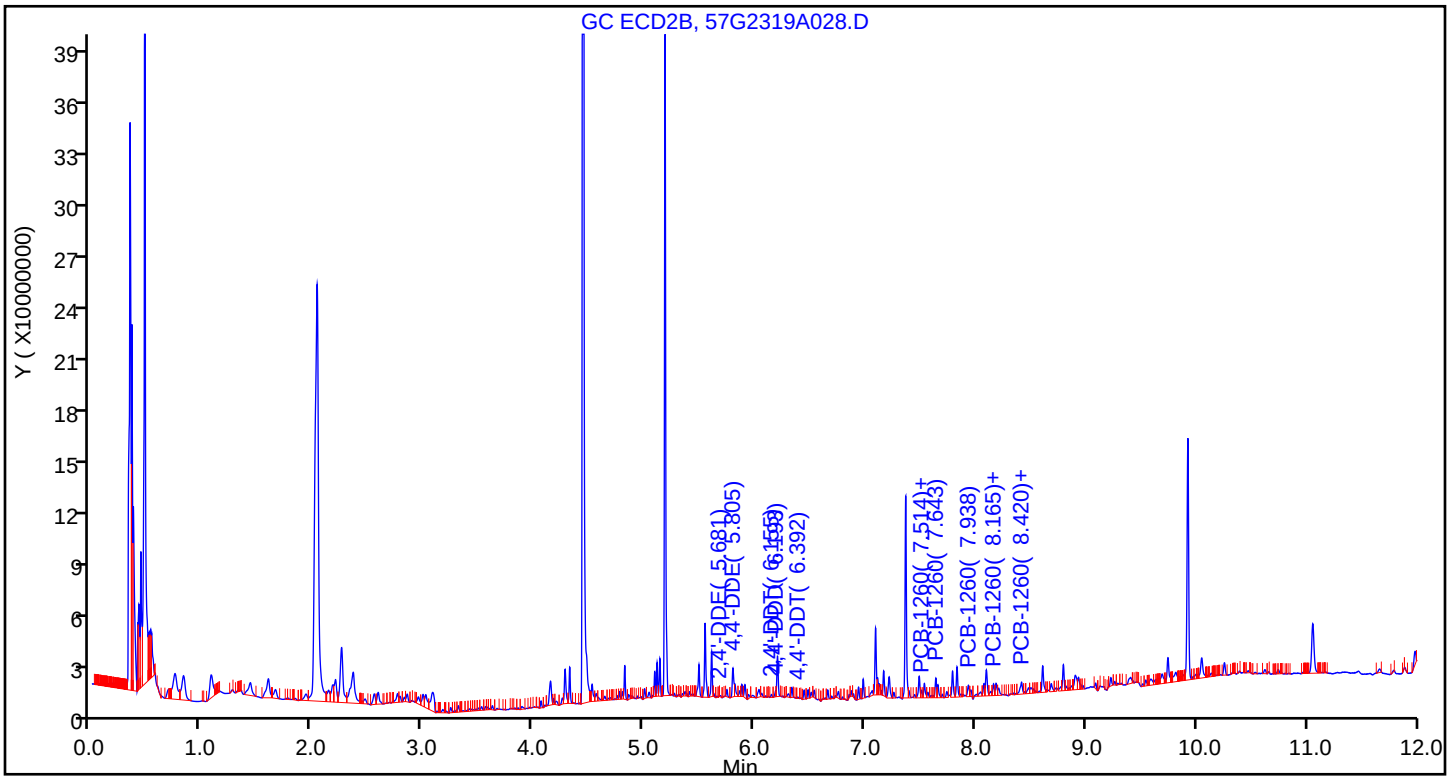
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A028.D				
Lims ID:	580-87706-A-13-B				
Client ID:	22T-SG-10_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 14:55:51	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-13-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 10:14:00	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 10:14:00		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.8	59.12
$ 43 DCB Decachlorobiphenyl	25.0	15.7	62.80

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	17.1	68.58
$ 43 DCB Decachlorobiphenyl	25.0	15.2	60.86

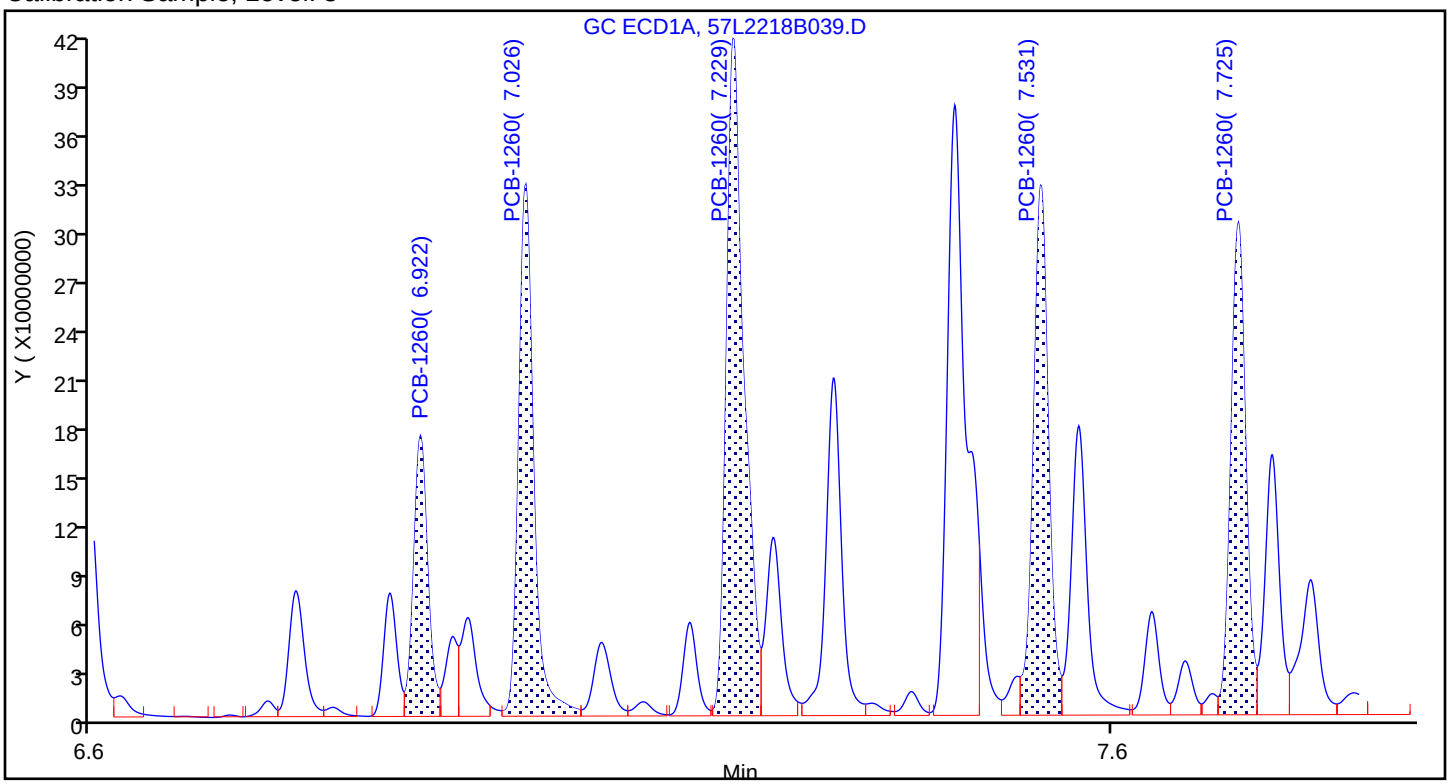
Report Date: 24-Jul-2019 10:14:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

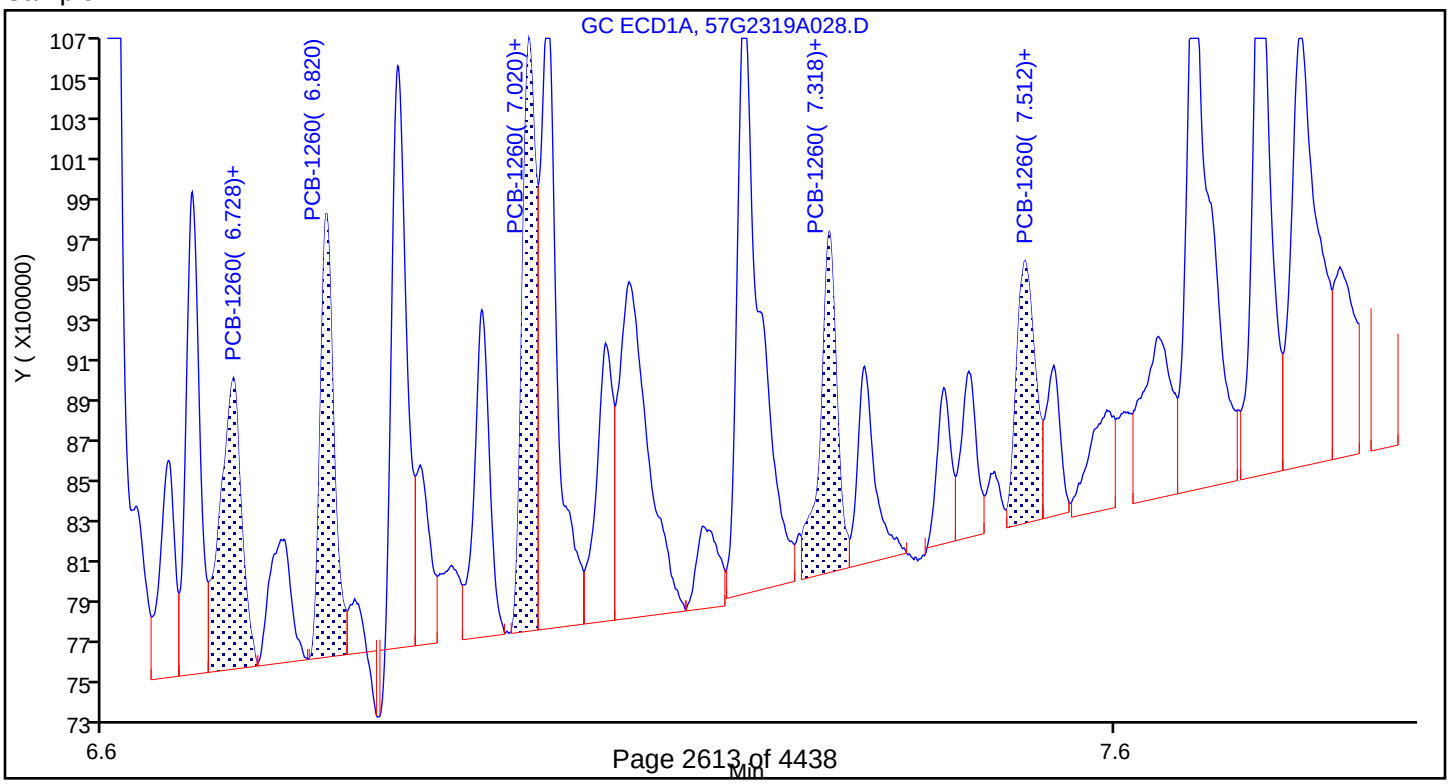
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A028.D				
Injection Date:	23-Jul-2019 14:55:51	Instrument ID:	TAC057		
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	cjb	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



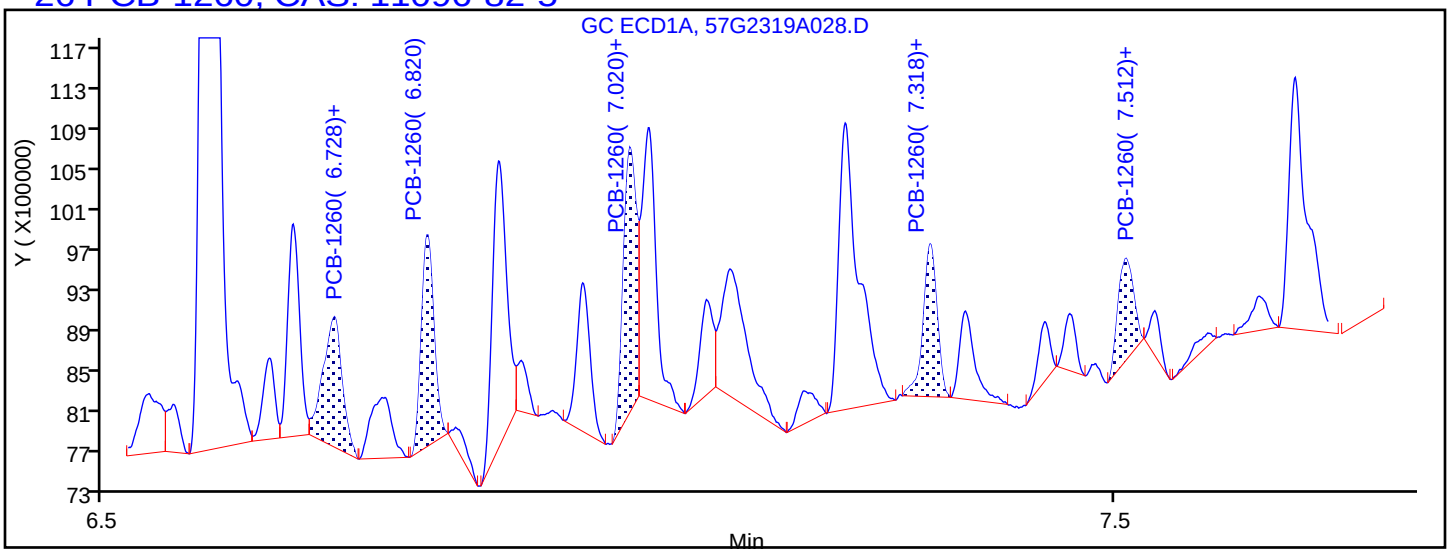
Report Date: 24-Jul-2019 10:14:01 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A028.D

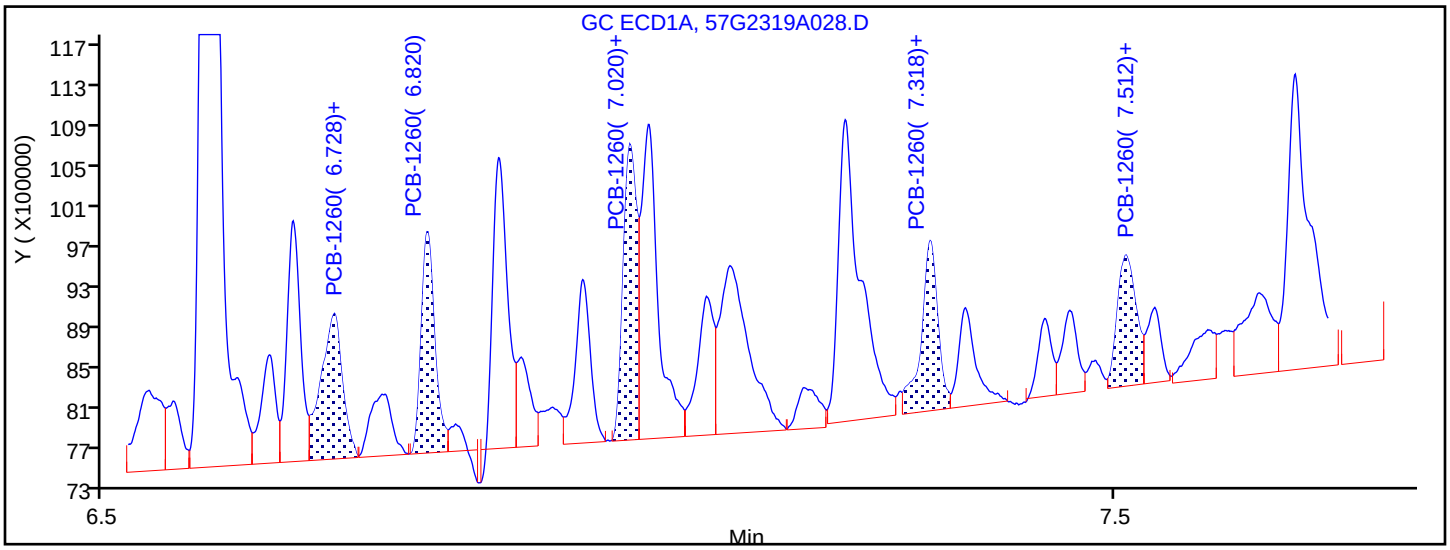
Injection Date:	23-Jul-2019 14:55:51	Instrument ID:	TAC057
Lims ID:	580-87706-A-13-B	Lab Sample ID:	580-87706-13
Client ID:	22T-SG-10_20190716		
Operator ID:	cjb	ALS Bottle#:	24 Worklist Smp#: 27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.728	Response = 1658611
6.820	Response = 1790250
7.020	Response = 2328473
7.318	Response = 1417046
7.512	Response = 1062275



Manual Integration Results

6.728	Response = 2098319	M
6.820	Response = 2029303	M
7.020	Response = 2694436	M
7.318	Response = 1916370	M
7.512	Response = 1667871	M

Reviewer: thaneeratw, 24-Jul-2019 10:13:08

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 57G2319A029.D

Analysis Method: 8082A Date Collected: 07/16/2019 14:08

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.660(g) Date Analyzed: 07/23/2019 15:13

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0043	0.0016
11104-28-2	PCB-1221	ND		0.0043	0.0020
11141-16-5	PCB-1232	ND		0.0043	0.0020
53469-21-9	PCB-1242	ND		0.0043	0.0010
12672-29-6	PCB-1248	ND		0.0043	0.00077
11097-69-1	PCB-1254	ND		0.0043	0.0017

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	82		39-142
877-09-8	Tetrachloro-m-xylene	62		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D
Lims ID: 580-87706-A-14-B
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 15:13:59 ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-14-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 10:23:04 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 10:23:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	177163015	100.0	
2	4.449	4.451	-0.002	1338808815	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60782969	15.5	
2	5.192	5.193	-0.001	190544465	11.1	
				RPD =	33.12	
26 PCB-1260						M
1	6.729	6.724	0.005	71920671	931.0	M
1	6.821	6.824	-0.003	23725715	149.7	M
1	7.023	7.028	-0.005	27284656	116.9	M
1	7.319	7.322	-0.003	24336362	156.8	M
1	7.510	7.513	-0.003	18384096	130.1	M
		Average of Peak Amounts =			296.9	
2	7.516	7.518	-0.002	36091765	103.4	M
2	7.644	7.645	-0.001	98515898	131.0	M
2	7.939	7.939	0.000	72040241	124.8	M
2	8.167	8.168	-0.001	59003465	100.1	M
2	8.421	8.422	-0.001	78905041	118.6	M
		Average of Peak Amounts =			115.6	
				RPD =	87.92	
$ 43 DCB Decachlorobiphenyl						M
1	8.858	8.855	0.003	58391720	20.4	M
2	9.928	9.925	0.003	162017312	17.3	
				RPD =	16.33	
13 2,4'-DDE						
1	5.369	5.389	-0.020	3476333	NR	
2	5.689	5.681	0.008	8307544	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25 4,4'-DDE						
1	5.576	5.571	0.005	2474798	NR	
2	5.805	5.791	0.014	26013731	NR	
					RPD = 0.00	
19 2,4'-DDD						
1	5.625	5.625	0.000	347326	NR	
2	5.944	5.955	-0.011	966715	NR	
					RPD = 0.00	
22 2,4'-DDT						M
1	5.820	5.821	-0.001	6442222	NR	M
2	6.154	6.146	0.008	4051111	NR	
					RPD = 0.00	
32 4,4'-DDD						M
1	5.910	5.891	0.019	2116757	NR	M
2	6.194	6.189	0.005	2214022	NR	
					RPD = 0.00	
35 4,4'-DDT						M
1	6.019	6.019	0.000	1503721	NR	M
2	6.390	6.393	-0.003	4085115	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

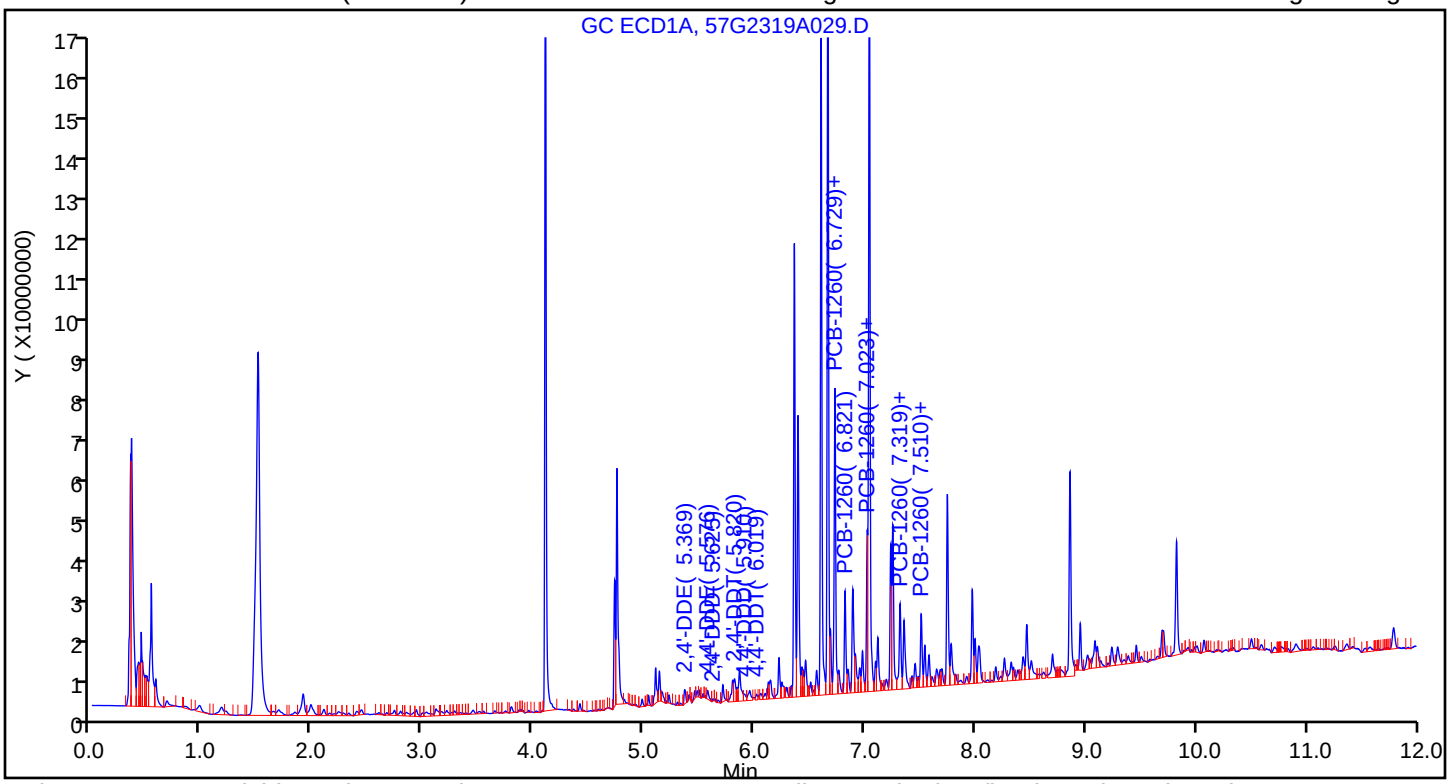
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 24-Jul-2019 10:23:05 Chrom Revision: 2.3 10-Jul-2019 14:12:46

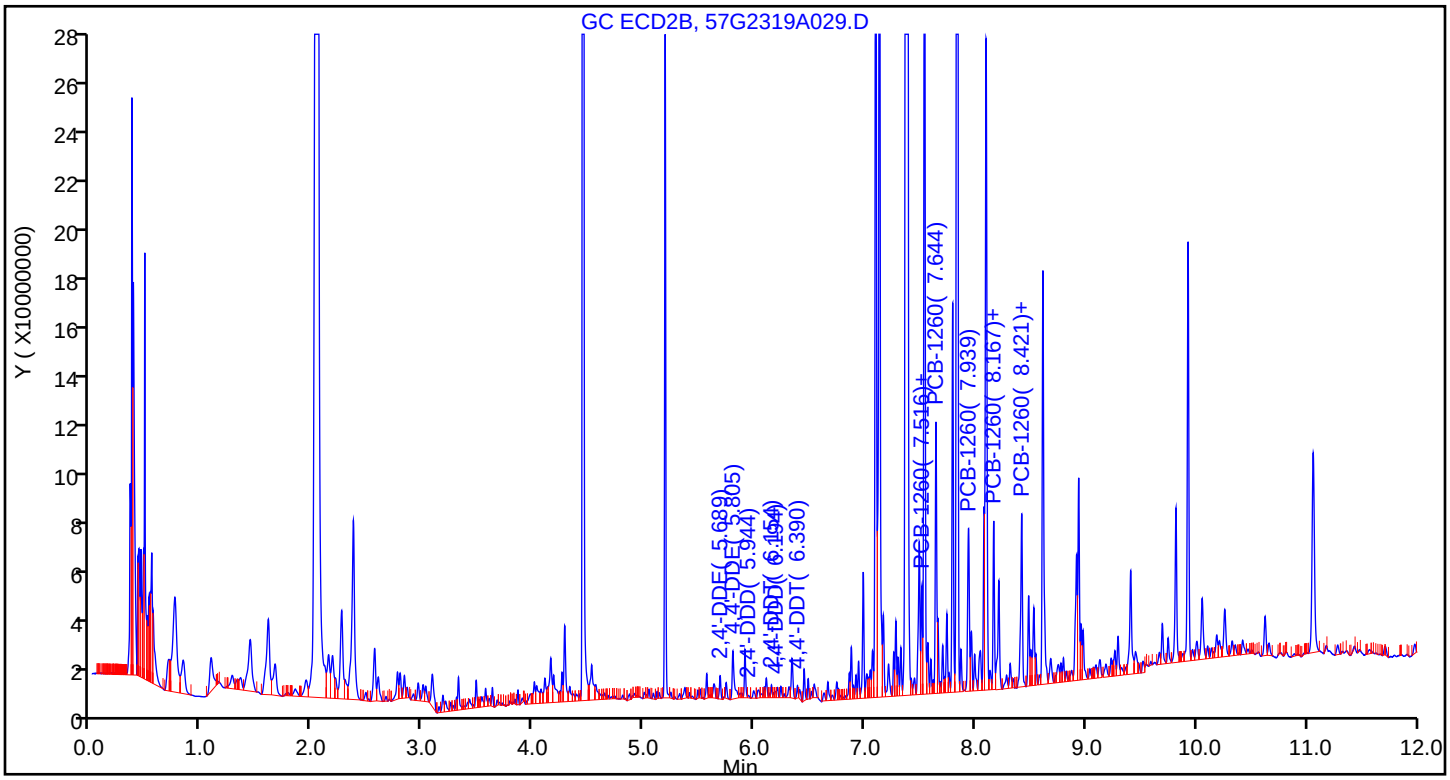
Eurofins TestAmerica, Seattle

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D				
Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D				
Lims ID:	580-87706-A-14-B				
Client ID:	22T-SG-21_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 15:13:59	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-14-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 10:23:04	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 10:23:04		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.5	62.17
$ 43 DCB Decachlorobiphenyl	25.0	20.4	81.69

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	11.1	44.51
$ 43 DCB Decachlorobiphenyl	25.0	17.3	69.36

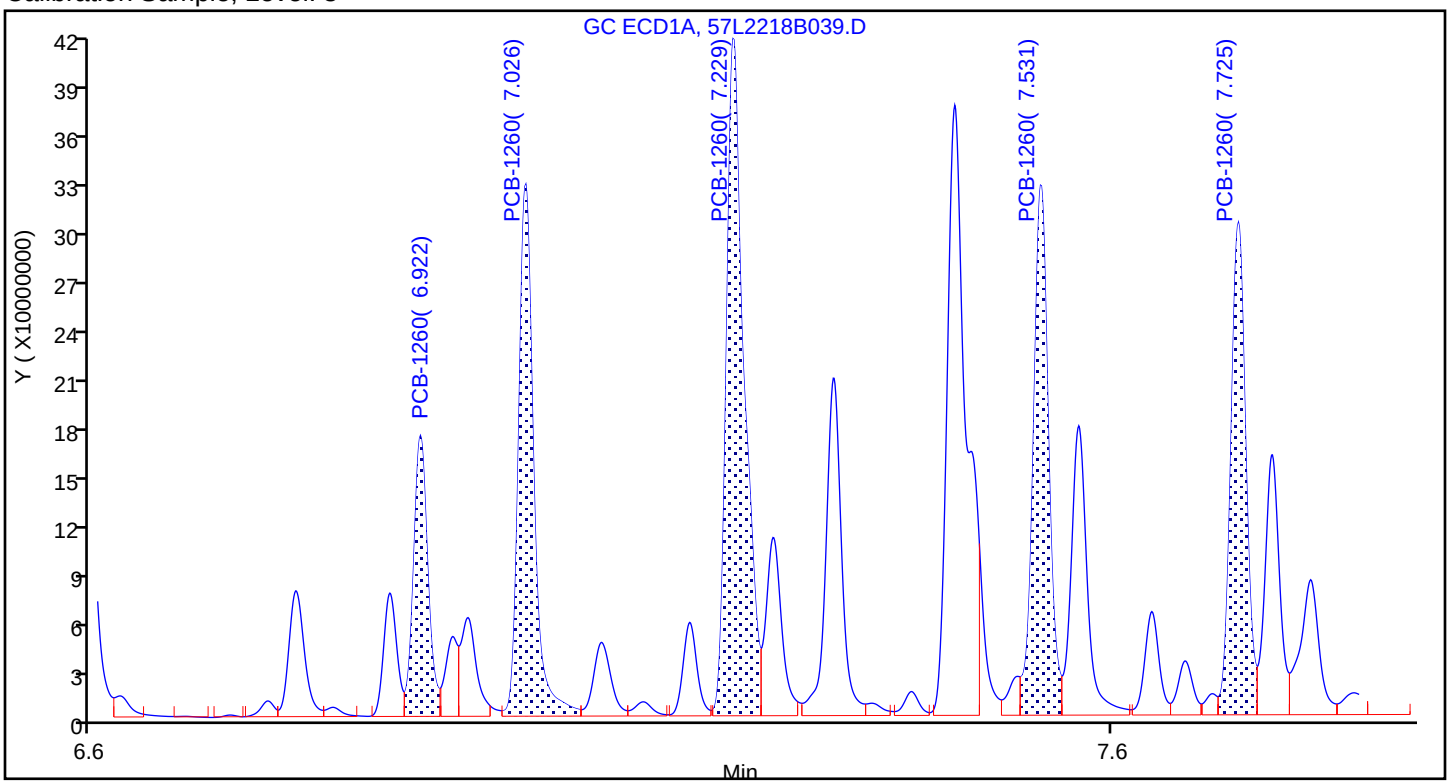
Report Date: 24-Jul-2019 10:23:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

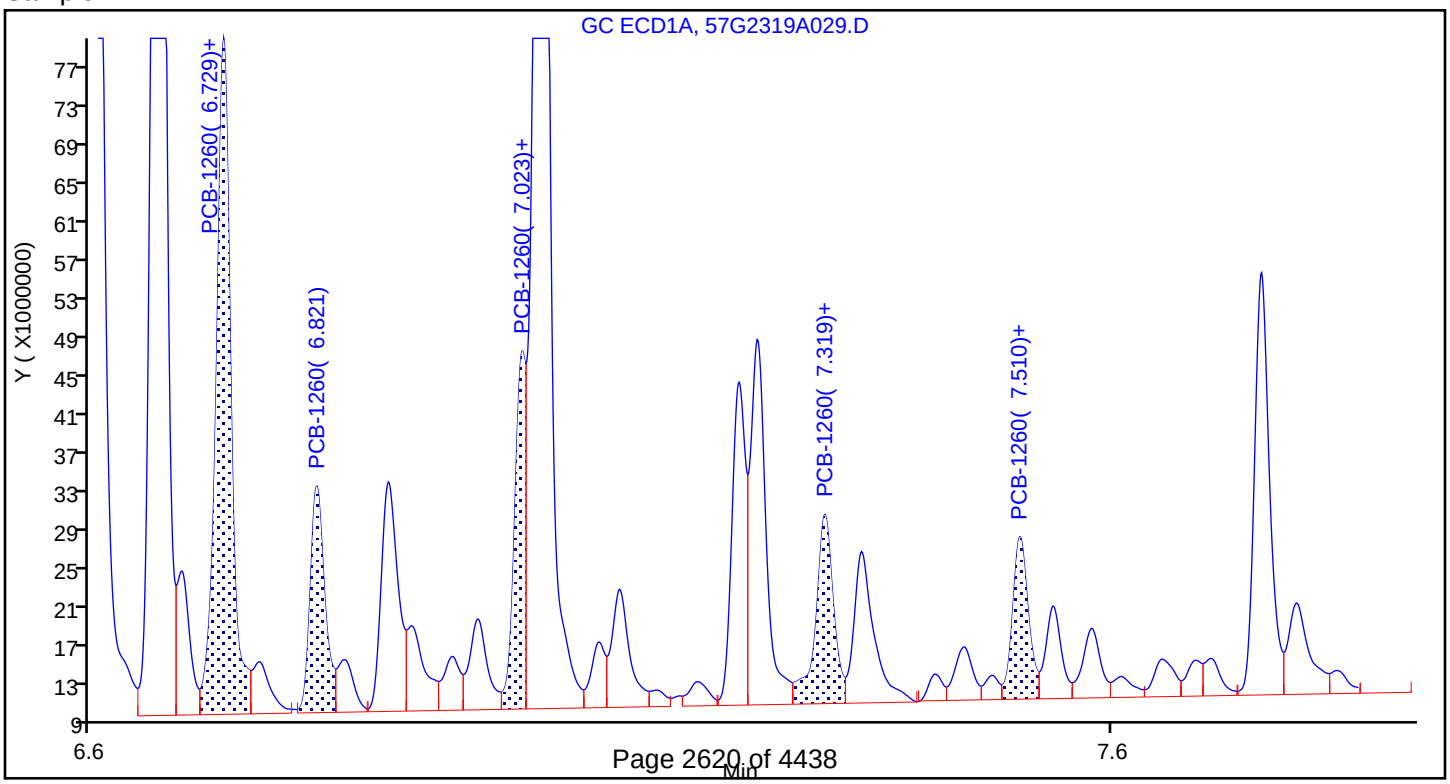
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D				
Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Seattle

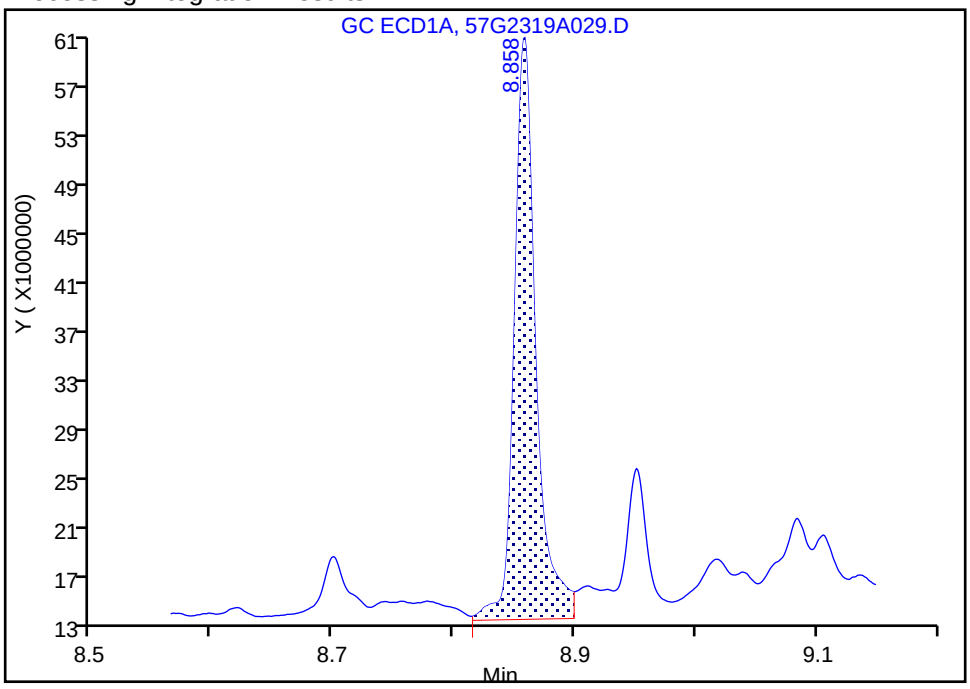
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D				
Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 43 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

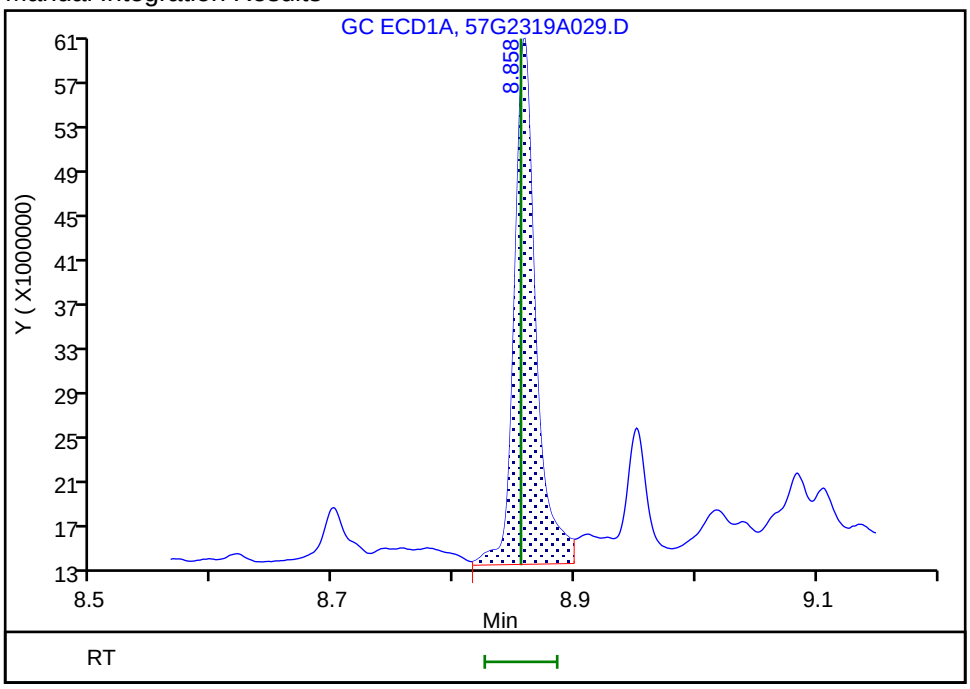
Processing Integration Results

RT: 8.86
Area: 54370004
Amount: 19.015173
Amount Units: ug/L



Manual Integration Results

RT: 8.86
Area: 58391720
Amount: 20.421714
Amount Units: ug/L



Reviewer: thaneeratw, 24-Jul-2019 10:18:26

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

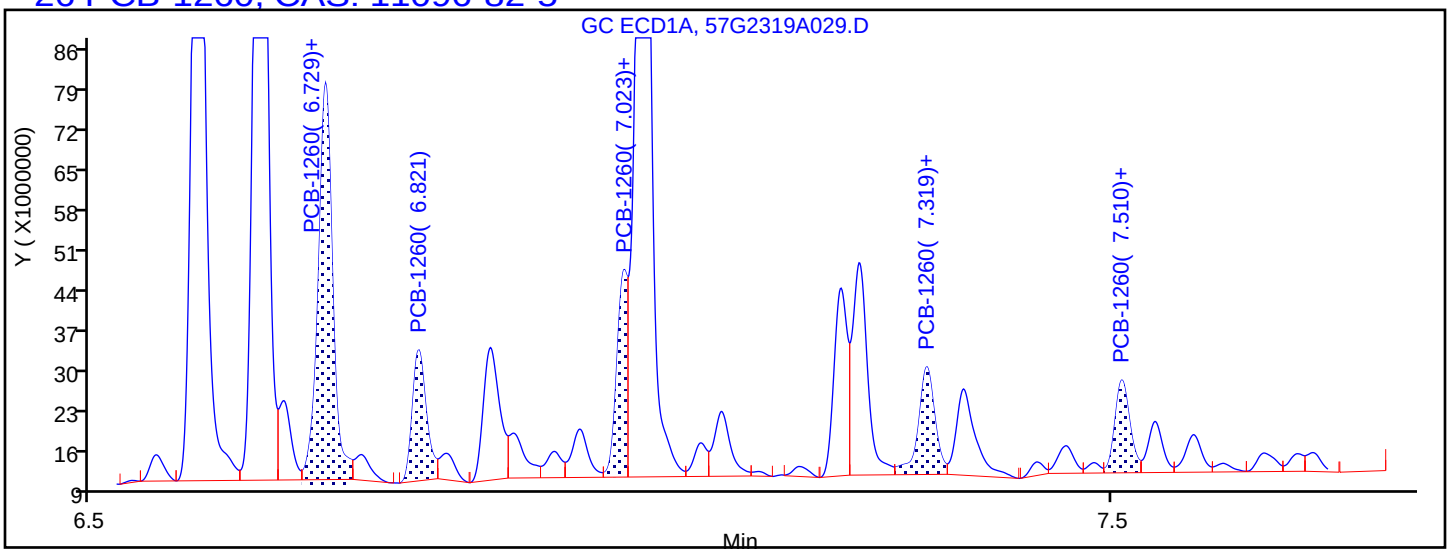
Report Date: 24-Jul-2019 10:23:07 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D

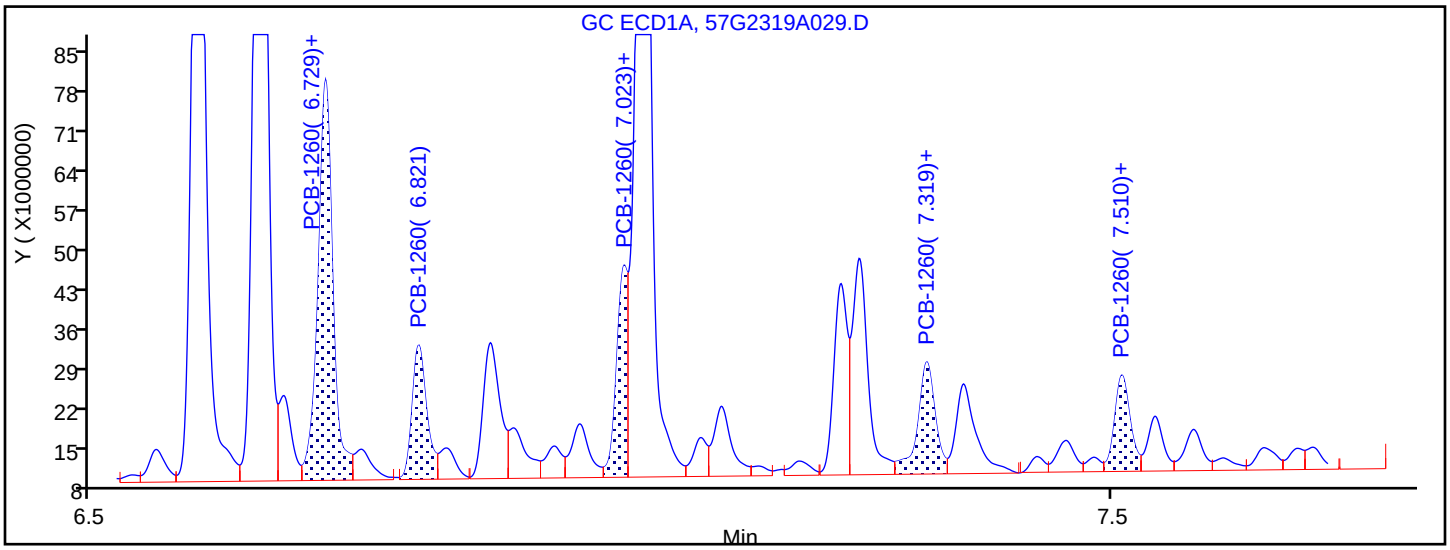
Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.729	Response = 68623301
6.821	Response = 22132022
7.023	Response = 25840779
7.319	Response = 21588698
7.510	Response = 16820921



Manual Integration Results

6.729	Response = 71920671	M
6.821	Response = 23725715	M
7.023	Response = 27284656	M
7.319	Response = 24336362	M
7.510	Response = 18384096	M

Reviewer: thaneeratw, 24-Jul-2019 10:18:21

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 57G2319A029.D

Analysis Method: 8082A Date Collected: 07/16/2019 14:08

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 21.660(g) Date Analyzed: 07/23/2019 15:13

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-2 ID: 0.25(mm)

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
11096-82-5	PCB-1260	0.025	p	0.0043	0.0016

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D
Lims ID: 580-87706-A-14-B
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 15:13:59 ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-14-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 10:23:04 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 10:23:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	177163015	100.0	
2	4.449	4.451	-0.002	1338808815	100.0	
				RPD =	0.00	
$ 9 Tetrachloro-m-xylene						
1	4.755	4.758	-0.003	60782969	15.5	
2	5.192	5.193	-0.001	190544465	11.1	
				RPD =	33.12	
26 PCB-1260						M
1	6.729	6.724	0.005	71920671	931.0	M
1	6.821	6.824	-0.003	23725715	149.7	M
1	7.023	7.028	-0.005	27284656	116.9	M
1	7.319	7.322	-0.003	24336362	156.8	M
1	7.510	7.513	-0.003	18384096	130.1	M
		Average of Peak Amounts =			296.9	
2	7.516	7.518	-0.002	36091765	103.4	M
2	7.644	7.645	-0.001	98515898	131.0	M
2	7.939	7.939	0.000	72040241	124.8	M
2	8.167	8.168	-0.001	59003465	100.1	M
2	8.421	8.422	-0.001	78905041	118.6	M
		Average of Peak Amounts =			115.6	
				RPD =	87.92	
$ 43 DCB Decachlorobiphenyl						M
1	8.858	8.855	0.003	58391720	20.4	M
2	9.928	9.925	0.003	162017312	17.3	
				RPD =	16.33	
13 2,4'-DDE						
1	5.369	5.389	-0.020	3476333	NR	
2	5.689	5.681	0.008	8307544	NR	
				RPD =	0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
25	4,4'-DDE					
1	5.576	5.571	0.005	2474798	NR	
2	5.805	5.791	0.014	26013731	NR	
					RPD = 0.00	
19	2,4'-DDD					
1	5.625	5.625	0.000	347326	NR	
2	5.944	5.955	-0.011	966715	NR	
					RPD = 0.00	
22	2,4'-DDT					M
1	5.820	5.821	-0.001	6442222	NR	M
2	6.154	6.146	0.008	4051111	NR	
					RPD = 0.00	
32	4,4'-DDD					M
1	5.910	5.891	0.019	2116757	NR	M
2	6.194	6.189	0.005	2214022	NR	
					RPD = 0.00	
35	4,4'-DDT					M
1	6.019	6.019	0.000	1503721	NR	M
2	6.390	6.393	-0.003	4085115	NR	
					RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

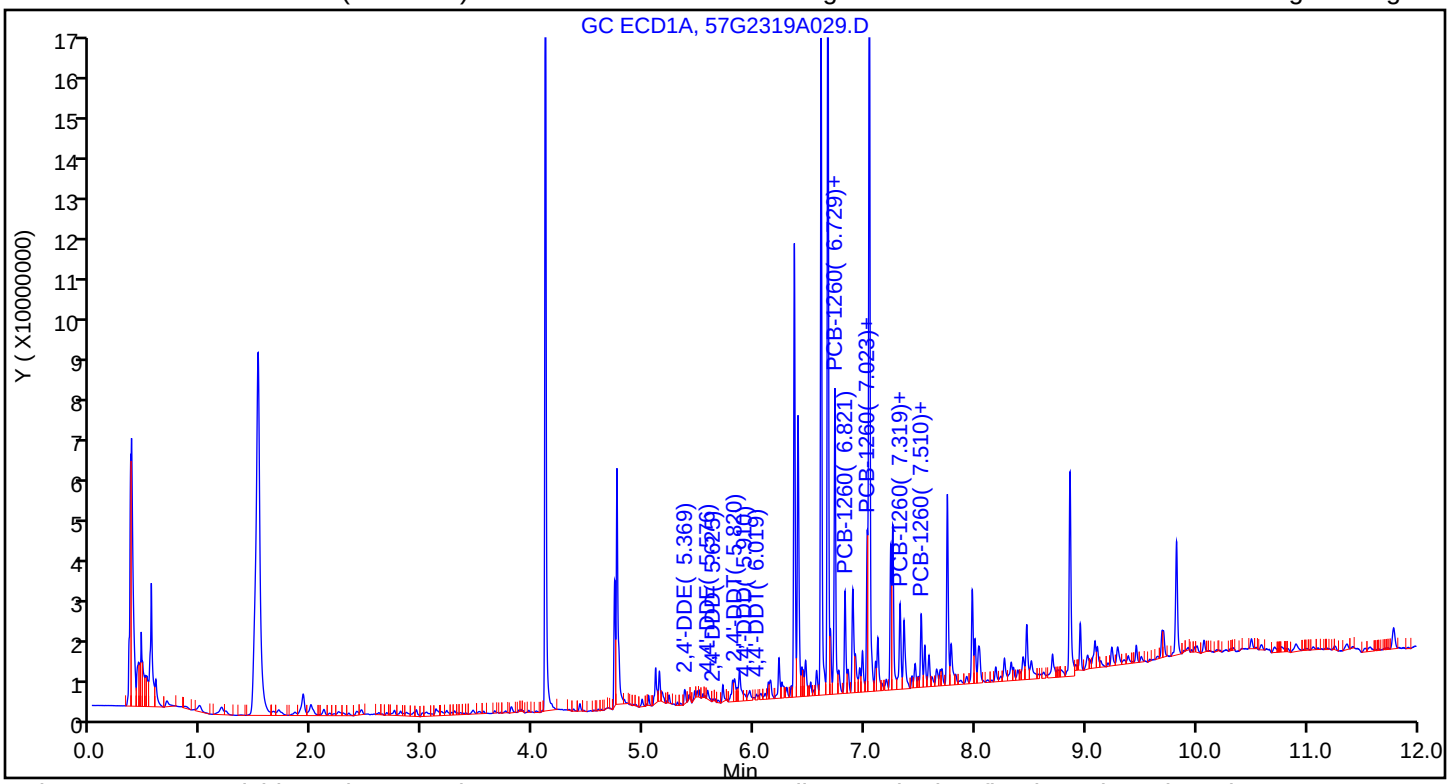
Report Date: 24-Jul-2019 10:23:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

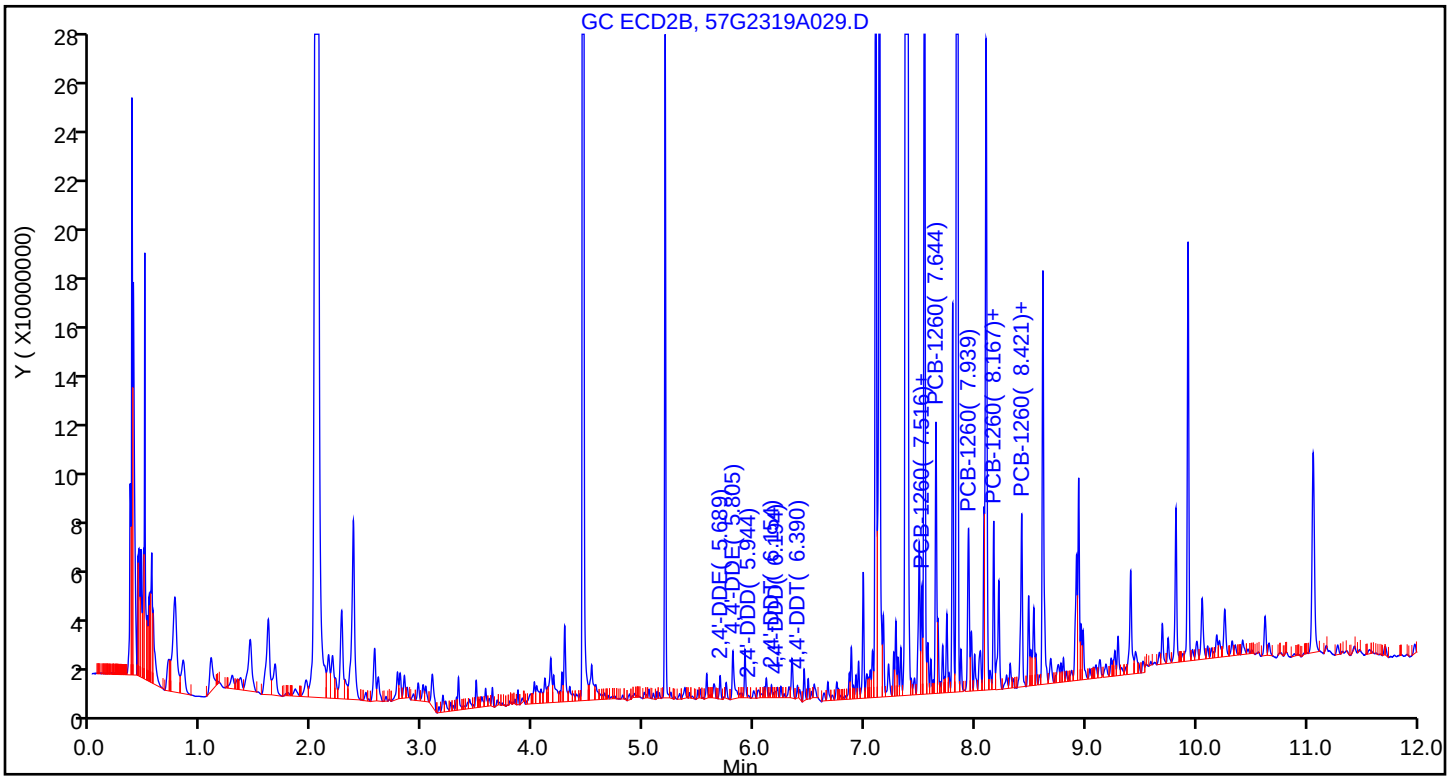
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D

Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D				
Lims ID:	580-87706-A-14-B				
Client ID:	22T-SG-21_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 15:13:59	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-14-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 10:23:04	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 10:23:04		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.5	62.17
$ 43 DCB Decachlorobiphenyl	25.0	20.4	81.69

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	11.1	44.51
$ 43 DCB Decachlorobiphenyl	25.0	17.3	69.36

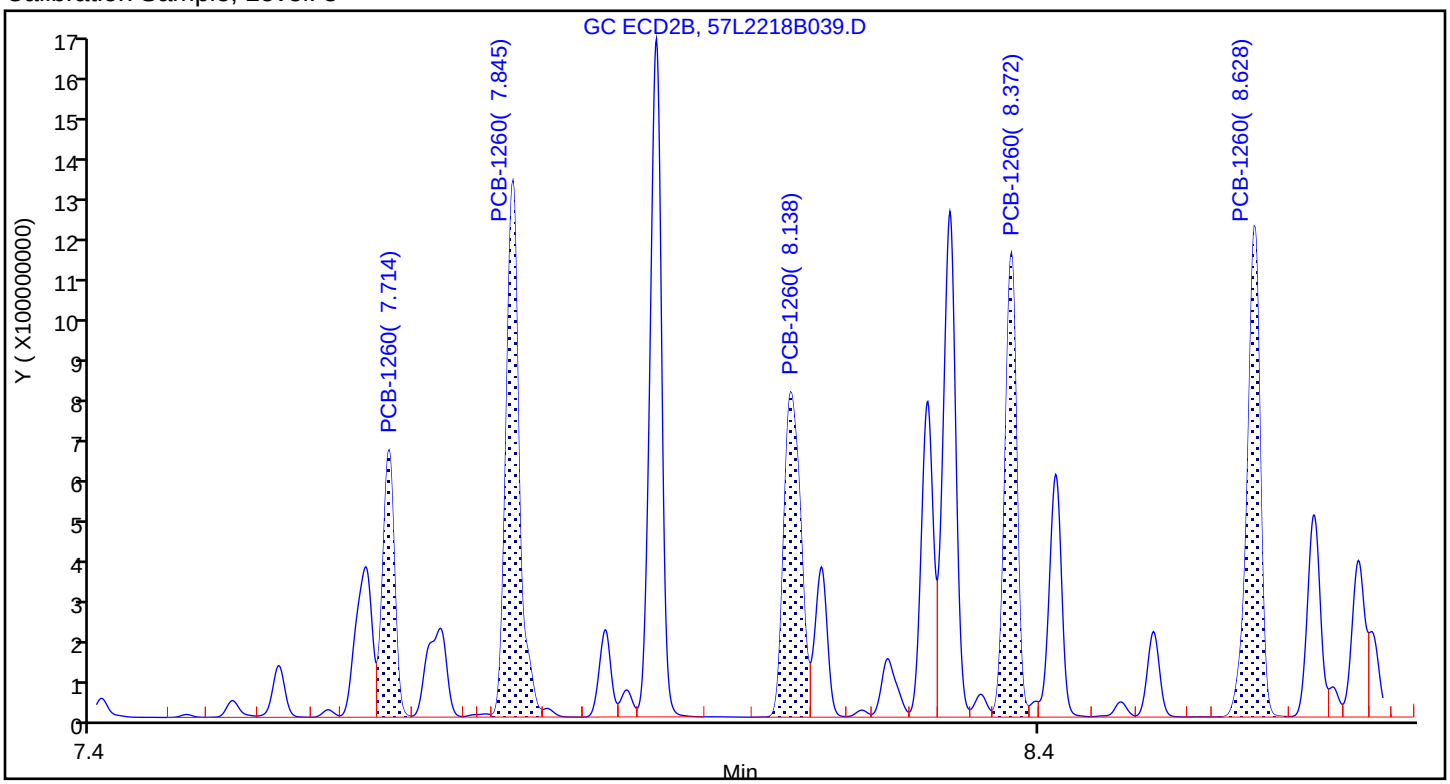
Report Date: 24-Jul-2019 10:23:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

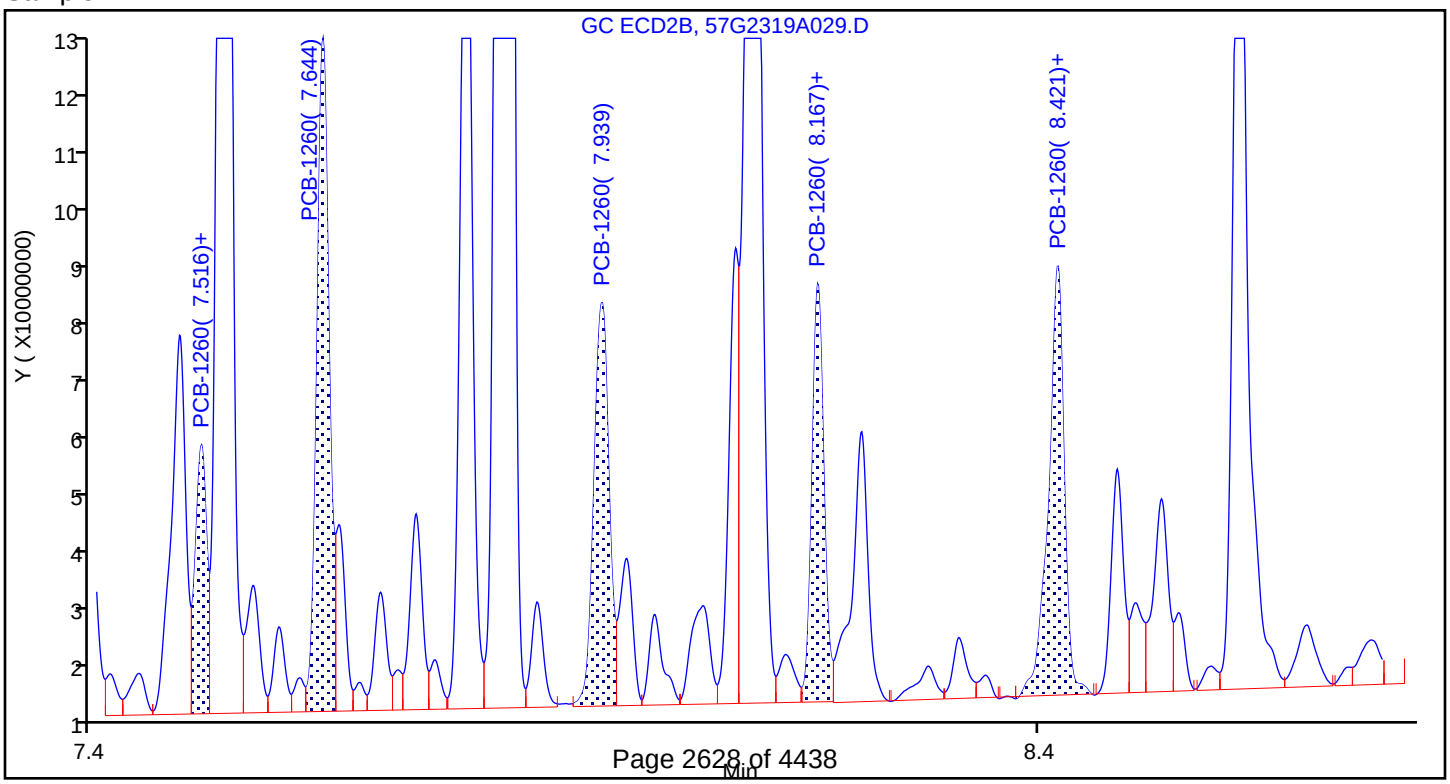
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D				
Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



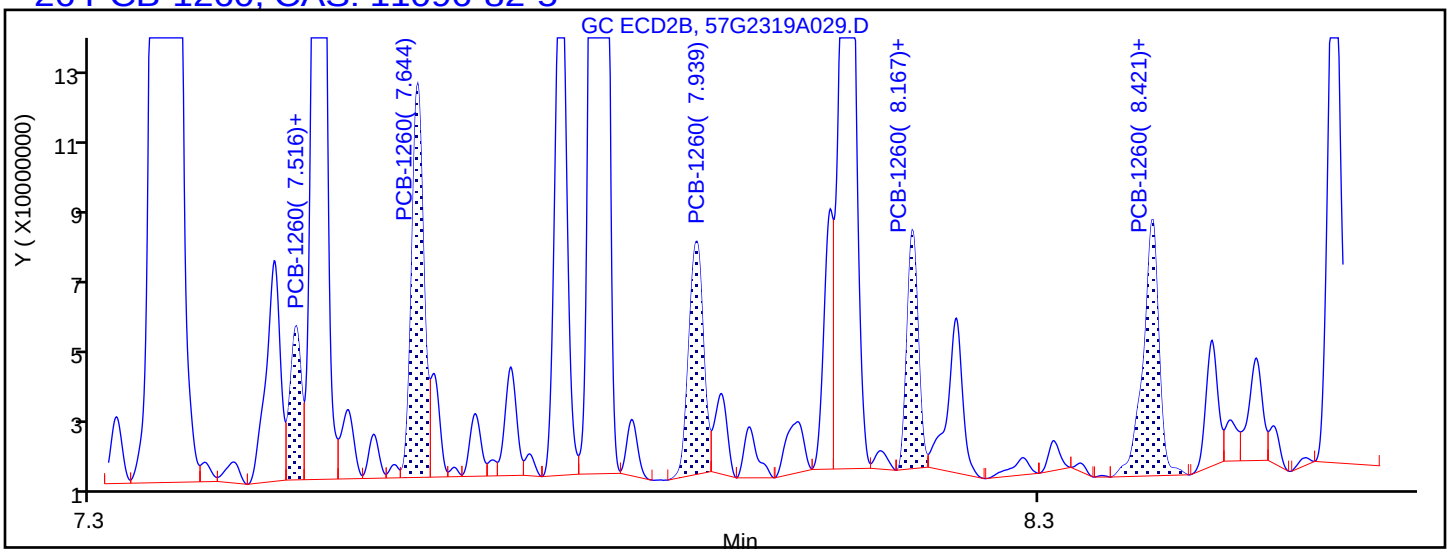
Report Date: 24-Jul-2019 10:23:08 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A029.D

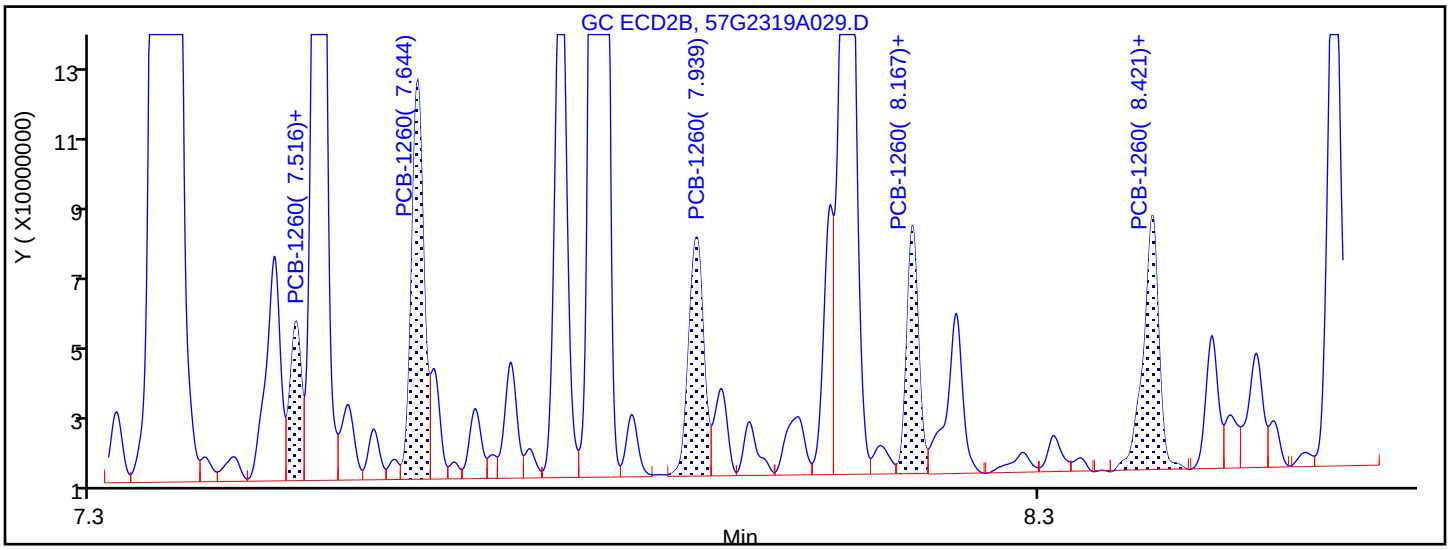
Injection Date:	23-Jul-2019 15:13:59	Instrument ID:	TAC057		
Lims ID:	580-87706-A-14-B	Lab Sample ID:	580-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	cjb	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.516	Response = 34188264
7.644	Response = 94838268
7.939	Response = 67828342
8.167	Response = 53488962
8.421	Response = 80159007



Manual Integration Results

7.516	Response = 36091765	M
7.644	Response = 98515898	M
7.939	Response = 72040241	M
8.167	Response = 59003465	M
8.421	Response = 78905041	M

Reviewer: thaneeratw, 24-Jul-2019 10:18:34

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Matrix: Solid Lab File ID: 57G2319A030.D

Analysis Method: 8082A Date Collected: 07/16/2019 14:24

Extraction Method: 3550B Date Extracted: 07/19/2019 11:29

Sample wt/vol: 22.863(g) Date Analyzed: 07/23/2019 15:32

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0040	0.0015
11104-28-2	PCB-1221	ND		0.0040	0.0019
11141-16-5	PCB-1232	ND		0.0040	0.0019
53469-21-9	PCB-1242	ND		0.0040	0.00098
12672-29-6	PCB-1248	ND		0.0040	0.00072
11097-69-1	PCB-1254	0.022		0.0040	0.0016
11096-82-5	PCB-1260	ND		0.0040	0.0015

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	72		39-142
877-09-8	Tetrachloro-m-xylene	53		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A030.D
Lims ID: 580-87706-A-15-B
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 23-Jul-2019 15:32:01 ALS Bottle#: 26 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-15-B
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 24-Jul-2019 10:29:41 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0302

First Level Reviewer: thaneeratw Date: 24-Jul-2019 10:29:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene						
1	4.108	4.109	-0.001	175592414	100.0	
2	4.450	4.451	-0.001	1251175374	100.0	
				RPD = 0.00		
$ 9 Tetrachloro-m-xylene						M
1	4.755	4.758	-0.003	51195246	13.2	
2	5.192	5.193	-0.001	241053416	15.1	M
				RPD = 13.11		
16 PCB-1254						M
1	6.221	6.228	-0.007	9628910	83.2	M
1	6.400	6.408	-0.008	20537449	104.2	M
1	6.689	6.697	-0.008	14758035	78.2	M
1	6.890	6.903	-0.013	21631063	146.1	M
1	7.235	7.241	-0.006	28053965	142.9	M
		Average of Peak Amounts =			110.9	
2	6.985	6.988	-0.003	61360038	104.6	M
2	7.117	7.119	-0.002	46067455	70.9	M
2	7.493	7.496	-0.003	68641618	72.4	M
2	7.662	7.667	-0.005	38722767	56.9	M
2	8.102	8.104	-0.002	76394761	113.3	M
		Average of Peak Amounts =			83.6	
				RPD = 28.09		

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/L	Flags
$ 43 DCB Decachlorobiphenyl						
1	8.857	8.855	0.002	51002982	18.0	
2	9.926	9.925	0.001	150540948	17.2	
					RPD = 4.30	
13 2,4'-DDE						M
1	5.384	5.389	-0.005	4571227	NR	M
2	5.680	5.681	-0.001	1819720	NR	M
					RPD = NaN	
25 4,4'-DDE						M
1	5.574	5.571	0.003	2229655	NR	M
2	5.805	5.791	0.014	61010603	NR	M
					RPD = NaN	
19 2,4'-DDD						M
1	5.627	5.625	0.002	10044	NR	M
2	5.950	5.955	-0.005	4312387	NR	M
					RPD = NaN	
22 2,4'-DDT						M
1	5.820	5.821	-0.001	12560187	NR	M
2	6.156	6.146	0.010	15026090	NR	M
					RPD = NaN	
32 4,4'-DDD						M
1	5.899	5.891	0.008	3373305	NR	M
2	6.193	6.189	0.004	13280732	NR	M
					RPD = NaN	
35 4,4'-DDT						M
1	6.015	6.019	-0.004	10848094	NR	M
2	6.394	6.393	0.001	4135223	NR	M
					RPD = NaN	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
M - Manually Integrated

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

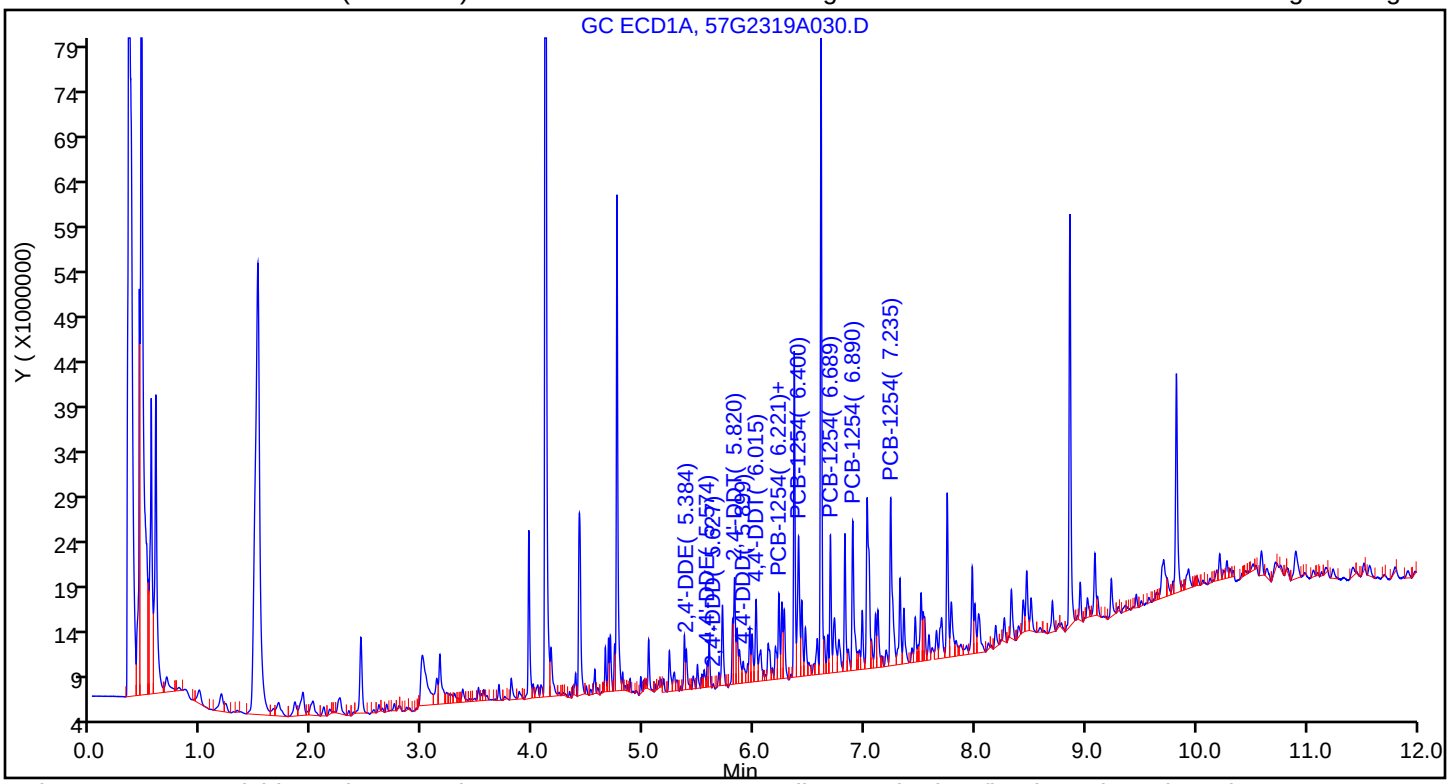
Report Date: 24-Jul-2019 10:29:41 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

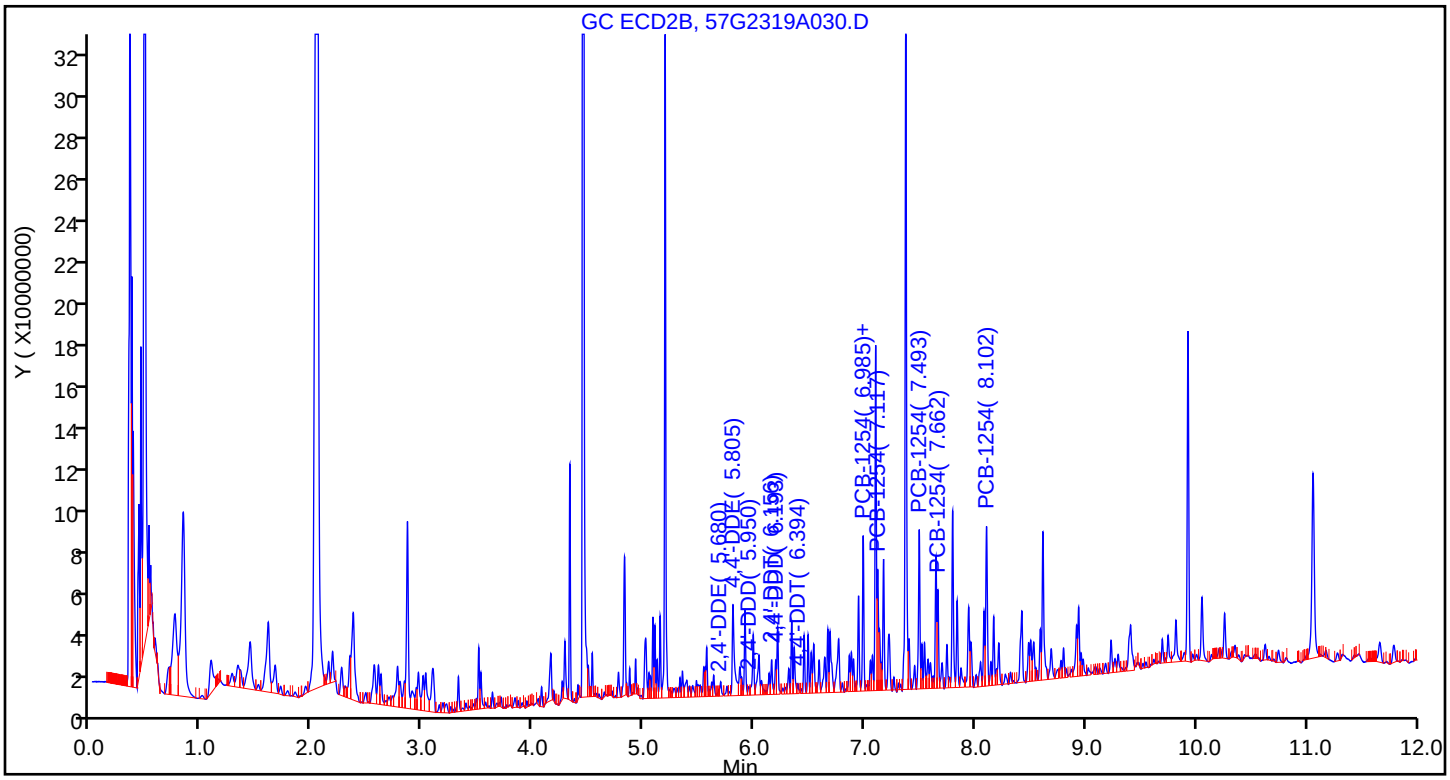
Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A030.D

Injection Date:	23-Jul-2019 15:32:01	Instrument ID:	TAC057		
Lims ID:	580-87706-A-15-B	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	cjb	ALS Bottle#:	26	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A030.D				
Lims ID:	580-87706-A-15-B				
Client ID:	22T-SG-16_20190716				
Sample Type:	Client				
Inject. Date:	23-Jul-2019 15:32:01	ALS Bottle#:	26	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-15-B				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	24-Jul-2019 10:29:41	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0302				
First Level Reviewer: thaneeratw		Date:	24-Jul-2019 10:29:41		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.2	52.84
$ 43 DCB Decachlorobiphenyl	25.0	18.0	71.99

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	15.1	60.25
$ 43 DCB Decachlorobiphenyl	25.0	17.2	68.96

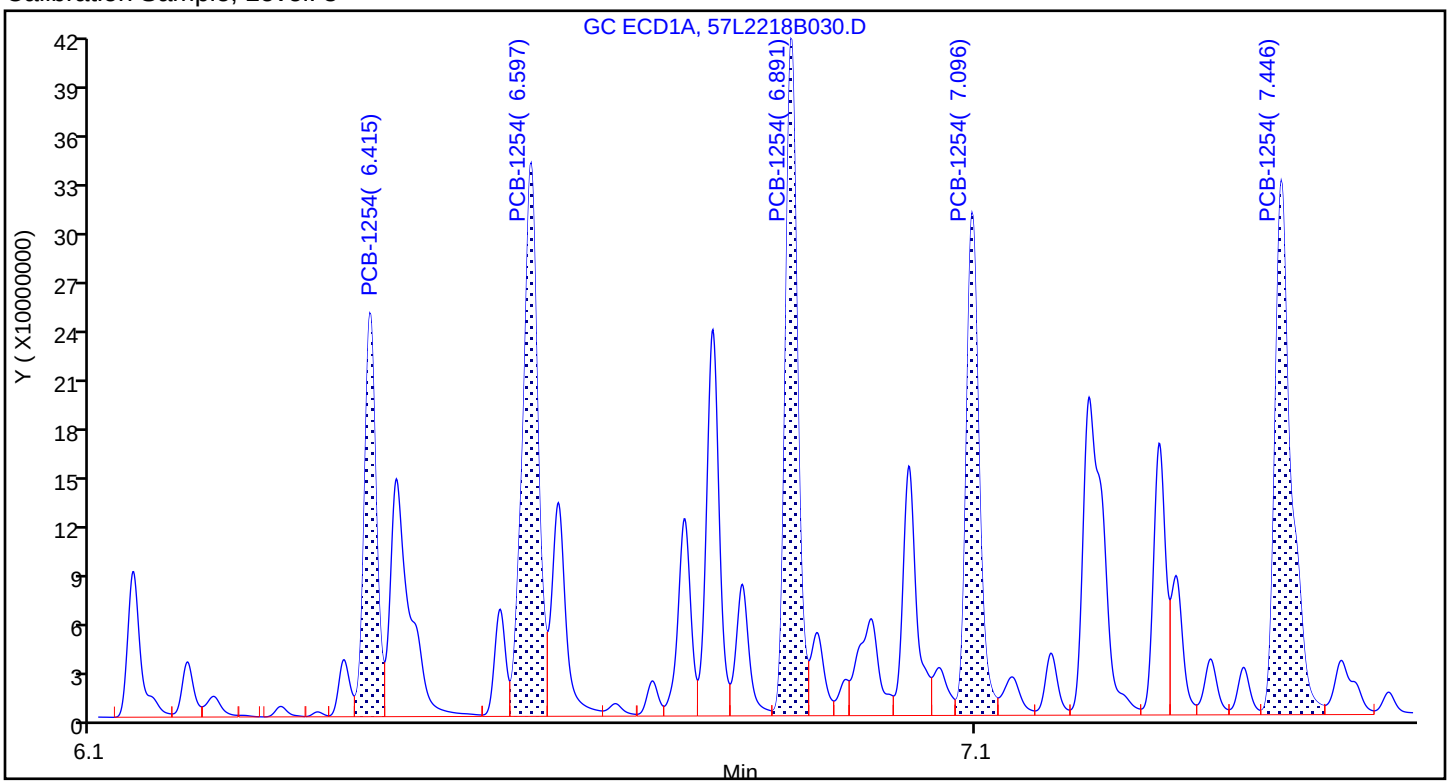
Report Date: 24-Jul-2019 10:29:42 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

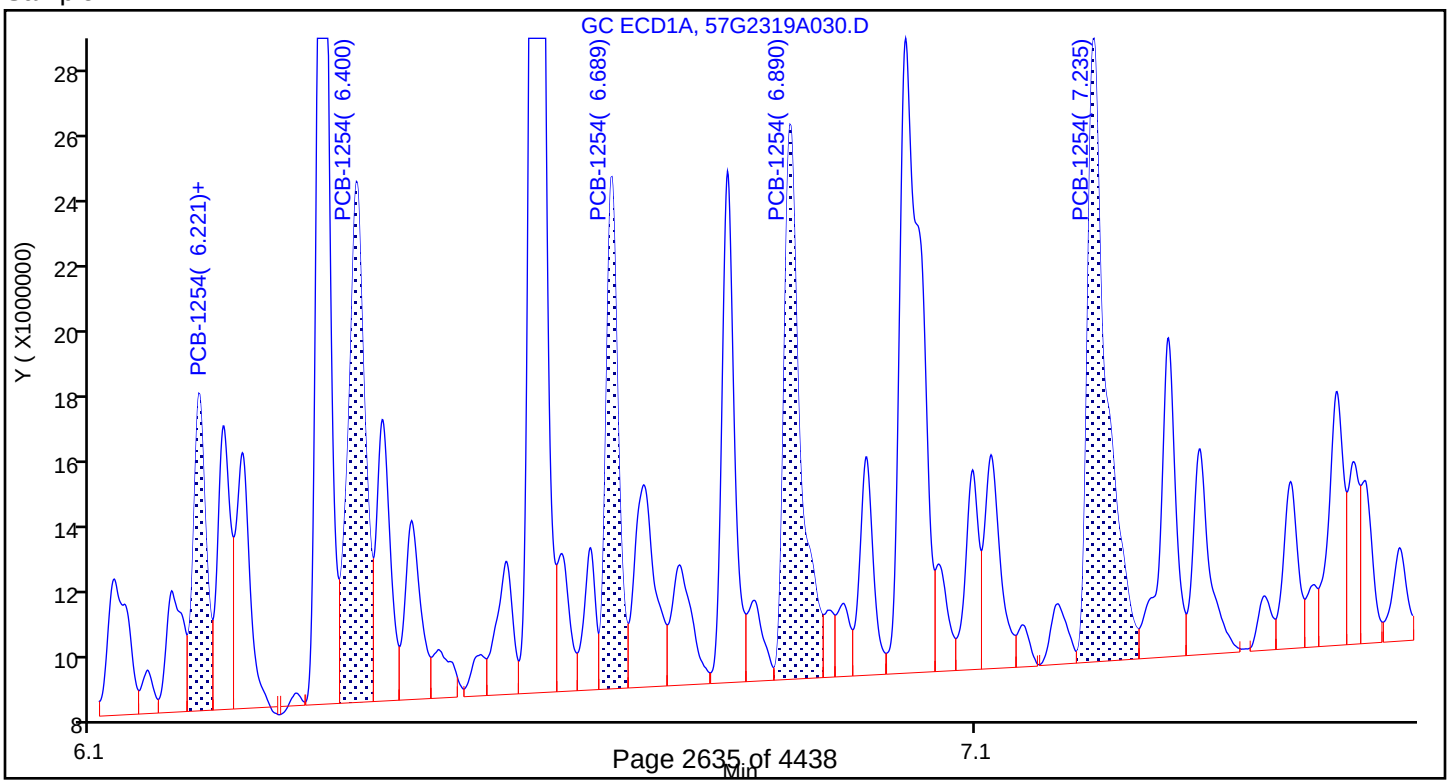
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A030.D				
Injection Date:	23-Jul-2019 15:32:01	Instrument ID:	TAC057		
Lims ID:	580-87706-A-15-B	Lab Sample ID:	580-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	cjb	ALS Bottle#:	26	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

16 PCB-1254, CAS: 11097-69-1

Calibration Sample, Level: 8



Sample



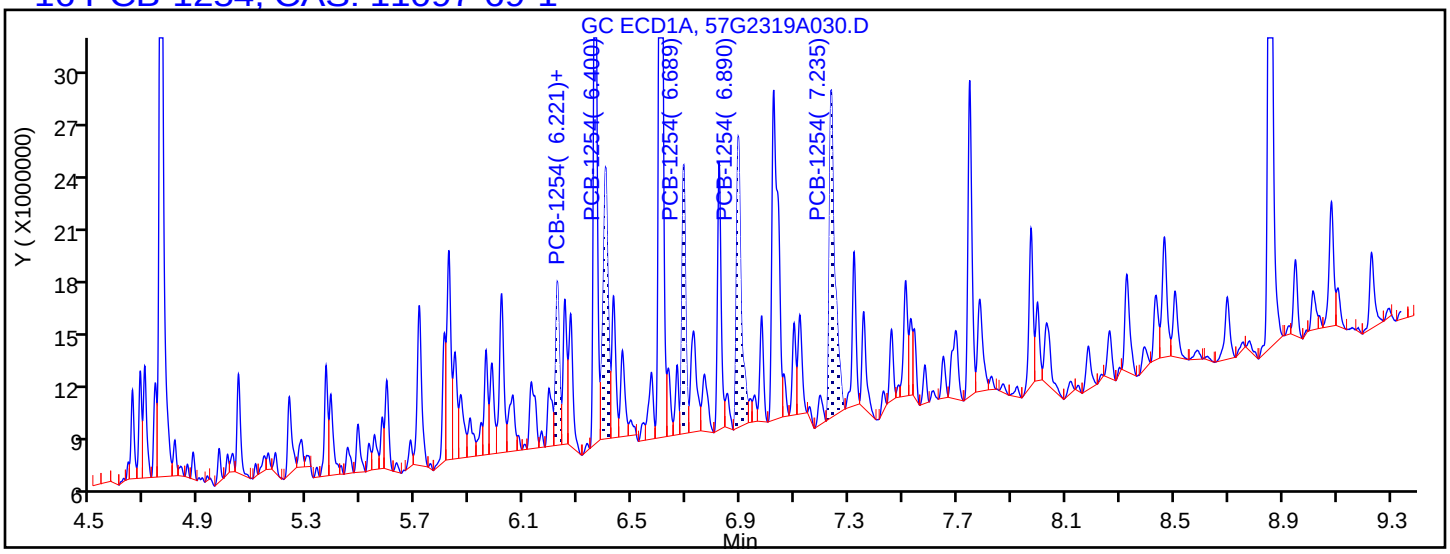
Report Date: 24-Jul-2019 10:29:42 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A030.D

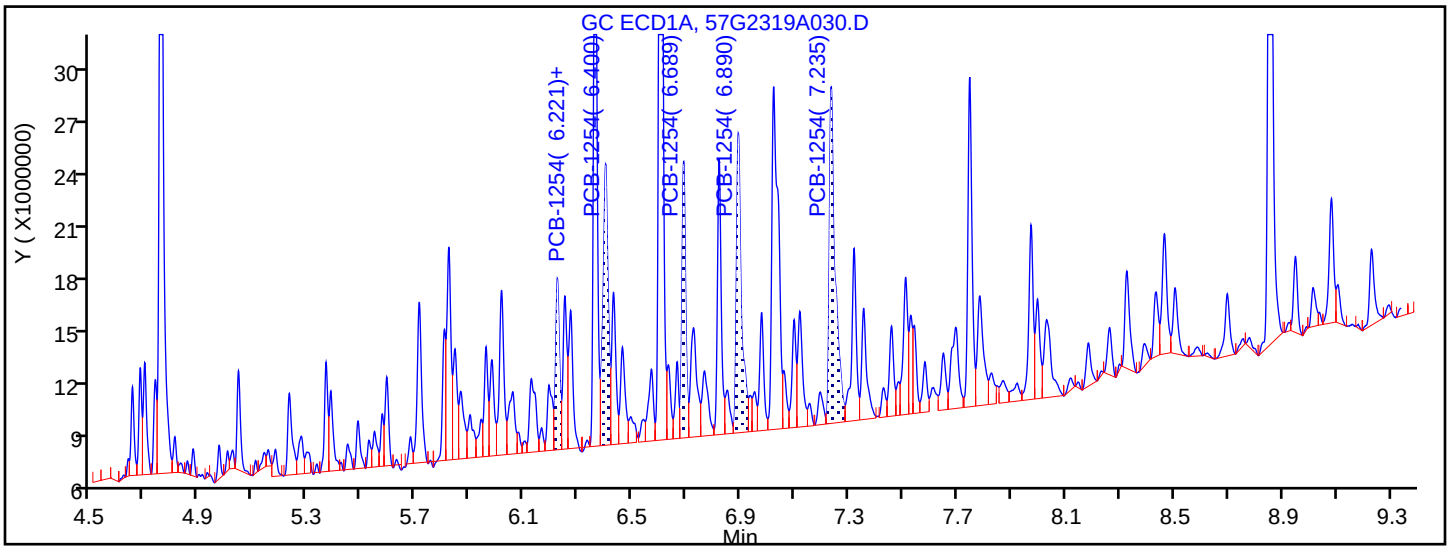
Injection Date:	23-Jul-2019 15:32:01	Instrument ID:	TAC057
Lims ID:	580-87706-A-15-B	Lab Sample ID:	580-87706-15
Client ID:	22T-SG-16_20190716		
Operator ID:	cjb	ALS Bottle#:	26 Worklist Smp#: 29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.221	Response = 8875159
6.400	Response = 19311610
6.689	Response = 13924419
6.890	Response = 19870886
7.235	Response = 25423451



Manual Integration Results

6.221	Response = 9628910	M
6.400	Response = 20537449	M
6.689	Response = 14758035	M
6.890	Response = 21631063	M
7.235	Response = 28053965	M

Reviewer: thaneeratw, 24-Jul-2019 10:27:01

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 17:47 Calibration End Date: 12/22/2018 19:50 Calibration ID: 27218

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/11	57L2218B010.D
Level 2	IC 580-291937/10	57L2218B009.D
Level 3	IC 580-291937/9	57L2218B008.D
Level 4	IC 580-291937/8	57L2218B007.D
Level 5	ICIS 580-291937/7	57L2218B006.D
Level 6	IC 580-291937/6	57L2218B005.D
Level 7	IC 580-291937/5	57L2218B004.D
Level 8	IC 580-291937/4	57L2218B003.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0503 0.0358	0.0463 0.0323	0.0418 +++++	0.0409	0.0379	Lin2	0.0759	0.0367				7.6			0.9930		0.9900
PCB-1232 Peak 2	+++++ 0.0320	0.0373 0.0290	0.0379 0.0269	0.0343	0.0333	Lin2	0.0838	0.0309				9.6			0.9900		0.9900
PCB-1232 Peak 3	+++++ 0.0369	0.0440 0.0346	0.0423 0.0313	0.0406	0.0404	Lin2	0.0942	0.0362				9.0			0.9910		0.9900
PCB-1232 Peak 4	+++++ 0.0251	0.0285 0.0232	0.0271 +++++	0.0271	0.0275	Lin2	0.0356	0.0254				6.1			0.9960		0.9900
PCB-1232 Peak 5	0.0213 0.0176	0.0194 0.0164	0.0191 0.0152	0.0191	0.0193	Lin2	0.0207	0.0175				7.8			0.9930		0.9900
PCB-1262 Peak 1	0.0498 0.0426	0.0452 0.0388	0.0509 0.0372	0.0497	0.0453	Ave		0.0449				11.5		20.0			
PCB-1262 Peak 2	0.1216 0.0929	0.1124 0.0846	0.1085 0.0809	0.1071	0.0974	Lin2	0.1651	0.0930				9.3			0.9900		0.9900
PCB-1262 Peak 3	+++++ 0.1190	0.1472 0.1078	0.1348 +++++	0.1309	0.1238	Lin2	0.3232	0.1180				5.7			0.9960		0.9900
PCB-1262 Peak 4	0.1191 0.0991	0.1115 +++++	0.1107 +++++	0.1062	0.1016	Ave		0.1081				6.8		20.0			
PCB-1262 Peak 5	+++++ 0.2080	0.2445 0.1918	0.2282 0.1916	0.2223	0.2088	Ave		0.2136				9.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 17:47 Calibration End Date: 12/22/2018 19:50 Calibration ID: 27218

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/11	57L2218B010.D
Level 2	IC 580-291937/10	57L2218B009.D
Level 3	IC 580-291937/9	57L2218B008.D
Level 4	IC 580-291937/8	57L2218B007.D
Level 5	ICIS 580-291937/7	57L2218B006.D
Level 6	IC 580-291937/6	57L2218B005.D
Level 7	IC 580-291937/5	57L2218B004.D
Level 8	IC 580-291937/4	57L2218B003.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin2	437330 29759690	802359 53568602	1809257 +++++	3423177	6401382	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1232 Peak 2	BNB	Lin2	+++++ 26549418	646742 48028866	1640082 78086200	2867927	5620827	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1232 Peak 3	BNB	Lin2	+++++ 30700641	762638 57366533	1832085 90857297	3394086	6810466	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1232 Peak 4	BNB	Lin2	+++++ 20848218	493618 38383588	1173734 +++++	2264202	4637483	+++++ 500	10.0 1000	25.0 +++++	50.0	100
PCB-1232 Peak 5	BNB	Lin2	185341 14607931	336440 27133127	827748 44293480	1596339	3250121	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1262 Peak 1	BNB	Ave	433697 35391448	783264 64267709	2205062 108071062	4154611	7648776	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1262 Peak 2	BNB	Lin2	1057948 77191483	1950423 140261476	4698312 235171872	8957630	16434875	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1262 Peak 3	BNB	Lin2	+++++ 98910486	2553929 178678155	5838994 +++++	10948662	20899210	+++++ 500	10.0 1000	25.0 +++++	50.0	100
PCB-1262 Peak 4	BNB	Ave	1036768 82352812	1933566 +++++	4794738 +++++	8882936	17153038	5.00 500	10.0 +++++	25.0 +++++	50.0	100
PCB-1262 Peak 5	BNB	Ave	+++++ 172798676	4241306 317764154	9881740 556949956	18591908	35235337	+++++ 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B003.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Dec-2018 17:47:22 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:13 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:09:05

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.280	4.276	0.004	145355790	100.0	100.0	a
2	4.597	4.596	0.001	971137478	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3377.0	
2						3373.0	
						RPD = 0.12	
8 PCB-1232							
1	5.192	5.187	0.005	87198310	2000.0	1632.0	
1	5.444	5.439	0.005	78086200	2000.0	1738.1	
1	5.774	5.770	0.004	90857297	2000.0	1722.1	
1	5.867	5.863	0.004	54728856	2000.0	1482.7	
1	6.152	6.147	0.005	44293480	2000.0	1745.0	
		Average of Peak Amounts =				1664.0	
2	5.738	5.736	0.002	362302192	2000.0	1556.8	
2	6.045	6.043	0.002	226757710	2000.0	1455.2	
2	6.497	6.495	0.002	262863141	2000.0	1590.7	
2	6.854	6.851	0.003	165078706	2000.0	1374.4	
2	7.180	7.176	0.004	296090718	2000.0	1522.7	
		Average of Peak Amounts =				1500.0	
						RPD = 10.37	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							
1	6.928	6.921	0.007	108071062	2000.0	1654.6	
1	7.236	7.228	0.008	235171872	2000.0	1738.4	
1	7.537	7.531	0.006	302166295	2000.0	1759.5	
1	7.732	7.723	0.009	254198556	2000.0	1618.5	
1	7.972	7.963	0.009	556949956	2000.0	1793.9	
		Average of Peak Amounts =				1713.0	
2	7.718	7.714	0.004	440609564	2000.0	1660.6	
2	7.999	7.995	0.004	809813692	2000.0	1774.0	
2	8.376	8.371	0.005	1111922734	2000.0	1868.0	
2	8.633	8.629	0.004	1002276017	2000.0	1974.8	
2	8.825	8.818	0.007	2155987352	2000.0	2087.9	
		Average of Peak Amounts =				1873.0	
						RPD = 8.93	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

3262_IC_STOCK_00008	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:13 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B003.D

Injection Date: 22-Dec-2018 17:47:22 Instrument ID: TAC057

Lims ID: ic

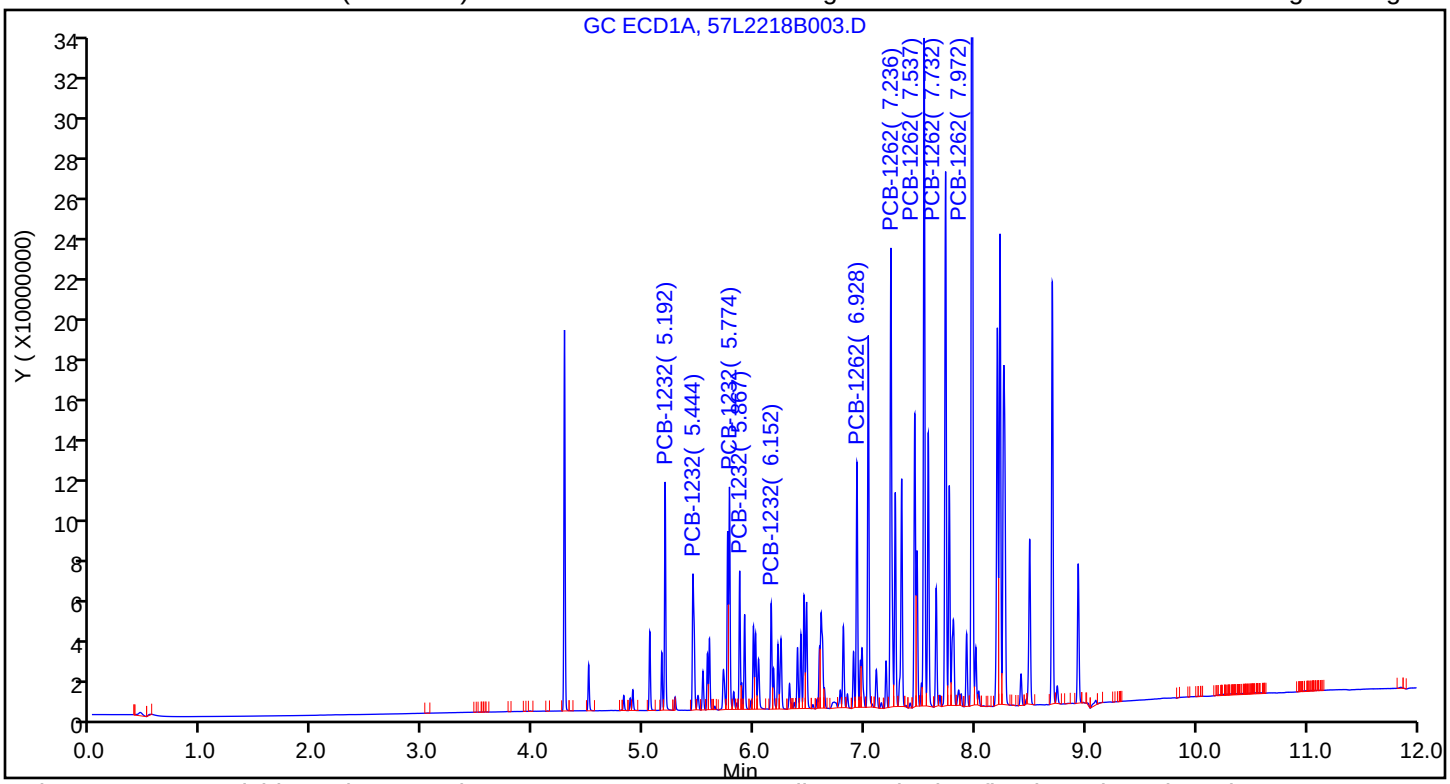
Client ID:

Operator ID: ar ALS Bottle#: 1 Worklist Smp#: 4

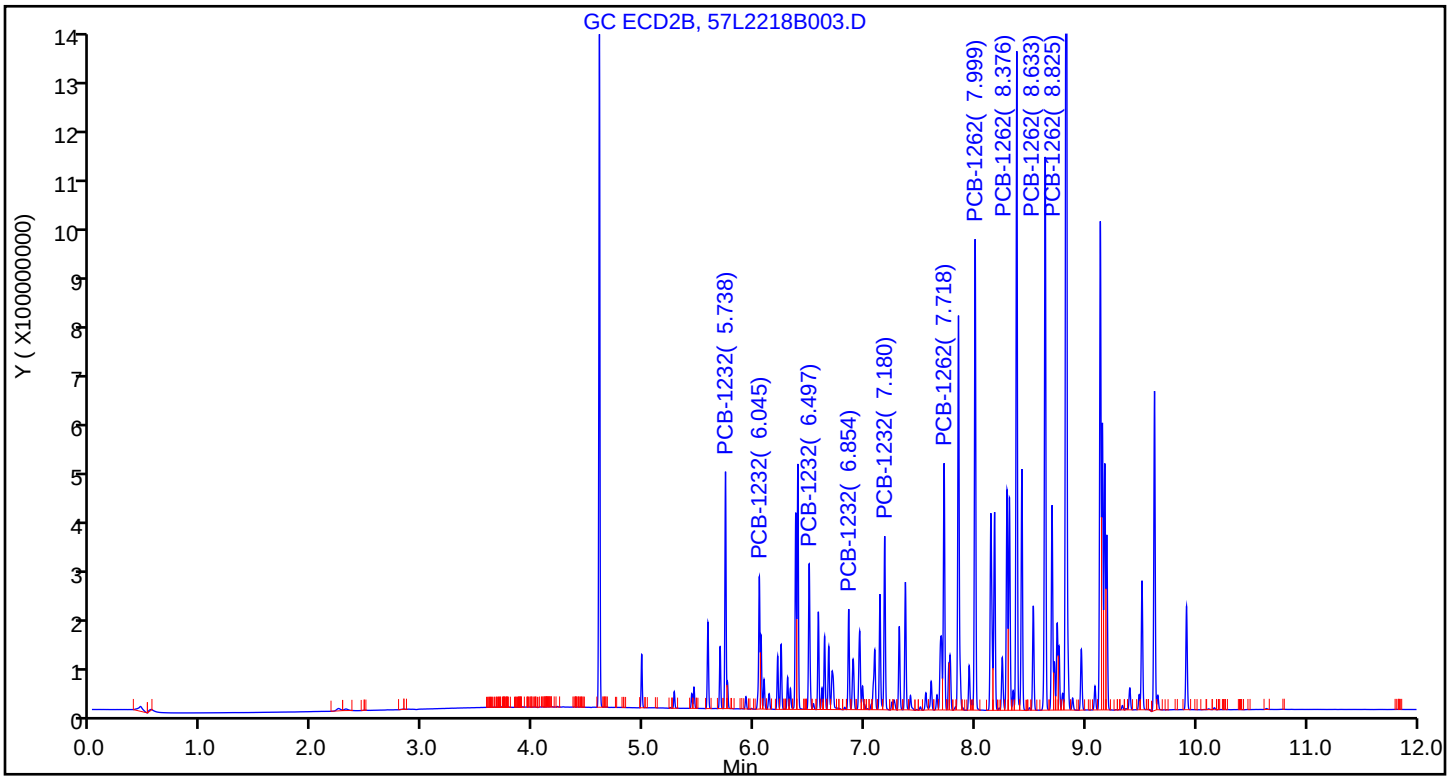
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

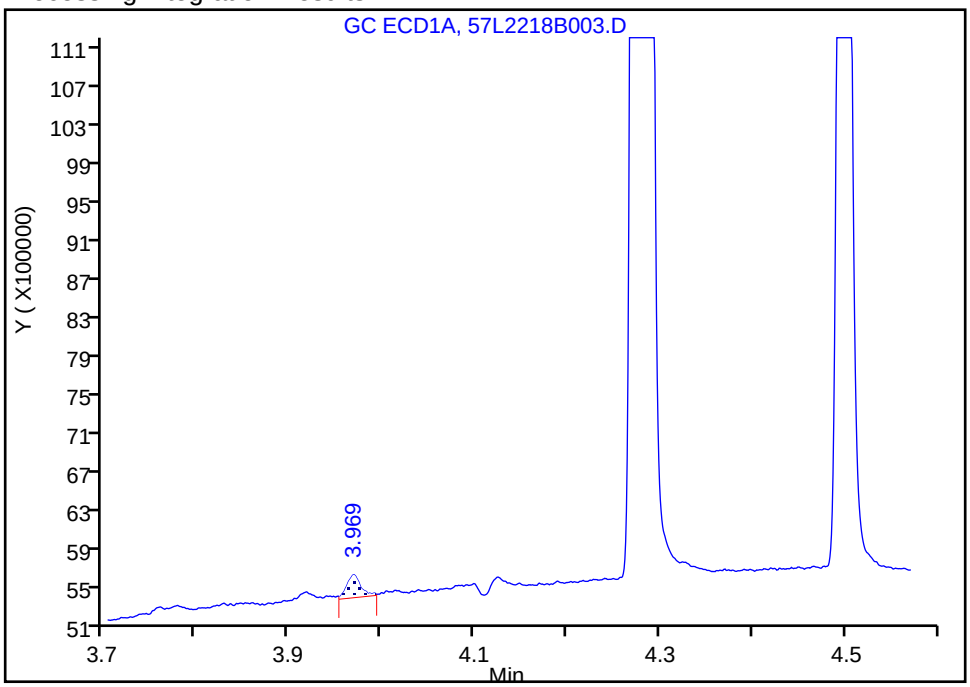
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B003.D				
Injection Date:	22-Dec-2018 17:47:22	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	1	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

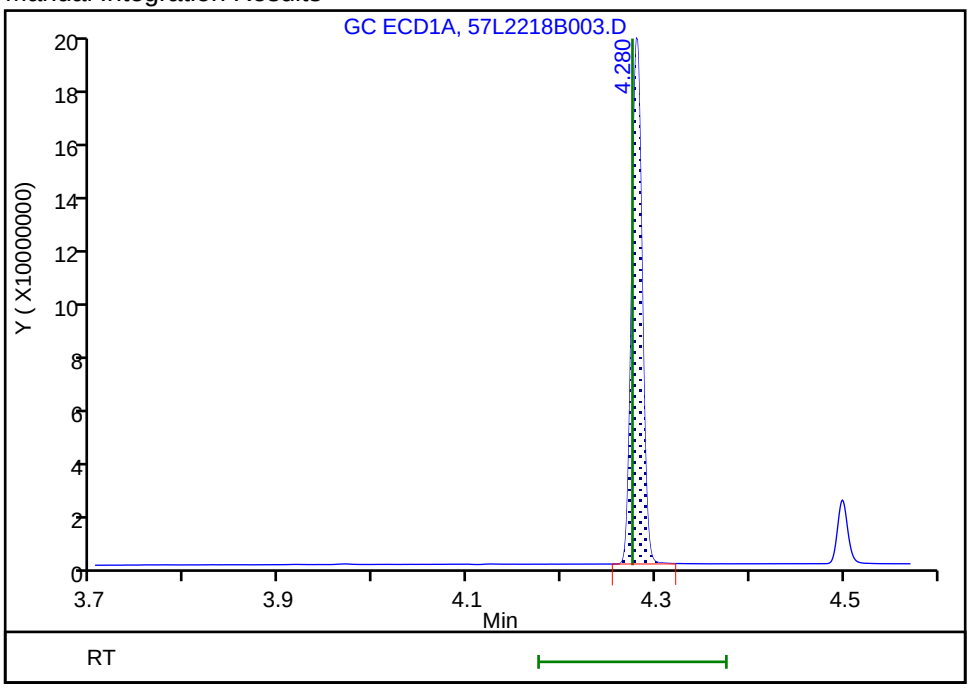
Processing Integration Results

RT: 3.97
Area: 251095
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 145355790
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:09:01
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B004.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Dec-2018 18:04:48 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:10 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:08:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	165711376	100.0	100.0	a
2	4.595	4.596	-0.001	997892683	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1806.3	
2						1771.8	
						RPD = 1.93	
8 PCB-1232							
1	5.187	5.187	0.000	53568602	1000.0	878.5	
1	5.438	5.439	-0.001	48028866	1000.0	936.5	
1	5.769	5.770	-0.001	57366533	1000.0	952.6	
1	5.862	5.863	-0.001	38383588	1000.0	911.6	
1	6.147	6.147	0.000	27133127	1000.0	937.1	
		Average of Peak Amounts =				923.3	
2	5.737	5.736	0.001	207324711	1000.0	865.5	
2	6.043	6.043	0.000	143825018	1000.0	896.7	
2	6.494	6.495	-0.001	152647788	1000.0	897.7	
2	6.853	6.851	0.002	112044361	1000.0	906.5	
2	7.178	7.176	0.002	178272164	1000.0	891.3	
		Average of Peak Amounts =				891.5	
						RPD = 3.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							
1	6.923	6.921	0.002	64267709	1000.0	863.1	
1	7.229	7.228	0.001	140261476	1000.0	908.6	
1	7.531	7.531	0.000	178678155	1000.0	911.3	
1	7.725	7.723	0.002	149445850	1000.0	834.6	
1	7.965	7.963	0.002	317764154	1000.0	897.8	
		Average of Peak Amounts =				883.1	
2	7.716	7.714	0.002	243663893	1000.0	892.5	
2	7.997	7.995	0.002	435900703	1000.0	927.9	
2	8.373	8.371	0.002	523153335	1000.0	853.7	
2	8.631	8.629	0.002	437712835	1000.0	836.8	
2	8.821	8.818	0.003	946112915	1000.0	890.5	
		Average of Peak Amounts =				880.3	
						RPD = 0.32	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

3262_IC_STOCK_00008	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:11 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B004.D

Injection Date: 22-Dec-2018 18:04:48 Instrument ID: TAC057

Lims ID: ic

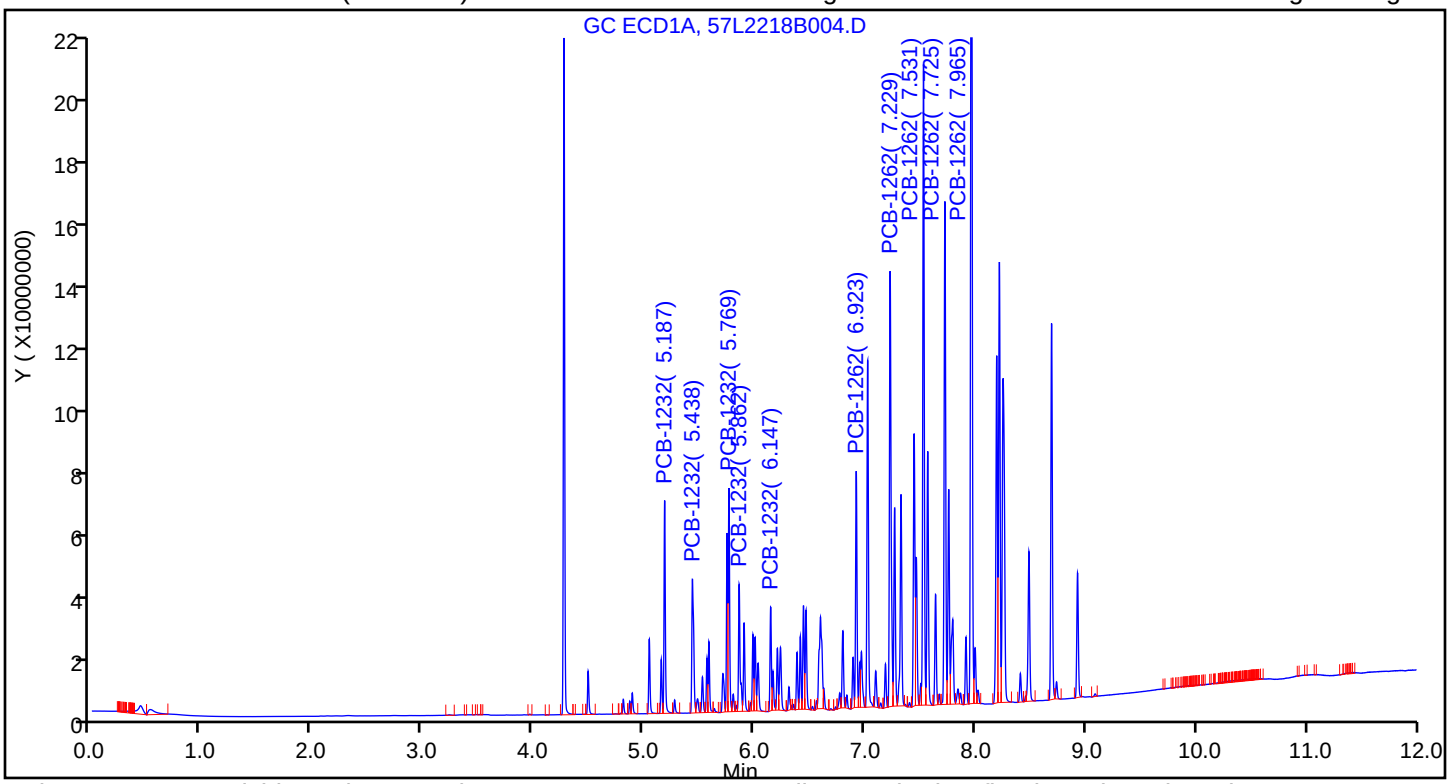
Client ID:

Operator ID: ar ALS Bottle#: 2 Worklist Smp#: 5

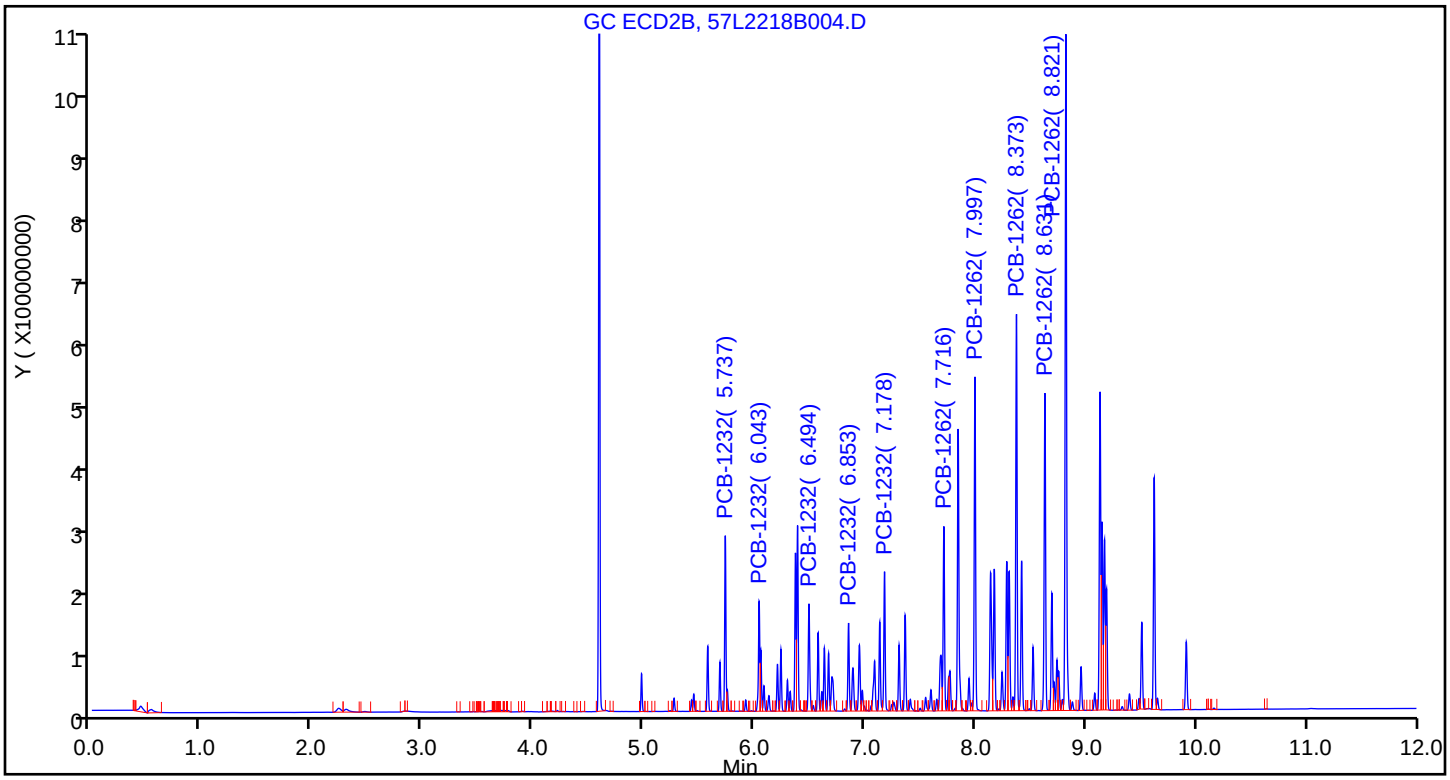
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

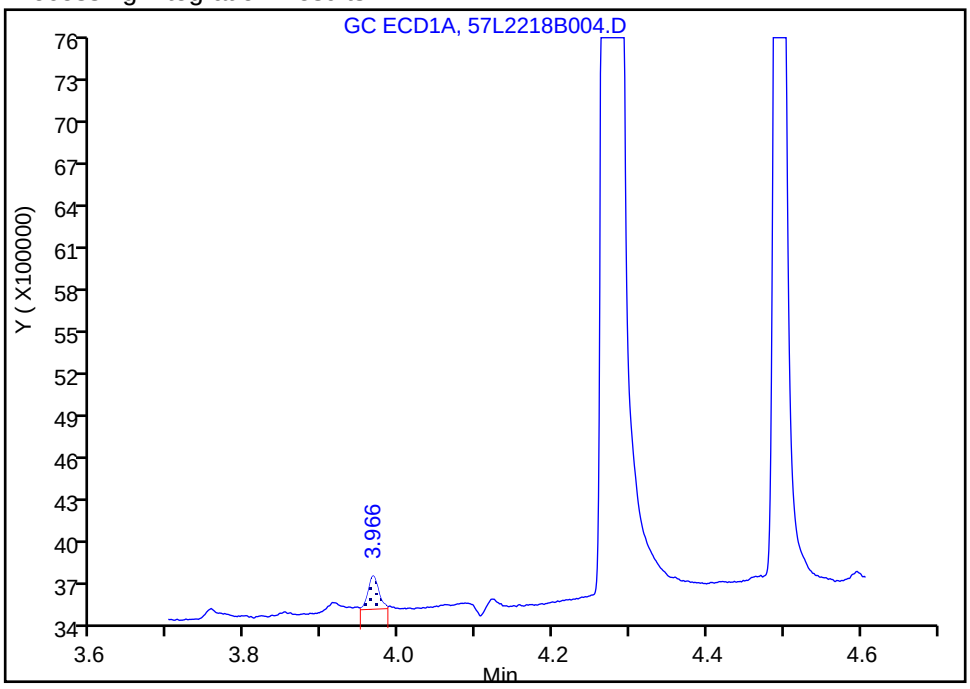
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B004.D
Injection Date: 22-Dec-2018 18:04:48 Instrument ID: TAC057
Lims ID: ic
Client ID:
Operator ID: ar ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

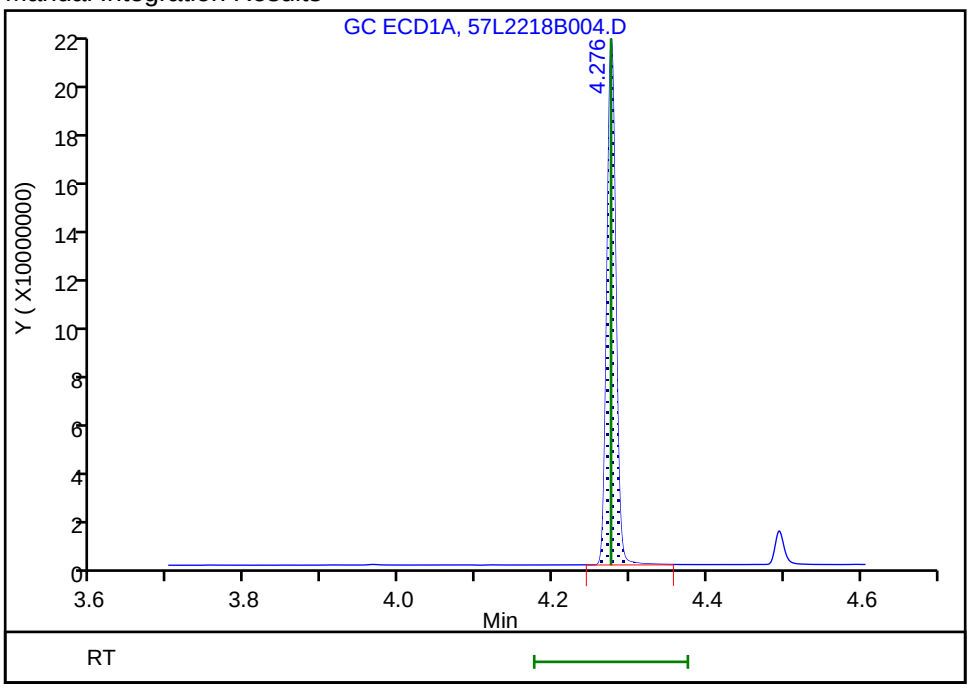
RT: 3.97
Area: 221517
Amount: 100.0000
Amount Units: ug/L

Processing Integration Results



RT: 4.28
Area: 165711376
Amount: 100.0000
Amount Units: ug/L

Manual Integration Results



Reviewer: ruslandera, 23-Dec-2018 14:08:55
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B005.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Dec-2018 18:22:20 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:08 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:08:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	166184204	100.0	100.0	a
2	4.596	4.596	0.000	1011573985	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						984.5	
2						989.1	
						RPD = 0.47	
8 PCB-1232							
1	5.187	5.187	0.000	29759690	500.0	485.7	
1	5.439	5.439	0.000	26549418	500.0	515.0	
1	5.769	5.770	-0.001	30700641	500.0	507.1	
1	5.863	5.863	0.000	20848218	500.0	493.1	
1	6.147	6.147	0.000	14607931	500.0	502.5	
		Average of Peak Amounts =				500.7	
2	5.738	5.736	0.002	116791558	500.0	479.5	
2	6.043	6.043	0.000	80206608	500.0	491.5	
2	6.495	6.495	0.000	84085916	500.0	486.4	
2	6.853	6.851	0.002	62132928	500.0	494.1	
2	7.178	7.176	0.002	98087558	500.0	482.7	
		Average of Peak Amounts =				486.8	
						RPD = 2.81	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							
1	6.922	6.921	0.001	35391448	500.0	474.0	
1	7.229	7.228	0.001	77191483	500.0	497.8	
1	7.531	7.531	0.000	98910486	500.0	501.8	
1	7.724	7.723	0.001	82352812	500.0	458.6	
1	7.964	7.963	0.001	172798676	500.0	486.8	
		Average of Peak Amounts =				483.8	
2	7.715	7.714	0.001	133794510	500.0	482.3	
2	7.997	7.995	0.002	238447928	500.0	499.3	
2	8.373	8.371	0.002	307115938	500.0	493.1	
2	8.630	8.629	0.001	279321000	500.0	525.2	
2	8.820	8.818	0.002	551631617	500.0	511.3	
		Average of Peak Amounts =				502.2	
						RPD = 3.74	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

3262_IC_STOCK_00008	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:08 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B005.D

Injection Date: 22-Dec-2018 18:22:20 Instrument ID: TAC057

Lims ID: ic

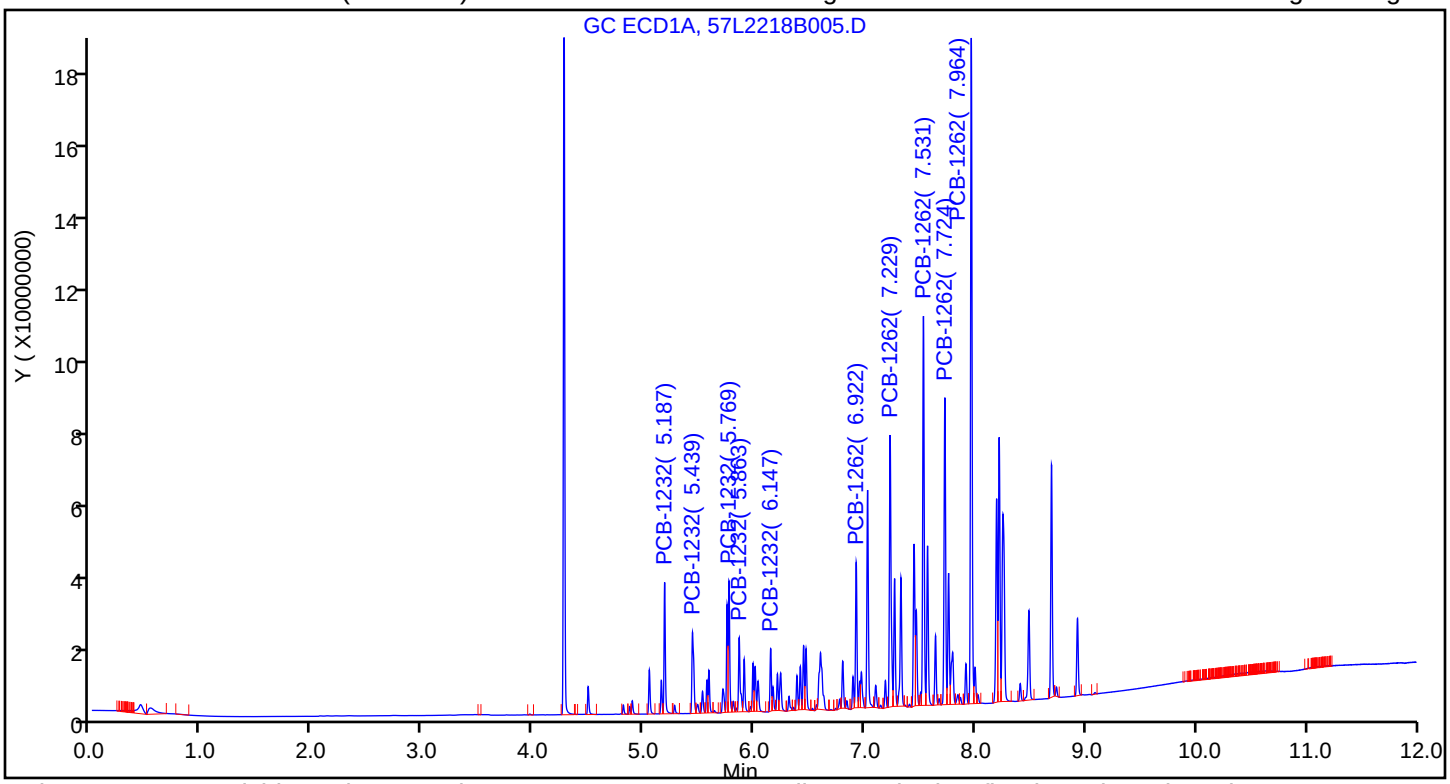
Client ID:

Operator ID: ar ALS Bottle#: 3 Worklist Smp#: 6

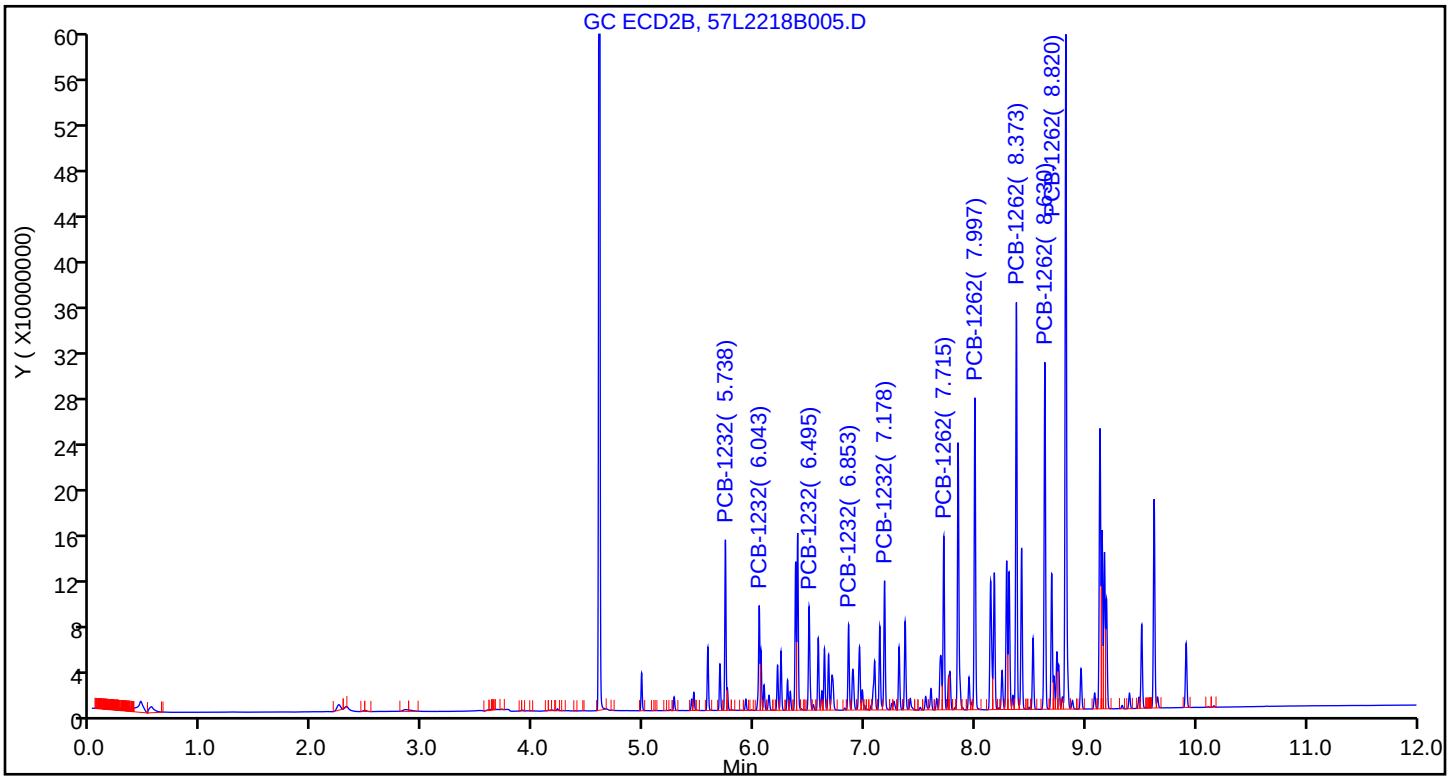
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

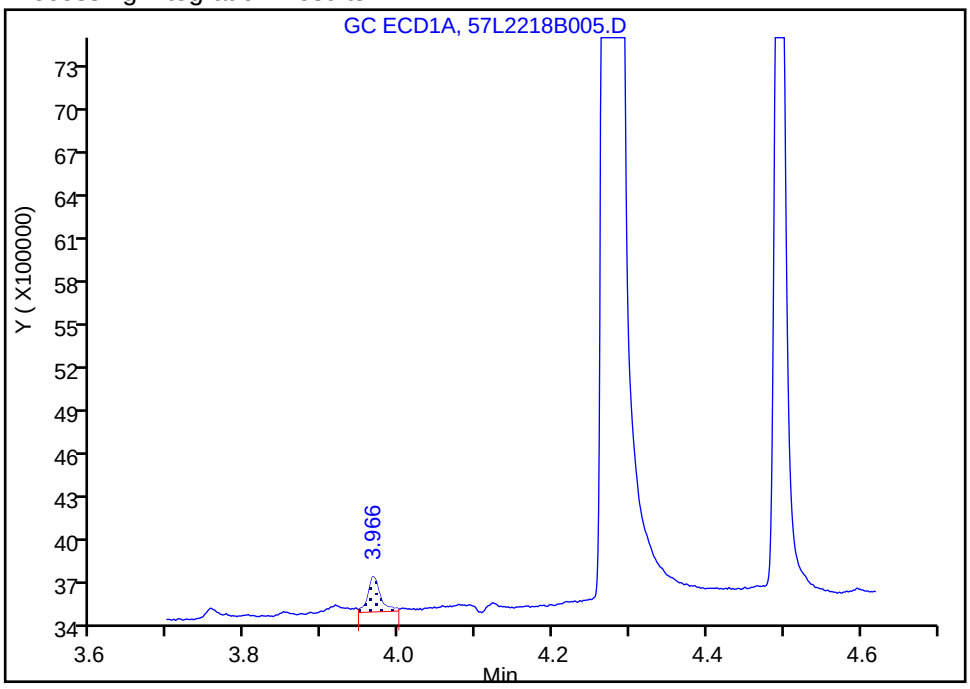
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B005.D
Injection Date: 22-Dec-2018 18:22:20 Instrument ID: TAC057
Lims ID: ic
Client ID:
Operator ID: ar ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

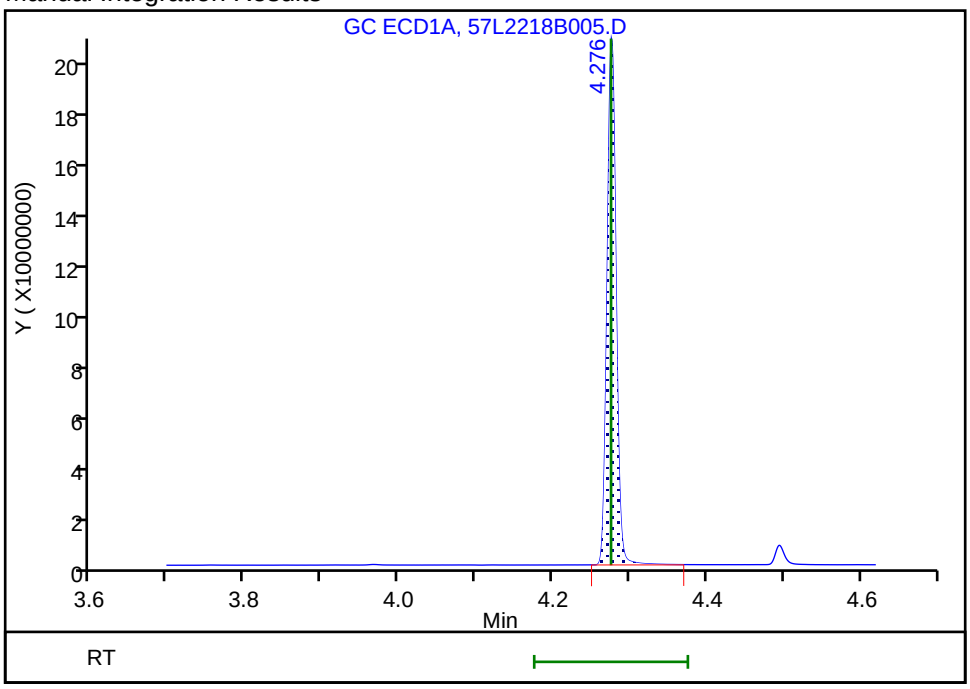
Processing Integration Results

RT: 3.97
Area: 274570
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 166184204
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:48
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Dec-2018 18:39:53 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:04 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 16:21:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	168767146	100.0	100.0	a
2	4.596	4.596	0.000	1045088087	100.0	100.0	a
						RPD = 0.00	
8 PCB-1232							Ma
1	5.187	5.187	0.000	6401382	100.0	101.3	a
1	5.439	5.439	0.000	5620827	100.0	105.2	M
1	5.770	5.770	0.000	6810466	100.0	108.7	M
1	5.863	5.863	0.000	4637483	100.0	106.9	M
1	6.147	6.147	0.000	3250121	100.0	109.2	M
		Average of Peak Amounts =				106.3	
2	5.736	5.736	0.000	26365859	100.0	102.2	a
2	6.043	6.043	0.000	17959115	100.0	103.4	
2	6.495	6.495	0.000	18407322	100.0	100.7	
2	6.851	6.851	0.000	13764762	100.0	102.8	
2	7.176	7.176	0.000	21368913	100.0	100.0	
		Average of Peak Amounts =				101.8	
						RPD = 4.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.921	6.921	0.000	7648776	100.0	100.9	M
1	7.228	7.228	0.000	16434875	100.0	103.0	M
1	7.531	7.531	0.000	20899210	100.0	102.2	M
1	7.723	7.723	0.000	17153038	100.0	94.1	M
1	7.963	7.963	0.000	35235337	100.0	97.7	M
		Average of Peak Amounts =				99.6	
2	7.714	7.714	0.000	29408313	100.0	100.6	M
2	7.995	7.995	0.000	51413087	100.0	101.8	M
2	8.371	8.371	0.000	65546579	100.0	99.5	
2	8.629	8.629	0.000	58489065	100.0	103.0	
2	8.818	8.818	0.000	110941558	100.0	97.9	
		Average of Peak Amounts =				100.6	
						RPD = 0.99	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D

Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057

Lims ID: icis

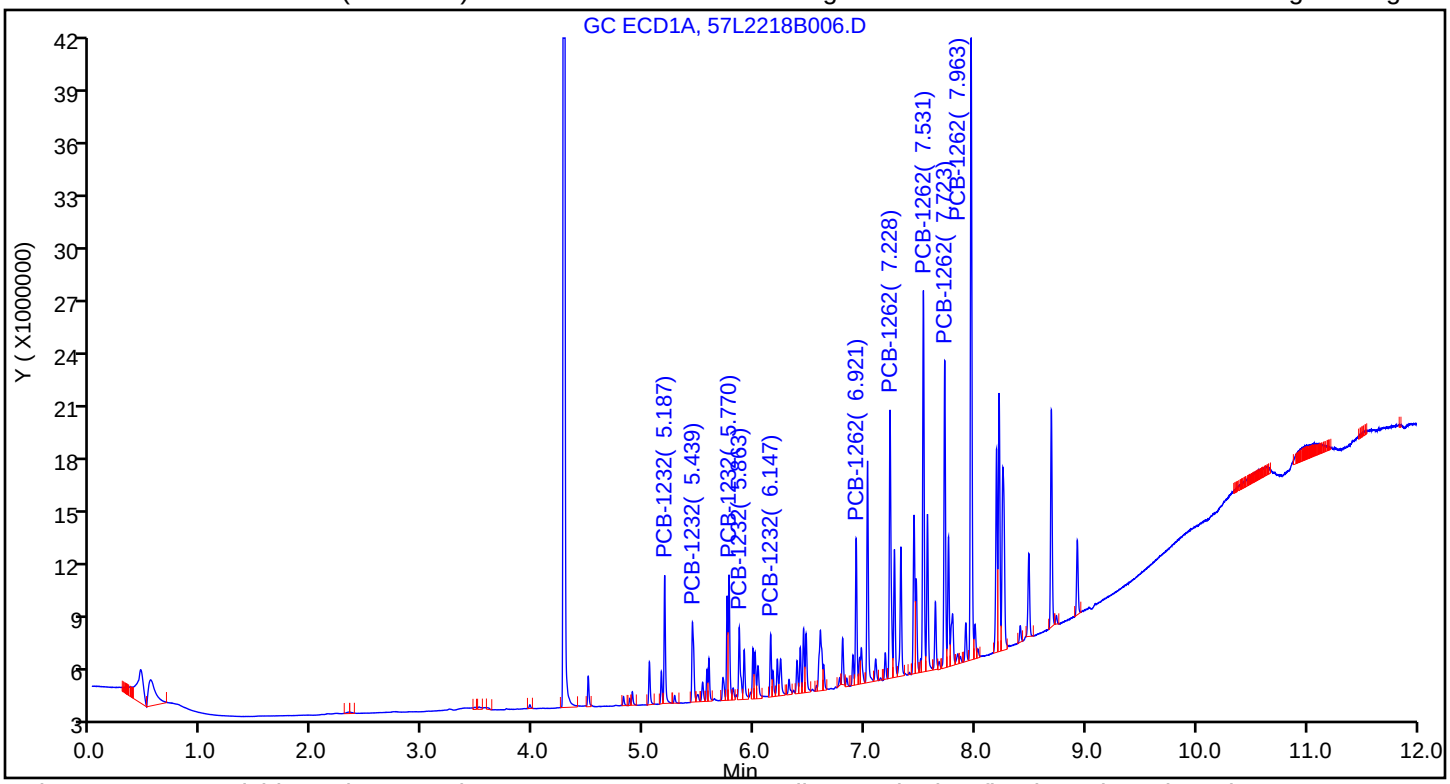
Client ID:

Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7

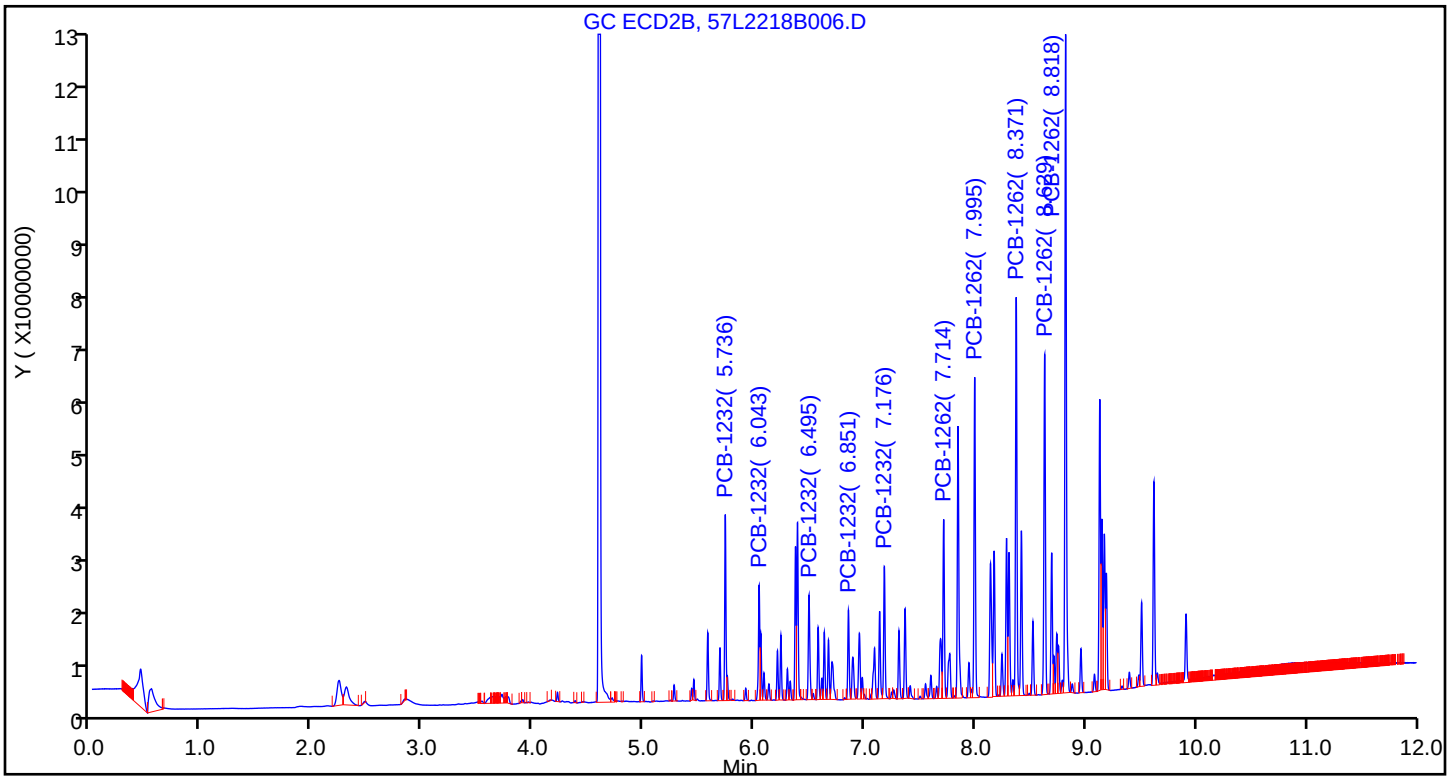
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

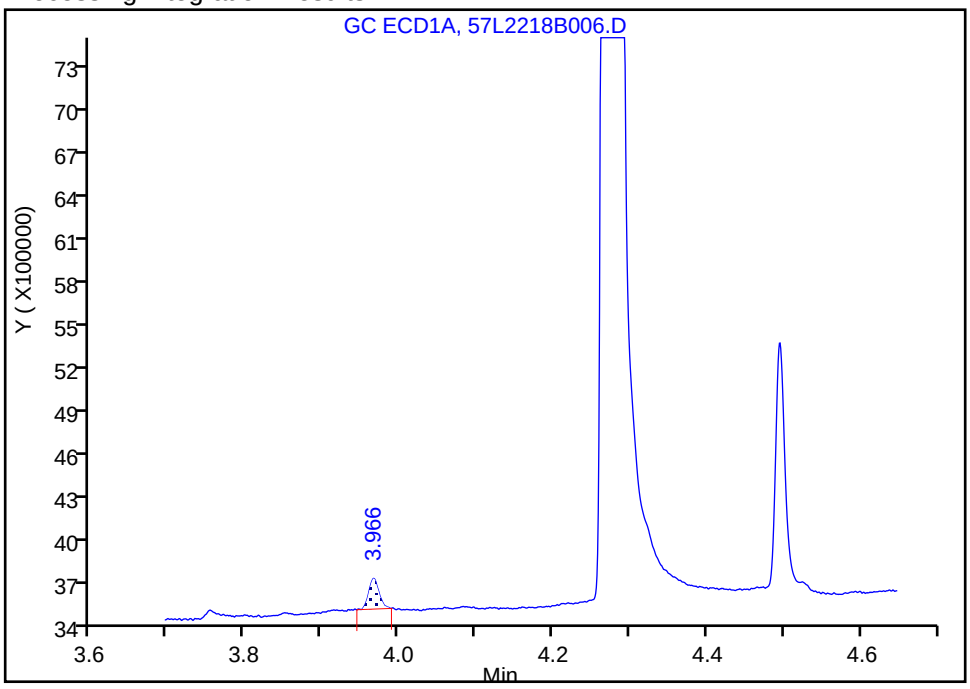
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D
Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

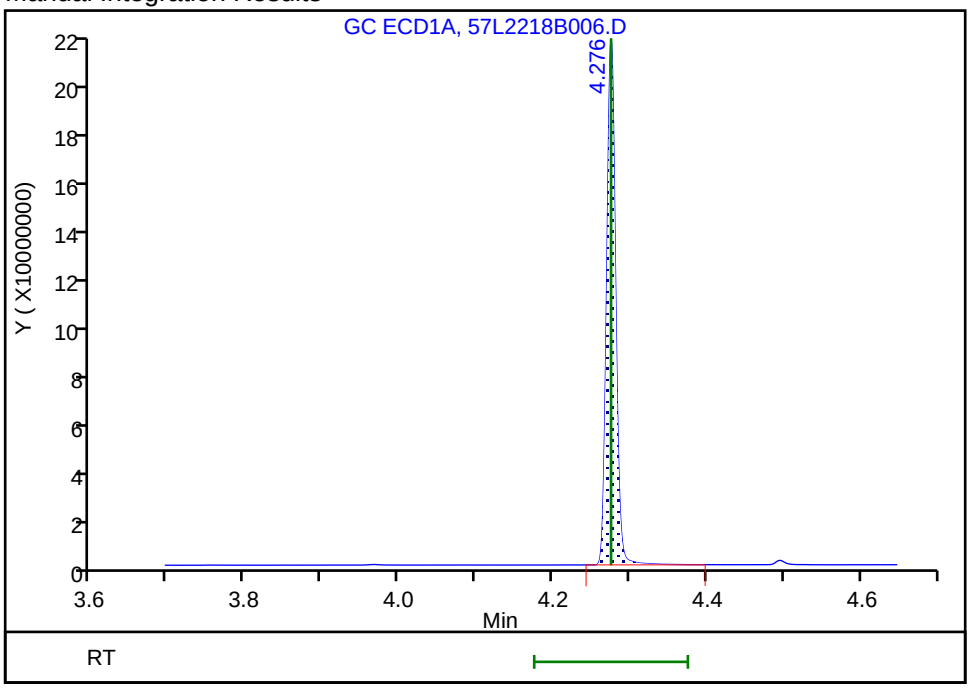
Processing Integration Results

RT: 3.97
Area: 196041
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 168767146
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:41
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:22:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D

Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057

Lims ID: icis

Client ID:

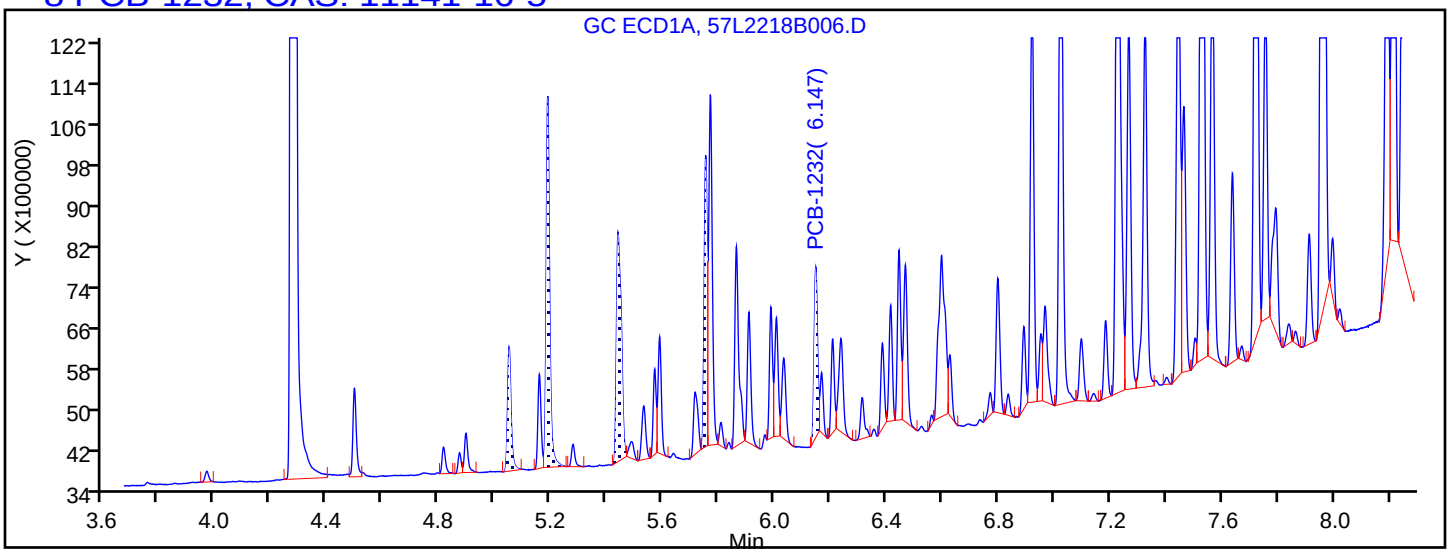
Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

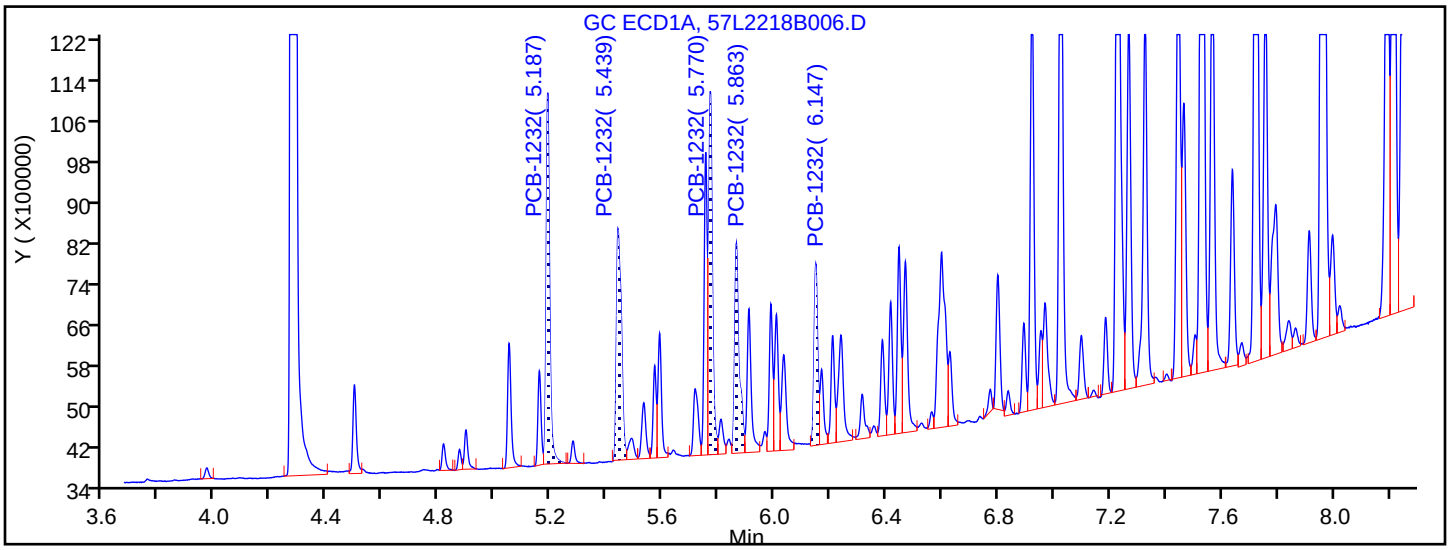
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.049	Response = 2200546
5.187	Response = 6401382
5.439	Response = 5462883
5.753	Response = 4282462
6.147	Response = 2876268



Manual Integration Results

5.187	Response = 6401382	M
5.439	Response = 5620827	M
5.770	Response = 6810466	M
5.863	Response = 4637483	M
6.147	Response = 3250121	M

Reviewer: ruslandera, 23-Dec-2018 13:51:34

Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:22:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D

Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057

Lims ID: icis

Client ID:

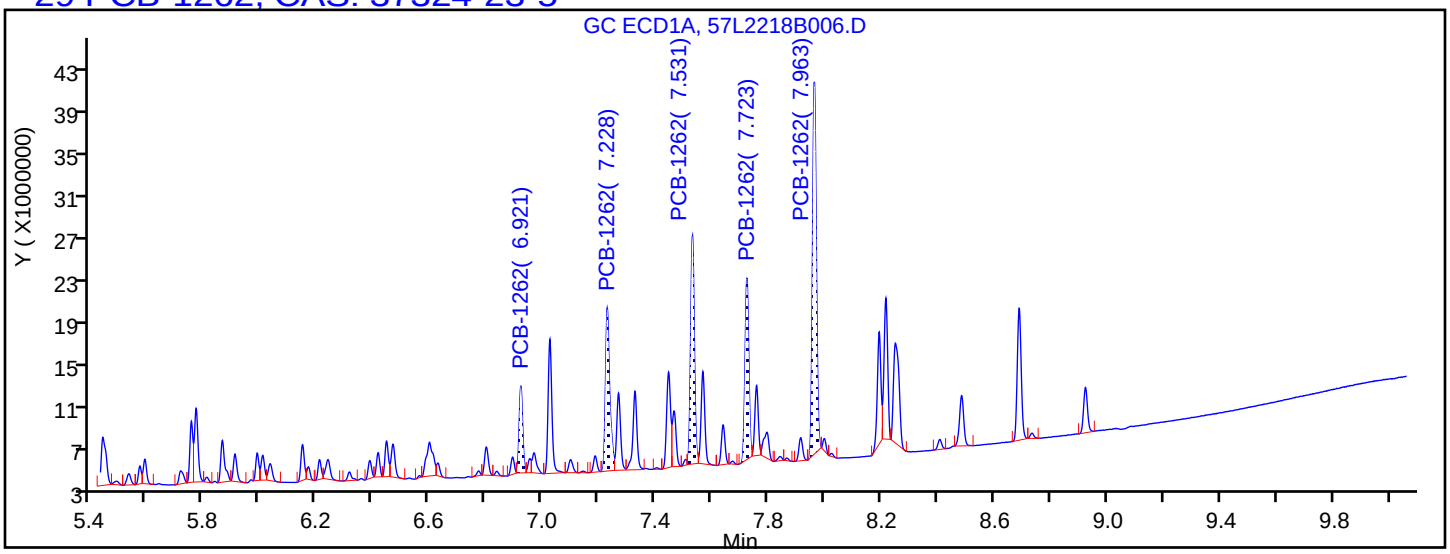
Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

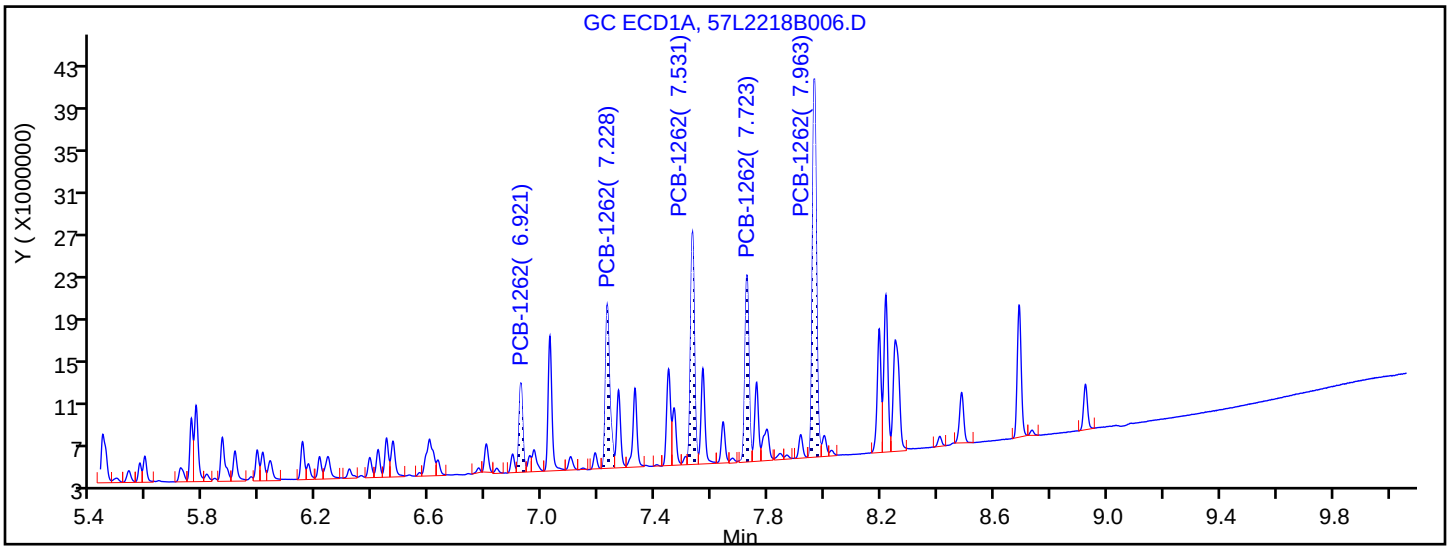
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.921	Response = 7185537
7.228	Response = 16338530
7.531	Response = 20119666
7.723	Response = 15880069
7.963	Response = 33525592



Manual Integration Results

6.921	Response = 7648776	M
7.228	Response = 16434875	M
7.531	Response = 20899210	M
7.723	Response = 17153038	M
7.963	Response = 35235337	M

Reviewer: ruslandera, 23-Dec-2018 13:56:24

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Dec-2018 18:57:35 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:00 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:57:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.275	4.275	0.000	167234274	100.0	100.0	a
2	4.596	4.596	0.000	1031132091	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						106.1	
2						106.0	
						RPD = 0.14	
8 PCB-1232							M
1	5.187	5.187	0.000	3423177	50.0	53.7	M
1	5.439	5.439	0.000	2867927	50.0	52.9	M
1	5.770	5.770	0.000	3394086	50.0	53.4	M
1	5.863	5.863	0.000	2264202	50.0	52.0	M
1	6.147	6.147	0.000	1596339	50.0	53.5	M
		Average of Peak Amounts =				53.1	
2	5.736	5.736	0.000	14036513	50.0	53.6	
2	6.042	6.042	0.000	9506029	50.0	53.7	
2	6.494	6.494	0.000	9728926	50.0	52.6	
2	6.852	6.852	0.000	7279830	50.0	53.2	
2	7.177	7.177	0.000	11161178	50.0	51.8	
		Average of Peak Amounts =				53.0	
						RPD = 0.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.921	6.921	0.000	4154611	50.0	55.3	M
1	7.228	7.228	0.000	8957630	50.0	55.8	M
1	7.530	7.530	0.000	10948662	50.0	52.8	M
1	7.724	7.724	0.000	8882936	50.0	49.2	M
1	7.963	7.963	0.000	18591908	50.0	52.0	M
		Average of Peak Amounts =				53.0	
2	7.715	7.715	0.000	15577742	50.0	52.8	M
2	7.995	7.995	0.000	27365236	50.0	53.6	M
2	8.371	8.371	0.000	35579970	50.0	53.4	M
2	8.629	8.629	0.000	31366794	50.0	54.0	M
2	8.819	8.819	0.000	58192846	50.0	51.1	M
		Average of Peak Amounts =				53.0	
						RPD = 0.07	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:00 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D

Injection Date: 22-Dec-2018 18:57:35 Instrument ID: TAC057

Lims ID: ic

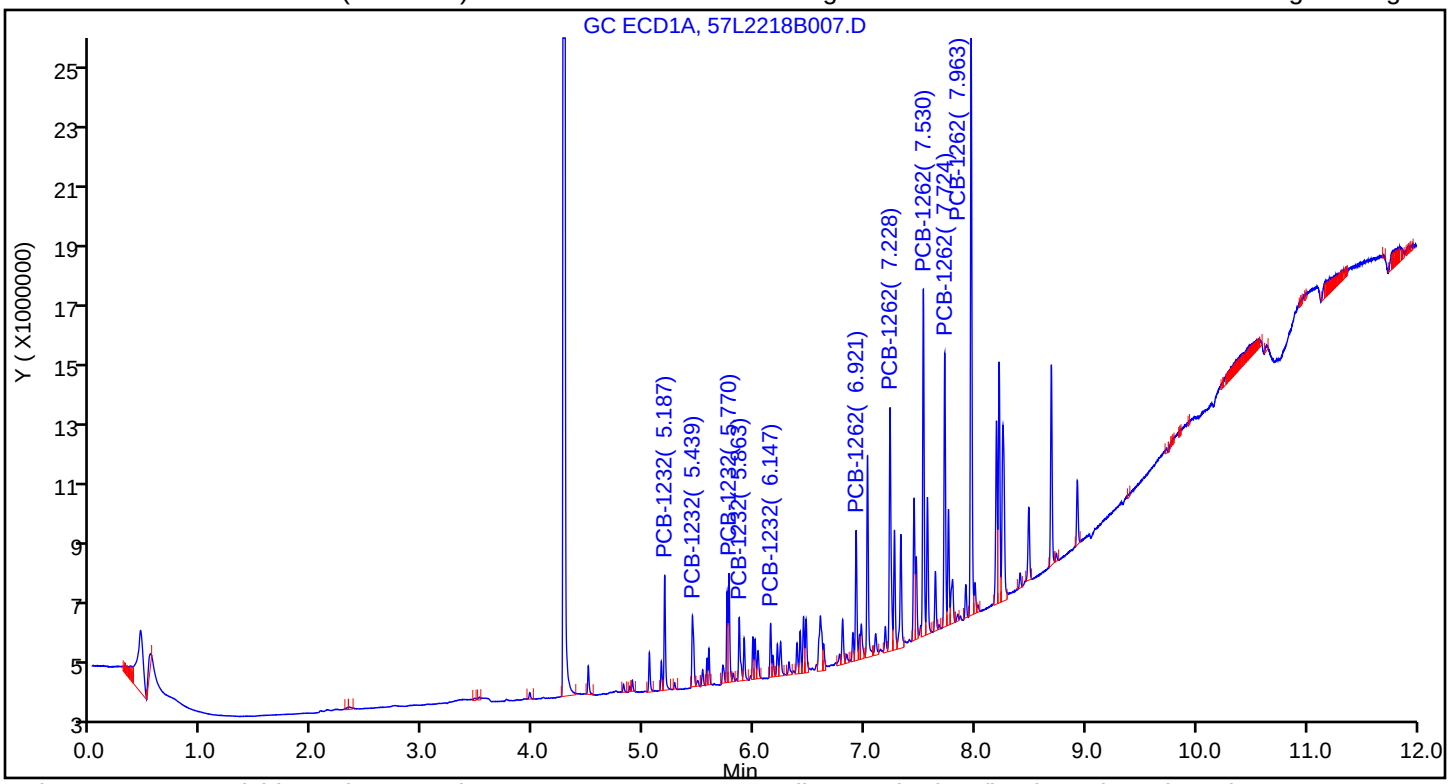
Client ID:

Operator ID: ar ALS Bottle#: 5 Worklist Smp#: 8

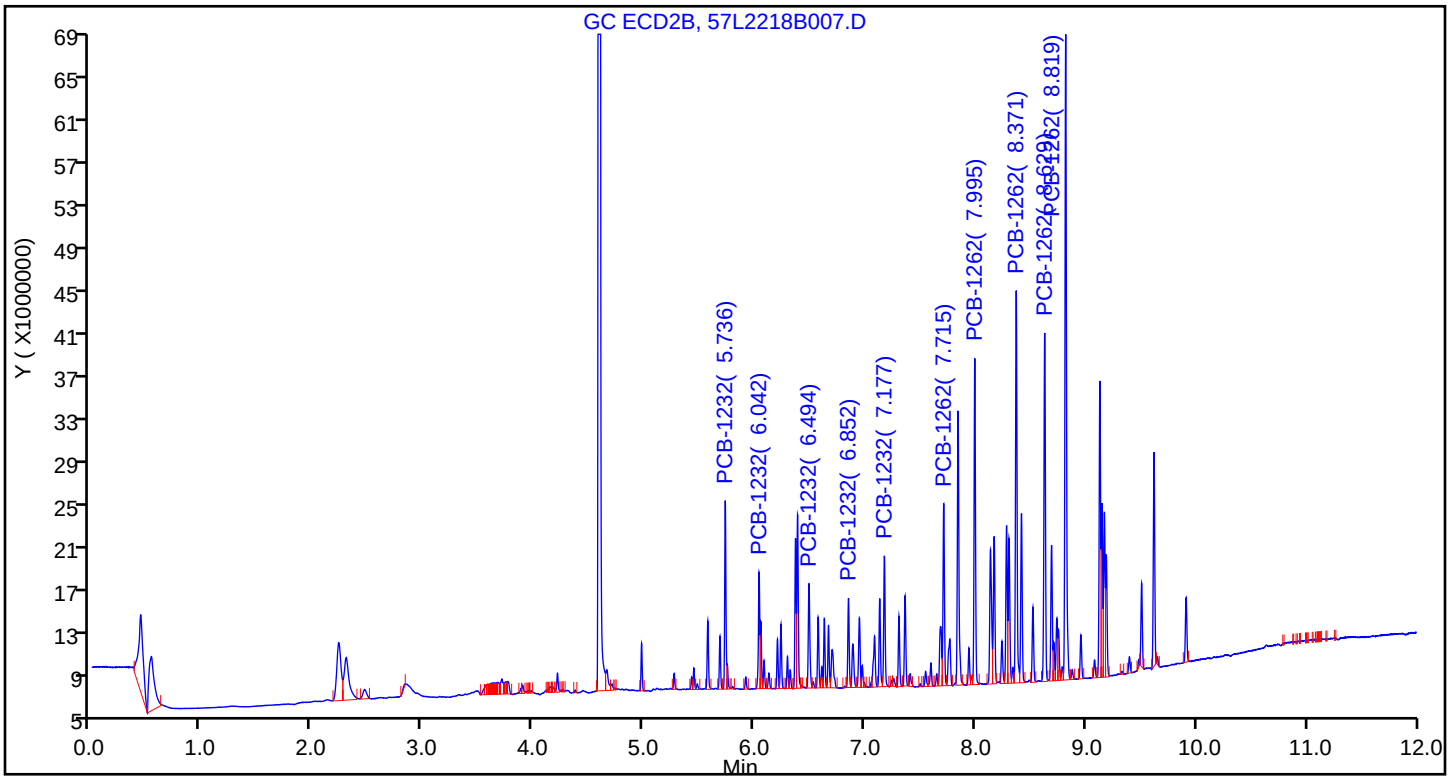
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

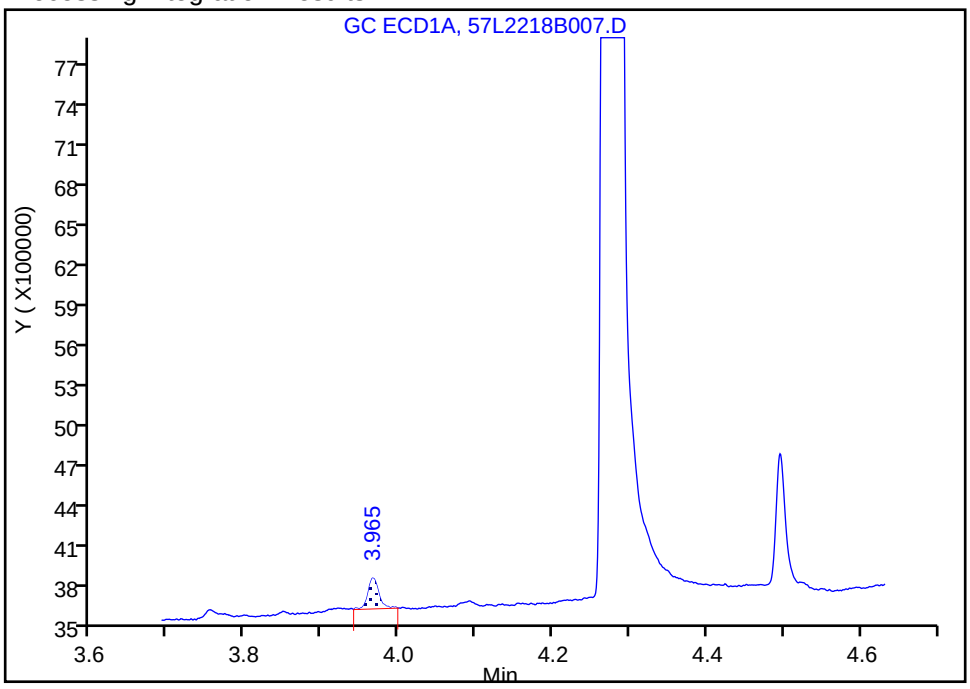
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D				
Injection Date:	22-Dec-2018 18:57:35	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	5	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

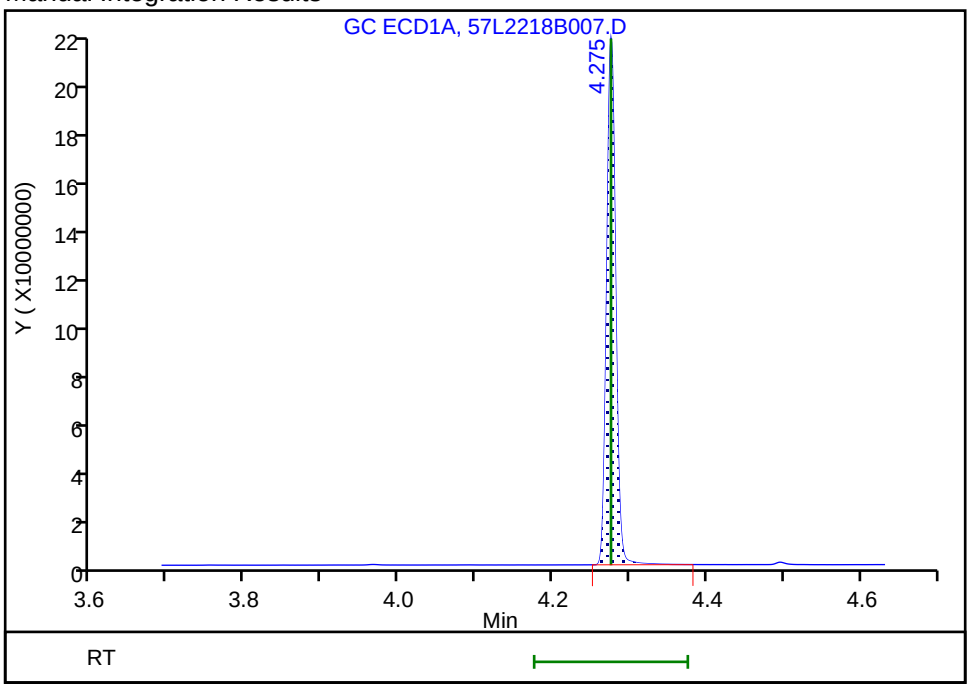
Processing Integration Results

RT: 3.97
Area: 217676
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 167234274
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:34
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:22:00 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D

Injection Date: 22-Dec-2018 18:57:35 Instrument ID: TAC057

Lims ID: ic

Client ID:

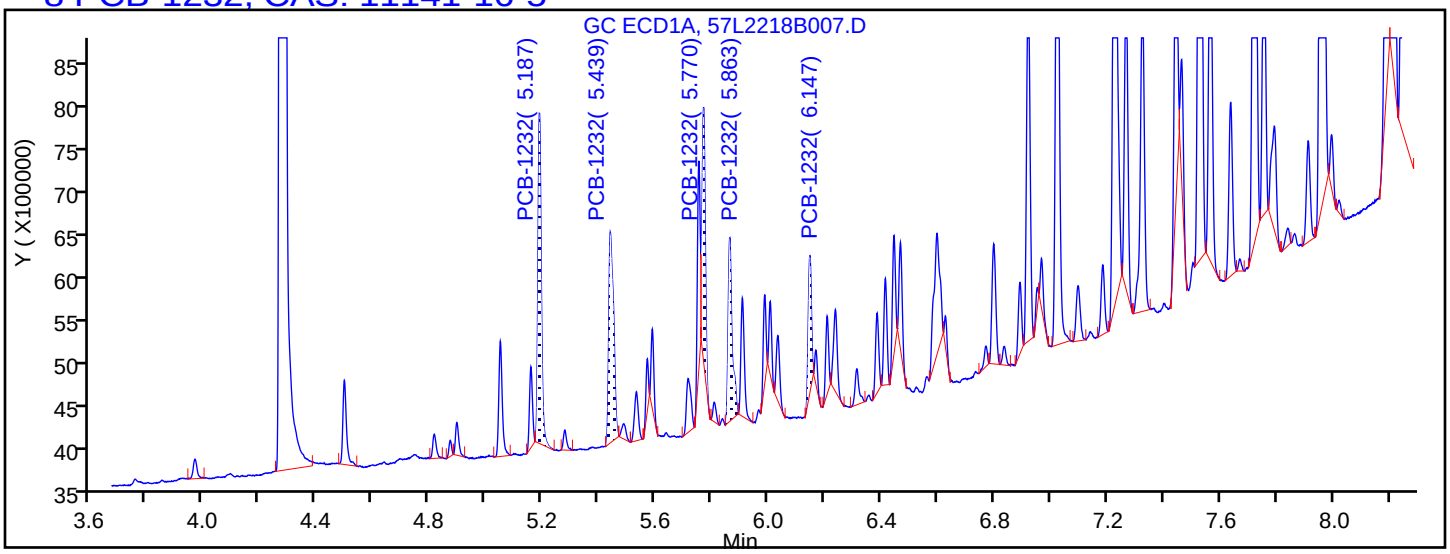
Operator ID: ar ALS Bottle#: 5 Worklist Smp#: 8

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

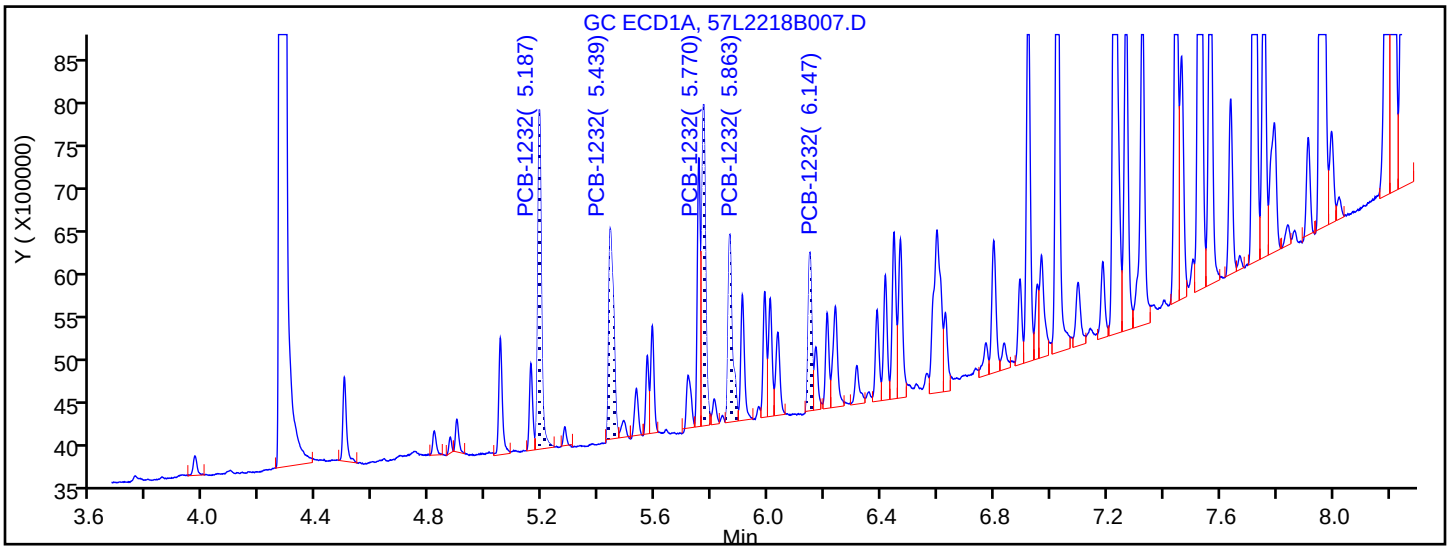
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.187	Response = 3150782
5.439	Response = 2845915
5.770	Response = 2308209
5.863	Response = 2084688
6.147	Response = 1221008



Manual Integration Results

5.187	Response = 3423177	M
5.439	Response = 2867927	M
5.770	Response = 3394086	M
5.863	Response = 2264202	M
6.147	Response = 1596339	M

Reviewer: ruslandera, 23-Dec-2018 13:56:51

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:22:01 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D

Injection Date: 22-Dec-2018 18:57:35 Instrument ID: TAC057

Lims ID: ic

Client ID:

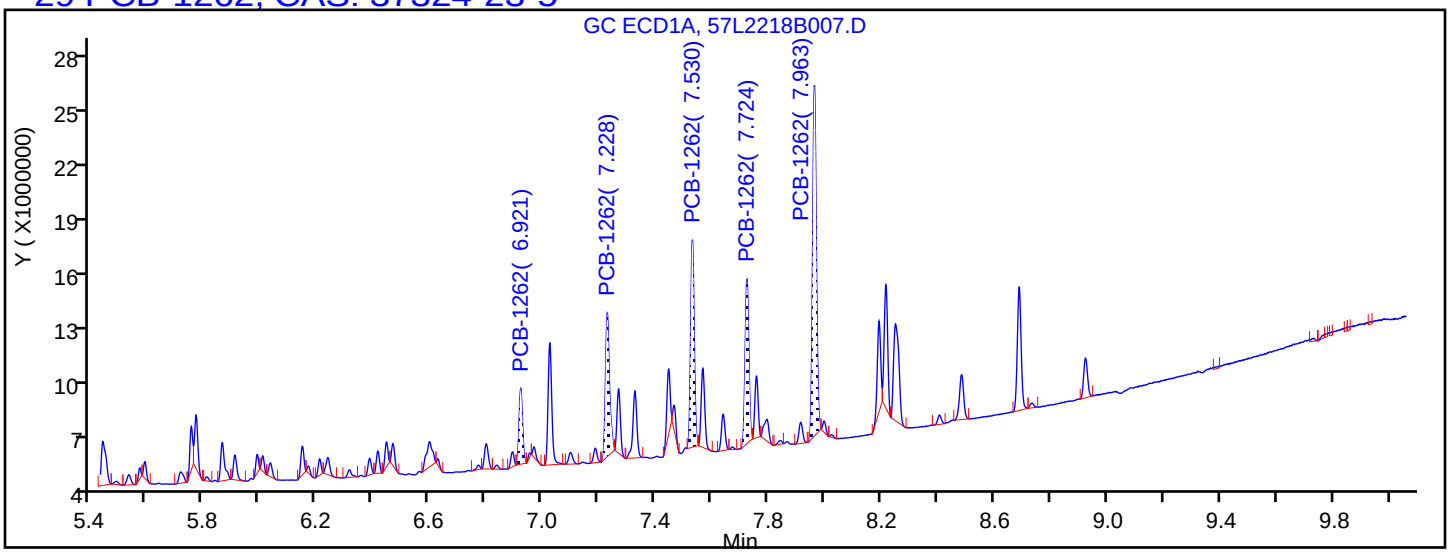
Operator ID: ar ALS Bottle#: 5 Worklist Smp#: 8

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

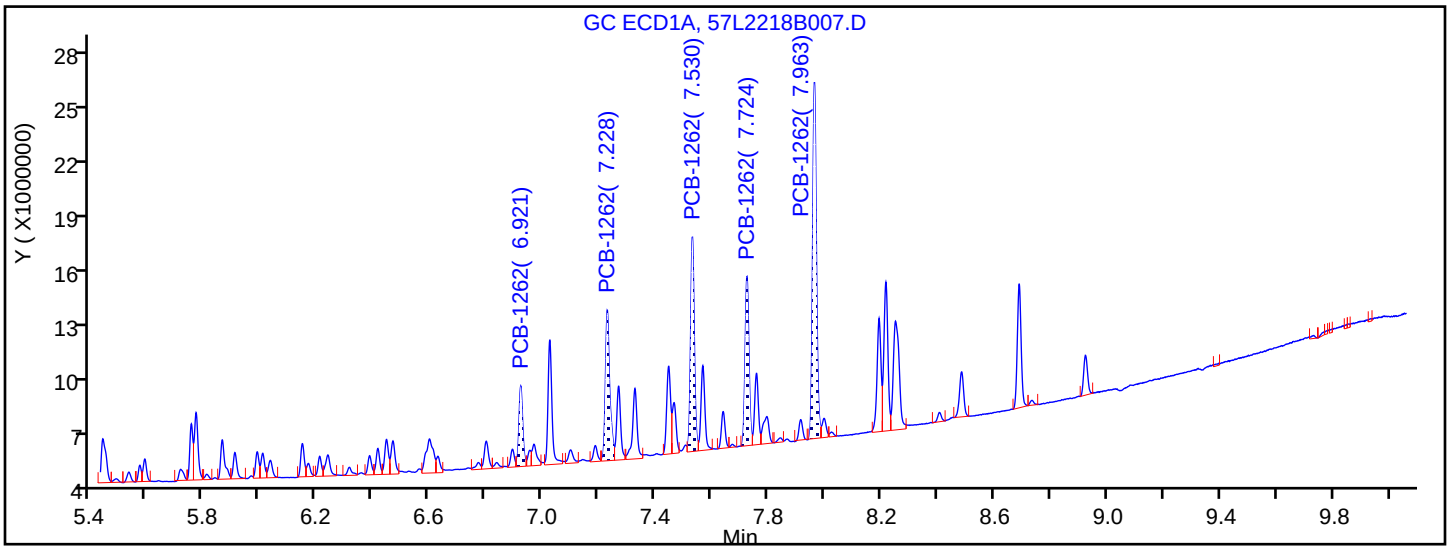
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.921	Response = 3566328
7.228	Response = 7851785
7.530	Response = 10033074
7.724	Response = 8283340
7.963	Response = 17788416



Manual Integration Results

6.921	Response = 4154611	M
7.228	Response = 8957630	M
7.530	Response = 10948662	M
7.724	Response = 8882936	M
7.963	Response = 18591908	M

Reviewer: ruslandera, 23-Dec-2018 13:56:55

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Dec-2018 19:15:10 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:21:56 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:57:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.275	4.276	-0.001	173225639	100.0	100.0	a
2	4.595	4.596	-0.001	1070582695	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						53.3	
2						52.9	
						RPD = 0.61	
8 PCB-1232							M
1	5.188	5.187	0.001	1809257	25.0	26.4	
1	5.439	5.439	0.000	1640082	25.0	28.0	M
1	5.770	5.770	0.000	1832085	25.0	26.6	
1	5.863	5.863	0.000	1173734	25.0	25.3	
1	6.147	6.147	0.000	827748	25.0	26.2	
		Average of Peak Amounts =				26.5	
2	5.736	5.736	0.000	7753668	25.0	27.0	
2	6.043	6.043	0.000	5168299	25.0	26.2	
2	6.494	6.495	-0.001	5366416	25.0	26.5	
2	6.852	6.851	0.001	3983308	25.0	26.1	
2	7.177	7.176	0.001	6197171	25.0	26.6	
		Average of Peak Amounts =				26.5	
						RPD = 0.04	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.921	6.921	0.000	2205062	25.0	28.3	M
1	7.228	7.228	0.000	4698312	25.0	27.4	M
1	7.529	7.531	-0.002	5838994	25.0	25.8	M
1	7.723	7.723	0.000	4794738	25.0	25.6	M
1	7.963	7.963	0.000	9881740	25.0	26.7	M
		Average of Peak Amounts =				26.8	
2	7.714	7.714	0.000	8448480	25.0	26.4	
2	7.995	7.995	0.000	15024199	25.0	26.9	
2	8.371	8.371	0.000	19570962	25.0	26.9	
2	8.629	8.629	0.000	17180911	25.0	26.4	
2	8.818	8.818	0.000	31409242	25.0	25.6	
		Average of Peak Amounts =				26.4	
						RPD = 1.25	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:21:57 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D

Injection Date: 22-Dec-2018 19:15:10 Instrument ID: TAC057

Lims ID: ic

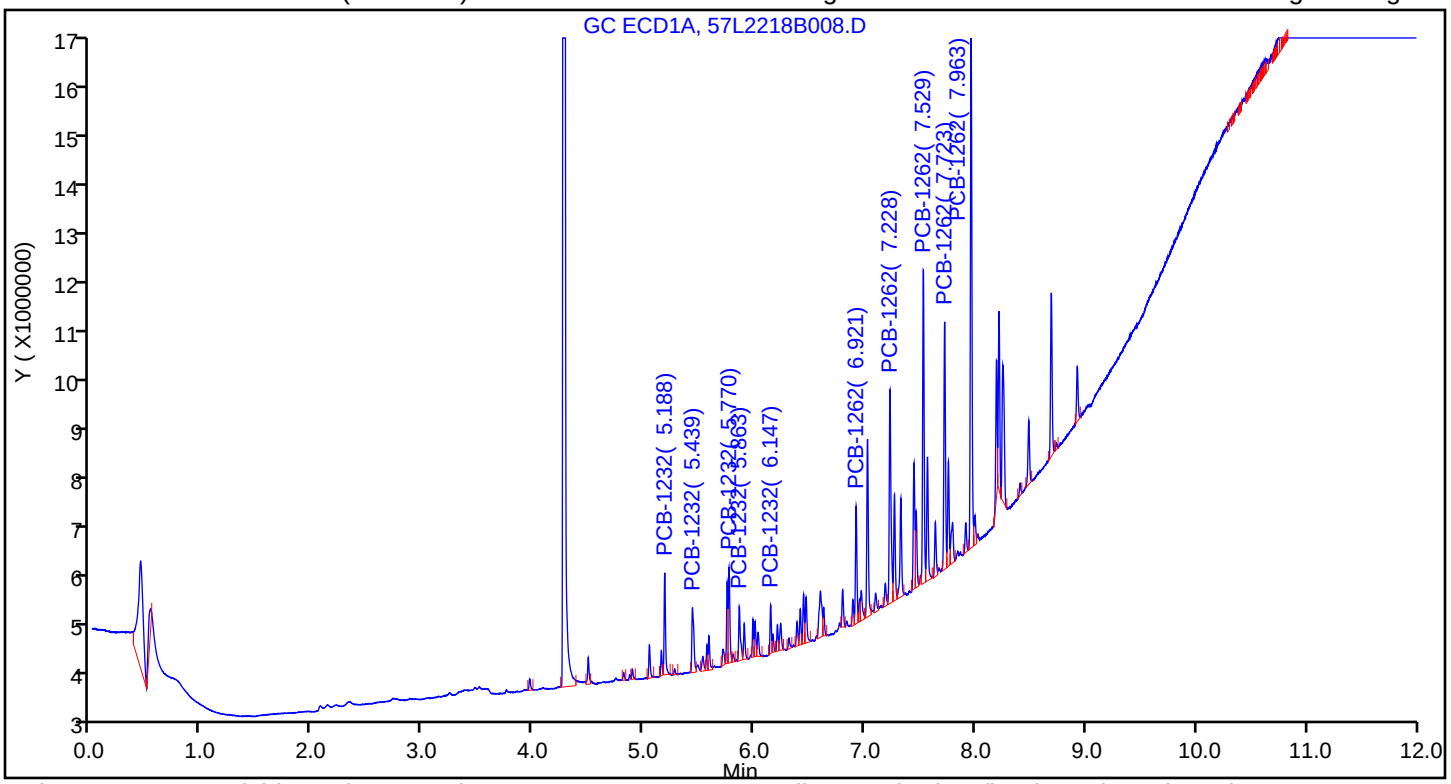
Client ID:

Operator ID: ar ALS Bottle#: 6 Worklist Smp#: 9

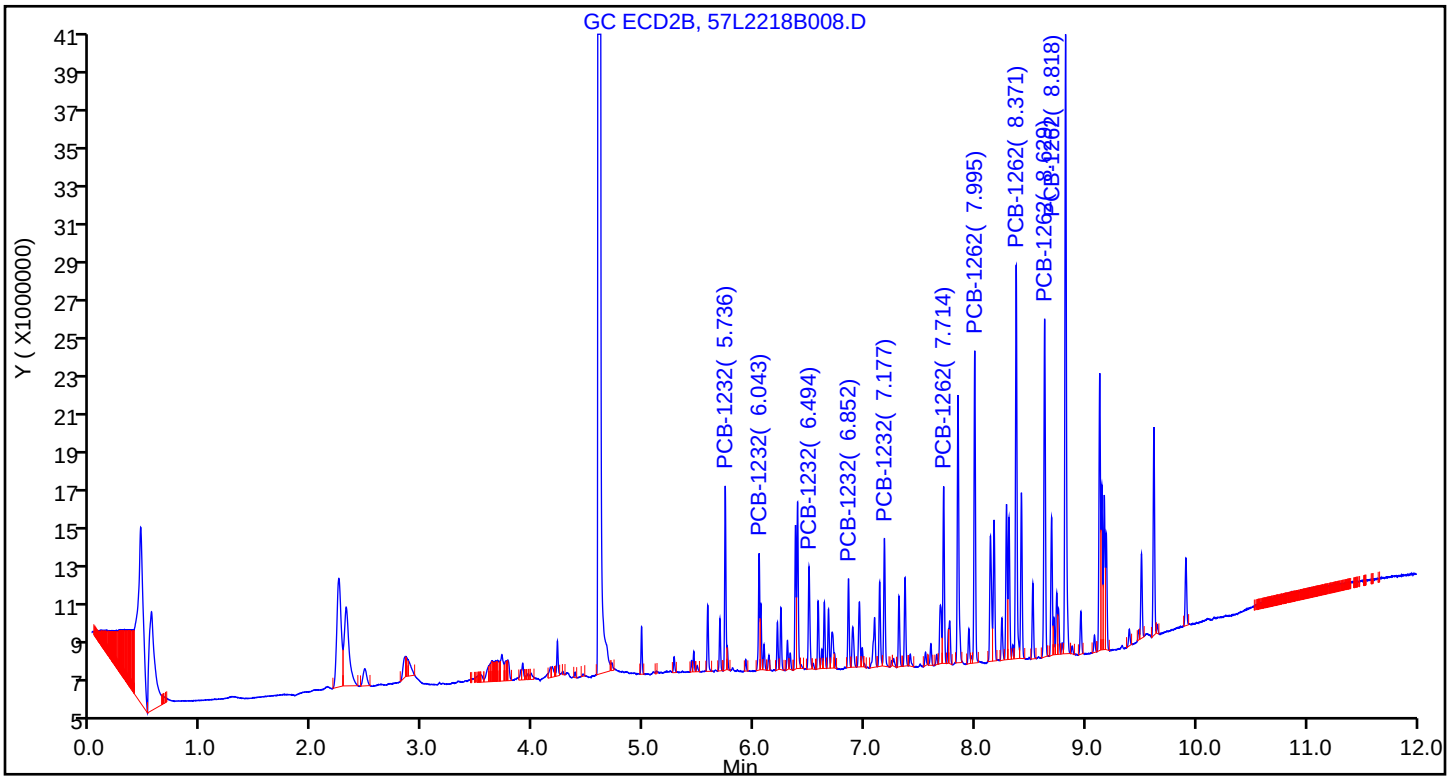
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

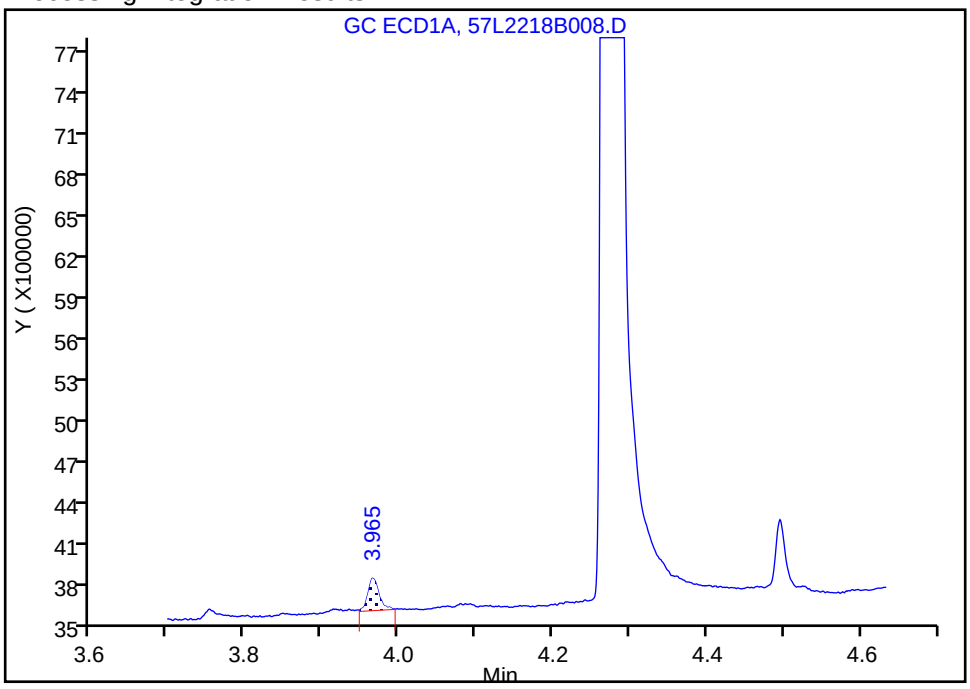
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D				
Injection Date:	22-Dec-2018 19:15:10	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

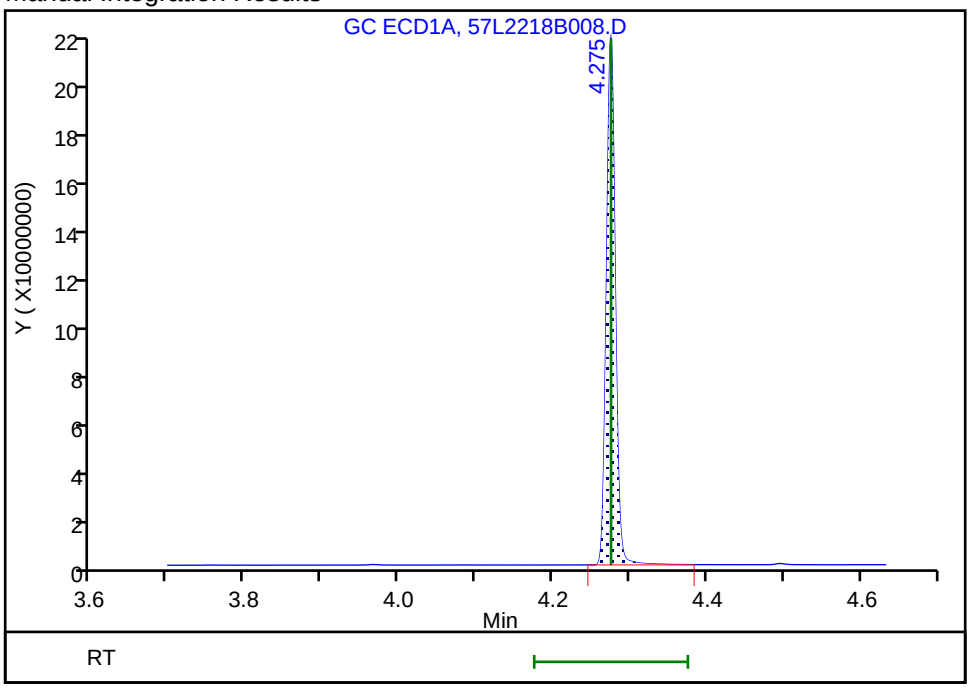
Processing Integration Results

RT: 3.97
Area: 232935
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 173225639
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:27
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:21:57 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D

Injection Date: 22-Dec-2018 19:15:10 Instrument ID: TAC057

Lims ID: ic

Client ID:

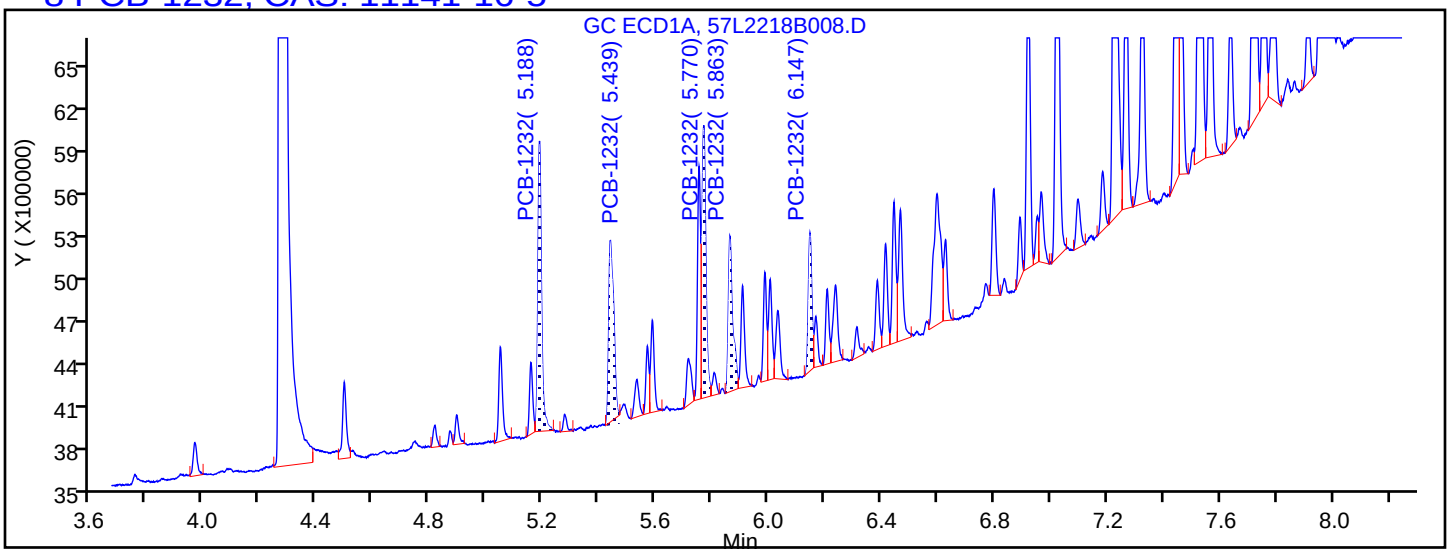
Operator ID: ar ALS Bottle#: 6 Worklist Smp#: 9

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

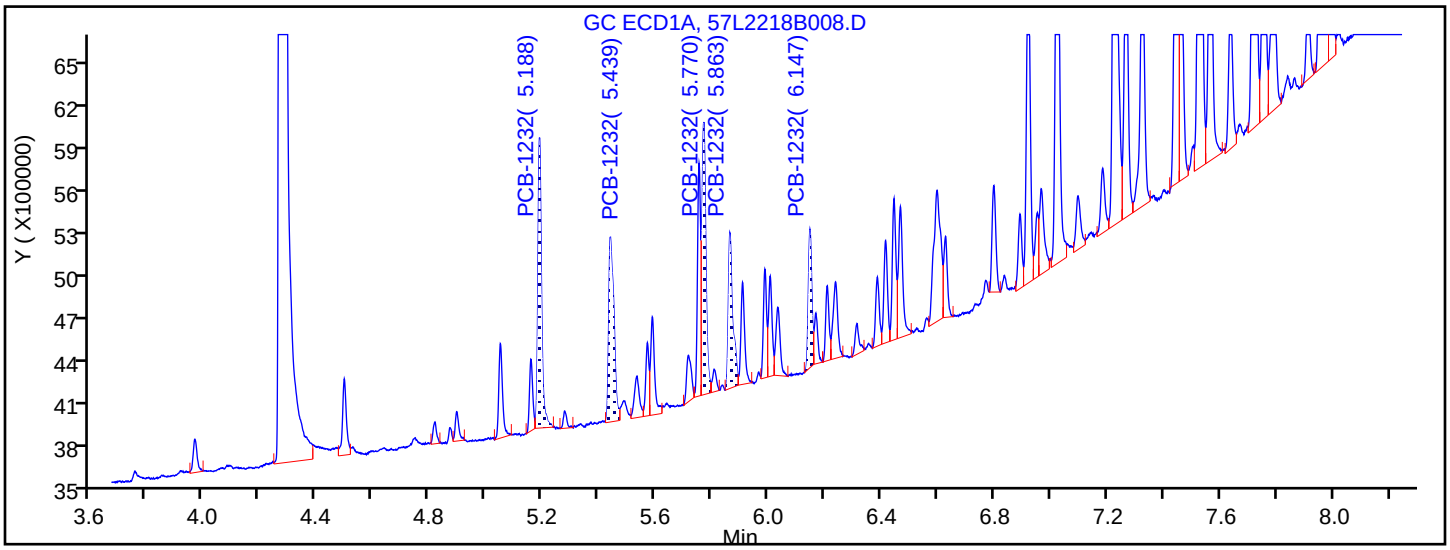
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.188	Response = 1809257
5.439	Response = 1541497
5.770	Response = 1832085
5.863	Response = 1173734
6.147	Response = 827748



Manual Integration Results

5.188	Response = 1809257	
5.439	Response = 1640082	M
5.770	Response = 1832085	
5.863	Response = 1173734	
6.147	Response = 827748	

Reviewer: ruslandera, 23-Dec-2018 13:57:34

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:21:57 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D

Injection Date: 22-Dec-2018 19:15:10 Instrument ID: TAC057

Lims ID: ic

Client ID:

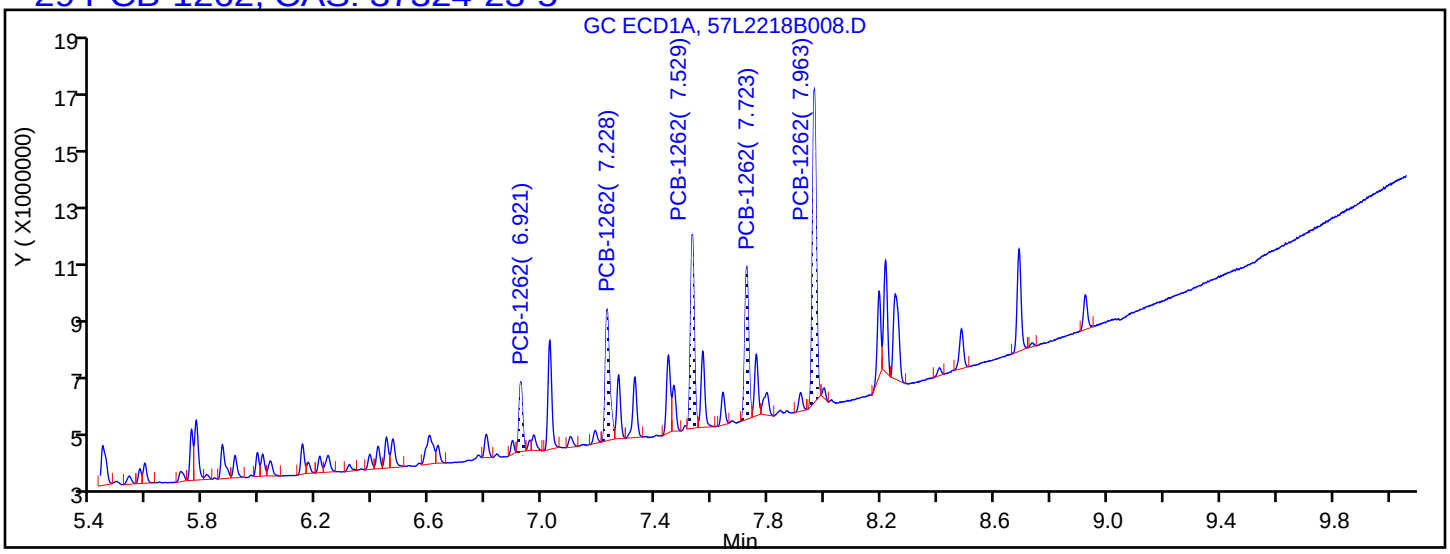
Operator ID: ar ALS Bottle#: 6 Worklist Smp#: 9

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

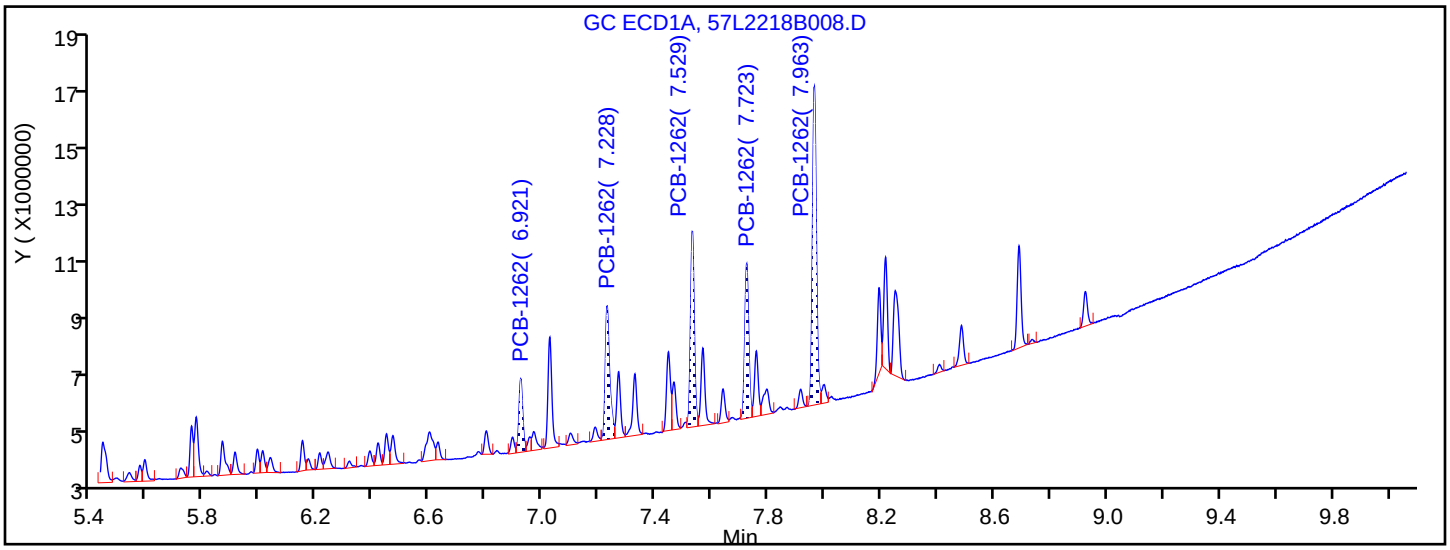
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.921	Response = 1940287
7.228	Response = 4491159
7.529	Response = 5682381
7.723	Response = 4623302
7.963	Response = 9348530



Manual Integration Results

6.921	Response = 2205062	M
7.228	Response = 4698312	M
7.529	Response = 5838994	M
7.723	Response = 4794738	M
7.963	Response = 9881740	M

Reviewer: ruslandera, 23-Dec-2018 13:57:40

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Dec-2018 19:32:44 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:21:53 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:58:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	173457491	100.0	100.0	a
2	4.596	4.596	0.000	1066459374	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.2	
2						20.8	
						RPD = 2.98	
8 PCB-1232							M
1	5.189	5.187	0.002	802359	10.0	10.5	
1	5.440	5.439	0.001	646742	10.0	9.37	M
1	5.771	5.770	0.001	762638	10.0	9.53	M
1	5.865	5.863	0.002	493618	10.0	9.81	M
1	6.148	6.147	0.001	336440	10.0	9.93	M
		Average of Peak Amounts =				9.83	
2	5.737	5.736	0.001	3534497	10.0	10.5	
2	6.043	6.043	0.000	2318042	10.0	9.64	
2	6.495	6.495	0.000	2449464	10.0	10.5	M
2	6.852	6.851	0.001	1801315	10.0	9.67	M
2	7.177	7.176	0.001	2871586	10.0	11.2	M
		Average of Peak Amounts =				10.3	
						RPD = 4.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.922	6.921	0.001	783264	10.0	10.0	
1	7.229	7.228	0.001	1950423	10.0	10.3	M
1	7.531	7.531	0.000	2553929	10.0	9.74	M
1	7.724	7.723	0.001	1933566	10.0	10.3	M
1	7.963	7.963	0.000	4241306	10.0	11.4	M
		Average of Peak Amounts =				10.4	
2	7.714	7.714	0.000	3886684	10.0	10.8	M
2	7.996	7.995	0.001	6932255	10.0	10.9	
2	8.371	8.371	0.000	9065088	10.0	10.9	
2	8.629	8.629	0.000	7750204	10.0	9.59	
2	8.819	8.818	0.001	14070172	10.0	10.4	
		Average of Peak Amounts =				10.5	
						RPD = 1.34	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:21:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D

Injection Date: 22-Dec-2018 19:32:44 Instrument ID: TAC057

Lims ID: ic

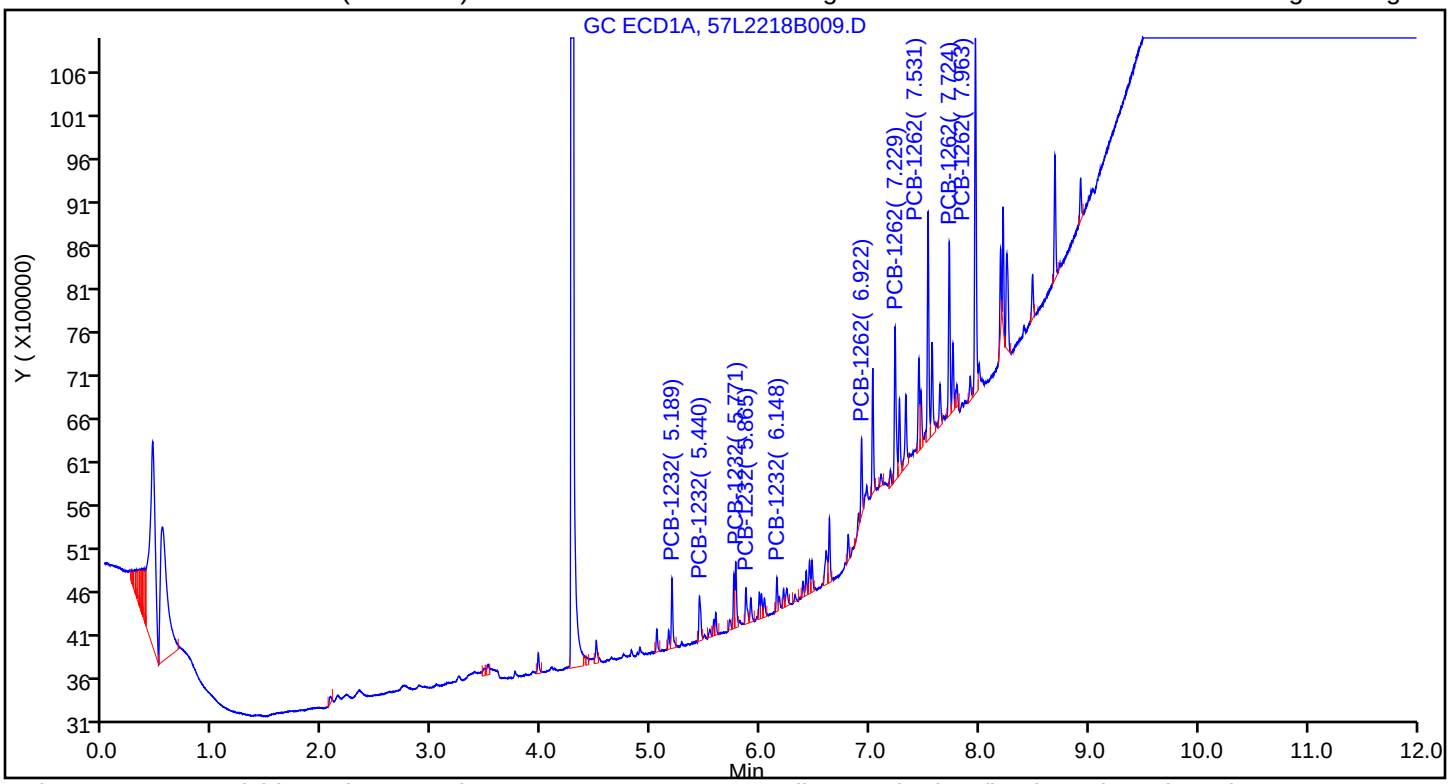
Client ID:

Operator ID: ar ALS Bottle#: 7 Worklist Smp#: 10

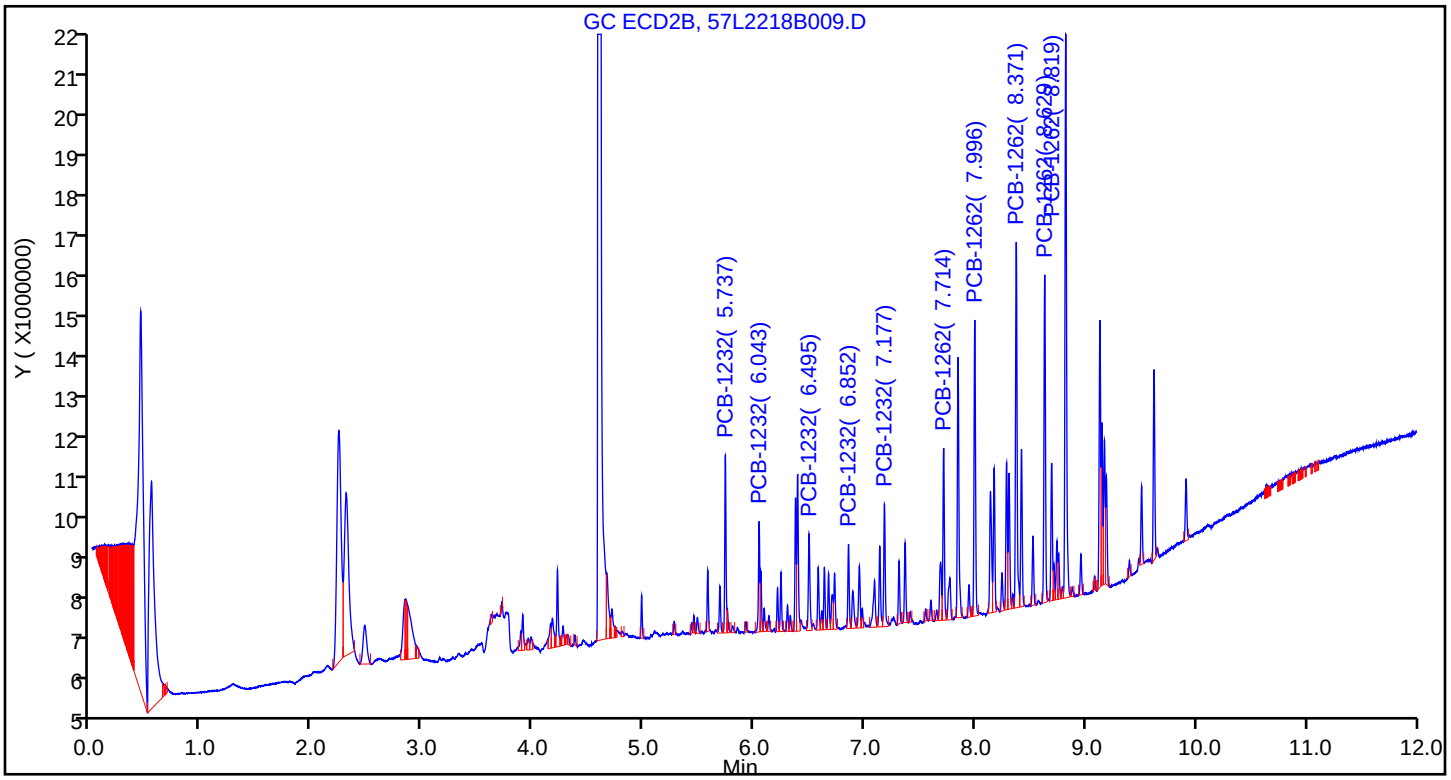
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

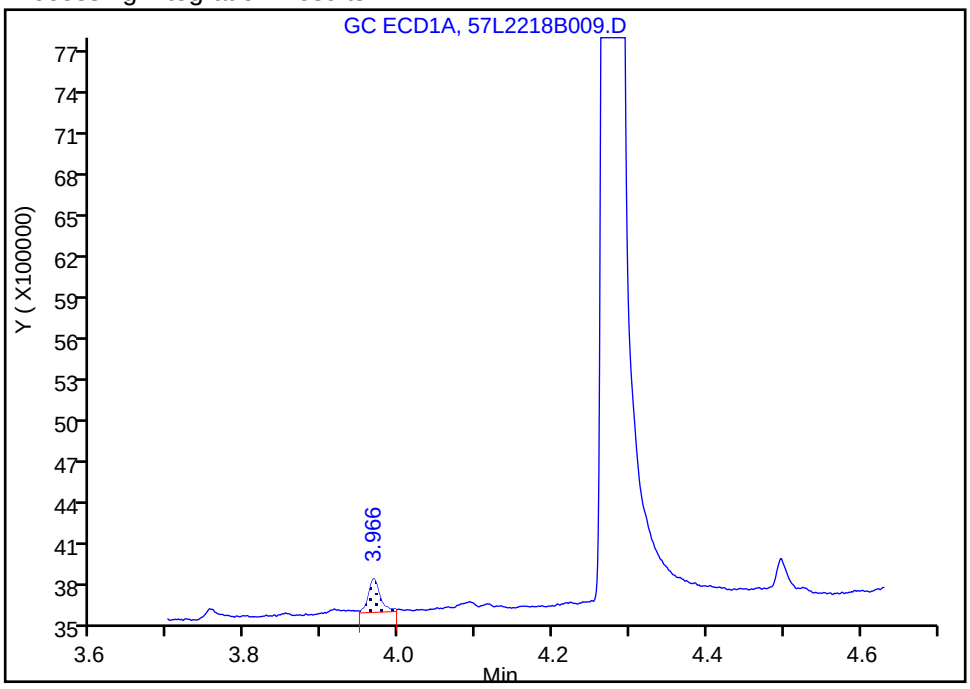
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D				
Injection Date:	22-Dec-2018 19:32:44	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

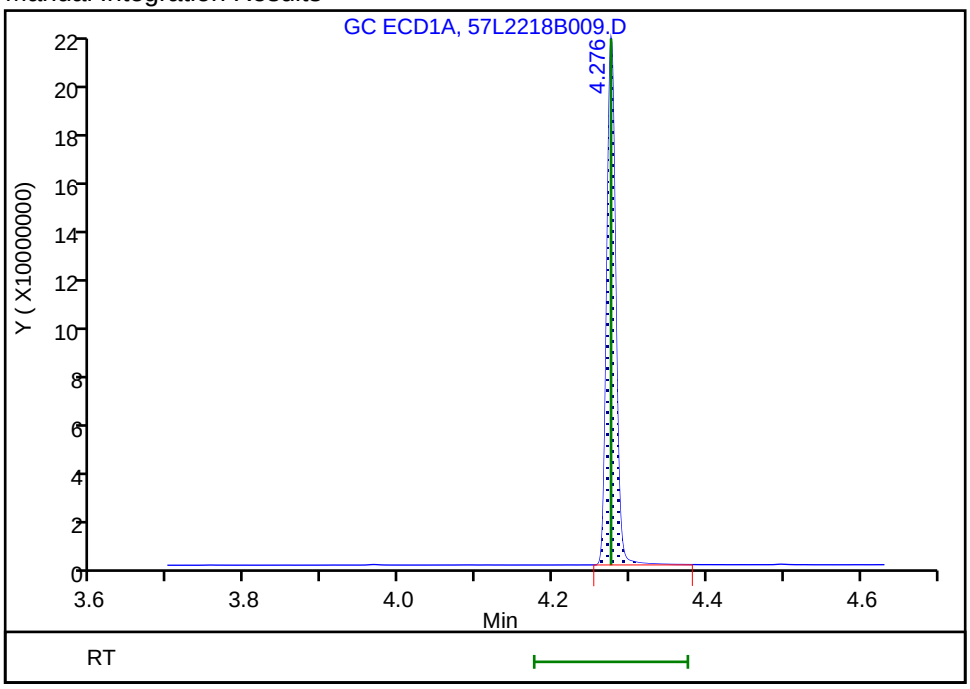
Processing Integration Results

RT: 3.97
Area: 251226
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 173457491
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:21
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:21:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D

Injection Date: 22-Dec-2018 19:32:44 Instrument ID: TAC057

Lims ID: ic

Client ID:

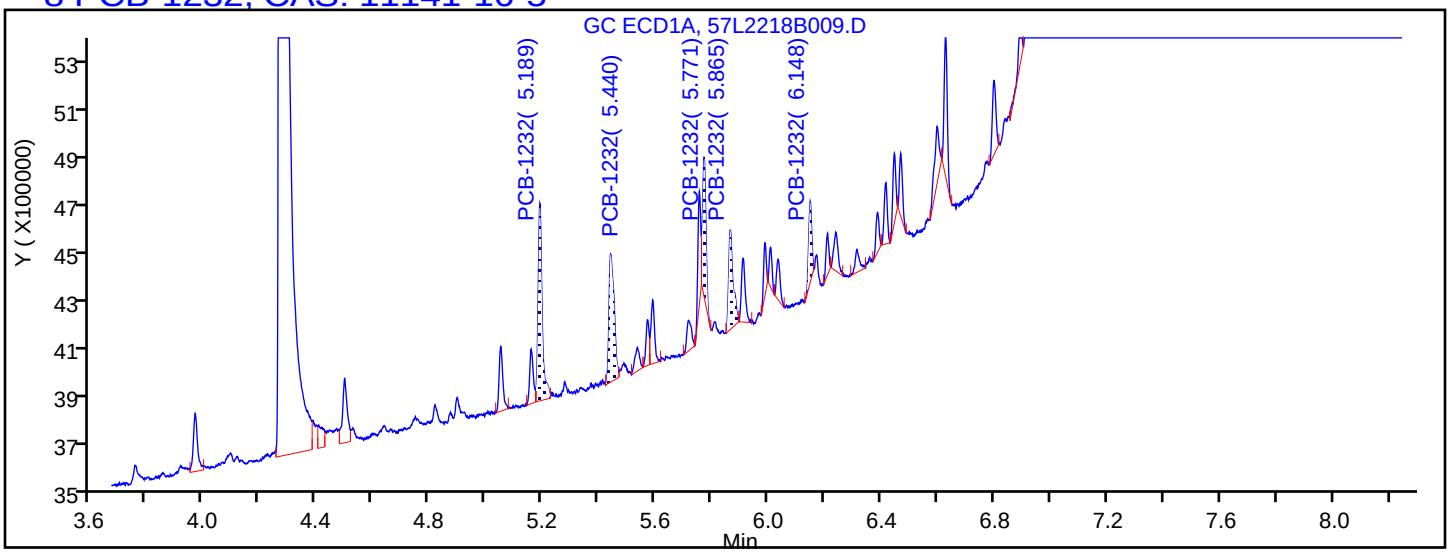
Operator ID: ar ALS Bottle#: 7 Worklist Smp#: 10

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

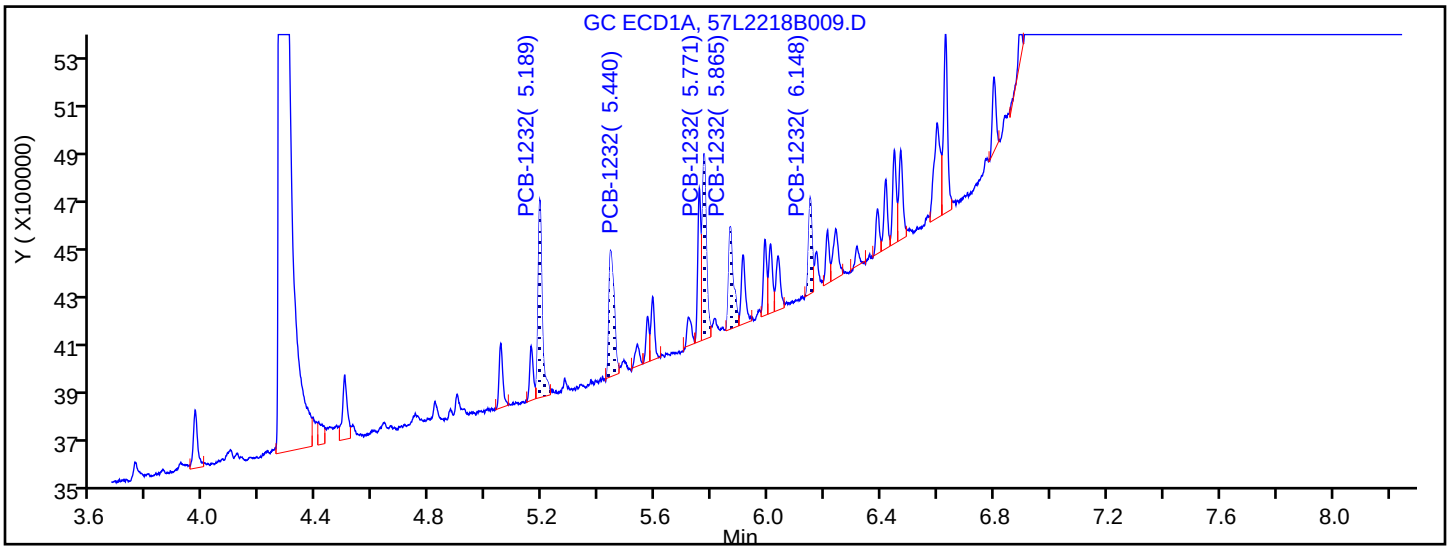
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.189	Response = 802359
5.440	Response = 667858
5.771	Response = 474860
5.865	Response = 447278
6.148	Response = 249179



Manual Integration Results

5.189	Response = 802359	
5.440	Response = 646742	M
5.771	Response = 762638	M
5.865	Response = 493618	M
6.148	Response = 336440	M

Reviewer: ruslandera, 23-Dec-2018 13:58:03

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

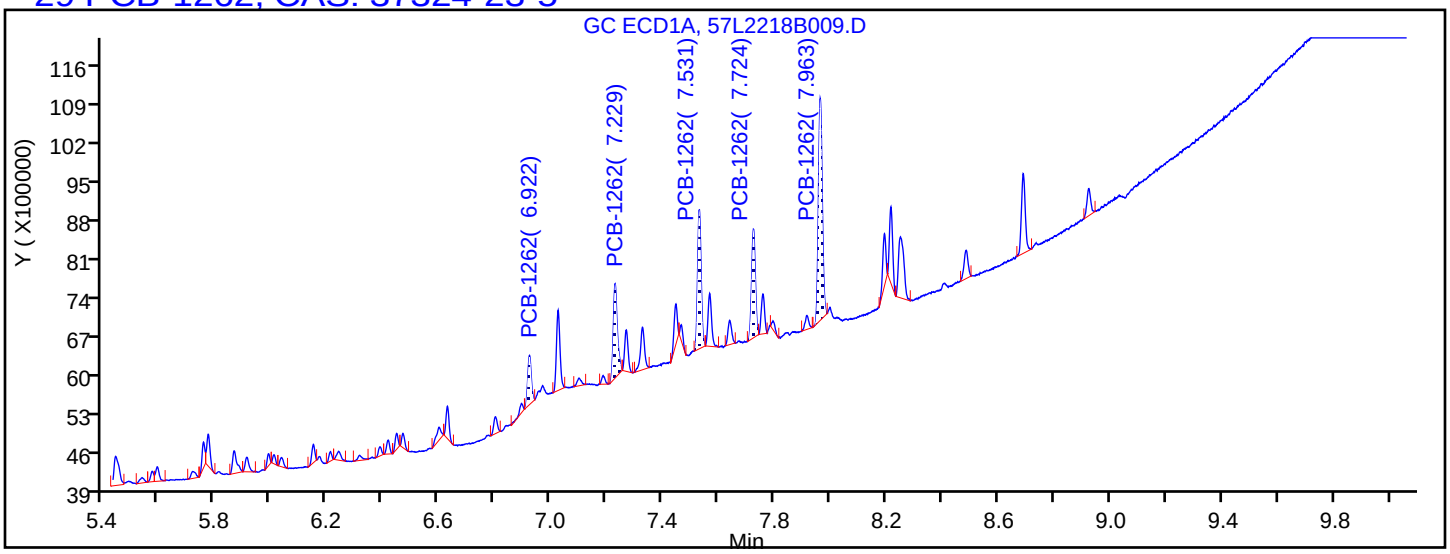
Report Date: 23-Dec-2018 16:21:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D

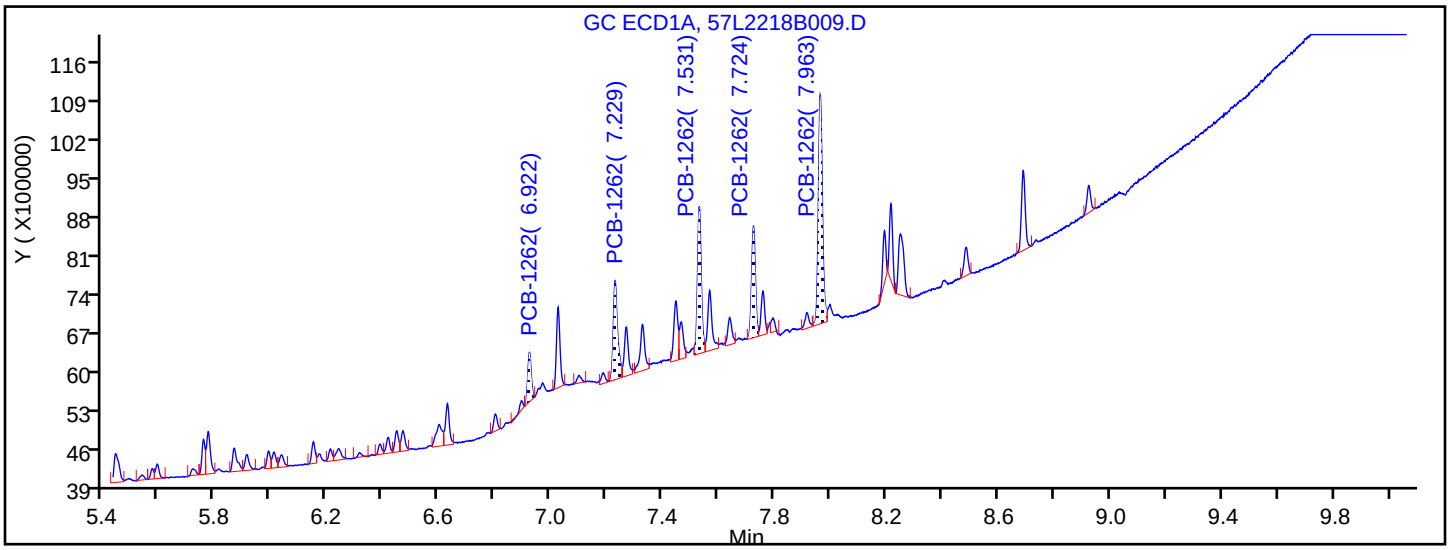
Injection Date:	22-Dec-2018 19:32:44	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.922	Response = 783264
7.229	Response = 1708889
7.531	Response = 2219398
7.724	Response = 1821982
7.963	Response = 3899232



Manual Integration Results

6.922	Response = 783264	
7.229	Response = 1950423	M
7.531	Response = 2553929	M
7.724	Response = 1933566	M
7.963	Response = 4241306	M

Reviewer: ruslandera, 23-Dec-2018 13:58:19

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Dec-2018 19:50:14 ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:21:51 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:59:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.275	4.276	-0.001	174037400	100.0	100.0	a
2	4.595	4.596	-0.001	1062744244	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						9.34	
2						8.48	
						RPD = 9.70	
8 PCB-1232							M
1	5.190	5.187	0.003	437330	5.00	4.78	M
1	5.440	5.439	0.001	322049	5.00	3.28	M
1	5.771	5.770	0.001	412641	5.00	3.94	M
1	5.865	5.863	0.002	266444	5.00	4.63	M
1	6.148	6.147	0.001	185341	5.00	4.92	M
		Average of Peak Amounts =				4.31	
2	5.737	5.736	0.001	2054239	5.00	4.75	M
2	6.043	6.043	0.000	1188807	5.00	3.04	M
2	6.494	6.495	-0.001	1401993	5.00	4.78	M
2	6.852	6.851	0.001	904985	5.00	2.88	M
2	7.178	7.176	0.002	1476688	5.00	4.63	M
		Average of Peak Amounts =				4.02	
						RPD = 6.99	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.922	6.921	0.001	433697	5.00	5.55	
1	7.229	7.228	0.001	1057948	5.00	4.76	M
1	7.530	7.531	-0.001	1297510	5.00	3.58	M
1	7.724	7.723	0.001	1036768	5.00	5.51	M
1	7.964	7.963	0.001	2146586	5.00	5.77	M
		Average of Peak Amounts =				5.04	
2	7.714	7.714	0.000	2103981	5.00	4.71	M
2	7.995	7.995	0.000	3822147	5.00	4.67	M
2	8.370	8.371	-0.001	5001905	5.00	4.68	M
2	8.629	8.629	0.000	4283750	5.00	3.38	M
2	8.819	8.818	0.001	7732708	5.00	4.86	M
		Average of Peak Amounts =				4.46	
						RPD = 12.08	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:21:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D

Injection Date: 22-Dec-2018 19:50:14 Instrument ID: TAC057

Lims ID: ic

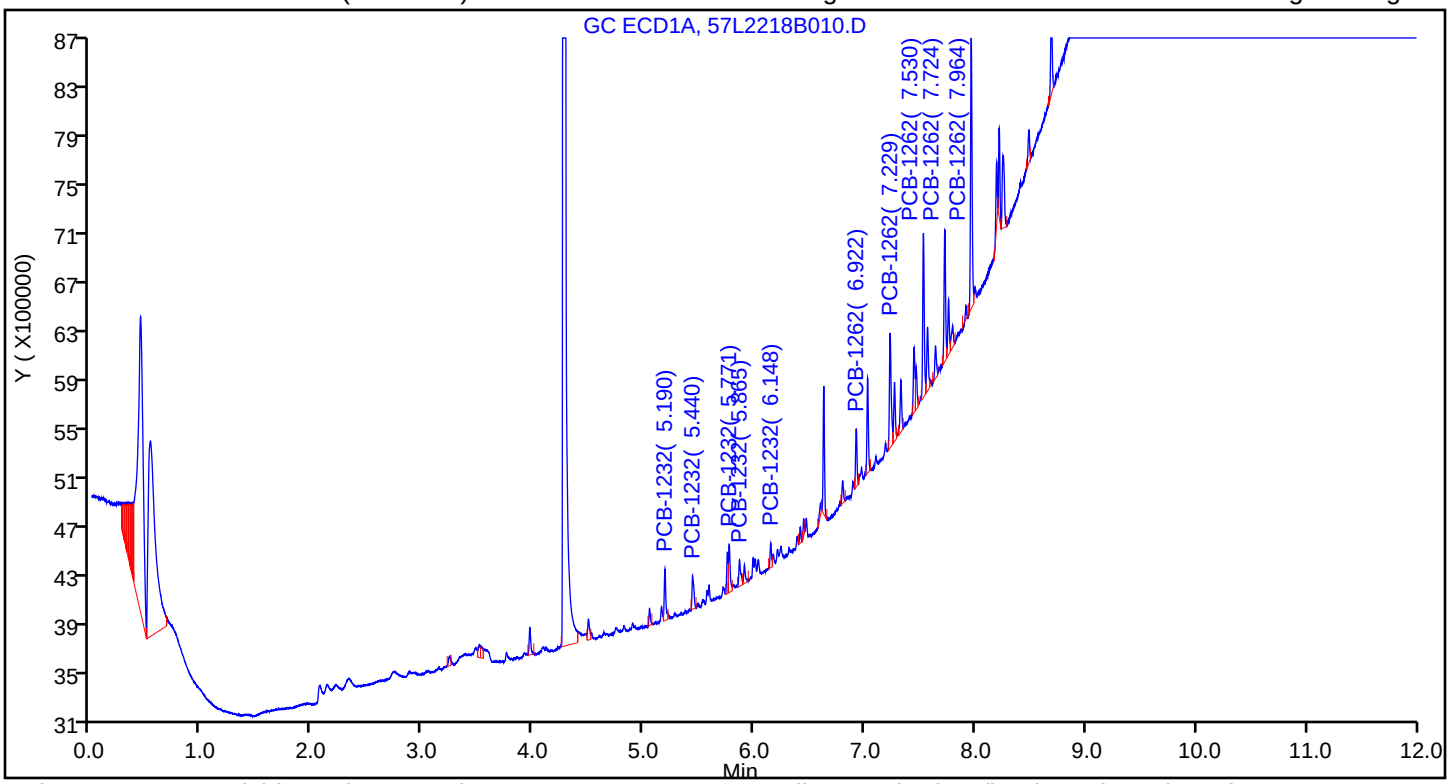
Client ID:

Operator ID: ar ALS Bottle#: 8 Worklist Smp#: 11

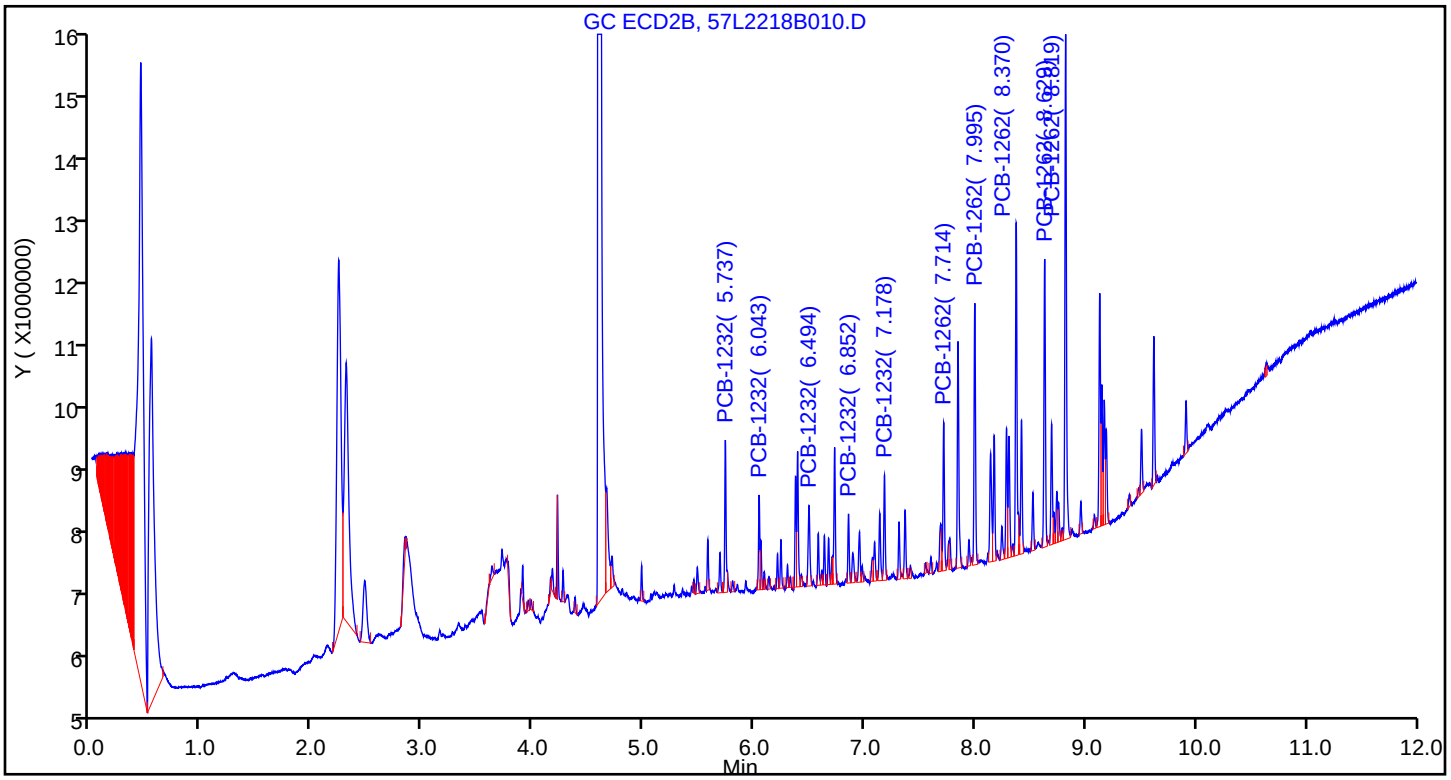
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

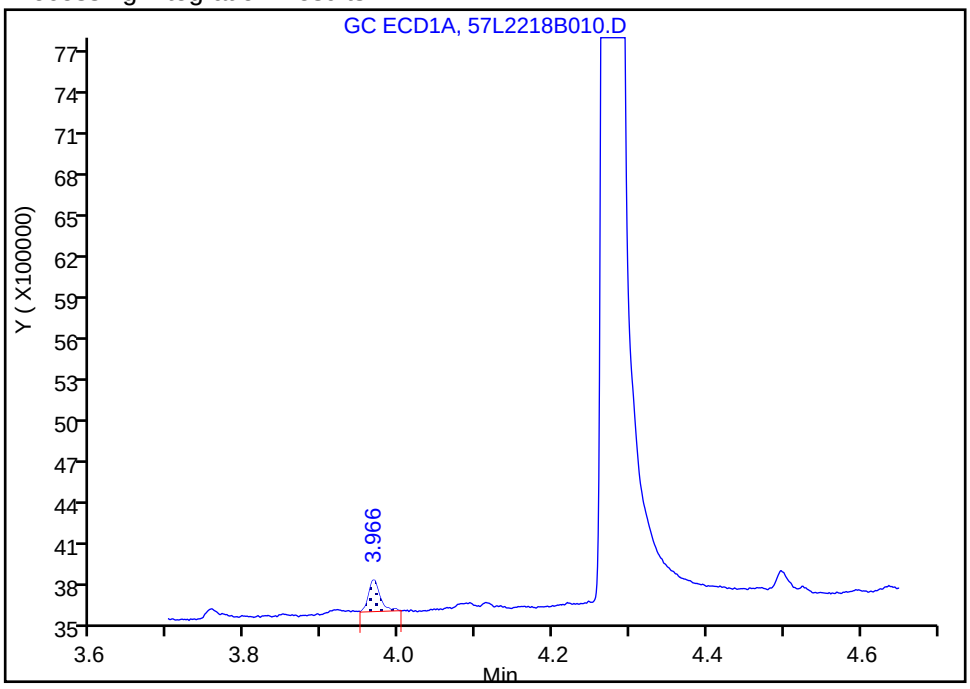
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D				
Injection Date:	22-Dec-2018 19:50:14	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	8	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

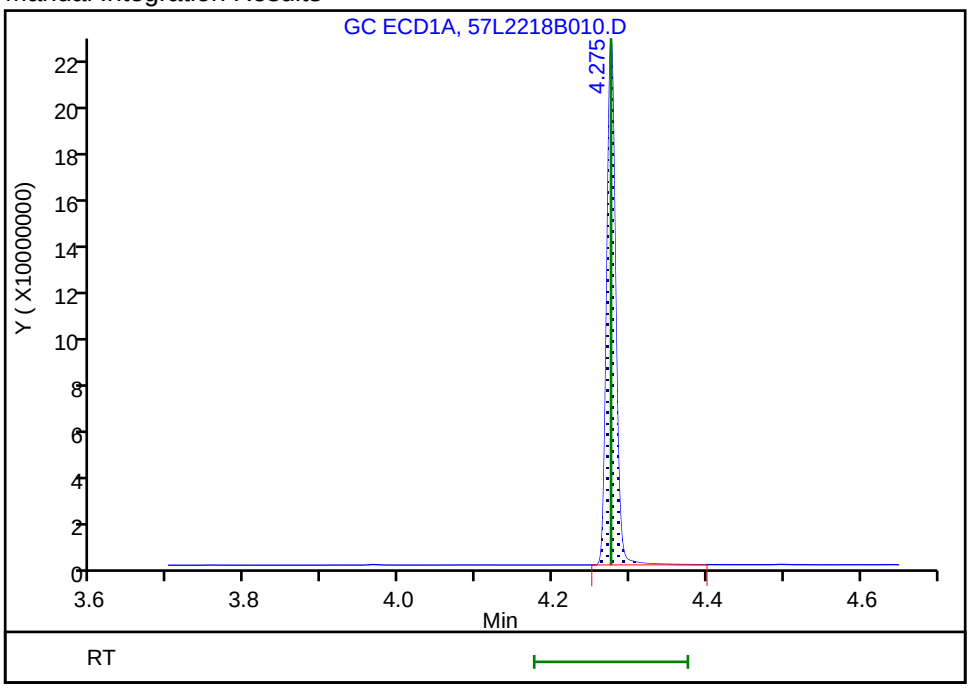
Processing Integration Results

RT: 3.97
Area: 228729
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 174037400
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:07
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:21:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D

Injection Date: 22-Dec-2018 19:50:14 Instrument ID: TAC057

Lims ID: ic

Client ID:

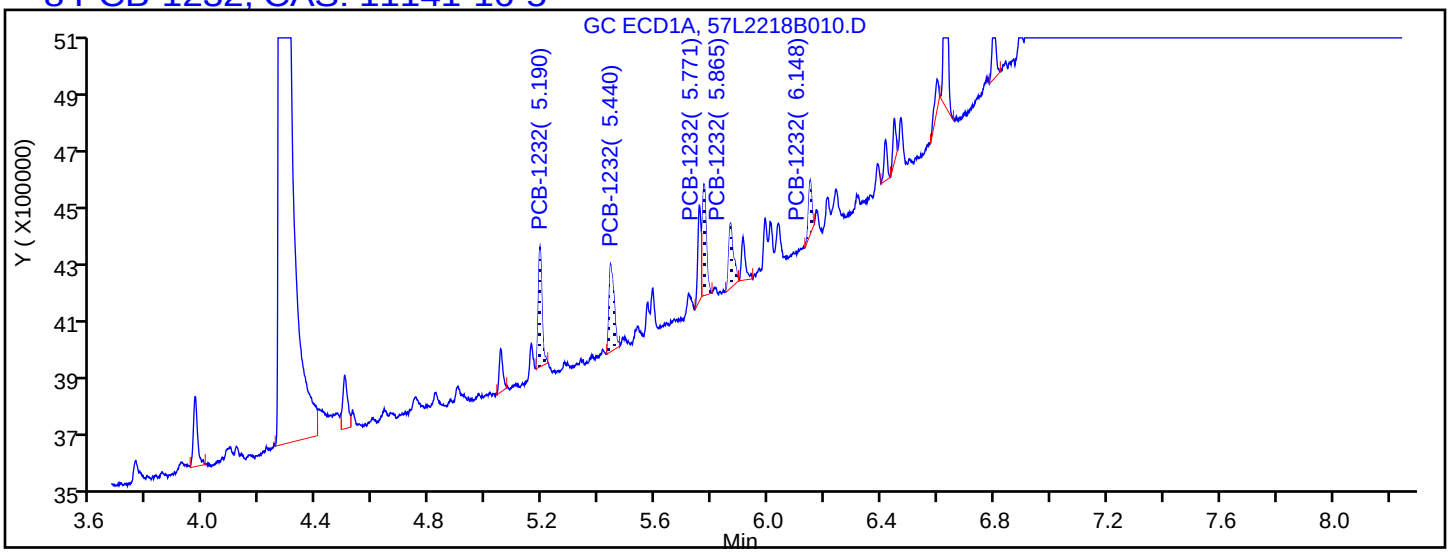
Operator ID: ar ALS Bottle#: 8 Worklist Smp#: 11

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

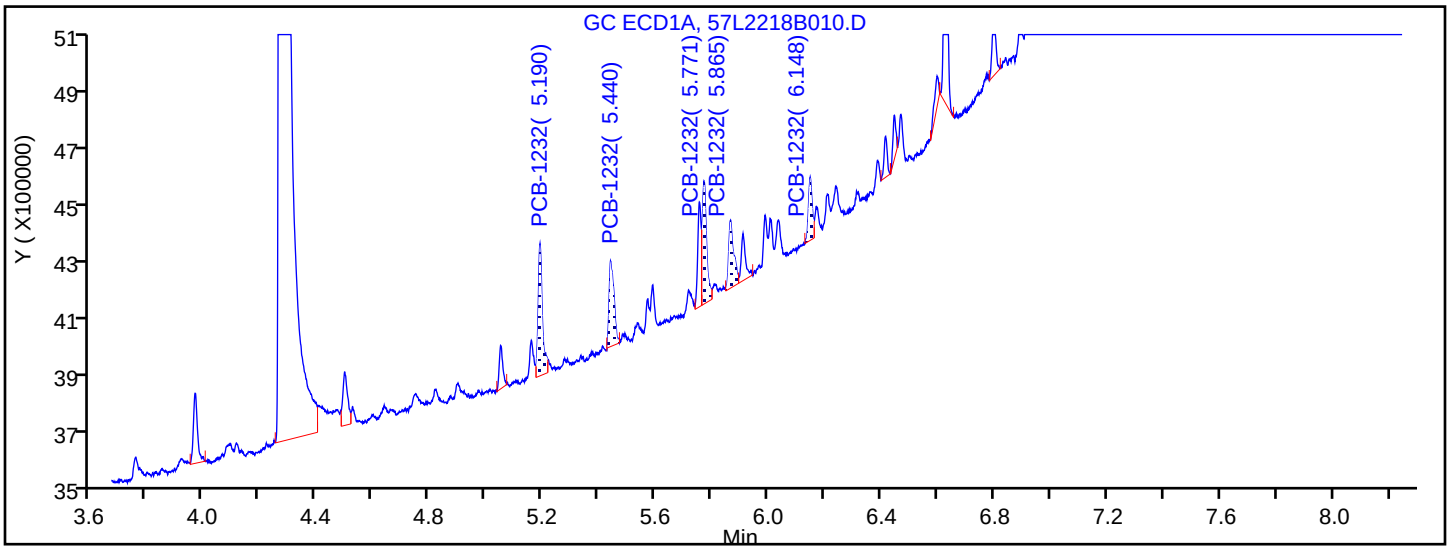
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.190	Response = 338248
5.440	Response = 334248
5.771	Response = 336387
5.865	Response = 233198
6.148	Response = 135378



Manual Integration Results

5.190	Response = 437330	M
5.440	Response = 322049	M
5.771	Response = 412641	M
5.865	Response = 266444	M
6.148	Response = 185341	M

Reviewer: ruslandera, 23-Dec-2018 13:58:59

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:21:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D

Injection Date: 22-Dec-2018 19:50:14 Instrument ID: TAC057

Lims ID: ic

Client ID:

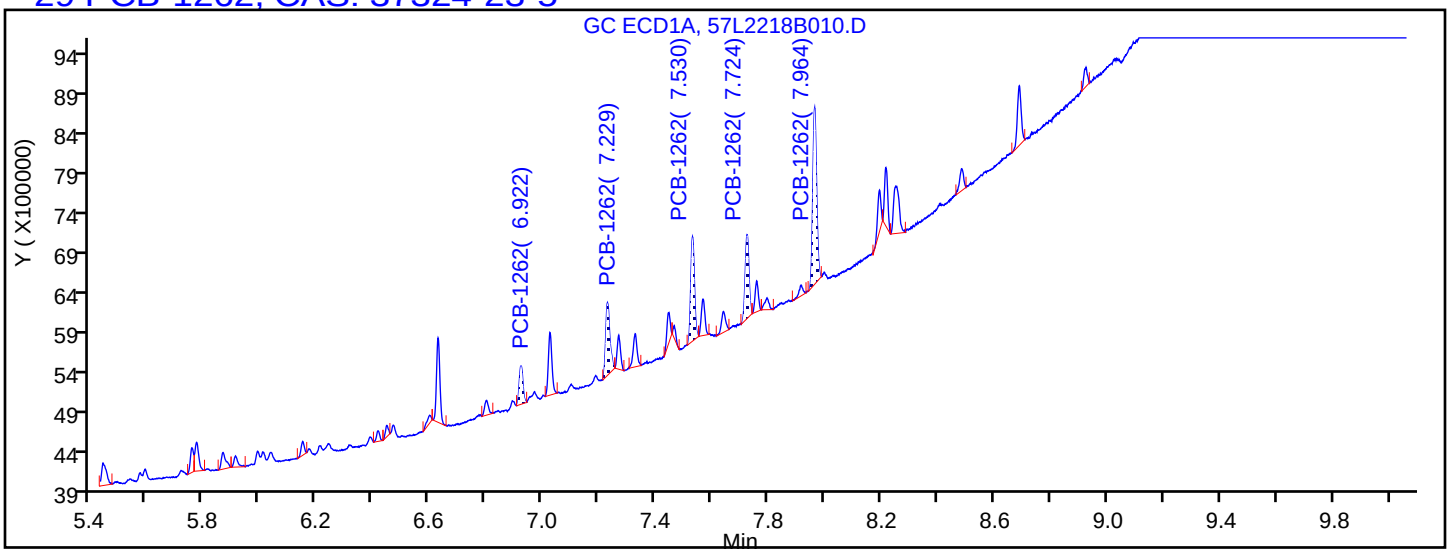
Operator ID: ar ALS Bottle#: 8 Worklist Smp#: 11

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

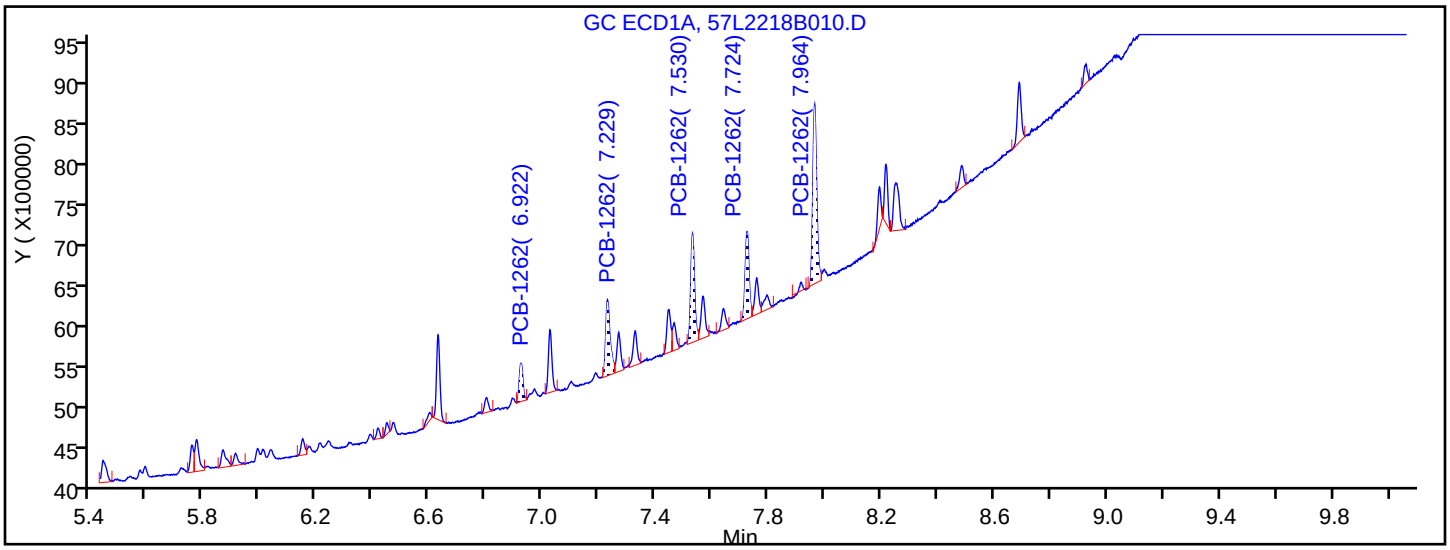
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.922	Response = 433697
7.229	Response = 932431
7.530	Response = 1171251
7.724	Response = 956660
7.964	Response = 2063040



Manual Integration Results

6.922	Response = 433697	
7.229	Response = 1057948	M
7.530	Response = 1297510	M
7.724	Response = 1036768	M
7.964	Response = 2146586	M

Reviewer: ruslandera, 23-Dec-2018 13:59:18

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 17:47 Calibration End Date: 12/22/2018 19:50 Calibration ID: 27219

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/11	57L2218B010.D
Level 2	IC 580-291937/10	57L2218B009.D
Level 3	IC 580-291937/9	57L2218B008.D
Level 4	IC 580-291937/8	57L2218B007.D
Level 5	ICIS 580-291937/7	57L2218B006.D
Level 6	IC 580-291937/6	57L2218B005.D
Level 7	IC 580-291937/5	57L2218B004.D
Level 8	IC 580-291937/4	57L2218B003.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0387 0.0231	0.0331 0.0208	0.0290 +++++	0.0272	0.0252	Lin2	0.0796	0.0239				8.6			0.9920		0.9900
PCB-1232 Peak 2	+++++ 0.0159	0.0217 0.0144	0.0193 +++++	0.0184	0.0172	Lin2	0.0631	0.0160				7.3			0.9940		0.9900
PCB-1232 Peak 3	0.0264 0.0166	0.0230 0.0153	0.0201 +++++	0.0189	0.0176	Lin2	0.0507	0.0170				6.7			0.9950		0.9900
PCB-1232 Peak 4	+++++ 0.0123	0.0169 0.0112	0.0149 +++++	0.0141	0.0132	Lin2	0.0496	0.0123				6.5			0.9950		0.9900
PCB-1232 Peak 5	0.0278 0.0194	0.0269 0.0179	0.0232 +++++	0.0216	0.0204	Lin2	0.0463	0.0200				8.6			0.9910		0.9900
PCB-1262 Peak 1	0.0396 0.0265	0.0364 0.0244	0.0316 +++++	0.0302	0.0281	Lin2	0.0694	0.0273				7.6			0.9930		0.9900
PCB-1262 Peak 2	0.0719 0.0471	0.0650 0.0437	0.0561 0.0417	0.0531	0.0492	Lin2	0.1404	0.0469				8.3			0.9920		0.9900
PCB-1262 Peak 3	0.0941 0.0607	0.0850 0.0524	0.0731 +++++	0.0690	0.0627	Lin2	0.1844	0.0612				9.3			0.9900		0.9900
PCB-1262 Peak 4	+++++ 0.0552	0.0727 0.0439	0.0642 0.0516	0.0608	0.0560	Lin2	0.2267	0.0521				9.1			0.9910		0.9900
PCB-1262 Peak 5	0.1455 0.1091	0.1319 0.0948	0.1174 0.1110	0.1129	0.1062	Lin2	0.2112	0.1062				5.6			0.9970		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 17:47 Calibration End Date: 12/22/2018 19:50 Calibration ID: 27219

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/11	57L2218B010.D
Level 2	IC 580-291937/10	57L2218B009.D
Level 3	IC 580-291937/9	57L2218B008.D
Level 4	IC 580-291937/8	57L2218B007.D
Level 5	ICIS 580-291937/7	57L2218B006.D
Level 6	IC 580-291937/6	57L2218B005.D
Level 7	IC 580-291937/5	57L2218B004.D
Level 8	IC 580-291937/4	57L2218B003.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin2	2054239 116791558	3534497 207324711	7753668 +++++	14036513	26365859	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1232 Peak 2	BNB	Lin2	+++++ 80206608	2318042 143825018	5168299 +++++	9506029	17959115	+++++ 500	10.0 1000	25.0 +++++	50.0	100
PCB-1232 Peak 3	BNB	Lin2	1401993 84085916	2449464 152647788	5366416 +++++	9728926	18407322	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1232 Peak 4	BNB	Lin2	+++++ 62132928	1801315 112044361	3983308 +++++	7279830	13764762	+++++ 500	10.0 1000	25.0 +++++	50.0	100
PCB-1232 Peak 5	BNB	Lin2	1476688 98087558	2871586 178272164	6197171 +++++	11161178	21368913	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1262 Peak 1	BNB	Lin2	2103981 133794510	3886684 243663893	8448480 +++++	15577742	29408313	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1262 Peak 2	BNB	Lin2	3822147 238447928	6932255 435900703	15024199 809813692	27365236	51413087	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1262 Peak 3	BNB	Lin2	5001905 307115938	9065088 523153335	19570962 +++++	35579970	65546579	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1262 Peak 4	BNB	Lin2	+++++ 279321000	7750204 437712835	17180911 1002276017	31366794	58489065	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1262 Peak 5	BNB	Lin2	7732708 551631617	14070172 946112915	31409242 2155987352	58192846	110941558	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B003.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Dec-2018 17:47:22 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:13 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:09:05

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.280	4.276	0.004	145355790	100.0	100.0	a
2	4.597	4.596	0.001	971137478	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3377.0	
2						3373.0	
						RPD = 0.12	
8 PCB-1232							
1	5.192	5.187	0.005	87198310	2000.0	1632.0	
1	5.444	5.439	0.005	78086200	2000.0	1738.1	
1	5.774	5.770	0.004	90857297	2000.0	1722.1	
1	5.867	5.863	0.004	54728856	2000.0	1482.7	
1	6.152	6.147	0.005	44293480	2000.0	1745.0	
		Average of Peak Amounts =				1664.0	
2	5.738	5.736	0.002	362302192	2000.0	1556.8	
2	6.045	6.043	0.002	226757710	2000.0	1455.2	
2	6.497	6.495	0.002	262863141	2000.0	1590.7	
2	6.854	6.851	0.003	165078706	2000.0	1374.4	
2	7.180	7.176	0.004	296090718	2000.0	1522.7	
		Average of Peak Amounts =				1500.0	
						RPD = 10.37	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							
1	6.928	6.921	0.007	108071062	2000.0	1654.6	
1	7.236	7.228	0.008	235171872	2000.0	1738.4	
1	7.537	7.531	0.006	302166295	2000.0	1759.5	
1	7.732	7.723	0.009	254198556	2000.0	1618.5	
1	7.972	7.963	0.009	556949956	2000.0	1793.9	
		Average of Peak Amounts =				1713.0	
2	7.718	7.714	0.004	440609564	2000.0	1660.6	
2	7.999	7.995	0.004	809813692	2000.0	1774.0	
2	8.376	8.371	0.005	1111922734	2000.0	1868.0	
2	8.633	8.629	0.004	1002276017	2000.0	1974.8	
2	8.825	8.818	0.007	2155987352	2000.0	2087.9	
		Average of Peak Amounts =				1873.0	
						RPD = 8.93	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

3262_IC_STOCK_00008	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:14 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B003.D

Injection Date: 22-Dec-2018 17:47:22 Instrument ID: TAC057

Lims ID: ic

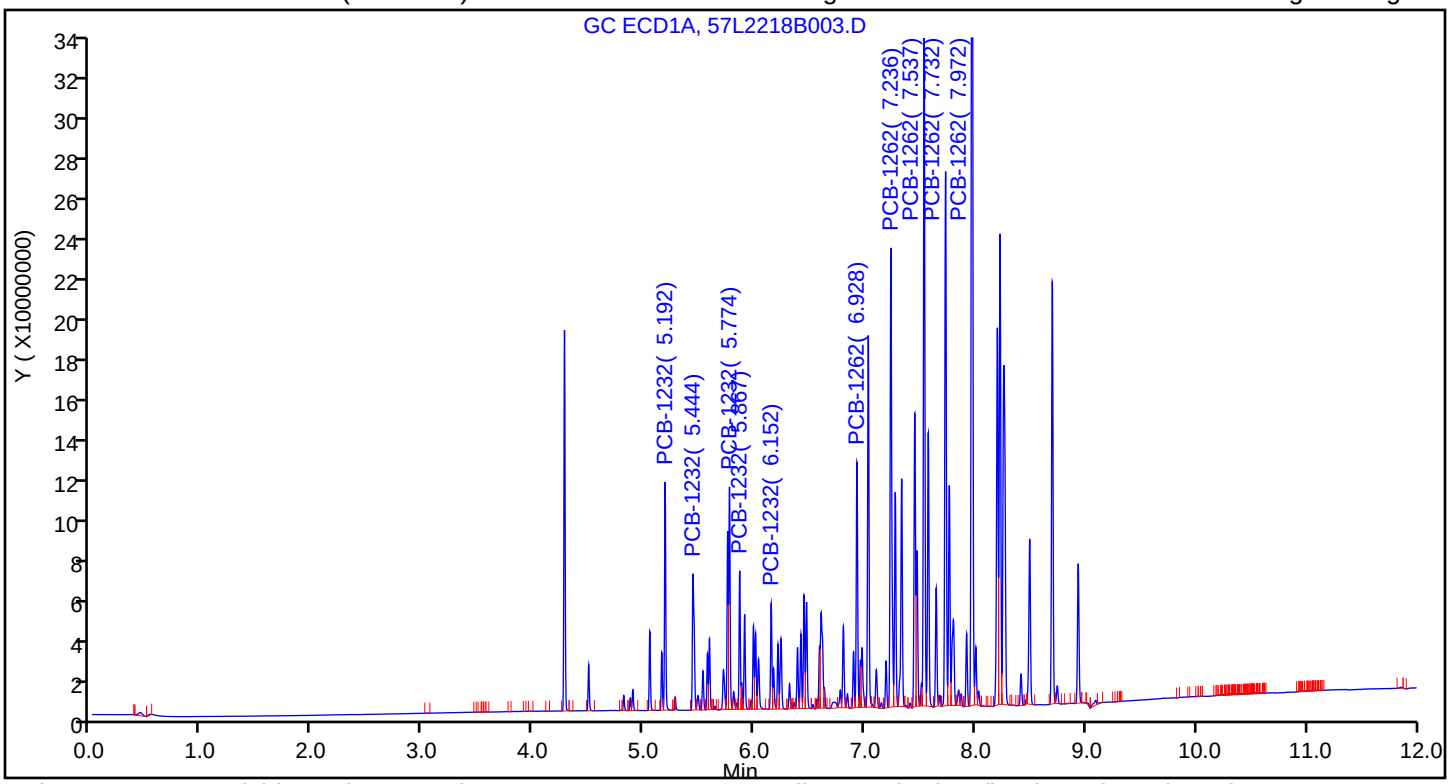
Client ID:

Operator ID: ar ALS Bottle#: 1 Worklist Smp#: 4

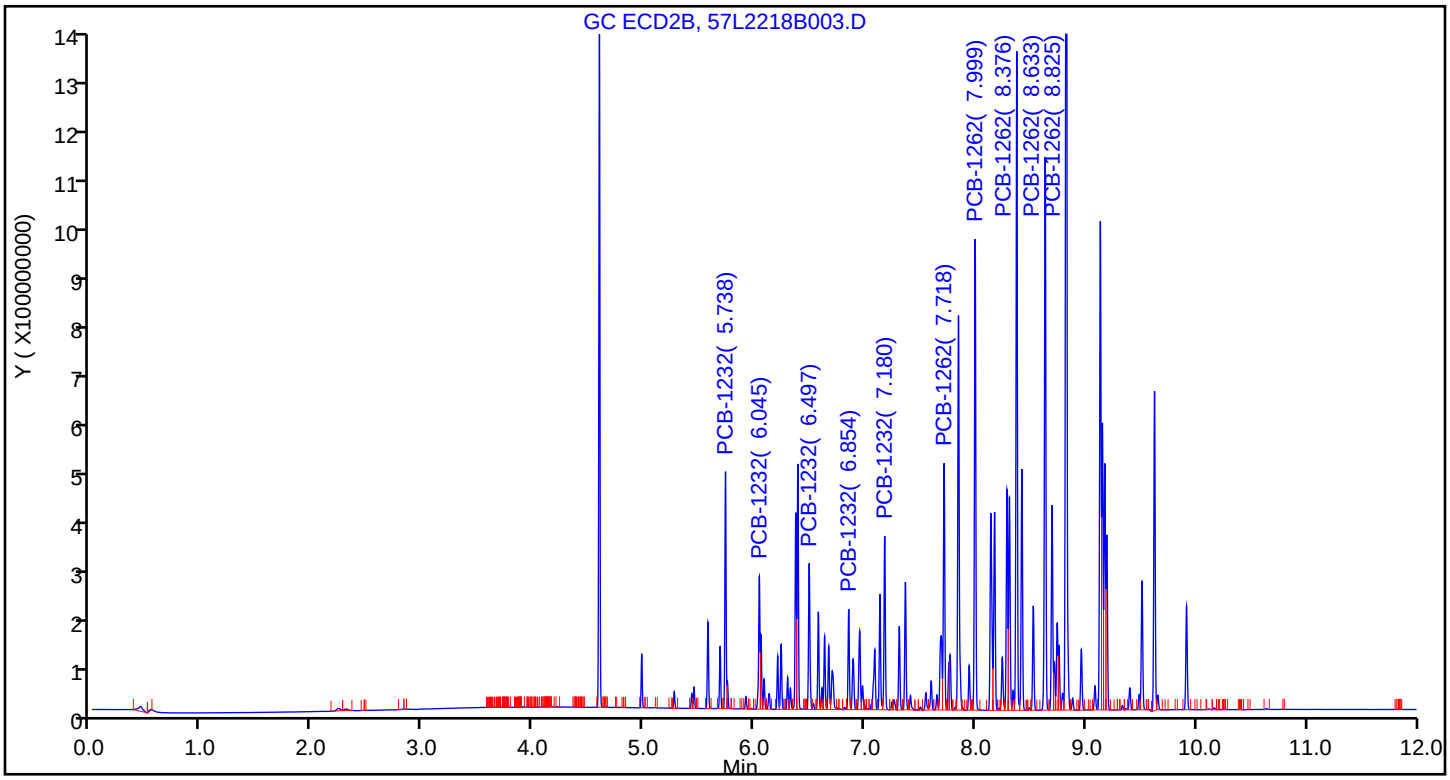
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

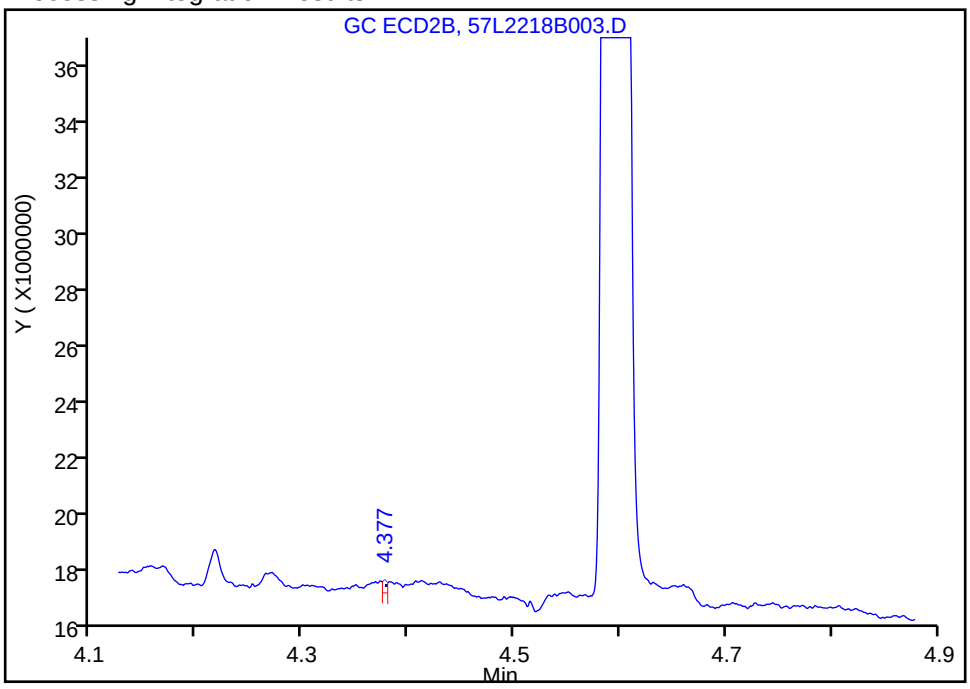
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B003.D
Injection Date: 22-Dec-2018 17:47:22 Instrument ID: TAC057
Lims ID: ic
Client ID:
Operator ID: ar ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

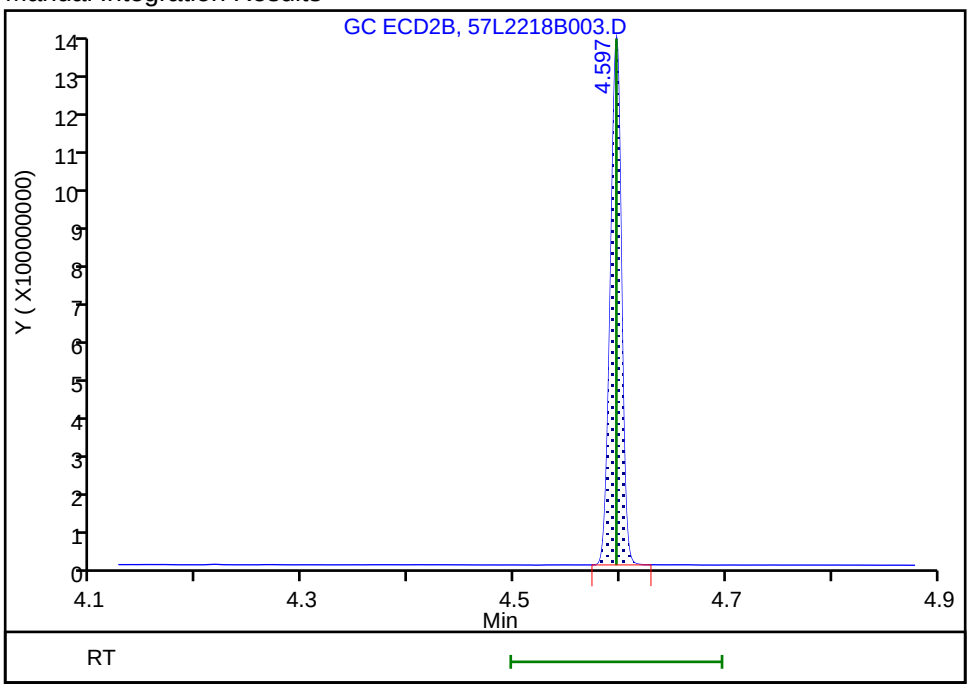
Processing Integration Results

RT: 4.38
Area: 115768
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 971137478
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:09:03
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B004.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Dec-2018 18:04:48 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:10 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:08:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	165711376	100.0	100.0	a
2	4.595	4.596	-0.001	997892683	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1806.3	
2						1771.8	
						RPD = 1.93	
8 PCB-1232							
1	5.187	5.187	0.000	53568602	1000.0	878.5	
1	5.438	5.439	-0.001	48028866	1000.0	936.5	
1	5.769	5.770	-0.001	57366533	1000.0	952.6	
1	5.862	5.863	-0.001	38383588	1000.0	911.6	
1	6.147	6.147	0.000	27133127	1000.0	937.1	
		Average of Peak Amounts =				923.3	
2	5.737	5.736	0.001	207324711	1000.0	865.5	
2	6.043	6.043	0.000	143825018	1000.0	896.7	
2	6.494	6.495	-0.001	152647788	1000.0	897.7	
2	6.853	6.851	0.002	112044361	1000.0	906.5	
2	7.178	7.176	0.002	178272164	1000.0	891.3	
		Average of Peak Amounts =				891.5	
						RPD = 3.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							
1	6.923	6.921	0.002	64267709	1000.0	863.1	
1	7.229	7.228	0.001	140261476	1000.0	908.6	
1	7.531	7.531	0.000	178678155	1000.0	911.3	
1	7.725	7.723	0.002	149445850	1000.0	834.6	
1	7.965	7.963	0.002	317764154	1000.0	897.8	
		Average of Peak Amounts =				883.1	
2	7.716	7.714	0.002	243663893	1000.0	892.5	
2	7.997	7.995	0.002	435900703	1000.0	927.9	
2	8.373	8.371	0.002	523153335	1000.0	853.7	
2	8.631	8.629	0.002	437712835	1000.0	836.8	
2	8.821	8.818	0.003	946112915	1000.0	890.5	
		Average of Peak Amounts =				880.3	
						RPD = 0.32	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

3262_IC_STOCK_00008	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:11 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B004.D

Injection Date: 22-Dec-2018 18:04:48 Instrument ID: TAC057

Lims ID: ic

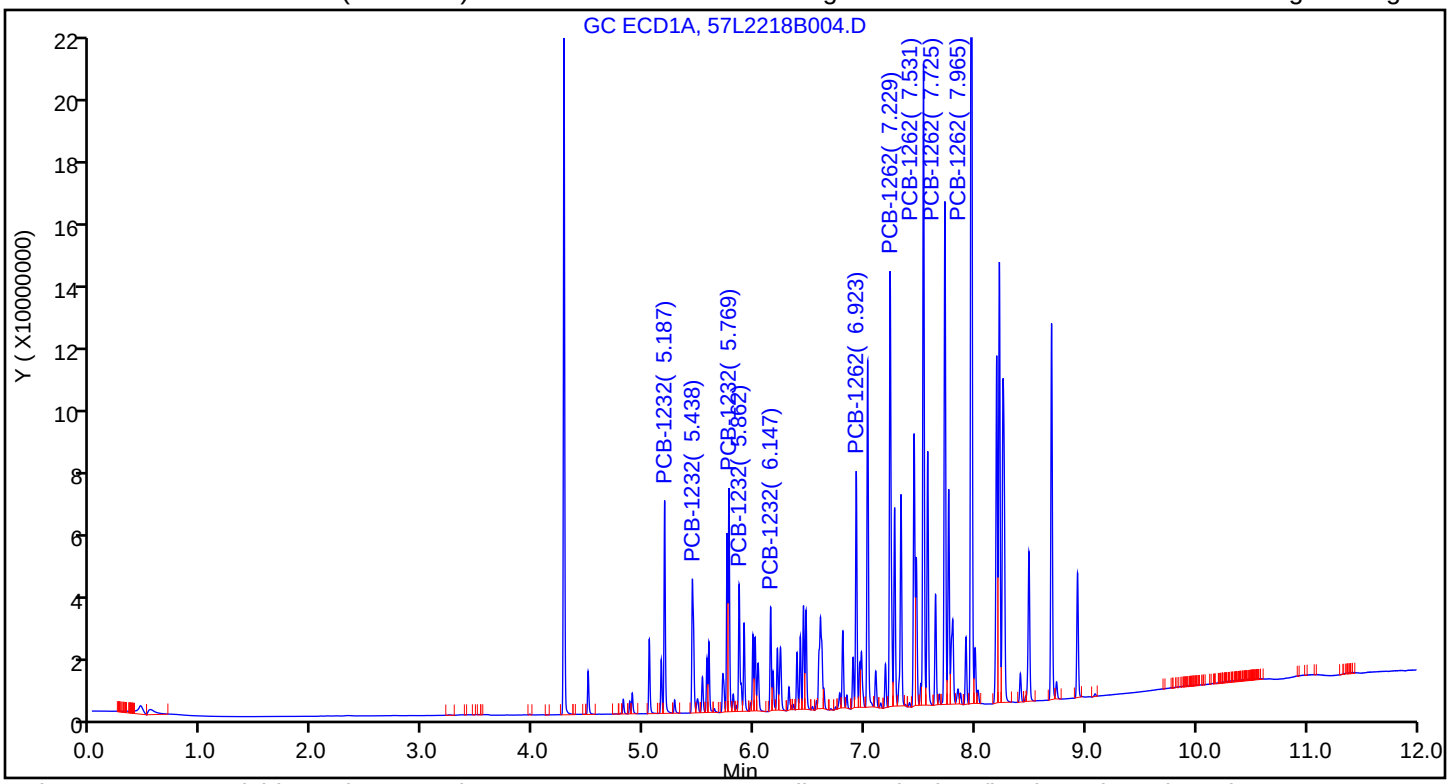
Client ID:

Operator ID: ar ALS Bottle#: 2 Worklist Smp#: 5

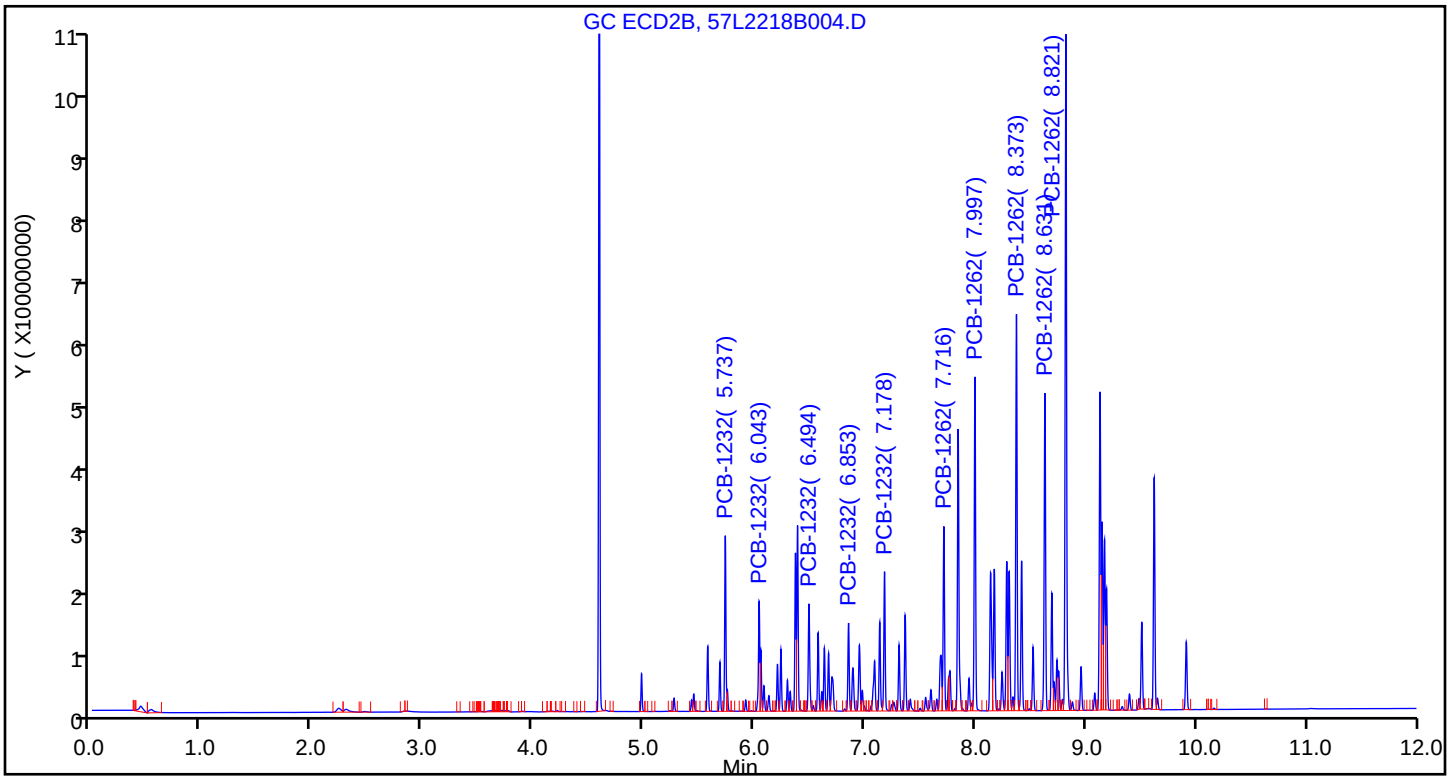
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

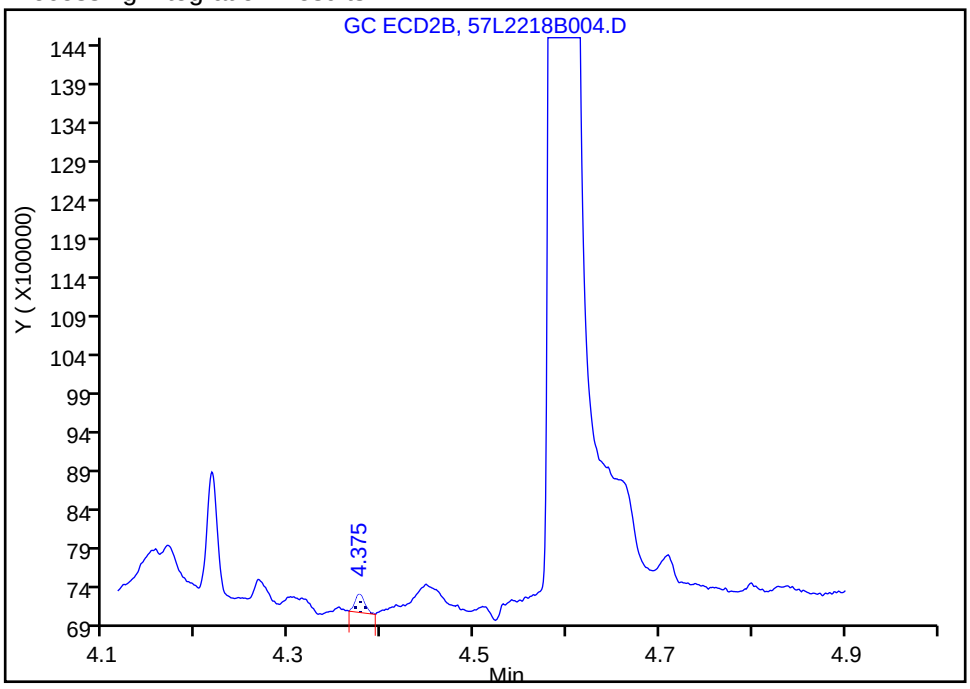
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B004.D
Injection Date: 22-Dec-2018 18:04:48 Instrument ID: TAC057
Lims ID: ic
Client ID:
Operator ID: ar ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

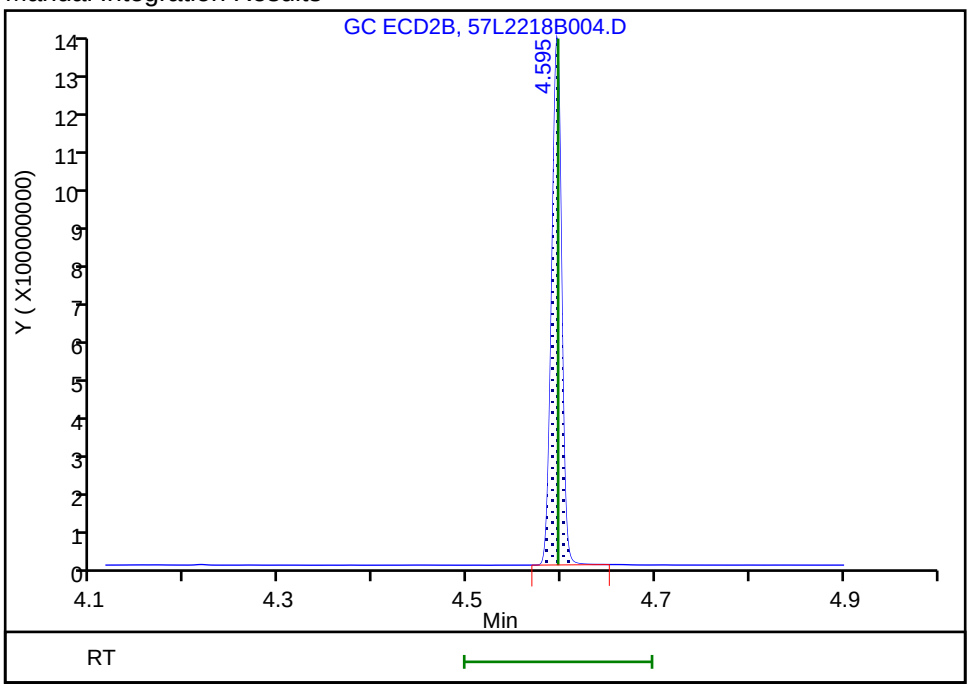
Processing Integration Results

RT: 4.38
Area: 166100
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 997892683
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:57
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B005.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Dec-2018 18:22:20 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:08 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:08:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	166184204	100.0	100.0	a
2	4.596	4.596	0.000	1011573985	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						984.5	
2						989.1	
						RPD = 0.47	
8 PCB-1232							
1	5.187	5.187	0.000	29759690	500.0	485.7	
1	5.439	5.439	0.000	26549418	500.0	515.0	
1	5.769	5.770	-0.001	30700641	500.0	507.1	
1	5.863	5.863	0.000	20848218	500.0	493.1	
1	6.147	6.147	0.000	14607931	500.0	502.5	
		Average of Peak Amounts =				500.7	
2	5.738	5.736	0.002	116791558	500.0	479.5	
2	6.043	6.043	0.000	80206608	500.0	491.5	
2	6.495	6.495	0.000	84085916	500.0	486.4	
2	6.853	6.851	0.002	62132928	500.0	494.1	
2	7.178	7.176	0.002	98087558	500.0	482.7	
		Average of Peak Amounts =				486.8	
						RPD = 2.81	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							
1	6.922	6.921	0.001	35391448	500.0	474.0	
1	7.229	7.228	0.001	77191483	500.0	497.8	
1	7.531	7.531	0.000	98910486	500.0	501.8	
1	7.724	7.723	0.001	82352812	500.0	458.6	
1	7.964	7.963	0.001	172798676	500.0	486.8	
		Average of Peak Amounts =				483.8	
2	7.715	7.714	0.001	133794510	500.0	482.3	
2	7.997	7.995	0.002	238447928	500.0	499.3	
2	8.373	8.371	0.002	307115938	500.0	493.1	
2	8.630	8.629	0.001	279321000	500.0	525.2	
2	8.820	8.818	0.002	551631617	500.0	511.3	
		Average of Peak Amounts =				502.2	
						RPD = 3.74	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

3262_IC_STOCK_00008	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:08 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B005.D

Injection Date: 22-Dec-2018 18:22:20 Instrument ID: TAC057

Lims ID: ic

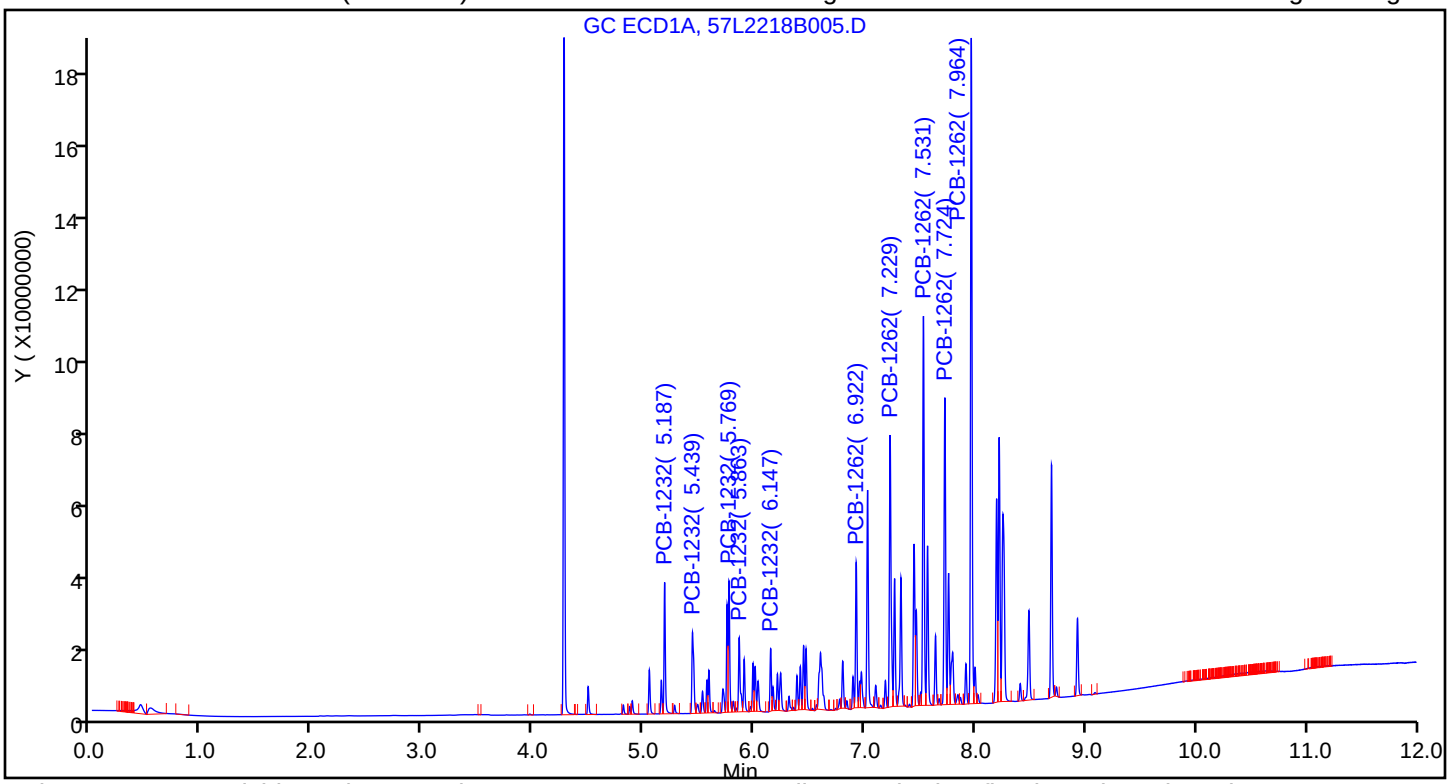
Client ID:

Operator ID: ar ALS Bottle#: 3 Worklist Smp#: 6

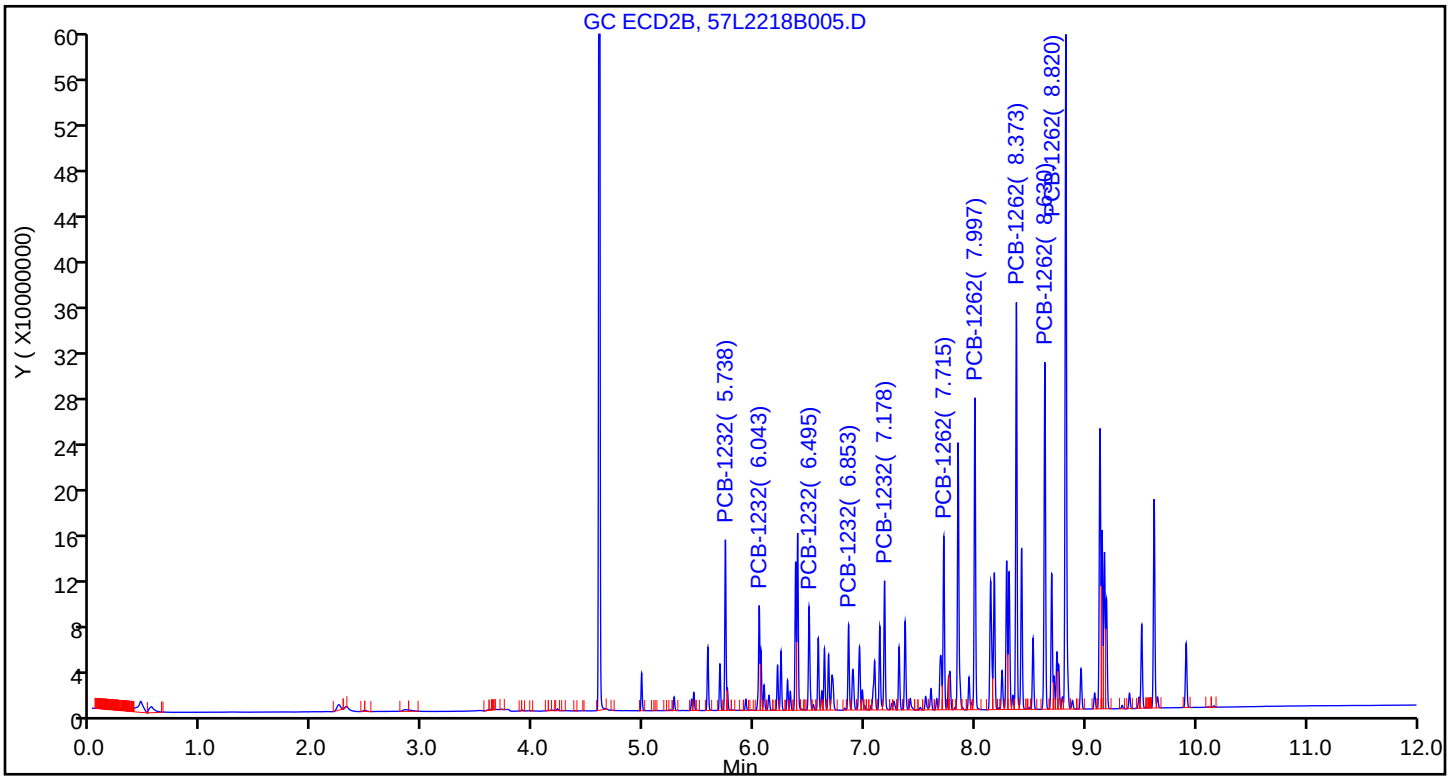
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

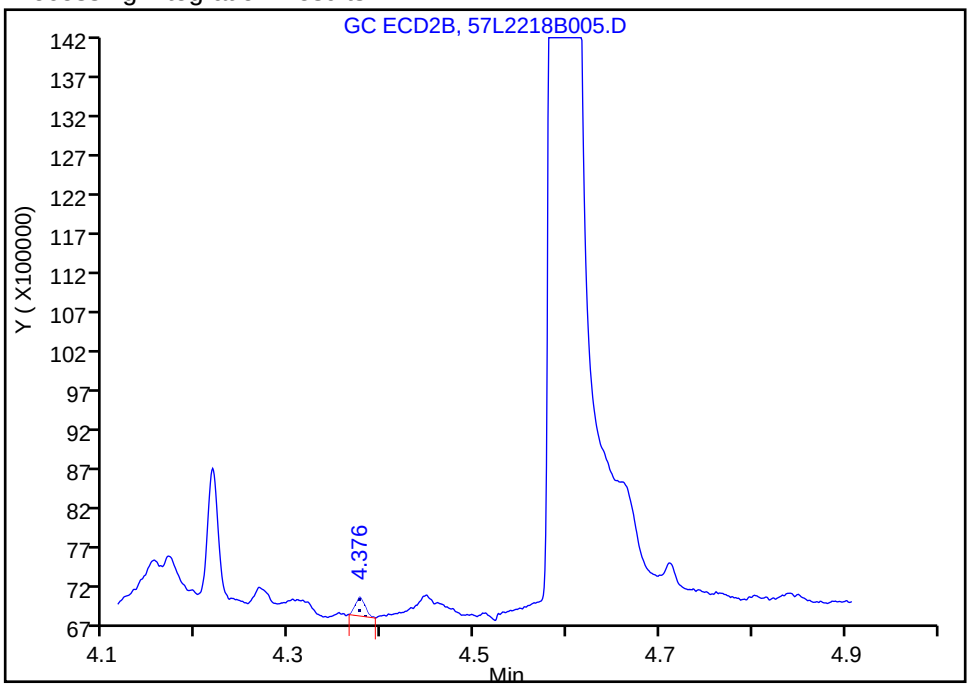
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B005.D
Injection Date: 22-Dec-2018 18:22:20 Instrument ID: TAC057
Lims ID: ic
Client ID:
Operator ID: ar ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

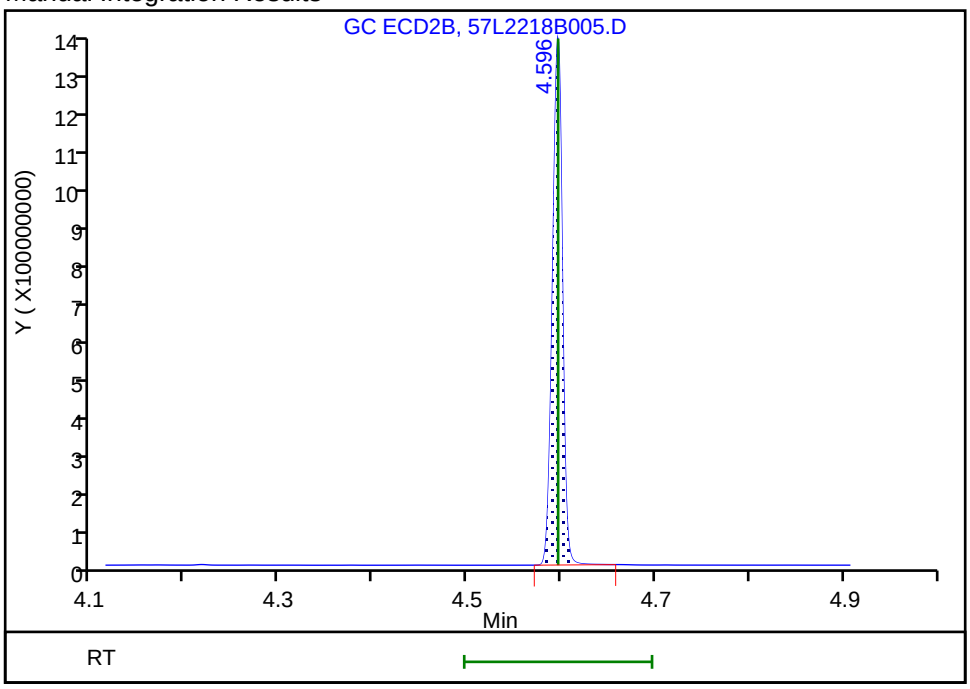
Processing Integration Results

RT: 4.38
Area: 164743
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1011573985
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:50
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Dec-2018 18:39:53 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:04 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 16:21:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	168767146	100.0	100.0	a
2	4.596	4.596	0.000	1045088087	100.0	100.0	a
						RPD = 0.00	
8 PCB-1232							Ma
1	5.187	5.187	0.000	6401382	100.0	101.3	a
1	5.439	5.439	0.000	5620827	100.0	105.2	M
1	5.770	5.770	0.000	6810466	100.0	108.7	M
1	5.863	5.863	0.000	4637483	100.0	106.9	M
1	6.147	6.147	0.000	3250121	100.0	109.2	M
		Average of Peak Amounts =				106.3	
2	5.736	5.736	0.000	26365859	100.0	102.2	a
2	6.043	6.043	0.000	17959115	100.0	103.4	
2	6.495	6.495	0.000	18407322	100.0	100.7	
2	6.851	6.851	0.000	13764762	100.0	102.8	
2	7.176	7.176	0.000	21368913	100.0	100.0	
		Average of Peak Amounts =				101.8	
						RPD = 4.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.921	6.921	0.000	7648776	100.0	100.9	M
1	7.228	7.228	0.000	16434875	100.0	103.0	M
1	7.531	7.531	0.000	20899210	100.0	102.2	M
1	7.723	7.723	0.000	17153038	100.0	94.1	M
1	7.963	7.963	0.000	35235337	100.0	97.7	M
		Average of Peak Amounts =				99.6	
2	7.714	7.714	0.000	29408313	100.0	100.6	M
2	7.995	7.995	0.000	51413087	100.0	101.8	M
2	8.371	8.371	0.000	65546579	100.0	99.5	
2	8.629	8.629	0.000	58489065	100.0	103.0	
2	8.818	8.818	0.000	110941558	100.0	97.9	
		Average of Peak Amounts =				100.6	
						RPD = 0.99	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:05 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D

Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057

Lims ID: icis

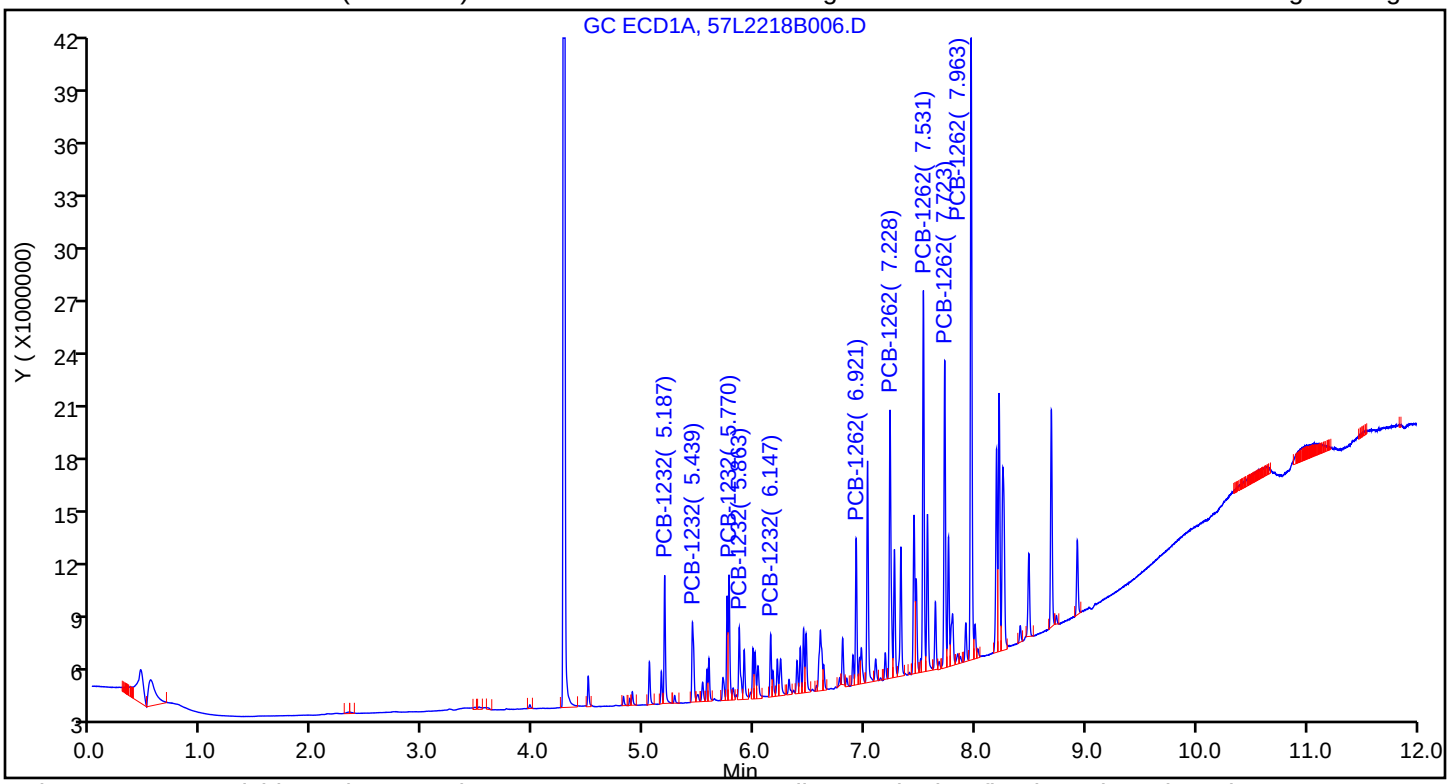
Client ID:

Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7

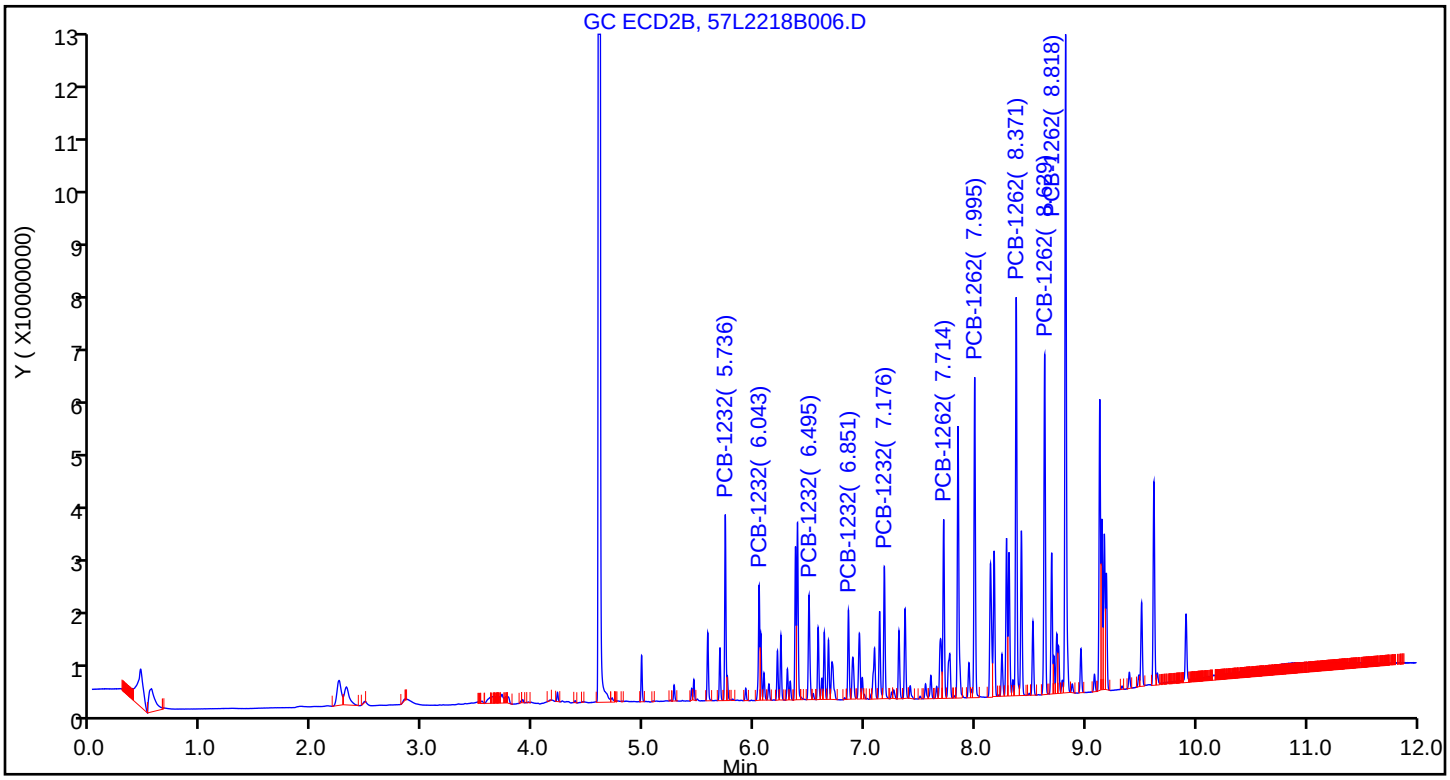
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

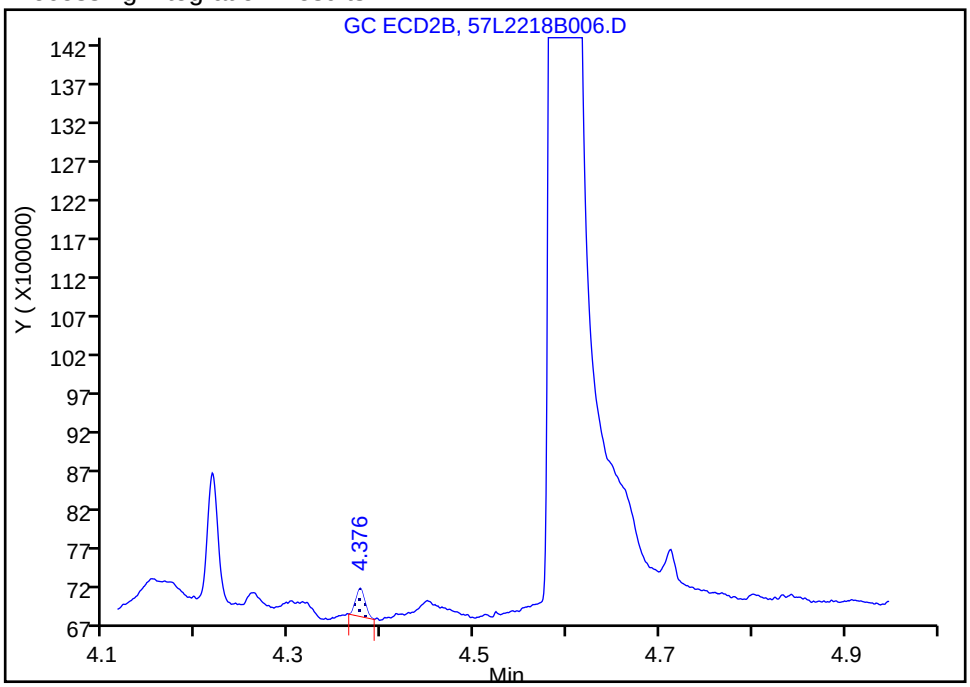
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D
Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

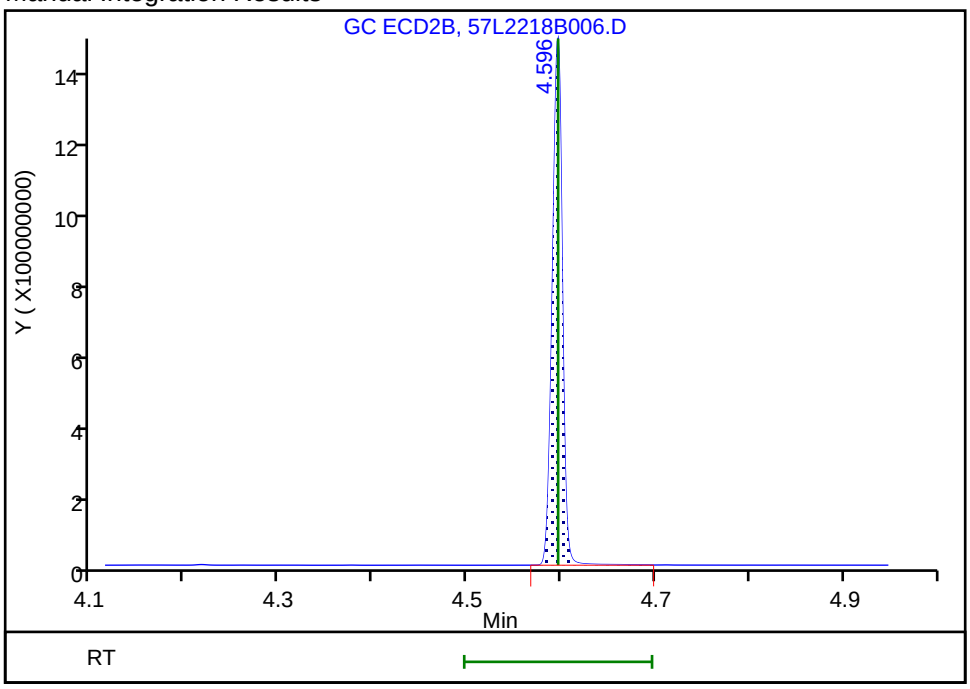
Processing Integration Results

RT: 4.38
Area: 246582
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1045088087
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:43
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:22:05 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D

Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057

Lims ID: icis

Client ID:

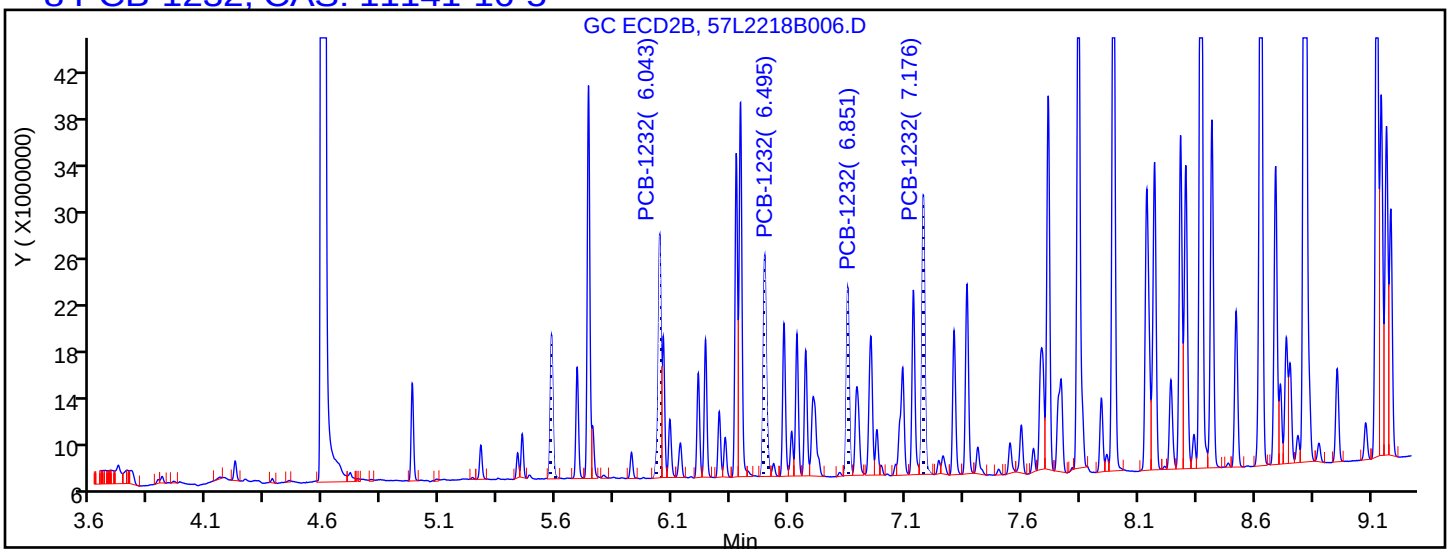
Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

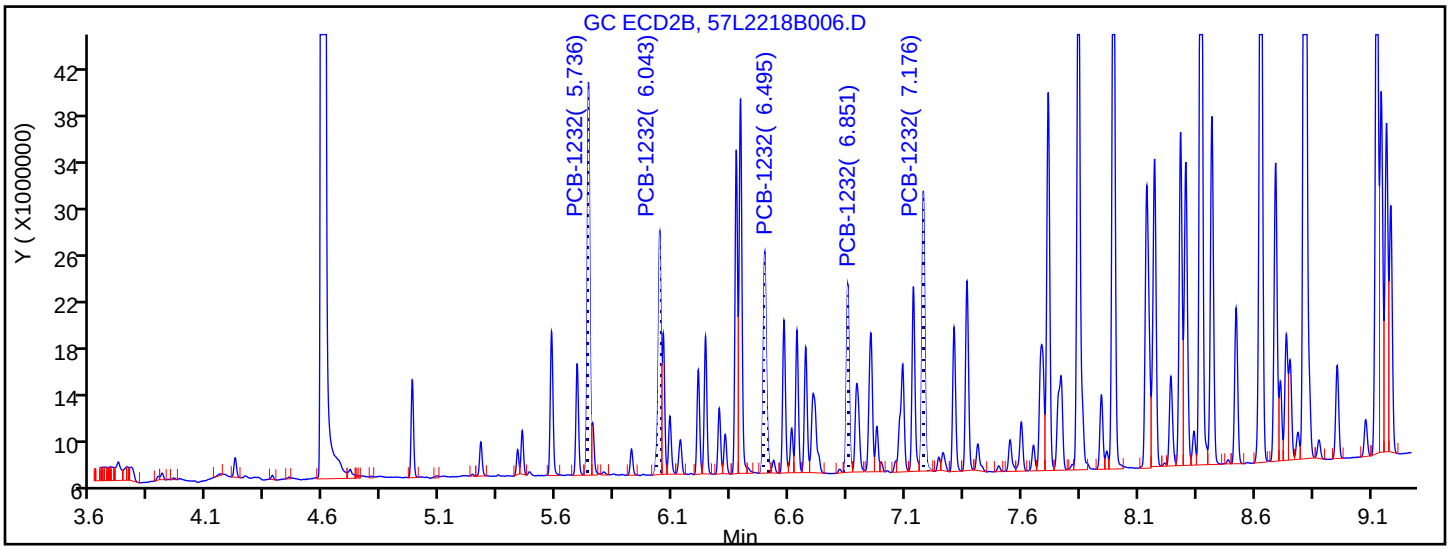
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.577	Response = 10187228
6.043	Response = 17959115
6.495	Response = 18407322
6.851	Response = 13764762
7.176	Response = 21368913



Manual Integration Results

5.736	Response = 26365859	M
6.043	Response = 17959115	
6.495	Response = 18407322	
6.851	Response = 13764762	
7.176	Response = 21368913	

Reviewer: ruslandera, 23-Dec-2018 13:51:58

Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:22:05 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B006.D

Injection Date: 22-Dec-2018 18:39:53 Instrument ID: TAC057

Lims ID: icis

Client ID:

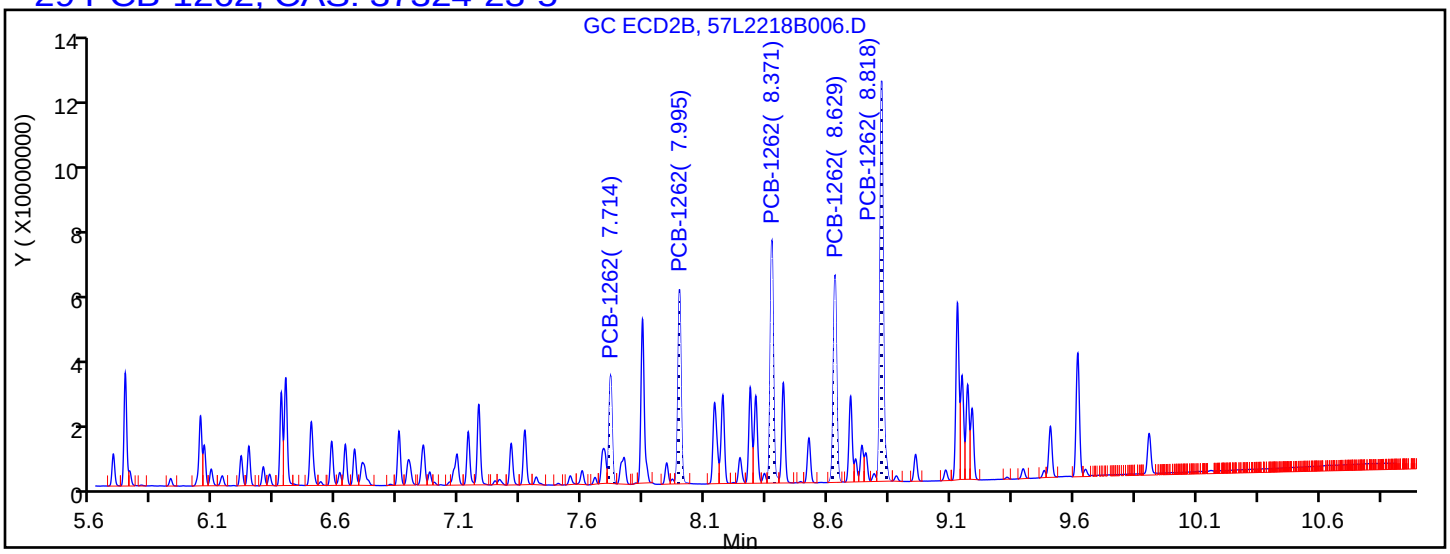
Operator ID: ar ALS Bottle#: 4 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

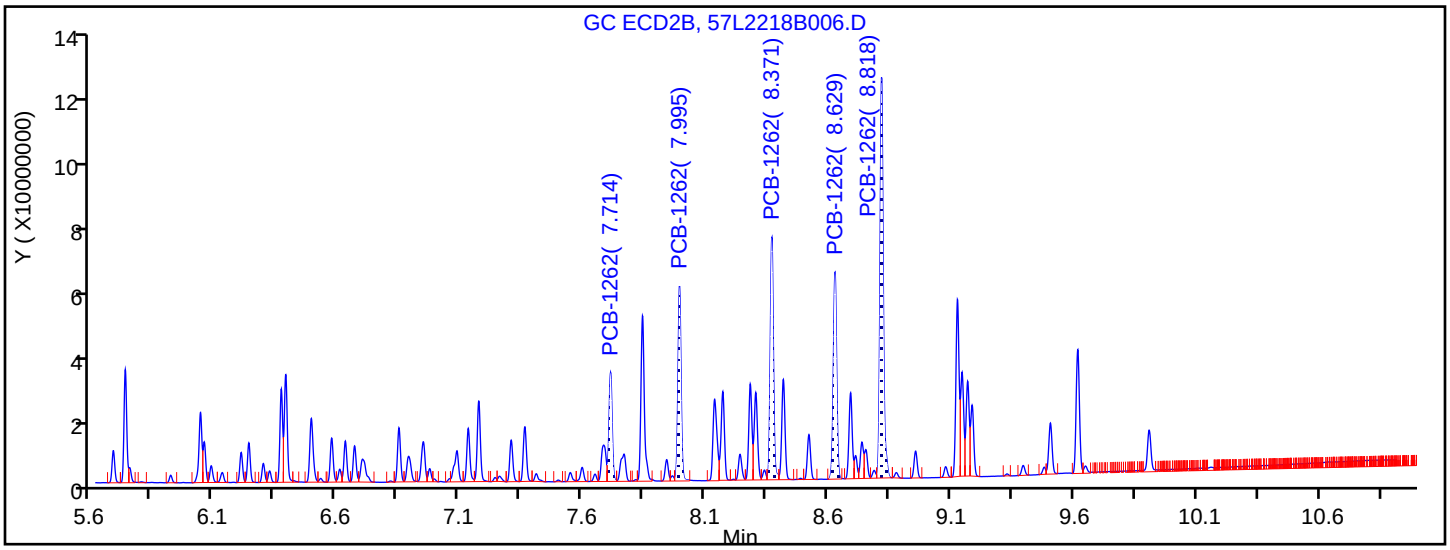
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

7.714	Response = 28614225
7.995	Response = 50955295
8.371	Response = 65546579
8.629	Response = 58489065
8.818	Response = 110941558



Manual Integration Results

7.714	Response = 29408313	M
7.995	Response = 51413087	M
8.371	Response = 65546579	
8.629	Response = 58489065	
8.818	Response = 110941558	

Reviewer: ruslandera, 23-Dec-2018 13:56:36

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Dec-2018 18:57:35 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:22:00 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:57:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.275	4.275	0.000	167234274	100.0	100.0	a
2	4.596	4.596	0.000	1031132091	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						106.1	
2						106.0	
						RPD = 0.14	
8 PCB-1232							M
1	5.187	5.187	0.000	3423177	50.0	53.7	M
1	5.439	5.439	0.000	2867927	50.0	52.9	M
1	5.770	5.770	0.000	3394086	50.0	53.4	M
1	5.863	5.863	0.000	2264202	50.0	52.0	M
1	6.147	6.147	0.000	1596339	50.0	53.5	M
		Average of Peak Amounts =				53.1	
2	5.736	5.736	0.000	14036513	50.0	53.6	
2	6.042	6.042	0.000	9506029	50.0	53.7	
2	6.494	6.494	0.000	9728926	50.0	52.6	
2	6.852	6.852	0.000	7279830	50.0	53.2	
2	7.177	7.177	0.000	11161178	50.0	51.8	
		Average of Peak Amounts =				53.0	
						RPD = 0.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.921	6.921	0.000	4154611	50.0	55.3	M
1	7.228	7.228	0.000	8957630	50.0	55.8	M
1	7.530	7.530	0.000	10948662	50.0	52.8	M
1	7.724	7.724	0.000	8882936	50.0	49.2	M
1	7.963	7.963	0.000	18591908	50.0	52.0	M
		Average of Peak Amounts =				53.0	
2	7.715	7.715	0.000	15577742	50.0	52.8	M
2	7.995	7.995	0.000	27365236	50.0	53.6	M
2	8.371	8.371	0.000	35579970	50.0	53.4	M
2	8.629	8.629	0.000	31366794	50.0	54.0	M
2	8.819	8.819	0.000	58192846	50.0	51.1	M
		Average of Peak Amounts =				53.0	
						RPD = 0.07	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:22:01 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D

Injection Date: 22-Dec-2018 18:57:35 Instrument ID: TAC057

Lims ID: ic

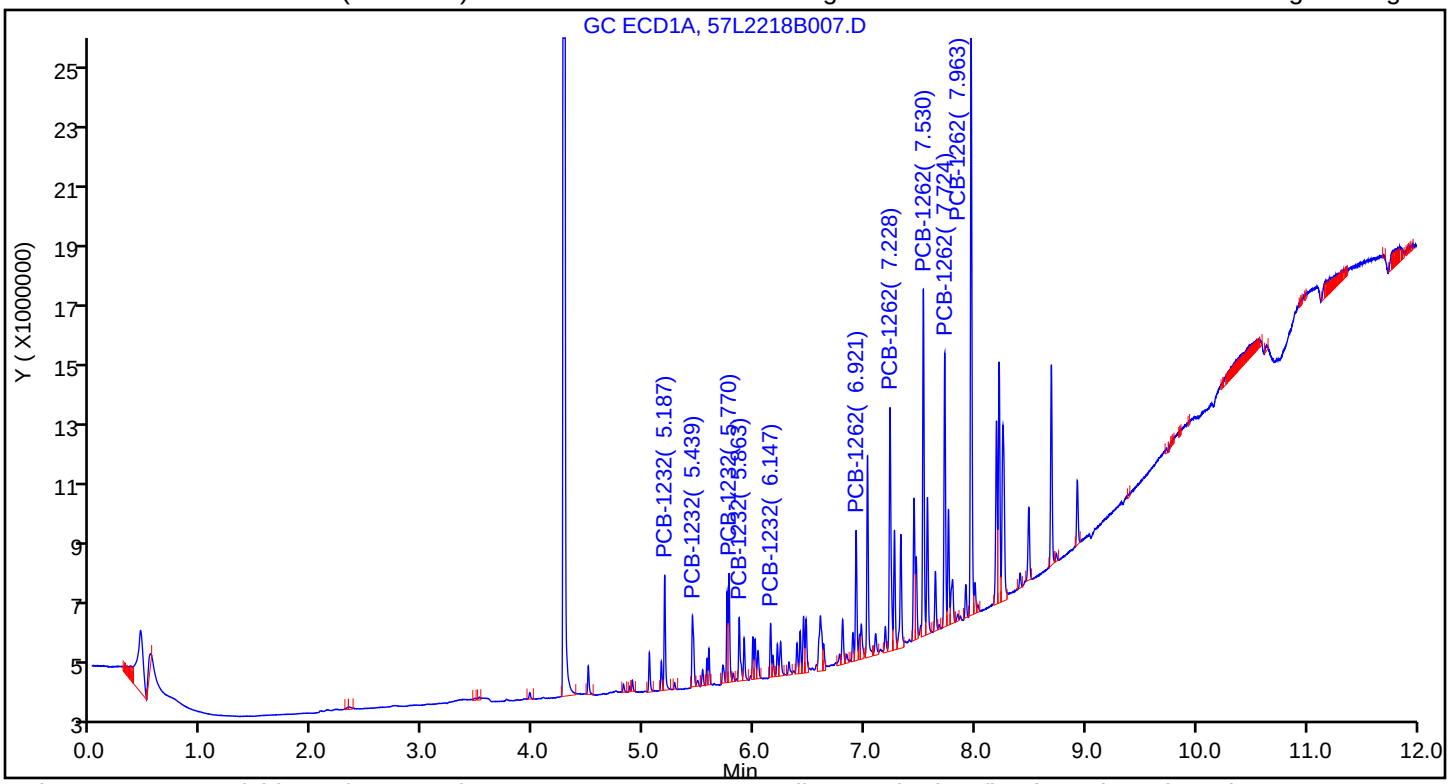
Client ID:

Operator ID: ar ALS Bottle#: 5 Worklist Smp#: 8

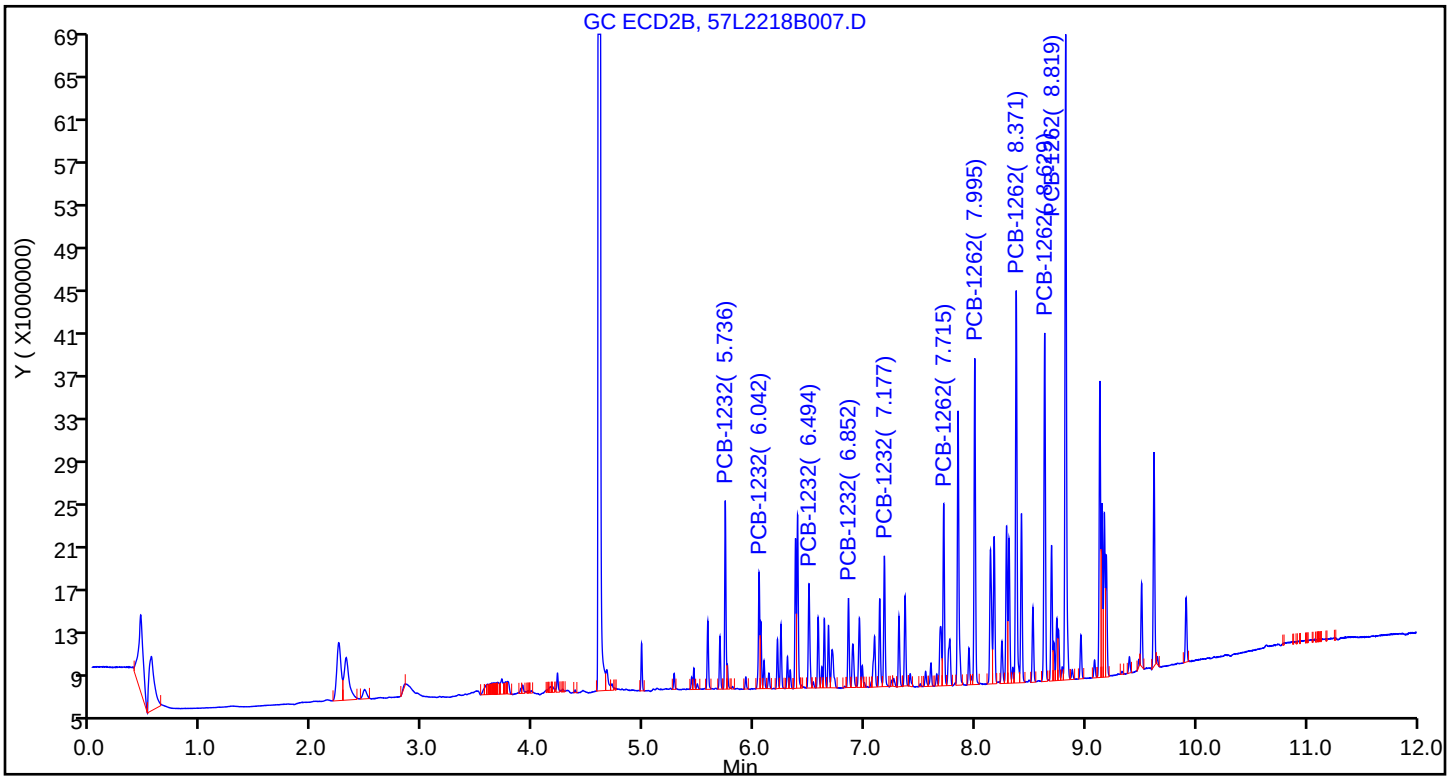
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

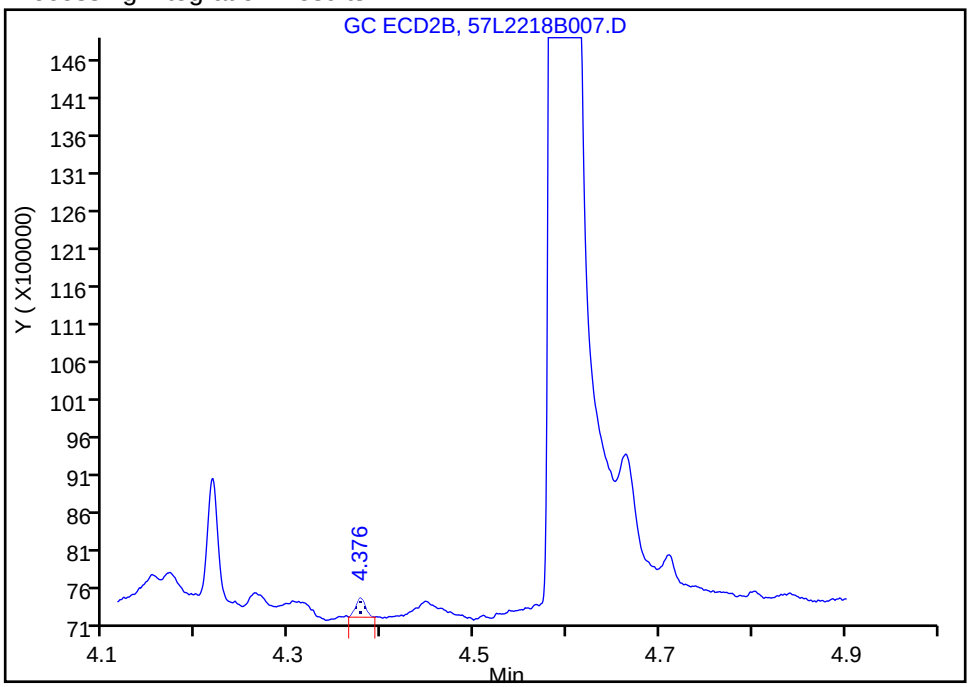
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D				
Injection Date:	22-Dec-2018 18:57:35	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	5	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

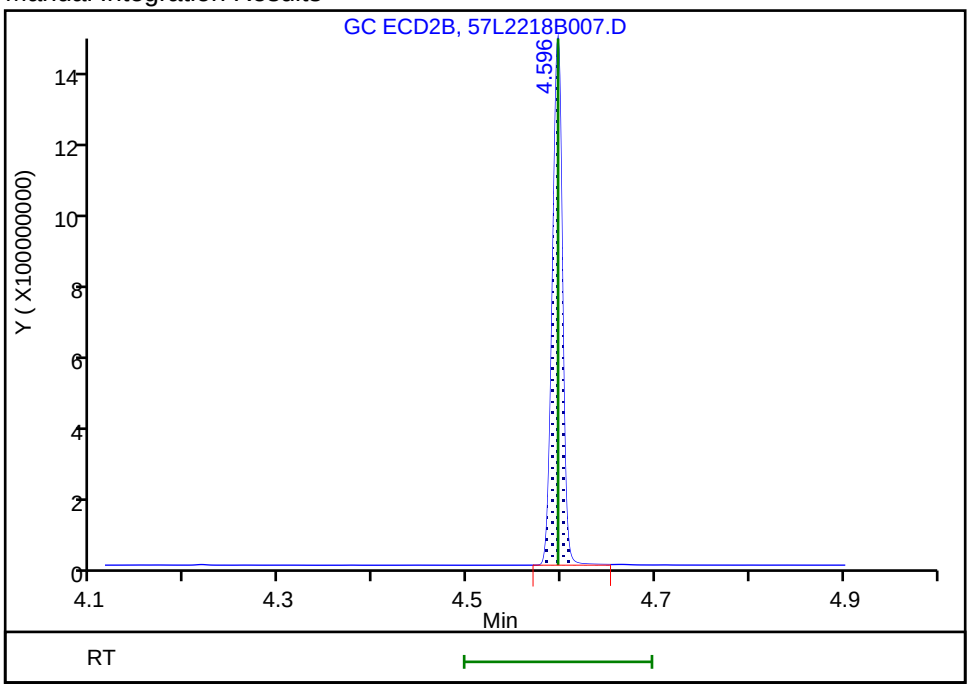
Processing Integration Results

RT: 4.38
Area: 174986
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1031132091
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:37
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:22:01 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B007.D

Injection Date: 22-Dec-2018 18:57:35 Instrument ID: TAC057

Lims ID: ic

Client ID:

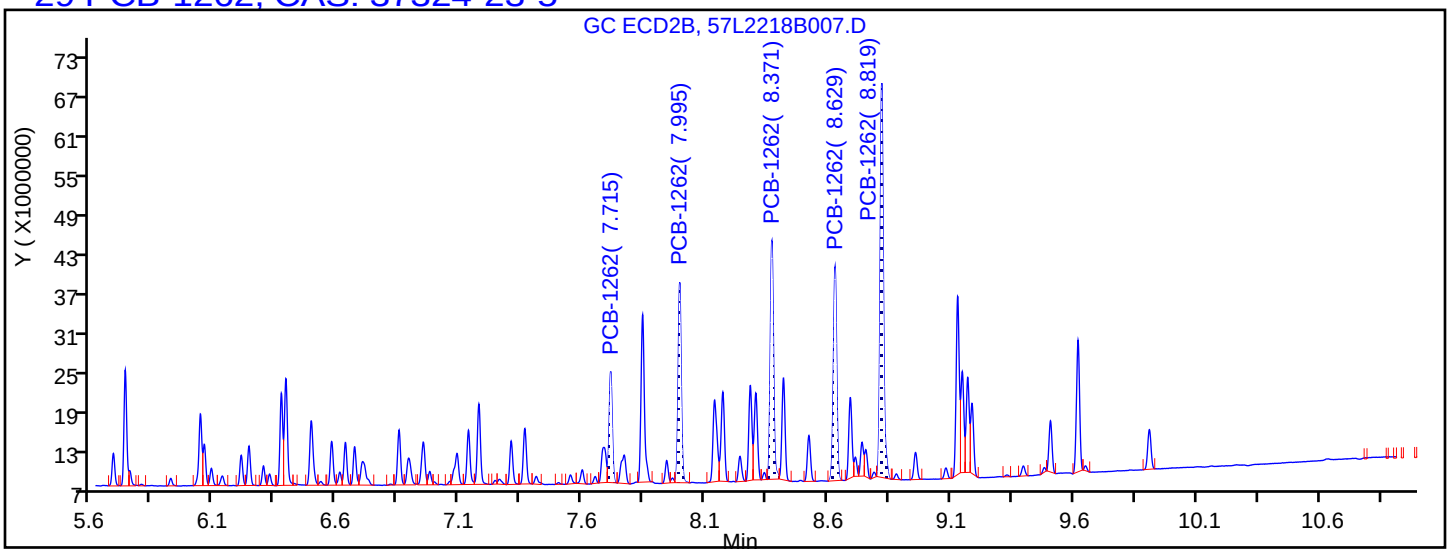
Operator ID: ar ALS Bottle#: 5 Worklist Smp#: 8

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

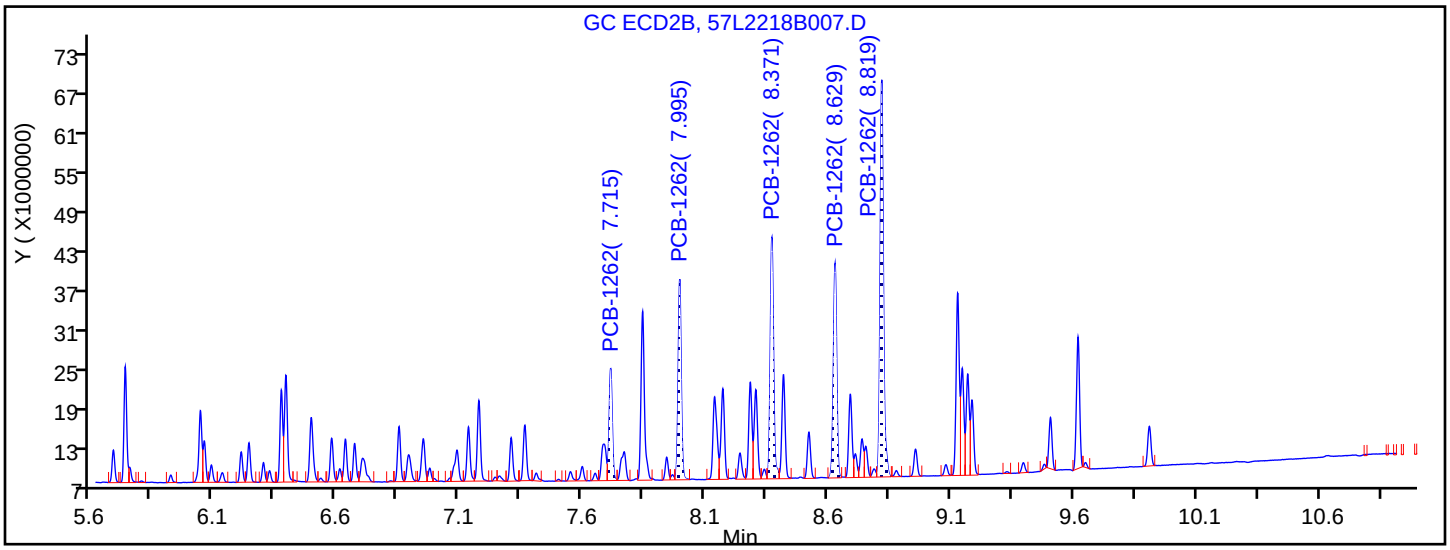
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

7.715	Response = 15148211
7.995	Response = 27174692
8.371	Response = 34267354
8.629	Response = 31116275
8.819	Response = 56885071



Manual Integration Results

7.715	Response = 15577742	M
7.995	Response = 27365236	M
8.371	Response = 35579970	M
8.629	Response = 31366794	M
8.819	Response = 58192846	M

Reviewer: ruslandera, 23-Dec-2018 13:57:03

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Dec-2018 19:15:10 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:21:56 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:57:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.275	4.276	-0.001	173225639	100.0	100.0	a
2	4.595	4.596	-0.001	1070582695	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						53.3	
2						52.9	
						RPD = 0.61	
8 PCB-1232							M
1	5.188	5.187	0.001	1809257	25.0	26.4	
1	5.439	5.439	0.000	1640082	25.0	28.0	M
1	5.770	5.770	0.000	1832085	25.0	26.6	
1	5.863	5.863	0.000	1173734	25.0	25.3	
1	6.147	6.147	0.000	827748	25.0	26.2	
		Average of Peak Amounts =				26.5	
2	5.736	5.736	0.000	7753668	25.0	27.0	
2	6.043	6.043	0.000	5168299	25.0	26.2	
2	6.494	6.495	-0.001	5366416	25.0	26.5	
2	6.852	6.851	0.001	3983308	25.0	26.1	
2	7.177	7.176	0.001	6197171	25.0	26.6	
		Average of Peak Amounts =				26.5	
						RPD = 0.04	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.921	6.921	0.000	2205062	25.0	28.3	M
1	7.228	7.228	0.000	4698312	25.0	27.4	M
1	7.529	7.531	-0.002	5838994	25.0	25.8	M
1	7.723	7.723	0.000	4794738	25.0	25.6	M
1	7.963	7.963	0.000	9881740	25.0	26.7	M
		Average of Peak Amounts =				26.8	
2	7.714	7.714	0.000	8448480	25.0	26.4	
2	7.995	7.995	0.000	15024199	25.0	26.9	
2	8.371	8.371	0.000	19570962	25.0	26.9	
2	8.629	8.629	0.000	17180911	25.0	26.4	
2	8.818	8.818	0.000	31409242	25.0	25.6	
		Average of Peak Amounts =				26.4	
						RPD = 1.25	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:21:57 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D

Injection Date: 22-Dec-2018 19:15:10 Instrument ID: TAC057

Lims ID: ic

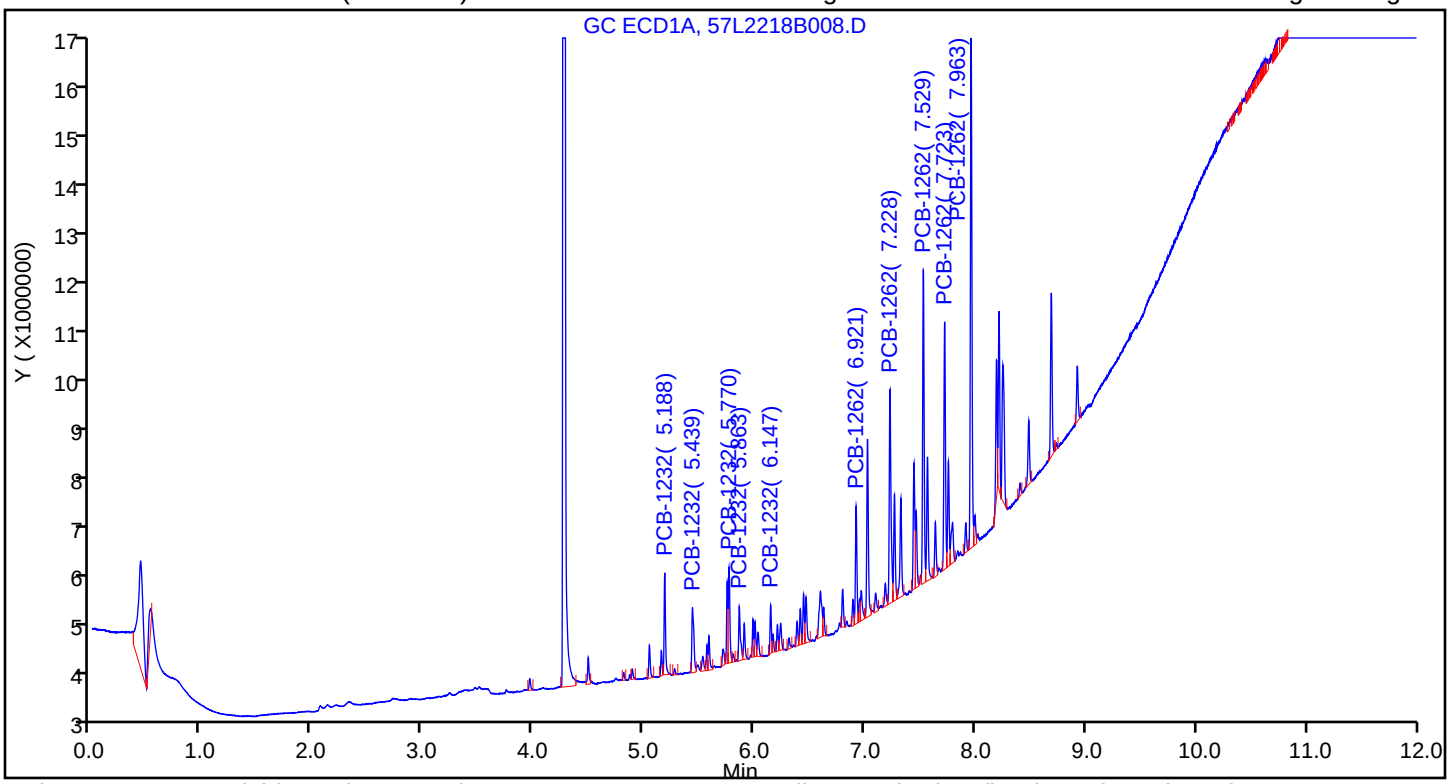
Client ID:

Operator ID: ar ALS Bottle#: 6 Worklist Smp#: 9

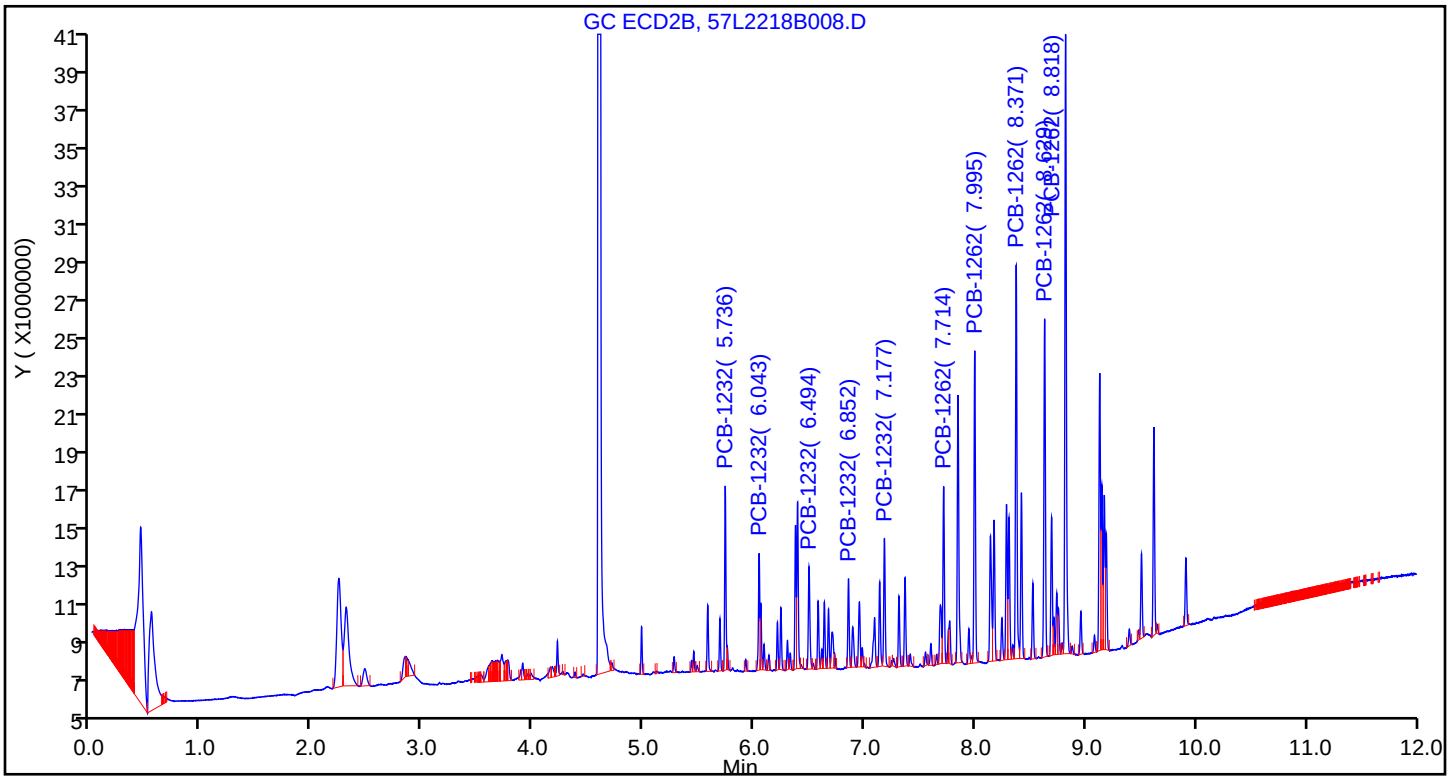
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

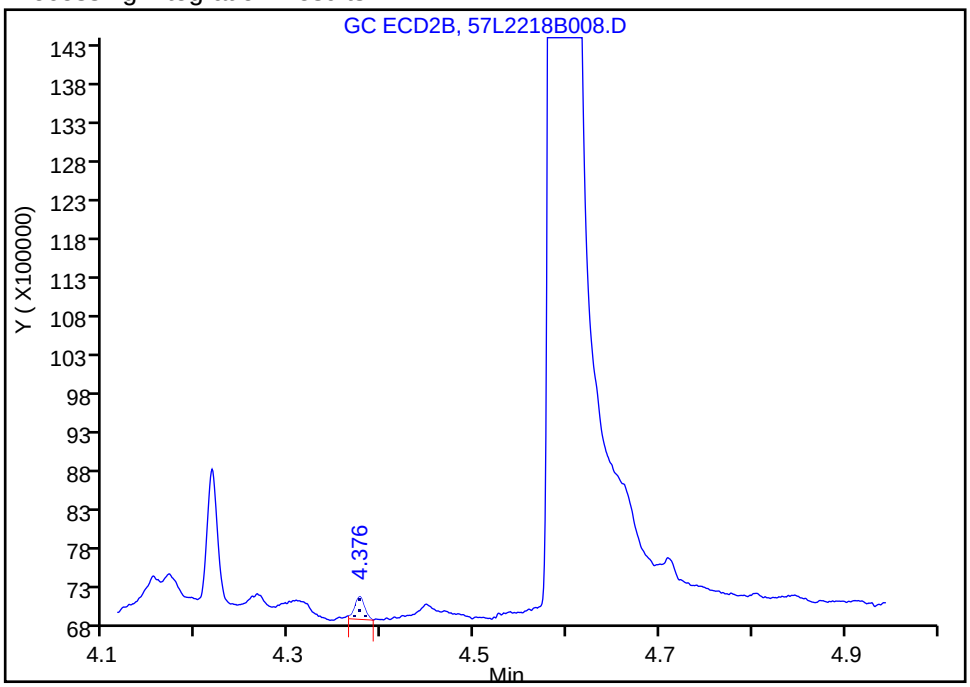
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B008.D				
Injection Date:	22-Dec-2018 19:15:10	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

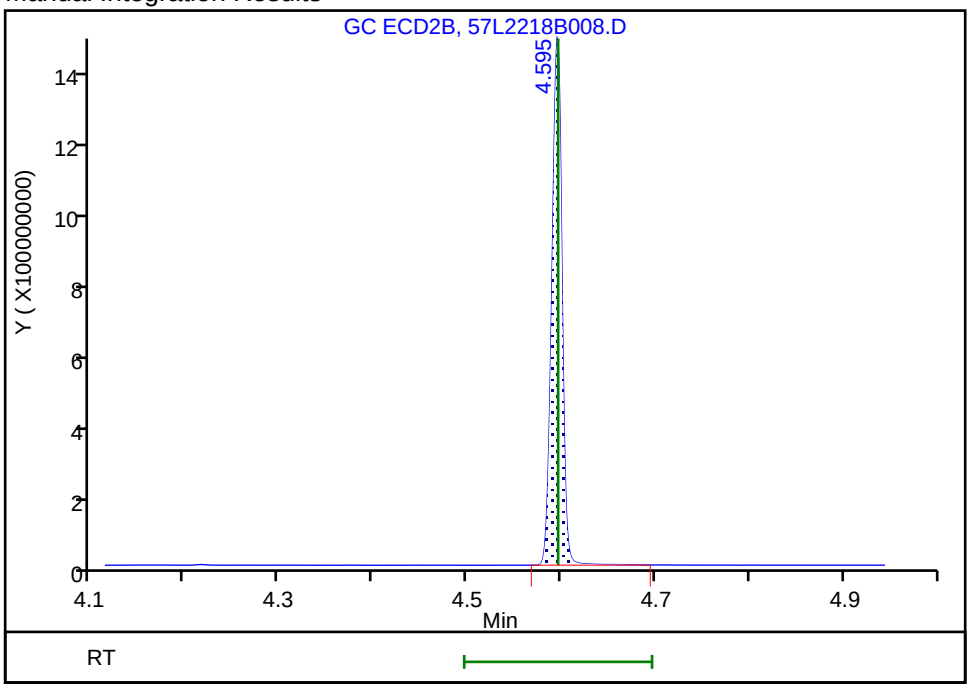
Processing Integration Results

RT: 4.38
Area: 210586
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1070582695
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:29
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Dec-2018 19:32:44 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:21:53 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:58:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	173457491	100.0	100.0	a
2	4.596	4.596	0.000	1066459374	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.2	
2						20.8	
						RPD = 2.98	
8 PCB-1232							M
1	5.189	5.187	0.002	802359	10.0	10.5	
1	5.440	5.439	0.001	646742	10.0	9.37	M
1	5.771	5.770	0.001	762638	10.0	9.53	M
1	5.865	5.863	0.002	493618	10.0	9.81	M
1	6.148	6.147	0.001	336440	10.0	9.93	M
		Average of Peak Amounts =				9.83	
2	5.737	5.736	0.001	3534497	10.0	10.5	
2	6.043	6.043	0.000	2318042	10.0	9.64	
2	6.495	6.495	0.000	2449464	10.0	10.5	M
2	6.852	6.851	0.001	1801315	10.0	9.67	M
2	7.177	7.176	0.001	2871586	10.0	11.2	M
		Average of Peak Amounts =				10.3	
						RPD = 4.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.922	6.921	0.001	783264	10.0	10.0	
1	7.229	7.228	0.001	1950423	10.0	10.3	M
1	7.531	7.531	0.000	2553929	10.0	9.74	M
1	7.724	7.723	0.001	1933566	10.0	10.3	M
1	7.963	7.963	0.000	4241306	10.0	11.4	M
		Average of Peak Amounts =				10.4	
2	7.714	7.714	0.000	3886684	10.0	10.8	M
2	7.996	7.995	0.001	6932255	10.0	10.9	
2	8.371	8.371	0.000	9065088	10.0	10.9	
2	8.629	8.629	0.000	7750204	10.0	9.59	
2	8.819	8.818	0.001	14070172	10.0	10.4	
		Average of Peak Amounts =				10.5	
						RPD = 1.34	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:21:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D

Injection Date: 22-Dec-2018 19:32:44 Instrument ID: TAC057

Lims ID: ic

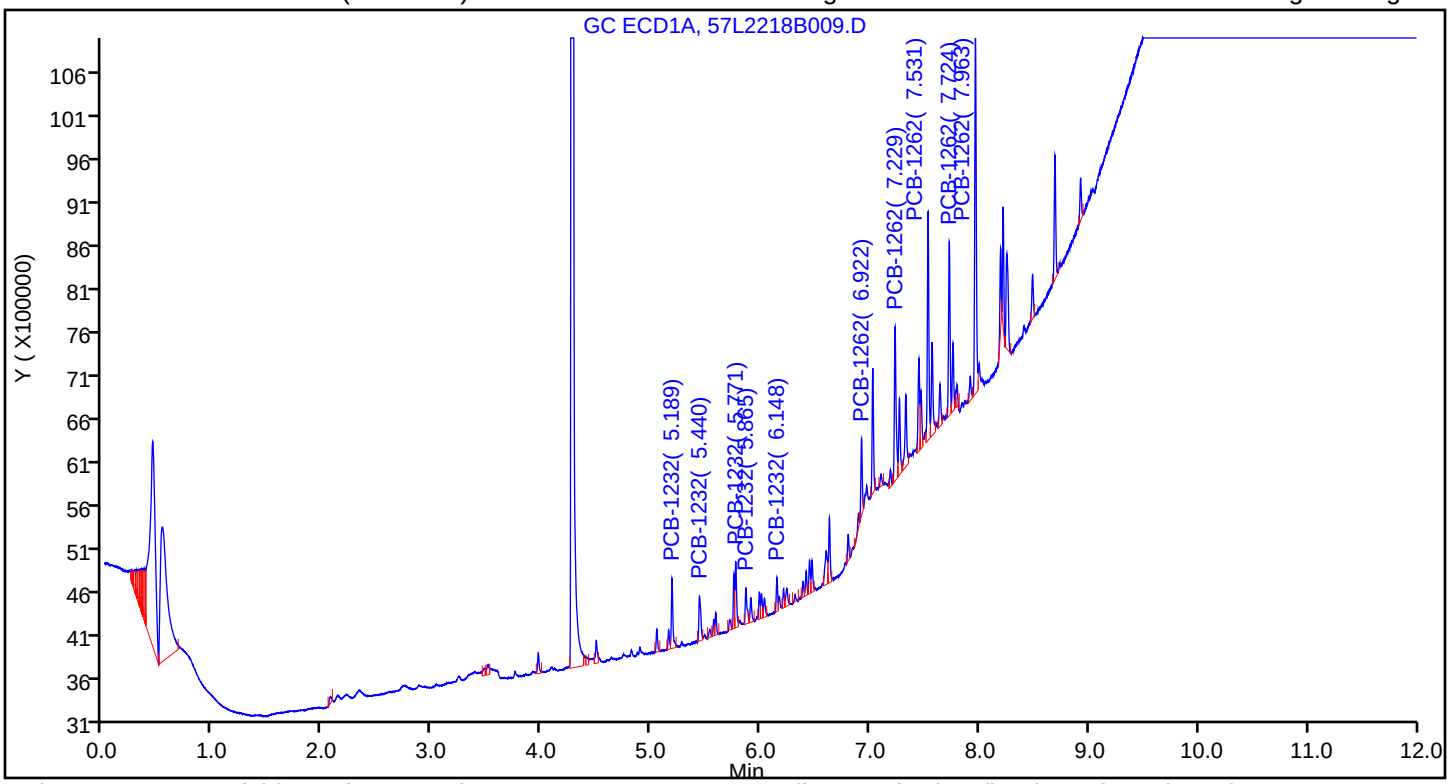
Client ID:

Operator ID: ar ALS Bottle#: 7 Worklist Smp#: 10

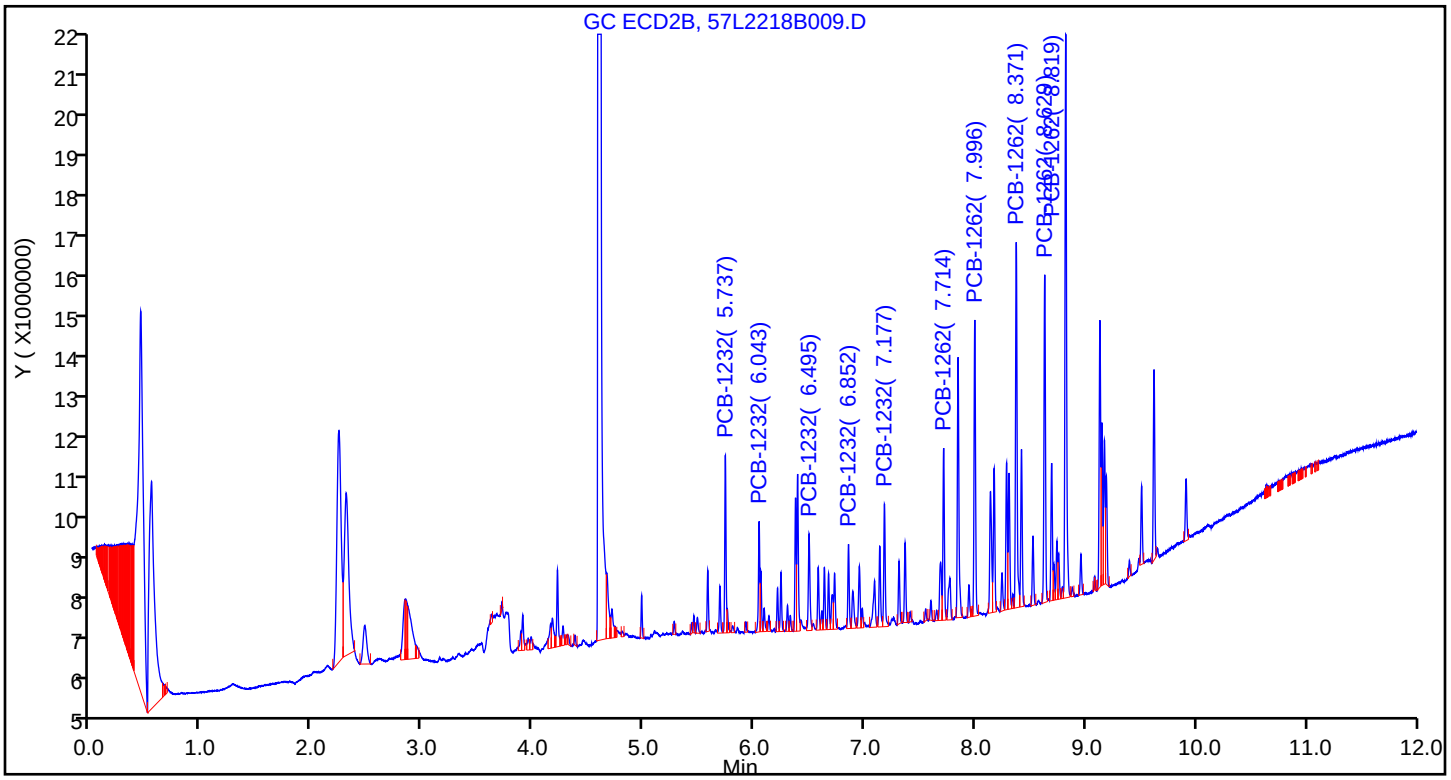
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

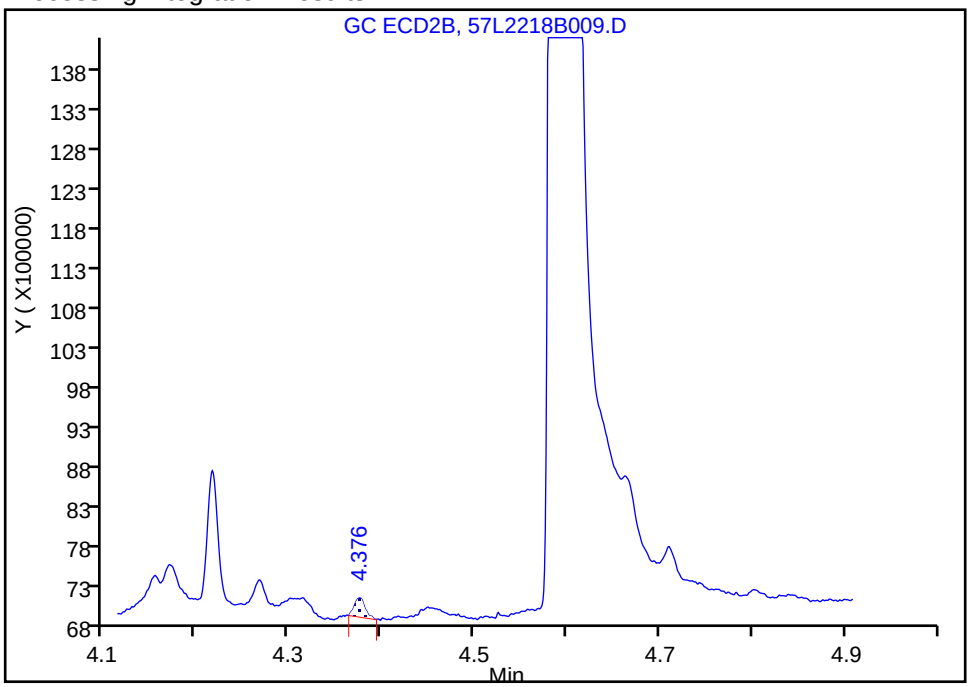
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D				
Injection Date:	22-Dec-2018 19:32:44	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

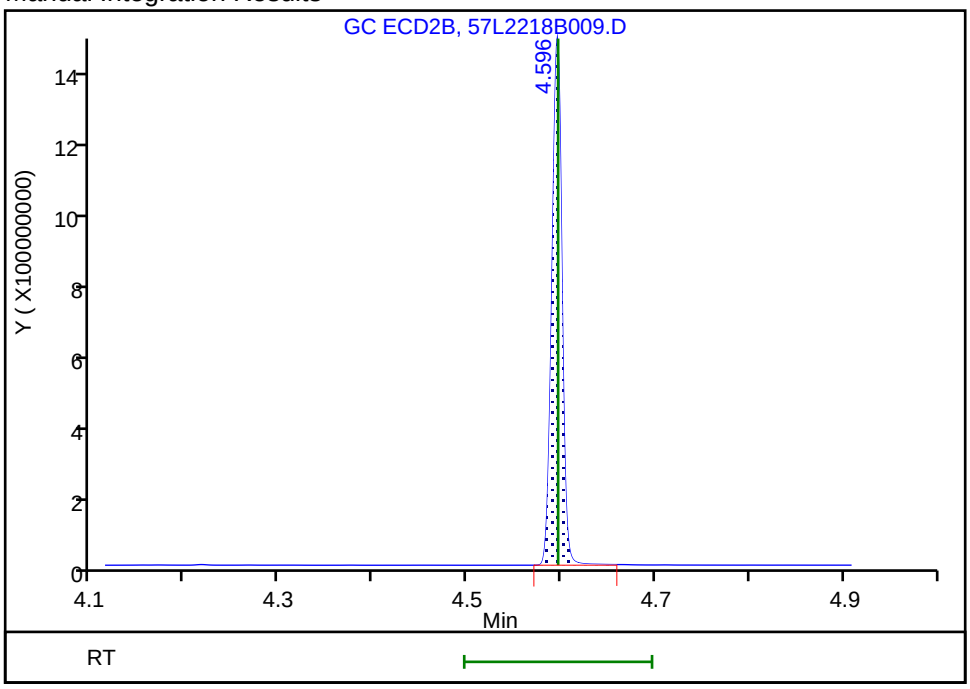
Processing Integration Results

RT: 4.38
Area: 196271
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1066459374
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:22
Audit Action: Assigned Compound ID Audit Reason:

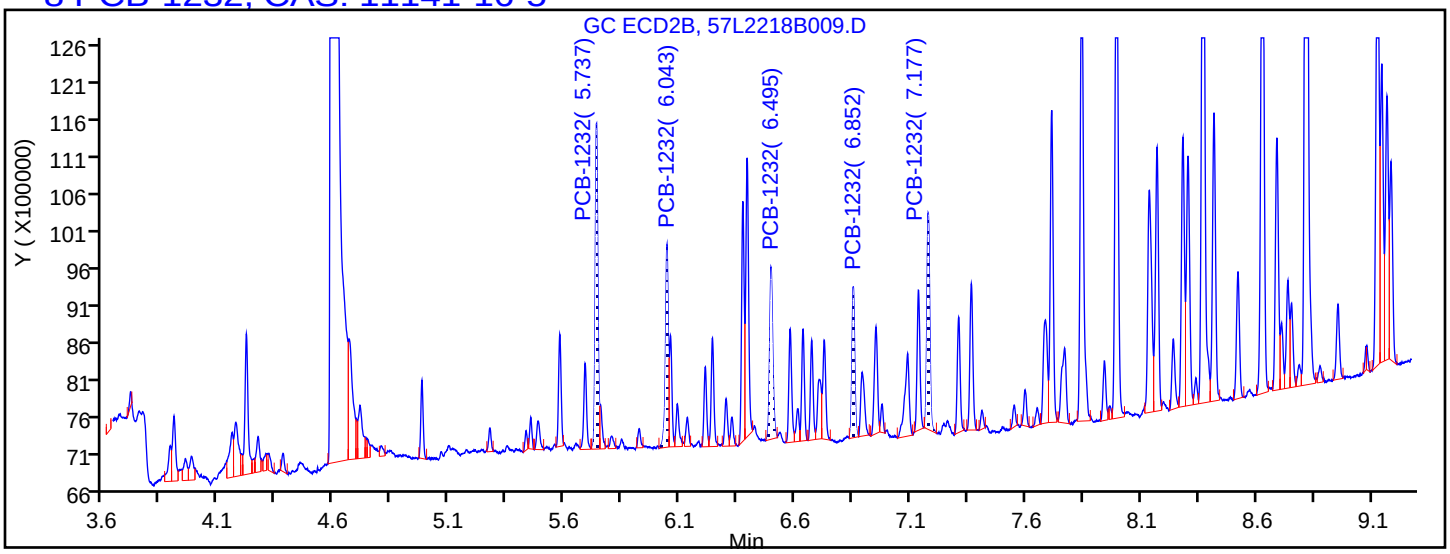
Report Date: 23-Dec-2018 16:21:55 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D

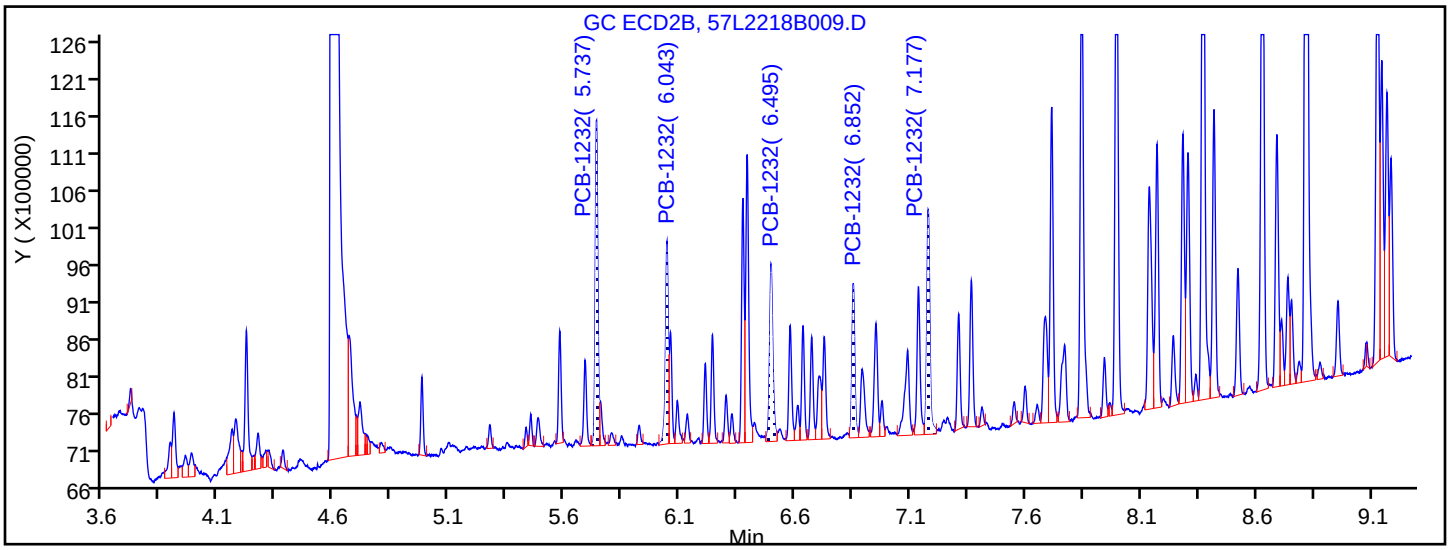
Injection Date:	22-Dec-2018 19:32:44	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.737	Response = 3534497
6.043	Response = 2318042
6.495	Response = 2226251
6.852	Response = 1691023
7.177	Response = 2568617



Manual Integration Results

5.737	Response = 3534497	
6.043	Response = 2318042	
6.495	Response = 2449464	M
6.852	Response = 1801315	M
7.177	Response = 2871586	M

Reviewer: ruslandera, 23-Dec-2018 13:58:34

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

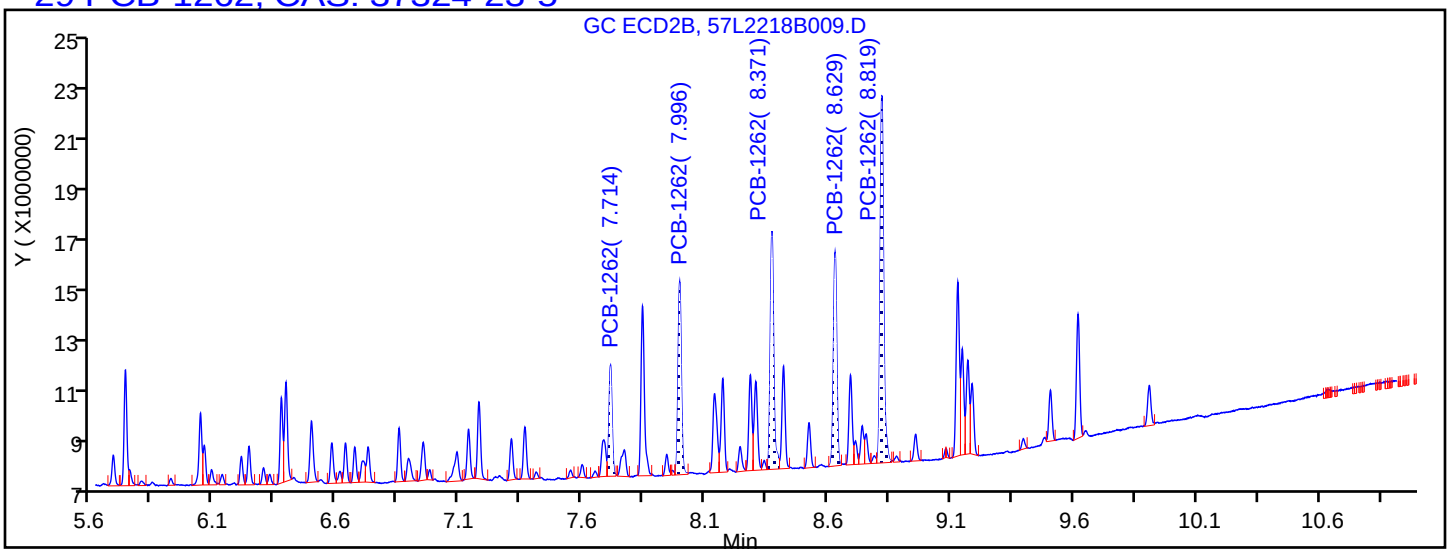
Report Date: 23-Dec-2018 16:21:55 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B009.D

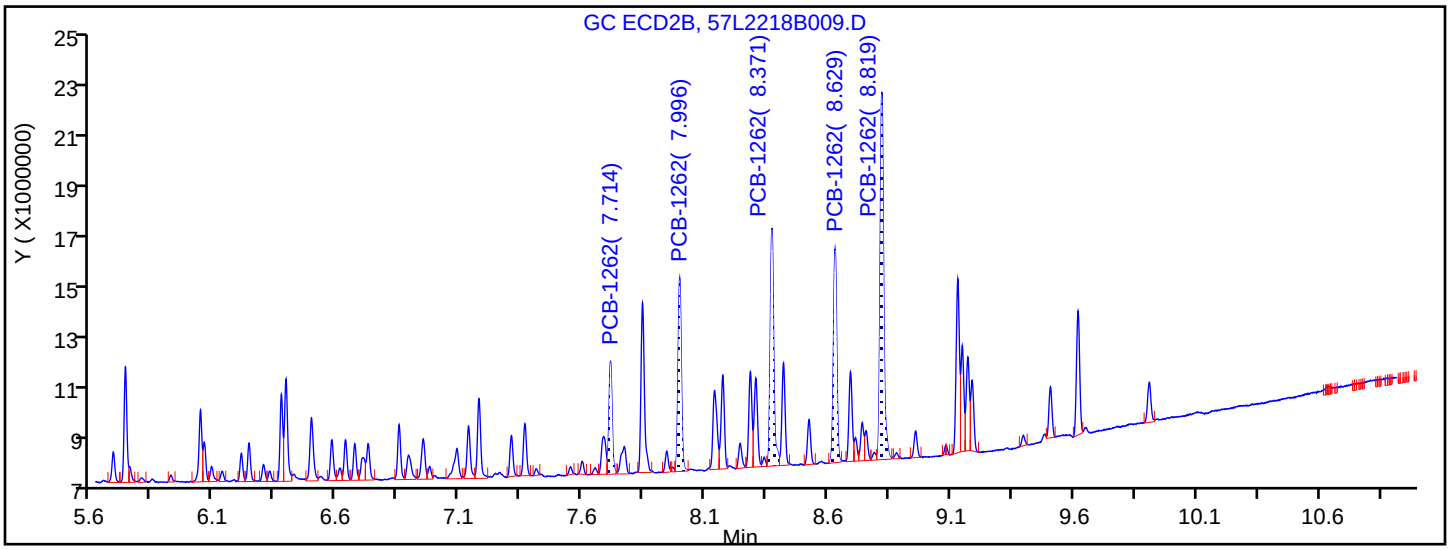
Injection Date:	22-Dec-2018 19:32:44	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

7.714	Response = 3784810
7.996	Response = 6932255
8.371	Response = 9065088
8.629	Response = 7750204
8.819	Response = 14070172



Manual Integration Results

7.714	Response = 3886684	M
7.996	Response = 6932255	
8.371	Response = 9065088	
8.629	Response = 7750204	
8.819	Response = 14070172	

Reviewer: ruslandera, 23-Dec-2018 13:58:40

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Dec-2018 19:50:14 ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:21:51 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 13:59:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.275	4.276	-0.001	174037400	100.0	100.0	a
2	4.595	4.596	-0.001	1062744244	100.0	100.0	a
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						9.34	
2						8.48	
						RPD = 9.70	
8 PCB-1232							M
1	5.190	5.187	0.003	437330	5.00	4.78	M
1	5.440	5.439	0.001	322049	5.00	3.28	M
1	5.771	5.770	0.001	412641	5.00	3.94	M
1	5.865	5.863	0.002	266444	5.00	4.63	M
1	6.148	6.147	0.001	185341	5.00	4.92	M
		Average of Peak Amounts =				4.31	
2	5.737	5.736	0.001	2054239	5.00	4.75	M
2	6.043	6.043	0.000	1188807	5.00	3.04	M
2	6.494	6.495	-0.001	1401993	5.00	4.78	M
2	6.852	6.851	0.001	904985	5.00	2.88	M
2	7.178	7.176	0.002	1476688	5.00	4.63	M
		Average of Peak Amounts =				4.02	
						RPD = 6.99	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.922	6.921	0.001	433697	5.00	5.55	
1	7.229	7.228	0.001	1057948	5.00	4.76	M
1	7.530	7.531	-0.001	1297510	5.00	3.58	M
1	7.724	7.723	0.001	1036768	5.00	5.51	M
1	7.964	7.963	0.001	2146586	5.00	5.77	M
		Average of Peak Amounts =				5.04	
2	7.714	7.714	0.000	2103981	5.00	4.71	M
2	7.995	7.995	0.000	3822147	5.00	4.67	M
2	8.370	8.371	-0.001	5001905	5.00	4.68	M
2	8.629	8.629	0.000	4283750	5.00	3.38	M
2	8.819	8.818	0.001	7732708	5.00	4.86	M
		Average of Peak Amounts =				4.46	
						RPD = 12.08	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262IC0100_00011	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:21:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D

Injection Date: 22-Dec-2018 19:50:14 Instrument ID: TAC057

Lims ID: ic

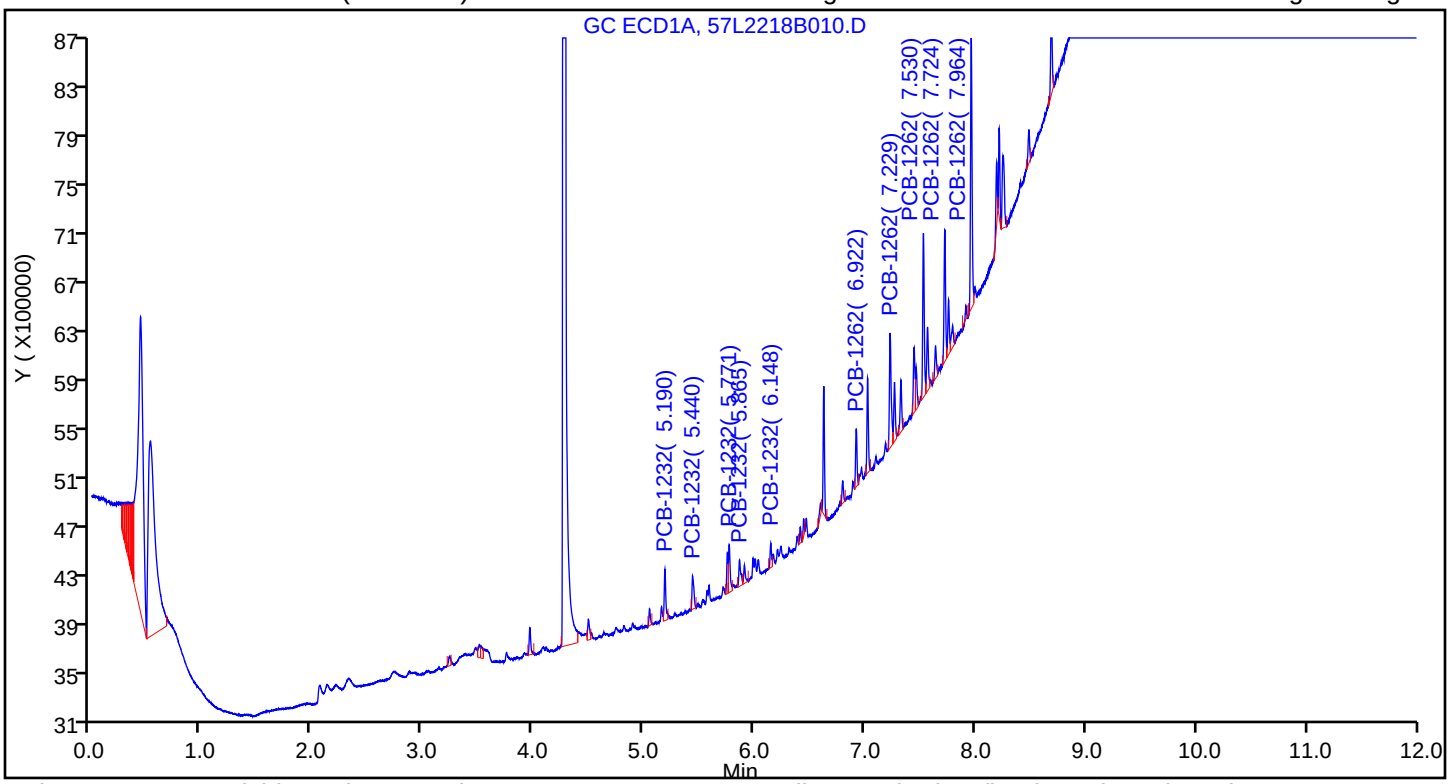
Client ID:

Operator ID: ar ALS Bottle#: 8 Worklist Smp#: 11

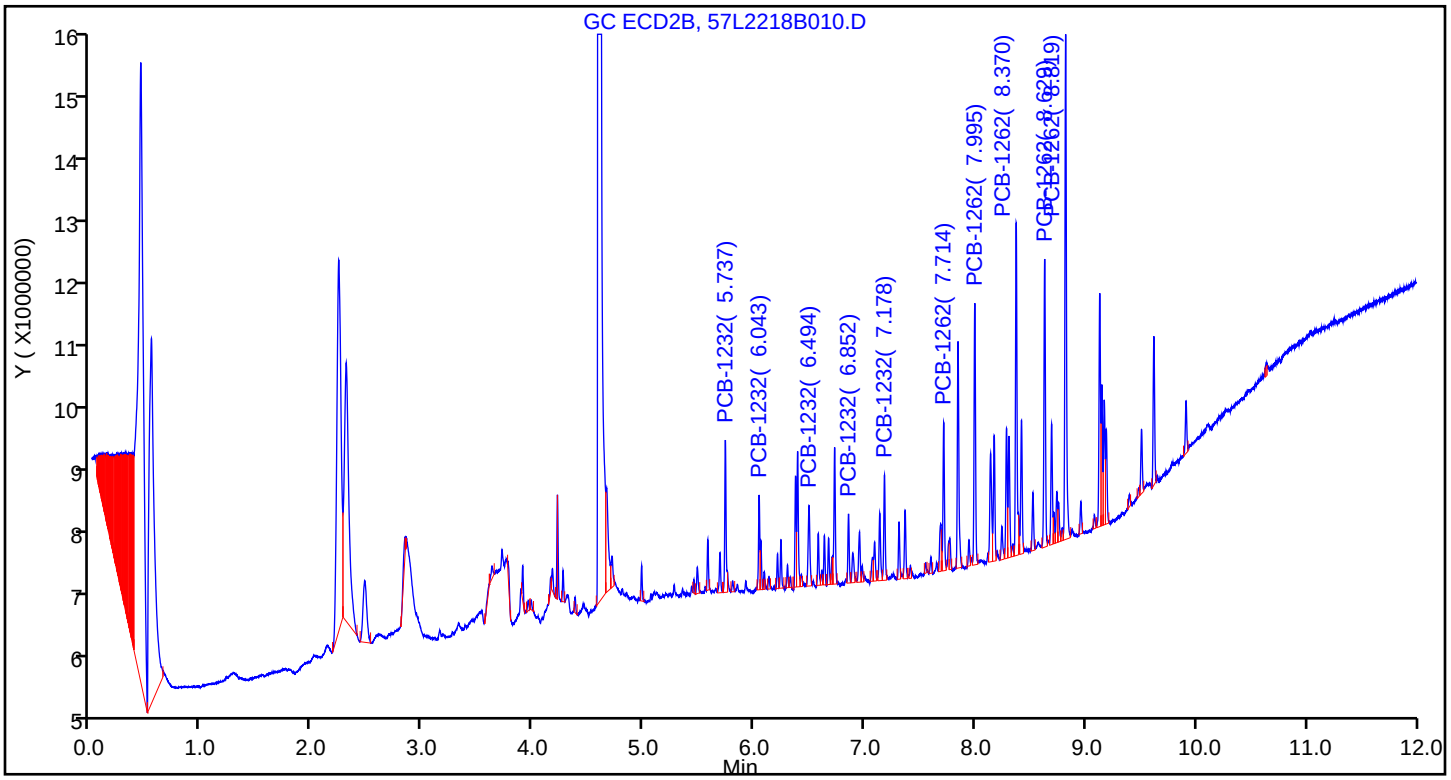
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

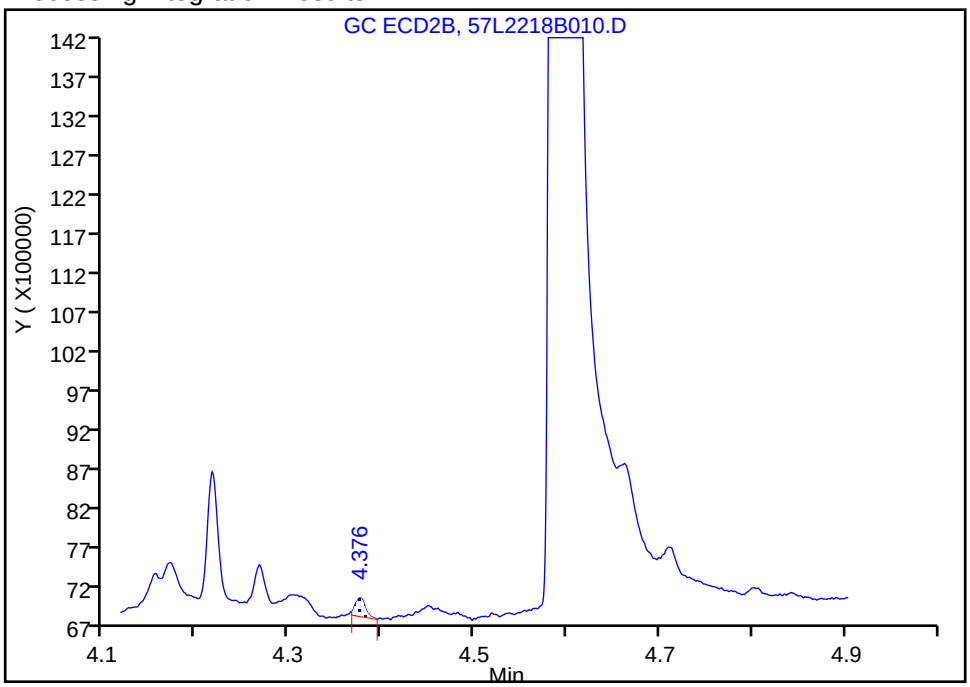
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D				
Injection Date:	22-Dec-2018 19:50:14	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	8	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

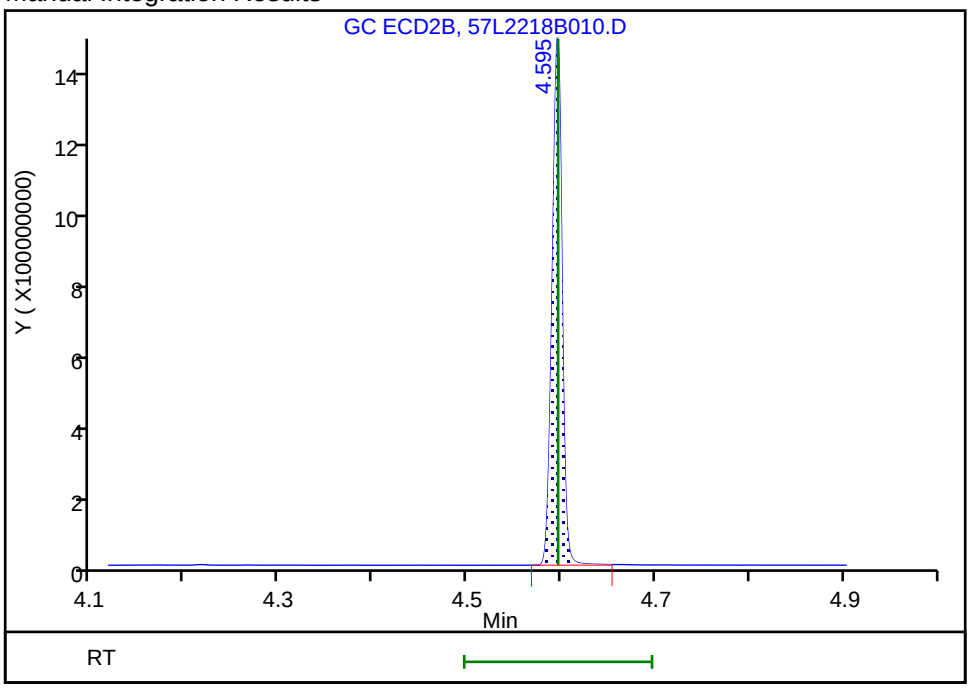
Processing Integration Results

RT: 4.38
Area: 181336
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1062744244
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:08:14
Audit Action: Assigned Compound ID Audit Reason:

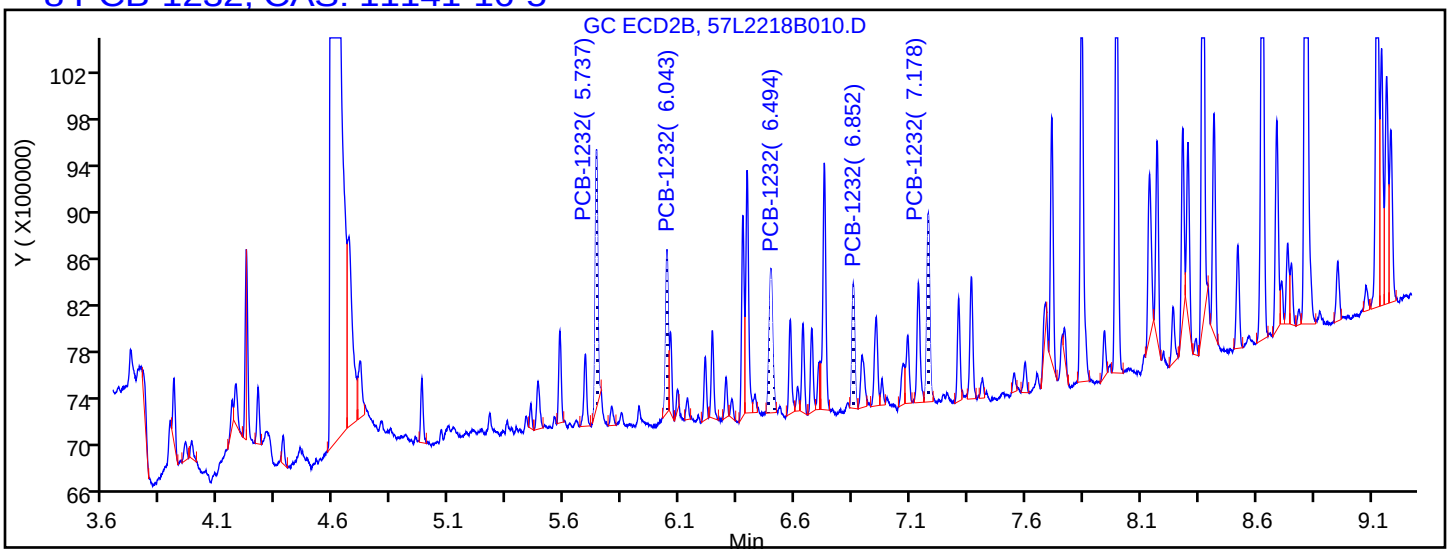
Report Date: 23-Dec-2018 16:21:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D

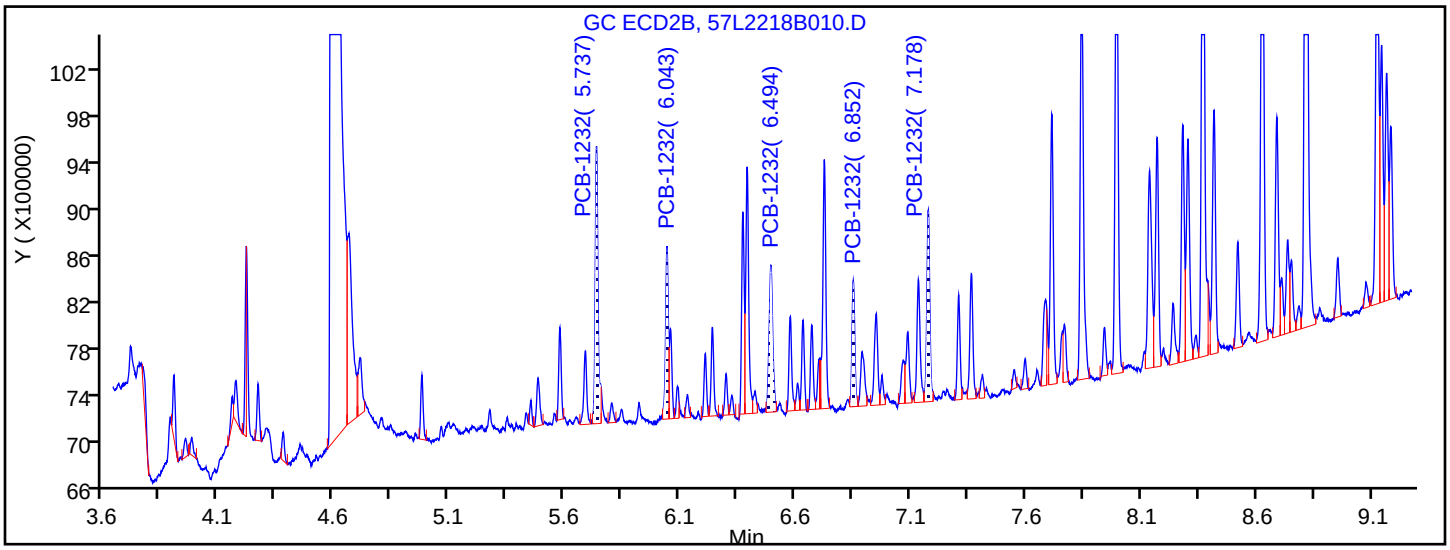
Injection Date:	22-Dec-2018 19:50:14	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	8	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.737	Response = 1664457
6.043	Response = 1070225
6.494	Response = 1343703
6.852	Response = 875742
7.178	Response = 1413281



Manual Integration Results

5.737	Response = 2054239	M
6.043	Response = 1188807	M
6.494	Response = 1401993	M
6.852	Response = 904985	M
7.178	Response = 1476688	M

Reviewer: ruslandera, 23-Dec-2018 13:59:09

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

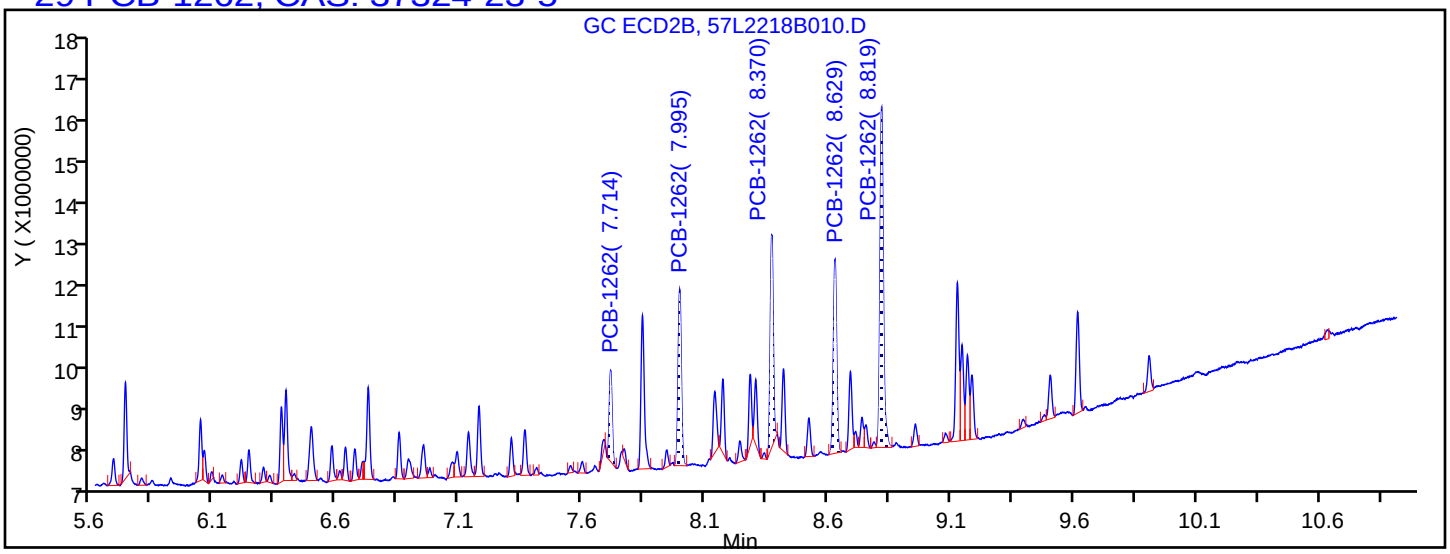
Report Date: 23-Dec-2018 16:21:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B010.D

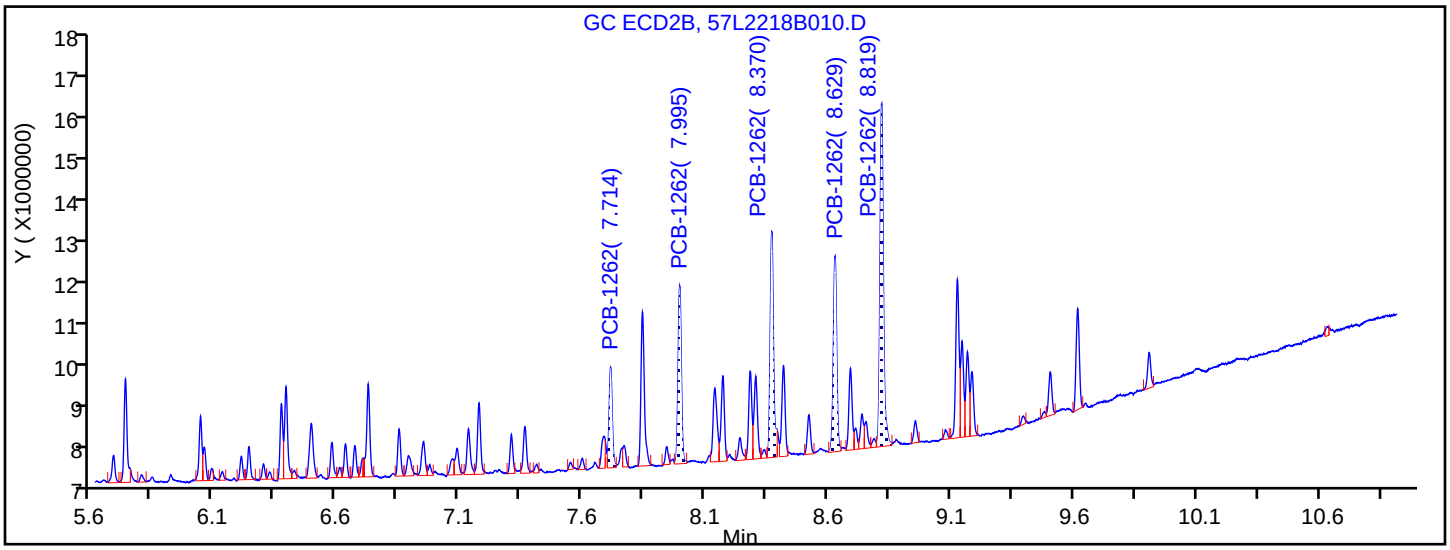
Injection Date:	22-Dec-2018 19:50:14	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	8	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

7.714	Response = 1697575
7.995	Response = 3726890
8.370	Response = 4191406
8.629	Response = 4163047
8.819	Response = 7545235



Manual Integration Results

7.714	Response = 2103981	M
7.995	Response = 3822147	M
8.370	Response = 5001905	M
8.629	Response = 4283750	M
8.819	Response = 7732708	M

Reviewer: ruslandera, 23-Dec-2018 13:59:34

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 20:25 Calibration End Date: 12/22/2018 22:28 Calibration ID: 27222

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/20	57L2218B019.D
Level 2	IC 580-291937/19	57L2218B018.D
Level 3	IC 580-291937/18	57L2218B017.D
Level 4	IC 580-291937/17	57L2218B016.D
Level 5	ICIS 580-291937/16	57L2218B015.D
Level 6	IC 580-291937/15	57L2218B014.D
Level 7	IC 580-291937/14	57L2218B013.D
Level 8	IC 580-291937/13	57L2218B012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0385 0.0343	0.0343 0.0360	0.0354 0.0344	0.0353	0.0345	Ave		0.0353				4.0		20.0			
PCB-1248 Peak 2	0.0632 0.0566	0.0678 0.0573	0.0626 0.0531	0.0600	0.0568	Ave		0.0597				7.9		20.0			
PCB-1248 Peak 3	0.0741 0.0645	0.0777 0.0657	0.0736 0.0630	0.0663	0.0650	Ave		0.0687				8.0		20.0			
PCB-1248 Peak 4	0.0432 0.0335	0.0411 0.0347	0.0390 0.0332	0.0366	0.0363	Ave		0.0372				9.7		20.0			
PCB-1248 Peak 5	0.0291 0.0245	0.0259 0.0253	0.0274 0.0240	0.0260	0.0252	Ave		0.0259				6.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 20:25 Calibration End Date: 12/22/2018 22:28 Calibration ID: 27222

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/20	57L2218B019.D
Level 2	IC 580-291937/19	57L2218B018.D
Level 3	IC 580-291937/18	57L2218B017.D
Level 4	IC 580-291937/17	57L2218B016.D
Level 5	ICIS 580-291937/16	57L2218B015.D
Level 6	IC 580-291937/15	57L2218B014.D
Level 7	IC 580-291937/14	57L2218B013.D
Level 8	IC 580-291937/13	57L2218B012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Ave	355131 31470230	629674 65171128	1633963 118605078	3223826	6331642	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 2	BNB	Ave	583291 51893553	1243110 103847408	2891103 183164581	5475551	10437247	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 3	BNB	Ave	684389 59152419	1424960 118919695	3395966 217387578	6058474	11942838	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 4	BNB	Ave	398828 30744316	754354 62762553	1801376 114516429	3345744	6671582	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 5	BNB	Ave	268152 22490756	475184 45738482	1264738 82906940	2372025	4629036	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:
Ave = Average ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B012.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Dec-2018 20:25:25 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:17 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:36:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.275	0.001	172579178	100.0	100.0	
2	4.596	4.596	0.000	1059805164	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1838.5	
2						1849.6	
						RPD = 0.60	
10 PCB-1248							M
1	5.751	5.754	-0.003	118605078	2000.0	1945.1	M
1	6.146	6.148	-0.002	183164581	2000.0	1778.5	M
1	6.443	6.445	-0.002	217387578	2000.0	1832.3	M
1	6.891	6.892	-0.001	114516429	2000.0	1783.2	M
1	7.096	7.097	-0.001	82906940	2000.0	1853.5	M
		Average of Peak Amounts =				1838.5	
2	6.372	6.372	0.000	536818770	2000.0	1783.2	
2	6.852	6.853	-0.001	765862823	2000.0	1862.6	
2	7.177	7.178	-0.001	979381694	2000.0	1871.3	
2	7.365	7.364	0.001	908913716	2000.0	1900.1	
2	7.691	7.691	0.000	448568009	2000.0	1830.6	
		Average of Peak Amounts =				1849.6	
						RPD = 0.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

48_ICSTK_00007	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B012.D

Injection Date: 22-Dec-2018 20:25:25 Instrument ID: TAC057

Lims ID: ic

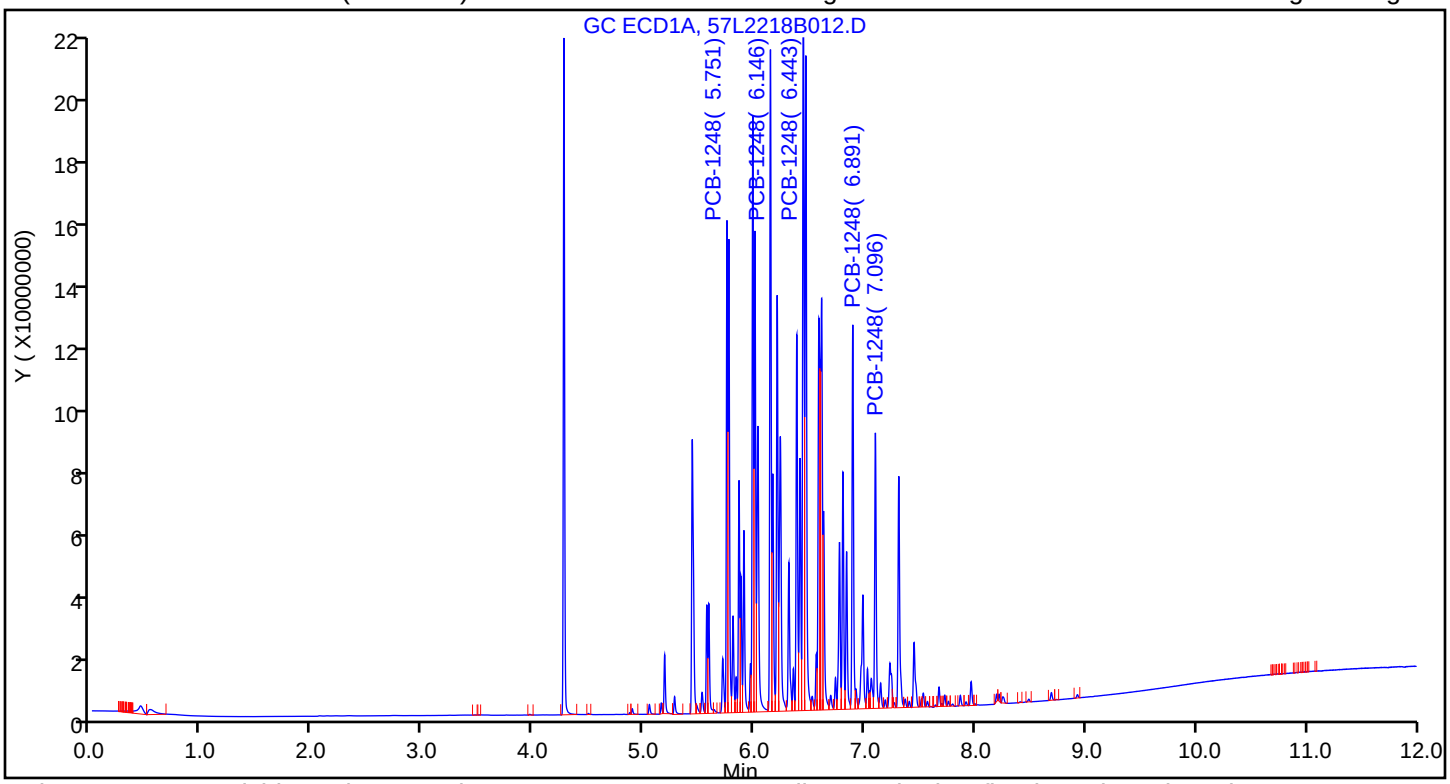
Client ID:

Operator ID: ar ALS Bottle#: 10 Worklist Smp#: 13

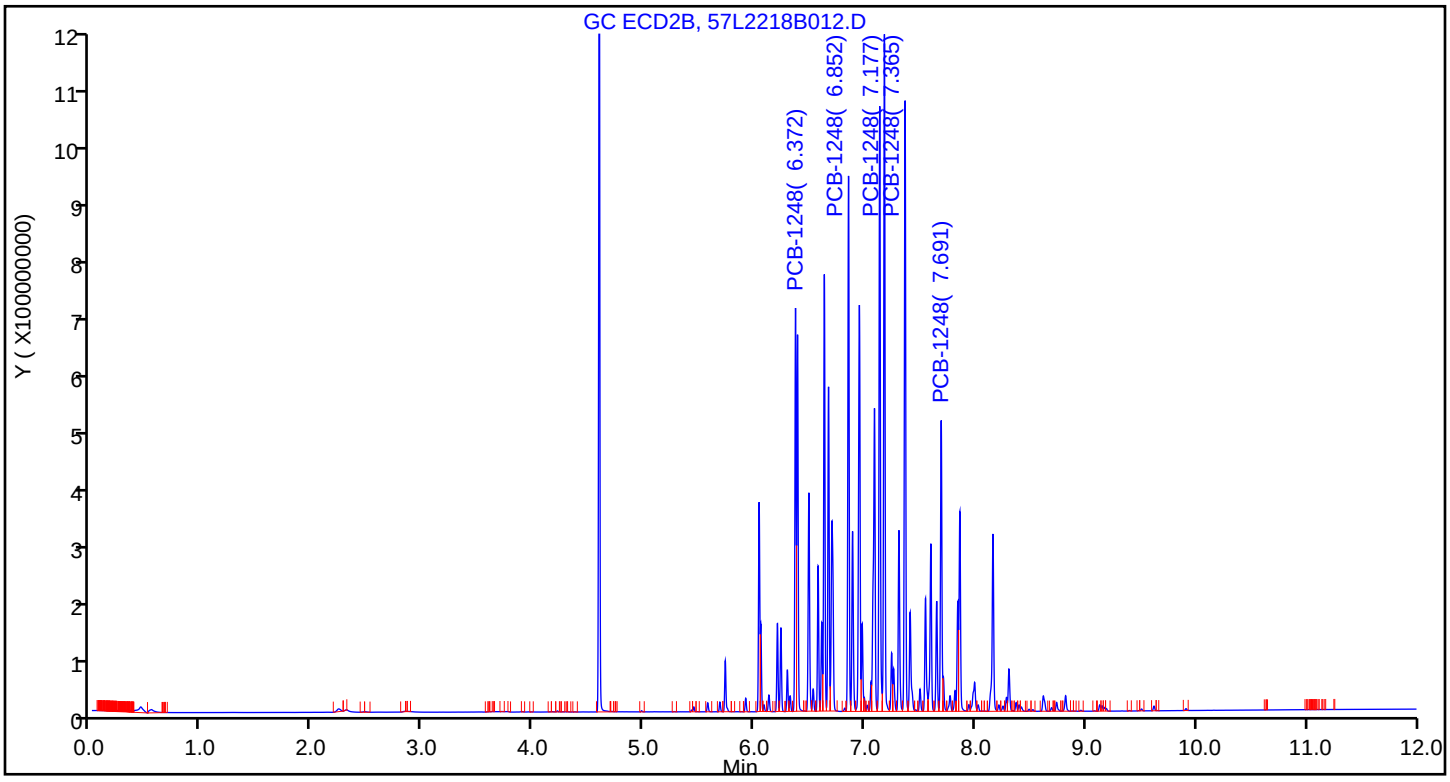
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B012.D

Injection Date: 22-Dec-2018 20:25:25 Instrument ID: TAC057

Lims ID: ic

Client ID:

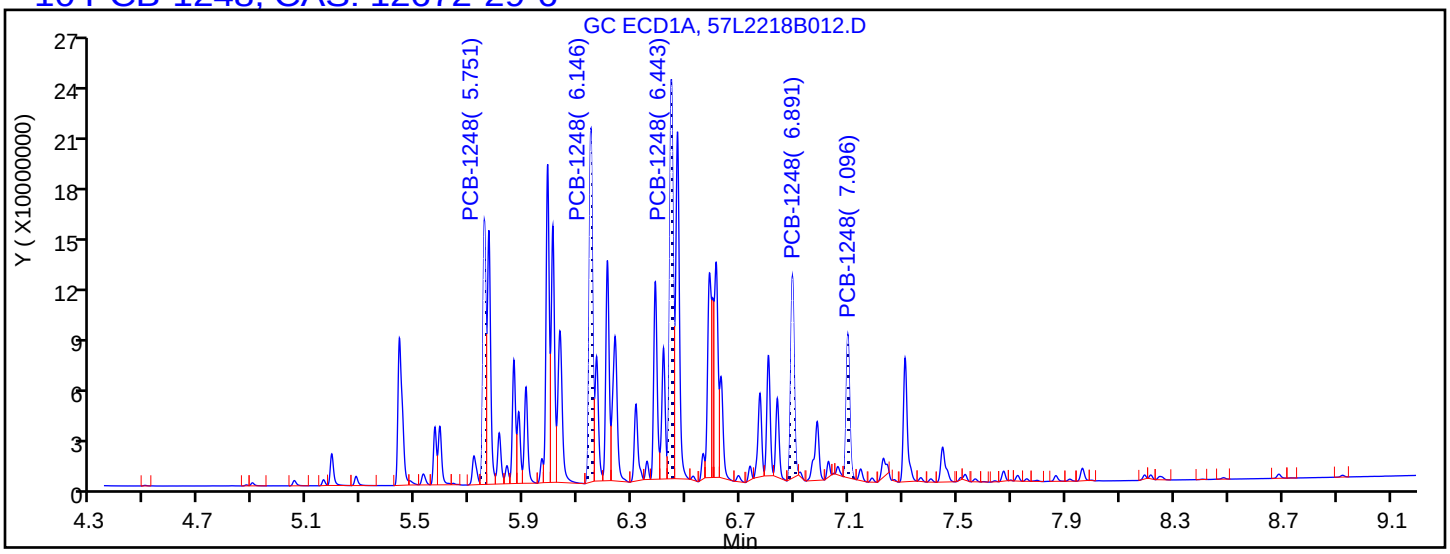
Operator ID: ar ALS Bottle#: 10 Worklist Smp#: 13

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

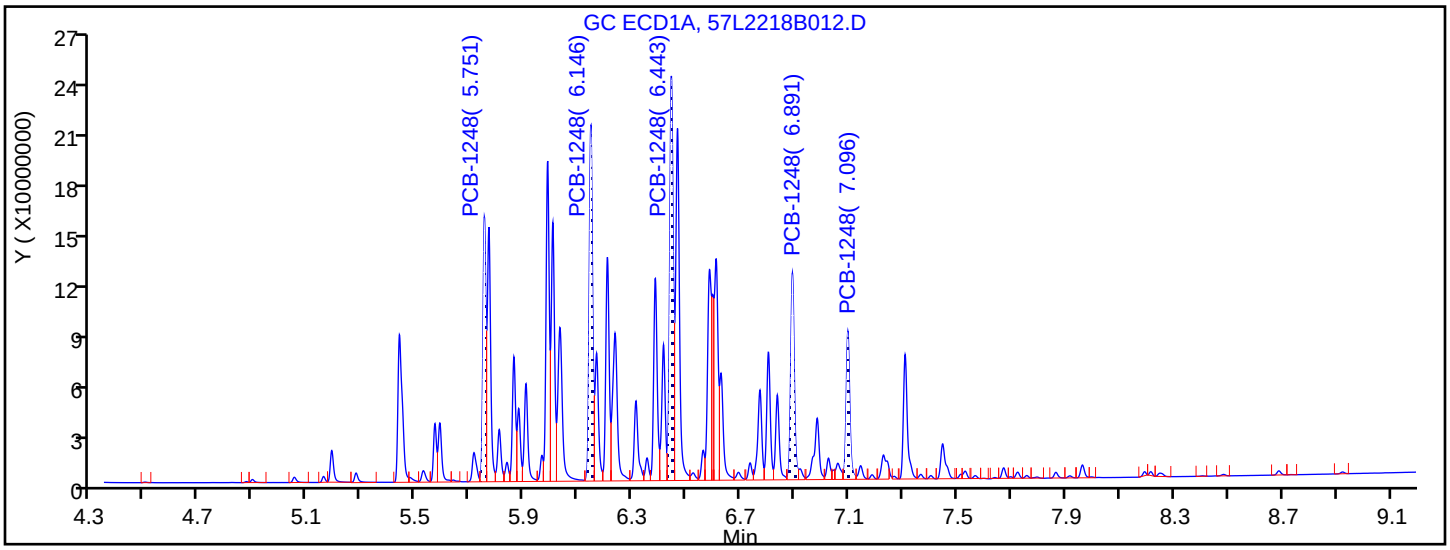
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.751	Response = 118080117
6.146	Response = 180805640
6.443	Response = 212529277
6.891	Response = 106950714
7.096	Response = 75365605



Manual Integration Results

5.751	Response = 118605078	M
6.146	Response = 183164581	M
6.443	Response = 217387578	M
6.891	Response = 114516429	M
7.096	Response = 82906940	M

Reviewer: ruslandera, 23-Dec-2018 14:36:47

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B013.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Dec-2018 20:42:55 ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:21 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:38:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.275	0.001	181102114	100.0	100.0	
2	4.596	4.596	0.000	1105271150	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						968.1	
2						961.8	
						RPD = 0.65	
10 PCB-1248							M
1	5.752	5.754	-0.002	65171128	1000.0	1018.5	M
1	6.146	6.148	-0.002	103847408	1000.0	960.9	M
1	6.443	6.445	-0.002	118919695	1000.0	955.2	M
1	6.891	6.892	-0.001	62762553	1000.0	931.3	M
1	7.096	7.097	-0.001	45738482	1000.0	974.4	M
		Average of Peak Amounts =				968.1	
2	6.372	6.372	0.000	288325888	1000.0	918.3	
2	6.852	6.853	-0.001	416979409	1000.0	971.1	
2	7.177	7.178	-0.001	533967162	1000.0	977.1	
2	7.364	7.364	0.000	490677104	1000.0	982.8	
2	7.692	7.691	0.001	245502826	1000.0	959.6	
		Average of Peak Amounts =				961.8	
						RPD = 0.65	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

48_ICSTK_00007	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B013.D

Injection Date: 22-Dec-2018 20:42:55 Instrument ID: TAC057

Lims ID: ic

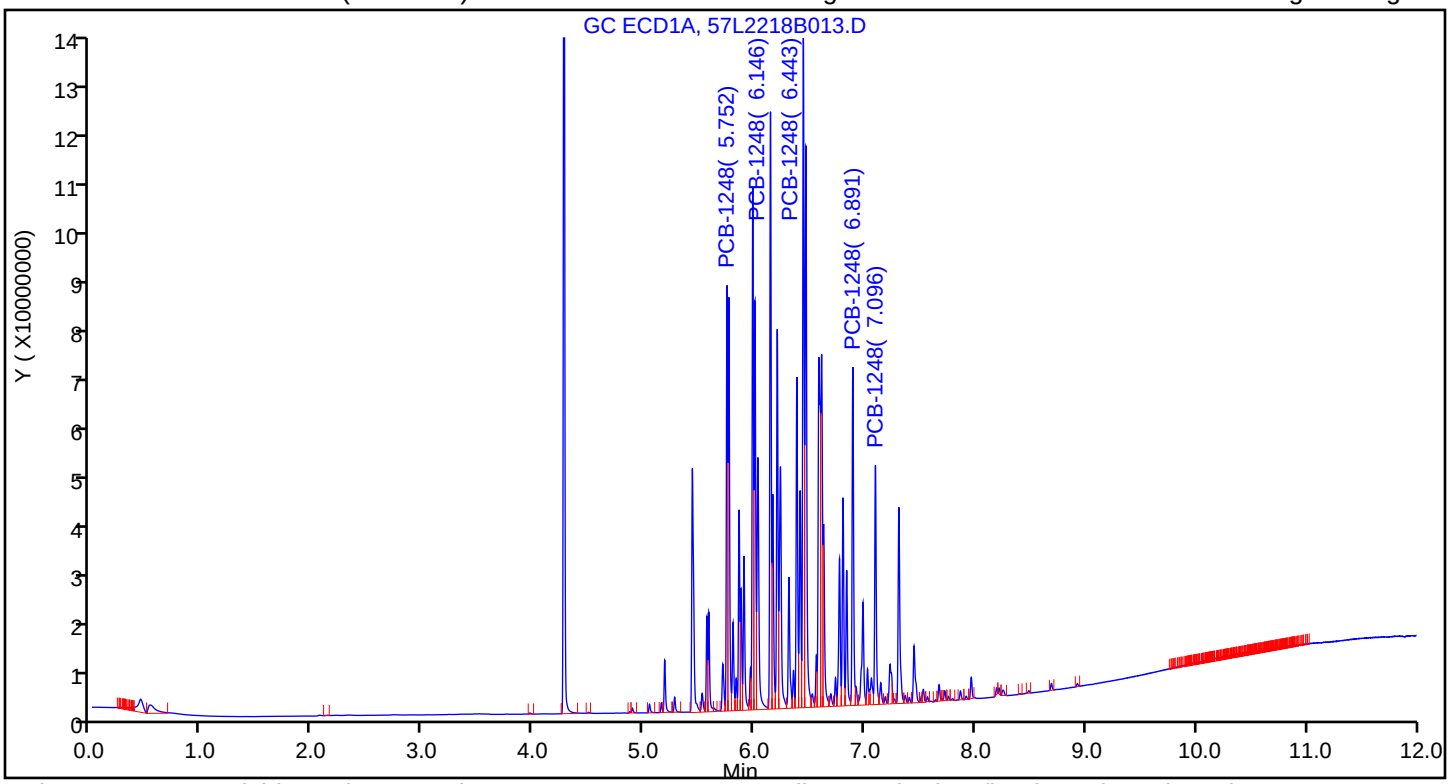
Client ID:

Operator ID: ar ALS Bottle#: 11 Worklist Smp#: 14

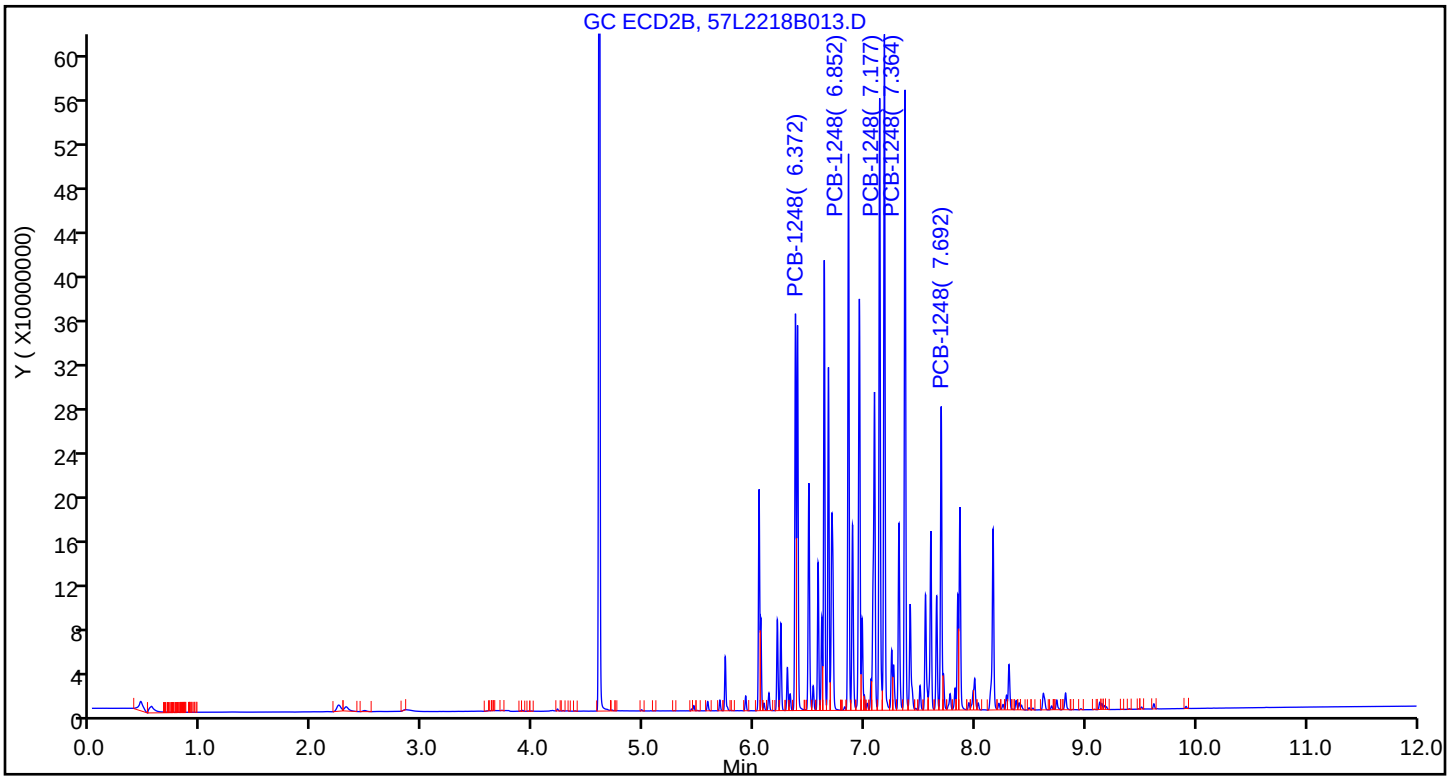
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B013.D

Injection Date: 22-Dec-2018 20:42:55 Instrument ID: TAC057

Lims ID: ic

Client ID:

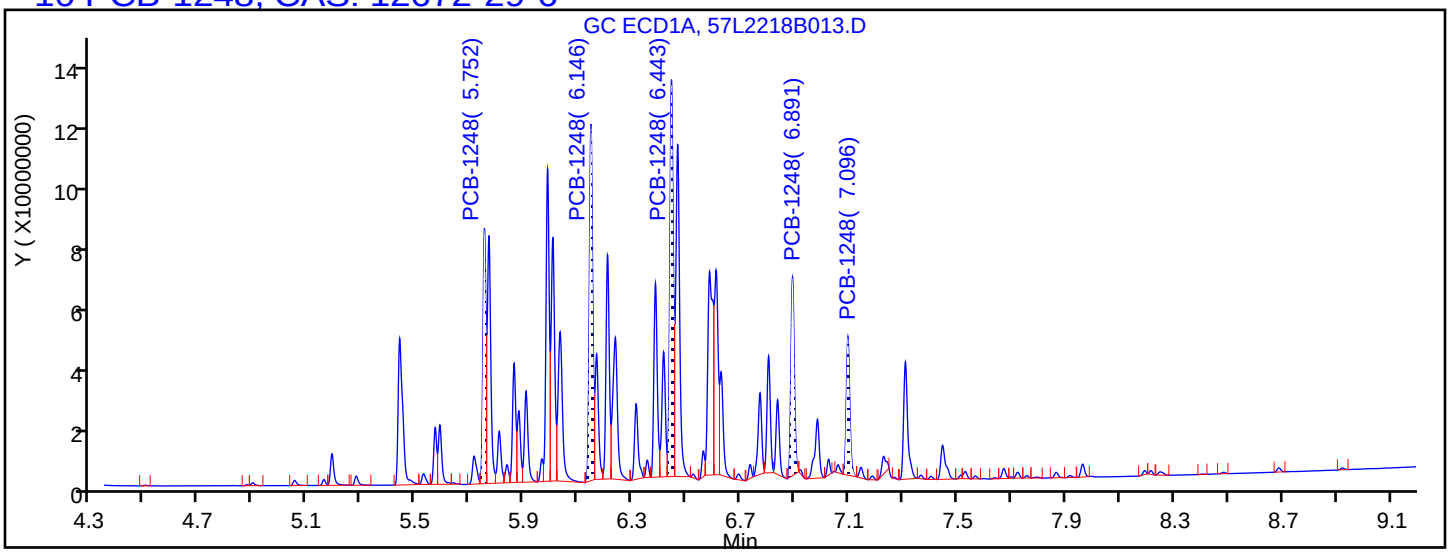
Operator ID: ar ALS Bottle#: 11 Worklist Smp#: 14

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

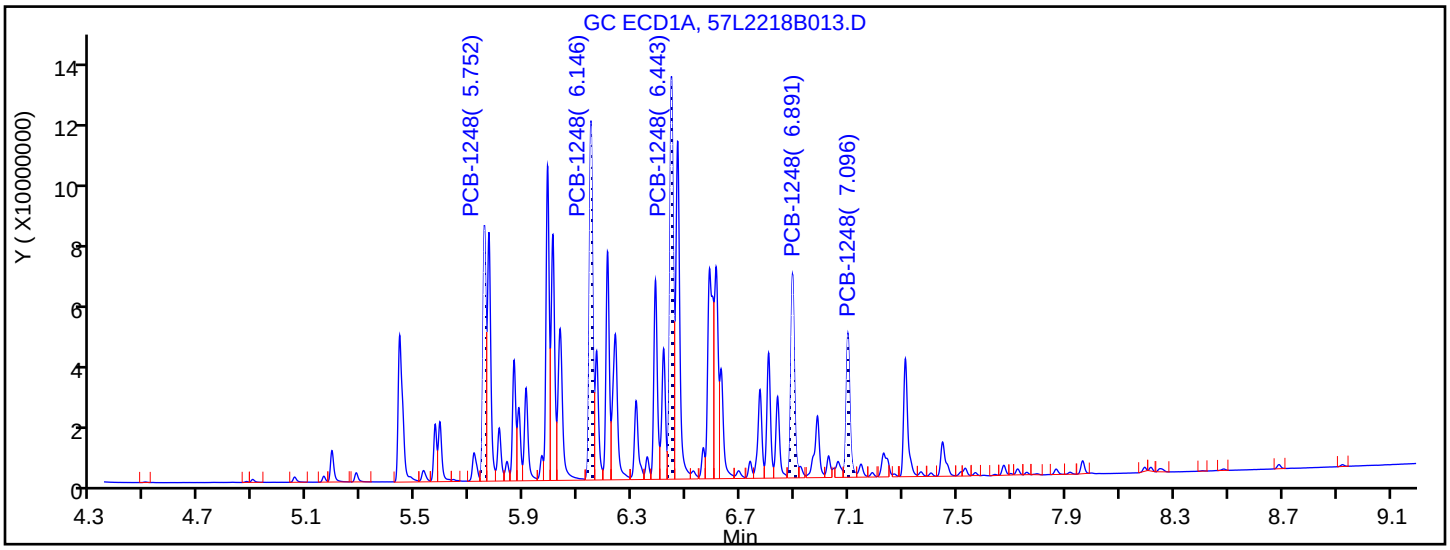
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.752	Response = 64769462
6.146	Response = 102277800
6.443	Response = 115739393
6.891	Response = 57894817
7.096	Response = 40951040



Manual Integration Results

5.752	Response = 65171128	M
6.146	Response = 103847408	M
6.443	Response = 118919695	M
6.891	Response = 62762553	M
7.096	Response = 45738482	M

Reviewer: ruslandera, 23-Dec-2018 14:38:14

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B014.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Dec-2018 21:00:25 ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:26 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:39:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.275	0.001	183363733	100.0	100.0	
2	4.596	4.596	0.000	1105313014	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						470.6	
2						476.7	
						RPD = 1.29	
10 PCB-1248							M
1	5.753	5.754	-0.001	31470230	500.0	485.7	M
1	6.147	6.148	-0.001	51893553	500.0	474.2	M
1	6.444	6.445	-0.001	59152419	500.0	469.3	M
1	6.892	6.892	0.000	30744316	500.0	450.6	M
1	7.098	7.097	0.001	22490756	500.0	473.2	M
		Average of Peak Amounts =				470.6	
2	6.373	6.372	0.001	143395461	500.0	456.7	
2	6.853	6.853	0.000	208108319	500.0	483.3	
2	7.178	7.178	0.000	265344718	500.0	484.3	
2	7.364	7.364	0.000	241947739	500.0	483.8	
2	7.692	7.691	0.001	121973543	500.0	475.6	
		Average of Peak Amounts =				476.7	
						RPD = 1.29	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

48_ICSTK_00007	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:27 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B014.D

Injection Date: 22-Dec-2018 21:00:25 Instrument ID: TAC057

Lims ID: ic

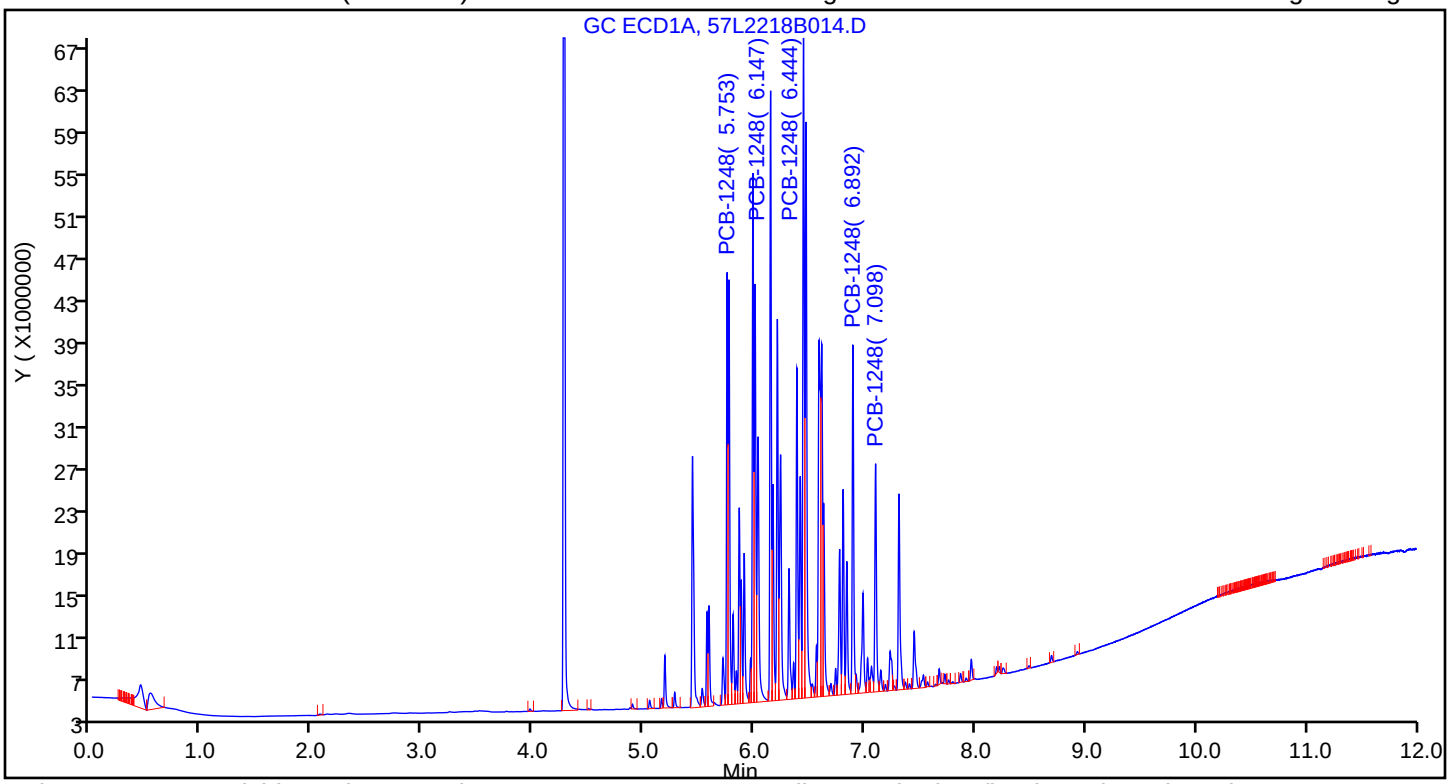
Client ID:

Operator ID: ar ALS Bottle#: 12 Worklist Smp#: 15

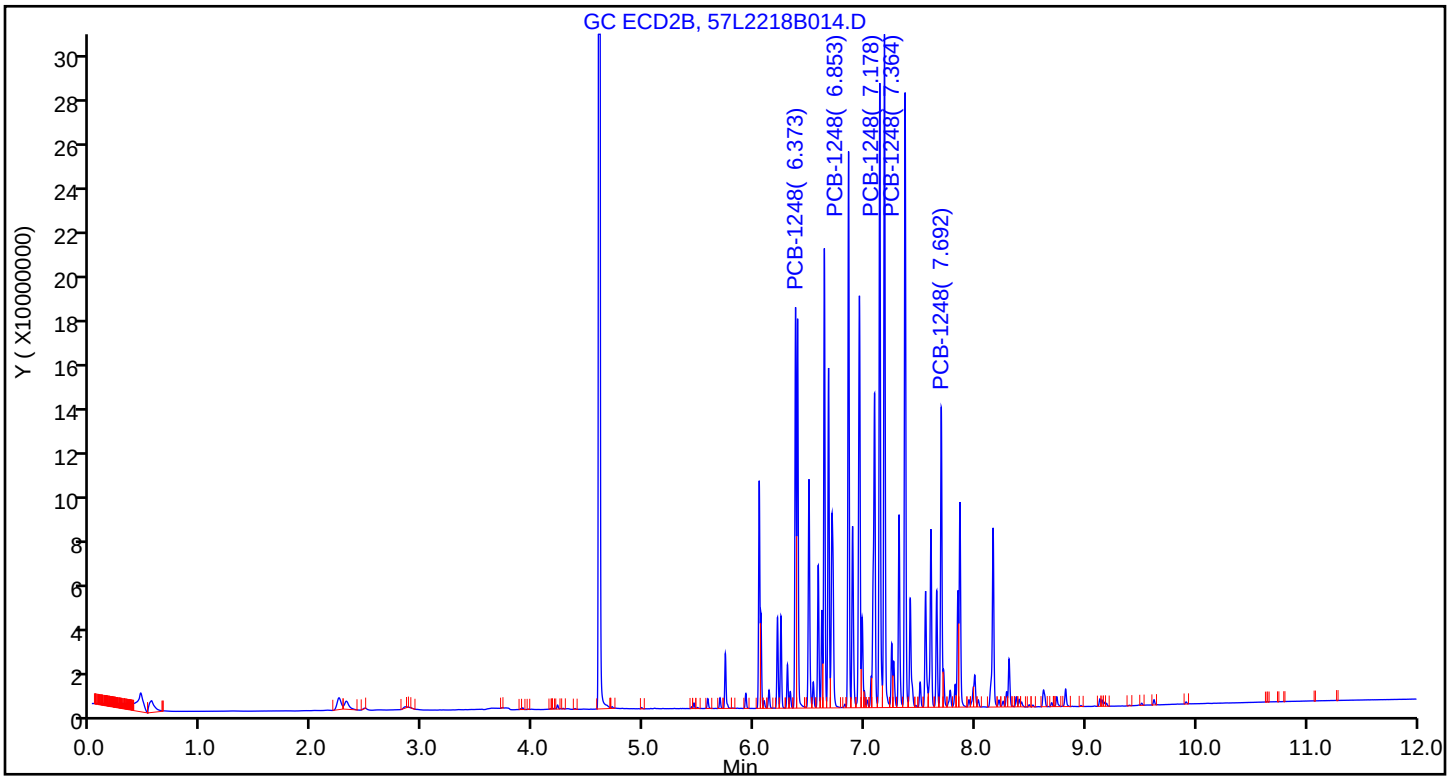
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:27 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B014.D

Injection Date: 22-Dec-2018 21:00:25 Instrument ID: TAC057

Lims ID: ic

Client ID:

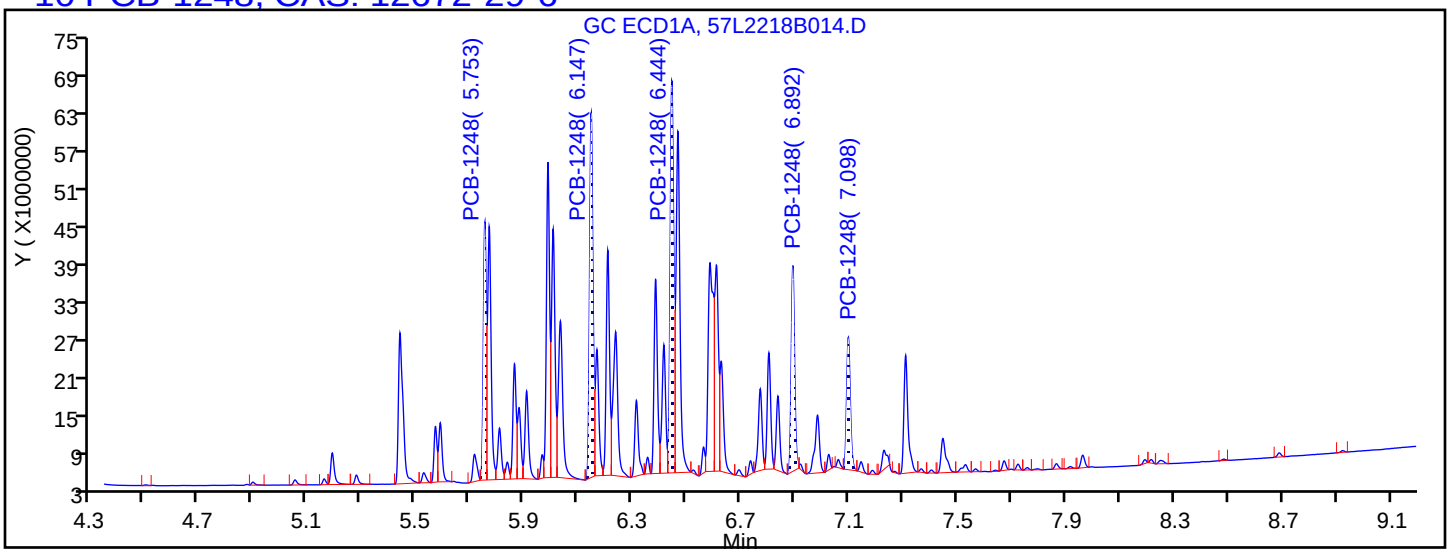
Operator ID: ar ALS Bottle#: 12 Worklist Smp#: 15

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

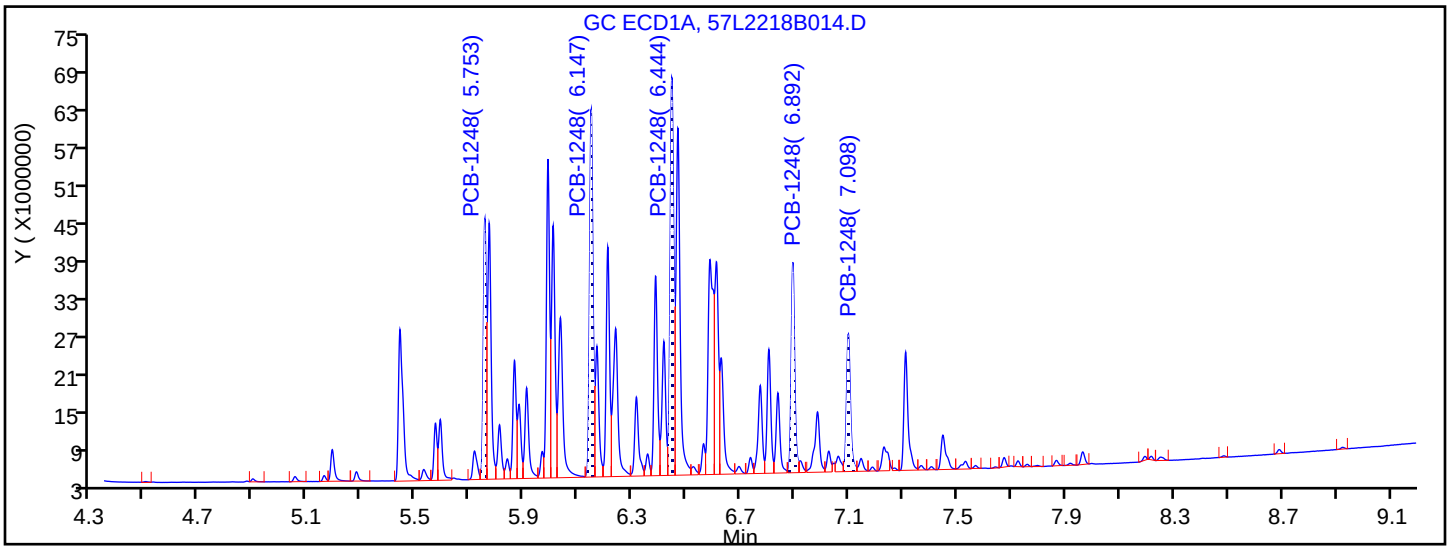
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.753	Response = 30870632
6.147	Response = 51109093
6.444	Response = 57664565
6.892	Response = 28763825
7.098	Response = 20236777



Manual Integration Results

5.753	Response = 31470230	M
6.147	Response = 51893553	M
6.444	Response = 59152419	M
6.892	Response = 30744316	M
7.098	Response = 22490756	M

Reviewer: ruslandera, 23-Dec-2018 14:39:19

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Dec-2018 21:18:04 ALS Bottle#: 13 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:29 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:33:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	183658173	100.0	100.0	a
2	4.596	4.596	0.000	1118083048	100.0	100.0	a
						RPD = 0.00	
10 PCB-1248							Ma
1	5.754	5.754	0.000	6331642	100.0	97.6	M
1	6.148	6.148	0.000	10437247	100.0	95.2	M
1	6.445	6.445	0.000	11942838	100.0	94.6	M
1	6.892	6.892	0.000	6671582	100.0	97.6	M
1	7.097	7.097	0.000	4629036	100.0	97.2	M
		Average of Peak Amounts =				96.5	
2	6.372	6.372	0.000	29768079	100.0	93.7	M
2	6.853	6.853	0.000	44003684	100.0	98.9	M
2	7.178	7.178	0.000	55812390	100.0	98.8	M
2	7.364	7.364	0.000	49707699	100.0	96.9	M
2	7.691	7.691	0.000	26060469	100.0	98.6	a
		Average of Peak Amounts =				97.4	
						RPD = 0.98	

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

1248IC100_00015	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D

Injection Date: 22-Dec-2018 21:18:04 Instrument ID: TAC057

Lims ID: icis

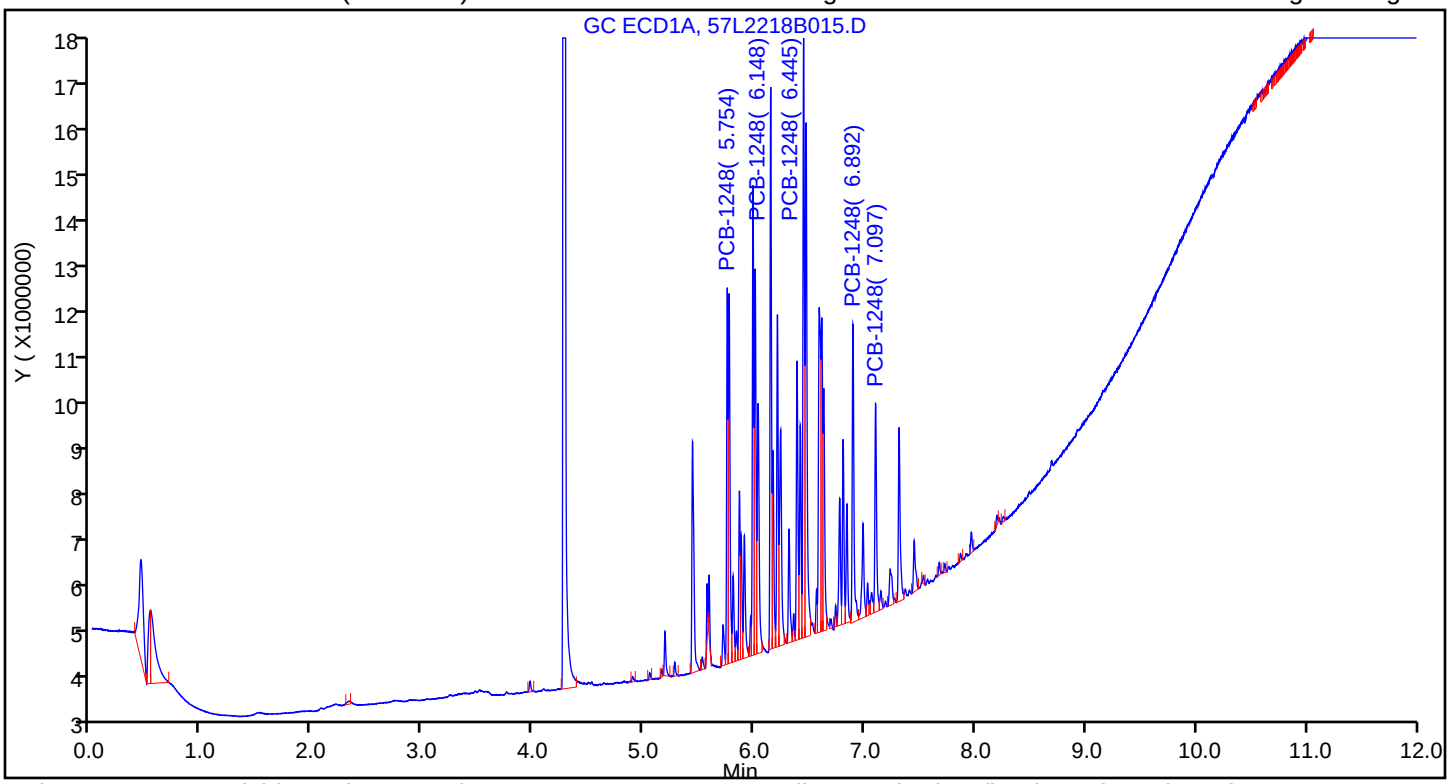
Client ID:

Operator ID: ar ALS Bottle#: 13 Worklist Smp#: 16

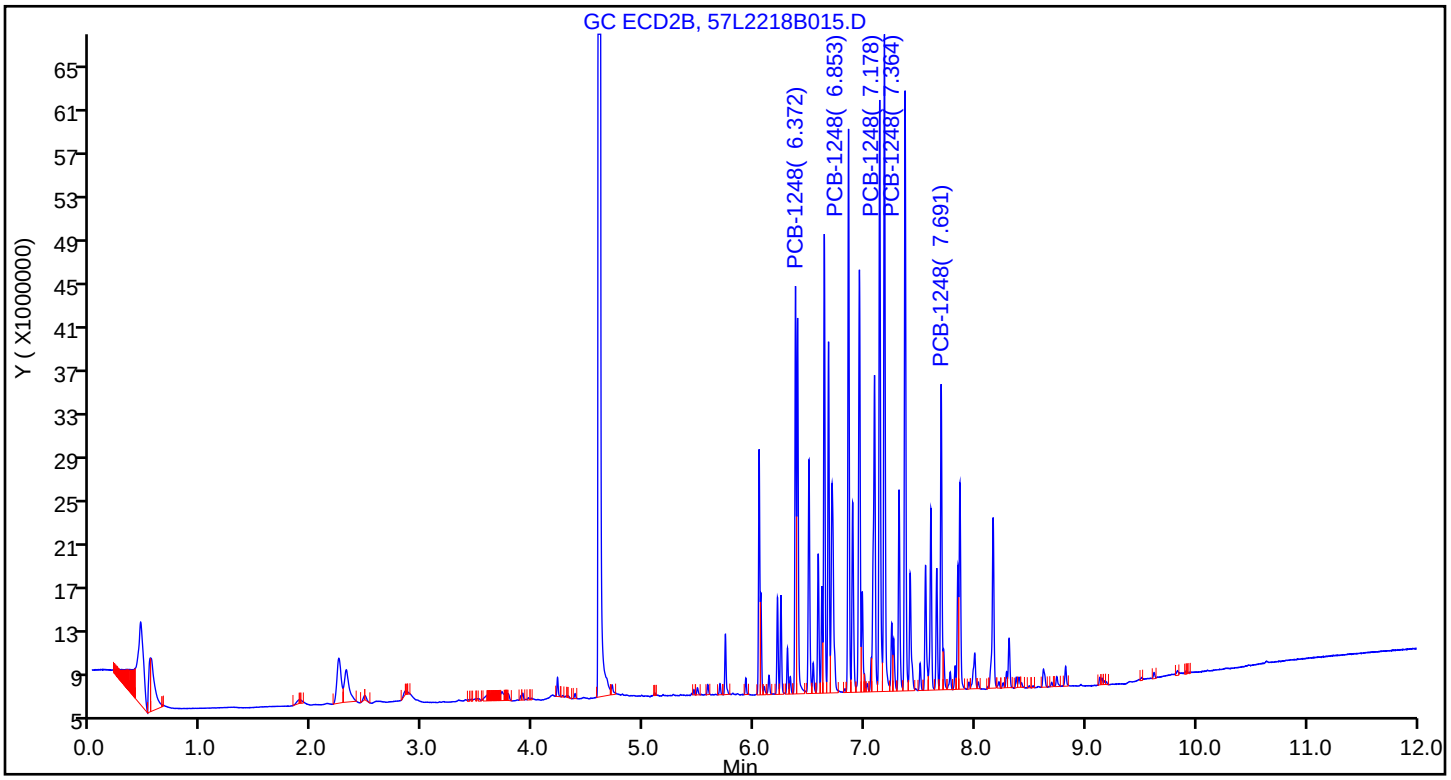
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

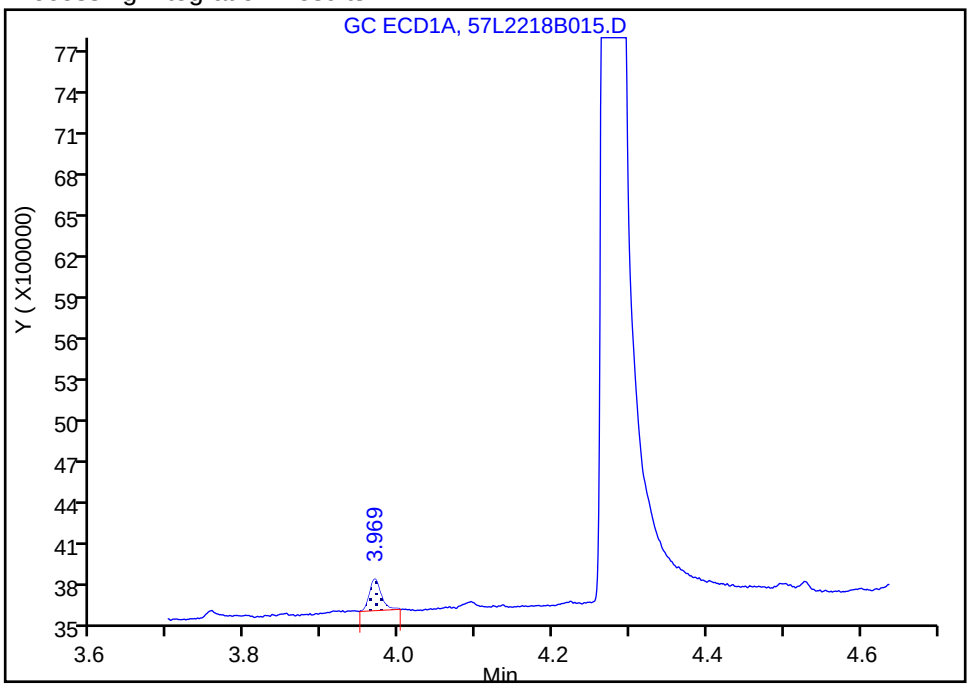
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D				
Injection Date:	22-Dec-2018 21:18:04	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	13	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

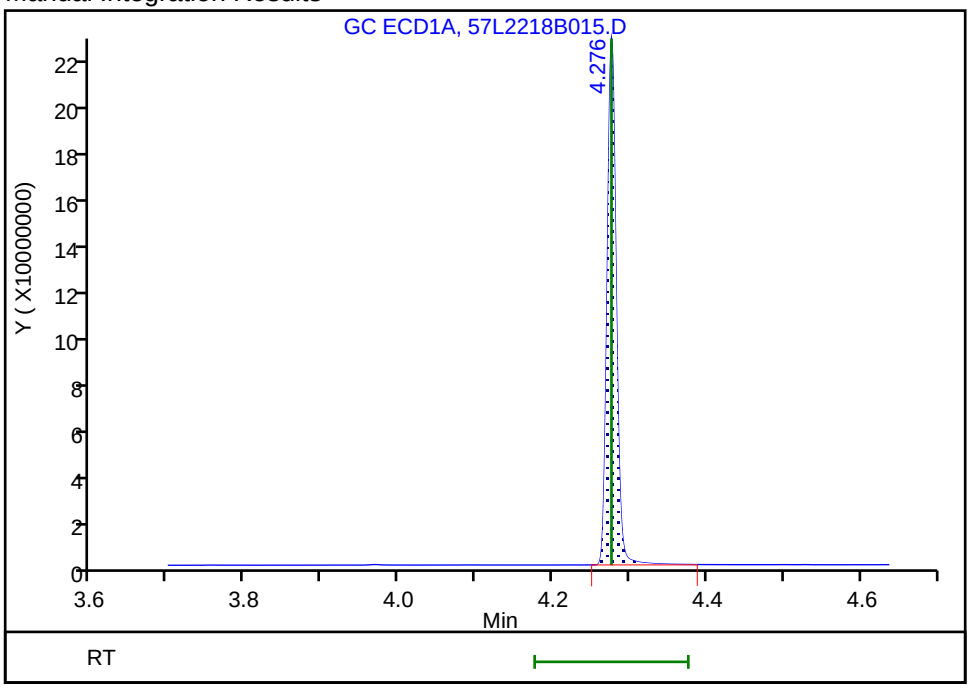
Processing Integration Results

RT: 3.97
Area: 233598
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 183658173
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:20:57
Audit Action: Assigned Compound ID Audit Reason:

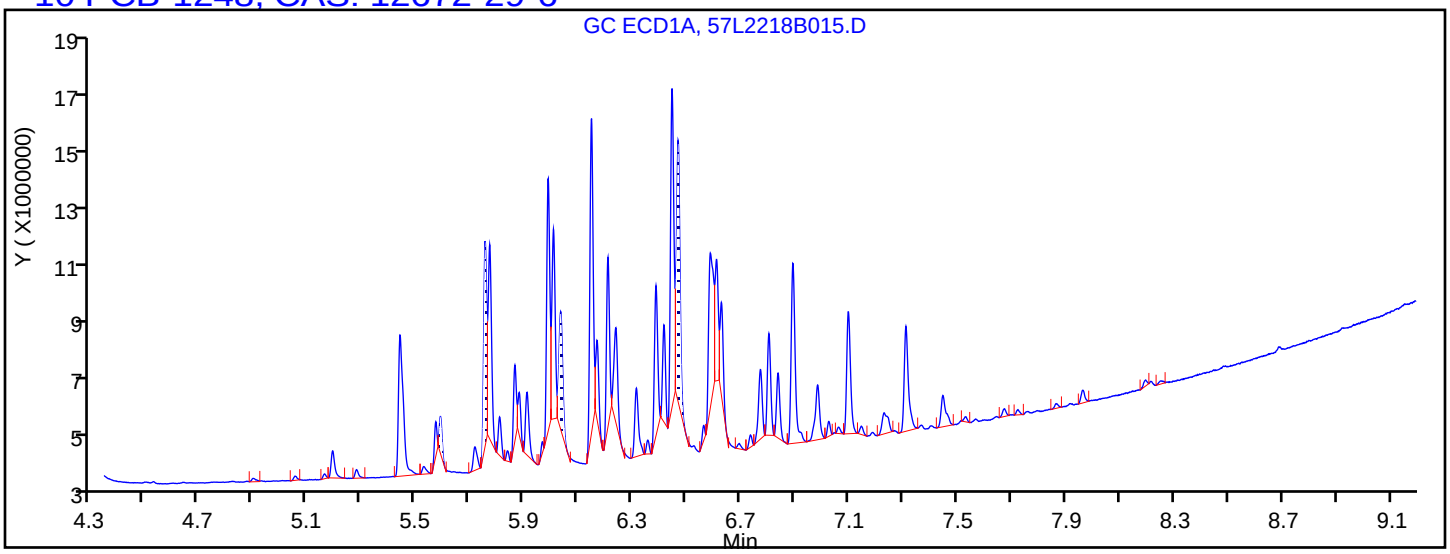
Report Date: 23-Dec-2018 16:15:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D

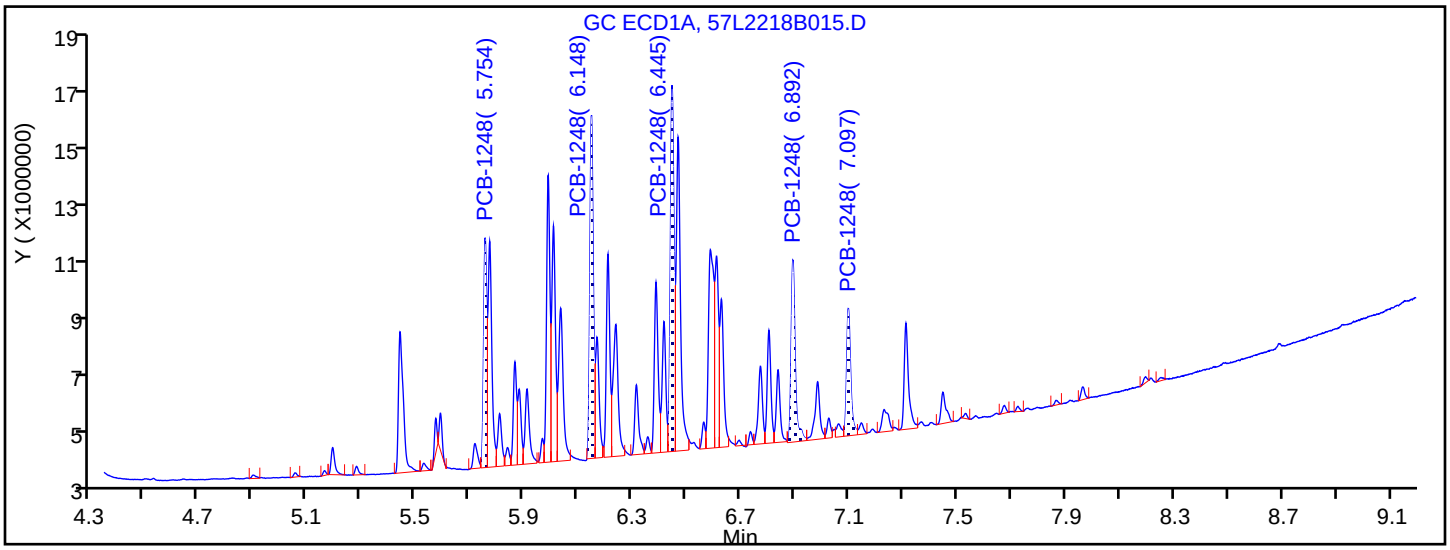
Injection Date:	22-Dec-2018 21:18:04	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	13	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.589	Response = 925284
5.754	Response = 5354729
6.034	Response = 3945771
6.892	Response = 0
6.468	Response = 8219301



Manual Integration Results

5.754	Response = 6331642	M
6.148	Response = 10437247	M
6.445	Response = 11942838	M
6.892	Response = 6671582	M
7.097	Response = 4629036	M

Reviewer: ruslandera, 23-Dec-2018 14:42:07

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B016.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Dec-2018 21:35:34 ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:33 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:47:11

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	182669394	100.0	100.0	
2	4.596	4.596	0.000	1106784622	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						49.5	
2						51.8	
						RPD = 4.41	
10 PCB-1248							M
1	5.755	5.755	0.000	3223826	50.0	49.9	M
1	6.147	6.147	0.000	5475551	50.0	50.2	M
1	6.446	6.446	0.000	6058474	50.0	48.2	M
1	6.892	6.892	0.000	3345744	50.0	49.2	M
1	7.098	7.098	0.000	2372025	50.0	50.1	M
		Average of Peak Amounts =				49.5	
2	6.372	6.372	0.000	15372938	50.0	48.9	
2	6.852	6.852	0.000	23734265	50.0	52.6	M
2	7.177	7.177	0.000	29969547	50.0	52.5	M
2	7.365	7.365	0.000	26644359	50.0	51.7	M
2	7.692	7.692	0.000	14169158	50.0	53.1	M
		Average of Peak Amounts =				51.8	
						RPD = 4.41	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:34 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B016.D

Injection Date: 22-Dec-2018 21:35:34 Instrument ID: TAC057

Lims ID: ic

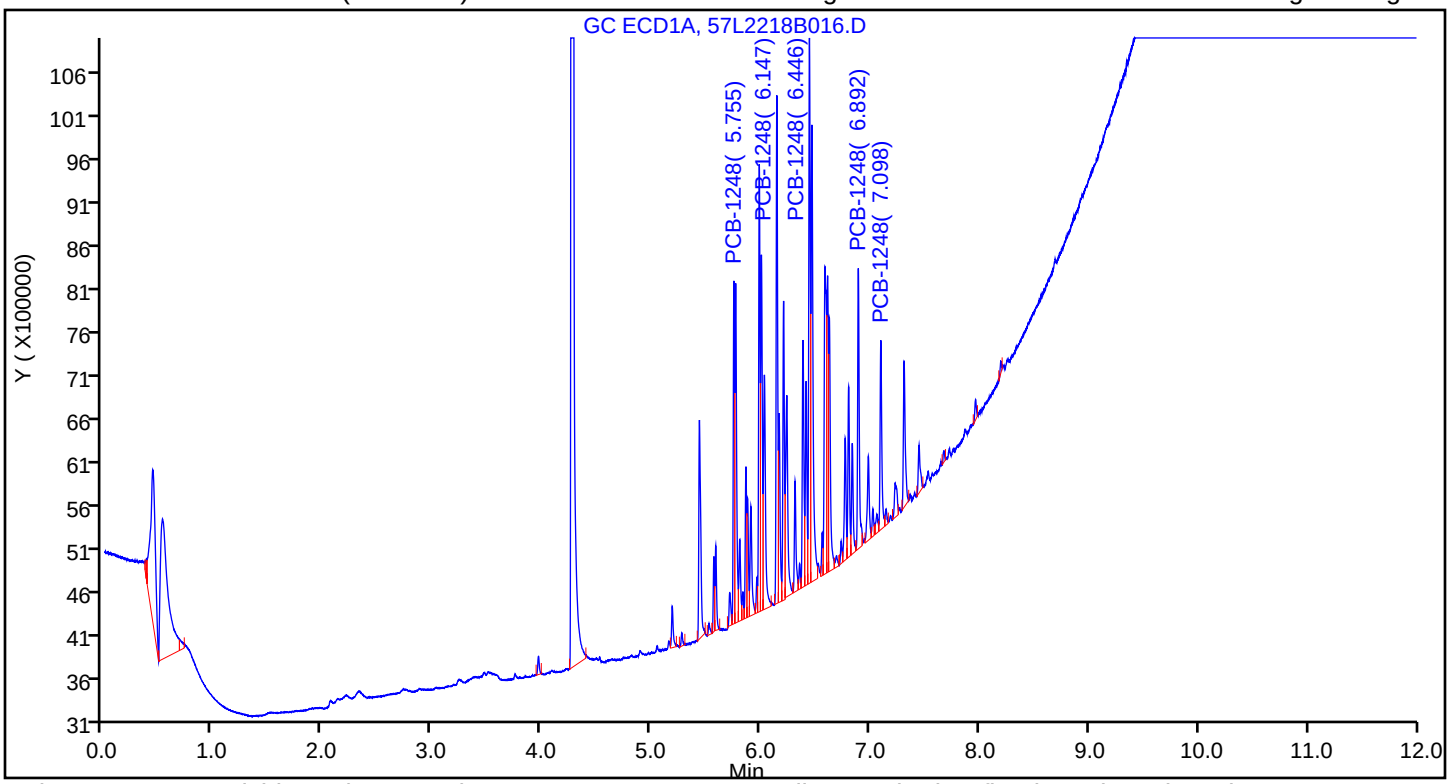
Client ID:

Operator ID: ar ALS Bottle#: 14 Worklist Smp#: 17

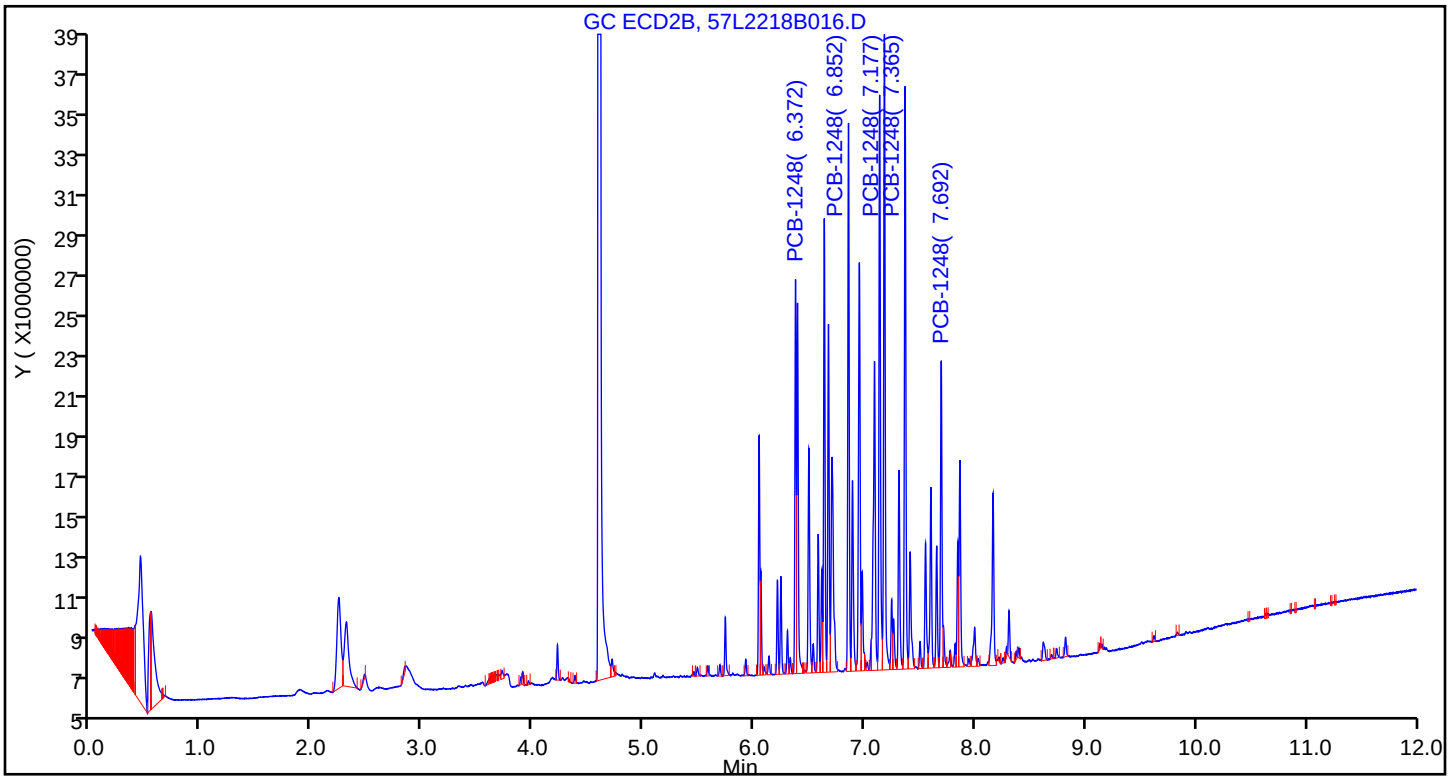
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



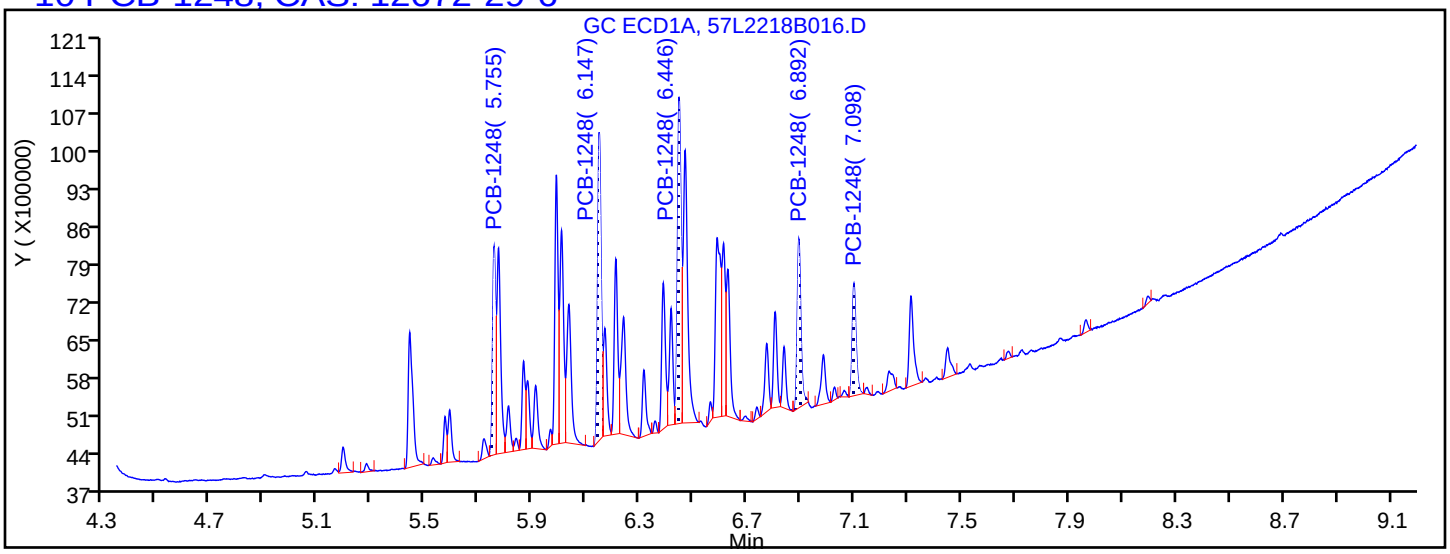
Report Date: 23-Dec-2018 16:15:34 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B016.D

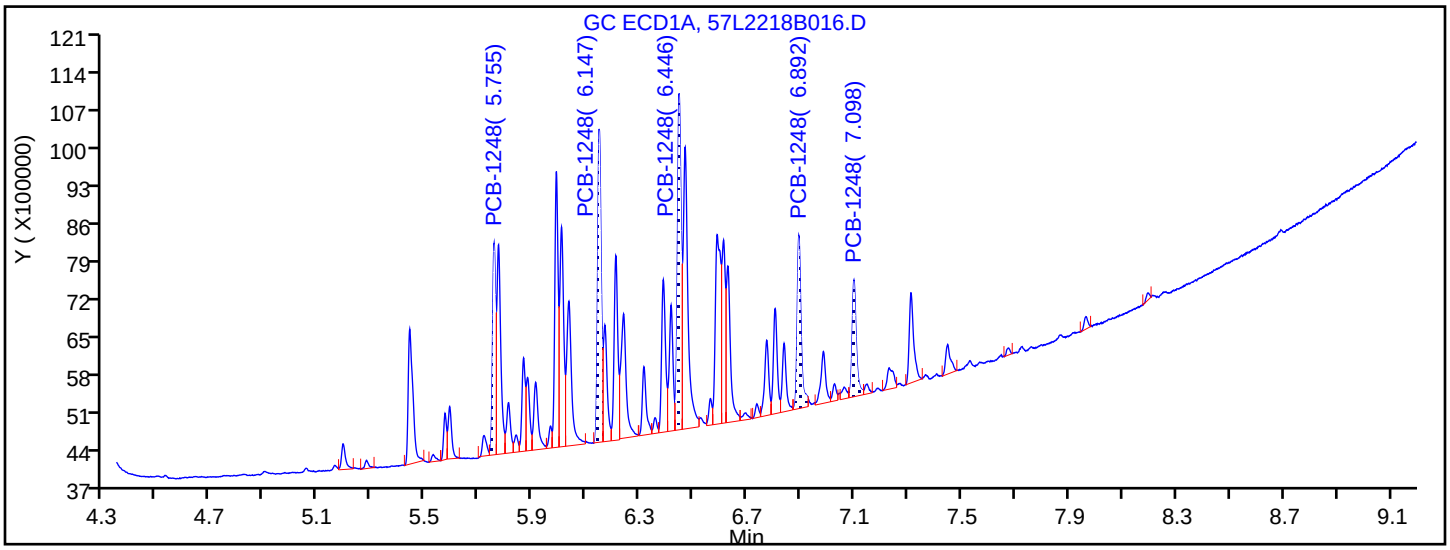
Injection Date:	22-Dec-2018 21:35:34	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.755	Response = 3134591
6.147	Response = 5311722
6.446	Response = 5766323
6.892	Response = 3048021
7.098	Response = 2108538



Manual Integration Results

5.755	Response = 3223826	M
6.147	Response = 5475551	M
6.446	Response = 6058474	M
6.892	Response = 3345744	M
7.098	Response = 2372025	M

Reviewer: ruslandera, 23-Dec-2018 14:46:57

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B017.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Dec-2018 21:53:07 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:37 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:47:45

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	184594629	100.0	100.0	
2	4.596	4.596	0.000	1117042653	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						26.1	
2						26.5	
						RPD = 1.45	
10 PCB-1248							M
1	5.755	5.755	0.000	1633963	25.0	25.1	M
1	6.148	6.147	0.001	2891103	25.0	26.2	M
1	6.447	6.446	0.001	3395966	25.0	26.8	M
1	6.893	6.892	0.001	1801376	25.0	26.2	M
1	7.098	7.098	0.000	1264738	25.0	26.4	M
		Average of Peak Amounts =				26.1	
2	6.372	6.372	0.000	8261929	25.0	26.0	M
2	6.852	6.852	0.000	12718338	25.0	26.7	M
2	7.177	7.177	0.000	15893413	25.0	26.4	M
2	7.364	7.365	-0.001	14100336	25.0	26.4	M
2	7.692	7.692	0.000	7586980	25.0	27.1	M
		Average of Peak Amounts =				26.5	
						RPD = 1.45	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:38 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B017.D

Injection Date: 22-Dec-2018 21:53:07 Instrument ID: TAC057

Lims ID: ic

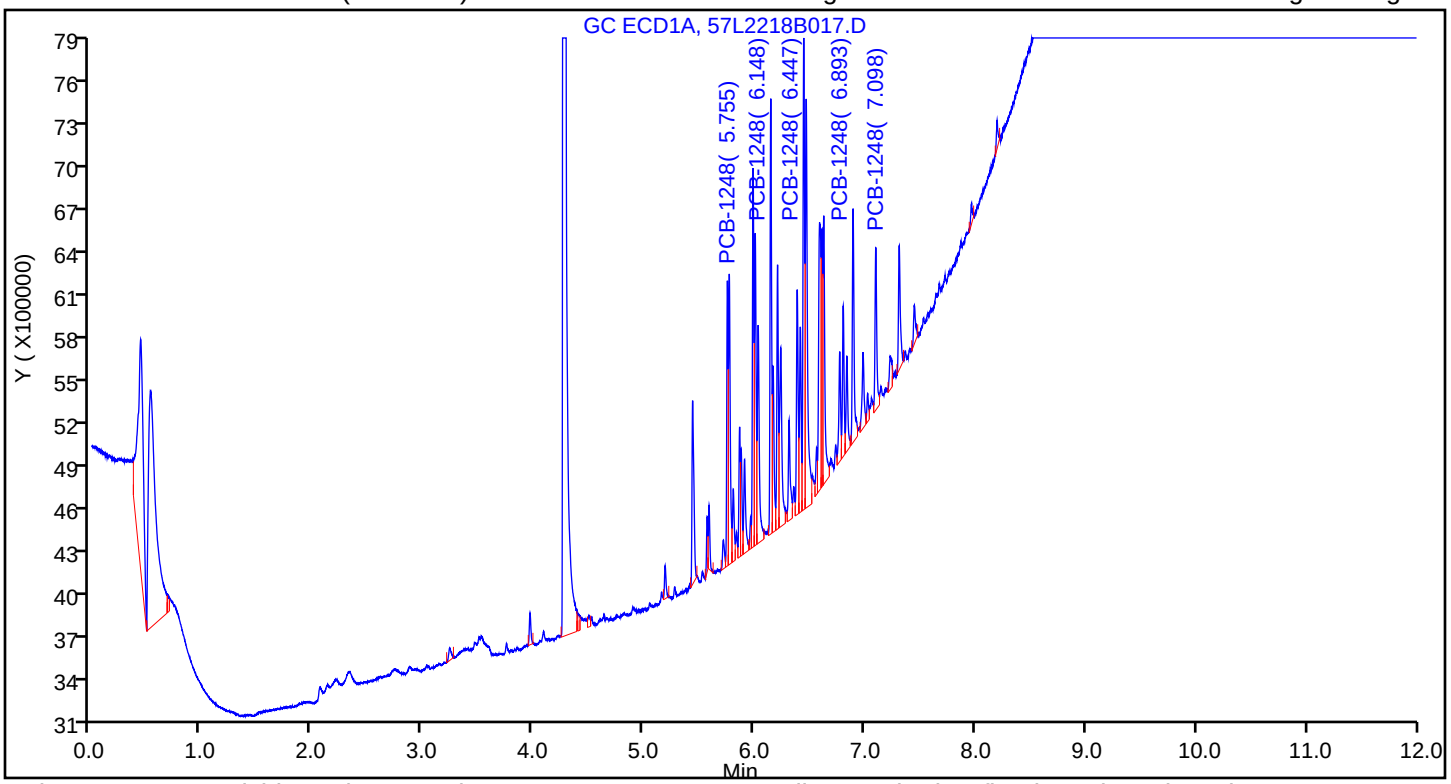
Client ID:

Operator ID: ar ALS Bottle#: 15 Worklist Smp#: 18

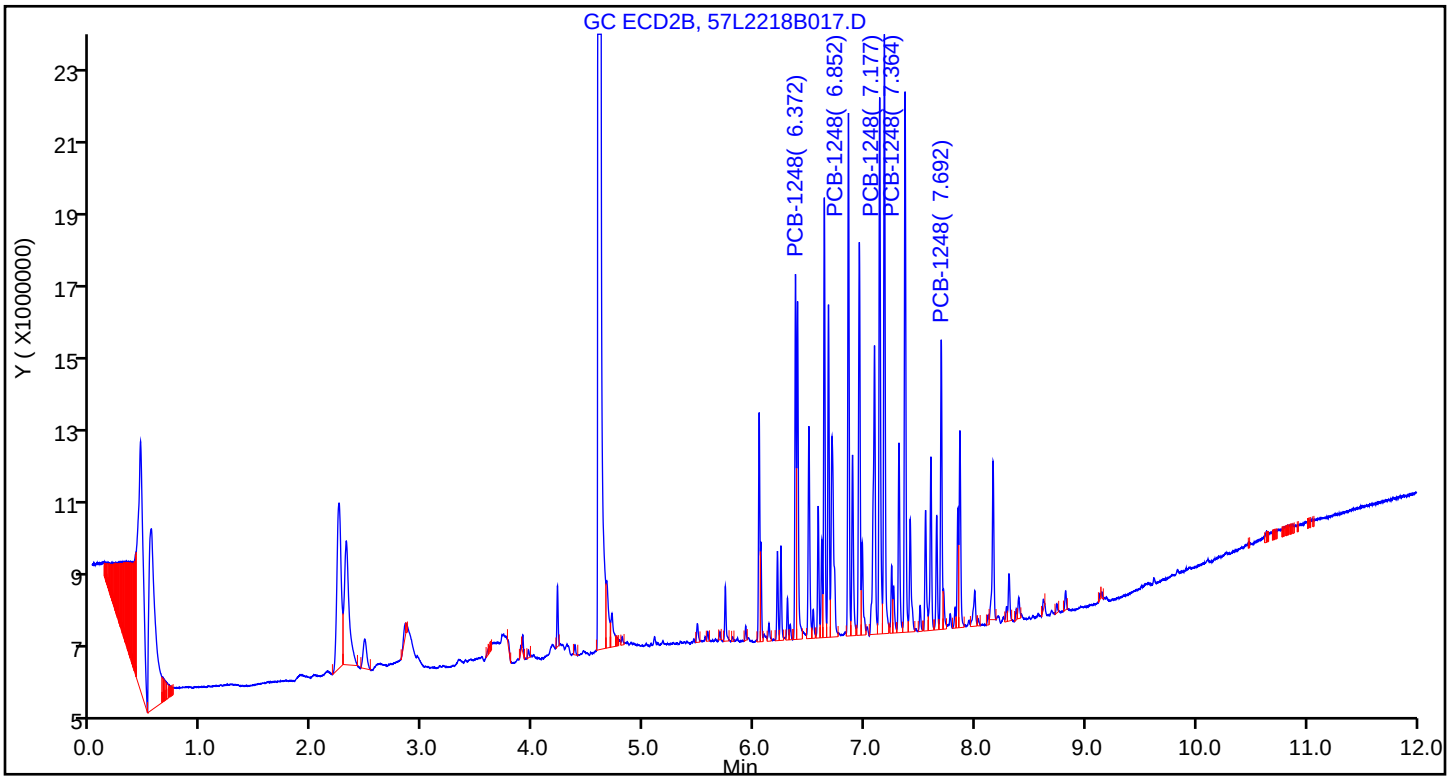
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



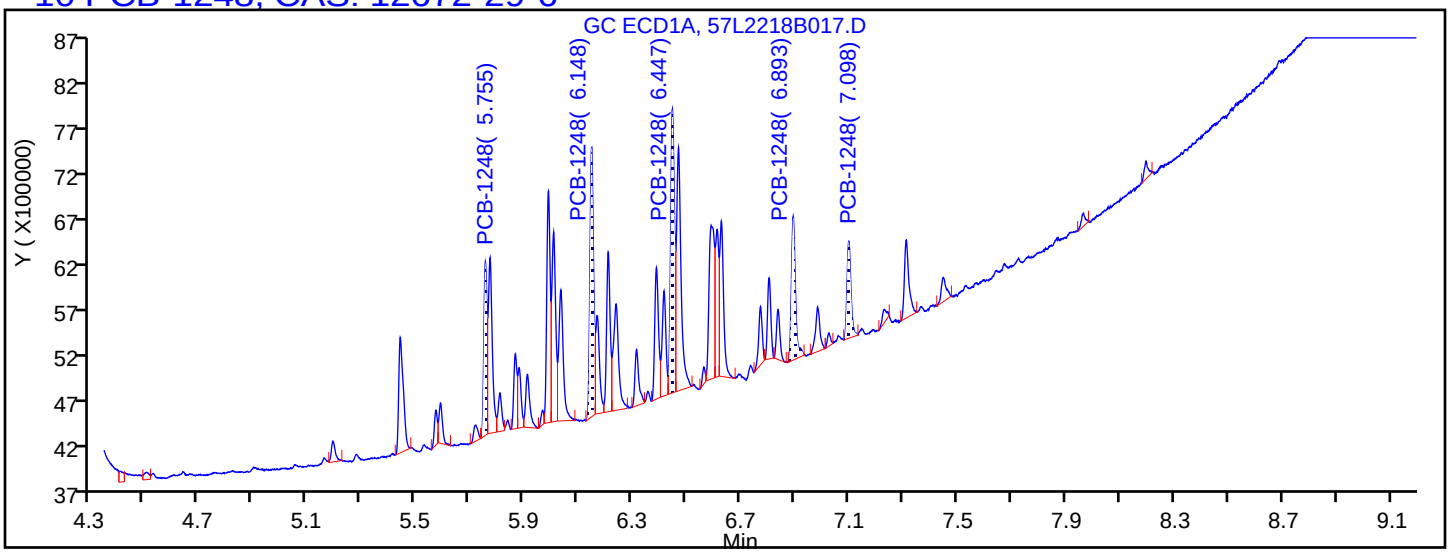
Report Date: 23-Dec-2018 16:15:39 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B017.D

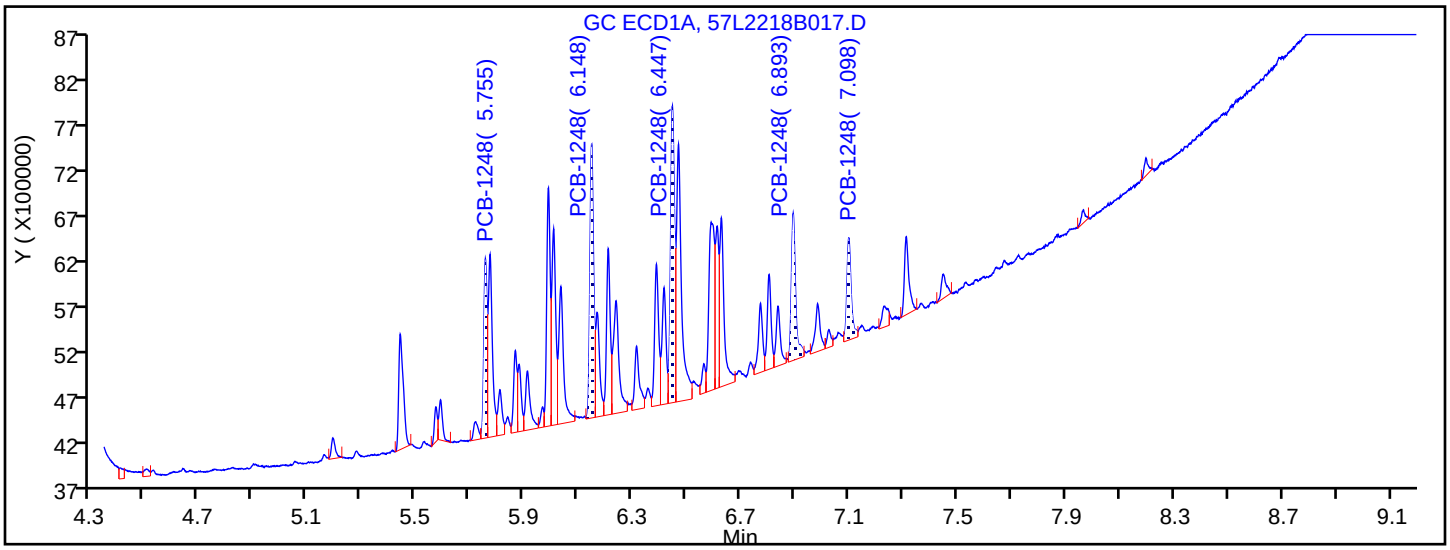
Injection Date:	22-Dec-2018 21:53:07	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.755	Response = 1544386
6.148	Response = 2801464
6.447	Response = 3152735
6.893	Response = 1652005
7.098	Response = 1088822



Manual Integration Results

5.755	Response = 1633963	M
6.148	Response = 2891103	M
6.447	Response = 3395966	M
6.893	Response = 1801376	M
7.098	Response = 1264738	M

Reviewer: ruslandera, 23-Dec-2018 14:47:32

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B018.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Dec-2018 22:10:37 ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:41 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:48:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	183390730	100.0	100.0	
2	4.596	4.596	0.000	1103638559	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						10.7	
2						11.0	
						RPD = 3.29	
10 PCB-1248							M
1	5.757	5.755	0.002	629674	10.0	9.72	M
1	6.148	6.147	0.001	1243110	10.0	11.4	M
1	6.447	6.446	0.001	1424960	10.0	11.3	M
1	6.893	6.892	0.001	754354	10.0	11.1	M
1	7.099	7.098	0.001	475184	10.0	10.0	
		Average of Peak Amounts =				10.7	
2	6.373	6.372	0.001	3560456	10.0	11.4	M
2	6.852	6.852	0.000	5771605	10.0	10.8	M
2	7.178	7.177	0.001	7185681	10.0	10.8	M
2	7.365	7.365	0.000	6319852	10.0	11.1	M
2	7.692	7.692	0.000	3444244	10.0	11.2	M
		Average of Peak Amounts =				11.0	
						RPD = 3.29	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B018.D

Injection Date: 22-Dec-2018 22:10:37 Instrument ID: TAC057

Lims ID: ic

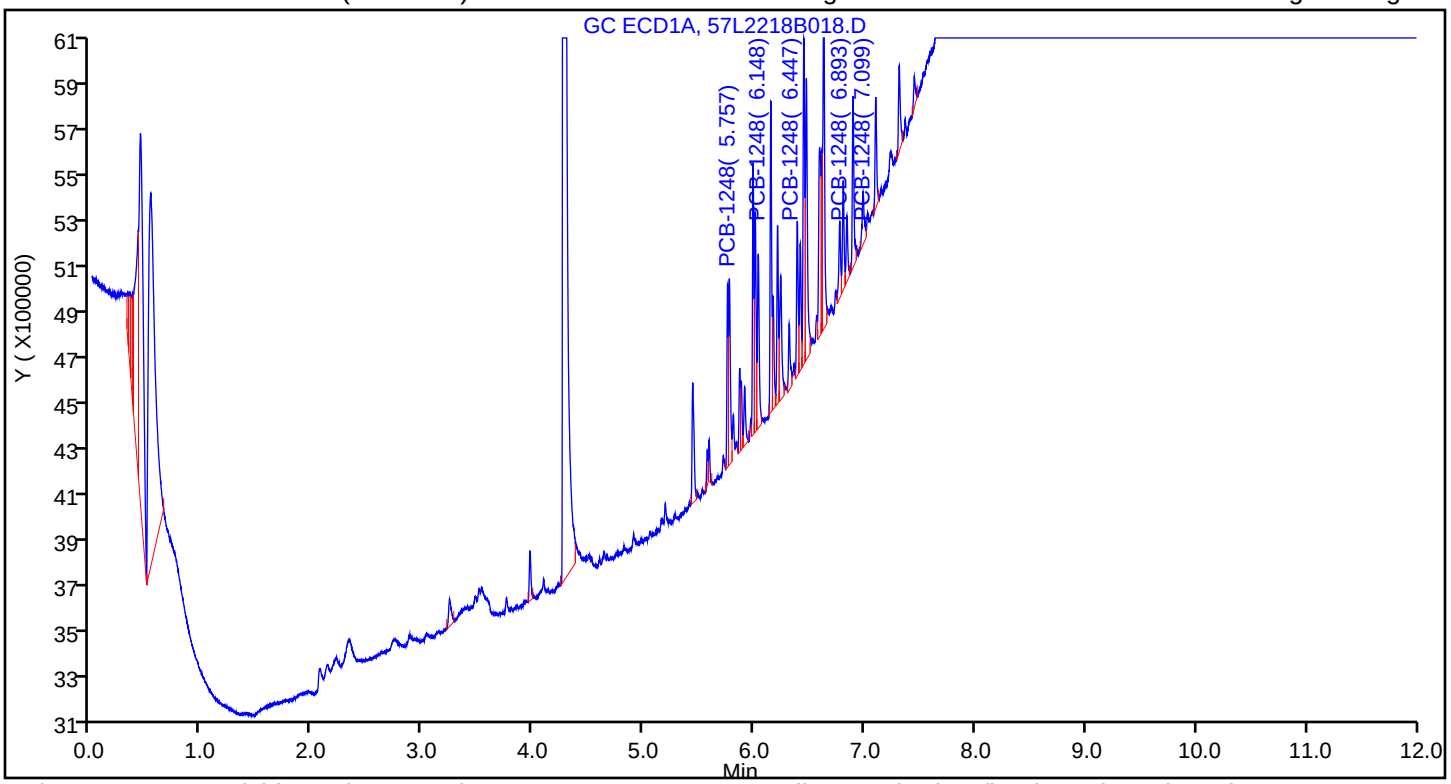
Client ID:

Operator ID: ar ALS Bottle#: 16 Worklist Smp#: 19

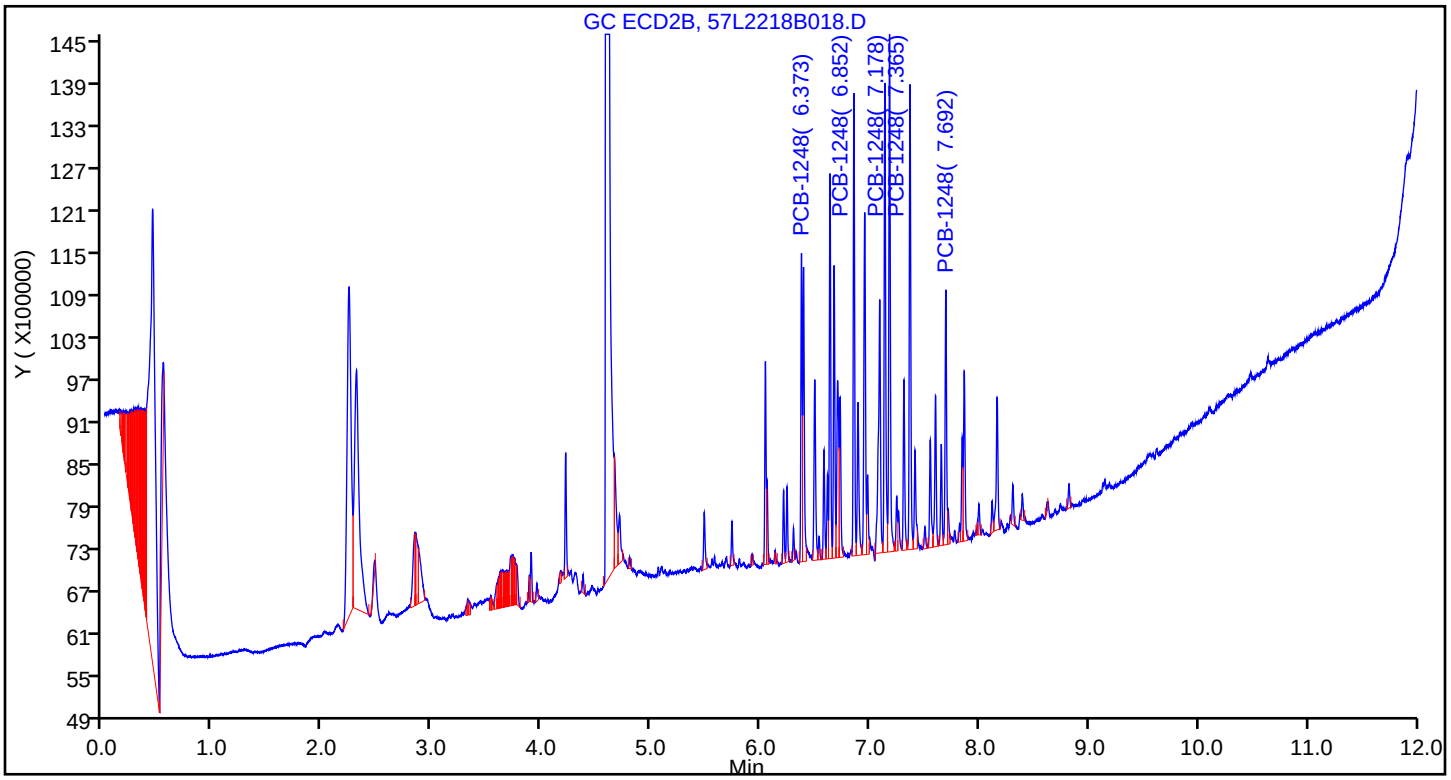
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B018.D

Injection Date: 22-Dec-2018 22:10:37 Instrument ID: TAC057

Lims ID: ic

Client ID:

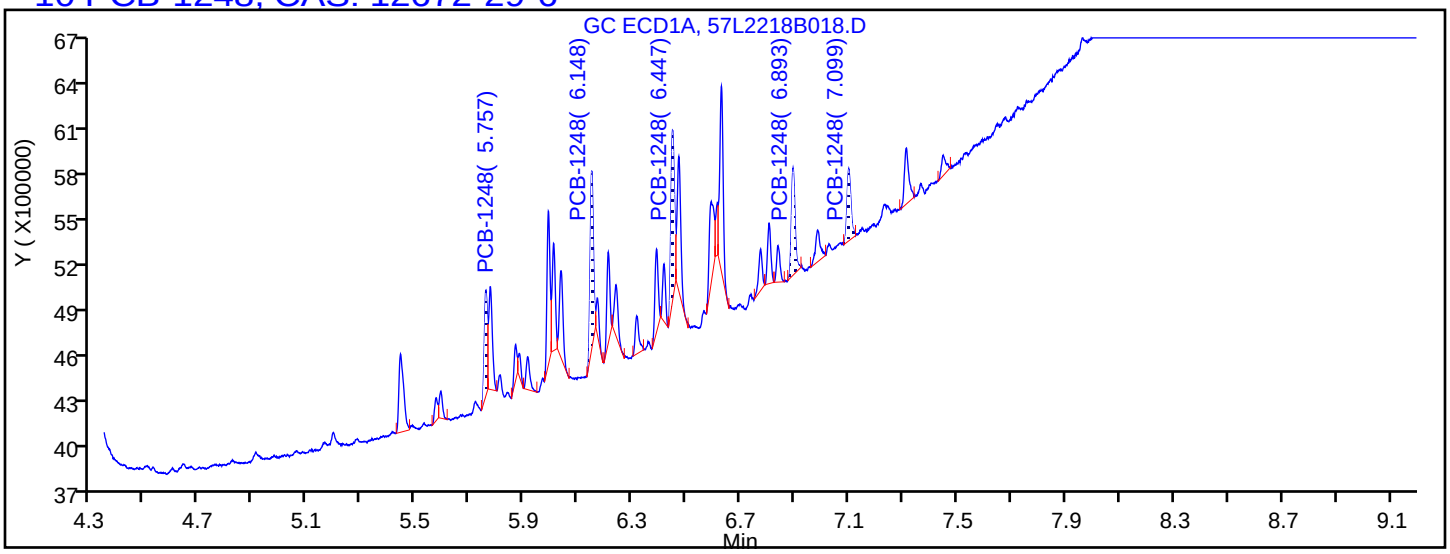
Operator ID: ar ALS Bottle#: 16 Worklist Smp#: 19

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

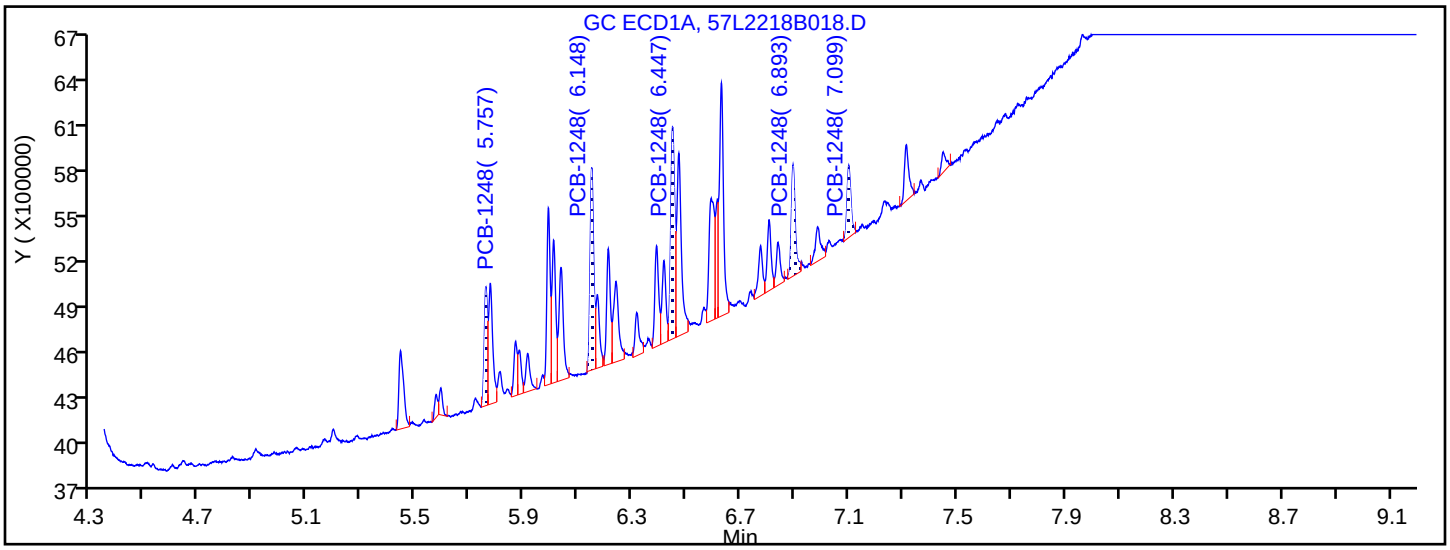
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.757	Response = 538701
6.148	Response = 963505
6.447	Response = 1001574
6.893	Response = 663489
7.099	Response = 475184



Manual Integration Results

5.757	Response = 629674	M
6.148	Response = 1243110	M
6.447	Response = 1424960	M
6.893	Response = 754354	M
7.099	Response = 475184	

Reviewer: ruslandera, 23-Dec-2018 14:48:24

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B019.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Dec-2018 22:28:15 ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:44 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:49:15

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	184613217	100.0	100.0	
2	4.596	4.596	0.000	1110367645	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						5.51	
2						4.92	
						RPD = 11.19	
10 PCB-1248							M
1	5.759	5.755	0.004	355131	5.00	5.44	M
1	6.149	6.147	0.002	583291	5.00	5.29	M
1	6.450	6.446	0.004	684389	5.00	5.39	M
1	6.895	6.892	0.003	398828	5.00	5.81	M
1	7.101	7.098	0.003	268152	5.00	5.60	M
		Average of Peak Amounts =				5.51	
2	6.373	6.372	0.001	1867538	5.00	5.92	M
2	6.852	6.852	0.000	3192106	5.00	4.71	M
2	7.178	7.177	0.001	3915717	5.00	4.73	M
2	7.366	7.365	0.001	3157486	5.00	4.67	
2	7.693	7.692	0.001	1762951	5.00	4.59	M
		Average of Peak Amounts =				4.92	
						RPD = 11.19	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B019.D

Injection Date: 22-Dec-2018 22:28:15 Instrument ID: TAC057

Lims ID: ic

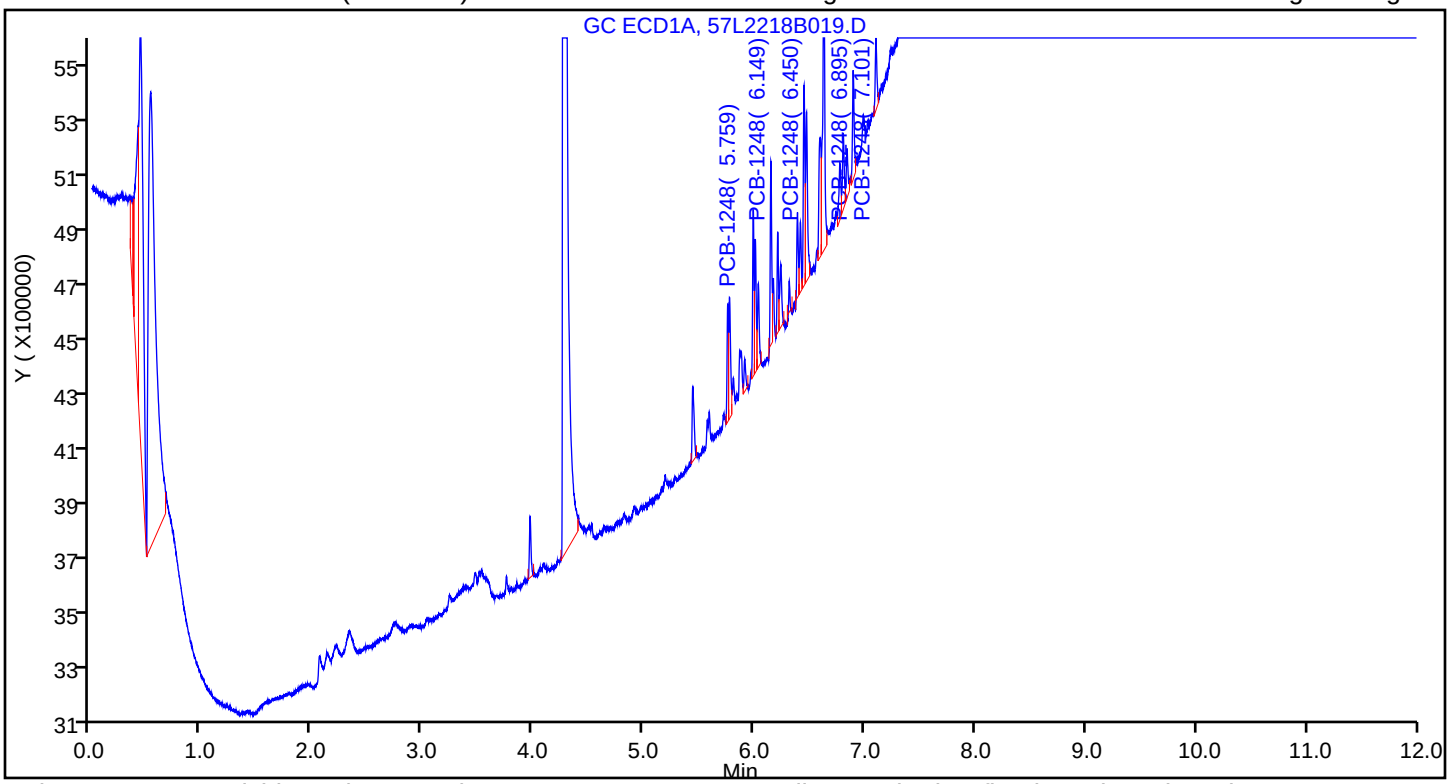
Client ID:

Operator ID: ar ALS Bottle#: 17 Worklist Smp#: 20

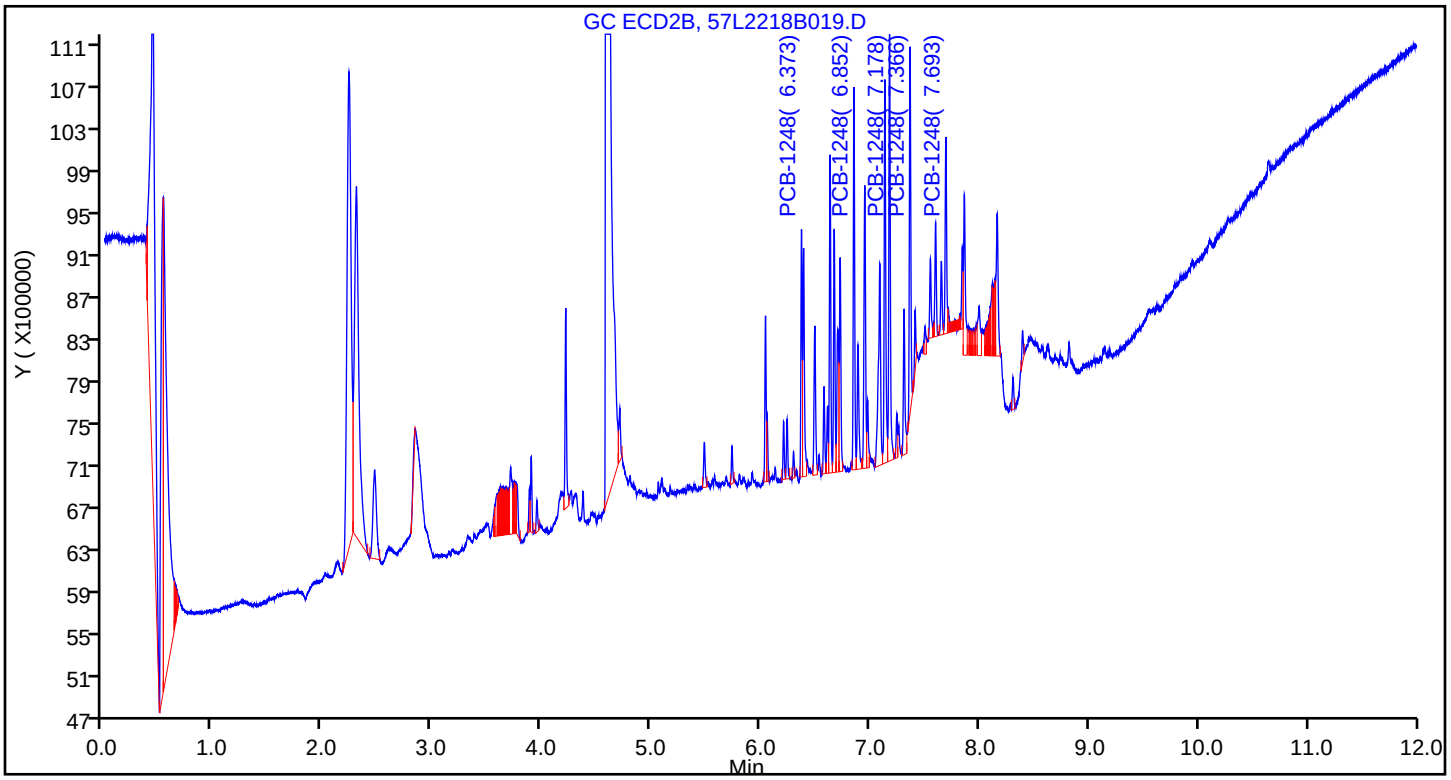
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B019.D

Injection Date: 22-Dec-2018 22:28:15 Instrument ID: TAC057

Lims ID: ic

Client ID:

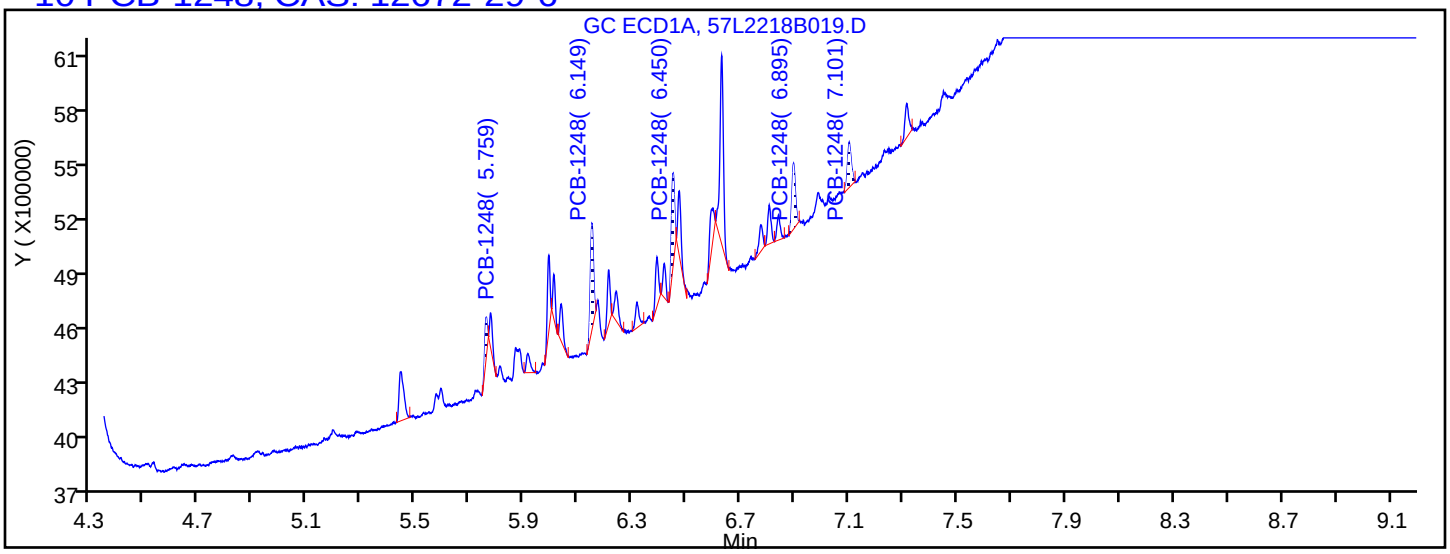
Operator ID: ar ALS Bottle#: 17 Worklist Smp#: 20

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

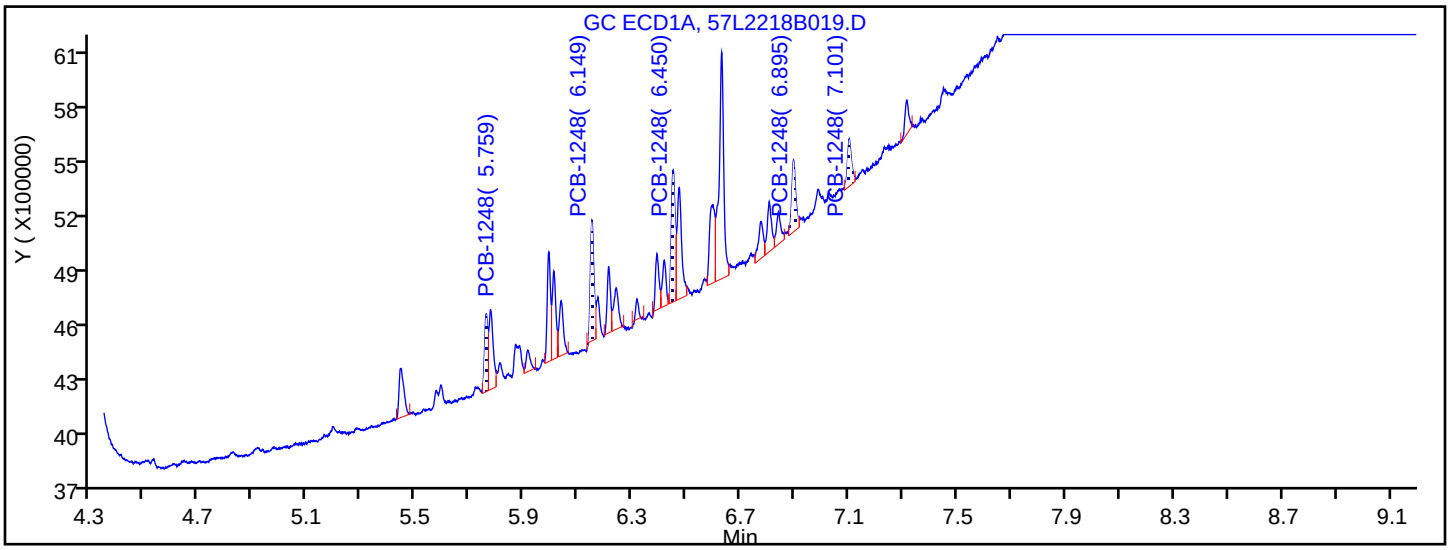
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.759	Response = 144414
6.149	Response = 456335
6.450	Response = 392128
6.895	Response = 320866
7.101	Response = 239528



Manual Integration Results

5.759	Response = 355131	M
6.149	Response = 583291	M
6.450	Response = 684389	M
6.895	Response = 398828	M
7.101	Response = 268152	M

Reviewer: ruslandera, 23-Dec-2018 14:48:59

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 20:25 Calibration End Date: 12/22/2018 22:28 Calibration ID: 27223

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/20	57L2218B019.D
Level 2	IC 580-291937/19	57L2218B018.D
Level 3	IC 580-291937/18	57L2218B017.D
Level 4	IC 580-291937/17	57L2218B016.D
Level 5	ICIS 580-291937/16	57L2218B015.D
Level 6	IC 580-291937/15	57L2218B014.D
Level 7	IC 580-291937/14	57L2218B013.D
Level 8	IC 580-291937/13	57L2218B012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0336 0.0259	0.0323 0.0261	0.0296 0.0253	0.0278	0.0266	Ave		0.0284				11.0		20.0			
PCB-1248 Peak 2	0.0575 0.0377	0.0523 0.0377	0.0455 0.0361	0.0429	0.0394	Lin2	0.1048	0.0387				6.3			0.9960		0.9900
PCB-1248 Peak 3	0.0705 0.0480	0.0651 0.0483	0.0569 0.0462	0.0542	0.0499	Lin2	0.1194	0.0493				5.9			0.9960		0.9900
PCB-1248 Peak 4	0.0569 0.0438	0.0573 0.0444	0.0505 0.0429	0.0481	0.0445	Lin2	0.0737	0.0451				6.4			0.9950		0.9900
PCB-1248 Peak 5	0.0318 0.0221	0.0312 0.0222	0.0272 0.0212	0.0256	0.0233	Lin2	0.0529	0.0231				8.6			0.9920		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 20:25 Calibration End Date: 12/22/2018 22:28 Calibration ID: 27223

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/20	57L2218B019.D
Level 2	IC 580-291937/19	57L2218B018.D
Level 3	IC 580-291937/18	57L2218B017.D
Level 4	IC 580-291937/17	57L2218B016.D
Level 5	ICIS 580-291937/16	57L2218B015.D
Level 6	IC 580-291937/15	57L2218B014.D
Level 7	IC 580-291937/14	57L2218B013.D
Level 8	IC 580-291937/13	57L2218B012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Ave	1867538 143395461	3560456 288325888	8261929 536818770	15372938	29768079	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 2	BNB	Lin2	3192106 208108319	5771605 416979409	12718338 765862823	23734265	44003684	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 3	BNB	Lin2	3915717 265344718	7185681 533967162	15893413 979381694	29969547	55812390	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 4	BNB	Lin2	3157486 241947739	6319852 490677104	14100336 908913716	26644359	49707699	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1248 Peak 5	BNB	Lin2	1762951 121973543	3444244 245502826	7586980 448568009	14169158	26060469	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B012.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Dec-2018 20:25:25 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:17 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:36:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.275	0.001	172579178	100.0	100.0	
2	4.596	4.596	0.000	1059805164	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1838.5	
2						1849.6	
						RPD = 0.60	
10 PCB-1248							M
1	5.751	5.754	-0.003	118605078	2000.0	1945.1	M
1	6.146	6.148	-0.002	183164581	2000.0	1778.5	M
1	6.443	6.445	-0.002	217387578	2000.0	1832.3	M
1	6.891	6.892	-0.001	114516429	2000.0	1783.2	M
1	7.096	7.097	-0.001	82906940	2000.0	1853.5	M
		Average of Peak Amounts =				1838.5	
2	6.372	6.372	0.000	536818770	2000.0	1783.2	
2	6.852	6.853	-0.001	765862823	2000.0	1862.6	
2	7.177	7.178	-0.001	979381694	2000.0	1871.3	
2	7.365	7.364	0.001	908913716	2000.0	1900.1	
2	7.691	7.691	0.000	448568009	2000.0	1830.6	
		Average of Peak Amounts =				1849.6	
						RPD = 0.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

48_ICSTK_00007	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B012.D

Injection Date: 22-Dec-2018 20:25:25 Instrument ID: TAC057

Lims ID: ic

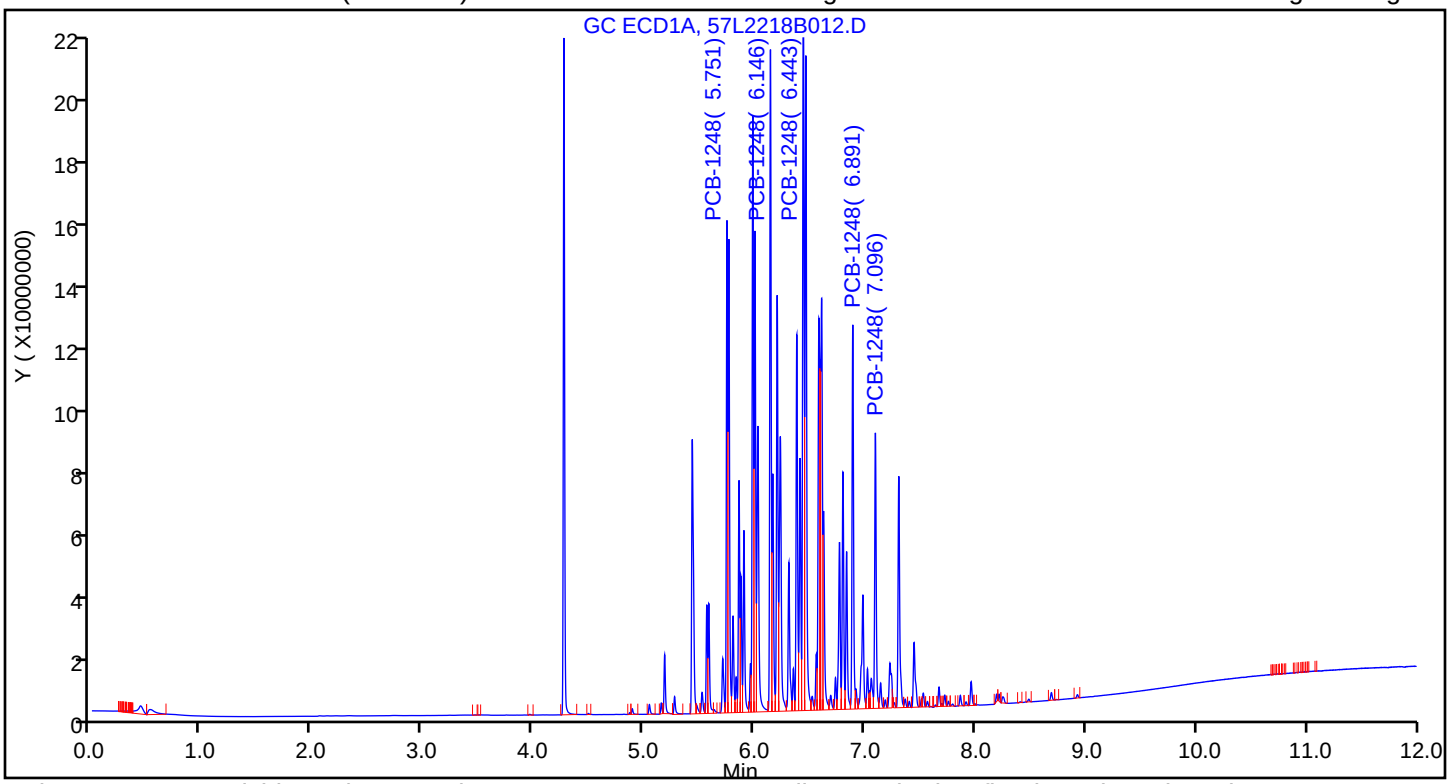
Client ID:

Operator ID: ar ALS Bottle#: 10 Worklist Smp#: 13

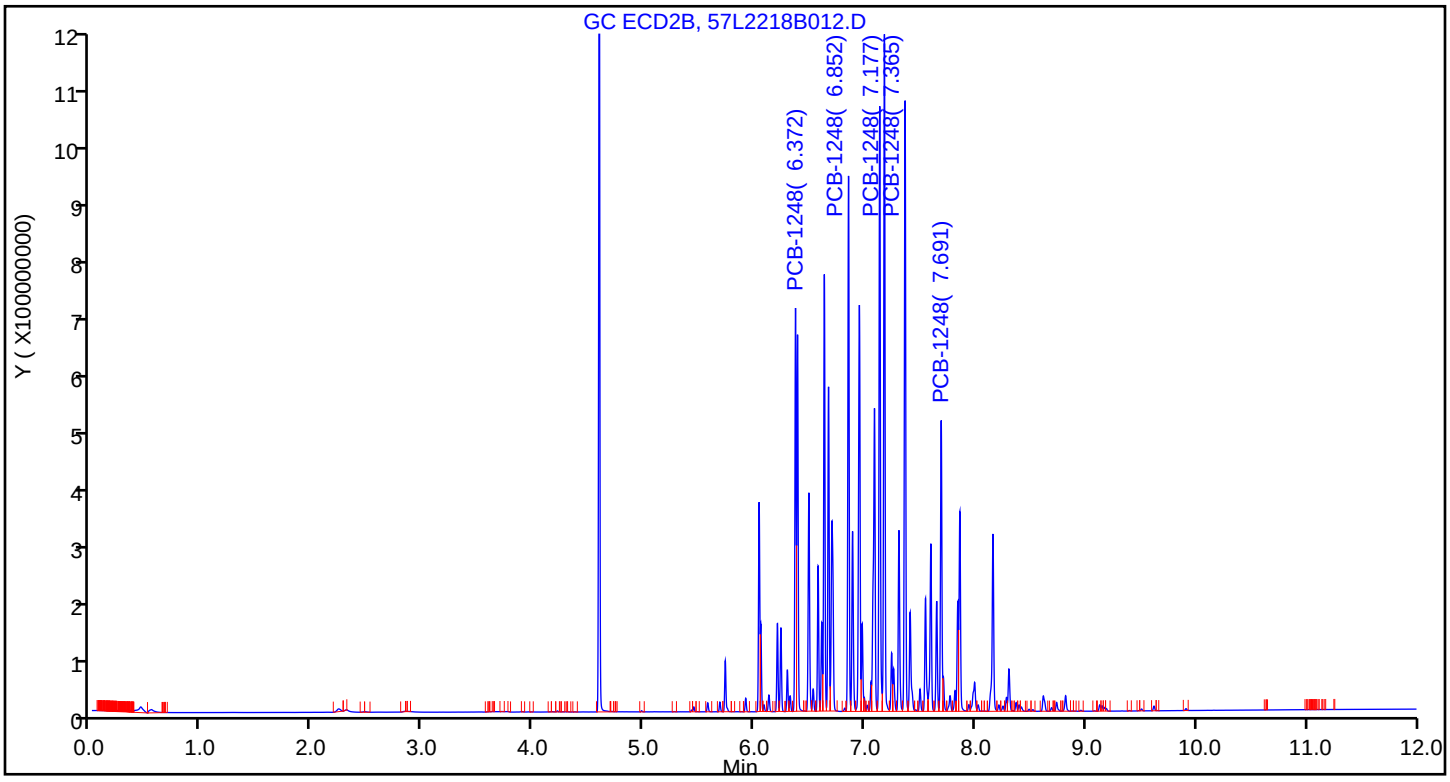
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B013.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Dec-2018 20:42:55 ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:21 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:38:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.275	0.001	181102114	100.0	100.0	
2	4.596	4.596	0.000	1105271150	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						968.1	
2						961.8	
						RPD = 0.65	
10 PCB-1248							M
1	5.752	5.754	-0.002	65171128	1000.0	1018.5	M
1	6.146	6.148	-0.002	103847408	1000.0	960.9	M
1	6.443	6.445	-0.002	118919695	1000.0	955.2	M
1	6.891	6.892	-0.001	62762553	1000.0	931.3	M
1	7.096	7.097	-0.001	45738482	1000.0	974.4	M
		Average of Peak Amounts =				968.1	
2	6.372	6.372	0.000	288325888	1000.0	918.3	
2	6.852	6.853	-0.001	416979409	1000.0	971.1	
2	7.177	7.178	-0.001	533967162	1000.0	977.1	
2	7.364	7.364	0.000	490677104	1000.0	982.8	
2	7.692	7.691	0.001	245502826	1000.0	959.6	
		Average of Peak Amounts =				961.8	
						RPD = 0.65	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

48_ICSTK_00007	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B013.D

Injection Date: 22-Dec-2018 20:42:55 Instrument ID: TAC057

Lims ID: ic

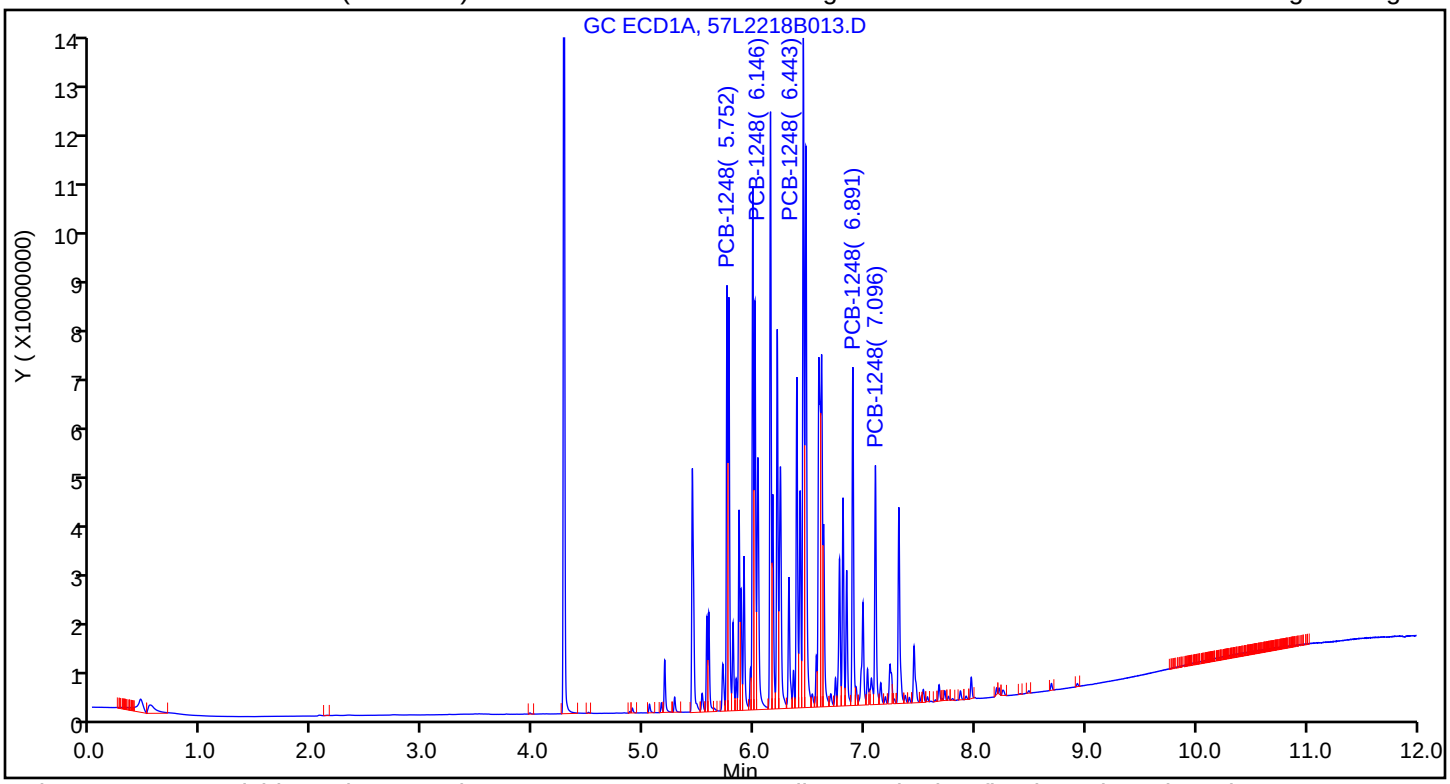
Client ID:

Operator ID: ar ALS Bottle#: 11 Worklist Smp#: 14

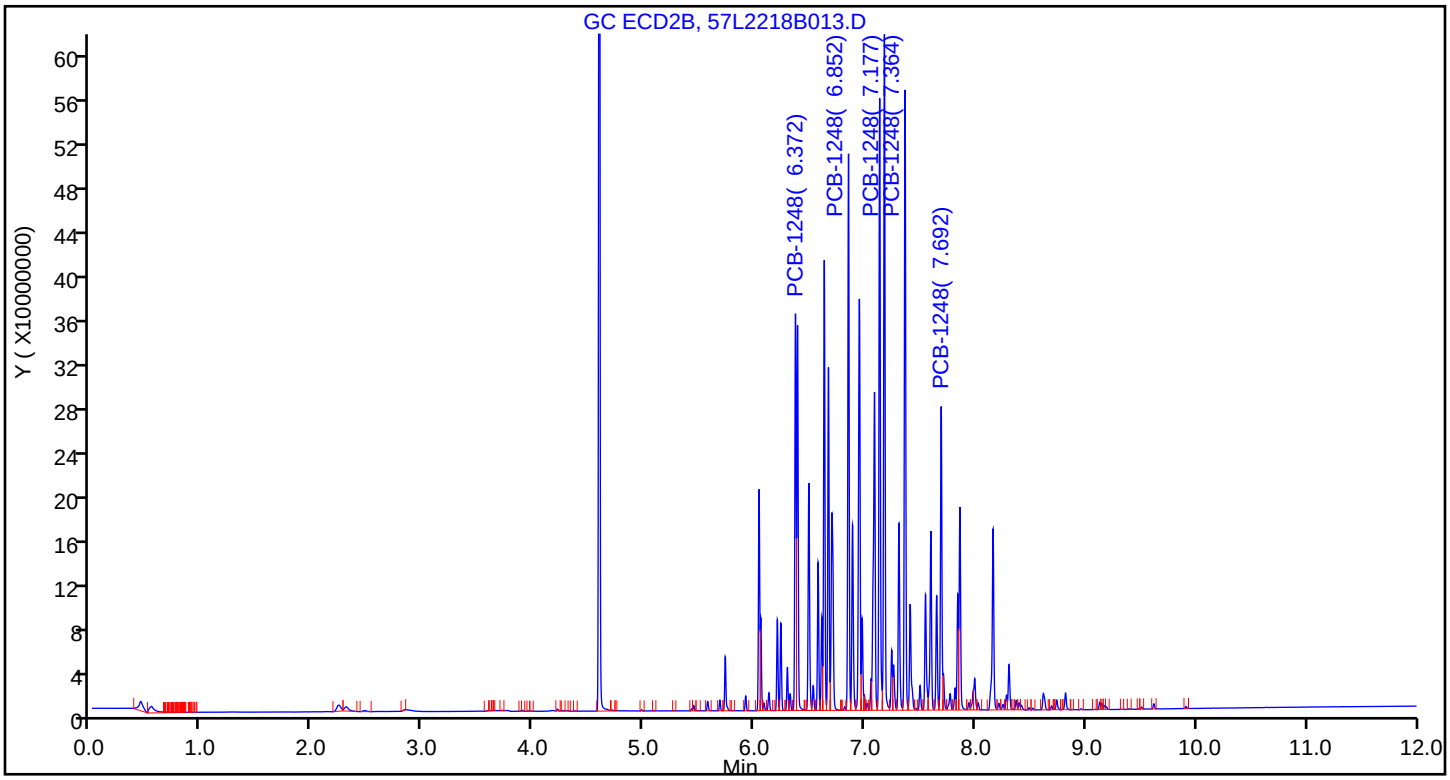
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B014.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Dec-2018 21:00:25 ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:26 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:39:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.275	0.001	183363733	100.0	100.0	
2	4.596	4.596	0.000	1105313014	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						470.6	
2						476.7	
						RPD = 1.29	
10 PCB-1248							M
1	5.753	5.754	-0.001	31470230	500.0	485.7	M
1	6.147	6.148	-0.001	51893553	500.0	474.2	M
1	6.444	6.445	-0.001	59152419	500.0	469.3	M
1	6.892	6.892	0.000	30744316	500.0	450.6	M
1	7.098	7.097	0.001	22490756	500.0	473.2	M
		Average of Peak Amounts =				470.6	
2	6.373	6.372	0.001	143395461	500.0	456.7	
2	6.853	6.853	0.000	208108319	500.0	483.3	
2	7.178	7.178	0.000	265344718	500.0	484.3	
2	7.364	7.364	0.000	241947739	500.0	483.8	
2	7.692	7.691	0.001	121973543	500.0	475.6	
		Average of Peak Amounts =				476.7	
						RPD = 1.29	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

48_ICSTK_00007	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:27 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B014.D

Injection Date: 22-Dec-2018 21:00:25 Instrument ID: TAC057

Lims ID: ic

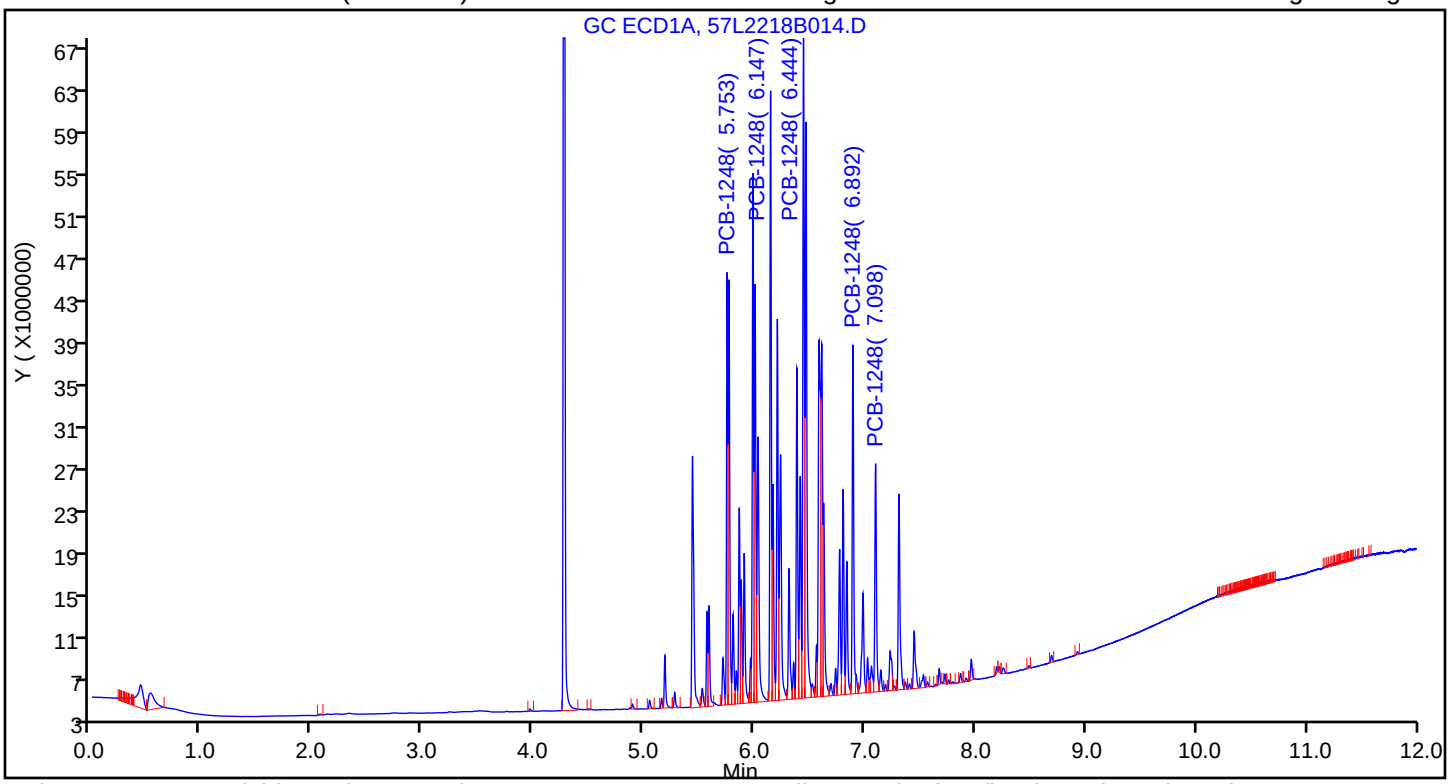
Client ID:

Operator ID: ar ALS Bottle#: 12 Worklist Smp#: 15

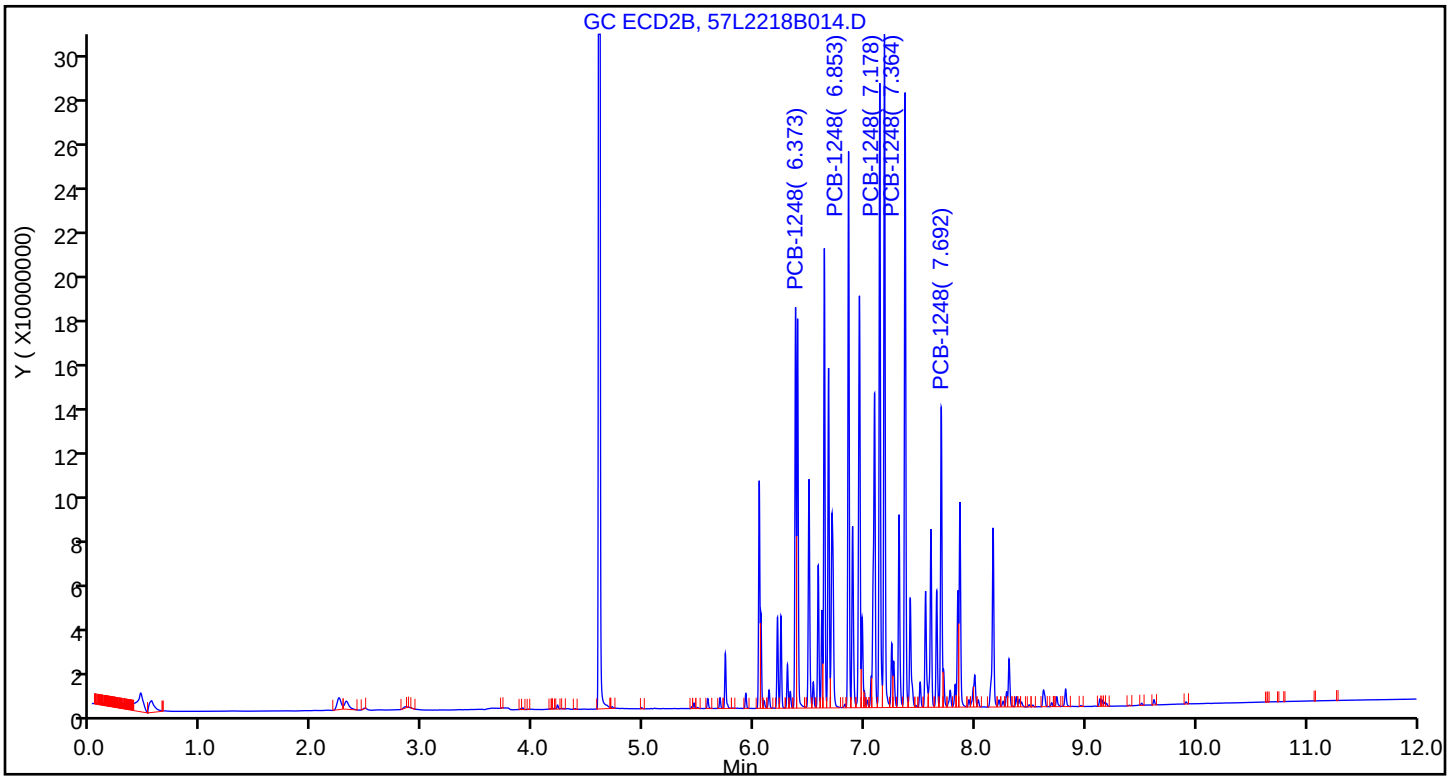
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Dec-2018 21:18:04 ALS Bottle#: 13 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:29 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:33:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	183658173	100.0	100.0	a
2	4.596	4.596	0.000	1118083048	100.0	100.0	a
						RPD = 0.00	
10 PCB-1248							Ma
1	5.754	5.754	0.000	6331642	100.0	97.6	M
1	6.148	6.148	0.000	10437247	100.0	95.2	M
1	6.445	6.445	0.000	11942838	100.0	94.6	M
1	6.892	6.892	0.000	6671582	100.0	97.6	M
1	7.097	7.097	0.000	4629036	100.0	97.2	M
		Average of Peak Amounts =				96.5	
2	6.372	6.372	0.000	29768079	100.0	93.7	M
2	6.853	6.853	0.000	44003684	100.0	98.9	M
2	7.178	7.178	0.000	55812390	100.0	98.8	M
2	7.364	7.364	0.000	49707699	100.0	96.9	M
2	7.691	7.691	0.000	26060469	100.0	98.6	a
		Average of Peak Amounts =				97.4	
						RPD = 0.98	

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

1248IC100_00015	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D

Injection Date: 22-Dec-2018 21:18:04 Instrument ID: TAC057

Lims ID: icis

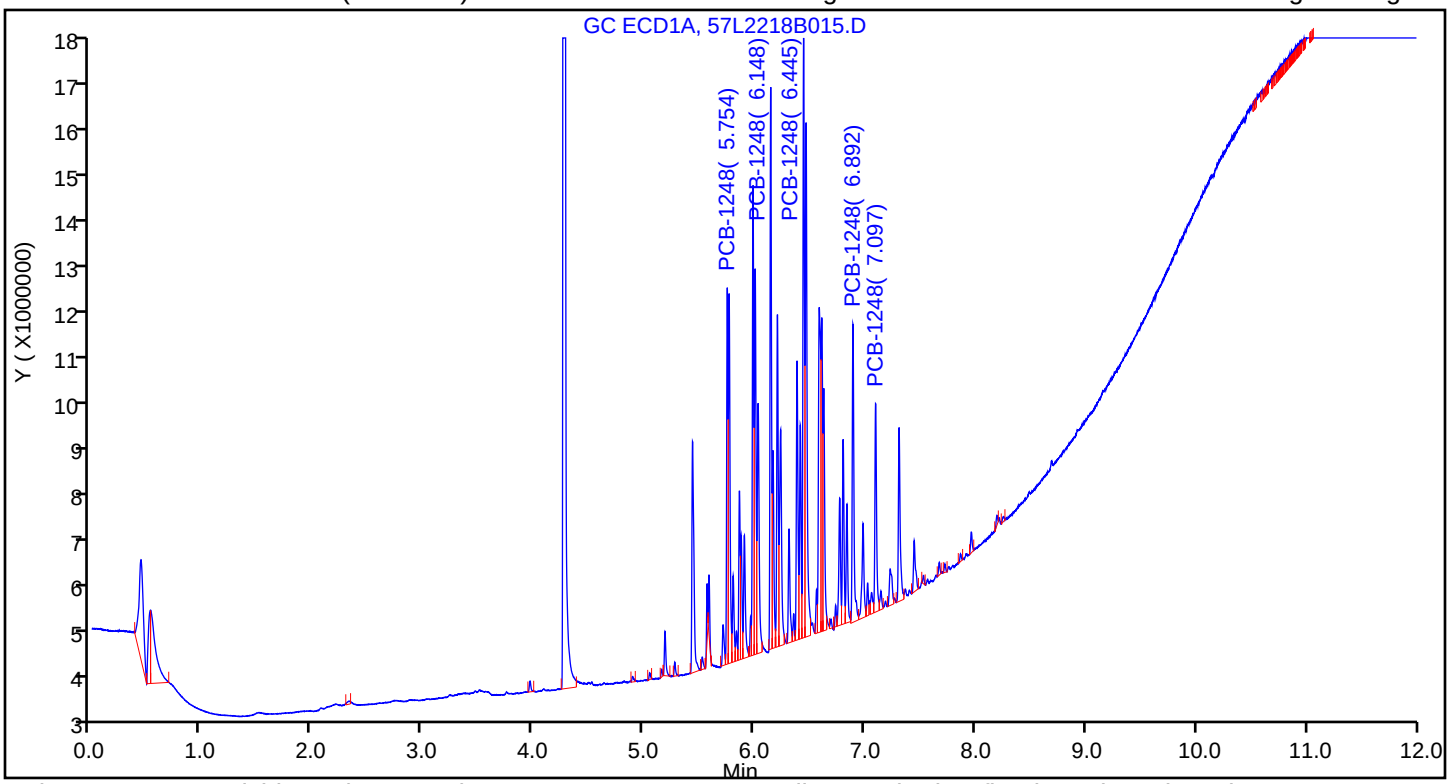
Client ID:

Operator ID: ar ALS Bottle#: 13 Worklist Smp#: 16

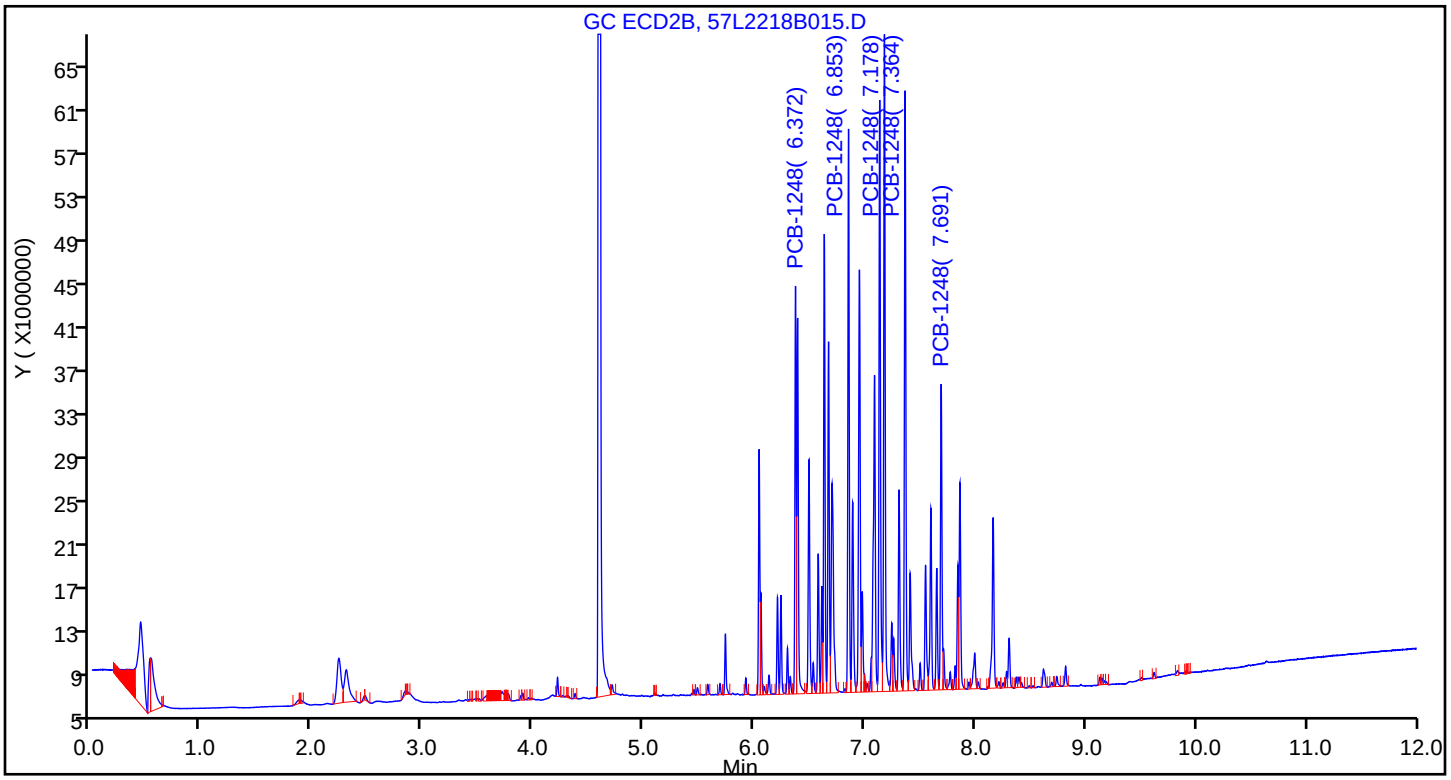
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

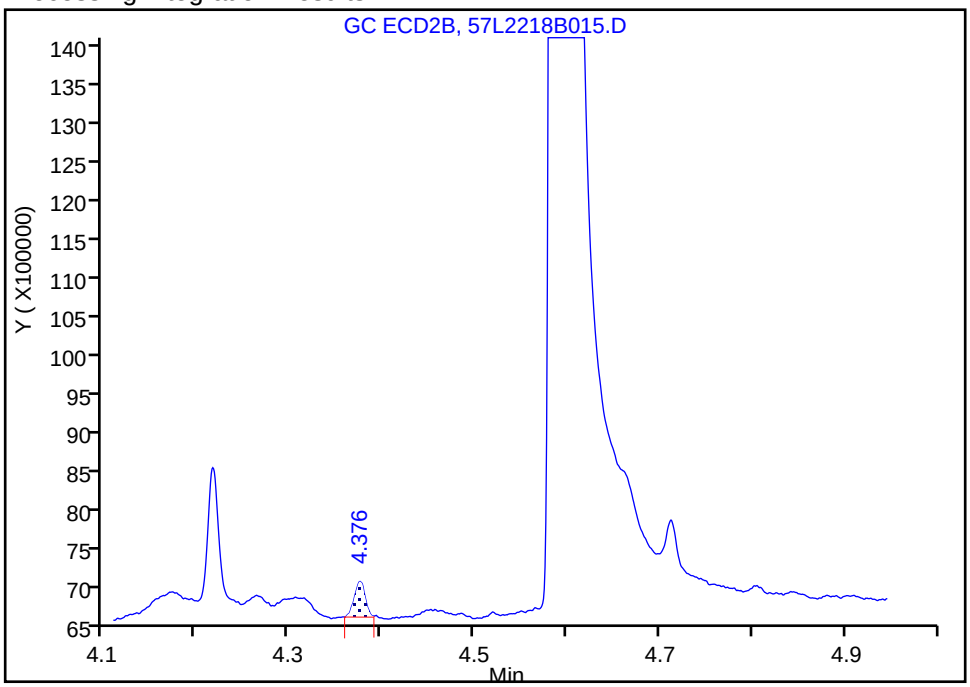
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D
Injection Date: 22-Dec-2018 21:18:04 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 13 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

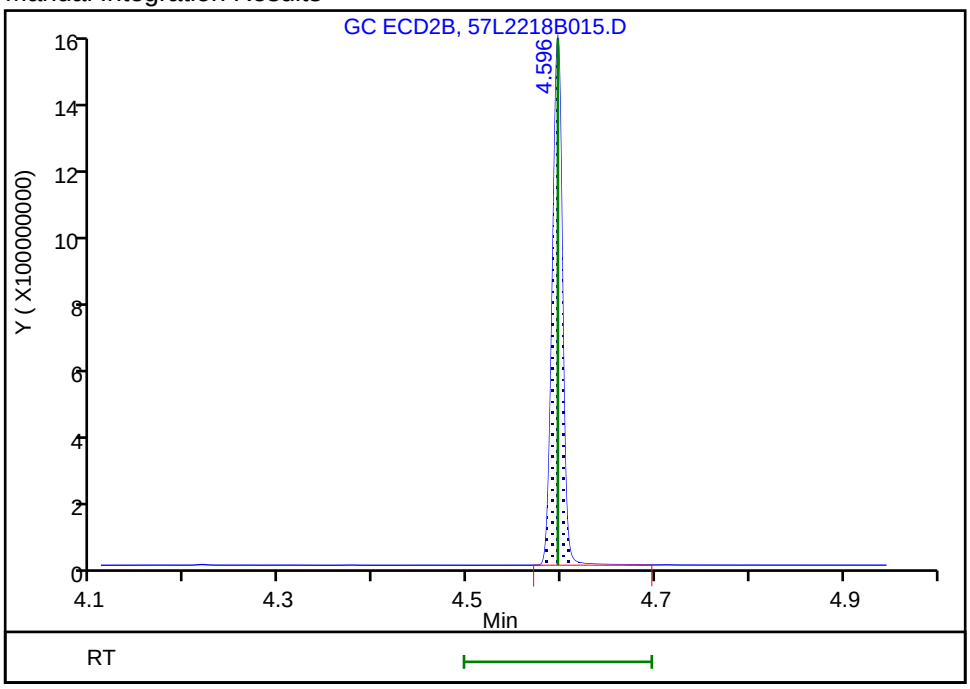
Processing Integration Results

RT: 4.38
Area: 373460
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1118083048
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:21:01
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:15:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B015.D

Injection Date: 22-Dec-2018 21:18:04 Instrument ID: TAC057

Lims ID: icis

Client ID:

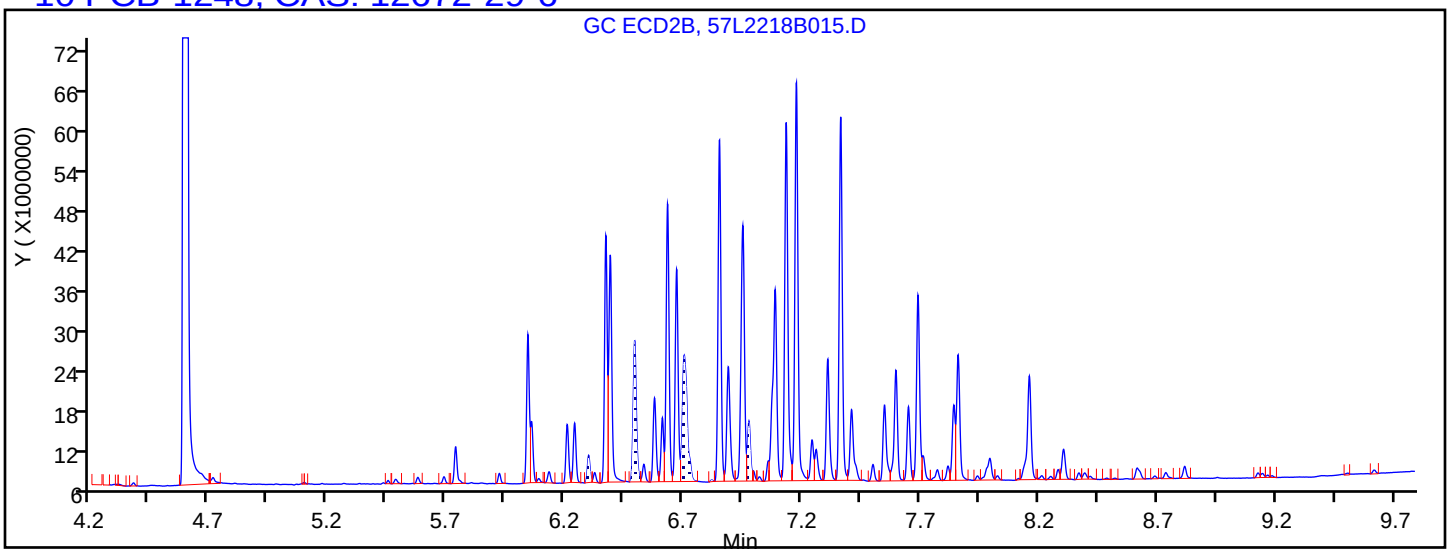
Operator ID: ar ALS Bottle#: 13 Worklist Smp#: 16

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

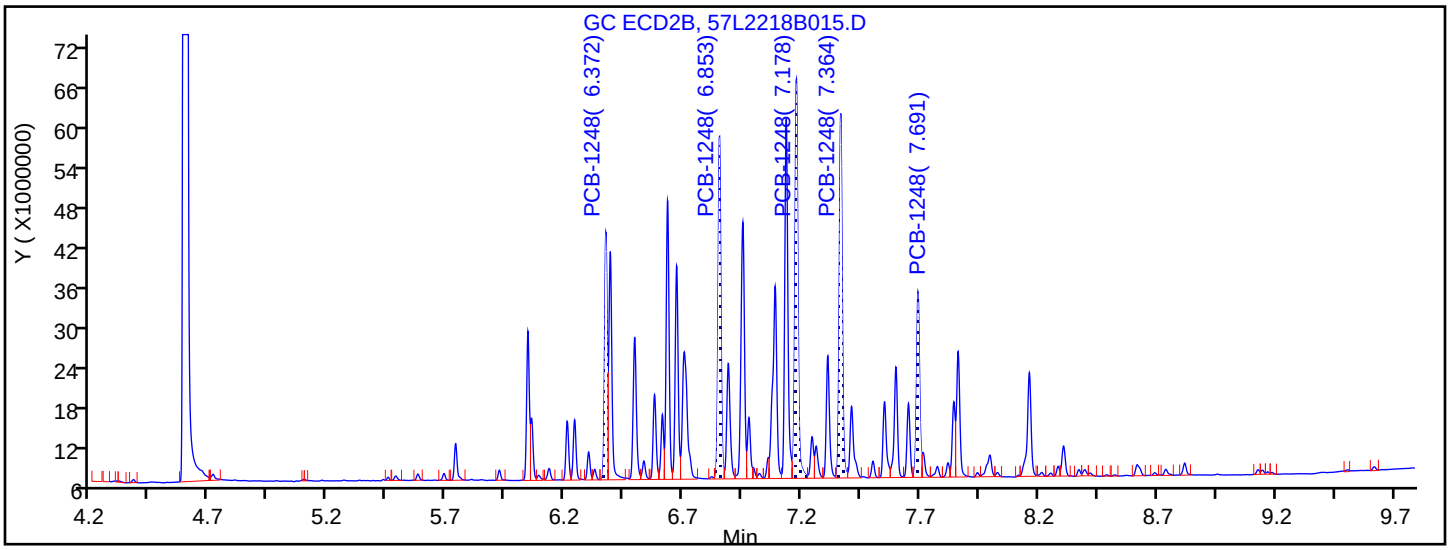
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

6.299	Response = 3252902
6.494	Response = 20177111
6.704	Response = 27397084
6.820	Response = 183643
6.977	Response = 8313742



Manual Integration Results

6.372	Response = 29768079	M
6.853	Response = 44003684	M
7.178	Response = 55812390	M
7.364	Response = 49707699	M
7.691	Response = 26060469	M

Reviewer: ruslandera, 23-Dec-2018 14:22:43

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B016.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Dec-2018 21:35:34 ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:33 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:47:11

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	182669394	100.0	100.0	
2	4.596	4.596	0.000	1106784622	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						49.5	
2						51.8	
						RPD = 4.41	
10 PCB-1248							M
1	5.755	5.755	0.000	3223826	50.0	49.9	M
1	6.147	6.147	0.000	5475551	50.0	50.2	M
1	6.446	6.446	0.000	6058474	50.0	48.2	M
1	6.892	6.892	0.000	3345744	50.0	49.2	M
1	7.098	7.098	0.000	2372025	50.0	50.1	M
		Average of Peak Amounts =				49.5	
2	6.372	6.372	0.000	15372938	50.0	48.9	
2	6.852	6.852	0.000	23734265	50.0	52.6	M
2	7.177	7.177	0.000	29969547	50.0	52.5	M
2	7.365	7.365	0.000	26644359	50.0	51.7	M
2	7.692	7.692	0.000	14169158	50.0	53.1	M
		Average of Peak Amounts =				51.8	
						RPD = 4.41	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B016.D

Injection Date: 22-Dec-2018 21:35:34 Instrument ID: TAC057

Lims ID: ic

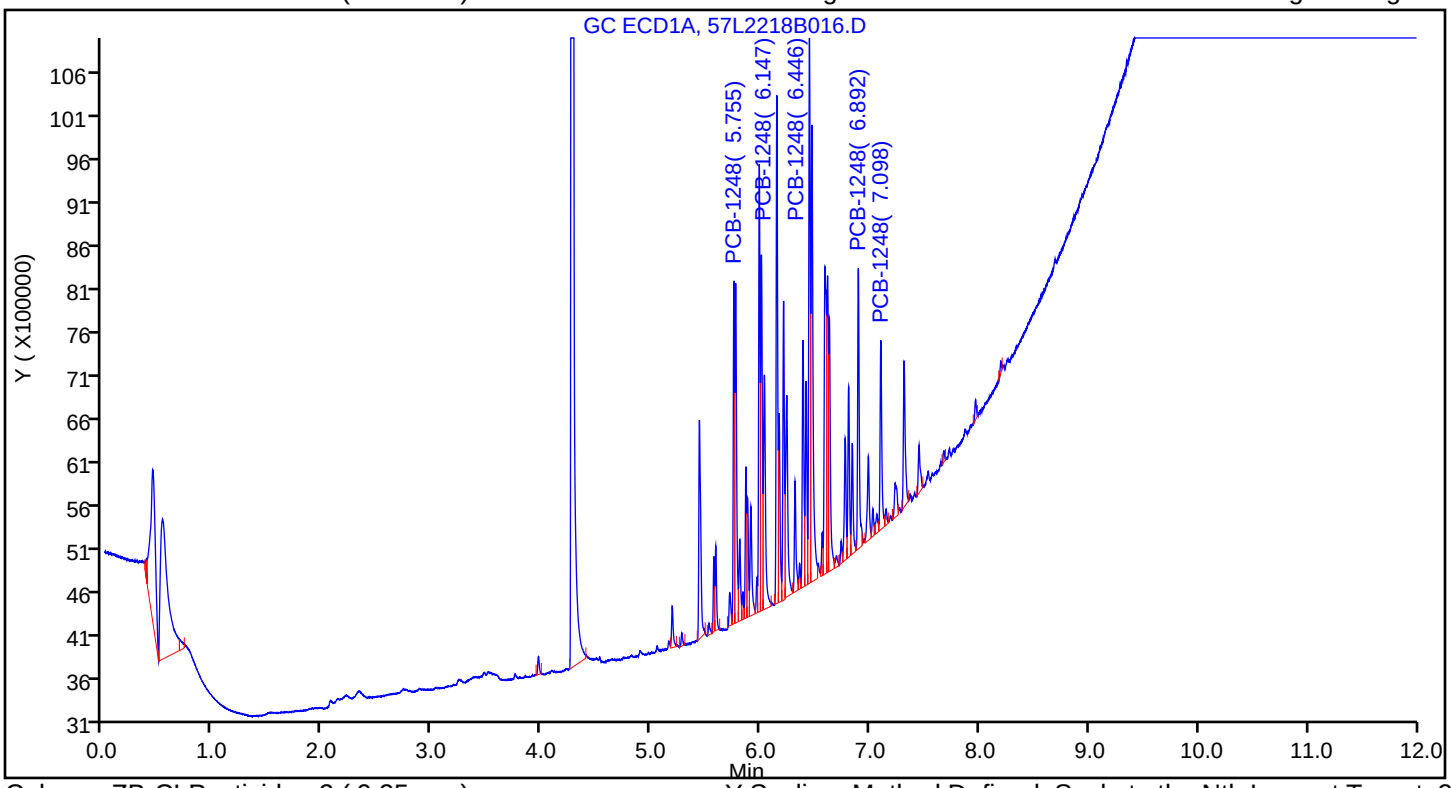
Client ID:

Operator ID: ar ALS Bottle#: 14 Worklist Smp#: 17

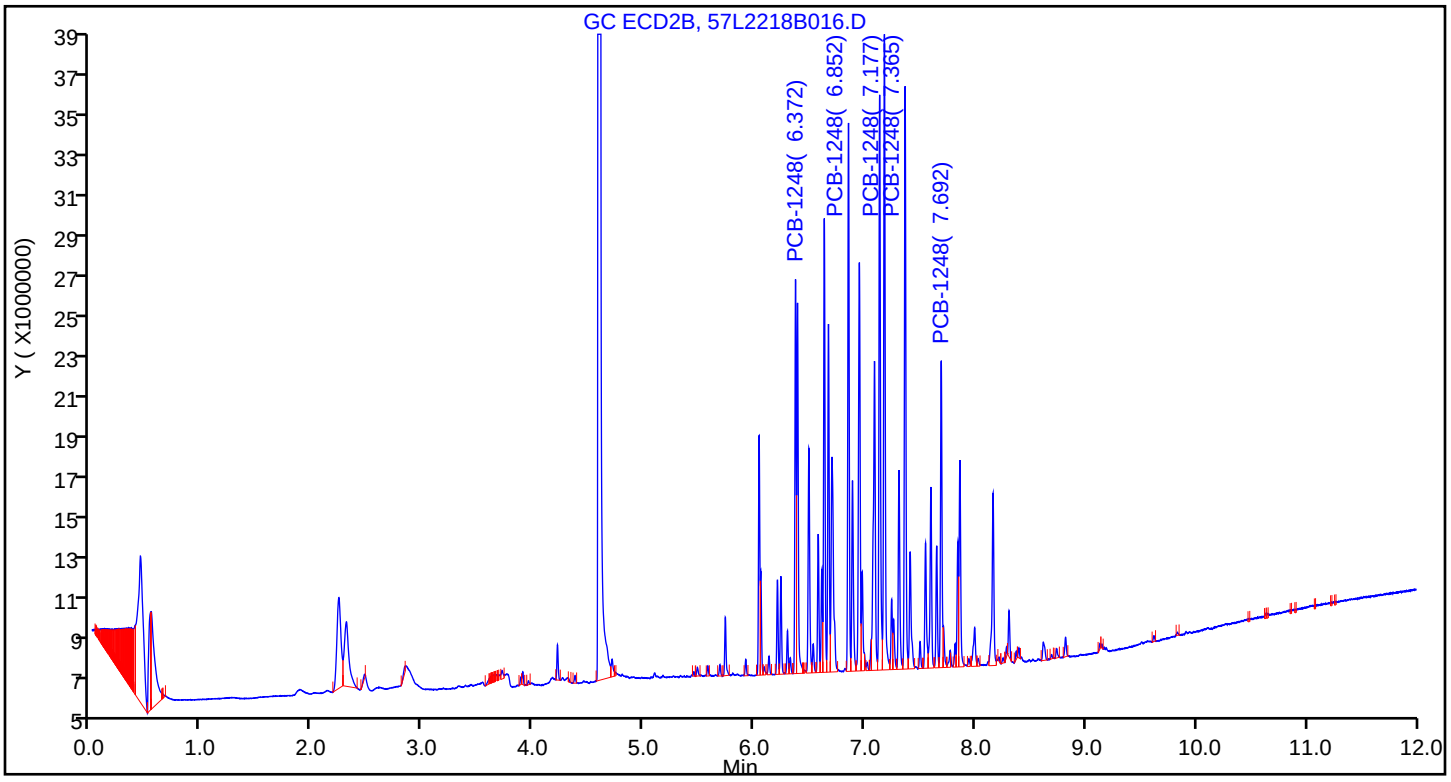
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



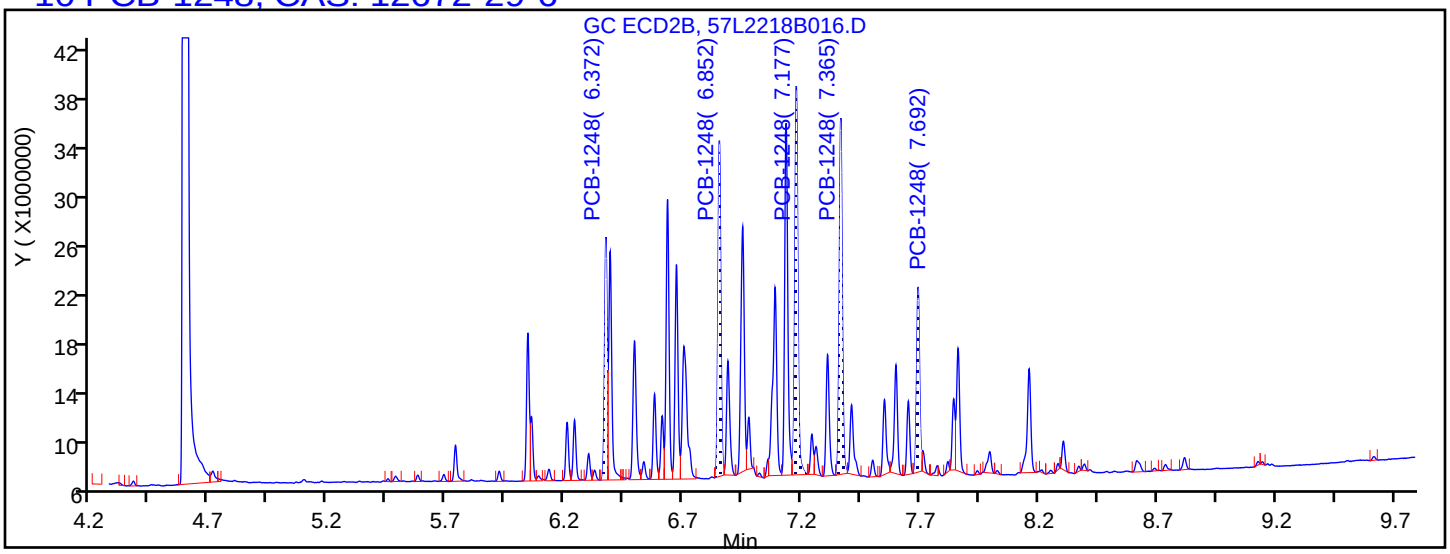
Report Date: 23-Dec-2018 16:15:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B016.D

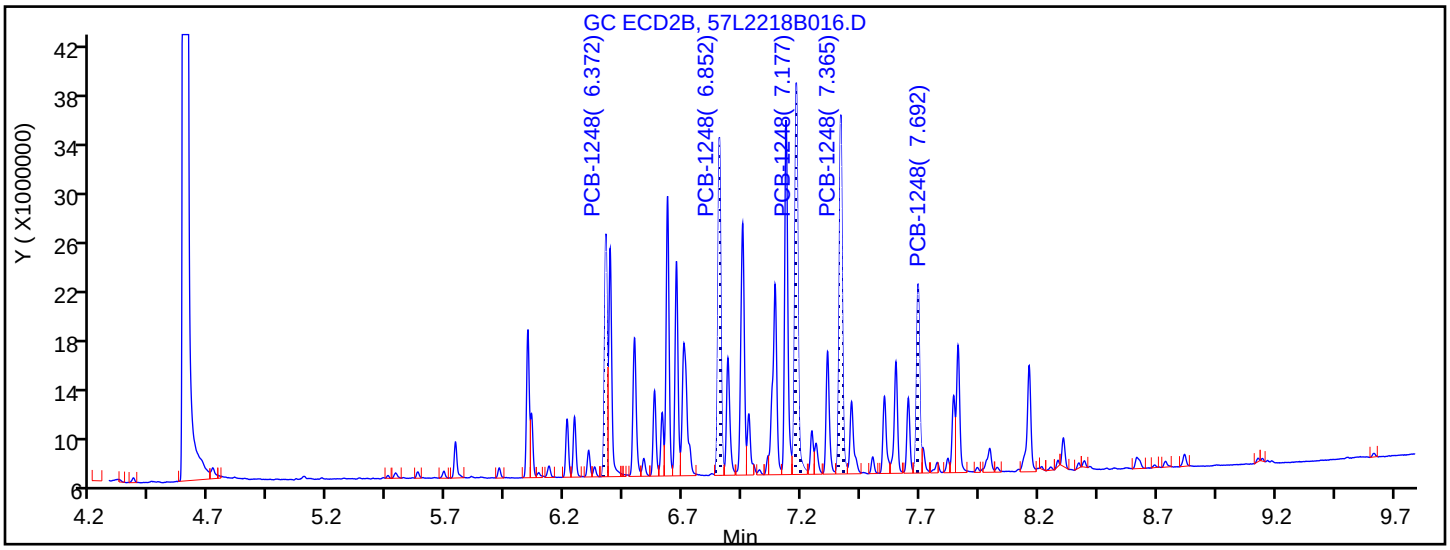
Injection Date:	22-Dec-2018 21:35:34	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

6.372	Response = 15372938
6.852	Response = 23305218
7.177	Response = 29041577
7.365	Response = 25921401
7.692	Response = 13410129



Manual Integration Results

6.372	Response = 15372938	
6.852	Response = 23734265	M
7.177	Response = 29969547	M
7.365	Response = 26644359	M
7.692	Response = 14169158	M

Reviewer: ruslandera, 23-Dec-2018 14:47:10

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B017.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Dec-2018 21:53:07 ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:37 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:47:45

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	184594629	100.0	100.0	
2	4.596	4.596	0.000	1117042653	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						26.1	
2						26.5	
						RPD = 1.45	
10 PCB-1248							M
1	5.755	5.755	0.000	1633963	25.0	25.1	M
1	6.148	6.147	0.001	2891103	25.0	26.2	M
1	6.447	6.446	0.001	3395966	25.0	26.8	M
1	6.893	6.892	0.001	1801376	25.0	26.2	M
1	7.098	7.098	0.000	1264738	25.0	26.4	M
		Average of Peak Amounts =				26.1	
2	6.372	6.372	0.000	8261929	25.0	26.0	M
2	6.852	6.852	0.000	12718338	25.0	26.7	M
2	7.177	7.177	0.000	15893413	25.0	26.4	M
2	7.364	7.365	-0.001	14100336	25.0	26.4	M
2	7.692	7.692	0.000	7586980	25.0	27.1	M
		Average of Peak Amounts =				26.5	
						RPD = 1.45	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:39 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B017.D

Injection Date: 22-Dec-2018 21:53:07 Instrument ID: TAC057

Lims ID: ic

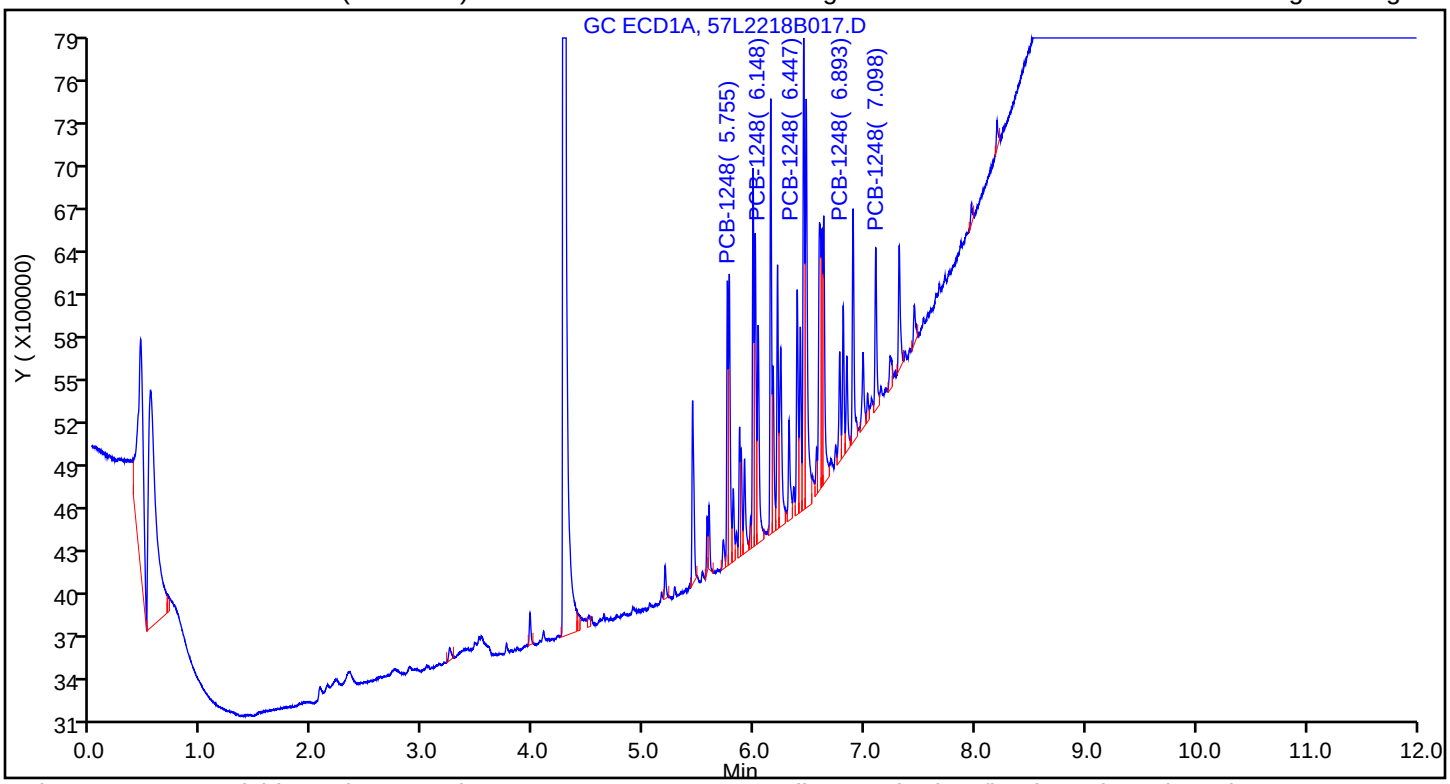
Client ID:

Operator ID: ar ALS Bottle#: 15 Worklist Smp#: 18

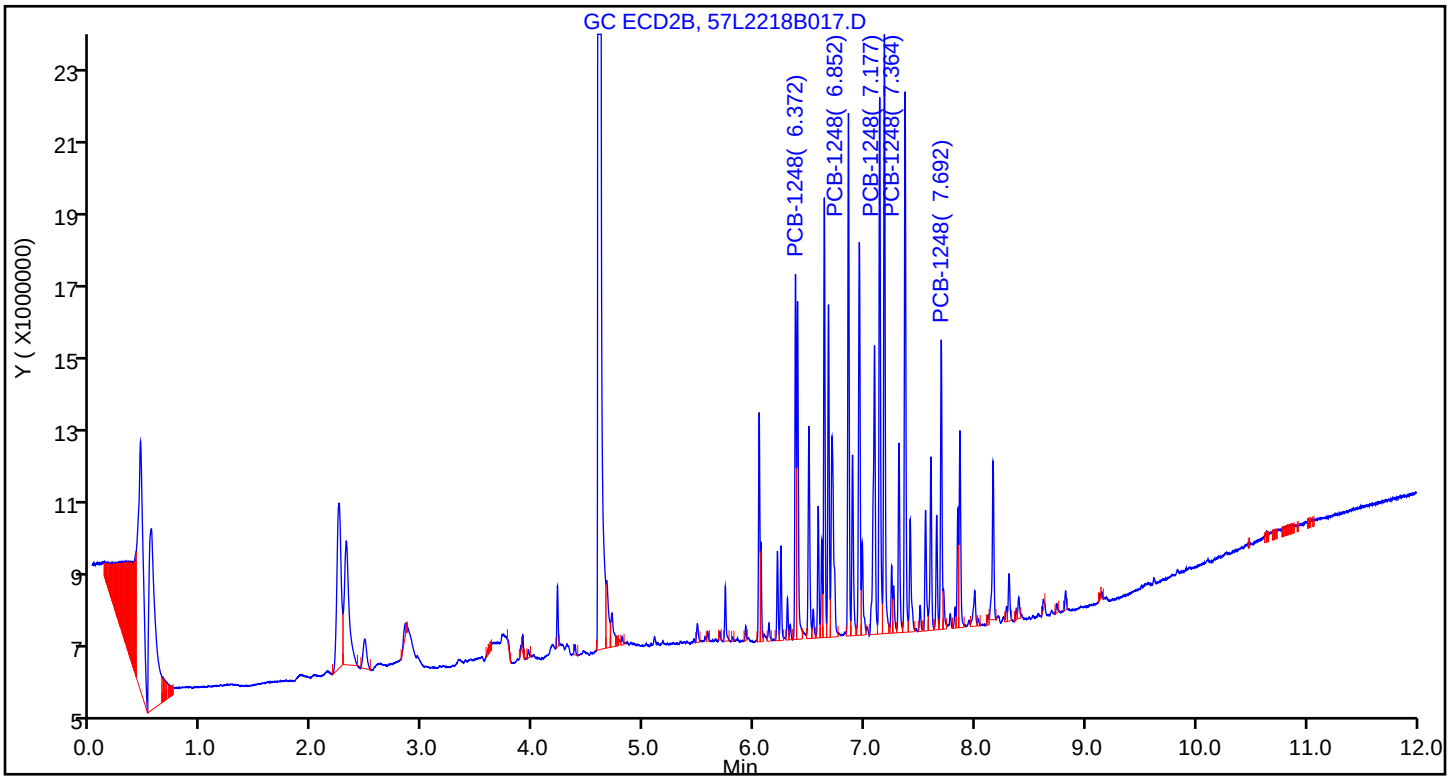
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



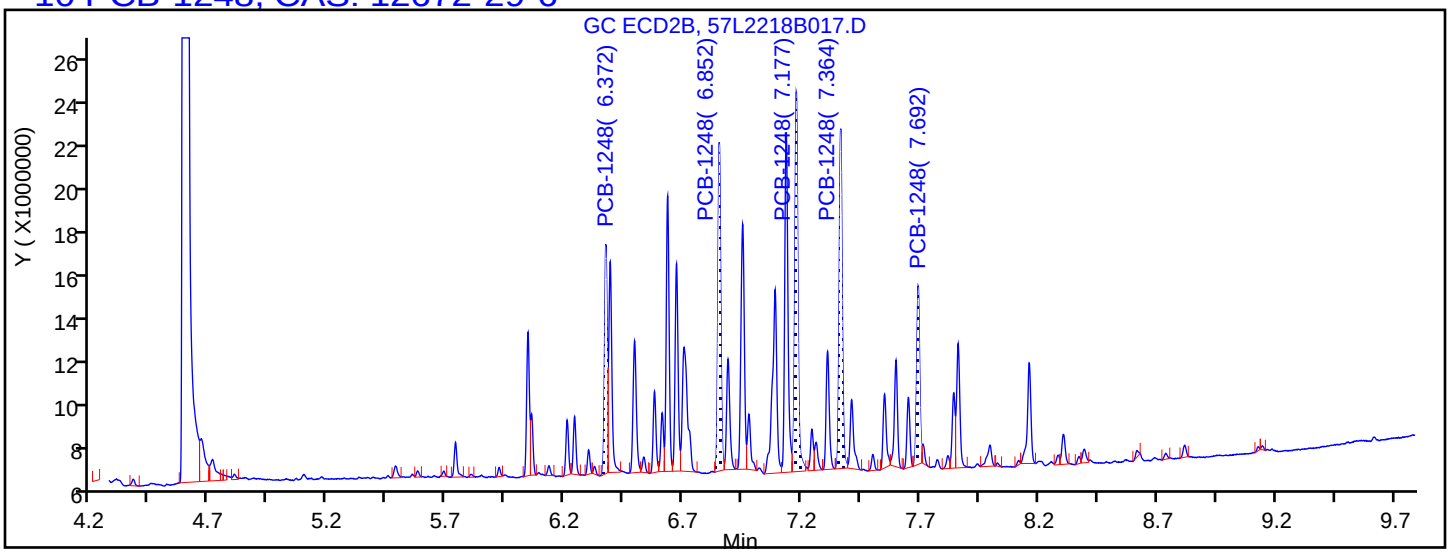
Report Date: 23-Dec-2018 16:15:39 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B017.D

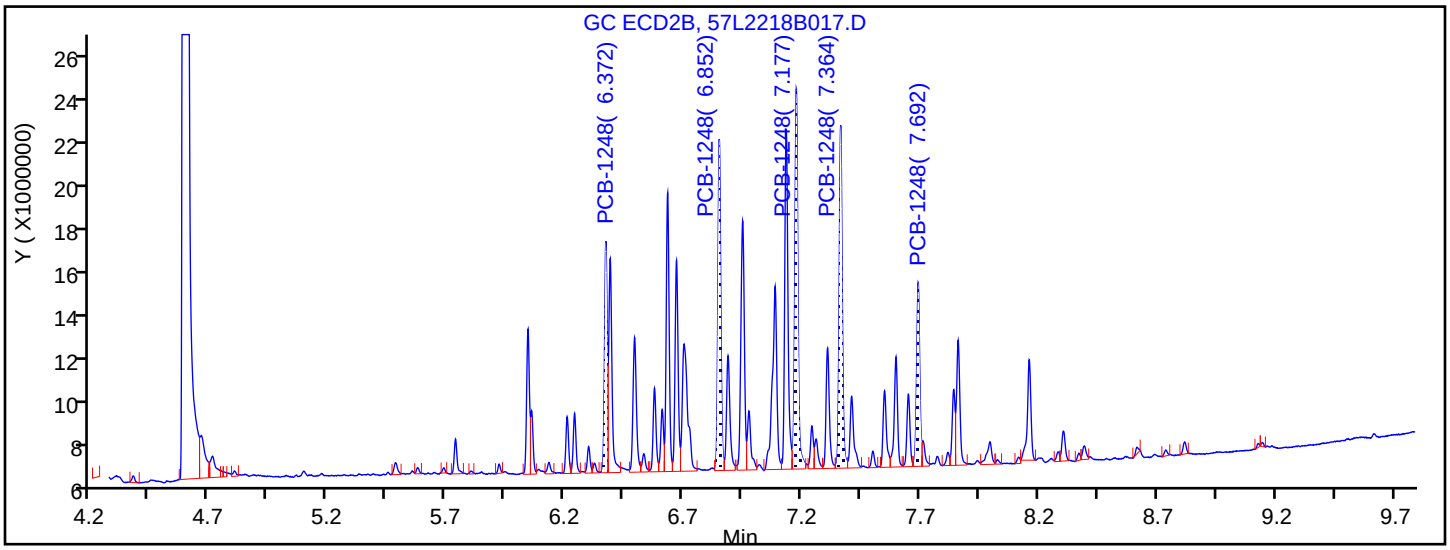
Injection Date:	22-Dec-2018 21:53:07	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

6.372	Response = 8117591
6.852	Response = 12412517
7.177	Response = 15766799
7.364	Response = 13690932
7.692	Response = 7084668



Manual Integration Results

6.372	Response = 8261929	M
6.852	Response = 12718338	M
7.177	Response = 15893413	M
7.364	Response = 14100336	M
7.692	Response = 7586980	M

Reviewer: ruslandera, 23-Dec-2018 14:47:40

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B018.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Dec-2018 22:10:37 ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:41 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:48:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	183390730	100.0	100.0	
2	4.596	4.596	0.000	1103638559	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						10.7	
2						11.0	
						RPD = 3.29	
10 PCB-1248							M
1	5.757	5.755	0.002	629674	10.0	9.72	M
1	6.148	6.147	0.001	1243110	10.0	11.4	M
1	6.447	6.446	0.001	1424960	10.0	11.3	M
1	6.893	6.892	0.001	754354	10.0	11.1	M
1	7.099	7.098	0.001	475184	10.0	10.0	
		Average of Peak Amounts =				10.7	
2	6.373	6.372	0.001	3560456	10.0	11.4	M
2	6.852	6.852	0.000	5771605	10.0	10.8	M
2	7.178	7.177	0.001	7185681	10.0	10.8	M
2	7.365	7.365	0.000	6319852	10.0	11.1	M
2	7.692	7.692	0.000	3444244	10.0	11.2	M
		Average of Peak Amounts =				11.0	
						RPD = 3.29	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B018.D

Injection Date: 22-Dec-2018 22:10:37 Instrument ID: TAC057

Lims ID: ic

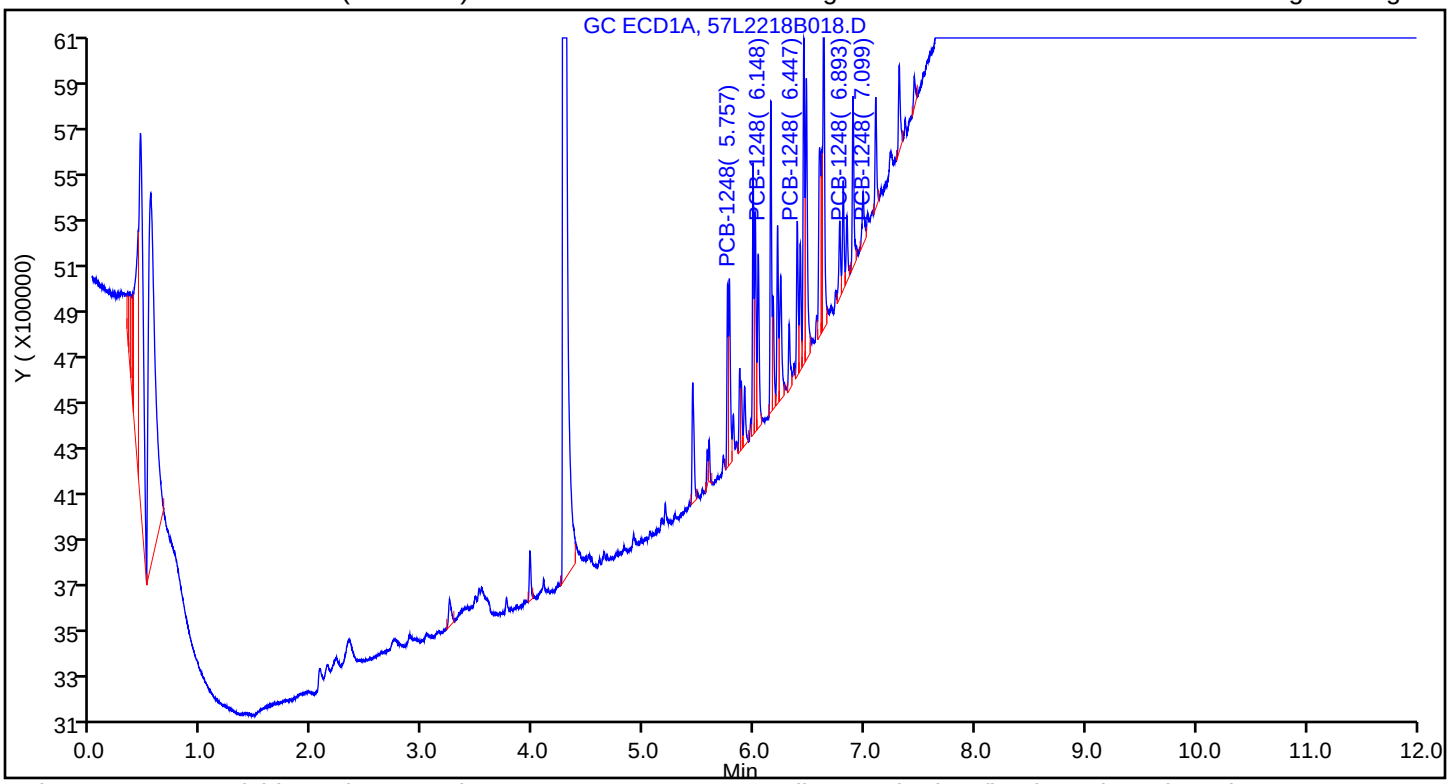
Client ID:

Operator ID: ar ALS Bottle#: 16 Worklist Smp#: 19

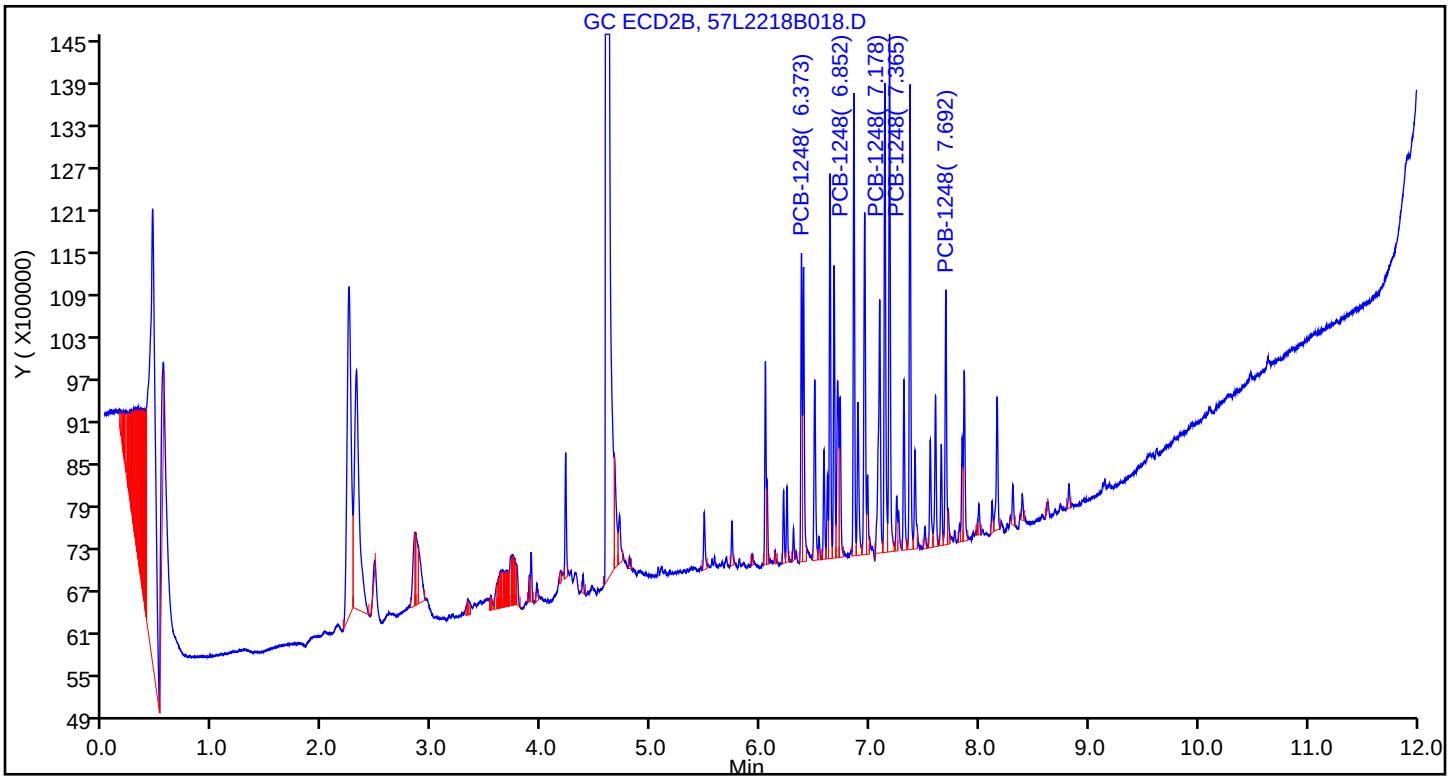
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



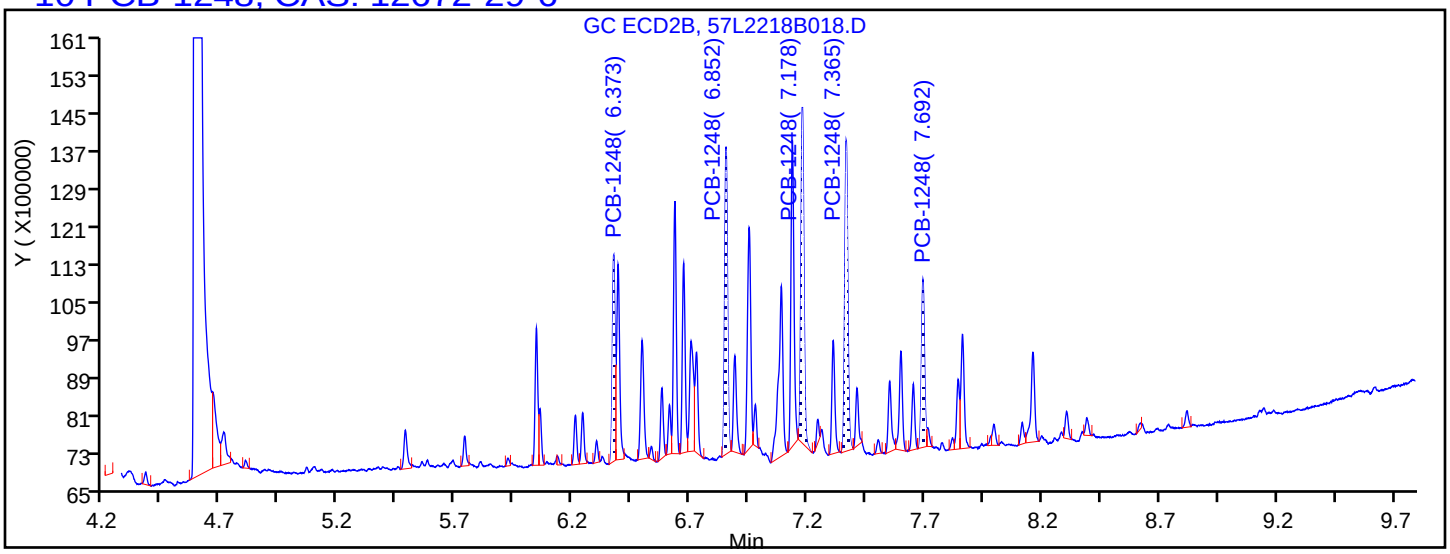
Report Date: 23-Dec-2018 16:15:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B018.D

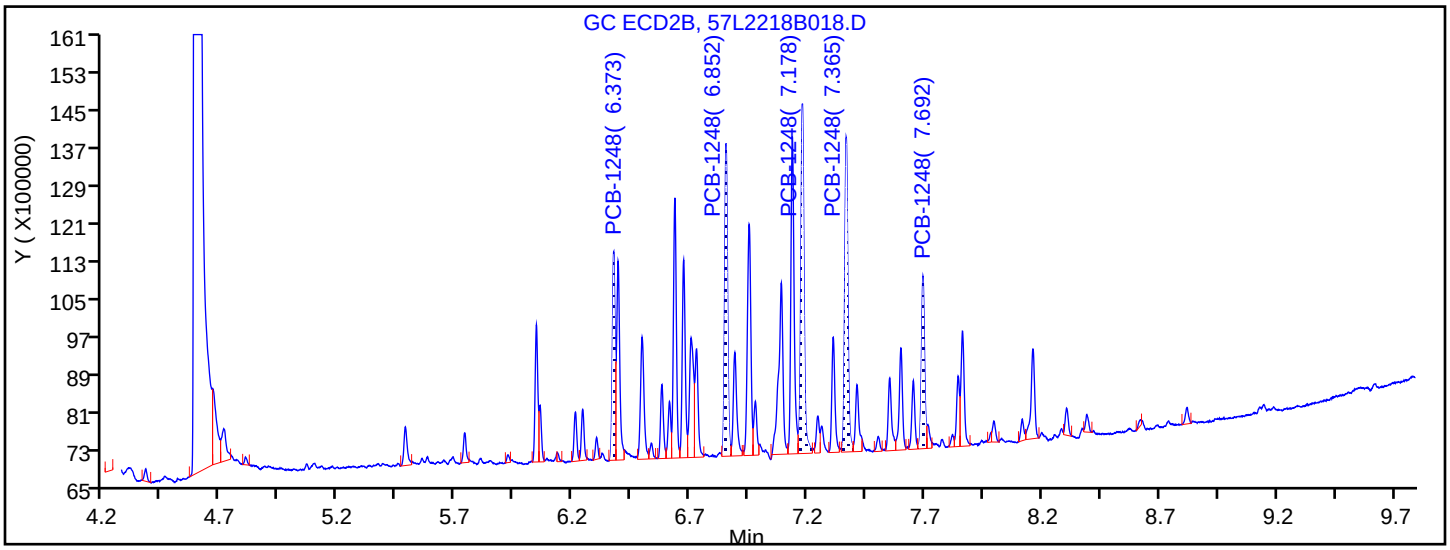
Injection Date:	22-Dec-2018 22:10:37	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	16	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

6.373	Response = 3508743
6.852	Response = 5488744
7.178	Response = 6368344
7.365	Response = 6038427
7.692	Response = 3222392



Manual Integration Results

6.373	Response = 3560456	M
6.852	Response = 5771605	M
7.178	Response = 7185681	M
7.365	Response = 6319852	M
7.692	Response = 3444244	M

Reviewer: ruslandera, 23-Dec-2018 14:48:35

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B019.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Dec-2018 22:28:15 ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:44 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:49:15

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	184613217	100.0	100.0	
2	4.596	4.596	0.000	1110367645	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						5.51	
2						4.92	
						RPD = 11.19	
10 PCB-1248							M
1	5.759	5.755	0.004	355131	5.00	5.44	M
1	6.149	6.147	0.002	583291	5.00	5.29	M
1	6.450	6.446	0.004	684389	5.00	5.39	M
1	6.895	6.892	0.003	398828	5.00	5.81	M
1	7.101	7.098	0.003	268152	5.00	5.60	M
		Average of Peak Amounts =				5.51	
2	6.373	6.372	0.001	1867538	5.00	5.92	M
2	6.852	6.852	0.000	3192106	5.00	4.71	M
2	7.178	7.177	0.001	3915717	5.00	4.73	M
2	7.366	7.365	0.001	3157486	5.00	4.67	
2	7.693	7.692	0.001	1762951	5.00	4.59	M
		Average of Peak Amounts =				4.92	
						RPD = 11.19	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

1248IC100_00015	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B019.D

Injection Date: 22-Dec-2018 22:28:15 Instrument ID: TAC057

Lims ID: ic

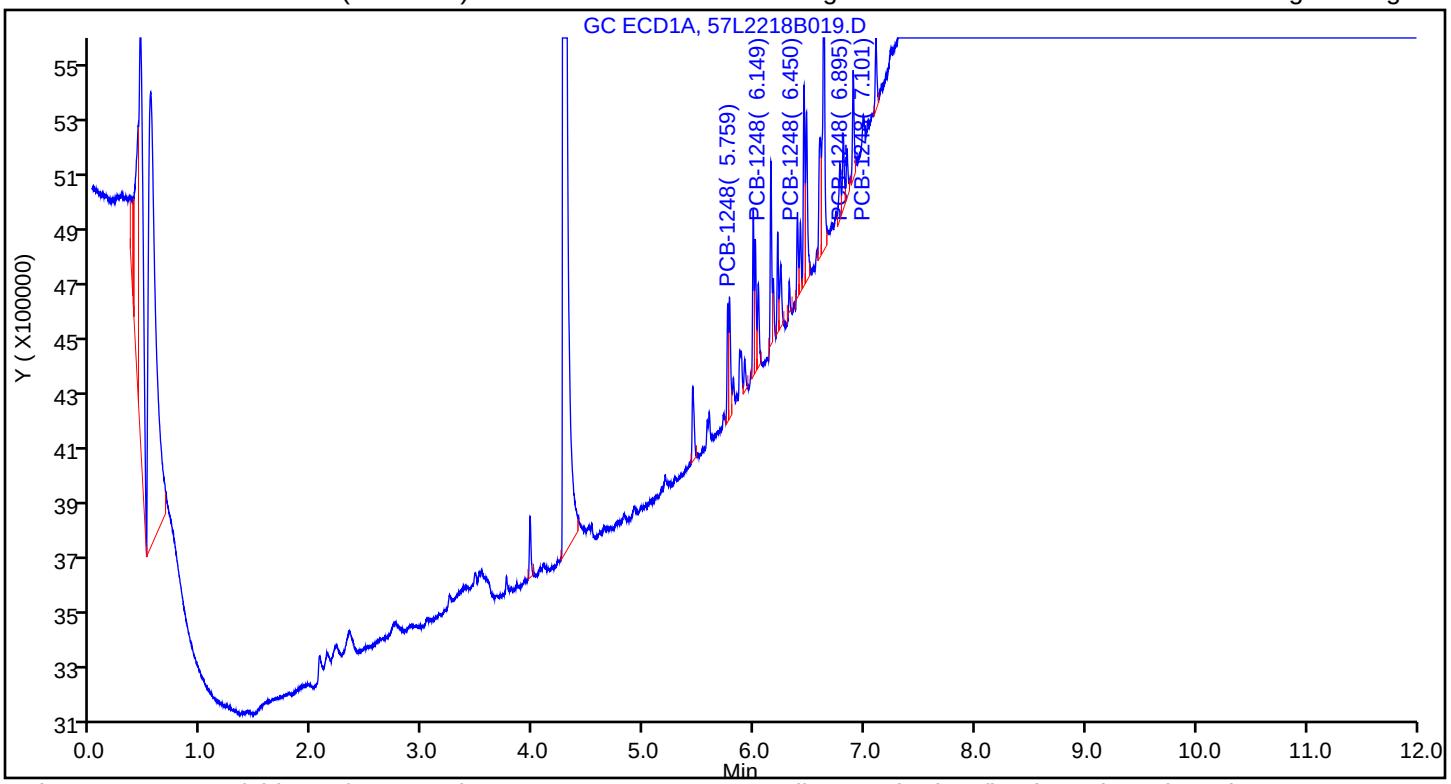
Client ID:

Operator ID: ar ALS Bottle#: 17 Worklist Smp#: 20

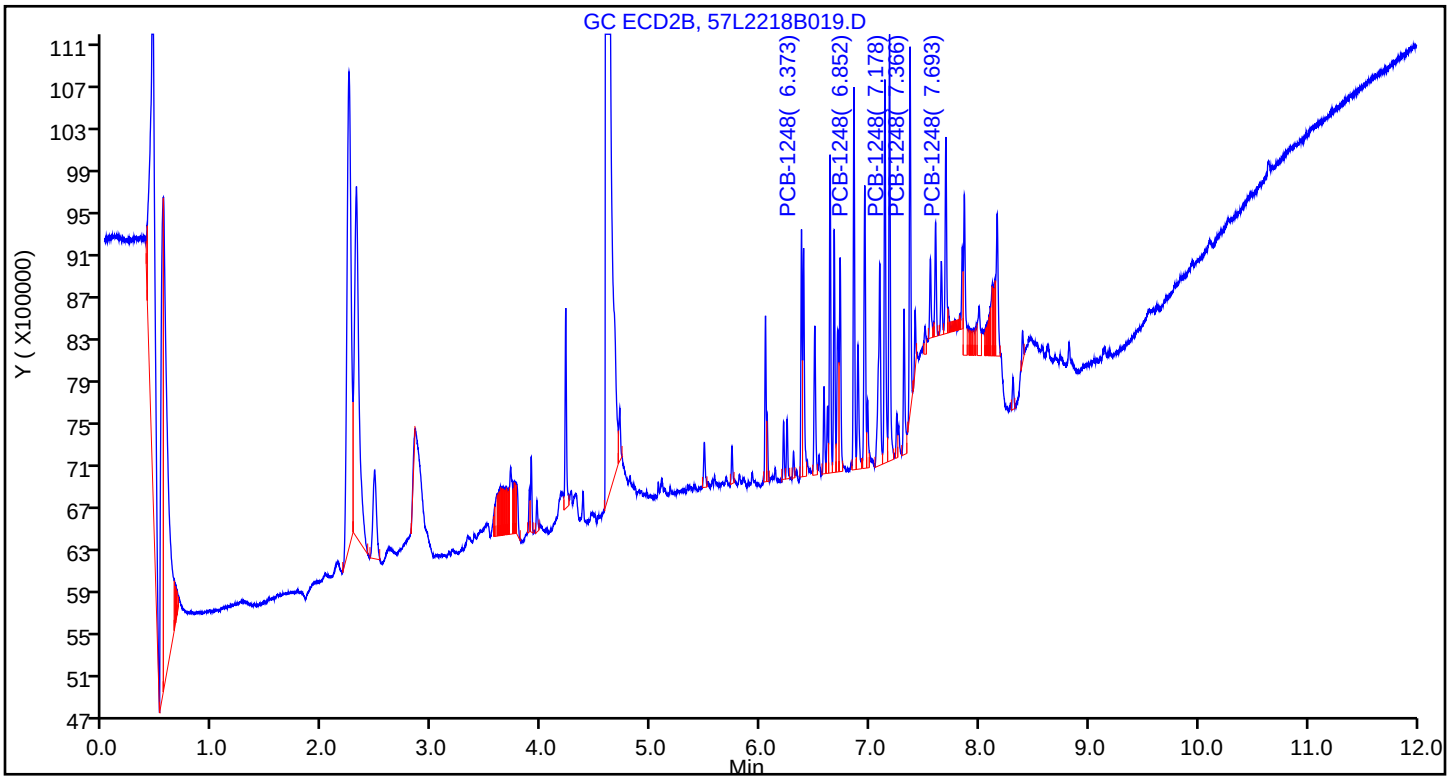
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



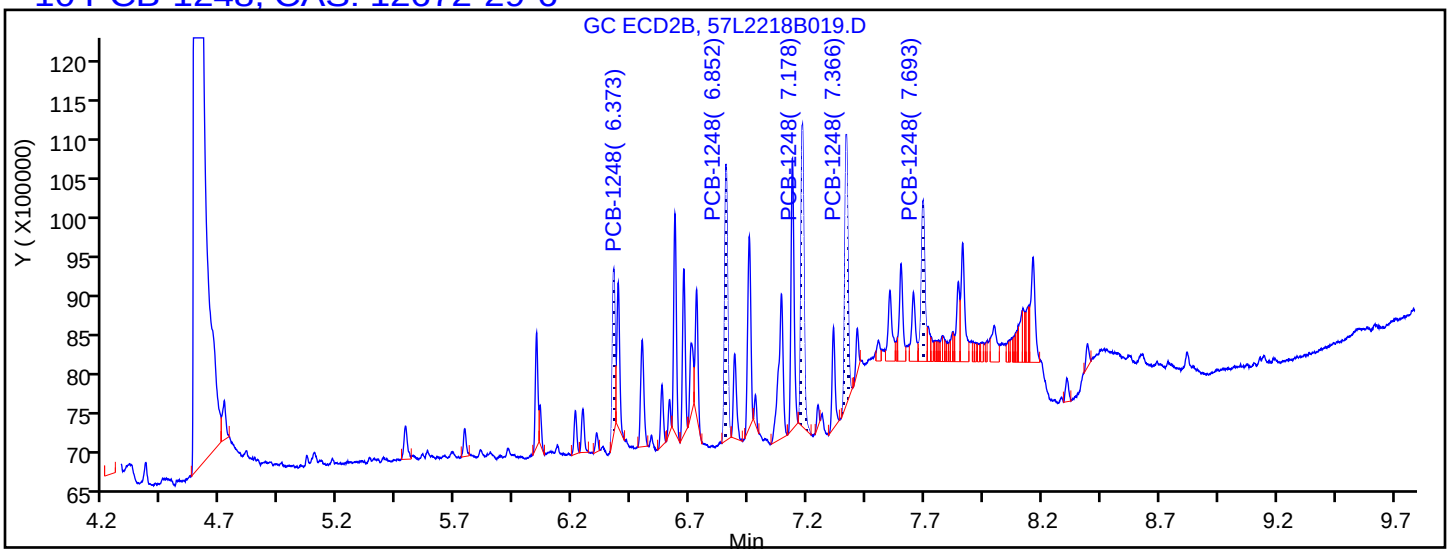
Report Date: 23-Dec-2018 16:15:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B019.D

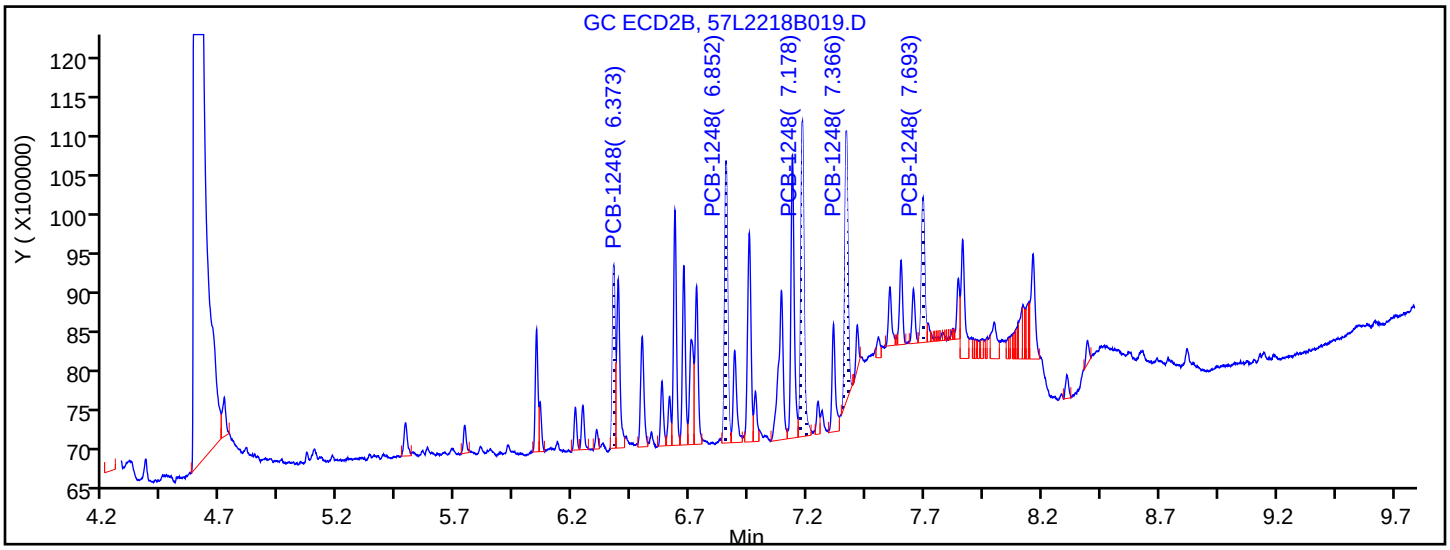
Injection Date:	22-Dec-2018 22:28:15	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	17	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

6.373	Response = 1603456
6.852	Response = 3006068
7.178	Response = 3460249
7.366	Response = 3157486
7.693	Response = 2232741



Manual Integration Results

6.373	Response = 1867538	M
6.852	Response = 3192106	M
7.178	Response = 3915717	M
7.366	Response = 3157486	
7.693	Response = 1762951	M

Reviewer: ruslandera, 23-Dec-2018 14:49:06

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 23:03 Calibration End Date: 12/23/2018 01:06 Calibration ID: 27226

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/29	57L2218B028.D
Level 2	IC 580-291937/28	57L2218B027.D
Level 3	IC 580-291937/27	57L2218B026.D
Level 4	IC 580-291937/26	57L2218B025.D
Level 5	ICIS 580-291937/25	57L2218B024.D
Level 6	IC 580-291937/24	57L2218B023.D
Level 7	IC 580-291937/23	57L2218B022.D
Level 8	IC 580-291937/22	57L2218B021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0271 0.0250	0.0293 0.0231	0.0329 0.0236	0.0285	0.0277	Ave		0.0271				11.9		20.0			
PCB-1242 Peak 2	+++++ 0.0569	0.0761 0.0520	0.0722 0.0530	0.0645	0.0620	Lin2	0.2274	0.0567				8.3			0.9920		0.9900
PCB-1242 Peak 3	0.0938 0.0680	0.0856 0.0631	0.0821 0.0633	0.0758	0.0739	Lin2	0.1386	0.0692				7.7			0.9930		0.9900
PCB-1242 Peak 4	0.0385 0.0351	0.0399 0.0327	0.0395 0.0335	0.0371	0.0362	Lin2	0.0243	0.0354				6.3			0.9960		0.9900
PCB-1242 Peak 5	0.0398 0.0361	0.0412 0.0333	0.0395 0.0353	0.0379	0.0380	Lin2	0.0249	0.0365				5.7			0.9960		0.9900
PCB-1268 Peak 1	0.0447 0.0386	0.0411 0.0351	0.0385 0.0367	0.0382	0.0407	Ave		0.0392				7.5		20.0			
PCB-1268 Peak 2	0.3177 0.2491	0.3015 0.2337	0.2790 0.2465	0.2752	0.2636	Ave		0.2708				10.6		20.0			
PCB-1268 Peak 3	+++++ 0.2438	0.2767 0.2313	0.2635 0.2405	0.2659	0.2540	Ave		0.2537				6.3		20.0			
PCB-1268 Peak 4	0.7089 0.5928	0.6531 0.5528	0.6395 0.6065	0.6337	0.6167	Lin1	0.7694	0.5896				4.7			0.9980		0.9900
PCB-1268 Peak 5	0.1293 0.1175	0.1266 0.1087	0.1244 0.1153	0.1244	0.1207	Lin2	0.0710	0.1175				4.2			0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 23:03 Calibration End Date: 12/23/2018 01:06 Calibration ID: 27226

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/29	57L2218B028.D
Level 2	IC 580-291937/28	57L2218B027.D
Level 3	IC 580-291937/27	57L2218B026.D
Level 4	IC 580-291937/26	57L2218B025.D
Level 5	ICIS 580-291937/25	57L2218B024.D
Level 6	IC 580-291937/24	57L2218B023.D
Level 7	IC 580-291937/23	57L2218B022.D
Level 8	IC 580-291937/22	57L2218B021.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Ave	256766 23329313	550427 44229340	1535642 88043420	2665763	5206766	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 2	BNB	Lin2	+++++ 53133829	1430320 99327396	3374544 197514749	6029013	11646955	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 3	BNB	Lin2	889798 63557831	1609730 120630546	3833899 235955316	7083079	13898750	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 4	BNB	Lin2	365725 32828982	750687 62515061	1845011 124724707	3471209	6807552	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 5	BNB	Lin2	377956 33750919	773999 63668134	1847634 131728110	3537555	7144985	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 1	BNB	Ave	423813 36099475	772434 67022828	1800875 136881765	3565149	7646139	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 2	BNB	Ave	3014897 232700809	5669448 446563098	13037601 918779364	25712574	49553026	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 3	BNB	Ave	+++++ 227716148	5203051 441830105	12311430 896426250	24848197	47759416	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 4	BNB	Lin1	6727186 553753395	12281762 1056144820	29877895 2261011308	59215699	115932439	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 5	BNB	Lin2	1227352 109741785	2381670 207608419	5812222 429636935	11623832	22697759	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B021.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Dec-2018 23:03:20 ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:54 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:02:38

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.276	0.001	186384899	100.0	100.0	
2	4.597	4.596	0.001	1124921082	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3772.2	
2						3990.8	
						RPD = 5.63	
6 PCB-1242							M
1	5.187	5.189	-0.002	88043420	2000.0	1740.2	M
1	5.439	5.441	-0.002	197514749	2000.0	1863.8	M
1	5.770	5.771	-0.001	235955316	2000.0	1826.6	M
1	6.147	6.148	-0.001	124724707	2000.0	1887.2	M
1	6.444	6.446	-0.002	131728110	2000.0	1936.3	M
		Average of Peak Amounts =				1850.8	
2	6.044	6.044	0.000	514514559	2000.0	1831.6	
2	6.241	6.240	0.001	284733692	2000.0	2025.0	
2	6.852	6.852	0.000	500658158	2000.0	1877.8	
2	7.178	7.177	0.001	597989322	2000.0	1892.1	
2	7.366	7.364	0.002	590791645	2000.0	1885.4	
		Average of Peak Amounts =				1902.4	
						RPD = 2.75	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							
1	7.966	7.966	0.000	136881765	2000.0	1873.8	
1	8.218	8.217	0.001	918779364	2000.0	1820.4	
1	8.250	8.249	0.001	896426250	2000.0	1896.0	
1	8.927	8.925	0.002	2261011308	2000.0	2056.2	
1	9.083	9.083	0.000	429636935	2000.0	1960.4	
		Average of Peak Amounts =				1921.4	
2	8.819	8.819	0.000	268218601	2000.0	1845.2	
2	9.131	9.128	0.003	2939638303	2000.0	2160.1	
2	9.171	9.168	0.003	2478930145	2000.0	2054.2	
2	9.398	9.395	0.003	2063127780	2000.0	2087.1	
2	9.915	9.908	0.007	6775167233	2000.0	2295.7	
		Average of Peak Amounts =				2088.5	
						RPD = 8.33	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268_ICSTK_00007	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:56 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B021.D

Injection Date: 22-Dec-2018 23:03:20 Instrument ID: TAC057

Lims ID: ic

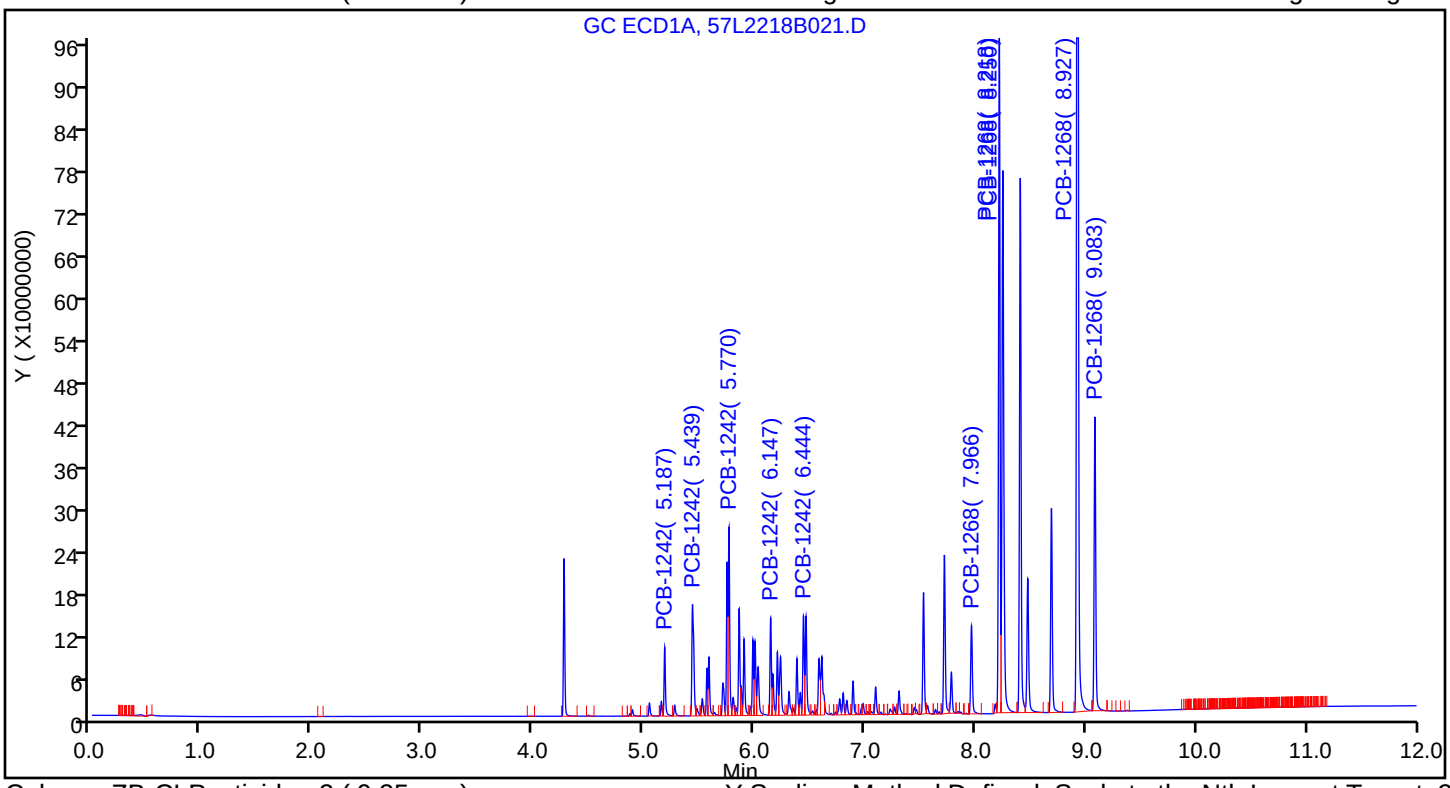
Client ID:

Operator ID: ar ALS Bottle#: 19 Worklist Smp#: 22

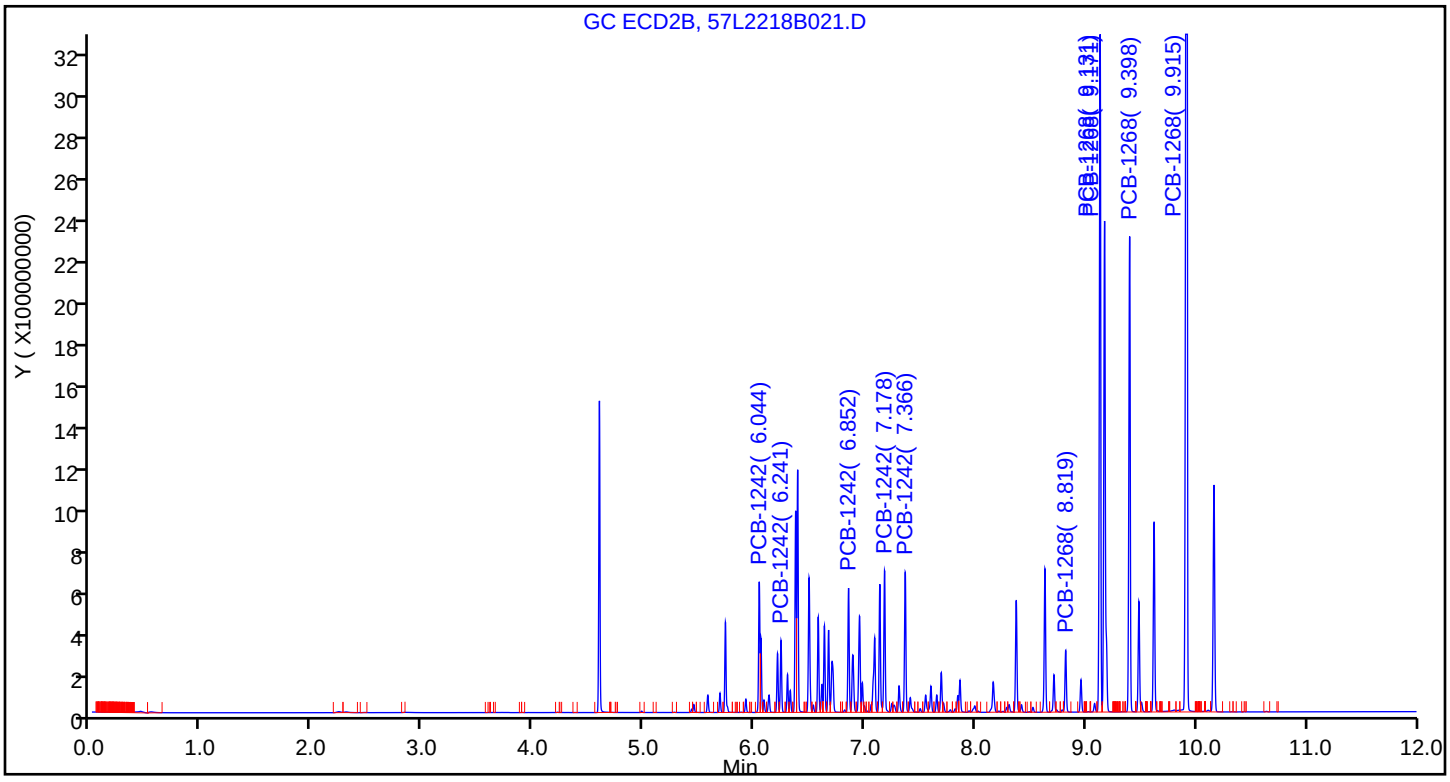
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



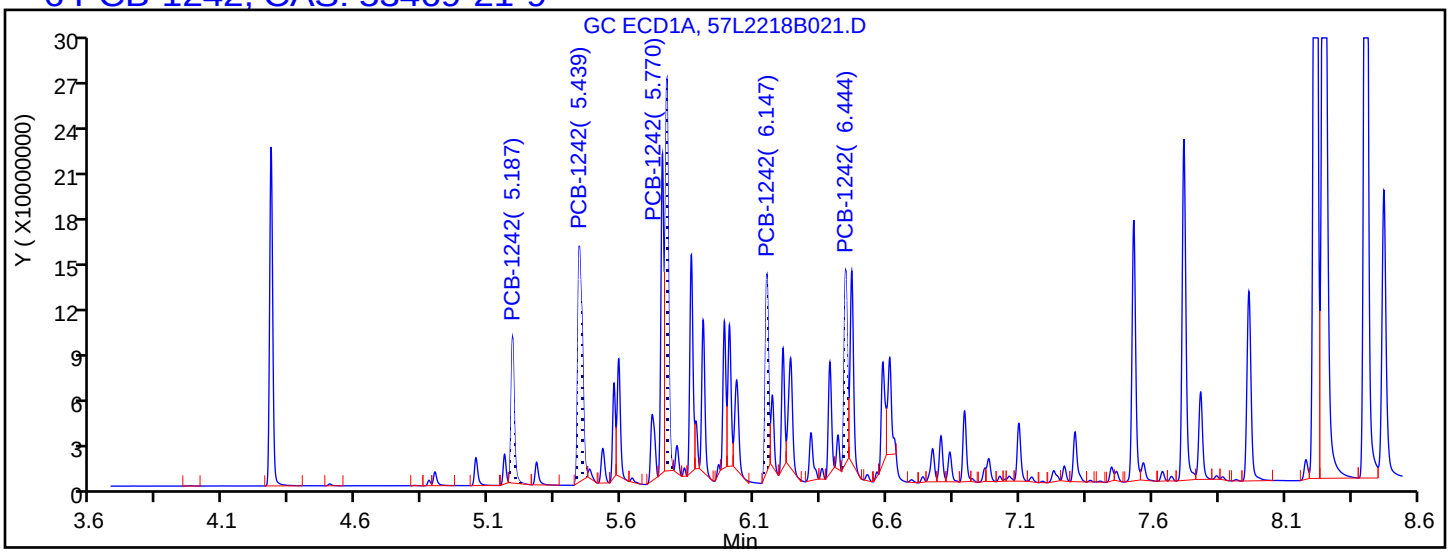
Report Date: 23-Dec-2018 16:15:56 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B021.D

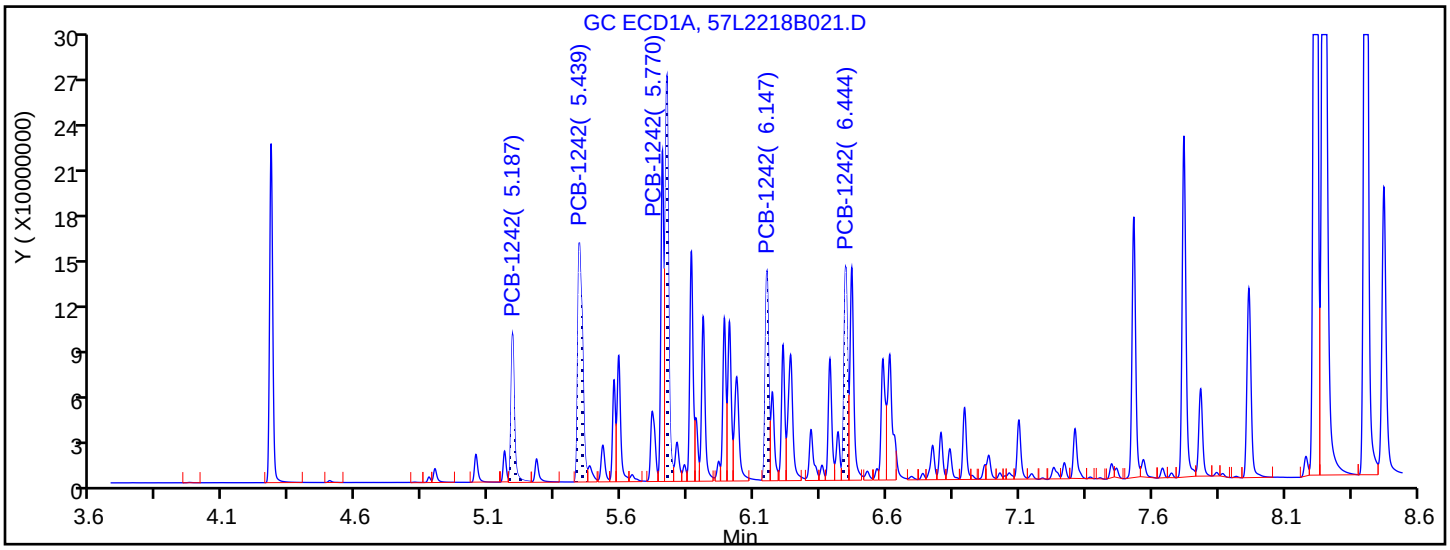
Injection Date:	22-Dec-2018 23:03:20	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.187	Response = 81240878
5.439	Response = 188913002
5.770	Response = 217045015
6.147	Response = 111275586
6.444	Response = 110148514



Manual Integration Results

5.187	Response = 88043420	M
5.439	Response = 197514749	M
5.770	Response = 235955316	M
6.147	Response = 124724707	M
6.444	Response = 131728110	M

Reviewer: ruslandera, 23-Dec-2018 15:21:08

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B022.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Dec-2018 23:20:47 ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:58 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:03:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	191059587	100.0	100.0	
2	4.596	4.596	0.000	1136761576	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1808.0	
2						1864.9	
						RPD = 3.10	
6 PCB-1242							M
1	5.187	5.189	-0.002	44229340	1000.0	852.8	M
1	5.439	5.441	-0.002	99327396	1000.0	912.3	M
1	5.770	5.771	-0.001	120630546	1000.0	910.0	M
1	6.146	6.148	-0.002	62515061	1000.0	922.4	M
1	6.445	6.446	-0.001	63668134	1000.0	912.6	M
		Average of Peak Amounts =				902.0	
2	6.043	6.044	-0.001	257896018	1000.0	906.0	
2	6.240	6.240	0.000	141556008	1000.0	949.5	
2	6.851	6.852	-0.001	244401146	1000.0	904.9	
2	7.177	7.177	0.000	293686367	1000.0	917.5	
2	7.365	7.364	0.001	288071650	1000.0	908.7	
		Average of Peak Amounts =				917.3	
						RPD = 1.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.965	7.966	-0.001	67022828	1000.0	895.0	
1	8.217	8.217	0.000	446563098	1000.0	863.1	M
1	8.249	8.249	0.000	441830105	1000.0	911.6	M
1	8.925	8.925	0.000	1056144820	1000.0	936.3	
1	9.082	9.083	-0.001	207608419	1000.0	923.8	
		Average of Peak Amounts =				906.0	
2	8.818	8.819	-0.001	130256235	1000.0	885.2	
2	9.129	9.128	0.001	1304804977	1000.0	947.6	
2	9.170	9.168	0.002	1139613733	1000.0	933.3	
2	9.396	9.395	0.001	943411344	1000.0	943.3	
2	9.911	9.908	0.003	3069024907	1000.0	1028.4	
		Average of Peak Amounts =				947.6	
						RPD = 4.49	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268_ICSTK_00007	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:00 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B022.D

Injection Date: 22-Dec-2018 23:20:47 Instrument ID: TAC057

Lims ID: ic

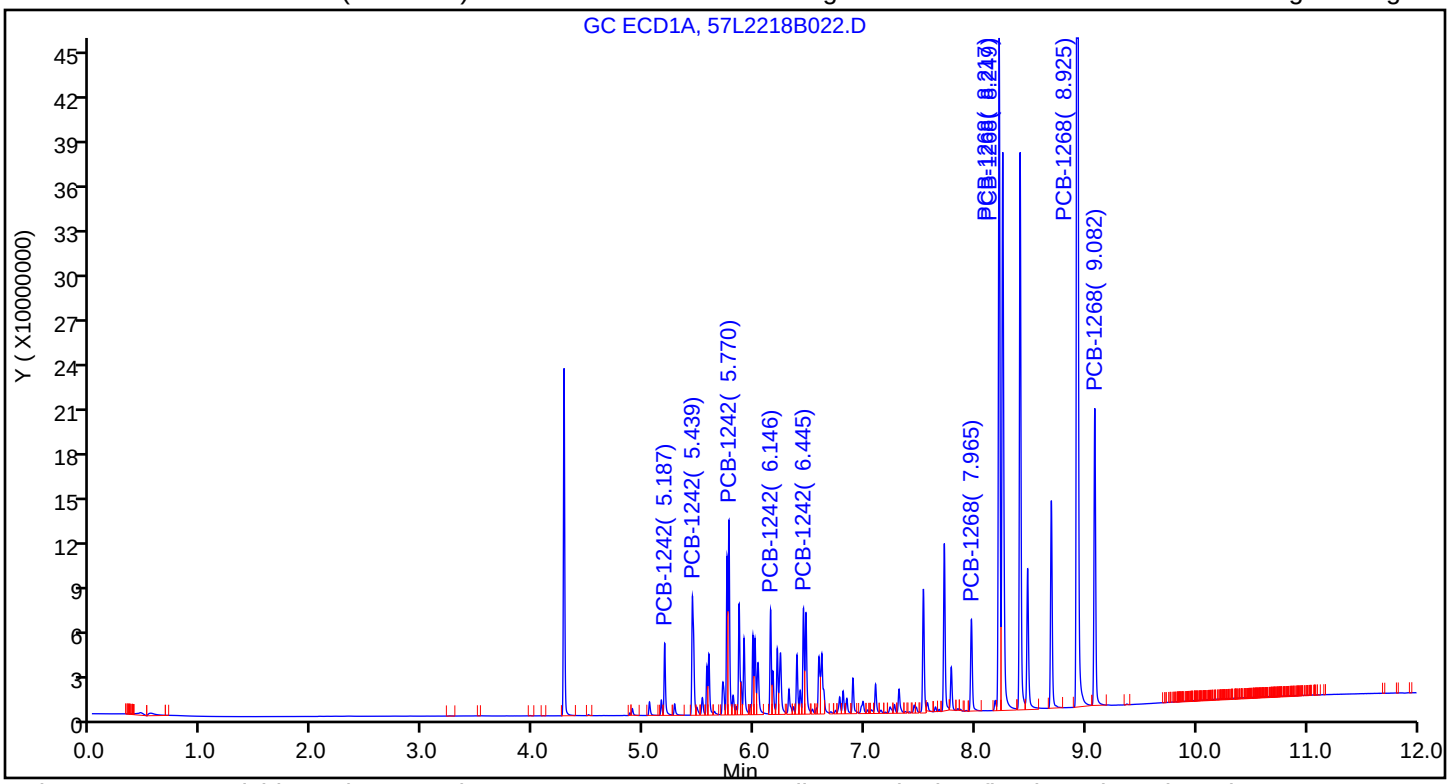
Client ID:

Operator ID: ar ALS Bottle#: 20 Worklist Smp#: 23

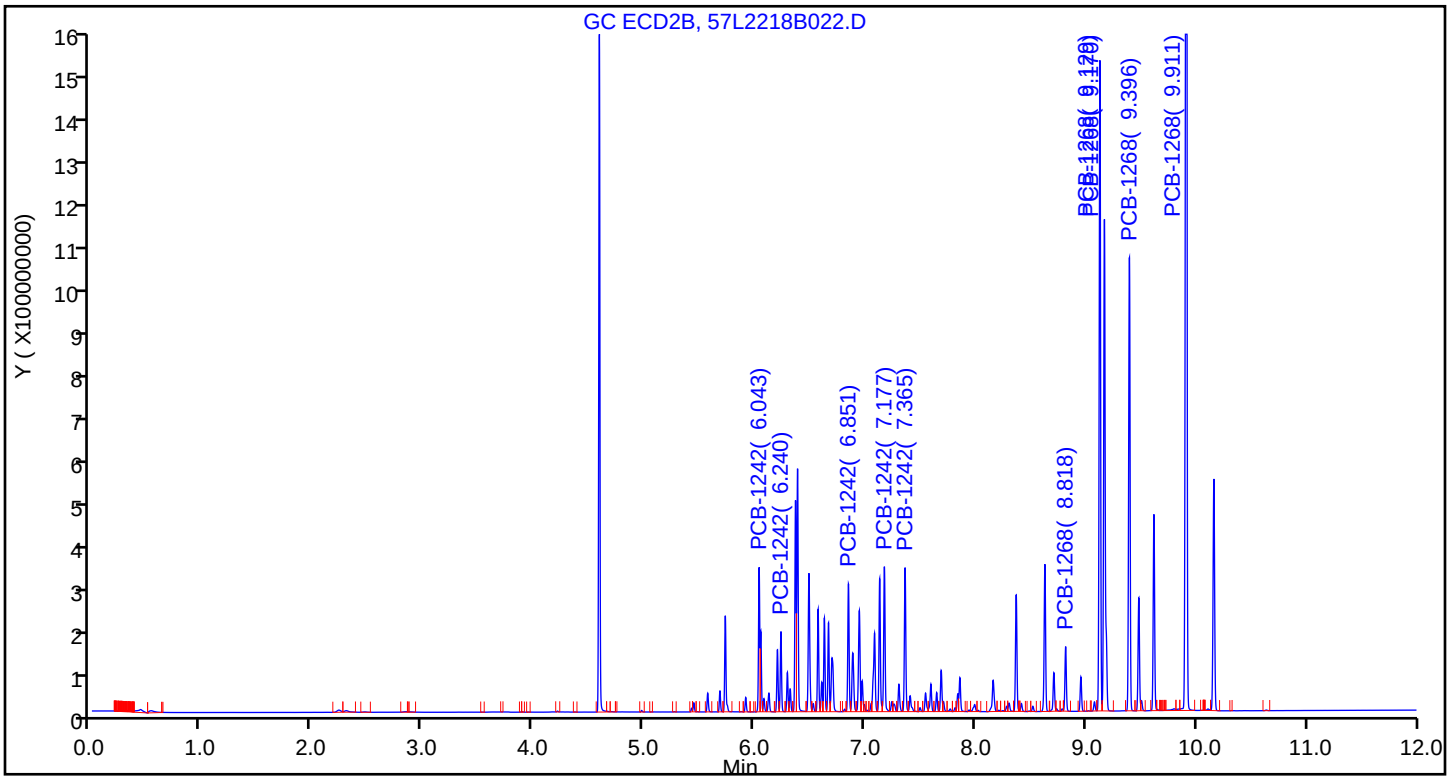
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:00 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B022.D

Injection Date: 22-Dec-2018 23:20:47 Instrument ID: TAC057

Lims ID: ic

Client ID:

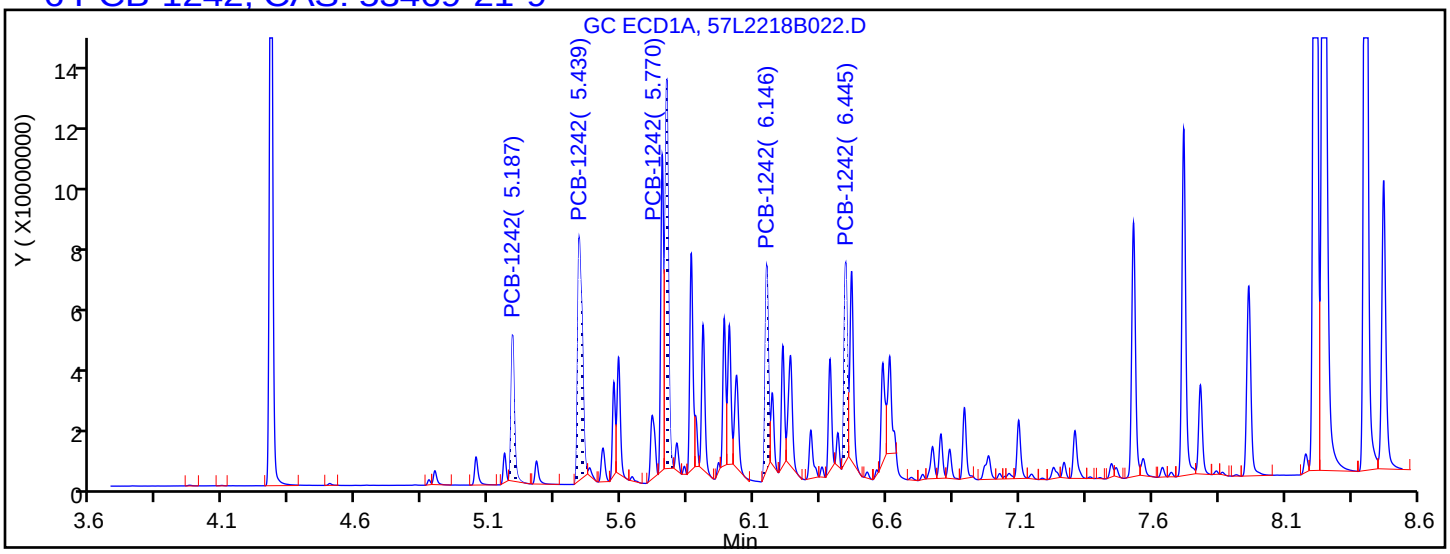
Operator ID: ar ALS Bottle#: 20 Worklist Smp#: 23

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

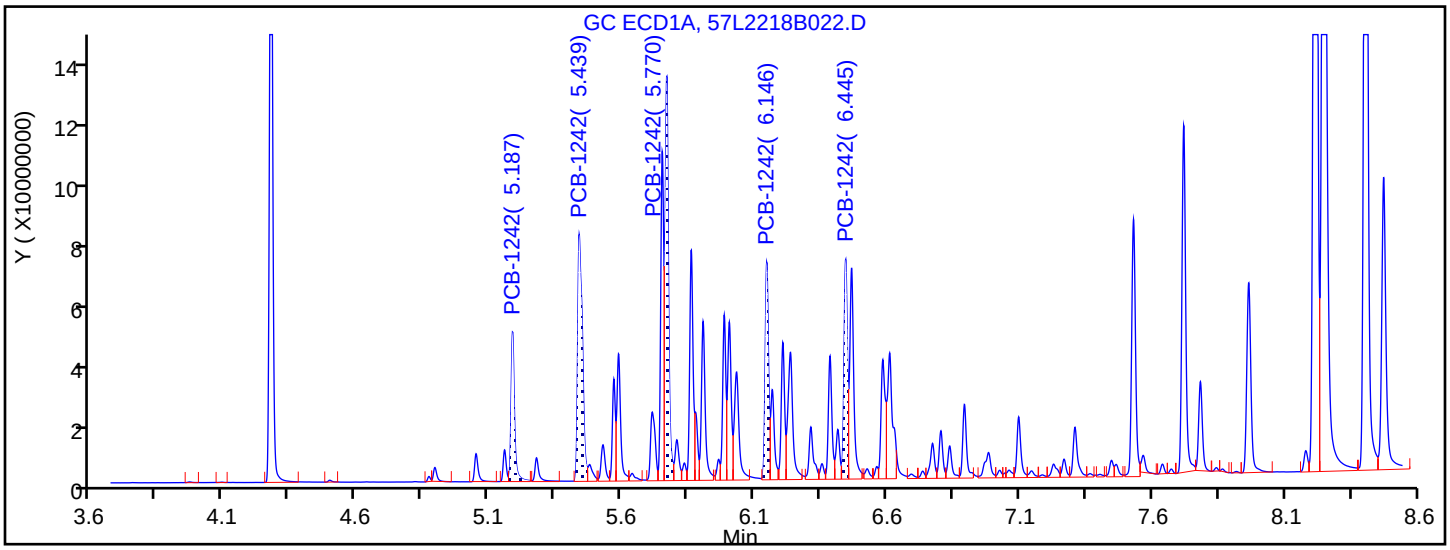
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.187	Response = 39956748
5.439	Response = 93974133
5.770	Response = 109946165
6.146	Response = 55589224
6.445	Response = 53541647



Manual Integration Results

5.187	Response = 44229340	M
5.439	Response = 99327396	M
5.770	Response = 120630546	M
6.146	Response = 62515061	M
6.445	Response = 63668134	M

Reviewer: ruslandera, 23-Dec-2018 15:21:20

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:00 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B022.D

Injection Date: 22-Dec-2018 23:20:47 Instrument ID: TAC057

Lims ID: ic

Client ID:

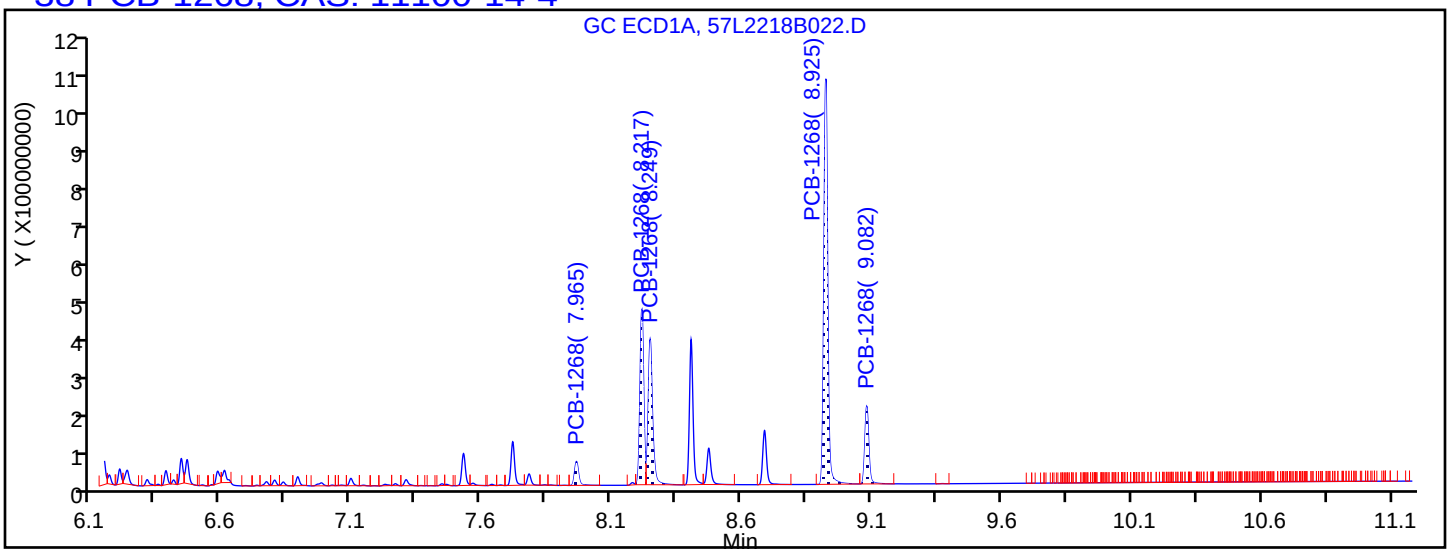
Operator ID: ar ALS Bottle#: 20 Worklist Smp#: 23

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

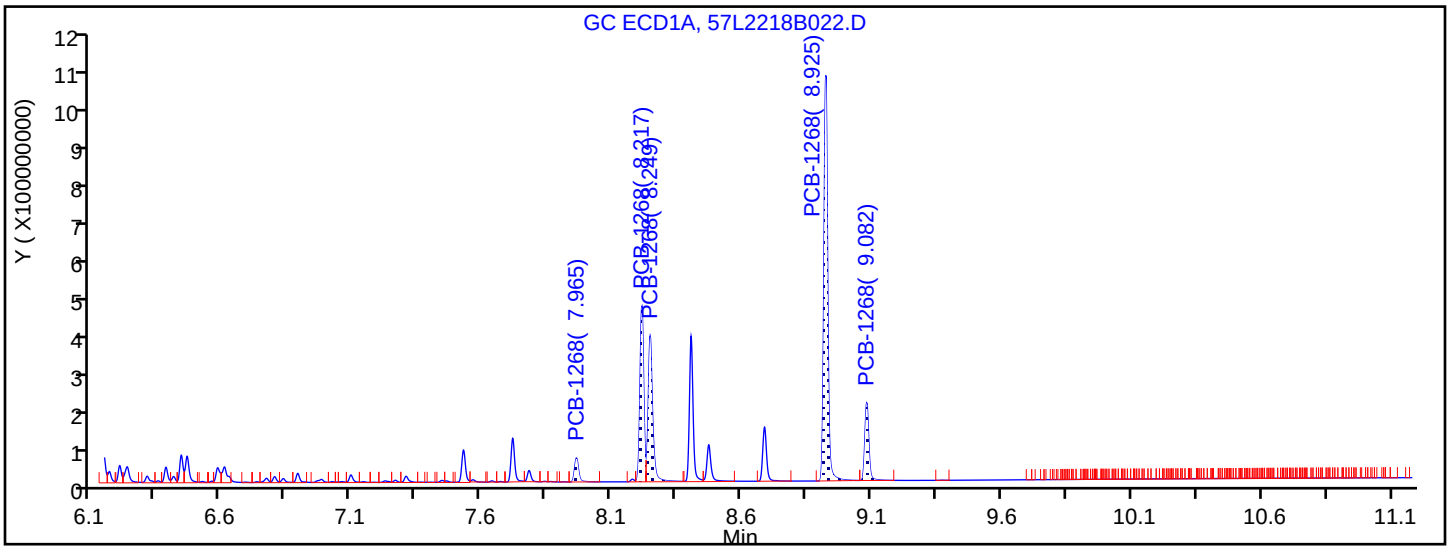
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.965	Response = 67022828
8.217	Response = 443098649
8.249	Response = 432484968
8.925	Response = 1056144820
9.082	Response = 207608419



Manual Integration Results

7.965	Response = 67022828	
8.217	Response = 446563098	M
8.249	Response = 441830105	M
8.925	Response = 1056144820	
9.082	Response = 207608419	

Reviewer: ruslandera, 23-Dec-2018 15:21:27

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B023.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Dec-2018 23:38:23 ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:04 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:03:25

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	186821157	100.0	100.0	
2	4.595	4.596	-0.001	1117803228	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						974.1	
2						966.9	
						RPD = 0.73	
6 PCB-1242							M
1	5.188	5.189	-0.001	23329313	500.0	460.0	
1	5.439	5.441	-0.002	53133829	500.0	497.3	M
1	5.770	5.771	-0.001	63557831	500.0	489.4	M
1	6.147	6.148	-0.001	32828982	500.0	495.1	M
1	6.445	6.446	-0.001	33750919	500.0	494.4	M
		Average of Peak Amounts =				487.2	
2	6.043	6.044	-0.001	137375290	500.0	488.5	
2	6.240	6.240	0.000	75931750	500.0	506.6	
2	6.852	6.852	0.000	130641232	500.0	489.9	
2	7.177	7.177	0.000	154792502	500.0	489.9	
2	7.365	7.364	0.001	150727809	500.0	482.6	
		Average of Peak Amounts =				491.5	
						RPD = 0.87	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.965	7.966	-0.001	36099475	500.0	493.0	M
1	8.217	8.217	0.000	232700809	500.0	460.0	
1	8.249	8.249	0.000	227716148	500.0	480.5	
1	8.925	8.925	0.000	553753395	500.0	501.4	
1	9.083	9.083	0.000	109741785	500.0	499.1	
		Average of Peak Amounts =				486.8	
2	8.819	8.819	0.000	69087196	500.0	476.1	
2	9.130	9.128	0.002	651569663	500.0	480.2	
2	9.169	9.168	0.001	577992025	500.0	480.2	
2	9.396	9.395	0.001	471000050	500.0	477.9	
2	9.910	9.908	0.002	1359376876	500.0	462.5	
		Average of Peak Amounts =				475.4	
						RPD = 2.37	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268_ICSTK_00007	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:05 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B023.D

Injection Date: 22-Dec-2018 23:38:23 Instrument ID: TAC057

Lims ID: ic

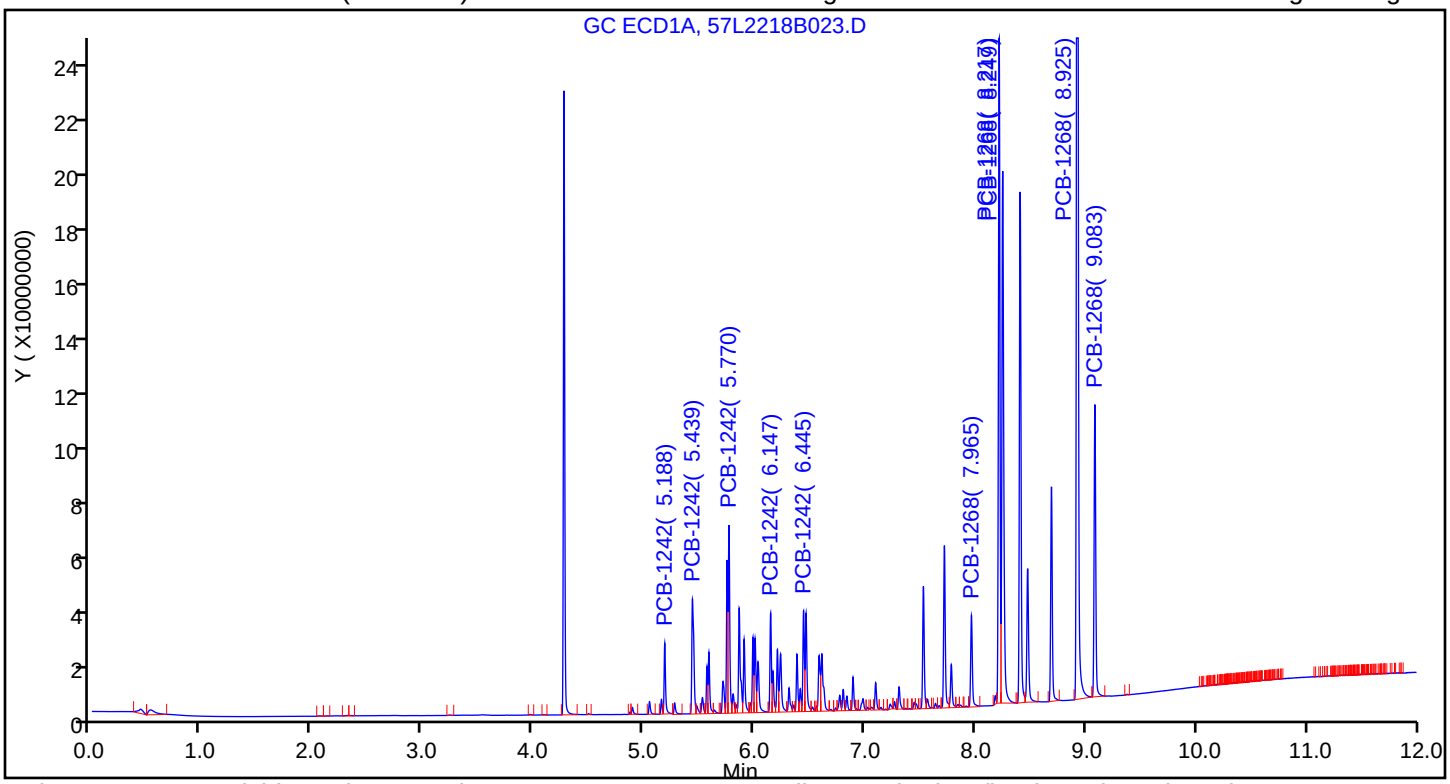
Client ID:

Operator ID: ar ALS Bottle#: 21 Worklist Smp#: 24

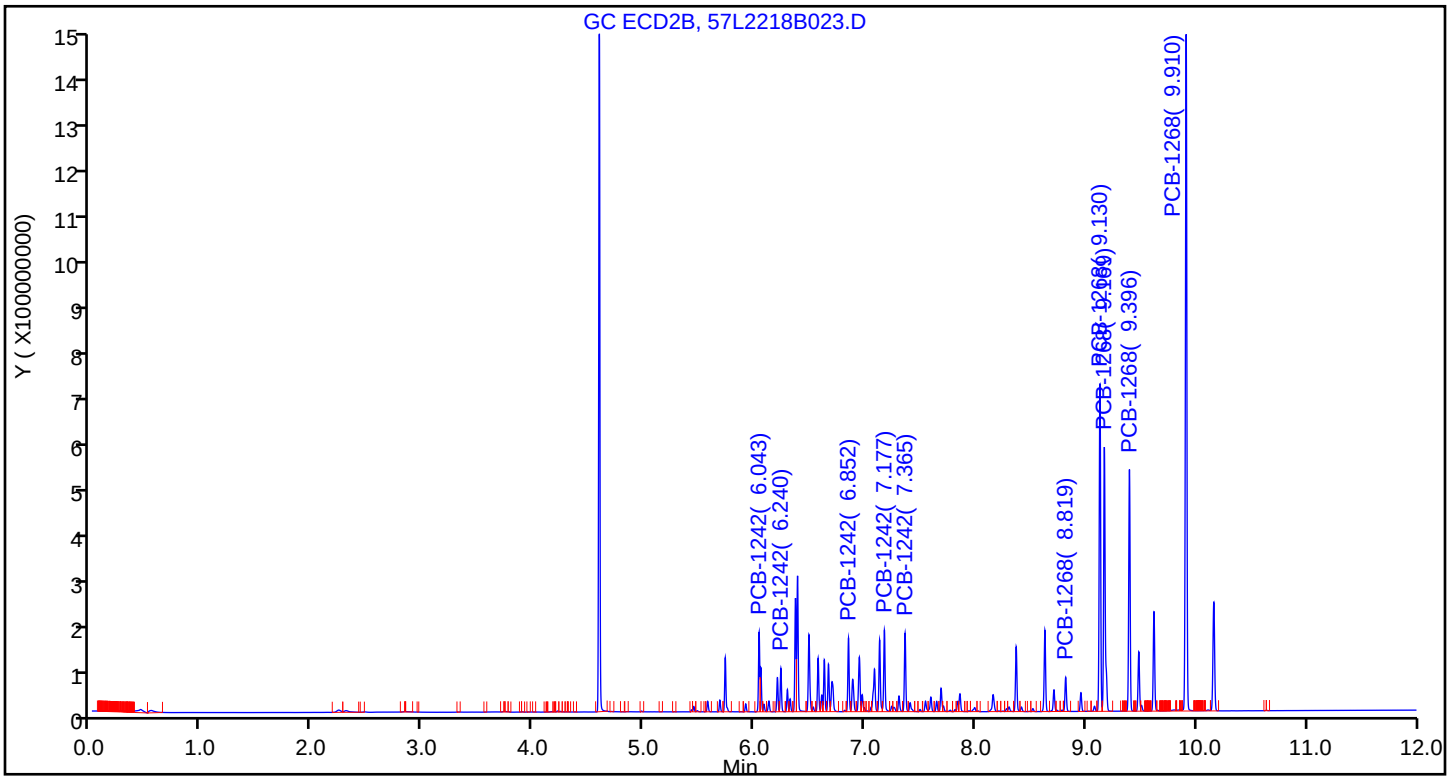
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:05 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B023.D

Injection Date: 22-Dec-2018 23:38:23 Instrument ID: TAC057

Lims ID: ic

Client ID:

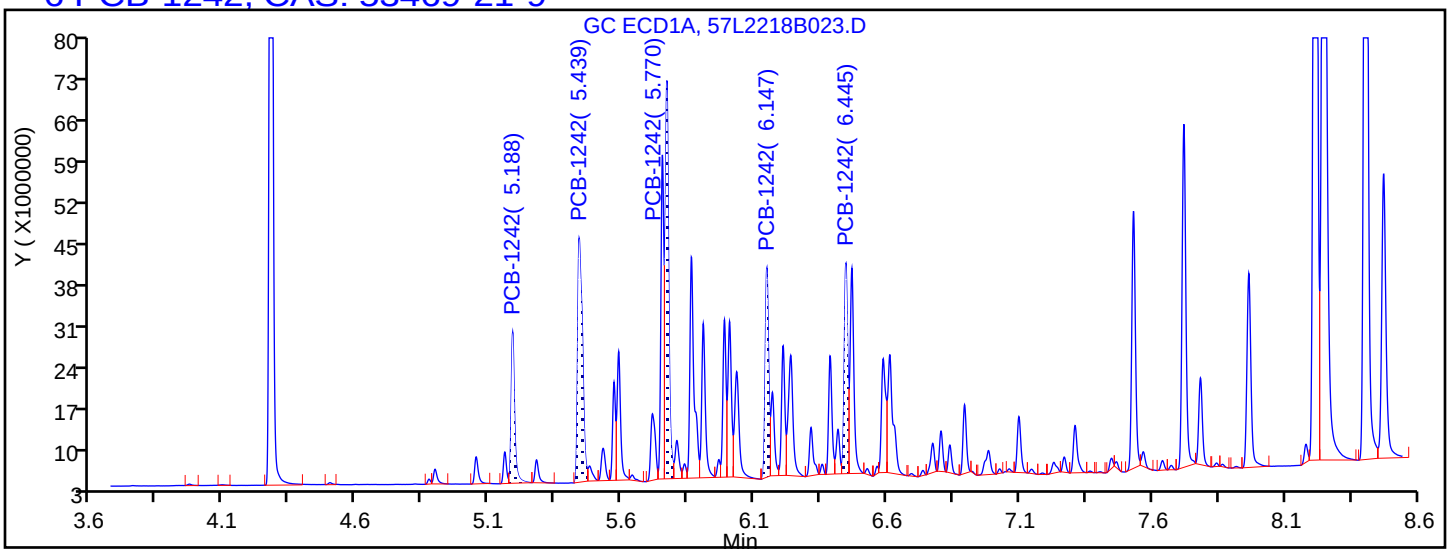
Operator ID: ar ALS Bottle#: 21 Worklist Smp#: 24

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

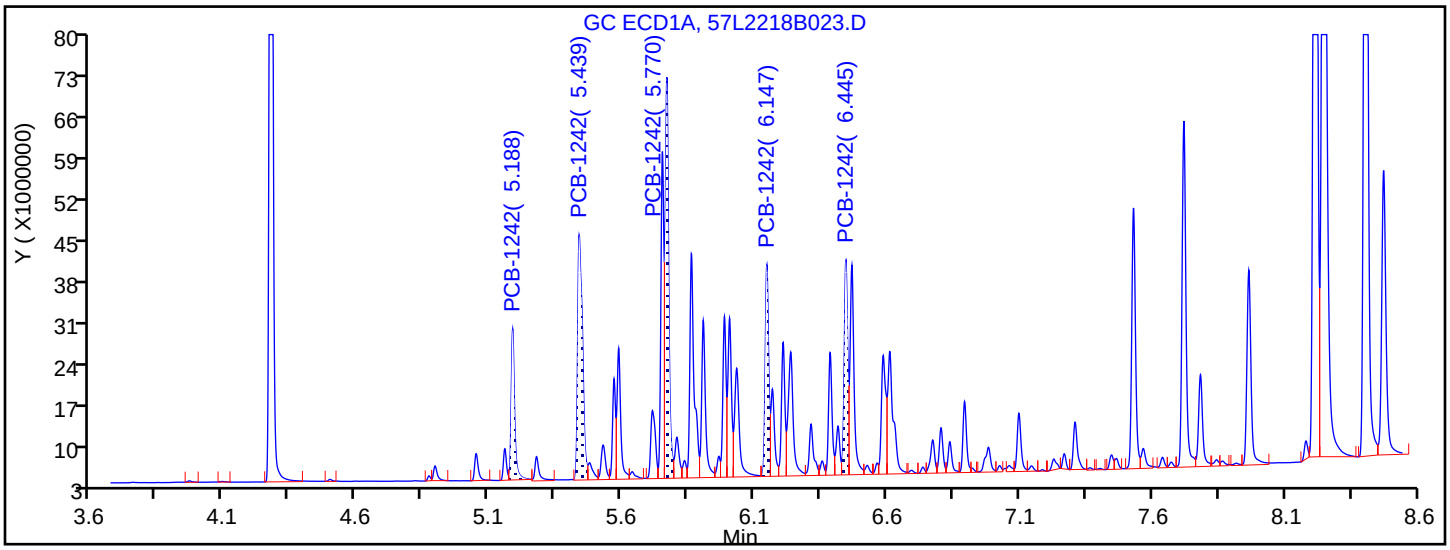
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.188	Response = 23329313
5.439	Response = 52450156
5.770	Response = 62544761
6.147	Response = 32075954
6.445	Response = 32458289



Manual Integration Results

5.188	Response = 23329313	
5.439	Response = 53133829	M
5.770	Response = 63557831	M
6.147	Response = 32828982	M
6.445	Response = 33750919	M

Reviewer: ruslandera, 23-Dec-2018 15:21:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:05 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B023.D

Injection Date: 22-Dec-2018 23:38:23 Instrument ID: TAC057

Lims ID: ic

Client ID:

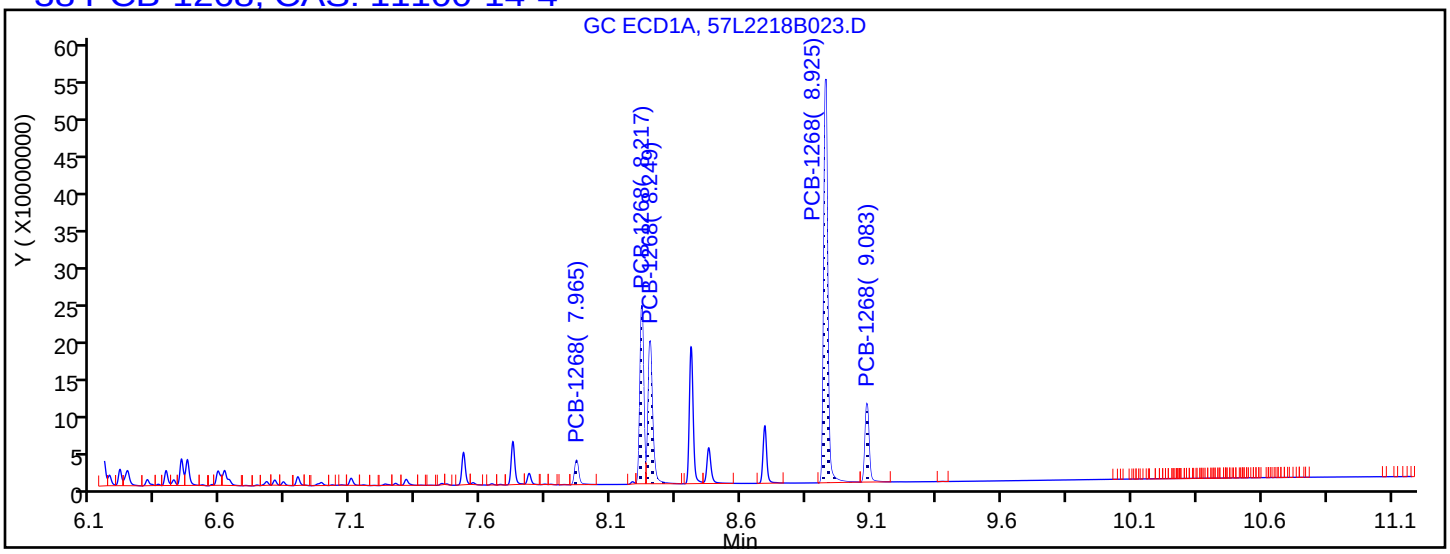
Operator ID: ar ALS Bottle#: 21 Worklist Smp#: 24

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

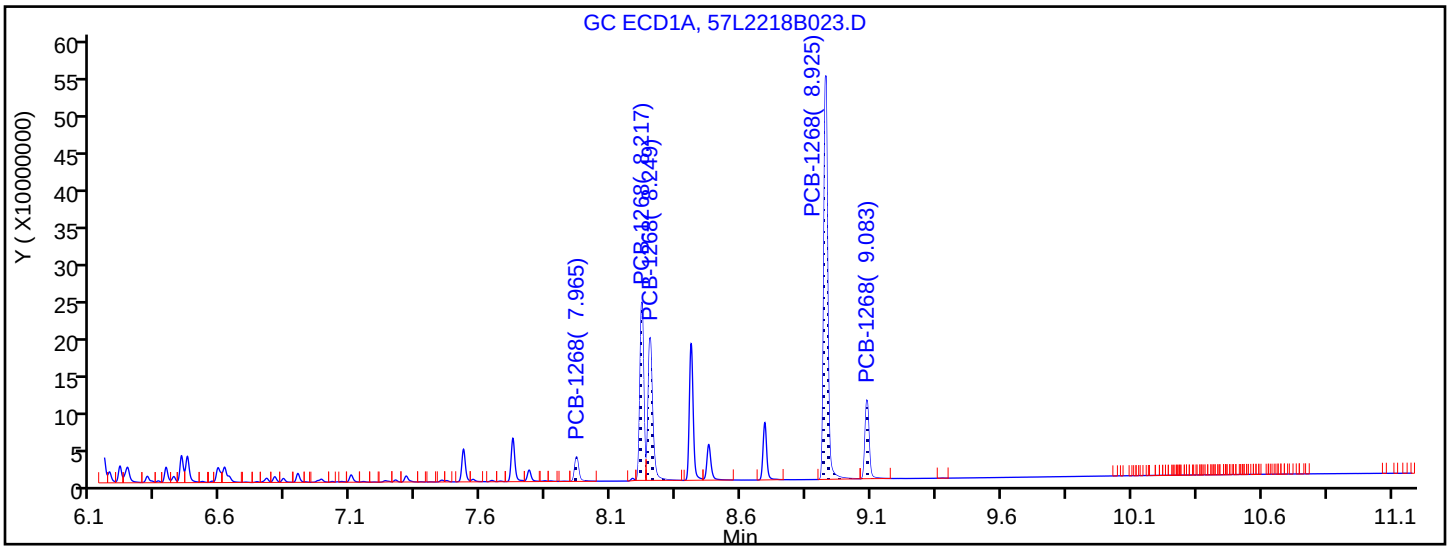
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.965	Response = 35009848
8.217	Response = 232700809
8.249	Response = 227716148
8.925	Response = 553753395
9.083	Response = 109741785



Manual Integration Results

7.965	Response = 36099475	M
8.217	Response = 232700809	
8.249	Response = 227716148	
8.925	Response = 553753395	
9.083	Response = 109741785	

Reviewer: ruslandera, 23-Dec-2018 15:21:43

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Dec-2018 23:55:54 ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:08 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:02:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	187993764	100.0	100.0	a
2	4.596	4.596	0.000	1131258122	100.0	100.0	a
						RPD = 0.00	
6 PCB-1242							Ma
1	5.189	5.189	0.000	5206766	100.0	102.0	a
1	5.441	5.441	0.000	11646955	100.0	105.2	M
1	5.771	5.771	0.000	13898750	100.0	104.8	M
1	6.148	6.148	0.000	6807552	100.0	101.5	M
1	6.446	6.446	0.000	7144985	100.0	103.5	M
		Average of Peak Amounts =				103.4	
2	6.044	6.044	0.000	31194765	100.0	105.8	a
2	6.240	6.240	0.000	17426298	100.0	109.7	a
2	6.852	6.852	0.000	29242640	100.0	105.0	a
2	7.177	7.177	0.000	33945709	100.0	103.1	a
2	7.364	7.364	0.000	32400851	100.0	101.0	a
		Average of Peak Amounts =				104.9	
						RPD = 1.44	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							Ma
1	7.966	7.966	0.000	7646139	100.0	103.8	M
1	8.217	8.217	0.000	49553026	100.0	97.3	a
1	8.249	8.249	0.000	47759416	100.0	100.2	a
1	8.925	8.925	0.000	115932439	100.0	103.3	a
1	9.083	9.083	0.000	22697759	100.0	102.1	a
		Average of Peak Amounts =				101.3	
2	8.819	8.819	0.000	15723441	100.0	104.8	a
2	9.128	9.128	0.000	135724391	100.0	97.2	a
2	9.168	9.168	0.000	122483833	100.0	98.7	a
2	9.395	9.395	0.000	99875445	100.0	98.5	a
2	9.908	9.908	0.000	283692340	100.0	94.4	a
		Average of Peak Amounts =				98.7	
						RPD = 2.61	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

4268IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:11 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D

Injection Date: 22-Dec-2018 23:55:54 Instrument ID: TAC057

Lims ID: icis

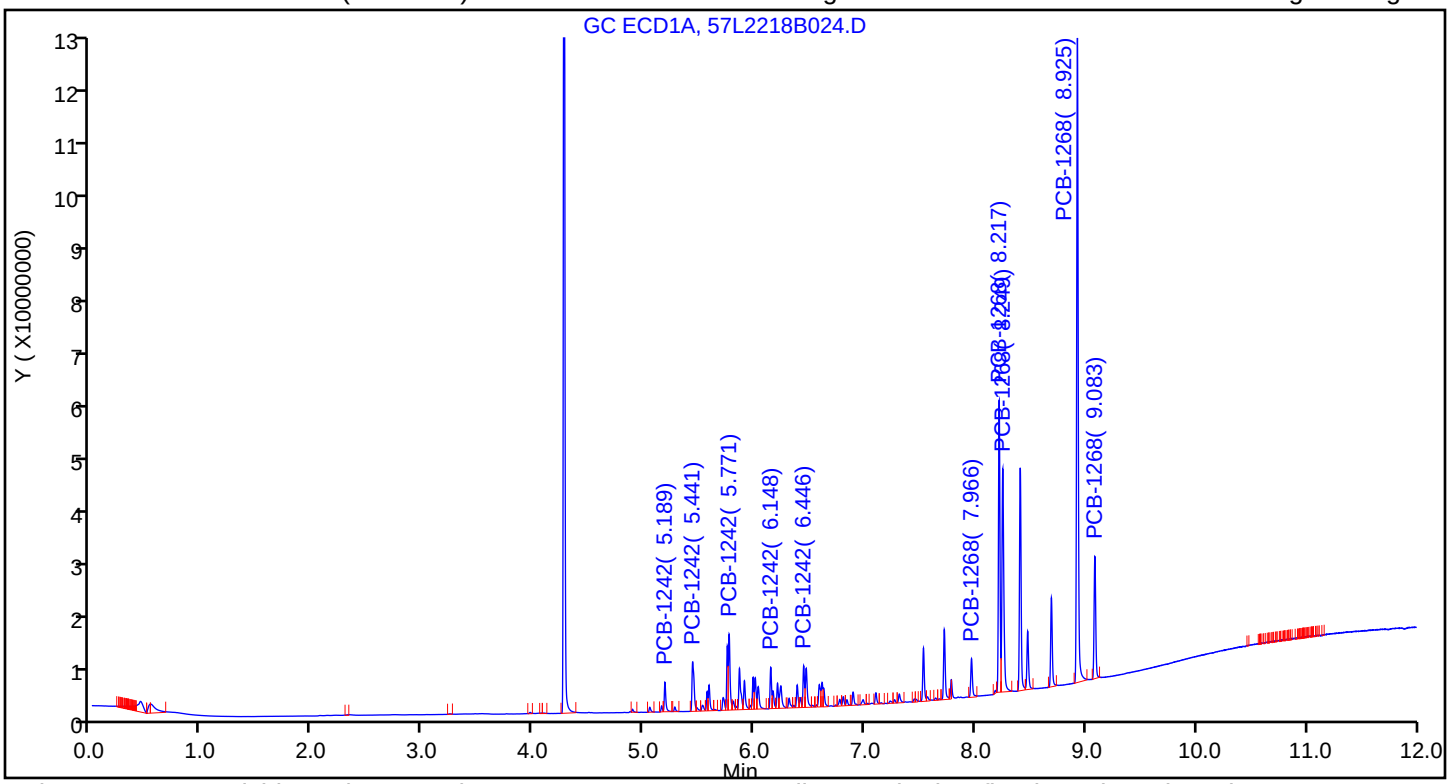
Client ID:

Operator ID: ar ALS Bottle#: 22 Worklist Smp#: 25

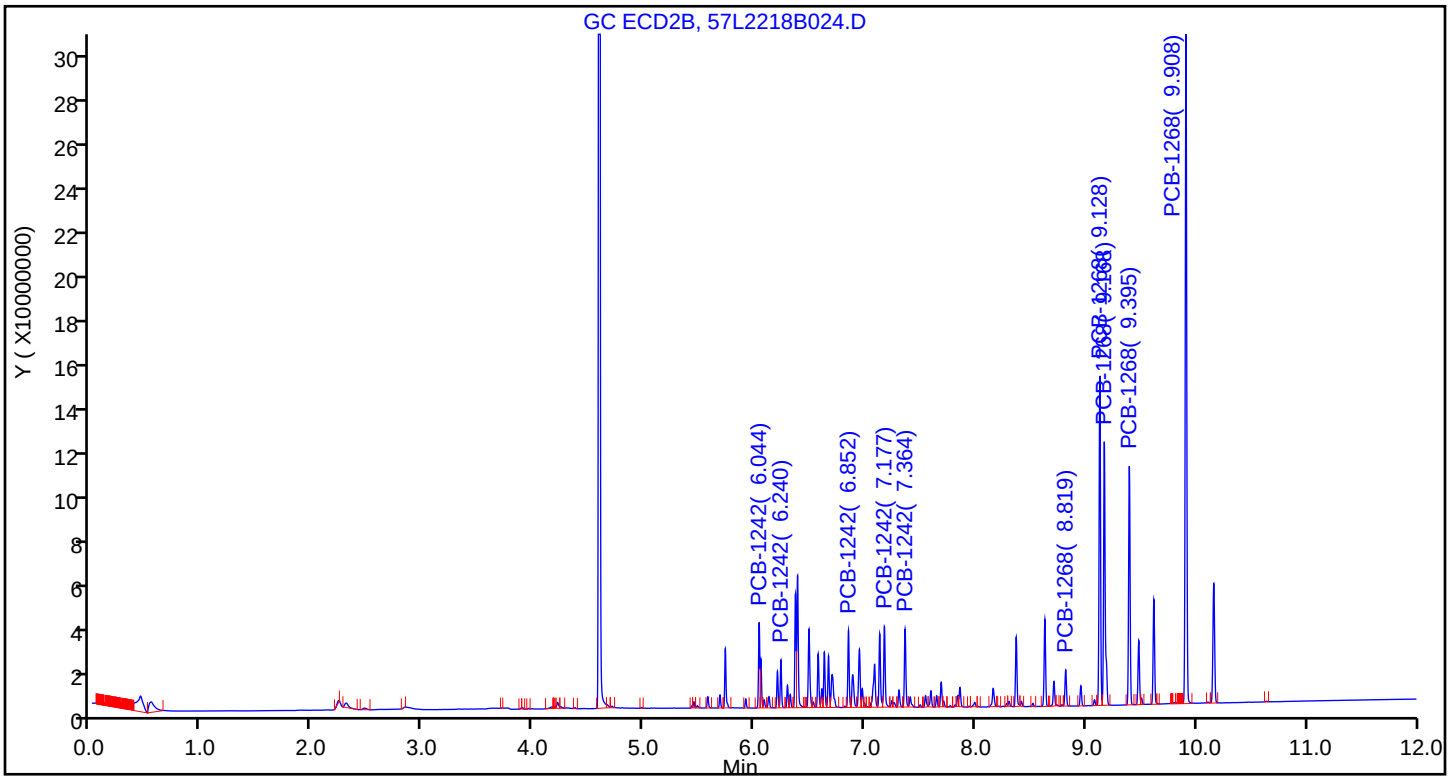
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

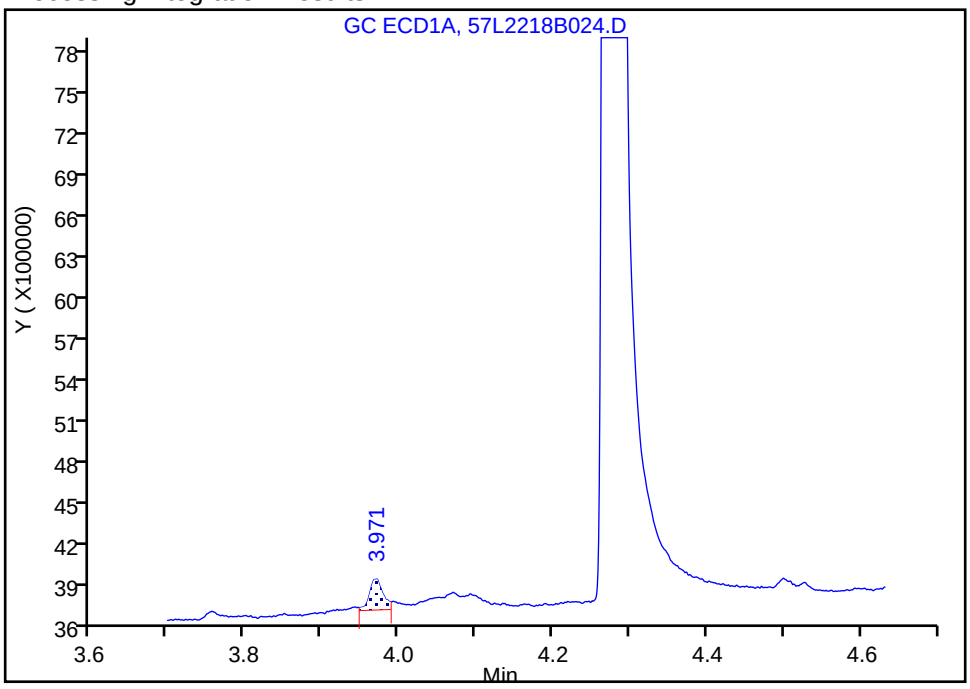
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D
Injection Date: 22-Dec-2018 23:55:54 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

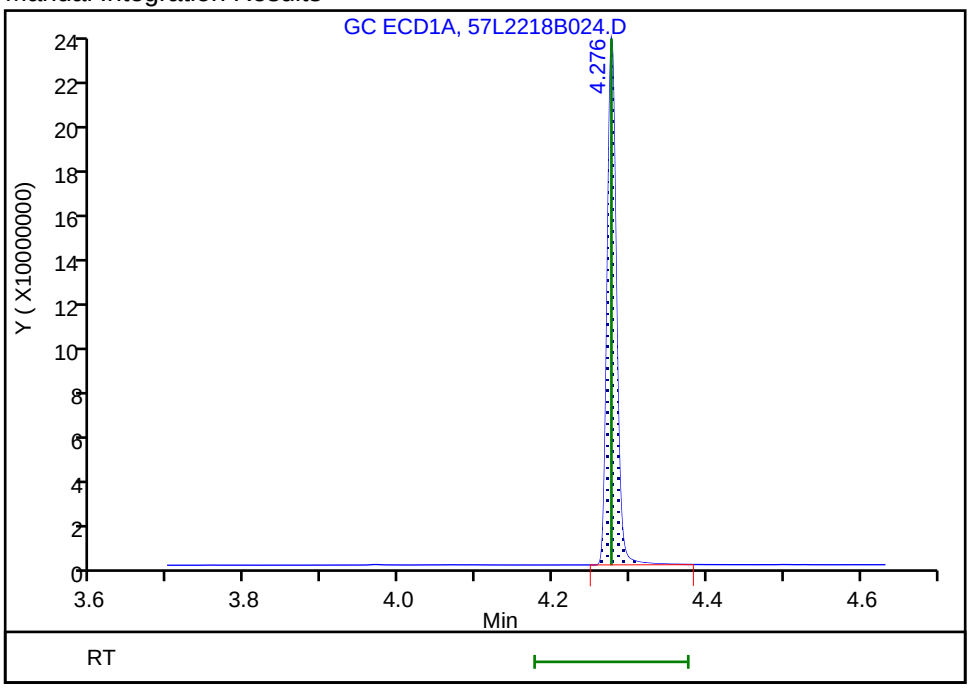
Processing Integration Results

RT: 3.97
Area: 278829
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 187993764
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:59:44
Audit Action: Assigned Compound ID Audit Reason:

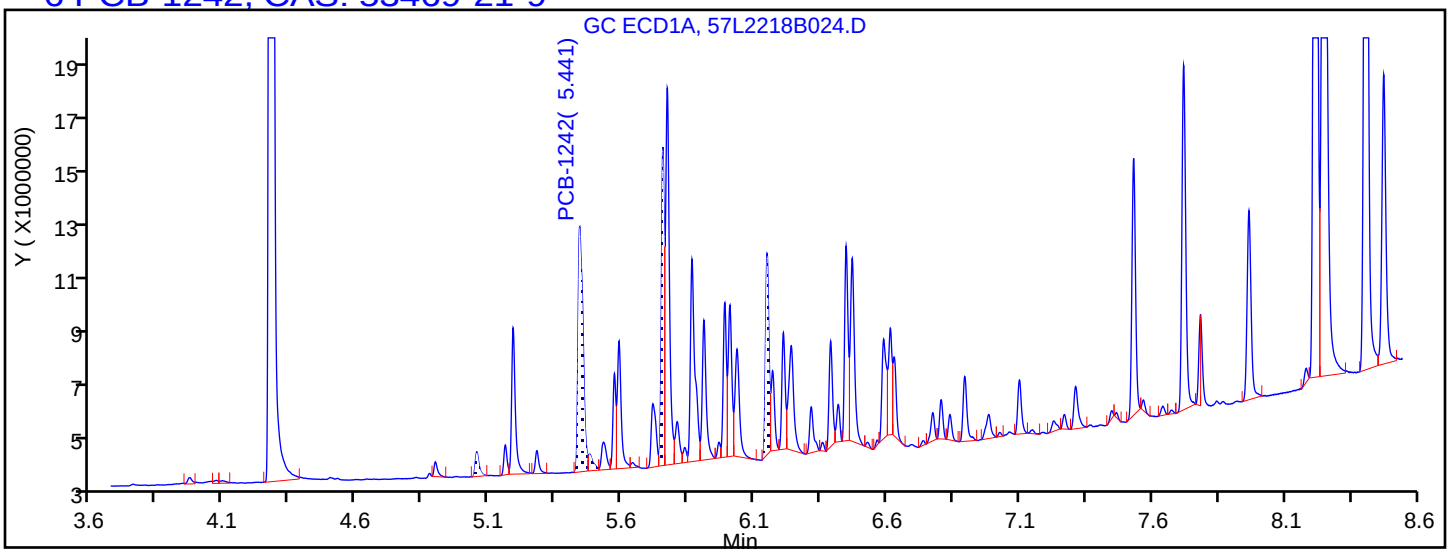
Report Date: 23-Dec-2018 16:16:11 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D

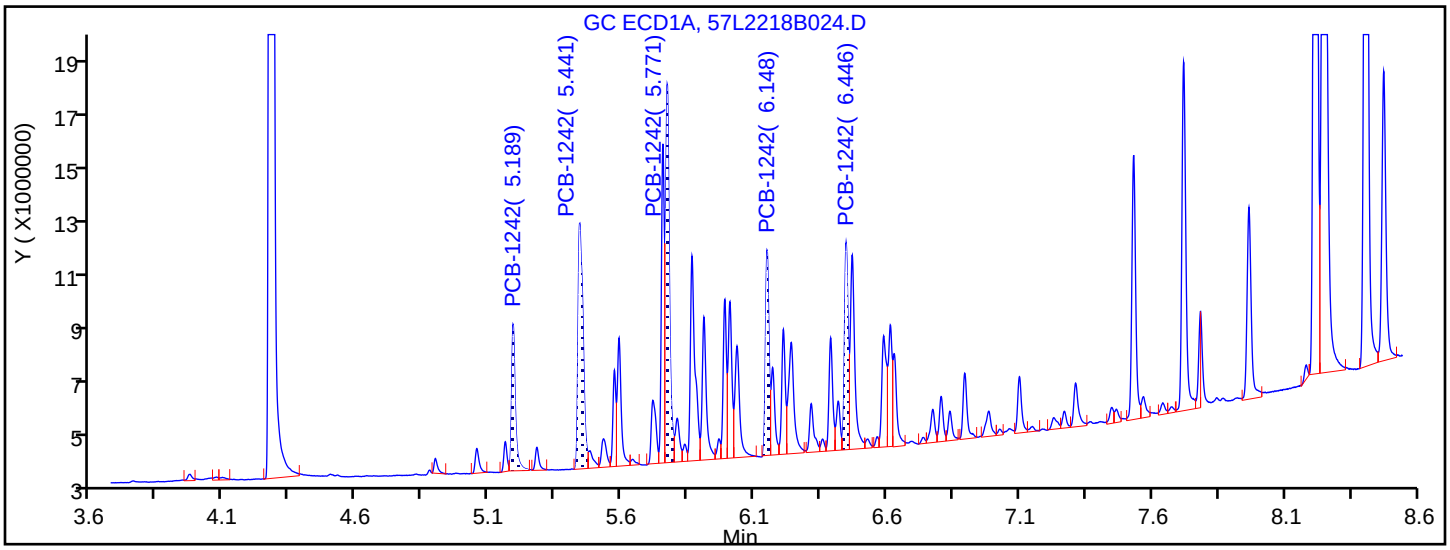
Injection Date:	22-Dec-2018 23:55:54	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.053	Response = 921702
5.441	Response = 11598993
5.479	Response = 767473
5.754	Response = 8774658
6.148	Response = 6584017



Manual Integration Results

5.189	Response = 5206766	M
5.441	Response = 11646955	M
5.771	Response = 13898750	M
6.148	Response = 6807552	M
6.446	Response = 7144985	M

Reviewer: ruslandera, 23-Dec-2018 14:59:56

Audit Action: Assigned Compound ID Audit Reason:

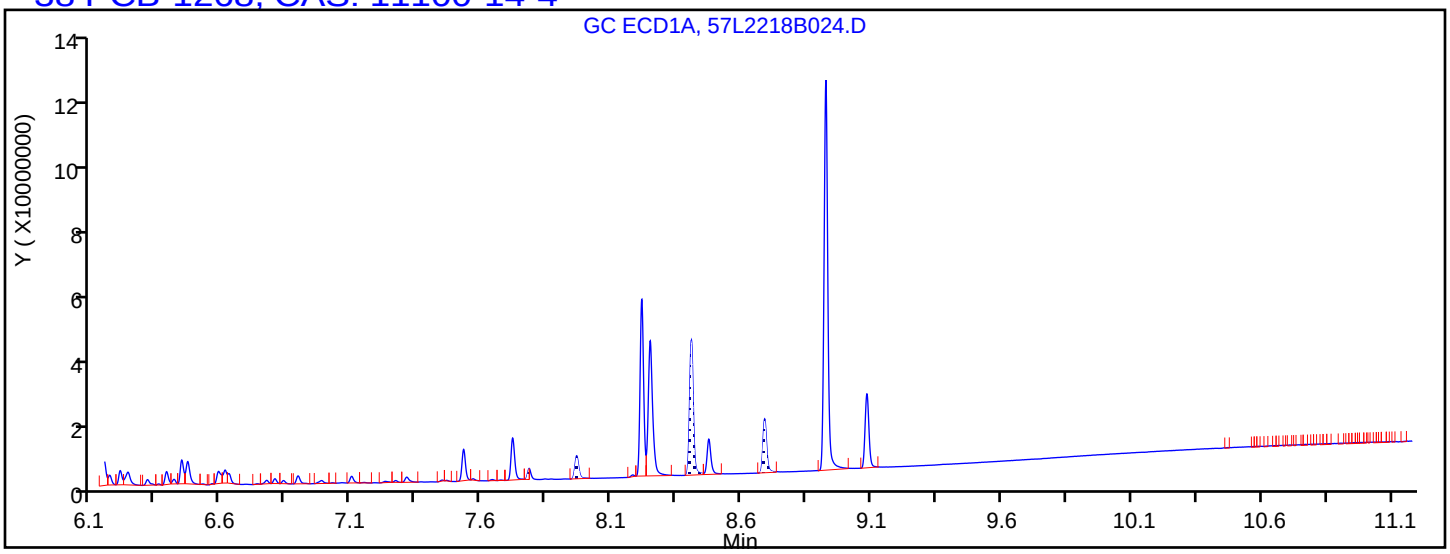
Report Date: 23-Dec-2018 16:16:11 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D

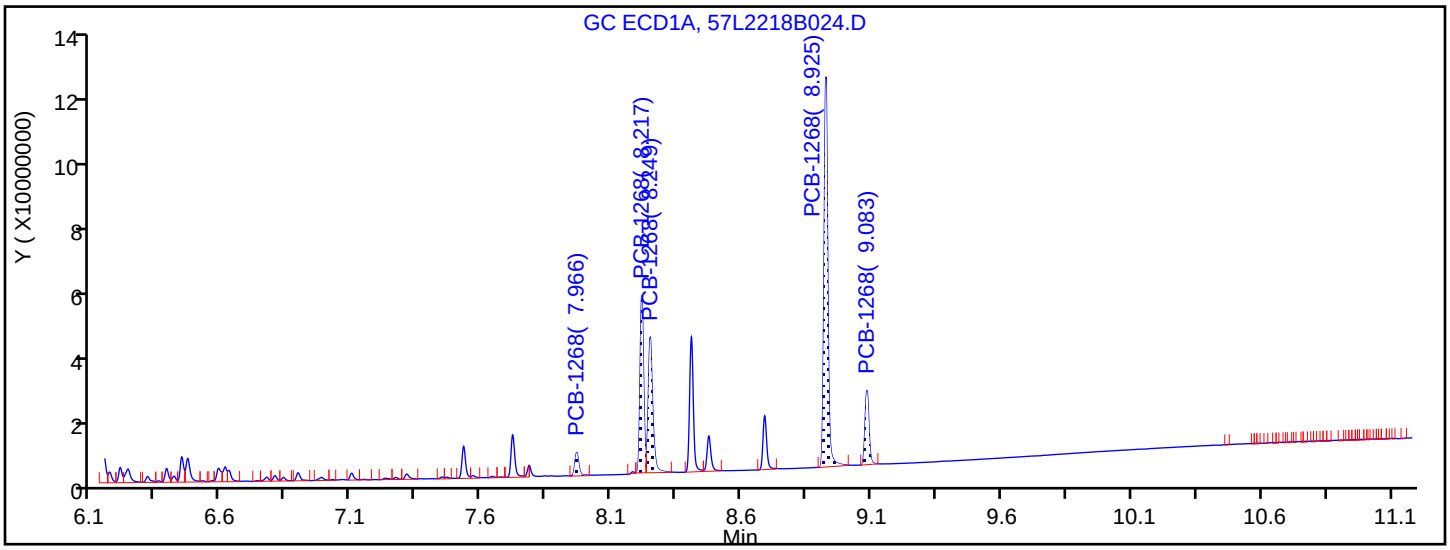
Injection Date:	22-Dec-2018 23:55:54	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.782	Response = 0
7.784	Response = 1502750
7.966	Response = 7154156
8.408	Response = 40462111
8.689	Response = 16151481



Manual Integration Results

7.966	Response = 7646139	M
8.217	Response = 49553026	M
8.249	Response = 47759416	M
8.925	Response = 115932439	M
9.083	Response = 22697759	M

Reviewer: ruslandera, 23-Dec-2018 15:14:39

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B025.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Dec-2018 00:13:26 ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:15 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:04:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	186882369	100.0	100.0	
2	4.596	4.596	0.000	1123950214	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						103.5	
2						105.9	
						RPD = 2.27	
6 PCB-1242							
1	5.191	5.191	0.000	2665763	50.0	52.5	
1	5.441	5.441	0.000	6029013	50.0	52.9	
1	5.772	5.772	0.000	7083079	50.0	52.7	
1	6.149	6.149	0.000	3471209	50.0	51.7	
1	6.448	6.448	0.000	3537555	50.0	51.2	
		Average of Peak Amounts =				52.2	
2	6.043	6.043	0.000	16828176	50.0	55.2	
2	6.241	6.241	0.000	9408839	50.0	57.5	
2	6.852	6.852	0.000	15662401	50.0	54.6	
2	7.177	7.177	0.000	18363183	50.0	54.3	
2	7.365	7.365	0.000	17267802	50.0	53.3	
		Average of Peak Amounts =				55.0	
						RPD = 5.12	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	3565149	50.0	48.7	
1	8.217	8.217	0.000	25712574	50.0	50.8	M
1	8.249	8.249	0.000	24848197	50.0	52.4	M
1	8.925	8.925	0.000	59215699	50.0	52.4	
1	9.083	9.083	0.000	11623832	50.0	52.3	
		Average of Peak Amounts =				51.3	
2	8.818	8.818	0.000	8297123	50.0	54.3	
2	9.128	9.128	0.000	70852143	50.0	50.1	
2	9.170	9.170	0.000	64382070	50.0	51.1	
2	9.395	9.395	0.000	52089659	50.0	50.8	
2	9.910	9.910	0.000	146909877	50.0	48.6	
		Average of Peak Amounts =				51.0	
						RPD = 0.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268ICV100_00009	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:16 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B025.D

Injection Date: 23-Dec-2018 00:13:26 Instrument ID: TAC057

Lims ID: ic

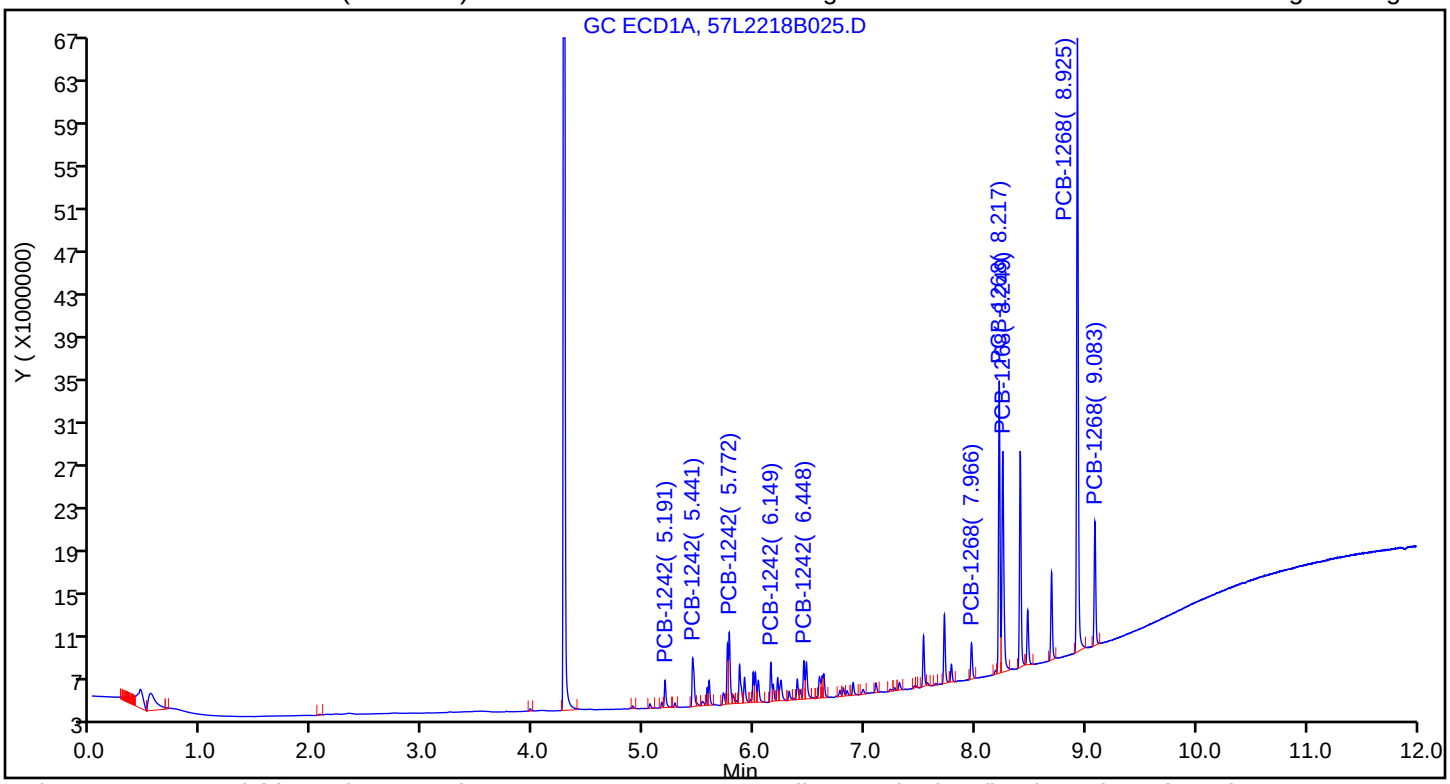
Client ID:

Operator ID: ar ALS Bottle#: 23 Worklist Smp#: 26

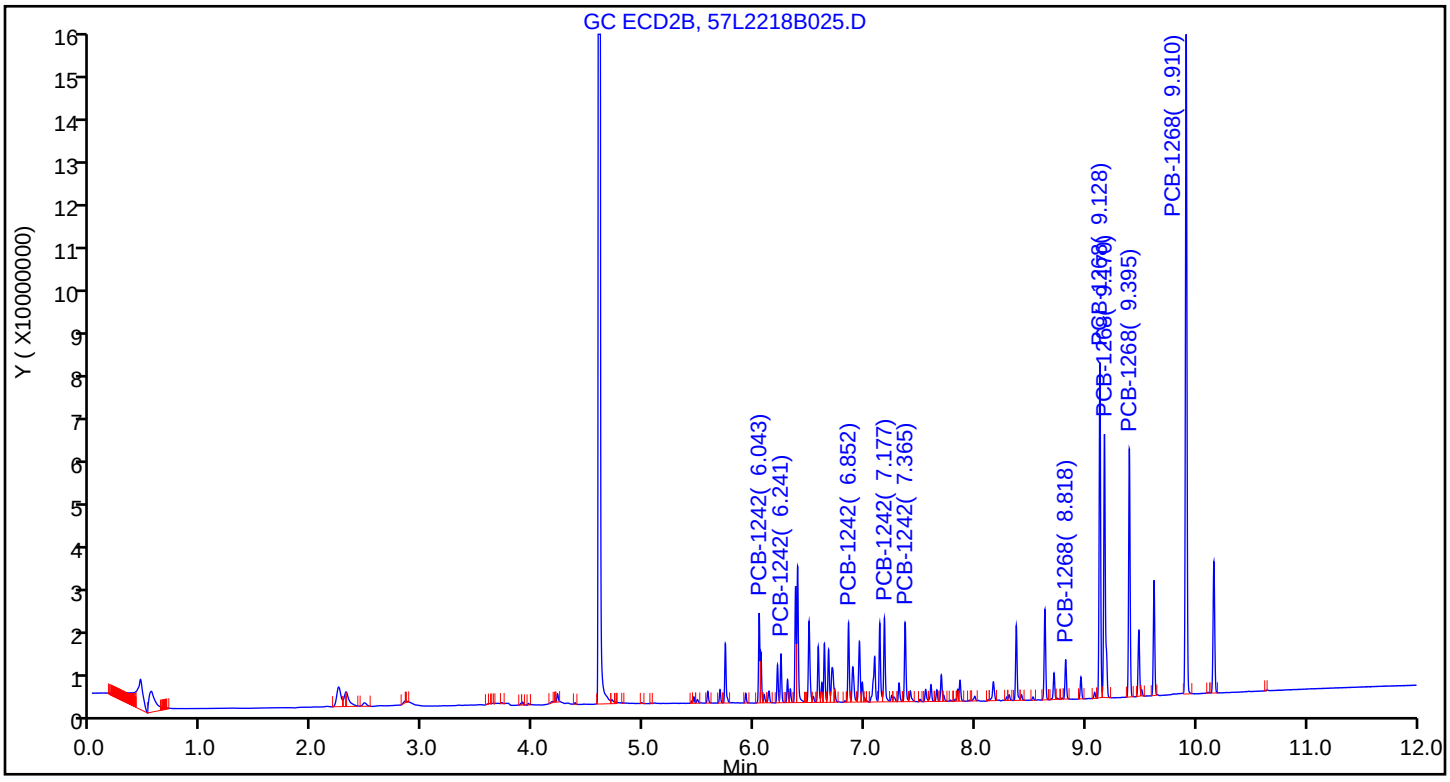
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:16 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B025.D

Injection Date: 23-Dec-2018 00:13:26 Instrument ID: TAC057

Lims ID: ic

Client ID:

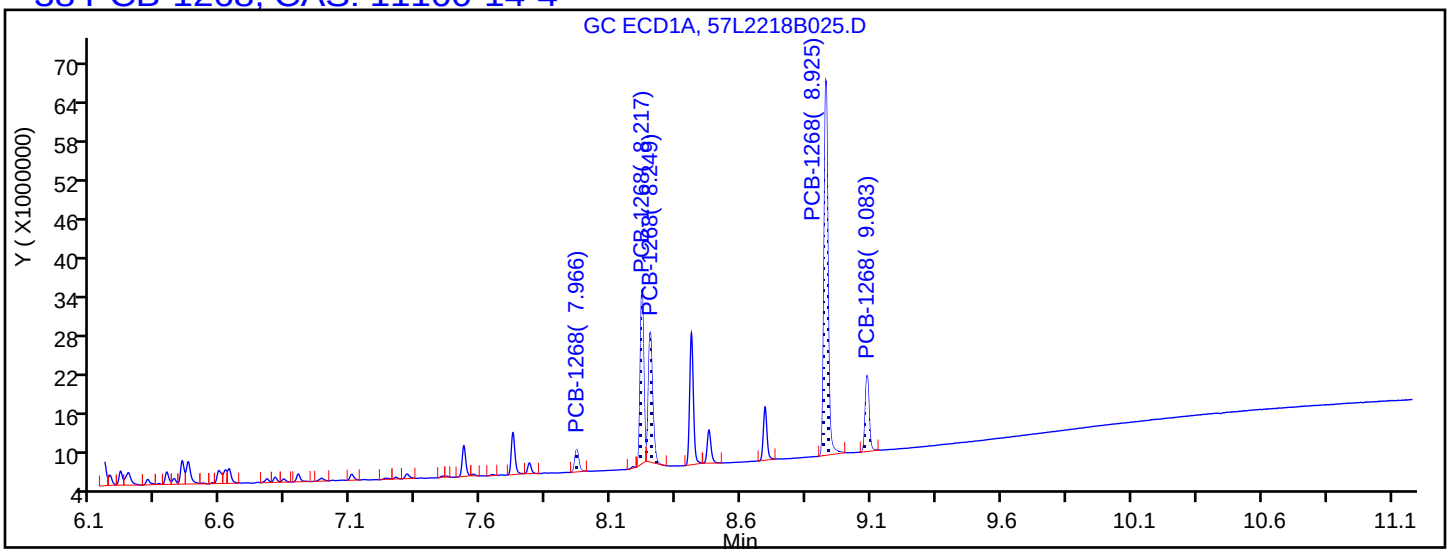
Operator ID: ar ALS Bottle#: 23 Worklist Smp#: 26

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

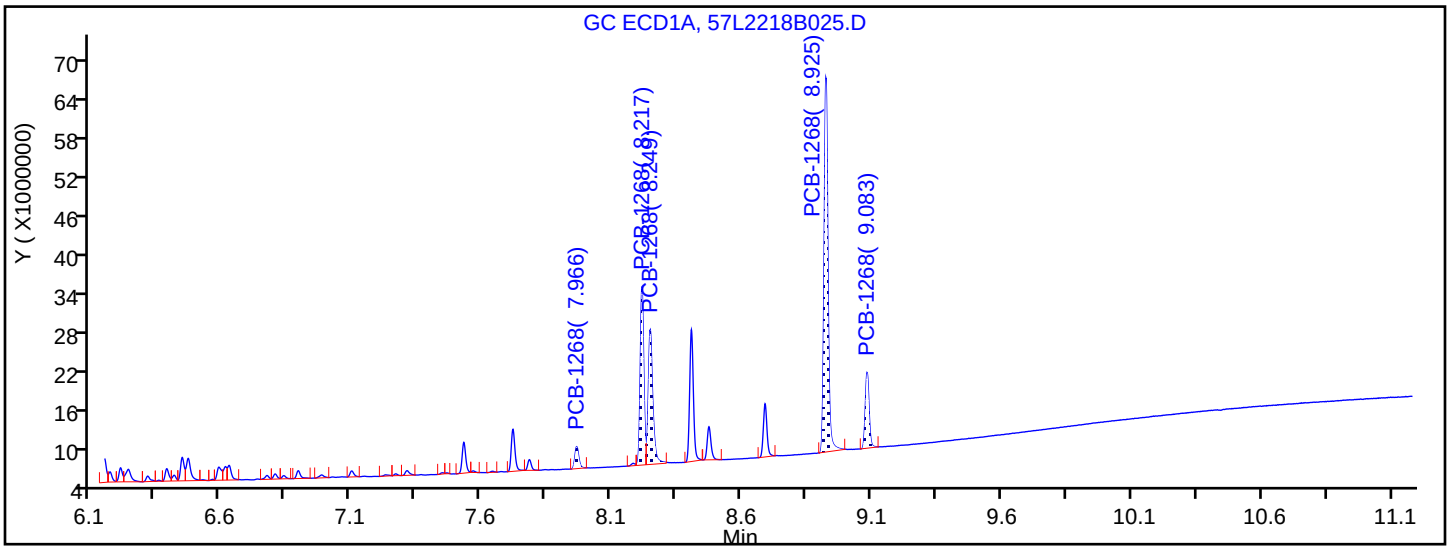
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.966	Response = 3565149
8.217	Response = 24255214
8.249	Response = 22186642
8.925	Response = 59215699
9.083	Response = 11623832



Manual Integration Results

7.966	Response = 3565149	
8.217	Response = 25712574	M
8.249	Response = 24848197	M
8.925	Response = 59215699	
9.083	Response = 11623832	

Reviewer: ruslandera, 23-Dec-2018 15:22:11

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Dec-2018 00:30:57 ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:18 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:04:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	186889073	100.0	100.0	
2	4.596	4.596	0.000	1122573101	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						53.5	
2						53.9	
						RPD = 0.75	
6 PCB-1242							M
1	5.192	5.191	0.001	1535642	25.0	30.3	M
1	5.441	5.441	0.000	3374544	25.0	27.8	M
1	5.773	5.772	0.001	3833899	25.0	27.6	M
1	6.149	6.149	0.000	1845011	25.0	27.2	M
1	6.448	6.448	0.000	1847634	25.0	26.4	M
		Average of Peak Amounts =				27.9	
2	6.043	6.043	0.000	9127499	25.0	27.7	M
2	6.240	6.241	-0.001	5122688	25.0	29.3	M
2	6.852	6.852	0.000	8417386	25.0	27.4	M
2	7.177	7.177	0.000	9889640	25.0	27.4	M
2	7.364	7.365	-0.001	9219728	25.0	27.6	M
		Average of Peak Amounts =				27.9	
						RPD = 0.06	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	1800875	25.0	24.6	
1	8.217	8.217	0.000	13037601	25.0	25.8	
1	8.249	8.249	0.000	12311430	25.0	26.0	
1	8.925	8.925	0.000	29877895	25.0	25.8	
1	9.083	9.083	0.000	5812222	25.0	25.9	
		Average of Peak Amounts =				25.6	
2	8.818	8.818	0.000	4423449	25.0	27.6	
2	9.128	9.128	0.000	37495471	25.0	25.5	M
2	9.168	9.170	-0.002	34523562	25.0	26.4	M
2	9.395	9.395	0.000	27679686	25.0	26.1	
2	9.908	9.910	-0.002	75396363	25.0	24.3	
		Average of Peak Amounts =				26.0	
						RPD = 1.50	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268IC0100_00011	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:19 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D

Injection Date: 23-Dec-2018 00:30:57 Instrument ID: TAC057

Lims ID: ic

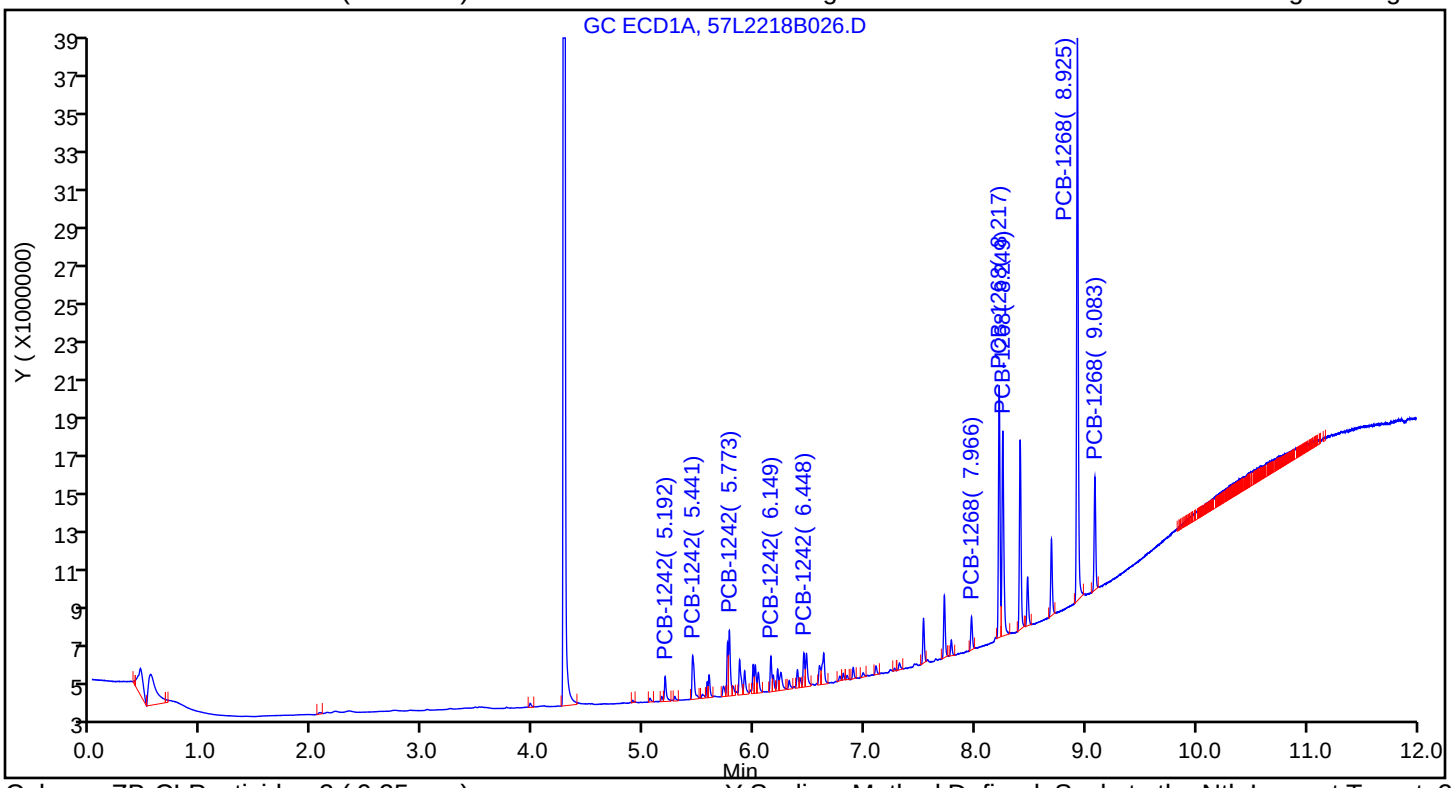
Client ID:

Operator ID: ar ALS Bottle#: 24 Worklist Smp#: 27

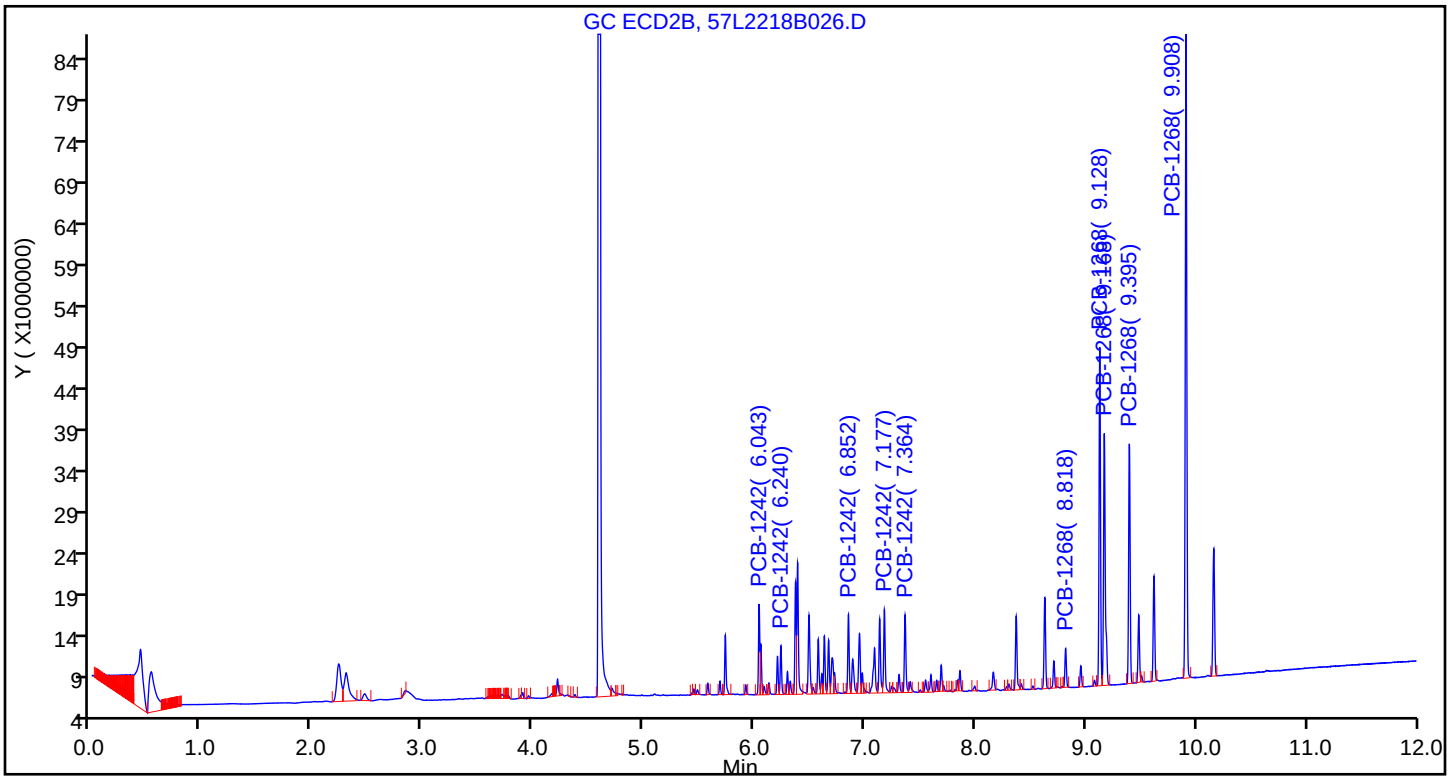
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:19 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D

Injection Date: 23-Dec-2018 00:30:57 Instrument ID: TAC057

Lims ID: ic

Client ID:

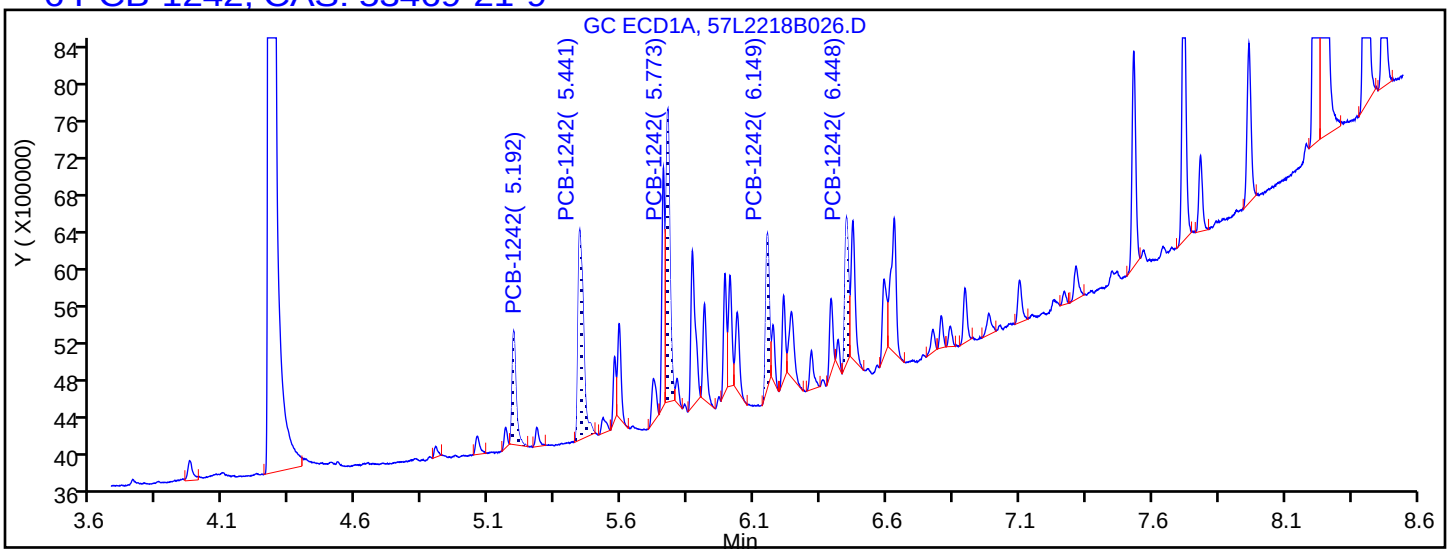
Operator ID: ar ALS Bottle#: 24 Worklist Smp#: 27

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

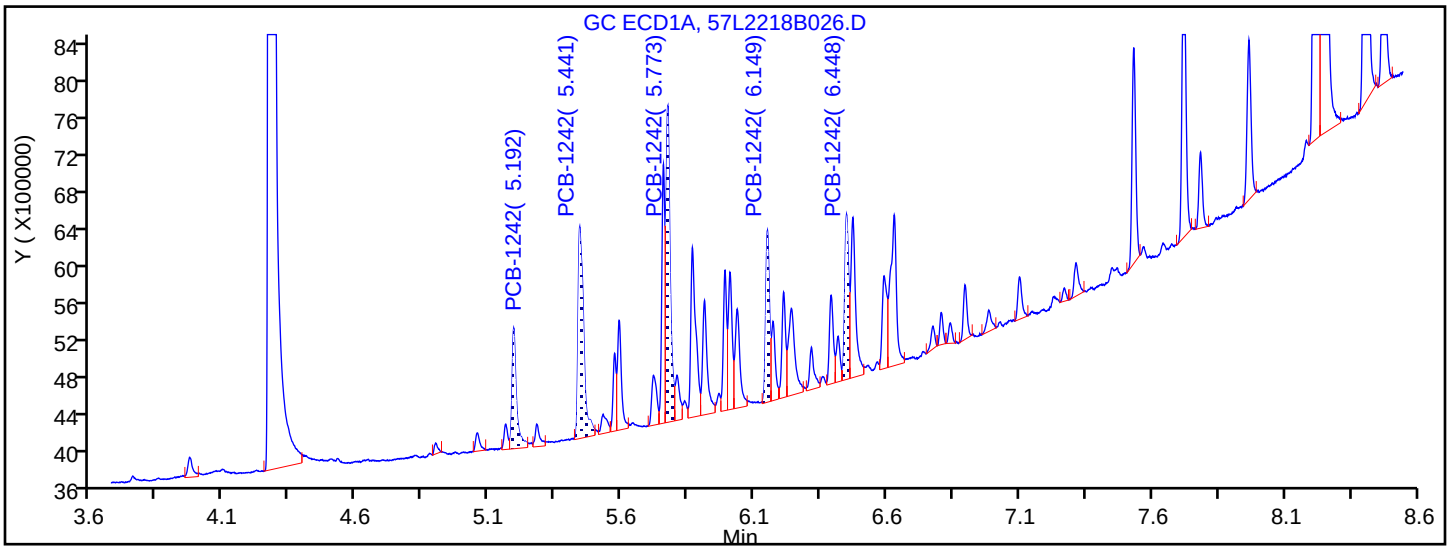
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.192	Response = 1256703
5.441	Response = 3220894
5.773	Response = 3283519
6.149	Response = 1526259
6.448	Response = 1508000



Manual Integration Results

5.192	Response = 1535642	M
5.441	Response = 3374544	M
5.773	Response = 3833899	M
6.149	Response = 1845011	M
6.448	Response = 1847634	M

Reviewer: ruslandera, 23-Dec-2018 15:22:23

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Dec-2018 00:48:34 ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:23 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:05:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	188059310	100.0	100.0	
2	4.597	4.596	0.001	1133116928	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.8	
2						20.1	
						RPD = 3.59	
6 PCB-1242							M
1	5.193	5.191	0.002	550427	10.0	10.8	
1	5.443	5.441	0.002	1430320	10.0	9.40	M
1	5.775	5.772	0.003	1609730	10.0	10.4	M
1	6.149	6.149	0.000	750687	10.0	10.6	M
1	6.450	6.448	0.002	773999	10.0	10.6	M
		Average of Peak Amounts =				10.3	
2	6.043	6.043	0.000	4027902	10.0	9.32	
2	6.241	6.241	0.000	2158111	10.0	9.68	
2	6.853	6.852	0.001	3684714	10.0	9.41	
2	7.178	7.177	0.001	4255256	10.0	9.42	
2	7.366	7.365	0.001	3975340	10.0	10.7	
		Average of Peak Amounts =				9.70	
						RPD = 6.45	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.967	7.966	0.001	772434	10.0	10.5	
1	8.218	8.217	0.001	5669448	10.0	11.1	M
1	8.250	8.249	0.001	5203051	10.0	10.9	M
1	8.926	8.925	0.001	12281762	10.0	9.77	
1	9.083	9.083	0.000	2381670	10.0	10.2	
		Average of Peak Amounts =				10.5	
2	8.818	8.818	0.000	1985150	10.0	10.6	
2	9.128	9.128	0.000	17104183	10.0	10.4	M
2	9.169	9.170	-0.001	15625664	10.0	10.5	M
2	9.395	9.395	0.000	12434867	10.0	10.5	
2	9.909	9.910	-0.001	33416835	10.0	9.97	
		Average of Peak Amounts =				10.4	
						RPD = 0.85	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268IC0100_00011	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:25 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D

Injection Date: 23-Dec-2018 00:48:34 Instrument ID: TAC057

Lims ID: ic

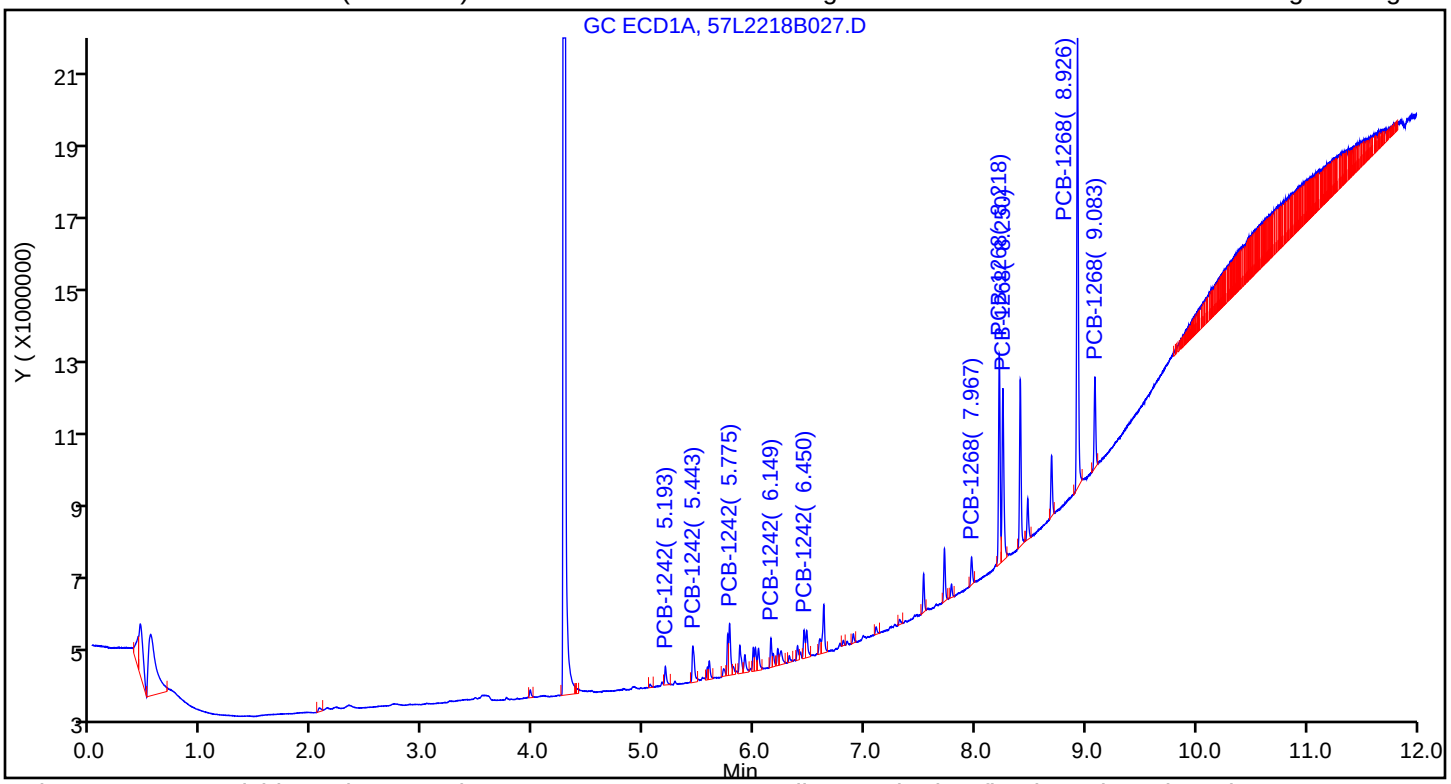
Client ID:

Operator ID: ar ALS Bottle#: 25 Worklist Smp#: 28

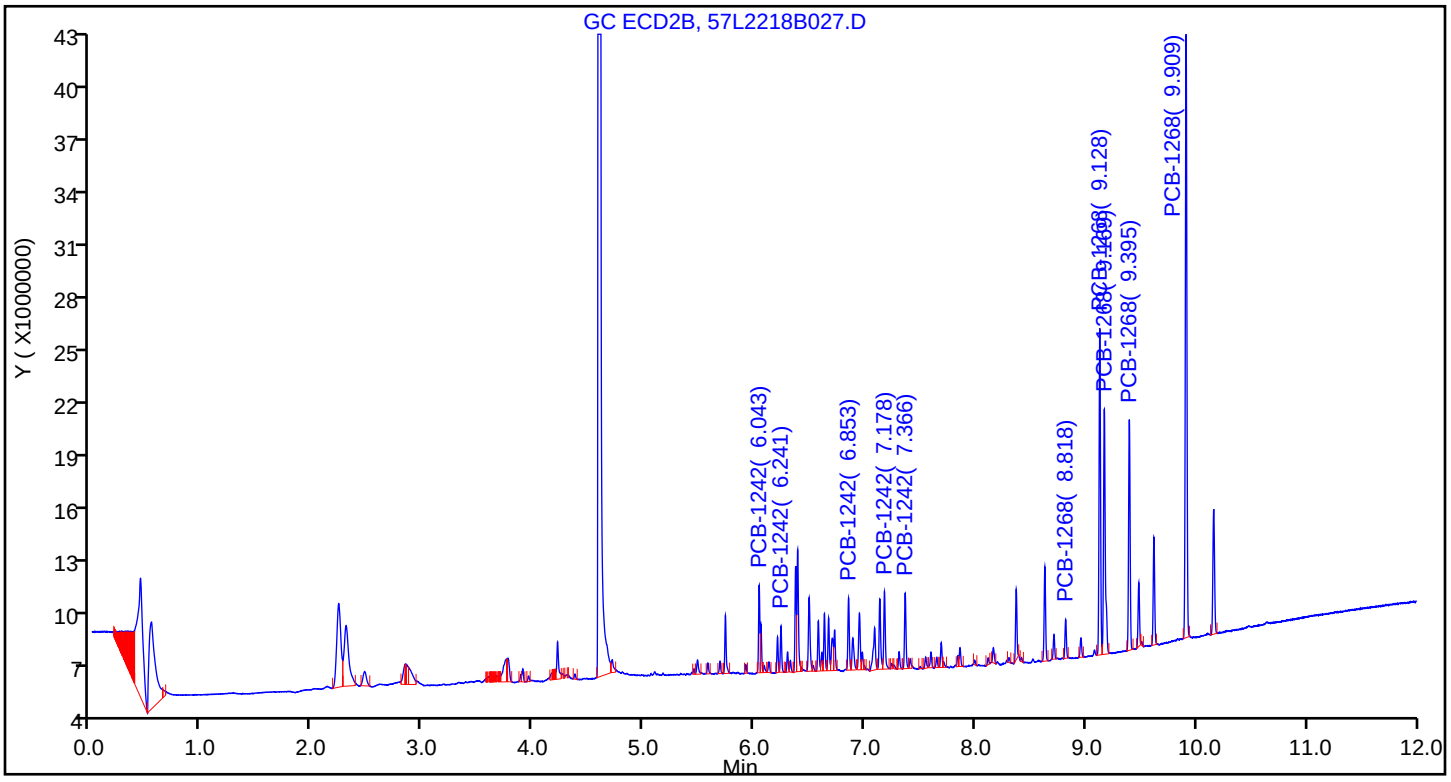
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



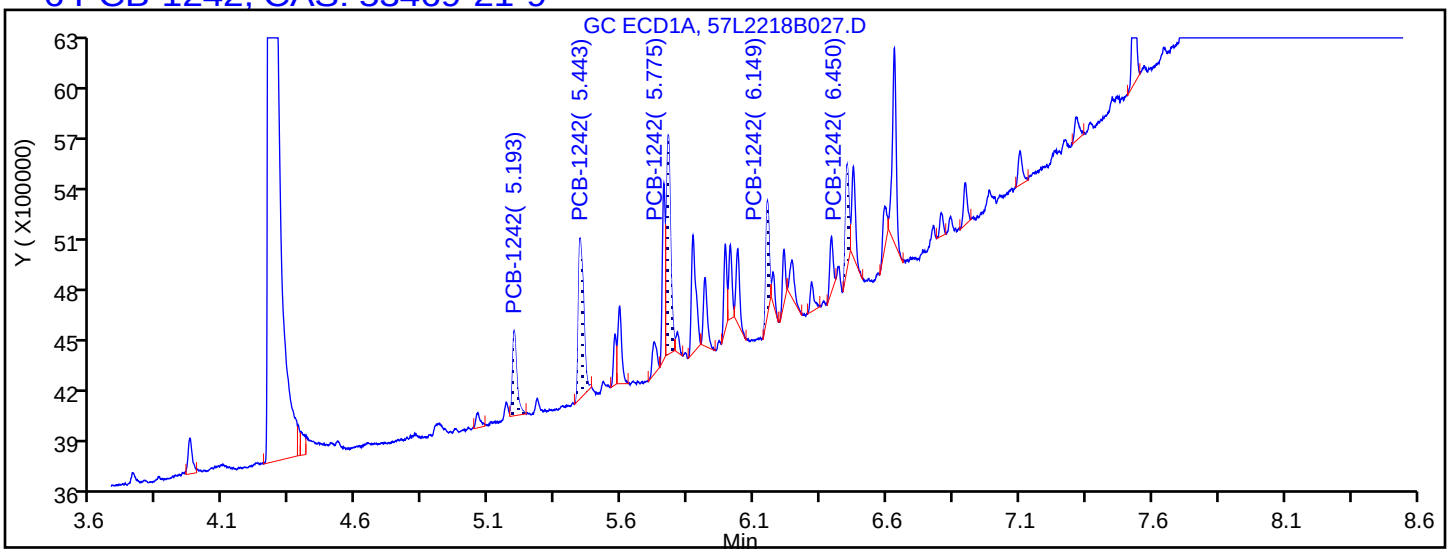
Report Date: 23-Dec-2018 16:16:25 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D

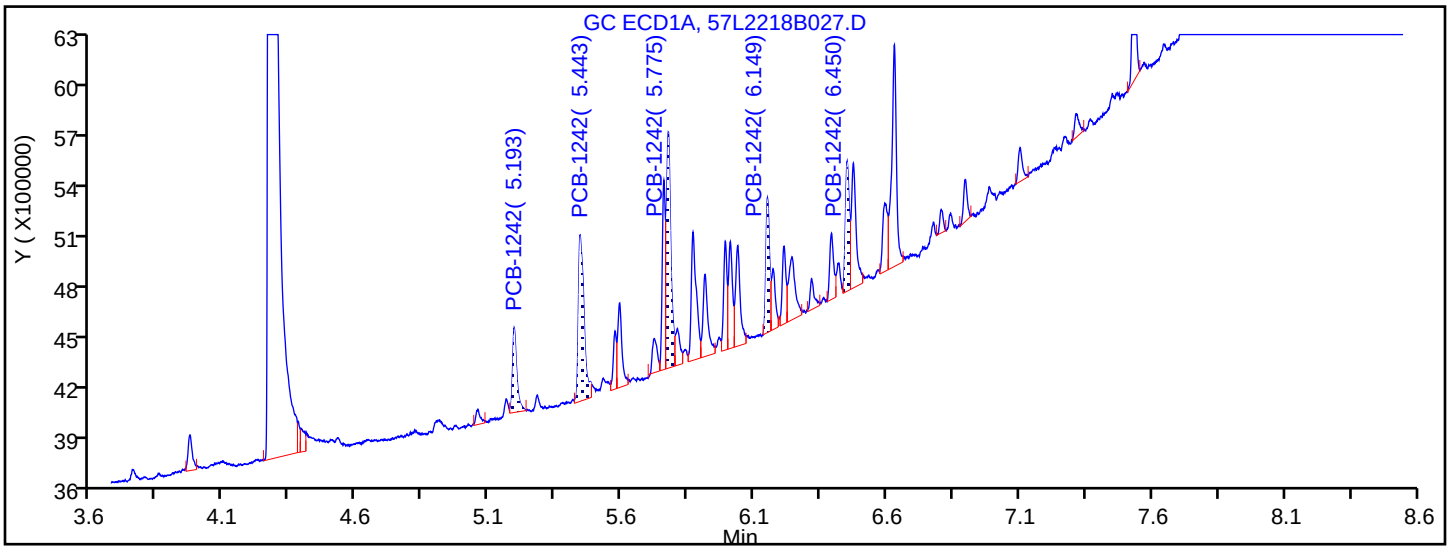
Injection Date:	23-Dec-2018 00:48:34	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.193	Response = 550427
5.443	Response = 1254028
5.775	Response = 1394209
6.149	Response = 558655
6.450	Response = 539565



Manual Integration Results

5.193	Response = 550427	
5.443	Response = 1430320	M
5.775	Response = 1609730	M
6.149	Response = 750687	M
6.450	Response = 773999	M

Reviewer: ruslandera, 23-Dec-2018 15:22:56

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

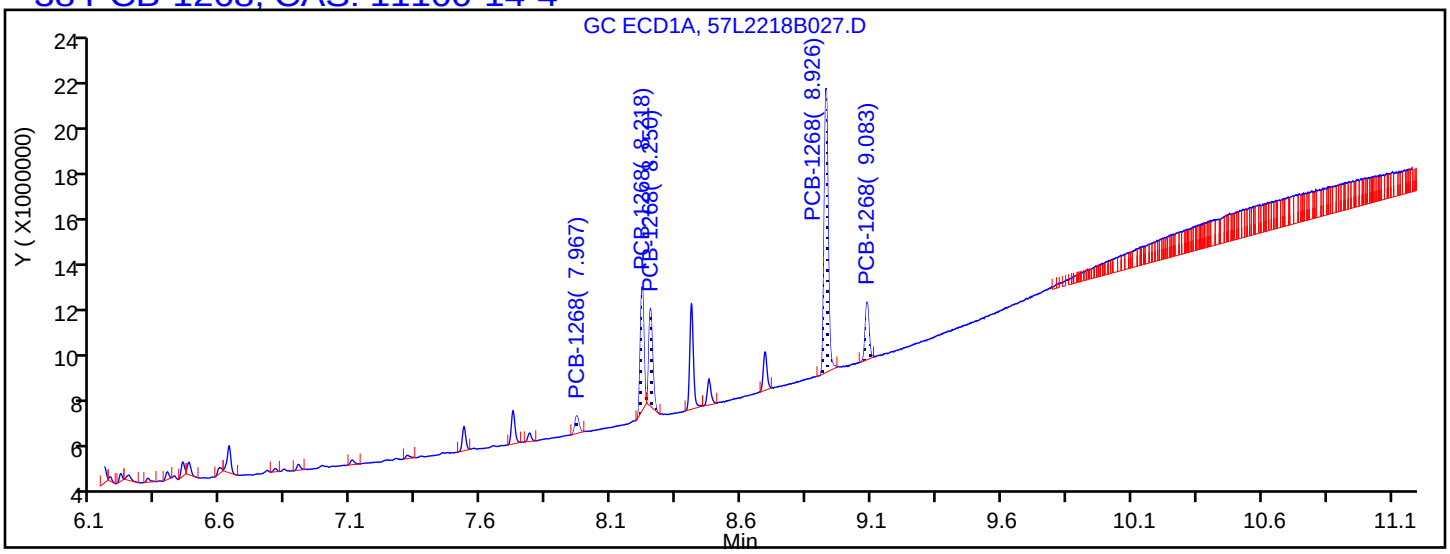
Report Date: 23-Dec-2018 16:16:25 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D

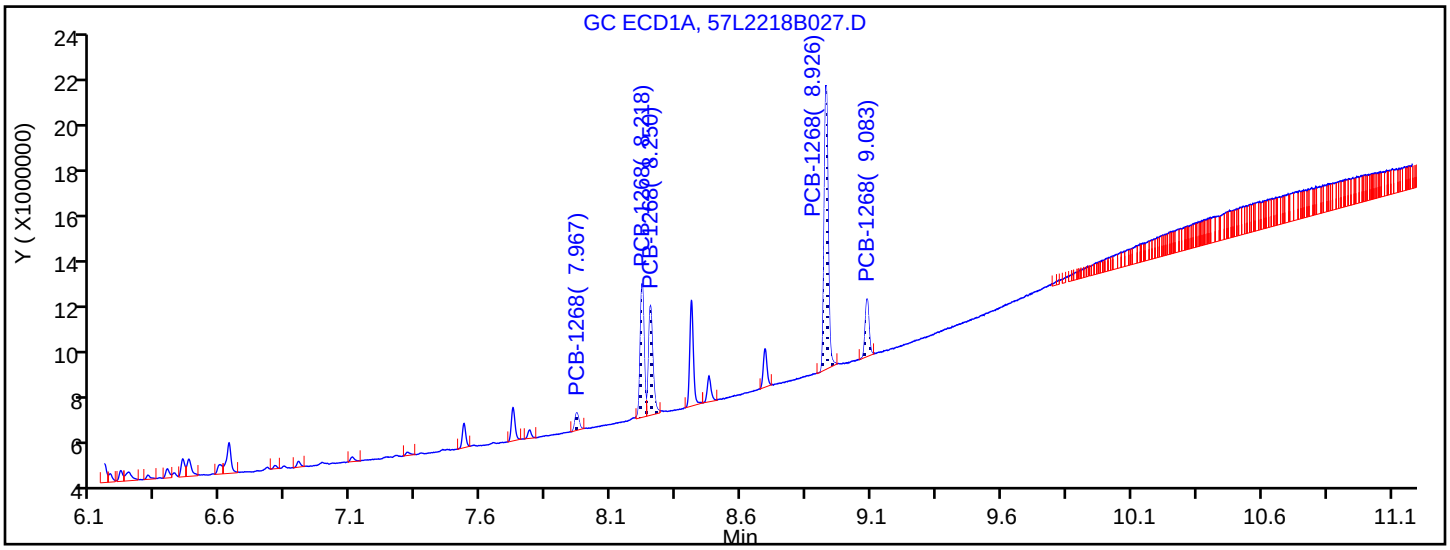
Injection Date:	23-Dec-2018 00:48:34	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.967	Response = 772434
8.218	Response = 4785606
8.250	Response = 4051733
8.926	Response = 12281762
9.083	Response = 2381670



Manual Integration Results

7.967	Response = 772434	
8.218	Response = 5669448	M
8.250	Response = 5203051	M
8.926	Response = 12281762	
9.083	Response = 2381670	

Reviewer: ruslandera, 23-Dec-2018 15:23:24

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Dec-2018 01:06:07 ALS Bottle#: 26 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:28 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:05:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	189794420	100.0	100.0	
2	4.595	4.596	-0.001	1140043679	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						9.75	
2						8.22	
						RPD = 17.11	
6 PCB-1242							M
1	5.193	5.191	0.002	256766	5.00	4.98	
1	5.442	5.441	0.001	724732	5.00	2.72	
1	5.776	5.772	0.004	889798	5.00	4.77	M
1	6.150	6.149	0.001	365725	5.00	4.75	M
1	6.451	6.448	0.003	377956	5.00	4.78	M
		Average of Peak Amounts =				4.40	
2	6.044	6.043	0.001	2206387	5.00	2.82	
2	6.240	6.241	-0.001	1167182	5.00	3.19	
2	6.852	6.852	0.000	2029981	5.00	3.18	
2	7.177	7.177	0.000	2197197	5.00	2.90	
2	7.365	7.365	0.000	2112512	5.00	4.70	
		Average of Peak Amounts =				3.36	
						RPD = 26.84	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	423813	5.00	5.70	
1	8.217	8.217	0.000	3014897	5.00	5.87	M
1	8.250	8.249	0.001	2694369	5.00	5.60	M
1	8.925	8.925	0.000	6727186	5.00	4.71	
1	9.083	9.083	0.000	1227352	5.00	4.90	
		Average of Peak Amounts =				5.35	
2	8.819	8.818	0.001	1120243	5.00	4.68	
2	9.127	9.128	-0.001	9622539	5.00	4.89	M
2	9.168	9.170	-0.002	8723088	5.00	4.81	M
2	9.395	9.395	0.000	6881169	5.00	4.84	
2	9.908	9.910	-0.002	18940493	5.00	5.06	
		Average of Peak Amounts =				4.86	
						RPD = 9.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268IC0100_00011	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D

Injection Date: 23-Dec-2018 01:06:07 Instrument ID: TAC057

Lims ID: ic

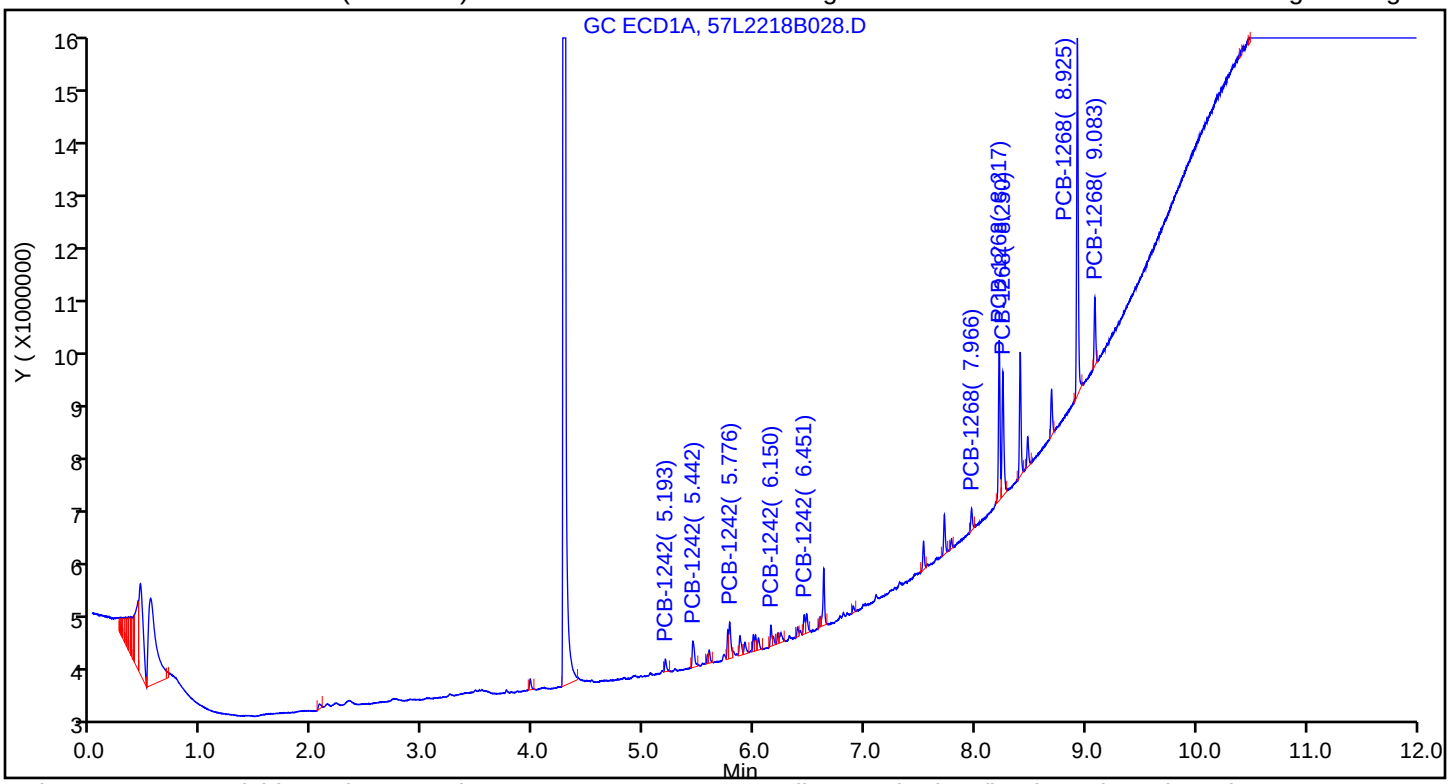
Client ID:

Operator ID: ar ALS Bottle#: 26 Worklist Smp#: 29

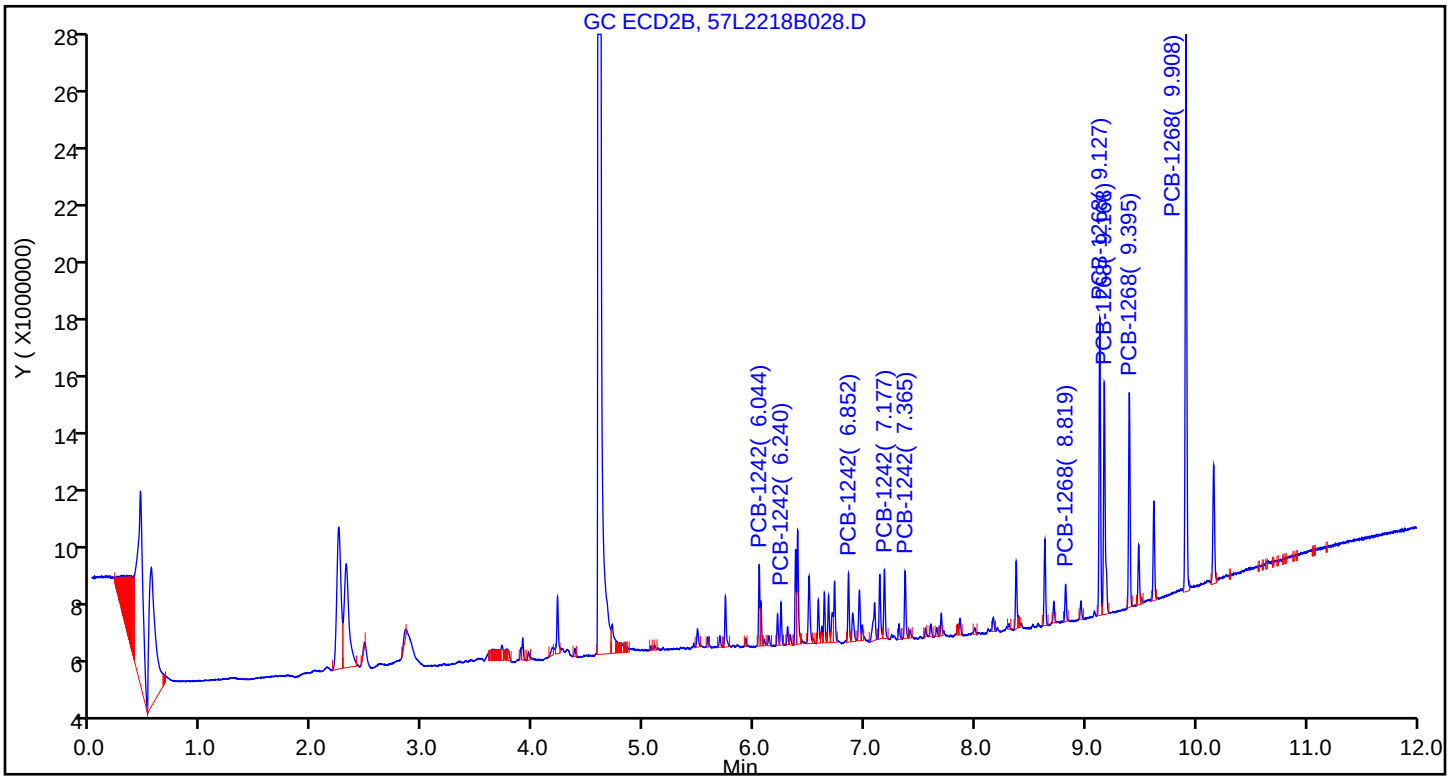
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D

Injection Date: 23-Dec-2018 01:06:07 Instrument ID: TAC057

Lims ID: ic

Client ID:

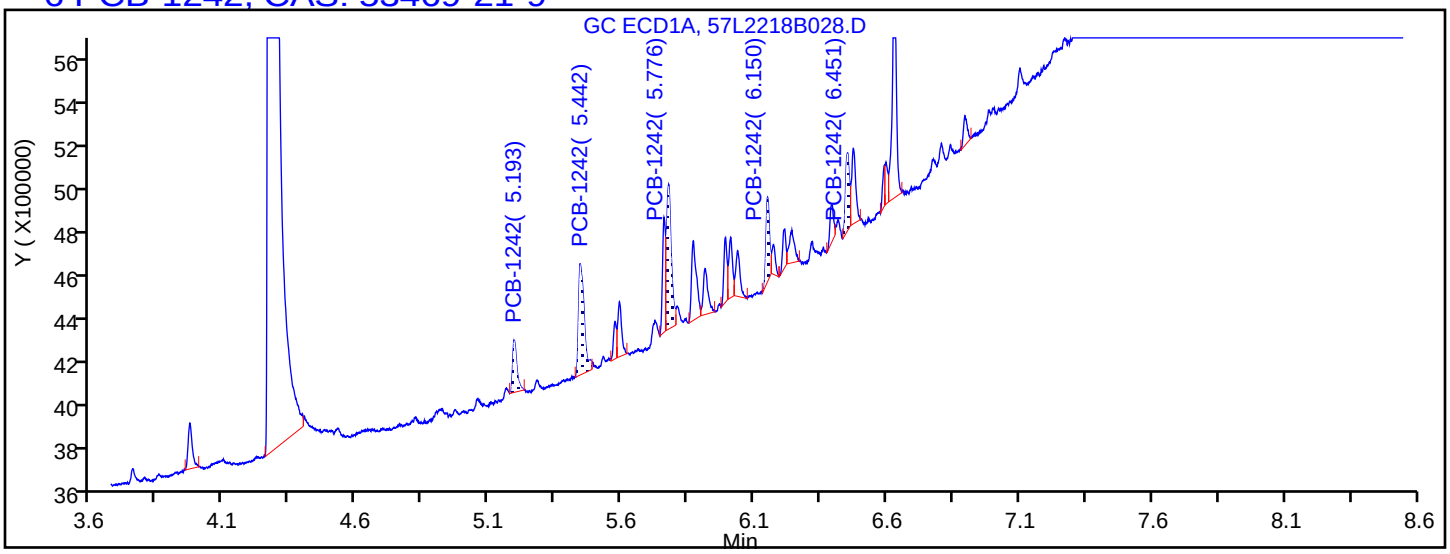
Operator ID: ar ALS Bottle#: 26 Worklist Smp#: 29

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

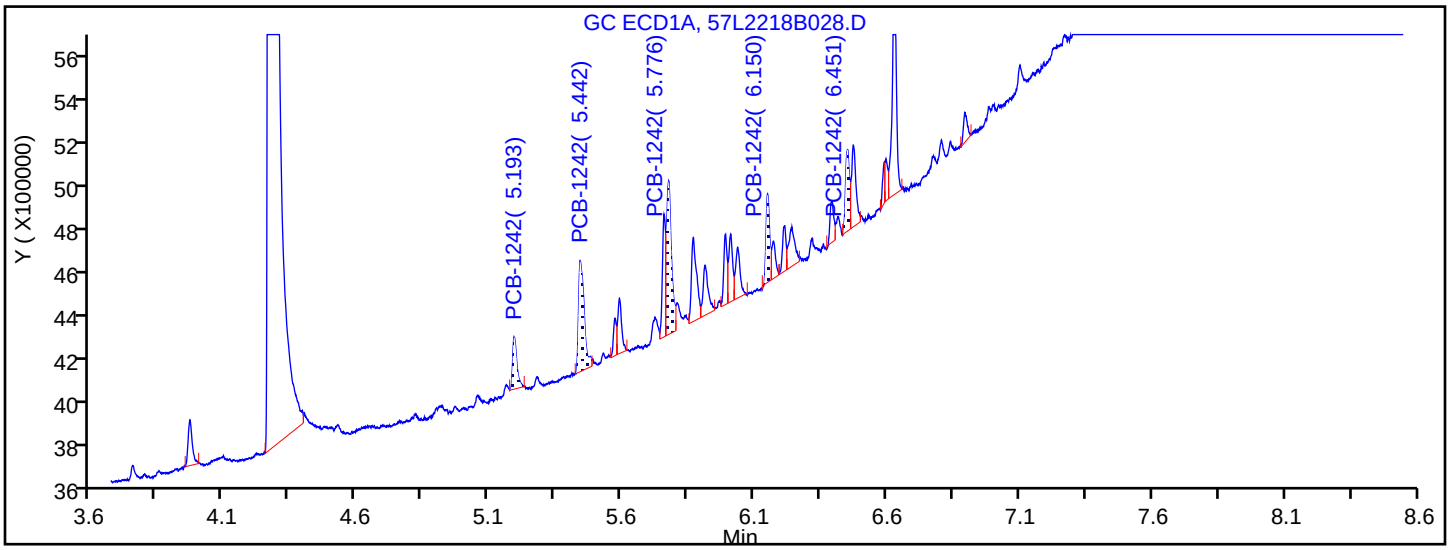
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.193	Response = 256766
5.442	Response = 724732
5.776	Response = 800664
6.150	Response = 339623
6.451	Response = 356294



Manual Integration Results

5.193	Response = 256766	
5.442	Response = 724732	
5.776	Response = 889798	M
6.150	Response = 365725	M
6.451	Response = 377956	M

Reviewer: ruslandera, 23-Dec-2018 15:23:44

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D

Injection Date: 23-Dec-2018 01:06:07 Instrument ID: TAC057

Lims ID: ic

Client ID:

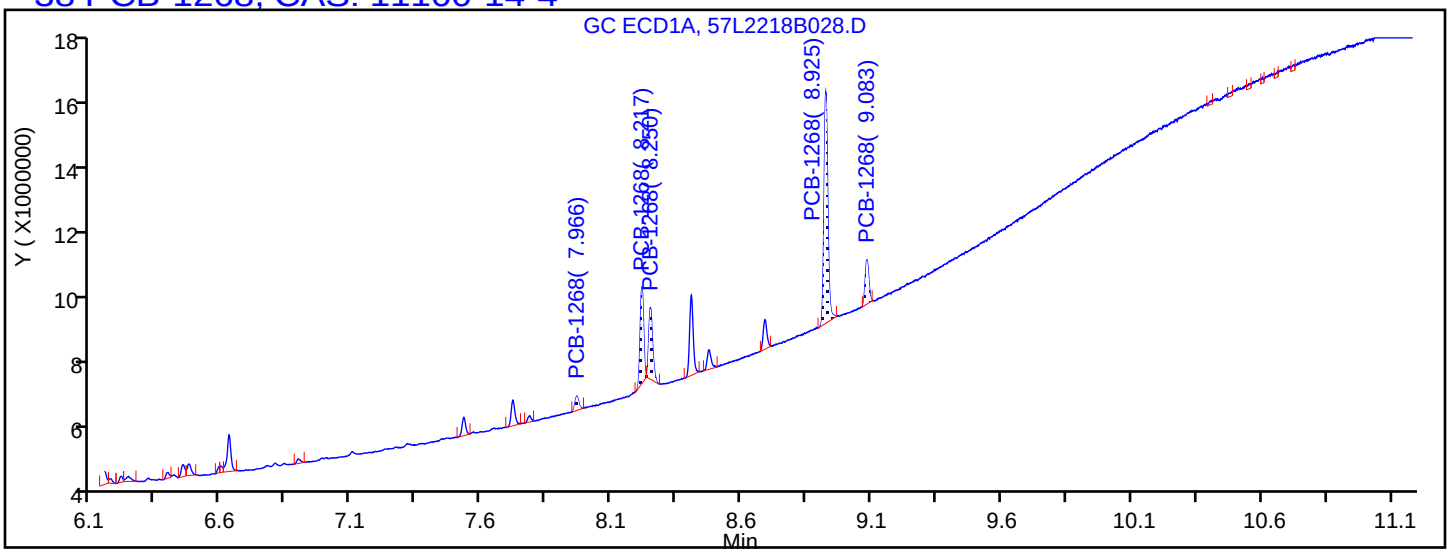
Operator ID: ar ALS Bottle#: 26 Worklist Smp#: 29

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

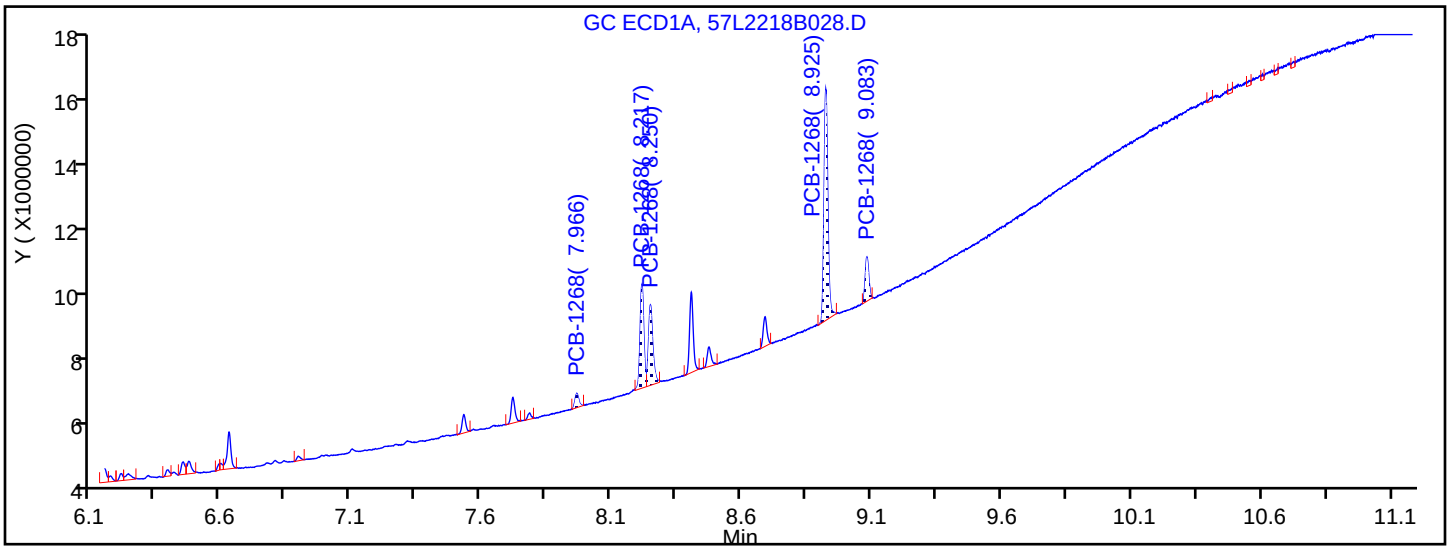
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.966	Response = 423813
8.217	Response = 2534191
8.250	Response = 2127640
8.925	Response = 6727186
9.083	Response = 1227352



Manual Integration Results

7.966	Response = 423813	
8.217	Response = 3014897	M
8.250	Response = 2694369	M
8.925	Response = 6727186	
9.083	Response = 1227352	

Reviewer: ruslandera, 23-Dec-2018 15:24:03

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 23:03 Calibration End Date: 12/23/2018 01:06 Calibration ID: 27227

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/29	57L2218B028.D
Level 2	IC 580-291937/28	57L2218B027.D
Level 3	IC 580-291937/27	57L2218B026.D
Level 4	IC 580-291937/26	57L2218B025.D
Level 5	ICIS 580-291937/25	57L2218B024.D
Level 6	IC 580-291937/24	57L2218B023.D
Level 7	IC 580-291937/23	57L2218B022.D
Level 8	IC 580-291937/22	57L2218B021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	+++++ 0.0246	0.0355 0.0227	0.0325 0.0229	0.0299	0.0276	Lin2	0.1233	0.0249				9.7			0.9900		0.9900
PCB-1242 Peak 2	0.0205 0.0136	0.0190 0.0125	0.0183 0.0127	0.0167	0.0154	Qua1	0.0591	0.0136	-0.000001			19.8			0.9980		0.9900
PCB-1242 Peak 3	+++++ 0.0234	0.0325 0.0215	0.0300 0.0223	0.0279	0.0258	Lin2	0.1028	0.0236				8.5			0.9920		0.9900
PCB-1242 Peak 4	+++++ 0.0277	0.0376 0.0258	0.0352 0.0266	0.0327	0.0300	Lin2	0.1114	0.0280				7.9			0.9930		0.9900
PCB-1242 Peak 5	0.0371 0.0270	0.0351 0.0253	0.0329 0.0263	0.0307	0.0286	Lin2	0.0544	0.0278				7.7			0.9930		0.9900
PCB-1268 Peak 1	0.0197 0.0124	0.0175 0.0115	0.0158 0.0119	0.0148	0.0139	Lin2	0.0378	0.0129				9.1			0.9910		0.9900
PCB-1268 Peak 2	0.1688 0.1166	0.1509 0.1148	0.1336 0.1307	0.1261	0.1200	Lin2	0.2533	0.1209				4.8			0.9970		0.9900
PCB-1268 Peak 3	0.1530 0.1034	0.1379 0.1003	0.1230 0.1102	0.1146	0.1083	Lin2	0.2501	0.1072				5.0			0.9970		0.9900
PCB-1268 Peak 4	0.1207 0.0843	0.1097 0.0830	0.0986 0.0917	0.0927	0.0883	Lin2	0.1786	0.0878				4.6			0.9980		0.9900
PCB-1268 Peak 5	0.3323 0.2432	0.2949 0.2700	0.2687 0.3011	0.2614	0.2508	Lin2	0.3340	0.2622				7.4			0.9940		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/22/2018 23:03 Calibration End Date: 12/23/2018 01:06 Calibration ID: 27227

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/29	57L2218B028.D
Level 2	IC 580-291937/28	57L2218B027.D
Level 3	IC 580-291937/27	57L2218B026.D
Level 4	IC 580-291937/26	57L2218B025.D
Level 5	ICIS 580-291937/25	57L2218B024.D
Level 6	IC 580-291937/24	57L2218B023.D
Level 7	IC 580-291937/23	57L2218B022.D
Level 8	IC 580-291937/22	57L2218B021.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin2	+++++ 137375290	4027902 257896018	9127499 514514559	16828176	31194765	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 2	BNB	Qua1	1167182 75931750	2158111 141556008	5122688 284733692	9408839	17426298	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 3	BNB	Lin2	+++++ 130641232	3684714 244401146	8417386 500658158	15662401	29242640	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 4	BNB	Lin2	+++++ 154792502	4255256 293686367	9889640 597989322	18363183	33945709	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1242 Peak 5	BNB	Lin2	2112512 150727809	3975340 288071650	9219728 590791645	17267802	32400851	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 1	BNB	Lin2	1120243 69087196	1985150 130256235	4423449 268218601	8297123	15723441	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 2	BNB	Lin2	9622539 651569663	17104183 1304804977	37495471 2939638303	70852143	135724391	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 3	BNB	Lin2	8723088 577992025	15625664 1139613733	34523562 2478930145	64382070	122483833	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 4	BNB	Lin2	6881169 471000050	12434867 943411344	27679686 2063127780	52089659	99875445	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1268 Peak 5	BNB	Lin2	18940493 1359376876	33416835 3069024907	75396363 6775167233	146909877	283692340	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:

Lin2 = Linear 1/conc^2 ISTD
Qua1 = Quadratic 1/conc ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B021.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Dec-2018 23:03:20 ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:54 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:02:38

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.276	0.001	186384899	100.0	100.0	
2	4.597	4.596	0.001	1124921082	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3772.2	
2						3990.8	
						RPD = 5.63	
6 PCB-1242							M
1	5.187	5.189	-0.002	88043420	2000.0	1740.2	M
1	5.439	5.441	-0.002	197514749	2000.0	1863.8	M
1	5.770	5.771	-0.001	235955316	2000.0	1826.6	M
1	6.147	6.148	-0.001	124724707	2000.0	1887.2	M
1	6.444	6.446	-0.002	131728110	2000.0	1936.3	M
		Average of Peak Amounts =				1850.8	
2	6.044	6.044	0.000	514514559	2000.0	1831.6	
2	6.241	6.240	0.001	284733692	2000.0	2025.0	
2	6.852	6.852	0.000	500658158	2000.0	1877.8	
2	7.178	7.177	0.001	597989322	2000.0	1892.1	
2	7.366	7.364	0.002	590791645	2000.0	1885.4	
		Average of Peak Amounts =				1902.4	
						RPD = 2.75	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							
1	7.966	7.966	0.000	136881765	2000.0	1873.8	
1	8.218	8.217	0.001	918779364	2000.0	1820.4	
1	8.250	8.249	0.001	896426250	2000.0	1896.0	
1	8.927	8.925	0.002	2261011308	2000.0	2056.2	
1	9.083	9.083	0.000	429636935	2000.0	1960.4	
		Average of Peak Amounts =				1921.4	
2	8.819	8.819	0.000	268218601	2000.0	1845.2	
2	9.131	9.128	0.003	2939638303	2000.0	2160.1	
2	9.171	9.168	0.003	2478930145	2000.0	2054.2	
2	9.398	9.395	0.003	2063127780	2000.0	2087.1	
2	9.915	9.908	0.007	6775167233	2000.0	2295.7	
		Average of Peak Amounts =				2088.5	
						RPD = 8.33	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268_ICSTK_00007	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:15:56 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B021.D

Injection Date: 22-Dec-2018 23:03:20 Instrument ID: TAC057

Lims ID: ic

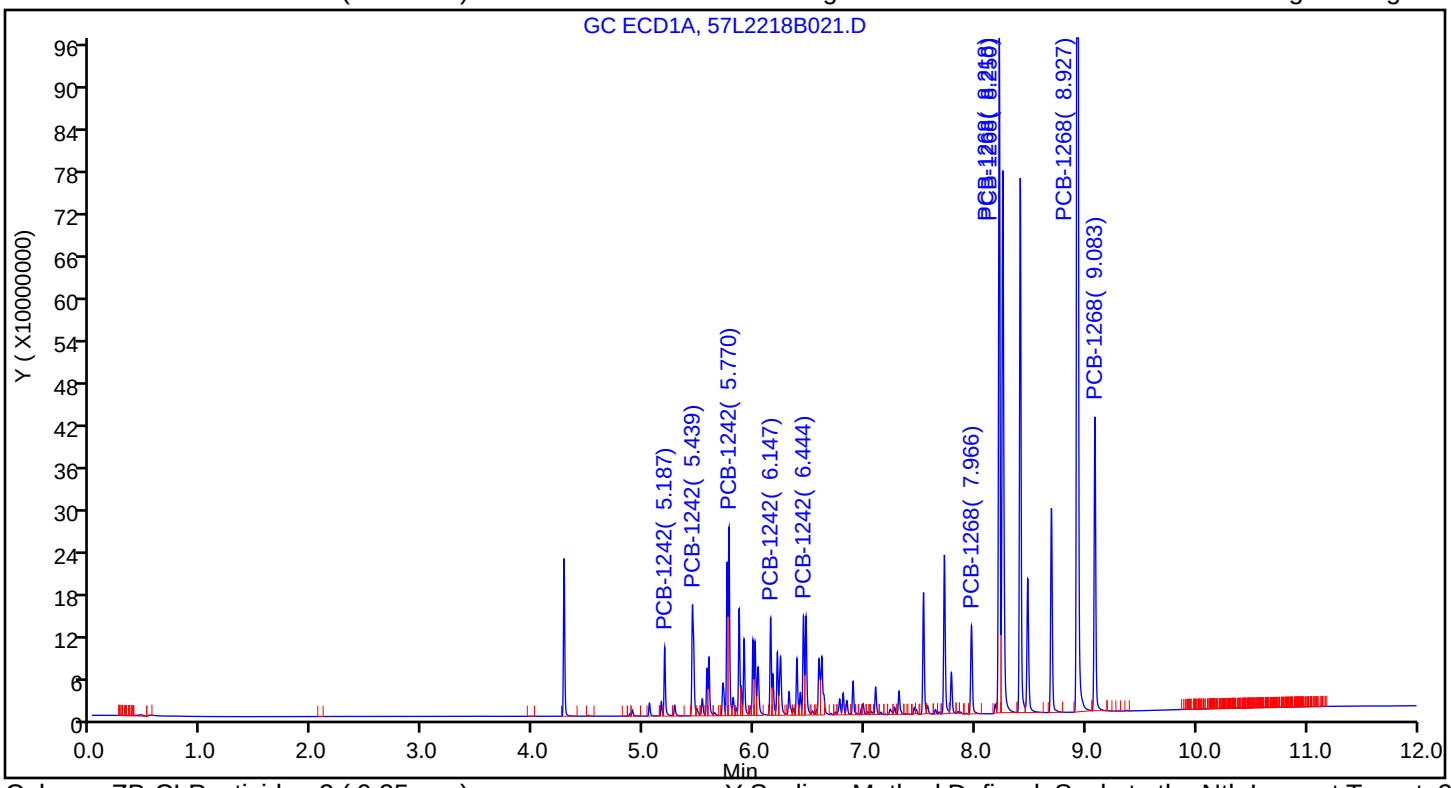
Client ID:

Operator ID: ar ALS Bottle#: 19 Worklist Smp#: 22

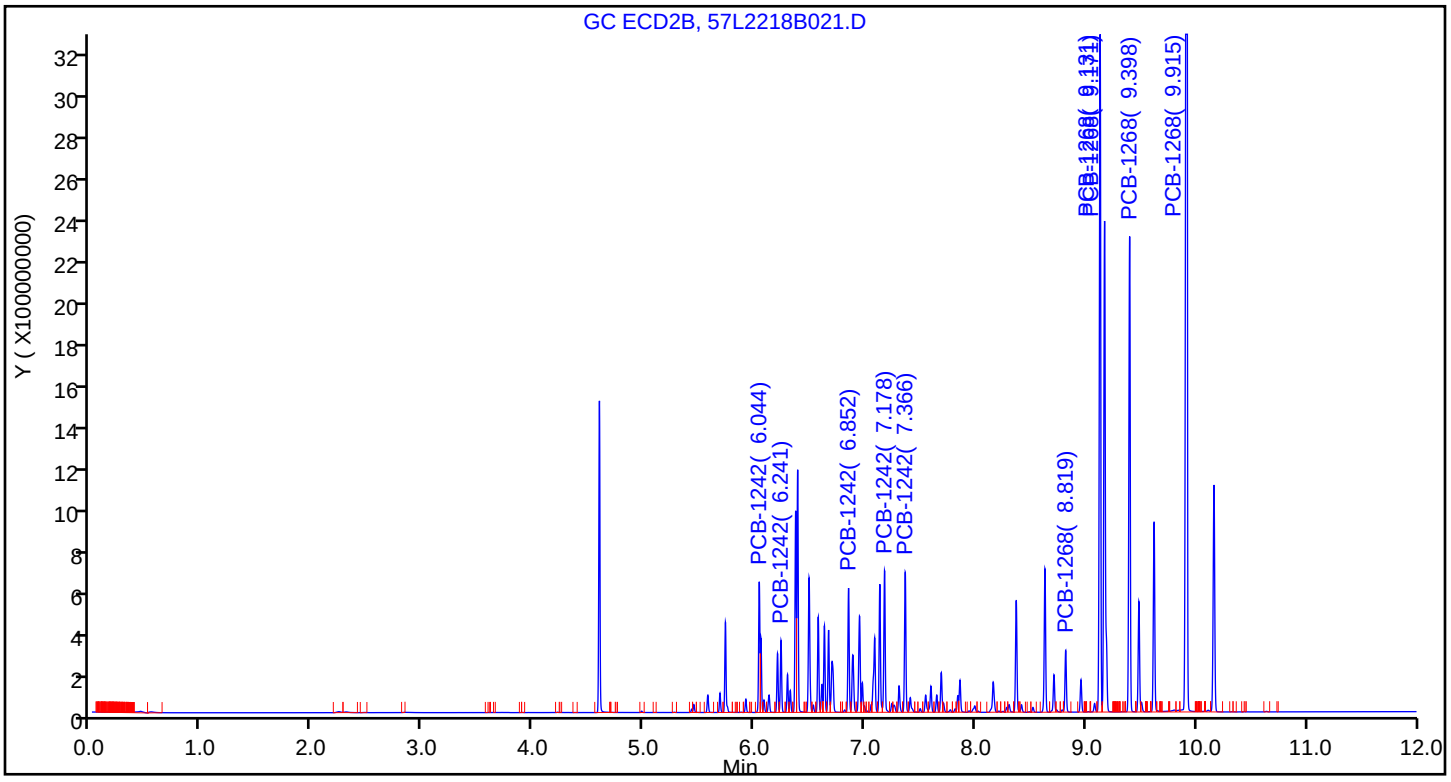
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B022.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Dec-2018 23:20:47 ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:58 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:03:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	191059587	100.0	100.0	
2	4.596	4.596	0.000	1136761576	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1808.0	
2						1864.9	
						RPD = 3.10	
6 PCB-1242							M
1	5.187	5.189	-0.002	44229340	1000.0	852.8	M
1	5.439	5.441	-0.002	99327396	1000.0	912.3	M
1	5.770	5.771	-0.001	120630546	1000.0	910.0	M
1	6.146	6.148	-0.002	62515061	1000.0	922.4	M
1	6.445	6.446	-0.001	63668134	1000.0	912.6	M
		Average of Peak Amounts =				902.0	
2	6.043	6.044	-0.001	257896018	1000.0	906.0	
2	6.240	6.240	0.000	141556008	1000.0	949.5	
2	6.851	6.852	-0.001	244401146	1000.0	904.9	
2	7.177	7.177	0.000	293686367	1000.0	917.5	
2	7.365	7.364	0.001	288071650	1000.0	908.7	
		Average of Peak Amounts =				917.3	
						RPD = 1.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.965	7.966	-0.001	67022828	1000.0	895.0	
1	8.217	8.217	0.000	446563098	1000.0	863.1	M
1	8.249	8.249	0.000	441830105	1000.0	911.6	M
1	8.925	8.925	0.000	1056144820	1000.0	936.3	
1	9.082	9.083	-0.001	207608419	1000.0	923.8	
		Average of Peak Amounts =				906.0	
2	8.818	8.819	-0.001	130256235	1000.0	885.2	
2	9.129	9.128	0.001	1304804977	1000.0	947.6	
2	9.170	9.168	0.002	1139613733	1000.0	933.3	
2	9.396	9.395	0.001	943411344	1000.0	943.3	
2	9.911	9.908	0.003	3069024907	1000.0	1028.4	
		Average of Peak Amounts =				947.6	
						RPD = 4.49	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268_ICSTK_00007	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:00 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B022.D

Injection Date: 22-Dec-2018 23:20:47 Instrument ID: TAC057

Lims ID: ic

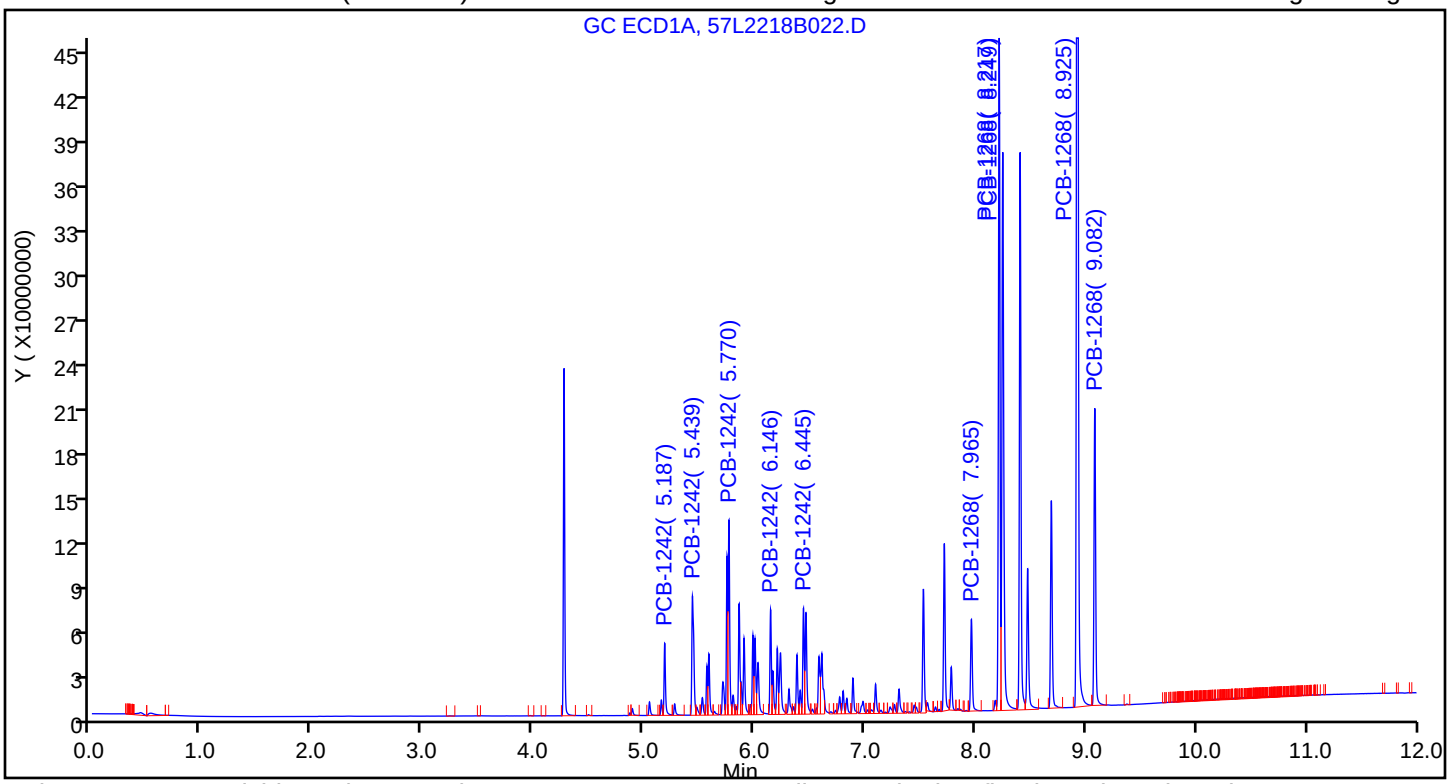
Client ID:

Operator ID: ar ALS Bottle#: 20 Worklist Smp#: 23

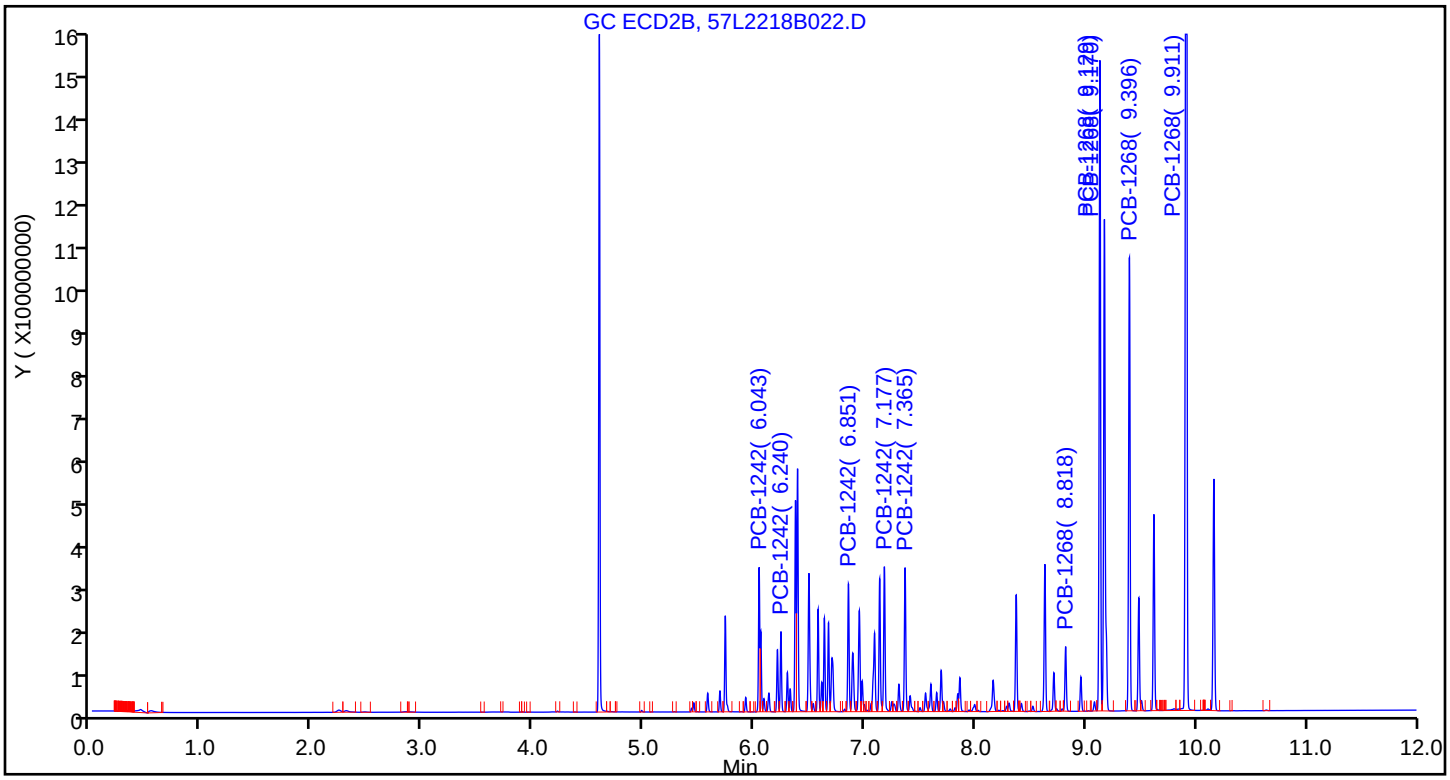
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B023.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Dec-2018 23:38:23 ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:04 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:03:25

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.276	0.000	186821157	100.0	100.0	
2	4.595	4.596	-0.001	1117803228	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						974.1	
2						966.9	
						RPD = 0.73	
6 PCB-1242							M
1	5.188	5.189	-0.001	23329313	500.0	460.0	
1	5.439	5.441	-0.002	53133829	500.0	497.3	M
1	5.770	5.771	-0.001	63557831	500.0	489.4	M
1	6.147	6.148	-0.001	32828982	500.0	495.1	M
1	6.445	6.446	-0.001	33750919	500.0	494.4	M
		Average of Peak Amounts =				487.2	
2	6.043	6.044	-0.001	137375290	500.0	488.5	
2	6.240	6.240	0.000	75931750	500.0	506.6	
2	6.852	6.852	0.000	130641232	500.0	489.9	
2	7.177	7.177	0.000	154792502	500.0	489.9	
2	7.365	7.364	0.001	150727809	500.0	482.6	
		Average of Peak Amounts =				491.5	
						RPD = 0.87	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.965	7.966	-0.001	36099475	500.0	493.0	M
1	8.217	8.217	0.000	232700809	500.0	460.0	
1	8.249	8.249	0.000	227716148	500.0	480.5	
1	8.925	8.925	0.000	553753395	500.0	501.4	
1	9.083	9.083	0.000	109741785	500.0	499.1	
		Average of Peak Amounts =				486.8	
2	8.819	8.819	0.000	69087196	500.0	476.1	
2	9.130	9.128	0.002	651569663	500.0	480.2	
2	9.169	9.168	0.001	577992025	500.0	480.2	
2	9.396	9.395	0.001	471000050	500.0	477.9	
2	9.910	9.908	0.002	1359376876	500.0	462.5	
		Average of Peak Amounts =				475.4	
						RPD = 2.37	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268_ICSTK_00007	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:06 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B023.D

Injection Date: 22-Dec-2018 23:38:23 Instrument ID: TAC057

Lims ID: ic

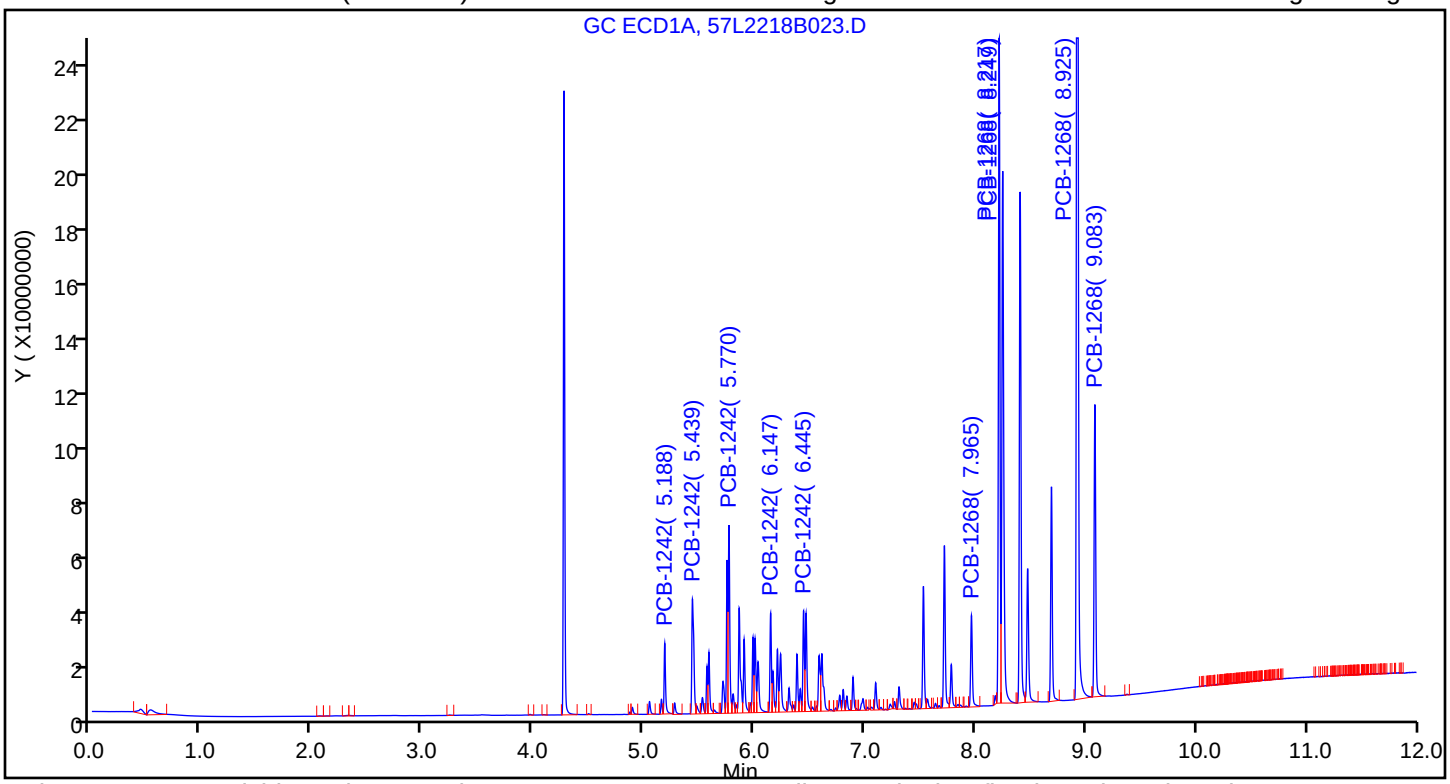
Client ID:

Operator ID: ar ALS Bottle#: 21 Worklist Smp#: 24

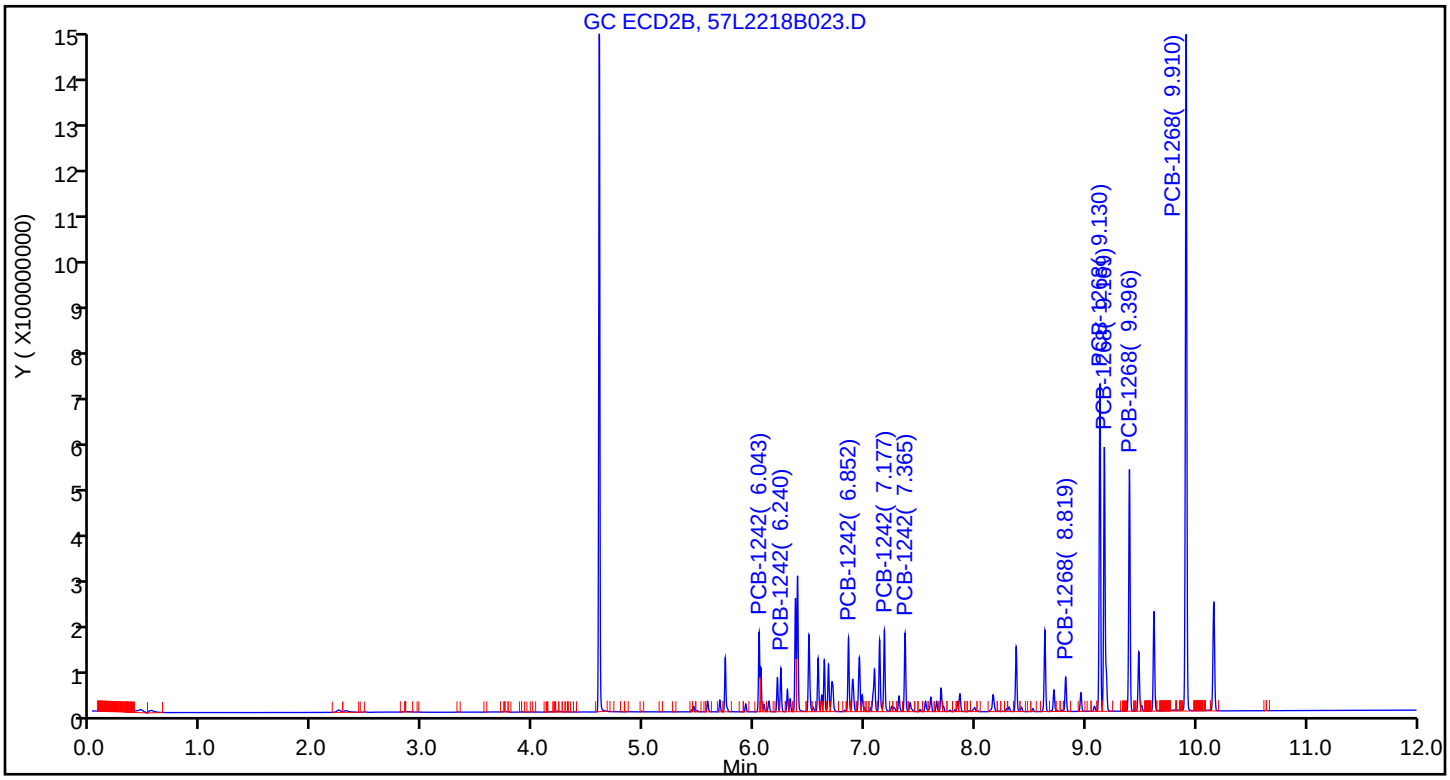
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Dec-2018 23:55:54 ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:08 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:02:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	187993764	100.0	100.0	a
2	4.596	4.596	0.000	1131258122	100.0	100.0	a
						RPD = 0.00	
6 PCB-1242							Ma
1	5.189	5.189	0.000	5206766	100.0	102.0	a
1	5.441	5.441	0.000	11646955	100.0	105.2	M
1	5.771	5.771	0.000	13898750	100.0	104.8	M
1	6.148	6.148	0.000	6807552	100.0	101.5	M
1	6.446	6.446	0.000	7144985	100.0	103.5	M
		Average of Peak Amounts =				103.4	
2	6.044	6.044	0.000	31194765	100.0	105.8	a
2	6.240	6.240	0.000	17426298	100.0	109.7	a
2	6.852	6.852	0.000	29242640	100.0	105.0	a
2	7.177	7.177	0.000	33945709	100.0	103.1	a
2	7.364	7.364	0.000	32400851	100.0	101.0	a
		Average of Peak Amounts =				104.9	
						RPD = 1.44	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							Ma
1	7.966	7.966	0.000	7646139	100.0	103.8	M
1	8.217	8.217	0.000	49553026	100.0	97.3	a
1	8.249	8.249	0.000	47759416	100.0	100.2	a
1	8.925	8.925	0.000	115932439	100.0	103.3	a
1	9.083	9.083	0.000	22697759	100.0	102.1	a
		Average of Peak Amounts =				101.3	
2	8.819	8.819	0.000	15723441	100.0	104.8	a
2	9.128	9.128	0.000	135724391	100.0	97.2	a
2	9.168	9.168	0.000	122483833	100.0	98.7	a
2	9.395	9.395	0.000	99875445	100.0	98.5	a
2	9.908	9.908	0.000	283692340	100.0	94.4	a
		Average of Peak Amounts =				98.7	
						RPD = 2.61	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

4268IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:11 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D

Injection Date: 22-Dec-2018 23:55:54 Instrument ID: TAC057

Lims ID: icis

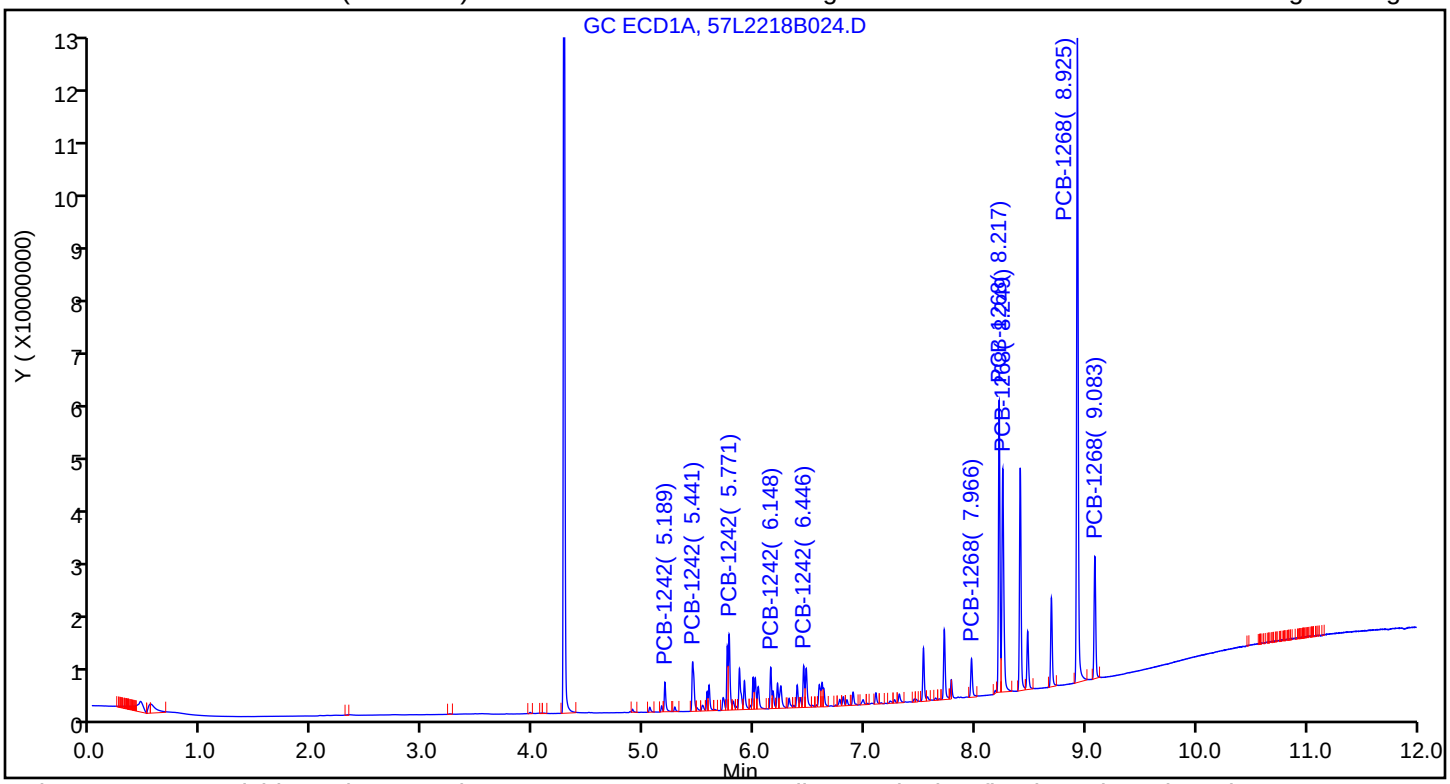
Client ID:

Operator ID: ar ALS Bottle#: 22 Worklist Smp#: 25

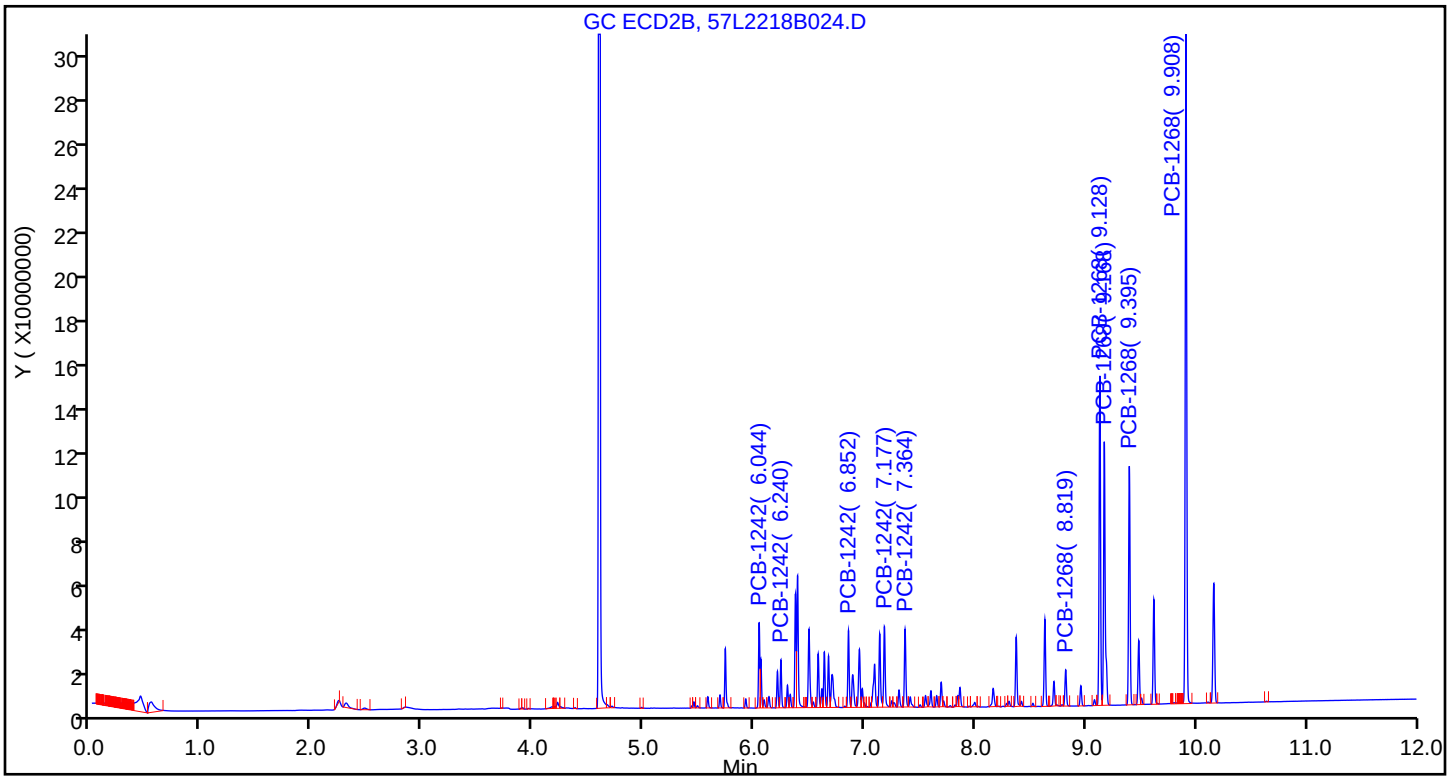
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

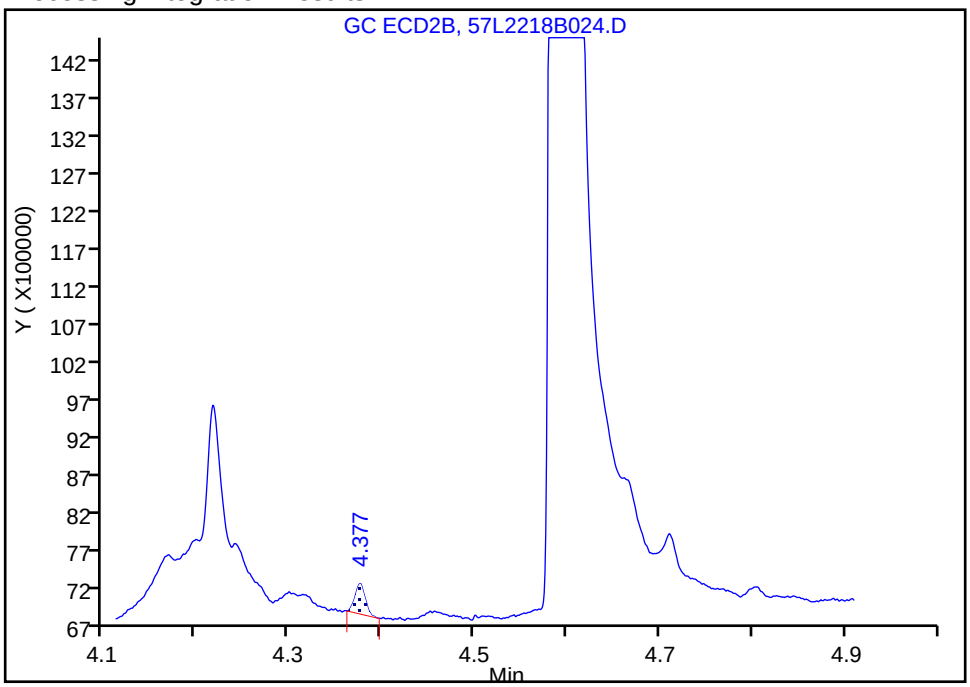
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D
Injection Date: 22-Dec-2018 23:55:54 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

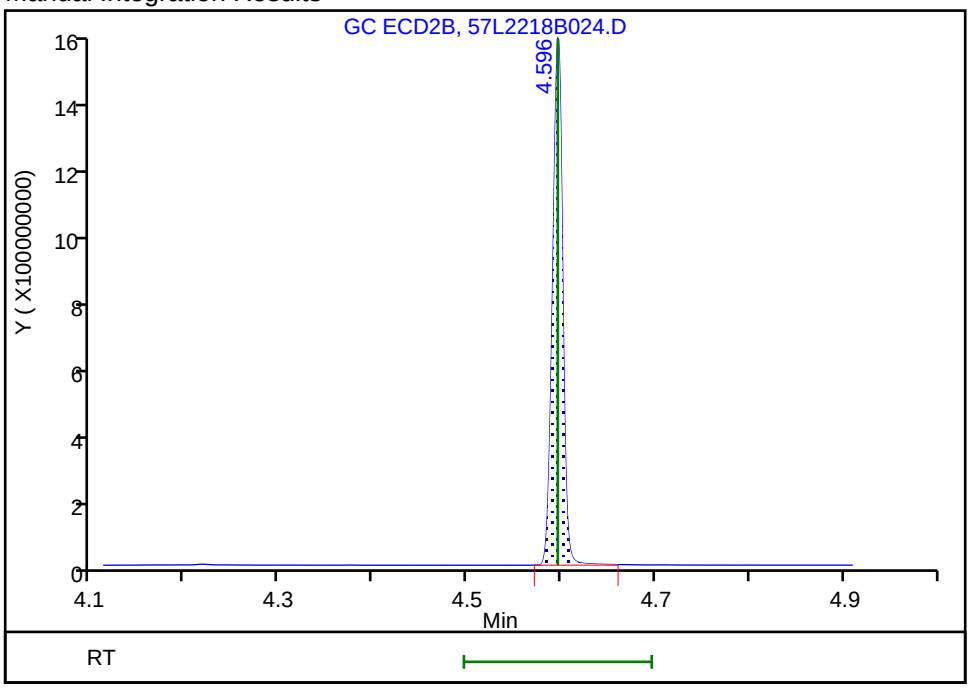
Processing Integration Results

RT: 4.38
Area: 306405
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1131258122
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:59:48
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:16:12 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D

Injection Date: 22-Dec-2018 23:55:54 Instrument ID: TAC057

Lims ID: icis

Client ID:

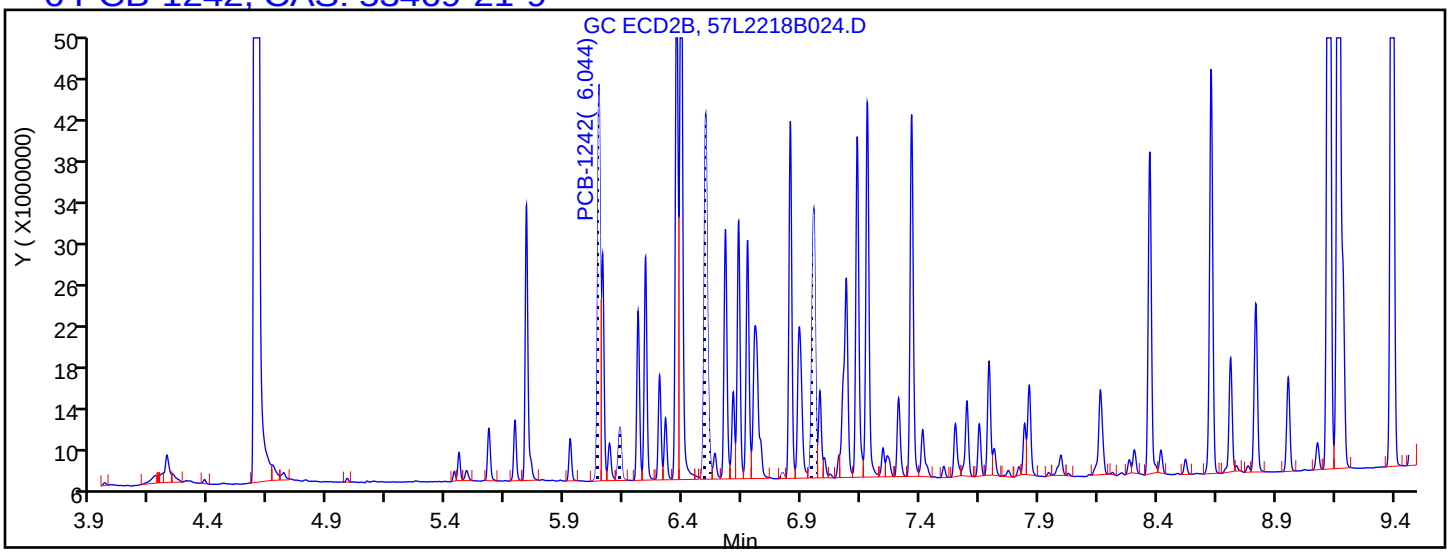
Operator ID: ar ALS Bottle#: 22 Worklist Smp#: 25

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

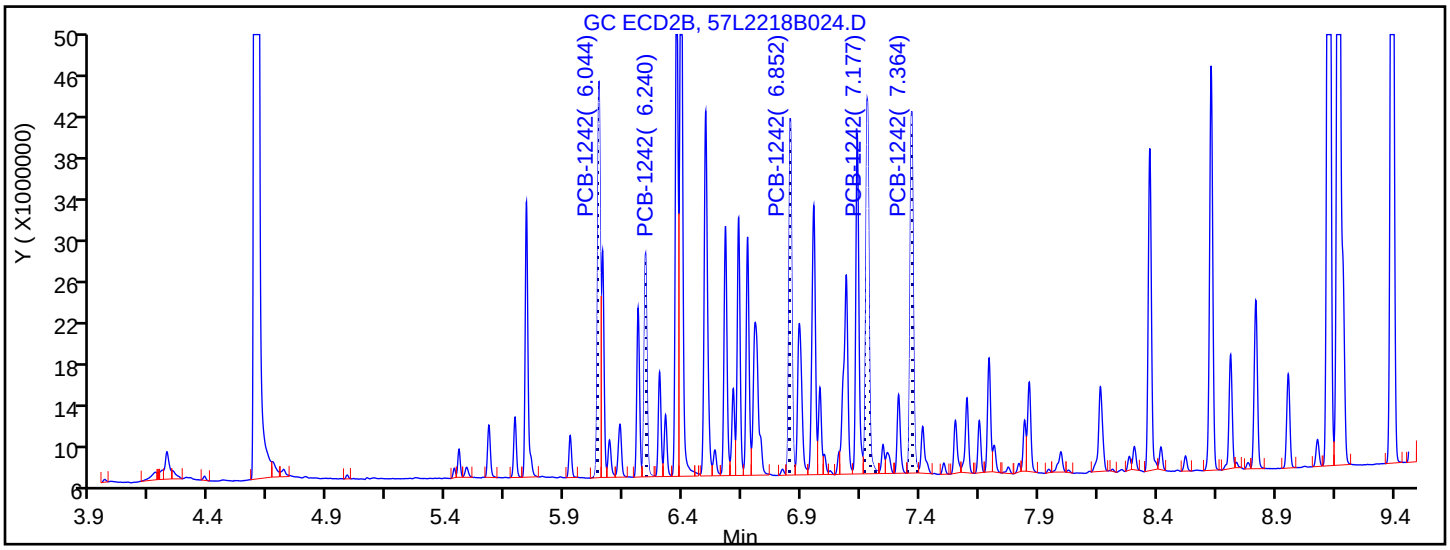
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

6.044	Response = 31194765
6.132	Response = 4982064
6.494	Response = 35281283
6.819	Response = 540601
6.951	Response = 27030919



Manual Integration Results

6.044	Response = 31194765	M
6.240	Response = 17426298	M
6.852	Response = 29242640	M
7.177	Response = 33945709	M
7.364	Response = 32400851	M

Reviewer: ruslandera, 23-Dec-2018 15:00:20

Audit Action: Assigned Compound ID Audit Reason:

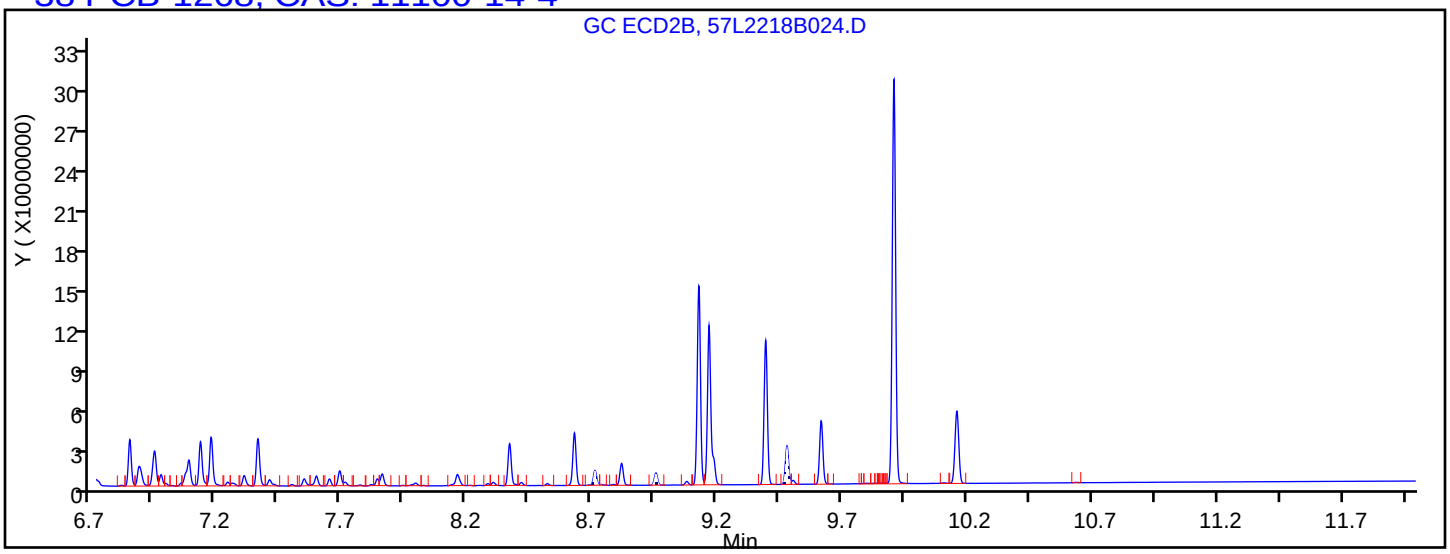
Report Date: 23-Dec-2018 16:16:12 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B024.D

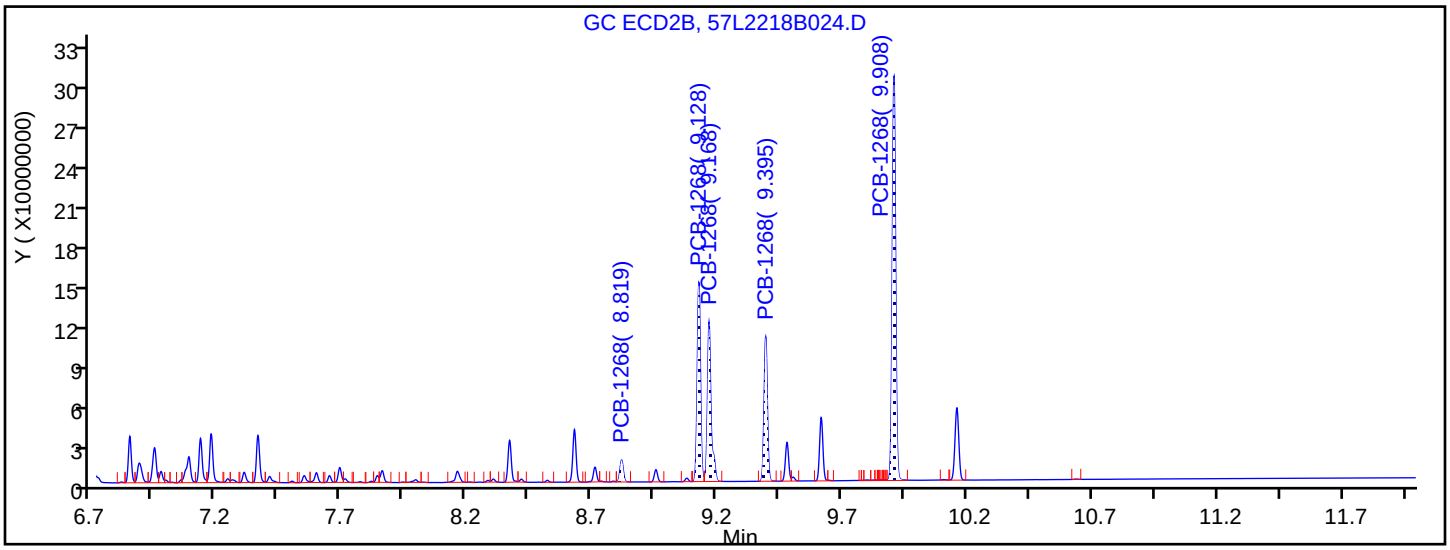
Injection Date:	22-Dec-2018 23:55:54	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

8.713	Response = 10427102
8.738	Response = 390311
8.956	Response = 8499315
9.480	Response = 27061635
9.646	Response = 370319



Manual Integration Results

8.819	Response = 15723441	M
9.128	Response = 135724391	M
9.168	Response = 122483833	M
9.395	Response = 99875445	M
9.908	Response = 283692340	M

Reviewer: ruslandera, 23-Dec-2018 15:01:10

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B025.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Dec-2018 00:13:26 ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:15 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:04:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	186882369	100.0	100.0	
2	4.596	4.596	0.000	1123950214	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						103.5	
2						105.9	
						RPD = 2.27	
6 PCB-1242							
1	5.191	5.191	0.000	2665763	50.0	52.5	
1	5.441	5.441	0.000	6029013	50.0	52.9	
1	5.772	5.772	0.000	7083079	50.0	52.7	
1	6.149	6.149	0.000	3471209	50.0	51.7	
1	6.448	6.448	0.000	3537555	50.0	51.2	
		Average of Peak Amounts =				52.2	
2	6.043	6.043	0.000	16828176	50.0	55.2	
2	6.241	6.241	0.000	9408839	50.0	57.5	
2	6.852	6.852	0.000	15662401	50.0	54.6	
2	7.177	7.177	0.000	18363183	50.0	54.3	
2	7.365	7.365	0.000	17267802	50.0	53.3	
		Average of Peak Amounts =				55.0	
						RPD = 5.12	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	3565149	50.0	48.7	
1	8.217	8.217	0.000	25712574	50.0	50.8	M
1	8.249	8.249	0.000	24848197	50.0	52.4	M
1	8.925	8.925	0.000	59215699	50.0	52.4	
1	9.083	9.083	0.000	11623832	50.0	52.3	
		Average of Peak Amounts =				51.3	
2	8.818	8.818	0.000	8297123	50.0	54.3	
2	9.128	9.128	0.000	70852143	50.0	50.1	
2	9.170	9.170	0.000	64382070	50.0	51.1	
2	9.395	9.395	0.000	52089659	50.0	50.8	
2	9.910	9.910	0.000	146909877	50.0	48.6	
		Average of Peak Amounts =				51.0	
						RPD = 0.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268ICV100_00009	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:16 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B025.D

Injection Date: 23-Dec-2018 00:13:26 Instrument ID: TAC057

Lims ID: ic

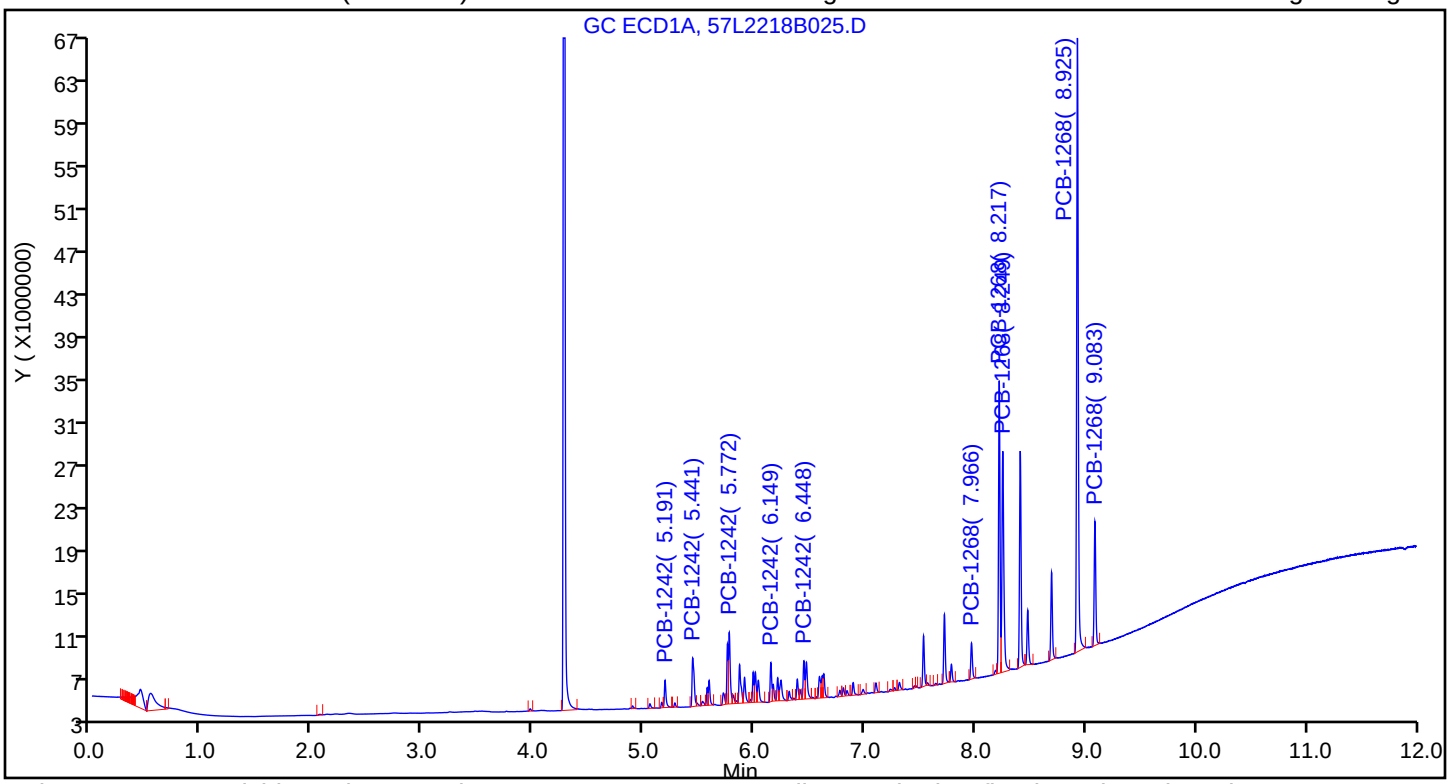
Client ID:

Operator ID: ar ALS Bottle#: 23 Worklist Smp#: 26

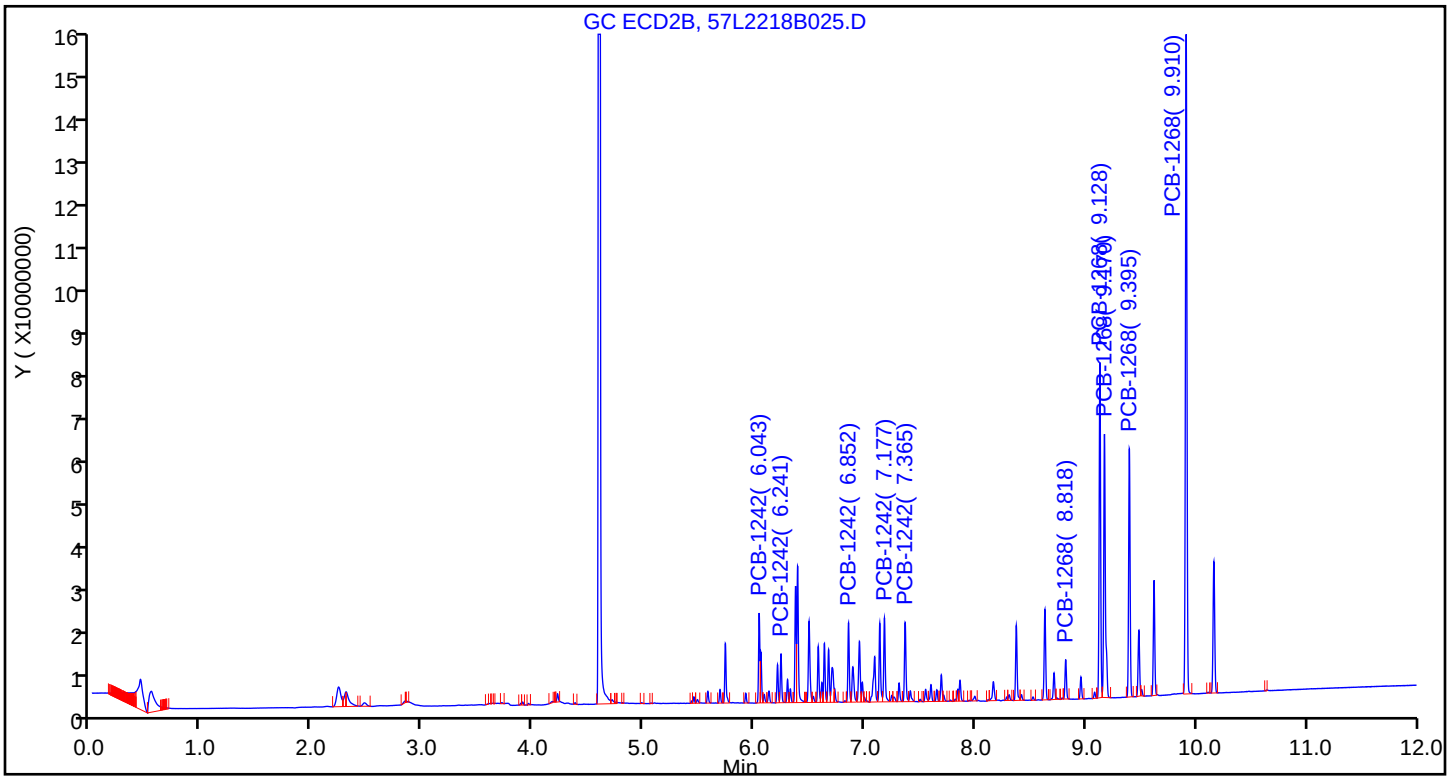
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Dec-2018 00:30:57 ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:18 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:04:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	186889073	100.0	100.0	
2	4.596	4.596	0.000	1122573101	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						53.5	
2						53.9	
						RPD = 0.75	
6 PCB-1242							M
1	5.192	5.191	0.001	1535642	25.0	30.3	M
1	5.441	5.441	0.000	3374544	25.0	27.8	M
1	5.773	5.772	0.001	3833899	25.0	27.6	M
1	6.149	6.149	0.000	1845011	25.0	27.2	M
1	6.448	6.448	0.000	1847634	25.0	26.4	M
		Average of Peak Amounts =				27.9	
2	6.043	6.043	0.000	9127499	25.0	27.7	M
2	6.240	6.241	-0.001	5122688	25.0	29.3	M
2	6.852	6.852	0.000	8417386	25.0	27.4	M
2	7.177	7.177	0.000	9889640	25.0	27.4	M
2	7.364	7.365	-0.001	9219728	25.0	27.6	M
		Average of Peak Amounts =				27.9	
						RPD = 0.06	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	1800875	25.0	24.6	
1	8.217	8.217	0.000	13037601	25.0	25.8	
1	8.249	8.249	0.000	12311430	25.0	26.0	
1	8.925	8.925	0.000	29877895	25.0	25.8	
1	9.083	9.083	0.000	5812222	25.0	25.9	
		Average of Peak Amounts =				25.6	
2	8.818	8.818	0.000	4423449	25.0	27.6	
2	9.128	9.128	0.000	37495471	25.0	25.5	M
2	9.168	9.170	-0.002	34523562	25.0	26.4	M
2	9.395	9.395	0.000	27679686	25.0	26.1	
2	9.908	9.910	-0.002	75396363	25.0	24.3	
		Average of Peak Amounts =				26.0	
						RPD = 1.50	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268IC0100_00011	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:20 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D

Injection Date: 23-Dec-2018 00:30:57 Instrument ID: TAC057

Lims ID: ic

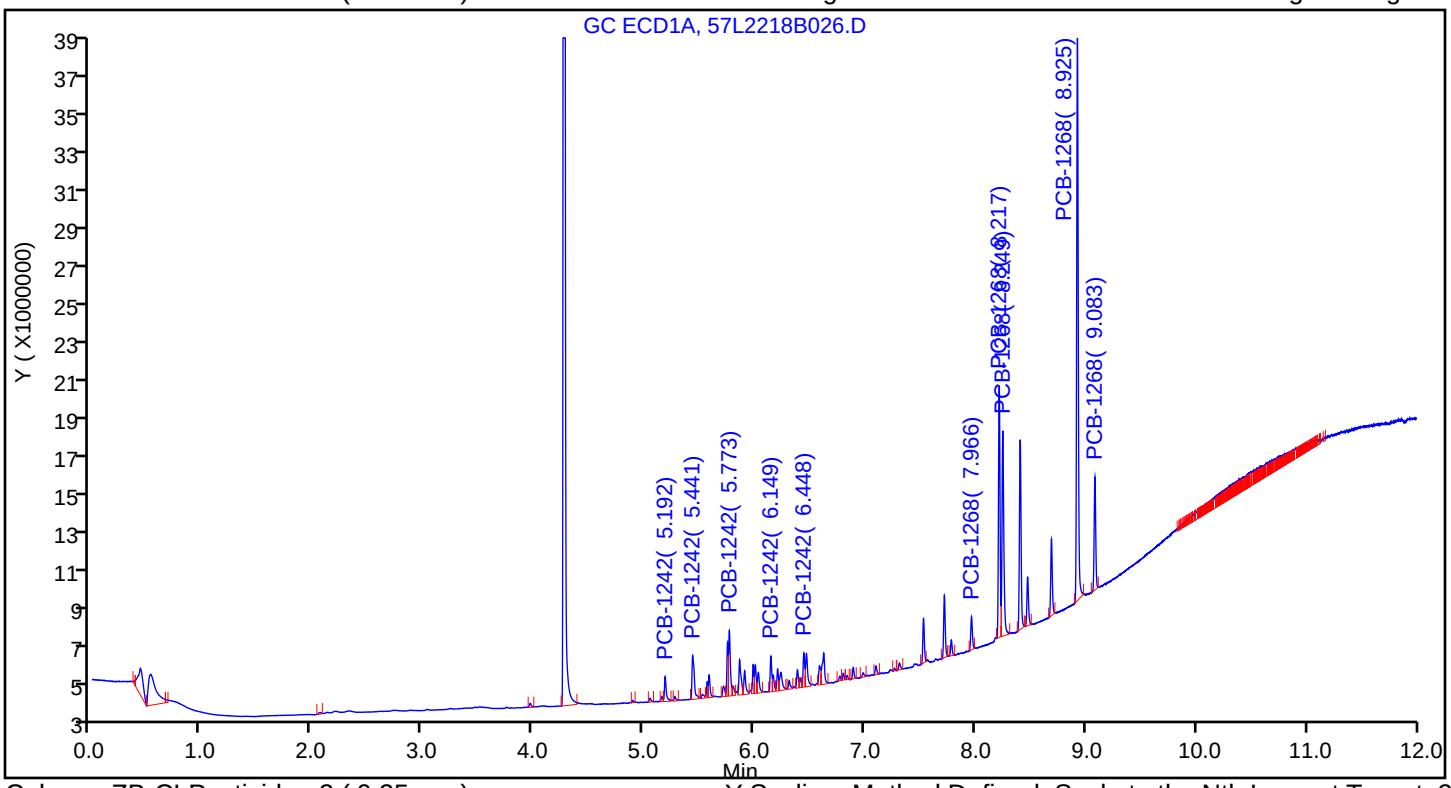
Client ID:

Operator ID: ar ALS Bottle#: 24 Worklist Smp#: 27

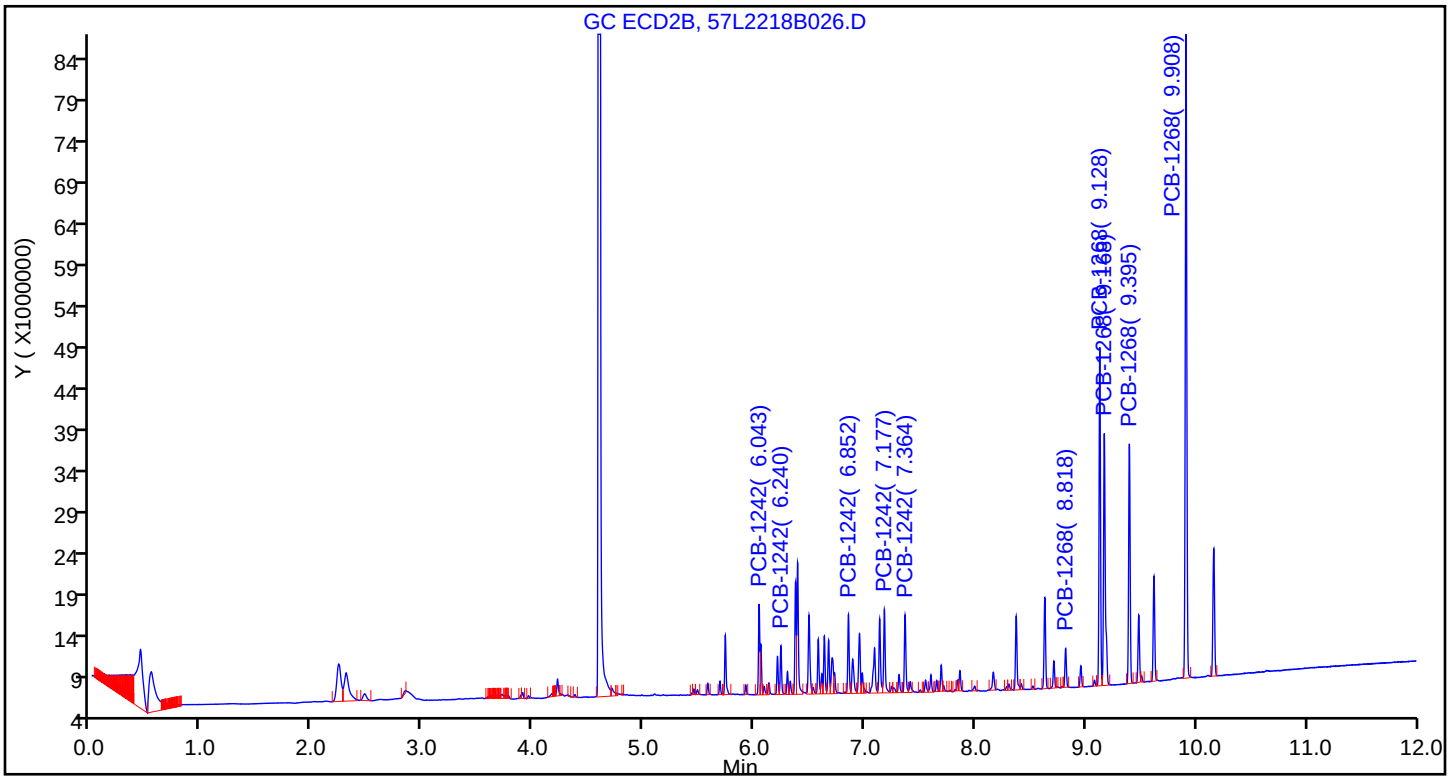
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:20 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D

Injection Date: 23-Dec-2018 00:30:57 Instrument ID: TAC057

Lims ID: ic

Client ID:

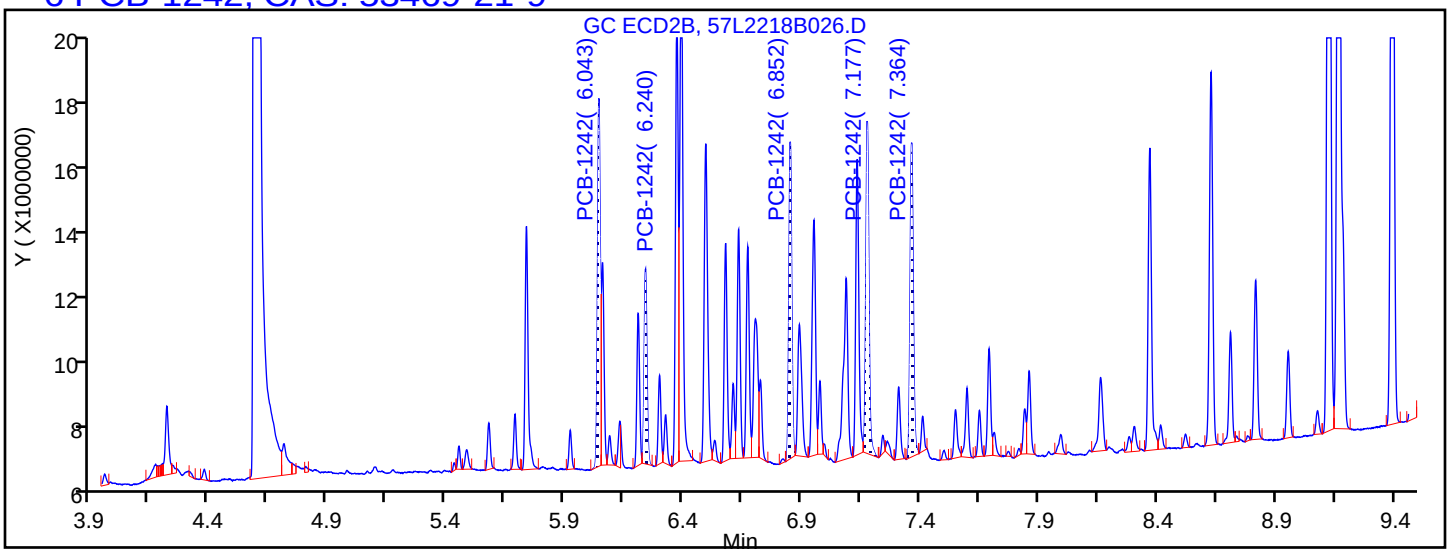
Operator ID: ar ALS Bottle#: 24 Worklist Smp#: 27

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

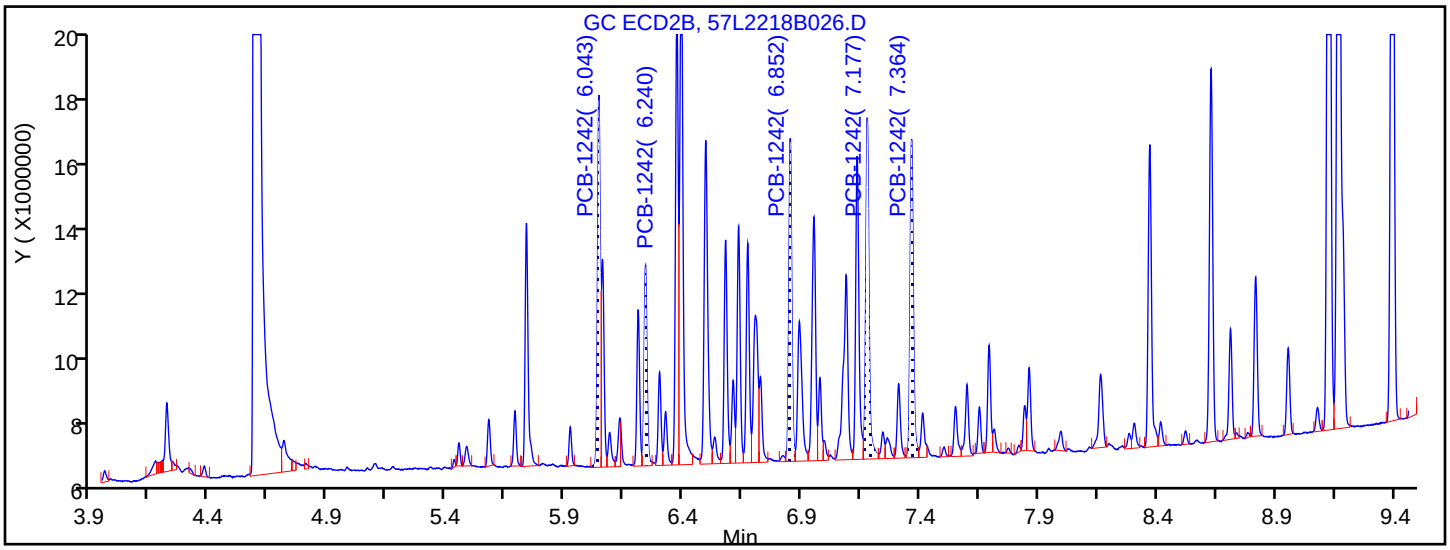
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

6.043	Response = 8895208
6.240	Response = 4761794
6.852	Response = 7977880
7.177	Response = 9051246
7.364	Response = 8799704



Manual Integration Results

6.043	Response = 9127499	M
6.240	Response = 5122688	M
6.852	Response = 8417386	M
7.177	Response = 9889640	M
7.364	Response = 9219728	M

Reviewer: ruslandera, 23-Dec-2018 15:22:38

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

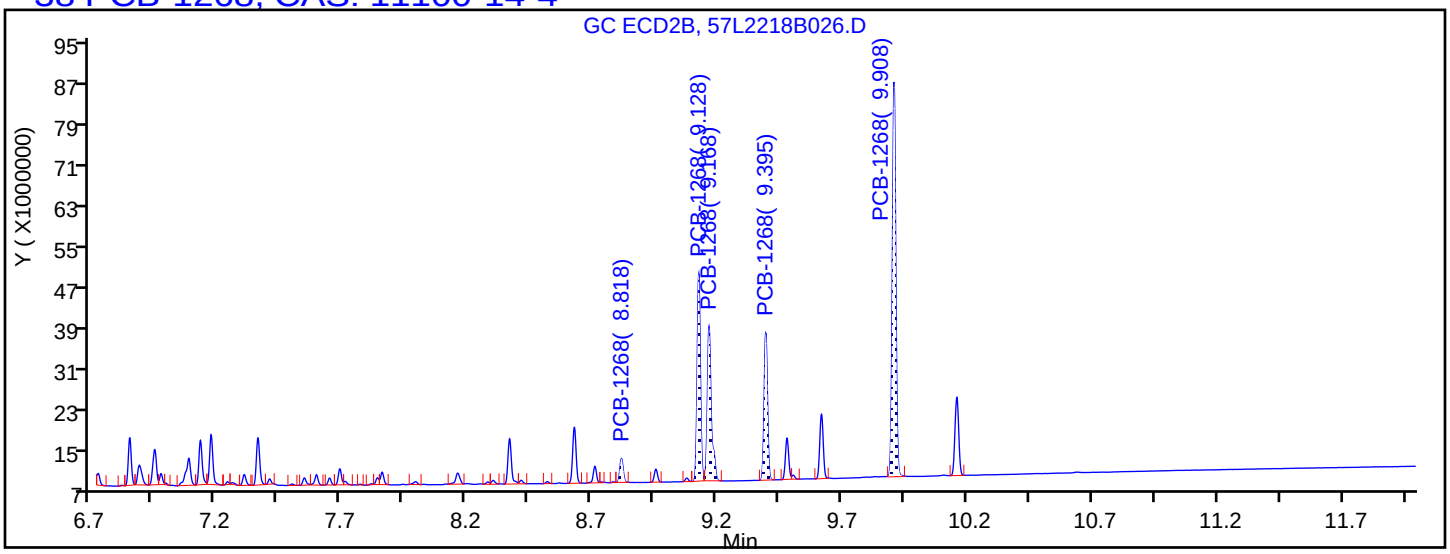
Report Date: 23-Dec-2018 16:16:20 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B026.D

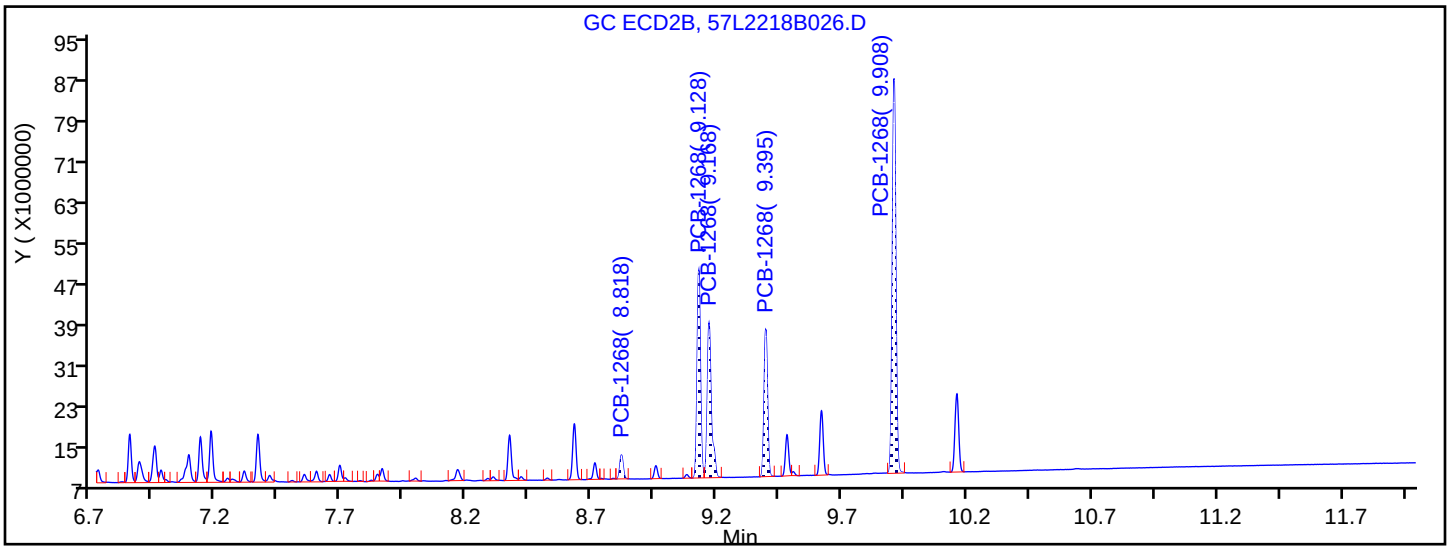
Injection Date:	23-Dec-2018 00:30:57	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

8.818	Response = 4423449
9.128	Response = 37303156
9.168	Response = 34191294
9.395	Response = 27679686
9.908	Response = 75396363



Manual Integration Results

8.818	Response = 4423449	
9.128	Response = 37495471	M
9.168	Response = 34523562	M
9.395	Response = 27679686	
9.908	Response = 75396363	

Reviewer: ruslandera, 23-Dec-2018 15:22:47

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Dec-2018 00:48:34 ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:23 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:05:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	188059310	100.0	100.0	
2	4.597	4.596	0.001	1133116928	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.8	
2						20.1	
						RPD = 3.59	
6 PCB-1242							M
1	5.193	5.191	0.002	550427	10.0	10.8	
1	5.443	5.441	0.002	1430320	10.0	9.40	M
1	5.775	5.772	0.003	1609730	10.0	10.4	M
1	6.149	6.149	0.000	750687	10.0	10.6	M
1	6.450	6.448	0.002	773999	10.0	10.6	M
		Average of Peak Amounts =				10.3	
2	6.043	6.043	0.000	4027902	10.0	9.32	
2	6.241	6.241	0.000	2158111	10.0	9.68	
2	6.853	6.852	0.001	3684714	10.0	9.41	
2	7.178	7.177	0.001	4255256	10.0	9.42	
2	7.366	7.365	0.001	3975340	10.0	10.7	
		Average of Peak Amounts =				9.70	
						RPD = 6.45	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.967	7.966	0.001	772434	10.0	10.5	
1	8.218	8.217	0.001	5669448	10.0	11.1	M
1	8.250	8.249	0.001	5203051	10.0	10.9	M
1	8.926	8.925	0.001	12281762	10.0	9.77	
1	9.083	9.083	0.000	2381670	10.0	10.2	
		Average of Peak Amounts =				10.5	
2	8.818	8.818	0.000	1985150	10.0	10.6	
2	9.128	9.128	0.000	17104183	10.0	10.4	M
2	9.169	9.170	-0.001	15625664	10.0	10.5	M
2	9.395	9.395	0.000	12434867	10.0	10.5	
2	9.909	9.910	-0.001	33416835	10.0	9.97	
		Average of Peak Amounts =				10.4	
						RPD = 0.85	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268IC0100_00011	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:25 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D

Injection Date: 23-Dec-2018 00:48:34 Instrument ID: TAC057

Lims ID: ic

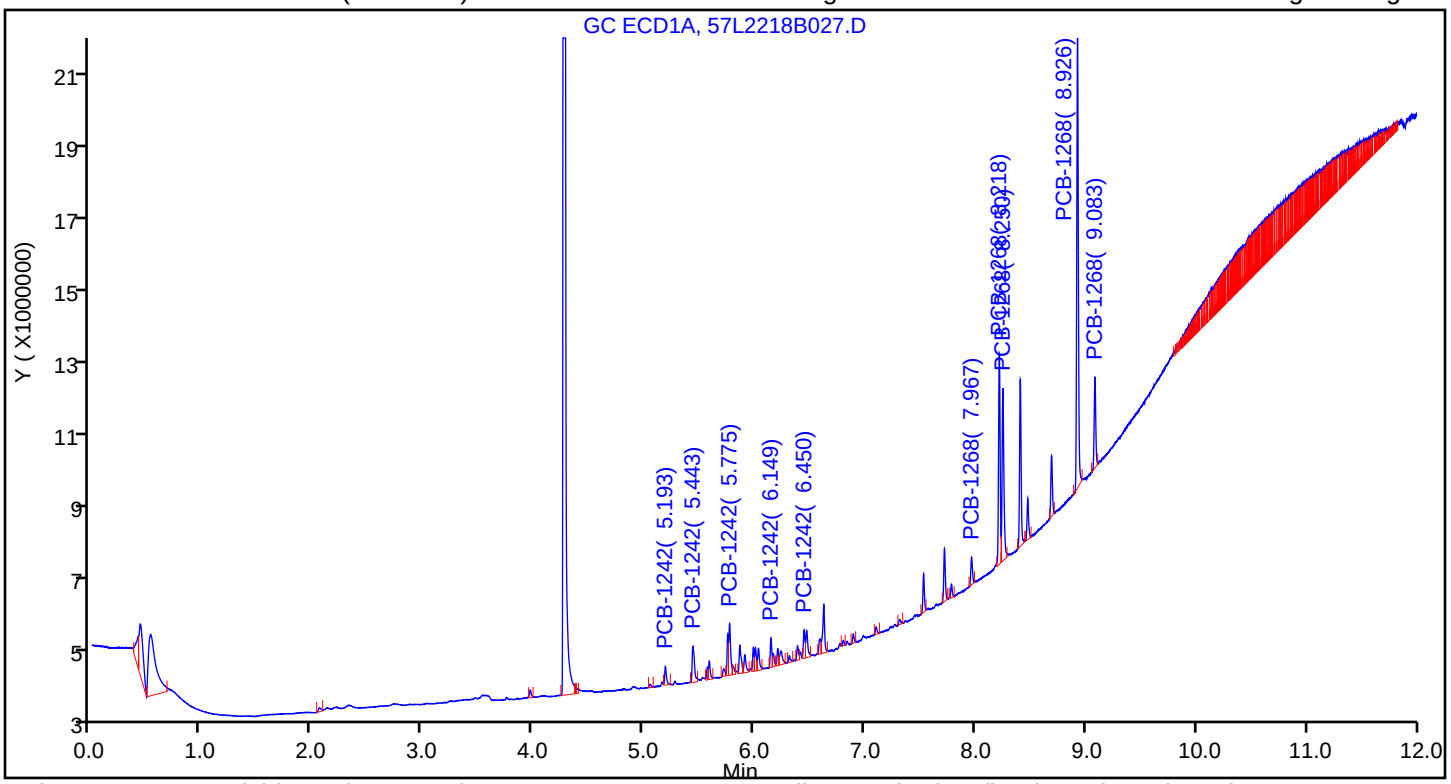
Client ID:

Operator ID: ar ALS Bottle#: 25 Worklist Smp#: 28

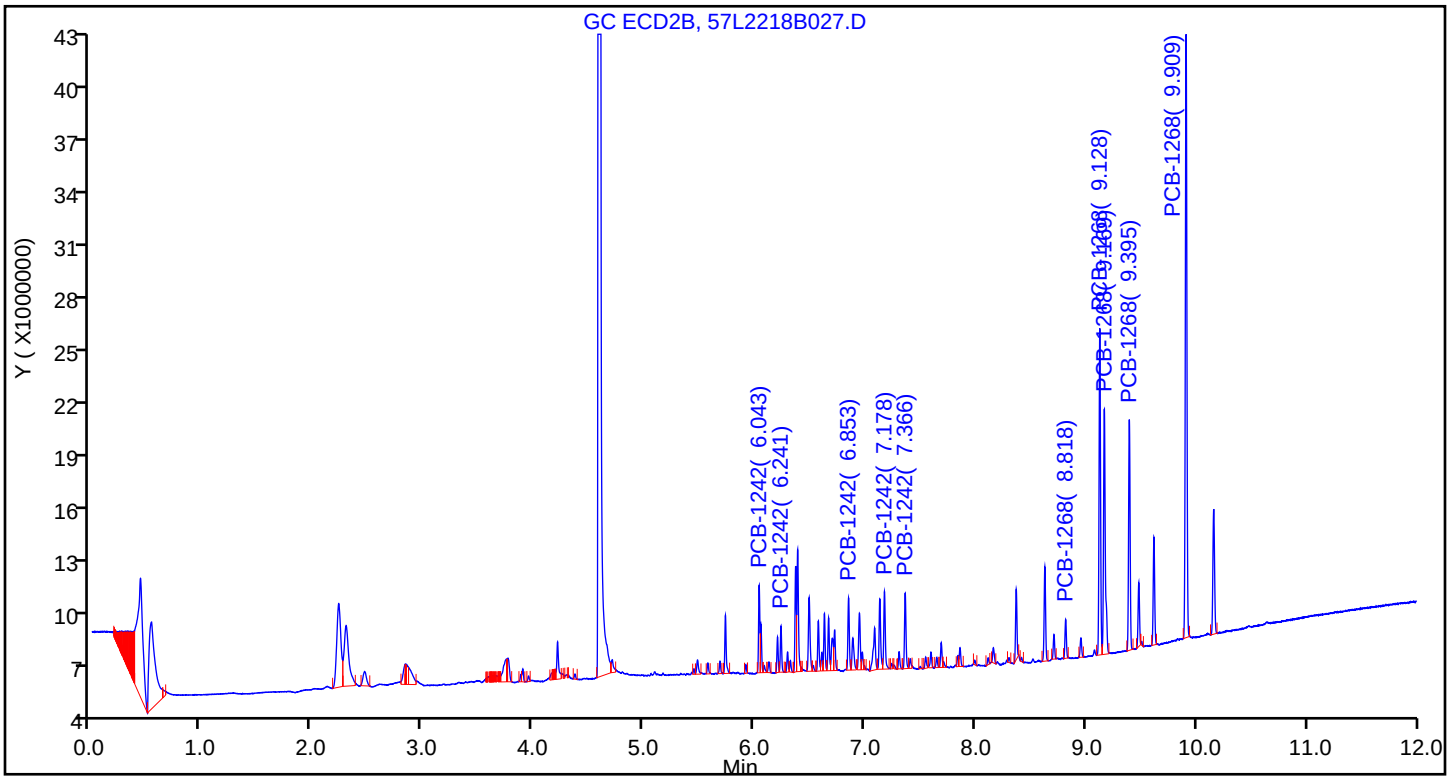
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



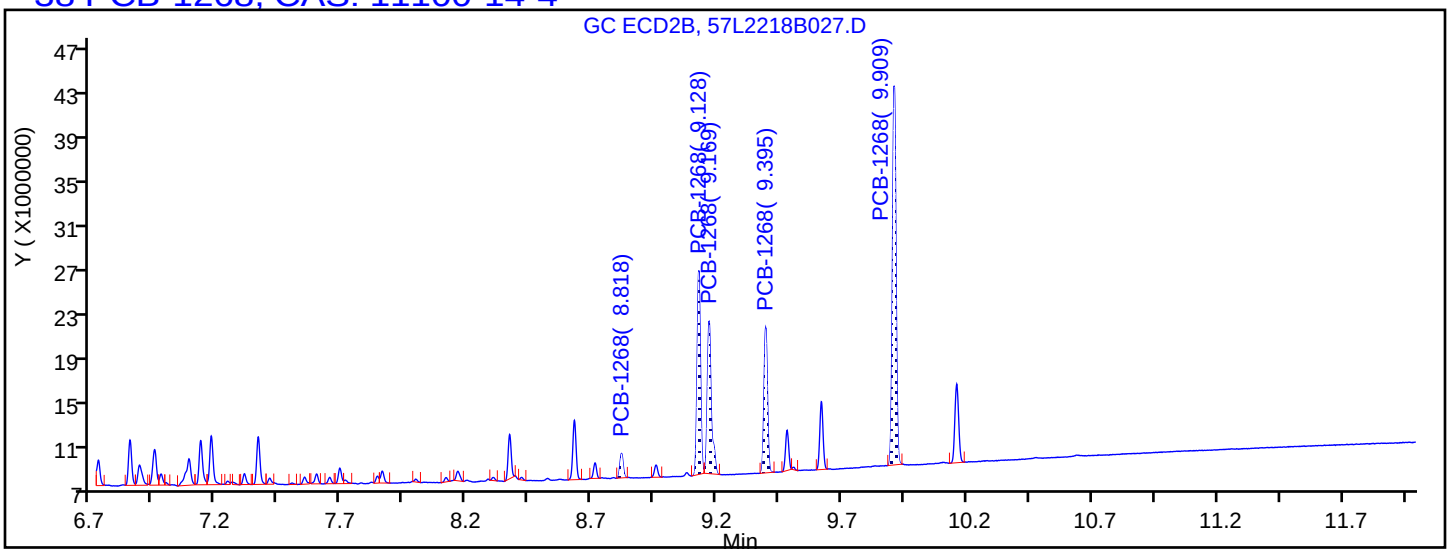
Report Date: 23-Dec-2018 16:16:25 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B027.D

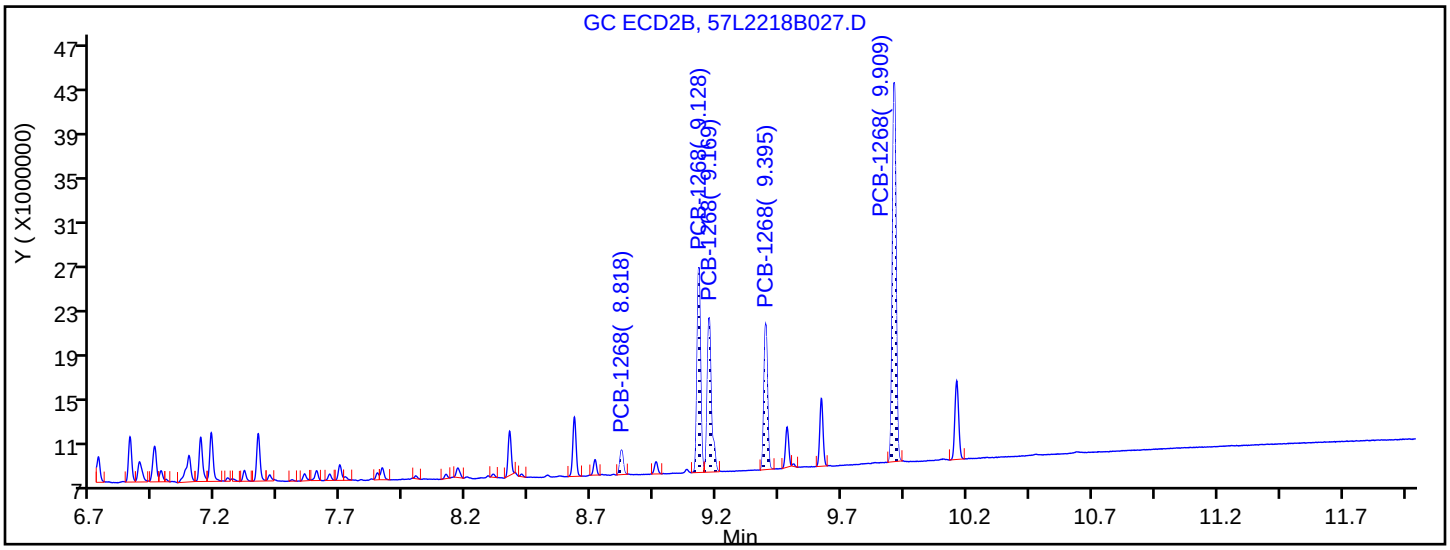
Injection Date:	23-Dec-2018 00:48:34	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

8.818	Response = 1985150
9.128	Response = 16783139
9.169	Response = 15150270
9.395	Response = 12434867
9.909	Response = 33416835



Manual Integration Results

8.818	Response = 1985150	
9.128	Response = 17104183	M
9.169	Response = 15625664	M
9.395	Response = 12434867	
9.909	Response = 33416835	

Reviewer: ruslandera, 23-Dec-2018 15:23:17

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Dec-2018 01:06:07 ALS Bottle#: 26 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:28 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:05:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	189794420	100.0	100.0	
2	4.595	4.596	-0.001	1140043679	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						9.75	
2						8.22	
						RPD = 17.11	
6 PCB-1242							M
1	5.193	5.191	0.002	256766	5.00	4.98	
1	5.442	5.441	0.001	724732	5.00	2.72	
1	5.776	5.772	0.004	889798	5.00	4.77	M
1	6.150	6.149	0.001	365725	5.00	4.75	M
1	6.451	6.448	0.003	377956	5.00	4.78	M
		Average of Peak Amounts =				4.40	
2	6.044	6.043	0.001	2206387	5.00	2.82	
2	6.240	6.241	-0.001	1167182	5.00	3.19	
2	6.852	6.852	0.000	2029981	5.00	3.18	
2	7.177	7.177	0.000	2197197	5.00	2.90	
2	7.365	7.365	0.000	2112512	5.00	4.70	
		Average of Peak Amounts =				3.36	
						RPD = 26.84	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	423813	5.00	5.70	
1	8.217	8.217	0.000	3014897	5.00	5.87	M
1	8.250	8.249	0.001	2694369	5.00	5.60	M
1	8.925	8.925	0.000	6727186	5.00	4.71	
1	9.083	9.083	0.000	1227352	5.00	4.90	
		Average of Peak Amounts =				5.35	
2	8.819	8.818	0.001	1120243	5.00	4.68	
2	9.127	9.128	-0.001	9622539	5.00	4.89	M
2	9.168	9.170	-0.002	8723088	5.00	4.81	M
2	9.395	9.395	0.000	6881169	5.00	4.84	
2	9.908	9.910	-0.002	18940493	5.00	5.06	
		Average of Peak Amounts =				4.86	
						RPD = 9.72	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268IC0100_00011	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

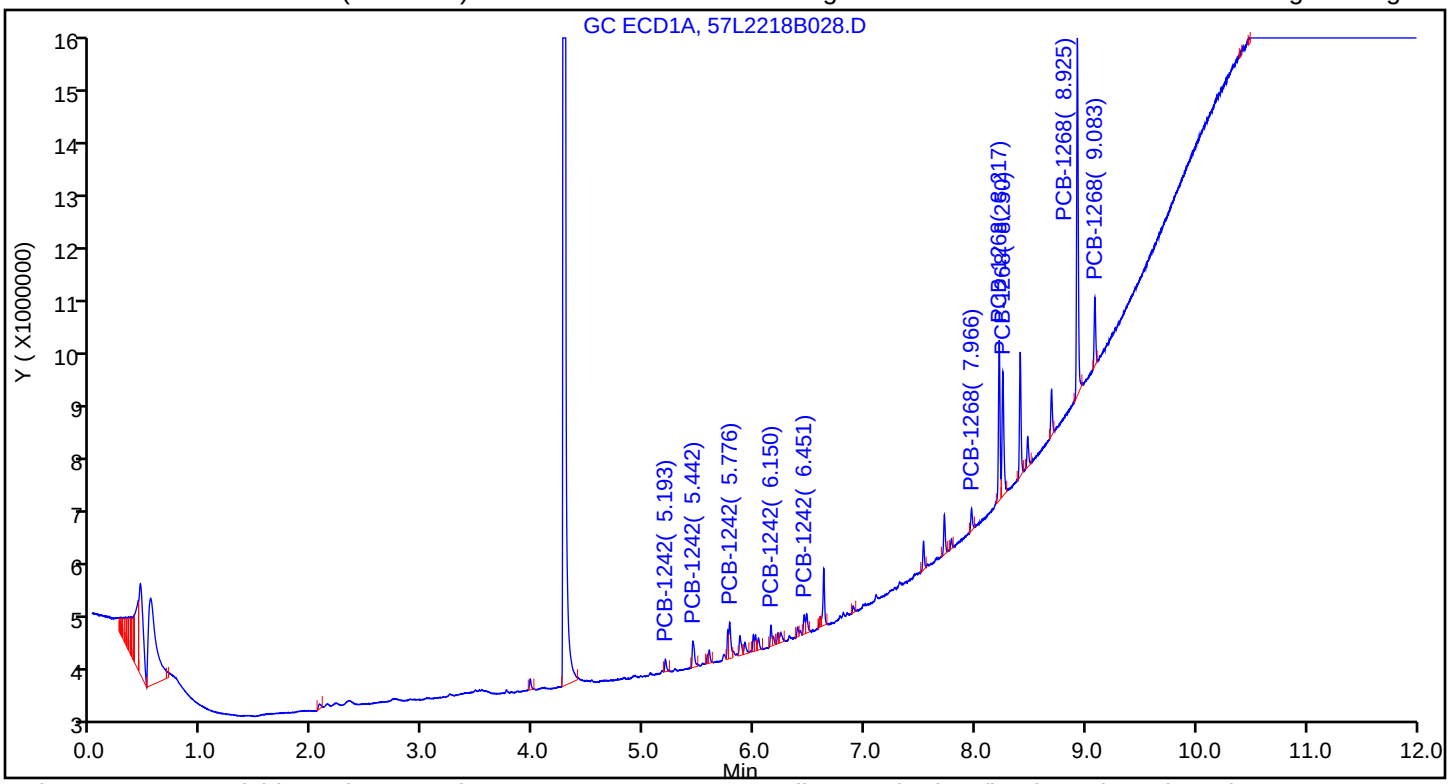
Report Date: 23-Dec-2018 16:16:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

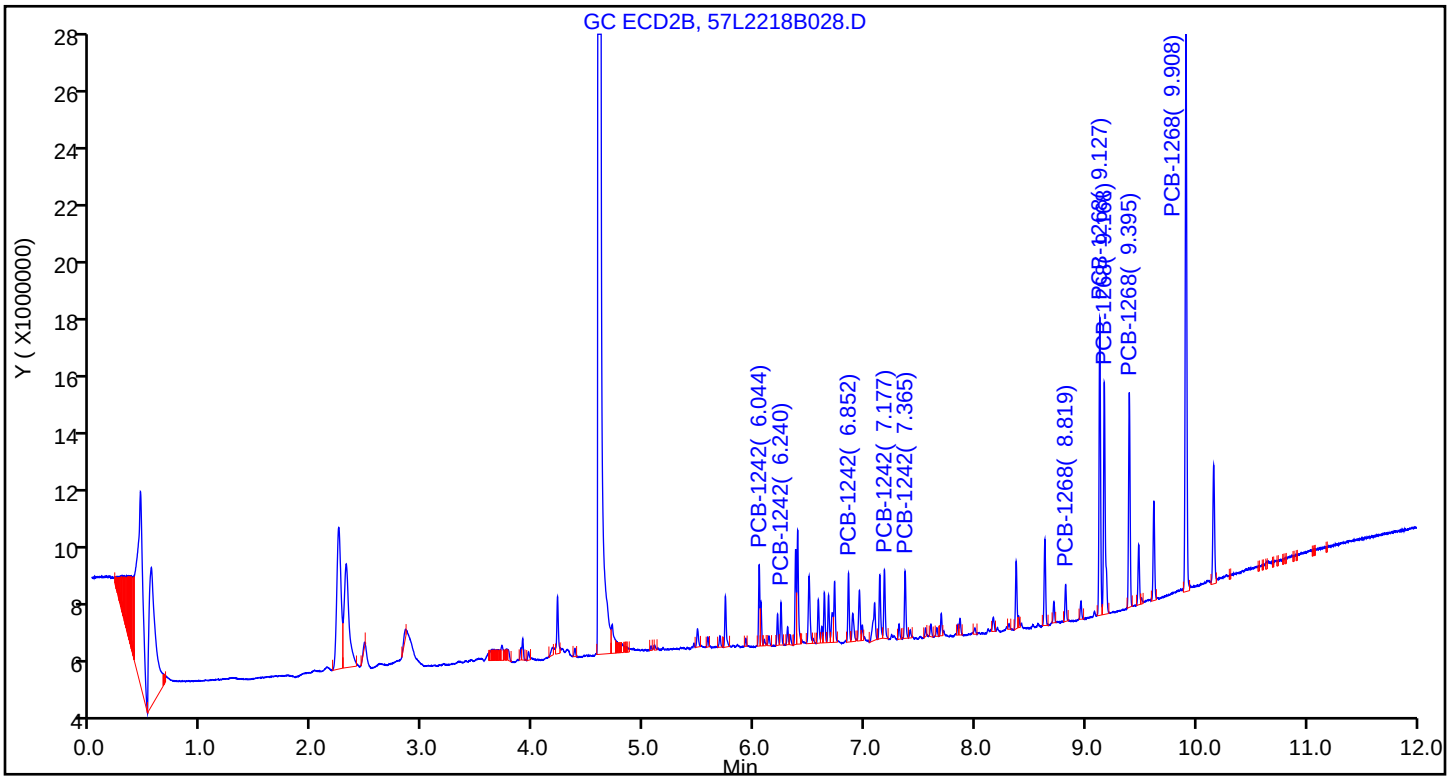
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D

Injection Date:	23-Dec-2018 01:06:07	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	26	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



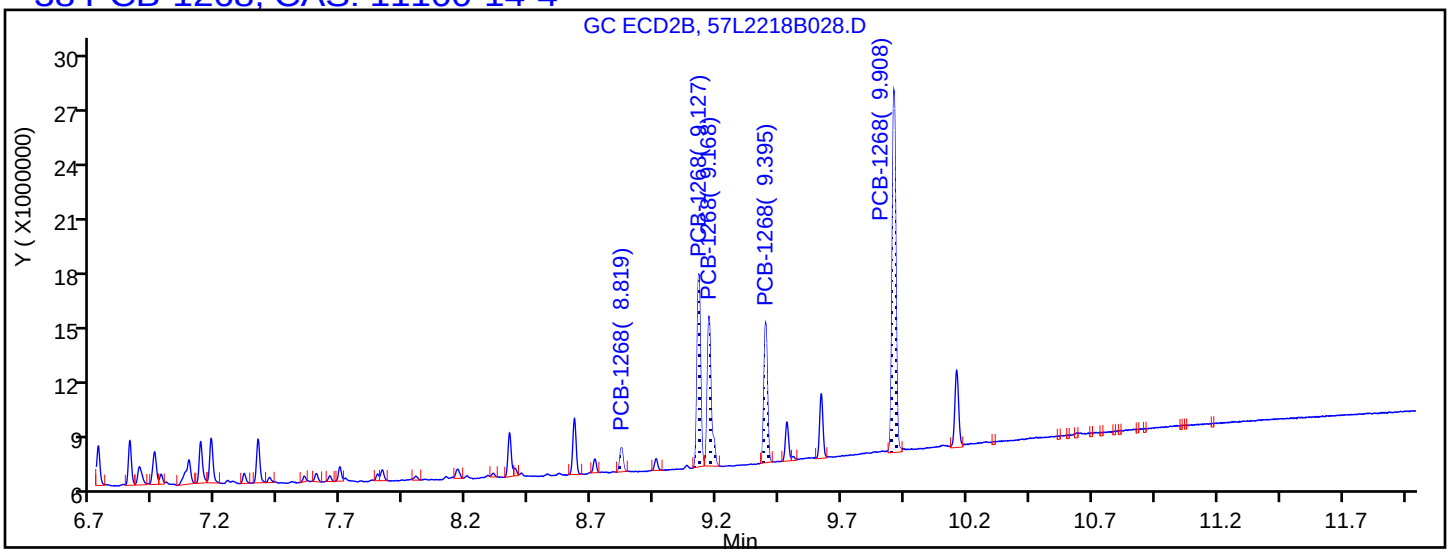
Report Date: 23-Dec-2018 16:16:30 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B028.D

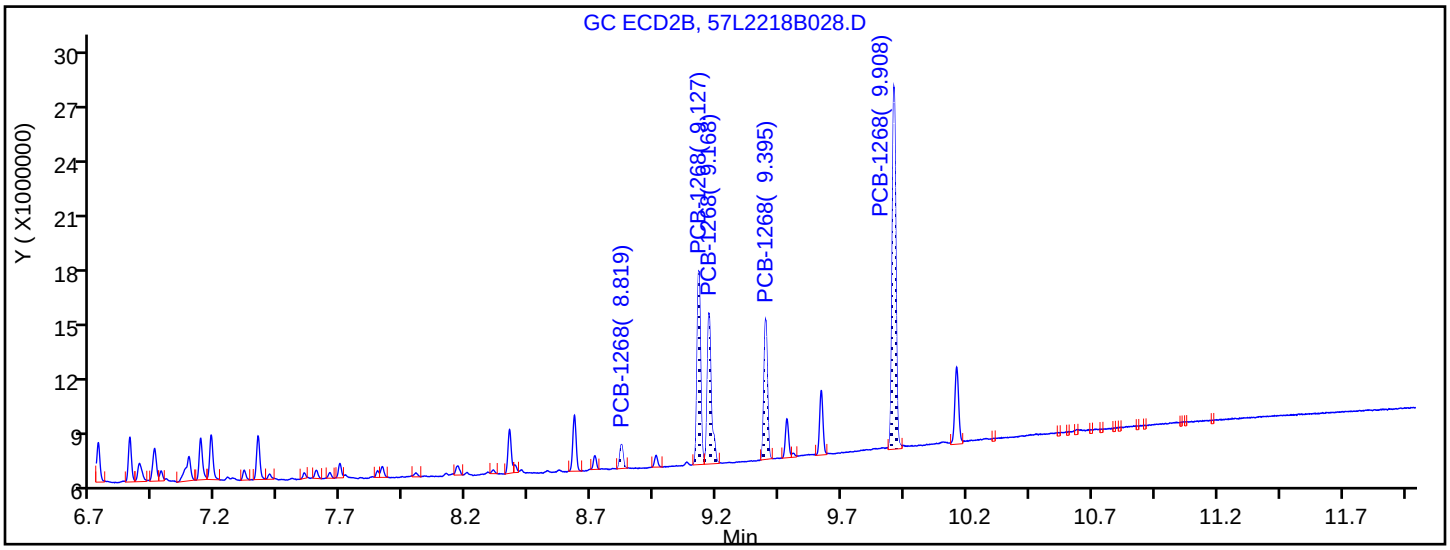
Injection Date:	23-Dec-2018 01:06:07	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	26	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

8.819	Response = 1120243	
9.127	Response = 9480124	
9.168	Response = 8525428	
9.395	Response = 6881169	
9.908	Response = 18940493	



Manual Integration Results

8.819	Response = 1120243	
9.127	Response = 9622539	M
9.168	Response = 8723088	M
9.395	Response = 6881169	
9.908	Response = 18940493	

Reviewer: ruslandera, 23-Dec-2018 15:24:10

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 01:41 Calibration End Date: 12/23/2018 03:44 Calibration ID: 27230

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/38	57L2218B037.D
Level 2	IC 580-291937/37	57L2218B036.D
Level 3	IC 580-291937/36	57L2218B035.D
Level 4	IC 580-291937/35	57L2218B034.D
Level 5	ICIS 580-291937/34	57L2218B033.D
Level 6	IC 580-291937/33	57L2218B032.D
Level 7	IC 580-291937/32	57L2218B031.D
Level 8	IC 580-291937/31	57L2218B030.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0216 0.0195	0.0225 0.0193	0.0222 +++++	0.0221	0.0214	Ave		0.0212				6.1		20.0			
PCB-1221 Peak 2	0.0136 0.0113	0.0116 0.0111	0.0136 0.0107	0.0132	0.0119	Ave		0.0121				9.6		20.0			
PCB-1221 Peak 3	0.0609 0.0459	0.0525 0.0445	0.0569 0.0428	0.0546	0.0496	Ave		0.0510				12.5		20.0			
PCB-1254 Peak 1	0.0859 0.0624	0.0816 0.0606	0.0750 0.0595	0.0707	0.0666	Lin2	0.1262	0.0644				7.1			0.9940		0.9900
PCB-1254 Peak 2	0.1290 0.1083	0.1255 0.1062	0.1266 0.1043	0.1187	0.1125	Lin2	0.1102	0.1112				5.9			0.9960		0.9900
PCB-1254 Peak 3	0.1238 0.1049	0.1109 0.1029	0.1192 0.1023	0.1126	0.1068	Lin2	0.0881	0.1063				4.8			0.9970		0.9900
PCB-1254 Peak 4	0.1041 0.0834	0.0838 0.0816	0.0944 0.0807	0.0900	0.0849	Lin2	0.0893	0.0837				6.4			0.9950		0.9900
PCB-1254 Peak 5	0.1287 0.1102	0.1136 0.1085	0.1239 0.1078	0.1167	0.1116	Lin2	0.0834	0.1112				4.6			0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 01:41 Calibration End Date: 12/23/2018 03:44 Calibration ID: 27230

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/38	57L2218B037.D
Level 2	IC 580-291937/37	57L2218B036.D
Level 3	IC 580-291937/36	57L2218B035.D
Level 4	IC 580-291937/35	57L2218B034.D
Level 5	ICIS 580-291937/34	57L2218B033.D
Level 6	IC 580-291937/33	57L2218B032.D
Level 7	IC 580-291937/32	57L2218B031.D
Level 8	IC 580-291937/31	57L2218B030.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Ave	207142 18371250	433317 36943492	1024960 +++++	2132562	4130748	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1221 Peak 2	BNB	Ave	129801 10637718	223605 21147398	630501 41461544	1278010	2303322	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1221 Peak 3	BNB	Ave	583215 43186318	1011666 85095642	2631810 165350800	5274490	9570272	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 1	BNB	Lin2	821690 58758087	1573406 115946910	3470425 229738396	6835955	12852824	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 2	BNB	Lin2	1234821 101964328	2417513 203161833	5854404 402600189	11472911	21705428	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 3	BNB	Lin2	1184404 98778431	2137199 196874290	5512100 394726108	10880235	20613752	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 4	BNB	Lin2	996444 78464393	1613952 156207046	4366108 311633023	8695650	16388426	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 5	BNB	Lin2	1231555 103696203	2189659 207583204	5729337 416125917	11282169	21526601	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B030.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Dec-2018 01:41:09 ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:38 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:30:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192965989	100.0	100.0	
2	4.596	4.596	0.000	1150150576	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3653.0	
2						3857.5	
						RPD = 5.45	
2 PCB-1221							M
1	5.049	5.052	-0.003	73712755	2000.0	1799.7	M
1	5.157	5.160	-0.003	41461544	2000.0	1771.1	M
1	5.187	5.190	-0.003	165350800	2000.0	1681.4	M
		Average of Peak Amounts =				1750.7	
2	5.578	5.578	0.000	285995616	2000.0	1815.5	
2	5.688	5.688	0.000	176607874	2000.0	2015.9	
2	5.737	5.736	0.001	574471612	2000.0	2013.2	
		Average of Peak Amounts =				1948.2	
						RPD = 10.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.415	6.416	-0.001	229738396	2000.0	1846.5	M
1	6.597	6.599	-0.002	402600189	2000.0	1874.6	M
1	6.891	6.893	-0.002	394726108	2000.0	1923.4	M
1	7.096	7.099	-0.003	311633023	2000.0	1928.6	M
1	7.446	7.448	-0.002	416125917	2000.0	1938.2	M
		Average of Peak Amounts =				1902.3	
2	7.178	7.177	0.001	975165628	2000.0	1853.9	
2	7.310	7.309	0.001	1082376166	2000.0	1880.3	
2	7.693	7.691	0.002	1665024429	2000.0	1968.5	
2	7.861	7.860	0.001	1154293278	2000.0	1919.7	
2	8.307	8.305	0.002	1167319952	2000.0	1924.2	
		Average of Peak Amounts =				1909.3	
						RPD = 0.37	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154_ICSTK_00022	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B030.D

Injection Date: 23-Dec-2018 01:41:09 Instrument ID: TAC057

Lims ID: ic

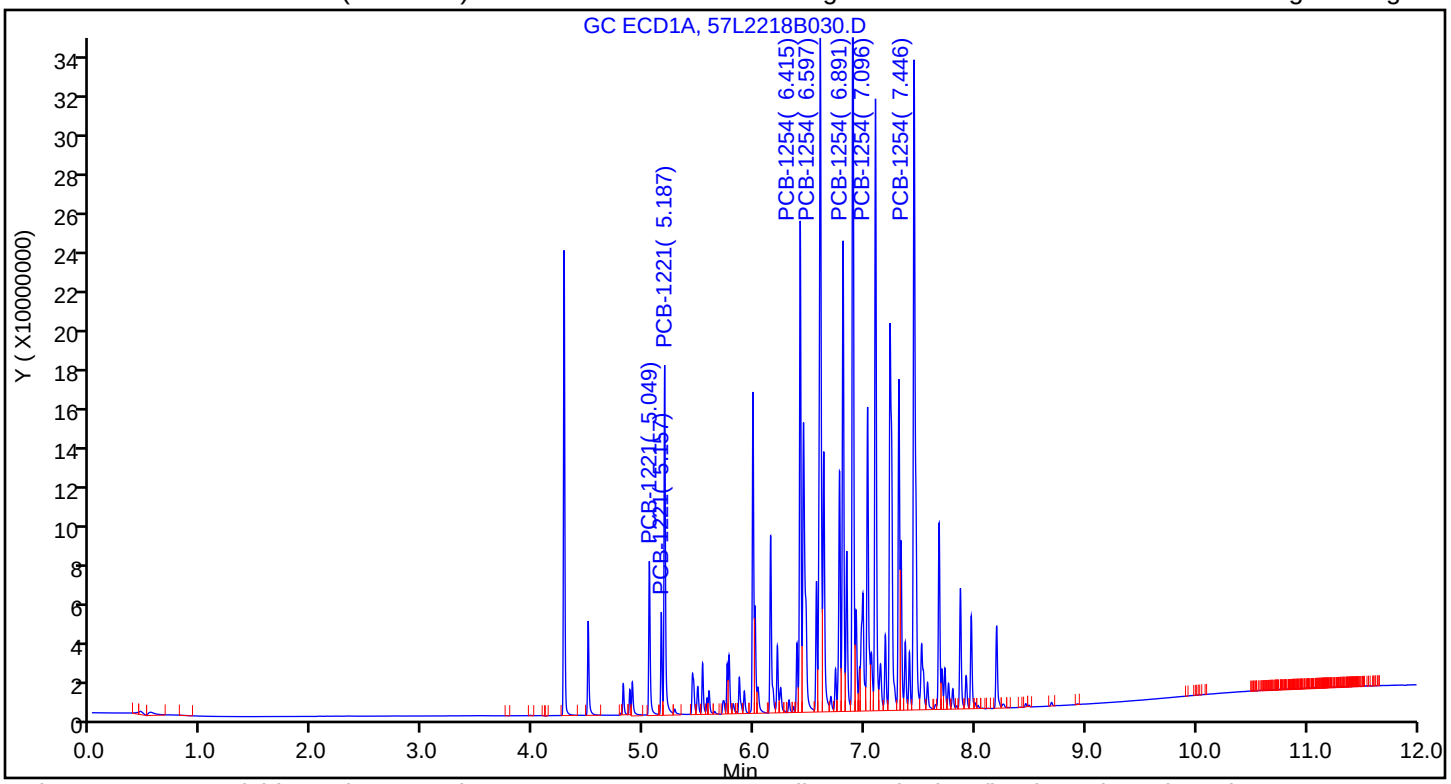
Client ID:

Operator ID: ar ALS Bottle#: 28 Worklist Smp#: 31

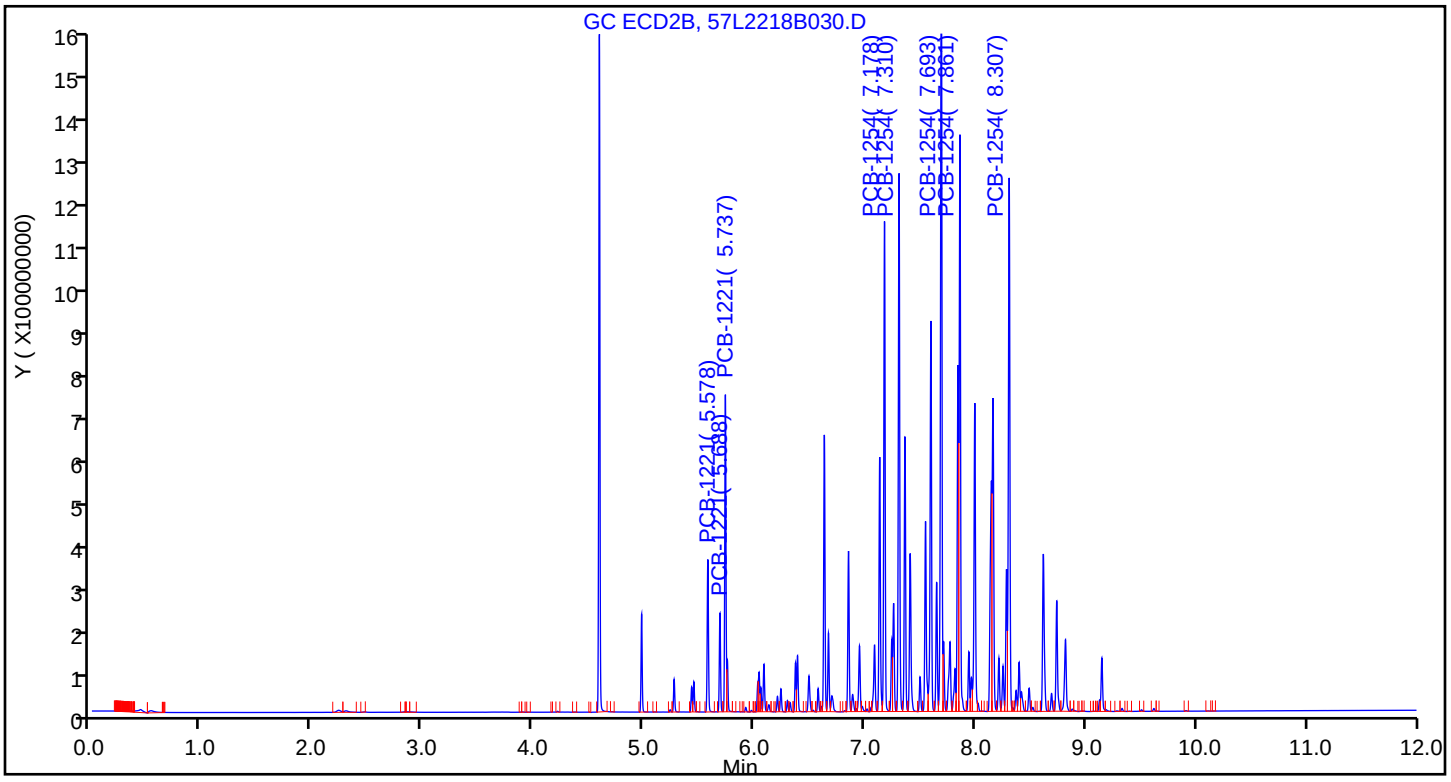
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B030.D

Injection Date: 23-Dec-2018 01:41:09 Instrument ID: TAC057

Lims ID: ic

Client ID:

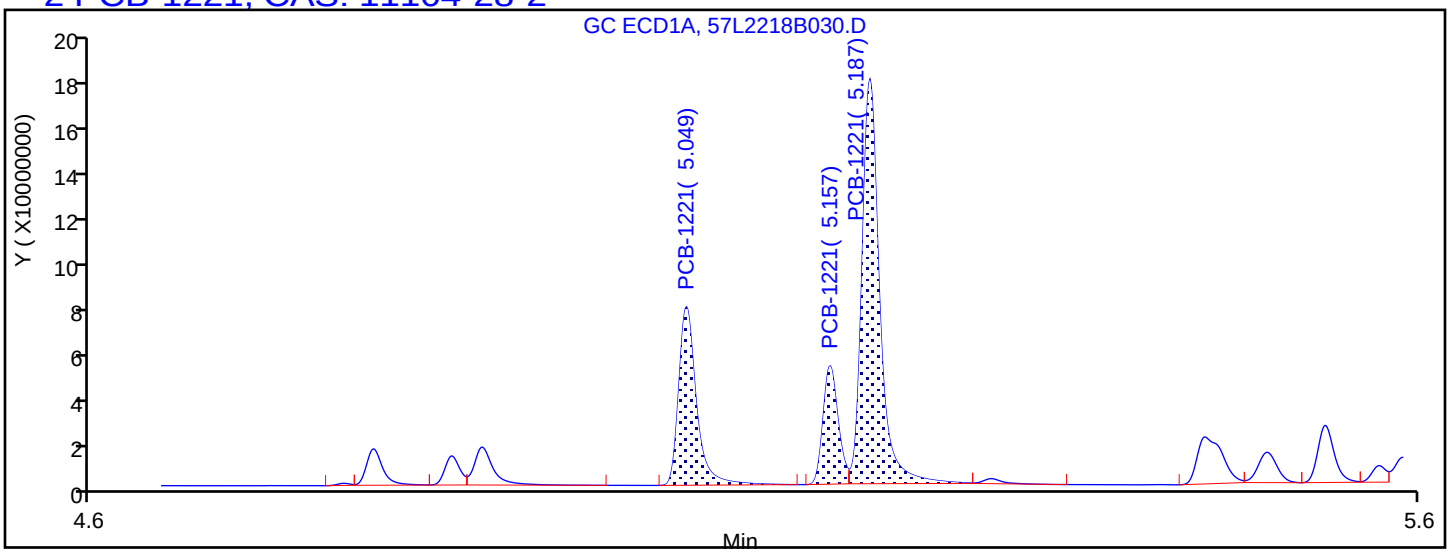
Operator ID: ar ALS Bottle#: 28 Worklist Smp#: 31

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

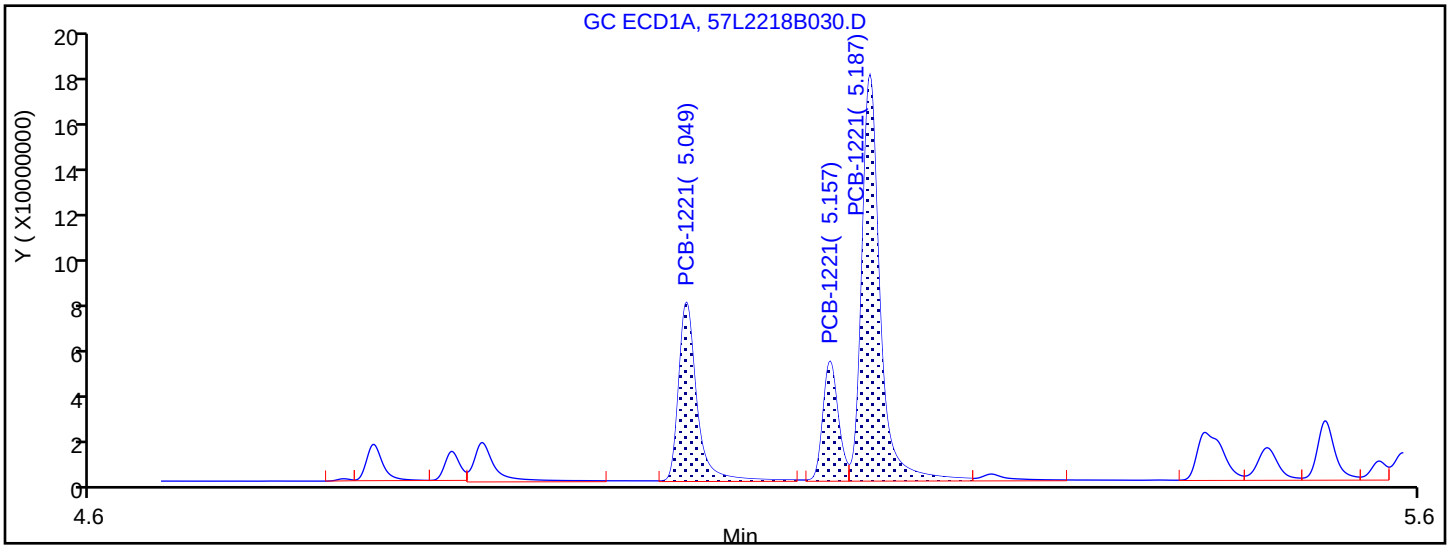
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

5.049	Response = 71045977	
5.157	Response = 40112393	
5.187	Response = 160443788	



Manual Integration Results

5.049	Response = 73712755	M
5.157	Response = 41461544	M
5.187	Response = 165350800	M

Reviewer: ruslandera, 23-Dec-2018 15:30:23

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B030.D

Injection Date: 23-Dec-2018 01:41:09 Instrument ID: TAC057

Lims ID: ic

Client ID:

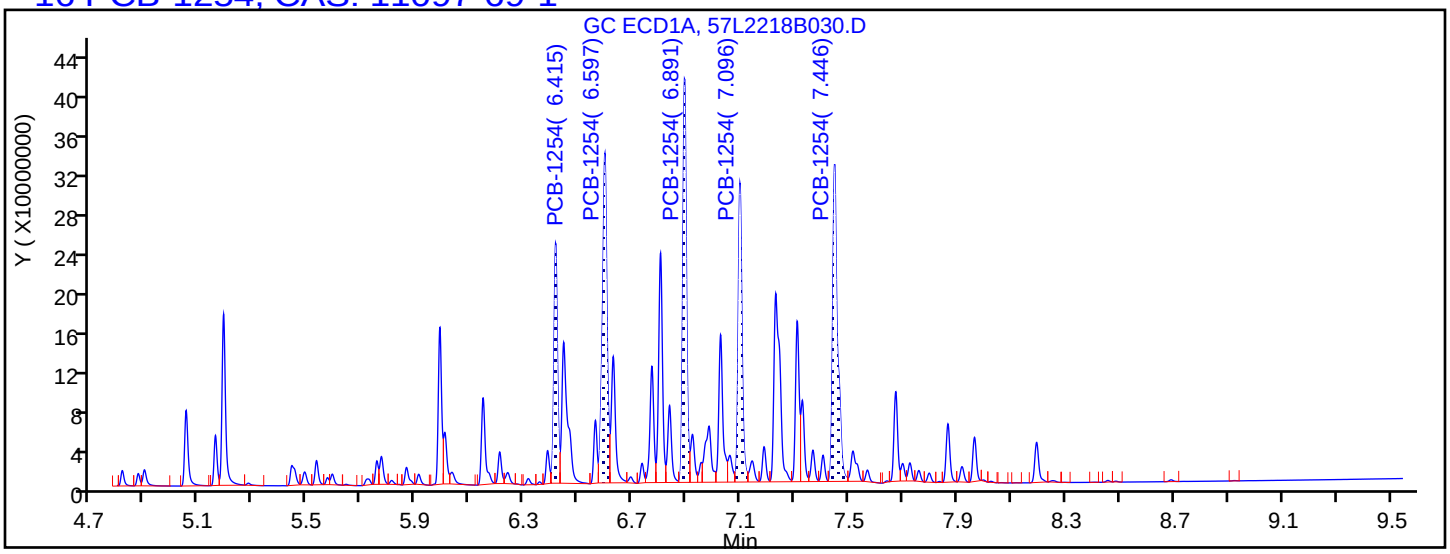
Operator ID: ar ALS Bottle#: 28 Worklist Smp#: 31

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

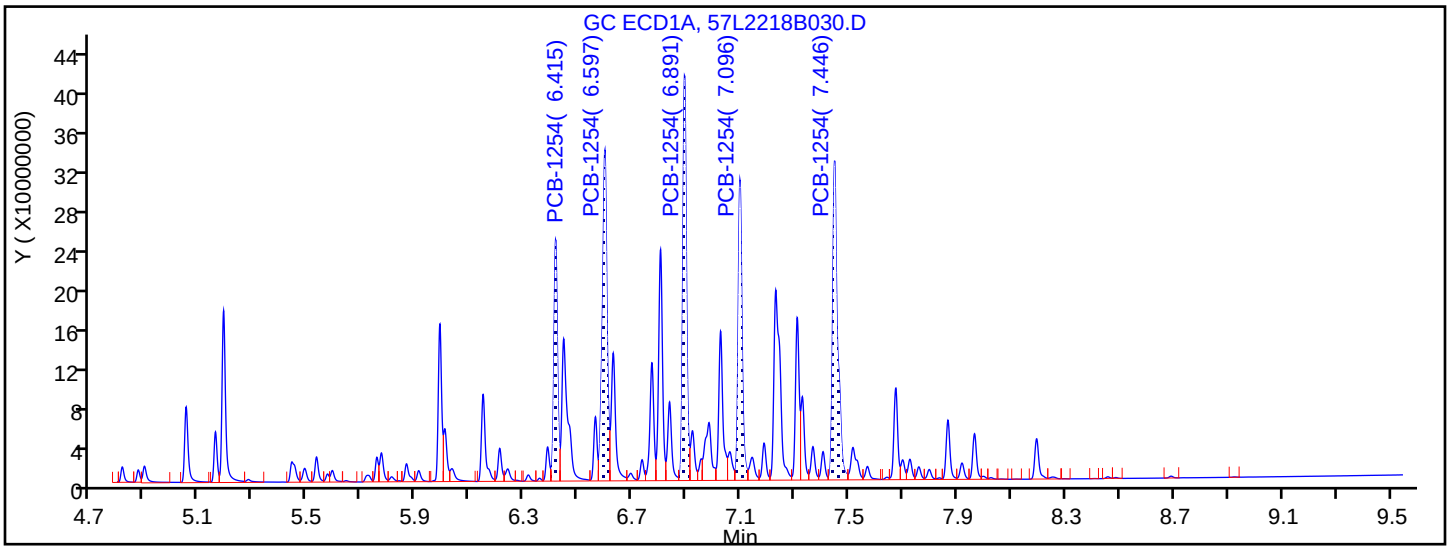
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.415	Response = 226529091
6.597	Response = 398343658
6.891	Response = 390126299
7.096	Response = 305944957
7.446	Response = 406696731



Manual Integration Results

6.415	Response = 229738396	M
6.597	Response = 402600189	M
6.891	Response = 394726108	M
7.096	Response = 311633023	M
7.446	Response = 416125917	M

Reviewer: ruslandera, 23-Dec-2018 15:30:23

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B031.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Dec-2018 01:58:49 ALS Bottle#: 29 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:43 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:31:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	191332637	100.0	100.0	
2	4.596	4.596	0.000	1142695462	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1859.6	
2						1909.5	
						RPD = 2.65	
2 PCB-1221							
1	5.050	5.052	-0.002	36943492	1000.0	909.7	
1	5.158	5.160	-0.002	21147398	1000.0	911.1	
1	5.188	5.190	-0.002	85095642	1000.0	872.7	
		Average of Peak Amounts =				897.8	
2	5.578	5.578	0.000	146939619	1000.0	936.8	
2	5.688	5.688	0.000	91469457	1000.0	976.7	
2	5.737	5.736	0.001	296958916	1000.0	979.5	
		Average of Peak Amounts =				964.3	
						RPD = 7.14	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.415	6.416	-0.001	115946910	1000.0	938.9	M
1	6.598	6.599	-0.001	203161833	1000.0	953.6	M
1	6.892	6.893	-0.001	196874290	1000.0	967.1	M
1	7.097	7.099	-0.002	156207046	1000.0	974.4	M
1	7.447	7.448	-0.001	207583204	1000.0	974.7	M
		Average of Peak Amounts =				961.8	
2	7.178	7.177	0.001	488155346	1000.0	932.7	
2	7.310	7.309	0.001	536076585	1000.0	936.0	
2	7.692	7.691	0.001	804616485	1000.0	956.3	
2	7.860	7.860	0.000	568725105	1000.0	950.8	
2	8.306	8.305	0.001	573553538	1000.0	950.3	
		Average of Peak Amounts =				945.2	
						RPD = 1.73	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154_ICSTK_00022	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:44 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B031.D

Injection Date: 23-Dec-2018 01:58:49 Instrument ID: TAC057

Lims ID: ic

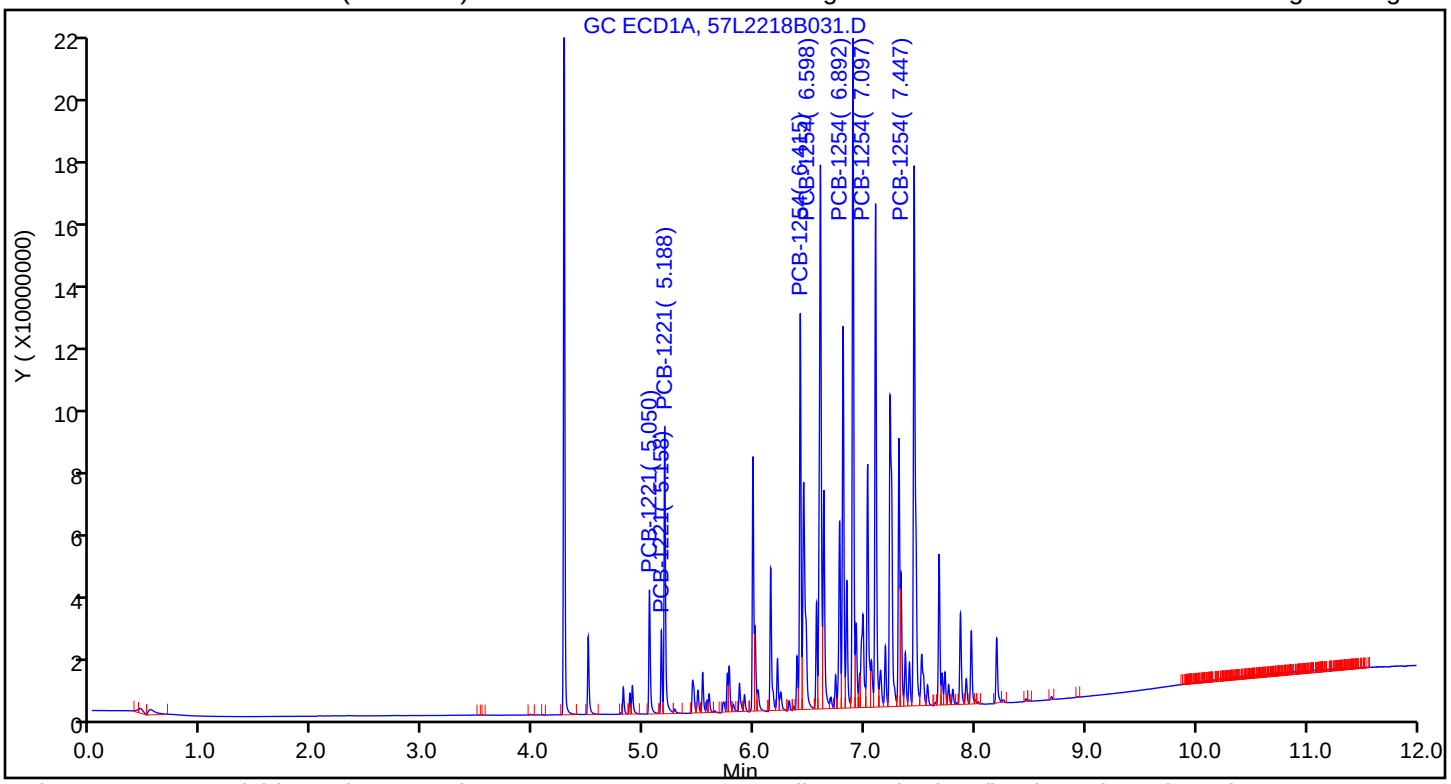
Client ID:

Operator ID: ar ALS Bottle#: 29 Worklist Smp#: 32

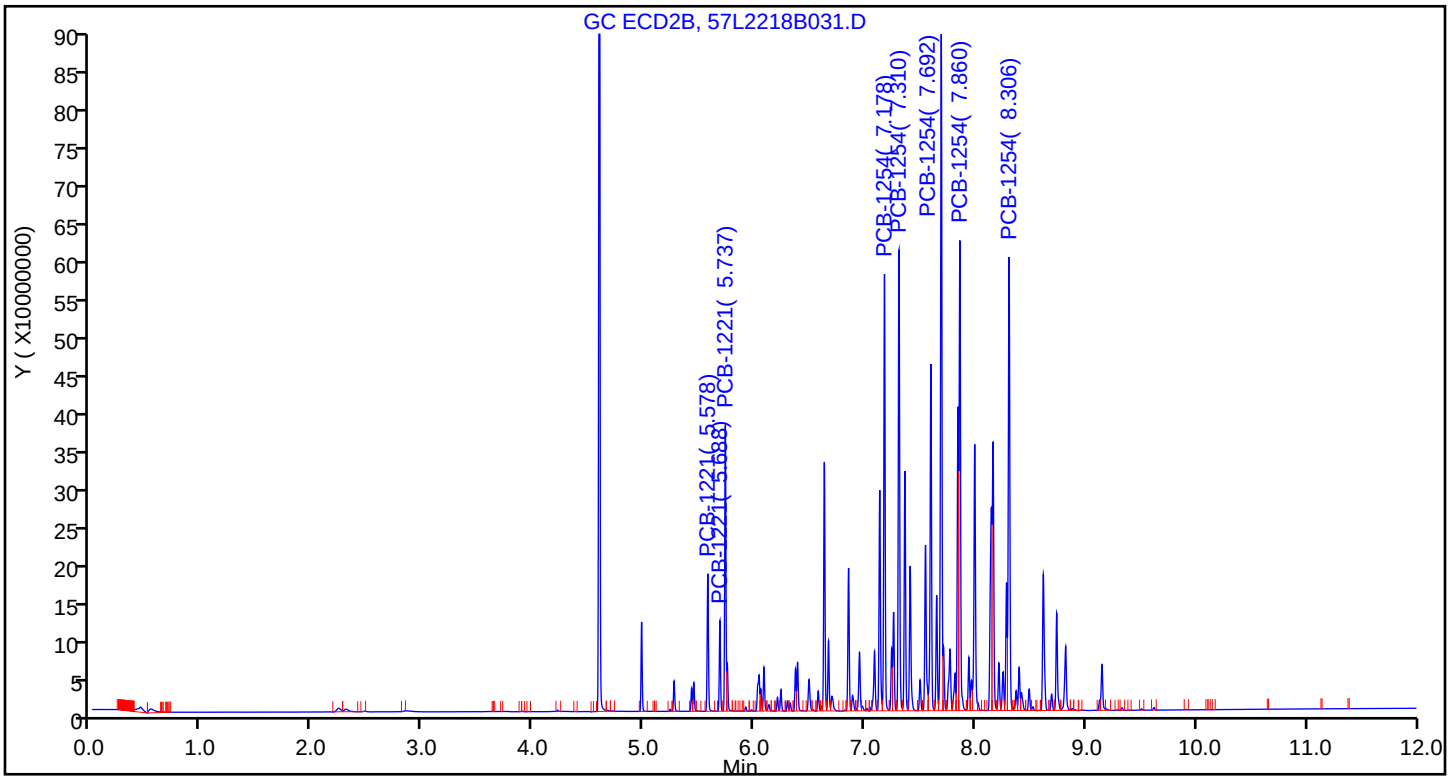
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:44 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B031.D

Injection Date: 23-Dec-2018 01:58:49 Instrument ID: TAC057

Lims ID: ic

Client ID:

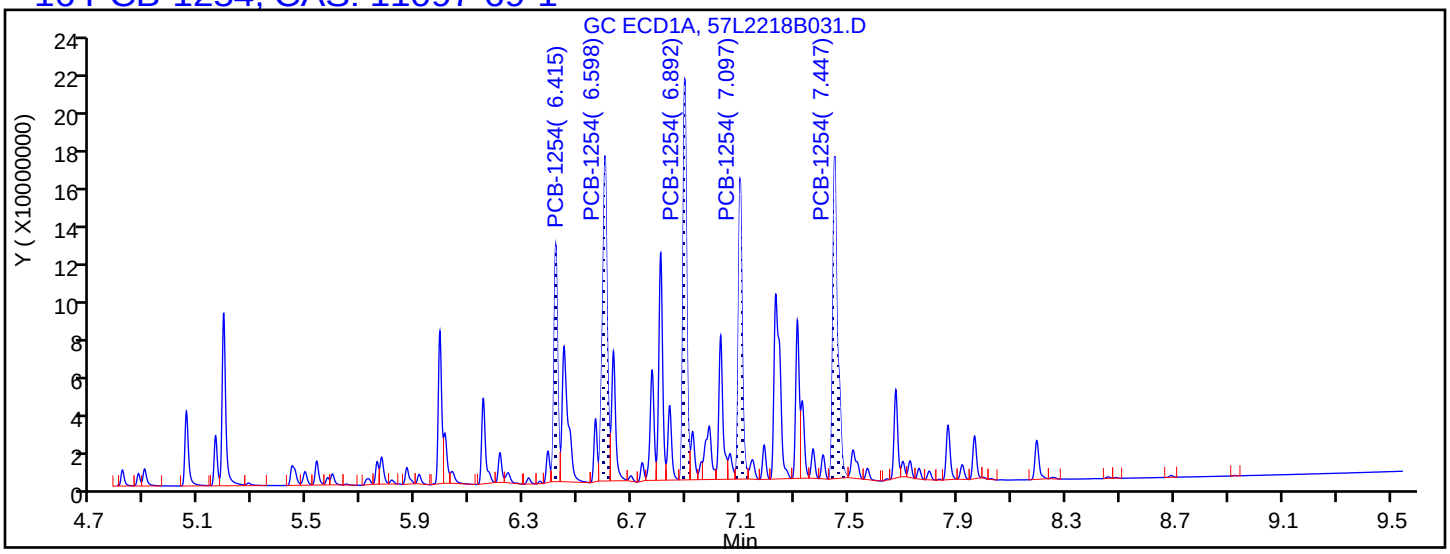
Operator ID: ar ALS Bottle#: 29 Worklist Smp#: 32

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

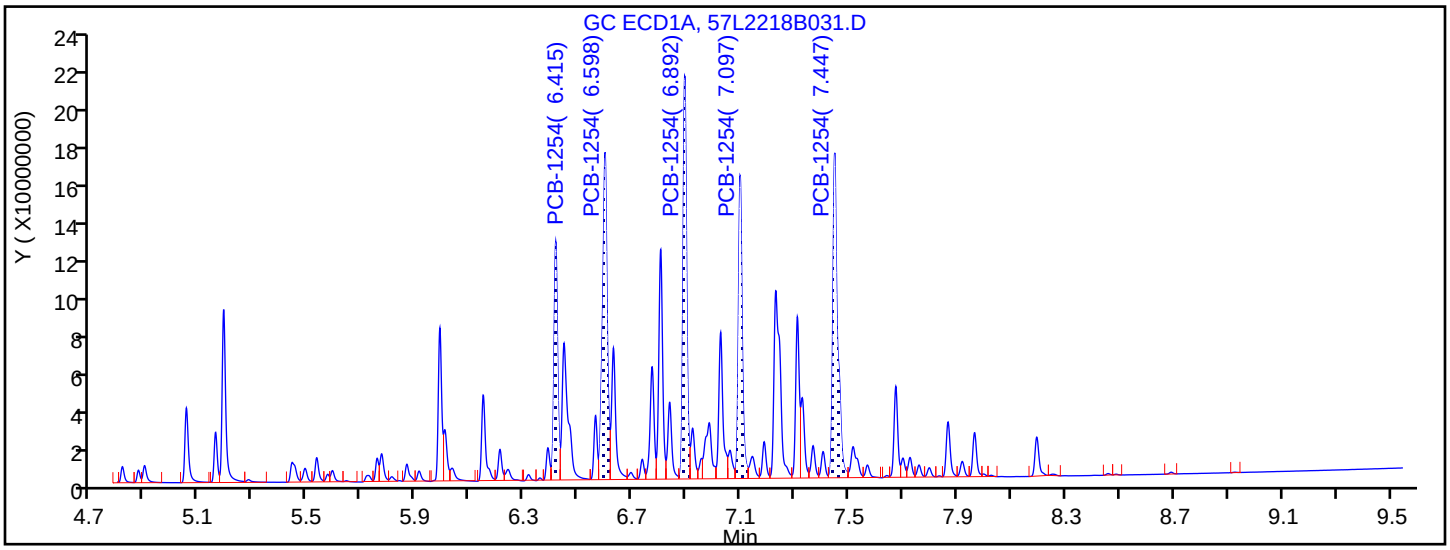
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.415	Response = 114260258
6.598	Response = 200629390
6.892	Response = 193819191
7.097	Response = 152148499
7.447	Response = 201652223



Manual Integration Results

6.415	Response = 115946910	M
6.598	Response = 203161833	M
6.892	Response = 196874290	M
7.097	Response = 156207046	M
7.447	Response = 207583204	M

Reviewer: ruslandera, 23-Dec-2018 15:31:24

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B032.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Dec-2018 02:16:19 ALS Bottle#: 30 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:47 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:31:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	188261165	100.0	100.0	
2	4.596	4.596	0.000	1128498568	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						949.1	
2						962.6	
						RPD = 1.41	
2 PCB-1221							M
1	5.050	5.052	-0.002	18371250	500.0	459.7	M
1	5.158	5.160	-0.002	10637718	500.0	465.8	M
1	5.187	5.190	-0.003	43186318	500.0	450.1	M
		Average of Peak Amounts =				458.5	
2	5.577	5.578	-0.001	74925768	500.0	481.7	
2	5.687	5.688	-0.001	46986706	500.0	490.0	
2	5.736	5.736	0.000	152672260	500.0	493.6	
		Average of Peak Amounts =				488.4	
						RPD = 6.31	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.416	6.416	0.000	58758087	500.0	482.6	M
1	6.598	6.599	-0.001	101964328	500.0	485.9	M
1	6.893	6.893	0.000	98778431	500.0	492.7	M
1	7.097	7.099	-0.002	78464393	500.0	496.9	M
1	7.447	7.448	-0.001	103696203	500.0	494.5	M
		Average of Peak Amounts =				490.5	
2	7.177	7.177	0.000	244795017	500.0	472.2	
2	7.309	7.309	0.000	267224218	500.0	471.0	
2	7.691	7.691	0.000	395972907	500.0	475.4	
2	7.861	7.860	0.001	283077951	500.0	478.0	
2	8.306	8.305	0.001	283363408	500.0	474.1	
		Average of Peak Amounts =				474.1	
						RPD = 3.40	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154_ICSTK_00022	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:49 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B032.D

Injection Date: 23-Dec-2018 02:16:19 Instrument ID: TAC057

Lims ID: ic

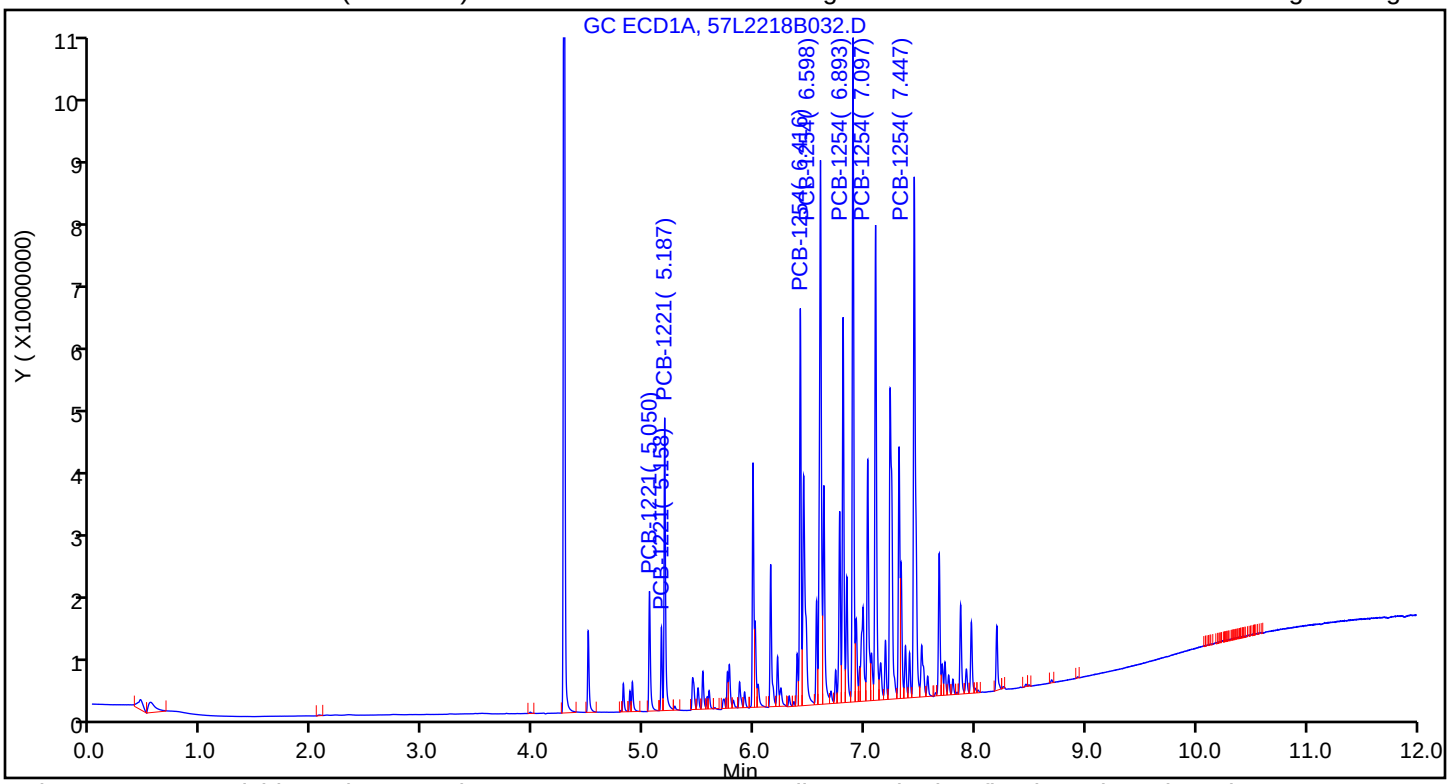
Client ID:

Operator ID: ar ALS Bottle#: 30 Worklist Smp#: 33

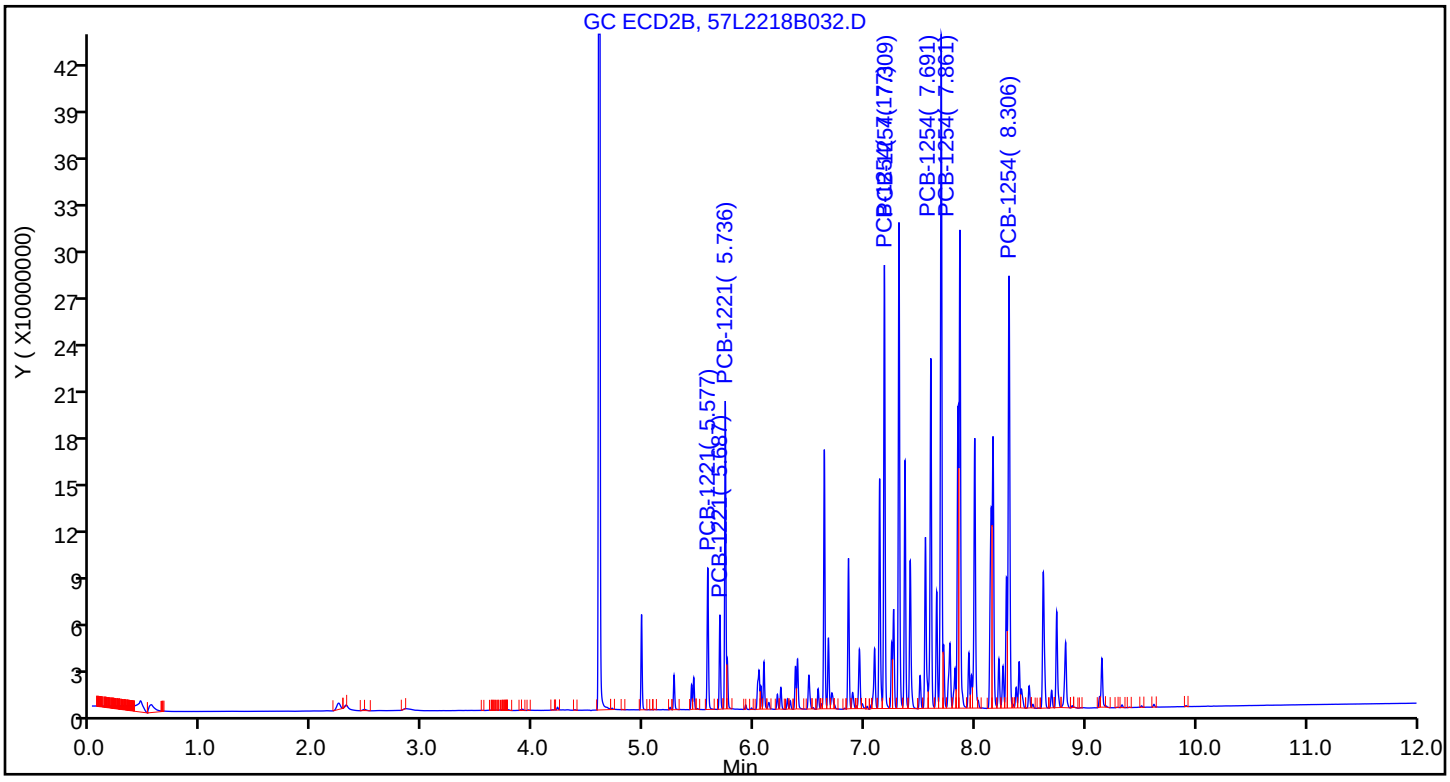
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



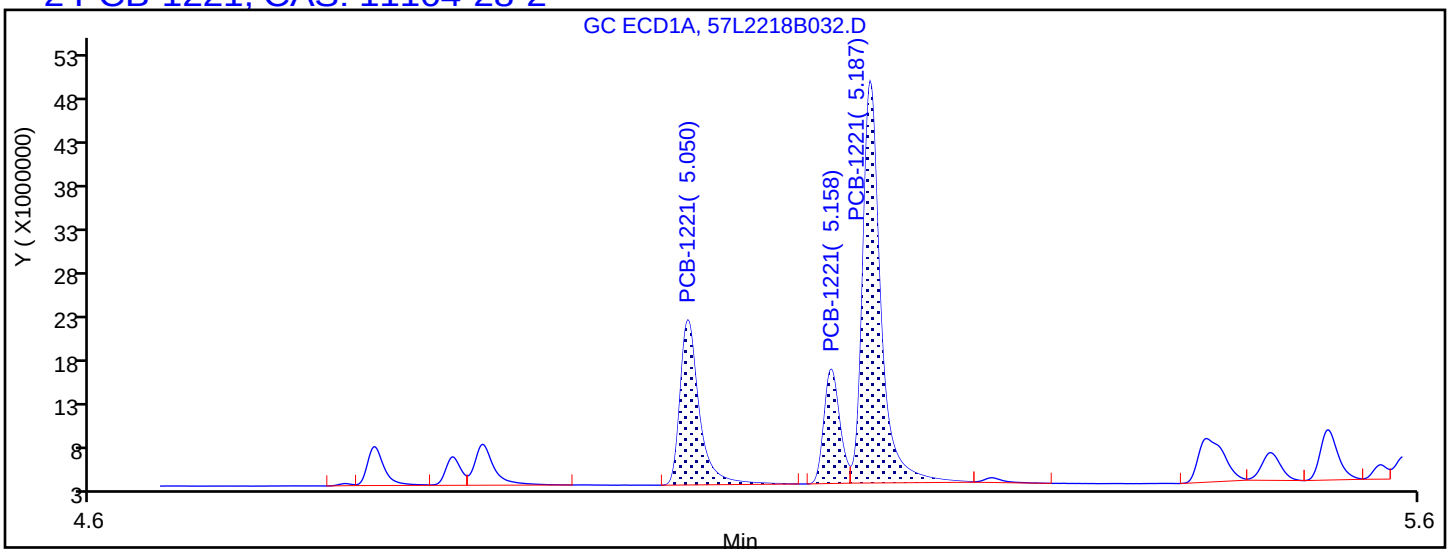
Report Date: 23-Dec-2018 16:16:49 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B032.D

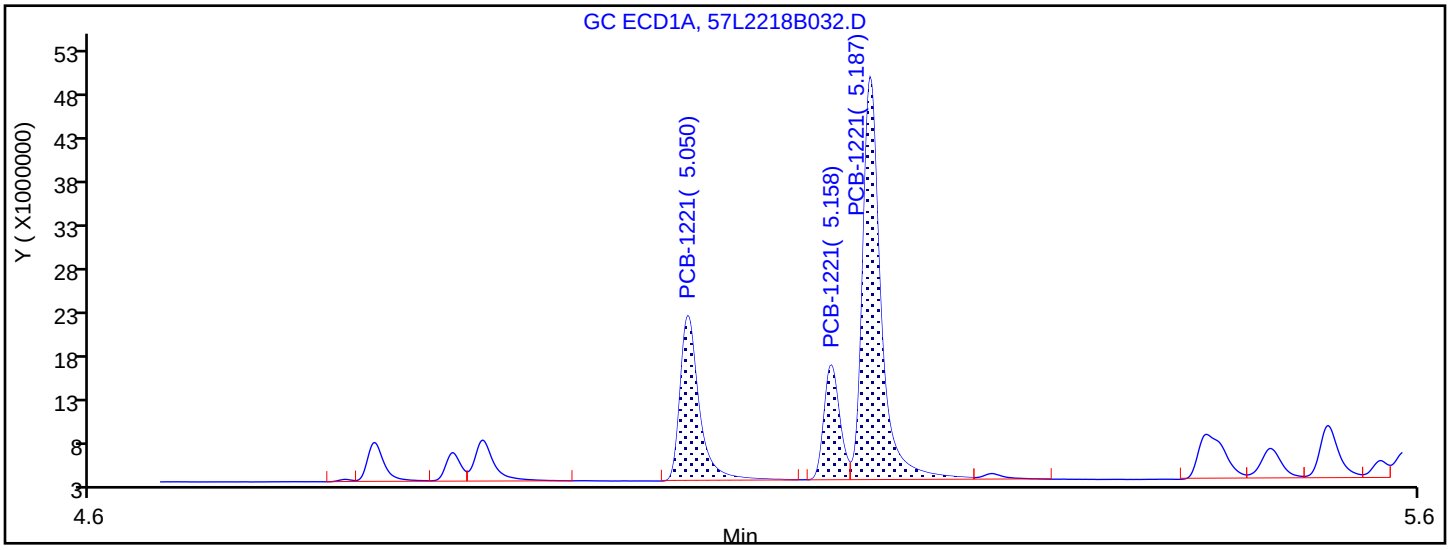
Injection Date:	23-Dec-2018 02:16:19	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	30	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

5.050	Response = 18546105
5.158	Response = 10553571
5.187	Response = 42616638



Manual Integration Results

5.050	Response = 18371250	M
5.158	Response = 10637718	M
5.187	Response = 43186318	M

Reviewer: ruslandera, 23-Dec-2018 15:31:37

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:49 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B032.D

Injection Date: 23-Dec-2018 02:16:19 Instrument ID: TAC057

Lims ID: ic

Client ID:

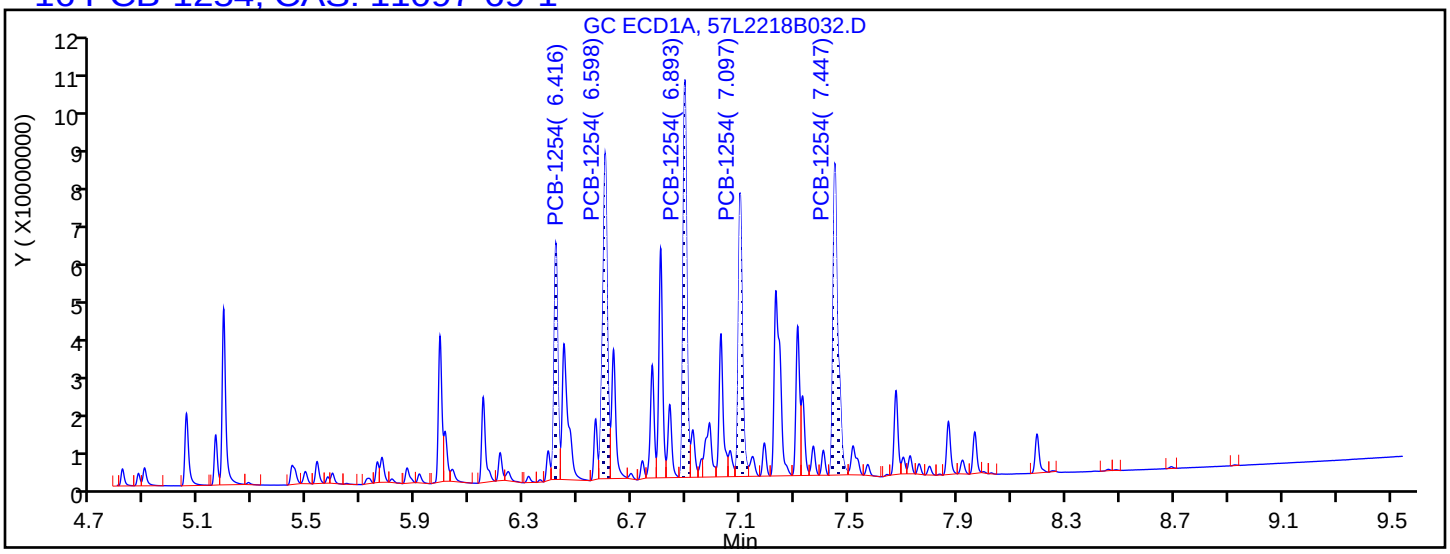
Operator ID: ar ALS Bottle#: 30 Worklist Smp#: 33

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

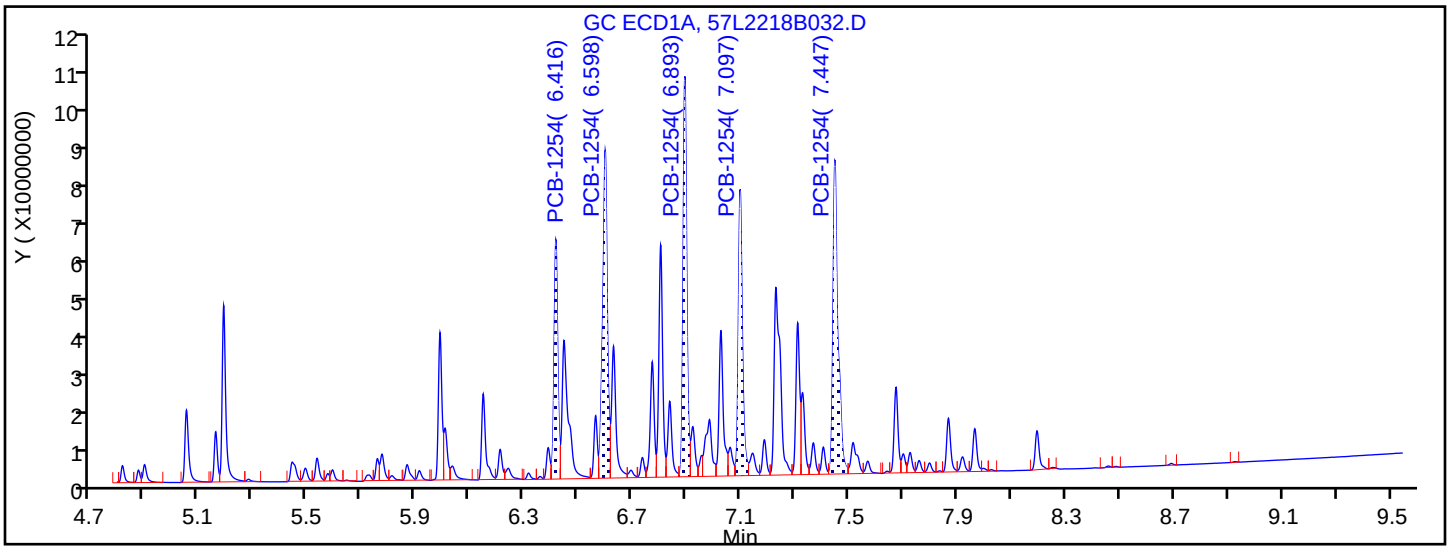
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.416	Response = 57251847
6.598	Response = 100116737
6.893	Response = 97067448
7.097	Response = 76536269
7.447	Response = 101193224



Manual Integration Results

6.416	Response = 58758087	M
6.598	Response = 101964328	M
6.893	Response = 98778431	M
7.097	Response = 78464393	M
7.447	Response = 103696203	M

Reviewer: ruslandera, 23-Dec-2018 15:31:40

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 23-Dec-2018 02:33:51 ALS Bottle#: 31 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:53 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:29:39

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	192963759	100.0	100.0	a
2	4.596	4.596	0.000	1151680499	100.0	100.0	a
						RPD = 0.00	
2 PCB-1221							a
1	5.052	5.052	0.000	4130748	100.0	100.9	a
1	5.160	5.160	0.000	2303322	100.0	98.4	a
1	5.190	5.190	0.000	9570272	100.0	97.3	a
		Average of Peak Amounts =				98.9	
2	5.578	5.578	0.000	17175937	100.0	105.0	a
2	5.688	5.688	0.000	11253059	100.0	108.8	a
2	5.736	5.736	0.000	35131436	100.0	106.3	a
		Average of Peak Amounts =				106.7	
						RPD = 7.62	
16 PCB-1254							a
1	6.416	6.416	0.000	12852824	100.0	101.5	a
1	6.599	6.599	0.000	21705428	100.0	100.1	a
1	6.893	6.893	0.000	20613752	100.0	99.7	a
1	7.099	7.099	0.000	16388426	100.0	100.4	a
1	7.448	7.448	0.000	21526601	100.0	99.6	a
		Average of Peak Amounts =				100.2	
2	7.177	7.177	0.000	54488704	100.0	100.8	a
2	7.309	7.309	0.000	59319266	100.0	100.3	a
2	7.691	7.691	0.000	85574926	100.0	98.8	a
2	7.860	7.860	0.000	61147723	100.0	99.3	a
2	8.305	8.305	0.000	60767619	100.0	97.5	a
		Average of Peak Amounts =				99.3	
						RPD = 0.90	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

2154IC0100_00014	Amount Added:	1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:53 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D

Injection Date: 23-Dec-2018 02:33:51 Instrument ID: TAC057

Lims ID: icis

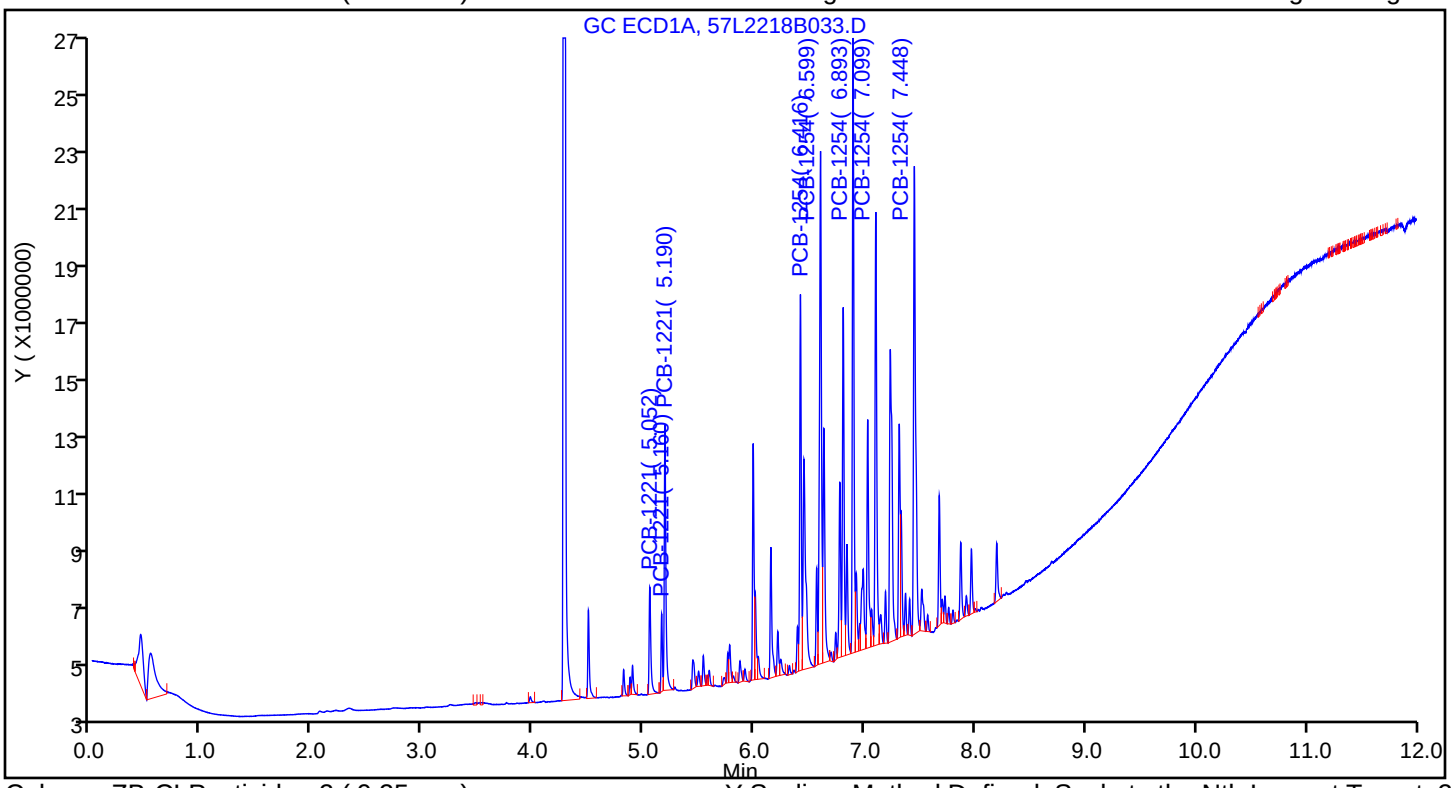
Client ID:

Operator ID: ar ALS Bottle#: 31 Worklist Smp#: 34

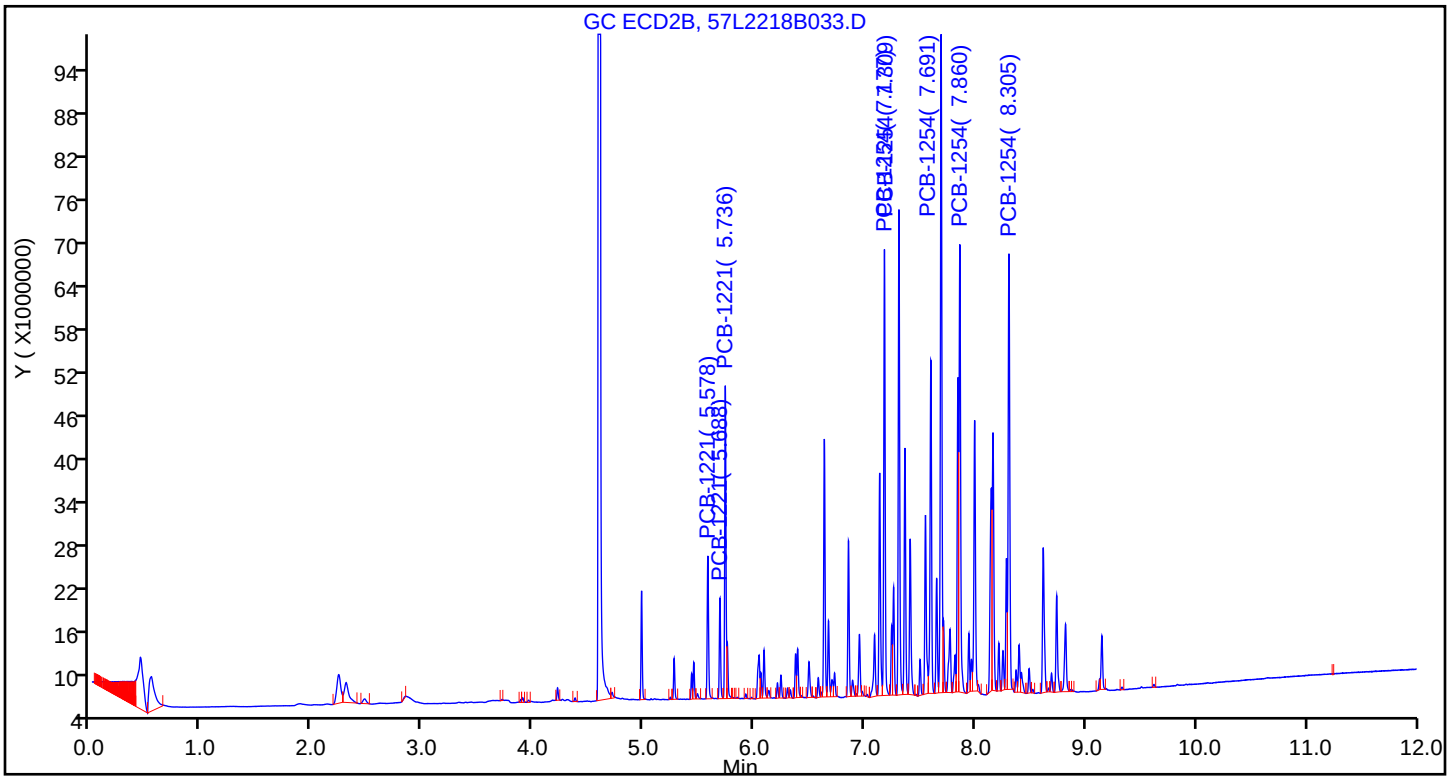
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

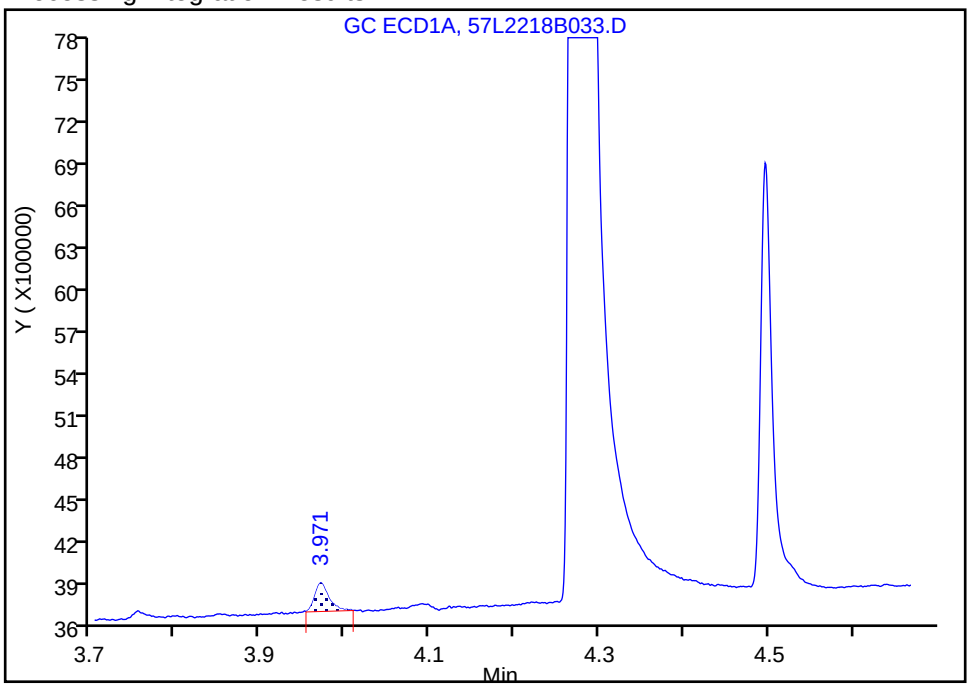
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D				
Injection Date:	23-Dec-2018 02:33:51	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	31	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

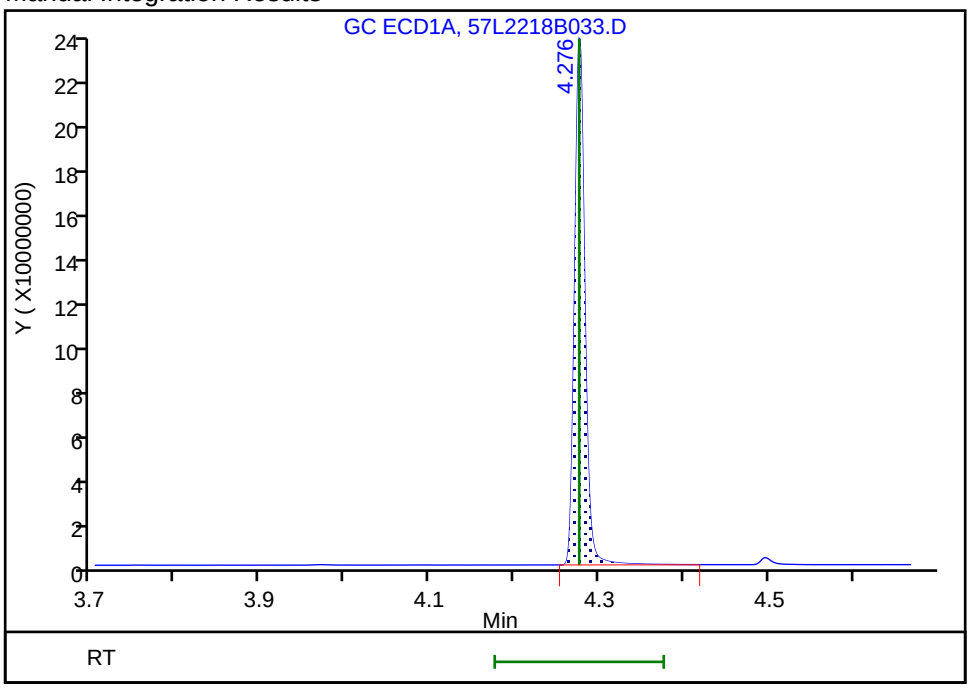
Processing Integration Results

RT: 3.97
Area: 236581
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 192963759
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:27:29
Audit Action: Assigned Compound ID Audit Reason:

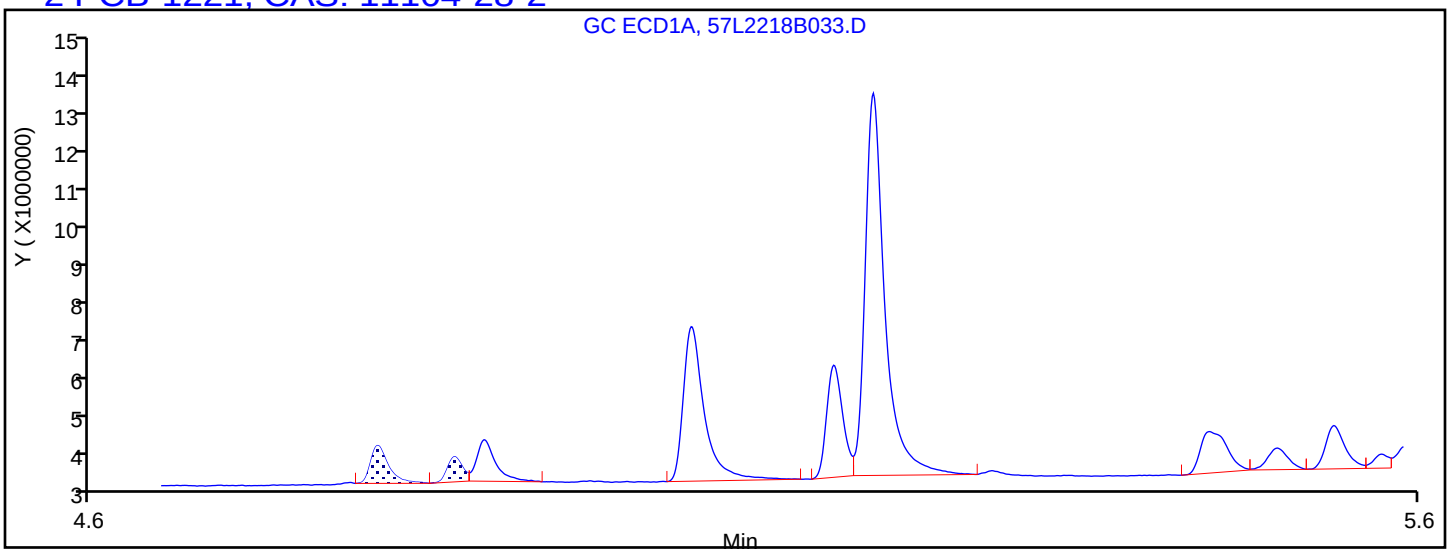
Report Date: 23-Dec-2018 16:16:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D

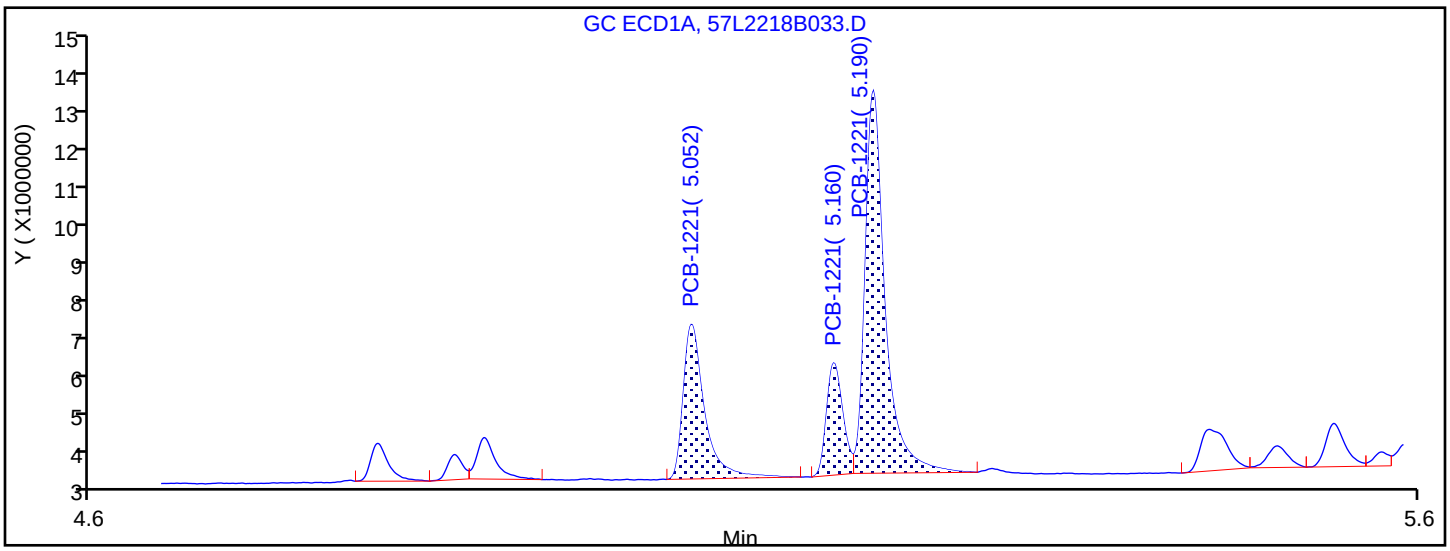
Injection Date:	23-Dec-2018 02:33:51	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	31	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

4.813	Response = 0
4.816	Response = 858520
4.874	Response = 482777



Manual Integration Results

5.052	Response = 4130748	M
5.160	Response = 2303322	M
5.190	Response = 9570272	M

Reviewer: ruslandera, 23-Dec-2018 15:27:40

Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:16:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D

Injection Date: 23-Dec-2018 02:33:51 Instrument ID: TAC057

Lims ID: icis

Client ID:

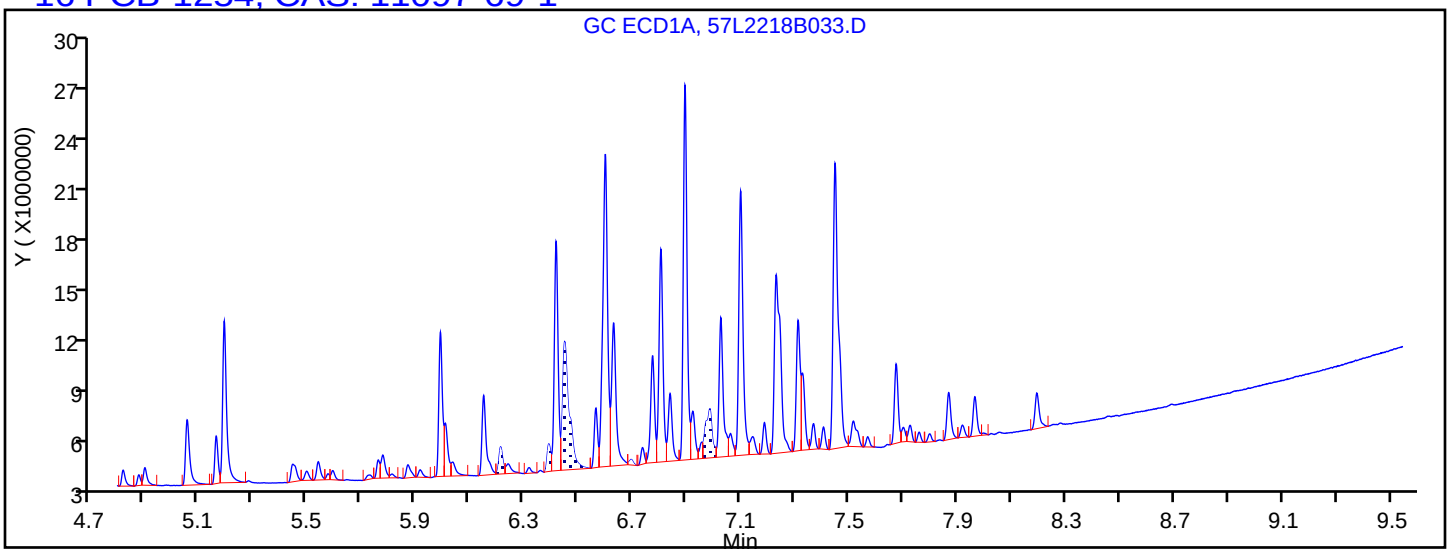
Operator ID: ar ALS Bottle#: 31 Worklist Smp#: 34

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

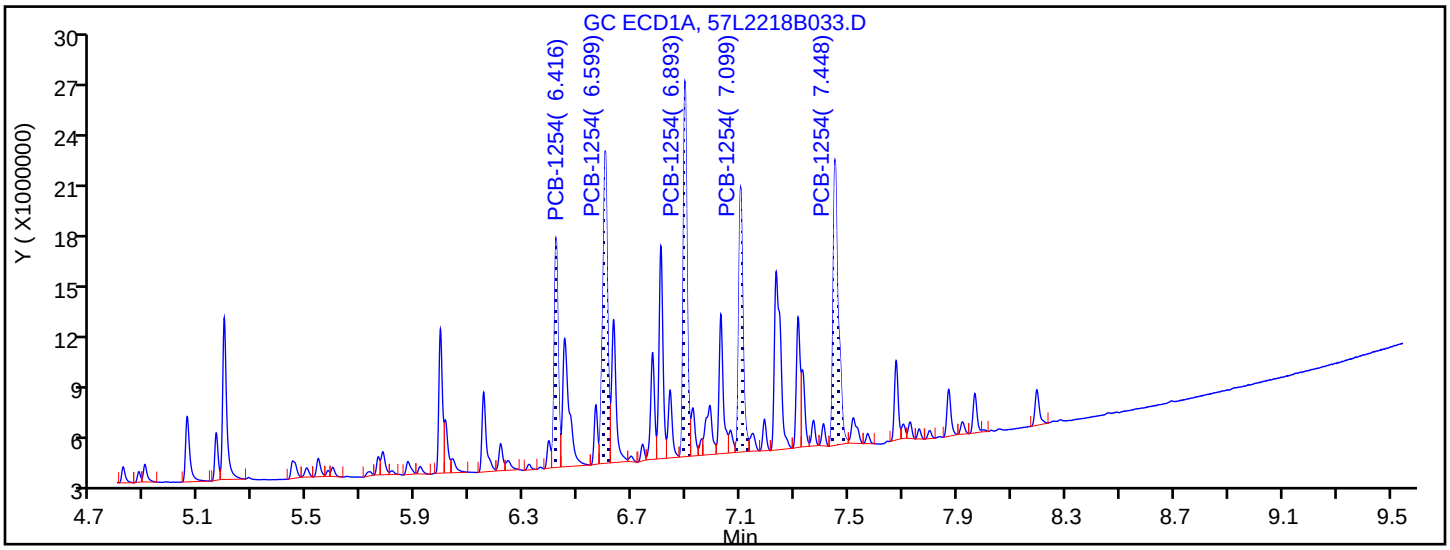
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.211	Response = 1579885
6.390	Response = 1425186
6.448	Response = 12407957
6.694	Response = 334555
6.986	Response = 4821111



Manual Integration Results

6.416	Response = 12852824	M
6.599	Response = 21705428	M
6.893	Response = 20613752	M
7.099	Response = 16388426	M
7.448	Response = 21526601	M

Reviewer: ruslandera, 23-Dec-2018 15:28:13

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Dec-2018 02:51:24 ALS Bottle#: 32 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:57 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:32:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	193321387	100.0	100.0	
2	4.596	4.596	0.000	1155762159	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						105.7	
2						107.9	
						RPD = 2.04	
2 PCB-1221							M
1	5.053	5.053	0.000	2132562	50.0	52.0	M
1	5.160	5.160	0.000	1278010	50.0	54.5	M
1	5.190	5.190	0.000	5274490	50.0	53.5	M
		Average of Peak Amounts =				53.3	
2	5.578	5.578	0.000	9181999	50.0	54.0	
2	5.688	5.688	0.000	6032738	50.0	55.8	
2	5.737	5.737	0.000	18832661	50.0	55.1	
		Average of Peak Amounts =				55.0	
						RPD = 3.02	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.417	6.417	0.000	6835955	50.0	52.9	M
1	6.598	6.598	0.000	11472911	50.0	52.4	M
1	6.893	6.893	0.000	10880235	50.0	52.1	M
1	7.098	7.098	0.000	8695650	50.0	52.7	M
1	7.448	7.448	0.000	11282169	50.0	51.7	M
		Average of Peak Amounts =				52.4	
2	7.178	7.178	0.000	29655673	50.0	53.4	M
2	7.309	7.309	0.000	32384947	50.0	53.3	M
2	7.691	7.691	0.000	46006981	50.0	51.9	M
2	7.860	7.860	0.000	33581968	50.0	53.3	M
2	8.305	8.305	0.000	33707657	50.0	52.7	M
		Average of Peak Amounts =				52.9	
						RPD = 1.02	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:59 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D

Injection Date: 23-Dec-2018 02:51:24 Instrument ID: TAC057

Lims ID: ic

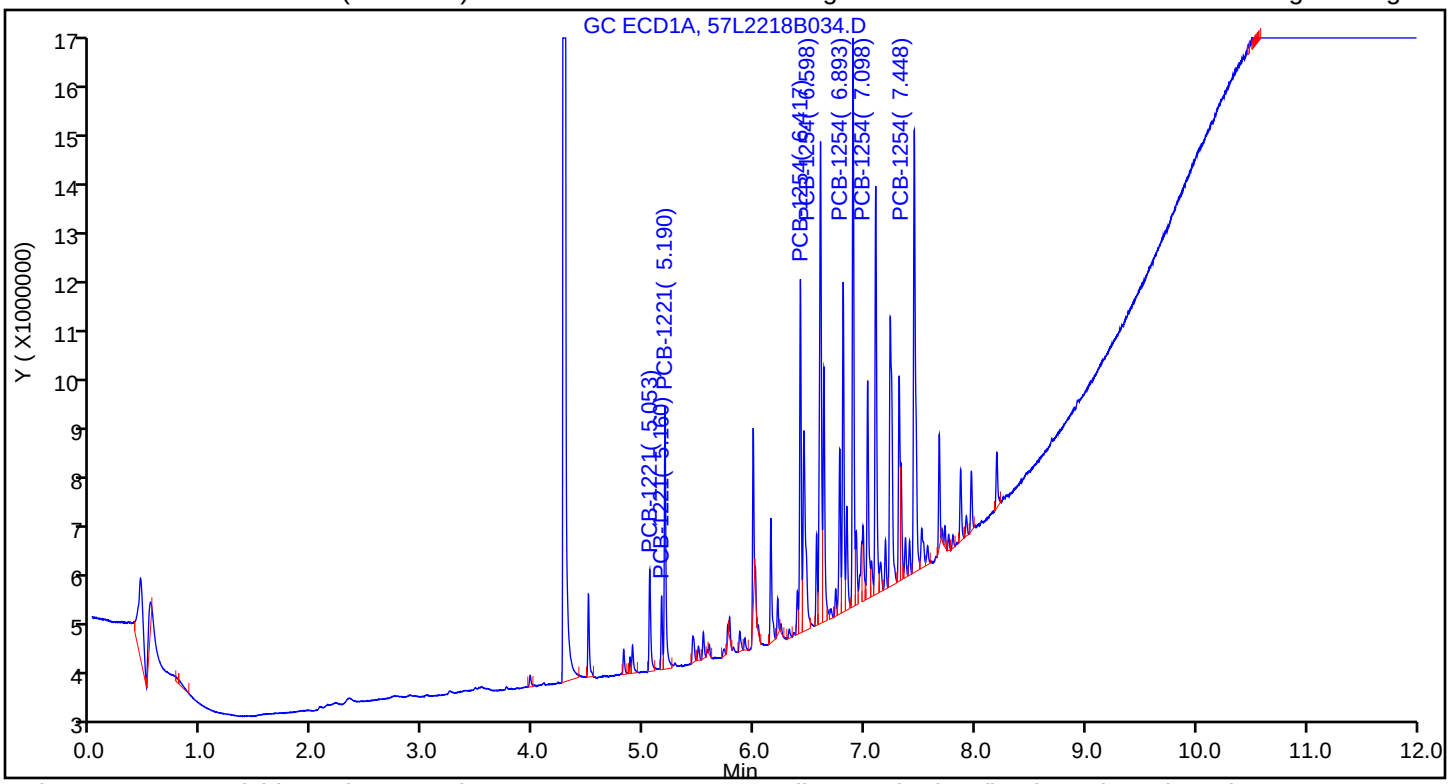
Client ID:

Operator ID: ar ALS Bottle#: 32 Worklist Smp#: 35

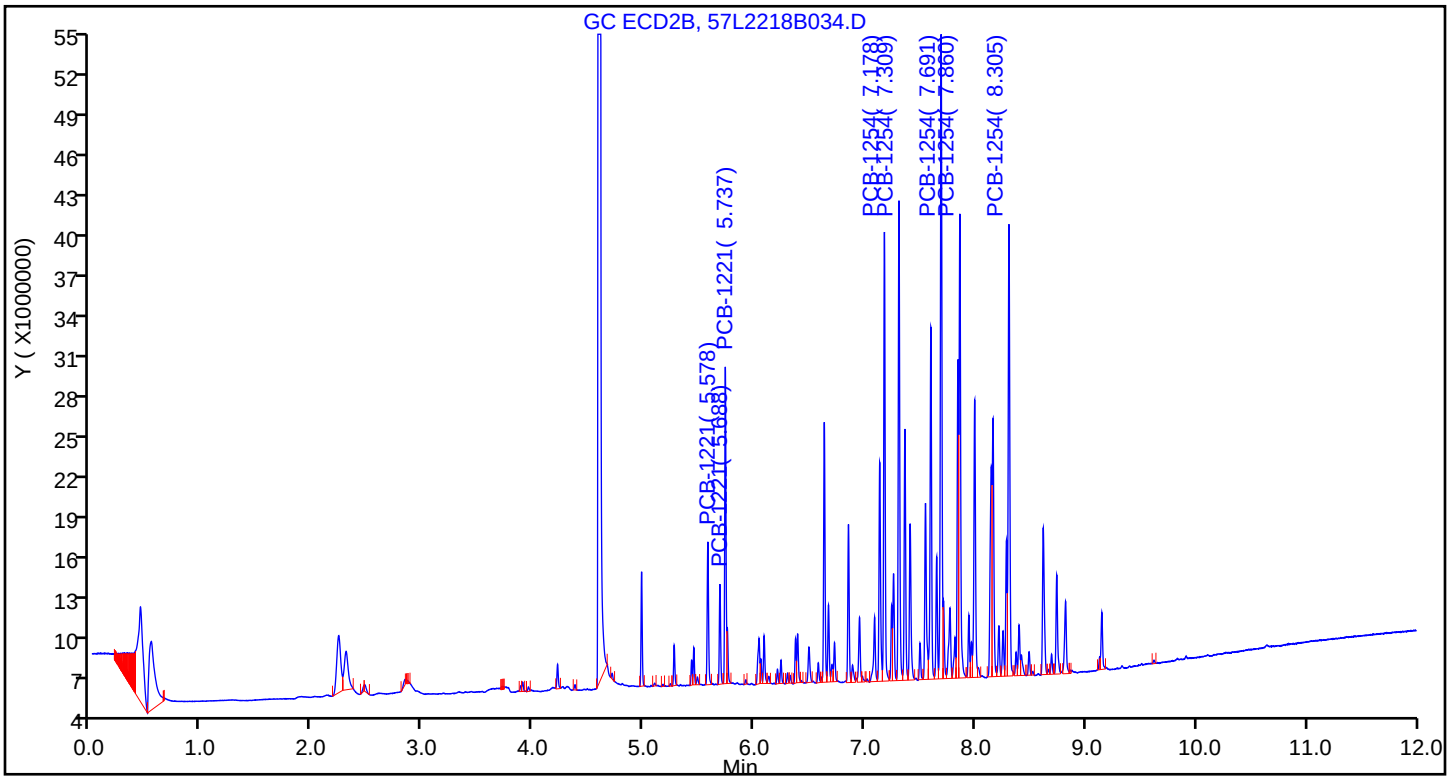
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



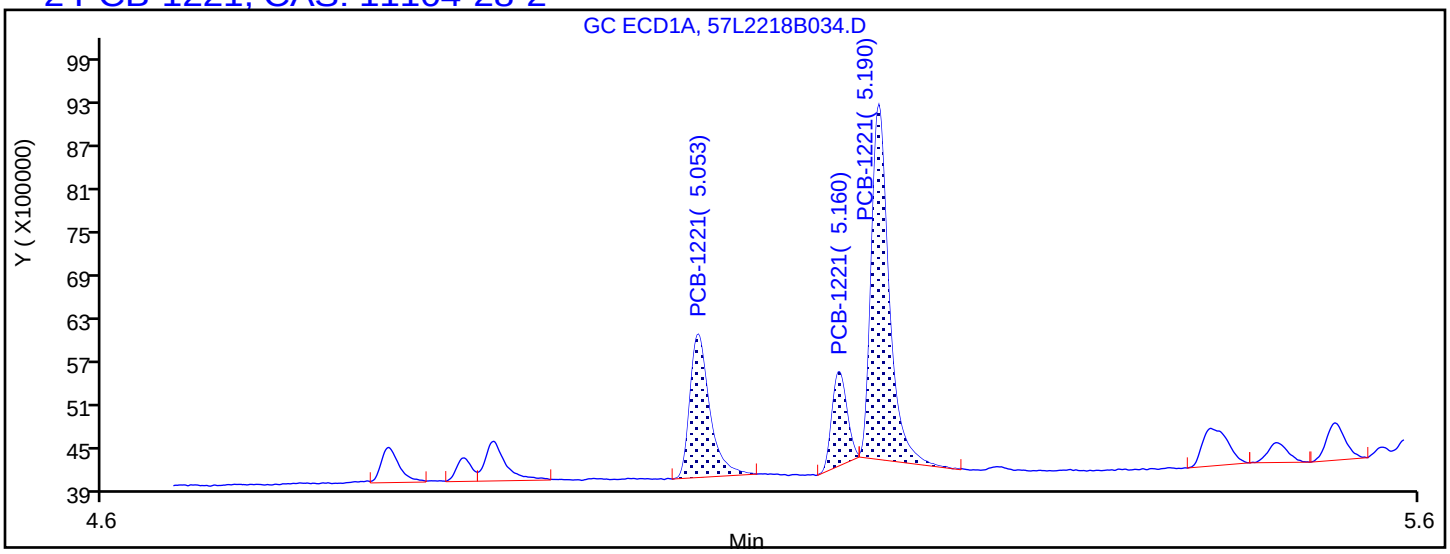
Report Date: 23-Dec-2018 16:16:59 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D

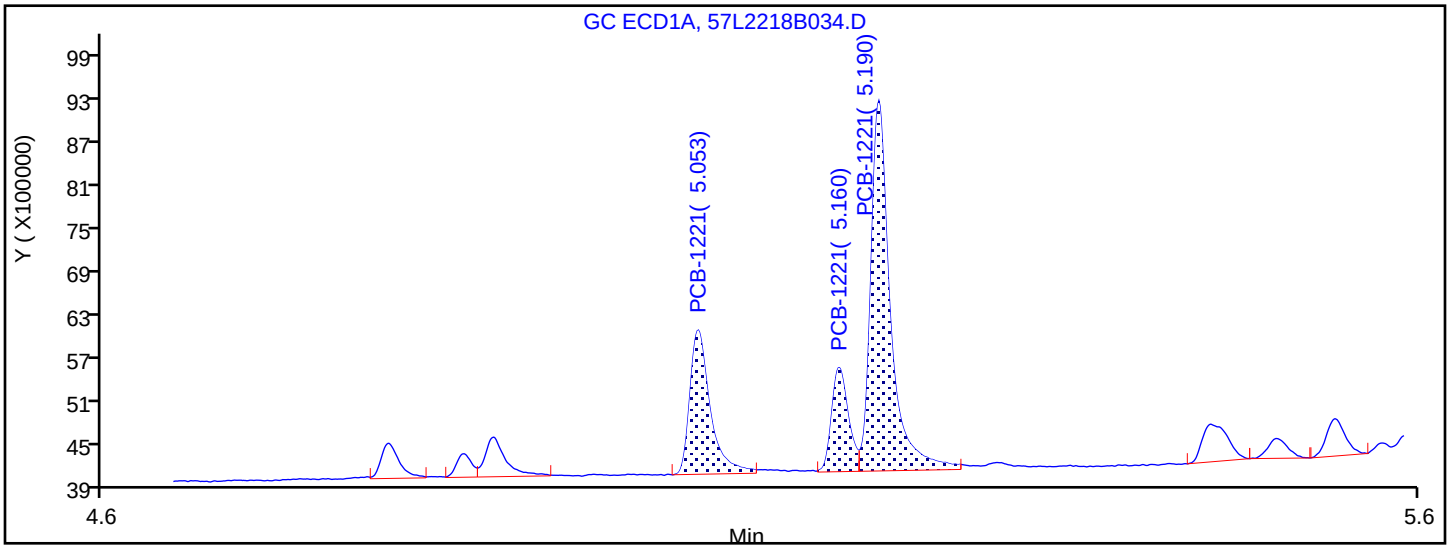
Injection Date:	23-Dec-2018 02:51:24	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	32	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

5.053	Response = 2048875
5.160	Response = 1024336
5.190	Response = 4559427



Manual Integration Results

5.053	Response = 2132562	M
5.160	Response = 1278010	M
5.190	Response = 5274490	M

Reviewer: ruslandera, 23-Dec-2018 15:31:56

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:59 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D

Injection Date: 23-Dec-2018 02:51:24 Instrument ID: TAC057

Lims ID: ic

Client ID:

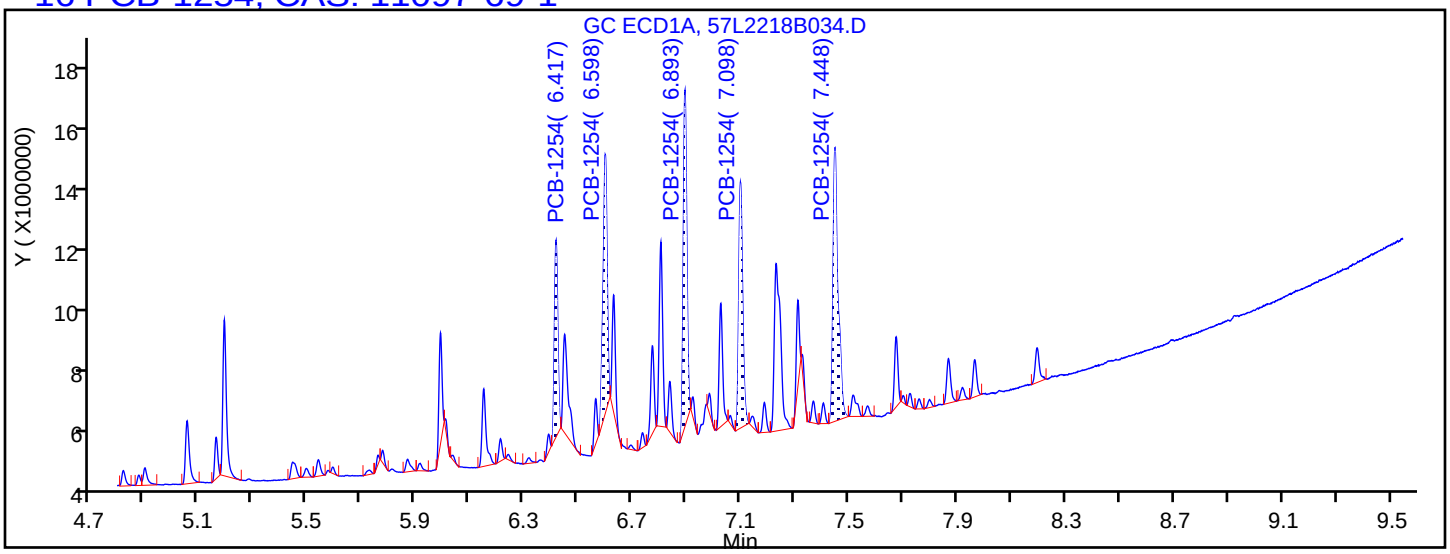
Operator ID: ar ALS Bottle#: 32 Worklist Smp#: 35

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

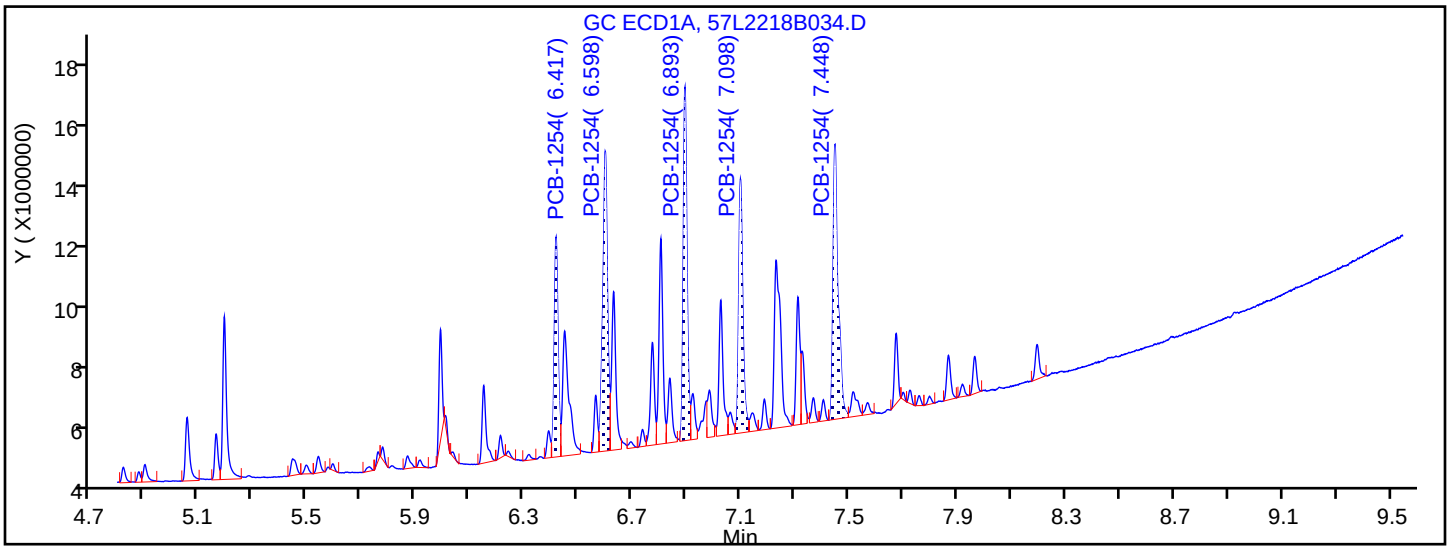
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.417	Response = 5323421
6.598	Response = 8485682
6.893	Response = 9505443
7.098	Response = 7855785
7.448	Response = 10999263



Manual Integration Results

6.417	Response = 6835955	M
6.598	Response = 11472911	M
6.893	Response = 10880235	M
7.098	Response = 8695650	M
7.448	Response = 11282169	M

Reviewer: ruslandera, 23-Dec-2018 15:32:11

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B035.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Dec-2018 03:09:03 ALS Bottle#: 33 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:03 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:31:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.278	4.277	0.001	185037579	100.0	100.0	
2	4.596	4.596	0.000	1101472046	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						54.6	
2						57.2	
						RPD = 4.64	
2 PCB-1221							
1	5.054	5.053	0.001	1024960	25.0	26.1	
1	5.162	5.160	0.002	630501	25.0	28.1	
1	5.192	5.190	0.002	2631810	25.0	27.9	
		Average of Peak Amounts =				27.4	
2	5.579	5.578	0.001	4900610	25.0	28.4	
2	5.689	5.688	0.001	3326990	25.0	30.4	
2	5.738	5.737	0.001	10006380	25.0	29.2	
		Average of Peak Amounts =				29.3	
						RPD = 6.96	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.418	6.417	0.001	3470425	25.0	27.2	M
1	6.600	6.598	0.002	5854404	25.0	27.5	M
1	6.895	6.893	0.002	5512100	25.0	27.2	M
1	7.100	7.098	0.002	4366108	25.0	27.1	M
1	7.449	7.448	0.001	5729337	25.0	27.1	M
		Average of Peak Amounts =				27.2	
2	7.178	7.178	0.000	15714252	25.0	28.4	
2	7.310	7.309	0.001	17031818	25.0	28.1	
2	7.693	7.691	0.002	23940228	25.0	27.3	
2	7.862	7.860	0.002	17167444	25.0	27.5	
2	8.306	8.305	0.001	17670636	25.0	27.8	M
		Average of Peak Amounts =				27.8	
						RPD = 2.25	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B035.D

Injection Date: 23-Dec-2018 03:09:03 Instrument ID: TAC057

Lims ID: ic

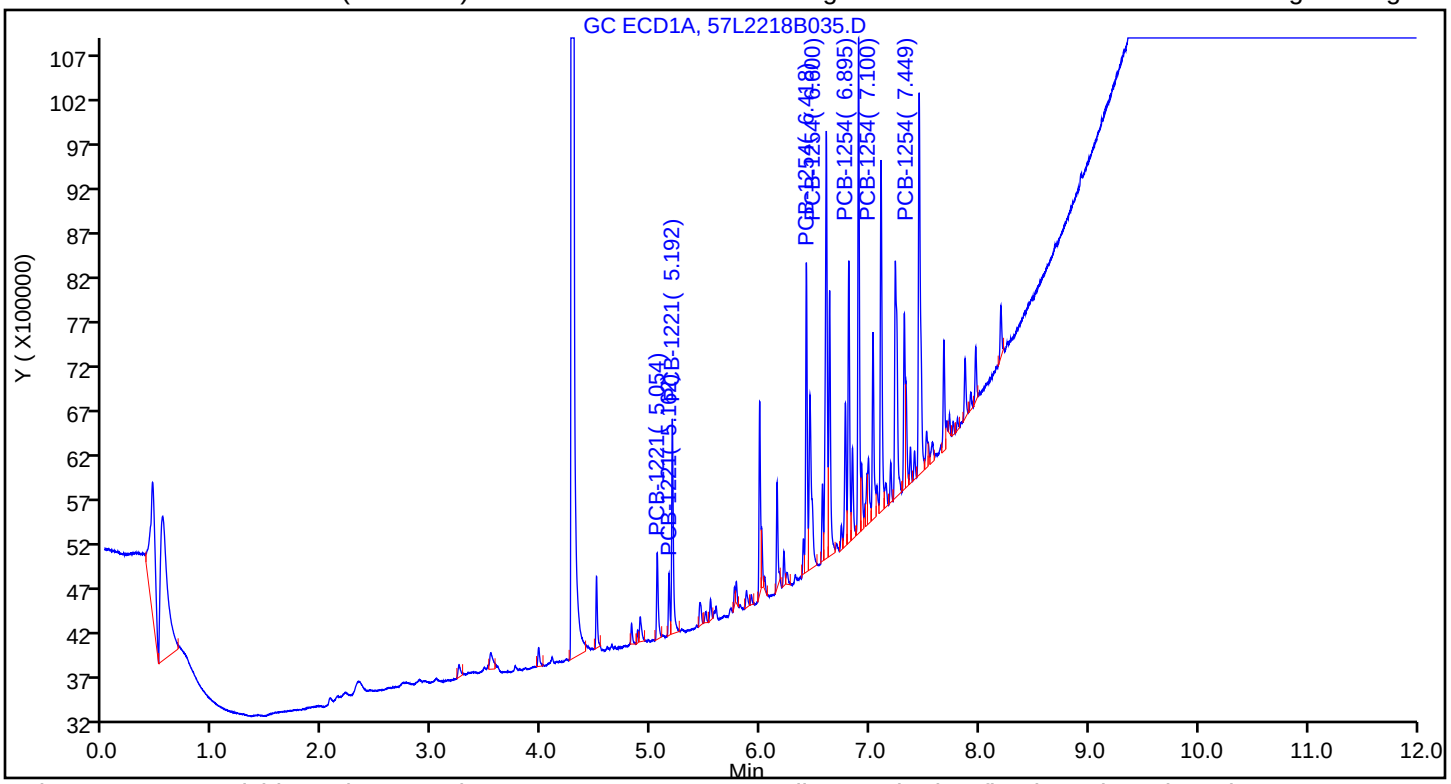
Client ID:

Operator ID: ar ALS Bottle#: 33 Worklist Smp#: 36

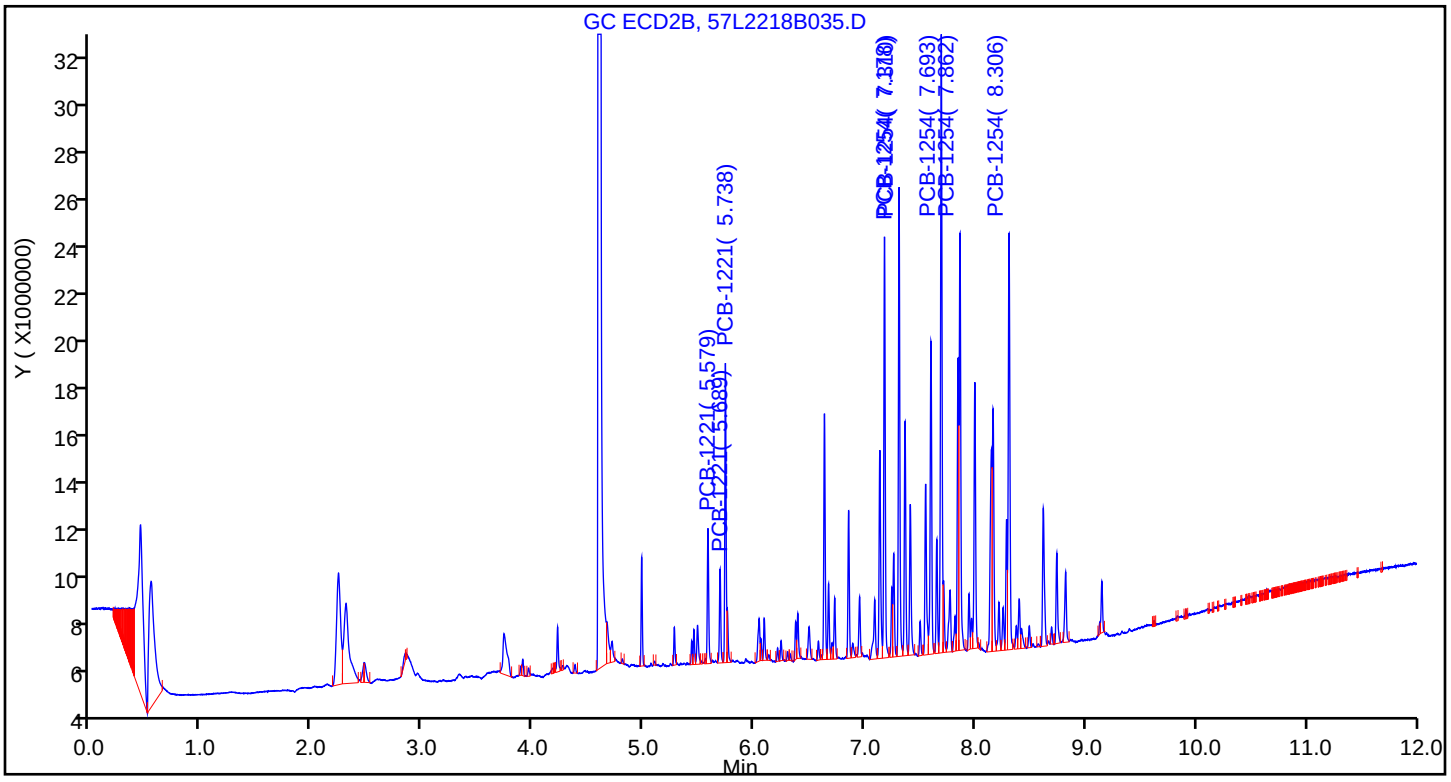
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



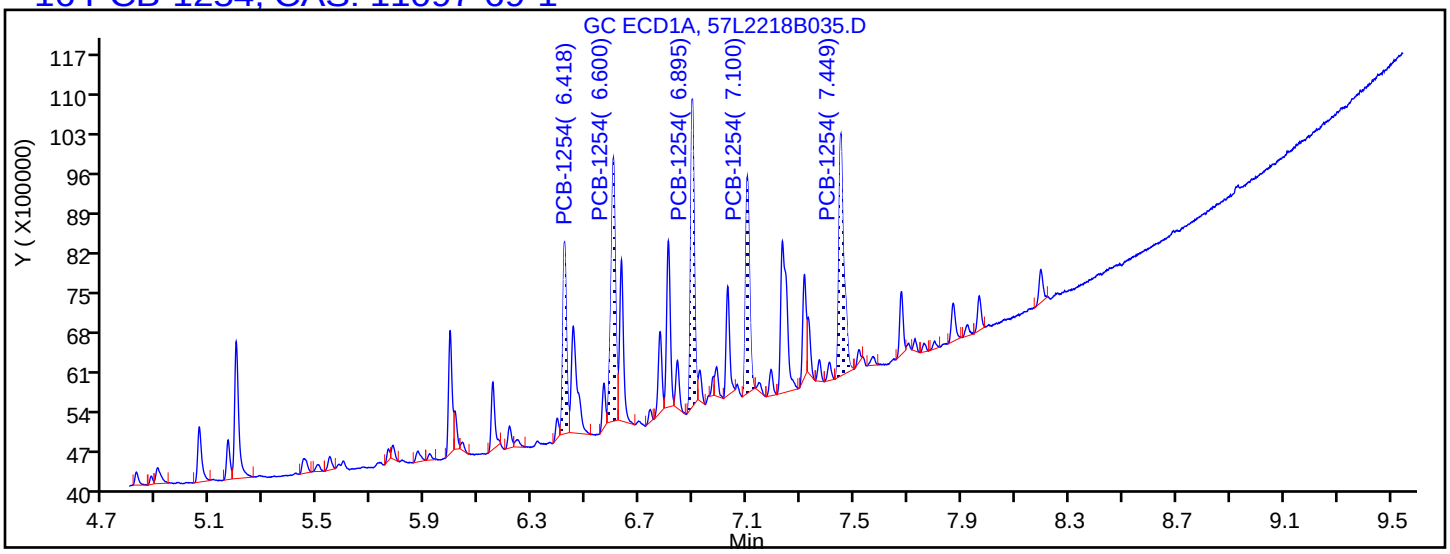
Report Date: 23-Dec-2018 16:17:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B035.D

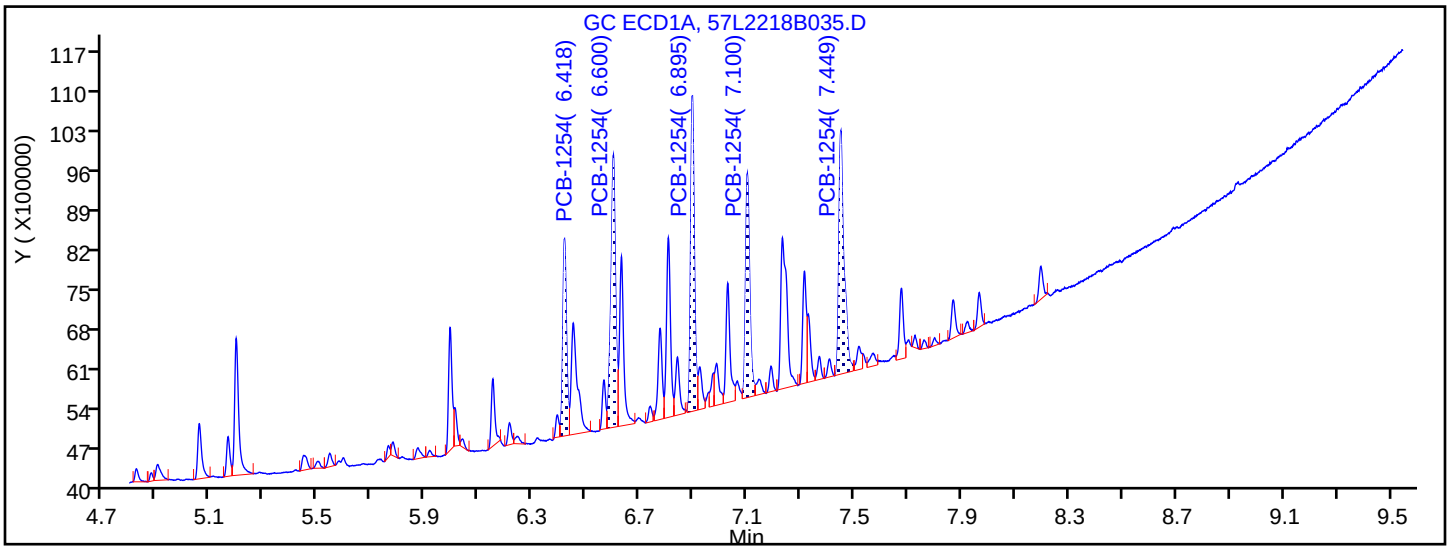
Injection Date:	23-Dec-2018 03:09:03	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	33	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.418	Response = 3262909
6.600	Response = 5441012
6.895	Response = 5174479
7.100	Response = 3950715
7.449	Response = 5557696



Manual Integration Results

6.418	Response = 3470425	M
6.600	Response = 5854404	M
6.895	Response = 5512100	M
7.100	Response = 4366108	M
7.449	Response = 5729337	M

Reviewer: ruslandera, 23-Dec-2018 15:32:36

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B036.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Dec-2018 03:26:33 ALS Bottle#: 34 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:06 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:33:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192702942	100.0	100.0	
2	4.596	4.596	0.000	1154696602	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.0	
2						20.2	
						RPD = 1.02	
2 PCB-1221							
1	5.055	5.053	0.002	433317	10.0	10.6	
1	5.162	5.160	0.002	223605	10.0	9.56	
1	5.193	5.190	0.003	1011666	10.0	10.3	
		Average of Peak Amounts =				10.2	
2	5.578	5.578	0.000	2117386	10.0	9.26	
2	5.688	5.688	0.000	1447131	10.0	9.96	
2	5.737	5.737	0.000	4403440	10.0	10.4	
		Average of Peak Amounts =				9.87	
						RPD = 2.82	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.417	6.417	0.000	1573406	10.0	10.7	M
1	6.599	6.598	0.001	2417513	10.0	10.3	M
1	6.893	6.893	0.000	2137199	10.0	9.60	M
1	7.100	7.098	0.002	1613952	10.0	8.94	M
1	7.448	7.448	0.000	2189659	10.0	9.47	M
		Average of Peak Amounts =				9.80	
2	7.177	7.178	-0.001	6919502	10.0	10.3	M
2	7.308	7.309	-0.001	7615268	10.0	10.4	M
2	7.691	7.691	0.000	10657680	10.0	10.2	M
2	7.861	7.860	0.001	7495847	10.0	10.0	M
2	8.305	8.305	0.000	7962180	10.0	10.5	M
		Average of Peak Amounts =				10.3	
						RPD = 4.84	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:07 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B036.D

Injection Date: 23-Dec-2018 03:26:33 Instrument ID: TAC057

Lims ID: ic

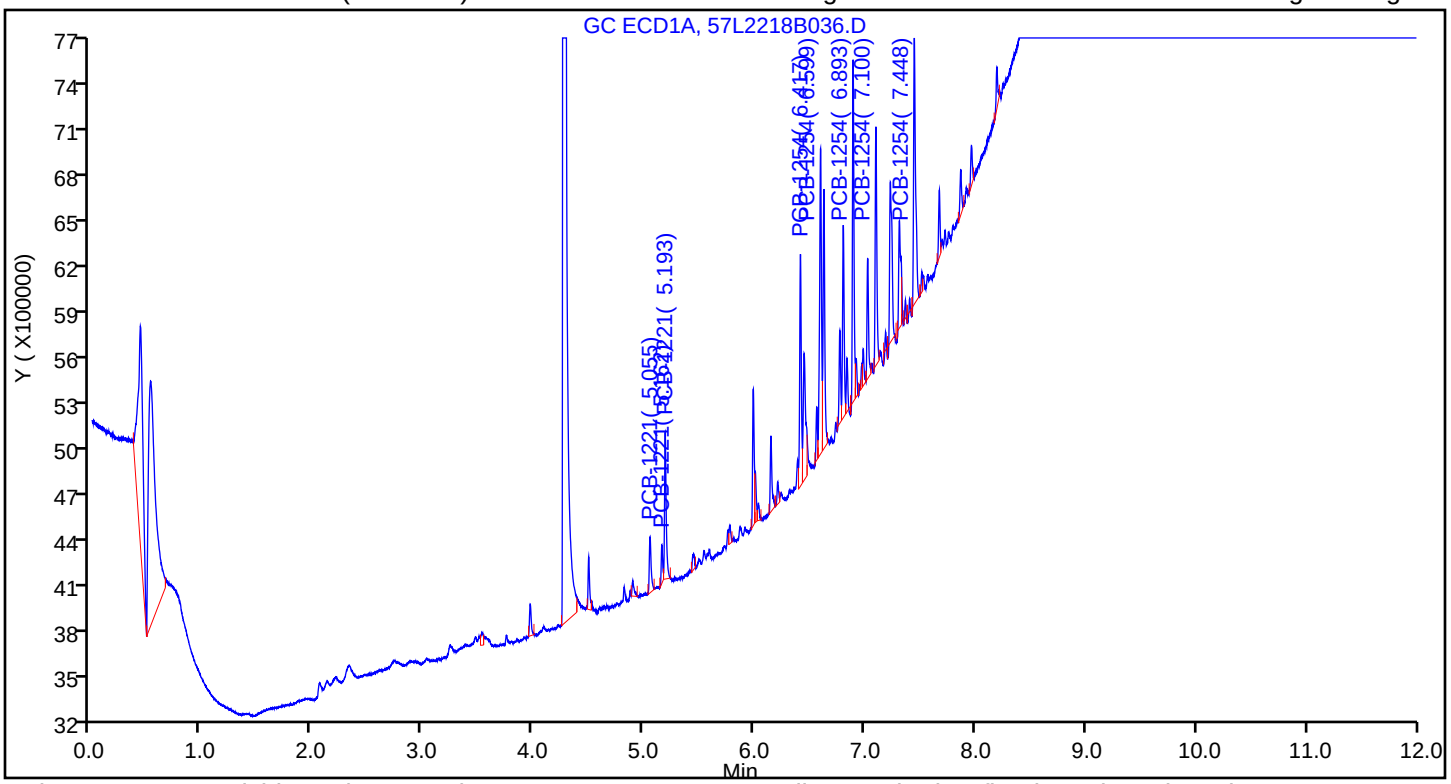
Client ID:

Operator ID: ar ALS Bottle#: 34 Worklist Smp#: 37

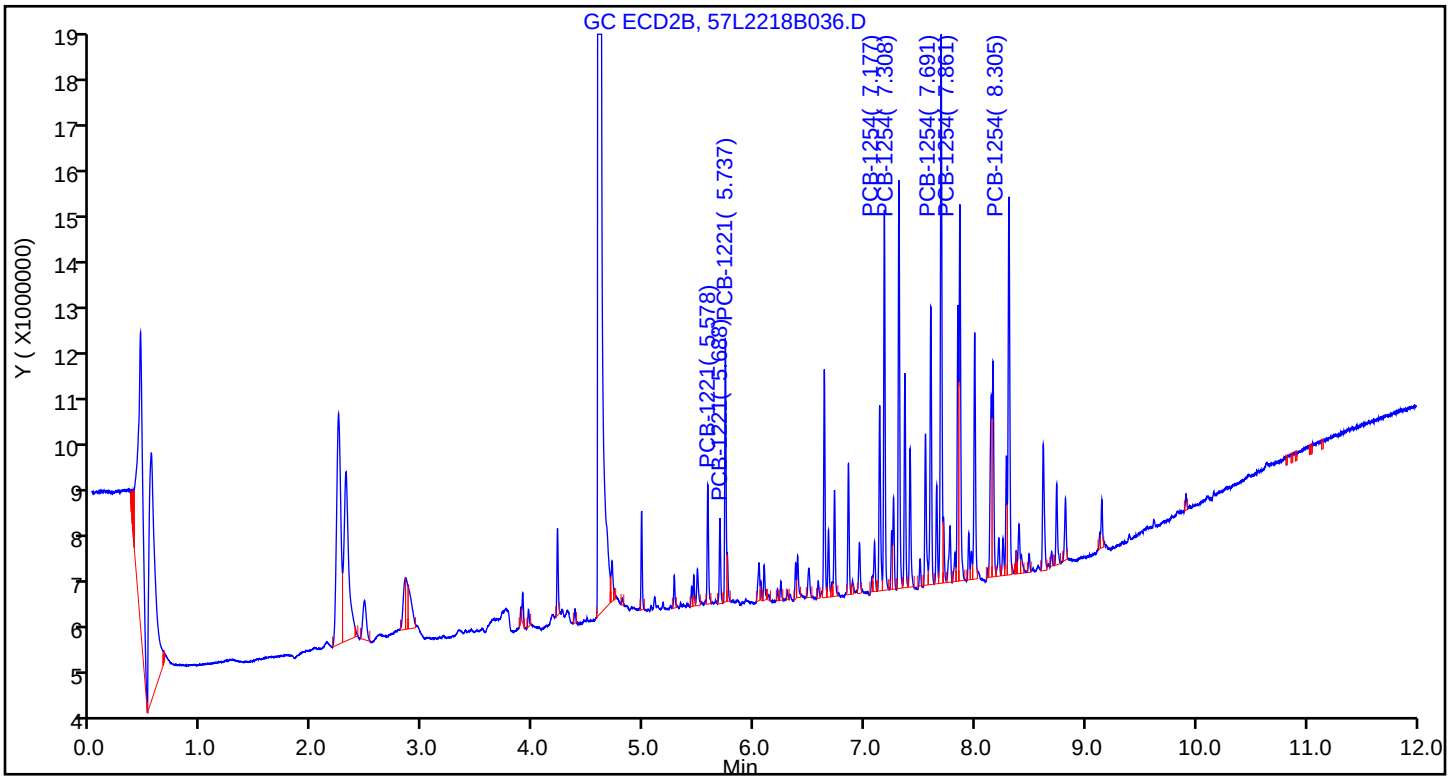
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



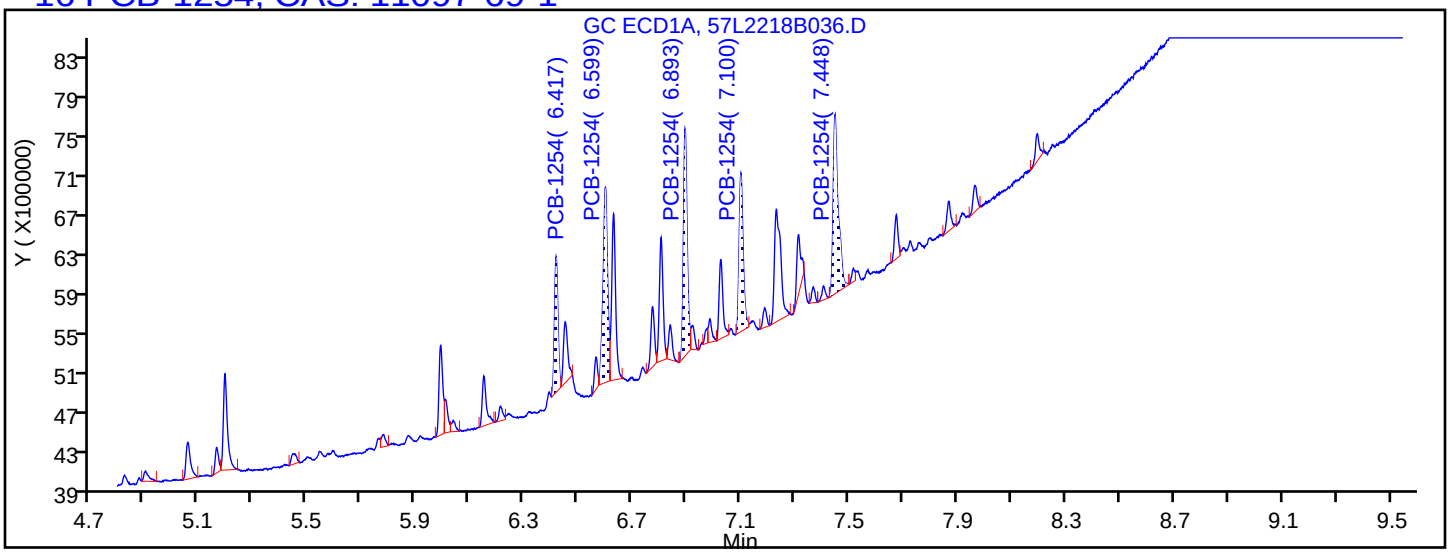
Report Date: 23-Dec-2018 16:17:07 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B036.D

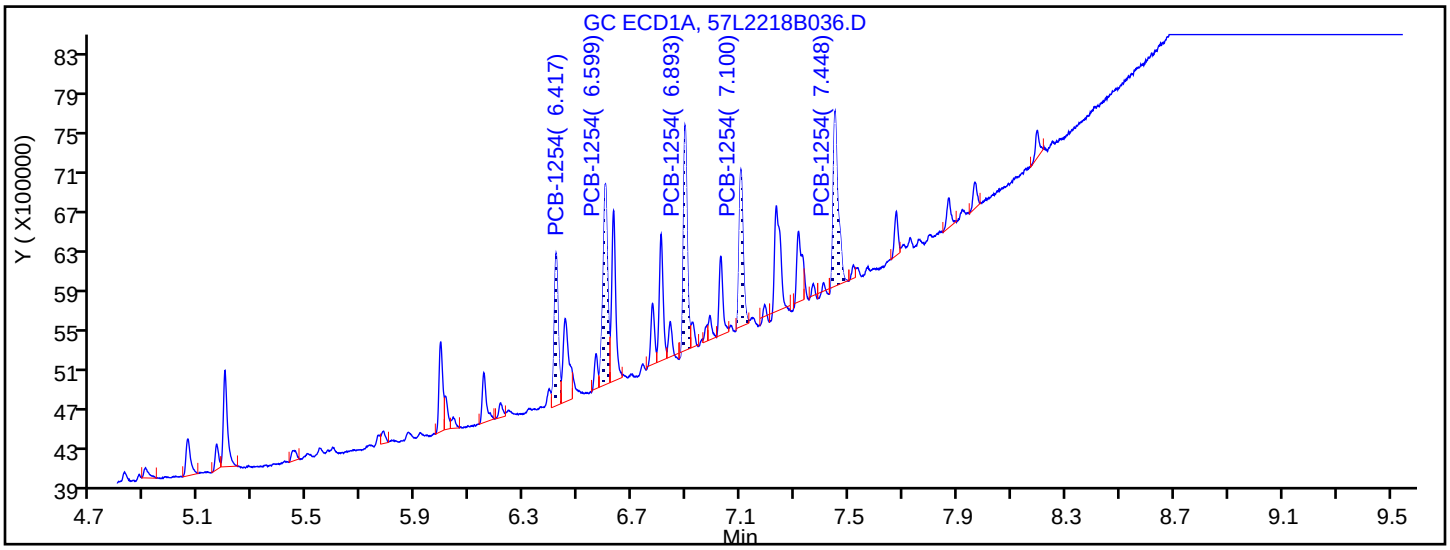
Injection Date:	23-Dec-2018 03:26:33	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	34	Worklist Smp#:	37
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.417	Response = 1211854
6.599	Response = 2283792
6.893	Response = 2189622
7.100	Response = 1656510
7.448	Response = 2332245



Manual Integration Results

6.417	Response = 1573406	M
6.599	Response = 2417513	M
6.893	Response = 2137199	M
7.100	Response = 1613952	M
7.448	Response = 2189659	M

Reviewer: ruslandera, 23-Dec-2018 15:33:16

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B037.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Dec-2018 03:44:06 ALS Bottle#: 35 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:09 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:33:55

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	191397524	100.0	100.0	
2	4.596	4.596	0.000	1146087963	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						10.5	
2						7.82	
						RPD = 29.23	
2 PCB-1221							
1	5.055	5.053	0.002	207142	5.00	5.10	
1	5.164	5.160	0.004	129801	5.00	5.59	
1	5.194	5.190	0.004	583215	5.00	5.98	
		Average of Peak Amounts =				5.56	
2	5.579	5.578	0.001	1074794	5.00	2.71	
2	5.689	5.688	0.001	755111	5.00	3.10	
2	5.737	5.737	0.000	2084314	5.00	3.27	
		Average of Peak Amounts =				3.03	
						RPD = 58.94	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.418	6.417	0.001	821690	5.00	4.71	M
1	6.600	6.598	0.002	1234821	5.00	4.81	M
1	6.894	6.893	0.001	1184404	5.00	4.99	M
1	7.102	7.098	0.004	996444	5.00	5.15	M
1	7.449	7.448	0.001	1231555	5.00	5.04	M
		Average of Peak Amounts =				4.94	
2	7.178	7.178	0.000	3953689	5.00	4.75	M
2	7.309	7.309	0.000	4329571	5.00	4.75	M
2	7.691	7.691	0.000	6019633	5.00	4.83	M
2	7.861	7.860	0.001	4343717	5.00	4.87	M
2	8.305	8.305	0.000	4464600	5.00	4.76	M
		Average of Peak Amounts =				4.79	
						RPD = 3.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:10 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B037.D

Injection Date: 23-Dec-2018 03:44:06 Instrument ID: TAC057

Lims ID: ic

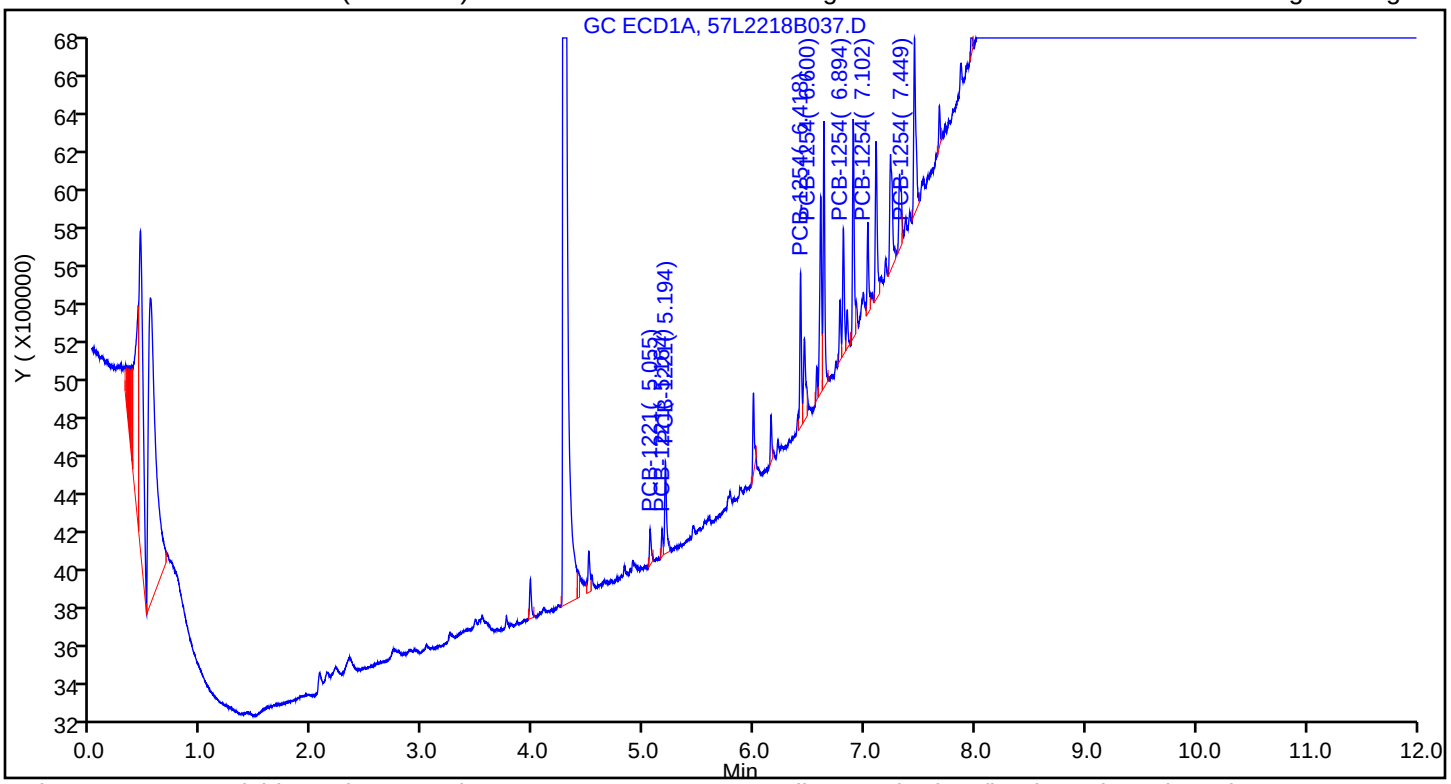
Client ID:

Operator ID: ar ALS Bottle#: 35 Worklist Smp#: 38

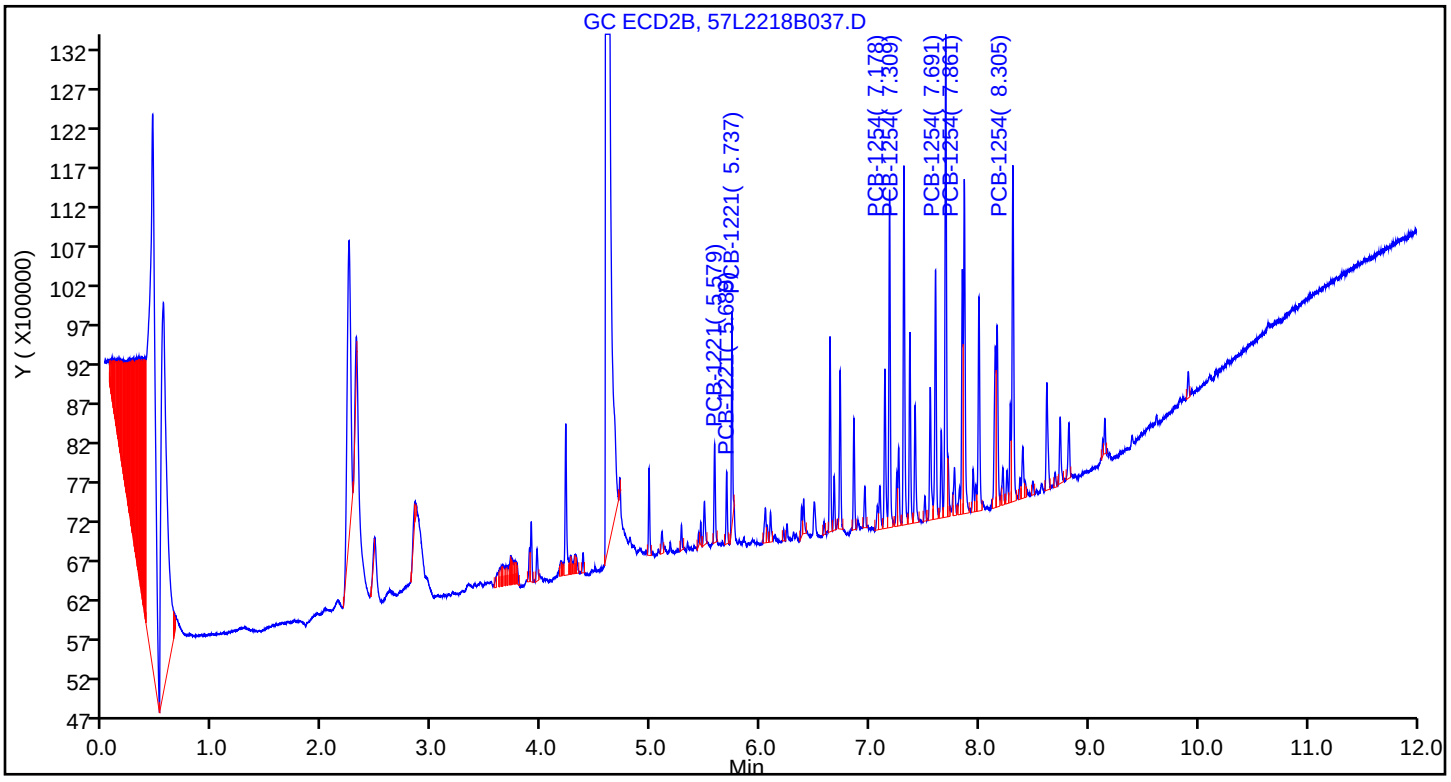
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



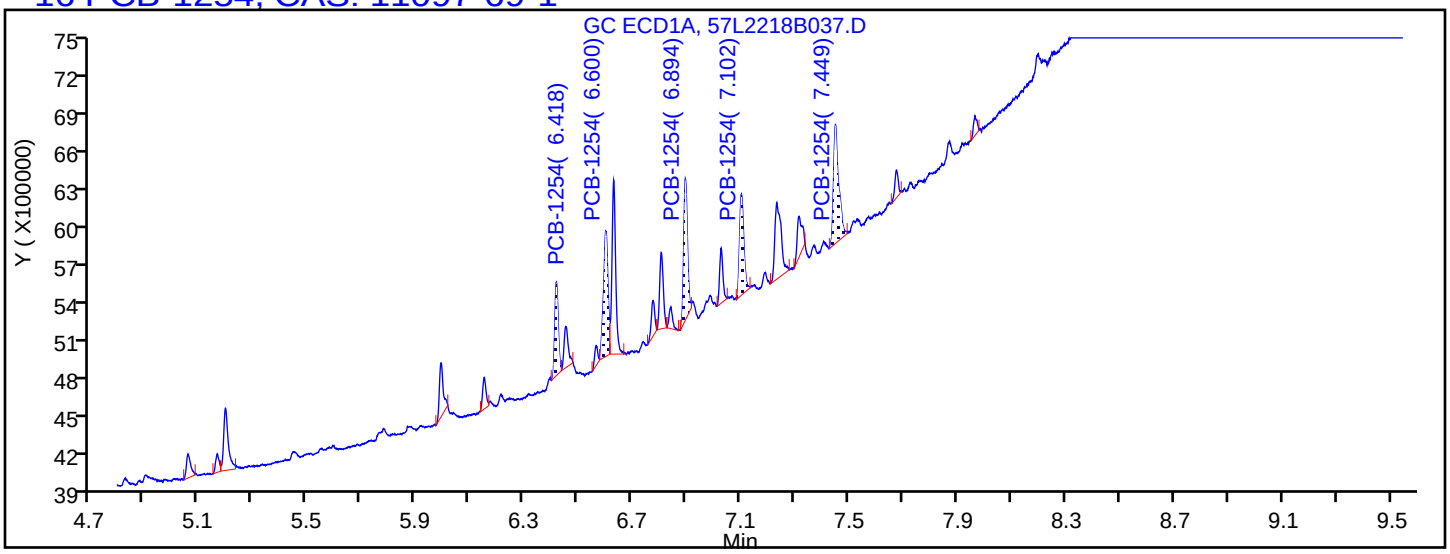
Report Date: 23-Dec-2018 16:17:10 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B037.D

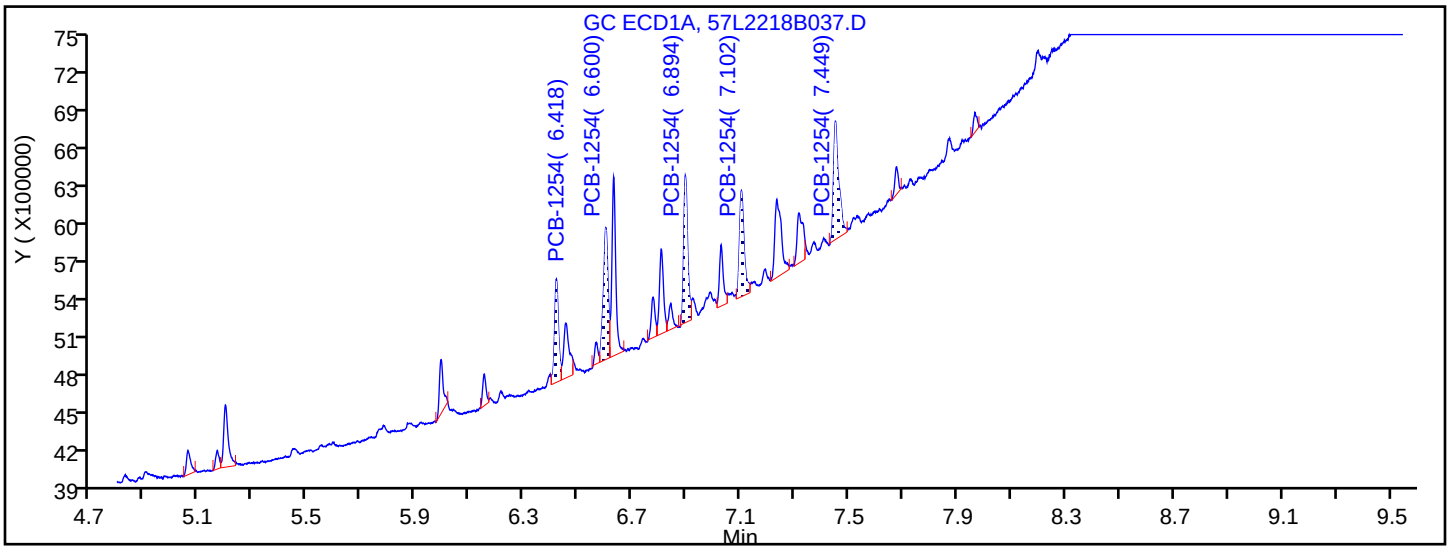
Injection Date:	23-Dec-2018 03:44:06	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	35	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.418	Response = 645586
6.600	Response = 1125629
6.894	Response = 1057550
7.102	Response = 866392
7.449	Response = 1234932



Manual Integration Results

6.418	Response = 821690	M
6.600	Response = 1234821	M
6.894	Response = 1184404	M
7.102	Response = 996444	M
7.449	Response = 1231555	M

Reviewer: ruslandera, 23-Dec-2018 15:33:43

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 01:41 Calibration End Date: 12/23/2018 03:44 Calibration ID: 27231

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/38	57L2218B037.D
Level 2	IC 580-291937/37	57L2218B036.D
Level 3	IC 580-291937/36	57L2218B035.D
Level 4	IC 580-291937/35	57L2218B034.D
Level 5	ICIS 580-291937/34	57L2218B033.D
Level 6	IC 580-291937/33	57L2218B032.D
Level 7	IC 580-291937/32	57L2218B031.D
Level 8	IC 580-291937/31	57L2218B030.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	+++++ 0.0133	0.0183 0.0129	0.0178 0.0124	0.0159	0.0149	Lin2	0.0568	0.0137				9.7			0.9900		0.9900
PCB-1221 Peak 2	0.0132 0.0083	0.0125 0.0080	0.0121 0.0077	0.0104	0.0098	Qua1	0.0390	0.0087	-0.000001			20.6			0.9990		0.9900
PCB-1221 Peak 3	0.0364 0.0271	0.0381 0.0260	0.0363 0.0250	0.0326	0.0305	Qua1	0.0903	0.0280	-0.000002			18.2			0.9990		0.9900
PCB-1254 Peak 1	0.0690 0.0434	0.0599 0.0427	0.0571 0.0424	0.0513	0.0473	Lin2	0.1280	0.0457				8.2			0.9930		0.9900
PCB-1254 Peak 2	0.0756 0.0474	0.0660 0.0469	0.0619 0.0471	0.0560	0.0515	Lin2	0.1404	0.0500				7.6			0.9930		0.9900
PCB-1254 Peak 3	0.1050 0.0702	0.0923 0.0704	0.0869 0.0724	0.0796	0.0743	Lin2	0.1701	0.0735				5.2			0.9970		0.9900
PCB-1254 Peak 4	0.0758 0.0502	0.0649 0.0498	0.0623 0.0502	0.0581	0.0531	Lin2	0.1250	0.0522				5.9			0.9960		0.9900
PCB-1254 Peak 5	0.0779 0.0502	0.0690 0.0502	0.0642 0.0507	0.0583	0.0528	Lin2	0.1390	0.0527				6.7			0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 01:41 Calibration End Date: 12/23/2018 03:44 Calibration ID: 27231

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/38	57L2218B037.D
Level 2	IC 580-291937/37	57L2218B036.D
Level 3	IC 580-291937/36	57L2218B035.D
Level 4	IC 580-291937/35	57L2218B034.D
Level 5	ICIS 580-291937/34	57L2218B033.D
Level 6	IC 580-291937/33	57L2218B032.D
Level 7	IC 580-291937/32	57L2218B031.D
Level 8	IC 580-291937/31	57L2218B030.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin2	+++++ 74925768	2117386 146939619	4900610 285995616	9181999	17175937	+++++ 500	10.0 1000	25.0 2000	50.0	100
PCB-1221 Peak 2	BNB	Qua1	755111 46986706	1447131 91469457	3326990 176607874	6032738	11253059	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1221 Peak 3	BNB	Qua1	2084314 152672260	4403440 296958916	10006380 574471612	18832661	35131436	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 1	BNB	Lin2	3953689 244795017	6919502 488155346	15714252 975165628	29655673	54488704	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 2	BNB	Lin2	4329571 267224218	7615268 536076585	17031818 1082376166	32384947	59319266	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 3	BNB	Lin2	6019633 395972907	10657680 804616485	23940228 1665024429	46006981	85574926	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 4	BNB	Lin2	4343717 283077951	7495847 568725105	17167444 1154293278	33581968	61147723	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1254 Peak 5	BNB	Lin2	4464600 283363408	7962180 573553538	17670636 1167319952	33707657	60767619	5.00 500	10.0 1000	25.0 2000	50.0	100

Curve Type Legend:

Lin2 = Linear 1/conc^2 ISTD
Qua1 = Quadratic 1/conc ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B030.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Dec-2018 01:41:09 ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:38 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:30:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192965989	100.0	100.0	
2	4.596	4.596	0.000	1150150576	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3653.0	
2						3857.5	
						RPD = 5.45	
2 PCB-1221							M
1	5.049	5.052	-0.003	73712755	2000.0	1799.7	M
1	5.157	5.160	-0.003	41461544	2000.0	1771.1	M
1	5.187	5.190	-0.003	165350800	2000.0	1681.4	M
		Average of Peak Amounts =				1750.7	
2	5.578	5.578	0.000	285995616	2000.0	1815.5	
2	5.688	5.688	0.000	176607874	2000.0	2015.9	
2	5.737	5.736	0.001	574471612	2000.0	2013.2	
		Average of Peak Amounts =				1948.2	
						RPD = 10.68	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.415	6.416	-0.001	229738396	2000.0	1846.5	M
1	6.597	6.599	-0.002	402600189	2000.0	1874.6	M
1	6.891	6.893	-0.002	394726108	2000.0	1923.4	M
1	7.096	7.099	-0.003	311633023	2000.0	1928.6	M
1	7.446	7.448	-0.002	416125917	2000.0	1938.2	M
		Average of Peak Amounts =				1902.3	
2	7.178	7.177	0.001	975165628	2000.0	1853.9	
2	7.310	7.309	0.001	1082376166	2000.0	1880.3	
2	7.693	7.691	0.002	1665024429	2000.0	1968.5	
2	7.861	7.860	0.001	1154293278	2000.0	1919.7	
2	8.307	8.305	0.002	1167319952	2000.0	1924.2	
		Average of Peak Amounts =				1909.3	
						RPD = 0.37	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154_ICSTK_00022	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B030.D

Injection Date: 23-Dec-2018 01:41:09 Instrument ID: TAC057

Lims ID: ic

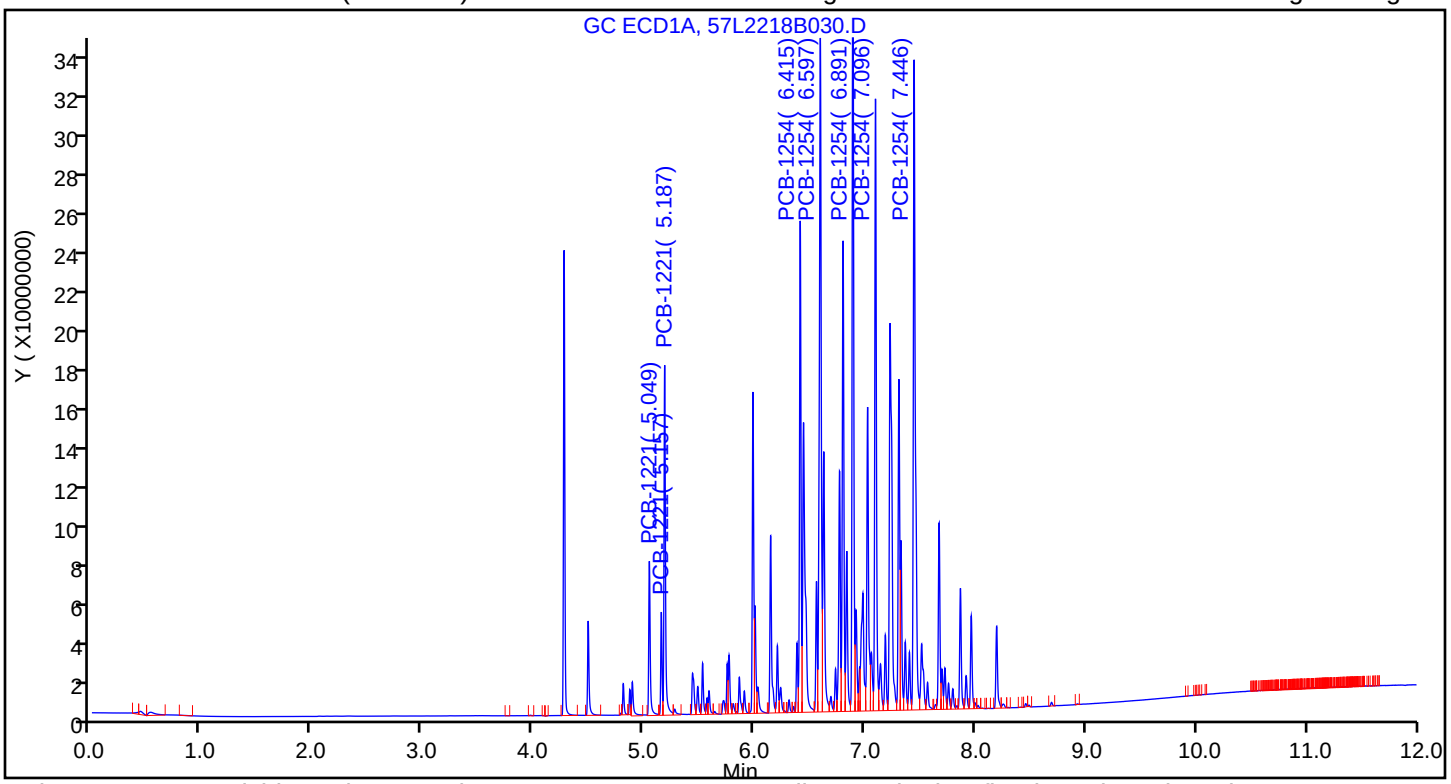
Client ID:

Operator ID: ar ALS Bottle#: 28 Worklist Smp#: 31

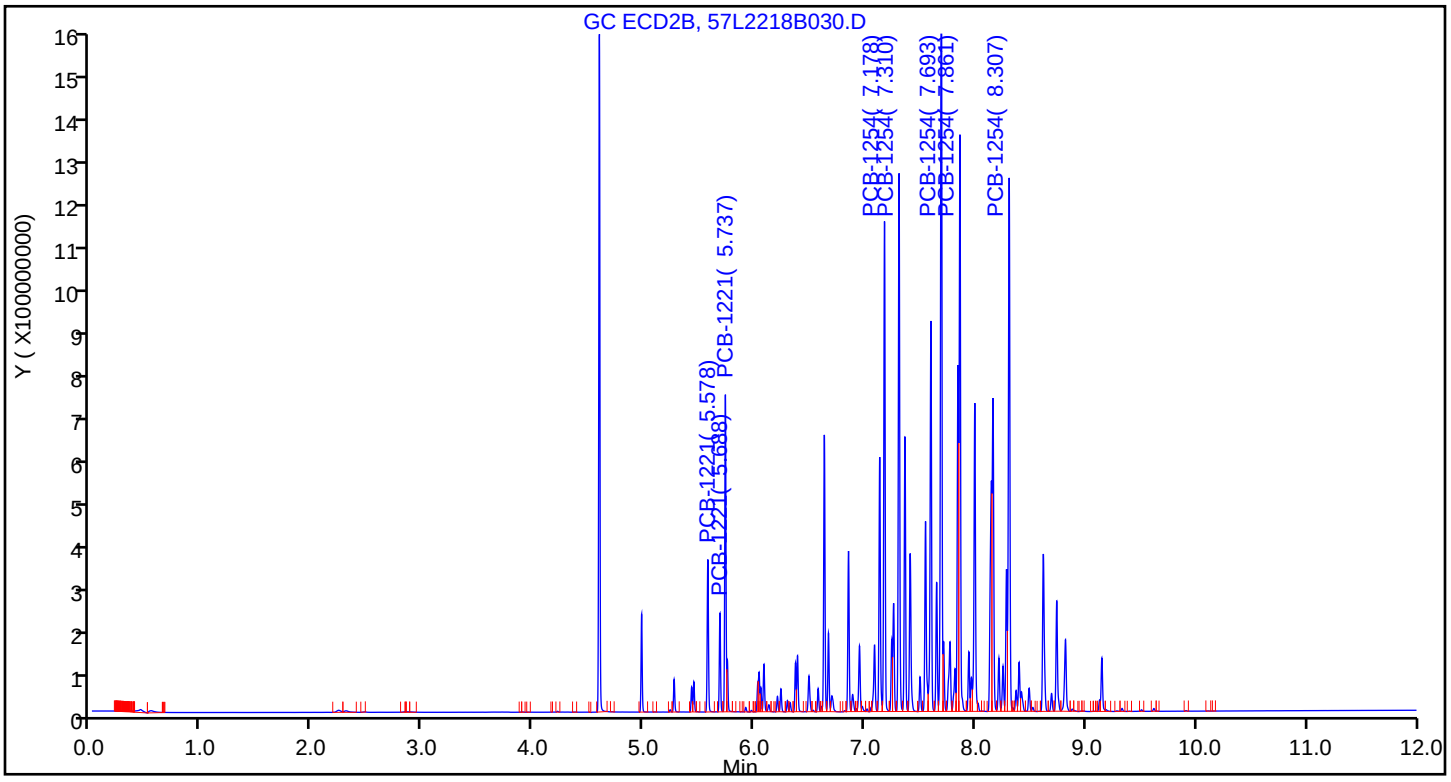
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B031.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Dec-2018 01:58:49 ALS Bottle#: 29 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:43 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:31:26

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	191332637	100.0	100.0	
2	4.596	4.596	0.000	1142695462	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1859.6	
2						1909.5	
						RPD = 2.65	
2 PCB-1221							
1	5.050	5.052	-0.002	36943492	1000.0	909.7	
1	5.158	5.160	-0.002	21147398	1000.0	911.1	
1	5.188	5.190	-0.002	85095642	1000.0	872.7	
		Average of Peak Amounts =				897.8	
2	5.578	5.578	0.000	146939619	1000.0	936.8	
2	5.688	5.688	0.000	91469457	1000.0	976.7	
2	5.737	5.736	0.001	296958916	1000.0	979.5	
		Average of Peak Amounts =				964.3	
						RPD = 7.14	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.415	6.416	-0.001	115946910	1000.0	938.9	M
1	6.598	6.599	-0.001	203161833	1000.0	953.6	M
1	6.892	6.893	-0.001	196874290	1000.0	967.1	M
1	7.097	7.099	-0.002	156207046	1000.0	974.4	M
1	7.447	7.448	-0.001	207583204	1000.0	974.7	M
		Average of Peak Amounts =				961.8	
2	7.178	7.177	0.001	488155346	1000.0	932.7	
2	7.310	7.309	0.001	536076585	1000.0	936.0	
2	7.692	7.691	0.001	804616485	1000.0	956.3	
2	7.860	7.860	0.000	568725105	1000.0	950.8	
2	8.306	8.305	0.001	573553538	1000.0	950.3	
		Average of Peak Amounts =				945.2	
						RPD = 1.73	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154_ICSTK_00022	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:44 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B031.D

Injection Date: 23-Dec-2018 01:58:49 Instrument ID: TAC057

Lims ID: ic

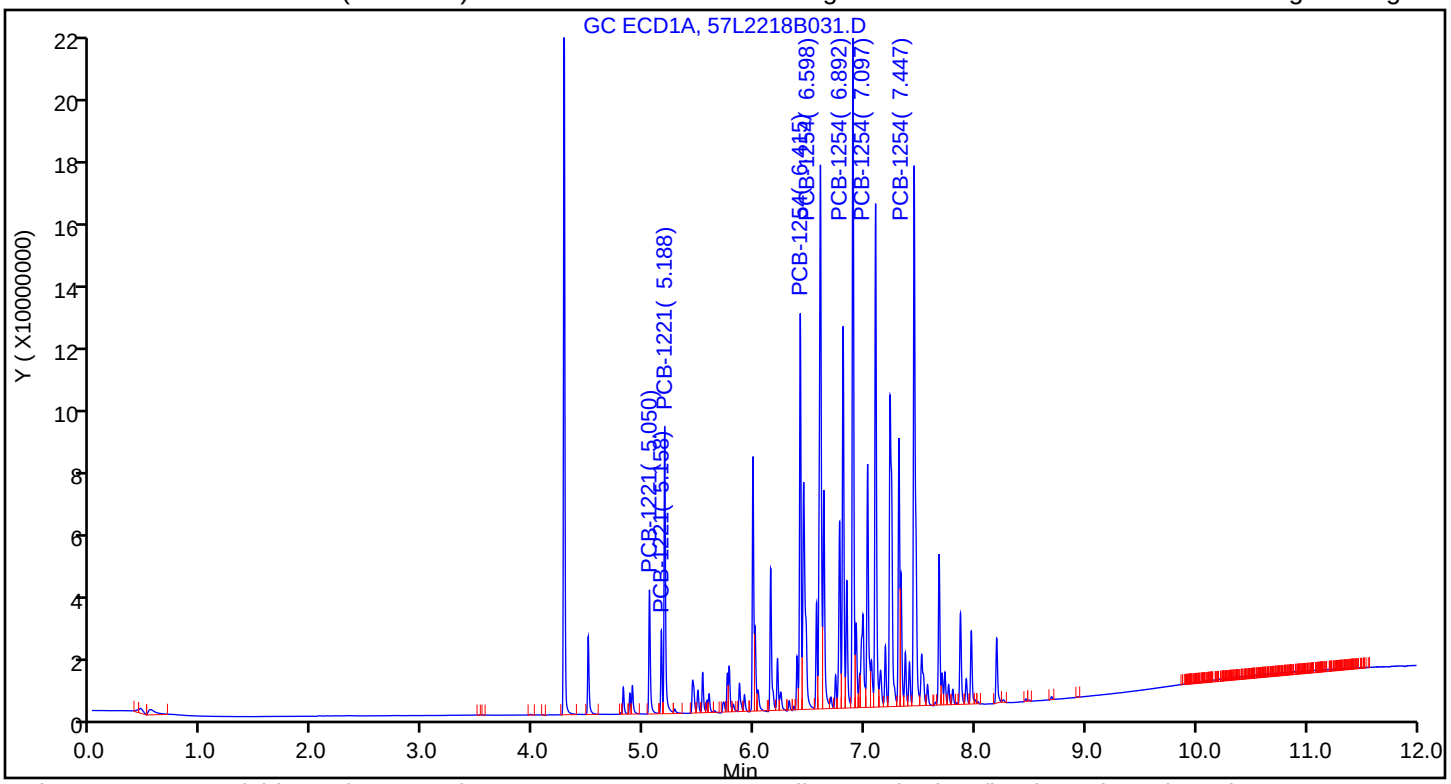
Client ID:

Operator ID: ar ALS Bottle#: 29 Worklist Smp#: 32

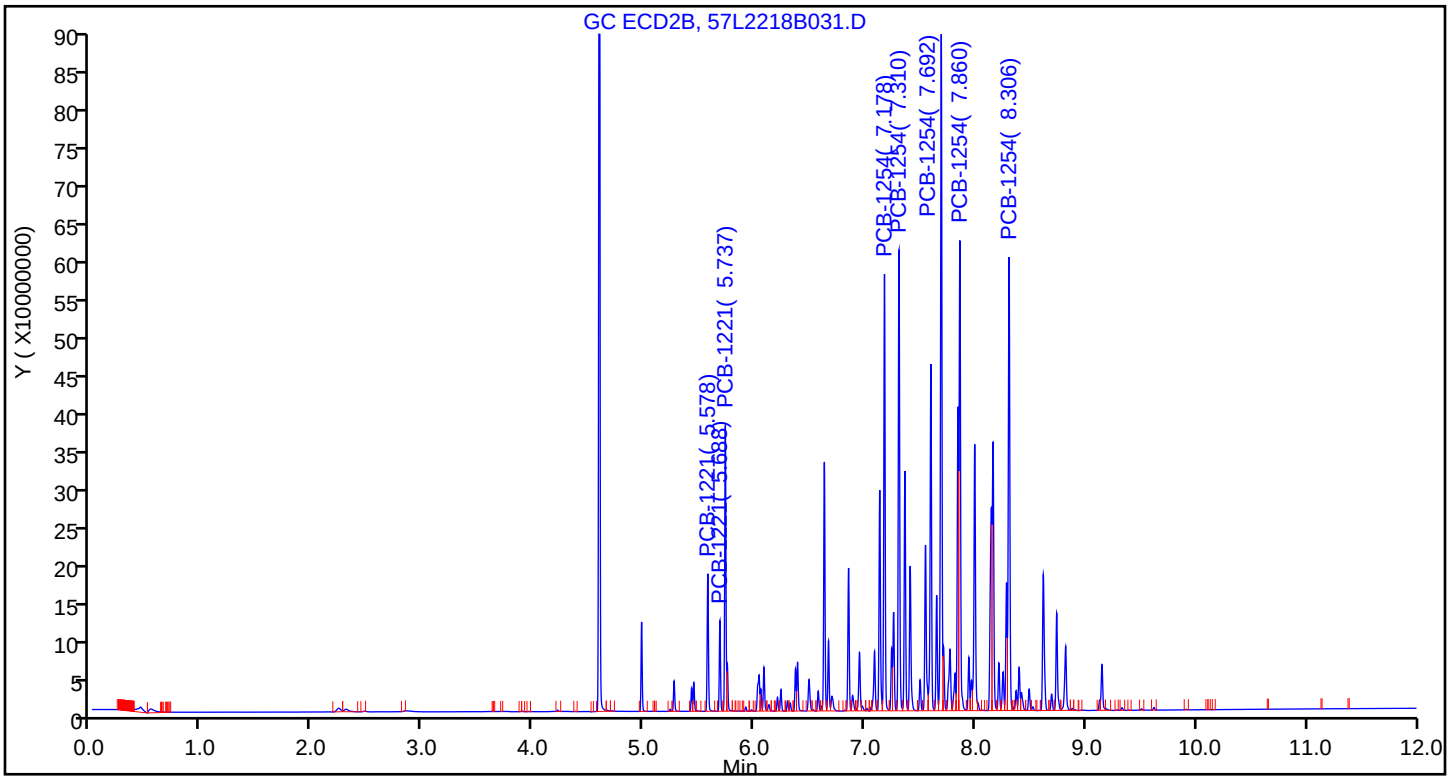
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B032.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Dec-2018 02:16:19 ALS Bottle#: 30 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:47 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:31:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	188261165	100.0	100.0	
2	4.596	4.596	0.000	1128498568	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						949.1	
2						962.6	
						RPD = 1.41	
2 PCB-1221							M
1	5.050	5.052	-0.002	18371250	500.0	459.7	M
1	5.158	5.160	-0.002	10637718	500.0	465.8	M
1	5.187	5.190	-0.003	43186318	500.0	450.1	M
		Average of Peak Amounts =				458.5	
2	5.577	5.578	-0.001	74925768	500.0	481.7	
2	5.687	5.688	-0.001	46986706	500.0	490.0	
2	5.736	5.736	0.000	152672260	500.0	493.6	
		Average of Peak Amounts =				488.4	
						RPD = 6.31	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.416	6.416	0.000	58758087	500.0	482.6	M
1	6.598	6.599	-0.001	101964328	500.0	485.9	M
1	6.893	6.893	0.000	98778431	500.0	492.7	M
1	7.097	7.099	-0.002	78464393	500.0	496.9	M
1	7.447	7.448	-0.001	103696203	500.0	494.5	M
		Average of Peak Amounts =				490.5	
2	7.177	7.177	0.000	244795017	500.0	472.2	
2	7.309	7.309	0.000	267224218	500.0	471.0	
2	7.691	7.691	0.000	395972907	500.0	475.4	
2	7.861	7.860	0.001	283077951	500.0	478.0	
2	8.306	8.305	0.001	283363408	500.0	474.1	
		Average of Peak Amounts =				474.1	
						RPD = 3.40	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154_ICSTK_00022	Amount Added:	50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:50 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B032.D

Injection Date: 23-Dec-2018 02:16:19 Instrument ID: TAC057

Lims ID: ic

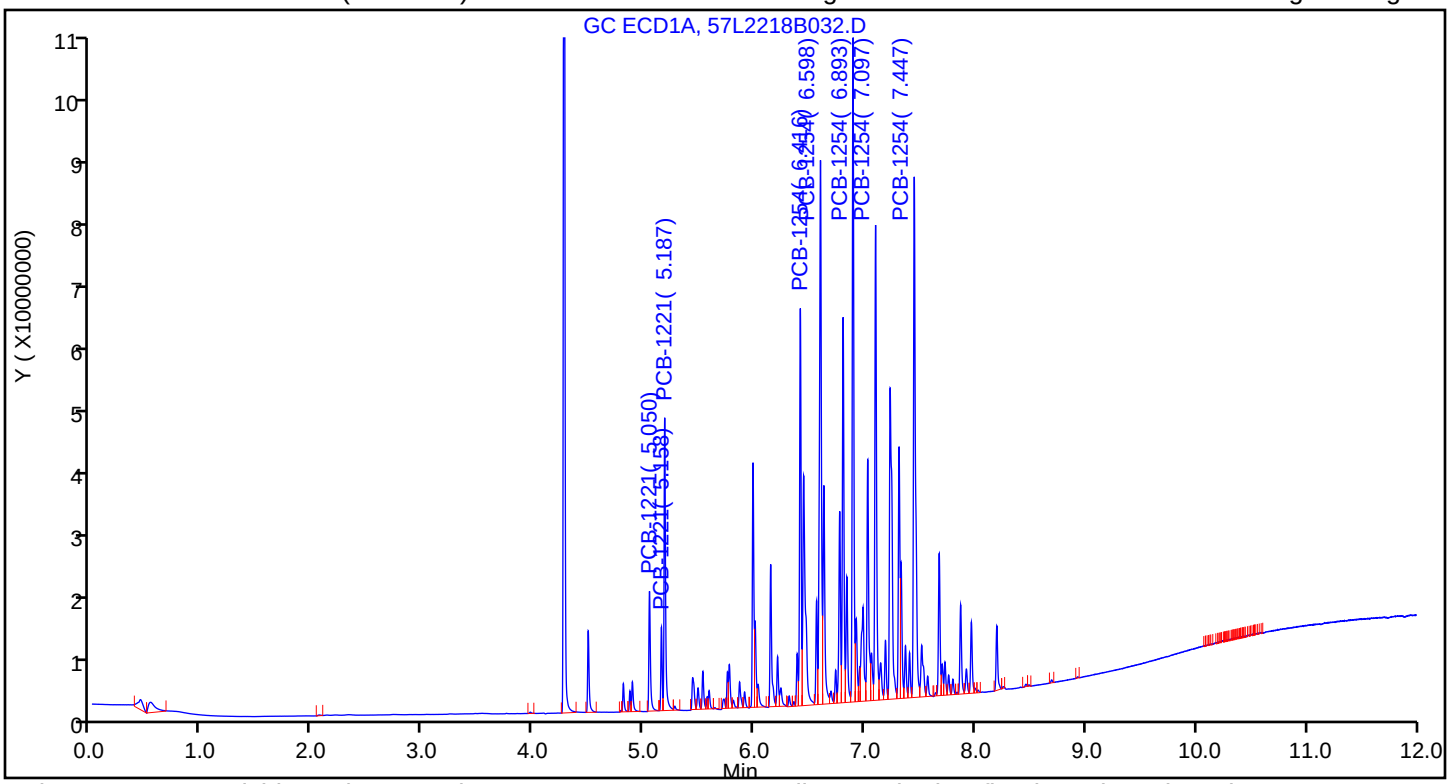
Client ID:

Operator ID: ar ALS Bottle#: 30 Worklist Smp#: 33

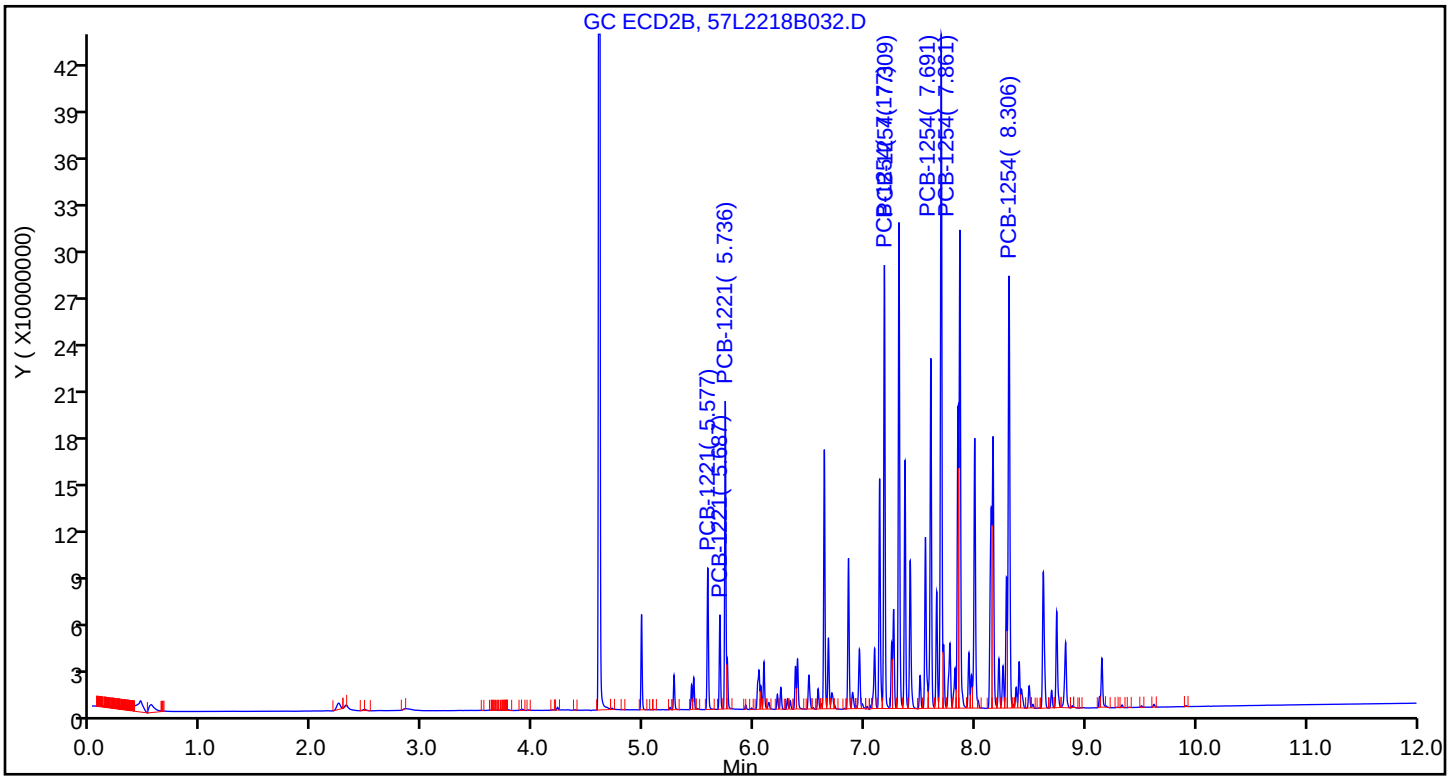
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 23-Dec-2018 02:33:51 ALS Bottle#: 31 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:53 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:29:39

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.276	0.000	192963759	100.0	100.0	a
2	4.596	4.596	0.000	1151680499	100.0	100.0	a
						RPD = 0.00	
2 PCB-1221							a
1	5.052	5.052	0.000	4130748	100.0	100.9	a
1	5.160	5.160	0.000	2303322	100.0	98.4	a
1	5.190	5.190	0.000	9570272	100.0	97.3	a
		Average of Peak Amounts =				98.9	
2	5.578	5.578	0.000	17175937	100.0	105.0	a
2	5.688	5.688	0.000	11253059	100.0	108.8	a
2	5.736	5.736	0.000	35131436	100.0	106.3	a
		Average of Peak Amounts =				106.7	
						RPD = 7.62	
16 PCB-1254							a
1	6.416	6.416	0.000	12852824	100.0	101.5	a
1	6.599	6.599	0.000	21705428	100.0	100.1	a
1	6.893	6.893	0.000	20613752	100.0	99.7	a
1	7.099	7.099	0.000	16388426	100.0	100.4	a
1	7.448	7.448	0.000	21526601	100.0	99.6	a
		Average of Peak Amounts =				100.2	
2	7.177	7.177	0.000	54488704	100.0	100.8	a
2	7.309	7.309	0.000	59319266	100.0	100.3	a
2	7.691	7.691	0.000	85574926	100.0	98.8	a
2	7.860	7.860	0.000	61147723	100.0	99.3	a
2	8.305	8.305	0.000	60767619	100.0	97.5	a
		Average of Peak Amounts =				99.3	
						RPD = 0.90	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

2154IC0100_00014	Amount Added:	1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D

Injection Date: 23-Dec-2018 02:33:51 Instrument ID: TAC057

Lims ID: icis

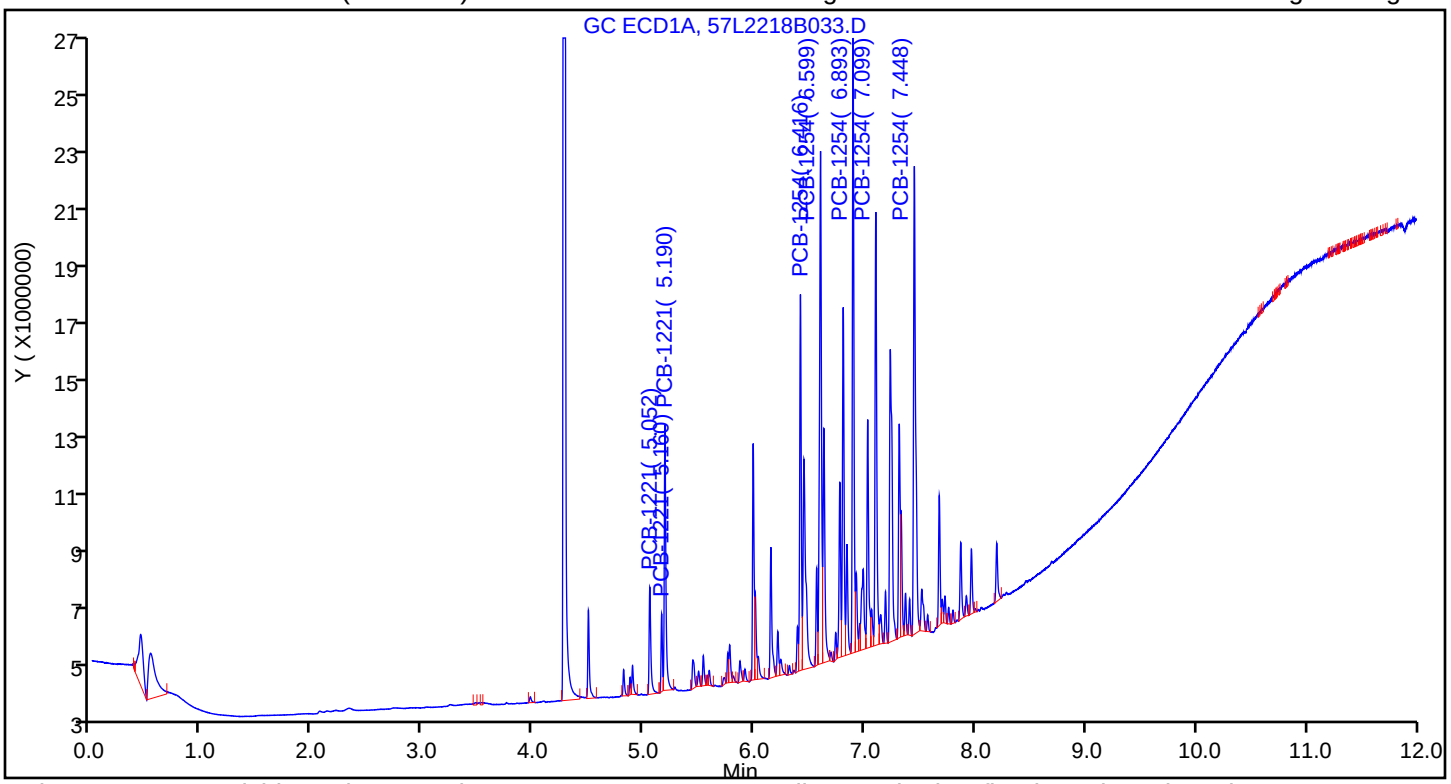
Client ID:

Operator ID: ar ALS Bottle#: 31 Worklist Smp#: 34

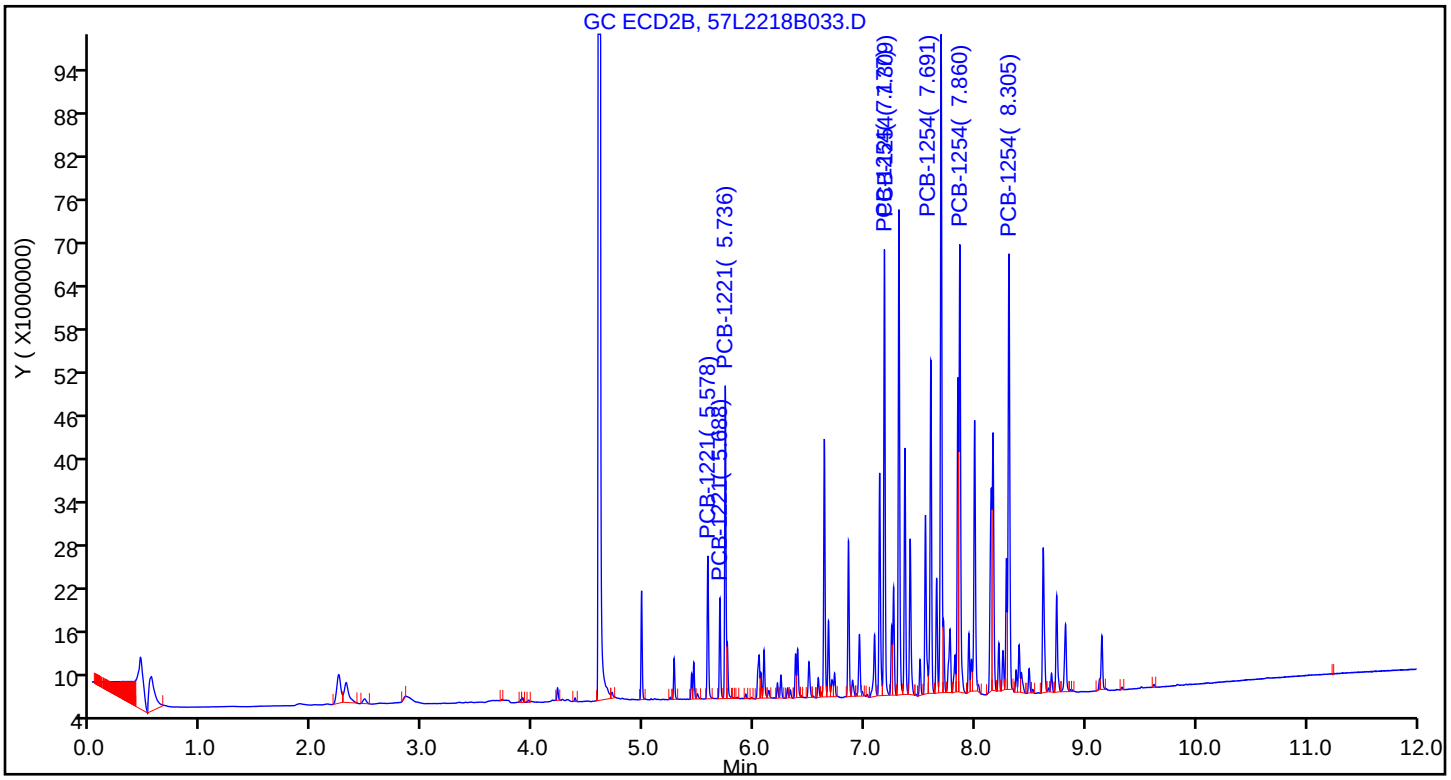
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

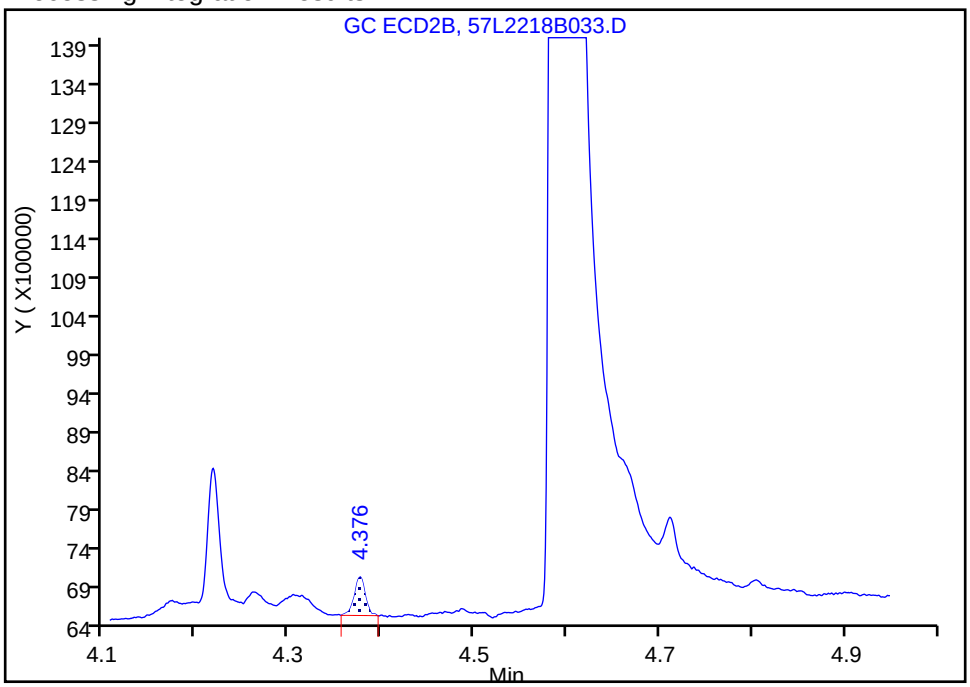
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D				
Injection Date:	23-Dec-2018 02:33:51	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	31	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

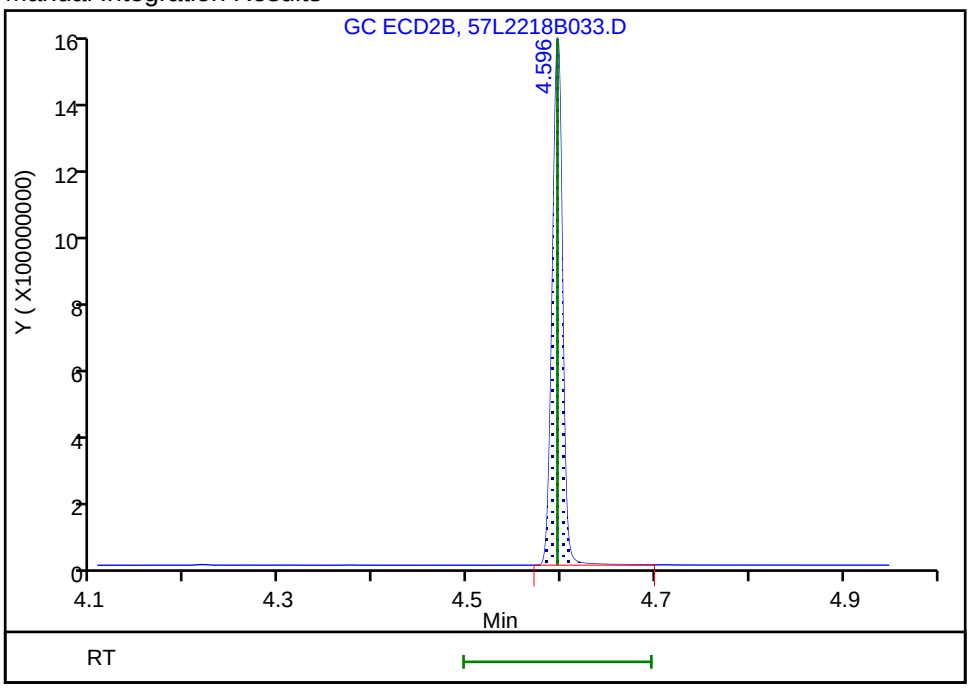
Processing Integration Results

RT: 4.38
Area: 409964
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1151680499
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:27:32
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:16:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D

Injection Date: 23-Dec-2018 02:33:51 Instrument ID: TAC057

Lims ID: icis

Client ID:

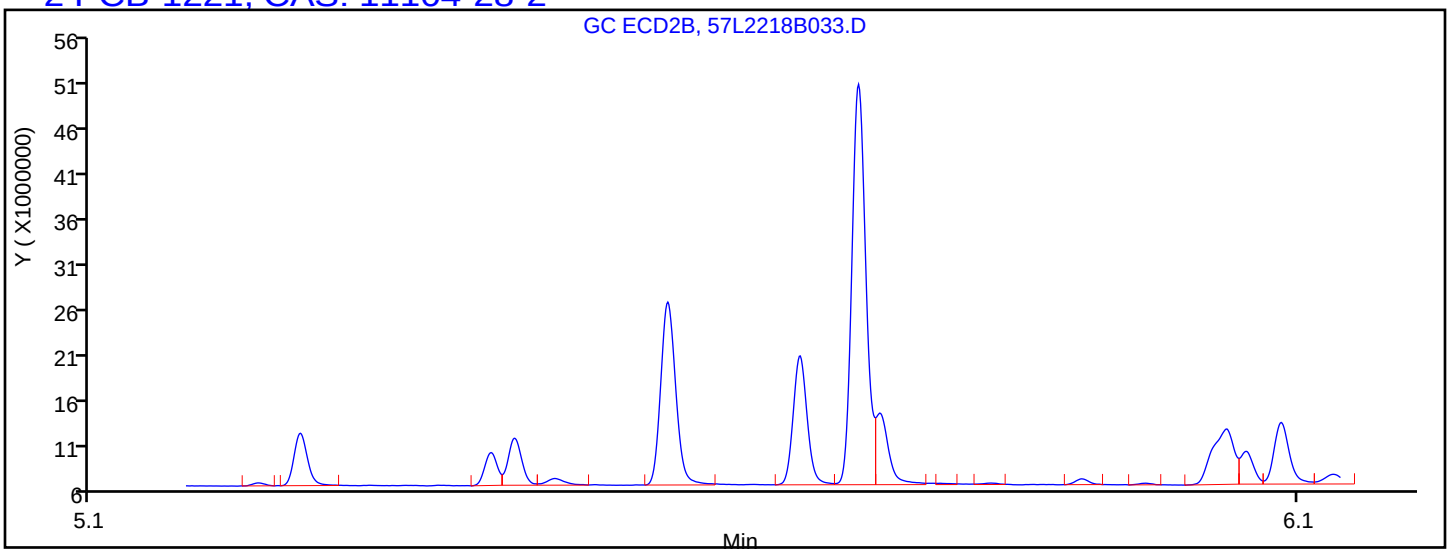
Operator ID: ar ALS Bottle#: 31 Worklist Smp#: 34

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

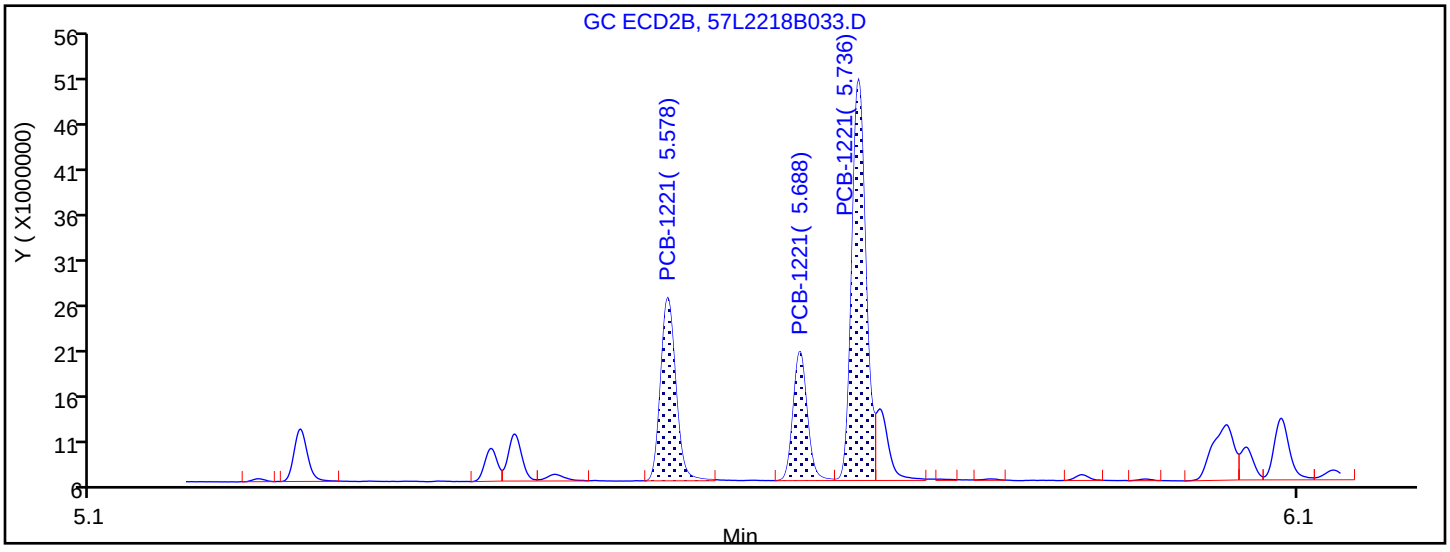
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

4.711	Response = 964563
5.273	Response = 4404608
5.431	Response = 2587561



Manual Integration Results

5.578	Response = 17175937	M
5.688	Response = 11253059	M
5.736	Response = 35131436	M

Reviewer: ruslandera, 23-Dec-2018 15:27:52

Audit Action: Assigned Compound ID Audit Reason:

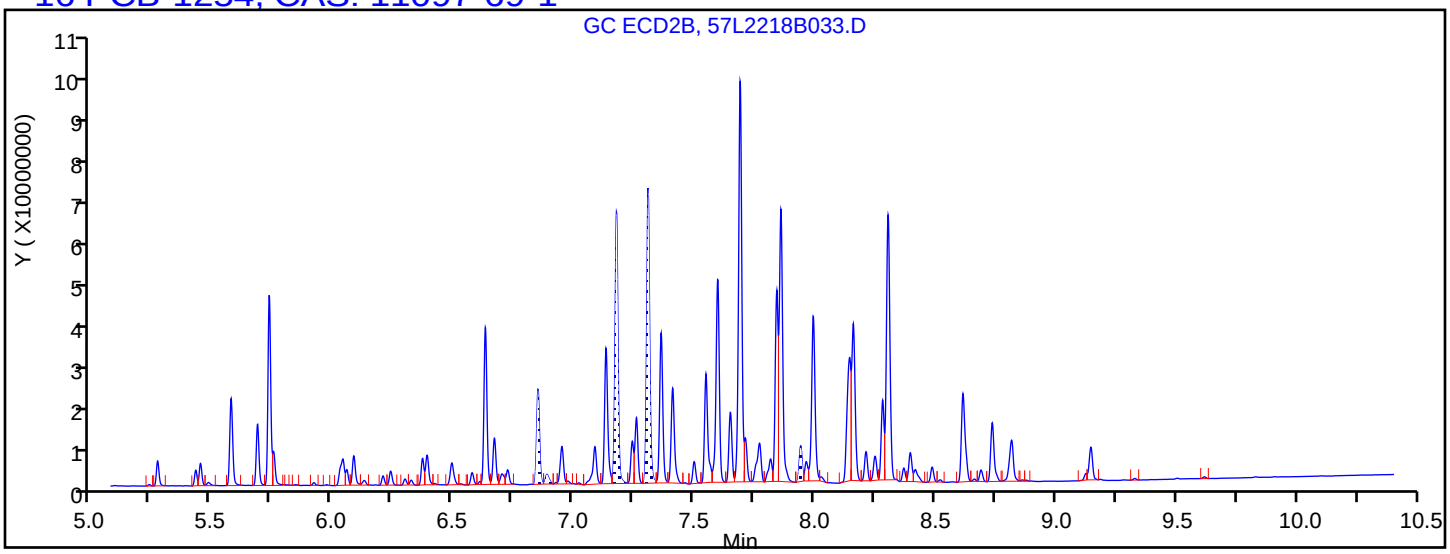
Report Date: 23-Dec-2018 16:16:54 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B033.D

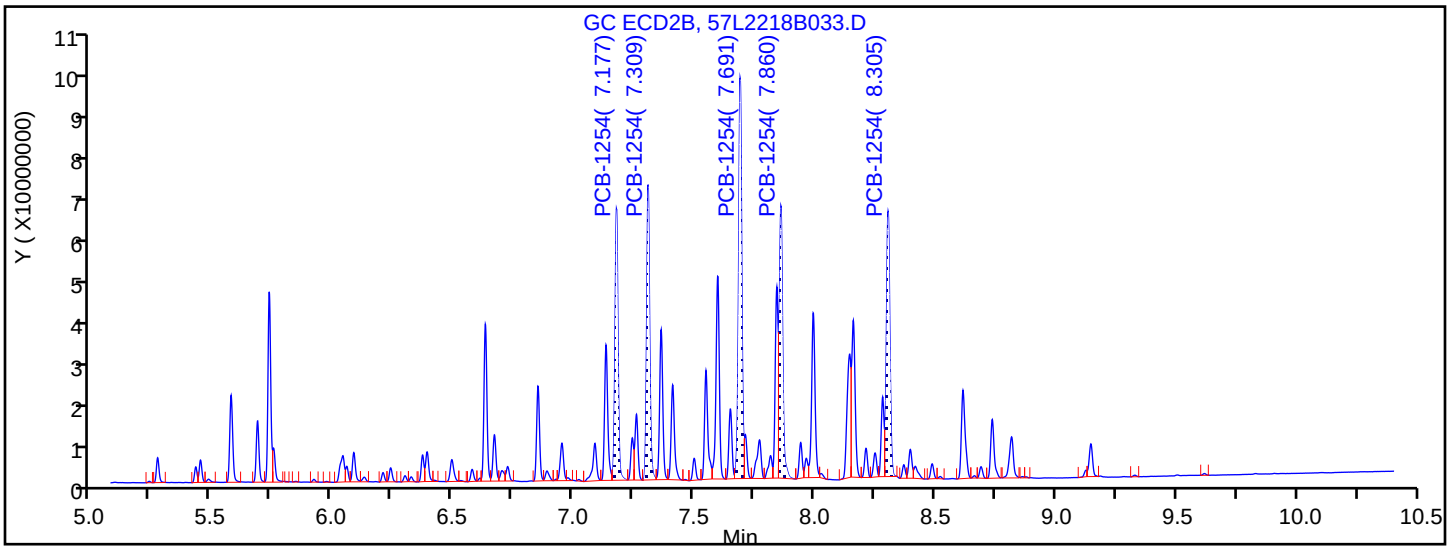
Injection Date:	23-Dec-2018 02:33:51	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	31	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.851	Response = 18359489
6.889	Response = 2440649
7.177	Response = 54488704
7.309	Response = 59319266
7.942	Response = 7026775



Manual Integration Results

7.177	Response = 54488704	M
7.309	Response = 59319266	M
7.691	Response = 85574926	M
7.860	Response = 61147723	M
8.305	Response = 60767619	M

Reviewer: ruslandera, 23-Dec-2018 15:28:28

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Dec-2018 02:51:24 ALS Bottle#: 32 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:57 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:32:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	193321387	100.0	100.0	
2	4.596	4.596	0.000	1155762159	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						105.7	
2						107.9	
						RPD = 2.04	
2 PCB-1221							M
1	5.053	5.053	0.000	2132562	50.0	52.0	M
1	5.160	5.160	0.000	1278010	50.0	54.5	M
1	5.190	5.190	0.000	5274490	50.0	53.5	M
		Average of Peak Amounts =				53.3	
2	5.578	5.578	0.000	9181999	50.0	54.0	
2	5.688	5.688	0.000	6032738	50.0	55.8	
2	5.737	5.737	0.000	18832661	50.0	55.1	
		Average of Peak Amounts =				55.0	
						RPD = 3.02	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.417	6.417	0.000	6835955	50.0	52.9	M
1	6.598	6.598	0.000	11472911	50.0	52.4	M
1	6.893	6.893	0.000	10880235	50.0	52.1	M
1	7.098	7.098	0.000	8695650	50.0	52.7	M
1	7.448	7.448	0.000	11282169	50.0	51.7	M
		Average of Peak Amounts =				52.4	
2	7.178	7.178	0.000	29655673	50.0	53.4	M
2	7.309	7.309	0.000	32384947	50.0	53.3	M
2	7.691	7.691	0.000	46006981	50.0	51.9	M
2	7.860	7.860	0.000	33581968	50.0	53.3	M
2	8.305	8.305	0.000	33707657	50.0	52.7	M
		Average of Peak Amounts =				52.9	
						RPD = 1.02	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:59 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D

Injection Date: 23-Dec-2018 02:51:24 Instrument ID: TAC057

Lims ID: ic

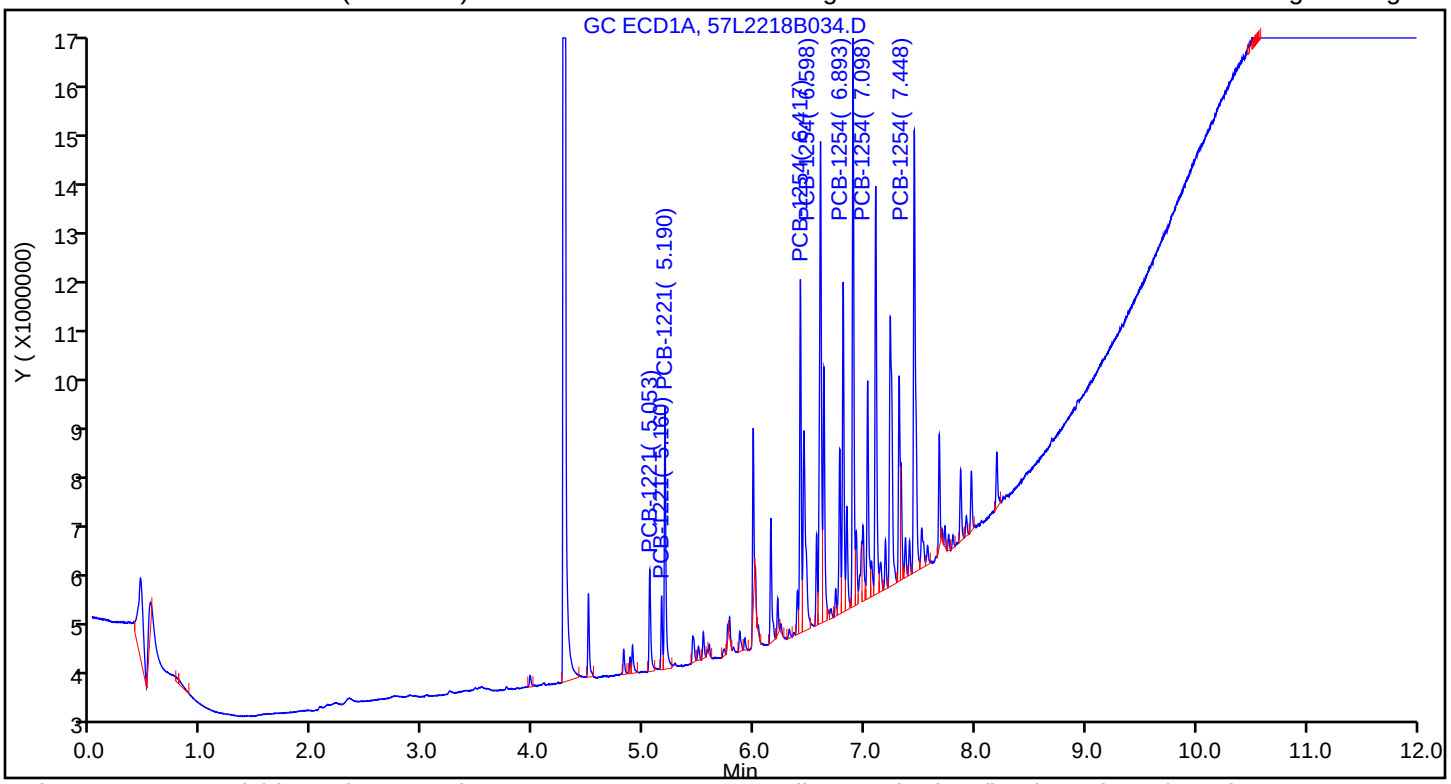
Client ID:

Operator ID: ar ALS Bottle#: 32 Worklist Smp#: 35

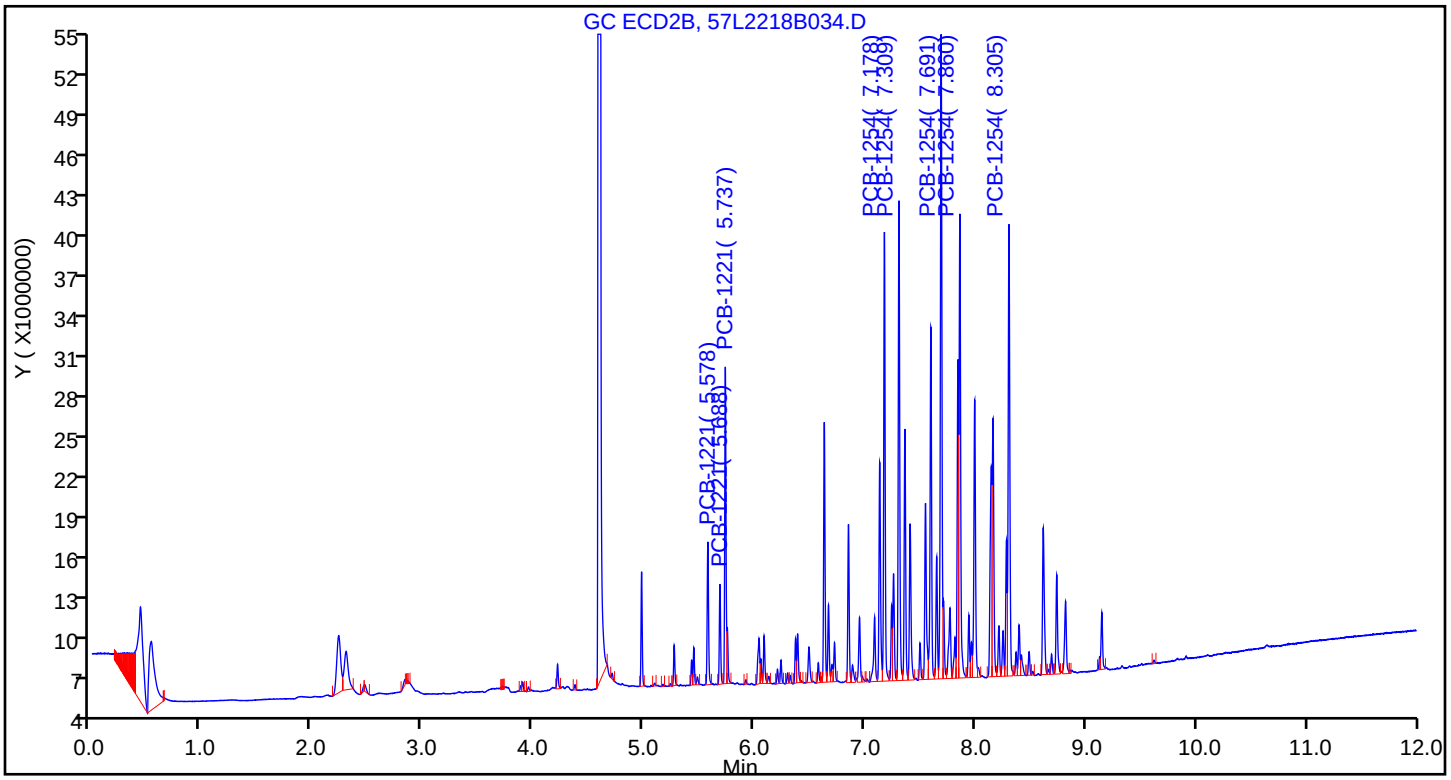
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



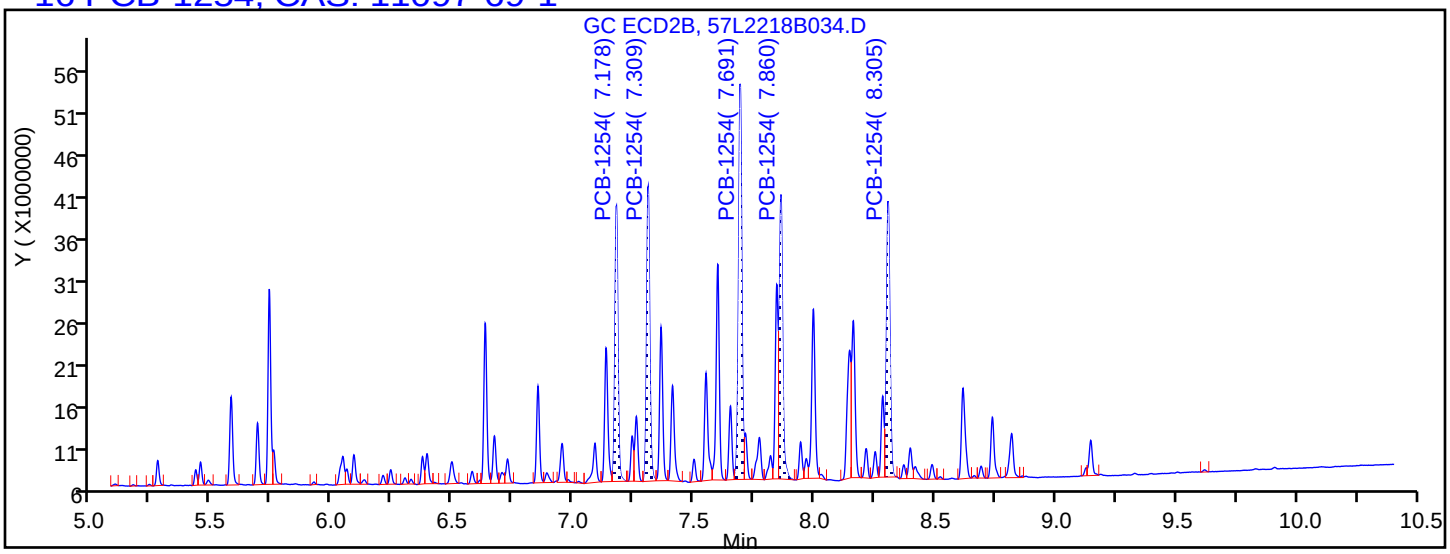
Report Date: 23-Dec-2018 16:16:59 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B034.D

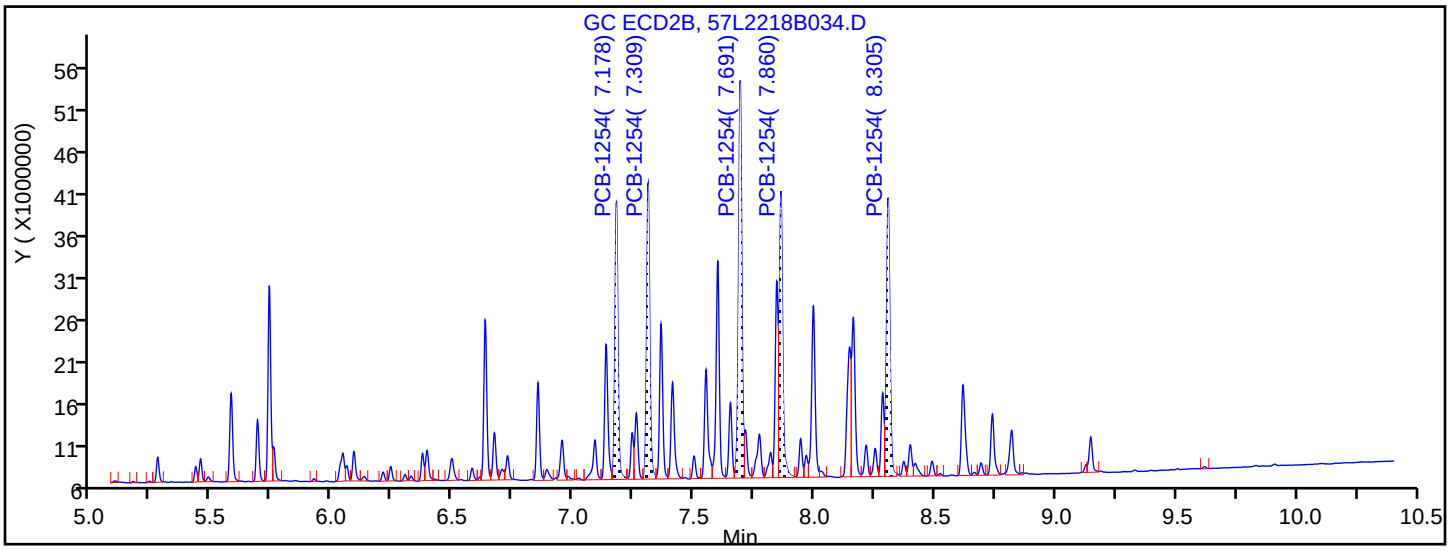
Injection Date:	23-Dec-2018 02:51:24	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	32	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

7.178	Response = 29076854
7.309	Response = 31911406
7.691	Response = 45443862
7.860	Response = 32883174
8.305	Response = 32773262



Manual Integration Results

7.178	Response = 29655673	M
7.309	Response = 32384947	M
7.691	Response = 46006981	M
7.860	Response = 33581968	M
8.305	Response = 33707657	M

Reviewer: ruslandera, 23-Dec-2018 15:32:04

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B035.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Dec-2018 03:09:03 ALS Bottle#: 33 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:03 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:31:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.278	4.277	0.001	185037579	100.0	100.0	
2	4.596	4.596	0.000	1101472046	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						54.6	
2						57.2	
						RPD = 4.64	
2 PCB-1221							
1	5.054	5.053	0.001	1024960	25.0	26.1	
1	5.162	5.160	0.002	630501	25.0	28.1	
1	5.192	5.190	0.002	2631810	25.0	27.9	
		Average of Peak Amounts =				27.4	
2	5.579	5.578	0.001	4900610	25.0	28.4	
2	5.689	5.688	0.001	3326990	25.0	30.4	
2	5.738	5.737	0.001	10006380	25.0	29.2	
		Average of Peak Amounts =				29.3	
						RPD = 6.96	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.418	6.417	0.001	3470425	25.0	27.2	M
1	6.600	6.598	0.002	5854404	25.0	27.5	M
1	6.895	6.893	0.002	5512100	25.0	27.2	M
1	7.100	7.098	0.002	4366108	25.0	27.1	M
1	7.449	7.448	0.001	5729337	25.0	27.1	M
		Average of Peak Amounts =				27.2	
2	7.178	7.178	0.000	15714252	25.0	28.4	
2	7.310	7.309	0.001	17031818	25.0	28.1	
2	7.693	7.691	0.002	23940228	25.0	27.3	
2	7.862	7.860	0.002	17167444	25.0	27.5	
2	8.306	8.305	0.001	17670636	25.0	27.8	M
		Average of Peak Amounts =				27.8	
						RPD = 2.25	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B035.D

Injection Date: 23-Dec-2018 03:09:03 Instrument ID: TAC057

Lims ID: ic

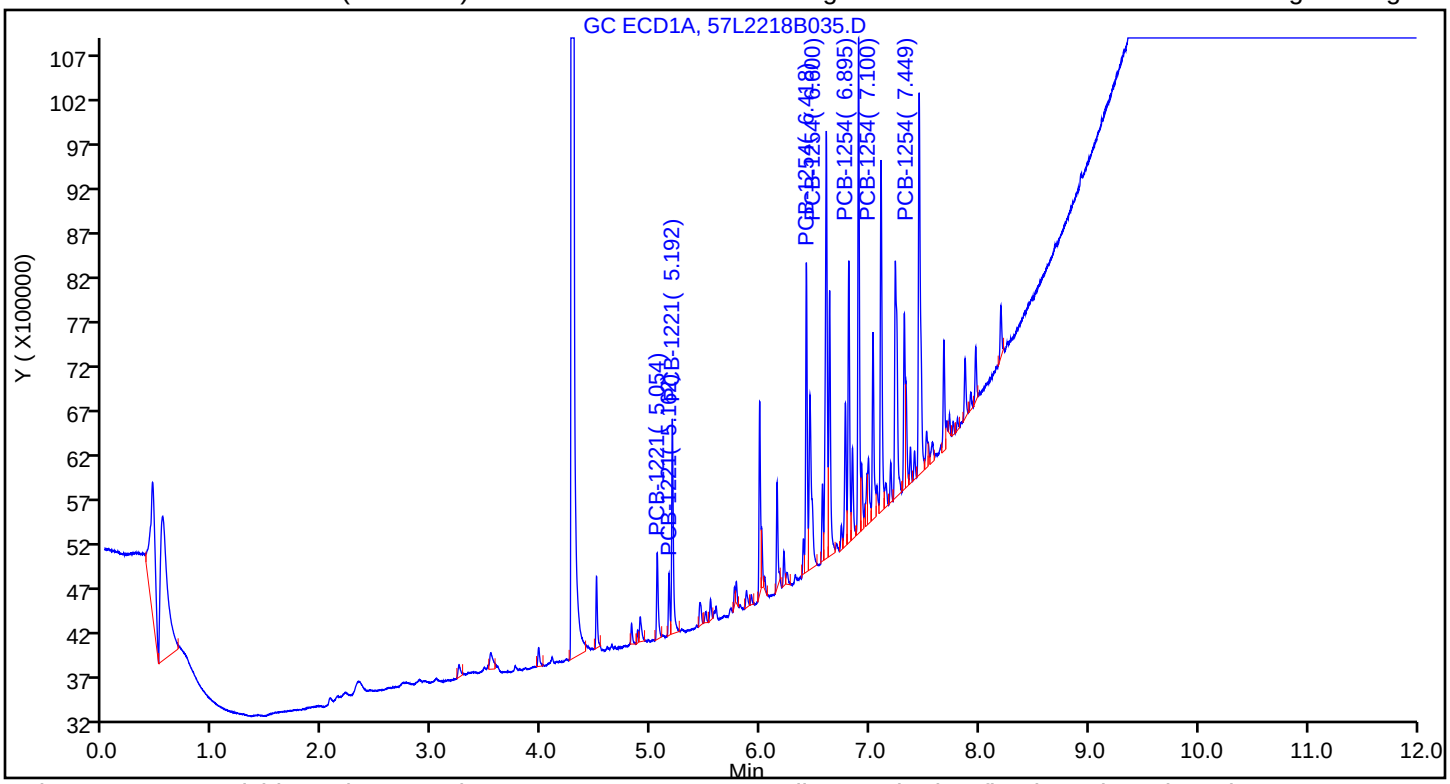
Client ID:

Operator ID: ar ALS Bottle#: 33 Worklist Smp#: 36

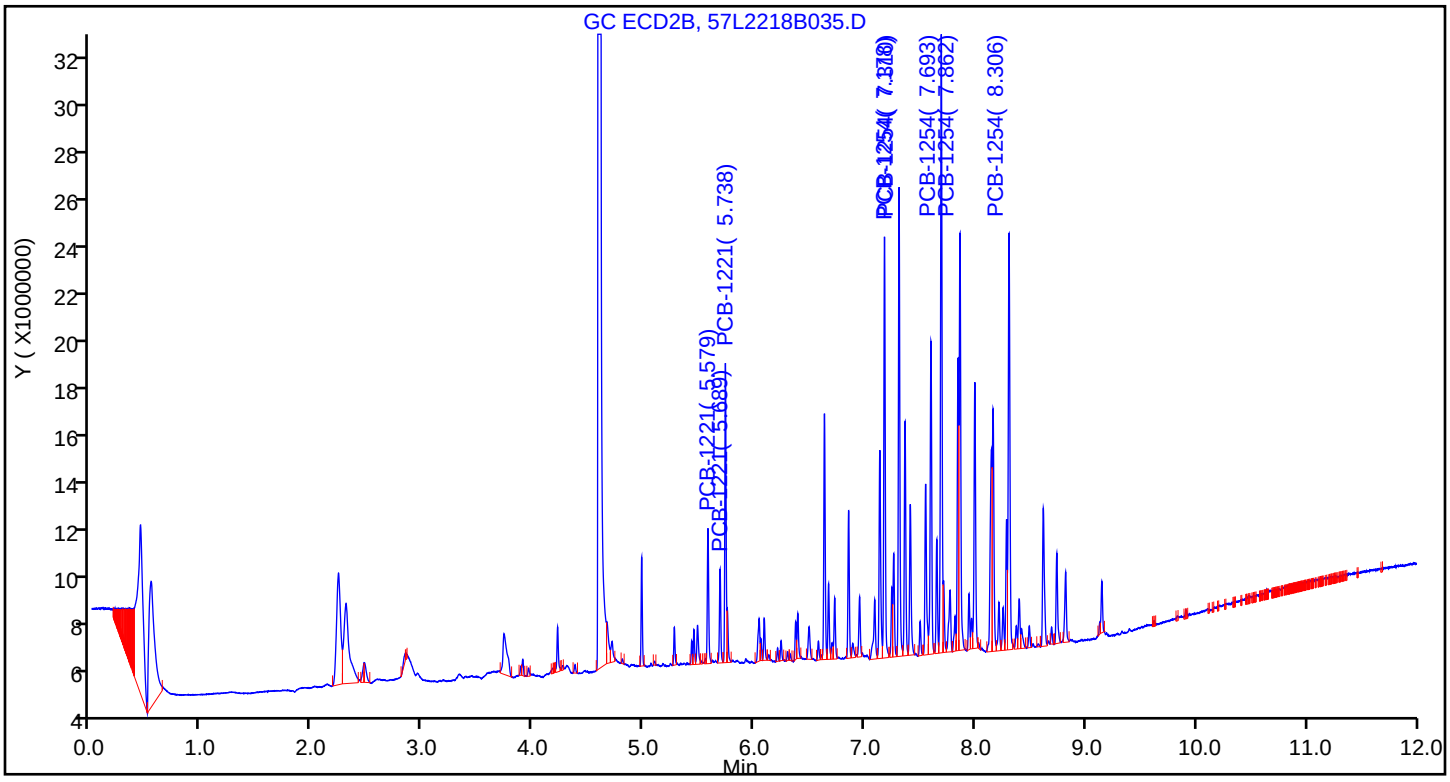
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:04 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B035.D

Injection Date: 23-Dec-2018 03:09:03 Instrument ID: TAC057

Lims ID: ic

Client ID:

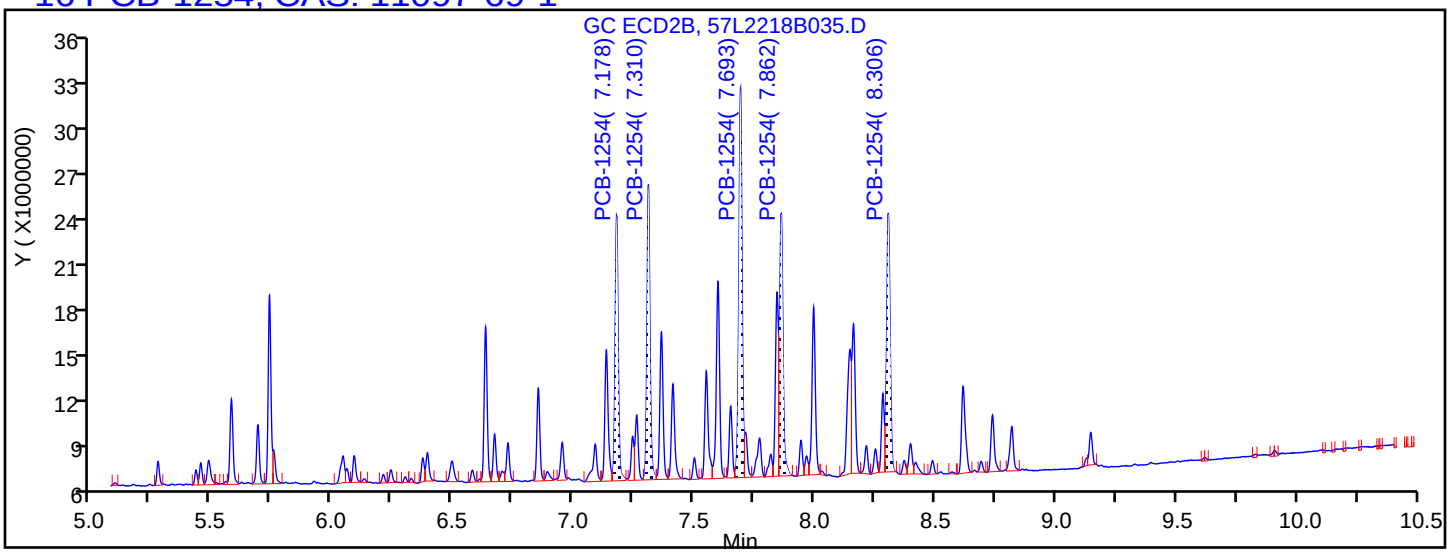
Operator ID: ar ALS Bottle#: 33 Worklist Smp#: 36

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

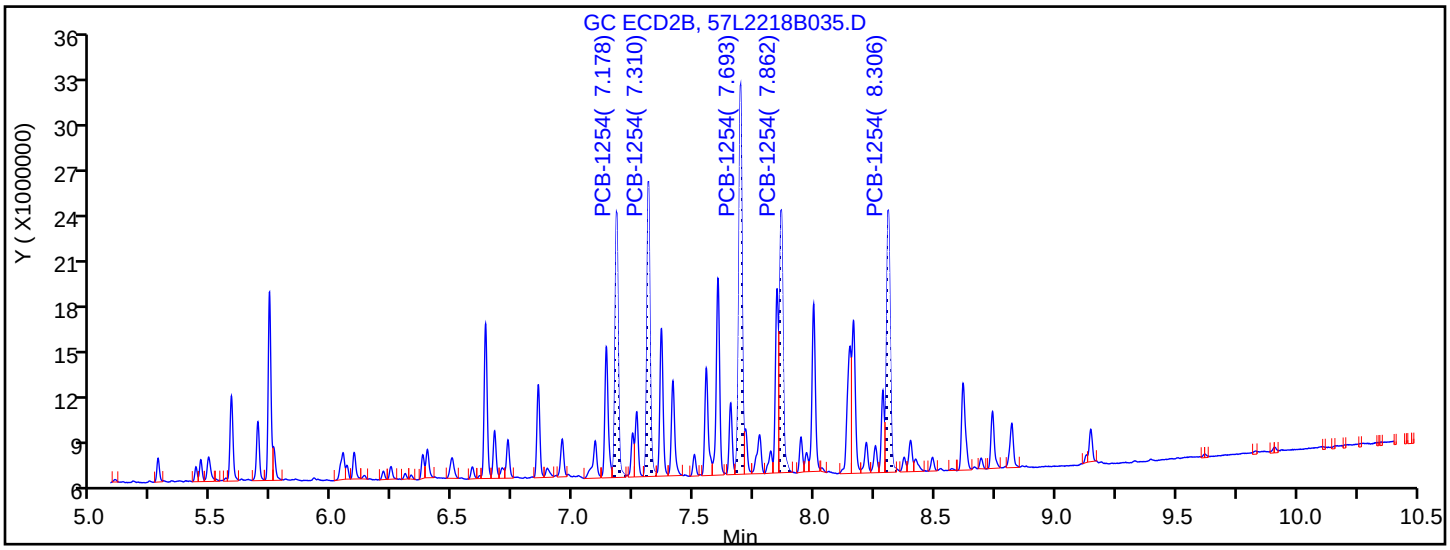
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

7.178	Response = 15714252
7.310	Response = 17031818
7.693	Response = 23940228
7.862	Response = 17167444
8.306	Response = 16978359



Manual Integration Results

7.178	Response = 15714252	
7.310	Response = 17031818	
7.693	Response = 23940228	
7.862	Response = 17167444	
8.306	Response = 17670636	M

Reviewer: ruslandera, 23-Dec-2018 15:32:49

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B036.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Dec-2018 03:26:33 ALS Bottle#: 34 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:06 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:33:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192702942	100.0	100.0	
2	4.596	4.596	0.000	1154696602	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.0	
2						20.2	
						RPD = 1.02	
2 PCB-1221							
1	5.055	5.053	0.002	433317	10.0	10.6	
1	5.162	5.160	0.002	223605	10.0	9.56	
1	5.193	5.190	0.003	1011666	10.0	10.3	
		Average of Peak Amounts =				10.2	
2	5.578	5.578	0.000	2117386	10.0	9.26	
2	5.688	5.688	0.000	1447131	10.0	9.96	
2	5.737	5.737	0.000	4403440	10.0	10.4	
		Average of Peak Amounts =				9.87	
						RPD = 2.82	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.417	6.417	0.000	1573406	10.0	10.7	M
1	6.599	6.598	0.001	2417513	10.0	10.3	M
1	6.893	6.893	0.000	2137199	10.0	9.60	M
1	7.100	7.098	0.002	1613952	10.0	8.94	M
1	7.448	7.448	0.000	2189659	10.0	9.47	M
		Average of Peak Amounts =				9.80	
2	7.177	7.178	-0.001	6919502	10.0	10.3	M
2	7.308	7.309	-0.001	7615268	10.0	10.4	M
2	7.691	7.691	0.000	10657680	10.0	10.2	M
2	7.861	7.860	0.001	7495847	10.0	10.0	M
2	8.305	8.305	0.000	7962180	10.0	10.5	M
		Average of Peak Amounts =				10.3	
						RPD = 4.84	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:07 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B036.D

Injection Date: 23-Dec-2018 03:26:33 Instrument ID: TAC057

Lims ID: ic

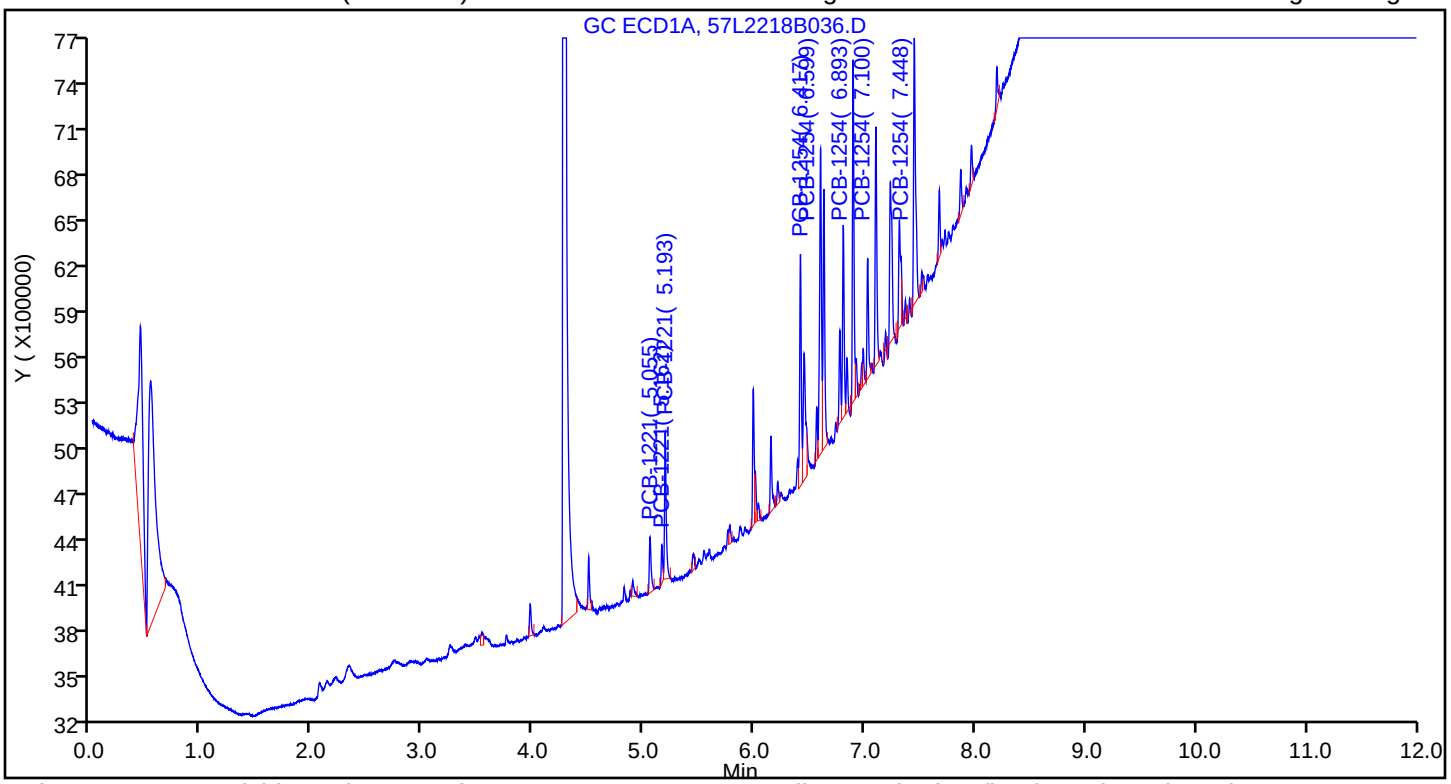
Client ID:

Operator ID: ar ALS Bottle#: 34 Worklist Smp#: 37

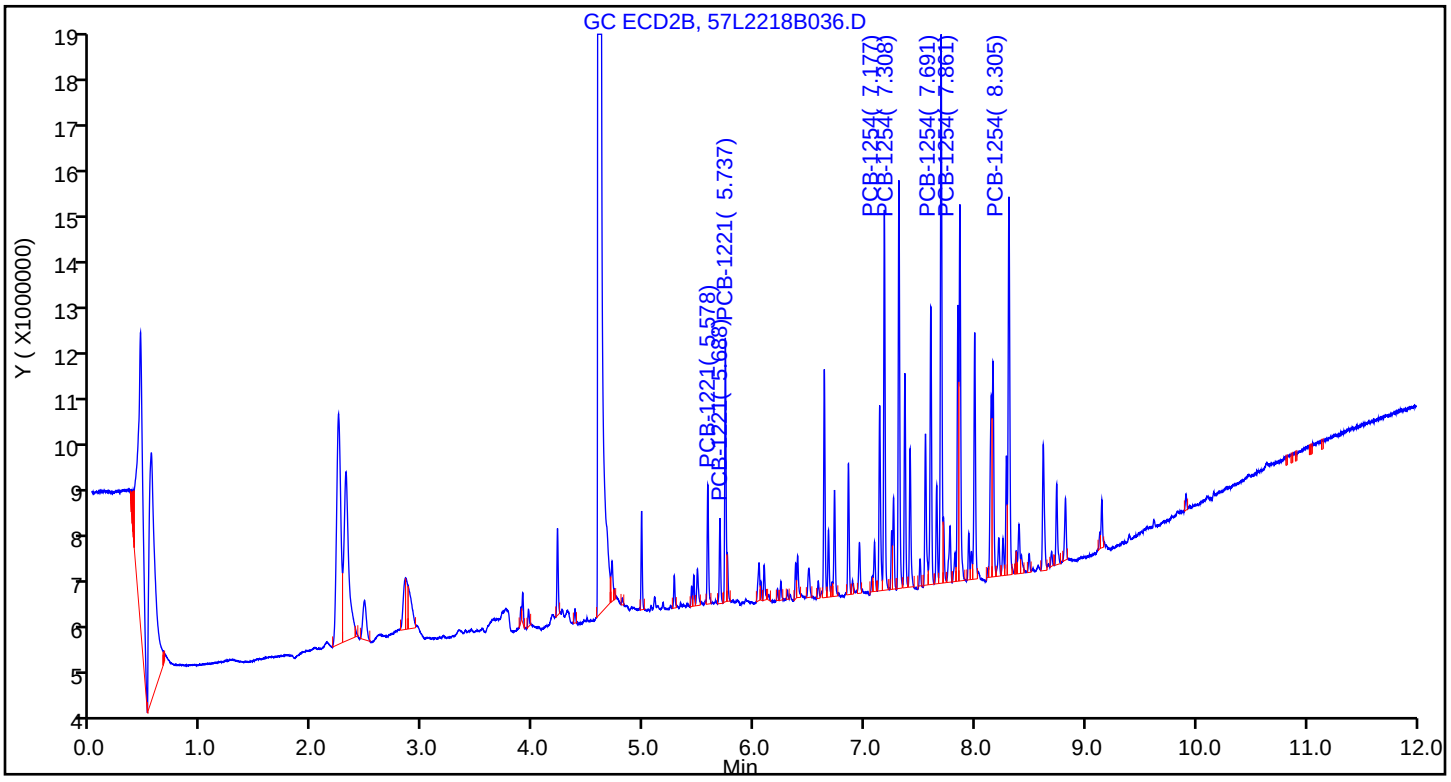
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



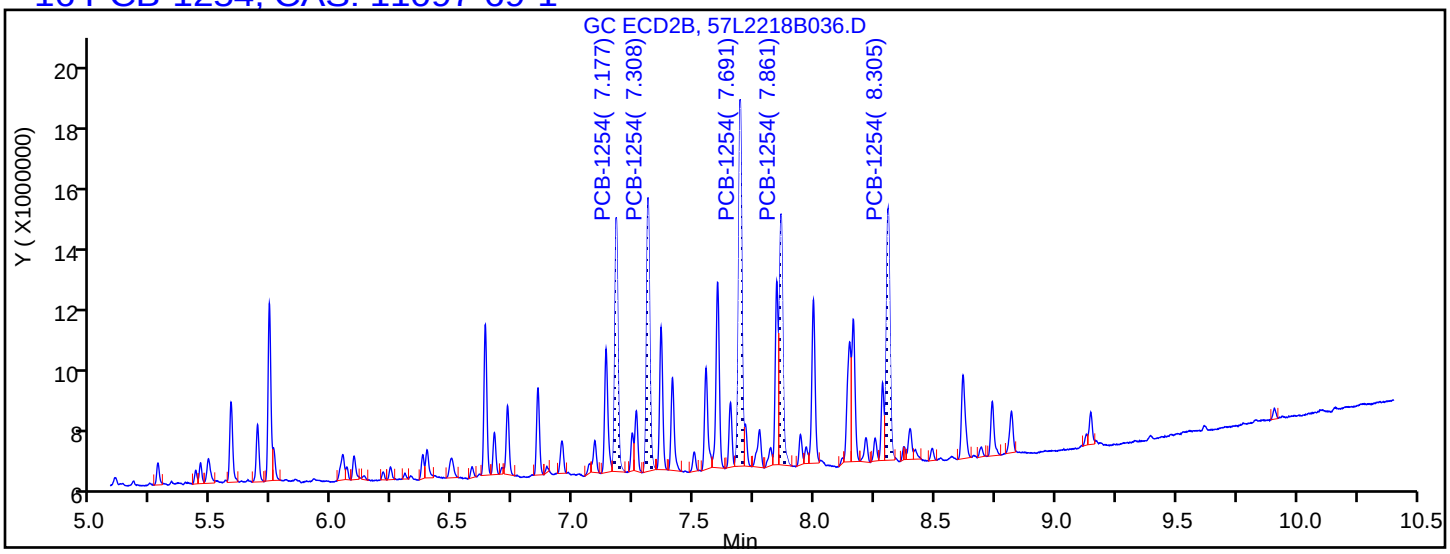
Report Date: 23-Dec-2018 16:17:07 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B036.D

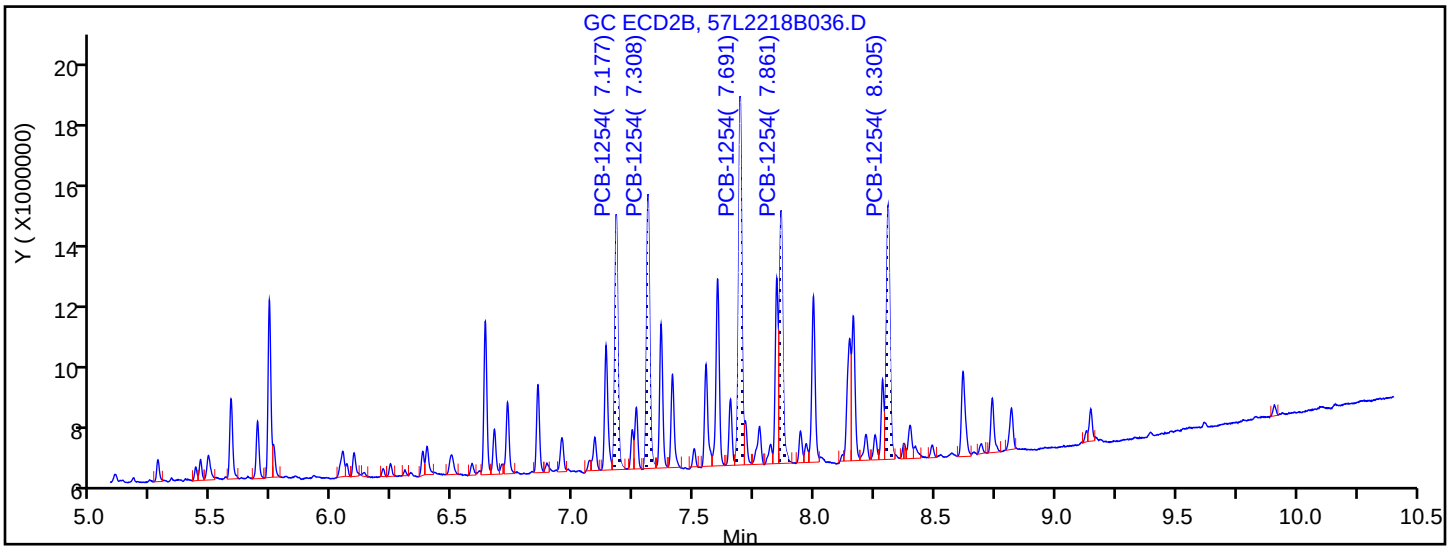
Injection Date:	23-Dec-2018 03:26:33	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	34	Worklist Smp#:	37
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

7.177	Response = 6804985
7.308	Response = 7553005
7.691	Response = 10503543
7.861	Response = 7372092
8.305	Response = 7772168



Manual Integration Results

7.177	Response = 6919502	M
7.308	Response = 7615268	M
7.691	Response = 10657680	M
7.861	Response = 7495847	M
8.305	Response = 7962180	M

Reviewer: ruslandera, 23-Dec-2018 15:33:25

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B037.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Dec-2018 03:44:06 ALS Bottle#: 35 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:09 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:33:55

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	191397524	100.0	100.0	
2	4.596	4.596	0.000	1146087963	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						10.5	
2						7.82	
						RPD = 29.23	
2 PCB-1221							
1	5.055	5.053	0.002	207142	5.00	5.10	
1	5.164	5.160	0.004	129801	5.00	5.59	
1	5.194	5.190	0.004	583215	5.00	5.98	
		Average of Peak Amounts =				5.56	
2	5.579	5.578	0.001	1074794	5.00	2.71	
2	5.689	5.688	0.001	755111	5.00	3.10	
2	5.737	5.737	0.000	2084314	5.00	3.27	
		Average of Peak Amounts =				3.03	
						RPD = 58.94	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
16 PCB-1254							M
1	6.418	6.417	0.001	821690	5.00	4.71	M
1	6.600	6.598	0.002	1234821	5.00	4.81	M
1	6.894	6.893	0.001	1184404	5.00	4.99	M
1	7.102	7.098	0.004	996444	5.00	5.15	M
1	7.449	7.448	0.001	1231555	5.00	5.04	M
		Average of Peak Amounts =				4.94	
2	7.178	7.178	0.000	3953689	5.00	4.75	M
2	7.309	7.309	0.000	4329571	5.00	4.75	M
2	7.691	7.691	0.000	6019633	5.00	4.83	M
2	7.861	7.860	0.001	4343717	5.00	4.87	M
2	8.305	8.305	0.000	4464600	5.00	4.76	M
		Average of Peak Amounts =				4.79	
						RPD = 3.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:10 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B037.D

Injection Date: 23-Dec-2018 03:44:06 Instrument ID: TAC057

Lims ID: ic

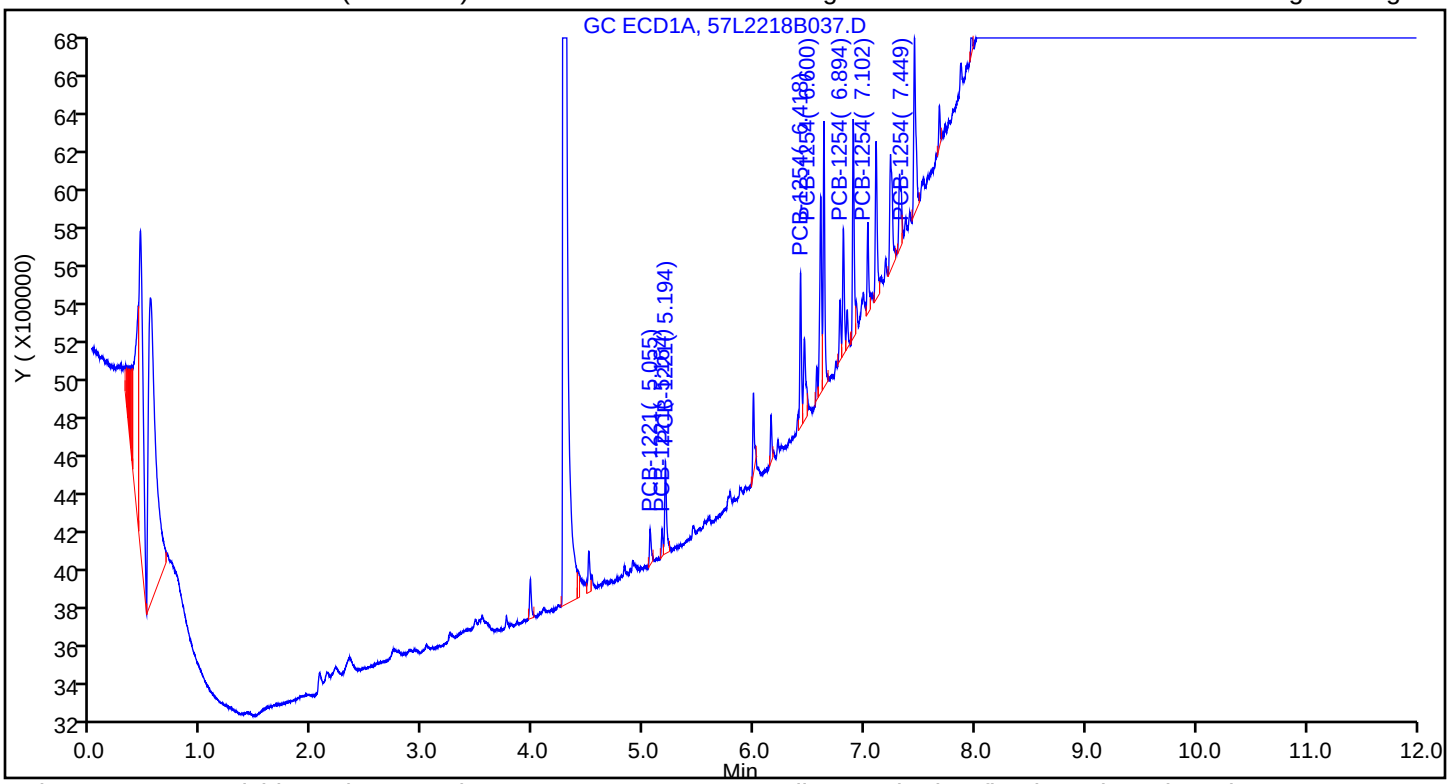
Client ID:

Operator ID: ar ALS Bottle#: 35 Worklist Smp#: 38

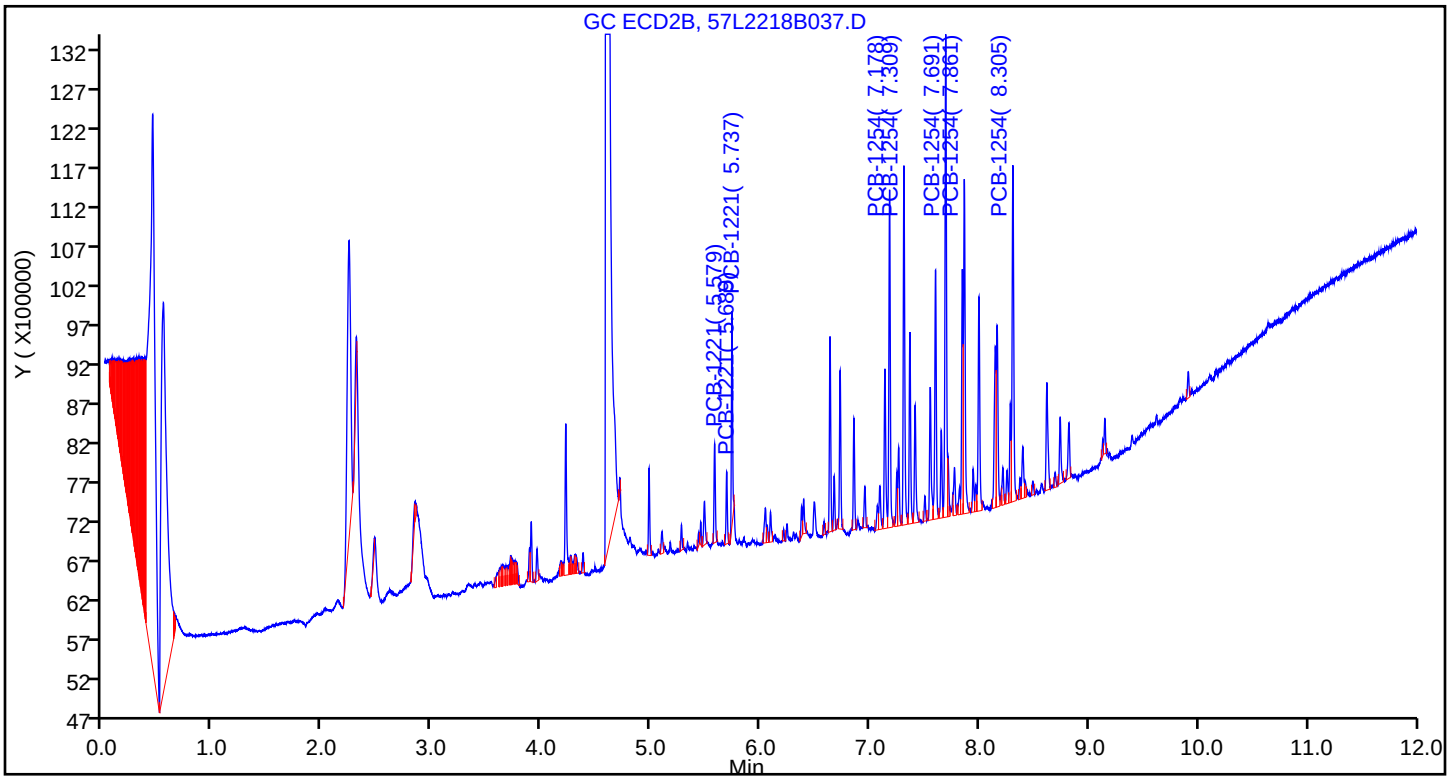
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



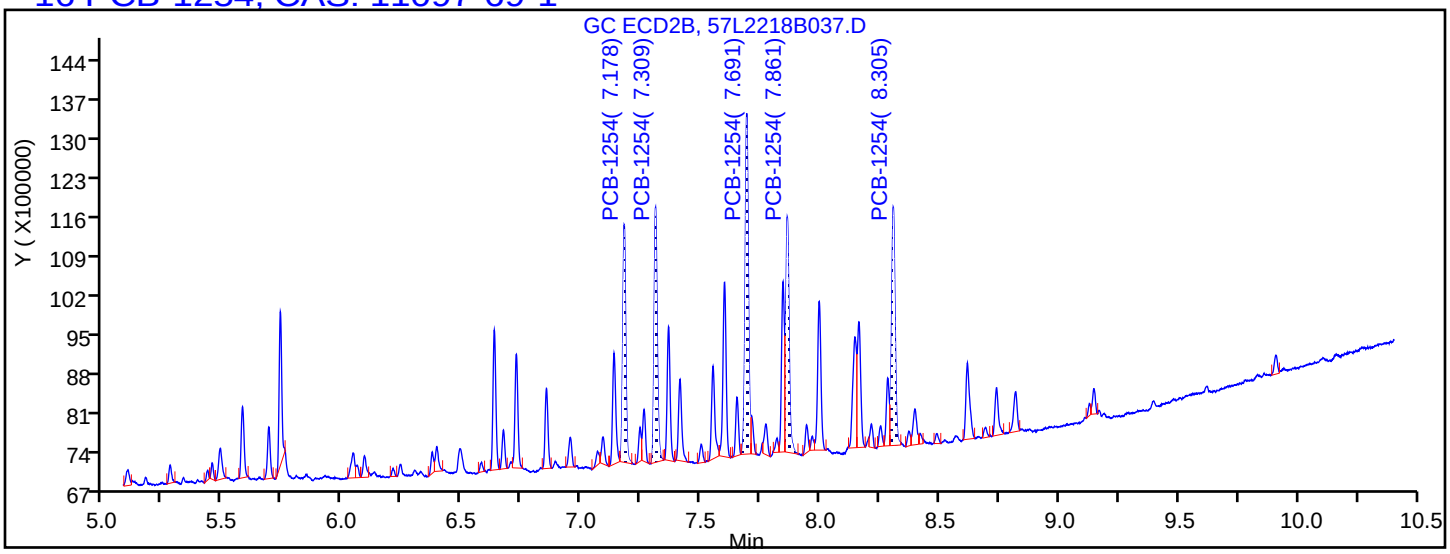
Report Date: 23-Dec-2018 16:17:10 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B037.D

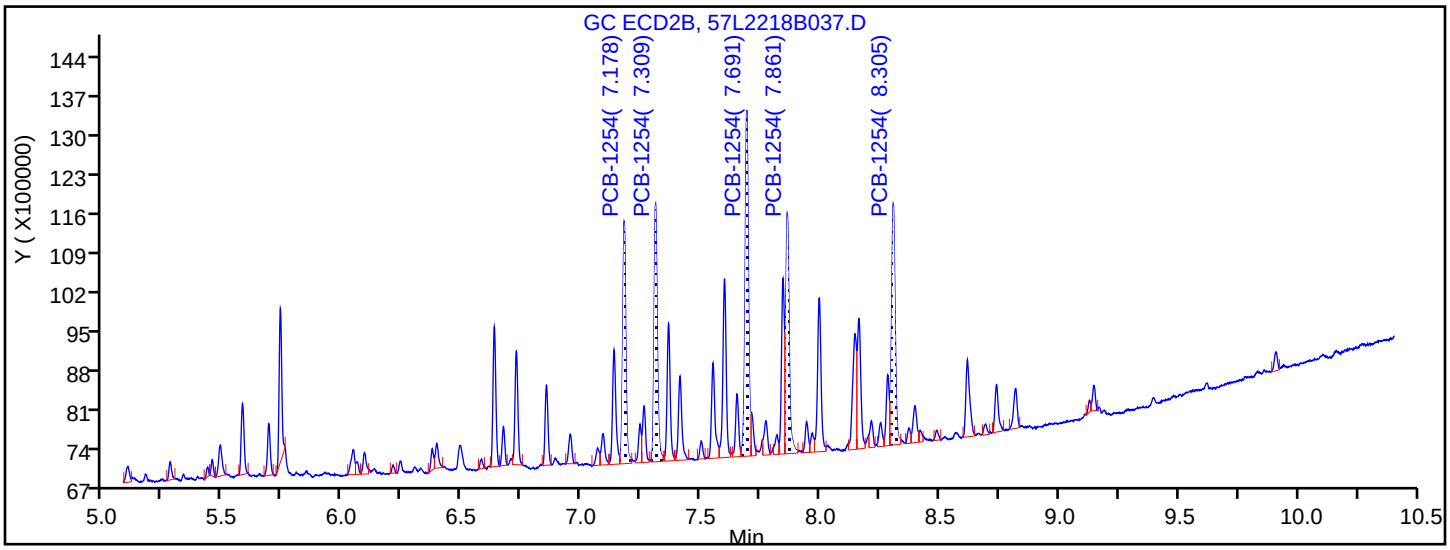
Injection Date:	23-Dec-2018 03:44:06	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	35	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

7.178	Response = 3726628
7.309	Response = 4166852
7.691	Response = 5779503
7.861	Response = 4121943
8.305	Response = 4328873



Manual Integration Results

7.178	Response = 3953689	M
7.309	Response = 4329571	M
7.691	Response = 6019633	M
7.861	Response = 4343717	M
8.305	Response = 4464600	M

Reviewer: ruslandera, 23-Dec-2018 15:33:51

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 04:19 Calibration End Date: 12/23/2018 06:22 Calibration ID: 27234

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/47	57L2218B046.D
Level 2	IC 580-291937/46	57L2218B045.D
Level 3	IC 580-291937/45	57L2218B044.D
Level 4	IC 580-291937/44	57L2218B043.D
Level 5	ICIS 580-291937/43	57L2218B042.D
Level 6	IC 580-291937/42	57L2218B041.D
Level 7	IC 580-291937/41	57L2218B040.D
Level 8	IC 580-291937/40	57L2218B039.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0997 0.0779	0.0933 0.0708	0.0890 0.0672	0.0842	0.0796	Lin2	0.1346	0.0764				8.0			0.9930		0.9900
PCB-1016 Peak 2	0.1109 0.0930	0.1072 0.0868	0.1016 0.0816	0.0973	0.0940	Lin2	0.1181	0.0910				6.3			0.9960		0.9900
PCB-1016 Peak 3	+++++ 0.0633	0.0629 0.0582	0.0634 +++++	0.0629	0.0600	Lin2	0.0251	0.0611				3.6			0.9990		0.9900
PCB-1016 Peak 4	0.0459 0.0474	0.0485 0.0433	0.0461 0.0425	0.0466	0.0441	Lin2	0.0116	0.0450				4.6			0.9980		0.9900
PCB-1016 Peak 5	0.0239 0.0253	0.0223 0.0237	0.0244 0.0228	0.0245	0.0235	Qua1	-0.018	0.0252	-0.000001			5.4			1.0000		0.9900
PCB-1260 Peak 1	0.0565 0.0466	0.0497 0.0418	0.0473 0.0409	0.0462	0.0439	Lin2	0.0657	0.0435				4.4			0.9980		0.9900
PCB-1260 Peak 2	0.1067 0.0945	0.0985 0.0847	0.0975 0.0822	0.0941	0.0883	Lin2	0.0956	0.0888				5.3			0.9970		0.9900
PCB-1260 Peak 3	0.1577 0.1384	0.1451 0.1256	0.1412 0.1224	0.1376	0.1298	Lin2	0.1427	0.1306				4.4			0.9980		0.9900
PCB-1260 Peak 4	0.1056 0.0921	0.0985 0.0845	0.0916 0.0824	0.0923	0.0859	Lin2	0.0992	0.0870				4.0			0.9980		0.9900
PCB-1260 Peak 5	0.0892 0.0849	0.0844 0.0777	0.0814 0.0755	0.0828	0.0780	Lin2	0.0498	0.0794				3.9			0.9980		0.9900
Tetrachloro-m-xylene	2.4014 2.3320	2.1874 2.1360	2.1705 2.1038	2.1836	2.1437	Ave		2.2073				4.7		20.0			
DCB Decachlorobiphenyl	1.6833 1.6687	1.6856 1.5562	1.5979 1.5486	1.6065	1.5645	Ave		1.6139				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-1 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 04:19 Calibration End Date: 12/23/2018 06:22 Calibration ID: 27234

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/47	57L2218B046.D
Level 2	IC 580-291937/46	57L2218B045.D
Level 3	IC 580-291937/45	57L2218B044.D
Level 4	IC 580-291937/44	57L2218B043.D
Level 5	ICIS 580-291937/43	57L2218B042.D
Level 6	IC 580-291937/42	57L2218B041.D
Level 7	IC 580-291937/41	57L2218B040.D
Level 8	IC 580-291937/40	57L2218B039.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin2	982423 76444219	1799830 138329673	4320748 272258611	8120077	15394150	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 2	BNB	Lin2	1092964 91260145	2067664 169487227	4931497 330454565	9382153	18190028	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 3	BNB	Lin2	+++++ 62162539	1213461 113739282	3078886 +++++	6064881	11600814	+++++ 500	10.0 1000	25.0 +++++	50.0	100
PCB-1016 Peak 4	BNB	Lin2	452936 46539794	935584 84503953	2239282 171879301	4496810	8528124	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 5	BNB	Qua1	235337 24876210	430600 46266346	1186466 92373596	2360077	4540322	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 1	BNB	Lin2	557306 45688042	958870 81640291	2294792 165521921	4454324	8486111	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 2	BNB	Lin2	1051695 92730857	1900701 165333434	4731714 332860235	9075006	17079828	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 3	BNB	Lin2	1554523 135856992	2798496 245287271	6853238 495651576	13265645	25114558	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 4	BNB	Lin2	1041476 90416224	1900644 164977219	4445443 333441937	8894542	16624253	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 5	BNB	Lin2	879039 83329741	1628632 151711788	3949623 305651201	7977849	15087646	5.00 500	10.0 1000	25.0 2000	50.0	100
Tetrachloro-m-xylene	BNB	Ave	2370964 229185434	4226462 417733574	10553113 853004108	21080876	41532842	0.501 50.1	1.00 100	2.50 200	5.01	10.0
DCB Decachlorobiphenyl	BNB	Ave	1661163 163917265	3255246 304192876	7765519 627600508	15502325	30295903	0.501 50.1	1.00 100	2.50 200	5.01	10.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua1 = Quadratic 1/conc ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Dec-2018 04:19:15 ALS Bottle#: 37 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:17 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:42:59

	Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
*	46 1-Bromo-2-nitrobenzene							
	1	4.277	4.277	0.000	202426938	100.0	100.0	
	2	4.596	4.596	0.000	1199949720	100.0	100.0	
							RPD = 0.00	
S	3 Polychlorinated biphenyls, Total							
	1						3664.8	
	2						3815.2	
							RPD = 4.02	
$	9 Tetrachloro-m-xylene							M
	1	4.919	4.920	-0.001	853004108	200.3	190.9	M
	2	5.351	5.349	0.002	2956548925	200.3	192.6	
							RPD = 0.90	
	5 PCB-1016							Ma
	1	5.439	5.441	-0.002	272258611	2000.0	1757.9	M
	1	5.769	5.772	-0.003	330454565	2000.0	1791.9	M
	1	5.862	5.865	-0.003	184440111	2000.0	1491.4	M
	1	6.147	6.149	-0.002	171879301	2000.0	1885.9	M
	1	6.207	6.210	-0.003	92373596	2000.0	2002.6	M
			Average of Peak Amounts =				1786.0	
	2	6.043	6.042	0.001	697919035	2000.0	1797.0	
	2	6.392	6.390	0.002	1295700772	2000.0	1873.9	
	2	6.494	6.495	-0.001	828252782	2000.0	1862.0	
	2	6.852	6.851	0.001	668485692	2000.0	1830.1	
	2	6.951	6.950	0.001	536858604	2000.0	2356.0	a
			Average of Peak Amounts =				1943.8	
							RPD = 8.46	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.922	6.923	-0.001	165521921	2000.0	1876.8	M
1	7.026	7.025	0.001	332860235	2000.0	1849.8	M
1	7.229	7.230	-0.001	495651576	2000.0	1874.3	M
1	7.531	7.531	0.000	333441937	2000.0	1892.6	M
1	7.725	7.725	0.000	305651201	2000.0	1901.0	M
		Average of Peak Amounts =				1878.9	
2	7.714	7.713	0.001	555256831	2000.0	1816.9	
2	7.845	7.844	0.001	1242145987	2000.0	1874.3	
2	8.138	8.139	-0.001	963162198	2000.0	1890.7	a
2	8.372	8.370	0.002	968236625	2000.0	1875.6	
2	8.628	8.627	0.001	1113341247	2000.0	1899.4	
		Average of Peak Amounts =				1871.4	
						RPD = 0.40	
$ 43 DCB Decachlorobiphenyl							
1	9.084	9.084	0.000	627600508	200.2	192.1	
2	10.161	10.160	0.001	1583544550	200.2	189.1	
						RPD = 1.58	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660_ICSTK_00025	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:17 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D

Injection Date: 23-Dec-2018 04:19:15 Instrument ID: TAC057

Lims ID: ic

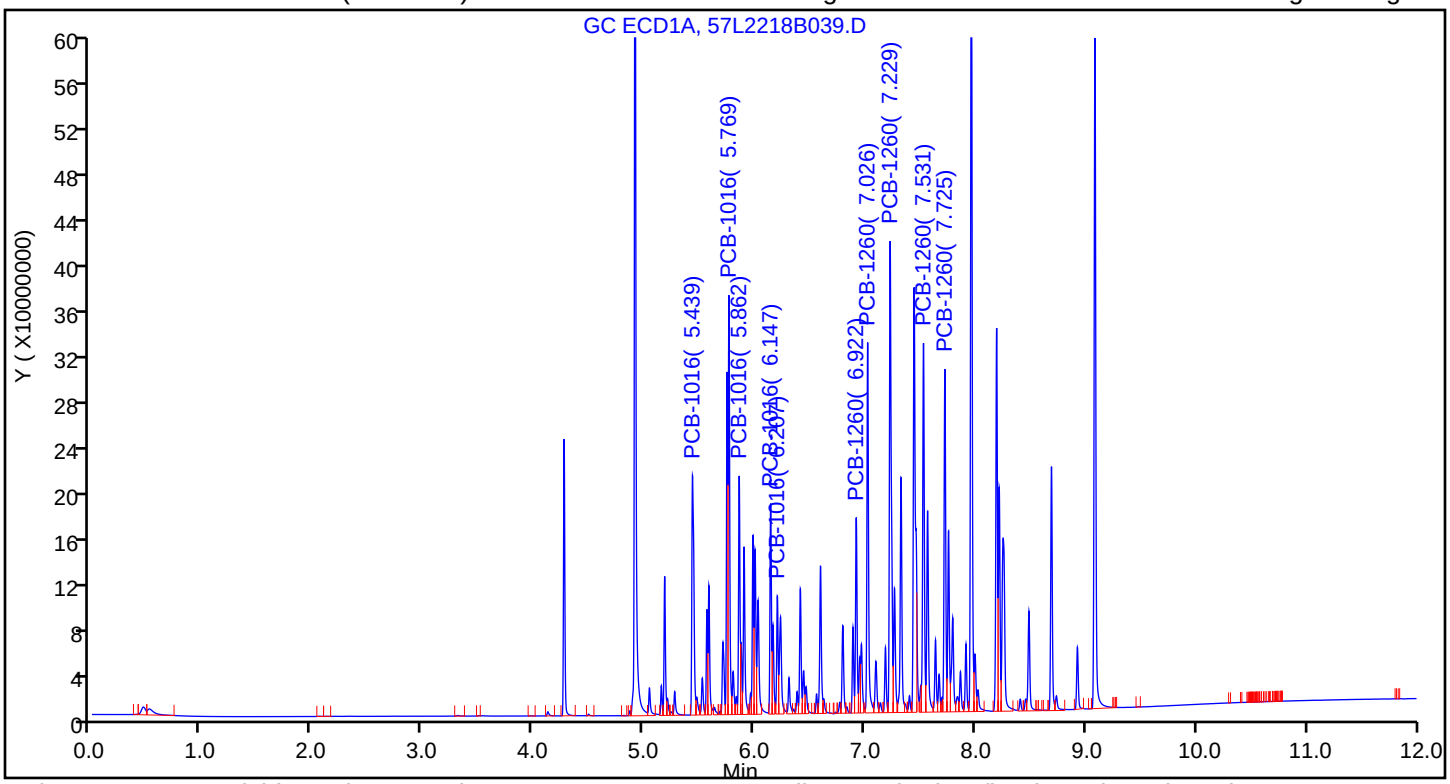
Client ID:

Operator ID: ar ALS Bottle#: 37 Worklist Smp#: 40

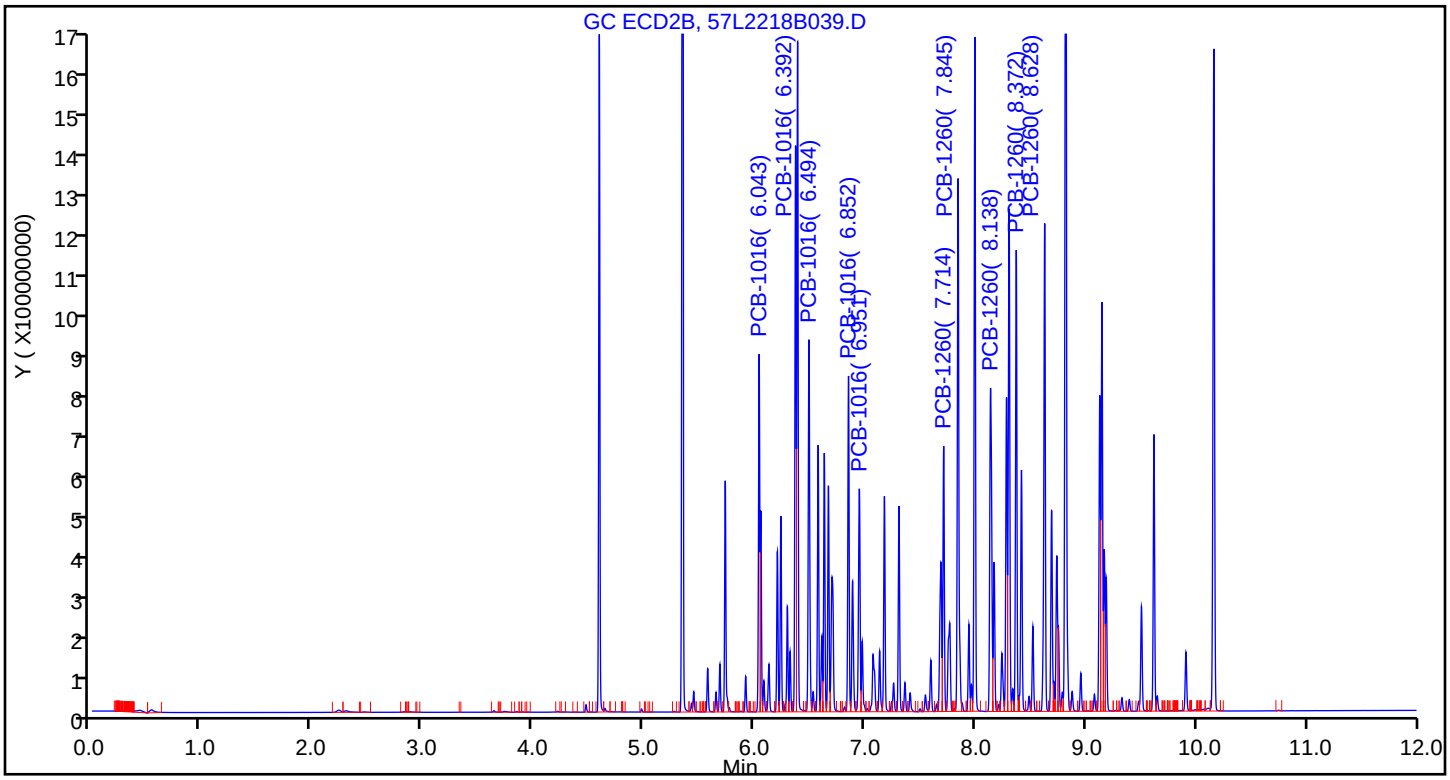
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

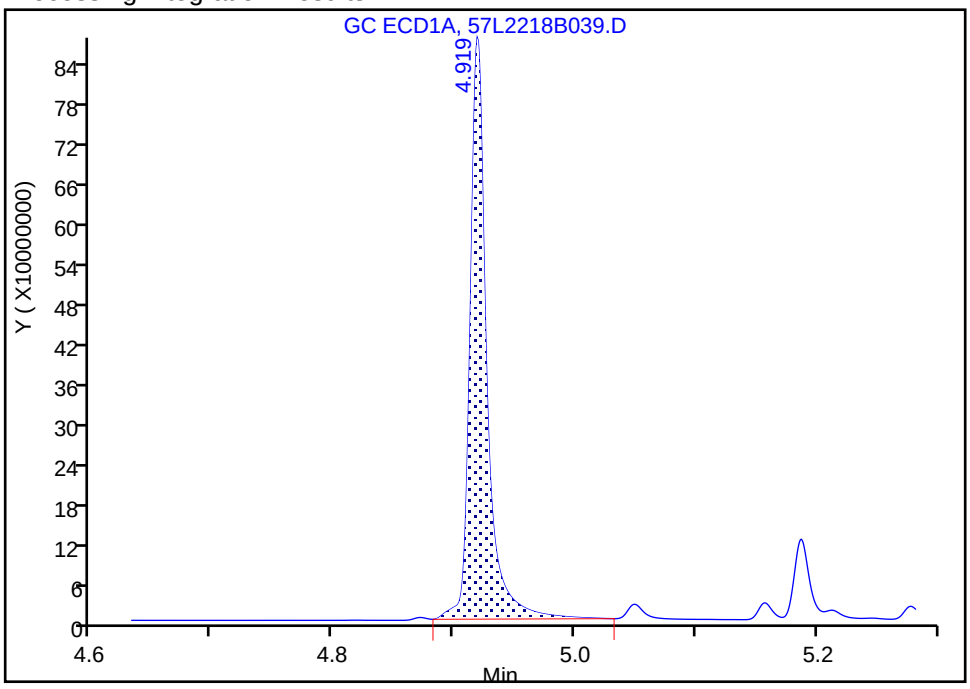
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D				
Injection Date:	23-Dec-2018 04:19:15	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	37	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

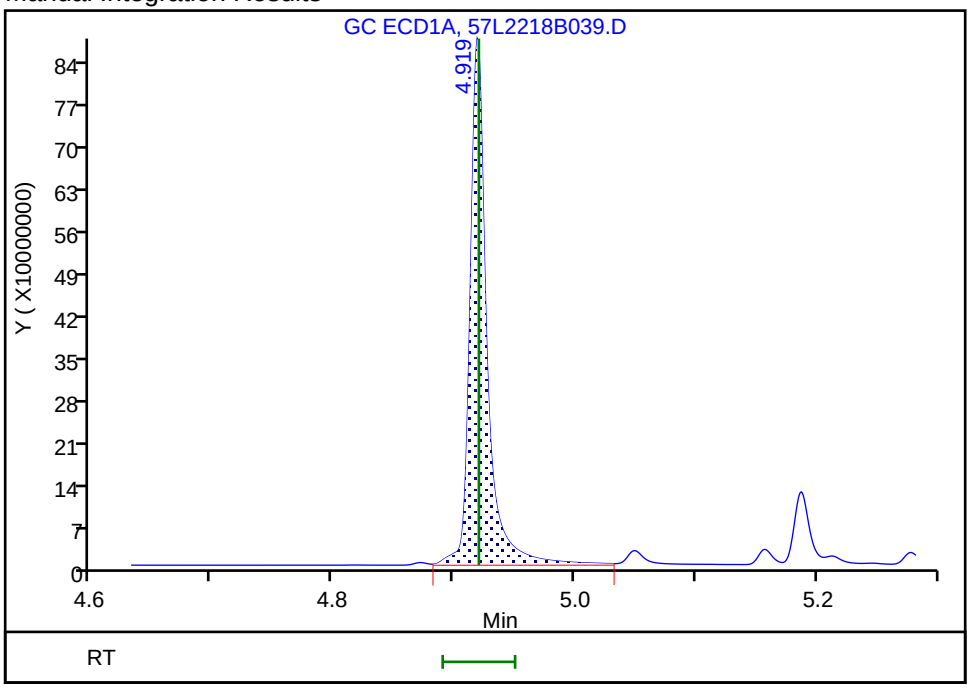
Processing Integration Results

RT: 4.92
Area: 834465607
Amount: 192.4863
Amount Units: ug/L



Manual Integration Results

RT: 4.92
Area: 853004108
Amount: 190.9074
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:46:14

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:17:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D

Injection Date: 23-Dec-2018 04:19:15 Instrument ID: TAC057

Lims ID: ic

Client ID:

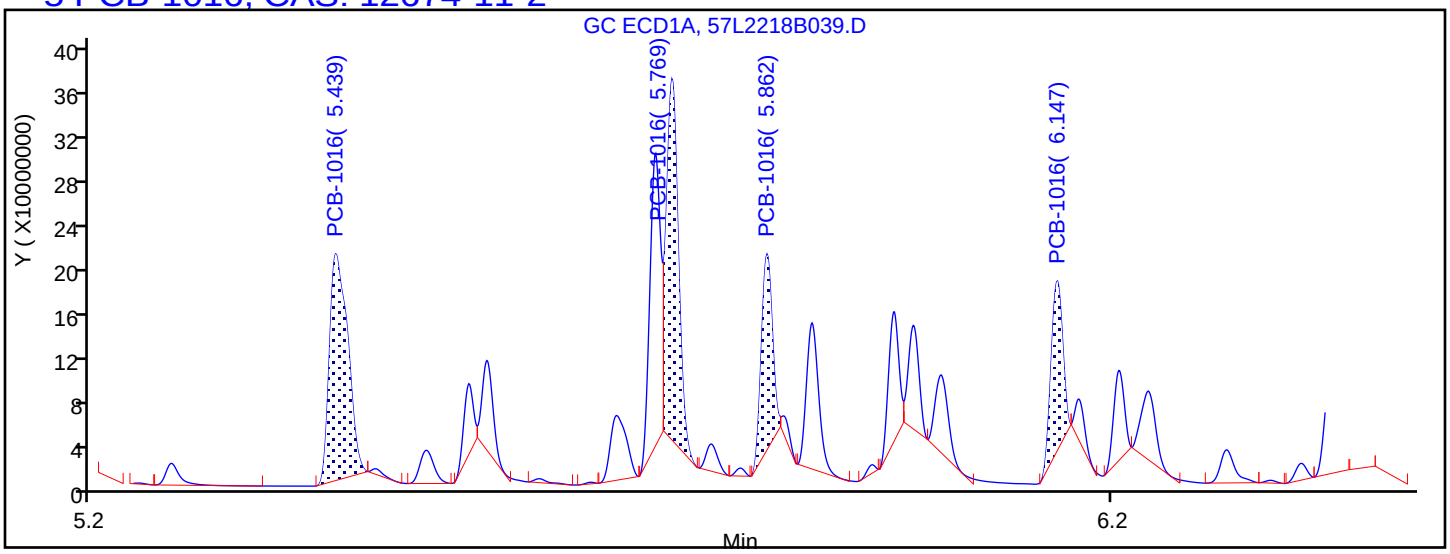
Operator ID: ar ALS Bottle#: 37 Worklist Smp#: 40

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

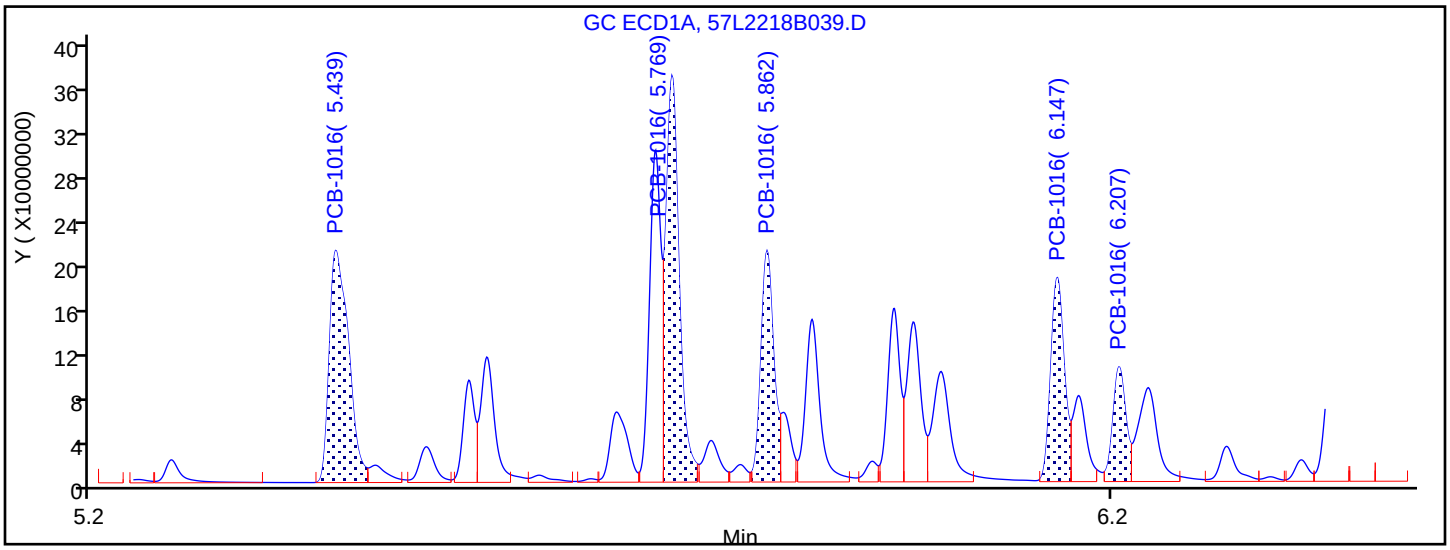
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.439	Response = 252253466
5.769	Response = 265077863
5.862	Response = 132143526
6.147	Response = 120470380
6.416	Response = 84065316



Manual Integration Results

5.439	Response = 272258611	M
5.769	Response = 330454565	M
5.862	Response = 184440111	M
6.147	Response = 171879301	M
6.207	Response = 92373596	M

Reviewer: ruslandera, 23-Dec-2018 15:46:14

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:17:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D

Injection Date: 23-Dec-2018 04:19:15 Instrument ID: TAC057

Lims ID: ic

Client ID:

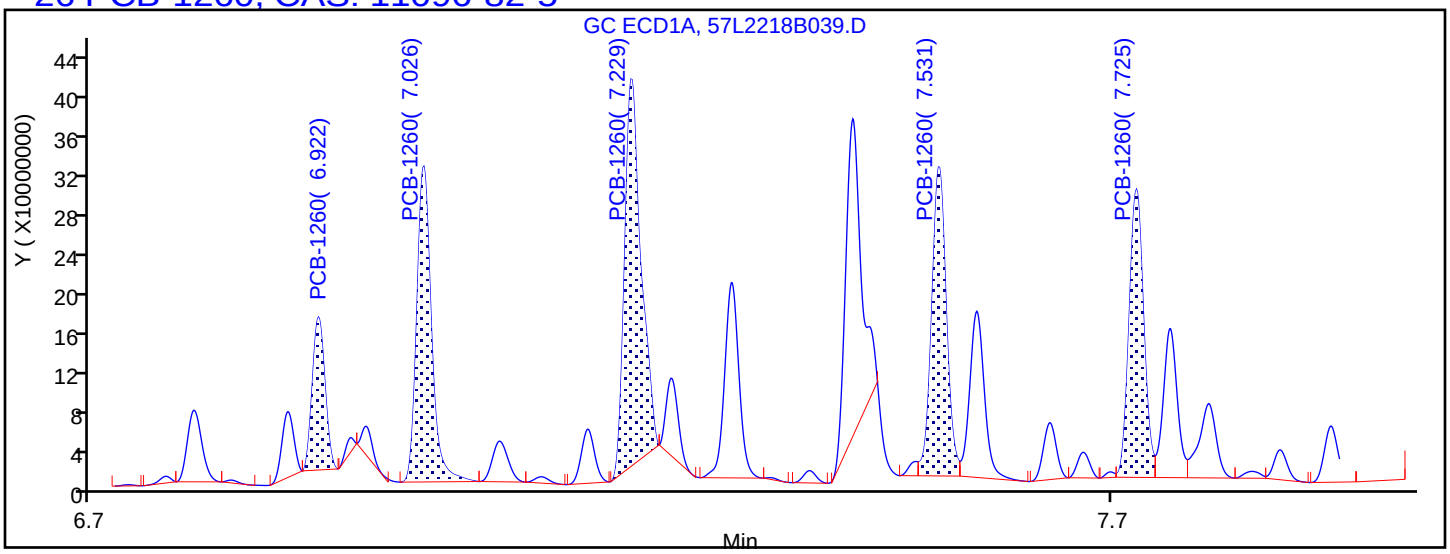
Operator ID: ar ALS Bottle#: 37 Worklist Smp#: 40

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

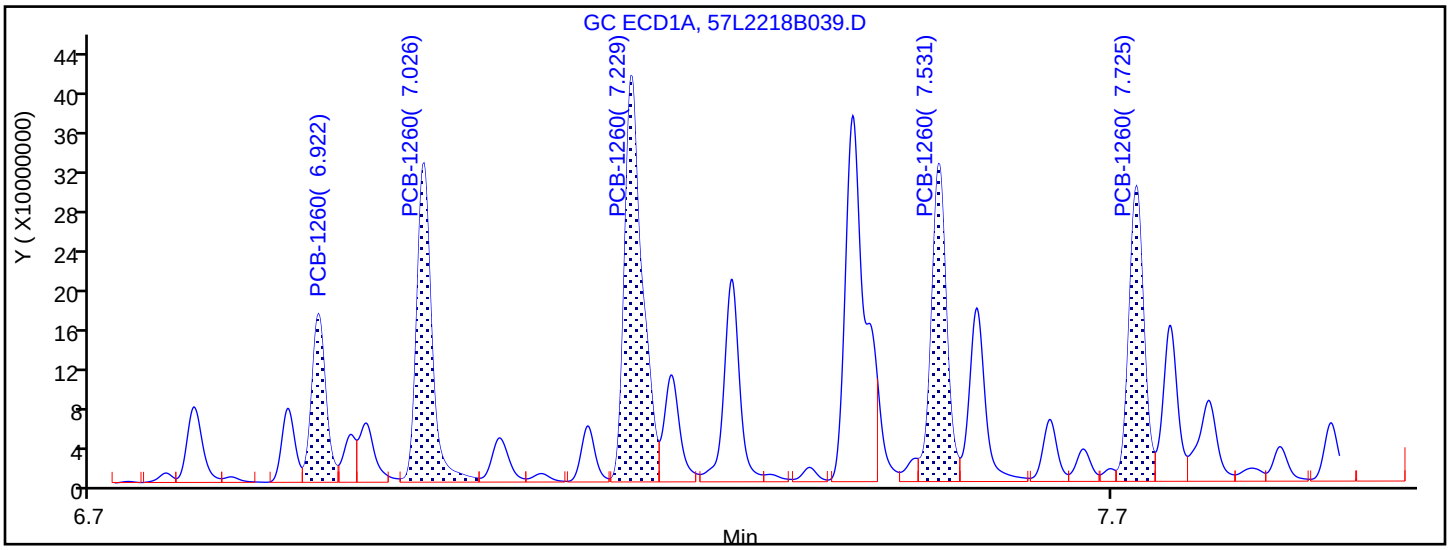
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.922	Response = 132350420
7.026	Response = 316165763
7.229	Response = 433000984
7.531	Response = 311472481
7.725	Response = 288892857



Manual Integration Results

6.922	Response = 165521921	M
7.026	Response = 332860235	M
7.229	Response = 495651576	M
7.531	Response = 333441937	M
7.725	Response = 305651201	M

Reviewer: ruslandera, 23-Dec-2018 15:46:14

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Dec-2018 04:36:47 ALS Bottle#: 38 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:23 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:43:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	195273317	100.0	100.0	
2	4.596	4.596	0.000	1163667207	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1919.7	
2						1890.8	
						RPD = 1.52	
$ 9 Tetrachloro-m-xylene							
1	4.919	4.920	-0.001	417733574	100.2	96.9	
2	5.350	5.349	0.001	1412091180	100.2	94.9	
						RPD = 2.14	
5 PCB-1016							Ma
1	5.439	5.441	-0.002	138329673	1000.0	925.0	M
1	5.769	5.772	-0.003	169487227	1000.0	952.1	M
1	5.863	5.865	-0.002	113739282	1000.0	953.3	M
1	6.148	6.149	-0.001	84503953	1000.0	961.1	M
1	6.208	6.210	-0.002	46266346	1000.0	987.3	M
		Average of Peak Amounts =				955.8	
2	6.043	6.042	0.001	346573778	1000.0	918.8	
2	6.391	6.390	0.001	638515353	1000.0	951.2	
2	6.494	6.495	-0.001	410717818	1000.0	950.7	
2	6.852	6.851	0.001	332296302	1000.0	936.8	
2	6.950	6.950	0.000	266890883	1000.0	993.8	a
		Average of Peak Amounts =				950.3	
						RPD = 0.57	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.923	6.923	0.000	81640291	1000.0	958.8	M
1	7.025	7.025	0.000	165333434	1000.0	951.9	M
1	7.229	7.230	-0.001	245287271	1000.0	961.0	M
1	7.530	7.531	-0.001	164977219	1000.0	970.2	M
1	7.724	7.725	-0.001	151711788	1000.0	977.9	M
		Average of Peak Amounts =				964.0	
2	7.713	7.713	0.000	274762829	1000.0	925.8	
2	7.844	7.844	0.000	603936536	1000.0	938.5	
2	8.138	8.139	-0.001	469924713	1000.0	950.2	a
2	8.370	8.370	0.000	471027328	1000.0	939.7	
2	8.628	8.627	0.001	539724631	1000.0	948.4	
		Average of Peak Amounts =				940.5	
						RPD = 2.46	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.084	-0.001	304192876	100.1	96.5	
2	10.159	10.160	-0.001	745080589	100.1	91.7	
						RPD = 5.08	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660_ICSTK_00025	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D

Injection Date: 23-Dec-2018 04:36:47 Instrument ID: TAC057

Lims ID: ic

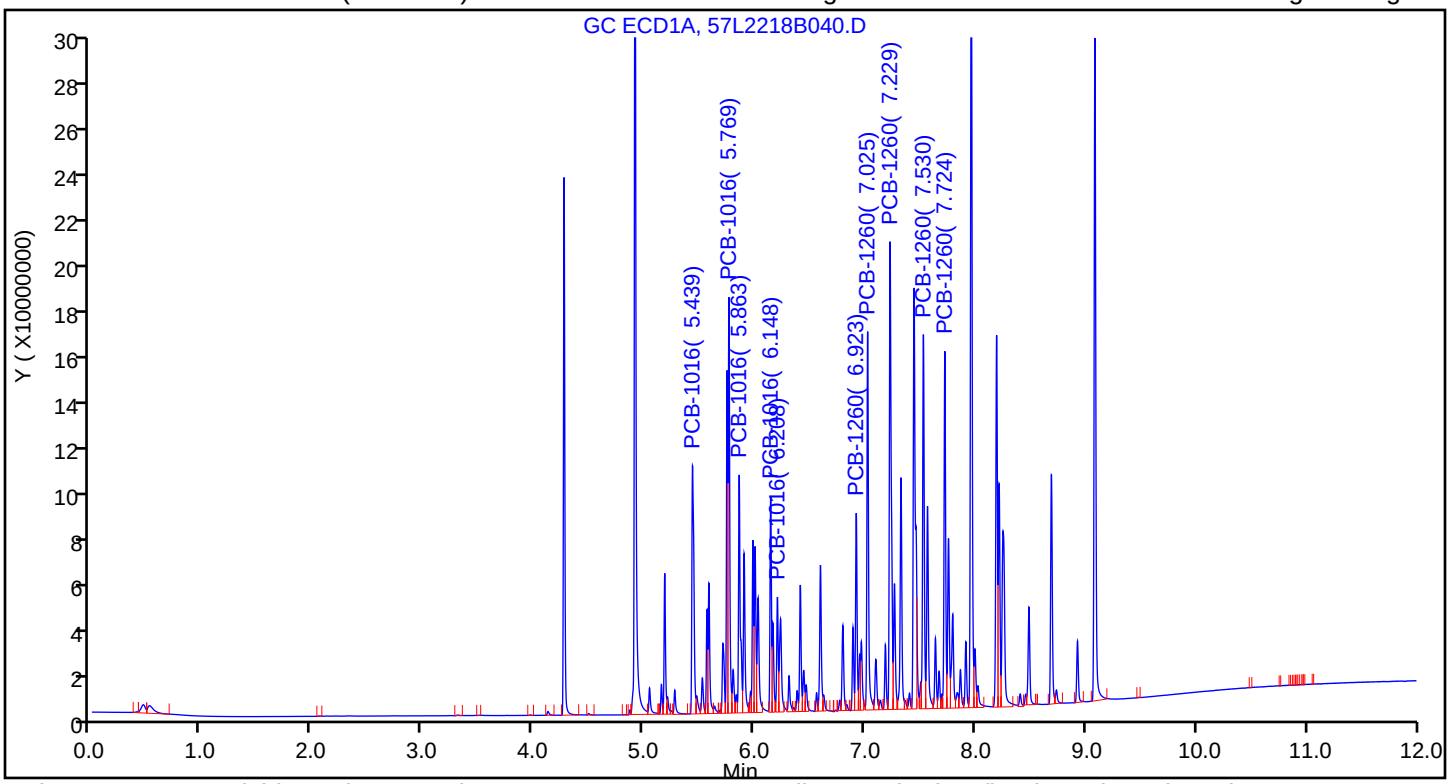
Client ID:

Operator ID: ar ALS Bottle#: 38 Worklist Smp#: 41

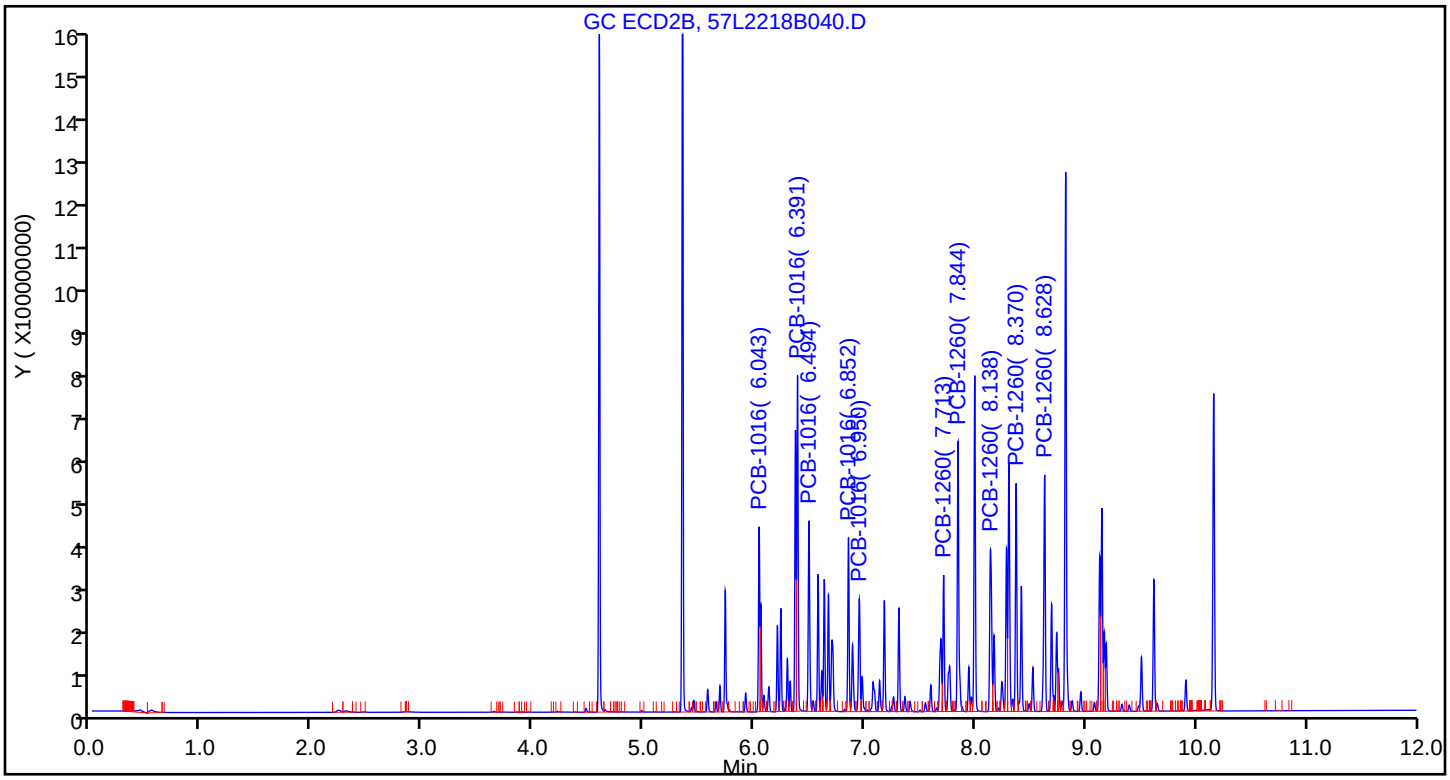
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



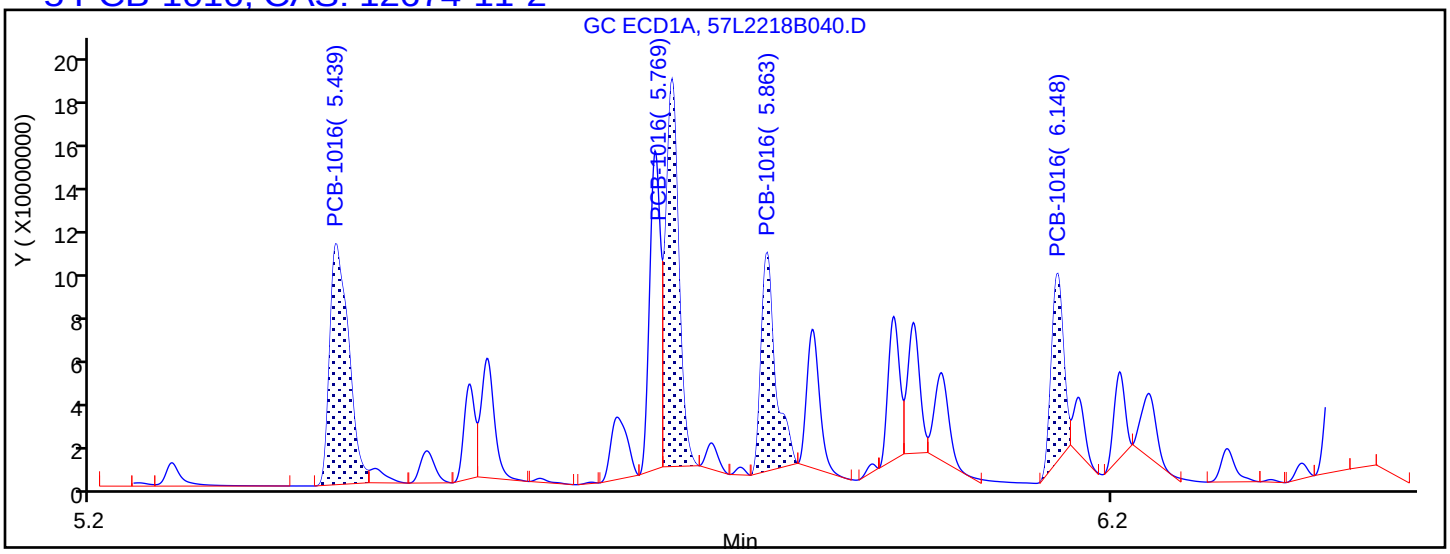
Report Date: 23-Dec-2018 16:17:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D

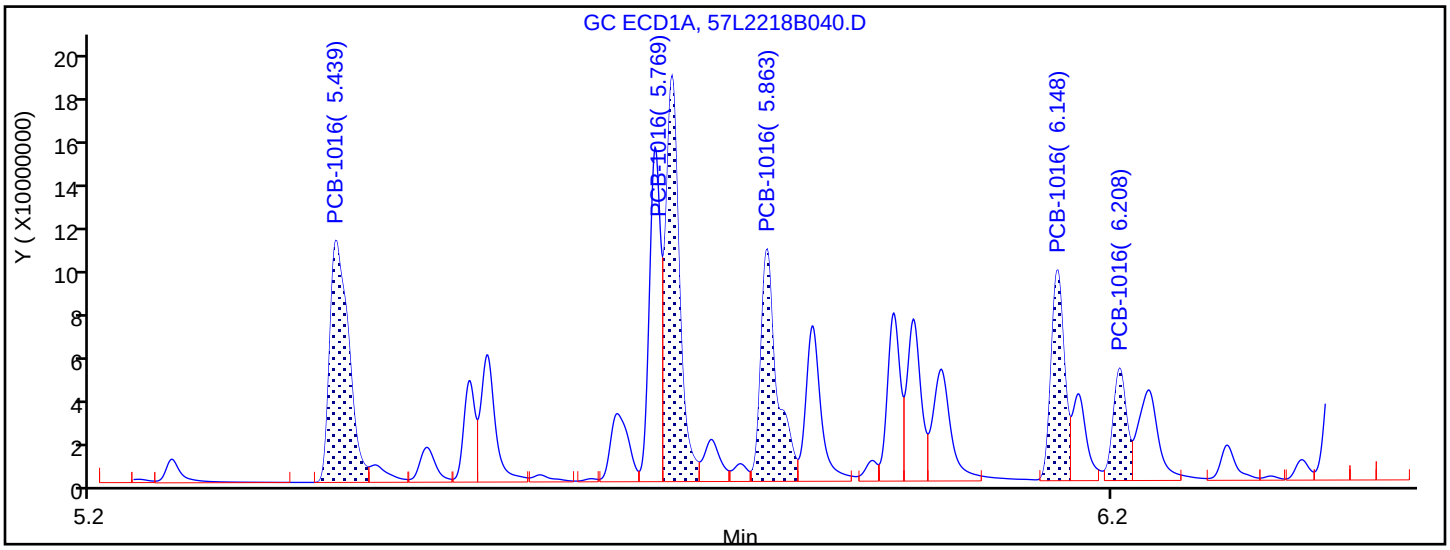
Injection Date:	23-Dec-2018 04:36:47	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	38	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.439	Response = 136051624
5.769	Response = 151508358
5.863	Response = 94646942
6.148	Response = 68435451
6.416	Response = 41809451



Manual Integration Results

5.439	Response = 138329673	M
5.769	Response = 169487227	M
5.863	Response = 113739282	M
6.148	Response = 84503953	M
6.208	Response = 46266346	M

Reviewer: ruslandera, 23-Dec-2018 15:46:27

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

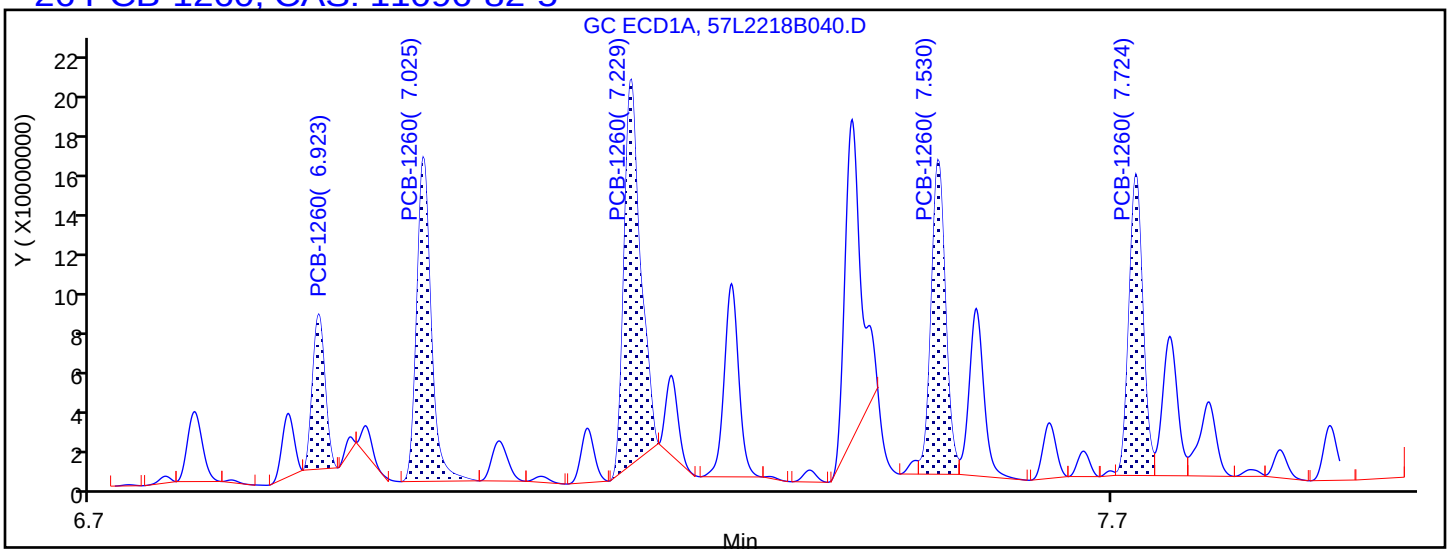
Report Date: 23-Dec-2018 16:17:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D

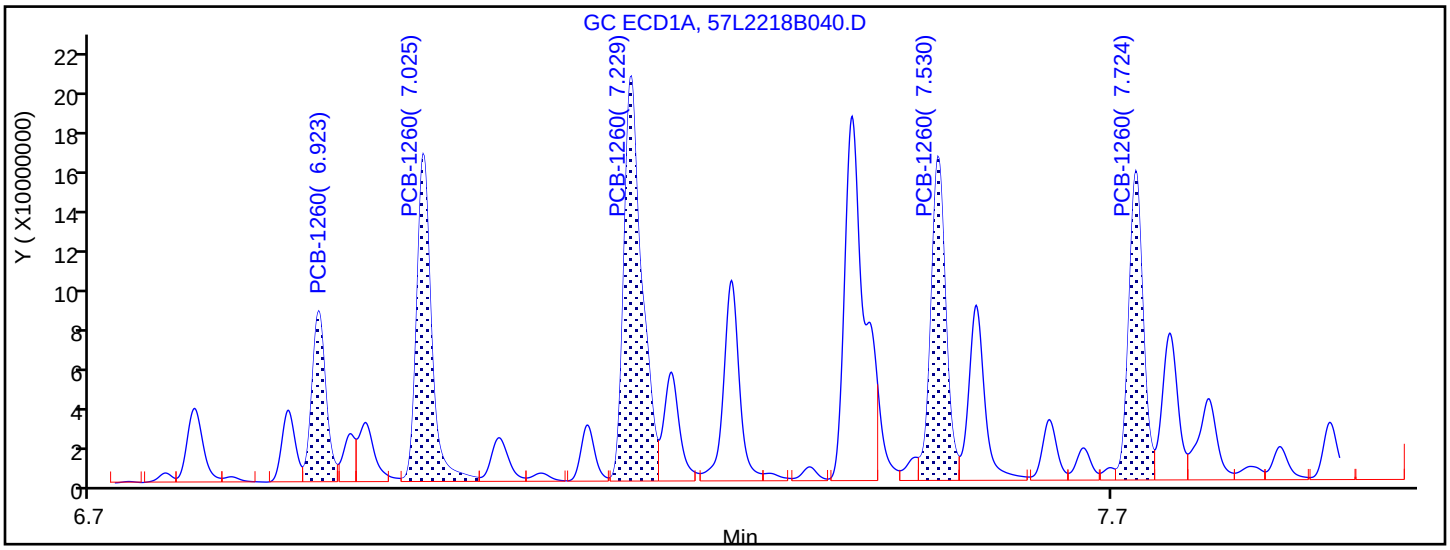
Injection Date:	23-Dec-2018 04:36:47	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	38	Worklist Smp#:	41
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.923	Response = 65371144
7.025	Response = 157392176
7.229	Response = 214005072
7.530	Response = 153740306
7.724	Response = 142840511



Manual Integration Results

6.923	Response = 81640291	M
7.025	Response = 165333434	M
7.229	Response = 245287271	M
7.530	Response = 164977219	M
7.724	Response = 151711788	M

Reviewer: ruslandera, 23-Dec-2018 15:46:27

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Dec-2018 04:54:19 ALS Bottle#: 39 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:46:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	196263532	100.0	100.0	
2	4.596	4.596	0.000	1171051846	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1046.8	
2						1028.9	
						RPD = 1.73	
$ 9 Tetrachloro-m-xylene							M
1	4.918	4.920	-0.002	229185434	50.1	52.9	M
2	5.348	5.349	-0.001	748170762	50.1	49.9	
						RPD = 5.75	
5 PCB-1016							Ma
1	5.439	5.441	-0.002	76444219	500.0	507.8	M
1	5.769	5.772	-0.003	91260145	500.0	509.5	M
1	5.863	5.865	-0.002	62162539	500.0	518.2	M
1	6.148	6.149	-0.001	46539794	500.0	526.5	M
1	6.208	6.210	-0.002	24876210	500.0	516.4	M
		Average of Peak Amounts =				515.7	
2	6.042	6.042	0.000	198697885	500.0	522.3	
2	6.390	6.390	0.000	354094226	500.0	523.3	
2	6.493	6.495	-0.002	227797798	500.0	522.6	
2	6.851	6.851	0.000	184873378	500.0	516.7	
2	6.949	6.950	-0.001	147262003	500.0	512.1	a
		Average of Peak Amounts =				519.4	
						RPD = 0.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.922	6.923	-0.001	45688042	500.0	533.2	M
1	7.025	7.025	0.000	92730857	500.0	530.7	M
1	7.228	7.230	-0.002	135856992	500.0	529.1	M
1	7.530	7.531	-0.001	90416224	500.0	528.5	M
1	7.724	7.725	-0.001	83329741	500.0	534.1	M
		Average of Peak Amounts =				531.1	
2	7.713	7.713	0.000	151648945	500.0	506.6	
2	7.843	7.844	-0.001	329796045	500.0	508.1	
2	8.138	8.139	-0.001	255600735	500.0	512.6	a
2	8.370	8.370	0.000	257830735	500.0	510.0	
2	8.628	8.627	0.001	292745375	500.0	510.2	
		Average of Peak Amounts =				509.5	
						RPD = 4.16	
$ 43 DCB Decachlorobiphenyl							M
1	9.083	9.084	-0.001	163917265	50.1	51.7	M
2	10.158	10.160	-0.002	398298713	50.1	48.7	
						RPD = 6.00	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660_ICSTK_00025	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:28 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D

Injection Date: 23-Dec-2018 04:54:19 Instrument ID: TAC057

Lims ID: ic

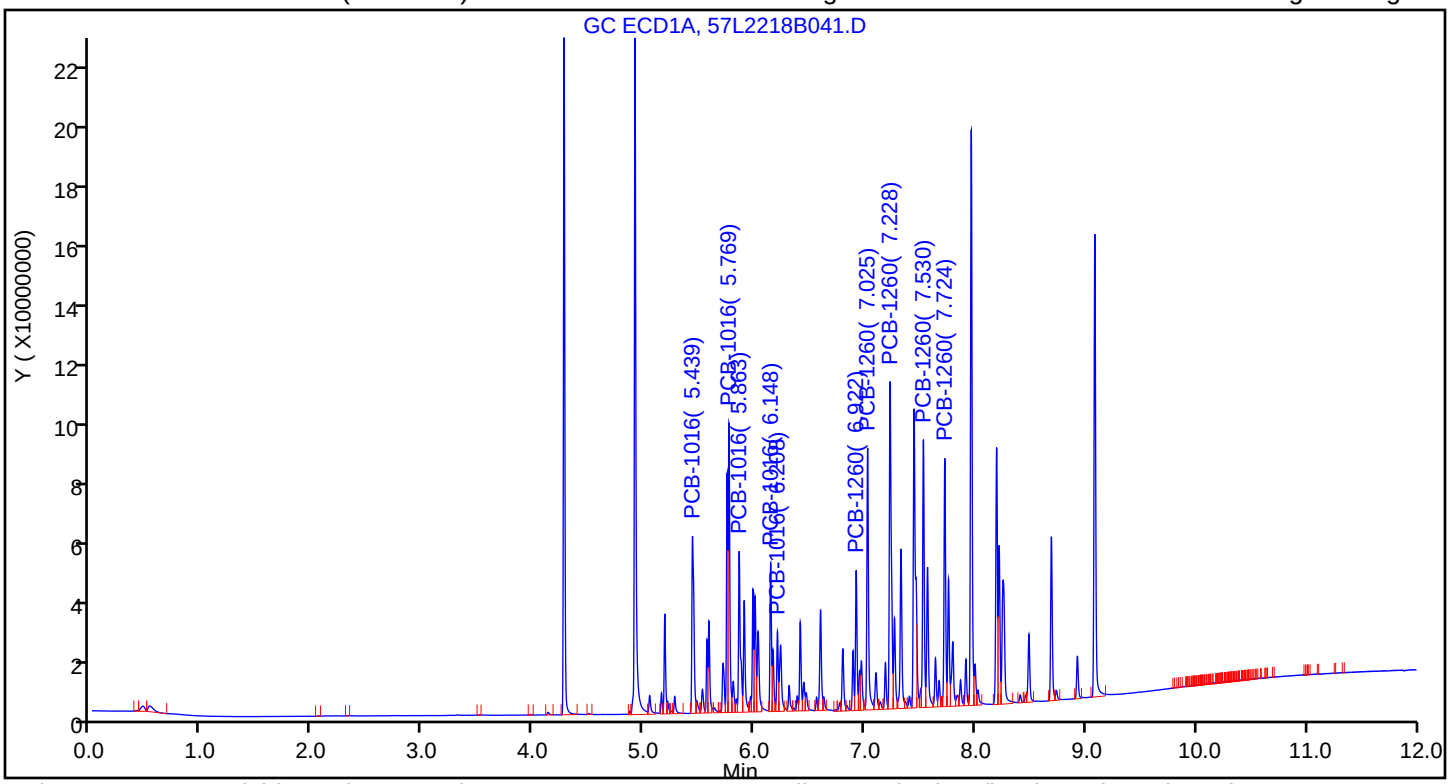
Client ID:

Operator ID: ar ALS Bottle#: 39 Worklist Smp#: 42

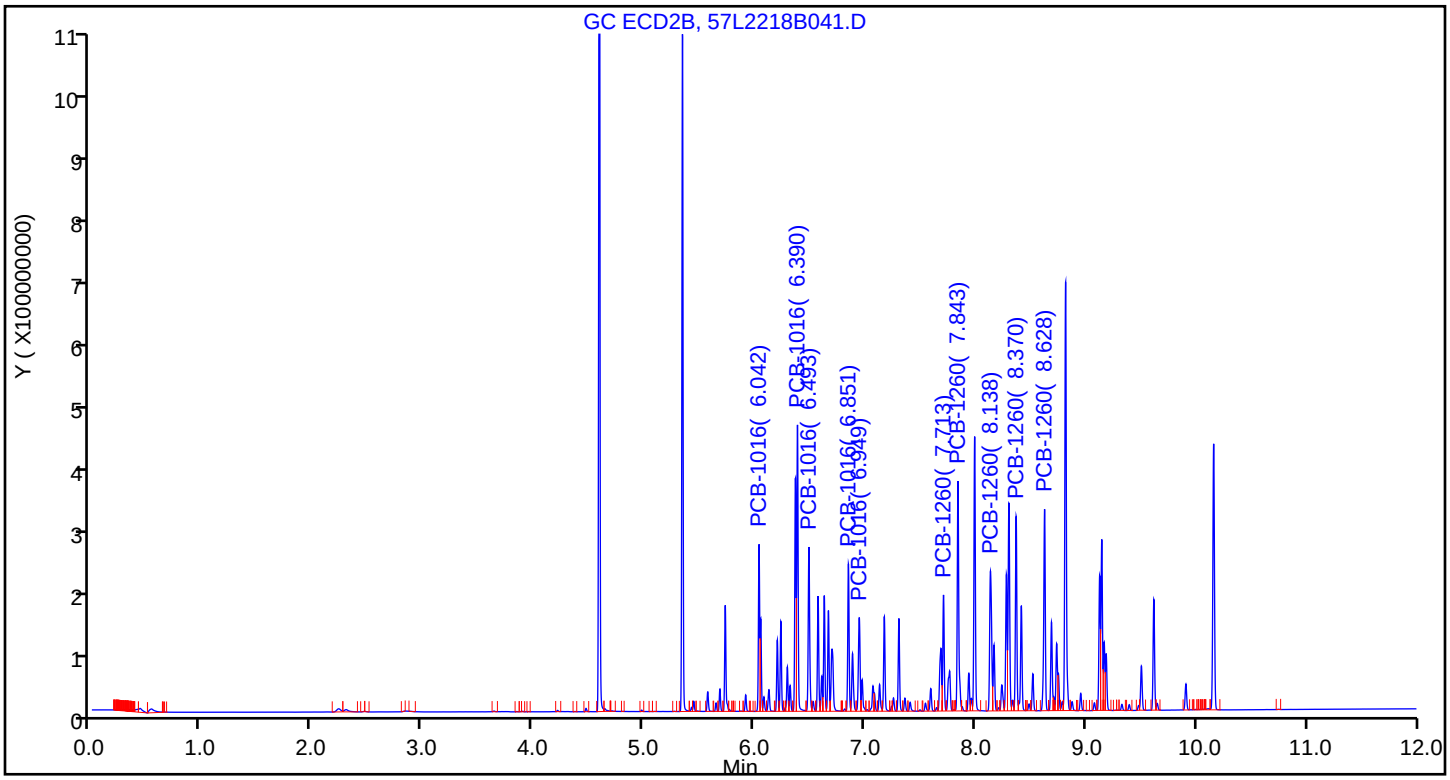
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

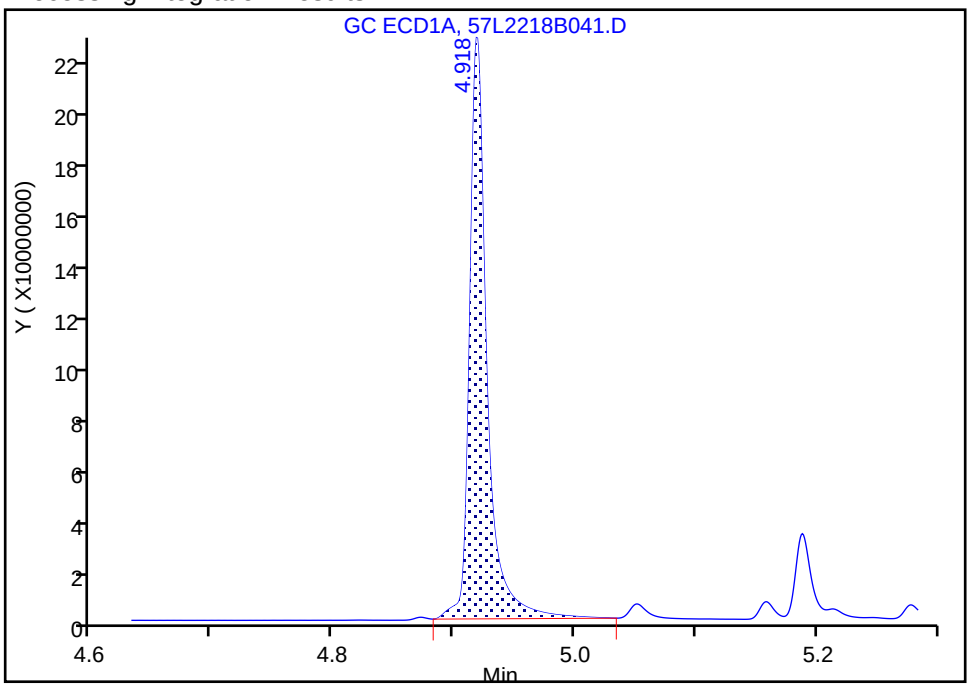
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D				
Injection Date:	23-Dec-2018 04:54:19	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	39	Worklist Smp#:	42
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

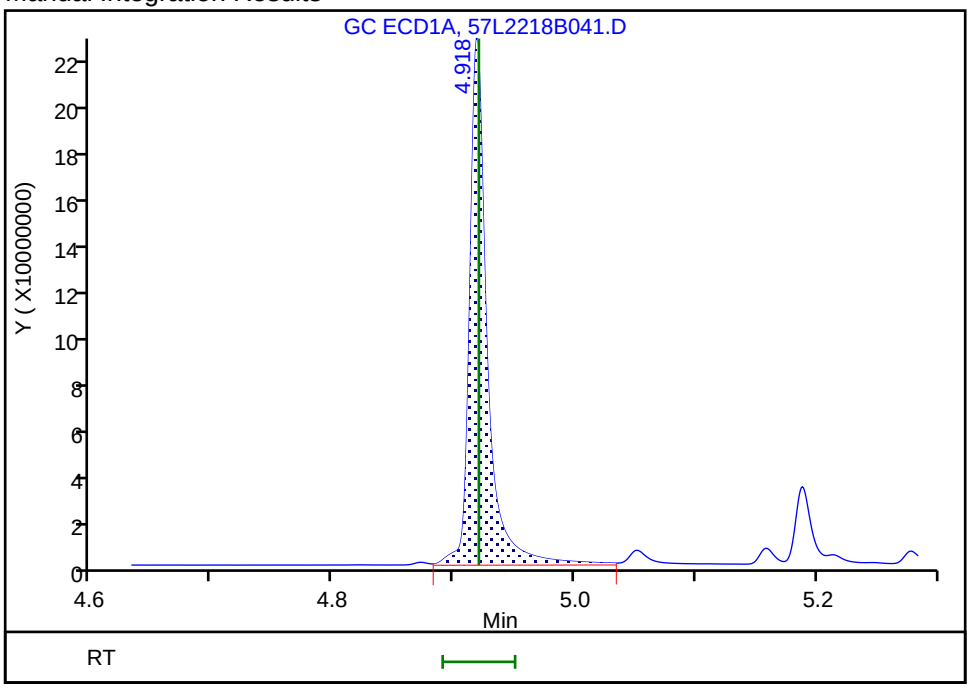
Processing Integration Results

RT: 4.92
Area: 223124006
Amount: 52.837614
Amount Units: ug/L



Manual Integration Results

RT: 4.92
Area: 229185434
Amount: 52.903848
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:46:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:17:28 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D

Injection Date: 23-Dec-2018 04:54:19 Instrument ID: TAC057

Lims ID: ic

Client ID:

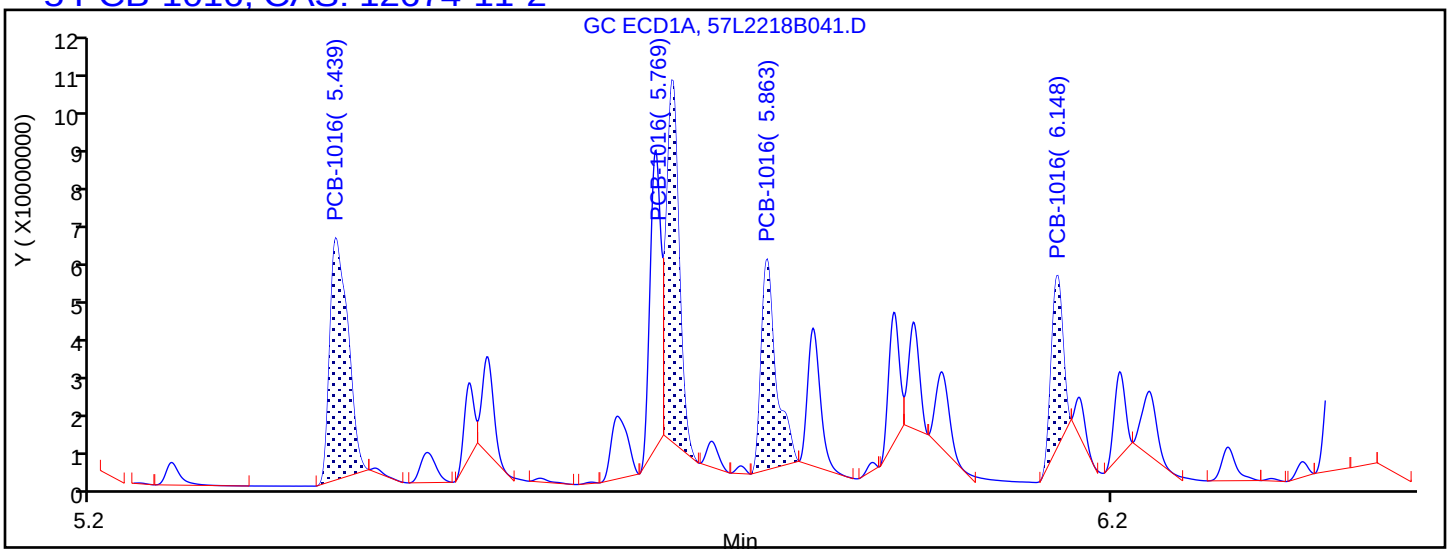
Operator ID: ar ALS Bottle#: 39 Worklist Smp#: 42

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

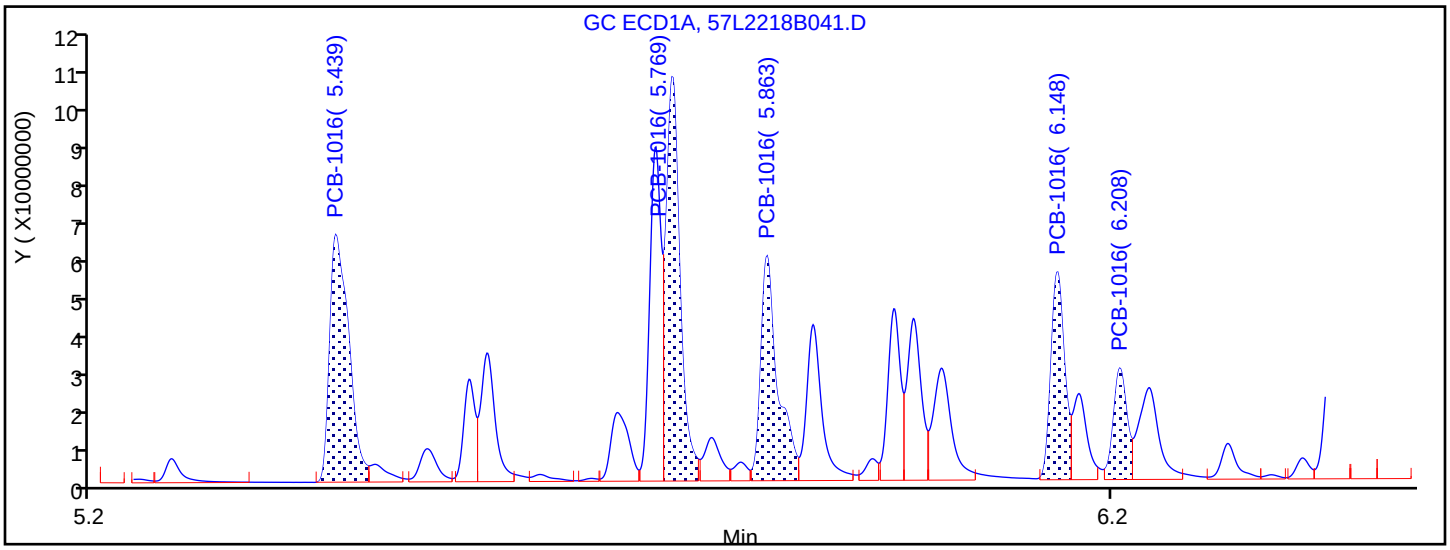
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.439	Response = 70497224
5.769	Response = 73785179
5.863	Response = 50983708
6.148	Response = 32144999
6.415	Response = 22892810



Manual Integration Results

5.439	Response = 76444219	M
5.769	Response = 91260145	M
5.863	Response = 62162539	M
6.148	Response = 46539794	M
6.208	Response = 24876210	M

Reviewer: ruslandera, 23-Dec-2018 15:46:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

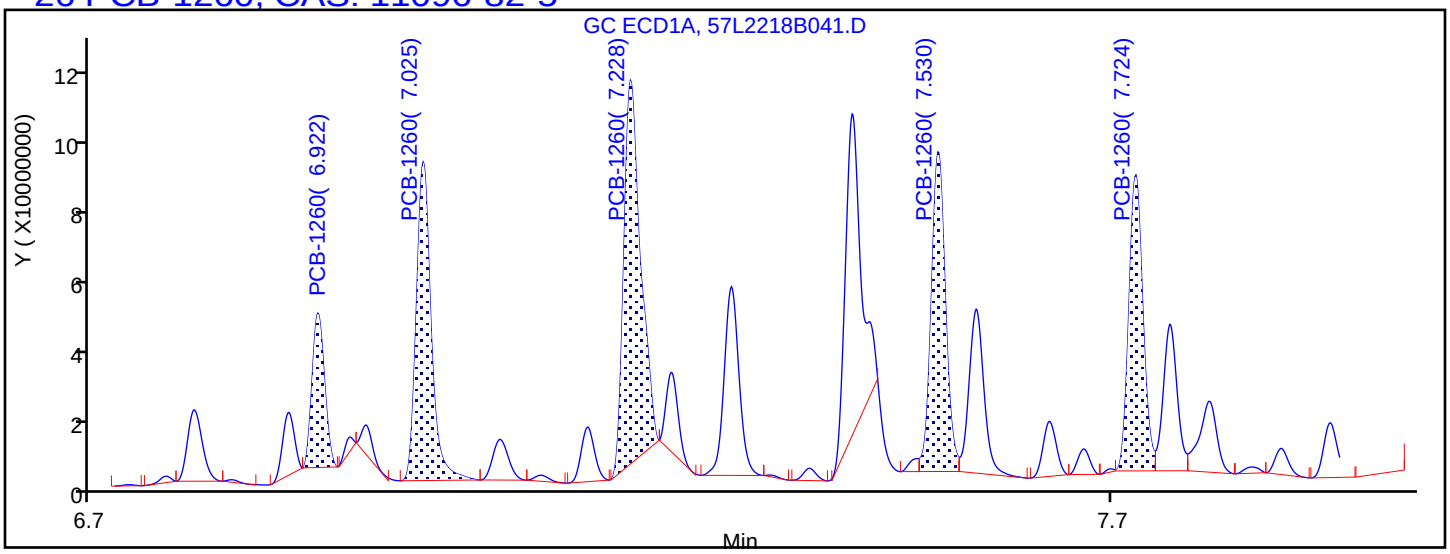
Report Date: 23-Dec-2018 16:17:28 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D

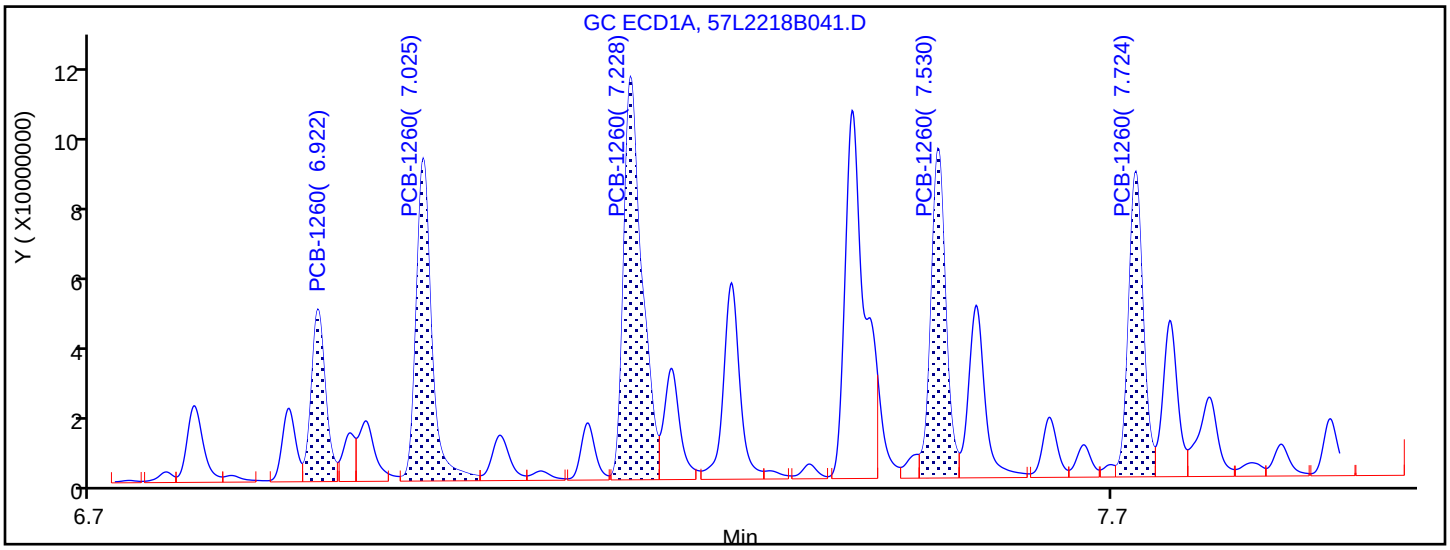
Injection Date:	23-Dec-2018 04:54:19	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	39	Worklist Smp#:	42
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.922	Response = 35444147
7.025	Response = 86586202
7.228	Response = 117429336
7.530	Response = 83578340
7.724	Response = 76828339



Manual Integration Results

6.922	Response = 45688042	M
7.025	Response = 92730857	M
7.228	Response = 135856992	M
7.530	Response = 90416224	M
7.724	Response = 83329741	M

Reviewer: ruslandera, 23-Dec-2018 15:46:43

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Seattle

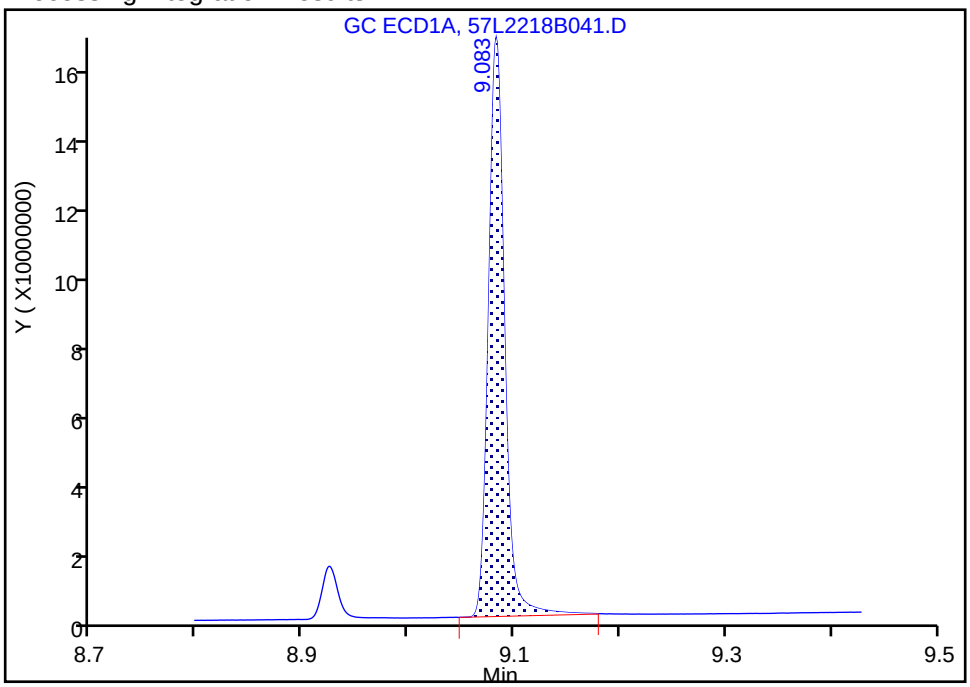
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D				
Injection Date:	23-Dec-2018 04:54:19	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	39	Worklist Smp#:	42
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

$ 43 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

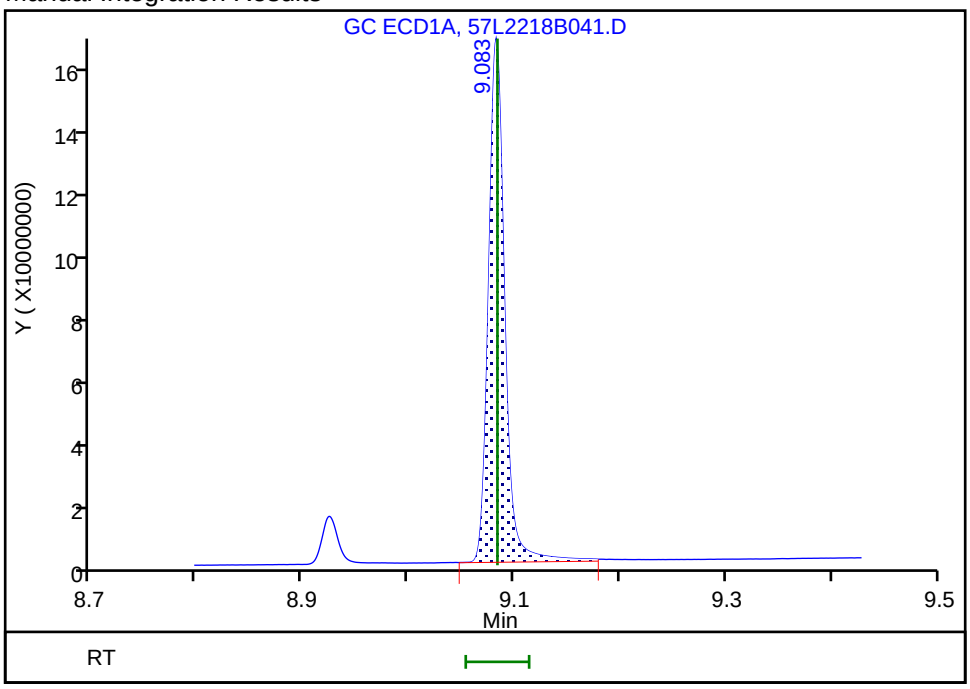
Processing Integration Results

RT: 9.08
Area: 161850420
Amount: 52.043768
Amount Units: ug/L



Manual Integration Results

RT: 9.08
Area: 163917265
Amount: 51.748655
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:46:49

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 23-Dec-2018 05:11:49 ALS Bottle#: 40 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:30 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:42:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.277	4.277	0.000	193454103	100.0	100.0	a
2	4.596	4.596	0.000	1163292204	100.0	100.0	a
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							a
1	4.920	4.920	0.000	41532842	10.0	9.73	a
2	5.349	5.349	0.000	139133436	10.0	9.35	a
						RPD = 3.94	
5 PCB-1016							Ma
1	5.441	5.441	0.000	15394150	100.0	102.3	M
1	5.772	5.772	0.000	18190028	100.0	102.0	M
1	5.865	5.865	0.000	11600814	100.0	97.8	M
1	6.149	6.149	0.000	8528124	100.0	97.7	M
1	6.210	6.210	0.000	4540322	100.0	94.3	M
		Average of Peak Amounts =				98.8	
2	6.042	6.042	0.000	38637571	100.0	100.0	a
2	6.390	6.390	0.000	67411724	100.0	98.6	a
2	6.495	6.495	0.000	44147779	100.0	99.6	a
2	6.851	6.851	0.000	36014191	100.0	99.2	a
2	6.950	6.950	0.000	28731869	100.0	94.3	a
		Average of Peak Amounts =				98.3	
						RPD = 0.48	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.923	6.923	0.000	8486111	100.0	99.3	M
1	7.025	7.025	0.000	17079828	100.0	98.3	M
1	7.230	7.230	0.000	25114558	100.0	98.3	M
1	7.531	7.531	0.000	16624253	100.0	97.7	M
1	7.725	7.725	0.000	15087646	100.0	97.6	M
		Average of Peak Amounts =				98.2	
2	7.713	7.713	0.000	30070313	100.0	99.1	a
2	7.844	7.844	0.000	63907123	100.0	97.1	a
2	8.139	8.139	0.000	49293539	100.0	97.8	a
2	8.370	8.370	0.000	49676026	100.0	96.9	a
2	8.627	8.627	0.000	56567776	100.0	97.5	a
		Average of Peak Amounts =				97.7	
						RPD = 0.56	
$ 43 DCB Decachlorobiphenyl							a
1	9.084	9.084	0.000	30295903	10.0	9.70	a
2	10.160	10.160	0.000	75751445	10.0	9.33	a
						RPD = 3.92	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:31 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D

Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057

Lims ID: icis

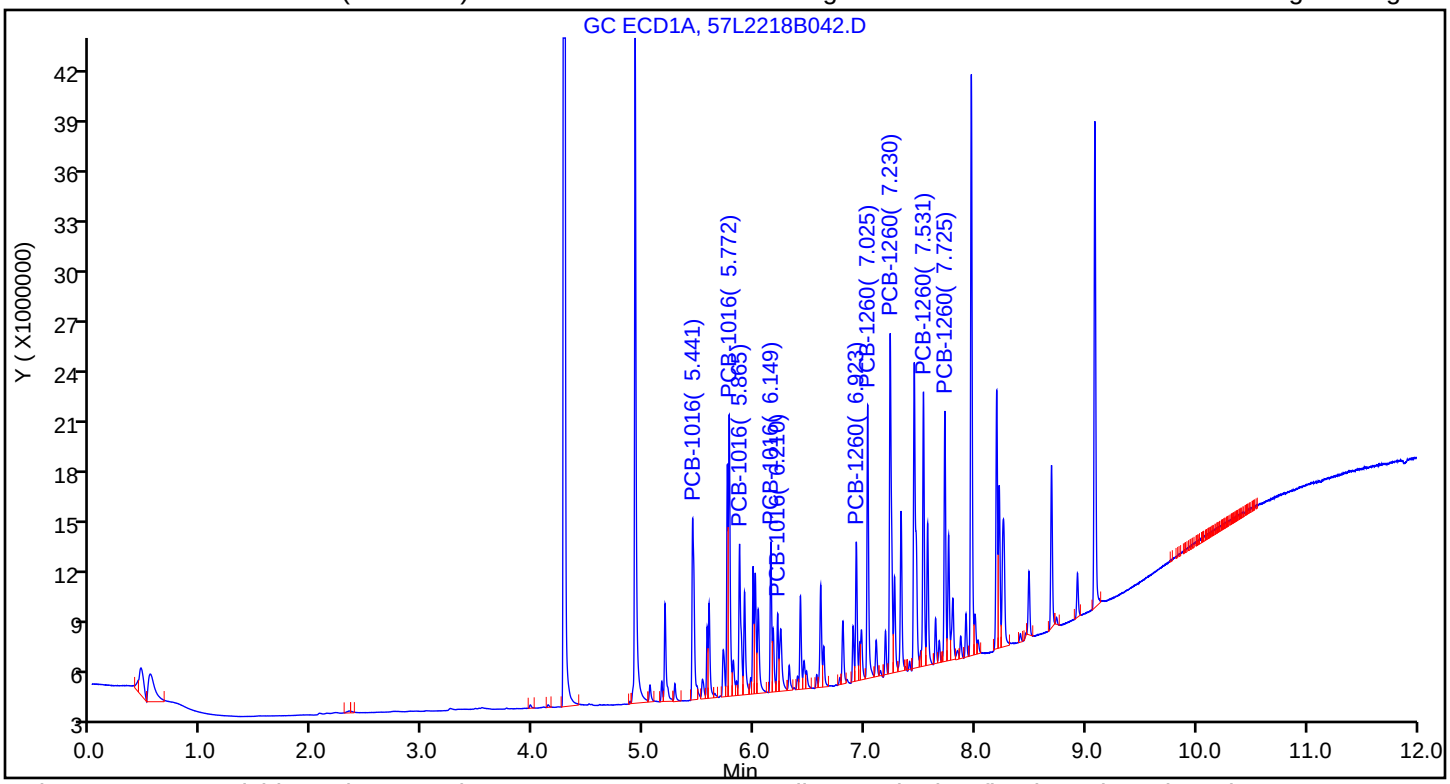
Client ID:

Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43

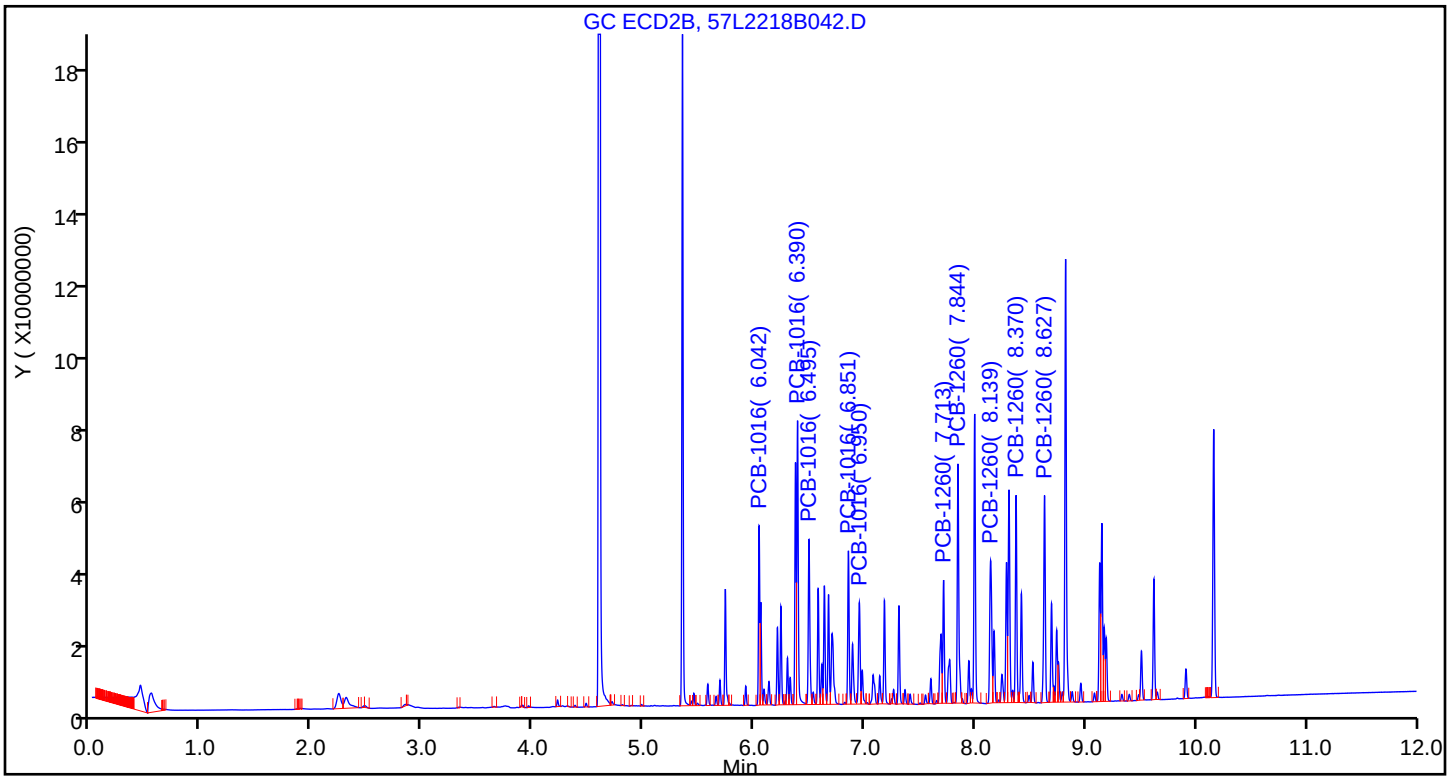
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

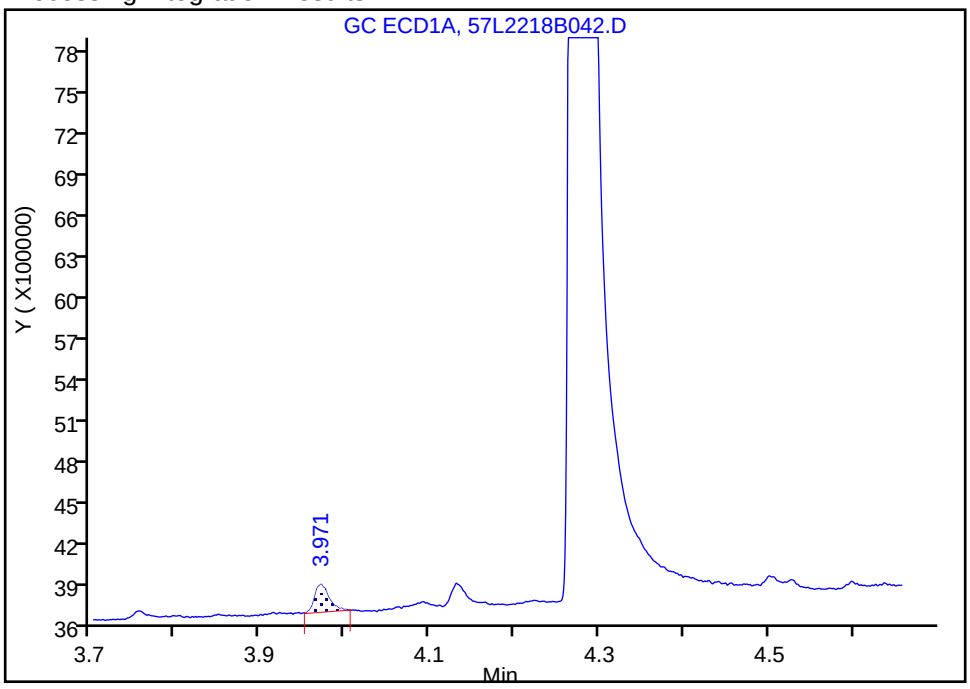
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D				
Injection Date:	23-Dec-2018 05:11:49	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	40	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

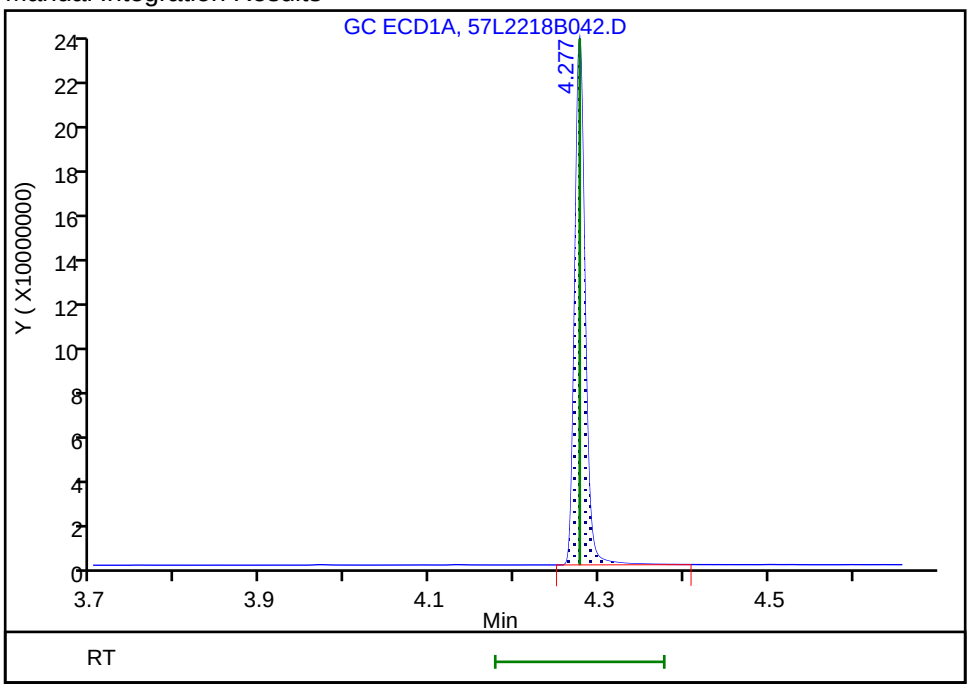
Processing Integration Results

RT: 3.97
Area: 235269
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 193454103
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:37:23
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

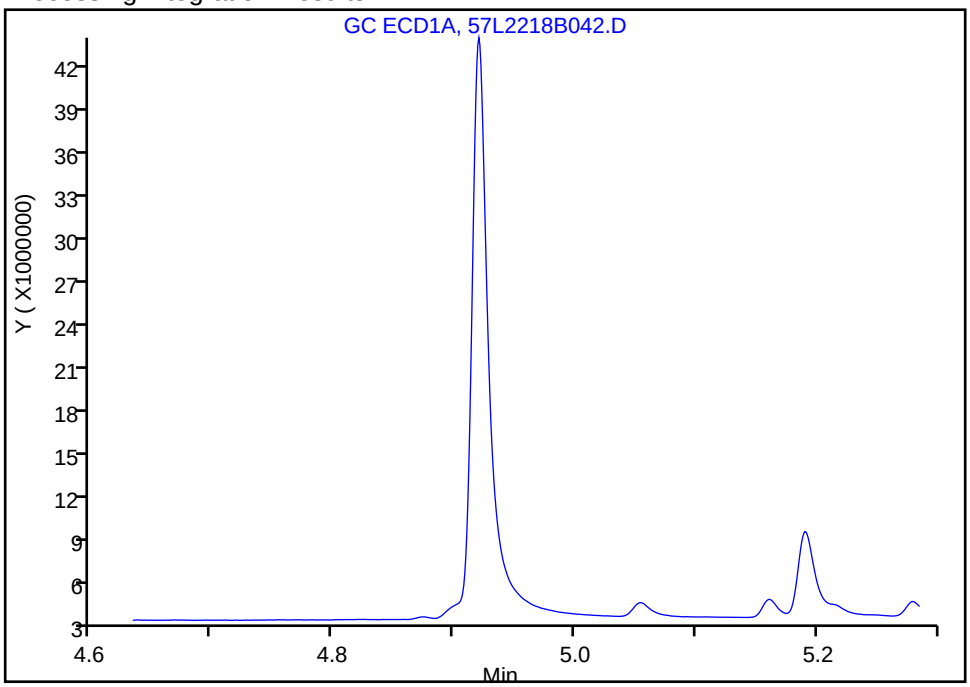
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D
Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 1

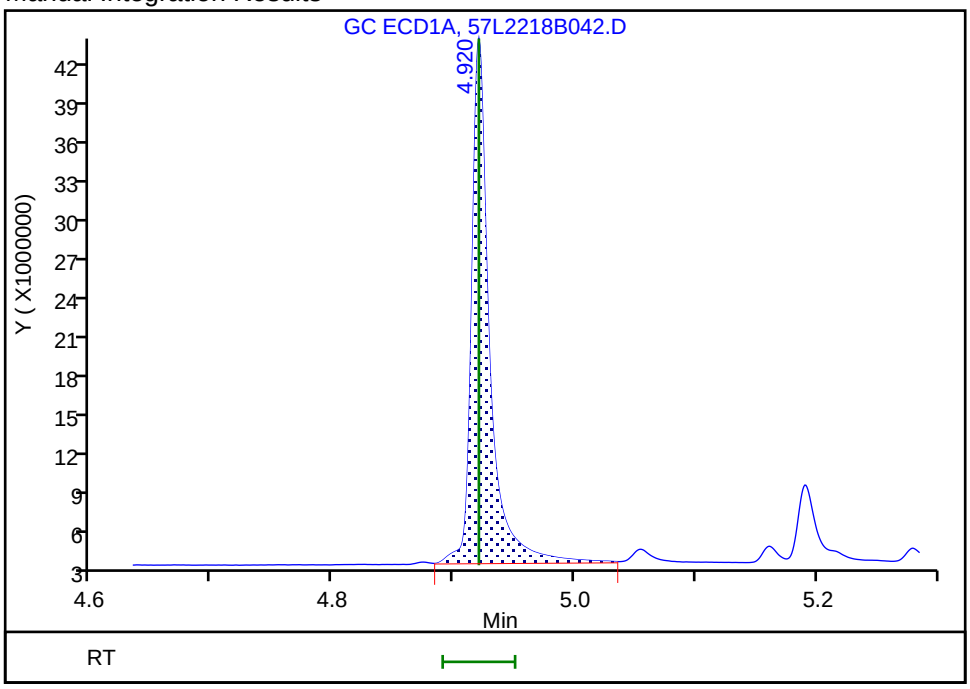
Not Detected
Expected RT: 4.92

Processing Integration Results



Manual Integration Results

RT: 4.92
Area: 41532842
Amount: 9.726432
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:39:50
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:17:31 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D

Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057

Lims ID: icis

Client ID:

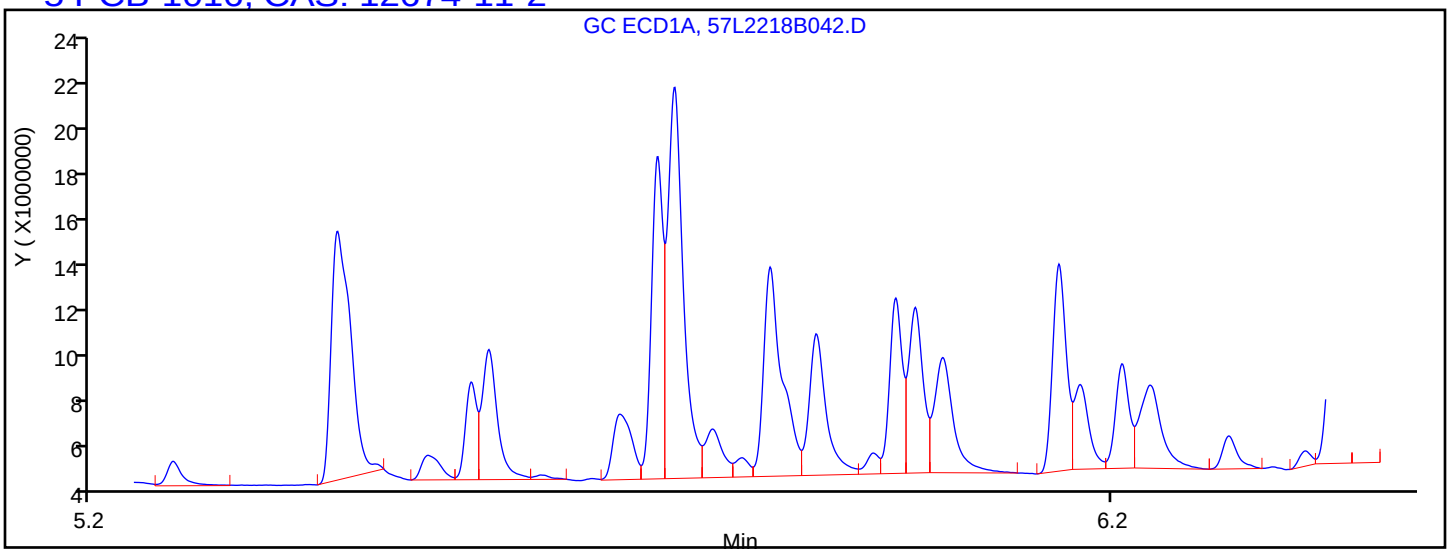
Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

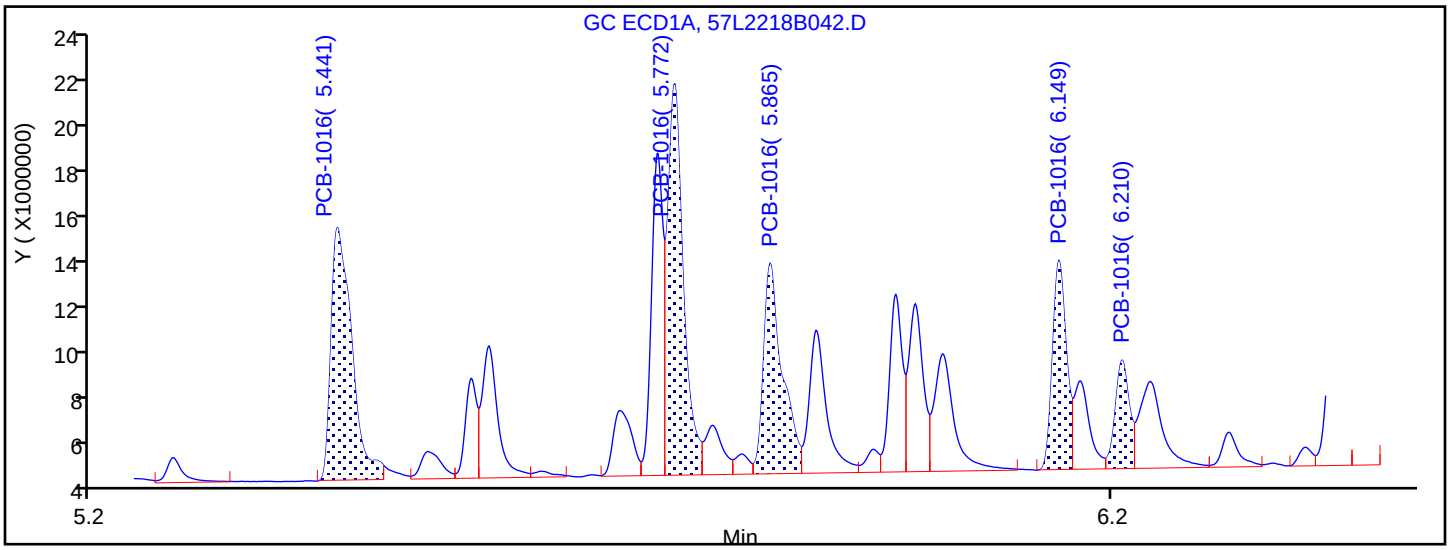
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.161	Response = 1066879
5.438	Response = 0
5.441	Response = 14249978
6.149	Response = 0
5.755	Response = 10924228



Manual Integration Results

5.441	Response = 15394150	M
5.772	Response = 18190028	M
5.865	Response = 11600814	M
6.149	Response = 8528124	M
6.210	Response = 4540322	M

Reviewer: ruslandera, 23-Dec-2018 15:47:01

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

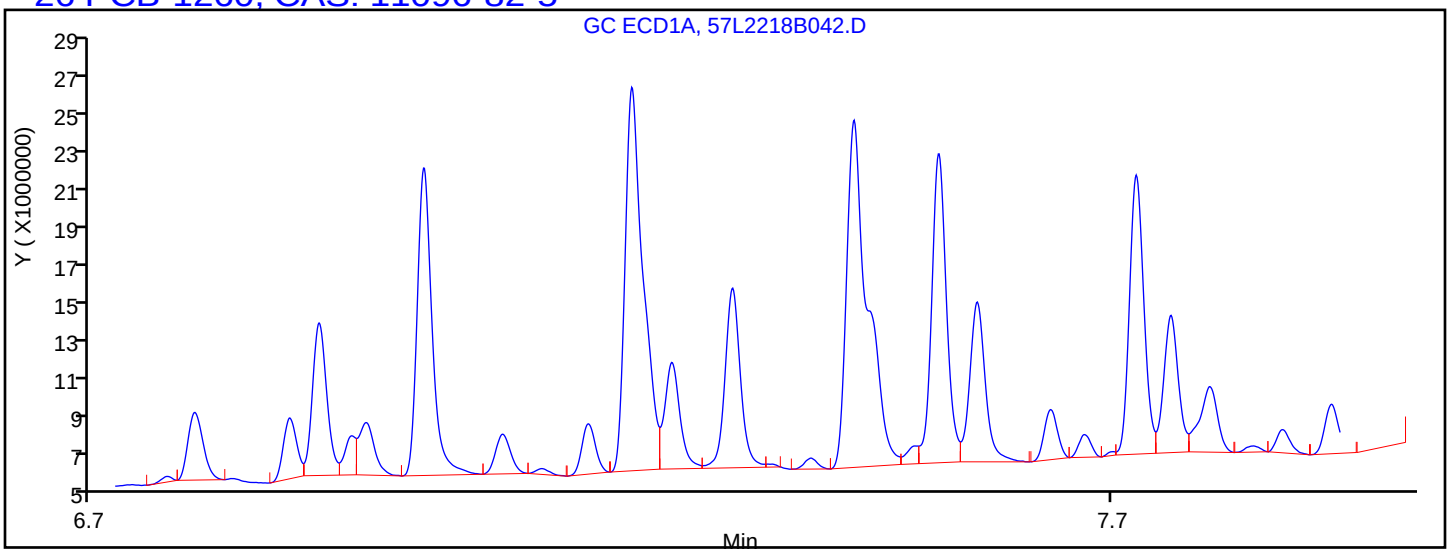
Report Date: 23-Dec-2018 16:17:31 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D

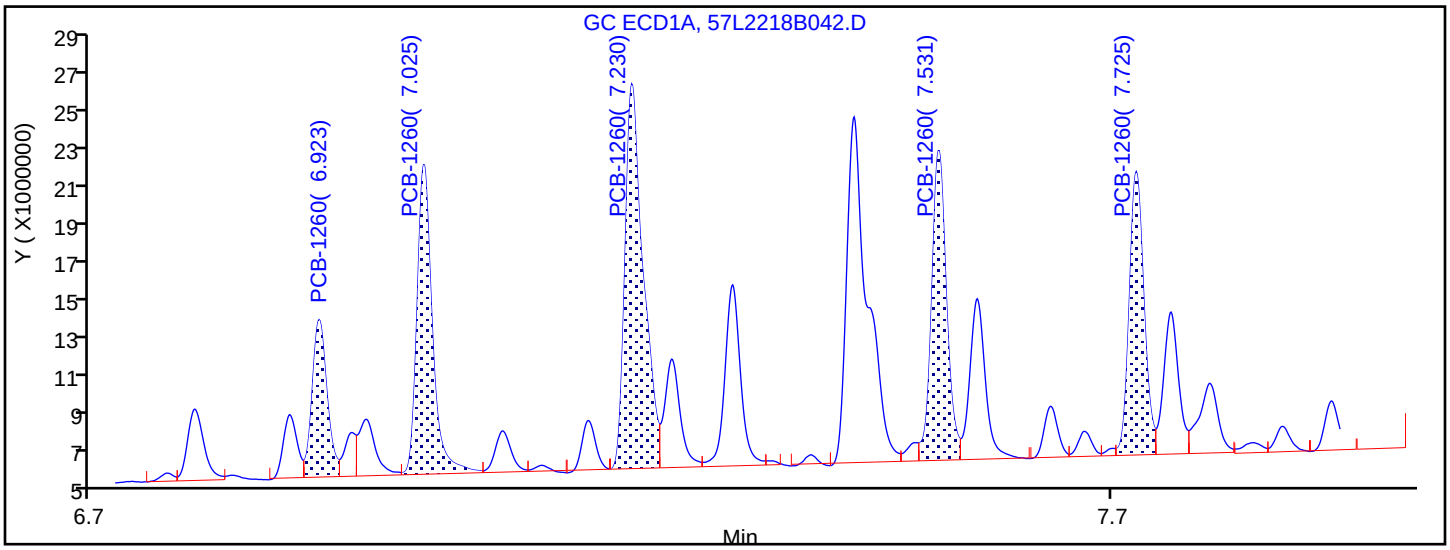
Injection Date:	23-Dec-2018 05:11:49	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	40	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.600	Response = 6044036
6.801	Response = 3726244
6.969	Response = 2956231
7.269	Response = 5935761
7.448	Response = 26189670



Manual Integration Results

6.923	Response = 8486111	M
7.025	Response = 17079828	M
7.230	Response = 25114558	M
7.531	Response = 16624253	M
7.725	Response = 15087646	M

Reviewer: ruslandera, 23-Dec-2018 15:47:05

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Seattle

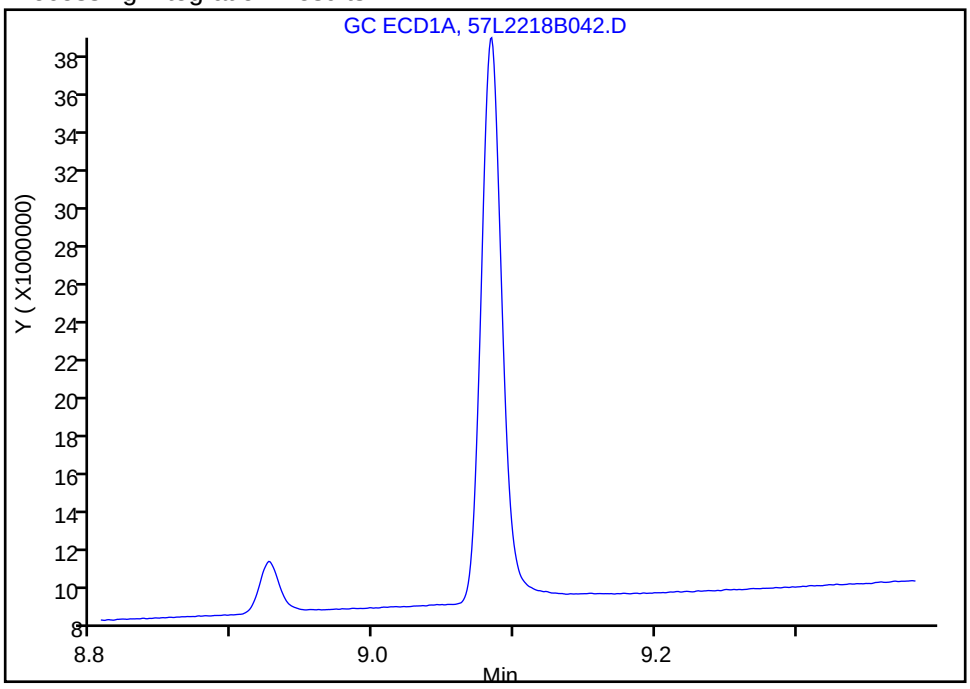
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D
Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

$ 43 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

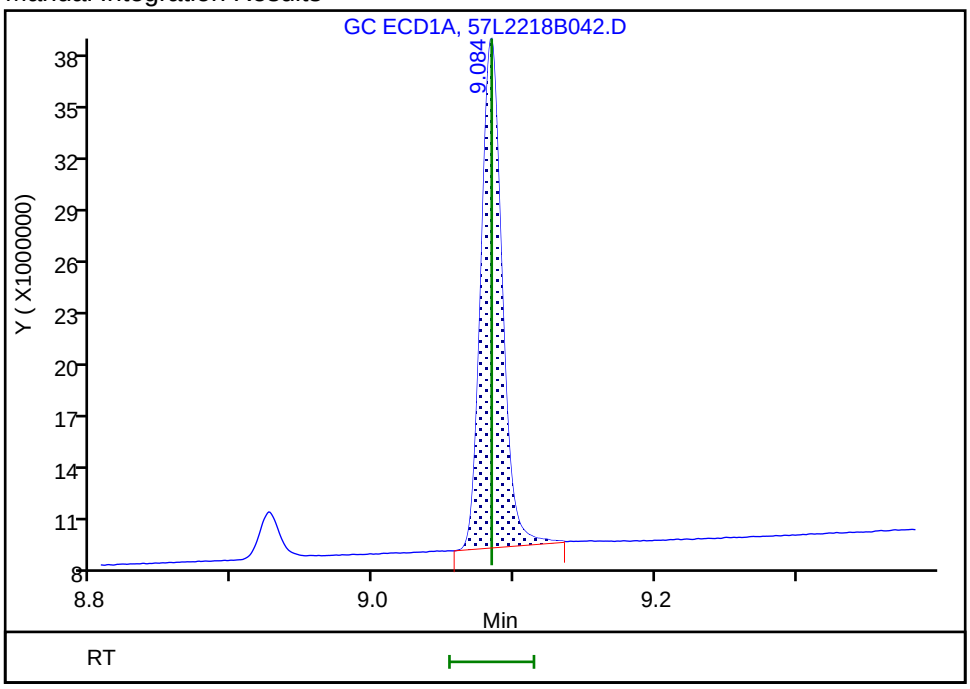
Not Detected
Expected RT: 9.08

Processing Integration Results



Manual Integration Results

RT: 9.08
Area: 30295903
Amount: 9.703311
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:39:42
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Dec-2018 05:29:29 ALS Bottle#: 41 Worklist Smp#: 44
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:34 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:47:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192797492	100.0	100.0	
2	4.597	4.597	0.000	1160568185	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						103.2	
2						103.3	
						RPD = 0.12	
$ 9 Tetrachloro-m-xylene							
1	4.922	4.922	0.000	21080876	5.01	4.95	
2	5.349	5.349	0.000	71875459	5.01	4.84	
						RPD = 2.29	
5 PCB-1016							Ma
1	5.442	5.442	0.000	8120077	50.0	53.3	M
1	5.773	5.773	0.000	9382153	50.0	52.2	M
1	5.867	5.867	0.000	6064881	50.0	51.1	M
1	6.150	6.150	0.000	4496810	50.0	51.6	M
1	6.212	6.212	0.000	2360077	50.0	49.4	M
		Average of Peak Amounts =				51.5	
2	6.043	6.043	0.000	20755607	50.0	52.6	
2	6.391	6.391	0.000	34878720	50.0	50.2	
2	6.495	6.495	0.000	23366501	50.0	51.4	
2	6.852	6.852	0.000	19474323	50.0	52.6	
2	6.951	6.951	0.000	15393389	50.0	49.5	a
		Average of Peak Amounts =				51.3	
						RPD = 0.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.924	6.924	0.000	4454324	50.0	51.6	M
1	7.027	7.027	0.000	9075006	50.0	51.9	M
1	7.230	7.230	0.000	13265645	50.0	51.6	M
1	7.532	7.532	0.000	8894542	50.0	51.9	M
1	7.726	7.726	0.000	7977849	50.0	51.5	M
		Average of Peak Amounts =				51.7	
2	7.713	7.713	0.000	16333980	50.0	52.8	
2	7.844	7.844	0.000	35238939	50.0	52.6	
2	8.139	8.139	0.000	26449082	50.0	51.6	a
2	8.371	8.371	0.000	27045839	50.0	51.8	
2	8.627	8.627	0.000	30483095	50.0	51.6	
		Average of Peak Amounts =				52.1	
						RPD = 0.75	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.083	0.000	15502325	5.01	4.98	
2	10.159	10.159	0.000	40782150	5.01	5.03	
						RPD = 1.05	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D

Injection Date: 23-Dec-2018 05:29:29 Instrument ID: TAC057

Lims ID: ic

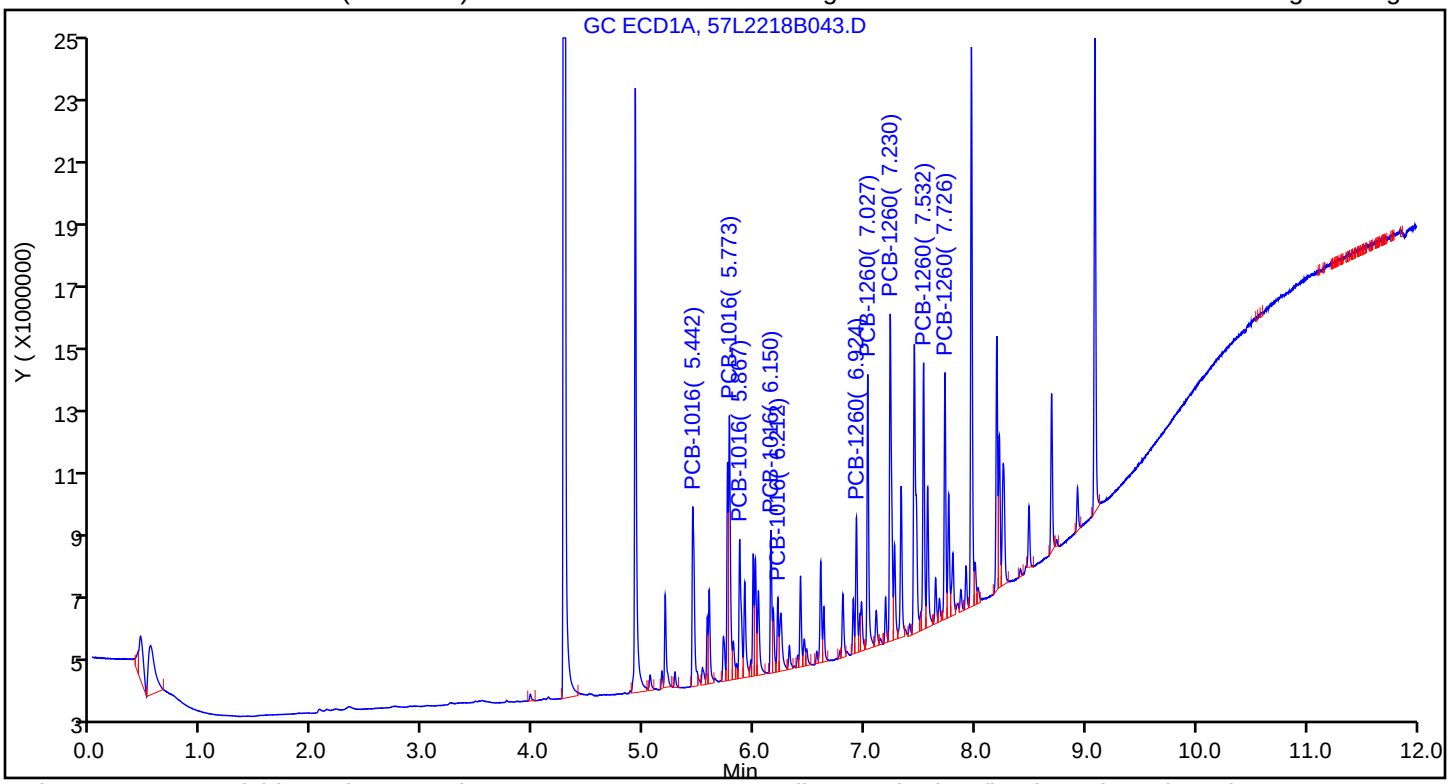
Client ID:

Operator ID: ar ALS Bottle#: 41 Worklist Smp#: 44

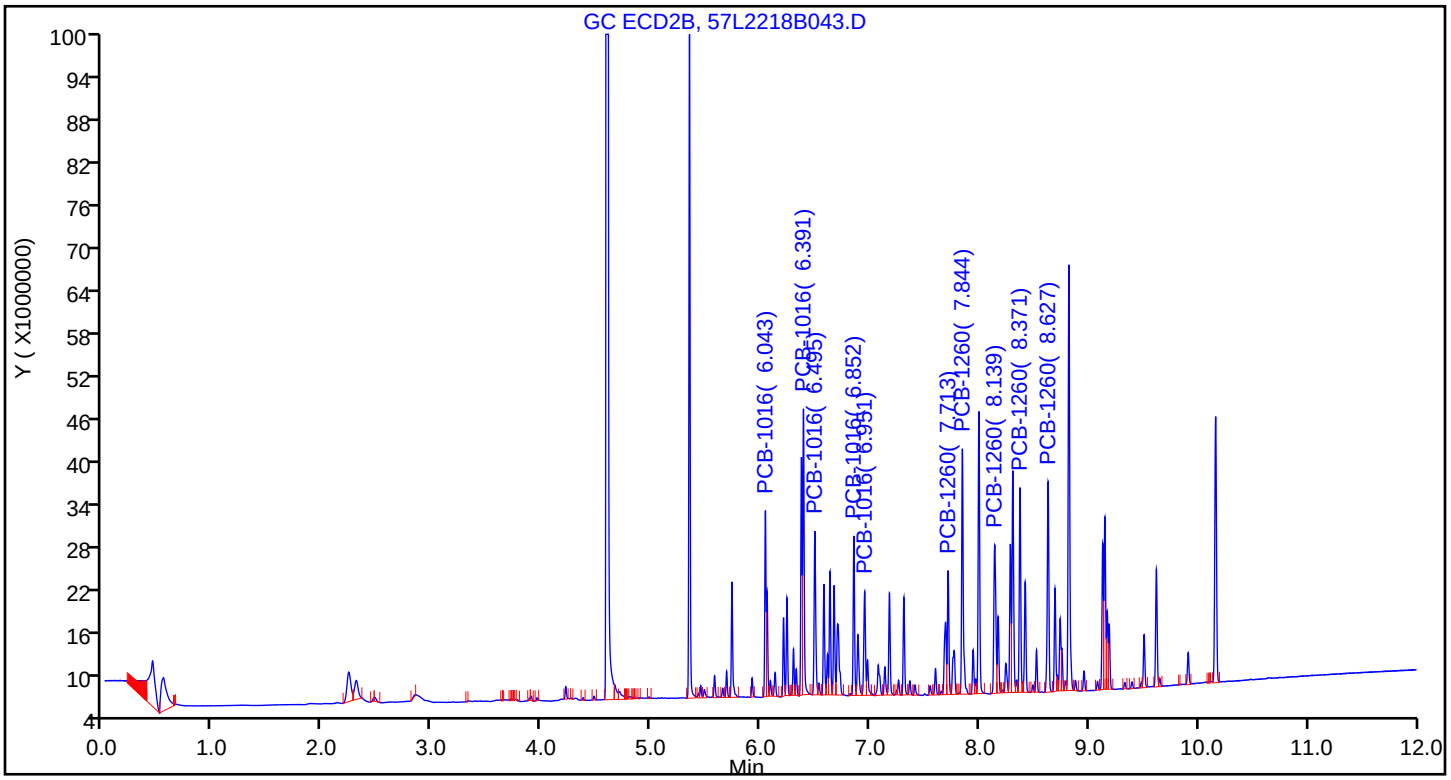
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D

Injection Date: 23-Dec-2018 05:29:29 Instrument ID: TAC057

Lims ID: ic

Client ID:

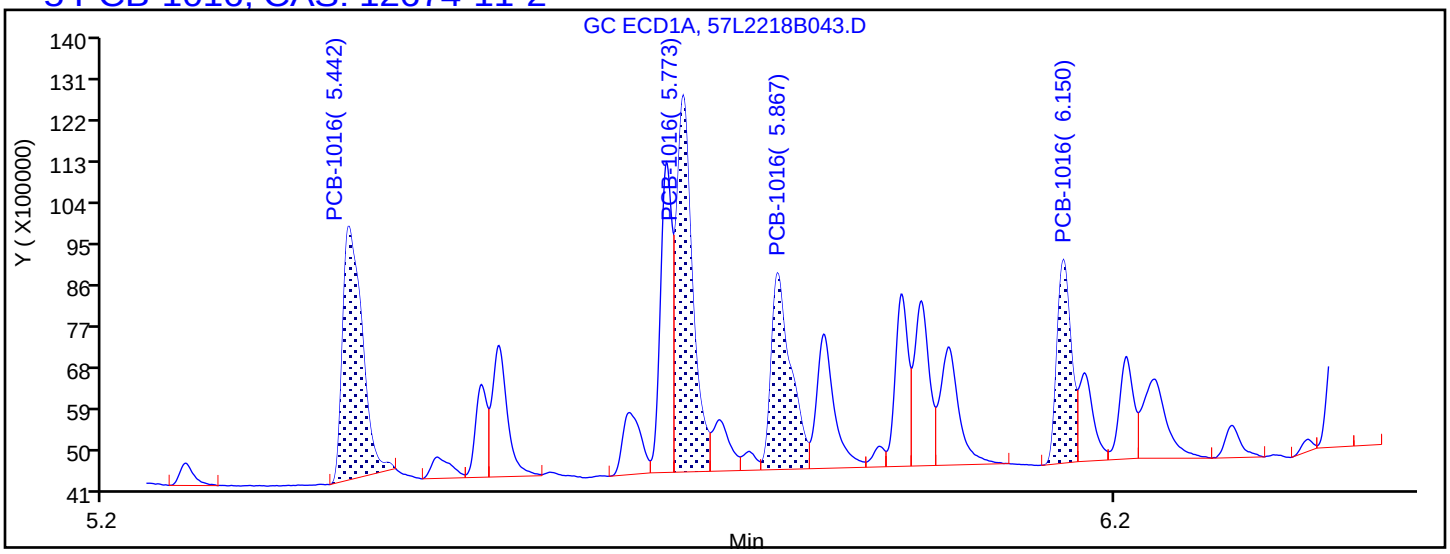
Operator ID: ar ALS Bottle#: 41 Worklist Smp#: 44

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

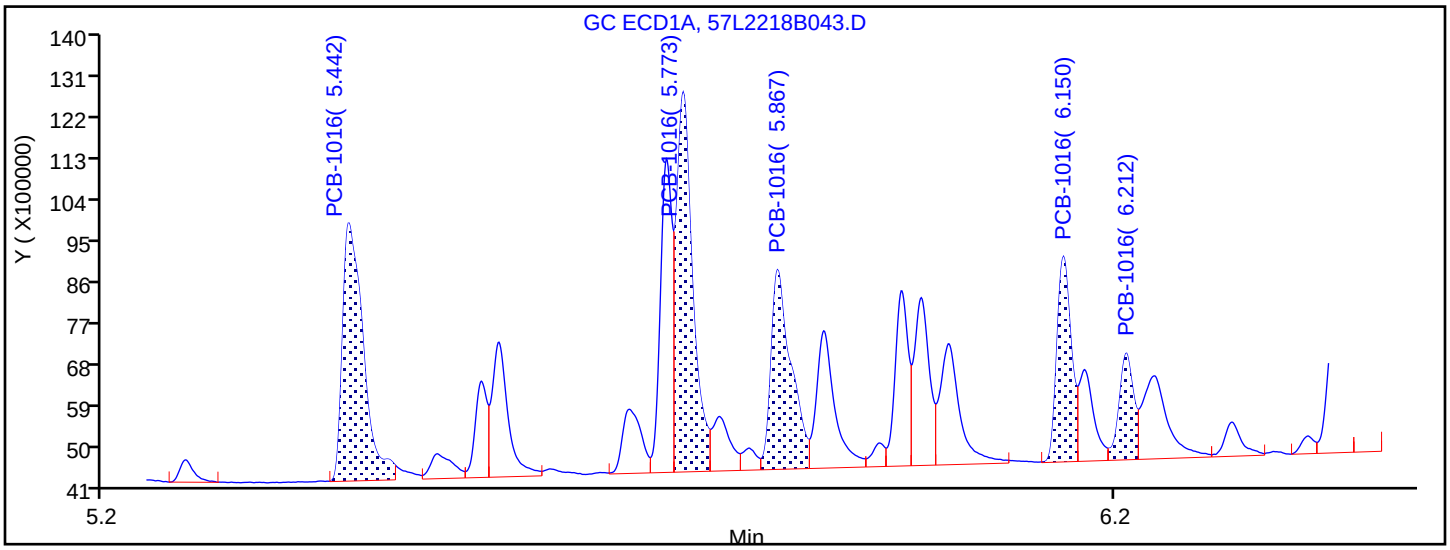
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.442	Response = 7481269
5.773	Response = 9229059
5.867	Response = 5865908
6.150	Response = 4412397
6.417	Response = 2478675



Manual Integration Results

5.442	Response = 8120077	M
5.773	Response = 9382153	M
5.867	Response = 6064881	M
6.150	Response = 4496810	M
6.212	Response = 2360077	M

Reviewer: ruslandera, 23-Dec-2018 15:47:27

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

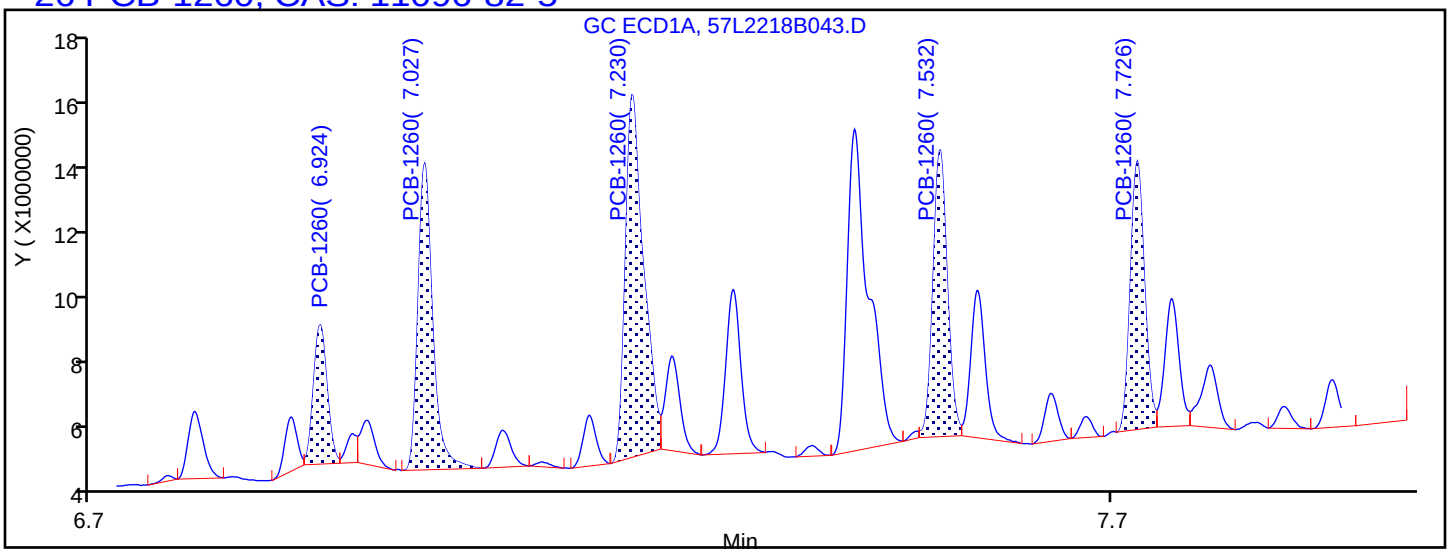
Report Date: 23-Dec-2018 16:17:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D

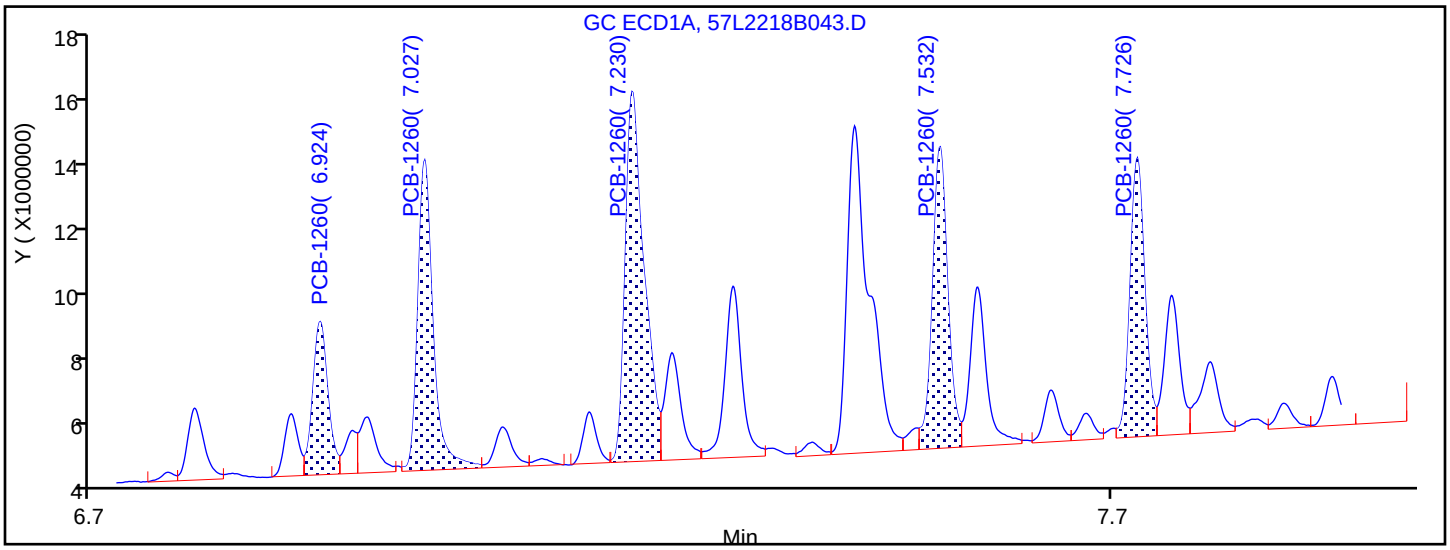
Injection Date:	23-Dec-2018 05:29:29	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	41	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.924	Response = 3634177
7.027	Response = 8605805
7.230	Response = 12565854
7.532	Response = 7851159
7.726	Response = 7271033



Manual Integration Results

6.924	Response = 4454324	M
7.027	Response = 9075006	M
7.230	Response = 13265645	M
7.532	Response = 8894542	M
7.726	Response = 7977849	M

Reviewer: ruslandera, 23-Dec-2018 15:47:19

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Dec-2018 05:47:01 ALS Bottle#: 42 Worklist Smp#: 45
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:39 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:48:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	194193734	100.0	100.0	
2	4.595	4.597	-0.002	1167165367	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						51.6	
2						52.6	
						RPD = 1.90	
$ 9 Tetrachloro-m-xylene							
1	4.921	4.922	-0.001	10553113	2.50	2.46	
2	5.348	5.349	-0.001	36663780	2.50	2.46	
						RPD = 0.25	
5 PCB-1016							Ma
1	5.442	5.442	0.000	4320748	25.0	27.3	M
1	5.775	5.773	0.002	4931497	25.0	26.6	M
1	5.868	5.867	0.001	3078886	25.0	25.5	M
1	6.150	6.150	0.000	2239282	25.0	25.4	M
1	6.212	6.212	0.000	1186466	25.0	25.0	M
		Average of Peak Amounts =				26.0	
2	6.043	6.043	0.000	11251020	25.0	27.1	
2	6.390	6.391	-0.001	18961931	25.0	26.2	
2	6.495	6.495	0.000	12398847	25.0	25.7	
2	6.851	6.852	-0.001	10239712	25.0	26.2	
2	6.950	6.951	-0.001	7965078	25.0	24.5	a
		Average of Peak Amounts =				25.9	
						RPD = 0.08	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.923	6.924	-0.001	2294792	25.0	25.6	M
1	7.026	7.027	-0.001	4731714	25.0	26.3	M
1	7.230	7.230	0.000	6853238	25.0	25.9	M
1	7.531	7.532	-0.001	4445443	25.0	25.2	M
1	7.725	7.726	-0.001	3949623	25.0	25.0	M
		Average of Peak Amounts =				25.6	
2	7.712	7.713	-0.001	8856959	25.0	27.3	M
2	7.842	7.844	-0.002	18714691	25.0	26.6	M
2	8.137	8.139	-0.002	14052824	25.0	26.3	M
2	8.369	8.371	-0.002	14623551	25.0	26.7	M
2	8.626	8.627	-0.001	16226219	25.0	26.3	M
		Average of Peak Amounts =				26.6	
						RPD = 3.87	
$ 43 DCB Decachlorobiphenyl							
1	9.082	9.083	-0.001	7765519	2.50	2.48	
2	10.157	10.159	-0.002	20782995	2.50	2.55	
						RPD = 2.93	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:39 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D

Injection Date: 23-Dec-2018 05:47:01 Instrument ID: TAC057

Lims ID: ic

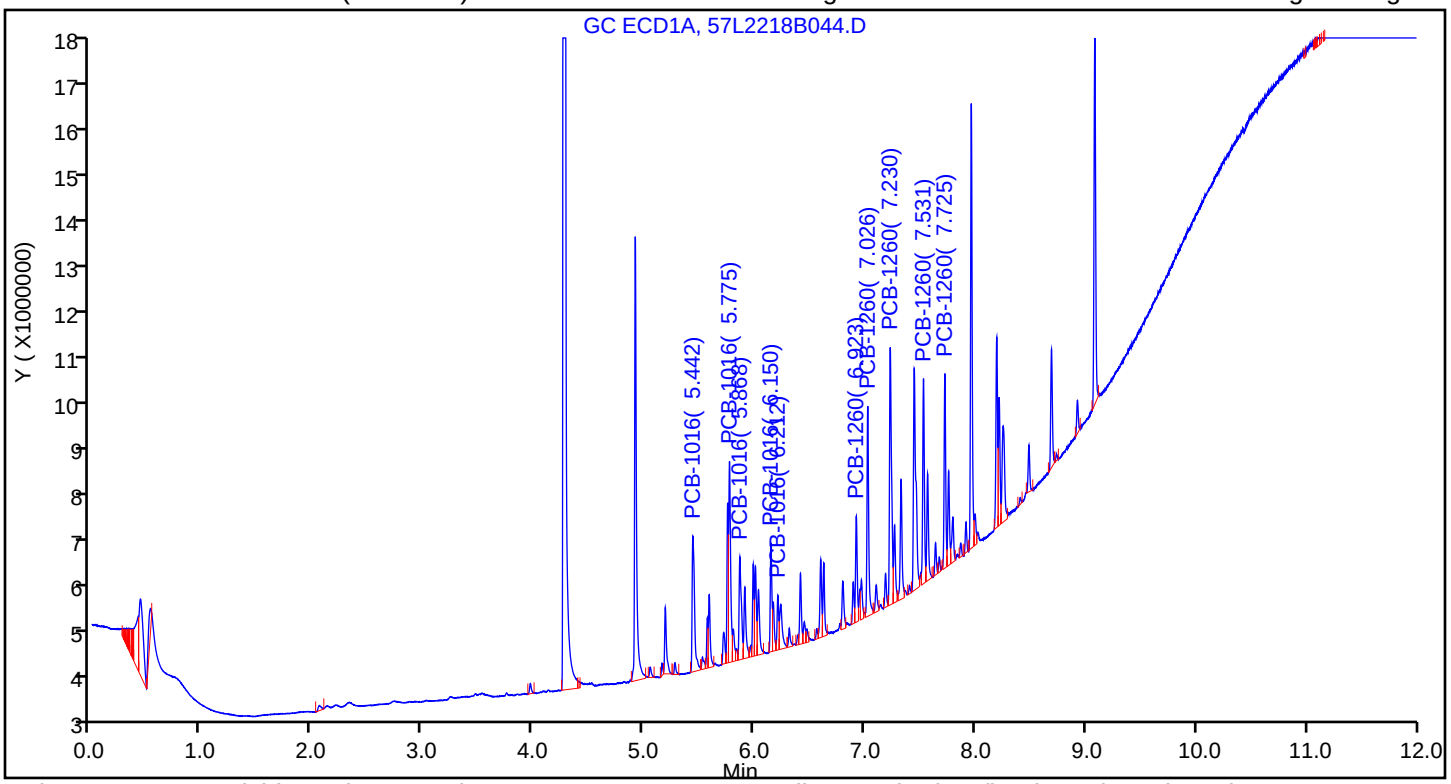
Client ID:

Operator ID: ar ALS Bottle#: 42 Worklist Smp#: 45

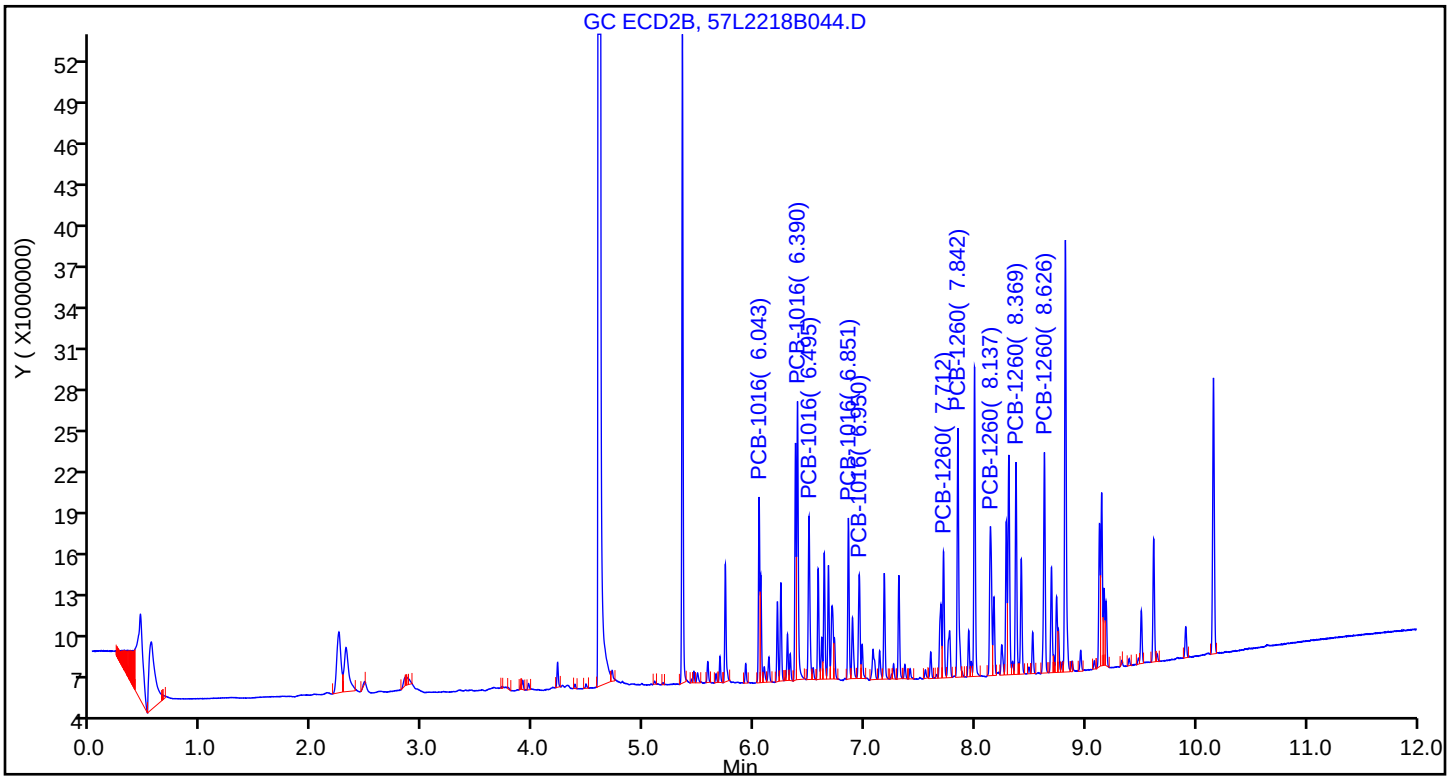
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:39 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D

Injection Date: 23-Dec-2018 05:47:01 Instrument ID: TAC057

Lims ID: ic

Client ID:

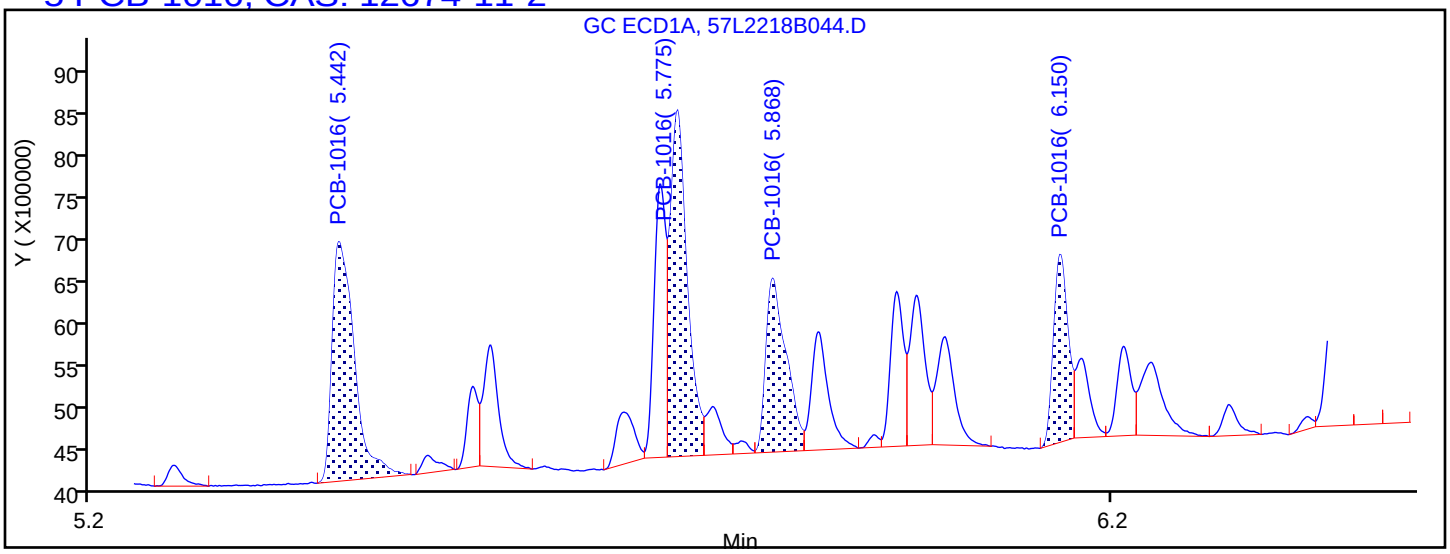
Operator ID: ar ALS Bottle#: 42 Worklist Smp#: 45

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

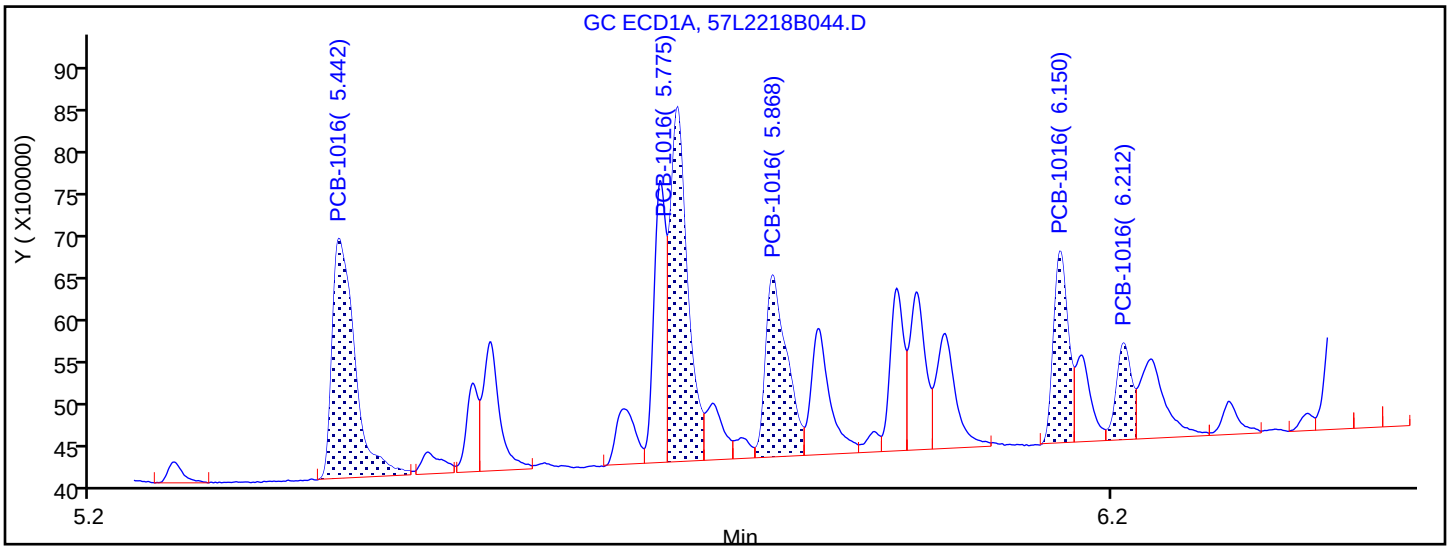
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.442	Response = 4224490
5.775	Response = 4722313
5.868	Response = 2804504
6.150	Response = 2167926
6.417	Response = 1389776



Manual Integration Results

5.442	Response = 4320748	M
5.775	Response = 4931497	M
5.868	Response = 3078886	M
6.150	Response = 2239282	M
6.212	Response = 1186466	M

Reviewer: ruslandera, 23-Dec-2018 15:47:42

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:17:39 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D

Injection Date: 23-Dec-2018 05:47:01 Instrument ID: TAC057

Lims ID: ic

Client ID:

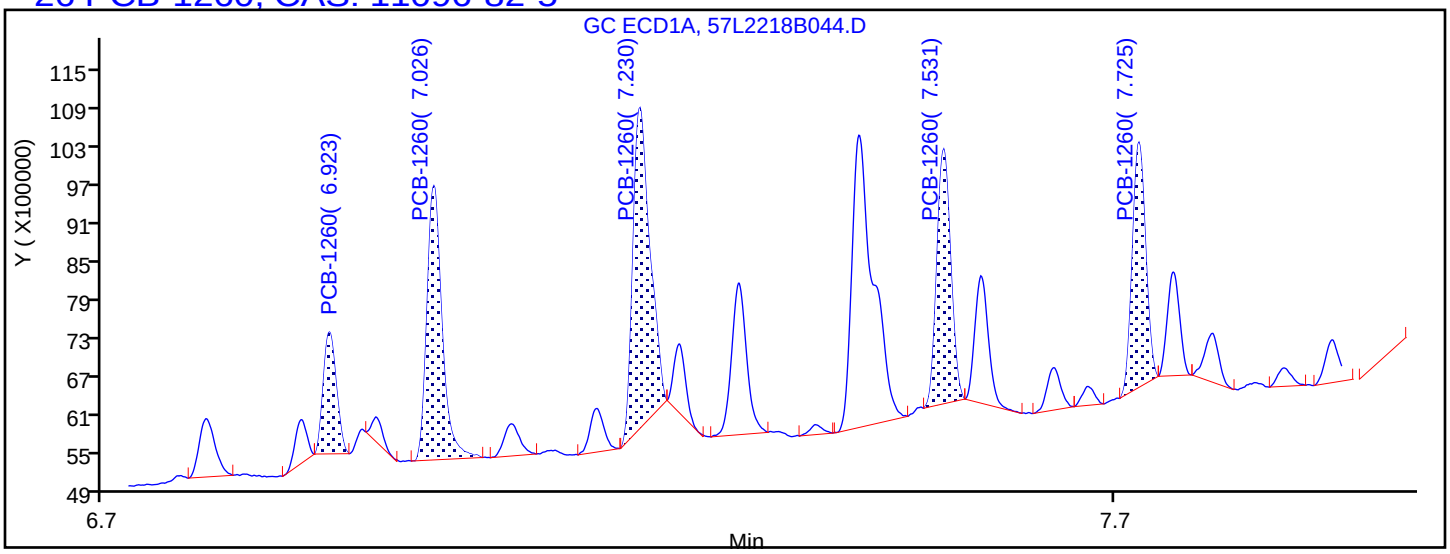
Operator ID: ar ALS Bottle#: 42 Worklist Smp#: 45

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

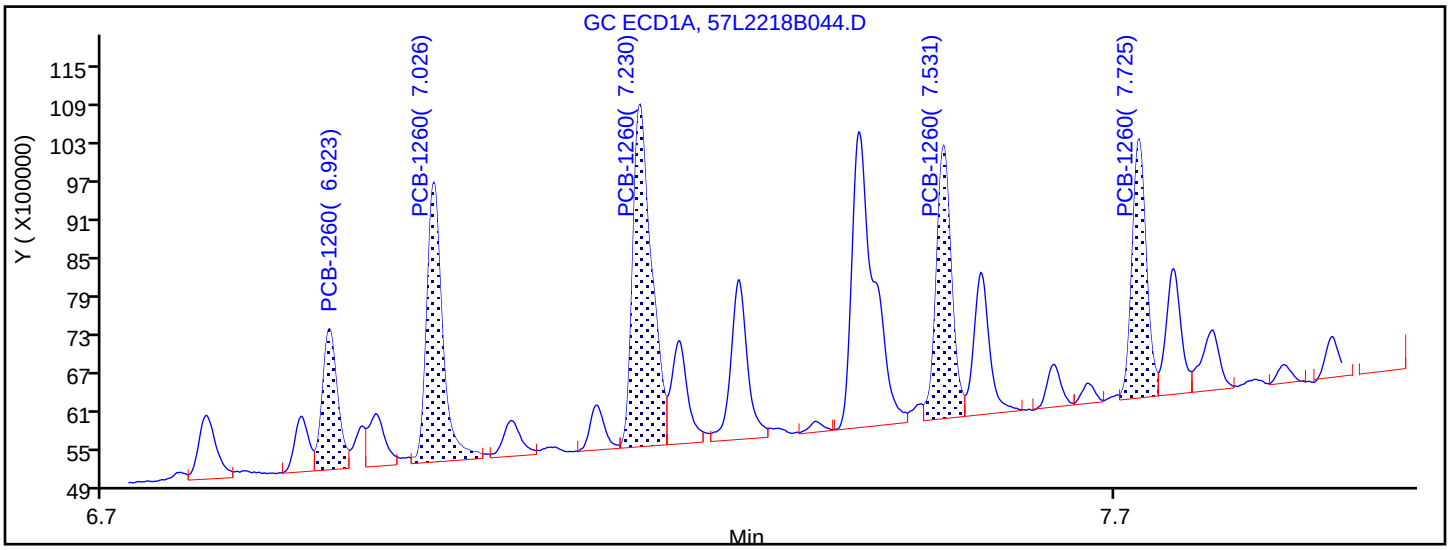
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.923	Response = 1689753
7.026	Response = 4395811
7.230	Response = 5771608
7.531	Response = 3754059
7.725	Response = 3453866



Manual Integration Results

6.923	Response = 2294792	M
7.026	Response = 4731714	M
7.230	Response = 6853238	M
7.531	Response = 4445443	M
7.725	Response = 3949623	M

Reviewer: ruslandera, 23-Dec-2018 15:47:52

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Dec-2018 06:04:34 ALS Bottle#: 43 Worklist Smp#: 46
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:42 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:48:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192925285	100.0	100.0	
2	4.595	4.597	-0.002	1158624301	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.2	
2						21.4	
						RPD = 5.56	
$ 9 Tetrachloro-m-xylene							
1	4.923	4.922	0.001	4226462	1.00	0.99	
2	5.348	5.349	-0.001	15783349	1.00	1.06	
						RPD = 7.05	
5 PCB-1016							Ma
1	5.443	5.442	0.001	1799830	10.0	10.4	
1	5.776	5.773	0.003	2067664	10.0	10.5	
1	5.869	5.867	0.002	1213461	10.0	9.89	
1	6.151	6.150	0.001	935584	10.0	10.5	
1	6.213	6.212	0.001	430600	10.0	9.58	a
		Average of Peak Amounts =				10.2	
2	6.043	6.043	0.000	4981360	10.0	10.5	M
2	6.391	6.391	0.000	8548384	10.0	10.8	M
2	6.494	6.495	-0.001	5797800	10.0	10.6	M
2	6.852	6.852	0.000	4692203	10.0	10.7	M
2	6.950	6.951	-0.001	3712505	10.0	10.6	M
		Average of Peak Amounts =				10.6	
						RPD = 4.24	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.924	6.924	0.000	958870	10.0	9.91	M
1	7.026	7.027	-0.001	1900701	10.0	10.0	M
1	7.231	7.230	0.001	2798496	10.0	10.0	M
1	7.531	7.532	-0.001	1900644	10.0	10.2	M
1	7.725	7.726	-0.001	1628632	10.0	10.0	M
		Average of Peak Amounts =				10.0	
2	7.713	7.713	0.000	3935963	10.0	10.8	M
2	7.843	7.844	-0.001	8420890	10.0	10.7	M
2	8.138	8.139	-0.001	6253647	10.0	10.6	M
2	8.369	8.371	-0.002	6639618	10.0	10.9	M
2	8.627	8.627	0.000	7300071	10.0	10.7	
		Average of Peak Amounts =				10.7	
						RPD = 6.88	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.083	0.000	3255246	1.00	1.05	
2	10.157	10.159	-0.002	9776136	1.00	1.21	
						RPD = 14.51	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D

Injection Date: 23-Dec-2018 06:04:34 Instrument ID: TAC057

Lims ID: ic

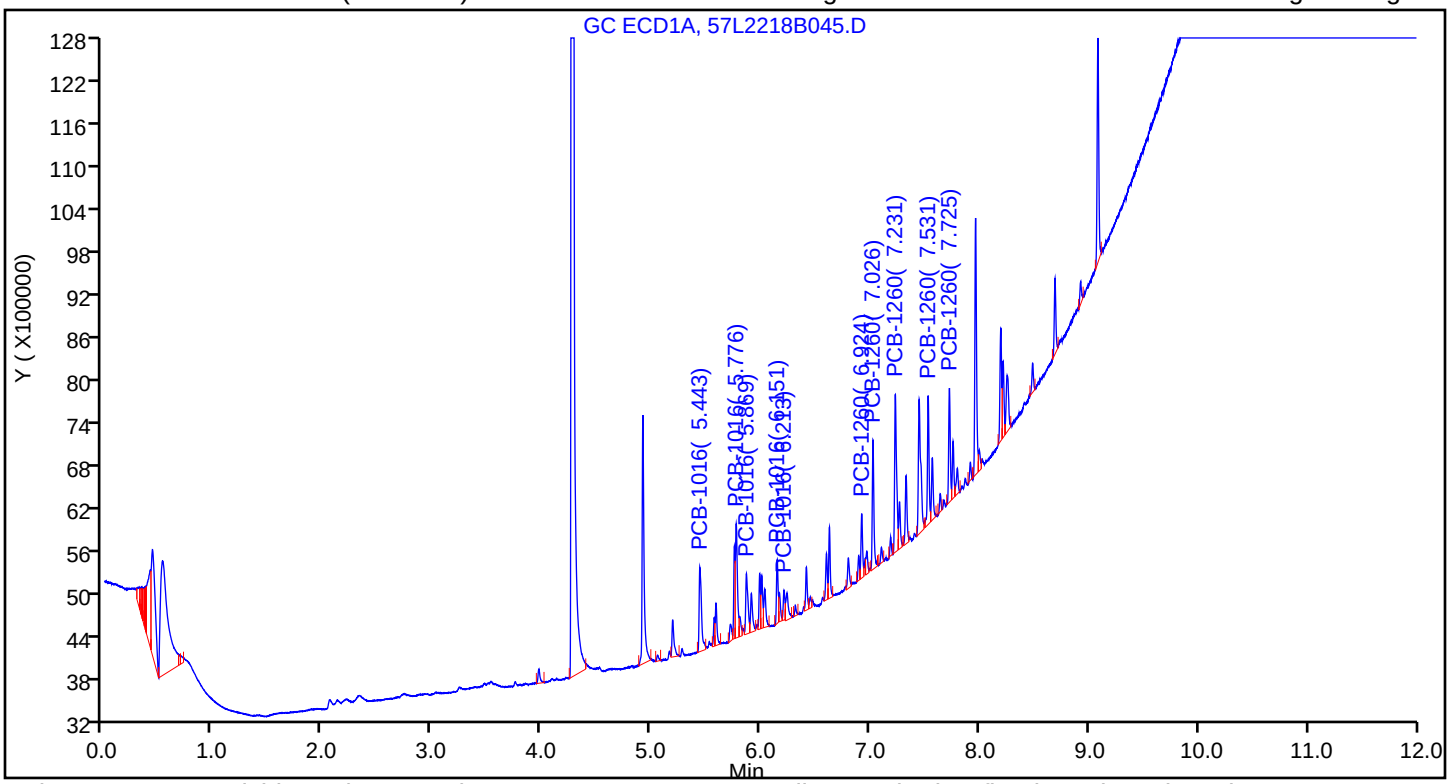
Client ID:

Operator ID: ar ALS Bottle#: 43 Worklist Smp#: 46

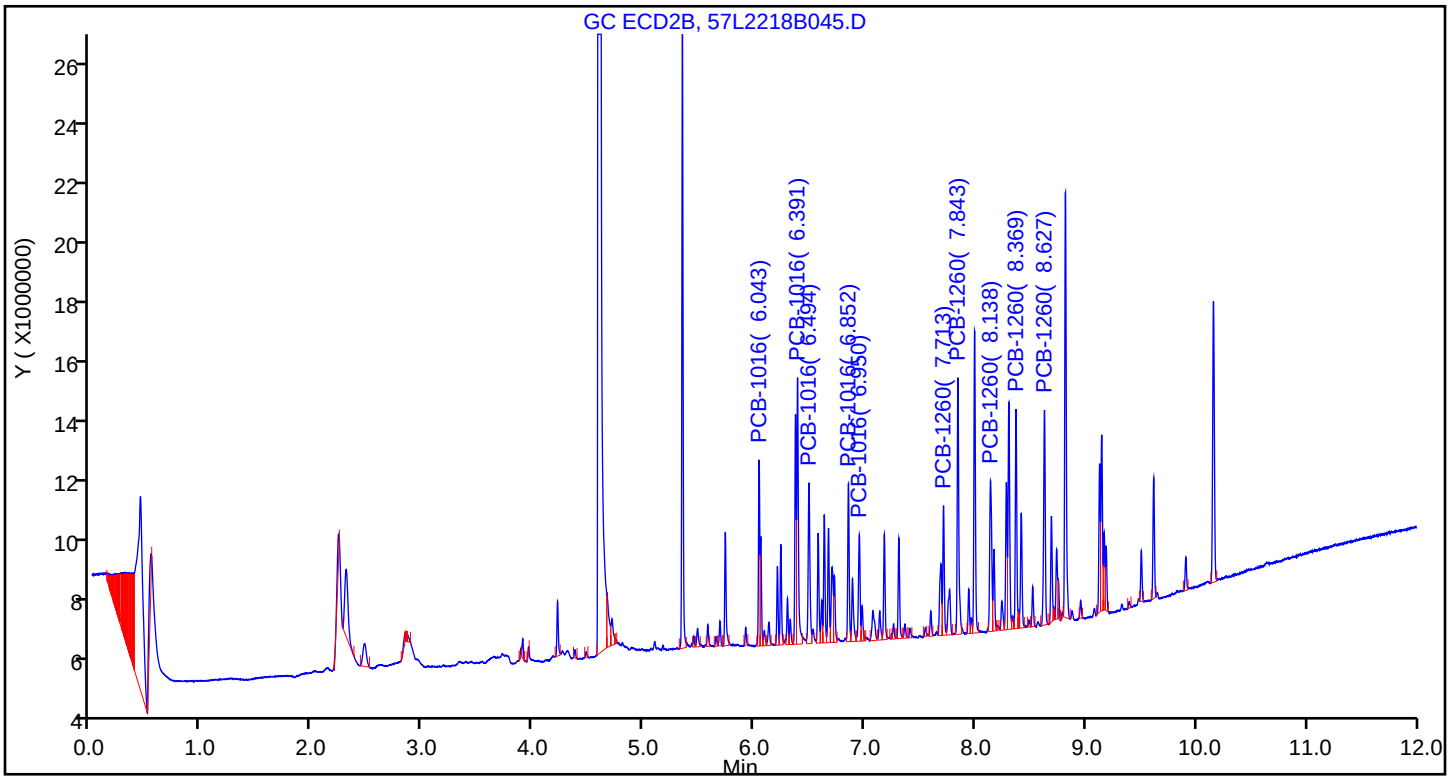
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D

Injection Date: 23-Dec-2018 06:04:34 Instrument ID: TAC057

Lims ID: ic

Client ID:

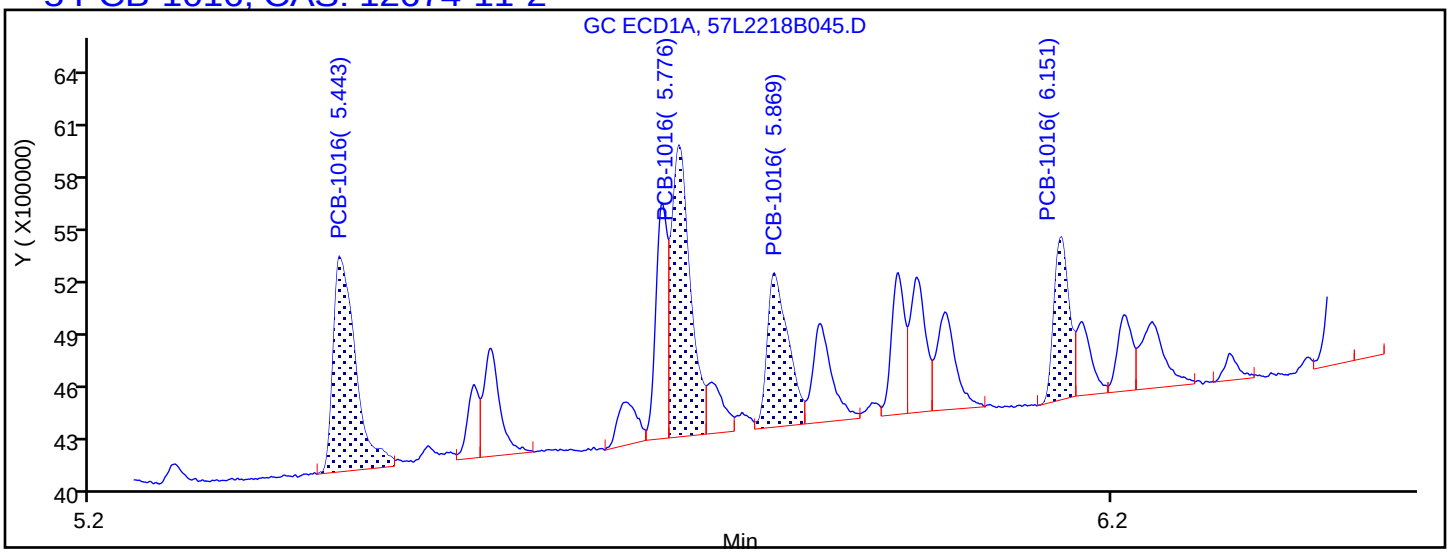
Operator ID: ar ALS Bottle#: 43 Worklist Smp#: 46

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

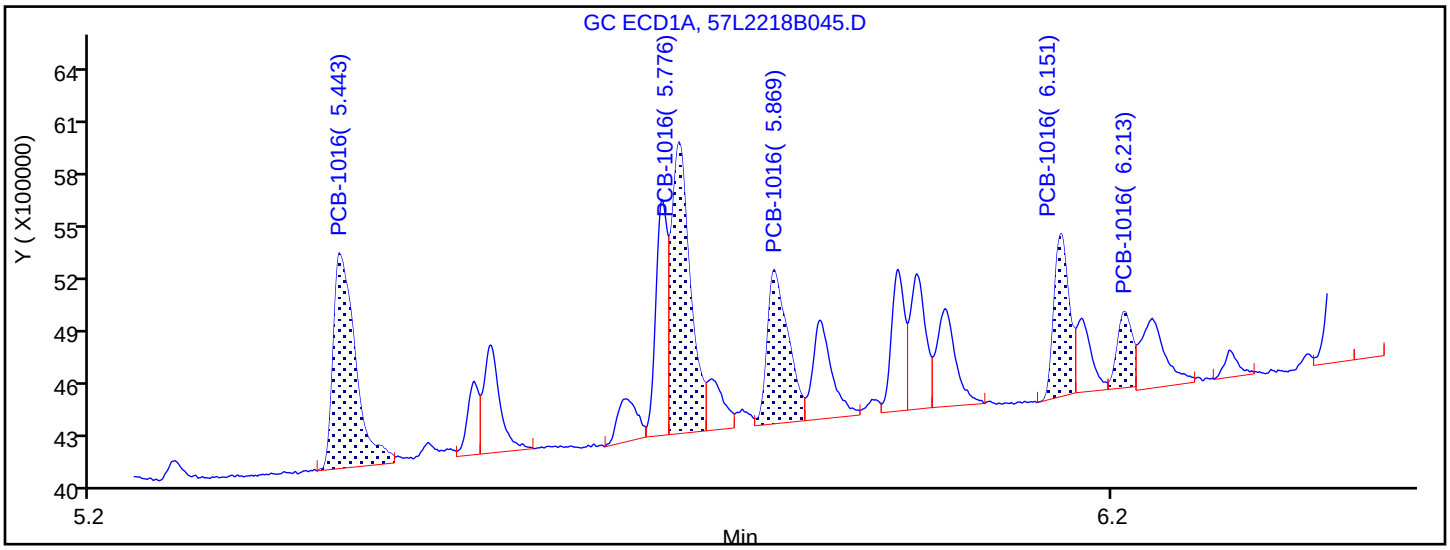
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.443	Response = 1799830
5.776	Response = 2067664
5.869	Response = 1213461
6.151	Response = 935584
6.418	Response = 606631



Manual Integration Results

5.443	Response = 1799830	
5.776	Response = 2067664	
5.869	Response = 1213461	
6.151	Response = 935584	
6.213	Response = 430600	M

Reviewer: ruslandera, 23-Dec-2018 16:00:58

Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:17:42 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D

Injection Date: 23-Dec-2018 06:04:34 Instrument ID: TAC057

Lims ID: ic

Client ID:

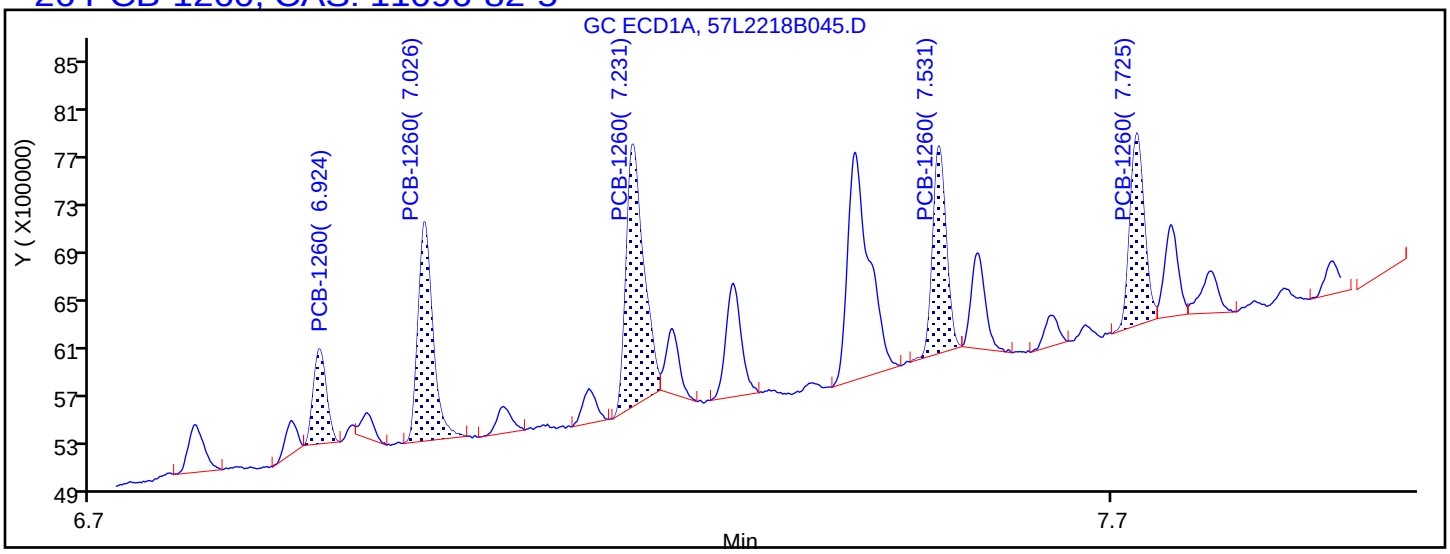
Operator ID: ar ALS Bottle#: 43 Worklist Smp#: 46

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

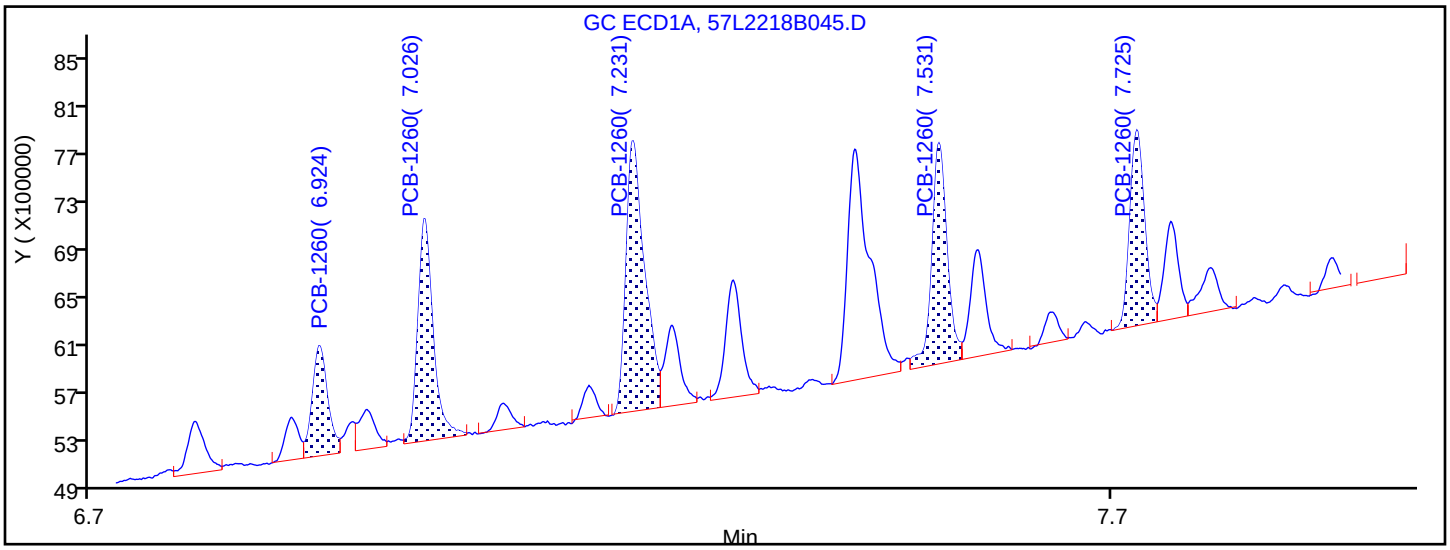
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.924	Response = 690588
7.026	Response = 1812941
7.231	Response = 2576578
7.531	Response = 1566650
7.725	Response = 1557382



Manual Integration Results

6.924	Response = 958870	M
7.026	Response = 1900701	M
7.231	Response = 2798496	M
7.531	Response = 1900644	M
7.725	Response = 1628632	M

Reviewer: ruslandera, 23-Dec-2018 15:48:24

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Dec-2018 06:22:06 ALS Bottle#: 44 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:45 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:49:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	197171322	100.0	100.0	
2	4.596	4.597	-0.001	1180074377	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						9.87	
2						9.57	
						RPD = 3.12	
$ 9 Tetrachloro-m-xylene							
1	4.922	4.922	0.000	2370964	0.5008	0.5448	
2	5.348	5.349	-0.001	8683643	0.5008	0.5753	
						RPD = 5.45	
5 PCB-1016							Ma
1	5.443	5.442	0.001	982423	5.00	4.76	M
1	5.777	5.773	0.004	1092964	5.00	4.79	M
1	5.870	5.867	0.003	618419	5.00	4.73	M
1	6.151	6.150	0.001	452936	5.00	4.85	M
1	6.213	6.212	0.001	235337	5.00	5.45	M
		Average of Peak Amounts =				4.91	
2	6.043	6.043	0.000	2875451	5.00	4.76	M
2	6.391	6.391	0.000	4631749	5.00	4.76	M
2	6.495	6.495	0.000	3400022	5.00	4.82	M
2	6.851	6.852	-0.001	2642653	5.00	4.75	M
2	6.950	6.951	-0.001	2097208	5.00	5.06	M
		Average of Peak Amounts =				4.83	
						RPD = 1.73	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.924	6.924	0.000	557306	5.00	4.98	M
1	7.026	7.027	-0.001	1051695	5.00	4.93	M
1	7.230	7.230	0.000	1554523	5.00	4.95	M
1	7.532	7.532	0.000	1041476	5.00	4.93	M
1	7.725	7.726	-0.001	879039	5.00	4.99	M
		Average of Peak Amounts =				4.96	
2	7.713	7.713	0.000	2181962	5.00	4.69	M
2	7.843	7.844	-0.001	4677845	5.00	4.74	M
2	8.138	8.139	-0.001	3458961	5.00	4.79	M
2	8.369	8.371	-0.002	3626169	5.00	4.70	M
2	8.627	8.627	0.000	4014802	5.00	4.76	
		Average of Peak Amounts =				4.74	
						RPD = 4.52	
$ 43 DCB Decachlorobiphenyl							
1	9.084	9.083	0.001	1661163	0.5005	0.5220	
2	10.158	10.159	-0.001	5368951	0.5005	0.6519	
						RPD = 22.13	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:45 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Injection Date: 23-Dec-2018 06:22:06 Instrument ID: TAC057

Lims ID: ic

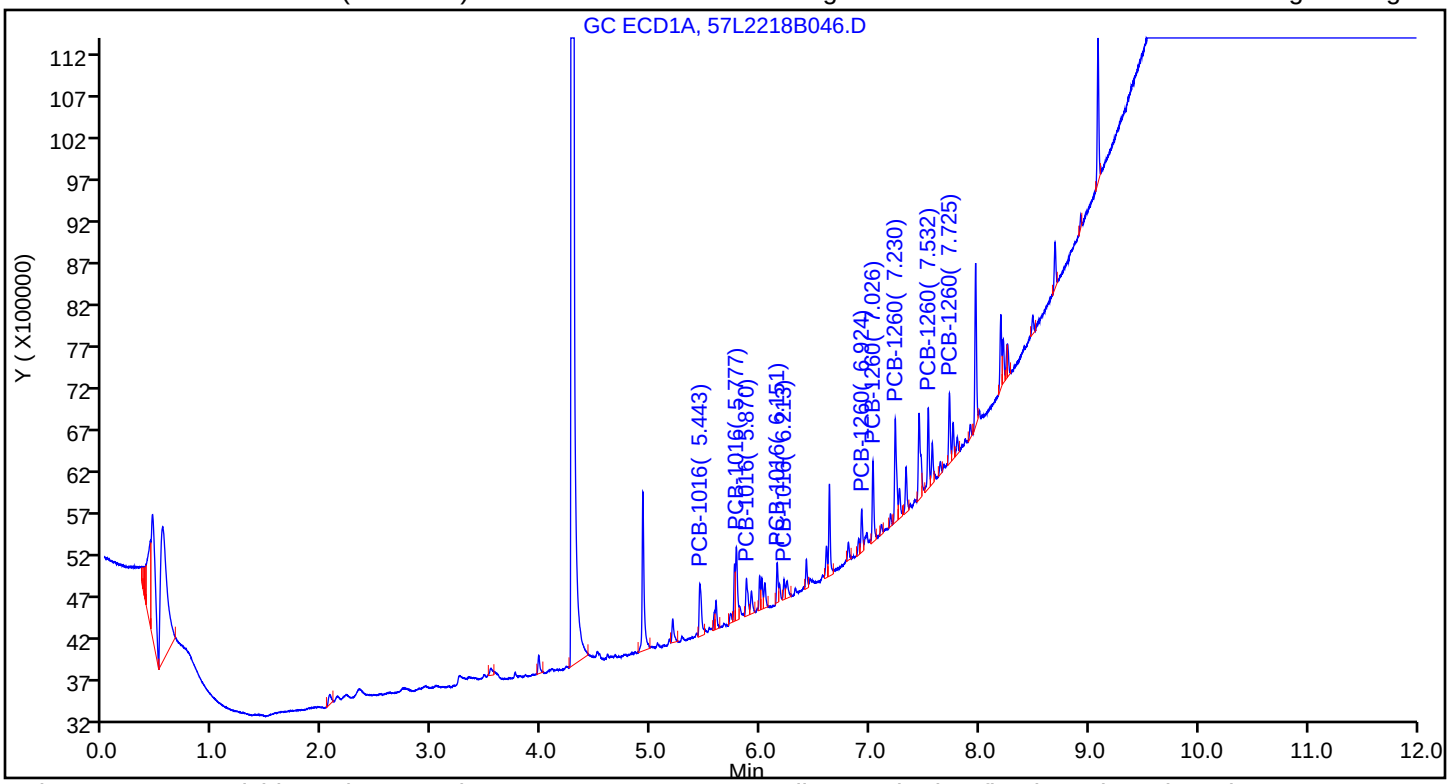
Client ID:

Operator ID: ar ALS Bottle#: 44 Worklist Smp#: 47

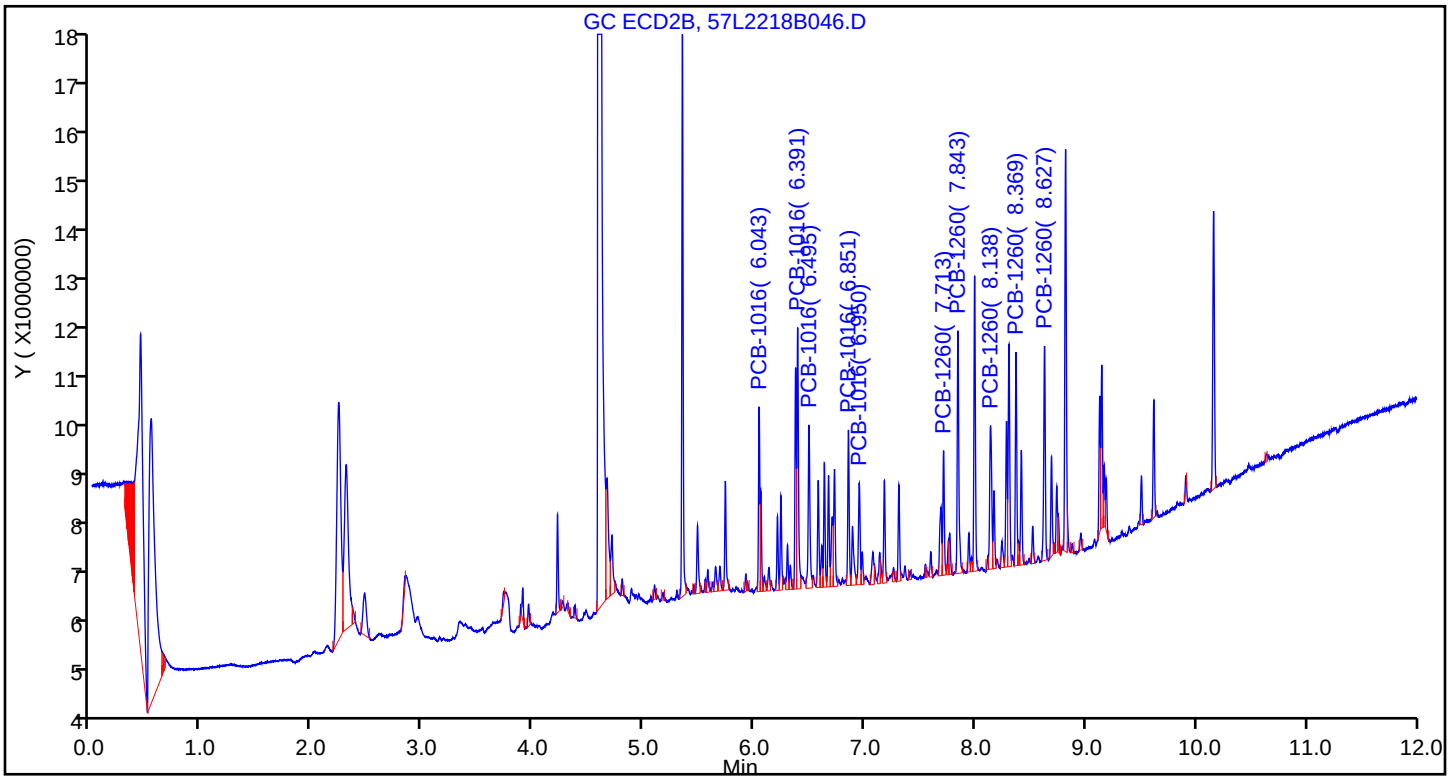
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



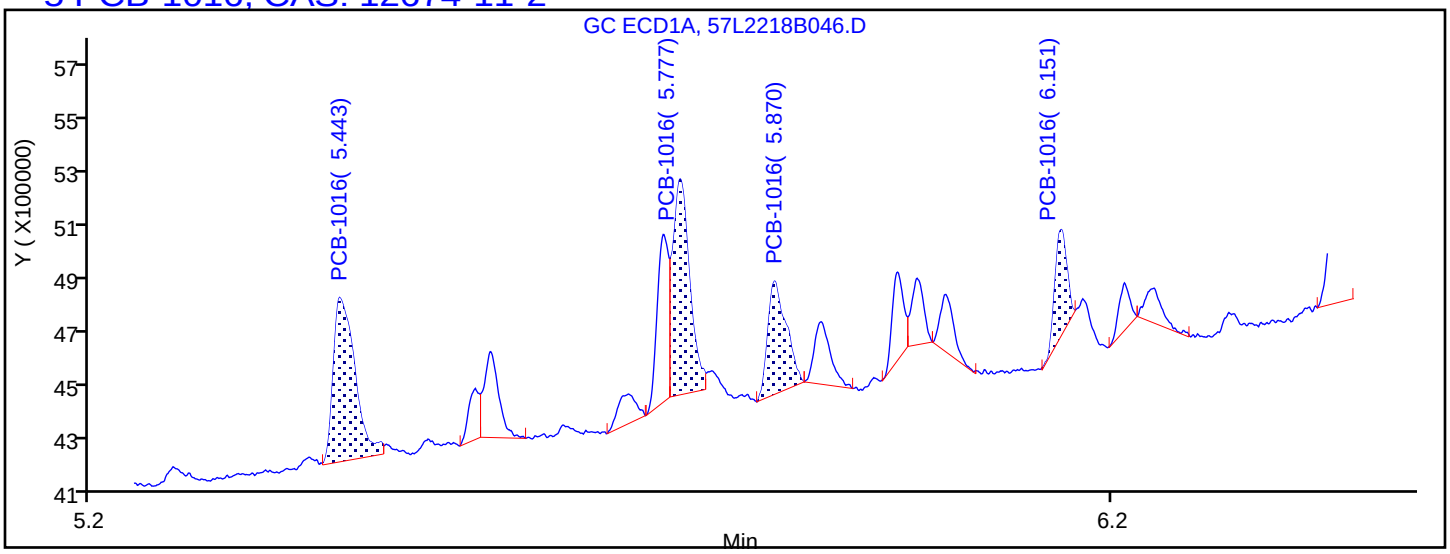
Report Date: 23-Dec-2018 16:17:45 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

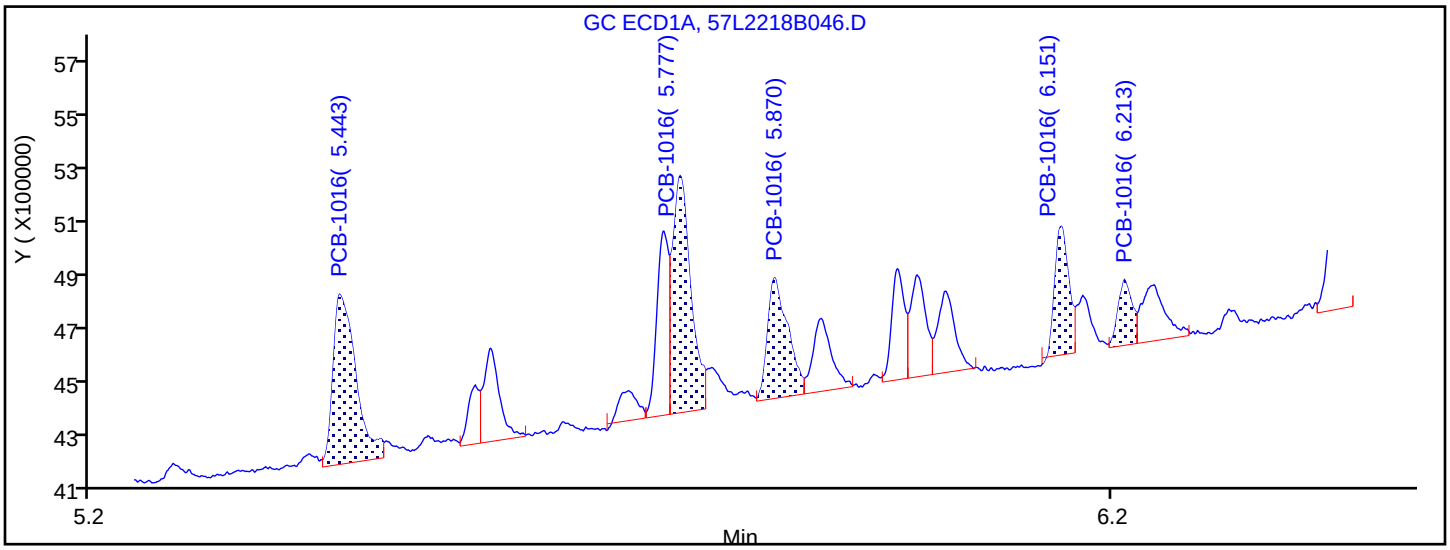
Injection Date:	23-Dec-2018 06:22:06	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	44	Worklist Smp#:	47
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.443	Response = 898948
5.777	Response = 923263
5.870	Response = 525031
6.151	Response = 321509
6.418	Response = 270092



Manual Integration Results

5.443	Response = 982423	M
5.777	Response = 1092964	M
5.870	Response = 618419	M
6.151	Response = 452936	M
6.213	Response = 235337	M

Reviewer: ruslandera, 23-Dec-2018 15:48:52

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:17:45 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Injection Date: 23-Dec-2018 06:22:06 Instrument ID: TAC057

Lims ID: ic

Client ID:

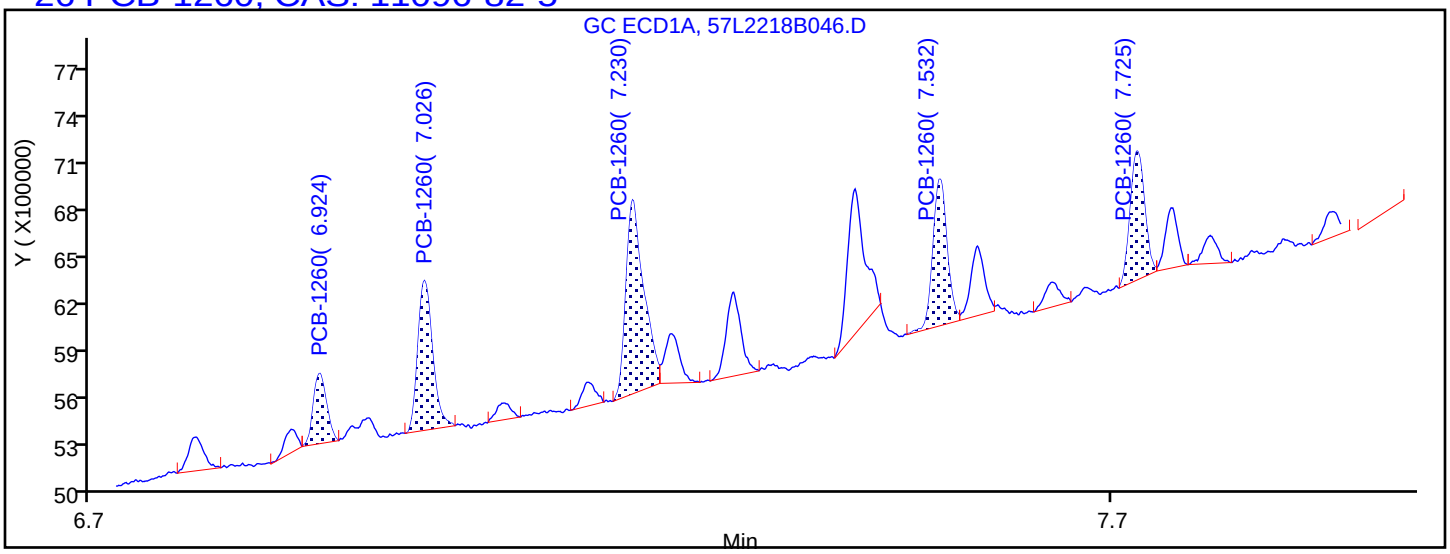
Operator ID: ar ALS Bottle#: 44 Worklist Smp#: 47

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

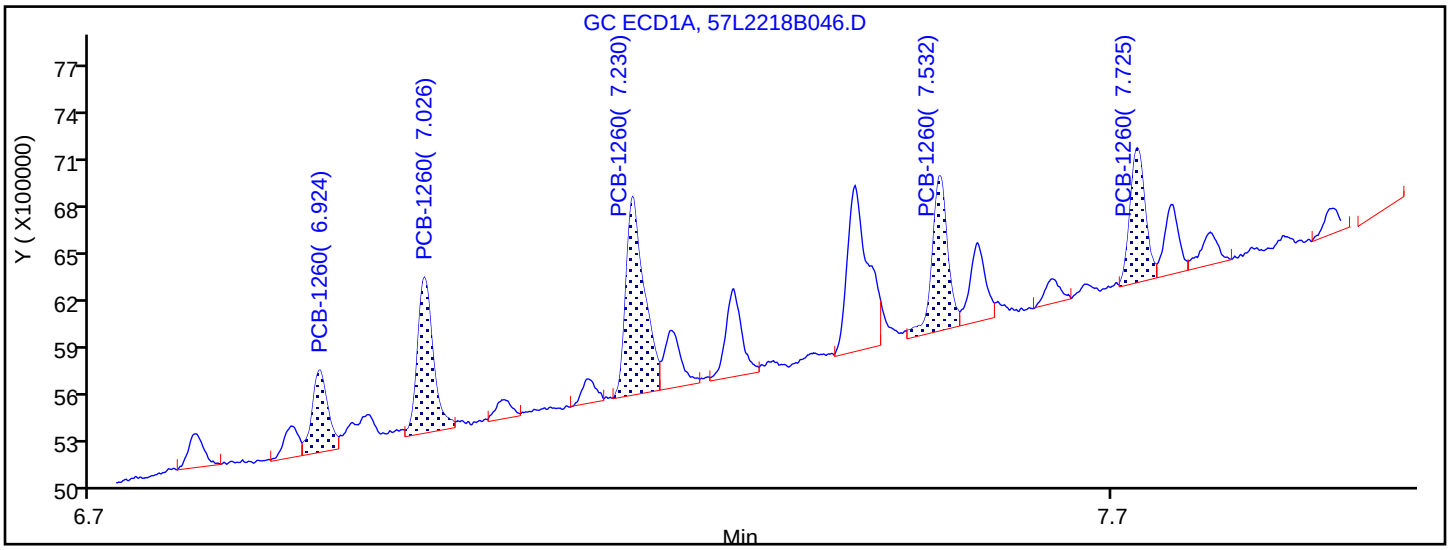
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.924	Response = 395630
7.026	Response = 940736
7.230	Response = 1462177
7.532	Response = 882918
7.725	Response = 794015



Manual Integration Results

6.924	Response = 557306	M
7.026	Response = 1051695	M
7.230	Response = 1554523	M
7.532	Response = 1041476	M
7.725	Response = 879039	M

Reviewer: ruslandera, 23-Dec-2018 15:49:00

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 04:19 Calibration End Date: 12/23/2018 06:22 Calibration ID: 27235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/47	57L2218B046.D
Level 2	IC 580-291937/46	57L2218B045.D
Level 3	IC 580-291937/45	57L2218B044.D
Level 4	IC 580-291937/44	57L2218B043.D
Level 5	ICIS 580-291937/43	57L2218B042.D
Level 6	IC 580-291937/42	57L2218B041.D
Level 7	IC 580-291937/41	57L2218B040.D
Level 8	IC 580-291937/40	57L2218B039.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0487 0.0339	0.0430 0.0298	0.0386 0.0291	0.0358	0.0332	Lin2	0.0898	0.0323				7.4			0.9940		0.9900
PCB-1016 Peak 2	0.0785 0.0605	0.0738 0.0549	0.0650 0.0540	0.0601	0.0579	Lin2	0.1183	0.0576				5.6			0.9960		0.9900
PCB-1016 Peak 3	0.0576 0.0389	0.0500 0.0353	0.0425 0.0345	0.0403	0.0380	Lin2	0.1098	0.0370				5.1			0.9970		0.9900
PCB-1016 Peak 4	0.0448 0.0316	0.0405 0.0286	0.0351 0.0279	0.0336	0.0310	Lin2	0.0795	0.0304				6.5			0.9950		0.9900
PCB-1016 Peak 5	0.0355 0.0252	0.0320 0.0229	0.0273 +++++	0.0265	0.0247	Qua1	0.0463	0.0260	-0.000003			4.4			1.0000		0.9900
PCB-1260 Peak 1	0.0370 0.0259	0.0340 0.0236	0.0304 0.0231	0.0281	0.0258	Lin2	0.0656	0.0254				7.7			0.9930		0.9900
PCB-1260 Peak 2	0.0793 0.0563	0.0727 0.0519	0.0641 0.0518	0.0607	0.0549	Lin2	0.1352	0.0552				6.3			0.9960		0.9900
PCB-1260 Peak 3	0.0586 0.0437	0.0540 0.0404	0.0482 0.0401	0.0456	0.0424	Lin2	0.0901	0.0424				5.1			0.9970		0.9900
PCB-1260 Peak 4	0.0615 0.0440	0.0573 0.0405	0.0501 0.0403	0.0466	0.0427	Lin2	0.1053	0.0430				6.6			0.9950		0.9900
PCB-1260 Peak 5	0.0680 0.0500	0.0630 0.0464	0.0556 0.0464	0.0525	0.0486	Lin2	0.1078	0.0488				5.3			0.9970		0.9900
Tetrachloro-m-xylene	1.4695 1.2759	1.3602 1.2117	1.2546 1.2301	1.2368	1.1942	Ave		1.2791				7.2		20.0			
DCB Decachlorobiphenyl	+++++ 0.6796	0.8429 0.6396	0.7115 0.6592	0.7021	0.6505	Ave		0.6979				9.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1 Analy Batch No.: 291937

SDG No.:

Instrument ID: TAC057 GC Column: ZB-CLPest-2 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/23/2018 04:19 Calibration End Date: 12/23/2018 06:22 Calibration ID: 27235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 580-291937/47	57L2218B046.D
Level 2	IC 580-291937/46	57L2218B045.D
Level 3	IC 580-291937/45	57L2218B044.D
Level 4	IC 580-291937/44	57L2218B043.D
Level 5	ICIS 580-291937/43	57L2218B042.D
Level 6	IC 580-291937/42	57L2218B041.D
Level 7	IC 580-291937/41	57L2218B040.D
Level 8	IC 580-291937/40	57L2218B039.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin2	2875451 198697885	4981360 346573778	11251020 697919035	20755607	38637571	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 2	BNB	Lin2	4631749 354094226	8548384 638515353	18961931 1295700772	34878720	67411724	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 3	BNB	Lin2	3400022 227797798	5797800 410717818	12398847 828252782	23366501	44147779	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 4	BNB	Lin2	2642653 184873378	4692203 332296302	10239712 668485692	19474323	36014191	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1016 Peak 5	BNB	Qua1	2097208 147262003	3712505 266890883	7965078 +++++	15393389	28731869	5.00 500	10.0 1000	25.0 +++++	50.0	100
PCB-1260 Peak 1	BNB	Lin2	2181962 151648945	3935963 274762829	8856959 555256831	16333980	30070313	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 2	BNB	Lin2	4677845 329796045	8420890 603936536	18714691 1242145987	35238939	63907123	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 3	BNB	Lin2	3458961 255600735	6253647 469924713	14052824 963162198	26449082	49293539	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 4	BNB	Lin2	3626169 257830735	6639618 471027328	14623551 968236625	27045839	49676026	5.00 500	10.0 1000	25.0 2000	50.0	100
PCB-1260 Peak 5	BNB	Lin2	4014802 292745375	7300071 539724631	16226219 1113341247	30483095	56567776	5.00 500	10.0 1000	25.0 2000	50.0	100
Tetrachloro-m-xylene	BNB	Ave	8683643 748170762	15783349 1412091180	36663780 2956548925	71875459	139133436	0.501 50.1	1.00 100	2.50 200	5.01	10.0
DCB Decachlorobiphenyl	BNB	Ave	+++++ 398298713	9776136 745080589	20782995 1583544550	40782150	75751445	+++++ 50.1	1.00 100	2.50 200	5.01	10.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua1 = Quadratic 1/conc ISTD

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Dec-2018 04:19:15 ALS Bottle#: 37 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:17 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:42:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	202426938	100.0	100.0	
2	4.596	4.596	0.000	1199949720	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						3664.8	
2						3815.2	
						RPD = 4.02	
$ 9 Tetrachloro-m-xylene							M
1	4.919	4.920	-0.001	853004108	200.3	190.9	M
2	5.351	5.349	0.002	2956548925	200.3	192.6	
						RPD = 0.90	
5 PCB-1016							Ma
1	5.439	5.441	-0.002	272258611	2000.0	1757.9	M
1	5.769	5.772	-0.003	330454565	2000.0	1791.9	M
1	5.862	5.865	-0.003	184440111	2000.0	1491.4	M
1	6.147	6.149	-0.002	171879301	2000.0	1885.9	M
1	6.207	6.210	-0.003	92373596	2000.0	2002.6	M
		Average of Peak Amounts =				1786.0	
2	6.043	6.042	0.001	697919035	2000.0	1797.0	
2	6.392	6.390	0.002	1295700772	2000.0	1873.9	
2	6.494	6.495	-0.001	828252782	2000.0	1862.0	
2	6.852	6.851	0.001	668485692	2000.0	1830.1	
2	6.951	6.950	0.001	536858604	2000.0	2356.0	a
		Average of Peak Amounts =				1943.8	
						RPD = 8.46	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.922	6.923	-0.001	165521921	2000.0	1876.8	M
1	7.026	7.025	0.001	332860235	2000.0	1849.8	M
1	7.229	7.230	-0.001	495651576	2000.0	1874.3	M
1	7.531	7.531	0.000	333441937	2000.0	1892.6	M
1	7.725	7.725	0.000	305651201	2000.0	1901.0	M
		Average of Peak Amounts =				1878.9	
2	7.714	7.713	0.001	555256831	2000.0	1816.9	
2	7.845	7.844	0.001	1242145987	2000.0	1874.3	
2	8.138	8.139	-0.001	963162198	2000.0	1890.7	a
2	8.372	8.370	0.002	968236625	2000.0	1875.6	
2	8.628	8.627	0.001	1113341247	2000.0	1899.4	
		Average of Peak Amounts =				1871.4	
						RPD = 0.40	
$ 43 DCB Decachlorobiphenyl							
1	9.084	9.084	0.000	627600508	200.2	192.1	
2	10.161	10.160	0.001	1583544550	200.2	189.1	
						RPD = 1.58	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660_ICSTK_00025	Amount Added: 200.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D

Injection Date: 23-Dec-2018 04:19:15 Instrument ID: TAC057

Lims ID: ic

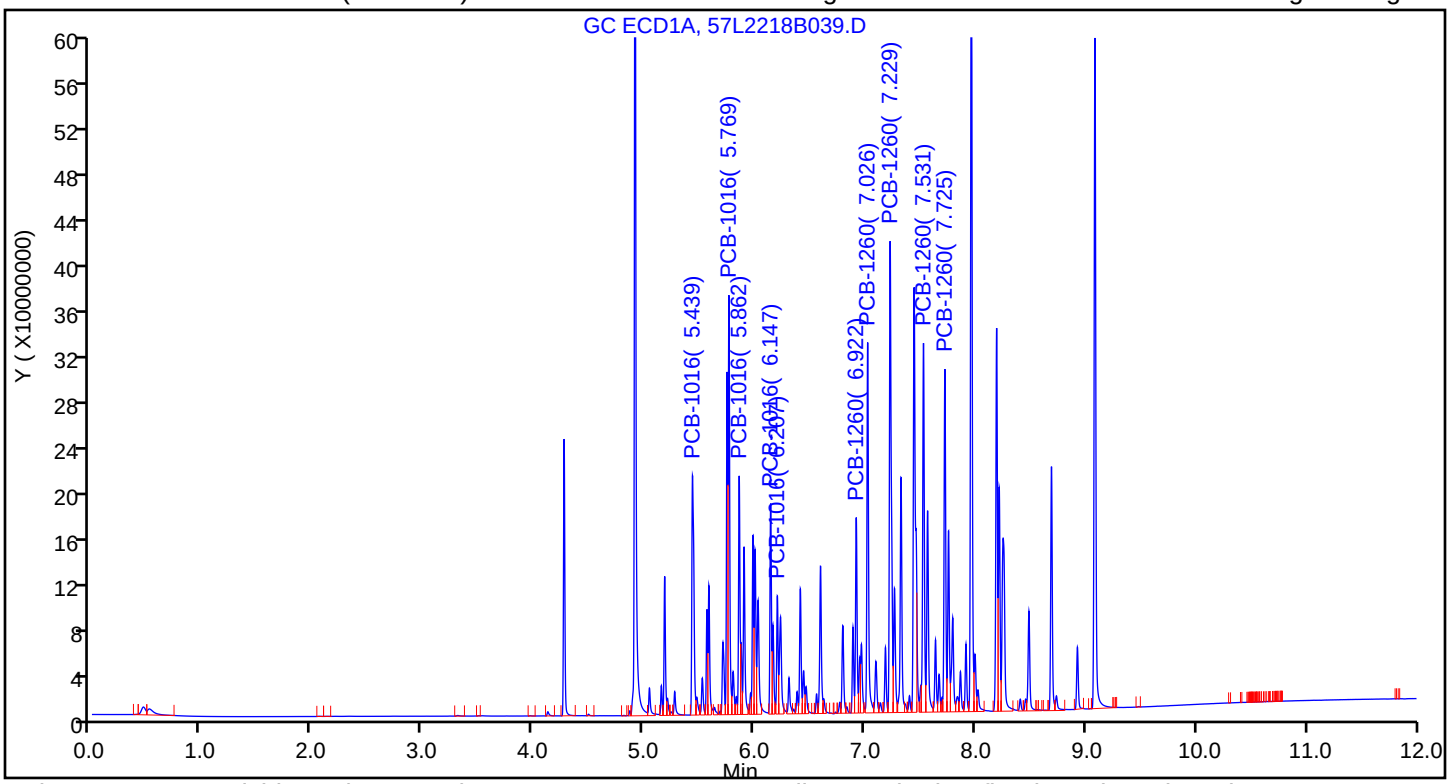
Client ID:

Operator ID: ar ALS Bottle#: 37 Worklist Smp#: 40

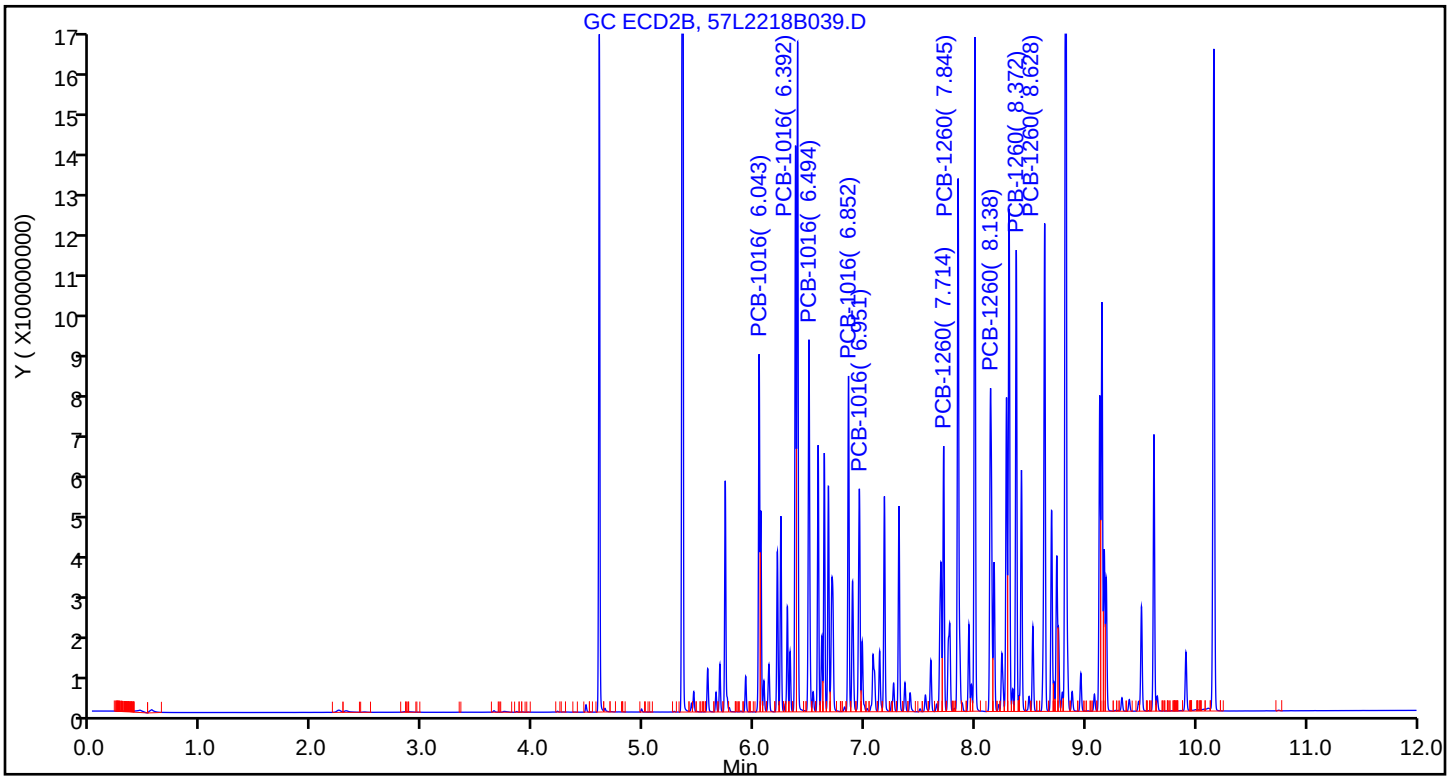
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D

Injection Date: 23-Dec-2018 04:19:15 Instrument ID: TAC057

Lims ID: ic

Client ID:

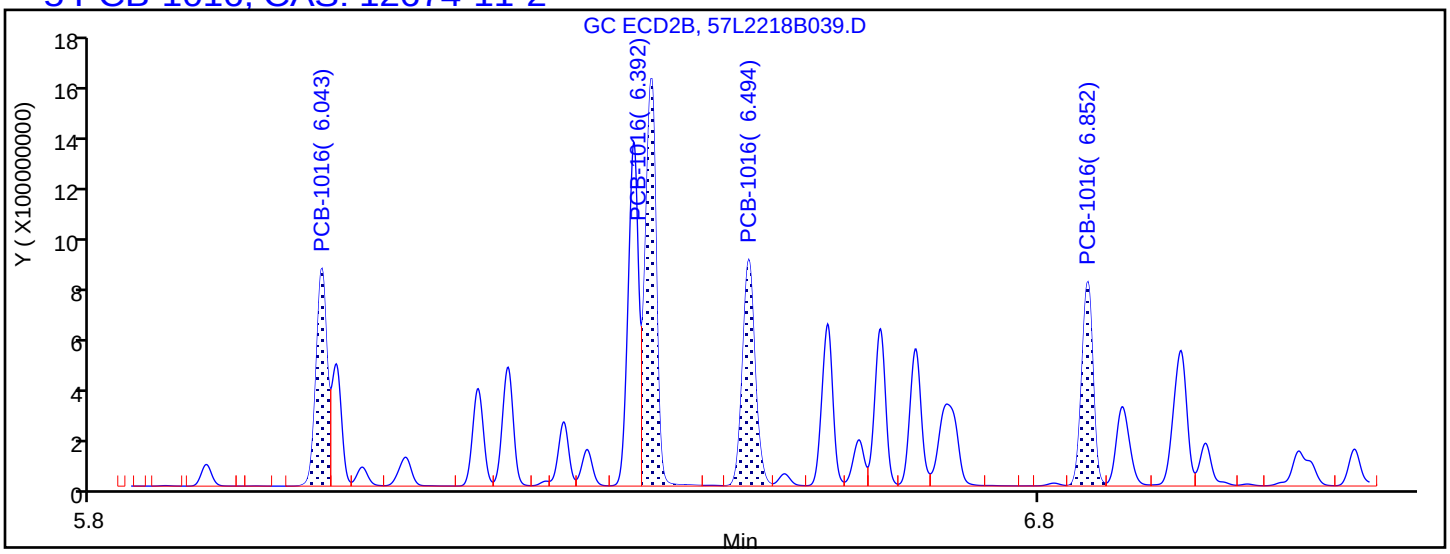
Operator ID: ar ALS Bottle#: 37 Worklist Smp#: 40

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

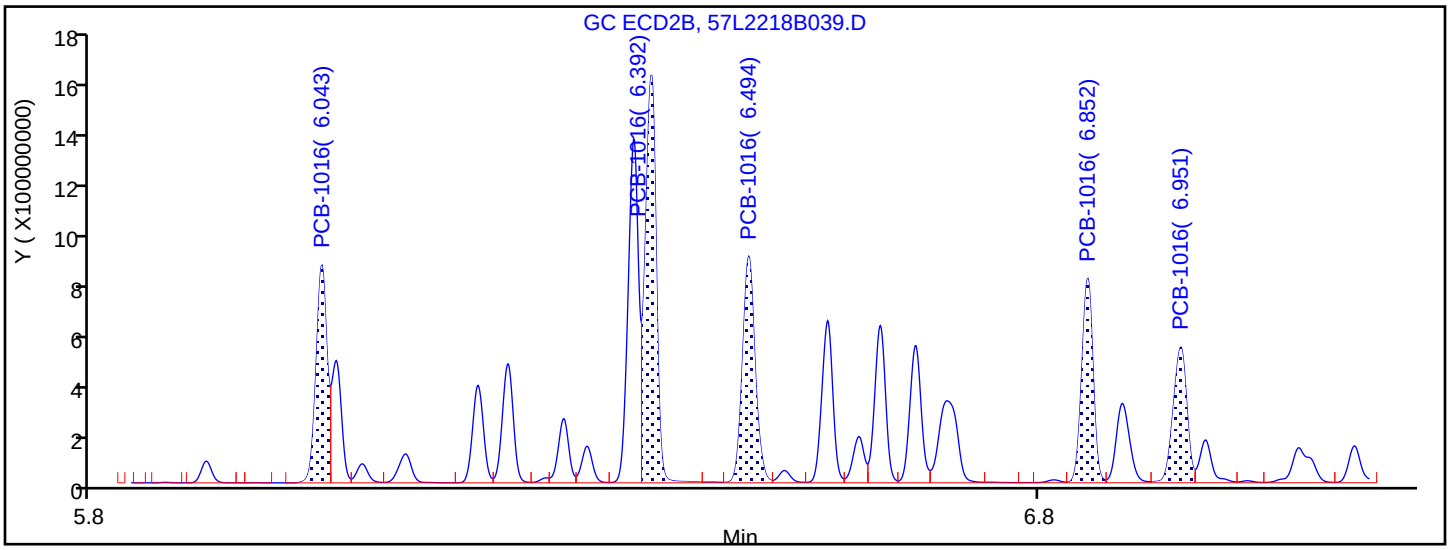
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.043	Response = 697919035
6.392	Response = 1295700772
6.494	Response = 828252782
6.852	Response = 668485692
7.177	Response = 444200811



Manual Integration Results

6.043	Response = 697919035	
6.392	Response = 1295700772	
6.494	Response = 828252782	
6.852	Response = 668485692	
6.951	Response = 536858604	M

Reviewer: ruslandera, 23-Dec-2018 16:00:08

Audit Action: Assigned Compound ID Audit Reason:

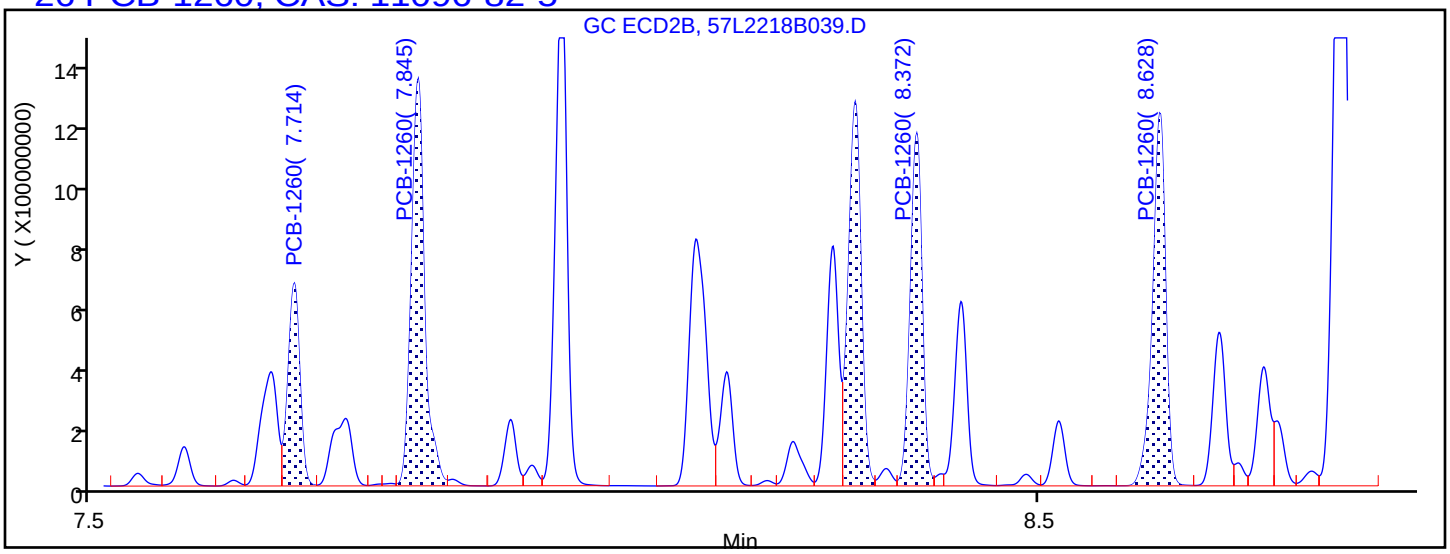
Report Date: 23-Dec-2018 16:17:18 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B039.D

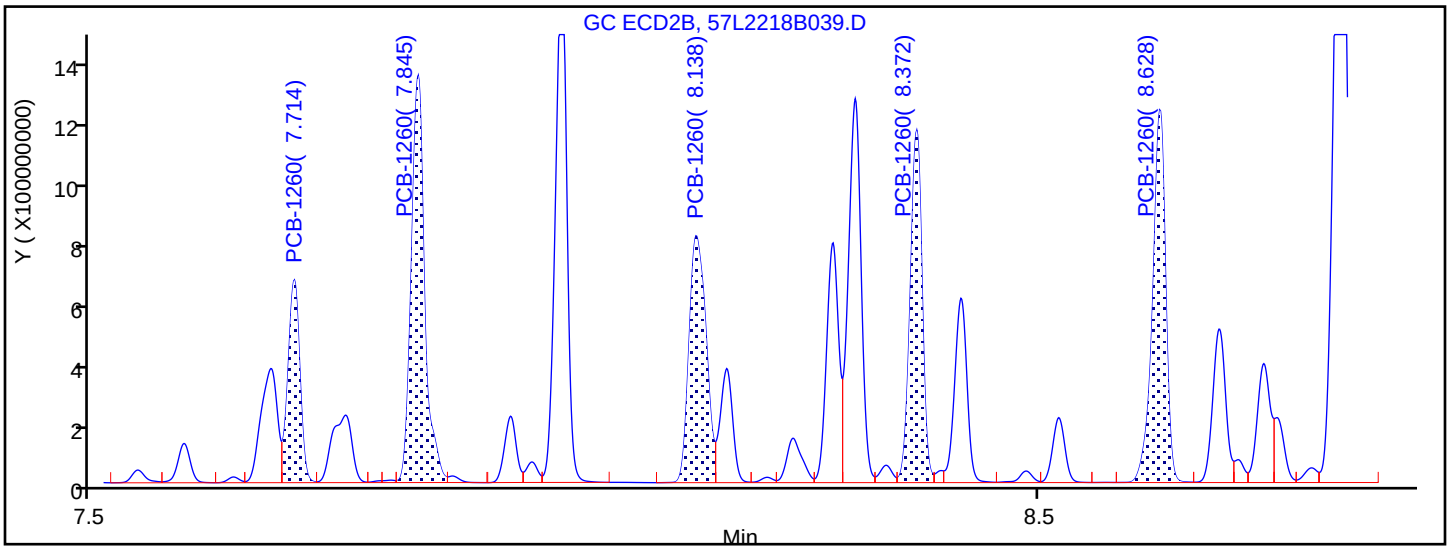
Injection Date:	23-Dec-2018 04:19:15	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	37	Worklist Smp#:	40
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.714	Response = 555256831
7.845	Response = 1242145987
8.307	Response = 1136833719
8.372	Response = 968236625
8.628	Response = 1113341247



Manual Integration Results

7.714	Response = 555256831	
7.845	Response = 1242145987	
8.138	Response = 963162198	M
8.372	Response = 968236625	
8.628	Response = 1113341247	

Reviewer: ruslandera, 23-Dec-2018 15:55:55

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Dec-2018 04:36:47 ALS Bottle#: 38 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:23 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:43:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	195273317	100.0	100.0	
2	4.596	4.596	0.000	1163667207	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1919.7	
2						1890.8	
						RPD = 1.52	
$ 9 Tetrachloro-m-xylene							
1	4.919	4.920	-0.001	417733574	100.2	96.9	
2	5.350	5.349	0.001	1412091180	100.2	94.9	
						RPD = 2.14	
5 PCB-1016							Ma
1	5.439	5.441	-0.002	138329673	1000.0	925.0	M
1	5.769	5.772	-0.003	169487227	1000.0	952.1	M
1	5.863	5.865	-0.002	113739282	1000.0	953.3	M
1	6.148	6.149	-0.001	84503953	1000.0	961.1	M
1	6.208	6.210	-0.002	46266346	1000.0	987.3	M
		Average of Peak Amounts =				955.8	
2	6.043	6.042	0.001	346573778	1000.0	918.8	
2	6.391	6.390	0.001	638515353	1000.0	951.2	
2	6.494	6.495	-0.001	410717818	1000.0	950.7	
2	6.852	6.851	0.001	332296302	1000.0	936.8	
2	6.950	6.950	0.000	266890883	1000.0	993.8	a
		Average of Peak Amounts =				950.3	
						RPD = 0.57	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.923	6.923	0.000	81640291	1000.0	958.8	M
1	7.025	7.025	0.000	165333434	1000.0	951.9	M
1	7.229	7.230	-0.001	245287271	1000.0	961.0	M
1	7.530	7.531	-0.001	164977219	1000.0	970.2	M
1	7.724	7.725	-0.001	151711788	1000.0	977.9	M
		Average of Peak Amounts =				964.0	
2	7.713	7.713	0.000	274762829	1000.0	925.8	
2	7.844	7.844	0.000	603936536	1000.0	938.5	
2	8.138	8.139	-0.001	469924713	1000.0	950.2	a
2	8.370	8.370	0.000	471027328	1000.0	939.7	
2	8.628	8.627	0.001	539724631	1000.0	948.4	
		Average of Peak Amounts =				940.5	
						RPD = 2.46	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.084	-0.001	304192876	100.1	96.5	
2	10.159	10.160	-0.001	745080589	100.1	91.7	
						RPD = 5.08	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660_ICSTK_00025	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D

Injection Date: 23-Dec-2018 04:36:47 Instrument ID: TAC057

Lims ID: ic

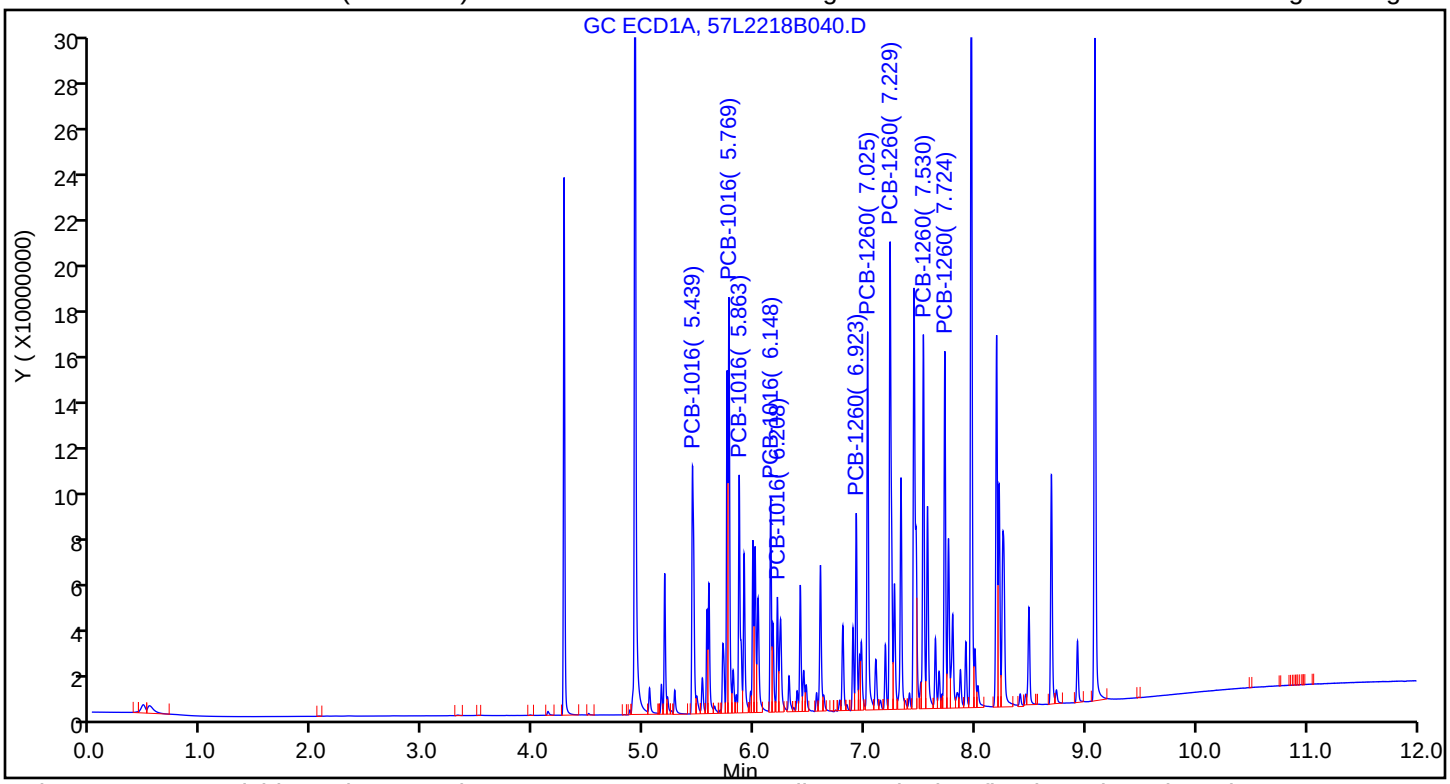
Client ID:

Operator ID: ar ALS Bottle#: 38 Worklist Smp#: 41

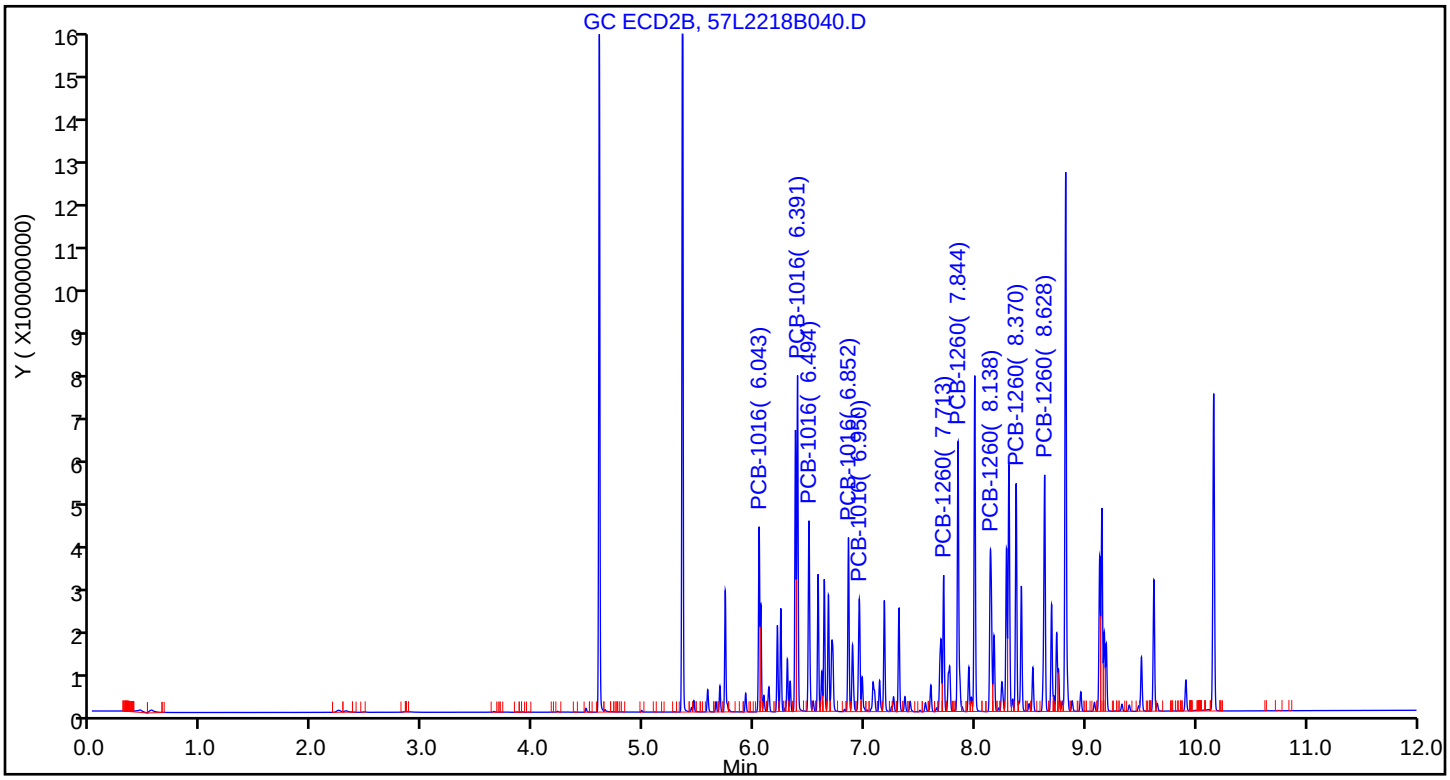
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D

Injection Date: 23-Dec-2018 04:36:47 Instrument ID: TAC057

Lims ID: ic

Client ID:

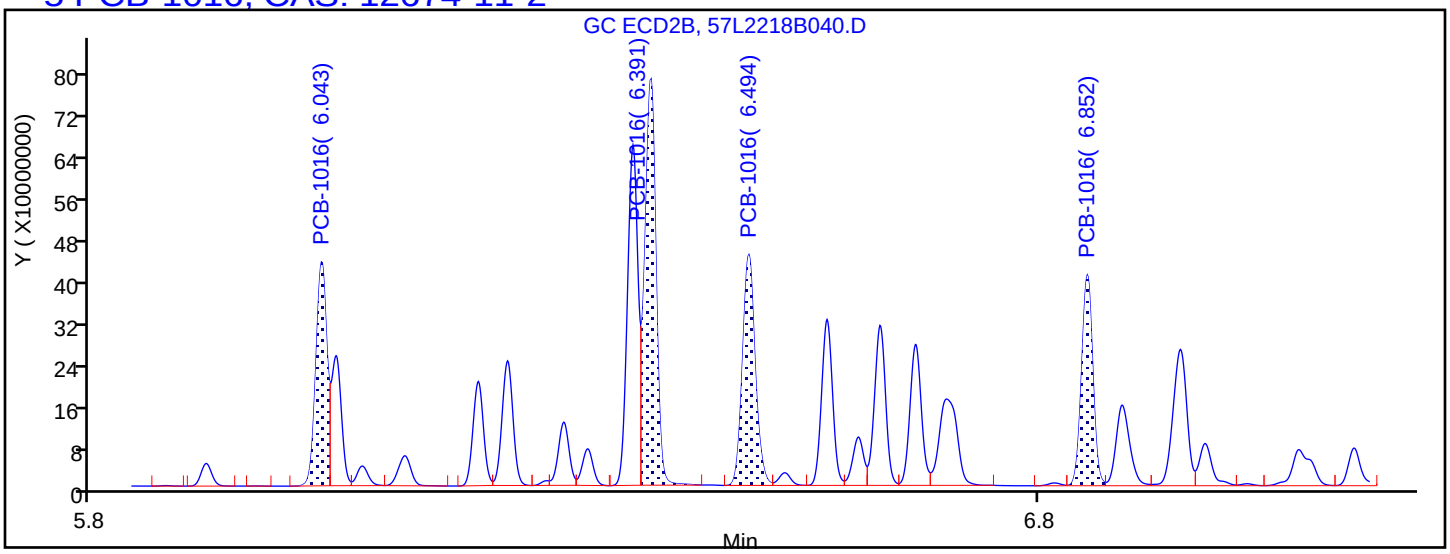
Operator ID: ar ALS Bottle#: 38 Worklist Smp#: 41

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

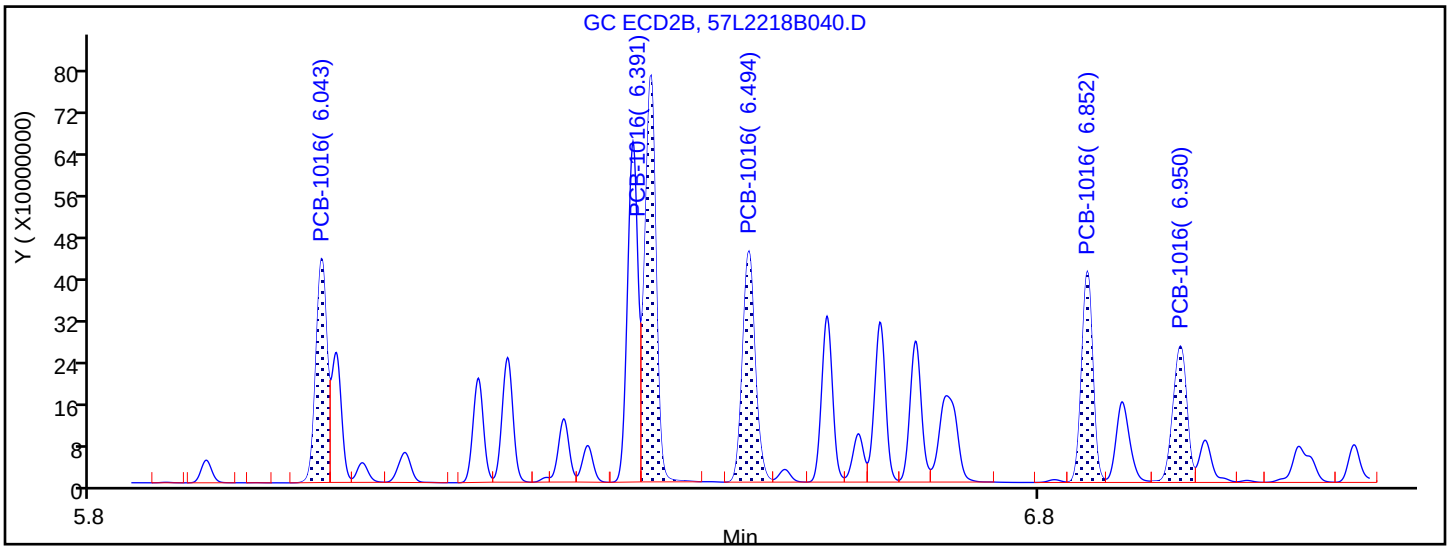
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.043	Response = 346573778
6.391	Response = 638515353
6.494	Response = 410717818
6.852	Response = 332296302
7.177	Response = 220963313



Manual Integration Results

6.043	Response = 346573778	
6.391	Response = 638515353	
6.494	Response = 410717818	
6.852	Response = 332296302	
6.950	Response = 266890883	M

Reviewer: ruslandera, 23-Dec-2018 16:00:19

Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:17:24 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B040.D

Injection Date: 23-Dec-2018 04:36:47 Instrument ID: TAC057

Lims ID: ic

Client ID:

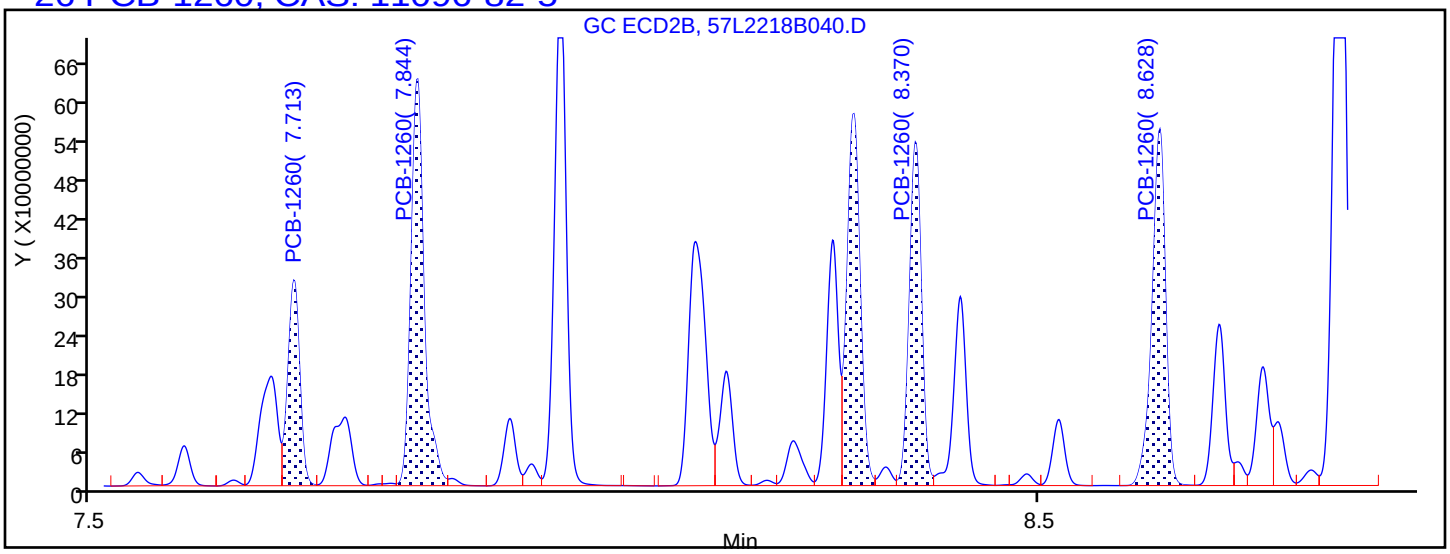
Operator ID: ar ALS Bottle#: 38 Worklist Smp#: 41

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

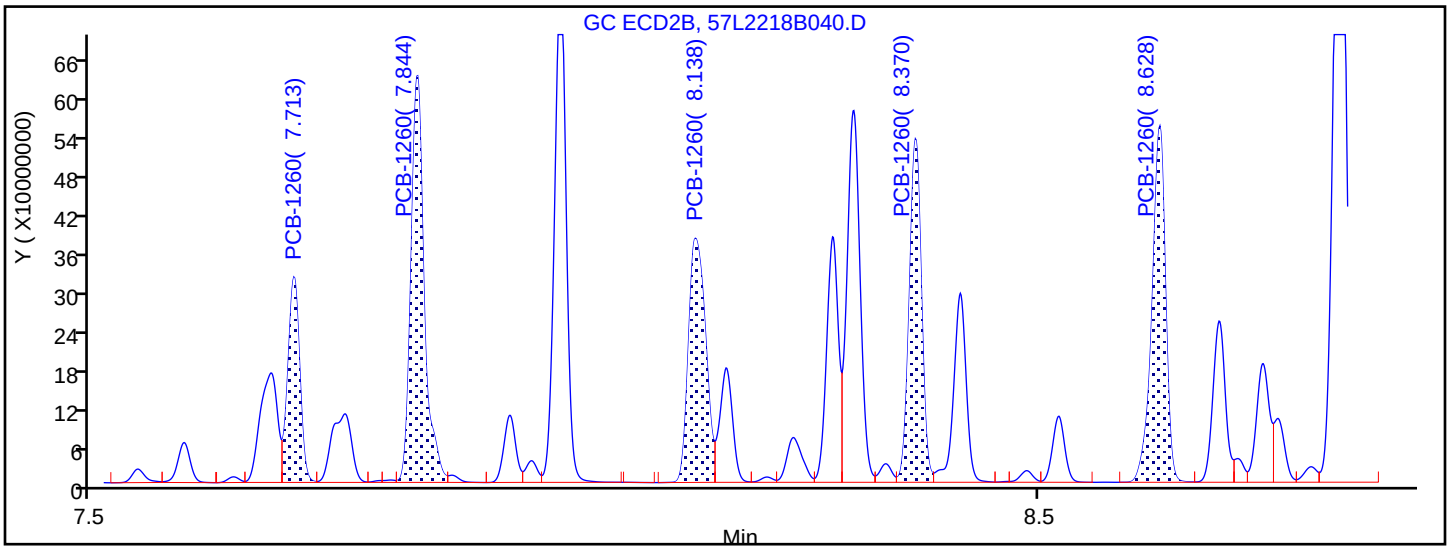
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.713	Response = 274762829
7.844	Response = 603936536
8.305	Response = 553134101
8.370	Response = 471027328
8.628	Response = 539724631



Manual Integration Results

7.713	Response = 274762829	
7.844	Response = 603936536	
8.138	Response = 469924713	M
8.370	Response = 471027328	
8.628	Response = 539724631	

Reviewer: ruslandera, 23-Dec-2018 15:56:02

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Dec-2018 04:54:19 ALS Bottle#: 39 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:46:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	196263532	100.0	100.0	
2	4.596	4.596	0.000	1171051846	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						1046.8	
2						1028.9	
						RPD = 1.73	
$ 9 Tetrachloro-m-xylene							M
1	4.918	4.920	-0.002	229185434	50.1	52.9	M
2	5.348	5.349	-0.001	748170762	50.1	49.9	
						RPD = 5.75	
5 PCB-1016							Ma
1	5.439	5.441	-0.002	76444219	500.0	507.8	M
1	5.769	5.772	-0.003	91260145	500.0	509.5	M
1	5.863	5.865	-0.002	62162539	500.0	518.2	M
1	6.148	6.149	-0.001	46539794	500.0	526.5	M
1	6.208	6.210	-0.002	24876210	500.0	516.4	M
		Average of Peak Amounts =				515.7	
2	6.042	6.042	0.000	198697885	500.0	522.3	
2	6.390	6.390	0.000	354094226	500.0	523.3	
2	6.493	6.495	-0.002	227797798	500.0	522.6	
2	6.851	6.851	0.000	184873378	500.0	516.7	
2	6.949	6.950	-0.001	147262003	500.0	512.1	a
		Average of Peak Amounts =				519.4	
						RPD = 0.72	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.922	6.923	-0.001	45688042	500.0	533.2	M
1	7.025	7.025	0.000	92730857	500.0	530.7	M
1	7.228	7.230	-0.002	135856992	500.0	529.1	M
1	7.530	7.531	-0.001	90416224	500.0	528.5	M
1	7.724	7.725	-0.001	83329741	500.0	534.1	M
		Average of Peak Amounts =				531.1	
2	7.713	7.713	0.000	151648945	500.0	506.6	
2	7.843	7.844	-0.001	329796045	500.0	508.1	
2	8.138	8.139	-0.001	255600735	500.0	512.6	a
2	8.370	8.370	0.000	257830735	500.0	510.0	
2	8.628	8.627	0.001	292745375	500.0	510.2	
		Average of Peak Amounts =				509.5	
						RPD = 4.16	
$ 43 DCB Decachlorobiphenyl							M
1	9.083	9.084	-0.001	163917265	50.1	51.7	M
2	10.158	10.160	-0.002	398298713	50.1	48.7	
						RPD = 6.00	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660_ICSTK_00025	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:28 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D

Injection Date: 23-Dec-2018 04:54:19 Instrument ID: TAC057

Lims ID: ic

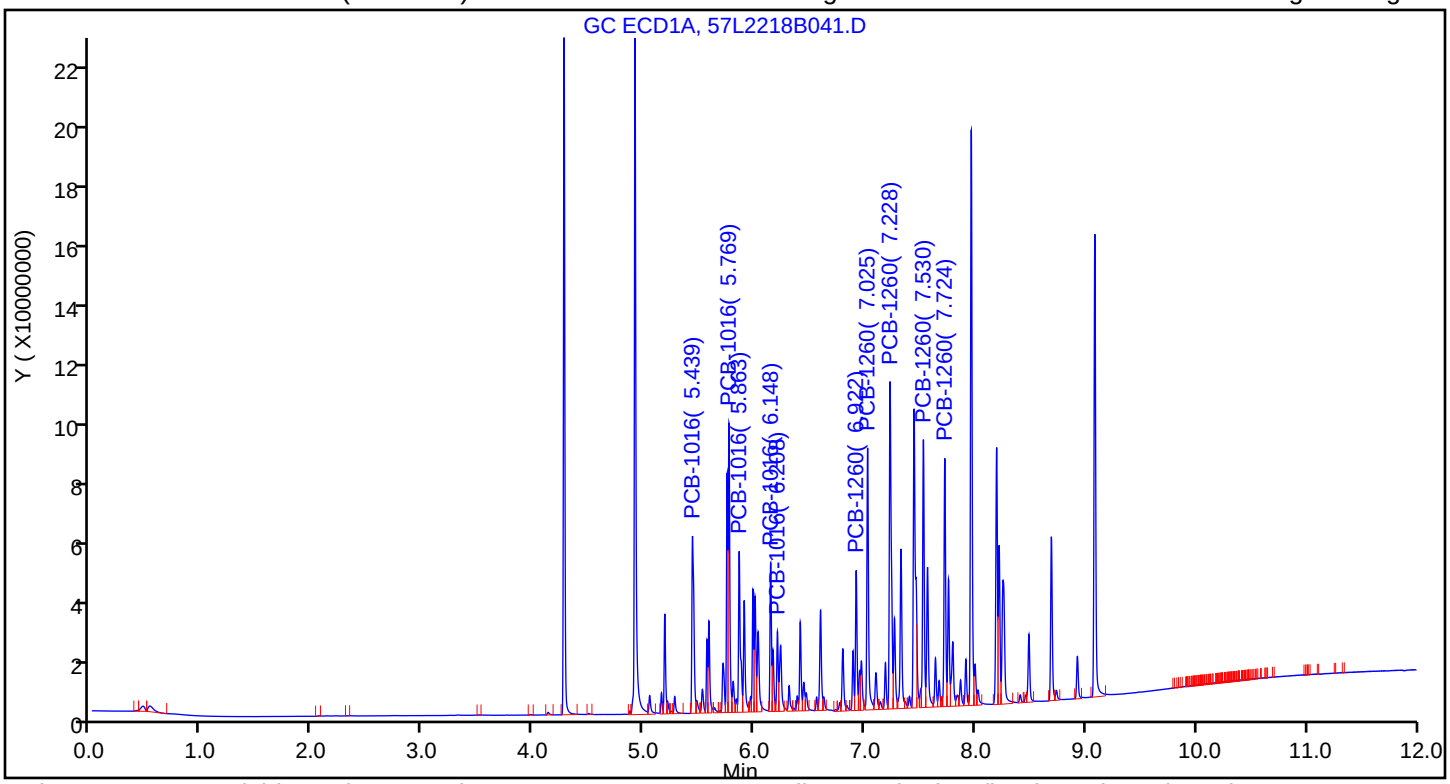
Client ID:

Operator ID: ar ALS Bottle#: 39 Worklist Smp#: 42

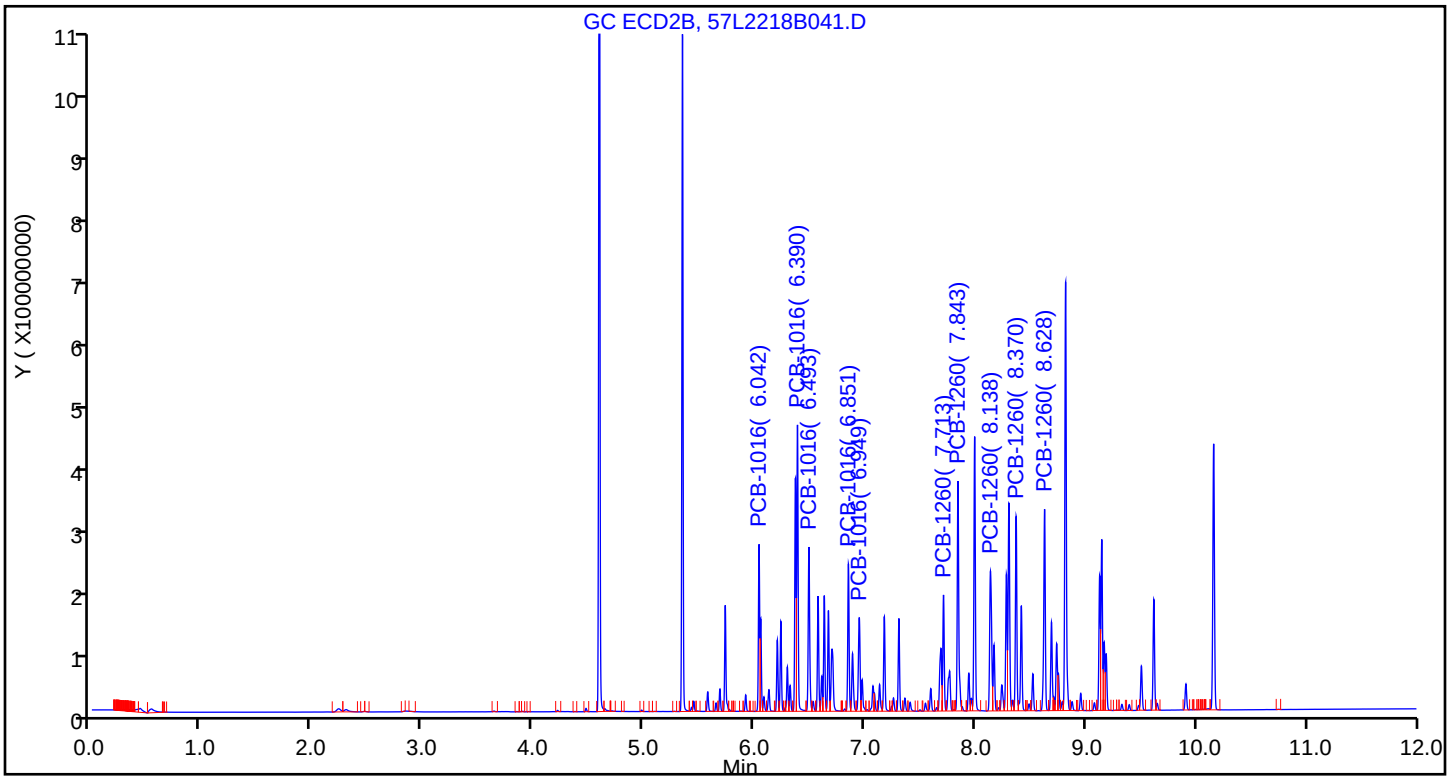
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:28 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D

Injection Date: 23-Dec-2018 04:54:19 Instrument ID: TAC057

Lims ID: ic

Client ID:

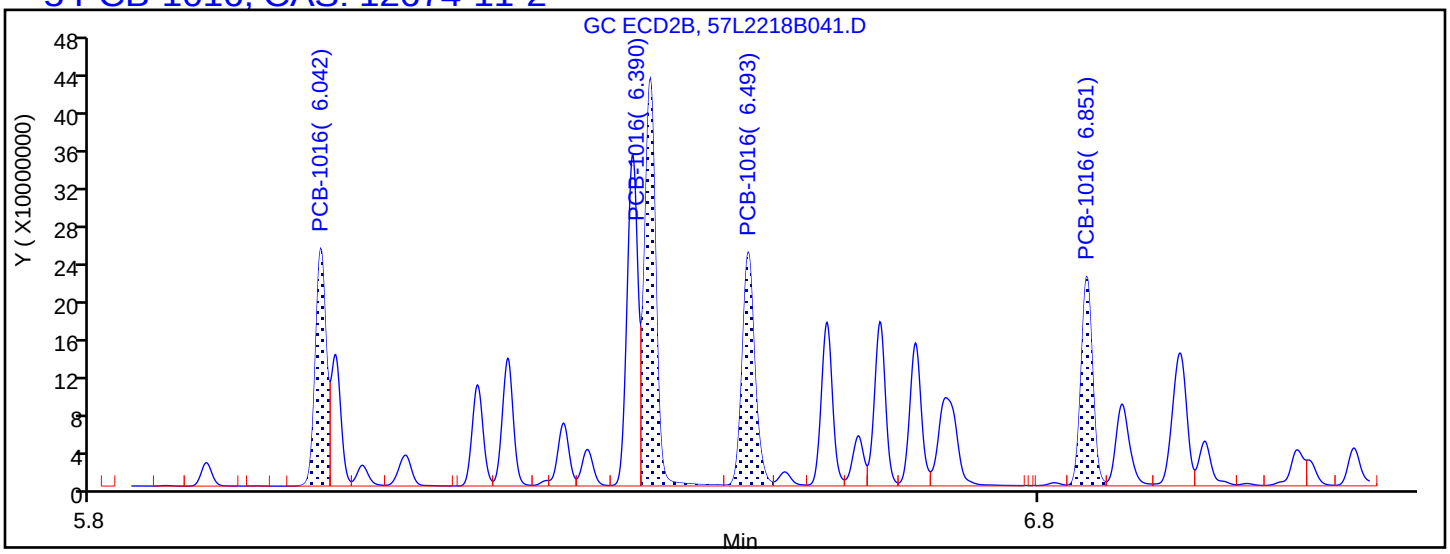
Operator ID: ar ALS Bottle#: 39 Worklist Smp#: 42

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

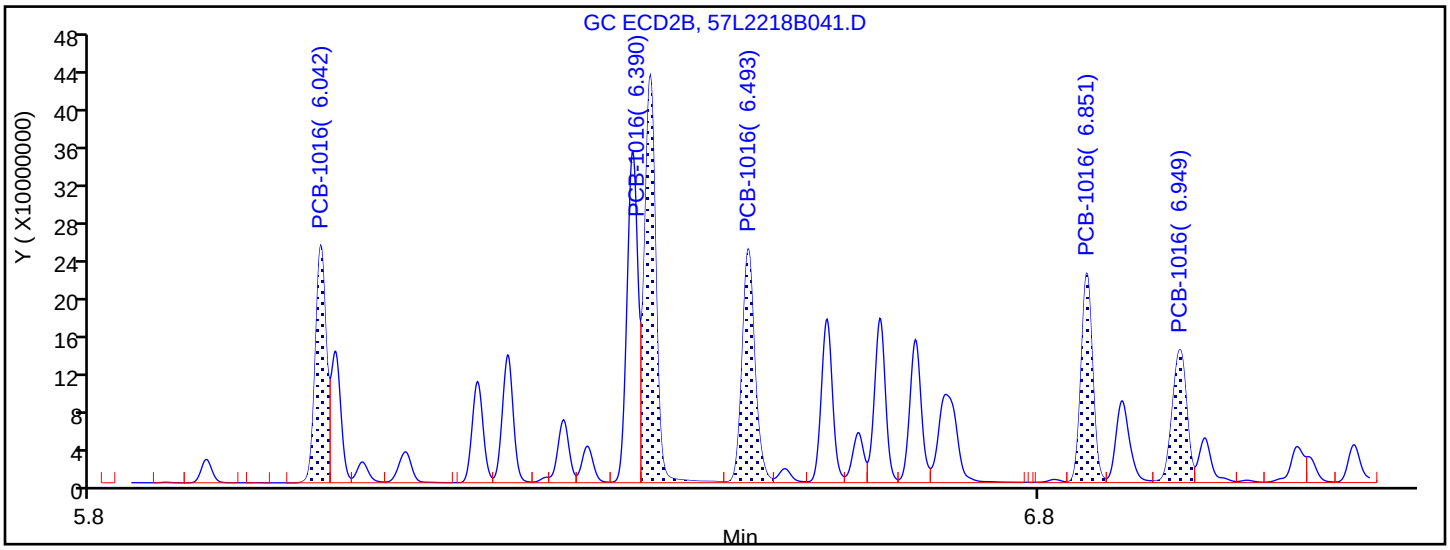
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.042	Response = 198697885
6.390	Response = 354094226
6.493	Response = 227797798
6.851	Response = 184873378
7.177	Response = 123072990



Manual Integration Results

6.042	Response = 198697885	
6.390	Response = 354094226	
6.493	Response = 227797798	
6.851	Response = 184873378	
6.949	Response = 147262003	M

Reviewer: ruslandera, 23-Dec-2018 16:00:27

Audit Action: Assigned Compound ID Audit Reason:

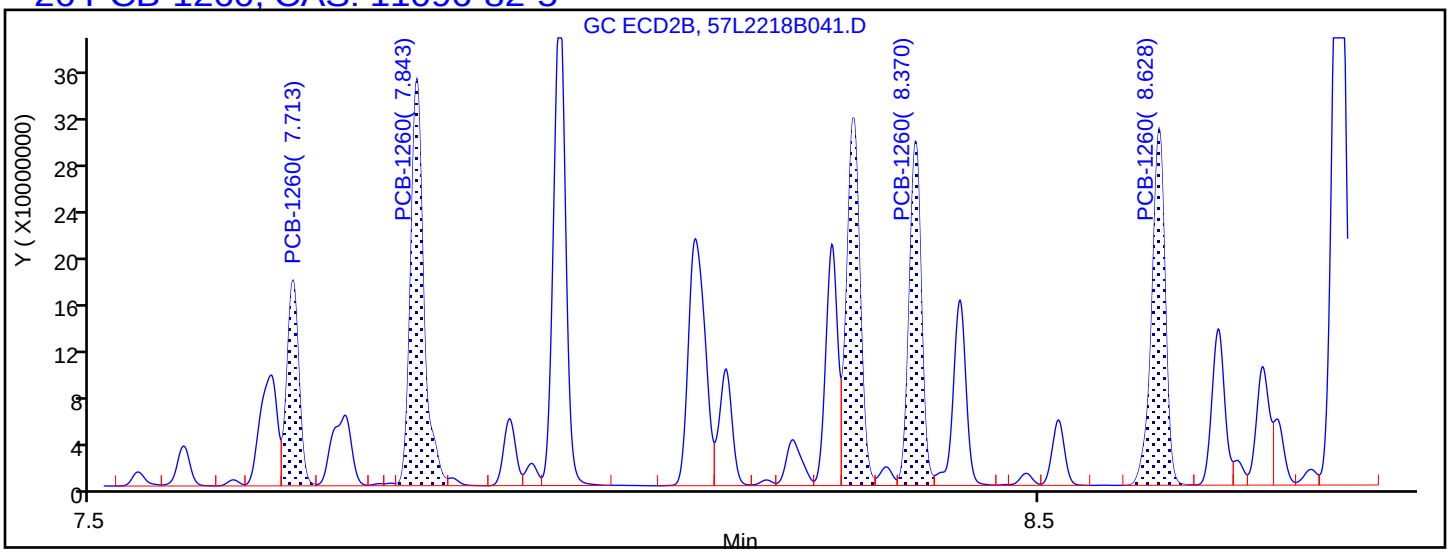
Report Date: 23-Dec-2018 16:17:28 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B041.D

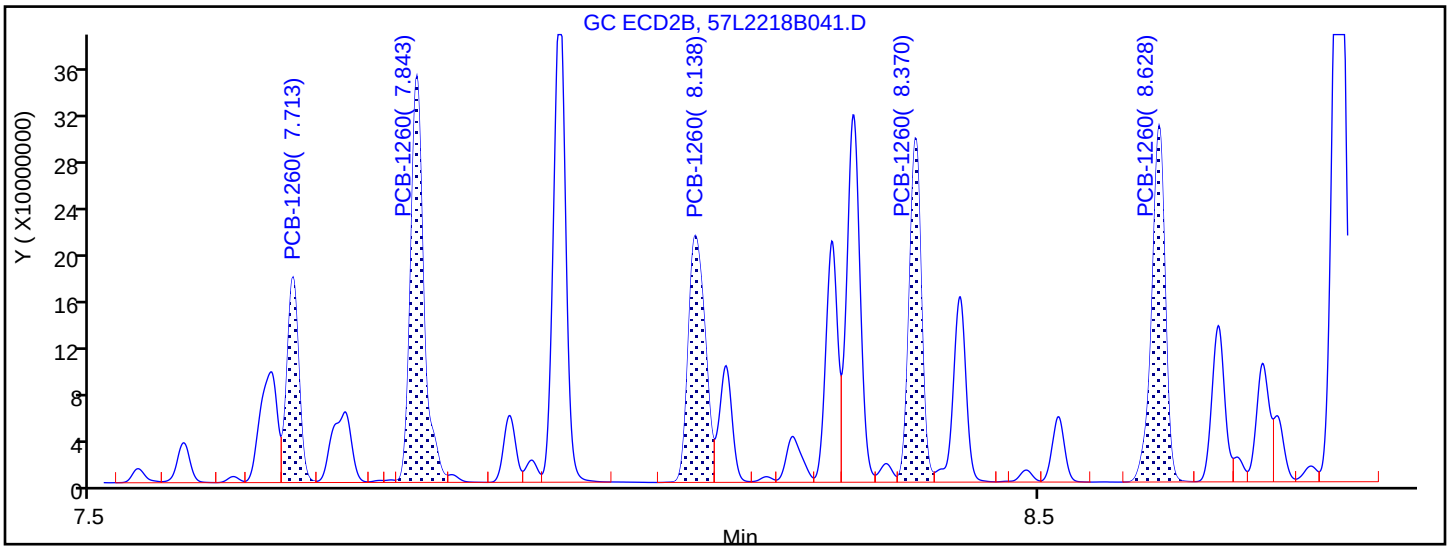
Injection Date:	23-Dec-2018 04:54:19	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	39	Worklist Smp#:	42
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.713	Response = 151648945
7.843	Response = 329796045
8.304	Response = 303113211
8.370	Response = 257830735
8.628	Response = 292745375



Manual Integration Results

7.713	Response = 151648945	
7.843	Response = 329796045	
8.138	Response = 255600735	M
8.370	Response = 257830735	
8.628	Response = 292745375	

Reviewer: ruslandera, 23-Dec-2018 15:56:19

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 23-Dec-2018 05:11:49 ALS Bottle#: 40 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:30 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:42:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.277	4.277	0.000	193454103	100.0	100.0	a
2	4.596	4.596	0.000	1163292204	100.0	100.0	a
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							a
1	4.920	4.920	0.000	41532842	10.0	9.73	a
2	5.349	5.349	0.000	139133436	10.0	9.35	a
						RPD = 3.94	
5 PCB-1016							Ma
1	5.441	5.441	0.000	15394150	100.0	102.3	M
1	5.772	5.772	0.000	18190028	100.0	102.0	M
1	5.865	5.865	0.000	11600814	100.0	97.8	M
1	6.149	6.149	0.000	8528124	100.0	97.7	M
1	6.210	6.210	0.000	4540322	100.0	94.3	M
		Average of Peak Amounts =				98.8	
2	6.042	6.042	0.000	38637571	100.0	100.0	a
2	6.390	6.390	0.000	67411724	100.0	98.6	a
2	6.495	6.495	0.000	44147779	100.0	99.6	a
2	6.851	6.851	0.000	36014191	100.0	99.2	a
2	6.950	6.950	0.000	28731869	100.0	94.3	a
		Average of Peak Amounts =				98.3	
						RPD = 0.48	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.923	6.923	0.000	8486111	100.0	99.3	M
1	7.025	7.025	0.000	17079828	100.0	98.3	M
1	7.230	7.230	0.000	25114558	100.0	98.3	M
1	7.531	7.531	0.000	16624253	100.0	97.7	M
1	7.725	7.725	0.000	15087646	100.0	97.6	M
		Average of Peak Amounts =				98.2	
2	7.713	7.713	0.000	30070313	100.0	99.1	a
2	7.844	7.844	0.000	63907123	100.0	97.1	a
2	8.139	8.139	0.000	49293539	100.0	97.8	a
2	8.370	8.370	0.000	49676026	100.0	96.9	a
2	8.627	8.627	0.000	56567776	100.0	97.5	a
		Average of Peak Amounts =				97.7	
						RPD = 0.56	
$ 43 DCB Decachlorobiphenyl							a
1	9.084	9.084	0.000	30295903	10.0	9.70	a
2	10.160	10.160	0.000	75751445	10.0	9.33	a
						RPD = 3.92	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:32 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D

Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057

Lims ID: icis

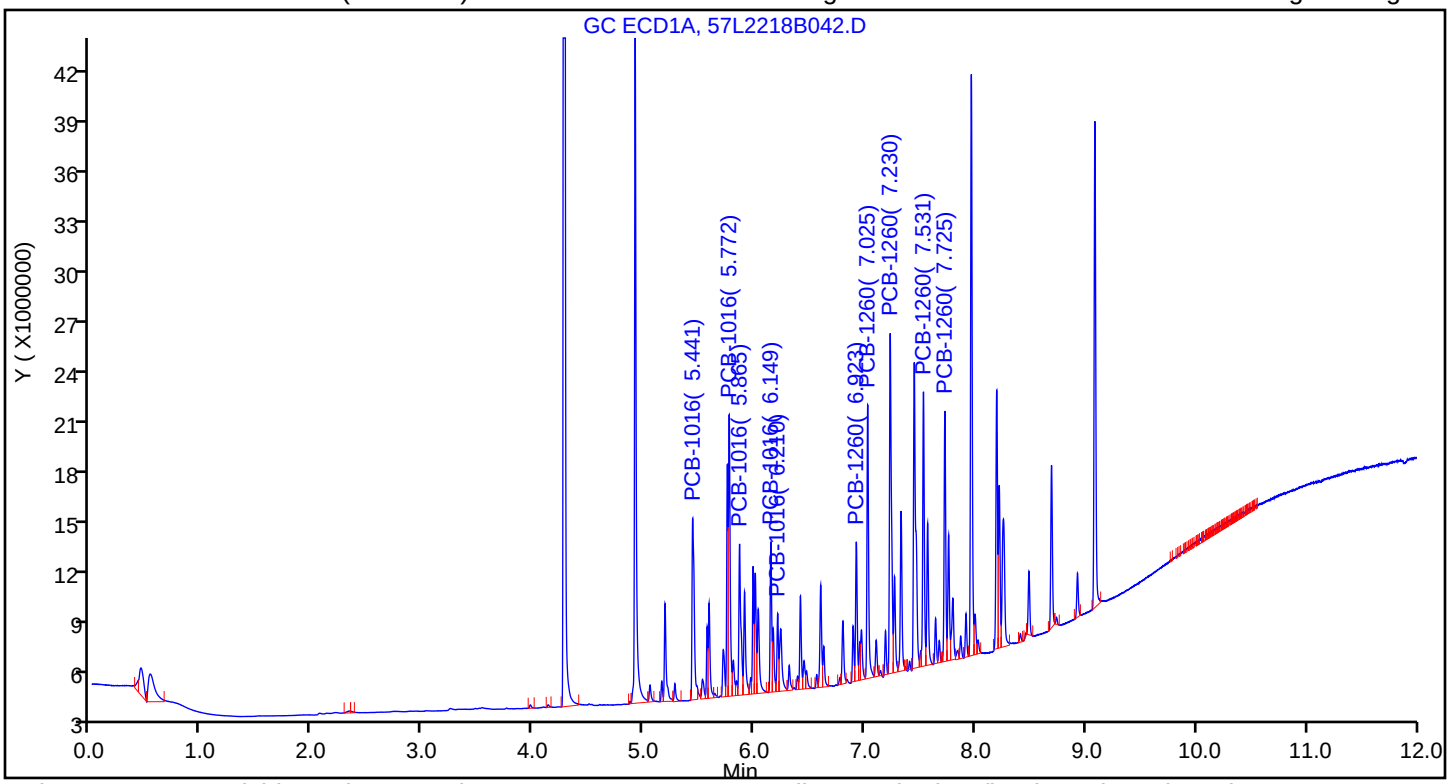
Client ID:

Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43

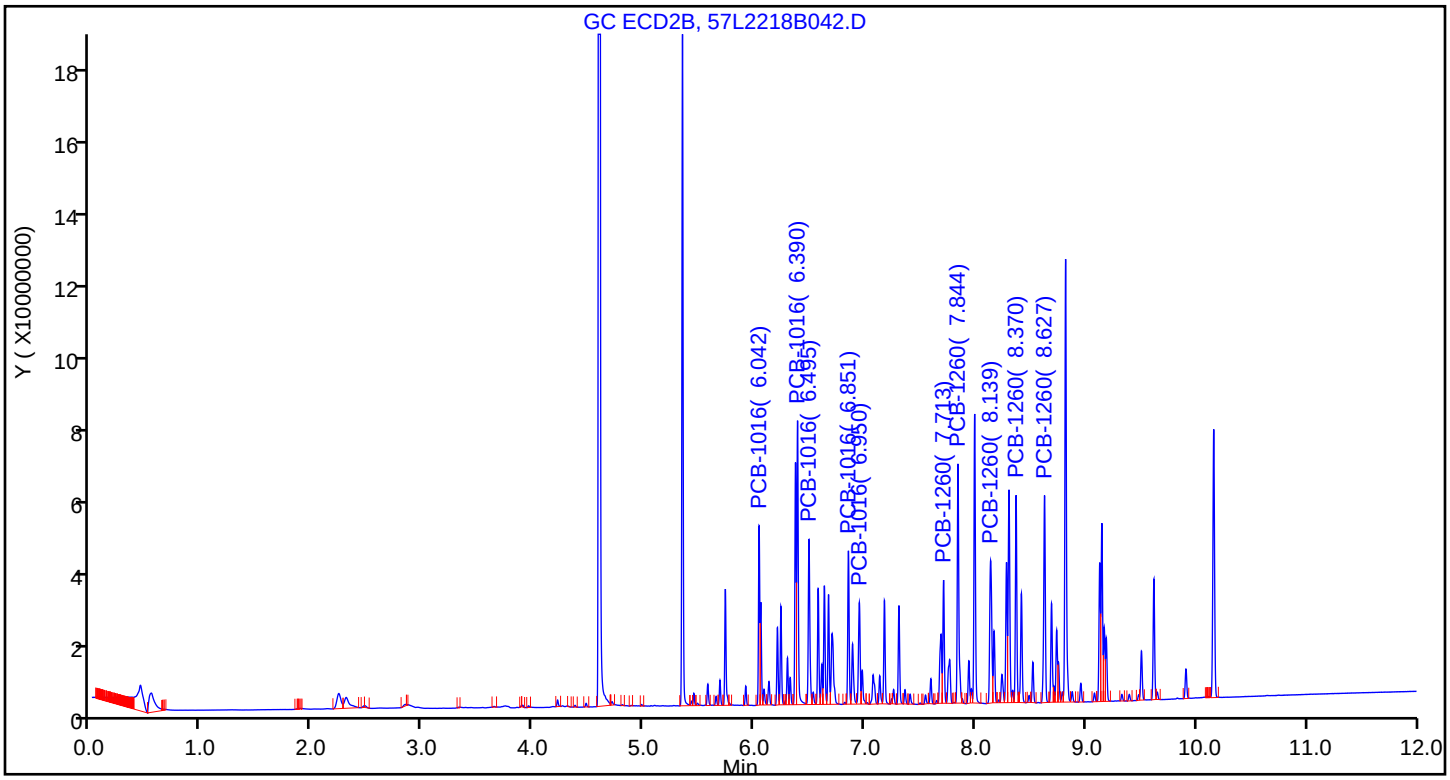
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

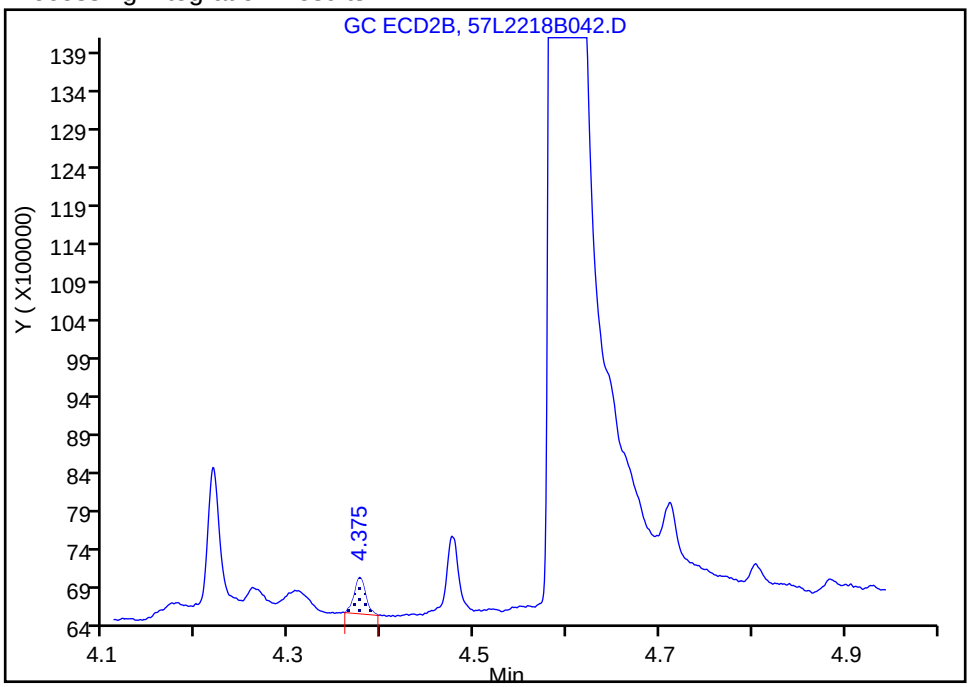
Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D
Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057
Lims ID: icis
Client ID:
Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

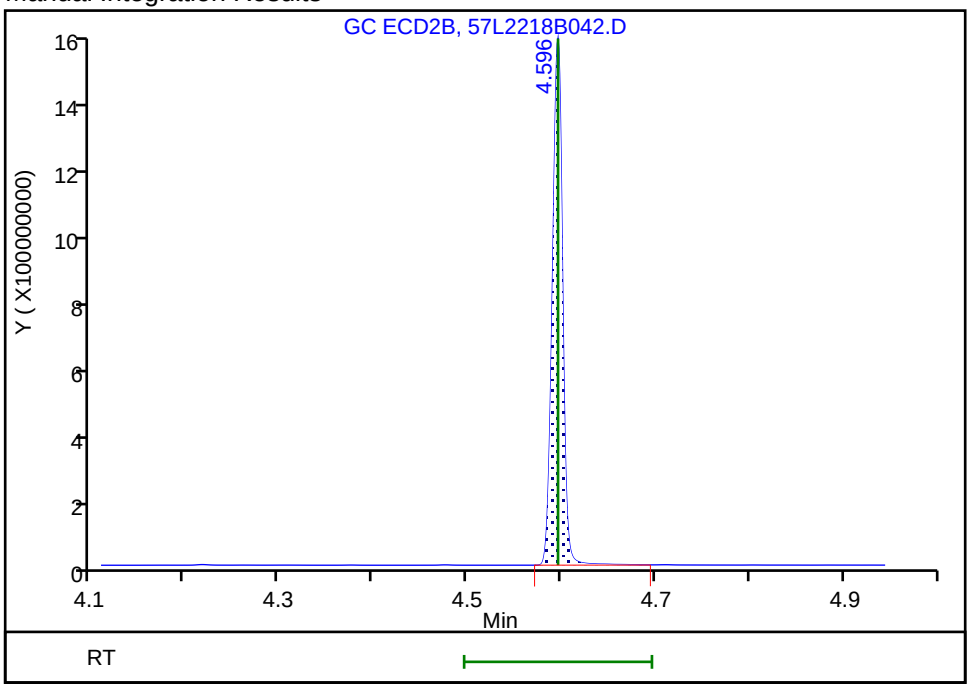
Processing Integration Results

RT: 4.38
Area: 402456
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1163292204
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:37:25
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

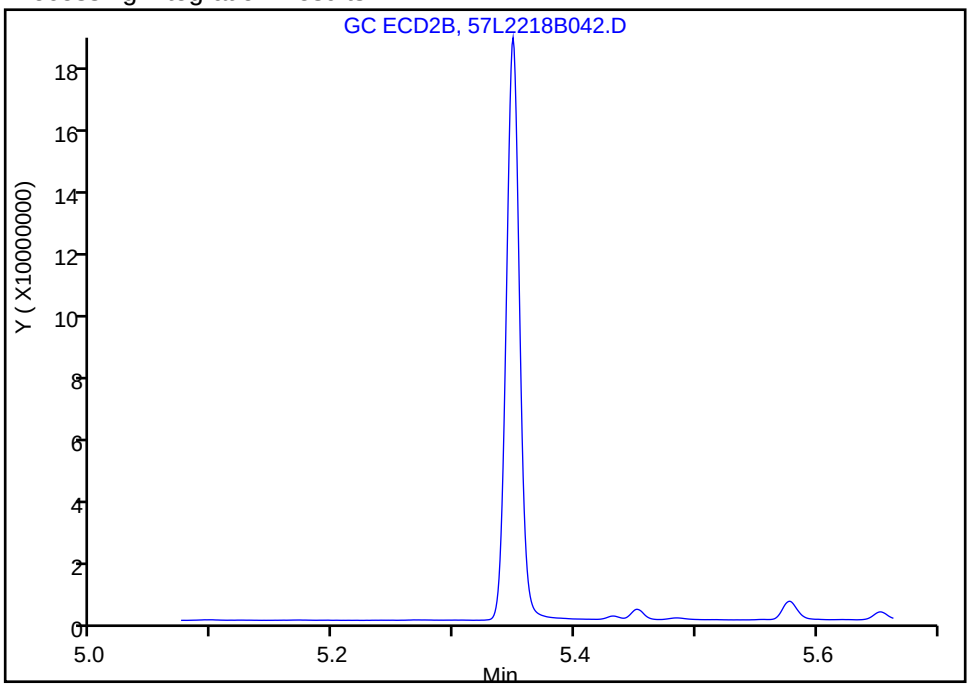
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D				
Injection Date:	23-Dec-2018 05:11:49	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	40	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 9 Tetrachloro-m-xylene, CAS: 877-09-8

Signal: 2

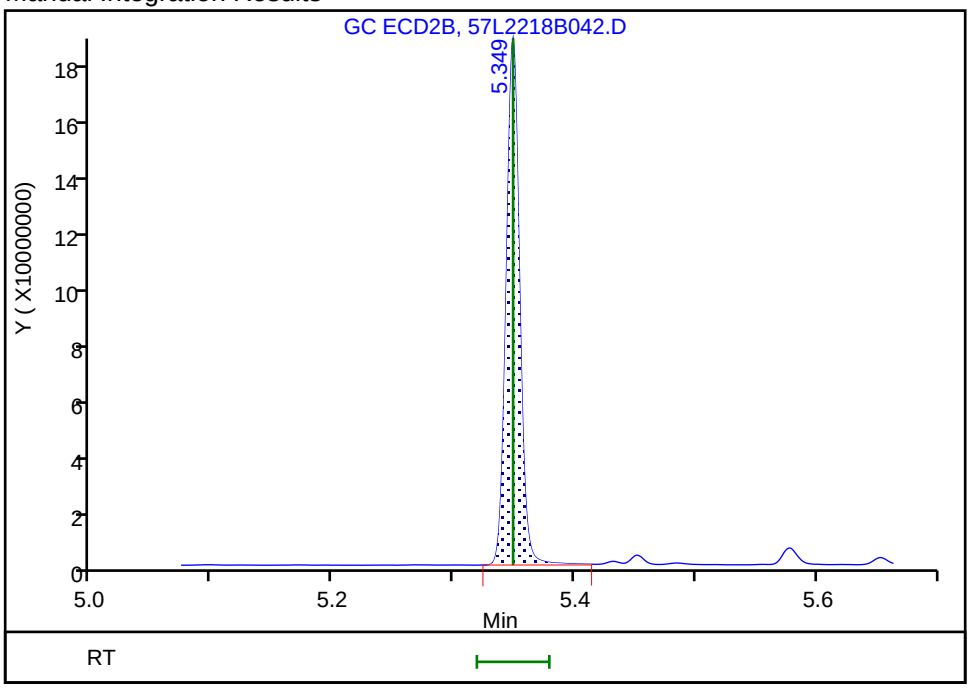
Not Detected
Expected RT: 5.35

Processing Integration Results



Manual Integration Results

RT: 5.35
Area: 139133436
Amount: 9.350407
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:39:53
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:17:32 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D

Injection Date: 23-Dec-2018 05:11:49 Instrument ID: TAC057

Lims ID: icis

Client ID:

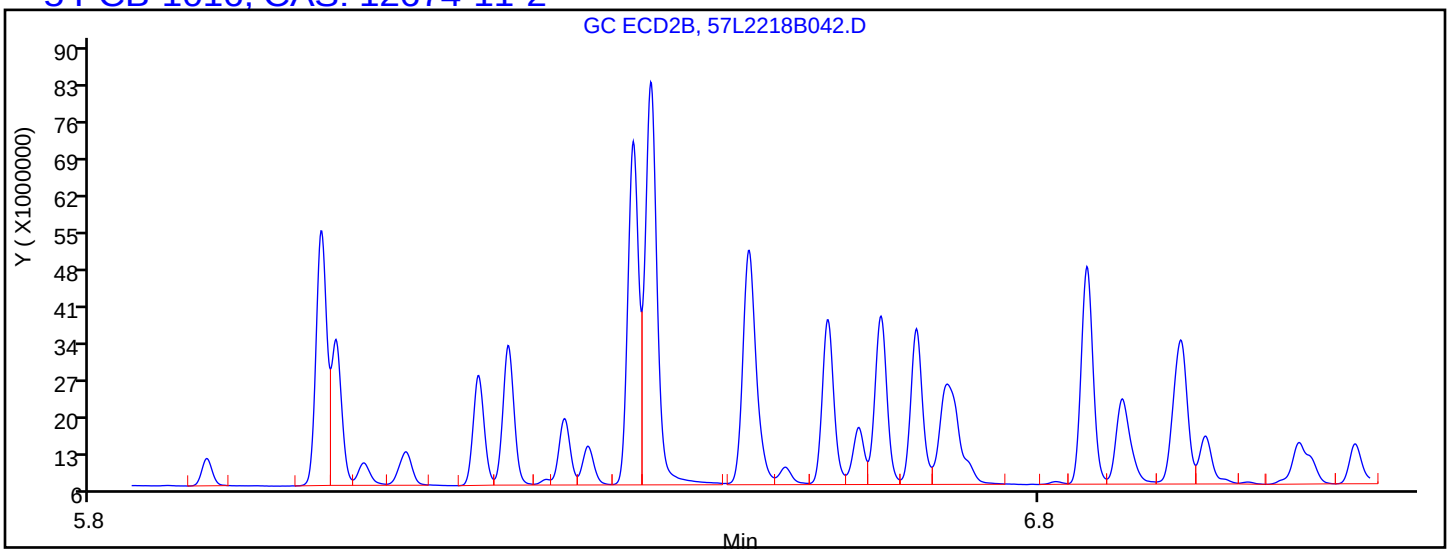
Operator ID: ar ALS Bottle#: 40 Worklist Smp#: 43

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

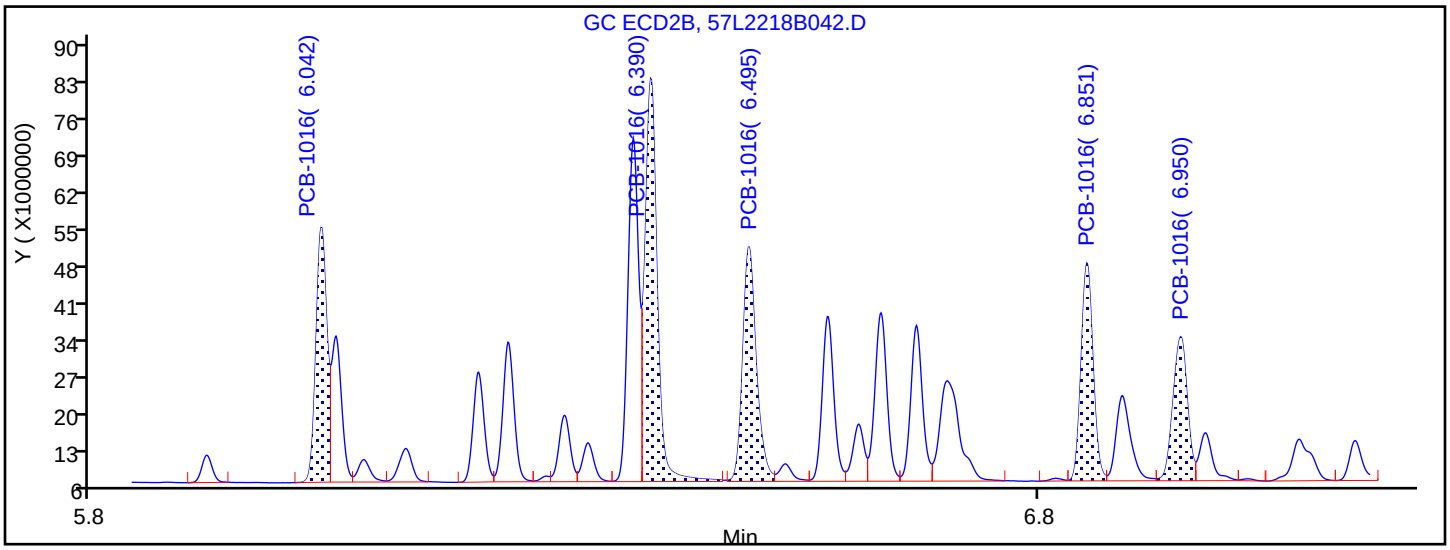
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.688	Response = 5437378
6.042	Response = 38637571
6.132	Response = 6068585
6.495	Response = 44147779
6.577	Response = 26862354



Manual Integration Results

6.042	Response = 38637571	M
6.390	Response = 67411724	M
6.495	Response = 44147779	M
6.851	Response = 36014191	M
6.950	Response = 28731869	M

Reviewer: ruslandera, 23-Dec-2018 15:38:15

Audit Action: Assigned Compound ID Audit Reason:

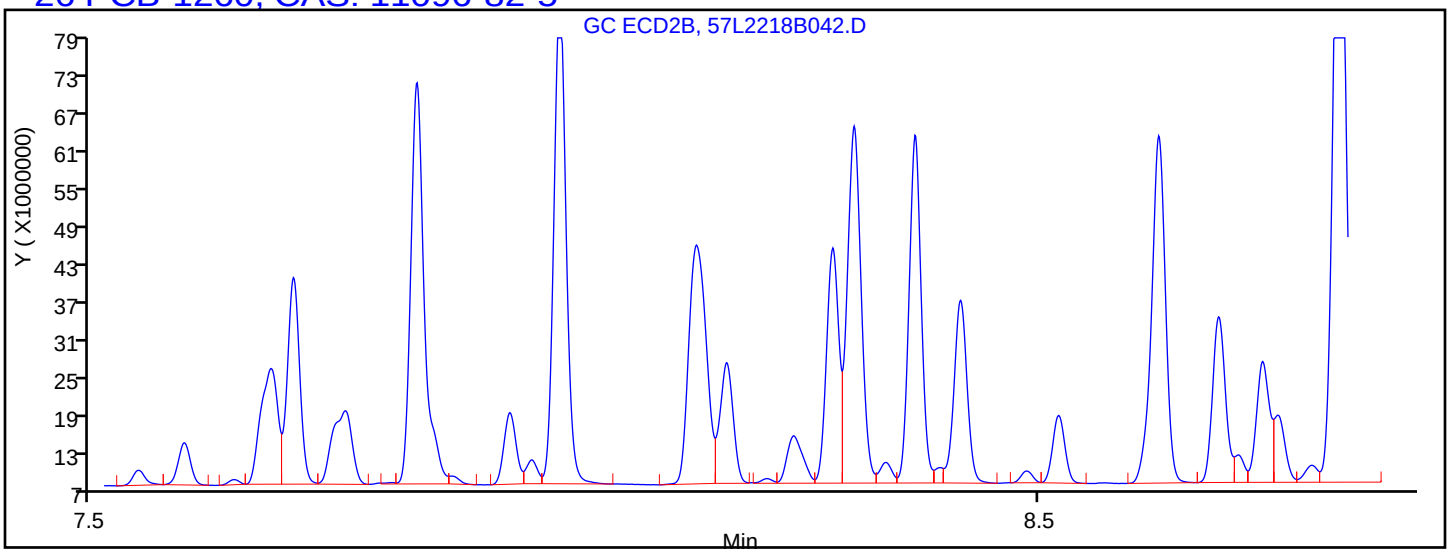
Report Date: 23-Dec-2018 16:17:32 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D

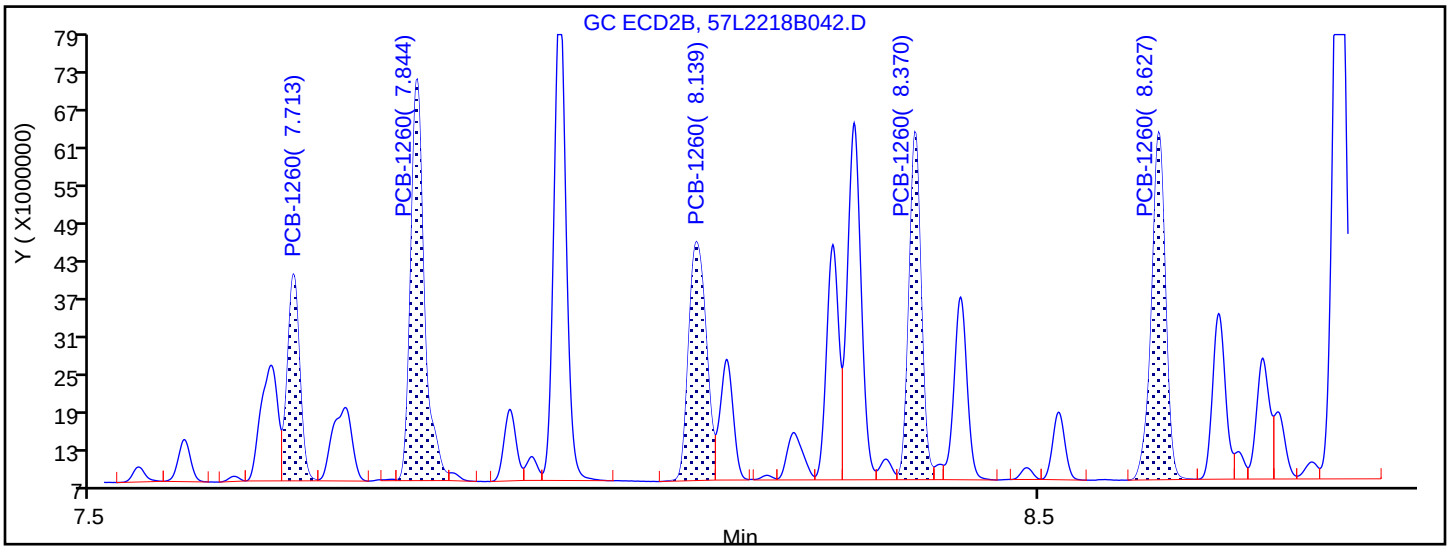
Injection Date:	23-Dec-2018 05:11:49	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	40	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.410	Response = 2553844
7.598	Response = 6091787
7.941	Response = 10331634
7.965	Response = 3091913
8.396	Response = 1386280



Manual Integration Results

7.713	Response = 30070313	M
7.844	Response = 63907123	M
8.139	Response = 49293539	M
8.370	Response = 49676026	M
8.627	Response = 56567776	M

Reviewer: ruslandera, 23-Dec-2018 15:39:04

Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Seattle

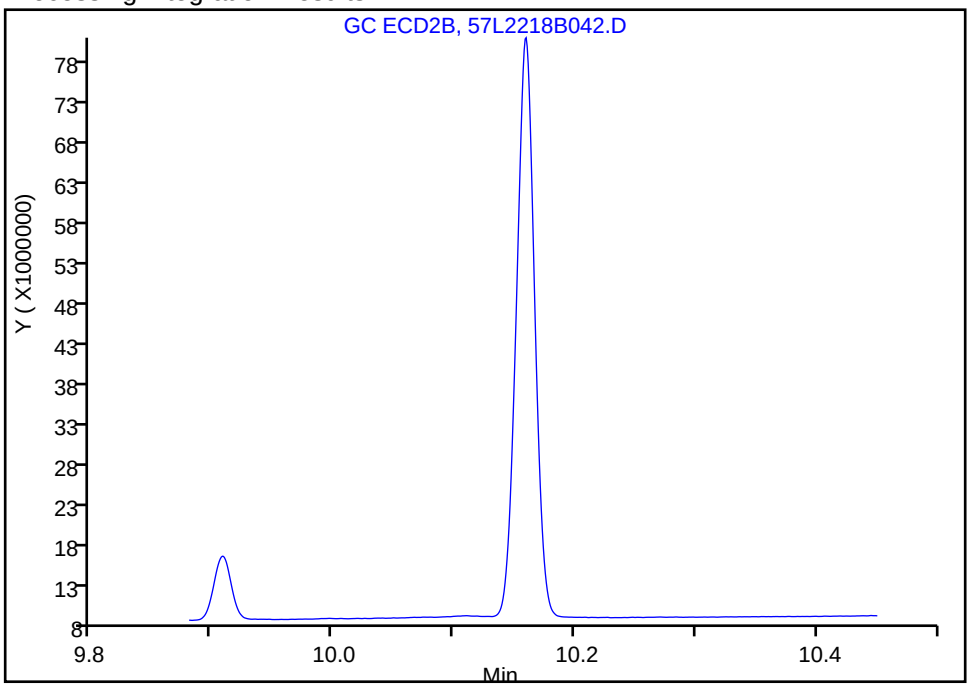
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B042.D				
Injection Date:	23-Dec-2018 05:11:49	Instrument ID:	TAC057		
Lims ID:	icis				
Client ID:					
Operator ID:	ar	ALS Bottle#:	40	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

$ 43 DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

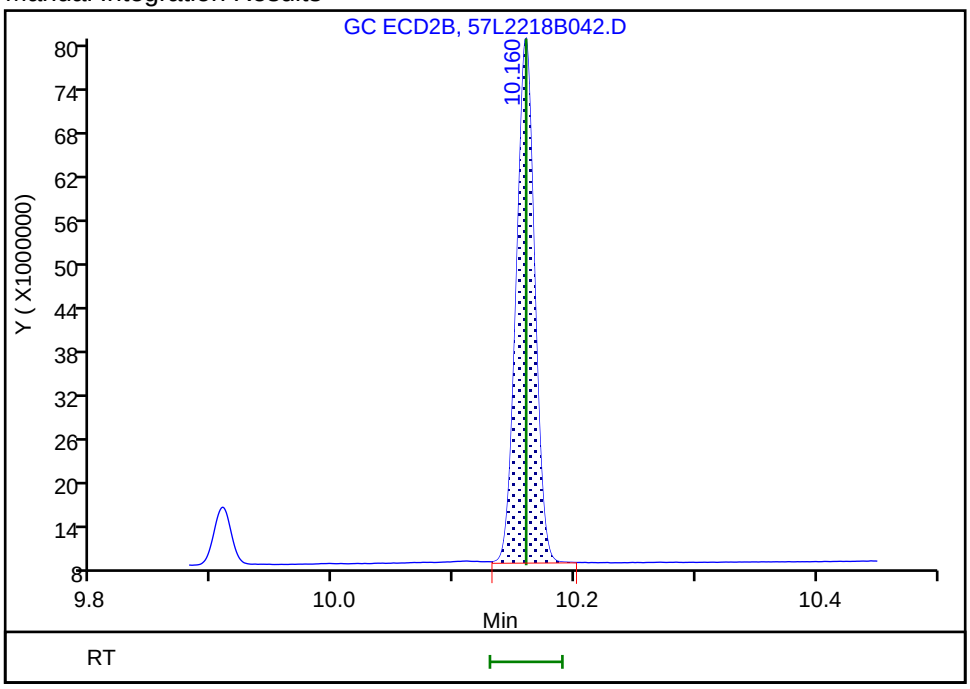
Not Detected
Expected RT: 10.16

Processing Integration Results



Manual Integration Results

RT: 10.16
Area: 75751445
Amount: 9.330234
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 15:39:46
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Dec-2018 05:29:29 ALS Bottle#: 41 Worklist Smp#: 44
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:34 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:47:33

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192797492	100.0	100.0	
2	4.597	4.597	0.000	1160568185	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						103.2	
2						103.3	
						RPD = 0.12	
$ 9 Tetrachloro-m-xylene							
1	4.922	4.922	0.000	21080876	5.01	4.95	
2	5.349	5.349	0.000	71875459	5.01	4.84	
						RPD = 2.29	
5 PCB-1016							Ma
1	5.442	5.442	0.000	8120077	50.0	53.3	M
1	5.773	5.773	0.000	9382153	50.0	52.2	M
1	5.867	5.867	0.000	6064881	50.0	51.1	M
1	6.150	6.150	0.000	4496810	50.0	51.6	M
1	6.212	6.212	0.000	2360077	50.0	49.4	M
		Average of Peak Amounts =				51.5	
2	6.043	6.043	0.000	20755607	50.0	52.6	
2	6.391	6.391	0.000	34878720	50.0	50.2	
2	6.495	6.495	0.000	23366501	50.0	51.4	
2	6.852	6.852	0.000	19474323	50.0	52.6	
2	6.951	6.951	0.000	15393389	50.0	49.5	a
		Average of Peak Amounts =				51.3	
						RPD = 0.50	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.924	6.924	0.000	4454324	50.0	51.6	M
1	7.027	7.027	0.000	9075006	50.0	51.9	M
1	7.230	7.230	0.000	13265645	50.0	51.6	M
1	7.532	7.532	0.000	8894542	50.0	51.9	M
1	7.726	7.726	0.000	7977849	50.0	51.5	M
		Average of Peak Amounts =				51.7	
2	7.713	7.713	0.000	16333980	50.0	52.8	
2	7.844	7.844	0.000	35238939	50.0	52.6	
2	8.139	8.139	0.000	26449082	50.0	51.6	a
2	8.371	8.371	0.000	27045839	50.0	51.8	
2	8.627	8.627	0.000	30483095	50.0	51.6	
		Average of Peak Amounts =				52.1	
						RPD = 0.75	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.083	0.000	15502325	5.01	4.98	
2	10.159	10.159	0.000	40782150	5.01	5.03	
						RPD = 1.05	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 500.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:36 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D

Injection Date: 23-Dec-2018 05:29:29 Instrument ID: TAC057

Lims ID: ic

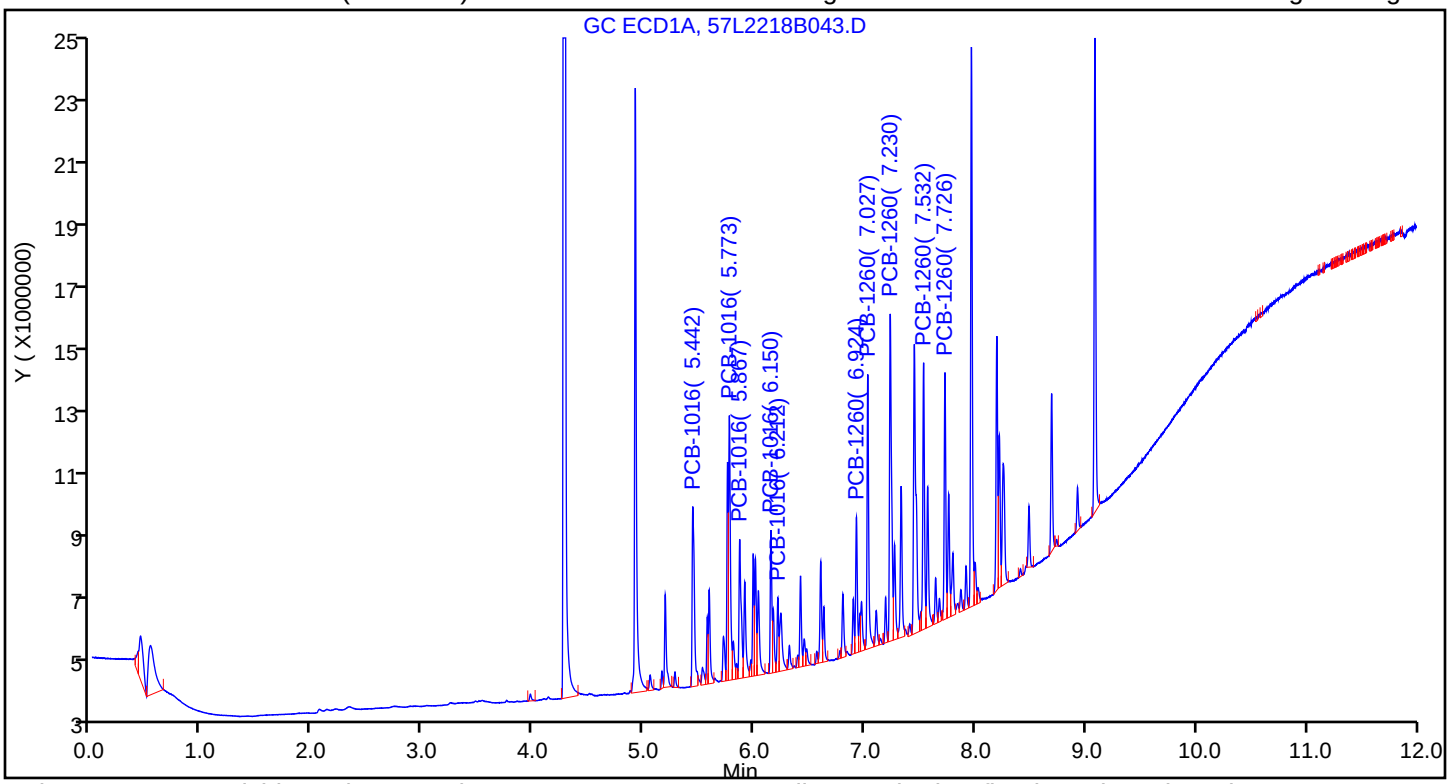
Client ID:

Operator ID: ar ALS Bottle#: 41 Worklist Smp#: 44

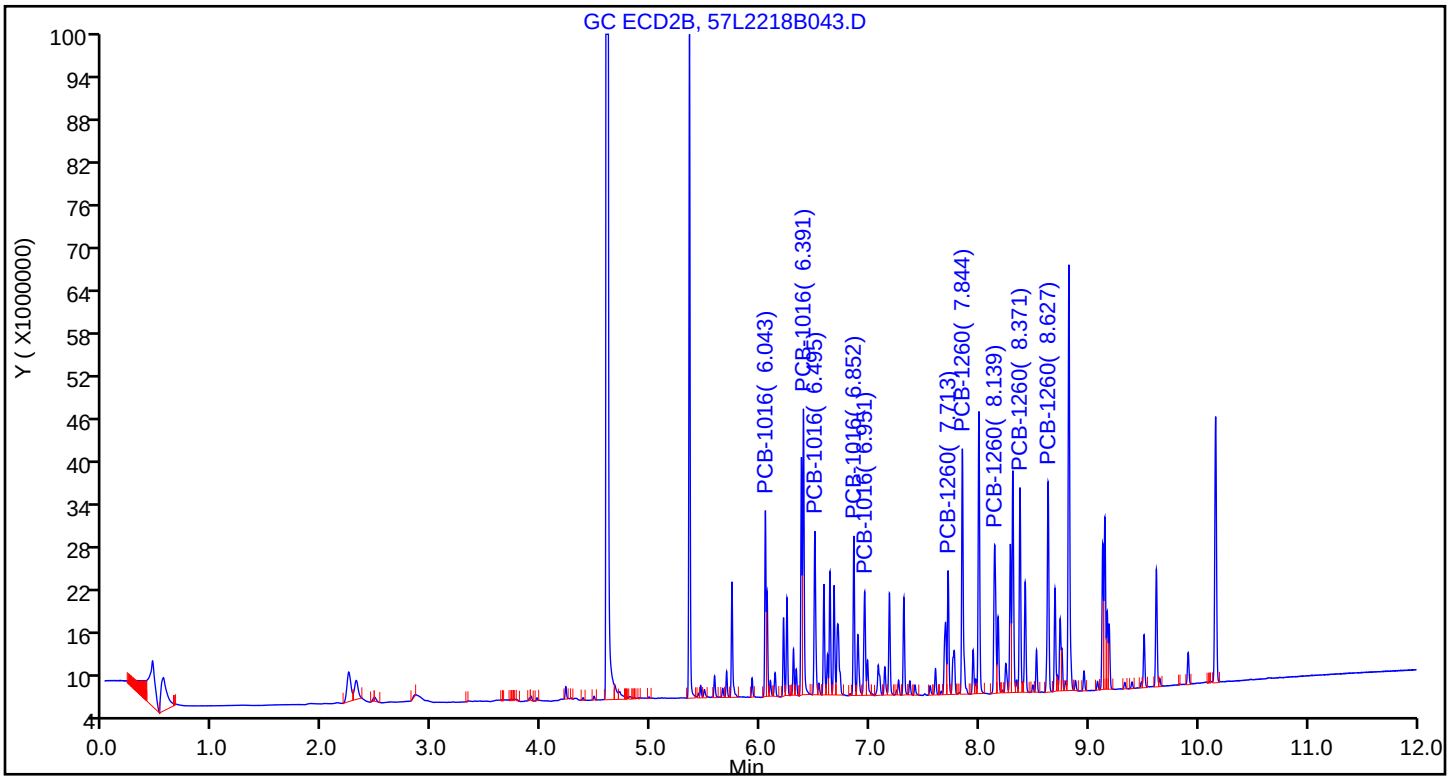
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



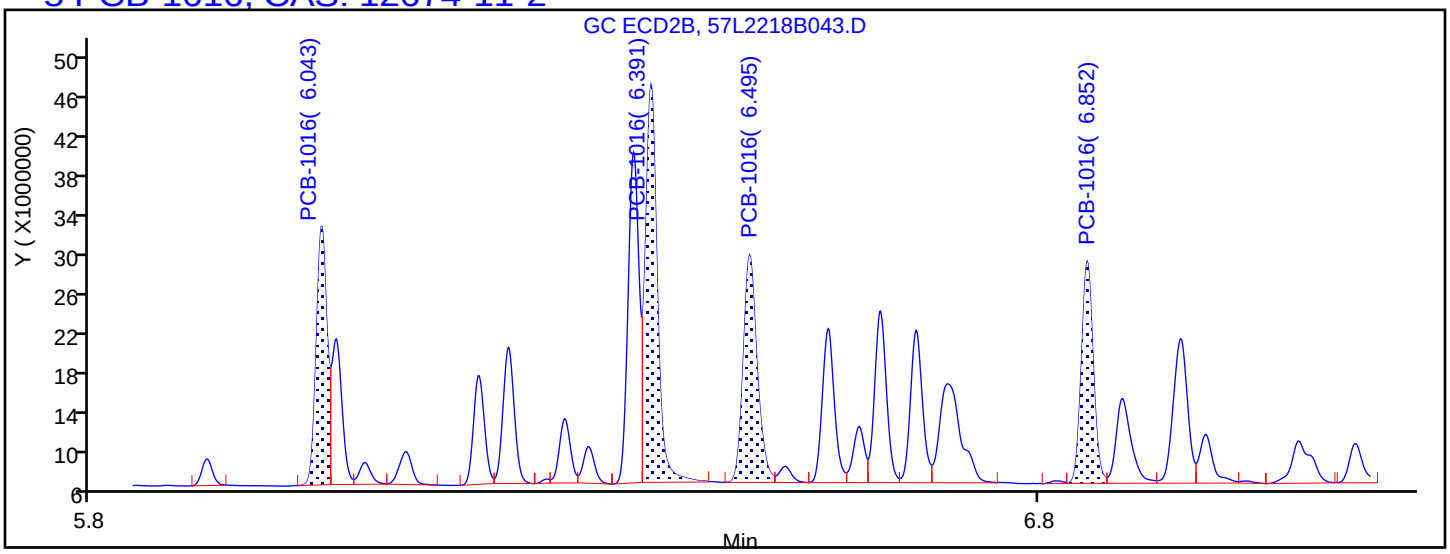
Report Date: 23-Dec-2018 16:17:36 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D

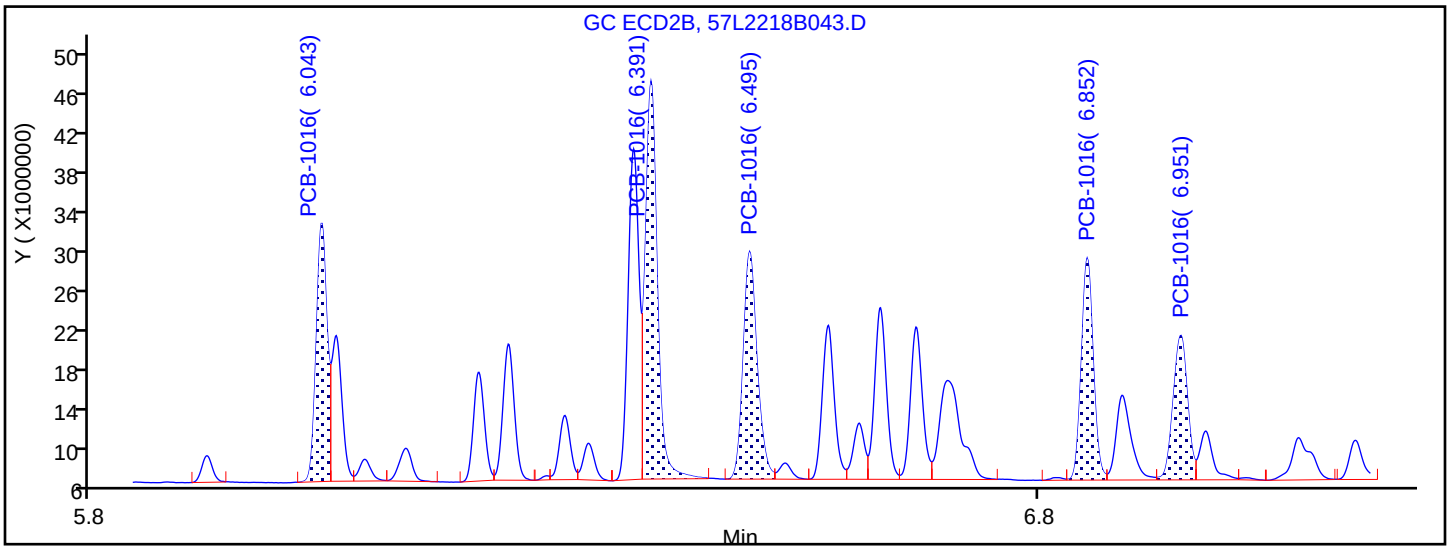
Injection Date:	23-Dec-2018 05:29:29	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	41	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.043	Response = 20755607
6.391	Response = 34878720
6.495	Response = 23366501
6.852	Response = 19474323
7.177	Response = 13006801



Manual Integration Results

6.043	Response = 20755607	
6.391	Response = 34878720	
6.495	Response = 23366501	
6.852	Response = 19474323	
6.951	Response = 15393389	M

Reviewer: ruslandera, 23-Dec-2018 16:00:43

Audit Action: Assigned Compound ID Audit Reason:

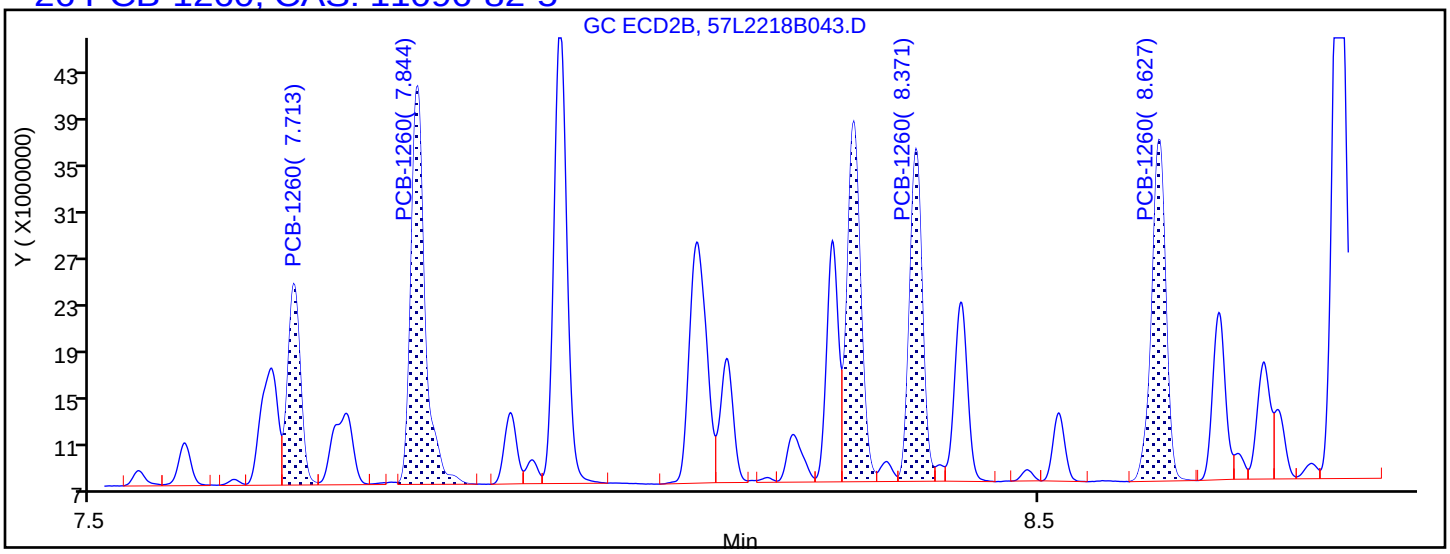
Report Date: 23-Dec-2018 16:17:36 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B043.D

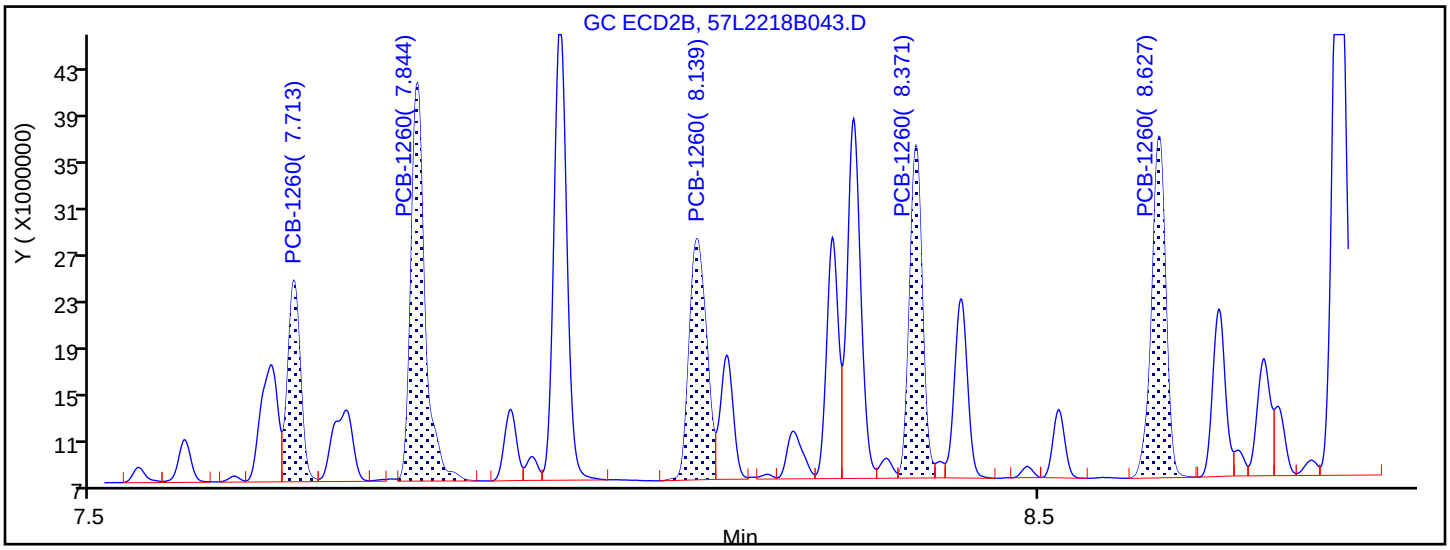
Injection Date:	23-Dec-2018 05:29:29	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	41	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.713	Response = 16333980
7.844	Response = 35238939
8.305	Response = 31193827
8.371	Response = 27045839
8.627	Response = 30483095



Manual Integration Results

7.713	Response = 16333980	
7.844	Response = 35238939	
8.139	Response = 26449082	M
8.371	Response = 27045839	
8.627	Response = 30483095	

Reviewer: ruslandera, 23-Dec-2018 15:56:29

Audit Action: Assigned Compound ID Audit Reason:

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Dec-2018 05:47:01 ALS Bottle#: 42 Worklist Smp#: 45
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:39 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:48:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	194193734	100.0	100.0	
2	4.595	4.597	-0.002	1167165367	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						51.6	
2						52.6	
						RPD = 1.90	
$ 9 Tetrachloro-m-xylene							
1	4.921	4.922	-0.001	10553113	2.50	2.46	
2	5.348	5.349	-0.001	36663780	2.50	2.46	
						RPD = 0.25	
5 PCB-1016							Ma
1	5.442	5.442	0.000	4320748	25.0	27.3	M
1	5.775	5.773	0.002	4931497	25.0	26.6	M
1	5.868	5.867	0.001	3078886	25.0	25.5	M
1	6.150	6.150	0.000	2239282	25.0	25.4	M
1	6.212	6.212	0.000	1186466	25.0	25.0	M
		Average of Peak Amounts =				26.0	
2	6.043	6.043	0.000	11251020	25.0	27.1	
2	6.390	6.391	-0.001	18961931	25.0	26.2	
2	6.495	6.495	0.000	12398847	25.0	25.7	
2	6.851	6.852	-0.001	10239712	25.0	26.2	
2	6.950	6.951	-0.001	7965078	25.0	24.5	a
		Average of Peak Amounts =				25.9	
						RPD = 0.08	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.923	6.924	-0.001	2294792	25.0	25.6	M
1	7.026	7.027	-0.001	4731714	25.0	26.3	M
1	7.230	7.230	0.000	6853238	25.0	25.9	M
1	7.531	7.532	-0.001	4445443	25.0	25.2	M
1	7.725	7.726	-0.001	3949623	25.0	25.0	M
		Average of Peak Amounts =				25.6	
2	7.712	7.713	-0.001	8856959	25.0	27.3	M
2	7.842	7.844	-0.002	18714691	25.0	26.6	M
2	8.137	8.139	-0.002	14052824	25.0	26.3	M
2	8.369	8.371	-0.002	14623551	25.0	26.7	M
2	8.626	8.627	-0.001	16226219	25.0	26.3	M
		Average of Peak Amounts =				26.6	
						RPD = 3.87	
$ 43 DCB Decachlorobiphenyl							
1	9.082	9.083	-0.001	7765519	2.50	2.48	
2	10.157	10.159	-0.002	20782995	2.50	2.55	
						RPD = 2.93	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 250.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D

Injection Date: 23-Dec-2018 05:47:01 Instrument ID: TAC057

Lims ID: ic

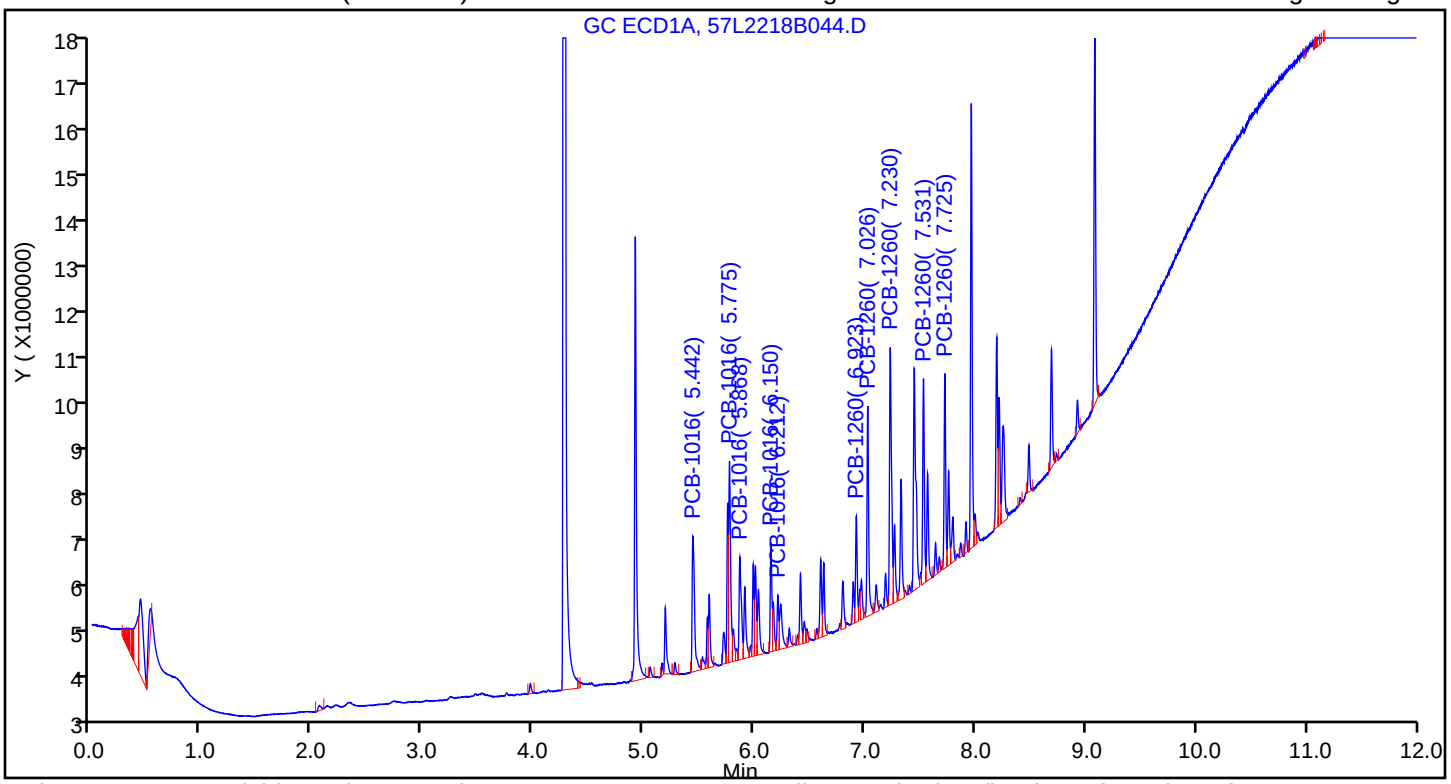
Client ID:

Operator ID: ar ALS Bottle#: 42 Worklist Smp#: 45

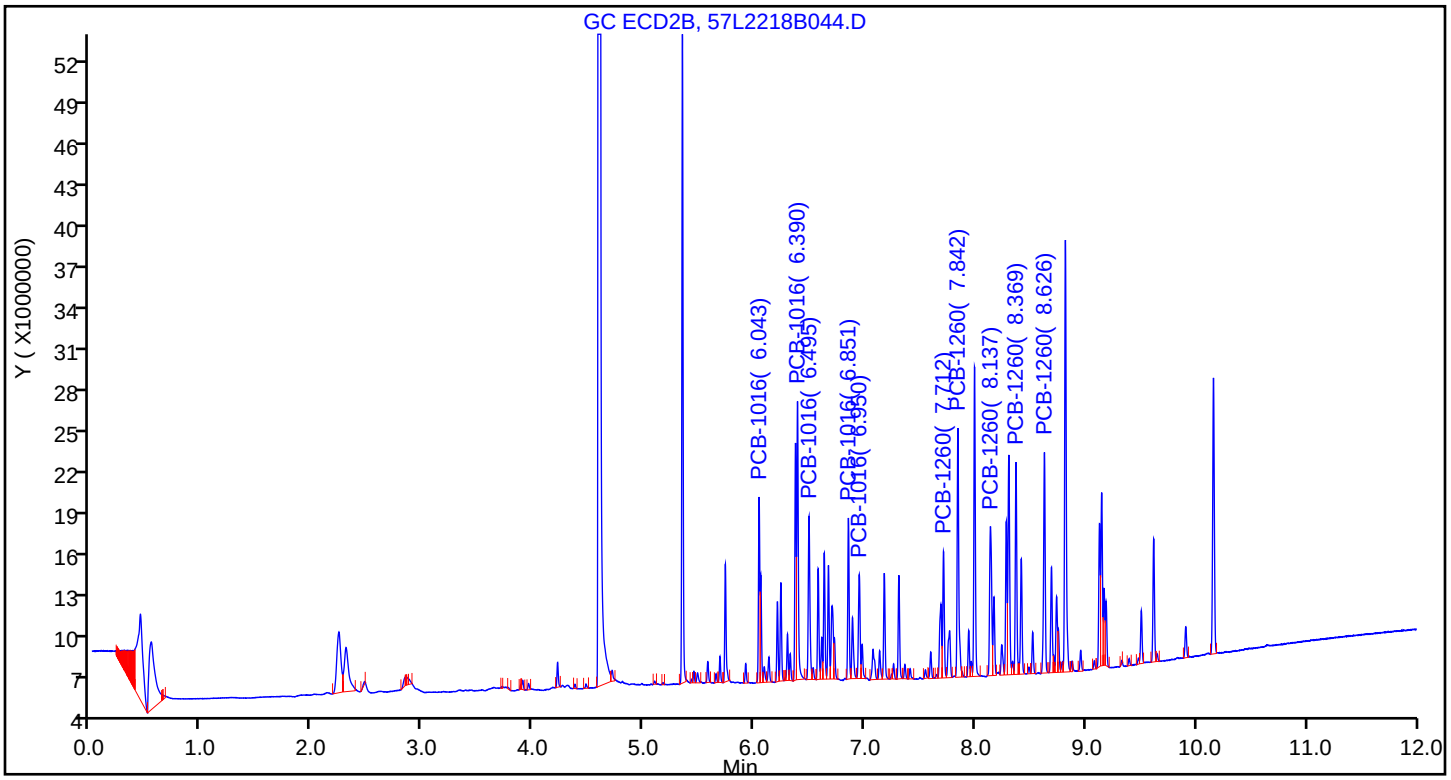
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D

Injection Date: 23-Dec-2018 05:47:01 Instrument ID: TAC057

Lims ID: ic

Client ID:

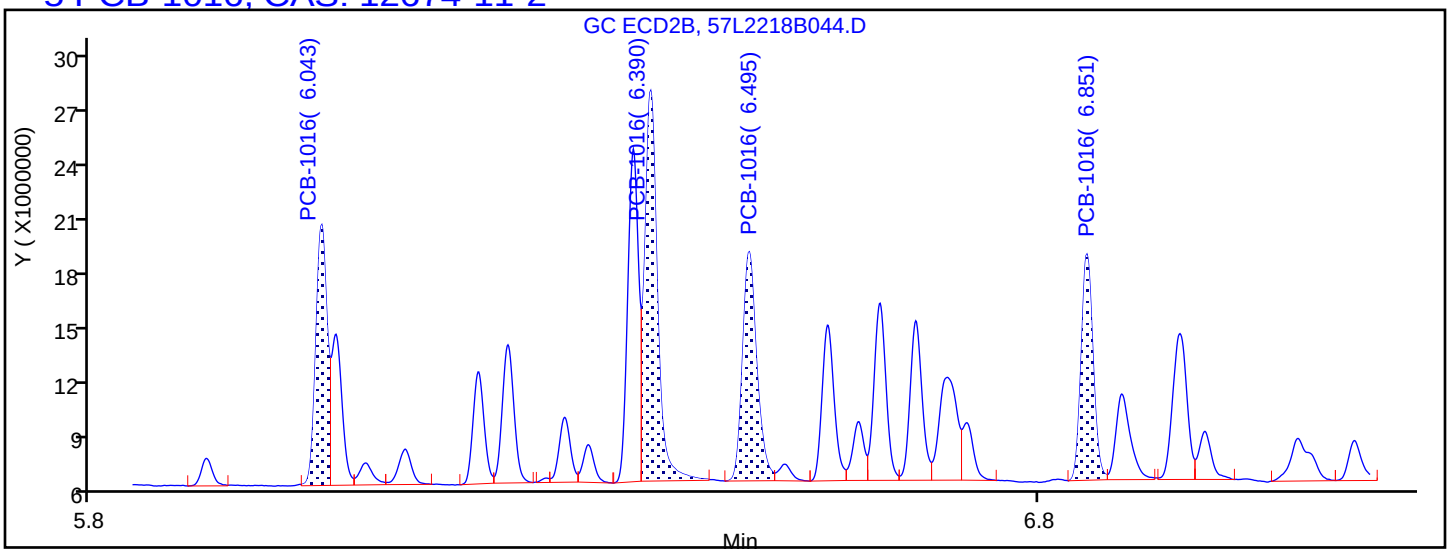
Operator ID: ar ALS Bottle#: 42 Worklist Smp#: 45

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

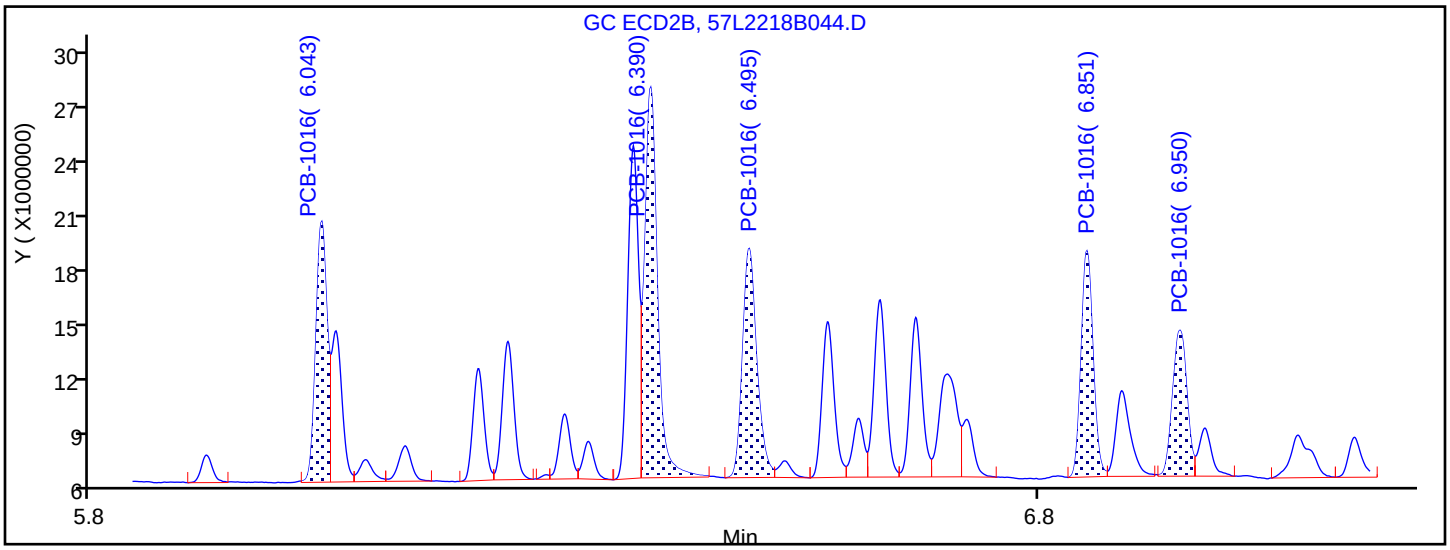
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.043	Response = 11251020
6.390	Response = 18961931
6.495	Response = 12398847
6.851	Response = 10239712
7.176	Response = 7001433



Manual Integration Results

6.043	Response = 11251020	
6.390	Response = 18961931	
6.495	Response = 12398847	
6.851	Response = 10239712	
6.950	Response = 7965078	M

Reviewer: ruslandera, 23-Dec-2018 16:00:53

Audit Action: Assigned Compound ID Audit Reason:

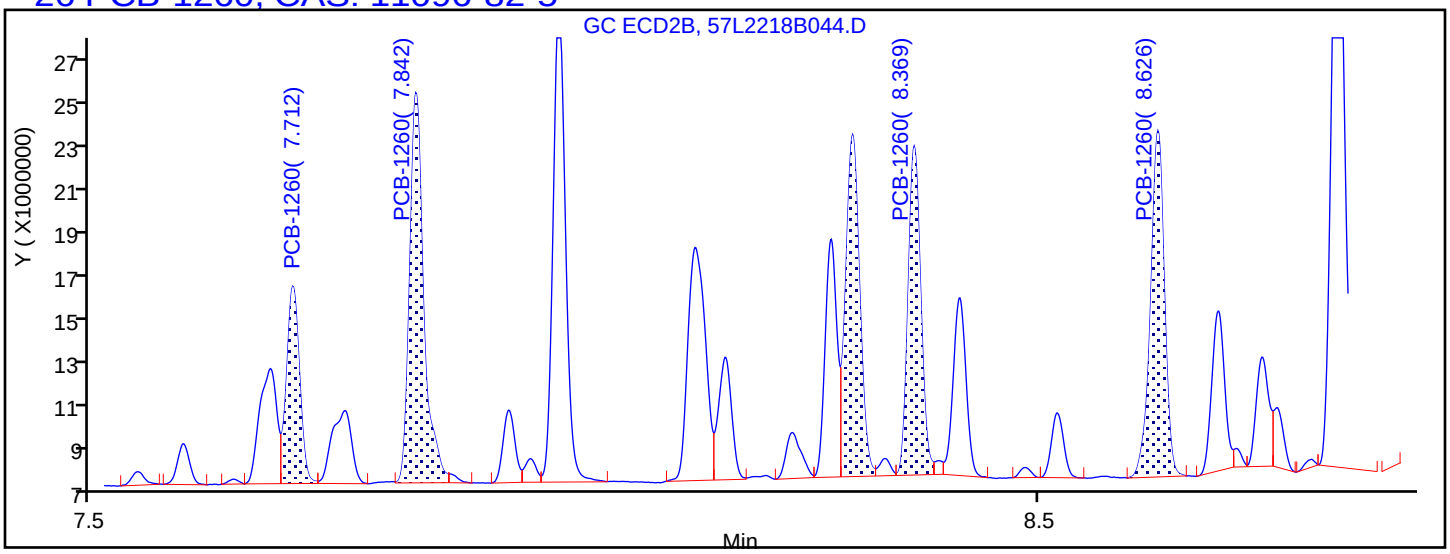
Report Date: 23-Dec-2018 16:17:40 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B044.D

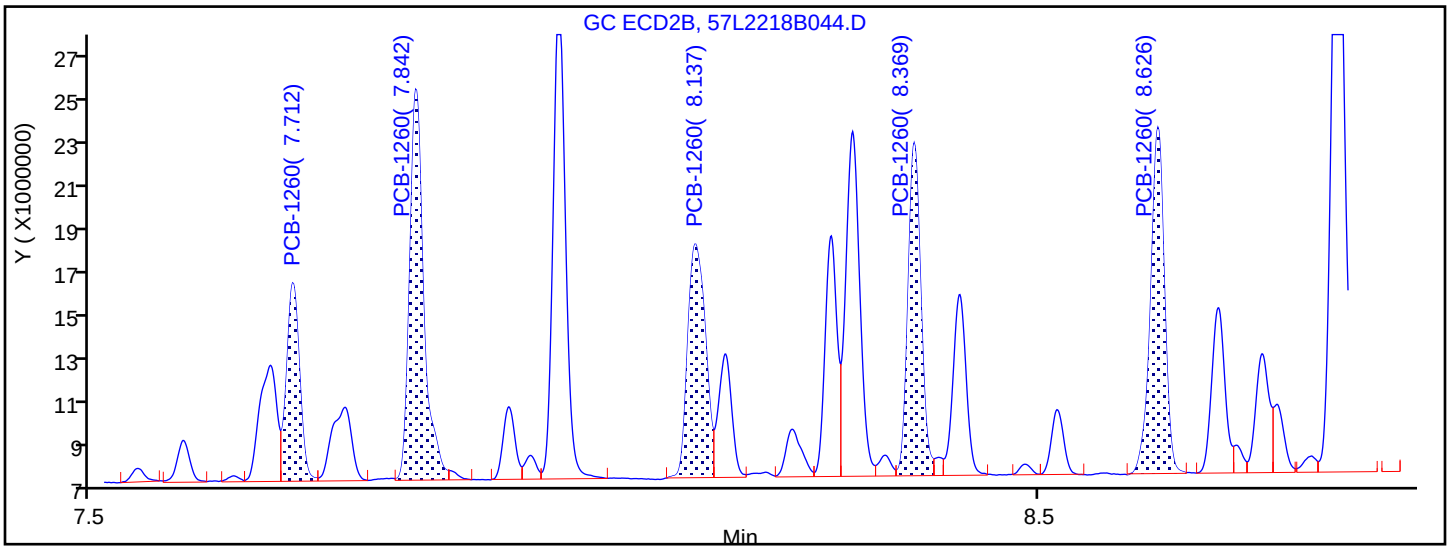
Injection Date:	23-Dec-2018 05:47:01	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	42	Worklist Smp#:	45
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.712	Response = 8751227
7.842	Response = 18624884
8.304	Response = 16290103
8.369	Response = 14178742
8.626	Response = 16247838



Manual Integration Results

7.712	Response = 8856959	M
7.842	Response = 18714691	M
8.137	Response = 14052824	M
8.369	Response = 14623551	M
8.626	Response = 16226219	M

Reviewer: ruslandera, 23-Dec-2018 15:48:06

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Dec-2018 06:04:34 ALS Bottle#: 43 Worklist Smp#: 46
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:42 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:48:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	192925285	100.0	100.0	
2	4.595	4.597	-0.002	1158624301	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						20.2	
2						21.4	
						RPD = 5.56	
$ 9 Tetrachloro-m-xylene							
1	4.923	4.922	0.001	4226462	1.00	0.99	
2	5.348	5.349	-0.001	15783349	1.00	1.06	
						RPD = 7.05	
5 PCB-1016							Ma
1	5.443	5.442	0.001	1799830	10.0	10.4	
1	5.776	5.773	0.003	2067664	10.0	10.5	
1	5.869	5.867	0.002	1213461	10.0	9.89	
1	6.151	6.150	0.001	935584	10.0	10.5	
1	6.213	6.212	0.001	430600	10.0	9.58	a
		Average of Peak Amounts =				10.2	
2	6.043	6.043	0.000	4981360	10.0	10.5	M
2	6.391	6.391	0.000	8548384	10.0	10.8	M
2	6.494	6.495	-0.001	5797800	10.0	10.6	M
2	6.852	6.852	0.000	4692203	10.0	10.7	M
2	6.950	6.951	-0.001	3712505	10.0	10.6	M
		Average of Peak Amounts =				10.6	
						RPD = 4.24	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.924	6.924	0.000	958870	10.0	9.91	M
1	7.026	7.027	-0.001	1900701	10.0	10.0	M
1	7.231	7.230	0.001	2798496	10.0	10.0	M
1	7.531	7.532	-0.001	1900644	10.0	10.2	M
1	7.725	7.726	-0.001	1628632	10.0	10.0	M
		Average of Peak Amounts =				10.0	
2	7.713	7.713	0.000	3935963	10.0	10.8	M
2	7.843	7.844	-0.001	8420890	10.0	10.7	M
2	8.138	8.139	-0.001	6253647	10.0	10.6	M
2	8.369	8.371	-0.002	6639618	10.0	10.9	M
2	8.627	8.627	0.000	7300071	10.0	10.7	
		Average of Peak Amounts =				10.7	
						RPD = 6.88	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.083	0.000	3255246	1.00	1.05	
2	10.157	10.159	-0.002	9776136	1.00	1.21	
						RPD = 14.51	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 100.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:43 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D

Injection Date: 23-Dec-2018 06:04:34 Instrument ID: TAC057

Lims ID: ic

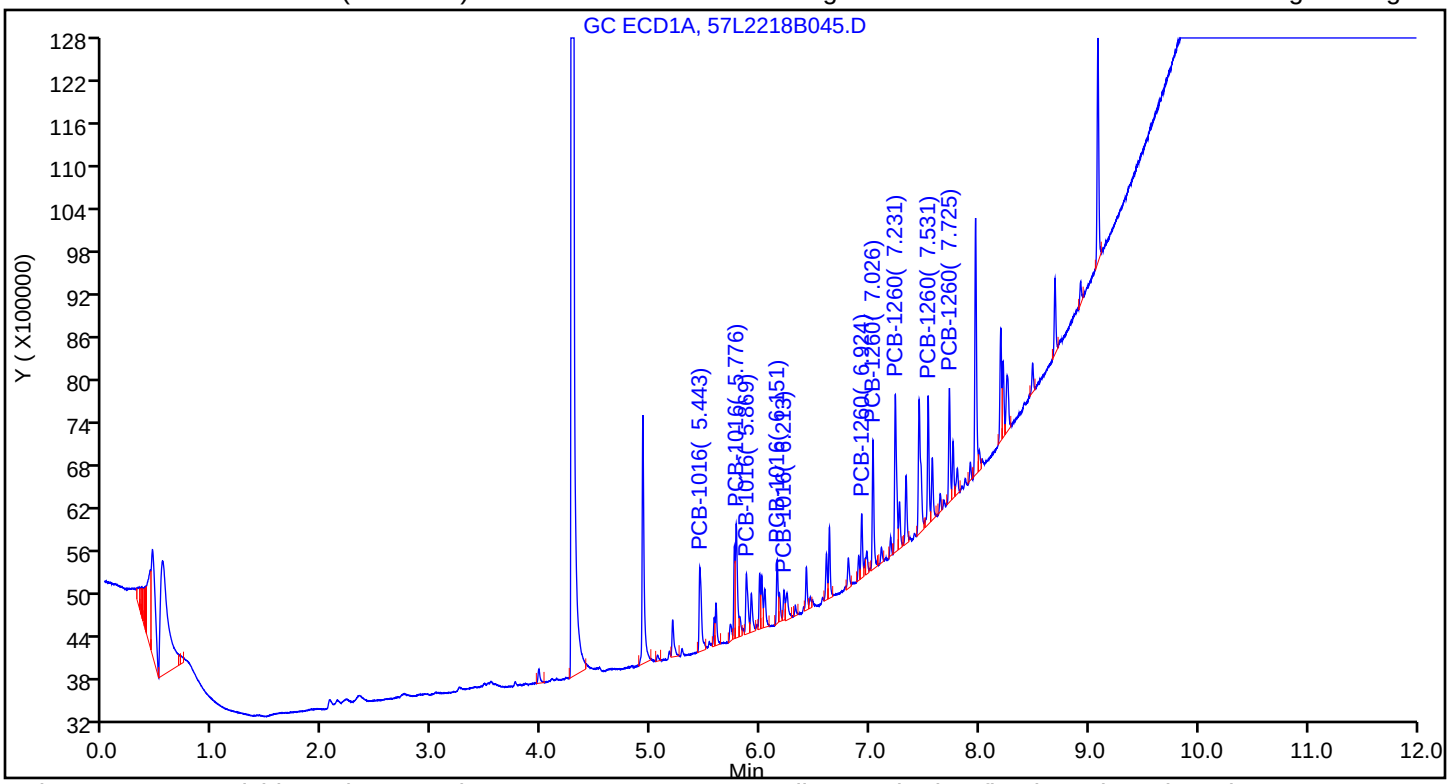
Client ID:

Operator ID: ar ALS Bottle#: 43 Worklist Smp#: 46

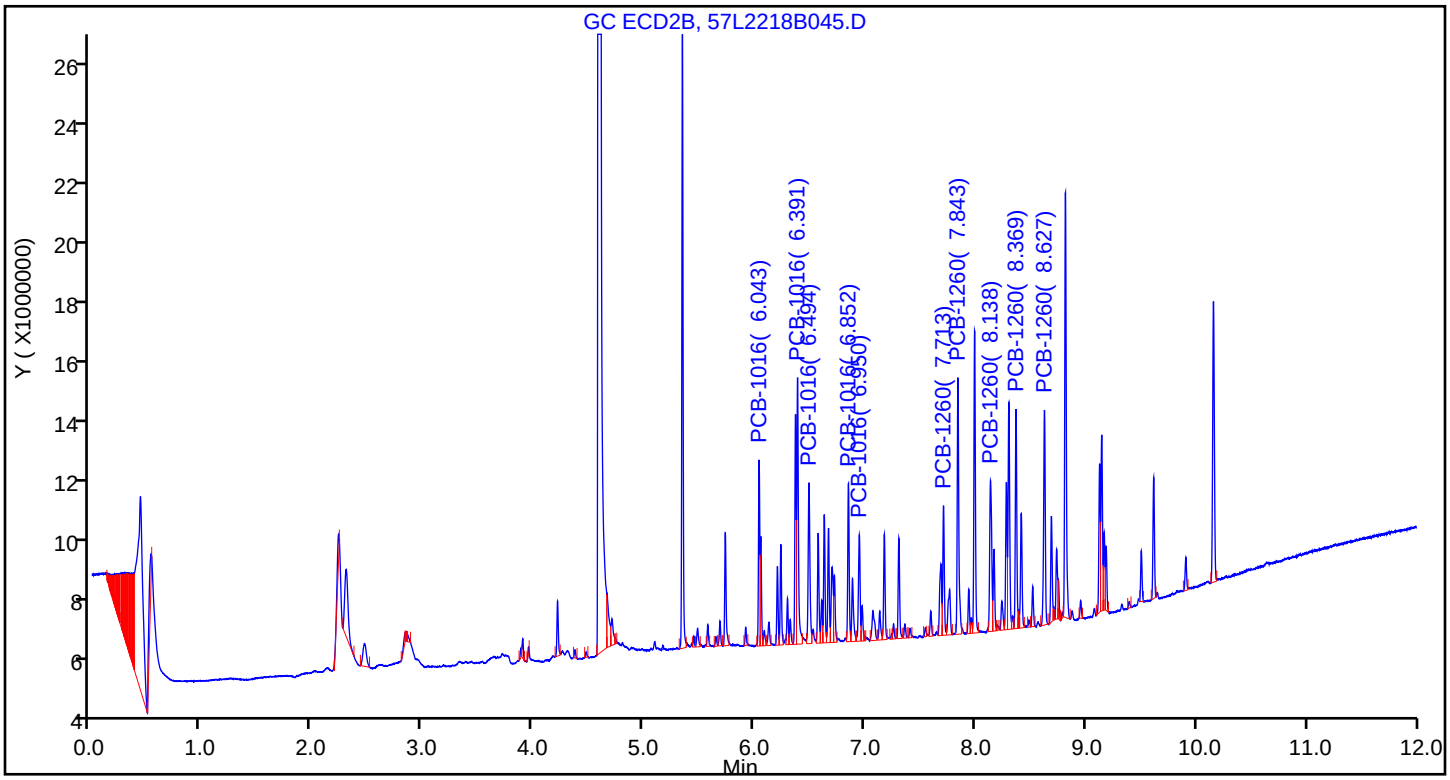
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:43 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D

Injection Date: 23-Dec-2018 06:04:34 Instrument ID: TAC057

Lims ID: ic

Client ID:

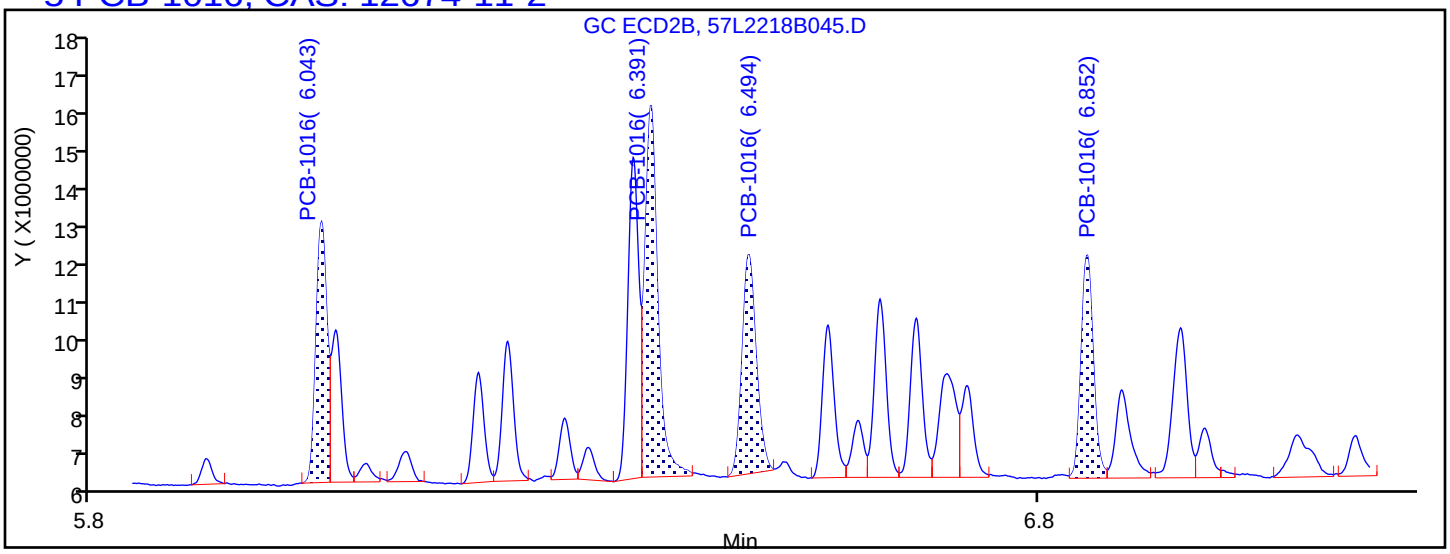
Operator ID: ar ALS Bottle#: 43 Worklist Smp#: 46

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

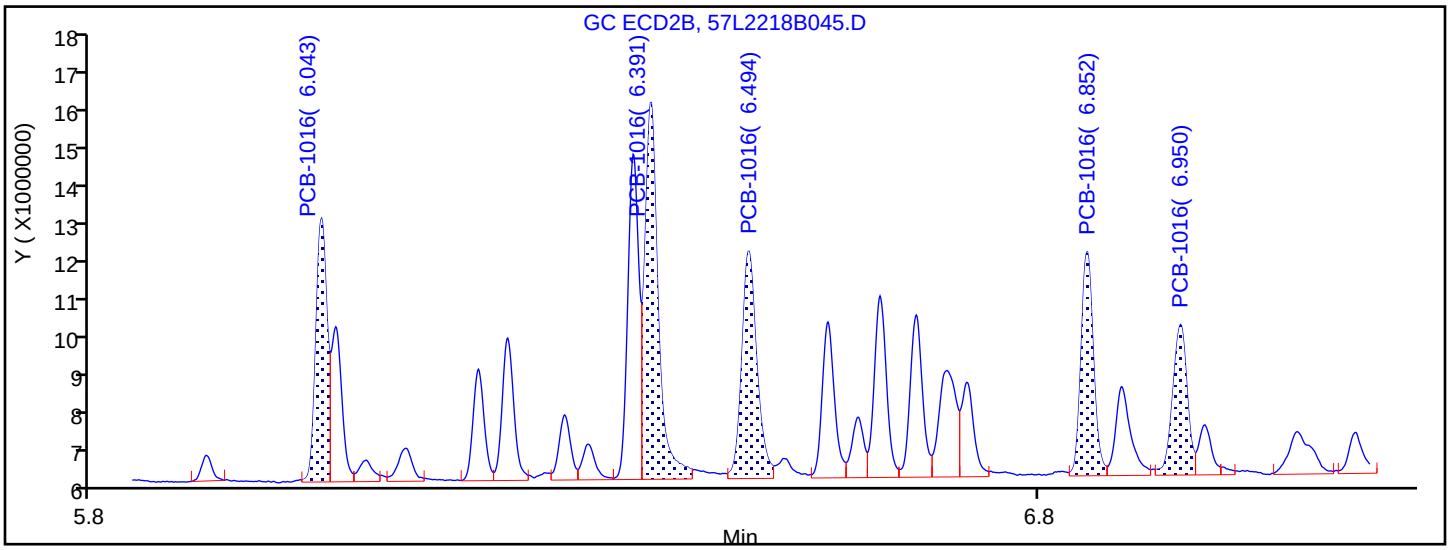
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.043	Response = 4874048
6.391	Response = 8116400
6.494	Response = 5244080
6.852	Response = 4643604
7.177	Response = 3112874



Manual Integration Results

6.043	Response = 4981360	M
6.391	Response = 8548384	M
6.494	Response = 5797800	M
6.852	Response = 4692203	M
6.950	Response = 3712505	M

Reviewer: ruslandera, 23-Dec-2018 15:48:34

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

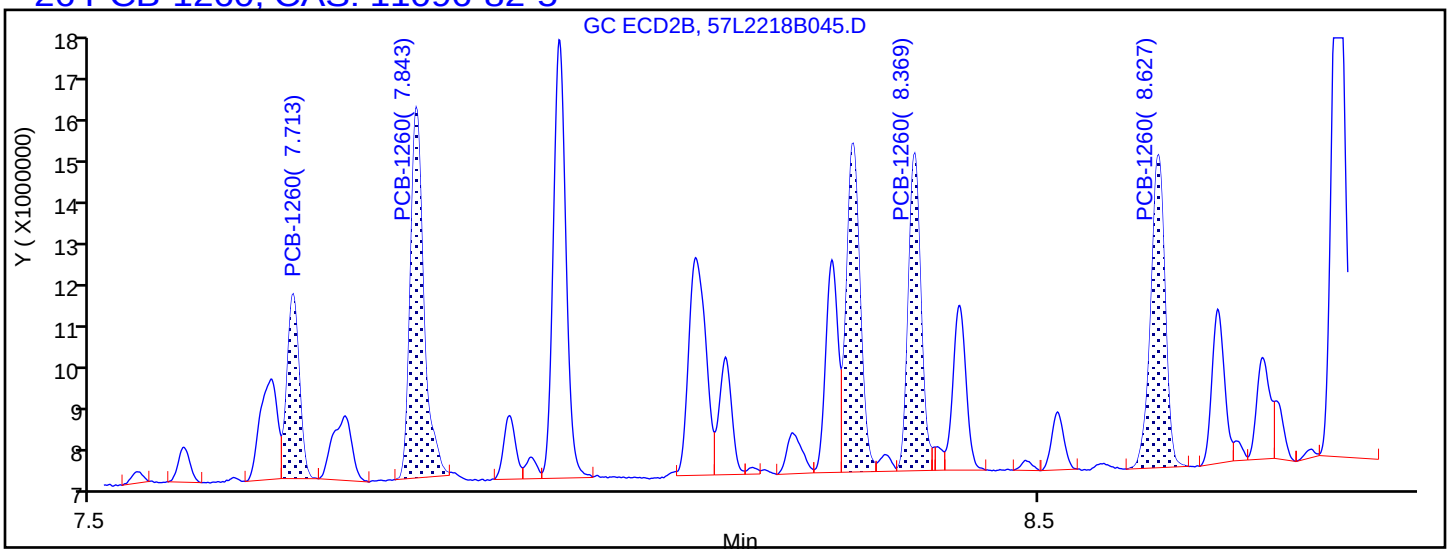
Report Date: 23-Dec-2018 16:17:43 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B045.D

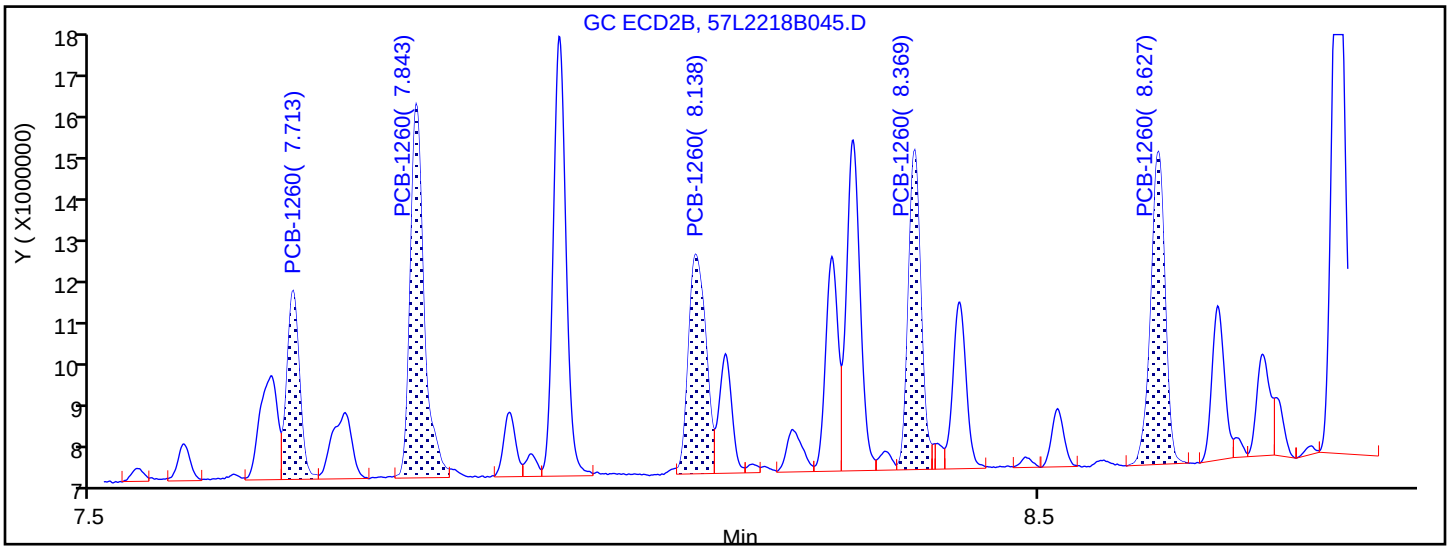
Injection Date:	23-Dec-2018 06:04:34	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	43	Worklist Smp#:	46
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.713	Response = 3726181
7.843	Response = 8143819
8.304	Response = 7412423
8.369	Response = 6531436
8.627	Response = 7300071



Manual Integration Results

7.713	Response = 3935963	M
7.843	Response = 8420890	M
8.138	Response = 6253647	M
8.369	Response = 6639618	M
8.627	Response = 7300071	

Reviewer: ruslandera, 23-Dec-2018 15:48:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Dec-2018 06:22:06 ALS Bottle#: 44 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC
Operator ID: ar Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:45 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:49:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	197171322	100.0	100.0	
2	4.596	4.597	-0.001	1180074377	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						9.87	
2						9.57	
						RPD = 3.12	
$ 9 Tetrachloro-m-xylene							
1	4.922	4.922	0.000	2370964	0.5008	0.5448	
2	5.348	5.349	-0.001	8683643	0.5008	0.5753	
						RPD = 5.45	
5 PCB-1016							Ma
1	5.443	5.442	0.001	982423	5.00	4.76	M
1	5.777	5.773	0.004	1092964	5.00	4.79	M
1	5.870	5.867	0.003	618419	5.00	4.73	M
1	6.151	6.150	0.001	452936	5.00	4.85	M
1	6.213	6.212	0.001	235337	5.00	5.45	M
		Average of Peak Amounts =				4.91	
2	6.043	6.043	0.000	2875451	5.00	4.76	M
2	6.391	6.391	0.000	4631749	5.00	4.76	M
2	6.495	6.495	0.000	3400022	5.00	4.82	M
2	6.851	6.852	-0.001	2642653	5.00	4.75	M
2	6.950	6.951	-0.001	2097208	5.00	5.06	M
		Average of Peak Amounts =				4.83	
						RPD = 1.73	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.924	6.924	0.000	557306	5.00	4.98	M
1	7.026	7.027	-0.001	1051695	5.00	4.93	M
1	7.230	7.230	0.000	1554523	5.00	4.95	M
1	7.532	7.532	0.000	1041476	5.00	4.93	M
1	7.725	7.726	-0.001	879039	5.00	4.99	M
		Average of Peak Amounts =				4.96	
2	7.713	7.713	0.000	2181962	5.00	4.69	M
2	7.843	7.844	-0.001	4677845	5.00	4.74	M
2	8.138	8.139	-0.001	3458961	5.00	4.79	M
2	8.369	8.371	-0.002	3626169	5.00	4.70	M
2	8.627	8.627	0.000	4014802	5.00	4.76	
		Average of Peak Amounts =				4.74	
						RPD = 4.52	
$ 43 DCB Decachlorobiphenyl							
1	9.084	9.083	0.001	1661163	0.5005	0.5220	
2	10.158	10.159	-0.001	5368951	0.5005	0.6519	
						RPD = 22.13	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660IC0100_00013	Amount Added: 50.00	Units: uL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Injection Date: 23-Dec-2018 06:22:06 Instrument ID: TAC057

Lims ID: ic

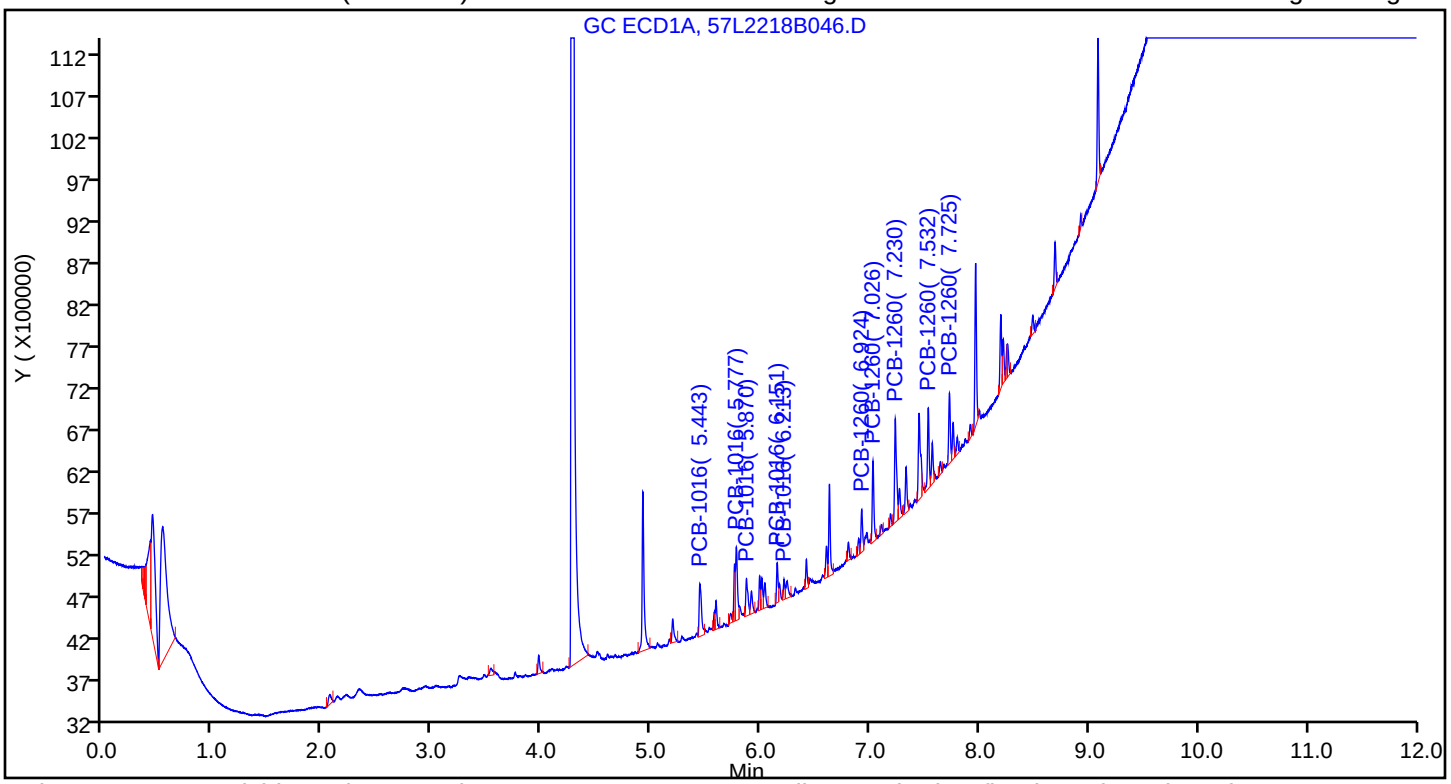
Client ID:

Operator ID: ar ALS Bottle#: 44 Worklist Smp#: 47

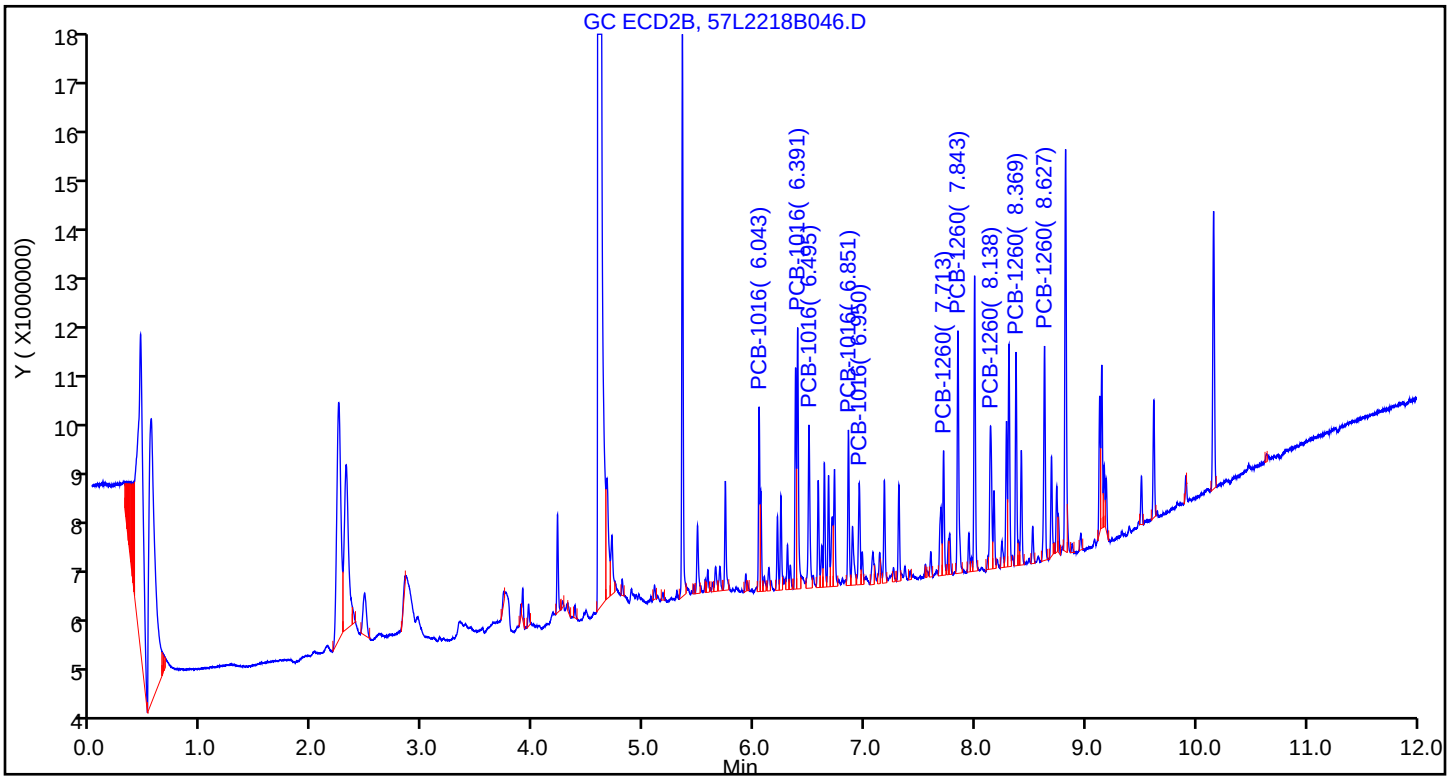
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Injection Date: 23-Dec-2018 06:22:06 Instrument ID: TAC057

Lims ID: ic

Client ID:

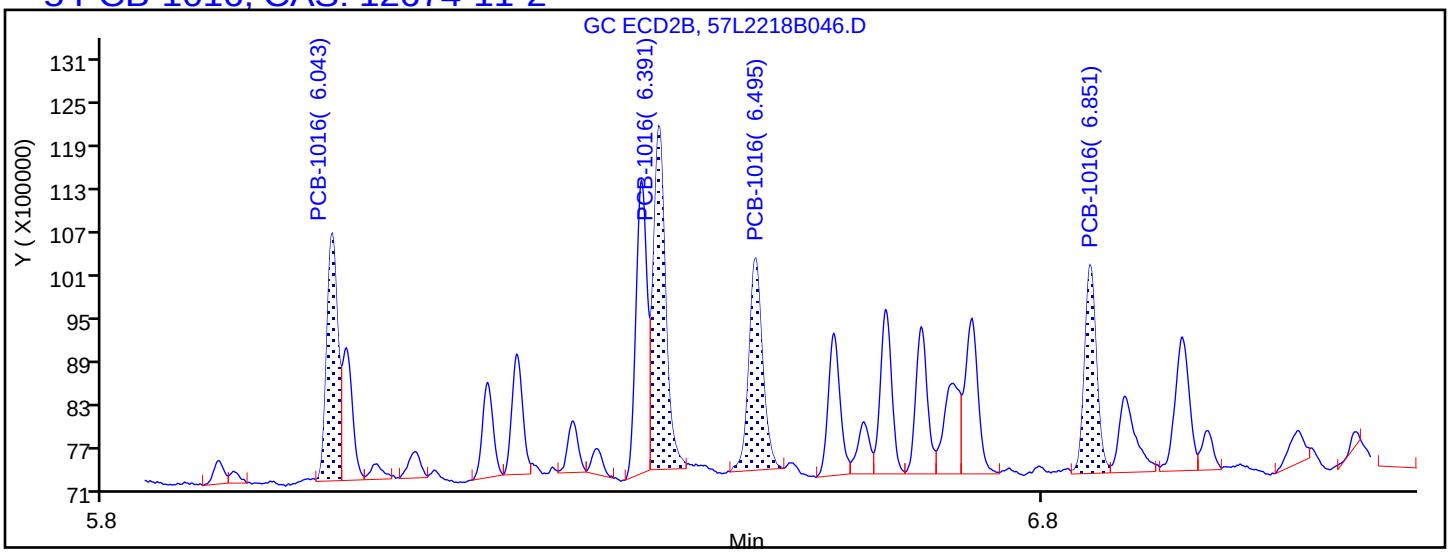
Operator ID: ar ALS Bottle#: 44 Worklist Smp#: 47

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

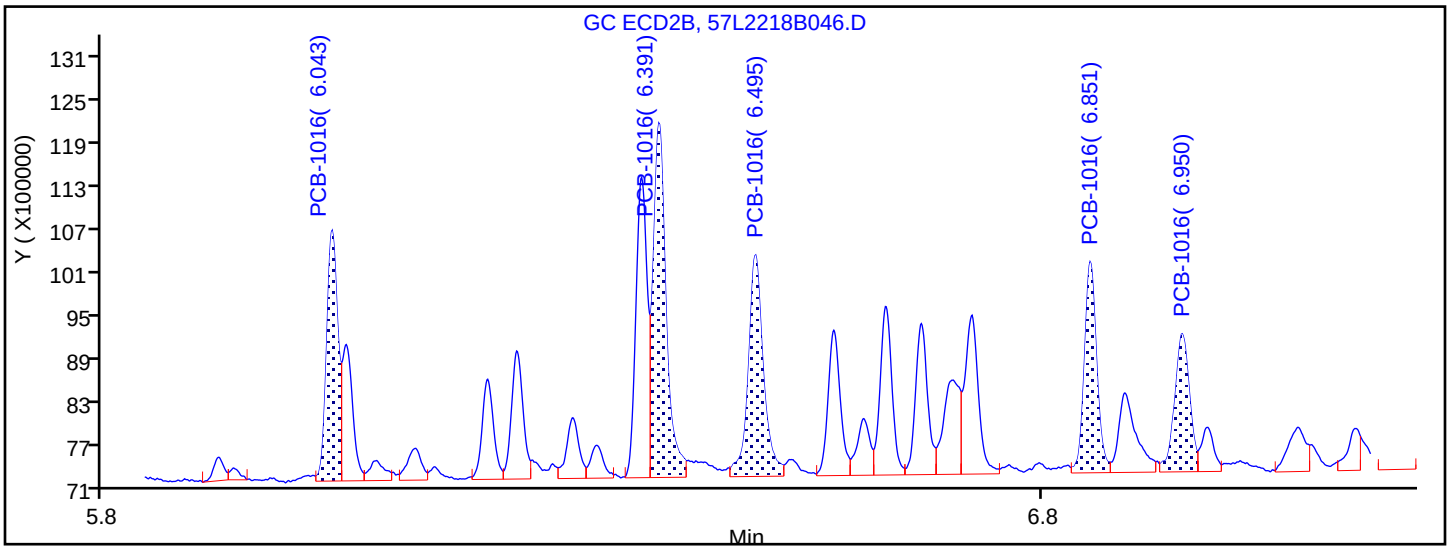
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.043	Response = 2799364
6.391	Response = 4269801
6.495	Response = 2946437
6.851	Response = 2551962
7.177	Response = 1594136



Manual Integration Results

6.043	Response = 2875451	M
6.391	Response = 4631749	M
6.495	Response = 3400022	M
6.851	Response = 2642653	M
6.950	Response = 2097208	M

Reviewer: ruslandera, 23-Dec-2018 15:49:09

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

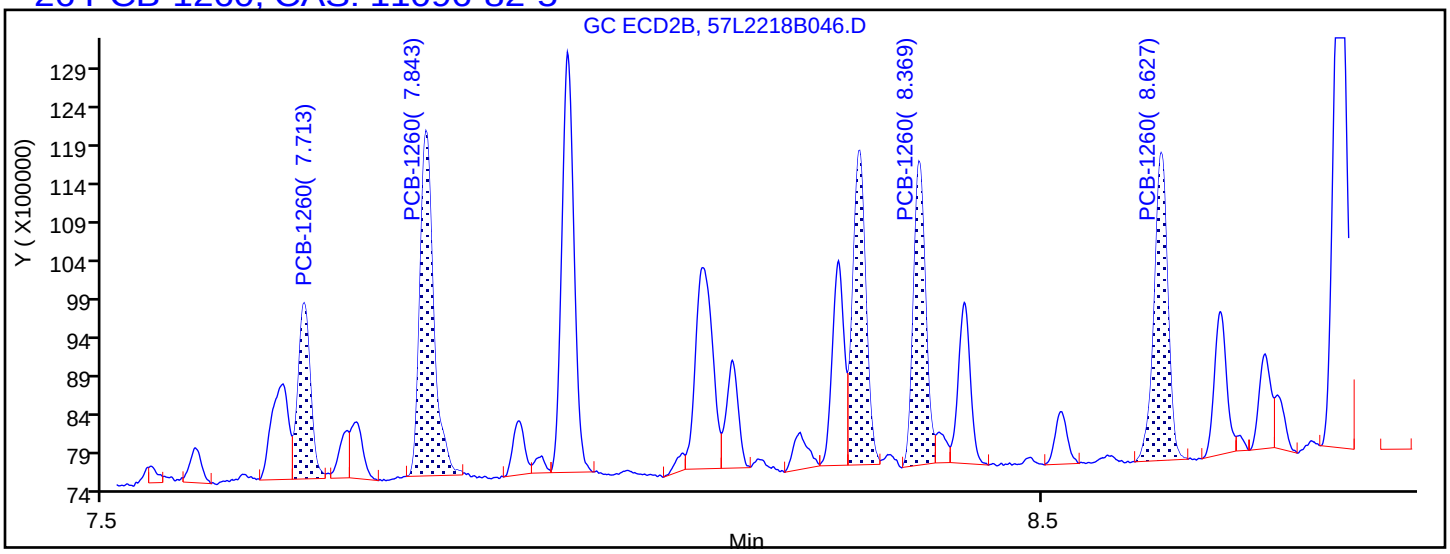
Report Date: 23-Dec-2018 16:17:46 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

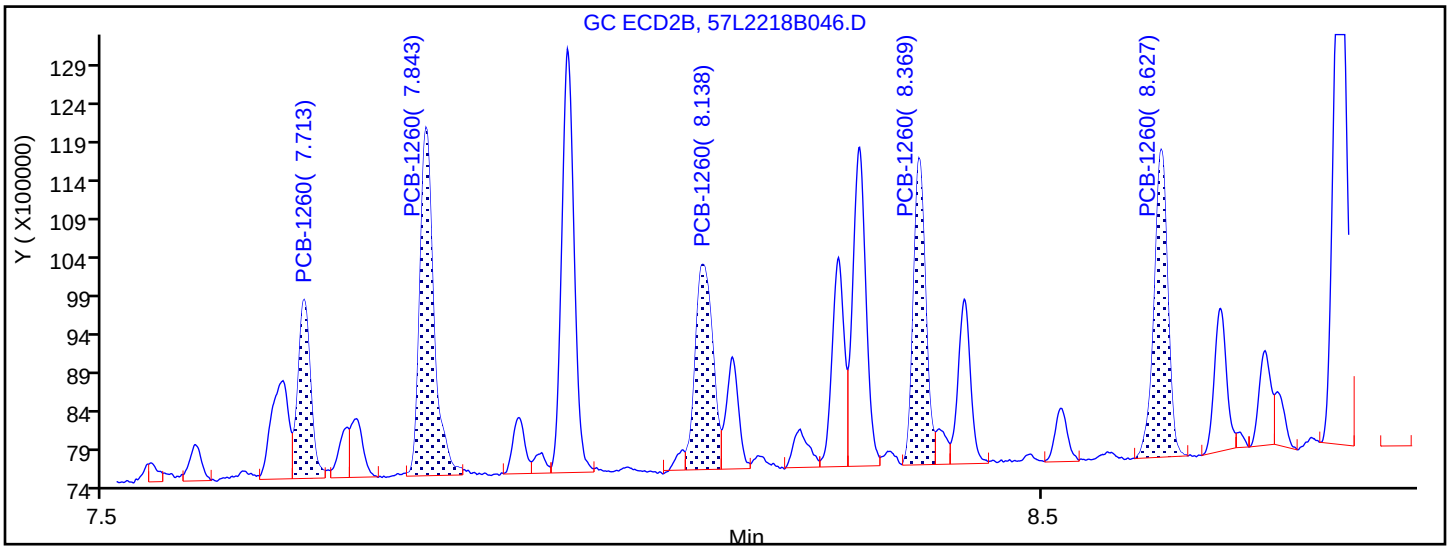
Injection Date:	23-Dec-2018 06:22:06	Instrument ID:	TAC057		
Lims ID:	ic				
Client ID:					
Operator ID:	ar	ALS Bottle#:	44	Worklist Smp#:	47
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.713	Response = 2105104
7.843	Response = 4529654
8.305	Response = 3935839
8.369	Response = 3546108
8.627	Response = 4014802



Manual Integration Results

7.713	Response = 2181962	M
7.843	Response = 4677845	M
8.138	Response = 3458961	M
8.369	Response = 3626169	M
8.627	Response = 4014802	

Reviewer: ruslandera, 23-Dec-2018 15:49:11

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/12 Calibration Date: 12/22/2018 20:07

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57L2218B011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin2		0.0372			0.100	-0.8	20.0
PCB-1232 Peak 2	Lin2		0.0352			0.100	11.2	20.0
PCB-1232 Peak 3	Lin2		0.0416			0.100	12.1	20.0
PCB-1232 Peak 4	Lin2		0.0278			0.100	8.0	20.0
PCB-1232 Peak 5	Lin2		0.0202			0.100	14.7	20.0
PCB-1262 Peak 1	Ave	0.0449	0.0441			0.100	-1.8	20.0
PCB-1262 Peak 2	Lin2		0.1058			0.100	12.1	20.0
PCB-1262 Peak 3	Lin2		0.1209			0.100	-0.3	20.0
PCB-1262 Peak 4	Ave	0.1081	0.0979			0.100	-9.4	20.0
PCB-1262 Peak 5	Ave	0.2136	0.2234			0.100	4.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/12 Calibration Date: 12/22/2018 20:07

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57L2218B011.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.19	5.09	5.29
PCB-1232 Peak 2	5.44	5.34	5.54
PCB-1232 Peak 3	5.77	3.77	7.77
PCB-1232 Peak 4	5.86	3.86	7.86
PCB-1232 Peak 5	6.15	4.15	8.15
PCB-1262 Peak 1	6.92	6.82	7.02
PCB-1262 Peak 2	7.23	7.13	7.33
PCB-1262 Peak 3	7.53	5.53	9.53
PCB-1262 Peak 4	7.72	5.72	9.72
PCB-1262 Peak 5	7.96	5.96	9.96

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D
Lims ID: ICV AR 3262
Client ID:
Sample Type: ICV
Inject. Date: 22-Dec-2018 20:07:55 ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 3262
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:27:29 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:00:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.275	0.001	172661784	100.0	100.0	a
2	4.596	4.596	0.000	1061107726	100.0	100.0	a
						RPD = 0.00	
8 PCB-1232							
1	5.188	5.187	0.001	6421608	100.0	99.2	
1	5.440	5.439	0.001	6070564	100.0	111.2	
1	5.771	5.770	0.001	7175321	100.0	112.1	
1	5.864	5.863	0.001	4793233	100.0	108.0	
1	6.148	6.147	0.001	3492072	100.0	114.7	
		Average of Peak Amounts =				109.1	
2	5.736	5.736	0.000	26167435	100.0	99.8	
2	6.043	6.042	0.001	18769182	100.0	106.6	
2	6.495	6.494	0.001	19452272	100.0	104.9	
2	6.852	6.852	0.000	15413763	100.0	113.8	
2	7.177	7.177	0.000	25054428	100.0	115.8	
		Average of Peak Amounts =				108.2	
						RPD = 0.80	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.922	6.921	0.001	7620564	100.0	98.2	M
1	7.229	7.228	0.001	18273099	100.0	112.1	M
1	7.531	7.530	0.001	20868397	100.0	99.7	M
1	7.724	7.724	0.000	16894735	100.0	90.6	M
1	7.963	7.963	0.000	38567940	100.0	104.6	M
		Average of Peak Amounts =				101.0	
2	7.714	7.715	-0.001	28551994	100.0	96.1	
2	7.996	7.995	0.001	54923473	100.0	107.3	
2	8.371	8.371	0.000	63802804	100.0	95.2	
2	8.629	8.629	0.000	57288288	100.0	99.2	
2	8.819	8.819	0.000	117180528	100.0	102.0	
		Average of Peak Amounts =				100.0	
						RPD = 1.06	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262ICV100_00018	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:27:32 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D

Injection Date: 22-Dec-2018 20:07:55 Instrument ID: TAC057

Lims ID: ICV AR 3262

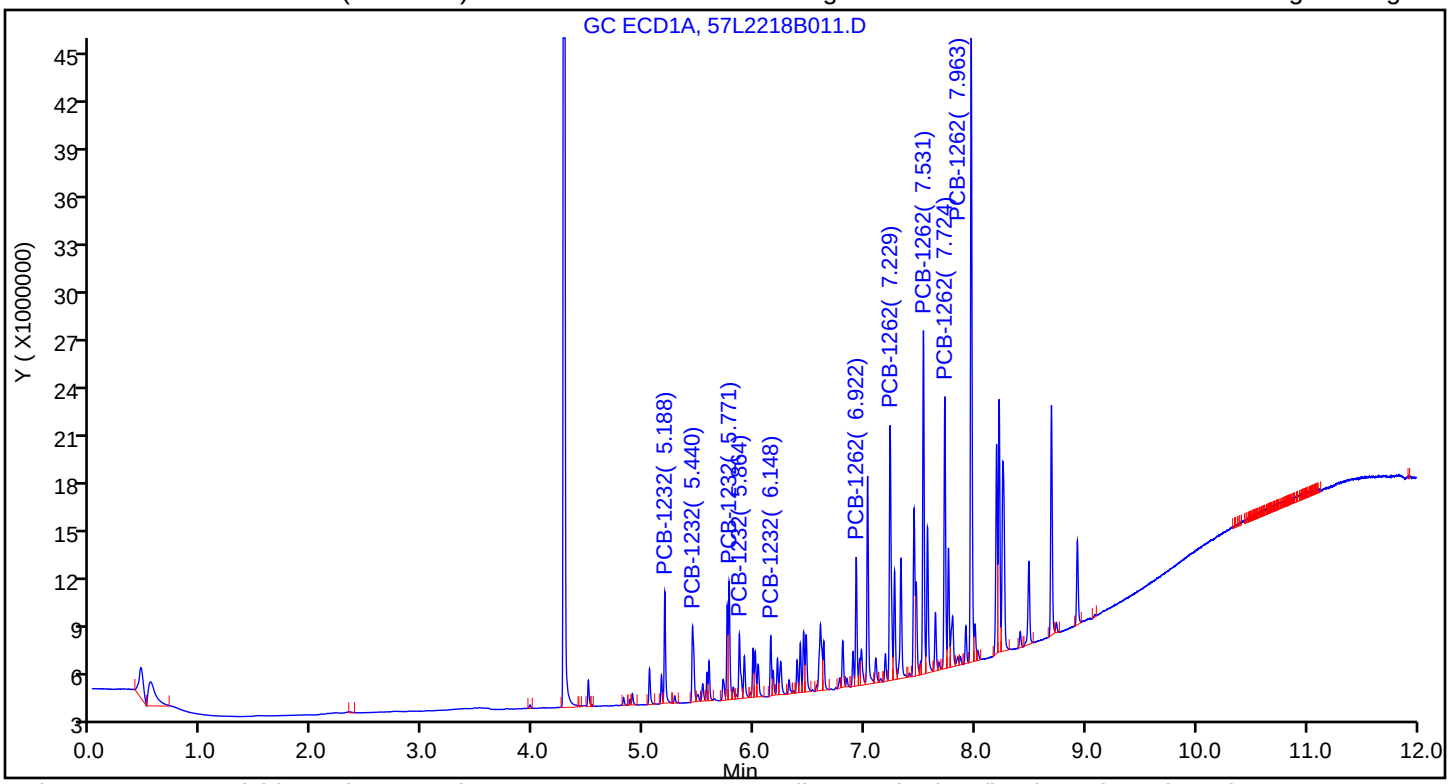
Client ID:

Operator ID: ar ALS Bottle#: 9 Worklist Smp#: 12

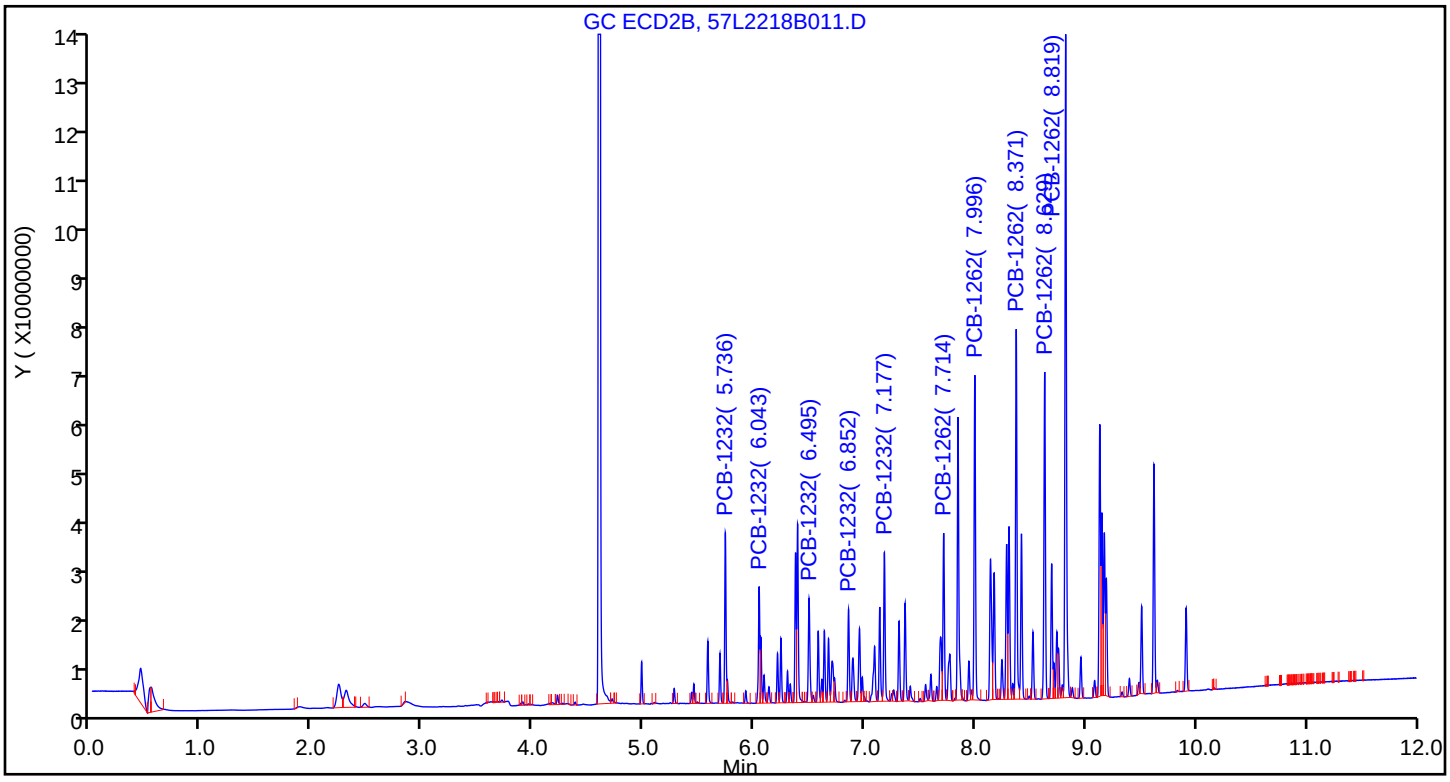
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

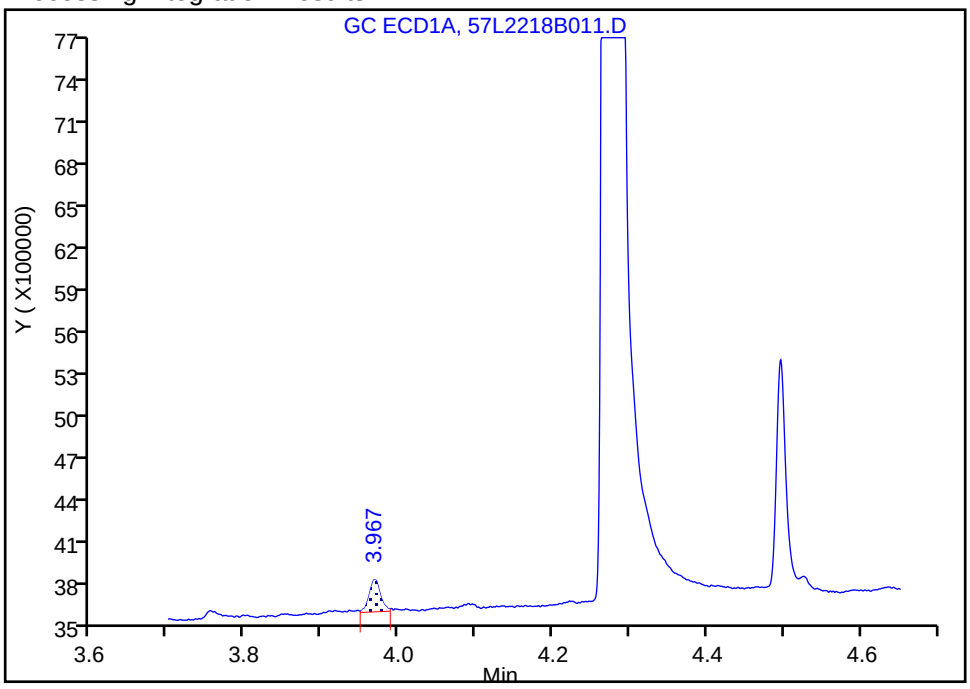
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D				
Injection Date:	22-Dec-2018 20:07:55	Instrument ID:	TAC057		
Lims ID:	ICV AR 3262				
Client ID:					
Operator ID:	ar	ALS Bottle#:	9	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 1

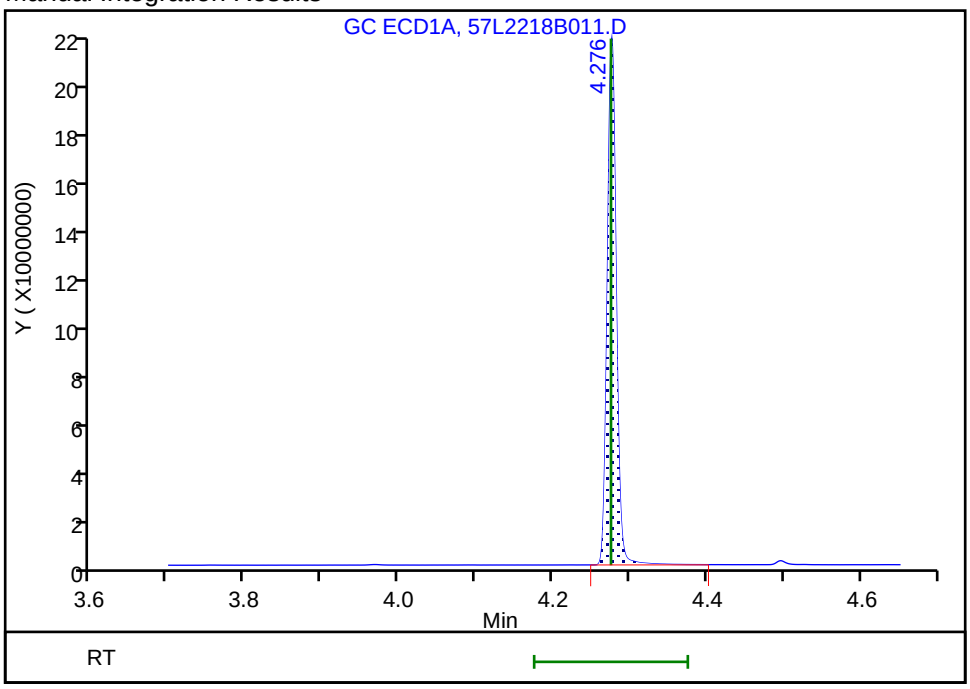
Processing Integration Results

RT: 3.97
Area: 233387
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.28
Area: 172661784
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:07:52
Audit Action: Assigned Compound ID Audit Reason:

Report Date: 23-Dec-2018 16:27:33 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D

Injection Date: 22-Dec-2018 20:07:55 Instrument ID: TAC057

Lims ID: ICV AR 3262

Client ID:

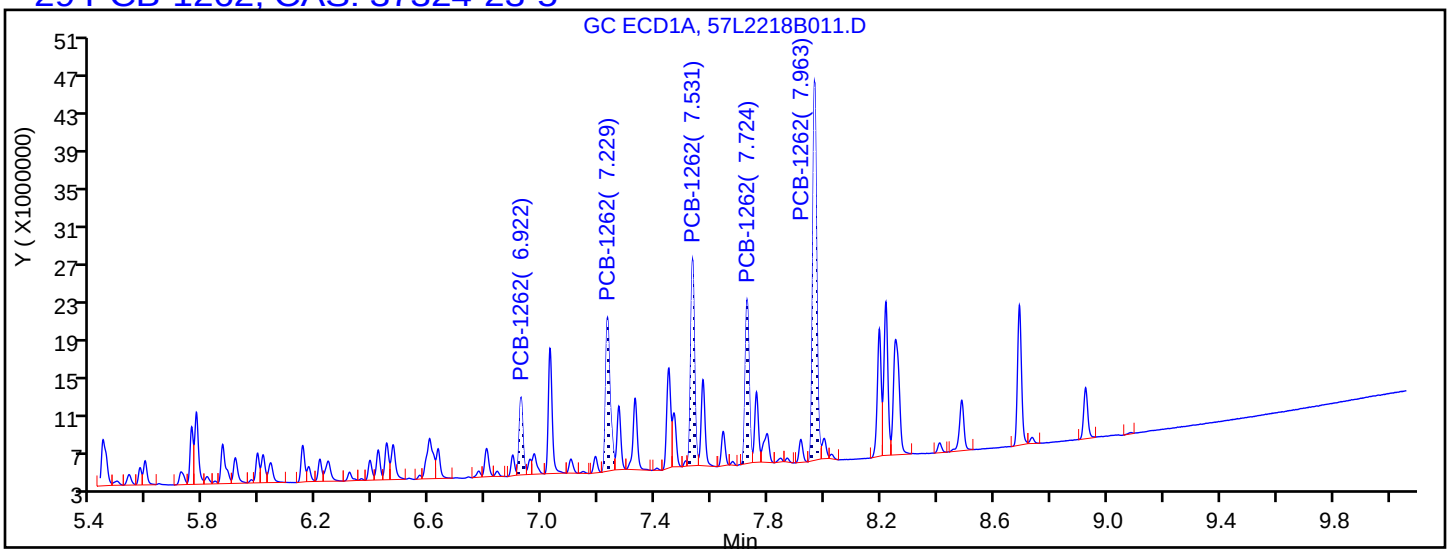
Operator ID: ar ALS Bottle#: 9 Worklist Smp#: 12

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

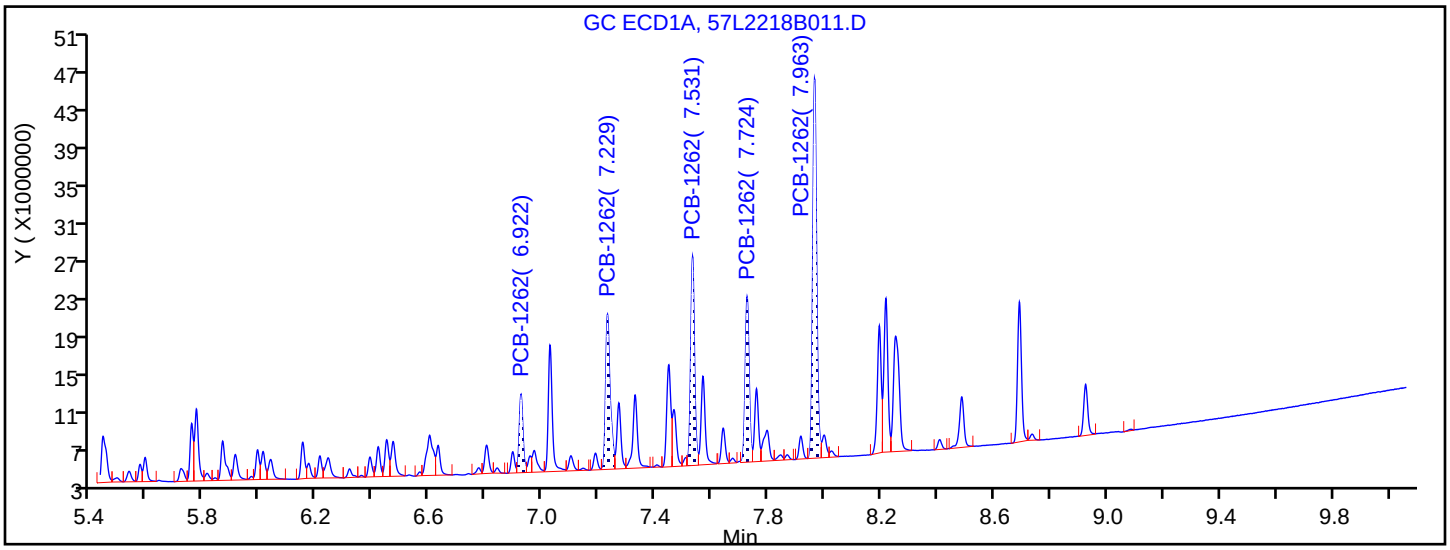
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.922	Response = 7382919
7.229	Response = 17816430
7.531	Response = 20084633
7.724	Response = 16393101
7.963	Response = 38217635



Manual Integration Results

6.922	Response = 7620564	M
7.229	Response = 18273099	M
7.531	Response = 20868397	M
7.724	Response = 16894735	M
7.963	Response = 38567940	M

Reviewer: ruslandera, 23-Dec-2018 13:59:58

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/12 Calibration Date: 12/22/2018 20:07

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57L2218B011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin2		0.0247			0.100	-0.2	20.0
PCB-1232 Peak 2	Lin2		0.0177			0.100	6.6	20.0
PCB-1232 Peak 3	Lin2		0.0183			0.100	4.9	20.0
PCB-1232 Peak 4	Lin2		0.0145			0.100	13.8	20.0
PCB-1232 Peak 5	Lin2		0.0236			0.100	15.8	20.0
PCB-1262 Peak 1	Lin2		0.0269			0.100	-3.9	20.0
PCB-1262 Peak 2	Lin2		0.0518			0.100	7.3	20.0
PCB-1262 Peak 3	Lin2		0.0601			0.100	-4.8	20.0
PCB-1262 Peak 4	Lin2		0.0540			0.100	-0.8	20.0
PCB-1262 Peak 5	Lin2		0.1104			0.100	2.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/12 Calibration Date: 12/22/2018 20:07

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57L2218B011.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.74	3.74	7.74
PCB-1232 Peak 2	6.04	4.04	8.04
PCB-1232 Peak 3	6.50	4.49	8.49
PCB-1232 Peak 4	6.85	4.85	8.85
PCB-1232 Peak 5	7.18	5.18	9.18
PCB-1262 Peak 1	7.71	5.72	9.72
PCB-1262 Peak 2	8.00	6.00	10.00
PCB-1262 Peak 3	8.37	6.37	10.37
PCB-1262 Peak 4	8.63	6.63	10.63
PCB-1262 Peak 5	8.82	6.82	10.82

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D
Lims ID: ICV AR 3262
Client ID:
Sample Type: ICV
Inject. Date: 22-Dec-2018 20:07:55 ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 3262
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:27:29 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:00:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							a
1	4.276	4.275	0.001	172661784	100.0	100.0	a
2	4.596	4.596	0.000	1061107726	100.0	100.0	a
						RPD = 0.00	
8 PCB-1232							
1	5.188	5.187	0.001	6421608	100.0	99.2	
1	5.440	5.439	0.001	6070564	100.0	111.2	
1	5.771	5.770	0.001	7175321	100.0	112.1	
1	5.864	5.863	0.001	4793233	100.0	108.0	
1	6.148	6.147	0.001	3492072	100.0	114.7	
		Average of Peak Amounts =				109.1	
2	5.736	5.736	0.000	26167435	100.0	99.8	
2	6.043	6.042	0.001	18769182	100.0	106.6	
2	6.495	6.494	0.001	19452272	100.0	104.9	
2	6.852	6.852	0.000	15413763	100.0	113.8	
2	7.177	7.177	0.000	25054428	100.0	115.8	
		Average of Peak Amounts =				108.2	
						RPD = 0.80	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29	PCB-1262						M
1	6.922	6.921	0.001	7620564	100.0	98.2	M
1	7.229	7.228	0.001	18273099	100.0	112.1	M
1	7.531	7.530	0.001	20868397	100.0	99.7	M
1	7.724	7.724	0.000	16894735	100.0	90.6	M
1	7.963	7.963	0.000	38567940	100.0	104.6	M
		Average of Peak Amounts =				101.0	
2	7.714	7.715	-0.001	28551994	100.0	96.1	
2	7.996	7.995	0.001	54923473	100.0	107.3	
2	8.371	8.371	0.000	63802804	100.0	95.2	
2	8.629	8.629	0.000	57288288	100.0	99.2	
2	8.819	8.819	0.000	117180528	100.0	102.0	
		Average of Peak Amounts =				100.0	
						RPD = 1.06	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

3262ICV100_00018	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:27:34 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D

Injection Date: 22-Dec-2018 20:07:55 Instrument ID: TAC057

Lims ID: ICV AR 3262

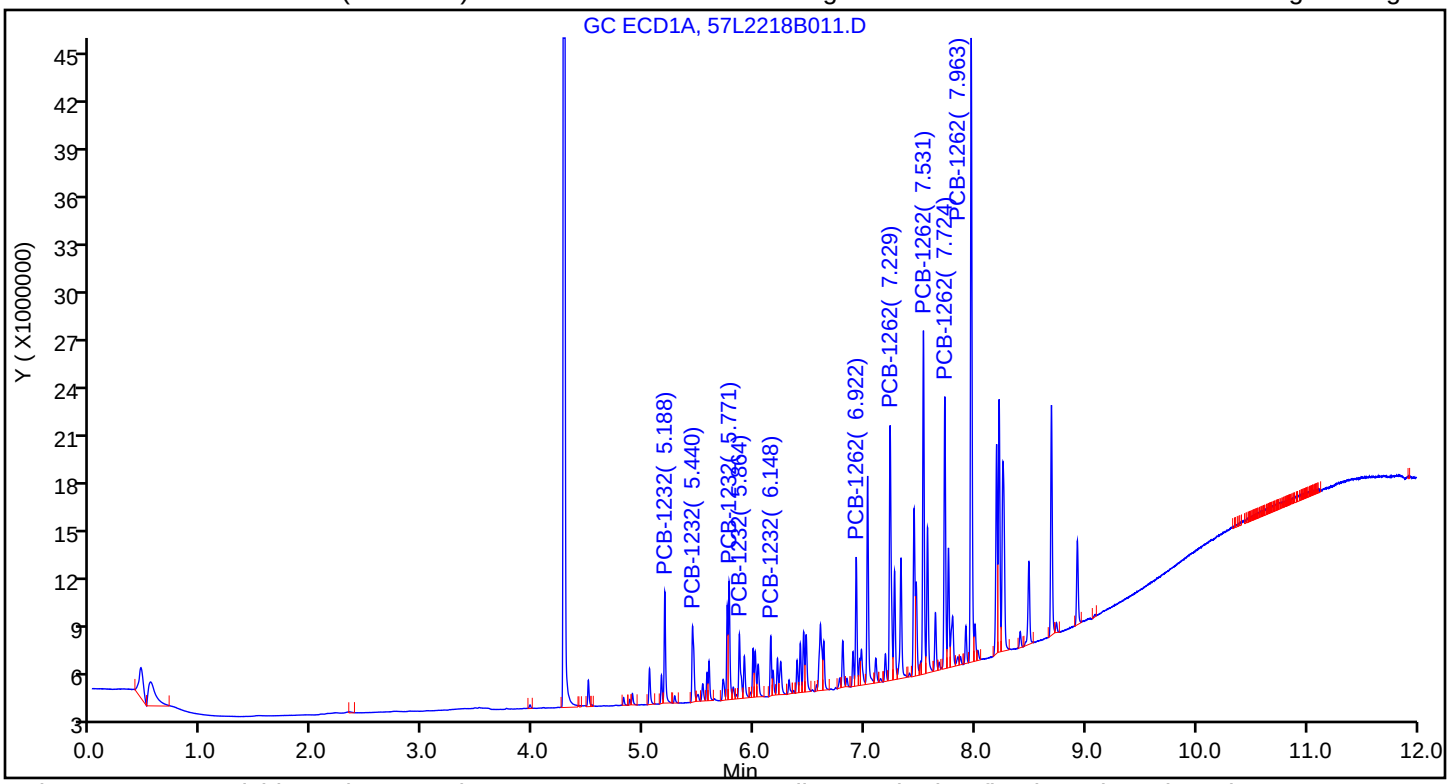
Client ID:

Operator ID: ar ALS Bottle#: 9 Worklist Smp#: 12

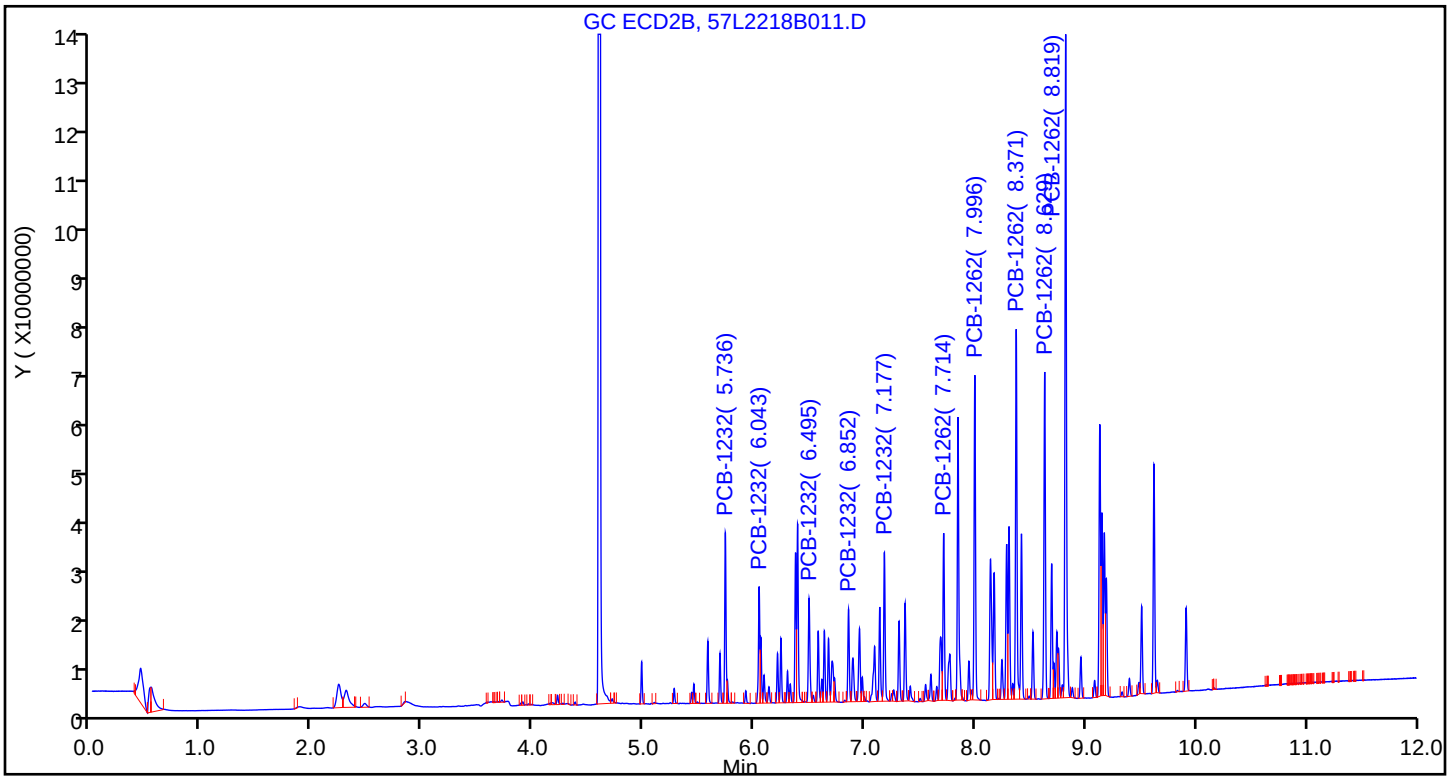
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

TestAmerica Seattle

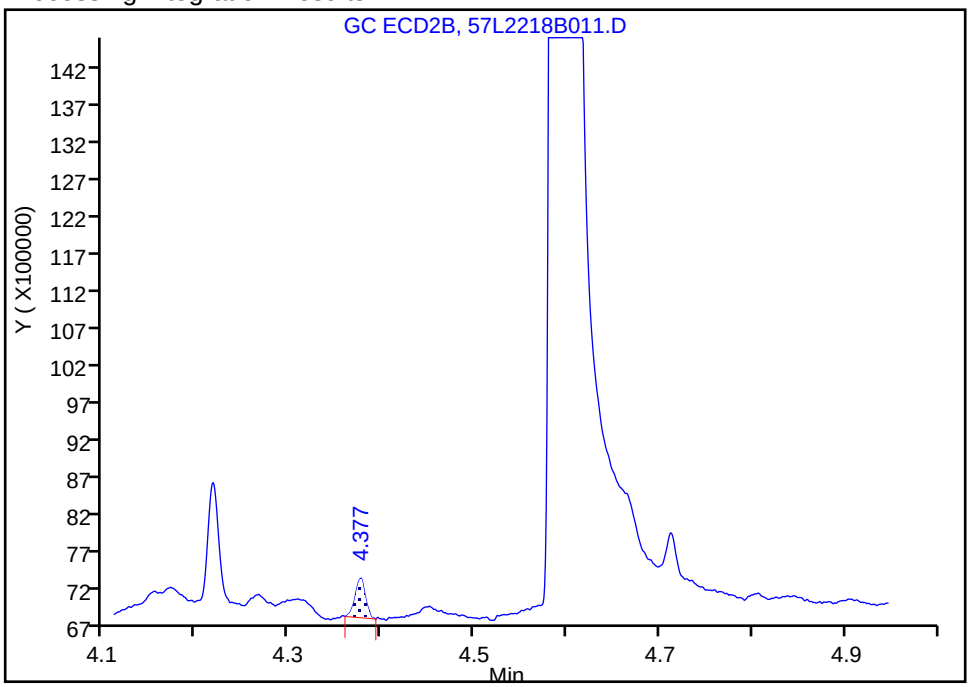
Data File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B011.D				
Injection Date:	22-Dec-2018 20:07:55	Instrument ID:	TAC057		
Lims ID:	ICV AR 3262				
Client ID:					
Operator ID:	ar	ALS Bottle#:	9	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-2 (0.25 mm)	Detector	GC ECD2B		

* 46 1-Bromo-2-nitrobenzene, CAS: 577-19-5

Signal: 2

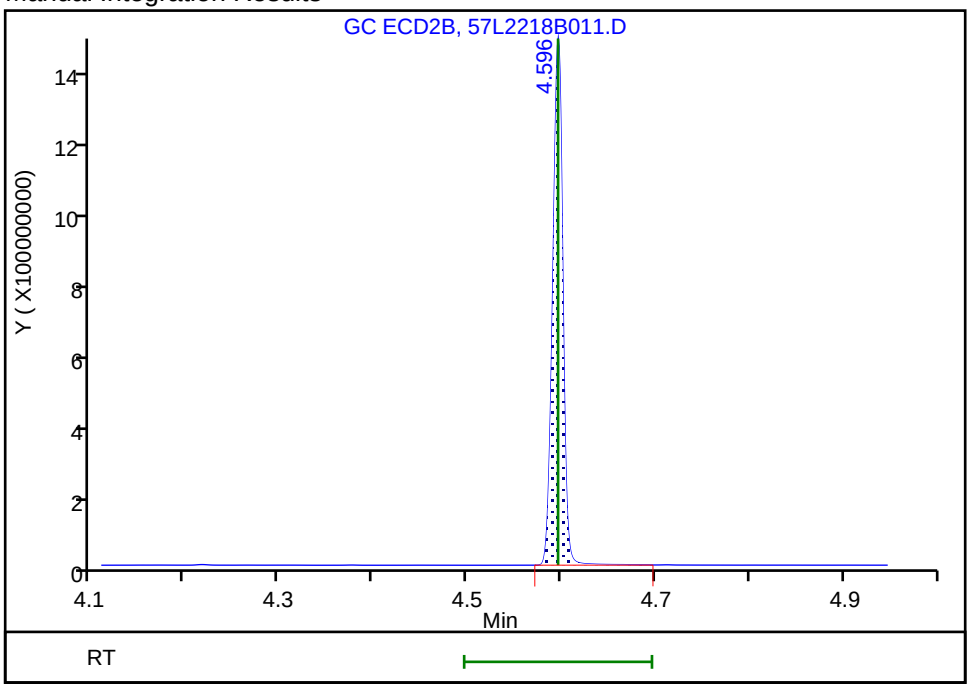
Processing Integration Results

RT: 4.38
Area: 405837
Amount: 100.0000
Amount Units: ug/L



Manual Integration Results

RT: 4.60
Area: 1061107726
Amount: 100.0000
Amount Units: ug/L



Reviewer: ruslandera, 23-Dec-2018 14:07:56
Audit Action: Assigned Compound ID Audit Reason:

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/21 Calibration Date: 12/22/2018 22:45

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57L2218B020.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	0.0353	0.0363			0.100	2.8	20.0
PCB-1248 Peak 2	Ave	0.0597	0.0579			0.100	-2.9	20.0
PCB-1248 Peak 3	Ave	0.0687	0.0688			0.100	0.0	20.0
PCB-1248 Peak 4	Ave	0.0372	0.0349			0.100	-6.1	20.0
PCB-1248 Peak 5	Ave	0.0259	0.0271			0.100	4.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/21 Calibration Date: 12/22/2018 22:45

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57L2218B020.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.76	5.66	5.86
PCB-1248 Peak 2	6.15	6.05	6.25
PCB-1248 Peak 3	6.45	4.45	8.45
PCB-1248 Peak 4	6.89	4.89	8.89
PCB-1248 Peak 5	7.10	5.10	9.10

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B020.D
Lims ID: ICV AR 1248
Client ID:
Sample Type: ICV
Inject. Date: 22-Dec-2018 22:45:47 ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 1248
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:44 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:49:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.276	0.001	186294094	100.0	100.0	
2	4.596	4.596	0.000	1120239971	100.0	100.0	
						RPD = 0.00	
10 PCB-1248							M
1	5.755	5.755	0.000	6763724	100.0	102.8	M
1	6.148	6.147	0.001	10790327	100.0	97.1	M
1	6.447	6.446	0.001	12807651	100.0	100.0	M
1	6.894	6.892	0.002	6509658	100.0	93.9	M
1	7.100	7.098	0.002	5043396	100.0	104.5	M
		Average of Peak Amounts =				99.6	
2	6.373	6.372	0.001	31199831	100.0	98.0	
2	6.853	6.852	0.001	44823789	100.0	100.6	
2	7.178	7.177	0.001	61902278	100.0	109.6	
2	7.365	7.365	0.000	56231156	100.0	109.7	
2	7.693	7.692	0.001	25396509	100.0	95.9	M
		Average of Peak Amounts =				102.8	
						RPD = 3.09	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

1248ICV100_00009 Amount Added: 1.00 Units: mL
8182_ISTD_ULT_00012 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Dec-2018 16:15:50 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B020.D

Injection Date: 22-Dec-2018 22:45:47 Instrument ID: TAC057

Lims ID: ICV AR 1248

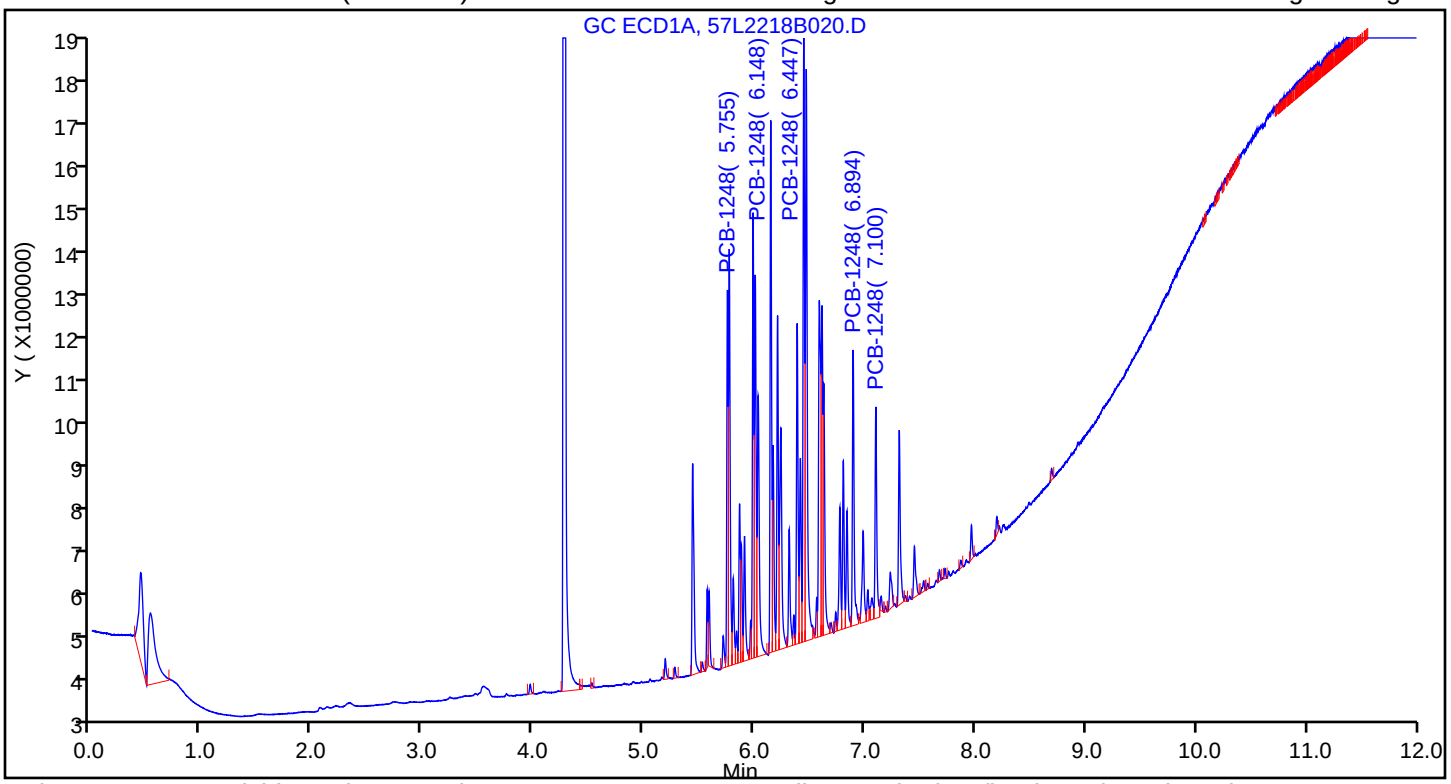
Client ID:

Operator ID: ar ALS Bottle#: 18 Worklist Smp#: 21

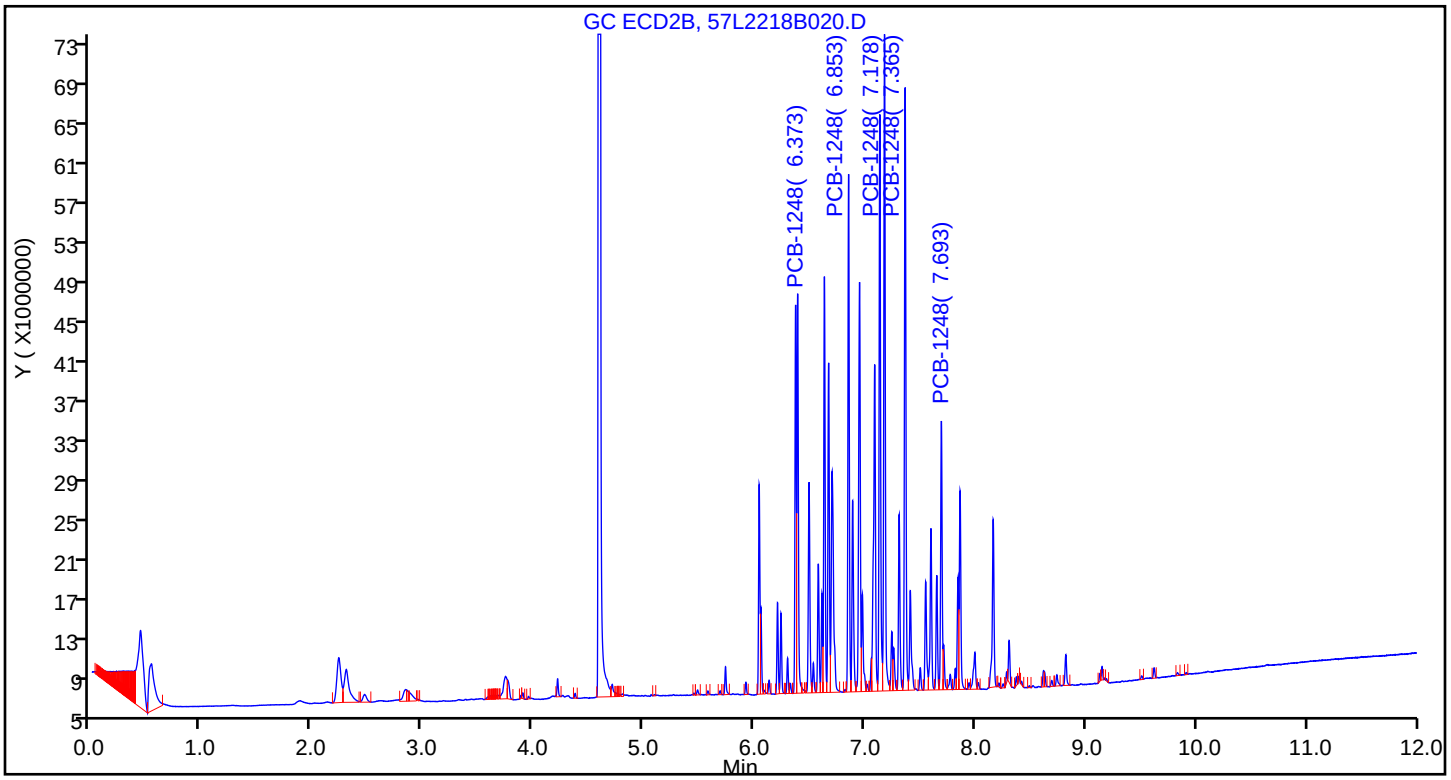
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B020.D

Injection Date: 22-Dec-2018 22:45:47 Instrument ID: TAC057

Lims ID: ICV AR 1248

Client ID:

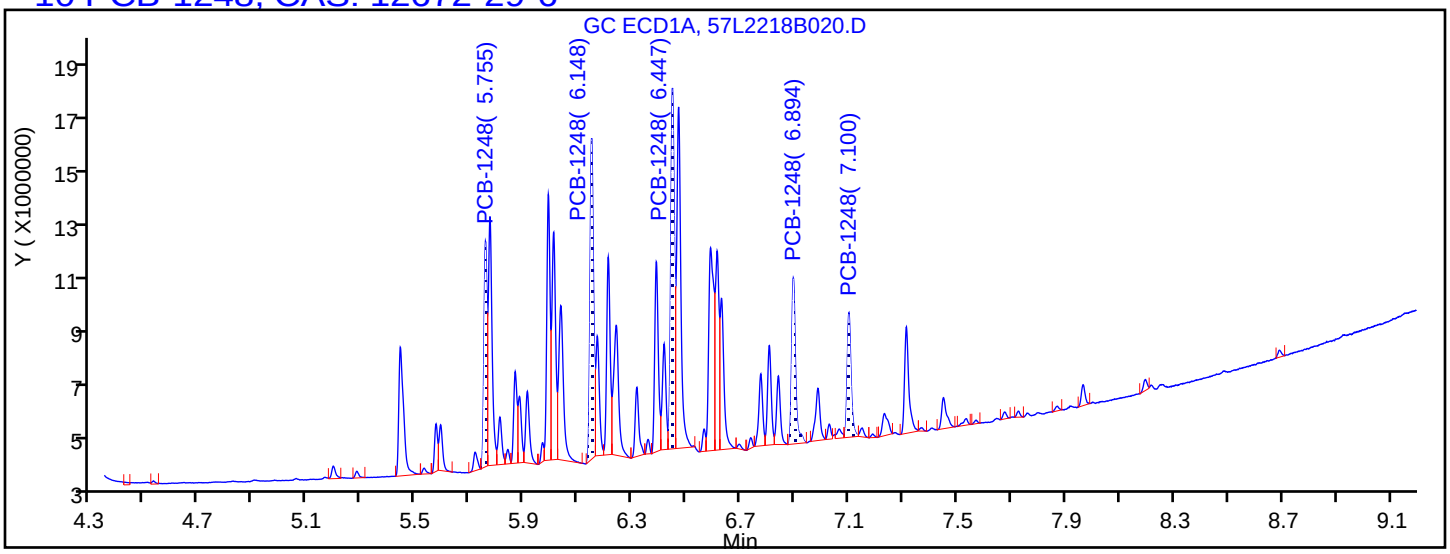
Operator ID: ar ALS Bottle#: 18 Worklist Smp#: 21

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

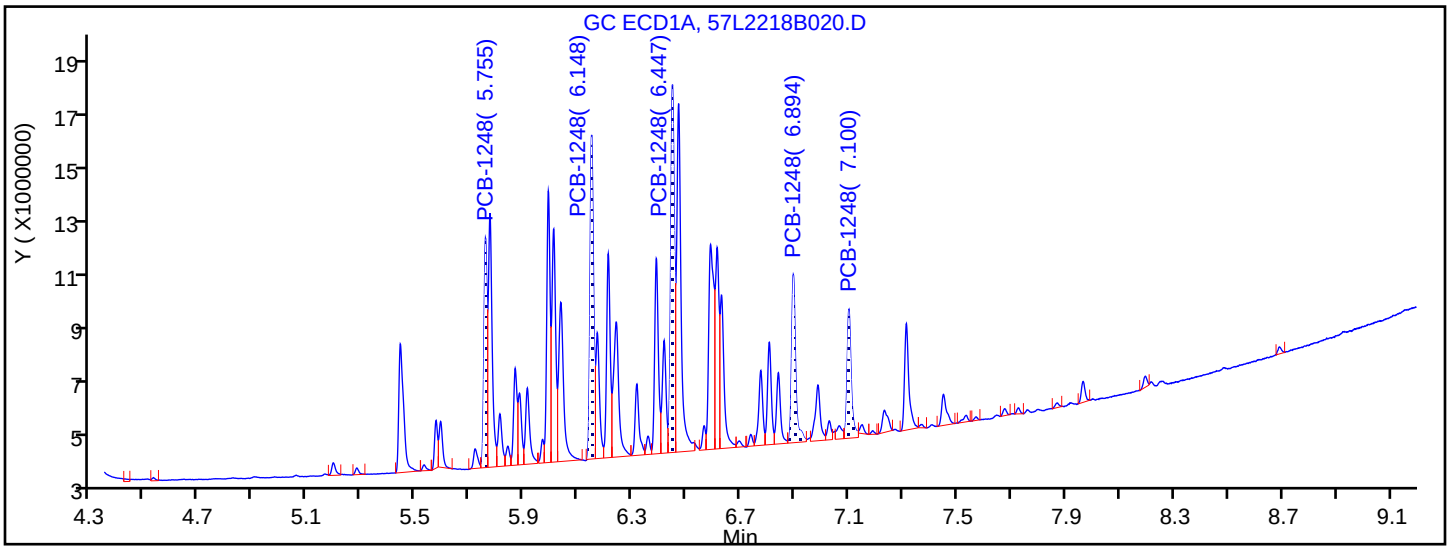
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

5.755	Response = 6557531
6.148	Response = 10609469
6.447	Response = 12382062
6.894	Response = 6196756
7.100	Response = 4547600



Manual Integration Results

5.755	Response = 6763724	M
6.148	Response = 10790327	M
6.447	Response = 12807651	M
6.894	Response = 6509658	M
7.100	Response = 5043396	M

Reviewer: ruslandera, 23-Dec-2018 14:49:30

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/21 Calibration Date: 12/22/2018 22:45

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57L2218B020.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	0.0284	0.0279			0.100	-2.0	20.0
PCB-1248 Peak 2	Lin2		0.0400			0.100	0.6	20.0
PCB-1248 Peak 3	Lin2		0.0553			0.100	9.6	20.0
PCB-1248 Peak 4	Lin2		0.0502			0.100	9.7	20.0
PCB-1248 Peak 5	Lin2		0.0227			0.100	-4.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/21 Calibration Date: 12/22/2018 22:45

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57L2218B020.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	6.37	4.37	8.37
PCB-1248 Peak 2	6.85	4.85	8.85
PCB-1248 Peak 3	7.18	5.18	9.18
PCB-1248 Peak 4	7.37	5.37	9.37
PCB-1248 Peak 5	7.69	5.69	9.69

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B020.D
Lims ID: ICV AR 1248
Client ID:
Sample Type: ICV
Inject. Date: 22-Dec-2018 22:45:47 ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 1248
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:15:44 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 14:49:43

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.276	0.001	186294094	100.0	100.0	
2	4.596	4.596	0.000	1120239971	100.0	100.0	
						RPD = 0.00	
10 PCB-1248							M
1	5.755	5.755	0.000	6763724	100.0	102.8	M
1	6.148	6.147	0.001	10790327	100.0	97.1	M
1	6.447	6.446	0.001	12807651	100.0	100.0	M
1	6.894	6.892	0.002	6509658	100.0	93.9	M
1	7.100	7.098	0.002	5043396	100.0	104.5	M
		Average of Peak Amounts =				99.6	
2	6.373	6.372	0.001	31199831	100.0	98.0	
2	6.853	6.852	0.001	44823789	100.0	100.6	
2	7.178	7.177	0.001	61902278	100.0	109.6	
2	7.365	7.365	0.000	56231156	100.0	109.7	
2	7.693	7.692	0.001	25396509	100.0	95.9	M
		Average of Peak Amounts =				102.8	
						RPD = 3.09	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

1248ICV100_00009 Amount Added: 1.00 Units: mL
8182_ISTD_ULT_00012 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Dec-2018 16:15:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B020.D

Injection Date: 22-Dec-2018 22:45:47 Instrument ID: TAC057

Lims ID: ICV AR 1248

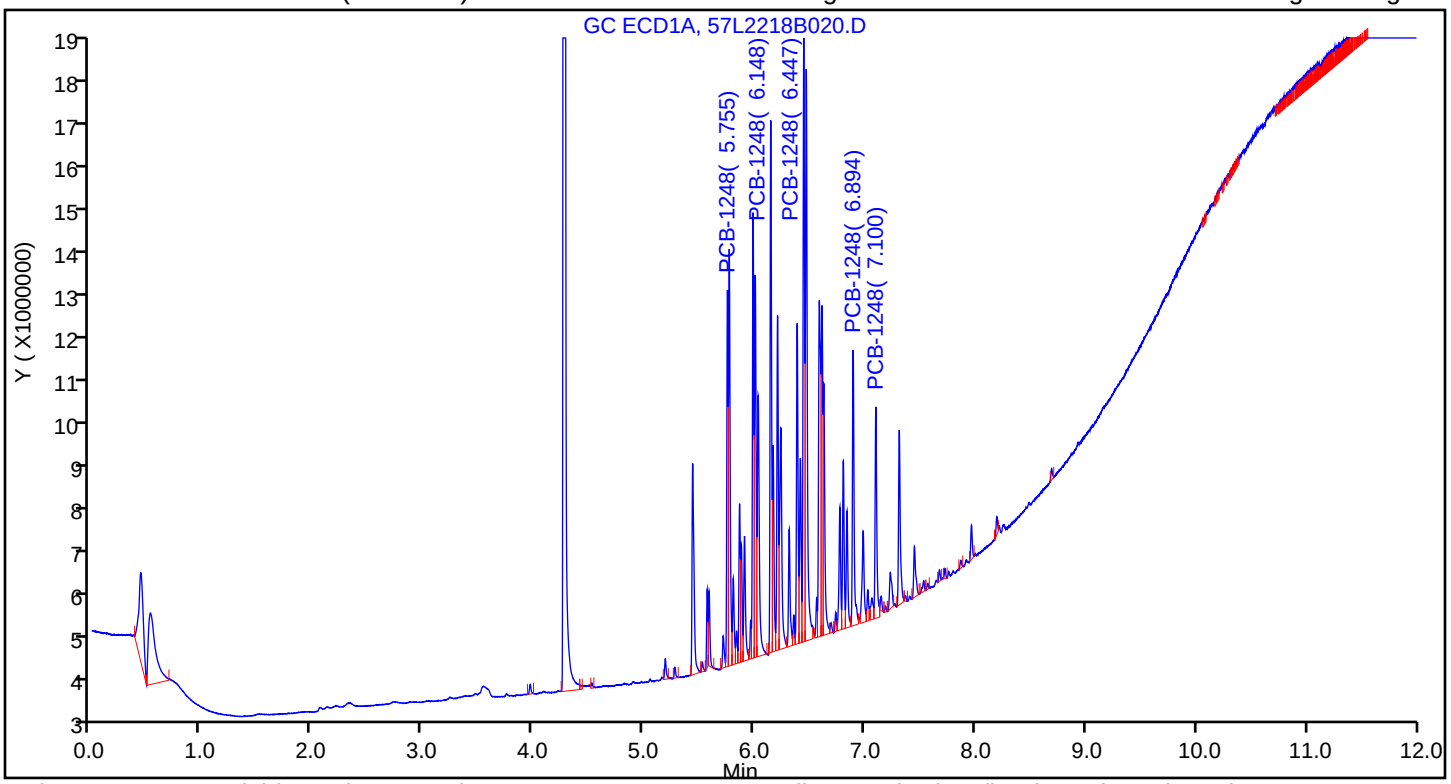
Client ID:

Operator ID: ar ALS Bottle#: 18 Worklist Smp#: 21

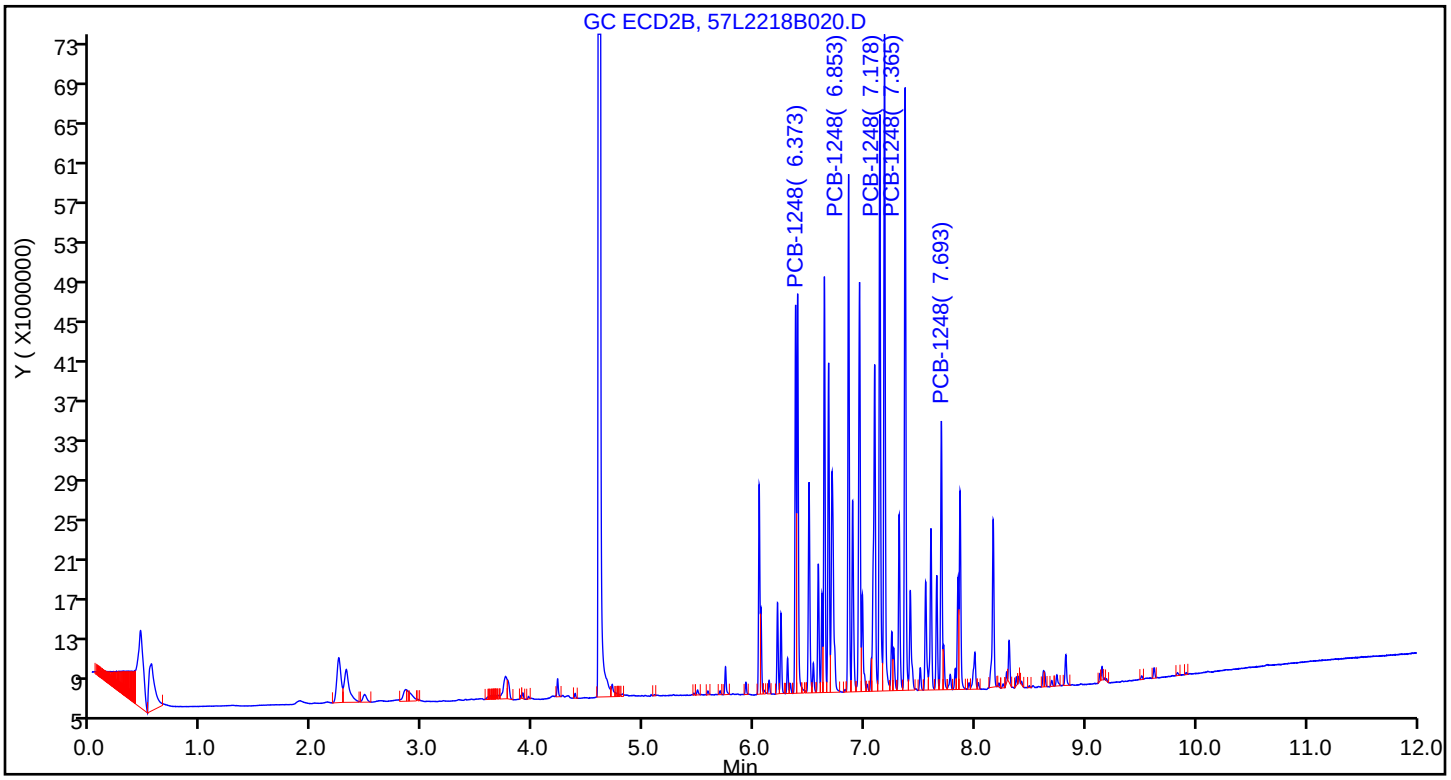
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:15:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B020.D

Injection Date: 22-Dec-2018 22:45:47 Instrument ID: TAC057

Lims ID: ICV AR 1248

Client ID:

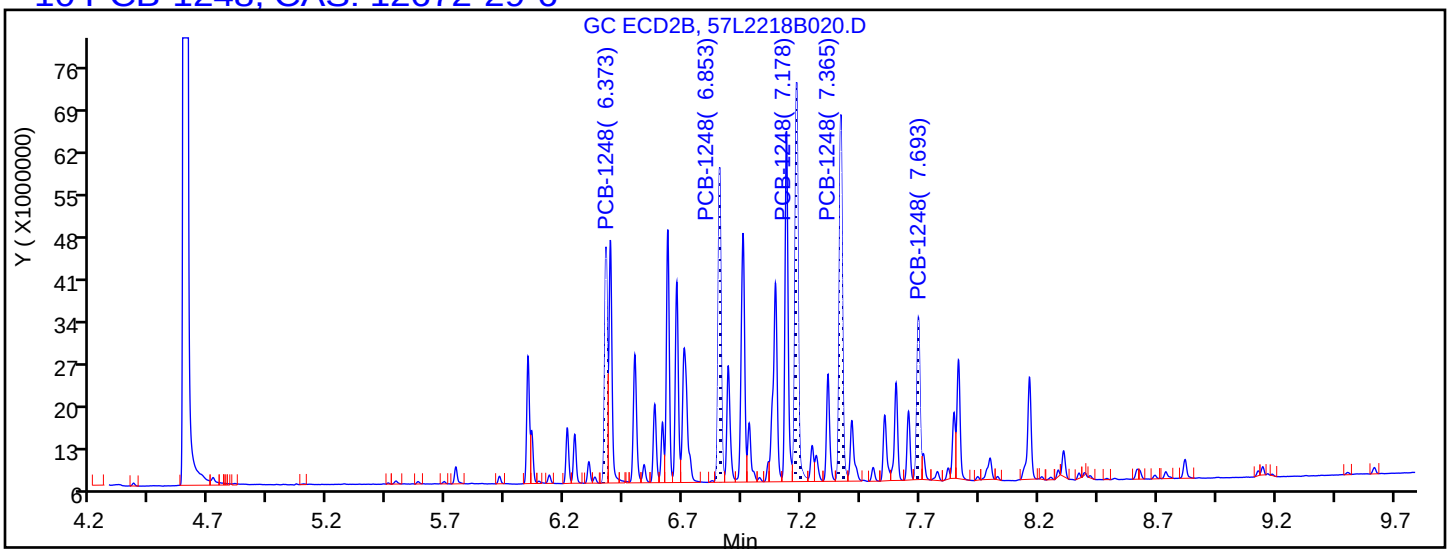
Operator ID: ar ALS Bottle#: 18 Worklist Smp#: 21

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

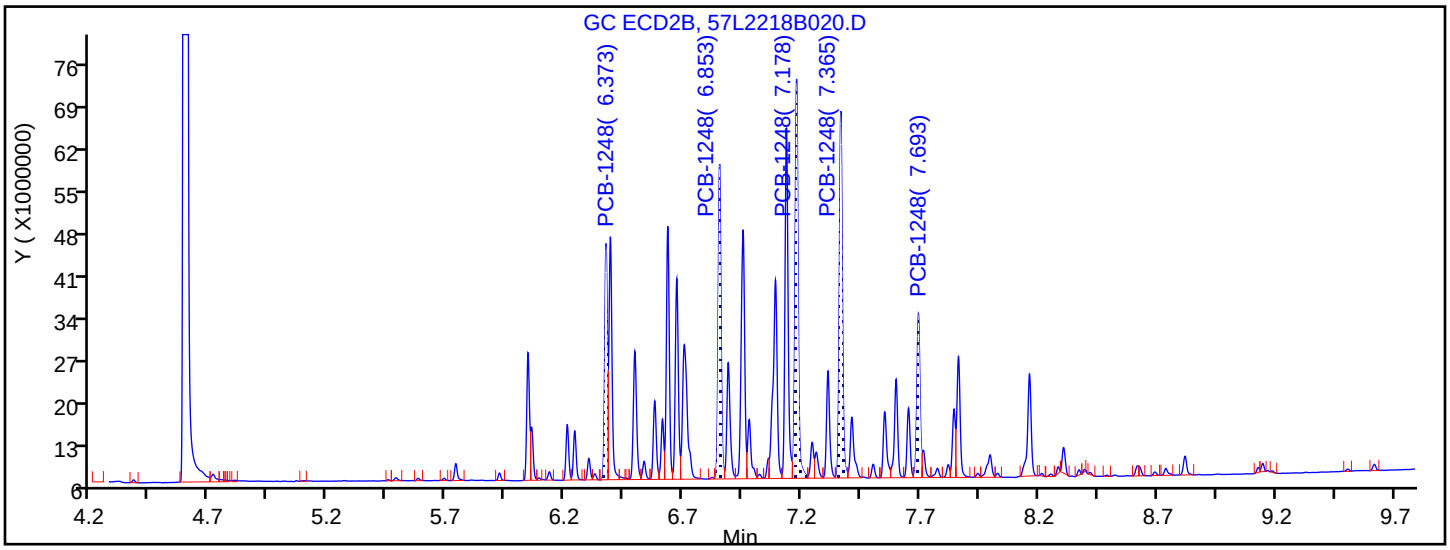
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

10 PCB-1248, CAS: 12672-29-6



Processing Integration Results

6.373	Response = 31199831
6.853	Response = 44823789
7.178	Response = 61902278
7.365	Response = 56231156
7.693	Response = 24901289



Manual Integration Results

6.373	Response = 31199831	
6.853	Response = 44823789	
7.178	Response = 61902278	
7.365	Response = 56231156	
7.693	Response = 25396509	M

Reviewer: ruslandera, 23-Dec-2018 14:49:36

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/30 Calibration Date: 12/23/2018 01:23

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57L2218B029.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0271	0.0261			0.100	-3.8	20.0
PCB-1242 Peak 2	Lin2		0.0592			0.100	0.3	20.0
PCB-1242 Peak 3	Lin2		0.0713			0.100	1.0	20.0
PCB-1242 Peak 4	Lin2		0.0374			0.100	4.9	20.0
PCB-1242 Peak 5	Lin2		0.0382			0.100	3.9	20.0
PCB-1268 Peak 1	Ave	0.0392	0.0376			0.100	-4.2	20.0
PCB-1268 Peak 2	Ave	0.2708	0.2796			0.100	3.3	20.0
PCB-1268 Peak 3	Ave	0.2537	0.2708			0.100	6.7	20.0
PCB-1268 Peak 4	Lin1		0.5688			0.100	-4.8	20.0
PCB-1268 Peak 5	Lin2		0.1259			0.100	6.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/30 Calibration Date: 12/23/2018 01:23

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57L2218B029.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.19	5.09	5.29
PCB-1242 Peak 2	5.44	5.34	5.54
PCB-1242 Peak 3	5.77	3.77	7.77
PCB-1242 Peak 4	6.15	4.15	8.15
PCB-1242 Peak 5	6.45	4.45	8.45
PCB-1268 Peak 1	7.97	7.87	8.07
PCB-1268 Peak 2	8.22	8.12	8.32
PCB-1268 Peak 3	8.25	6.25	10.25
PCB-1268 Peak 4	8.92	6.93	10.93
PCB-1268 Peak 5	9.08	7.08	11.08

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B029.D
Lims ID: ICV AR 4268
Client ID:
Sample Type: ICV
Inject. Date: 23-Dec-2018 01:23:39 ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 4268
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:28 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:06:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	191713510	100.0	100.0	
2	4.596	4.596	0.000	1152870632	100.0	100.0	
						RPD = 0.00	
6 PCB-1242							M
1	5.190	5.191	-0.001	5007577	100.0	96.2	M
1	5.441	5.441	0.000	11341007	100.0	100.3	M
1	5.771	5.772	-0.001	13665972	100.0	101.0	M
1	6.148	6.149	-0.001	7176623	100.0	104.9	M
1	6.446	6.448	-0.002	7315848	100.0	103.9	M
		Average of Peak Amounts =				101.3	
2	6.042	6.043	-0.001	30405887	100.0	100.9	
2	6.239	6.241	-0.002	17076371	100.0	105.3	
2	6.851	6.852	-0.001	31715697	100.0	112.0	
2	7.176	7.177	-0.001	37269929	100.0	111.3	
2	7.364	7.365	-0.001	33844045	100.0	103.5	
		Average of Peak Amounts =				106.6	
						RPD = 5.16	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	7199522	100.0	95.8	
1	8.216	8.217	-0.001	53610229	100.0	103.3	M
1	8.249	8.249	0.000	51909996	100.0	106.7	M
1	8.924	8.925	-0.001	109051140	100.0	95.2	
1	9.082	9.083	-0.001	24128533	100.0	106.5	
		Average of Peak Amounts =				101.5	
2	8.817	8.818	-0.001	15507497	100.0	101.3	
2	9.127	9.128	-0.001	142961493	100.0	100.5	
2	9.167	9.170	-0.003	128519962	100.0	101.7	
2	9.394	9.395	-0.001	112205778	100.0	108.8	
2	9.908	9.910	-0.002	267408800	100.0	87.2	
		Average of Peak Amounts =				99.9	
						RPD = 1.57	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268ICV100_00009	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:34 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B029.D

Injection Date: 23-Dec-2018 01:23:39 Instrument ID: TAC057

Lims ID: ICV AR 4268

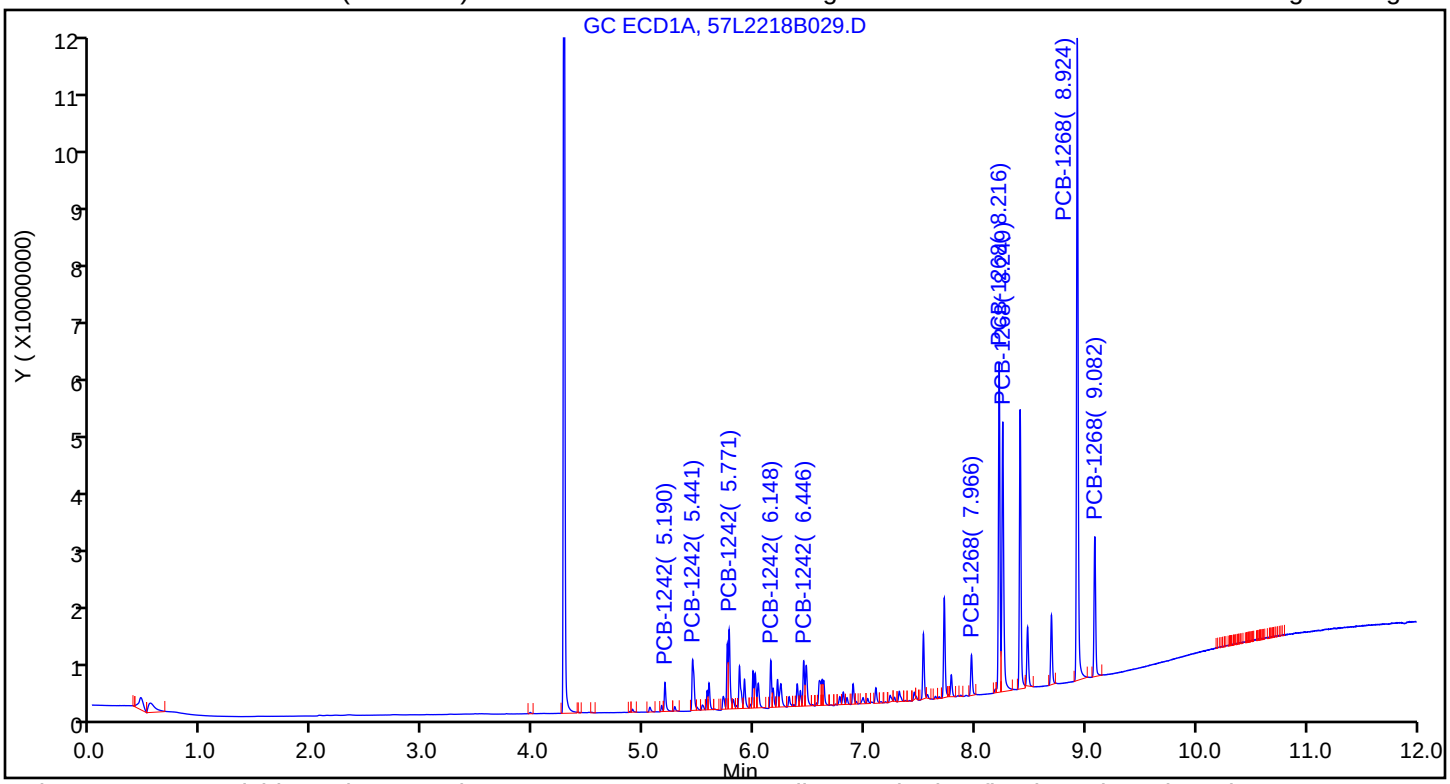
Client ID:

Operator ID: ar ALS Bottle#: 27 Worklist Smp#: 30

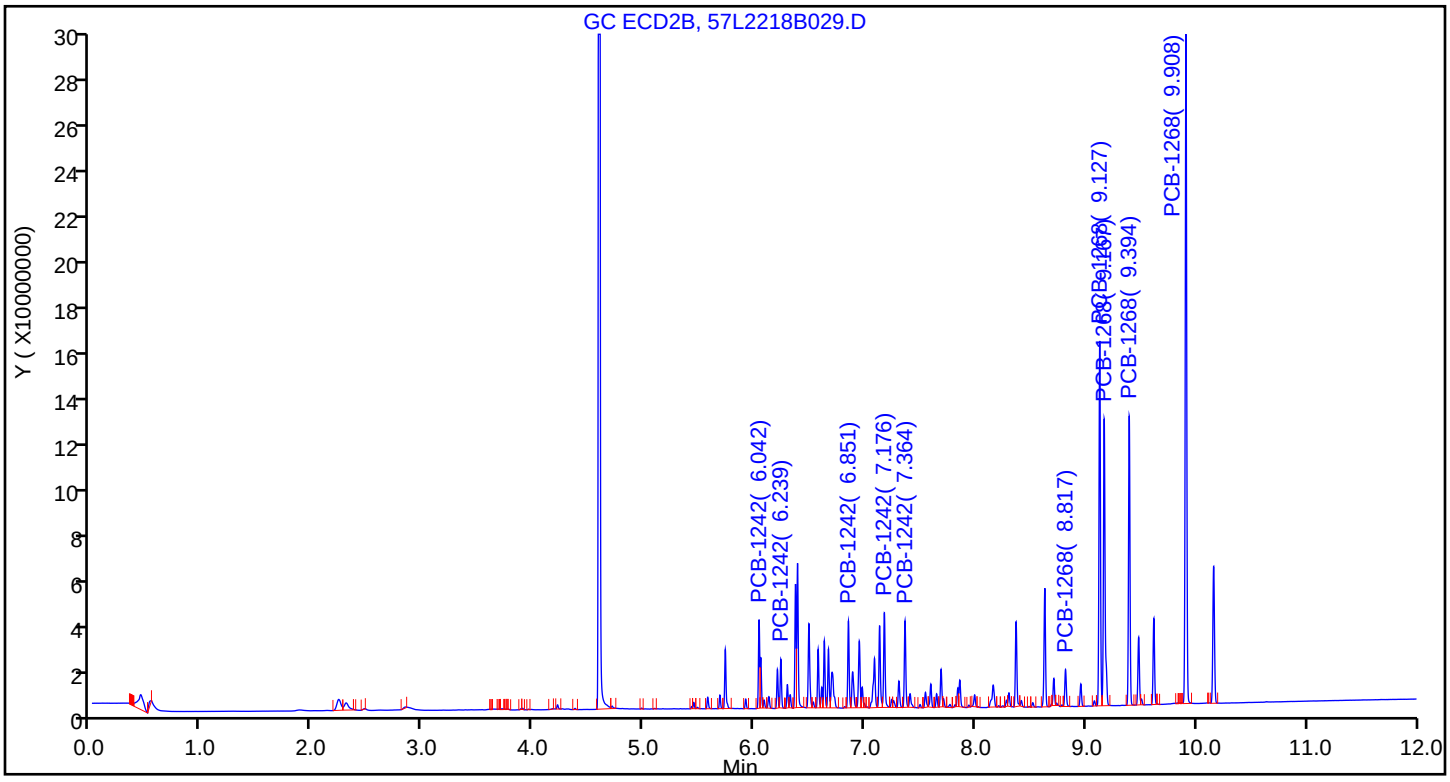
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:16:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B029.D

Injection Date: 23-Dec-2018 01:23:39 Instrument ID: TAC057

Lims ID: ICV AR 4268

Client ID:

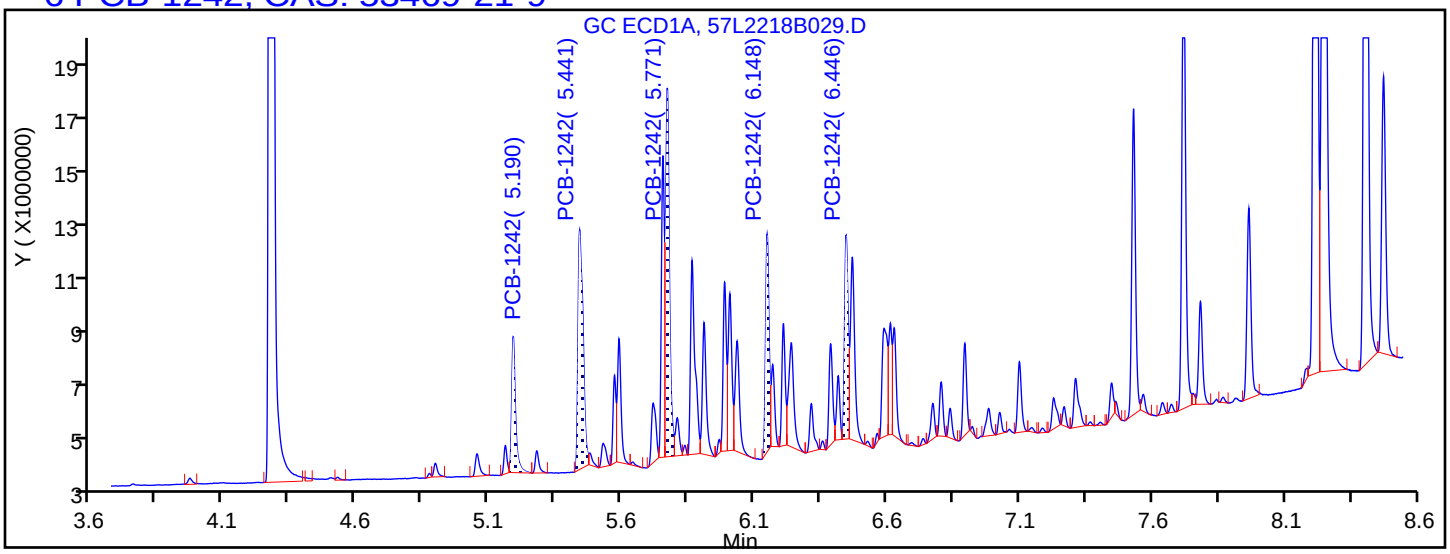
Operator ID: ar ALS Bottle#: 27 Worklist Smp#: 30

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

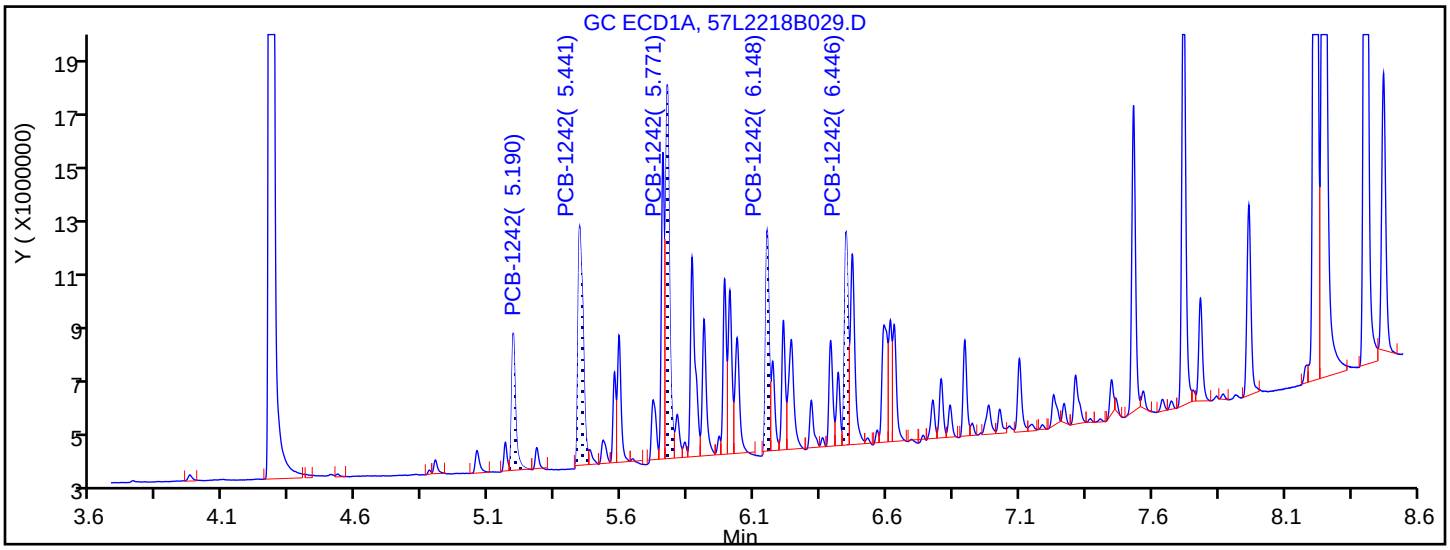
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

6 PCB-1242, CAS: 53469-21-9



Processing Integration Results

5.190	Response = 4957436
5.441	Response = 11345516
5.771	Response = 13269816
6.148	Response = 7075150
6.446	Response = 6769886



Manual Integration Results

5.190	Response = 5007577	M
5.441	Response = 11341007	M
5.771	Response = 13665972	M
6.148	Response = 7176623	M
6.446	Response = 7315848	M

Reviewer: ruslandera, 23-Dec-2018 15:24:22

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:16:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B029.D

Injection Date: 23-Dec-2018 01:23:39 Instrument ID: TAC057

Lims ID: ICV AR 4268

Client ID:

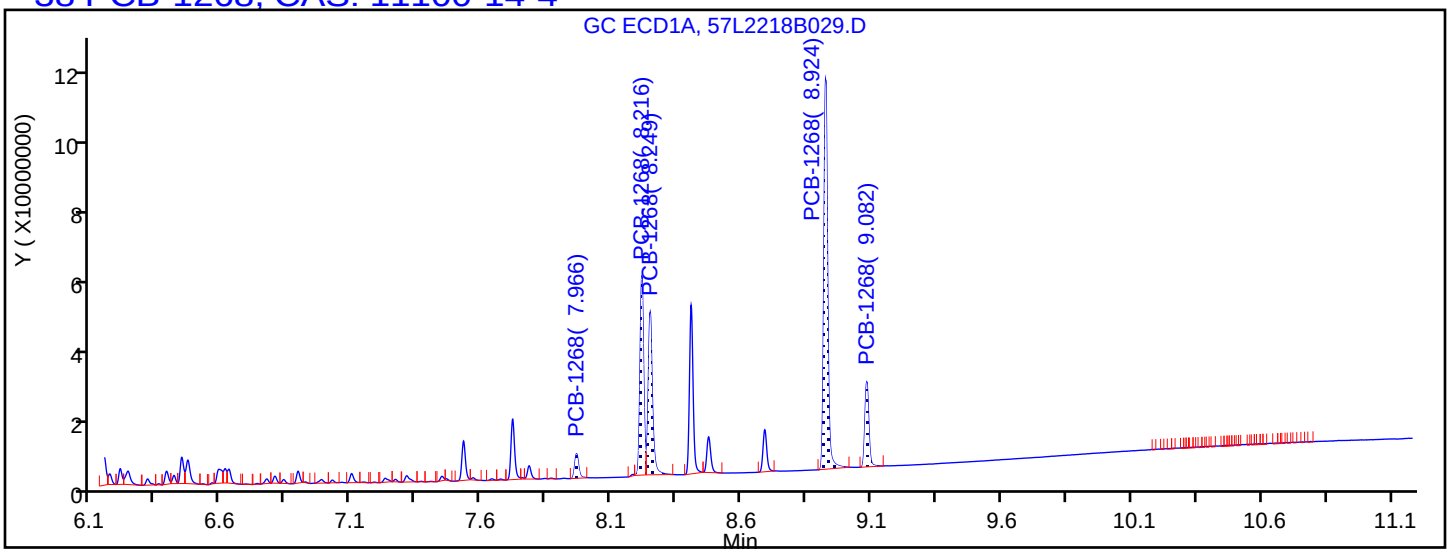
Operator ID: ar ALS Bottle#: 27 Worklist Smp#: 30

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

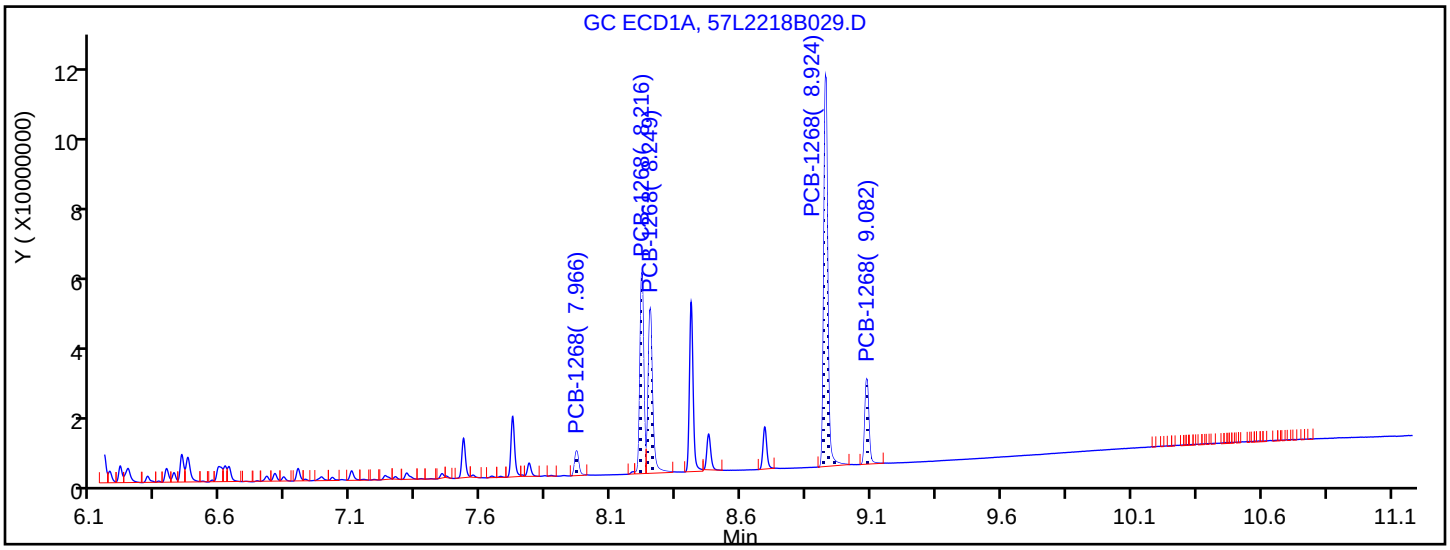
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

38 PCB-1268, CAS: 11100-14-4



Processing Integration Results

7.966	Response = 7199522
8.216	Response = 52696803
8.249	Response = 50334911
8.924	Response = 109051140
9.082	Response = 24128533



Manual Integration Results

7.966	Response = 7199522	
8.216	Response = 53610229	M
8.249	Response = 51909996	M
8.924	Response = 109051140	
9.082	Response = 24128533	

Reviewer: ruslandera, 23-Dec-2018 15:24:26

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/30 Calibration Date: 12/23/2018 01:23

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57L2218B029.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin2		0.0264			0.100	0.9	20.0
PCB-1242 Peak 2	Qua1		0.0148			0.100	5.3	20.0
PCB-1242 Peak 3	Lin2		0.0275			0.100	12.0	20.0
PCB-1242 Peak 4	Lin2		0.0323			0.100	11.3	20.0
PCB-1242 Peak 5	Lin2		0.0294			0.100	3.5	20.0
PCB-1268 Peak 1	Lin2		0.0135			0.100	1.3	20.0
PCB-1268 Peak 2	Lin2		0.1240			0.100	0.5	20.0
PCB-1268 Peak 3	Lin2		0.1115			0.100	1.7	20.0
PCB-1268 Peak 4	Lin2		0.0973			0.100	8.8	20.0
PCB-1268 Peak 5	Lin2		0.2320			0.100	-12.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/30 Calibration Date: 12/23/2018 01:23

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57L2218B029.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	6.04	4.04	8.04
PCB-1242 Peak 2	6.24	4.24	8.24
PCB-1242 Peak 3	6.85	4.85	8.85
PCB-1242 Peak 4	7.18	5.18	9.18
PCB-1242 Peak 5	7.36	5.37	9.37
PCB-1268 Peak 1	8.82	6.82	10.82
PCB-1268 Peak 2	9.13	7.13	11.13
PCB-1268 Peak 3	9.17	7.17	11.17
PCB-1268 Peak 4	9.39	7.40	11.40
PCB-1268 Peak 5	9.91	7.91	11.91

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B029.D
Lims ID: ICV AR 4268
Client ID:
Sample Type: ICV
Inject. Date: 23-Dec-2018 01:23:39 ALS Bottle#: 27 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 4268
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:16:28 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:06:52

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	191713510	100.0	100.0	
2	4.596	4.596	0.000	1152870632	100.0	100.0	
						RPD = 0.00	
6 PCB-1242							M
1	5.190	5.191	-0.001	5007577	100.0	96.2	M
1	5.441	5.441	0.000	11341007	100.0	100.3	M
1	5.771	5.772	-0.001	13665972	100.0	101.0	M
1	6.148	6.149	-0.001	7176623	100.0	104.9	M
1	6.446	6.448	-0.002	7315848	100.0	103.9	M
		Average of Peak Amounts =				101.3	
2	6.042	6.043	-0.001	30405887	100.0	100.9	
2	6.239	6.241	-0.002	17076371	100.0	105.3	
2	6.851	6.852	-0.001	31715697	100.0	112.0	
2	7.176	7.177	-0.001	37269929	100.0	111.3	
2	7.364	7.365	-0.001	33844045	100.0	103.5	
		Average of Peak Amounts =				106.6	
						RPD = 5.16	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							M
1	7.966	7.966	0.000	7199522	100.0	95.8	
1	8.216	8.217	-0.001	53610229	100.0	103.3	M
1	8.249	8.249	0.000	51909996	100.0	106.7	M
1	8.924	8.925	-0.001	109051140	100.0	95.2	
1	9.082	9.083	-0.001	24128533	100.0	106.5	
		Average of Peak Amounts =				101.5	
2	8.817	8.818	-0.001	15507497	100.0	101.3	
2	9.127	9.128	-0.001	142961493	100.0	100.5	
2	9.167	9.170	-0.003	128519962	100.0	101.7	
2	9.394	9.395	-0.001	112205778	100.0	108.8	
2	9.908	9.910	-0.002	267408800	100.0	87.2	
		Average of Peak Amounts =				99.9	
						RPD = 1.57	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

4268ICV100_00009	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:16:35 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B029.D

Injection Date: 23-Dec-2018 01:23:39 Instrument ID: TAC057

Lims ID: ICV AR 4268

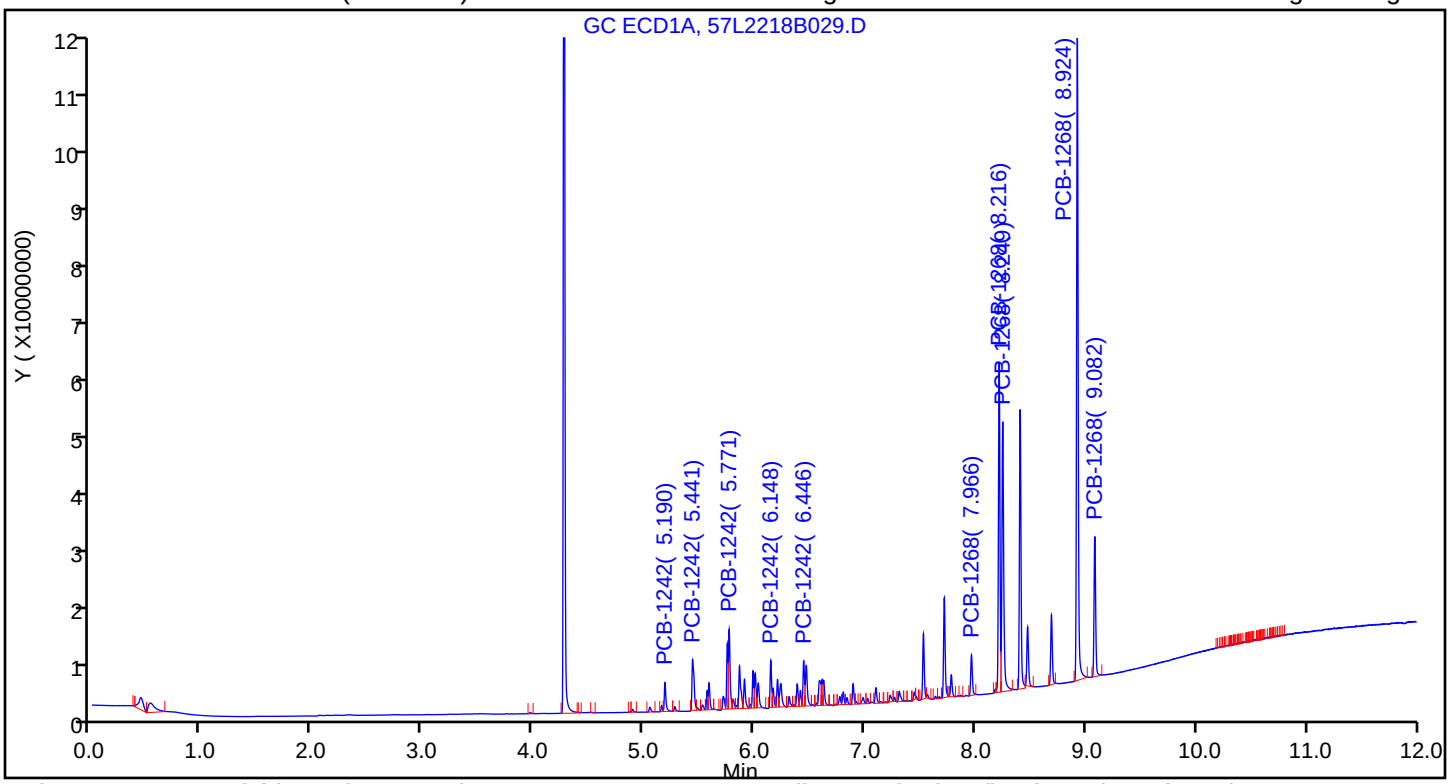
Client ID:

Operator ID: ar ALS Bottle#: 27 Worklist Smp#: 30

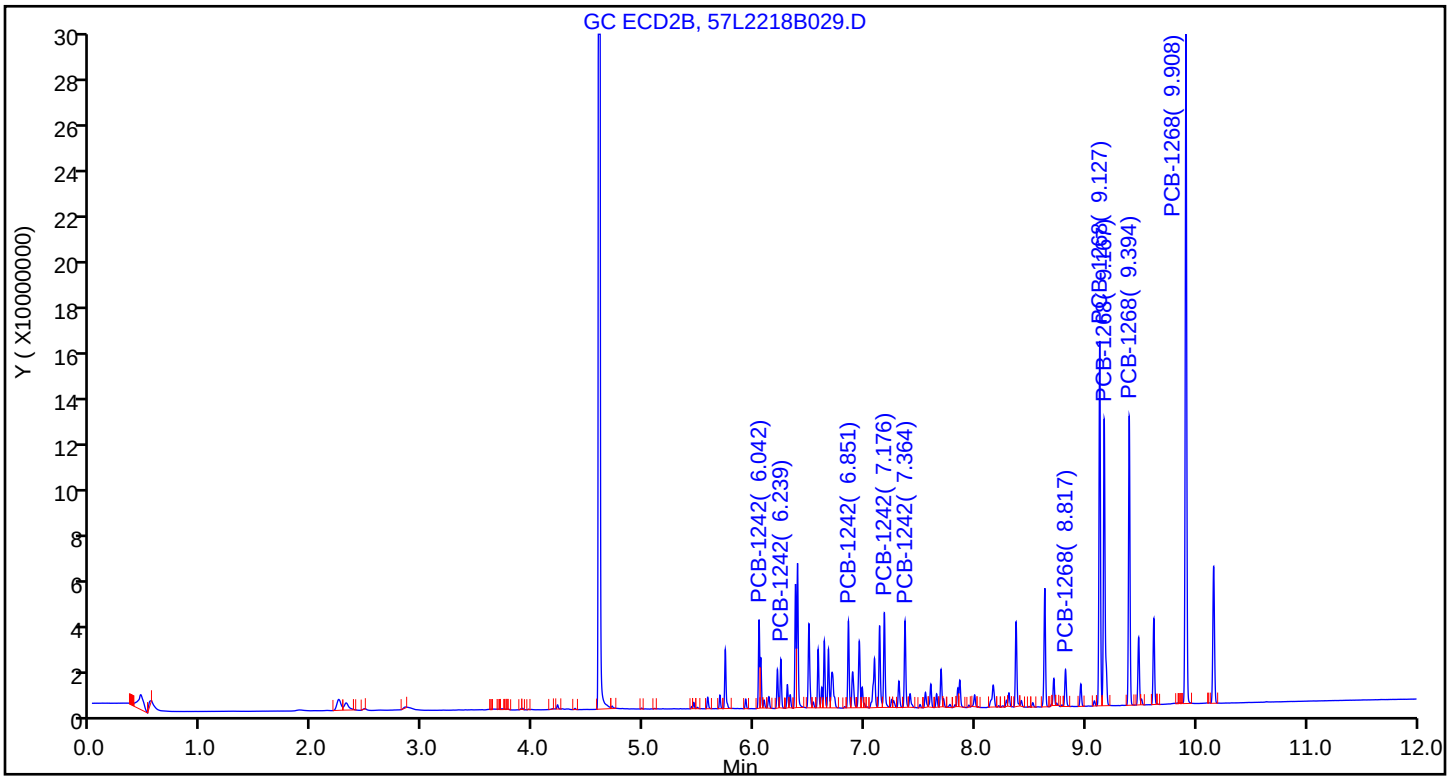
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/39 Calibration Date: 12/23/2018 04:01

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57L2218B038.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	0.0212	0.0208			0.100	-2.0	20.0
PCB-1221 Peak 2	Ave	0.0121	0.0122			0.100	0.4	20.0
PCB-1221 Peak 3	Ave	0.0510	0.0502			0.100	-1.4	20.0
PCB-1254 Peak 1	Lin2		0.0689			0.100	5.0	20.0
PCB-1254 Peak 2	Lin2		0.1171			0.100	4.3	20.0
PCB-1254 Peak 3	Lin2		0.1083			0.100	1.0	20.0
PCB-1254 Peak 4	Lin2		0.0888			0.100	5.0	20.0
PCB-1254 Peak 5	Lin2		0.1268			0.100	13.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/39 Calibration Date: 12/23/2018 04:01

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57L2218B038.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.05	4.75	5.35
PCB-1221 Peak 2	5.16	4.86	5.46
PCB-1221 Peak 3	5.19	4.89	5.49
PCB-1254 Peak 1	6.42	6.32	6.52
PCB-1254 Peak 2	6.60	6.50	6.70
PCB-1254 Peak 3	6.89	4.89	8.89
PCB-1254 Peak 4	7.10	5.10	9.10
PCB-1254 Peak 5	7.45	5.45	9.45

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B038.D
Lims ID: ICV AR 2154
Client ID:
Sample Type: ICV
Inject. Date: 23-Dec-2018 04:01:38 ALS Bottle#: 36 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 2154
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:09 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:30:55

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	193408206	100.0	100.0	
2	4.595	4.596	-0.001	1150893023	100.0	100.0	
						RPD = 0.00	
2 PCB-1221							M
1	5.052	5.053	-0.001	4024025	100.0	98.0	M
1	5.159	5.160	-0.001	2355186	100.0	100.4	M
1	5.189	5.190	-0.001	9715156	100.0	98.6	M
		Average of Peak Amounts =				99.0	
2	5.577	5.578	-0.001	16503720	100.0	100.8	
2	5.688	5.688	0.000	11048684	100.0	106.8	
2	5.736	5.737	-0.001	33910186	100.0	102.5	
		Average of Peak Amounts =				103.4	
						RPD = 4.33	
16 PCB-1254							M
1	6.416	6.417	-0.001	13322306	100.0	105.0	M
1	6.598	6.598	0.000	22654696	100.0	104.3	M
1	6.893	6.893	0.000	20942035	100.0	101.0	M
1	7.099	7.098	0.001	17170762	100.0	105.0	M
1	7.447	7.448	-0.001	24530422	100.0	113.3	M
		Average of Peak Amounts =				105.7	
2	7.177	7.178	-0.001	56212092	100.0	104.2	
2	7.309	7.309	0.000	61894726	100.0	104.8	
2	7.690	7.691	-0.001	87172763	100.0	100.8	
2	7.859	7.860	-0.001	64227873	100.0	104.5	
2	8.304	8.305	-0.001	68091584	100.0	109.7	
		Average of Peak Amounts =				104.8	
						RPD = 0.89	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154ICV100_00023	Amount Added:	1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:15 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B038.D

Injection Date: 23-Dec-2018 04:01:38 Instrument ID: TAC057

Lims ID: ICV AR 2154

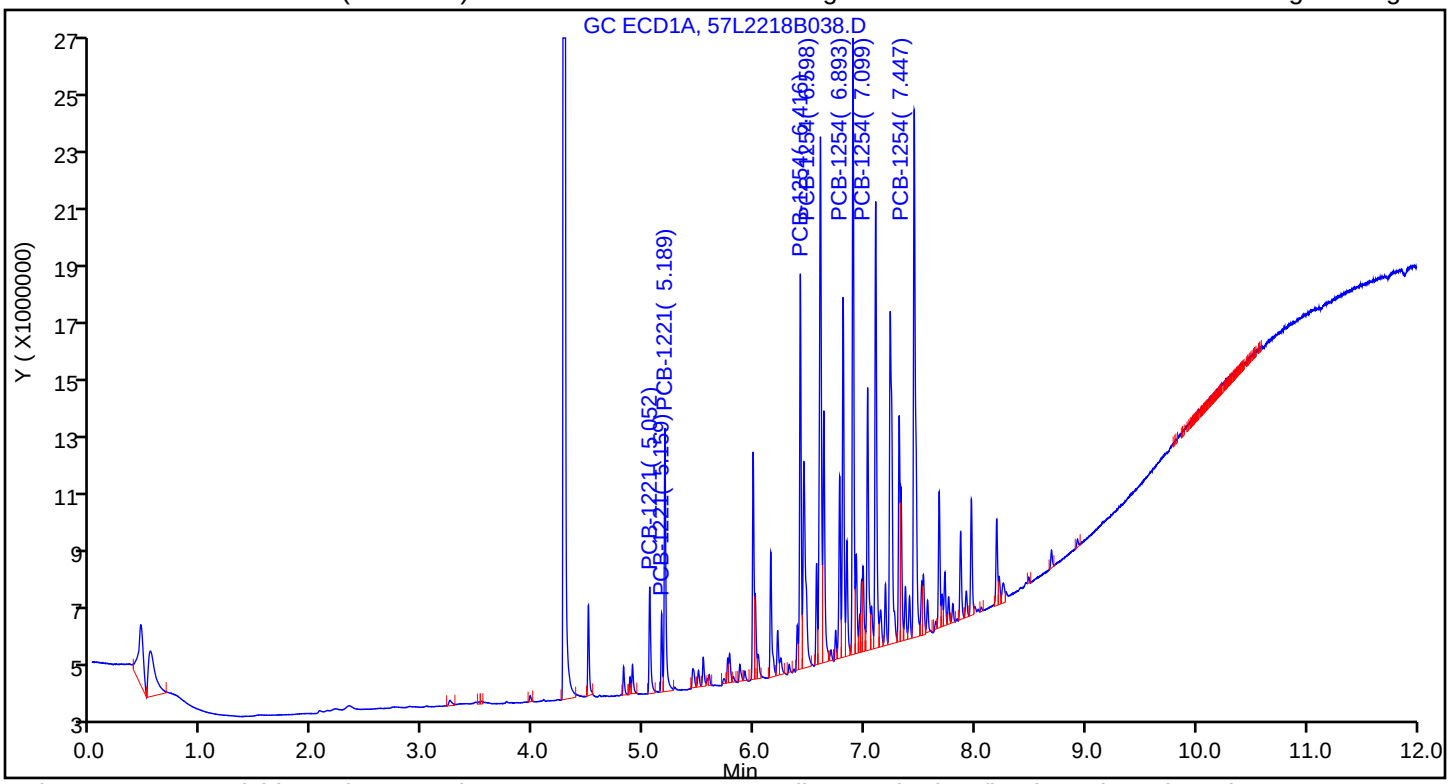
Client ID:

Operator ID: ar ALS Bottle#: 36 Worklist Smp#: 39

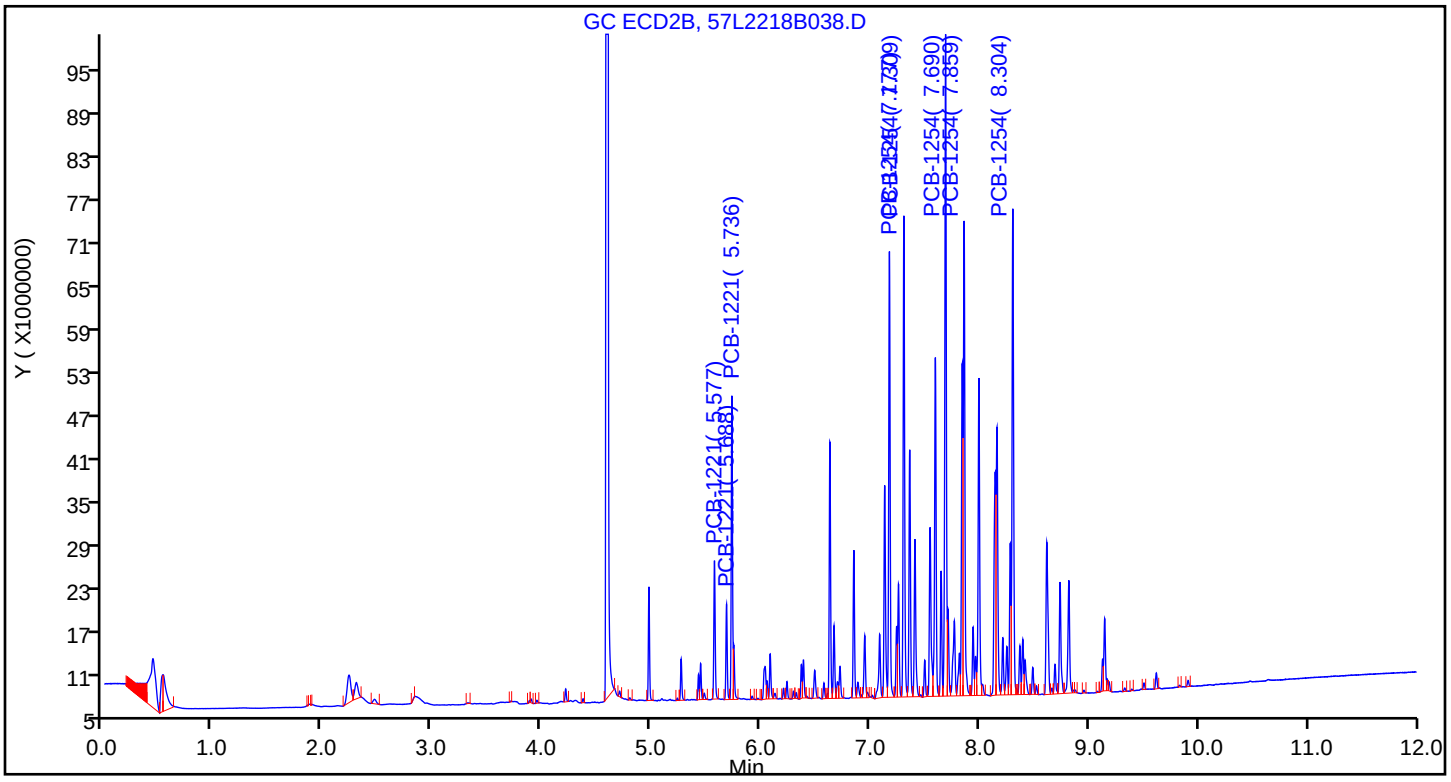
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:15 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B038.D

Injection Date: 23-Dec-2018 04:01:38 Instrument ID: TAC057

Lims ID: ICV AR 2154

Client ID:

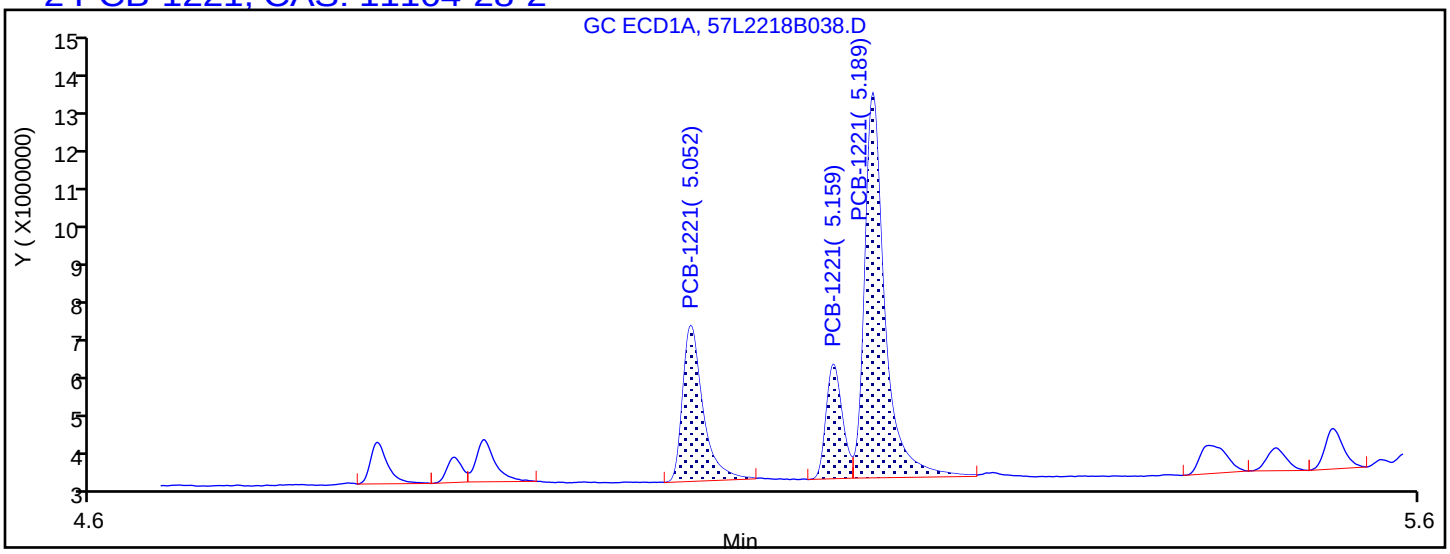
Operator ID: ar ALS Bottle#: 36 Worklist Smp#: 39

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

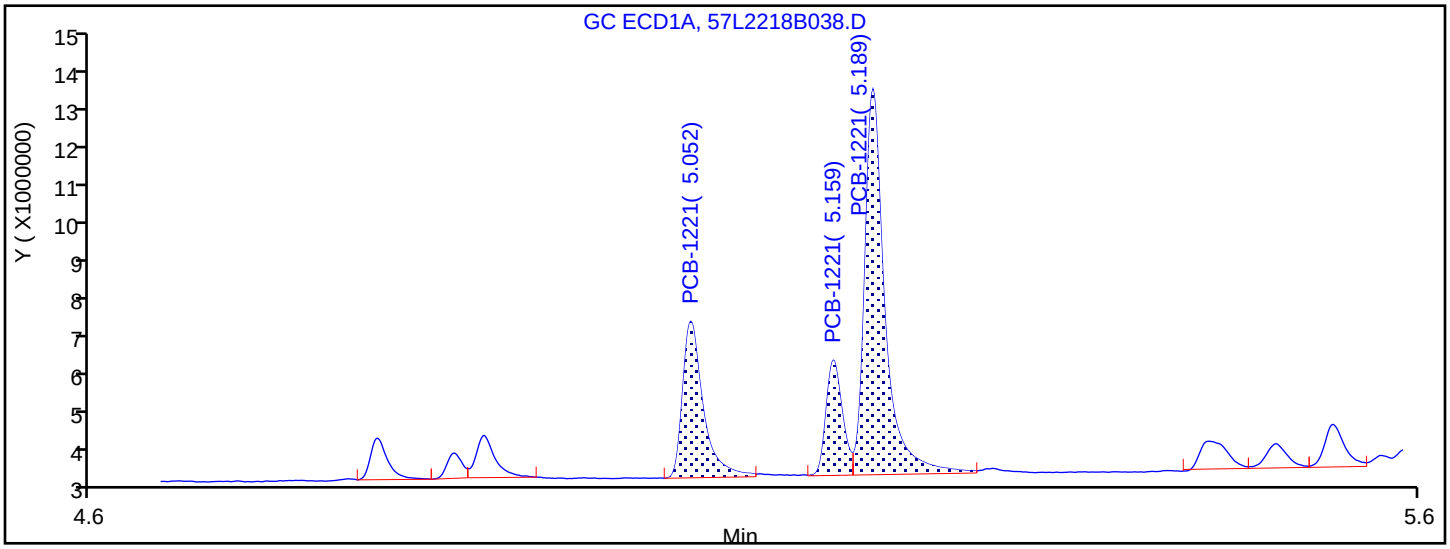
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

5.052	Response = 3924519	
5.159	Response = 2315304	
5.189	Response = 9586779	



Manual Integration Results

5.052	Response = 4024025	M
5.159	Response = 2355186	M
5.189	Response = 9715156	M

Reviewer: ruslandera, 23-Dec-2018 15:30:41

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

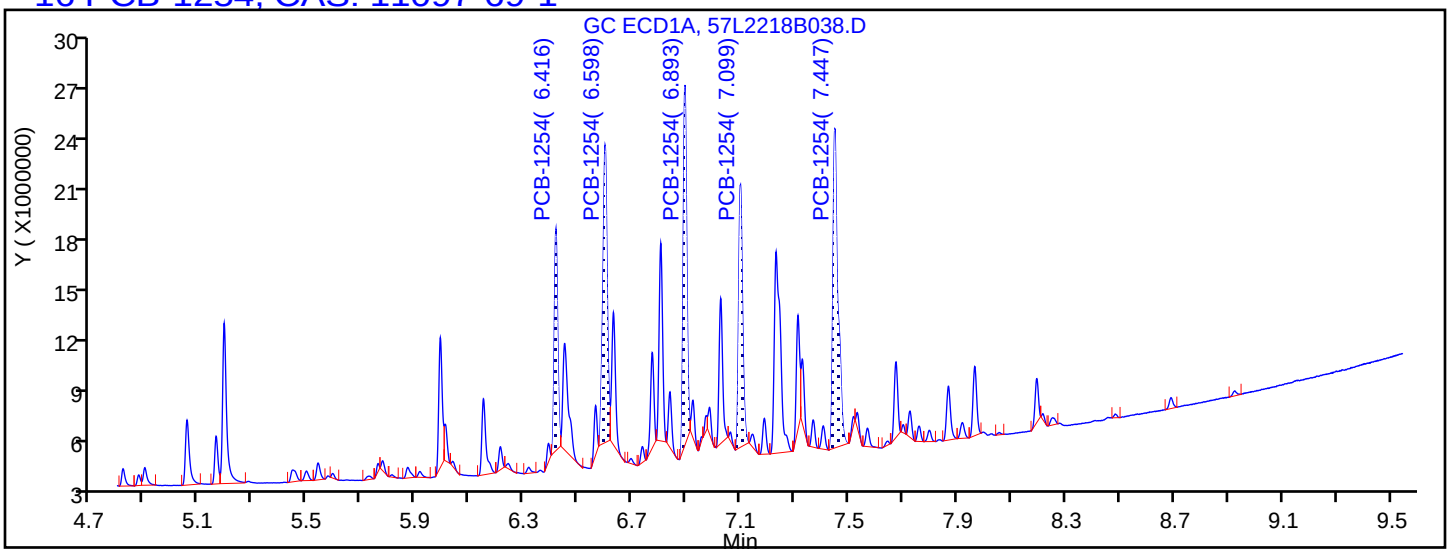
Report Date: 23-Dec-2018 16:17:15 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B038.D

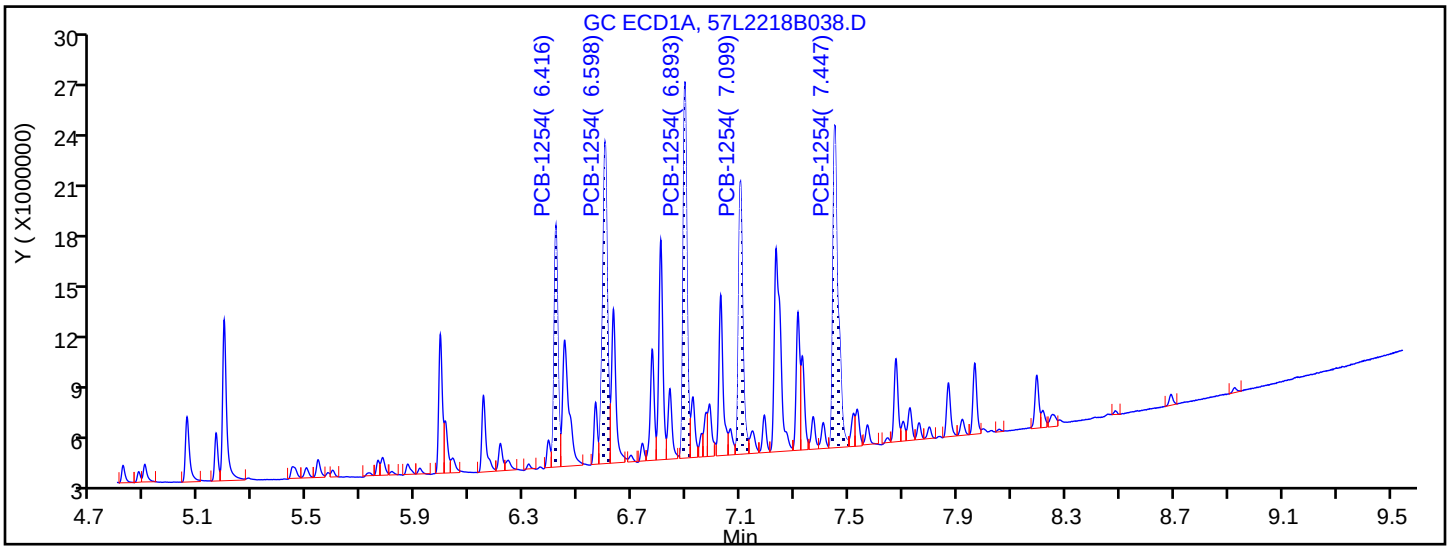
Injection Date:	23-Dec-2018 04:01:38	Instrument ID:	TAC057		
Lims ID:	ICV AR 2154				
Client ID:					
Operator ID:	ar	ALS Bottle#:	36	Worklist Smp#:	39
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

16 PCB-1254, CAS: 11097-69-1



Processing Integration Results

6.416	Response = 11005849
6.598	Response = 19152801
6.893	Response = 18748274
7.099	Response = 15268880
7.447	Response = 23501891



Manual Integration Results

6.416	Response = 13322306	M
6.598	Response = 22654696	M
6.893	Response = 20942035	M
7.099	Response = 17170762	M
7.447	Response = 24530422	M

Reviewer: ruslandera, 23-Dec-2018 15:30:44

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/39 Calibration Date: 12/23/2018 04:01

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57L2218B038.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin2		0.0143			0.100	0.8	20.0
PCB-1221 Peak 2	Qua1		0.0096			0.100	6.8	20.0
PCB-1221 Peak 3	Qua1		0.0295			0.100	2.5	20.0
PCB-1254 Peak 1	Lin2		0.0488			0.100	4.2	20.0
PCB-1254 Peak 2	Lin2		0.0538			0.100	4.8	20.0
PCB-1254 Peak 3	Lin2		0.0757			0.100	0.8	20.0
PCB-1254 Peak 4	Lin2		0.0558			0.100	4.5	20.0
PCB-1254 Peak 5	Lin2		0.0592			0.100	9.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/39 Calibration Date: 12/23/2018 04:01

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57L2218B038.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.58	5.28	5.88
PCB-1221 Peak 2	5.69	5.39	5.99
PCB-1221 Peak 3	5.74	5.44	6.04
PCB-1254 Peak 1	7.18	5.18	9.18
PCB-1254 Peak 2	7.31	5.31	9.31
PCB-1254 Peak 3	7.69	5.69	9.69
PCB-1254 Peak 4	7.86	5.86	9.86
PCB-1254 Peak 5	8.30	6.31	10.31

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B038.D
Lims ID: ICV AR 2154
Client ID:
Sample Type: ICV
Inject. Date: 23-Dec-2018 04:01:38 ALS Bottle#: 36 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 2154
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:09 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:30:55

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.276	4.277	-0.001	193408206	100.0	100.0	
2	4.595	4.596	-0.001	1150893023	100.0	100.0	
						RPD = 0.00	
2 PCB-1221							M
1	5.052	5.053	-0.001	4024025	100.0	98.0	M
1	5.159	5.160	-0.001	2355186	100.0	100.4	M
1	5.189	5.190	-0.001	9715156	100.0	98.6	M
		Average of Peak Amounts =				99.0	
2	5.577	5.578	-0.001	16503720	100.0	100.8	
2	5.688	5.688	0.000	11048684	100.0	106.8	
2	5.736	5.737	-0.001	33910186	100.0	102.5	
		Average of Peak Amounts =				103.4	
						RPD = 4.33	
16 PCB-1254							M
1	6.416	6.417	-0.001	13322306	100.0	105.0	M
1	6.598	6.598	0.000	22654696	100.0	104.3	M
1	6.893	6.893	0.000	20942035	100.0	101.0	M
1	7.099	7.098	0.001	17170762	100.0	105.0	M
1	7.447	7.448	-0.001	24530422	100.0	113.3	M
		Average of Peak Amounts =				105.7	
2	7.177	7.178	-0.001	56212092	100.0	104.2	
2	7.309	7.309	0.000	61894726	100.0	104.8	
2	7.690	7.691	-0.001	87172763	100.0	100.8	
2	7.859	7.860	-0.001	64227873	100.0	104.5	
2	8.304	8.305	-0.001	68091584	100.0	109.7	
		Average of Peak Amounts =				104.8	
						RPD = 0.89	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

2154ICV100_00023	Amount Added:	1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:15 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B038.D

Injection Date: 23-Dec-2018 04:01:38 Instrument ID: TAC057

Lims ID: ICV AR 2154

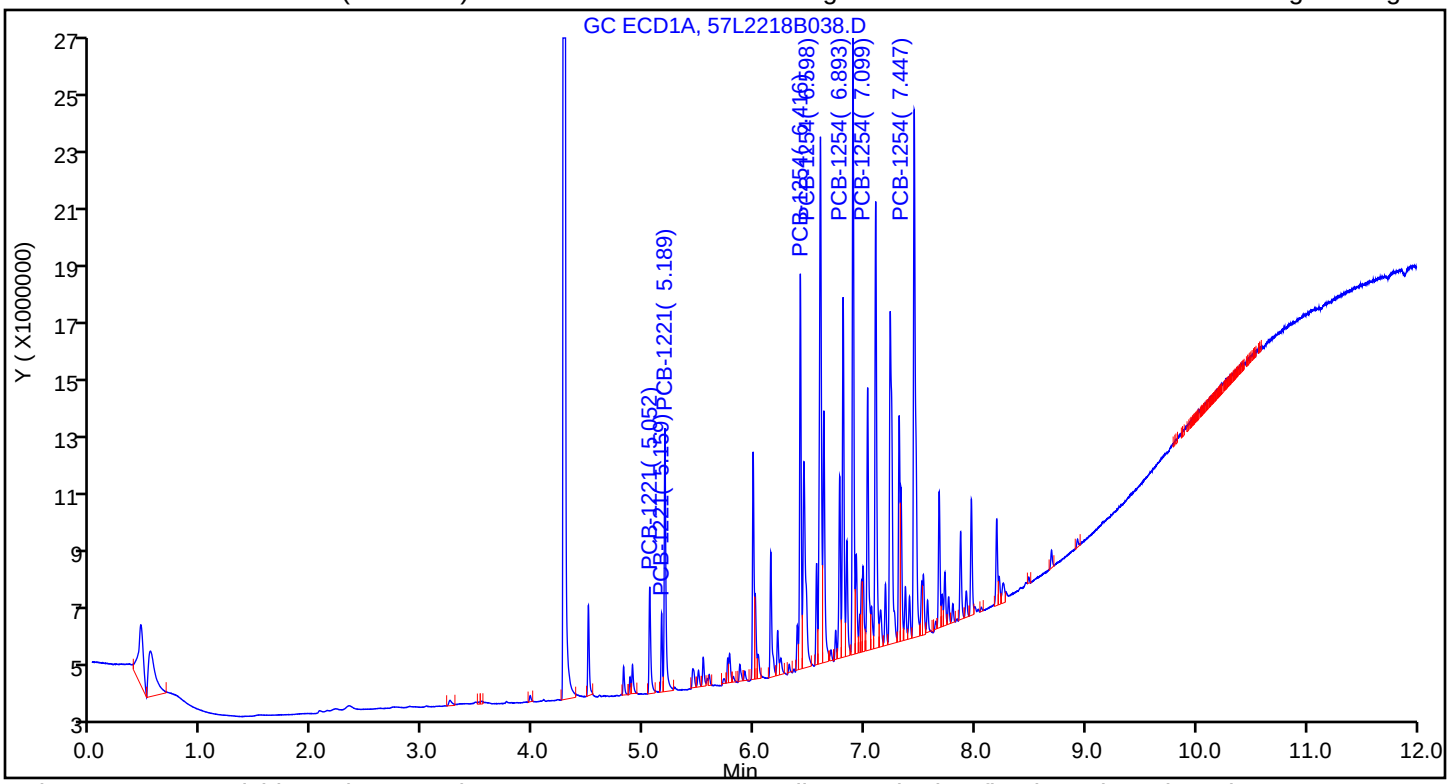
Client ID:

Operator ID: ar ALS Bottle#: 36 Worklist Smp#: 39

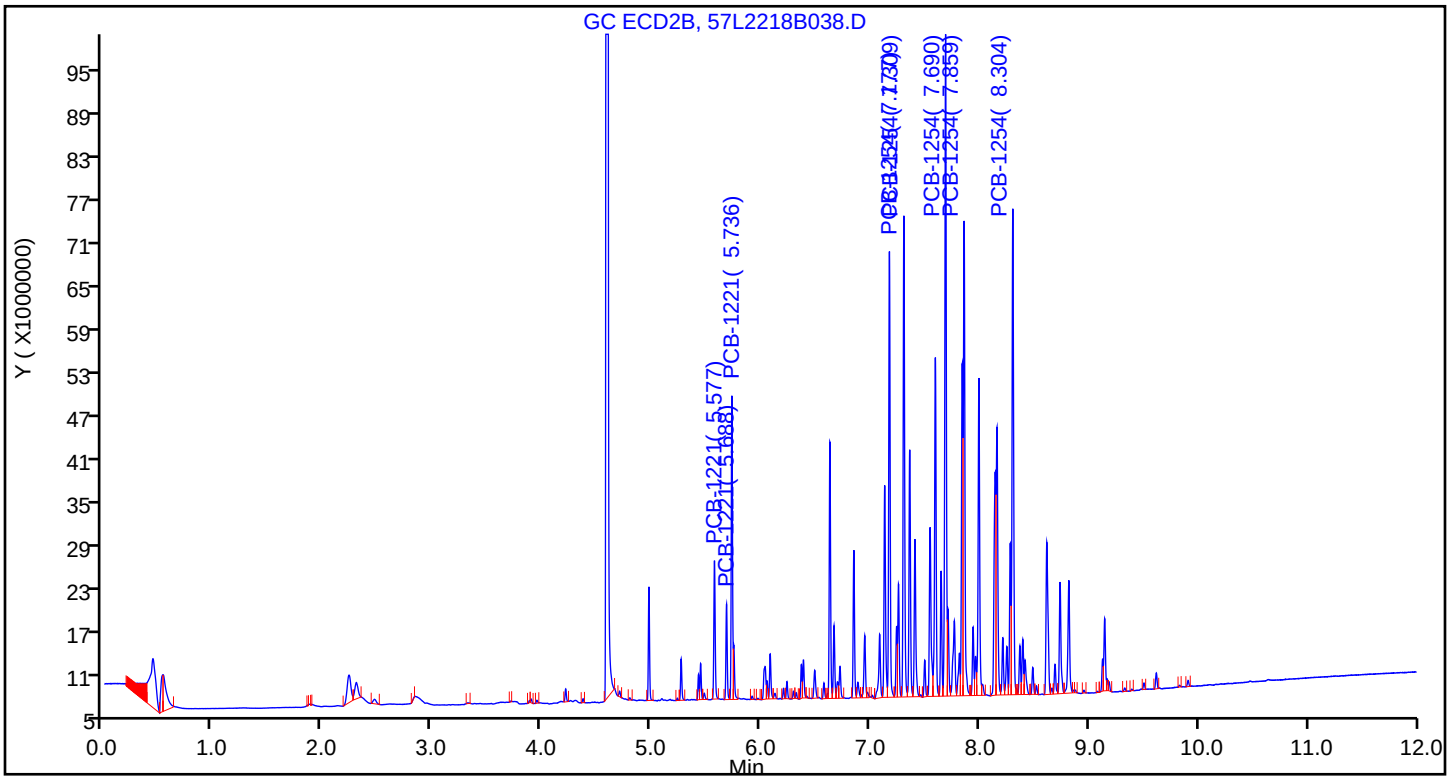
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/48 Calibration Date: 12/23/2018 06:39

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57L2218B047.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0817			0.100	5.1	20.0
PCB-1016 Peak 2	Lin2		0.0920			0.100	-0.2	20.0
PCB-1016 Peak 3	Lin2		0.0597			0.100	-2.7	20.0
PCB-1016 Peak 4	Lin2		0.0468			0.100	3.7	20.0
PCB-1016 Peak 5	Qua1		0.0278			0.100	11.5	20.0
PCB-1260 Peak 1	Lin2		0.0489			0.100	10.9	20.0
PCB-1260 Peak 2	Lin2		0.1018			0.100	13.5	20.0
PCB-1260 Peak 3	Lin2		0.1510			0.100	14.5	20.0
PCB-1260 Peak 4	Lin2		0.0870			0.100	-1.2	20.0
PCB-1260 Peak 5	Lin2		0.0806			0.100	0.9	20.0
Tetrachloro-m-xylene	Ave	2.207	2.127		0.00965	0.0100	-3.6	20.0
DCB Decachlorobiphenyl	Ave	1.614	1.565		0.00971	0.0100	-3.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/48 Calibration Date: 12/23/2018 06:39

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57L2218B047.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.44	5.34	5.54
PCB-1016 Peak 2	5.77	5.67	5.87
PCB-1016 Peak 3	5.87	5.77	5.97
PCB-1016 Peak 4	6.15	6.05	6.25
PCB-1016 Peak 5	6.21	6.11	6.31
PCB-1260 Peak 1	6.92	6.82	7.02
PCB-1260 Peak 2	7.03	6.93	7.13
PCB-1260 Peak 3	7.23	7.13	7.33
PCB-1260 Peak 4	7.53	7.43	7.63
PCB-1260 Peak 5	7.72	7.63	7.83
Tetrachloro-m-xylene	4.92	4.89	4.95
DCB Decachlorobiphenyl	9.08	9.05	9.11

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D
Lims ID: ICV AR 1660
Client ID:
Sample Type: ICV
Inject. Date: 23-Dec-2018 06:39:47 ALS Bottle#: 45 Worklist Smp#: 48
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 1660
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:45 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:49:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	197980143	100.0	100.0	
2	4.596	4.597	-0.001	1192476120	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.920	4.922	-0.002	42182852	10.0	9.65	
2	5.348	5.349	-0.001	142326800	10.0	9.33	
						RPD = 3.39	
5 PCB-1016							Ma
1	5.441	5.442	-0.001	16177304	100.0	105.1	M
1	5.772	5.773	-0.001	18215209	100.0	99.8	M
1	5.865	5.867	-0.002	11814841	100.0	97.3	M
1	6.148	6.150	-0.002	9265623	100.0	103.7	M
1	6.211	6.212	-0.001	5498117	100.0	111.5	M
		Average of Peak Amounts =				103.5	
2	6.042	6.043	-0.001	39071861	100.0	98.6	M
2	6.390	6.391	-0.001	69967011	100.0	99.9	M
2	6.494	6.495	-0.001	45547328	100.0	100.2	M
2	6.851	6.852	-0.001	39280441	100.0	105.8	M
2	6.950	6.951	-0.001	34973517	100.0	112.5	M
		Average of Peak Amounts =				103.4	
						RPD = 0.09	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.922	6.924	-0.002	9688651	100.0	110.9	M
1	7.025	7.027	-0.002	20148283	100.0	113.5	M
1	7.230	7.230	0.000	29890492	100.0	114.5	M
1	7.531	7.532	-0.001	17217060	100.0	98.8	M
1	7.724	7.726	-0.002	15965201	100.0	100.9	M
		Average of Peak Amounts =				107.7	
2	7.712	7.713	-0.001	34635715	100.0	111.6	M
2	7.842	7.844	-0.002	75954666	100.0	113.0	M
2	8.137	8.139	-0.002	58781922	100.0	114.1	M
2	8.370	8.371	-0.001	51430489	100.0	97.9	M
2	8.627	8.627	0.000	60800787	100.0	102.3	M
		Average of Peak Amounts =				107.8	
						RPD = 0.06	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.083	0.000	31013001	10.0	9.71	
2	10.158	10.159	-0.001	77361286	10.0	9.30	
						RPD = 4.32	
48 1260 Res 1							M
1	7.758	7.775	-0.017	8644378	NR	NR	M
1	0.0	0.047	-0.047	0	NR	NR	
45 1260 Res 2							M
1	7.758	7.775	-0.017	8644378	NR	NR	M
1	7.998	8.000	-0.002	2902657	NR	NR	M
47 1260 Res 3							M
1	7.758	7.775	-0.017	8644378	NR	NR	M
1	7.838	7.820	0.018	694533	NR	NR	M

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

1660ICV100_00024	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D

Injection Date: 23-Dec-2018 06:39:47 Instrument ID: TAC057

Lims ID: ICV AR 1660

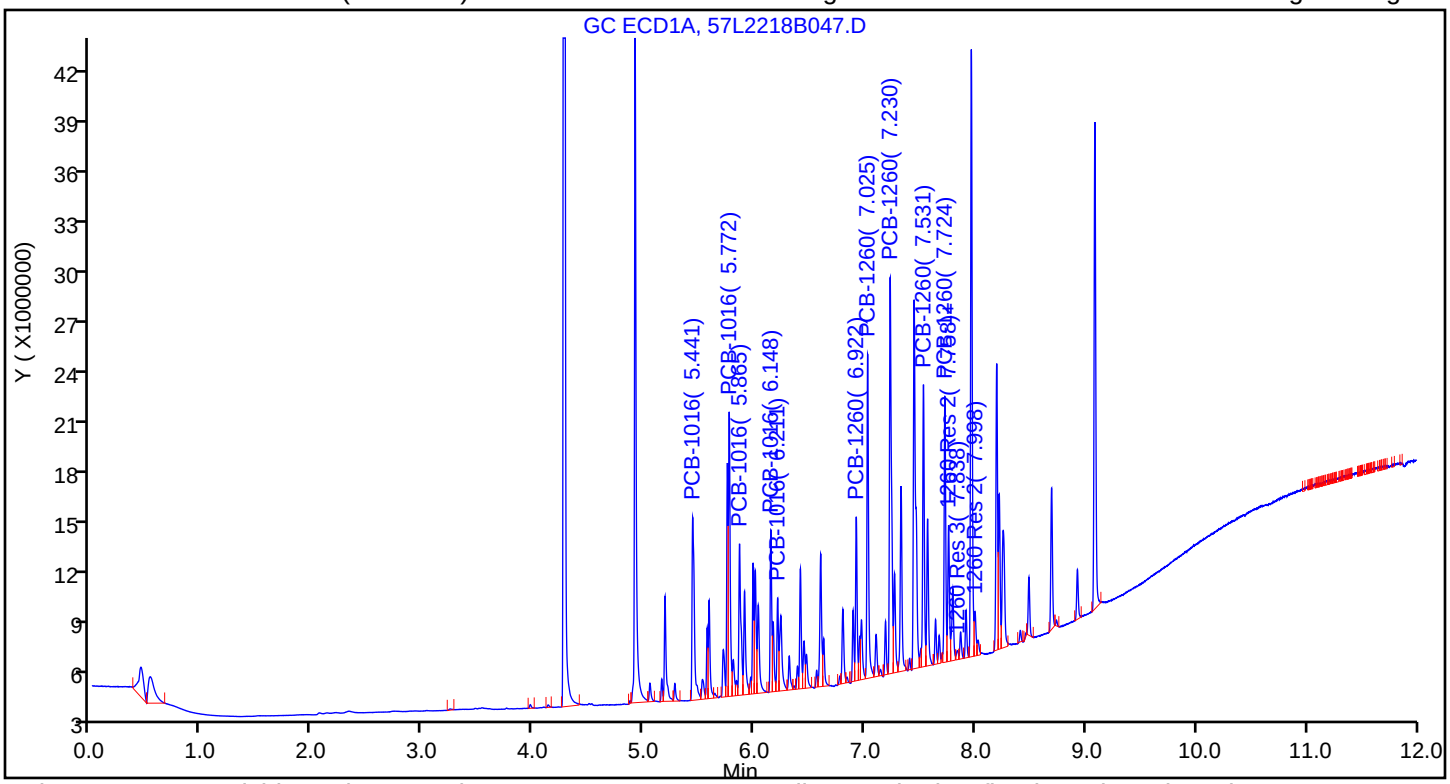
Client ID:

Operator ID: ar ALS Bottle#: 45 Worklist Smp#: 48

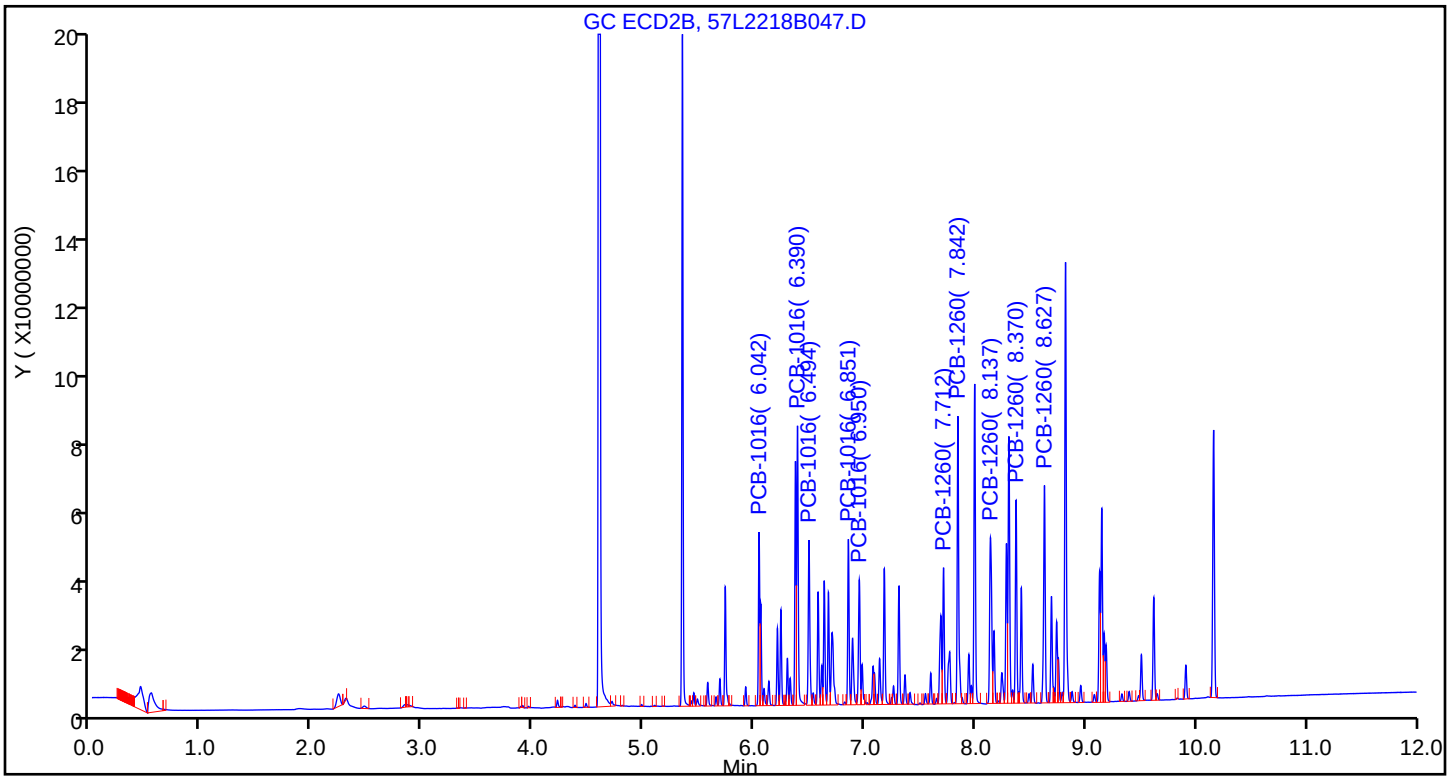
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



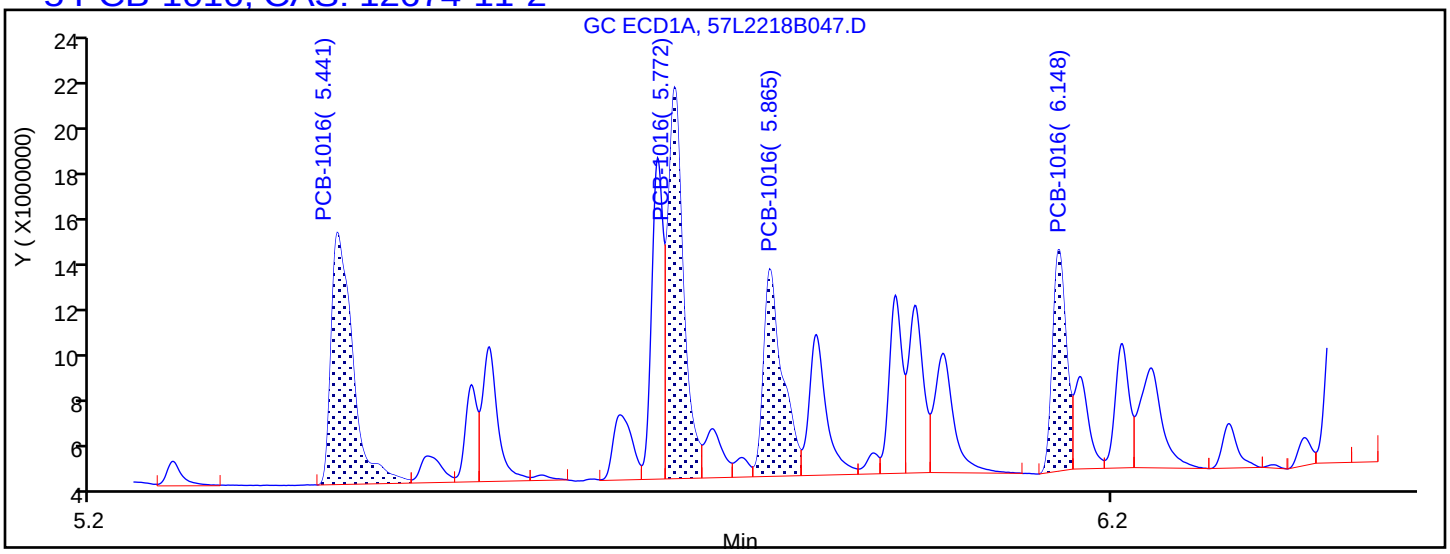
Report Date: 23-Dec-2018 16:17:51 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D

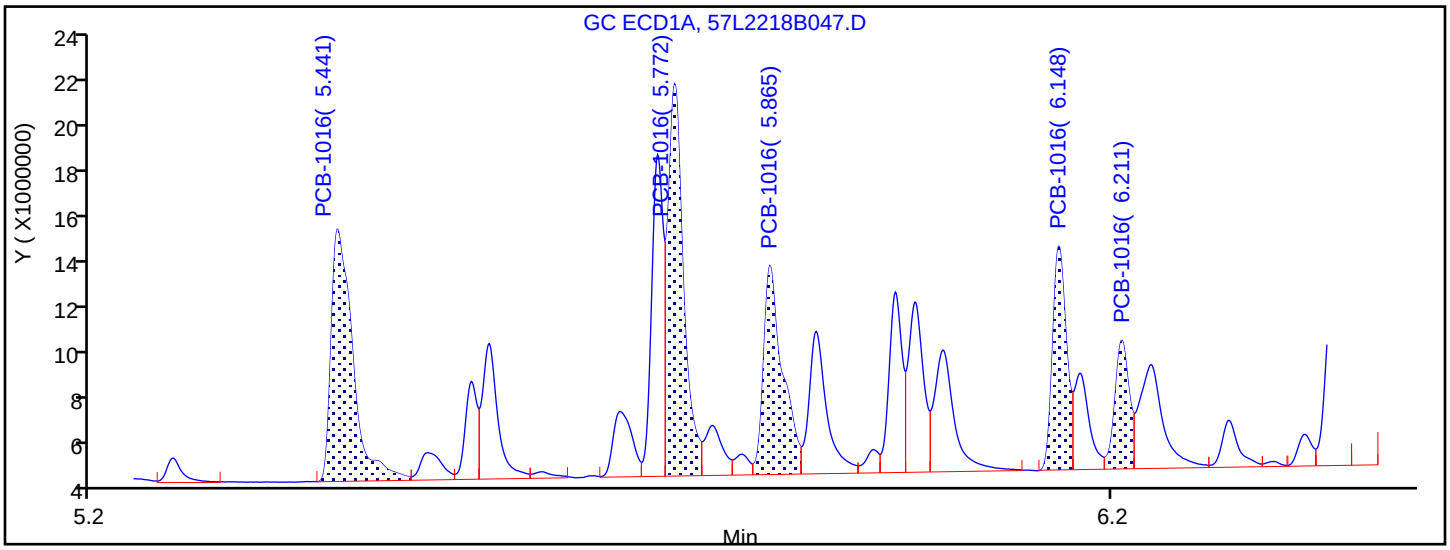
Injection Date:	23-Dec-2018 06:39:47	Instrument ID:	TAC057		
Lims ID:	ICV AR 1660				
Client ID:					
Operator ID:	ar	ALS Bottle#:	45	Worklist Smp#:	48
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.441	Response = 16111534
5.772	Response = 18148503
5.865	Response = 11631260
6.148	Response = 9117427
6.417	Response = 6750342



Manual Integration Results

5.441	Response = 16177304	M
5.772	Response = 18215209	M
5.865	Response = 11814841	M
6.148	Response = 9265623	M
6.211	Response = 5498117	M

Reviewer: ruslandera, 23-Dec-2018 15:49:23

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

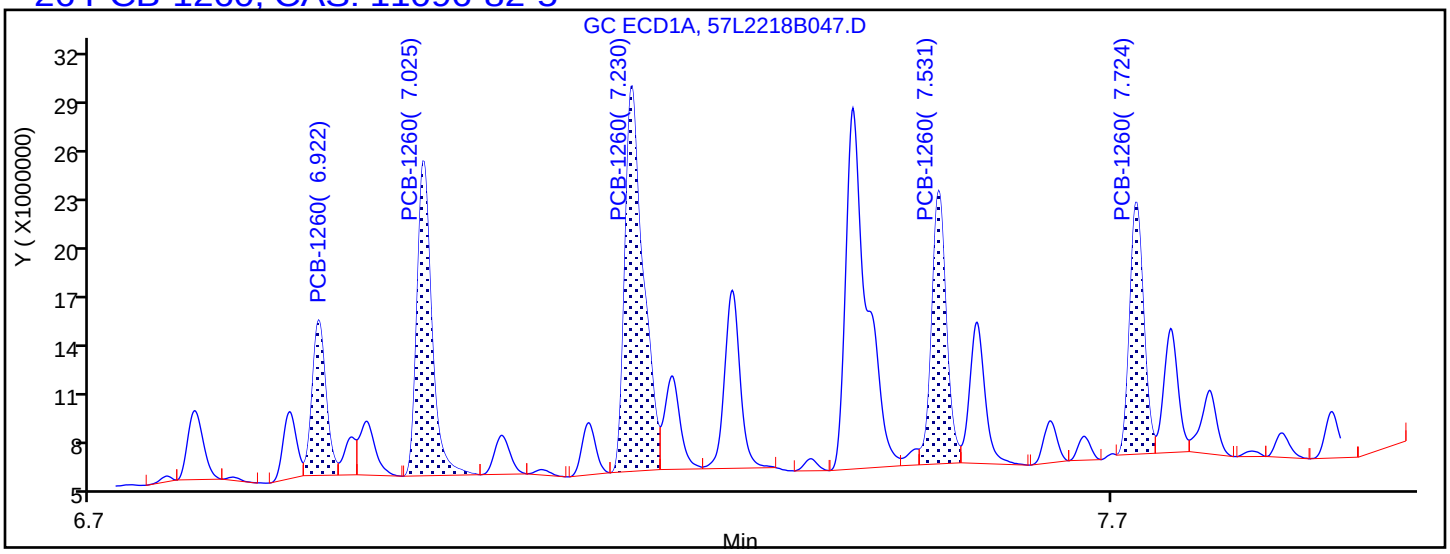
Report Date: 23-Dec-2018 16:17:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D

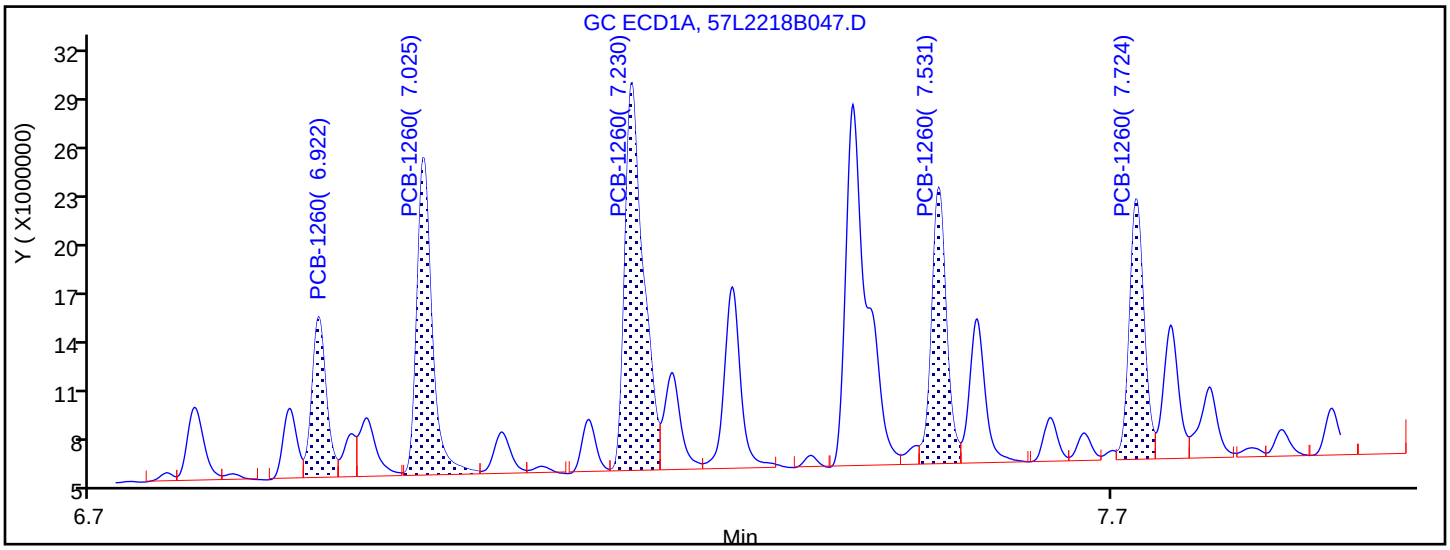
Injection Date:	23-Dec-2018 06:39:47	Instrument ID:	TAC057		
Lims ID:	ICV AR 1660				
Client ID:					
Operator ID:	ar	ALS Bottle#:	45	Worklist Smp#:	48
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

6.922	Response = 9028731
7.025	Response = 19452436
7.230	Response = 29430308
7.531	Response = 16746604
7.724	Response = 14779266



Manual Integration Results

6.922	Response = 9688651	M
7.025	Response = 20148283	M
7.230	Response = 29890492	M
7.531	Response = 17217060	M
7.724	Response = 15965201	M

Reviewer: ruslandera, 23-Dec-2018 15:49:27

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/48 Calibration Date: 12/23/2018 06:39

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57L2218B047.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0328			0.100	-1.4	20.0
PCB-1016 Peak 2	Lin2		0.0587			0.100	-0.1	20.0
PCB-1016 Peak 3	Lin2		0.0382			0.100	0.2	20.0
PCB-1016 Peak 4	Lin2		0.0329			0.100	5.8	20.0
PCB-1016 Peak 5	Qua1		0.0293			0.100	12.5	20.0
PCB-1260 Peak 1	Lin2		0.0291			0.100	11.6	20.0
PCB-1260 Peak 2	Lin2		0.0637			0.100	13.0	20.0
PCB-1260 Peak 3	Lin2		0.0493			0.100	14.1	20.0
PCB-1260 Peak 4	Lin2		0.0431			0.100	-2.1	20.0
PCB-1260 Peak 5	Lin2		0.0510			0.100	2.3	20.0
Tetrachloro-m-xylene	Ave	1.279	1.192		0.00933	0.0100	-6.8	20.0
DCB Decachlorobiphenyl	Ave	0.6979	0.6481		0.00930	0.0100	-7.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 580-291937/48 Calibration Date: 12/23/2018 06:39

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57L2218B047.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	6.04	5.94	6.14
PCB-1016 Peak 2	6.39	6.29	6.49
PCB-1016 Peak 3	6.49	6.40	6.60
PCB-1016 Peak 4	6.85	6.75	6.95
PCB-1016 Peak 5	6.95	6.85	7.05
PCB-1260 Peak 1	7.71	7.61	7.81
PCB-1260 Peak 2	7.84	7.74	7.94
PCB-1260 Peak 3	8.14	8.04	8.24
PCB-1260 Peak 4	8.37	8.27	8.47
PCB-1260 Peak 5	8.63	8.53	8.73
Tetrachloro-m-xylene	5.35	5.32	5.38
DCB Decachlorobiphenyl	10.16	10.13	10.19

TestAmerica Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D
Lims ID: ICV AR 1660
Client ID:
Sample Type: ICV
Inject. Date: 23-Dec-2018 06:39:47 ALS Bottle#: 45 Worklist Smp#: 48
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV AR 1660
Operator ID: ar Instrument ID: TAC057
Sublist:

Method: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Dec-2018 16:17:45 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0313

First Level Reviewer: ruslandera Date: 23-Dec-2018 15:49:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.277	4.277	0.000	197980143	100.0	100.0	
2	4.596	4.597	-0.001	1192476120	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.920	4.922	-0.002	42182852	10.0	9.65	
2	5.348	5.349	-0.001	142326800	10.0	9.33	
						RPD = 3.39	
5 PCB-1016							Ma
1	5.441	5.442	-0.001	16177304	100.0	105.1	M
1	5.772	5.773	-0.001	18215209	100.0	99.8	M
1	5.865	5.867	-0.002	11814841	100.0	97.3	M
1	6.148	6.150	-0.002	9265623	100.0	103.7	M
1	6.211	6.212	-0.001	5498117	100.0	111.5	M
		Average of Peak Amounts =				103.5	
2	6.042	6.043	-0.001	39071861	100.0	98.6	M
2	6.390	6.391	-0.001	69967011	100.0	99.9	M
2	6.494	6.495	-0.001	45547328	100.0	100.2	M
2	6.851	6.852	-0.001	39280441	100.0	105.8	M
2	6.950	6.951	-0.001	34973517	100.0	112.5	M
		Average of Peak Amounts =				103.4	
						RPD = 0.09	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							Ma
1	6.922	6.924	-0.002	9688651	100.0	110.9	M
1	7.025	7.027	-0.002	20148283	100.0	113.5	M
1	7.230	7.230	0.000	29890492	100.0	114.5	M
1	7.531	7.532	-0.001	17217060	100.0	98.8	M
1	7.724	7.726	-0.002	15965201	100.0	100.9	M
		Average of Peak Amounts =				107.7	
2	7.712	7.713	-0.001	34635715	100.0	111.6	M
2	7.842	7.844	-0.002	75954666	100.0	113.0	M
2	8.137	8.139	-0.002	58781922	100.0	114.1	M
2	8.370	8.371	-0.001	51430489	100.0	97.9	M
2	8.627	8.627	0.000	60800787	100.0	102.3	M
		Average of Peak Amounts =				107.8	
						RPD = 0.06	
$ 43 DCB Decachlorobiphenyl							
1	9.083	9.083	0.000	31013001	10.0	9.71	
2	10.158	10.159	-0.001	77361286	10.0	9.30	
						RPD = 4.32	
48 1260 Res 1							M
1	7.758	7.775	-0.017	8644378	NR	NR	M
1	0.0	0.047	-0.047	0	NR	NR	
45 1260 Res 2							M
1	7.758	7.775	-0.017	8644378	NR	NR	M
1	7.998	8.000	-0.002	2902657	NR	NR	M
47 1260 Res 3							M
1	7.758	7.775	-0.017	8644378	NR	NR	M
1	7.838	7.820	0.018	694533	NR	NR	M

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

1660ICV100_00024	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 23-Dec-2018 16:17:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D

Injection Date: 23-Dec-2018 06:39:47 Instrument ID: TAC057

Lims ID: ICV AR 1660

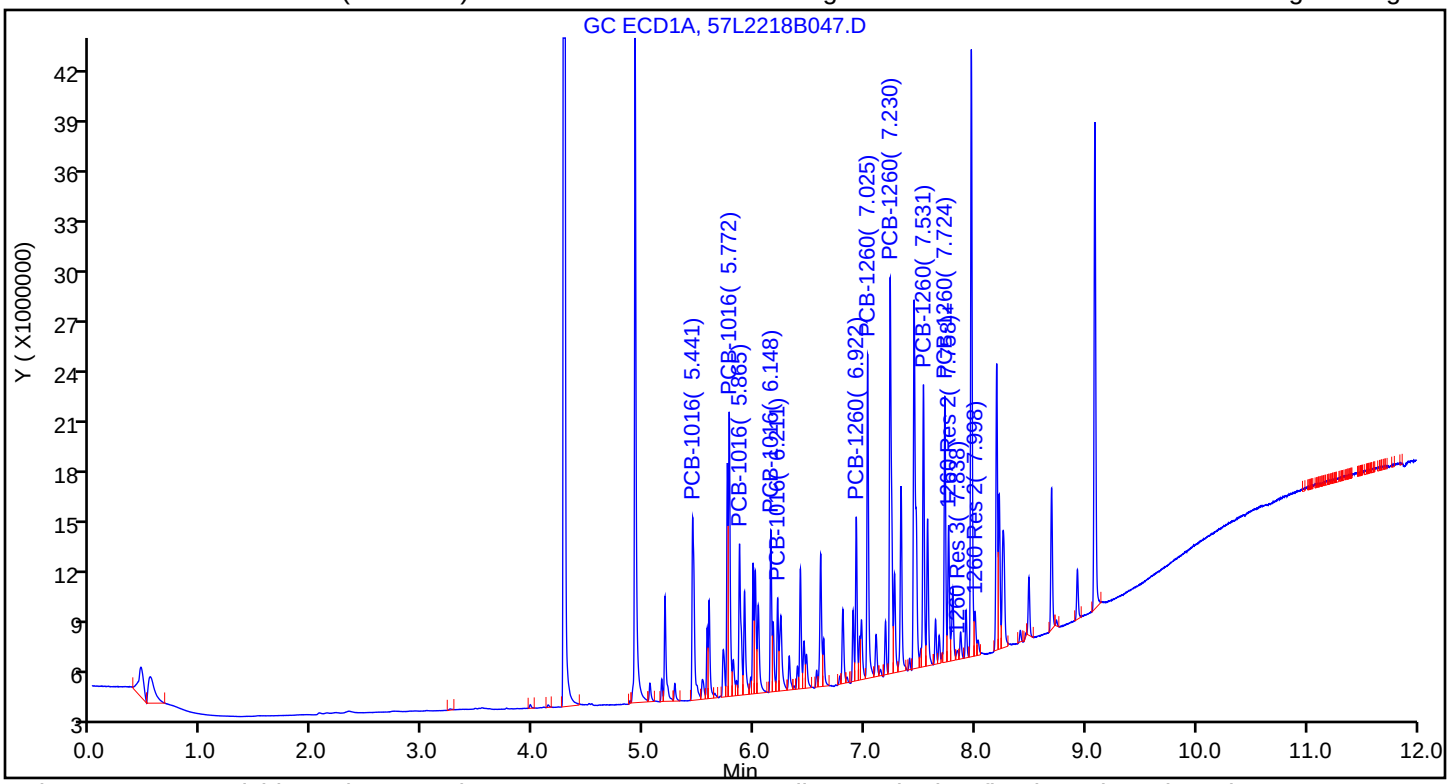
Client ID:

Operator ID: ar ALS Bottle#: 45 Worklist Smp#: 48

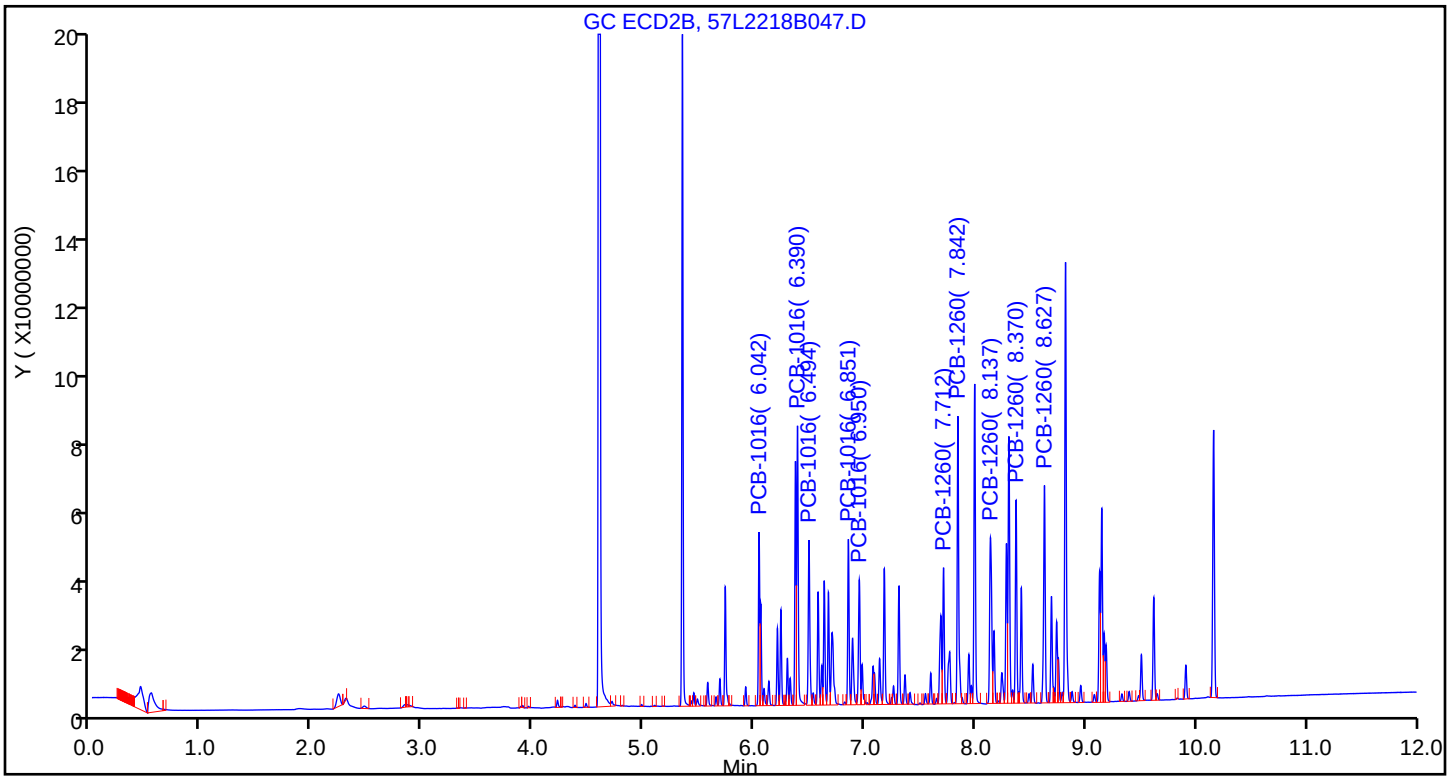
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Dec-2018 16:17:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D

Injection Date: 23-Dec-2018 06:39:47 Instrument ID: TAC057

Lims ID: ICV AR 1660

Client ID:

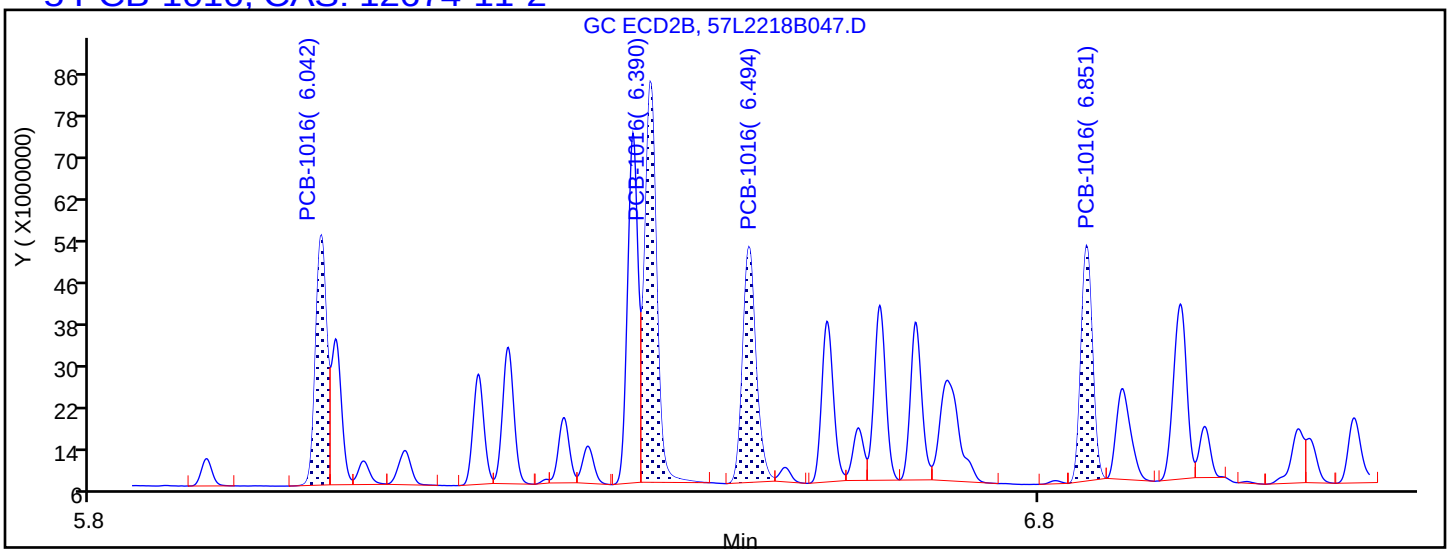
Operator ID: ar ALS Bottle#: 45 Worklist Smp#: 48

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

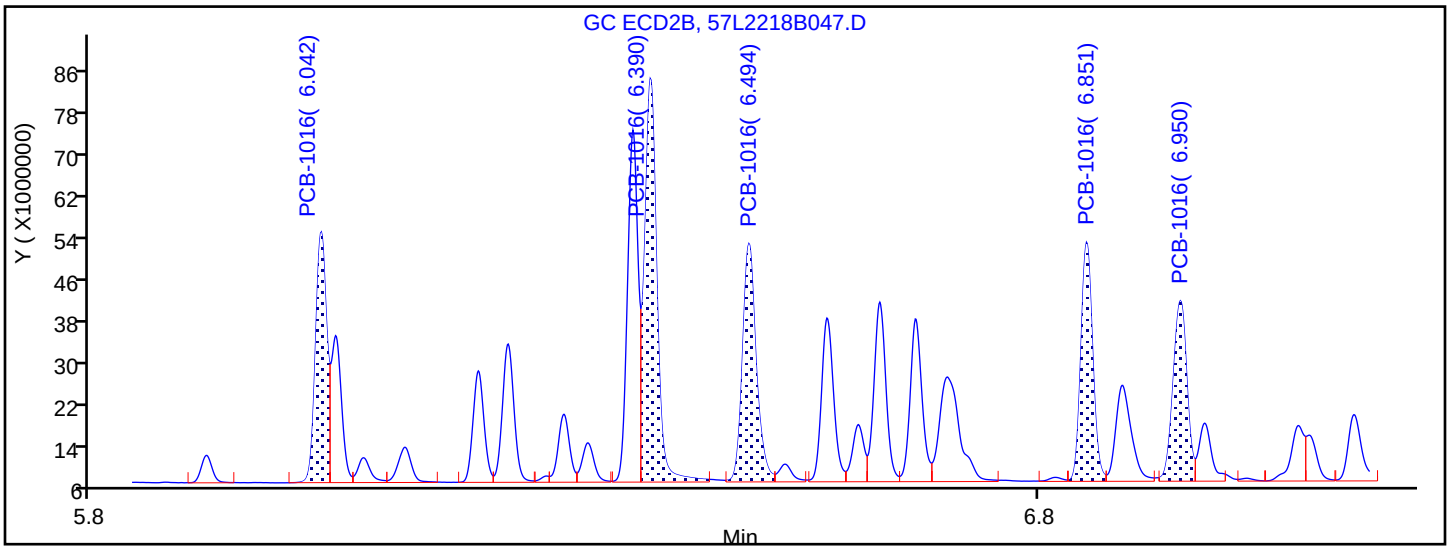
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

6.042	Response = 38828132
6.390	Response = 67596470
6.494	Response = 43884270
6.851	Response = 37567626
7.177	Response = 33731652



Manual Integration Results

6.042	Response = 39071861	M
6.390	Response = 69967011	M
6.494	Response = 45547328	M
6.851	Response = 39280441	M
6.950	Response = 34973517	M

Reviewer: ruslandera, 23-Dec-2018 15:49:35

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Report Date: 23-Dec-2018 16:17:52 Chrom Revision: 2.3 13-Dec-2018 17:23:12

TestAmerica Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B047.D

Injection Date: 23-Dec-2018 06:39:47 Instrument ID: TAC057

Lims ID: ICV AR 1660

Client ID:

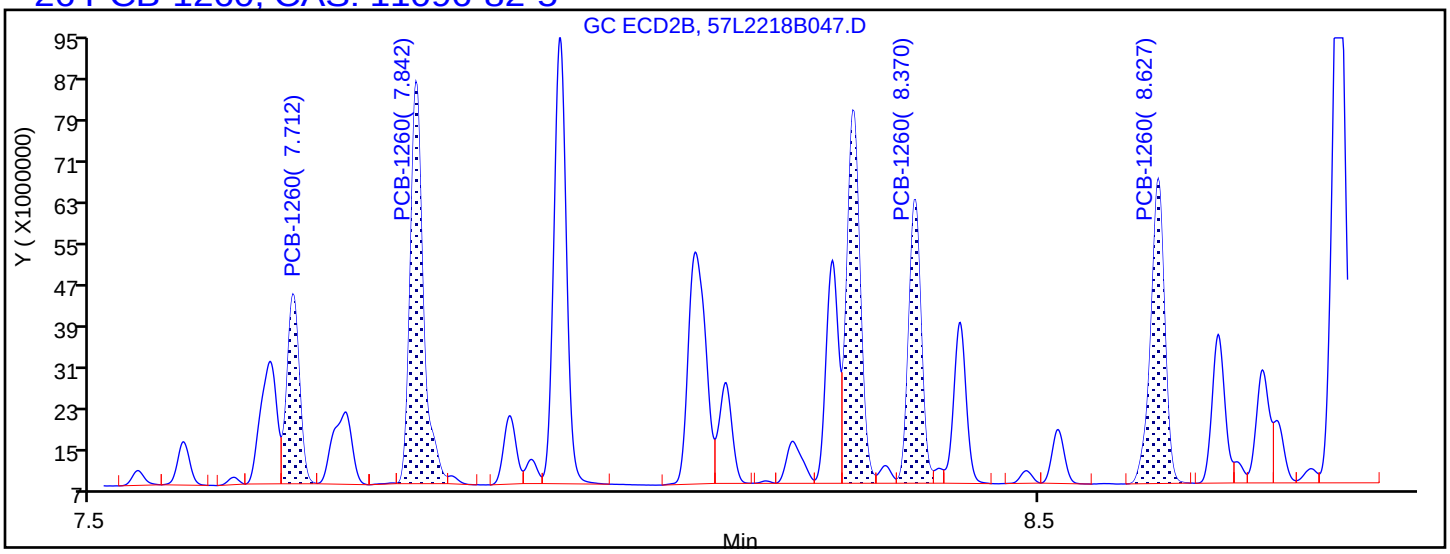
Operator ID: ar ALS Bottle#: 45 Worklist Smp#: 48

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

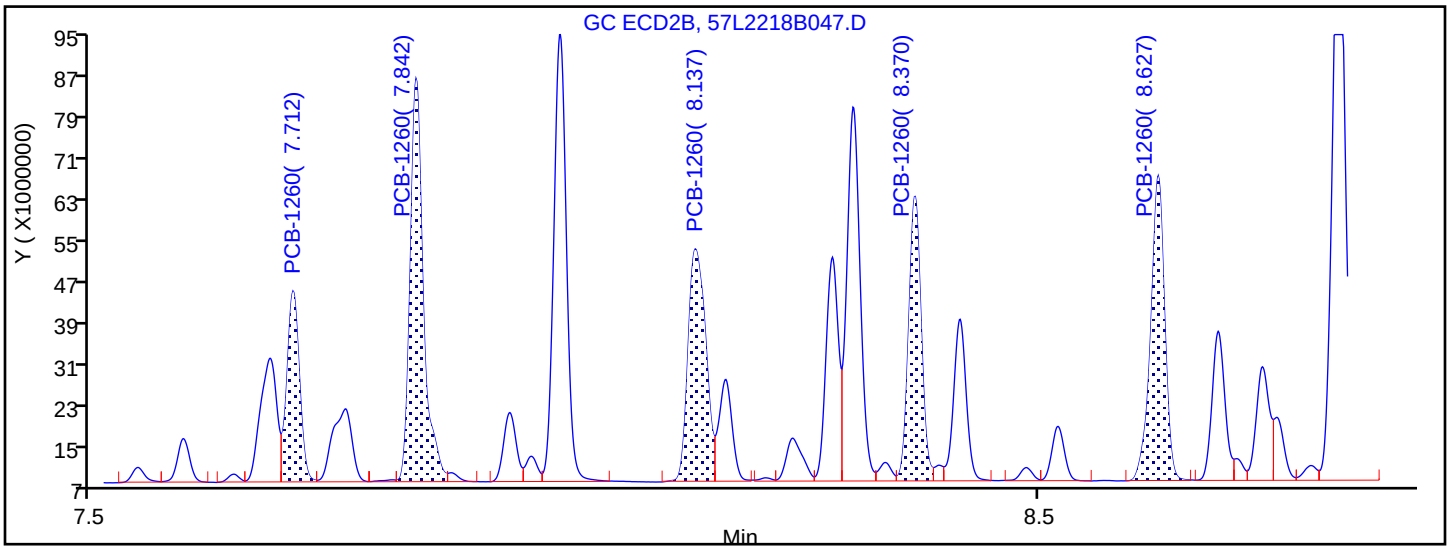
Column: ZB-CLPesticides-2 (0.25 mm) Detector GC ECD2B

26 PCB-1260, CAS: 11096-82-5



Processing Integration Results

7.712	Response = 34099078
7.842	Response = 75234372
8.304	Response = 71478731
8.370	Response = 51068557
8.627	Response = 60729535



Manual Integration Results

7.712	Response = 34635715	M
7.842	Response = 75954666	M
8.137	Response = 58781922	M
8.370	Response = 51430489	M
8.627	Response = 60800787	M

Reviewer: ruslandera, 23-Dec-2018 15:49:35

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/4 Calibration Date: 07/23/2019 08:00

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57G2319A005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin2		0.0412			0.100	10.2	20.0
PCB-1232 Peak 2	Lin2		0.0383			0.100	21.4*	20.0
PCB-1232 Peak 3	Lin2		0.0443			0.100	19.6	20.0
PCB-1232 Peak 4	Lin2		0.0300			0.100	16.6	20.0
PCB-1232 Peak 5	Lin2		0.0203			0.100	15.4	20.0
PCB-1262 Peak 1	Ave	0.0449	0.0480			0.100	6.8	20.0
PCB-1262 Peak 2	Lin2		0.1150			0.100	21.9*	20.0
PCB-1262 Peak 3	Lin2		0.1492			0.100	23.8*	20.0
PCB-1262 Peak 4	Ave	0.1081	0.1250			0.100	15.7	20.0
PCB-1262 Peak 5	Ave	0.2136	0.2739			0.100	28.2*	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/4 Calibration Date: 07/23/2019 08:00

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57G2319A005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.04	4.94	5.14
PCB-1232 Peak 2	5.28	5.18	5.38
PCB-1232 Peak 3	5.61	3.61	7.61
PCB-1232 Peak 4	5.70	3.70	7.70
PCB-1232 Peak 5	5.97	3.97	7.97
PCB-1262 Peak 1	6.72	6.62	6.82
PCB-1262 Peak 2	7.03	6.93	7.13
PCB-1262 Peak 3	7.32	5.32	9.32
PCB-1262 Peak 4	7.51	5.51	9.51
PCB-1262 Peak 5	7.75	5.75	9.75

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A005.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:00:03 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:33 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:41:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.110	4.110	0.000	167387073	100.0	100.0	
2	4.451	4.451	0.000	2055274391	100.0	100.0	
						RPD = 0.00	
8 PCB-1232							M
1	5.043	5.043	0.000	6901264	100.0	110.2	M
1	5.283	5.283	0.000	6411546	100.0	121.4	M
1	5.613	5.613	0.000	7412280	100.0	119.6	M
1	5.702	5.702	0.000	5012843	100.0	116.6	
1	5.969	5.969	0.000	3404456	100.0	115.4	
		Average of Peak Amounts =				116.6	
2	5.582	5.582	0.000	60873604	100.0	120.5	
2	5.877	5.877	0.000	32846777	100.0	95.9	
2	6.322	6.322	0.000	41390076	100.0	115.6	
2	6.669	6.669	0.000	28083214	100.0	106.8	
2	6.990	6.990	0.000	46991860	100.0	112.0	
		Average of Peak Amounts =				110.2	
						RPD = 5.71	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.724	6.724	0.000	8030234	100.0	106.8	M
1	7.027	7.027	0.000	19242060	100.0	121.9	M
1	7.322	7.322	0.000	24979626	100.0	123.8	M
1	7.513	7.513	0.000	20925037	100.0	115.7	M
1	7.750	7.750	0.000	45838395	100.0	128.2	M
		Average of Peak Amounts =				119.3	
2	7.517	7.517	0.000	59986771	100.0	104.4	
2	7.797	7.797	0.000	117869114	100.0	119.2	
2	8.168	8.168	0.000	152848978	100.0	118.5	
2	8.422	8.422	0.000	143225199	100.0	129.3	
2	8.613	8.613	0.000	274660791	100.0	123.8	
		Average of Peak Amounts =				119.1	
						RPD = 0.17	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

3262IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A005.D

Injection Date: 23-Jul-2019 08:00:03 Instrument ID: TAC057

Lims ID: ccv

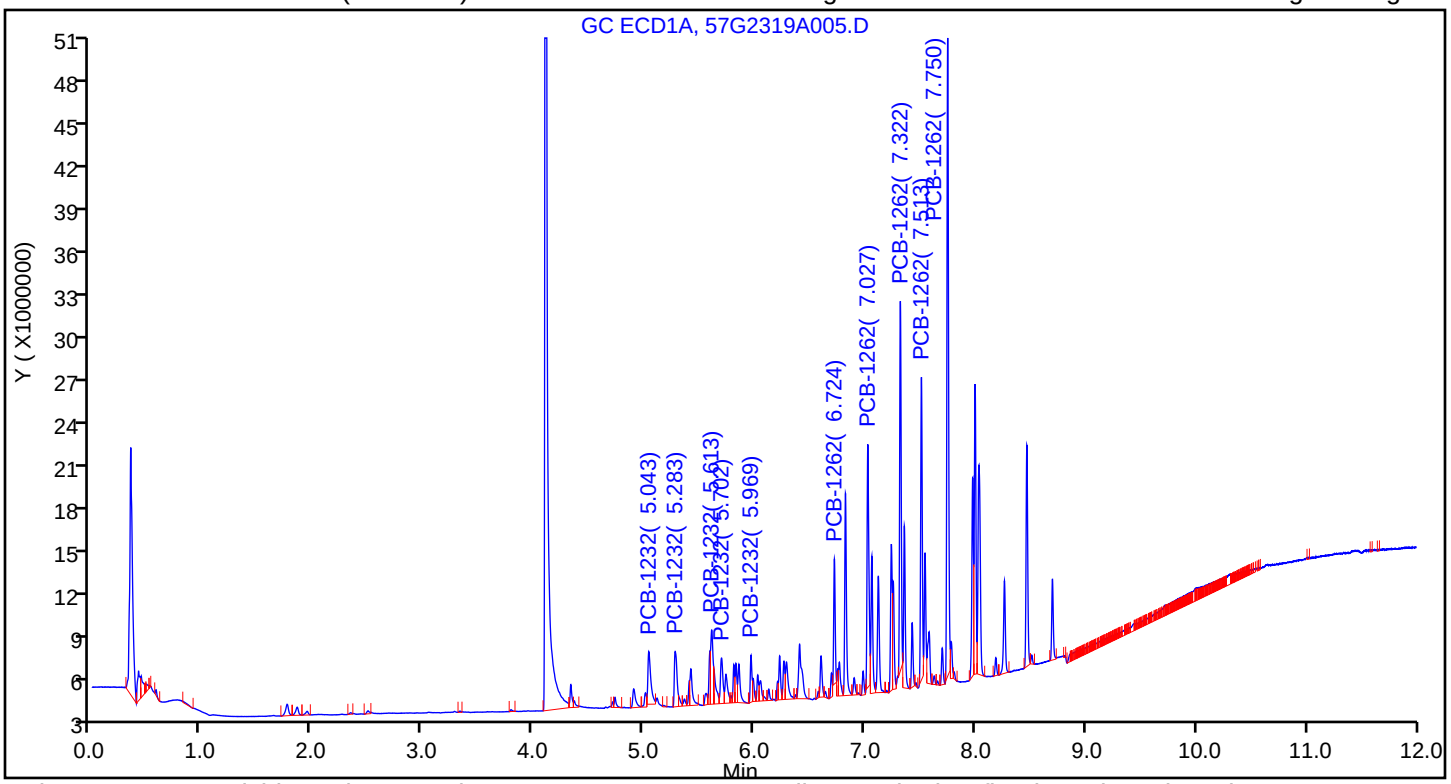
Client ID:

Operator ID: cjb ALS Bottle#: 1 Worklist Smp#: 4

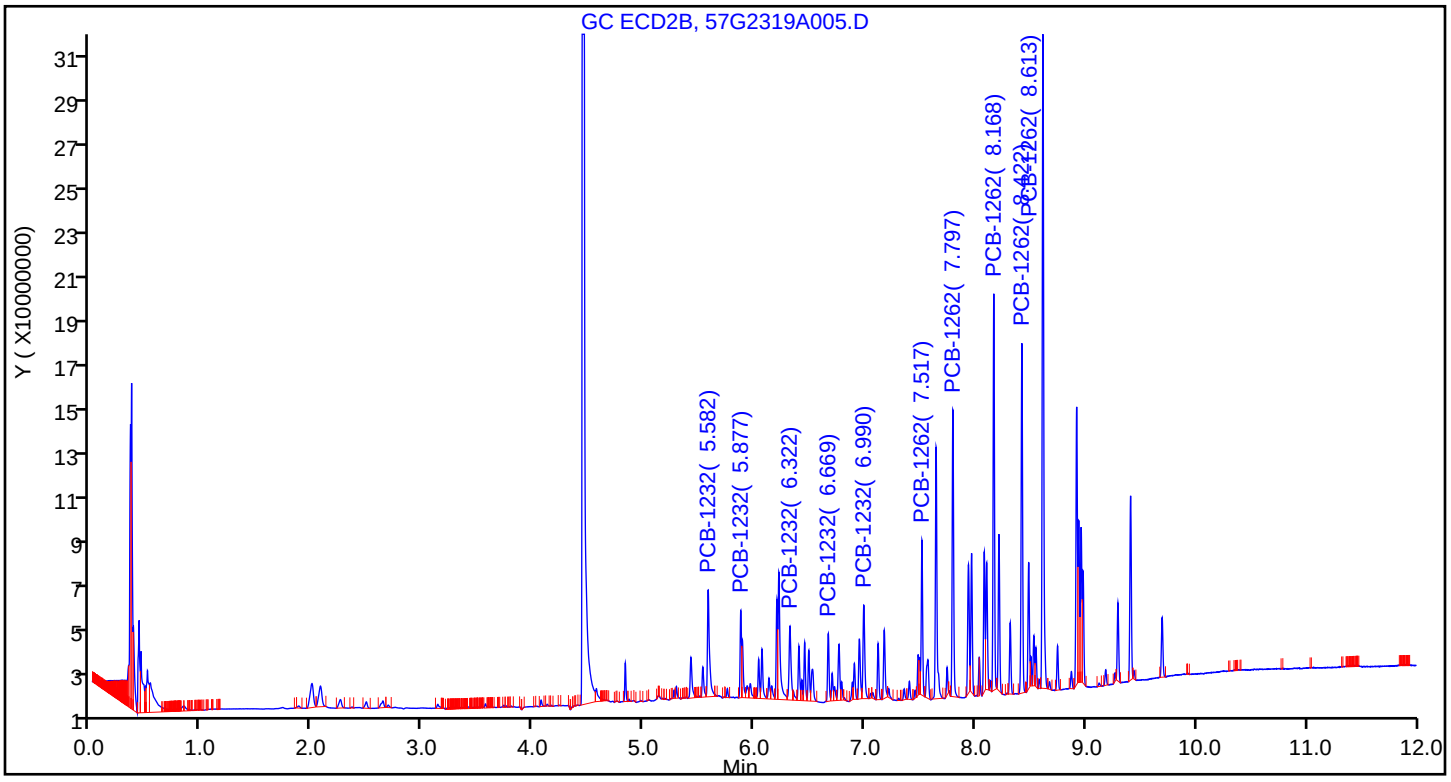
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Jul-2019 15:11:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A005.D

Injection Date: 23-Jul-2019 08:00:03 Instrument ID: TAC057

Lims ID: ccv

Client ID:

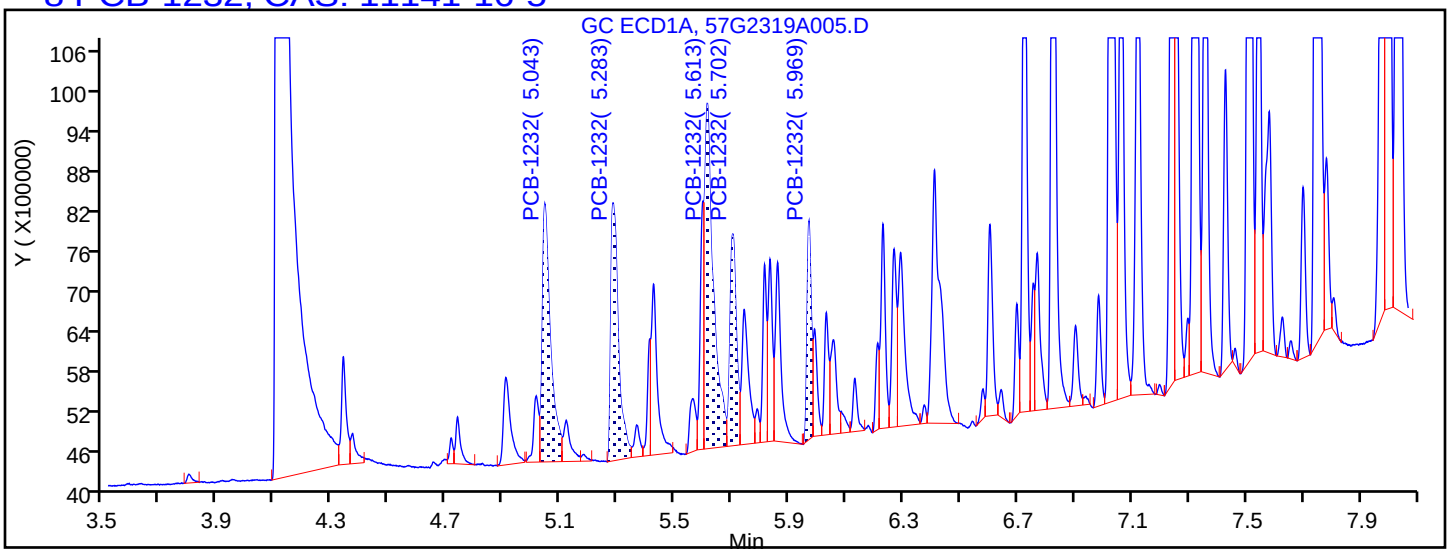
Operator ID: cjb ALS Bottle#: 1 Worklist Smp#: 4

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

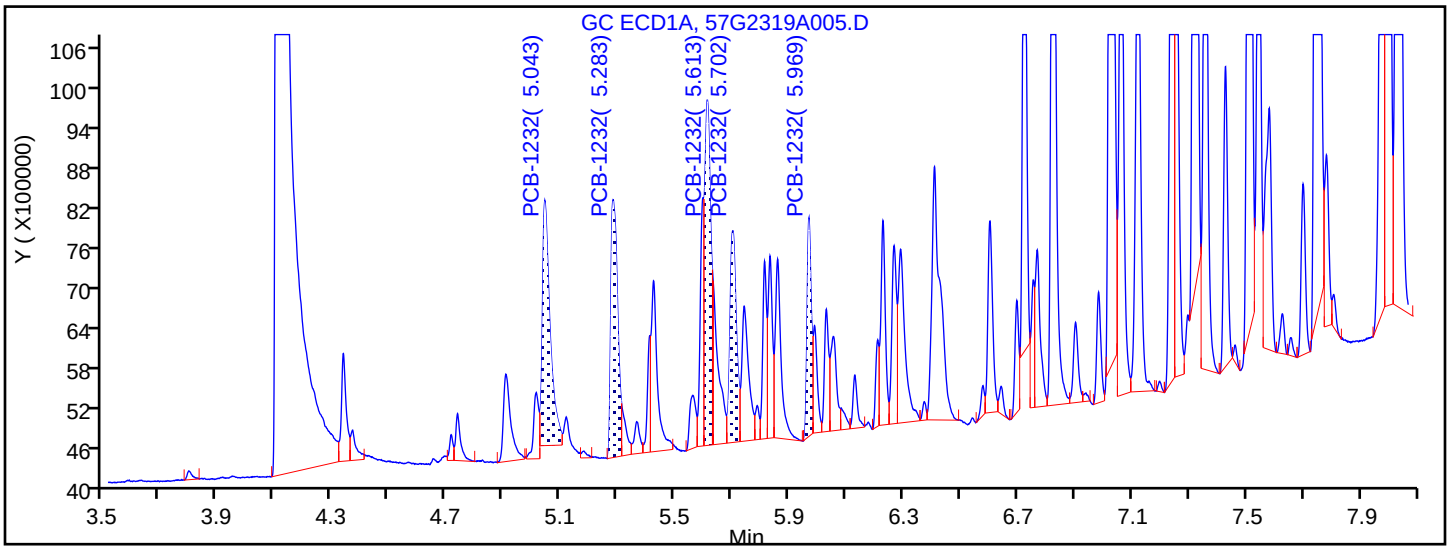
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

8 PCB-1232, CAS: 11141-16-5



Processing Integration Results

5.043	Response = 7802873
5.283	Response = 7220227
5.613	Response = 10965900
5.702	Response = 5012843
5.969	Response = 3404456



Manual Integration Results

5.043	Response = 6901264	M
5.283	Response = 6411546	M
5.613	Response = 7412280	M
5.702	Response = 5012843	
5.969	Response = 3404456	

Reviewer: bohnc, 23-Jul-2019 10:41:12

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Report Date: 23-Jul-2019 15:11:34 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A005.D

Injection Date: 23-Jul-2019 08:00:03 Instrument ID: TAC057

Lims ID: ccv

Client ID:

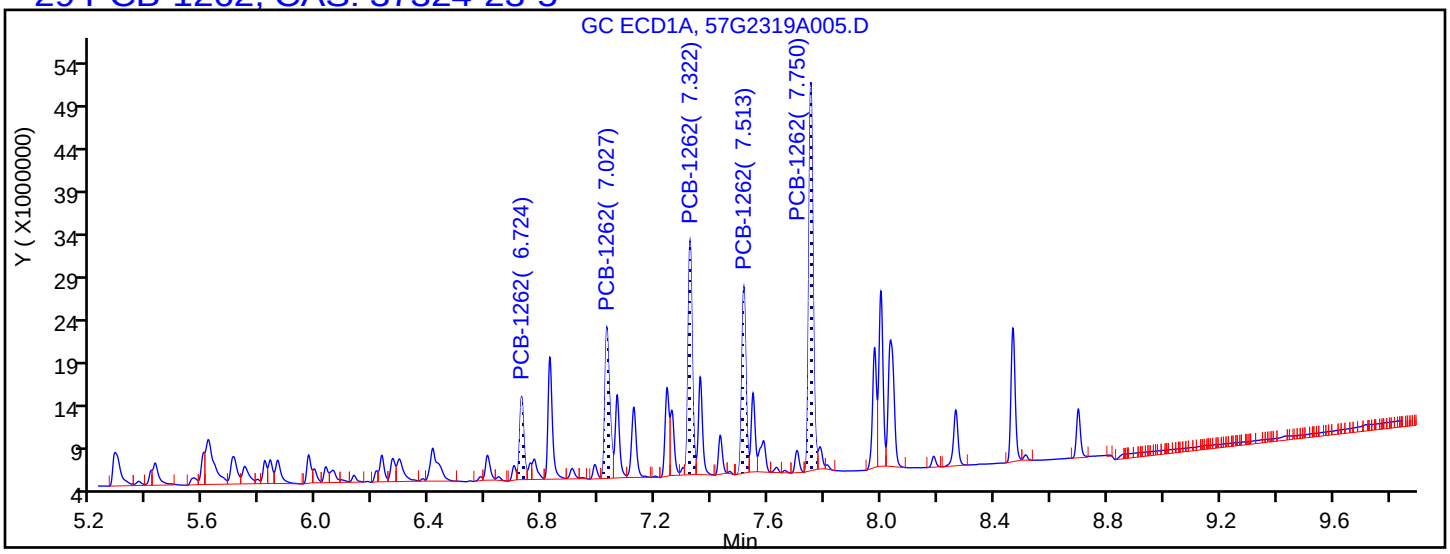
Operator ID: cjb ALS Bottle#: 1 Worklist Smp#: 4

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

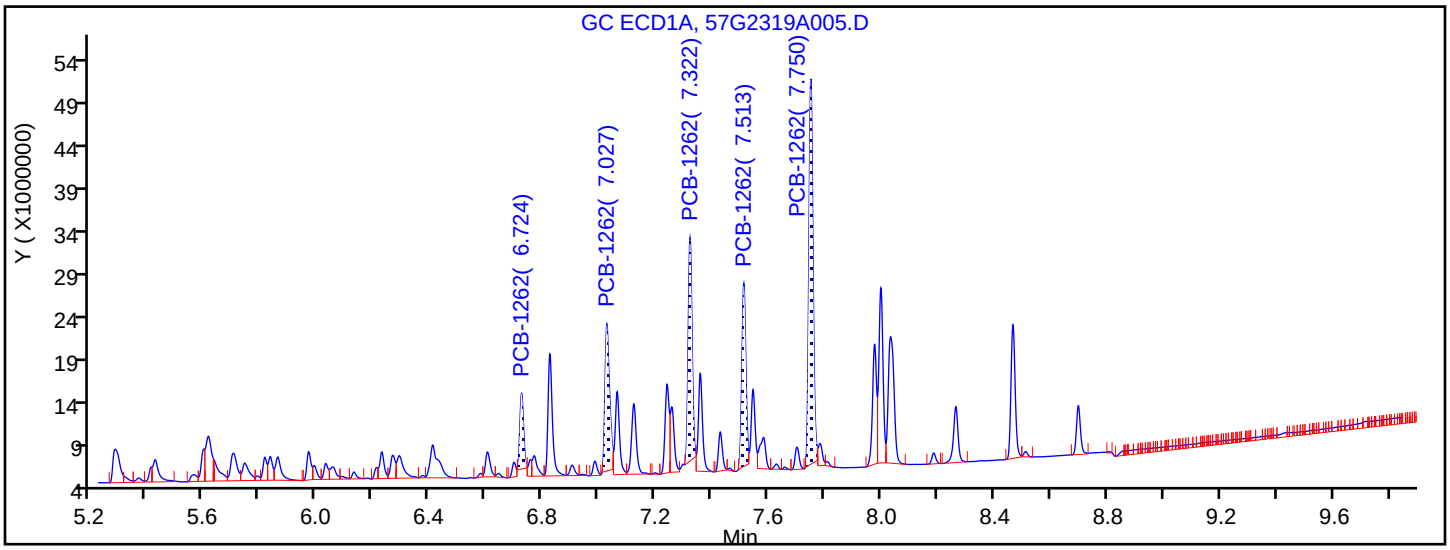
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

29 PCB-1262, CAS: 37324-23-5



Processing Integration Results

6.724	Response = 9936130
7.027	Response = 20702810
7.322	Response = 28029390
7.513	Response = 21974992
7.750	Response = 47052574



Manual Integration Results

6.724	Response = 8030234	M
7.027	Response = 19242060	M
7.322	Response = 24979626	M
7.513	Response = 20925037	M
7.750	Response = 45838395	M

Reviewer: bohnc, 23-Jul-2019 10:39:58

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/4 Calibration Date: 07/23/2019 08:00

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57G2319A005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin2		0.0296			0.100	20.5*	20.0
PCB-1232 Peak 2	Lin2		0.0160			0.100	-4.1	20.0
PCB-1232 Peak 3	Lin2		0.0201			0.100	15.6	20.0
PCB-1232 Peak 4	Lin2		0.0137			0.100	6.8	20.0
PCB-1232 Peak 5	Lin2		0.0229			0.100	12.0	20.0
PCB-1262 Peak 1	Lin2		0.0292			0.100	4.4	20.0
PCB-1262 Peak 2	Lin2		0.0574			0.100	19.2	20.0
PCB-1262 Peak 3	Lin2		0.0744			0.100	18.5	20.0
PCB-1262 Peak 4	Lin2		0.0697			0.100	29.3*	20.0
PCB-1262 Peak 5	Lin2		0.1336			0.100	23.8*	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/4 Calibration Date: 07/23/2019 08:00

Instrument ID: TAC057 Calib Start Date: 12/22/2018 17:47

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 19:50

Lab File ID: 57G2319A005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.58	3.58	7.58
PCB-1232 Peak 2	5.88	3.88	7.88
PCB-1232 Peak 3	6.32	4.32	8.32
PCB-1232 Peak 4	6.67	4.67	8.67
PCB-1232 Peak 5	6.99	4.99	8.99
PCB-1262 Peak 1	7.52	5.52	9.52
PCB-1262 Peak 2	7.80	5.80	9.80
PCB-1262 Peak 3	8.17	6.17	10.17
PCB-1262 Peak 4	8.42	6.42	10.42
PCB-1262 Peak 5	8.61	6.61	10.61

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A005.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:00:03 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub8

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:33 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:41:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.110	4.110	0.000	167387073	100.0	100.0	
2	4.451	4.451	0.000	2055274391	100.0	100.0	
						RPD = 0.00	
8 PCB-1232							M
1	5.043	5.043	0.000	6901264	100.0	110.2	M
1	5.283	5.283	0.000	6411546	100.0	121.4	M
1	5.613	5.613	0.000	7412280	100.0	119.6	M
1	5.702	5.702	0.000	5012843	100.0	116.6	
1	5.969	5.969	0.000	3404456	100.0	115.4	
		Average of Peak Amounts =				116.6	
2	5.582	5.582	0.000	60873604	100.0	120.5	
2	5.877	5.877	0.000	32846777	100.0	95.9	
2	6.322	6.322	0.000	41390076	100.0	115.6	
2	6.669	6.669	0.000	28083214	100.0	106.8	
2	6.990	6.990	0.000	46991860	100.0	112.0	
		Average of Peak Amounts =				110.2	
						RPD = 5.71	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
29 PCB-1262							M
1	6.724	6.724	0.000	8030234	100.0	106.8	M
1	7.027	7.027	0.000	19242060	100.0	121.9	M
1	7.322	7.322	0.000	24979626	100.0	123.8	M
1	7.513	7.513	0.000	20925037	100.0	115.7	M
1	7.750	7.750	0.000	45838395	100.0	128.2	M
		Average of Peak Amounts =				119.3	
2	7.517	7.517	0.000	59986771	100.0	104.4	
2	7.797	7.797	0.000	117869114	100.0	119.2	
2	8.168	8.168	0.000	152848978	100.0	118.5	
2	8.422	8.422	0.000	143225199	100.0	129.3	
2	8.613	8.613	0.000	274660791	100.0	123.8	
		Average of Peak Amounts =				119.1	
						RPD = 0.17	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

3262IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:35 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A005.D

Injection Date: 23-Jul-2019 08:00:03 Instrument ID: TAC057

Lims ID: ccv

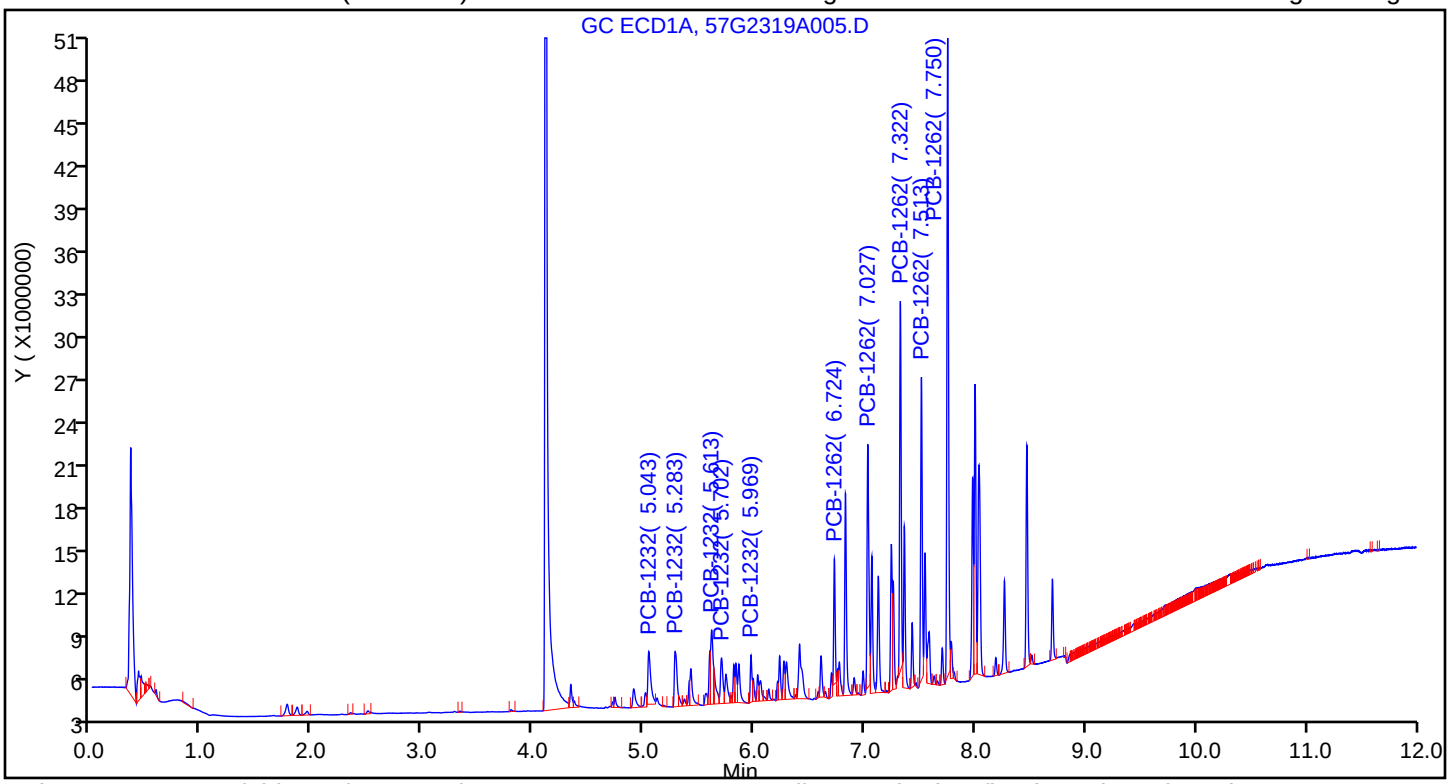
Client ID:

Operator ID: cjb ALS Bottle#: 1 Worklist Smp#: 4

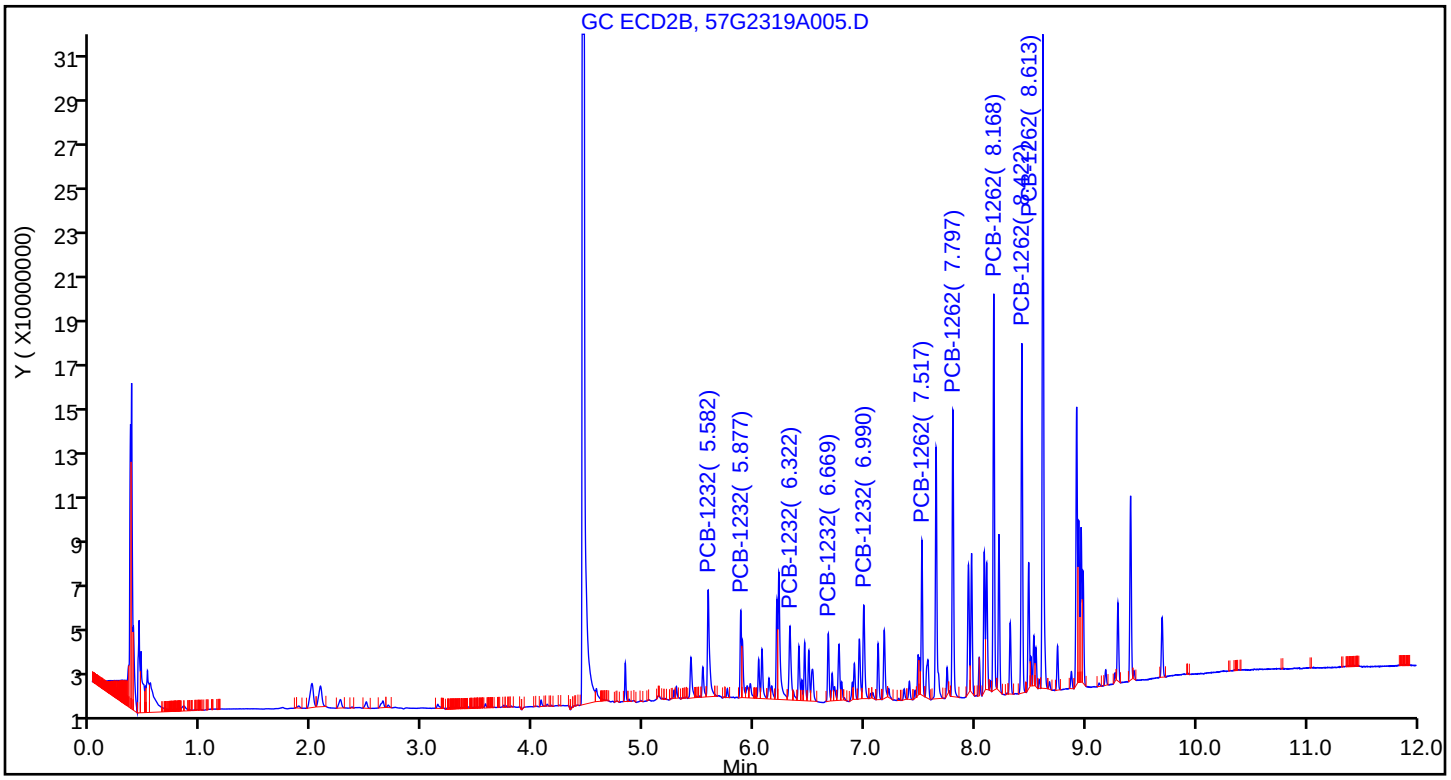
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/5 Calibration Date: 07/23/2019 08:18

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57G2319A006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	0.0353	0.0408			0.100	15.5	20.0
PCB-1248 Peak 2	Ave	0.0597	0.0608			0.100	1.8	20.0
PCB-1248 Peak 3	Ave	0.0687	0.0617			0.100	-10.2	20.0
PCB-1248 Peak 4	Ave	0.0372	0.0388			0.100	4.4	20.0
PCB-1248 Peak 5	Ave	0.0259	0.0222			0.100	-14.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/5 Calibration Date: 07/23/2019 08:18

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57G2319A006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.61	5.51	5.71
PCB-1248 Peak 2	5.97	5.87	6.07
PCB-1248 Peak 3	6.27	4.27	8.27
PCB-1248 Peak 4	6.70	4.70	8.70
PCB-1248 Peak 5	6.91	4.91	8.91

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A006.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:18:07 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:38 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:42:35

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.109	4.109	0.000	181422416	100.0	100.0	
2	4.451	4.451	0.000	2278084507	100.0	100.0	
						RPD = 0.00	
10 PCB-1248							
1	5.609	5.609	0.000	7403159	100.0	115.5	
1	5.966	5.966	0.000	11021836	100.0	101.8	
1	6.265	6.265	0.000	11195822	100.0	89.8	
1	6.698	6.698	0.000	7047028	100.0	104.4	
1	6.906	6.906	0.000	4034702	100.0	85.8	
		Average of Peak Amounts =				99.4	
2	6.203	6.203	0.000	42093178	100.0	65.0	
2	6.669	6.669	0.000	57632312	100.0	62.6	
2	6.992	6.992	0.000	118330528	100.0	102.9	
2	7.175	7.175	0.000	104090844	100.0	99.7	
2	7.497	7.497	0.000	52616450	100.0	97.7	
		Average of Peak Amounts =				85.6	
						RPD = 14.98	

Reagents:

1248IC100_00015	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:39 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A006.D

Injection Date: 23-Jul-2019 08:18:07 Instrument ID: TAC057

Lims ID: ccv

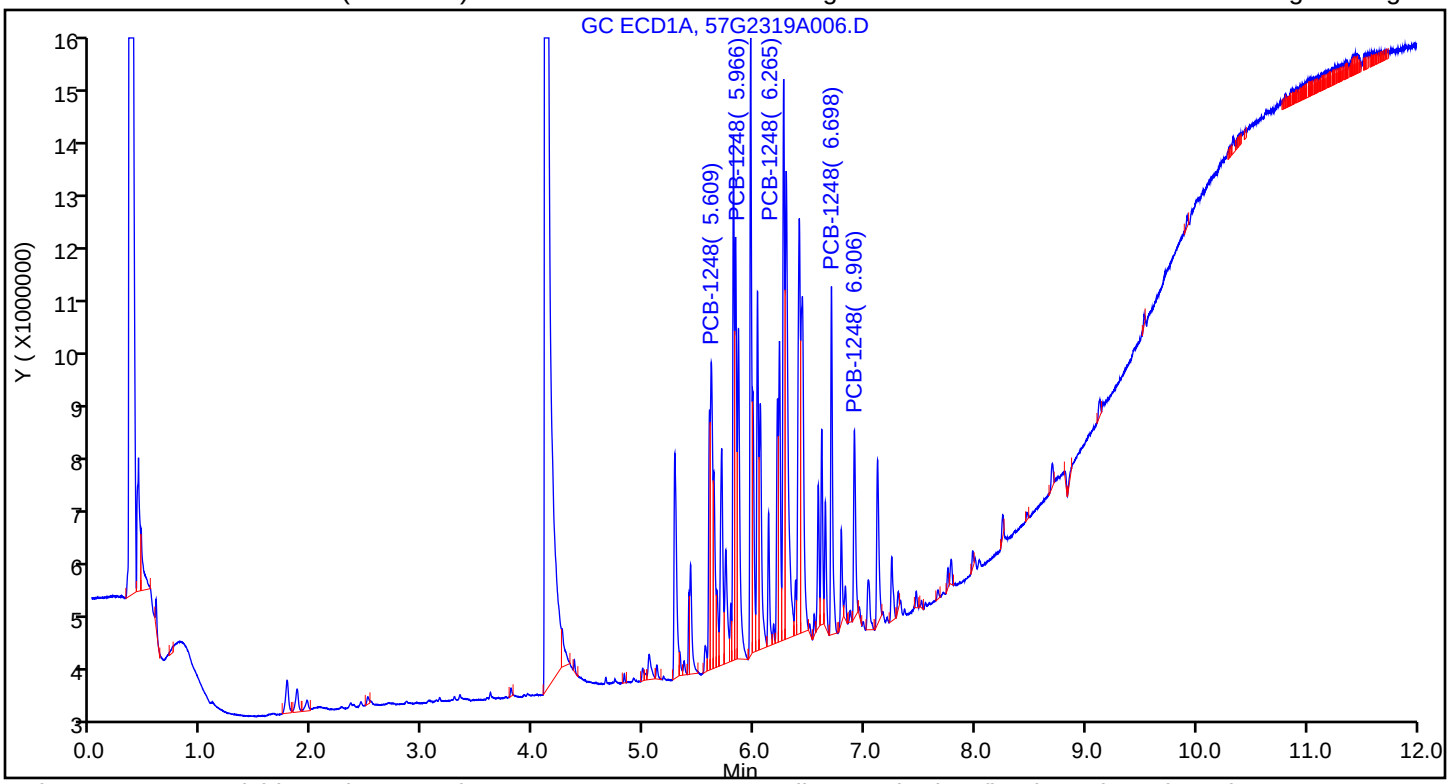
Client ID:

Operator ID: cjb ALS Bottle#: 2 Worklist Smp#: 5

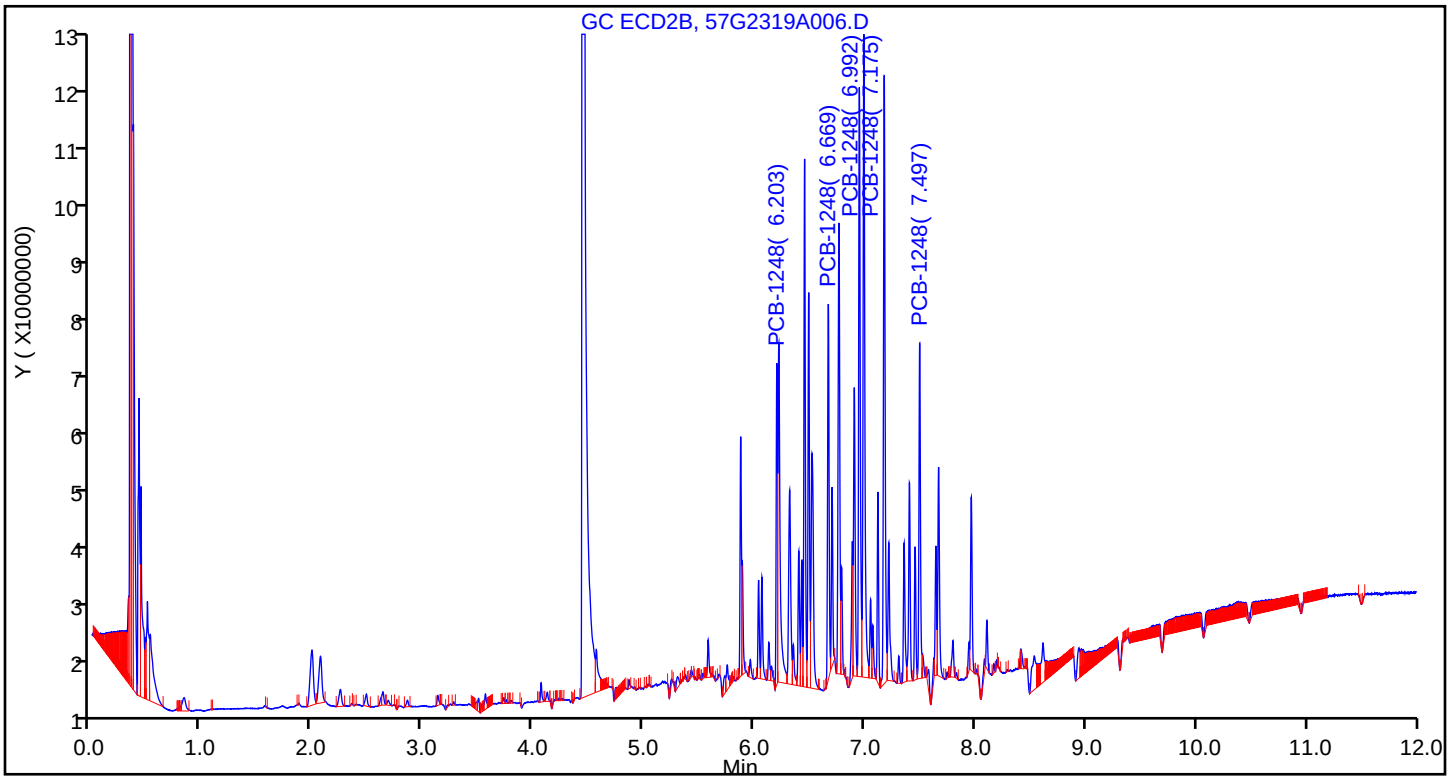
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/5 Calibration Date: 07/23/2019 08:18

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57G2319A006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	0.0284	0.0185			0.100	-35.0*	20.0
PCB-1248 Peak 2	Lin2		0.0253			0.100	-37.4*	20.0
PCB-1248 Peak 3	Lin2		0.0519			0.100	2.9	20.0
PCB-1248 Peak 4	Lin2		0.0457			0.100	-0.3	20.0
PCB-1248 Peak 5	Lin2		0.0231			0.100	-2.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/5 Calibration Date: 07/23/2019 08:18

Instrument ID: TAC057 Calib Start Date: 12/22/2018 20:25

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/22/2018 22:28

Lab File ID: 57G2319A006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	6.20	4.20	8.20
PCB-1248 Peak 2	6.67	4.67	8.67
PCB-1248 Peak 3	6.99	4.99	8.99
PCB-1248 Peak 4	7.18	5.18	9.18
PCB-1248 Peak 5	7.50	5.50	9.50

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A006.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:18:07 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub9

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:38 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:42:35

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.109	4.109	0.000	181422416	100.0	100.0	
2	4.451	4.451	0.000	2278084507	100.0	100.0	
						RPD = 0.00	
10 PCB-1248							
1	5.609	5.609	0.000	7403159	100.0	115.5	
1	5.966	5.966	0.000	11021836	100.0	101.8	
1	6.265	6.265	0.000	11195822	100.0	89.8	
1	6.698	6.698	0.000	7047028	100.0	104.4	
1	6.906	6.906	0.000	4034702	100.0	85.8	
		Average of Peak Amounts =				99.4	
2	6.203	6.203	0.000	42093178	100.0	65.0	
2	6.669	6.669	0.000	57632312	100.0	62.6	
2	6.992	6.992	0.000	118330528	100.0	102.9	
2	7.175	7.175	0.000	104090844	100.0	99.7	
2	7.497	7.497	0.000	52616450	100.0	97.7	
		Average of Peak Amounts =				85.6	
						RPD = 14.98	

Reagents:

1248IC100_00015	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:40 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A006.D

Injection Date: 23-Jul-2019 08:18:07 Instrument ID: TAC057

Lims ID: ccv

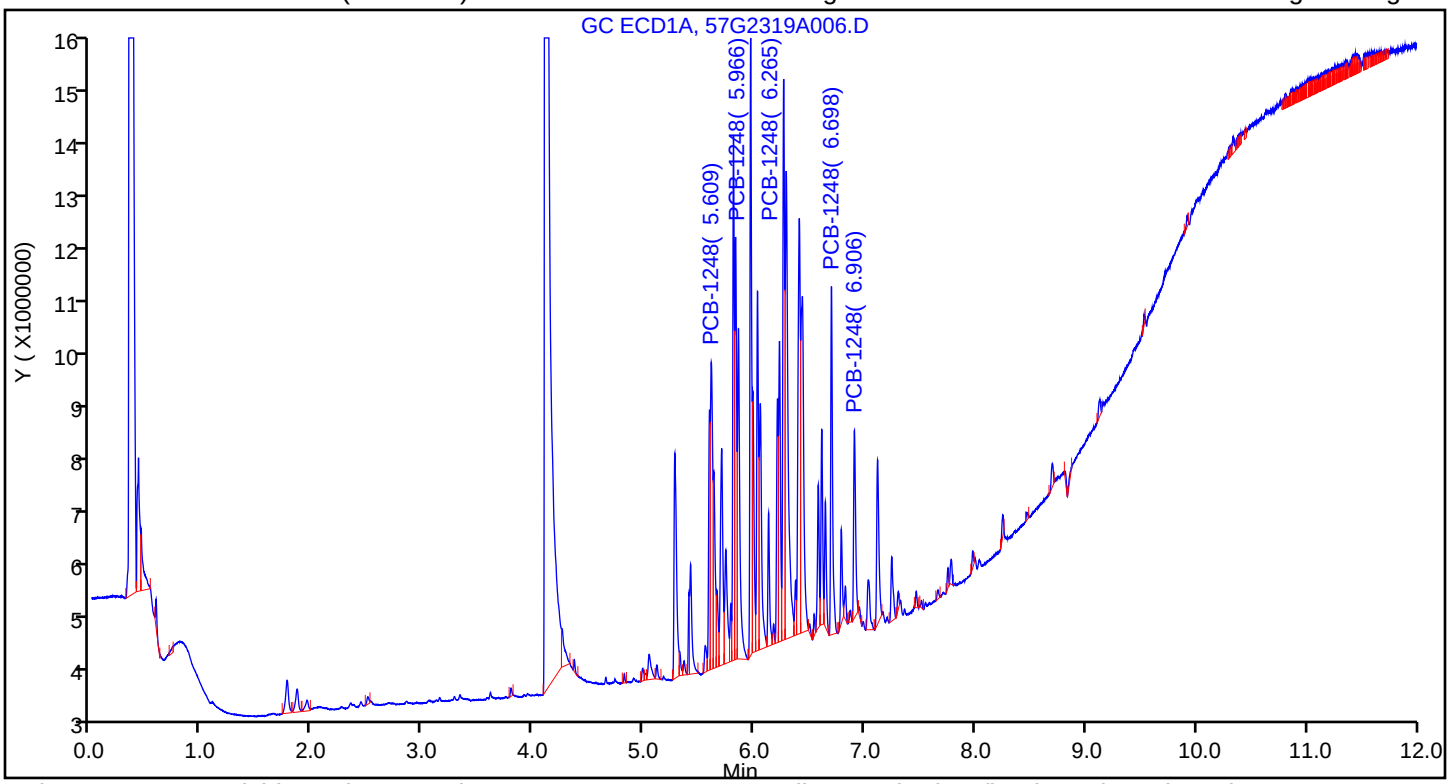
Client ID:

Operator ID: cjb ALS Bottle#: 2 Worklist Smp#: 5

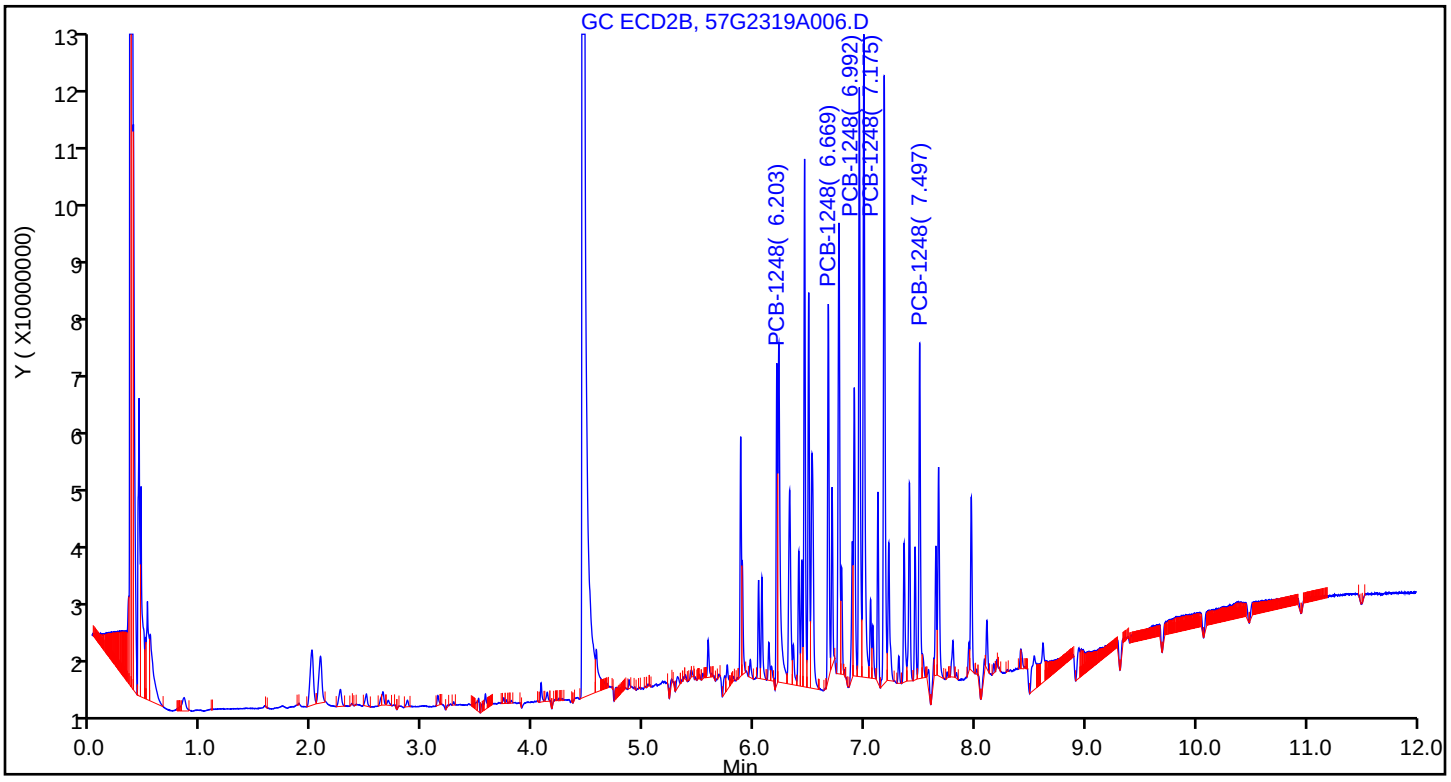
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/6 Calibration Date: 07/23/2019 08:36

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57G2319A007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	0.0271	0.0253			0.100	-6.8	20.0
PCB-1242 Peak 2	Lin2		0.0636			0.100	8.1	20.0
PCB-1242 Peak 3	Lin2		0.0970			0.100	38.1*	20.0
PCB-1242 Peak 4	Lin2		0.0332			0.100	-6.9	20.0
PCB-1242 Peak 5	Lin2		0.0291			0.100	-21.0*	20.0
PCB-1268 Peak 1	Ave	0.0392	0.0415			0.100	6.0	20.0
PCB-1268 Peak 2	Ave	0.2708	0.2913			0.100	7.6	20.0
PCB-1268 Peak 3	Ave	0.2537	0.2695			0.100	6.3	20.0
PCB-1268 Peak 4	Lin1		0.6310			0.100	5.7	20.0
PCB-1268 Peak 5	Lin2		0.1316			0.100	11.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/6 Calibration Date: 07/23/2019 08:36

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57G2319A007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.05	4.95	5.15
PCB-1242 Peak 2	5.28	5.18	5.38
PCB-1242 Peak 3	5.61	3.61	7.61
PCB-1242 Peak 4	5.97	3.97	7.97
PCB-1242 Peak 5	6.27	4.27	8.27
PCB-1268 Peak 1	7.75	7.65	7.85
PCB-1268 Peak 2	8.00	7.90	8.10
PCB-1268 Peak 3	8.03	6.03	10.03
PCB-1268 Peak 4	8.70	6.70	10.70
PCB-1268 Peak 5	8.85	6.85	10.85

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A007.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:36:08 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:42 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:42:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							s
1	4.109	4.109	0.000	198510401	100.0	100.0	
2	4.450	4.450	0.000	2493304279	100.0	100.0	
						RPD = 0.00	
6 PCB-1242							
1	5.046	5.046	0.000	5023171	100.0	93.2	
1	5.280	5.280	0.000	12629791	100.0	108.1	
1	5.610	5.610	0.000	19254553	100.0	138.1	
1	5.967	5.967	0.000	6599217	100.0	93.1	
1	6.266	6.266	0.000	5772166	100.0	79.0	
		Average of Peak Amounts =				102.3	
2	5.875	5.875	0.000	57827696	100.0	88.2	
2	6.067	6.067	0.000	40368903	100.0	115.5	
2	6.669	6.669	0.000	56443180	100.0	91.4	
2	6.992	6.992	0.000	72501534	100.0	99.7	
2	7.175	7.175	0.000	64932823	100.0	91.6	
		Average of Peak Amounts =				97.3	
						RPD = 5.03	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							
1	7.750	7.750	0.000	8245493	100.0	106.0	
1	7.997	7.997	0.000	57833338	100.0	107.6	
1	8.029	8.029	0.000	53505813	100.0	106.3	
1	8.699	8.699	0.000	125255388	100.0	105.7	
1	8.854	8.854	0.000	26122015	100.0	111.3	
		Average of Peak Amounts =				107.4	
2	8.612	8.612	0.000	30860467	100.0	93.0	
2	8.918	8.918	0.000	285650932	100.0	92.7	
2	8.959	8.959	0.000	256664430	100.0	93.7	
2	9.181	9.181	0.000	212652911	100.0	95.1	
2	9.693	9.693	0.000	599028152	100.0	90.4	
		Average of Peak Amounts =				93.0	
						RPD = 14.37	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

4268IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:43 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A007.D

Injection Date: 23-Jul-2019 08:36:08 Instrument ID: TAC057

Lims ID: ccv

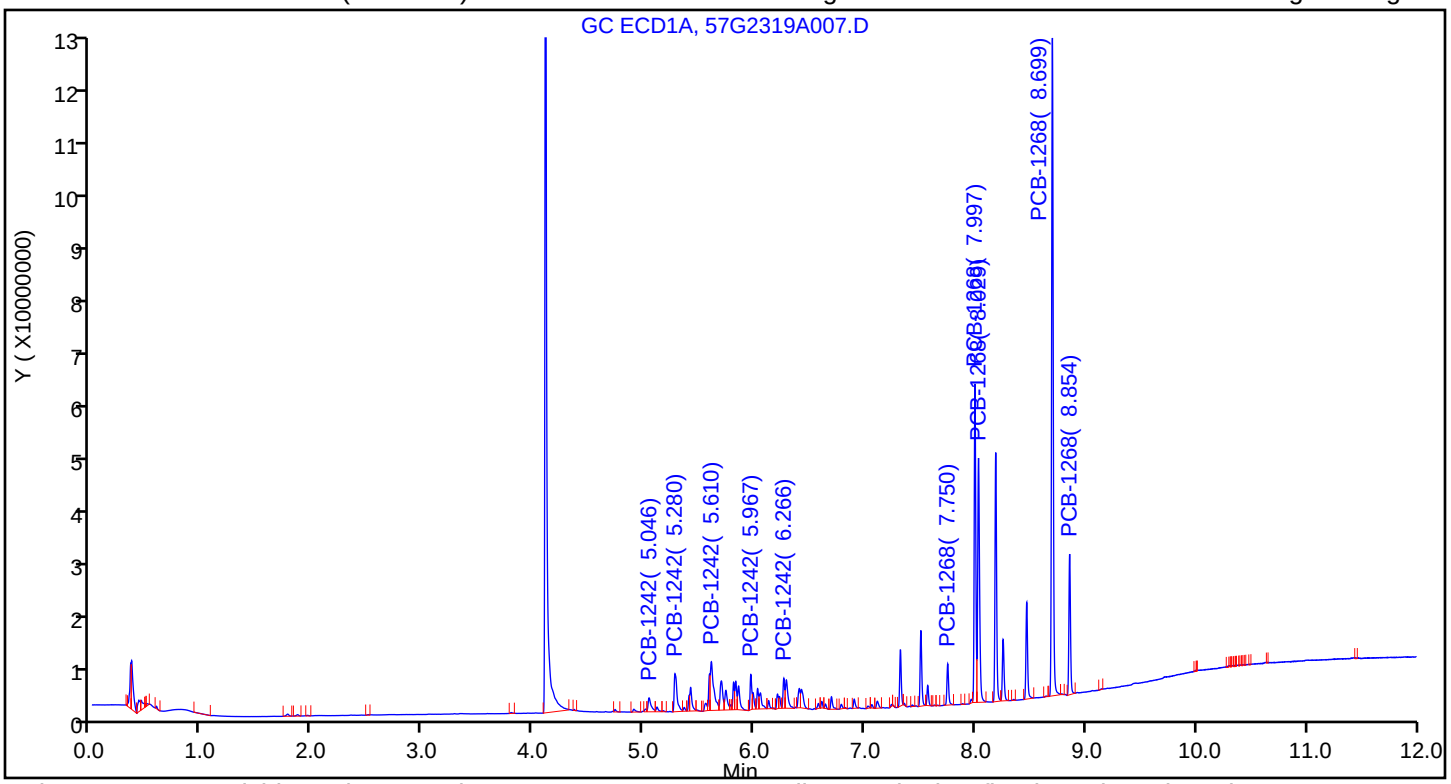
Client ID:

Operator ID: cjb ALS Bottle#: 3 Worklist Smp#: 6

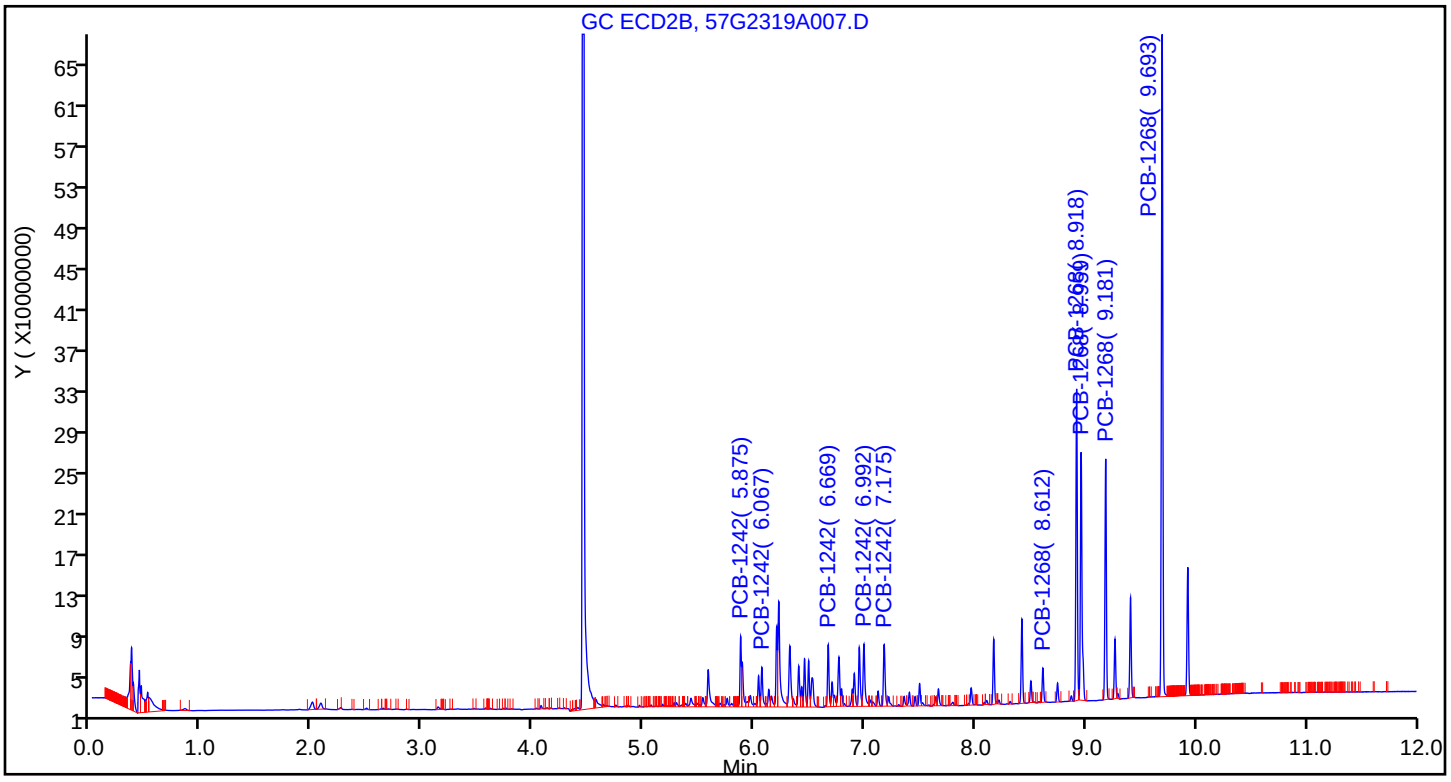
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/6 Calibration Date: 07/23/2019 08:36

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57G2319A007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin2		0.0232			0.100	-11.8	20.0
PCB-1242 Peak 2	Qua1		0.0162			0.100	15.5	20.0
PCB-1242 Peak 3	Lin2		0.0226			0.100	-8.6	20.0
PCB-1242 Peak 4	Lin2		0.0291			0.100	-0.3	20.0
PCB-1242 Peak 5	Lin2		0.0260			0.100	-8.4	20.0
PCB-1268 Peak 1	Lin2		0.0124			0.100	-7.0	20.0
PCB-1268 Peak 2	Lin2		0.1146			0.100	-7.3	20.0
PCB-1268 Peak 3	Lin2		0.1029			0.100	-6.3	20.0
PCB-1268 Peak 4	Lin2		0.0853			0.100	-4.9	20.0
PCB-1268 Peak 5	Lin2		0.2403			0.100	-9.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/6 Calibration Date: 07/23/2019 08:36

Instrument ID: TAC057 Calib Start Date: 12/22/2018 23:03

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 01:06

Lab File ID: 57G2319A007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.88	3.88	7.88
PCB-1242 Peak 2	6.07	4.07	8.07
PCB-1242 Peak 3	6.67	4.67	8.67
PCB-1242 Peak 4	6.99	4.99	8.99
PCB-1242 Peak 5	7.18	5.18	9.18
PCB-1268 Peak 1	8.61	6.61	10.61
PCB-1268 Peak 2	8.92	6.92	10.92
PCB-1268 Peak 3	8.96	6.96	10.96
PCB-1268 Peak 4	9.18	7.18	11.18
PCB-1268 Peak 5	9.69	7.69	11.69

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A007.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:36:08 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub10

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:42 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:42:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							s
1	4.109	4.109	0.000	198510401	100.0	100.0	
2	4.450	4.450	0.000	2493304279	100.0	100.0	
						RPD = 0.00	
6 PCB-1242							
1	5.046	5.046	0.000	5023171	100.0	93.2	
1	5.280	5.280	0.000	12629791	100.0	108.1	
1	5.610	5.610	0.000	19254553	100.0	138.1	
1	5.967	5.967	0.000	6599217	100.0	93.1	
1	6.266	6.266	0.000	5772166	100.0	79.0	
		Average of Peak Amounts =				102.3	
2	5.875	5.875	0.000	57827696	100.0	88.2	
2	6.067	6.067	0.000	40368903	100.0	115.5	
2	6.669	6.669	0.000	56443180	100.0	91.4	
2	6.992	6.992	0.000	72501534	100.0	99.7	
2	7.175	7.175	0.000	64932823	100.0	91.6	
		Average of Peak Amounts =				97.3	
						RPD = 5.03	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 PCB-1268							
1	7.750	7.750	0.000	8245493	100.0	106.0	
1	7.997	7.997	0.000	57833338	100.0	107.6	
1	8.029	8.029	0.000	53505813	100.0	106.3	
1	8.699	8.699	0.000	125255388	100.0	105.7	
1	8.854	8.854	0.000	26122015	100.0	111.3	
		Average of Peak Amounts =				107.4	
2	8.612	8.612	0.000	30860467	100.0	93.0	
2	8.918	8.918	0.000	285650932	100.0	92.7	
2	8.959	8.959	0.000	256664430	100.0	93.7	
2	9.181	9.181	0.000	212652911	100.0	95.1	
2	9.693	9.693	0.000	599028152	100.0	90.4	
		Average of Peak Amounts =				93.0	
						RPD = 14.37	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

4268IC0100_00011	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:44 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A007.D

Injection Date: 23-Jul-2019 08:36:08 Instrument ID: TAC057

Lims ID: ccv

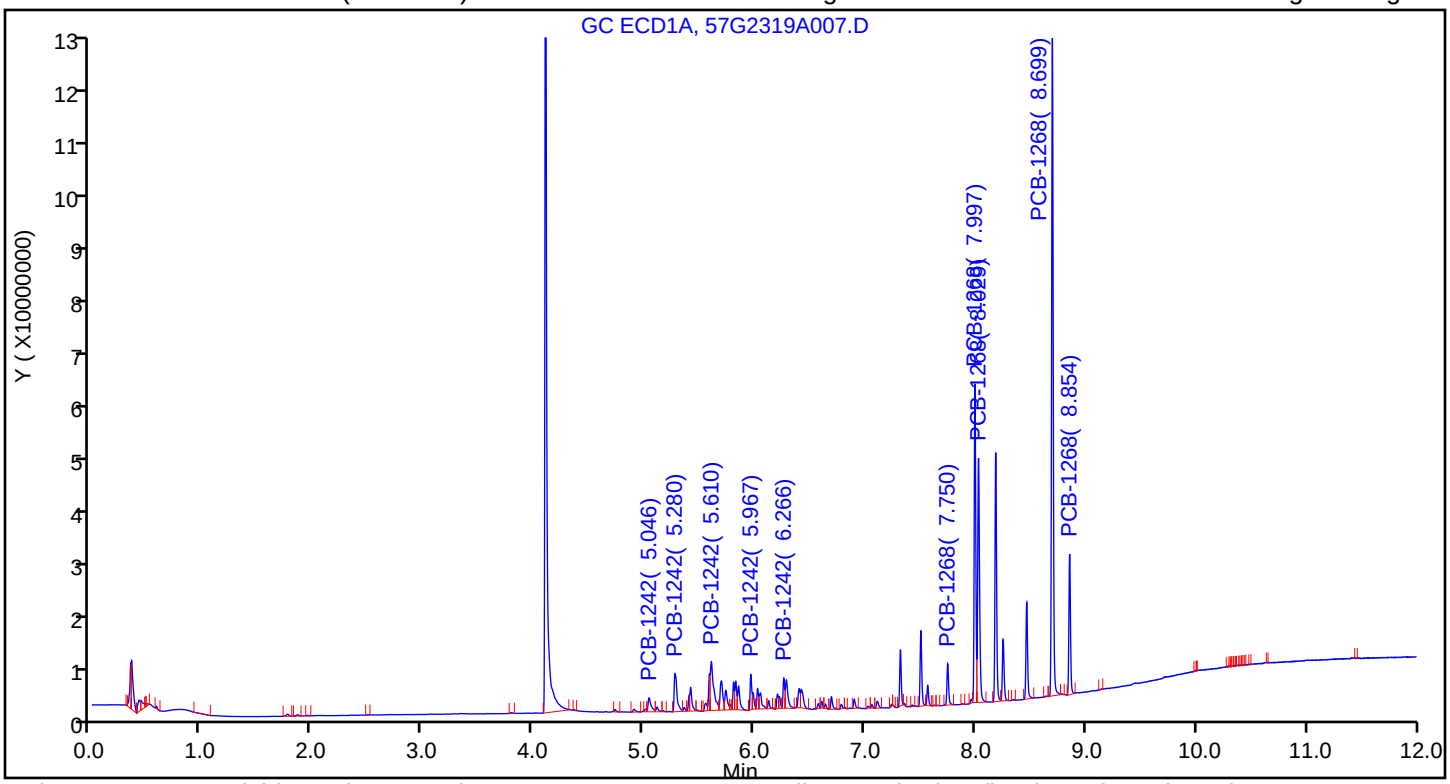
Client ID:

Operator ID: cjb ALS Bottle#: 3 Worklist Smp#: 6

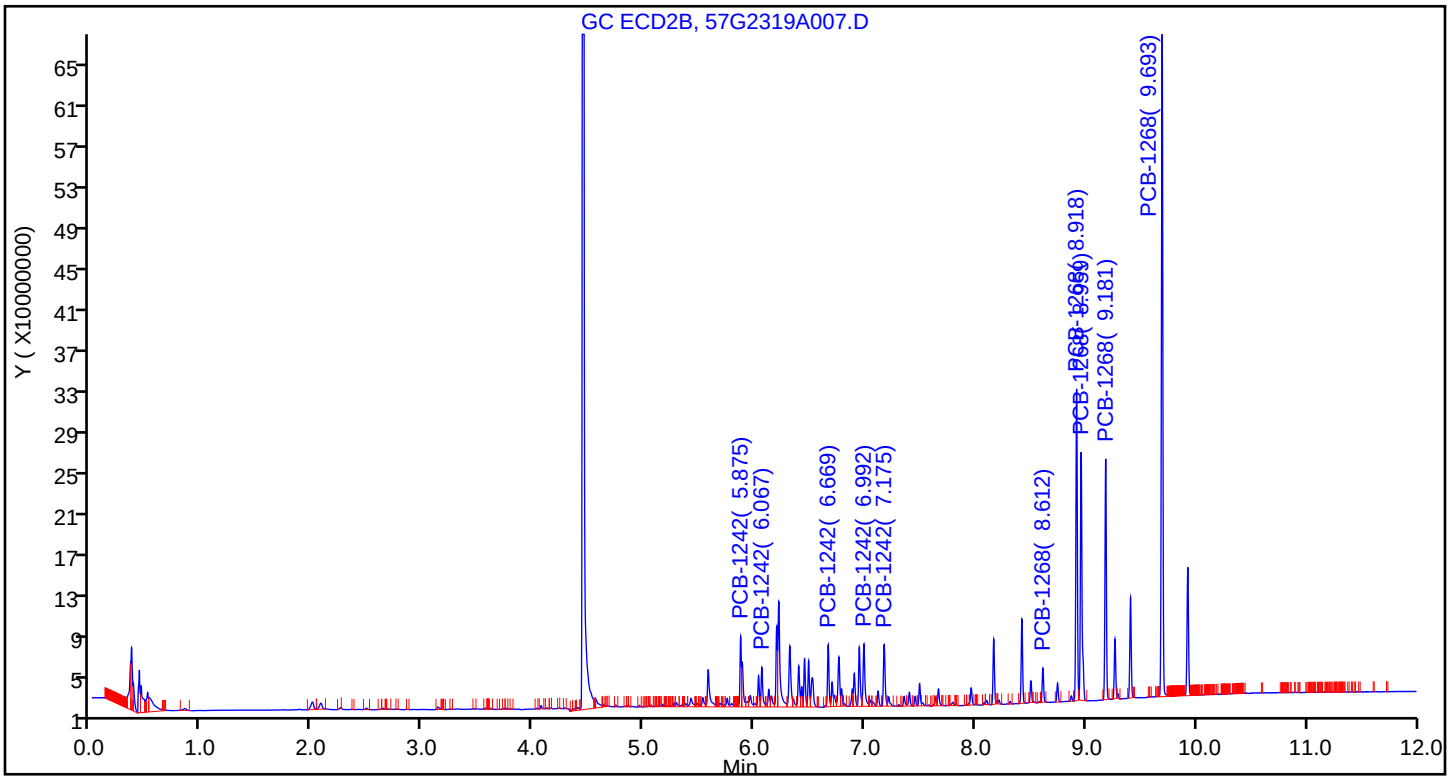
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/7 Calibration Date: 07/23/2019 08:54

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57G2319A008.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	0.0212	0.0188			0.100	-11.2	20.0
PCB-1221 Peak 2	Ave	0.0121	0.0085			0.100	-29.9*	20.0
PCB-1221 Peak 3	Ave	0.0510	0.0506			0.100	-0.8	20.0
PCB-1254 Peak 1	Lin2		0.0739			0.100	12.8	20.0
PCB-1254 Peak 2	Lin2		0.1102			0.100	-2.0	20.0
PCB-1254 Peak 3	Lin2		0.1215			0.100	13.4	20.0
PCB-1254 Peak 4	Lin2		0.0914			0.100	8.1	20.0
PCB-1254 Peak 5	Lin2		0.1140			0.100	1.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/7 Calibration Date: 07/23/2019 08:54

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57G2319A008.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	4.91	4.61	5.21
PCB-1221 Peak 2	5.01	4.71	5.31
PCB-1221 Peak 3	5.05	4.75	5.35
PCB-1254 Peak 1	6.23	6.13	6.33
PCB-1254 Peak 2	6.41	6.31	6.51
PCB-1254 Peak 3	6.70	4.70	8.70
PCB-1254 Peak 4	6.90	4.90	8.90
PCB-1254 Peak 5	7.24	5.24	9.24

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A008.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:54:11 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:46 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:43:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							s
1	4.109	4.109	0.000	201666388	100.0	100.0	
2	4.451	4.451	0.000	2506542116	100.0	100.0	
						RPD = 0.00	
2 PCB-1221							M
1	4.908	4.908	0.000	3799320	100.0	88.8	M
1	5.014	5.014	0.000	1716049	100.0	70.1	M
1	5.045	5.045	0.000	10195164	100.0	99.2	M
		Average of Peak Amounts =				86.0	
2	5.426	5.426	0.000	32566440	100.0	90.9	
2	5.533	5.533	0.000	18635499	100.0	81.6	
2	5.581	5.581	0.000	75495745	100.0	104.9	
		Average of Peak Amounts =				92.5	
						RPD = 7.20	
16 PCB-1254							
1	6.228	6.228	0.000	14903484	100.0	112.8	
1	6.408	6.408	0.000	22215570	100.0	98.0	
1	6.697	6.697	0.000	24498941	100.0	113.4	
1	6.903	6.903	0.000	18429052	100.0	108.1	
1	7.241	7.241	0.000	22980097	100.0	101.7	
		Average of Peak Amounts =				106.8	
2	6.988	6.988	0.000	108520117	100.0	92.0	
2	7.119	7.119	0.000	114847996	100.0	88.9	
2	7.496	7.496	0.000	186618781	100.0	99.0	
2	7.667	7.667	0.000	117463969	100.0	87.4	
2	8.104	8.104	0.000	125861979	100.0	92.7	
		Average of Peak Amounts =				92.0	
						RPD = 14.91	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added:	1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A008.D

Injection Date: 23-Jul-2019 08:54:11 Instrument ID: TAC057

Lims ID: ccv

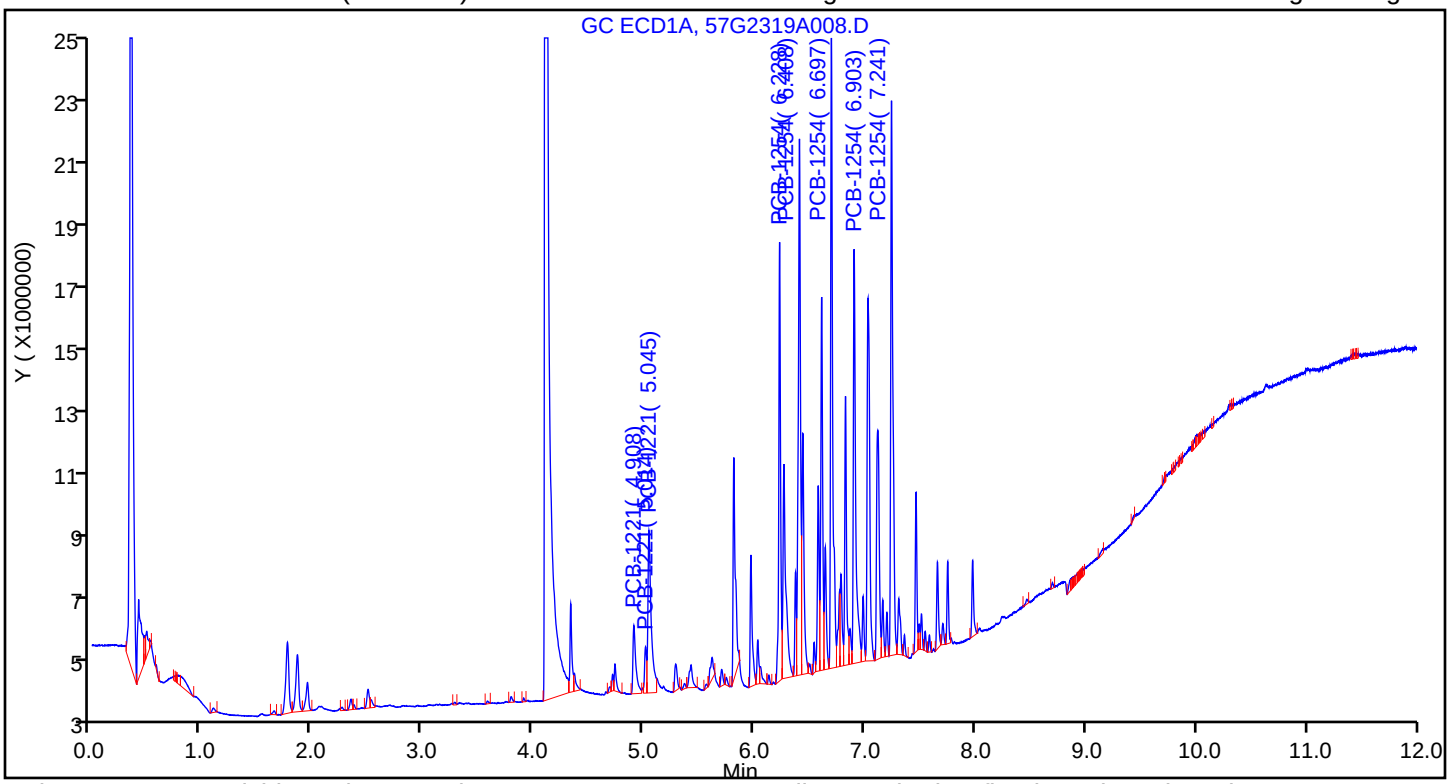
Client ID:

Operator ID: cjb ALS Bottle#: 4 Worklist Smp#: 7

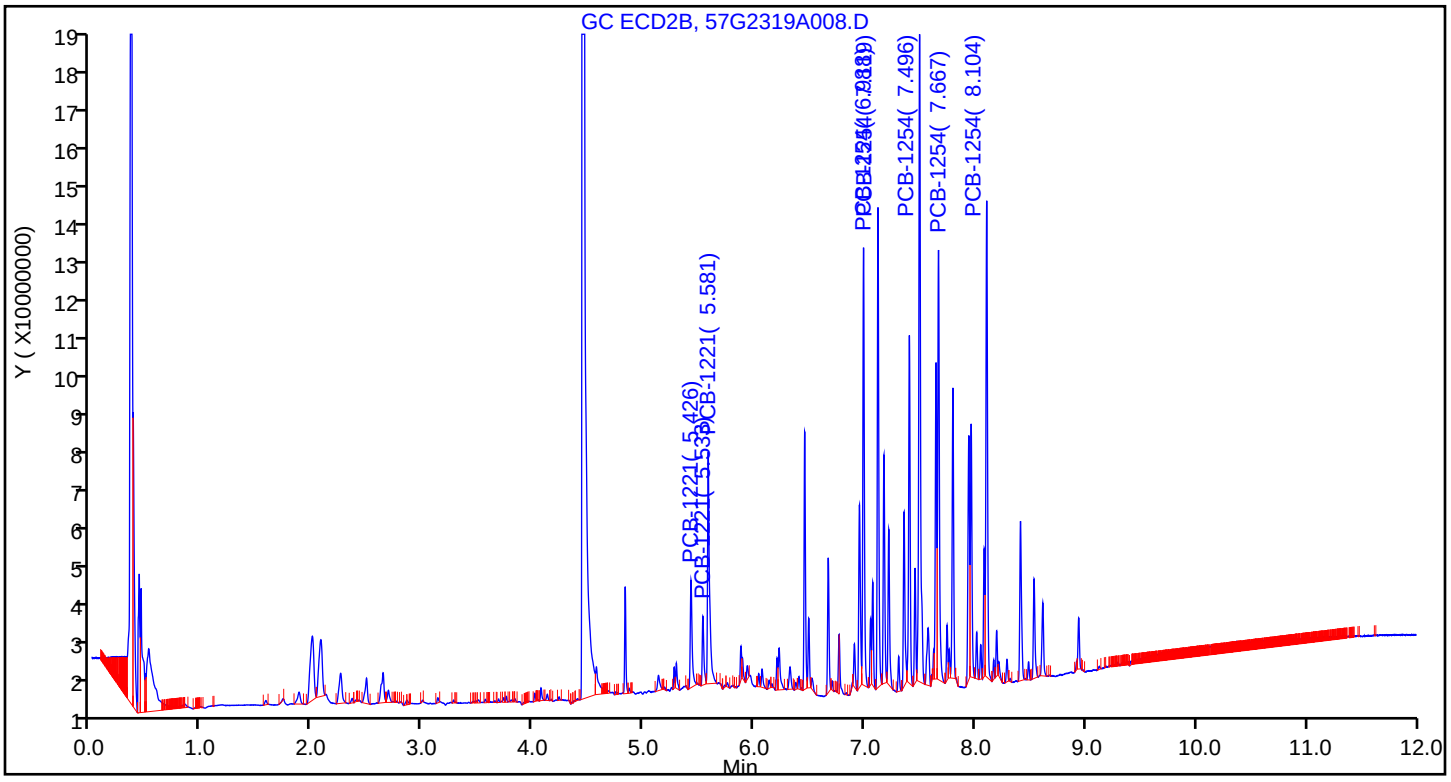
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 23-Jul-2019 15:11:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A008.D

Injection Date: 23-Jul-2019 08:54:11 Instrument ID: TAC057

Lims ID: ccv

Client ID:

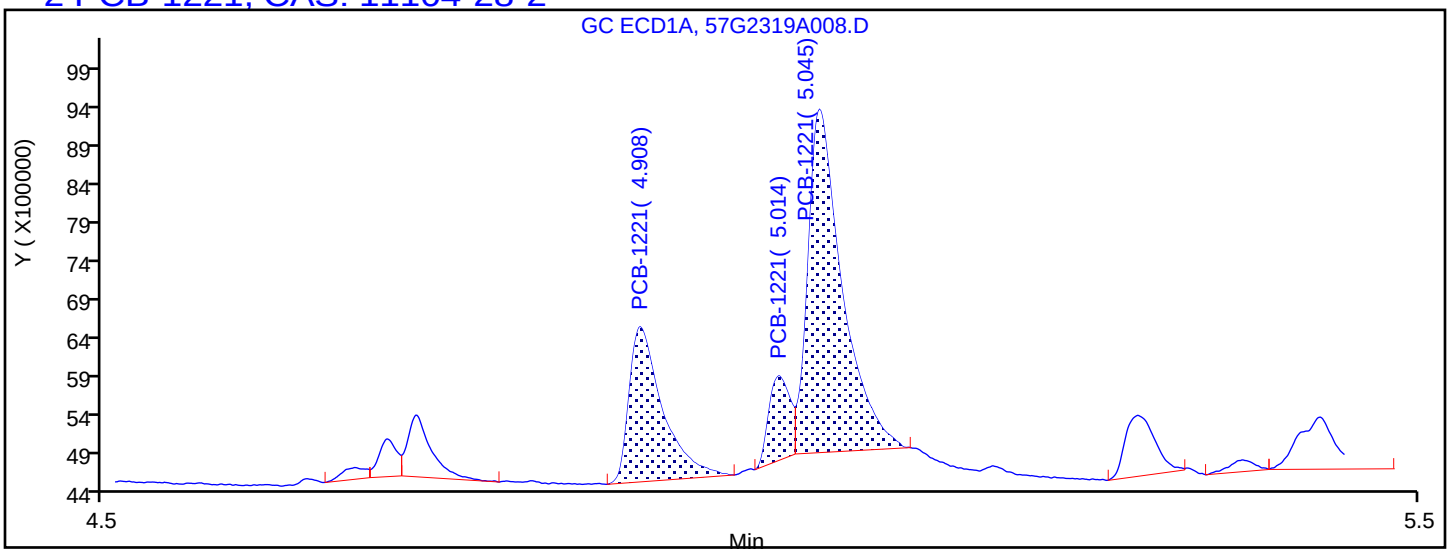
Operator ID: cjb ALS Bottle#: 4 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

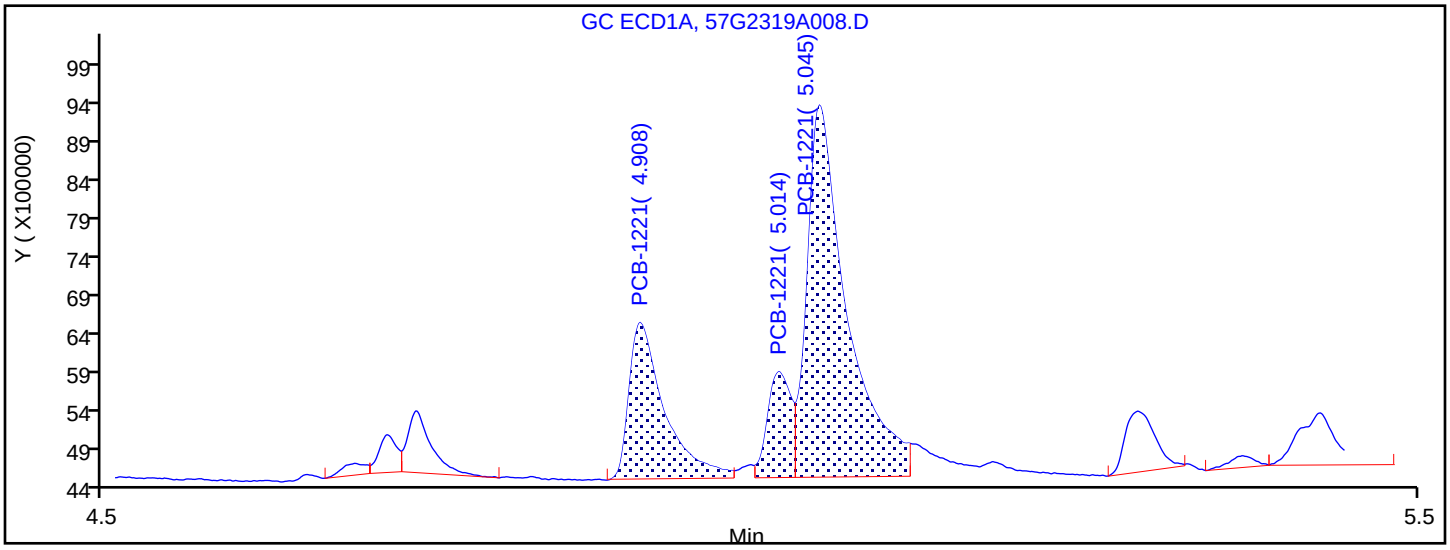
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

2 PCB-1221, CAS: 11104-28-2



Processing Integration Results

4.908	Response = 3558057	
5.014	Response = 1234746	
5.045	Response = 8124622	



Manual Integration Results

4.908	Response = 3799320	M
5.014	Response = 1716049	M
5.045	Response = 10195164	M

Reviewer: bohnc, 23-Jul-2019 10:43:18

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/7 Calibration Date: 07/23/2019 08:54

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57G2319A008.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin2		0.0130			0.100	-9.1	20.0
PCB-1221 Peak 2	Qua1		0.0074			0.100	-18.4	20.0
PCB-1221 Peak 3	Qua1		0.0301			0.100	4.9	20.0
PCB-1254 Peak 1	Lin2		0.0433			0.100	-8.0	20.0
PCB-1254 Peak 2	Lin2		0.0458			0.100	-11.1	20.0
PCB-1254 Peak 3	Lin2		0.0745			0.100	-1.0	20.0
PCB-1254 Peak 4	Lin2		0.0469			0.100	-12.6	20.0
PCB-1254 Peak 5	Lin2		0.0502			0.100	-7.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 580-306344/7 Calibration Date: 07/23/2019 08:54

Instrument ID: TAC057 Calib Start Date: 12/23/2018 01:41

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 03:44

Lab File ID: 57G2319A008.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.43	5.13	5.73
PCB-1221 Peak 2	5.53	5.23	5.83
PCB-1221 Peak 3	5.58	5.28	5.88
PCB-1254 Peak 1	6.99	4.99	8.99
PCB-1254 Peak 2	7.12	5.12	9.12
PCB-1254 Peak 3	7.50	5.50	9.50
PCB-1254 Peak 4	7.67	5.67	9.67
PCB-1254 Peak 5	8.10	6.10	10.10

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A008.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Jul-2019 08:54:11 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub7

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:46 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:43:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							s
1	4.109	4.109	0.000	201666388	100.0	100.0	
2	4.451	4.451	0.000	2506542116	100.0	100.0	
						RPD = 0.00	
2 PCB-1221							M
1	4.908	4.908	0.000	3799320	100.0	88.8	M
1	5.014	5.014	0.000	1716049	100.0	70.1	M
1	5.045	5.045	0.000	10195164	100.0	99.2	M
		Average of Peak Amounts =				86.0	
2	5.426	5.426	0.000	32566440	100.0	90.9	
2	5.533	5.533	0.000	18635499	100.0	81.6	
2	5.581	5.581	0.000	75495745	100.0	104.9	
		Average of Peak Amounts =				92.5	
						RPD = 7.20	
16 PCB-1254							
1	6.228	6.228	0.000	14903484	100.0	112.8	
1	6.408	6.408	0.000	22215570	100.0	98.0	
1	6.697	6.697	0.000	24498941	100.0	113.4	
1	6.903	6.903	0.000	18429052	100.0	108.1	
1	7.241	7.241	0.000	22980097	100.0	101.7	
		Average of Peak Amounts =				106.8	
2	6.988	6.988	0.000	108520117	100.0	92.0	
2	7.119	7.119	0.000	114847996	100.0	88.9	
2	7.496	7.496	0.000	186618781	100.0	99.0	
2	7.667	7.667	0.000	117463969	100.0	87.4	
2	8.104	8.104	0.000	125861979	100.0	92.7	
		Average of Peak Amounts =				92.0	
						RPD = 14.91	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Review Flags

M - Manually Integrated

Reagents:

2154IC0100_00014	Amount Added:	1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added:	10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added:	1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:47 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A008.D

Injection Date: 23-Jul-2019 08:54:11 Instrument ID: TAC057

Lims ID: ccv

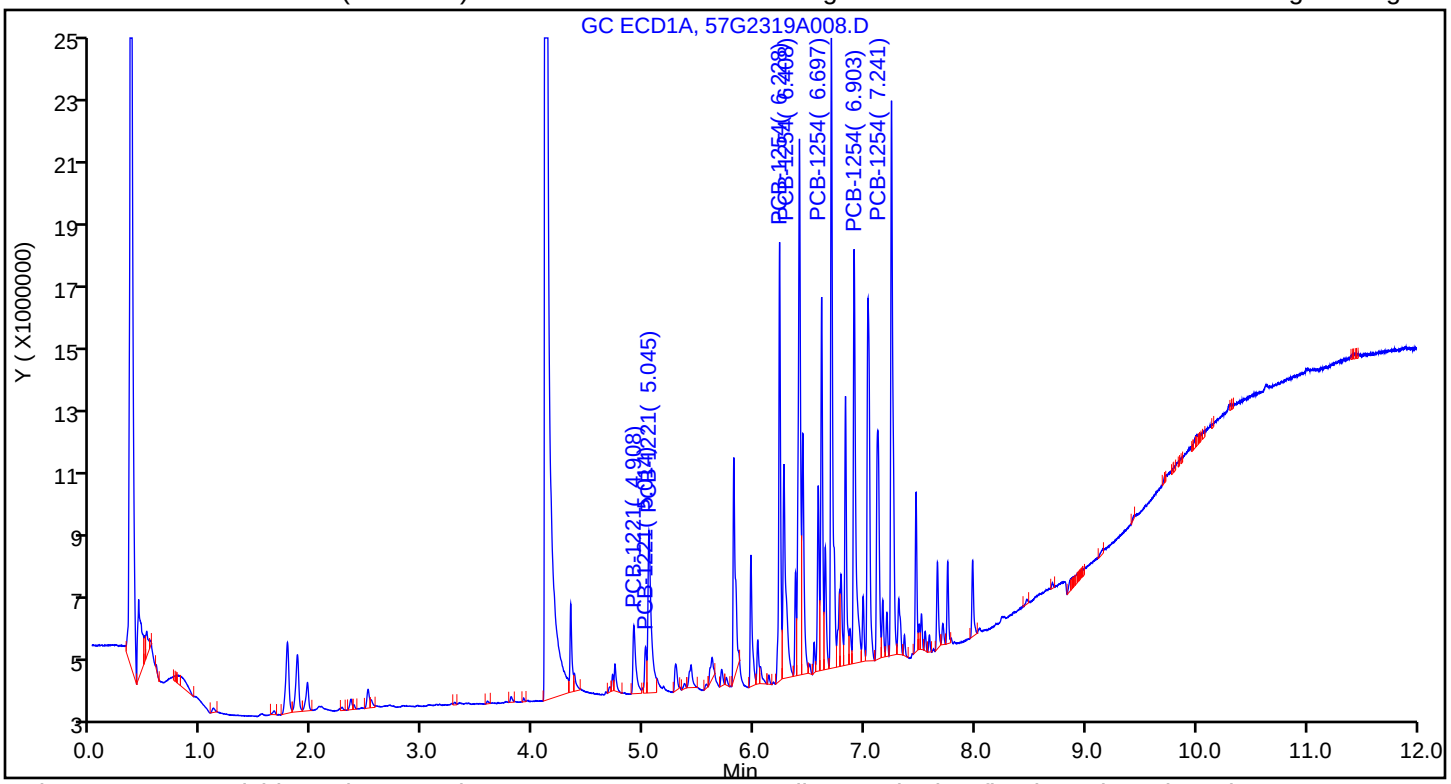
Client ID:

Operator ID: cjb ALS Bottle#: 4 Worklist Smp#: 7

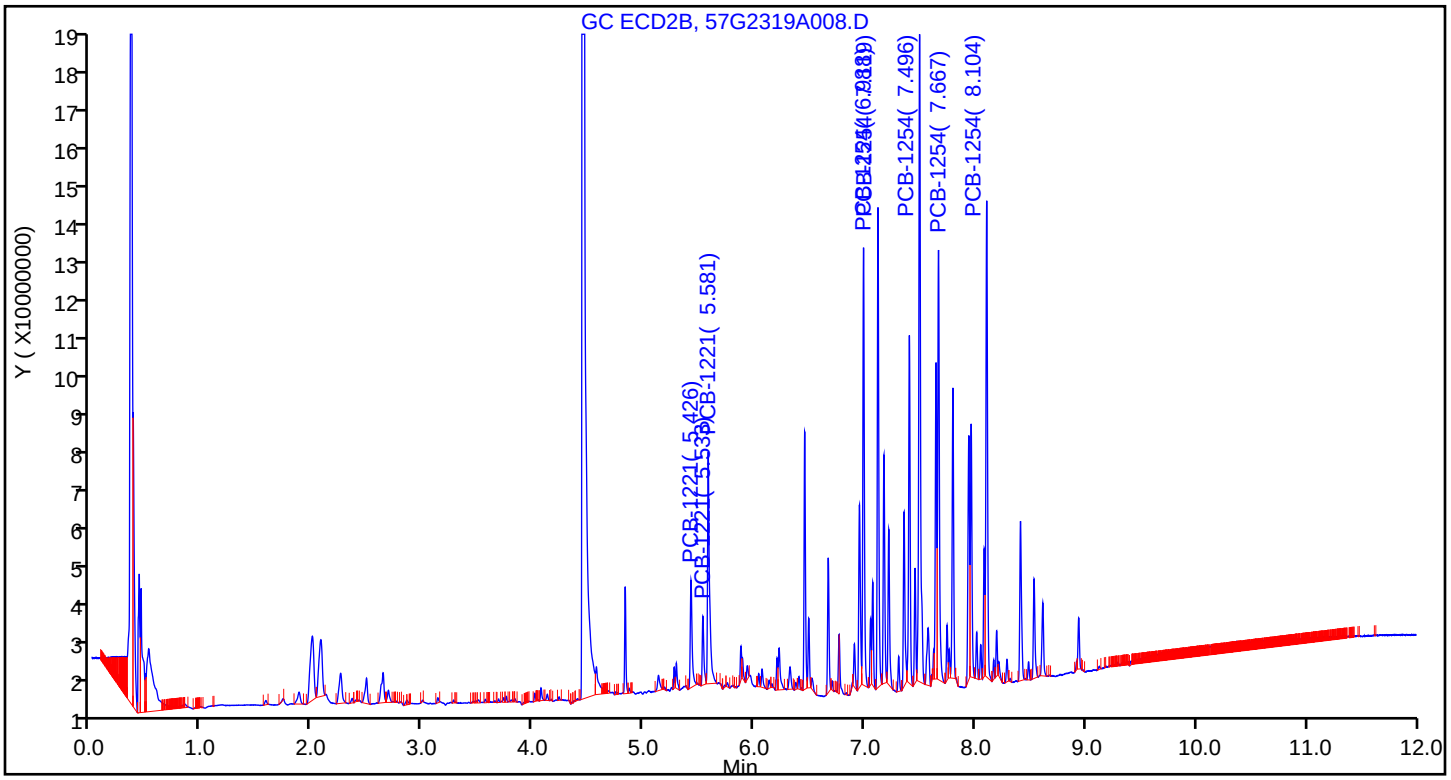
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306344/8 Calibration Date: 07/23/2019 09:12

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57G2319A009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0794			0.100	2.1	20.0
PCB-1016 Peak 2	Lin2		0.1156			0.100	25.7*	20.0
PCB-1016 Peak 3	Lin2		0.0516			0.100	-15.9	20.0
PCB-1016 Peak 4	Lin2		0.0384			0.100	-14.9	20.0
PCB-1016 Peak 5	Qua1		0.0157			0.100	-36.7*	20.0
PCB-1260 Peak 1	Lin2		0.0332			0.100	-25.2*	20.0
PCB-1260 Peak 2	Lin2		0.0894			0.100	-0.4	20.0
PCB-1260 Peak 3	Lin2		0.1203			0.100	-9.0	20.0
PCB-1260 Peak 4	Lin2		0.0792			0.100	-10.1	20.0
PCB-1260 Peak 5	Lin2		0.0700			0.100	-12.4	20.0
Tetrachloro-m-xylene	Ave	2.207	2.167		0.00983	0.0100	-1.8	20.0
DCB Decachlorobiphenyl	Ave	1.614	1.655		0.0103	0.0100	2.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306344/8 Calibration Date: 07/23/2019 09:12

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-1 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57G2319A009.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.28	5.18	5.38
PCB-1016 Peak 2	5.61	5.51	5.71
PCB-1016 Peak 3	5.70	5.60	5.80
PCB-1016 Peak 4	5.97	5.87	6.07
PCB-1016 Peak 5	6.03	5.93	6.13
PCB-1260 Peak 1	6.72	6.62	6.82
PCB-1260 Peak 2	6.82	6.72	6.92
PCB-1260 Peak 3	7.03	6.93	7.13
PCB-1260 Peak 4	7.32	7.22	7.42
PCB-1260 Peak 5	7.51	7.41	7.61
Tetrachloro-m-xylene	4.76	4.73	4.79
DCB Decachlorobiphenyl	8.86	8.83	8.89

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A009.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 09:12:23 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:43:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							s
1	4.109	4.109	0.000	198939016	100.0	100.0	
2	4.451	4.451	0.000	2459130201	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.758	4.758	0.000	43184218	10.0	9.83	
2	5.193	5.193	0.000	295609200	10.0	9.40	
						RPD = 4.54	
5 PCB-1016							
1	5.280	5.280	0.000	15786641	100.0	102.1	
1	5.609	5.609	0.000	23002808	100.0	125.7	
1	5.699	5.699	0.000	10266289	100.0	84.1	
1	5.968	5.968	0.000	7646401	100.0	85.1	
1	6.030	6.030	0.000	3130074	100.0	63.3	
		Average of Peak Amounts =				92.1	
2	5.876	5.876	0.000	68794801	100.0	83.8	
2	6.220	6.220	0.000	153641541	100.0	106.5	
2	6.320	6.320	0.000	87471459	100.0	93.1	
2	6.669	6.669	0.000	67838718	100.0	88.1	
2	6.766	6.766	0.000	54680099	100.0	84.6	
		Average of Peak Amounts =				91.2	
						RPD = 0.91	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							
1	6.724	6.724	0.000	6610631	100.0	74.8	
1	6.824	6.824	0.000	17793672	100.0	99.6	
1	7.028	7.028	0.000	23927097	100.0	91.0	
1	7.322	7.322	0.000	15756816	100.0	89.9	
1	7.513	7.513	0.000	13932419	100.0	87.6	
		Average of Peak Amounts =				88.6	
2	7.518	7.518	0.000	57003149	100.0	88.6	
2	7.645	7.645	0.000	114637575	100.0	82.1	
2	7.939	7.939	0.000	93813460	100.0	87.8	
2	8.168	8.168	0.000	97562288	100.0	89.9	
2	8.422	8.422	0.000	115767675	100.0	94.3	
		Average of Peak Amounts =				88.5	
						RPD = 0.07	
$ 43 DCB Decachlorobiphenyl							
1	8.855	8.855	0.000	32965399	10.0	10.3	
2	9.925	9.925	0.000	149881515	10.0	8.73	
						RPD = 16.15	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

1660IC0100_00013	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:51 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A009.D

Injection Date: 23-Jul-2019 09:12:23 Instrument ID: TAC057

Lims ID: ccvis

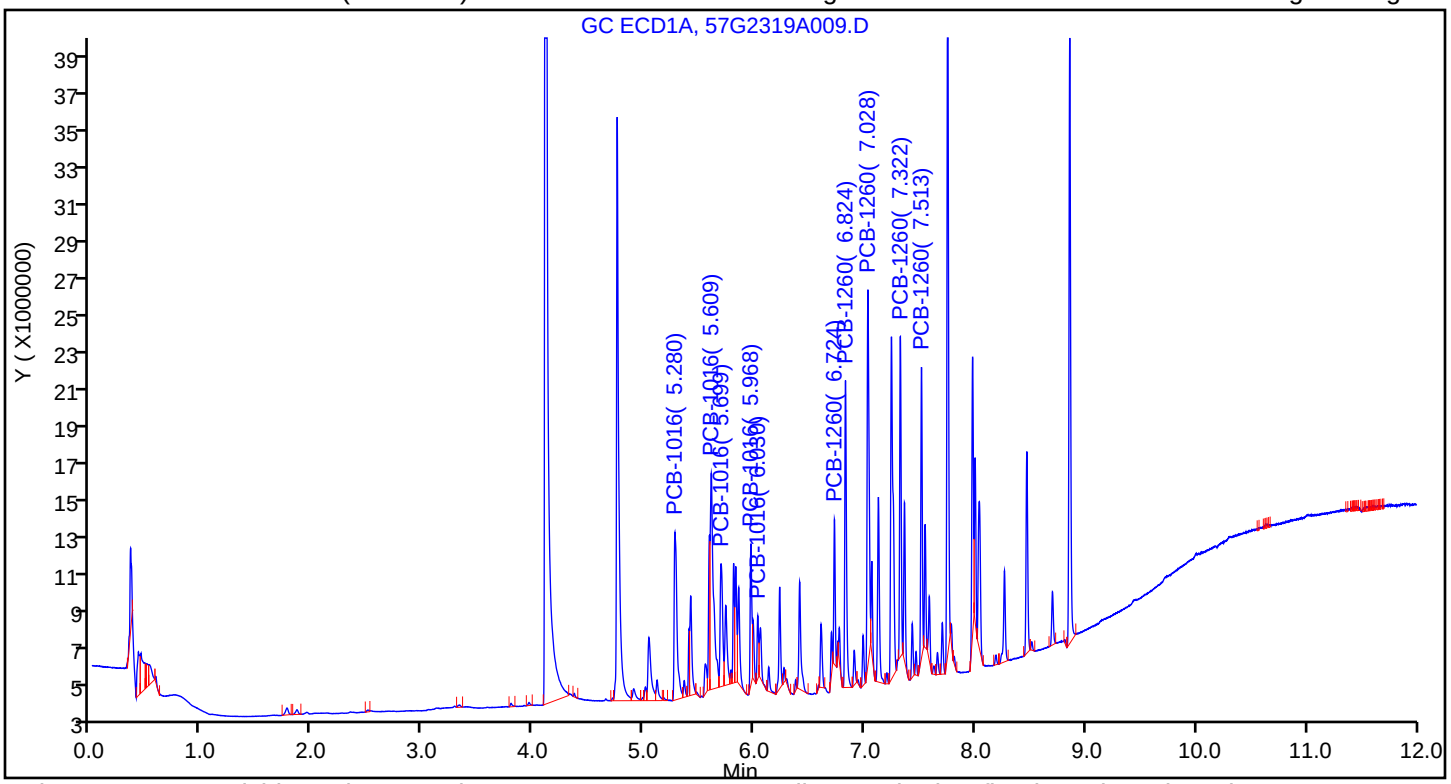
Client ID:

Operator ID: cjb ALS Bottle#: 5 Worklist Smp#: 8

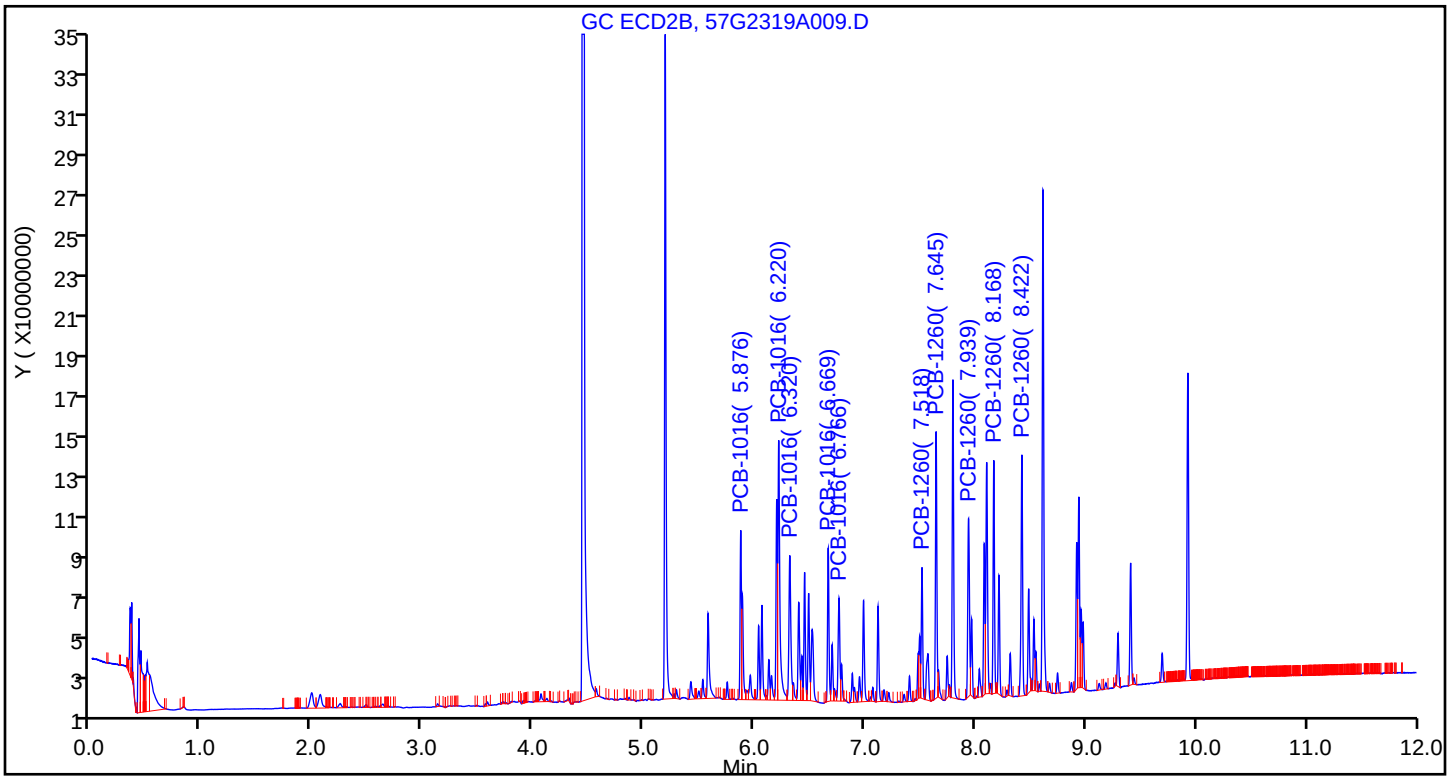
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306344/8 Calibration Date: 07/23/2019 09:12

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57G2319A009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0280			0.100	-16.2	20.0
PCB-1016 Peak 2	Lin2		0.0625			0.100	6.5	20.0
PCB-1016 Peak 3	Lin2		0.0356			0.100	-6.9	20.0
PCB-1016 Peak 4	Lin2		0.0276			0.100	-11.9	20.0
PCB-1016 Peak 5	Qua1		0.0222			0.100	-15.4	20.0
PCB-1260 Peak 1	Lin2		0.0232			0.100	-11.4	20.0
PCB-1260 Peak 2	Lin2		0.0466			0.100	-17.9	20.0
PCB-1260 Peak 3	Lin2		0.0382			0.100	-12.2	20.0
PCB-1260 Peak 4	Lin2		0.0397			0.100	-10.1	20.0
PCB-1260 Peak 5	Lin2		0.0471			0.100	-5.7	20.0
Tetrachloro-m-xylene	Ave	1.279	1.200		0.00940	0.0100	-6.2	20.0
DCB Decachlorobiphenyl	Ave	0.6979	0.6089		0.00873	0.0100	-12.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCVIS 580-306344/8 Calibration Date: 07/23/2019 09:12

Instrument ID: TAC057 Calib Start Date: 12/23/2018 04:19

GC Column: ZB-CLPest-2 ID: 0.25(mm) Calib End Date: 12/23/2018 06:22

Lab File ID: 57G2319A009.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.88	5.78	5.98
PCB-1016 Peak 2	6.22	6.12	6.32
PCB-1016 Peak 3	6.32	6.22	6.42
PCB-1016 Peak 4	6.67	6.57	6.77
PCB-1016 Peak 5	6.77	6.67	6.87
PCB-1260 Peak 1	7.52	7.42	7.62
PCB-1260 Peak 2	7.65	7.55	7.75
PCB-1260 Peak 3	7.94	7.84	8.04
PCB-1260 Peak 4	8.17	8.07	8.27
PCB-1260 Peak 5	8.42	8.32	8.52
Tetrachloro-m-xylene	5.19	5.16	5.22
DCB Decachlorobiphenyl	9.93	9.90	9.96

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A009.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Jul-2019 09:12:23 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: cjb Instrument ID: TAC057
Sublist: chrom-8182ISTD_TAC057*sub11

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:43:47

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							s
1	4.109	4.109	0.000	198939016	100.0	100.0	
2	4.451	4.451	0.000	2459130201	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.758	4.758	0.000	43184218	10.0	9.83	
2	5.193	5.193	0.000	295609200	10.0	9.40	
						RPD = 4.54	
5 PCB-1016							
1	5.280	5.280	0.000	15786641	100.0	102.1	
1	5.609	5.609	0.000	23002808	100.0	125.7	
1	5.699	5.699	0.000	10266289	100.0	84.1	
1	5.968	5.968	0.000	7646401	100.0	85.1	
1	6.030	6.030	0.000	3130074	100.0	63.3	
		Average of Peak Amounts =				92.1	
2	5.876	5.876	0.000	68794801	100.0	83.8	
2	6.220	6.220	0.000	153641541	100.0	106.5	
2	6.320	6.320	0.000	87471459	100.0	93.1	
2	6.669	6.669	0.000	67838718	100.0	88.1	
2	6.766	6.766	0.000	54680099	100.0	84.6	
		Average of Peak Amounts =				91.2	
						RPD = 0.91	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							
1	6.724	6.724	0.000	6610631	100.0	74.8	
1	6.824	6.824	0.000	17793672	100.0	99.6	
1	7.028	7.028	0.000	23927097	100.0	91.0	
1	7.322	7.322	0.000	15756816	100.0	89.9	
1	7.513	7.513	0.000	13932419	100.0	87.6	
		Average of Peak Amounts =				88.6	
2	7.518	7.518	0.000	57003149	100.0	88.6	
2	7.645	7.645	0.000	114637575	100.0	82.1	
2	7.939	7.939	0.000	93813460	100.0	87.8	
2	8.168	8.168	0.000	97562288	100.0	89.9	
2	8.422	8.422	0.000	115767675	100.0	94.3	
		Average of Peak Amounts =				88.5	
						RPD = 0.07	
$ 43 DCB Decachlorobiphenyl							
1	8.855	8.855	0.000	32965399	10.0	10.3	
2	9.925	9.925	0.000	149881515	10.0	8.73	
						RPD = 16.15	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

1660IC0100_00013	Amount Added: 1.00	Units: mL	
8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:52 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A009.D

Injection Date: 23-Jul-2019 09:12:23 Instrument ID: TAC057

Lims ID: ccvis

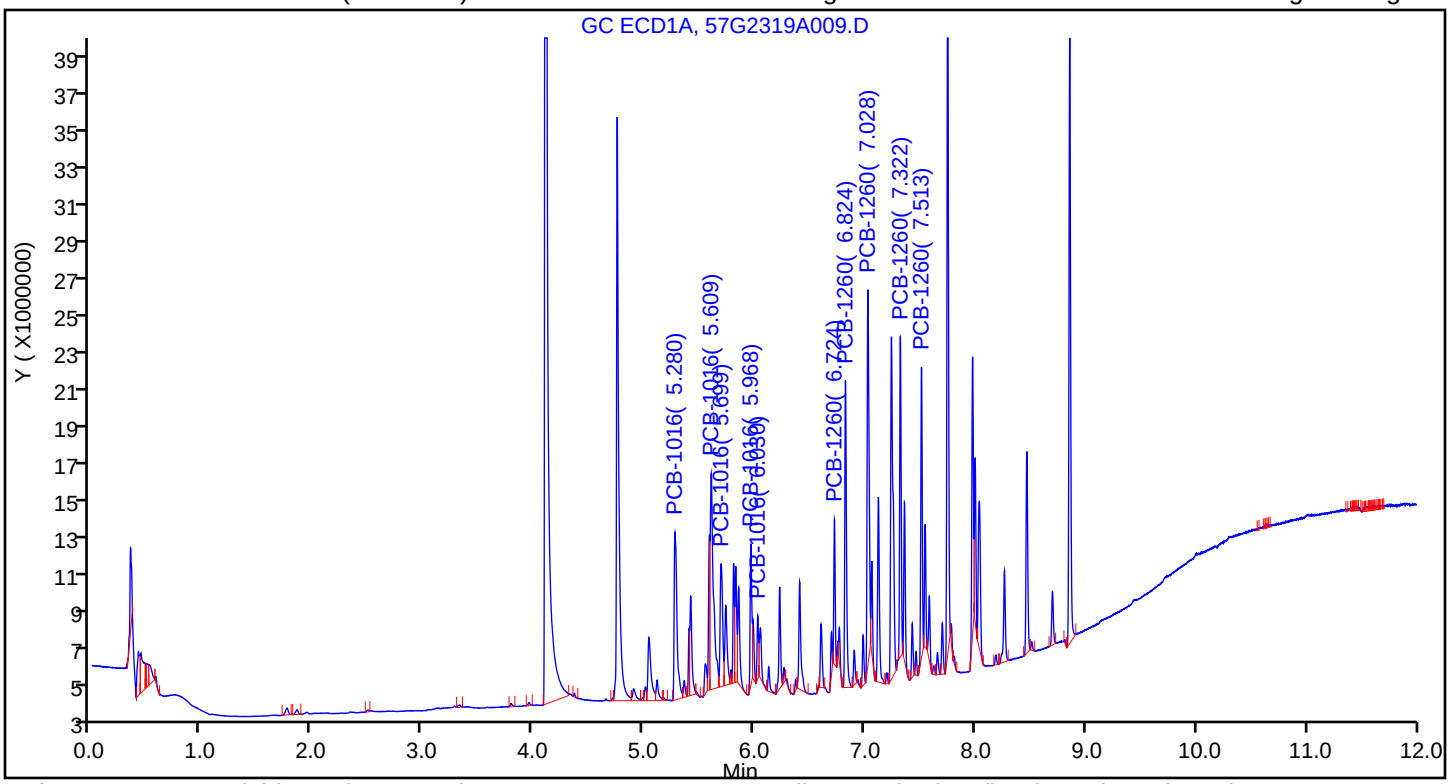
Client ID:

Operator ID: cjb ALS Bottle#: 5 Worklist Smp#: 8

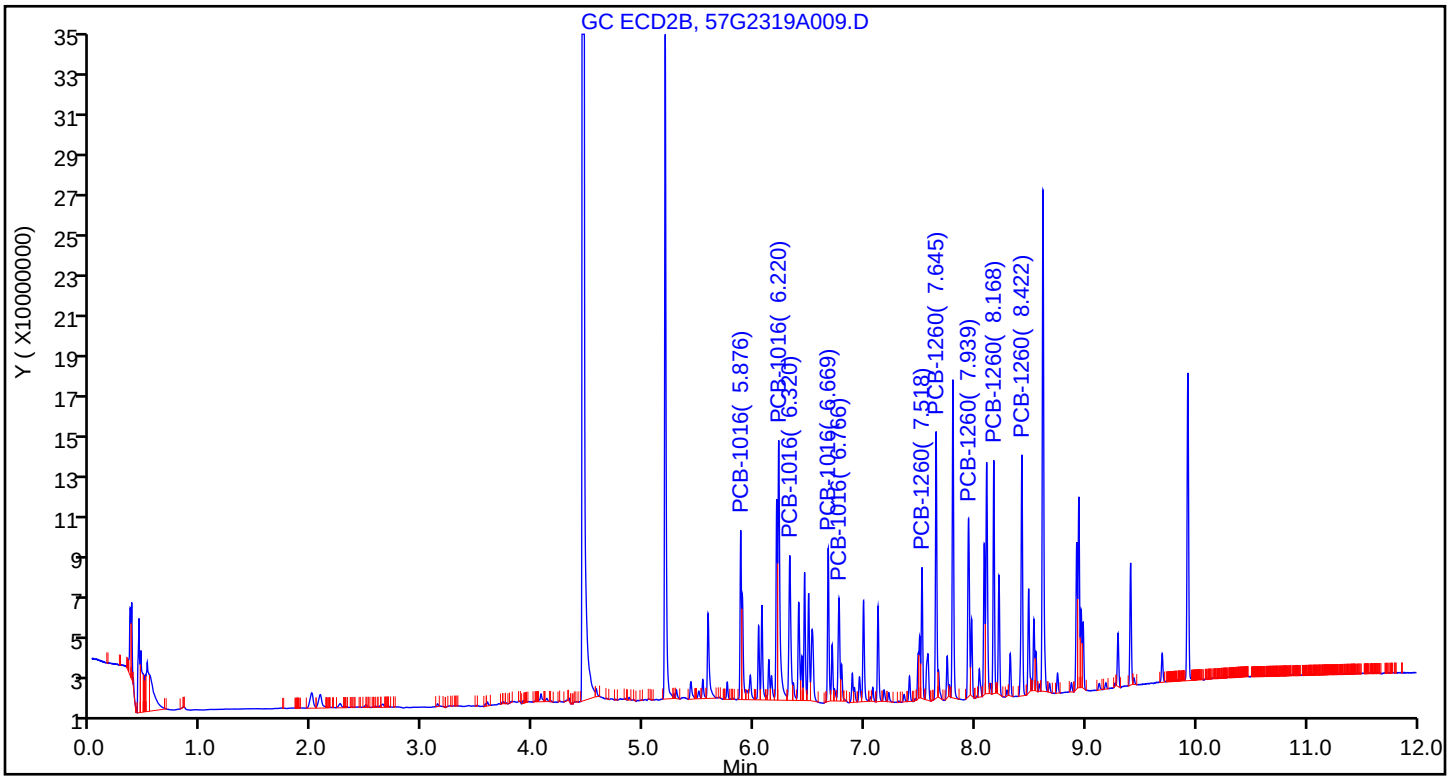
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 580-306126/1-A

Matrix: Solid Lab File ID: 57G2319A011.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20(g) Date Analyzed: 07/23/2019 09:48

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0020	0.00074
11104-28-2	PCB-1221	ND		0.0020	0.00095
11141-16-5	PCB-1232	ND		0.0020	0.00095
53469-21-9	PCB-1242	ND		0.0020	0.00049
12672-29-6	PCB-1248	ND		0.0020	0.00036
11097-69-1	PCB-1254	ND		0.0020	0.00079
11096-82-5	PCB-1260	ND		0.0020	0.00077

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	106		39-142
877-09-8	Tetrachloro-m-xylene	81		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A011.D
Lims ID: MB 580-306126/1-A
Client ID:
Sample Type: MB
Inject. Date: 23-Jul-2019 09:48:36 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: MB 580-306126/1-A
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:45:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.109	4.109	0.000	161607725	100.0	100.0	
2	4.451	4.451	0.000	1866842593	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.756	4.758	-0.002	72419995	25.0	20.3	
2	5.192	5.193	-0.001	481714803	25.0	20.2	
						RPD = 0.64	
$ 43 DCB Decachlorobiphenyl							
1	8.855	8.855	0.000	68841747	25.0	26.4	
2	9.924	9.925	-0.001	295007035	25.0	22.6	
						RPD = 15.30	
1 Hexachlorobutadiene							
1	2.670	2.658	0.012	348823		NR	
2	2.767	2.751	0.016	6525399		NR	
						RPD = 0.00	
18 beta-BHC							
1	4.639	4.628	0.011	1411014		NR	
2	4.876	4.846	0.030	3156788		NR	
						RPD = 0.00	
21 Heptachlor							
1	4.849	4.878	-0.029	3359131		NR	
2	5.076	5.072	0.004	736771		NR	
						RPD = 0.00	
24 Aldrin							
1	5.047	5.035	0.012	1307542		NR	
2	5.266	5.244	0.022	393275		NR	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
15 trans-Nonachlor							
1	5.512	5.513	-0.001	186096		NR	
2	5.715	5.719	-0.004	111578		NR	
						RPD = 0.00	
33 Endosulfan I							
1	5.606	5.588	0.018	403123		NR	
2	5.858	5.858	0.000	473997		NR	
						RPD = 0.00	
22 2,4'-DDT							
1	5.805	5.821	-0.016	137900		NR	
2	6.146	6.146	0.000	356907		NR	
						RPD = 0.00	
28 Endrin							
1	5.849	5.847	0.002	1055551		NR	
2	6.108	6.112	-0.004	3000364		NR	
						RPD = 0.00	
32 4,4'-DDD							
1	5.887	5.891	-0.004	107011		NR	
2	6.185	6.189	-0.004	119392		NR	
						RPD = 0.00	
39 Endosulfan II							
1	5.959	5.950	0.009	111585		NR	
2	6.281	6.280	0.001	807781		NR	
						RPD = 0.00	
37 Mirex							
1	6.426	6.428	-0.002	581568		NR	
2	6.924	6.927	-0.003	226414		NR	
						RPD = 0.00	
40 Endrin ketone							
1	6.608	6.591	0.017	188807		NR	
2	6.988	6.975	0.013	474564		NR	
						RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:11:59 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A011.D

Injection Date: 23-Jul-2019 09:48:36 Instrument ID: TAC057

Lims ID: MB 580-306126/1-A

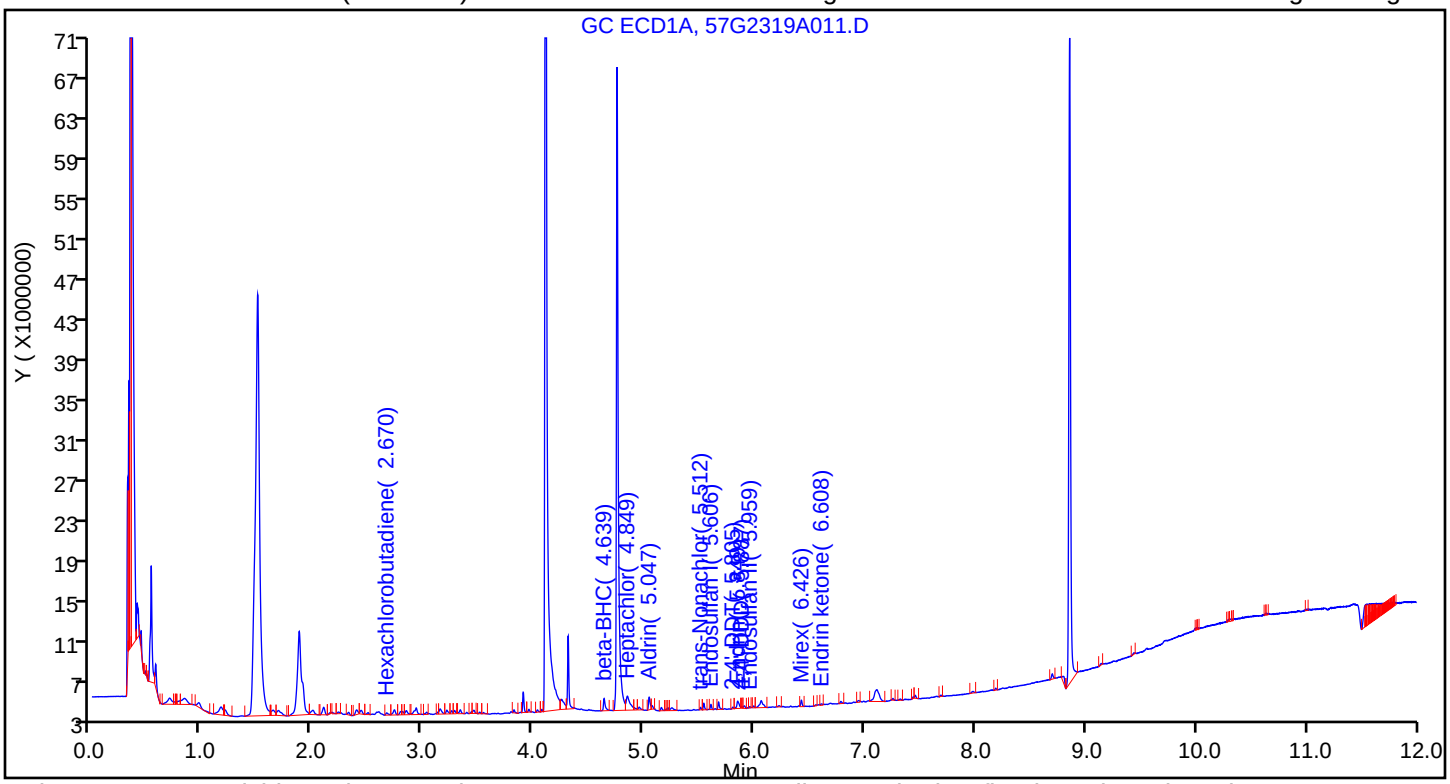
Client ID:

Operator ID: cjb ALS Bottle#: 7 Worklist Smp#: 10

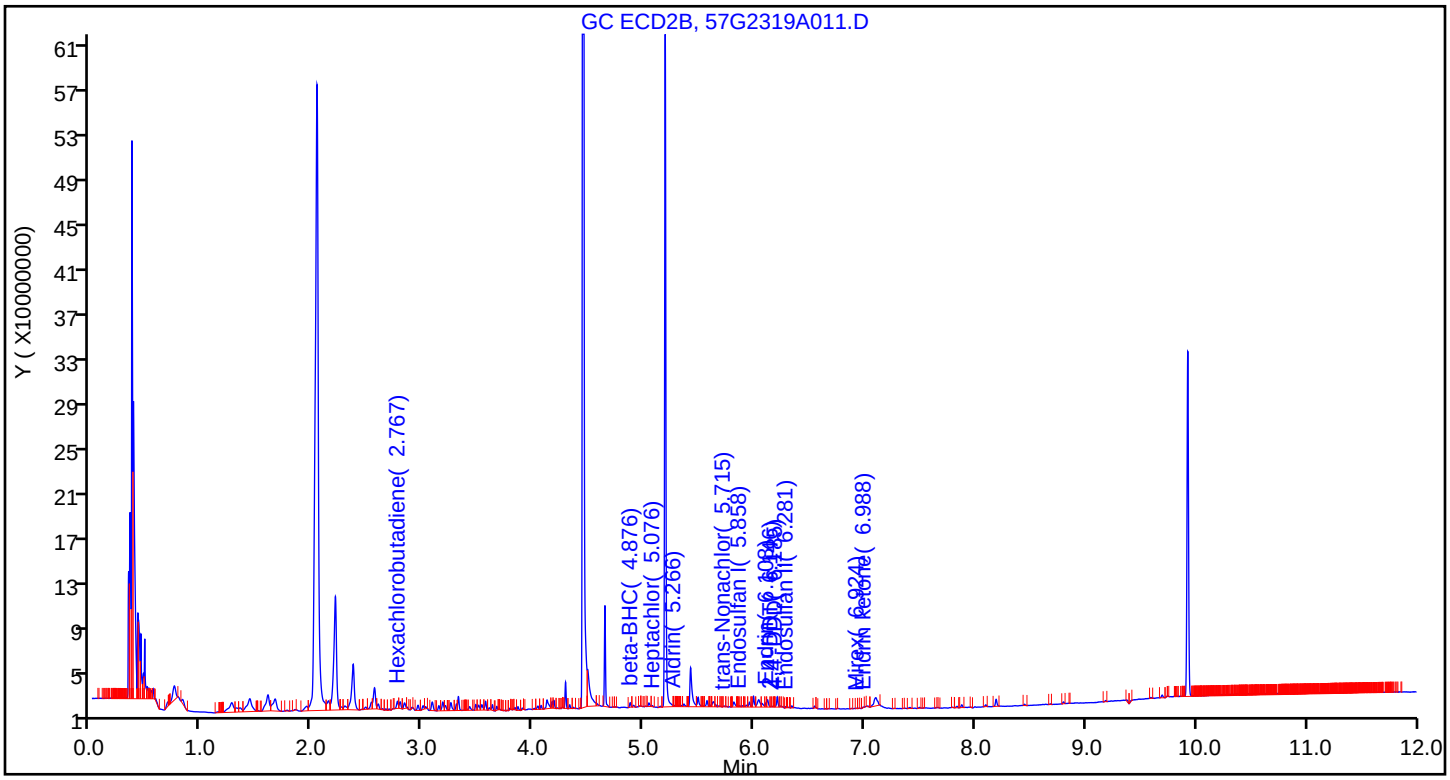
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A011.D				
Lims ID:	MB 580-306126/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	23-Jul-2019 09:48:36	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 580-306126/1-A				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	23-Jul-2019 15:11:50	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 10:45:57		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	20.3	81.21
$ 43 DCB Decachlorobiphenyl	25.0	26.4	105.58

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	20.2	80.69
$ 43 DCB Decachlorobiphenyl	25.0	22.6	90.57

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 580-306344/9

Matrix: Solid Lab File ID: 57G2319A010.D

Analysis Method: 8082A Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/23/2019 09:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: ng/uL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		20	7.4
11104-28-2	PCB-1221	ND		20	9.5
11141-16-5	PCB-1232	ND		20	9.5
53469-21-9	PCB-1242	ND		20	4.9
12672-29-6	PCB-1248	ND		20	3.6
11097-69-1	PCB-1254	ND		20	7.9
11096-82-5	PCB-1260	ND		20	7.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	91		39-142
877-09-8	Tetrachloro-m-xylene	94		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A010.D
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-Jul-2019 09:30:32 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCB
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:45:23

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.110	4.109	0.001	191452496	100.0	100.0	
2	4.450	4.451	-0.001	2242851285	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.757	4.758	-0.001	80088102	20.1	19.0	
2	5.193	5.193	0.000	542860850	20.1	18.9	
						RPD = 0.15	
$ 43 DCB Decachlorobiphenyl							
1	8.856	8.855	0.001	56704389	20.1	18.4	
2	9.925	9.925	0.000	269453205	20.1	17.2	
						RPD = 6.40	
12 alpha-BHC							
1	4.425	4.410	0.015	226121		NR	
2	4.611	4.599	0.012	1313891		NR	
						RPD = NaN	
18 beta-BHC							
1	4.653	4.628	0.025	1235776		NR	
2	4.865	4.846	0.019	14676145		NR	
						RPD = NaN	
24 Aldrin							
1	5.062	5.035	0.027	650228		NR	
2	5.271	5.244	0.027	2232496		NR	
						RPD = NaN	
15 trans-Nonachlor							
1	5.526	5.513	0.013	174723		NR	
2	5.725	5.719	0.006	114260		NR	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

8182_CCB_IS_00017 Amount Added: 1.00 Units: mL

Report Date: 23-Jul-2019 15:11:55 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A010.D

Injection Date: 23-Jul-2019 09:30:32 Instrument ID: TAC057

Lims ID: ccb

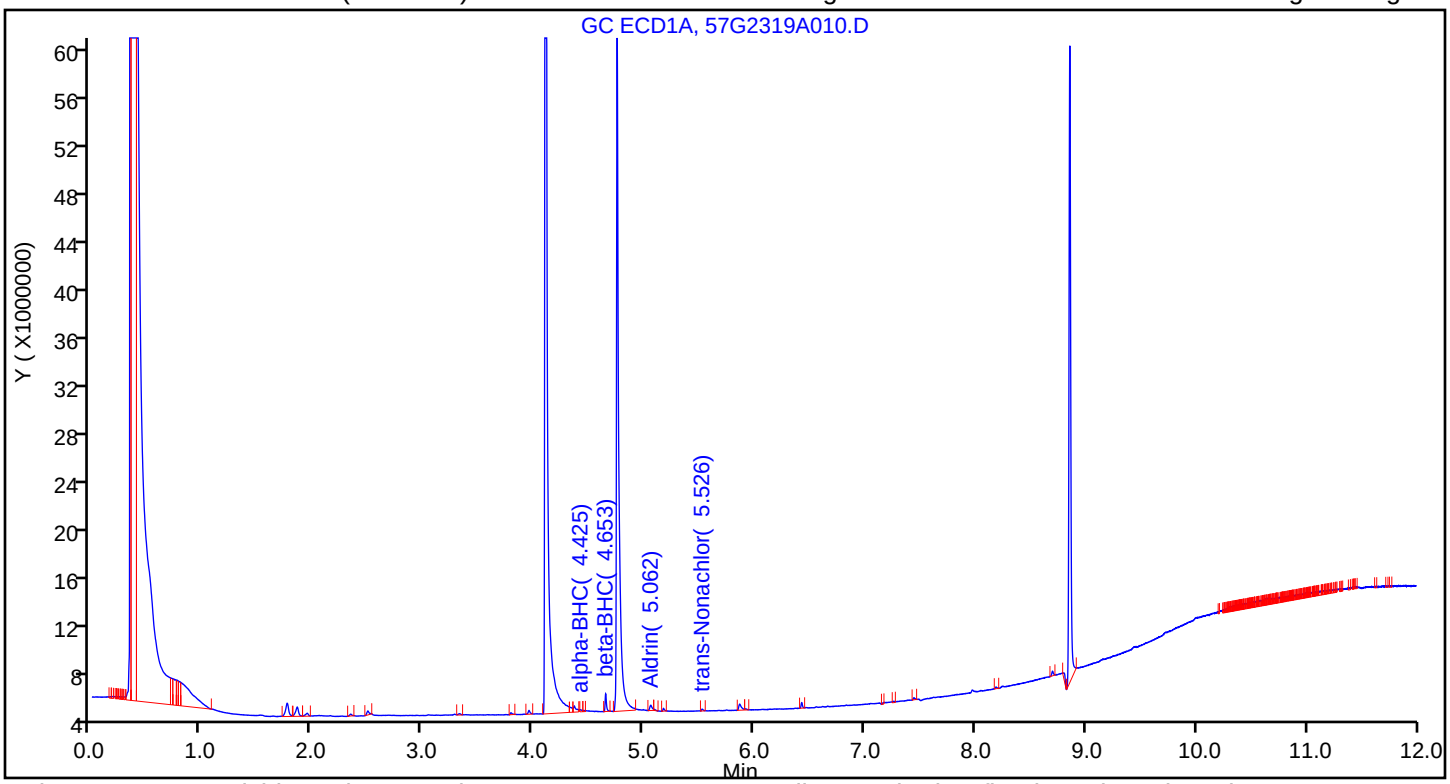
Client ID:

Operator ID: cjb ALS Bottle#: 6 Worklist Smp#: 9

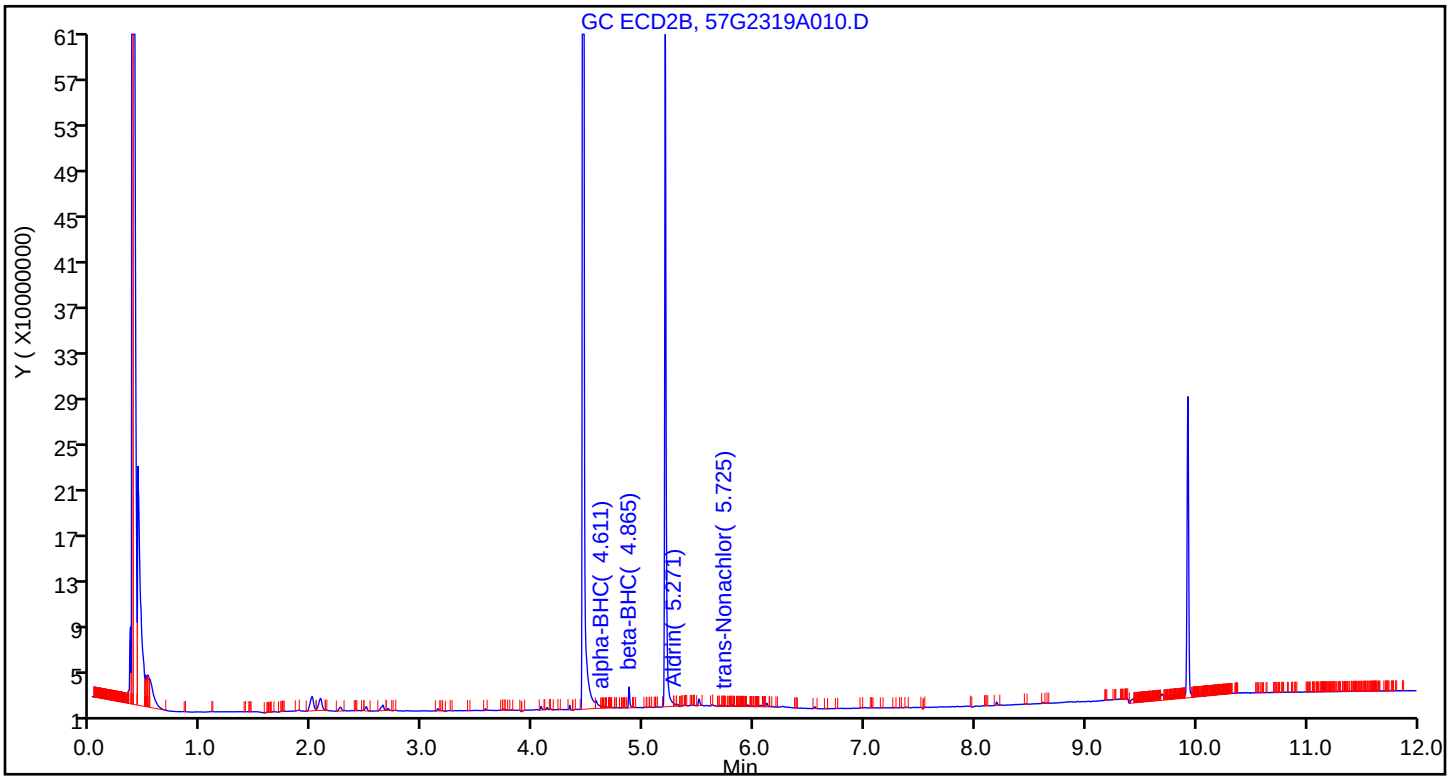
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A010.D				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	23-Jul-2019 09:30:32	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	23-Jul-2019 15:11:50	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 10:45:23		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	20.1	19.0	94.10
$ 43 DCB Decachlorobiphenyl	20.1	18.4	91.48

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	20.1	18.9	93.95
$ 43 DCB Decachlorobiphenyl	20.1	17.2	85.81

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 580-306126/3-A

Matrix: Solid Lab File ID: 57G2319A012.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 20(g) Date Analyzed: 07/23/2019 10:06

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	0.0103		0.0020	0.00074
11096-82-5	PCB-1260	0.0113		0.0020	0.00077

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	95		39-142
877-09-8	Tetrachloro-m-xylene	75		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A012.D
Lims ID: LCS 580-306126/3-A
Client ID:
Sample Type: LCS
Inject. Date: 23-Jul-2019 10:06:39 ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 580-306126/3-A
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:11:50 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 10:52:10

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.109	4.109	0.000	182603492	100.0	100.0	
2	4.451	4.451	0.000	2258119244	100.0	100.0	
						RPD = 0.00	
$ 9 Tetrachloro-m-xylene							
1	4.756	4.758	-0.002	75395787	25.0	18.7	
2	5.192	5.193	-0.001	514410520	25.0	17.8	
						RPD = 4.91	
5 PCB-1016							
1	5.276	5.280	-0.004	13468946	125.0	94.7	
1	5.605	5.609	-0.004	20449822	125.0	121.7	
1	5.694	5.699	-0.005	10344397	125.0	92.3	
1	5.965	5.968	-0.003	8231633	125.0	99.9	
1	6.025	6.030	-0.005	4866449	125.0	107.0	
		Average of Peak Amounts =				103.1	
2	5.875	5.876	-0.001	58935188	125.0	78.0	
2	6.217	6.220	-0.003	128858867	125.0	97.1	
2	6.318	6.320	-0.002	78921536	125.0	91.5	
2	6.667	6.669	-0.002	64148892	125.0	90.8	
2	6.764	6.766	-0.002	60120794	125.0	101.8	
		Average of Peak Amounts =				91.8	
						RPD = 11.59	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							
1	6.722	6.724	-0.002	8800714	125.0	109.2	
1	6.823	6.824	-0.001	20187272	125.0	123.4	
1	7.025	7.028	-0.003	30994415	125.0	128.9	
1	7.321	7.322	-0.001	16513516	125.0	102.8	
1	7.511	7.513	-0.002	14902758	125.0	102.2	
		Average of Peak Amounts =				113.3	
2	7.516	7.518	-0.002	61812100	125.0	105.1	
2	7.645	7.645	0.000	144424573	125.0	113.5	
2	7.938	7.939	-0.001	114729629	125.0	117.7	
2	8.167	8.168	-0.001	95291352	125.0	95.8	
2	8.421	8.422	-0.001	115956129	125.0	103.0	
		Average of Peak Amounts =				107.0	
						RPD = 5.70	
$ 43 DCB Decachlorobiphenyl							
1	8.855	8.855	0.000	69748902	25.0	23.7	
2	9.926	9.925	0.001	321392475	25.0	20.4	
						RPD = 14.86	

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:12:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A012.D

Injection Date: 23-Jul-2019 10:06:39 Instrument ID: TAC057

Lims ID: LCS 580-306126/3-A

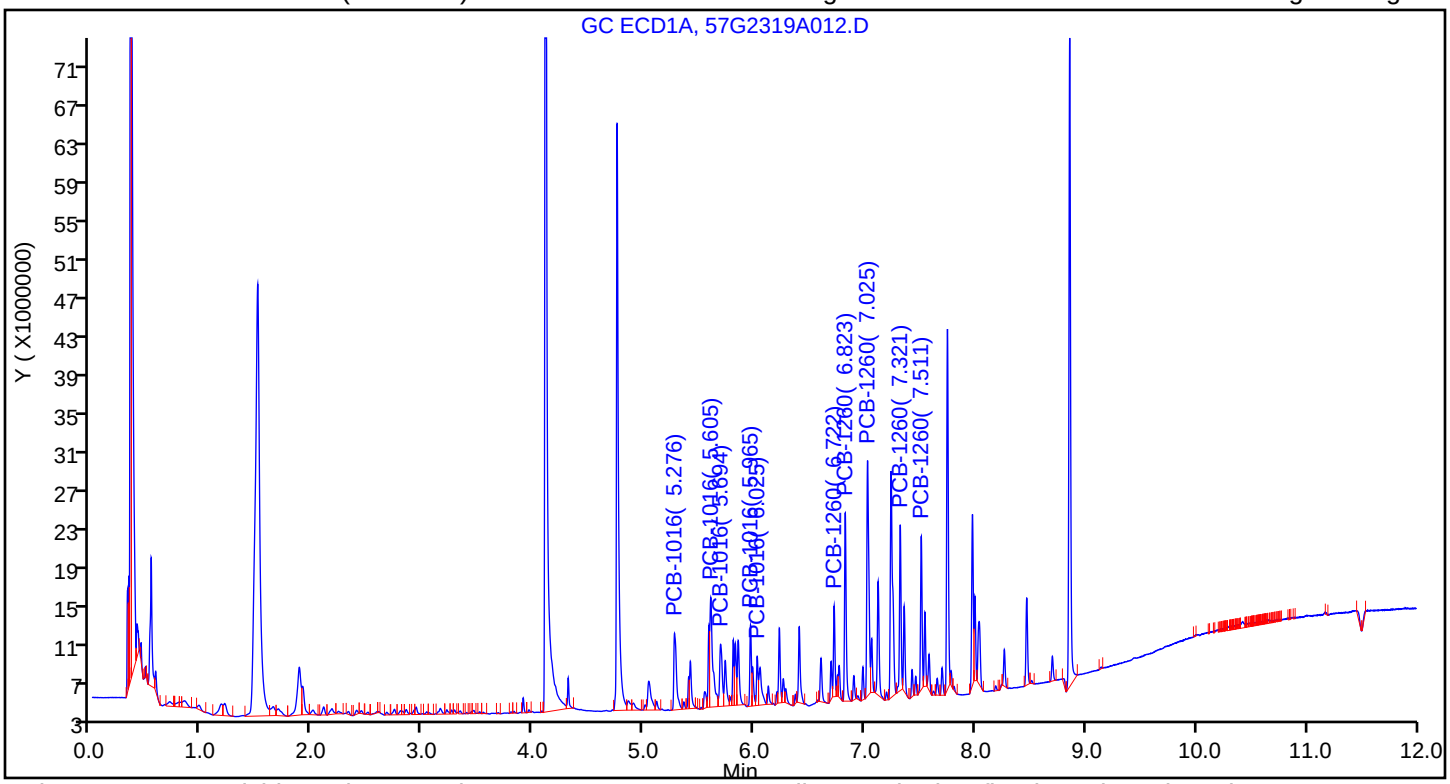
Client ID:

Operator ID: cjb ALS Bottle#: 8 Worklist Smp#: 11

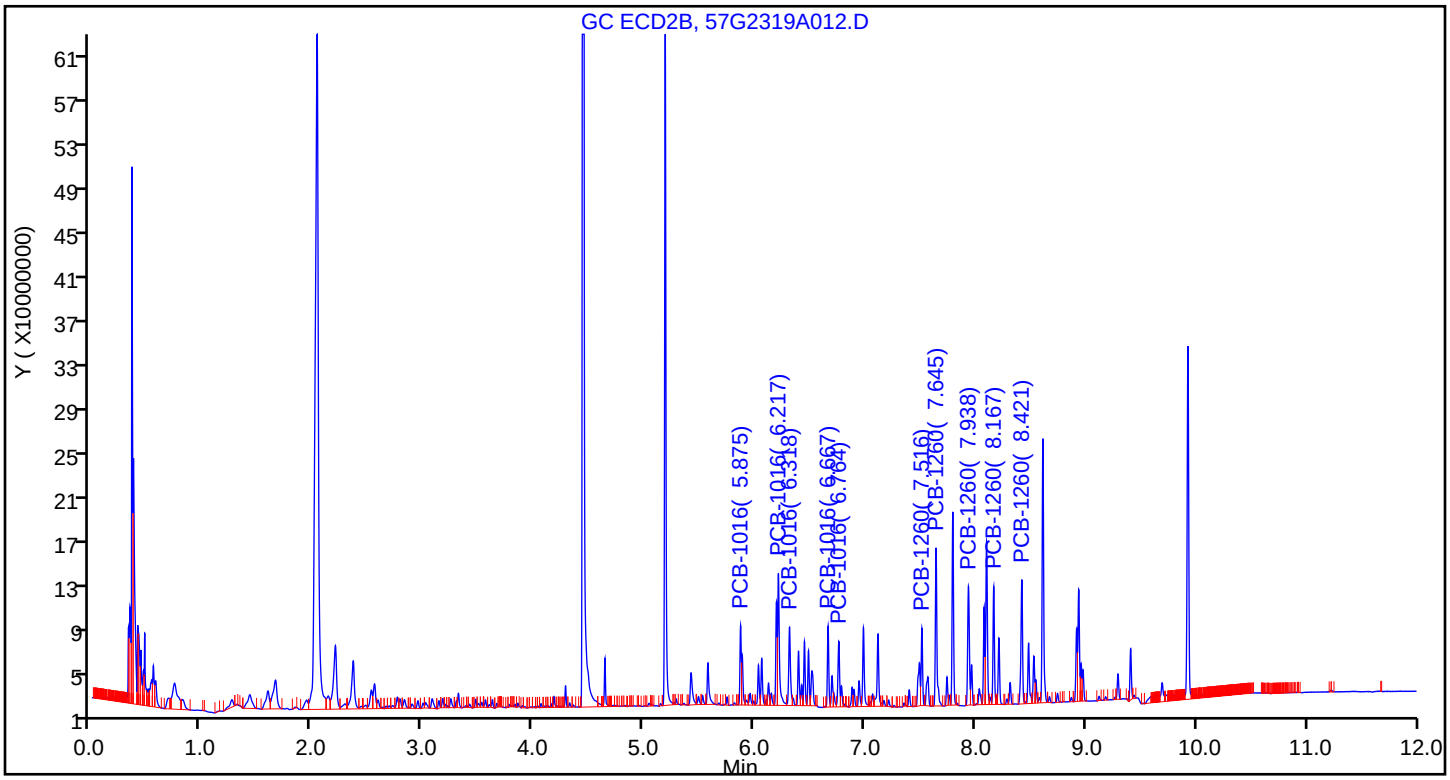
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A012.D				
Lims ID:	LCS 580-306126/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-Jul-2019 10:06:39	ALS Bottle#:	8	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 580-306126/3-A				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	23-Jul-2019 15:11:50	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 10:52:10		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	18.7	74.82
$ 43 DCB Decachlorobiphenyl	25.0	23.7	94.67

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	17.8	71.24
$ 43 DCB Decachlorobiphenyl	25.0	20.4	81.57

Report Date: 23-Jul-2019 15:12:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A012.D

Injection Date: 23-Jul-2019 10:06:39 Instrument ID: TAC057

Lims ID: LCS 580-306126/3-A

Client ID:

Operator ID: cjb ALS Bottle#: 8 Worklist Smp#: 11

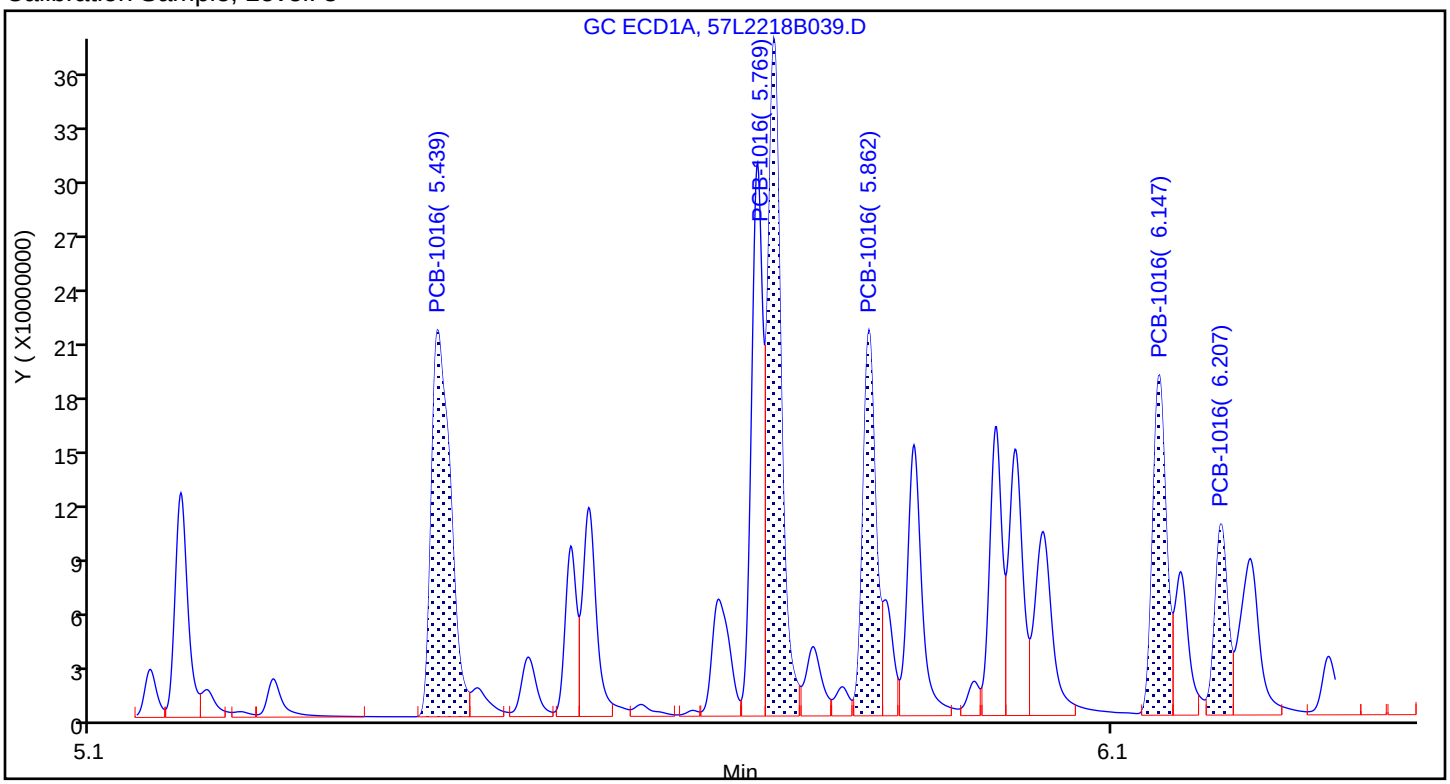
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

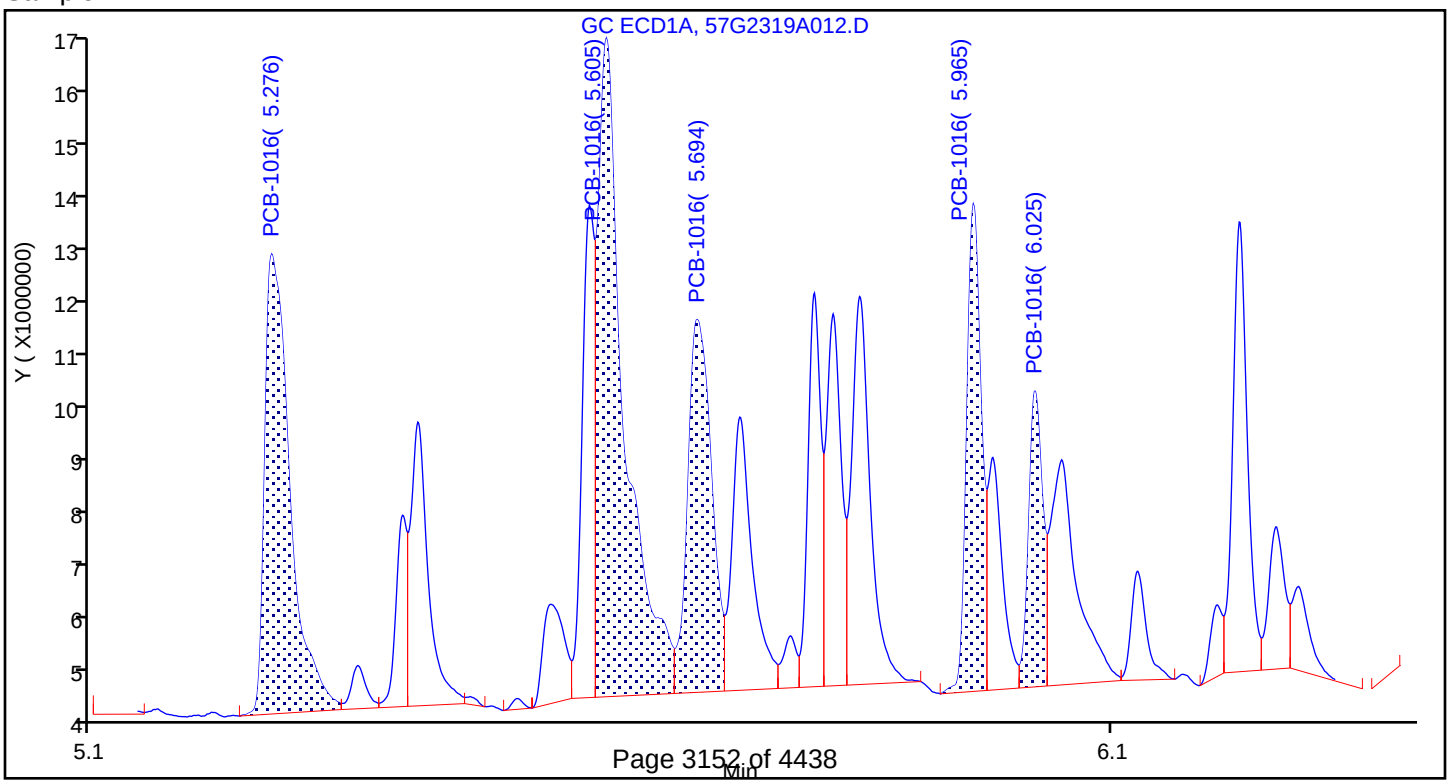
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 8



Sample



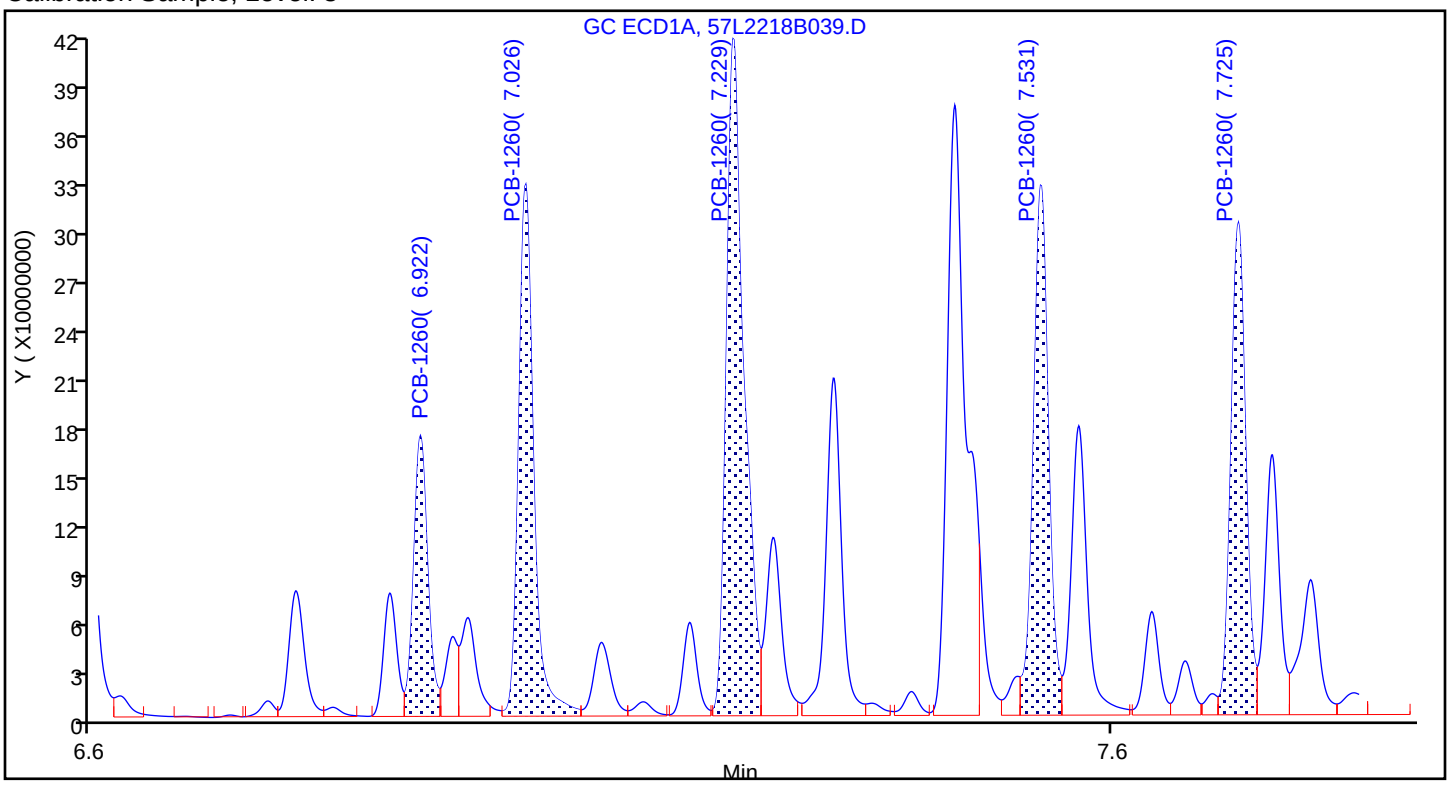
Report Date: 23-Jul-2019 15:12:02 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

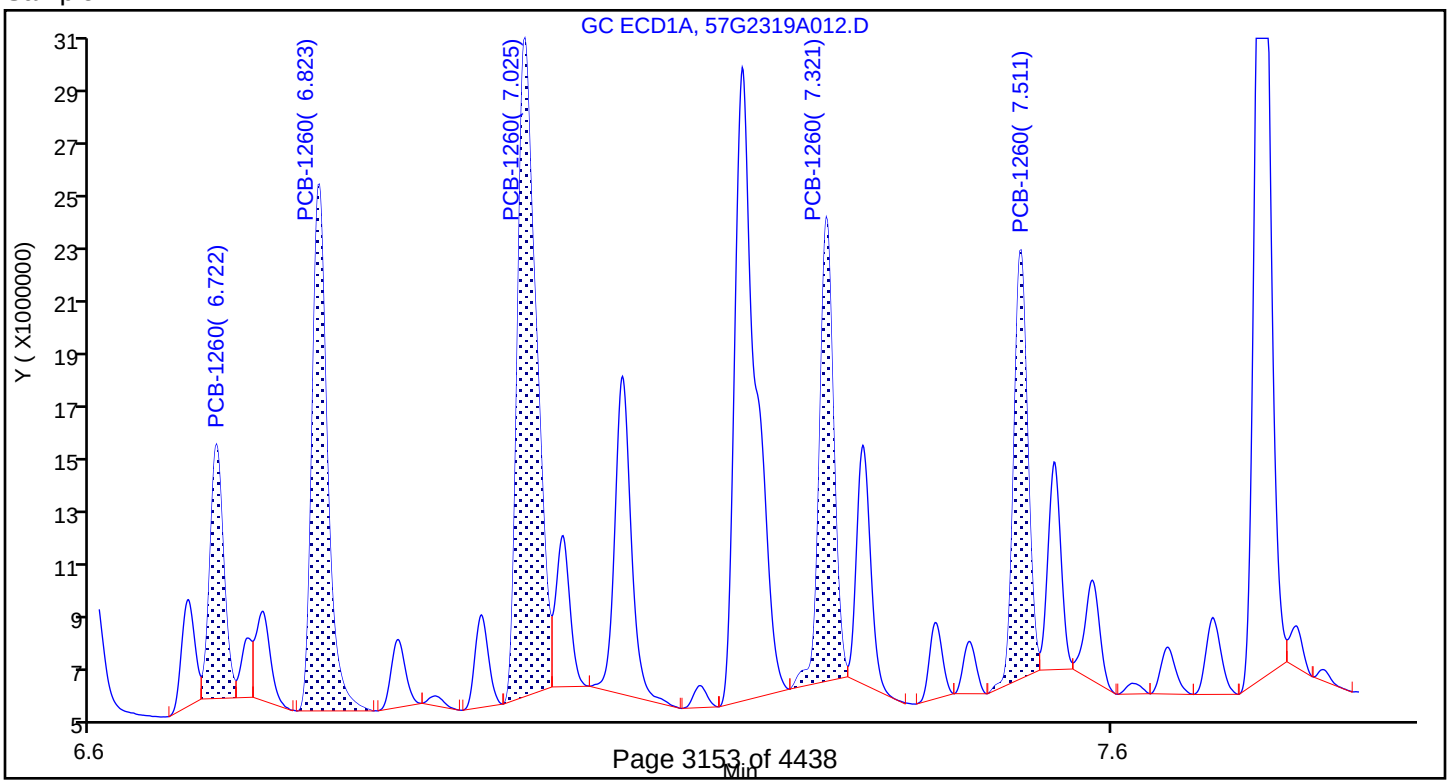
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A012.D				
Injection Date:	23-Jul-2019 10:06:39	Instrument ID:	TAC057		
Lims ID:	LCS 580-306126/3-A				
Client ID:					
Operator ID:	cjb	ALS Bottle#:	8	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MS Lab Sample ID: 580-87706-5 MS

Matrix: Solid Lab File ID: 57G2319A015.D

Analysis Method: 8082A Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 22.914(g) Date Analyzed: 07/23/2019 11:00

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 59.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	0.0155		0.0043	0.0016
11104-28-2	PCB-1221	ND		0.0043	0.0021
11141-16-5	PCB-1232	ND		0.0043	0.0021
53469-21-9	PCB-1242	ND		0.0043	0.0011
12672-29-6	PCB-1248	ND		0.0043	0.00078
11097-69-1	PCB-1254	ND		0.0043	0.0017
11096-82-5	PCB-1260	0.0178		0.0043	0.0017

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	64		39-142
877-09-8	Tetrachloro-m-xylene	51		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A015.D
Lims ID: 580-87706-A-5-G MS
Client ID: 22T-SG-12_20190716
Sample Type: MS
Inject. Date: 23-Jul-2019 11:00:58 ALS Bottle#: 11 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-5-G MS
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:13:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 15:10:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.108	4.109	-0.001	182928785	100.0	100.0	
2	4.450	4.451	-0.001	1748548362	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						154.1	
2						126.2	
						RPD = 19.94	
$ 9 Tetrachloro-m-xylene							
1	4.754	4.758	-0.004	51331942	25.0	12.7	
2	5.191	5.193	-0.002	251980854	25.0	11.3	
						RPD = 12.07	
5 PCB-1016							a
1	5.268	5.280	-0.012	9044862	125.0	62.9	
1	5.589	5.609	-0.020	11074818	125.0	65.2	a
1	5.679	5.699	-0.020	7270597	125.0	64.7	
1	5.957	5.968	-0.011	6545011	125.0	79.2	a
1	6.017	6.030	-0.013	3946431	125.0	86.7	
		Average of Peak Amounts =				71.7	
2	5.871	5.876	-0.005	36876577	125.0	62.5	
2	6.212	6.220	-0.008	57735847	125.0	55.3	
2	6.313	6.320	-0.007	41323726	125.0	60.9	
2	6.664	6.669	-0.005	34227496	125.0	61.8	
2	6.761	6.766	-0.005	33461831	125.0	72.4	
		Average of Peak Amounts =				62.6	
						RPD = 13.64	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							
1	6.719	6.724	-0.005	8262090	125.0	102.2	
1	6.819	6.824	-0.005	14723831	125.0	89.5	
1	7.020	7.028	-0.008	18529583	125.0	76.5	
1	7.317	7.322	-0.005	11479115	125.0	71.0	
1	7.509	7.513	-0.004	10641981	125.0	72.6	
		Average of Peak Amounts =				82.4	
2	7.515	7.518	-0.003	26857870	125.0	57.8	
2	7.644	7.645	-0.001	71199408	125.0	71.4	
2	7.937	7.939	-0.002	53663188	125.0	70.2	
2	8.166	8.168	-0.002	42537717	125.0	54.2	
2	8.419	8.422	-0.003	56768203	125.0	64.3	
		Average of Peak Amounts =				63.6	
						RPD = 25.74	
$ 43 DCB Decachlorobiphenyl							
1	8.855	8.855	0.000	47370948	25.0	16.0	
2	9.925	9.925	0.000	168532148	25.0	13.8	
						RPD = 14.97	
1 Hexachlorobutadiene							
1	2.669	2.658	0.011	902348		NR	
2	2.734	2.751	-0.017	633130		NR	
						RPD = 0.00	
4 Hexachlorobenzene							
1	4.323	4.326	-0.003	556404		NR	
2	4.529	4.522	0.007	6701254		NR	
						RPD = 0.00	
12 alpha-BHC							
1	4.420	4.410	0.010	718856		NR	
2	4.602	4.599	0.003	1908221		NR	
						RPD = 0.00	
14 gamma-BHC (Lindane)							
1	4.549	4.563	-0.014	287378		NR	
2	4.827	4.821	0.006	2406586		NR	
						RPD = 0.00	
20 delta-BHC							
1	4.711	4.738	-0.027	232201		NR	
2	5.044	5.057	-0.013	2618291		NR	
						RPD = 0.00	
21 Heptachlor							
1	4.886	4.878	0.008	736713		NR	
2	5.076	5.072	0.004	430768		NR	
						RPD = 0.00	
24 Aldrin							
1	5.041	5.035	0.006	2663441		NR	
2	5.274	5.244	0.030	702176		NR	
						RPD = 0.00	
11 oxy-Chlordane							
1	5.304	5.301	0.003	989970		NR	
2	5.570	5.561	0.009	32453300		NR	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
27 Heptachlor epoxide							
1	5.354	5.351	0.003	262509		NR	
2	5.601	5.606	-0.005	722302		NR	
						RPD = 0.00	
13 2,4'-DDE							
1	5.394	5.389	0.005	2340492		NR	
2	5.679	5.681	-0.002	466870		NR	
						RPD = 0.00	
30 trans-Chlordane							
1	5.411	5.426	-0.015	3165575		NR	
2	5.693	5.670	0.023	612674		NR	
						RPD = 0.00	
15 trans-Nonachlor							
1	5.505	5.513	-0.008	128836		NR	
2	5.722	5.719	0.003	1606272		NR	
						RPD = 0.00	
25 4,4'-DDE							
1	5.574	5.571	0.003	6897774		NR	
2	5.805	5.791	0.014	15412873		NR	
						RPD = 0.00	
33 Endosulfan I							
1	5.589	5.588	0.001	11074818		NR	
2	5.871	5.858	0.013	36876577		NR	
						RPD = 0.00	
19 2,4'-DDD							
1	5.626	5.625	0.001	654152		NR	
2	5.946	5.955	-0.009	10711910		NR	
						RPD = 0.00	
36 Dieldrin							
1	5.723	5.740	-0.017	4313354		NR	
2	5.914	5.930	-0.016	4834102		NR	
						RPD = 0.00	
22 2,4'-DDT							
1	5.819	5.821	-0.002	8588588		NR	
2	6.146	6.146	0.000	3931176		NR	
						RPD = 0.00	
28 Endrin							
1	5.843	5.847	-0.004	9234525		NR	
2	6.102	6.112	-0.010	794692		NR	
						RPD = 0.00	
32 4,4'-DDD							
1	5.892	5.891	0.001	487825		NR	
2	6.194	6.189	0.005	45609762		NR	
						RPD = 0.00	
39 Endosulfan II							
1	5.957	5.950	0.007	6545011		NR	
2	6.264	6.280	-0.016	1016738		NR	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
35 4,4'-DDT							
1	6.017	6.019	-0.002	3946431		NR	
2	6.394	6.393	0.001	23012257		NR	
						RPD = 0.00	
34 Endrin aldehyde							
1	6.220	6.219	0.001	5062401		NR	
2	6.425	6.437	-0.012	5030244		NR	
						RPD = 0.00	
42 Methoxychlor							
1	6.272	6.294	-0.022	709627		NR	
2	6.785	6.795	-0.010	4928044		NR	
						RPD = 0.00	
37 Mirex							
1	6.427	6.428	-0.001	861683		NR	
2	6.944	6.927	0.017	13950124		NR	
						RPD = 0.00	
41 Endosulfan sulfate							
1	6.461	6.450	0.011	9054920		NR	
2	6.582	6.588	-0.006	460761		NR	
						RPD = 0.00	
40 Endrin ketone							
1	6.602	6.591	0.011	22481427		NR	
2	6.985	6.975	0.010	32070955		NR	
						RPD = 0.00	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

a - User Assigned ID

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:13:29 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A015.D

Injection Date: 23-Jul-2019 11:00:58 Instrument ID: TAC057

Lims ID: 580-87706-A-5-G MS

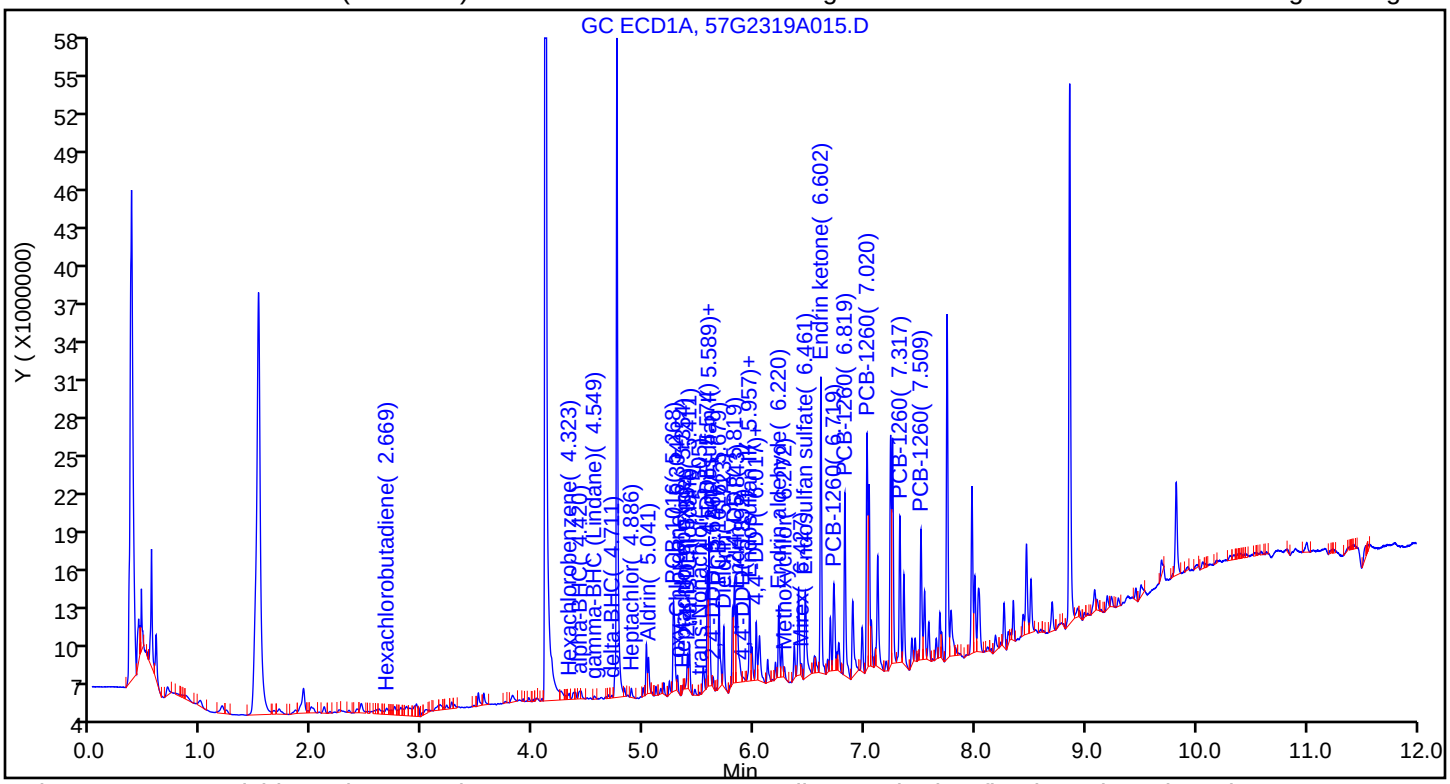
Client ID: 22T-SG-12_20190716

Operator ID: cjb ALS Bottle#: 11 Worklist Smp#: 14

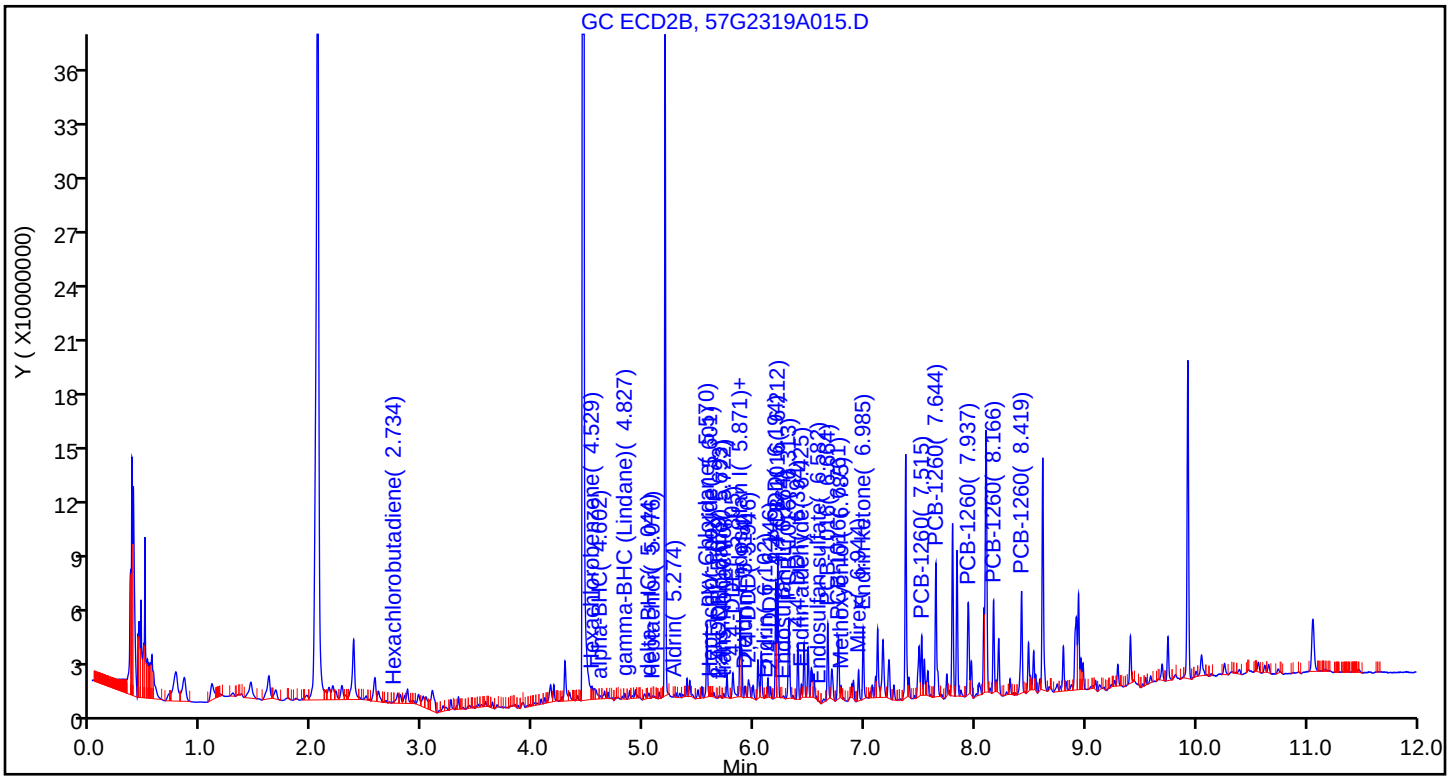
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A015.D				
Lims ID:	580-87706-A-5-G MS				
Client ID:	22T-SG-12_20190716				
Sample Type:	MS				
Inject. Date:	23-Jul-2019 11:00:58	ALS Bottle#:	11	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-5-G MS				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	23-Jul-2019 15:13:27	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 15:10:28		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	12.7	50.85
$ 43 DCB Decachlorobiphenyl	25.0	16.0	64.18

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	11.3	45.06
$ 43 DCB Decachlorobiphenyl	25.0	13.8	55.24

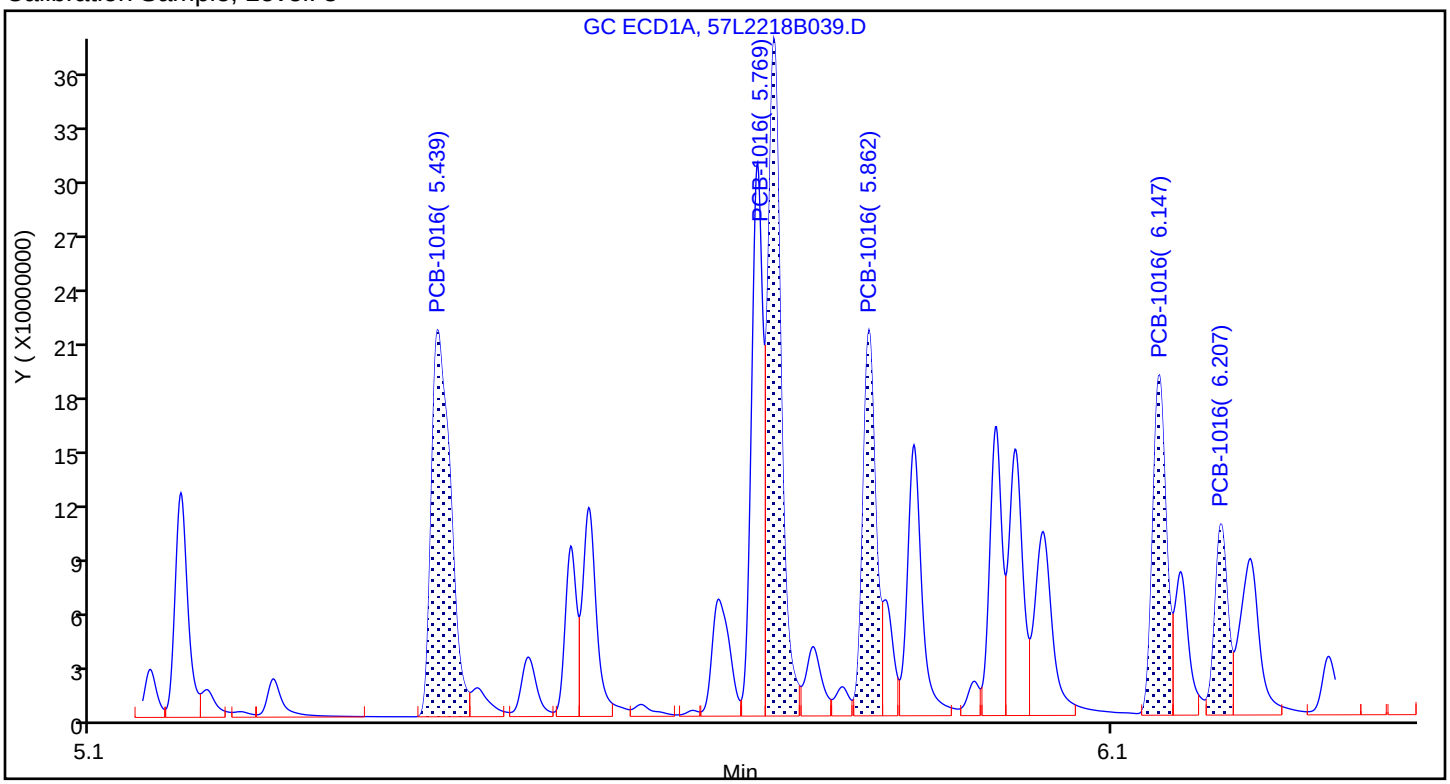
Report Date: 23-Jul-2019 15:13:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

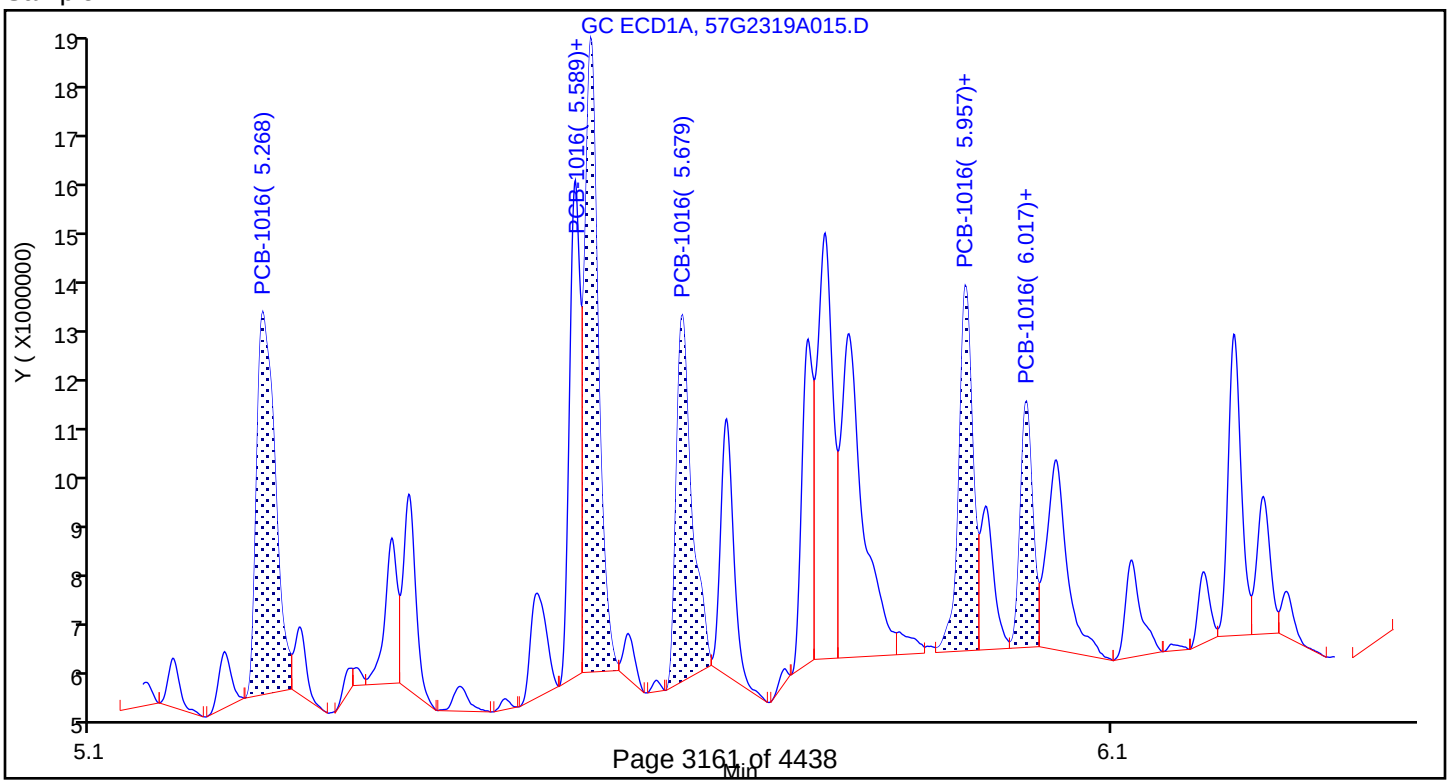
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A015.D				
Injection Date:	23-Jul-2019 11:00:58	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-G MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	11	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

5 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 8



Sample



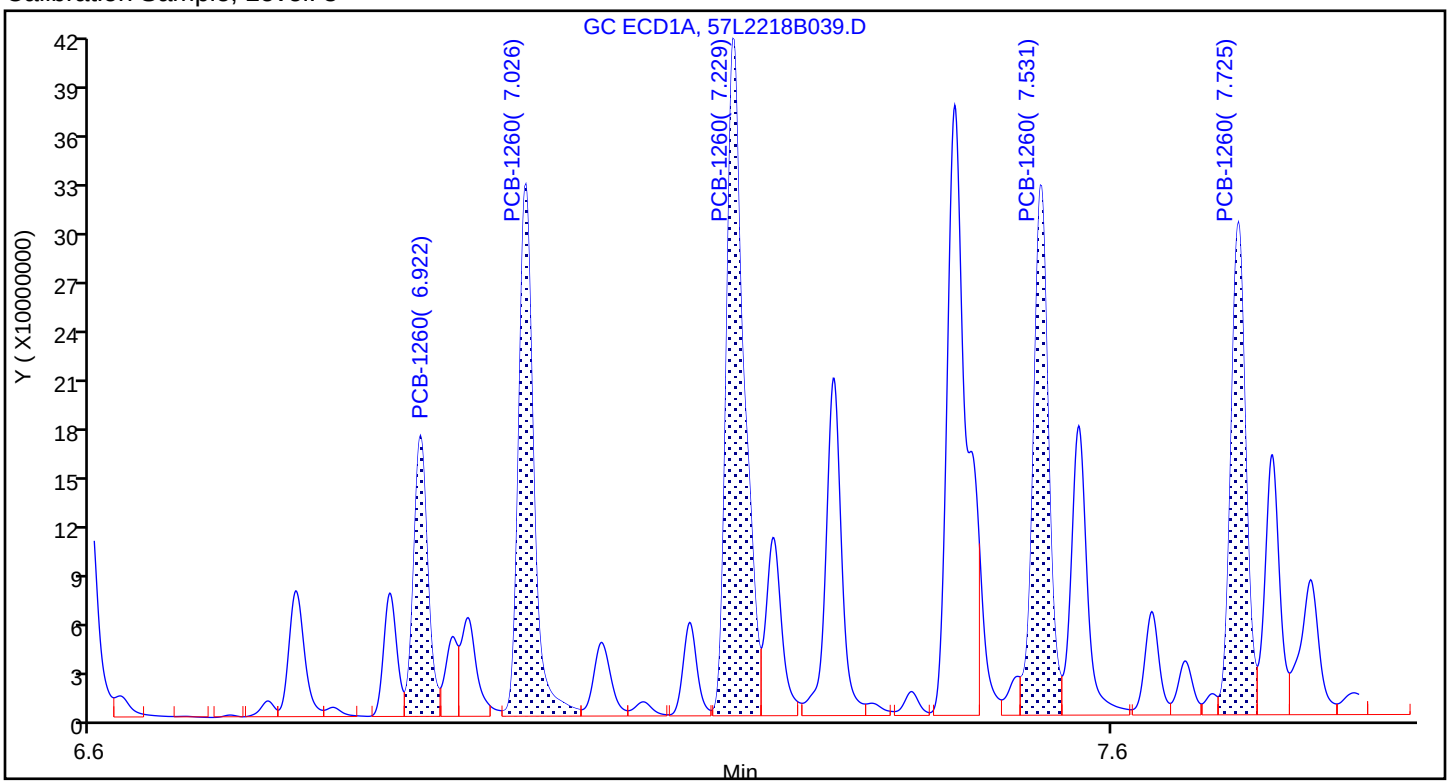
Report Date: 23-Jul-2019 15:13:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

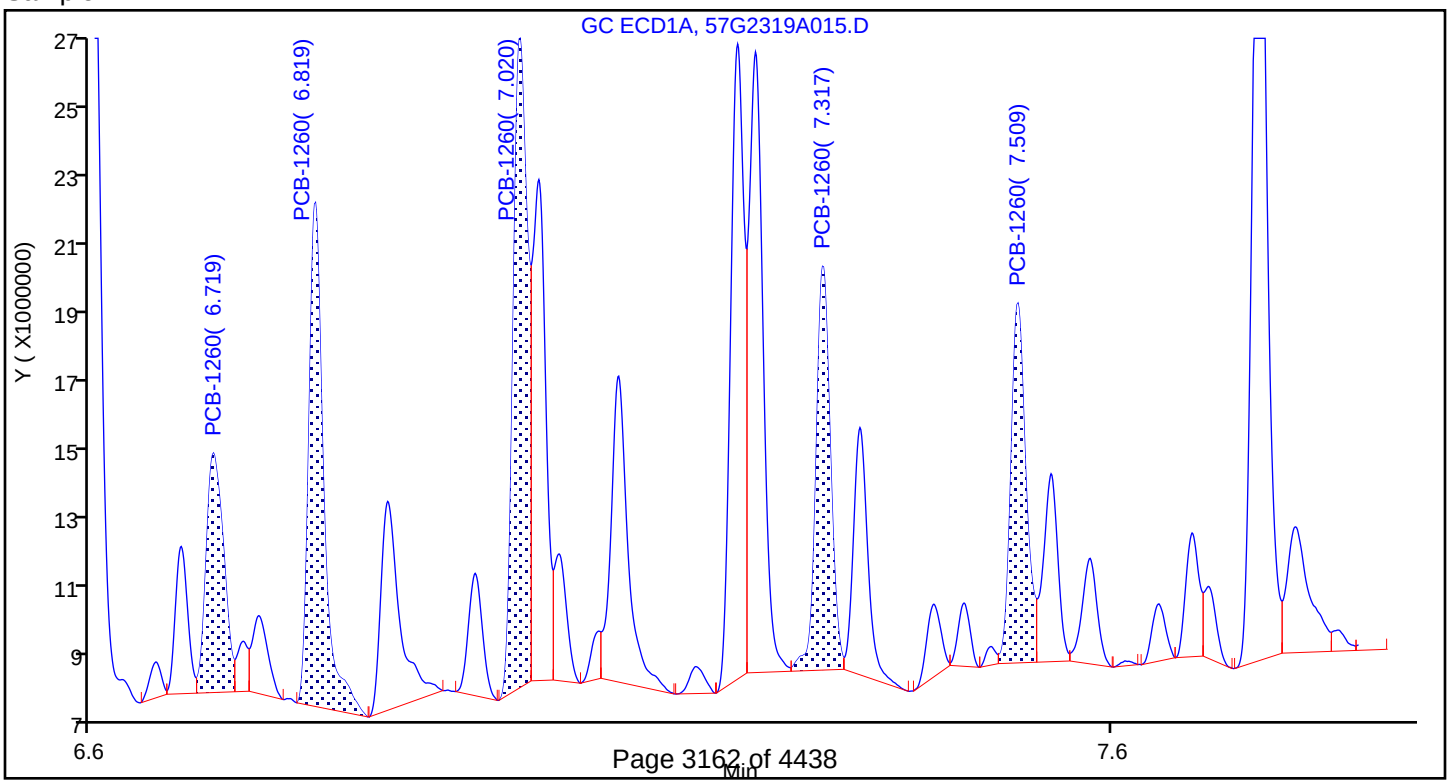
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A015.D				
Injection Date:	23-Jul-2019 11:00:58	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-G MS				
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	11	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



Report Date: 23-Jul-2019 15:13:30 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A015.D

Injection Date: 23-Jul-2019 11:00:58 Instrument ID: TAC057

Lims ID: 580-87706-A-5-G MS

Client ID: 22T-SG-12_20190716

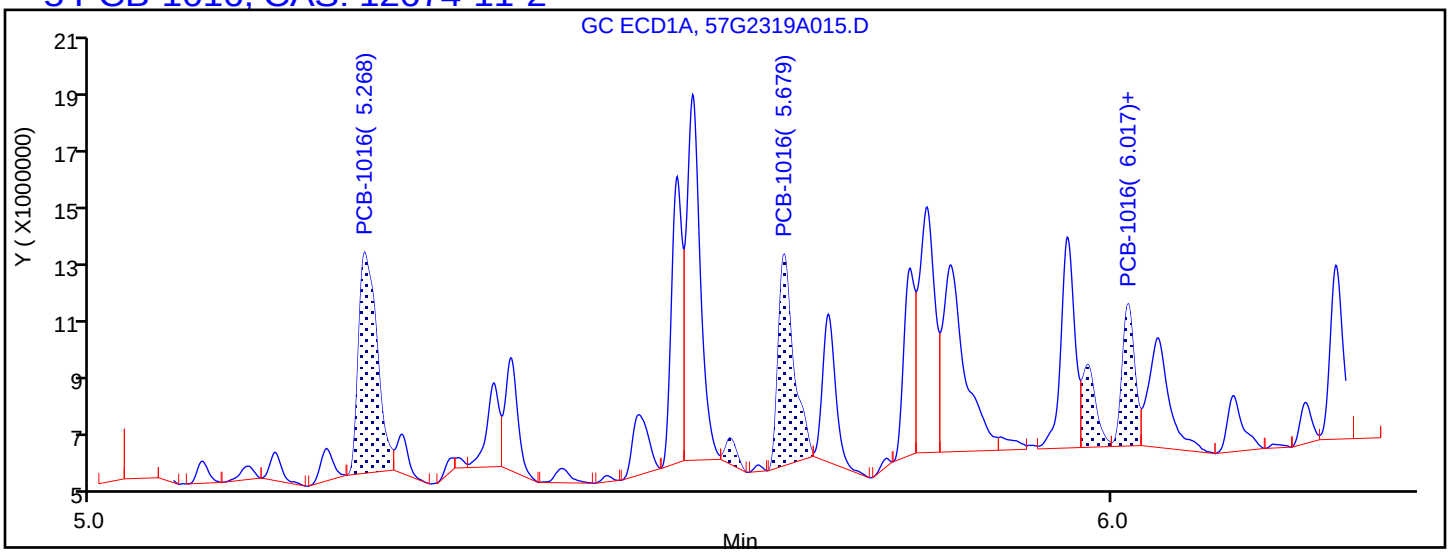
Operator ID: cjb ALS Bottle#: 11 Worklist Smp#: 14

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

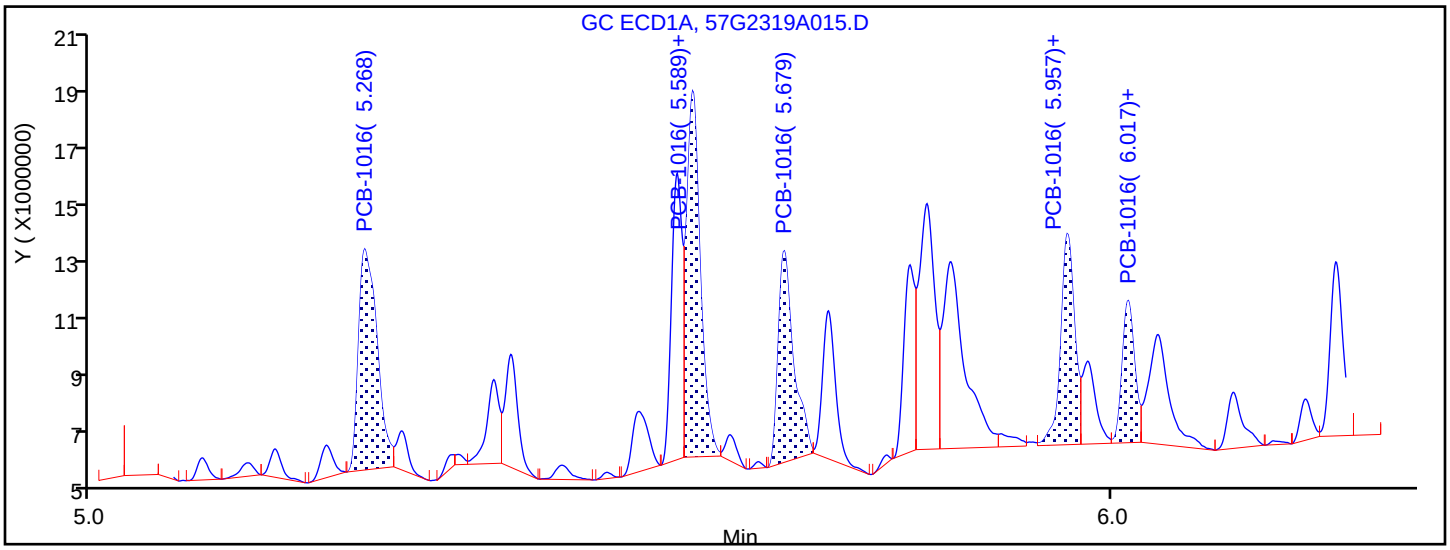
Column: ZB-CLPesticides-1 (0.25 mm) Detector GC ECD1A

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.268	Response = 9044862
5.626	Response = 654152
5.679	Response = 7270597
5.977	Response = 2493165
6.017	Response = 3946431



Manual Integration Results

5.268	Response = 9044862	
5.589	Response = 11074818	M
5.679	Response = 7270597	
5.957	Response = 6545011	M
6.017	Response = 3946431	

Reviewer: bohnc, 23-Jul-2019 15:09:44

Audit Action: Assigned Compound ID Audit Reason:

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 MSD Lab Sample ID: 580-87706-5 MSD

Matrix: Solid Lab File ID: 57G2319A016.D

Analysis Method: 8082A Date Collected: 07/16/2019 09:38

Extraction Method: 3550B Date Extracted: 07/19/2019 11:28

Sample wt/vol: 21.995(g) Date Analyzed: 07/23/2019 11:19

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ZB-CLPest-1 ID: 0.25(mm)

% Moisture: 60.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 306344 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	0.0181		0.0046	0.0017
11104-28-2	PCB-1221	ND		0.0046	0.0022
11141-16-5	PCB-1232	ND		0.0046	0.0022
53469-21-9	PCB-1242	ND		0.0046	0.0011
12672-29-6	PCB-1248	ND		0.0046	0.00083
11097-69-1	PCB-1254	ND		0.0046	0.0018
11096-82-5	PCB-1260	0.0211		0.0046	0.0018

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	71		39-142
877-09-8	Tetrachloro-m-xylene	59		35-129

Eurofins TestAmerica, Seattle
Target Compound Quantitation Report

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A016.D
Lims ID: 580-87706-A-5-H MSD
Client ID: 22T-SG-12_20190716
Sample Type: MSD
Inject. Date: 23-Jul-2019 11:19:01 ALS Bottle#: 12 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-A-5-H MSD
Misc. Info.: TBA
Operator ID: cjb Instrument ID: TAC057

Method: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m
Limit Group: 8082 and DOD ISTD PCBs
Last Update: 23-Jul-2019 15:13:27 Calib Date: 23-Dec-2018 06:22:06
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D

Column 1 : ZB-CLPesticides-1 (0.25 mm) Det: GC ECD1A
Column 2 : ZB-CLPesticides-2 (0.25 mm) Det: GC ECD2B
Process Host: CTX0322

First Level Reviewer: bohnc Date: 23-Jul-2019 15:11:17

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 46 1-Bromo-2-nitrobenzene							
1	4.108	4.109	-0.001	183184765	100.0	100.0	
2	4.450	4.451	-0.001	1686221886	100.0	100.0	
						RPD = 0.00	
S 3 Polychlorinated biphenyls, Total							
1						170.5	
2						146.3	
						RPD = 15.31	
$ 9 Tetrachloro-m-xylene							
1	4.755	4.758	-0.003	60010359	25.0	14.8	
2	5.192	5.193	-0.001	293342658	25.0	13.6	
						RPD = 8.73	
5 PCB-1016							a
1	5.268	5.280	-0.012	9683886	125.0	67.4	
1	5.590	5.609	-0.019	12030309	125.0	70.8	a
1	5.680	5.699	-0.019	7951607	125.0	70.7	
1	5.958	5.968	-0.010	7156147	125.0	86.5	a
1	6.017	6.030	-0.013	4499531	125.0	98.6	
		Average of Peak Amounts =				78.8	
2	5.870	5.876	-0.006	39712339	125.0	70.1	
2	6.211	6.220	-0.009	67462626	125.0	67.5	
2	6.313	6.320	-0.007	44948254	125.0	69.1	
2	6.664	6.669	-0.005	38422882	125.0	72.3	
2	6.762	6.766	-0.004	38194230	125.0	86.2	
		Average of Peak Amounts =				73.0	
						RPD = 7.62	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
26 PCB-1260							
1	6.720	6.724	-0.004	9083512	125.0	112.4	
1	6.819	6.824	-0.005	17119819	125.0	104.1	
1	7.020	7.028	-0.008	20938595	125.0	86.5	
1	7.318	7.322	-0.004	12221080	125.0	75.6	
1	7.508	7.513	-0.005	11710415	125.0	79.9	
		Average of Peak Amounts =				91.7	
2	7.515	7.518	-0.003	32556549	125.0	73.3	
2	7.643	7.645	-0.002	73196022	125.0	76.2	
2	7.938	7.939	-0.001	61304346	125.0	83.6	
2	8.165	8.168	-0.003	46498552	125.0	61.7	
2	8.420	8.422	-0.002	60384549	125.0	71.2	
		Average of Peak Amounts =				73.2	
						RPD = 22.39	
$ 43 DCB Decachlorobiphenyl							
1	8.855	8.855	0.000	52515679	25.0	17.8	
2	9.925	9.925	0.000	180977109	25.0	15.4	
						RPD = 14.39	
1 Hexachlorobutadiene							
1	2.666	2.658	0.008	320752		NR	
2	2.766	2.751	0.015	9376323		NR	
						RPD = 0.00	
4 Hexachlorobenzene							
1	4.323	4.326	-0.003	772345		NR	
2	4.528	4.522	0.006	6887155		NR	
						RPD = 0.00	
12 alpha-BHC							
1	4.422	4.410	0.012	1669261		NR	
2	4.600	4.599	0.001	2173956		NR	
						RPD = 0.00	
14 gamma-BHC (Lindane)							
1	4.548	4.563	-0.015	132014		NR	
2	4.827	4.821	0.006	2656412		NR	
						RPD = 0.00	
18 beta-BHC							
1	4.648	4.628	0.020	275068		NR	
2	4.869	4.846	0.023	3607634		NR	
						RPD = 0.00	
20 delta-BHC							
1	4.709	4.738	-0.029	112800		NR	
2	5.044	5.057	-0.013	2851564		NR	
						RPD = 0.00	
21 Heptachlor							
1	4.885	4.878	0.007	867693		NR	
2	5.079	5.072	0.007	2245273		NR	
						RPD = 0.00	
24 Aldrin							
1	5.041	5.035	0.006	3113204		NR	
2	5.273	5.244	0.029	738445		NR	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
11 oxy-Chlordane							
1	5.303	5.301	0.002	797487		NR	
2	5.570	5.561	0.009	36666757		NR	
						RPD = 0.00	
27 Heptachlor epoxide							
1	5.353	5.351	0.002	663613		NR	
2	5.602	5.606	-0.004	1200971		NR	
						RPD = 0.00	
13 2,4'-DDE							
1	5.394	5.389	0.005	2412549		NR	
2	5.678	5.681	-0.003	872629		NR	
						RPD = 0.00	
30 trans-Chlordane							
1	5.411	5.426	-0.015	3340113		NR	
2	5.692	5.670	0.022	887416		NR	
						RPD = 0.00	
15 trans-Nonachlor							
1	5.506	5.513	-0.007	123876		NR	
2	5.722	5.719	0.003	1233253		NR	
						RPD = 0.00	
25 4,4'-DDE							
1	5.573	5.571	0.002	7510504		NR	
2	5.805	5.791	0.014	15700479		NR	
						RPD = 0.00	
33 Endosulfan I							
1	5.590	5.588	0.002	12030309		NR	
2	5.870	5.858	0.012	39712339		NR	
						RPD = 0.00	
19 2,4'-DDD							
1	5.626	5.625	0.001	641456		NR	
2	5.947	5.955	-0.008	11114293		NR	
						RPD = 0.00	
36 Dieldrin							
1	5.723	5.740	-0.017	4520691		NR	
2	5.914	5.930	-0.016	6267608		NR	
						RPD = 0.00	
22 2,4'-DDT							
1	5.819	5.821	-0.002	9210276		NR	
2	6.147	6.146	0.001	6075210		NR	
						RPD = 0.00	
28 Endrin							
1	5.843	5.847	-0.004	8772347		NR	
2	6.123	6.112	0.011	9068221		NR	
						RPD = 0.00	
32 4,4'-DDD							
1	5.898	5.891	0.007	381693		NR	
2	6.193	6.189	0.004	50238699		NR	
						RPD = 0.00	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 Endosulfan II							
1	5.958	5.950	0.008	7156147		NR	
2	6.264	6.280	-0.016	2185668		NR	
						RPD = 0.00	
35 4,4'-DDT							
1	6.017	6.019	-0.002	4499531		NR	
2	6.393	6.393	0.000	25088579		NR	
						RPD = 0.00	
34 Endrin aldehyde							
1	6.221	6.219	0.002	5508095		NR	
2	6.426	6.437	-0.011	6332362		NR	
						RPD = 0.00	
42 Methoxychlor							
1	6.272	6.294	-0.022	868516		NR	
2	6.786	6.795	-0.009	7462831		NR	
						RPD = 0.00	
37 Mirex							
1	6.429	6.428	0.001	1349155		NR	
2	6.943	6.927	0.016	16651787		NR	
						RPD = 0.00	
41 Endosulfan sulfate							
1	6.463	6.450	0.013	8973904		NR	
2	6.583	6.588	-0.005	470262		NR	
						RPD = 0.00	
40 Endrin ketone							
1	6.603	6.591	0.012	25263583		NR	
2	6.986	6.975	0.011	41037827		NR	
						RPD = 0.00	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
a - User Assigned ID

Reagents:

8182_ISTD_ULT_00012	Amount Added: 10.00	Units: uL	Run Reagent
95% n-hexane_00097	Amount Added: 1.00	Units: mL	Run Reagent

Report Date: 23-Jul-2019 15:13:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A016.D

Injection Date: 23-Jul-2019 11:19:01 Instrument ID: TAC057

Lims ID: 580-87706-A-5-H MSD

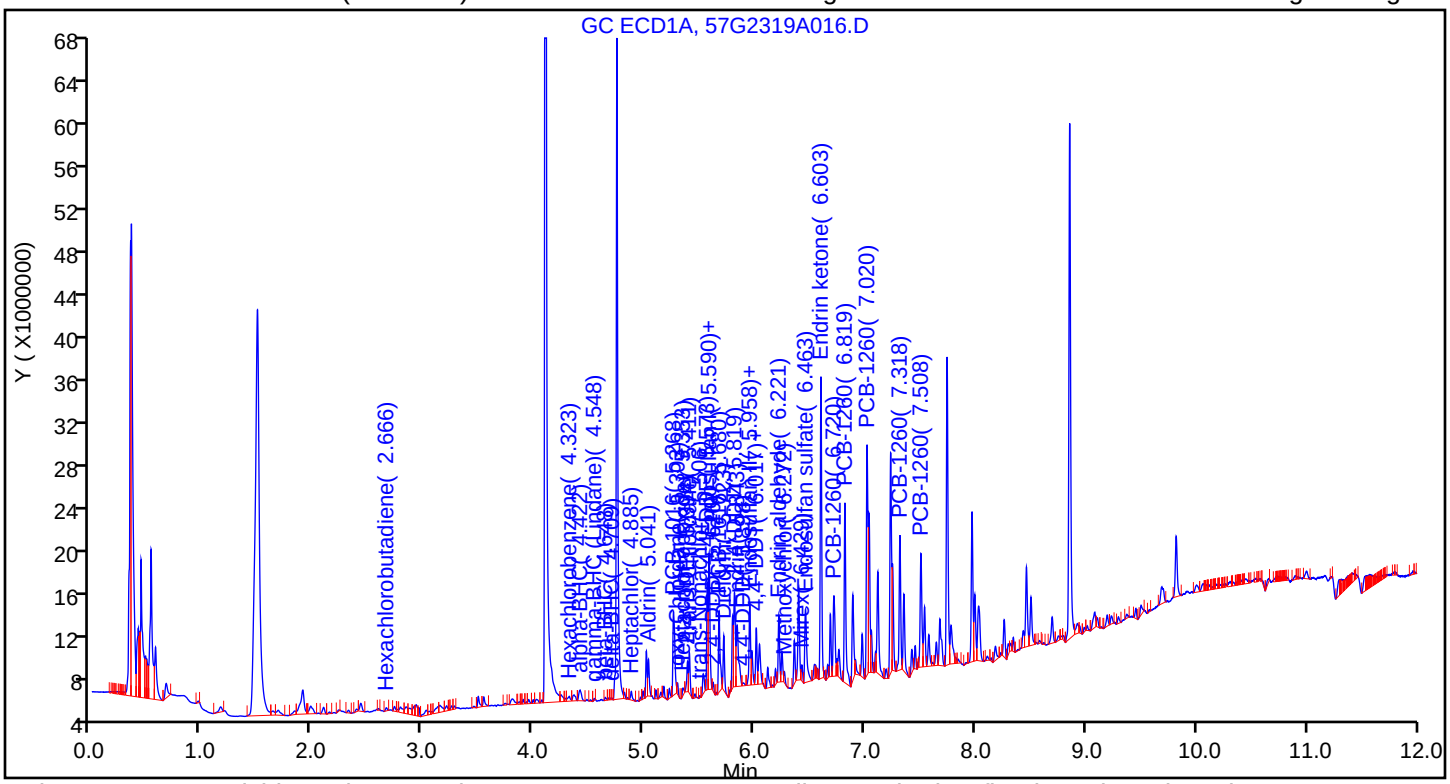
Client ID: 22T-SG-12_20190716

Operator ID: cjb ALS Bottle#: 12 Worklist Smp#: 15

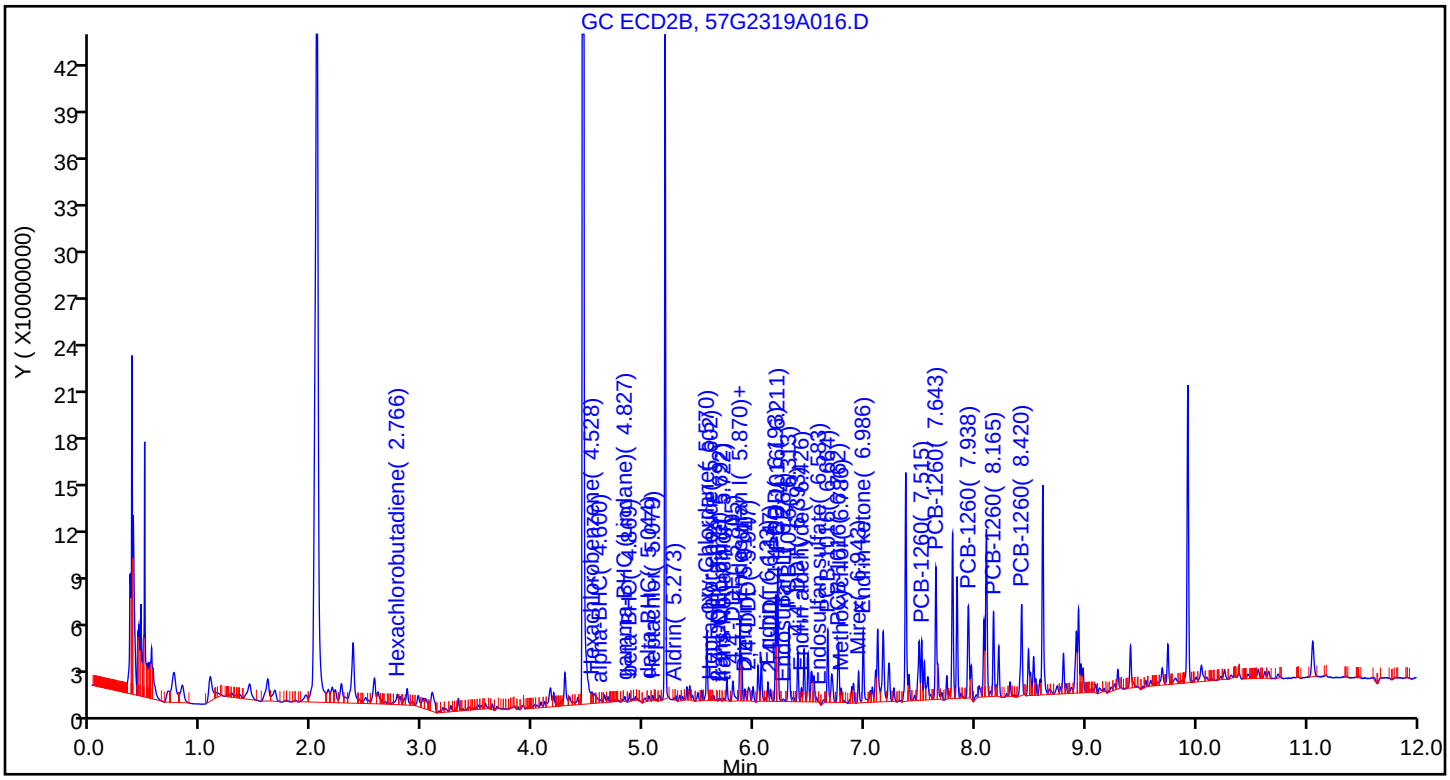
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 8182ISTD_TAC057 Limit Group: 8082 and DOD ISTD PCBs

Column: ZB-CLPesticides-1 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Column: ZB-CLPesticides-2 (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins TestAmerica, Seattle
Recovery Report

Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A016.D				
Lims ID:	580-87706-A-5-H MSD				
Client ID:	22T-SG-12_20190716				
Sample Type:	MSD				
Inject. Date:	23-Jul-2019 11:19:01	ALS Bottle#:	12	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-A-5-H MSD				
Misc. Info.:	TBA				
Operator ID:	cjb	Instrument ID:	TAC057		
Method:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\8182ISTD_TAC057.m				
Limit Group:	8082 and DOD ISTD PCBs				
Last Update:	23-Jul-2019 15:13:27	Calib Date:	23-Dec-2018 06:22:06		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Seattle\ChromData\TAC057\20181222-63195.b\57L2218B046.D				
Column 1 :	ZB-CLPesticides-1 (0.25 mm)		Det: GC ECD1A		
Column 2 :	ZB-CLPesticides-2 (0.25 mm)		Det: GC ECD2B		
Process Host:	CTX0322				
First Level Reviewer: bohnc		Date:	23-Jul-2019 15:11:17		

Surrogate Recovery, Detector: GC ECD1A

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	14.8	59.37
$ 43 DCB Decachlorobiphenyl	25.0	17.8	71.05

Surrogate Recovery, Detector: GC ECD2B

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 Tetrachloro-m-xylene	25.0	13.6	54.40
$ 43 DCB Decachlorobiphenyl	25.0	15.4	61.51

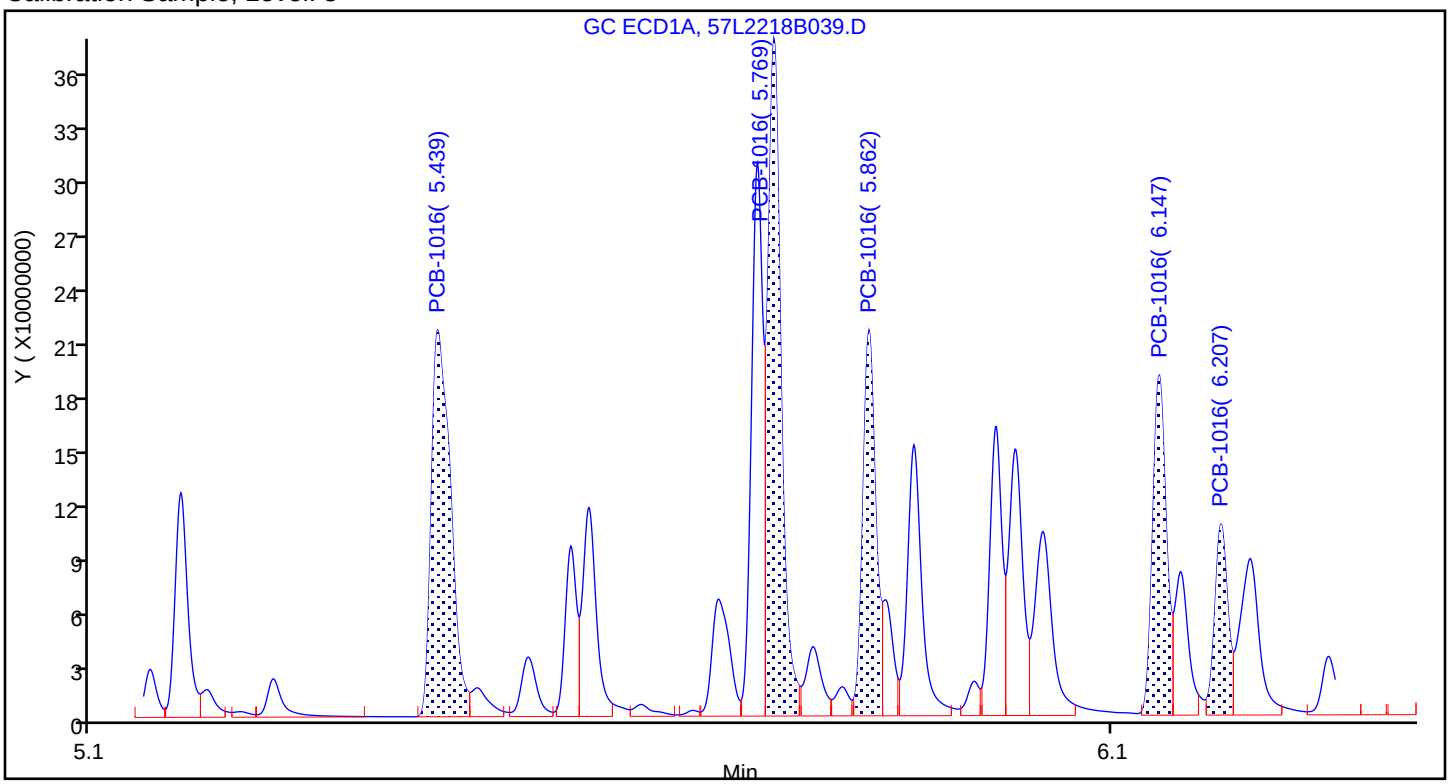
Report Date: 23-Jul-2019 15:13:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

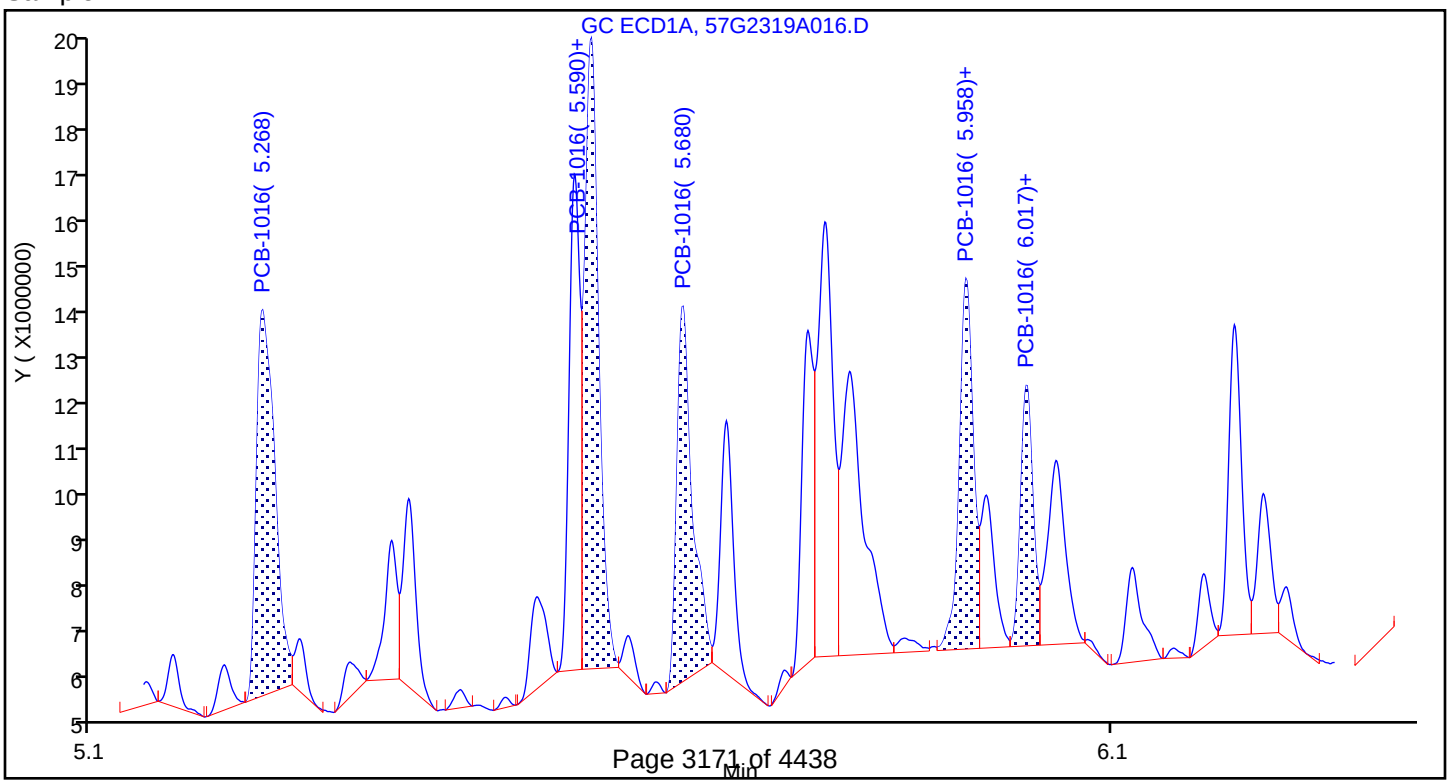
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A016.D				
Injection Date:	23-Jul-2019 11:19:01	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-H MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	12	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

5 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 8



Sample



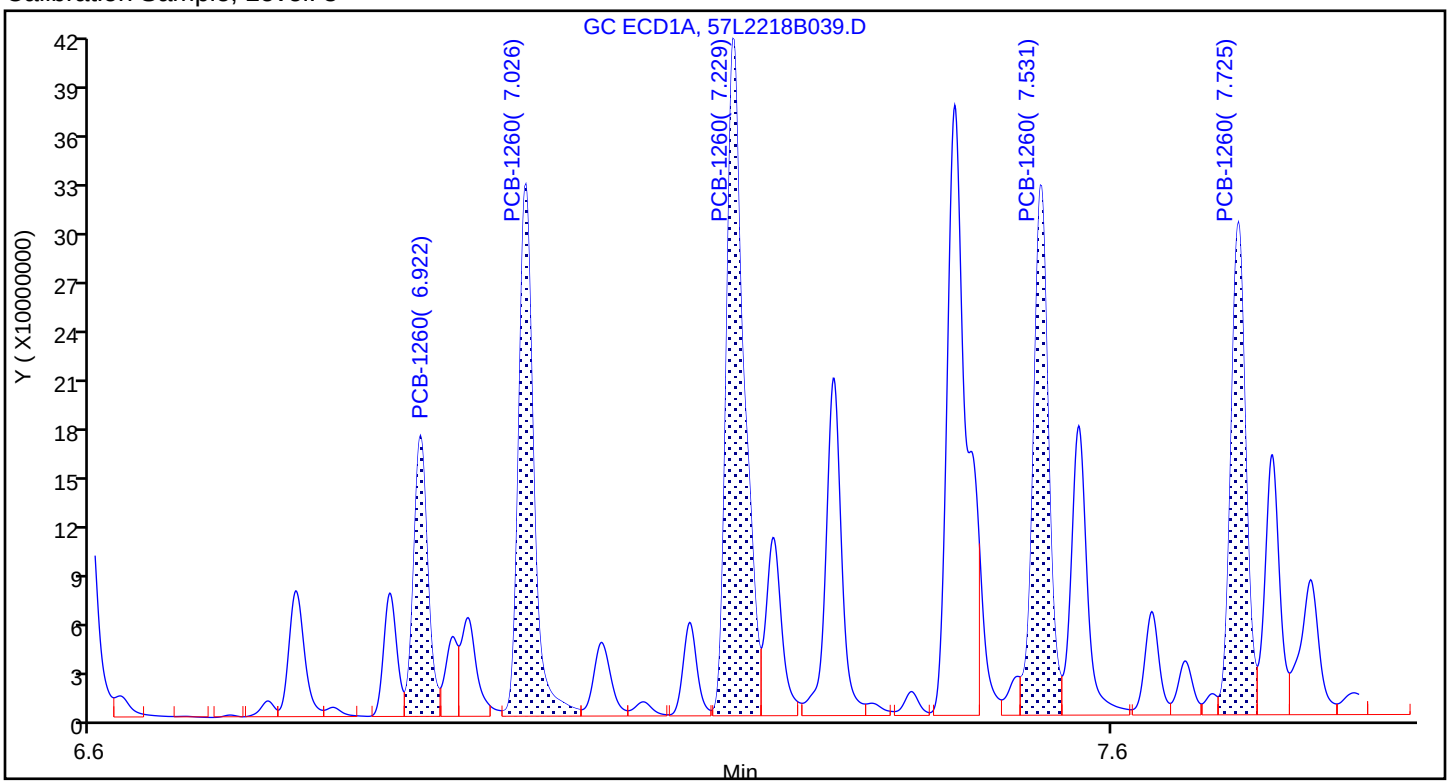
Report Date: 23-Jul-2019 15:13:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

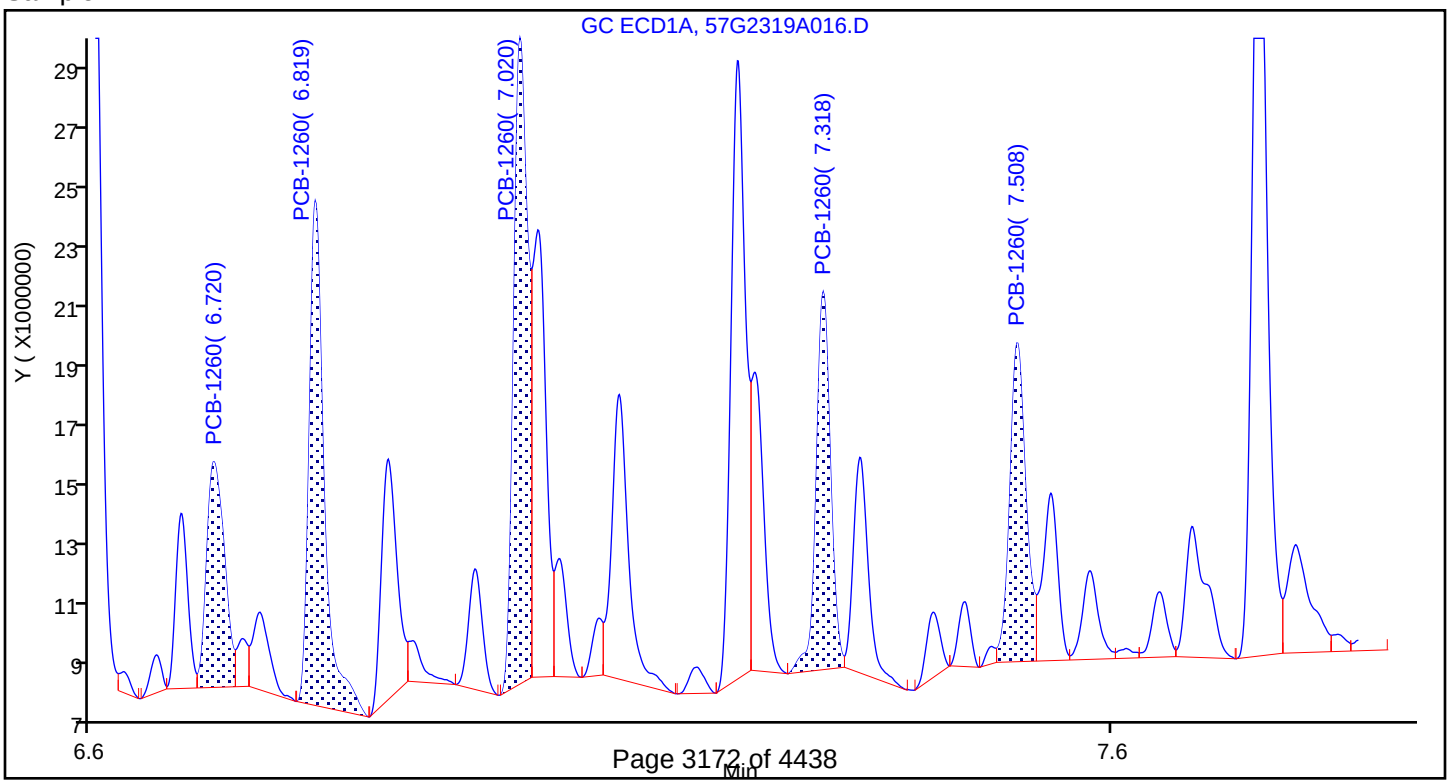
Data File:	\\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A016.D				
Injection Date:	23-Jul-2019 11:19:01	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-H MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	12	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

26 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 8



Sample



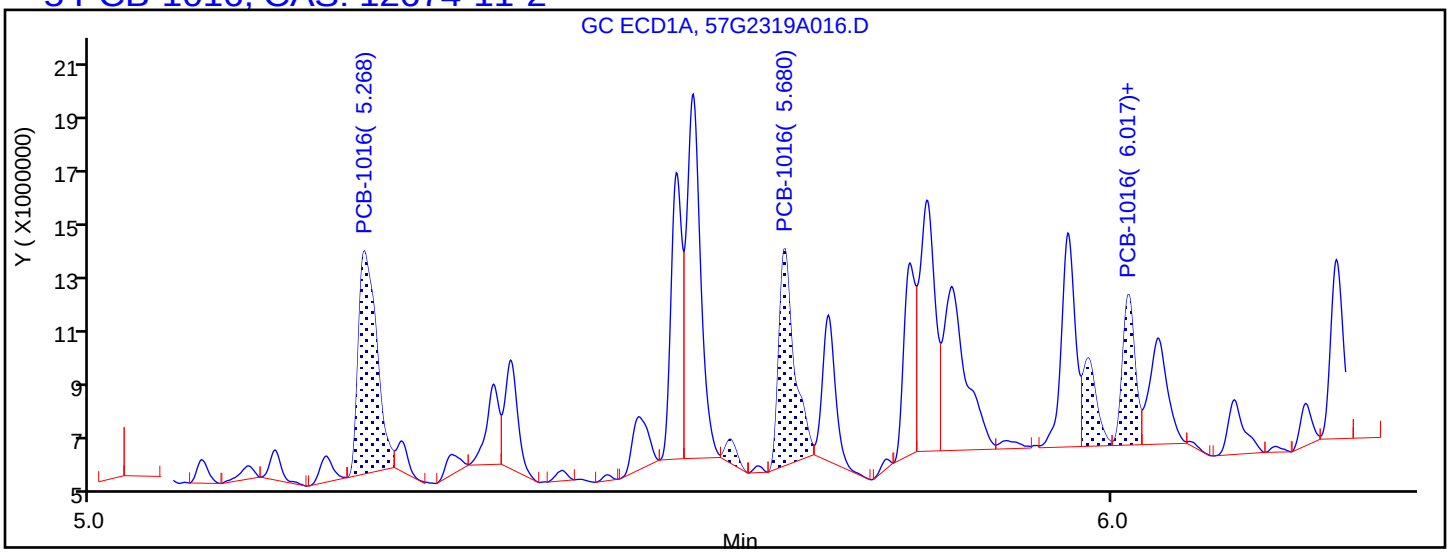
Report Date: 23-Jul-2019 15:13:32 Chrom Revision: 2.3 10-Jul-2019 14:12:46

Eurofins TestAmerica, Seattle

Data File: \\chromna\Seattle\ChromData\TAC057\20190723-66470.b\57G2319A016.D

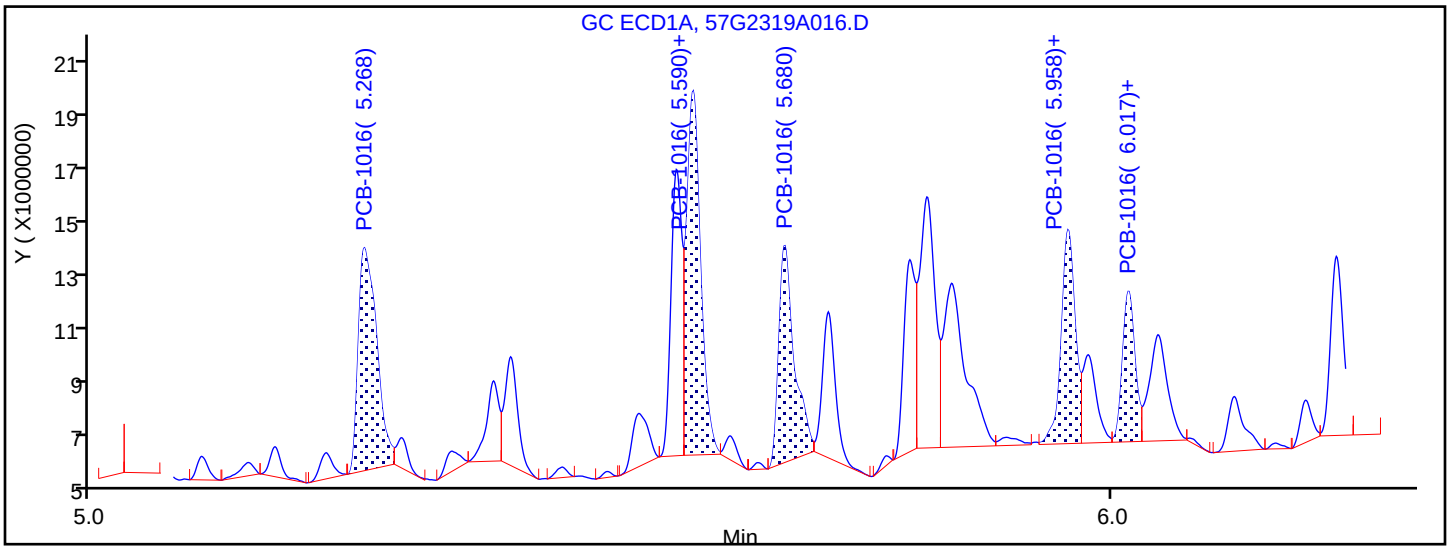
Injection Date:	23-Jul-2019 11:19:01	Instrument ID:	TAC057		
Lims ID:	580-87706-A-5-H MSD				
Client ID:	22T-SG-12_20190716				
Operator ID:	cjb	ALS Bottle#:	12	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8182ISTD_TAC057	Limit Group:	8082 and DOD ISTD PCBs		
Column:	ZB-CLPesticides-1 (0.25 mm)	Detector	GC ECD1A		

5 PCB-1016, CAS: 12674-11-2



Processing Integration Results

5.268	Response = 9683886
5.626	Response = 641456
5.680	Response = 7951607
5.978	Response = 2866256
6.017	Response = 4499531



Manual Integration Results

5.268	Response = 9683886	
5.590	Response = 12030309	M
5.680	Response = 7951607	
5.958	Response = 7156147	M
6.017	Response = 4499531	

Reviewer: bohnc, 23-Jul-2019 15:00:19

Audit Action: Assigned Compound ID Audit Reason:

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Start Date: 12/22/2018 17:47

Analysis Batch Number: 291937 End Date: 12/23/2018 06:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 580-291937/4		12/22/2018 17:47	1	57L2218B003.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/4		12/22/2018 17:47	1	57L2218B003.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/5		12/22/2018 18:04	1	57L2218B004.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/5		12/22/2018 18:04	1	57L2218B004.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/6		12/22/2018 18:22	1	57L2218B005.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/6		12/22/2018 18:22	1	57L2218B005.D	ZB-CLPest-2 0.25(mm)
ICIS 580-291937/7		12/22/2018 18:39	1	57L2218B006.D	ZB-CLPest-1 0.25(mm)
ICIS 580-291937/7		12/22/2018 18:39	1	57L2218B006.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/8		12/22/2018 18:57	1	57L2218B007.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/8		12/22/2018 18:57	1	57L2218B007.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/9		12/22/2018 19:15	1	57L2218B008.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/9		12/22/2018 19:15	1	57L2218B008.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/10		12/22/2018 19:32	1	57L2218B009.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/10		12/22/2018 19:32	1	57L2218B009.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/11		12/22/2018 19:50	1	57L2218B010.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/11		12/22/2018 19:50	1	57L2218B010.D	ZB-CLPest-2 0.25(mm)
ICV 580-291937/12		12/22/2018 20:07	1	57L2218B011.D	ZB-CLPest-1 0.25(mm)
ICV 580-291937/12		12/22/2018 20:07	1	57L2218B011.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/13		12/22/2018 20:25	1	57L2218B012.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/13		12/22/2018 20:25	1	57L2218B012.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/14		12/22/2018 20:42	1	57L2218B013.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/14		12/22/2018 20:42	1	57L2218B013.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/15		12/22/2018 21:00	1	57L2218B014.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/15		12/22/2018 21:00	1	57L2218B014.D	ZB-CLPest-2 0.25(mm)
ICIS 580-291937/16		12/22/2018 21:18	1	57L2218B015.D	ZB-CLPest-1 0.25(mm)
ICIS 580-291937/16		12/22/2018 21:18	1	57L2218B015.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/17		12/22/2018 21:35	1	57L2218B016.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/17		12/22/2018 21:35	1	57L2218B016.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/18		12/22/2018 21:53	1	57L2218B017.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/18		12/22/2018 21:53	1	57L2218B017.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/19		12/22/2018 22:10	1	57L2218B018.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/19		12/22/2018 22:10	1	57L2218B018.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/20		12/22/2018 22:28	1	57L2218B019.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/20		12/22/2018 22:28	1	57L2218B019.D	ZB-CLPest-2 0.25(mm)
ICV 580-291937/21		12/22/2018 22:45	1	57L2218B020.D	ZB-CLPest-1 0.25(mm)
ICV 580-291937/21		12/22/2018 22:45	1	57L2218B020.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/22		12/22/2018 23:03	1	57L2218B021.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/22		12/22/2018 23:03	1	57L2218B021.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/23		12/22/2018 23:20	1	57L2218B022.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/23		12/22/2018 23:20	1	57L2218B022.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/24		12/22/2018 23:38	1	57L2218B023.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/24		12/22/2018 23:38	1	57L2218B023.D	ZB-CLPest-2 0.25(mm)
ICIS 580-291937/25		12/22/2018 23:55	1	57L2218B024.D	ZB-CLPest-1 0.25(mm)
ICIS 580-291937/25		12/22/2018 23:55	1	57L2218B024.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/26		12/23/2018 00:13	1	57L2218B025.D	ZB-CLPest-1 0.25(mm)

8082A

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Start Date: 12/22/2018 17:47

Analysis Batch Number: 291937 End Date: 12/23/2018 06:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 580-291937/26		12/23/2018 00:13	1	57L2218B025.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/27		12/23/2018 00:30	1	57L2218B026.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/27		12/23/2018 00:30	1	57L2218B026.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/28		12/23/2018 00:48	1	57L2218B027.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/28		12/23/2018 00:48	1	57L2218B027.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/29		12/23/2018 01:06	1	57L2218B028.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/29		12/23/2018 01:06	1	57L2218B028.D	ZB-CLPest-2 0.25(mm)
ICV 580-291937/30		12/23/2018 01:23	1	57L2218B029.D	ZB-CLPest-1 0.25(mm)
ICV 580-291937/30		12/23/2018 01:23	1	57L2218B029.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/31		12/23/2018 01:41	1	57L2218B030.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/31		12/23/2018 01:41	1	57L2218B030.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/32		12/23/2018 01:58	1	57L2218B031.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/32		12/23/2018 01:58	1	57L2218B031.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/33		12/23/2018 02:16	1	57L2218B032.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/33		12/23/2018 02:16	1	57L2218B032.D	ZB-CLPest-2 0.25(mm)
ICIS 580-291937/34		12/23/2018 02:33	1	57L2218B033.D	ZB-CLPest-1 0.25(mm)
ICIS 580-291937/34		12/23/2018 02:33	1	57L2218B033.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/35		12/23/2018 02:51	1	57L2218B034.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/35		12/23/2018 02:51	1	57L2218B034.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/36		12/23/2018 03:09	1	57L2218B035.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/36		12/23/2018 03:09	1	57L2218B035.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/37		12/23/2018 03:26	1	57L2218B036.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/37		12/23/2018 03:26	1	57L2218B036.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/38		12/23/2018 03:44	1	57L2218B037.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/38		12/23/2018 03:44	1	57L2218B037.D	ZB-CLPest-2 0.25(mm)
ICV 580-291937/39		12/23/2018 04:01	1	57L2218B038.D	ZB-CLPest-1 0.25(mm)
ICV 580-291937/39		12/23/2018 04:01	1	57L2218B038.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/40		12/23/2018 04:19	1	57L2218B039.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/40		12/23/2018 04:19	1	57L2218B039.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/41		12/23/2018 04:36	1	57L2218B040.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/41		12/23/2018 04:36	1	57L2218B040.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/42		12/23/2018 04:54	1	57L2218B041.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/42		12/23/2018 04:54	1	57L2218B041.D	ZB-CLPest-2 0.25(mm)
ICIS 580-291937/43		12/23/2018 05:11	1	57L2218B042.D	ZB-CLPest-1 0.25(mm)
ICIS 580-291937/43		12/23/2018 05:11	1	57L2218B042.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/44		12/23/2018 05:29	1	57L2218B043.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/44		12/23/2018 05:29	1	57L2218B043.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/45		12/23/2018 05:47	1	57L2218B044.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/45		12/23/2018 05:47	1	57L2218B044.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/46		12/23/2018 06:04	1	57L2218B045.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/46		12/23/2018 06:04	1	57L2218B045.D	ZB-CLPest-2 0.25(mm)
IC 580-291937/47		12/23/2018 06:22	1	57L2218B046.D	ZB-CLPest-1 0.25(mm)
IC 580-291937/47		12/23/2018 06:22	1	57L2218B046.D	ZB-CLPest-2 0.25(mm)
ICV 580-291937/48		12/23/2018 06:39	1	57L2218B047.D	ZB-CLPest-1 0.25(mm)
ICV 580-291937/48		12/23/2018 06:39	1	57L2218B047.D	ZB-CLPest-2 0.25(mm)

8082A

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Start Date: 07/23/2019 08:00

Analysis Batch Number: 306344 End Date: 07/23/2019 15:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 580-306344/4		07/23/2019 08:00	1	57G2319A005.D	ZB-CLPest-1 0.25(mm)
CCV 580-306344/4		07/23/2019 08:00	1	57G2319A005.D	ZB-CLPest-2 0.25(mm)
CCV 580-306344/5		07/23/2019 08:18	1	57G2319A006.D	ZB-CLPest-1 0.25(mm)
CCV 580-306344/5		07/23/2019 08:18	1	57G2319A006.D	ZB-CLPest-2 0.25(mm)
CCV 580-306344/6		07/23/2019 08:36	1	57G2319A007.D	ZB-CLPest-1 0.25(mm)
CCV 580-306344/6		07/23/2019 08:36	1	57G2319A007.D	ZB-CLPest-2 0.25(mm)
CCV 580-306344/7		07/23/2019 08:54	1	57G2319A008.D	ZB-CLPest-1 0.25(mm)
CCV 580-306344/7		07/23/2019 08:54	1	57G2319A008.D	ZB-CLPest-2 0.25(mm)
CCVIS 580-306344/8		07/23/2019 09:12	1	57G2319A009.D	ZB-CLPest-1 0.25(mm)
CCVIS 580-306344/8		07/23/2019 09:12	1	57G2319A009.D	ZB-CLPest-2 0.25(mm)
CCB 580-306344/9		07/23/2019 09:30	1	57G2319A010.D	ZB-CLPest-1 0.25(mm)
CCB 580-306344/9		07/23/2019 09:30	1	57G2319A010.D	ZB-CLPest-2 0.25(mm)
MB 580-306126/1-A		07/23/2019 09:48	1	57G2319A011.D	ZB-CLPest-1 0.25(mm)
MB 580-306126/1-A		07/23/2019 09:48	1	57G2319A011.D	ZB-CLPest-2 0.25(mm)
LCS 580-306126/3-A		07/23/2019 10:06	1	57G2319A012.D	ZB-CLPest-1 0.25(mm)
LCS 580-306126/3-A		07/23/2019 10:06	1	57G2319A012.D	ZB-CLPest-2 0.25(mm)
ZZZZZ		07/23/2019 10:24	1		ZB-CLPest-1 0.25(mm)
ZZZZZ		07/23/2019 10:24	1		ZB-CLPest-2 0.25(mm)
580-87706-5		07/23/2019 10:42	1	57G2319A014.D	ZB-CLPest-1 0.25(mm)
580-87706-5		07/23/2019 10:42	1	57G2319A014.D	ZB-CLPest-2 0.25(mm)
580-87706-5 MS		07/23/2019 11:00	1	57G2319A015.D	ZB-CLPest-1 0.25(mm)
580-87706-5 MS		07/23/2019 11:00	1	57G2319A015.D	ZB-CLPest-2 0.25(mm)
580-87706-5 MSD		07/23/2019 11:19	1	57G2319A016.D	ZB-CLPest-1 0.25(mm)
580-87706-5 MSD		07/23/2019 11:19	1	57G2319A016.D	ZB-CLPest-2 0.25(mm)
580-87706-1		07/23/2019 11:37	1	57G2319A017.D	ZB-CLPest-1 0.25(mm)
580-87706-1		07/23/2019 11:37	1	57G2319A017.D	ZB-CLPest-2 0.25(mm)
580-87706-2		07/23/2019 11:55	1	57G2319A018.D	ZB-CLPest-1 0.25(mm)
580-87706-2		07/23/2019 11:55	1	57G2319A018.D	ZB-CLPest-2 0.25(mm)
580-87706-3		07/23/2019 12:13	1	57G2319A019.D	ZB-CLPest-1 0.25(mm)
580-87706-3		07/23/2019 12:13	1	57G2319A019.D	ZB-CLPest-2 0.25(mm)
580-87706-4		07/23/2019 12:31	1	57G2319A020.D	ZB-CLPest-1 0.25(mm)
580-87706-4		07/23/2019 12:31	1	57G2319A020.D	ZB-CLPest-2 0.25(mm)
580-87706-6		07/23/2019 12:49	1	57G2319A021.D	ZB-CLPest-1 0.25(mm)
580-87706-6		07/23/2019 12:49	1	57G2319A021.D	ZB-CLPest-2 0.25(mm)
580-87706-7		07/23/2019 13:07	1	57G2319A022.D	ZB-CLPest-1 0.25(mm)
580-87706-7		07/23/2019 13:07	1	57G2319A022.D	ZB-CLPest-2 0.25(mm)
580-87706-8		07/23/2019 13:25	1	57G2319A023.D	ZB-CLPest-1 0.25(mm)
580-87706-8		07/23/2019 13:25	1	57G2319A023.D	ZB-CLPest-2 0.25(mm)
580-87706-9		07/23/2019 13:43	1	57G2319A024.D	ZB-CLPest-1 0.25(mm)
580-87706-9		07/23/2019 13:43	1	57G2319A024.D	ZB-CLPest-2 0.25(mm)
580-87706-10		07/23/2019 14:01	1	57G2319A025.D	ZB-CLPest-1 0.25(mm)
580-87706-10		07/23/2019 14:01	1	57G2319A025.D	ZB-CLPest-2 0.25(mm)
580-87706-11		07/23/2019 14:19	1	57G2319A026.D	ZB-CLPest-1 0.25(mm)
580-87706-11		07/23/2019 14:19	1	57G2319A026.D	ZB-CLPest-2 0.25(mm)
580-87706-12		07/23/2019 14:37	1	57G2319A027.D	ZB-CLPest-1 0.25(mm)

8082A

PCBS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC057 Start Date: 07/23/2019 08:00

Analysis Batch Number: 306344 End Date: 07/23/2019 15:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
580-87706-12		07/23/2019 14:37	1	57G2319A027.D	ZB-CLPest-2 0.25(mm)
580-87706-13		07/23/2019 14:55	1	57G2319A028.D	ZB-CLPest-1 0.25(mm)
580-87706-13		07/23/2019 14:55	1	57G2319A028.D	ZB-CLPest-2 0.25(mm)
580-87706-14		07/23/2019 15:13	1	57G2319A029.D	ZB-CLPest-1 0.25(mm)
580-87706-14		07/23/2019 15:13	1	57G2319A029.D	ZB-CLPest-2 0.25(mm)
580-87706-15		07/23/2019 15:32	1	57G2319A030.D	ZB-CLPest-1 0.25(mm)
580-87706-15		07/23/2019 15:32	1	57G2319A030.D	ZB-CLPest-2 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306126 Batch Start Date: 07/19/19 11:28 Batch Analyst: Guerra, Fernando C

Batch Method: 3550B Batch End Date: 07/22/19 19:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LVI PCB Spk 00019	LVI81/82_Surr 00027	AnalysisComment	
MB 580-306126/1		3550B, 8082A		20 g	2 mL		100 uL		
LCS 580-306126/3		3550B, 8082A		20 g	2 mL	100 uL	100 uL	82	
580-87706-A-1	22T-SG-17_20190716	3550B, 8082A	T	23.034 g	2 mL		100 uL		
580-87706-A-2	22T-SG-18_20190716	3550B, 8082A	T	21.050 g	2 mL		100 uL		
580-87706-A-3	22T-SG-11_20190716	3550B, 8082A	T	21.515 g	2 mL		100 uL		
580-87706-A-4	22T-SG-11-D_20190716	3550B, 8082A	T	20.477 g	2 mL		100 uL		
580-87706-A-5	22T-SG-12_20190716	3550B, 8082A	T	20.368 g	2 mL		100 uL		
580-87706-A-5 MS	22T-SG-12_20190716	3550B, 8082A	T	22.914 g	2 mL	100 uL	100 uL	82	
580-87706-A-5 MSD	22T-SG-12_20190716	3550B, 8082A	T	21.995 g	2 mL	100 uL	100 uL	82	
580-87706-A-6	22T-SG-19_20190716	3550B, 8082A	T	20.739 g	2 mL		100 uL		
580-87706-A-7	22T-SG-20_20190716	3550B, 8082A	T	21.669 g	2 mL		100 uL		
580-87706-A-8	22T-SG-15_20190716	3550B, 8082A	T	21.311 g	2 mL		100 uL		
580-87706-A-9	22T-SG-14_20190716	3550B, 8082A	T	20.377 g	2 mL		100 uL		
580-87706-A-10	22T-SG-13_20190716	3550B, 8082A	T	20.081 g	2 mL		100 uL		
580-87706-A-11	22T-SG-22_20190716	3550B, 8082A	T	22.662 g	2 mL		100 uL		
580-87706-A-12	22T-SG-23_20190716	3550B, 8082A	T	21.590 g	2 mL		100 uL		
580-87706-A-13	22T-SG-10_20190716	3550B, 8082A	T	20.515 g	2 mL		100 uL		
580-87706-A-14	22T-SG-21_20190716	3550B, 8082A	T	21.660 g	2 mL		100 uL		
580-87706-A-15	22T-SG-16_20190716	3550B, 8082A	T	22.863 g	2 mL		100 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306126 Batch Start Date: 07/19/19 11:28 Batch Analyst: Guerra, Fernando C

Batch Method: 3550B Batch End Date: 07/22/19 19:45

Batch Notes	
Acid used for Clean Up ID	2402719
Balance ID	SEA232 No Unit
Batch Comment	Vialed by: FCG Hydromatrix ID: 2386636
Blank Matrix ID	2431714
Analyst ID - Concentration	MT
Concentration 1 Corrected Temperature	90+ Degrees C
Concentration 2 Corrected Temperature	ambient Degrees C
Analyst ID - Clean Up	FCG
Equipment ID - Concentration 1	Steam Bath 1
Equipment ID - Concentration 2	N-EVAP 1
Exchange Solvent ID	2398331
Analyst ID - Extraction	MT
Filter ID	09-795F
Method/Fraction	3550B/8081/8082
Na2SO4 ID	2424043
Nominal Amount Used	20 g
Pipette/Syringe/Dispenser ID	MP2
Prep Solvent ID	1;1DCM:ACE 2399544
Sonicator ID#	48738T, 48741T, 18252F, S/N148151B, S/N20558
Analyst ID - Spike Analyst	FCG
Analyst ID - Spike Witness Analyst	MT
Sufficient Volume for Batch QC	Yes
Thermometer ID - Concentration 1	61013-040-1
Thermometer ID - Concentration 2	TAC001
Concentration 1 Uncorrected Temperature	90+ Degrees C
Concentration 2 Uncorrected Temperature	ambient Degrees C
Vial Lot Number	18137413

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 1613B

Dioxins and Furans (HRGC/HRMS) by Method 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	TCDD #	37TCDD #	PeCDF #	PeCF #	PeCDD #	HxCDF #	HxDF #	13CHxCF #
22T-SG-18_20190716	580-87706-2	66	94	69	69	68	68	59	64
22T-SG-19_20190716	580-87706-6	67	98	72	73	71	71	62	66
22T-SG-14_20190716	580-87706-9	69	98	73	73	73	69	62	66
22T-SG-22_20190716	580-87706-11	69	98	72	73	73	71	62	65
22T-SG-10_20190716	580-87706-13	67	94	72	70	71	68	60	63
22T-SG-21_20190716	580-87706-14	67	96	76	76	76	72	62	64
22T-SG-16_20190716	580-87706-15	69	94	77	78	75	69	60	65

	QC LIMITS
TCDD = 13C-2,3,7,8-TCDD	25-164
37TCDD = 37Cl4-2,3,7,8-TCDD	35-197
PeCDF = 13C-1,2,3,7,8-PeCDF	24-185
PeCF = 13C-2,3,4,7,8-PeCDF	21-178
PeCDD = 13C-1,2,3,7,8-PeCDD	25-181
HxCDF = 13C-1,2,3,4,7,8-HxCDF	26-152
HxDF = 13C-1,2,3,6,7,8-HxCDF	26-123
13CHxCF = 13C-2,3,4,6,7,8-HxCDF	28-136

Column to be used to flag recovery values

FORM II 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	HxCDD #	HxDD #	HxCF #	HpCDF #	HpCDD #	HpCDF2 #	OCDD #
22T-SG-18_20190716	580-87706-2	58	59	68	64	65	75	66
22T-SG-19_20190716	580-87706-6	63	65	73	71	68	79	74
22T-SG-14_20190716	580-87706-9	62	62	71	66	62	75	67
22T-SG-22_20190716	580-87706-11	62	62	73	69	68	77	68
22T-SG-10_20190716	580-87706-13	60	62	71	66	66	77	66
22T-SG-21_20190716	580-87706-14	67	61	72	65	65	70	66
22T-SG-16_20190716	580-87706-15	62	63	72	66	66	74	66

	QC LIMITS
HxCDD = 13C-1,2,3,4,7,8-HxCDD	32-141
HxDD = 13C-1,2,3,6,7,8-HxCDD	28-130
HxCF = 13C-1,2,3,7,8,9-HxCDF	29-147
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF	28-143
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD	23-140
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF	26-138
OCDD = 13C-OCDD	17-157

Column to be used to flag recovery values

FORM II 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	TCDF #	TCDD #	37TCDD #	PeCDF #	PeCF #	PeCDD #	HxCDF #	HxDF #
	LCS 320-308663/2-A	71	67	95	72	71	72	74	67
	LCSD 320-308663/3-A	74	71	96	76	74	76	75	67

	QC LIMITS
TCDF = 13C-2,3,7,8-TCDF	22-152
TCDD = 13C-2,3,7,8-TCDD	20-175
37TCDD = 37Cl4-2,3,7,8-TCDD	31-191
PeCDF = 13C-1,2,3,7,8-PeCDF	21-192
PeCF = 13C-2,3,4,7,8-PeCDF	13-328
PeCDD = 13C-1,2,3,7,8-PeCDD	21-227
HxCDF = 13C-1,2,3,4,7,8-HxCDF	19-202
HxDF = 13C-1,2,3,6,7,8-HxCDF	21-159

Column to be used to flag recovery values

FORM II 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	13CHxCF #	HxCDD #	HxDD #	HxCF #	HpCDF #	HpCDD #	HpCDF2 #	OCDD #
	LCS 320-308663/2-A	68	62	60	74	76	72	81	79
	LCSD 320-308663/3-A	70	64	68	77	78	77	86	84

	QC LIMITS
13CHxCF = 13C-2,3,4,6,7,8-HxCDF	22-176
HxCDD = 13C-1,2,3,4,7,8-HxCDD	21-193
HxDD = 13C-1,2,3,6,7,8-HxCDD	25-163
HxCF = 13C-1,2,3,7,8,9-HxCDF	17-205
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF	21-158
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD	26-166
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF	20-186
OCDD = 13C-OCDD	13-199

Column to be used to flag recovery values

FORM II 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-225 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	TCDF #	37TCDD #
22T-SG-18_20190716 RA	580-87706-2 RA	73	82
22T-SG-19_20190716 RA	580-87706-6 RA	71	84
22T-SG-14_20190716 RA	580-87706-9 RA	73	80
22T-SG-22_20190716 RA	580-87706-11 RA	76	83
22T-SG-10_20190716 RA	580-87706-13 RA	74	85
22T-SG-21_20190716 RA	580-87706-14 RA	78	89
22T-SG-16_20190716 RA	580-87706-15 RA	77	87

	QC LIMITS
TCDF = 13C-2,3,7,8-TCDF	24-169
37TCDD = 37Cl4-2,3,7,8-TCDD	35-197

Column to be used to flag recovery values

FORM II 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	TCDF #	TCDD #	37TCDD #	PeCDF #	PeCF #	PeCDD #	HxCDF #	HxDF #
22T-SG-17_20190716	580-87706-1	75	71	92	72	71	72	74	64
22T-SG-11_20190716	580-87706-3	75	69	92	74	74	75	74	63
22T-SG-11-D_20190716	580-87706-4	67	65	96	69	67	68	67	60
22T-SG-12_20190716	580-87706-5	73	68	94	72	72	70	72	63
22T-SG-20_20190716	580-87706-7	76	71	97	76	75	75	73	62
22T-SG-15_20190716	580-87706-8	73	67	92	72	72	72	71	64
22T-SG-13_20190716	580-87706-10	73	68	98	75	74	76	71	62
22T-SG-23_20190716	580-87706-12	74	72	96	77	78	78	76	67
	MB 320-308663/1-A	75	71	95	75	75	75	80	71

	QC LIMITS
TCDF = 13C-2,3,7,8-TCDF	24-169
TCDD = 13C-2,3,7,8-TCDD	25-164
37TCDD = 37Cl4-2,3,7,8-TCDD	35-197
PeCDF = 13C-1,2,3,7,8-PeCDF	24-185
PeCF = 13C-2,3,4,7,8-PeCDF	21-178
PeCDD = 13C-1,2,3,7,8-PeCDD	25-181
HxCDF = 13C-1,2,3,4,7,8-HxCDF	26-152
HxDF = 13C-1,2,3,6,7,8-HxCDF	26-123

Column to be used to flag recovery values

FORM II 1613B

FORM II
DIOXIN SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-5 ID: 0.32(mm)

Client Sample ID	Lab Sample ID	13CHxCF #	HxCDD #	HxDD #	HxCF #	HpCDF #	HpCDD #	HpCDF2 #	OCDD #
22T-SG-17_20190716	580-87706-1	69	65	64	76	72	72	81	74
22T-SG-11_20190716	580-87706-3	67	61	64	76	68	70	81	70
22T-SG-11-D_20190716	580-87706-4	62	58	62	70	70	70	78	75
22T-SG-12_20190716	580-87706-5	66	61	61	73	68	70	78	71
22T-SG-20_20190716	580-87706-7	68	64	66	75	71	71	79	73
22T-SG-15_20190716	580-87706-8	66	61	65	74	70	71	80	70
22T-SG-13_20190716	580-87706-10	63	63	64	74	69	69	78	71
22T-SG-23_20190716	580-87706-12	70	65	69	77	76	73	86	77
	MB 320-308663/1-A	74	67	71	80	82	72	86	84

	QC LIMITS
13CHxCF = 13C-2,3,4,6,7,8-HxCDF	28-136
HxCDD = 13C-1,2,3,4,7,8-HxCDD	32-141
HxDD = 13C-1,2,3,6,7,8-HxCDD	28-130
HxCF = 13C-1,2,3,7,8,9-HxCDF	29-147
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF	28-143
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD	23-140
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF	26-138
OCDD = 13C-OCDD	17-157

Column to be used to flag recovery values

FORM II 1613B

FORM III
DIOXIN LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 19JL19A3D5_55.d

Lab ID: LCS 320-308663/2-A Client ID:

COMPOUND	SPIKE ADDED (pg/g)	LCS CONCENTRATION (pg/g)	LCS % REC	QC LIMITS REC	#
2,3,7,8-TCDD	20.0	21.6	108	67-158	
2,3,7,8-TCDF	20.0	21.2	106	75-158	
1,2,3,7,8-PeCDD	100	108	108	70-142	
1,2,3,7,8-PeCDF	100	112	112	80-134	
2,3,4,7,8-PeCDF	100	114	114	68-160	
1,2,3,4,7,8-HxCDD	100	108	108	70-164	
1,2,3,6,7,8-HxCDD	100	114	114	76-134	
1,2,3,7,8,9-HxCDD	100	120	120	64-162	
1,2,3,4,7,8-HxCDF	100	101	101	72-134	
1,2,3,6,7,8-HxCDF	100	107	107	84-130	
1,2,3,7,8,9-HxCDF	100	110	110	78-130	
2,3,4,6,7,8-HxCDF	100	106	106	70-156	
1,2,3,4,6,7,8-HpCDD	100	112	112	70-140	
1,2,3,4,6,7,8-HpCDF	100	109	109	82-122	
1,2,3,4,7,8,9-HpCDF	100	107	107	78-138	
OCDD	200	214	107	78-144	
OCDF	200	216	108	63-170	
13C-2,3,7,8-TCDD	200	134	67	20-175	
13C-2,3,7,8-TCDF	200	142	71	22-152	
13C-1,2,3,7,8-PeCDD	200	143	72	21-227	
13C-1,2,3,7,8-PeCDF	200	144	72	21-192	
13C-2,3,4,7,8-PeCDF	200	142	71	13-328	
13C-1,2,3,4,7,8-HxCDD	200	124	62	21-193	
13C-1,2,3,6,7,8-HxCDD	200	121	60	25-163	
13C-1,2,3,4,7,8-HxCDF	200	149	74	19-202	
13C-1,2,3,6,7,8-HxCDF	200	133	67	21-159	
13C-2,3,4,6,7,8-HxCDF	200	135	68	22-176	
13C-1,2,3,7,8,9-HxCDF	200	148	74	17-205	
13C-1,2,3,4,6,7,8-HpCDD	200	144	72	26-166	
13C-1,2,3,4,6,7,8-HpCDF	200	152	76	21-158	
13C-1,2,3,4,7,8,9-HpCDF	200	163	81	20-186	
13C-OCDD	400	314	79	13-199	

Column to be used to flag recovery and RPD values

FORM III 1613B

FORM III
DIOXIN LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 19JL19A3D5_56.d

Lab ID: LCSD 320-308663/3-A Client ID:

COMPOUND	SPIKE ADDED (pg/g)	LCSD CONCENTRATION (pg/g)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,3,7,8-TCDD	20.0	21.2	106	2	50	67-158	
2,3,7,8-TCDF	20.0	20.7	104	2	50	75-158	
1,2,3,7,8-PeCDD	100	108	108	0	50	70-142	
1,2,3,7,8-PeCDF	100	112	112	1	50	80-134	
2,3,4,7,8-PeCDF	100	114	114	0	50	68-160	
1,2,3,4,7,8-HxCDD	100	112	112	3	50	70-164	
1,2,3,6,7,8-HxCDD	100	107	107	6	50	76-134	
1,2,3,7,8,9-HxCDD	100	116	116	3	50	64-162	
1,2,3,4,7,8-HxCDF	100	103	103	1	50	72-134	
1,2,3,6,7,8-HxCDF	100	108	108	1	50	84-130	
1,2,3,7,8,9-HxCDF	100	112	112	2	50	78-130	
2,3,4,6,7,8-HxCDF	100	108	108	2	50	70-156	
1,2,3,4,6,7,8-HpCDD	100	111	111	1	50	70-140	
1,2,3,4,6,7,8-HpCDF	100	107	107	1	50	82-122	
1,2,3,4,7,8,9-HpCDF	100	107	107	1	50	78-138	
OCDD	200	213	106	1	50	78-144	
OCDF	200	214	107	1	50	63-170	
13C-2,3,7,8-TCDD	200	142	71			20-175	
13C-2,3,7,8-TCDF	200	148	74			22-152	
13C-1,2,3,7,8-PeCDD	200	151	76			21-227	
13C-1,2,3,7,8-PeCDF	200	152	76			21-192	
13C-2,3,4,7,8-PeCDF	200	147	74			13-328	
13C-1,2,3,4,7,8-HxCDD	200	128	64			21-193	
13C-1,2,3,6,7,8-HxCDD	200	135	68			25-163	
13C-1,2,3,4,7,8-HxCDF	200	150	75			19-202	
13C-1,2,3,6,7,8-HxCDF	200	133	67			21-159	
13C-2,3,4,6,7,8-HxCDF	200	139	70			22-176	
13C-1,2,3,7,8,9-HxCDF	200	154	77			17-205	
13C-1,2,3,4,6,7,8-HpCDD	200	154	77			26-166	
13C-1,2,3,4,6,7,8-HpCDF	200	156	78			21-158	
13C-1,2,3,4,7,8,9-HpCDF	200	171	86			20-186	
13C-OCDD	400	336	84			13-199	

Column to be used to flag recovery and RPD values

FORM III 1613B

FORM IV
DIOXIN METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab File ID: 19JL19A3D5_54.d Lab Sample ID: MB 320-308663/1-A

Matrix: Solid Date Extracted: 07/18/2019 13:27

Instrument ID: 3D5 Date Analyzed: 07/21/2019 19:56

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-308663/2-A	19JL19A3D5_55.d	07/21/2019 20:43
	LCSD 320-308663/3-A	19JL19A3D5_56.d	07/21/2019 21:31
22T-SG-17_20190716	580-87706-1	19JL19A3D5_57.d	07/21/2019 22:18
22T-SG-18_20190716	580-87706-2	19JL19A3D5_58.d	07/21/2019 23:06
22T-SG-11_20190716	580-87706-3	19JL19A3D5_59.d	07/21/2019 23:53
22T-SG-11-D_20190716	580-87706-4	19JL19A3D5_60.d	07/22/2019 00:41
22T-SG-12_20190716	580-87706-5	19JL19A3D5_61.d	07/22/2019 01:28
22T-SG-19_20190716	580-87706-6	19JL19A3D5_62.d	07/22/2019 02:16
22T-SG-20_20190716	580-87706-7	19JL19A3D5_63.d	07/22/2019 03:03
22T-SG-15_20190716	580-87706-8	19JL19A3D5_64.d	07/22/2019 03:51
22T-SG-14_20190716	580-87706-9	19JL19A3D5_69.d	07/22/2019 08:18
22T-SG-13_20190716	580-87706-10	19JL19A3D5_70.d	07/22/2019 09:06
22T-SG-22_20190716	580-87706-11	19JL19A3D5_71.d	07/22/2019 09:53
22T-SG-23_20190716	580-87706-12	19JL19A3D5_72.d	07/22/2019 10:41
22T-SG-10_20190716	580-87706-13	19JL19A3D5_73.d	07/22/2019 11:29
22T-SG-21_20190716	580-87706-14	19JL19A3D5_74.d	07/22/2019 12:16
22T-SG-18_20190716 RA	580-87706-2 RA	22JL19A4D2_004.d	07/22/2019 12:49
22T-SG-16_20190716	580-87706-15	19JL19A3D5_75.d	07/22/2019 13:04
22T-SG-19_20190716 RA	580-87706-6 RA	22JL19A4D2_005.d	07/22/2019 13:27
22T-SG-14_20190716 RA	580-87706-9 RA	22JL19A4D2_006.d	07/22/2019 14:05
22T-SG-22_20190716 RA	580-87706-11 RA	22JL19A4D2_007.d	07/22/2019 14:42
22T-SG-10_20190716 RA	580-87706-13 RA	22JL19A4D2_008.d	07/22/2019 15:20

FORM IV
DIOXIN METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab File ID: 19JL19A3D5_54.d Lab Sample ID: MB 320-308663/1-A

Matrix: Solid Date Extracted: 07/18/2019 13:27

Instrument ID: 3D5 Date Analyzed: 07/21/2019 19:56

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
22T-SG-21_20190716 RA	580-87706-14 RA	22JL19A4D2_009.d	07/22/2019 15:58
22T-SG-16_20190716 RA	580-87706-15 RA	22JL19A4D2_010.d	07/22/2019 16:36

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Matrix: Solid Lab File ID: 19JL19A3D5_57.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:13

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.15(g) Date Analyzed: 07/21/2019 22:18

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 45.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.54	J q	1.8	0.19
51207-31-9	2,3,7,8-TCDF	0.66	J q	1.8	0.14
40321-76-4	1,2,3,7,8-PeCDD	ND		9.0	0.24
57117-41-6	1,2,3,7,8-PeCDF	0.98	J	9.0	0.16
57117-31-4	2,3,4,7,8-PeCDF	ND		9.0	0.18
39227-28-6	1,2,3,4,7,8-HxCDD	0.74	J q B	9.0	0.22
57653-85-7	1,2,3,6,7,8-HxCDD	1.3	J q	9.0	0.23
19408-74-3	1,2,3,7,8,9-HxCDD	1.2	J	9.0	0.21
70648-26-9	1,2,3,4,7,8-HxCDF	2.0	J	9.0	0.28
57117-44-9	1,2,3,6,7,8-HxCDF	0.95	J	9.0	0.29
72918-21-9	1,2,3,7,8,9-HxCDF	1.7	J B	9.0	0.15
60851-34-5	2,3,4,6,7,8-HxCDF	0.42	J q	9.0	0.18
35822-46-9	1,2,3,4,6,7,8-HpCDD	27	B	9.0	0.44
67562-39-4	1,2,3,4,6,7,8-HpCDF	6.5	J q	9.0	0.23
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.1	J q	9.0	0.27
3268-87-9	OCDD	250	B	18	0.34
39001-02-0	OCDF	19	B	18	0.29

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Matrix: Solid Lab File ID: 19JL19A3D5_57.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:13

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.15(g) Date Analyzed: 07/21/2019 22:18

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 45.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	71		25-164
89059-46-1	13C-2,3,7,8-TCDF	75		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	72		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	72		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	71		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	65		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	64		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	74		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	64		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	69		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	76		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	72		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	72		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	81		26-138
114423-97-1	13C-OCDD	74		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	92		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 21-Jul-2019 22:18:54 ALS Bottle#: 40 Worklist Smp#: 57
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-1-A 580-87706-C-1-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:42:44 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 10:17:16

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	249617242	0.81	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	260099458	0.80	1.3908	74.9	74.9	0.3006	0.3006	74.92	
2,3,7,8-TCDF	16.705	460201	0.77	0.9710	0.1975	0.1822	0.0380	0.0380		RQ
A Non-2,3,7,8-sub-TCDF	16.402	763073	0.77	0.9710	0.3140	0.3021	0.0380	0.1530		RQ
S Total TCDF					0.5115	0.4843	0.0380	0.0380		RQ
D 13C-2,3,7,8-TCDD	17.355	174011060	0.81	0.9819	71.0	71.0	0.2147	0.2147	71.00	
2,3,7,8-TCDD	17.370	269843	0.77	1.0447	0.1639	0.1484	0.0537	0.0537		RQMa
$ 37Cl4-2,3,7,8-TCDD	17.370	112665537		1.2205	37.0	37.0	0.1917	0.1917	92.45	
A Non-2,3,7,8-sub-TCDD	16.833	273434	0.77	1.0447	0.1880	0.1504	0.0537	0.1504		RQMa
S Total TCDD					0.3520	0.2988	0.0537	0.0537		RQ
D 13C-1,2,3,7,8-PeCDF	21.345	206861686	1.57	1.1585	71.5	71.5	0.2325	0.2325	71.54	
1,2,3,7,8-PeCDF	21.345	544110	1.67	0.9633	0.2730	0.2730	0.0449	0.0449		
D 13C-2,3,4,7,8-PeCDF	22.573	204527046	1.57	1.1532	71.1	71.1	0.2336	0.2336	71.05	
2,3,4,7,8-PeCDF	22.614						0.0489	0.0489		
A F1 PeCDFs	19.215	377742	1.55	0.9564	0.2059	0.1920	0.0436	0.1920		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	638604	1.70	0.9564	0.3246	0.3246	0.0469	0.3246		
S Total PeCDF					0.8035	0.7897	0.0469	0.0469		RQ
D 13C-1,2,3,7,8-PeCDD	23.241	133284099	1.65	0.7431	71.9	71.9	0.1550	0.1550	71.85	
1,2,3,7,8-PeCDD	23.254						0.0660	0.0660		
A Non-2,3,7,8-sub-PeCDD	22.232	187699	1.36	1.0635	0.1324	0.1324	0.0660	0.1324		
S Total PeCDD					0.1324	0.1324	0.0660	0.0660		
D 13C-1,2,3,4,7,8-HxCDF	29.128	162084101	0.52	0.9837	73.5	73.5	0.3128	0.3128	73.53	
1,2,3,4,7,8-HxCDF	29.182	1068753	1.13	1.2173	0.5417	0.5417	0.0784	0.0784		
D 13C-1,2,3,6,7,8-HxCDF	29.435	166919124	0.51	1.1554	64.5	64.5	0.2663	0.2663	64.47	
1,2,3,6,7,8-HxCDF	29.448	498302	1.14	1.1311	0.2639	0.2639	0.0812	0.0812		
D 13C-2,3,4,6,7,8-HxCDF	30.673	160159835	0.50	1.0361	69.0	69.0	0.2970	0.2970	68.98	
2,3,4,6,7,8-HxCDF	30.700	216759	1.24	1.1710	0.1299	0.1156	0.0508	0.0508		RQ
D 13C-1,2,3,7,8,9-HxCDF	31.672	153931350	0.52	0.9034	76.0	76.0	0.3406	0.3406	76.03	
1,2,3,7,8,9-HxCDF	31.685	860915	1.11	1.1787	0.4745	0.4745	0.0409	0.0409		
A Non-2,3,7,8-sub-HxCDF	29.135	3249808	1.20	1.1745	1.721	1.721	0.0578	0.7947		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					3.131	3.117	0.0628	0.0628		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	224093494	1.28	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.940	121606777	1.28	0.8287	65.5	65.5	0.2067	0.2067	65.48	
1,2,3,4,7,8-HxCDD	30.953	257368	1.24	1.0267	0.2258	0.2061	0.0619	0.0619		RQa
D 13C-1,2,3,6,7,8-HxCDD	31.073	136254316	1.27	0.9495	64.0	64.0	0.1804	0.1804	64.04	
1,2,3,6,7,8-HxCDD	31.099	492514	1.24	0.9771	0.4255	0.3699	0.0627	0.0627		RQa
1,2,3,7,8,9-HxCDD	31.485	448371	1.29	1.0616	0.3276	0.3276	0.0588	0.0588		
A Non-2,3,7,8-sub-HxCDD	29.926	2474372	1.18	1.0218	1.878	1.878	0.0610	1.041		
S Total HxCDD					2.857	2.782	0.0611	0.0611		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	117835207	0.44	0.7285	72.2	72.2	0.6058	0.6058	72.18	
1,2,3,4,6,7,8-HpCDF	33.348	3032541	1.04	1.4373	1.994	1.791	0.0626	0.0626		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	119048142	0.45	0.6556	81.0	81.0	0.6731	0.6731	81.03	
1,2,3,4,7,8,9-HpCDF	34.429	457153	1.04	1.3091	0.3720	0.2933	0.0757	0.0757		RQ
A Non-2,3,7,8-sub-HpCDF	33.894	4921717	1.07	1.3732	3.026	3.026	0.0687	3.026		
S Total HpCDF					5.392	5.110	0.0692	0.0692		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	113104728	1.08	0.6978	72.3	72.3	0.3700	0.3700	72.33	
1,2,3,4,6,7,8-HpCDD	34.162	8571711	1.02	1.0102	7.502	7.502	0.1231	0.1231		
A Non-2,3,7,8-sub-HpCDD	35.074	10041726	1.07	1.0102	8.789	8.789	0.1231	8.789		a
S Total HpCDD					16.3	16.3	0.1231	0.1231		
D 13C-OCDD	36.498	157729969	0.90	0.4780	147.3	147.3	0.2021	0.2021	73.63	
OCDF	36.581	5736316	0.96	1.3501	5.387	5.387	0.0794	0.0794		
OCDD	36.509	59086942	0.88	1.0627	70.5	70.5	0.0956	0.0956		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Sample Type: Client
Inject. Date: 21-Jul-2019 22:18:54 ALS Bottle#: 40 Worklist Smp#: 57
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-1-A 580-87706-C-1-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:42:44 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 10:17:16

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		111439743	28678197	27239	68097	1053		
333.9339	17.173	17.158	1		138177499	35053950	26498	66245	1323	0.81(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	115905282	29551680	45672	114180	647		
317.9389	16.690	16.690	0	0.972	144194176	36852831	60906	152265	605	0.80(0.65-0.89)	
2,3,7,8-TCDF											RQ
303.9016	16.705	16.705	0	1.001	238708	51997	3447	8617	15		
	Empc Correction				200200	42875	3447	8617	12		
305.8987	16.705	16.705	0	1.001	260001	55682	6354	15885	9	0.92(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.920	16.402	-89	0.894	82024	26495	3447	8617	8		
305.8987	14.905	16.402	-90	0.893	118623	32492	6354	15885	5	0.69(0.65-0.89)	
303.9016	16.342	16.402	-4	0.979	174297	39748	3447	8617	12		
305.8987	16.357	16.402	-3	0.980	212230	47817	6354	15885	8	0.82(0.65-0.89)	
303.9016	17.809	16.402	84	1.067	106518	29038	3447	8617	8		
	Empc Correction				76521	23628	3447	8617	7		
305.8987	17.809	16.402	84	1.067	99378	30686	6354	15885	5	1.07(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	77610698	18368068	27239	68097	674		
333.9339	17.355	17.355	0	1.011	96400362	22778030	26498	66245	860	0.81(0.65-0.89)	
2,3,7,8-TCDD											RQMa
319.8965	17.370	17.355	1	1.001	145594	21305	6401	16002	3		M
	Empc Correction				117389	23102	6401	16002	4		
321.8936	17.370	17.355	1	1.001	152454	30003	2832	7080	11	0.96(0.65-0.89)	M
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	112665537	26577373	59660	149150	445		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											RQMa
319.8965	17.264	16.833	26	0.995	187359	45696	6401	16002	7		M
	Empc Correction				118951	29132	6401	16002	5		
321.8936	17.279	16.833	27	0.996	154483	37835	2832	7080	13	1.21(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	126415461	23242309	40768	101920	570		
353.8970	21.345	21.332	1	1.243	80446225	14568265	27903	69757	522	1.57(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.345	21.345	0	1.000	340688	51641	2592	6480	20		
341.8567	21.359	21.345	1	1.001	203422	34201	3957	9892	9	1.67(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	125011949	21639937	40768	101920	531		
353.8970	22.573	22.559	1	1.314	79515097	13597480	27903	69757	487	1.57(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586						2592	6480			
341.8567	22.586						3957	9892			
A F1 PeCDFs											RQ
339.8597	18.685	19.215	-32	0.875	229608	55339	1597	3992	35		
341.8567	18.685	19.215	-32	0.875	175434	39704	4498	11245	9	1.31(1.32-1.78)	
	Empc Correction				148134	35702	4498	11245	8		
A Non-2,3,7,8-sub-PeCDF											
339.8597	20.118	22.104	-119	0.943	402038	69418	2592	6480	27		
341.8567	20.104	22.104	-120	0.942	236566	40195	3957	9892	10	1.70(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	82992523	14021556	16791	41977	835		
369.8919	23.241	23.227	1	1.353	50291576	8118013	12563	31407	646	1.65(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4206	10515			
357.8516	23.254						2007	5017			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.323	22.232	-114	0.874	108282	20139	4206	10515	5		
357.8516	20.323	22.232	-114	0.874	79417	16479	2007	5017	8	1.36(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.128	29.115	1	0.926	55162263	6174195	21799	54497	283		
385.8610	29.128	29.115	1	0.926	106921838	12227891	40429	101072	302	0.52(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.182	29.155	2	1.002	566572	65232	3797	9492	17		
375.8178	29.195	29.155	2	1.002	502181	62130	3229	8072	19	1.13(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.435	29.421	1	0.935	56128156	6372062	21799	54497	292		
385.8610	29.435	29.421	1	0.935	110790968	12747473	40429	101072	315	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.448	29.462	-1	1.000	265270	32698	3797	9492	9		
375.8178	29.488	29.462	2	1.002	233032	23815	3229	8072	7	1.14(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	53518024	9959562	21799	54497	457		
385.8610	30.673	30.660	1	0.975	106641811	19573430	40429	101072	484	0.50(0.43-0.59)	
2,3,4,6,7,8-HxCDF											RQ
373.8208	30.700	30.687	1	1.001	119992	22120	3797	9492	6		
375.8178	30.687	30.687	0	1.000	123550	19360	3229	8072	6	0.97(1.05-1.43)	
	Empc Correction				96767	17838	3229	8072	6		
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.006	52646536	12402335	21799	54497	569		
385.8610	31.672	31.672	0	1.006	101284814	24061264	40429	101072	595	0.52(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	453376	87472	3797	9492	23		
375.8178	31.685	31.685	0	1.000	407539	74027	3229	8072	23	1.11(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	26.479	29.135	-159	0.909	219497	29510	3797	9492	8		
375.8178	26.506	29.135	-157	0.910	180208	25129	3229	8072	8	1.22(1.05-1.43)	
373.8208	26.852	29.135	-137	0.922	704243	87399	3797	9492	23		
375.8178	26.852	29.135	-137	0.922	645258	79334	3229	8072	25	1.09(1.05-1.43)	
373.8208	28.090	29.135	-63	0.964	846353	93055	3797	9492	25		
375.8178	28.063	29.135	-64	0.963	654249	70433	3229	8072	22	1.29(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		125945407	28330622	17774	44435	1594		
403.8529	31.472	31.472	0		98148087	22229187	16861	42152	1318	1.28(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.940	30.926	1	0.983	68369011	14700175	17774	44435	827		
403.8529	30.940	30.926	1	0.983	53237766	11398130	16861	42152	676	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											RQa
389.8157	30.953	30.953	0	1.000	142472	30680	2844	7110	11		a
391.8127	30.953	30.953	0	1.000	139482	27575	3792	9480	7	1.02(1.05-1.43)	
	Empc Correction				114896	24741	3792	9480	7		
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	76306049	15184026	17774	44435	854		
403.8529	31.073	31.059	1	0.987	59948267	11909765	16861	42152	706	1.27(1.05-1.43)	
1,2,3,6,7,8-HxCDD											RQa
389.8157	31.099	31.086	1	1.001	272642	55605	2844	7110	20		a
391.8127	31.073	31.086	-1	1.000	293781	51100	3792	9480	13	0.93(1.05-1.43)	
	Empc Correction				219872	44842	3792	9480	12		
1,2,3,7,8,9-HxCDD											
389.8157	31.485	31.485	0	1.018	252250	49689	2844	7110	17		
391.8127	31.485	31.485	0	1.018	196121	45386	3792	9480	12	1.29(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.944	29.926	-119	0.899	587310	71415	2844	7110	25		
391.8127	27.944	29.926	-119	0.899	516221	65612	3792	9480	17	1.14(1.05-1.43)	
389.8157	29.927	29.926	0	0.963	754389	91067	2844	7110	32		
391.8127	29.901	29.926	-2	0.962	616452	68272	3792	9480	18	1.22(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	35885300	11361959	28880	72200	393		
419.8220	33.335	33.335	0	1.059	81949907	25847116	60369	150922	428	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.348	33.347	0	1.000	1891104	569491	8828	22070	65		
	Empc Correction				1546001	475315	8828	22070	54		
409.7789	33.348	33.347	0	1.000	1486540	457034	4557	11392	100	1.27(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	36922924	10388140	28880	72200	360		
419.8220	34.417	34.429	-1	1.094	82125218	23360418	60369	150922	387	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											RQ
407.7818	34.429	34.441	-1	1.000	355635	73211	8828	22070	8		
	Empc Correction				233058	61089	8828	22070	7		
409.7789	34.429	34.441	-1	1.000	224095	58740	4557	11392	13	1.59(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.652	33.894	-15	1.009	2544082	761114	8828	22070	86		
409.7789	33.652	33.894	-15	1.009	2377635	681011	4557	11392	149	1.07(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	58647846	16914667	24580	61450	688		
437.8140	34.150	34.150	0	1.085	54456882	15723220	27643	69107	569	1.08(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	4334509	1334906	9676	24190	138		
425.7737	34.150	34.162	-1	1.000	4237202	1214187	6561	16402	185	1.02(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	5198478	1611840	9676	24190	167		a
425.7737	33.603	35.074	-88	0.984	4843248	1491818	6561	16402	227	1.07(0.88-1.20)	
13C-OCDD											
469.7779	36.498	36.498	0	1.160	74915662	19326324	12378	30945	1561		
471.7750	36.498	36.498	0	1.160	82814307	21387322	7159	17897	2987	0.90(0.76-1.02)	
OCDF											
441.7428	36.581	36.582	0	1.002	2806268	672899	3550	8875	190		
443.7399	36.581	36.582	0	1.002	2930048	728404	5179	12947	141	0.96(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	27585090	7074473	3705	9262	1909		
459.7348	36.509	36.509	0	1.000	31501852	8040930	4569	11422	1760	0.88(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	260099458	66404511

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	260099458	66404511

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.920	82024	26495	118623	32492	0.0794	0.69	
16.342	174297	39748	212230	47817	0.1530	0.82	
17.809	106518	29038	99378	30686	0.0815	1.07	RQ
17.809	76521	23628	99378	30686	0.0696		Empc Correction
Signal Totals:							
	332842	89871	430231	110995			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	793070	206276				0.84	RQ
	763073	200866					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3140 = (793070 * 100.000) / (260099458 * 0.971)
Empc Amount: 0.3021 = (763073 * 100.000) / (260099458 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	174011060	41146098

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	174011060	41146098

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.264	187359	45696	154483	37835	0.1880	1.21	RQMa
17.264	118951	29132	154483	37835	0.1504		Empc Correction
Signal Totals:							
	118951	29132	154483	37835			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	341842	83531				1.21	RQMa
	273434	66967					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1880 = (341842 * 100.000) / (174011060 * 1.045)
Empc Amount: 0.1504 = (273434 * 100.000) / (174011060 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

F1 PeCDFs, RT: 19.215

Initial Calibration RRF

IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	206861686	37810574
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	204527046	35237417

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	205694366	36523995

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	229608	55339	175434	39704	0.2059	1.31	RQ
18.685	229608	55339	148134	35702	0.1920		Empc Correction
Signal Totals:							
	229608	55339	148134	35702			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	405042	95043				1.31	RQ
	377742	91041					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2059 = (405042 * 100.000) / (205694366 * 0.956)
Empc Amount: 0.1920 = (377742 * 100.000) / (205694366 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	206861686	37810574
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	204527046	35237417

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	205694366	36523995

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	402038	69418	236566	40195	0.3246	1.70	
Signal Totals:							
	402038	69418	236566	40195			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	638604	109613				1.70	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3246 = (638604 * 100.000) / (205694366 * 0.956)

Report Date: 23-Jul-2019 10:42:47 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	133284099	22139569

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	133284099	22139569

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.323	108282	20139	79417	16479	0.1324	1.36	
Signal Totals:							
	108282	20139	79417	16479			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	187699	36618				1.36	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1324 = (187699 * 100.000) / (133284099 * 1.063)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	162084101	18402086
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	166919124	19119535
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	160159835	29532992
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	153931350	36463599

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	160773602	25879553

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.479	219497	29510	180208	25129	0.2117	1.22	
26.852	704243	87399	645258	79334	0.7146	1.09	
28.090	846353	93055	654249	70433	0.7947	1.29	
Signal Totals:							
	1770093	209964	1479715	174896			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3249808	384860				1.20	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.721 = (3249808 * 100.000) / (160773602 * 1.175)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	121606777	26098305
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	136254316	27093791
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	128930546	26596048

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.944	587310	71415	516221	65612	0.8377	1.14	
29.927	754389	91067	616452	68272	1.04	1.22	
Signal Totals:							
	1341699	162482	1132673	133884			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2474372	296366				1.18	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.878 = (2474372 * 100.000) / (128930546 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	117835207	37209075
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	119048142	33748558

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	118441674	35478816

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.652	2544082	761114	2377635	681011	3.03	1.07	
Signal Totals:							
	2544082	761114	2377635	681011			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	4921717	1442125				1.07	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.026 = (4921717 * 100.000) / (118441674 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d
Lims ID: 580-87706-C-1-A
Client ID: 22T-SG-17_20190716
Inject. Date: 21-Jul-2019 22:18:54 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 57

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	113104728	32637887

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	113104728	32637887

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	5198478	1611840	4843248	1491818	8.79	1.07	a
Signal Totals:							
	5198478	1611840	4843248	1491818			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	10041726	3103658				1.07	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 8.789 = (10041726 * 100.000) / (113104728 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

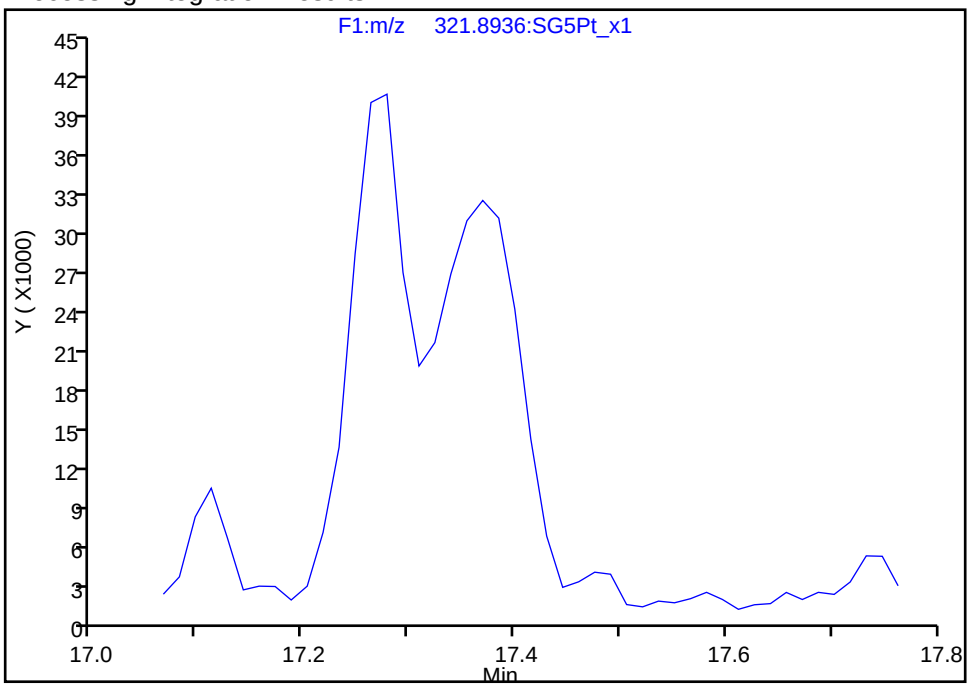
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d				
Injection Date:	21-Jul-2019 22:18:54	Instrument ID:	3D5		
Lims ID:	580-87706-C-1-A	Lab Sample ID:	320-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	40	Worklist Smp#:	57
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

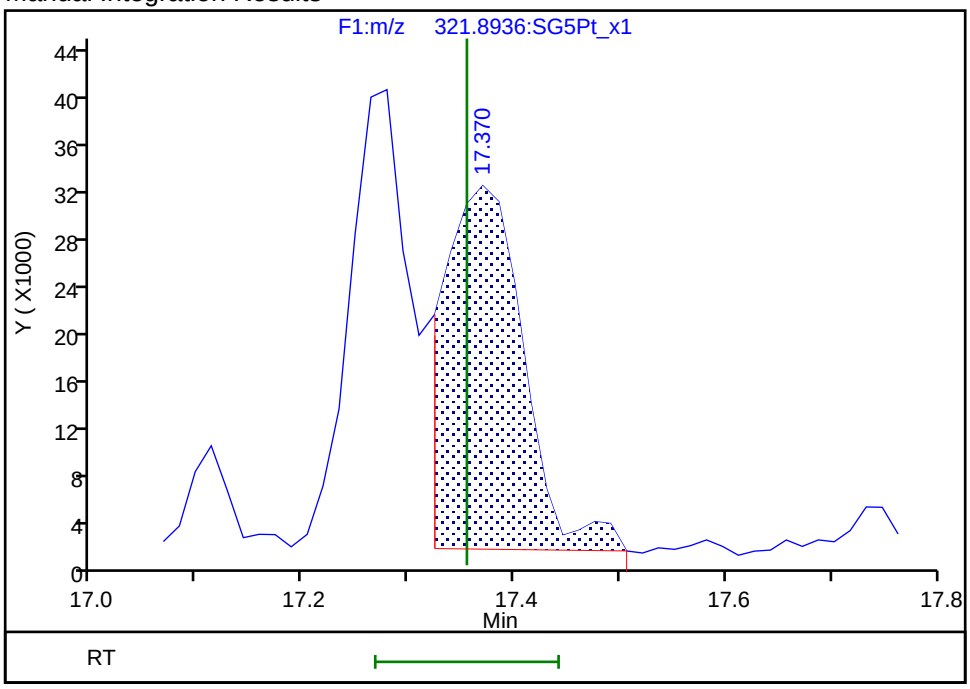
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.37
Area: 152454
Amount: 0.163950
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:41:07
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

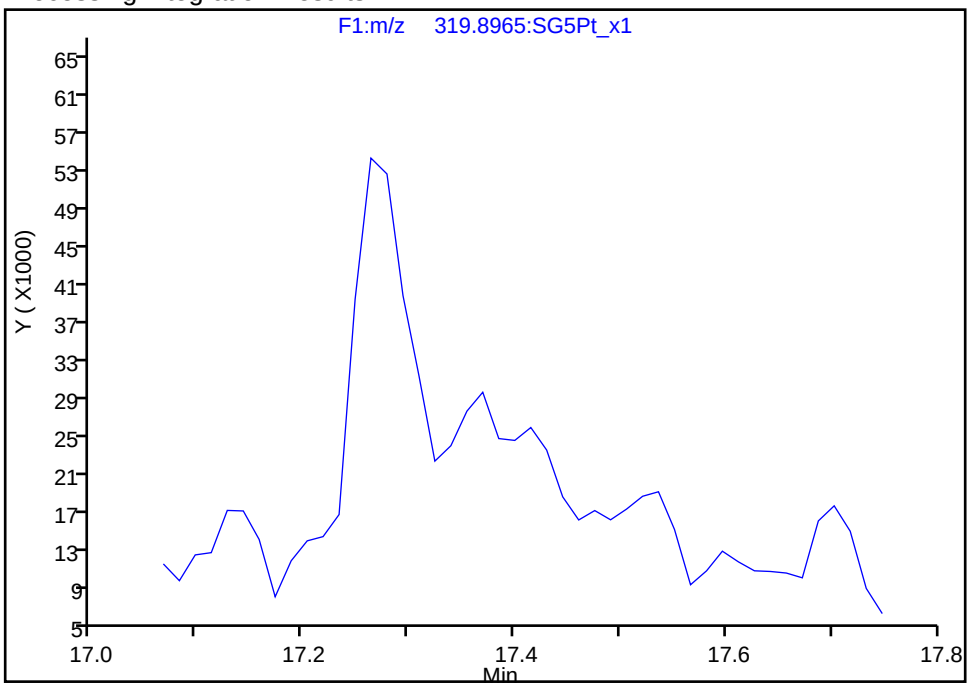
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d				
Injection Date:	21-Jul-2019 22:18:54	Instrument ID:	3D5		
Lims ID:	580-87706-C-1-A	Lab Sample ID:	320-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	40	Worklist Smp#:	57
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

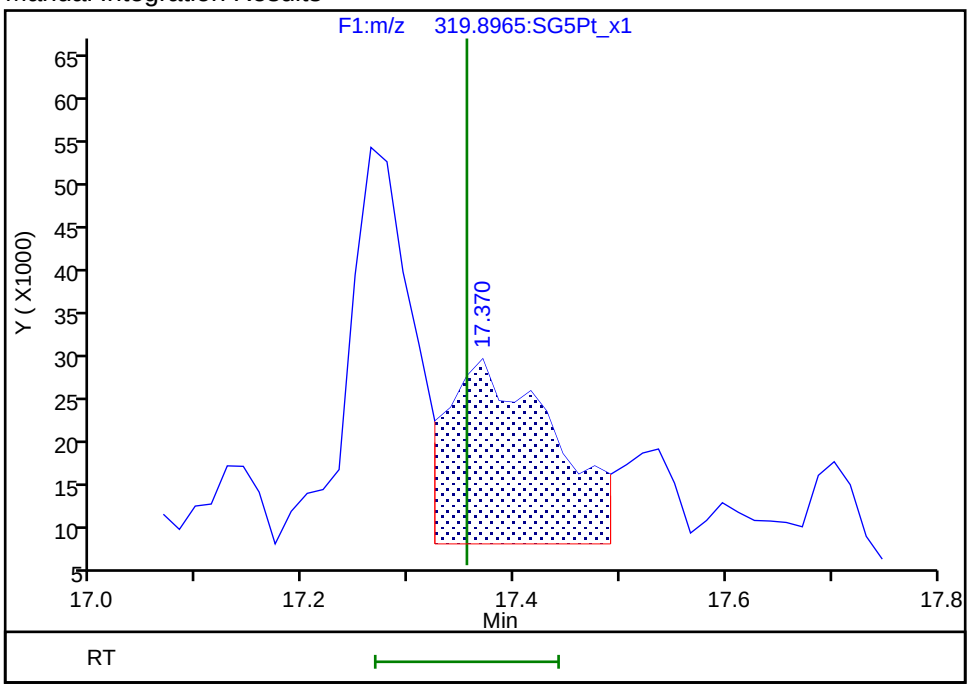
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.37
Area: 145594
Amount: 0.163950
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:41:11
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

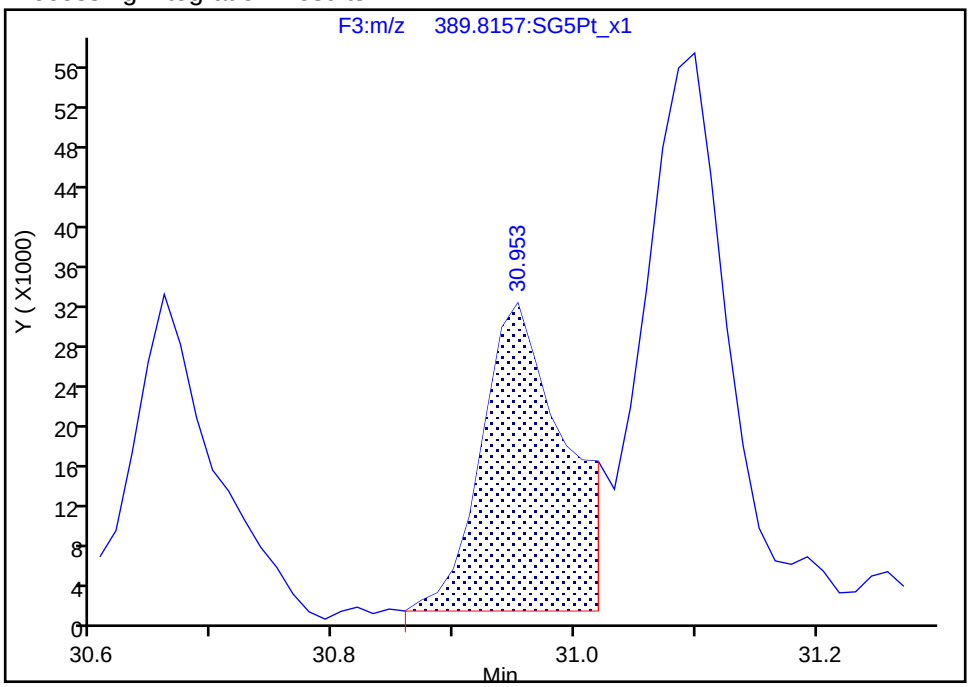
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d				
Injection Date:	21-Jul-2019 22:18:54	Instrument ID:	3D5		
Lims ID:	580-87706-C-1-A	Lab Sample ID:	320-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	40	Worklist Smp#:	57
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

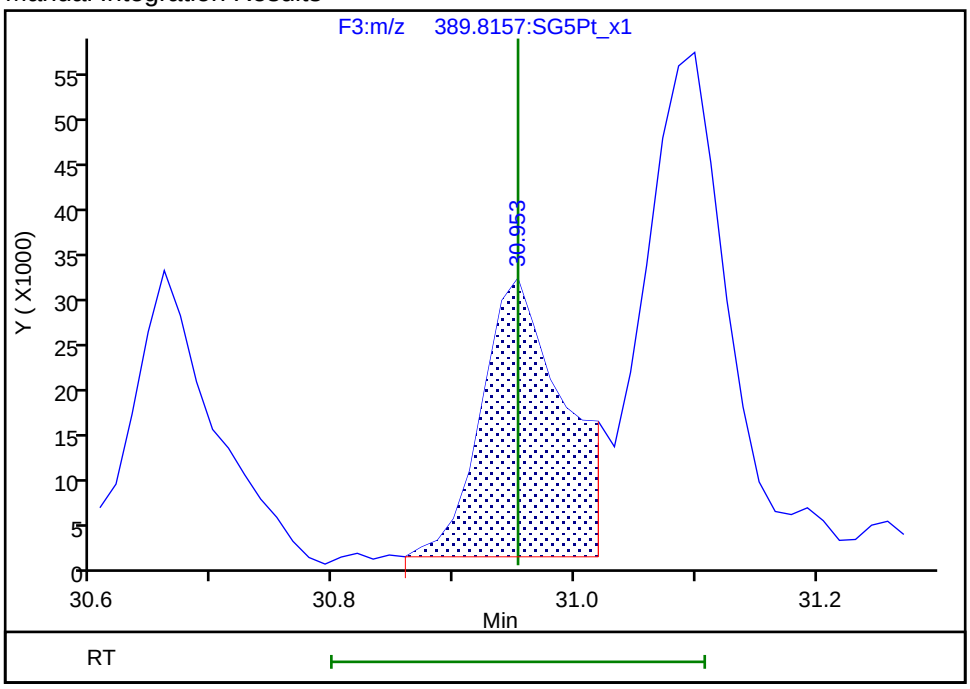
RT: 30.95
Area: 142472
Amount: 0.225831
Amount Units: pg/ul

Processing Integration Results



RT: 30.95
Area: 142472
Amount: 0.225831
Amount Units: pg/ul

Manual Integration Results



Reviewer: krongsingn, 23-Jul-2019 10:42:10
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

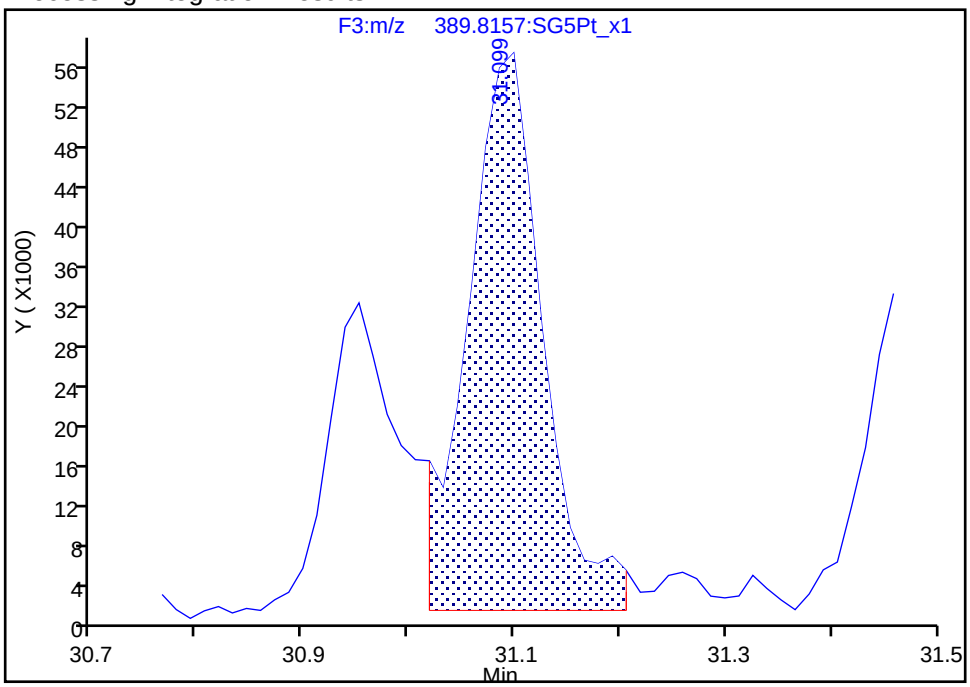
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d				
Injection Date:	21-Jul-2019 22:18:54	Instrument ID:	3D5		
Lims ID:	580-87706-C-1-A	Lab Sample ID:	320-87706-1		
Client ID:	22T-SG-17_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	40	Worklist Smp#:	57
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

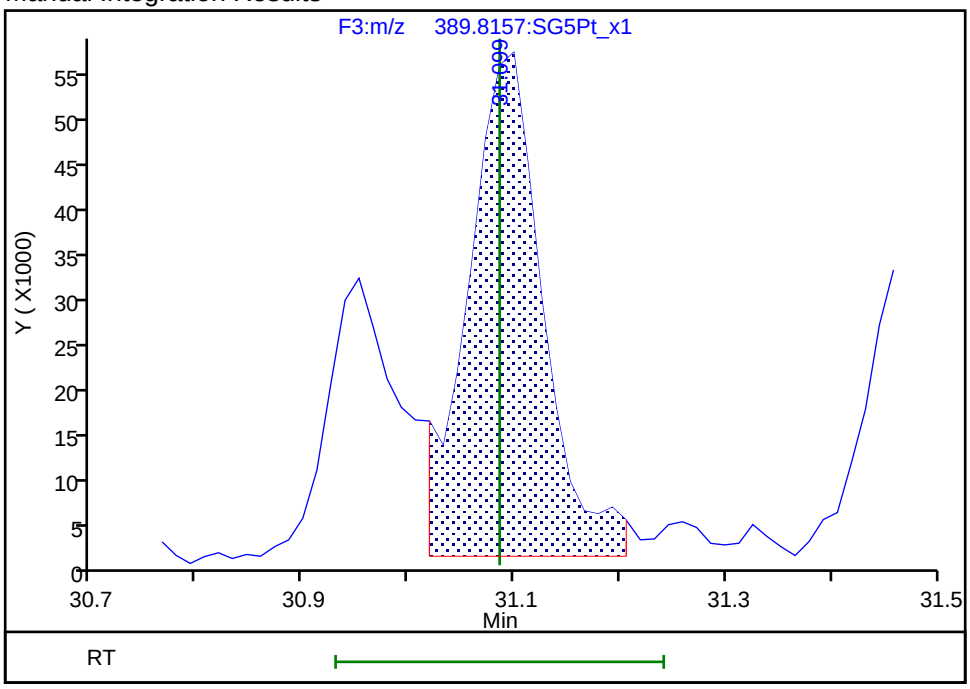
Processing Integration Results

RT: 31.10
Area: 272642
Amount: 0.425460
Amount Units: pg/ul



Manual Integration Results

RT: 31.10
Area: 272642
Amount: 0.425460
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:42:15

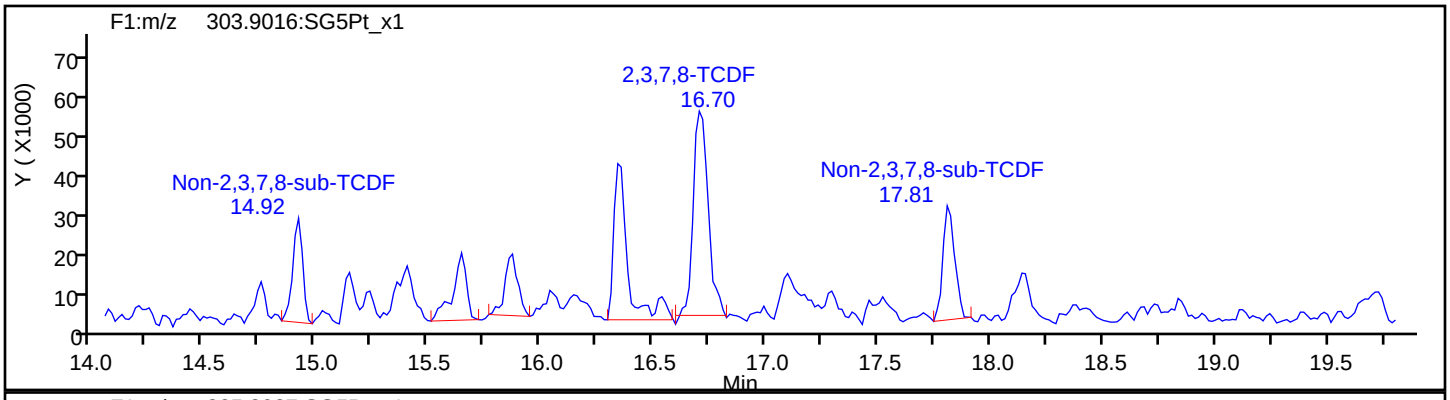
Audit Action: Assigned Compound ID Audit Reason: Split Peak

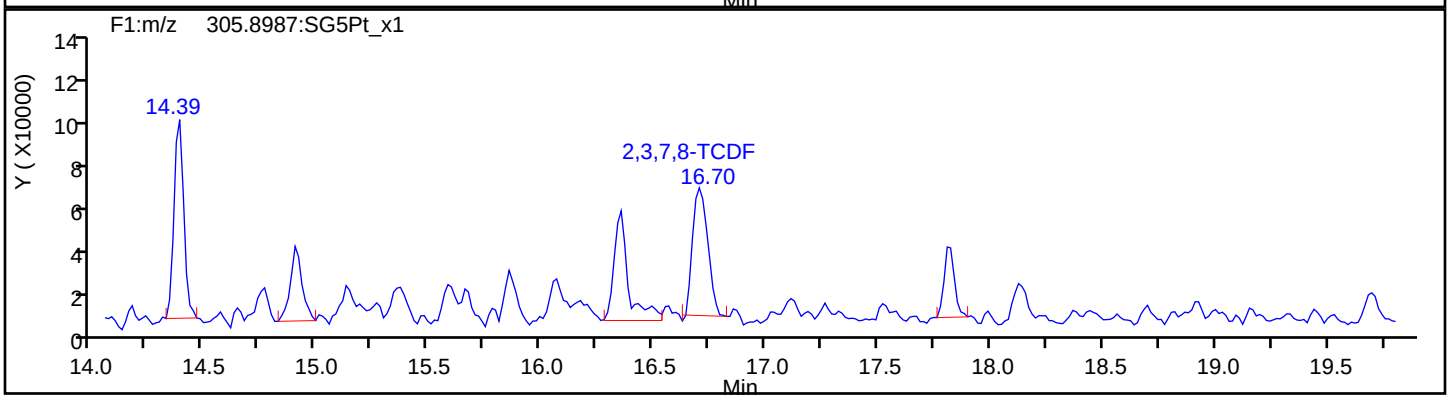
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

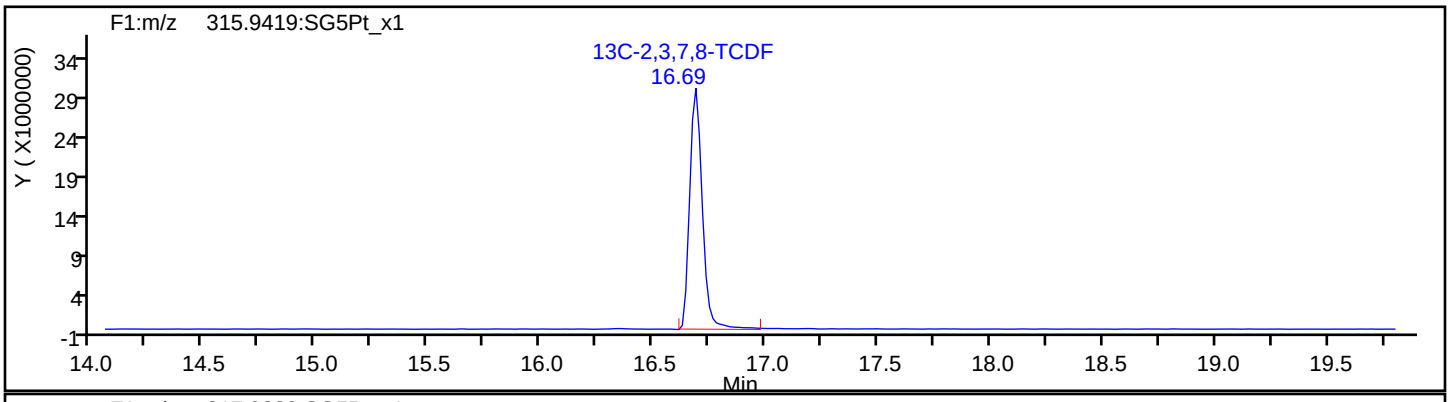
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

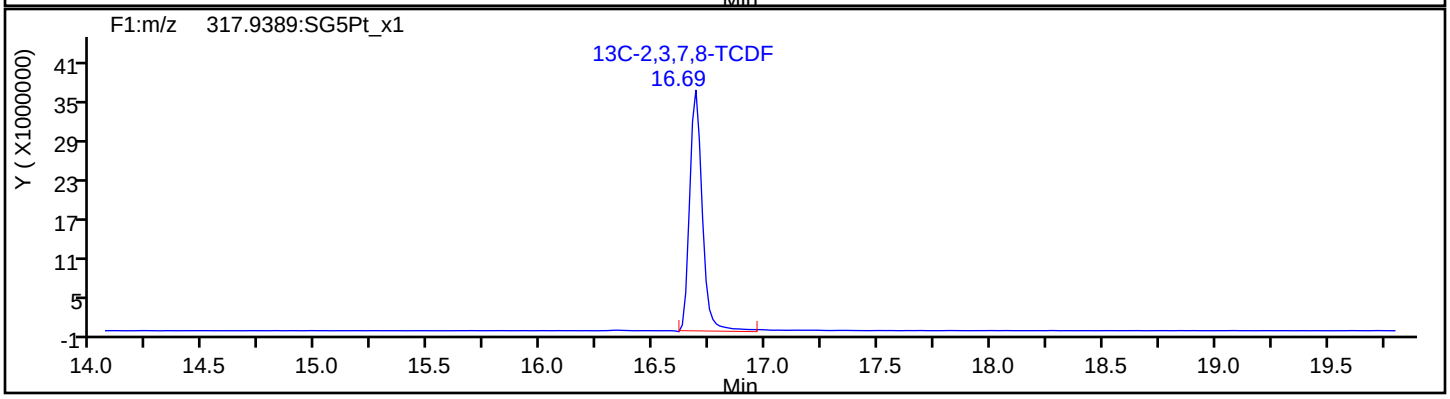
TCDF





TCDF Standards



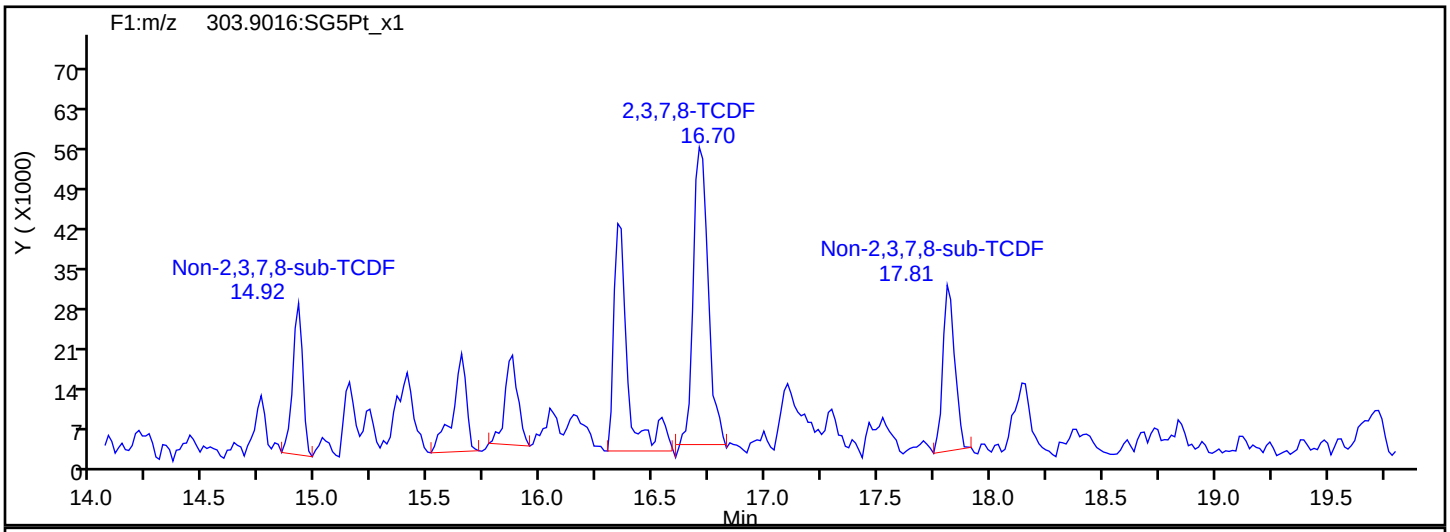


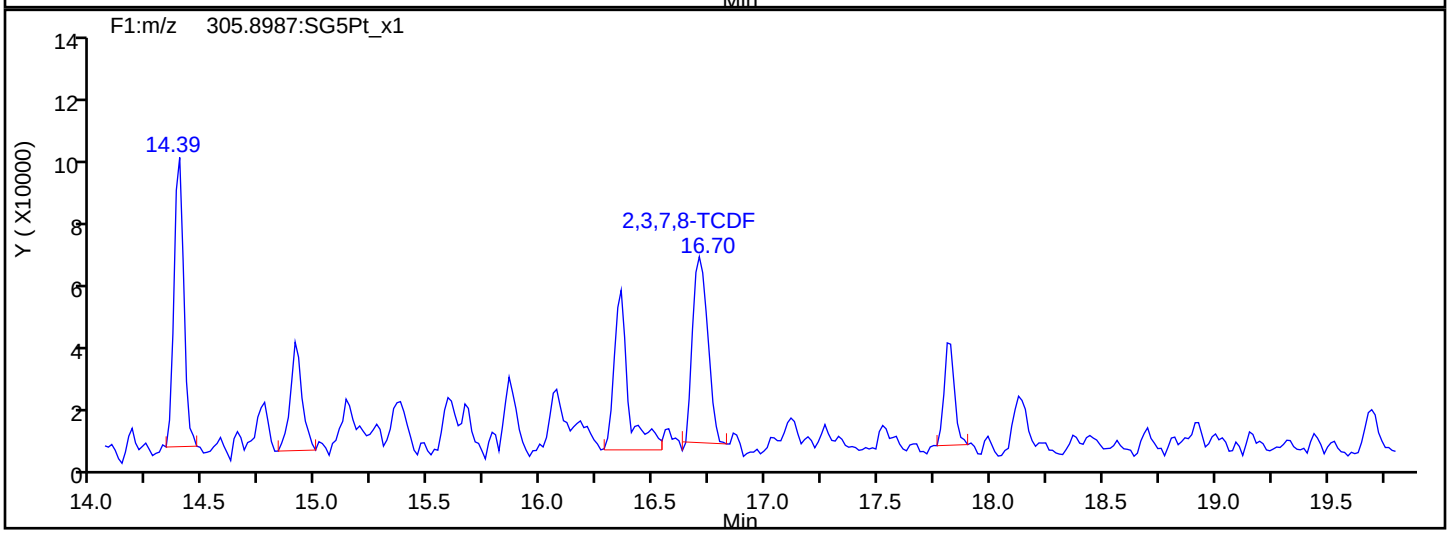
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

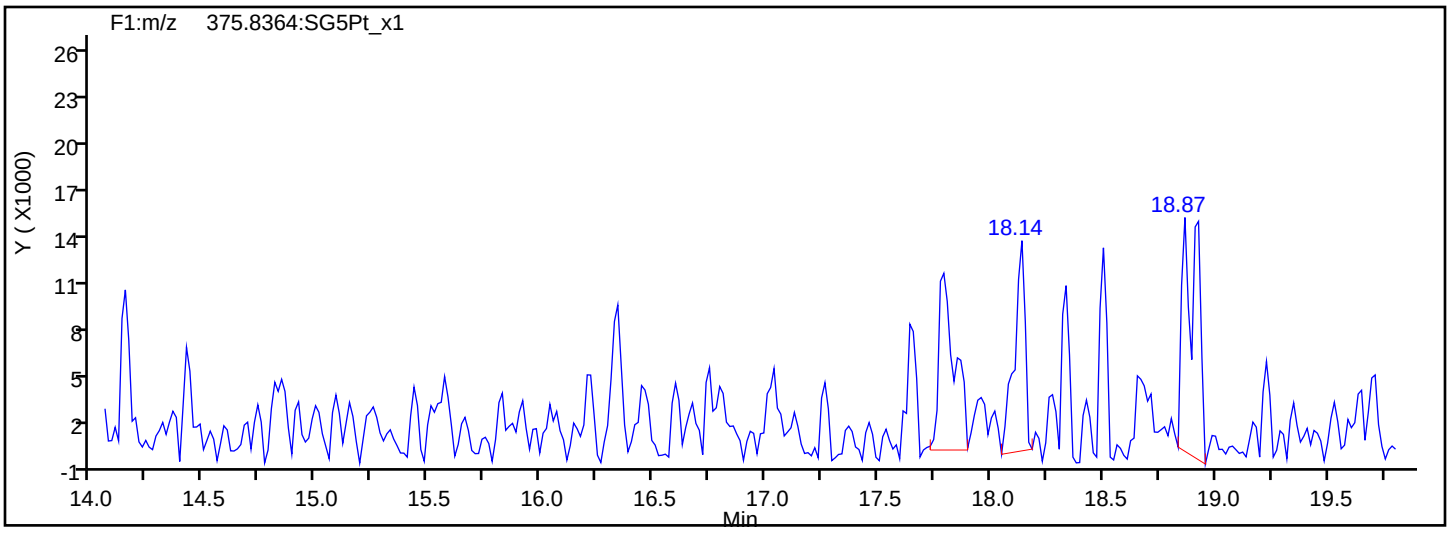
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



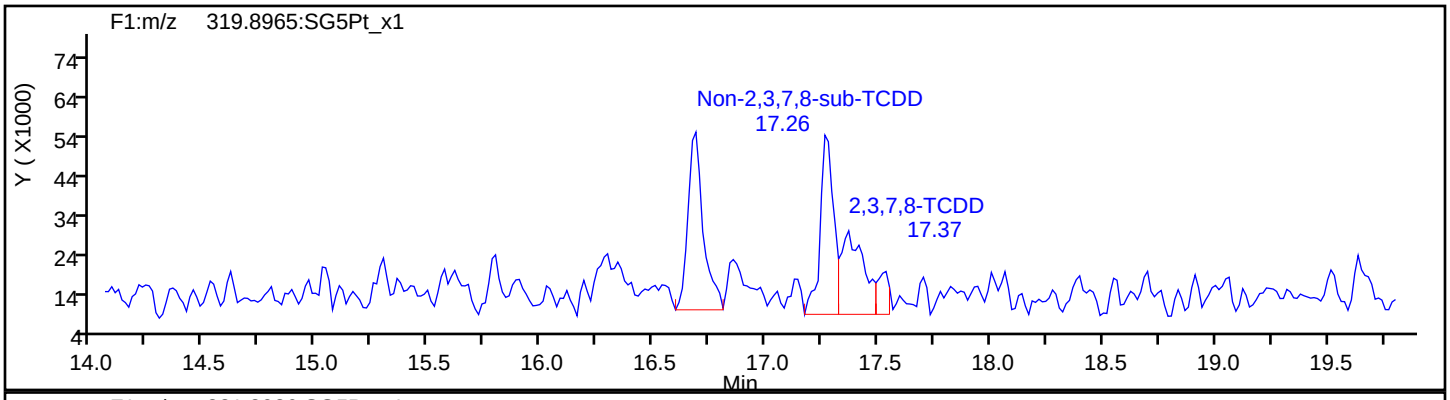
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

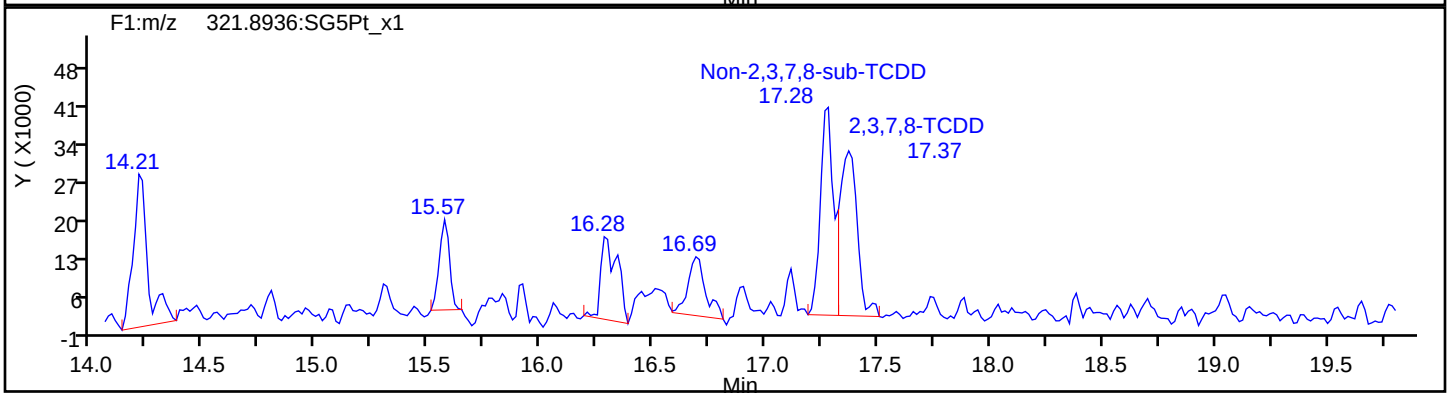
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d

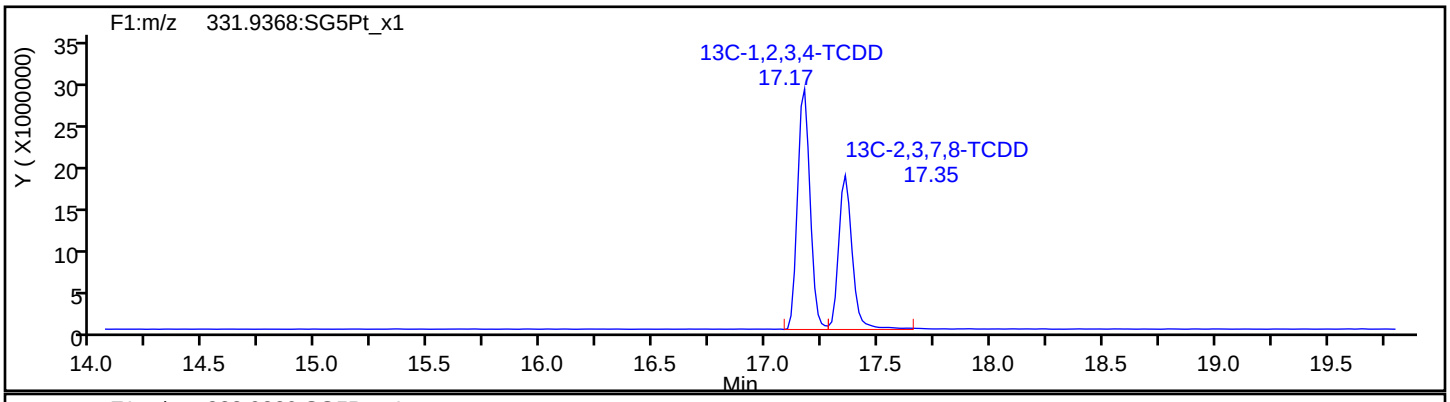
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

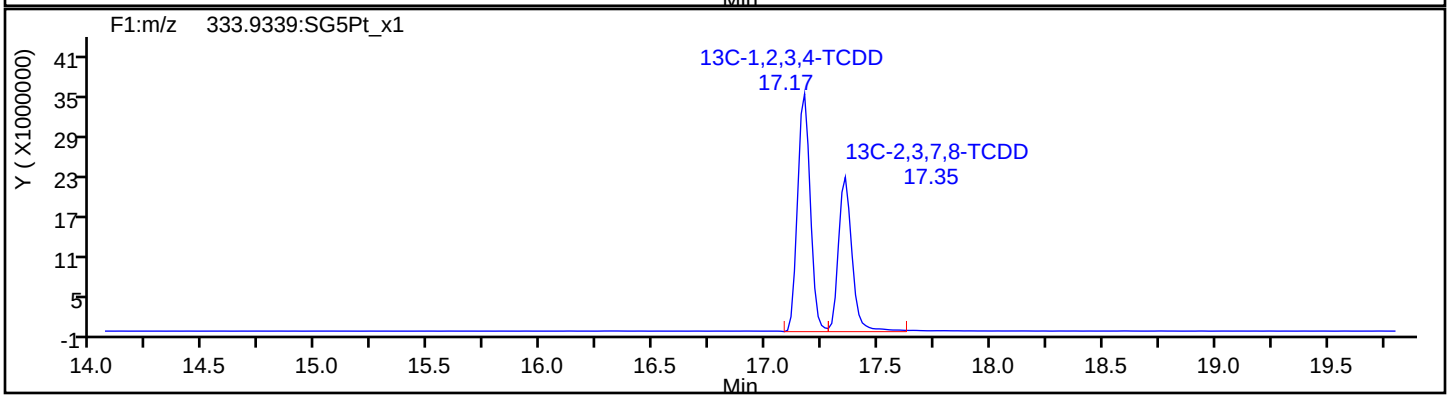
TCDD





TCDD Standards





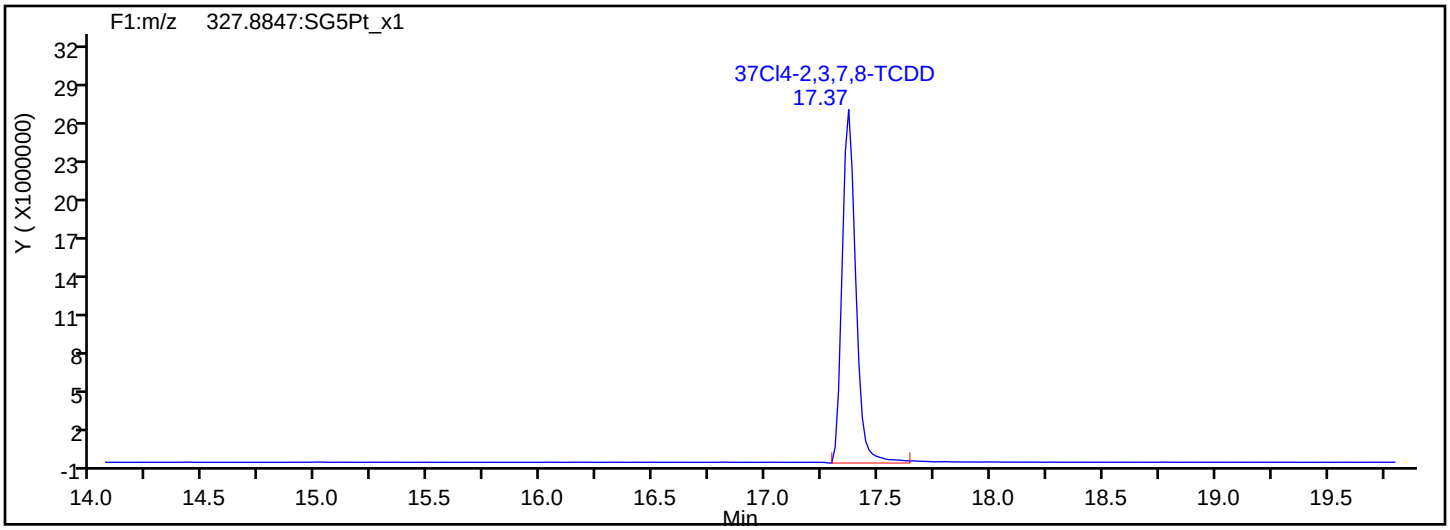
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

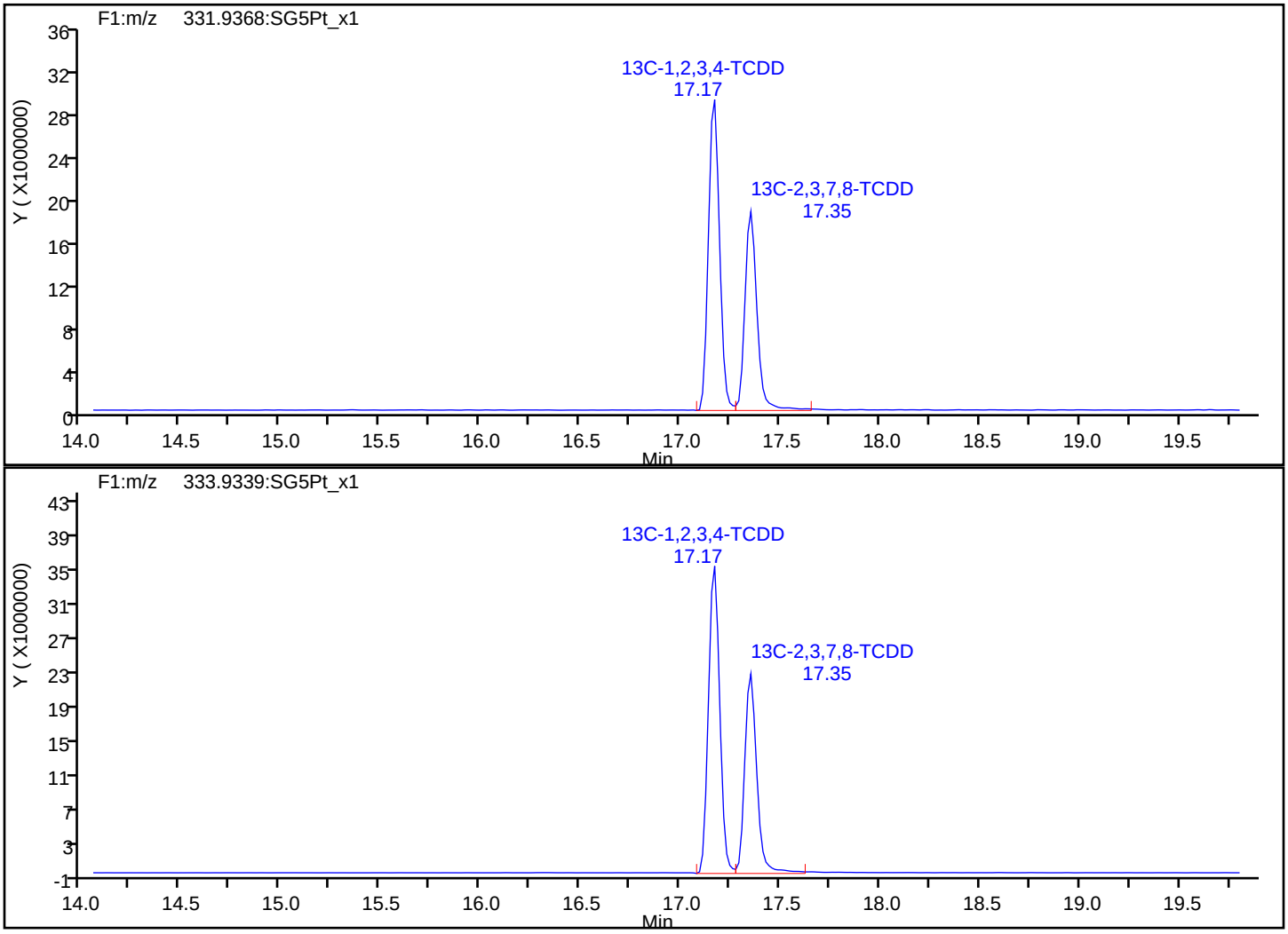
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d

Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

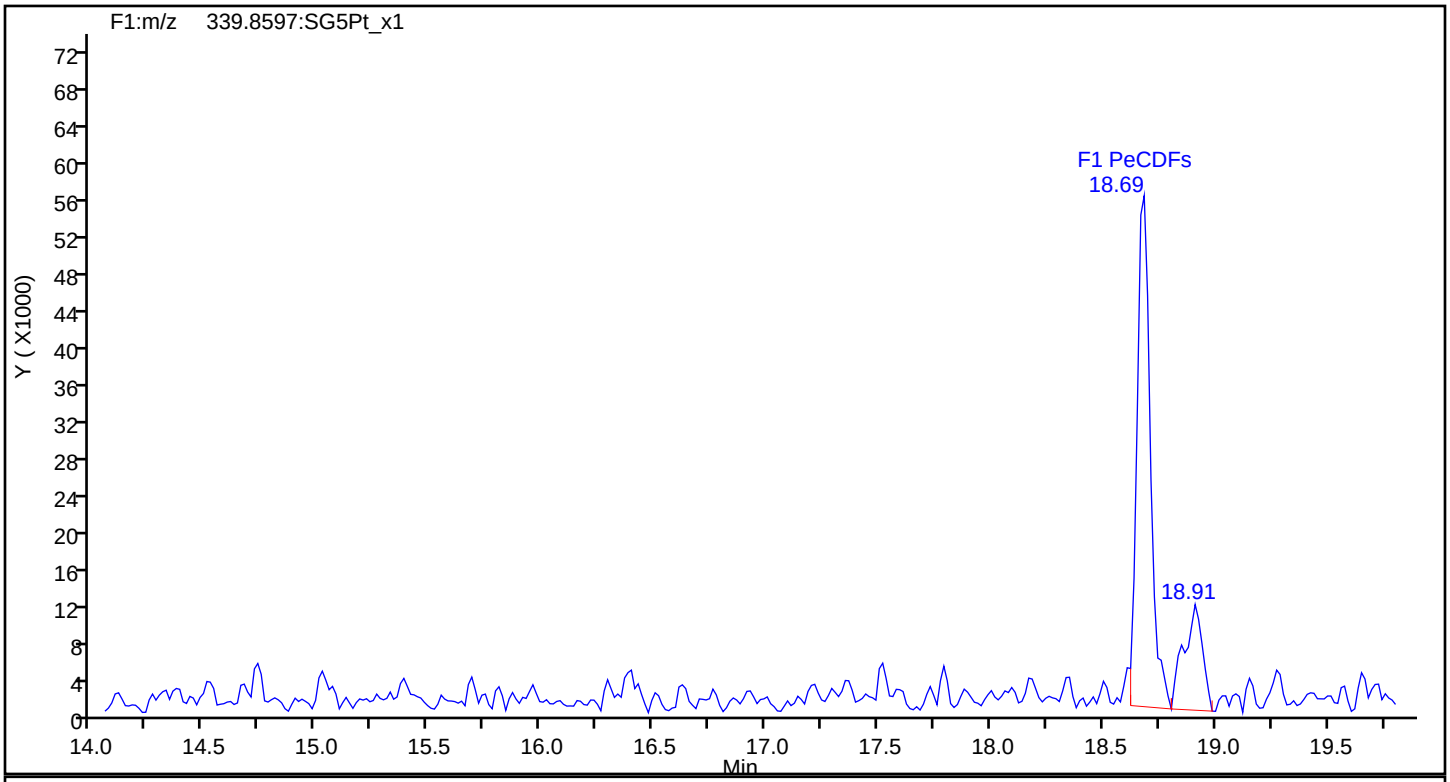


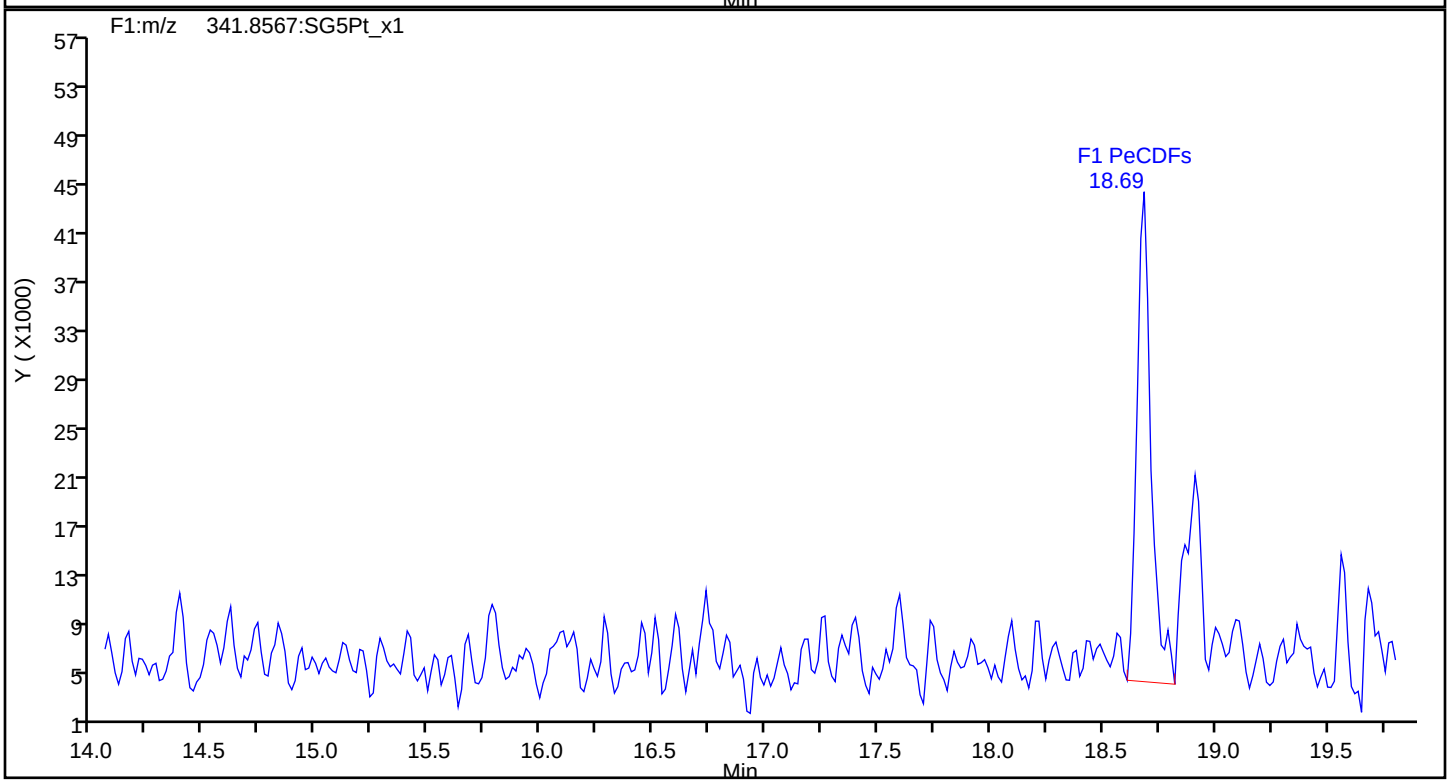
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



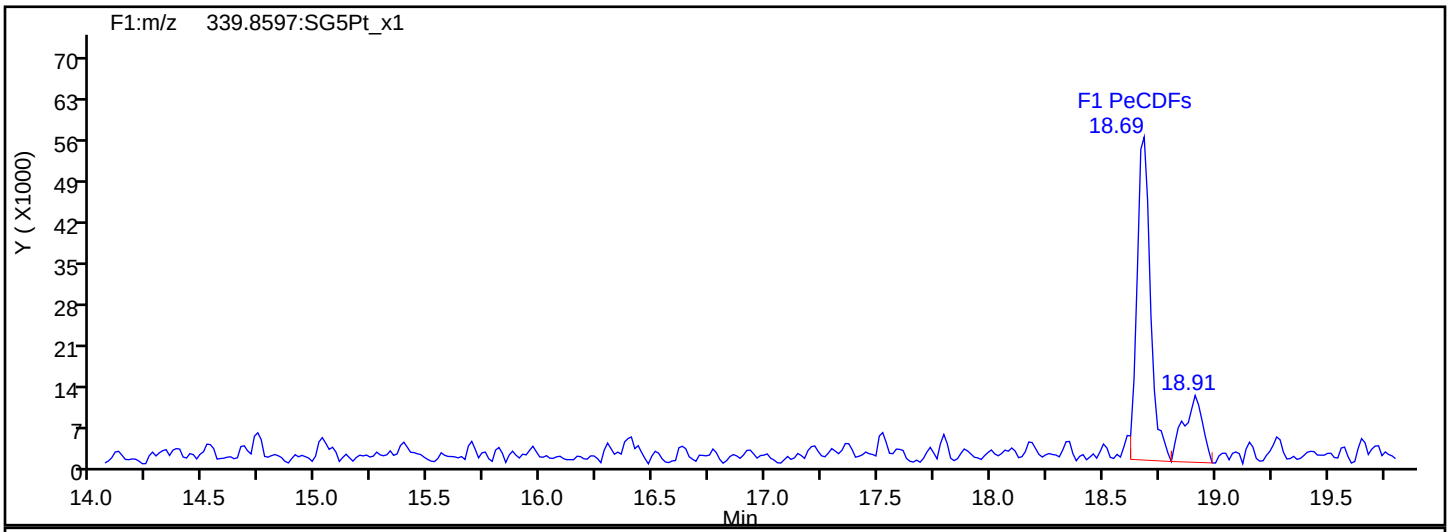


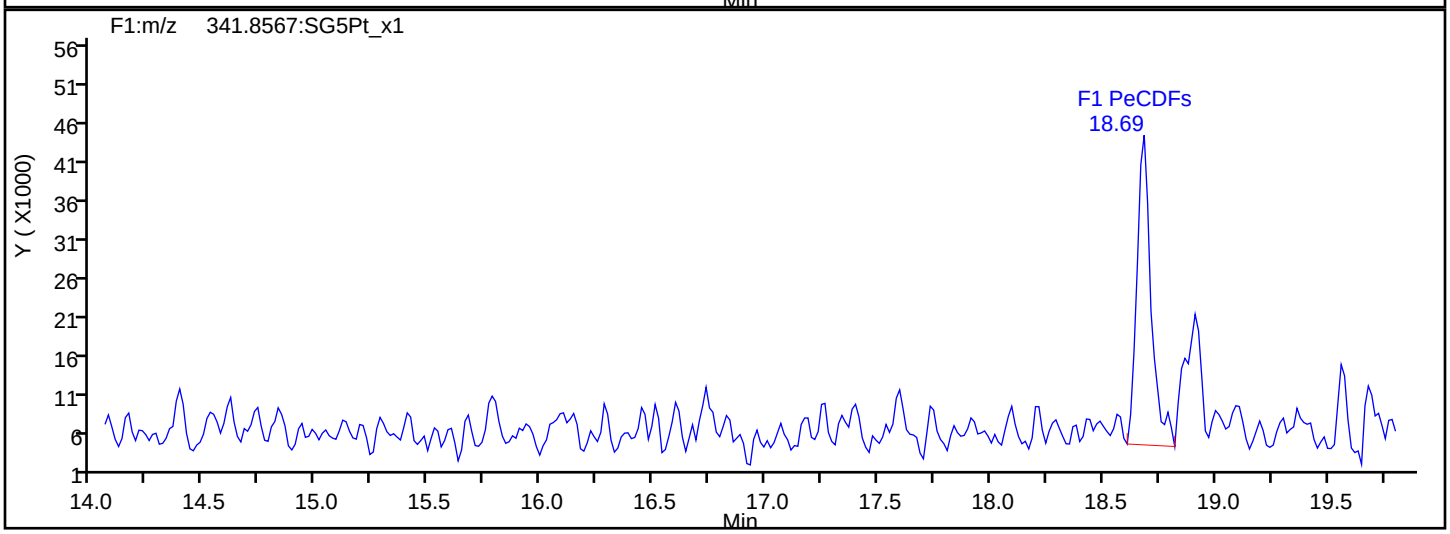
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

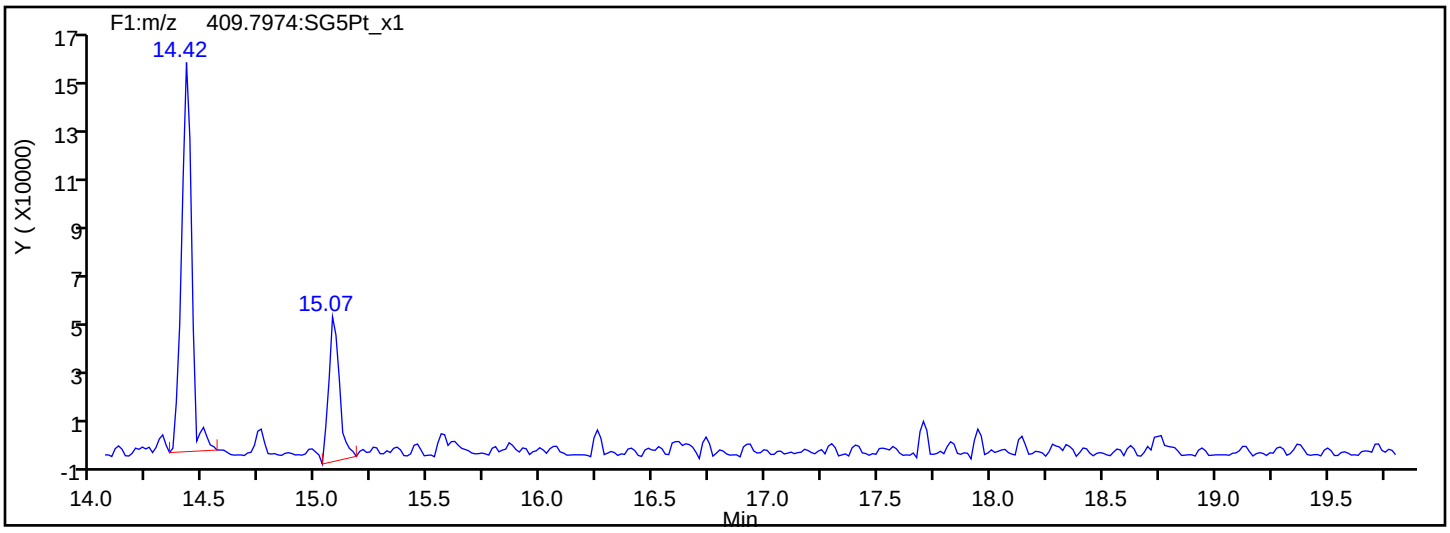
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

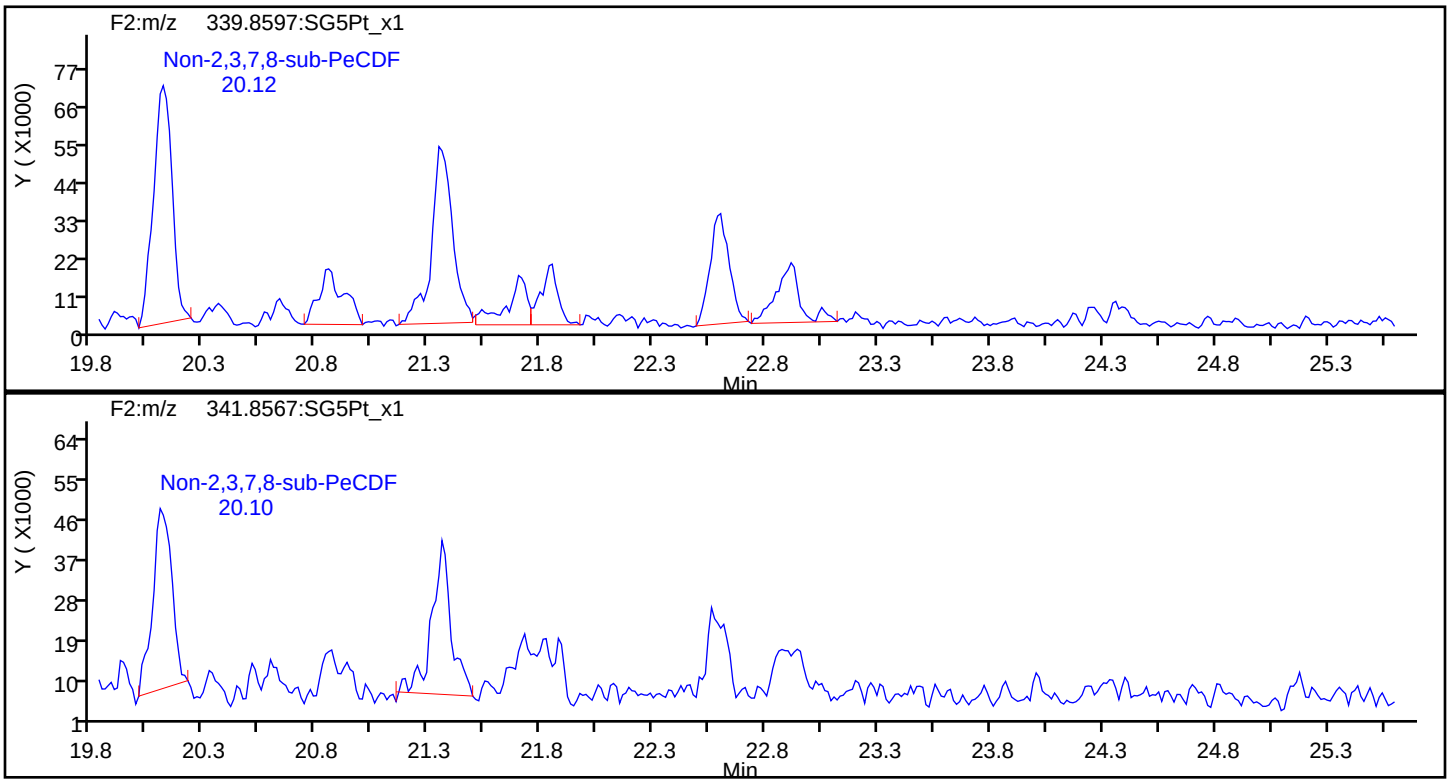


Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

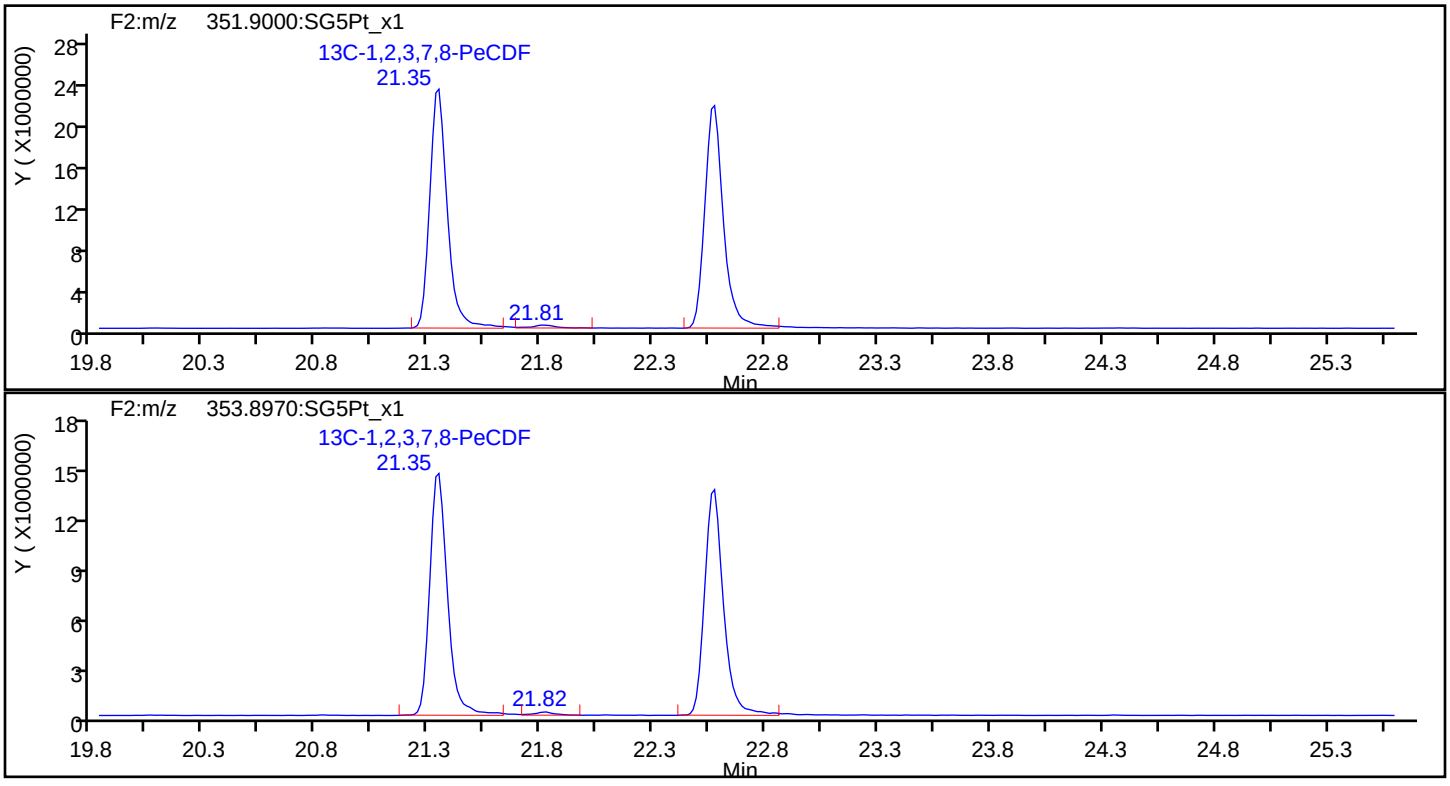
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

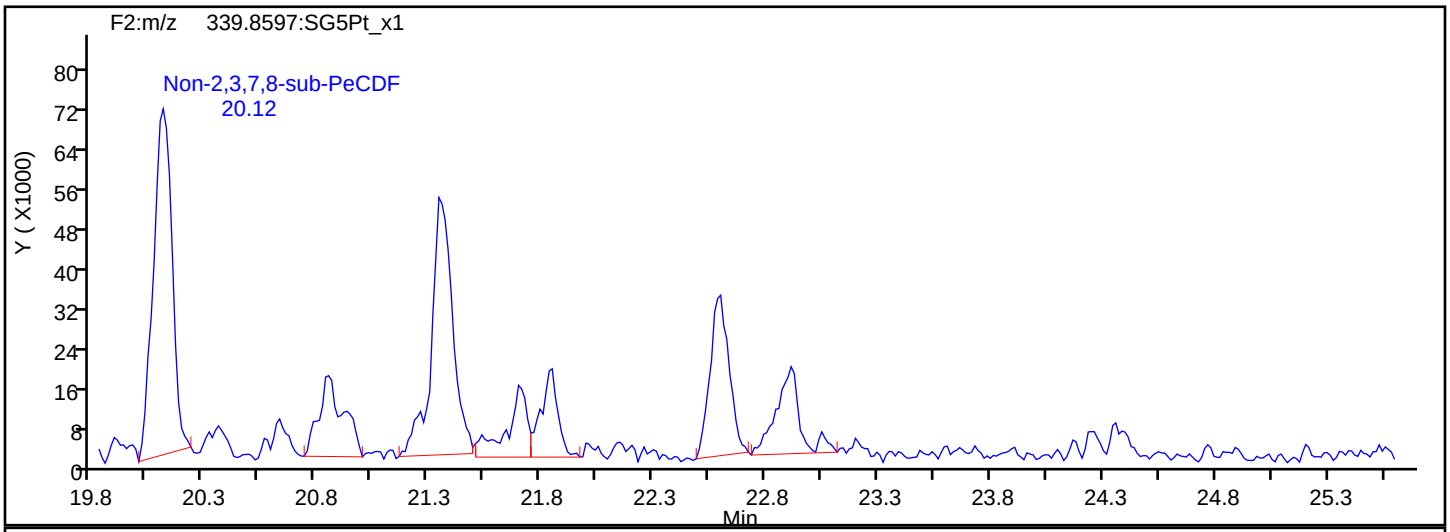


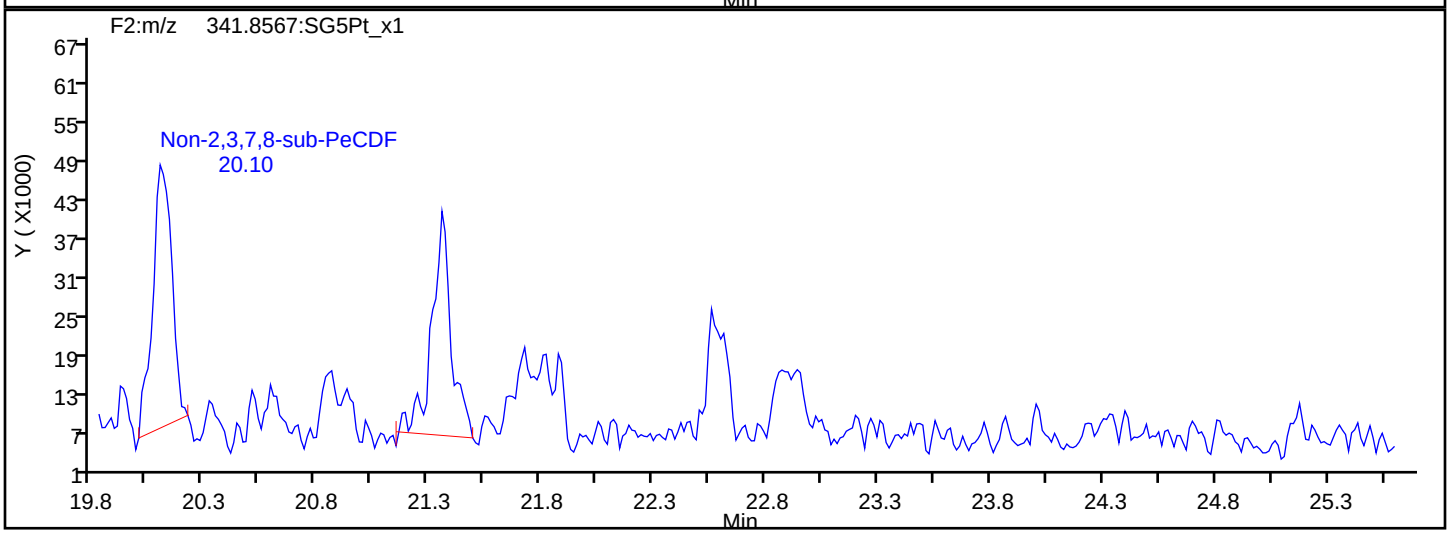
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

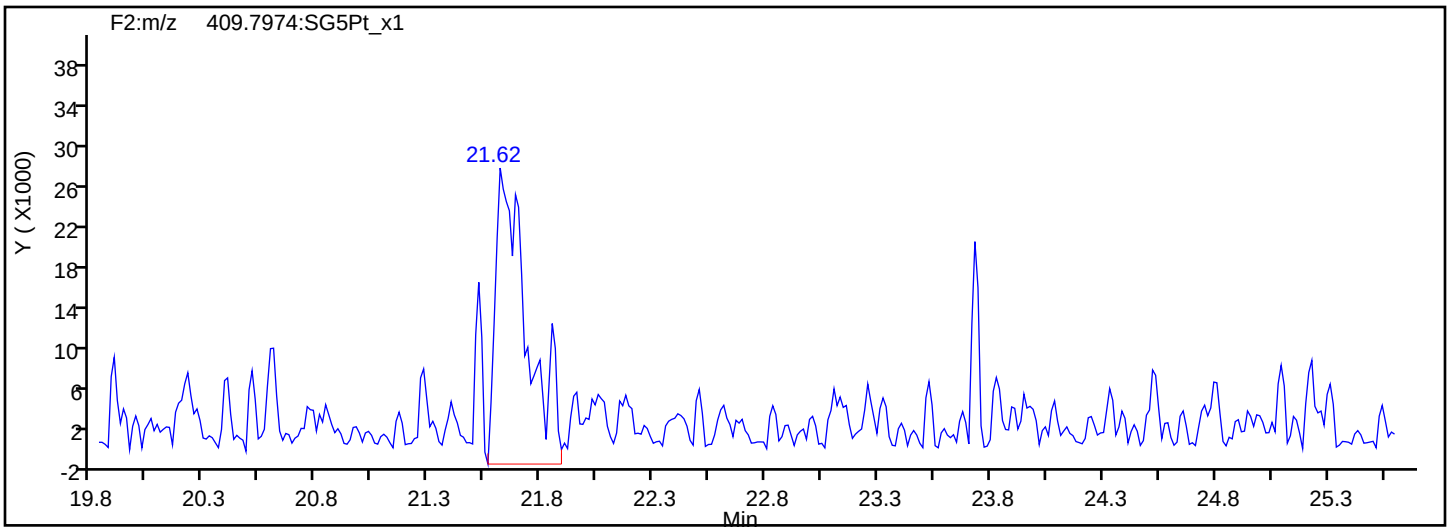
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

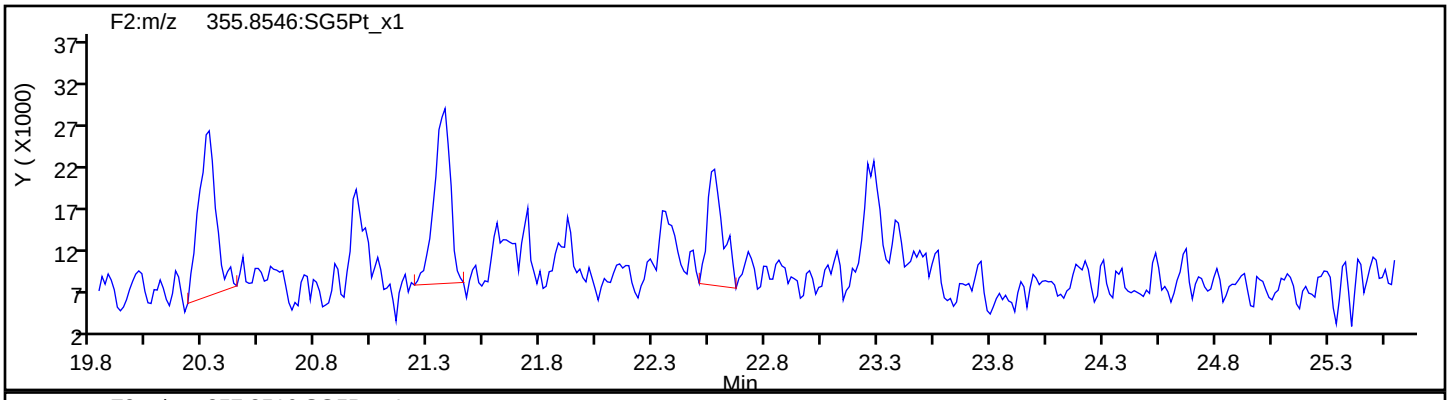


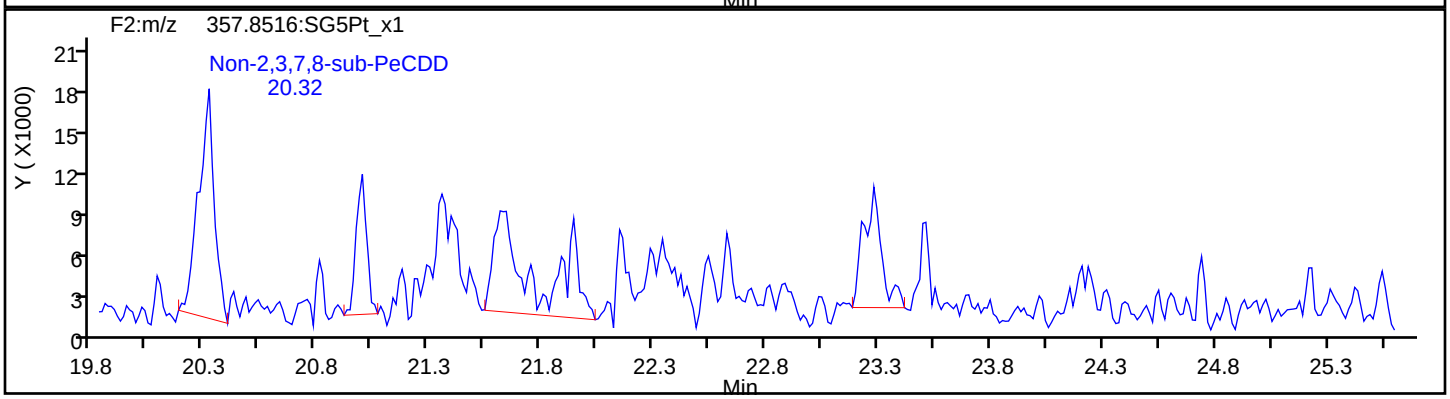
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

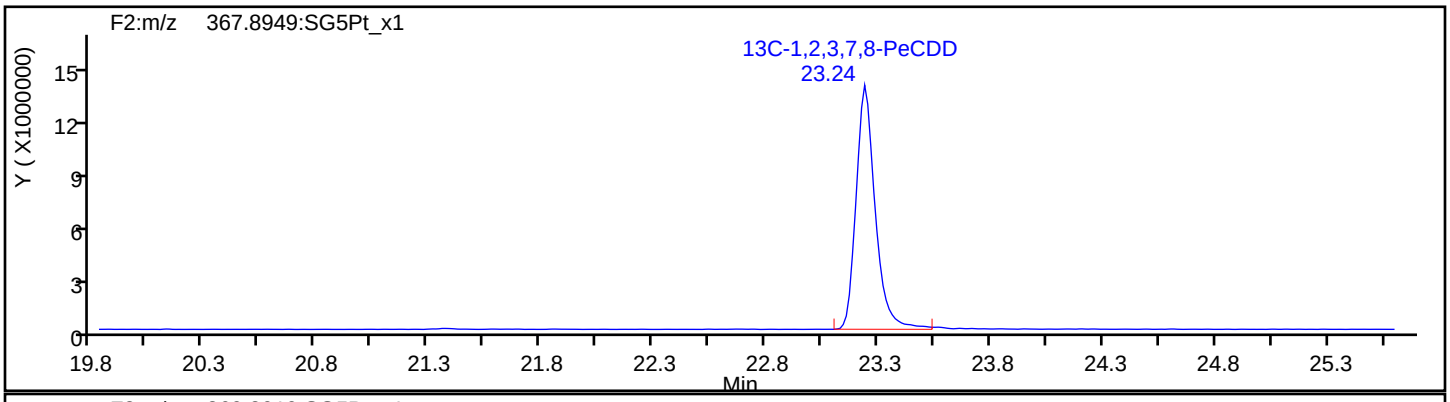
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

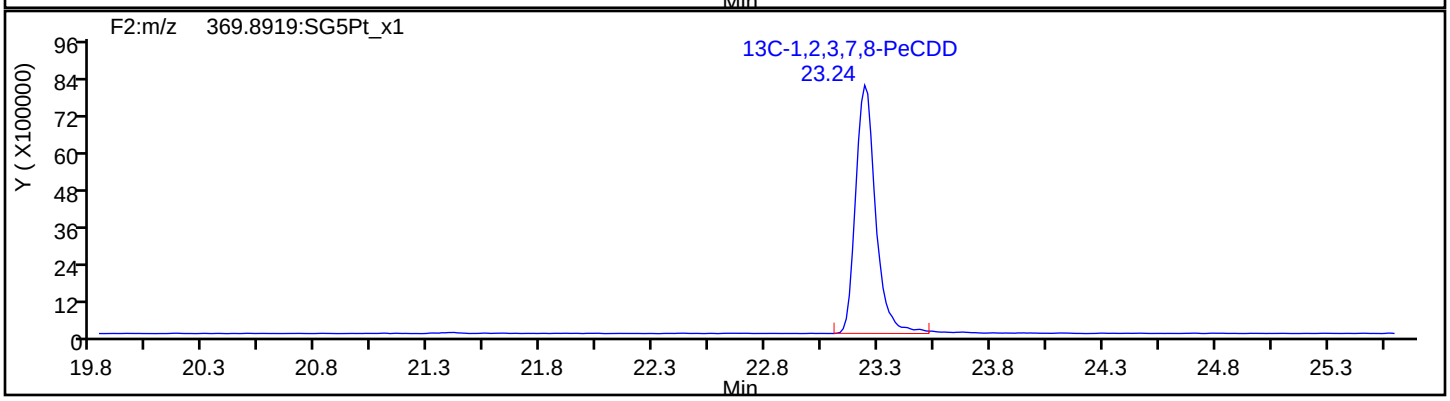
PeCDD





PeCDD Standards



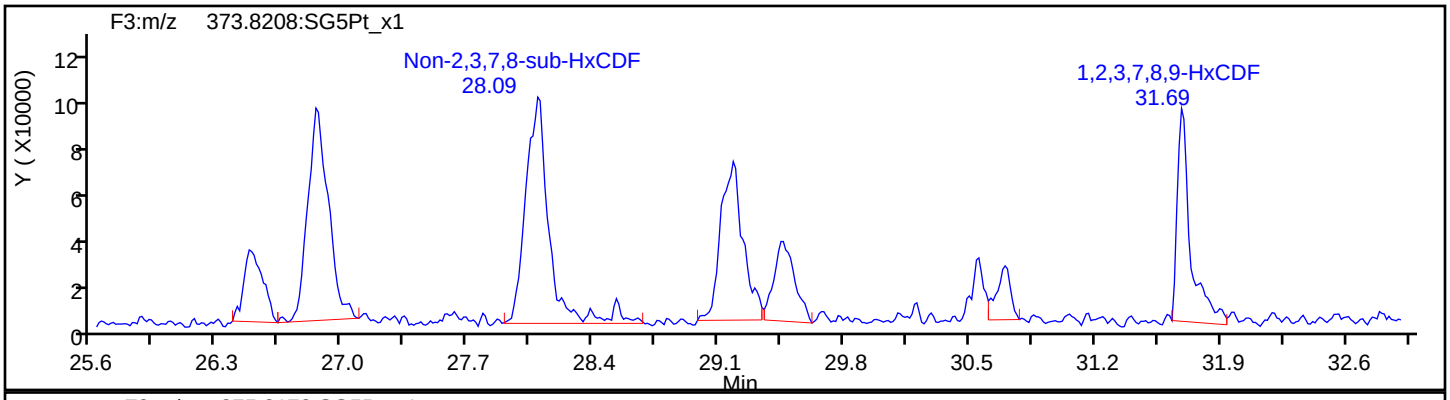


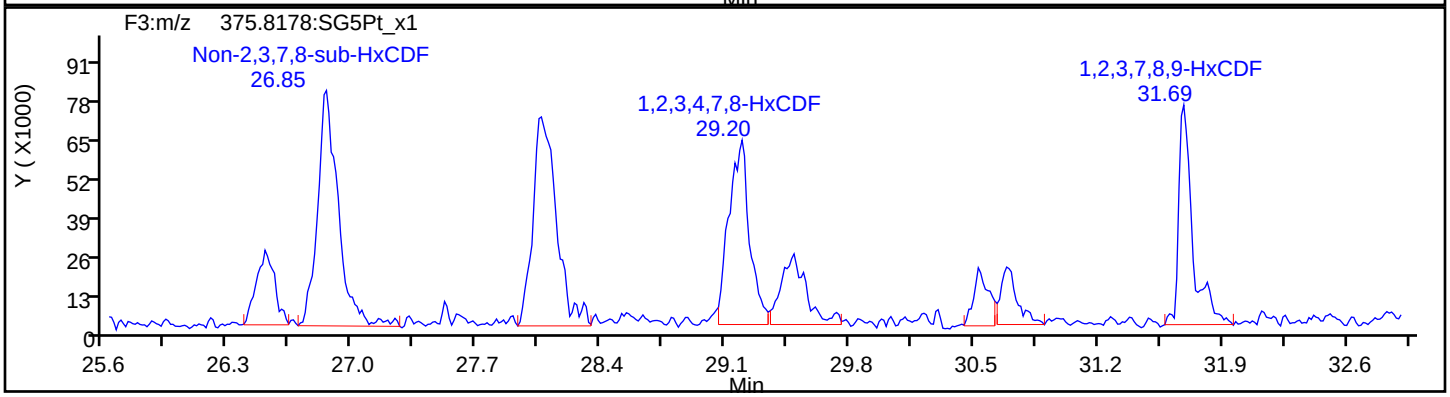
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

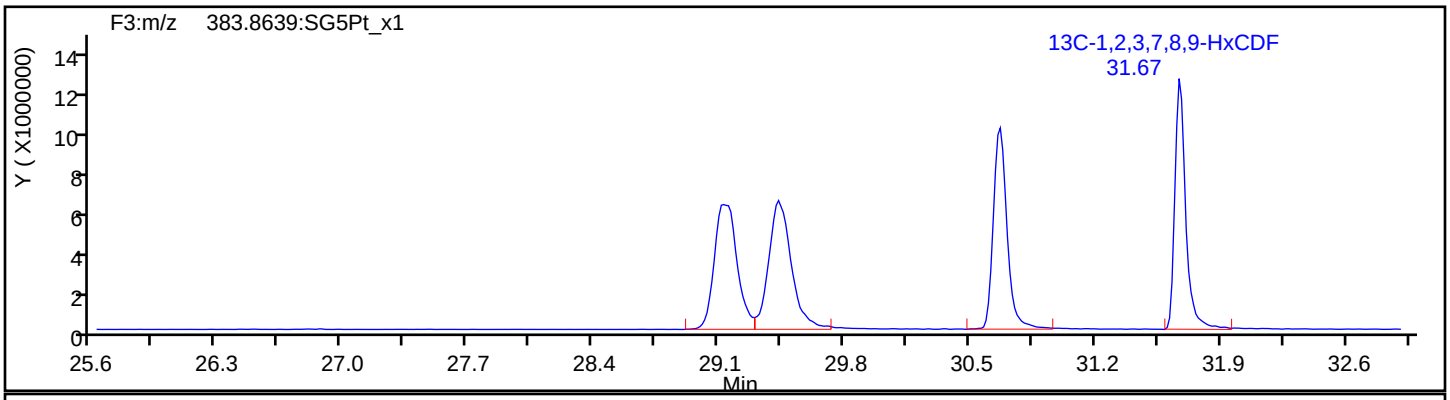
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

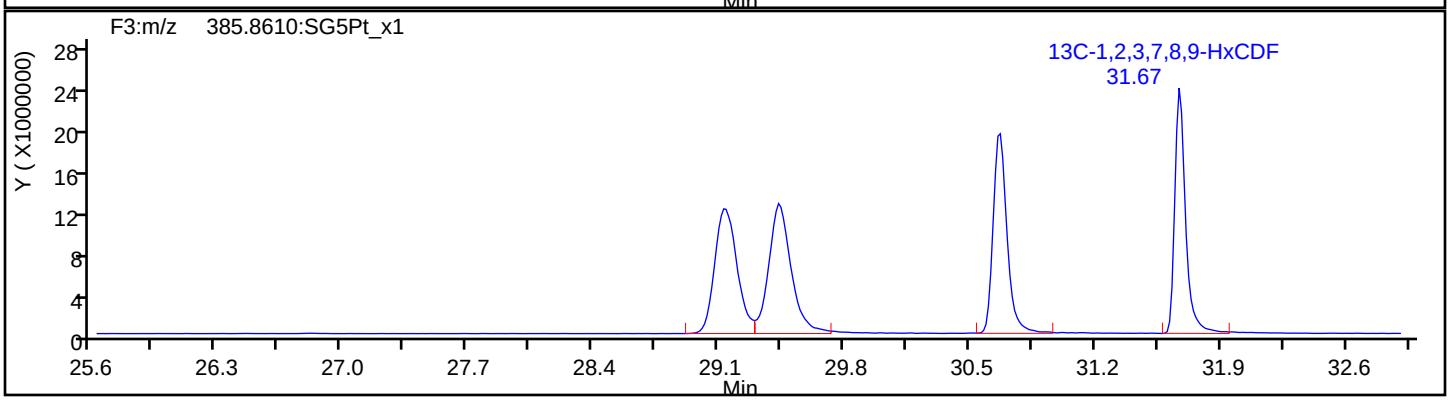
HxCDF





HxCDF Standards



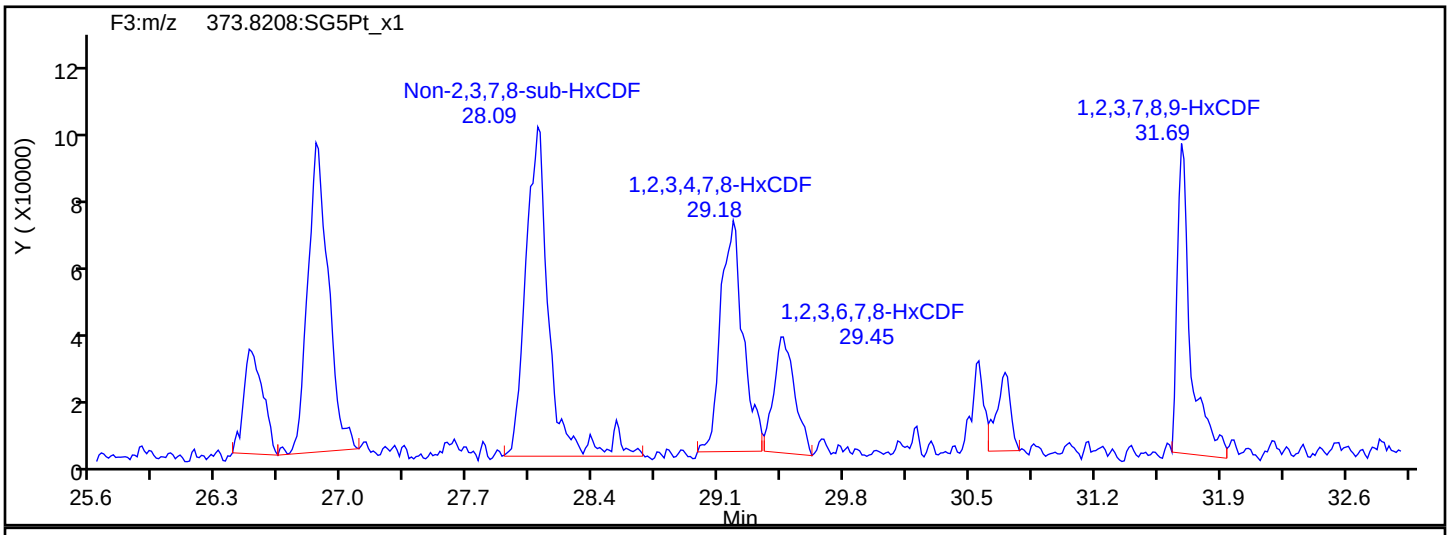


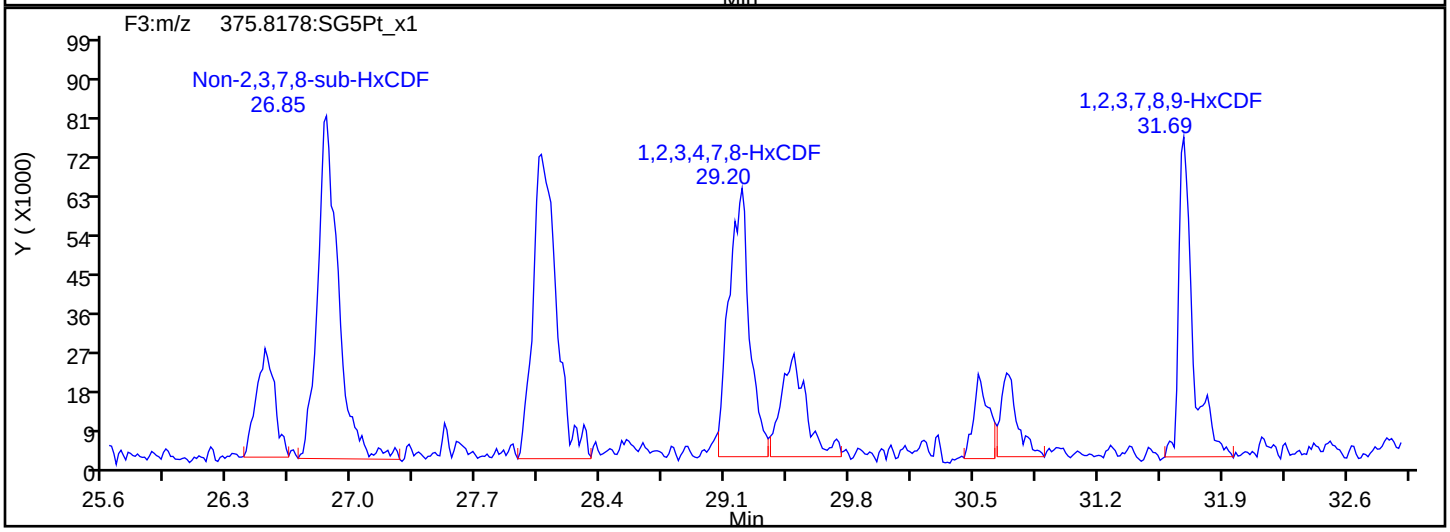
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

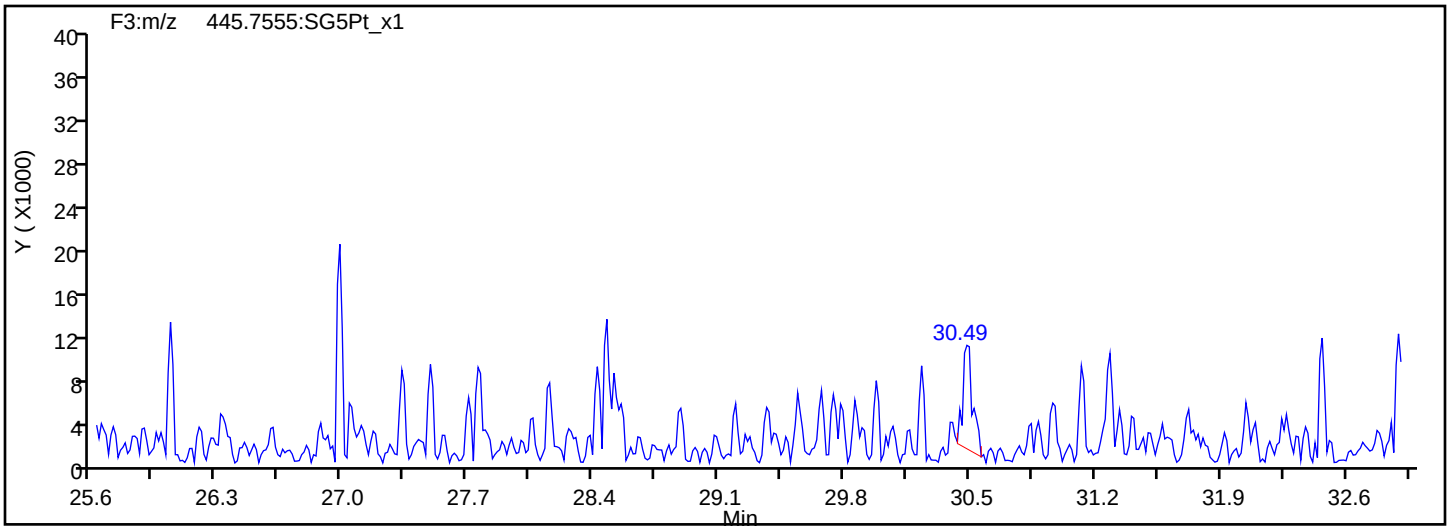
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

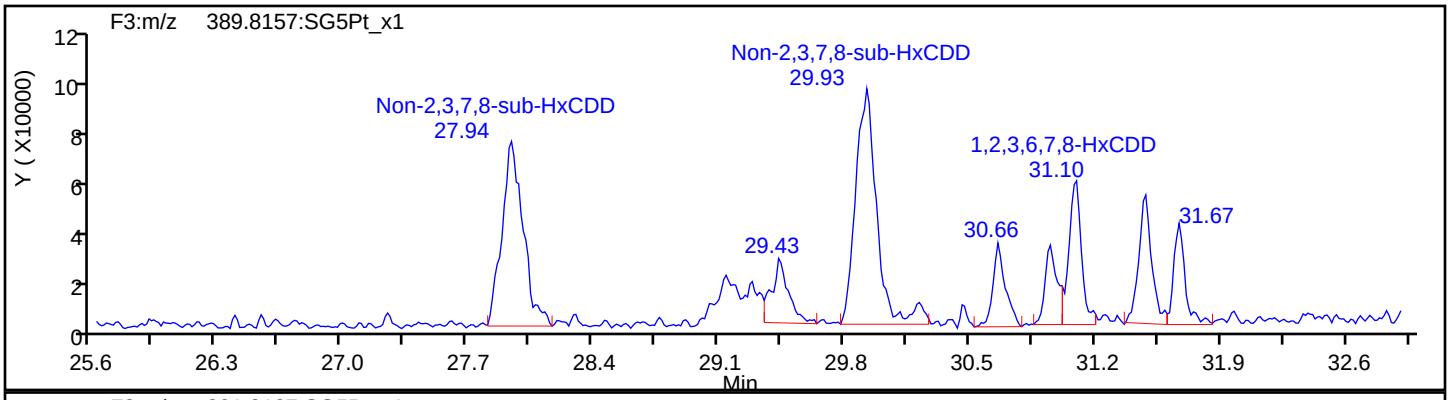


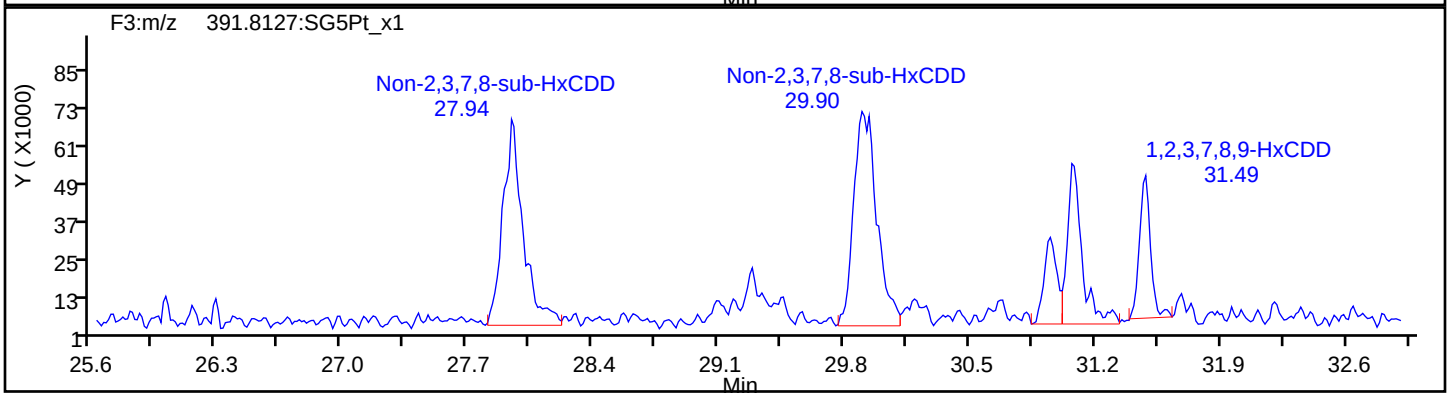
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

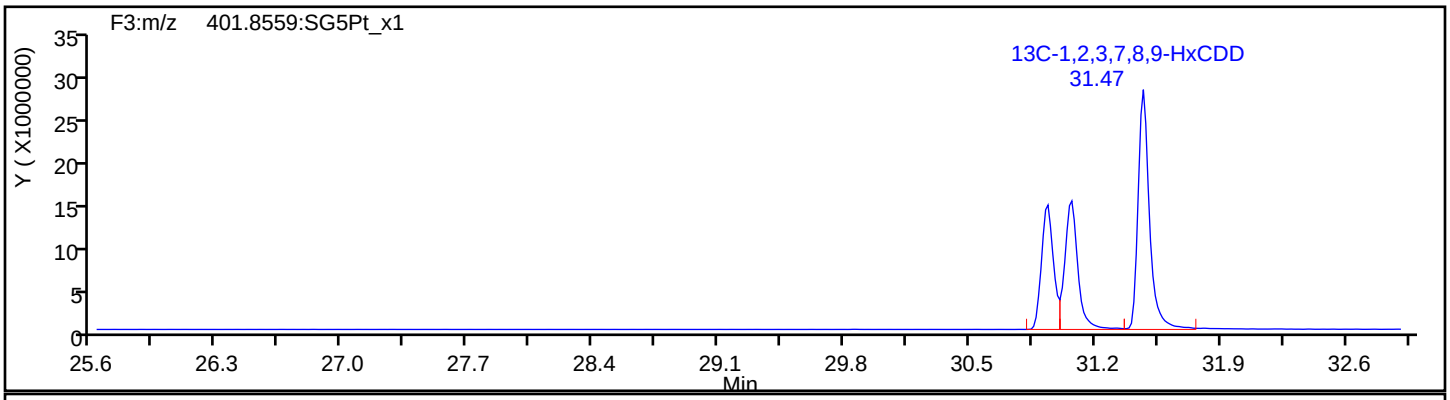
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

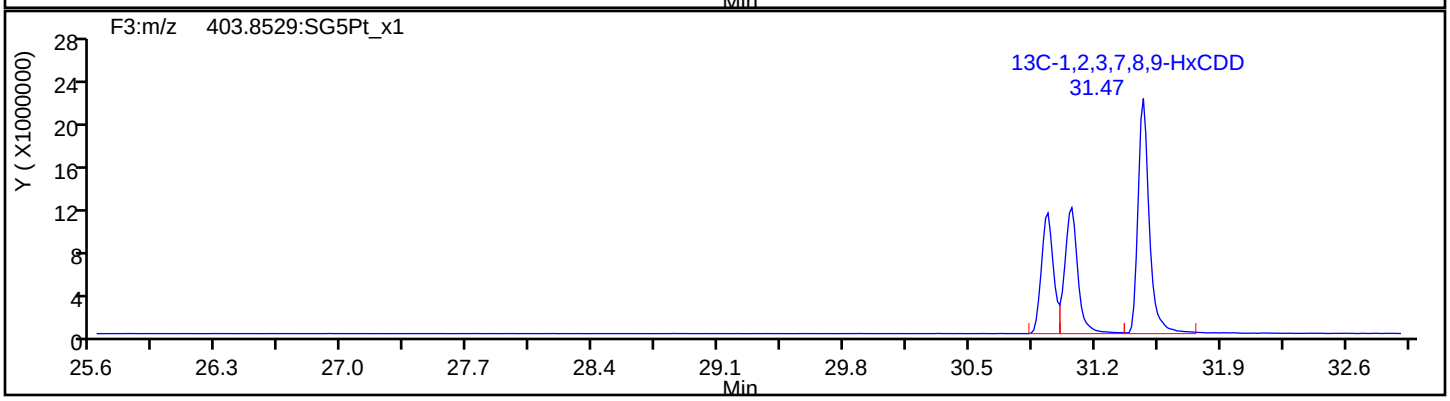
HxCDD





HxCDD Standards



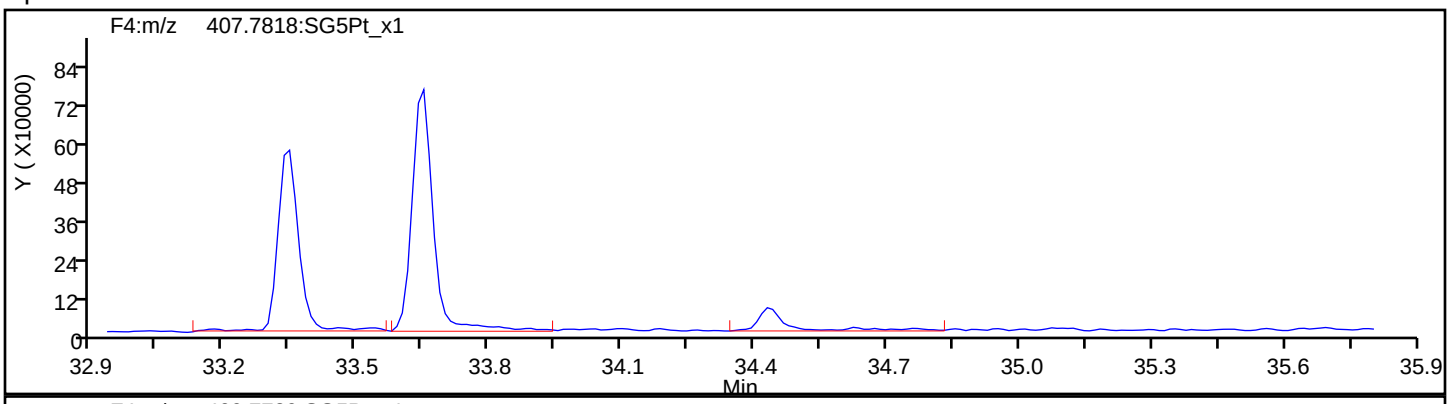


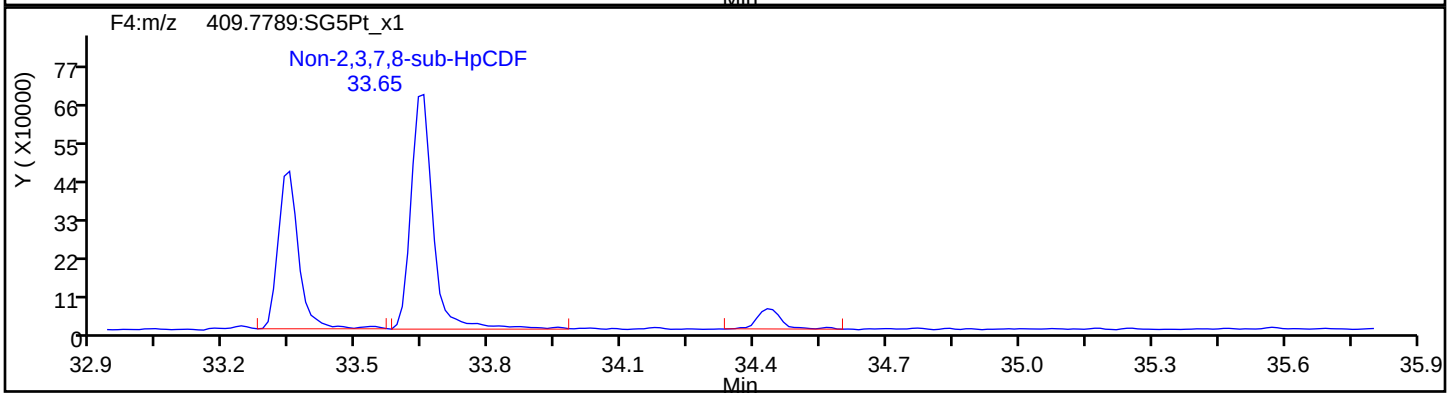
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

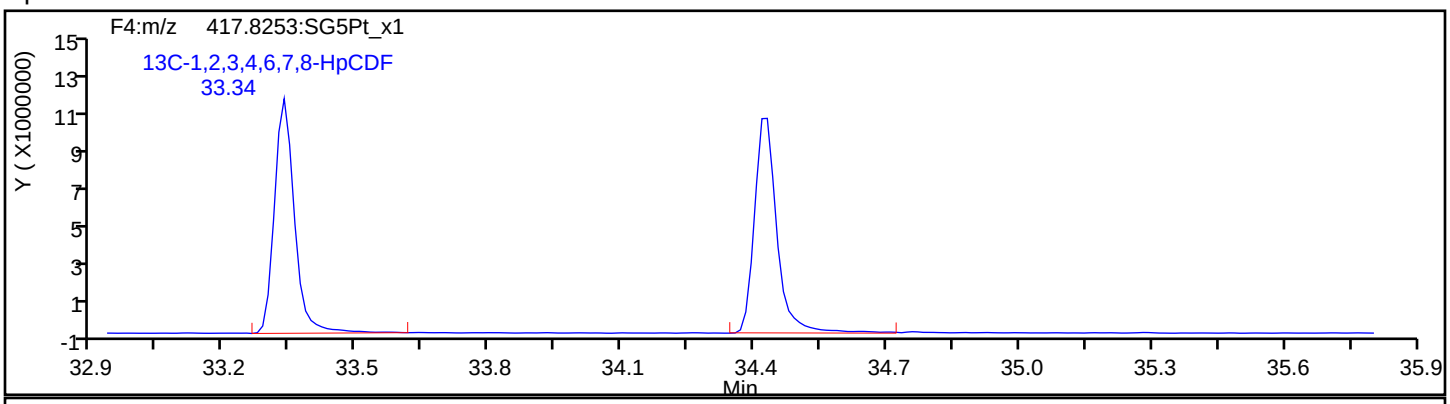
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

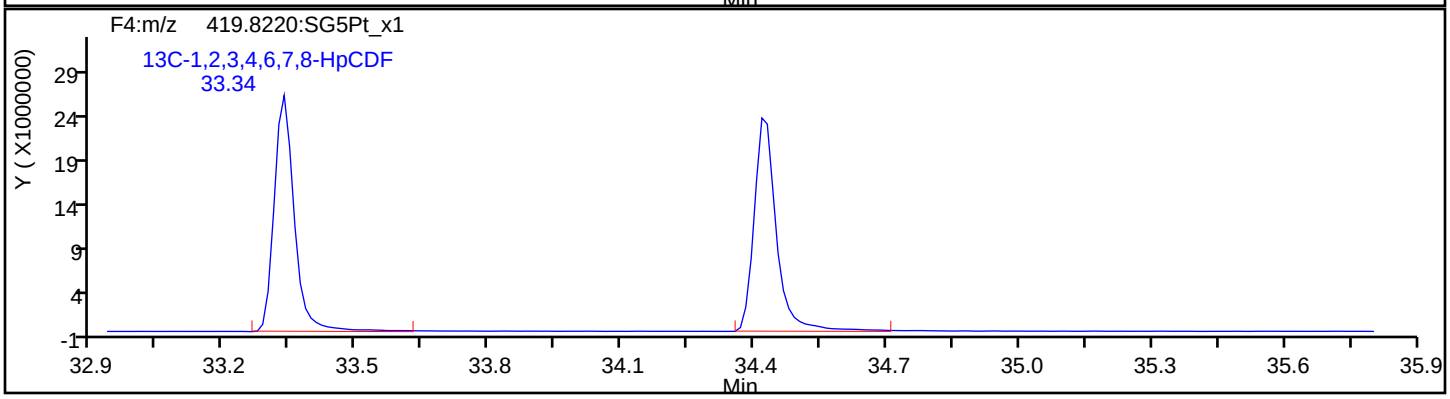
HpCDF





HpCDF Standards



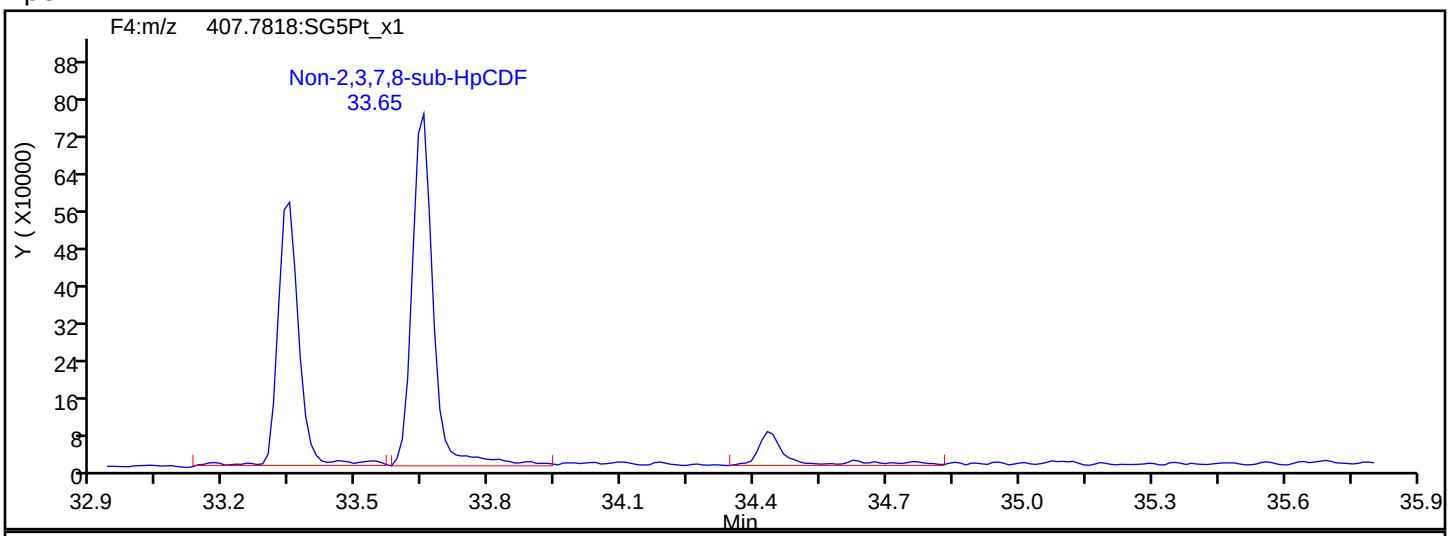


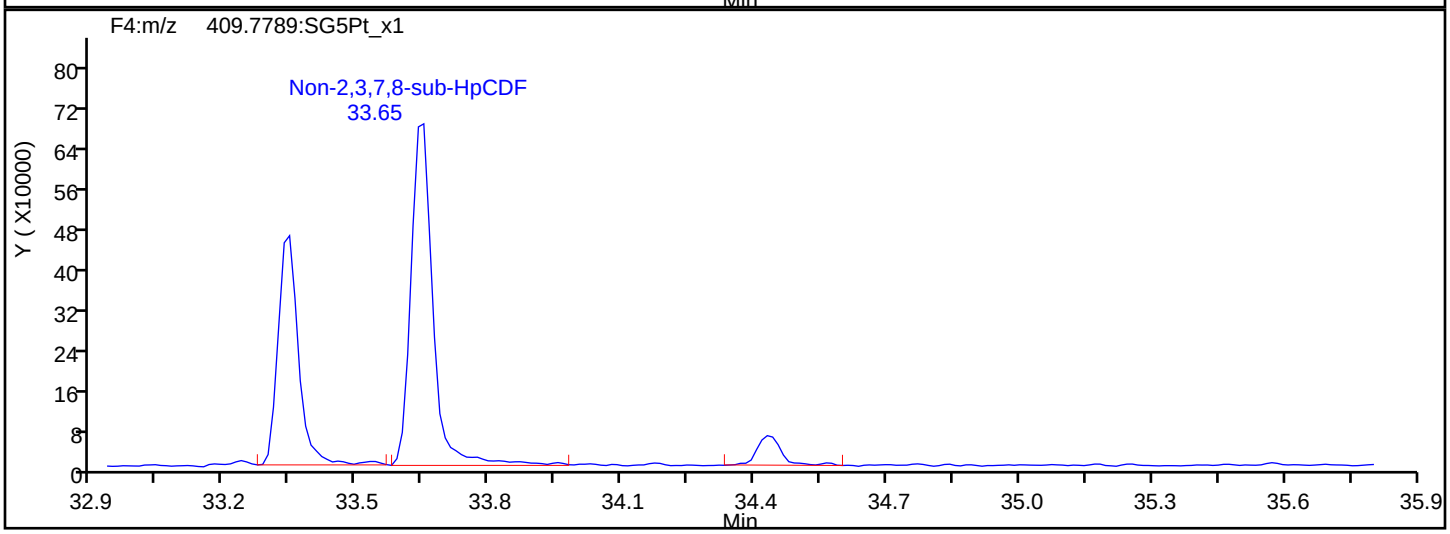
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

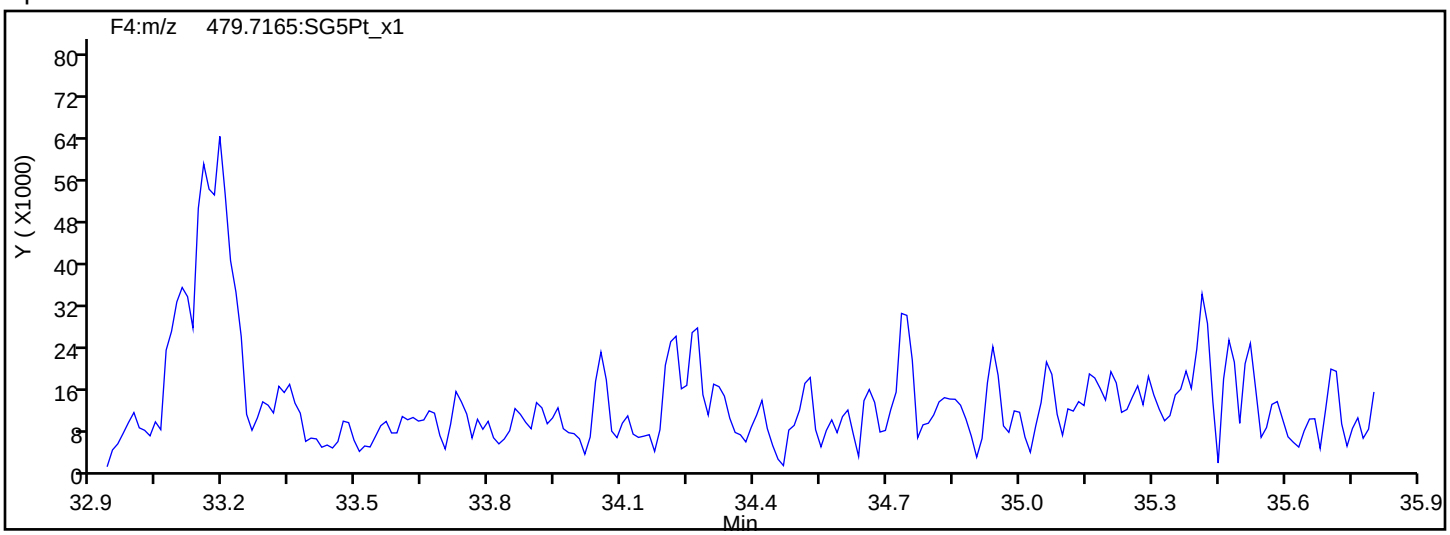
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

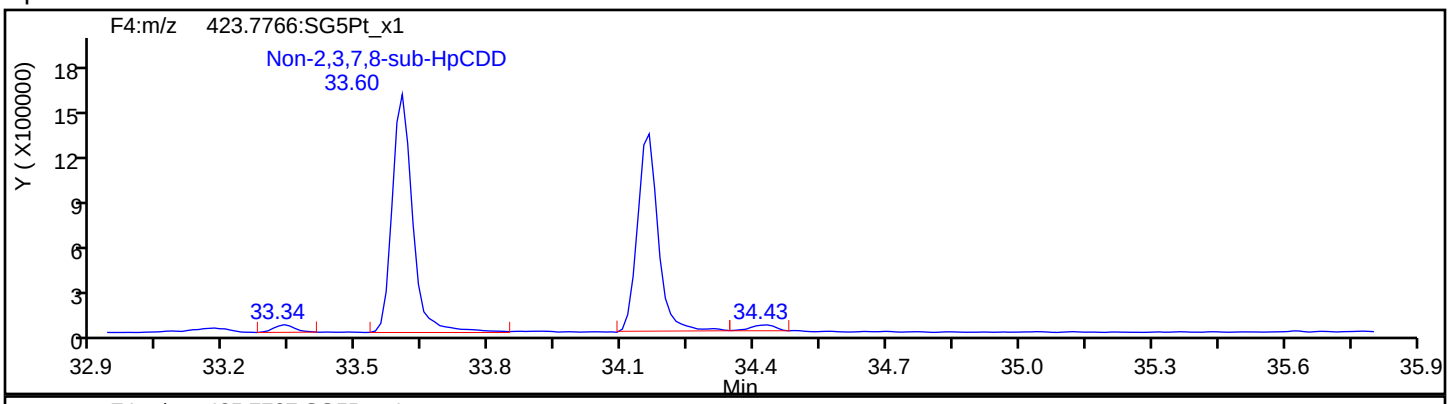


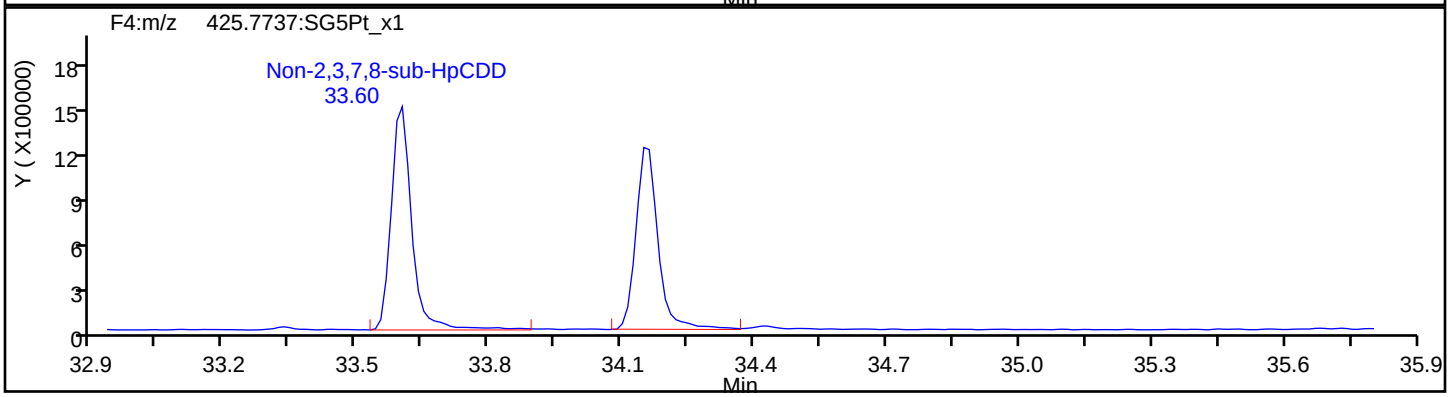
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

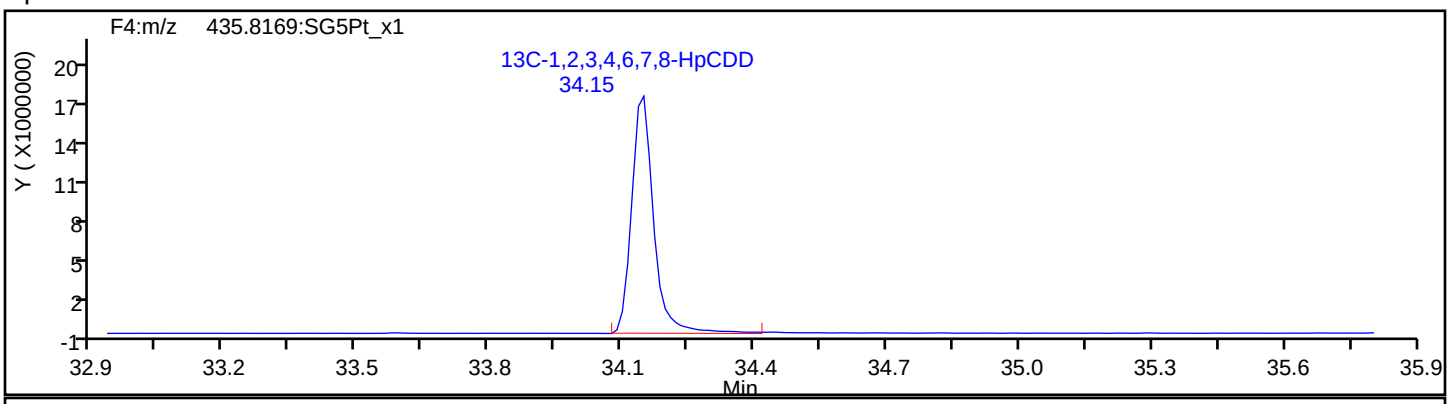
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

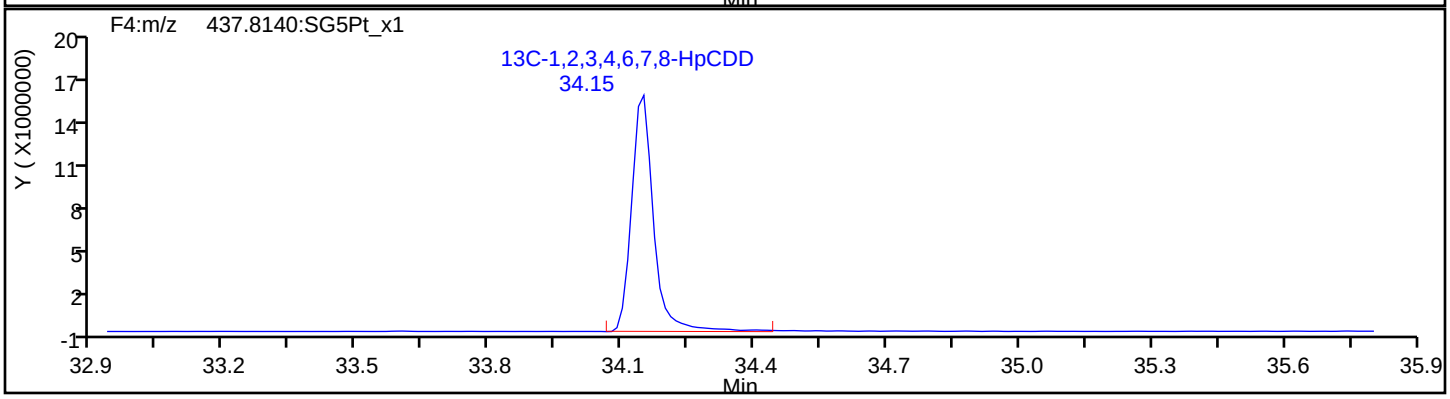
HpCDD





HpCDD Standards





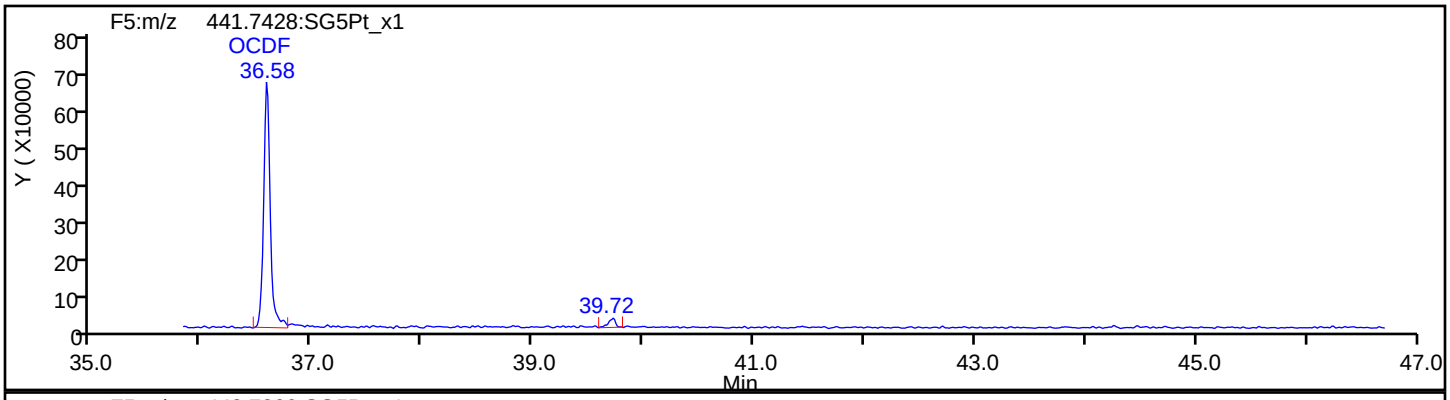
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

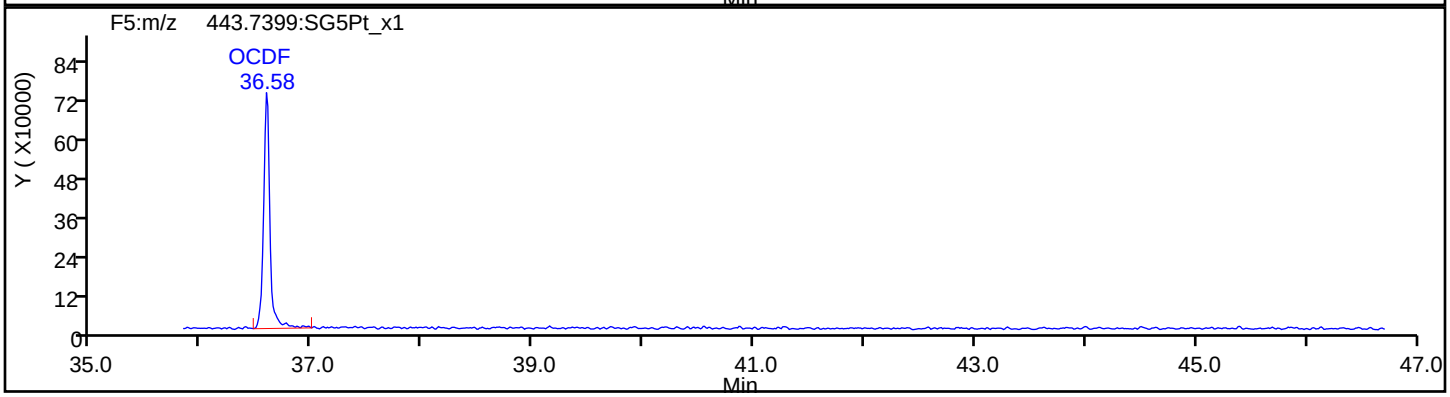
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d

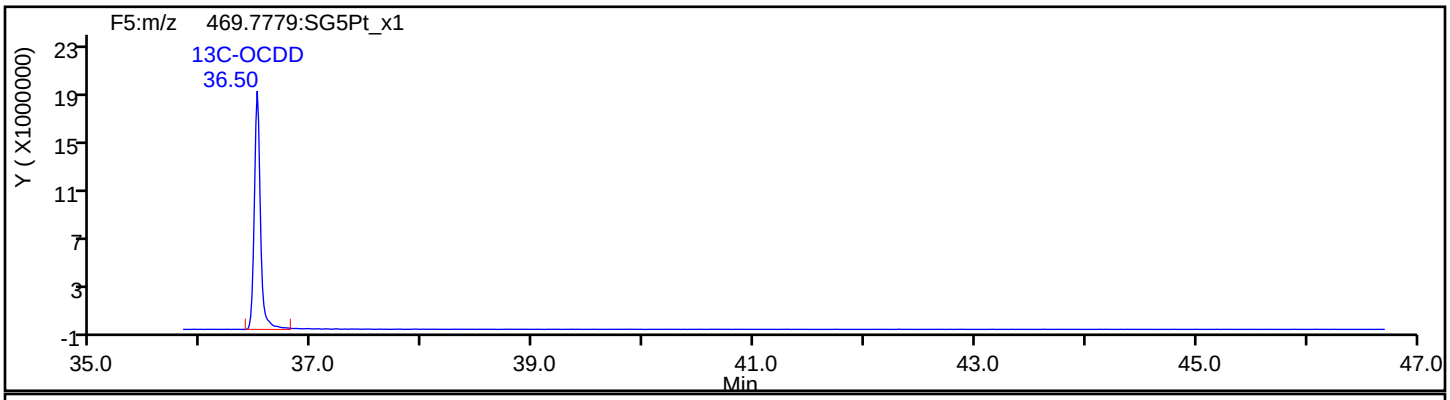
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

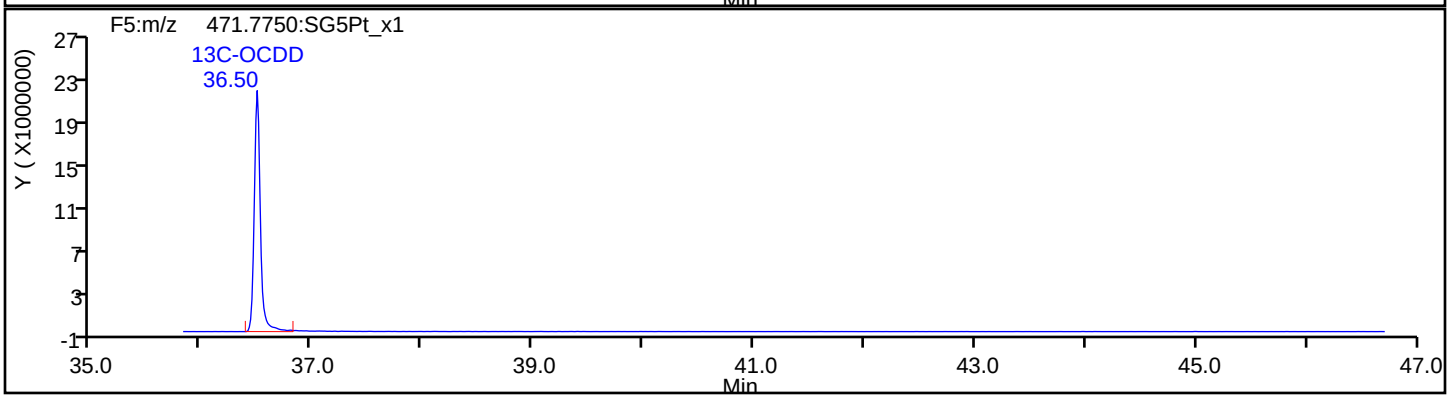
OCDF





OCDF Standards



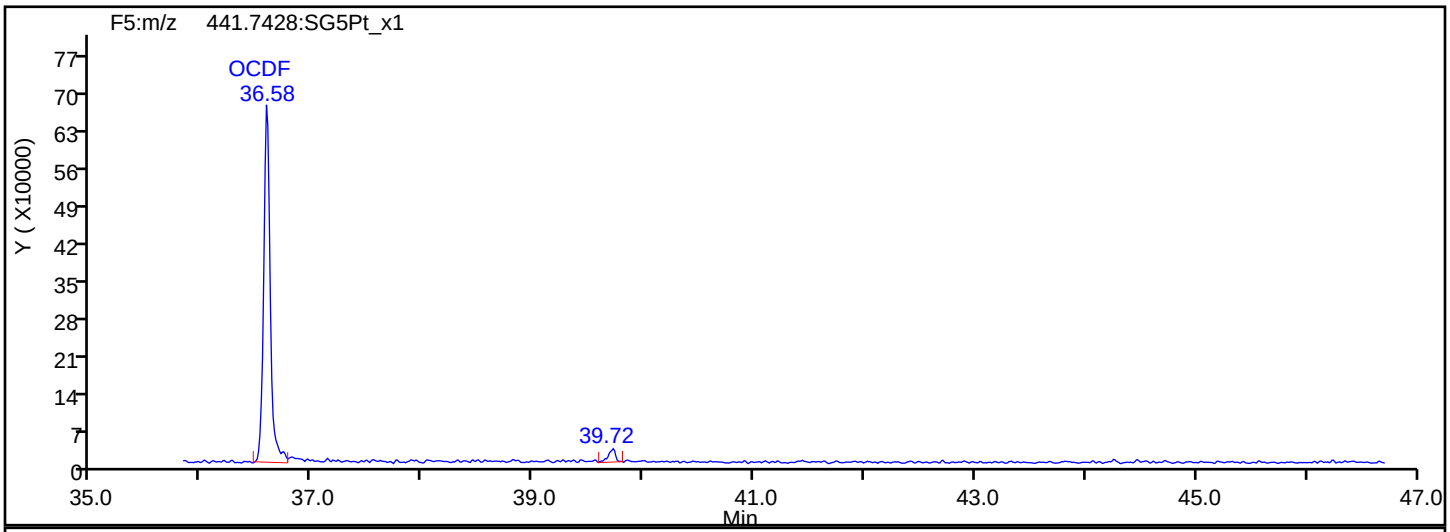


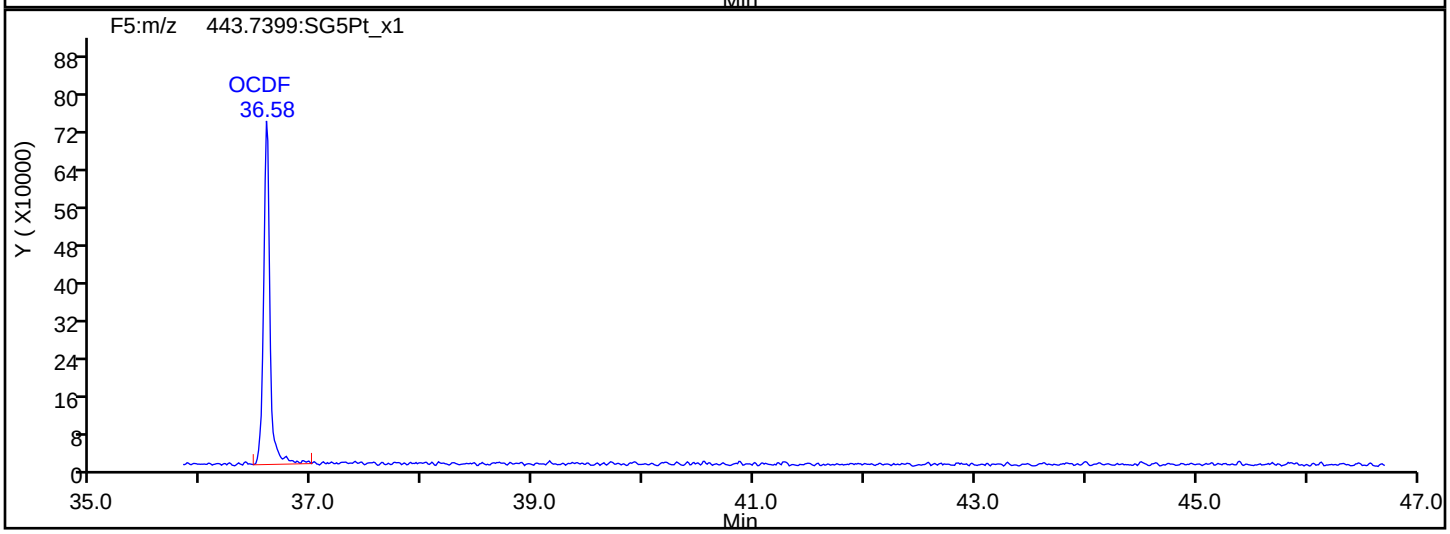
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

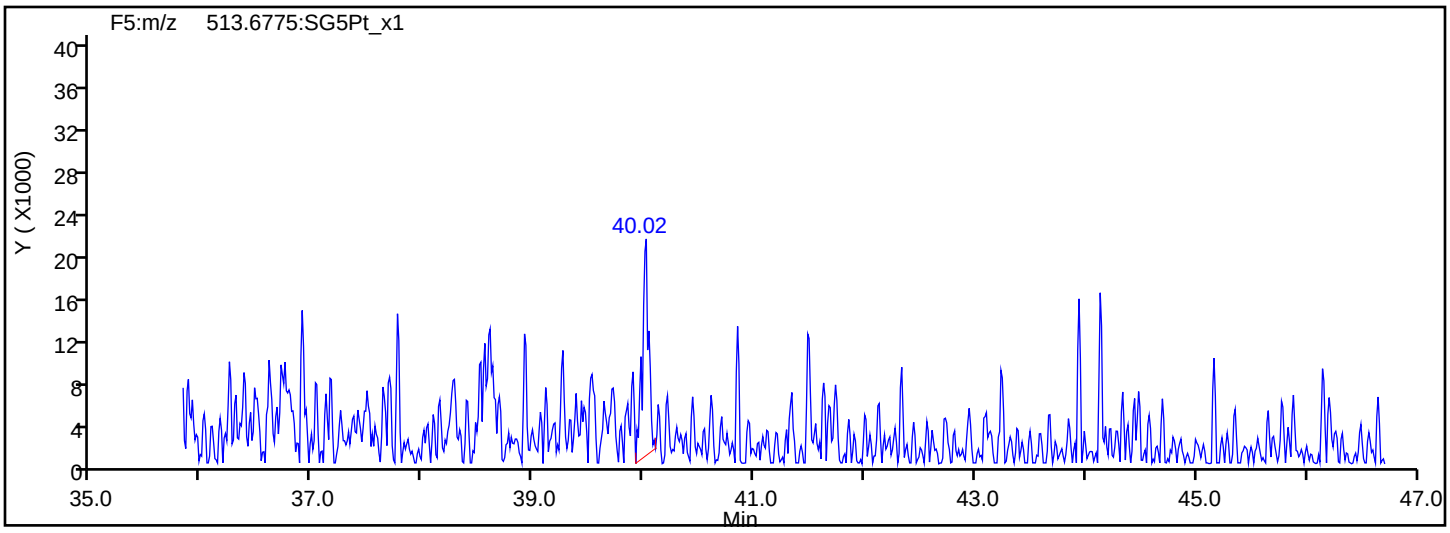
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

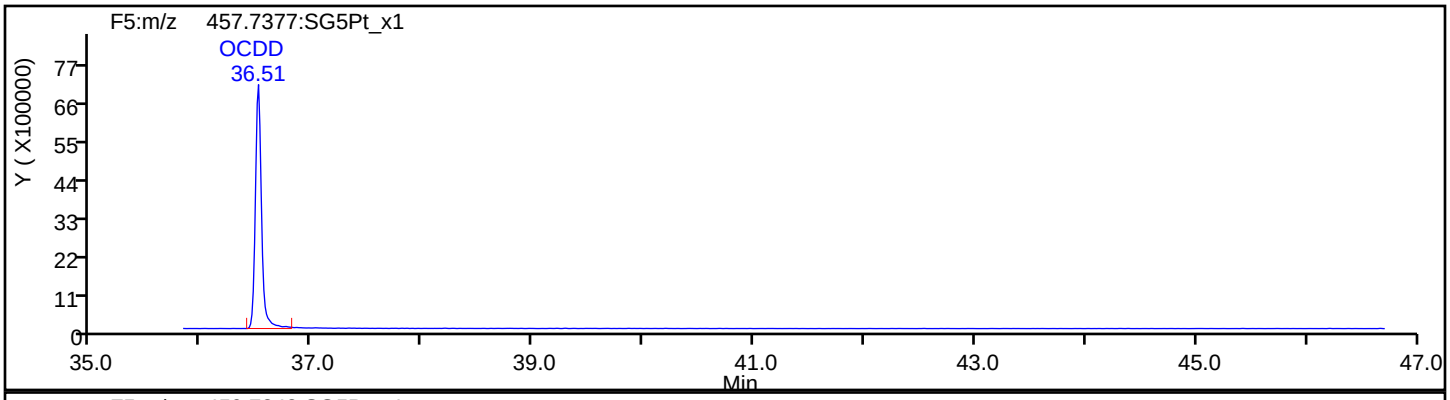


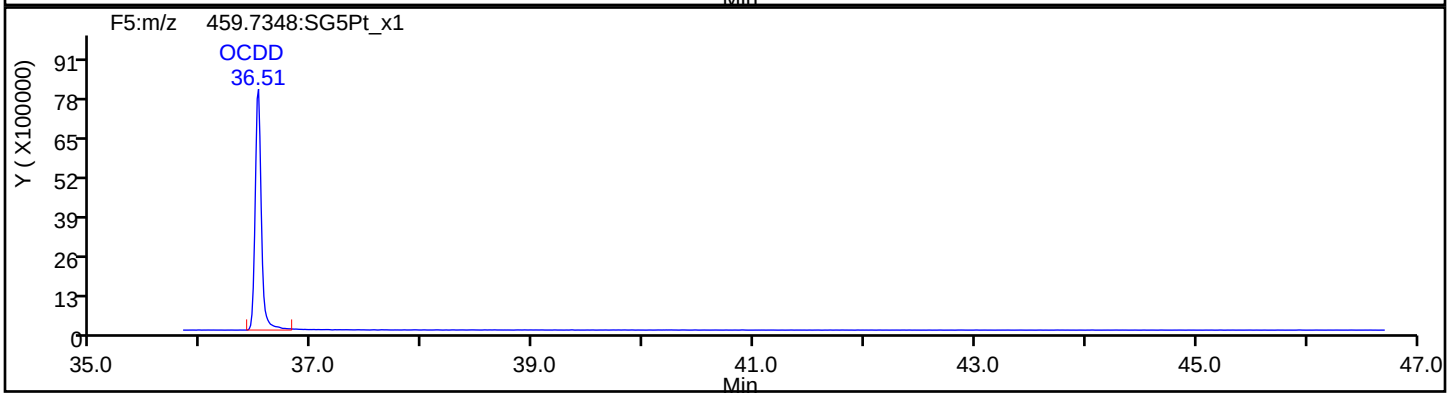
Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

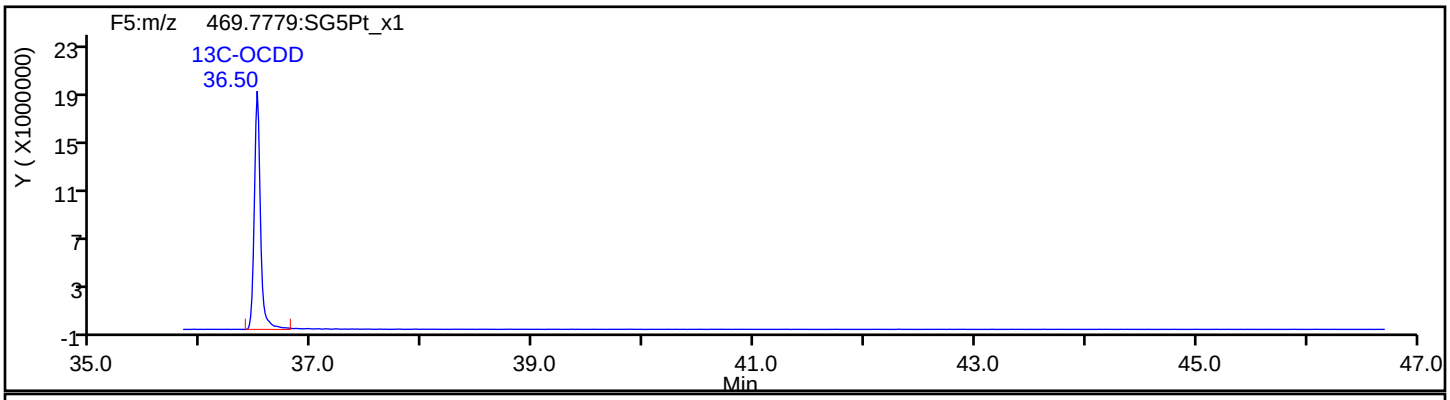
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm

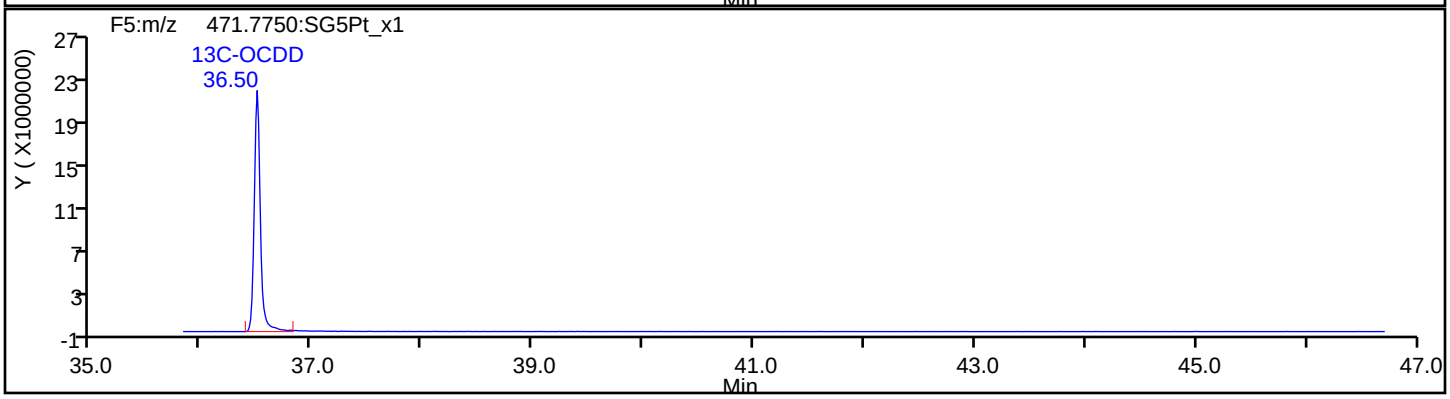
OCDD





OCDD Standards

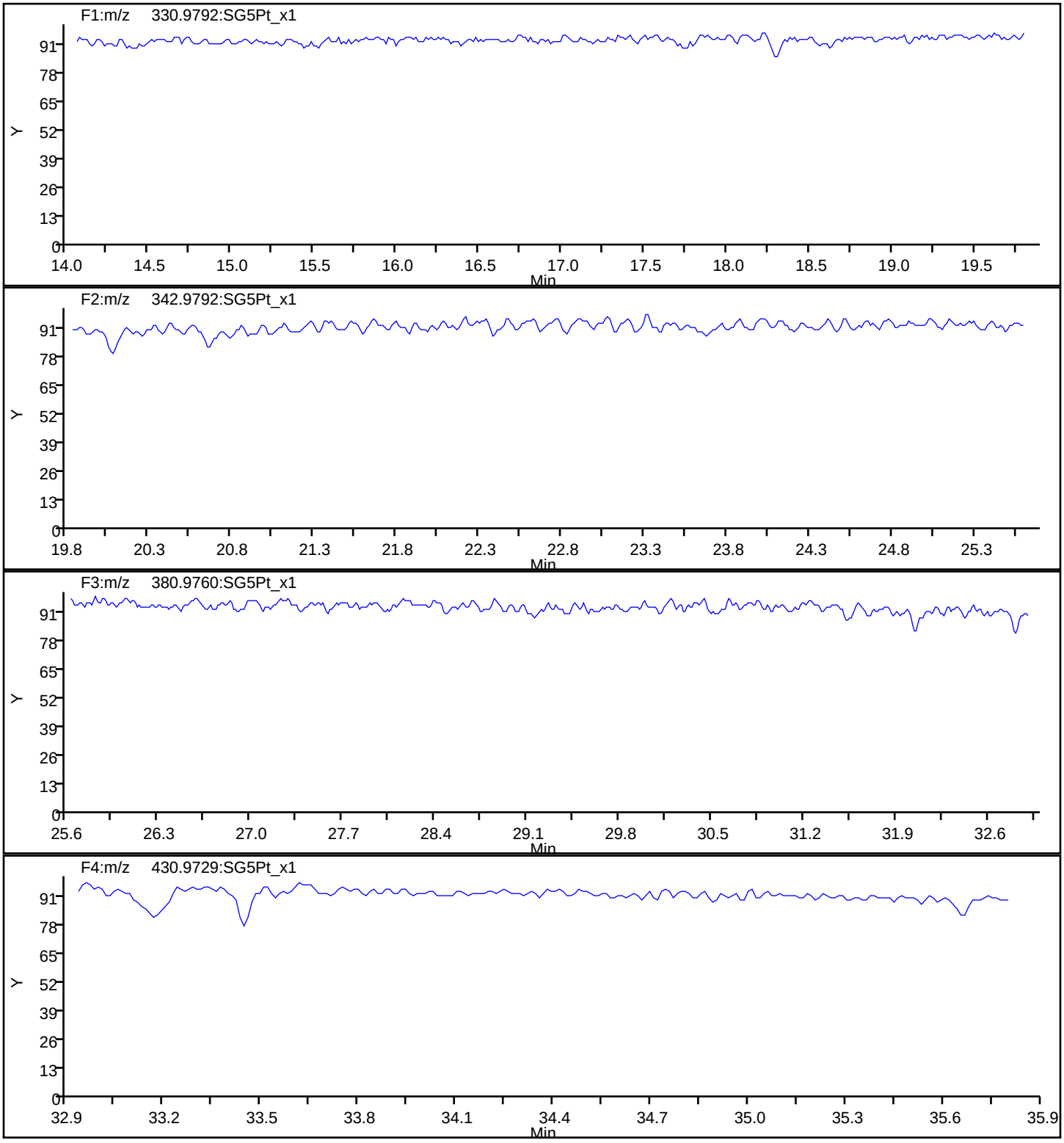




Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

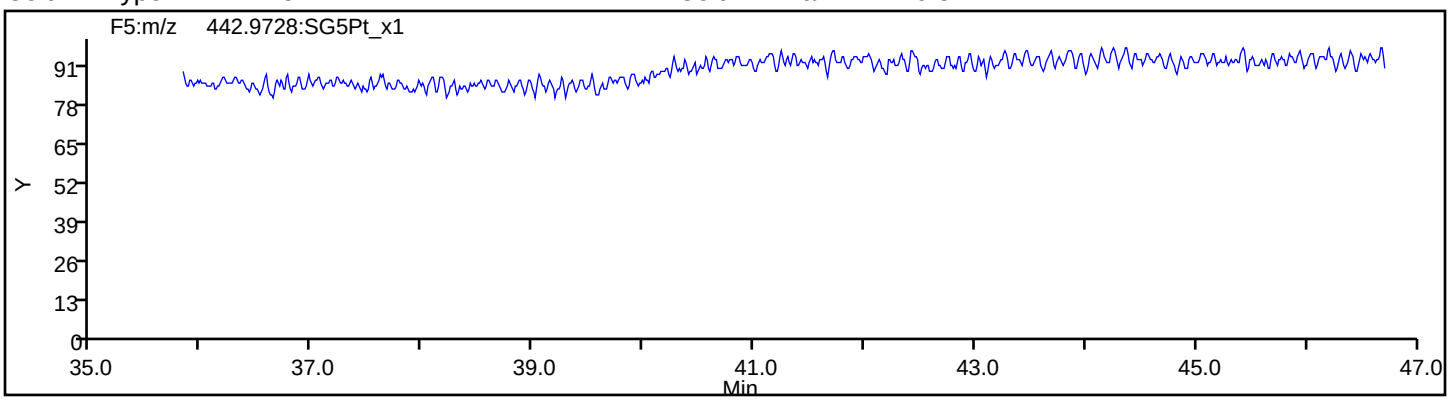
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 10:42:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_57.d		
Injection Date:	21-Jul-2019 22:18:54	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-17_20190716		
Worklist#:	309103	Sample Line#:	57
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Matrix: Solid Lab File ID: 19JL19A3D5_58.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:44

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 9.98(g) Date Analyzed: 07/21/2019 23:06

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	1.3	J	3.3	0.38
40321-76-4	1,2,3,7,8-PeCDD	ND		17	0.61
57117-41-6	1,2,3,7,8-PeCDF	4.0	J	17	0.48
57117-31-4	2,3,4,7,8-PeCDF	3.0	J	17	0.51
39227-28-6	1,2,3,4,7,8-HxCDD	1.4	J B	17	0.47
57653-85-7	1,2,3,6,7,8-HxCDD	3.1	J q	17	0.47
19408-74-3	1,2,3,7,8,9-HxCDD	2.6	J	17	0.45
70648-26-9	1,2,3,4,7,8-HxCDF	4.4	J	17	0.63
57117-44-9	1,2,3,6,7,8-HxCDF	1.8	J	17	0.70
72918-21-9	1,2,3,7,8,9-HxCDF	2.5	J B	17	0.36
60851-34-5	2,3,4,6,7,8-HxCDF	0.79	J q	17	0.42
35822-46-9	1,2,3,4,6,7,8-HpCDD	92	B	17	1.1
67562-39-4	1,2,3,4,6,7,8-HpCDF	15	J q	17	0.54
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.8	J	17	0.60
3268-87-9	OCDD	830	B	33	0.89
39001-02-0	OCDF	48	B	33	0.58

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	66		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	68		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	69		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	69		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	58		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	59		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	68		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	59		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	64		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	68		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	65		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	64		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	75		26-138
114423-97-1	13C-OCDD	66		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Matrix: Solid Lab File ID: 19JL19A3D5_58.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:44

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 9.98(g) Date Analyzed: 07/21/2019 23:06

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	94		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 21-Jul-2019 23:06:25 ALS Bottle#: 41 Worklist Smp#: 58
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-2-A 580-87706-C-2-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:55:47 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 10:55:47

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	243214300	0.82	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	240578128	0.78	1.3908	71.1	71.1	0.1572	0.1572	71.12	
2,3,7,8-TCDF	16.720	4530483	0.87	0.9710	1.939	1.939	0.0753	0.0753		
A Non-2,3,7,8-sub-TCDF	16.402	6663676	0.77	0.9710	2.972	2.852	0.0753	1.383		RQ
S Total TCDF					4.912	4.792	0.0753	0.0753		RQ
D 13C-2,3,7,8-TCDD	17.355	156596001	0.78	0.9819	65.6	65.6	0.2414	0.2414	65.58	
2,3,7,8-TCDD	17.370	318725	0.89	1.0447	0.1948	0.1948	0.0575	0.0575		Ma
$ 37Cl4-2,3,7,8-TCDD	17.370	112082148		1.2205	37.8	37.8	0.0523	0.0523	94.39	
A Non-2,3,7,8-sub-TCDD	16.833	357393	0.83	1.0447	0.2185	0.2185	0.0575	0.2185		Ma
S Total TCDD					0.4133	0.4133	0.0575	0.0575		
D 13C-1,2,3,7,8-PeCDF	21.345	193440602	1.54	1.1585	68.7	68.7	0.2155	0.2155	68.66	
1,2,3,7,8-PeCDF	21.372	1105336	1.46	0.9633	0.5932	0.5932	0.0717	0.0717		M
D 13C-2,3,4,7,8-PeCDF	22.573	193073372	1.61	1.1532	68.8	68.8	0.2165	0.2165	68.84	
2,3,4,7,8-PeCDF	22.586	828212	1.53	0.9495	0.4518	0.4518	0.0765	0.0765		
A F1 PeCDFs	19.215	933641	1.55	0.9564	0.5235	0.5051	0.0397	0.4378		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	3130515	1.55	0.9564	1.796	1.694	0.0740	0.7716		RQMa
S Total PeCDF					3.364	3.244	0.0741	0.0741		RQ
D 13C-1,2,3,7,8-PeCDD	23.241	122863981	1.67	0.7431	68.0	68.0	0.1347	0.1347	67.98	
1,2,3,7,8-PeCDD	23.254						0.0916	0.0916		
A Non-2,3,7,8-sub-PeCDD	22.232	270362	1.54	1.0635	0.2069	0.2069	0.0916	0.2069		
S Total PeCDD					0.2069	0.2069	0.0916	0.0916		
D 13C-1,2,3,4,7,8-HxCDF	29.142	151131112	0.53	0.9837	68.4	68.4	0.2706	0.2706	68.36	
1,2,3,4,7,8-HxCDF	29.182	1218240	1.27	1.2173	0.6622	0.6622	0.0947	0.0947		Ma
D 13C-1,2,3,6,7,8-HxCDF	29.448	152574307	0.52	1.1554	58.8	58.8	0.2304	0.2304	58.75	
1,2,3,6,7,8-HxCDF	29.488	469864	1.27	1.1311	0.2723	0.2723	0.1052	0.1052		Ma
D 13C-2,3,4,6,7,8-HxCDF	30.673	148647346	0.51	1.0361	63.8	63.8	0.2570	0.2570	63.83	
2,3,4,6,7,8-HxCDF	30.686	206564	1.24	1.1710	0.1408	0.1187	0.0635	0.0635		RQMa
D 13C-1,2,3,7,8,9-HxCDF	31.672	139021084	0.54	0.9034	68.5	68.5	0.2947	0.2947	68.47	
1,2,3,7,8,9-HxCDF	31.698	603525	1.27	1.1787	0.3683	0.3683	0.0535	0.0535		Ma
A Non-2,3,7,8-sub-HxCDF	29.135	5012897	1.24	1.1745	2.923	2.887	0.0734	1.207		RQMa

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					4.366	4.308	0.0792	0.0792		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	224754240	1.27	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	107916953	1.26	0.8287	57.9	57.9	0.2074	0.2074	57.94	
1,2,3,4,7,8-HxCDD	30.953	232735	1.21	1.0267	0.2101	0.2101	0.0706	0.0706		a
D 13C-1,2,3,6,7,8-HxCDD	31.073	126808966	1.25	0.9495	59.4	59.4	0.1810	0.1810	59.42	
1,2,3,6,7,8-HxCDD	31.086	572616	1.24	0.9771	0.5028	0.4621	0.0711	0.0711		RQa
1,2,3,7,8,9-HxCDD	31.499	481990	1.21	1.0616	0.3869	0.3869	0.0668	0.0668		
A Non-2,3,7,8-sub-HxCDD	29.926	3124879	1.13	1.0218	2.606	2.606	0.0694	1.441		
S Total HxCDD					3.706	3.665	0.0695	0.0695		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	104801766	0.44	0.7285	64.0	64.0	0.5892	0.5892	64.01	
1,2,3,4,6,7,8-HpCDF	33.347	3397338	1.04	1.4373	2.639	2.255	0.0809	0.0809		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	110720943	0.44	0.6556	75.1	75.1	0.6546	0.6546	75.14	
1,2,3,4,7,8,9-HpCDF	34.441	397210	0.96	1.3091	0.2740	0.2740	0.0901	0.0901		
A Non-2,3,7,8-sub-HpCDF	33.894	6865743	1.13	1.3732	4.640	4.640	0.0853	4.640		
S Total HpCDF					7.553	7.169	0.0855	0.0855		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	102179225	1.10	0.6978	65.1	65.1	0.2616	0.2616	65.15	
1,2,3,4,6,7,8-HpCDD	34.162	14247695	0.99	1.0102	13.8	13.8	0.1626	0.1626		
A Non-2,3,7,8-sub-HpCDD	35.074	16147404	1.11	1.0102	15.6	15.6	0.1626	15.6		a
S Total HpCDD					29.4	29.4	0.1626	0.1626		
D 13C-OCDD	36.509	141905243	0.91	0.4780	132.1	132.1	0.1671	0.1671	66.05	
OCDF	36.593	6943295	0.94	1.3501	7.248	7.248	0.0862	0.0862		
OCDD	36.509	93146437	0.88	1.0627	123.5	123.5	0.1327	0.1327		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 21-Jul-2019 23:06:25 ALS Bottle#: 41 Worklist Smp#: 58
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-2-A 580-87706-C-2-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:55:47 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 10:55:47

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		109379585	28329086	34977	87442	810		
333.9339	17.173	17.158	1		133834715	34836240	24908	62270	1399	0.82(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	105508513	26732385	24831	62077	1077		
317.9389	16.690	16.690	0	0.972	135069615	33601120	30394	75985	1106	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.720	16.705	1	1.002	2104479	435612	7039	17597	62		
305.8987	16.720	16.705	1	1.002	2426004	534201	10607	26517	50	0.87(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.920	16.402	-89	0.894	142476	41683	7039	17597	6		
305.8987	14.920	16.402	-89	0.894	212726	62468	10607	26517	6	0.67(0.65-0.89)	
303.9016	15.147	16.402	-75	0.908	234637	60384	7039	17597	9		
	Empc Correction				123390	38279	7039	17597	5		
305.8987	15.162	16.402	-74	0.908	160248	49713	10607	26517	5	1.46(0.65-0.89)	
303.9016	15.389	16.402	-61	0.922	502040	132505	7039	17597	19		
305.8987	15.389	16.402	-61	0.922	596442	165805	10607	26517	16	0.84(0.65-0.89)	
303.9016	15.873	16.402	-32	0.951	213873	60051	7039	17597	9		
	Empc Correction				172379	43357	7039	17597	6		
305.8987	15.873	16.402	-32	0.951	223870	56309	10607	26517	5	0.96(0.65-0.89)	
303.9016	16.100	16.402	-18	0.965	513646	91313	7039	17597	13		
	Empc Correction				386657	62189	7039	17597	9		
305.8987	16.085	16.402	-19	0.964	502153	80765	10607	26517	8	1.02(0.65-0.89)	
303.9016	16.357	16.402	-3	0.980	1412183	354525	7039	17597	50		
305.8987	16.357	16.402	-3	0.980	1818542	427949	10607	26517	40	0.78(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
303.9016	17.113	16.402	43	1.025	190752	39102	7039	17597	6		
305.8987	17.098	16.402	42	1.024	219818	41266	10607	26517	4	0.87(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	68627658	16548883	34977	87442	473		
333.9339	17.355	17.355	0	1.011	87968343	20900601	24908	62270	839	0.78(0.65-0.89)	
2,3,7,8-TCDD											Ma
319.8965	17.370	17.355	1	1.001	149993	28541	6222	15555	5		M
321.8936	17.370	17.355	1	1.001	168732	36501	2777	6942	13	0.89(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	112082148	26469418	16132	40330	1641		
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	17.279	16.833	27	0.996	161865	41803	6222	15555	7		M
321.8936	17.279	16.833	27	0.996	195528	51567	2777	6942	19	0.83(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	117173450	20926239	38056	95140	550		
353.8970	21.345	21.332	1	1.243	76267152	13387465	25013	62532	535	1.54(1.32-1.78)	
1,2,3,7,8-PeCDF											M
339.8597	21.372	21.345	2	1.001	655786	106555	4674	11685	23		
341.8567	21.359	21.345	1	1.001	449550	82753	4806	12015	17	1.46(1.32-1.78)	M
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	119080261	20214829	38056	95140	531		
353.8970	22.573	22.559	1	1.314	73993111	12429148	25013	62532	497	1.61(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586	22.586	0	1.001	500708	87476	4674	11685	19		
341.8567	22.586	22.586	0	1.001	327504	61658	4806	12015	13	1.53(1.32-1.78)	
A F1 PeCDFs											RQ
339.8597	18.685	19.215	-32	0.875	459873	102208	1614	4035	63		
341.8567	18.685	19.215	-32	0.875	349310	65244	3476	8690	19	1.32(1.32-1.78)	
339.8597	18.927	19.215	-17	0.887	75651	13928	1614	4035	9		
341.8567	18.942	19.215	-16	0.887	82839	14531	3476	8690	4	0.91(1.32-1.78)	
	Empc Correction				48807	8985	3476	8690	3		
A Non-2,3,7,8-sub-PeCDF											RQMa
339.8597	20.132	22.104	-118	0.943	830523	151317	4674	11685	32		
341.8567	20.132	22.104	-118	0.943	595603	101629	4806	12015	21	1.39(1.32-1.78)	
339.8597	20.854	22.104	-75	0.977	257481	28164	4674	11685	6		
341.8567	20.895	22.104	-72	0.979	195025	17536	4806	12015	4	1.32(1.32-1.78)	
339.8597	21.236	22.104	-52	0.995	210958	53308	4674	11685	11		M
341.8567	21.236	22.104	-52	0.995	137979	32592	4806	12015	7	1.53(1.32-1.78)	
339.8597	21.836	22.104	-16	1.023	344296	58034	4674	11685	12		
341.8567	21.836	22.104	-16	1.023	374931	49746	4806	12015	10	0.92(1.32-1.78)	
	Empc Correction				222126	37441	4806	12015	8		
339.8597	22.913	22.104	49	1.073	204554	32460	4674	11685	7		
341.8567	22.913	22.104	49	1.073	167976	25555	4806	12015	5	1.22(1.32-1.78)	
	Empc Correction				131970	20941	4806	12015	4		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	76912265	12450103	14694	36735	847		
369.8919	23.241	23.227	1	1.353	45951716	7321506	10606	26515	690	1.67(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						5534	13835			
357.8516	23.254						2169	5422			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.309	22.232	-115	0.874	163815	28429	5534	13835	5		
357.8516	20.295	22.232	-116	0.873	106547	24465	2169	5422	11	1.54(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.142	29.115	2	0.926	52316199	6101341	18276	45690	334		
385.8610	29.142	29.115	2	0.926	98814913	11440641	35052	87630	326	0.53(0.43-0.59)	
1,2,3,4,7,8-HxCDF											Ma
373.8208	29.182	29.155	2	1.001	681775	74136	4983	12457	15		M
375.8178	29.169	29.155	1	1.001	536465	63489	3107	7767	20	1.27(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.936	52066291	5927202	18276	45690	324		
385.8610	29.435	29.421	1	0.935	100508016	11065637	35052	87630	316	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											Ma
373.8208	29.488	29.462	2	1.001	262509	38427	4983	12457	8		M
375.8178	29.435	29.462	-2	1.000	207355	23455	3107	7767	8	1.27(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	49903798	9311668	18276	45690	510		
385.8610	30.673	30.660	1	0.975	98743548	17909009	35052	87630	511	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											RQMa
373.8208	30.686	30.687	0	1.000	114348	22971	4983	12457	5		a
375.8178	30.713	30.687	2	1.001	130723	21521	3107	7767	7	0.87(1.05-1.43)	M
	Empc Correction				92216	18524	3107	7767	6		
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.006	48505798	11177214	18276	45690	612		
385.8610	31.685	31.672	1	1.007	90515286	20894633	35052	87630	596	0.54(0.43-0.59)	
1,2,3,7,8,9-HxCDF											Ma
373.8208	31.698	31.685	1	1.001	337496	90744	4983	12457	18		M
375.8178	31.685	31.685	0	1.000	266029	62522	3107	7767	20	1.27(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQMa
373.8208	26.532	29.135	-156	0.910	287171	40517	4983	12457	8		
375.8178	26.505	29.135	-157	0.910	293921	46080	3107	7767	15	0.98(1.05-1.43)	
	Empc Correction				231589	32674	3107	7767	11		
373.8208	26.865	29.135	-136	0.922	1025473	145801	4983	12457	29		
375.8178	26.878	29.135	-135	0.922	797524	106847	3107	7767	34	1.29(1.05-1.43)	
373.8208	28.077	29.135	-63	0.963	1147836	142079	4983	12457	29		
375.8178	28.077	29.135	-63	0.963	948390	117699	3107	7767	38	1.21(1.05-1.43)	
373.8208	30.540	29.135	84	1.048	152974	36112	4983	12457	7		M
375.8178	30.540	29.135	84	1.048	139783	24552	3107	7767	8	1.09(1.05-1.43)	
373.8208	31.792	29.135	159	1.091	148782	29018	4983	12457	6		M
375.8178	31.792	29.135	159	1.091	133375	26856	3107	7767	9	1.12(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		125626025	27877726	18569	46422	1501		
403.8529	31.472	31.472	0		99128215	22199199	15861	39652	1400	1.27(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	60118596	13337770	18569	46422	718		
403.8529	30.939	30.926	1	0.983	47798357	10628699	15861	39652	670	1.26(1.05-1.43)	
1,2,3,4,7,8-HxCDD											a
389.8157	30.953	30.953	0	1.000	127429	31242	3718	9295	8		a
391.8127	30.953	30.953	0	1.000	105306	21241	3227	8067	7	1.21(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	70546237	13867875	18569	46422	747		
403.8529	31.073	31.059	1	0.987	56262729	11130080	15861	39652	702	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											RQa
389.8157	31.086	31.086	0	1.000	316984	73681	3718	9295	20		a
391.8127	31.086	31.086	0	1.000	305983	58700	3227	8067	18	1.04(1.05-1.43)	
	Empc Correction				255632	59420	3227	8067	18		
1,2,3,7,8,9-HxCDD											
389.8157	31.499	31.485	1	1.018	264386	58425	3718	9295	16		
391.8127	31.485	31.485	0	1.018	217604	37757	3227	8067	12	1.21(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.944	29.926	-119	0.899	769439	99140	3718	9295	27		
391.8127	27.944	29.926	-119	0.899	627568	85819	3227	8067	27	1.23(1.05-1.43)	
389.8157	29.927	29.926	0	0.963	888544	120885	3718	9295	33		
391.8127	29.927	29.926	0	0.963	839328	95534	3227	8067	30	1.06(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	32126349	9939133	28751	71877	346		
419.8220	33.335	33.335	0	1.059	72675417	22437277	57221	143052	392	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.347	33.347	0	1.000	2310241	778121	10192	25480	76		
	Empc Correction				1731976	559914	10192	25480	55		
409.7789	33.347	33.347	0	1.000	1665362	538379	4859	12147	111	1.39(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	33889945	9796771	28751	71877	341		
419.8220	34.429	34.429	0	1.094	76830998	22087707	57221	143052	386	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	194816	58798	10192	25480	6		
409.7789	34.441	34.441	0	1.000	202394	59466	4859	12147	12	0.96(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.651	33.894	-15	1.009	3638370	1162527	10192	25480	114		
409.7789	33.651	33.894	-15	1.009	3227373	1034462	4859	12147	213	1.13(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	53493732	15523561	19309	48272	804		
437.8140	34.150	34.150	0	1.085	48685493	14511201	17256	43140	841	1.10(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	7079660	2194025	10196	25490	215		
425.7737	34.162	34.162	0	1.000	7168035	2137513	9535	23837	224	0.99(0.88-1.20)	

Report Date: 23-Jul-2019 10:55:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	8484055	2784873	10196	25490	273		a
425.7737	33.603	35.074	-88	0.984	7663349	2571519	9535	23837	270	1.11(0.88-1.20)	
13C-OCDD											
469.7779	36.509	36.498	1	1.160	67729325	17023914	8186	20465	2080		
471.7750	36.509	36.498	1	1.160	74175918	18503104	7811	19527	2369	0.91(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	3365592	830954	3345	8362	248		
443.7399	36.581	36.582	0	1.002	3577703	888895	4929	12322	180	0.94(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	43703880	11330766	4635	11587	2445		
459.7348	36.509	36.509	0	1.000	49442557	12875770	5388	13470	2390	0.88(0.76-1.02)	

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	240578128	60333505

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	240578128	60333505

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.920	142476	41683	212726	62468	0.1520	0.67	
15.147	234637	60384	160248	49713	0.1690	1.46	RQ
15.147	123390	38279	160248	49713	0.1214		Empc Correction
15.389	502040	132505	596442	165805	0.4702	0.84	
15.873	213873	60051	223870	56309	0.1874	0.96	RQ
15.873	172379	43357	223870	56309	0.1696		Empc Correction
16.100	513646	91313	502153	80765	0.4348	1.02	RQ
16.100	386657	62189	502153	80765	0.3805		Empc Correction
16.357	1412183	354525	1818542	427949	1.38	0.78	
17.113	190752	39102	219818	41266	0.1757	0.87	
Signal Totals:							
	2929877	711640	3733799	884275			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6943406	1663838				0.86	RQ
	6663676	1595915					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.972 = (6943406 * 100.000) / (240578128 * 0.971)
Empc Amount: 2.852 = (6663676 * 100.000) / (240578128 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	156596001	37449484

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	156596001	37449484

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.279	161865	41803	195528	51567	0.2185	0.83	Ma
Signal Totals:							
	161865	41803	195528	51567			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	357393	93370				0.83	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2185 = (357393 * 100.000) / (156596001 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	193440602	34313704
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	193073372	32643977

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	193256987	33478840

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	459873	102208	349310	65244	0.4378	1.32	
18.927	75651	13928	82839	14531	0.0857	0.91	RQ
18.927	75651	13928	48807	8985	0.0673		Empc Correction
Signal Totals:							
	535524	116136	398117	74229			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	967673	195911				1.24	RQ
	933641	190365					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5235 = (967673 * 100.000) / (193256987 * 0.956)
Empc Amount: 0.5051 = (933641 * 100.000) / (193256987 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	193440602	34313704
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	193073372	32643977

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	193256987	33478840

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.132	830523	151317	595603	101629	0.7716	1.39	
20.854	257481	28164	195025	17536	0.2448	1.32	
21.236	210958	53308	137979	32592	0.1888	1.53	Ma
21.836	344296	58034	374931	49746	0.3891	0.92	RQ
21.836	344296	58034	222126	37441	0.3064		Empc Correction
22.913	204554	32460	167976	25555	0.2015	1.22	RQ
22.913	204554	32460	131970	20941	0.1821		Empc Correction
Signal Totals:							
	1847812	323283	1282703	210139			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3319326	550341				1.26	RQMa
	3130515	533422					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.796 = (3319326 * 100.000) / (193256987 * 0.956)
Empc Amount: 1.694 = (3130515 * 100.000) / (193256987 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	122863981	19771609

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	122863981	19771609

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.309	163815	28429	106547	24465	0.2069	1.54	
Signal Totals:							
	163815	28429	106547	24465			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	270362	52894				1.54	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2069 = (270362 * 100.000) / (122863981 * 1.063)

Report Date: 23-Jul-2019 10:55:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	151131112	17541982
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	152574307	16992839
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	148647346	27220677
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	139021084	32071847

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	147843462	23456836

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.532	287171	40517	293921	46080	0.3346	0.98	RQ
26.532	287171	40517	231589	32674	0.2987		Empc Correction
26.865	1025473	145801	797524	106847	1.05	1.29	
28.077	1147836	142079	948390	117699	1.21	1.21	
30.540	152974	36112	139783	24552	0.1686	1.09	Ma
31.792	148782	29018	133375	26856	0.1625	1.12	Ma
Signal Totals:							
	2762236	393527	2250661	308628			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	5075229	715561				1.19	RQMa
	5012897	702155					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.923 = (5075229 * 100.000) / (147843462 * 1.175)
Empc Amount: 2.887 = (5012897 * 100.000) / (147843462 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	107916953	23966469
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	126808966	24997955
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	117362959	24482212

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.944	769439	99140	627568	85819	1.16	1.23	
29.927	888544	120885	839328	95534	1.44	1.06	
Signal Totals:							
	1657983	220025	1466896	181353			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3124879	401378				1.13	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.606 = (3124879 * 100.000) / (117362959 * 1.022)

Report Date: 23-Jul-2019 10:55:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	104801766	32376410
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	110720943	31884478

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	107761354	32130444

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.651	3638370	1162527	3227373	1034462	4.64	1.13	
Signal Totals:							
	3638370	1162527	3227373	1034462			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6865743	2196989				1.13	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.640 = (6865743 * 100.000) / (107761354 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Inject. Date: 21-Jul-2019 23:06:25 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 58

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	102179225	30034762

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	102179225	30034762

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	8484055	2784873	7663349	2571519	15.6	1.11	a
Signal Totals:							
	8484055	2784873	7663349	2571519			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	16147404	5356392				1.11	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 15.644 = (16147404 * 100.000) / (102179225 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

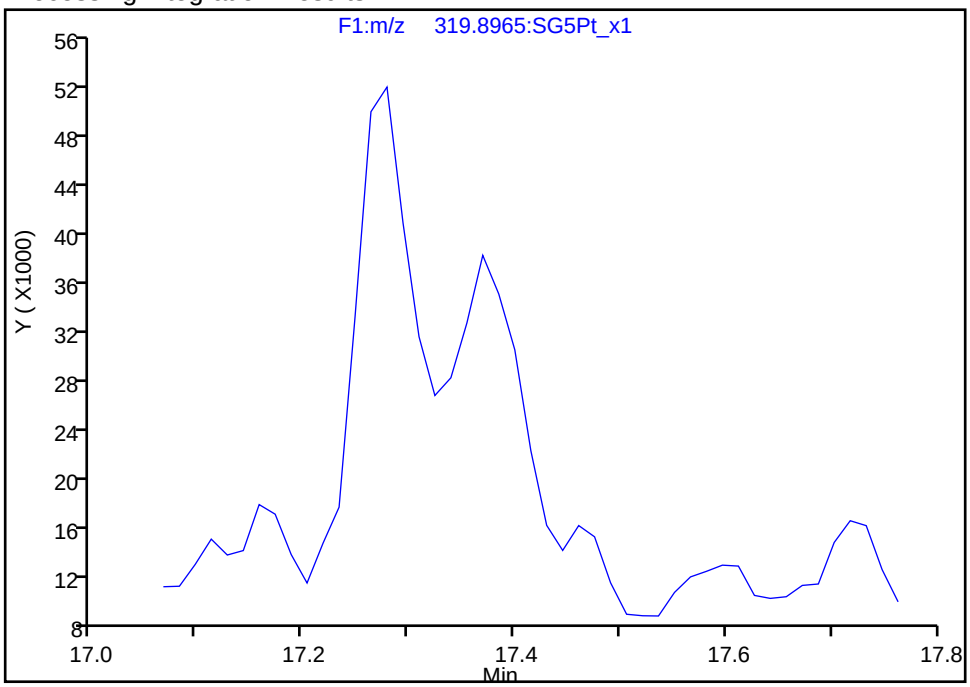
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

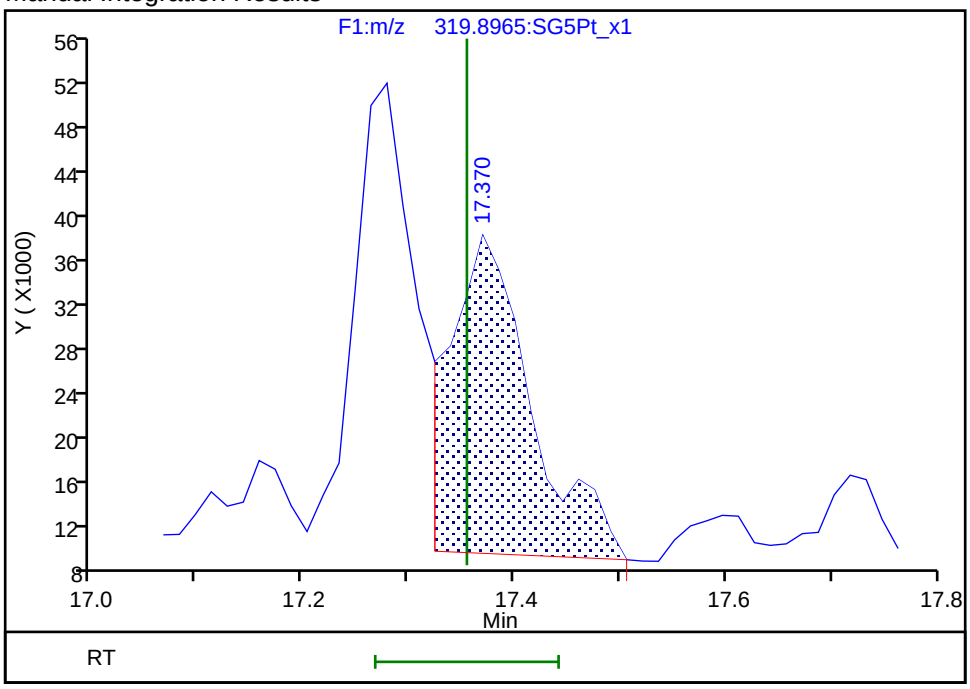
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.37
Area: 149993
Amount: 0.194821
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:52:40
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

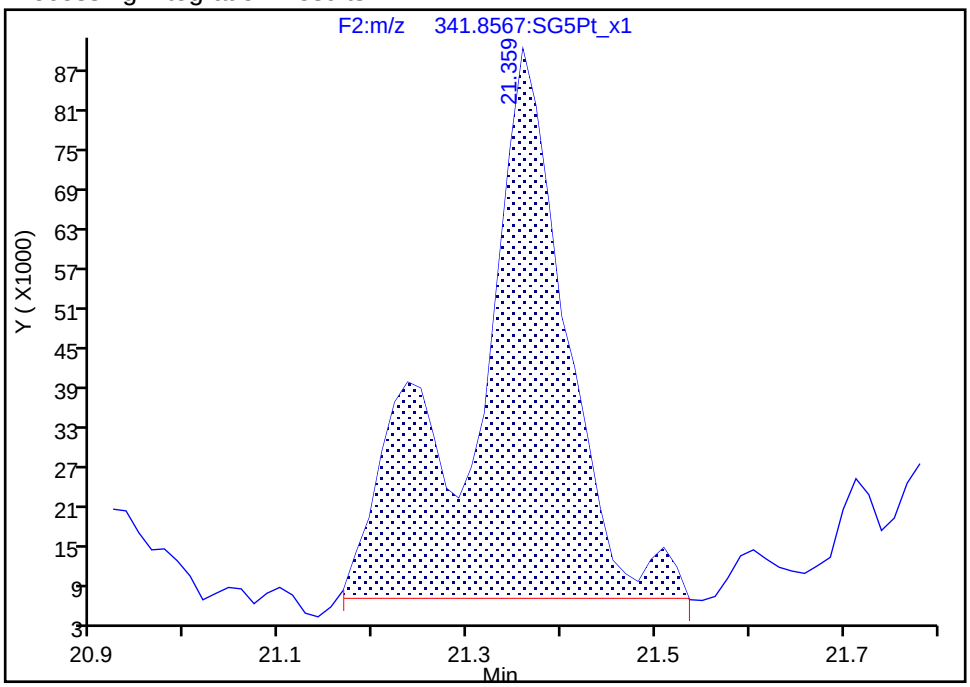
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F2:HRSIR		

1,2,3,7,8-PeCDF, CAS: 57117-41-6

Signal: 2

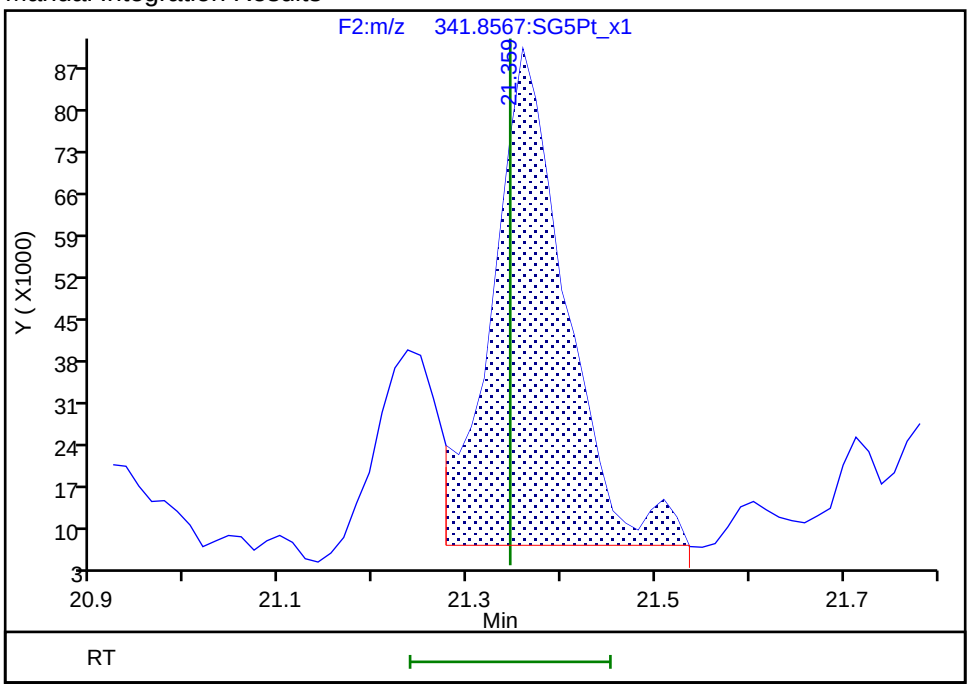
Processing Integration Results

RT: 21.36
Area: 587530
Amount: 0.667204
Amount Units: pg/ul



Manual Integration Results

RT: 21.36
Area: 449550
Amount: 0.593160
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:53:17

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

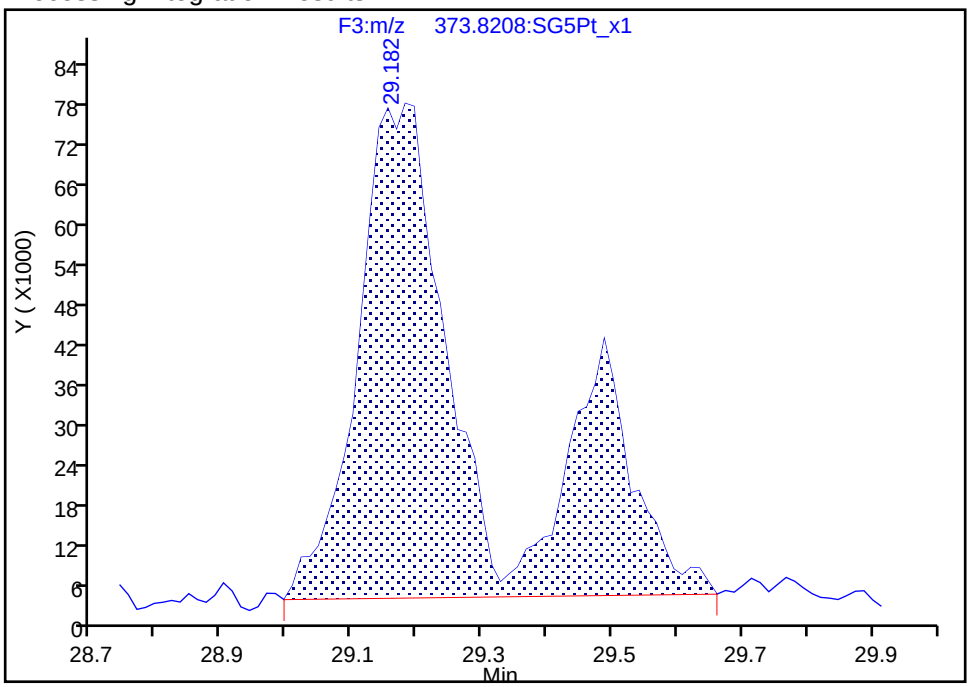
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDF, CAS: 70648-26-9

Signal: 1

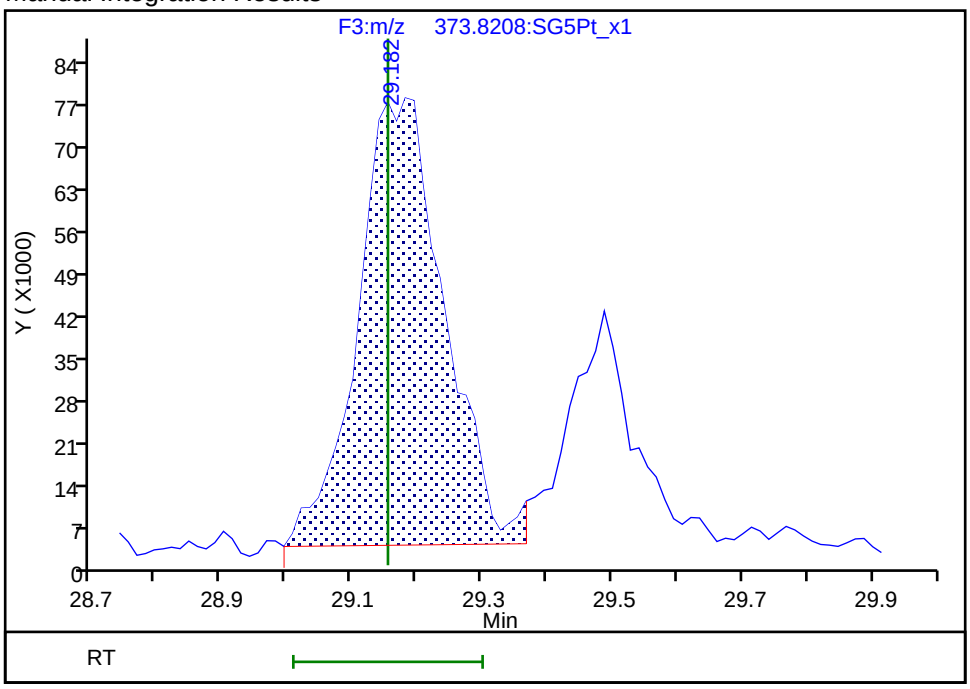
Processing Integration Results

RT: 29.18
Area: 944285
Amount: 0.804846
Amount Units: pg/ul



Manual Integration Results

RT: 29.18
Area: 681775
Amount: 0.662161
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:54:02

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

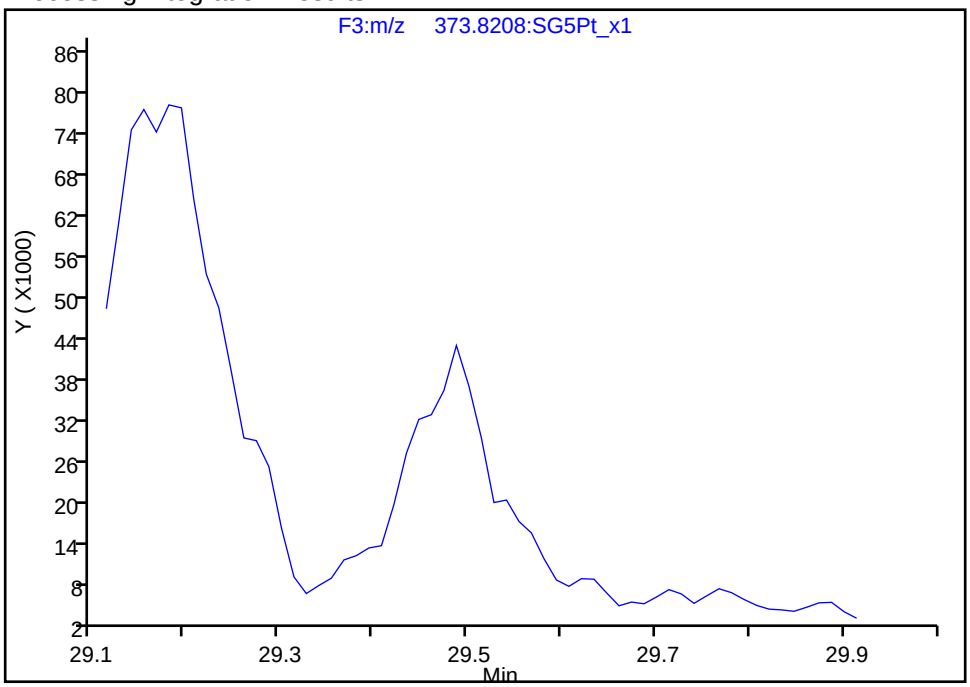
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDF, CAS: 57117-44-9

Signal: 1

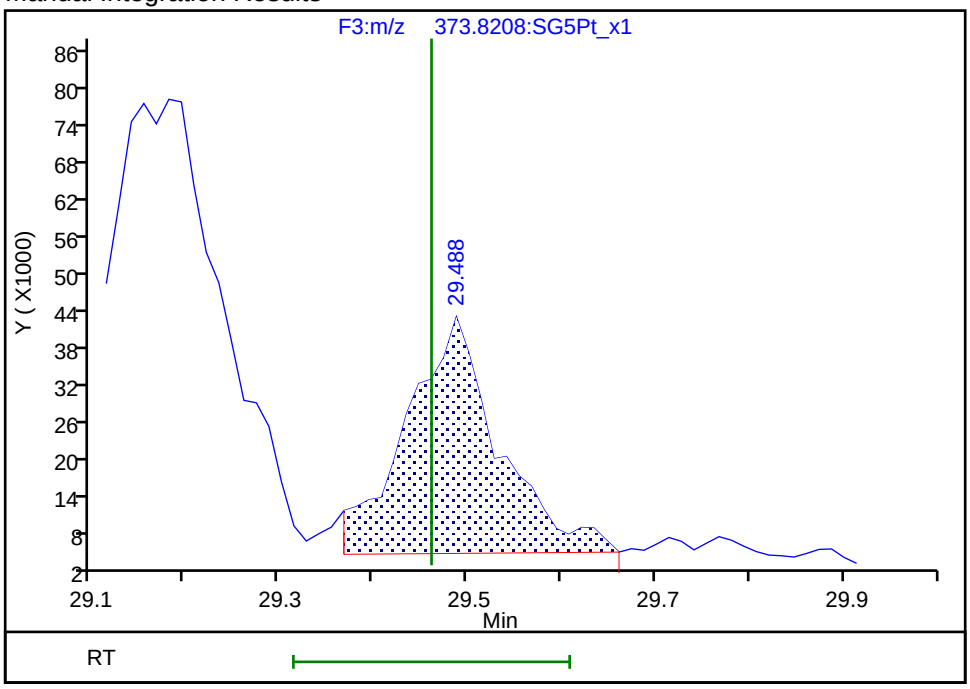
Not Detected
Expected RT: 29.46

Processing Integration Results



Manual Integration Results

RT: 29.49
Area: 262509
Amount: 0.272252
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:54:12
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

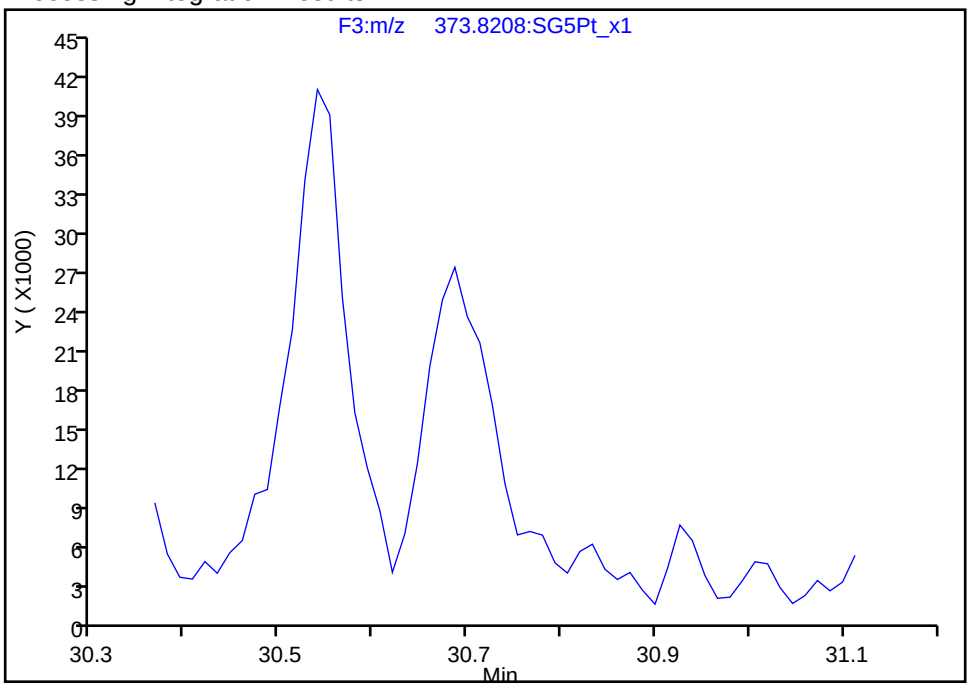
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

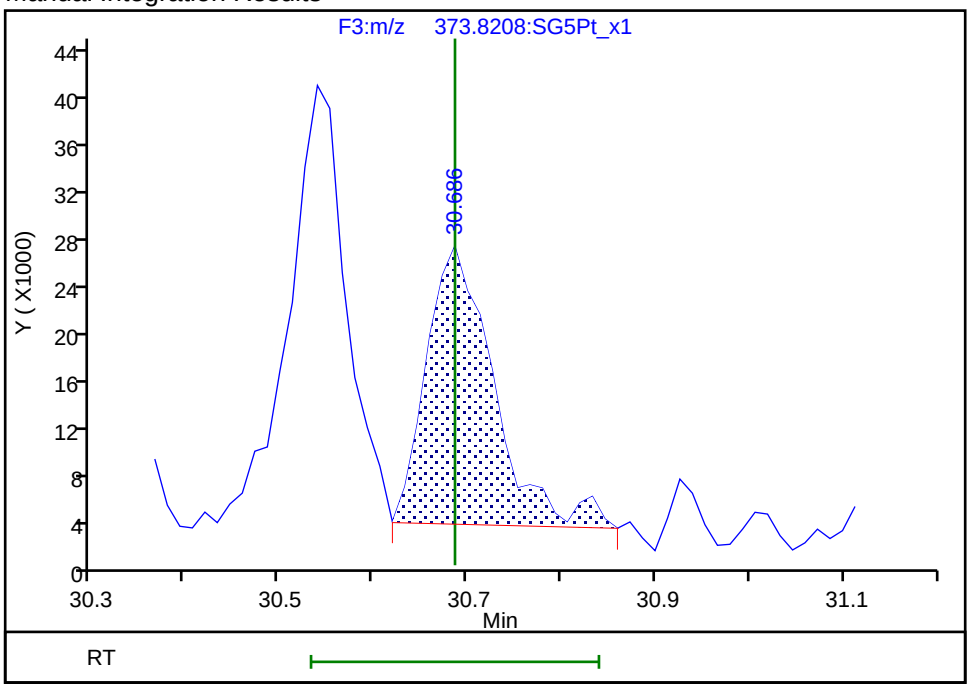
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.69
Area: 114348
Amount: 0.140794
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:54:19
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

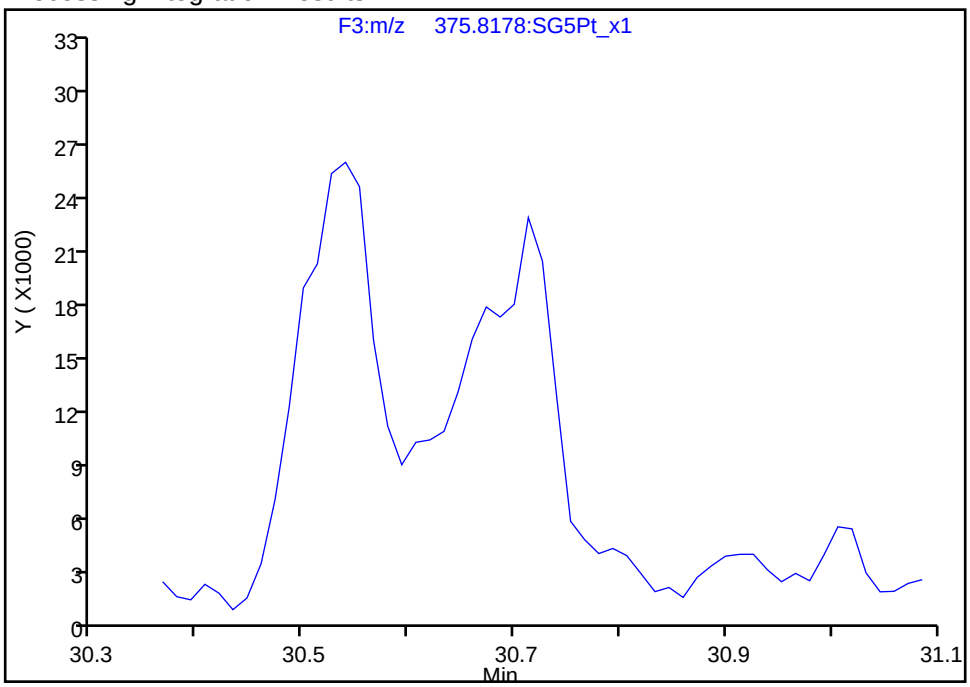
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 2

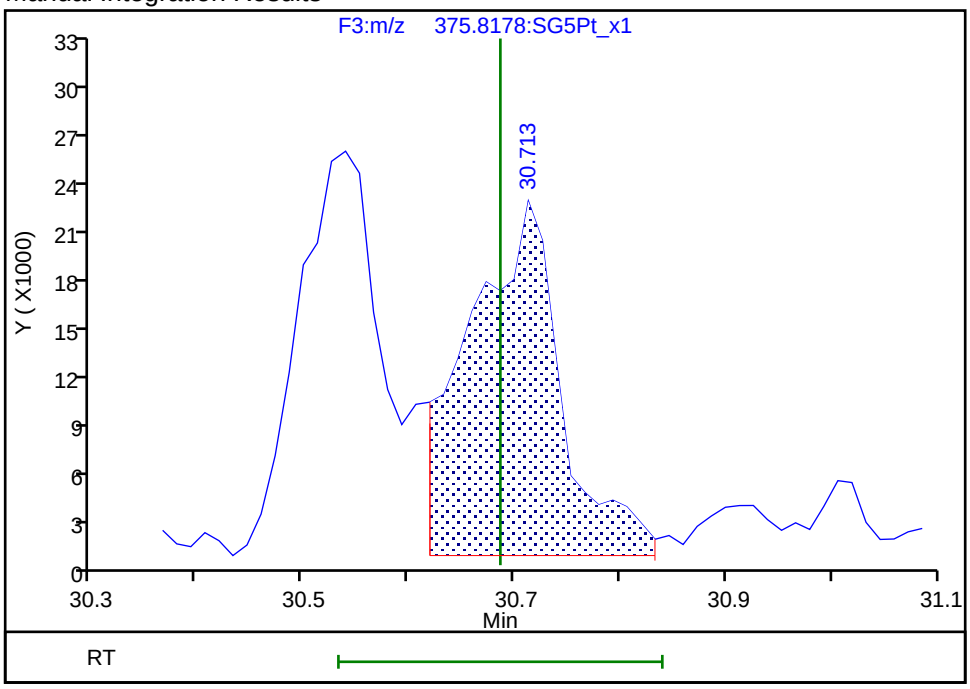
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.71
Area: 130723
Amount: 0.140794
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:54:23
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

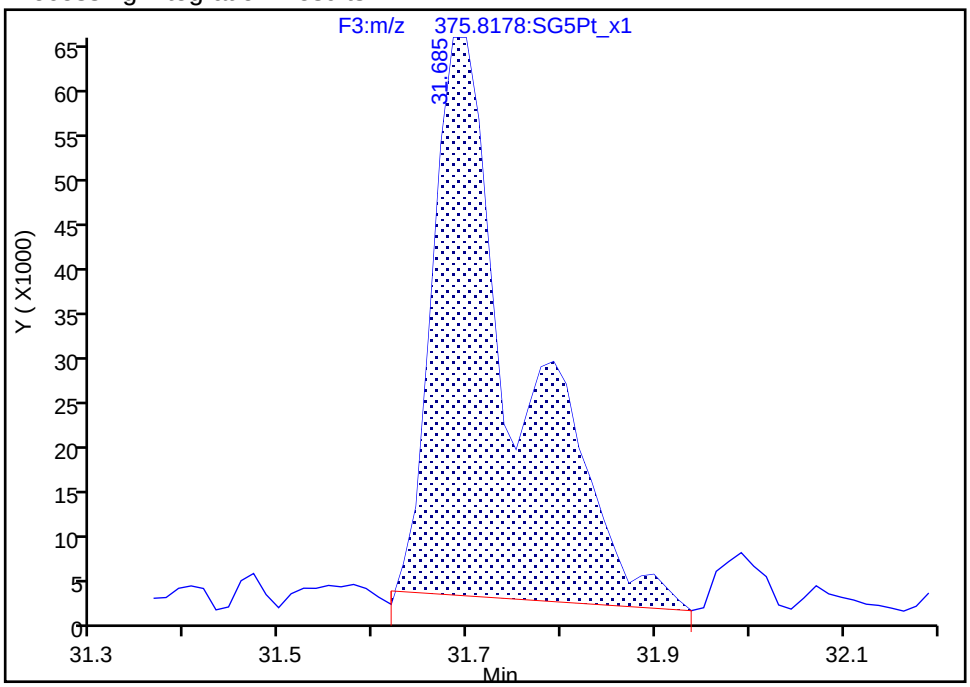
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDF, CAS: 72918-21-9

Signal: 2

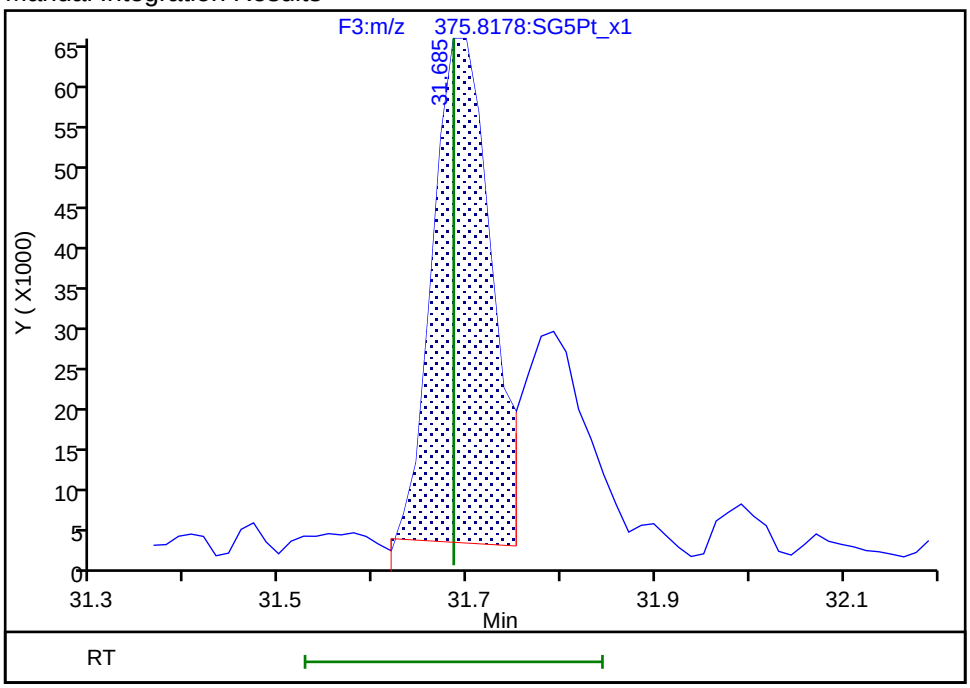
Processing Integration Results

RT: 31.68
Area: 399479
Amount: 0.540516
Amount Units: pg/ul



Manual Integration Results

RT: 31.68
Area: 266029
Amount: 0.368317
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:54:36

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

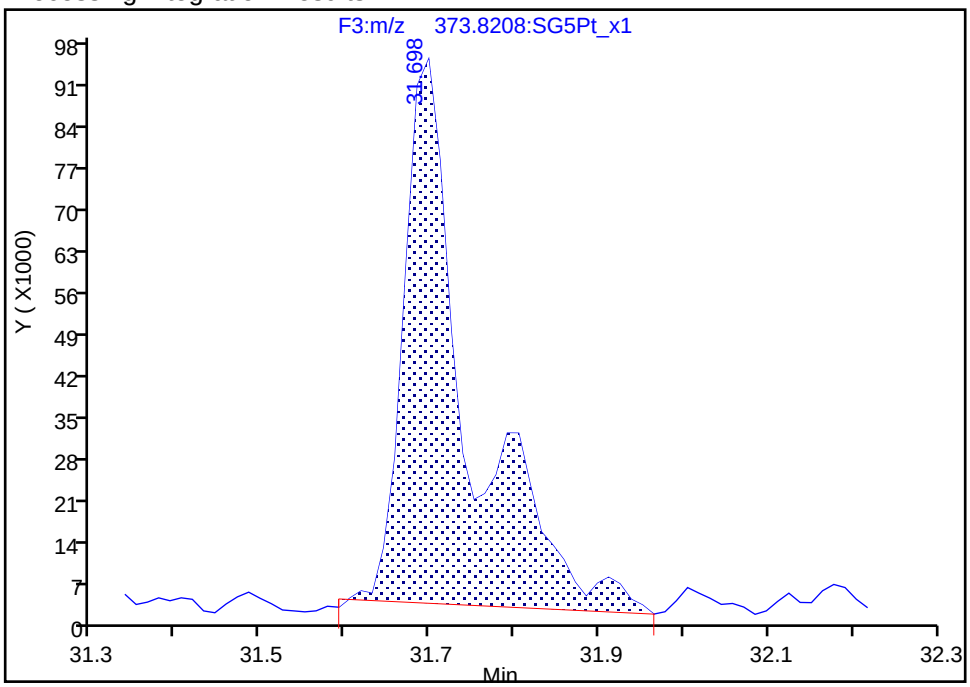
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDF, CAS: 72918-21-9

Signal: 1

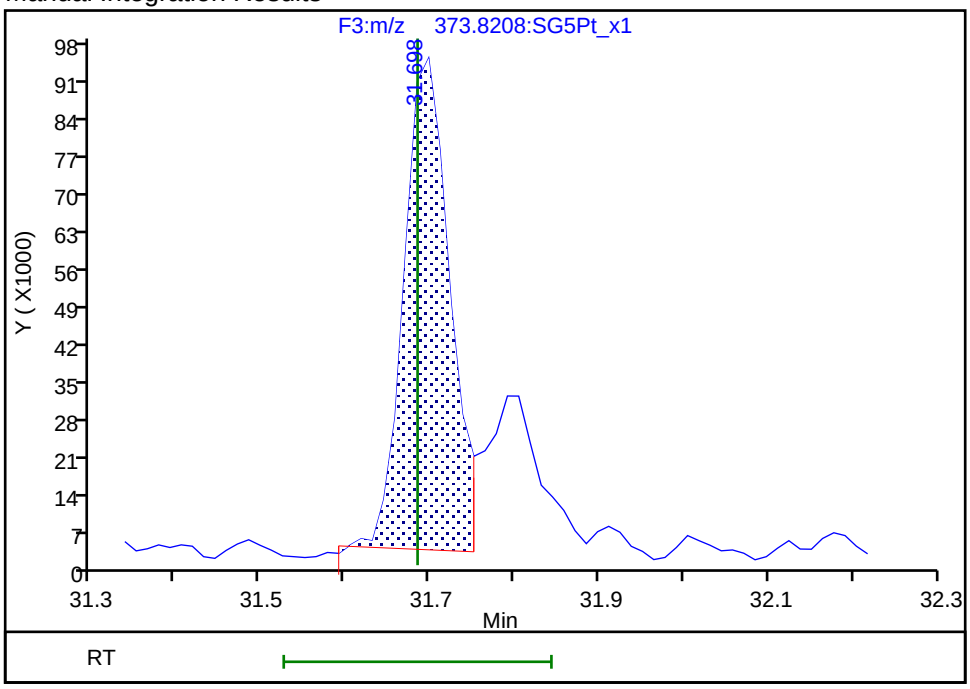
Processing Integration Results

RT: 31.70
Area: 486213
Amount: 0.540516
Amount Units: pg/ul



Manual Integration Results

RT: 31.70
Area: 337496
Amount: 0.368317
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:54:41

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

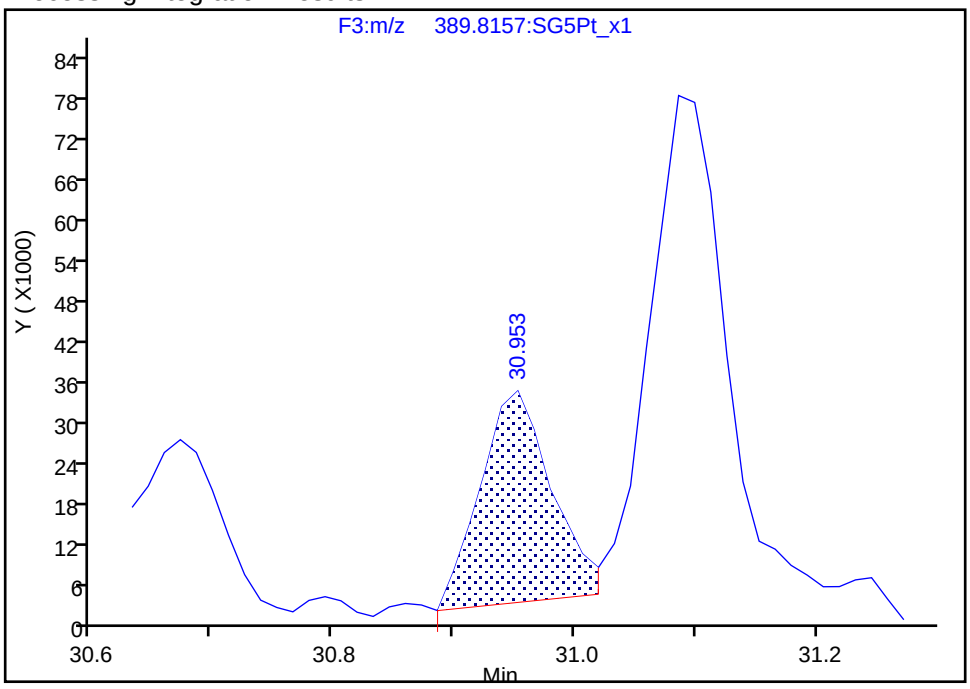
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

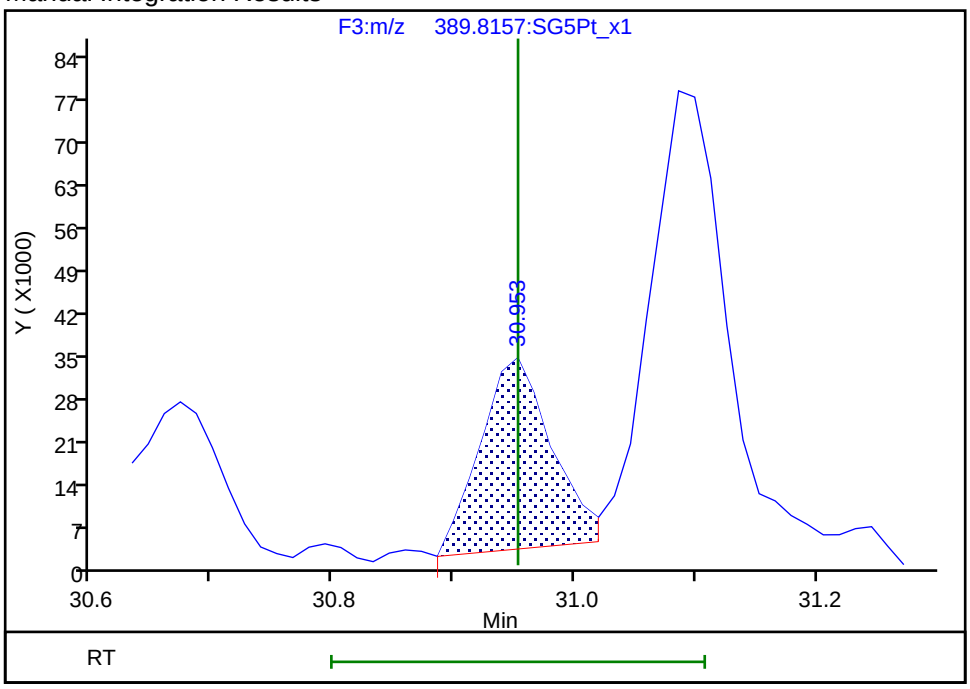
Processing Integration Results

RT: 30.95
Area: 127429
Amount: 0.210056
Amount Units: pg/ul



Manual Integration Results

RT: 30.95
Area: 127429
Amount: 0.210056
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:55:21

Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

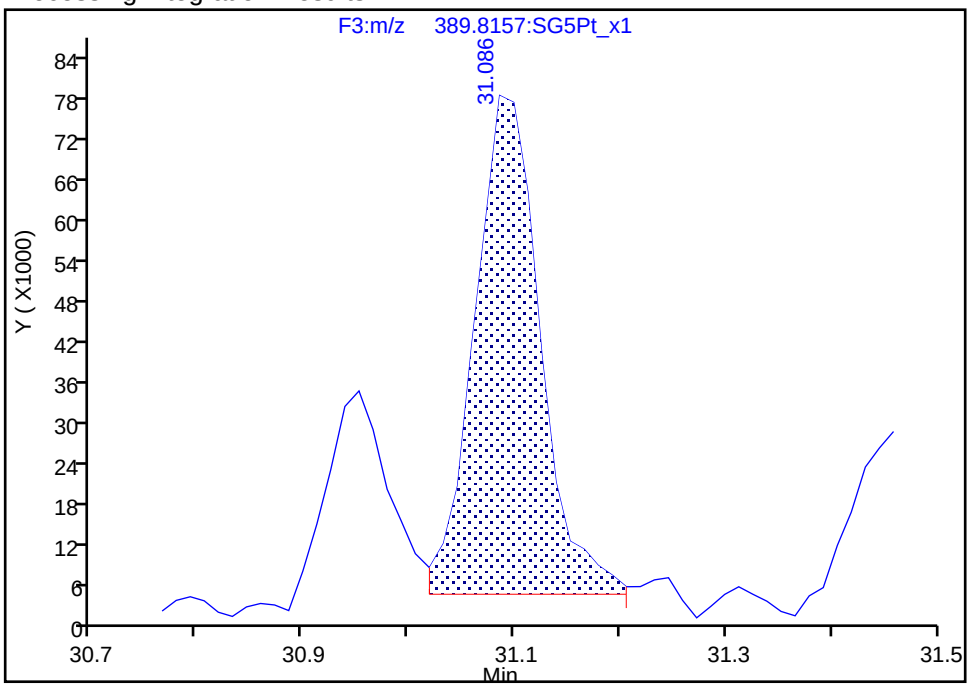
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d				
Injection Date:	21-Jul-2019 23:06:25	Instrument ID:	3D5		
Lims ID:	580-87706-C-2-A	Lab Sample ID:	320-87706-2		
Client ID:	22T-SG-18_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	41	Worklist Smp#:	58
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

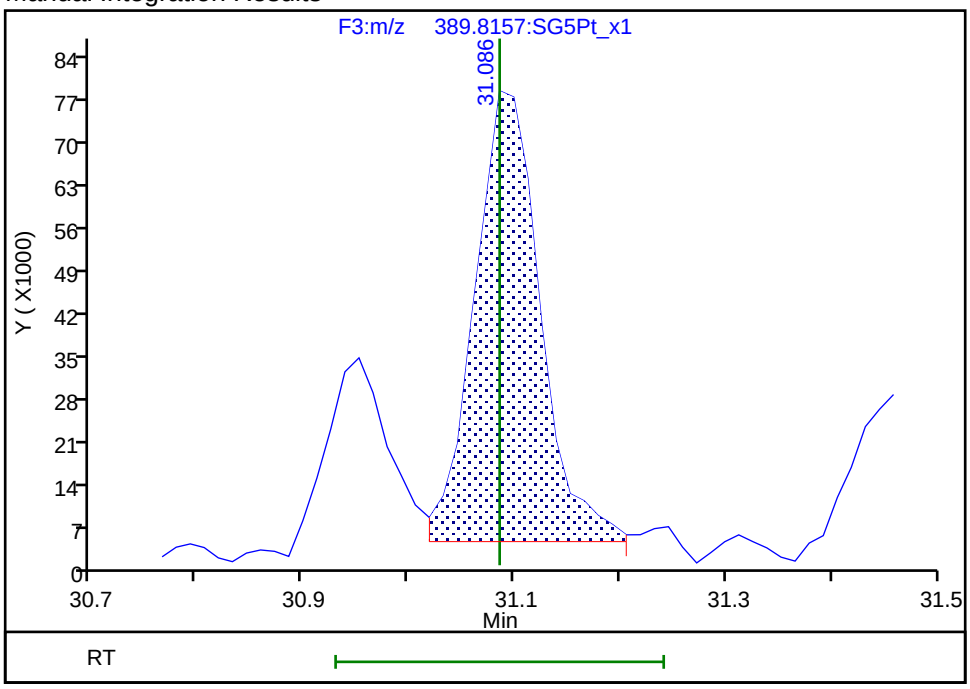
Processing Integration Results

RT: 31.09
Area: 316984
Amount: 0.502786
Amount Units: pg/ul



Manual Integration Results

RT: 31.09
Area: 316984
Amount: 0.502786
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:55:25

Audit Action: Assigned Compound ID Audit Reason: Split Peak

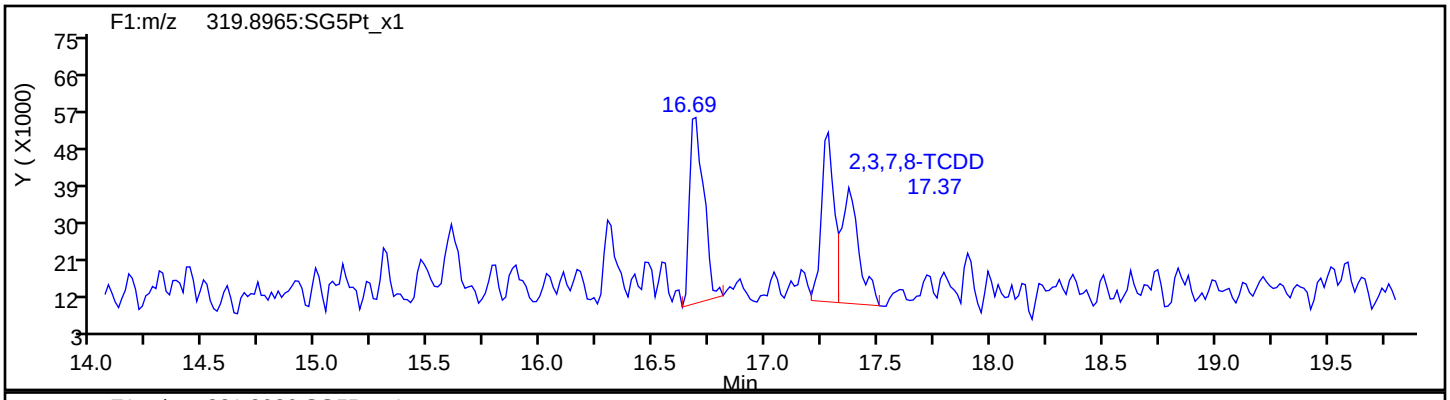
Report Date: 23-Jul-2019 10:55:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

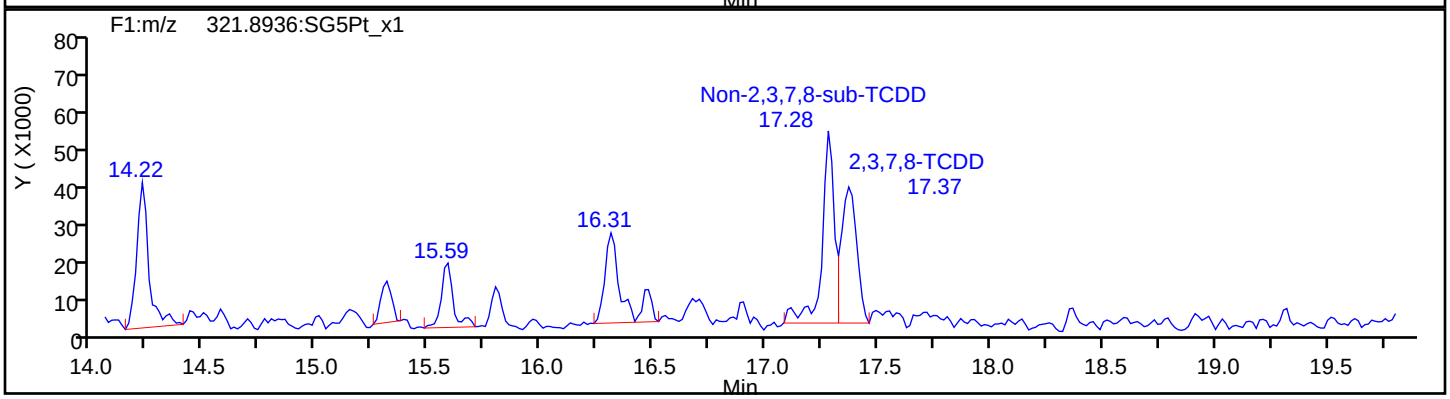
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

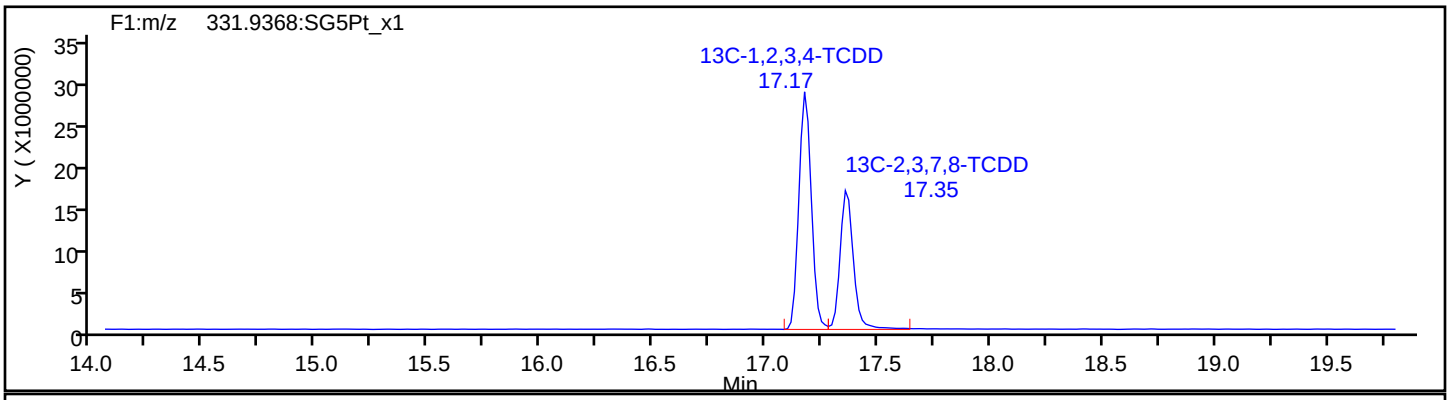
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

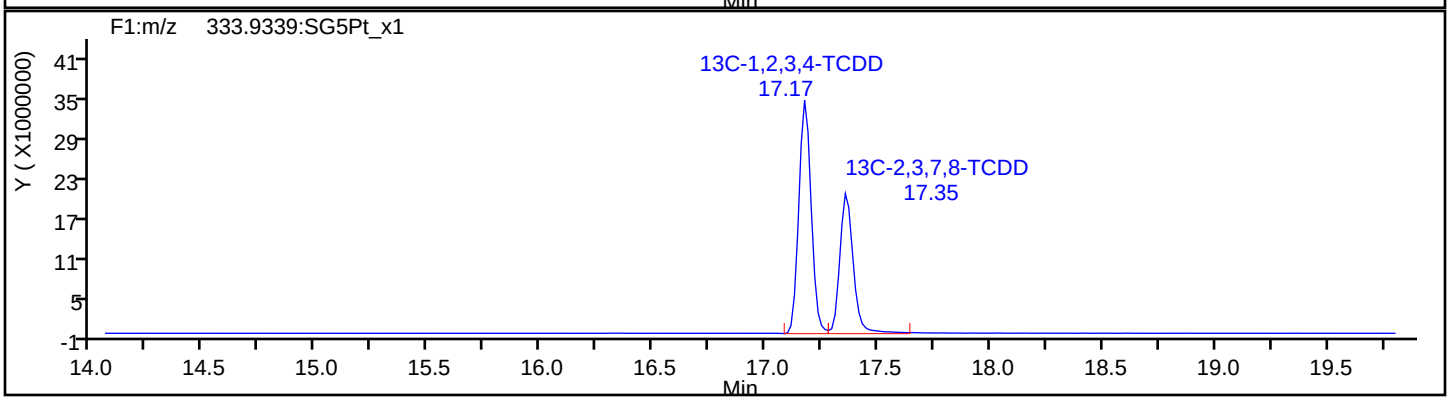
TCDD





TCDD Standards



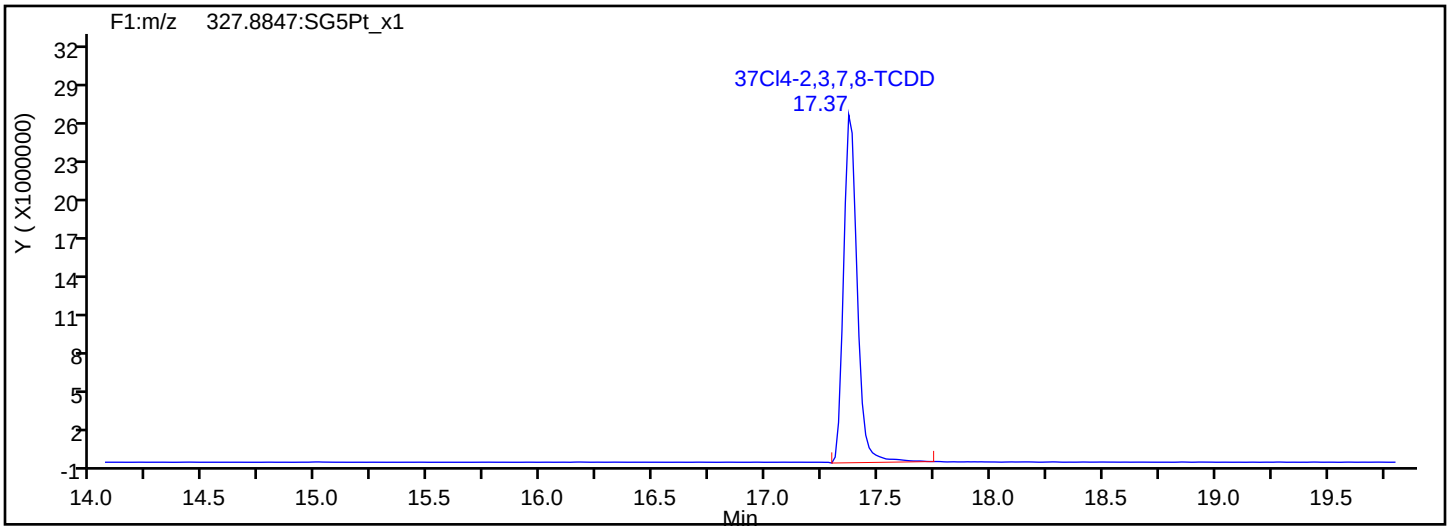


Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

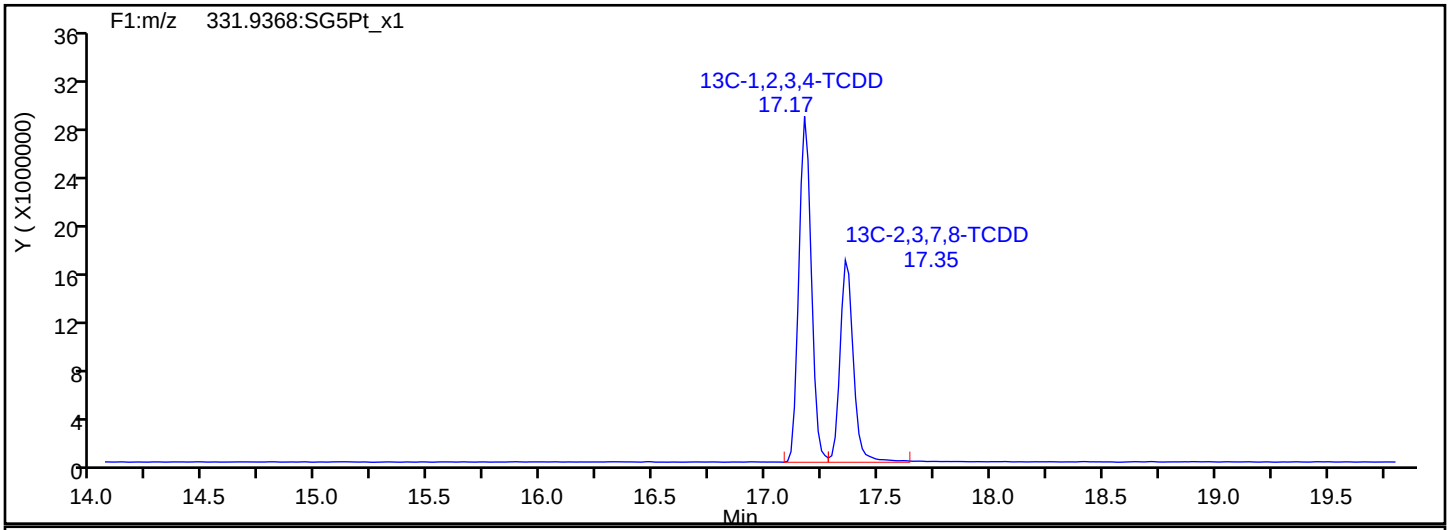
Eurofins TestAmerica, Sacramento

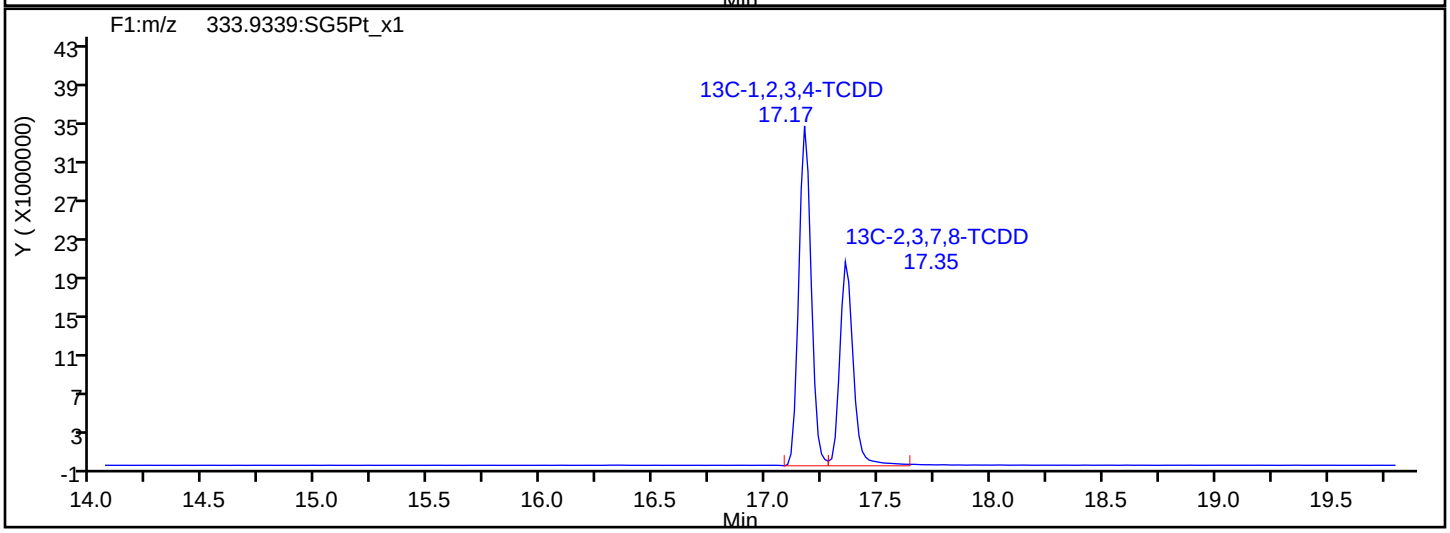
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



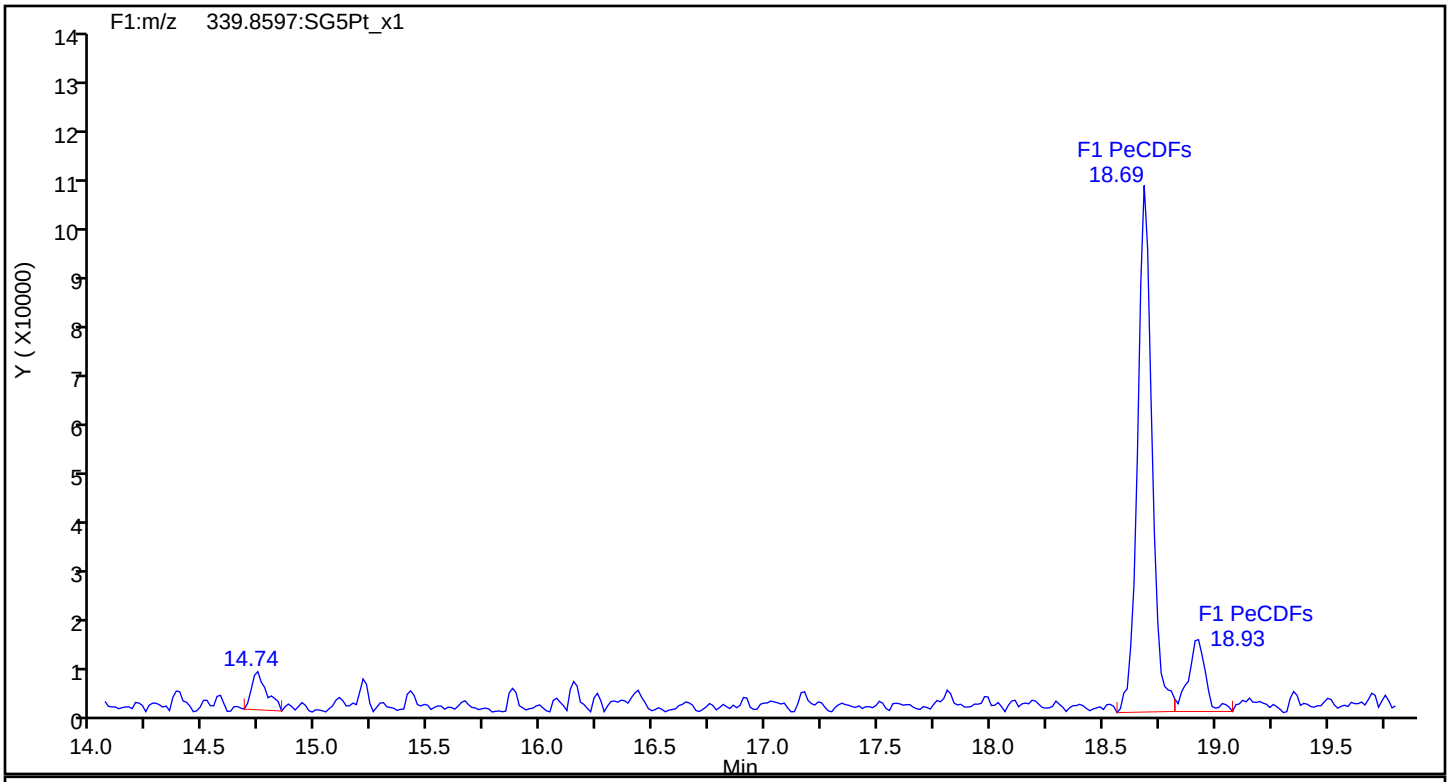


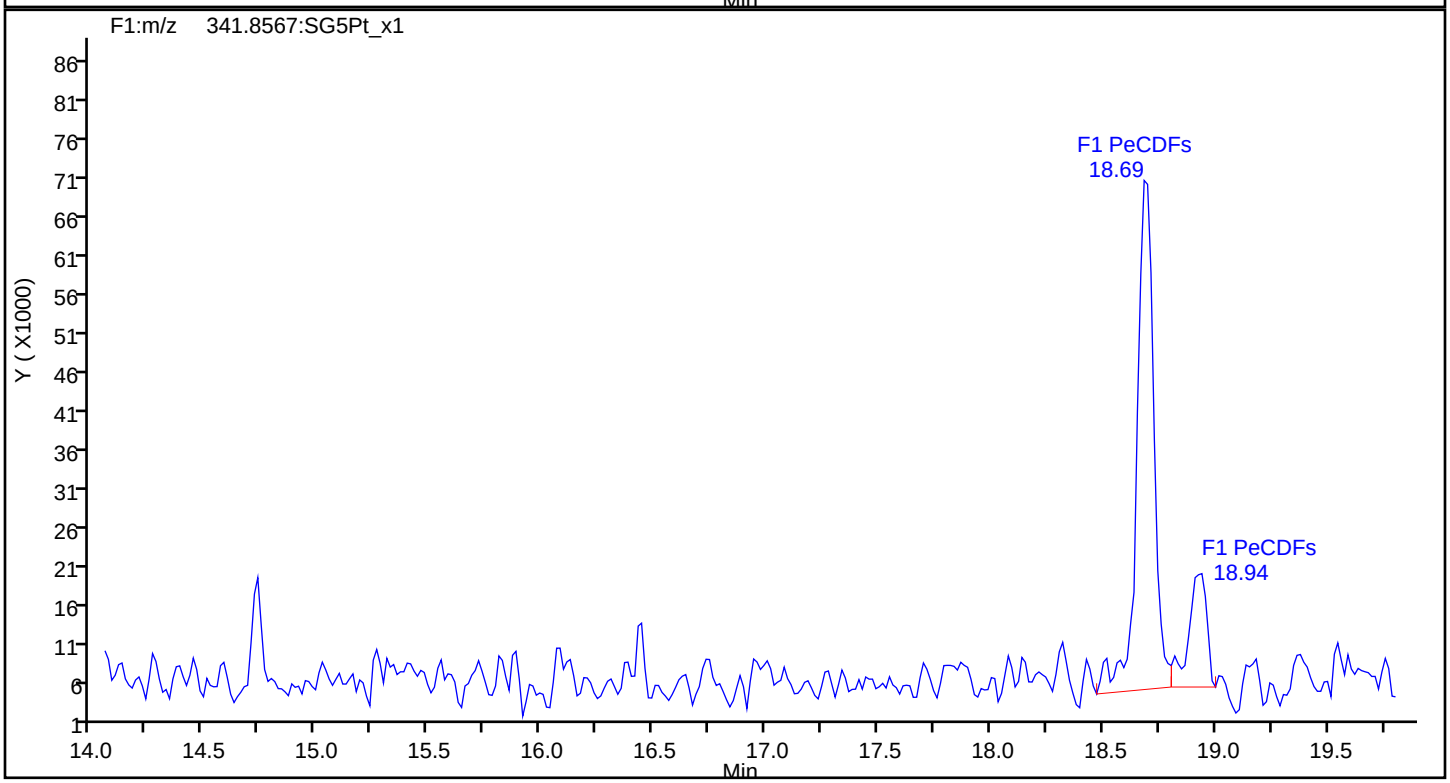
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



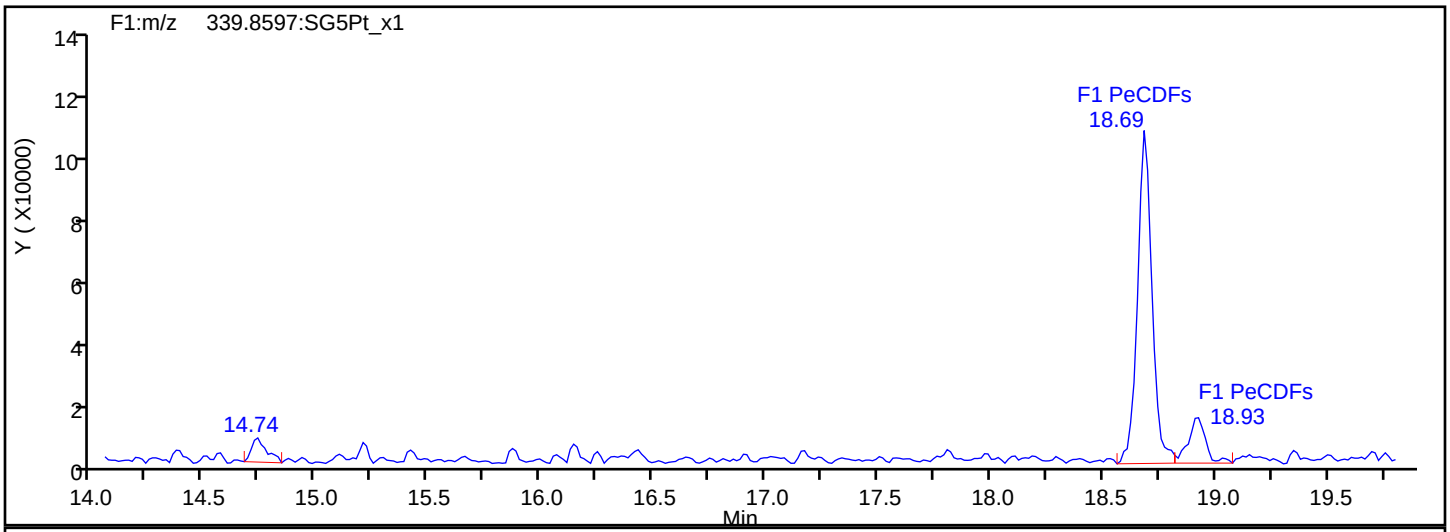


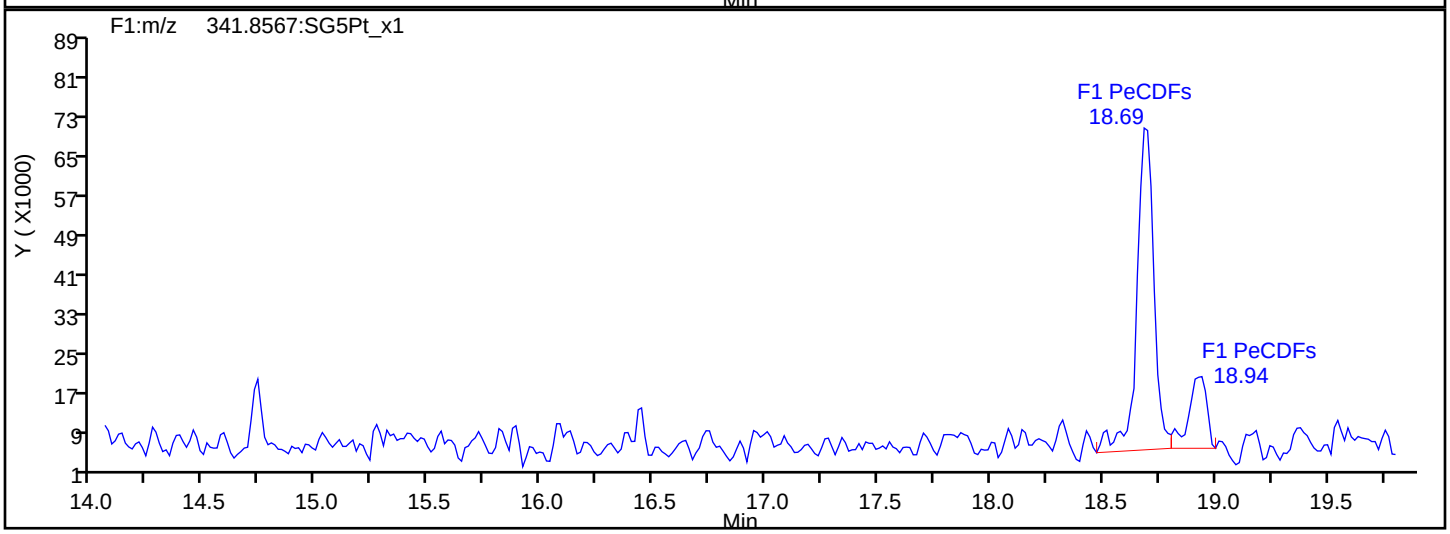
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

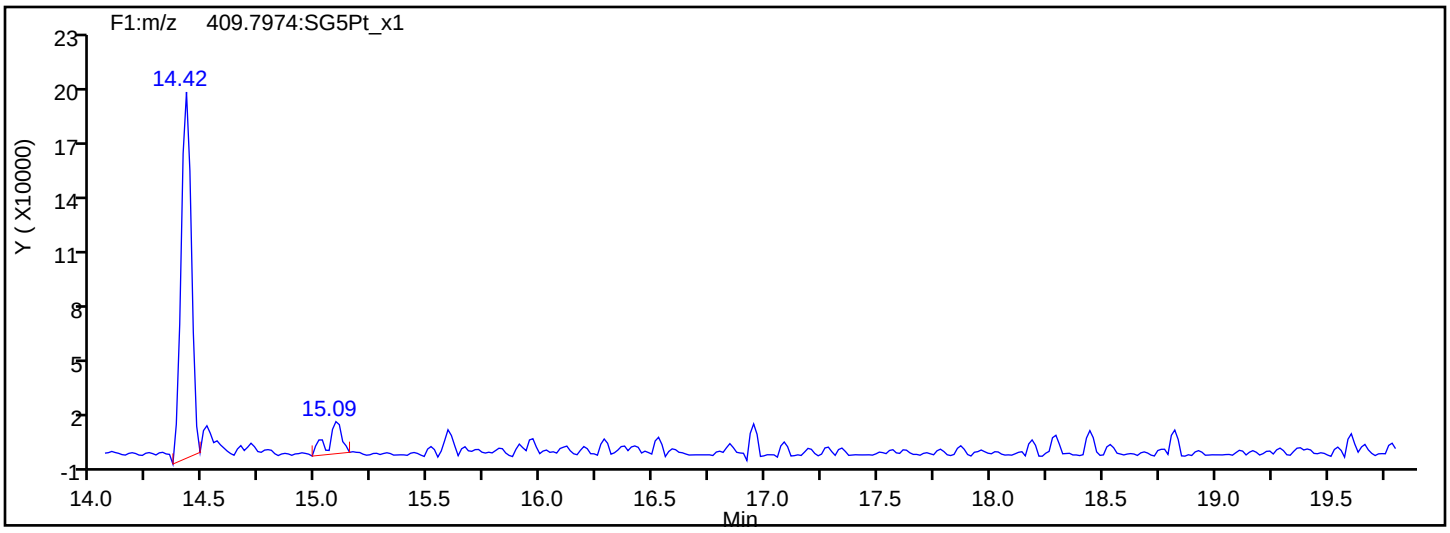
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

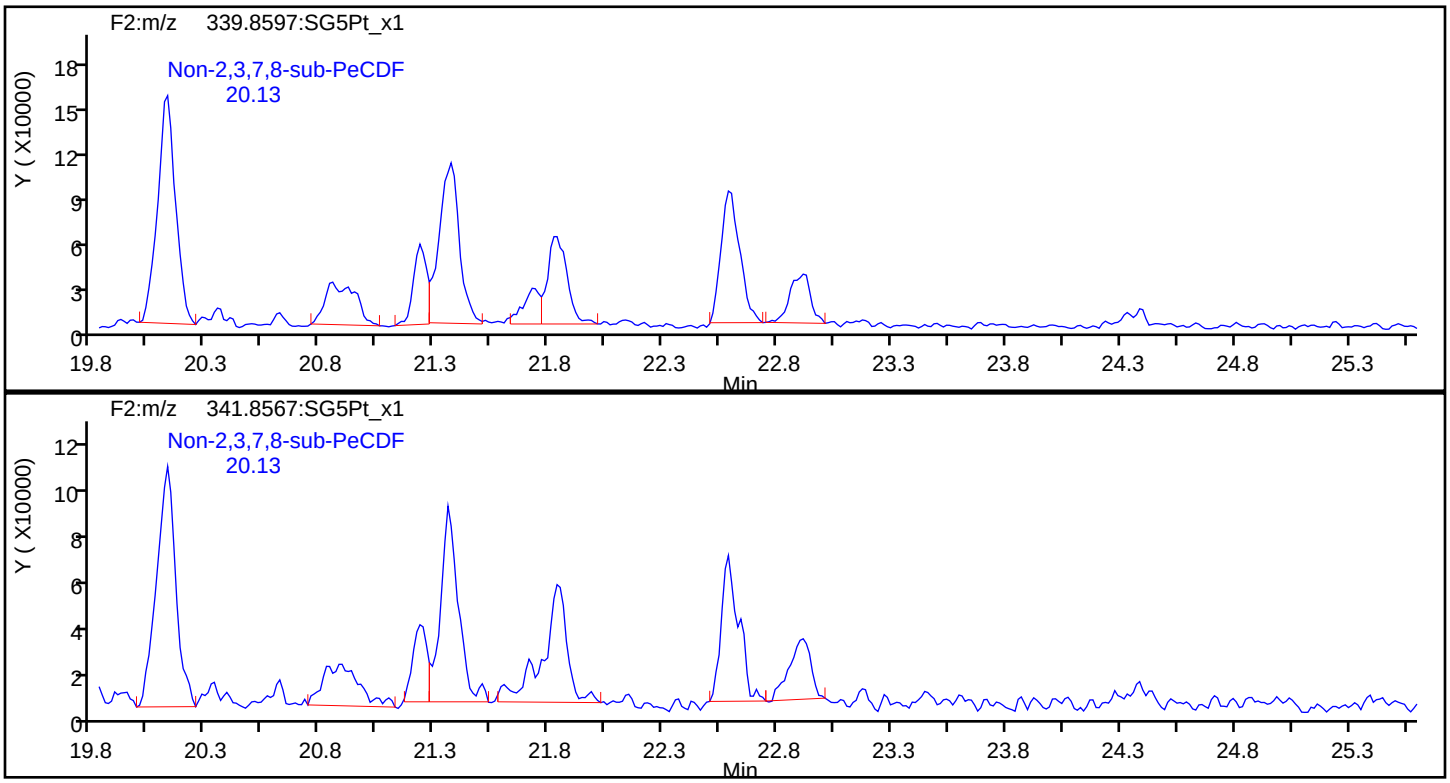


Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

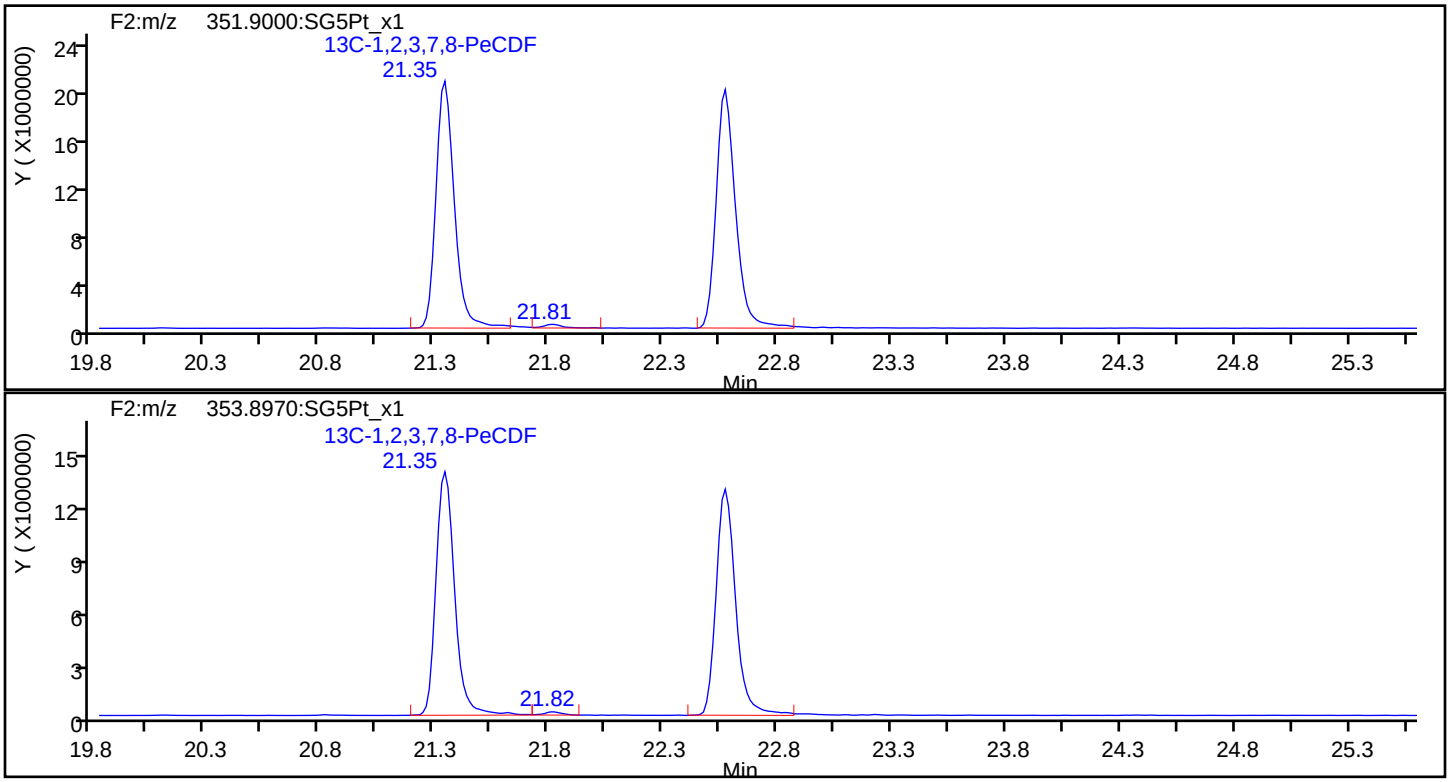
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

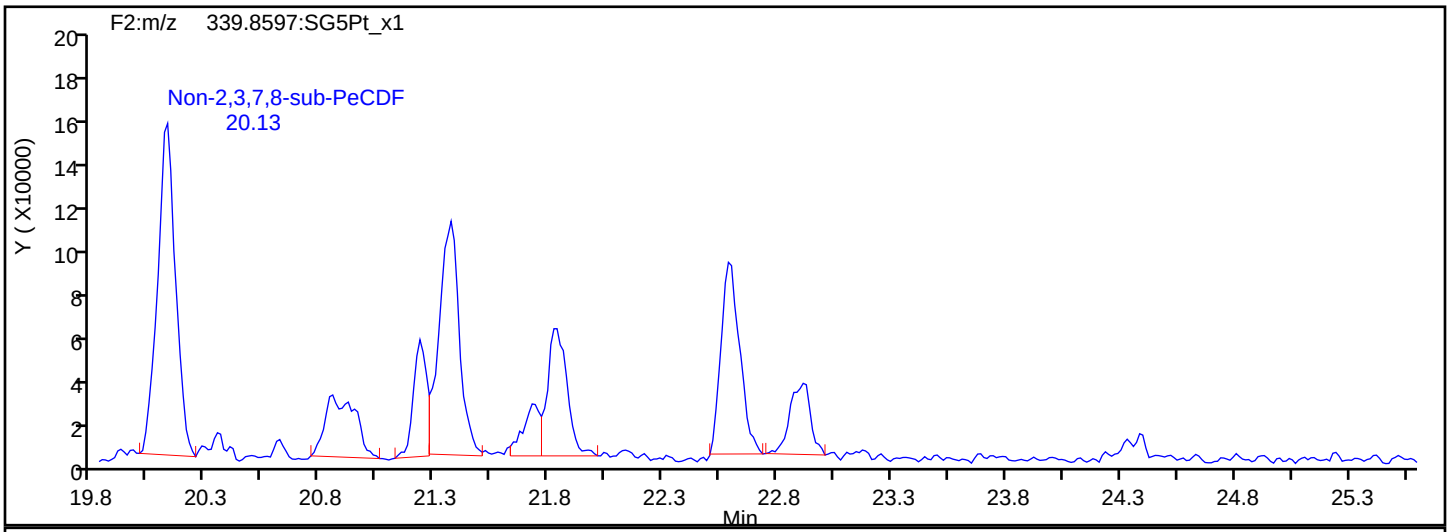


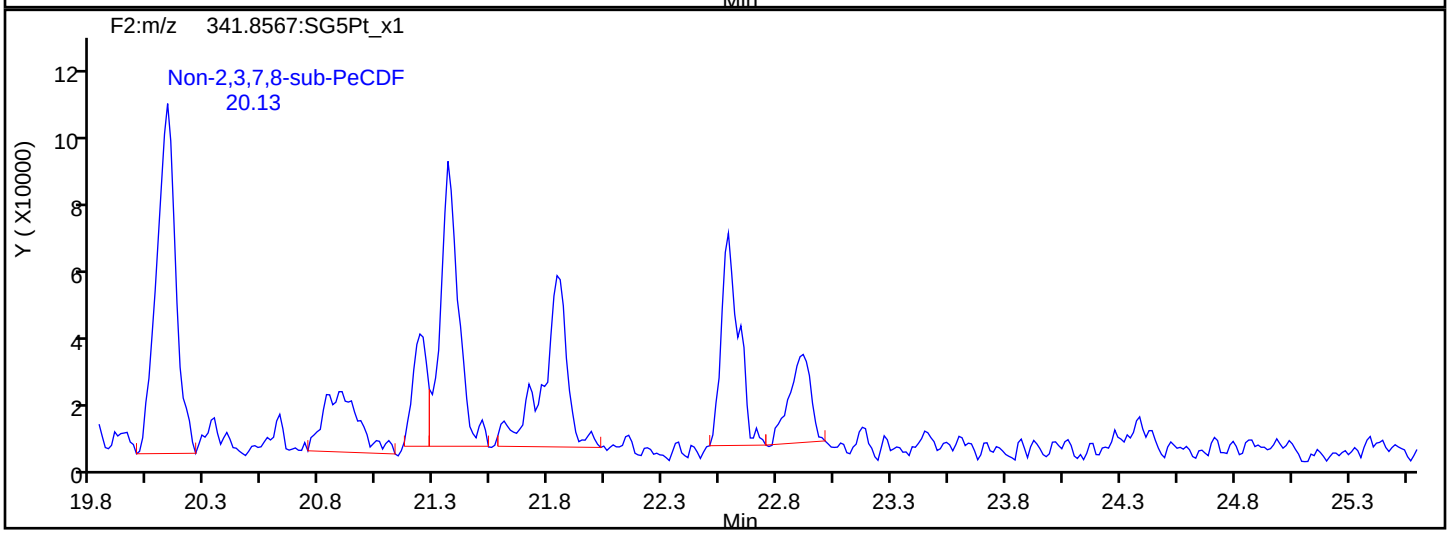
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

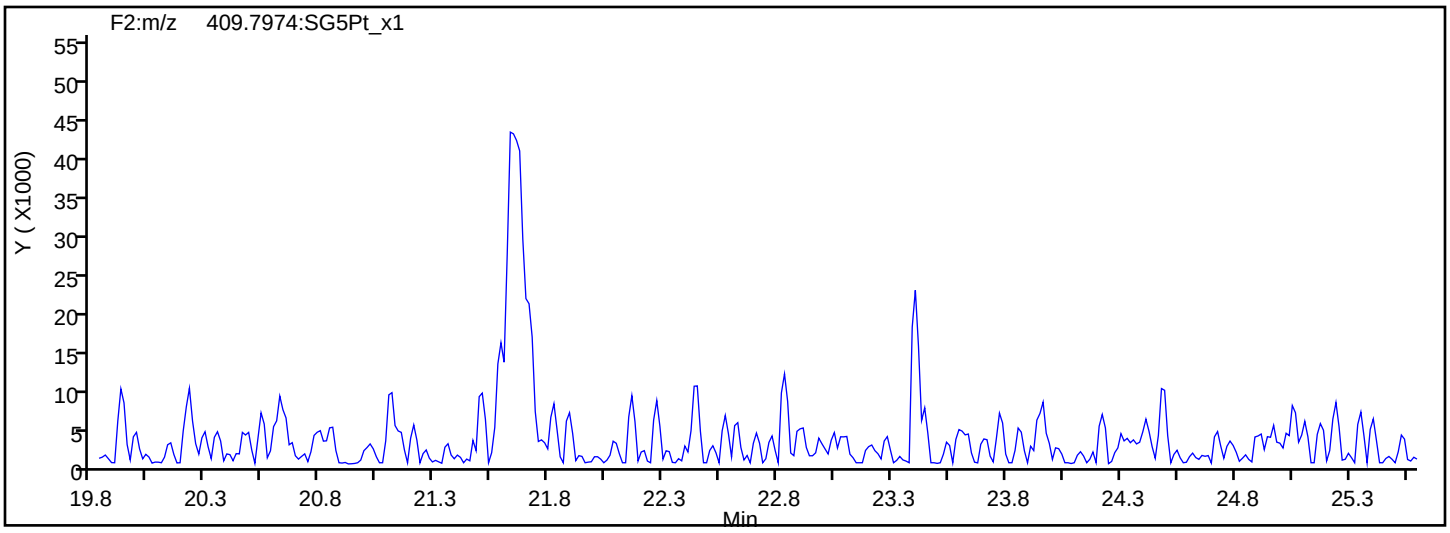
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



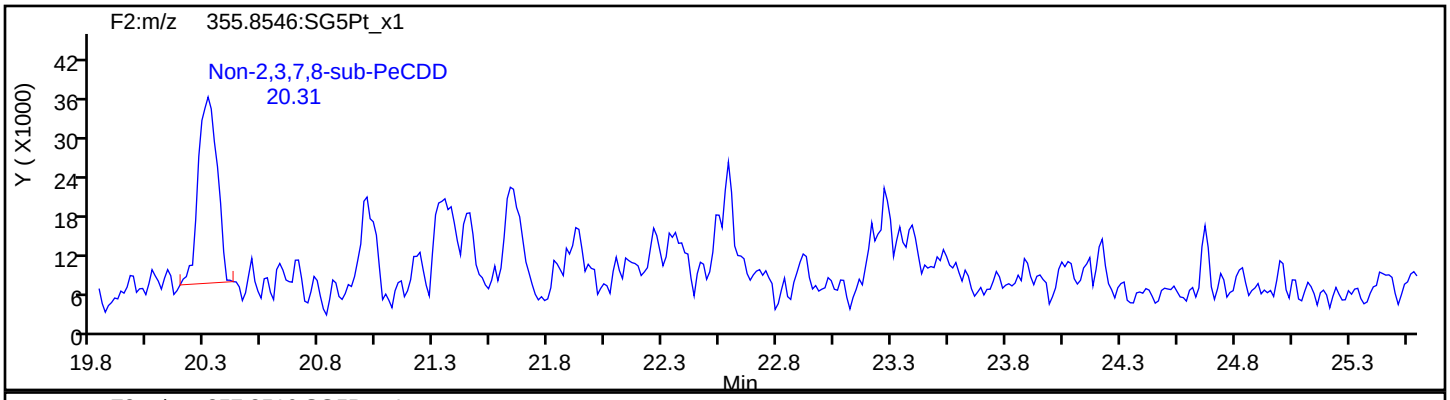
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

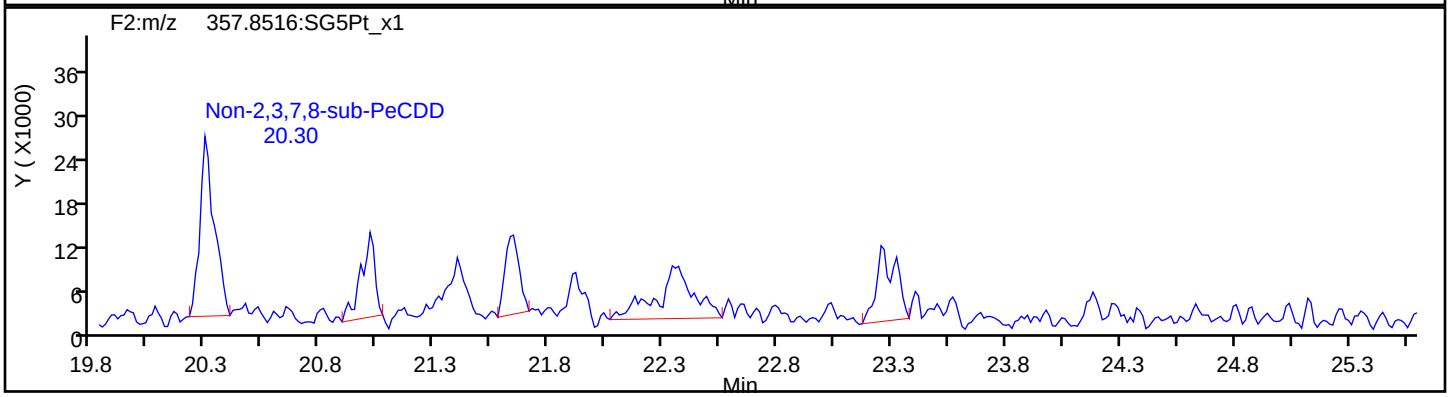
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

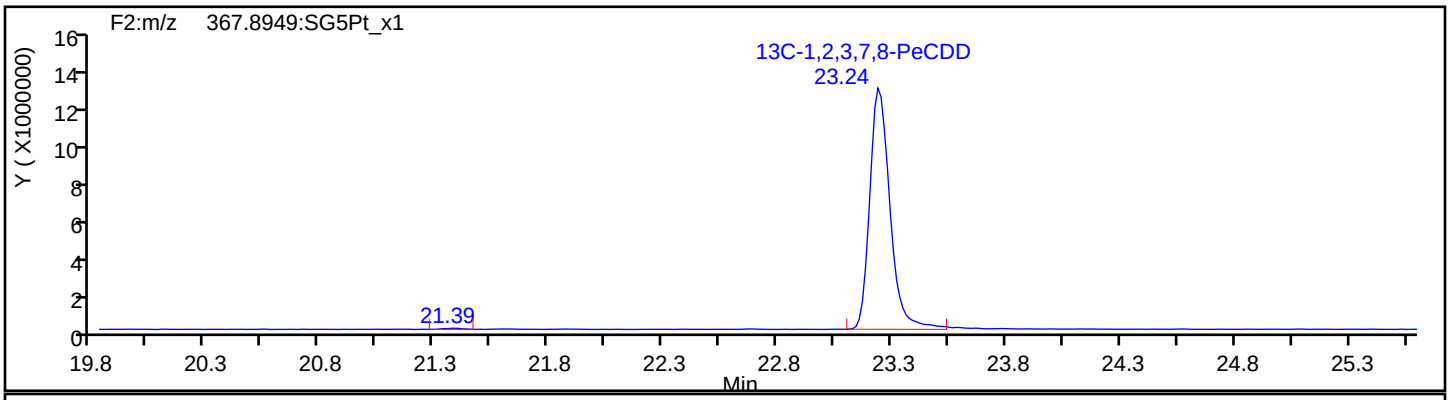
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

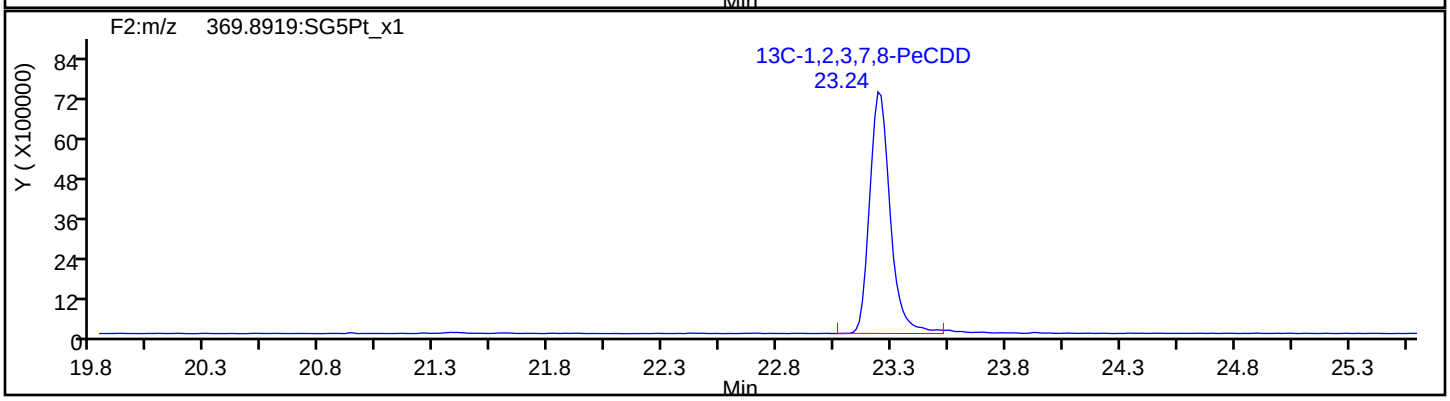
PeCDD





PeCDD Standards





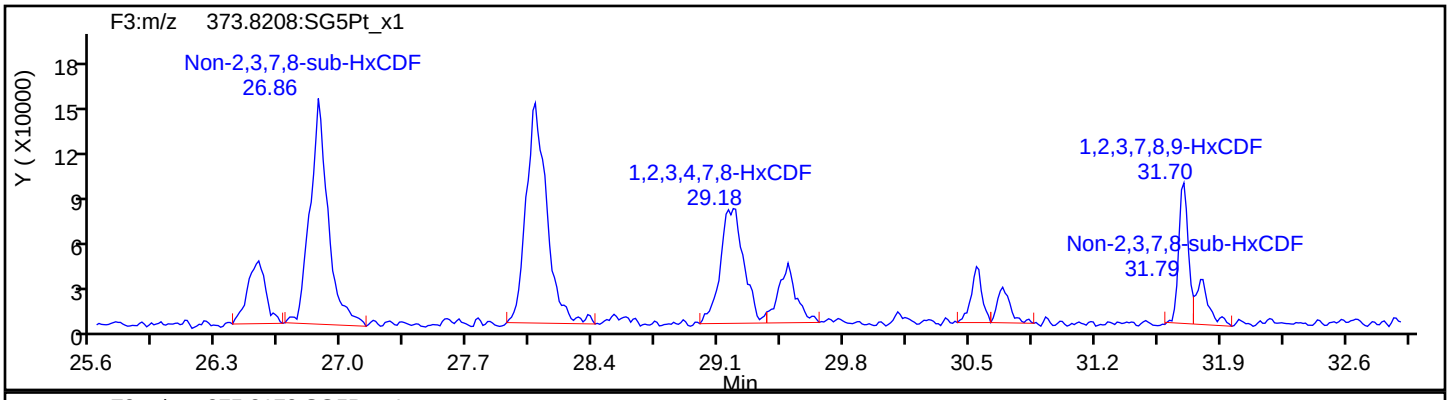
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

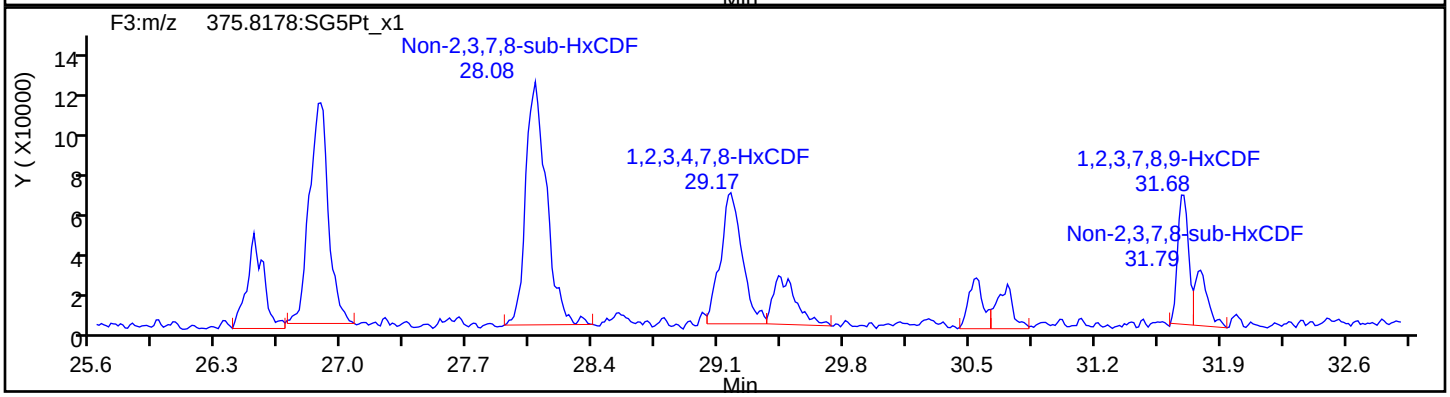
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

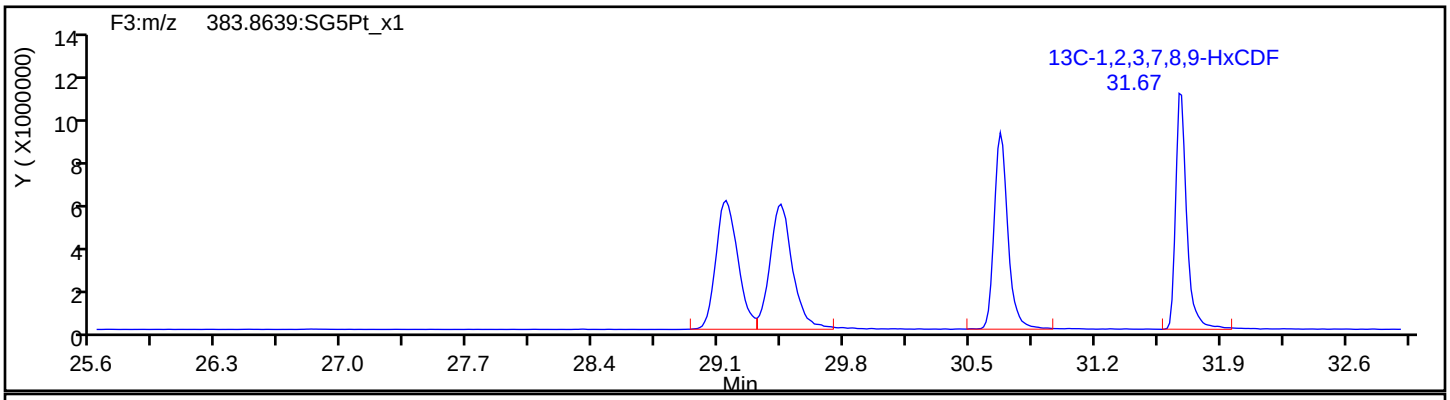
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

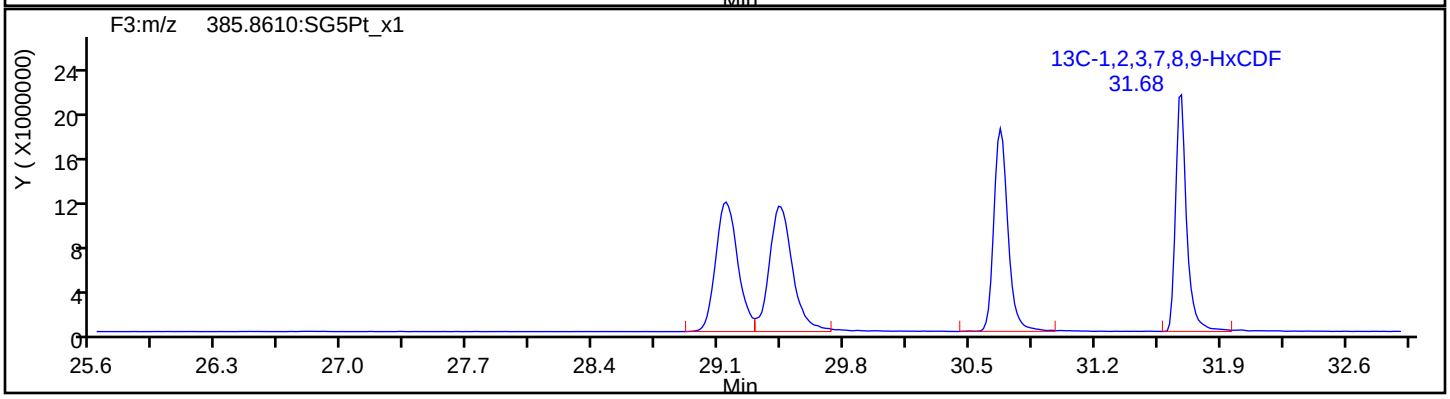
HxCDF





HxCDF Standards



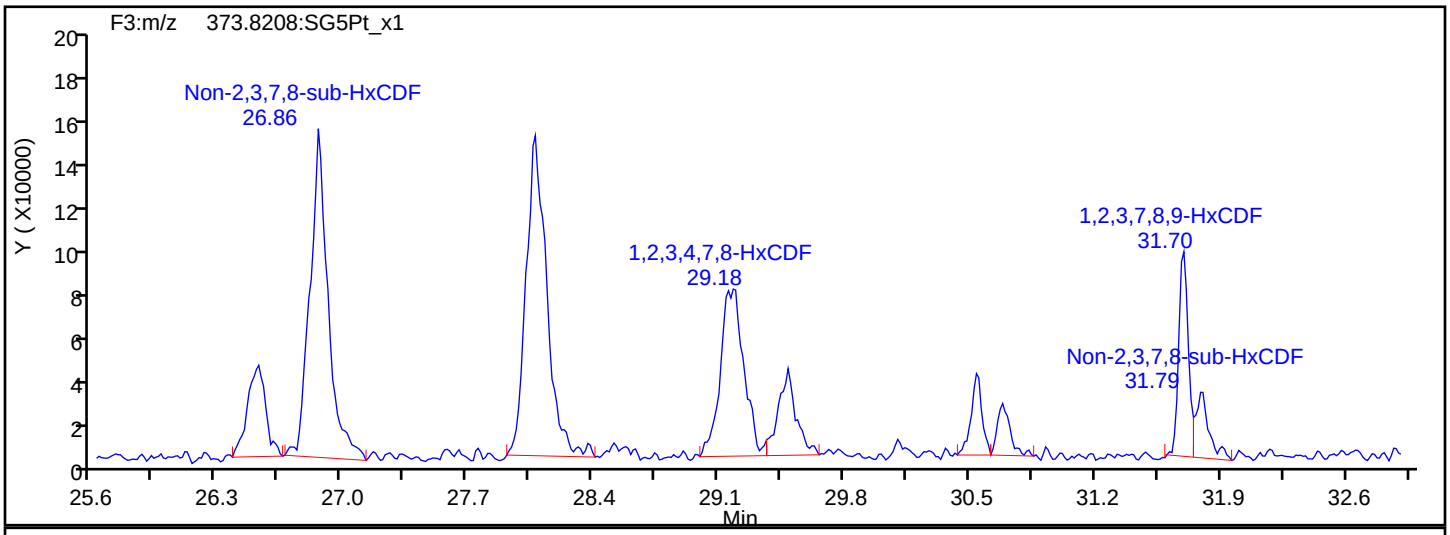


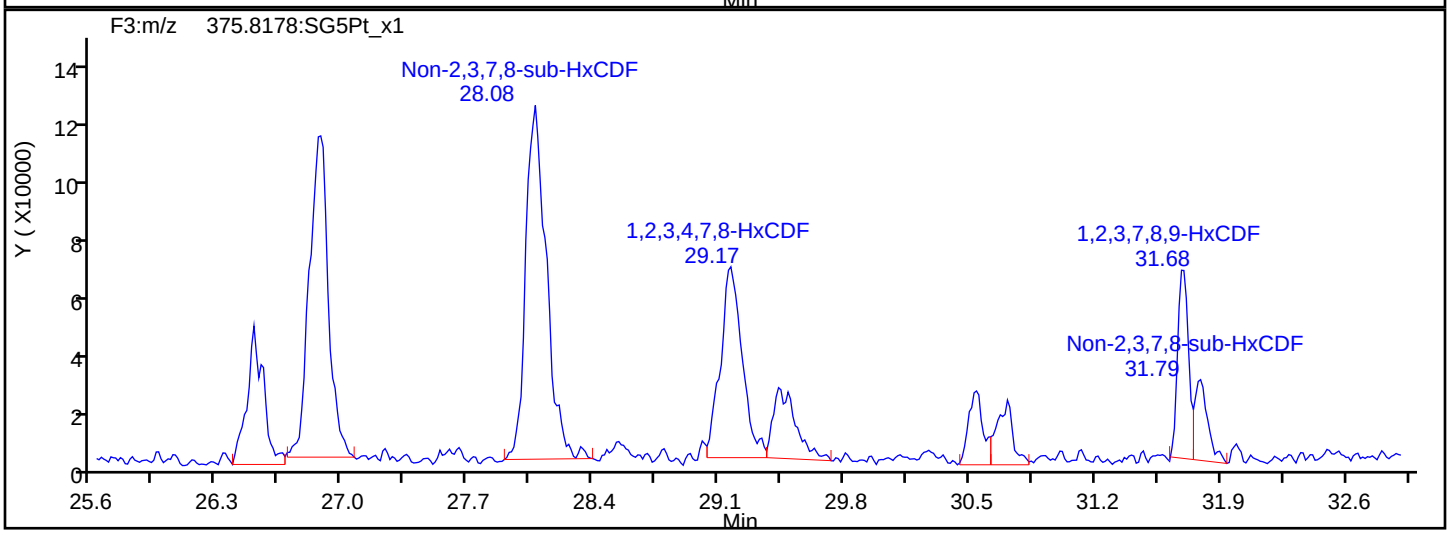
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

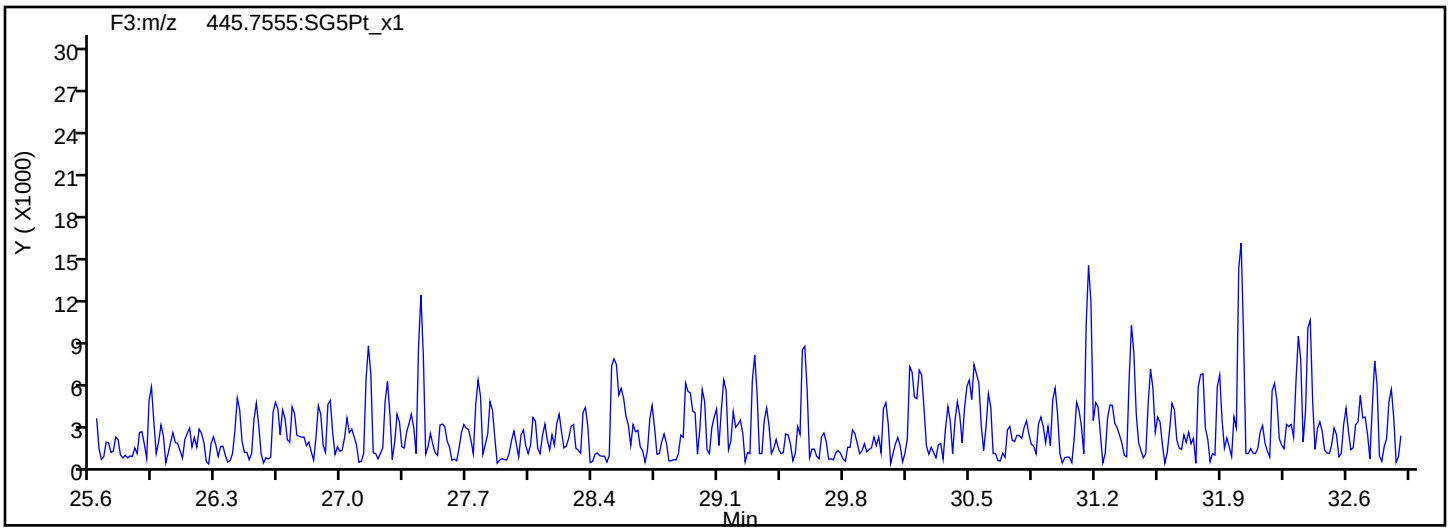
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

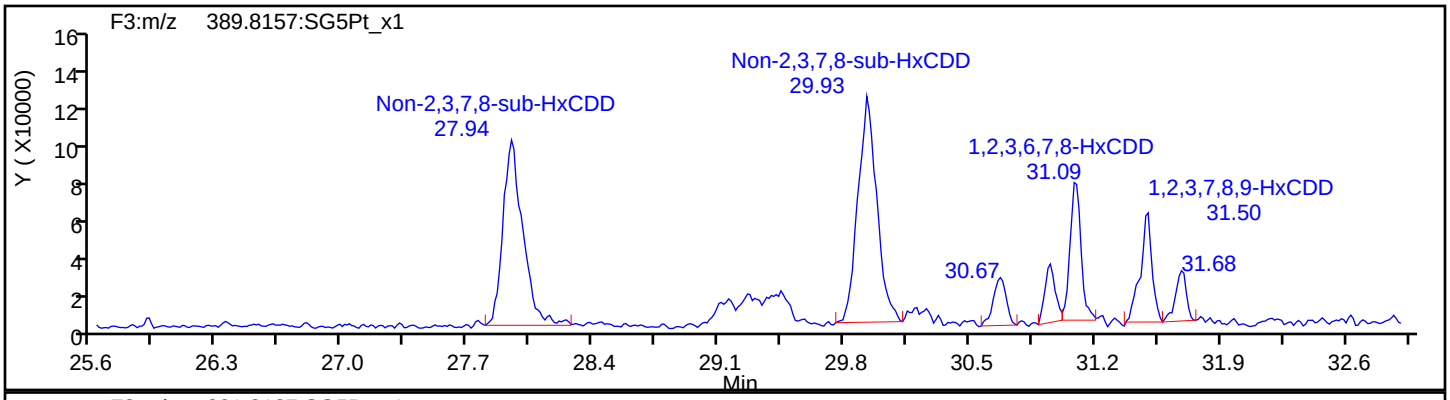


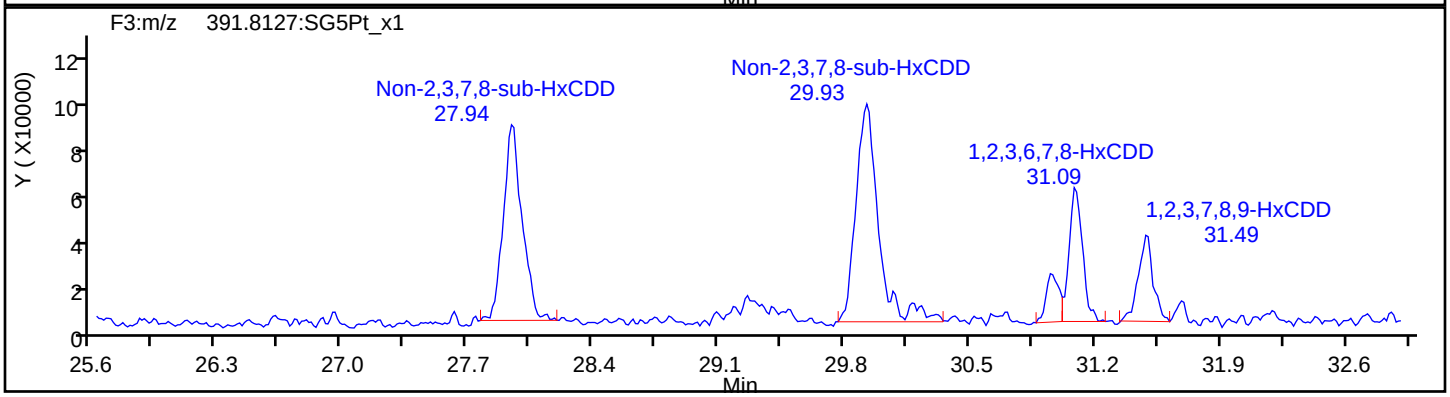
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

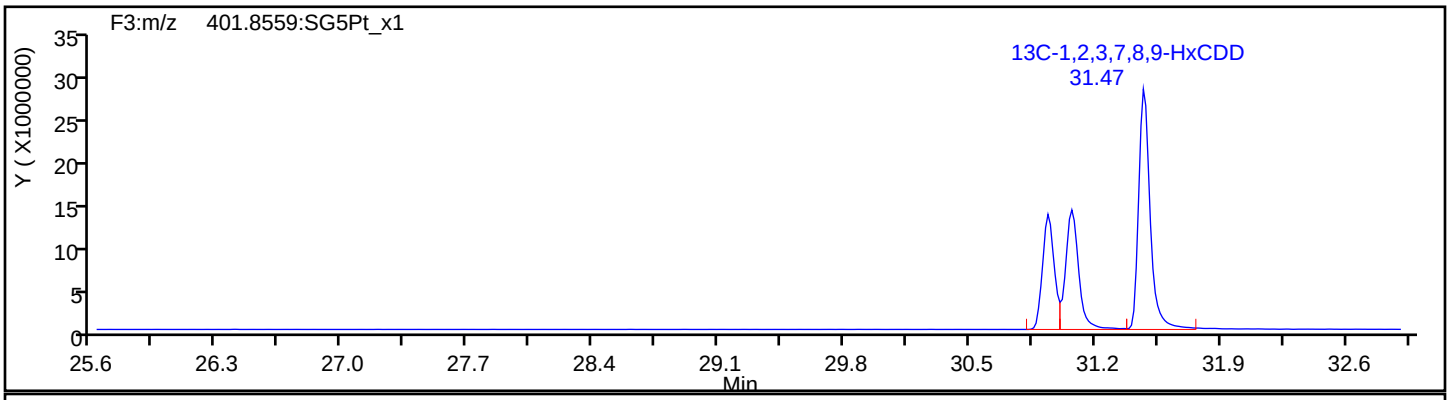
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

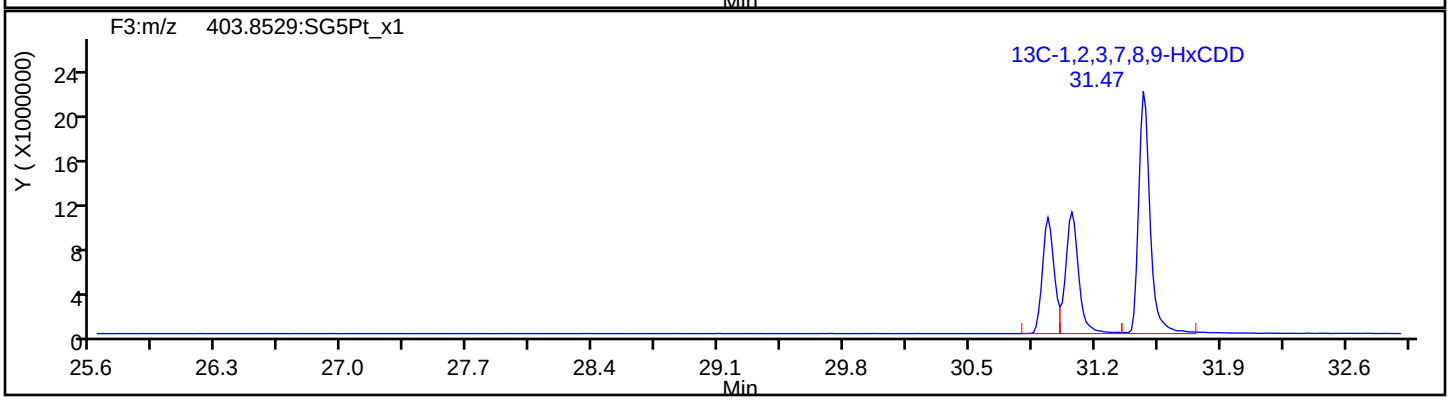
HxCDD





HxCDD Standards



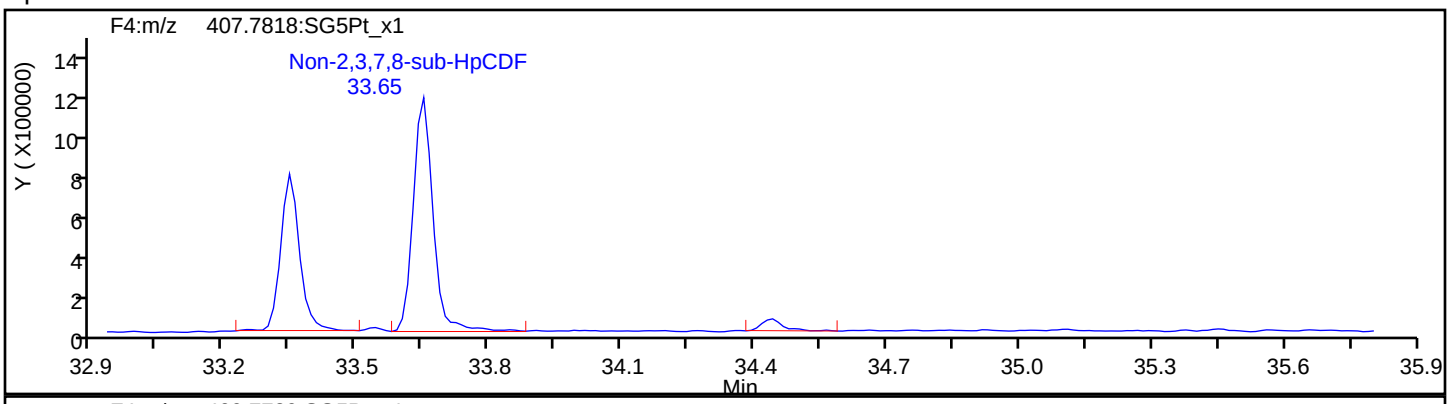


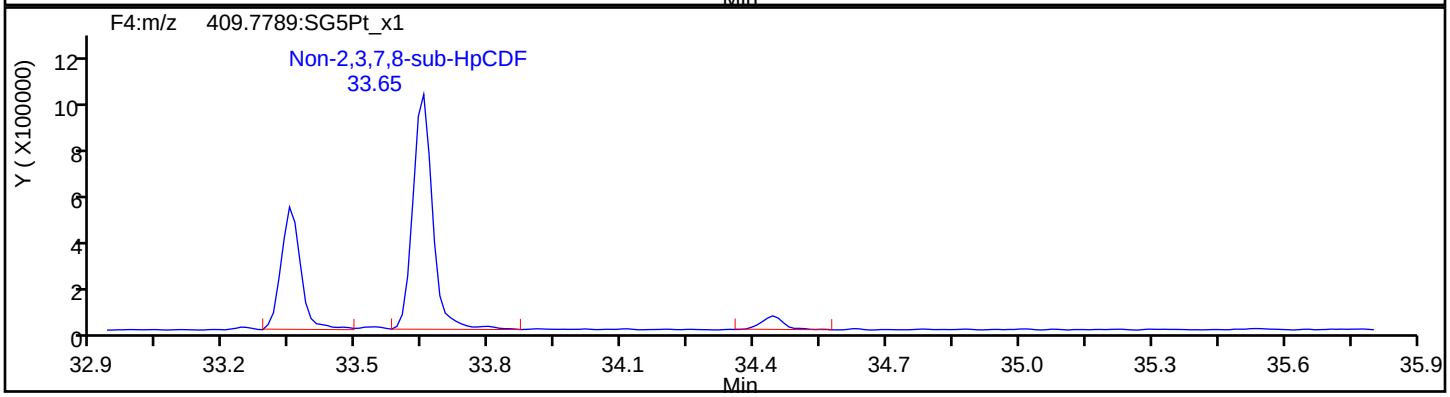
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

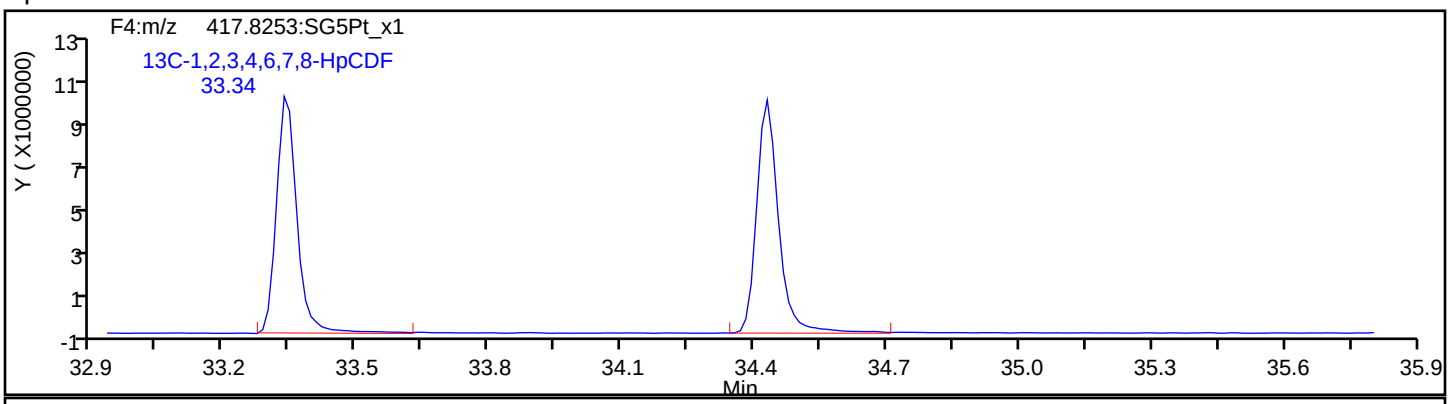
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

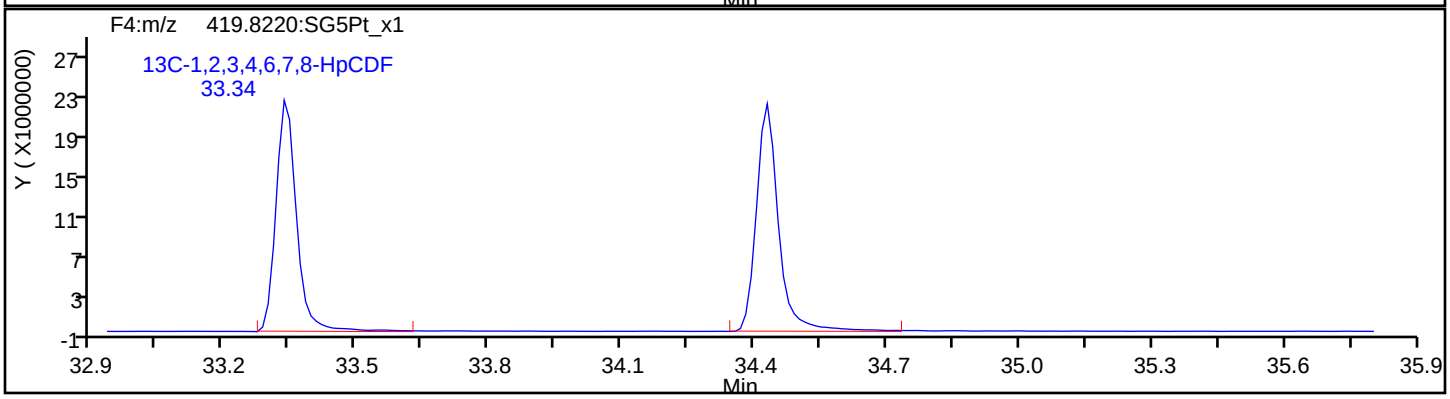
HpCDF





HpCDF Standards



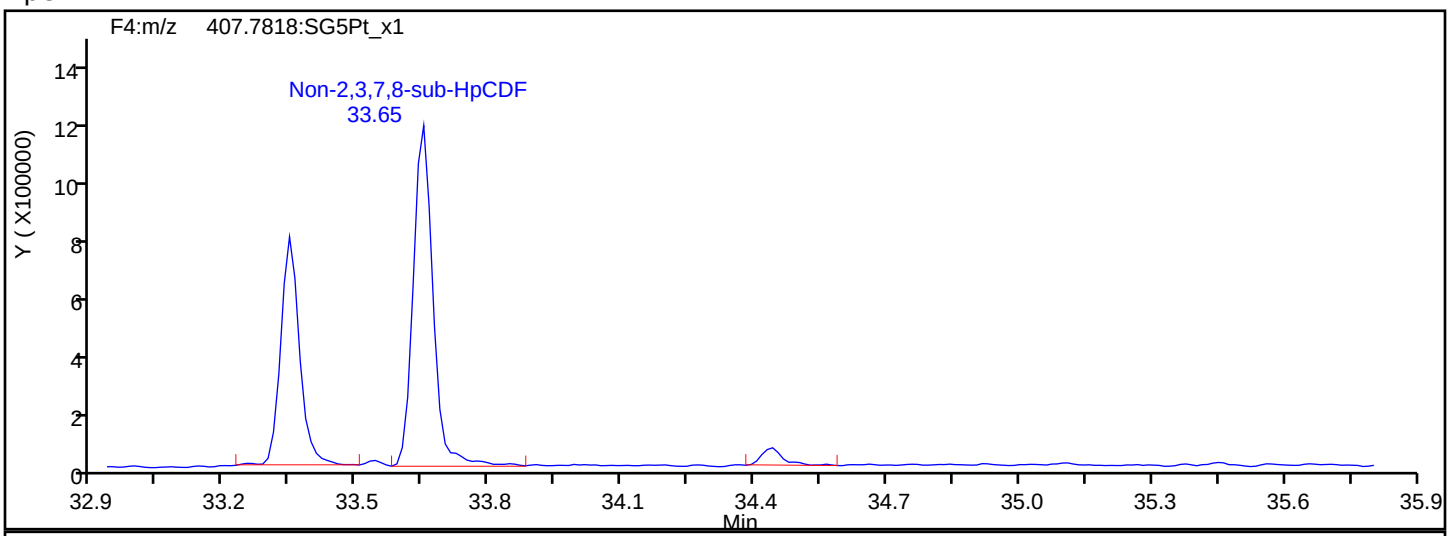


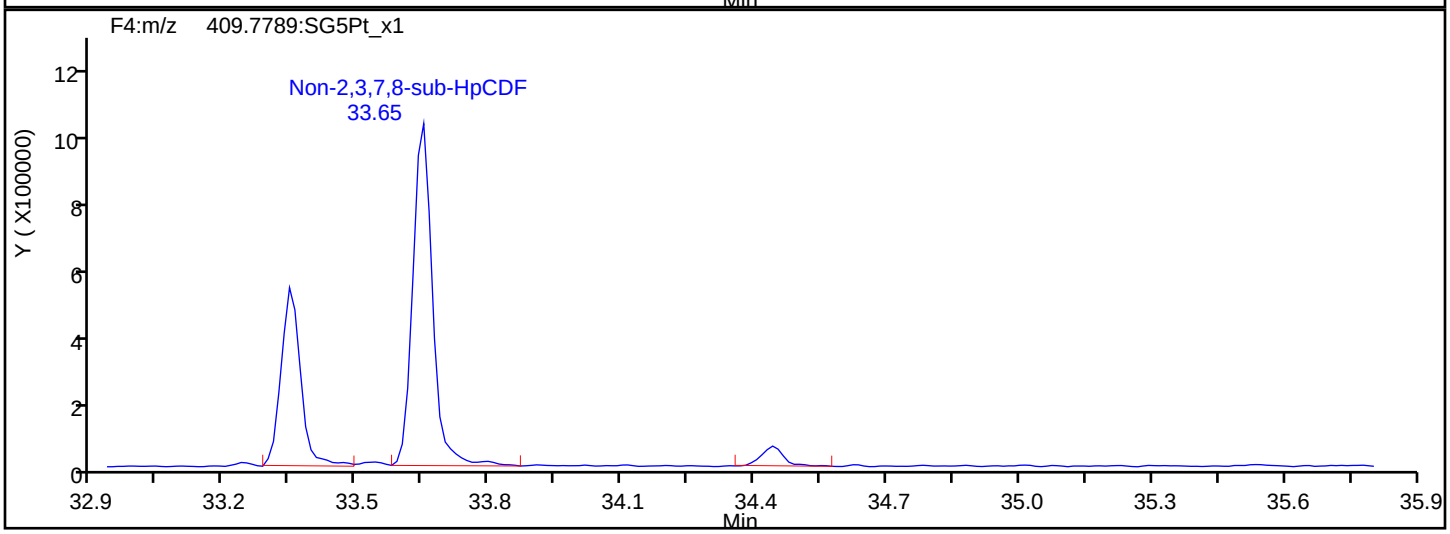
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

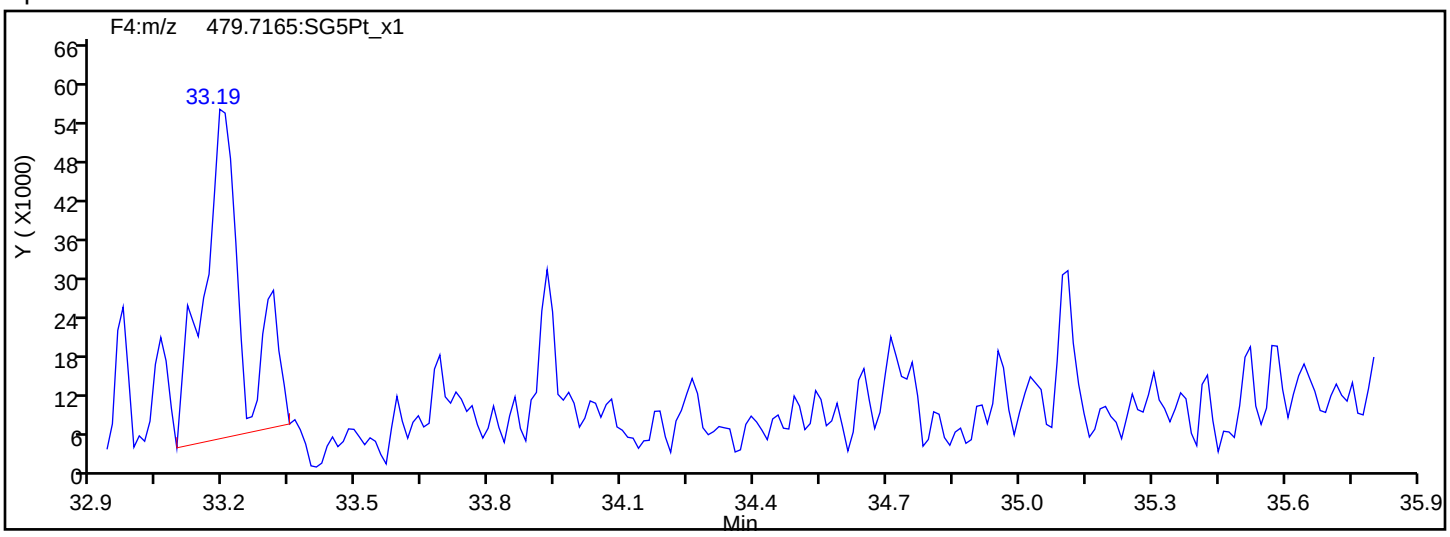
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



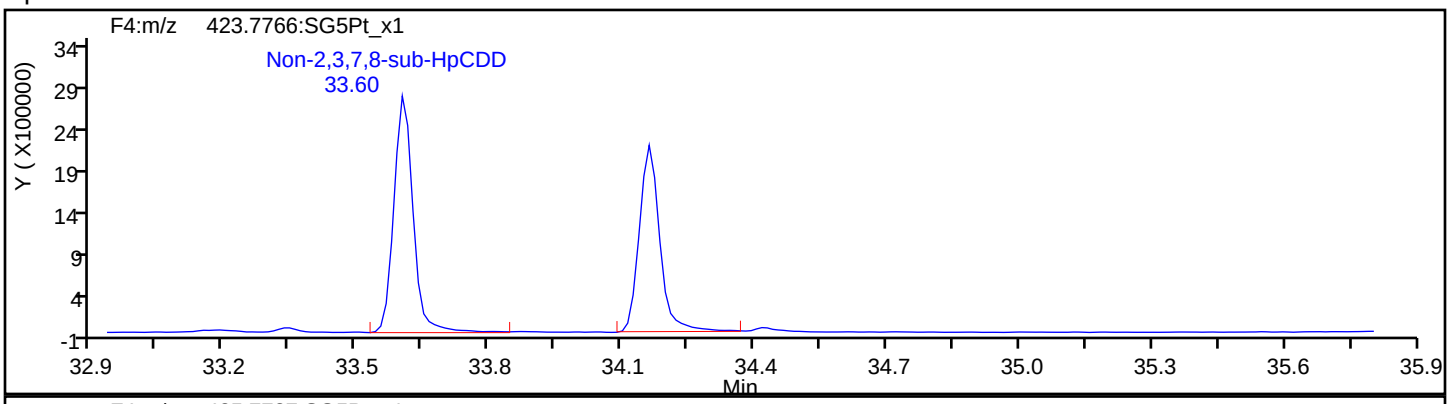
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

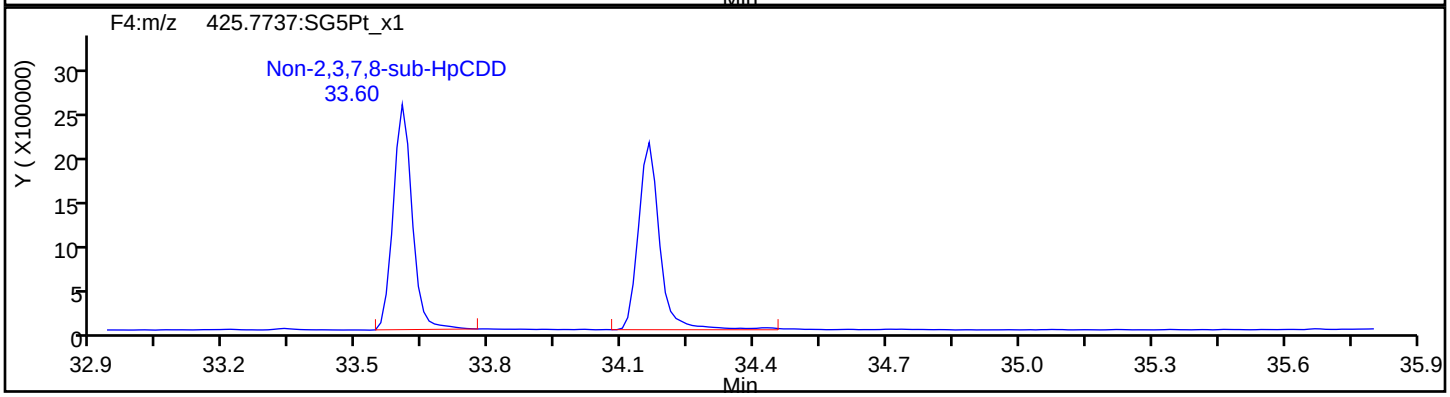
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

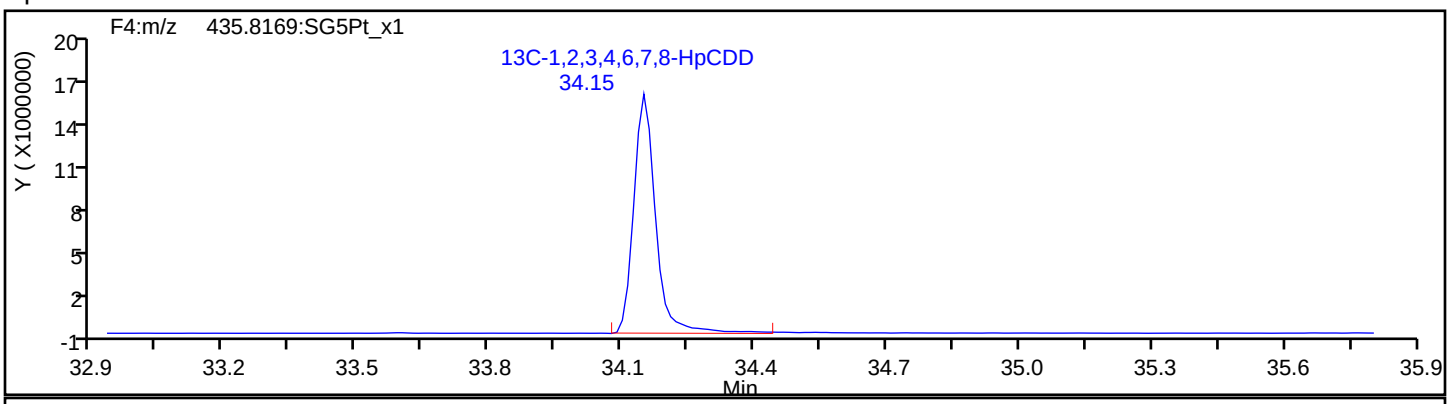
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

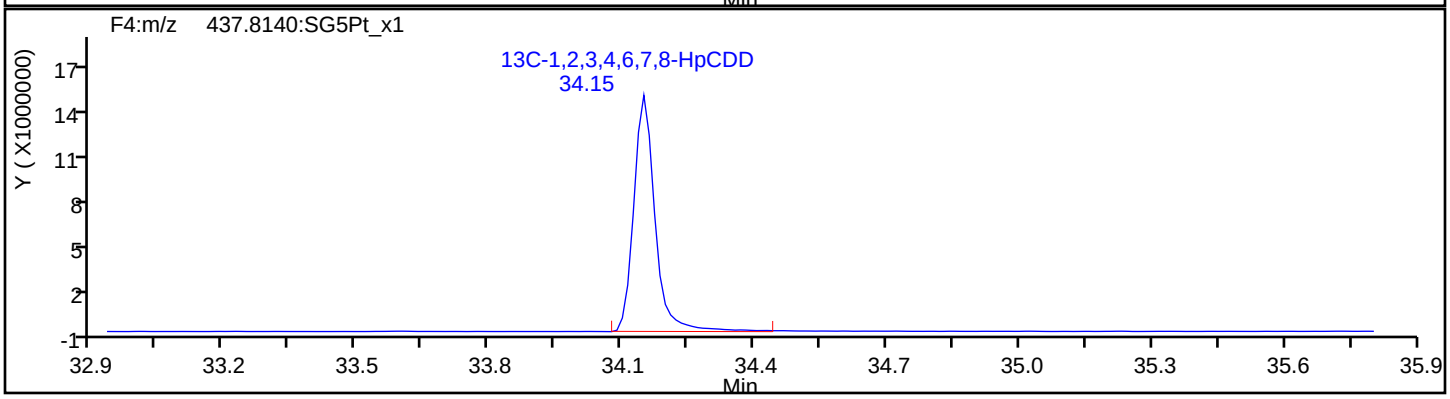
HpCDD





HpCDD Standards





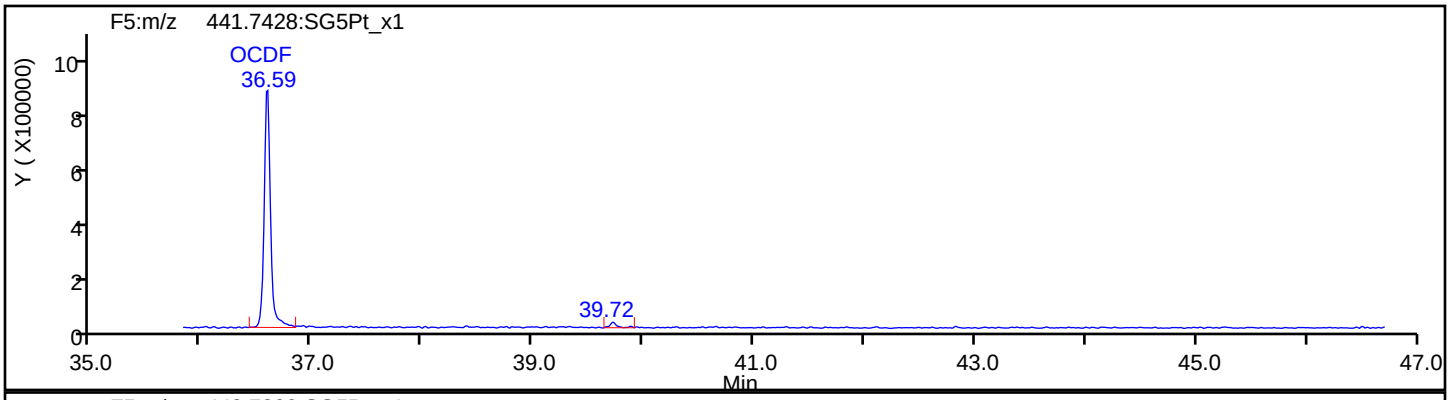
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

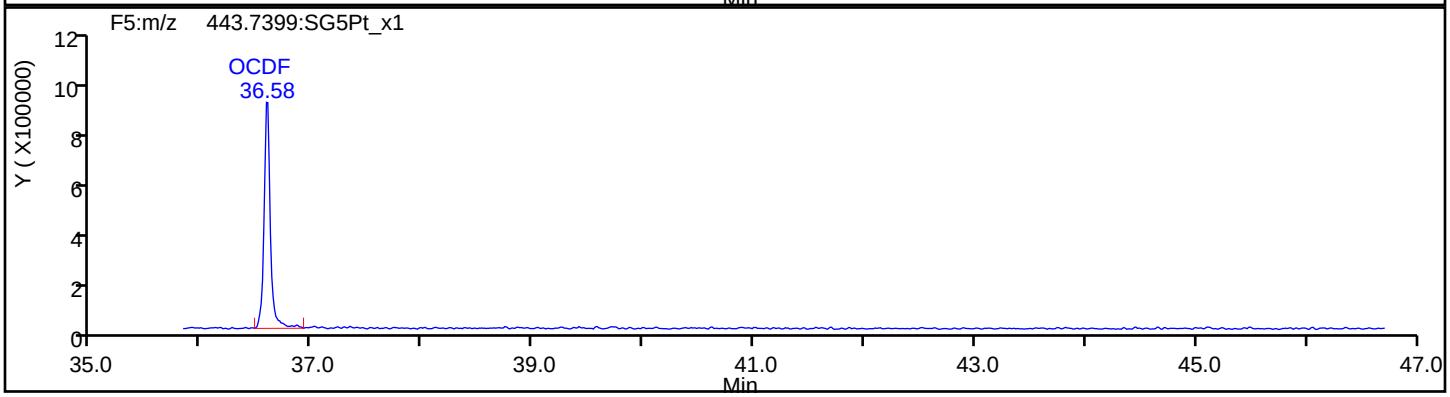
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

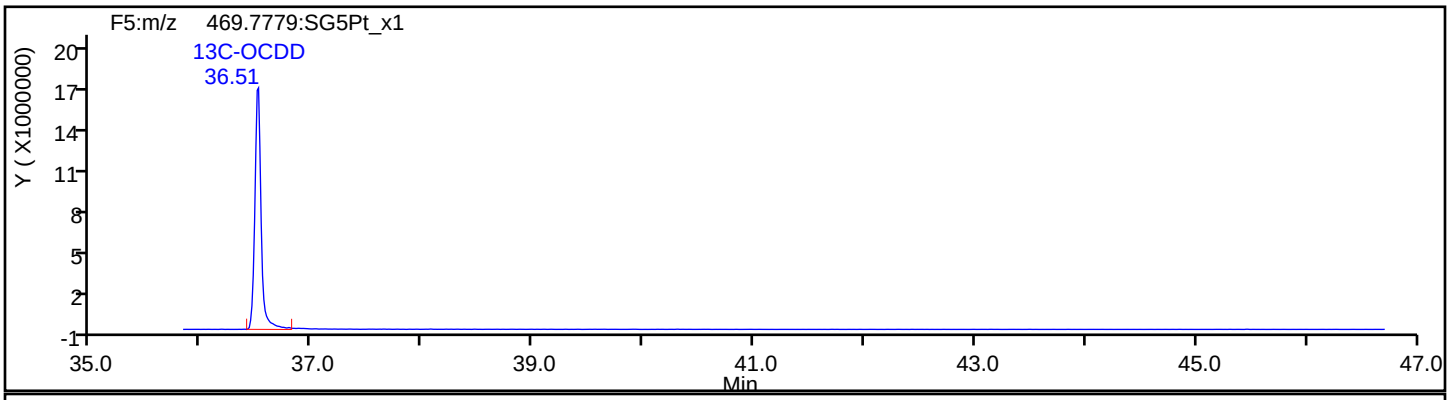
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

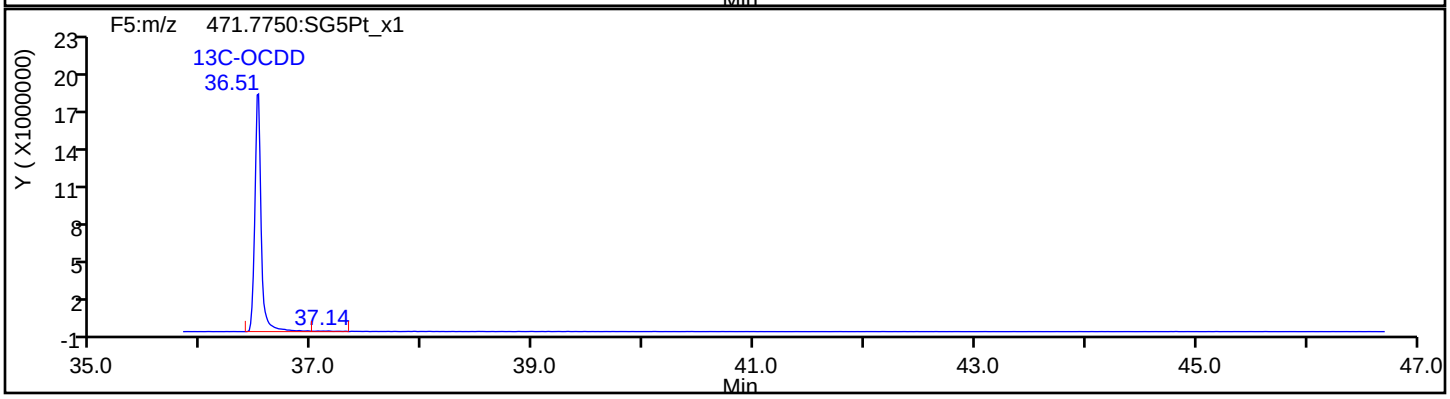
OCDF





OCDF Standards



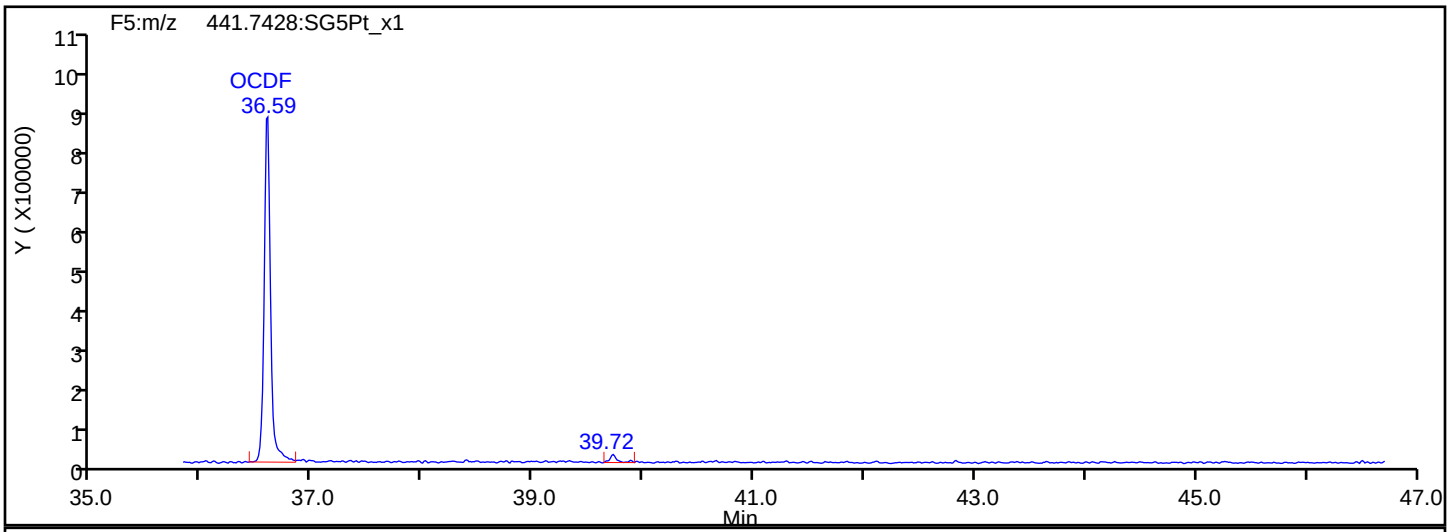


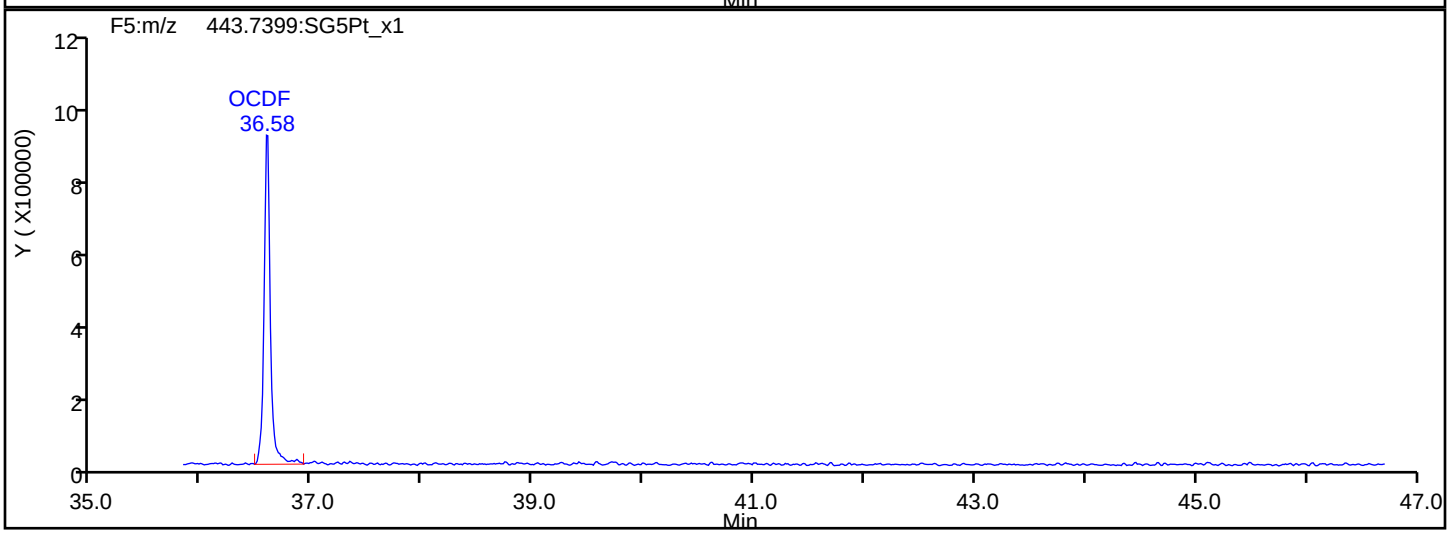
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

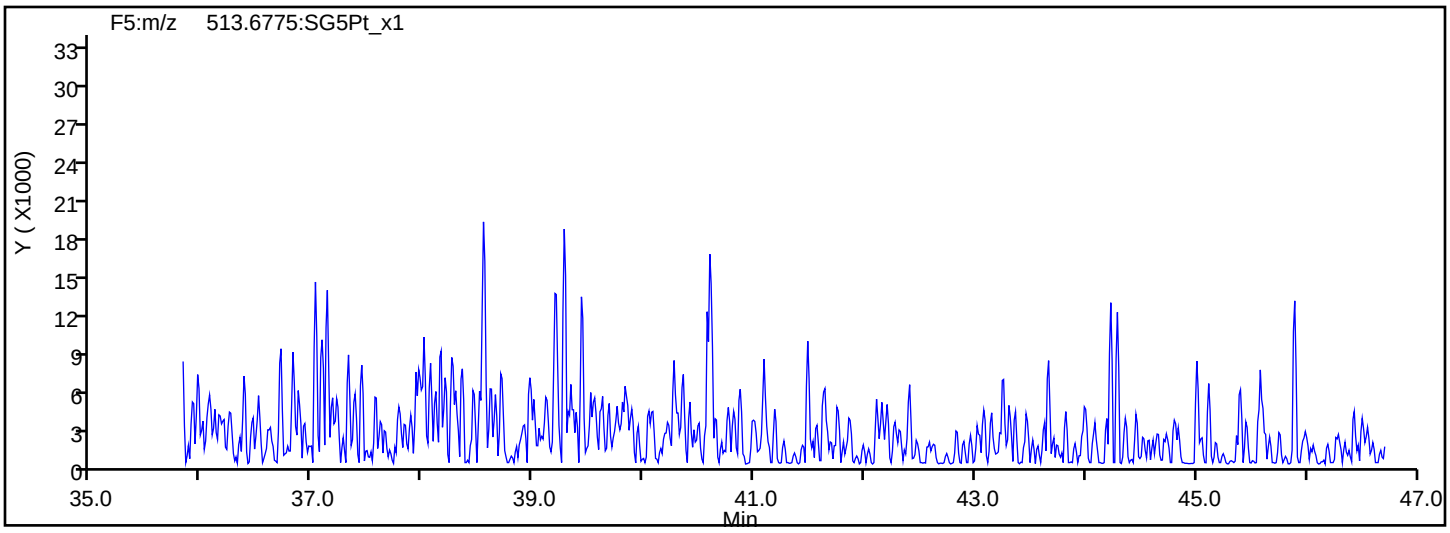
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass



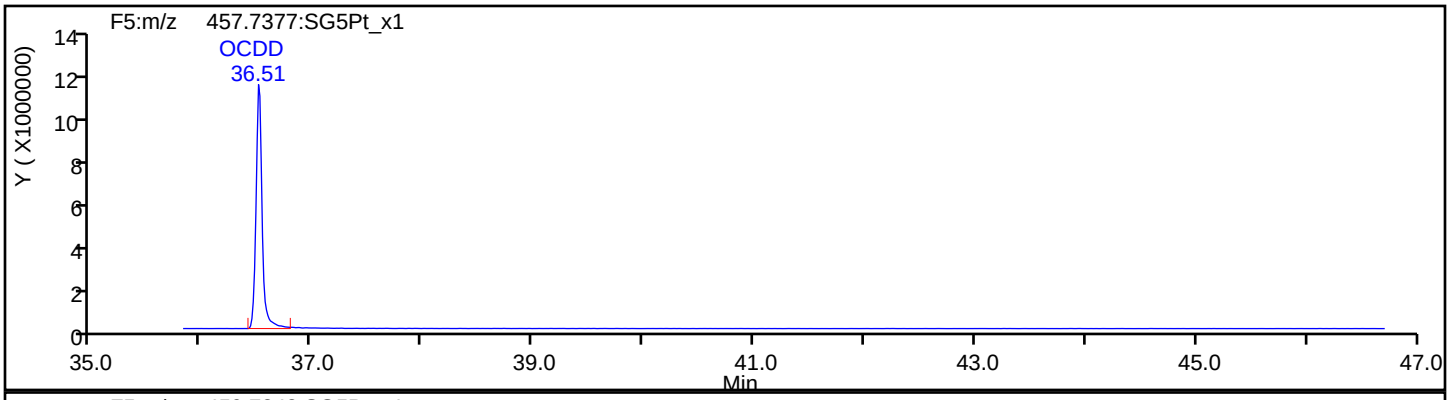
Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

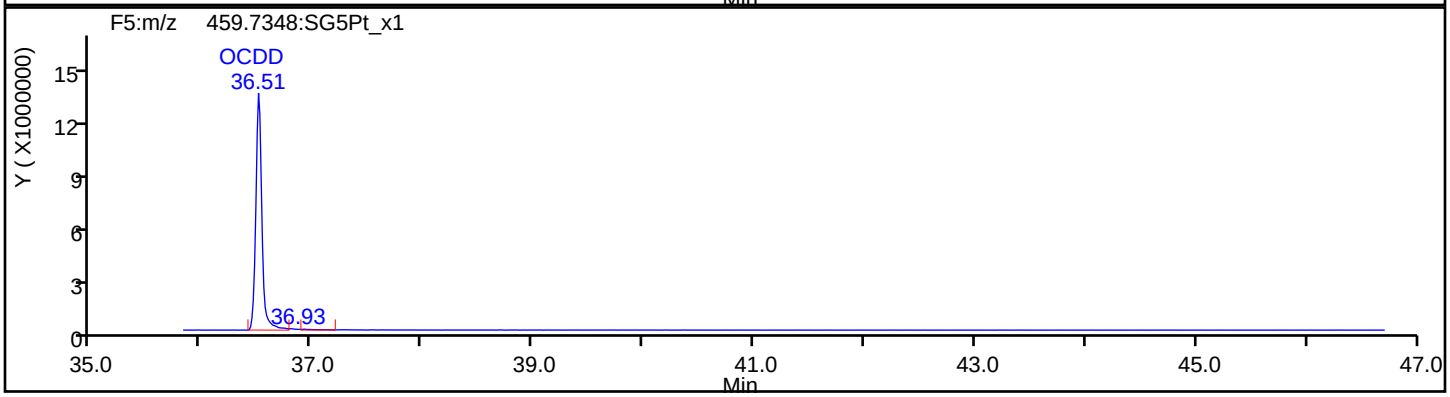
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d

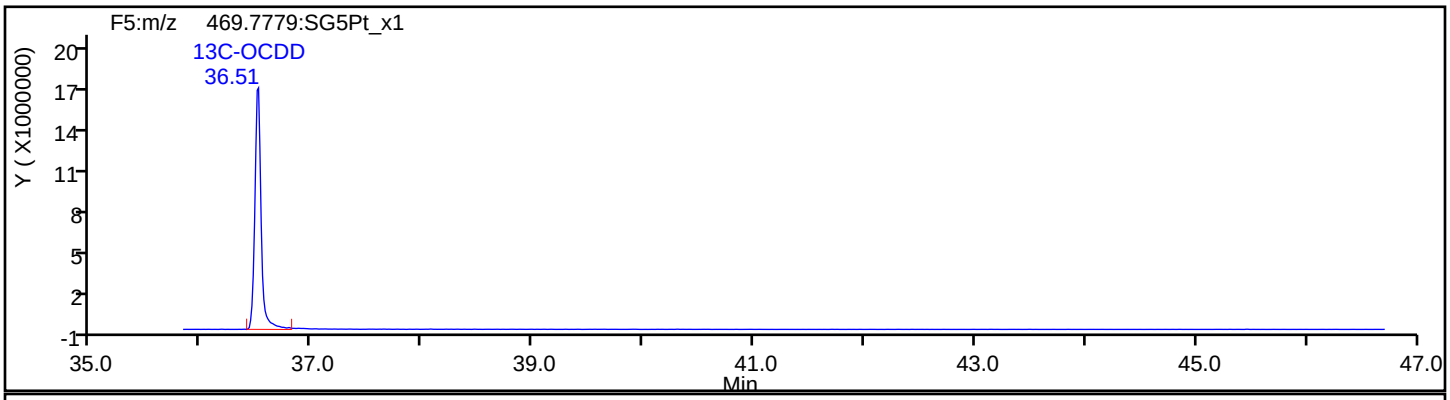
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm

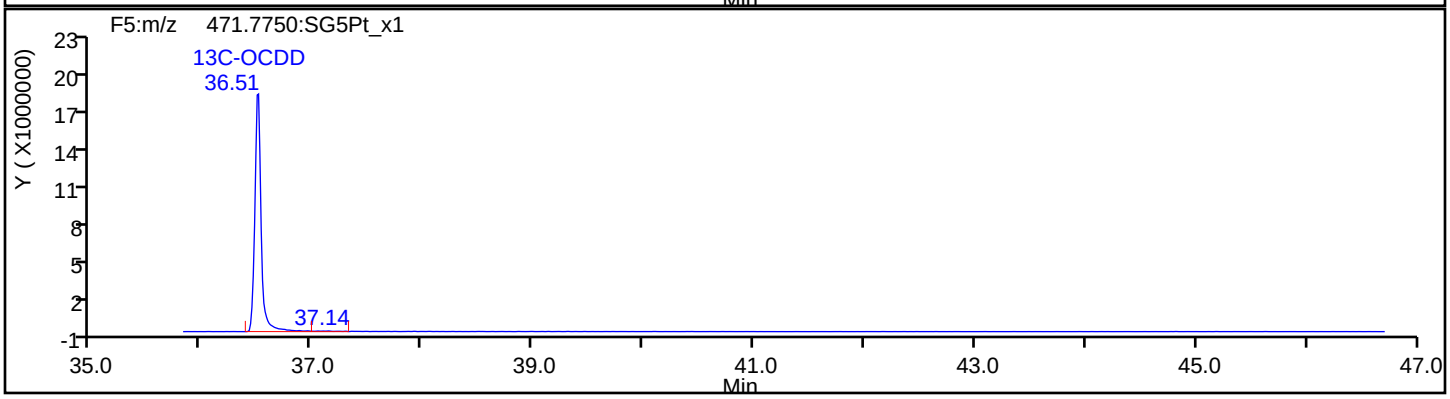
OCDD





OCDD Standards

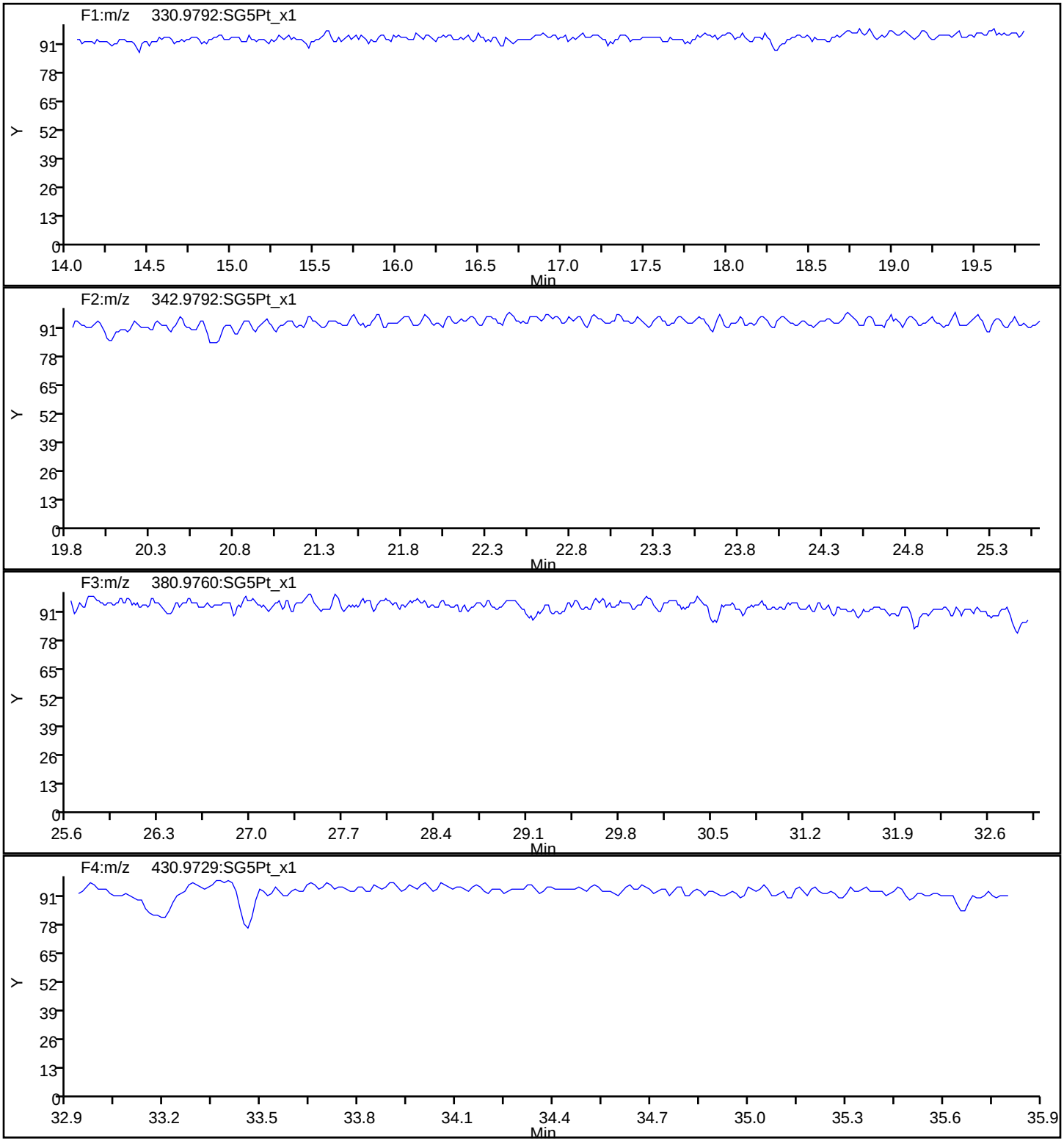




Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

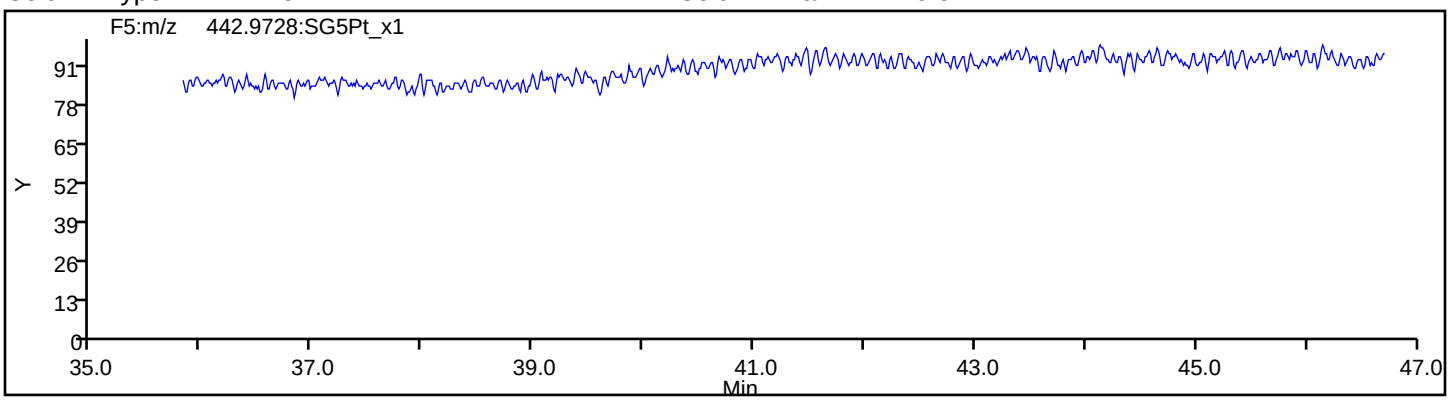
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 10:55:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_58.d		
Injection Date:	21-Jul-2019 23:06:25	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309103	Sample Line#:	58
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-18_20190716 RA Lab Sample ID: 580-87706-2 RA

Matrix: Solid Lab File ID: 22JL19A4D2_004.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:44

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 9.98(g) Date Analyzed: 07/22/2019 12:49

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 70.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	10		3.3	0.18

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	73		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	82		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_004.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 12:49:34 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-2-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.939	97986449	0.79	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.064	98259611	0.85	1.3652	73.5	73.5	0.1209	0.1209	73.45	
2,3,7,8-TCDF	16.092	1735511	0.82	1.1747	1.504	1.504	0.0264	0.0264		
D 13C-2,3,7,8-TCDD	14.651	64802198	0.79	0.9684	68.3	68.3	0.0989	0.0989	68.29	
$ 37Cl4-2,3,7,8-TCDD	14.679	41434924		1.2853	32.9	32.9	0.0259	0.0259	82.25	
2,3,7,8-TCDD	14.665	175115	0.72	1.2259	0.2204	0.2204	0.0351	0.0351		

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_004.d
Lims ID: 580-87706-C-2-A
Client ID: 22T-SG-18_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 12:49:34 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-2-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

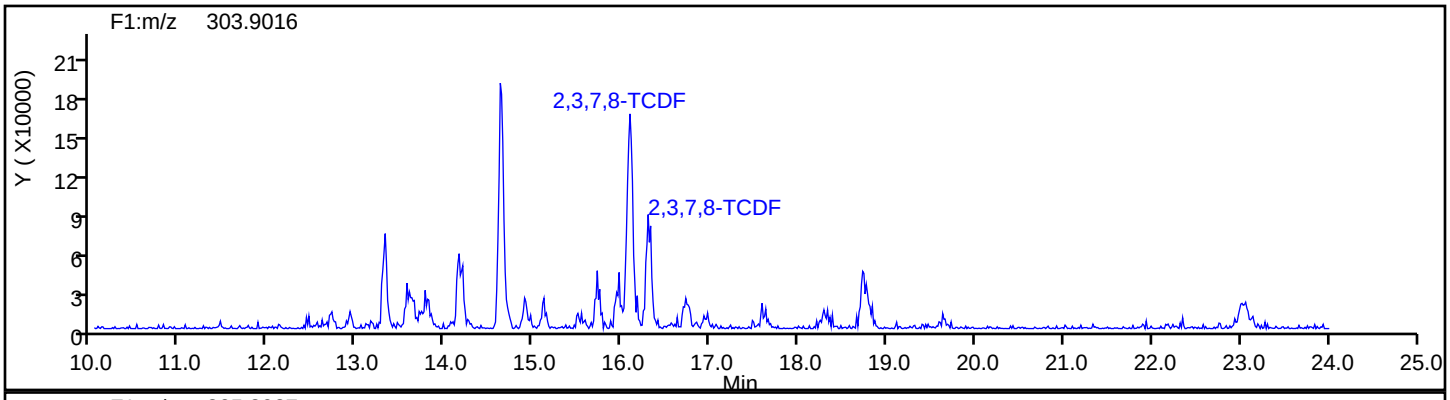
Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.939	14.915	1		43250973	9432955	5254	13135	1795		
333.9339	14.939	14.915	1		54735476	12423084	3122	7805	3979	0.79(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.064	16.068	1	1.075	45229929	8828521	8521	21302	1036		
317.9389	16.078	16.068	2	1.076	53029682	10394406	5911	14777	1758	0.85(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.092	16.075	1	1.002	783686	164262	854	2135	192		
305.8987	16.078	16.075	0	1.001	951825	205377	1534	3835	134	0.82(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.651	14.667	0	0.981	28677538	6104963	5254	13135	1162		
333.9339	14.665	14.667	1	0.982	36124660	7911353	3122	7805	2534	0.79(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.679	14.655	1	0.983	41434924	9404365	2915	7287	3226		
2,3,7,8-TCDD											
319.8965	14.665	14.675	0	1.001	73238	15401	1274	3185	12		
321.8936	14.679	14.675	1	1.002	101877	22067	1136	2840	19	0.72(0.65-0.89)	

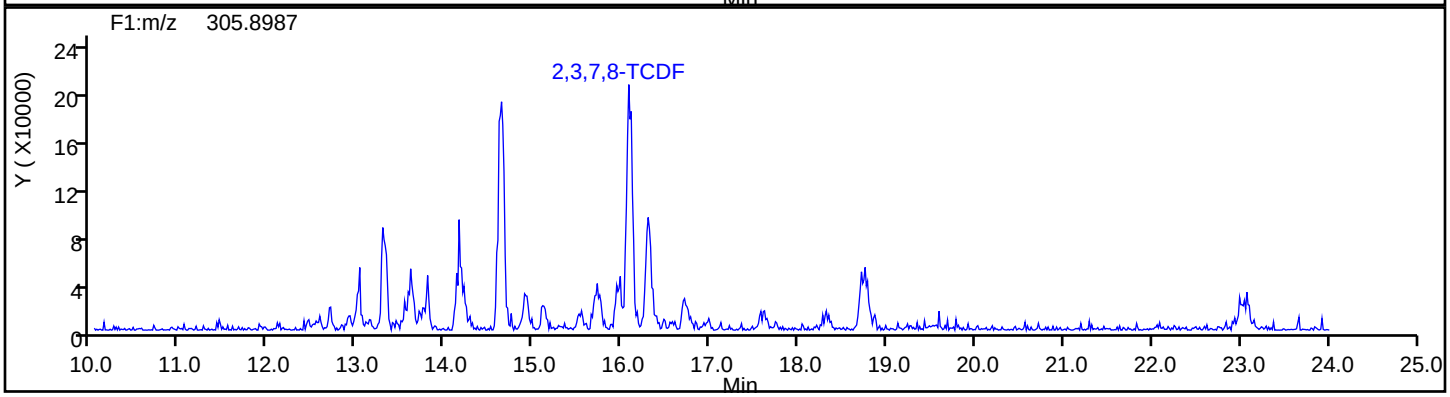
Report Date: 22-Jul-2019 20:21:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

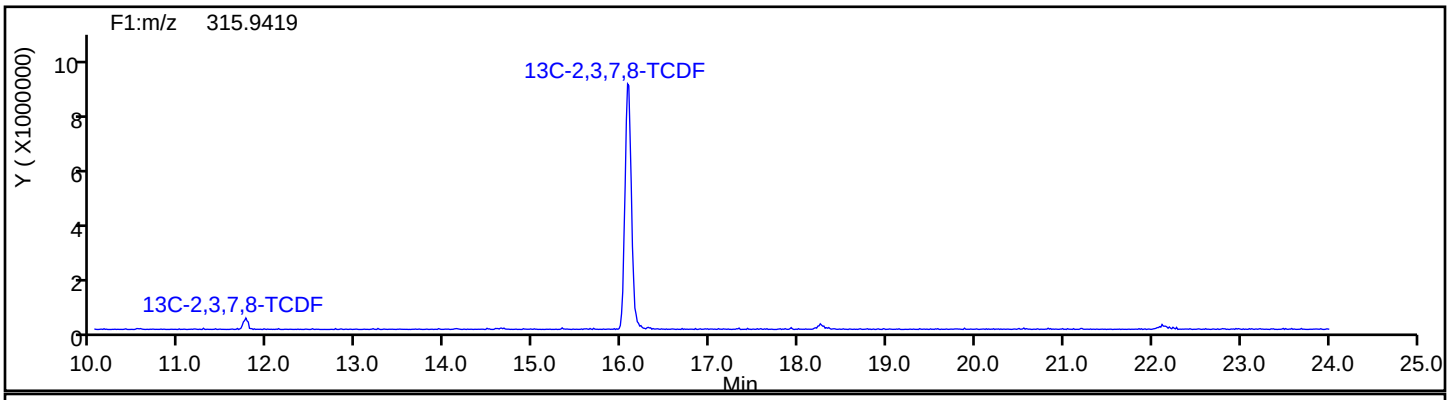
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_004.d		
Injection Date:	22-Jul-2019 12:49:34	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309356	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

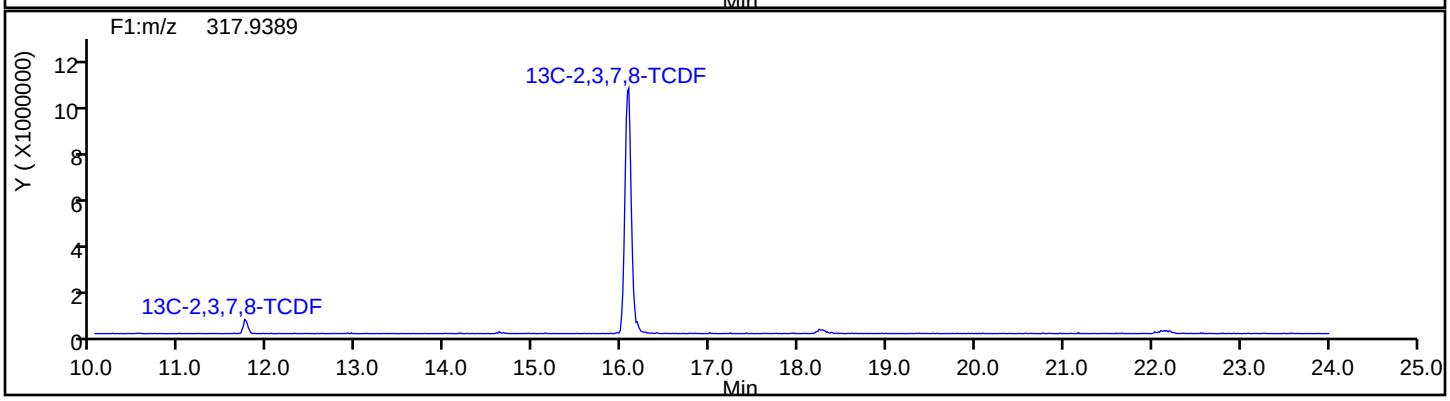
TCDF





TCDF Standards



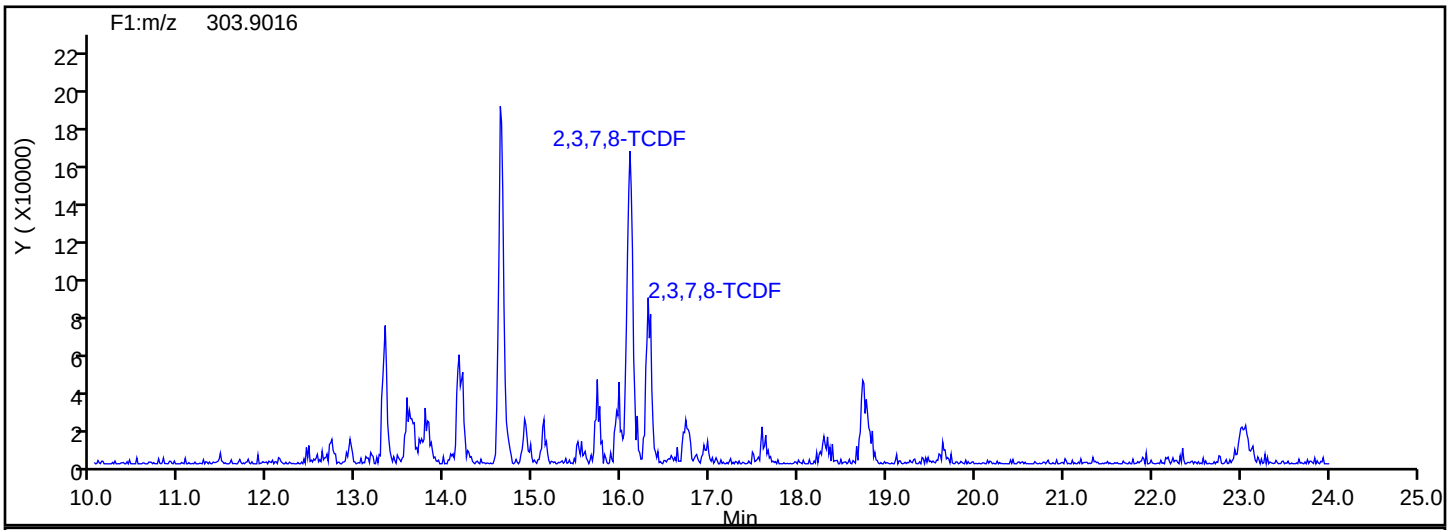


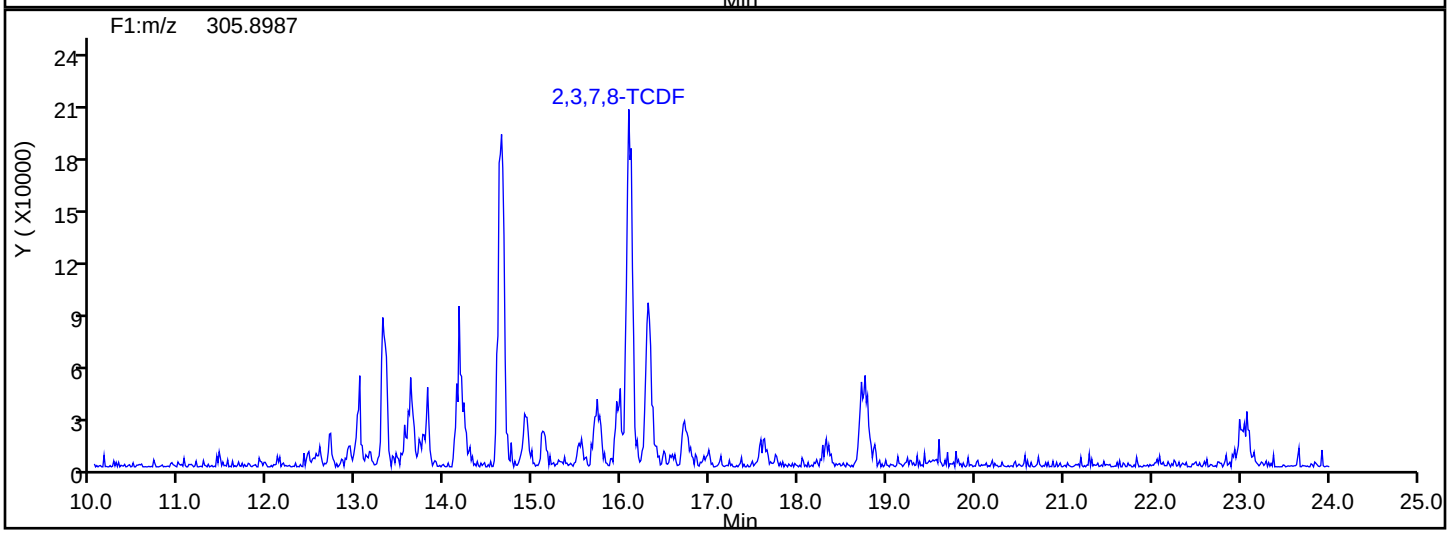
Report Date: 22-Jul-2019 20:21:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

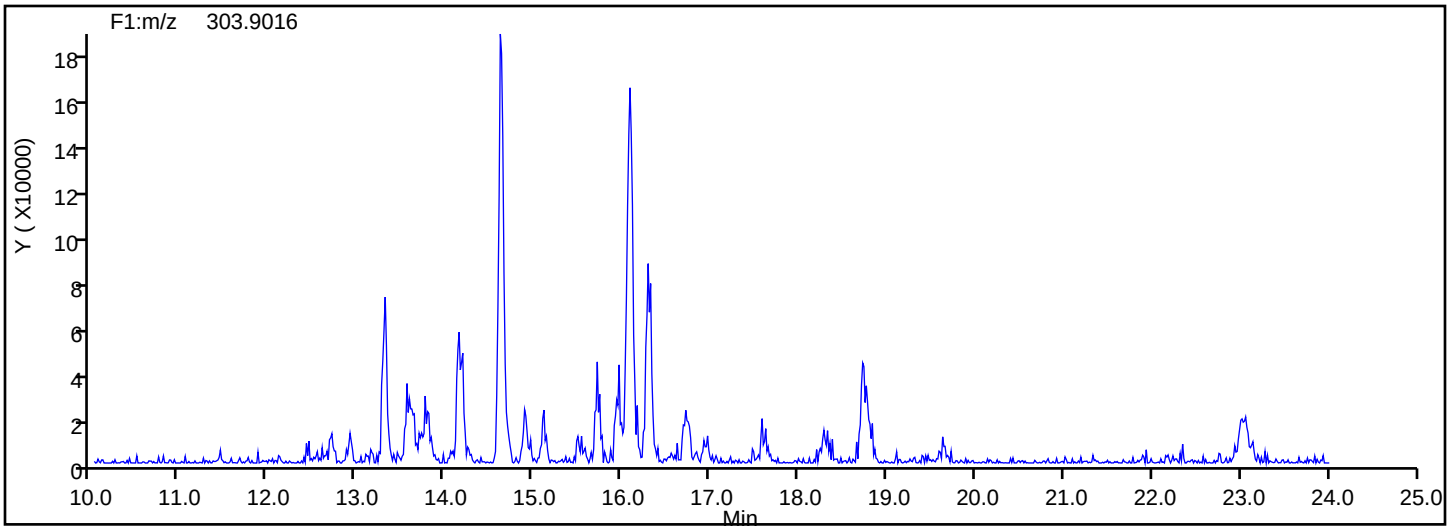
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_004.d		
Injection Date:	22-Jul-2019 12:49:34	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309356	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

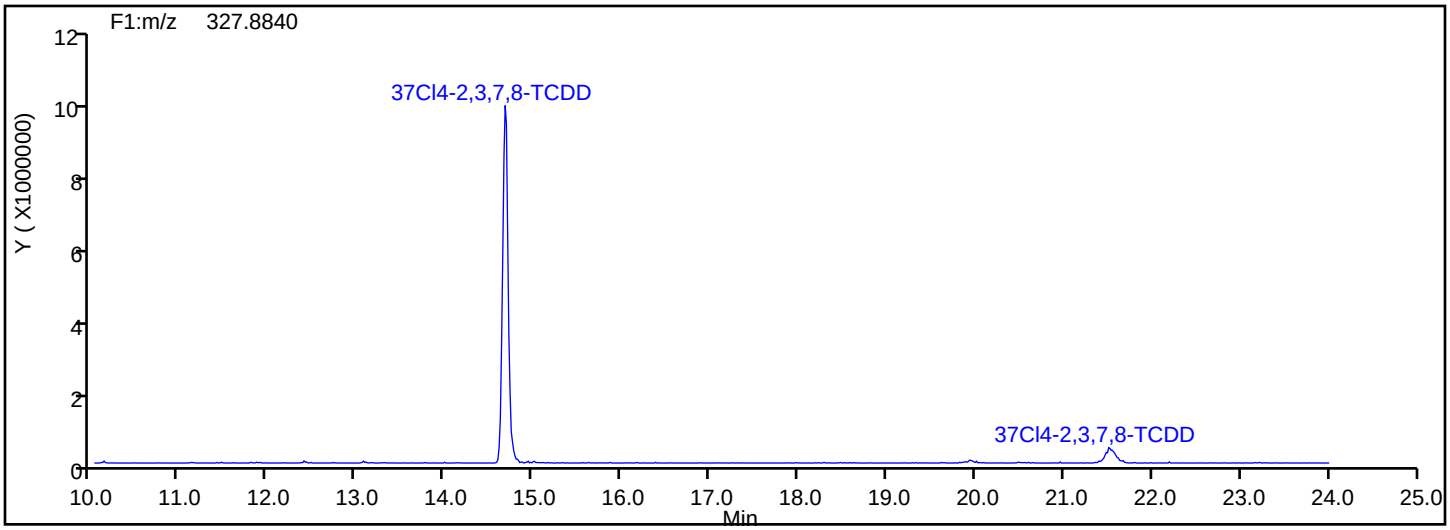


Report Date: 22-Jul-2019 20:21:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

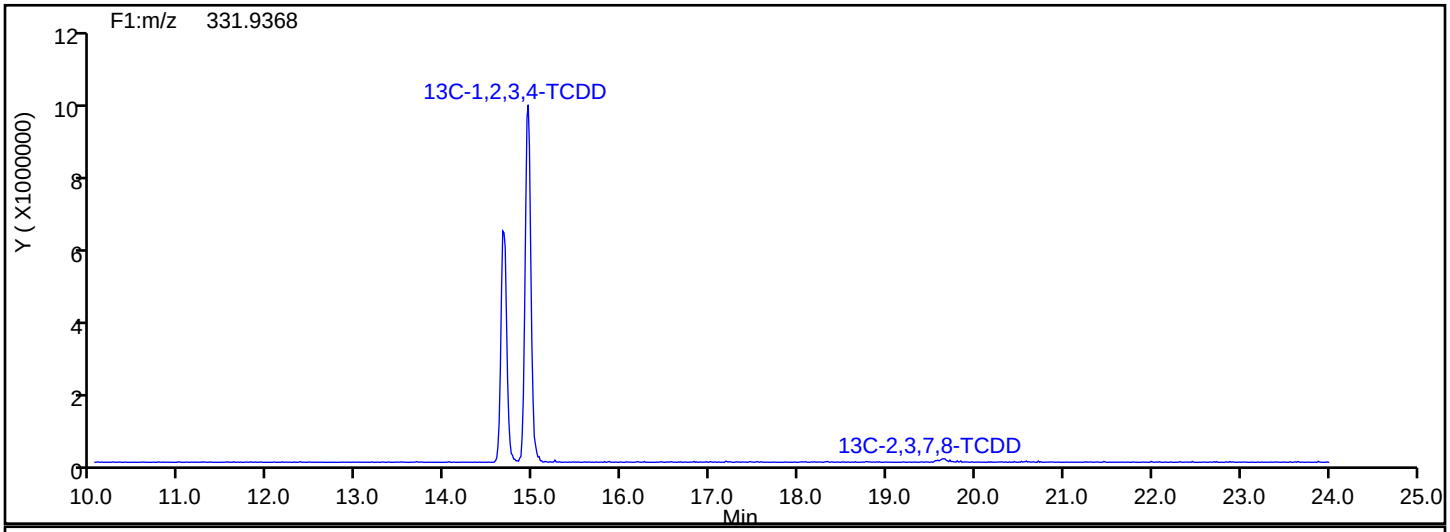
Eurofins TestAmerica, Sacramento

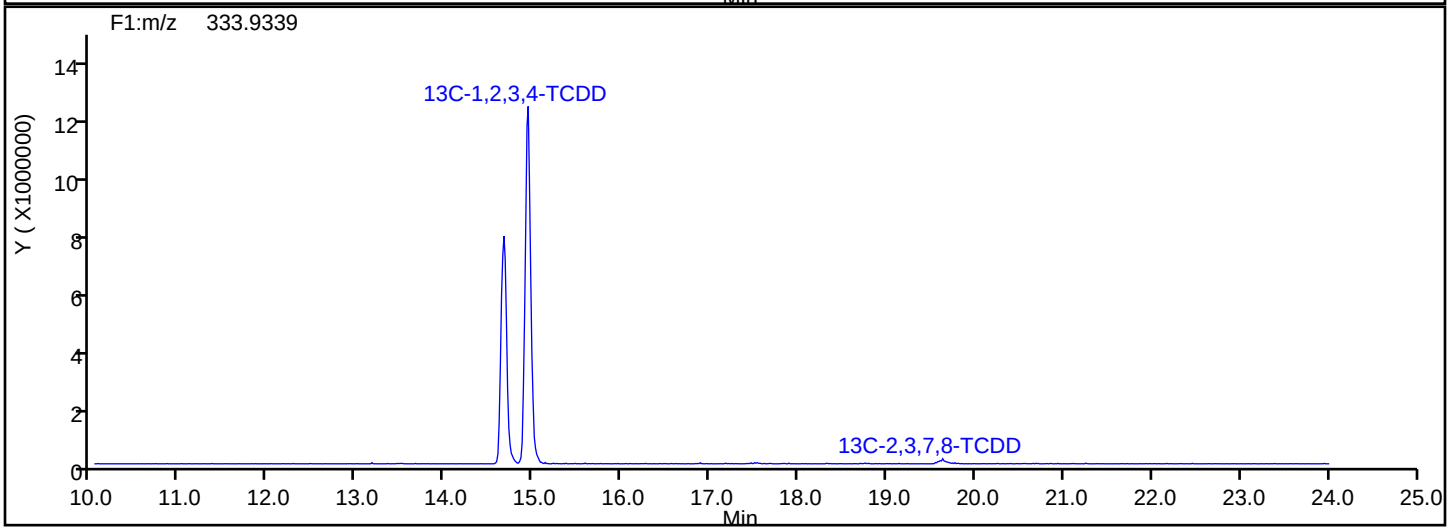
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_004.d		
Injection Date:	22-Jul-2019 12:49:34	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309356	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

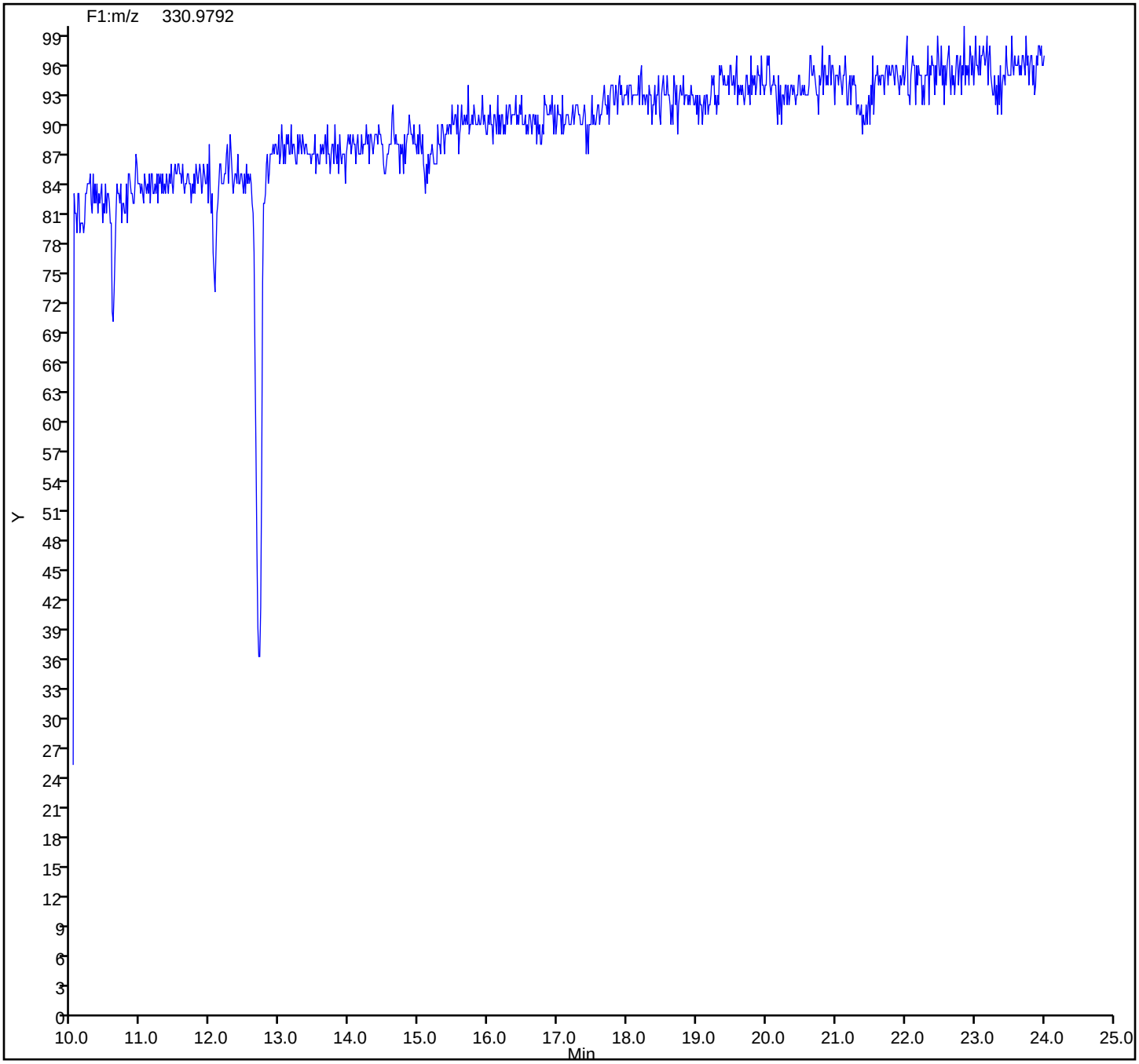




Report Date: 22-Jul-2019 20:21:33 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_004.d		
Injection Date:	22-Jul-2019 12:49:34	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-18_20190716		
Worklist#:	309356	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 19JL19A3D5_59.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:58

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.18(g) Date Analyzed: 07/21/2019 23:53

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.61	J	2.5	0.28
51207-31-9	2,3,7,8-TCDF	1.9	J	2.5	0.24
40321-76-4	1,2,3,7,8-PeCDD	ND		12	0.38
57117-41-6	1,2,3,7,8-PeCDF	1.8	J	12	0.25
57117-31-4	2,3,4,7,8-PeCDF	0.89	J	12	0.27
39227-28-6	1,2,3,4,7,8-HxCDD	1.1	J B	12	0.38
57653-85-7	1,2,3,6,7,8-HxCDD	2.7	J	12	0.36
19408-74-3	1,2,3,7,8,9-HxCDD	2.1	J	12	0.35
70648-26-9	1,2,3,4,7,8-HxCDF	2.4	J	12	0.40
57117-44-9	1,2,3,6,7,8-HxCDF	1.2	J	12	0.46
72918-21-9	1,2,3,7,8,9-HxCDF	2.5	J B	12	0.23
60851-34-5	2,3,4,6,7,8-HxCDF	0.57	J	12	0.28
35822-46-9	1,2,3,4,6,7,8-HpCDD	64	B	12	0.82
67562-39-4	1,2,3,4,6,7,8-HpCDF	13	q	12	0.43
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.3	J	12	0.49
3268-87-9	OCDD	580	B	25	0.57
39001-02-0	OCDF	43	B	25	0.40

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Matrix: Solid Lab File ID: 19JL19A3D5_59.d

Analysis Method: 1613B Date Collected: 07/16/2019 08:58

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.18(g) Date Analyzed: 07/21/2019 23:53

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 59.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	69		25-164
89059-46-1	13C-2,3,7,8-TCDF	75		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	75		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	74		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	74		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	61		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	64		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	74		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	63		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	67		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	76		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	70		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	68		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	81		26-138
114423-97-1	13C-OCDD	70		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	92		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 21-Jul-2019 23:53:56 ALS Bottle#: 42 Worklist Smp#: 59
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-3-A 580-87706-C-3-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:58:04 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 10:58:04

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	238579010	0.82	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	248256201	0.78	1.3908	74.8	74.8	0.1724	0.1724	74.82	
2,3,7,8-TCDF	16.720	934225	0.82	0.9710	0.3875	0.3875	0.0493	0.0493		
A Non-2,3,7,8-sub-TCDF	16.402	1137606	0.77	0.9710	0.4938	0.4719	0.0493	0.1634		RQ
S Total TCDF					0.8814	0.8594	0.0493	0.0493		RQ
D 13C-2,3,7,8-TCDD	17.355	162422714	0.84	0.9819	69.3	69.3	0.1880	0.1880	69.34	
2,3,7,8-TCDD	17.385	210225	0.74	1.0447	0.1239	0.1239	0.0576	0.0576		Ma
$ 37Cl4-2,3,7,8-TCDD	17.370	106918055		1.2205	36.7	36.7	0.1010	0.1010	91.79	
A Non-2,3,7,8-sub-TCDD	16.833	411432	0.73	1.0447	0.2425	0.2425	0.0576	0.2425		Ma
S Total TCDD					0.3664	0.3664	0.0576	0.0576		
D 13C-1,2,3,7,8-PeCDF	21.345	203498341	1.60	1.1585	73.6	73.6	0.2432	0.2432	73.63	
1,2,3,7,8-PeCDF	21.372	732428	1.43	0.9633	0.3736	0.3736	0.0502	0.0502		
D 13C-2,3,4,7,8-PeCDF	22.573	202813995	1.58	1.1532	73.7	73.7	0.2443	0.2443	73.72	
2,3,4,7,8-PeCDF	22.600	350982	1.33	0.9495	0.1823	0.1823	0.0551	0.0551		
A F1 PeCDFs	19.215	910589	1.55	0.9564	0.4966	0.4686	0.0368	0.4251		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	1822970	1.55	0.9564	0.9840	0.9382	0.0526	0.6086		RQ
S Total PeCDF					2.037	1.963	0.0527	0.0527		RQ
D 13C-1,2,3,7,8-PeCDD	23.241	133411665	1.61	0.7431	75.3	75.3	0.1494	0.1494	75.25	
1,2,3,7,8-PeCDD	23.254						0.0765	0.0765		
A Non-2,3,7,8-sub-PeCDD	22.232	344530	1.33	1.0635	0.2428	0.2428	0.0765	0.2428		
S Total PeCDD					0.2428	0.2428	0.0765	0.0765		
D 13C-1,2,3,4,7,8-HxCDF	29.142	158426528	0.55	0.9837	73.6	73.6	0.3036	0.3036	73.62	
1,2,3,4,7,8-HxCDF	29.182	947981	1.16	1.2173	0.4915	0.4915	0.0824	0.0824		
D 13C-1,2,3,6,7,8-HxCDF	29.448	159266629	0.53	1.1554	63.0	63.0	0.2585	0.2585	63.01	
1,2,3,6,7,8-HxCDF	29.515	431176	1.24	1.1311	0.2393	0.2393	0.0935	0.0935		
D 13C-2,3,4,6,7,8-HxCDF	30.673	152279829	0.51	1.0361	67.2	67.2	0.2882	0.2882	67.18	
2,3,4,6,7,8-HxCDF	30.713	207470	1.08	1.1710	0.1163	0.1163	0.0579	0.0579		Ma
D 13C-1,2,3,7,8,9-HxCDF	31.685	149397872	0.53	0.9034	75.6	75.6	0.3305	0.3305	75.59	
1,2,3,7,8,9-HxCDF	31.698	893296	1.10	1.1787	0.5073	0.5073	0.0476	0.0476		
A Non-2,3,7,8-sub-HxCDF	29.135	5599038	1.24	1.1745	3.128	3.079	0.0655	1.405		RQMa

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					4.482	4.433	0.0704	0.0704		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	218765307	1.27	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	111461535	1.32	0.8287	61.5	61.5	0.2167	0.2167	61.48	
1,2,3,4,7,8-HxCDD	30.966	254216	1.17	1.0267	0.2221	0.2221	0.0767	0.0767		a
D 13C-1,2,3,6,7,8-HxCDD	31.073	133906082	1.31	0.9495	64.5	64.5	0.1892	0.1892	64.47	
1,2,3,6,7,8-HxCDD	31.099	725416	1.33	0.9771	0.5544	0.5544	0.0742	0.0742		a
1,2,3,7,8,9-HxCDD	31.499	566575	1.16	1.0616	0.4350	0.4350	0.0711	0.0711		
A Non-2,3,7,8-sub-HxCDD	29.926	3677802	1.15	1.0218	2.934	2.934	0.0739	1.582		
S Total HxCDD					4.145	4.145	0.0740	0.0740		
D 13C-1,2,3,4,6,7,8-HpCDF	33.347	108891998	0.45	0.7285	68.3	68.3	0.6995	0.6995	68.33	
1,2,3,4,6,7,8-HpCDF	33.347	4246200	1.04	1.4373	3.102	2.713	0.0881	0.0881		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	115520638	0.45	0.6556	80.5	80.5	0.7773	0.7773	80.54	
1,2,3,4,7,8,9-HpCDF	34.441	401656	1.20	1.3091	0.2656	0.2656	0.0992	0.0992		
A Non-2,3,7,8-sub-HpCDF	33.894	8835343	1.09	1.3732	5.734	5.734	0.0934	5.734		
S Total HpCDF					9.102	8.713	0.0937	0.0937		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	107131413	1.08	0.6978	70.2	70.2	0.3039	0.3039	70.17	
1,2,3,4,6,7,8-HpCDD	34.162	14100462	1.02	1.0102	13.0	13.0	0.1672	0.1672		
A Non-2,3,7,8-sub-HpCDD	35.074	17983373	1.08	1.0102	16.6	16.6	0.1672	16.6		a
S Total HpCDD					29.6	29.6	0.1672	0.1672		
D 13C-OCDD	36.509	147199451	0.91	0.4780	140.8	140.8	0.1695	0.1695	70.39	
OCDF	36.593	8721786	0.88	1.3501	8.777	8.777	0.0820	0.0820		
OCDD	36.521	93264749	0.89	1.0627	119.2	119.2	0.1156	0.1156		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Report Date: 23-Jul-2019 10:58:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Sample Type: Client
Inject. Date: 21-Jul-2019 23:53:56 ALS Bottle#: 42 Worklist Smp#: 59
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-3-A 580-87706-C-3-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:58:04 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 10:58:04

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		107145351	27332364	27690	69225	987		
333.9339	17.173	17.158	1		131433659	32827025	16736	41840	1961	0.82(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	109053968	27103447	26888	67220	1008		
317.9389	16.690	16.690	0	0.972	139202233	34478516	30795	76987	1120	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.720	16.705	1	1.002	420181	100630	4557	11392	22		
305.8987	16.705	16.705	0	1.001	514044	117479	7233	18082	16	0.82(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.920	16.402	-89	0.894	179666	54020	4557	11392	12		
305.8987	14.920	16.402	-89	0.894	214206	64806	7233	18082	9	0.84(0.65-0.89)	
303.9016	15.389	16.402	-61	0.922	117318	27345	4557	11392	6		
305.8987	15.404	16.402	-60	0.923	167422	32815	7233	18082	5	0.70(0.65-0.89)	
303.9016	15.873	16.402	-32	0.951	133649	34728	4557	11392	8		
305.8987	15.873	16.402	-32	0.951	156143	34497	7233	18082	5	0.86(0.65-0.89)	
303.9016	18.156	16.402	105	1.088	73608	22162	4557	11392	5		
305.8987	18.141	16.402	104	1.087	148472	41740	7233	18082	6	0.50(0.65-0.89)	
	Empc Correction				95594	28781	7233	18082	4		
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	74058074	17601077	27690	69225	636		
333.9339	17.355	17.355	0	1.011	88364640	20881566	16736	41840	1248	0.84(0.65-0.89)	
2,3,7,8-TCDD											Ma
319.8965	17.385	17.355	2	1.002	89206	21645	6219	15547	3		M
321.8936	17.385	17.355	2	1.002	121019	31209	3045	7612	10	0.74(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	106918055	24744147	29658	74145	834		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	17.279	16.833	27	0.996	173211	42840	6219	15547	7		M
321.8936	17.279	16.833	27	0.996	238221	59086	3045	7612	19	0.73(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	125166810	22897695	40416	101040	567		
353.8970	21.345	21.332	1	1.243	78331531	14292436	27372	68430	522	1.60(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.372	21.345	2	1.001	430416	79206	3139	7847	25		
341.8567	21.372	21.345	2	1.001	302012	50098	4056	10140	12	1.43(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	124162396	21046258	40416	101040	521		
353.8970	22.573	22.559	1	1.314	78651599	13309286	27372	68430	486	1.58(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.600	22.586	1	1.001	200605	37240	3139	7847	12		
341.8567	22.627	22.586	2	1.002	150377	27089	4056	10140	7	1.33(1.32-1.78)	
A F1 PeCDFs											RQ
339.8597	18.685	19.215	-32	0.875	480747	109379	1675	4187	65		
341.8567	18.685	19.215	-32	0.875	345135	71244	3362	8405	21	1.39(1.32-1.78)	
339.8597	18.897	19.215	-19	0.885	51489	11588	1675	4187	7		
341.8567	18.927	19.215	-17	0.887	87546	16727	3362	8405	5	0.59(1.32-1.78)	
	Empc Correction				33218	7476	3362	8405	2		
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.118	22.104	-119	0.943	751282	116554	3139	7847	37		
341.8567	20.132	22.104	-118	0.943	431224	72305	4056	10140	18	1.74(1.32-1.78)	
339.8597	20.827	22.104	-76	0.976	235583	23556	3139	7847	8		
341.8567	20.854	22.104	-75	0.977	197209	20520	4056	10140	5	1.19(1.32-1.78)	
	Empc Correction				151989	15197	4056	10140	4		
339.8597	22.913	22.104	48	1.073	153719	24412	3139	7847	8		
341.8567	22.886	22.104	47	1.072	142982	21333	4056	10140	5	1.08(1.32-1.78)	
	Empc Correction				99173	15749	4056	10140	4		
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	82264816	13110147	15903	39757	824		
369.8919	23.241	23.227	1	1.353	51146849	8487864	10807	27017	785	1.61(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4678	11695			
357.8516	23.254						2353	5882			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.323	22.232	-114	0.874	196695	32703	4678	11695	7		
357.8516	20.309	22.232	-115	0.874	147835	24968	2353	5882	11	1.33(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.142	29.115	2	0.926	55907639	6692389	20199	50497	331		
385.8610	29.142	29.115	2	0.926	102518889	12054879	37077	92692	325	0.55(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.182	29.155	2	1.001	509907	55494	4303	10757	13		
375.8178	29.182	29.155	2	1.001	438074	50730	3221	8052	16	1.16(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.936	55381634	6255499	20199	50497	310		
385.8610	29.448	29.421	2	0.936	103884995	11526566	37077	92692	311	0.53(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.515	29.462	3	1.002	238937	28717	4303	10757	7		
375.8178	29.488	29.462	2	1.001	192239	23543	3221	8052	7	1.24(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	51677502	9283003	20199	50497	460		
385.8610	30.673	30.660	1	0.975	100602327	18457063	37077	92692	498	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											Ma
373.8208	30.713	30.687	2	1.001	107927	19011	4303	10757	4		M
375.8178	30.686	30.687	0	1.000	99543	23456	3221	8052	7	1.08(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.672	1	1.007	51705765	11841678	20199	50497	586		
385.8610	31.685	31.672	1	1.007	97692107	21658415	37077	92692	584	0.53(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.698	31.685	1	1.000	467479	90604	4303	10757	21		
375.8178	31.698	31.685	1	1.000	425817	78112	3221	8052	24	1.10(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQMa
373.8208	26.545	29.135	-155	0.911	412253	60955	4303	10757	14		
	Empc Correction				322848	53840	4303	10757	13		
375.8178	26.519	29.135	-157	0.910	260362	43420	3221	8052	13	1.58(1.05-1.43)	
373.8208	26.892	29.135	-134	0.923	1135562	139958	4303	10757	33		
375.8178	26.865	29.135	-136	0.922	1013263	137686	3221	8052	43	1.12(1.05-1.43)	
373.8208	28.077	29.135	-63	0.963	1396478	178700	4303	10757	42		
375.8178	28.090	29.135	-63	0.964	1157879	144512	3221	8052	45	1.21(1.05-1.43)	
373.8208	30.553	29.135	85	1.048	164053	26414	4303	10757	6		M
375.8178	30.553	29.135	85	1.048	148593	25318	3221	8052	8	1.10(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		122586345	26943189	18580	46450	1450		
403.8529	31.472	31.472	0		96178962	21008503	15870	39675	1324	1.27(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	63331815	13487065	18580	46450	726		
403.8529	30.939	30.926	1	0.983	48129720	10436600	15870	39675	658	1.32(1.05-1.43)	
1,2,3,4,7,8-HxCDD											a
389.8157	30.966	30.953	1	1.001	136976	30141	3225	8062	9		a
391.8127	30.979	30.953	2	1.001	117240	20952	4309	10772	5	1.17(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	75823673	14736103	18580	46450	793		
403.8529	31.073	31.059	1	0.987	58082409	11255590	15870	39675	709	1.31(1.05-1.43)	
1,2,3,6,7,8-HxCDD											a
389.8157	31.099	31.086	1	1.001	414109	76059	3225	8062	24		a
391.8127	31.086	31.086	0	1.000	311307	62145	4309	10772	14	1.33(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.499	31.485	1	1.018	303824	55092	3225	8062	17		
391.8127	31.499	31.485	1	1.018	262751	48739	4309	10772	11	1.16(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.957	29.926	-118	0.900	898561	114266	3225	8062	35		
391.8127	27.970	29.926	-117	0.900	796703	100076	4309	10772	23	1.13(1.05-1.43)	
389.8157	29.901	29.926	-2	0.962	1067978	124785	3225	8062	39		
391.8127	29.927	29.926	0	0.963	914560	111269	4309	10772	26	1.17(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.347	33.335	1	1.060	33615474	10571924	31142	77855	339		
419.8220	33.347	33.335	1	1.060	75276524	22844209	66604	166510	343	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.347	33.347	0	1.000	2773629	900156	10731	26827	84		
	Empc Correction				2164729	659266	10731	26827	61		
409.7789	33.347	33.347	0	1.000	2081471	633910	6191	15477	102	1.33(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	35634646	10081191	31142	77855	324		
419.8220	34.429	34.429	0	1.094	79885992	22486445	66604	166510	338	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	219037	64235	10731	26827	6		
409.7789	34.441	34.441	0	1.000	182619	60460	6191	15477	10	1.20(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.651	33.894	-15	1.009	4599206	1487551	10731	26827	139		
409.7789	33.651	33.894	-15	1.009	4236137	1358987	6191	15477	220	1.09(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	55617689	16312645	22902	57255	712		
437.8140	34.150	34.150	0	1.085	51513724	15258751	17775	44437	858	1.08(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	7133341	2193384	12309	30772	178		
425.7737	34.162	34.162	0	1.000	6967121	2126627	9016	22540	236	1.02(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.615	35.074	-87	0.984	9339810	2858230	12309	30772	232		a
425.7737	33.603	35.074	-88	0.984	8643563	2640436	9016	22540	293	1.08(0.88-1.20)	
13C-OCDD											
469.7779	36.509	36.498	1	1.160	70234194	17794468	6562	16405	2712		
471.7750	36.509	36.498	1	1.160	76965257	19471725	8975	22437	2170	0.91(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	4087325	996028	3211	8027	310		
443.7399	36.593	36.582	1	1.002	4634461	1139637	5044	12610	226	0.88(0.76-1.02)	
OCDD											
457.7377	36.521	36.509	1	1.000	43876888	11032239	4935	12337	2236		
459.7348	36.509	36.509	0	1.000	49387861	12072998	4218	10545	2862	0.89(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	248256201	61581963

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	248256201	61581963

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.920	179666	54020	214206	64806	0.1634	0.84	
15.389	117318	27345	167422	32815	0.1181	0.70	
15.873	133649	34728	156143	34497	0.1202	0.86	
18.156	73608	22162	148472	41740	0.0921	0.50	RQ
18.156	73608	22162	95594	28781	0.0702		Empc Correction
Signal Totals:							
	504241	138255	633365	160899			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1190484	312113				0.73	RQ
	1137606	299154					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4938 = (1190484 * 100.000) / (248256201 * 0.971)
Empc Amount: 0.4719 = (1137606 * 100.000) / (248256201 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	162422714	38482643

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	162422714	38482643

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.279	173211	42840	238221	59086	0.2425	0.73	Ma
Signal Totals:							
	173211	42840	238221	59086			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	411432	101926				0.73	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2425 = (411432 * 100.000) / (162422714 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	203498341	37190131
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	202813995	34355544

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	203156168	35772837

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	480747	109379	345135	71244	0.4251	1.39	
18.897	51489	11588	87546	16727	0.0716	0.59	RQ
18.897	51489	11588	33218	7476	0.0436		Empc Correction
Signal Totals:							
	532236	120967	378353	78720			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	964917	208938				1.23	RQ
	910589	199687					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4966 = (964917 * 100.000) / (203156168 * 0.956)
Empc Amount: 0.4686 = (910589 * 100.000) / (203156168 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 10:58:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	203498341	37190131
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	202813995	34355544

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	203156168	35772837

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	751282	116554	431224	72305	0.6086	1.74	
20.827	235583	23556	197209	20520	0.2227	1.19	RQ
20.827	235583	23556	151989	15197	0.1995		Empc Correction
22.913	153719	24412	142982	21333	0.1527	1.08	RQ
22.913	153719	24412	99173	15749	0.1302		Empc Correction
Signal Totals:							
	1140584	164522	682386	103251			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1911999	278680				1.48	RQ
	1822970	267773					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.9840 = (1911999 * 100.000) / (203156168 * 0.956)
Empc Amount: 0.9382 = (1822970 * 100.000) / (203156168 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	133411665	21598011

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	133411665	21598011

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.323	196695	32703	147835	24968	0.2428	1.33	
Signal Totals:							
	196695	32703	147835	24968			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	344530	57671				1.33	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2428 = (344530 * 100.000) / (133411665 * 1.063)

Report Date: 23-Jul-2019 10:58:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	158426528	18747268
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	159266629	17782065
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	152279829	27740066
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	149397872	33500093

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	154842714	24442373

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.545	412253	60955	260362	43420	0.3698	1.58	RQ
26.545	322848	53840	260362	43420	0.3207		Empc Correction
26.892	1135562	139958	1013263	137686	1.18	1.12	
28.077	1396478	178700	1157879	144512	1.40	1.21	
30.553	164053	26414	148593	25318	0.1719	1.10	Ma
Signal Totals:							
	3018941	398912	2580097	350936			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	5688443	756963				1.20	RQMa
	5599038	749848					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.128 = (5688443 * 100.000) / (154842714 * 1.175)
Empc Amount: 3.079 = (5599038 * 100.000) / (154842714 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	111461535	23923665
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	133906082	25991693
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	122683808	24957679

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.957	898561	114266	796703	100076	1.35	1.13	
29.901	1067978	124785	914560	111269	1.58	1.17	
Signal Totals:							
	1966539	239051	1711263	211345			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3677802	450396				1.15	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.934 = (3677802 * 100.000) / (122683808 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	108891998	33416133
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	115520638	32567636

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	112206318	32991884

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.651	4599206	1487551	4236137	1358987	5.73	1.09	
Signal Totals:							
	4599206	1487551	4236137	1358987			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	8835343	2846538				1.09	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.734 = (8835343 * 100.000) / (112206318 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d
Lims ID: 580-87706-C-3-A
Client ID: 22T-SG-11_20190716
Inject. Date: 21-Jul-2019 23:53:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 59

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	107131413	31571396

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	107131413	31571396

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.615	9339810	2858230	8643563	2640436	16.6	1.08	a
Signal Totals:							
	9339810	2858230	8643563	2640436			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	17983373	5498666				1.08	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 16.617 = (17983373 * 100.000) / (107131413 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

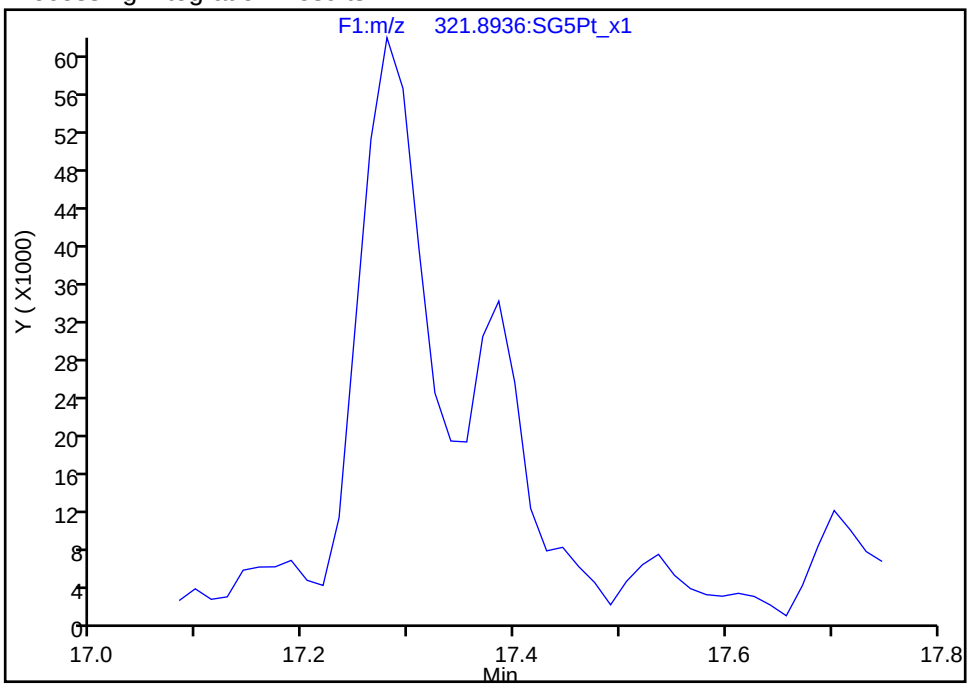
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d				
Injection Date:	21-Jul-2019 23:53:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-3-A	Lab Sample ID:	320-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	42	Worklist Smp#:	59
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

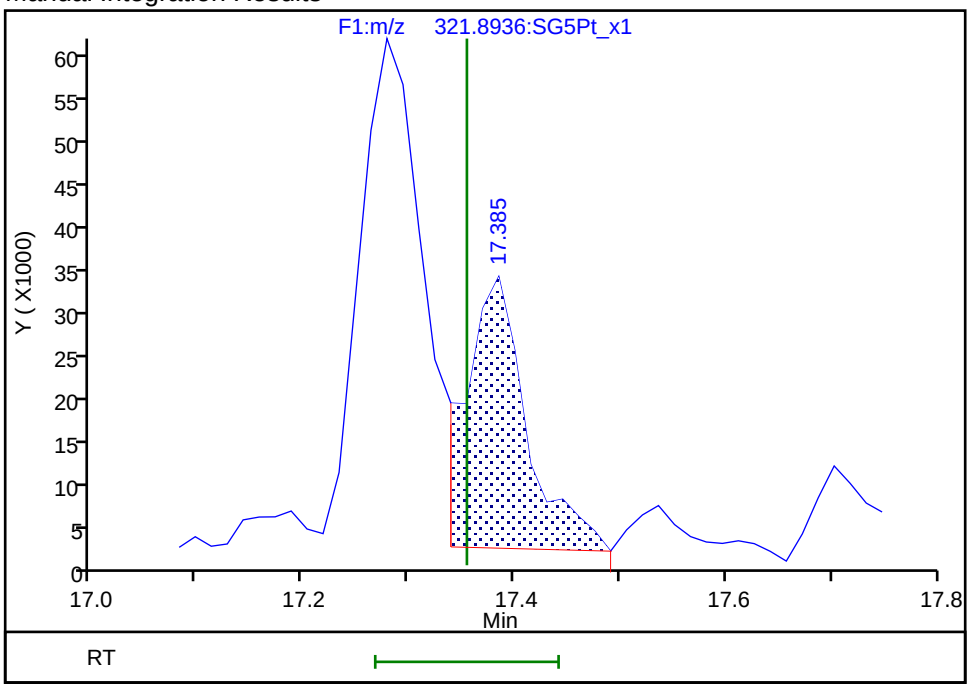
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.39
Area: 121019
Amount: 0.123891
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:56:22
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

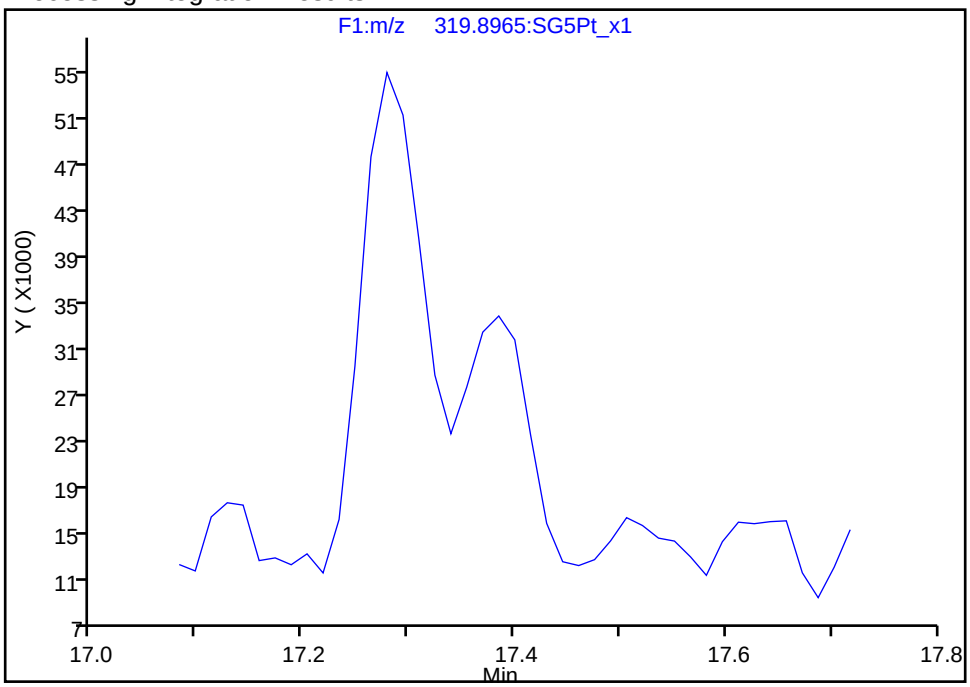
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d				
Injection Date:	21-Jul-2019 23:53:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-3-A	Lab Sample ID:	320-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	42	Worklist Smp#:	59
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

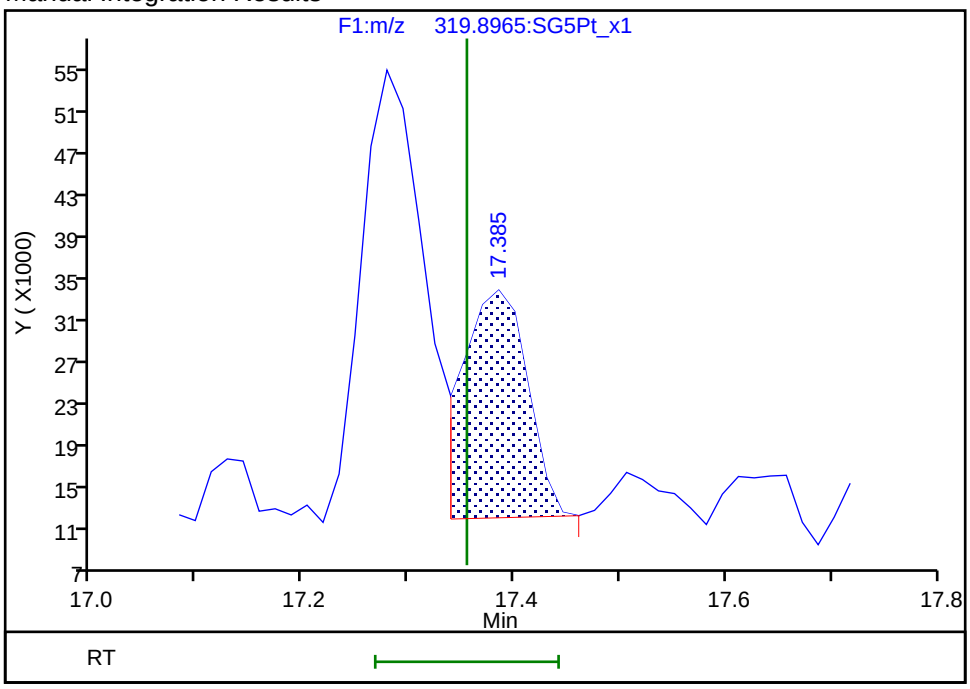
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.39
Area: 89206
Amount: 0.123891
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:56:28
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

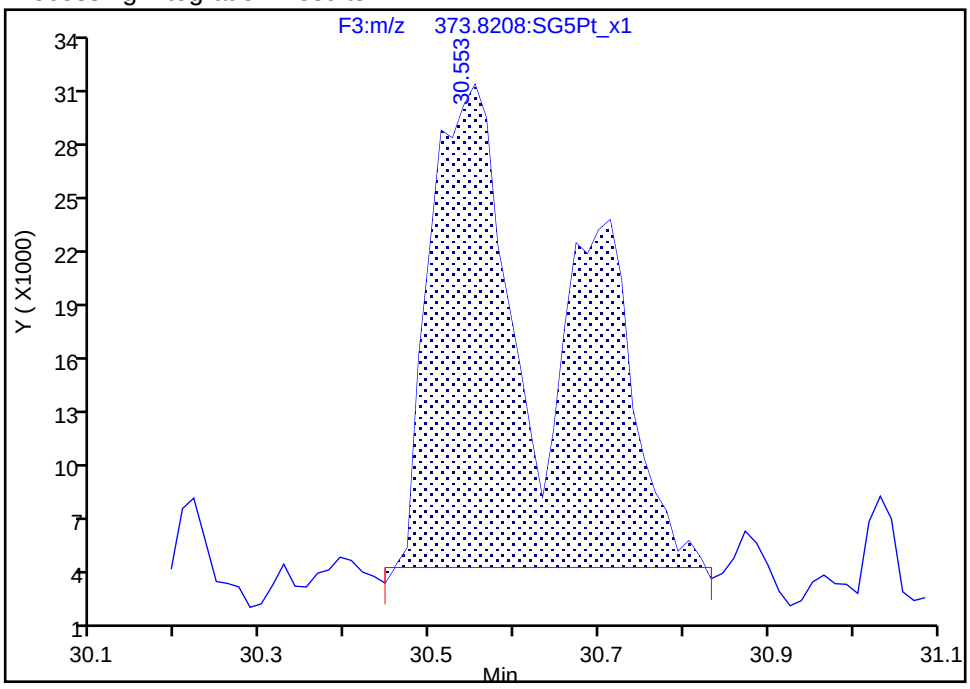
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d				
Injection Date:	21-Jul-2019 23:53:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-3-A	Lab Sample ID:	320-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	42	Worklist Smp#:	59
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

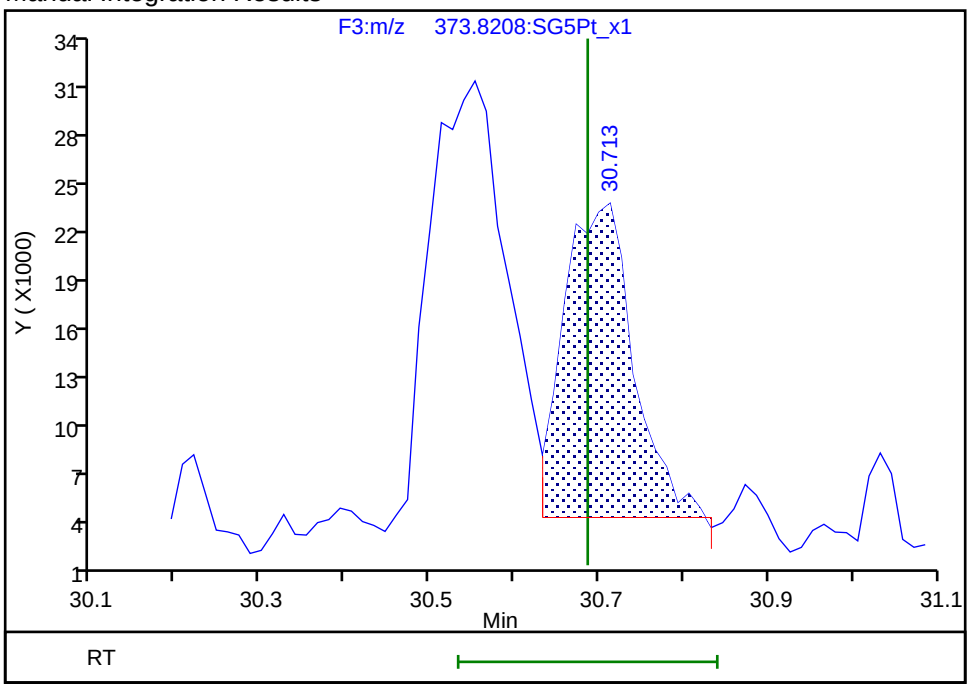
Processing Integration Results

RT: 30.55
Area: 271981
Amount: 0.235857
Amount Units: pg/ul



Manual Integration Results

RT: 30.71
Area: 107927
Amount: 0.116349
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:57:11

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

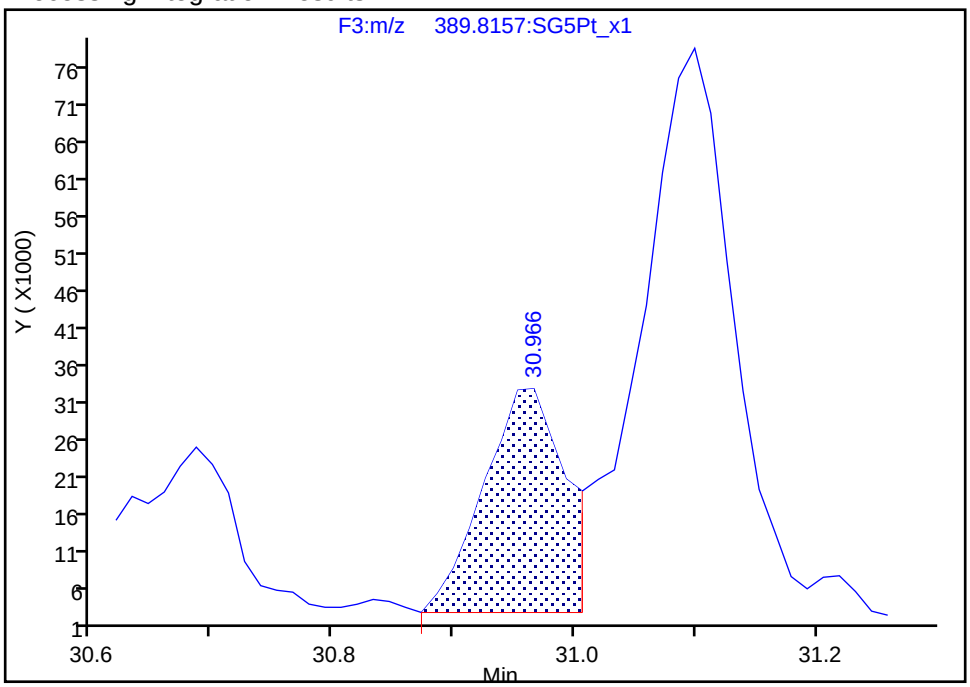
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d				
Injection Date:	21-Jul-2019 23:53:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-3-A	Lab Sample ID:	320-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	42	Worklist Smp#:	59
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

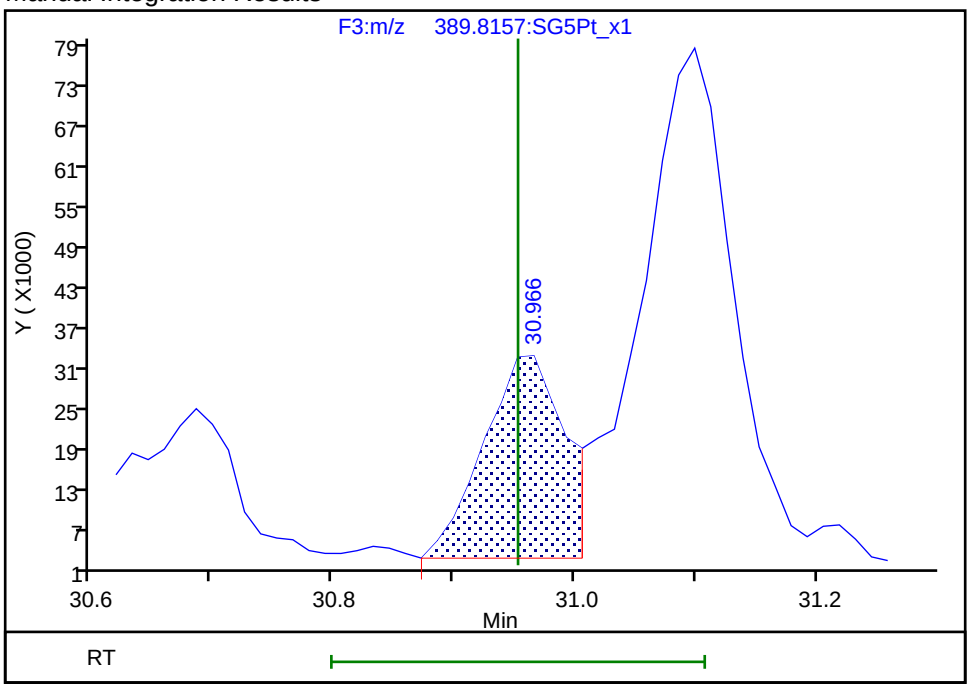
Processing Integration Results

RT: 30.97
Area: 136976
Amount: 0.222148
Amount Units: pg/ul



Manual Integration Results

RT: 30.97
Area: 136976
Amount: 0.222148
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:57:32

Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

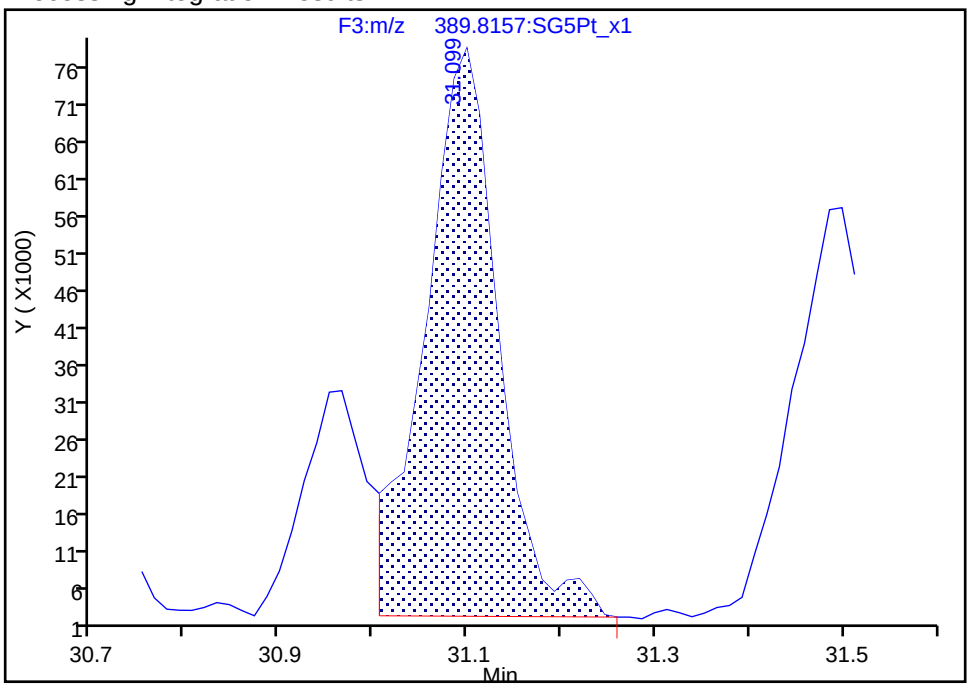
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d				
Injection Date:	21-Jul-2019 23:53:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-3-A	Lab Sample ID:	320-87706-3		
Client ID:	22T-SG-11_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	42	Worklist Smp#:	59
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

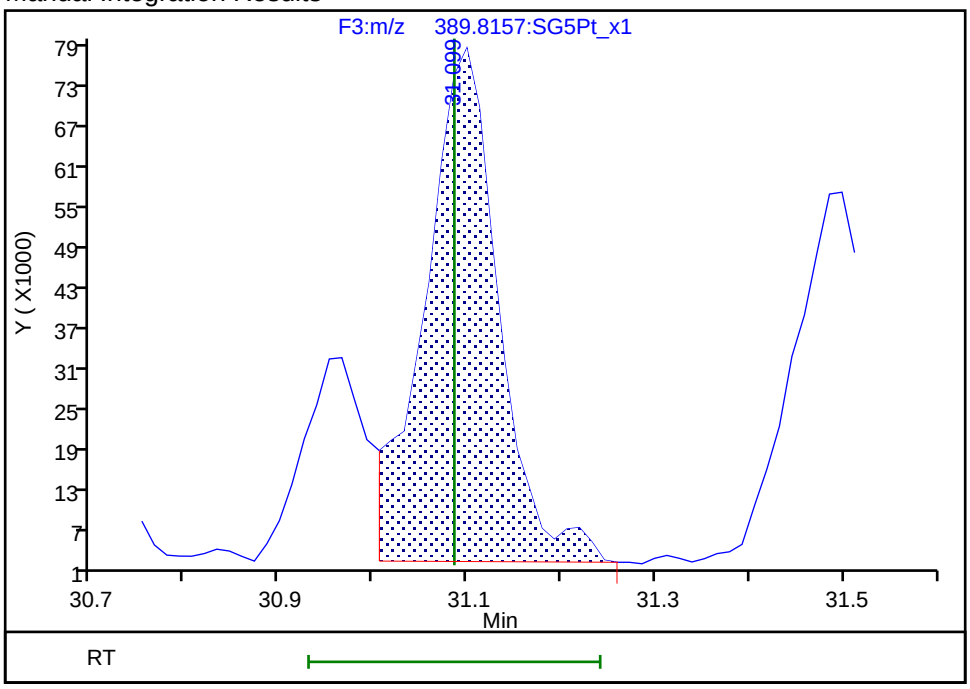
Processing Integration Results

RT: 31.10
Area: 414109
Amount: 0.554441
Amount Units: pg/ul



Manual Integration Results

RT: 31.10
Area: 414109
Amount: 0.554441
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:57:36

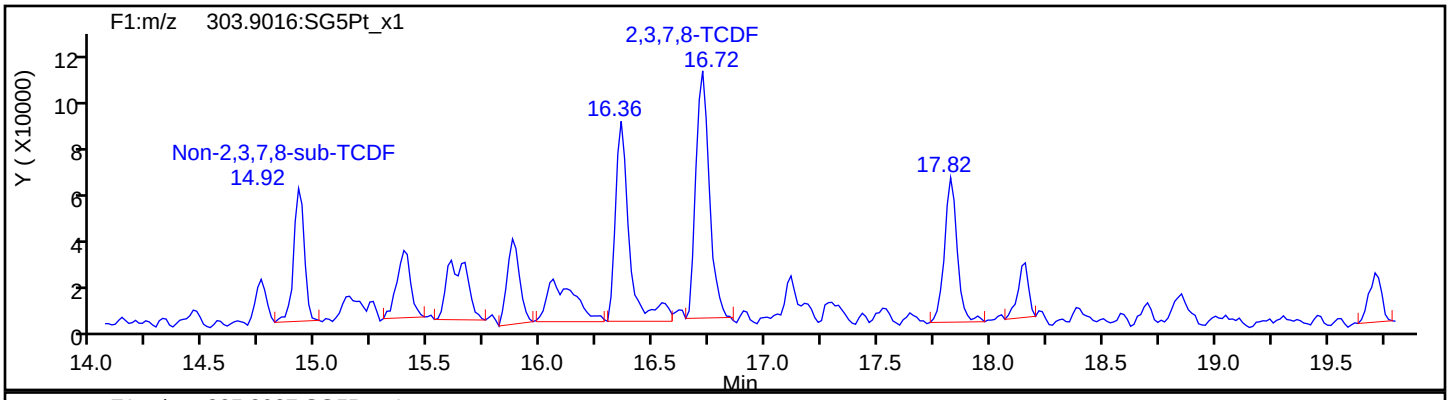
Audit Action: Assigned Compound ID Audit Reason: Split Peak

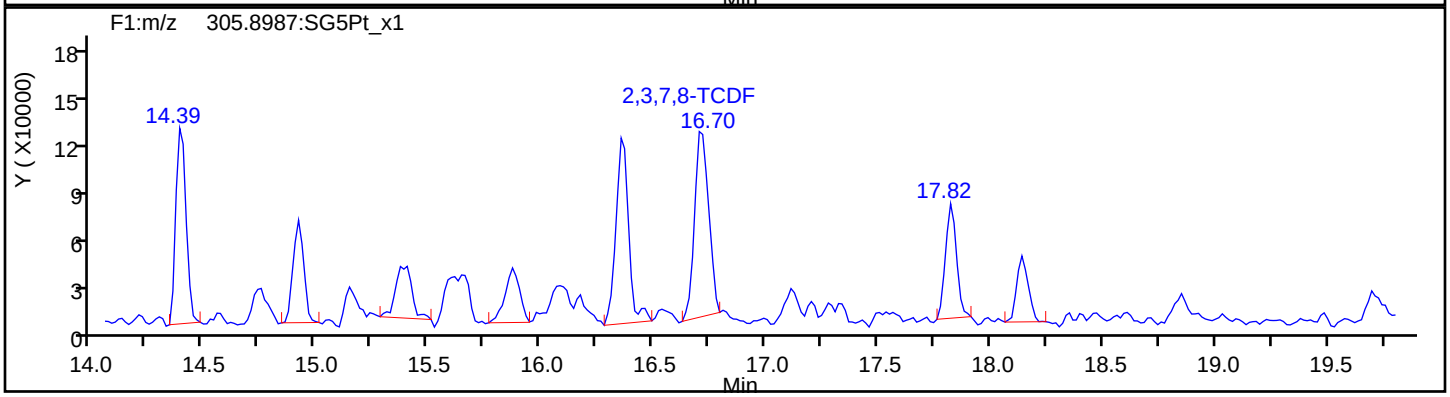
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

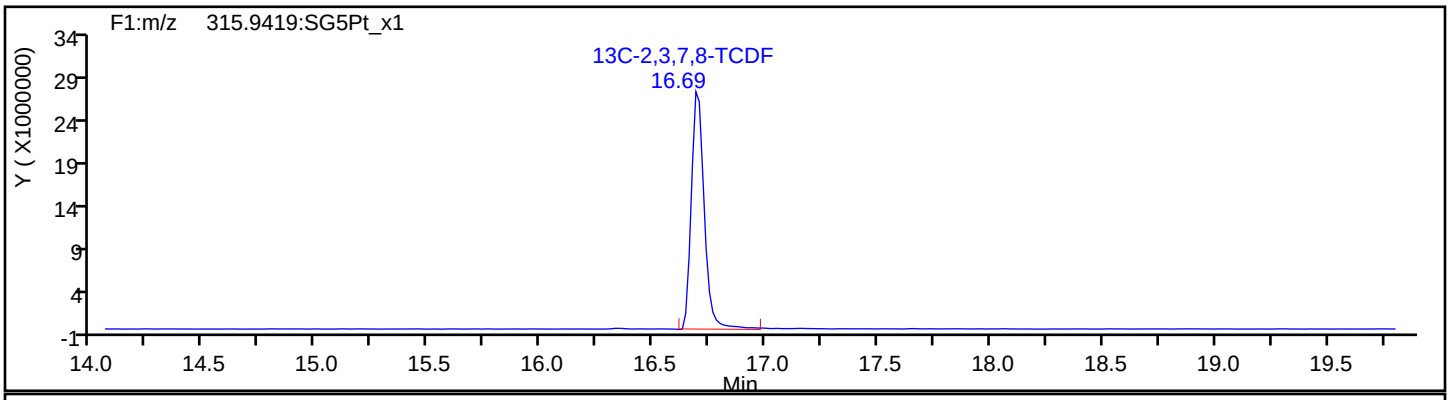
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

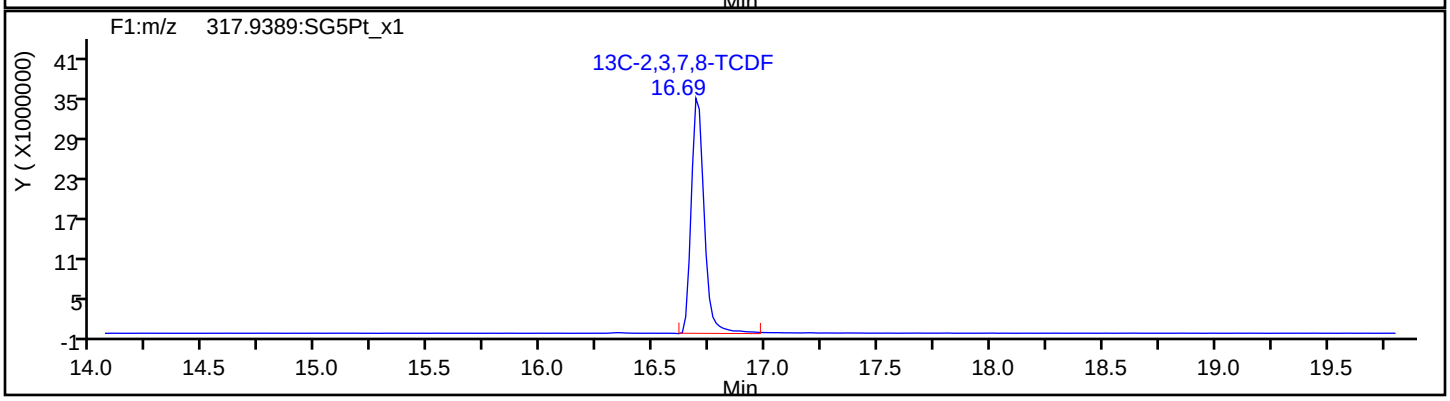
TCDF





TCDF Standards



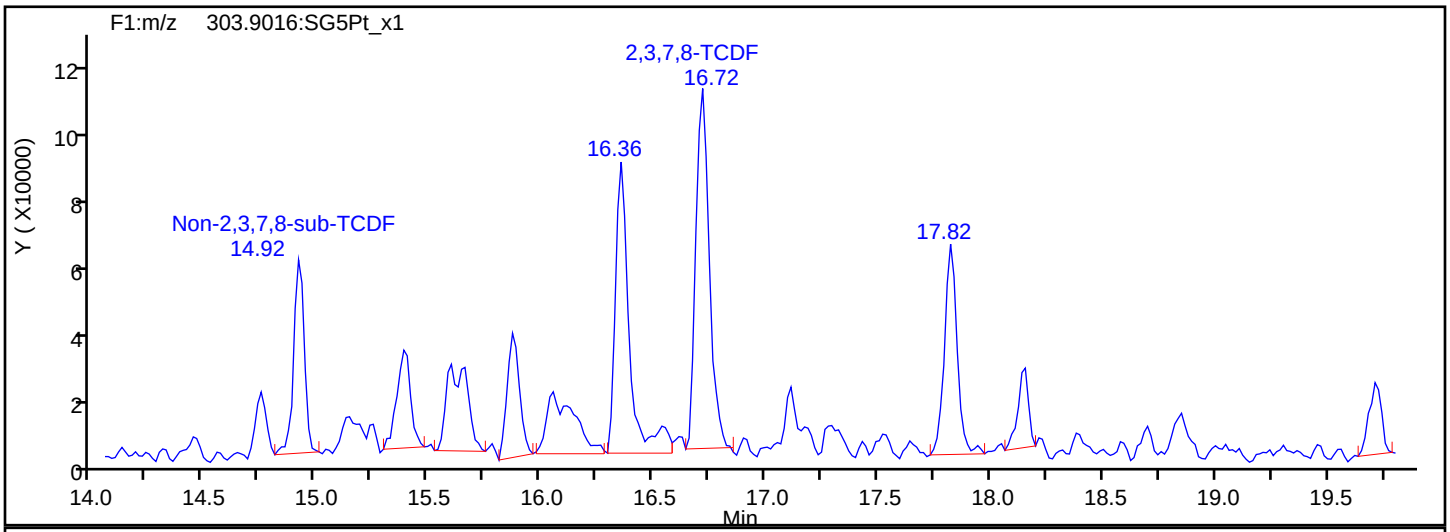


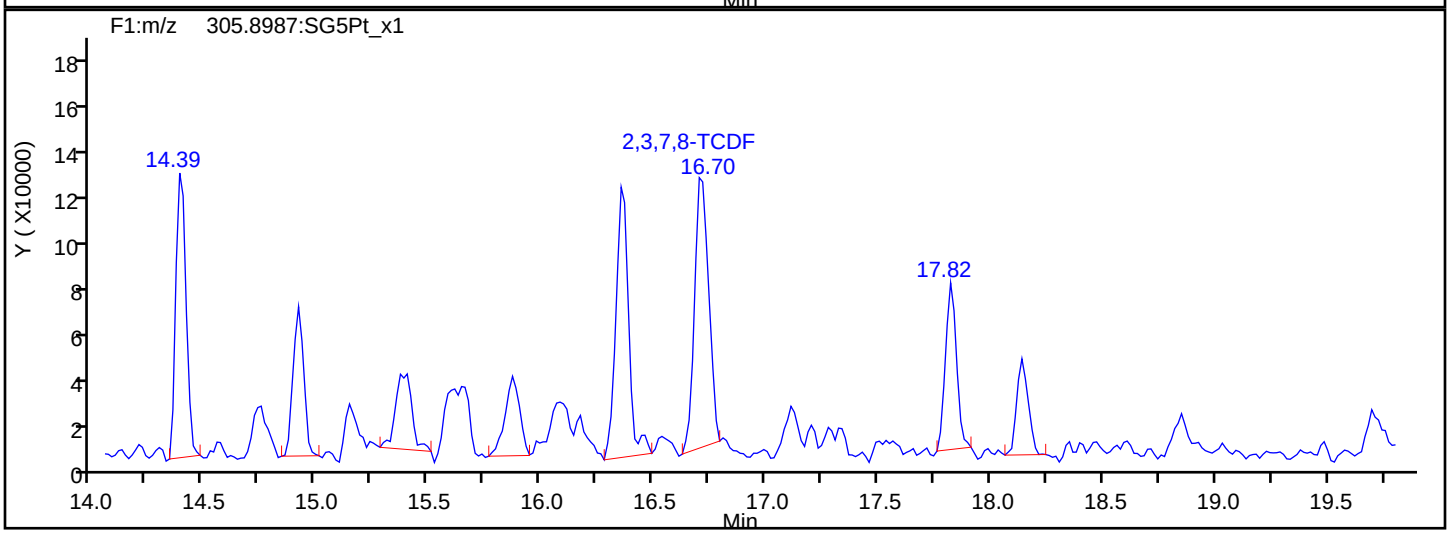
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

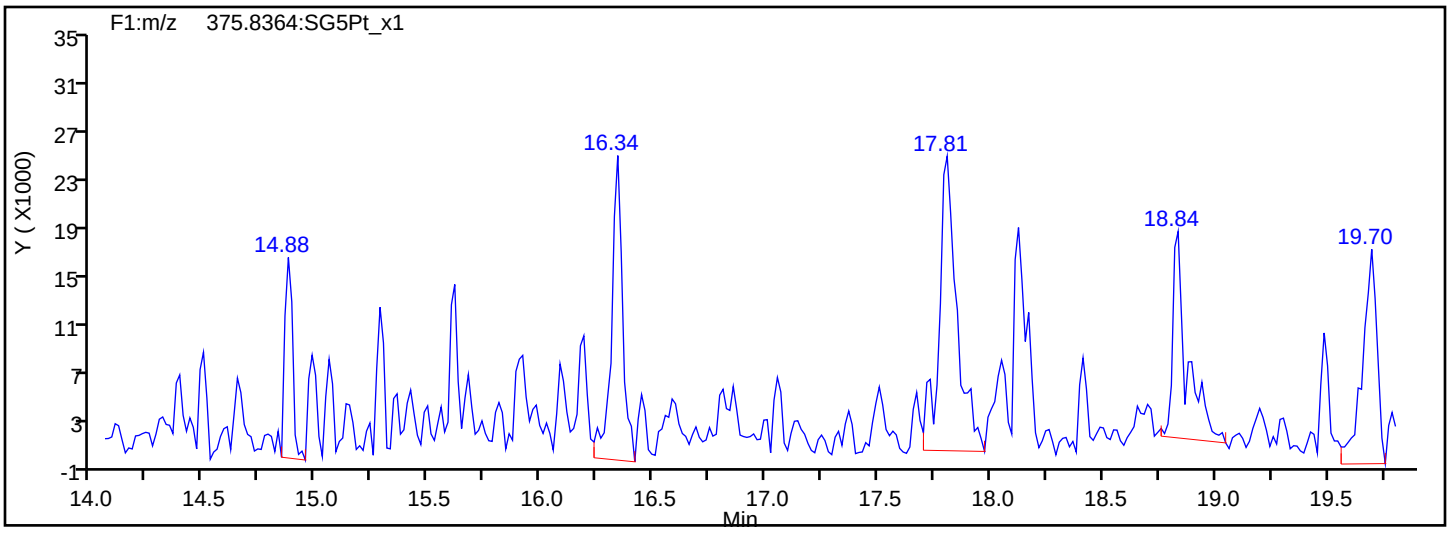
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

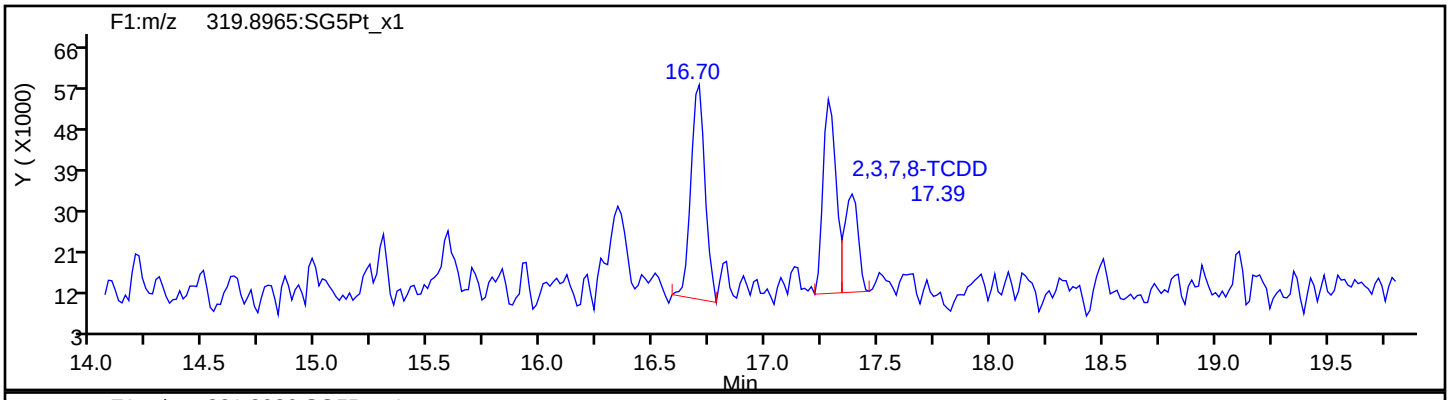


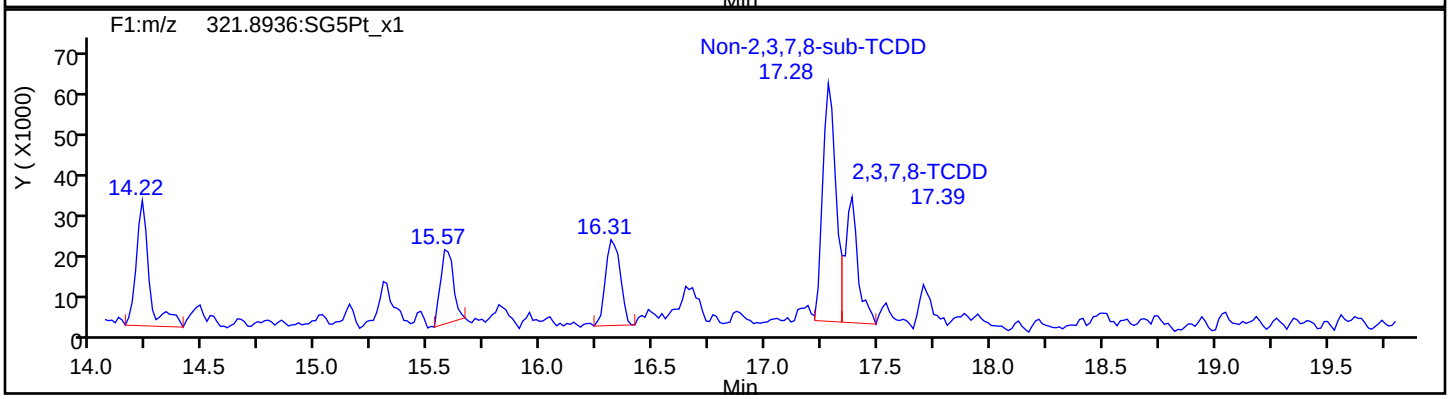
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

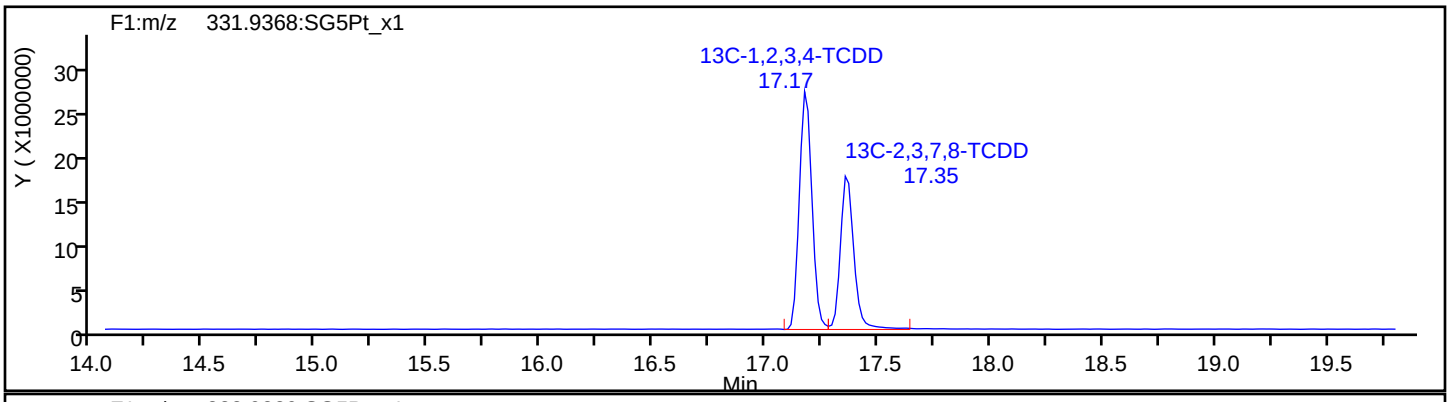
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

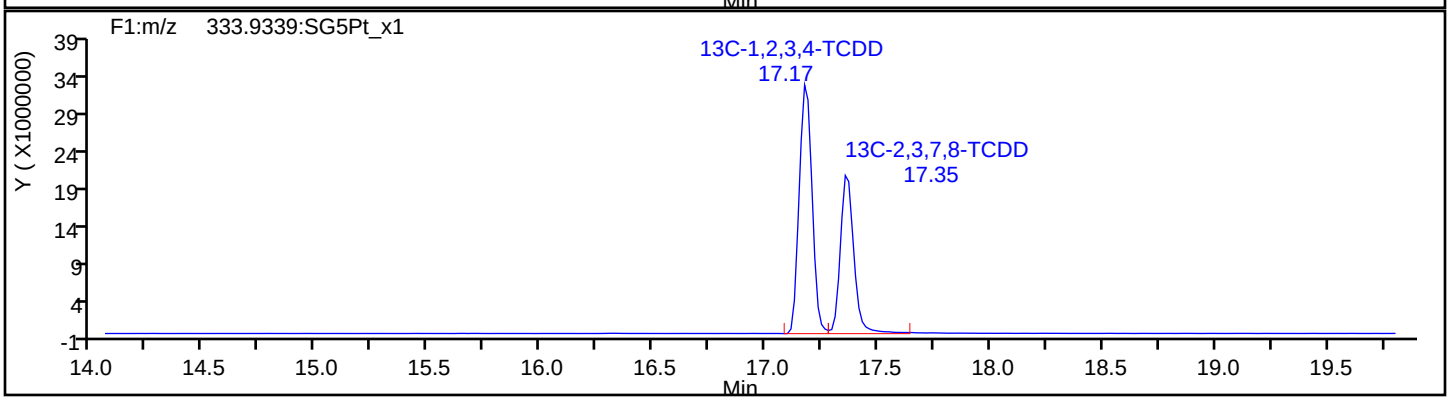
TCDD





TCDD Standards



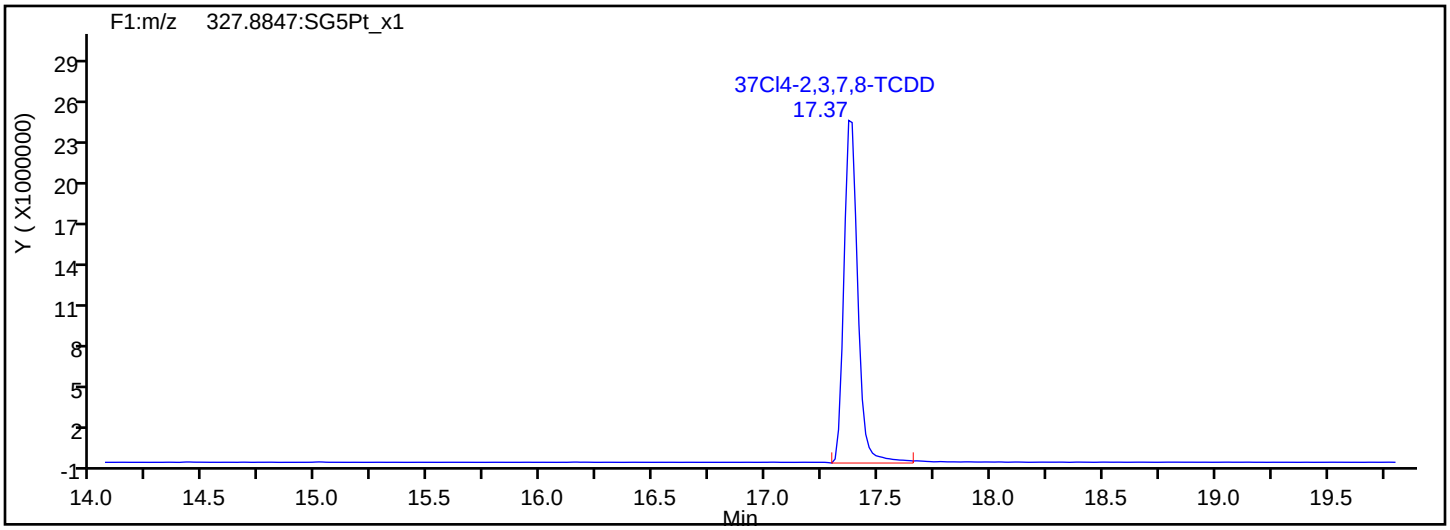


Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

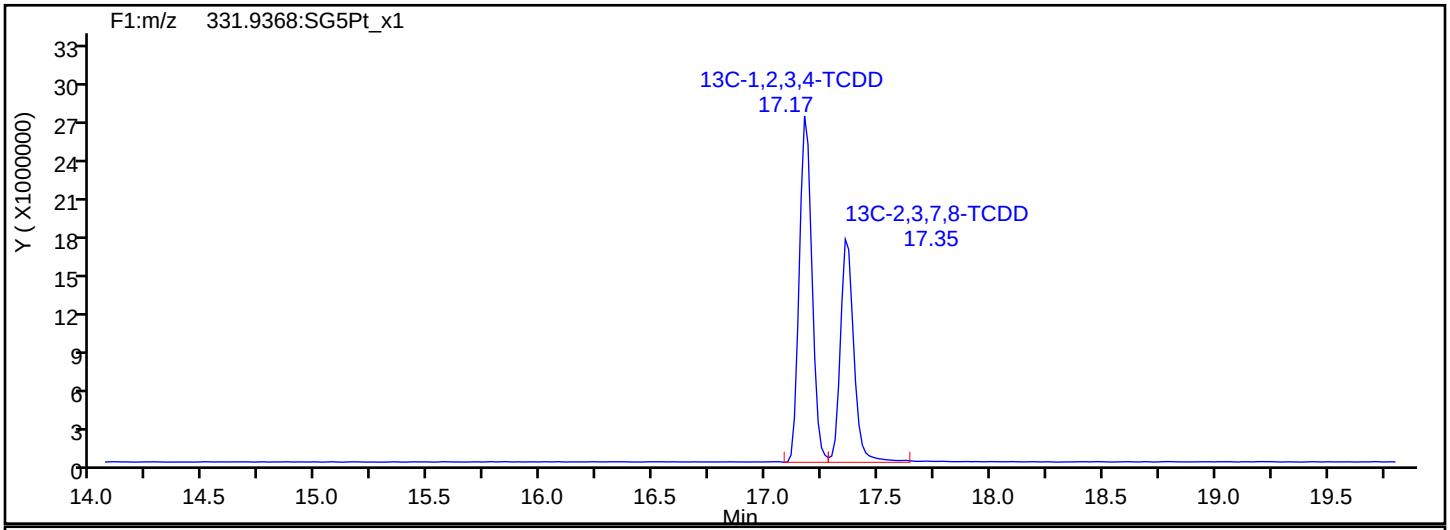
Eurofins TestAmerica, Sacramento

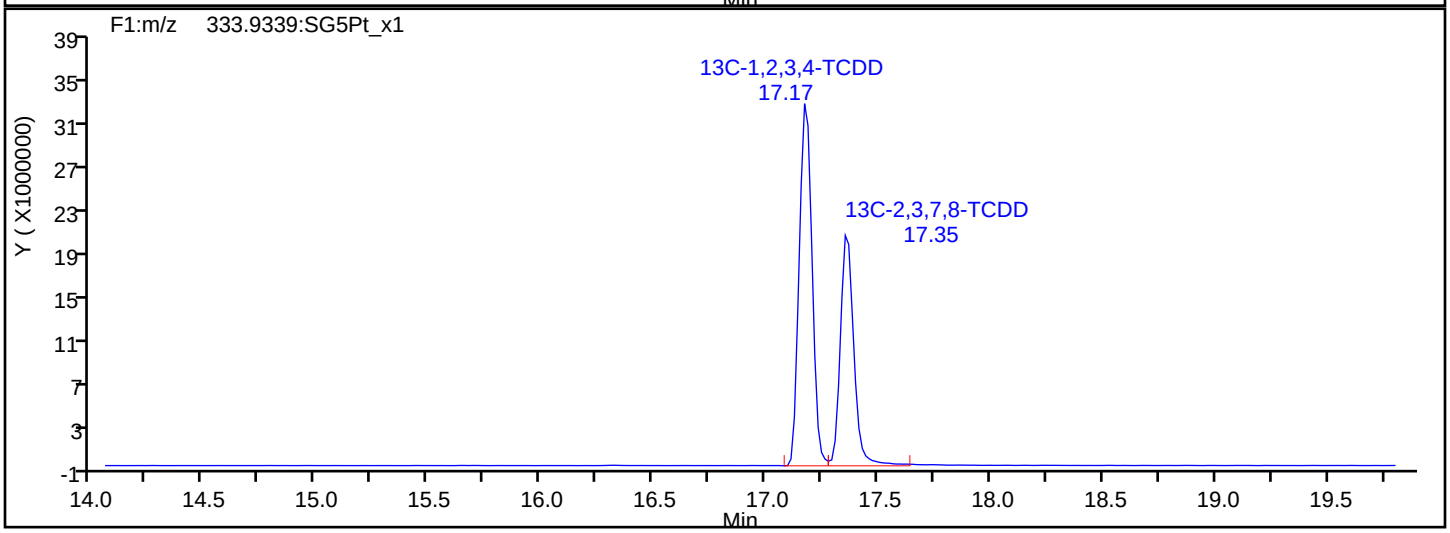
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



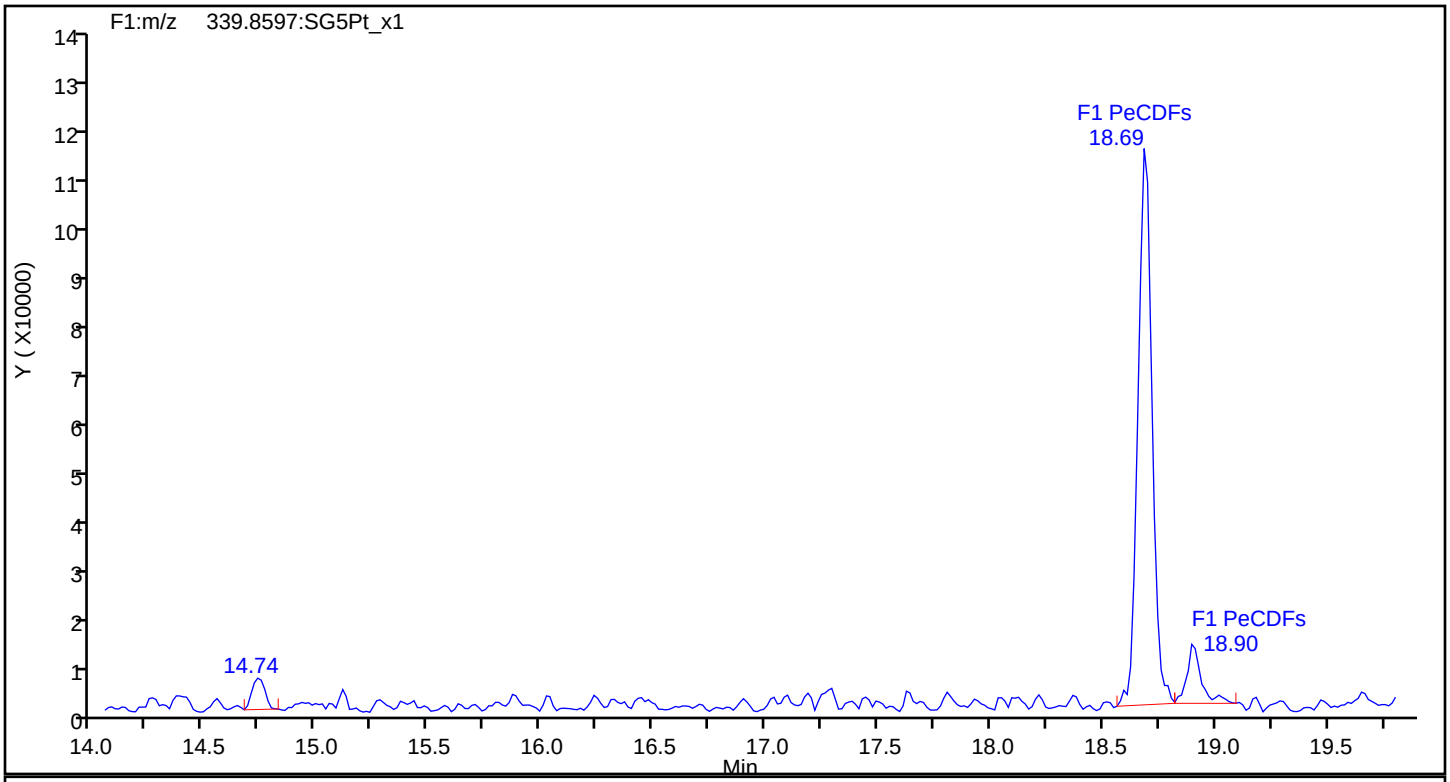


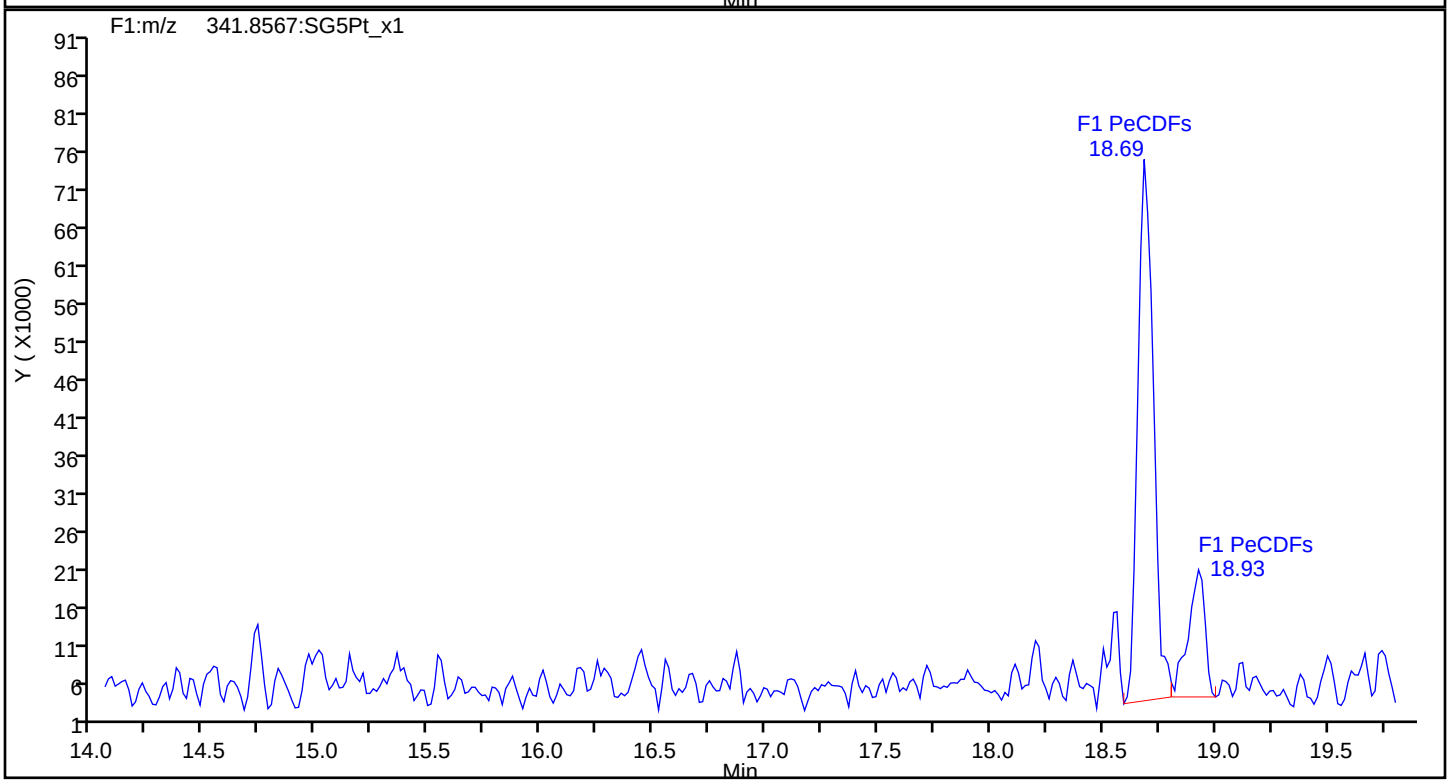
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



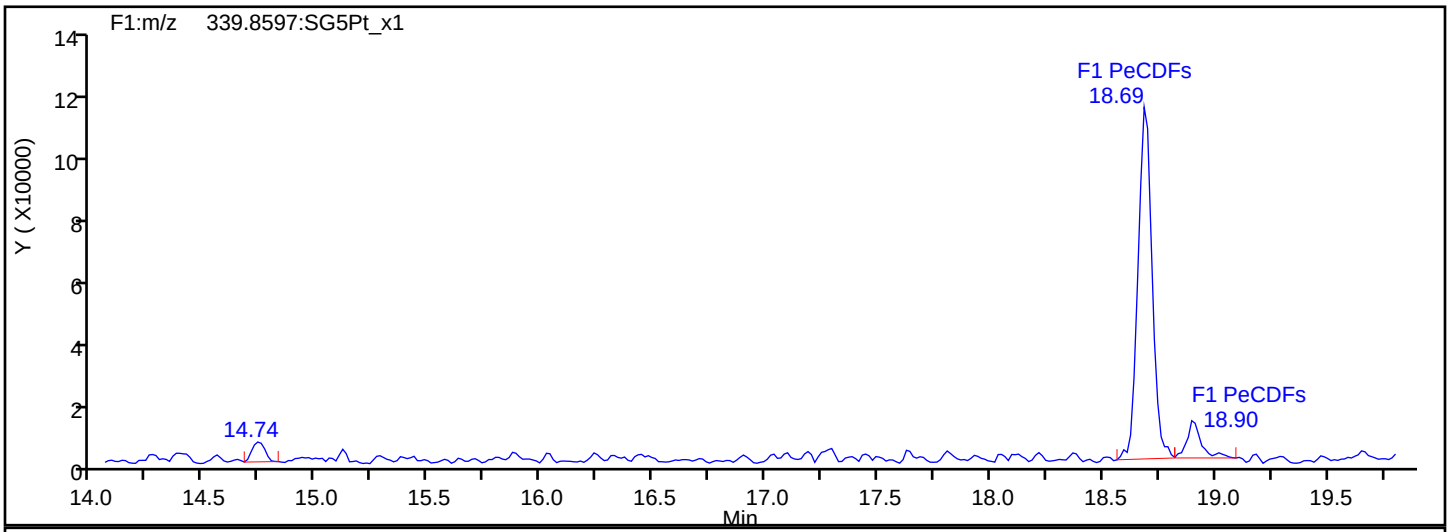


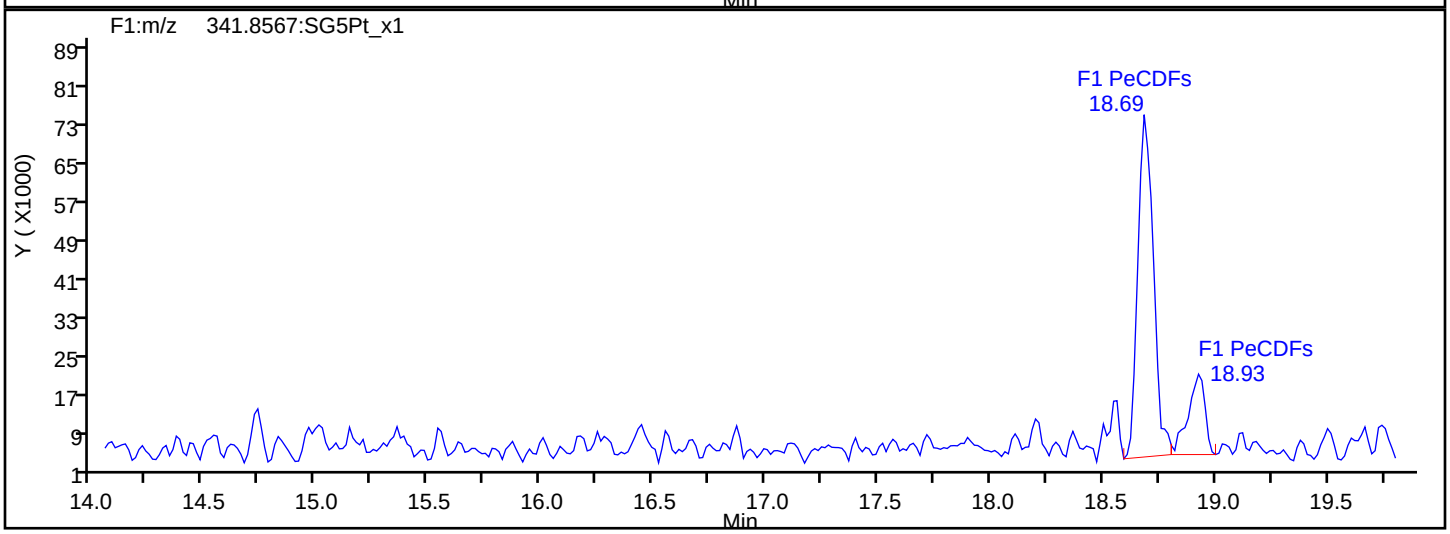
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

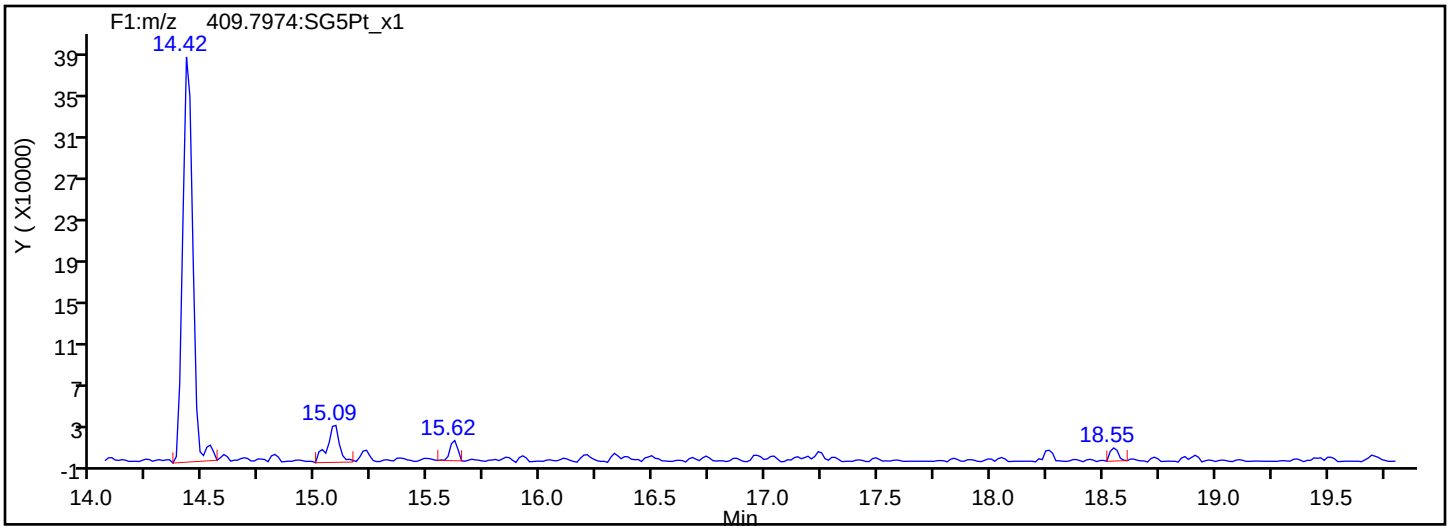
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

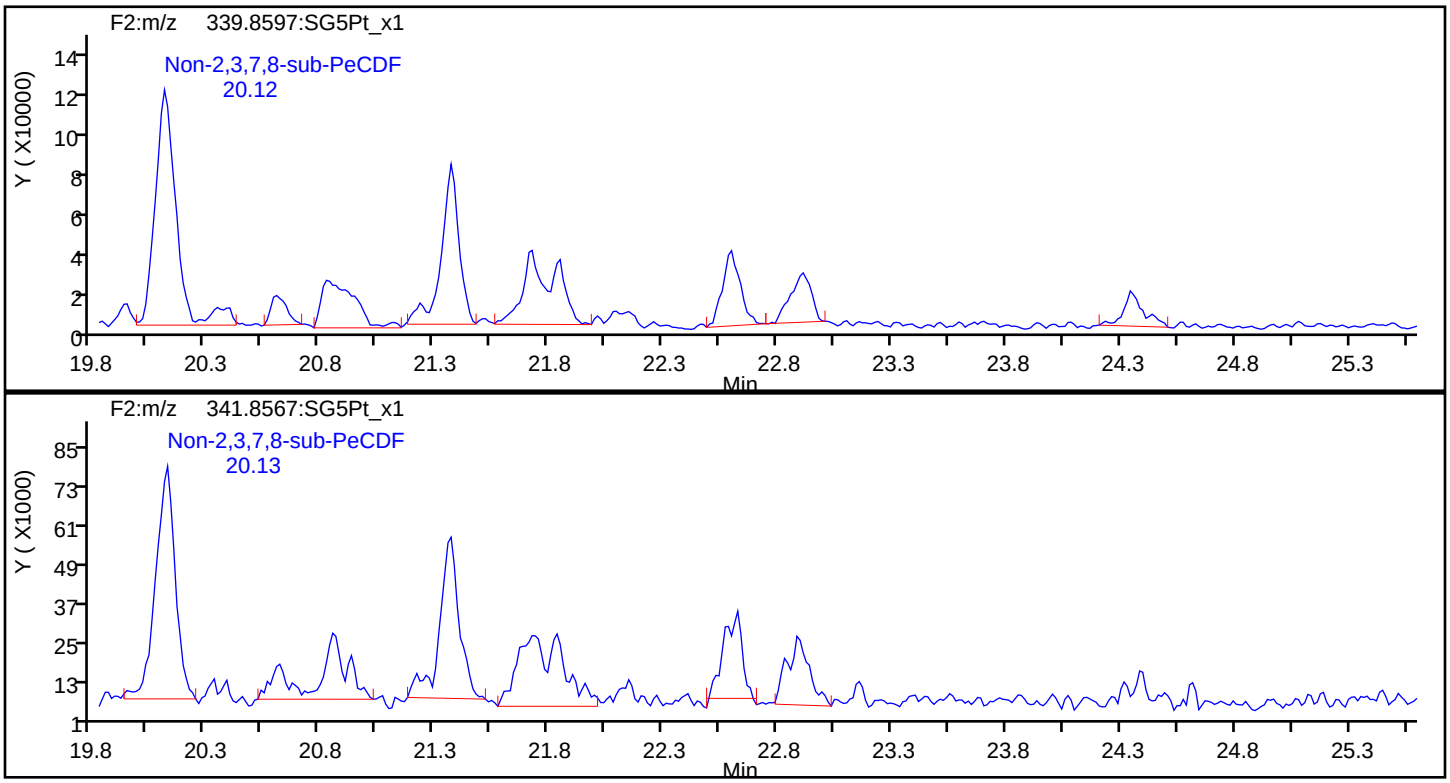


Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

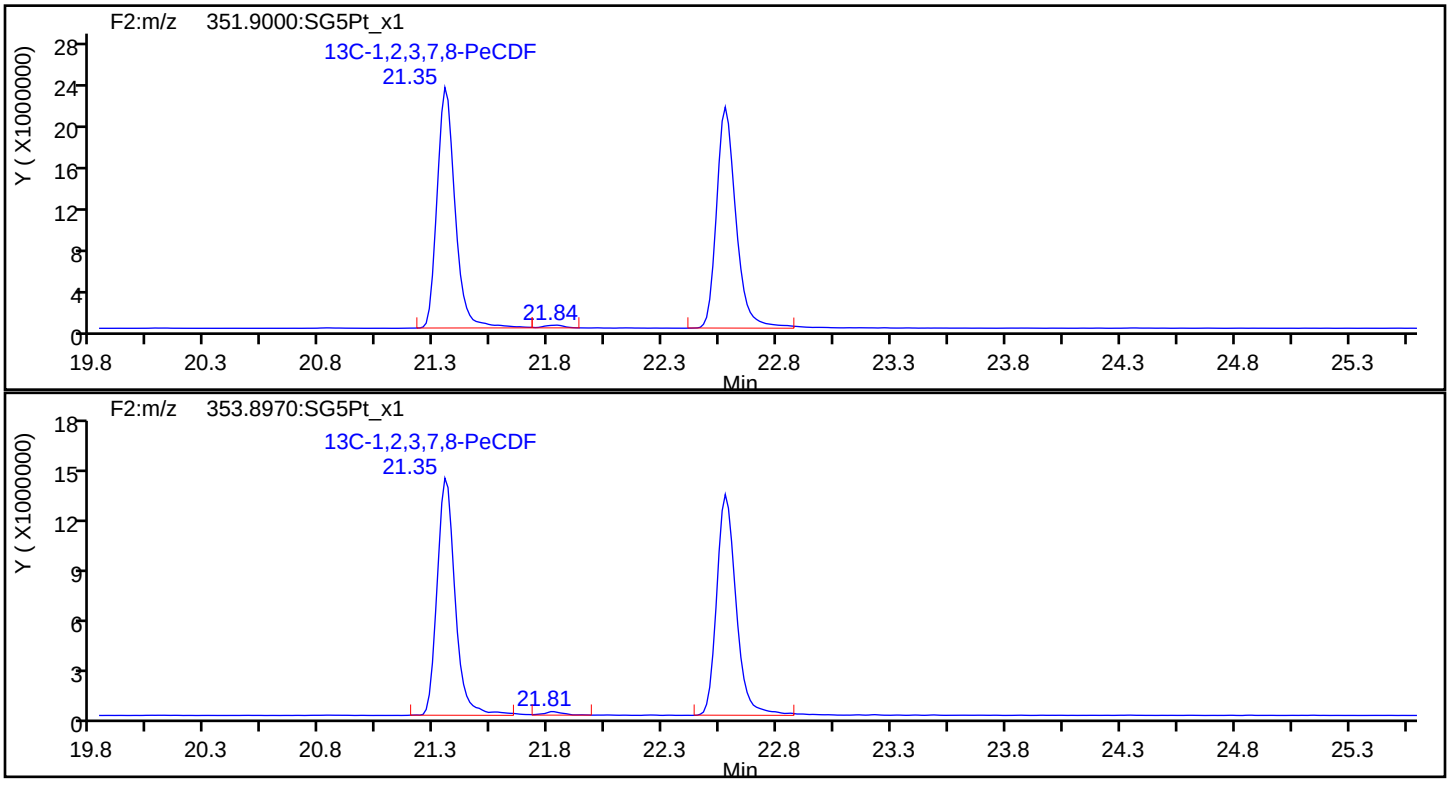
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

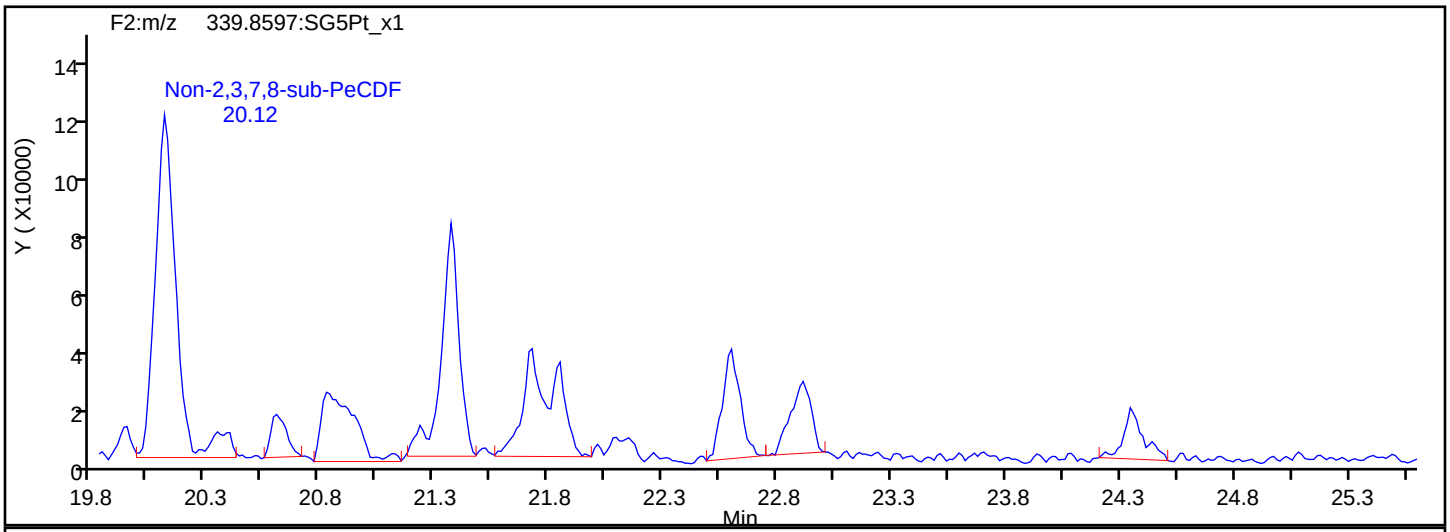


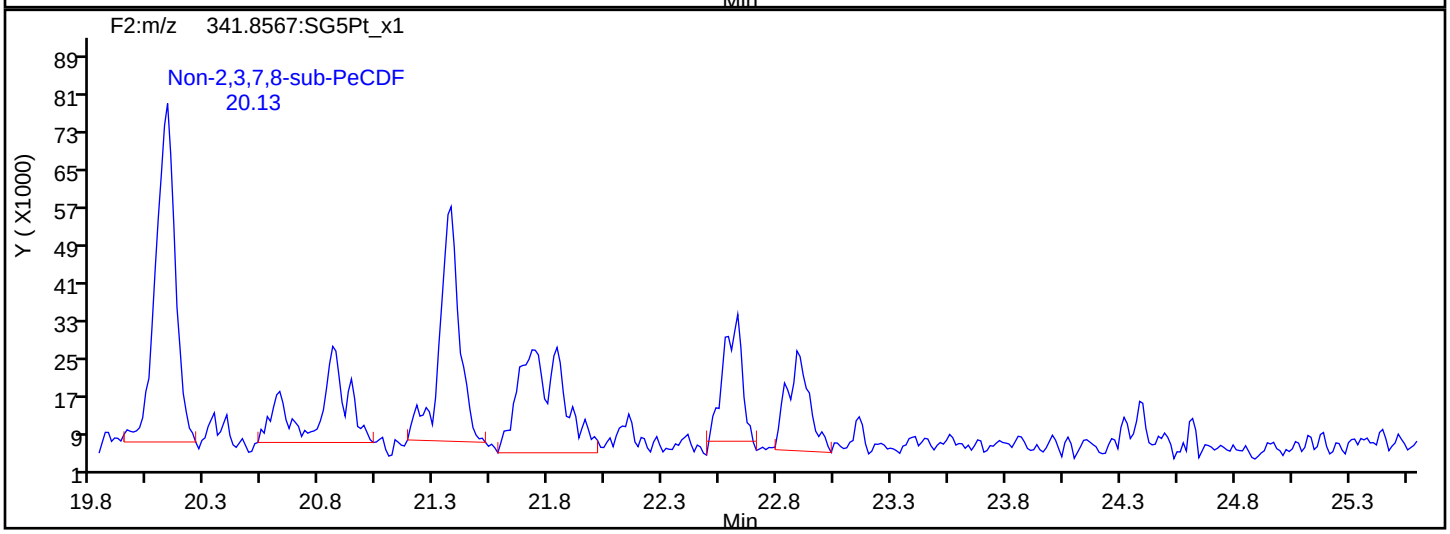
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

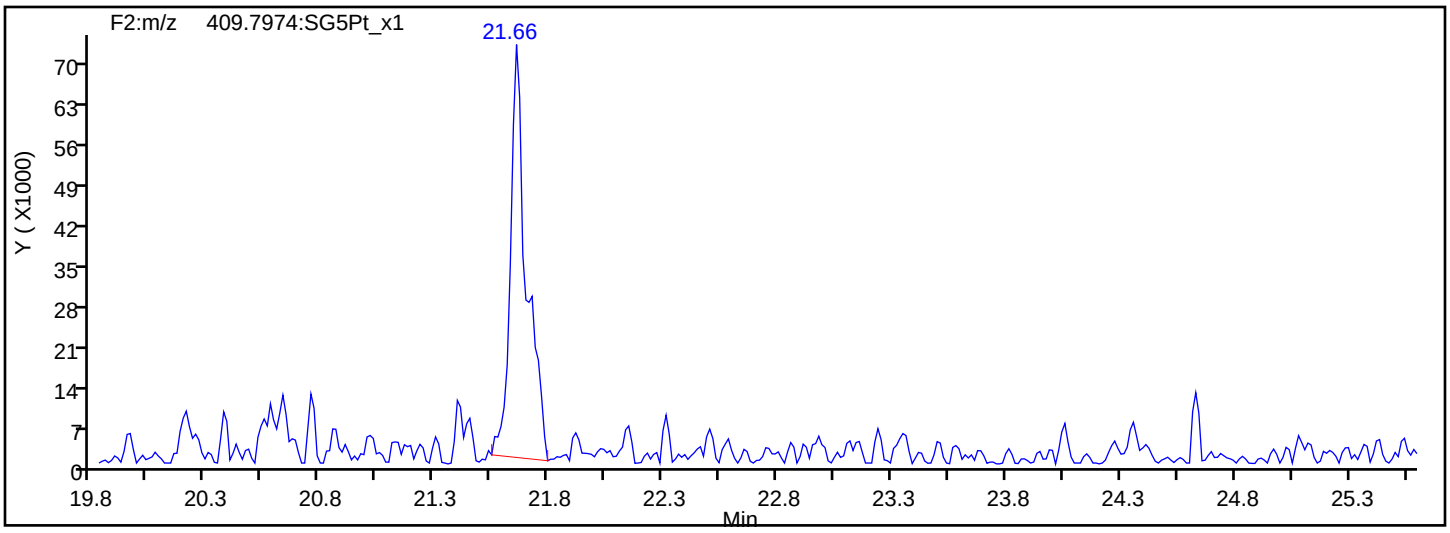
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

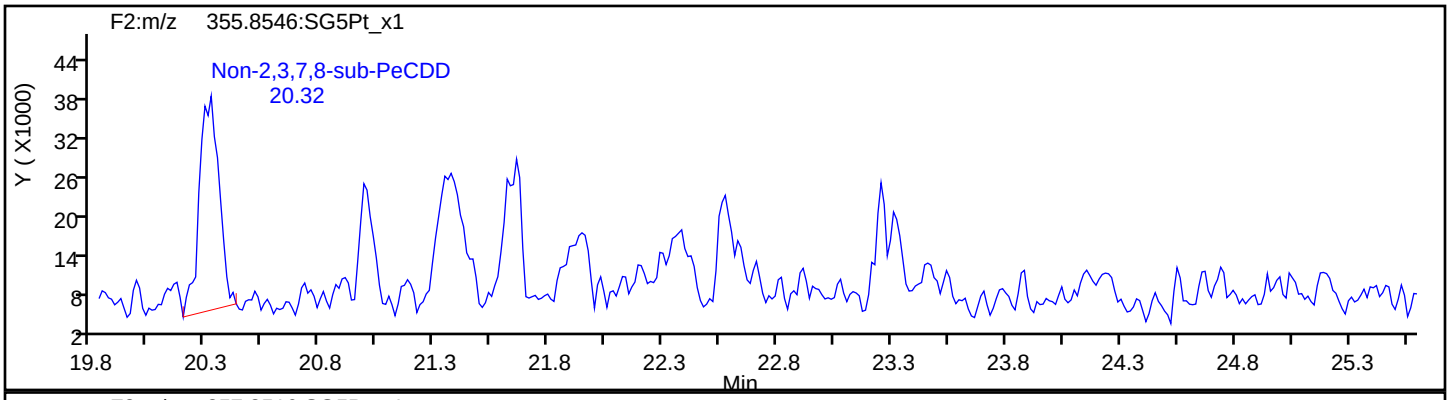


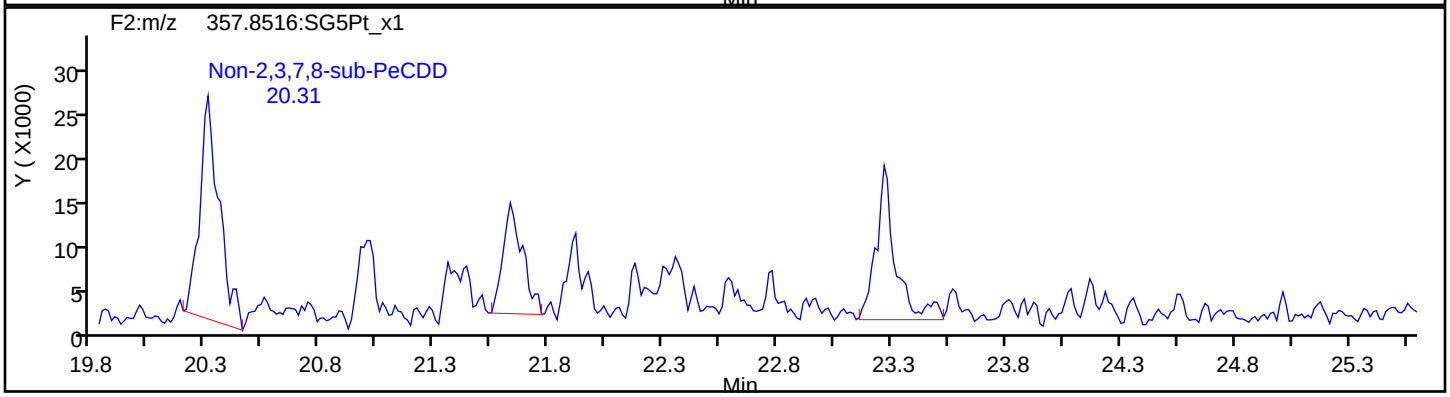
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

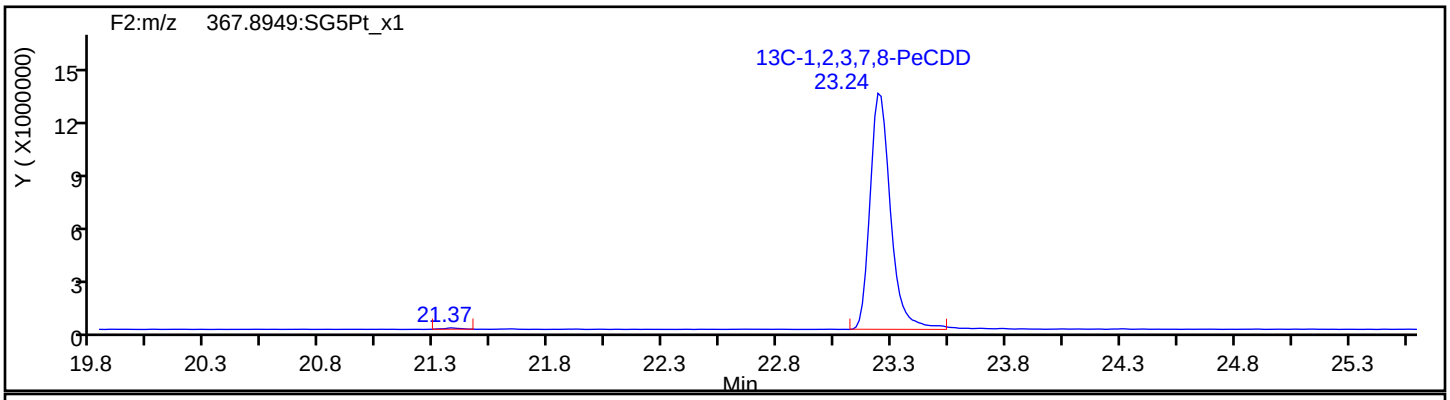
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

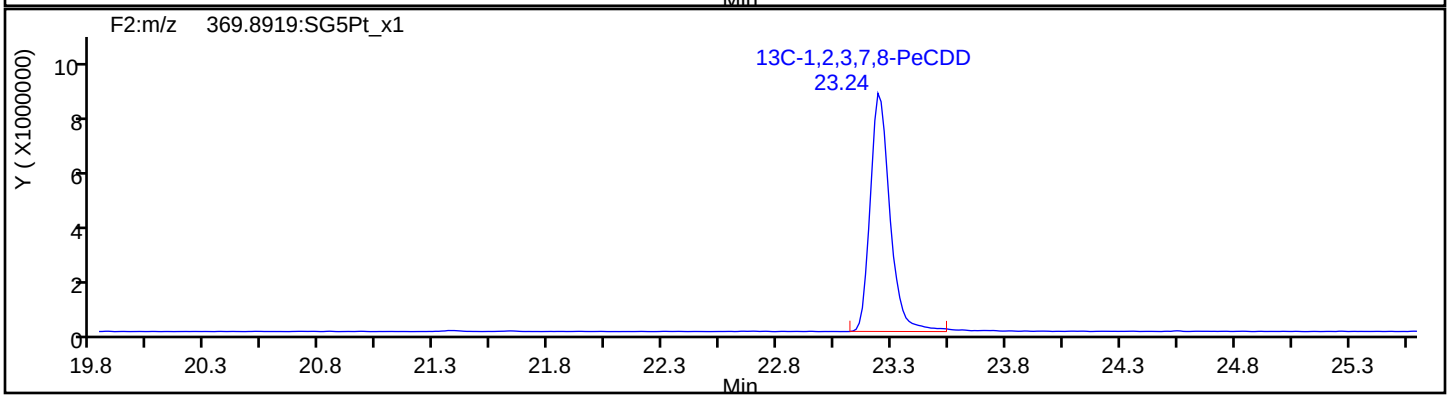
PeCDD





PeCDD Standards



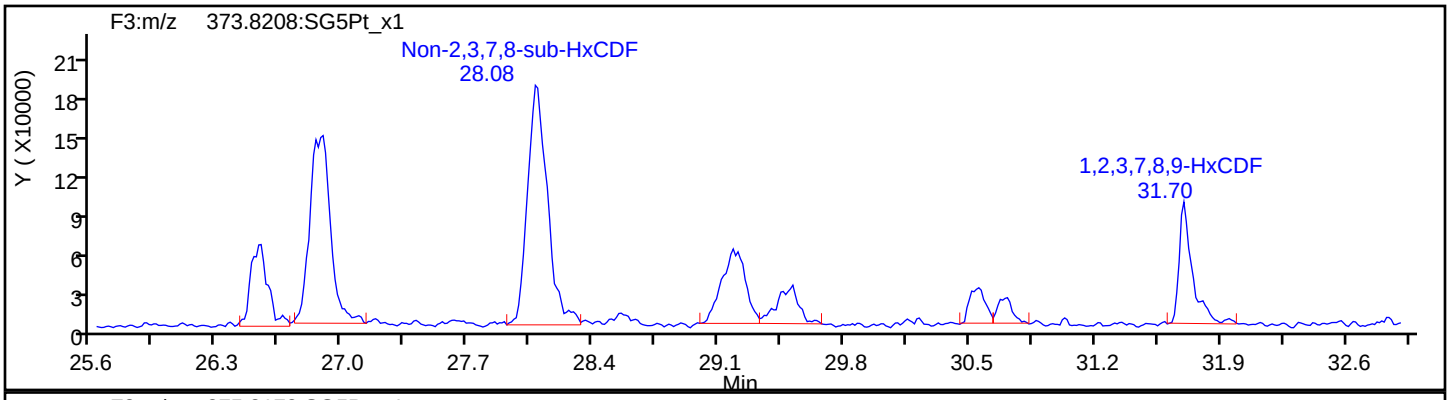


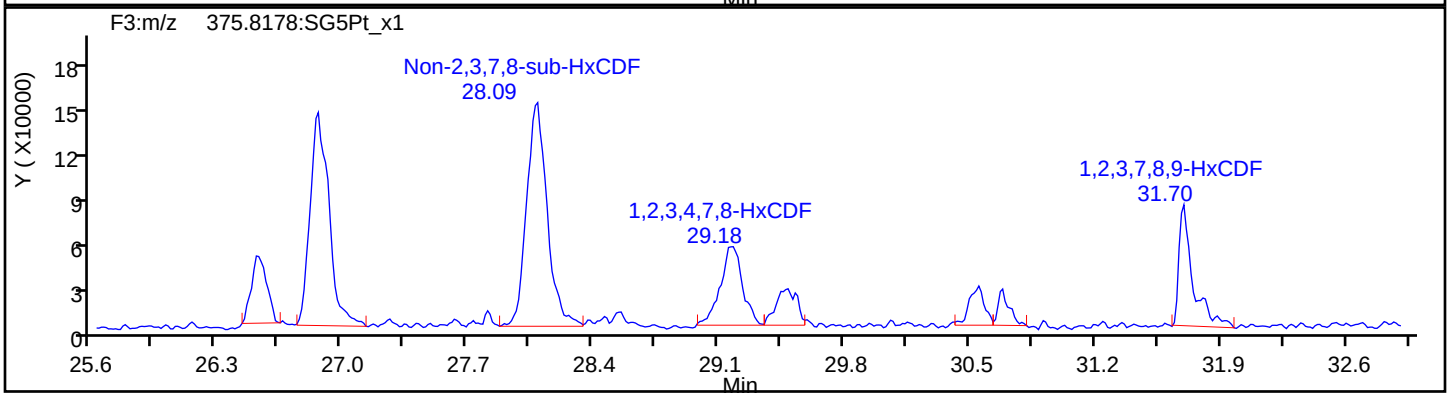
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

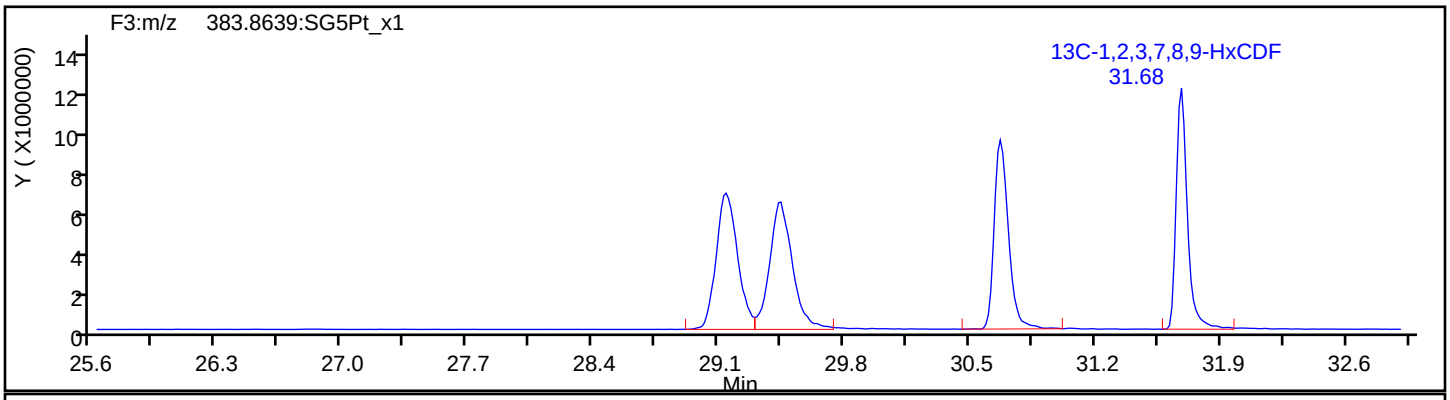
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

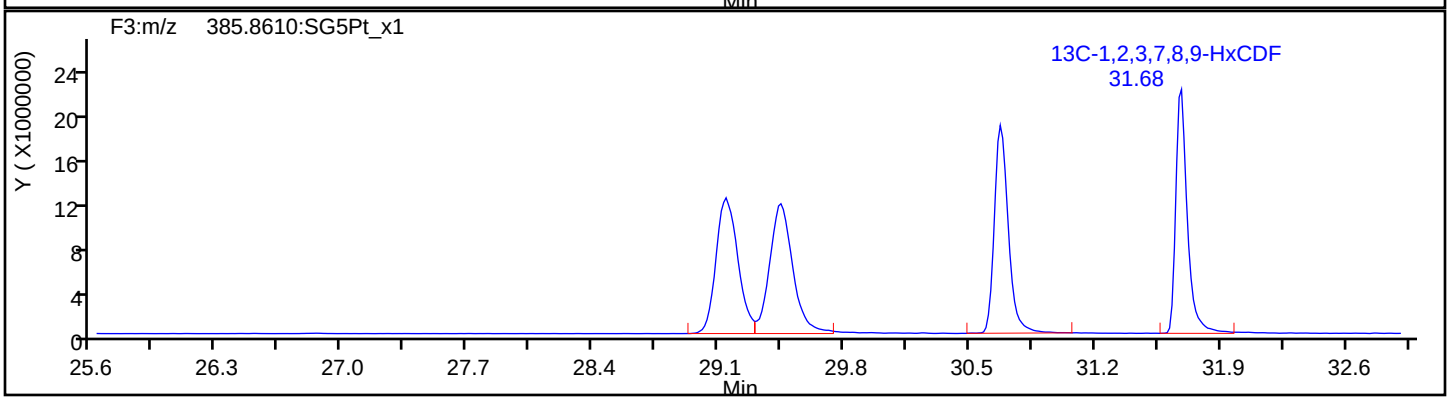
HxCDF





HxCDF Standards



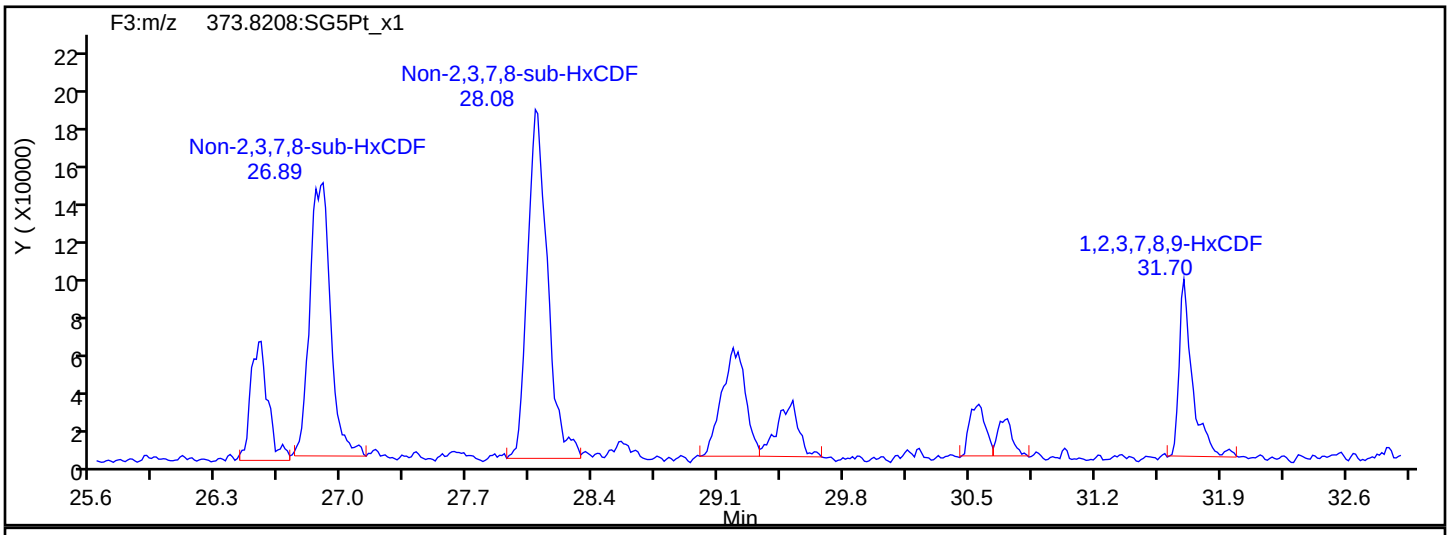


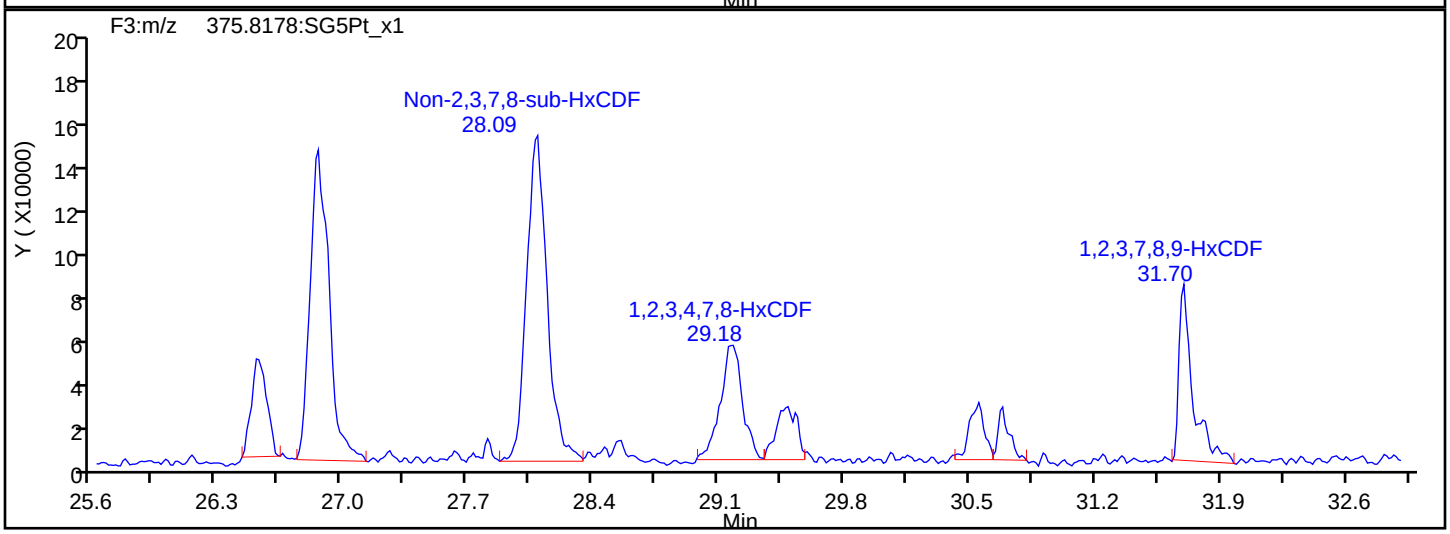
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

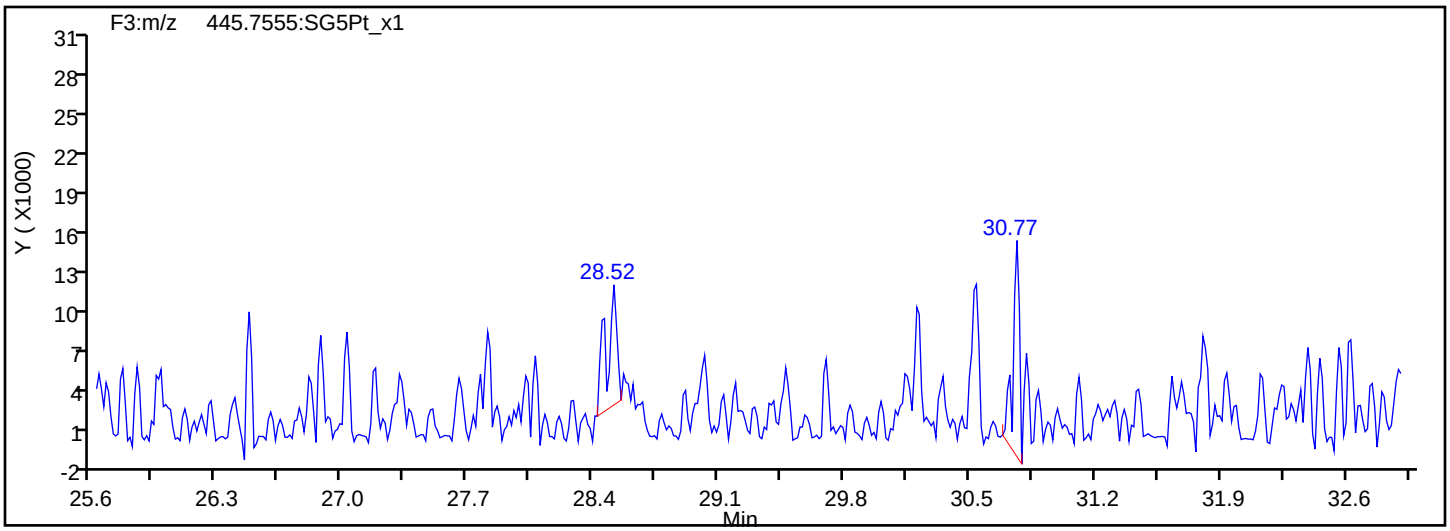
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

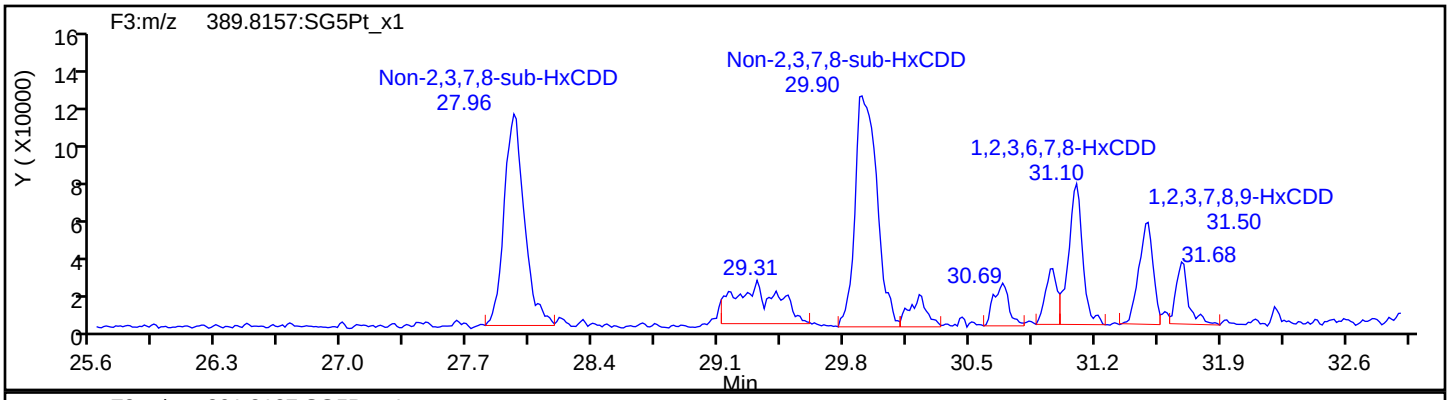


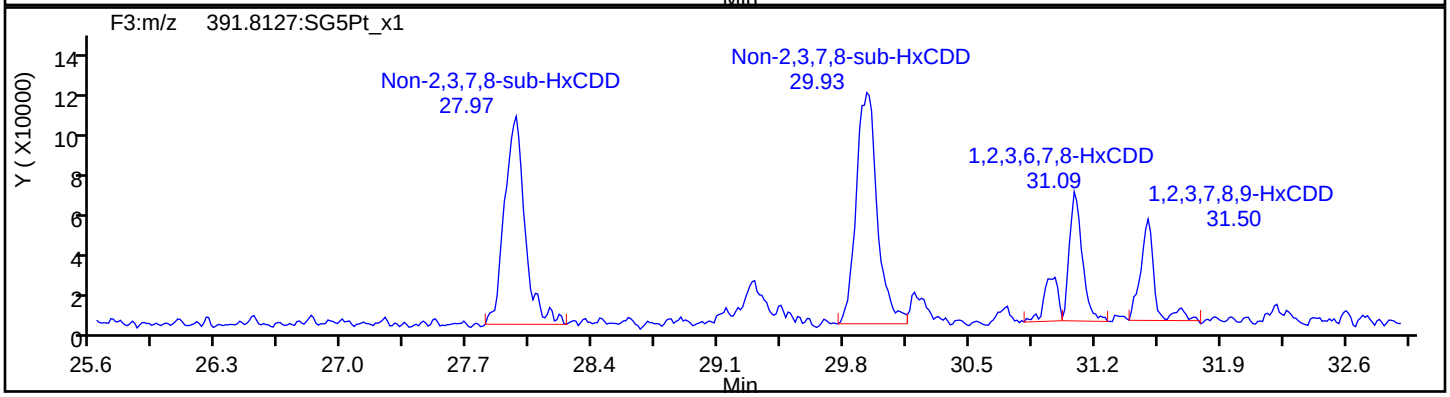
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

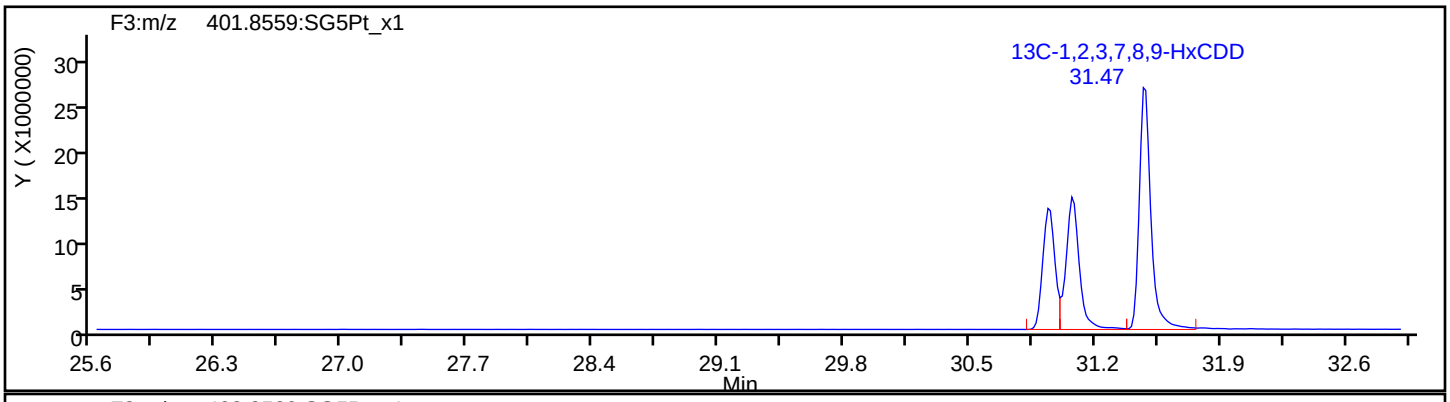
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

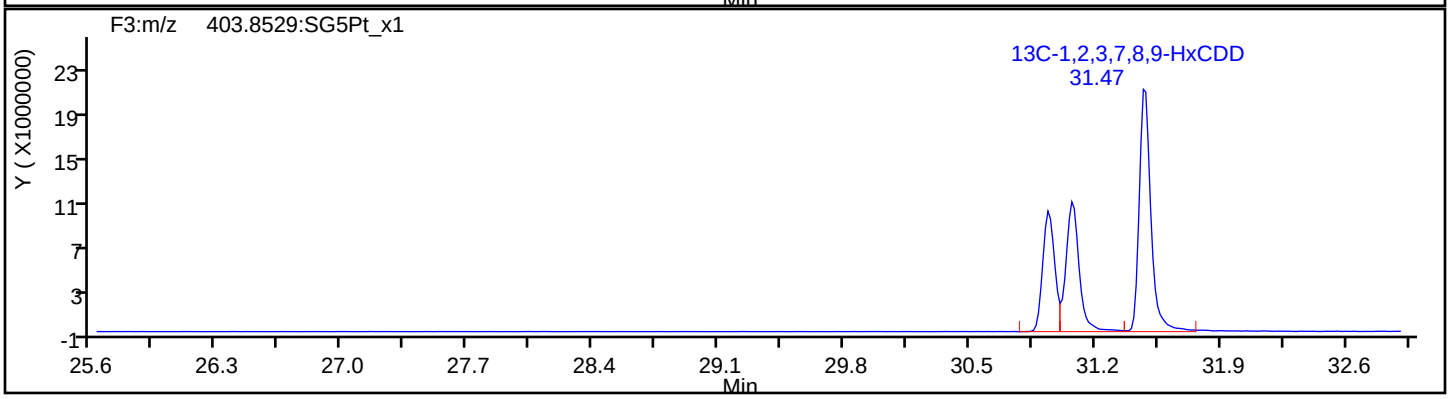
HxCDD





HxCDD Standards





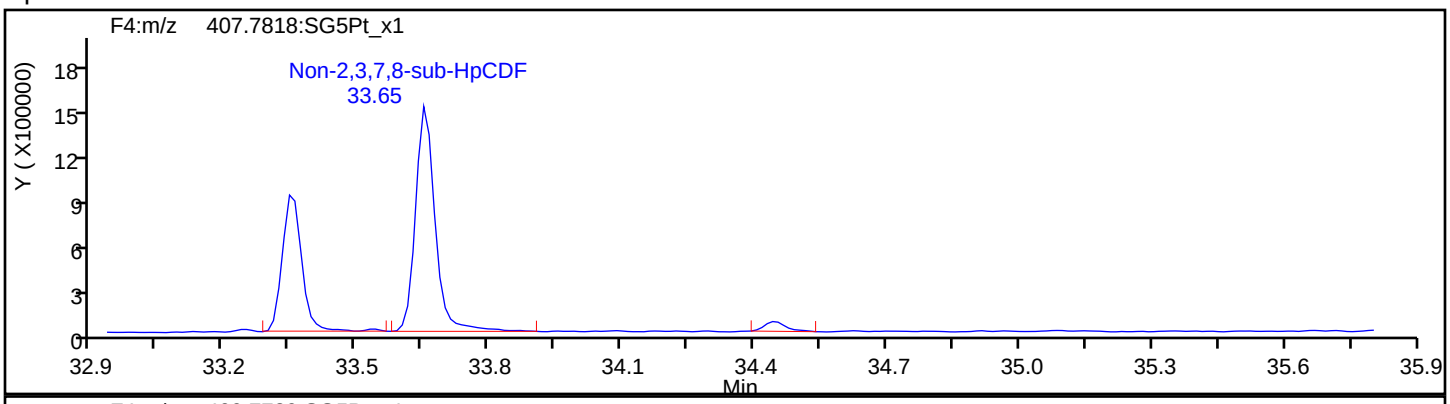
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

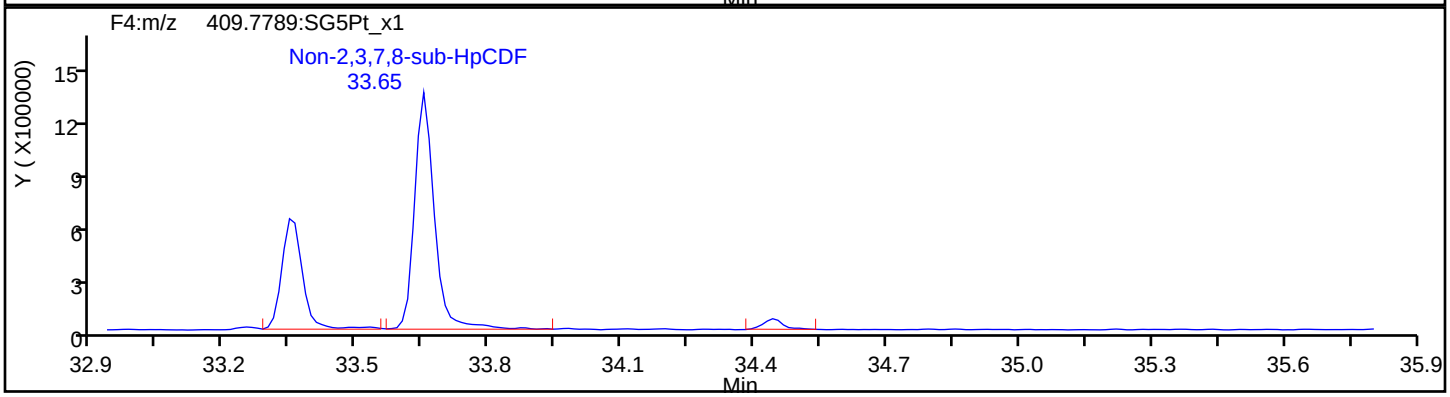
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d

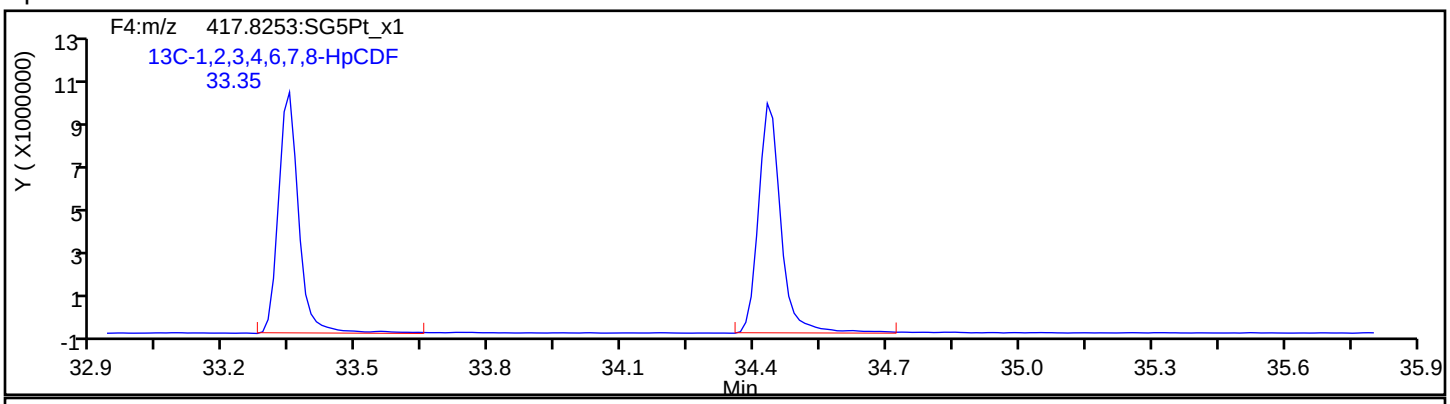
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

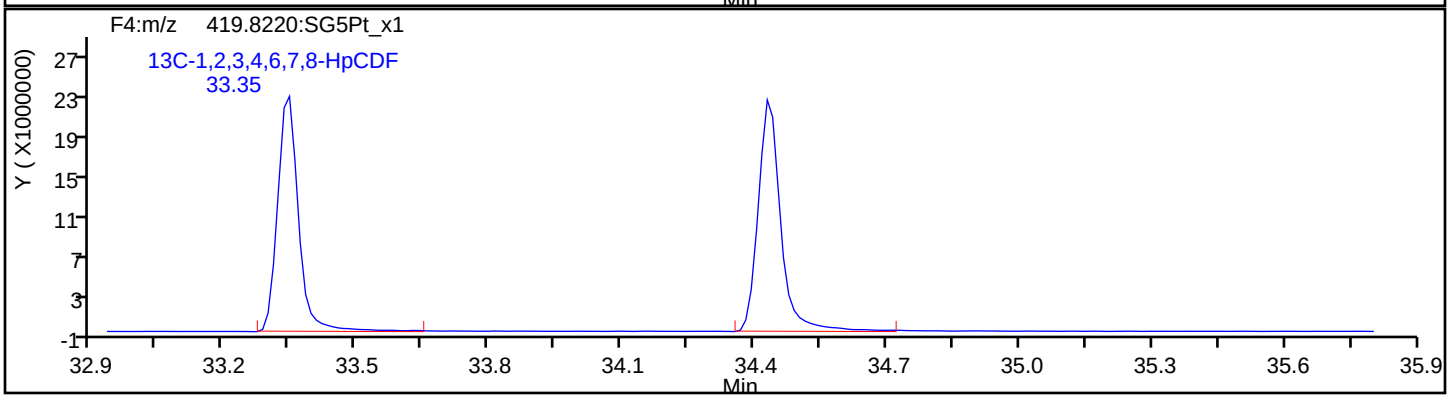
HpCDF





HpCDF Standards



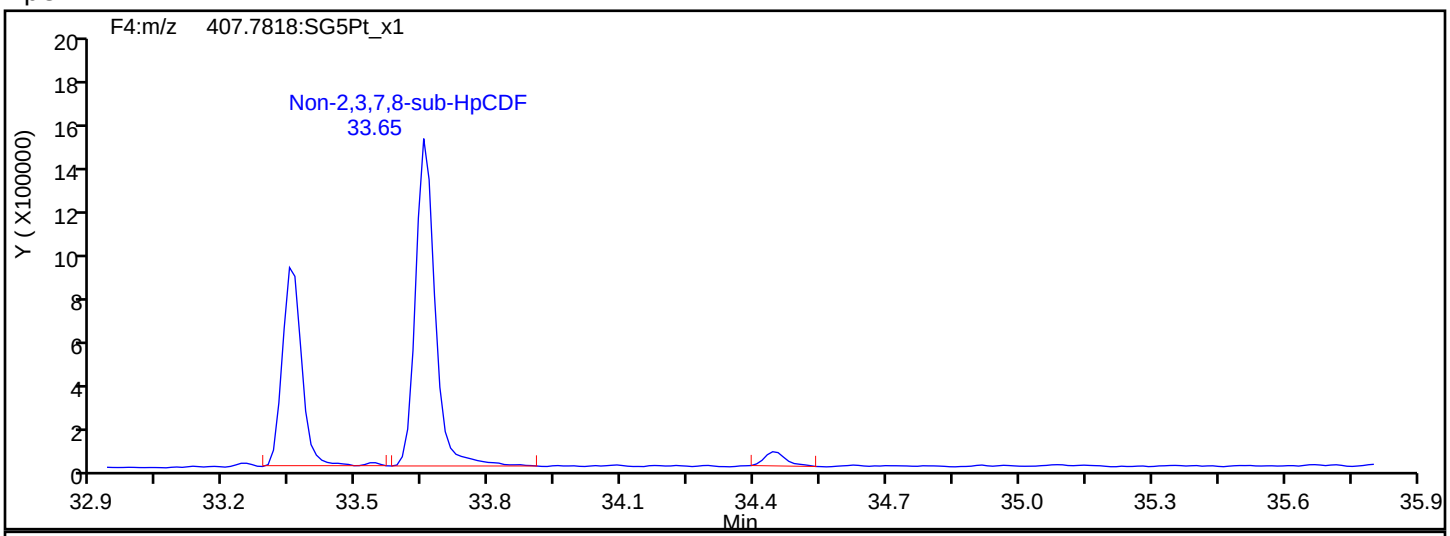


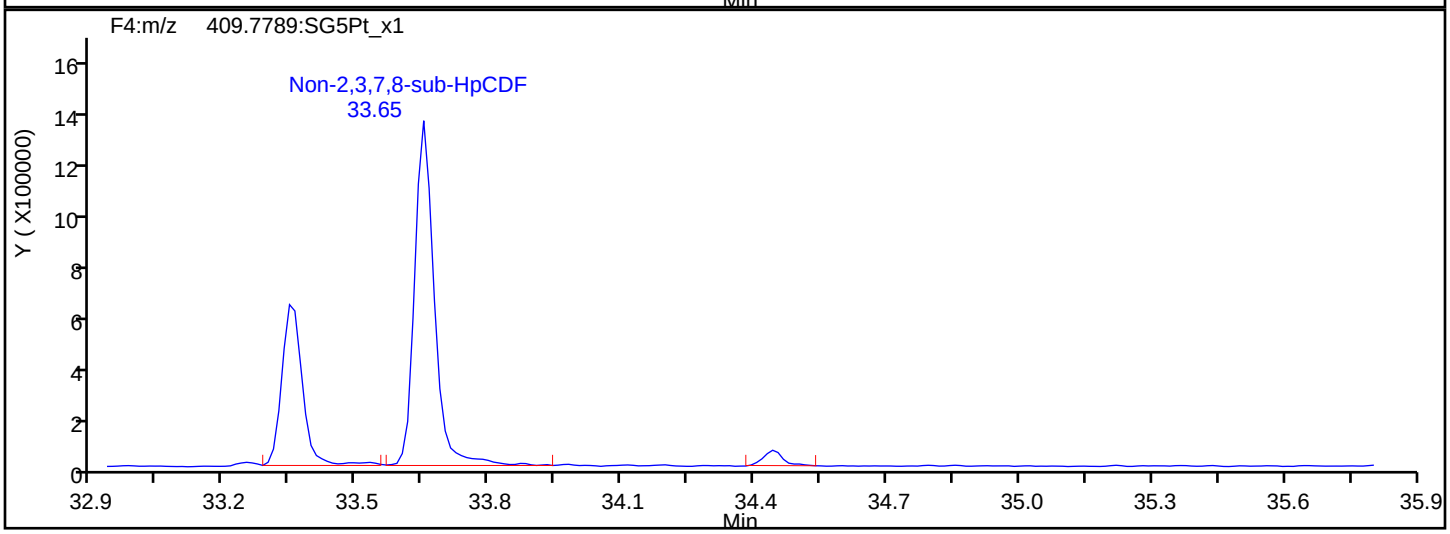
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

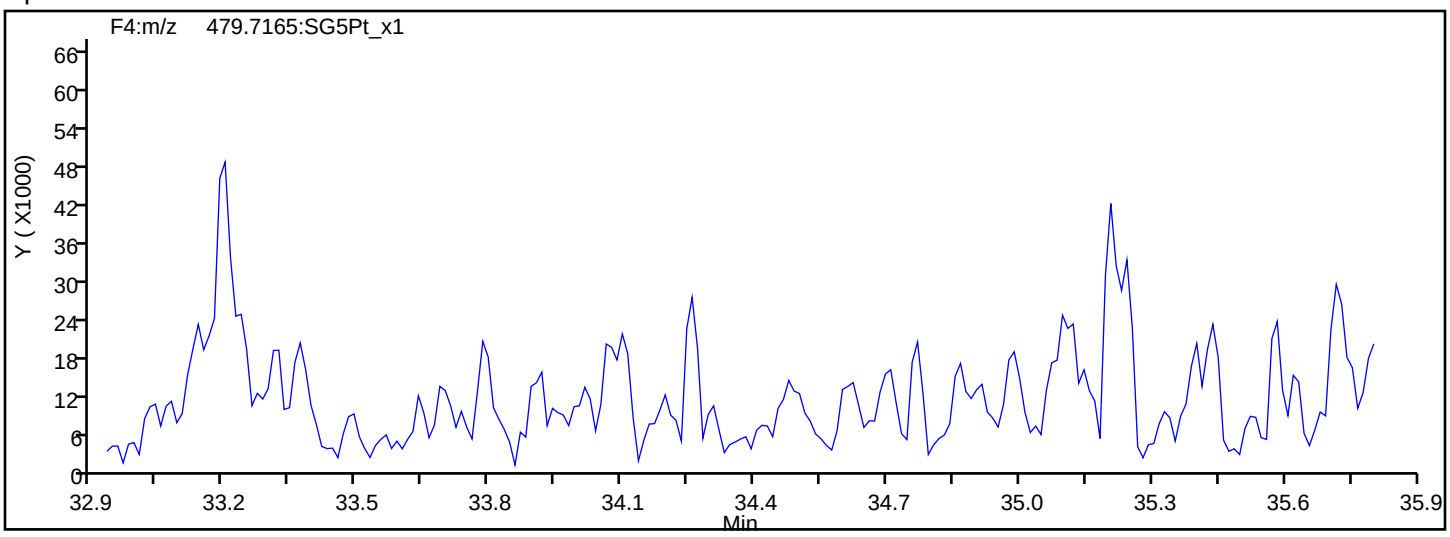
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



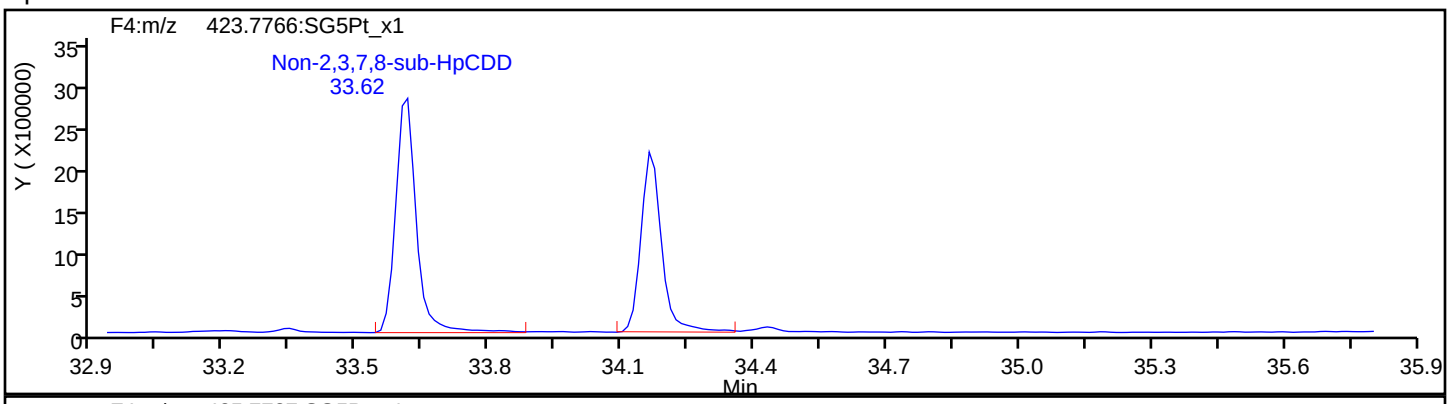
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

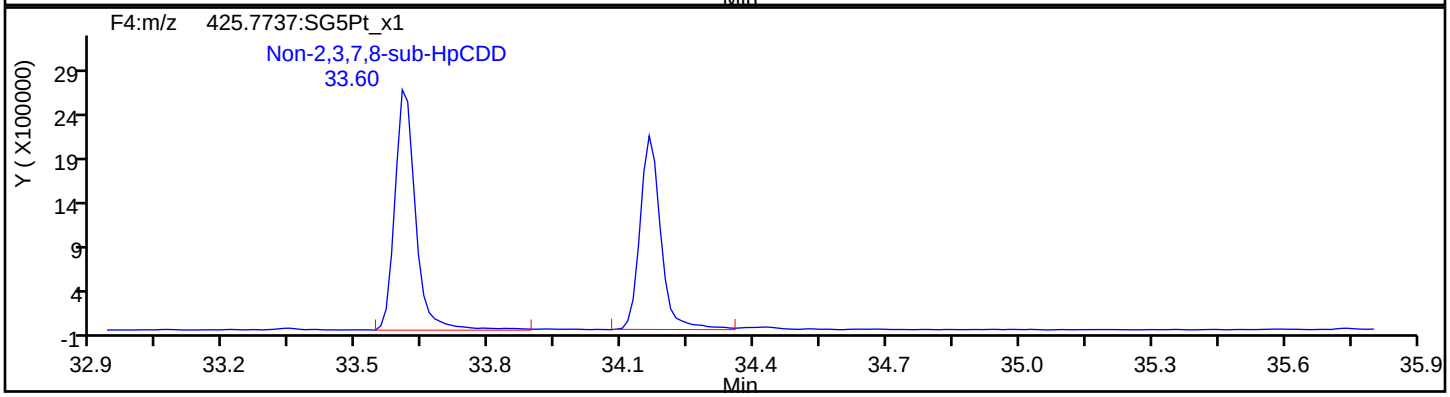
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d

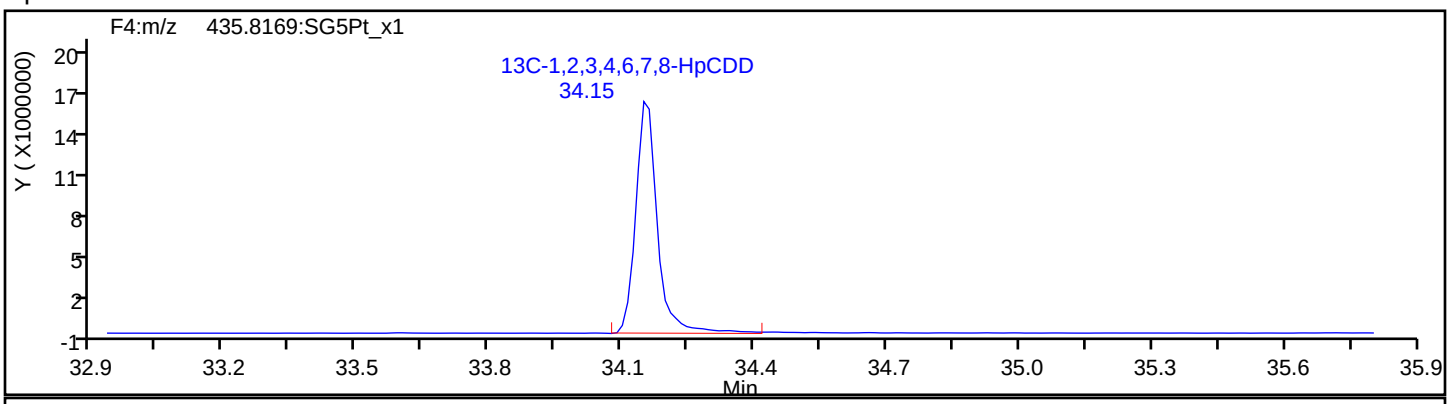
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

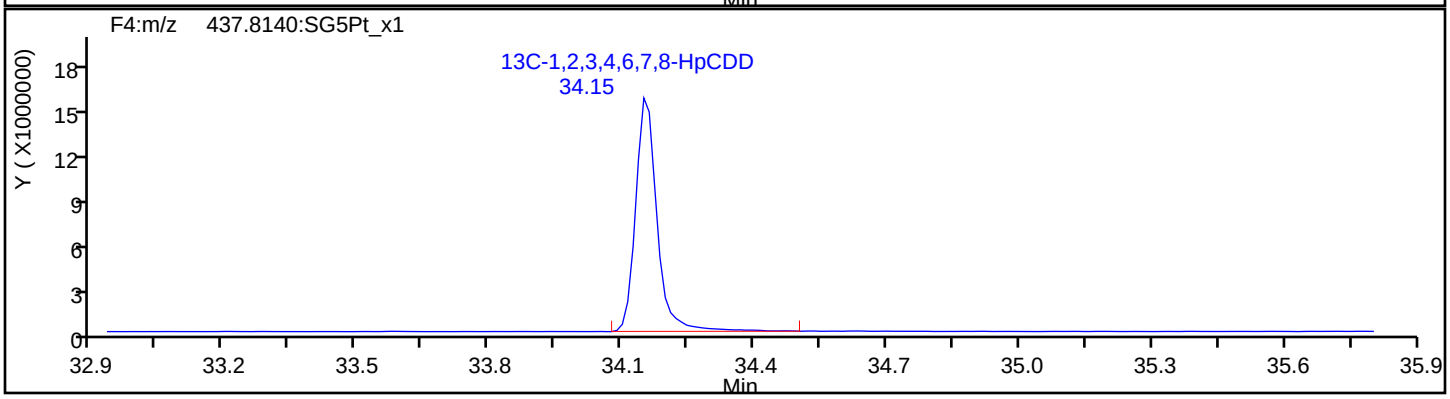
HpCDD





HpCDD Standards



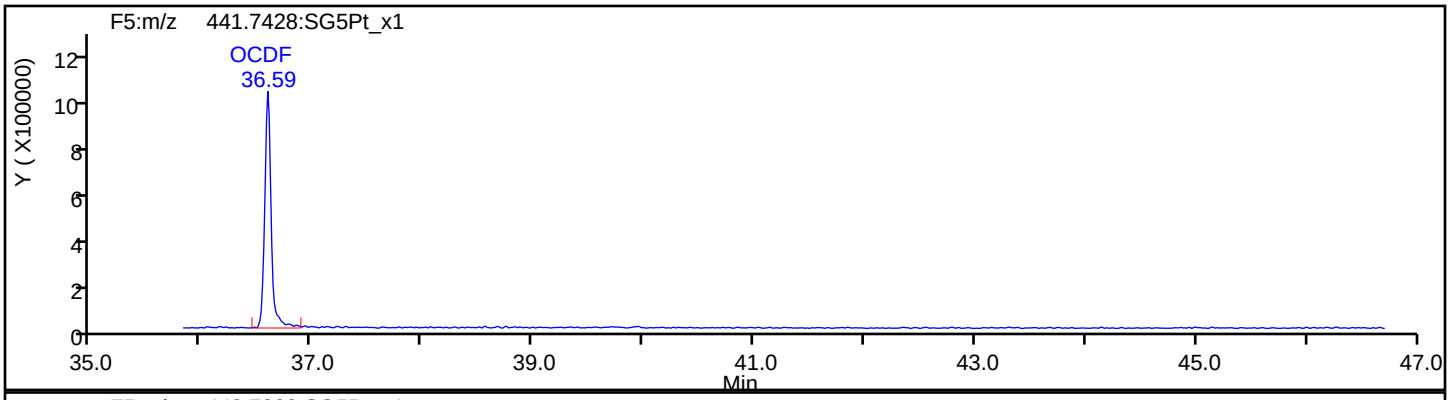


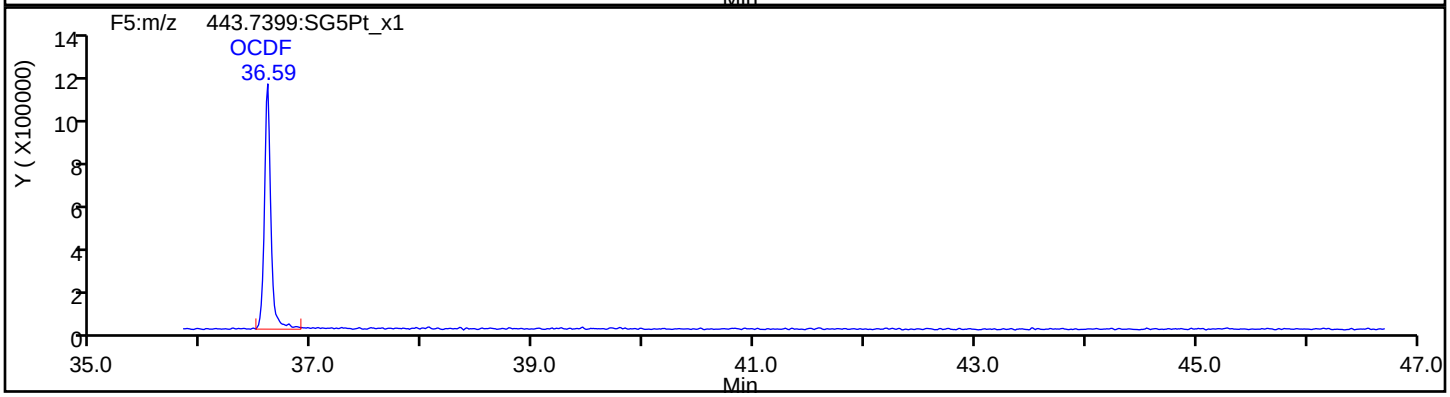
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

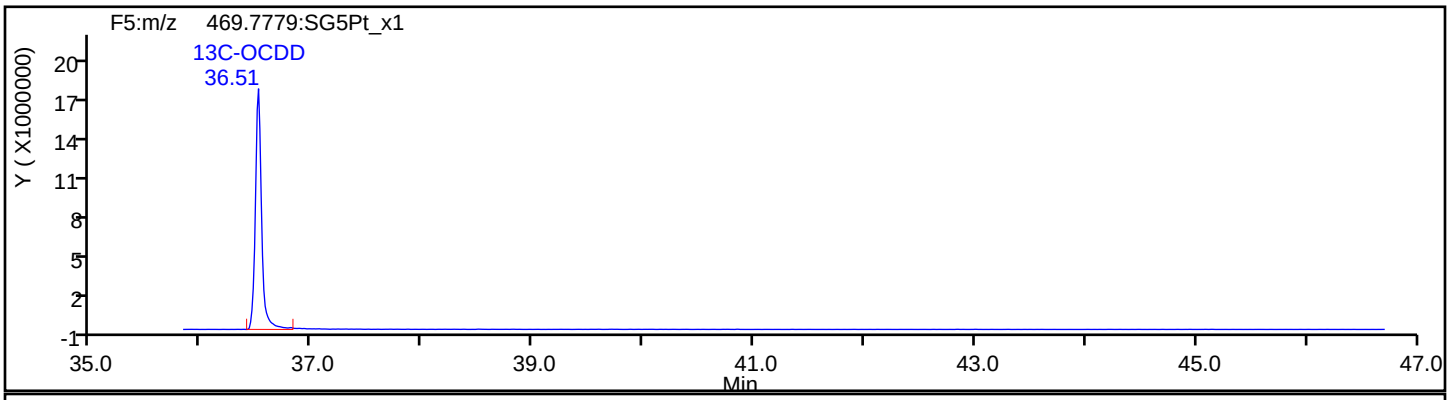
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

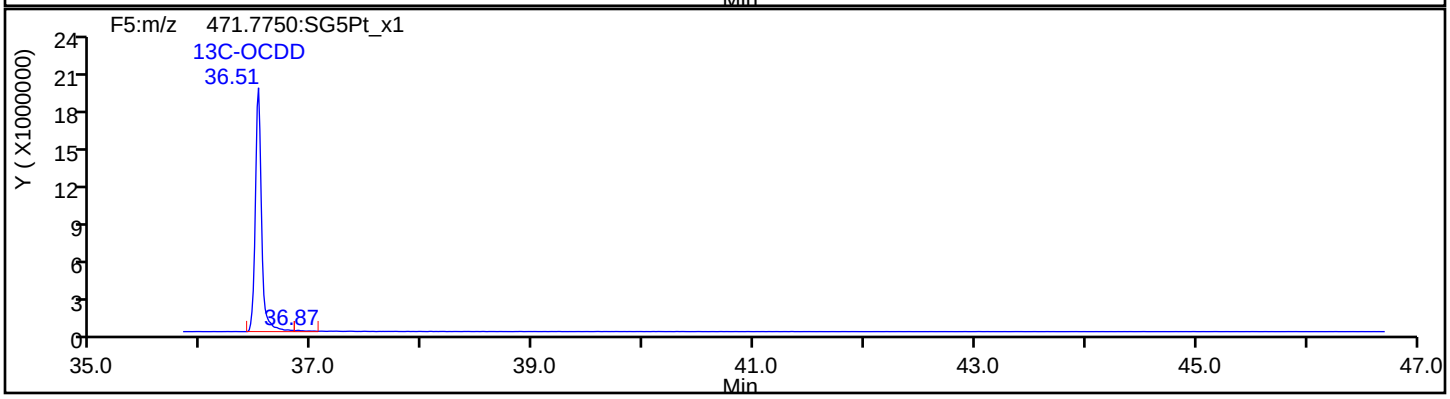
OCDF





OCDF Standards



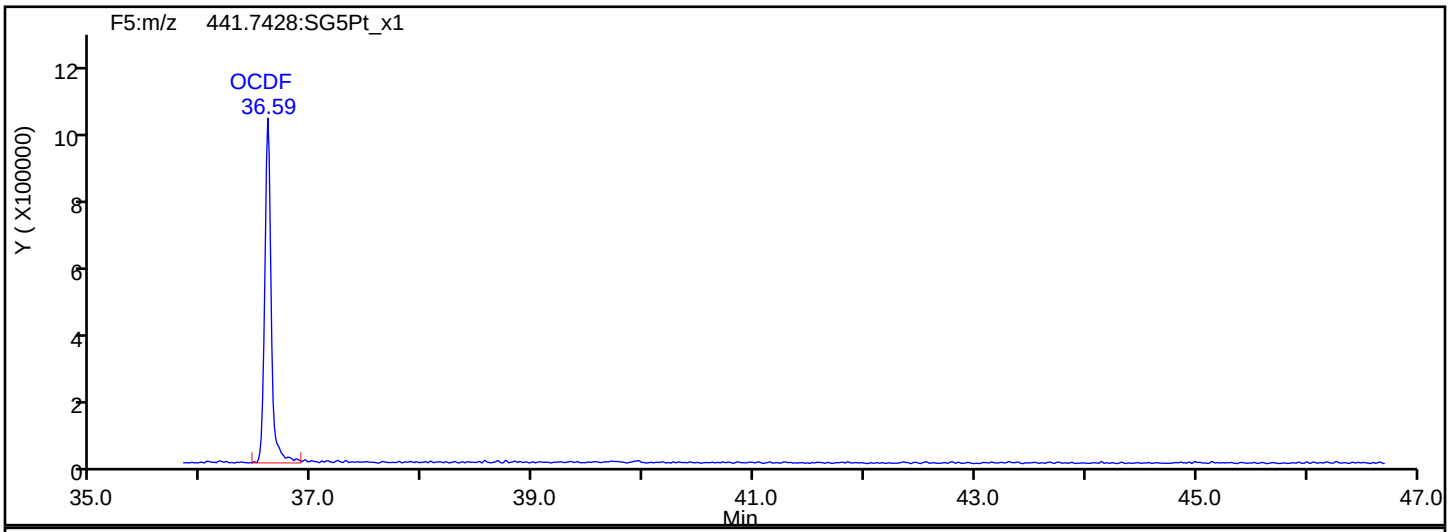


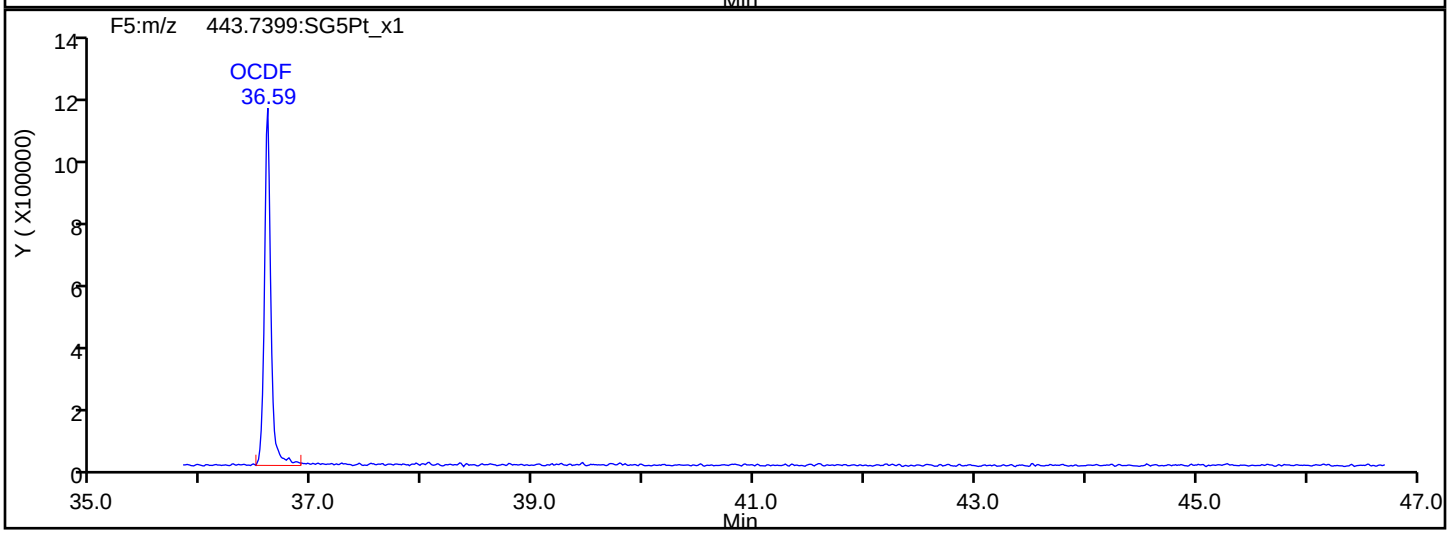
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

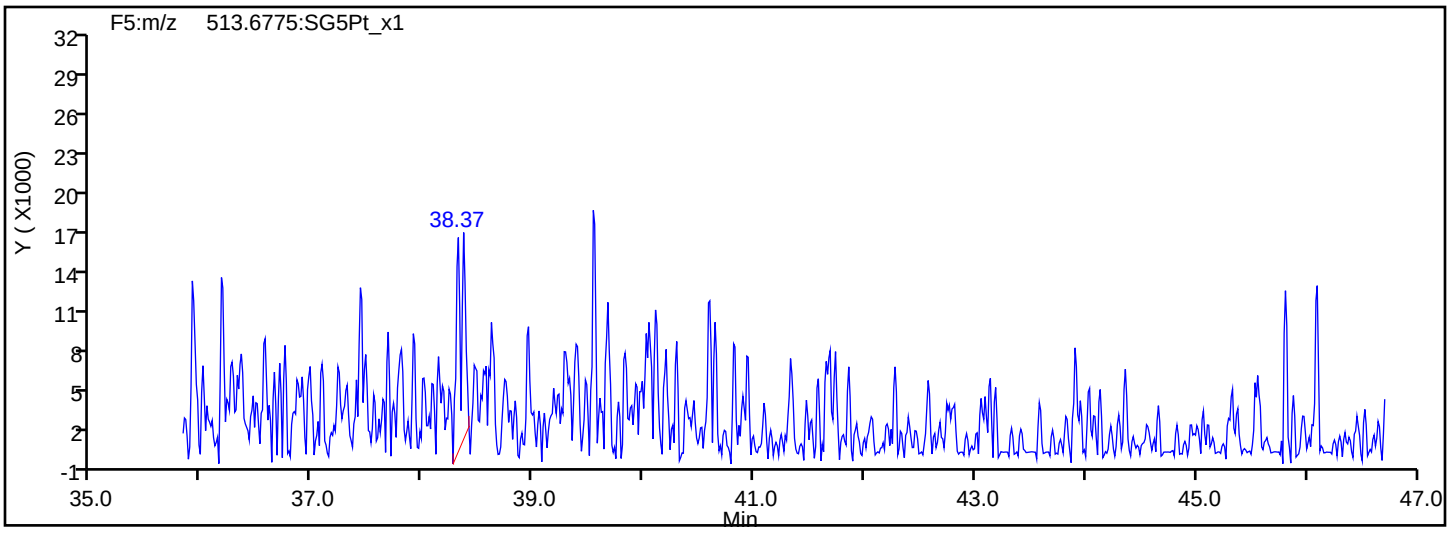
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

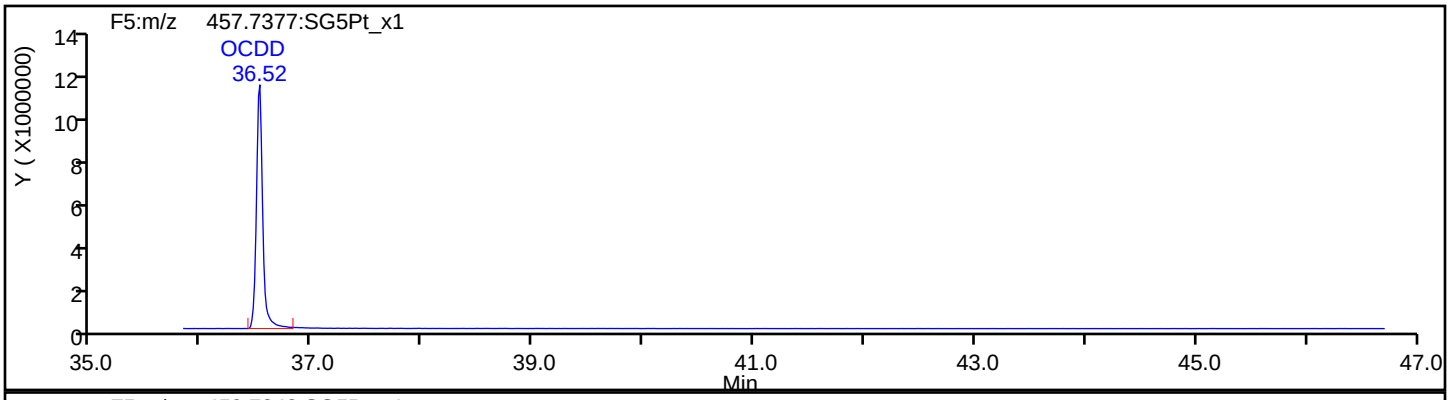


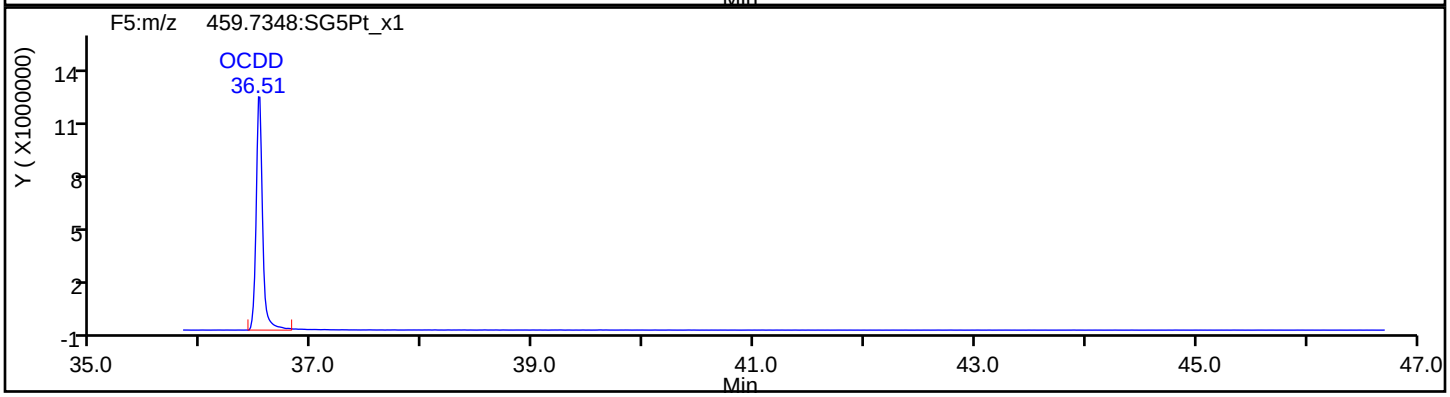
Report Date: 23-Jul-2019 10:58:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

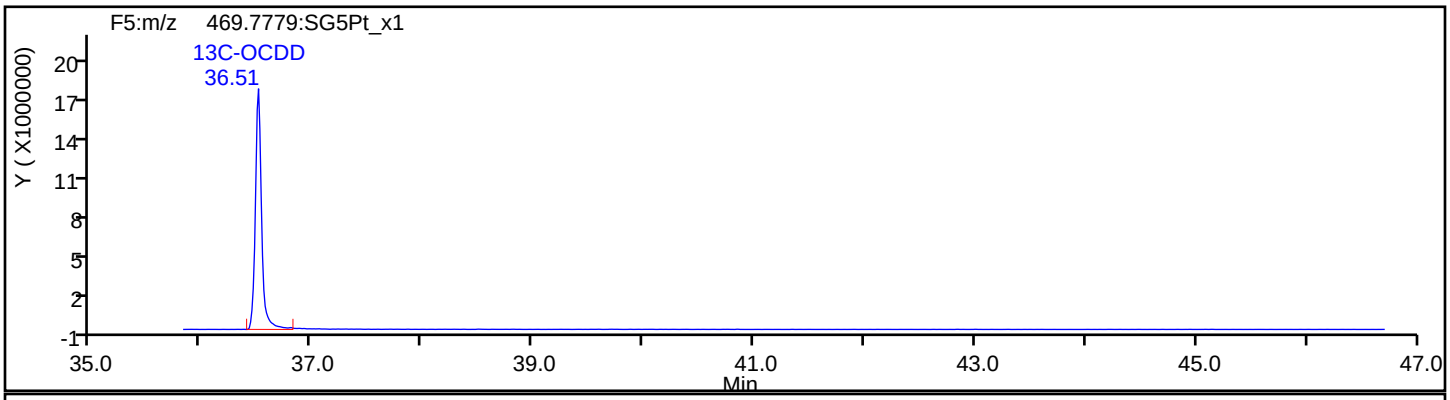
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm

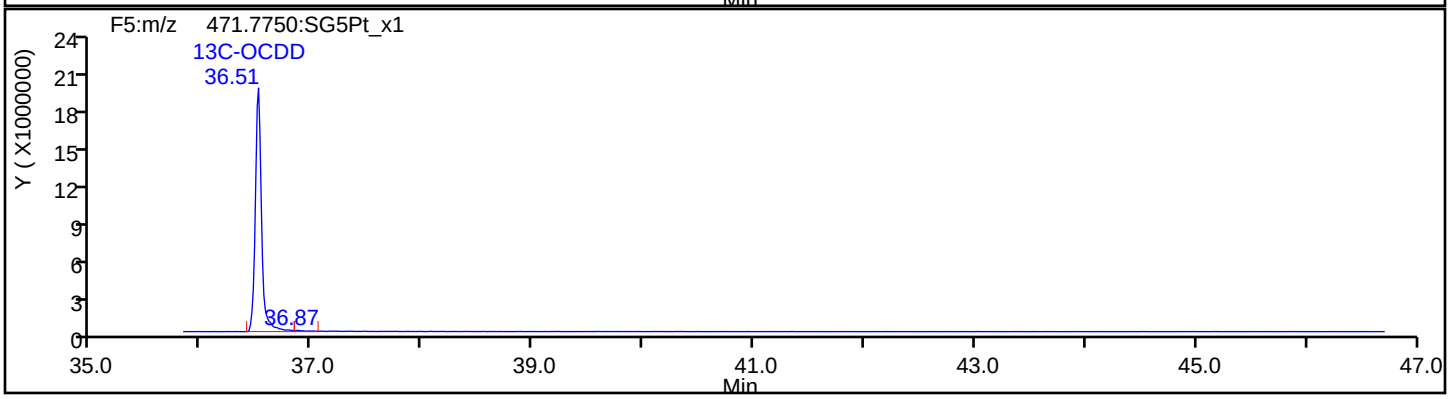
OCDD





OCDD Standards

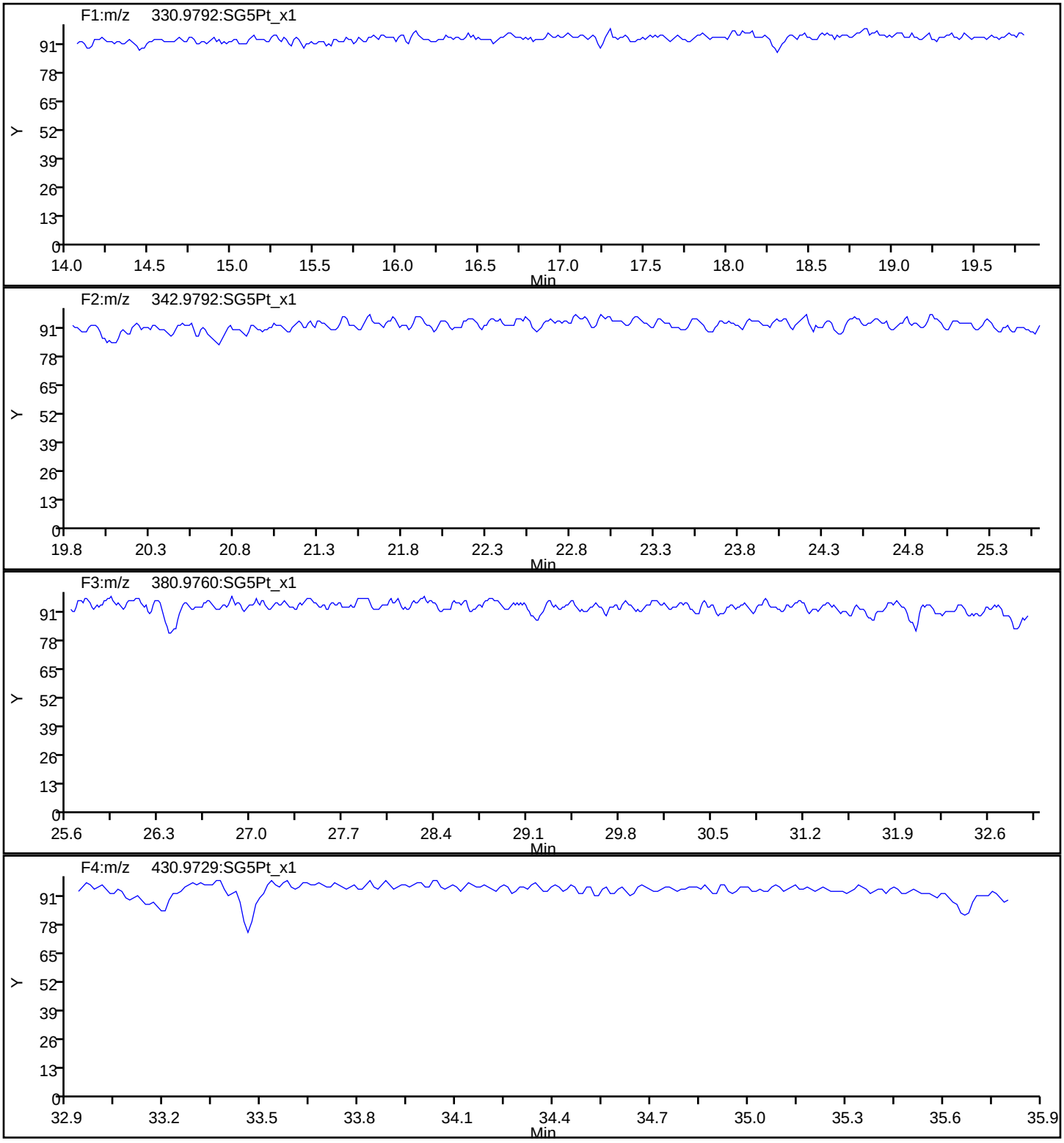




Report Date: 23-Jul-2019 10:58:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

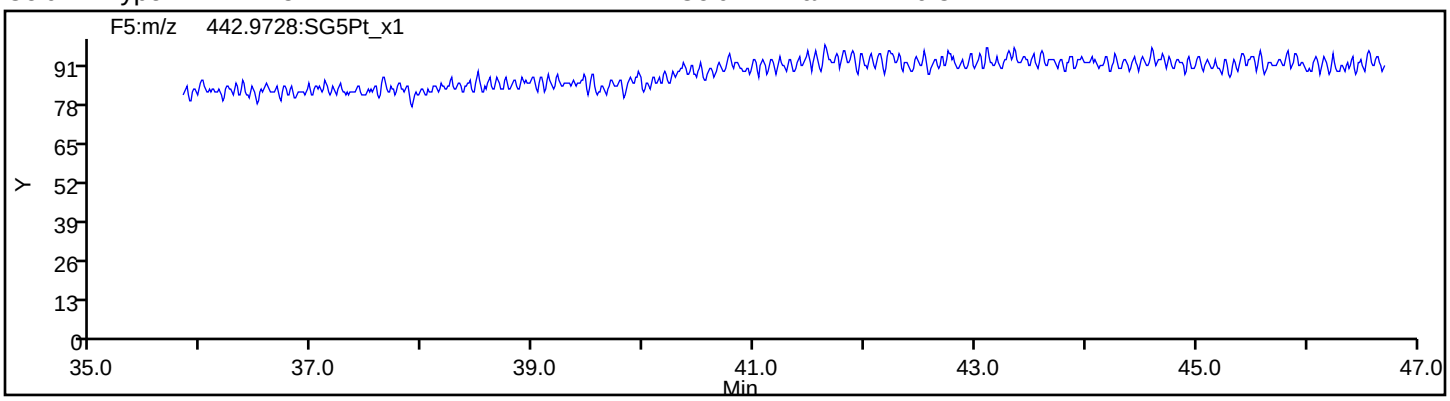
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 10:58:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_59.d		
Injection Date:	21-Jul-2019 23:53:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11_20190716		
Worklist#:	309103	Sample Line#:	59
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Matrix: Solid Lab File ID: 19JL19A3D5_60.d

Analysis Method: 1613B Date Collected: 07/16/2019 09:00

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.02(g) Date Analyzed: 07/22/2019 00:41

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.66	J	2.6	0.31
51207-31-9	2,3,7,8-TCDF	1.4	J	2.6	0.27
40321-76-4	1,2,3,7,8-PeCDD	ND		13	0.42
57117-41-6	1,2,3,7,8-PeCDF	ND		13	0.32
57117-31-4	2,3,4,7,8-PeCDF	ND		13	0.38
39227-28-6	1,2,3,4,7,8-HxCDD	1.1	J B	13	0.43
57653-85-7	1,2,3,6,7,8-HxCDD	2.5	J	13	0.41
19408-74-3	1,2,3,7,8,9-HxCDD	2.0	J	13	0.40
70648-26-9	1,2,3,4,7,8-HxCDF	2.8	J	13	0.56
57117-44-9	1,2,3,6,7,8-HxCDF	ND		13	0.60
72918-21-9	1,2,3,7,8,9-HxCDF	3.2	J B	13	0.29
60851-34-5	2,3,4,6,7,8-HxCDF	ND		13	0.37
35822-46-9	1,2,3,4,6,7,8-HpCDD	64	B	13	0.79
67562-39-4	1,2,3,4,6,7,8-HpCDF	14	q	13	0.49
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.4	J	13	0.57
3268-87-9	OCDD	570	B	26	0.70
39001-02-0	OCDF	45	B	26	0.46

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Matrix: Solid Lab File ID: 19JL19A3D5_60.d

Analysis Method: 1613B Date Collected: 07/16/2019 09:00

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.02(g) Date Analyzed: 07/22/2019 00:41

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	65		25-164
89059-46-1	13C-2,3,7,8-TCDF	67		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	68		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	69		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	67		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	58		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	62		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	67		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	60		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	62		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	70		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	70		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	70		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	78		26-138
114423-97-1	13C-OCDD	75		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	96		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 00:41:26 ALS Bottle#: 43 Worklist Smp#: 60
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-4-A 580-87706-C-4-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:00:27 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:44:31

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	217319218	0.85	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	202649064	0.81	1.3908	67.0	67.0	0.1585	0.1585	67.05	
2,3,7,8-TCDF	16.690	543148	0.88	0.9710	0.2760	0.2760	0.0514	0.0514		
A Non-2,3,7,8-sub-TCDF	16.402	727871	0.77	0.9710	0.3816	0.3699	0.0514	0.2718		RQ
S Total TCDF					0.6576	0.6459	0.0514	0.0514		RQ
D 13C-2,3,7,8-TCDD	17.340	139400767	0.83	0.9819	65.3	65.3	0.2840	0.2840	65.33	
2,3,7,8-TCDD	17.324	183555	0.77	1.0447	0.1260	0.1260	0.0593	0.0593		Ma
$ 37Cl4-2,3,7,8-TCDD	17.370	101514747		1.2205	38.3	38.3	0.0697	0.0697	95.68	
A Non-2,3,7,8-sub-TCDD	16.833	334344	0.77	1.0447	0.2484	0.2296	0.0593	0.2296		RQMa
S Total TCDD					0.3744	0.3556	0.0593	0.0593		RQ
D 13C-1,2,3,7,8-PeCDF	21.332	174086377	1.60	1.1585	69.1	69.1	0.2304	0.2304	69.15	
1,2,3,7,8-PeCDF	21.345						0.0613	0.0613		
D 13C-2,3,4,7,8-PeCDF	22.559	166691053	1.62	1.1532	66.5	66.5	0.2314	0.2314	66.52	
2,3,4,7,8-PeCDF	22.586						0.0723	0.0723		
A F1 PeCDFs	19.215	499281	1.55	0.9564	0.3410	0.3064	0.0504	0.3064		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	1011122	1.55	0.9564	0.6697	0.6205	0.0664	0.4757		RQ
S Total PeCDF					1.011	0.9268	0.0668	0.0668		RQ
D 13C-1,2,3,7,8-PeCDD	23.227	109241003	1.54	0.7431	67.6	67.6	0.1474	0.1474	67.64	
1,2,3,7,8-PeCDD	23.254						0.0796	0.0796		
A Non-2,3,7,8-sub-PeCDD	22.232	197569	1.55	1.0635	0.1963	0.1701	0.0796	0.1701		RQ
S Total PeCDD					0.1963	0.1701	0.0796	0.0796		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.128	133809720	0.54	0.9837	67.3	67.3	0.3268	0.3268	67.30	
1,2,3,4,7,8-HxCDF	29.142	859512	1.30	1.2173	0.5277	0.5277	0.1081	0.1081		
D 13C-1,2,3,6,7,8-HxCDF	29.421	140116288	0.49	1.1554	60.0	60.0	0.2783	0.2783	60.00	
1,2,3,6,7,8-HxCDF	29.462						0.1157	0.1157		
D 13C-2,3,4,6,7,8-HxCDF	30.660	129742807	0.53	1.0361	62.0	62.0	0.3103	0.3103	61.95	
2,3,4,6,7,8-HxCDF	30.687						0.0719	0.0719		
D 13C-1,2,3,7,8,9-HxCDF	31.672	128740749	0.52	0.9034	70.5	70.5	0.3559	0.3559	70.50	
1,2,3,7,8,9-HxCDF	31.685	925544	1.17	1.1787	0.6099	0.6099	0.0564	0.0564		
A Non-2,3,7,8-sub-HxCDF	29.135	4133519	1.24	1.1745	2.680	2.644	0.0808	1.312		RQ

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					3.818	3.782	0.0880	0.0880		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	202129198	1.26	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.926	97503430	1.29	0.8287	58.2	58.2	0.2227	0.2227	58.21	
1,2,3,4,7,8-HxCDD	30.953	217647	1.37	1.0267	0.2174	0.2174	0.0827	0.0827		
D 13C-1,2,3,6,7,8-HxCDD	31.059	118343230	1.28	0.9495	61.7	61.7	0.1944	0.1944	61.67	
1,2,3,6,7,8-HxCDD	31.086	549206	1.31	0.9771	0.4750	0.4750	0.0792	0.0792		
1,2,3,7,8,9-HxCDD	31.485	446765	1.19	1.0616	0.3899	0.3899	0.0763	0.0763		M
A Non-2,3,7,8-sub-HxCDD	29.926	2957774	1.26	1.0218	2.682	2.682	0.0793	1.464		
S Total HxCDD					3.765	3.765	0.0794	0.0794		
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	103067370	0.46	0.7285	70.0	70.0	0.6190	0.6190	69.99	
1,2,3,4,6,7,8-HpCDF	33.335	3868441	1.04	1.4373	2.972	2.611	0.0945	0.0945		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	103245090	0.44	0.6556	77.9	77.9	0.6878	0.6878	77.91	
1,2,3,4,7,8,9-HpCDF	34.429	375433	0.94	1.3091	0.2778	0.2778	0.1085	0.1085		
A Non-2,3,7,8-sub-HpCDF	33.894	7587868	1.11	1.3732	5.357	5.357	0.1011	5.357		
S Total HpCDF					8.606	8.246	0.1015	0.1015		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	99393534	1.07	0.6978	70.5	70.5	0.2989	0.2989	70.46	
1,2,3,4,6,7,8-HpCDD	34.150	12306436	1.12	1.0102	12.3	12.3	0.1525	0.1525		
A Non-2,3,7,8-sub-HpCDD	35.074	13594167	1.05	1.0102	13.5	13.5	0.1525	13.5		a
S Total HpCDD					25.8	25.8	0.1525	0.1525		
D 13C-OCDD	36.498	145590059	0.91	0.4780	150.7	150.7	0.2440	0.2440	75.35	
OCDF	36.581	8527166	0.89	1.3501	8.676	8.676	0.0878	0.0878		
OCDD	36.509	85309469	0.88	1.0627	110.3	110.3	0.1347	0.1347		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 00:41:26 ALS Bottle#: 43 Worklist Smp#: 60
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-4-A 580-87706-C-4-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:00:27 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:44:31

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		99546901	25964903	32676	81690	795		
333.9339	17.158	17.158	0		117772317	30242323	30017	75042	1008	0.85(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.973	90502134	22673923	24851	62127	912		
317.9389	16.690	16.690	0	0.973	112146930	27921429	24715	61787	1130	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.690	16.705	-1	1.000	253969	56608	4242	10605	13		
305.8987	16.690	16.705	-1	1.000	289179	59700	5868	14670	10	0.88(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.905	16.402	-90	0.893	107036	28747	4242	10605	7		
	Empc Correction				83997	27185	4242	10605	6		
305.8987	14.905	16.402	-90	0.893	109088	35306	5868	14670	6	0.98(0.65-0.89)	
303.9016	16.342	16.402	-4	0.979	237442	58580	4242	10605	14		
305.8987	16.342	16.402	-4	0.979	297344	66307	5868	14670	11	0.80(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.011	63349881	14787667	32676	81690	453		
333.9339	17.340	17.355	-1	1.011	76050886	17646189	30017	75042	588	0.83(0.65-0.89)	
2,3,7,8-TCDD											Ma
319.8965	17.324	17.355	-2	0.999	79946	14841	5409	13522	3		M
321.8936	17.370	17.355	1	1.002	103609	31838	2622	6555	12	0.77(0.65-0.89)	M
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.012	101514747	23571502	19139	47847	1232		
A Non-2,3,7,8-sub-TCDD											RQMa

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
319.8965	17.264	16.833	26	0.996	172868	35509	5409	13522	7		M
	Empc Correction				145449	31574	5409	13522	6		
321.8936	17.279	16.833	27	0.997	188895	41006	2622	6555	16	0.92(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.332	21.332	0	1.243	107148568	19697831	36308	90770	543		
353.8970	21.332	21.332	0	1.243	66937809	12310756	23699	59247	519	1.60(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.345						2479	6197			
341.8567	21.345						5080	12700			
13C-2,3,4,7,8-PeCDF											
351.9000	22.559	22.559	0	1.315	102992317	16969481	36308	90770	467		
353.8970	22.559	22.559	0	1.315	63698736	10550198	23699	59247	445	1.62(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586						2479	6197			
341.8567	22.586						5080	12700			
A F1 PeCDFs											RQ
339.8597	18.685	19.215	-32	0.876	303485	63493	1580	3950	40		
341.8567	18.670	19.215	-33	0.875	252251	48914	4164	10410	12	1.20(1.32-1.78)	
	Empc Correction				195796	40963	4164	10410	10		
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.118	22.104	-119	0.943	468243	81815	2479	6197	33		
341.8567	20.091	22.104	-121	0.942	306894	46927	5080	12700	9	1.53(1.32-1.78)	
339.8597	20.841	22.104	-76	0.977	143442	18560	2479	6197	7		
341.8567	20.827	22.104	-76	0.976	172706	24554	5080	12700	5	0.83(1.32-1.78)	
	Empc Correction				92543	11974	5080	12700	2		
13C-1,2,3,7,8-PeCDD											
367.8949	23.227	23.227	0	1.354	66235971	10699223	14654	36635	730		
369.8919	23.227	23.227	0	1.354	43005032	6991501	9975	24937	701	1.54(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4242	10605			
357.8516	23.254						1749	4372			
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.295	22.232	-116	0.874	120091	22564	4242	10605	5		
357.8516	20.295	22.232	-116	0.874	107932	20164	1749	4372	12	1.11(1.32-1.78)	
	Empc Correction				77478	14557	1749	4372	8		
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.128	29.115	1	0.926	46707431	5347689	20109	50272	266		
385.8610	29.128	29.115	1	0.926	87102289	9953621	36119	90297	276	0.54(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.142	29.155	-1	1.000	485849	50186	3809	9522	13		
375.8178	29.128	29.155	-2	1.000	373663	45495	4246	10615	11	1.30(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.421	29.421	0	0.935	46233375	5130587	20109	50272	255		
385.8610	29.435	29.421	1	0.935	93882913	10261697	36119	90297	284	0.49(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.462						3809	9522			
375.8178	29.462						4246	10615			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.660	30.660	0	0.974	44948010	8340718	20109	50272	415		
385.8610	30.660	30.660	0	0.974	84794797	15583937	36119	90297	431	0.53(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.687						3809	9522			
375.8178	30.687						4246	10615			
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.006	44248461	10319014	20109	50272	513		
385.8610	31.672	31.672	0	1.006	84492288	19971550	36119	90297	553	0.52(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	498515	102260	3809	9522	27		
375.8178	31.685	31.685	0	1.000	427029	80862	4246	10615	19	1.17(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQ
373.8208	26.492	29.135	-158	0.909	279465	41156	3809	9522	11		
	Empc Correction				223317	35807	3809	9522	9		
375.8178	26.492	29.135	-158	0.909	180095	28877	4246	10615	7	1.55(1.05-1.43)	
373.8208	26.852	29.135	-137	0.922	927512	113681	3809	9522	30		
375.8178	26.865	29.135	-136	0.922	751045	108346	4246	10615	26	1.23(1.05-1.43)	
373.8208	28.077	29.135	-63	0.964	1114997	147725	3809	9522	39		
375.8178	28.077	29.135	-63	0.964	936553	111045	4246	10615	26	1.19(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		112878312	24359662	17326	43315	1406		
403.8529	31.459	31.472	-1		89250886	19362012	14955	37387	1295	1.26(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.926	30.926	0	0.983	54950043	11814318	17326	43315	682		
403.8529	30.926	30.926	0	0.983	42553387	9137298	14955	37387	611	1.29(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.953	30.953	0	1.001	125949	32384	3251	8127	10		
391.8127	30.953	30.953	0	1.001	91698	25237	3866	9665	7	1.37(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	66389179	12754791	17326	43315	736		
403.8529	31.059	31.059	0	0.987	51954051	10231127	14955	37387	684	1.28(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.086	31.086	0	1.001	311167	60882	3251	8127	19		
391.8127	31.073	31.086	-1	1.000	238039	54390	3866	9665	14	1.31(1.05-1.43)	
1,2,3,7,8,9-HxCDD											M
389.8157	31.485	31.485	0	1.018	242520	48000	3251	8127	15		M
391.8127	31.472	31.485	-1	1.018	204245	30669	3866	9665	8	1.19(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.957	29.926	-118	0.900	739395	89244	3251	8127	27		
391.8127	27.930	29.926	-120	0.899	603462	83225	3866	9665	22	1.23(1.05-1.43)	
389.8157	29.914	29.926	-1	0.963	912454	121669	3251	8127	37		
391.8127	29.941	29.926	1	0.964	702463	75840	3866	9665	20	1.30(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	32384449	9780706	25379	63447	385		
419.8220	33.323	33.335	-1	1.059	70682921	21372138	53484	133710	400	0.46(0.37-0.51)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.335	33.347	-1	1.000	2505826	814490	10285	25712	79		
	Empc Correction				1972146	617041	10285	25712	60		
409.7789	33.335	33.347	-1	1.000	1896295	593309	6642	16605	89	1.32(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	31463612	9219786	25379	63447	363		
419.8220	34.417	34.429	-1	1.094	71781478	20582907	53484	133710	385	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.441	-1	1.000	181782	59303	10285	25712	6		
409.7789	34.429	34.441	-1	1.000	193651	64944	6642	16605	10	0.94(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.639	33.894	-15	1.009	3985635	1270210	10285	25712	124		
409.7789	33.639	33.894	-15	1.009	3602233	1139449	6642	16605	172	1.11(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.085	51446849	14986265	17790	44475	842		
437.8140	34.138	34.150	-1	1.085	47946685	14153426	18685	46712	757	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	6497429	1984609	10406	26015	191		
425.7737	34.150	34.162	-1	1.000	5809007	1790973	7545	18862	237	1.12(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.591	35.074	-89	0.984	6955676	2121260	10406	26015	204		a
425.7737	33.591	35.074	-89	0.984	6638491	2080664	7545	18862	276	1.05(0.88-1.20)	
13C-OCDD											
469.7779	36.498	36.498	0	1.160	69260269	17257757	11185	27962	1543		
471.7750	36.498	36.498	0	1.160	76329790	18681189	9209	23022	2029	0.91(0.76-1.02)	
OCDF											
441.7428	36.581	36.582	0	1.002	4023142	1009756	3373	8432	299		
443.7399	36.581	36.582	0	1.002	4504024	1157149	5146	12865	225	0.89(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	39893556	9847102	5010	12525	1965		
459.7348	36.498	36.509	-1	1.000	45415913	11132326	5281	13202	2108	0.88(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Report Date: 23-Jul-2019 11:00:30 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	202649064	50595352

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	202649064	50595352

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.905	107036	28747	109088	35306	0.1098	0.98	RQ
14.905	83997	27185	109088	35306	0.0981		Empc Correction
16.342	237442	58580	297344	66307	0.2718	0.80	
Signal Totals:							
	321439	85765	406432	101613			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	750910	188940				0.85	RQ
	727871	187378					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3816 = (750910 * 100.000) / (202649064 * 0.971)
Empc Amount: 0.3699 = (727871 * 100.000) / (202649064 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	139400767	32433856

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	139400767	32433856

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.264	172868	35509	188895	41006	0.2484	0.92	RQMa
17.264	145449	31574	188895	41006	0.2296		Empc Correction
Signal Totals:							
	145449	31574	188895	41006			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	361763	76515				0.92	RQMa
	334344	72580					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2484 = (361763 * 100.000) / (139400767 * 1.045)
Empc Amount: 0.2296 = (334344 * 100.000) / (139400767 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	174086377	32008587
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	166691053	27519679

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	170388715	29764133

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	303485	63493	252251	48914	0.3410	1.20	RQ
18.685	303485	63493	195796	40963	0.3064		Empc Correction
Signal Totals:							
	303485	63493	195796	40963			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	555736	112407				1.20	RQ
	499281	104456					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3410 = (555736 * 100.000) / (170388715 * 0.956)
Empc Amount: 0.3064 = (499281 * 100.000) / (170388715 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	174086377	32008587
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	166691053	27519679

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	170388715	29764133

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	468243	81815	306894	46927	0.4757	1.53	
20.841	143442	18560	172706	24554	0.1940	0.83	RQ
20.841	143442	18560	92543	11974	0.1448		Empc Correction
Signal Totals:							
	611685	100375	399437	58901			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1091285	171856				1.28	RQ
	1011122	159276					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6697 = (1091285 * 100.000) / (170388715 * 0.956)
Empc Amount: 0.6205 = (1011122 * 100.000) / (170388715 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	109241003	17690724

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	109241003	17690724

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.295	120091	22564	107932	20164	0.1963	1.11	RQ
20.295	120091	22564	77478	14557	0.1701		Empc Correction
Signal Totals:							
	120091	22564	77478	14557			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	228023	42728				1.11	RQ
	197569	37121					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1963 = (228023 * 100.000) / (109241003 * 1.063)
Empc Amount: 0.1701 = (197569 * 100.000) / (109241003 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	133809720	15301310
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	140116288	15392284
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	129742807	23924655
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	128740749	30290564

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	133102391	21227203

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.492	279465	41156	180095	28877	0.2940	1.55	RQ
26.492	223317	35807	180095	28877	0.2580		Empc Correction
26.852	927512	113681	751045	108346	1.07	1.23	
28.077	1114997	147725	936553	111045	1.31	1.19	
Signal Totals:							
	2265826	297213	1867693	248268			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	4189667	550830				1.24	RQ
	4133519	545481					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.680 = (4189667 * 100.000) / (133102391 * 1.175)
Empc Amount: 2.644 = (4133519 * 100.000) / (133102391 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	97503430	20951616
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	118343230	22985918
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	107923330	21968767

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.957	739395	89244	603462	83225	1.22	1.23	
29.914	912454	121669	702463	75840	1.46	1.30	
Signal Totals:							
	1651849	210913	1305925	159065			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2957774	369978				1.26	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.682 = (2957774 * 100.000) / (107923330 * 1.022)

Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	103067370	31152844
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	103245090	29802693

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	103156230	30477768

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.639	3985635	1270210	3602233	1139449	5.36	1.11	
Signal Totals:							
	3985635	1270210	3602233	1139449			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	7587868	2409659				1.11	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.357 = (7587868 * 100.000) / (103156230 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d
Lims ID: 580-87706-C-4-A
Client ID: 22T-SG-11-D_20190716
Inject. Date: 22-Jul-2019 00:41:26 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 60

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	99393534	29139691

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	99393534	29139691

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.591	6955676	2121260	6638491	2080664	13.5	1.05	a
Signal Totals:							
	6955676	2121260	6638491	2080664			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	13594167	4201924				1.05	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 13.539 = (13594167 * 100.000) / (99393534 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

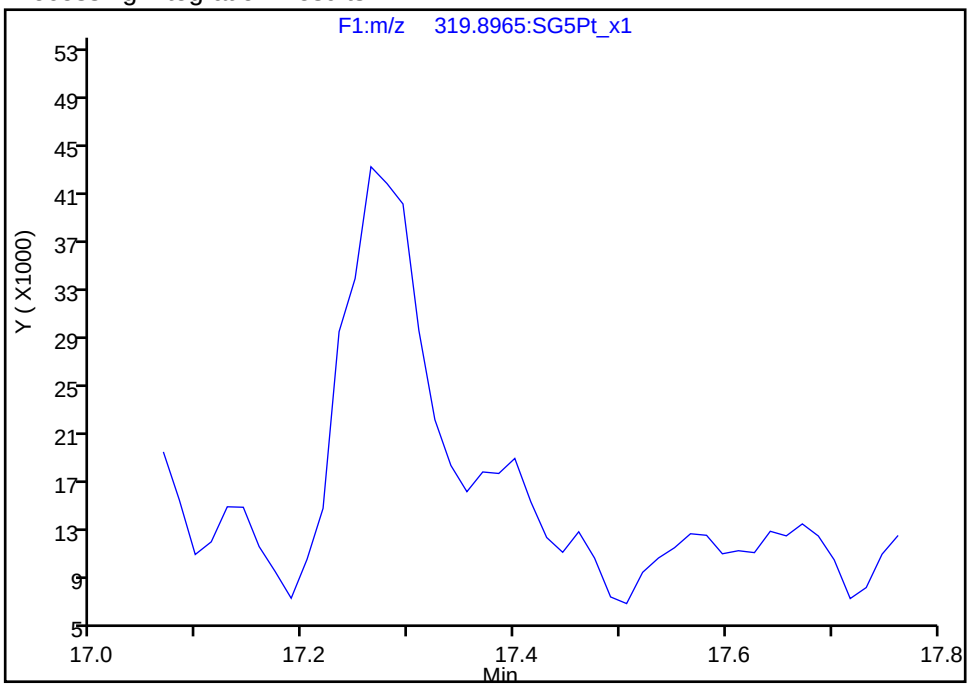
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d				
Injection Date:	22-Jul-2019 00:41:26	Instrument ID:	3D5		
Lims ID:	580-87706-C-4-A	Lab Sample ID:	320-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	43	Worklist Smp#:	60
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

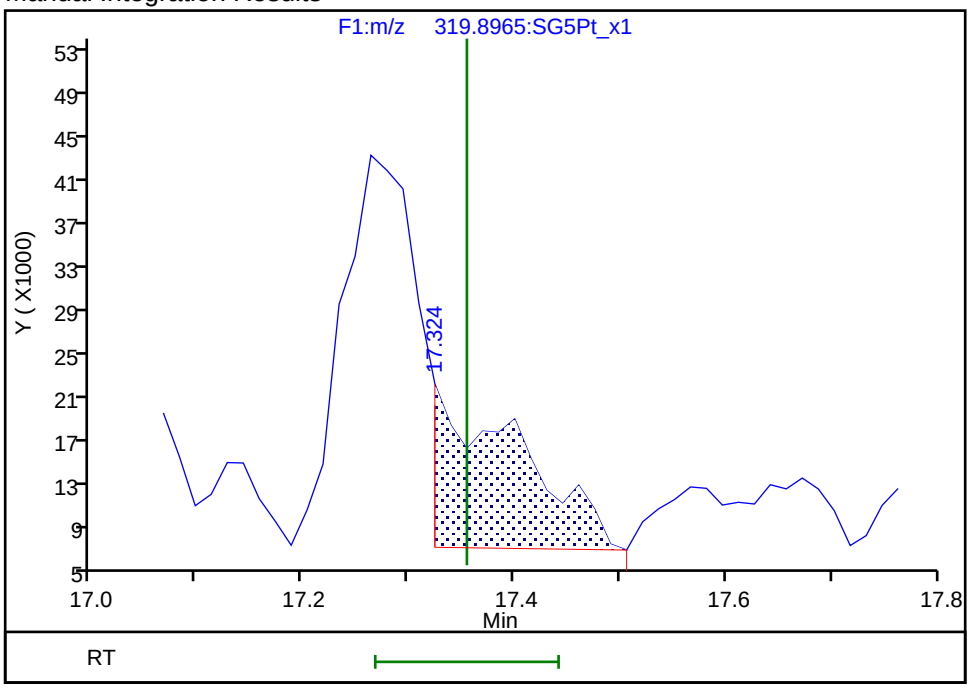
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.32
Area: 79946
Amount: 0.126038
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:58:45
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

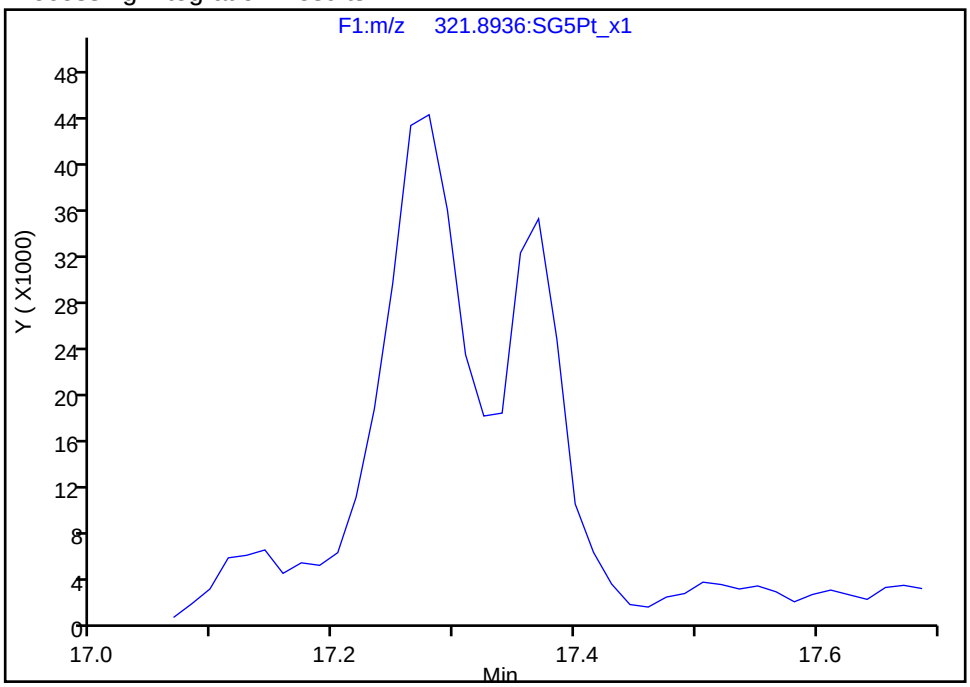
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d				
Injection Date:	22-Jul-2019 00:41:26	Instrument ID:	3D5		
Lims ID:	580-87706-C-4-A	Lab Sample ID:	320-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	43	Worklist Smp#:	60
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

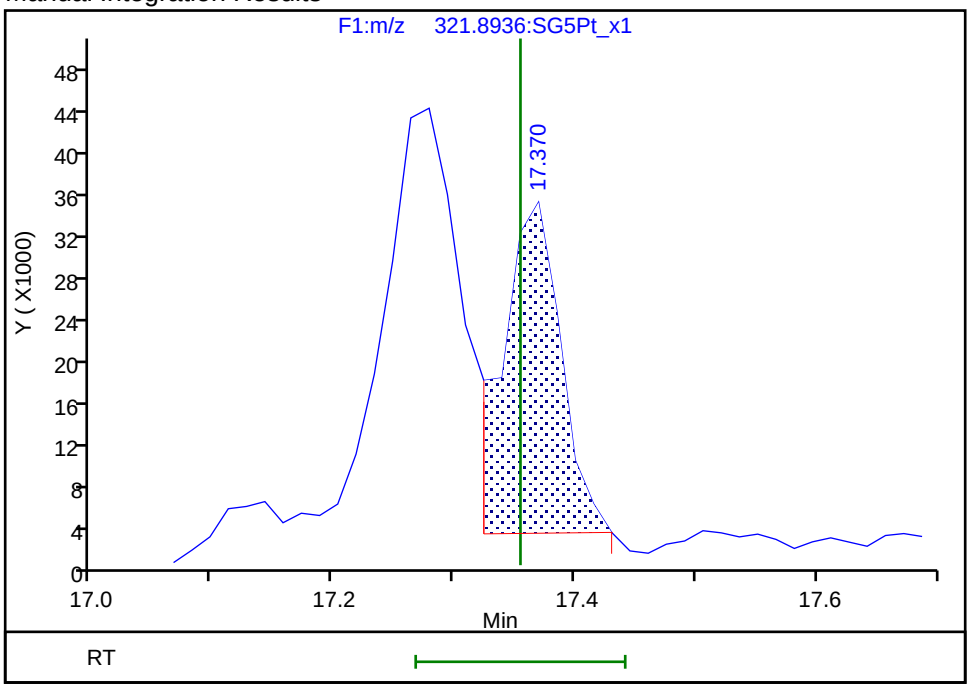
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.37
Area: 103609
Amount: 0.126038
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:58:47
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

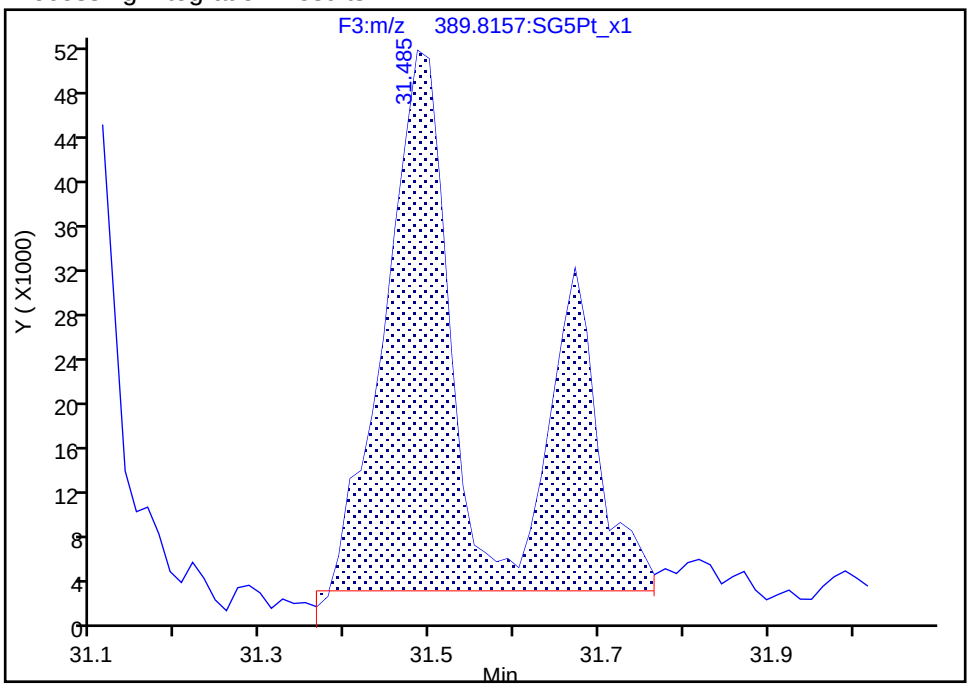
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d				
Injection Date:	22-Jul-2019 00:41:26	Instrument ID:	3D5		
Lims ID:	580-87706-C-4-A	Lab Sample ID:	320-87706-4		
Client ID:	22T-SG-11-D_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	43	Worklist Smp#:	60
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDD, CAS: 19408-74-3

Signal: 1

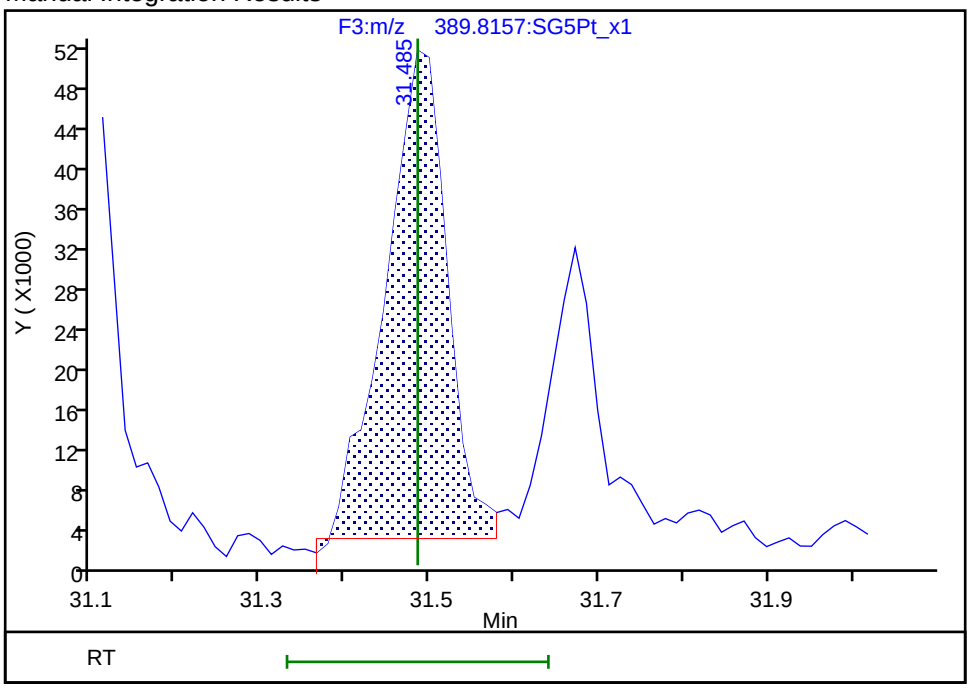
Processing Integration Results

RT: 31.49
Area: 359578
Amount: 0.492119
Amount Units: pg/ul



Manual Integration Results

RT: 31.49
Area: 242520
Amount: 0.389948
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:59:36

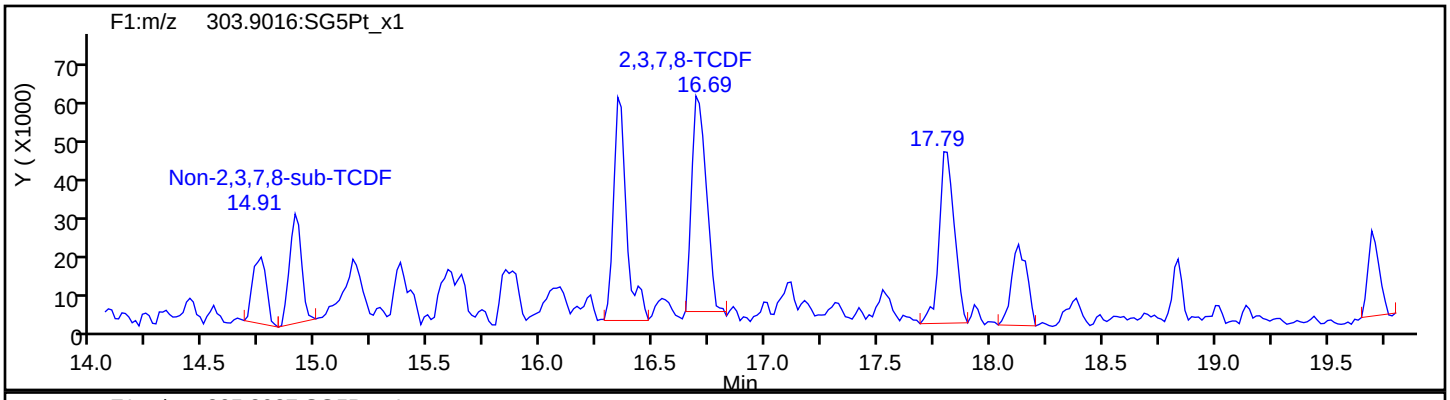
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

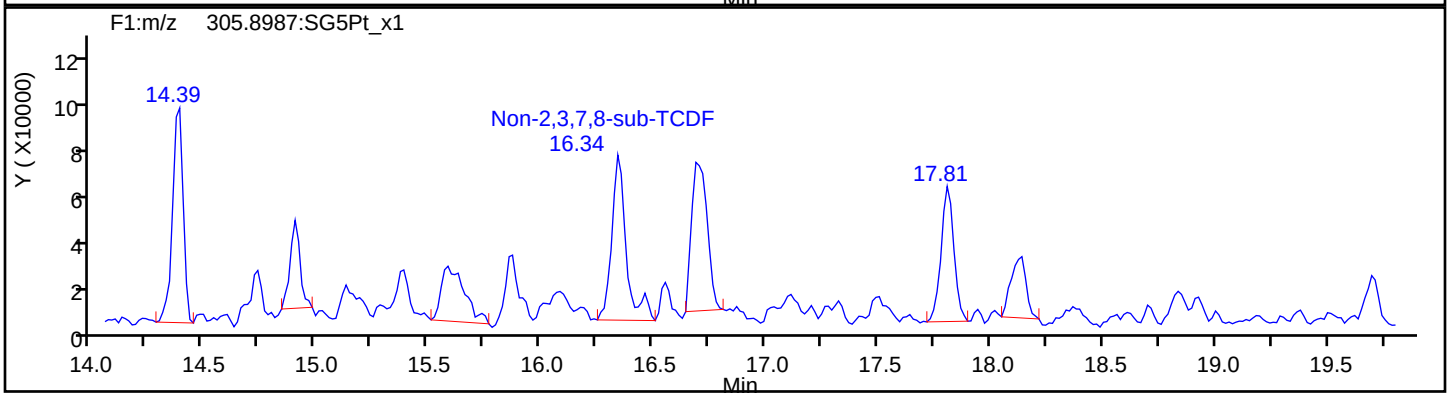
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

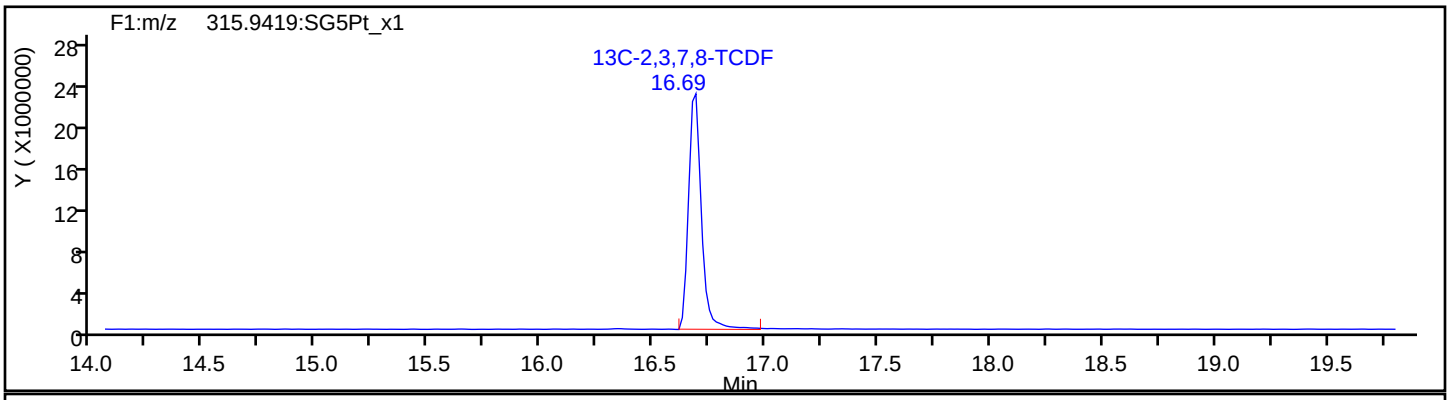
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

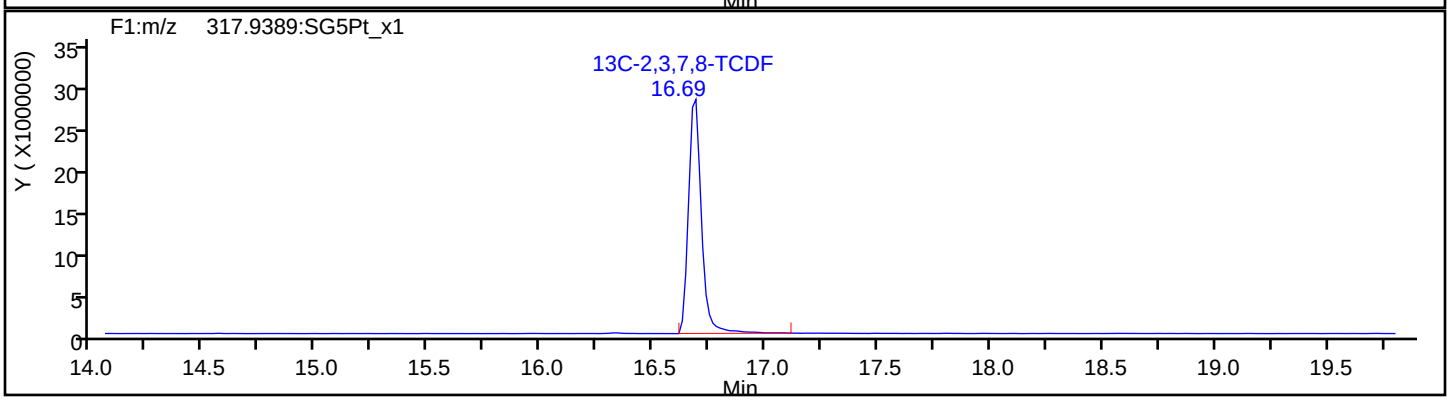
TCDF





TCDF Standards



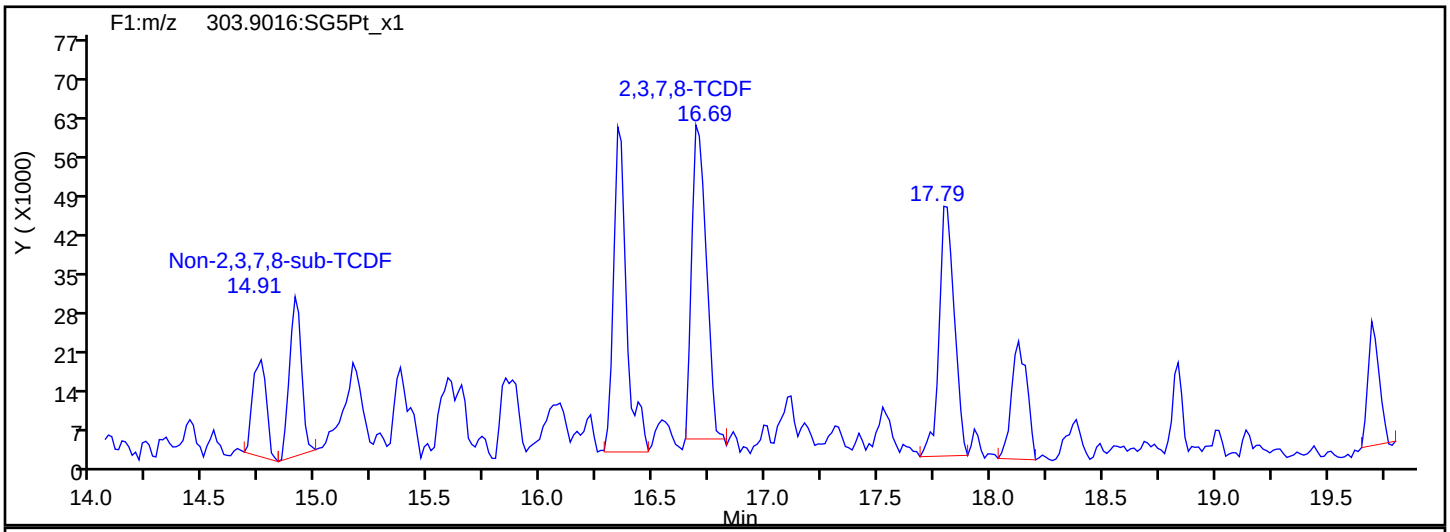


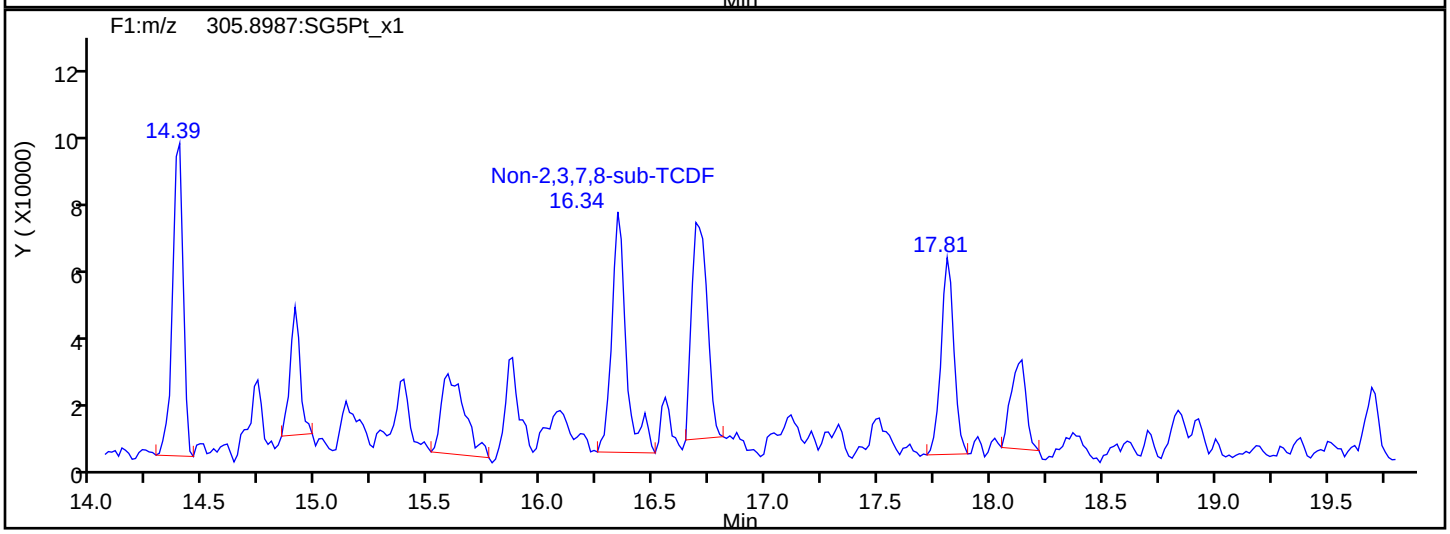
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

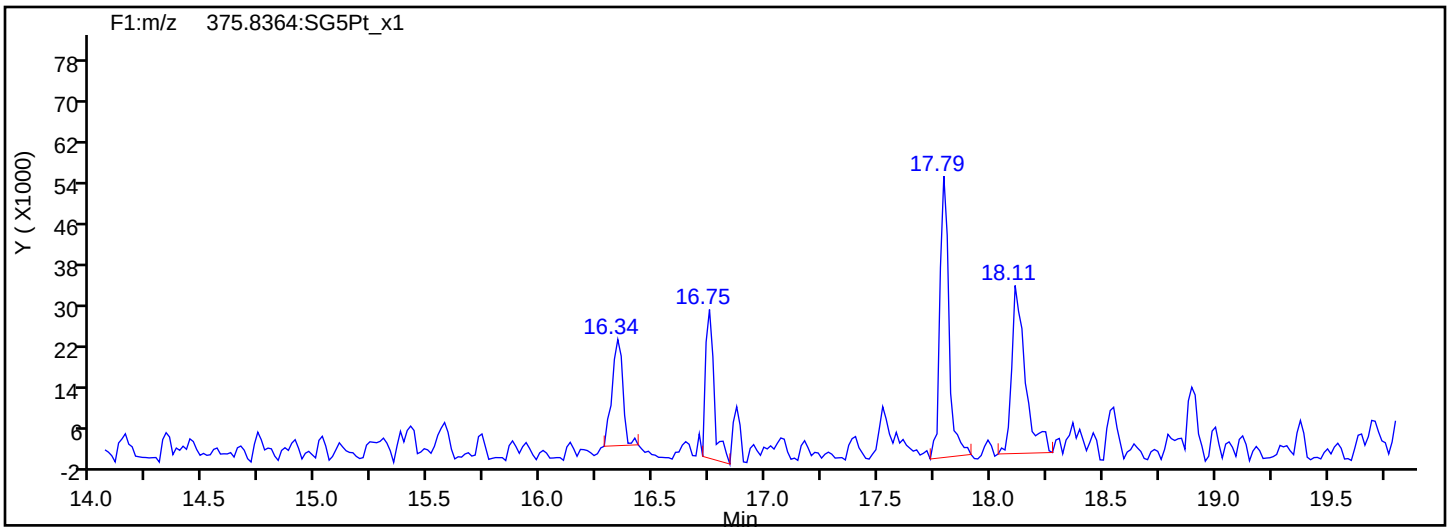
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

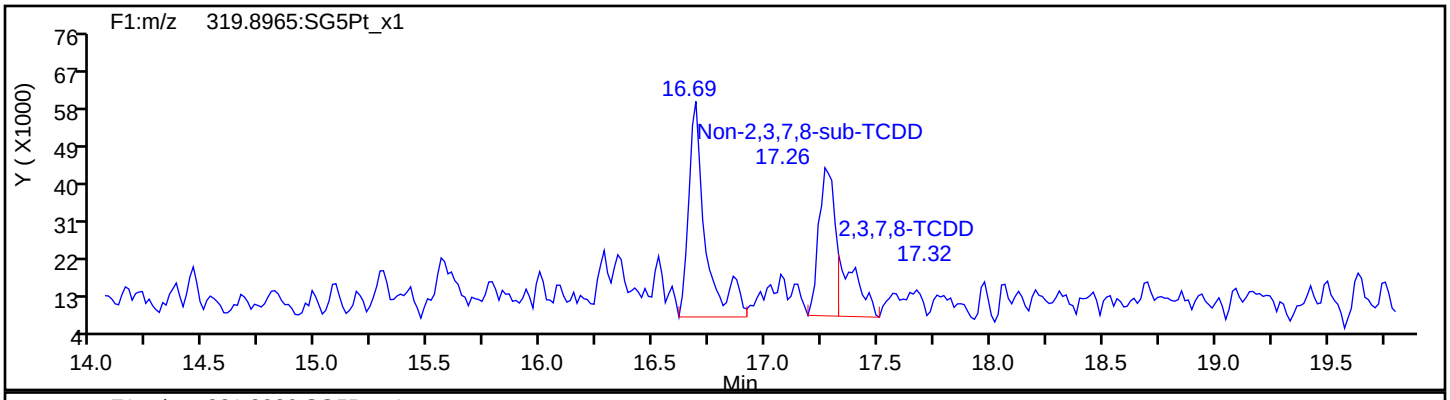


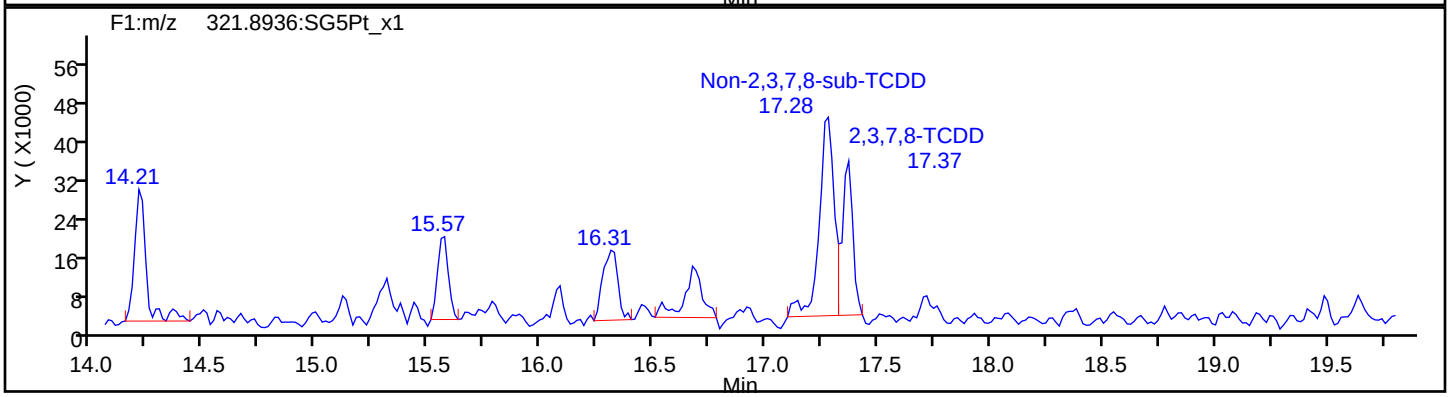
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

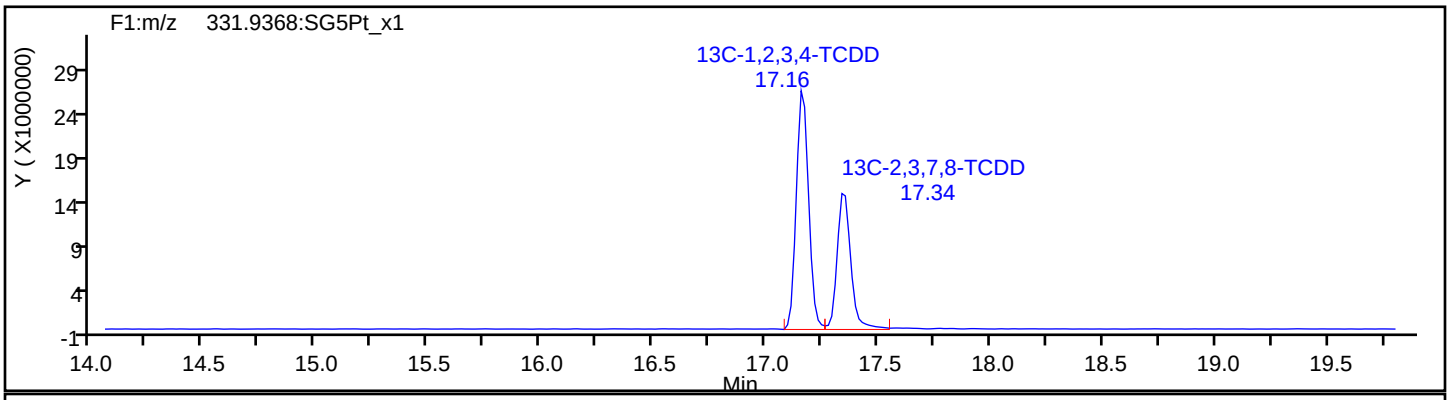
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

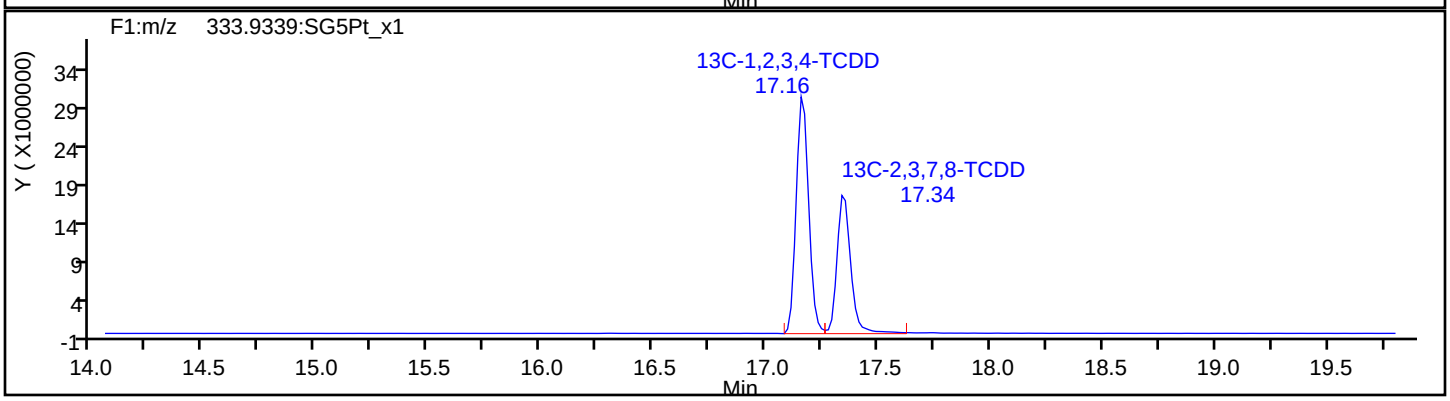
TCDD





TCDD Standards



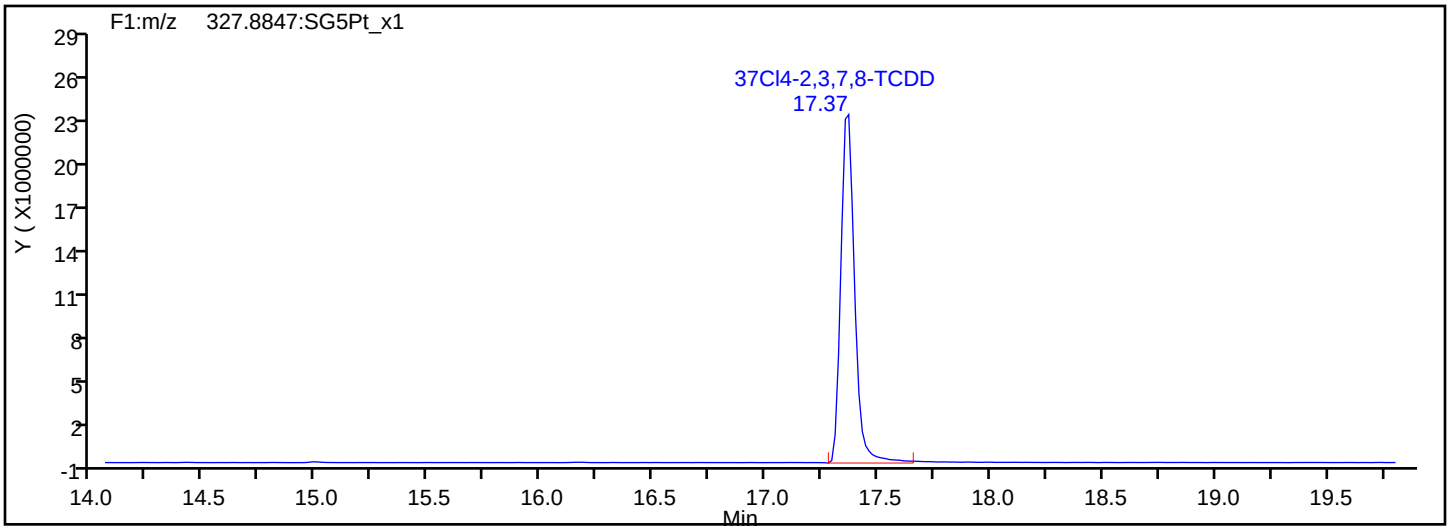


Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

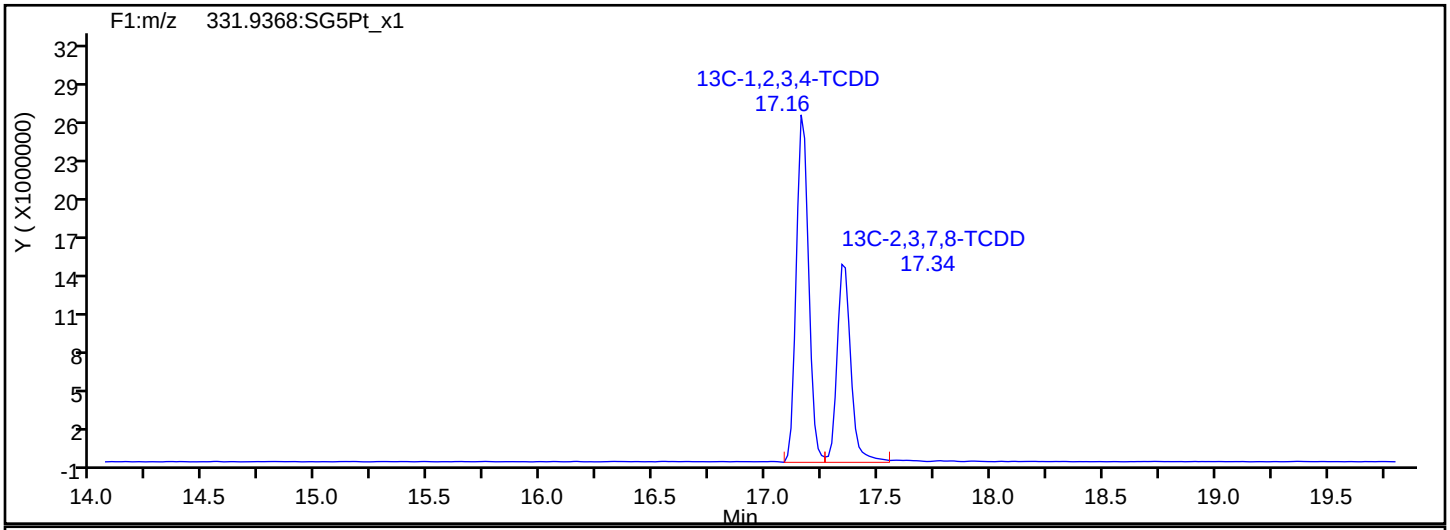
Eurofins TestAmerica, Sacramento

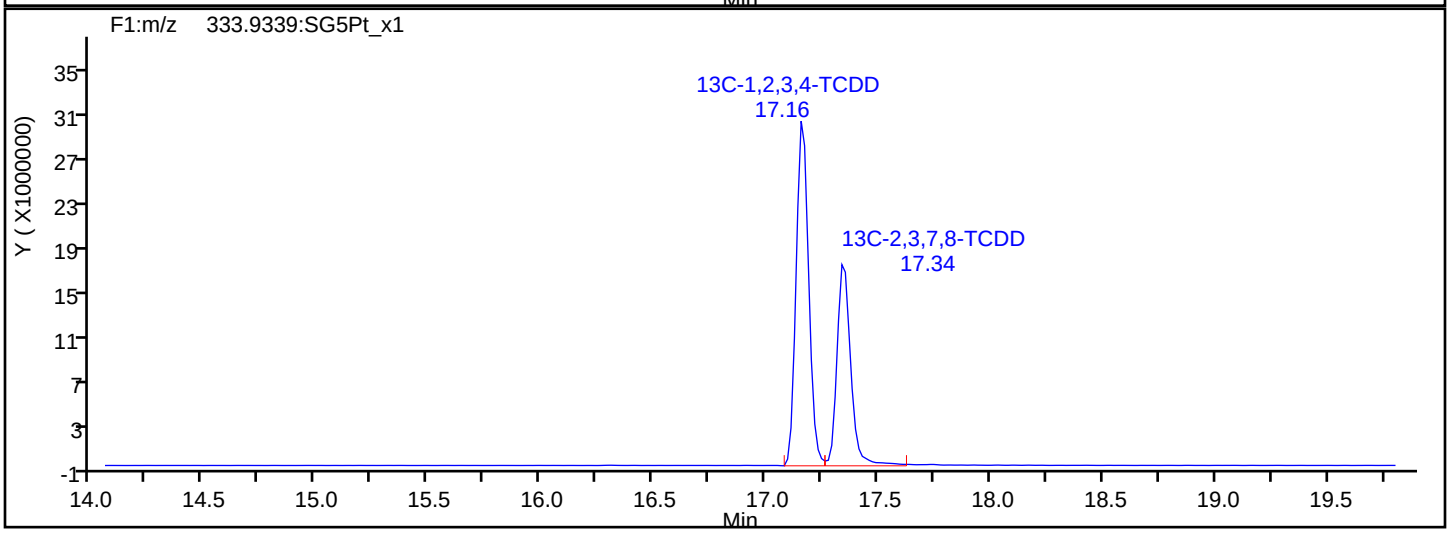
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



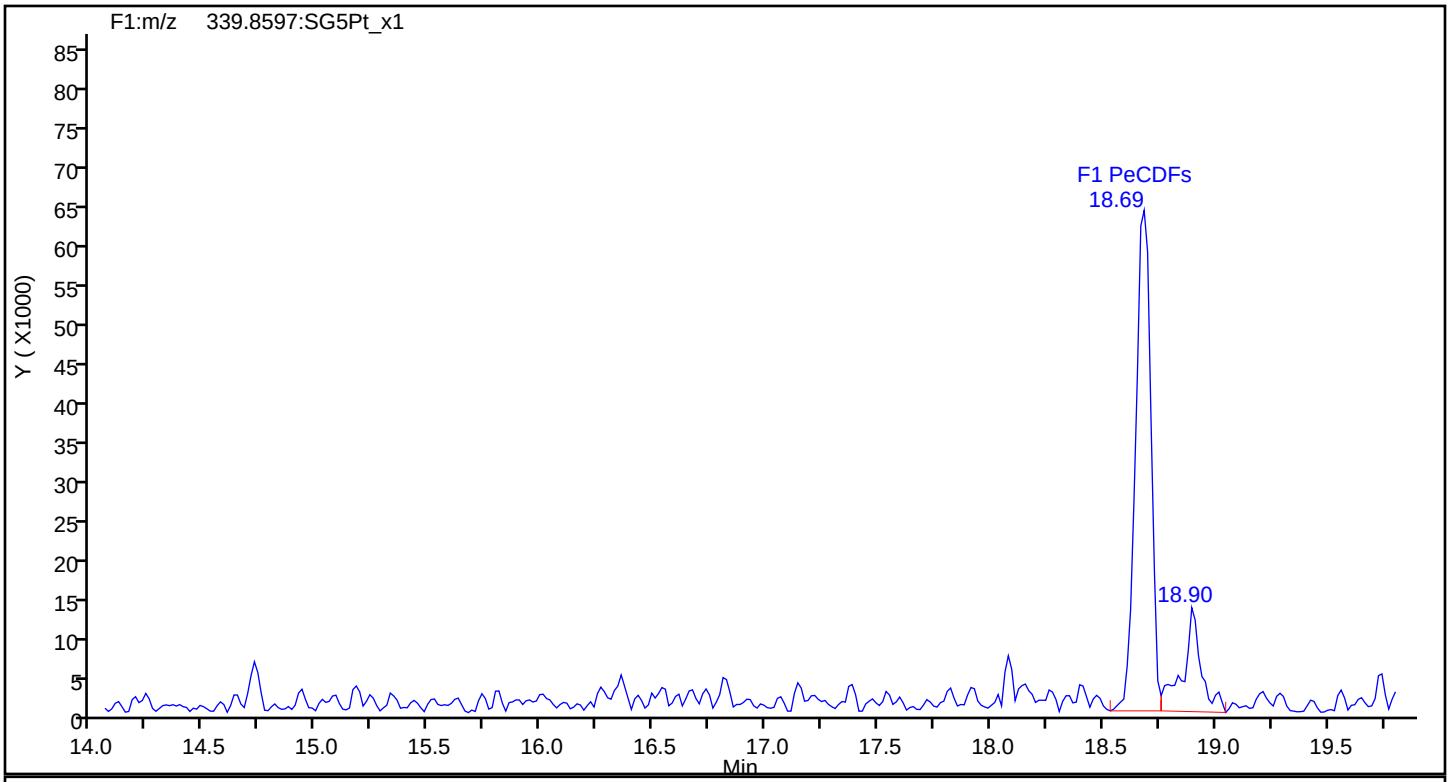


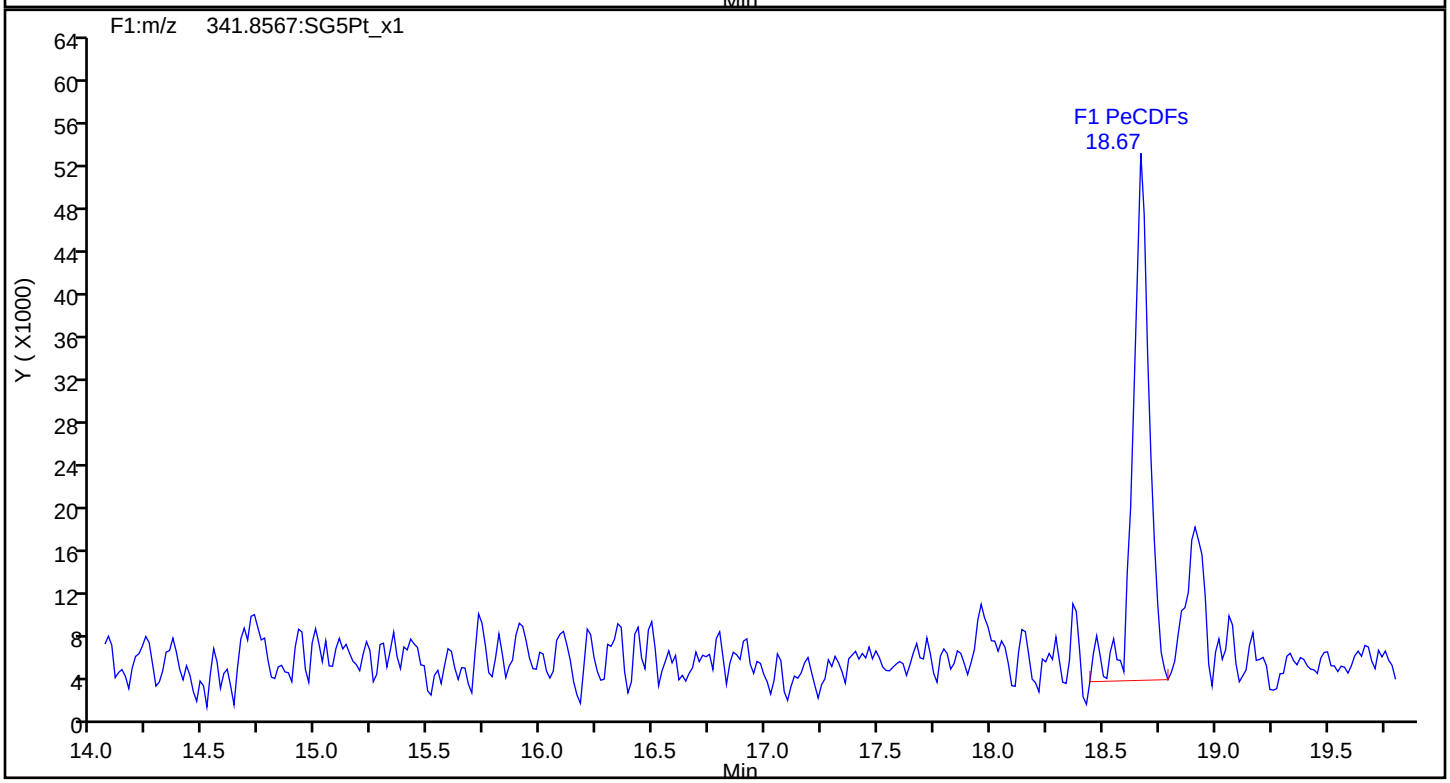
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



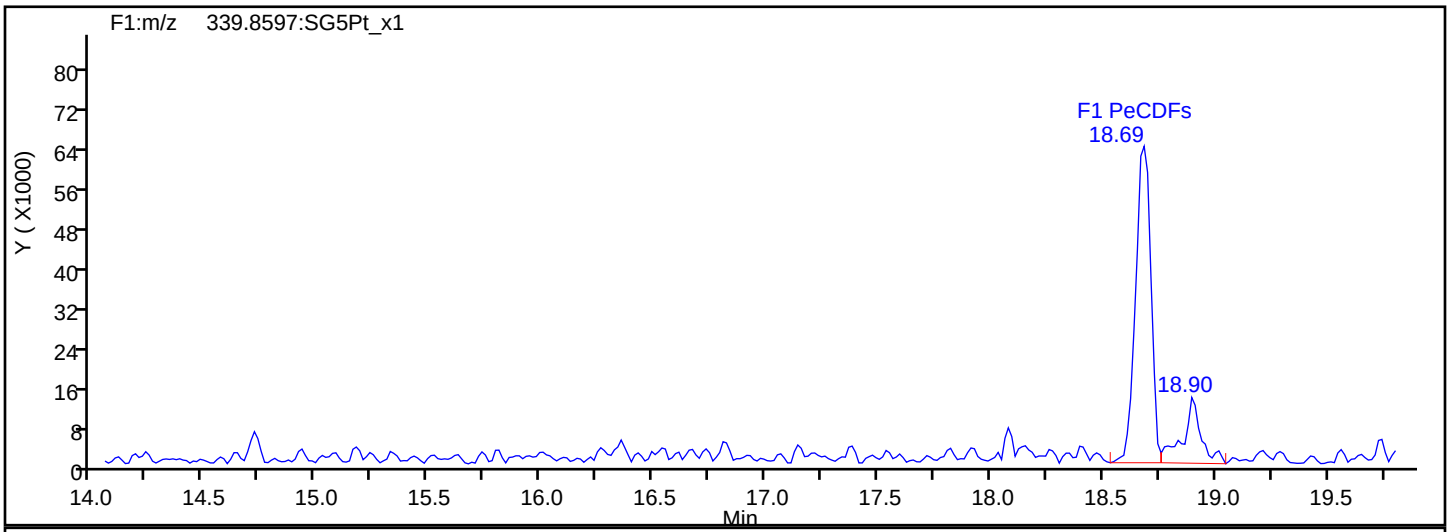


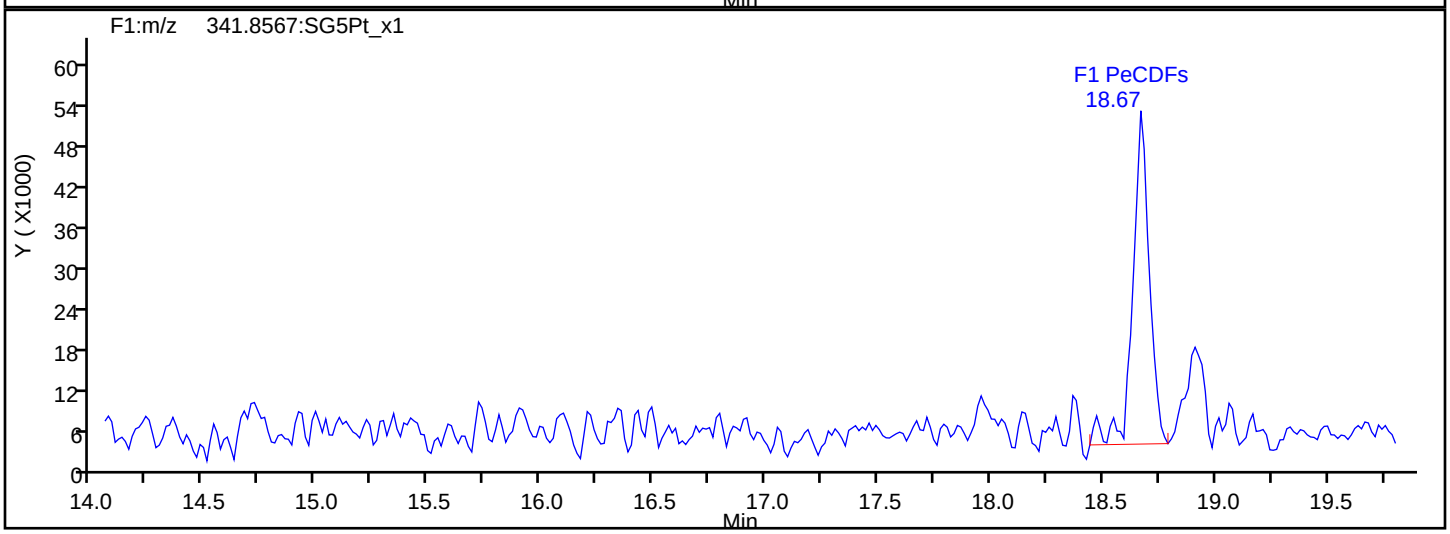
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

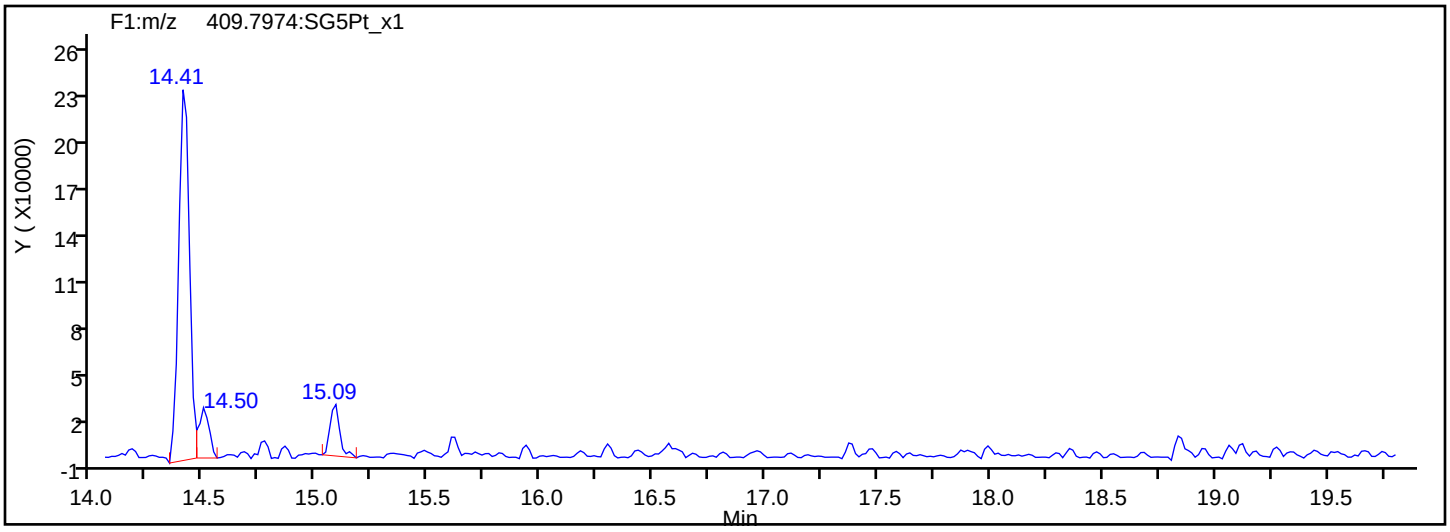
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

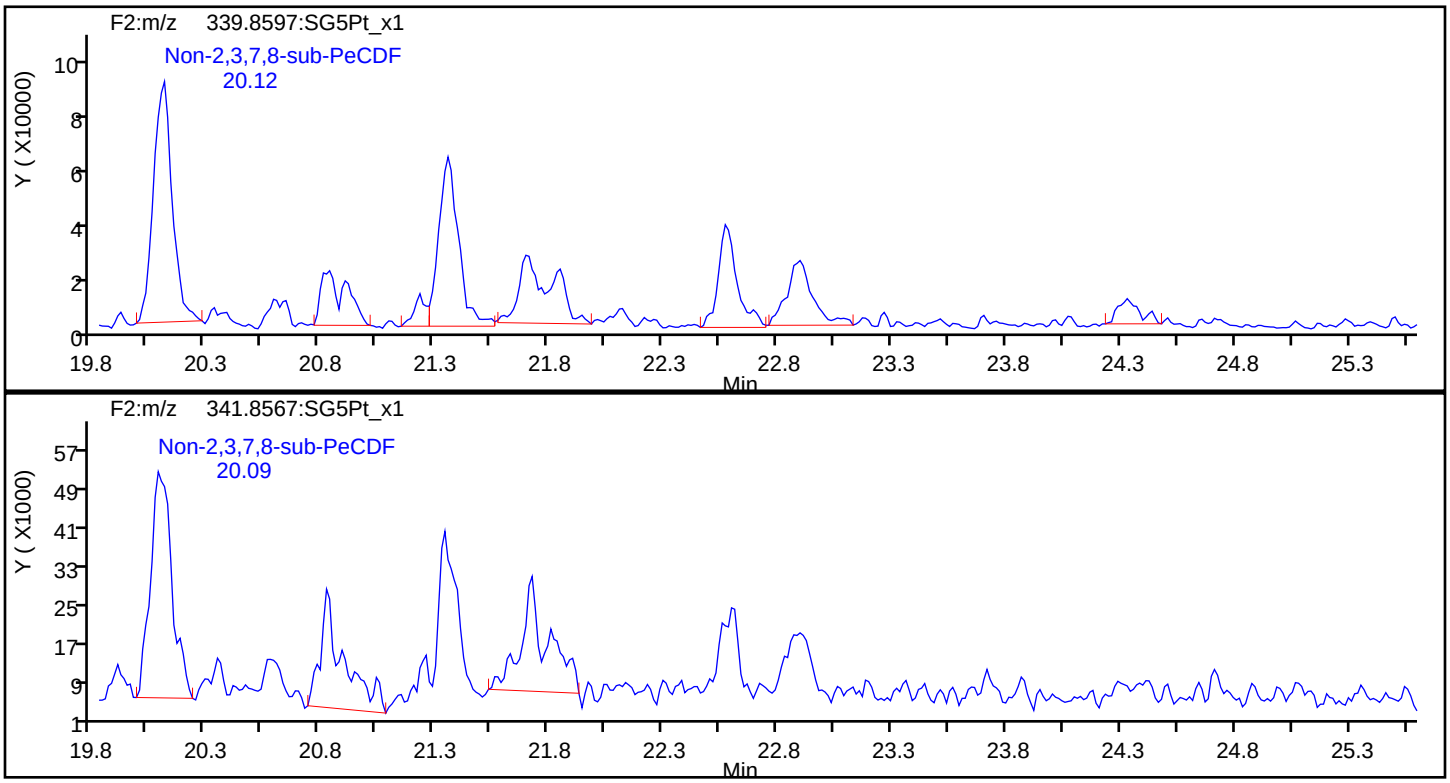


Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

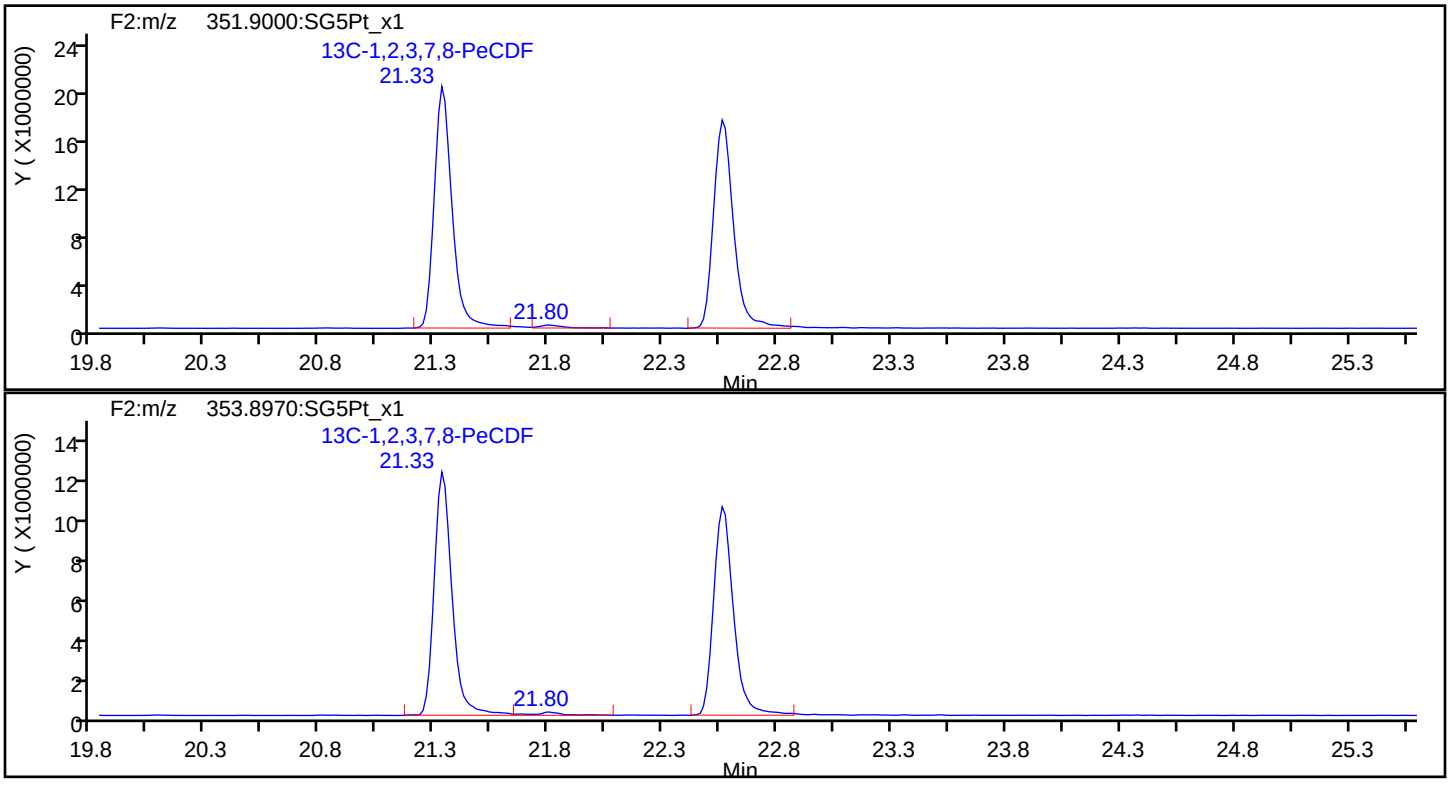
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

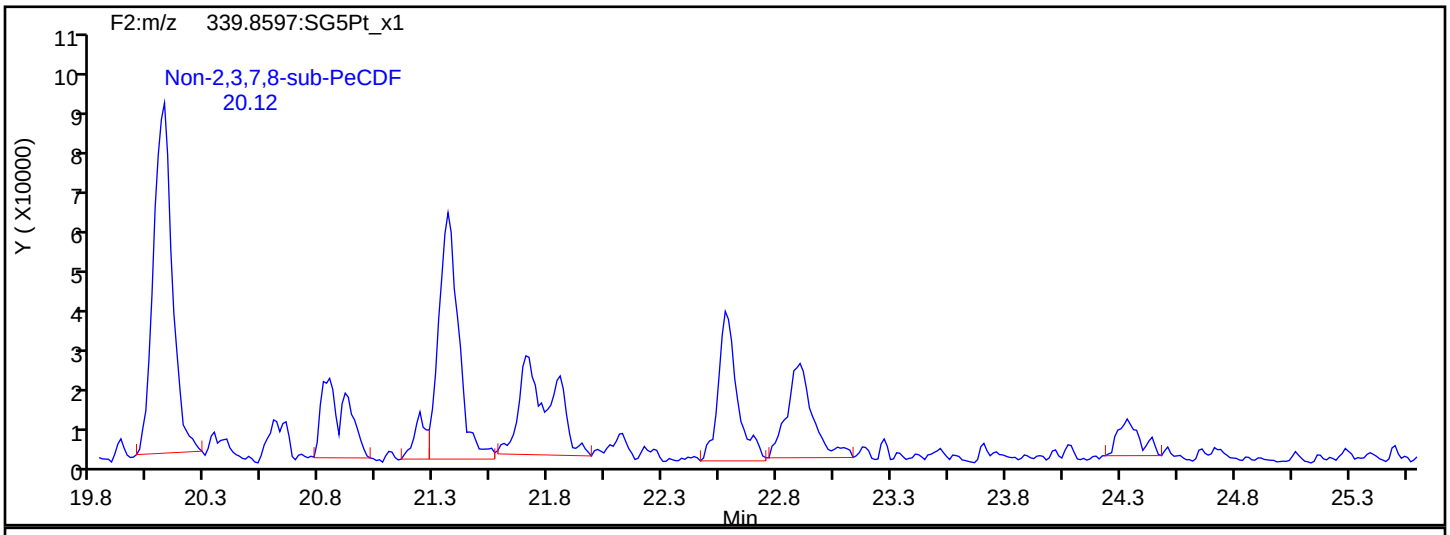


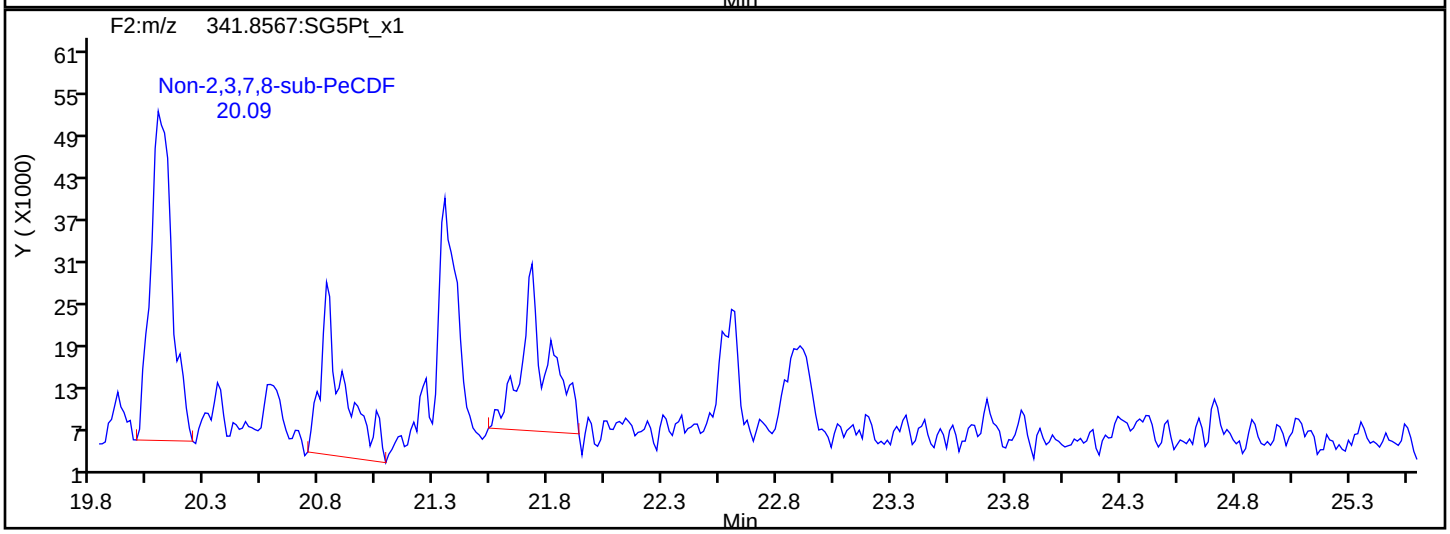
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

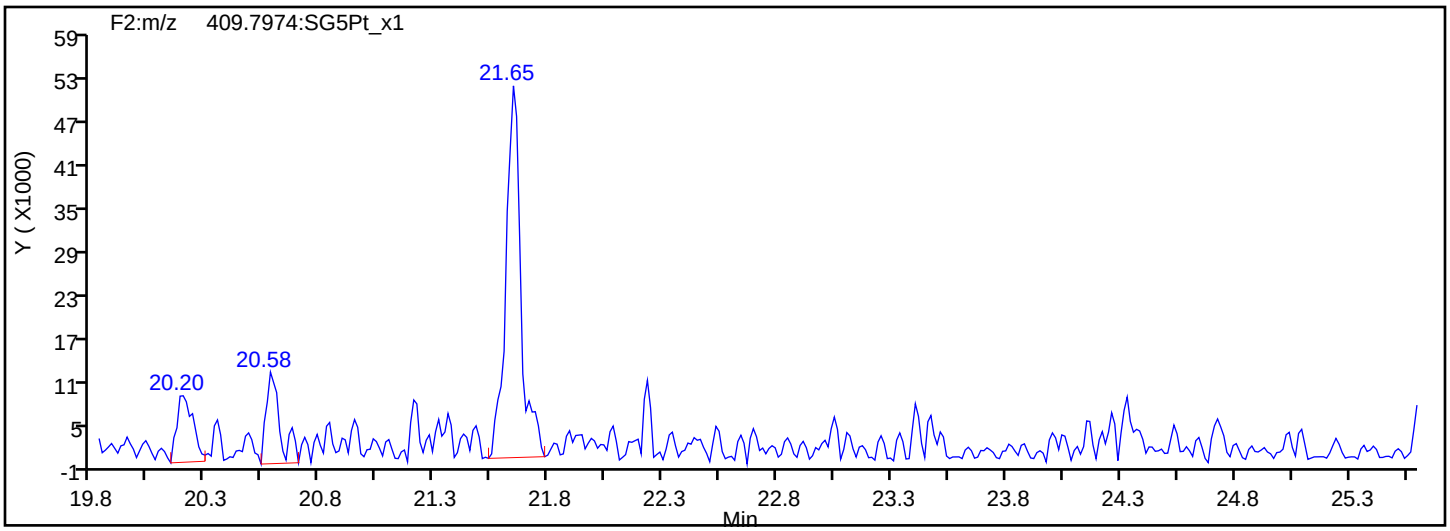
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

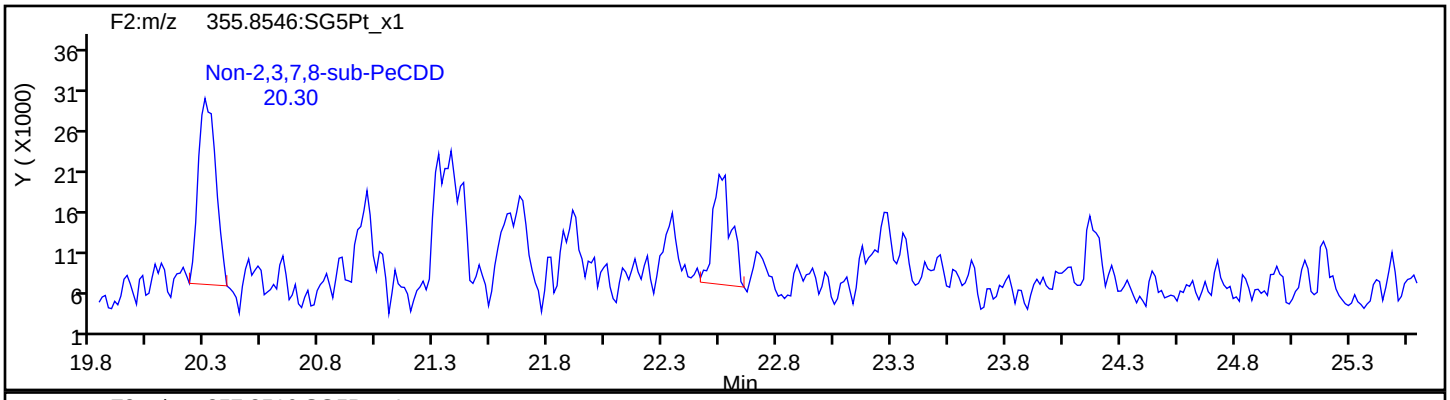


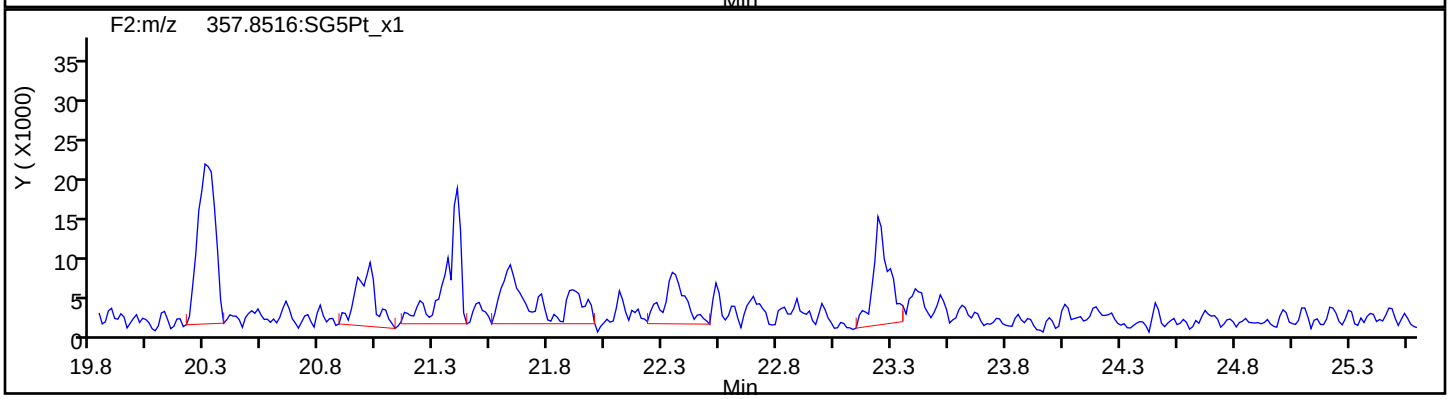
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

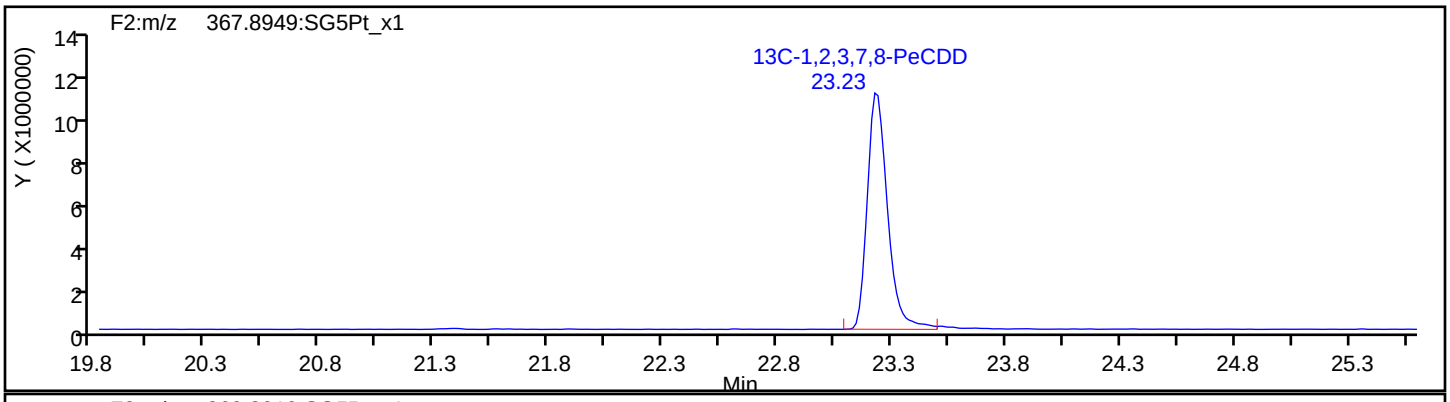
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

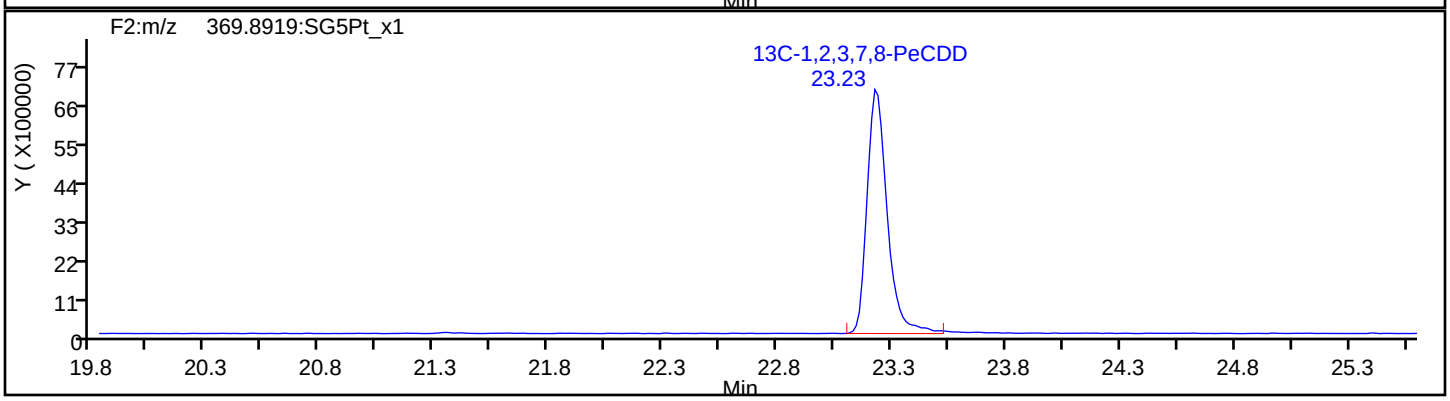
PeCDD





PeCDD Standards



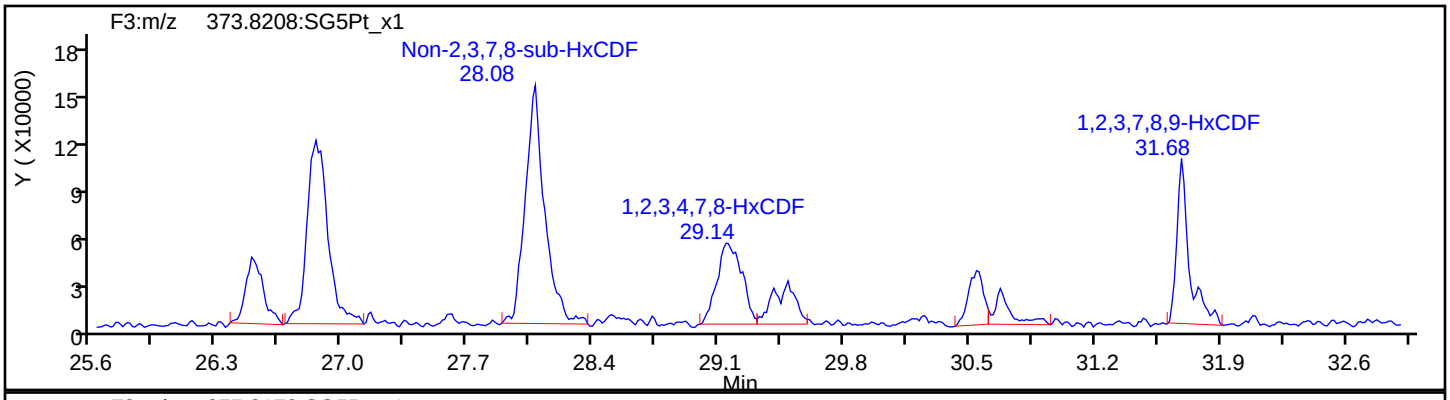


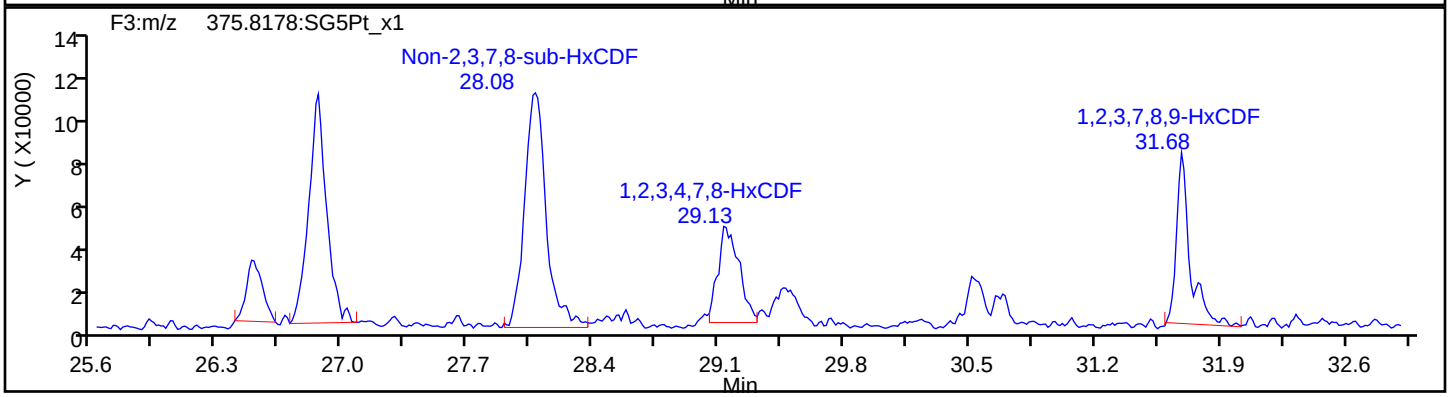
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

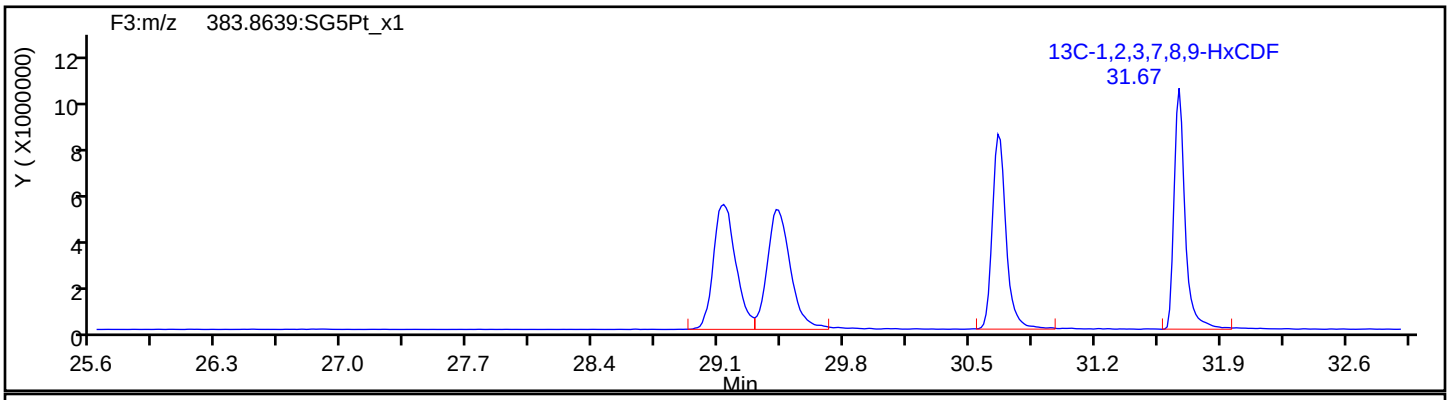
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

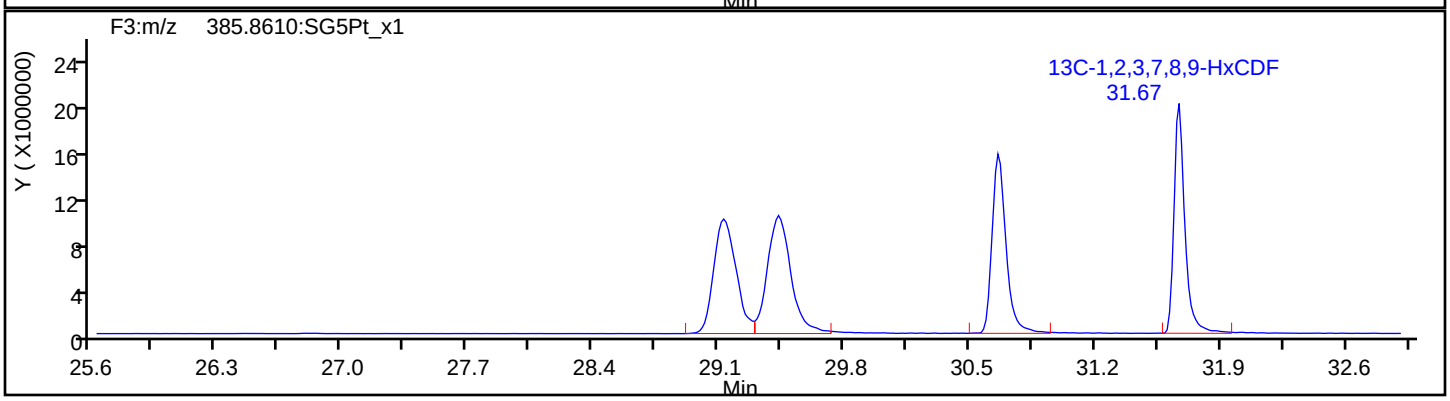
HxCDF





HxCDF Standards



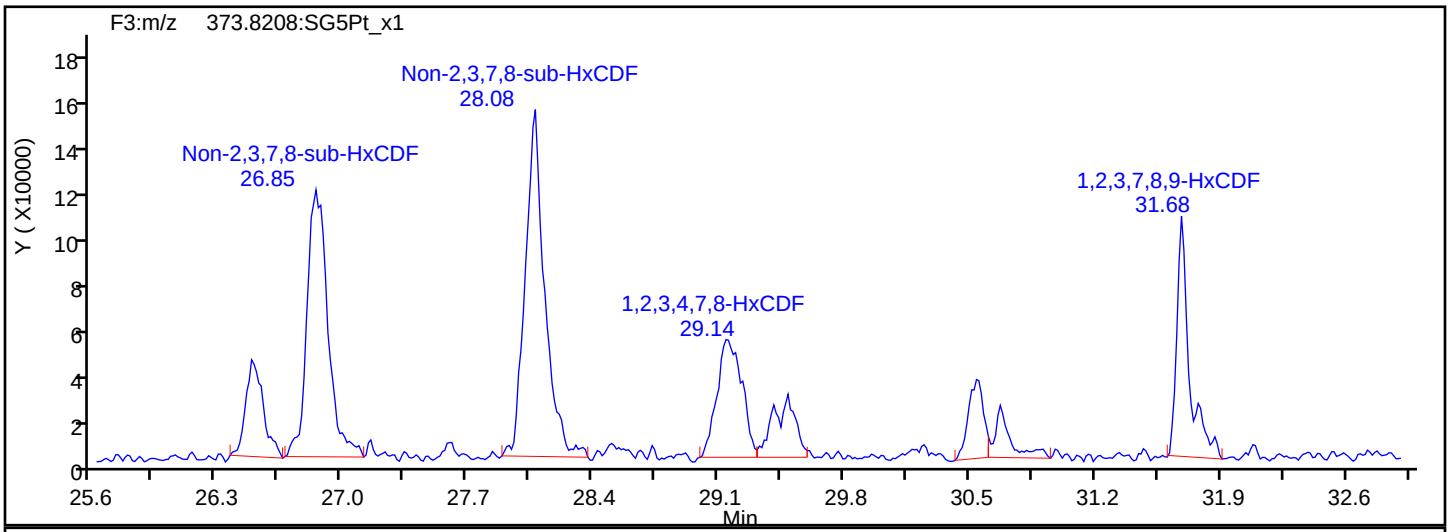


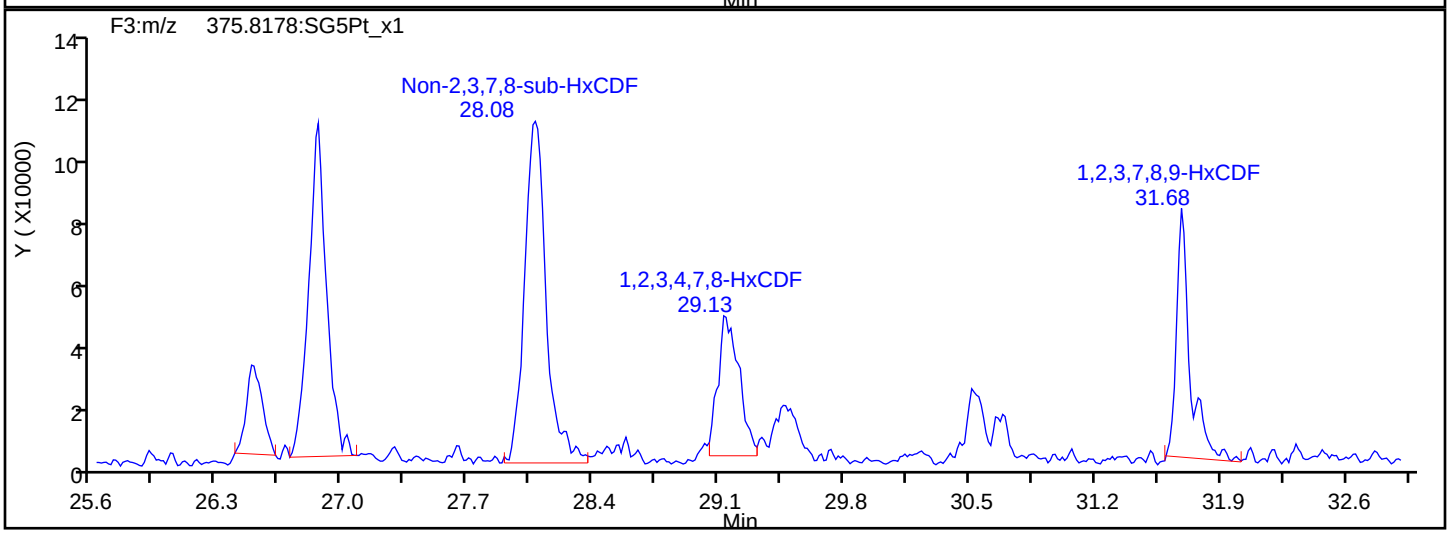
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

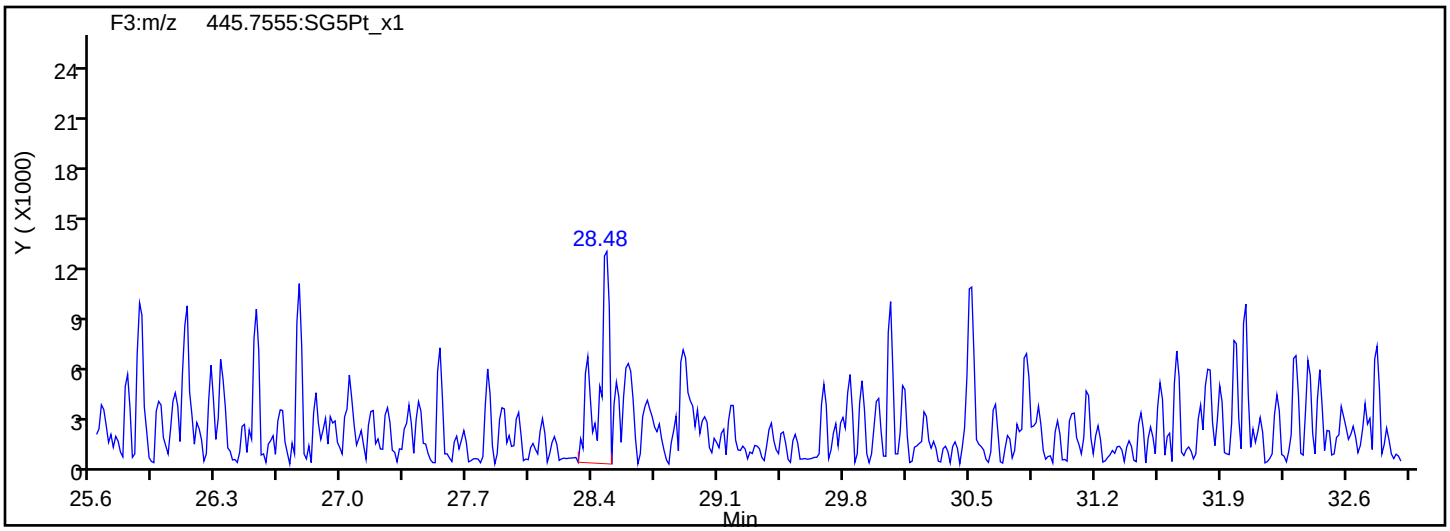
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



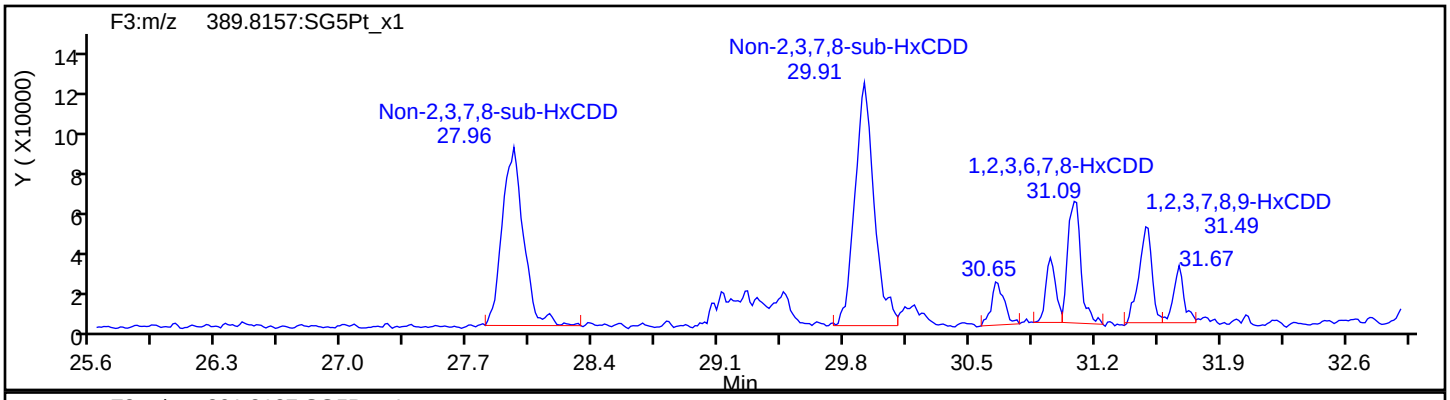
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

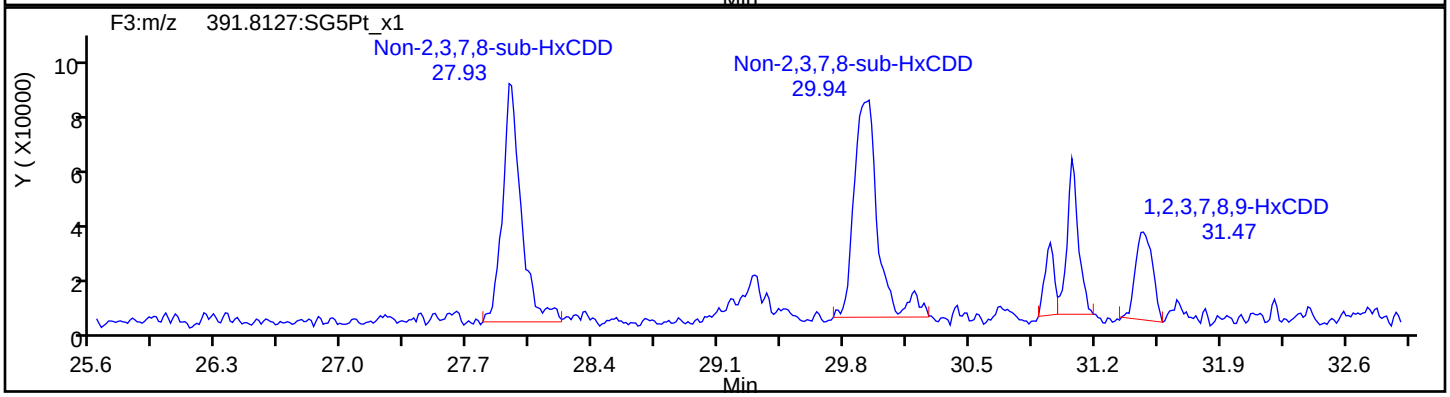
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d

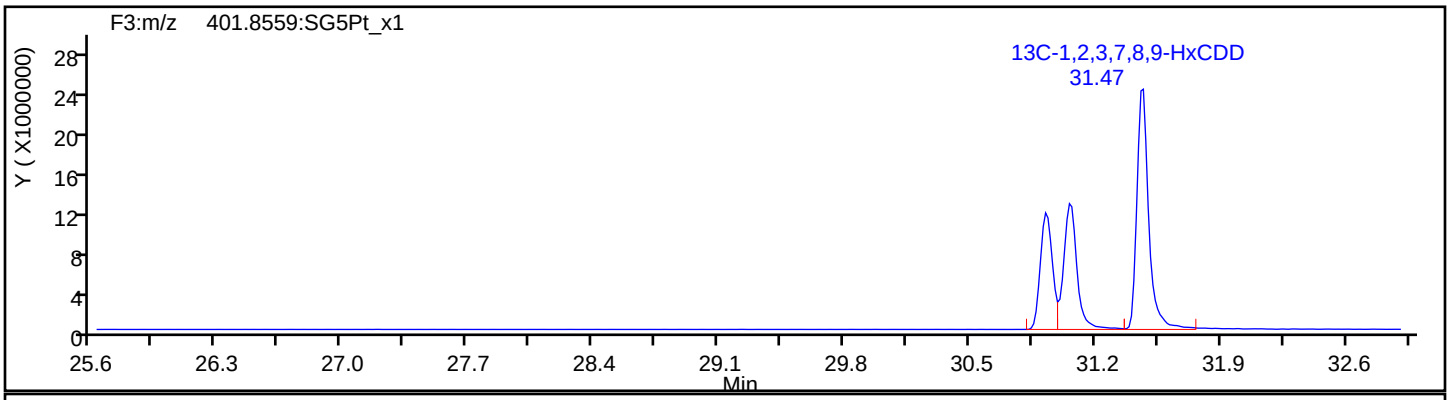
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

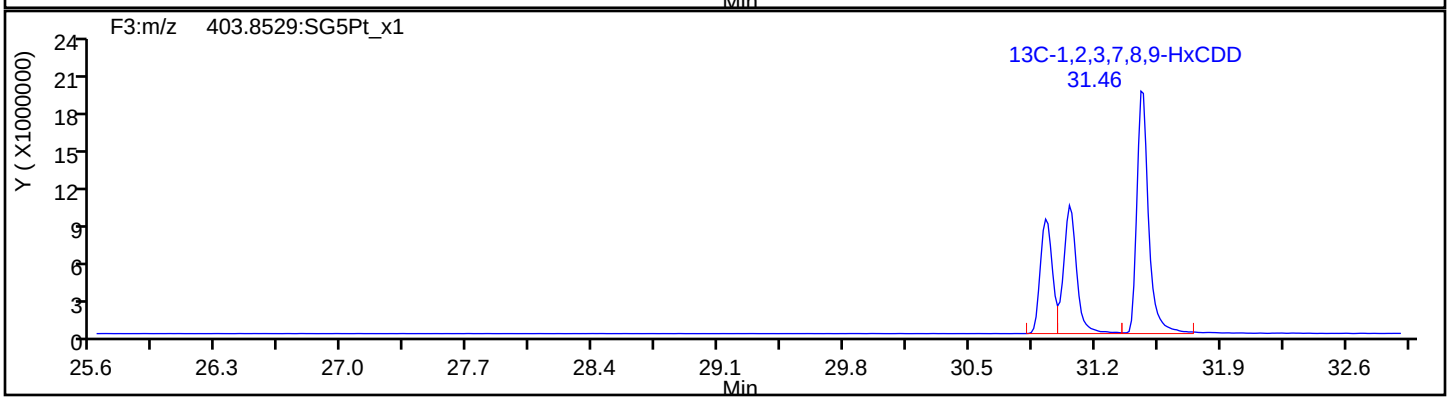
HxCDD





HxCDD Standards





Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d

Injection Date: 22-Jul-2019 00:41:26 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

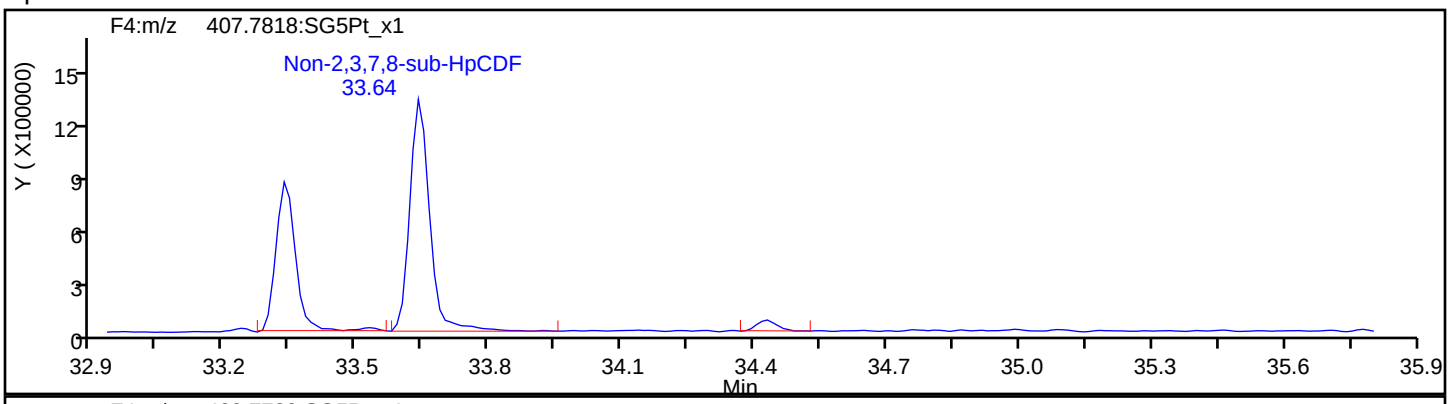
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

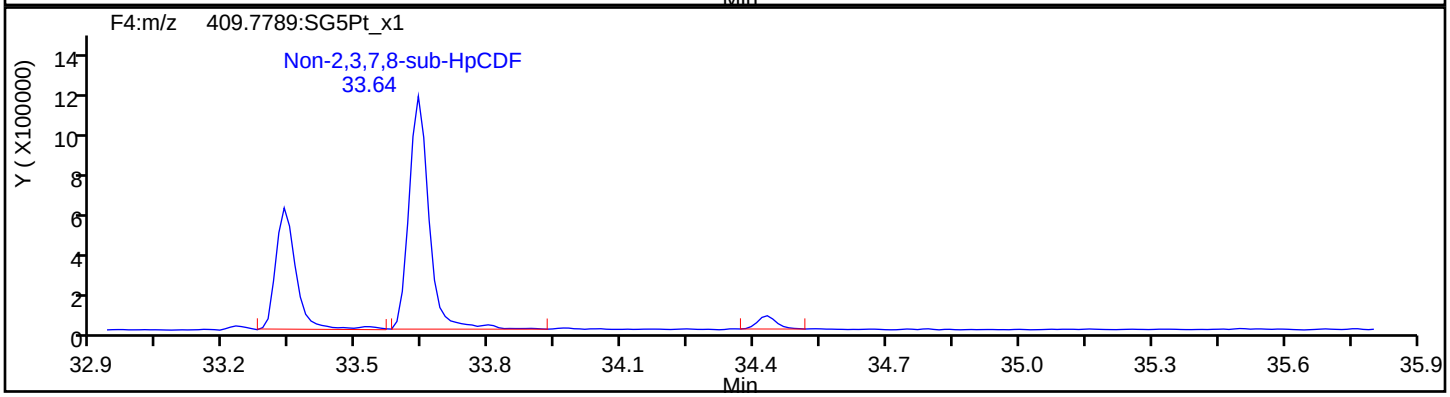
Client ID: 22T-SG-11-D_20190716

Worklist#: 309103 Sample Line#: 60

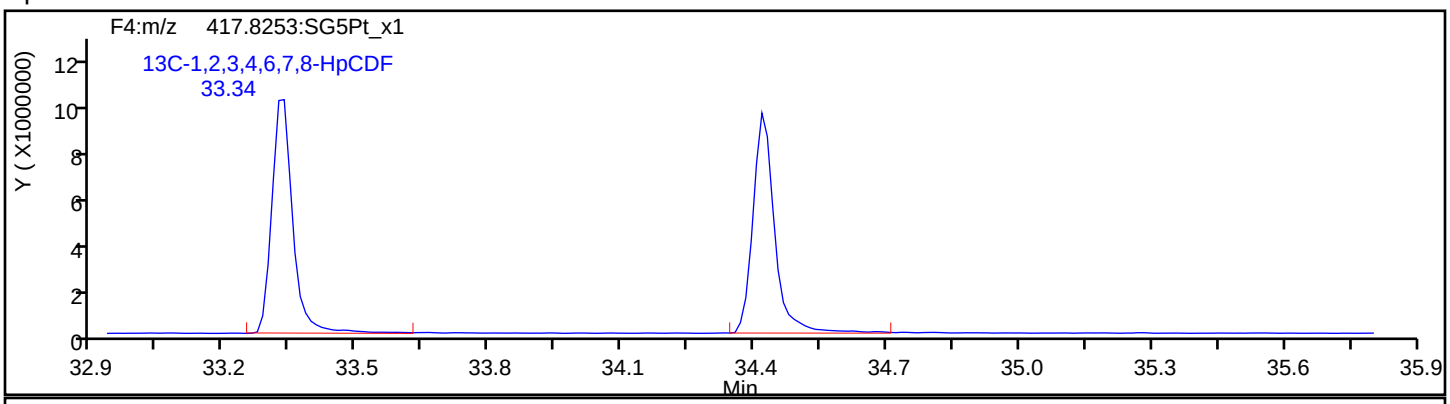
Column Type: DB-5 Column Dia: 0.32 mm

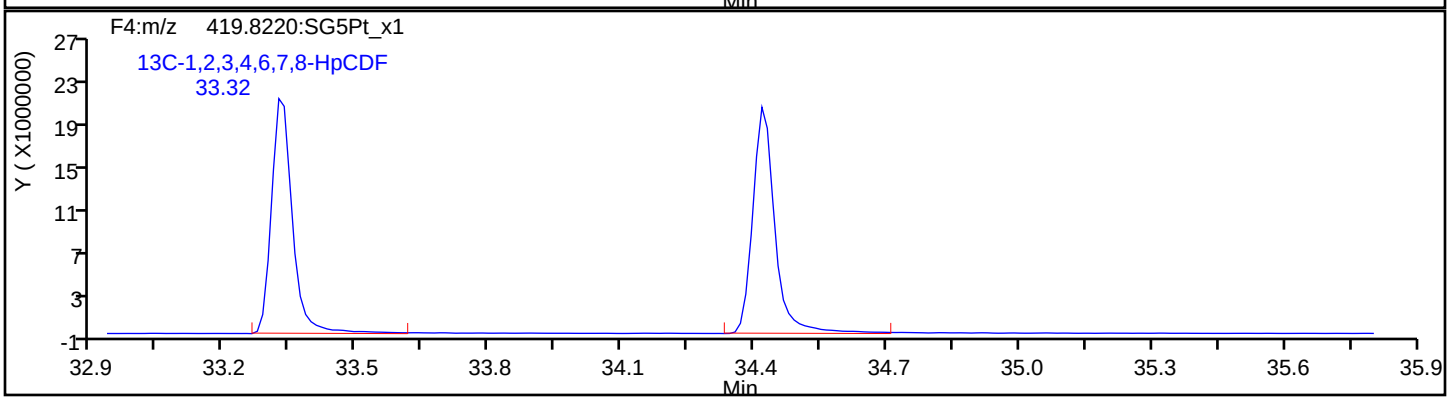
HpCDF





HpCDF Standards



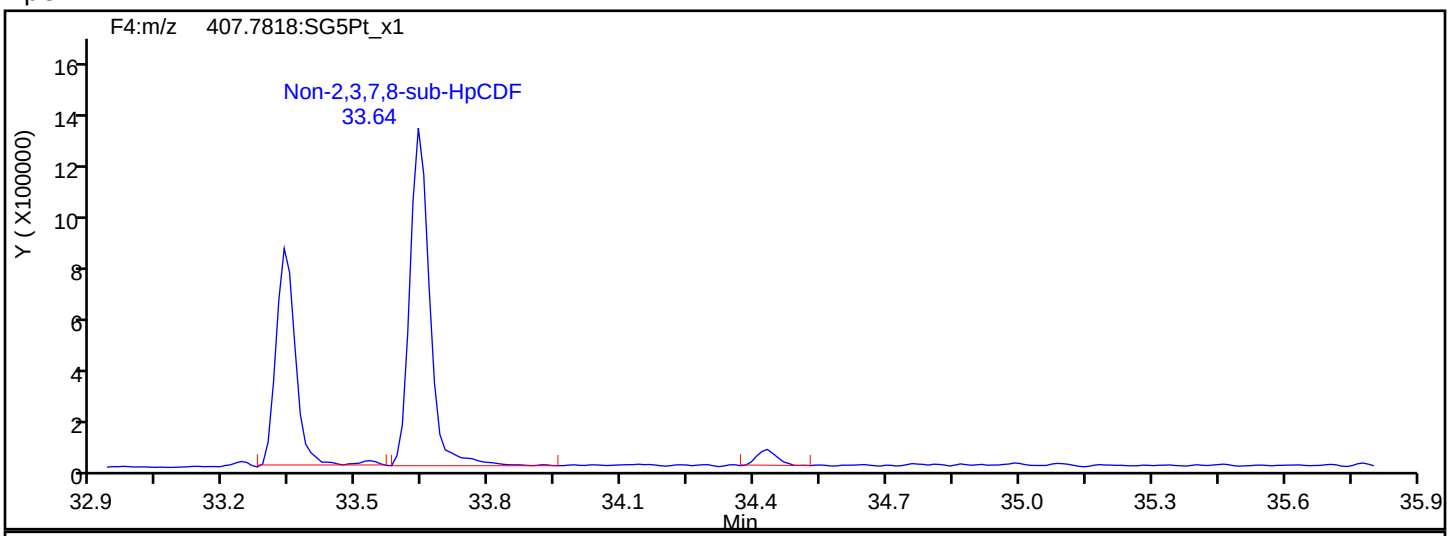


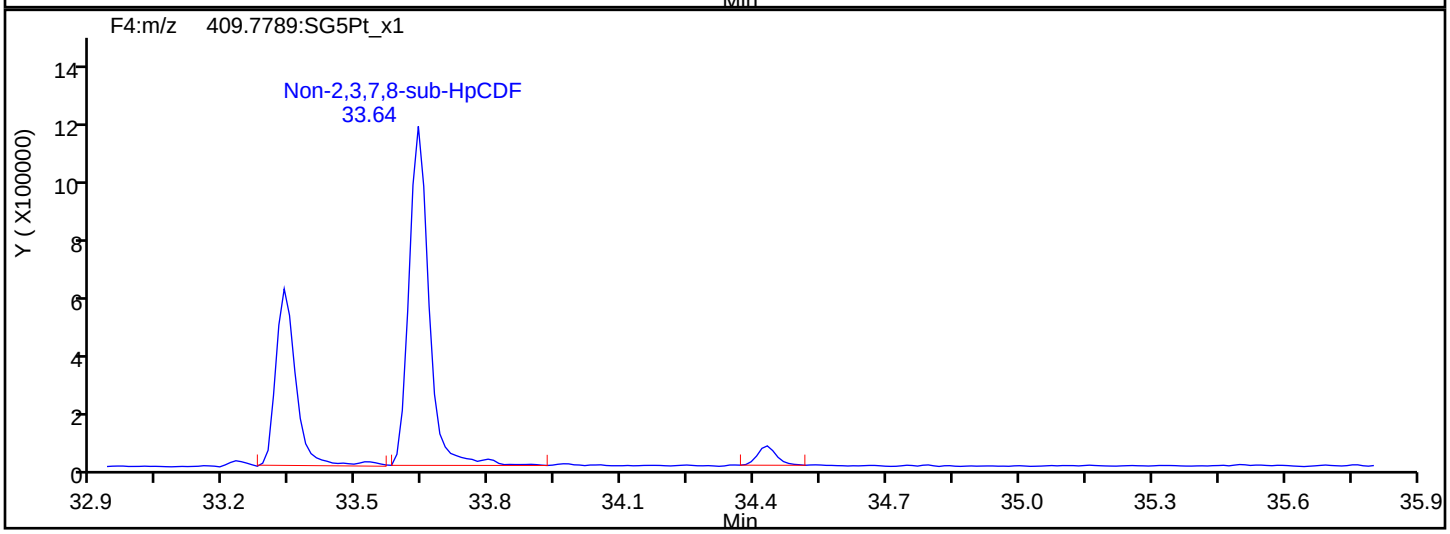
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

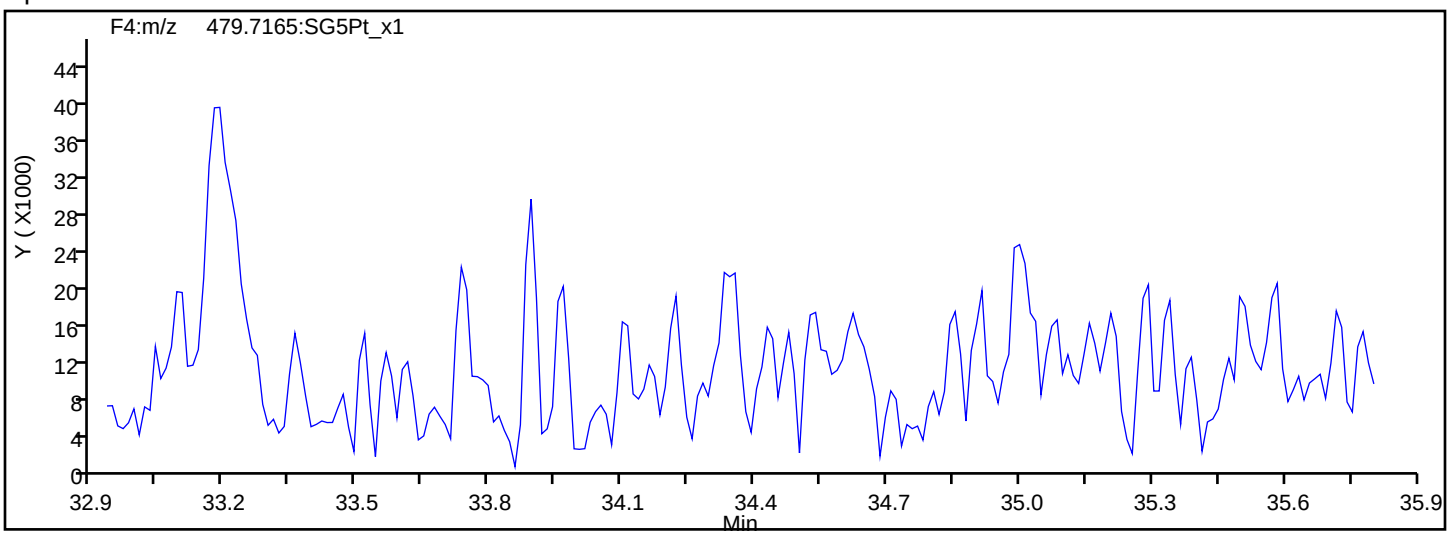
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

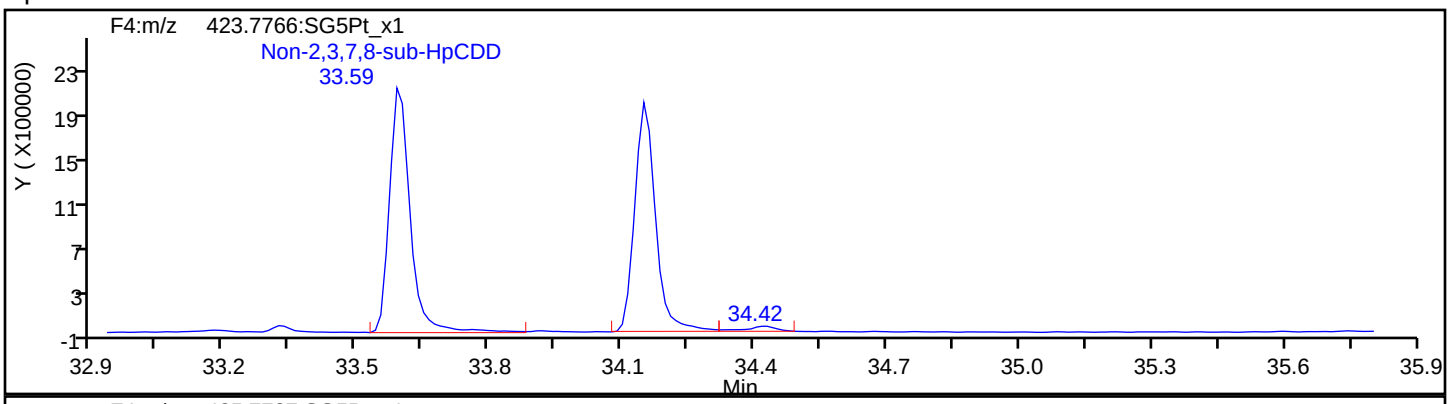


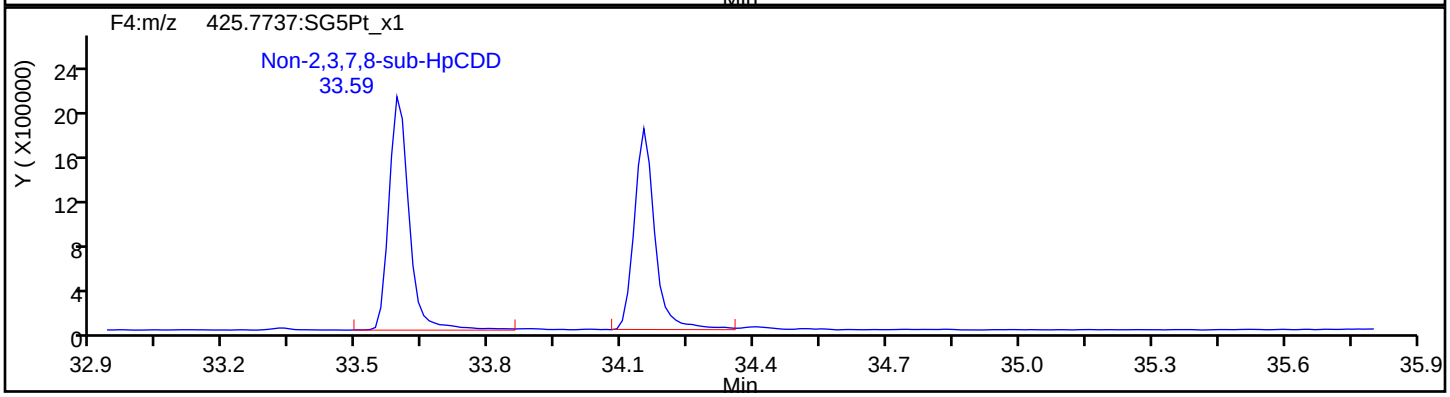
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

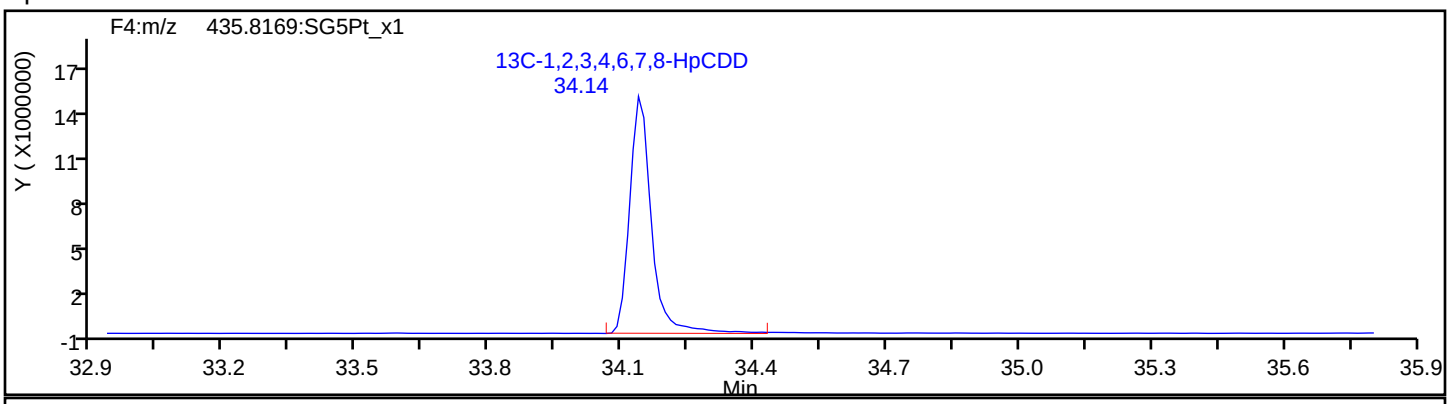
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

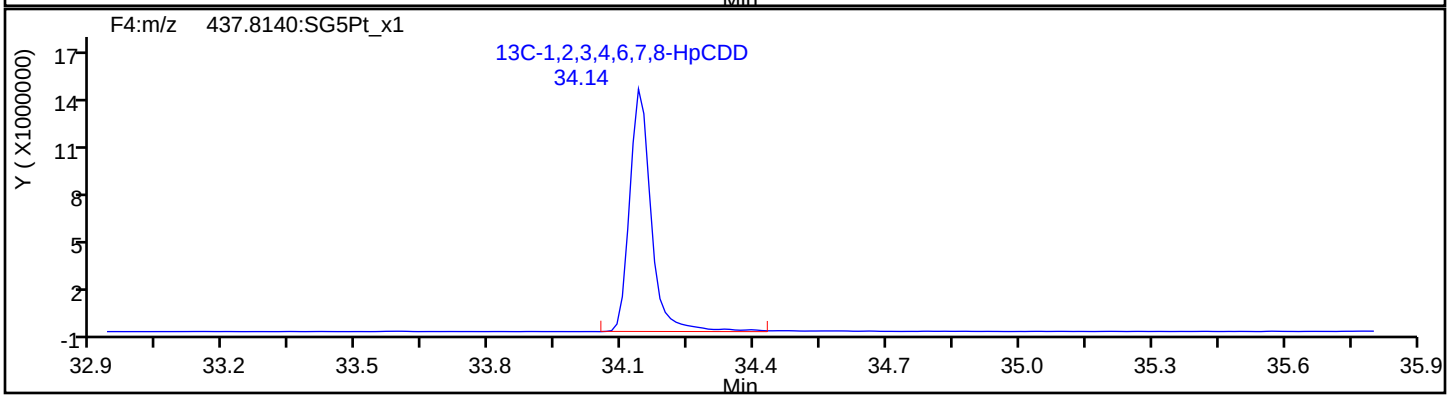
HpCDD





HpCDD Standards



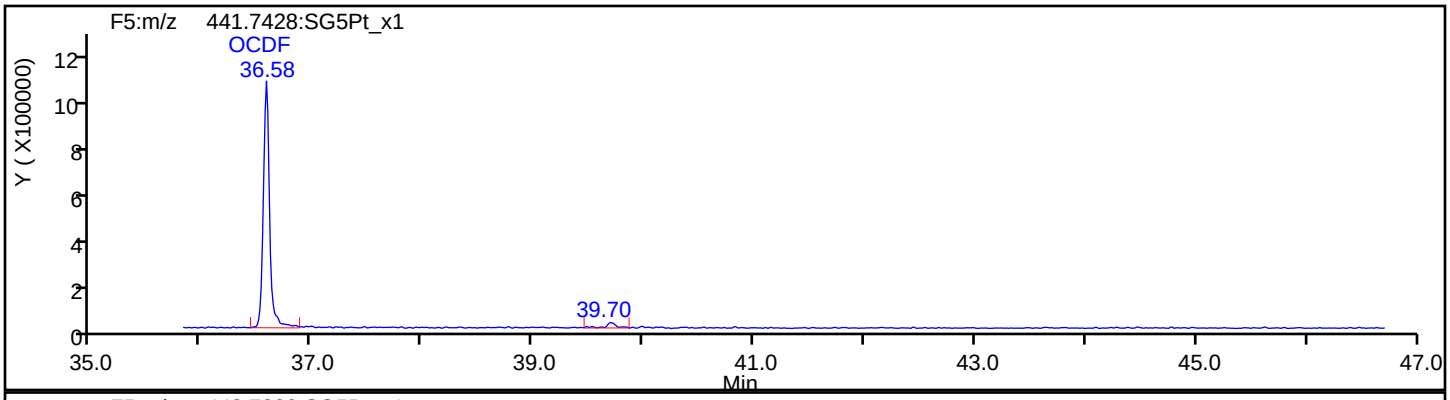


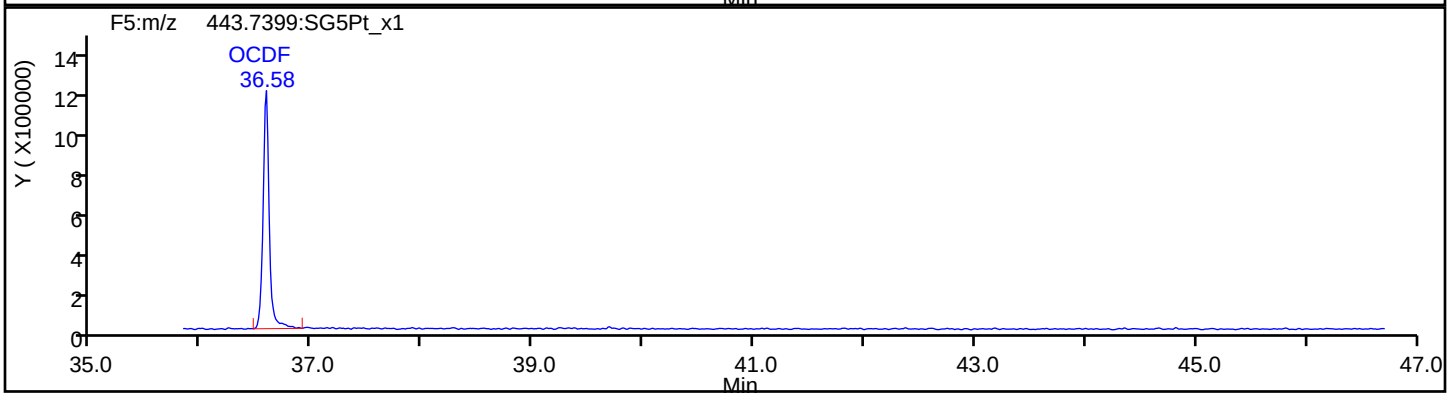
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

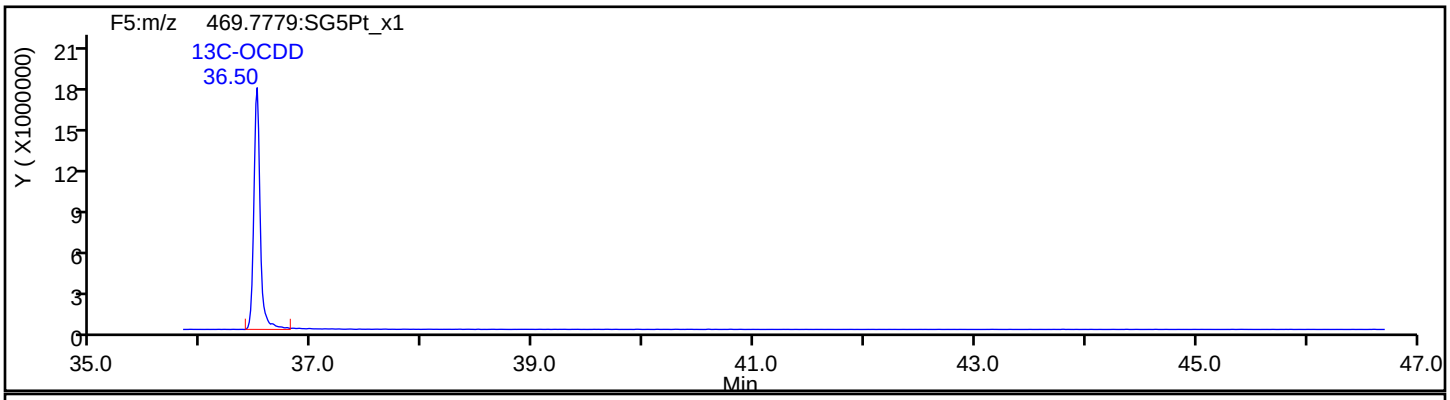
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

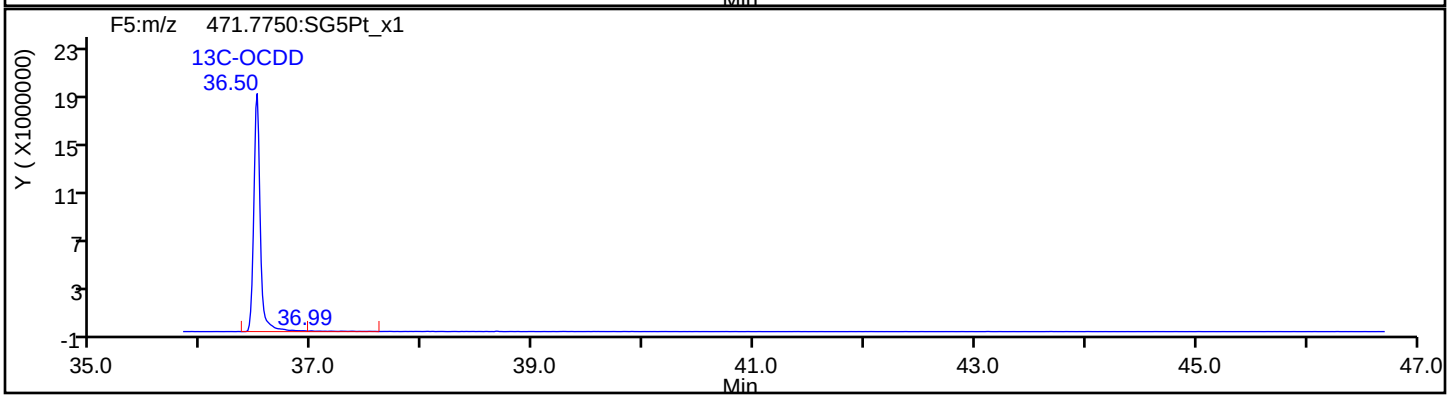
OCDF





OCDF Standards



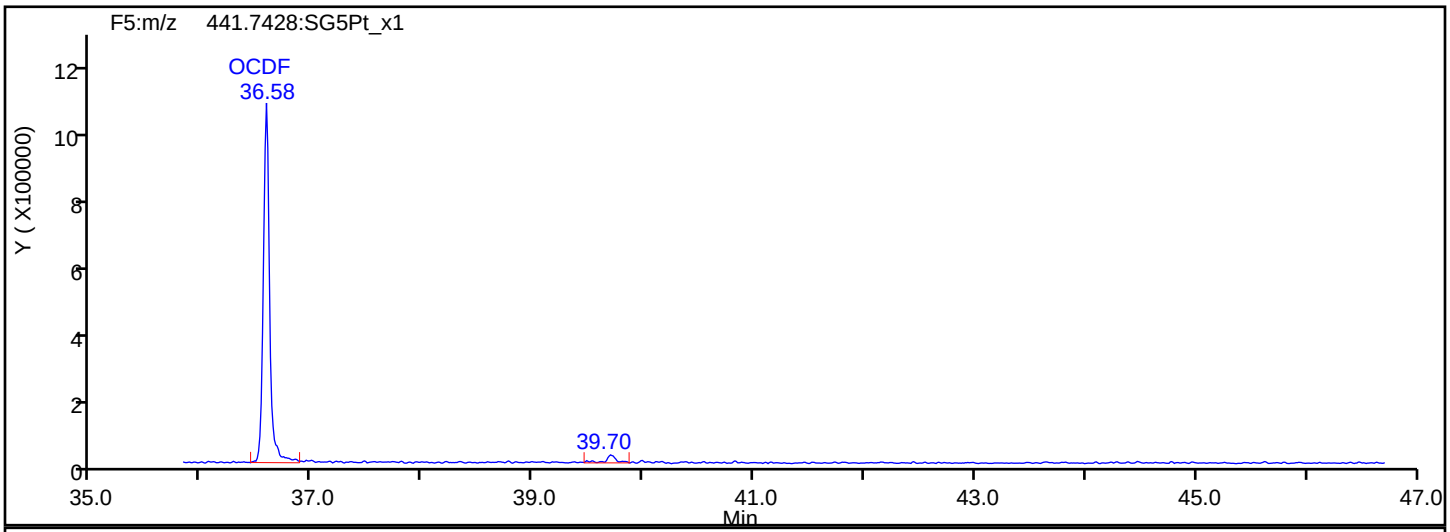


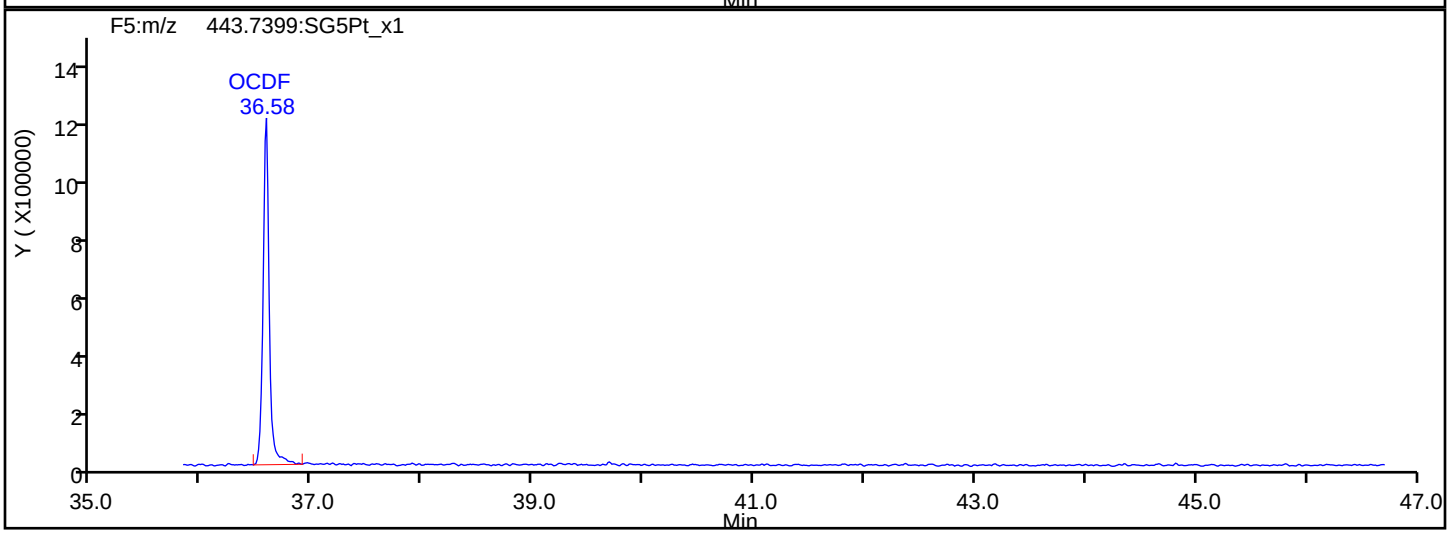
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

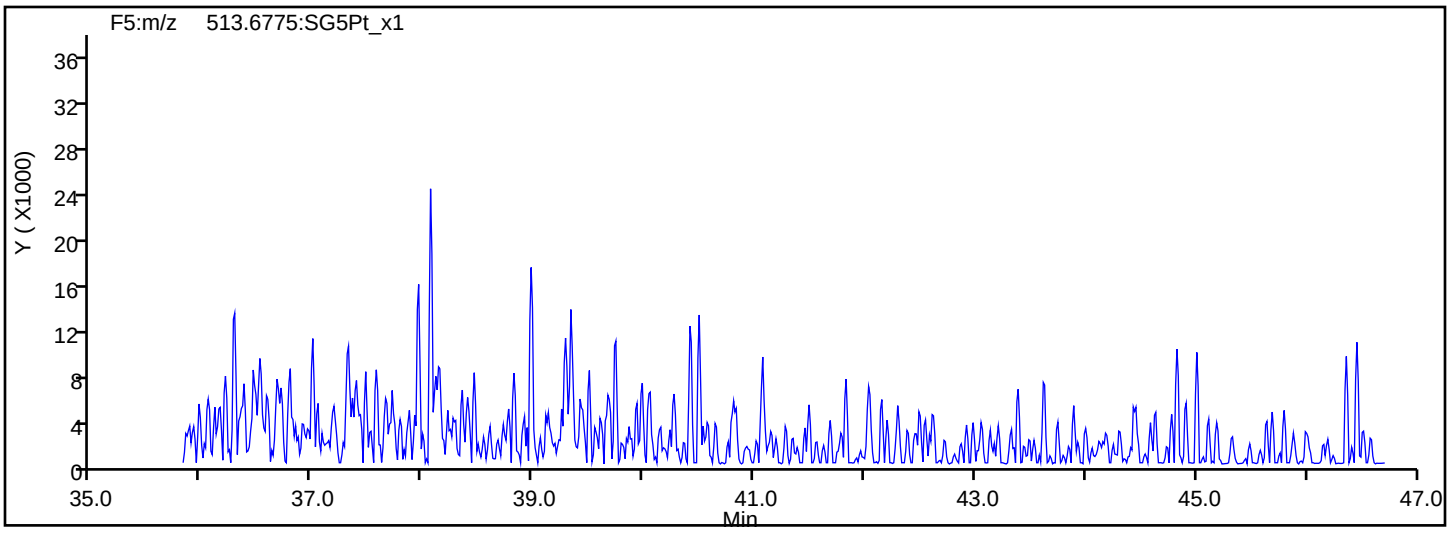
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

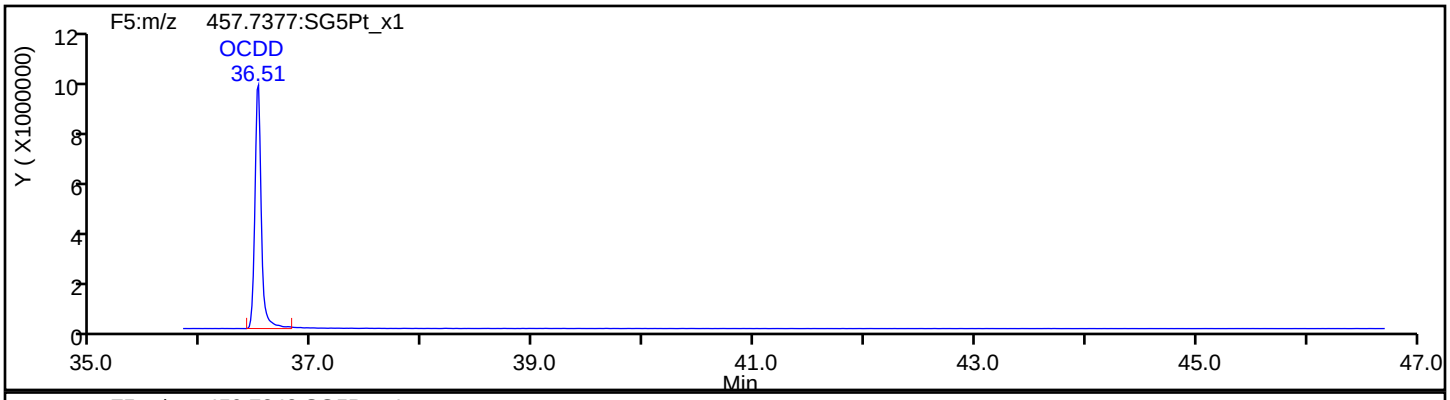


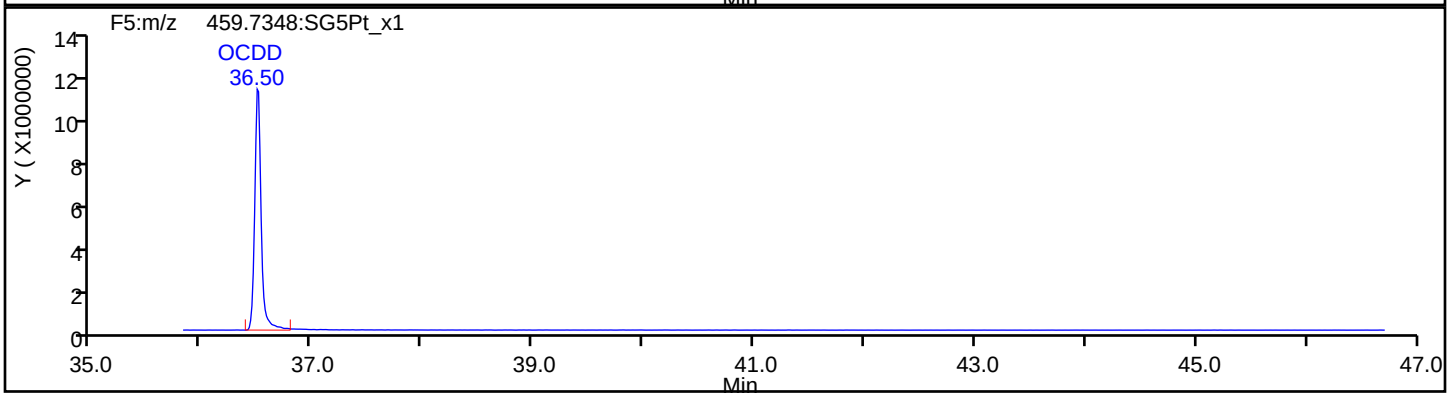
Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

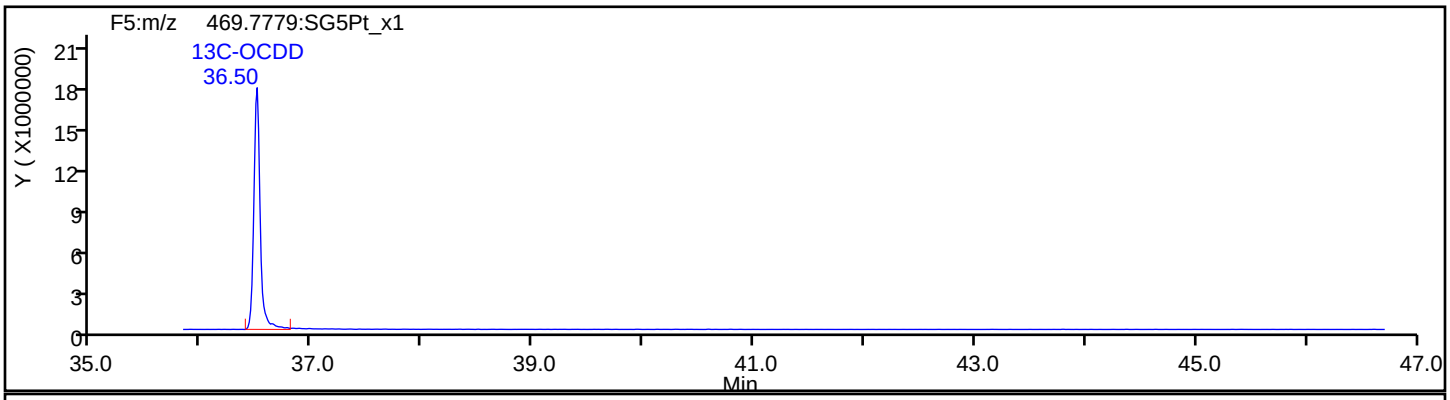
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm

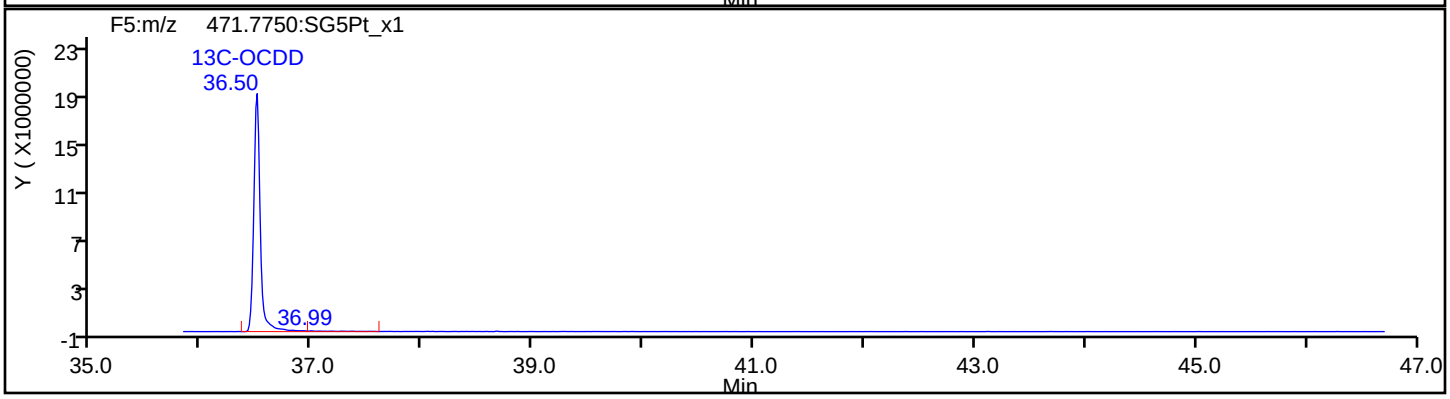
OCDD





OCDD Standards

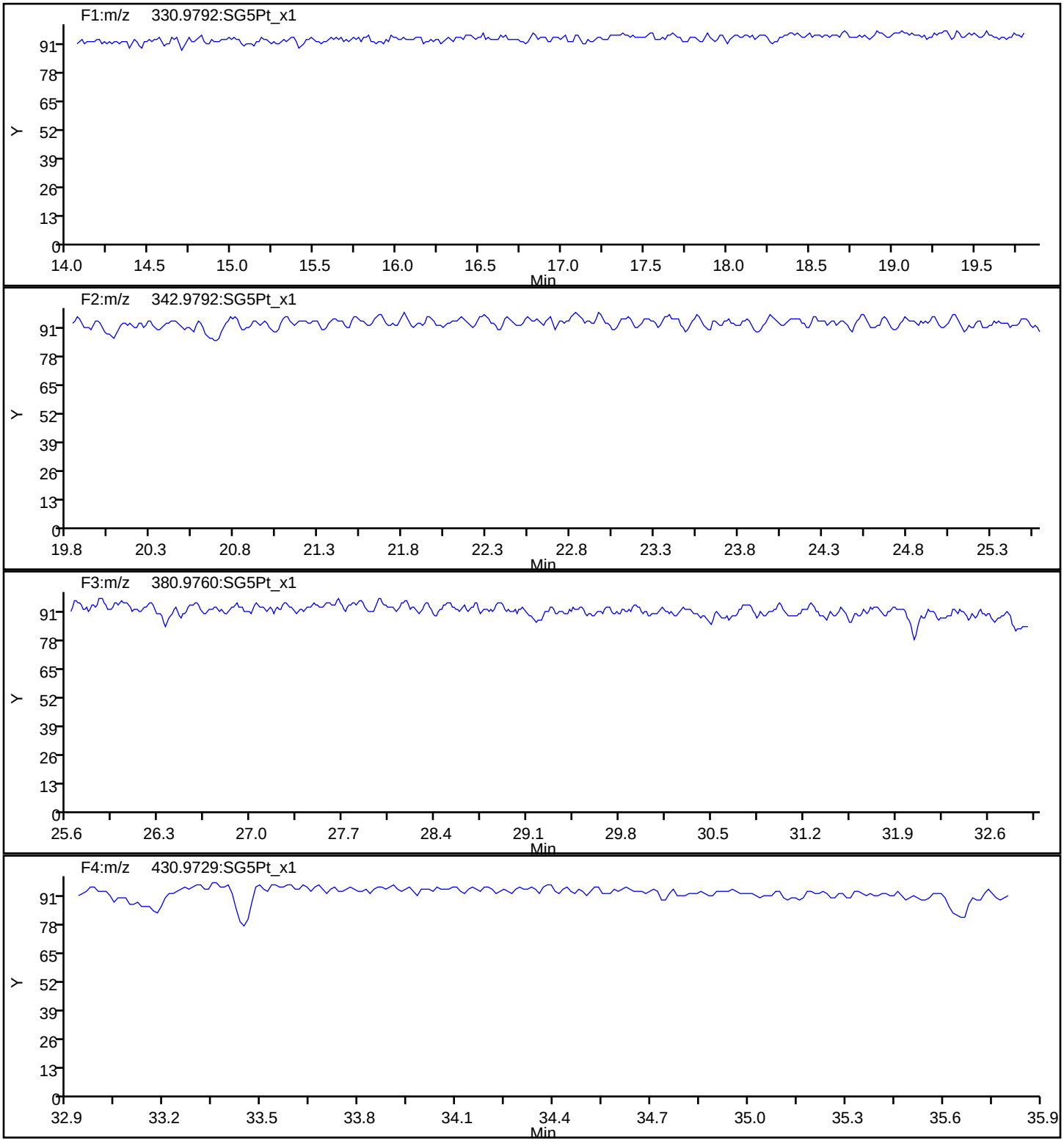




Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

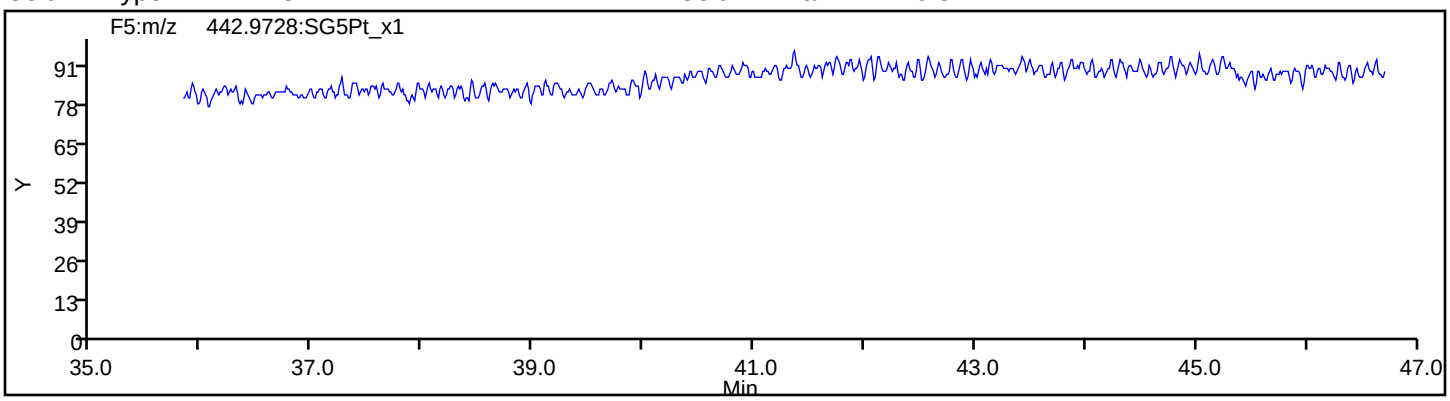
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 11:00:31 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_60.d		
Injection Date:	22-Jul-2019 00:41:26	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-11-D_20190716		
Worklist#:	309103	Sample Line#:	60
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Matrix: Solid Lab File ID: 19JL19A3D5_61.d

Analysis Method: 1613B Date Collected: 07/16/2019 09:38

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.09(g) Date Analyzed: 07/22/2019 01:28

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.52	J q	2.5	0.29
51207-31-9	2,3,7,8-TCDF	1.7	J	2.5	0.29
40321-76-4	1,2,3,7,8-PeCDD	ND		13	0.38
57117-41-6	1,2,3,7,8-PeCDF	2.5	J	13	0.34
57117-31-4	2,3,4,7,8-PeCDF	0.98	J	13	0.39
39227-28-6	1,2,3,4,7,8-HxCDD	0.97	J q B	13	0.37
57653-85-7	1,2,3,6,7,8-HxCDD	2.7	J	13	0.38
19408-74-3	1,2,3,7,8,9-HxCDD	2.1	J	13	0.36
70648-26-9	1,2,3,4,7,8-HxCDF	4.0	J	13	0.41
57117-44-9	1,2,3,6,7,8-HxCDF	1.4	J	13	0.45
72918-21-9	1,2,3,7,8,9-HxCDF	2.7	J B	13	0.24
60851-34-5	2,3,4,6,7,8-HxCDF	0.57	J q	13	0.29
35822-46-9	1,2,3,4,6,7,8-HpCDD	58	B	13	0.89
67562-39-4	1,2,3,4,6,7,8-HpCDF	12	J q	13	0.48
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.6	J	13	0.57
3268-87-9	OCDD	550	B	25	0.65
39001-02-0	OCDF	37	B	25	0.49

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Matrix: Solid Lab File ID: 19JL19A3D5_61.d

Analysis Method: 1613B Date Collected: 07/16/2019 09:38

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.09(g) Date Analyzed: 07/22/2019 01:28

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	68		25-164
89059-46-1	13C-2,3,7,8-TCDF	73		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	70		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	72		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	72		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	61		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	61		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	72		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	63		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	66		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	73		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	70		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	68		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	78		26-138
114423-97-1	13C-OCDD	71		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	94		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 01:28:56 ALS Bottle#: 44 Worklist Smp#: 61
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-5-A 580-87706-C-5-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:03:43 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:44:54

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	211898088	0.81	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	215644470	0.80	1.3908	73.2	73.2	0.3030	0.3030	73.17	
2,3,7,8-TCDF	16.705	711989	0.74	0.9710	0.3400	0.3400	0.0562	0.0562		
A Non-2,3,7,8-sub-TCDF	16.402	786442	0.77	0.9710	0.3868	0.3756	0.0562	0.1525		RQ
S Total TCDF					0.7268	0.7156	0.0562	0.0562		RQ
D 13C-2,3,7,8-TCDD	17.355	141749827	0.83	0.9819	68.1	68.1	0.2421	0.2421	68.13	
2,3,7,8-TCDD	17.324	150523	0.77	1.0447	0.1321	0.1016	0.0570	0.0570		RQMa
$ 37Cl4-2,3,7,8-TCDD	17.370	97689646		1.2205	37.8	37.8	0.0715	0.0715	94.43	
A Non-2,3,7,8-sub-TCDD	16.833	428706	0.70	1.0447	0.2895	0.2895	0.0570	0.2895		Ma
S Total TCDD					0.4216	0.3911	0.0570	0.0570		RQ
D 13C-1,2,3,7,8-PeCDF	21.332	176303303	1.62	1.1585	71.8	71.8	0.2400	0.2400	71.82	
1,2,3,7,8-PeCDF	21.359	826647	1.45	0.9633	0.4867	0.4867	0.0659	0.0659		
D 13C-2,3,4,7,8-PeCDF	22.559	176136961	1.58	1.1532	72.1	72.1	0.2411	0.2411	72.08	
2,3,4,7,8-PeCDF	22.586	321801	1.41	0.9495	0.1924	0.1924	0.0755	0.0755		
A F1 PeCDFs	19.215	558706	1.55	0.9564	0.3618	0.3315	0.0461	0.3315		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	1840807	1.55	0.9564	1.104	1.092	0.0704	0.6951		RQ
S Total PeCDF					2.145	2.103	0.0707	0.0707		RQ
D 13C-1,2,3,7,8-PeCDD	23.241	110896740	1.60	0.7431	70.4	70.4	0.1350	0.1350	70.43	
1,2,3,7,8-PeCDD	23.254						0.0751	0.0751		
A Non-2,3,7,8-sub-PeCDD	22.232	442211	1.73	1.0635	0.3750	0.3750	0.0751	0.2134		
S Total PeCDD					0.3750	0.3750	0.0751	0.0751		
D 13C-1,2,3,4,7,8-HxCDF	29.128	135472630	0.53	0.9837	72.0	72.0	0.3251	0.3251	71.99	
1,2,3,4,7,8-HxCDF	29.155	1283079	1.11	1.2173	0.7780	0.7780	0.0800	0.0800		
D 13C-1,2,3,6,7,8-HxCDF	29.421	138891164	0.51	1.1554	62.8	62.8	0.2768	0.2768	62.84	
1,2,3,6,7,8-HxCDF	29.435	441363	1.21	1.1311	0.2809	0.2809	0.0892	0.0892		
D 13C-2,3,4,6,7,8-HxCDF	30.660	131366461	0.50	1.0361	66.3	66.3	0.3087	0.3087	66.28	
2,3,4,6,7,8-HxCDF	30.673	172840	1.24	1.1710	0.1237	0.1124	0.0561	0.0561		RQMa
D 13C-1,2,3,7,8,9-HxCDF	31.672	126675939	0.53	0.9034	73.3	73.3	0.3540	0.3540	73.30	
1,2,3,7,8,9-HxCDF	31.685	782531	1.43	1.1787	0.5241	0.5241	0.0467	0.0467		
A Non-2,3,7,8-sub-HxCDF	29.135	4578420	1.18	1.1745	2.929	2.929	0.0636	1.396		Ma

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					4.635	4.624	0.0680	0.0680		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	191293243	1.32	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.926	96628773	1.37	0.8287	61.0	61.0	0.2321	0.2321	60.95	
1,2,3,4,7,8-HxCDD	30.953	189103	1.24	1.0267	0.2200	0.1906	0.0733	0.0733		RQ
D 13C-1,2,3,6,7,8-HxCDD	31.073	111169850	1.25	0.9495	61.2	61.2	0.2026	0.2026	61.21	
1,2,3,6,7,8-HxCDD	31.073	578546	1.16	0.9771	0.5326	0.5326	0.0744	0.0744		
1,2,3,7,8,9-HxCDD	31.472	454620	1.28	1.0616	0.4122	0.4122	0.0697	0.0697		
A Non-2,3,7,8-sub-HxCDD	29.926	3351467	1.24	1.0218	3.192	3.157	0.0724	1.643		RQ
S Total HxCDD					4.357	4.292	0.0724	0.0724		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	94918172	0.45	0.7285	68.1	68.1	0.6772	0.6772	68.11	
1,2,3,4,6,7,8-HpCDF	33.335	3271976	1.04	1.4373	2.881	2.398	0.0950	0.0950		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	97847731	0.45	0.6556	78.0	78.0	0.7524	0.7524	78.02	
1,2,3,4,7,8,9-HpCDF	34.429	391583	1.17	1.3091	0.3057	0.3057	0.1111	0.1111		
A Non-2,3,7,8-sub-HpCDF	33.894	6321175	1.10	1.3732	4.776	4.776	0.1026	4.776		
S Total HpCDF					7.963	7.480	0.1030	0.1030		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	93049214	1.07	0.6978	69.7	69.7	0.2987	0.2987	69.70	
1,2,3,4,6,7,8-HpCDD	34.150	10705474	1.08	1.0102	11.4	11.4	0.1740	0.1740		
A Non-2,3,7,8-sub-HpCDD	35.074	14032779	1.12	1.0102	14.9	14.9	0.1740	14.9		a
S Total HpCDD					26.3	26.3	0.1740	0.1740		
D 13C-OCDD	36.498	129227905	0.89	0.4780	141.3	141.3	0.1583	0.1583	70.67	
OCDF	36.581	6308627	0.89	1.3501	7.232	7.232	0.0955	0.0955		
OCDD	36.509	74410749	0.88	1.0627	108.4	108.4	0.1283	0.1283		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 01:28:56 ALS Bottle#: 44 Worklist Smp#: 61
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-5-A 580-87706-C-5-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:03:43 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:44:54

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		94568320	23567166	25832	64580	912		
333.9339	17.158	17.158	0		117329768	29211983	24358	60895	1199	0.81(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.973	95718293	23540736	21990	54975	1071		
317.9389	16.690	16.690	0	0.973	119926177	29382965	66978	167445	439	0.80(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.001	303118	73292	4122	10305	18		
305.8987	16.690	16.705	-1	1.000	408871	98369	7440	18600	13	0.74(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.905	16.402	-90	0.893	124530	33422	4122	10305	8		
	Empc Correction				100982	37074	4122	10305	9		
305.8987	14.905	16.402	-90	0.893	131146	48149	7440	18600	6	0.95(0.65-0.89)	
303.9016	15.586	16.402	-49	0.934	137338	21093	4122	10305	5		
305.8987	15.586	16.402	-49	0.934	182036	32131	7440	18600	4	0.75(0.65-0.89)	
303.9016	15.858	16.402	-33	0.950	92295	25529	4122	10305	6		
305.8987	15.858	16.402	-33	0.950	142645	37722	7440	18600	5	0.65(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	64268809	14898127	25832	64580	577		
333.9339	17.355	17.355	0	1.011	77481018	18031329	24358	60895	740	0.83(0.65-0.89)	
2,3,7,8-TCDD											RQMa
319.8965	17.324	17.355	-2	0.998	65482	15762	5198	12995	3		M
321.8936	17.370	17.355	1	1.001	130171	29312	2644	6610	11	0.50(0.65-0.89)	M
	Empc Correction				85041	20470	2644	6610	8		
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.012	97689646	22367844	18430	46075	1214		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	17.279	16.833	27	0.996	177169	38452	5198	12995	7		M
321.8936	17.279	16.833	27	0.996	251537	55045	2644	6610	21	0.70(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.332	21.332	0	1.243	108898347	19935074	35016	87540	569		
353.8970	21.332	21.332	0	1.243	67404956	12406206	23672	59180	524	1.62(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.359	21.345	1	1.001	489569	85430	3531	8827	24		
341.8567	21.345	21.345	0	1.001	337078	57613	4686	11715	12	1.45(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.559	22.559	0	1.315	107835556	17410443	35016	87540	497		
353.8970	22.559	22.559	0	1.315	68301405	11232226	23672	59180	474	1.58(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586	22.586	0	1.001	188287	32484	3531	8827	9		
341.8567	22.559	22.586	-2	1.000	133514	23187	4686	11715	5	1.41(1.32-1.78)	
A F1 PeCDFs											RQ
339.8597	18.670	19.215	-33	0.875	339606	65800	1422	3555	46		
341.8567	18.685	19.215	-32	0.876	270218	60477	3961	9902	15	1.26(1.32-1.78)	
	Empc Correction				219100	42451	3961	9902	11		
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.118	22.104	-119	0.943	715271	123246	3531	8827	35		
341.8567	20.118	22.104	-119	0.943	456196	80989	4686	11715	17	1.57(1.32-1.78)	
339.8597	20.827	22.104	-76	0.976	226084	30076	3531	8827	9		
341.8567	20.841	22.104	-76	0.977	157082	24527	4686	11715	5	1.44(1.32-1.78)	
339.8597	22.927	22.104	49	1.075	173949	21911	3531	8827	6		
341.8567	22.900	22.104	48	1.074	132495	24314	4686	11715	5	1.31(1.32-1.78)	
	Empc Correction				112225	14136	4686	11715	3		
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.354	68188791	10909598	10174	25435	1072		
369.8919	23.241	23.227	1	1.354	42707949	7012847	11006	27515	637	1.60(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						3823	9557			
357.8516	23.254						1904	4760			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.309	22.232	-115	0.874	159679	31963	3823	9557	8		
357.8516	20.295	22.232	-116	0.873	91998	19227	1904	4760	10	1.74(1.32-1.78)	
355.8546	21.345	22.232	-53	0.918	120304	16665	3823	9557	4		
357.8516	21.386	22.232	-51	0.920	70230	12324	1904	4760	6	1.71(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.128	29.115	1	0.926	46654129	5630611	18897	47242	298		
385.8610	29.128	29.115	1	0.926	88818501	10448513	35011	87527	298	0.53(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.155	29.155	0	1.001	676064	75812	3247	8117	23		
375.8178	29.169	29.155	1	1.001	607015	70704	3018	7545	23	1.11(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.421	29.421	0	0.935	46665336	5282959	18897	47242	280		
385.8610	29.435	29.421	1	0.935	92225828	10231977	35011	87527	292	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.435	29.462	-2	1.000	241786	29125	3247	8117	9		
375.8178	29.488	29.462	2	1.002	199577	26533	3018	7545	9	1.21(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.660	30.660	0	0.974	43823405	8053802	18897	47242	426		
385.8610	30.660	30.660	0	0.974	87543056	15774163	35011	87527	451	0.50(0.43-0.59)	
2,3,4,6,7,8-HxCDF											RQMa
373.8208	30.673	30.687	-1	1.000	113122	16363	3247	8117	5		M
	Empc Correction				95679	16412	3247	8117	5		
375.8178	30.673	30.687	-1	1.000	77161	13236	3018	7545	4	1.47(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.006	43771071	9914895	18897	47242	525		
385.8610	31.672	31.672	0	1.006	82904868	18518358	35011	87527	529	0.53(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	460314	81033	3247	8117	25		
375.8178	31.685	31.685	0	1.000	322217	54983	3018	7545	18	1.43(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											Ma
373.8208	26.505	29.135	-157	0.910	281028	39034	3247	8117	12		
375.8178	26.519	29.135	-157	0.910	237984	40641	3018	7545	13	1.18(1.05-1.43)	
373.8208	26.865	29.135	-136	0.922	874508	109711	3247	8117	34		
375.8178	26.852	29.135	-137	0.922	744306	97863	3018	7545	32	1.17(1.05-1.43)	
373.8208	28.063	29.135	-64	0.963	1176361	141153	3247	8117	43		
375.8178	28.077	29.135	-63	0.964	1005600	122312	3018	7545	41	1.17(1.05-1.43)	
373.8208	30.553	29.135	85	1.049	144559	23254	3247	8117	7		M
375.8178	30.540	29.135	84	1.048	114074	19711	3018	7545	7	1.27(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		108841502	23964149	16470	41175	1455		
403.8529	31.472	31.472	0		82451741	18178145	15948	39870	1140	1.32(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.926	30.926	0	0.983	55936184	11824778	16470	41175	718		
403.8529	30.926	30.926	0	0.983	40692589	8952471	15948	39870	561	1.37(1.05-1.43)	
1,2,3,4,7,8-HxCDD											RQ
389.8157	30.953	30.953	0	1.001	133881	29180	2804	7010	10		
	Empc Correction				104682	27009	2804	7010	10		
391.8127	30.940	30.953	-1	1.000	84421	21782	3448	8620	6	1.59(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	61658434	12089295	16470	41175	734		
403.8529	31.073	31.059	1	0.987	49511416	9408842	15948	39870	590	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.073	31.086	-1	1.000	311024	64320	2804	7010	23		
391.8127	31.086	31.086	0	1.000	267522	54912	3448	8620	16	1.16(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8,9-HxCDD											
389.8157	31.472	31.485	-1	1.018	254821	44087	2804	7010	16		
391.8127	31.472	31.485	-1	1.018	199799	36819	3448	8620	11	1.28(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											RQ
389.8157	27.944	29.926	-119	0.899	699338	86981	2804	7010	31		
391.8127	27.944	29.926	-119	0.899	623636	83985	3448	8620	24	1.12(1.05-1.43)	
389.8157	29.102	29.926	-49	0.937	195319	13991	2804	7010	5		
	Empc Correction				157592	17257	2804	7010	6		
391.8127	29.302	29.926	-37	0.943	127091	13917	3448	8620	4	1.54(1.05-1.43)	
389.8157	29.914	29.926	-1	0.963	968080	117834	2804	7010	42		
391.8127	29.941	29.926	1	0.964	775730	89739	3448	8620	26	1.25(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	29452016	9072210	28233	70582	321		
419.8220	33.335	33.335	0	1.059	65466156	19690158	54925	137312	358	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.335	33.347	-1	1.000	2326915	737913	10353	25882	71		
	Empc Correction				1668066	486145	10353	25882	47		
409.7789	33.335	33.347	-1	1.000	1603910	467448	5354	13385	87	1.45(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	30564062	8351695	28233	70582	296		
419.8220	34.417	34.429	-1	1.094	67283669	18652529	54925	137312	340	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.441	-1	1.000	210949	66825	10353	25882	6		
409.7789	34.429	34.441	-1	1.000	180634	52691	5354	13385	10	1.17(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.639	33.894	-15	1.009	3316010	1011127	10353	25882	98		
409.7789	33.639	33.894	-15	1.009	3005165	921110	5354	13385	172	1.10(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	48062863	13398634	18660	46650	718		
437.8140	34.150	34.150	0	1.085	44986351	12407817	16478	41195	753	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	5555296	1583447	10355	25887	153		
425.7737	34.150	34.162	-1	1.000	5150178	1537976	7784	19460	198	1.08(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	7412918	2309626	10355	25887	223		a
425.7737	33.603	35.074	-88	0.984	6619861	2014446	7784	19460	259	1.12(0.88-1.20)	
13C-OCDD											
469.7779	36.498	36.498	0	1.160	60922270	15098993	6226	15565	2425		
471.7750	36.498	36.498	0	1.160	68305635	16765372	6527	16317	2569	0.89(0.76-1.02)	
OCDF											
441.7428	36.581	36.582	0	1.002	2971406	731975	3553	8882	206		
443.7399	36.581	36.582	0	1.002	3337221	830058	4661	11652	178	0.89(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	34931418	8739898	4693	11732	1862		
459.7348	36.509	36.509	0	1.000	39479331	9840318	3996	9990	2463	0.88(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	215644470	52923701

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	215644470	52923701

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.905	124530	33422	131146	48149	0.1221	0.95	RQ
14.905	100982	37074	131146	48149	0.1109		Empc Correction
15.586	137338	21093	182036	32131	0.1525	0.75	
15.858	92295	25529	142645	37722	0.1122	0.65	
Signal Totals:							
	330615	83696	455827	118002			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	809990	198046				0.78	RQ
	786442	201698					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3868 = (809990 * 100.000) / (215644470 * 0.971)
Empc Amount: 0.3756 = (786442 * 100.000) / (215644470 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	141749827	32929456

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	141749827	32929456

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.279	177169	38452	251537	55045	0.2895	0.70	Ma
Signal Totals:							
	177169	38452	251537	55045			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	428706	93497				0.70	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2895 = (428706 * 100.000) / (141749827 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	176303303	32341280
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	176136961	28642669

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	176220132	30491974

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.670	339606	65800	270218	60477	0.3618	1.26	RQ
18.670	339606	65800	219100	42451	0.3315		Empc Correction
Signal Totals:							
	339606	65800	219100	42451			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	609824	126277				1.26	RQ
	558706	108251					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3618 = (609824 * 100.000) / (176220132 * 0.956)
Empc Amount: 0.3315 = (558706 * 100.000) / (176220132 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	176303303	32341280
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	176136961	28642669

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	176220132	30491974

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	715271	123246	456196	80989	0.6951	1.57	
20.827	226084	30076	157082	24527	0.2273	1.44	
22.927	173949	21911	132495	24314	0.1818	1.31	RQ
22.927	173949	21911	112225	14136	0.1698		Empc Correction
Signal Totals:							
	1115304	175233	725503	119652			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1861077	305063				1.50	RQ
	1840807	294885					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.104 = (1861077 * 100.000) / (176220132 * 0.956)
Empc Amount: 1.092 = (1840807 * 100.000) / (176220132 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	110896740	17922445

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	110896740	17922445

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.309	159679	31963	91998	19227	0.2134	1.74	
21.345	120304	16665	70230	12324	0.1616	1.71	
Signal Totals:							
	279983	48628	162228	31551			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	442211	80179				1.73	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3750 = (442211 * 100.000) / (110896740 * 1.063)

Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	135472630	16079124
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	138891164	15514936
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	131366461	23827965
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	126675939	28433253

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	133101548	20963819

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.505	281028	39034	237984	40641	0.3320	1.18	
26.865	874508	109711	744306	97863	1.04	1.17	
28.063	1176361	141153	1005600	122312	1.40	1.17	
30.553	144559	23254	114074	19711	0.1654	1.27	Ma
Signal Totals:							
	2476456	313152	2101964	280527			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	4578420	593679				1.18	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.929 = (4578420 * 100.000) / (133101548 * 1.175)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	96628773	20777249
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	111169850	21498137
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	103899311	21137693

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.944	699338	86981	623636	83985	1.25	1.12	
29.102	195319	13991	127091	13917	0.3037	1.54	RQ
29.102	157592	17257	127091	13917	0.2682		Empc Correction
29.914	968080	117834	775730	89739	1.64	1.25	
Signal Totals:							
	1825010	222072	1526457	187641			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3389194	406447				1.22	RQ
	3351467	409713					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.192 = (3389194 * 100.000) / (103899311 * 1.022)
Empc Amount: 3.157 = (3351467 * 100.000) / (103899311 * 1.022)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	94918172	28762368
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	97847731	27004224

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	96382951	27883296

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.639	3316010	1011127	3005165	921110	4.78	1.10	
Signal Totals:							
	3316010	1011127	3005165	921110			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6321175	1932237				1.10	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.776 = (6321175 * 100.000) / (96382951 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d
Lims ID: 580-87706-C-5-A
Client ID: 22T-SG-12_20190716
Inject. Date: 22-Jul-2019 01:28:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 61

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	93049214	25806451

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	93049214	25806451

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	7412918	2309626	6619861	2014446	14.9	1.12	a
Signal Totals:							
	7412918	2309626	6619861	2014446			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	14032779	4324072				1.12	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 14.929 = (14032779 * 100.000) / (93049214 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

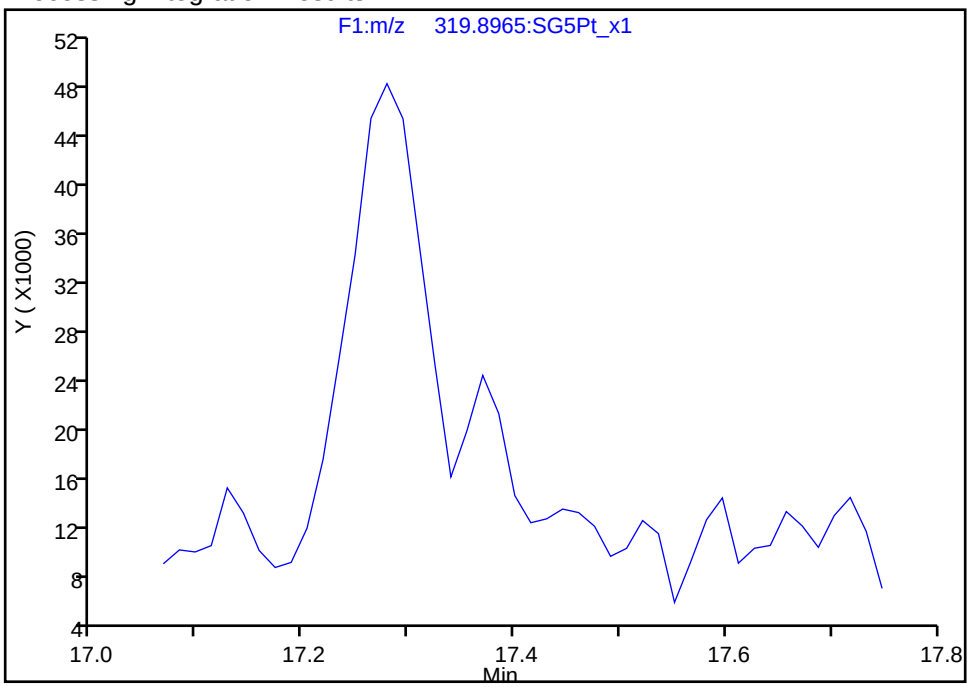
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d				
Injection Date:	22-Jul-2019 01:28:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-5-A	Lab Sample ID:	320-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	44	Worklist Smp#:	61
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

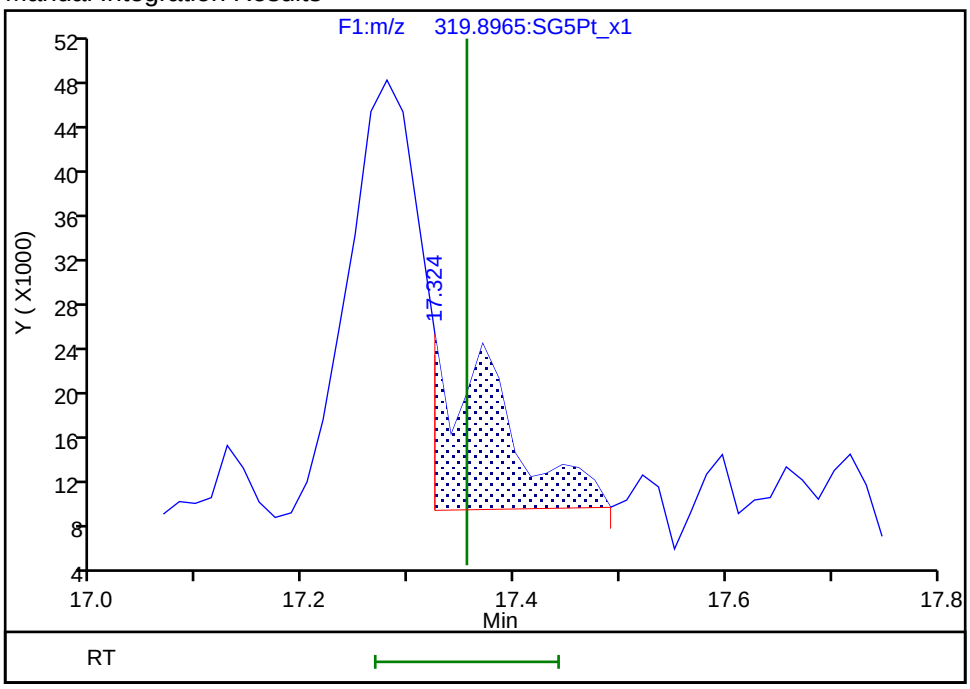
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.32
Area: 65482
Amount: 0.132119
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:01:21
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

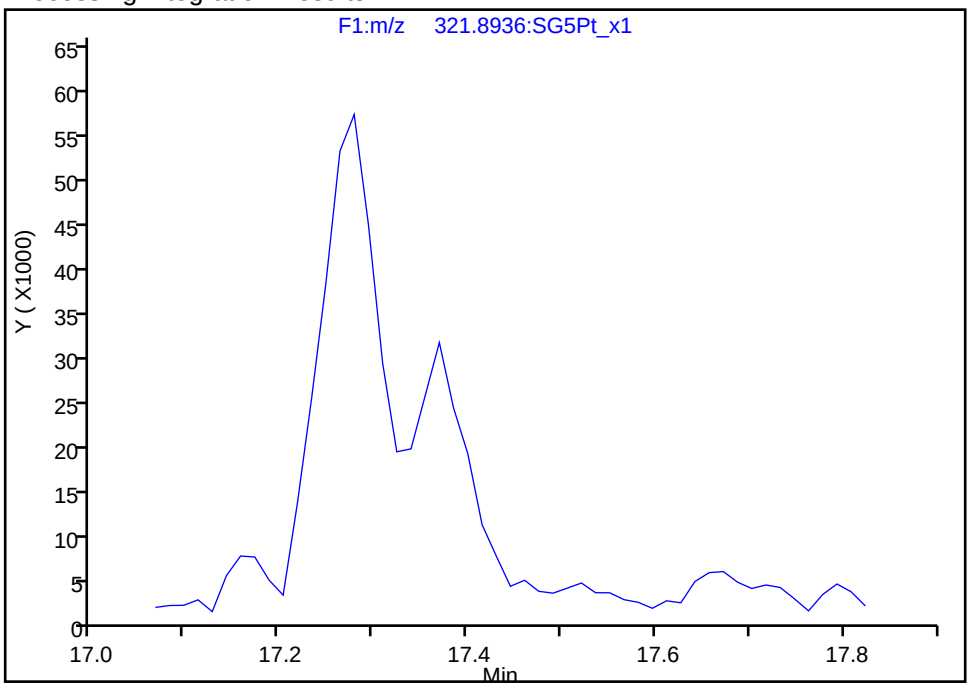
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d				
Injection Date:	22-Jul-2019 01:28:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-5-A	Lab Sample ID:	320-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	44	Worklist Smp#:	61
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

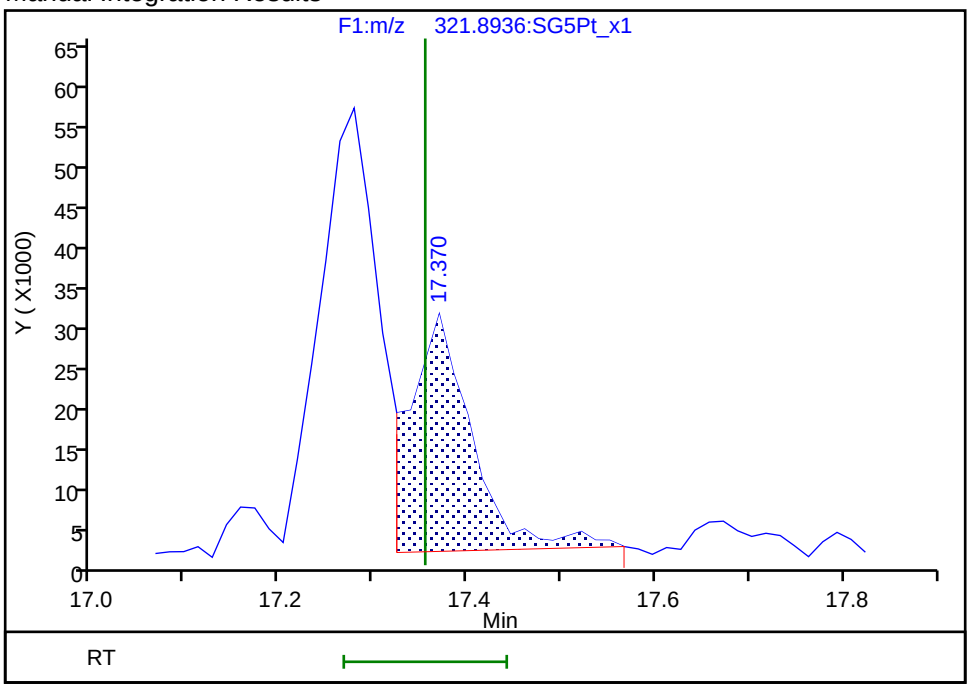
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.37
Area: 130171
Amount: 0.132119
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:01:23
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

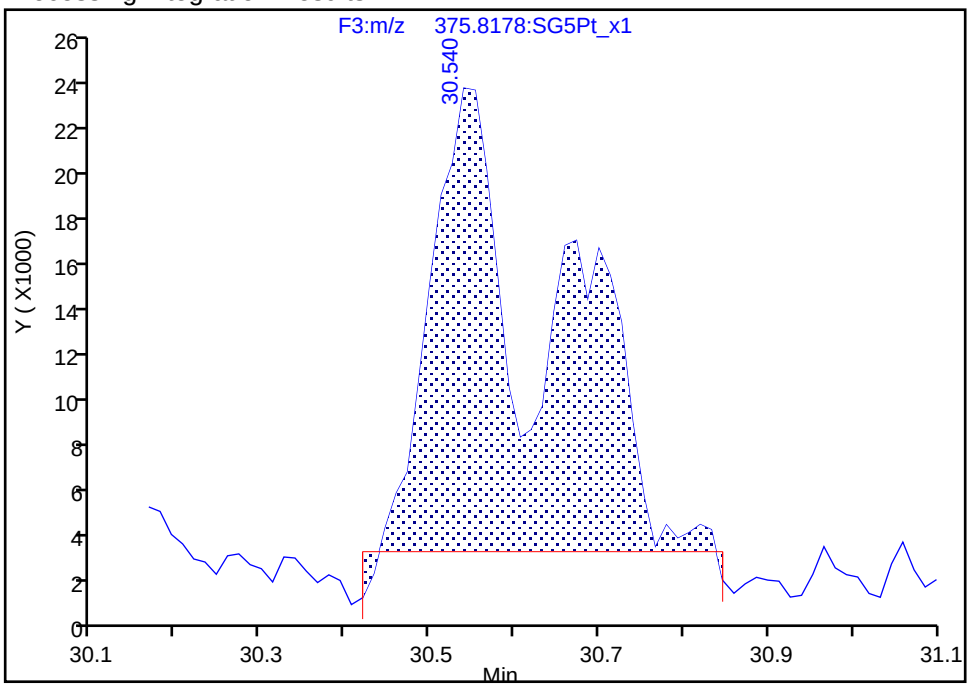
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d				
Injection Date:	22-Jul-2019 01:28:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-5-A	Lab Sample ID:	320-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	44	Worklist Smp#:	61
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 2

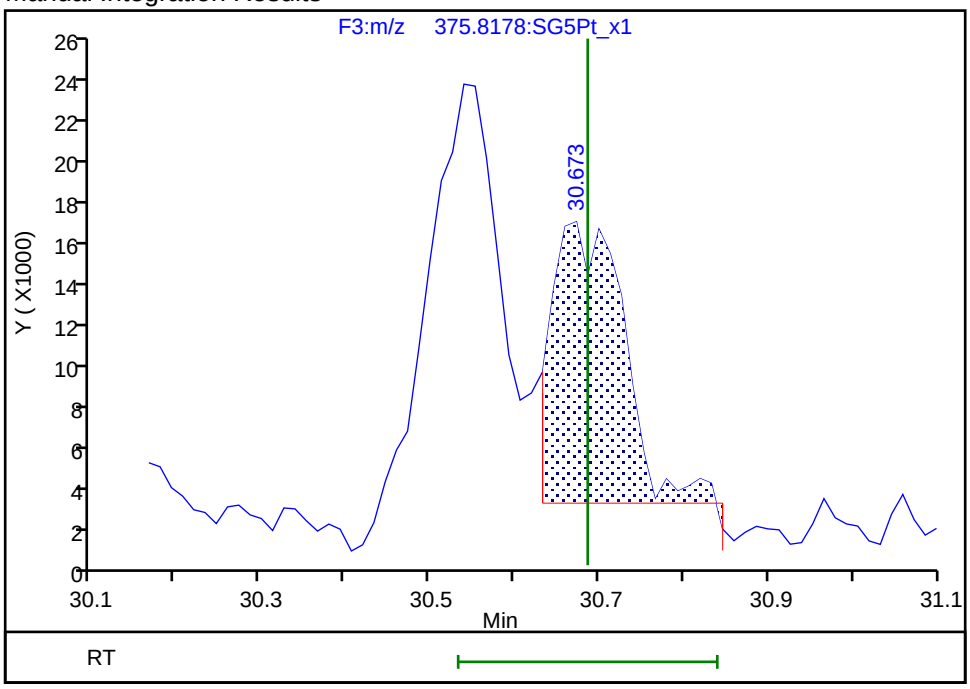
Processing Integration Results

RT: 30.54
Area: 191236
Amount: 0.218293
Amount Units: pg/ul



Manual Integration Results

RT: 30.67
Area: 77161
Amount: 0.123699
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:03:00

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

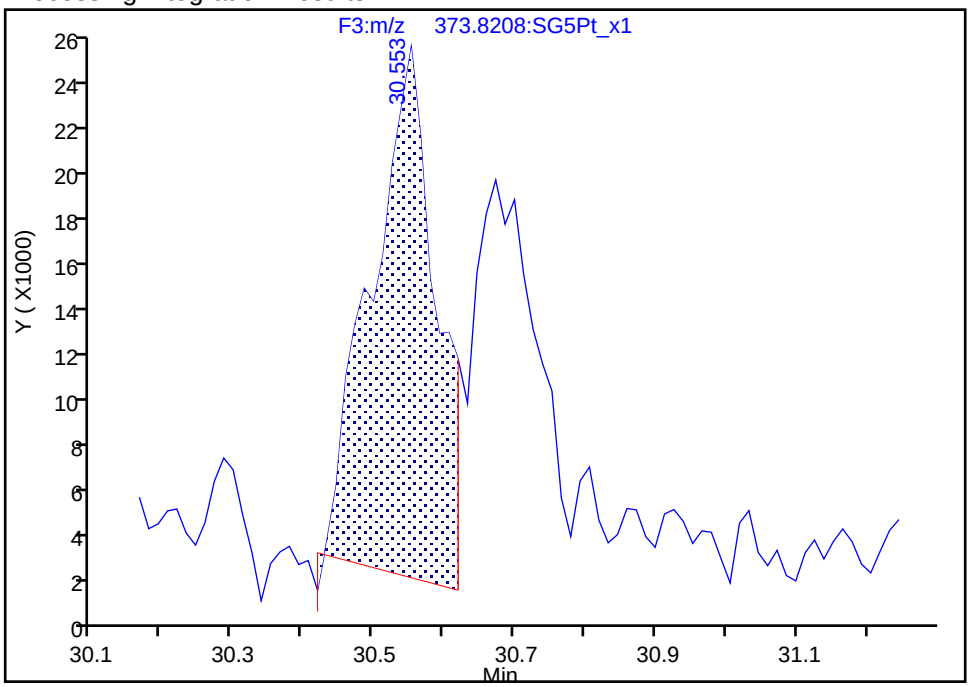
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d				
Injection Date:	22-Jul-2019 01:28:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-5-A	Lab Sample ID:	320-87706-5		
Client ID:	22T-SG-12_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	44	Worklist Smp#:	61
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

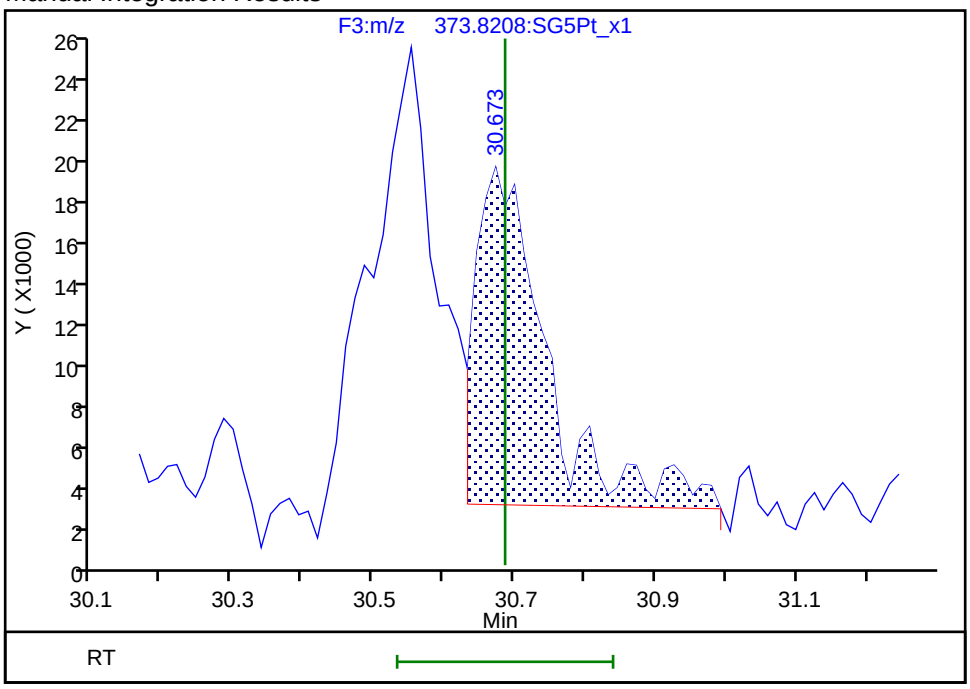
Processing Integration Results

RT: 30.55
Area: 144559
Amount: 0.218293
Amount Units: pg/ul



Manual Integration Results

RT: 30.67
Area: 113122
Amount: 0.123699
Amount Units: pg/ul



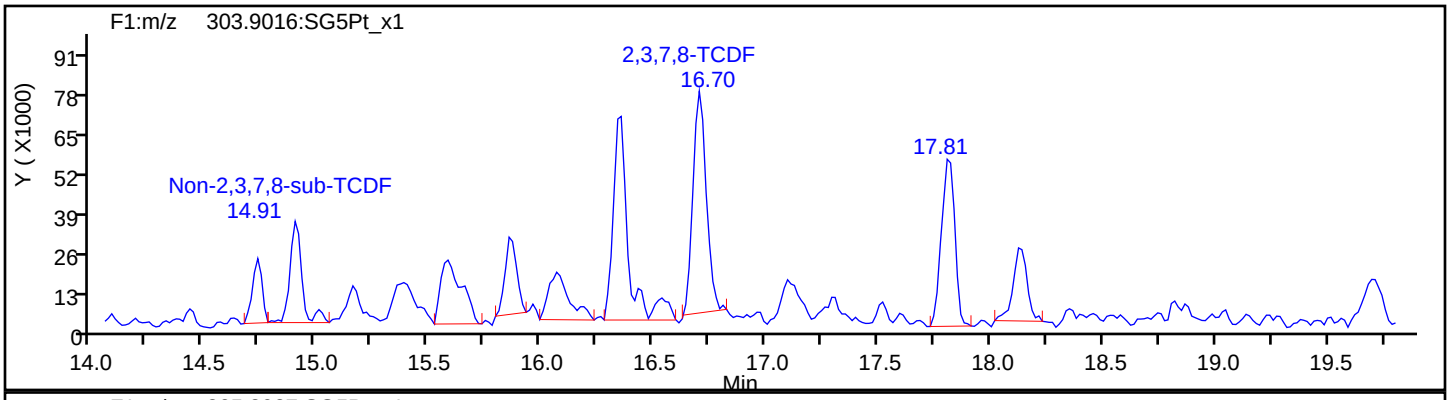
Reviewer: krongsingn, 23-Jul-2019 11:03:03
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

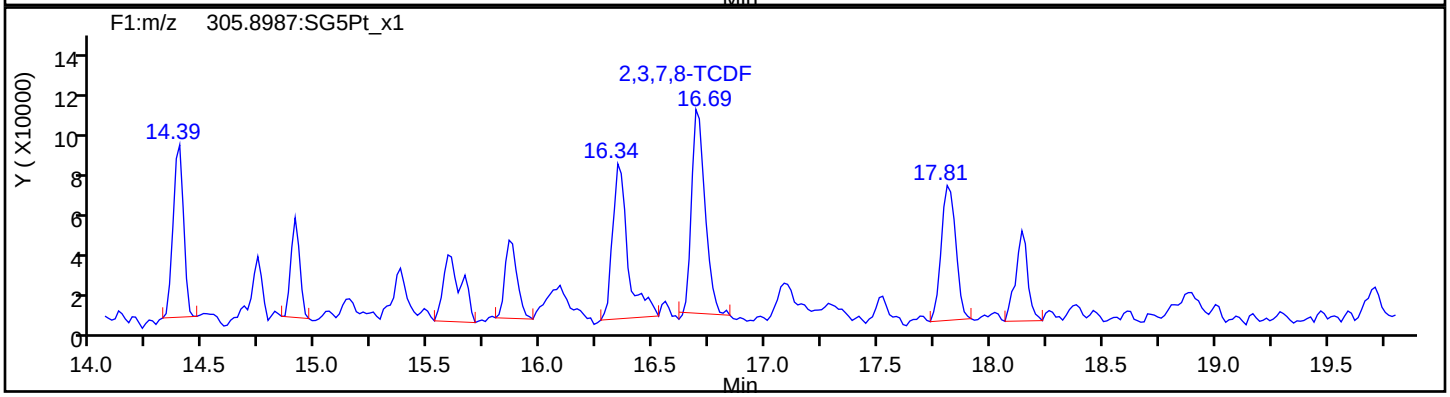
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

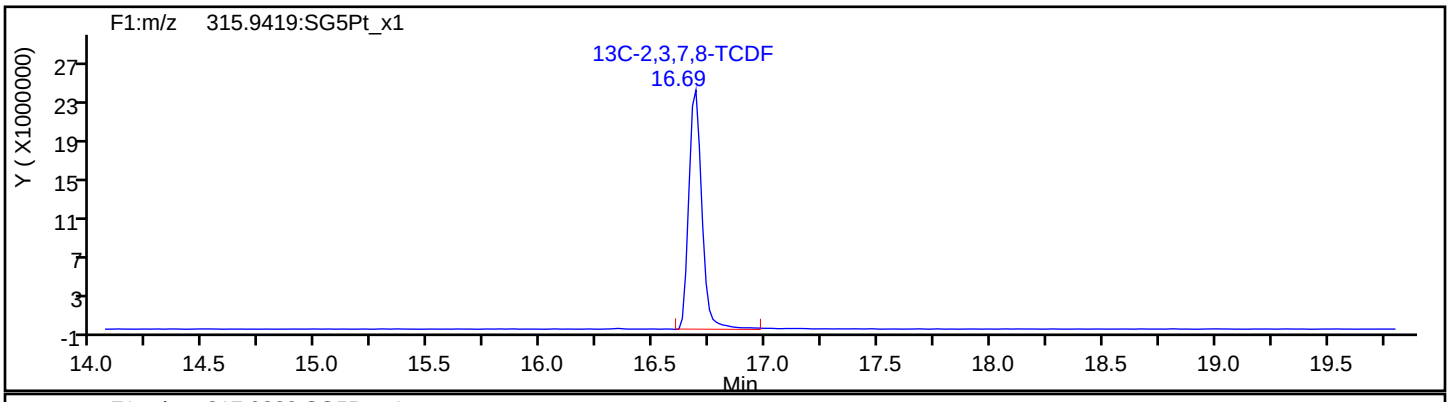
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

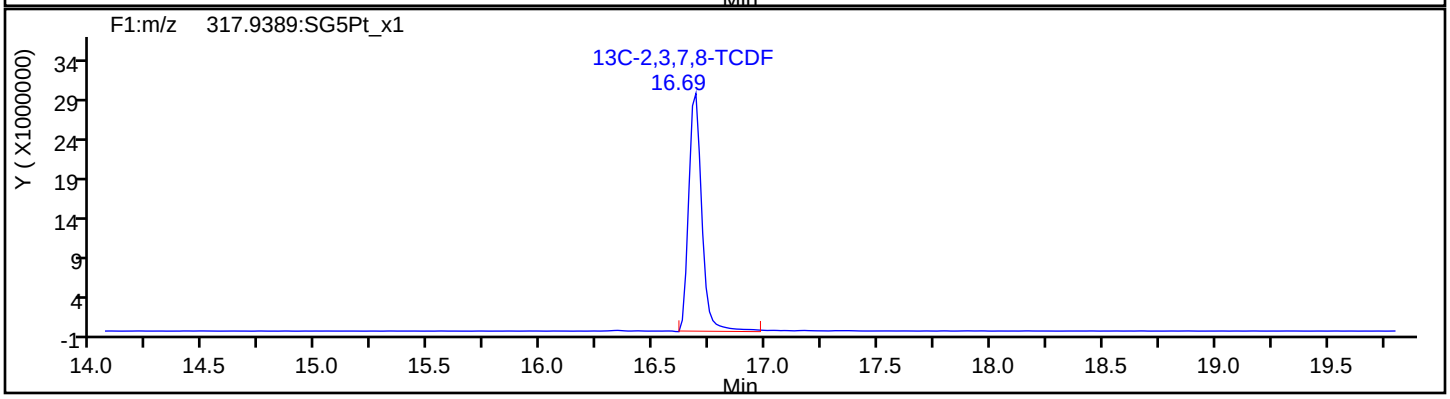
TCDF





TCDF Standards



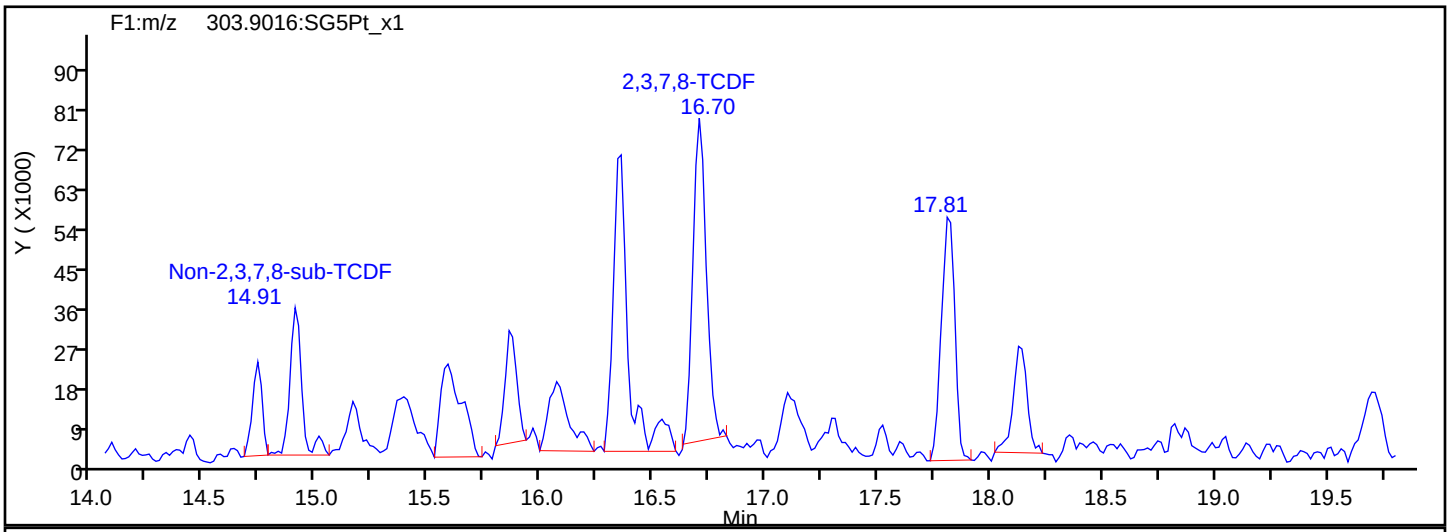


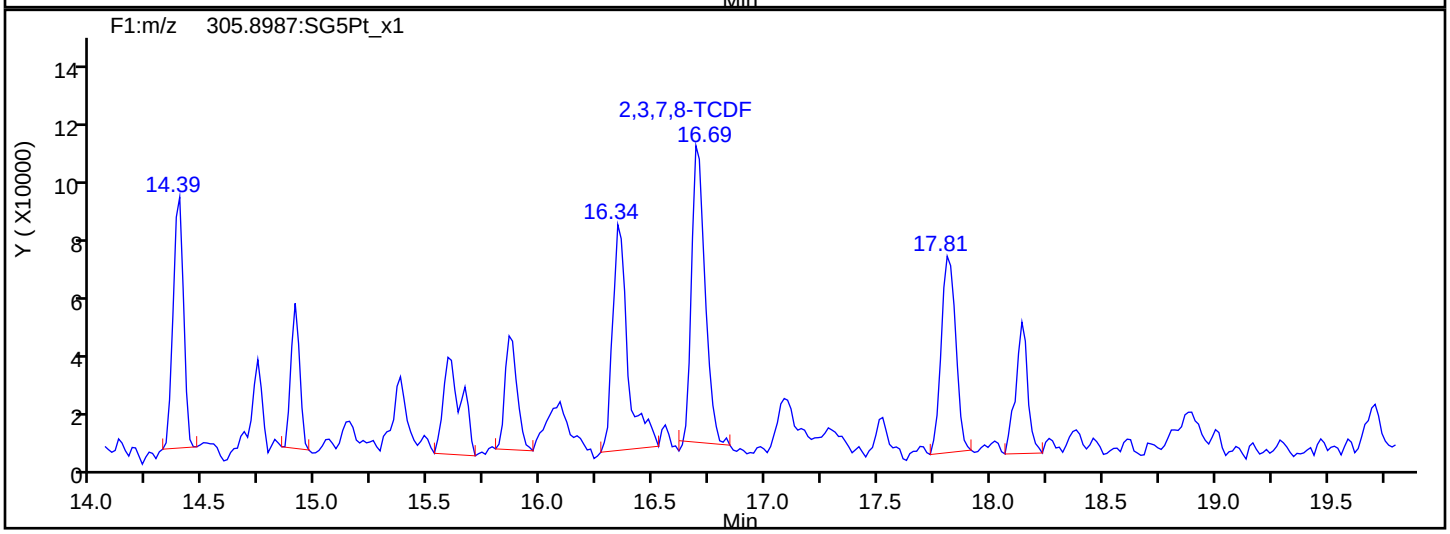
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

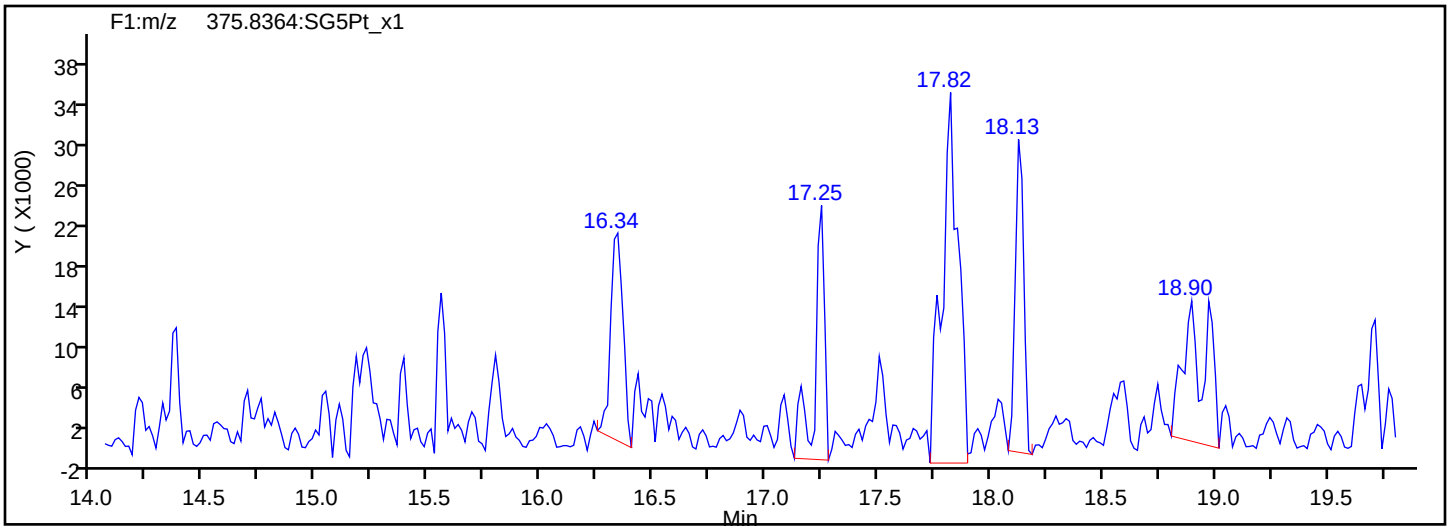
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



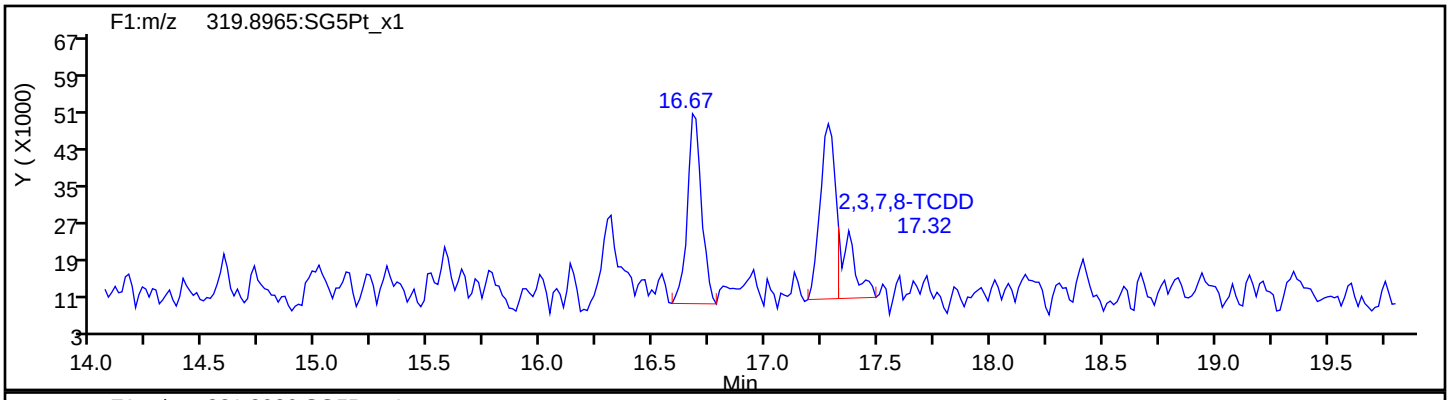
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

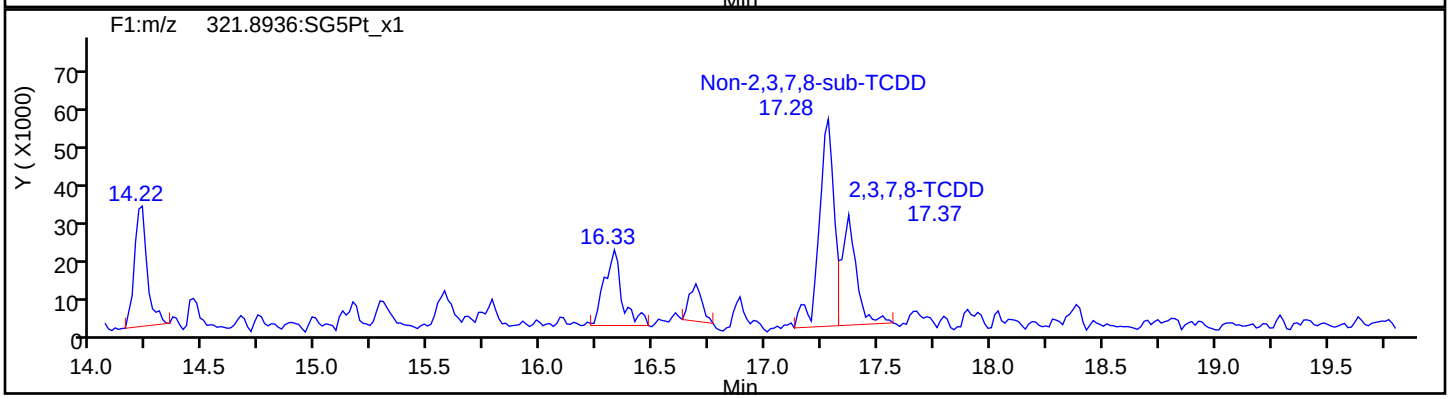
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d

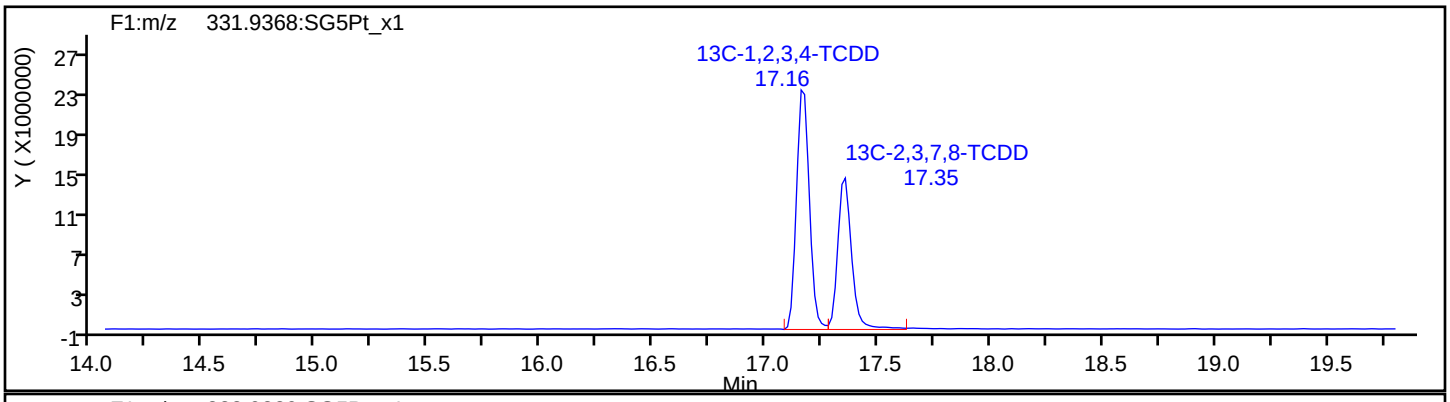
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

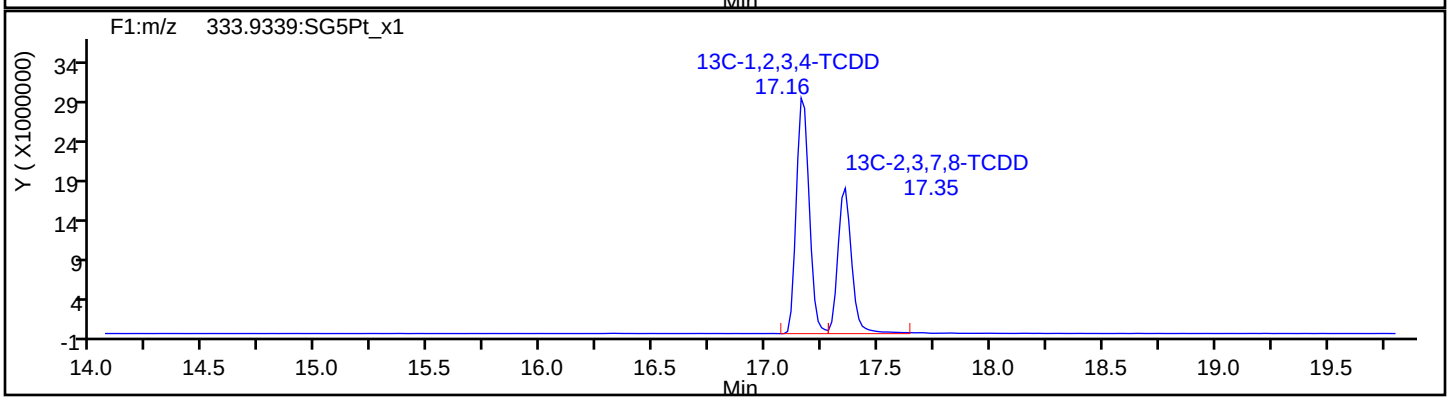
TCDD





TCDD Standards



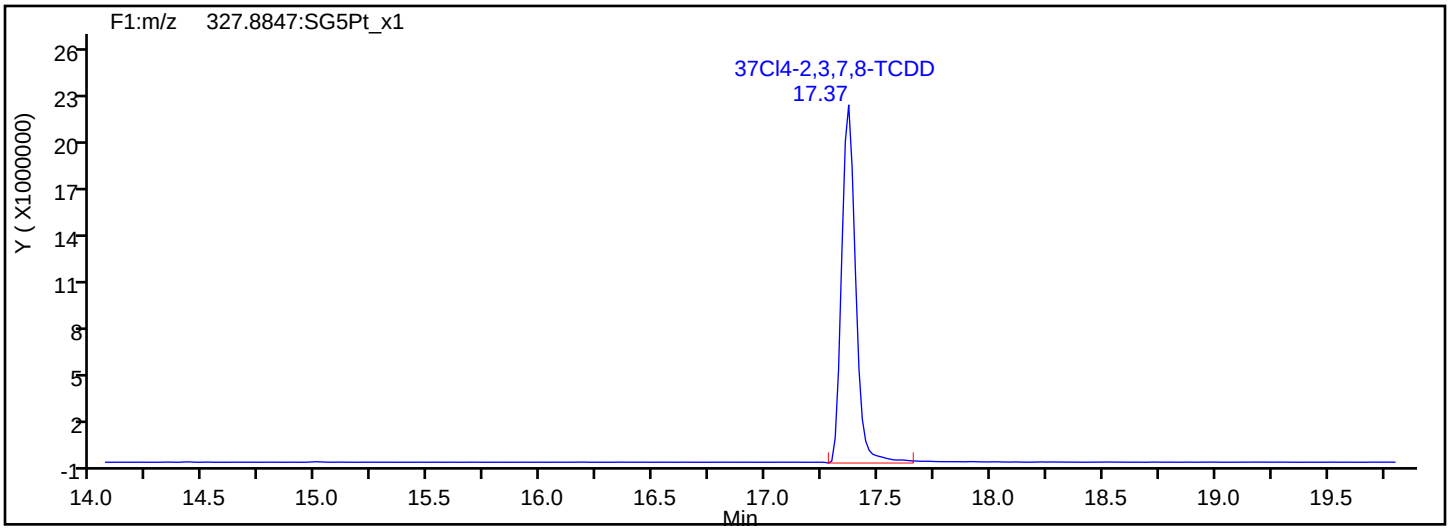


Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

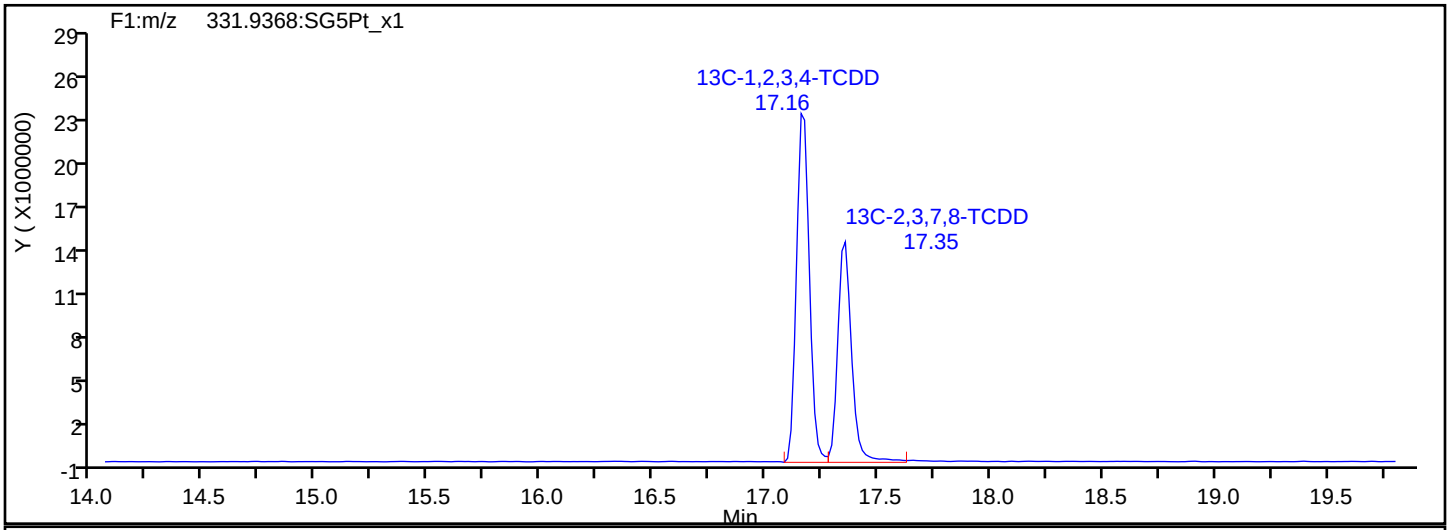
Eurofins TestAmerica, Sacramento

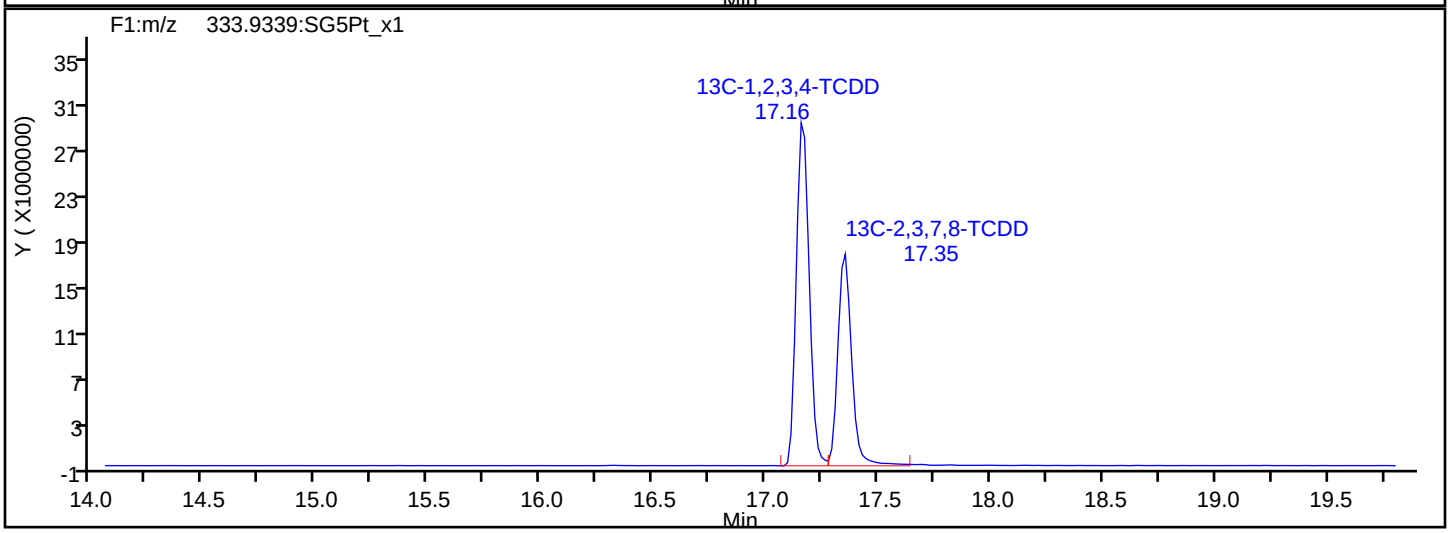
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



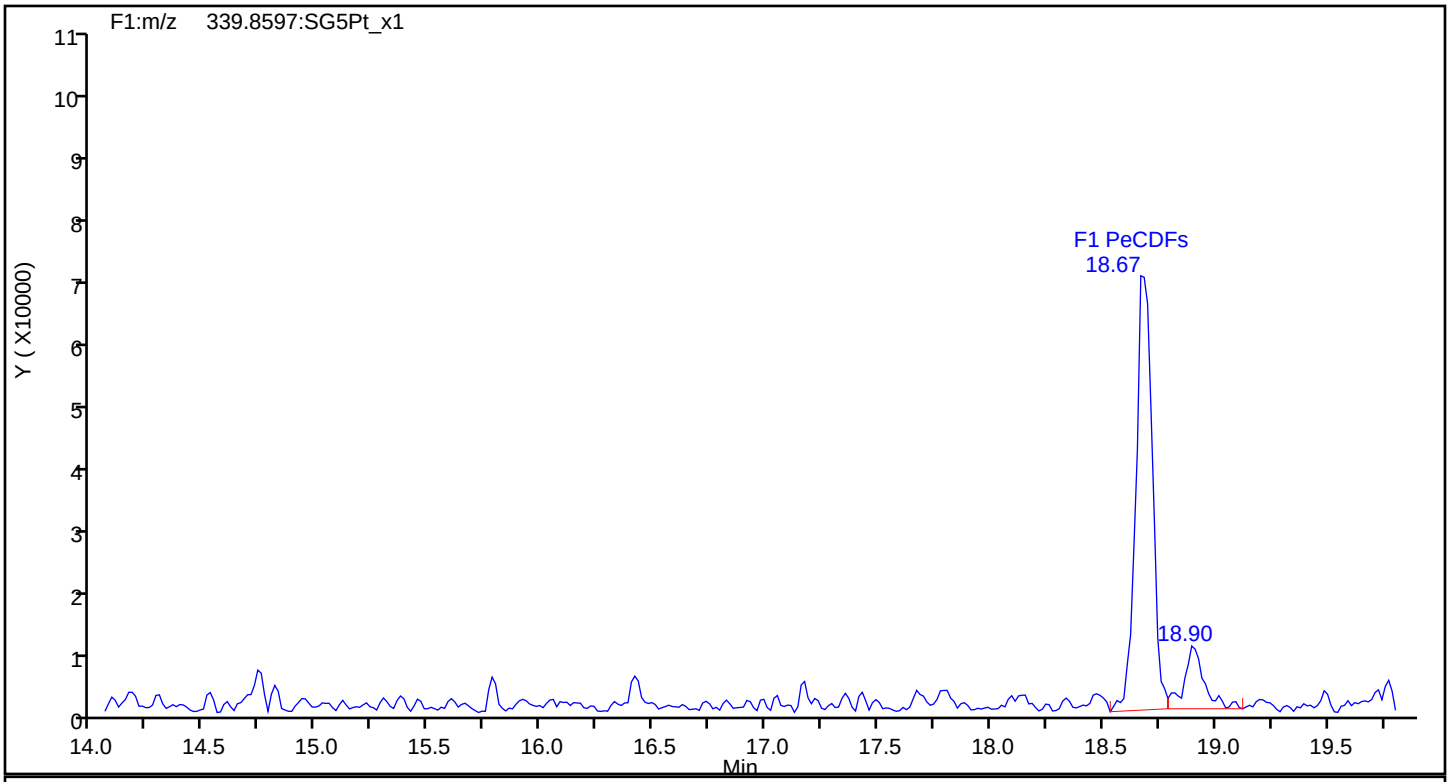


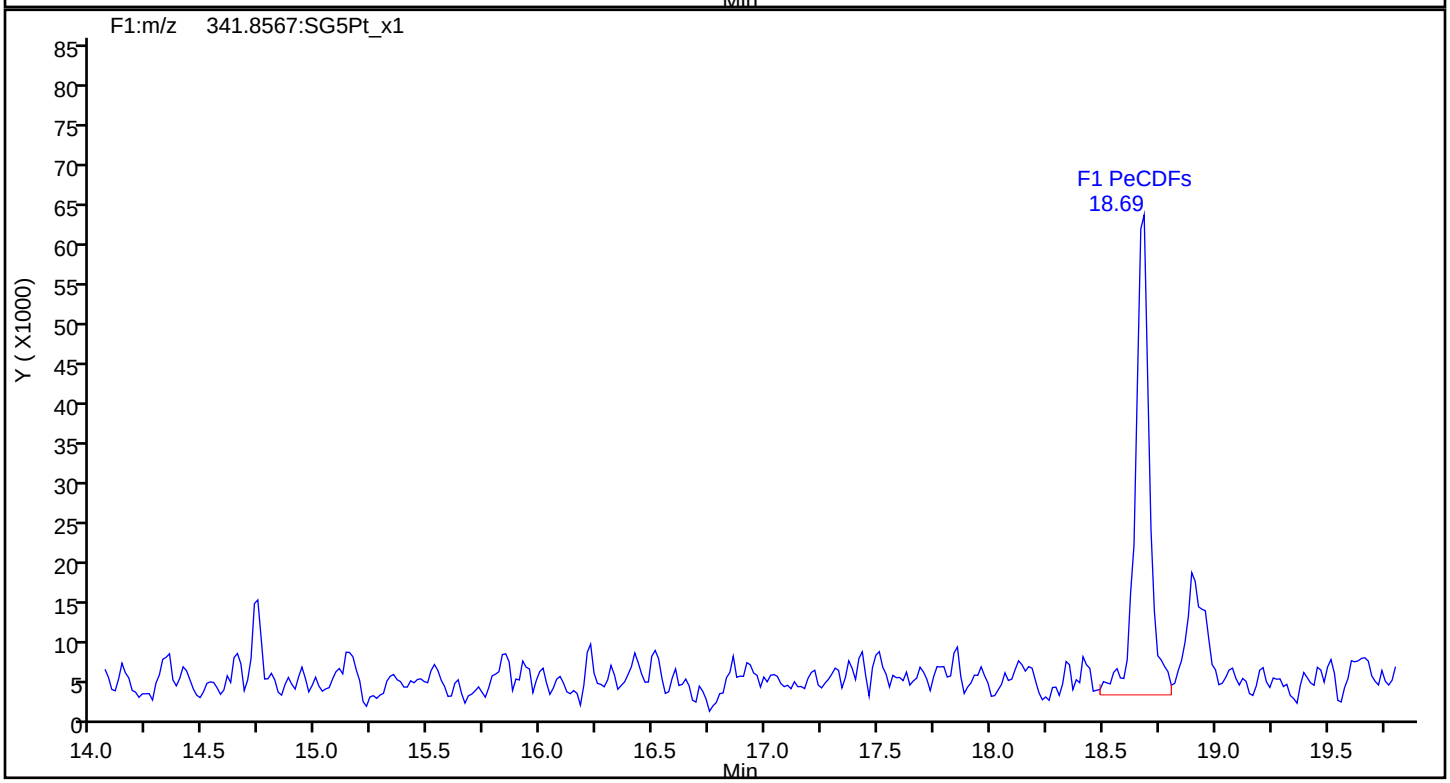
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



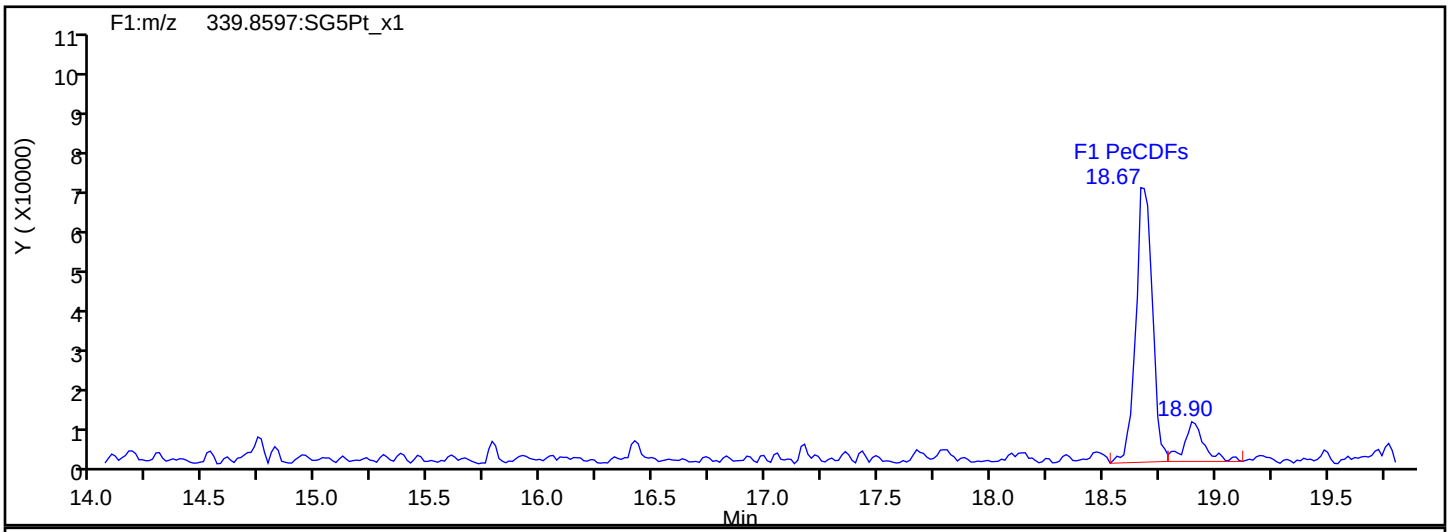


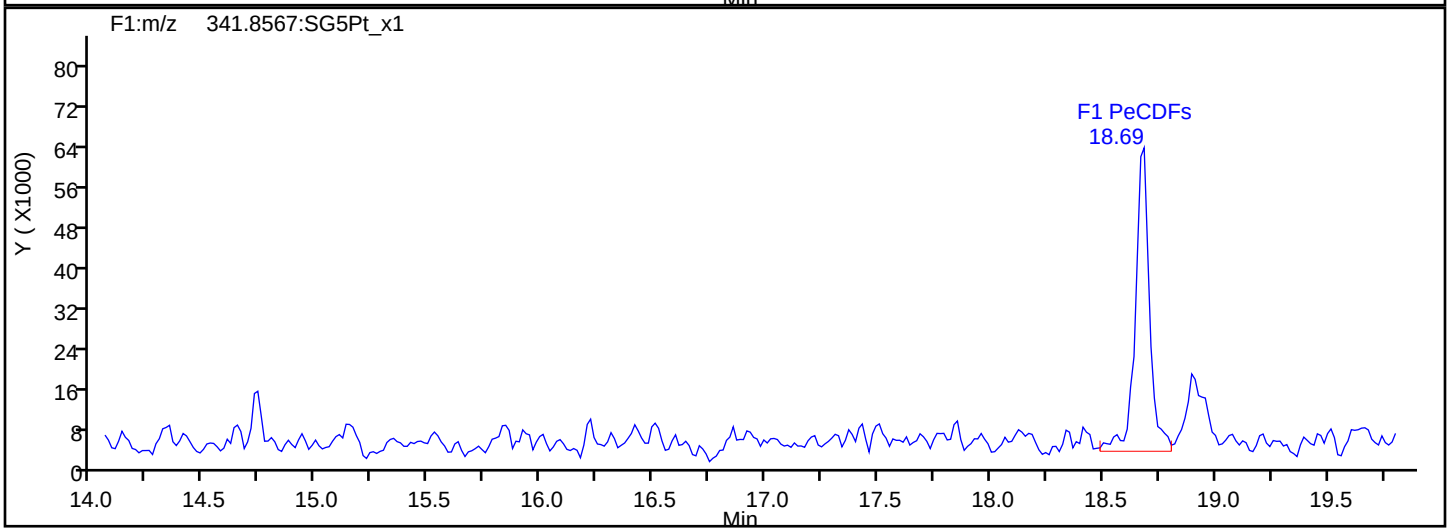
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

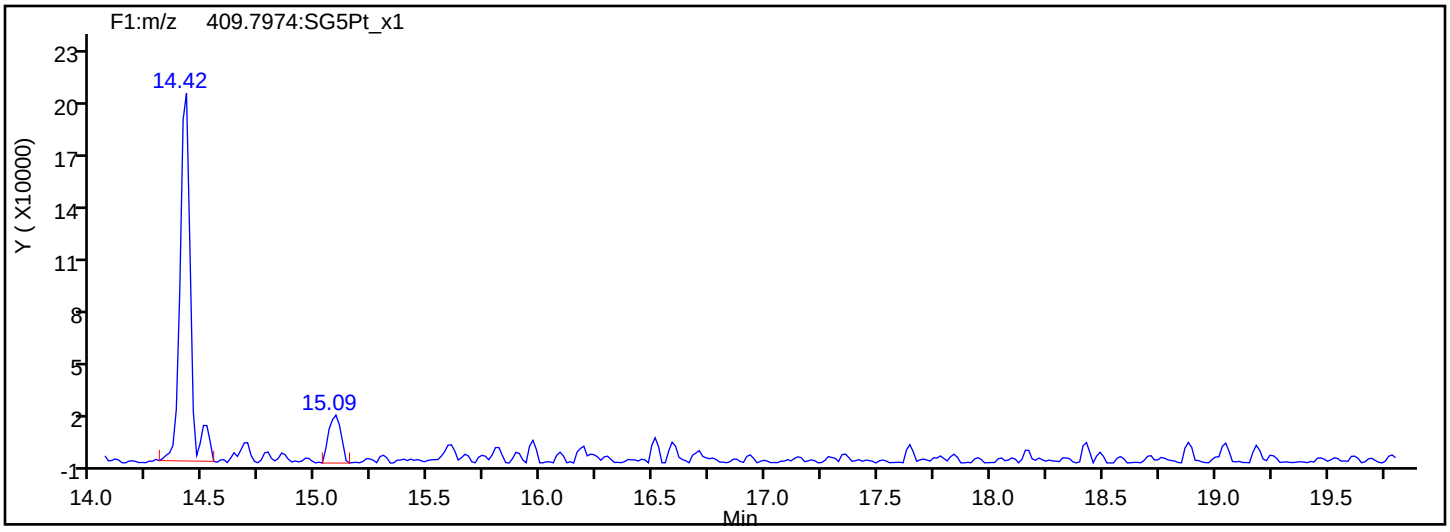
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

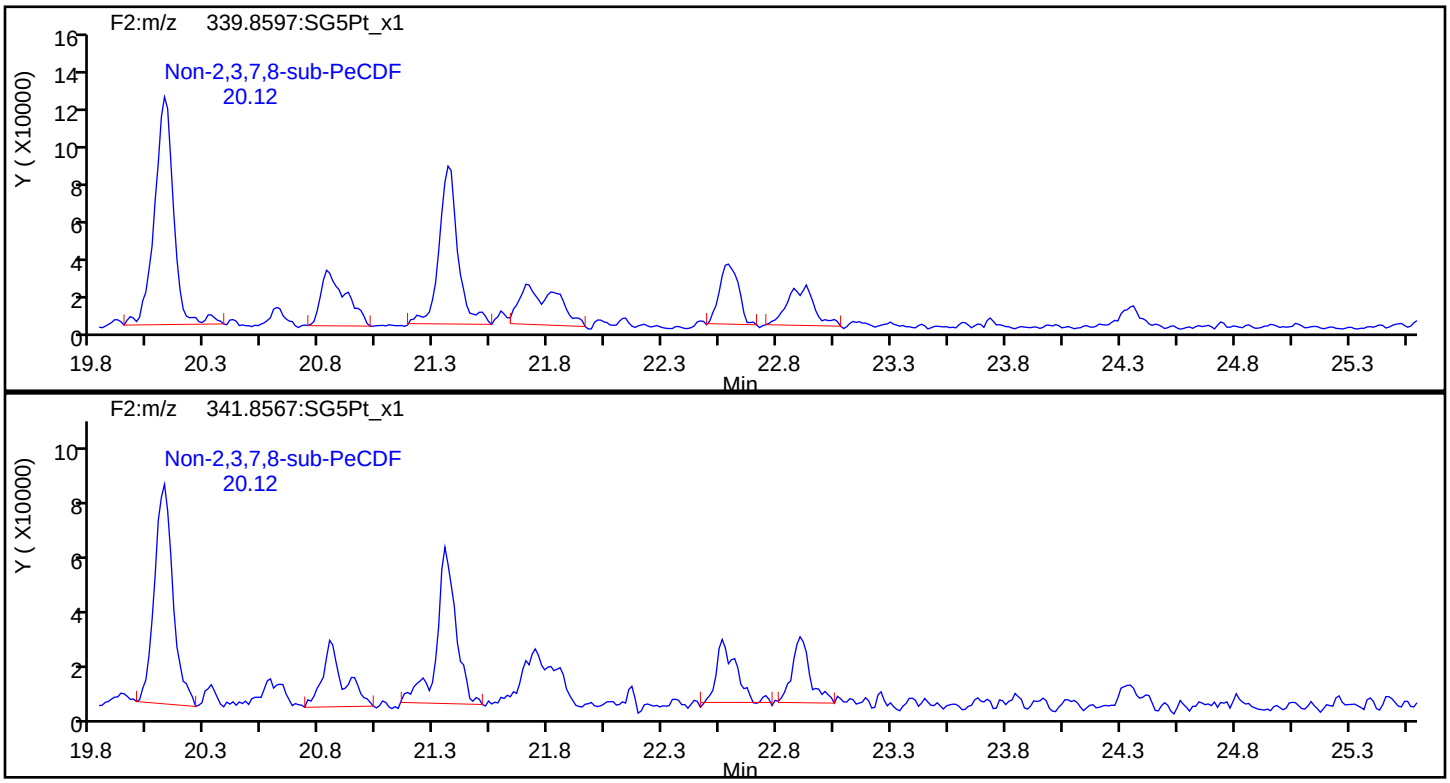


Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

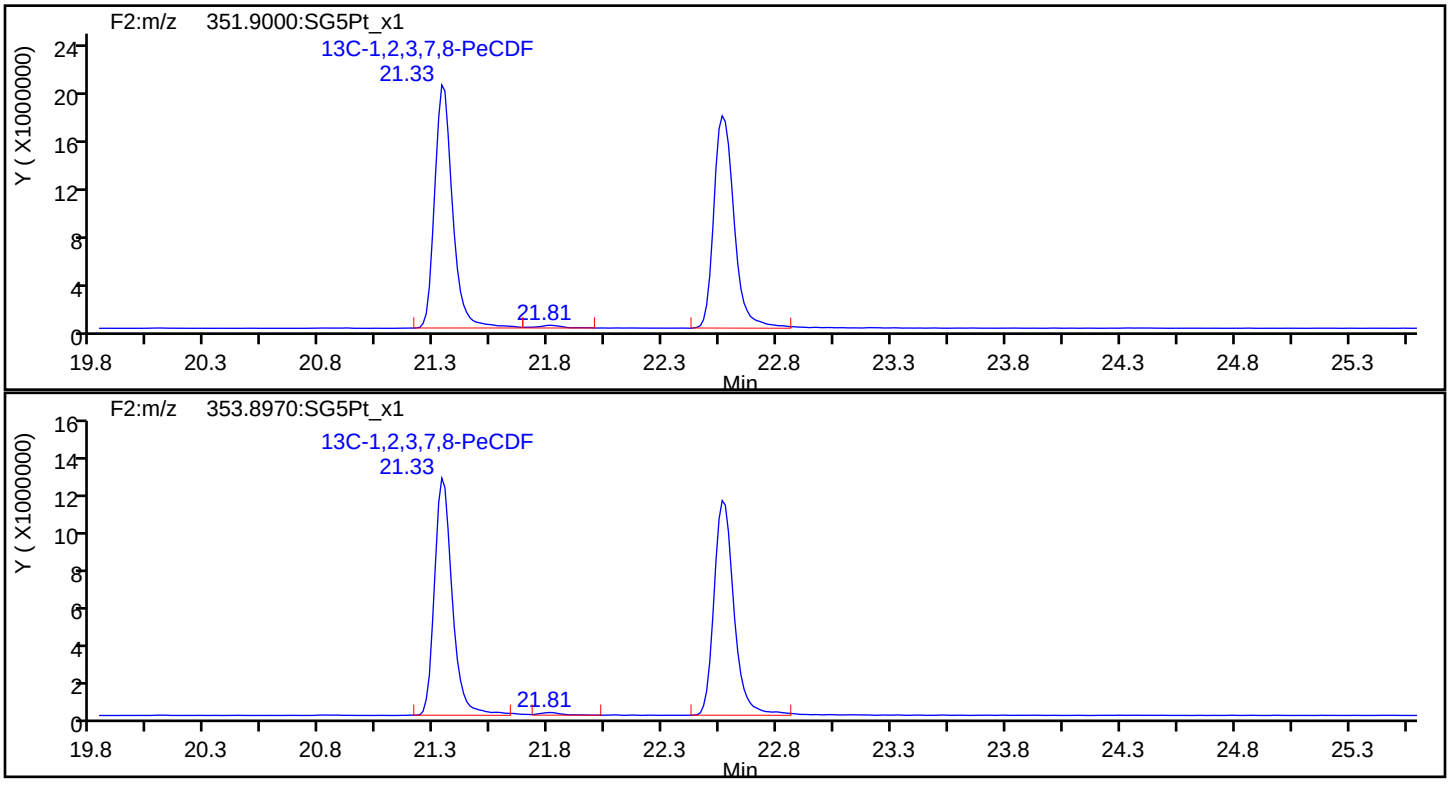
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

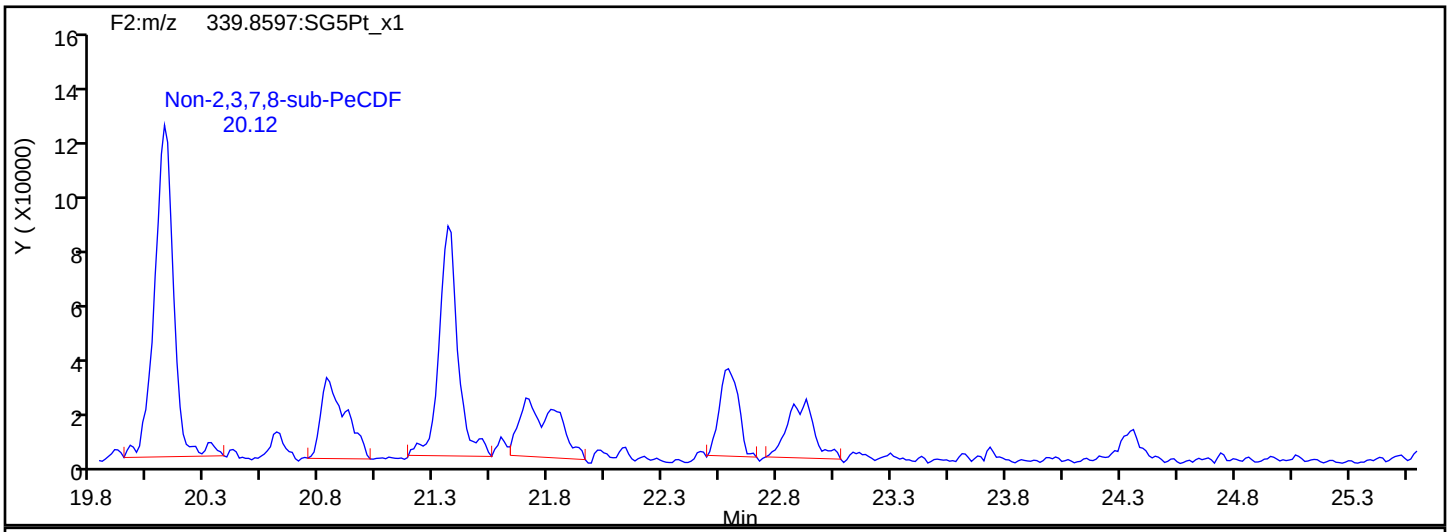


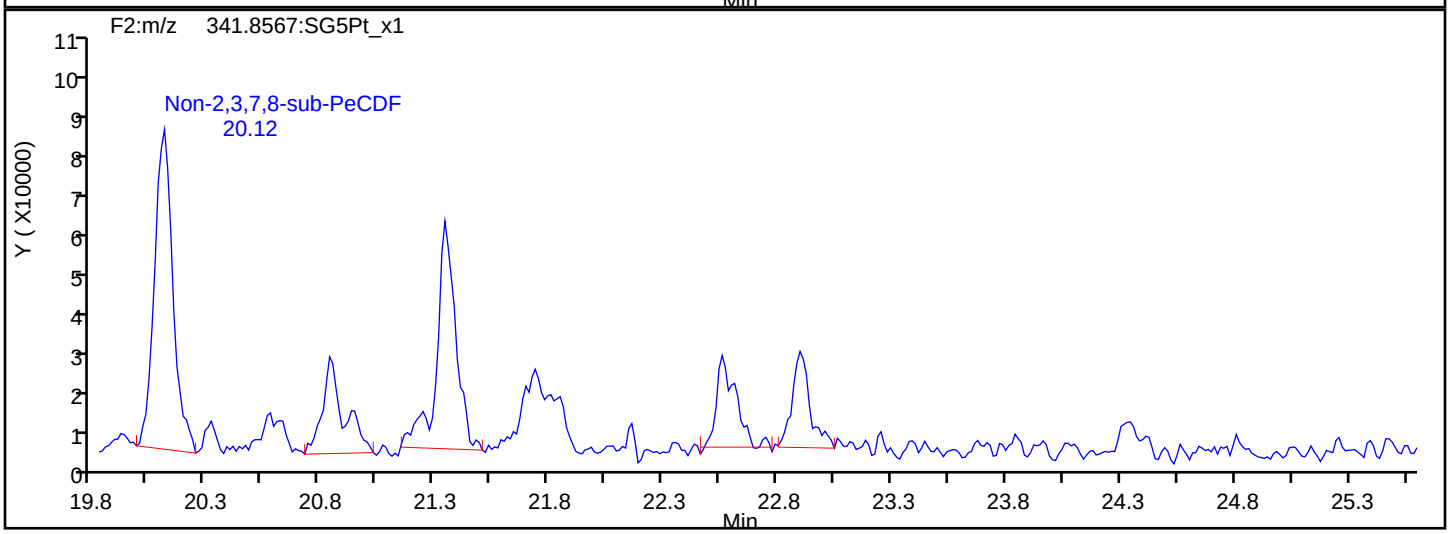
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

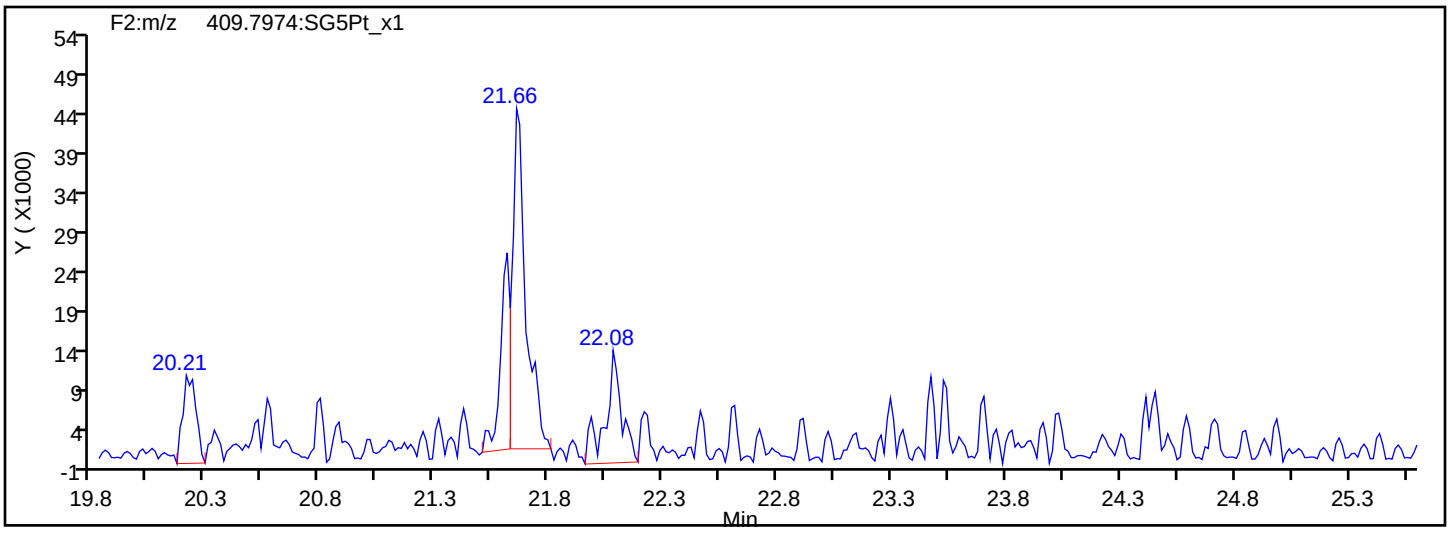
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

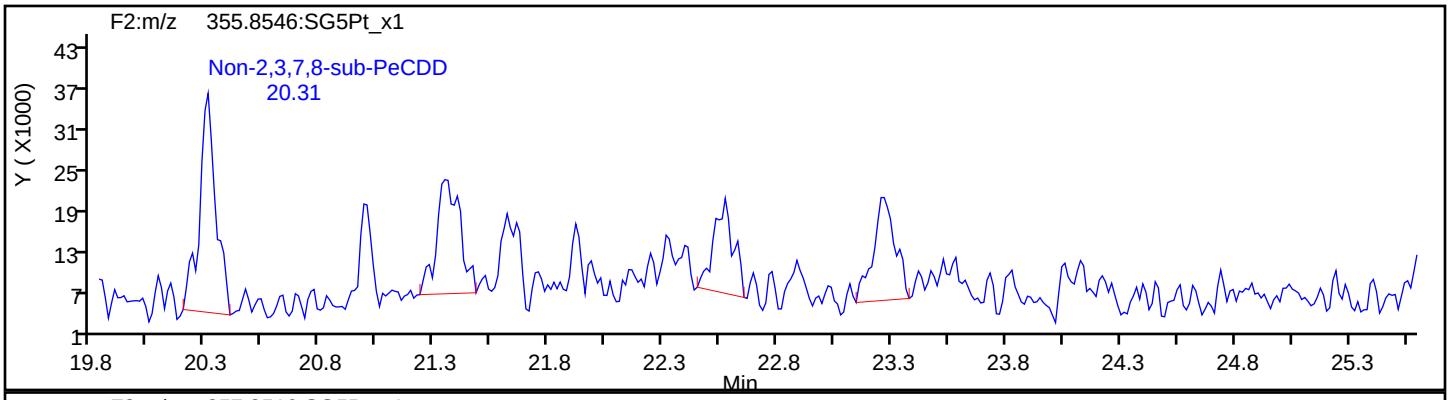


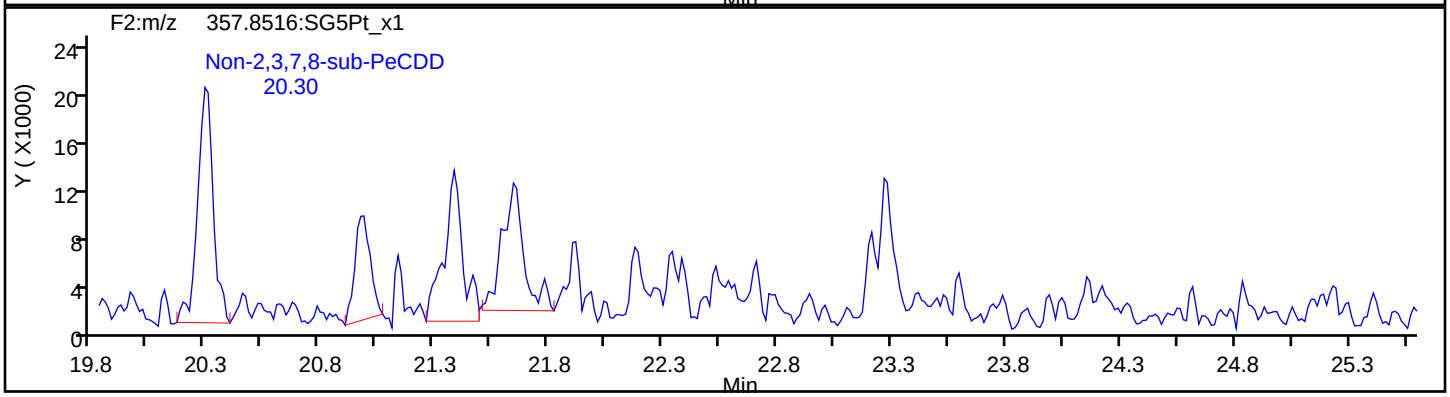
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

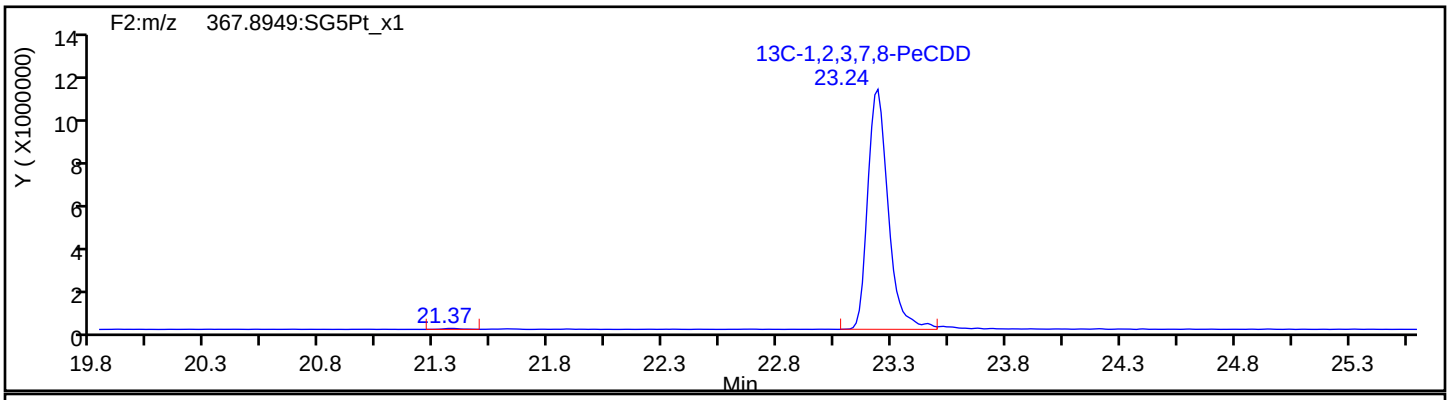
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

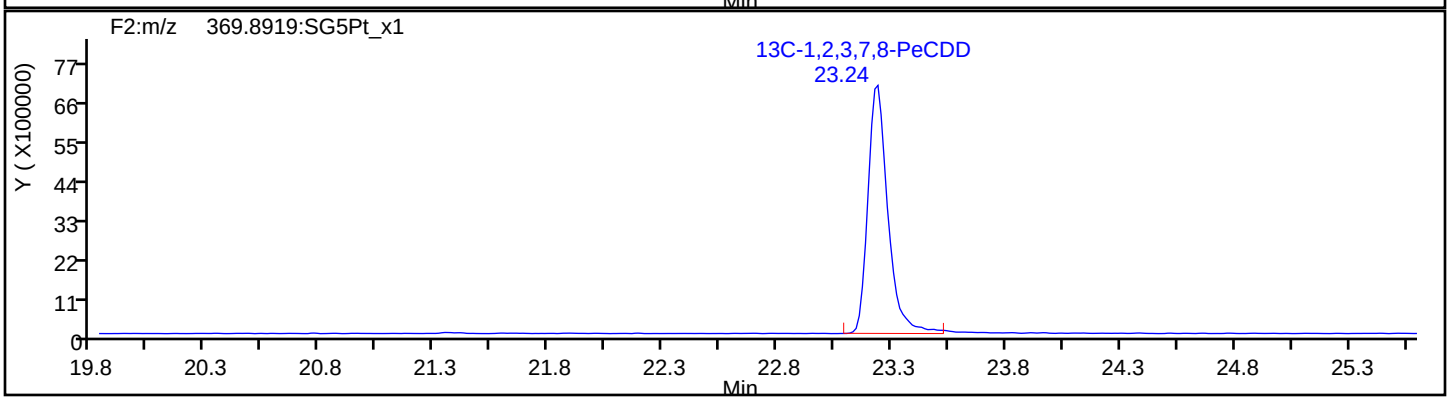
PeCDD





PeCDD Standards





Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d

Injection Date: 22-Jul-2019 01:28:56 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

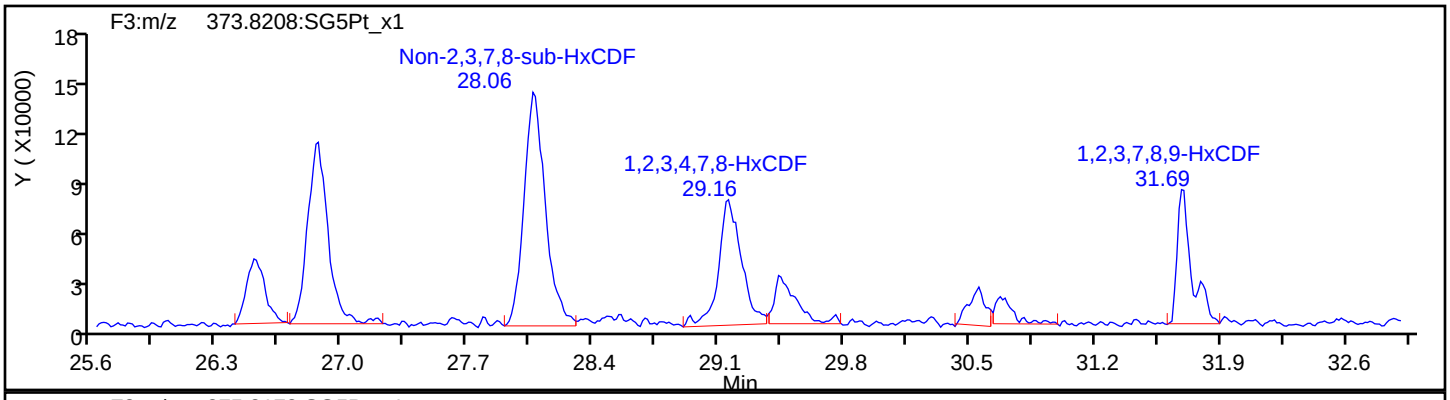
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

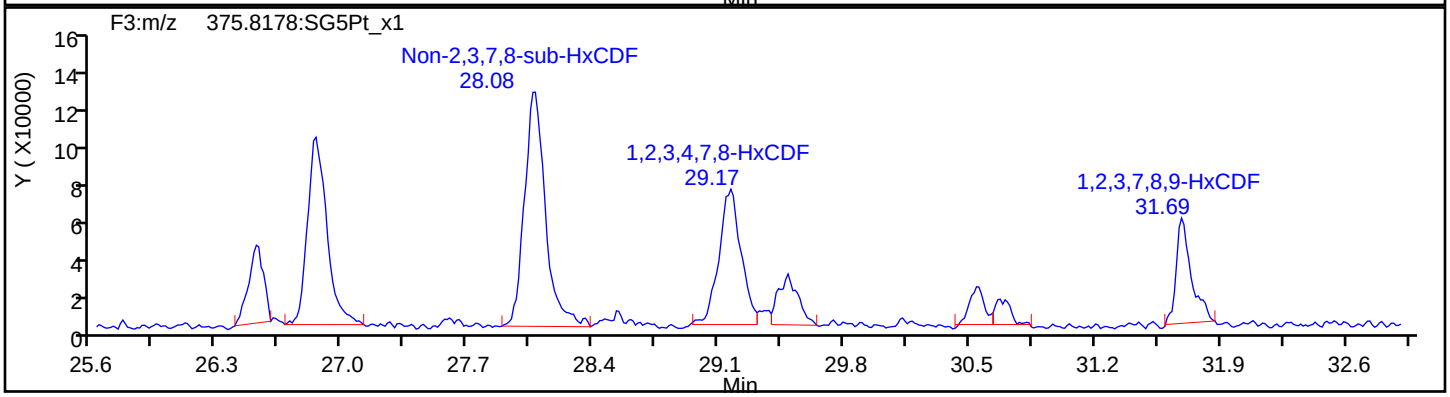
Client ID: 22T-SG-12_20190716

Worklist#: 309103 Sample Line#: 61

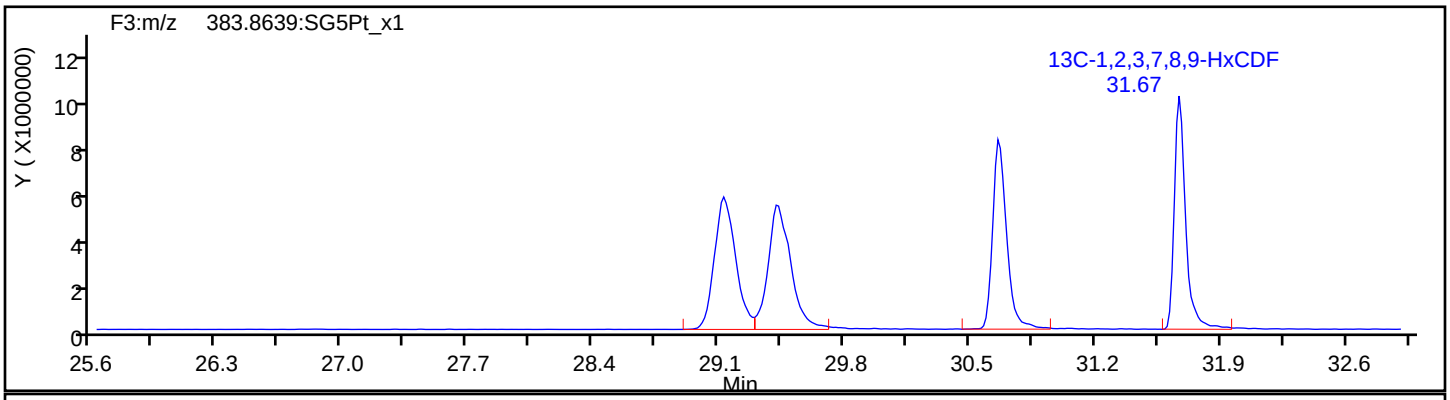
Column Type: DB-5 Column Dia: 0.32 mm

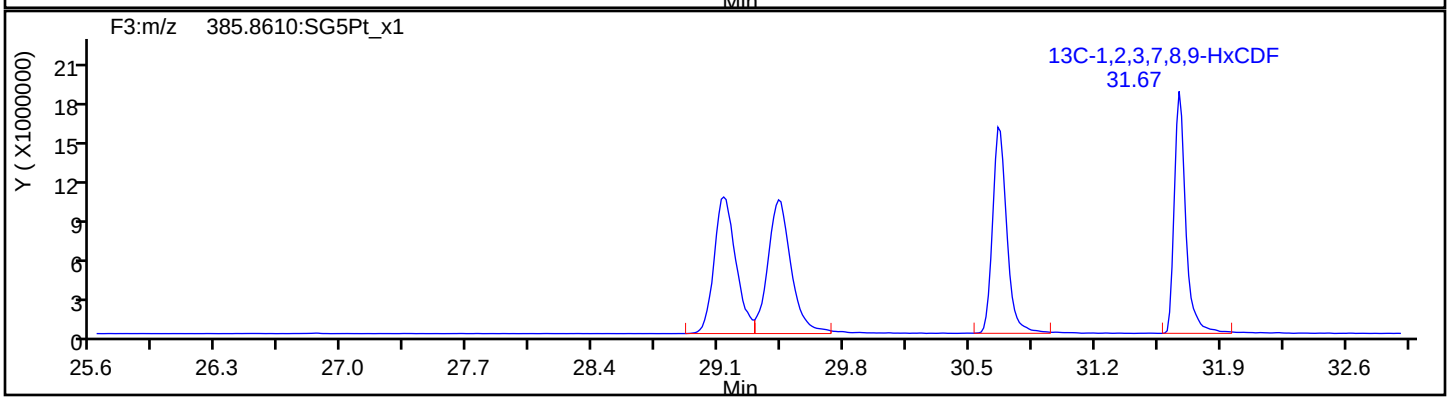
HxCDF





HxCDF Standards



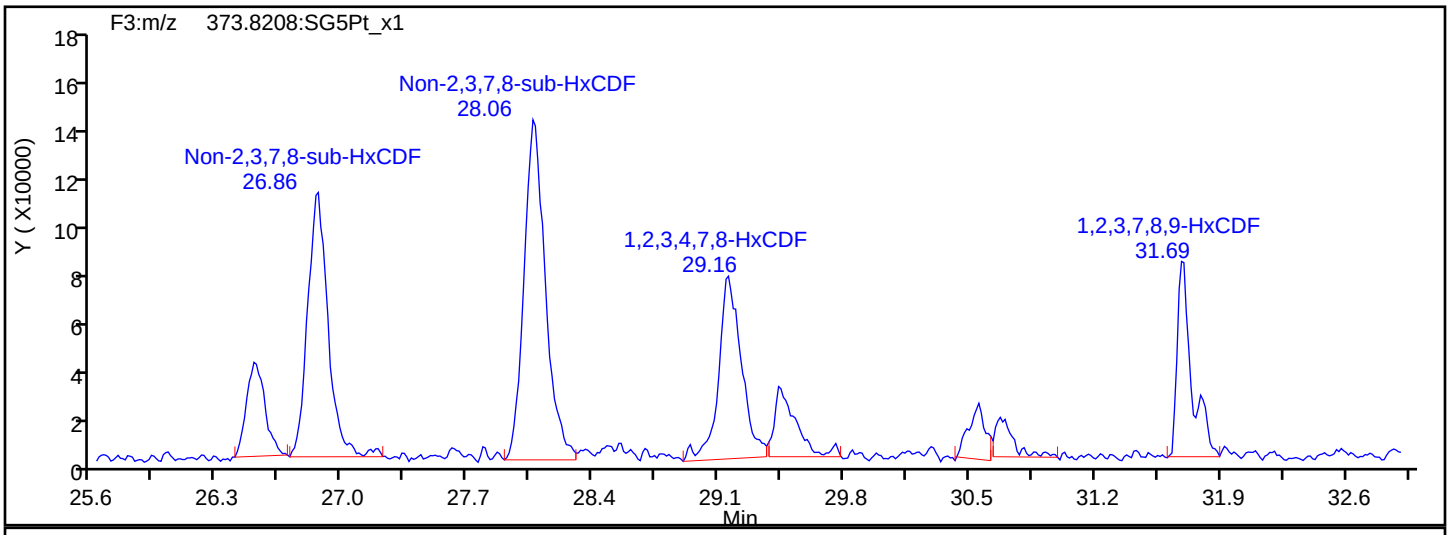


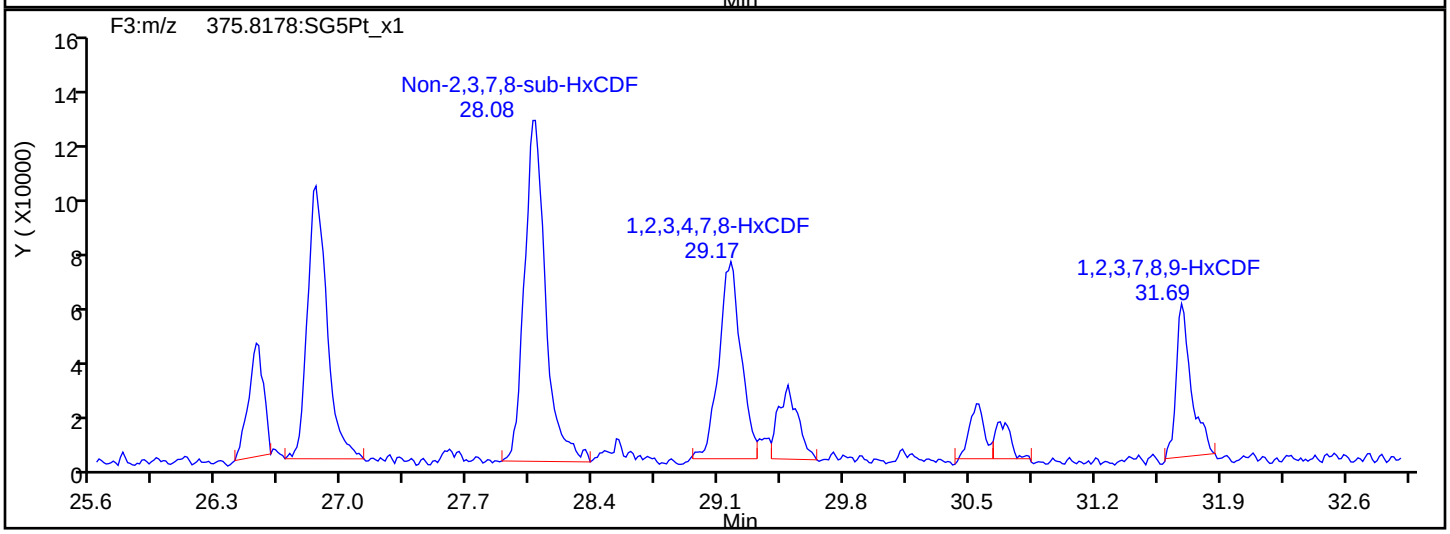
Report Date: 23-Jul-2019 11:03:45 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

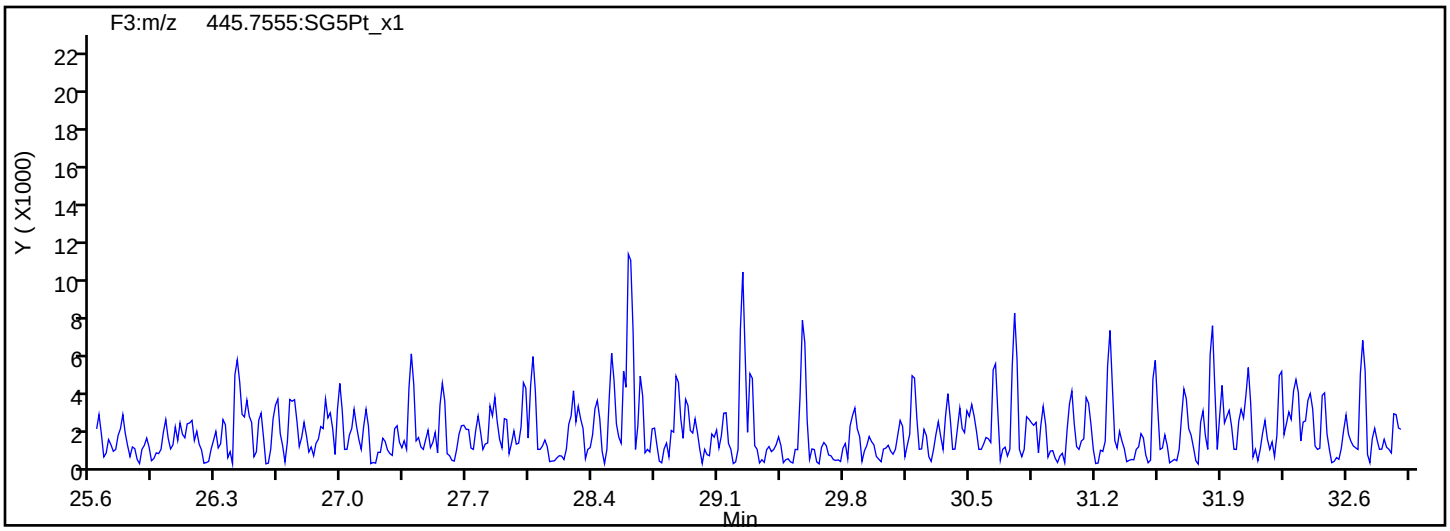
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



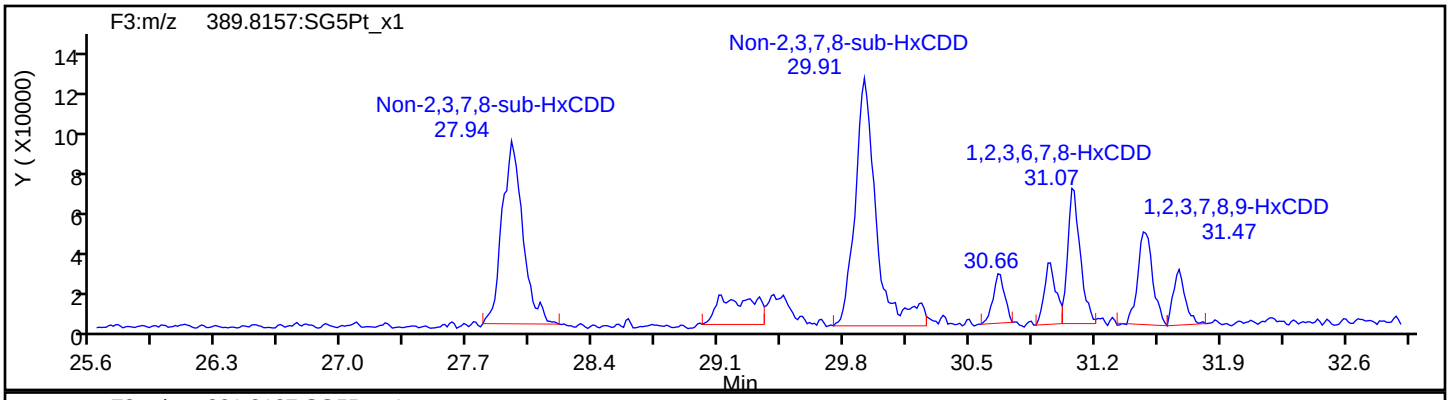
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

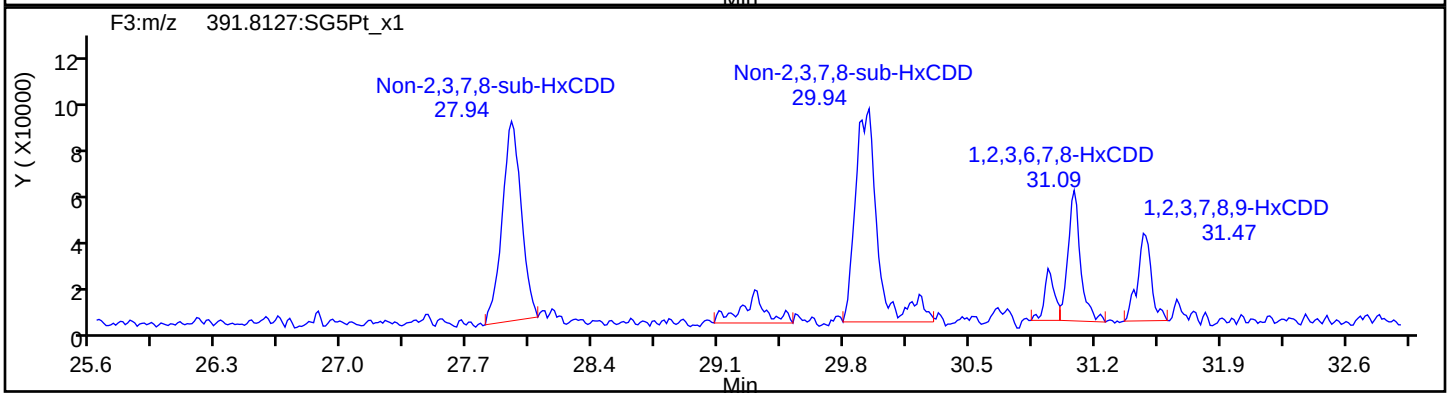
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d

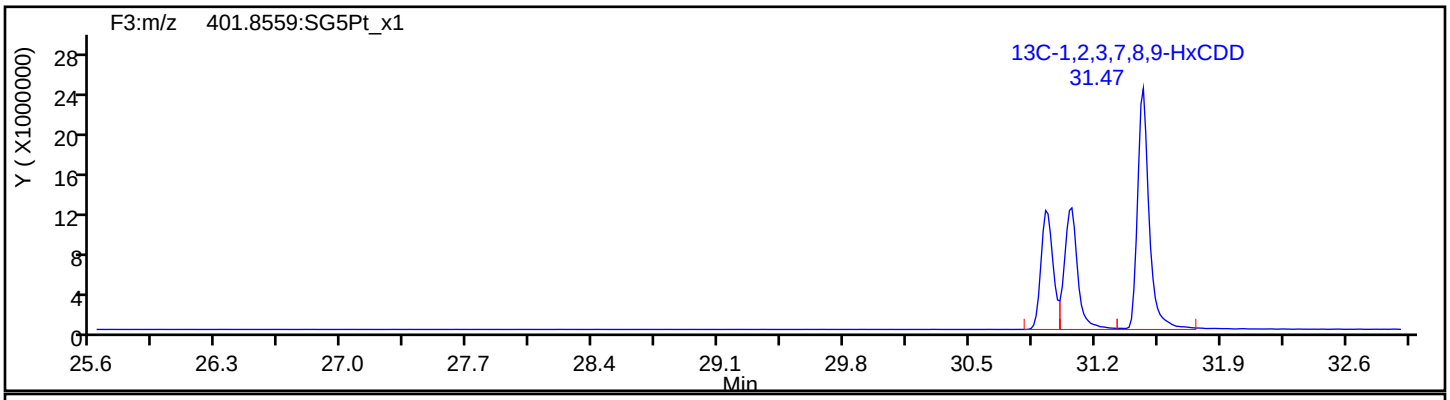
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

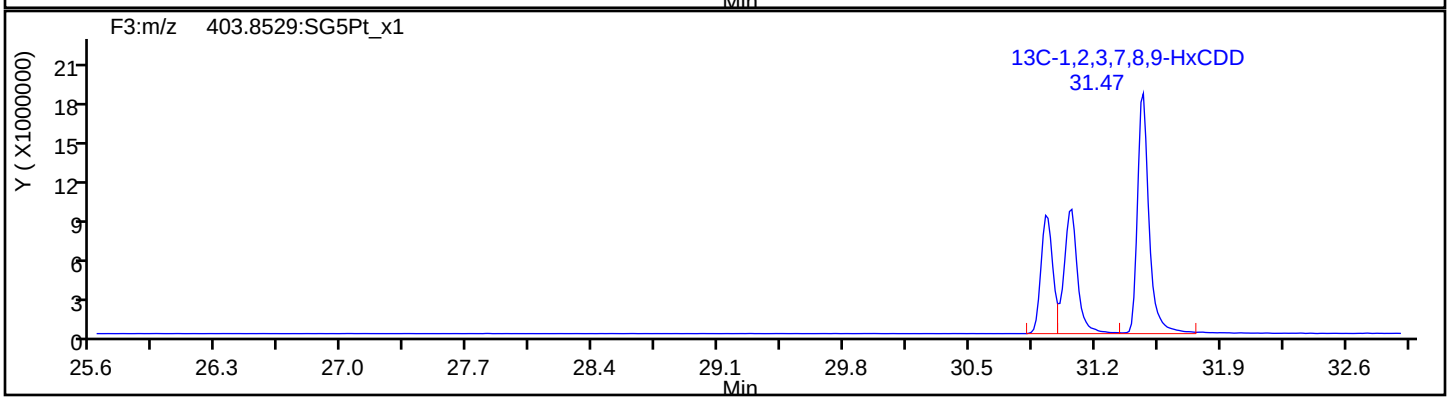
HxCDD





HxCDD Standards



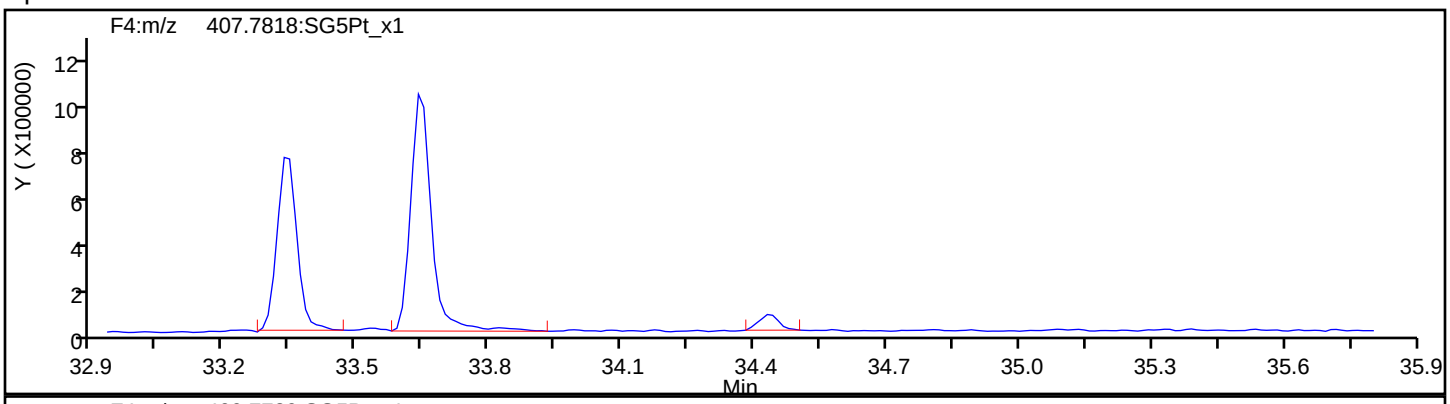


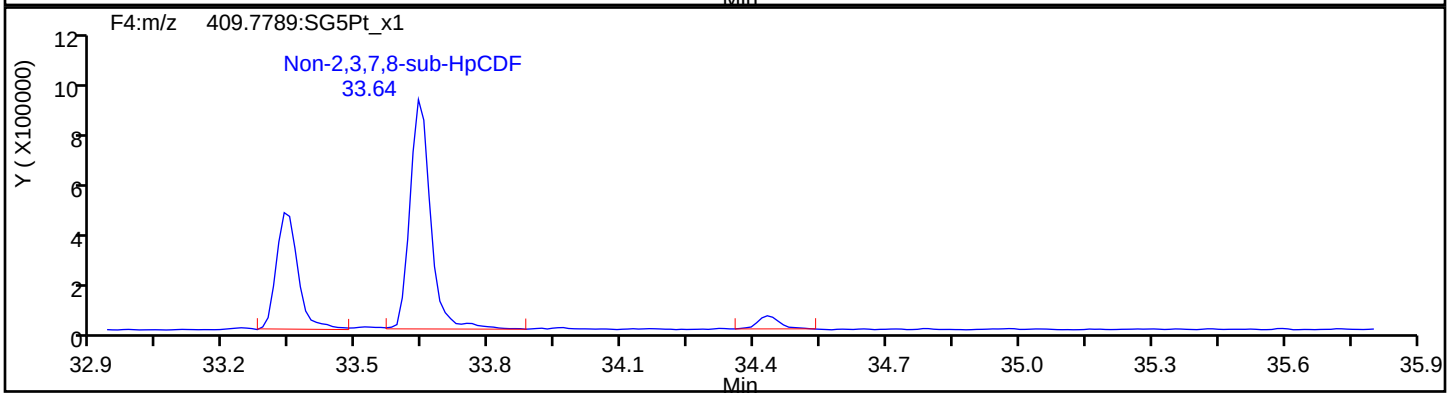
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

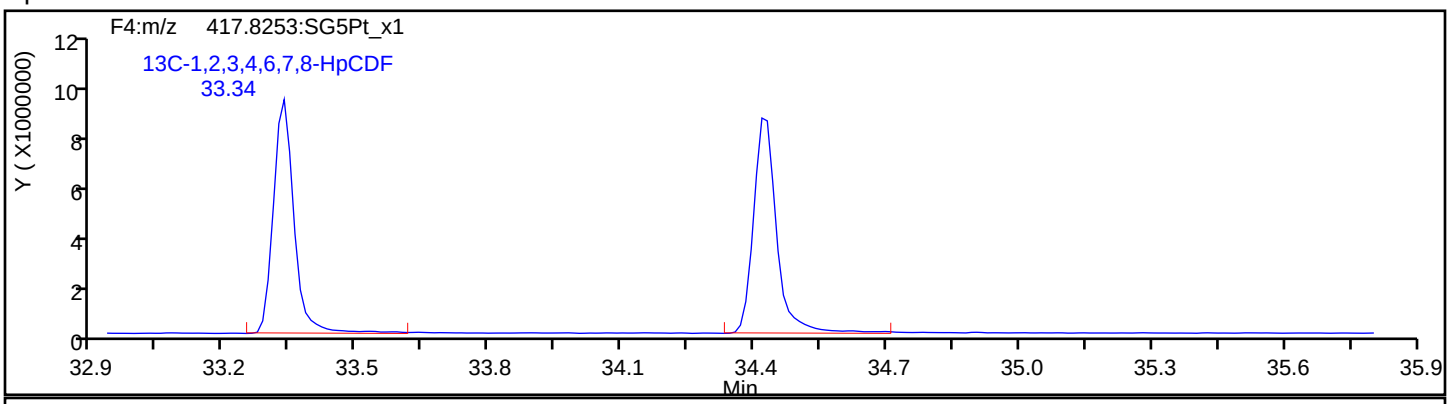
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

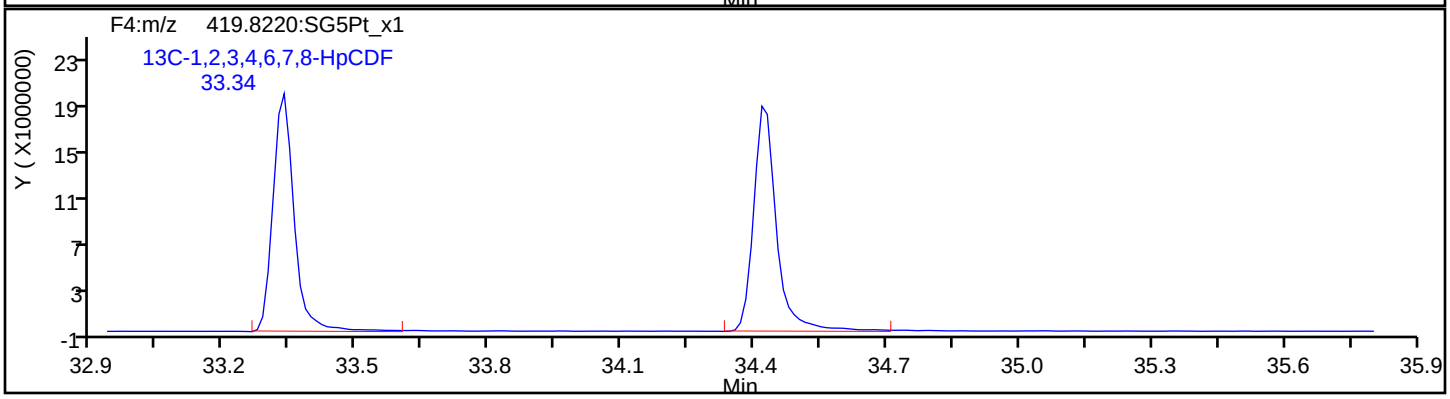
HpCDF





HpCDF Standards



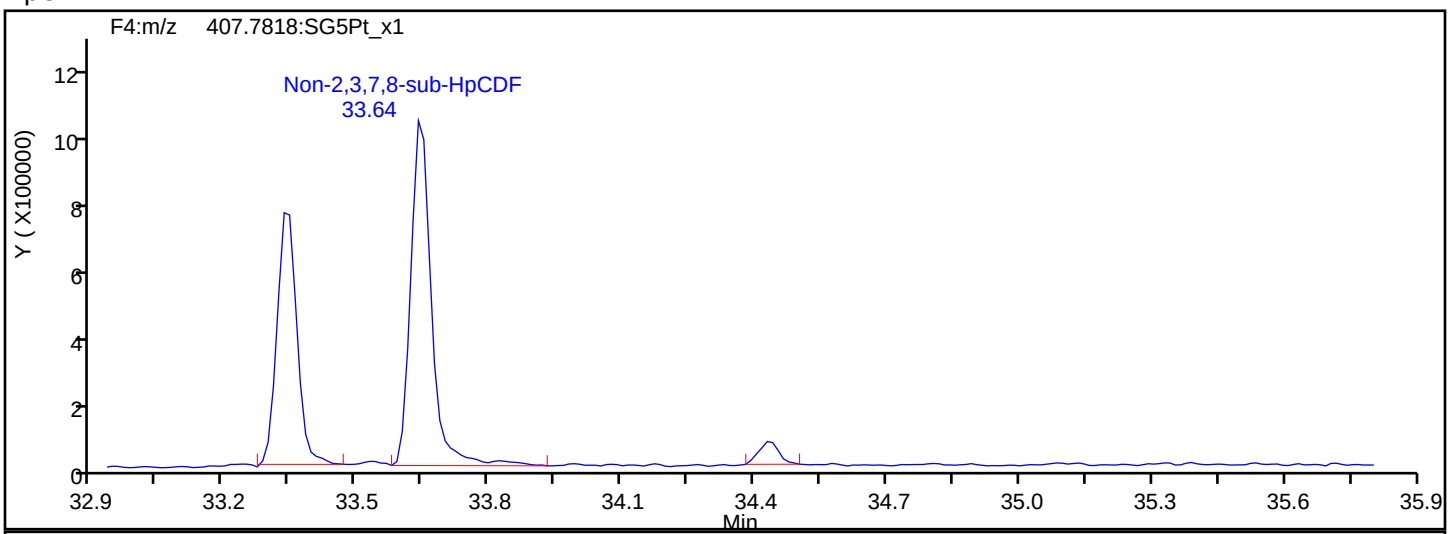


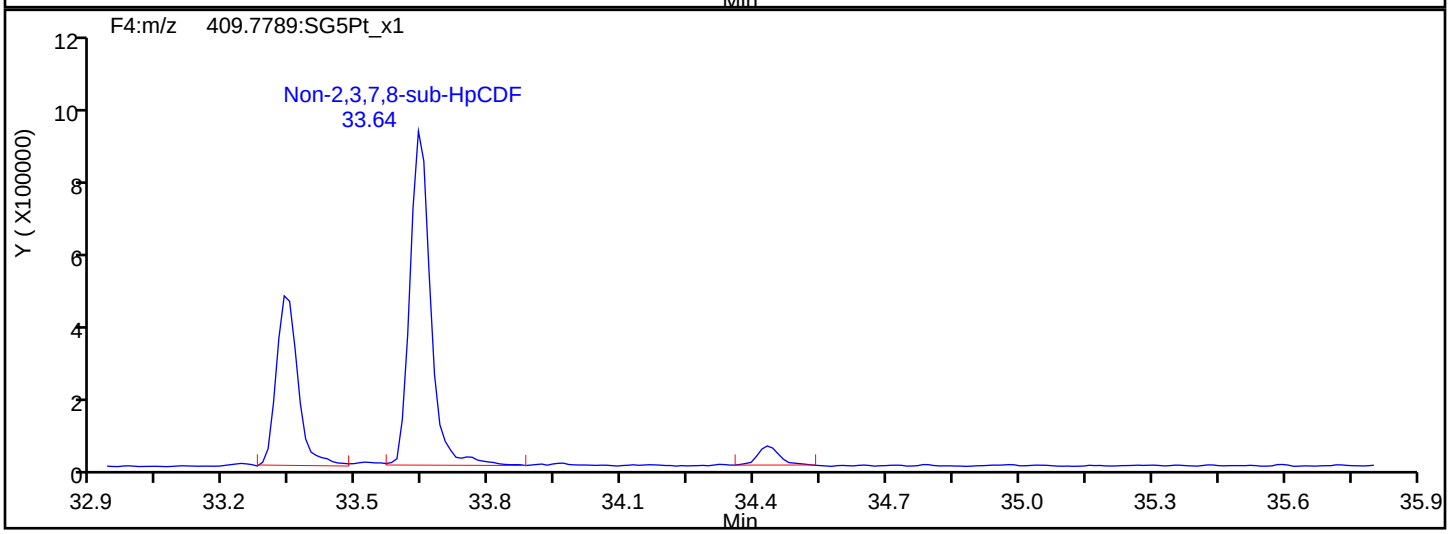
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

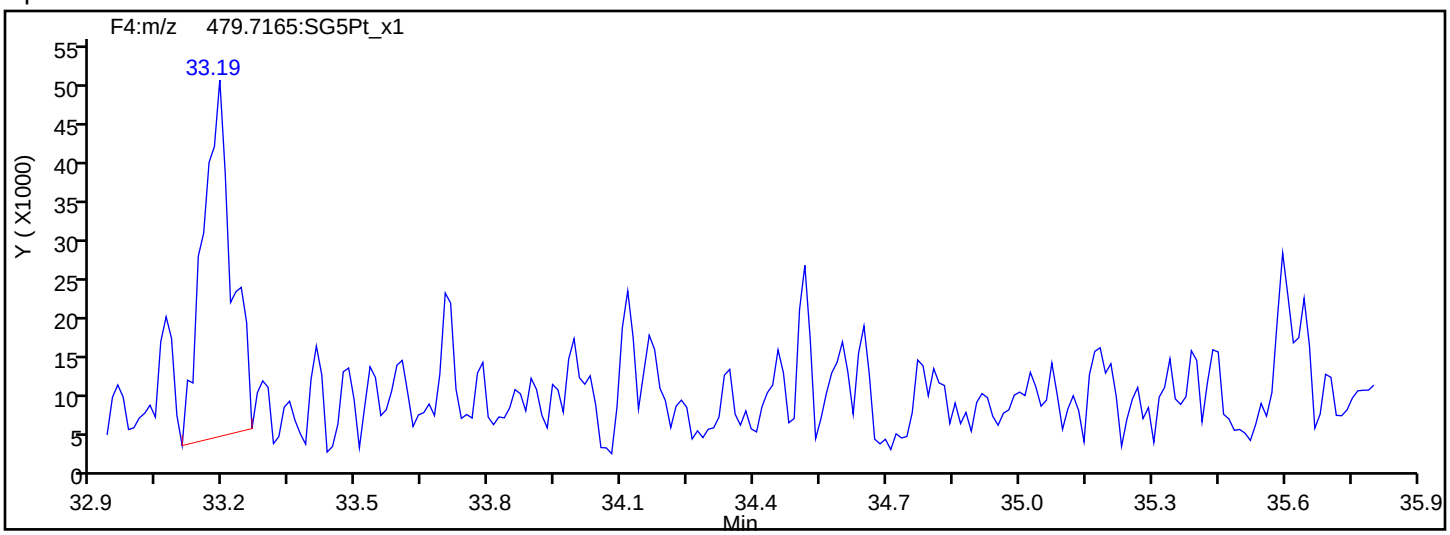
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

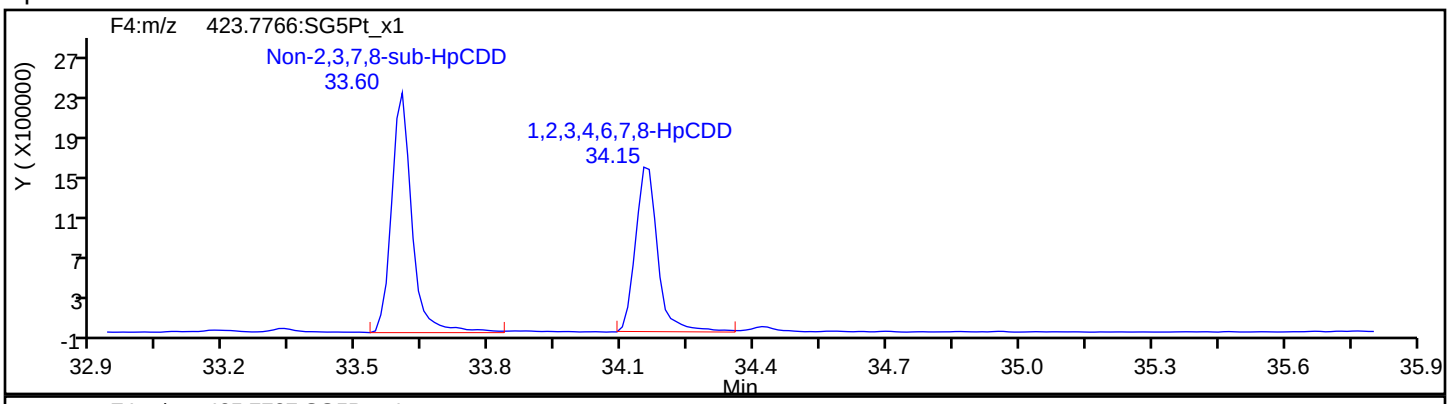


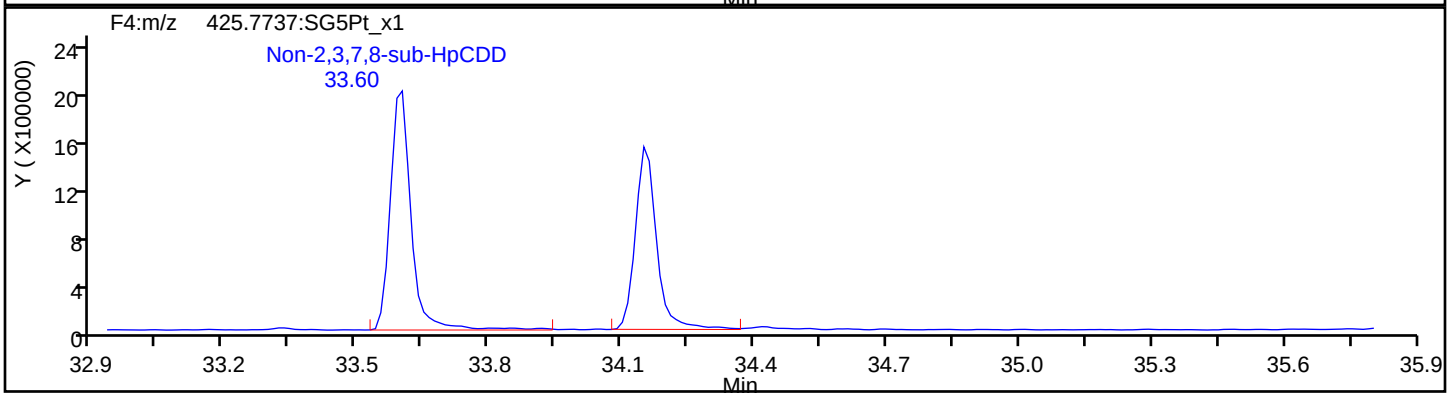
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

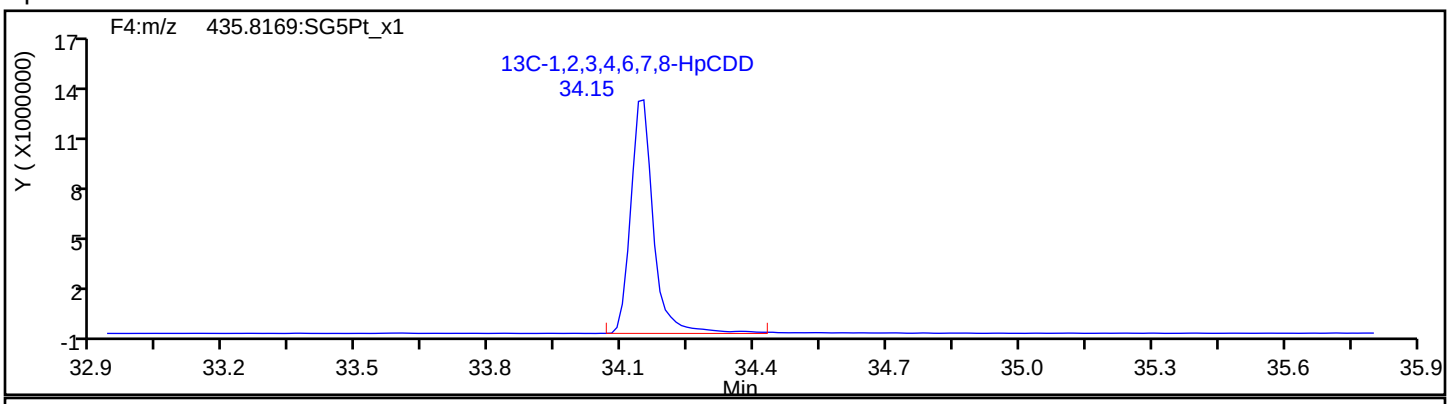
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

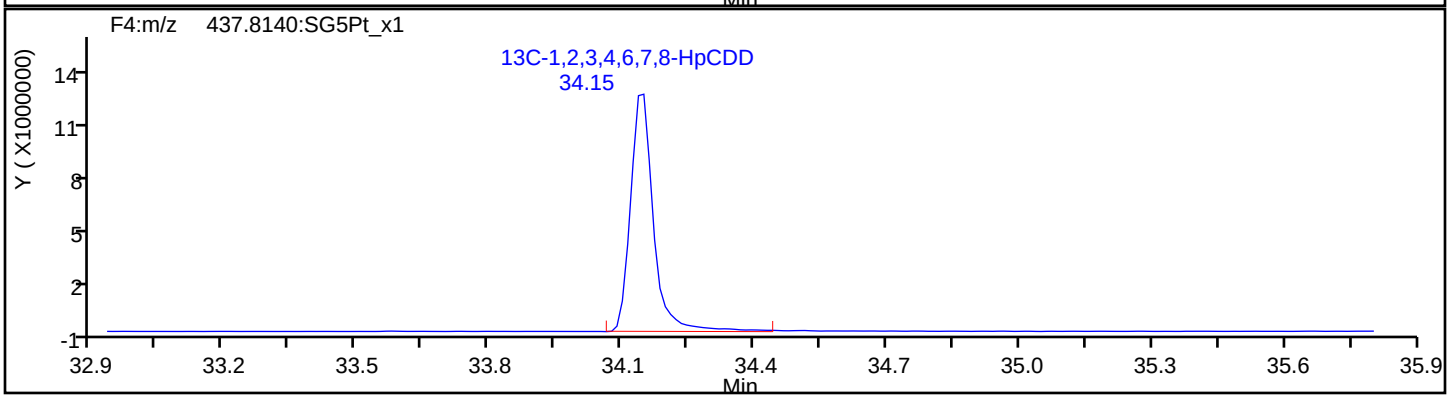
HpCDD





HpCDD Standards



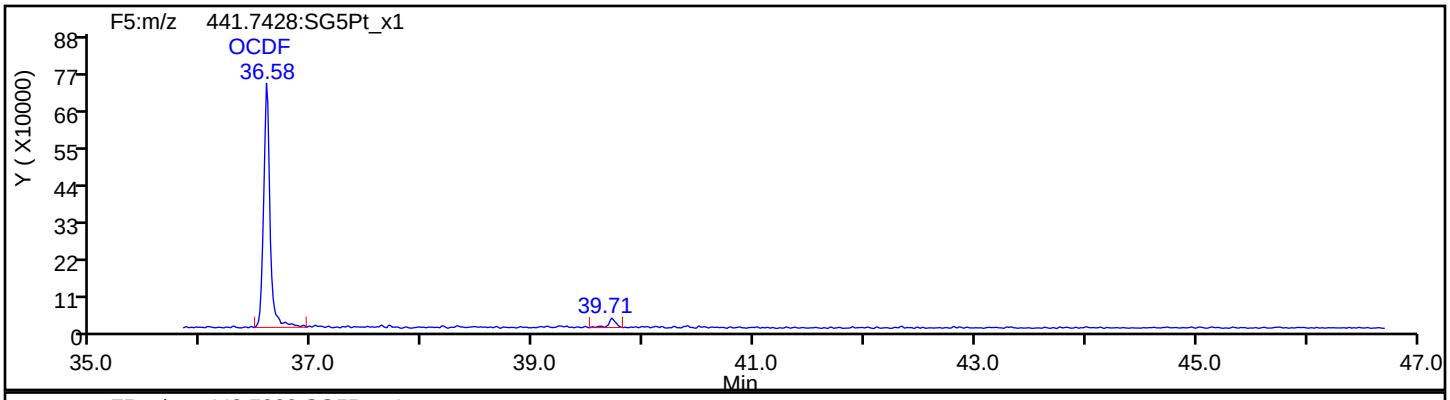


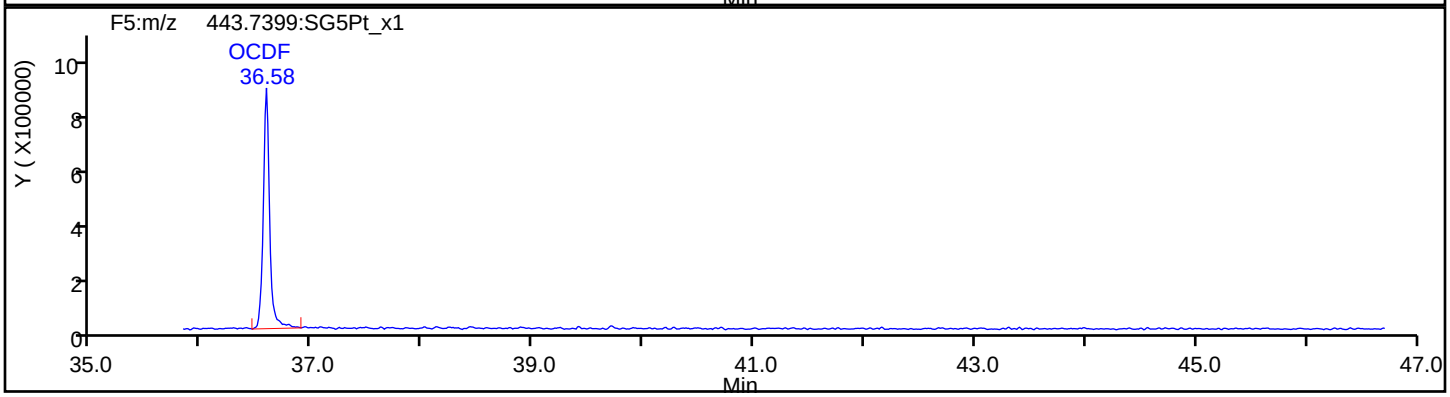
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

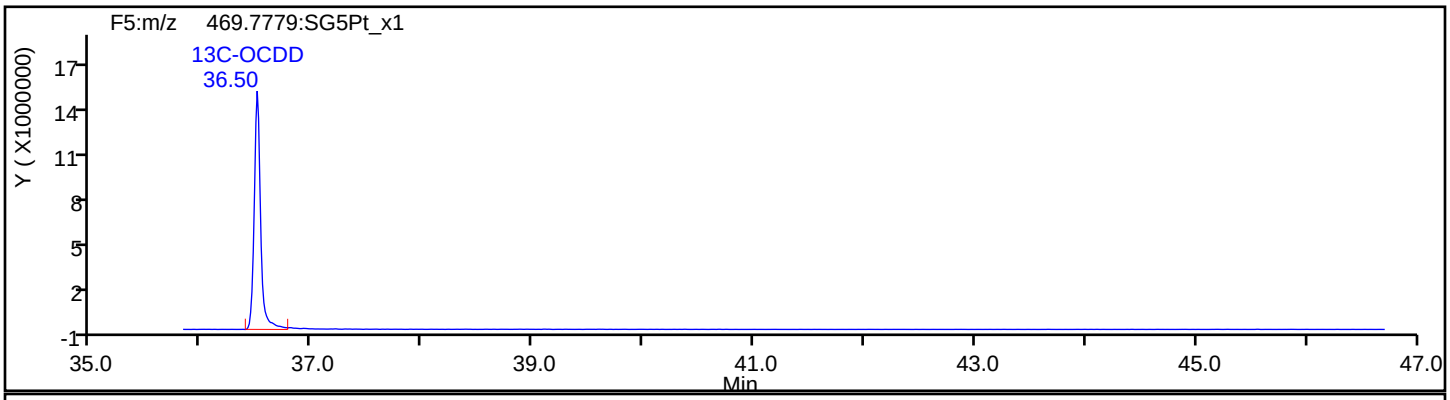
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

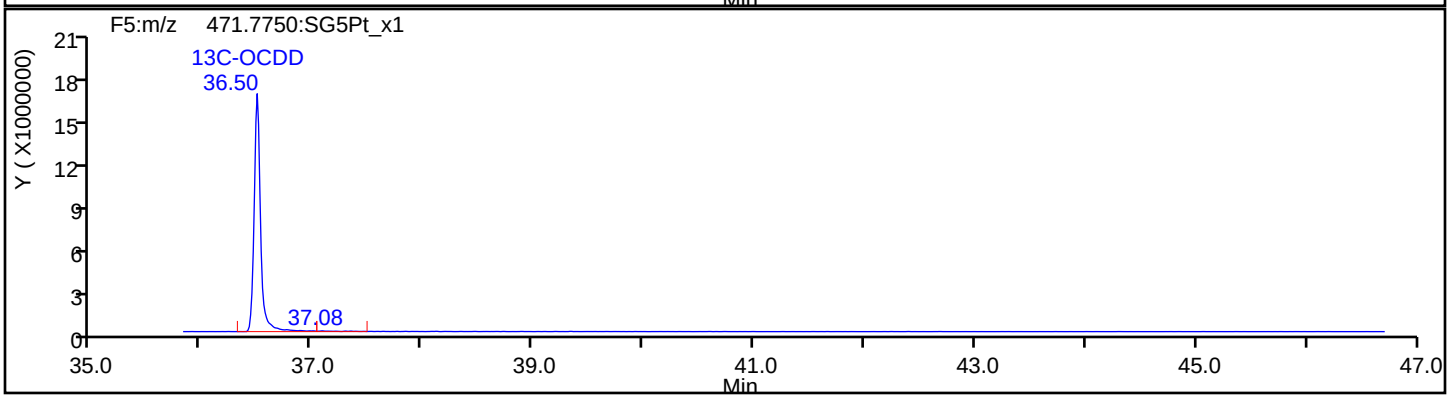
OCDF





OCDF Standards



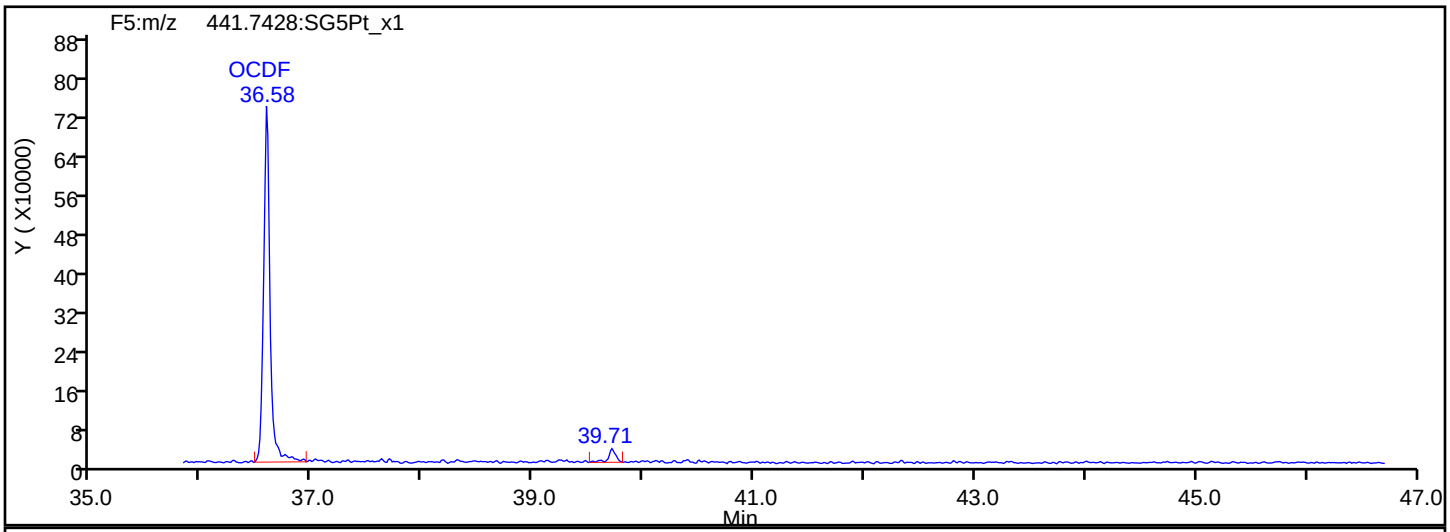


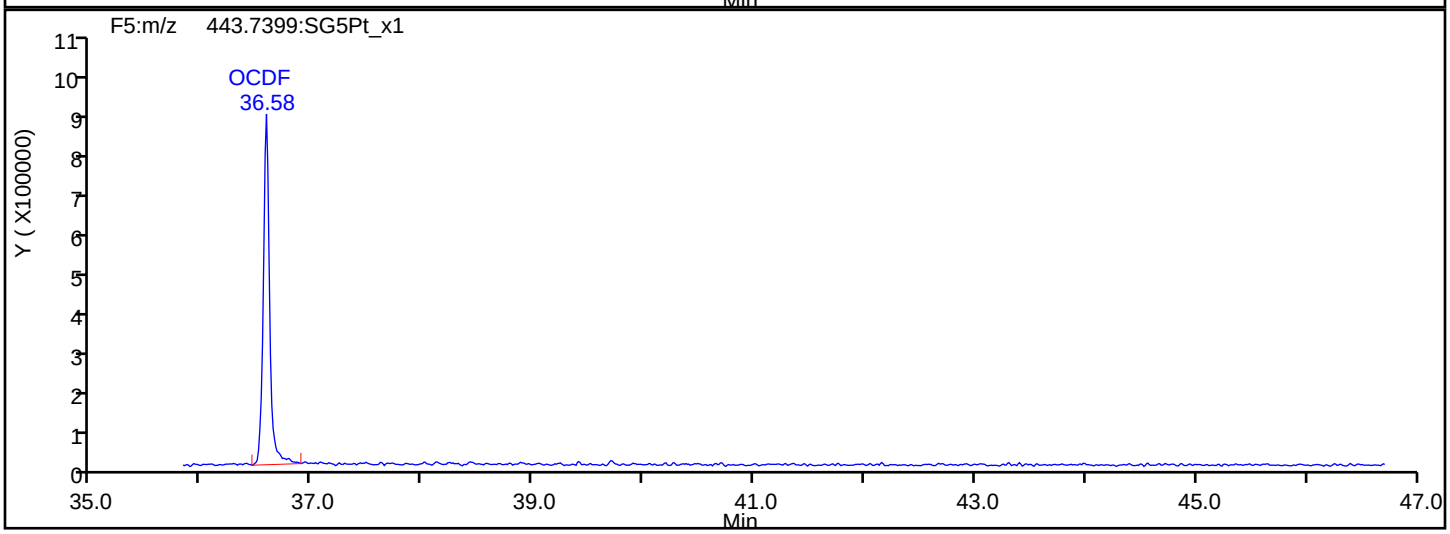
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

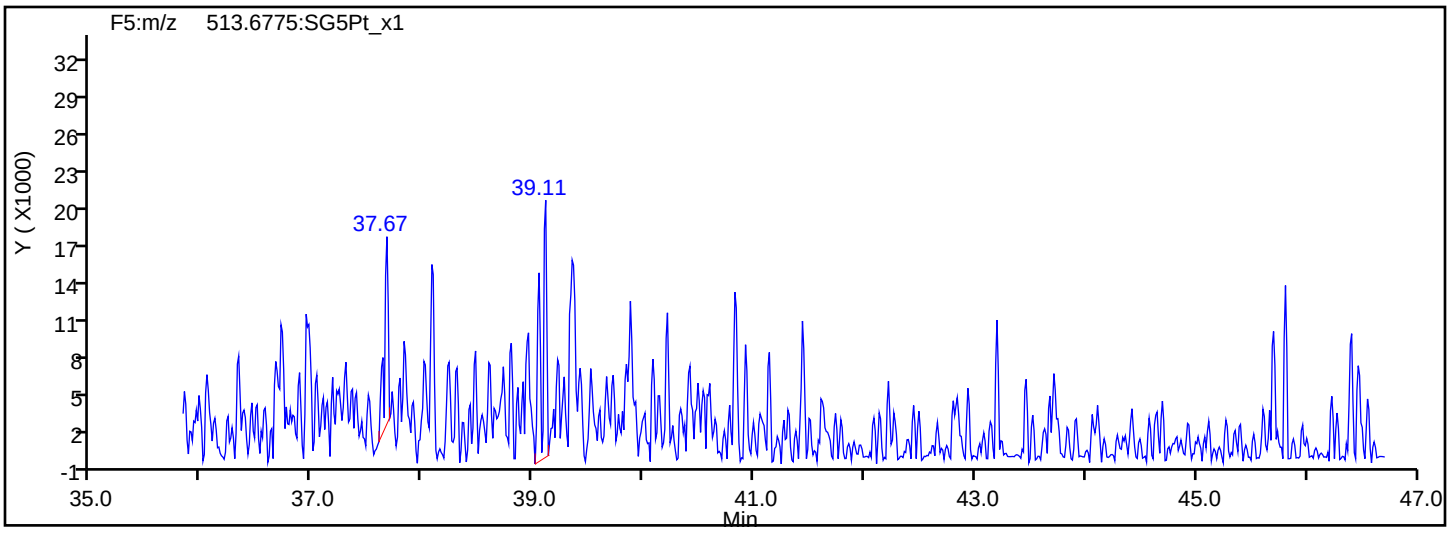
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

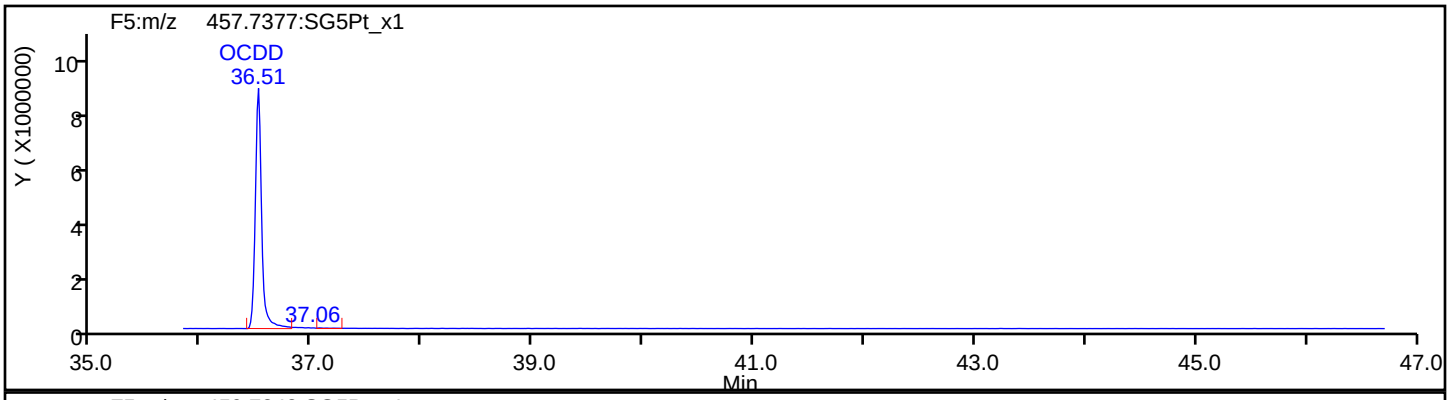


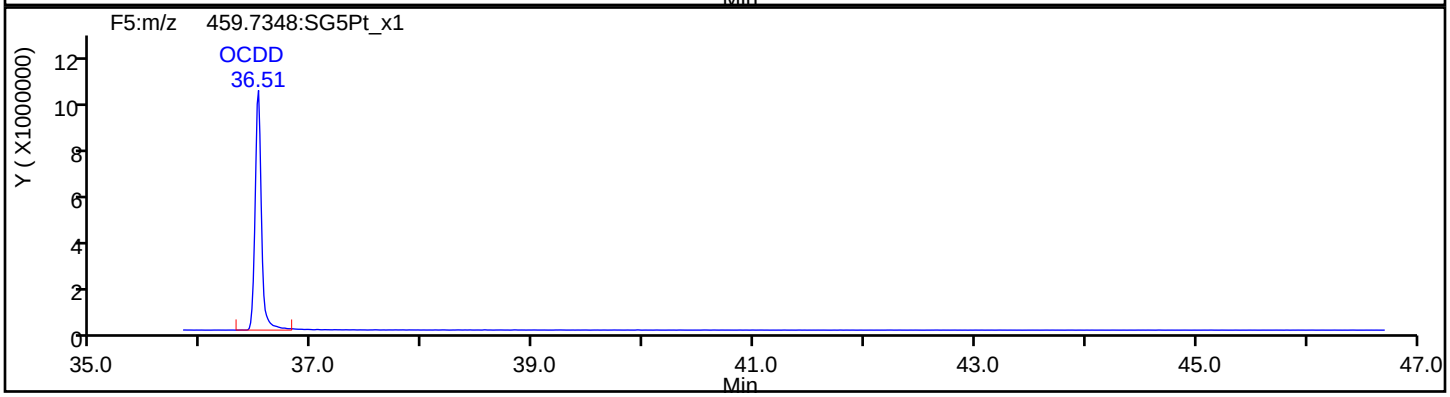
Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

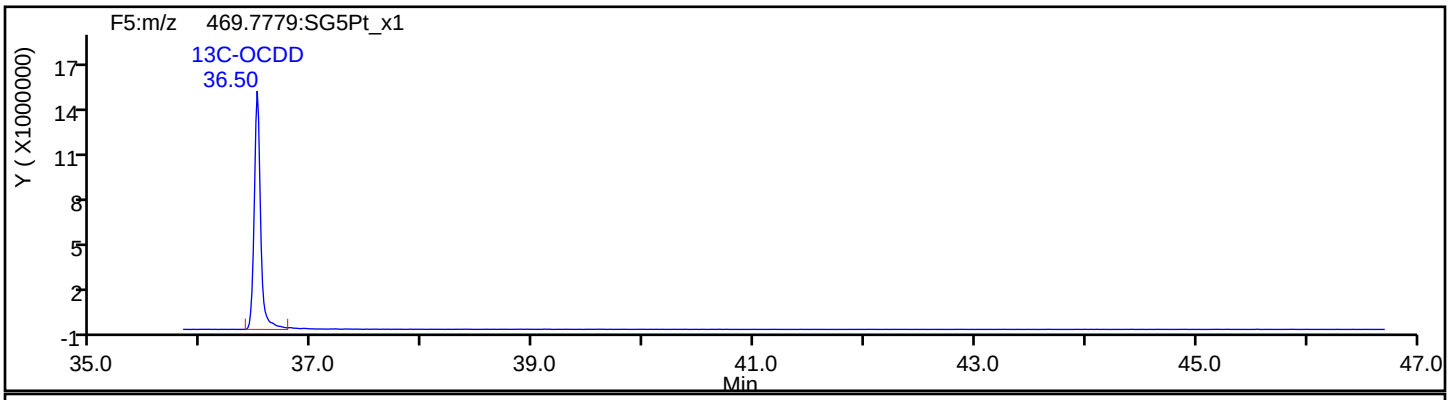
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm

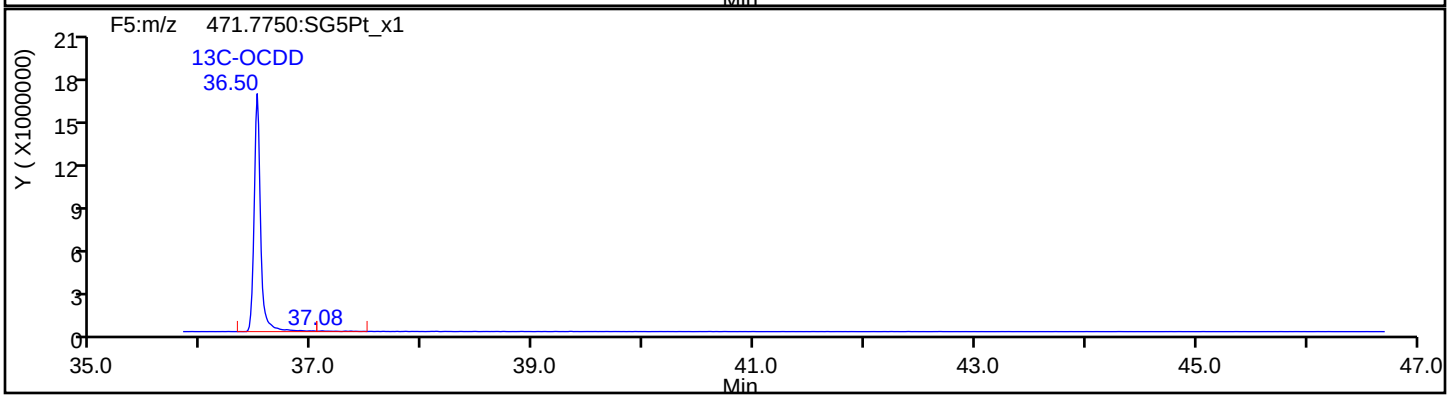
OCDD





OCDD Standards

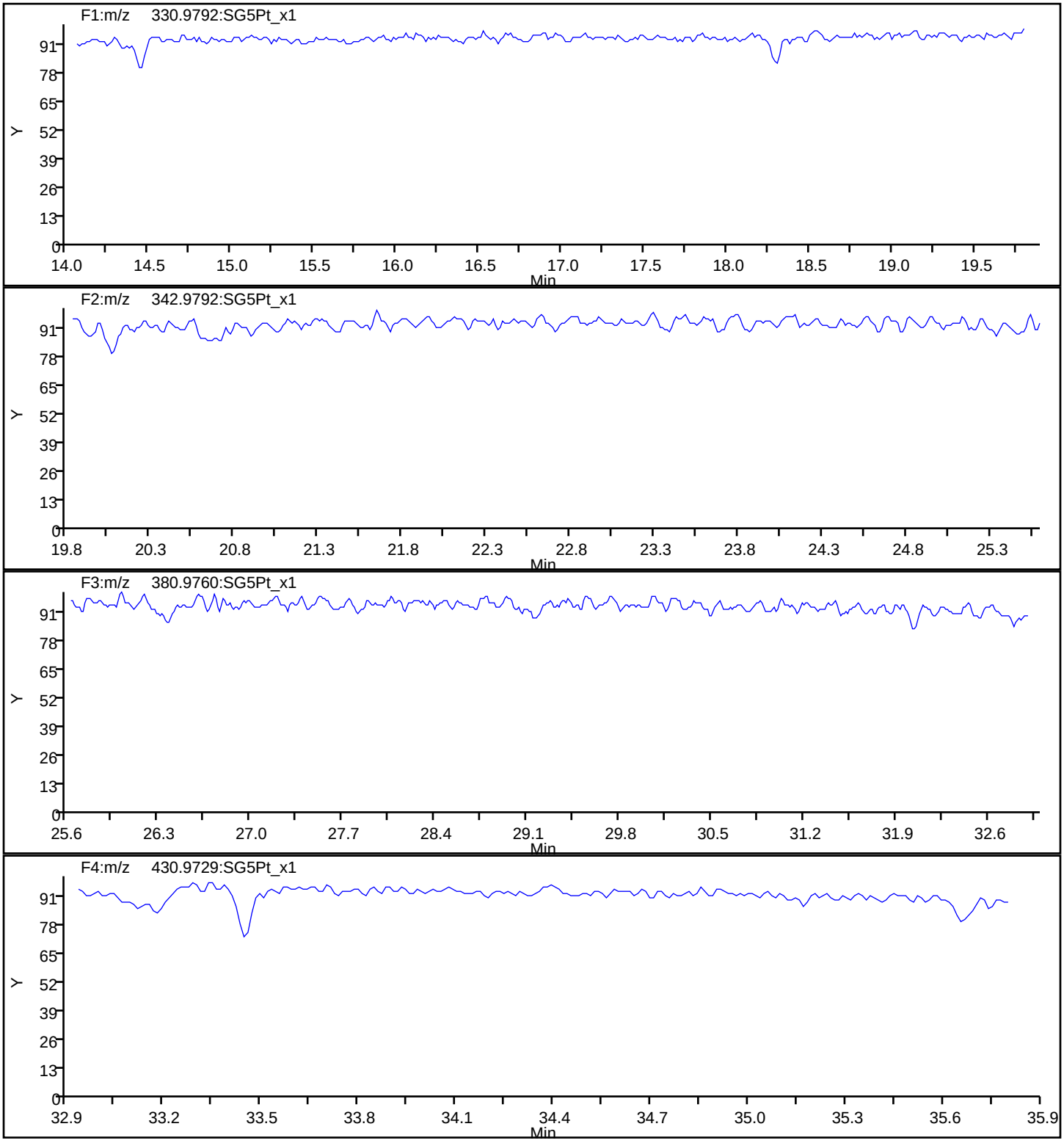




Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

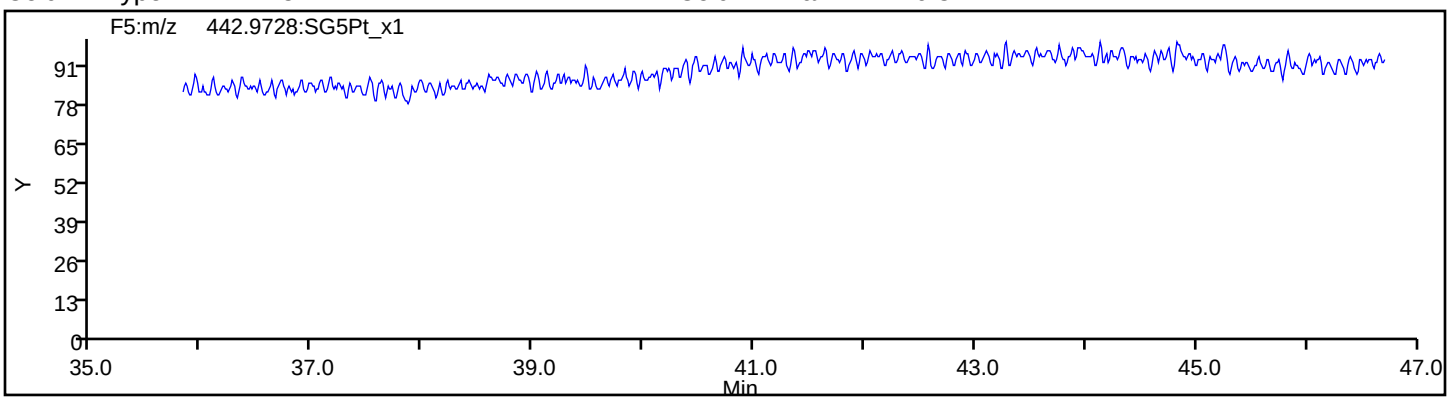
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 11:03:46 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_61.d		
Injection Date:	22-Jul-2019 01:28:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-12_20190716		
Worklist#:	309103	Sample Line#:	61
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 19JL19A3D5_62.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:09

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.07(g) Date Analyzed: 07/22/2019 02:16

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	1.4	J	2.0	0.24
40321-76-4	1,2,3,7,8-PeCDD	0.68	J q	9.8	0.36
57117-41-6	1,2,3,7,8-PeCDF	12		9.8	0.50
57117-31-4	2,3,4,7,8-PeCDF	5.8	J	9.8	0.57
39227-28-6	1,2,3,4,7,8-HxCDD	1.0	J B	9.8	0.29
57653-85-7	1,2,3,6,7,8-HxCDD	2.9	J	9.8	0.29
19408-74-3	1,2,3,7,8,9-HxCDD	2.0	J	9.8	0.27
70648-26-9	1,2,3,4,7,8-HxCDF	7.8	J	9.8	0.35
57117-44-9	1,2,3,6,7,8-HxCDF	2.3	J	9.8	0.40
72918-21-9	1,2,3,7,8,9-HxCDF	1.5	J B	9.8	0.20
60851-34-5	2,3,4,6,7,8-HxCDF	0.99	J	9.8	0.24
35822-46-9	1,2,3,4,6,7,8-HpCDD	52	B	9.8	0.67
67562-39-4	1,2,3,4,6,7,8-HpCDF	11		9.8	0.31
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.1	J q	9.8	0.36
3268-87-9	OCDD	490	B	20	0.55
39001-02-0	OCDF	29	B	20	0.30

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	67		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	71		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	72		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	73		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	63		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	65		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	71		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	62		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	66		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	73		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	68		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	71		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	79		26-138
114423-97-1	13C-OCDD	74		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Matrix: Solid Lab File ID: 19JL19A3D5_62.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:09

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.07(g) Date Analyzed: 07/22/2019 02:16

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	98		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 02:16:27 ALS Bottle#: 45 Worklist Smp#: 62
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-6-A 580-87706-C-6-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:10:07 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:47:33

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	221516678	0.80	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	220914972	0.79	1.3908	71.7	71.7	0.1696	0.1696	71.71	
2,3,7,8-TCDF	16.705	9032118	0.75	0.9710	4.210	4.210	0.0989	0.0989		
A Non-2,3,7,8-sub-TCDF	16.402	14663056	0.77	0.9710	7.071	6.835	0.0989	3.522		RQM
S Total TCDF					11.3	11.0	0.0989	0.0989		RQ
D 13C-2,3,7,8-TCDD	17.355	146539239	0.76	0.9819	67.4	67.4	0.1870	0.1870	67.37	
2,3,7,8-TCDD	17.385	559991	0.80	1.0447	0.3658	0.3658	0.0616	0.0616		M
$ 37Cl4-2,3,7,8-TCDD	17.370	106034381		1.2205	39.2	39.2	0.1092	0.1092	98.05	
A Non-2,3,7,8-sub-TCDD	16.833	802229	0.77	1.0447	0.6524	0.5240	0.0616	0.3033		RQMa
S Total TCDD					1.018	0.8898	0.0616	0.0616		RQ
D 13C-1,2,3,7,8-PeCDF	21.345	184595045	1.62	1.1585	71.9	71.9	0.2190	0.2190	71.93	
1,2,3,7,8-PeCDF	21.359	5521012	1.56	0.9633	3.105	3.105	0.1289	0.1289		M
D 13C-2,3,4,7,8-PeCDF	22.573	185673612	1.62	1.1532	72.7	72.7	0.2200	0.2200	72.69	
2,3,4,7,8-PeCDF	22.600	2629313	1.49	0.9495	1.491	1.491	0.1446	0.1446		
A F1 PeCDFs	19.215	940556	1.53	0.9564	0.5312	0.5312	0.0403	0.5312		
A Non-2,3,7,8-sub-PeCDF	22.104	9030144	1.49	0.9564	5.100	5.100	0.1363	2.599		Ma
S Total PeCDF					10.2	10.2	0.1367	0.1367		
D 13C-1,2,3,7,8-PeCDD	23.241	116749067	1.59	0.7431	70.9	70.9	0.1408	0.1408	70.92	
1,2,3,7,8-PeCDD	23.268	217239	1.55	1.0635	0.1982	0.1750	0.0923	0.0923		RQ
A Non-2,3,7,8-sub-PeCDD	22.232	572732	1.55	1.0635	0.4869	0.4613	0.0923	0.3399		RQ
S Total PeCDD					0.6850	0.6363	0.0923	0.0923		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.142	148754958	0.50	0.9837	70.9	70.9	0.2935	0.2935	70.85	
1,2,3,4,7,8-HxCDF	29.182	3623160	1.22	1.2173	2.001	2.001	0.0891	0.0891		
D 13C-1,2,3,6,7,8-HxCDF	29.448	152295776	0.52	1.1554	61.8	61.8	0.2499	0.2499	61.76	
1,2,3,6,7,8-HxCDF	29.461	1018132	1.23	1.1311	0.5910	0.5910	0.1013	0.1013		
D 13C-2,3,4,6,7,8-HxCDF	30.673	146085299	0.52	1.0361	66.1	66.1	0.2787	0.2787	66.06	
2,3,4,6,7,8-HxCDF	30.686	433816	1.21	1.1710	0.2536	0.2536	0.0606	0.0606		
D 13C-1,2,3,7,8,9-HxCDF	31.685	141696352	0.49	0.9034	73.5	73.5	0.3196	0.3196	73.49	
1,2,3,7,8,9-HxCDF	31.698	633218	1.19	1.1787	0.3791	0.3791	0.0516	0.0516		M
A Non-2,3,7,8-sub-HxCDF	29.135	7118040	1.19	1.1745	4.117	4.117	0.0702	1.808		Ma

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					7.341	7.341	0.0756	0.0756		
* 13C-1,2,3,7,8,9-HxCDD	31.472	213422099	1.29	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	110713076	1.29	0.8287	62.6	62.6	0.2232	0.2232	62.60	
1,2,3,4,7,8-HxCDD	30.953	291264	1.23	1.0267	0.2562	0.2562	0.0738	0.0738		a
D 13C-1,2,3,6,7,8-HxCDD	31.073	131303023	1.28	0.9495	64.8	64.8	0.1948	0.1948	64.80	
1,2,3,6,7,8-HxCDD	31.086	961253	1.14	0.9771	0.7493	0.7493	0.0730	0.0730		a
1,2,3,7,8,9-HxCDD	31.485	647081	1.06	1.0616	0.5037	0.5037	0.0692	0.0692		
A Non-2,3,7,8-sub-HxCDD	29.926	5021343	1.24	1.0218	4.125	4.061	0.0719	2.187		RQ
S Total HxCDD					5.634	5.570	0.0720	0.0720		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	111009864	0.45	0.7285	71.4	71.4	0.5914	0.5914	71.40	
1,2,3,4,6,7,8-HpCDF	33.347	4433594	1.15	1.4373	2.779	2.779	0.0788	0.0788		
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	110334213	0.43	0.6556	78.9	78.9	0.6571	0.6571	78.85	
1,2,3,4,7,8,9-HpCDF	34.441	394086	1.04	1.3091	0.3337	0.2728	0.0919	0.0919		RQ
A Non-2,3,7,8-sub-HpCDF	33.894	8074281	1.00	1.3732	5.313	5.313	0.0850	5.313		
S Total HpCDF					8.425	8.365	0.0854	0.0854		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	101847041	1.08	0.6978	68.4	68.4	0.3516	0.3516	68.38	
1,2,3,4,6,7,8-HpCDD	34.162	13708743	1.13	1.0102	13.3	13.3	0.1701	0.1701		
A Non-2,3,7,8-sub-HpCDD	35.074	17157321	1.06	1.0102	16.7	16.7	0.1701	16.7		a
S Total HpCDD					30.0	30.0	0.1701	0.1701		
D 13C-OCDD	36.509	150715380	0.90	0.4780	147.7	147.7	0.1649	0.1649	73.87	
OCDF	36.593	7431285	0.86	1.3501	7.304	7.304	0.0773	0.0773		
OCDD	36.509	100649454	0.92	1.0627	125.7	125.7	0.1401	0.1401		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 02:16:27 ALS Bottle#: 45 Worklist Smp#: 62
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-6-A 580-87706-C-6-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:10:07 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:47:33

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		98120749	26172278	26801	67002	977		
333.9339	17.173	17.158	1		123395929	31573757	15617	39042	2022	0.80(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	97423536	24478725	25696	64240	953		
317.9389	16.690	16.690	0	0.972	123491436	30703316	28789	71972	1066	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.001	3882646	880842	8472	21180	104		
305.8987	16.705	16.705	0	1.001	5149472	1203332	12726	31815	95	0.75(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQM
303.9016	14.920	16.402	-89	0.894	593605	128682	8472	21180	15		
	Empc Correction				410561	125612	8472	21180	15		
305.8987	14.920	16.402	-89	0.894	533197	163133	12726	31815	13	1.11(0.65-0.89)	
303.9016	15.162	16.402	-74	0.908	326145	67401	8472	21180	8		
	Empc Correction				155961	52433	8472	21180	6		
305.8987	15.147	16.402	-75	0.908	202548	68095	12726	31815	5	1.61(0.65-0.89)	
303.9016	15.389	16.402	-61	0.922	876733	244031	8472	21180	29		
305.8987	15.389	16.402	-61	0.922	1140393	313071	12726	31815	25	0.77(0.65-0.89)	
303.9016	15.873	16.402	-32	0.951	424740	122010	8472	21180	14		
305.8987	15.873	16.402	-32	0.951	561779	151326	12726	31815	12	0.76(0.65-0.89)	
303.9016	16.100	16.402	-18	0.965	832601	179738	8472	21180	21		
305.8987	16.085	16.402	-19	0.964	994705	222751	12726	31815	18	0.84(0.65-0.89)	
303.9016	16.357	16.402	-3	0.980	3383284	855837	8472	21180	101		
305.8987	16.357	16.402	-3	0.980	4171052	1033465	12726	31815	81	0.81(0.65-0.89)	
303.9016	17.098	16.402	42	1.024	132039	32984	8472	21180	4		
305.8987	17.098	16.402	42	1.024	224738	53490	12726	31815	4	0.59(0.65-0.89)	M
	Empc Correction				171479	42836	12726	31815	3		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
303.9016	18.383	16.402	119	1.101	391916	73688	8472	21180	9		
	Empc Correction				292332	74509	8472	21180	9		
305.8987	18.383	16.402	119	1.101	379652	96765	12726	31815	8	1.03(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	63328217	14779719	26801	67002	551		
333.9339	17.355	17.355	0	1.011	83211022	19527603	15617	39042	1250	0.76(0.65-0.89)	
2,3,7,8-TCDD											M
319.8965	17.385	17.355	2	1.002	248528	59354	5731	14327	10		M
321.8936	17.370	17.355	1	1.001	311463	75515	3100	7750	24	0.80(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	106034381	24539214	30775	76937	797		
A Non-2,3,7,8-sub-TCDD											RQMa
319.8965	16.326	16.833	-30	0.941	331947	49929	5731	14327	9		
	Empc Correction				202010	44180	5731	14327	8		
321.8936	16.342	16.833	-29	0.942	262351	57377	3100	7750	19	1.27(0.65-0.89)	
319.8965	17.279	16.833	27	0.996	213537	47473	5731	14327	8		M
	Empc Correction				146982	38408	5731	14327	7		
321.8936	17.279	16.833	27	0.996	190886	49881	3100	7750	16	1.12(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	114014921	21375445	35478	88695	602		
353.8970	21.345	21.332	1	1.243	70580124	13260953	23122	57805	574	1.62(1.32-1.78)	
1,2,3,7,8-PeCDF											M
339.8597	21.359	21.345	1	1.001	3366714	602546	9083	22707	66		
341.8567	21.359	21.345	1	1.001	2154298	371869	8115	20287	46	1.56(1.32-1.78)	M
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	114741017	19420364	35478	88695	547		
353.8970	22.573	22.559	1	1.314	70932595	11889964	23122	57805	514	1.62(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.600	22.586	1	1.001	1572679	252628	9083	22707	28		
341.8567	22.586	22.586	0	1.001	1056634	184842	8115	20287	23	1.49(1.32-1.78)	
A F1 PeCDFs											
339.8597	18.685	19.215	-32	0.875	568613	120216	1514	3785	79		
341.8567	18.701	19.215	-31	0.876	371943	70952	3567	8917	20	1.53(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDF											Ma
339.8597	20.132	22.104	-118	0.943	2765343	511249	9083	22707	56		
341.8567	20.118	22.104	-119	0.943	1836287	313459	8115	20287	39	1.51(1.32-1.78)	
339.8597	20.841	22.104	-76	0.976	460548	64628	9083	22707	7		
341.8567	20.854	22.104	-75	0.977	315845	51379	8115	20287	6	1.46(1.32-1.78)	
339.8597	21.236	22.104	-52	0.995	243003	65545	9083	22707	7		M
341.8567	21.263	22.104	-50	0.996	146119	42590	8115	20287	5	1.66(1.32-1.78)	
339.8597	21.836	22.104	-16	1.023	1339600	257227	9083	22707	28		M
341.8567	21.836	22.104	-16	1.023	929332	159547	8115	20287	20	1.44(1.32-1.78)	M
339.8597	22.913	22.104	49	1.073	598285	91192	9083	22707	10		
341.8567	22.900	22.104	48	1.073	395782	51529	8115	20287	6	1.51(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	71680756	11336872	16231	40577	698		
369.8919	23.241	23.227	1	1.353	45068311	7292816	7943	19857	918	1.59(1.32-1.78)	
1,2,3,7,8-PeCDD											RQ
355.8546	23.268	23.254	1	1.001	160841	21886	5198	12995	4		
	Empc Correction				132047	20926	5198	12995	4		
357.8516	23.295	23.254	2	1.002	85192	13501	2114	5285	6	1.89(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.309	22.232	-115	0.874	245437	44419	5198	12995	9		
357.8516	20.309	22.232	-115	0.874	176633	30320	2114	5285	14	1.39(1.32-1.78)	
355.8546	21.645	22.232	-35	0.931	91579	24006	5198	12995	5		
357.8516	21.632	22.232	-36	0.931	90834	15839	2114	5285	7	1.01(1.32-1.78)	
	Empc Correction				59083	15487	2114	5285	7		
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.142	29.115	2	0.926	49621219	5909116	19014	47535	311		
385.8610	29.142	29.115	2	0.926	99133739	11738519	35475	88687	331	0.50(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.182	29.155	2	1.001	1990240	224898	3866	9665	58		
375.8178	29.169	29.155	1	1.001	1632920	204124	3790	9475	54	1.22(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.936	51914841	5801912	19014	47535	305		
385.8610	29.448	29.421	2	0.936	100380935	10903676	35475	88687	307	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.461	29.462	0	1.000	562351	64540	3866	9665	17		
375.8178	29.448	29.462	-1	1.000	455781	49606	3790	9475	13	1.23(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	50069844	9482116	19014	47535	499		
385.8610	30.673	30.660	1	0.975	96015455	17505955	35475	88687	493	0.52(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.686	30.687	0	1.000	237758	40578	3866	9665	10		
375.8178	30.686	30.687	0	1.000	196058	34598	3790	9475	9	1.21(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.672	1	1.007	46845663	10375351	19014	47535	546		
385.8610	31.672	31.672	0	1.006	94850689	21123873	35475	88687	595	0.49(0.43-0.59)	
1,2,3,7,8,9-HxCDF											M
373.8208	31.698	31.685	1	1.000	343741	88764	3866	9665	23		M
375.8178	31.685	31.685	0	1.000	289477	71443	3790	9475	19	1.19(1.05-1.43)	M
A Non-2,3,7,8-sub-HxCDF											Ma
373.8208	26.505	29.135	-157	0.910	374191	49957	3866	9665	13		
375.8178	26.519	29.135	-157	0.910	307965	38493	3790	9475	10	1.22(1.05-1.43)	
373.8208	26.865	29.135	-136	0.922	1297499	170293	3866	9665	44		
375.8178	26.851	29.135	-137	0.921	1104453	138760	3790	9475	37	1.17(1.05-1.43)	
373.8208	28.077	29.135	-63	0.963	1680589	208198	3866	9665	54		
375.8178	28.077	29.135	-63	0.963	1444944	177072	3790	9475	47	1.16(1.05-1.43)	
373.8208	30.527	29.135	83	1.048	249109	41988	3866	9665	11		
375.8178	30.553	29.135	85	1.048	177328	36900	3790	9475	10	1.40(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
373.8208	31.792	29.135	159	1.091	266806	57312	3866	9665	15		M
375.8178	31.792	29.135	159	1.091	215156	46045	3790	9475	12	1.24(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		120275378	26604777	19195	47987	1386		
403.8529	31.472	31.472	0		93146721	20571823	15715	39287	1309	1.29(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	62447043	13628351	19195	47987	710		
403.8529	30.939	30.926	1	0.983	48266033	10132933	15715	39287	645	1.29(1.05-1.43)	
1,2,3,4,7,8-HxCDD											a
389.8157	30.953	30.953	0	1.000	160684	32963	3607	9017	9		a
391.8127	30.953	30.953	0	1.000	130580	26246	3593	8982	7	1.23(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	73739192	13893989	19195	47987	724		
403.8529	31.073	31.059	1	0.987	57563831	11340613	15715	39287	722	1.28(1.05-1.43)	
1,2,3,6,7,8-HxCDD											a
389.8157	31.086	31.086	0	1.000	512287	96263	3607	9017	27		a
391.8127	31.086	31.086	0	1.000	448966	88558	3593	8982	25	1.14(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.485	31.485	0	1.018	332442	64100	3607	9017	18		
391.8127	31.485	31.485	0	1.018	314639	58441	3593	8982	16	1.06(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											RQ
389.8157	27.944	29.926	-119	0.899	1118389	139312	3607	9017	39		
391.8127	27.957	29.926	-118	0.900	883241	107254	3593	8982	30	1.27(1.05-1.43)	
389.8157	29.302	29.926	-37	0.943	253808	19874	3607	9017	6		
	Empc Correction				174603	19694	3607	9017	5		
391.8127	29.328	29.926	-36	0.944	140809	15883	3593	8982	4	1.80(1.05-1.43)	
389.8157	29.941	29.926	1	0.964	1404323	184800	3607	9017	51		
391.8127	29.927	29.926	0	0.963	1299978	162433	3593	8982	45	1.08(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	34291074	10398634	27302	68255	381		
419.8220	33.335	33.335	0	1.059	76718790	23596884	53997	134992	437	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.347	33.347	0	1.000	2366789	799702	10538	26345	76		
409.7789	33.347	33.347	0	1.000	2066805	631278	4860	12150	130	1.15(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	33234346	9915572	27302	68255	363		
419.8220	34.429	34.429	0	1.094	77099867	22069866	53997	134992	409	0.43(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											RQ
407.7818	34.441	34.441	0	1.000	200907	69360	10538	26345	7		
409.7789	34.441	34.441	0	1.000	281050	74382	4860	12150	15	0.71(0.88-1.20)	
	Empc Correction				193179	66692	4860	12150	14		
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.651	33.894	-15	1.009	4029831	1248571	10538	26345	118		
409.7789	33.651	33.894	-15	1.009	4044450	1217127	4860	12150	250	1.00(0.88-1.20)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	52888854	15637148	25781	64452	607		
437.8140	34.150	34.150	0	1.085	48958187	14311101	20525	51312	697	1.08(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	7260982	2173736	11113	27782	196		
425.7737	34.162	34.162	0	1.000	6447761	1906666	9477	23692	201	1.13(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	8842087	2785934	11113	27782	251		a
425.7737	33.603	35.074	-88	0.984	8315234	2717059	9477	23692	287	1.06(0.88-1.20)	
13C-OCDD											
469.7779	36.509	36.498	1	1.160	71413192	17816668	6638	16595	2684		
471.7750	36.497	36.498	0	1.160	79302188	19919339	8235	20587	2419	0.90(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	3432443	824432	3314	8285	249		
443.7399	36.581	36.582	0	1.002	3998842	958586	4562	11405	210	0.86(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	48179452	12265813	5366	13415	2286		
459.7348	36.509	36.509	0	1.000	52470002	13654486	5870	14675	2326	0.92(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	220914972	55182041

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	220914972	55182041

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.920	593605	128682	533197	163133	0.5253	1.11	RQ
14.920	410561	125612	533197	163133	0.4399		Empc Correction
15.162	326145	67401	202548	68095	0.2465	1.61	RQ
15.162	155961	52433	202548	68095	0.1671		Empc Correction
15.389	876733	244031	1140393	313071	0.9403	0.77	
15.873	424740	122010	561779	151326	0.4599	0.76	
16.100	832601	179738	994705	222751	0.8518	0.84	
16.357	3383284	855837	4171052	1033465	3.52	0.81	
17.098	132039	32984	224738	53490	0.1663	0.59	RQM
17.098	132039	32984	171479	42836	0.1415		Empc Correction
18.383	391916	73688	379652	96765	0.3597	1.03	RQ
18.383	292332	74509	379652	96765	0.3133		Empc Correction
Signal Totals:							
	6508251	1687154	8154805	2091442			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	15169127	3806467				0.85	RQM
	14663056	3778596					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 7.071 = (15169127 * 100.000) / (220914972 * 0.971)
Empc Amount: 6.835 = (14663056 * 100.000) / (220914972 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	146539239	34307322

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	146539239	34307322

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
16.326	331947	49929	262351	57377	0.3882	1.27	RQ
16.326	202010	44180	262351	57377	0.3033		Empc Correction
17.279	213537	47473	190886	49881	0.2642	1.12	RQMa
17.279	146982	38408	190886	49881	0.2207		Empc Correction
Signal Totals:							
	348992	82588	453237	107258			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	998721	204660				1.20	RQMa
	802229	189846					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6524 = (998721 * 100.000) / (146539239 * 1.045)
Empc Amount: 0.5240 = (802229 * 100.000) / (146539239 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	184595045	34636398
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	185673612	31310328

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	185134328	32973363

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	568613	120216	371943	70952	0.5312	1.53	
Signal Totals:							
	568613	120216	371943	70952			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	940556	191168				1.53	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5312 = (940556 * 100.000) / (185134328 * 0.956)

Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	184595045	34636398
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	185673612	31310328

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	185134328	32973363

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.132	2765343	511249	1836287	313459	2.60	1.51	
20.841	460548	64628	315845	51379	0.4385	1.46	
21.236	243003	65545	146119	42590	0.2198	1.66	Ma
21.836	1339600	257227	929332	159547	1.28	1.44	M
22.913	598285	91192	395782	51529	0.5614	1.51	
Signal Totals:							
	5406779	989841	3623365	618504			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	9030144	1608345				1.49	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.100 = (9030144 * 100.000) / (185134328 * 0.956)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	116749067	18629688

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	116749067	18629688

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.309	245437	44419	176633	30320	0.3399	1.39	
21.645	91579	24006	90834	15839	0.1469	1.01	RQ
21.645	91579	24006	59083	15487	0.1213		Empc Correction
Signal Totals:							
	337016	68425	235716	45807			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	604483	114584				1.26	RQ
	572732	114232					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4869 = (604483 * 100.000) / (116749067 * 1.063)
Empc Amount: 0.4613 = (572732 * 100.000) / (116749067 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	148754958	17647635
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	152295776	16705588
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	146085299	26988071
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	141696352	31499224

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	147208096	23210129

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.505	374191	49957	307965	38493	0.3945	1.22	
26.865	1297499	170293	1104453	138760	1.39	1.17	
28.077	1680589	208198	1444944	177072	1.81	1.16	
30.527	249109	41988	177328	36900	0.2466	1.40	
31.792	266806	57312	215156	46045	0.2787	1.24	Ma
Signal Totals:							
	3868194	527748	3249846	437270			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	7118040	965018				1.19	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.117 = (7118040 * 100.000) / (147208096 * 1.175)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	110713076	23761284
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	131303023	25234602
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	121008049	24497943

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.944	1118389	139312	883241	107254	1.62	1.27	
29.302	253808	19874	140809	15883	0.3192	1.80	RQ
29.302	174603	19694	140809	15883	0.2551		Empc Correction
29.941	1404323	184800	1299978	162433	2.19	1.08	
Signal Totals:							
	2697315	343806	2324028	285570			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	5100548	629556				1.19	RQ
	5021343	629376					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.125 = (5100548 * 100.000) / (121008049 * 1.022)
Empc Amount: 4.061 = (5021343 * 100.000) / (121008049 * 1.022)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	111009864	33995518
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	110334213	31985438

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	110672038	32990478

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.651	4029831	1248571	4044450	1217127	5.31	1.00	
Signal Totals:							
	4029831	1248571	4044450	1217127			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	8074281	2465698				1.00	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.313 = (8074281 * 100.000) / (110672038 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Inject. Date: 22-Jul-2019 02:16:27 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 62

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	101847041	29948249

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	101847041	29948249

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	8842087	2785934	8315234	2717059	16.7	1.06	a
Signal Totals:							
	8842087	2785934	8315234	2717059			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	17157321	5502993				1.06	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 16.677 = (17157321 * 100.000) / (101847041 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

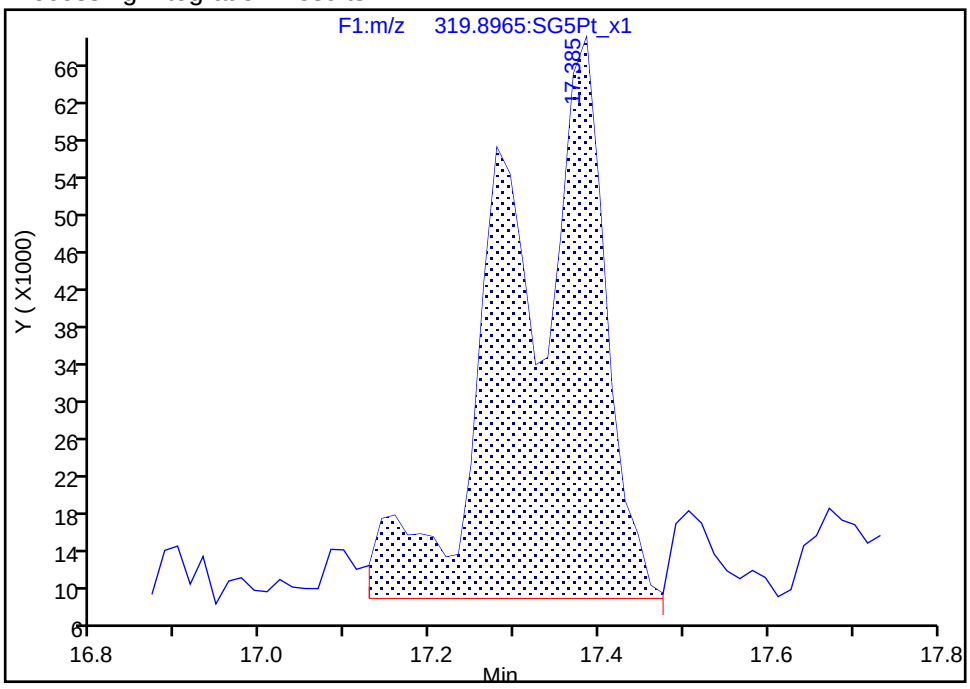
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d				
Injection Date:	22-Jul-2019 02:16:27	Instrument ID:	3D5		
Lims ID:	580-87706-C-6-A	Lab Sample ID:	320-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	45	Worklist Smp#:	62
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

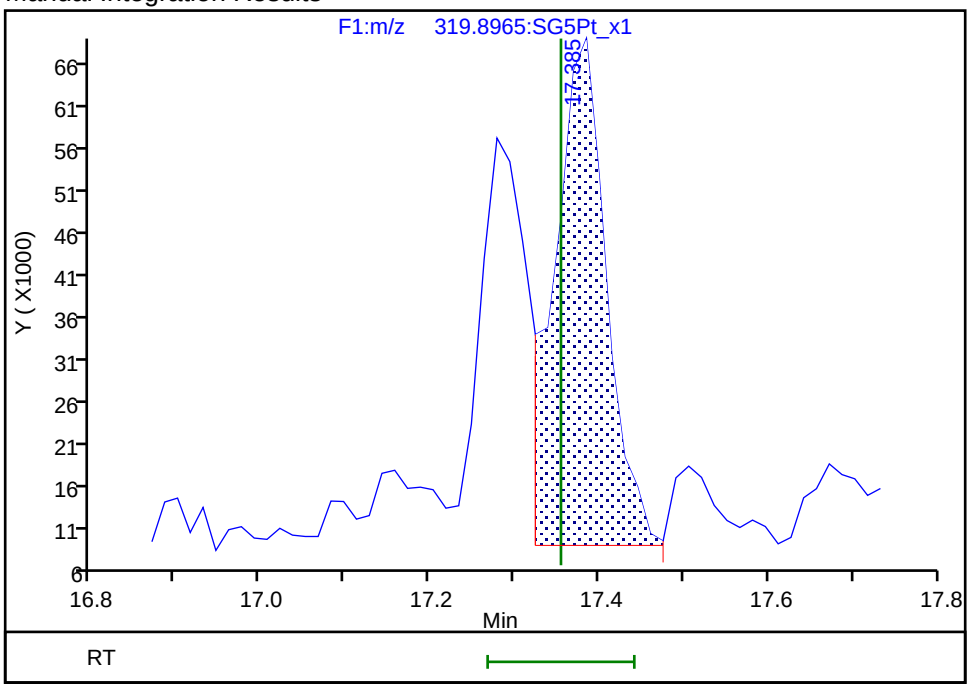
Processing Integration Results

RT: 17.39
Area: 462066
Amount: 0.505270
Amount Units: pg/ul



Manual Integration Results

RT: 17.39
Area: 248528
Amount: 0.365787
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:06:11

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

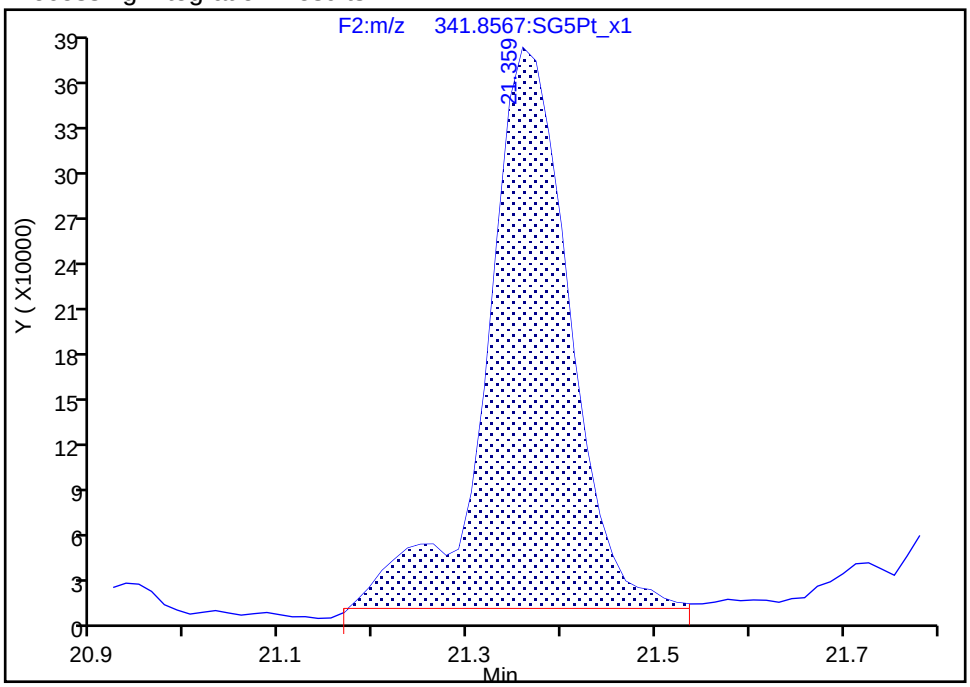
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d				
Injection Date:	22-Jul-2019 02:16:27	Instrument ID:	3D5		
Lims ID:	580-87706-C-6-A	Lab Sample ID:	320-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	45	Worklist Smp#:	62
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F2:HRSIR		

1,2,3,7,8-PeCDF, CAS: 57117-41-6

Signal: 2

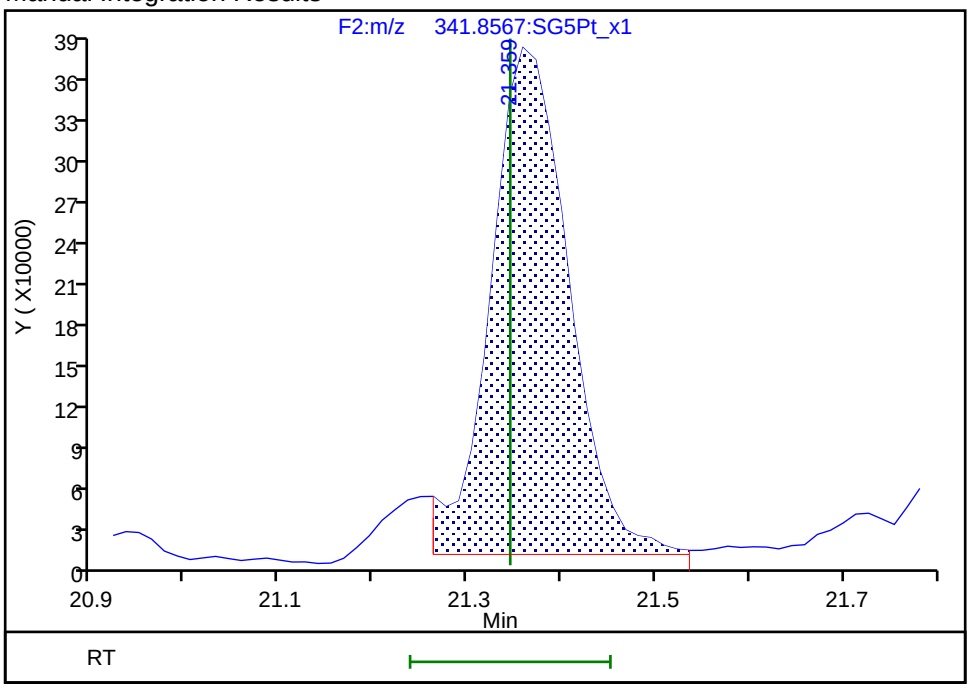
Processing Integration Results

RT: 21.36
Area: 2300418
Amount: 3.186899
Amount Units: pg/ul



Manual Integration Results

RT: 21.36
Area: 2154298
Amount: 3.104729
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:07:22

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

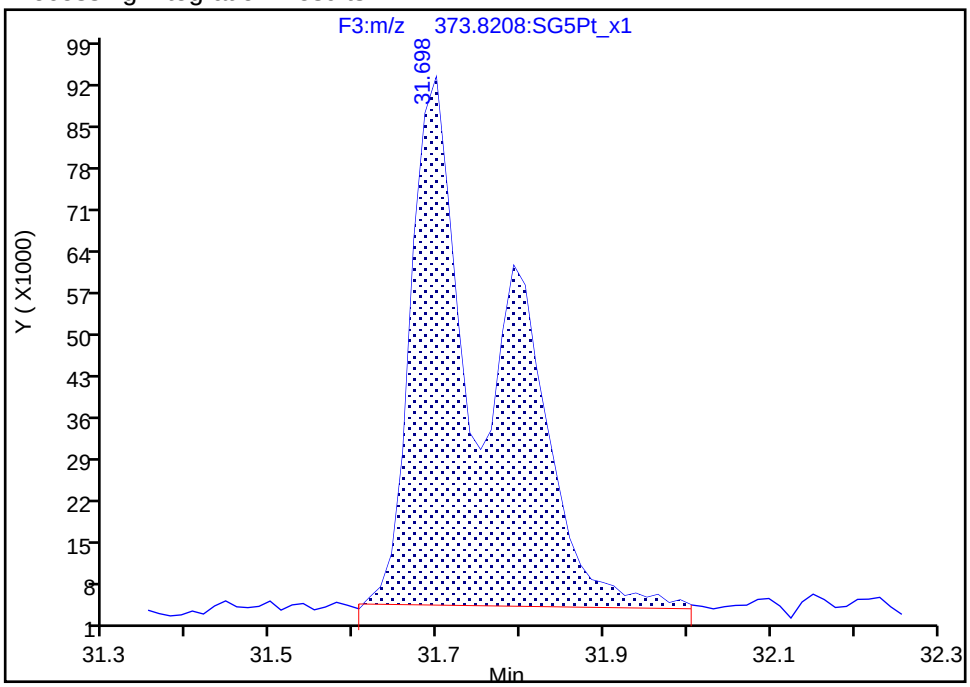
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d				
Injection Date:	22-Jul-2019 02:16:27	Instrument ID:	3D5		
Lims ID:	580-87706-C-6-A	Lab Sample ID:	320-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	45	Worklist Smp#:	62
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDF, CAS: 72918-21-9

Signal: 1

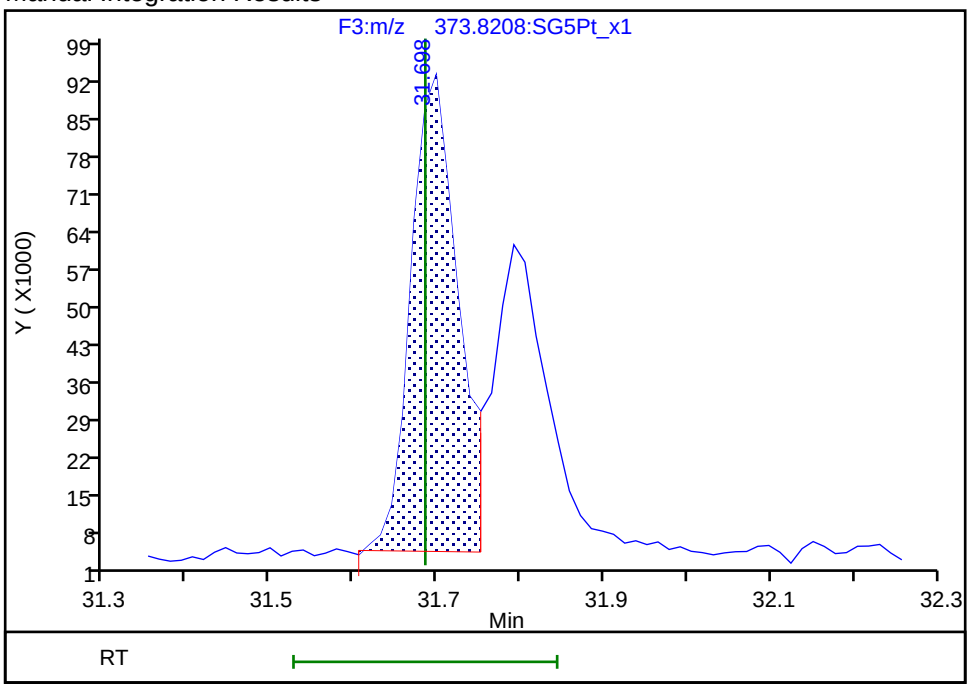
Processing Integration Results

RT: 31.70
Area: 610408
Amount: 0.667643
Amount Units: pg/ul



Manual Integration Results

RT: 31.70
Area: 343741
Amount: 0.379142
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:09:03

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

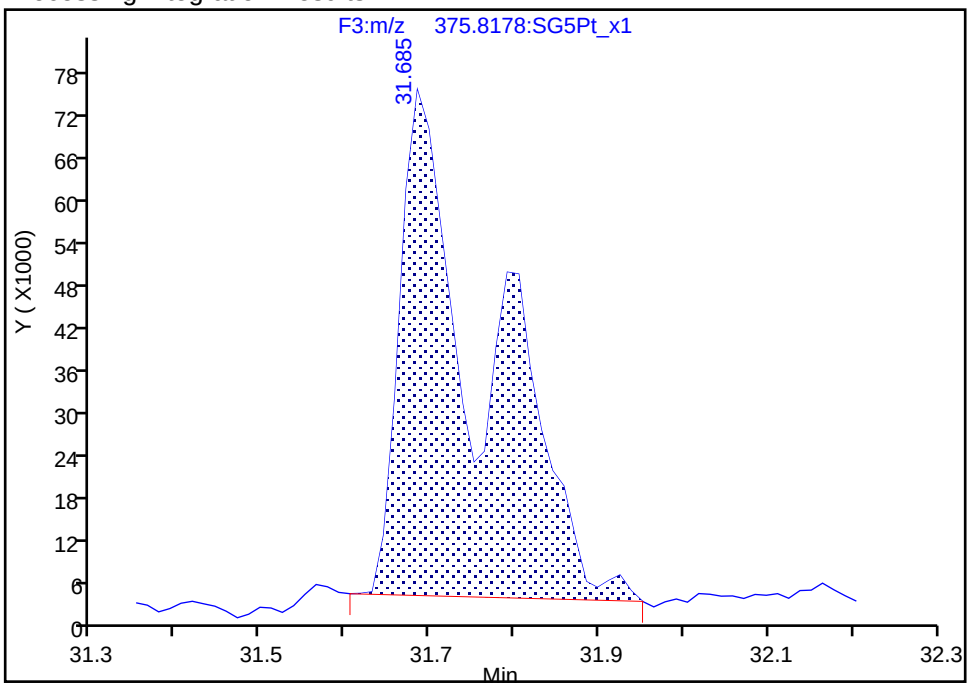
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d				
Injection Date:	22-Jul-2019 02:16:27	Instrument ID:	3D5		
Lims ID:	580-87706-C-6-A	Lab Sample ID:	320-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	45	Worklist Smp#:	62
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDF, CAS: 72918-21-9

Signal: 2

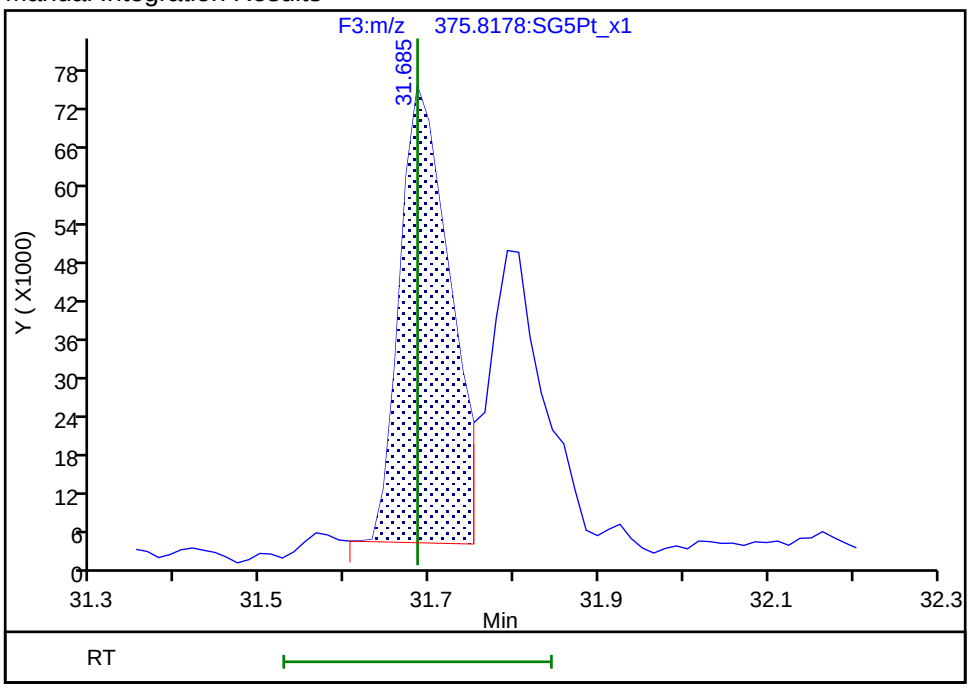
Processing Integration Results

RT: 31.68
Area: 504647
Amount: 0.667643
Amount Units: pg/ul



Manual Integration Results

RT: 31.68
Area: 289477
Amount: 0.379142
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:09:06

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

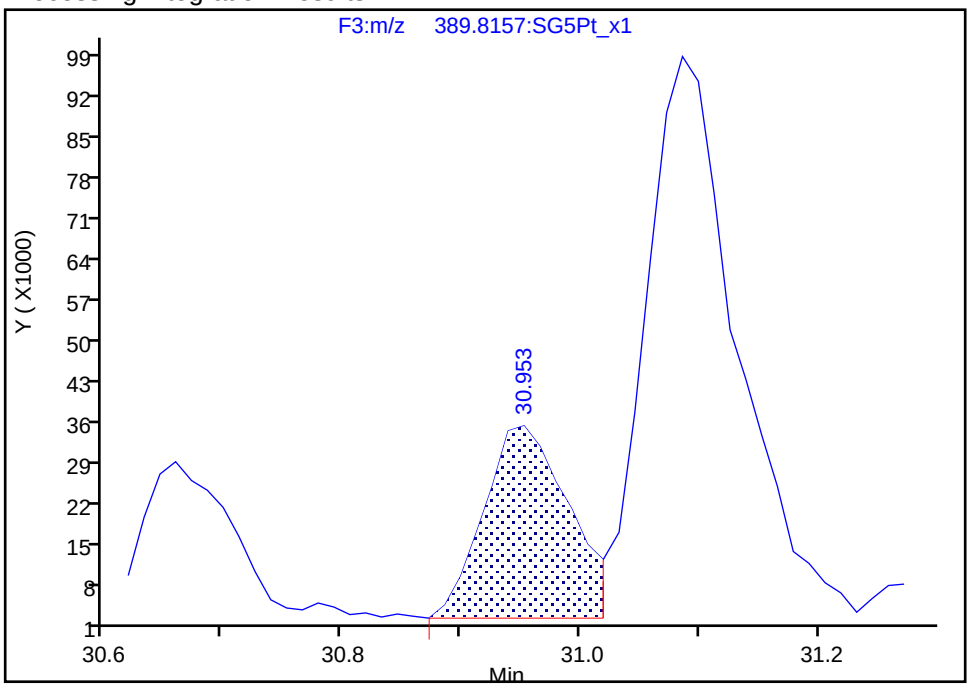
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d				
Injection Date:	22-Jul-2019 02:16:27	Instrument ID:	3D5		
Lims ID:	580-87706-C-6-A	Lab Sample ID:	320-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	45	Worklist Smp#:	62
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

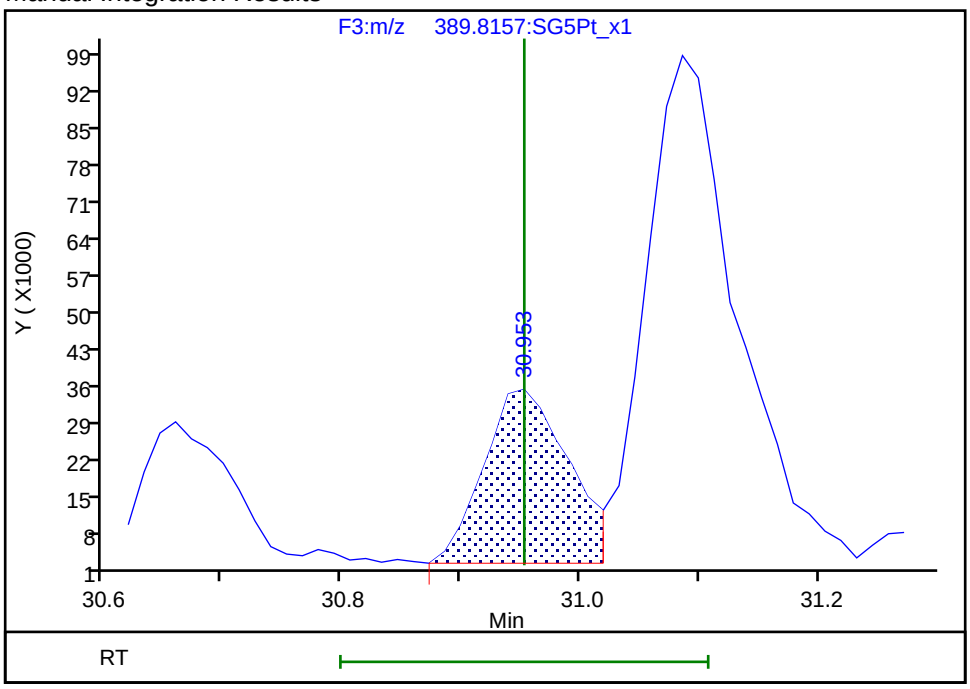
Processing Integration Results

RT: 30.95
Area: 160684
Amount: 0.256243
Amount Units: pg/ul



Manual Integration Results

RT: 30.95
Area: 160684
Amount: 0.256243
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:09:44

Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

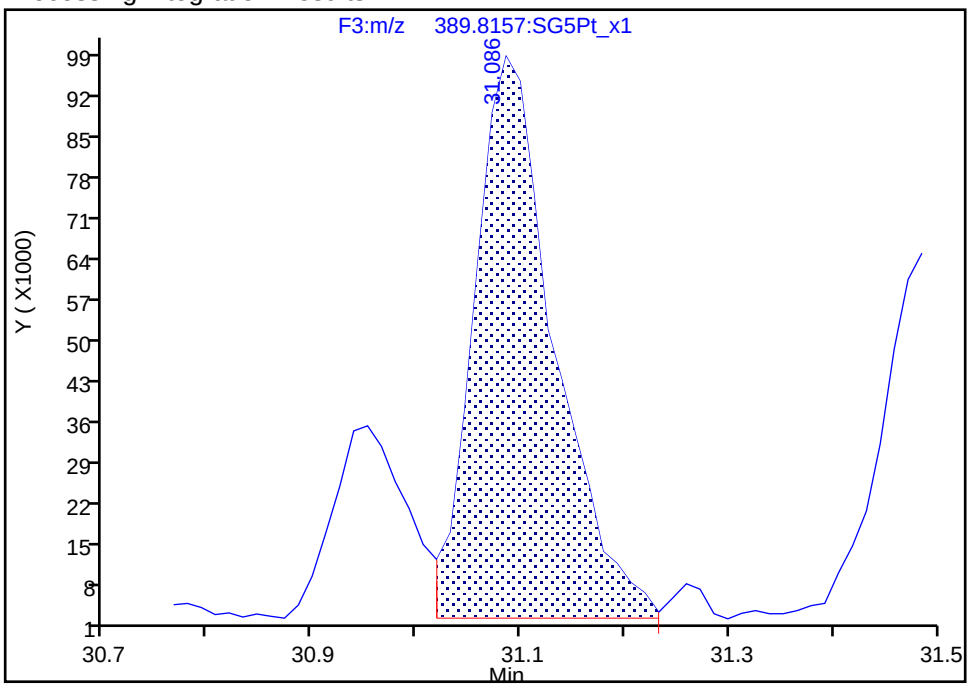
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d				
Injection Date:	22-Jul-2019 02:16:27	Instrument ID:	3D5		
Lims ID:	580-87706-C-6-A	Lab Sample ID:	320-87706-6		
Client ID:	22T-SG-19_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	45	Worklist Smp#:	62
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

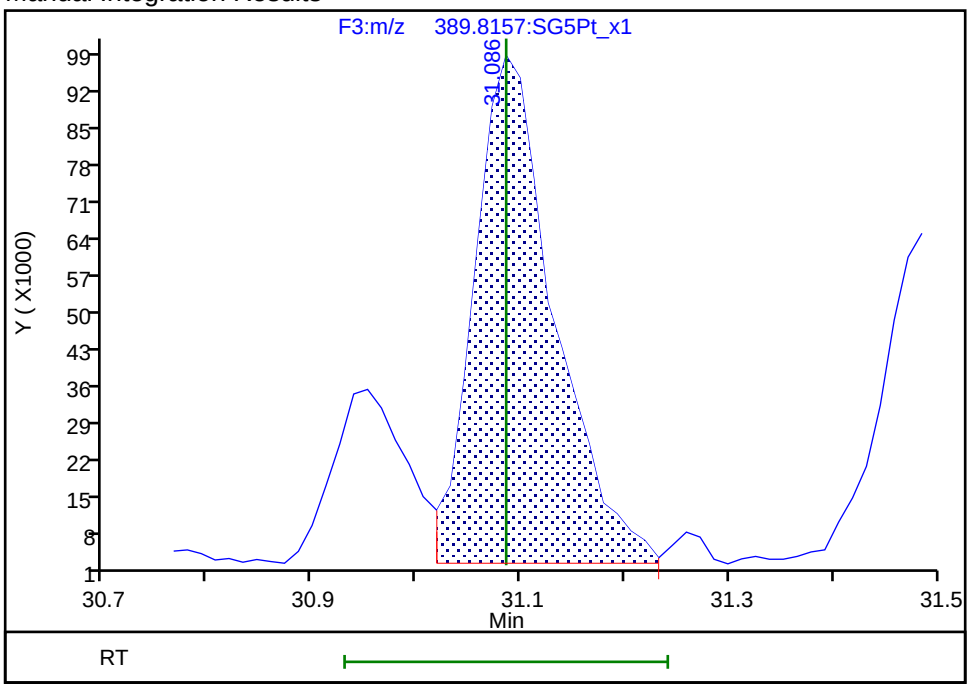
Processing Integration Results

RT: 31.09
Area: 512287
Amount: 0.749258
Amount Units: pg/ul



Manual Integration Results

RT: 31.09
Area: 512287
Amount: 0.749258
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:09:48

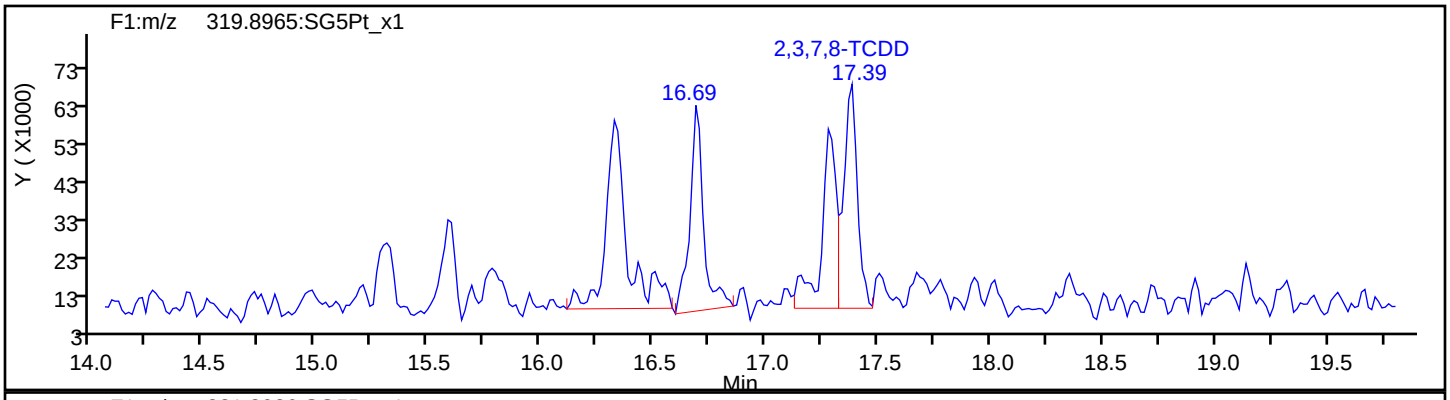
Audit Action: Assigned Compound ID Audit Reason: Split Peak

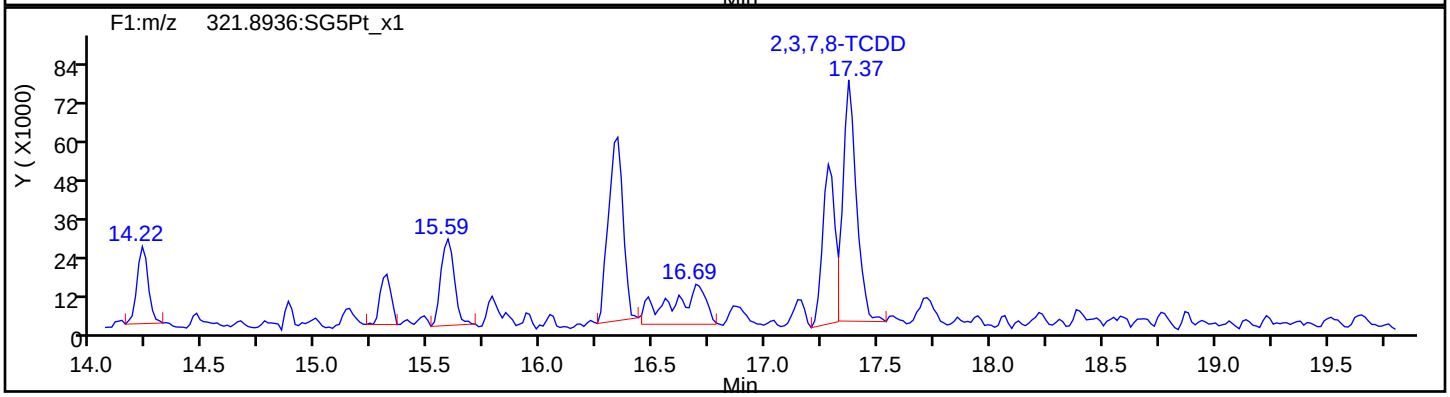
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

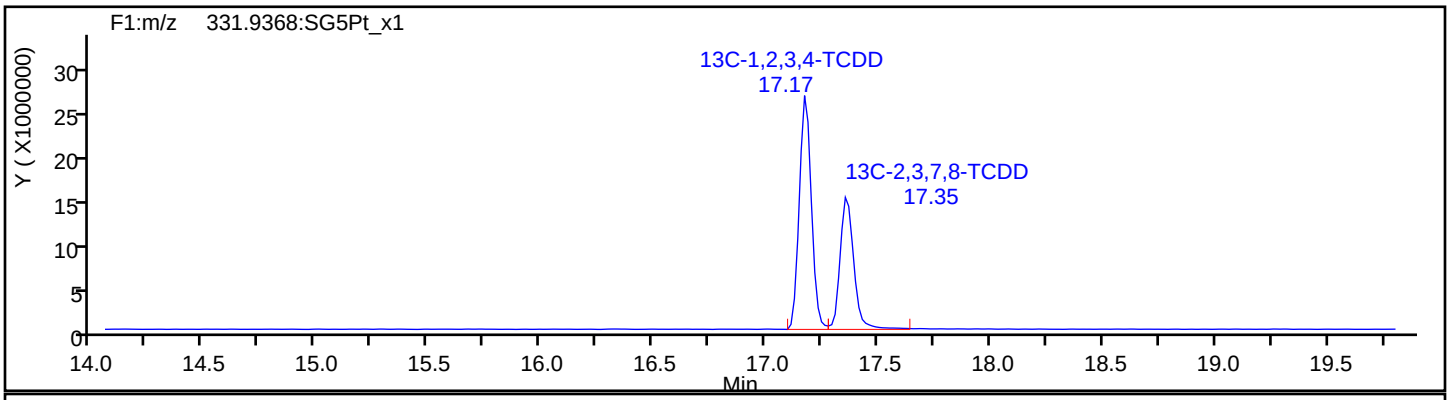
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

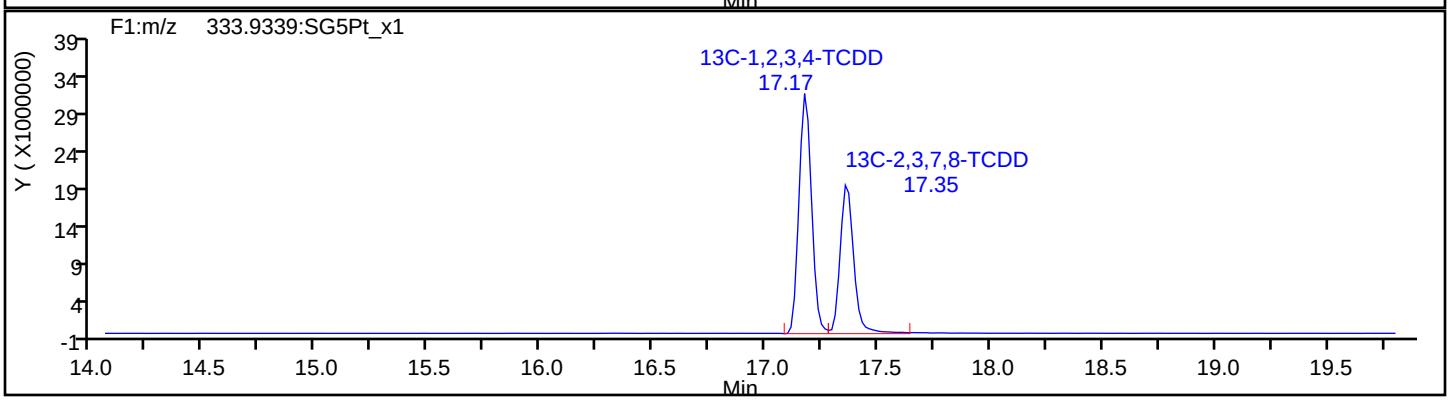
TCDD





TCDD Standards



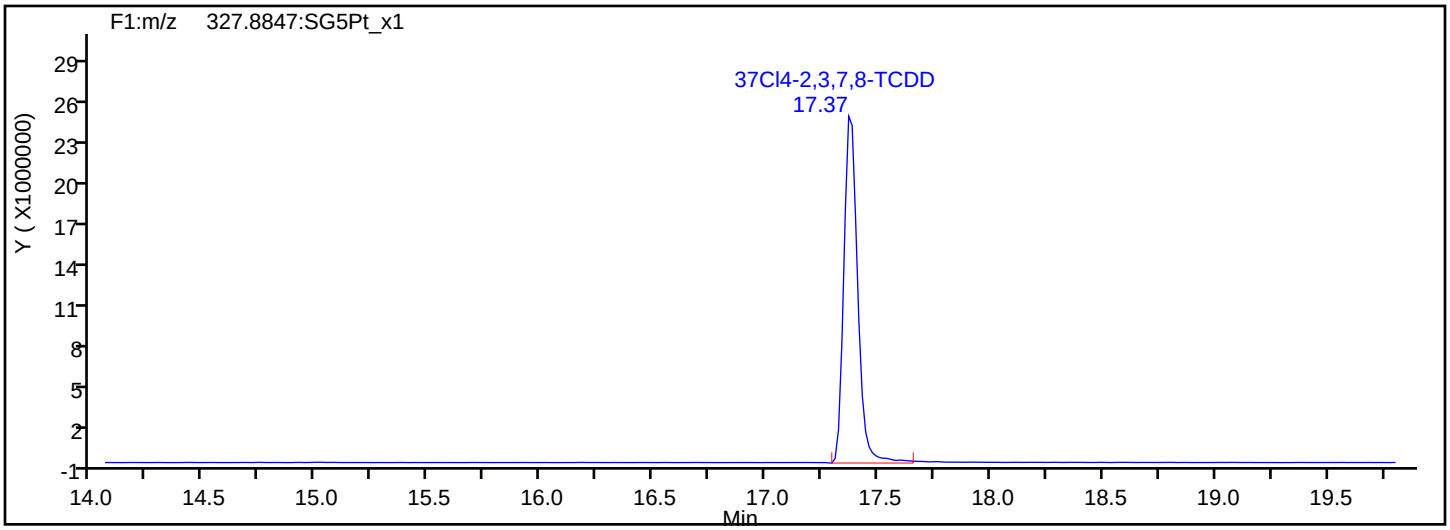


Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

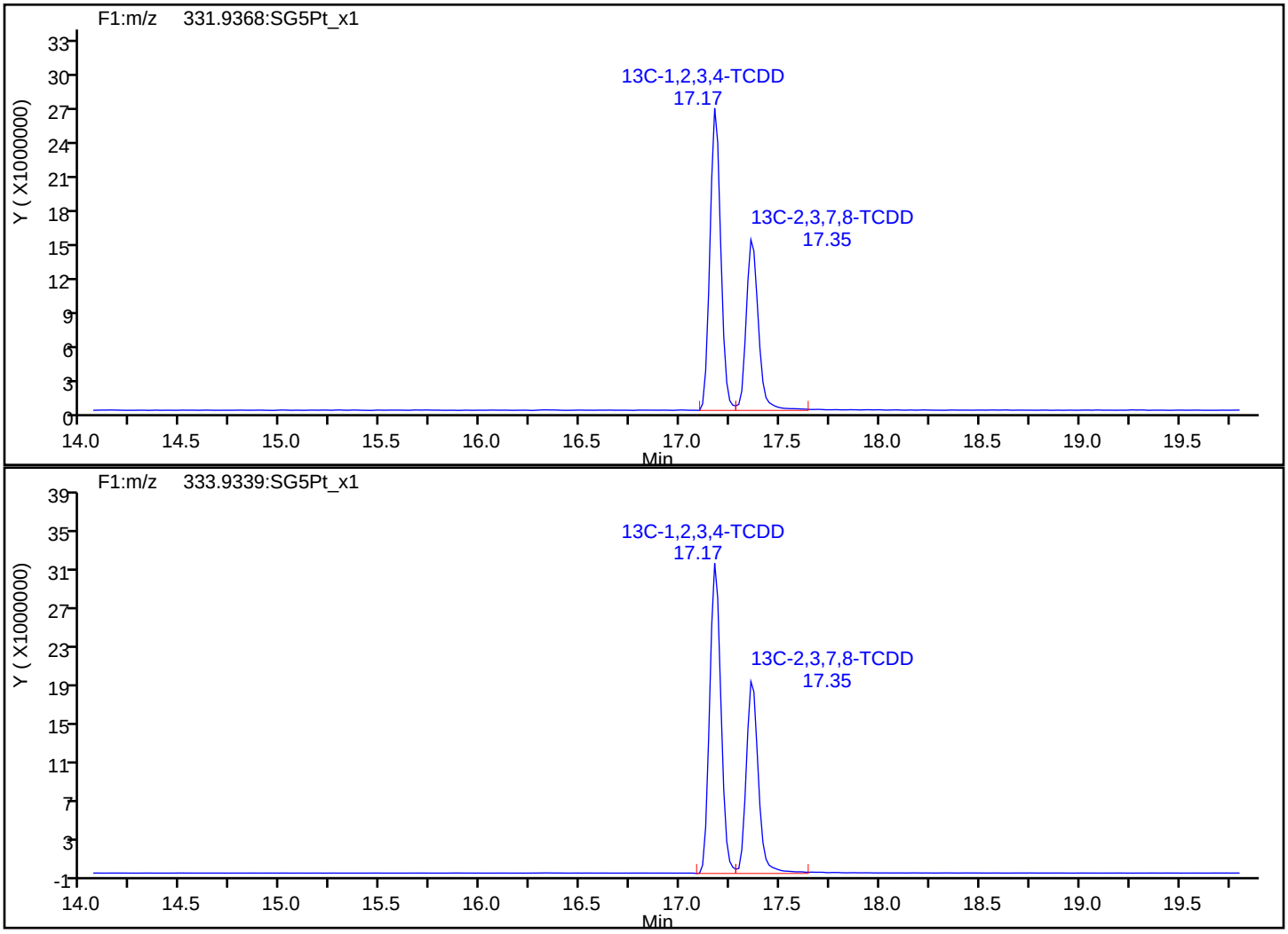
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

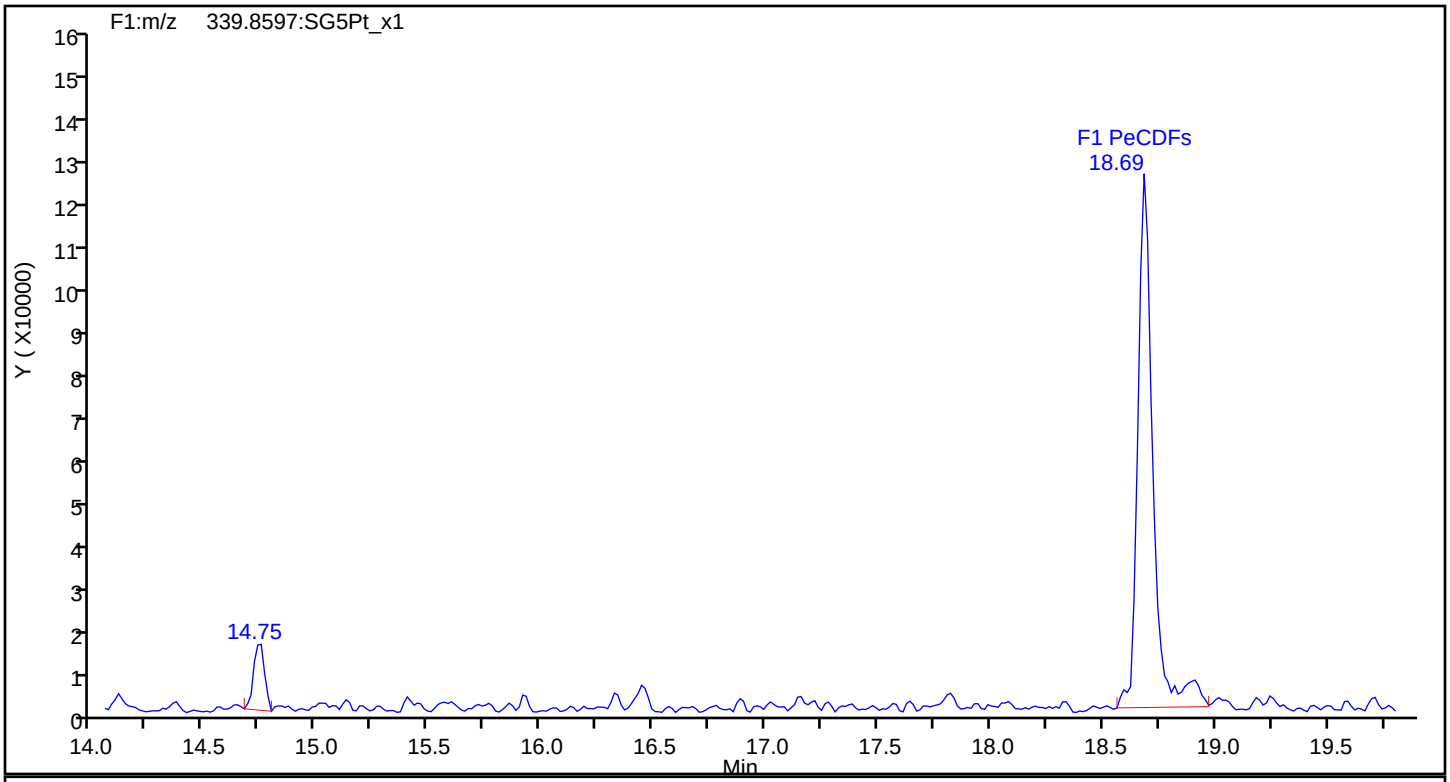


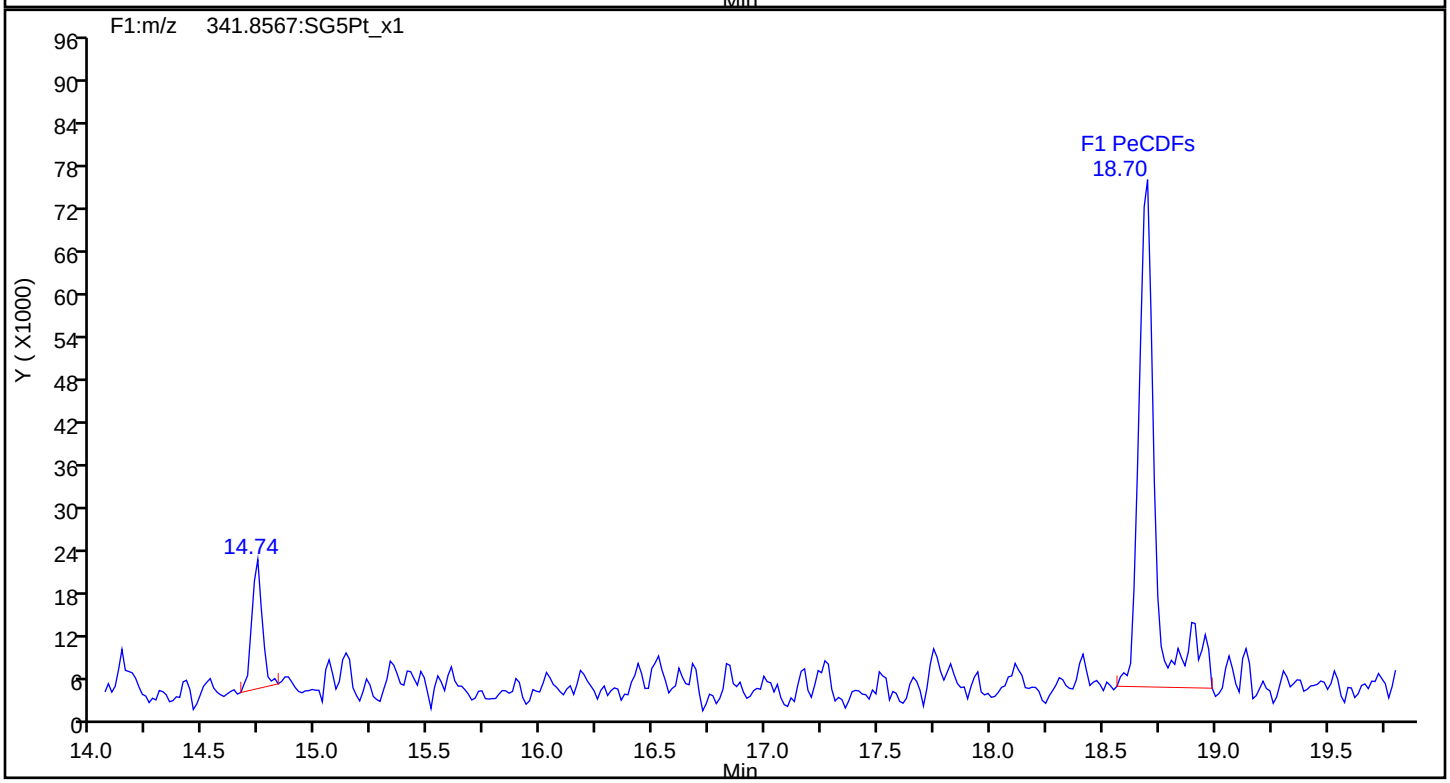
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



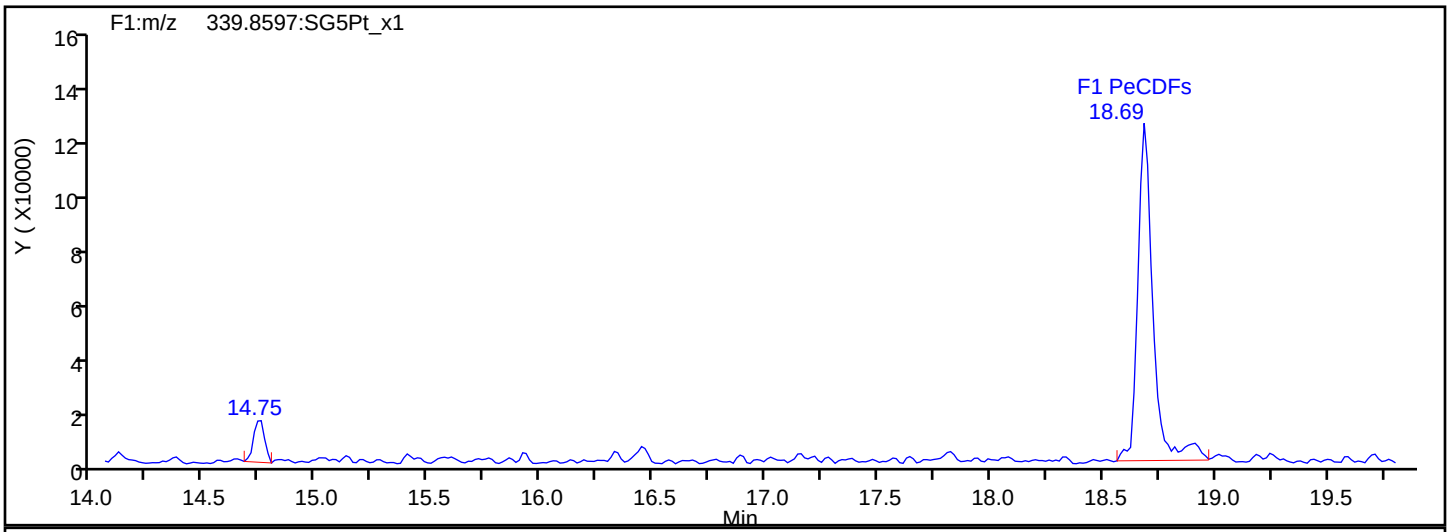


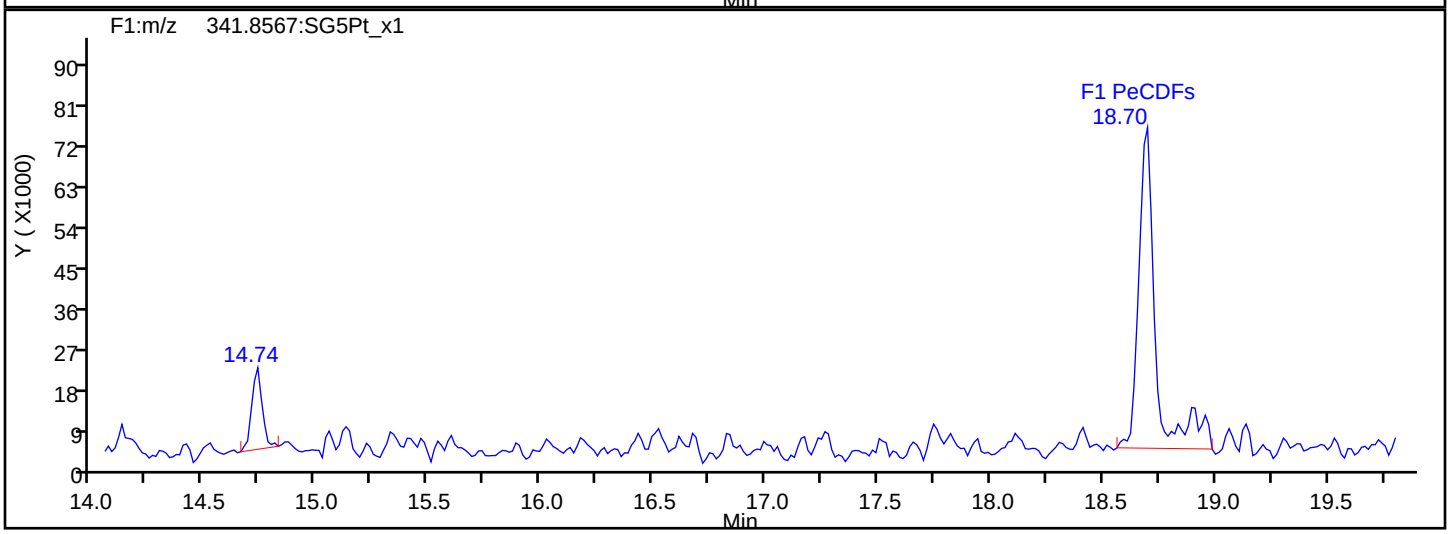
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

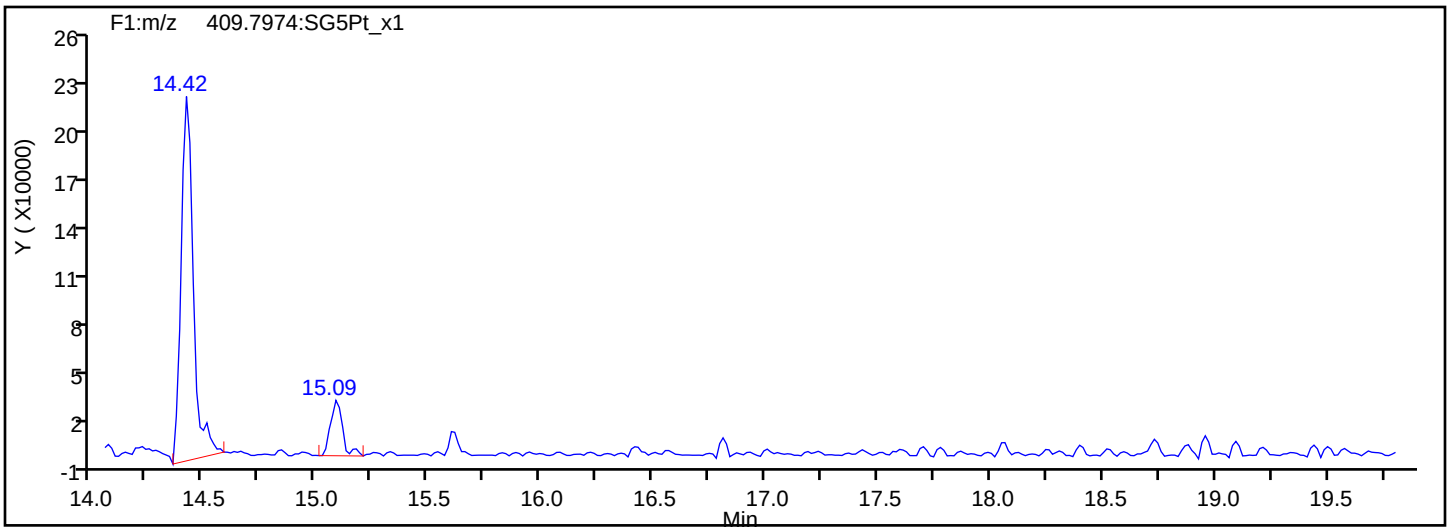
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

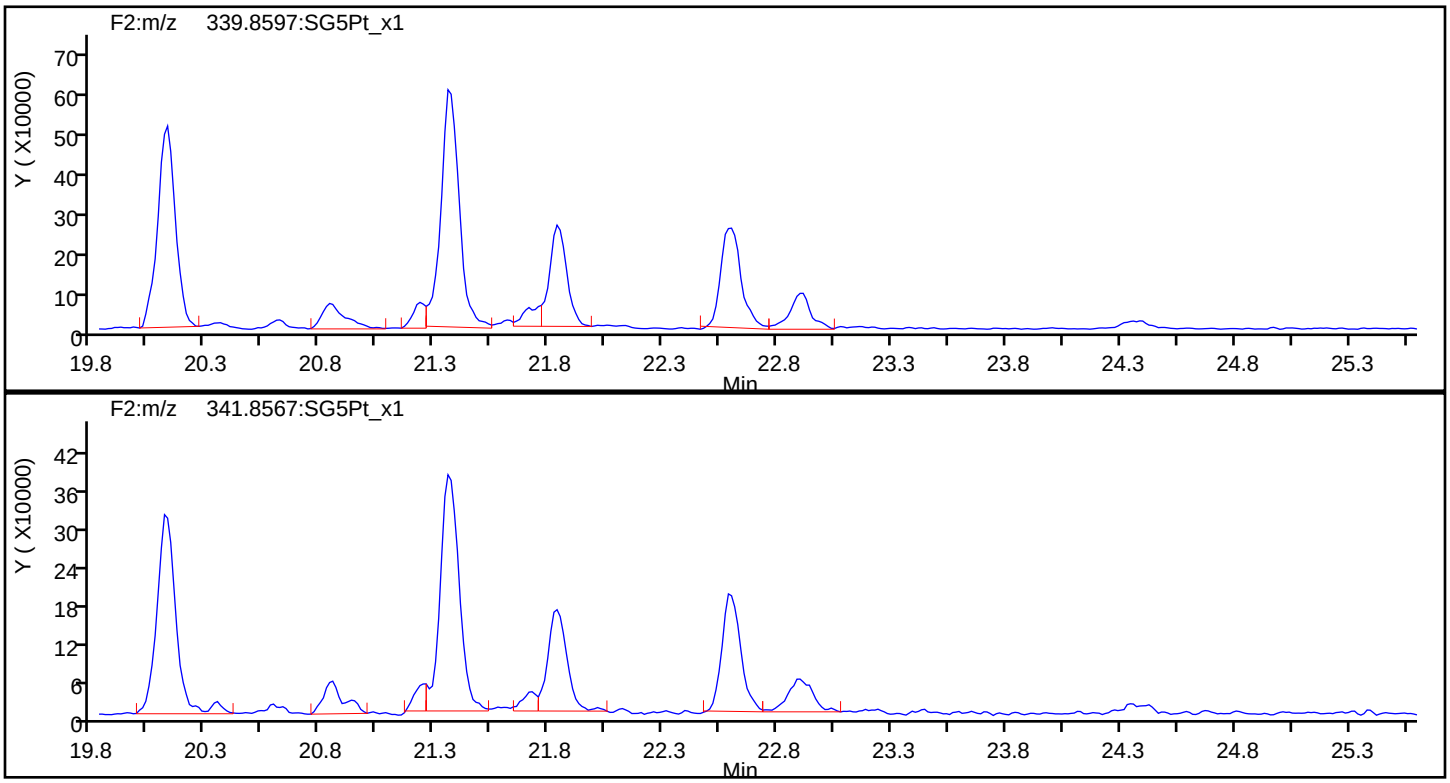


Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

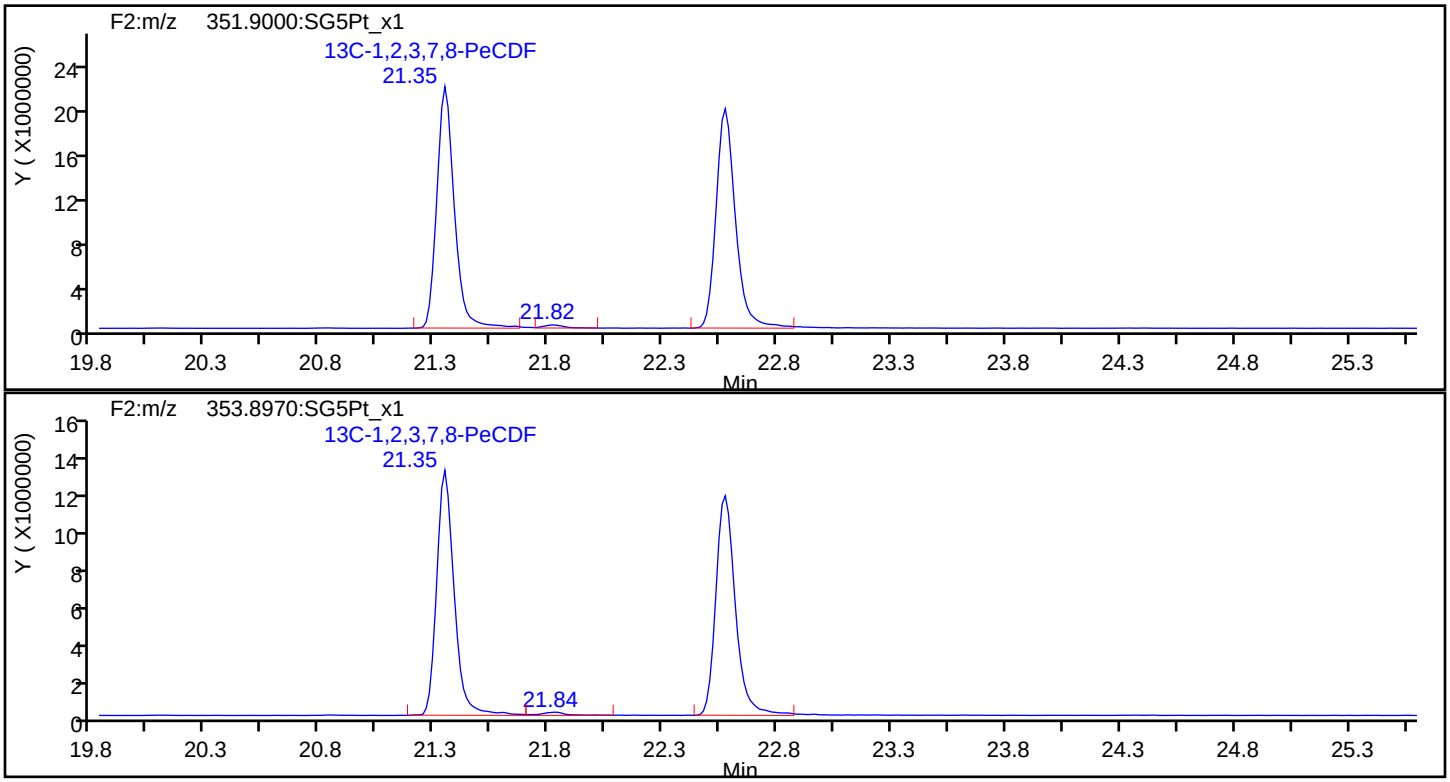
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

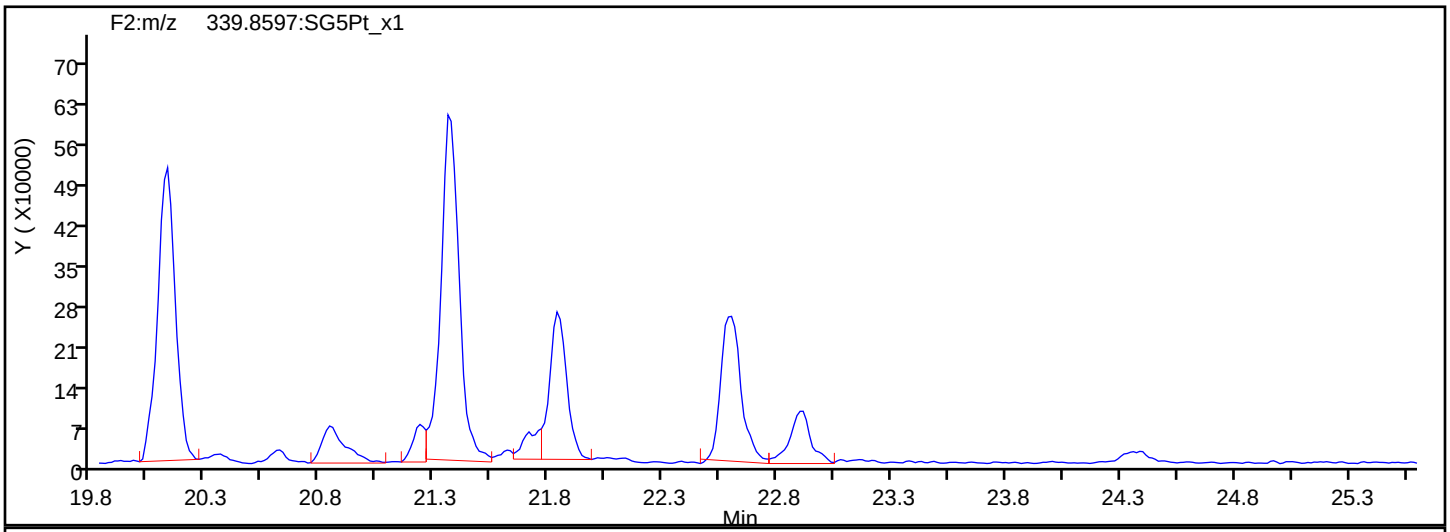


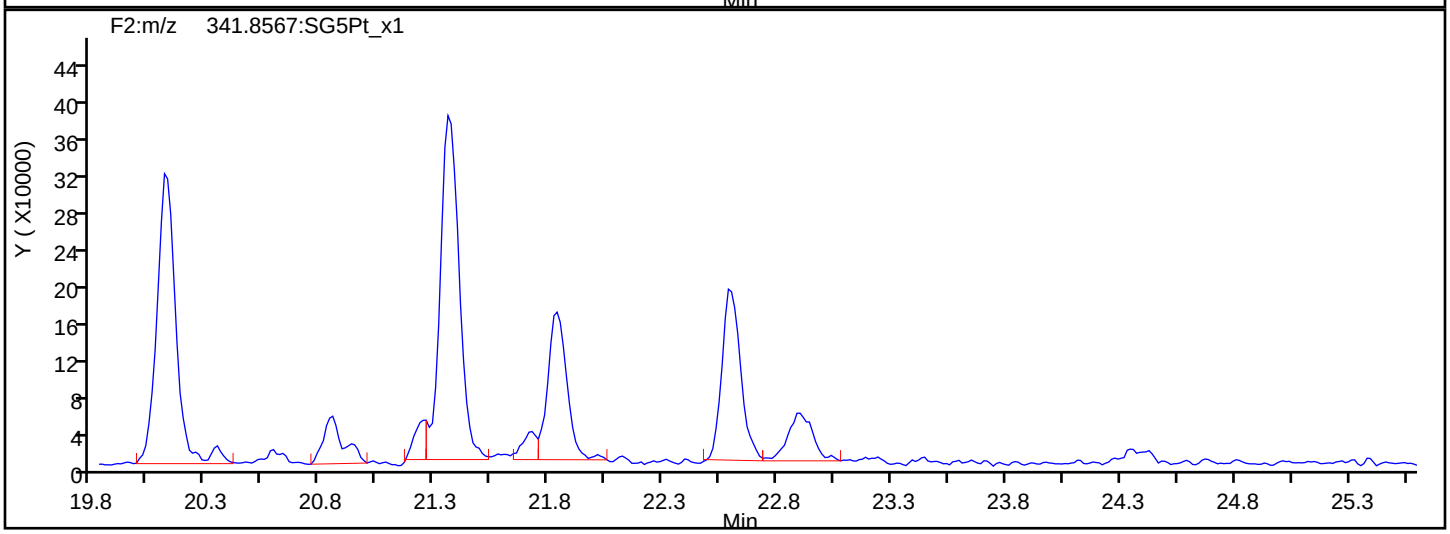
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

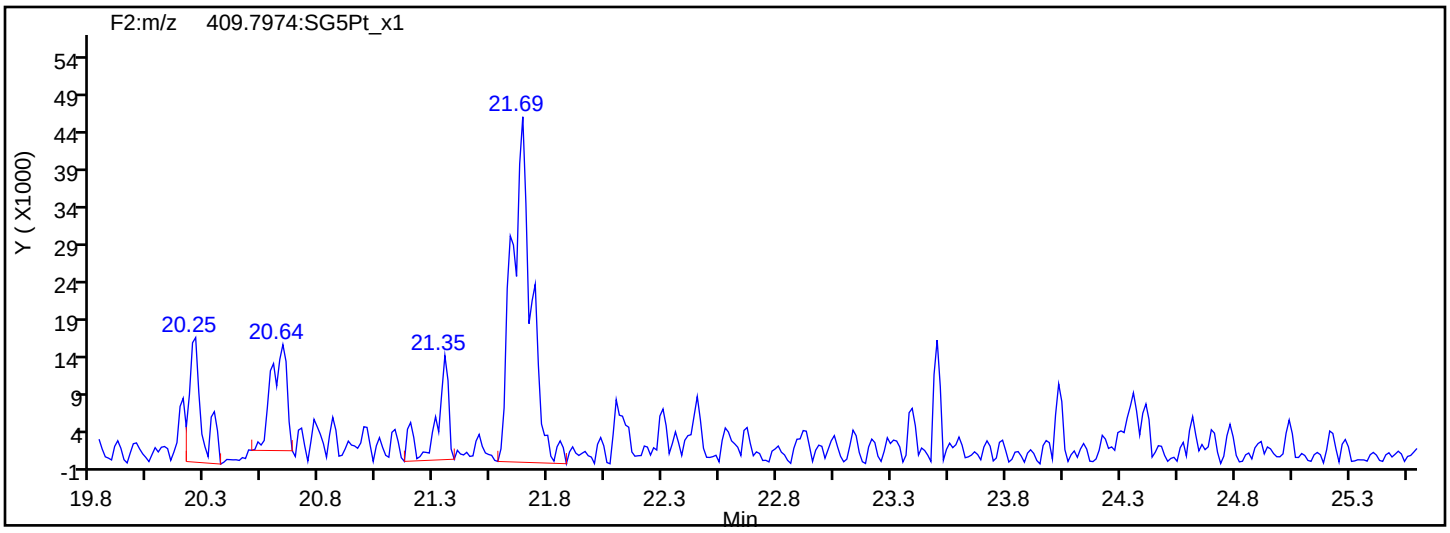
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

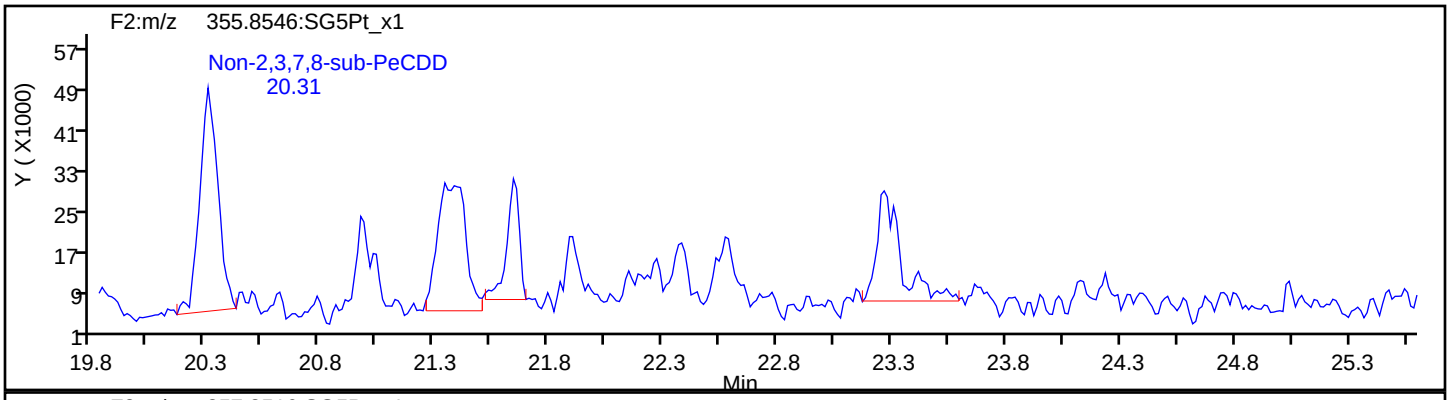


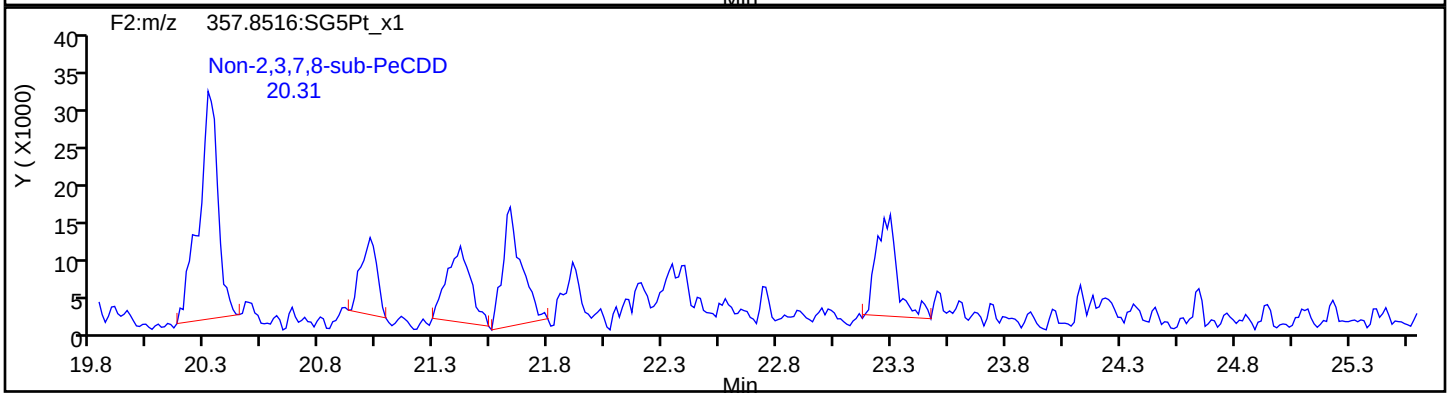
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

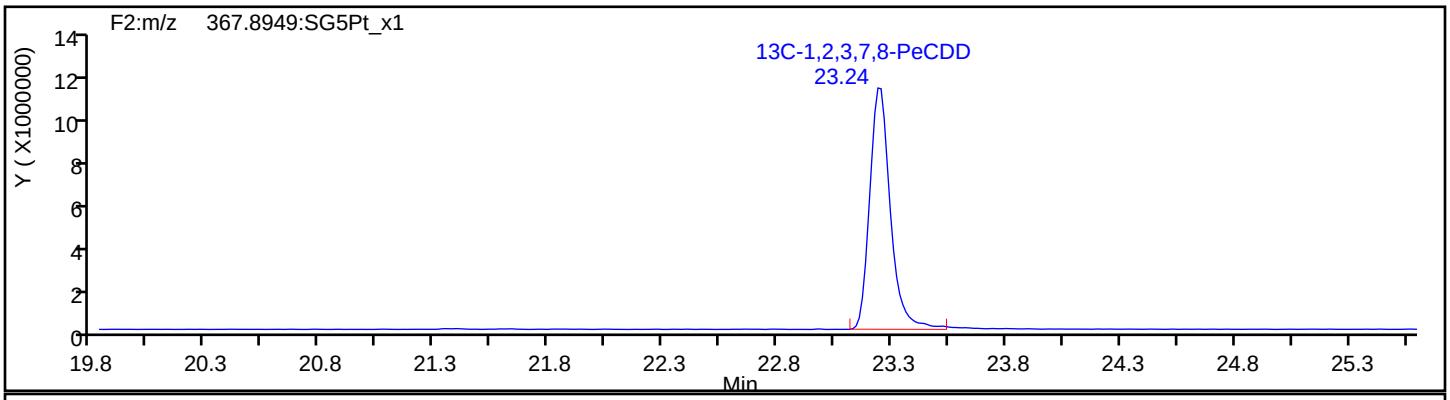
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

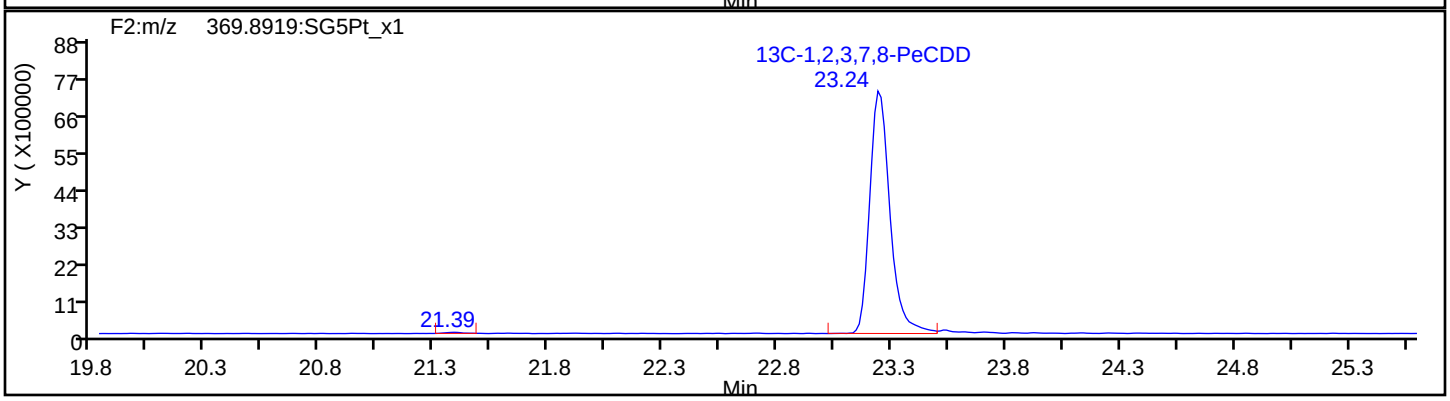
PeCDD





PeCDD Standards



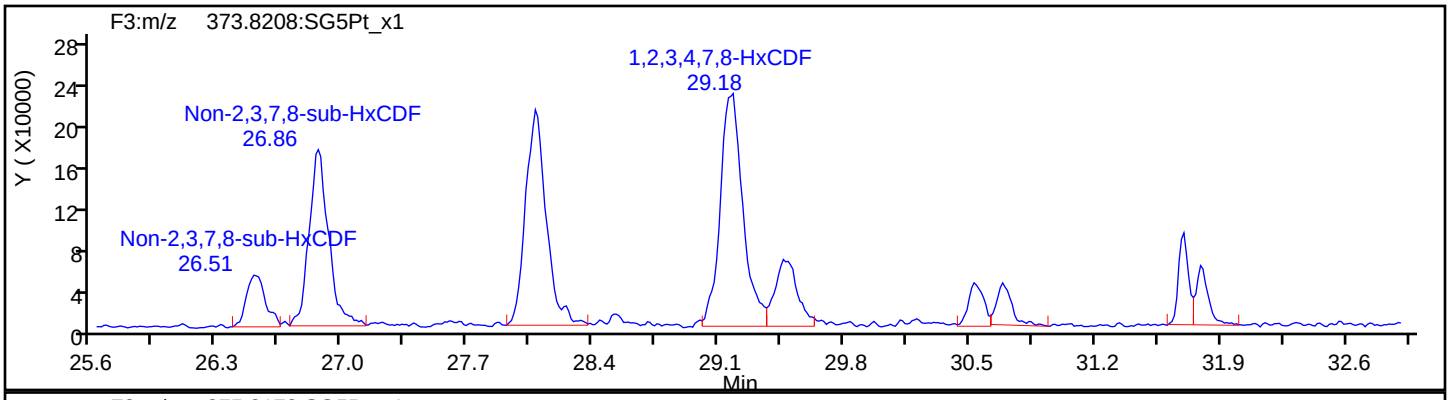


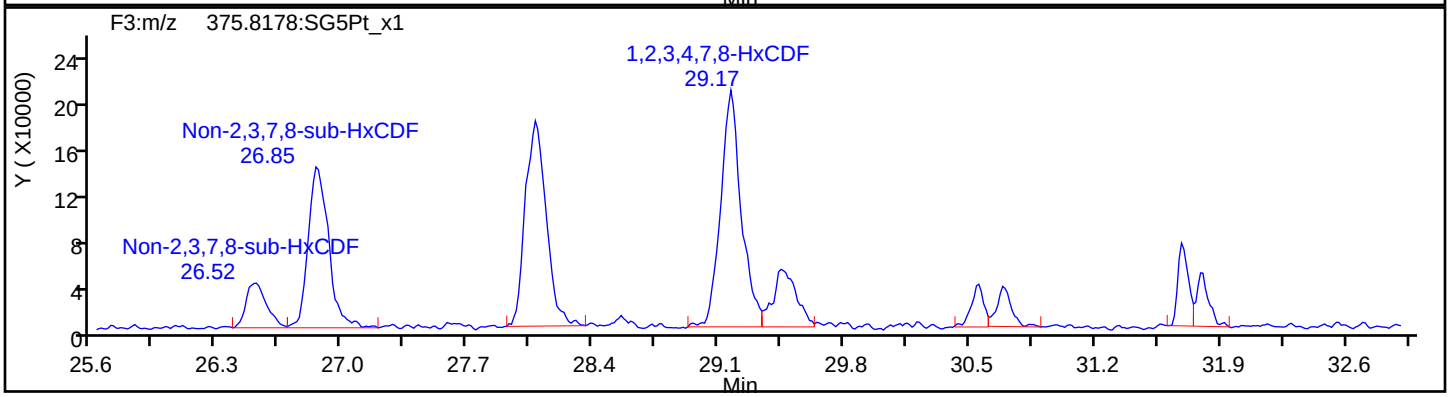
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

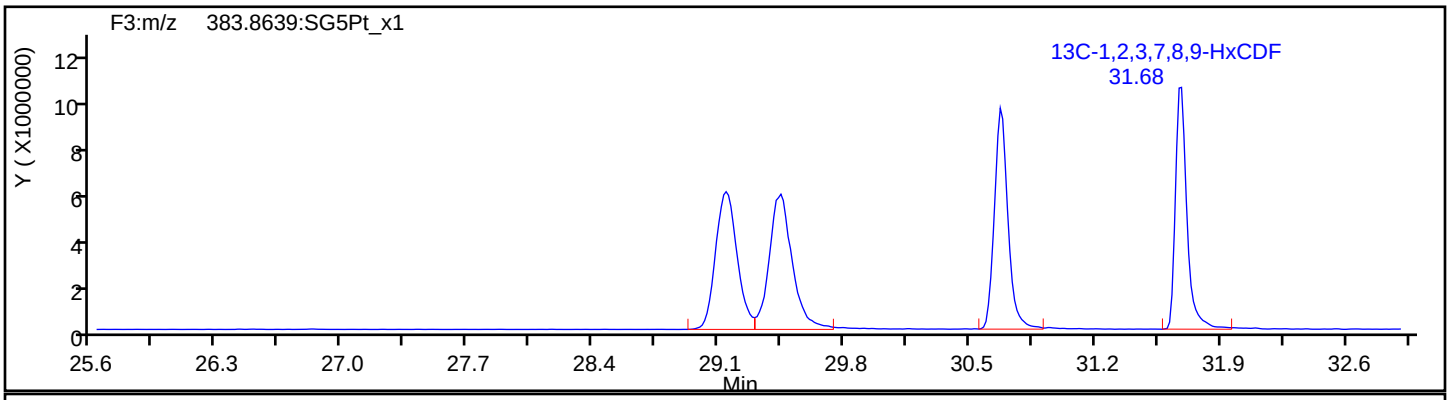
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

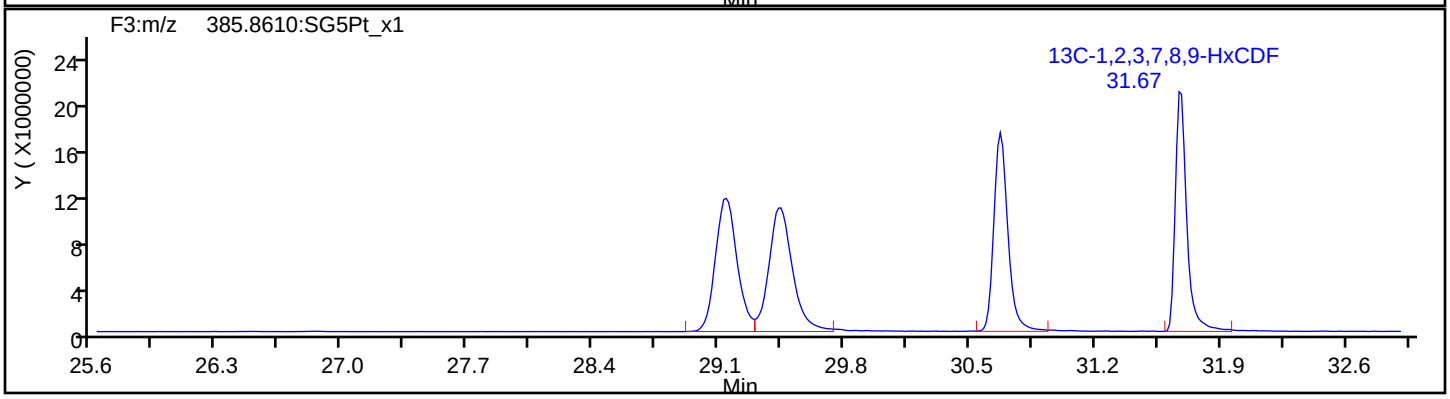
HxCDF





HxCDF Standards



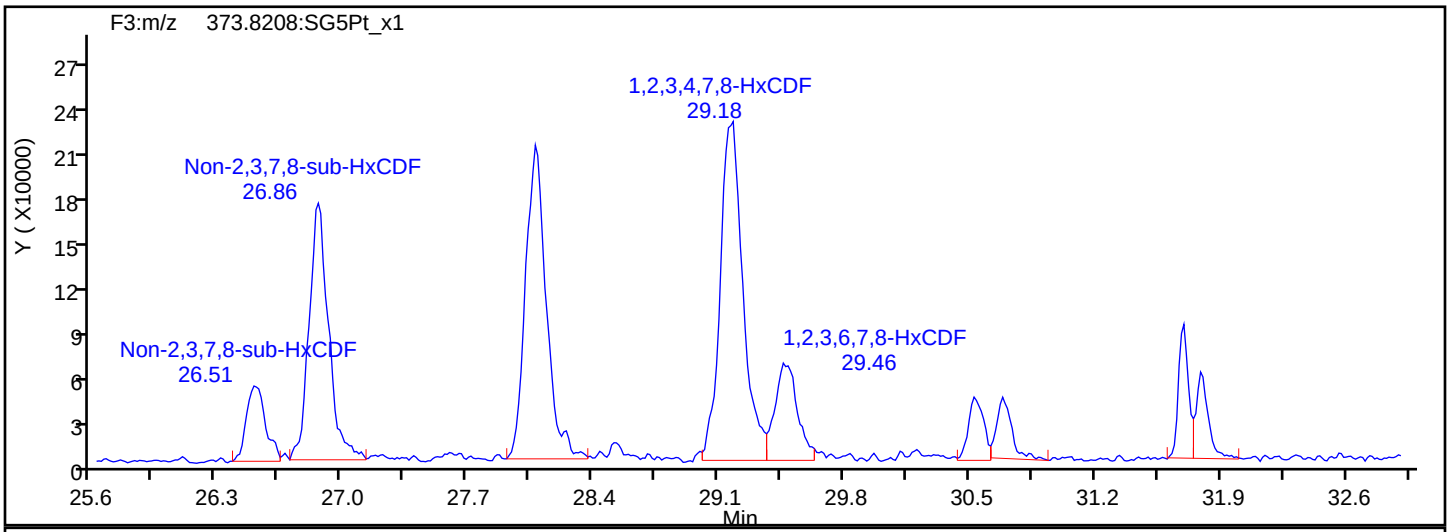


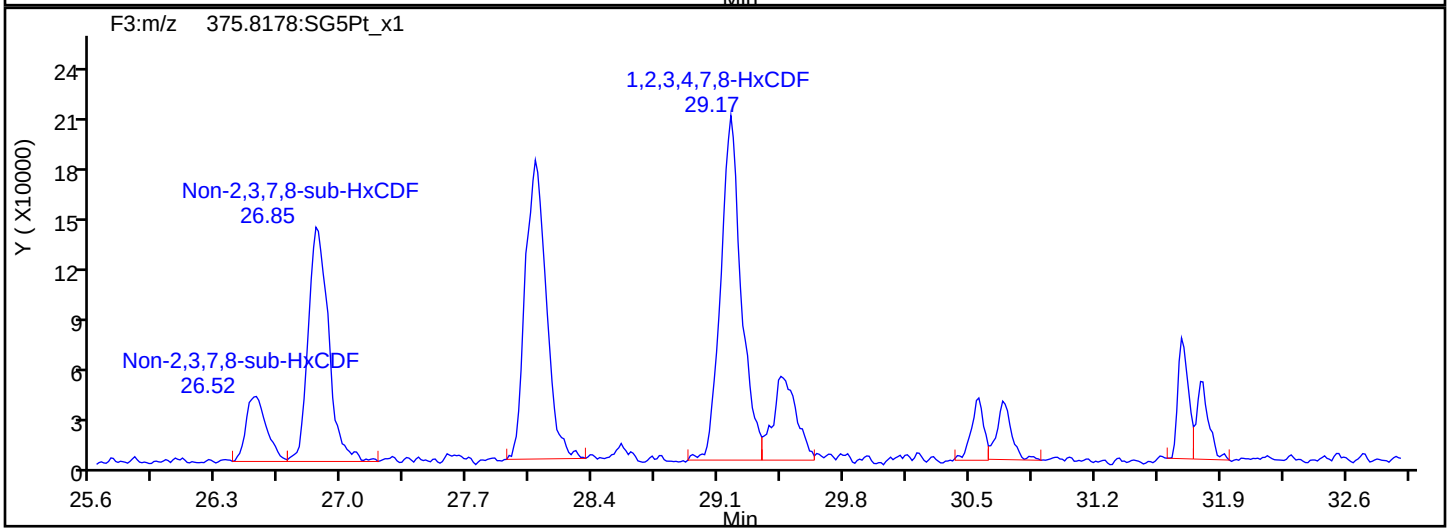
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

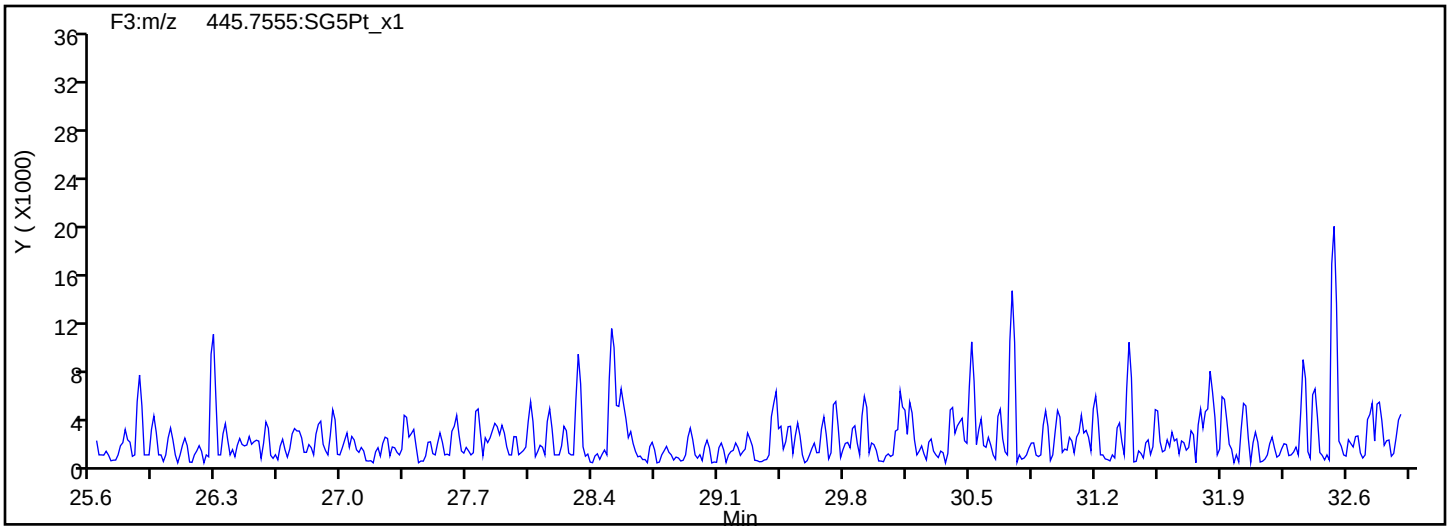
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d

Injection Date: 22-Jul-2019 02:16:27 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

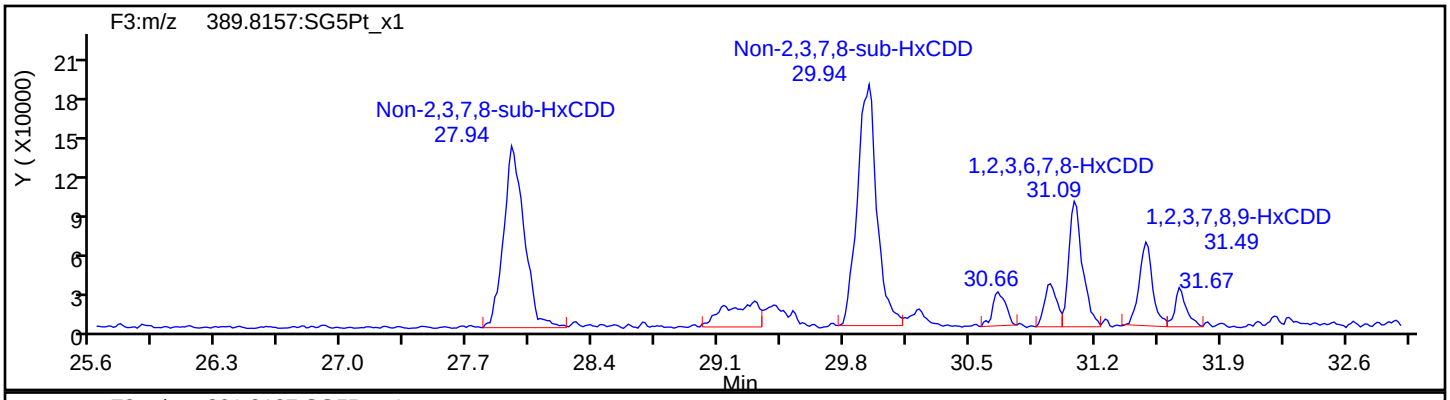
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

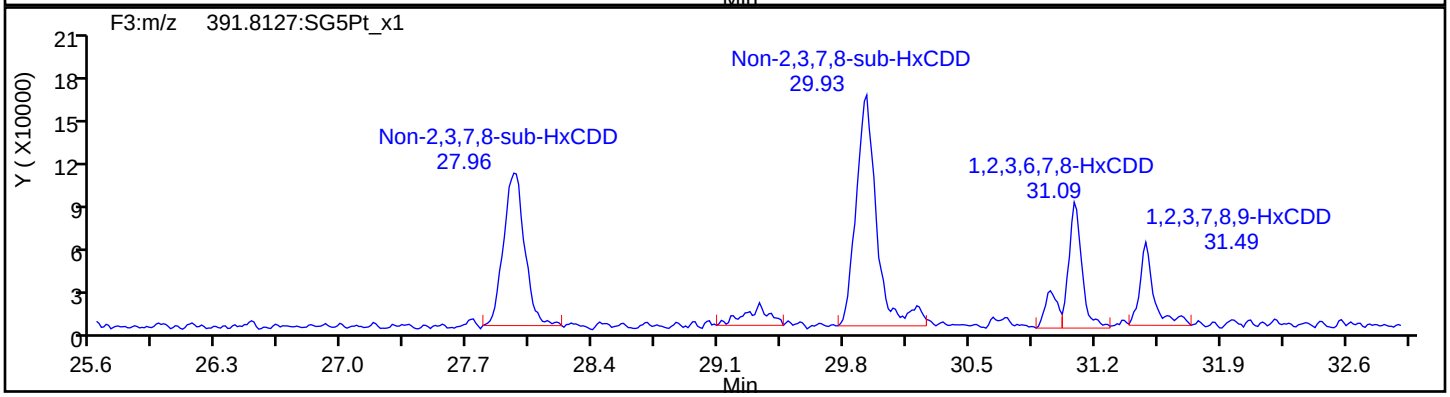
Client ID: 22T-SG-19_20190716

Worklist#: 309103 Sample Line#: 62

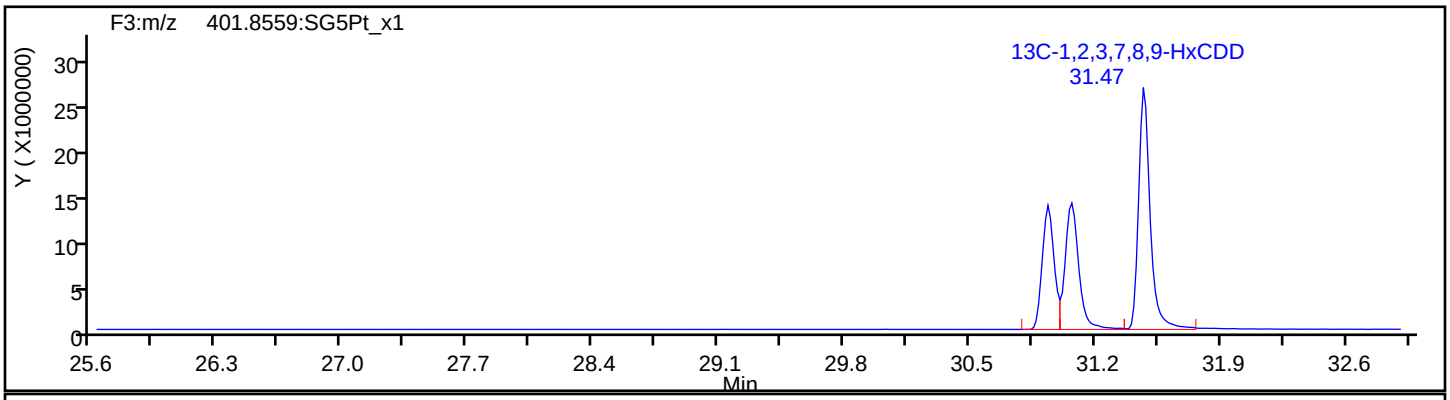
Column Type: DB-5 Column Dia: 0.32 mm

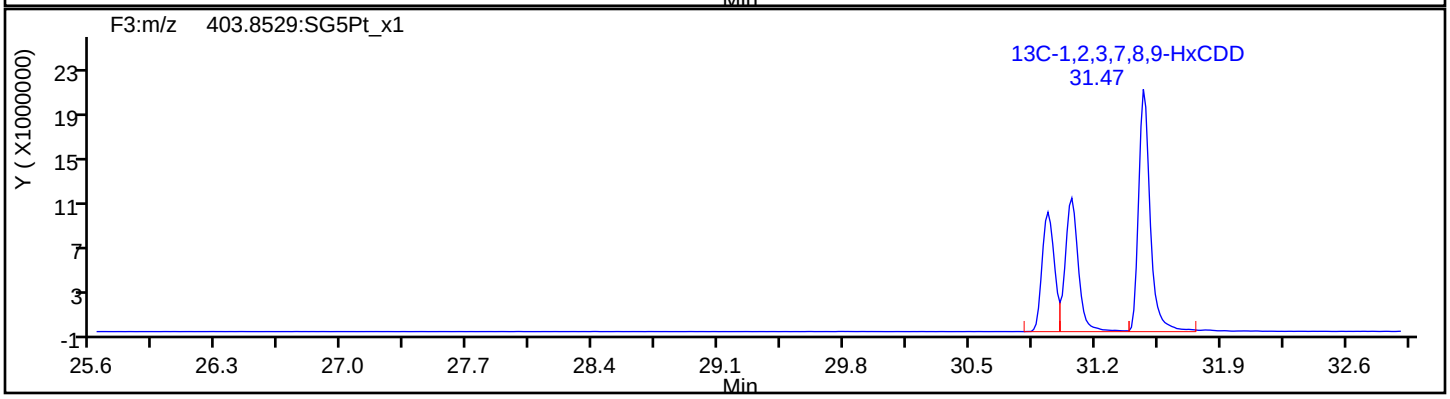
HxCDD





HxCDD Standards





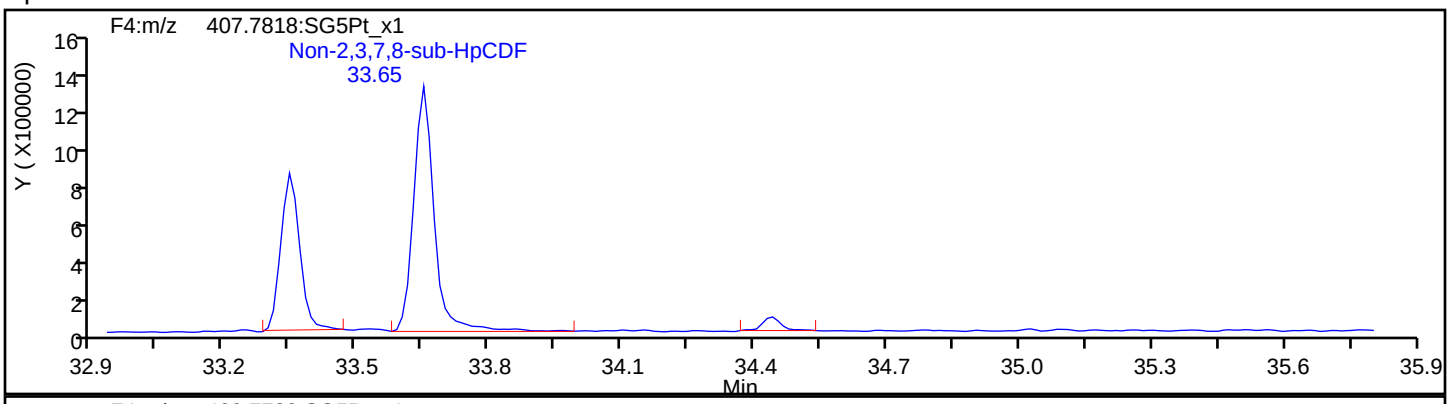
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

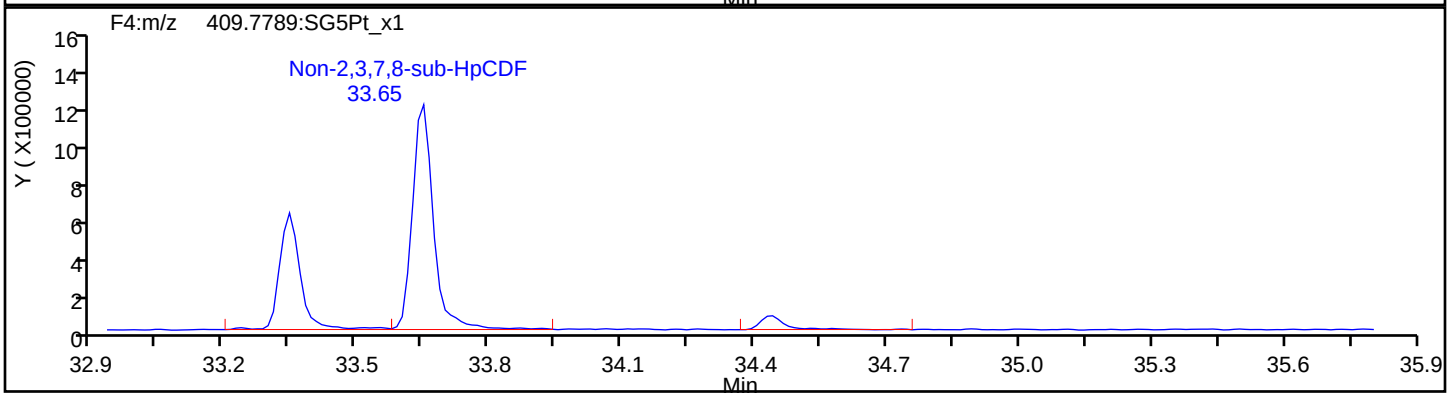
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d

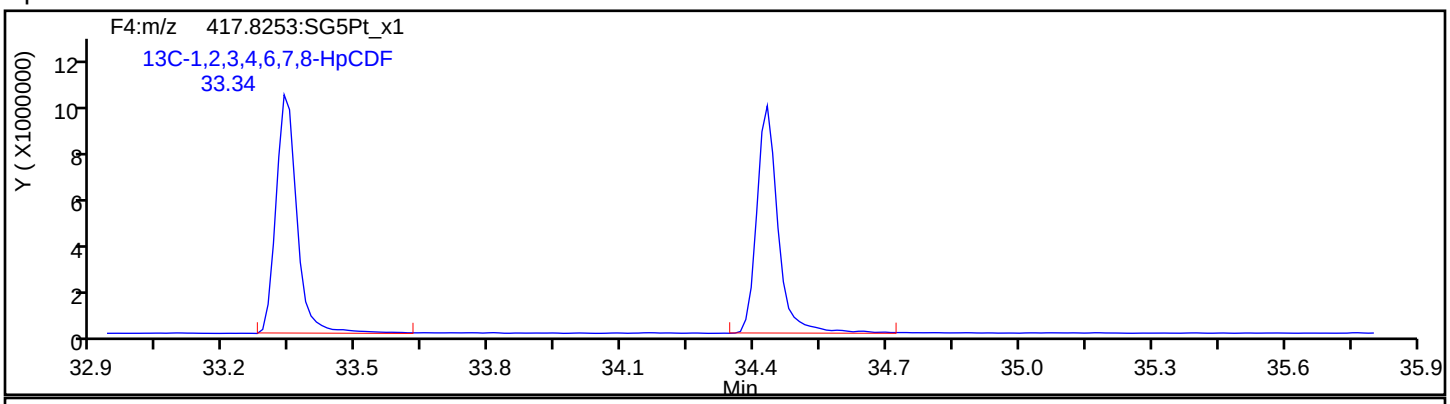
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

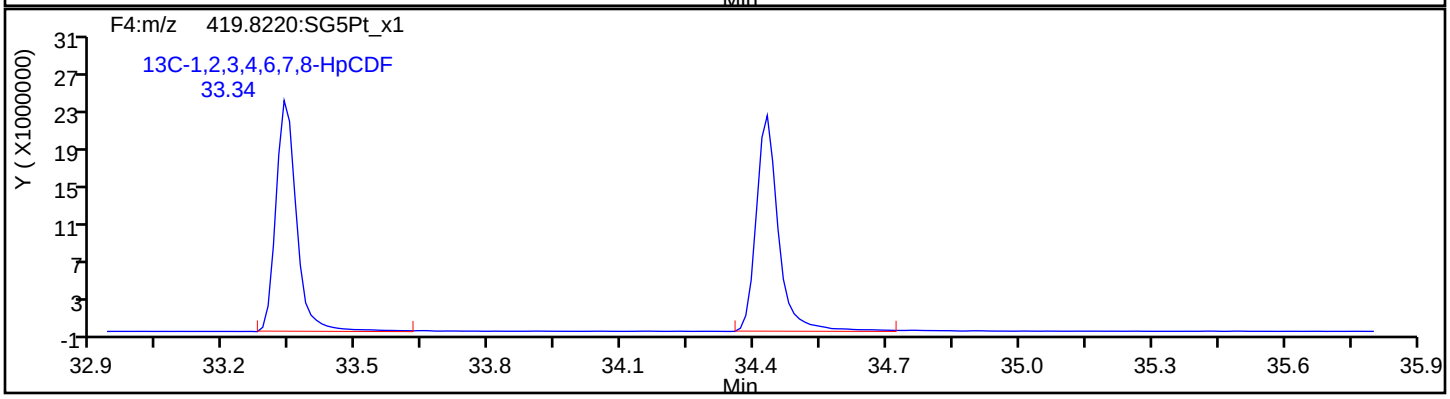
HpCDF





HpCDF Standards



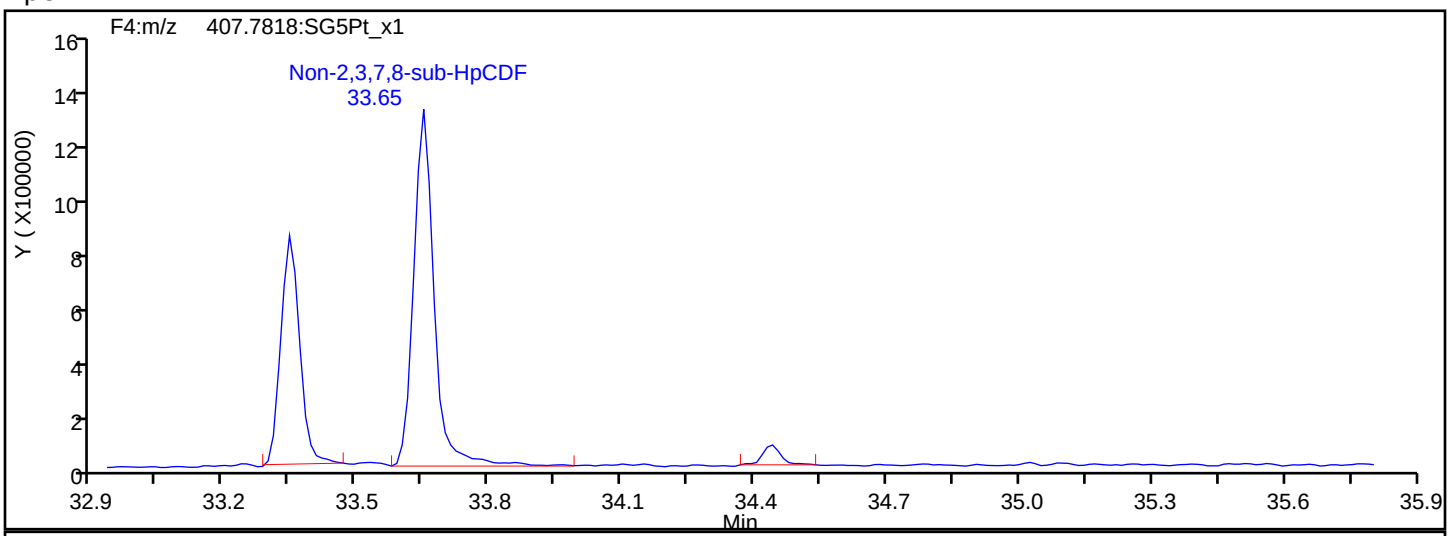


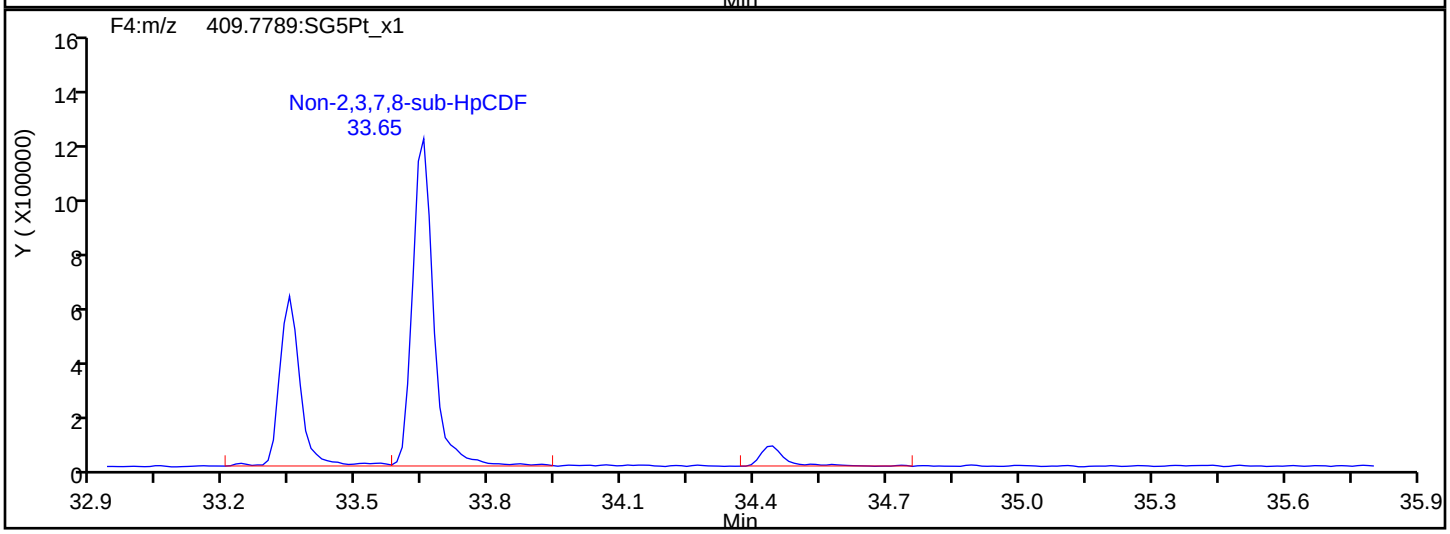
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

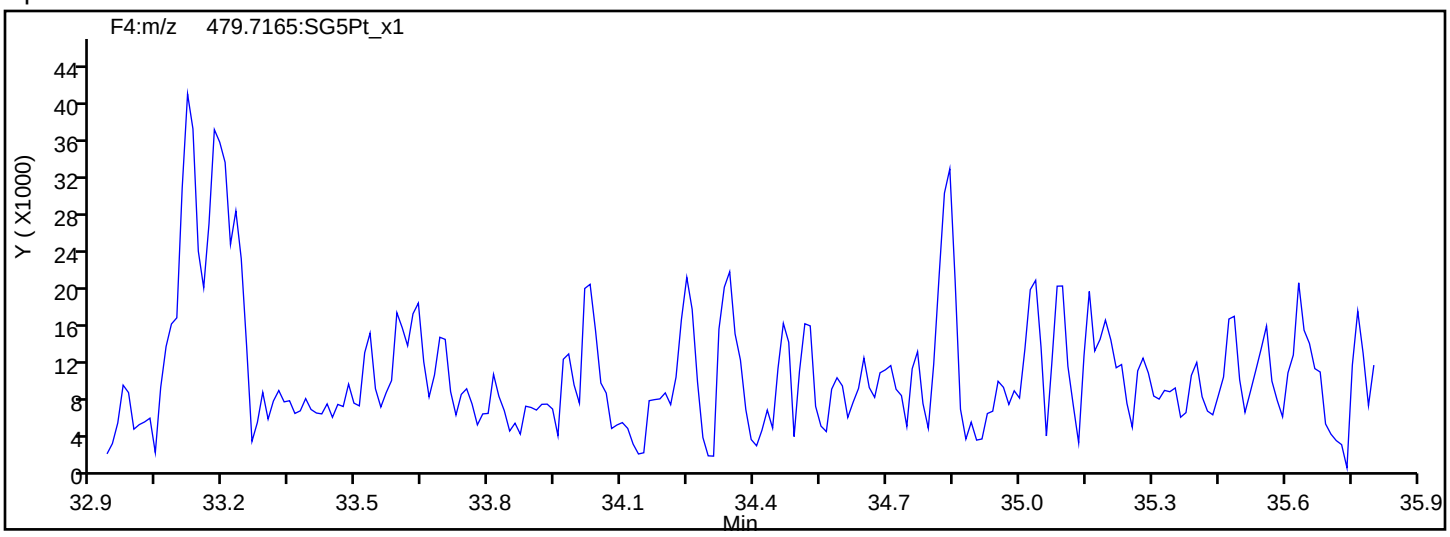
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

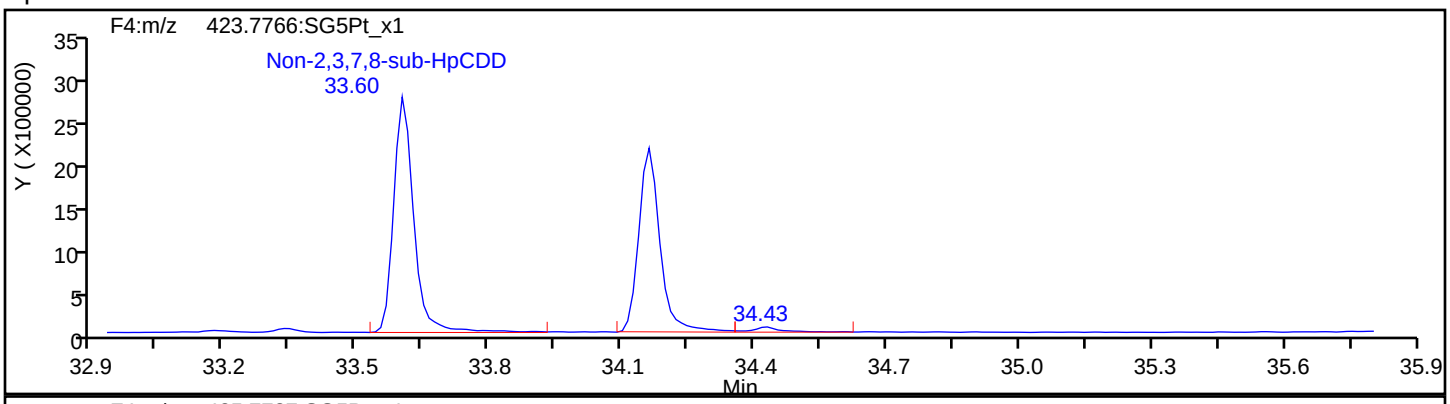


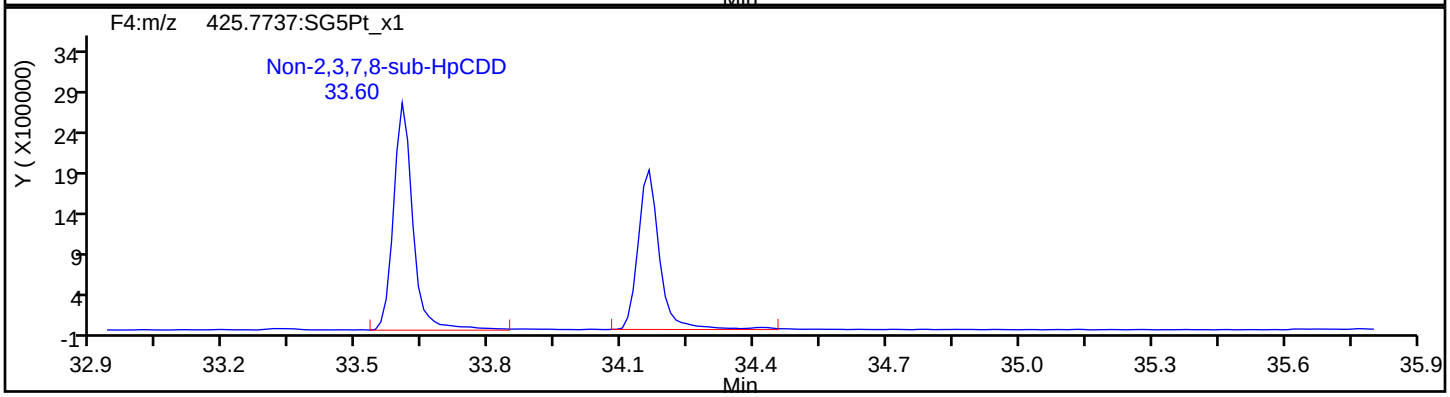
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

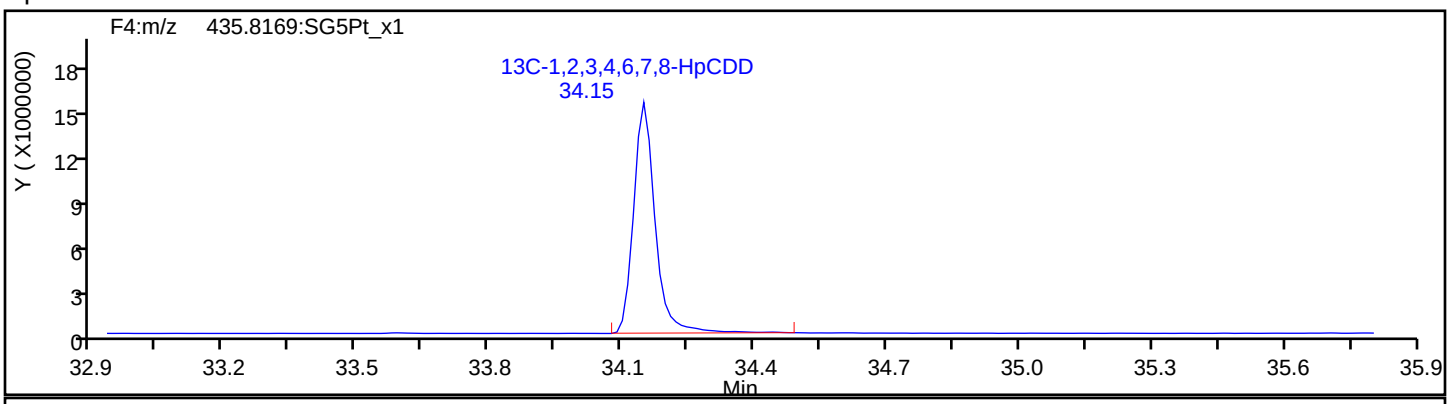
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

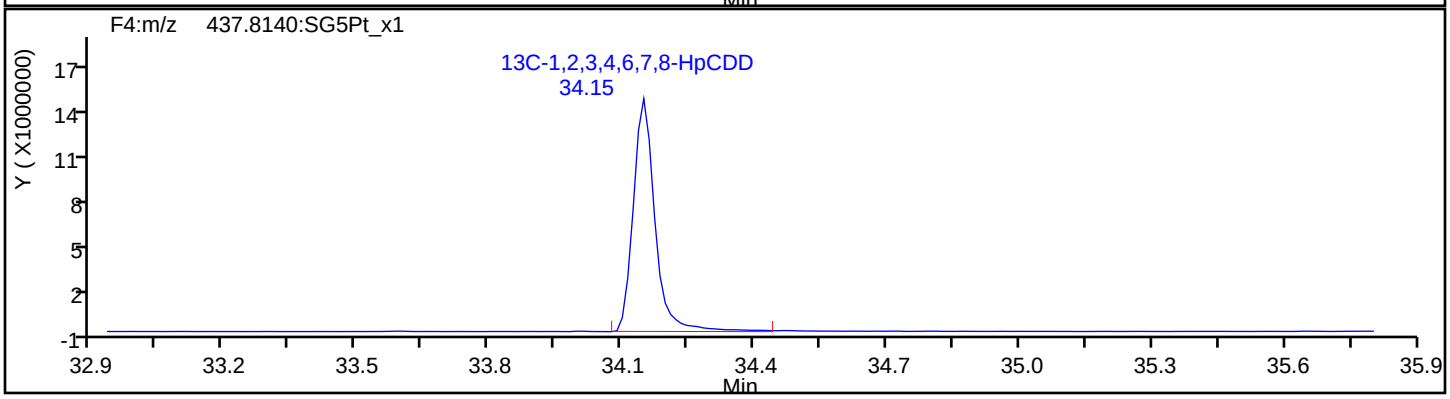
HpCDD





HpCDD Standards



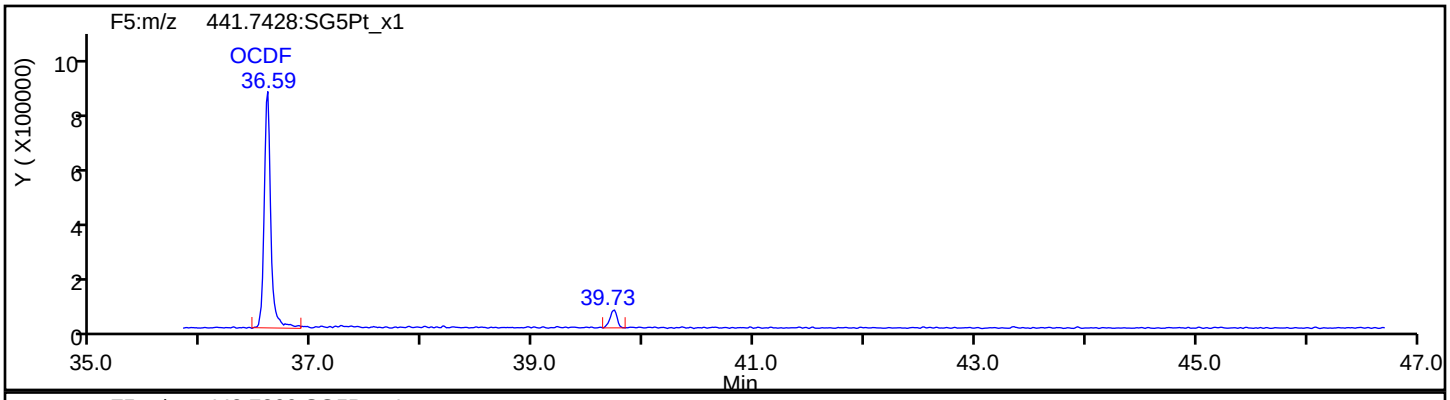


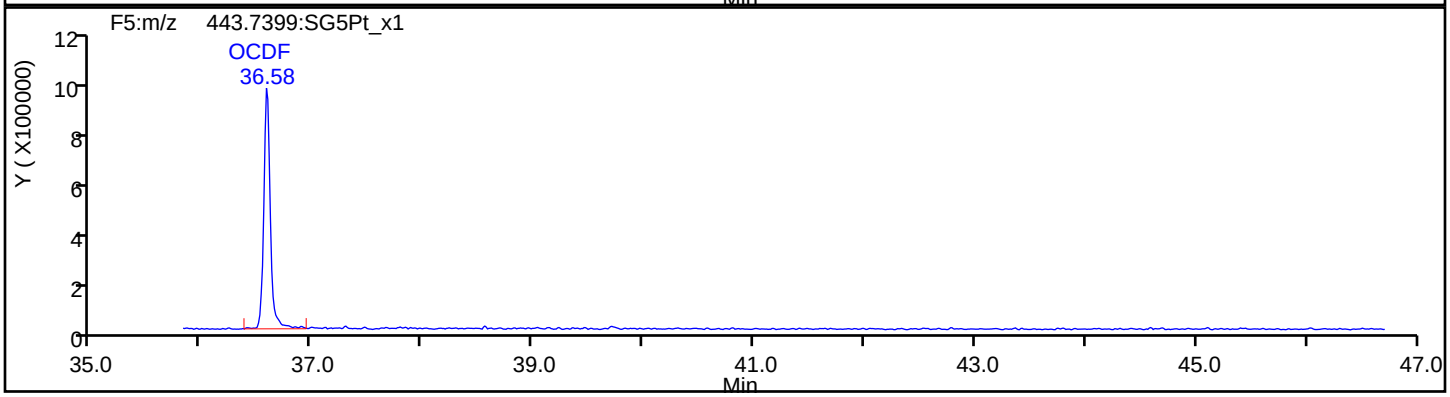
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

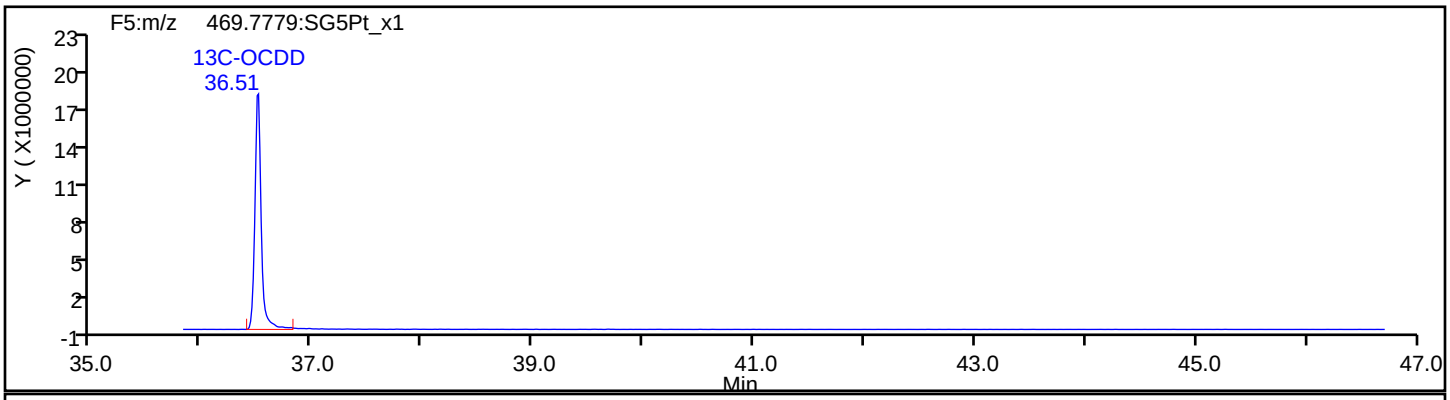
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

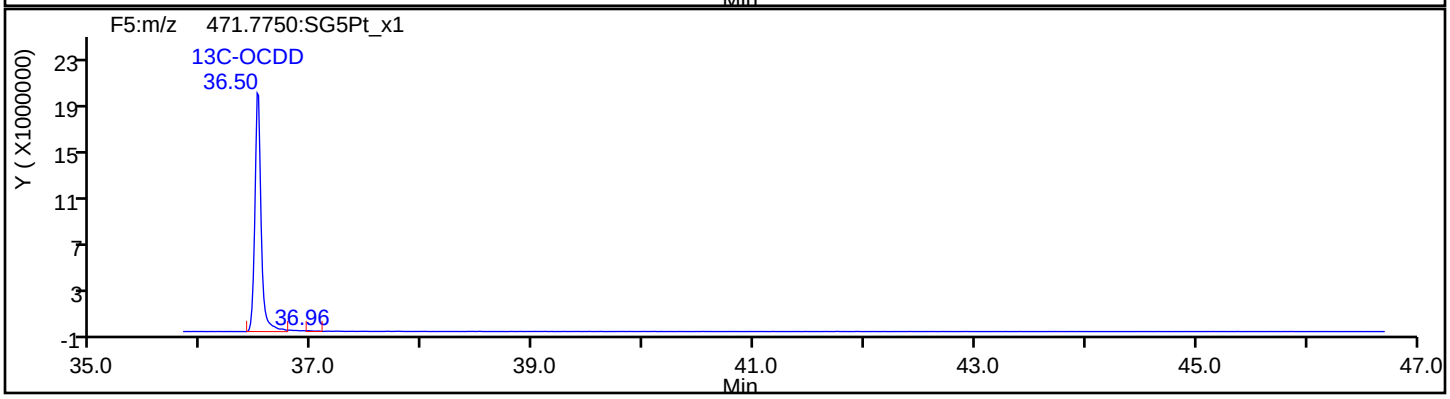
OCDF





OCDF Standards



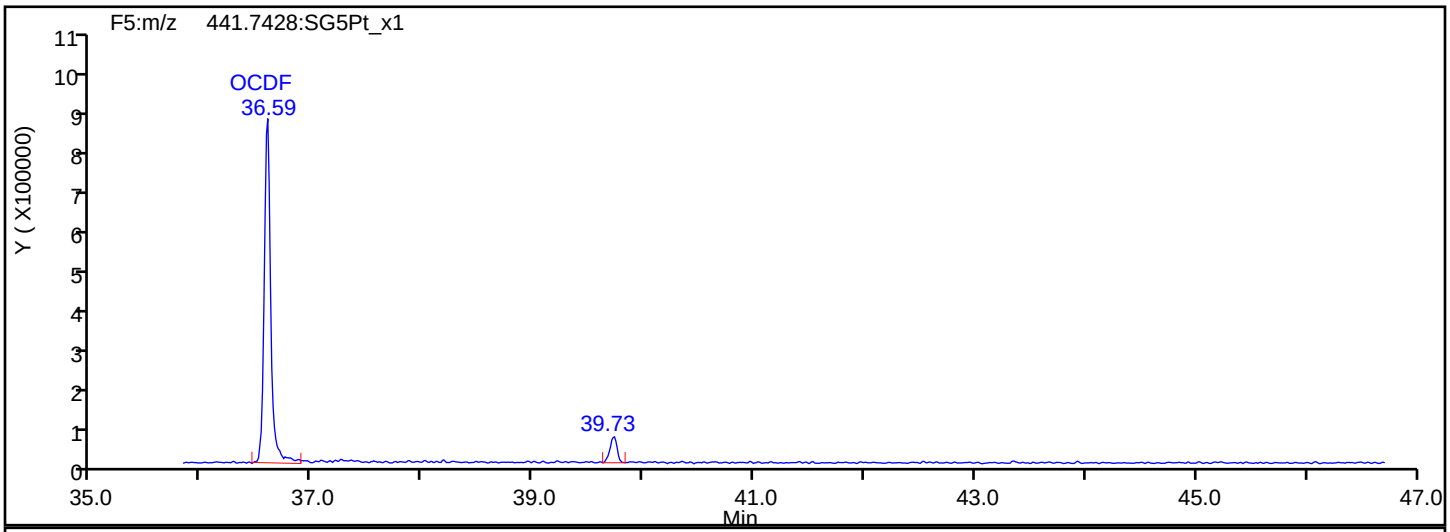


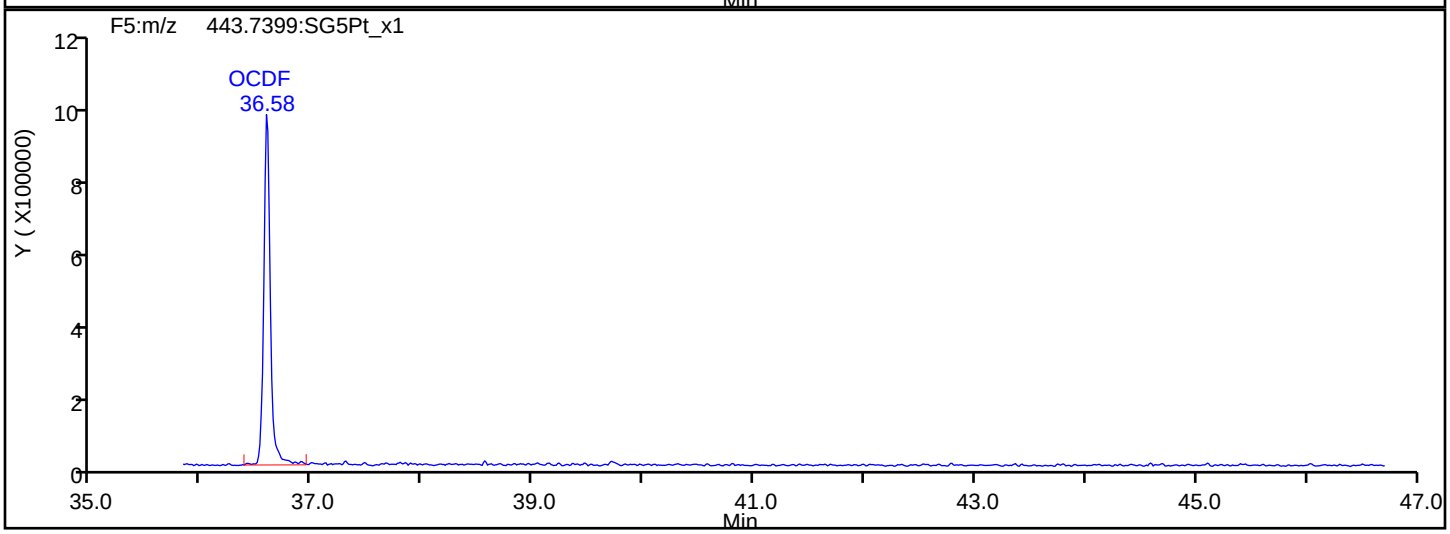
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

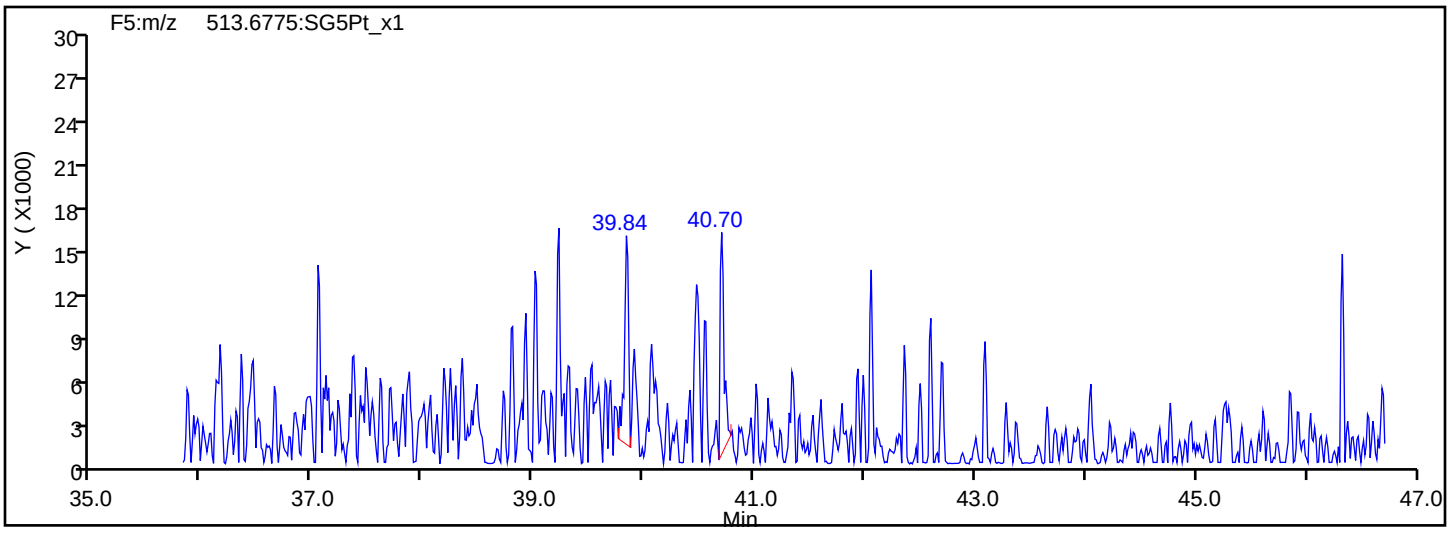
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

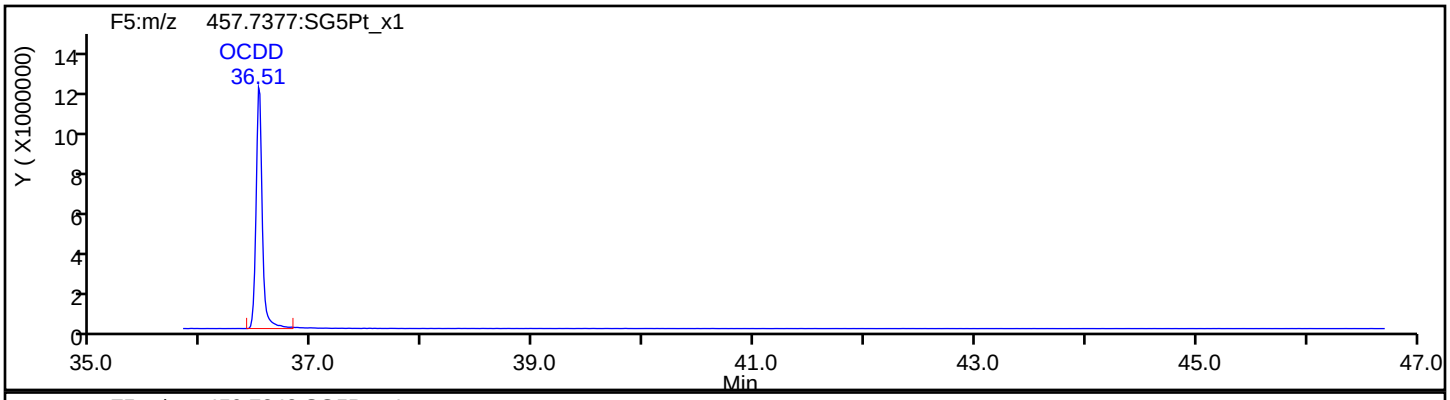


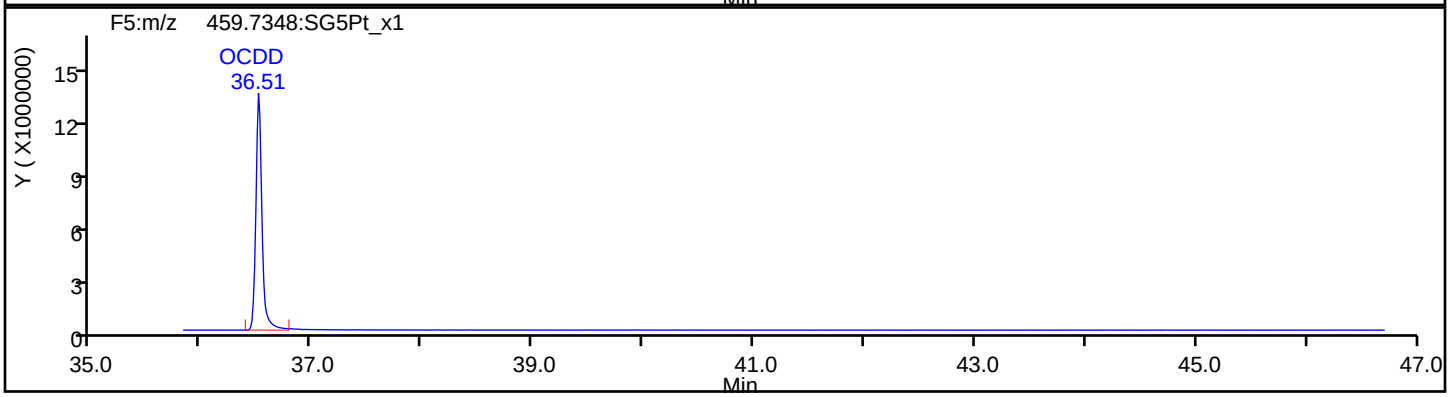
Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

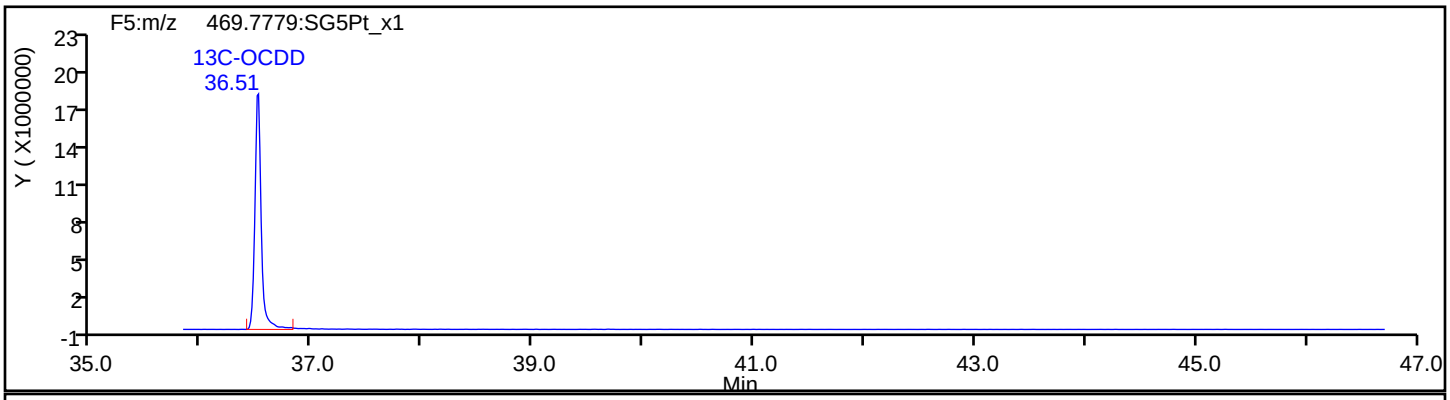
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm

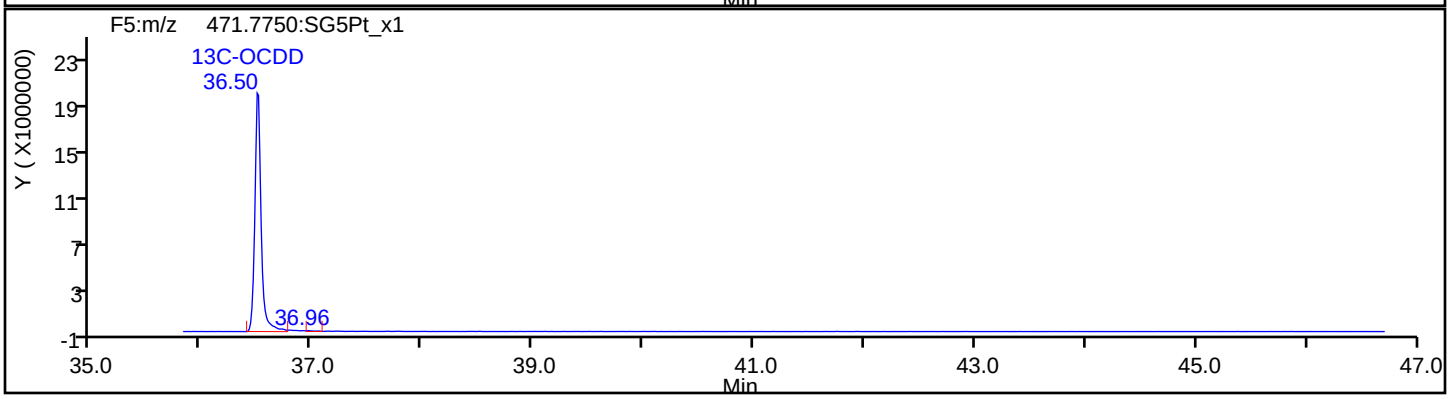
OCDD





OCDD Standards

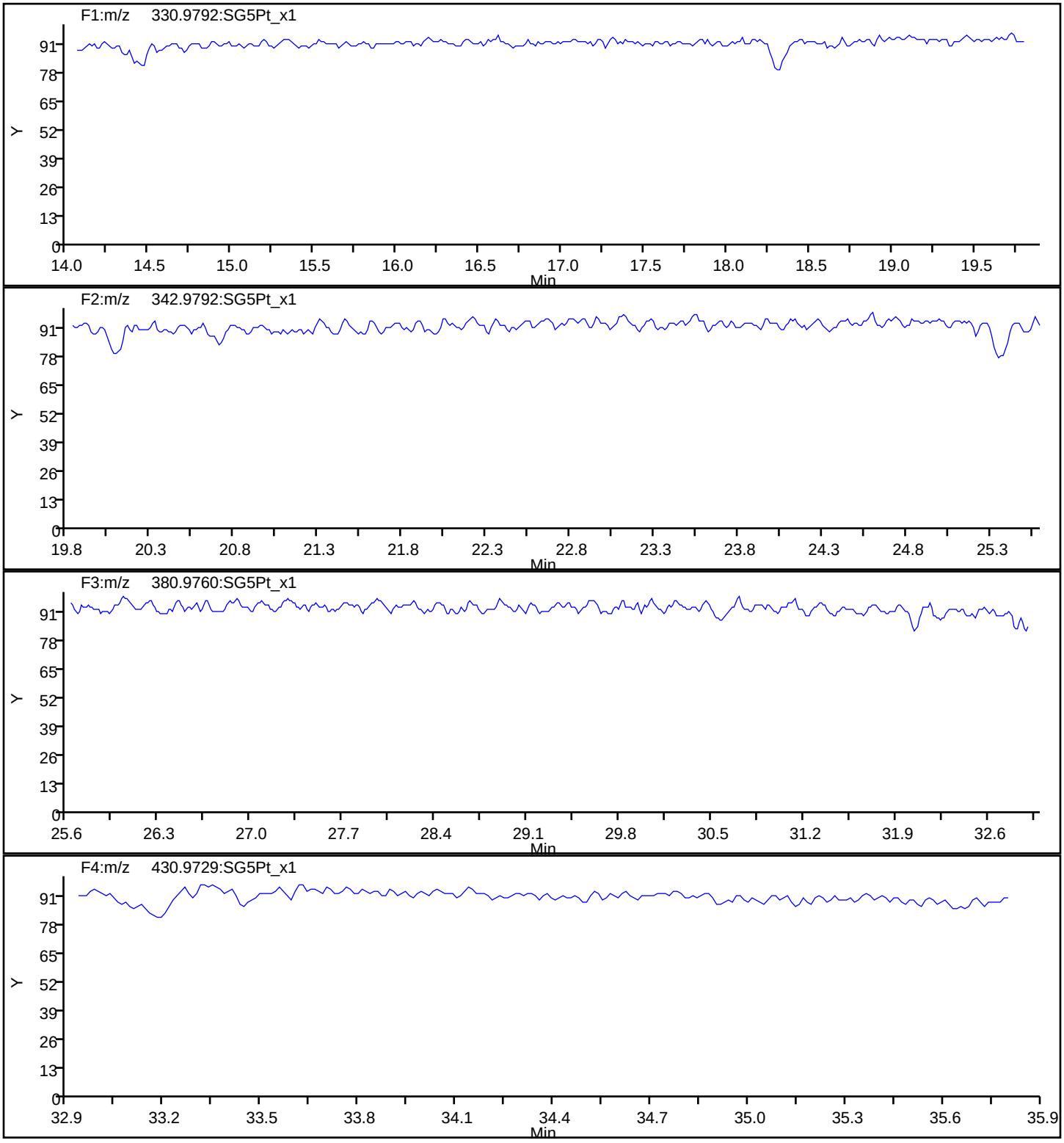




Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

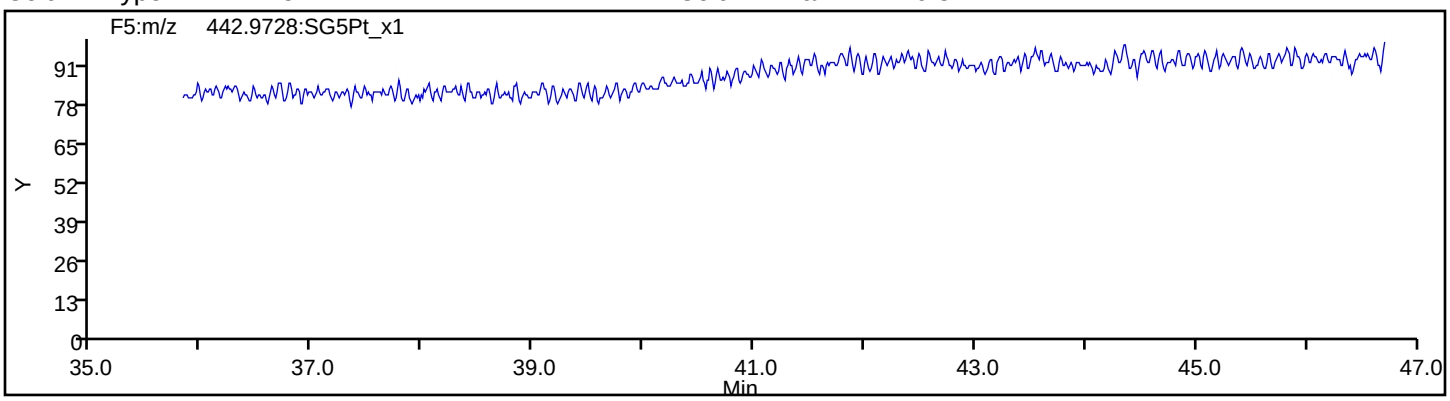
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 11:10:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_62.d		
Injection Date:	22-Jul-2019 02:16:27	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309103	Sample Line#:	62
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-19_20190716 RA Lab Sample ID: 580-87706-6 RA

Matrix: Solid Lab File ID: 22JL19A4D2_005.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:09

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.07(g) Date Analyzed: 07/22/2019 13:27

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 49.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	15		2.0	0.11

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	71		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	84		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_005.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:27:21 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-6-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.920	110237175	0.81	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.045	106261193	0.80	1.3652	70.6	70.6	0.1121	0.1121	70.61	
2,3,7,8-TCDF	16.058	4814141	0.78	1.1747	3.857	3.857	0.0293	0.0293		
D 13C-2,3,7,8-TCDD	14.659	72864608	0.78	0.9684	68.3	68.3	0.1062	0.1062	68.26	
$ 37Cl4-2,3,7,8-TCDD	14.673	47426291		1.2853	33.5	33.5	0.0214	0.0214	83.68	
2,3,7,8-TCDD	14.645	298585	0.77	1.2259	0.3994	0.3343	0.0355	0.0355		RQ

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_005.d
Lims ID: 580-87706-C-6-A
Client ID: 22T-SG-19_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:27:21 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-6-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.920	14.915	0		49294492	10919219	5810	14525	1879		
333.9339	14.920	14.915	0		60942683	13650524	4296	10740	3177	0.81(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.045	16.068	0	1.075	47384201	9887987	8688	21720	1138		
317.9389	16.045	16.068	0	1.075	58876992	12333016	6350	15875	1942	0.80(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.058	16.075	-1	1.001	2110953	459656	1510	3775	304		
305.8987	16.058	16.075	-1	1.001	2703188	564312	1554	3885	363	0.78(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.659	14.667	1	0.983	31821289	6952243	5810	14525	1197		
333.9339	14.645	14.667	0	0.982	41043319	9526591	4296	10740	2218	0.78(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.673	14.655	1	0.983	47426291	10825700	2709	6772	3996		
2,3,7,8-TCDD											RQ
319.8965	14.645	14.675	-1	0.999	129893	29607	1458	3645	20		
321.8936	14.659	14.675	0	1.000	226880	55559	1409	3522	39	0.57(0.65-0.89)	
	Empc Correction				168692	38450	1409	3522	27		

QC Flag Legend

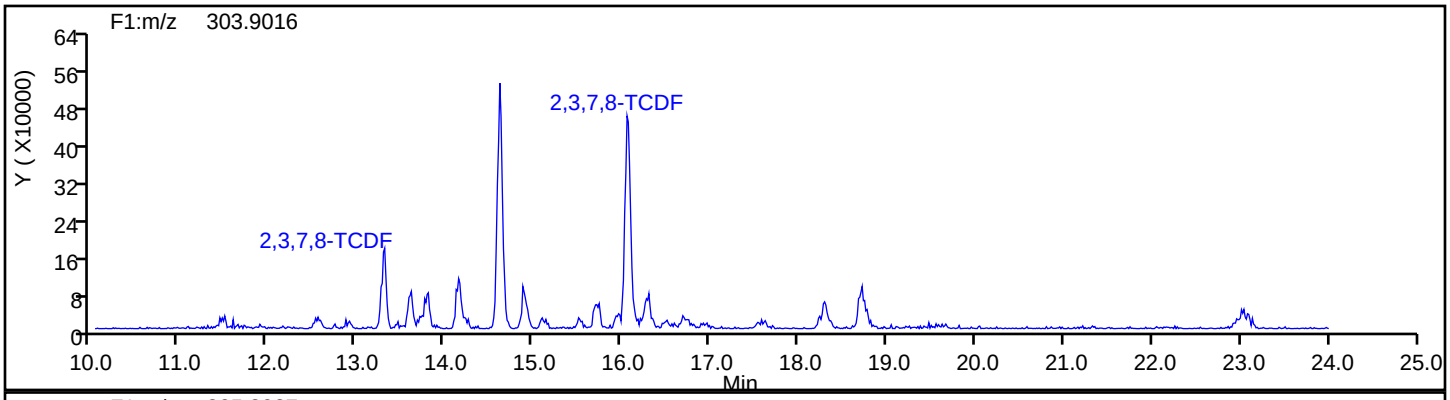
Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

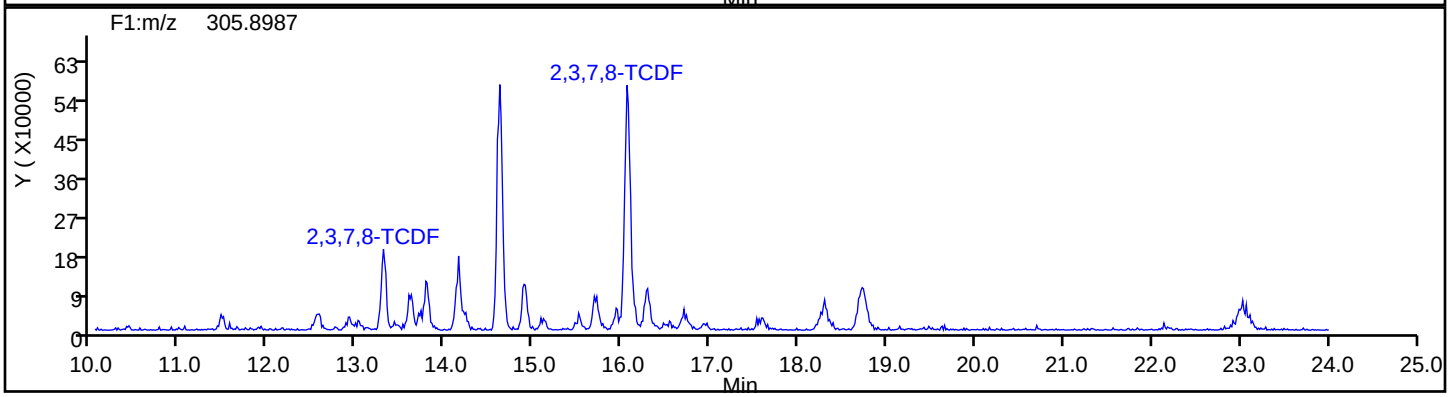
Report Date: 22-Jul-2019 20:21:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

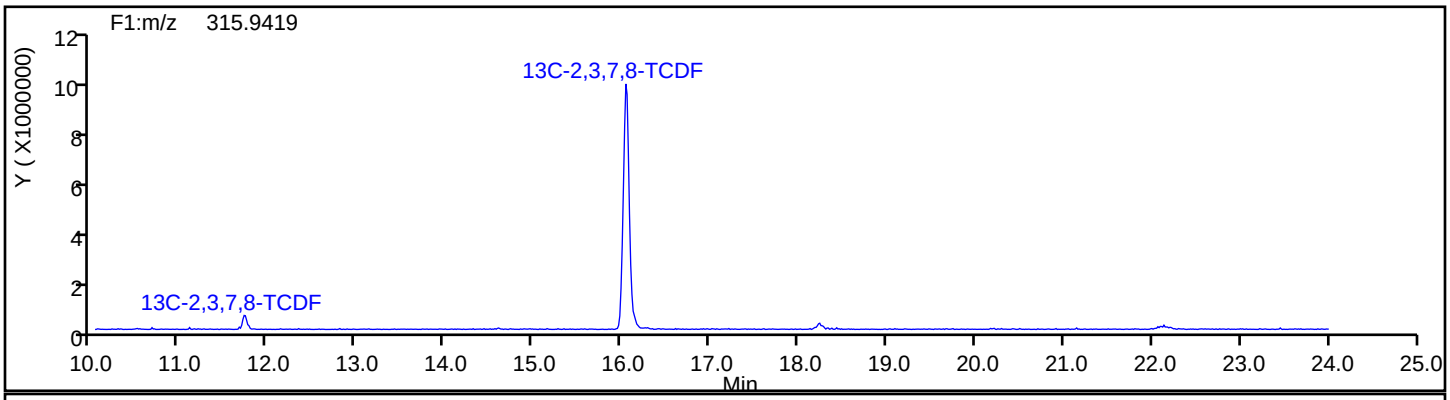
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_005.d		
Injection Date:	22-Jul-2019 13:27:21	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309356	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

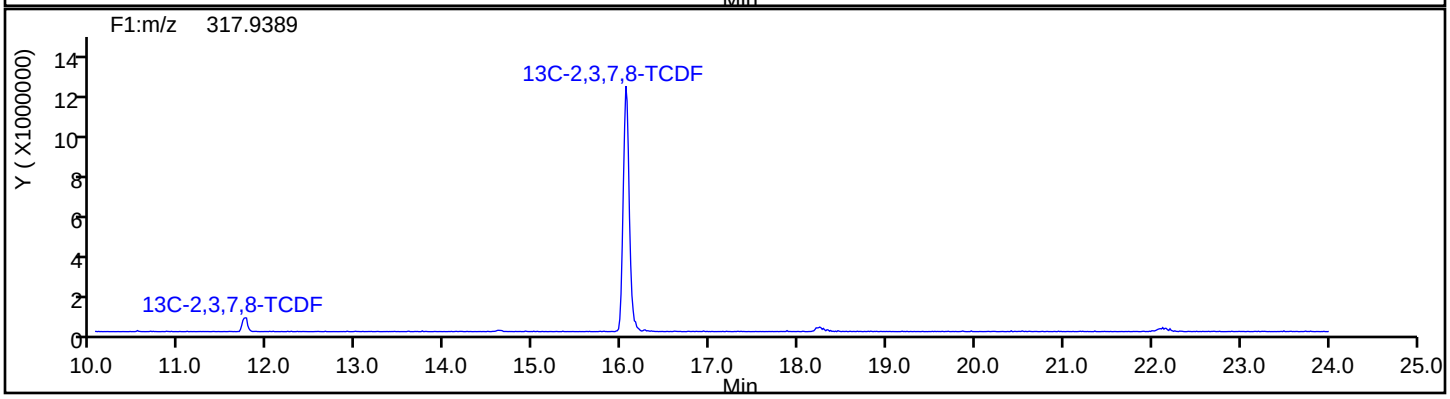
TCDF





TCDF Standards



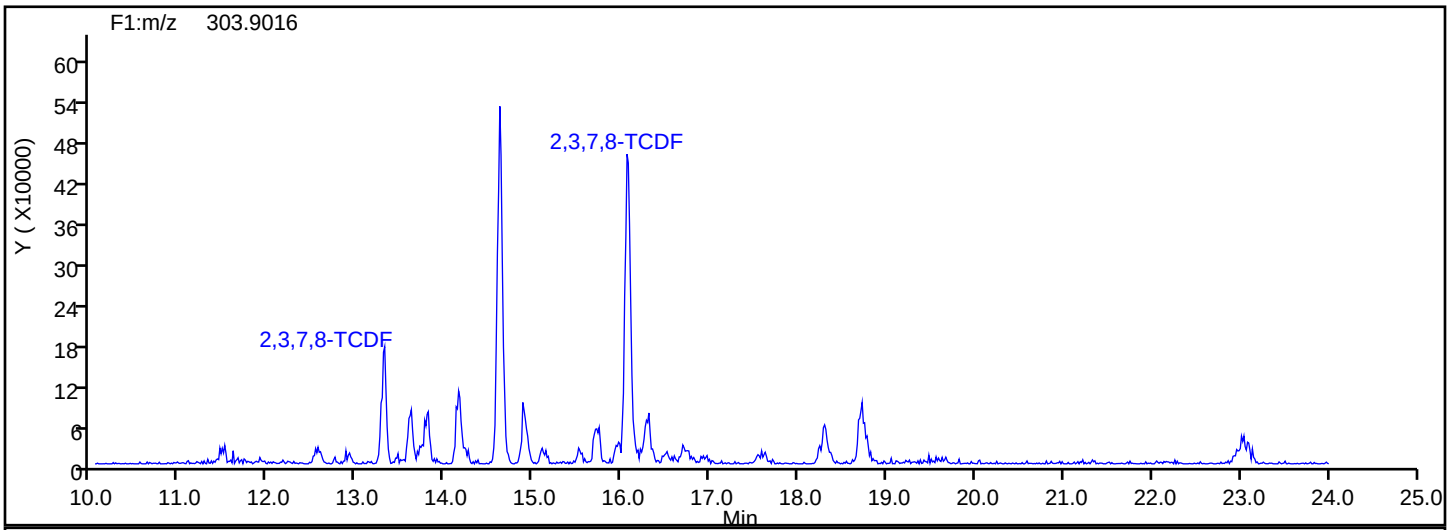


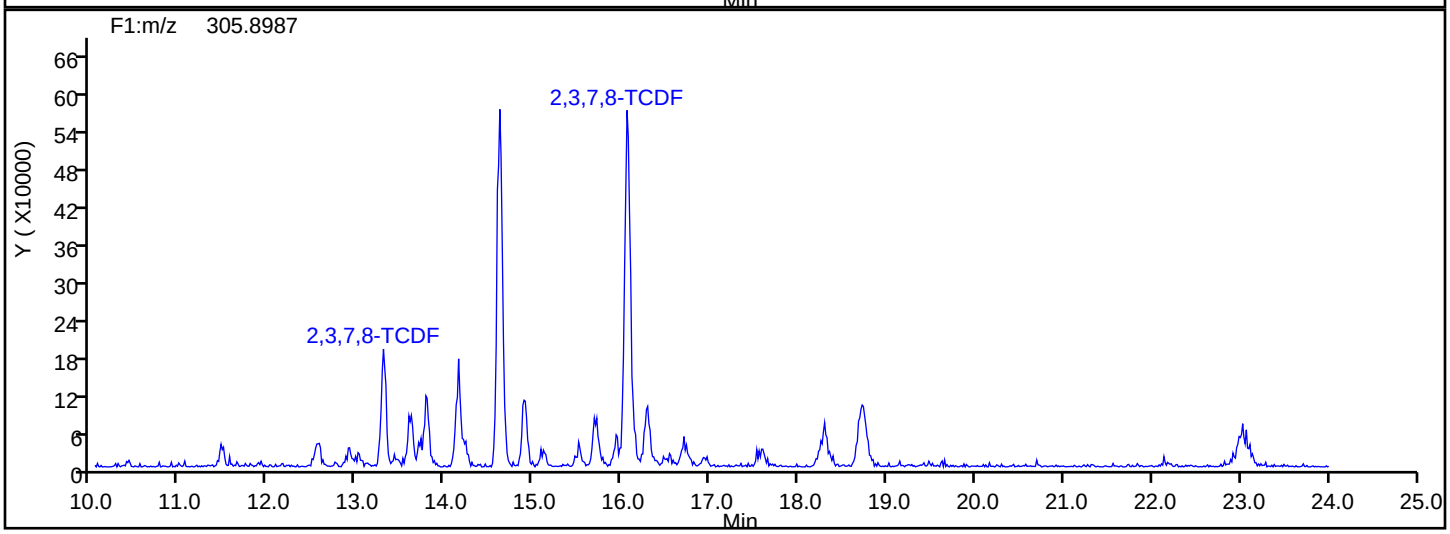
Report Date: 22-Jul-2019 20:21:39 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

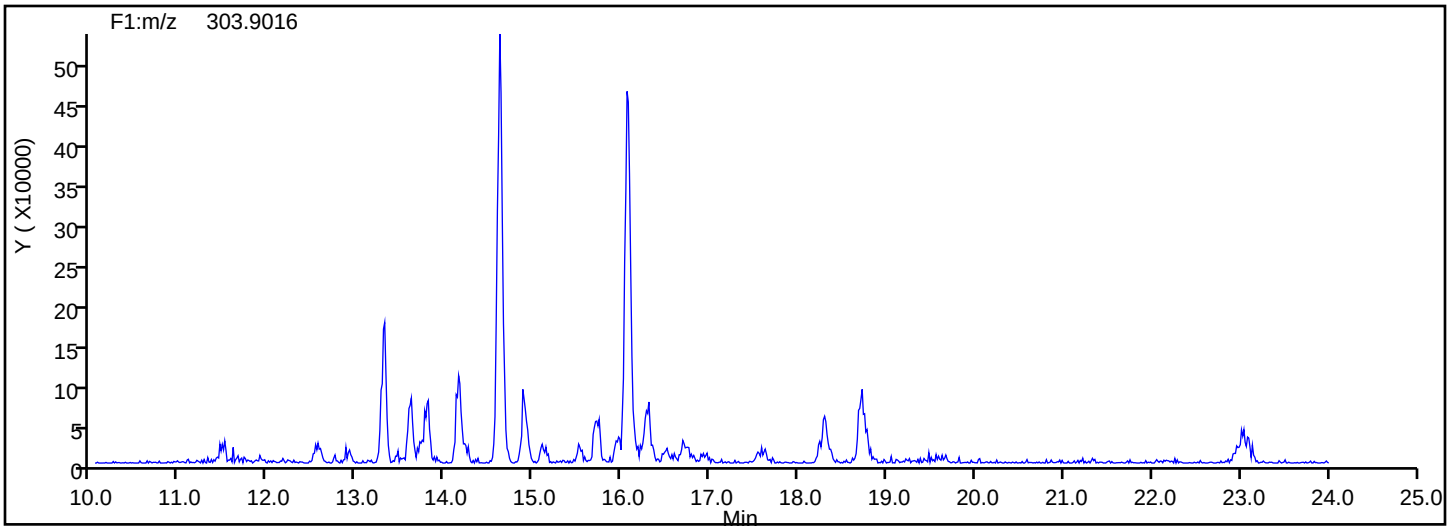
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_005.d		
Injection Date:	22-Jul-2019 13:27:21	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309356	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

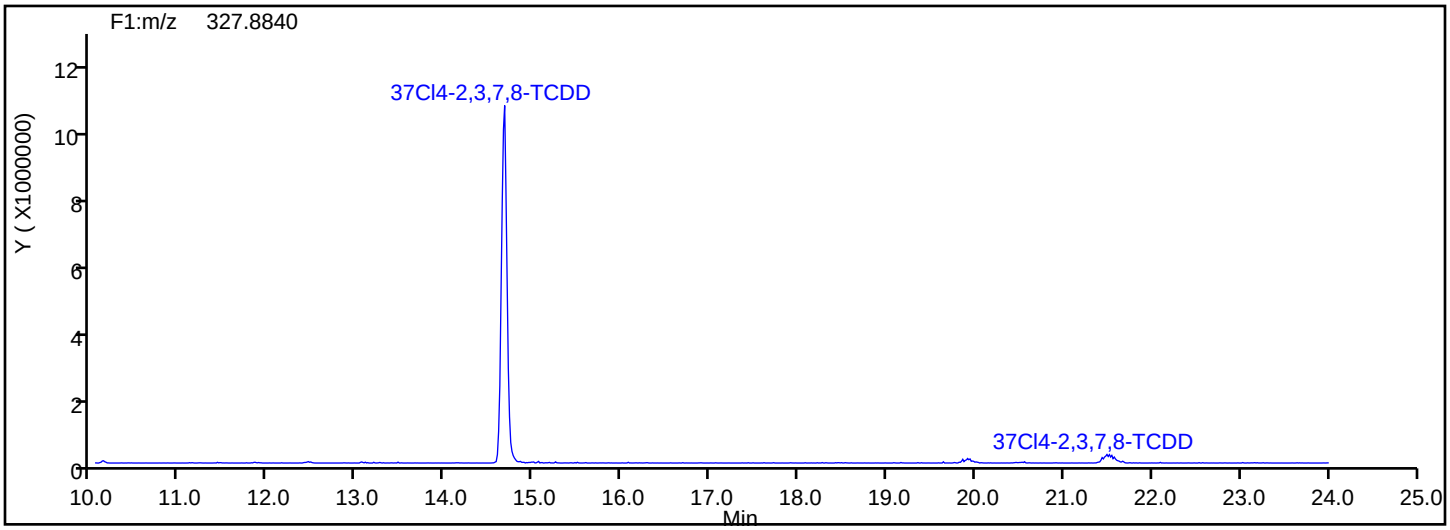


Report Date: 22-Jul-2019 20:21:40 Chrom Revision: 2.3 15-Jul-2019 06:58:08

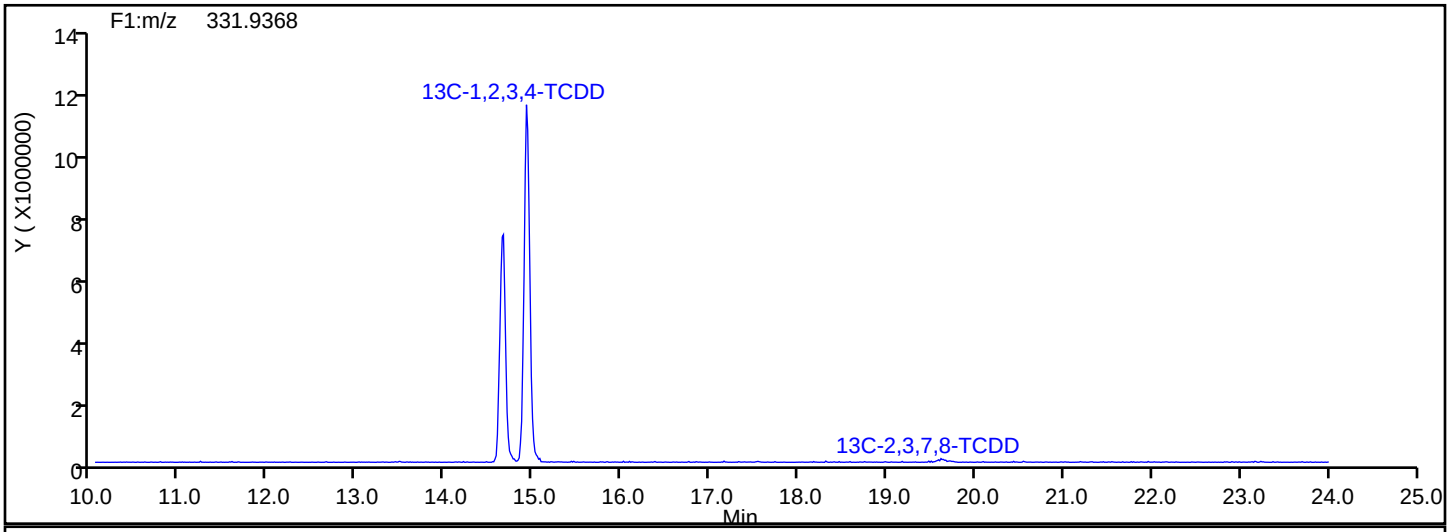
Eurofins TestAmerica, Sacramento

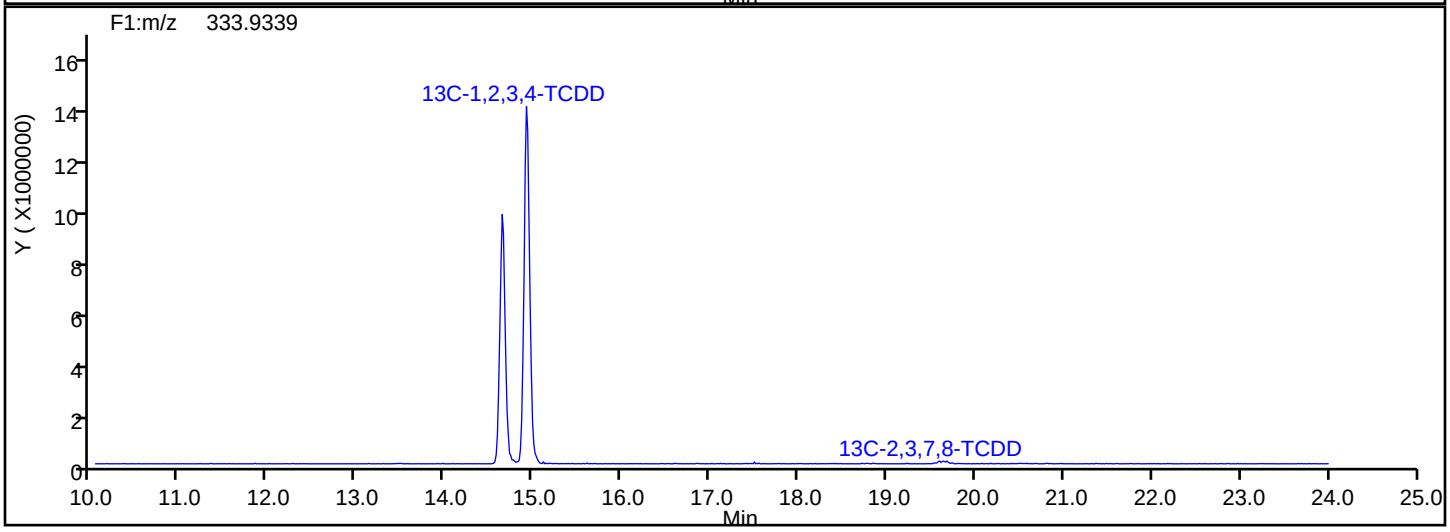
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_005.d		
Injection Date:	22-Jul-2019 13:27:21	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309356	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

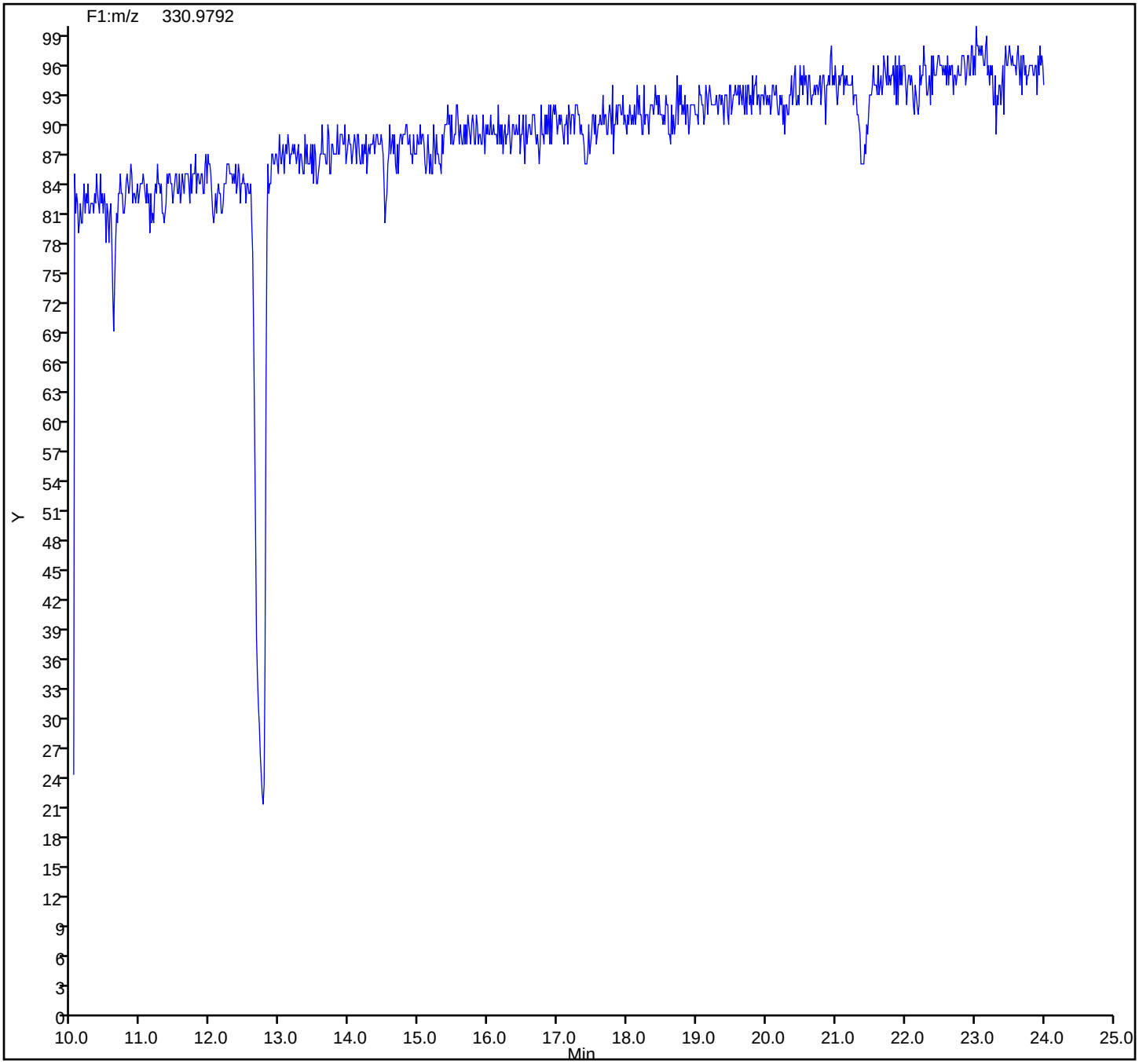




Report Date: 22-Jul-2019 20:21:40 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_005.d		
Injection Date:	22-Jul-2019 13:27:21	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-19_20190716		
Worklist#:	309356	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 19JL19A3D5_63.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:31

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.05(g) Date Analyzed: 07/22/2019 03:03

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	ND		2.2	0.31
51207-31-9	2,3,7,8-TCDF	1.9	J	2.2	0.24
40321-76-4	1,2,3,7,8-PeCDD	ND		11	0.38
57117-41-6	1,2,3,7,8-PeCDF	1.8	J	11	0.23
57117-31-4	2,3,4,7,8-PeCDF	ND		11	0.27
39227-28-6	1,2,3,4,7,8-HxCDD	0.76	J B	11	0.35
57653-85-7	1,2,3,6,7,8-HxCDD	2.7	J	11	0.35
19408-74-3	1,2,3,7,8,9-HxCDD	2.1	J q	11	0.33
70648-26-9	1,2,3,4,7,8-HxCDF	2.8	J	11	0.39
57117-44-9	1,2,3,6,7,8-HxCDF	ND		11	0.46
72918-21-9	1,2,3,7,8,9-HxCDF	1.4	J B	11	0.22
60851-34-5	2,3,4,6,7,8-HxCDF	0.51	J q	11	0.26
35822-46-9	1,2,3,4,6,7,8-HpCDD	63	B	11	0.73
67562-39-4	1,2,3,4,6,7,8-HpCDF	15	q	11	0.41
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.3	J	11	0.47
3268-87-9	OCDD	590	B	22	0.65
39001-02-0	OCDF	46	B	22	0.40

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Matrix: Solid Lab File ID: 19JL19A3D5_63.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:31

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.05(g) Date Analyzed: 07/22/2019 03:03

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 55.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	71		25-164
89059-46-1	13C-2,3,7,8-TCDF	76		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	75		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	76		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	75		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	64		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	66		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	73		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	62		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	68		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	75		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	71		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	71		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	79		26-138
114423-97-1	13C-OCDD	73		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	97		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 03:03:56 ALS Bottle#: 46 Worklist Smp#: 63
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-7-A 580-87706-C-7-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:13:03 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:45:20

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	215712012	0.83	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	226742373	0.79	1.3908	75.6	75.6	0.1729	0.1729	75.58	
2,3,7,8-TCDF	16.720	921192	0.76	0.9710	0.4184	0.4184	0.0546	0.0546		
A Non-2,3,7,8-sub-TCDF	16.402	1408224	0.77	0.9710	0.6508	0.6396	0.0546	0.2058		RQ
S Total TCDF					1.069	1.058	0.0546	0.0546		RQ
D 13C-2,3,7,8-TCDD	17.355	151389456	0.80	0.9819	71.5	71.5	0.3495	0.3495	71.48	
2,3,7,8-TCDD	17.340						0.0694	0.0694		RnMUa
$ 37Cl4-2,3,7,8-TCDD	17.385	102228692		1.2205	38.8	38.8	0.0709	0.0709	97.07	
A Non-2,3,7,8-sub-TCDD	16.833	645929	0.81	1.0447	0.4084	0.4084	0.0694	0.4084		Ma
S Total TCDD					0.4084	0.4084	0.0694	0.0694		
D 13C-1,2,3,7,8-PeCDF	21.345	189646877	1.60	1.1585	75.9	75.9	0.2373	0.2373	75.89	
1,2,3,7,8-PeCDF	21.372	754019	1.53	0.9633	0.4127	0.4127	0.0526	0.0526		
D 13C-2,3,4,7,8-PeCDF	22.573	185459539	1.57	1.1532	74.6	74.6	0.2383	0.2383	74.56	
2,3,4,7,8-PeCDF	22.614						0.0608	0.0608		
A F1 PeCDFs	19.215	1123765	1.57	0.9564	0.6265	0.6265	0.0432	0.6265		
A Non-2,3,7,8-sub-PeCDF	22.104	2095563	1.57	0.9564	1.168	1.168	0.0564	0.7570		
S Total PeCDF					2.207	2.207	0.0567	0.0567		
D 13C-1,2,3,7,8-PeCDD	23.241	120208067	1.66	0.7431	75.0	75.0	0.1619	0.1619	74.99	
1,2,3,7,8-PeCDD	23.254						0.0851	0.0851		
A Non-2,3,7,8-sub-PeCDD	22.232	589622	1.52	1.0635	0.4612	0.4612	0.0851	0.2898		
S Total PeCDD					0.4612	0.4612	0.0851	0.0851		
D 13C-1,2,3,4,7,8-HxCDF	29.142	144210275	0.49	0.9837	72.6	72.6	0.3004	0.3004	72.62	
1,2,3,4,7,8-HxCDF	29.182	1116219	1.33	1.2173	0.6358	0.6358	0.0878	0.0878		
D 13C-1,2,3,6,7,8-HxCDF	29.448	145503676	0.51	1.1554	62.4	62.4	0.2557	0.2557	62.38	
1,2,3,6,7,8-HxCDF	29.462						0.1042	0.1042		
D 13C-2,3,4,6,7,8-HxCDF	30.673	142279177	0.52	1.0361	68.0	68.0	0.2852	0.2852	68.02	
2,3,4,6,7,8-HxCDF	30.686	192778	1.24	1.1710	0.1278	0.1157	0.0589	0.0589		RQMa
D 13C-1,2,3,7,8,9-HxCDF	31.685	136425823	0.52	0.9034	74.8	74.8	0.3270	0.3270	74.80	
1,2,3,7,8,9-HxCDF	31.698	493630	1.20	1.1787	0.3070	0.3070	0.0505	0.0505		Ma
A Non-2,3,7,8-sub-HxCDF	29.135	6538669	1.24	1.1745	3.942	3.918	0.0694	1.703		RQMa

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					5.013	4.976	0.0754	0.0754		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	201882229	1.27	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	106713680	1.34	0.8287	63.8	63.8	0.2099	0.2099	63.79	
1,2,3,4,7,8-HxCDD	30.953	188350	1.28	1.0267	0.1719	0.1719	0.0781	0.0781		Ma
D 13C-1,2,3,6,7,8-HxCDD	31.073	127322626	1.30	0.9495	66.4	66.4	0.1832	0.1832	66.43	
1,2,3,6,7,8-HxCDD	31.099	758078	1.14	0.9771	0.6094	0.6094	0.0793	0.0793		M
1,2,3,7,8,9-HxCDD	31.485	589163	1.24	1.0616	0.5154	0.4743	0.0742	0.0742		RQ
A Non-2,3,7,8-sub-HxCDD	29.926	3835817	1.26	1.0218	3.208	3.208	0.0771	1.777		
S Total HxCDD					4.505	4.464	0.0772	0.0772		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	104879851	0.45	0.7285	71.3	71.3	0.7138	0.7138	71.31	
1,2,3,4,6,7,8-HpCDF	33.347	5161048	1.04	1.4373	3.726	3.424	0.0916	0.0916		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	104511254	0.46	0.6556	79.0	79.0	0.7932	0.7932	78.96	
1,2,3,4,7,8,9-HpCDF	34.441	411548	1.00	1.3091	0.3008	0.3008	0.1055	0.1055		
A Non-2,3,7,8-sub-HpCDF	33.894	9416867	1.02	1.3732	6.550	6.550	0.0981	6.550		
S Total HpCDF					10.6	10.3	0.0985	0.0985		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	100209753	1.05	0.6978	71.1	71.1	0.3221	0.3221	71.13	
1,2,3,4,6,7,8-HpCDD	34.162	14346437	1.10	1.0102	14.2	14.2	0.1636	0.1636		
A Non-2,3,7,8-sub-HpCDD	35.074	16259097	1.10	1.0102	16.1	16.1	0.1636	16.1		a
S Total HpCDD					30.2	30.2	0.1636	0.1636		
D 13C-OCDD	36.509	140790880	0.91	0.4780	145.9	145.9	0.1895	0.1895	72.95	
OCDF	36.593	9804846	0.91	1.3501	10.3	10.3	0.0894	0.0894		
OCDD	36.521	99832136	0.90	1.0627	133.5	133.5	0.1455	0.1455		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Report Date: 23-Jul-2019 11:13:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 03:03:56 ALS Bottle#: 46 Worklist Smp#: 63
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-7-A 580-87706-C-7-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:13:03 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:45:20

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		97961095	24996298	21961	54902	1138		
333.9339	17.173	17.158	1		117750917	29938500	53445	133612	560	0.83(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	100216449	24711535	29930	74825	826		
317.9389	16.690	16.690	0	0.972	126525924	31603027	22922	57305	1379	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.720	16.705	1	1.002	398715	86973	5095	12737	17		
305.8987	16.720	16.705	1	1.002	522477	127187	6852	17130	19	0.76(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.739	16.402	-100	0.883	153060	45555	5095	12737	9		
305.8987	14.754	16.402	-99	0.884	206473	65152	6852	17130	10	0.74(0.65-0.89)	
303.9016	14.920	16.402	-89	0.894	208634	52114	5095	12737	10		
305.8987	14.920	16.402	-89	0.894	244527	73696	6852	17130	11	0.85(0.65-0.89)	
303.9016	15.374	16.402	-62	0.921	161841	30964	5095	12737	6		
305.8987	15.374	16.402	-62	0.921	189702	43353	6852	17130	6	0.85(0.65-0.89)	
303.9016	15.873	16.402	-32	0.951	130768	38852	5095	12737	8		
	Empc Correction				106141	30145	5095	12737	6		
305.8987	15.873	16.402	-32	0.951	137846	39150	6852	17130	6	0.95(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	67313566	15743566	21961	54902	717		
333.9339	17.355	17.355	0	1.011	84075890	19938397	53445	133612	373	0.80(0.65-0.89)	
2,3,7,8-TCDD											RnMUa
319.8965	17.355						8051	20127			
321.8936	17.355						2298	5745			
37Cl4-2,3,7,8-TCDD											
327.8847	17.385	17.370	1	1.012	102228692	23836113	19026	47565	1253		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	17.279	16.833	27	0.996	289104	68926	8051	20127	9		M
321.8936	17.279	16.833	27	0.996	356825	77911	2298	5745	34	0.81(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	116836383	21886868	36052	90130	607		
353.8970	21.345	21.332	1	1.243	72810494	13787333	24343	60857	566	1.60(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.372	21.345	2	1.001	456044	82674	2664	6660	31		
341.8567	21.359	21.345	1	1.001	297975	59410	4564	11410	13	1.53(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	113223943	18846410	36052	90130	523		
353.8970	22.573	22.559	1	1.314	72235596	12439282	24343	60857	511	1.57(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586						2664	6660			
341.8567	22.586						4564	11410			
A F1 PeCDFs											
339.8597	18.701	19.215	-31	0.876	686548	129377	1891	4727	68		
341.8567	18.701	19.215	-31	0.876	437217	91820	3641	9102	25	1.57(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDF											
339.8597	20.118	22.104	-119	0.943	836724	140344	2664	6660	53		
341.8567	20.132	22.104	-118	0.943	521183	93917	4564	11410	21	1.61(1.32-1.78)	
339.8597	20.841	22.104	-76	0.976	242741	33509	2664	6660	13		
341.8567	20.841	22.104	-76	0.976	167690	19617	4564	11410	4	1.45(1.32-1.78)	
339.8597	22.886	22.104	47	1.072	199649	28160	2664	6660	11		
341.8567	22.886	22.104	47	1.072	127576	21561	4564	11410	5	1.56(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	75051042	12163321	14745	36862	825		
369.8919	23.254	23.227	2	1.354	45157025	7156474	11698	29245	612	1.66(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4690	11725			
357.8516	23.254						2300	5750			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.309	22.232	-115	0.874	228668	39974	4690	11725	9		
357.8516	20.309	22.232	-115	0.874	141748	23397	2300	5750	10	1.61(1.32-1.78)	
355.8546	21.632	22.232	-36	0.931	126872	21219	4690	11725	5		
357.8516	21.645	22.232	-35	0.931	92334	16750	2300	5750	7	1.37(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.142	29.115	2	0.926	47523185	5717320	17215	43037	332		
385.8610	29.142	29.115	2	0.926	96687090	11560518	35815	89537	323	0.49(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.182	29.155	2	1.001	637388	85539	4643	11607	18		
375.8178	29.169	29.155	1	1.001	478831	53986	2748	6870	20	1.33(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.936	49114236	5272451	17215	43037	306		
385.8610	29.448	29.421	2	0.936	96389440	10398343	35815	89537	290	0.51(0.43-0.59)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,6,7,8-HxCDF											
373.8208	29.462						4643	11607			
375.8178	29.462						2748	6870			
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	48629265	9202900	17215	43037	535		
385.8610	30.673	30.660	1	0.975	93649912	17564566	35815	89537	490	0.52(0.43-0.59)	
2,3,4,6,7,8-HxCDF											RQMa
373.8208	30.686	30.687	0	1.000	126857	21862	4643	11607	5		M
	Empc Correction				106716	22209	4643	11607	5		
375.8178	30.700	30.687	1	1.001	86062	17911	2748	6870	7	1.47(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.672	1	1.007	46670508	10735348	17215	43037	624		
385.8610	31.672	31.672	0	1.006	89755315	20284116	35815	89537	566	0.52(0.43-0.59)	
1,2,3,7,8,9-HxCDF											Ma
373.8208	31.698	31.685	1	1.000	269023	67881	4643	11607	15		M
375.8178	31.685	31.685	0	1.000	224607	50975	2748	6870	19	1.20(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQMa
373.8208	26.545	29.135	-155	0.911	377618	74924	4643	11607	16		
375.8178	26.545	29.135	-155	0.911	316066	64223	2748	6870	23	1.19(1.05-1.43)	
373.8208	26.878	29.135	-135	0.922	1400235	191931	4643	11607	41		
375.8178	26.878	29.135	-135	0.922	1111044	150527	2748	6870	55	1.26(1.05-1.43)	
373.8208	28.090	29.135	-63	0.964	1565771	187863	4643	11607	40		
375.8178	28.090	29.135	-63	0.964	1276371	155207	2748	6870	56	1.23(1.05-1.43)	
373.8208	30.540	29.135	84	1.048	191504	31975	4643	11607	7		M
375.8178	30.540	29.135	84	1.048	175757	31868	2748	6870	12	1.09(1.05-1.43)	
373.8208	31.792	29.135	159	1.091	68811	19831	4643	11607	4		M
375.8178	31.805	29.135	160	1.091	96978	22277	2748	6870	8	0.71(1.05-1.43)	
	Empc Correction				55492	15992	2748	6870	6		
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		112937571	25056399	16850	42125	1487		
403.8529	31.472	31.472	0		88944658	19813595	14363	35907	1379	1.27(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	61138604	13608159	16850	42125	808		
403.8529	30.939	30.926	1	0.983	45575076	9929870	14363	35907	691	1.34(1.05-1.43)	
1,2,3,4,7,8-HxCDD											Ma
389.8157	30.953	30.953	0	1.000	105637	25890	3966	9915	7		M
391.8127	30.966	30.953	1	1.001	82713	19093	3585	8962	5	1.28(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	71973274	13843845	16850	42125	822		
403.8529	31.073	31.059	1	0.987	55349352	10516510	14363	35907	732	1.30(1.05-1.43)	
1,2,3,6,7,8-HxCDD											M
389.8157	31.099	31.086	1	1.001	403529	89869	3966	9915	23		M
391.8127	31.099	31.086	1	1.001	354549	65699	3585	8962	18	1.14(1.05-1.43)	
1,2,3,7,8,9-HxCDD											RQ
389.8157	31.485	31.485	0	1.018	326144	64692	3966	9915	16		
391.8127	31.485	31.485	0	1.018	314147	55645	3585	8962	16	1.04(1.05-1.43)	
	Empc Correction				263019	52170	3585	8962	15		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.957	29.926	-118	0.900	992498	121109	3966	9915	31		
391.8127	27.970	29.926	-117	0.900	719114	88843	3585	8962	25	1.38(1.05-1.43)	
389.8157	29.941	29.926	1	0.964	1142318	136458	3966	9915	34		
391.8127	29.914	29.926	-1	0.963	981887	115295	3585	8962	32	1.16(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	32375298	9750848	31994	79985	305		
419.8220	33.335	33.335	0	1.059	72504553	22210081	61339	153347	362	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.347	33.347	0	1.000	3087000	1043087	10685	26712	98		
	Empc Correction				2631122	837637	10685	26712	78		
409.7789	33.347	33.347	0	1.000	2529926	805421	6139	15347	131	1.22(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	32693835	9508898	31994	79985	297		
419.8220	34.429	34.429	0	1.094	71817419	20951265	61339	153347	342	0.46(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	205570	68806	10685	26712	6		
409.7789	34.441	34.441	0	1.000	205978	54687	6139	15347	9	1.00(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.651	33.894	-15	1.009	4753282	1489575	10685	26712	139		
409.7789	33.651	33.894	-15	1.009	4663585	1483644	6139	15347	242	1.02(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	51372448	14933502	23768	59420	628		
437.8140	34.150	34.150	0	1.085	48837305	14595780	16576	41440	881	1.05(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	7502351	2290985	10354	25885	221		
425.7737	34.162	34.162	0	1.000	6844086	2072340	9167	22917	226	1.10(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	8519999	2703066	10354	25885	261		a
425.7737	33.603	35.074	-88	0.984	7739098	2310995	9167	22917	252	1.10(0.88-1.20)	
13C-OCDD											
469.7779	36.509	36.498	1	1.160	67092110	16818837	7760	19400	2167		
471.7750	36.509	36.498	1	1.160	73698770	18112047	8496	21240	2132	0.91(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	4670863	1164804	3557	8892	327		
443.7399	36.593	36.582	1	1.002	5133983	1329166	4879	12197	272	0.91(0.76-1.02)	
OCDD											
457.7377	36.521	36.509	1	1.000	47325156	11754544	5054	12635	2326		
459.7348	36.509	36.509	0	1.000	52506980	13316841	5745	14362	2318	0.90(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
U - Marked Undetected
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	226742373	56314562

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	226742373	56314562

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.739	153060	45555	206473	65152	0.1633	0.74	
14.920	208634	52114	244527	73696	0.2058	0.85	
15.374	161841	30964	189702	43353	0.1597	0.85	
15.873	130768	38852	137846	39150	0.1220	0.95	RQ
15.873	106141	30145	137846	39150	0.1108		Empc Correction
Signal Totals:							
	629676	158778	778548	221351			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1432851	388836				0.84	RQ
	1408224	380129					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6508 = (1432851 * 100.000) / (226742373 * 0.971)
Empc Amount: 0.6396 = (1408224 * 100.000) / (226742373 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	151389456	35681963

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	151389456	35681963

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.279	289104	68926	356825	77911	0.4084	0.81	Ma
Signal Totals:							
	289104	68926	356825	77911			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	645929	146837				0.81	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4084 = (645929 * 100.000) / (151389456 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	189646877	35674201
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	185459539	31285692

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	187553208	33479946

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.701	686548	129377	437217	91820	0.6265	1.57	
Signal Totals:							
	686548	129377	437217	91820			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1123765	221197				1.57	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6265 = (1123765 * 100.000) / (187553208 * 0.956)

Report Date: 23-Jul-2019 11:13:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	189646877	35674201
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	185459539	31285692

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	187553208	33479946

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	836724	140344	521183	93917	0.7570	1.61	
20.841	242741	33509	167690	19617	0.2288	1.45	
22.886	199649	28160	127576	21561	0.1824	1.56	
Signal Totals:							
	1279114	202013	816449	135095			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2095563	337108				1.57	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.168 = (2095563 * 100.000) / (187553208 * 0.956)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	120208067	19319795

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	120208067	19319795

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.309	228668	39974	141748	23397	0.2898	1.61	
21.632	126872	21219	92334	16750	0.1715	1.37	
Signal Totals:							
	355540	61193	234082	40147			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	589622	101340				1.52	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4612 = (589622 * 100.000) / (120208067 * 1.063)

Report Date: 23-Jul-2019 11:13:06 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	144210275	17277838
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	145503676	15670794
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	142279177	26767466
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	136425823	31019464

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	142104737	22683890

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.545	377618	74924	316066	64223	0.4156	1.19	
26.878	1400235	191931	1111044	150527	1.50	1.26	
28.090	1565771	187863	1276371	155207	1.70	1.23	
30.540	191504	31975	175757	31868	0.2200	1.09	Ma
31.792	68811	19831	96978	22277	0.0993	0.71	RQMa
31.792	68811	19831	55492	15992	0.0745		Empc Correction
Signal Totals:							
	3603939	506524	2934730	417817			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6580155	930626				1.21	RQMa
	6538669	924341					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.942 = (6580155 * 100.000) / (142104737 * 1.175)
Empc Amount: 3.918 = (6538669 * 100.000) / (142104737 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	106713680	23538029
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	127322626	24360355
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	117018153	23949192

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.957	992498	121109	719114	88843	1.43	1.38	
29.941	1142318	136458	981887	115295	1.78	1.16	
Signal Totals:							
	2134816	257567	1701001	204138			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3835817	461705				1.26	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.208 = (3835817 * 100.000) / (117018153 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	104879851	31960929
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	104511254	30460163

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	104695552	31210546

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.651	4753282	1489575	4663585	1483644	6.55	1.02	
Signal Totals:							
	4753282	1489575	4663585	1483644			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	9416867	2973219				1.02	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 6.550 = (9416867 * 100.000) / (104695552 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d
Lims ID: 580-87706-C-7-A
Client ID: 22T-SG-20_20190716
Inject. Date: 22-Jul-2019 03:03:56 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 63

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	100209753	29529282

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	100209753	29529282

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	8519999	2703066	7739098	2310995	16.1	1.10	a
Signal Totals:							
	8519999	2703066	7739098	2310995			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	16259097	5014061				1.10	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 16.062 = (16259097 * 100.000) / (100209753 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

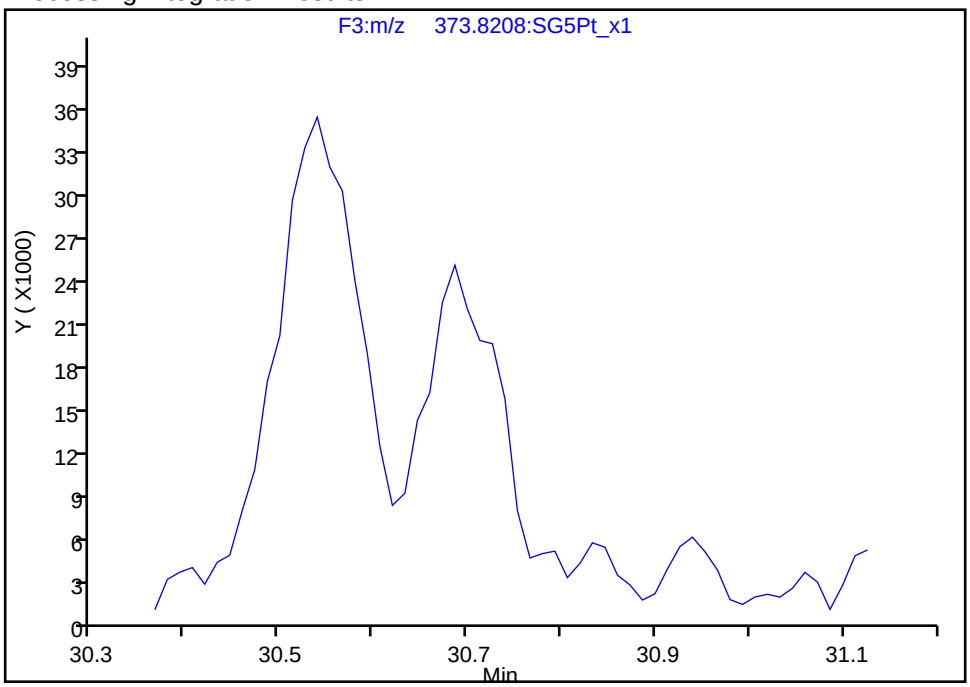
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d				
Injection Date:	22-Jul-2019 03:03:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-7-A	Lab Sample ID:	320-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	46	Worklist Smp#:	63
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

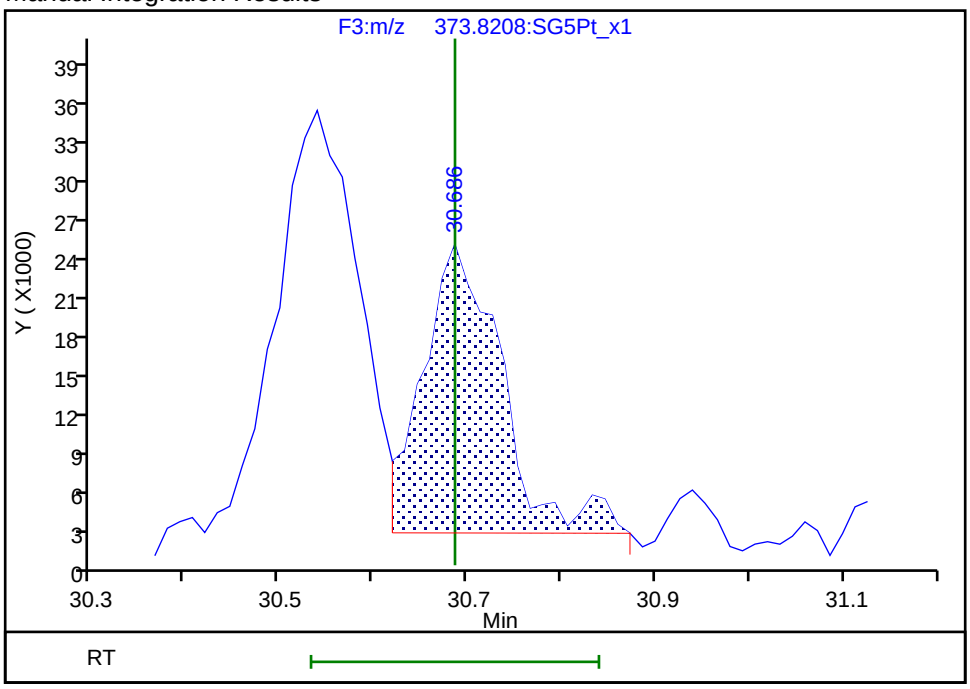
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.69
Area: 126857
Amount: 0.127798
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:11:50
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

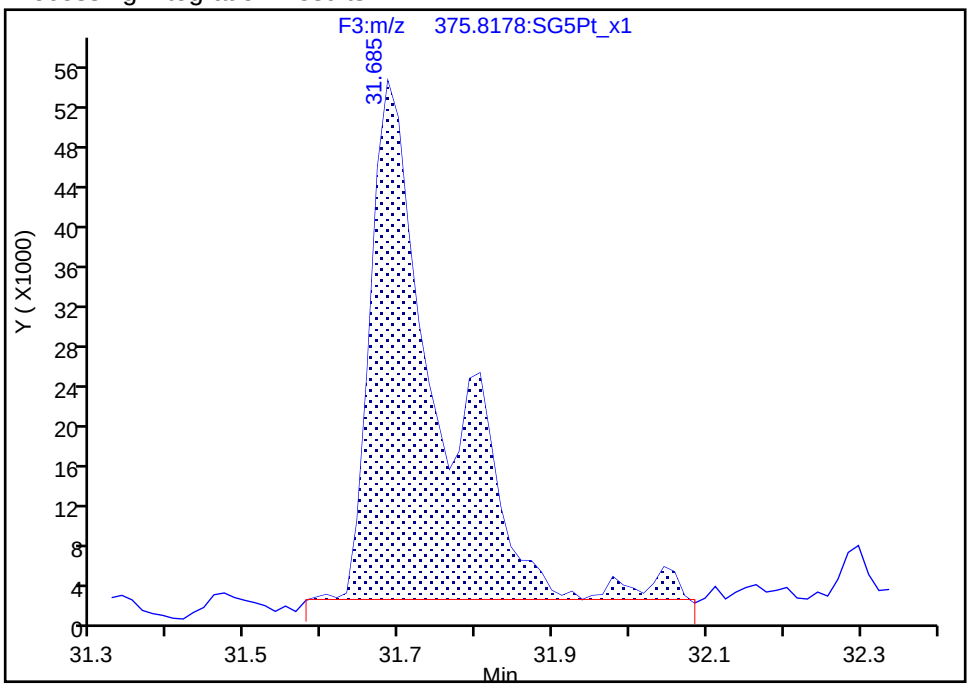
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d				
Injection Date:	22-Jul-2019 03:03:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-7-A	Lab Sample ID:	320-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	46	Worklist Smp#:	63
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDF, CAS: 72918-21-9

Signal: 2

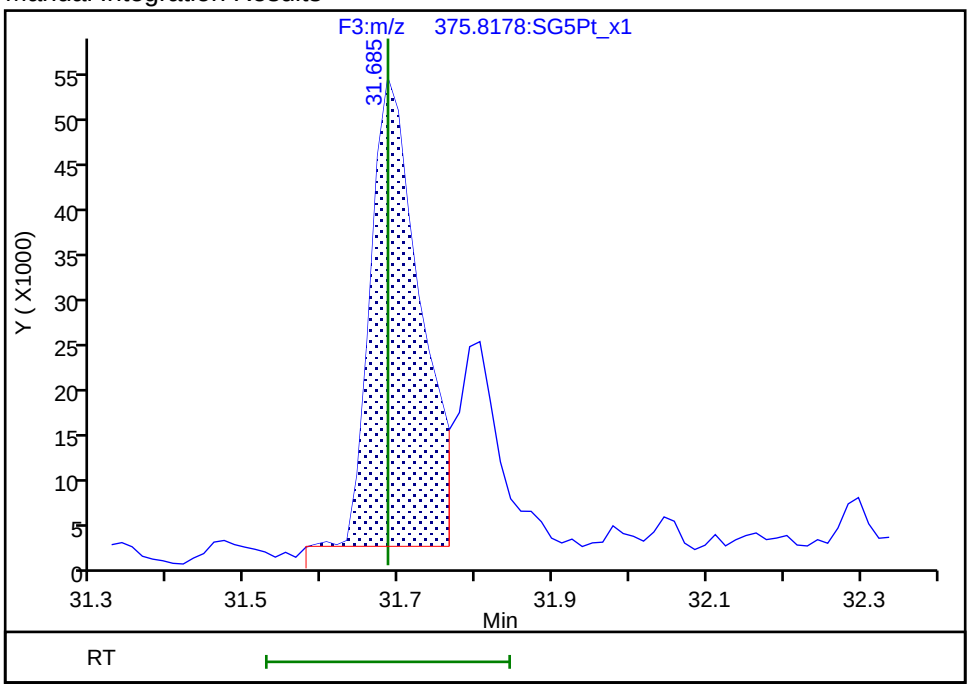
Processing Integration Results

RT: 31.68
Area: 321586
Amount: 0.410006
Amount Units: pg/ul



Manual Integration Results

RT: 31.68
Area: 224607
Amount: 0.306981
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:12:00

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

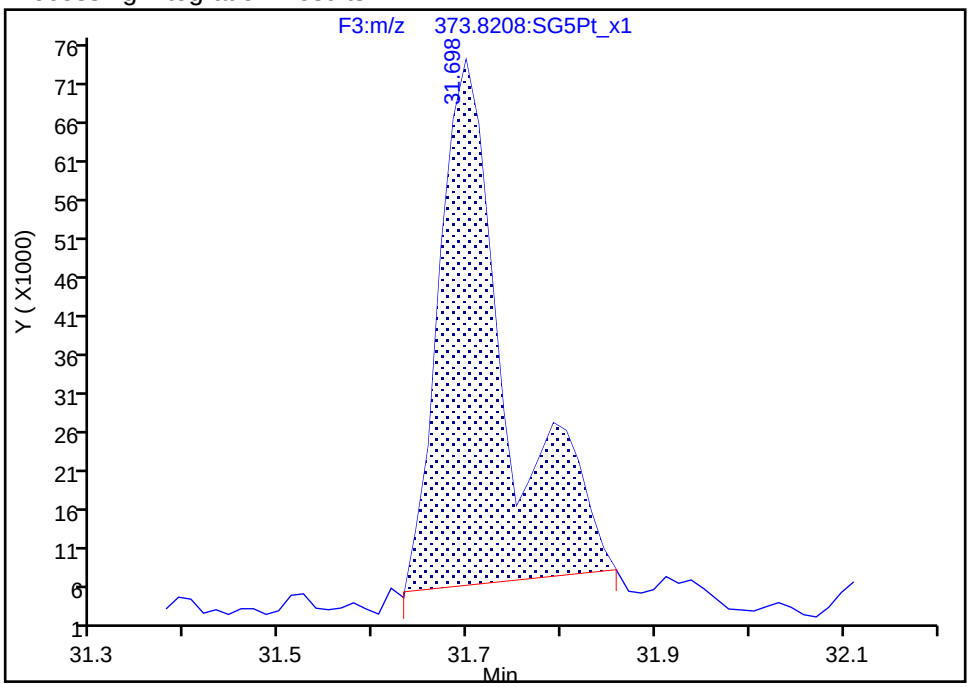
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d				
Injection Date:	22-Jul-2019 03:03:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-7-A	Lab Sample ID:	320-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	46	Worklist Smp#:	63
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDF, CAS: 72918-21-9

Signal: 1

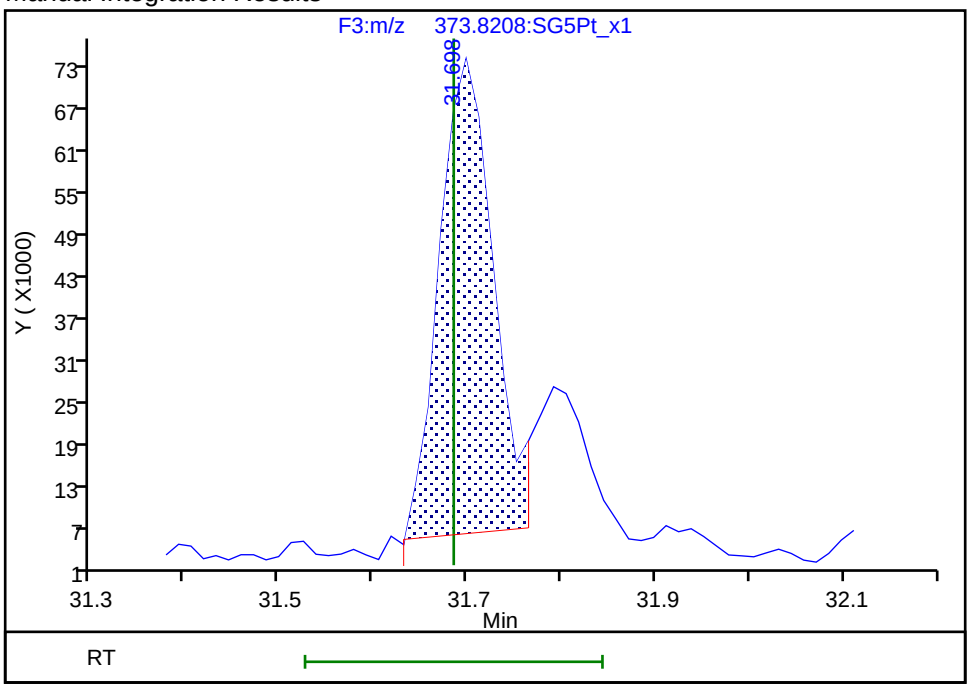
Processing Integration Results

RT: 31.70
Area: 337710
Amount: 0.410006
Amount Units: pg/ul



Manual Integration Results

RT: 31.70
Area: 269023
Amount: 0.306981
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:12:06
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

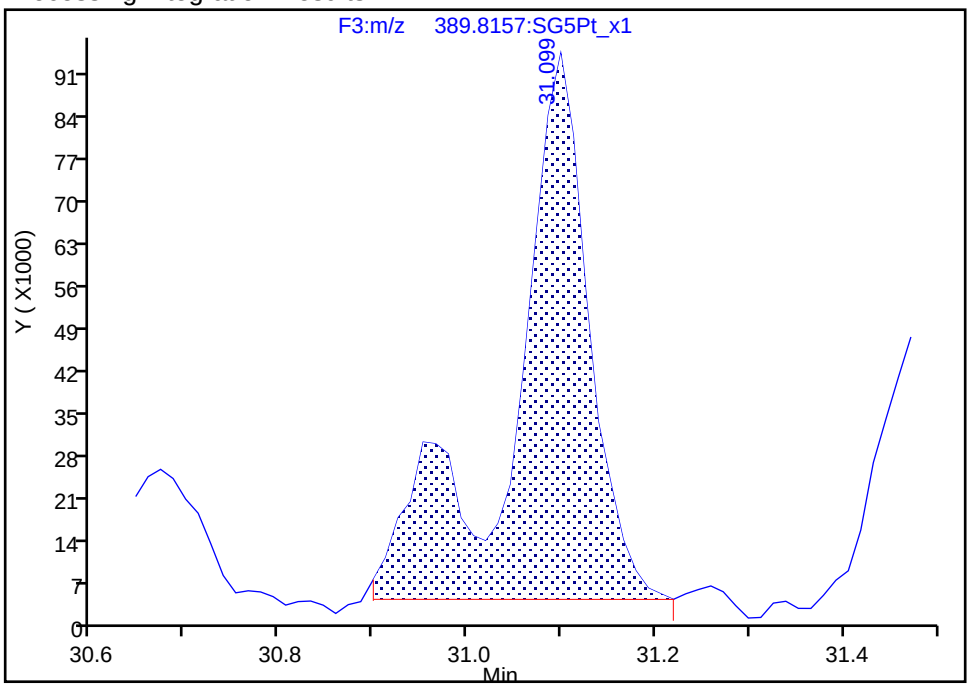
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d				
Injection Date:	22-Jul-2019 03:03:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-7-A	Lab Sample ID:	320-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	46	Worklist Smp#:	63
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

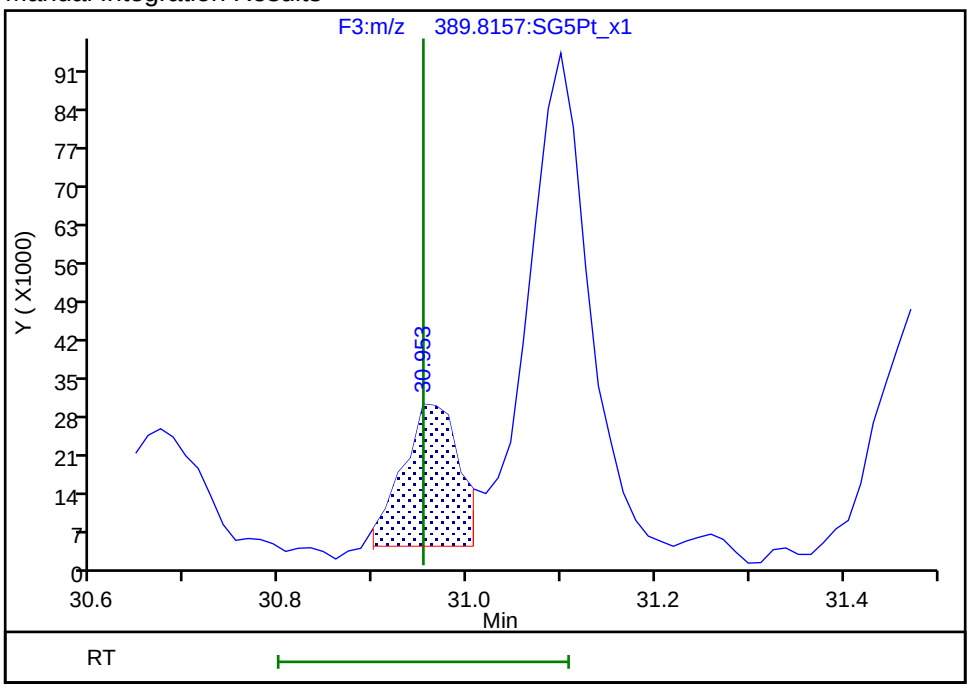
Processing Integration Results

RT: 31.10
Area: 509170
Amount: 0.788345
Amount Units: pg/ul



Manual Integration Results

RT: 30.95
Area: 105637
Amount: 0.171913
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:12:35

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

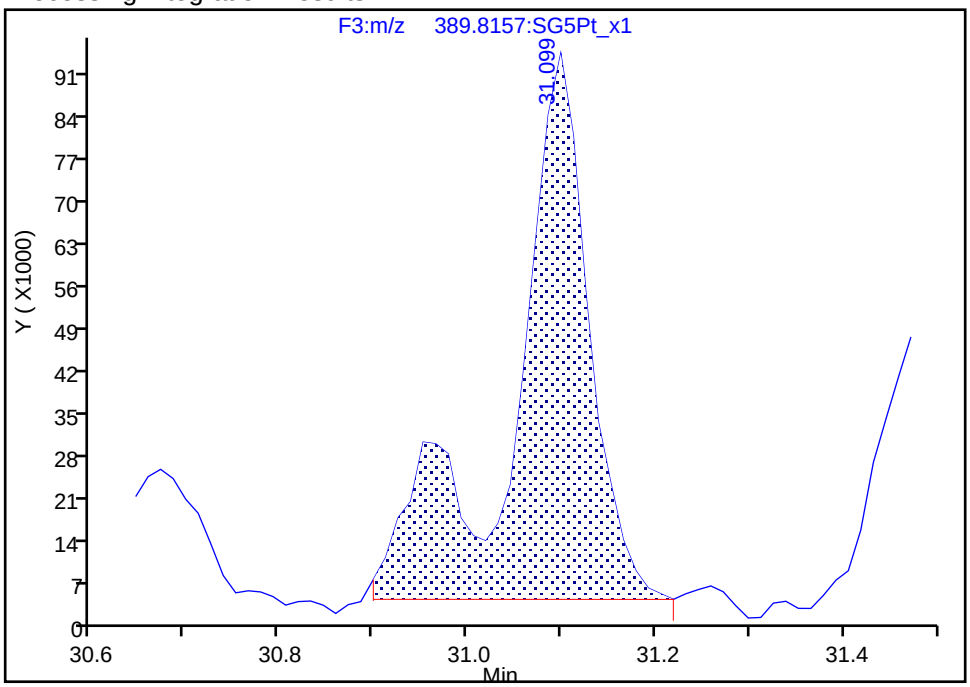
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d				
Injection Date:	22-Jul-2019 03:03:56	Instrument ID:	3D5		
Lims ID:	580-87706-C-7-A	Lab Sample ID:	320-87706-7		
Client ID:	22T-SG-20_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	46	Worklist Smp#:	63
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

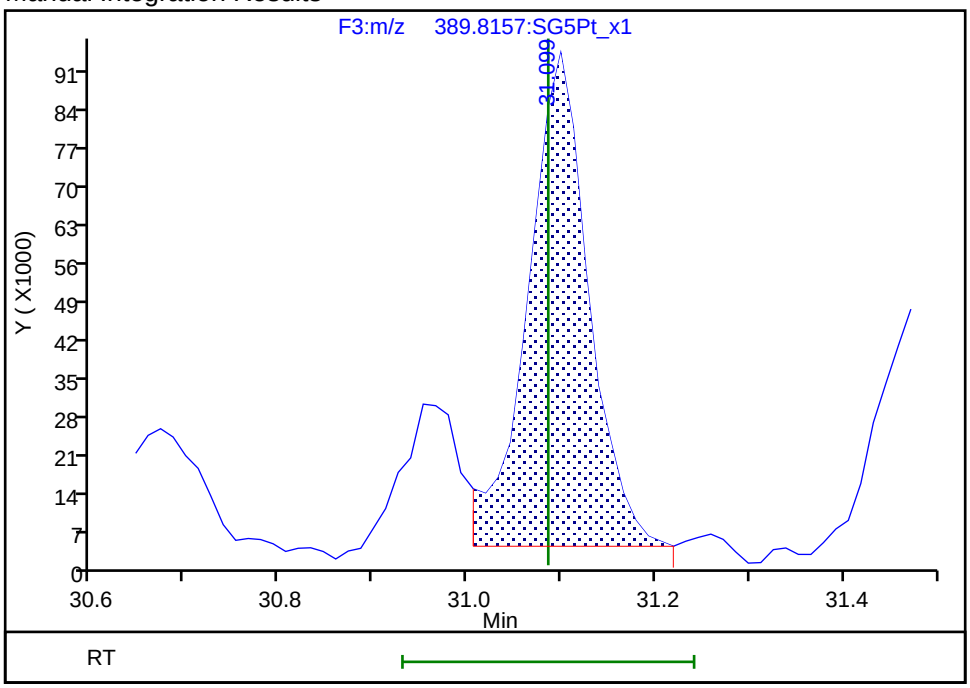
Processing Integration Results

RT: 31.10
Area: 509170
Amount: 0.694281
Amount Units: pg/ul



Manual Integration Results

RT: 31.10
Area: 403529
Amount: 0.609364
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:12:32

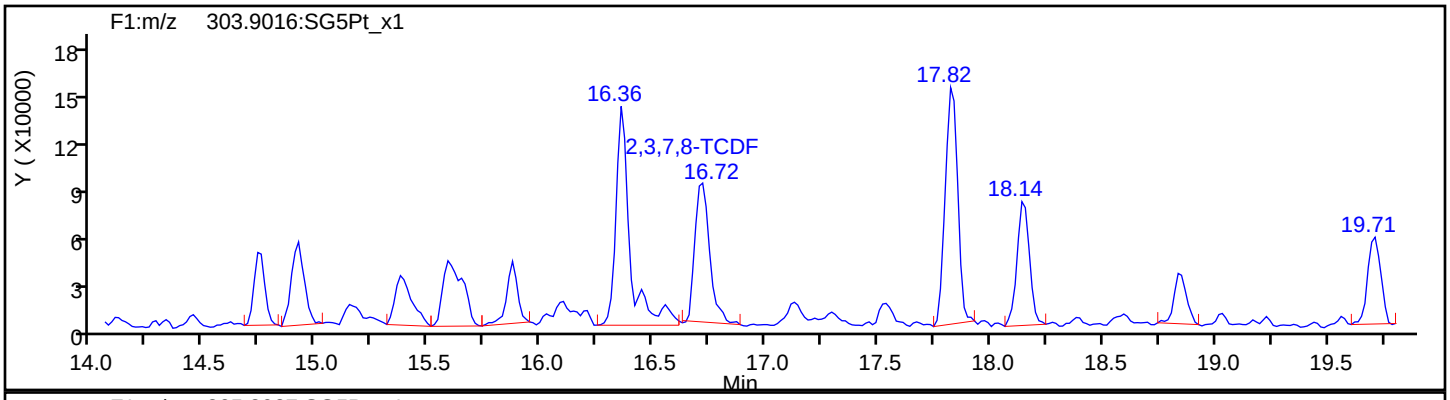
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

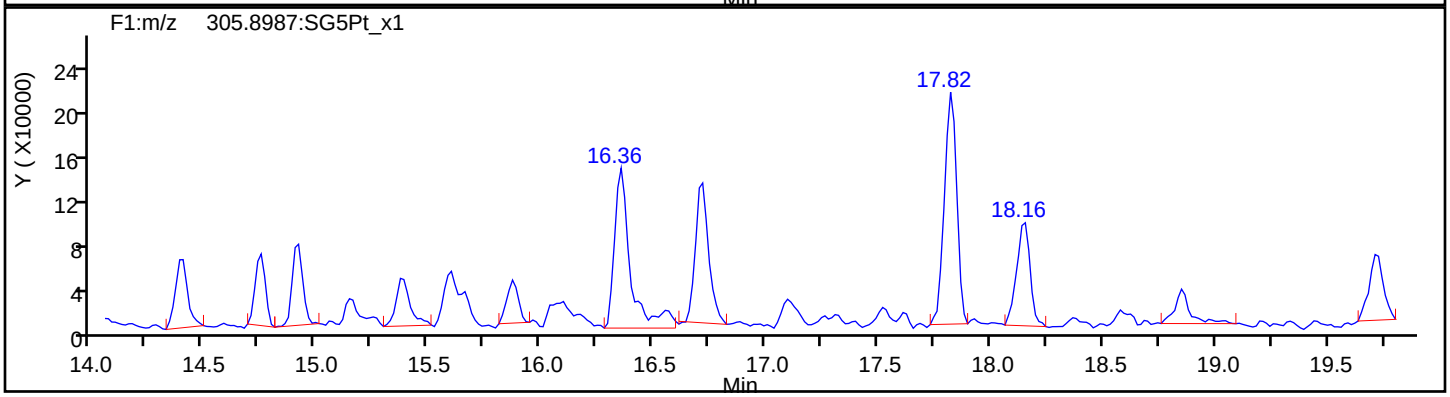
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

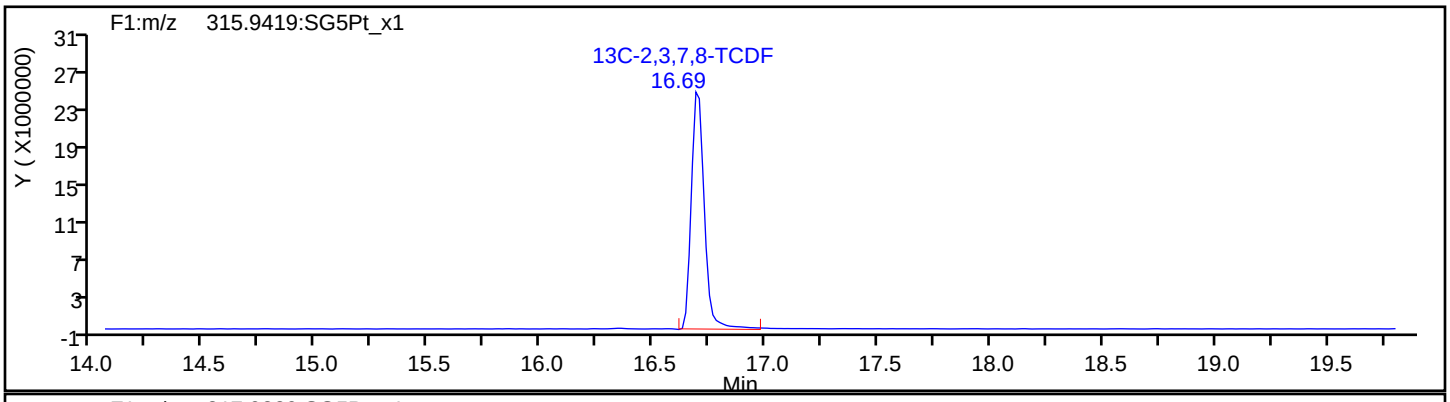
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

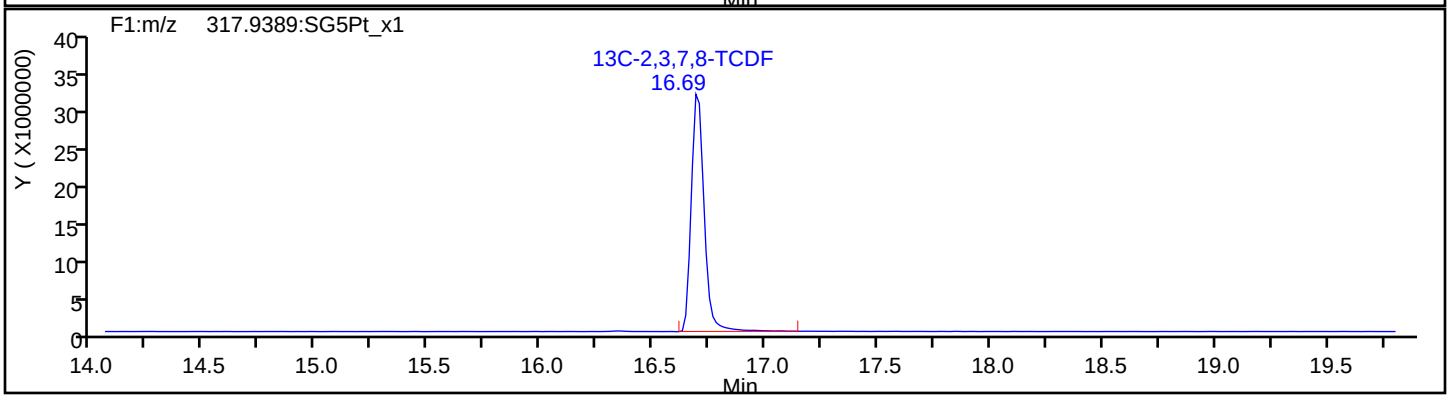
TCDF





TCDF Standards



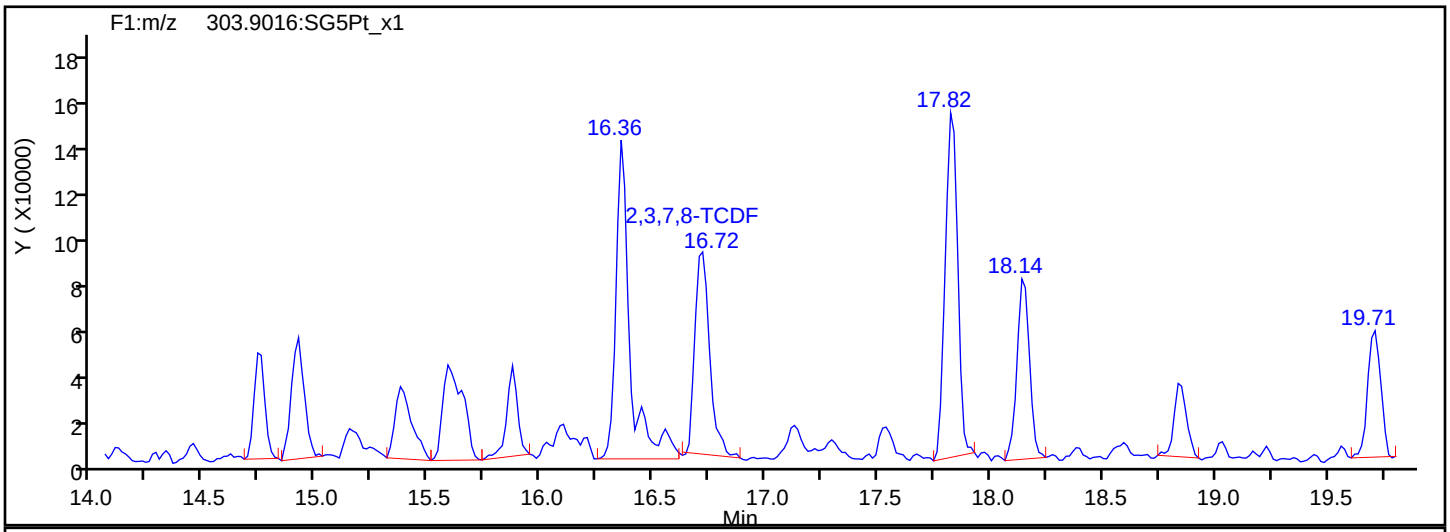


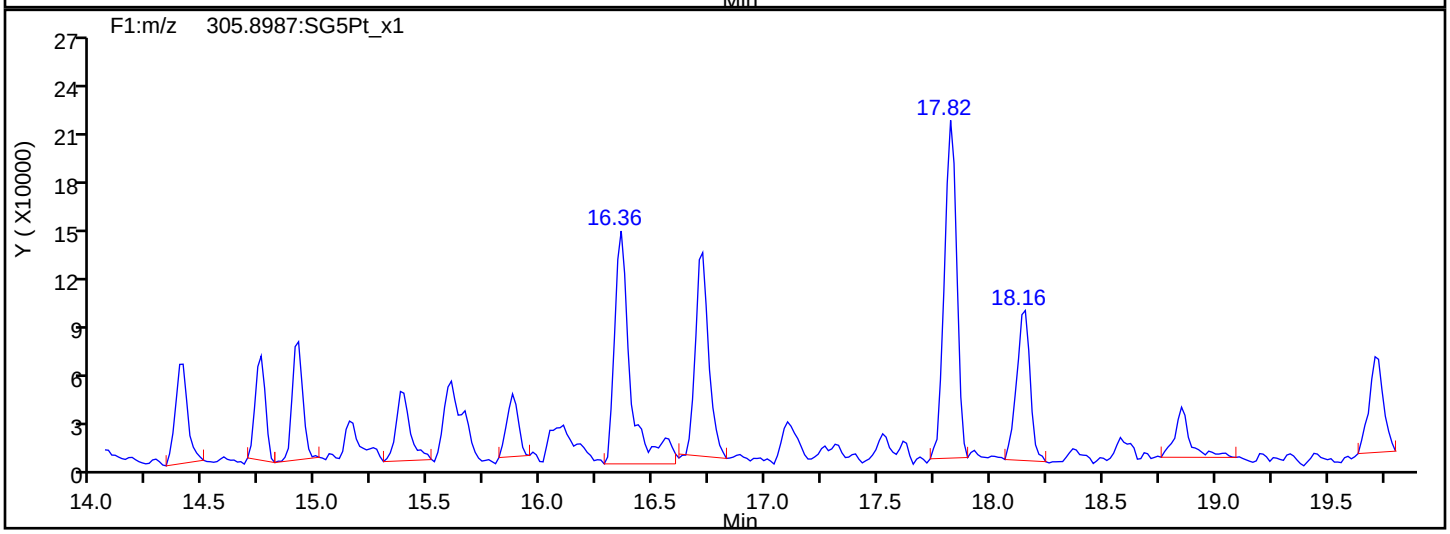
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

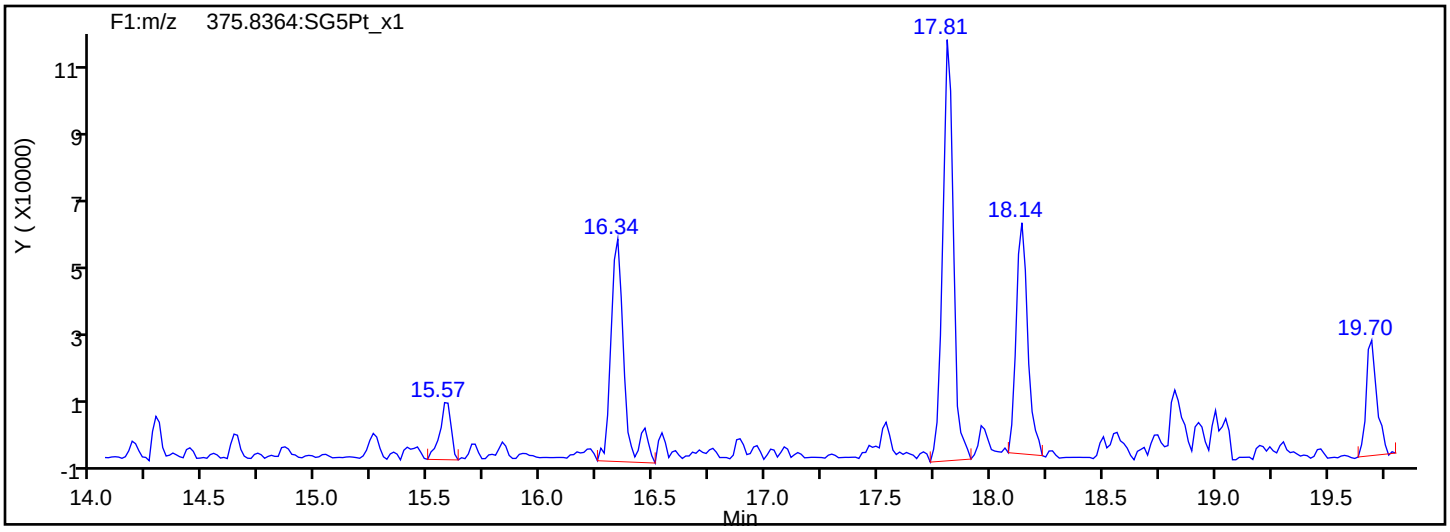
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

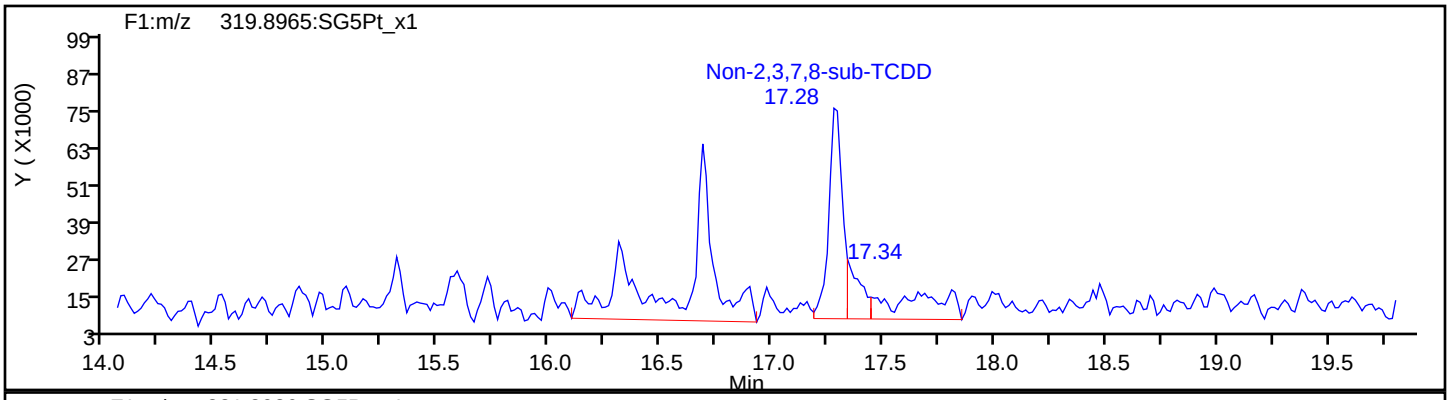


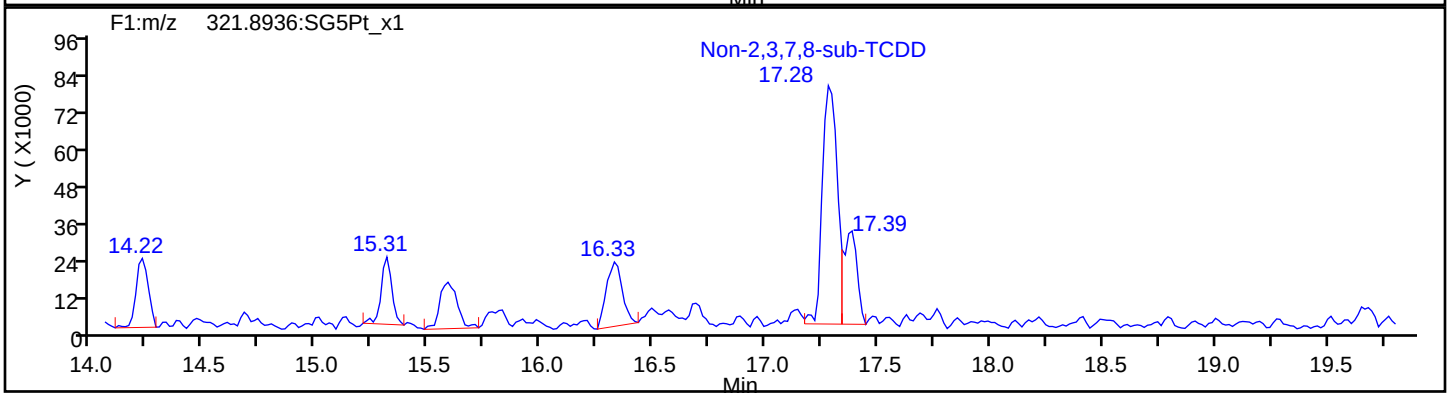
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

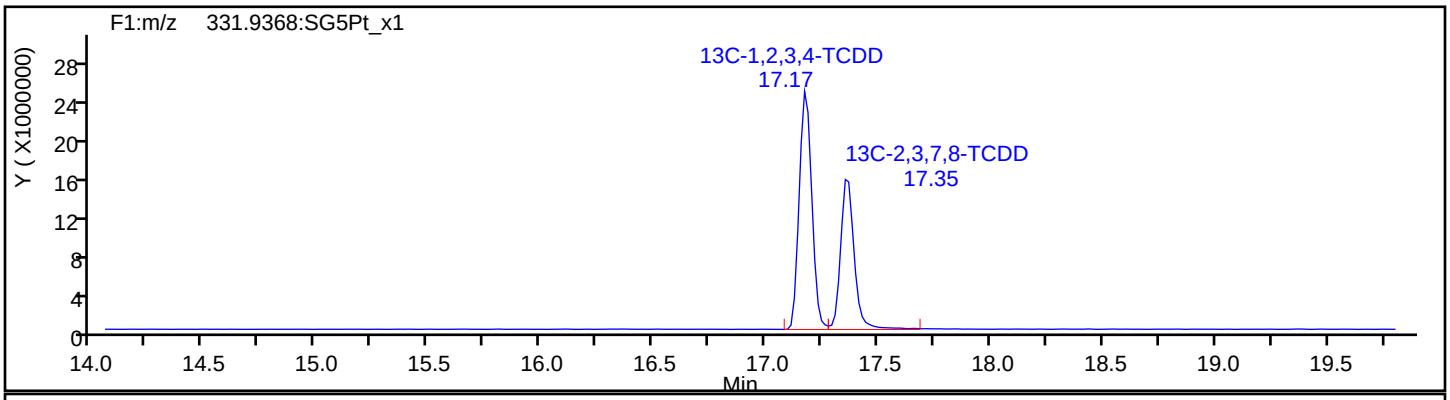
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

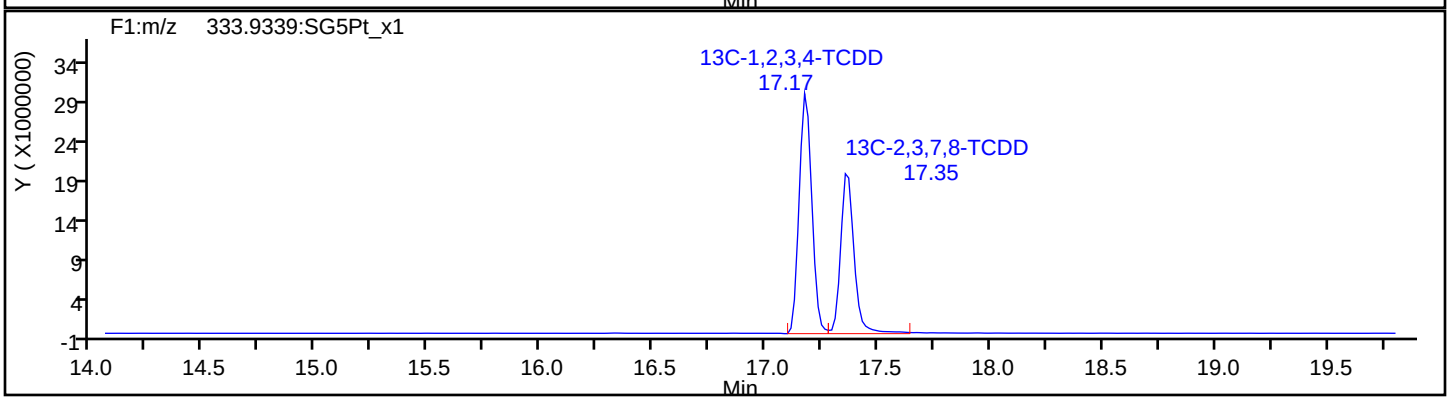
TCDD





TCDD Standards





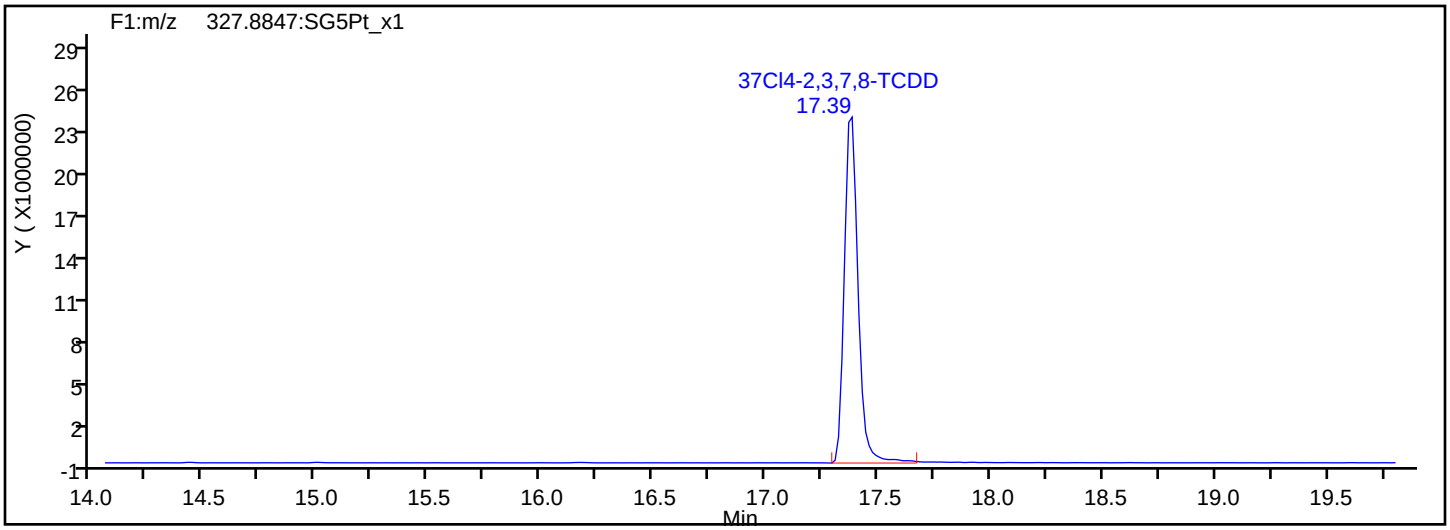
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

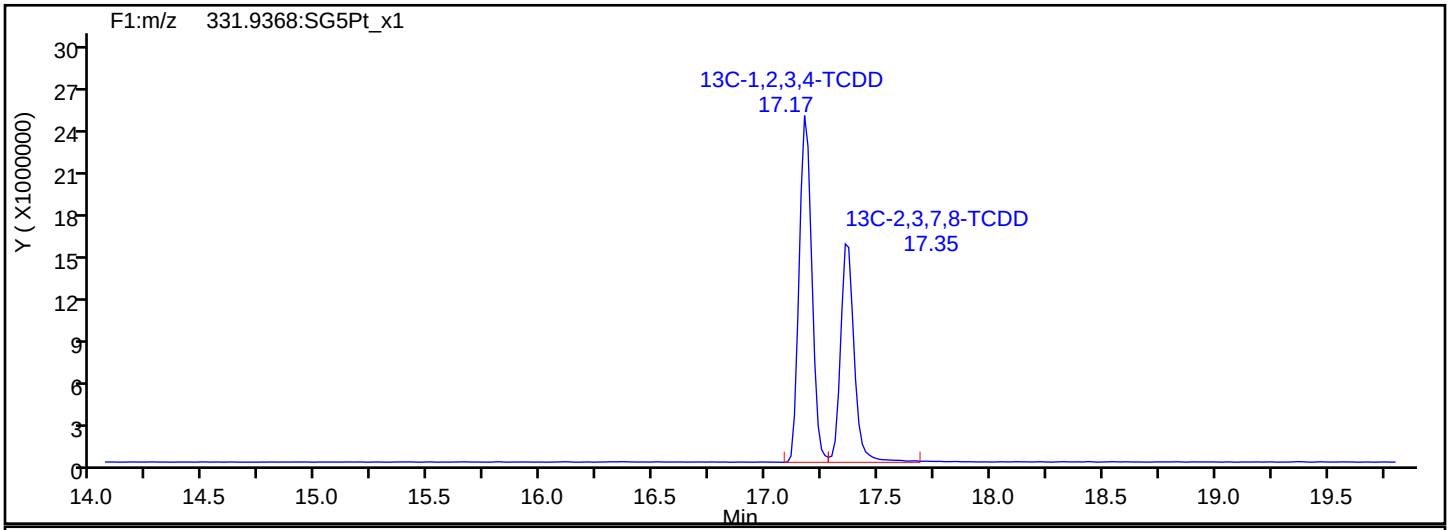
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d

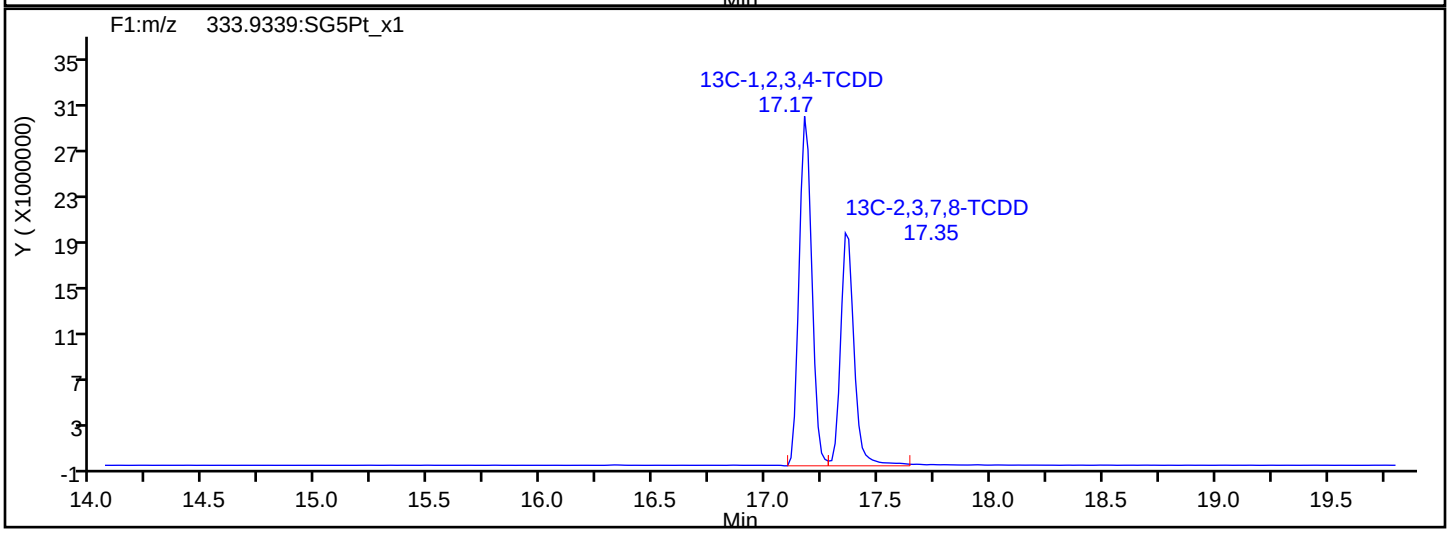
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



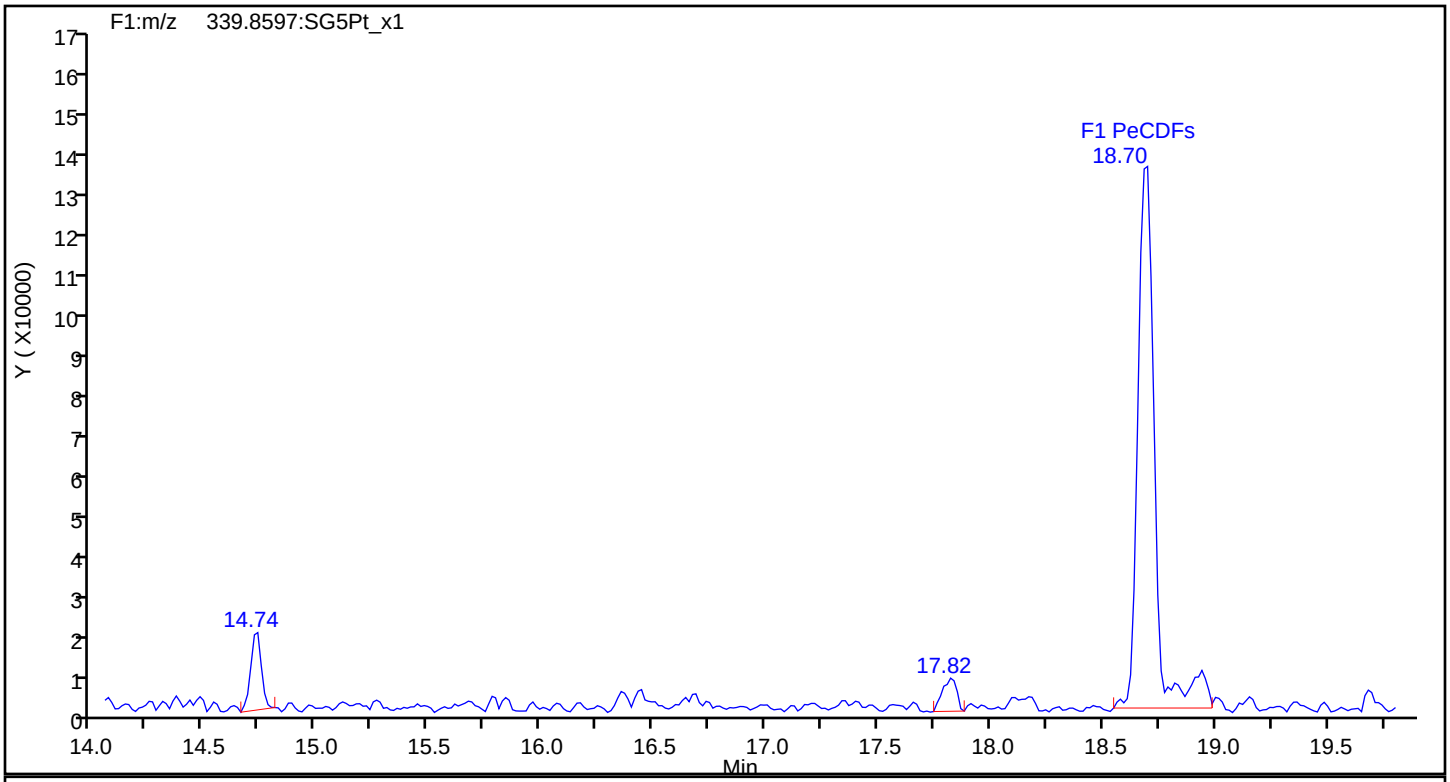


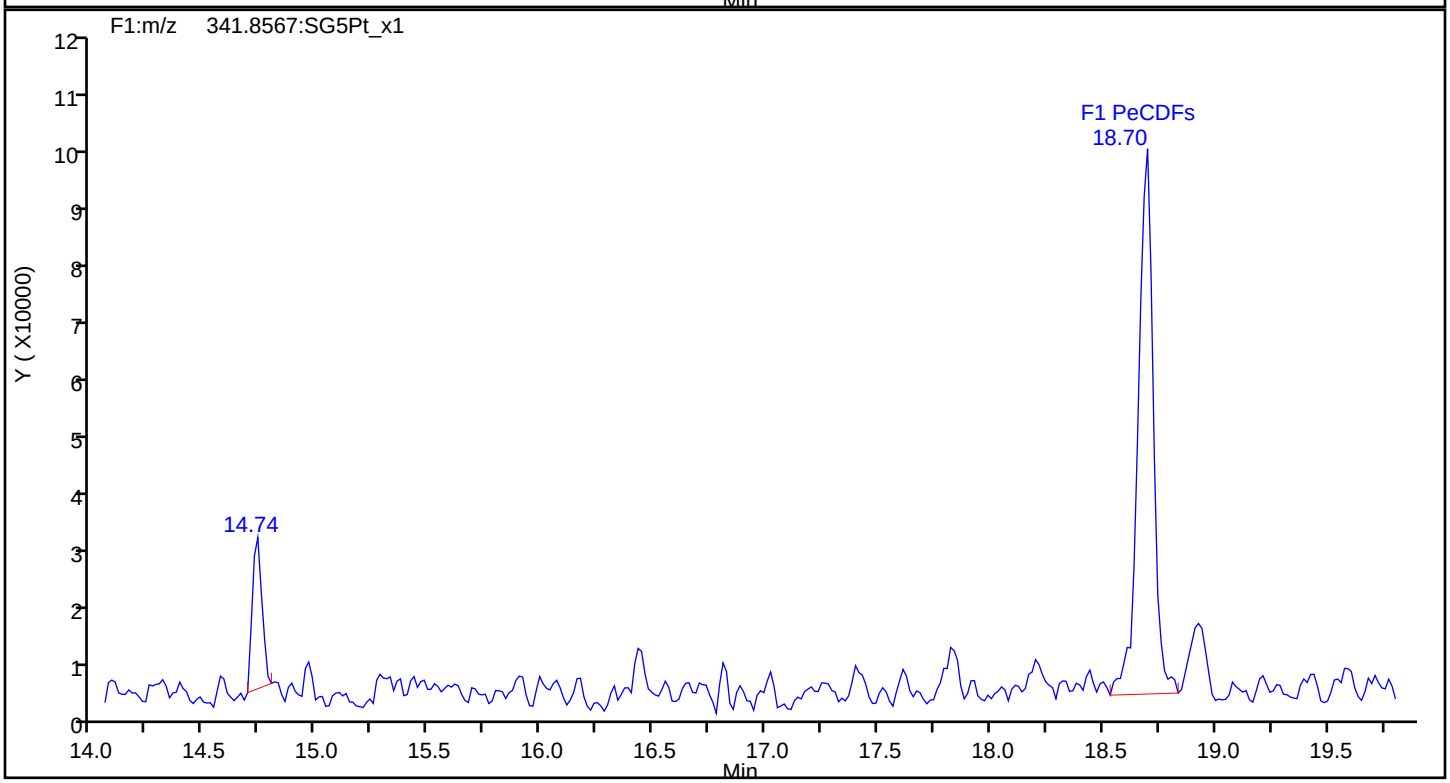
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



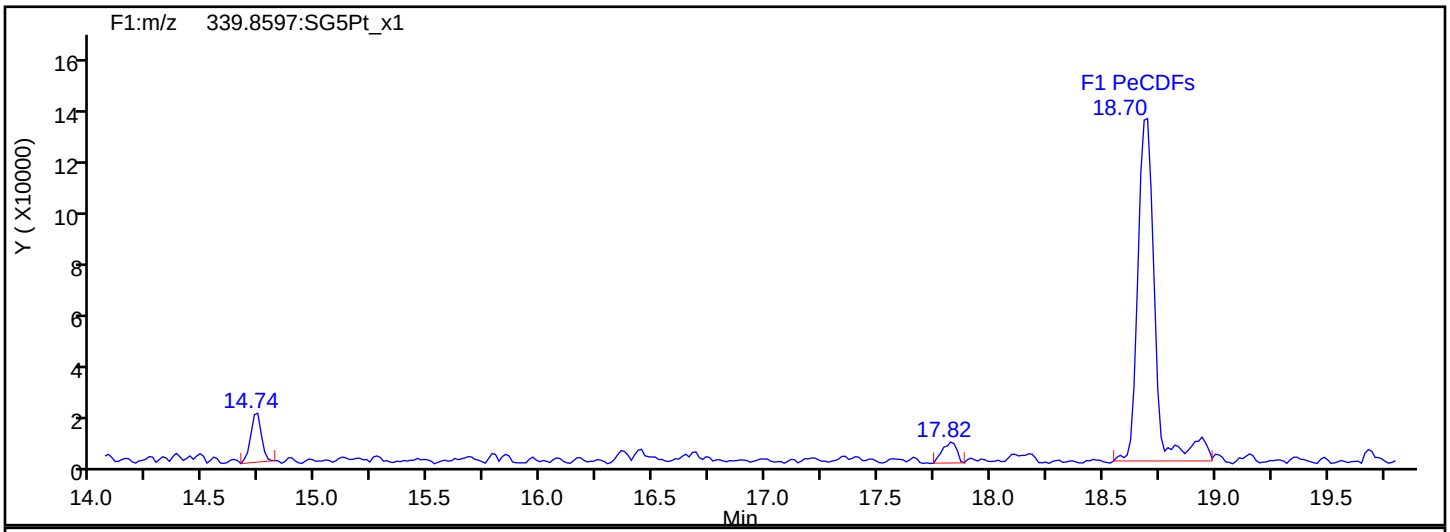


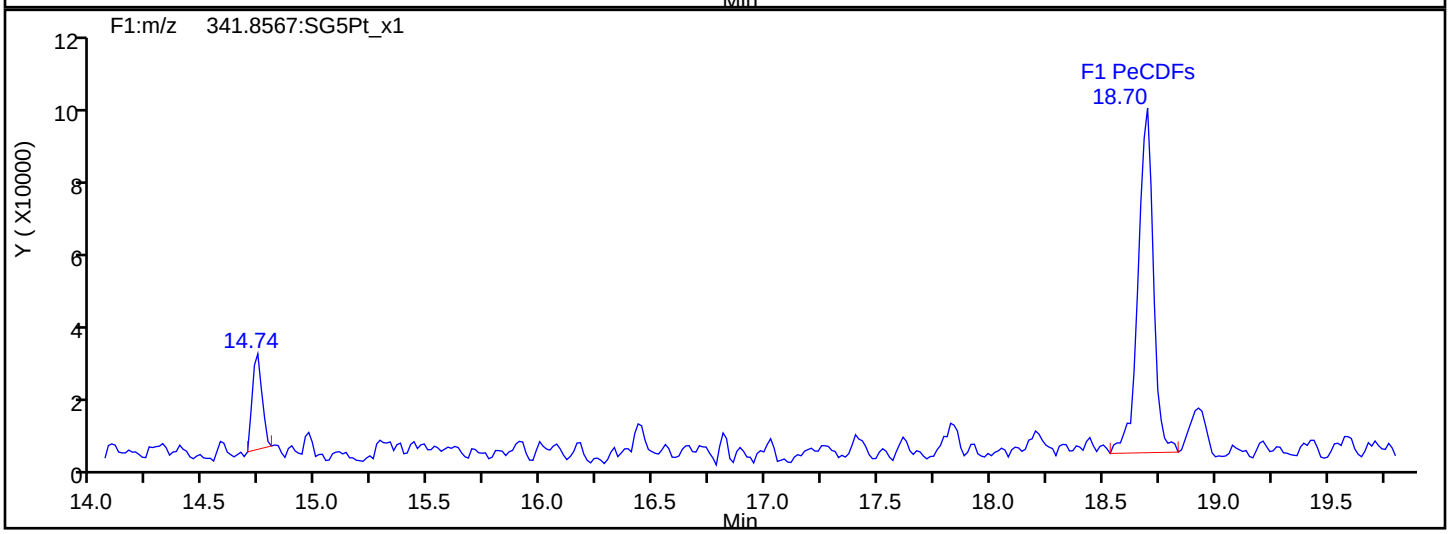
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

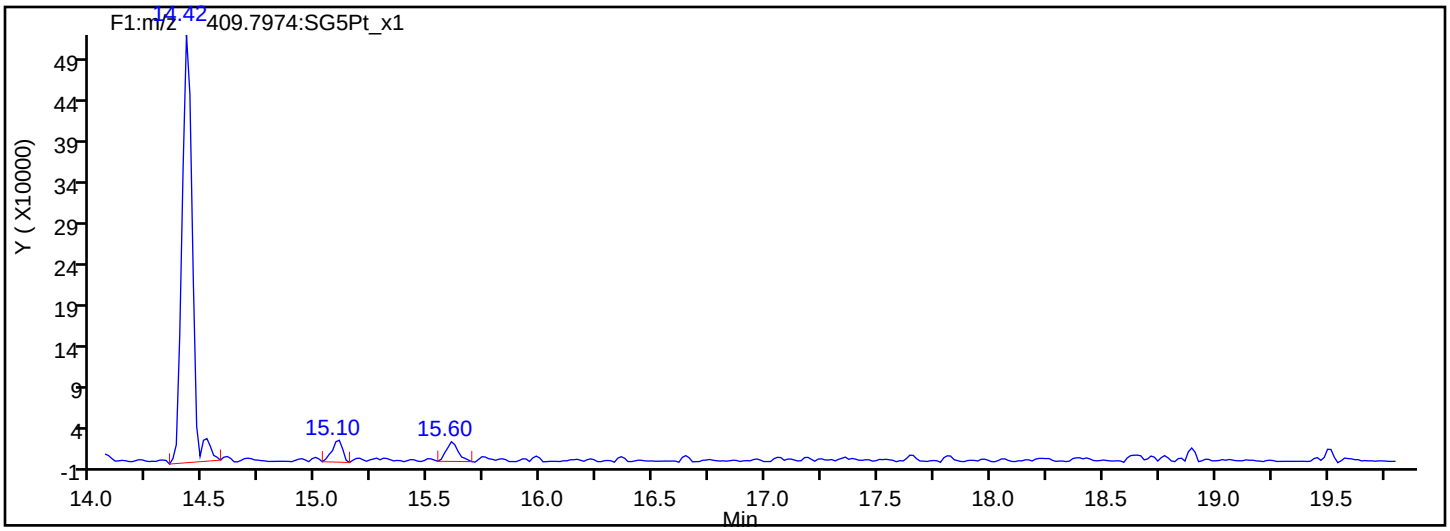
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

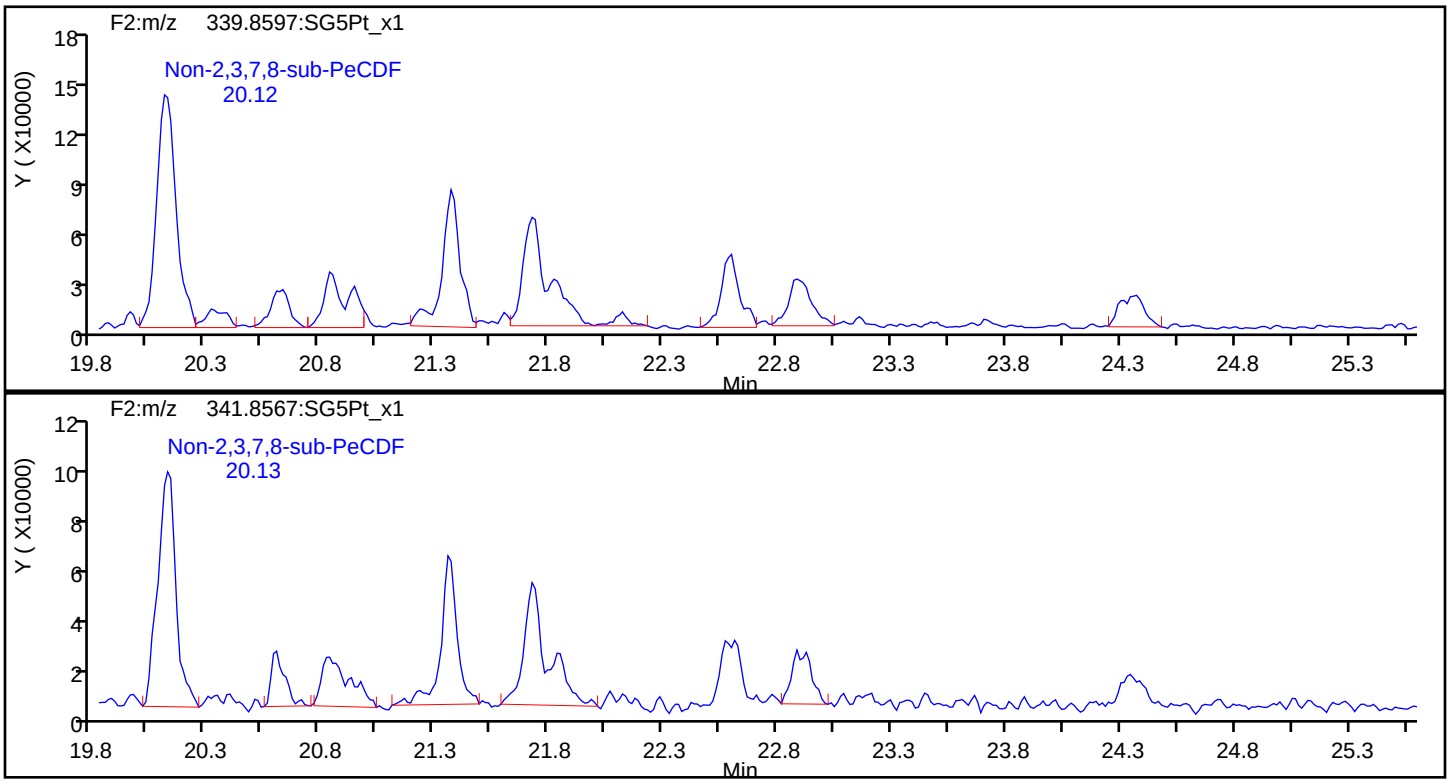


Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

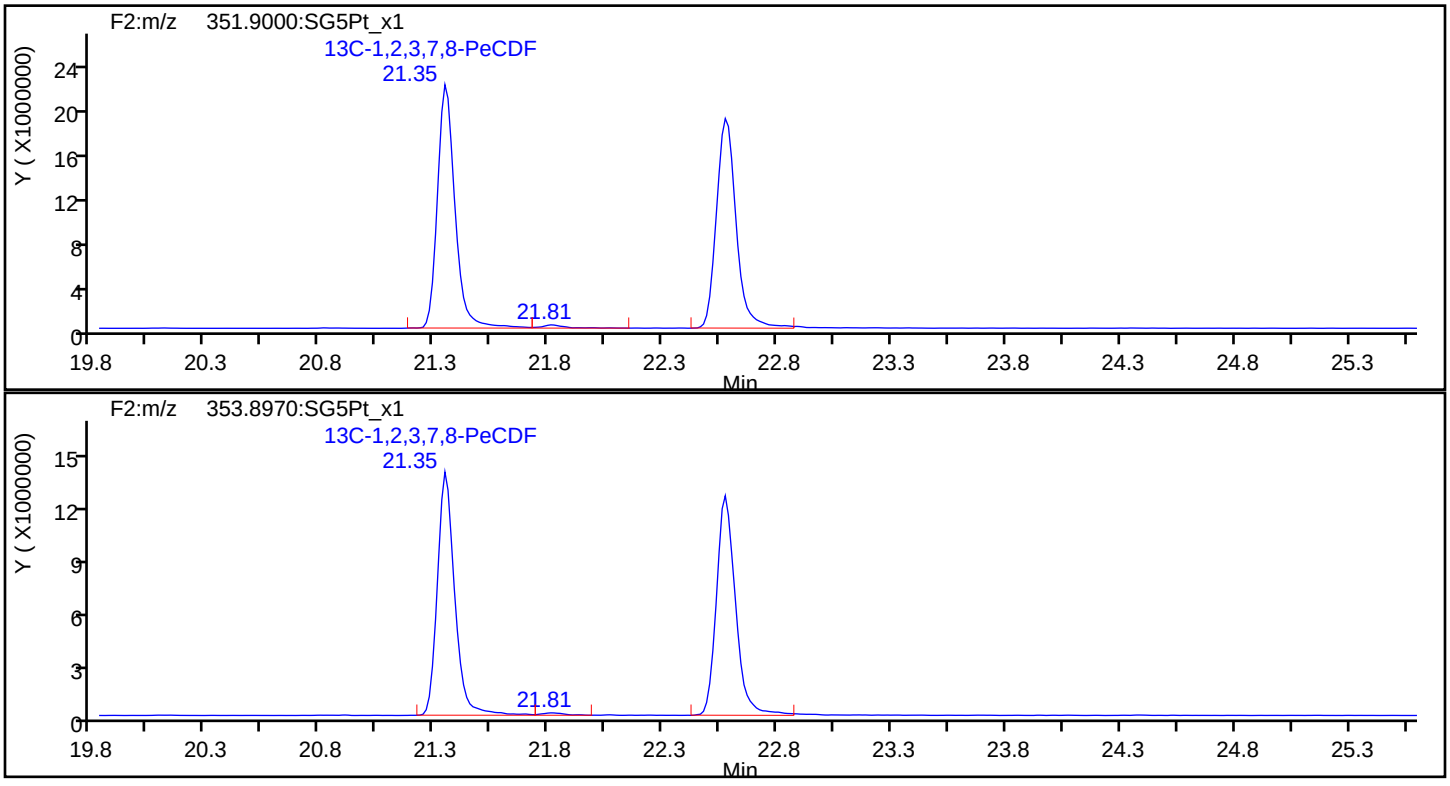
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

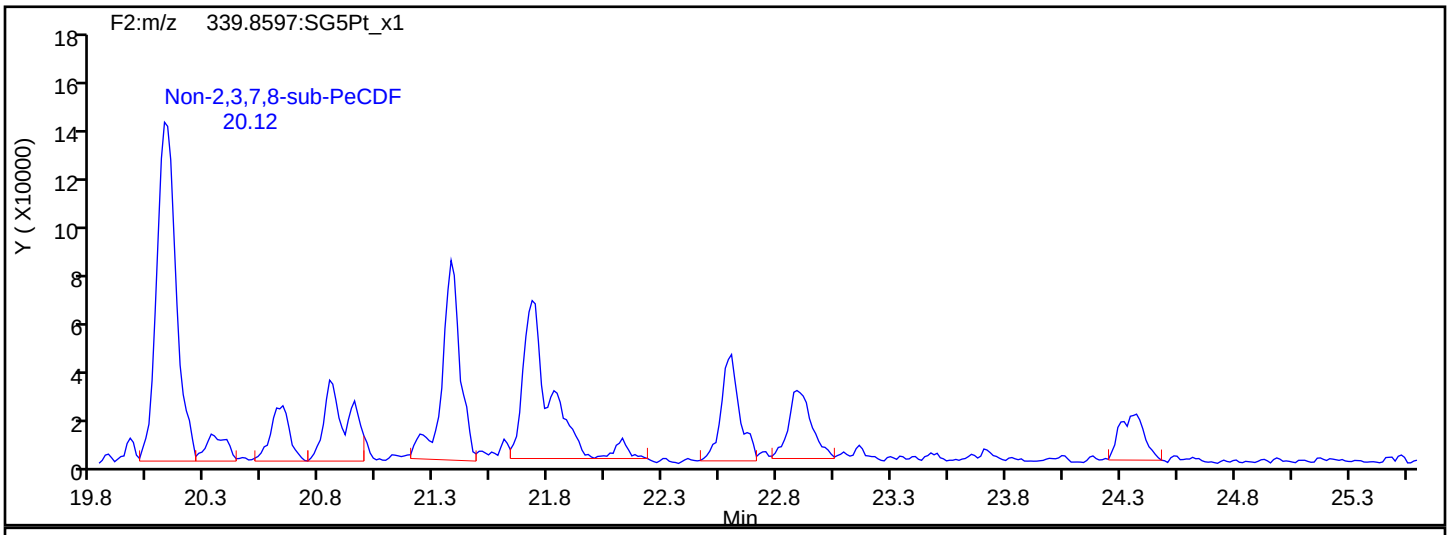


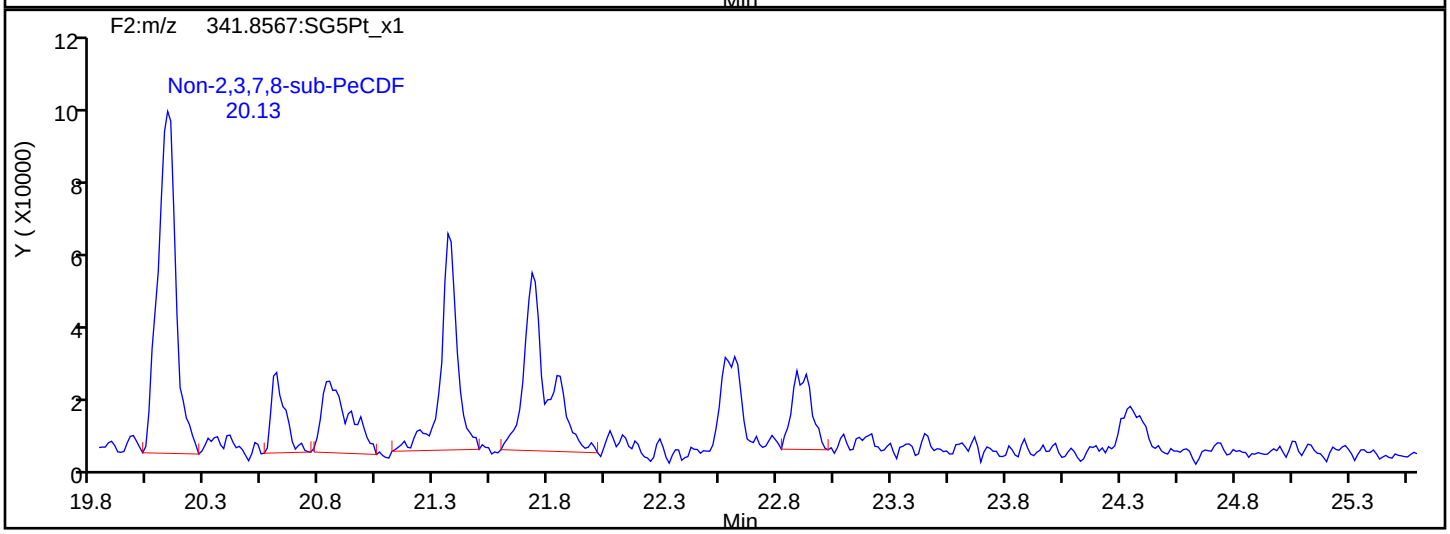
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

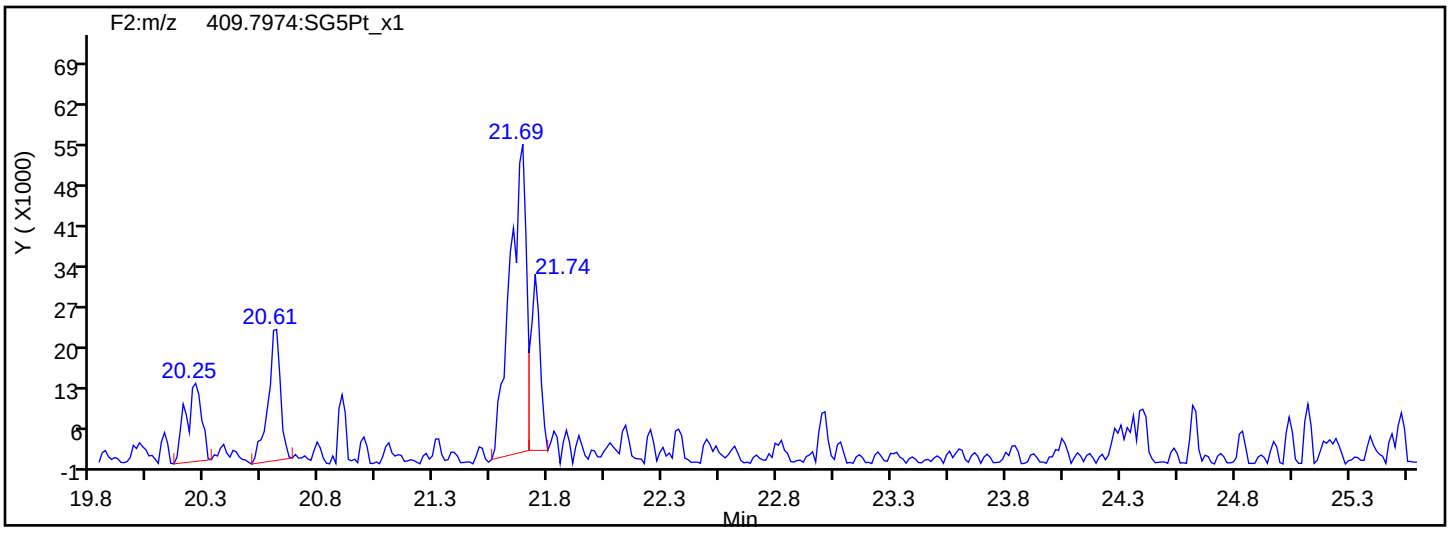
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

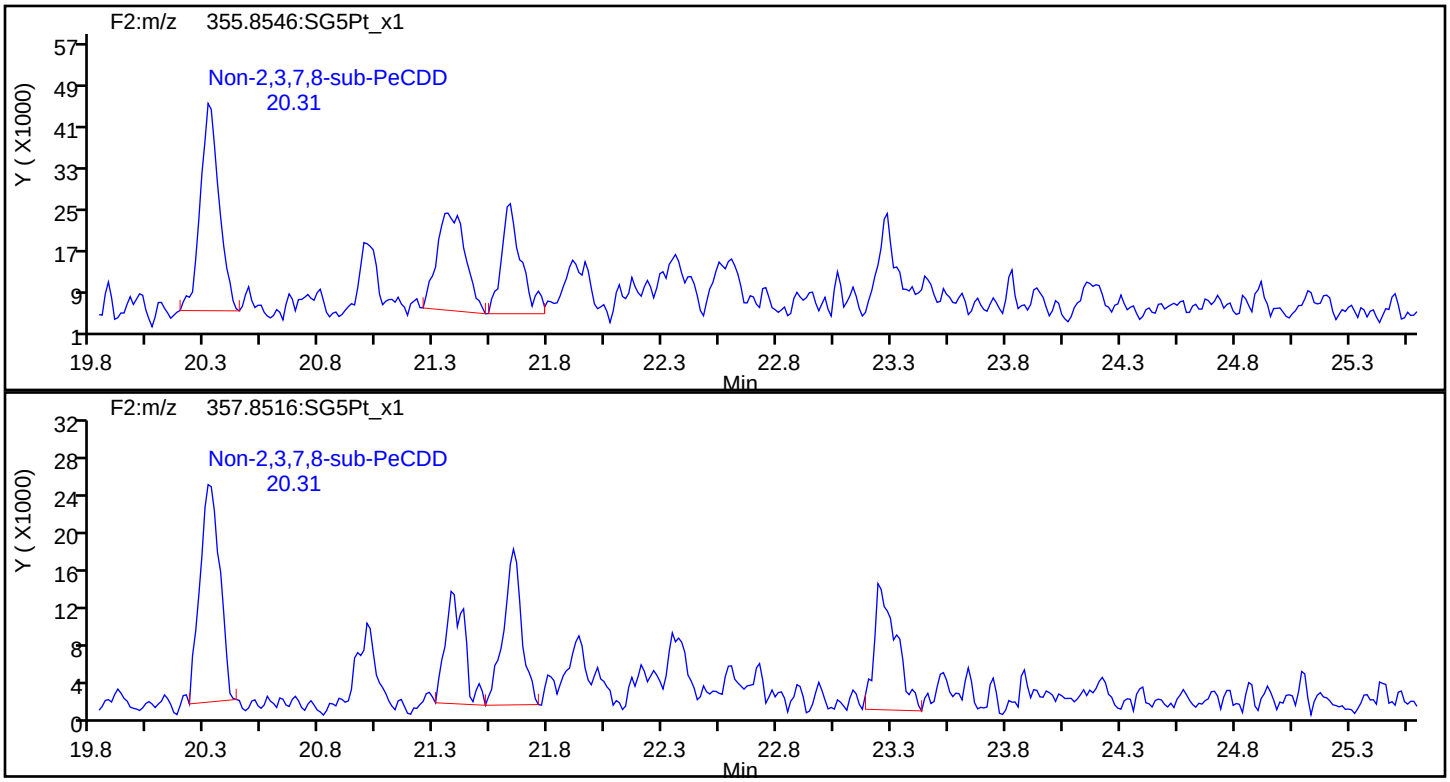


Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

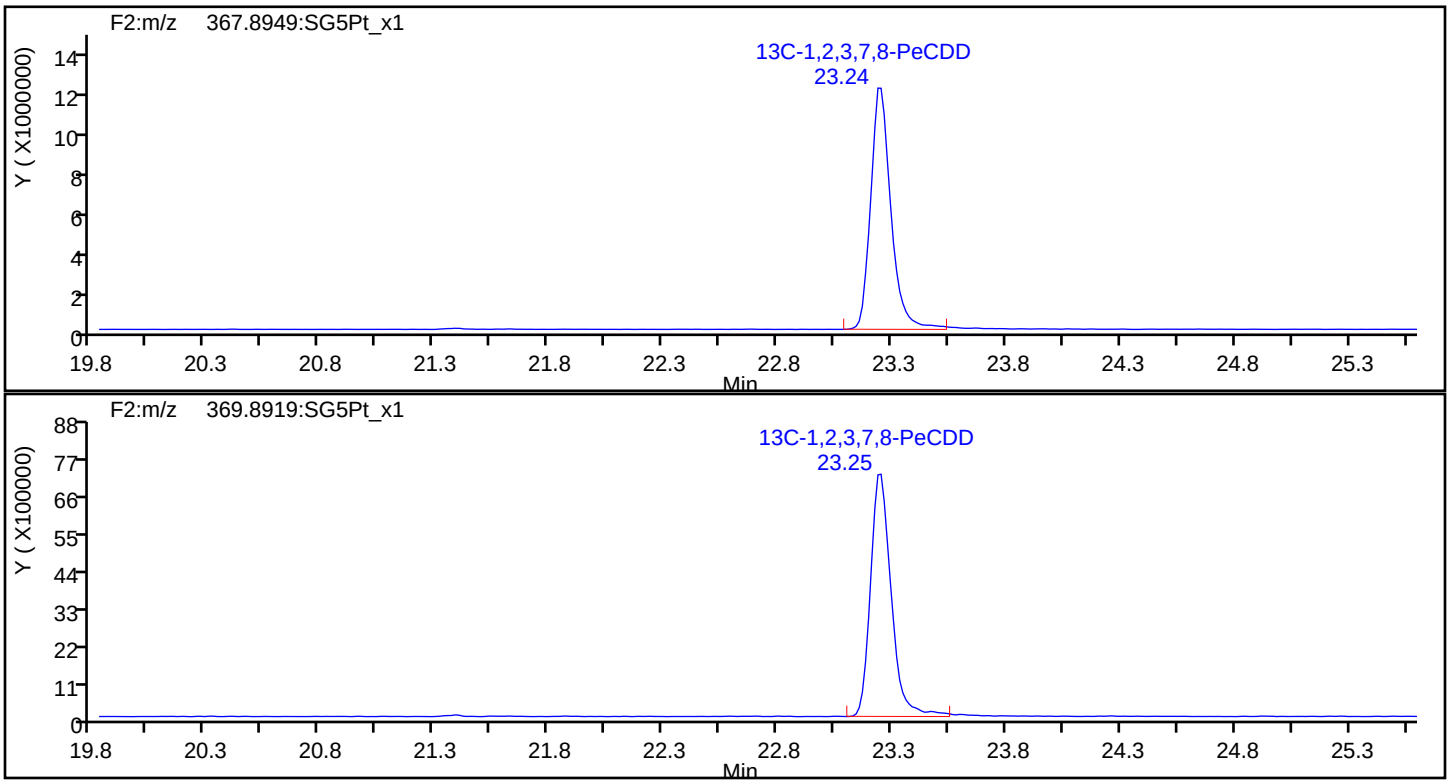
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDD



PeCDD Standards



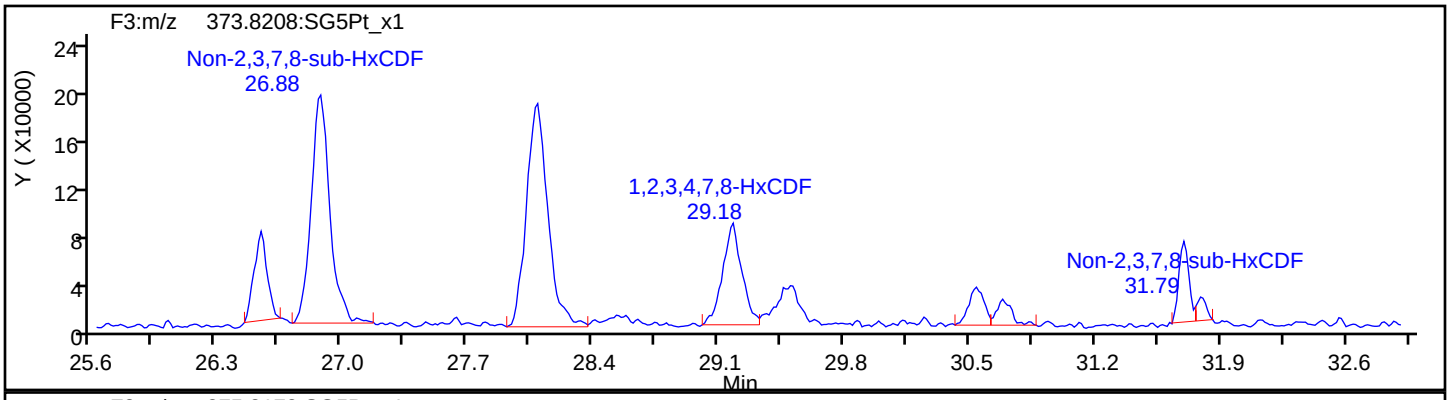
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

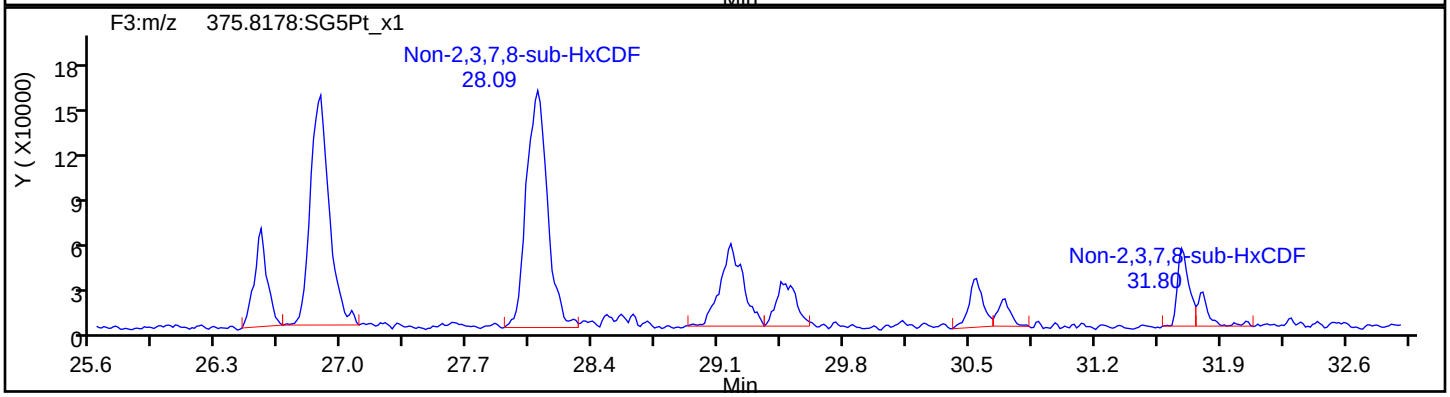
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d

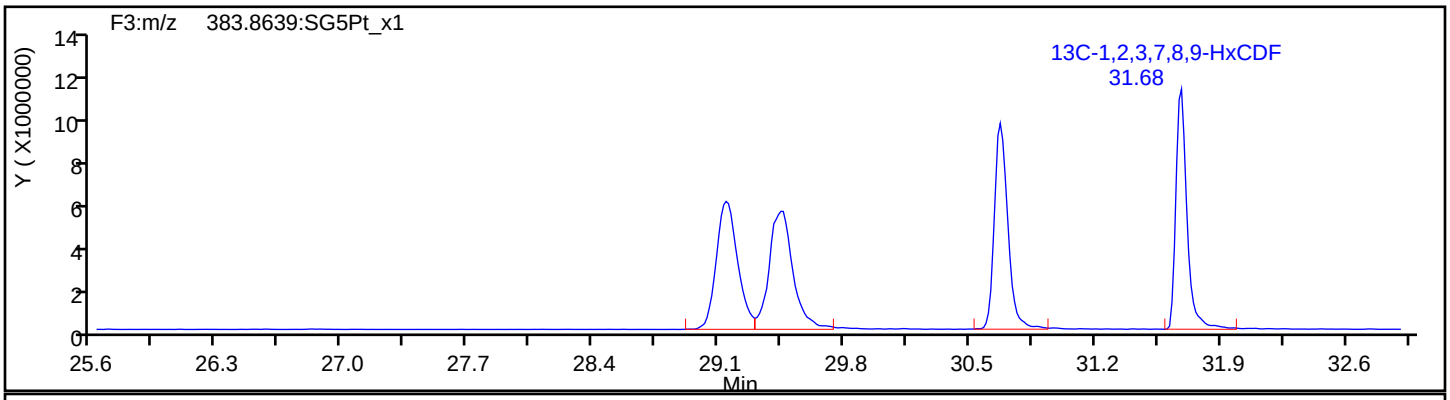
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

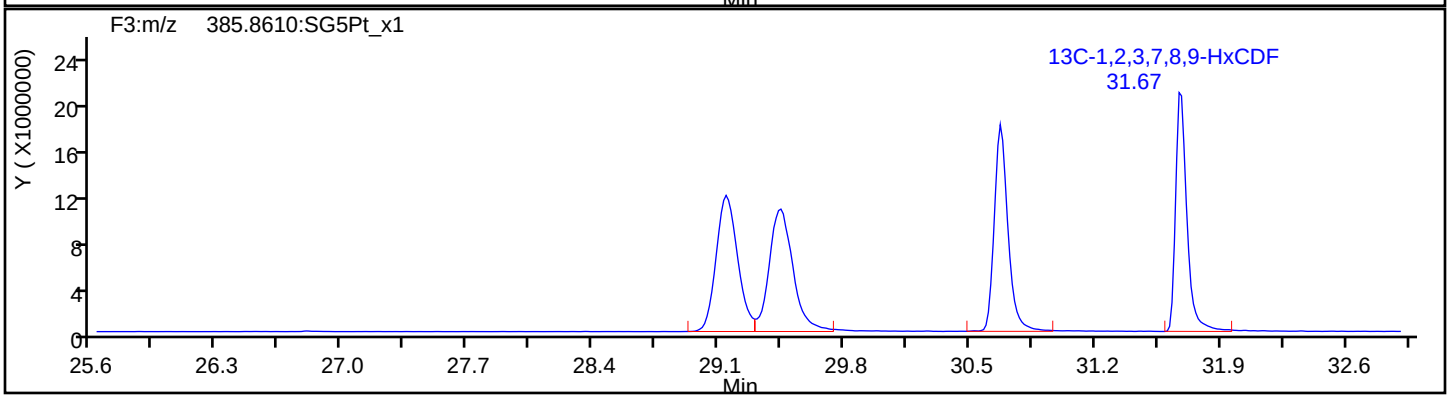
HxCDF





HxCDF Standards



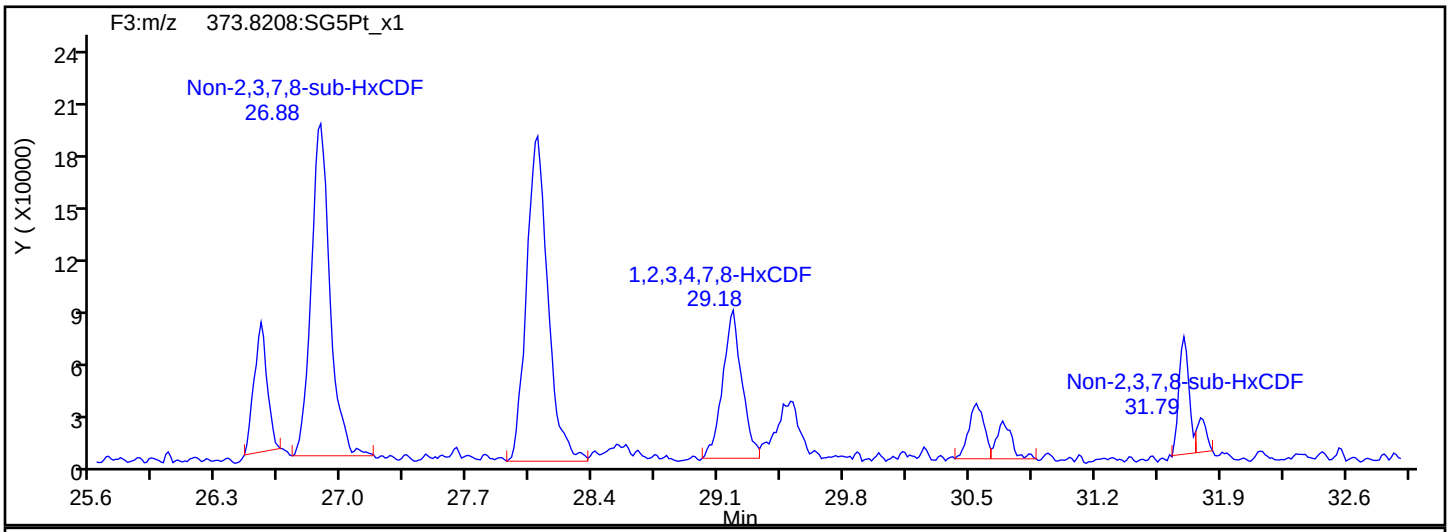


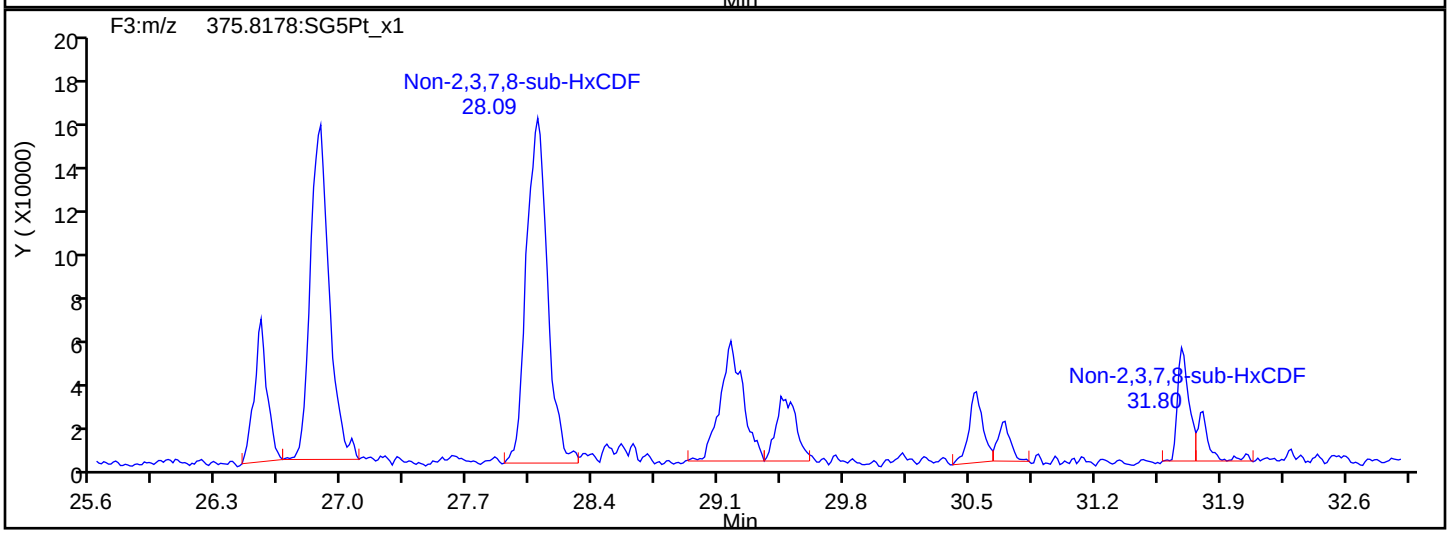
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

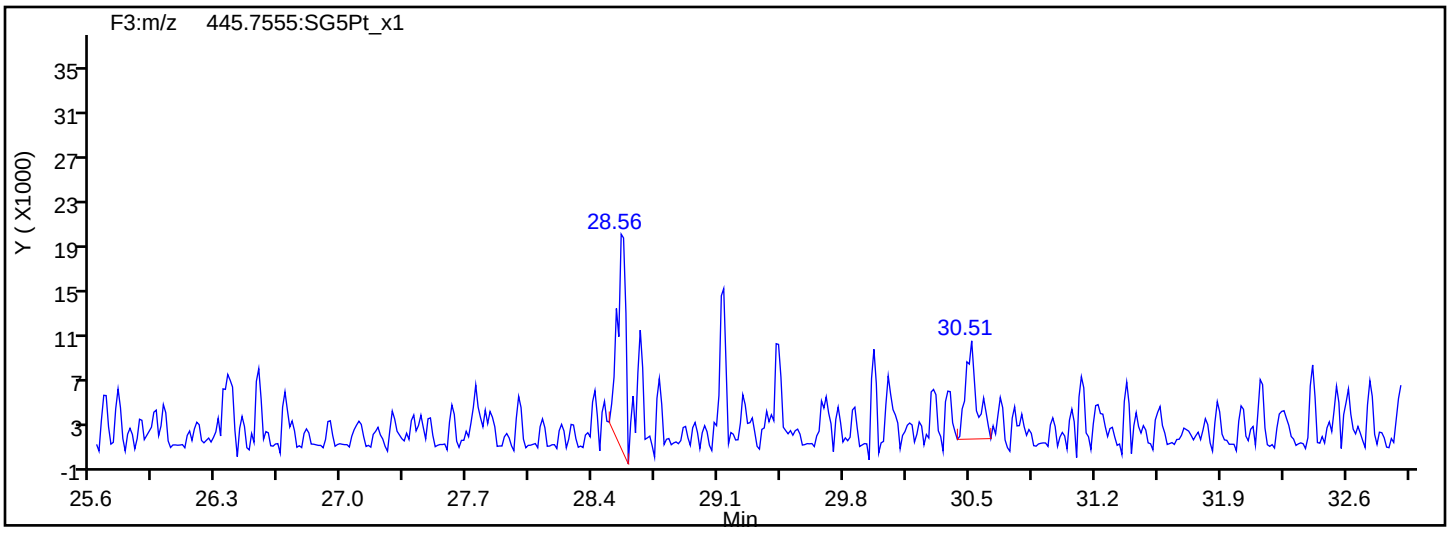
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



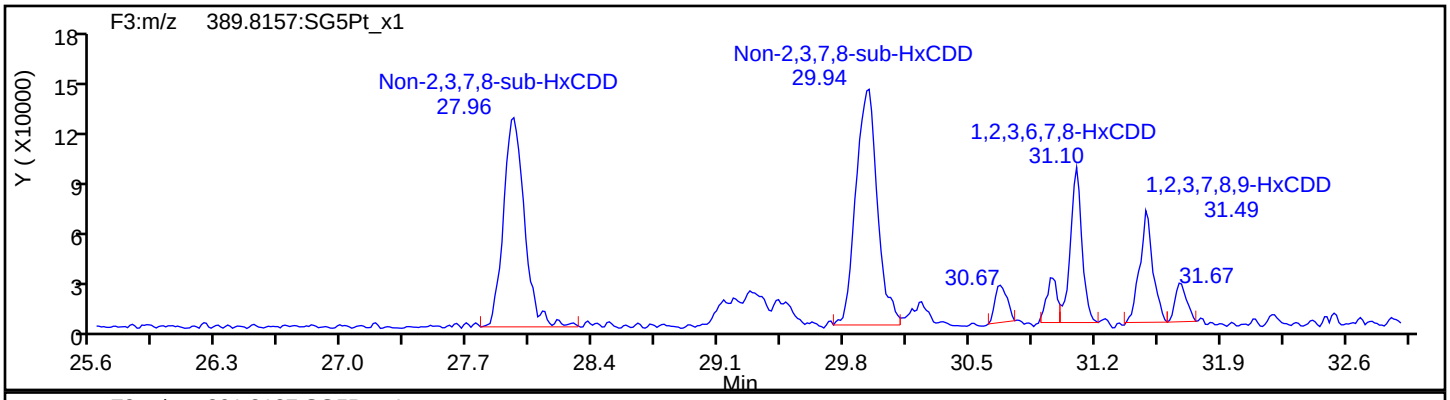
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

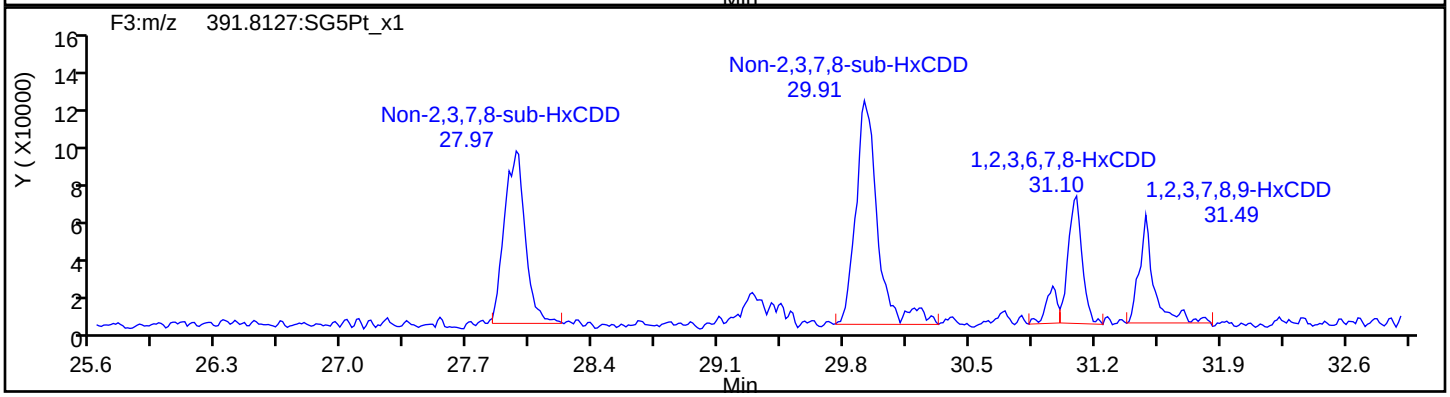
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d

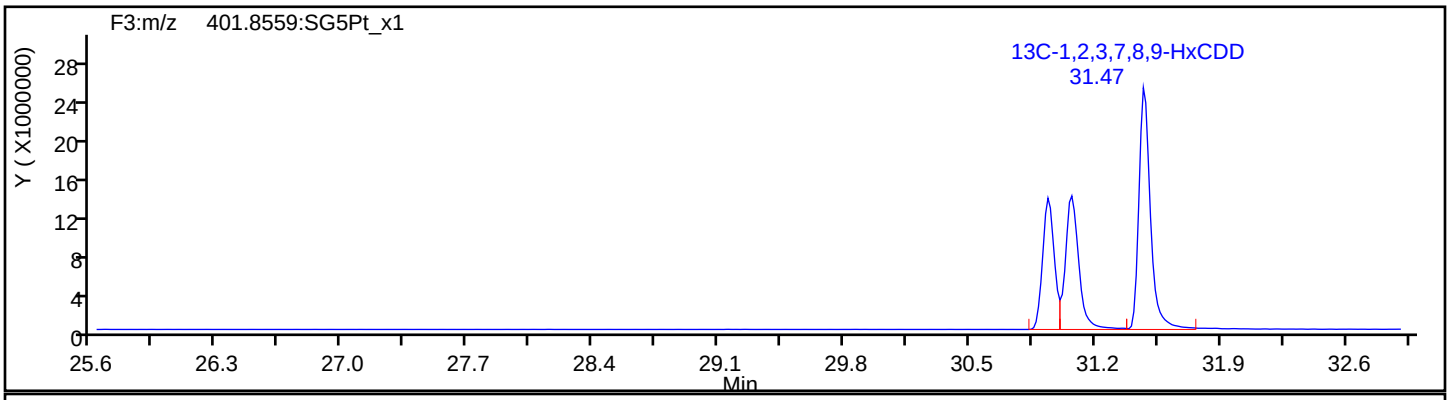
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

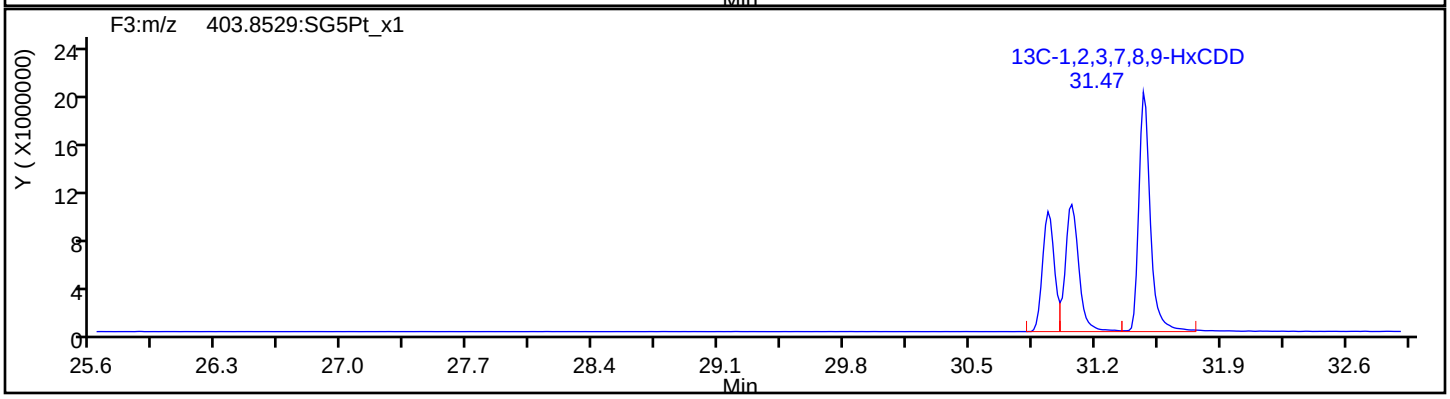
HxCDD





HxCDD Standards





Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d

Injection Date: 22-Jul-2019 03:03:56 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

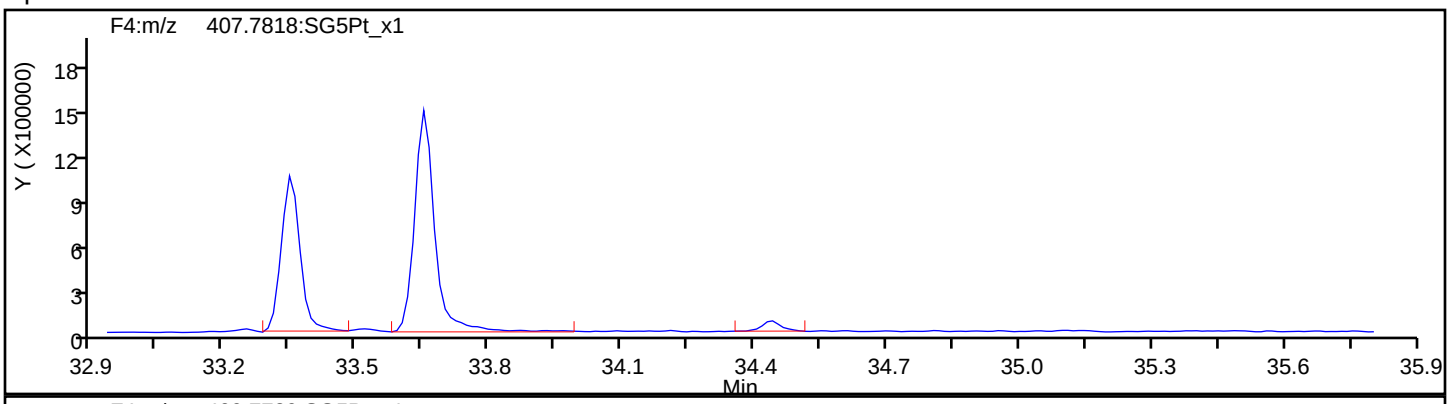
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

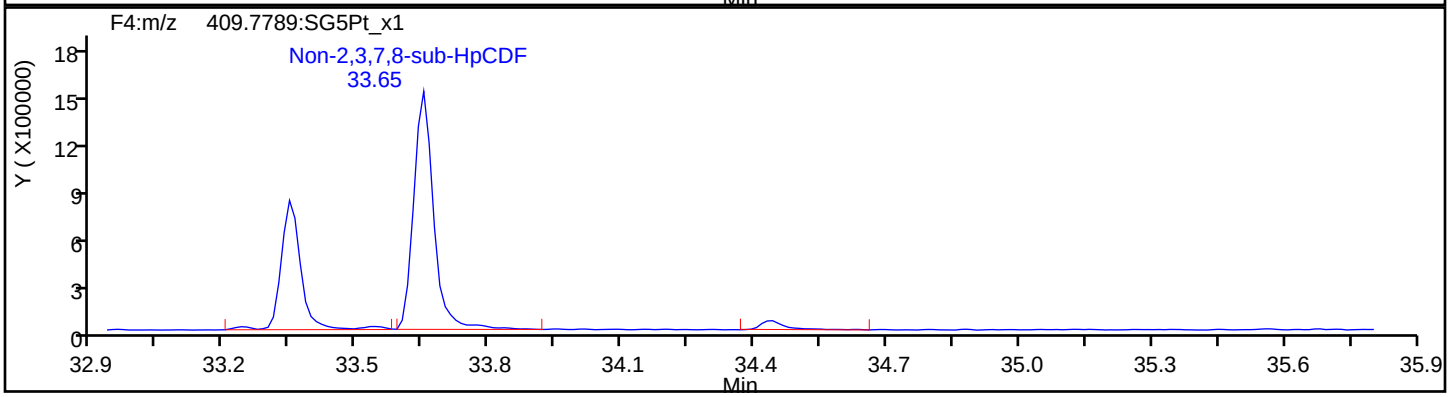
Client ID: 22T-SG-20_20190716

Worklist#: 309103 Sample Line#: 63

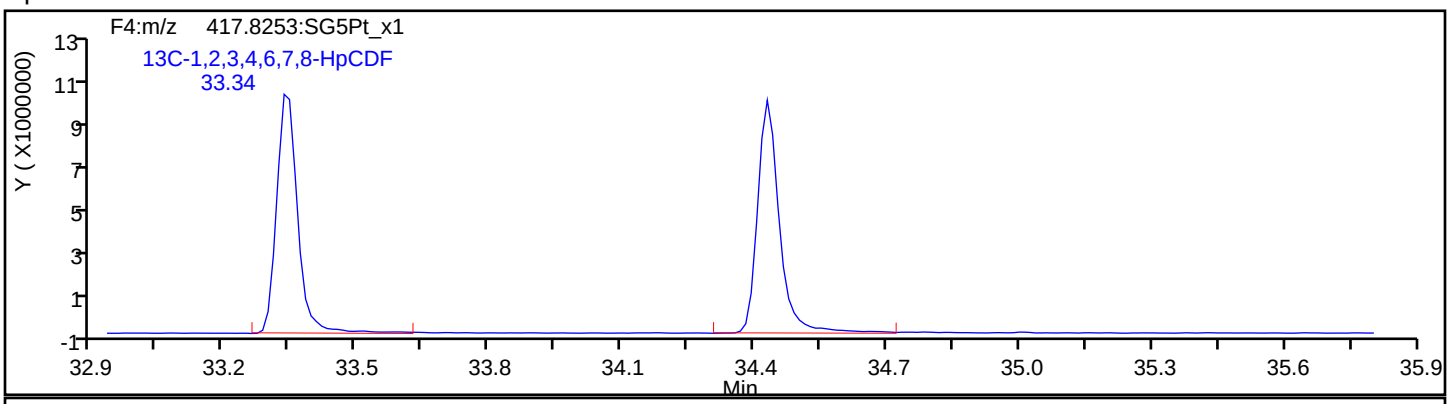
Column Type: DB-5 Column Dia: 0.32 mm

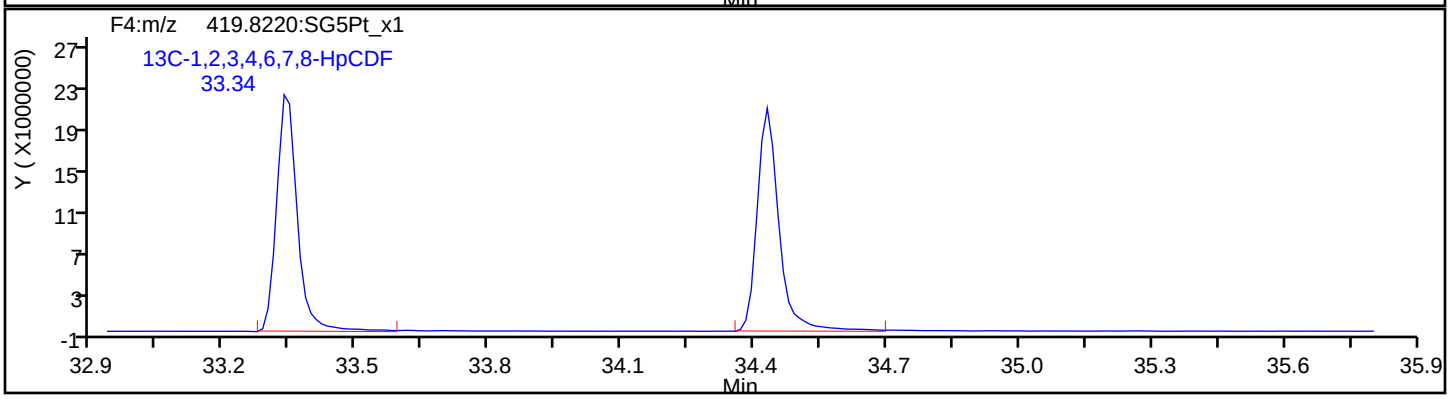
HpCDF





HpCDF Standards



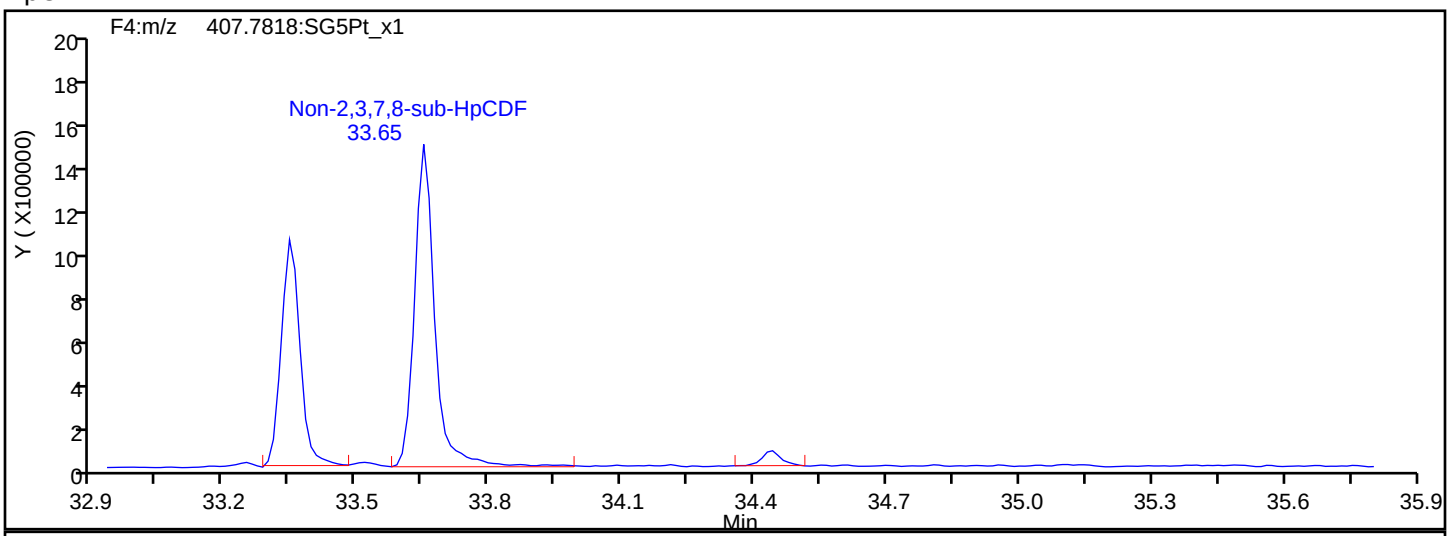


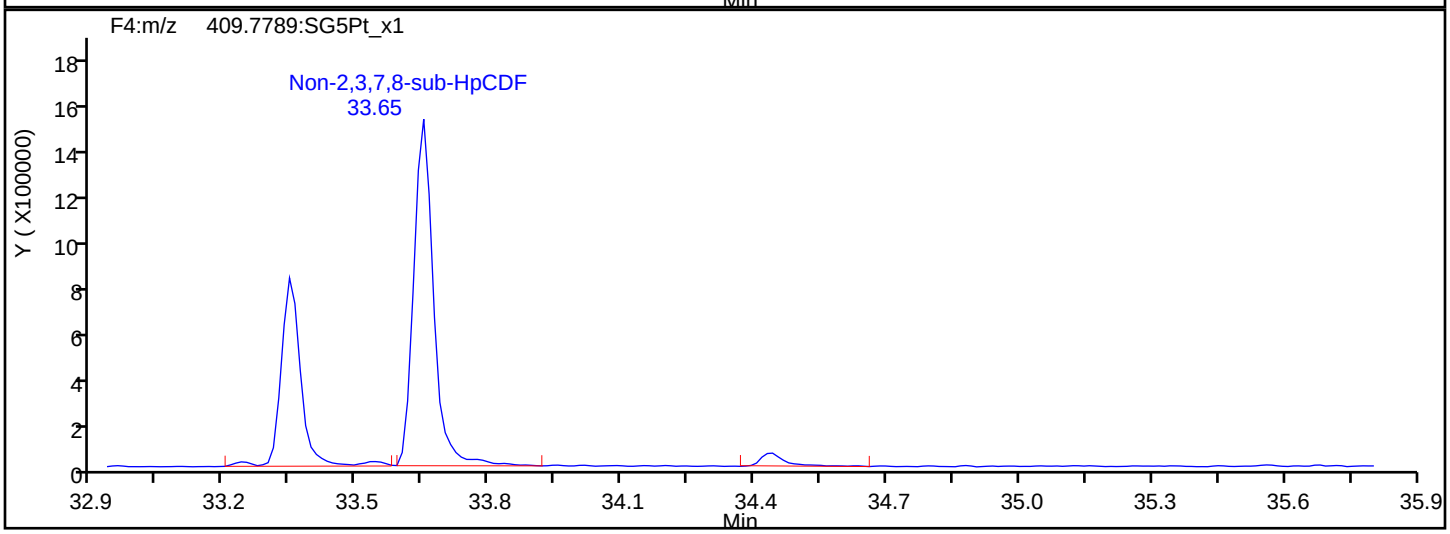
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

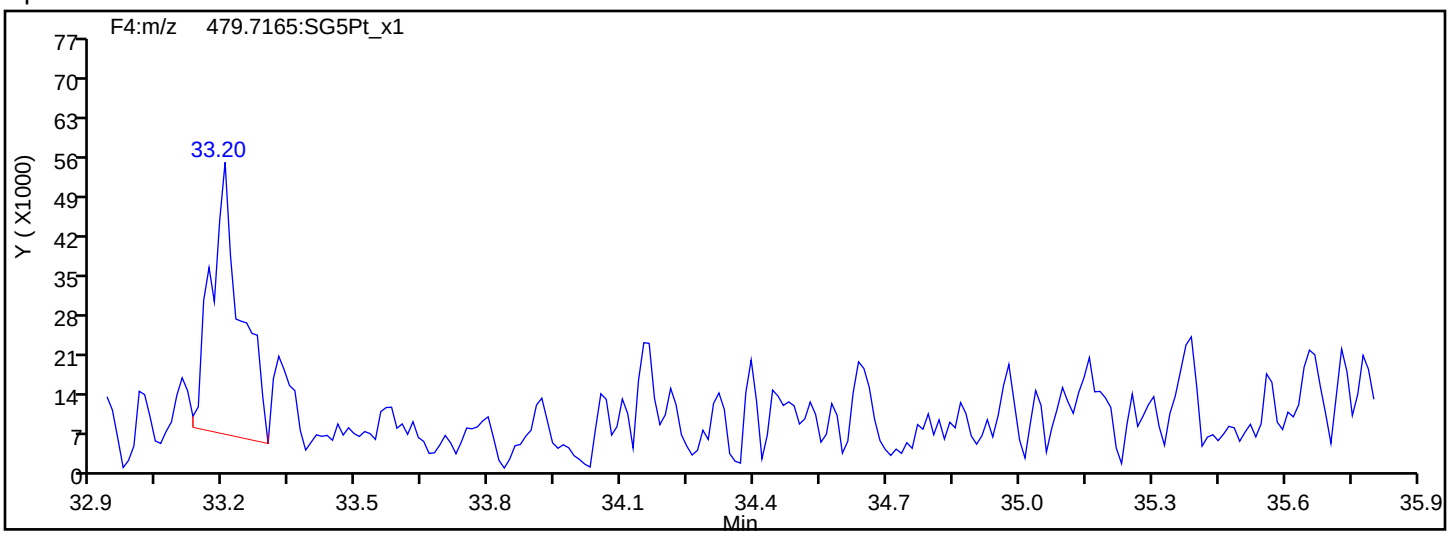
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



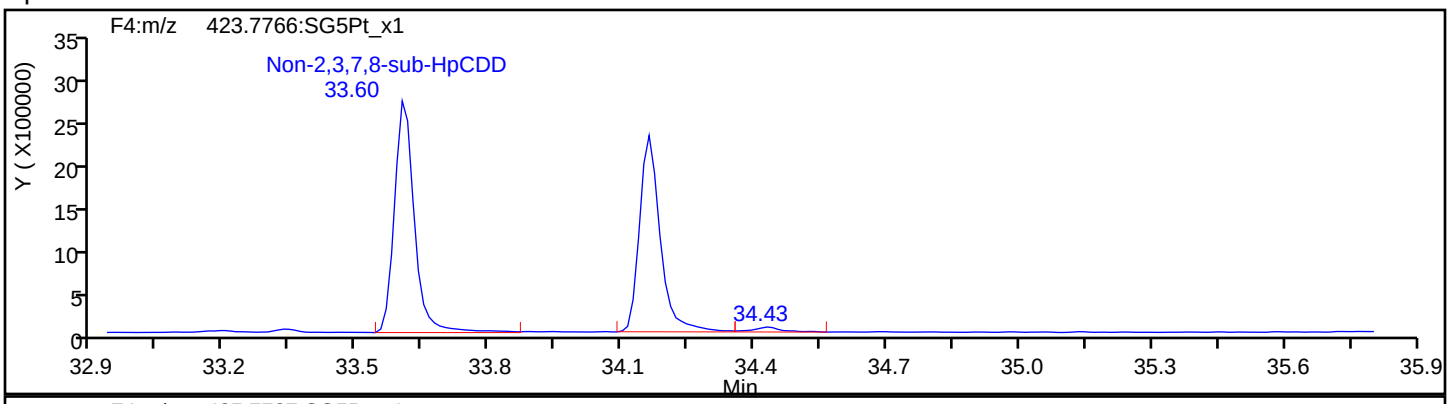
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

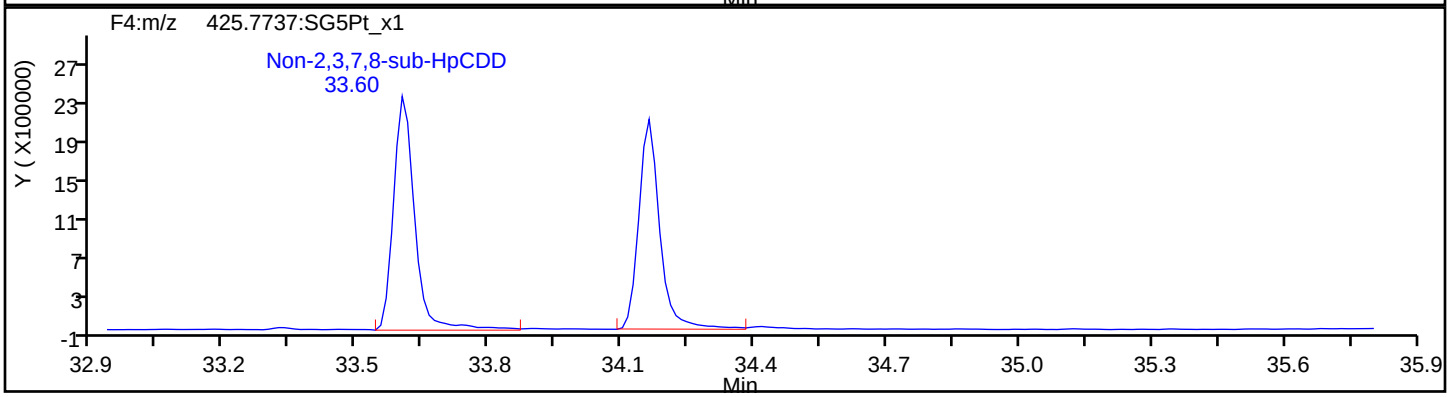
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d

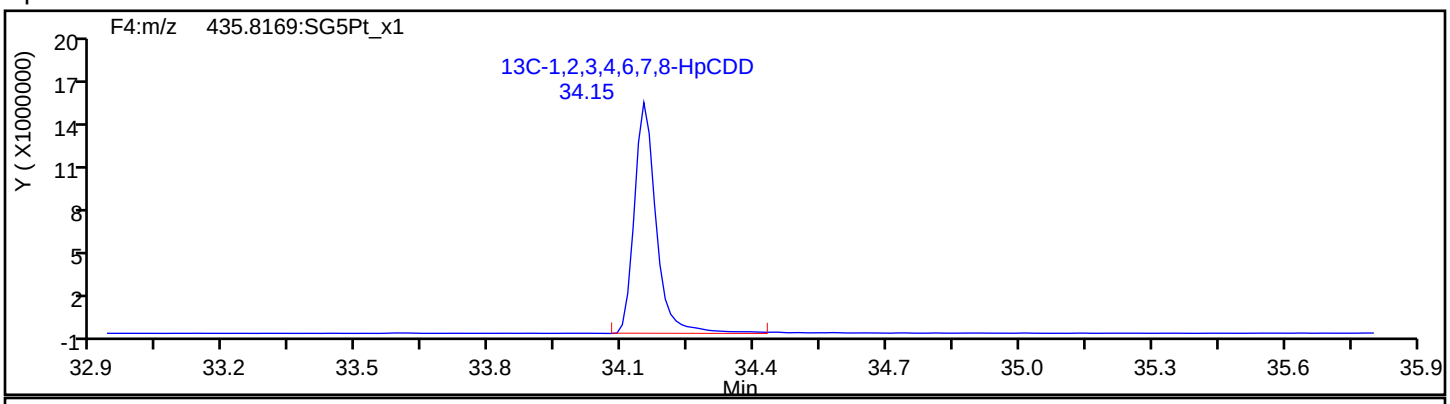
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

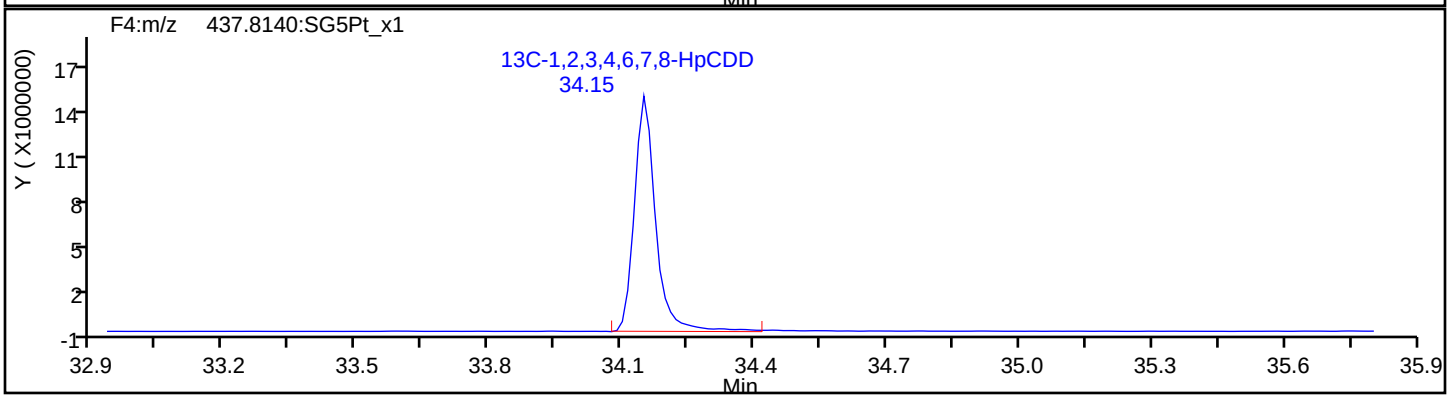
HpCDD





HpCDD Standards



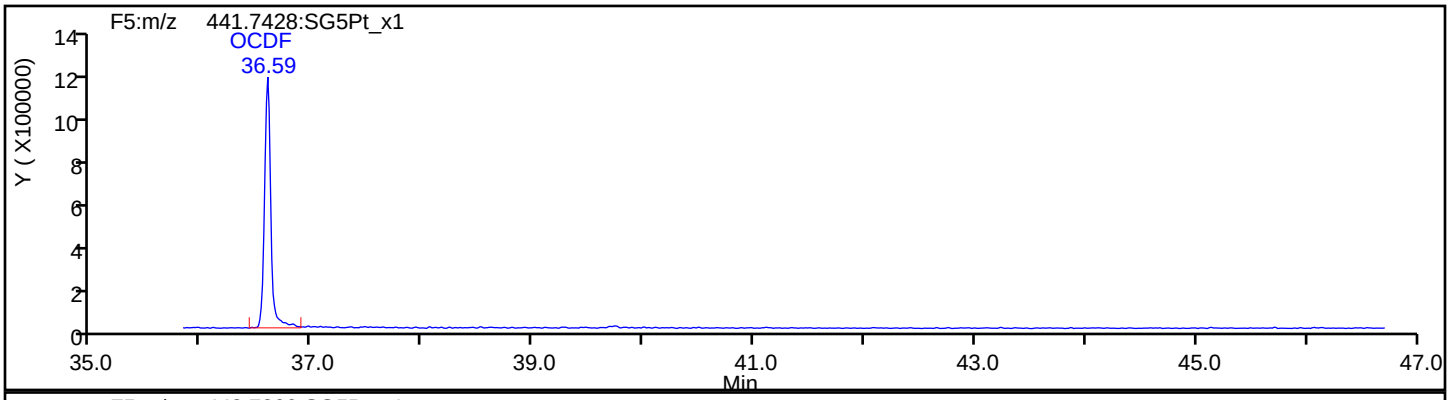


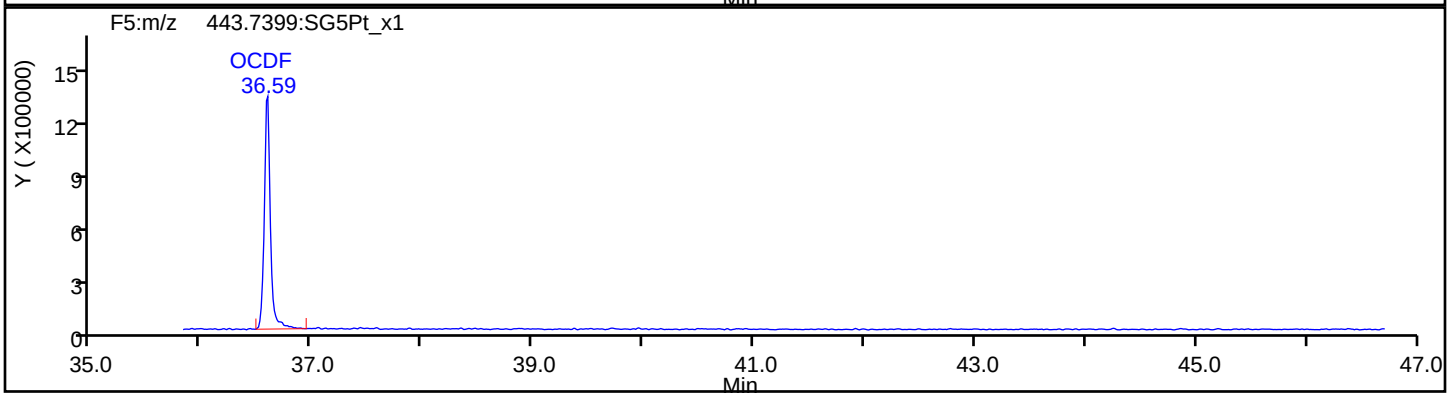
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

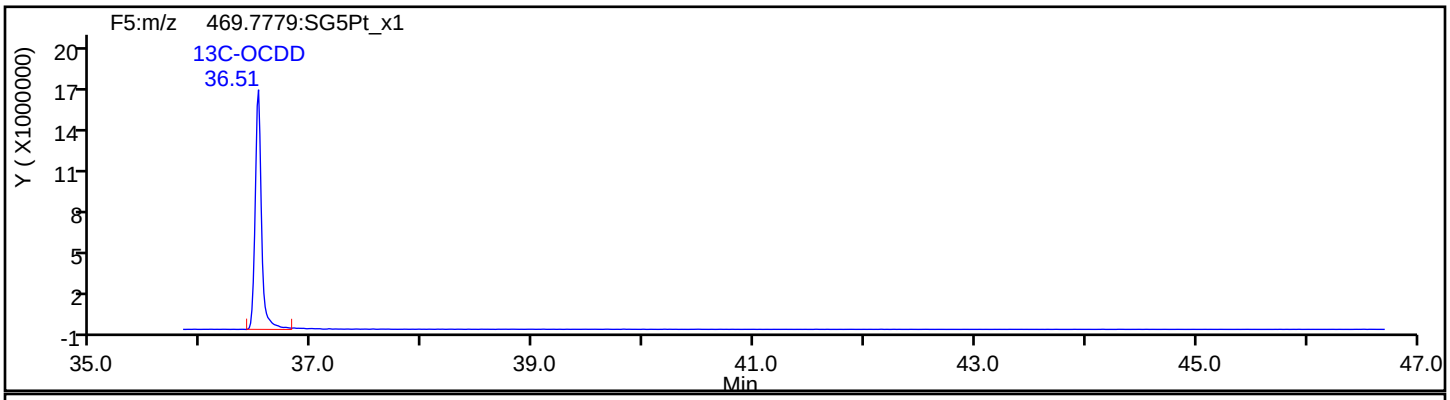
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

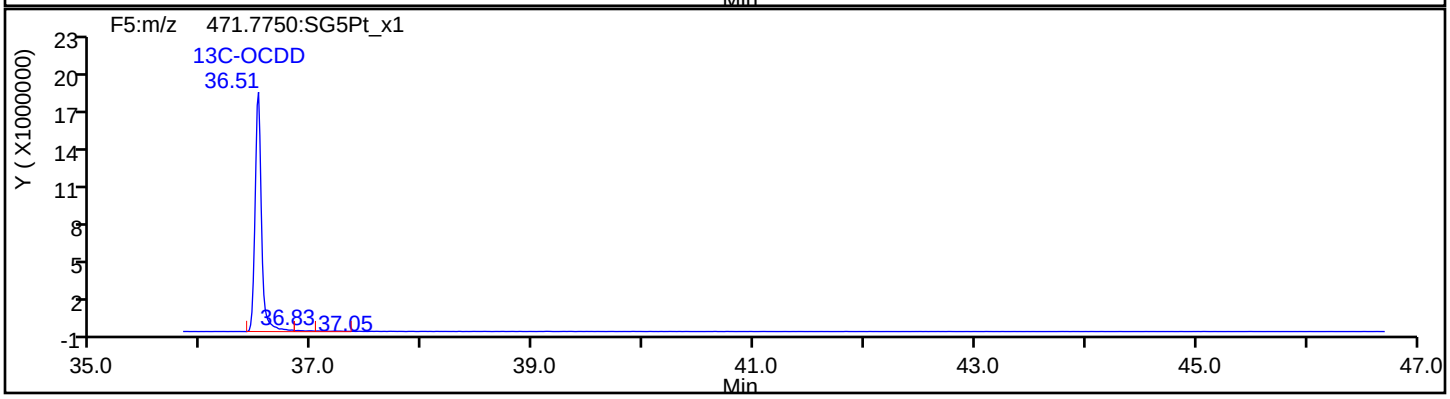
OCDF





OCDF Standards



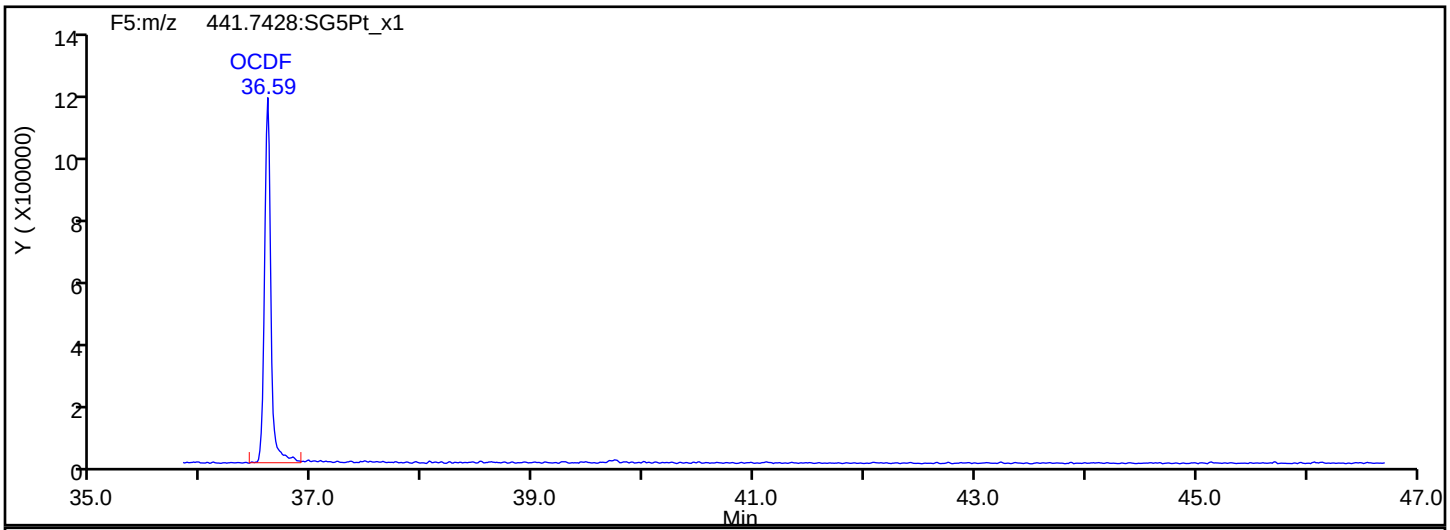


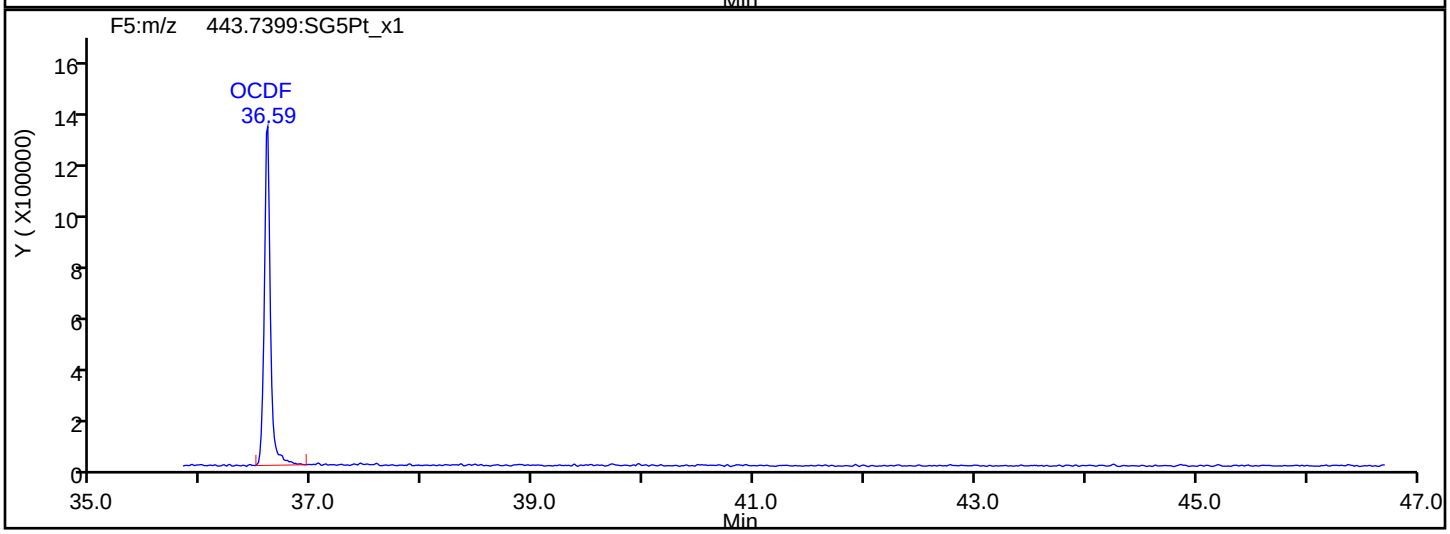
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

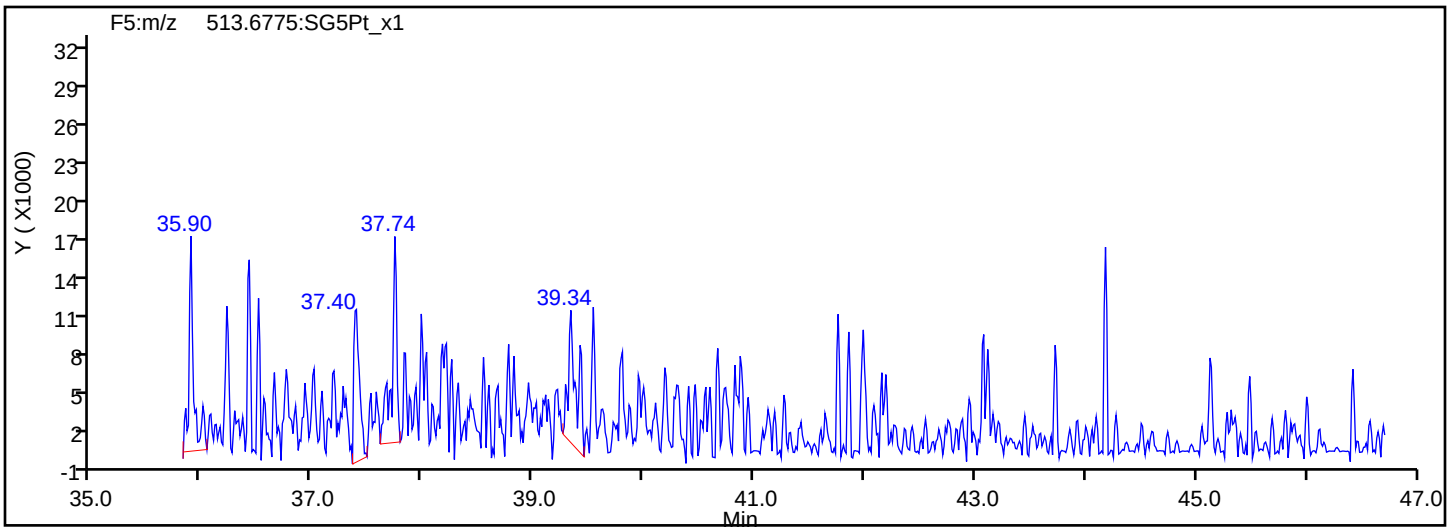
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

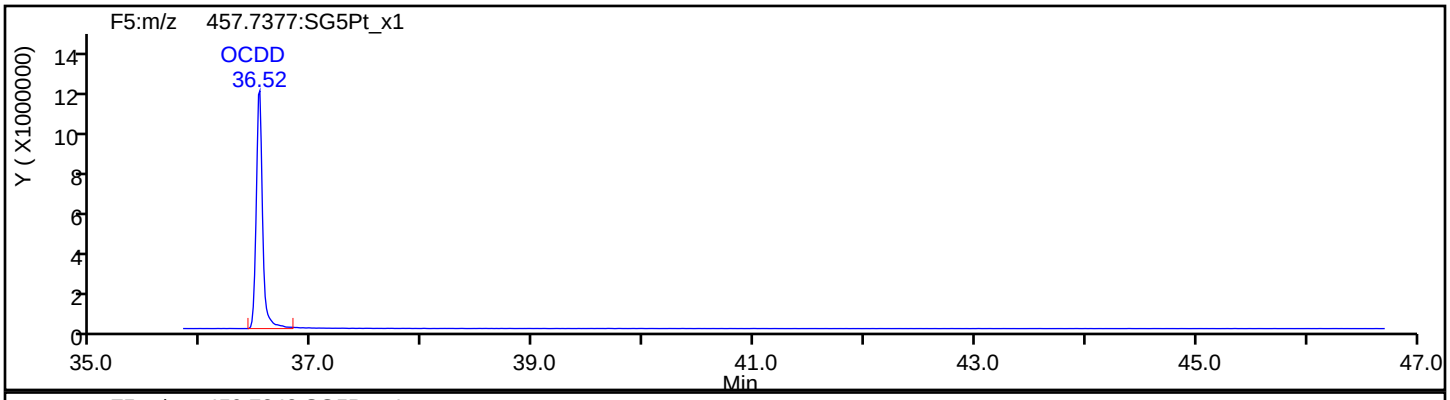


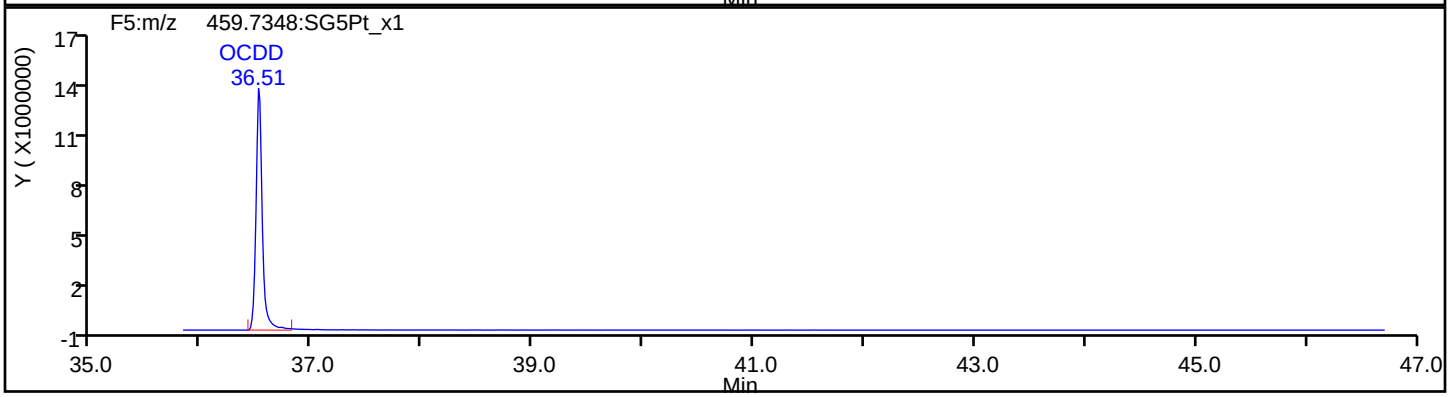
Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

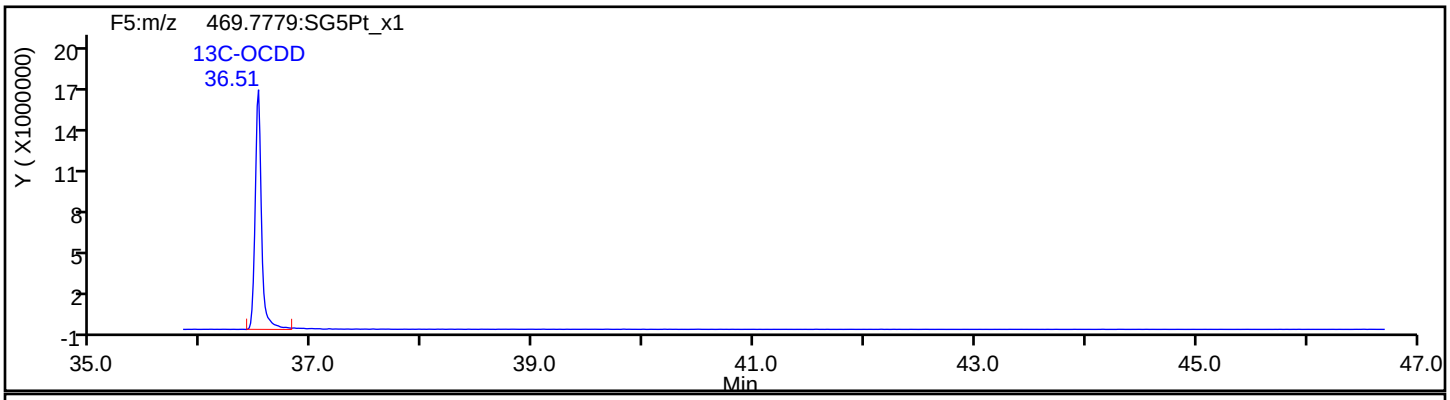
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm

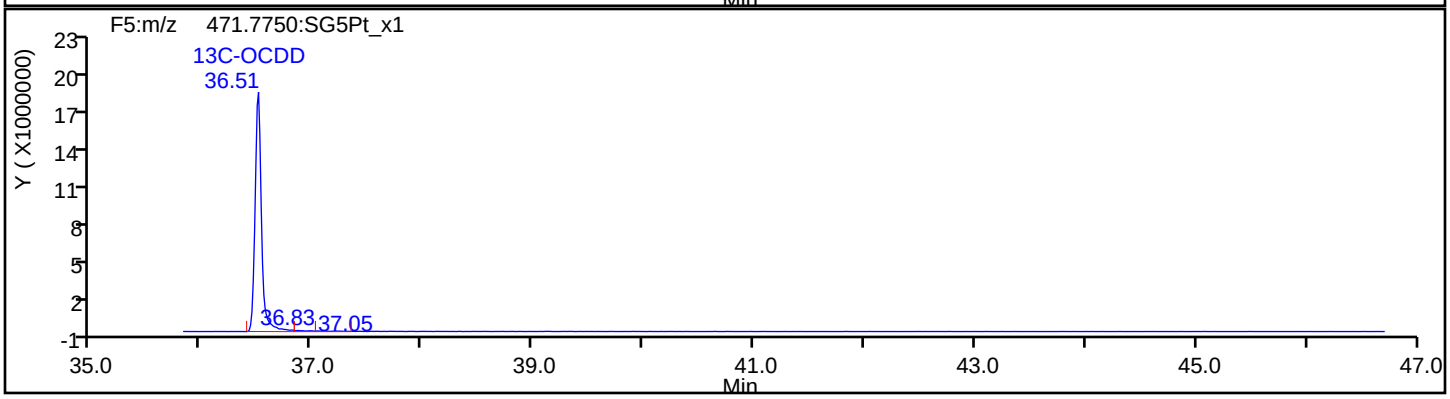
OCDD





OCDD Standards

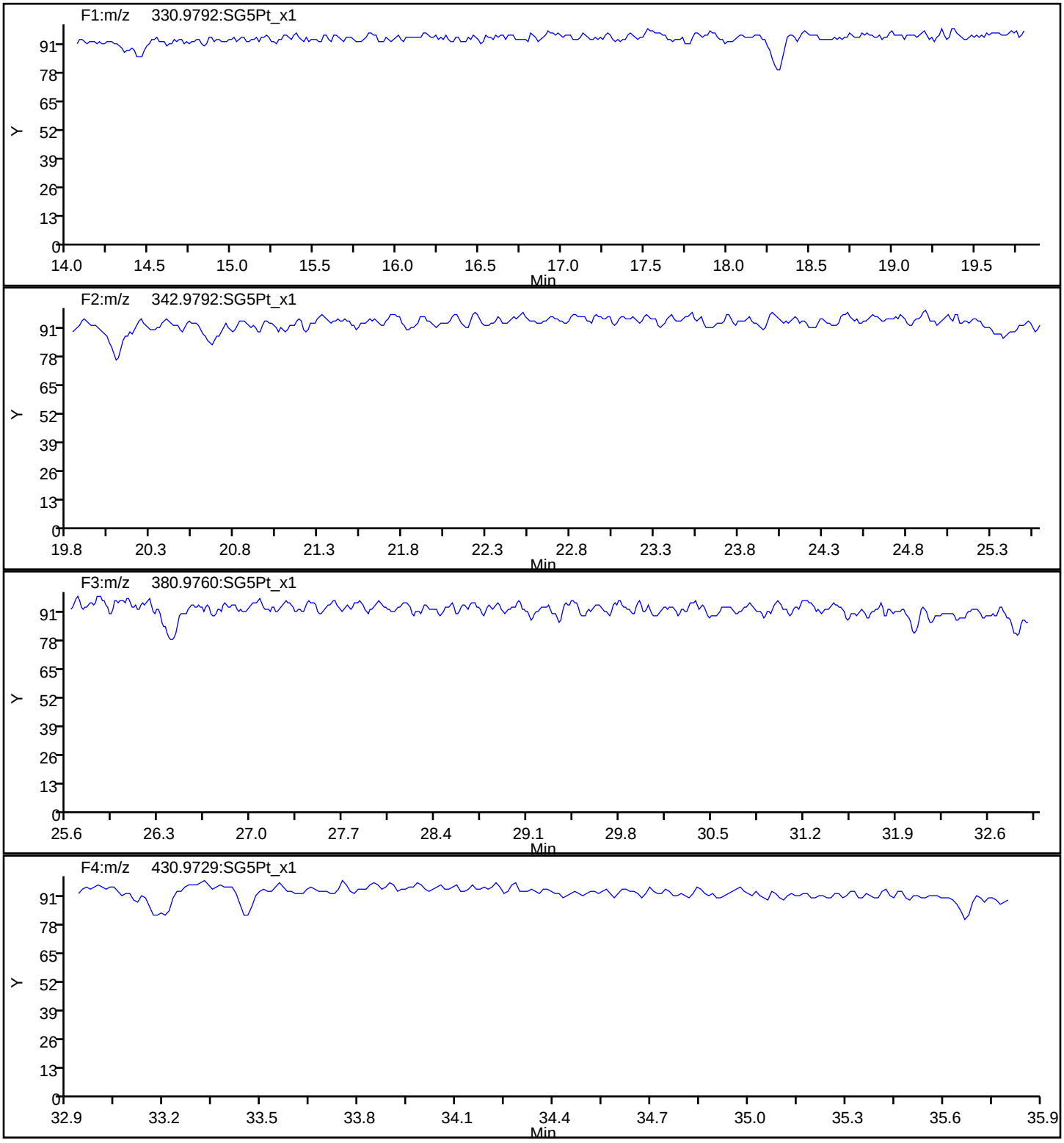




Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

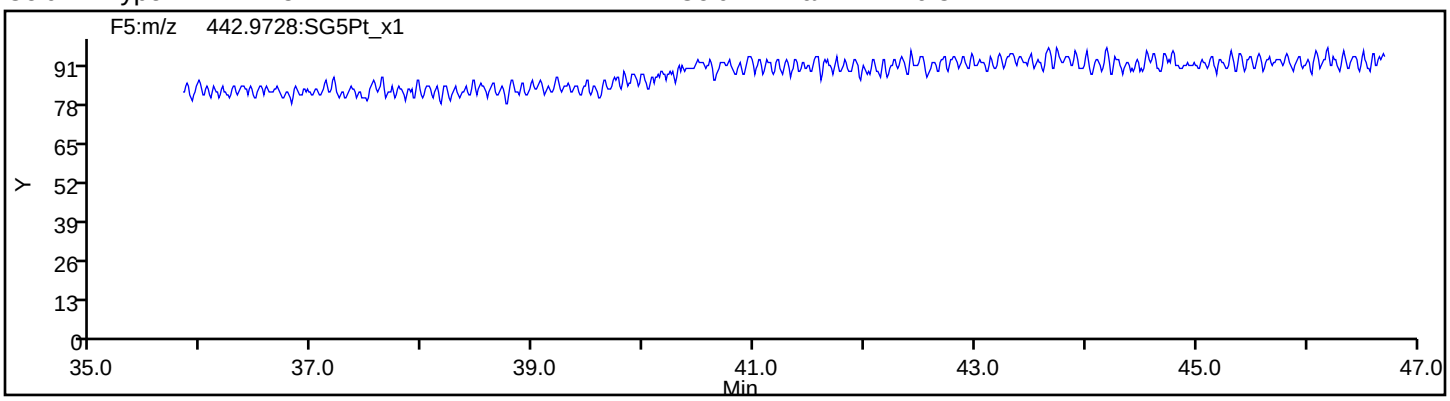
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 11:13:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_63.d		
Injection Date:	22-Jul-2019 03:03:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-20_20190716		
Worklist#:	309103	Sample Line#:	63
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Matrix: Solid Lab File ID: 19JL19A3D5_64.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:50

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.07(g) Date Analyzed: 07/22/2019 03:51

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 64.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	ND		2.8	0.35
51207-31-9	2,3,7,8-TCDF	2.1	J	2.8	0.25
40321-76-4	1,2,3,7,8-PeCDD	0.74	J	14	0.40
57117-41-6	1,2,3,7,8-PeCDF	2.8	J	14	0.34
57117-31-4	2,3,4,7,8-PeCDF	0.99	J	14	0.37
39227-28-6	1,2,3,4,7,8-HxCDD	1.2	J B	14	0.43
57653-85-7	1,2,3,6,7,8-HxCDD	3.1	J	14	0.41
19408-74-3	1,2,3,7,8,9-HxCDD	2.4	J	14	0.39
70648-26-9	1,2,3,4,7,8-HxCDF	4.6	J	14	0.52
57117-44-9	1,2,3,6,7,8-HxCDF	1.3	J q	14	0.56
72918-21-9	1,2,3,7,8,9-HxCDF	2.8	J B	14	0.27
60851-34-5	2,3,4,6,7,8-HxCDF	0.69	J	14	0.36
35822-46-9	1,2,3,4,6,7,8-HpCDD	61	B	14	0.83
67562-39-4	1,2,3,4,6,7,8-HpCDF	13	J q	14	0.47
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.4	J	14	0.54
3268-87-9	OCDD	560	B	28	0.71
39001-02-0	OCDF	43	B	28	0.52

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Matrix: Solid Lab File ID: 19JL19A3D5_64.d

Analysis Method: 1613B Date Collected: 07/16/2019 10:50

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.07(g) Date Analyzed: 07/22/2019 03:51

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 64.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	67		25-164
89059-46-1	13C-2,3,7,8-TCDF	73		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	72		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	72		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	72		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	61		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	65		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	71		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	64		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	66		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	74		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	71		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	70		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	80		26-138
114423-97-1	13C-OCDD	70		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	92		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 03:51:24 ALS Bottle#: 47 Worklist Smp#: 64
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-8-A 580-87706-C-8-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:15:19 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 11:15:19

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	211140690	0.80	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	215802401	0.79	1.3908	73.5	73.5	0.1672	0.1672	73.49	
2,3,7,8-TCDF	16.720	806584	0.81	0.9710	0.3849	0.3849	0.0458	0.0458		
A Non-2,3,7,8-sub-TCDF	16.402	919277	0.77	0.9710	0.4694	0.4387	0.0458	0.2293		RQ
S Total TCDF					0.8543	0.8236	0.0458	0.0458		RQ
D 13C-2,3,7,8-TCDD	17.355	138528725	0.81	0.9819	66.8	66.8	0.2027	0.2027	66.82	
2,3,7,8-TCDD	17.355						0.0625	0.0625		
$ 37Cl4-2,3,7,8-TCDD	17.370	95055738		1.2205	36.9	36.9	0.0725	0.0725	92.21	
A Non-2,3,7,8-sub-TCDD	16.833	427077	0.88	1.0447	0.2951	0.2951	0.0625	0.2951		M
S Total TCDD					0.2951	0.2951	0.0625	0.0625		
D 13C-1,2,3,7,8-PeCDF	21.345	176077201	1.57	1.1585	72.0	72.0	0.2352	0.2352	71.99	
1,2,3,7,8-PeCDF	21.372	868878	1.51	0.9633	0.5122	0.5122	0.0619	0.0619		
D 13C-2,3,4,7,8-PeCDF	22.573	175276818	1.62	1.1532	72.0	72.0	0.2363	0.2363	71.99	
2,3,4,7,8-PeCDF	22.600	297523	1.44	0.9495	0.1788	0.1788	0.0670	0.0670		
A F1 PeCDFs	19.215	622850	1.55	0.9564	0.3891	0.3707	0.0412	0.3306		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	952583	1.55	0.9564	0.6216	0.5669	0.0644	0.4427		RQ
S Total PeCDF					1.702	1.629	0.0645	0.0645		RQ
D 13C-1,2,3,7,8-PeCDD	23.241	113205115	1.67	0.7431	72.2	72.2	0.1207	0.1207	72.15	
1,2,3,7,8-PeCDD	23.241	160904	1.44	1.0635	0.1337	0.1337	0.0722	0.0722		
A Non-2,3,7,8-sub-PeCDD	22.232	293060	1.55	1.0635	0.2919	0.2434	0.0722	0.1455		RQ
S Total PeCDD					0.4256	0.3771	0.0722	0.0722		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.142	132827137	0.50	0.9837	70.9	70.9	0.3332	0.3332	70.91	
1,2,3,4,7,8-HxCDF	29.169	1327307	1.17	1.2173	0.8209	0.8209	0.0929	0.0929		
D 13C-1,2,3,6,7,8-HxCDF	29.448	140082261	0.50	1.1554	63.7	63.7	0.2837	0.2837	63.67	
1,2,3,6,7,8-HxCDF	29.475	364483	1.24	1.1311	0.2553	0.2300	0.1002	0.1002		RQ
D 13C-2,3,4,6,7,8-HxCDF	30.673	130160790	0.50	1.0361	66.0	66.0	0.3164	0.3164	65.98	
2,3,4,6,7,8-HxCDF	30.700	188194	1.18	1.1710	0.1235	0.1235	0.0642	0.0642		M
D 13C-1,2,3,7,8,9-HxCDF	31.685	127824898	0.51	0.9034	74.3	74.3	0.3628	0.3628	74.31	
1,2,3,7,8,9-HxCDF	31.698	748236	1.13	1.1787	0.4966	0.4966	0.0494	0.0494		
A Non-2,3,7,8-sub-HxCDF	29.135	3391647	1.24	1.1745	2.190	2.176	0.0707	1.036		RQMa

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					3.886	3.847	0.0767	0.0767		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.472	190409933	1.29	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	96813953	1.30	0.8287	61.4	61.4	0.2326	0.2326	61.35	
1,2,3,4,7,8-HxCDD	30.966	212833	1.17	1.0267	0.2141	0.2141	0.0766	0.0766		
D 13C-1,2,3,6,7,8-HxCDD	31.073	117700133	1.25	0.9495	65.1	65.1	0.2031	0.2031	65.10	
1,2,3,6,7,8-HxCDD	31.099	635277	1.30	0.9771	0.5524	0.5524	0.0739	0.0739		
1,2,3,7,8,9-HxCDD	31.485	481823	1.40	1.0616	0.4232	0.4232	0.0709	0.0709		
A Non-2,3,7,8-sub-HxCDD	29.926	3002435	1.08	1.0218	2.740	2.740	0.0737	1.659		
S Total HxCDD					3.929	3.929	0.0738	0.0738		
D 13C-1,2,3,4,6,7,8-HpCDF	33.347	96833588	0.46	0.7285	69.8	69.8	0.6203	0.6203	69.81	
1,2,3,4,6,7,8-HpCDF	33.347	3226519	1.04	1.4373	2.767	2.318	0.0843	0.0843		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	99722899	0.46	0.6556	79.9	79.9	0.6892	0.6892	79.88	
1,2,3,4,7,8,9-HpCDF	34.441	330401	0.91	1.3091	0.2531	0.2531	0.0971	0.0971		
A Non-2,3,7,8-sub-HpCDF	33.894	6020934	1.09	1.3732	4.461	4.461	0.0904	4.461		
S Total HpCDF					7.482	7.033	0.0907	0.0907		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	94602188	1.07	0.6978	71.2	71.2	0.3352	0.3352	71.20	
1,2,3,4,6,7,8-HpCDD	34.162	10397856	1.01	1.0102	10.9	10.9	0.1501	0.1501		
A Non-2,3,7,8-sub-HpCDD	35.074	13042626	1.03	1.0102	13.6	13.6	0.1501	13.6		a
S Total HpCDD					24.5	24.5	0.1501	0.1501		
D 13C-OCDD	36.509	127544048	0.90	0.4780	140.1	140.1	0.1745	0.1745	70.07	
OCDF	36.593	6658720	0.93	1.3501	7.734	7.734	0.0939	0.0939		
OCDD	36.521	68049860	0.91	1.0627	100.4	100.4	0.1270	0.1270		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 03:51:24 ALS Bottle#: 47 Worklist Smp#: 64
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-8-A 580-87706-C-8-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 11:15:19 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 11:15:19

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		93679824	24718579	25983	64957	951		
333.9339	17.173	17.158	1		117460866	30235475	17763	44407	1702	0.80(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	95434305	23649709	26071	65177	907		
317.9389	16.690	16.690	0	0.972	120368096	29868226	25059	62647	1192	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.720	16.705	1	1.002	361144	80185	3333	8332	24		
305.8987	16.720	16.705	1	1.002	445440	102125	6180	15450	17	0.81(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.920	16.402	-89	0.894	131490	32347	3333	8332	10		
	Empc Correction				89933	26436	3333	8332	8		
305.8987	14.920	16.402	-89	0.894	116797	34333	6180	15450	6	1.13(0.65-0.89)	
303.9016	15.359	16.402	-62	0.920	123691	27205	3333	8332	8		
	Empc Correction				100929	25020	3333	8332	8		
305.8987	15.389	16.402	-61	0.922	131077	32494	6180	15450	5	0.94(0.65-0.89)	
303.9016	16.357	16.402	-3	0.980	223427	51206	3333	8332	15		
305.8987	16.357	16.402	-3	0.980	257114	64694	6180	15450	10	0.87(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	61982916	14158038	25983	64957	545		
333.9339	17.355	17.355	0	1.011	76545809	18210173	17763	44407	1025	0.81(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.355						5961	14902			
321.8936	17.355						2493	6232			
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	95055738	21803940	19446	48615	1121		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											M
319.8965	17.279	16.833	27	0.996	199366	40139	5961	14902	7		M
321.8936	17.279	16.833	27	0.996	227711	59662	2493	6232	24	0.88(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	107468815	19180685	35609	89022	539		
353.8970	21.345	21.332	1	1.243	68608386	12418110	24281	60702	511	1.57(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.372	21.345	2	1.001	523351	100802	3287	8217	31		
341.8567	21.372	21.345	2	1.001	345527	58473	4255	10637	14	1.51(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	108305833	18144694	35609	89022	510		
353.8970	22.573	22.559	1	1.314	66970985	11511281	24281	60702	474	1.62(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.600	22.586	1	1.001	175628	35862	3287	8217	11		
341.8567	22.586	22.586	0	1.001	121895	28816	4255	10637	7	1.44(1.32-1.78)	
A F1 PeCDFs											RQ
339.8597	18.685	19.215	-32	0.875	332114	64337	1303	3257	49		
341.8567	18.685	19.215	-32	0.875	223351	37546	3521	8802	11	1.49(1.32-1.78)	
339.8597	18.927	19.215	-17	0.887	40960	8522	1303	3257	7		
341.8567	18.912	19.215	-18	0.886	57292	17134	3521	8802	5	0.71(1.32-1.78)	
	Empc Correction				26425	5498	3521	8802	2		
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.118	22.104	-119	0.943	452119	81519	3287	8217	25		
341.8567	20.118	22.104	-119	0.943	352716	52948	4255	10637	12	1.28(1.32-1.78)	
	Empc Correction				291689	52592	4255	10637	12		
339.8597	22.927	22.104	49	1.074	126903	21107	3287	8217	6		
341.8567	22.913	22.104	48	1.073	112687	14862	4255	10637	3	1.13(1.32-1.78)	
	Empc Correction				81872	13617	4255	10637	3		
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	70733102	11105322	11064	27660	1004		
369.8919	23.241	23.227	1	1.353	42472013	6836519	8649	21622	790	1.67(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.241	23.254	-1	1.000	95079	19559	3775	9437	5		
357.8516	23.254	23.254	0	1.001	65825	8607	1735	4337	5	1.44(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.323	22.232	-114	0.874	106470	24086	3775	9437	6		
357.8516	20.323	22.232	-114	0.874	100177	18956	1735	4337	11	1.06(1.32-1.78)	
	Empc Correction				68690	15539	1735	4337	9		
355.8546	21.632	22.232	-36	0.931	71665	16543	3775	9437	4		
357.8516	21.645	22.232	-35	0.931	73105	12187	1735	4337	7	0.98(1.32-1.78)	
	Empc Correction				46235	10672	1735	4337	6		
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.142	29.115	2	0.926	44255344	5265439	18739	46847	281		
385.8610	29.142	29.115	2	0.926	88571793	10250765	34911	87277	294	0.50(0.43-0.59)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,7,8-HxCDF											
373.8208	29.169	29.155	1	1.001	715098	79786	3600	9000	22		
375.8178	29.195	29.155	2	1.002	612209	64513	3420	8550	19	1.17(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.936	46407583	5222800	18739	46847	279		
385.8610	29.448	29.421	2	0.936	93674678	10267539	34911	87277	294	0.50(0.43-0.59)	
1,2,3,6,7,8-HxCDF											RQ
373.8208	29.475	29.462	1	1.001	241794	30513	3600	9000	8		
	Empc Correction				201767	29394	3600	9000	8		
375.8178	29.488	29.462	2	1.001	162716	23705	3420	8550	7	1.49(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	43477184	7863395	18739	46847	420		
385.8610	30.673	30.660	1	0.975	86683606	15493710	34911	87277	444	0.50(0.43-0.59)	
2,3,4,6,7,8-HxCDF											M
373.8208	30.700	30.687	1	1.001	101893	18489	3600	9000	5		M
375.8178	30.700	30.687	1	1.001	86301	18255	3420	8550	5	1.18(1.05-1.43)	M
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.672	1	1.007	43299081	10155705	18739	46847	542		
385.8610	31.685	31.672	1	1.007	84525817	20006554	34911	87277	573	0.51(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.698	31.685	1	1.000	396190	76507	3600	9000	21		
375.8178	31.698	31.685	1	1.000	352046	71171	3420	8550	21	1.13(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQMa
373.8208	26.878	29.135	-135	0.922	817602	107652	3600	9000	30		
375.8178	26.865	29.135	-136	0.922	698564	85537	3420	8550	25	1.17(1.05-1.43)	
373.8208	28.090	29.135	-63	0.964	876569	119999	3600	9000	33		
375.8178	28.090	29.135	-63	0.964	739096	88571	3420	8550	26	1.19(1.05-1.43)	
373.8208	30.527	29.135	83	1.048	143827	20815	3600	9000	6		M
375.8178	30.540	29.135	84	1.048	138526	27533	3420	8550	8	1.04(1.05-1.43)	
	Empc Correction				115989	16786	3420	8550	5		
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		107315147	22877885	16890	42225	1355		
403.8529	31.472	31.472	0		83094786	18038240	14664	36660	1230	1.29(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	54656996	11789948	16890	42225	698		
403.8529	30.939	30.926	1	0.983	42156957	9102077	14664	36660	621	1.30(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.966	30.953	1	1.001	114534	26831	3191	7977	8		
391.8127	30.953	30.953	0	1.000	98299	18895	3381	8452	6	1.17(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	65480008	12583974	16890	42225	745		
403.8529	31.073	31.059	1	0.987	52220125	10163564	14664	36660	693	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.099	31.086	1	1.001	359269	74244	3191	7977	23		
391.8127	31.099	31.086	1	1.001	276008	57590	3381	8452	17	1.30(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8,9-HxCDD											
389.8157	31.485	31.485	0	1.018	280648	51714	3191	7977	16		
391.8127	31.485	31.485	0	1.018	201175	38707	3381	8452	11	1.40(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.944	29.926	-119	0.899	612388	73695	3191	7977	23		
391.8127	27.957	29.926	-118	0.900	572263	71295	3381	8452	21	1.07(1.05-1.43)	
389.8157	29.927	29.926	0	0.963	948046	118298	3191	7977	37		
391.8127	29.914	29.926	-1	0.963	869738	102639	3381	8452	30	1.09(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.347	33.335	1	1.060	30516914	9379952	26034	65085	360		
419.8220	33.347	33.335	1	1.060	66316674	20125318	47920	119800	420	0.46(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.347	33.347	0	1.000	2270035	744839	9110	22775	82		
	Empc Correction				1644892	479341	9110	22775	53		
409.7789	33.360	33.347	1	1.000	1581627	460905	5197	12992	89	1.44(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	31196498	8777779	26034	65085	337		
419.8220	34.429	34.429	0	1.094	68526401	19369779	47920	119800	404	0.46(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	157706	45911	9110	22775	5		
409.7789	34.441	34.441	0	1.000	172695	55837	5197	12992	11	0.91(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.651	33.894	-15	1.009	3145279	957290	9110	22775	105		
409.7789	33.651	33.894	-15	1.009	2875655	832677	5197	12992	160	1.09(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	48897596	14071598	21847	54617	644		
437.8140	34.150	34.150	0	1.085	45704592	13059951	16435	41087	795	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	5217846	1550919	9107	22767	170		
425.7737	34.162	34.162	0	1.000	5180010	1533661	7348	18370	209	1.01(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.615	35.074	-87	0.984	6603870	2023326	9107	22767	222		a
425.7737	33.615	35.074	-87	0.984	6438756	1939488	7348	18370	264	1.03(0.88-1.20)	
13C-OCDD											
469.7779	36.509	36.498	1	1.160	60382726	15217658	6839	17097	2225		
471.7750	36.509	36.498	1	1.160	67161322	17096636	6812	17030	2510	0.90(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	3213925	801582	3227	8067	248		
443.7399	36.593	36.582	1	1.002	3444795	899973	4968	12420	181	0.93(0.76-1.02)	
OCDD											
457.7377	36.521	36.509	1	1.000	32354746	8276154	4347	10867	1904		
459.7348	36.521	36.509	1	1.000	35695114	9098845	4377	10942	2079	0.91(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	215802401	53517935

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	215802401	53517935

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.920	131490	32347	116797	34333	0.1185	1.13	RQ
14.920	89933	26436	116797	34333	0.0987		Empc Correction
15.359	123691	27205	131077	32494	0.1216	0.94	RQ
15.359	100929	25020	131077	32494	0.1107		Empc Correction
16.357	223427	51206	257114	64694	0.2293	0.87	
Signal Totals:							
	414289	102662	504988	131521			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	983596	242279				0.95	RQ
	919277	234183					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4694 = (983596 * 100.000) / (215802401 * 0.971)
Empc Amount: 0.4387 = (919277 * 100.000) / (215802401 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	138528725	32368211

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	138528725	32368211

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.279	199366	40139	227711	59662	0.2951	0.88	M
Signal Totals:							
	199366	40139	227711	59662			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	427077	99801				0.88	M

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2951 = (427077 * 100.000) / (138528725 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	176077201	31598795
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	175276818	29655975

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	175677009	30627385

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	332114	64337	223351	37546	0.3306	1.49	
18.927	40960	8522	57292	17134	0.0585	0.71	RQ
18.927	40960	8522	26425	5498	0.0401		Empc Correction
Signal Totals:							
	373074	72859	249776	43044			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	653717	127539				1.33	RQ
	622850	115903					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3891 = (653717 * 100.000) / (175677009 * 0.956)
Empc Amount: 0.3707 = (622850 * 100.000) / (175677009 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	176077201	31598795
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	175276818	29655975

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	175677009	30627385

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	452119	81519	352716	52948	0.4790	1.28	RQ
20.118	452119	81519	291689	52592	0.4427		Empc Correction
22.927	126903	21107	112687	14862	0.1426	1.13	RQ
22.927	126903	21107	81872	13617	0.1243		Empc Correction
Signal Totals:							
	579022	102626	373561	66209			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1044425	170436				1.24	RQ
	952583	168835					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6216 = (1044425 * 100.000) / (175677009 * 0.956)
Empc Amount: 0.5669 = (952583 * 100.000) / (175677009 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 11:15:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	113205115	17941841

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	113205115	17941841

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.323	106470	24086	100177	18956	0.1716	1.06	RQ
20.323	106470	24086	68690	15539	0.1455		Empc Correction
21.632	71665	16543	73105	12187	0.1203	0.98	RQ
21.632	71665	16543	46235	10672	0.0979		Empc Correction
Signal Totals:							
	178135	40629	114925	26211			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	351417	71772				1.03	RQ
	293060	66840					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2919 = (351417 * 100.000) / (113205115 * 1.063)
Empc Amount: 0.2434 = (293060 * 100.000) / (113205115 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	132827137	15516204
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	140082261	15490339
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	130160790	23357105
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	127824898	30162259

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	132723771	21131476

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.878	817602	107652	698564	85537	0.9726	1.17	
28.090	876569	119999	739096	88571	1.04	1.19	
30.527	143827	20815	138526	27533	0.1811	1.04	RQMa
30.527	143827	20815	115989	16786	0.1667		Empc Correction
Signal Totals:							
	1837998	248466	1553649	190894			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3414184	450107				1.17	RQMa
	3391647	439360					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.190 = (3414184 * 100.000) / (132723771 * 1.175)
Empc Amount: 2.176 = (3391647 * 100.000) / (132723771 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	96813953	20892025
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	117700133	22747538
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	107257043	21819781

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.944	612388	73695	572263	71295	1.08	1.07	
29.927	948046	118298	869738	102639	1.66	1.09	
Signal Totals:							
	1560434	191993	1442001	173934			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3002435	365927				1.08	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.740 = (3002435 * 100.000) / (107257043 * 1.022)

Report Date: 23-Jul-2019 11:15:24 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	96833588	29505270
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	99722899	28147558

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	98278243	28826414

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.651	3145279	957290	2875655	832677	4.46	1.09	
Signal Totals:							
	3145279	957290	2875655	832677			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6020934	1789967				1.09	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.461 = (6020934 * 100.000) / (98278243 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d
Lims ID: 580-87706-C-8-A
Client ID: 22T-SG-15_20190716
Inject. Date: 22-Jul-2019 03:51:24 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 64

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	94602188	27131549

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	94602188	27131549

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.615	6603870	2023326	6438756	1939488	13.6	1.03	a
Signal Totals:							
	6603870	2023326	6438756	1939488			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	13042626	3962814				1.03	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 13.648 = (13042626 * 100.000) / (94602188 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

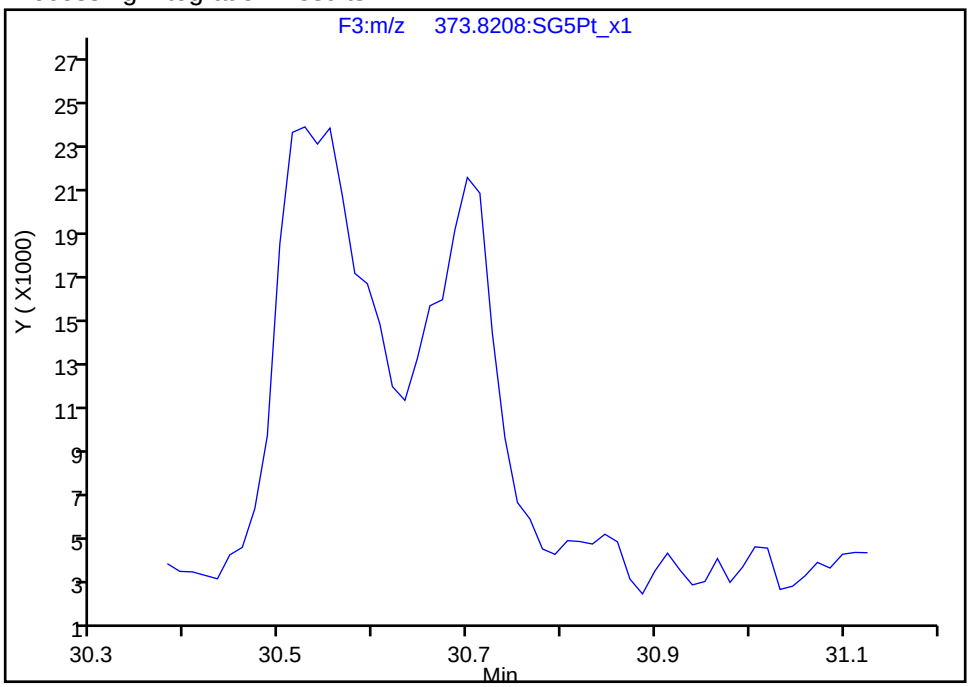
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d				
Injection Date:	22-Jul-2019 03:51:24	Instrument ID:	3D5		
Lims ID:	580-87706-C-8-A	Lab Sample ID:	320-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	47	Worklist Smp#:	64
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

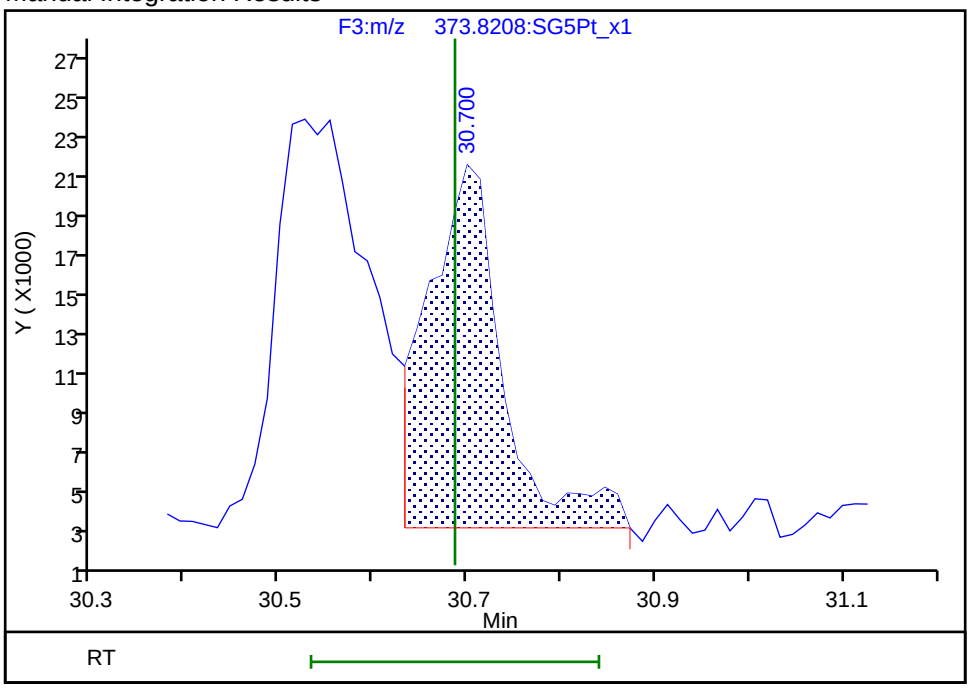
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.70
Area: 101893
Amount: 0.123474
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:14:34
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

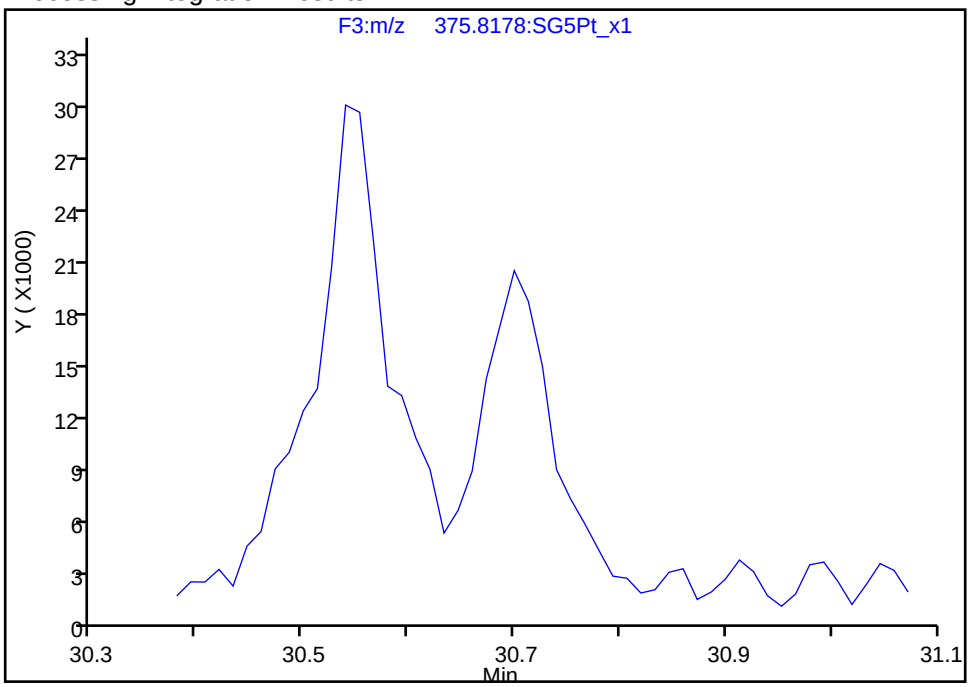
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d				
Injection Date:	22-Jul-2019 03:51:24	Instrument ID:	3D5		
Lims ID:	580-87706-C-8-A	Lab Sample ID:	320-87706-8		
Client ID:	22T-SG-15_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	47	Worklist Smp#:	64
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 2

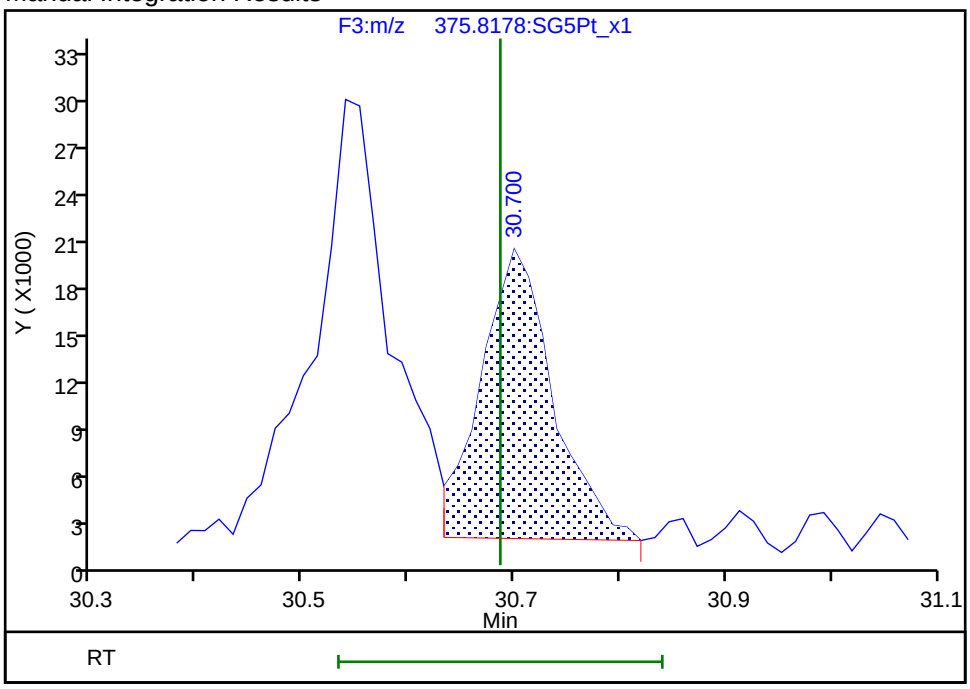
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.70
Area: 86301
Amount: 0.123474
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 11:14:36
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

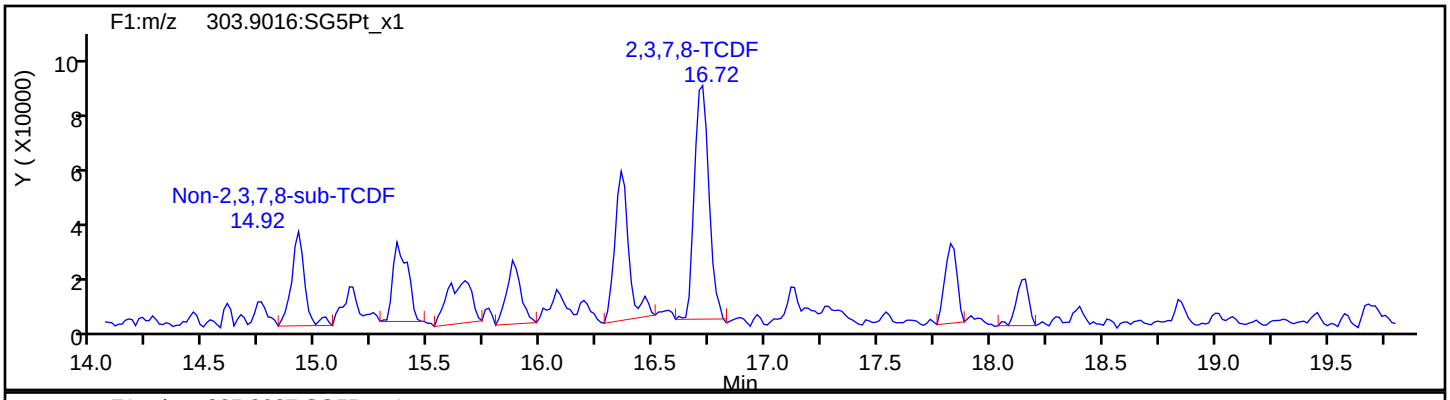
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

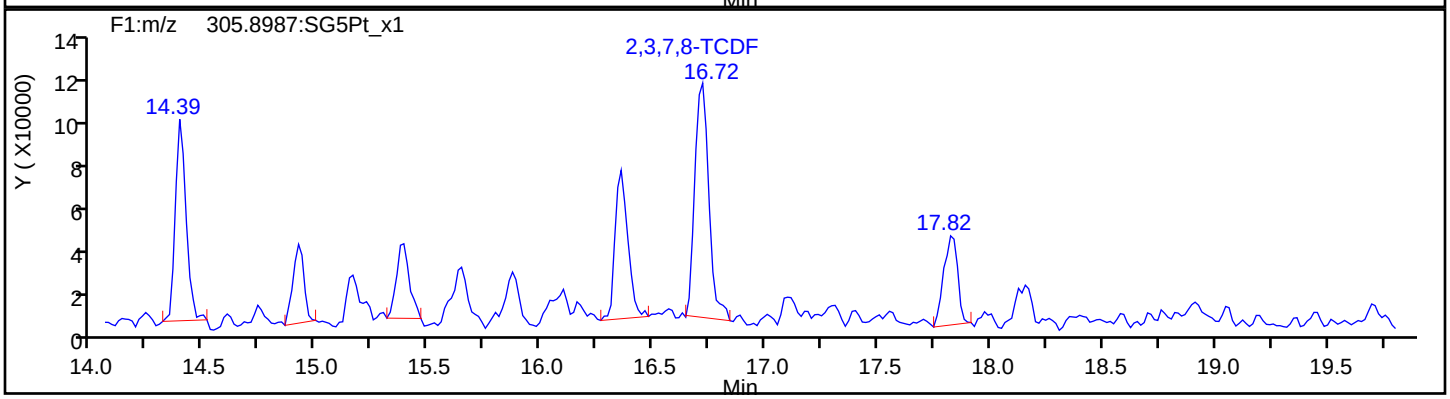
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d

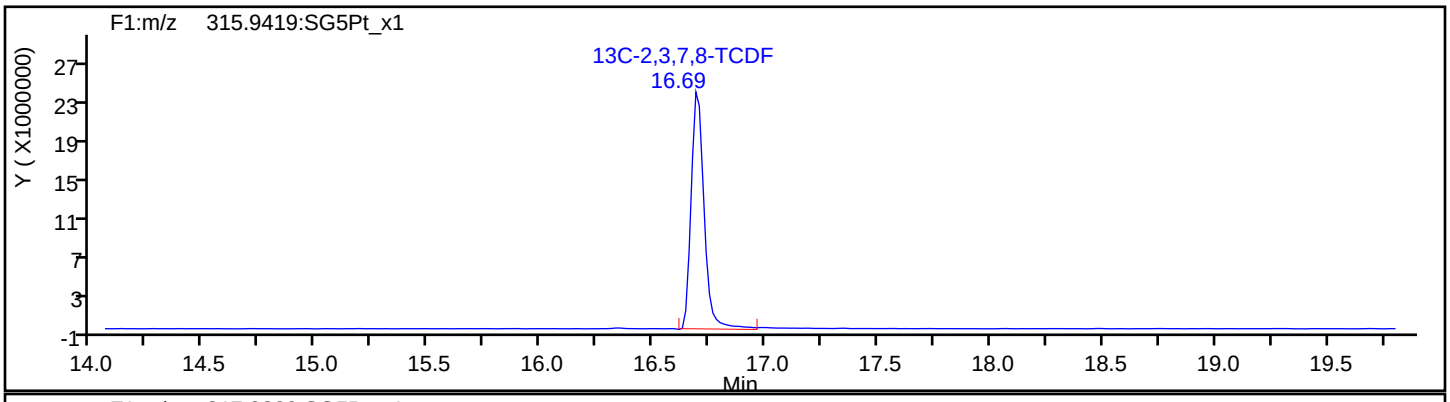
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

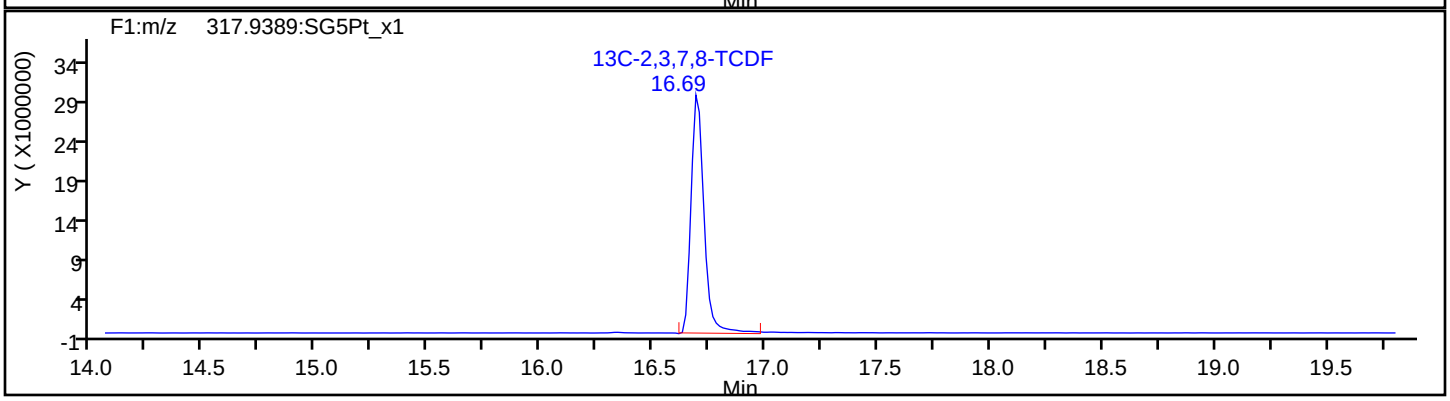
TCDF





TCDF Standards



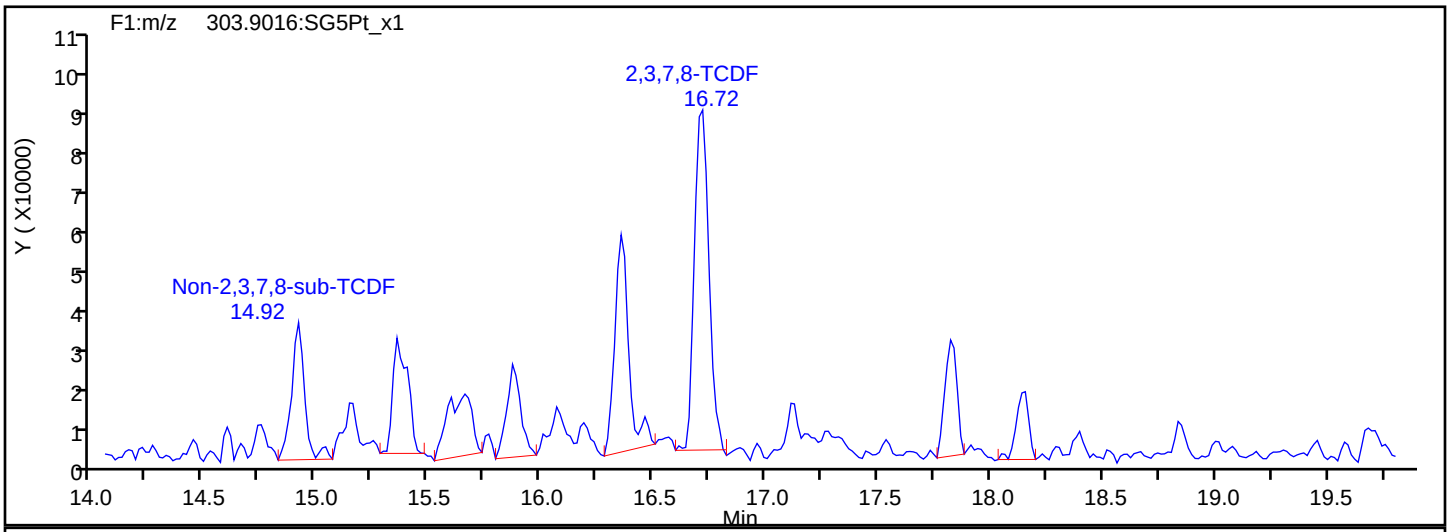


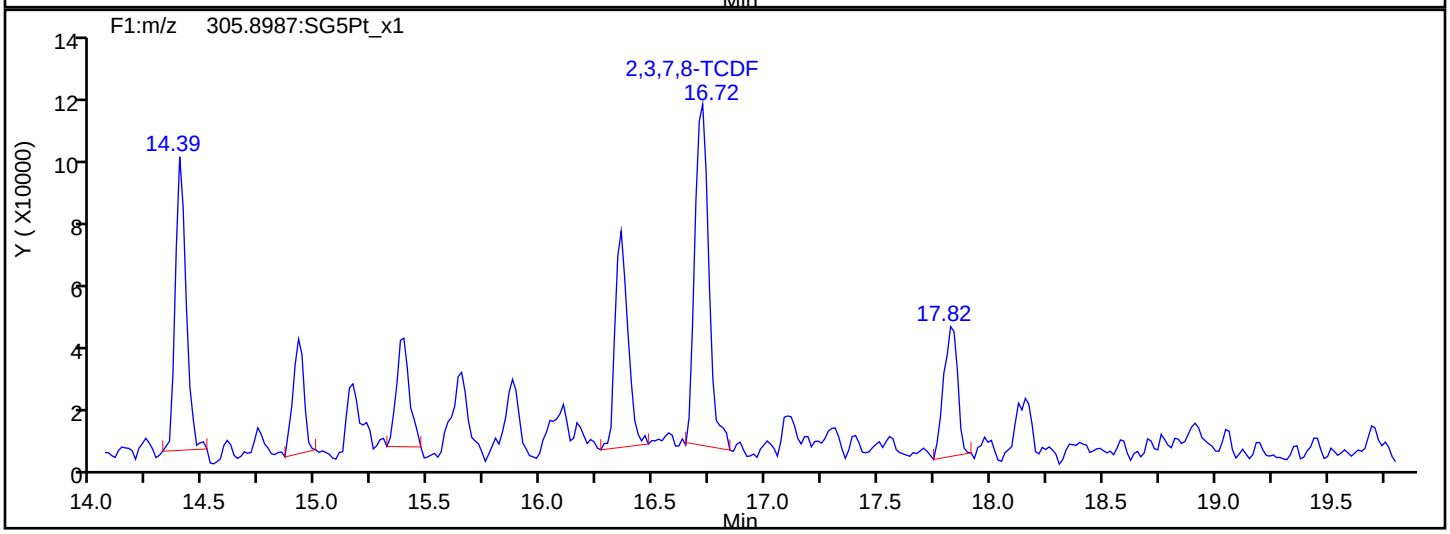
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

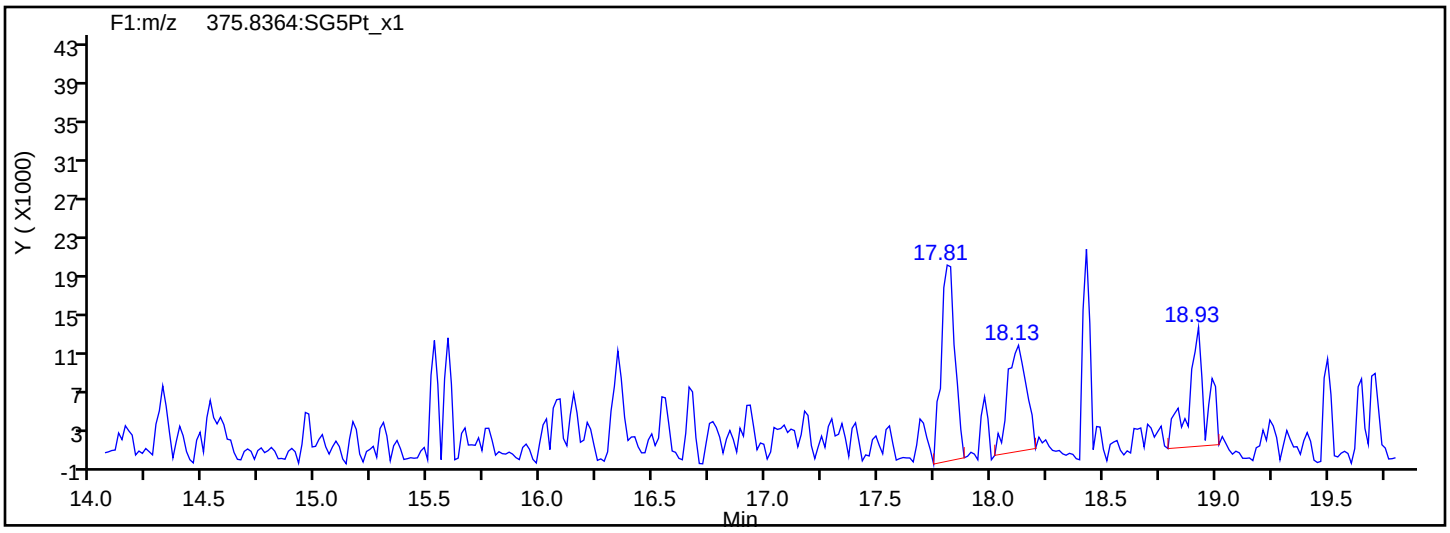
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



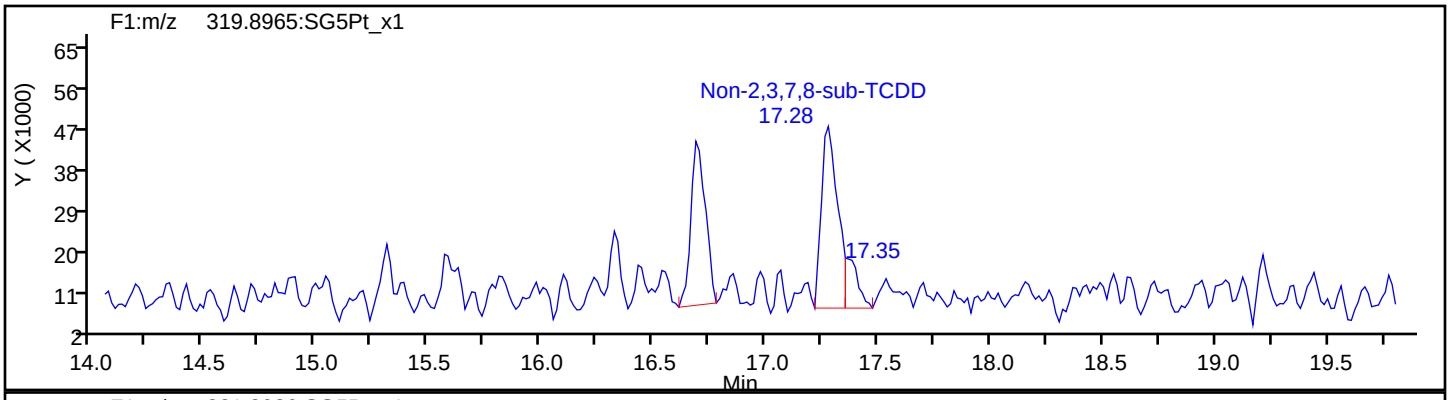
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

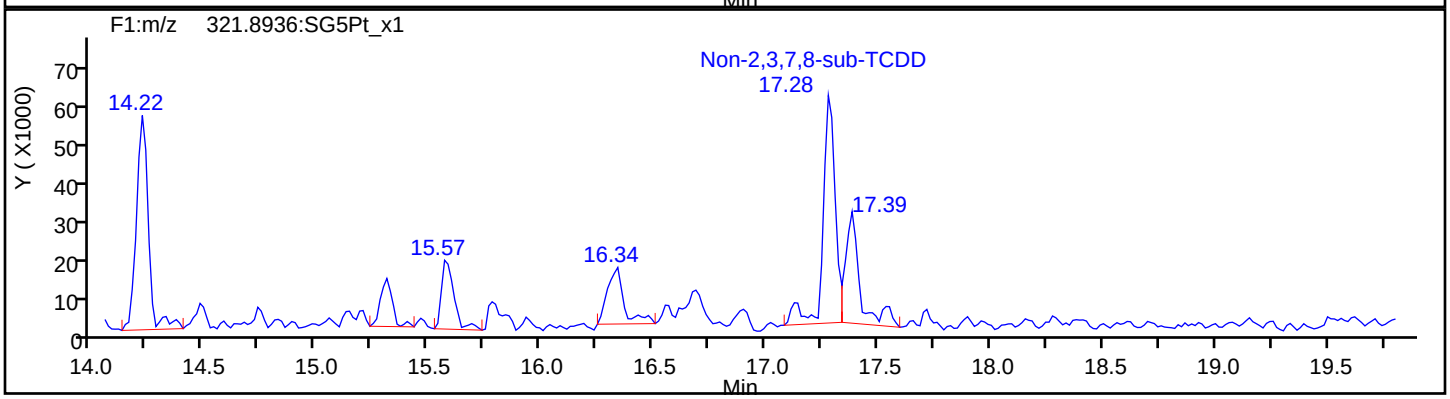
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d

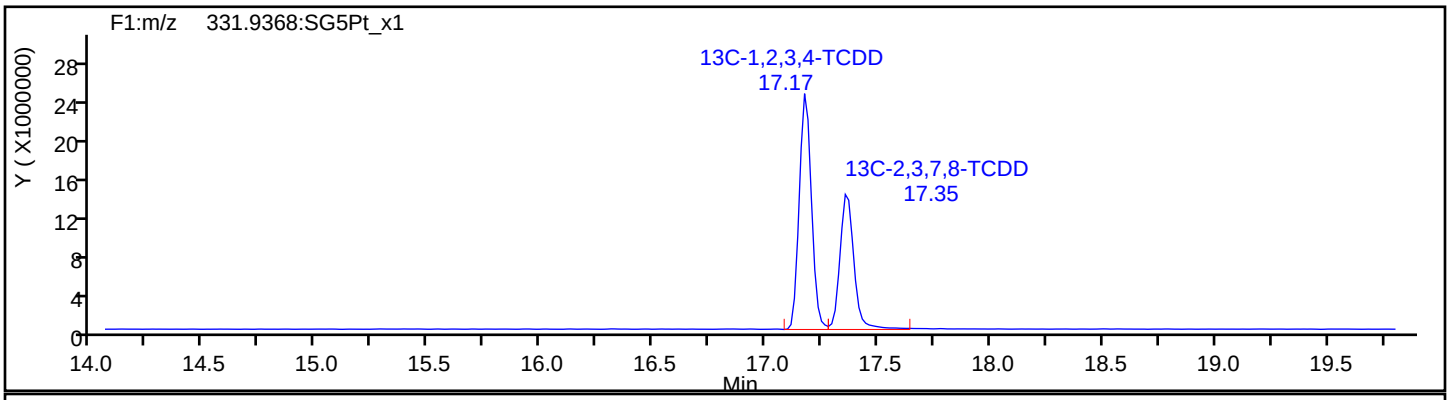
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

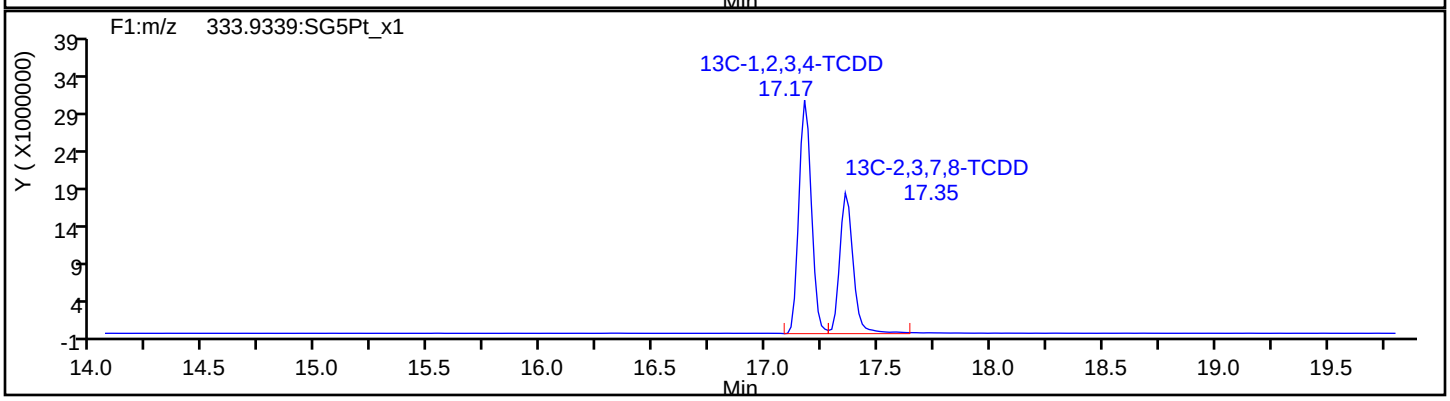
TCDD





TCDD Standards



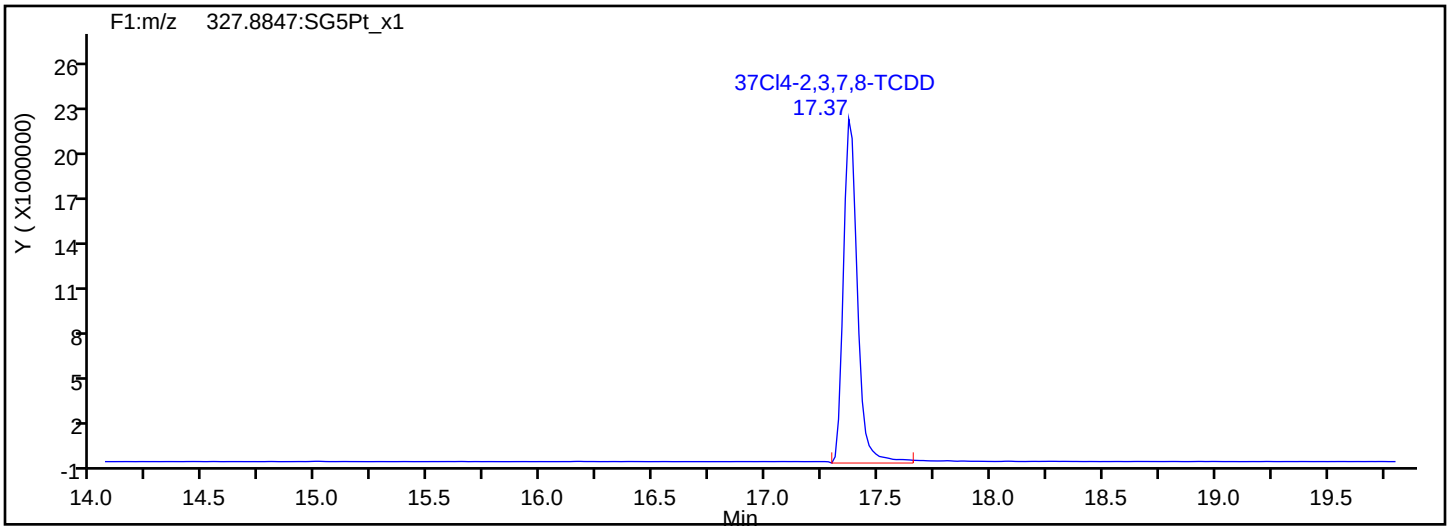


Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

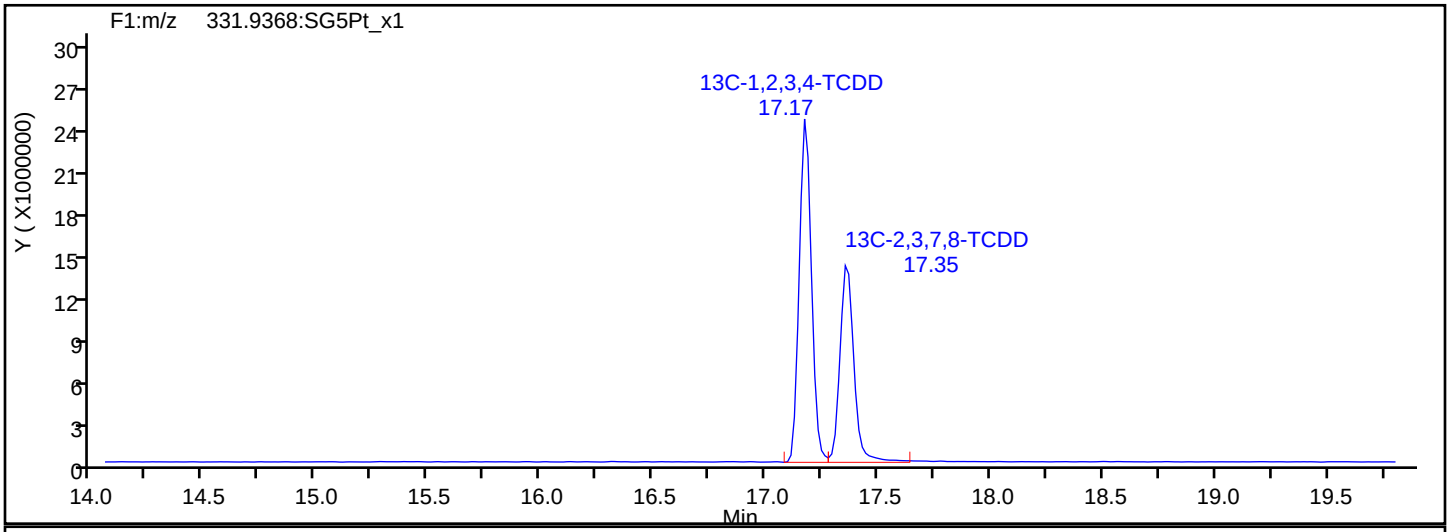
Eurofins TestAmerica, Sacramento

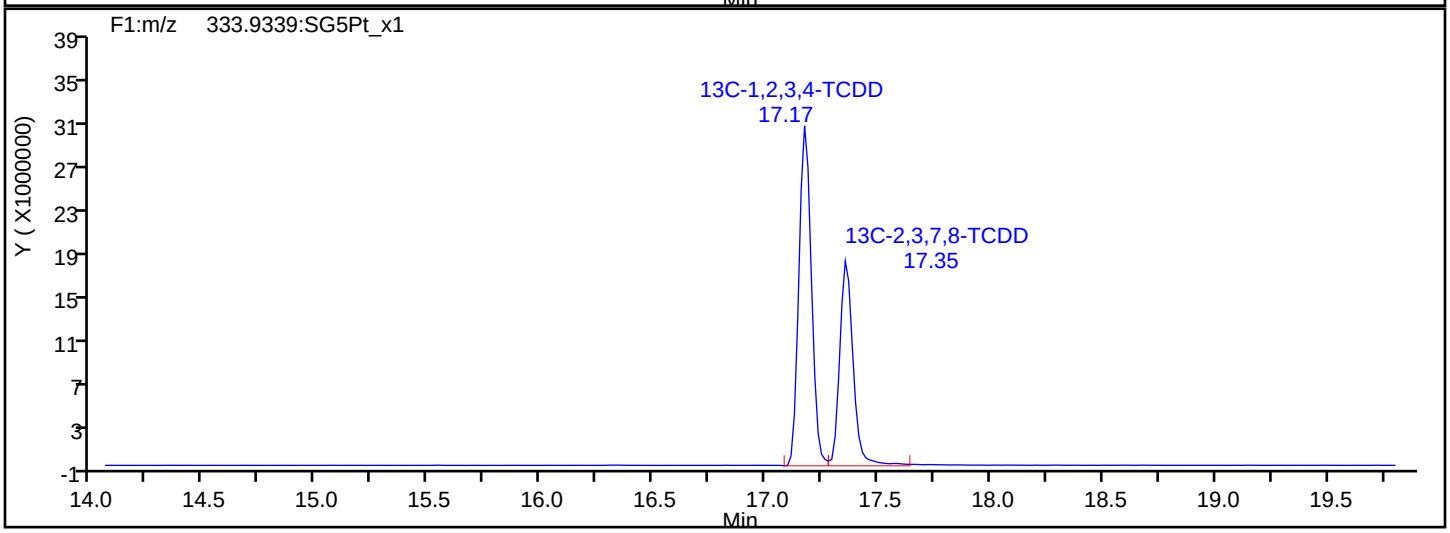
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



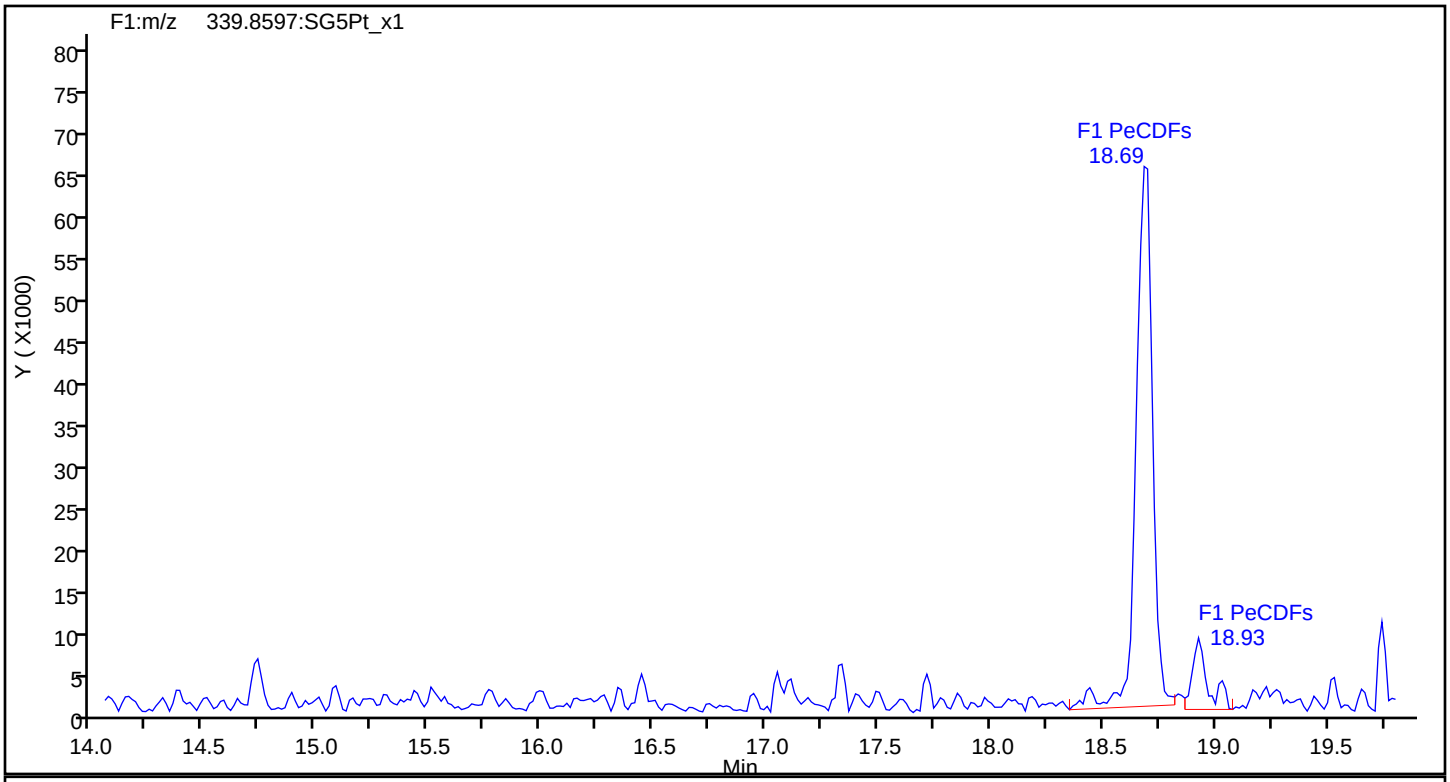


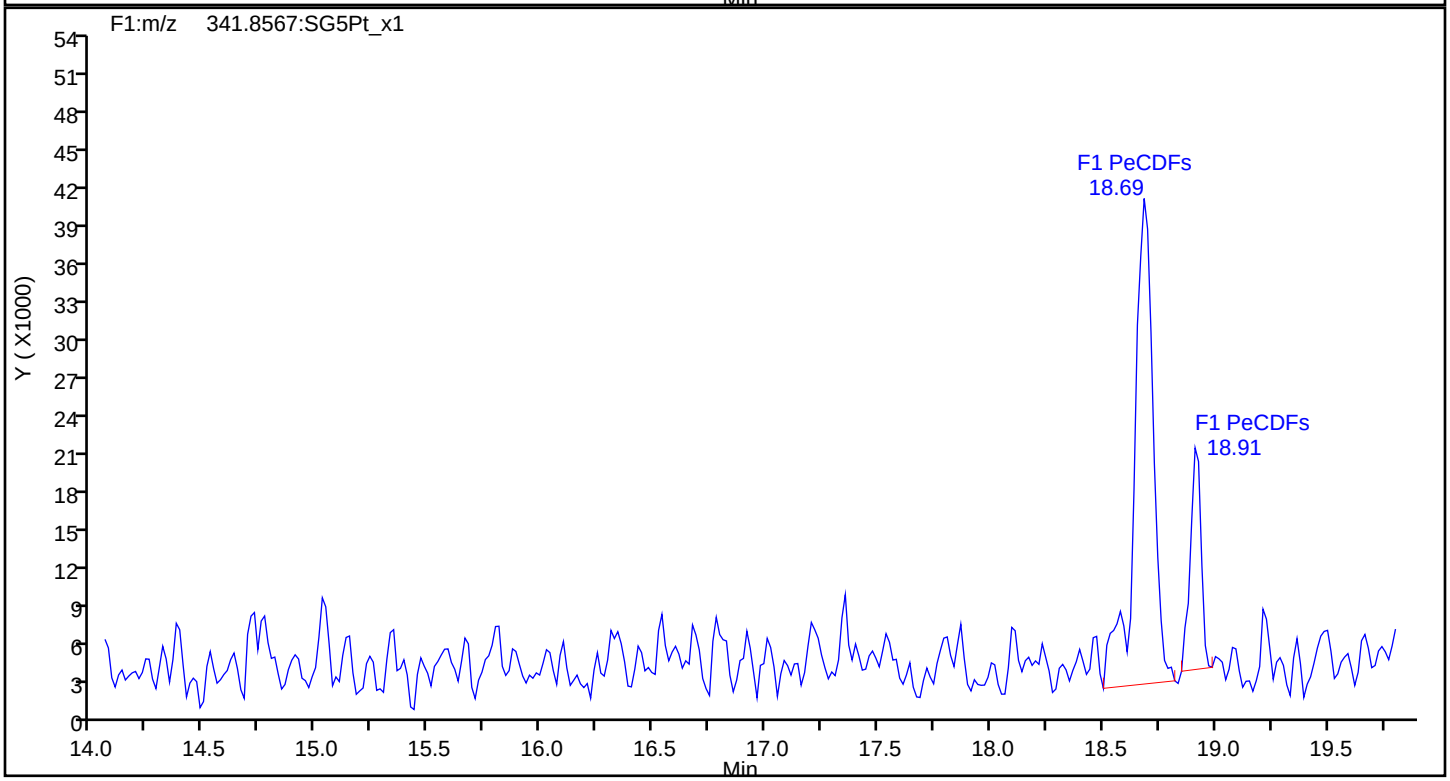
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



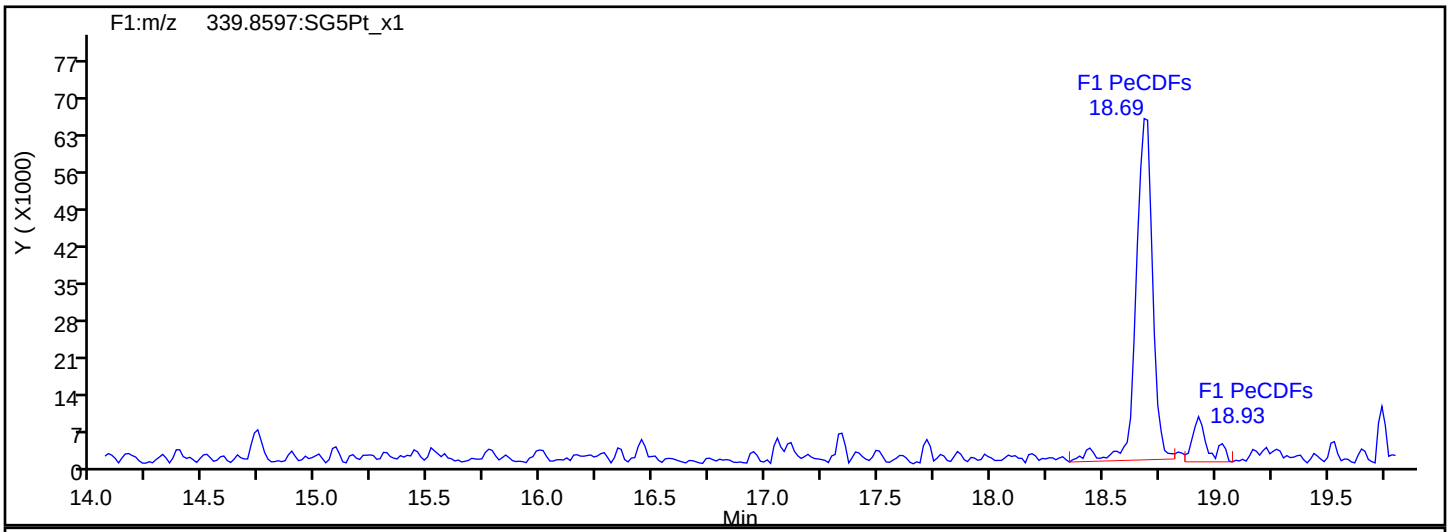


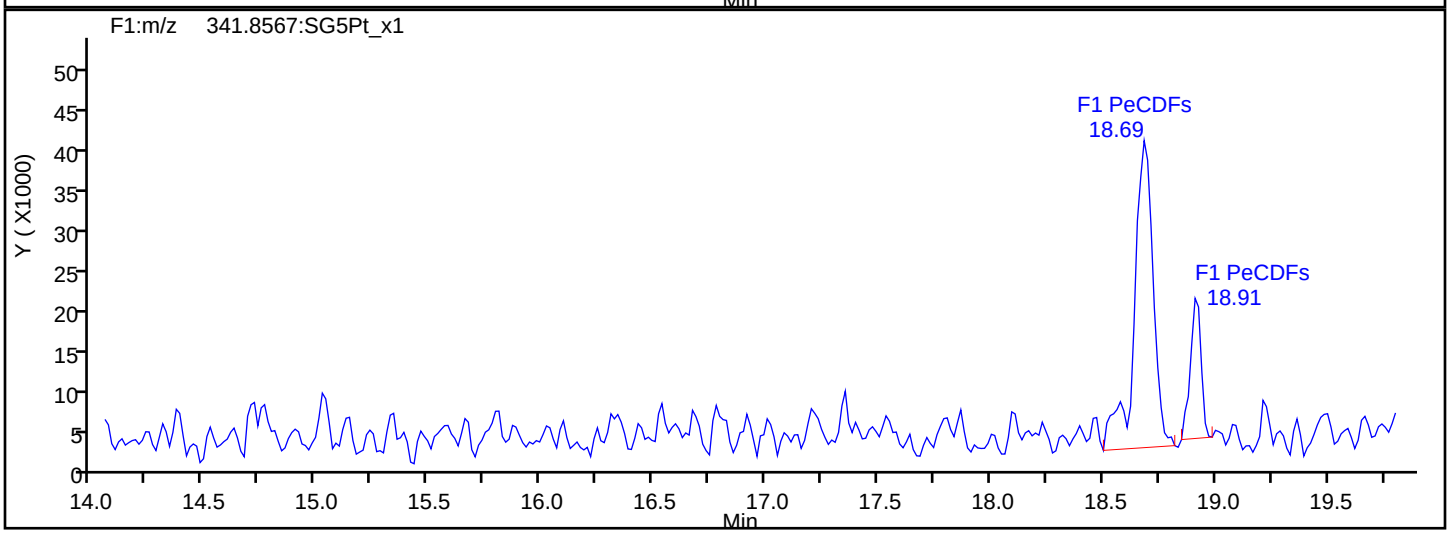
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

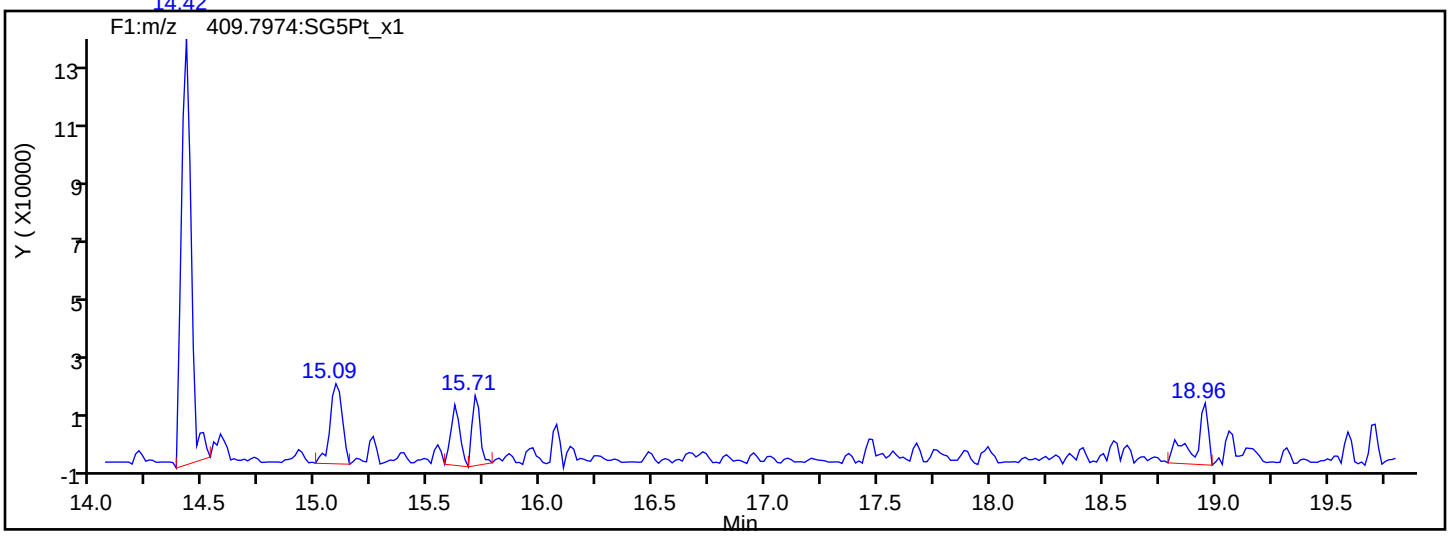
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

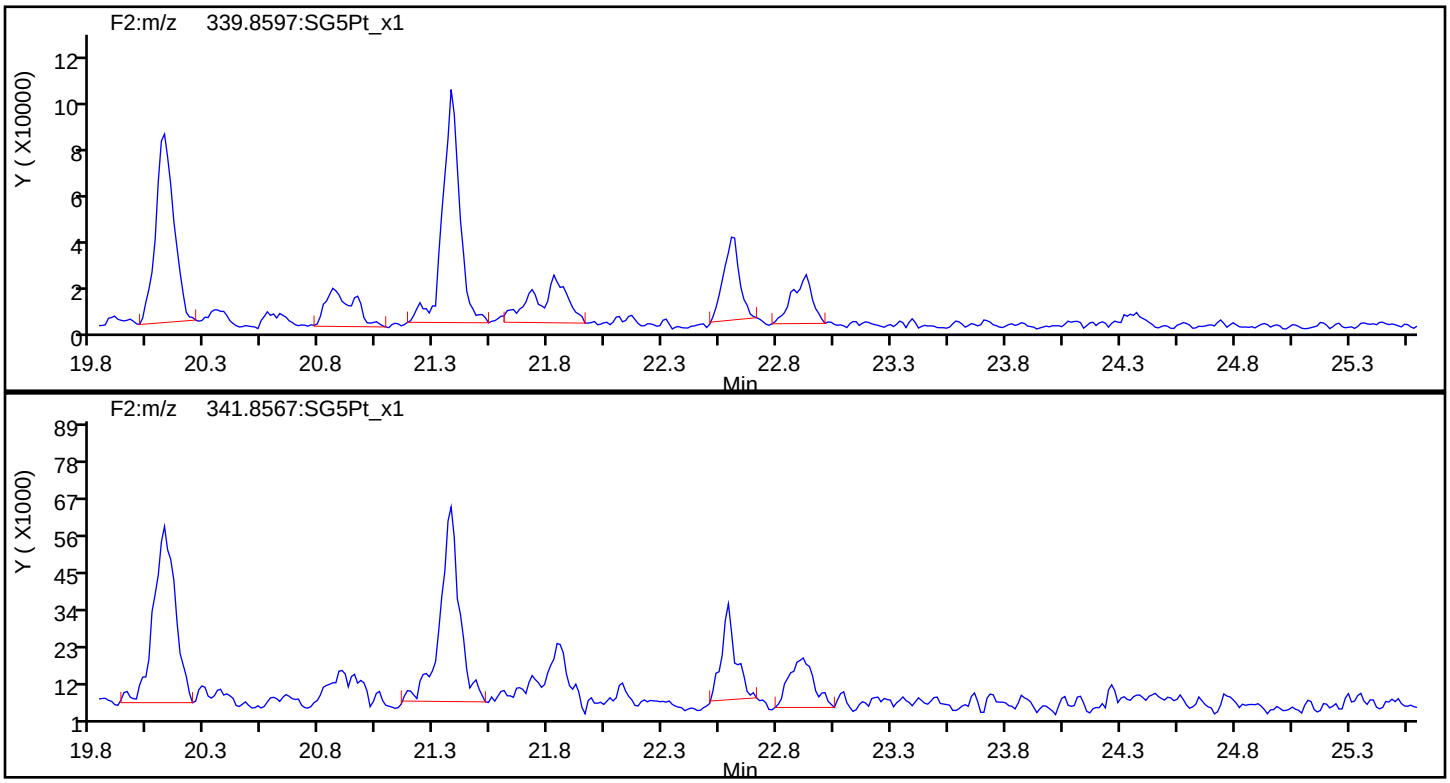


Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

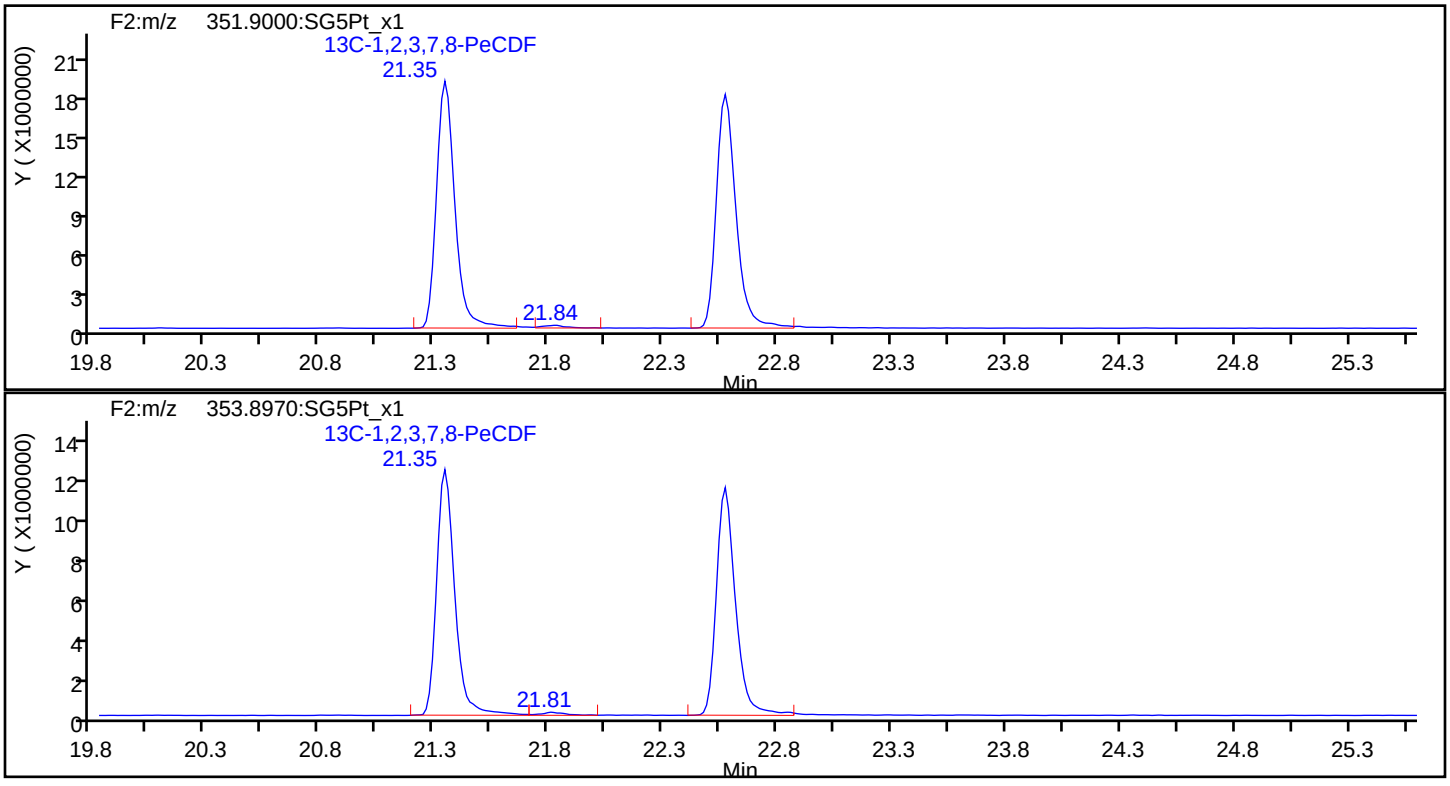
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

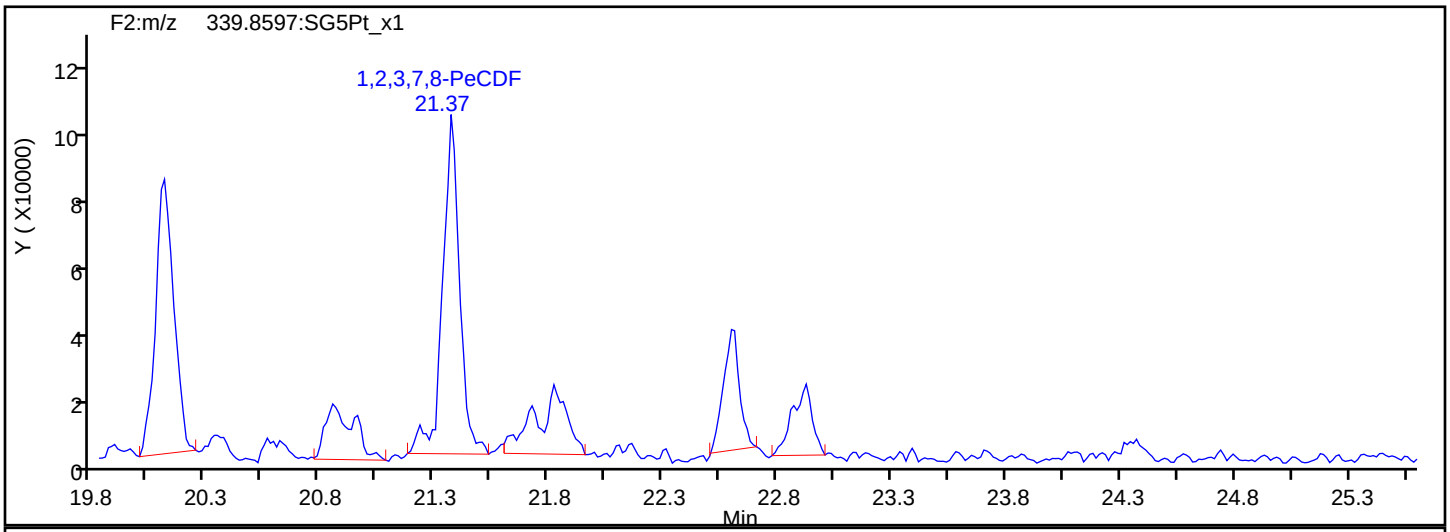


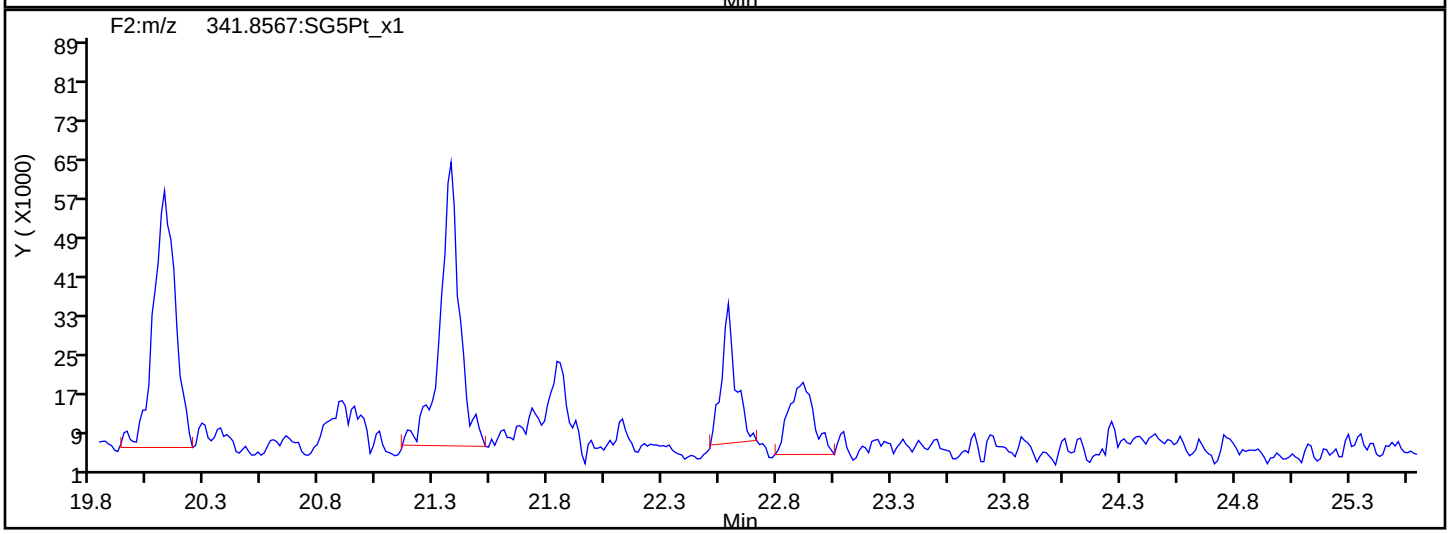
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

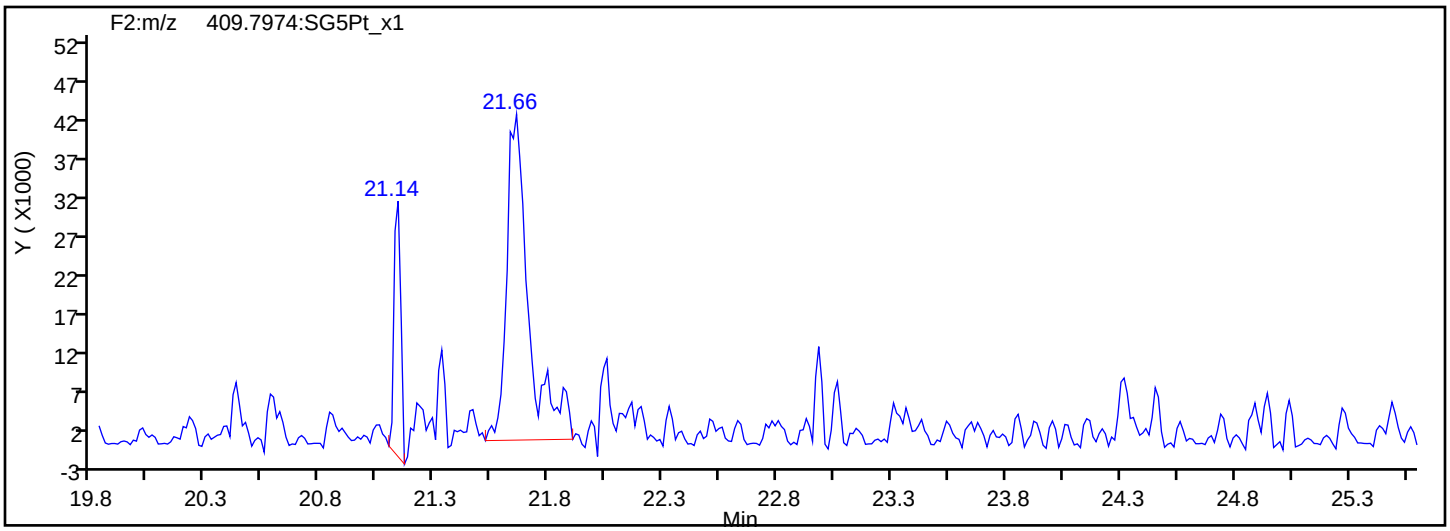
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

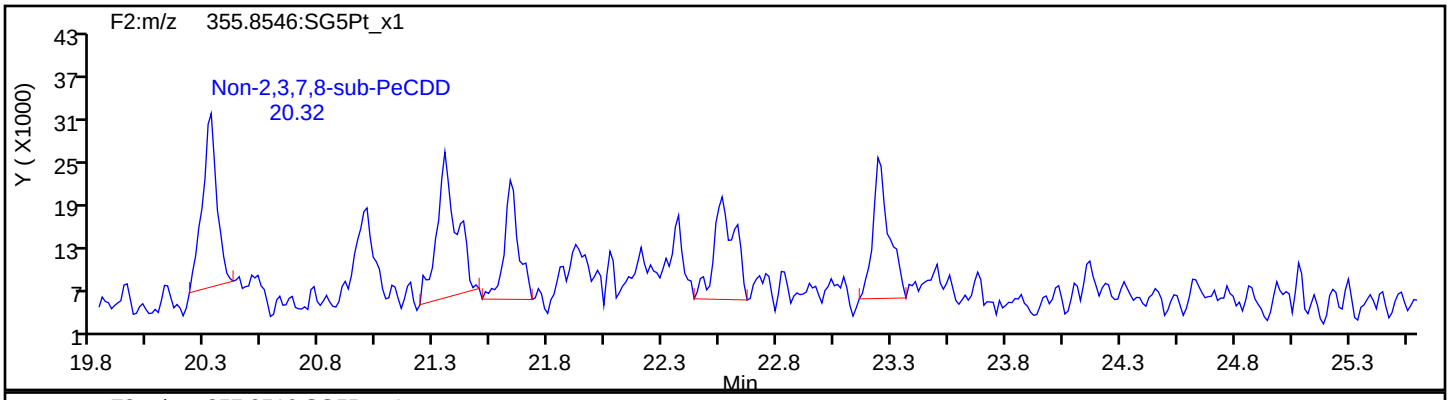


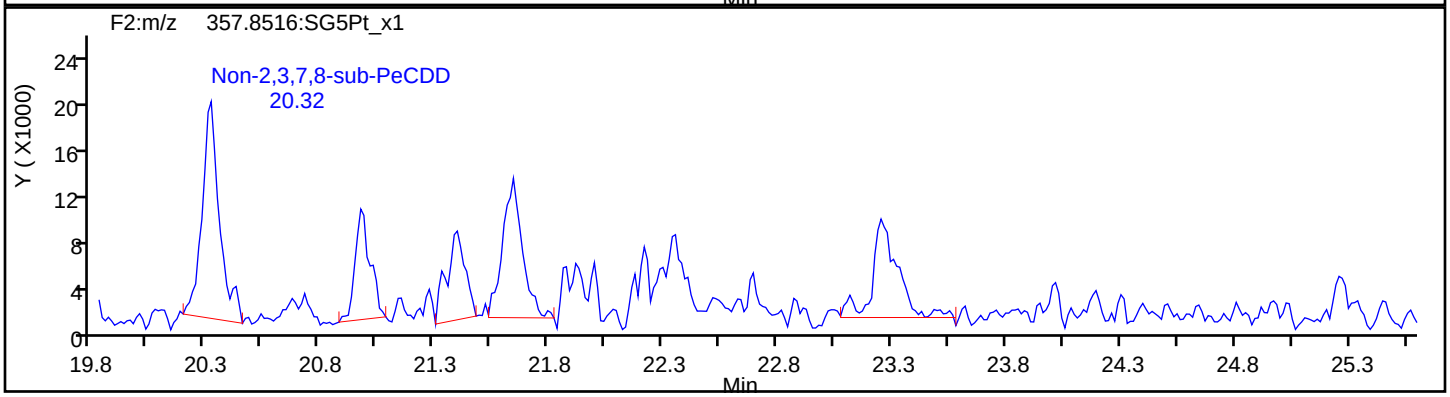
Report Date: 23-Jul-2019 11:15:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

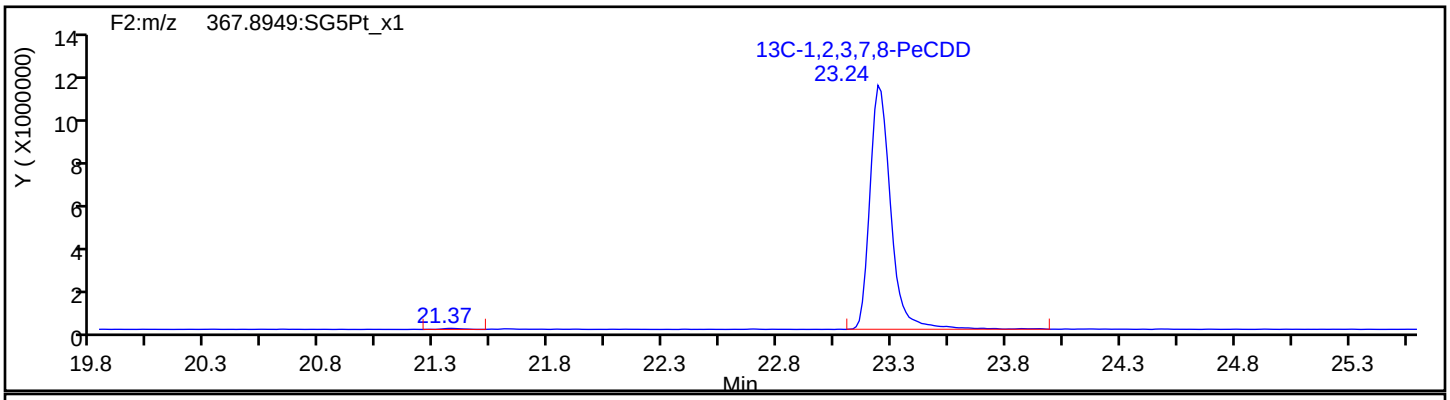
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

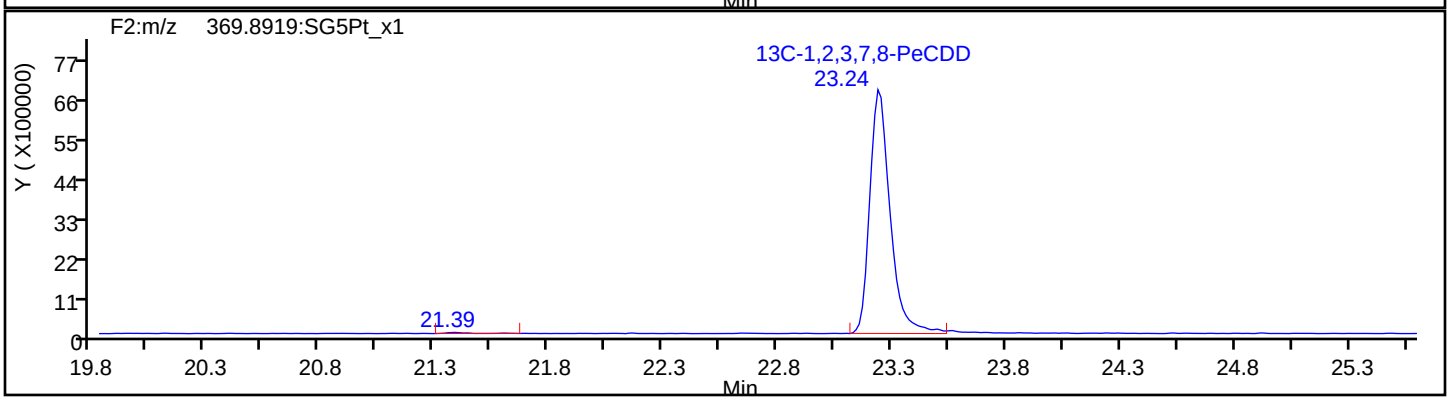
PeCDD





PeCDD Standards





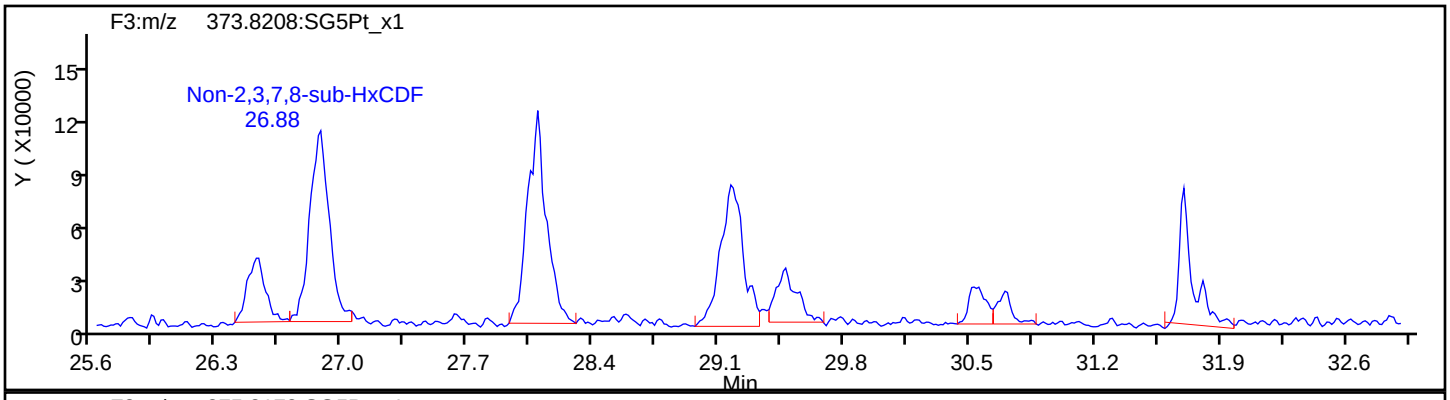
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

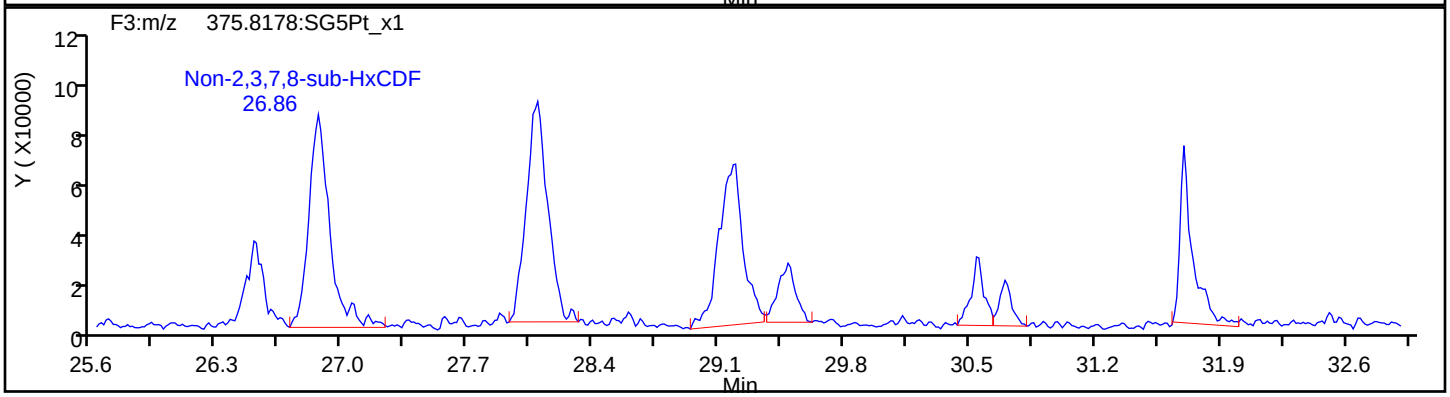
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d

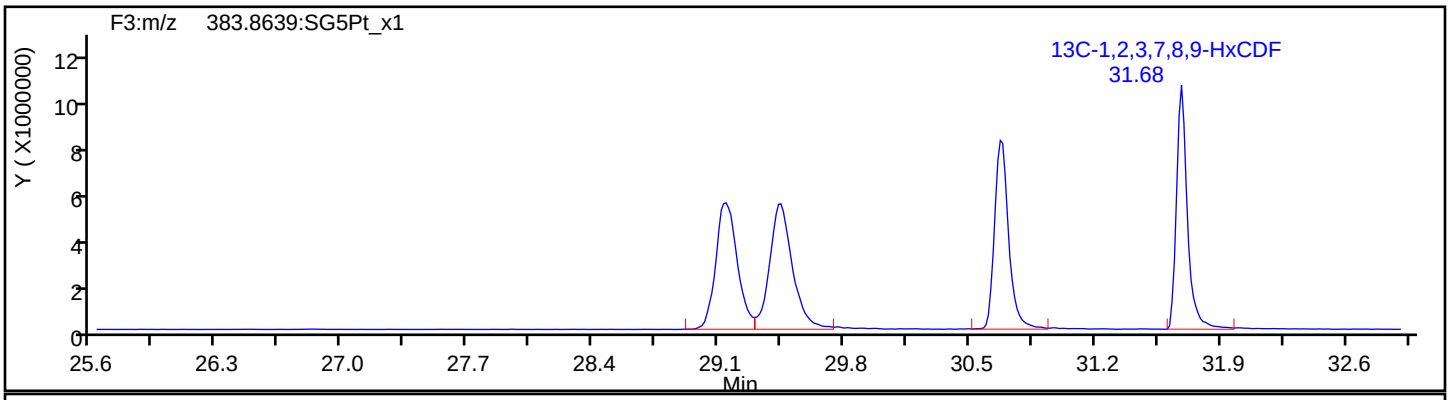
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

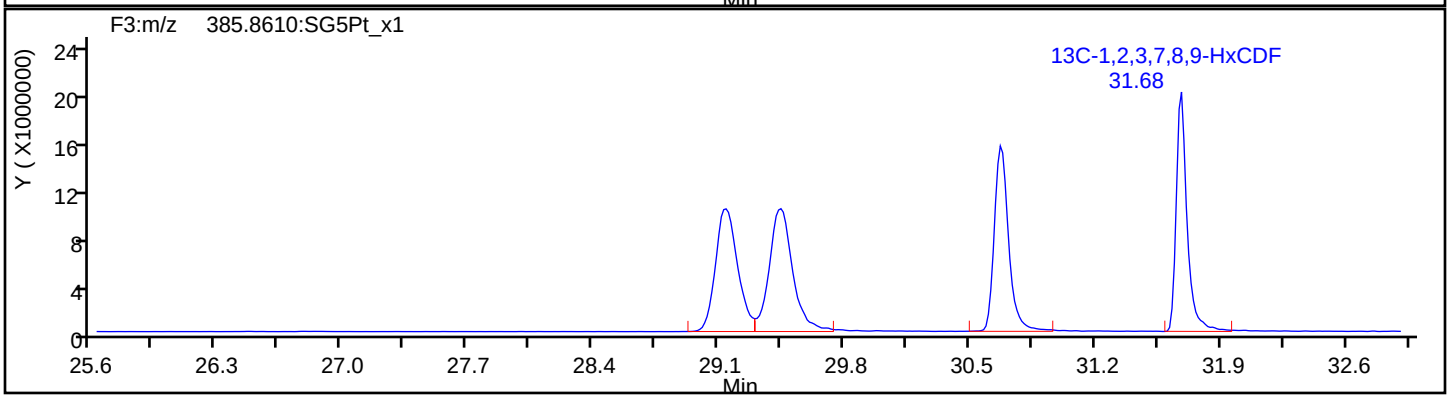
HxCDF





HxCDF Standards



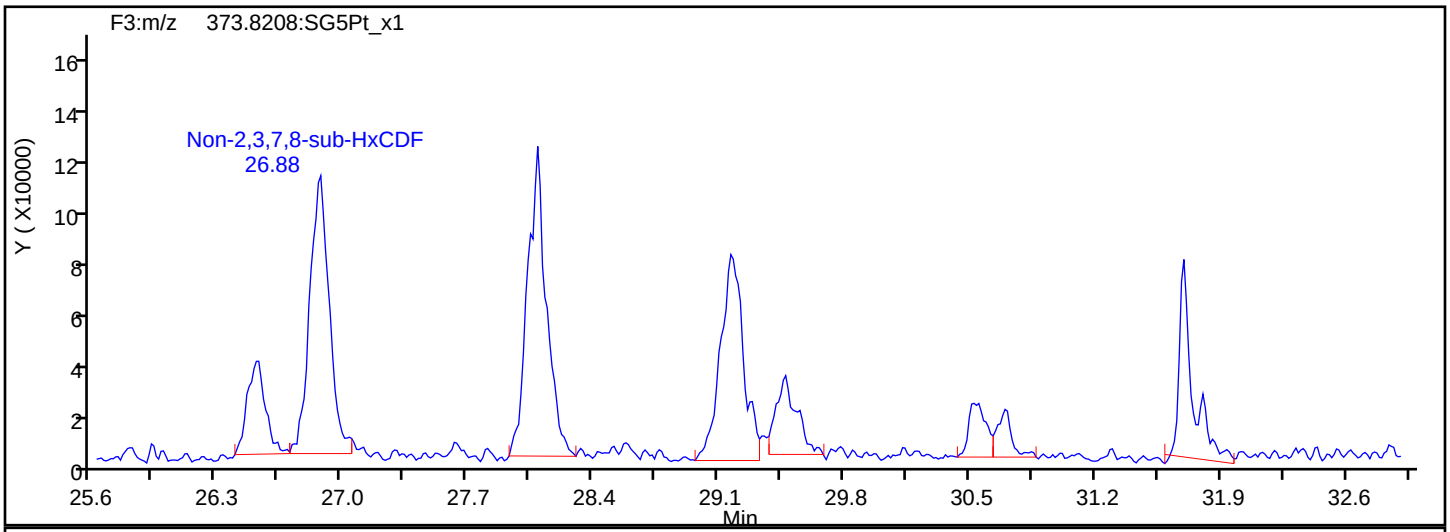


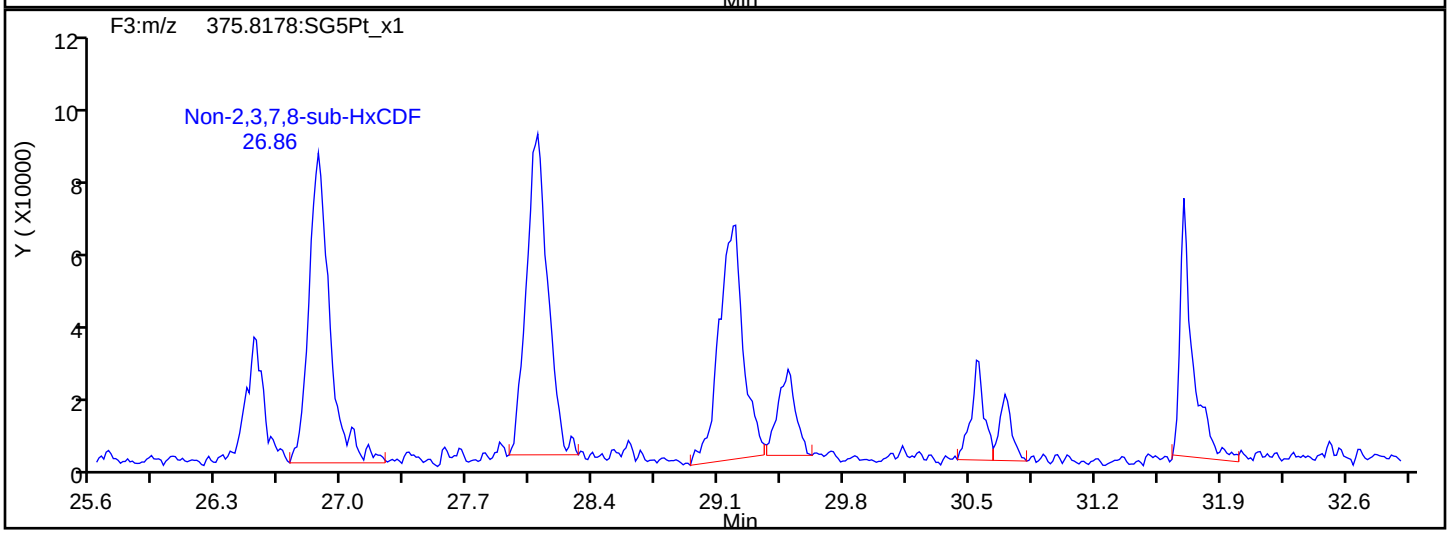
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

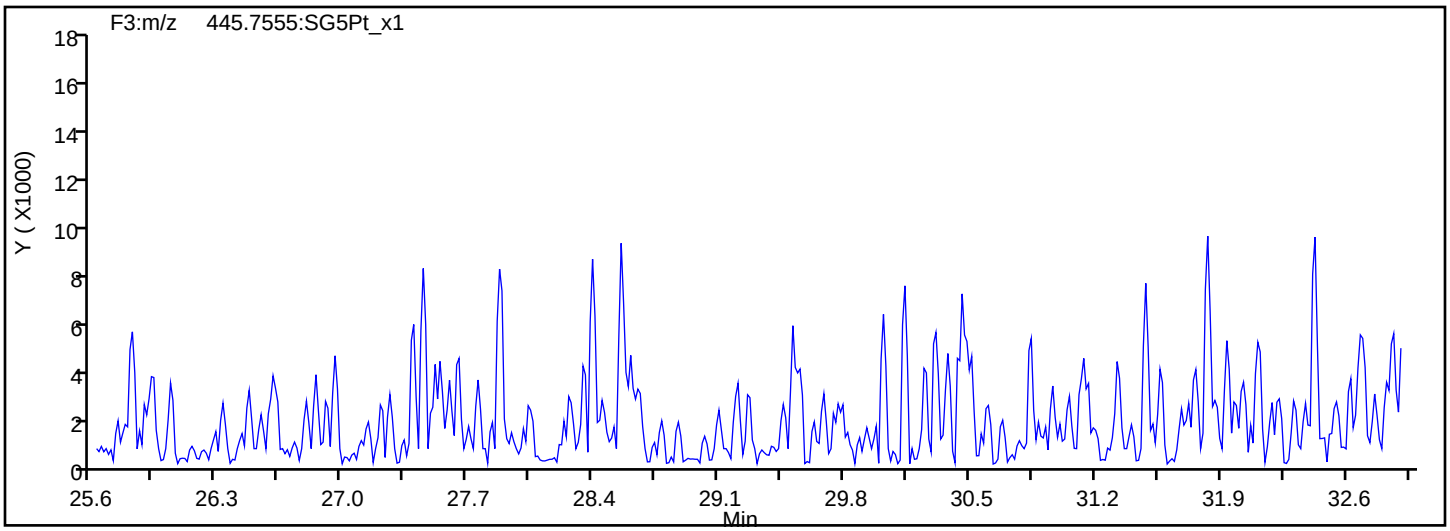
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

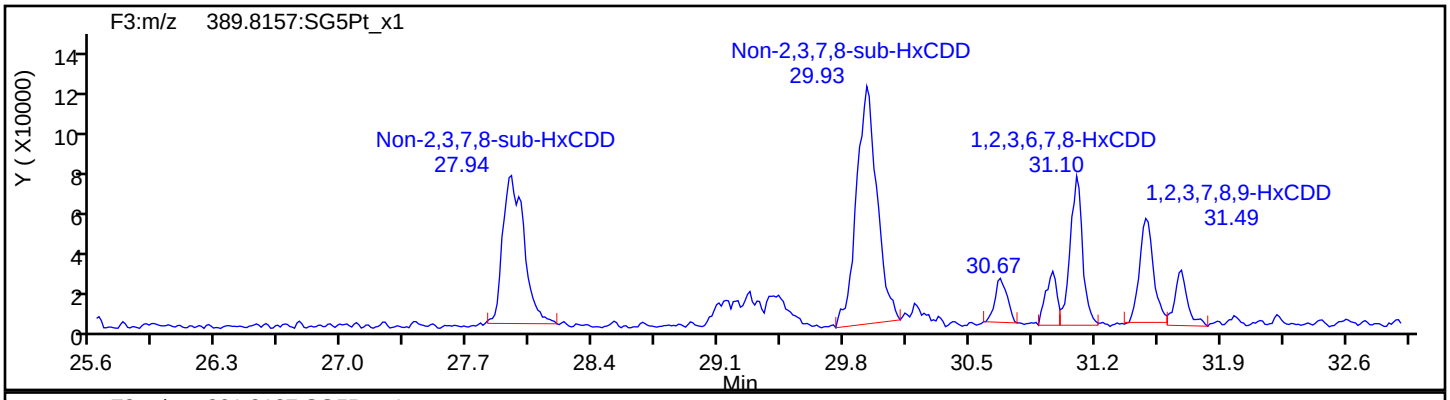


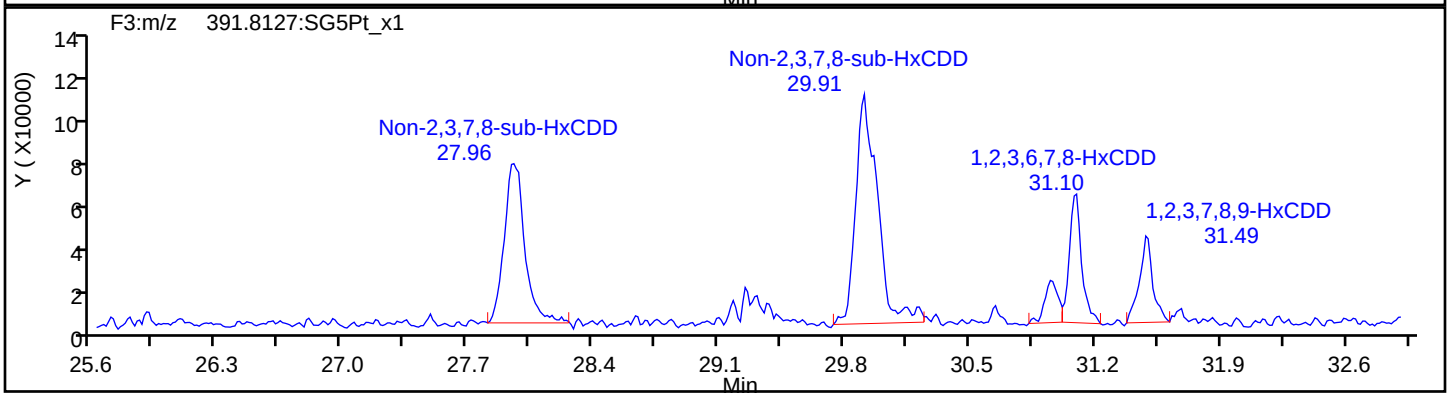
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

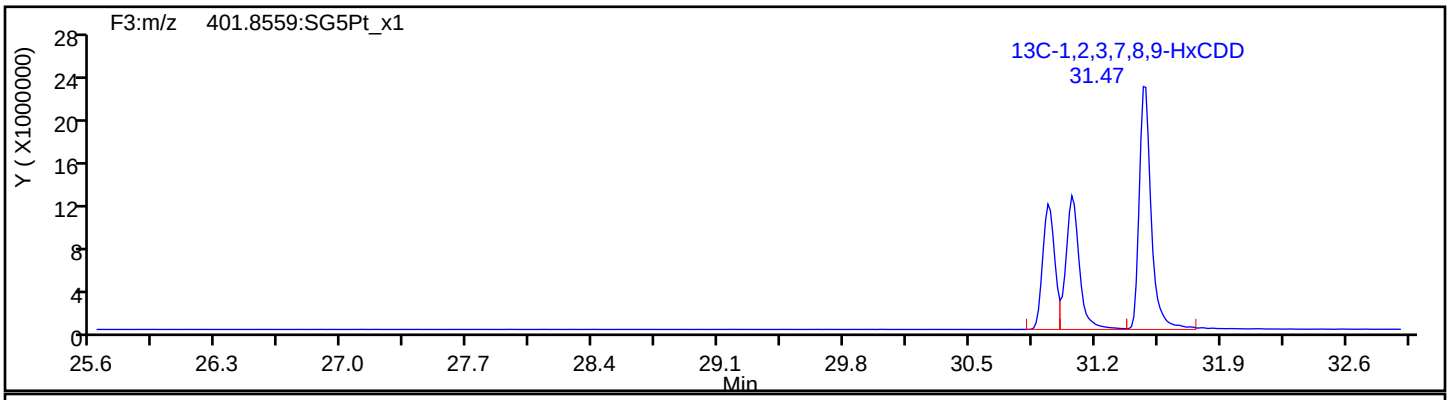
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

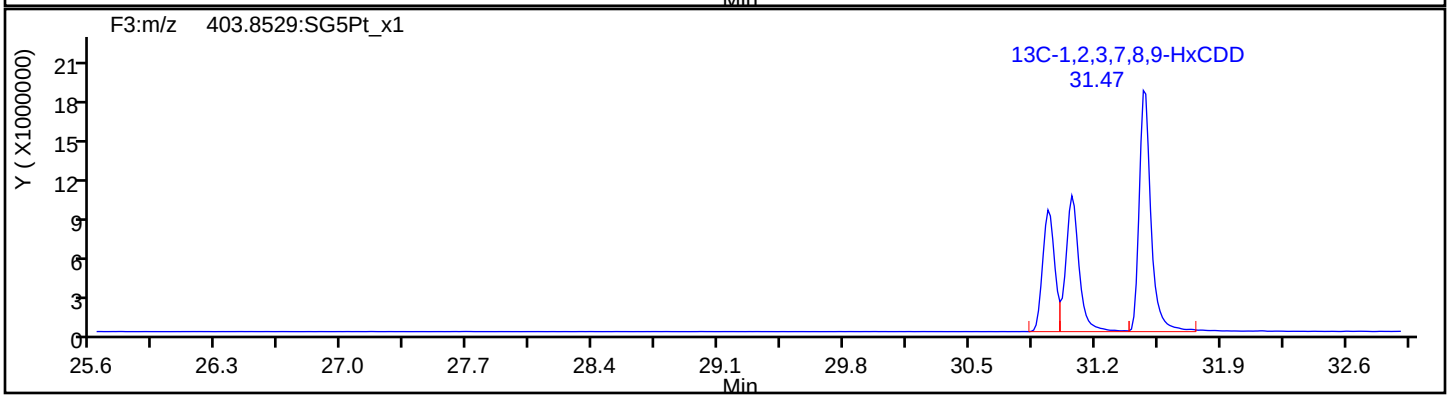
HxCDD





HxCDD Standards



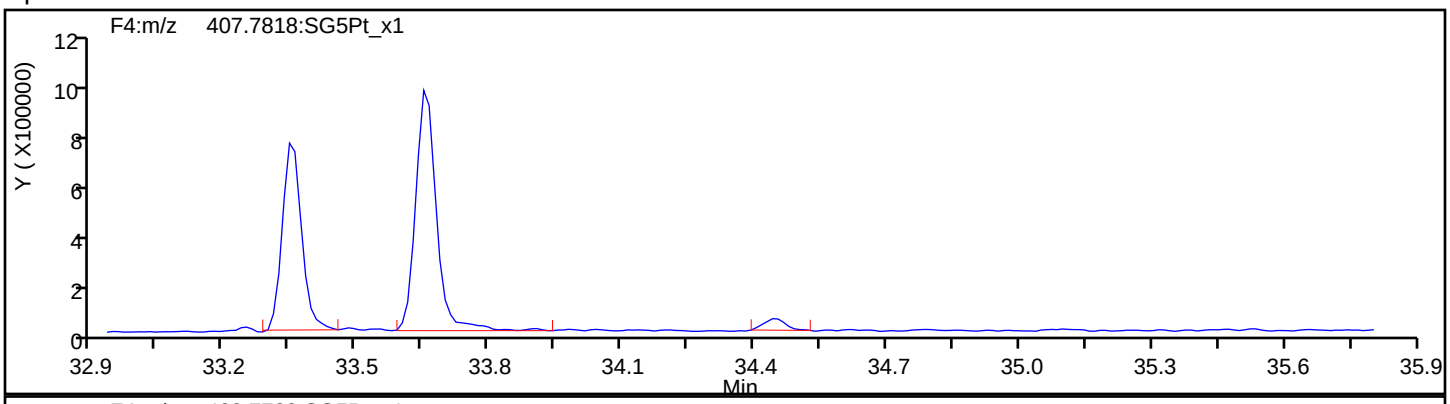


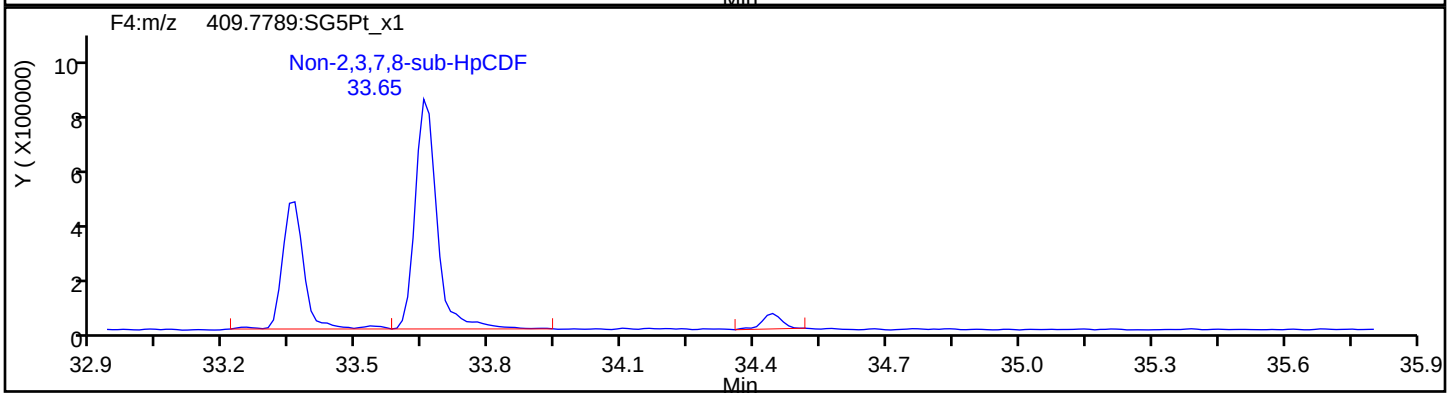
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

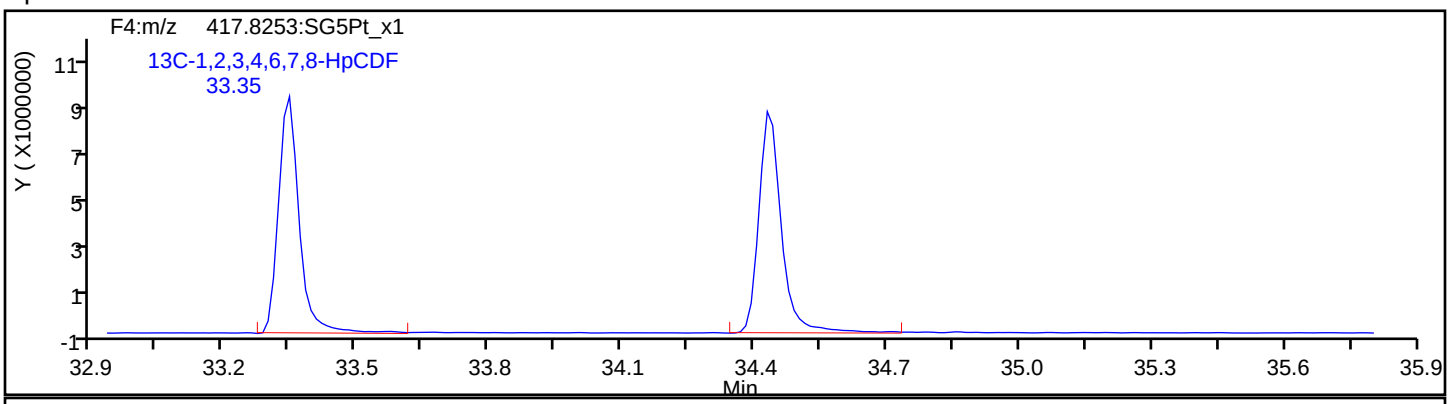
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

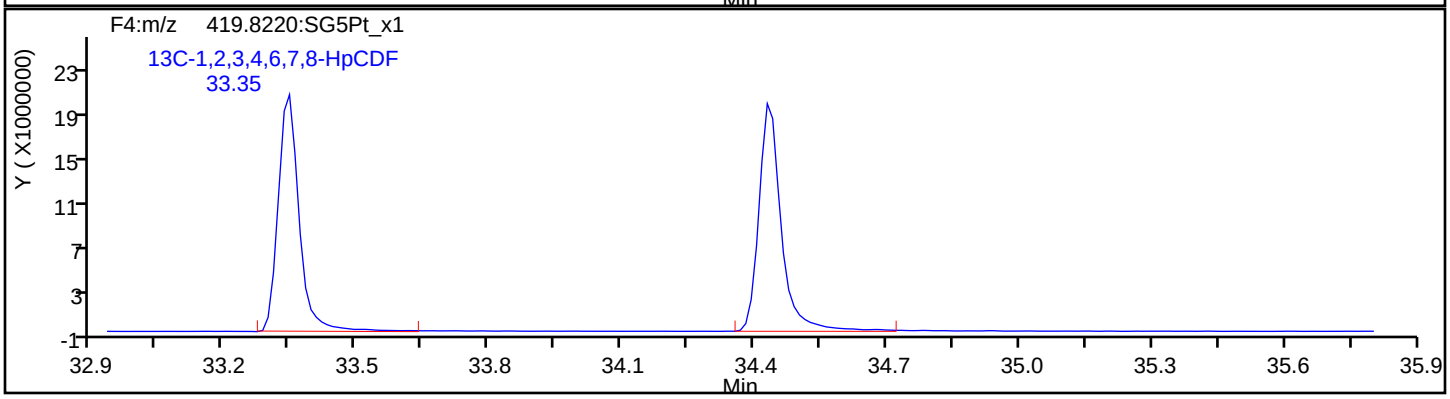
HpCDF





HpCDF Standards



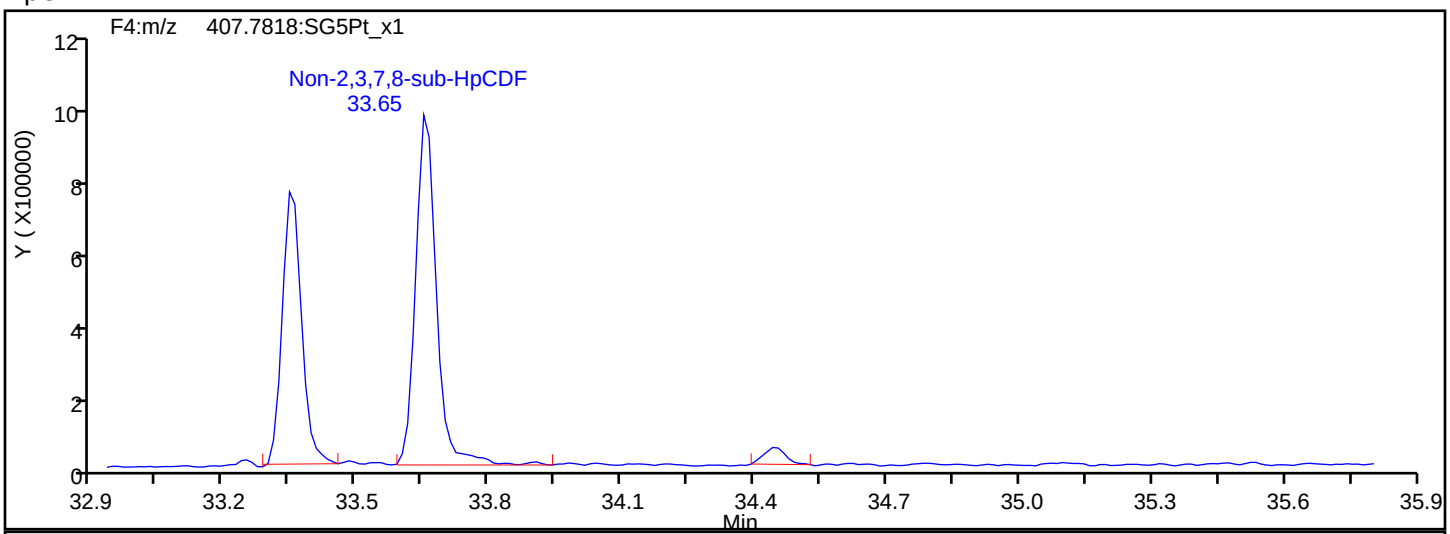


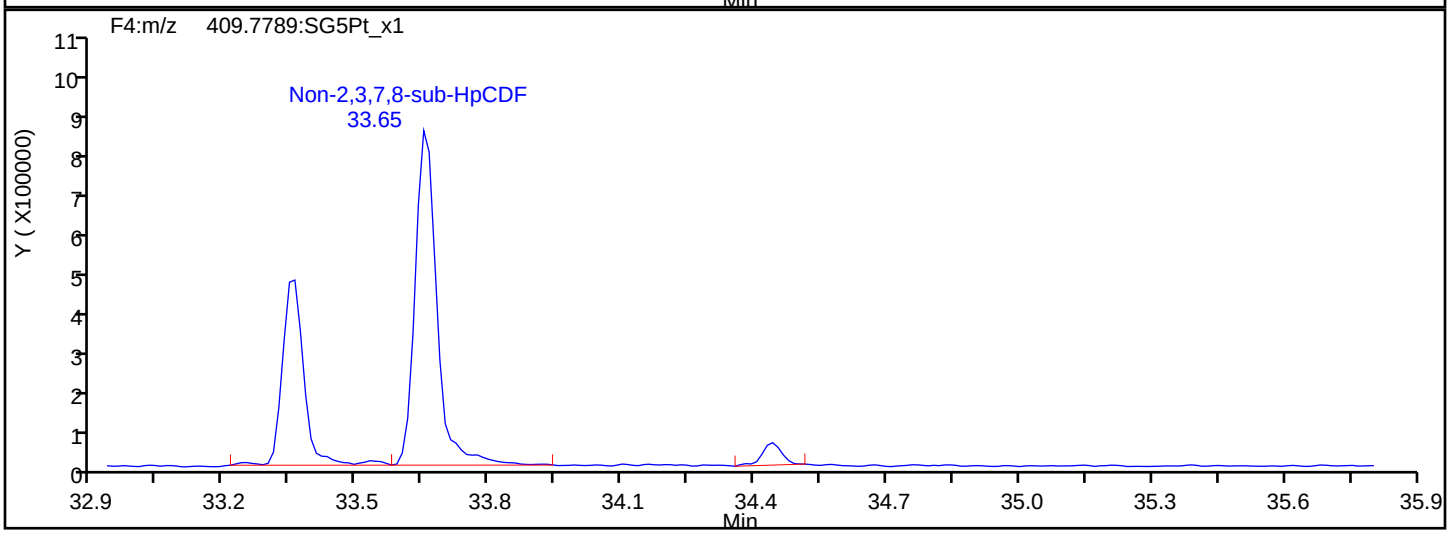
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

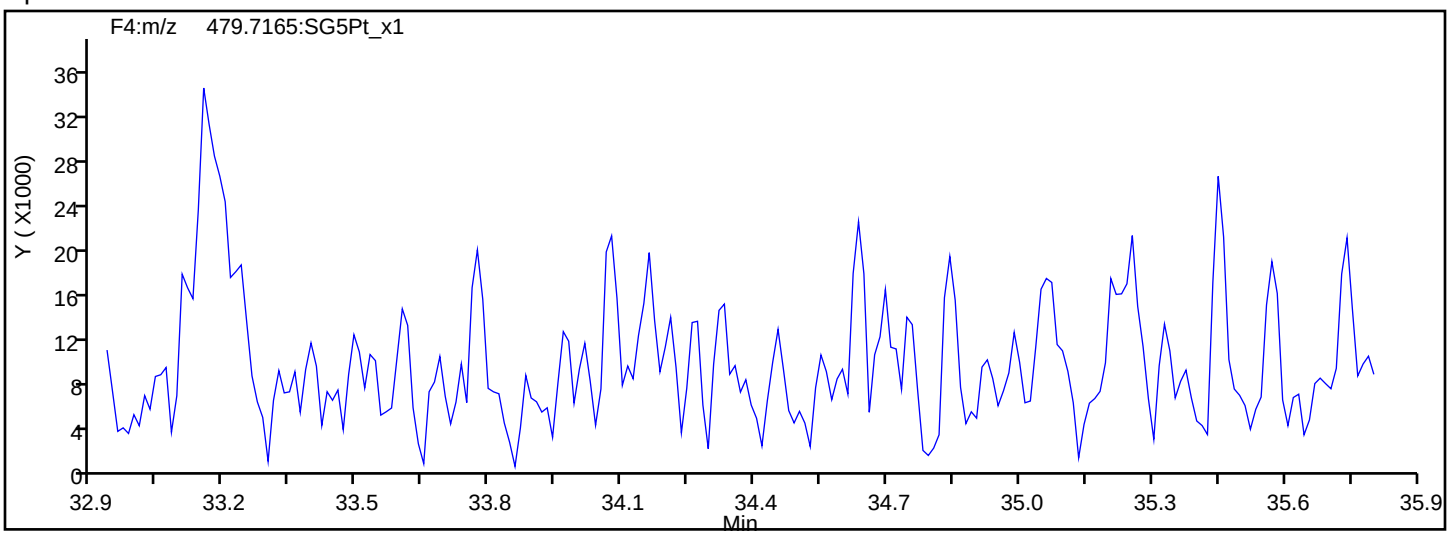
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

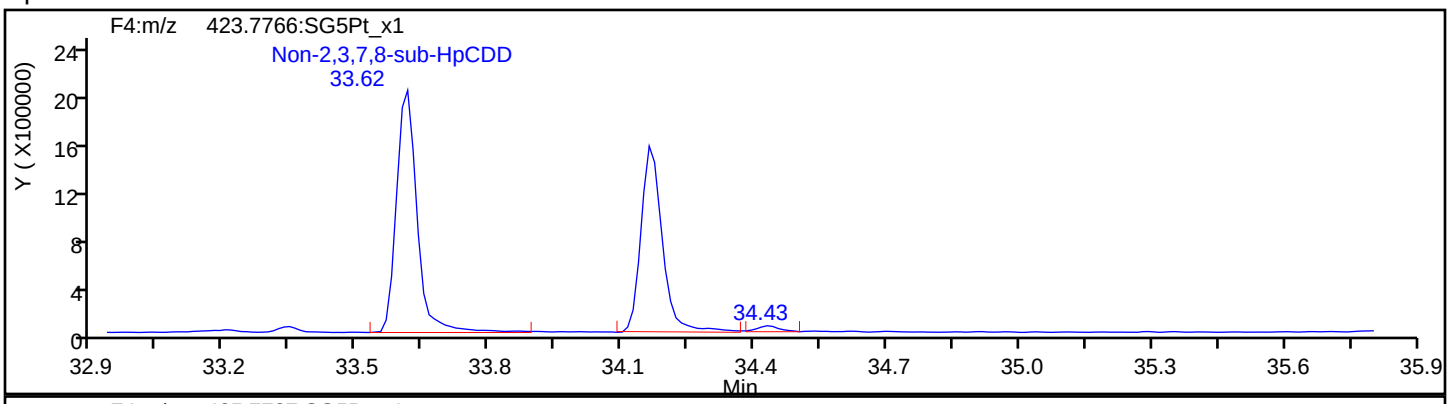


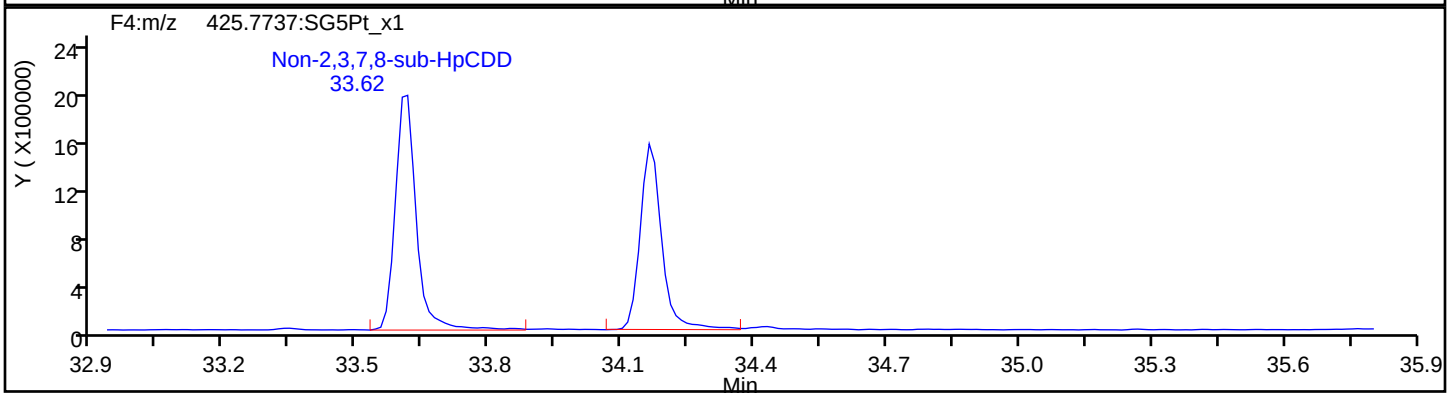
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

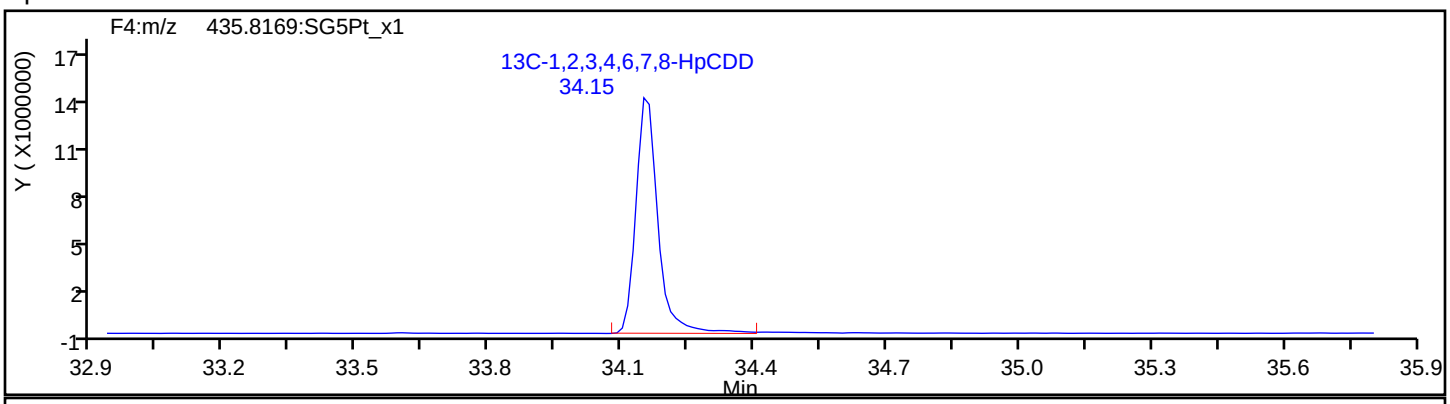
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

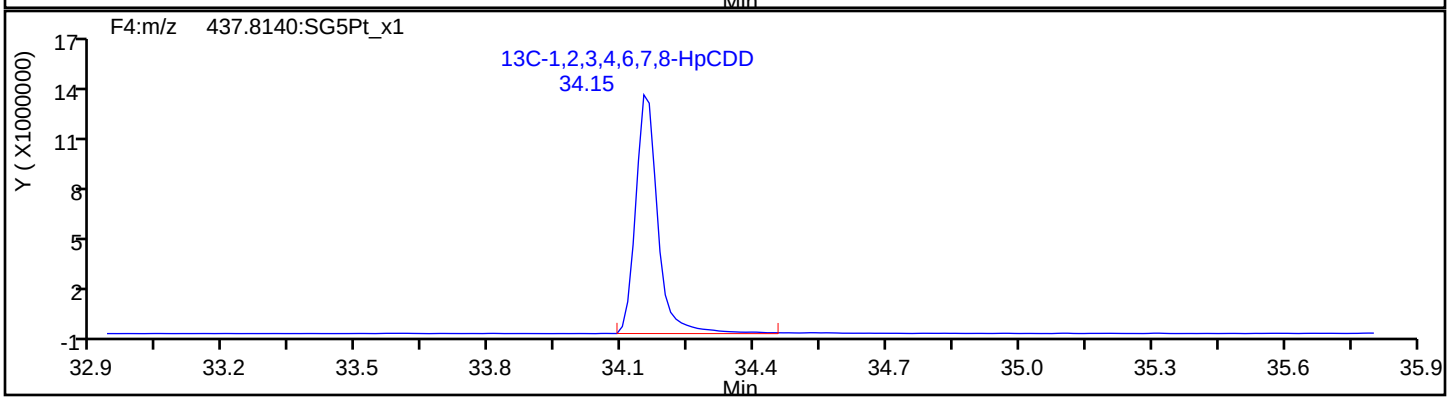
HpCDD





HpCDD Standards



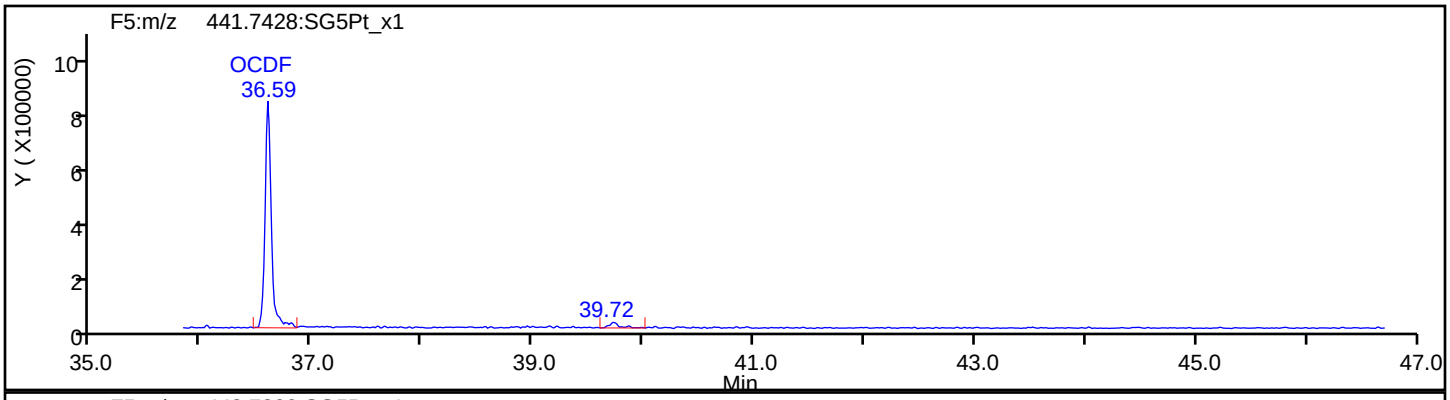


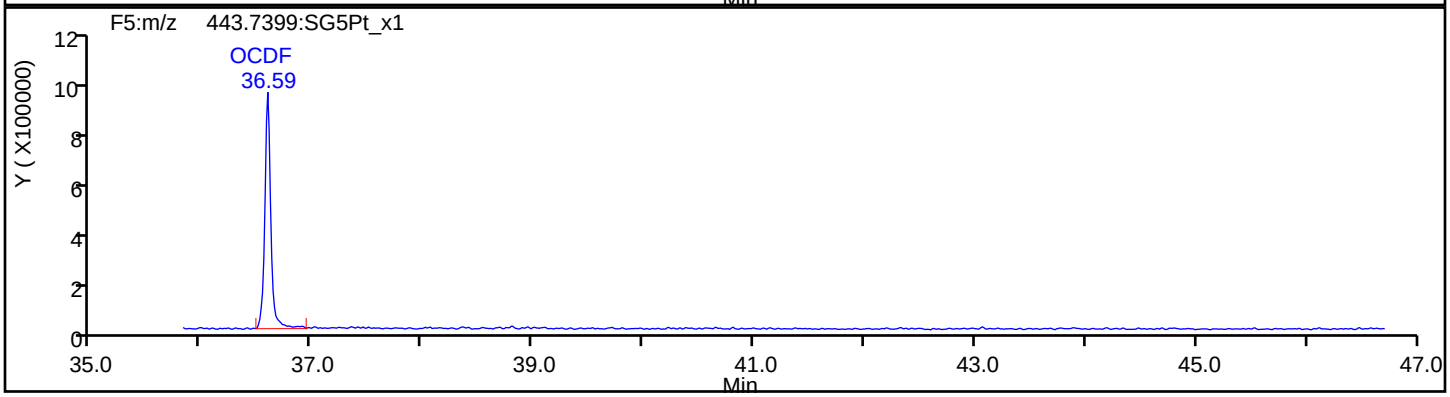
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

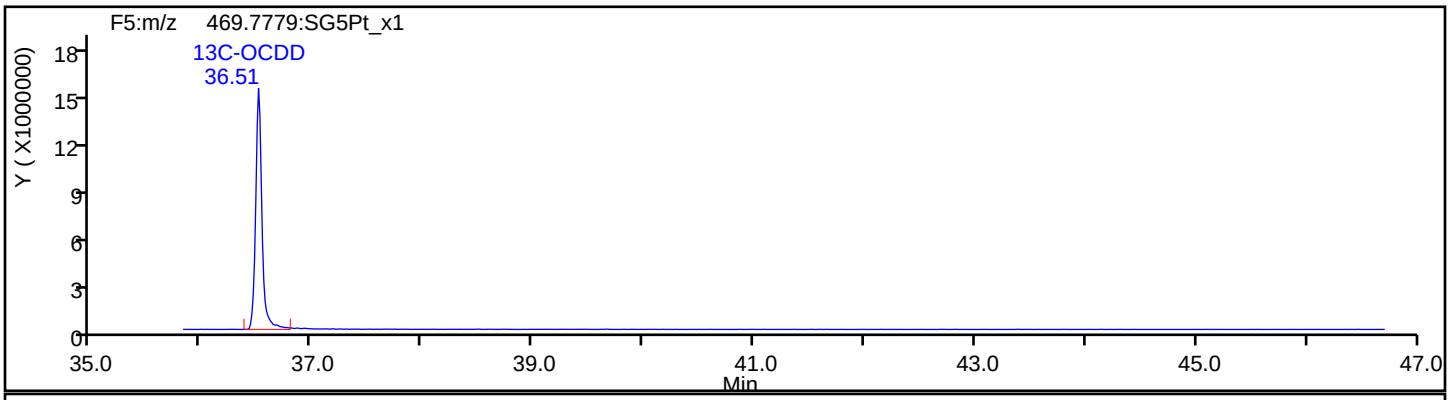
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

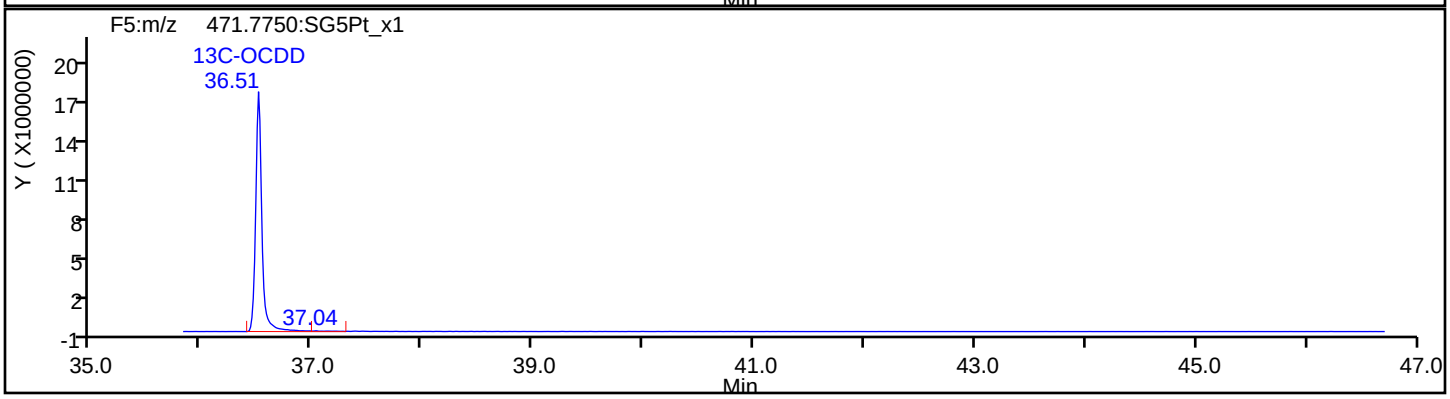
OCDF





OCDF Standards



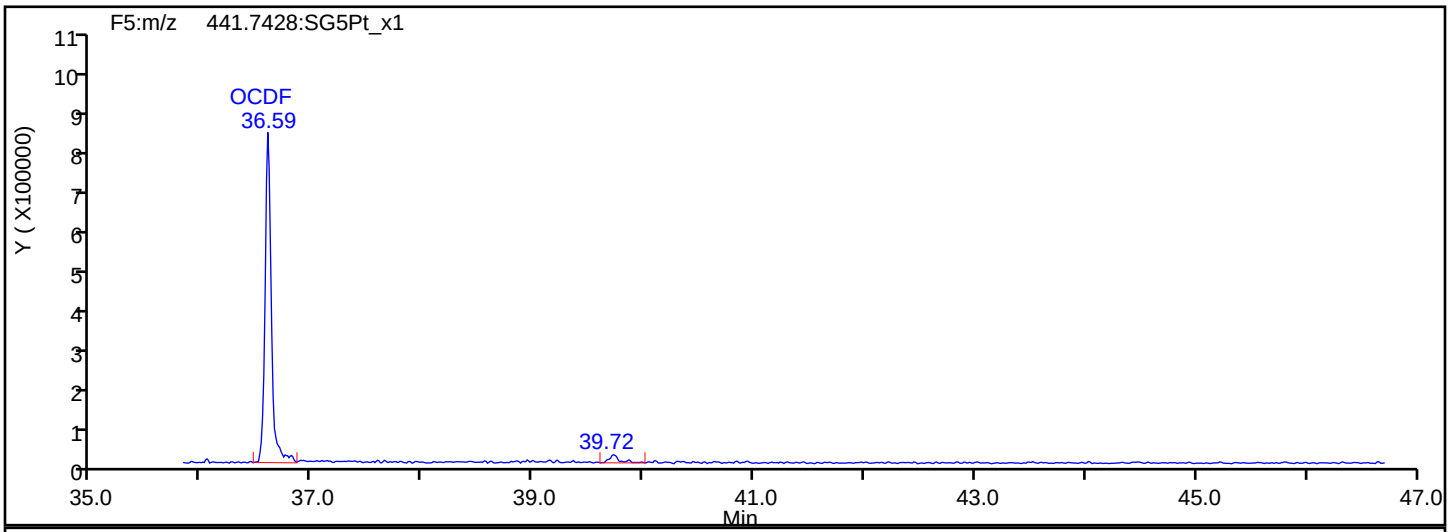


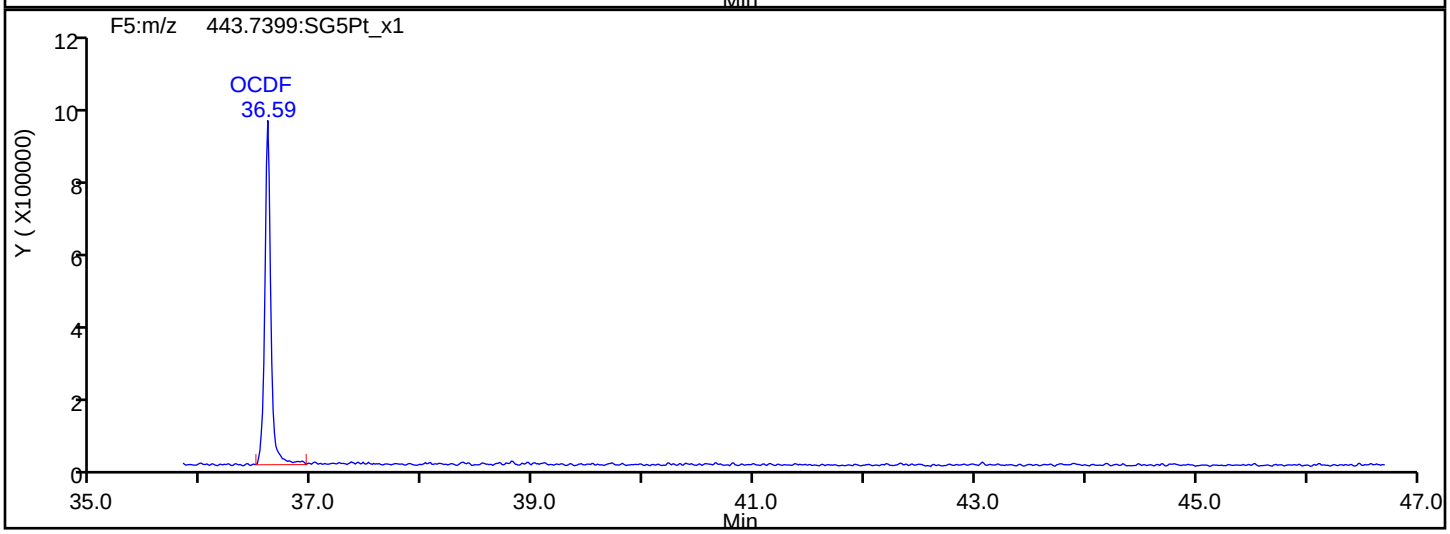
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

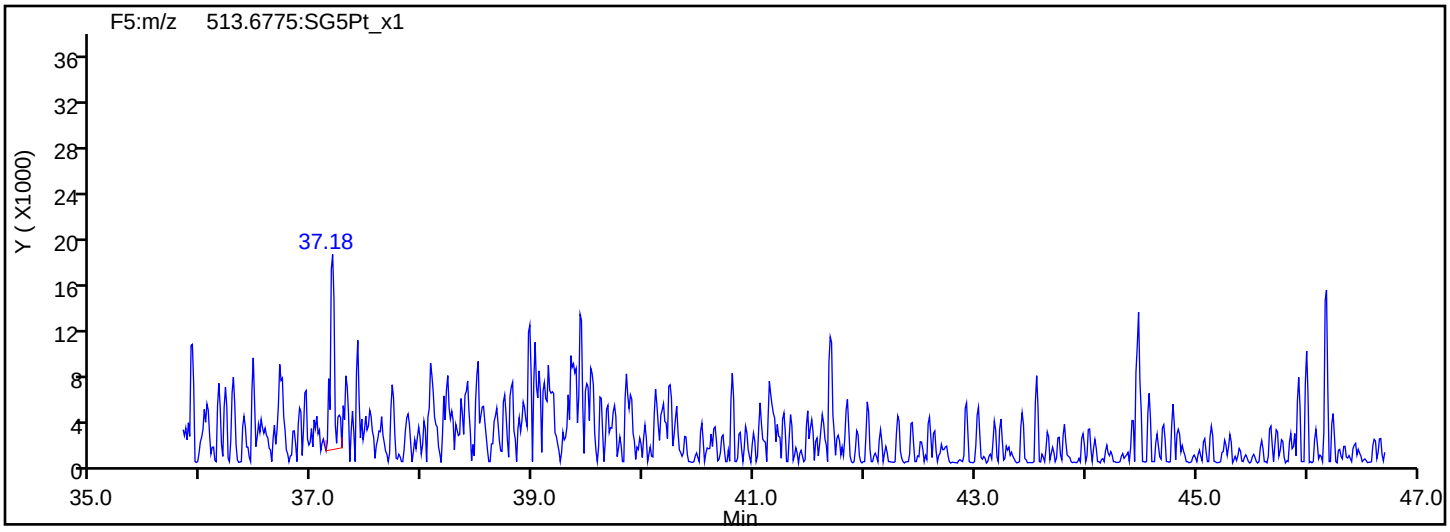
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

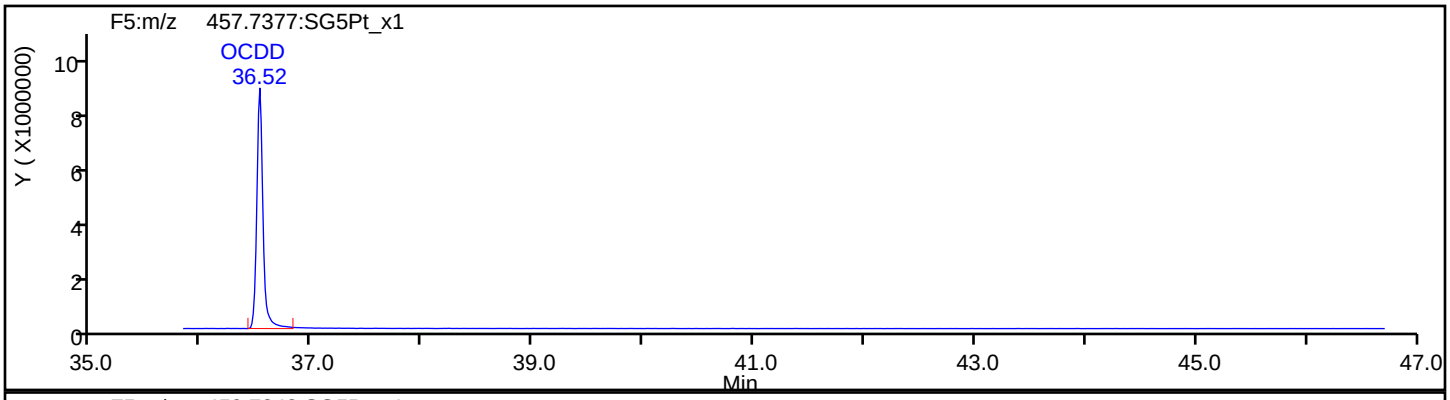


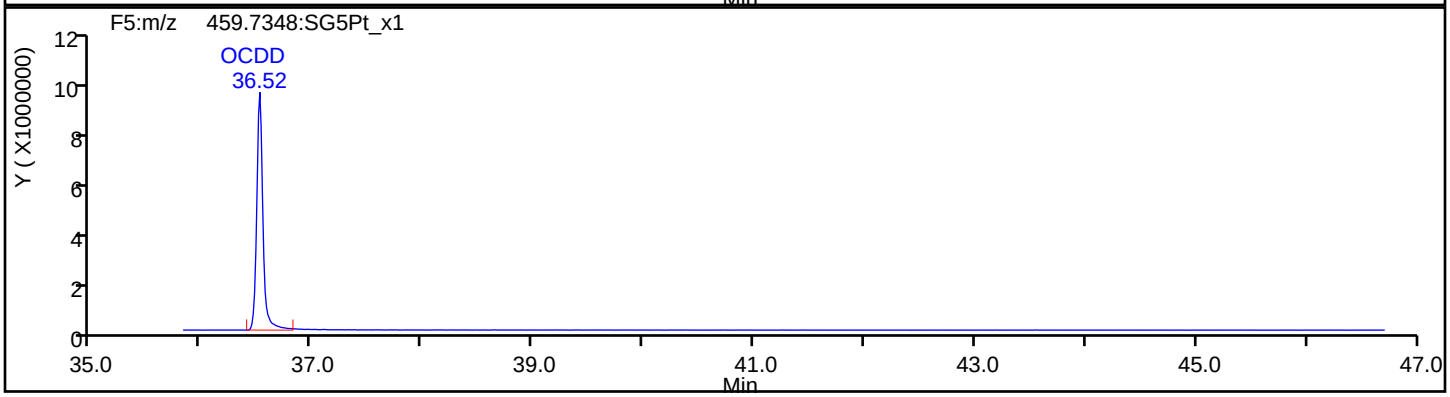
Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

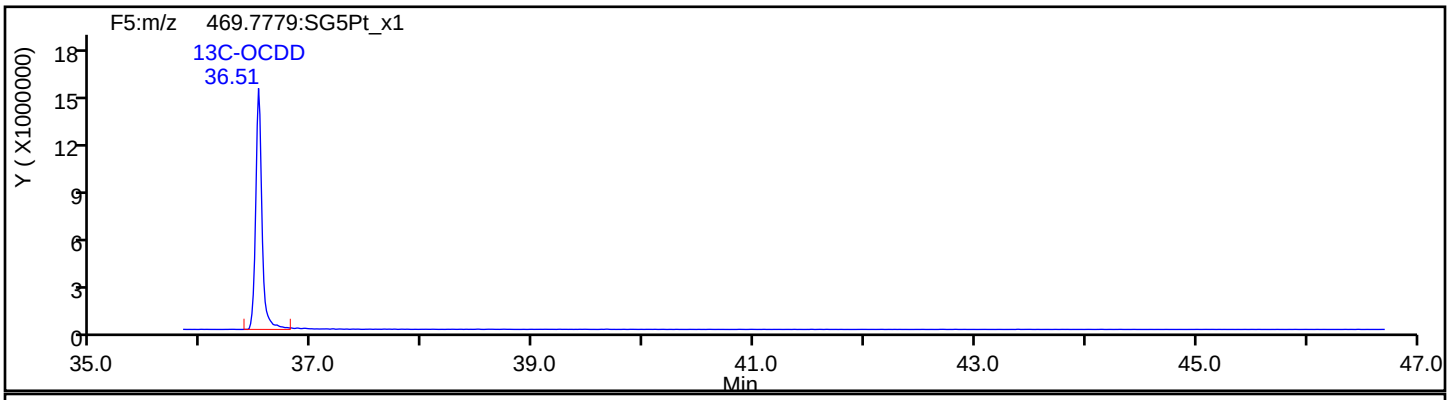
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm

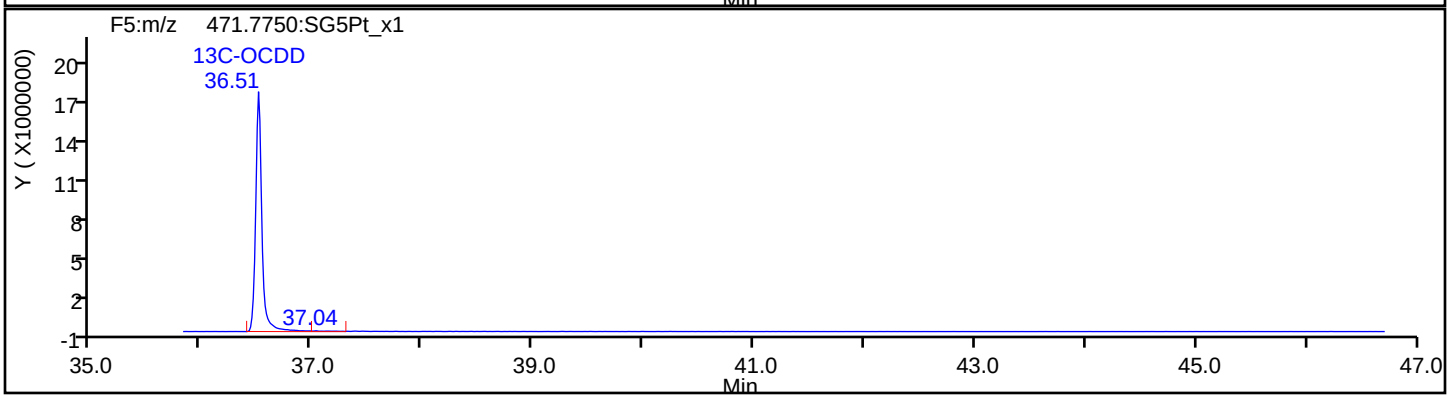
OCDD





OCDD Standards

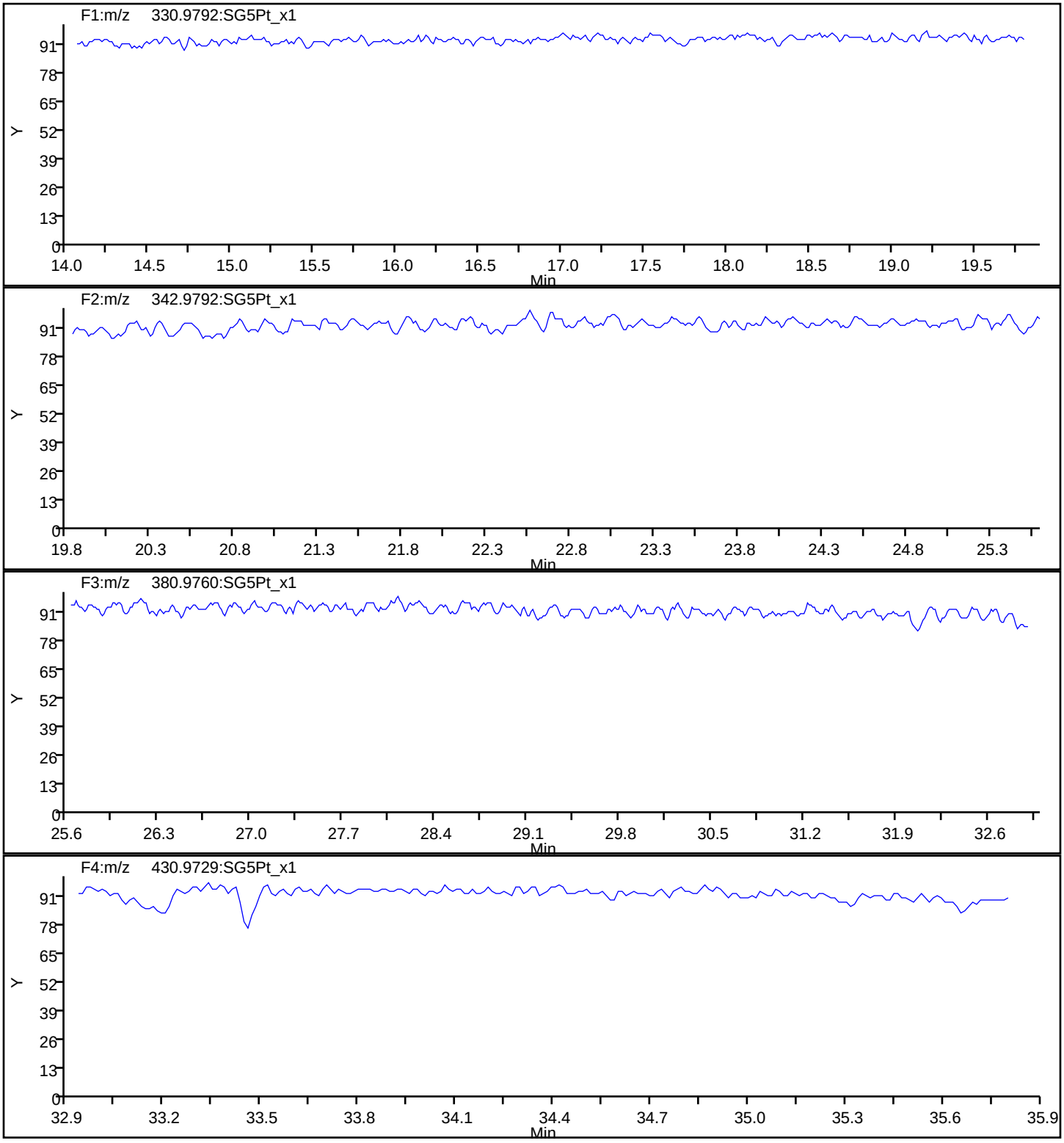




Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

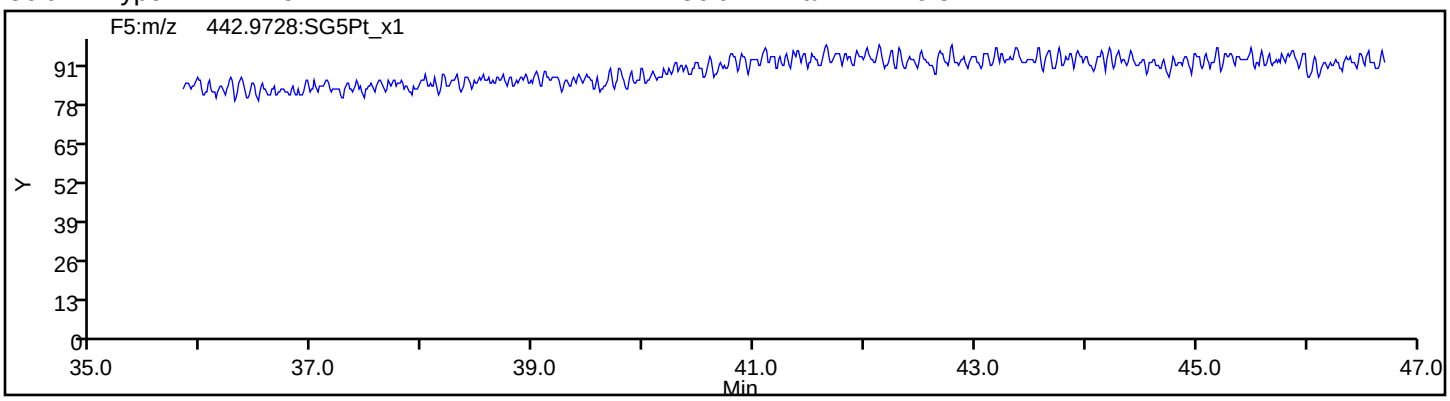
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 11:15:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_64.d		
Injection Date:	22-Jul-2019 03:51:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-15_20190716		
Worklist#:	309103	Sample Line#:	64
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 19JL19A3D5_69.d

Analysis Method: 1613B Date Collected: 07/16/2019 11:06

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 9.94(g) Date Analyzed: 07/22/2019 08:18

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.91	J	2.6	0.38
40321-76-4	1,2,3,7,8-PeCDD	ND		13	0.51
57117-41-6	1,2,3,7,8-PeCDF	2.9	J	13	0.45
57117-31-4	2,3,4,7,8-PeCDF	1.3	J	13	0.50
39227-28-6	1,2,3,4,7,8-HxCDD	1.4	J B	13	0.45
57653-85-7	1,2,3,6,7,8-HxCDD	4.5	J	13	0.43
19408-74-3	1,2,3,7,8,9-HxCDD	3.0	J q	13	0.42
70648-26-9	1,2,3,4,7,8-HxCDF	3.8	J	13	0.60
57117-44-9	1,2,3,6,7,8-HxCDF	ND		13	0.65
72918-21-9	1,2,3,7,8,9-HxCDF	2.5	J B	13	0.35
60851-34-5	2,3,4,6,7,8-HxCDF	0.55	J q	13	0.40
35822-46-9	1,2,3,4,6,7,8-HpCDD	88	B	13	1.1
67562-39-4	1,2,3,4,6,7,8-HpCDF	16	q	13	0.48
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.6	J q	13	0.55
3268-87-9	OCDD	790	B	26	0.86
39001-02-0	OCDF	50	B	26	0.56

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	69		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	73		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	73		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	73		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	62		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	62		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	69		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	62		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	66		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	71		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	62		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	66		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	75		26-138
114423-97-1	13C-OCDD	67		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Matrix: Solid Lab File ID: 19JL19A3D5_69.d

Analysis Method: 1613B Date Collected: 07/16/2019 11:06

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 9.94(g) Date Analyzed: 07/22/2019 08:18

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	98		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 08:18:58 ALS Bottle#: 48 Worklist Smp#: 69
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-9-A 580-87706-C-9-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:11:14 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 12:11:14

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	176990396	0.79	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.674	180982909	0.81	1.3908	73.5	73.5	0.2332	0.2332	73.52	
2,3,7,8-TCDF	16.690	1349810	0.86	0.9710	0.7681	0.7681	0.0674	0.0674		
A Non-2,3,7,8-sub-TCDF	16.402	486558	0.77	0.9710	0.2920	0.2769	0.0674	0.1437		RQ
S Total TCDF					1.060	1.045	0.0674	0.0674		RQ
D 13C-2,3,7,8-TCDD	17.340	119098306	0.77	0.9819	68.5	68.5	0.2909	0.2909	68.53	
2,3,7,8-TCDD	17.309	217260	0.78	1.0447	0.1746	0.1746	0.0726	0.0726		Ma
$ 37Cl4-2,3,7,8-TCDD	17.355	84359519		1.2205	39.1	39.1	0.0537	0.0537	97.63	
A Non-2,3,7,8-sub-TCDD	16.833	313826	0.77	1.0447	0.2724	0.2522	0.0726	0.2522		RQMa
S Total TCDD					0.4470	0.4268	0.0726	0.0726		RQ
D 13C-1,2,3,7,8-PeCDF	21.318	149859209	1.52	1.1585	73.1	73.1	0.2631	0.2631	73.09	
1,2,3,7,8-PeCDF	21.345	815423	1.45	0.9633	0.5648	0.5648	0.0861	0.0861		
D 13C-2,3,4,7,8-PeCDF	22.545	149536214	1.62	1.1532	73.3	73.3	0.2643	0.2643	73.27	
2,3,4,7,8-PeCDF	22.586	361813	1.35	0.9495	0.2548	0.2548	0.0954	0.0954		
A F1 PeCDFs	19.215	689575	1.55	0.9564	0.5829	0.4816	0.0525	0.4113		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	1433906	1.55	0.9564	1.071	1.002	0.0905	0.8099		RQ
S Total PeCDF					2.474	2.303	0.0907	0.0907		RQ
D 13C-1,2,3,7,8-PeCDD	23.213	95773589	1.58	0.7431	72.8	72.8	0.1488	0.1488	72.82	
1,2,3,7,8-PeCDD	23.254						0.0972	0.0972		
A Non-2,3,7,8-sub-PeCDD	22.232	390043	1.55	1.0635	0.4420	0.3830	0.0972	0.2495		RQ
S Total PeCDD					0.4420	0.3830	0.0972	0.0972		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.102	113793918	0.50	0.9837	68.9	68.9	0.3321	0.3321	68.87	
1,2,3,4,7,8-HxCDF	29.155	1011994	1.27	1.2173	0.7305	0.7305	0.1146	0.1146		
D 13C-1,2,3,6,7,8-HxCDF	29.408	120715528	0.55	1.1554	62.2	62.2	0.2827	0.2827	62.20	
1,2,3,6,7,8-HxCDF	29.462						0.1242	0.1242		
D 13C-2,3,4,6,7,8-HxCDF	30.646	114703211	0.50	1.0361	65.9	65.9	0.3153	0.3153	65.91	
2,3,4,6,7,8-HxCDF	30.673	142547	1.24	1.1710	0.1330	0.1061	0.0776	0.0776		RQMa
D 13C-1,2,3,7,8,9-HxCDF	31.672	107242943	0.52	0.9034	70.7	70.7	0.3616	0.3616	70.67	
1,2,3,7,8,9-HxCDF	31.685	605050	1.26	1.1787	0.4787	0.4787	0.0673	0.0673		
A Non-2,3,7,8-sub-HxCDF	29.135	5149925	1.20	1.1745	3.842	3.842	0.0899	1.713		Ma

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					5.185	5.158	0.0959	0.0959		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.459	167974146	1.28	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.913	86025666	1.34	0.8287	61.8	61.8	0.2481	0.2481	61.80	
1,2,3,4,7,8-HxCDD	30.926	236963	1.23	1.0267	0.2683	0.2683	0.0863	0.0863		a
D 13C-1,2,3,6,7,8-HxCDD	31.059	99087904	1.29	0.9495	62.1	62.1	0.2166	0.2166	62.13	
1,2,3,6,7,8-HxCDD	31.073	829590	1.21	0.9771	0.8569	0.8569	0.0832	0.0832		a
1,2,3,7,8,9-HxCDD	31.472	570011	1.24	1.0616	0.6391	0.5801	0.0798	0.0798		RQ
A Non-2,3,7,8-sub-HxCDD	29.926	4420570	1.15	1.0218	4.674	4.674	0.0830	2.616		
S Total HxCDD					6.438	6.380	0.0831	0.0831		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.323	81102351	0.43	0.7285	66.3	66.3	0.6544	0.6544	66.28	
1,2,3,4,6,7,8-HpCDF	33.335	3619998	1.04	1.4373	3.454	3.105	0.0918	0.0918		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	82865705	0.42	0.6556	75.2	75.2	0.7271	0.7271	75.24	
1,2,3,4,7,8,9-HpCDF	34.429	329833	1.04	1.3091	0.3357	0.3041	0.1055	0.1055		RQ
A Non-2,3,7,8-sub-HpCDF	33.894	7167969	1.10	1.3732	6.367	6.367	0.0983	6.367		
S Total HpCDF					10.2	9.777	0.0986	0.0986		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	72803765	1.08	0.6978	62.1	62.1	0.3169	0.3169	62.11	
1,2,3,4,6,7,8-HpCDD	34.150	12488642	1.00	1.0102	17.0	17.0	0.2149	0.2149		
A Non-2,3,7,8-sub-HpCDD	35.074	15140753	0.99	1.0102	20.6	20.6	0.2149	20.6		a
S Total HpCDD					37.6	37.6	0.2149	0.2149		
D 13C-OCDD	36.486	108099659	0.90	0.4780	134.6	134.6	0.1789	0.1789	67.32	
OCDF	36.569	6987320	0.90	1.3501	9.575	9.575	0.1079	0.1079		
OCDD	36.498	86756892	0.92	1.0627	151.0	151.0	0.1660	0.1660		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 08:18:58 ALS Bottle#: 48 Worklist Smp#: 69
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-9-A 580-87706-C-9-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:11:14 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 12:11:14

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		78118272	19713853	25635	64087	769		
333.9339	17.158	17.158	0		98872124	25184863	25669	64172	981	0.79(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.674	16.690	-1	0.972	80775796	20791250	34919	87297	595		
317.9389	16.674	16.690	-1	0.972	100207113	25353451	23329	58322	1087	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.690	16.705	-1	1.001	624939	141501	4274	10685	33		
305.8987	16.690	16.705	-1	1.001	724871	178267	7809	19522	23	0.86(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.905	16.402	-90	0.894	136491	33817	4274	10685	8		
	Empc Correction				109873	31935	4274	10685	7		
305.8987	14.890	16.402	-91	0.893	142693	41475	7809	19522	5	0.96(0.65-0.89)	
303.9016	15.359	16.402	-62	0.921	99853	25219	4274	10685	6		
305.8987	15.374	16.402	-62	0.922	134139	39785	7809	19522	5	0.74(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.011	51825183	12461692	25635	64087	486		
333.9339	17.340	17.355	-1	1.011	67273123	16039923	25669	64172	625	0.77(0.65-0.89)	
2,3,7,8-TCDD											Ma
319.8965	17.309	17.355	-3	0.998	95323	19943	6223	15557	3		M
321.8936	17.355	17.355	0	1.001	121937	29163	2426	6065	12	0.78(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.355	17.370	-1	1.011	84359519	20101312	11782	29455	1706		
A Non-2,3,7,8-sub-TCDD											RQMa

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
319.8965	17.264	16.833	26	0.996	161600	34490	6223	15557	6		M
	Empc Correction				136523	35697	6223	15557	6		
321.8936	17.264	16.833	26	0.996	177303	46360	2426	6065	19	0.91(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.318	21.332	-1	1.242	90404021	16723186	32028	80070	522		
353.8970	21.318	21.332	-1	1.242	59455188	10439608	22708	56770	460	1.52(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.345	21.345	0	1.001	482535	81574	4284	10710	19		
341.8567	21.332	21.345	-1	1.001	332888	57150	4724	11810	12	1.45(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.545	22.559	-1	1.314	92517252	15337970	32028	80070	479		
353.8970	22.545	22.559	-1	1.314	57018962	9521672	22708	56770	419	1.62(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586	22.586	0	1.002	207924	35707	4284	10710	8		
341.8567	22.573	22.586	-1	1.001	153889	27224	4724	11810	6	1.35(1.32-1.78)	
A F1 PeCDFs											RQ
339.8597	18.670	19.215	-33	0.876	357931	80240	1647	4117	49		
341.8567	18.670	19.215	-33	0.876	319170	60344	3579	8947	17	1.12(1.32-1.78)	
	Empc Correction				230923	51767	3579	8947	14		
339.8597	18.897	19.215	-19	0.886	61223	11506	1647	4117	7		
341.8567	18.897	19.215	-19	0.886	96274	15958	3579	8947	4	0.64(1.32-1.78)	
	Empc Correction				39498	7423	3579	8947	2		
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.091	22.104	-121	0.942	706894	113502	4284	10710	26		
341.8567	20.091	22.104	-121	0.942	452724	67433	4724	11810	14	1.56(1.32-1.78)	
339.8597	20.841	22.104	-76	0.978	266616	31807	4284	10710	7		
	Empc Correction				166724	27572	4284	10710	6		
341.8567	20.813	22.104	-77	0.976	107564	17789	4724	11810	4	2.48(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.213	23.227	-1	1.353	58660878	9213852	9657	24142	954		
369.8919	23.213	23.227	-1	1.353	37112711	6058127	10197	25492	594	1.58(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4090	10225			
357.8516	23.254						2222	5555			
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.282	22.232	-117	0.874	191101	31721	4090	10225	8		
	Empc Correction				154452	32673	4090	10225	8		
357.8516	20.282	22.232	-117	0.874	99647	21080	2222	5555	9	1.92(1.32-1.78)	
355.8546	21.591	22.232	-38	0.930	82633	15547	4090	10225	4		
357.8516	21.618	22.232	-37	0.931	76815	10915	2222	5555	5	1.08(1.32-1.78)	
	Empc Correction				53311	10030	2222	5555	5		
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.102	29.115	-1	0.925	38079440	4458113	17319	43297	257		
385.8610	29.102	29.115	-1	0.925	75714478	9017690	30083	75207	300	0.50(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.155	29.155	0	1.002	566588	63347	3967	9917	16		
375.8178	29.102	29.155	-3	1.000	445406	48644	3553	8882	14	1.27(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.408	29.421	-1	0.935	42660407	4763635	17319	43297	275		
385.8610	29.408	29.421	-1	0.935	78055121	8619642	30083	75207	287	0.55(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.462						3967	9917			
375.8178	29.462						3553	8882			
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.646	30.660	-1	0.974	38210689	6951048	17319	43297	401		
385.8610	30.646	30.660	-1	0.974	76492522	13729685	30083	75207	456	0.50(0.43-0.59)	
2,3,4,6,7,8-HxCDF											RQMa
373.8208	30.673	30.687	-1	1.001	78910	17329	3967	9917	4		a
375.8178	30.660	30.687	-2	1.000	99749	14320	3553	8882	4	0.79(1.05-1.43)	M
	Empc Correction				63637	13974	3553	8882	4		
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.007	36588917	7996252	17319	43297	462		
385.8610	31.659	31.672	-1	1.006	70654026	15709941	30083	75207	522	0.52(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	336756	56641	3967	9917	14		
375.8178	31.672	31.685	-1	1.000	268294	54631	3553	8882	15	1.26(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											Ma
373.8208	26.492	29.135	-158	0.910	283400	48149	3967	9917	12		
375.8178	26.505	29.135	-157	0.911	226685	35202	3553	8882	10	1.25(1.05-1.43)	
373.8208	26.825	29.135	-138	0.922	1103847	145957	3967	9917	37		
375.8178	26.825	29.135	-138	0.922	911979	118993	3553	8882	33	1.21(1.05-1.43)	
373.8208	28.037	29.135	-66	0.963	1246917	142473	3967	9917	36		
375.8178	28.037	29.135	-66	0.963	1049185	135259	3553	8882	38	1.19(1.05-1.43)	
373.8208	30.527	29.135	83	1.049	177001	29710	3967	9917	7		M
375.8178	30.553	29.135	85	1.050	150911	20362	3553	8882	6	1.17(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.459	31.472	-1		94151554	20398597	15816	39540	1290		
403.8529	31.459	31.472	-1		73822592	15876718	14020	35050	1132	1.28(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.913	30.926	-1	0.983	49269685	10046988	15816	39540	635		
403.8529	30.913	30.926	-1	0.983	36755981	7588899	14020	35050	541	1.34(1.05-1.43)	
1,2,3,4,7,8-HxCDD											a
389.8157	30.926	30.953	-2	1.000	130591	28086	2723	6807	10		a
391.8127	30.940	30.953	-1	1.001	106372	28095	3524	8810	8	1.23(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	55846453	10868382	15816	39540	687		
403.8529	31.046	31.059	-1	0.987	43241451	8343800	14020	35050	595	1.29(1.05-1.43)	
1,2,3,6,7,8-HxCDD											a
389.8157	31.073	31.086	-1	1.000	455027	91309	2723	6807	34		a
391.8127	31.073	31.086	-1	1.000	374563	74382	3524	8810	21	1.21(1.05-1.43)	
1,2,3,7,8,9-HxCDD											RQ
389.8157	31.472	31.485	-1	1.018	315542	62287	2723	6807	23		
391.8127	31.472	31.485	-1	1.018	312419	53757	3524	8810	15	1.01(1.05-1.43)	
	Empc Correction				254469	50231	3524	8810	14		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.930	29.926	-120	0.899	842808	98487	2723	6807	36		
391.8127	27.903	29.926	-121	0.898	739072	91110	3524	8810	26	1.14(1.05-1.43)	
389.8157	29.248	29.926	-41	0.942	203944	14505	2723	6807	5		
391.8127	29.262	29.926	-40	0.942	160954	15526	3524	8810	4	1.27(1.05-1.43)	
389.8157	29.901	29.926	-2	0.963	1322374	158460	2723	6807	58		
391.8127	29.901	29.926	-2	0.963	1151418	134664	3524	8810	38	1.15(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.323	33.335	-1	1.059	24450907	7450118	25823	64557	289		
419.8220	33.323	33.335	-1	1.059	56651444	17380037	43352	108380	401	0.43(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.335	33.347	-1	1.000	2251573	731450	8432	21080	87		
	Empc Correction				1845489	559613	8432	21080	66		
409.7789	33.335	33.347	-1	1.000	1774509	538090	4667	11667	115	1.27(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	24455117	7129426	25823	64557	276		
419.8220	34.417	34.429	-1	1.094	58410588	16574142	43352	108380	382	0.42(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											RQ
407.7818	34.429	34.441	-1	1.000	202442	58418	8432	21080	7		
	Empc Correction				168150	52849	8432	21080	6		
409.7789	34.429	34.441	-1	1.000	161683	50817	4667	11667	11	1.25(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.639	33.894	-15	1.009	3757162	1159263	8432	21080	137		
409.7789	33.639	33.894	-15	1.009	3410807	1073131	4667	11667	230	1.10(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.085	37745470	11067690	17228	43070	642		
437.8140	34.138	34.150	-1	1.085	35058295	10308739	14859	37147	694	1.08(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	6249345	1919523	9811	24527	196		
425.7737	34.150	34.162	-1	1.000	6239297	1879447	8753	21882	215	1.00(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.591	35.074	-89	0.984	7521822	2301816	9811	24527	235		a
425.7737	33.591	35.074	-89	0.984	7618931	2373345	8753	21882	271	0.99(0.88-1.20)	
13C-OCDD											
469.7779	36.486	36.498	-1	1.160	51123309	12609154	6126	15315	2058		
471.7750	36.486	36.498	-1	1.160	56976350	14206561	6280	15700	2262	0.90(0.76-1.02)	
OCDF											
441.7428	36.569	36.582	-1	1.002	3303211	815681	3342	8355	244		
443.7399	36.569	36.582	-1	1.002	3684109	922849	4474	11185	206	0.90(0.76-1.02)	
OCDD											
457.7377	36.498	36.509	-1	1.000	41541488	10630004	4991	12477	2130		
459.7348	36.498	36.509	-1	1.000	45215404	11456810	4472	11180	2562	0.92(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	180982909	46144701

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	180982909	46144701

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.905	136491	33817	142693	41475	0.1589	0.96	RQ
14.905	109873	31935	142693	41475	0.1437		Empc Correction
15.359	99853	25219	134139	39785	0.1331	0.74	
Signal Totals:							
	209726	57154	276832	81260			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	513176	140296				0.85	RQ
	486558	138414					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2920 = (513176 * 100.000) / (180982909 * 0.971)
Empc Amount: 0.2769 = (486558 * 100.000) / (180982909 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	119098306	28501615

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	119098306	28501615

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.264	161600	34490	177303	46360	0.2724	0.91	RQMa
17.264	136523	35697	177303	46360	0.2522		Empc Correction
Signal Totals:							
	136523	35697	177303	46360			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	338903	80850				0.91	RQMa
	313826	82057					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2724 = (338903 * 100.000) / (119098306 * 1.045)
Empc Amount: 0.2522 = (313826 * 100.000) / (119098306 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 12:11:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	149859209	27162794
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	149536214	24859642

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	149697711	26011218

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.670	357931	80240	319170	60344	0.4729	1.12	RQ
18.670	357931	80240	230923	51767	0.4113		Empc Correction
18.897	61223	11506	96274	15958	0.1100	0.64	RQ
18.897	61223	11506	39498	7423	0.0703		Empc Correction
Signal Totals:							
	419154	91746	270421	59190			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	834598	168048				1.01	RQ
	689575	150936					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5829 = (834598 * 100.000) / (149697711 * 0.956)
Empc Amount: 0.4816 = (689575 * 100.000) / (149697711 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	149859209	27162794
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	149536214	24859642

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	149697711	26011218

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.091	706894	113502	452724	67433	0.8099	1.56	
20.841	266616	31807	107564	17789	0.2613	2.48	RQ
20.841	166724	27572	107564	17789	0.1916		Empc Correction
Signal Totals:							
	873618	141074	560288	85222			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1533798	230531				1.74	RQ
	1433906	226296					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.071 = (1533798 * 100.000) / (149697711 * 0.956)
Empc Amount: 1.002 = (1433906 * 100.000) / (149697711 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 12:11:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	95773589	15271979

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	95773589	15271979

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.282	191101	31721	99647	21080	0.2855	1.92	RQ
20.282	154452	32673	99647	21080	0.2495		Empc Correction
21.591	82633	15547	76815	10915	0.1565	1.08	RQ
21.591	82633	15547	53311	10030	0.1335		Empc Correction
Signal Totals:							
	237085	48220	152958	31110			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	450196	79263				1.55	RQ
	390043	79330					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4420 = (450196 * 100.000) / (95773589 * 1.063)
Empc Amount: 0.3830 = (390043 * 100.000) / (95773589 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 12:11:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	113793918	13475803
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	120715528	13383277
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	114703211	20680733
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	107242943	23706193

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	114113900	17811501

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.492	283400	48149	226685	35202	0.3806	1.25	
26.825	1103847	145957	911979	118993	1.50	1.21	
28.037	1246917	142473	1049185	135259	1.71	1.19	
30.527	177001	29710	150911	20362	0.2447	1.17	Ma
Signal Totals:							
	2811165	366289	2338760	309816			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	5149925	676105				1.20	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.842 = (5149925 * 100.000) / (114113900 * 1.175)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	86025666	17635887
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	99087904	19212182
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	92556785	18424034

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.930	842808	98487	739072	91110	1.67	1.14	
29.248	203944	14505	160954	15526	0.3858	1.27	
29.901	1322374	158460	1151418	134664	2.62	1.15	
Signal Totals:							
	2369126	271452	2051444	241300			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	4420570	512752				1.15	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.674 = (4420570 * 100.000) / (92556785 * 1.022)

Report Date: 23-Jul-2019 12:11:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	81102351	24830155
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	82865705	23703568

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	81984028	24266861

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.639	3757162	1159263	3410807	1073131	6.37	1.10	
Signal Totals:							
	3757162	1159263	3410807	1073131			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	7167969	2232394				1.10	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 6.367 = (7167969 * 100.000) / (81984028 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Inject. Date: 22-Jul-2019 08:18:58 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 69

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	72803765	21376429

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	72803765	21376429

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.591	7521822	2301816	7618931	2373345	20.6	0.99	a
Signal Totals:							
	7521822	2301816	7618931	2373345			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	15140753	4675161				0.99	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 20.587 = (15140753 * 100.000) / (72803765 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

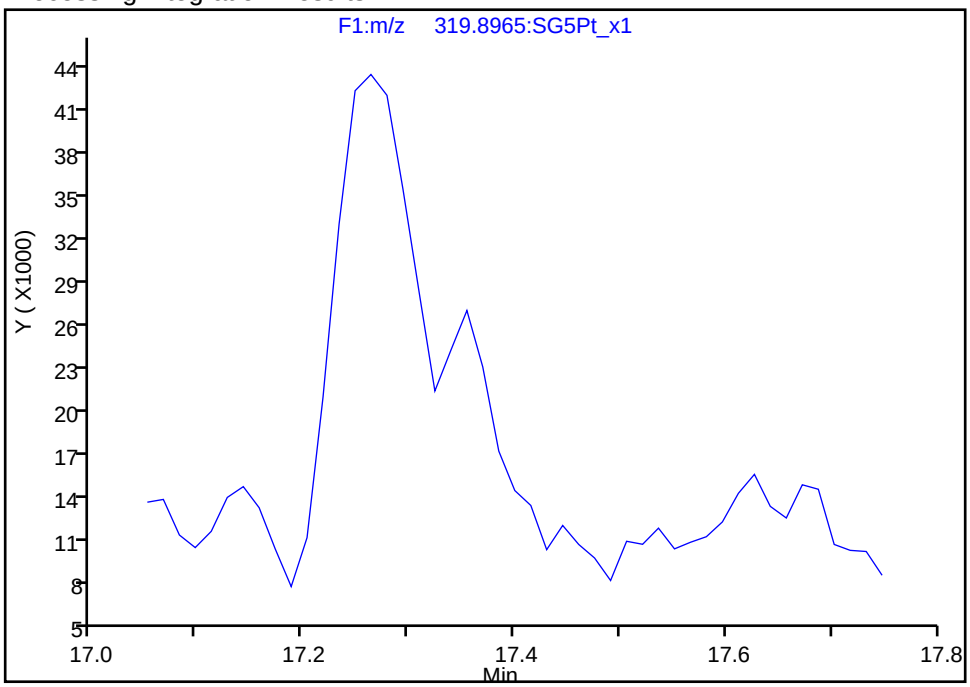
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d				
Injection Date:	22-Jul-2019 08:18:58	Instrument ID:	3D5		
Lims ID:	580-87706-C-9-A	Lab Sample ID:	320-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	48	Worklist Smp#:	69
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

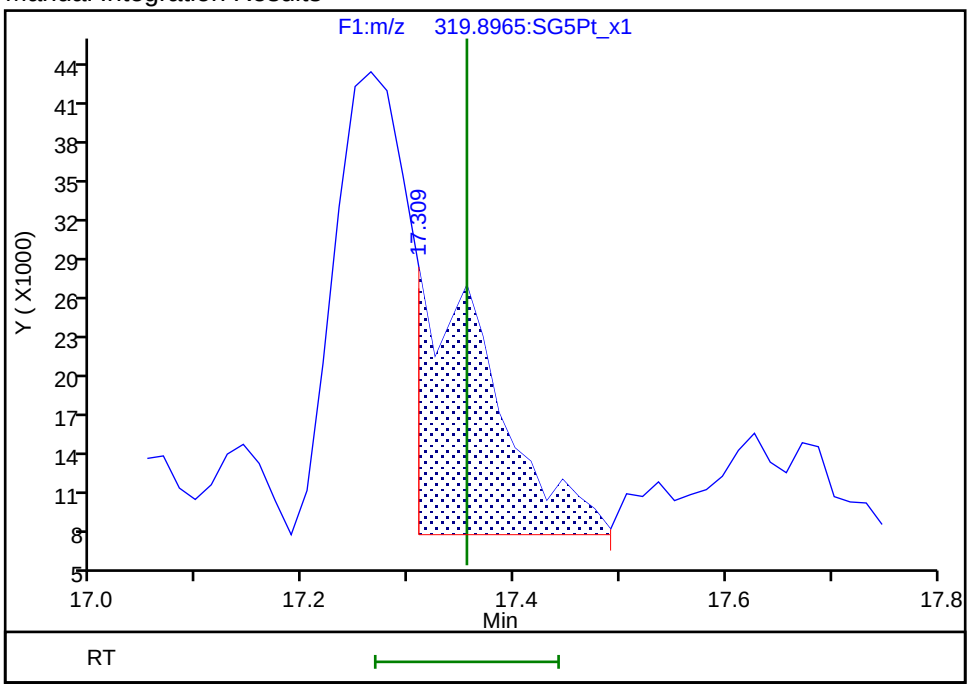
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.31
Area: 95323
Amount: 0.174612
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:08:29
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

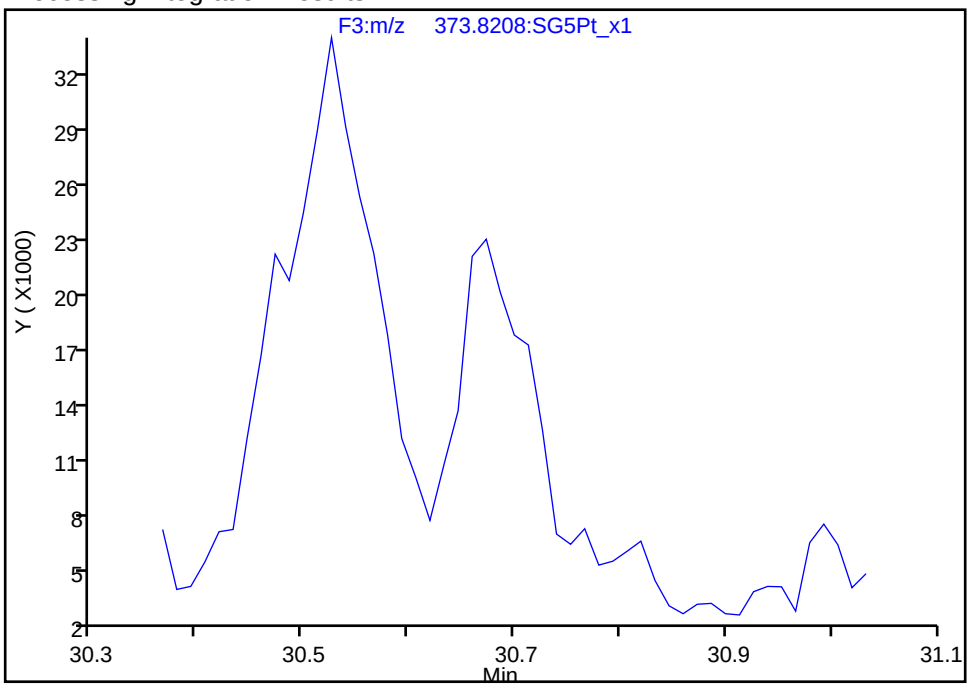
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d				
Injection Date:	22-Jul-2019 08:18:58	Instrument ID:	3D5		
Lims ID:	580-87706-C-9-A	Lab Sample ID:	320-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	48	Worklist Smp#:	69
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

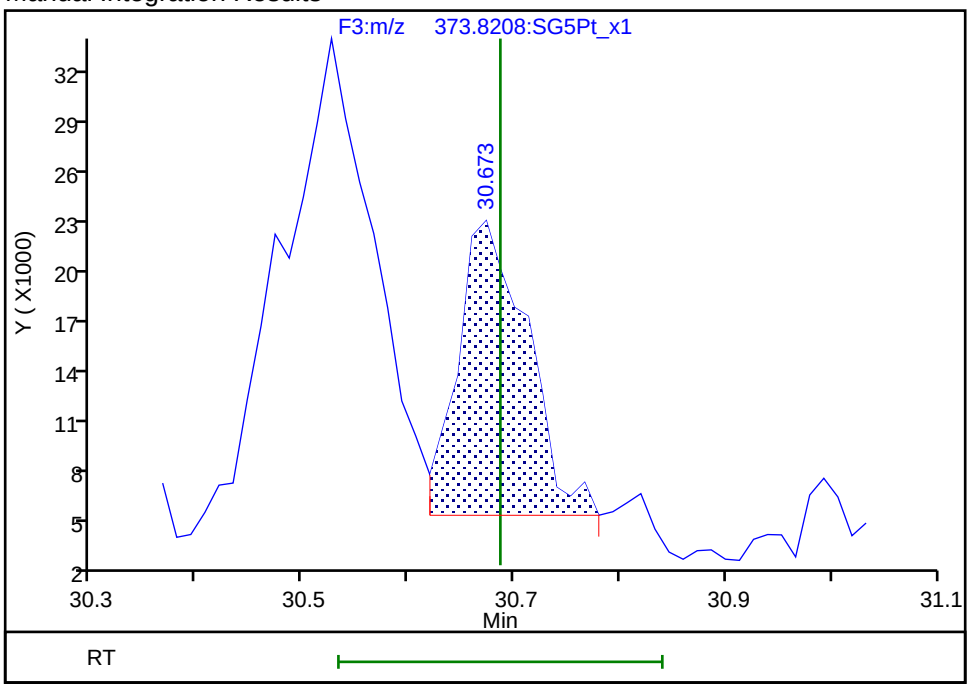
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.67
Area: 78910
Amount: 0.133014
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:09:45
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

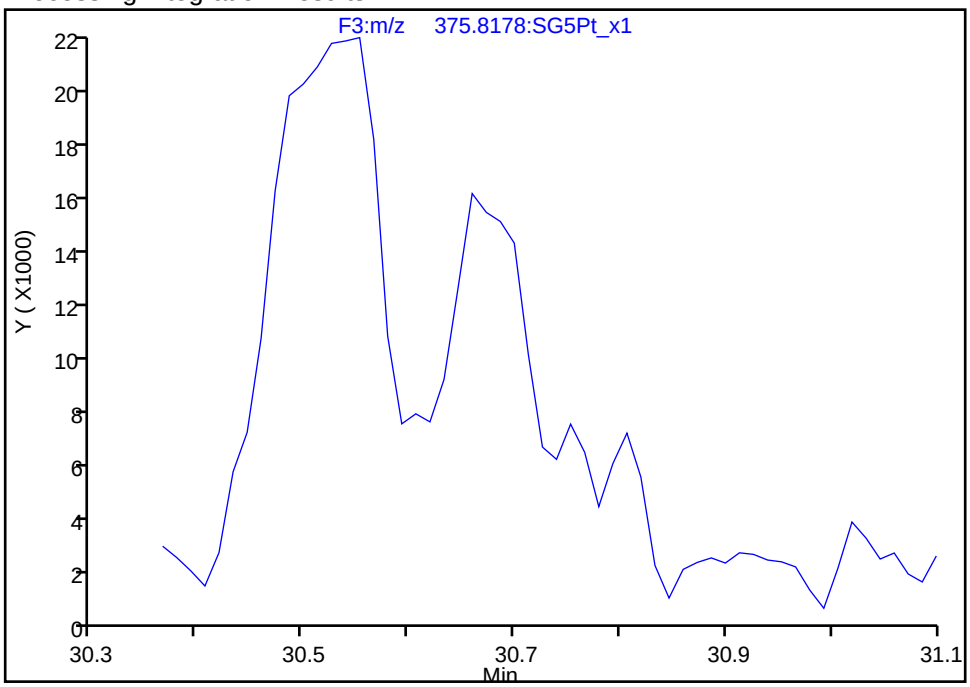
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d				
Injection Date:	22-Jul-2019 08:18:58	Instrument ID:	3D5		
Lims ID:	580-87706-C-9-A	Lab Sample ID:	320-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	48	Worklist Smp#:	69
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 2

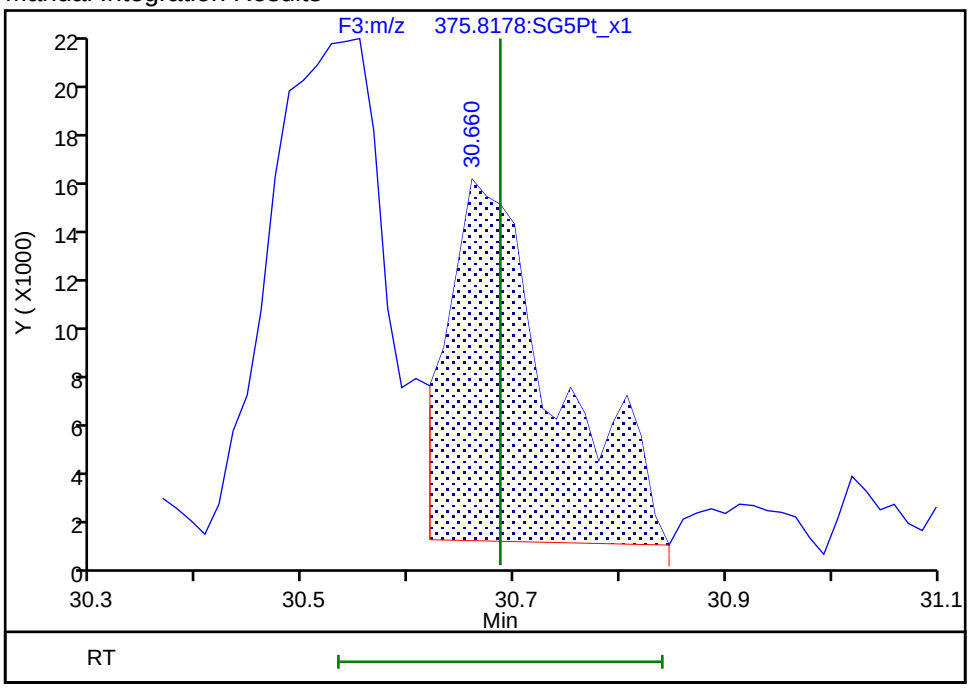
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.66
Area: 99749
Amount: 0.133014
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:09:50
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

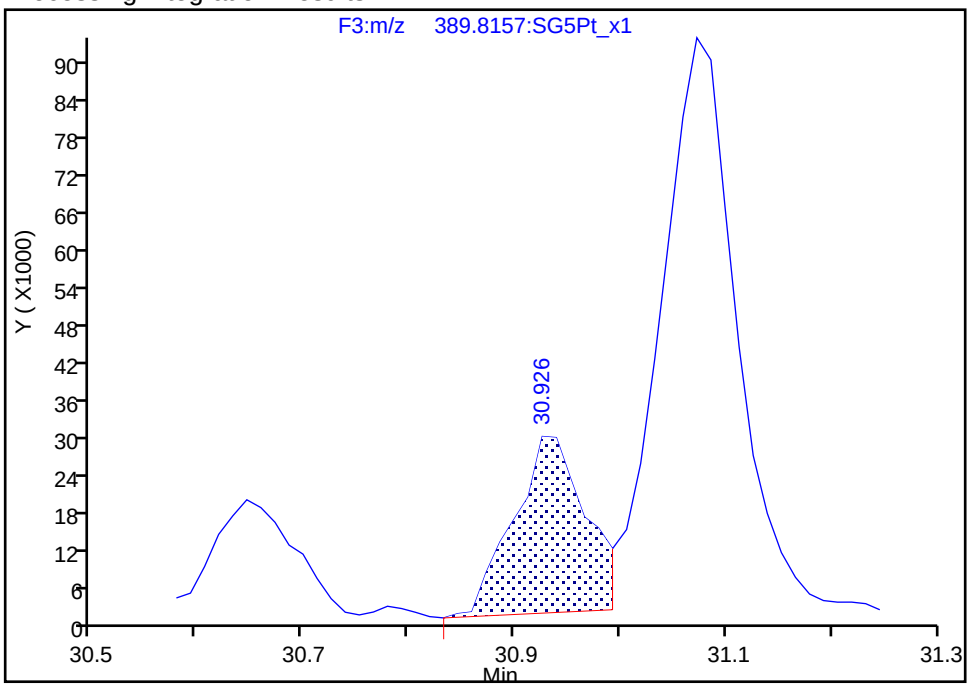
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d				
Injection Date:	22-Jul-2019 08:18:58	Instrument ID:	3D5		
Lims ID:	580-87706-C-9-A	Lab Sample ID:	320-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	48	Worklist Smp#:	69
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

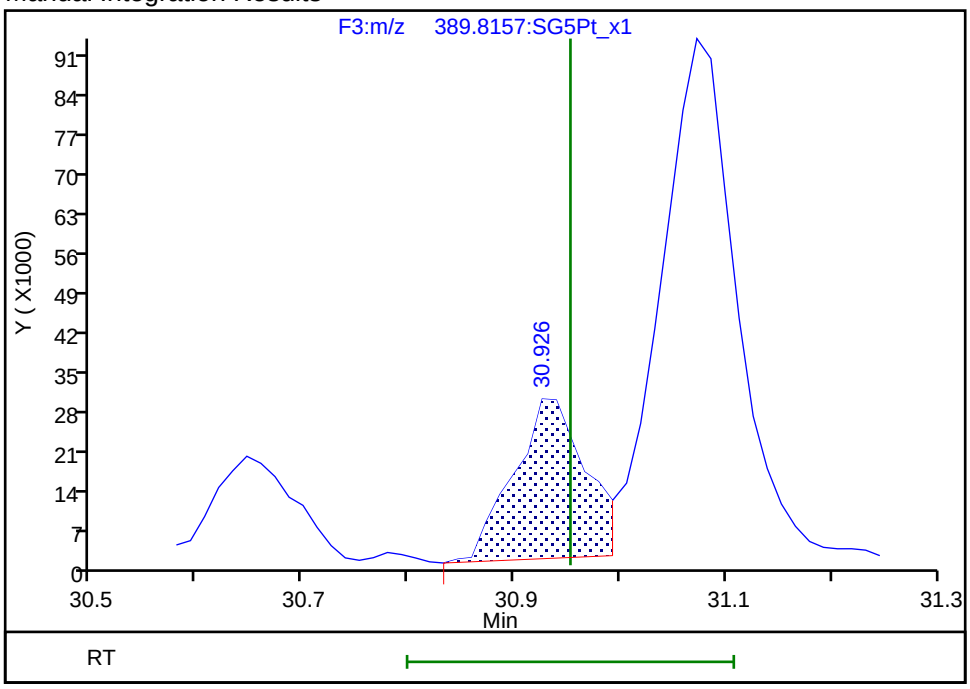
Processing Integration Results

RT: 30.93
Area: 130591
Amount: 0.268297
Amount Units: pg/ul



Manual Integration Results

RT: 30.93
Area: 130591
Amount: 0.268297
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:10:41
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

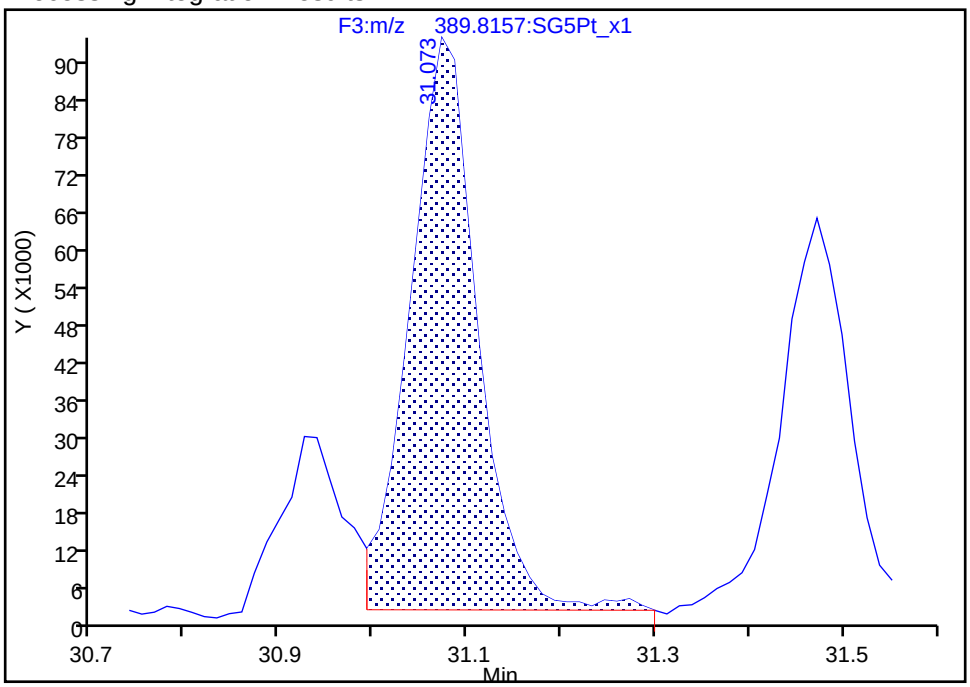
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d				
Injection Date:	22-Jul-2019 08:18:58	Instrument ID:	3D5		
Lims ID:	580-87706-C-9-A	Lab Sample ID:	320-87706-9		
Client ID:	22T-SG-14_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	48	Worklist Smp#:	69
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

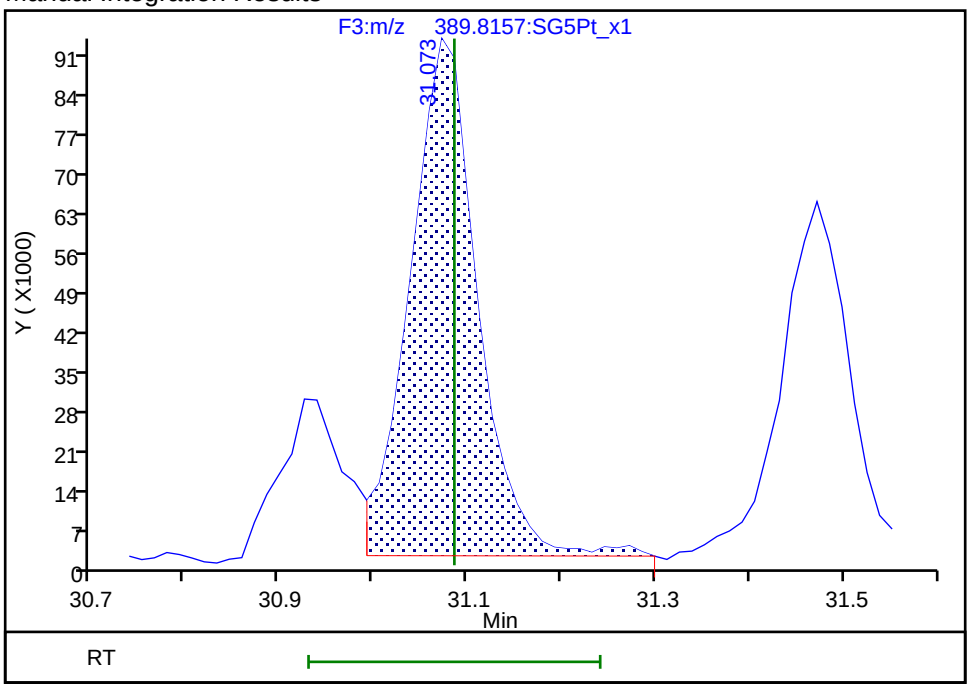
Processing Integration Results

RT: 31.07
Area: 455027
Amount: 0.856863
Amount Units: pg/ul



Manual Integration Results

RT: 31.07
Area: 455027
Amount: 0.856863
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:10:46

Audit Action: Assigned Compound ID Audit Reason: Split Peak

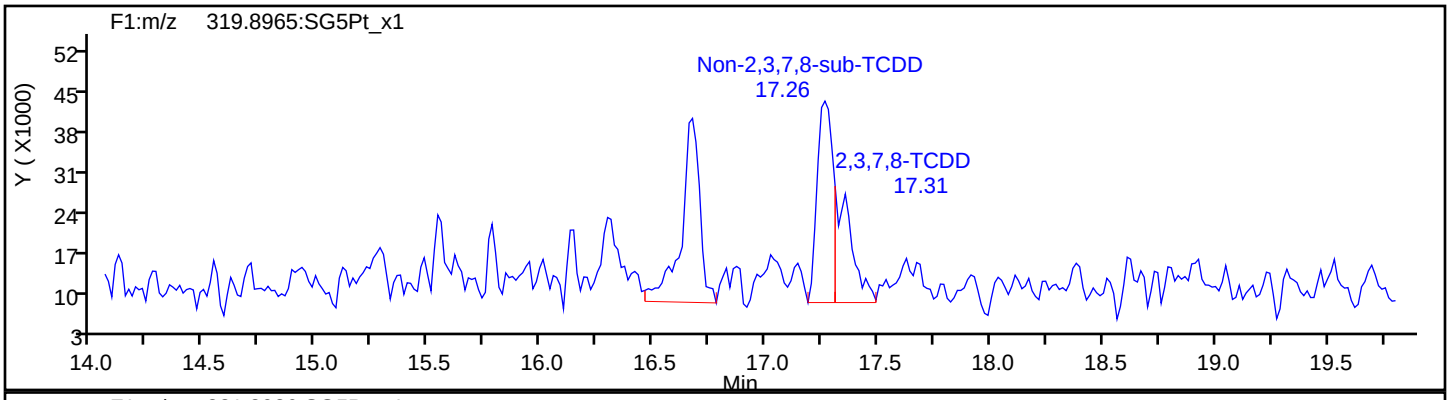
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

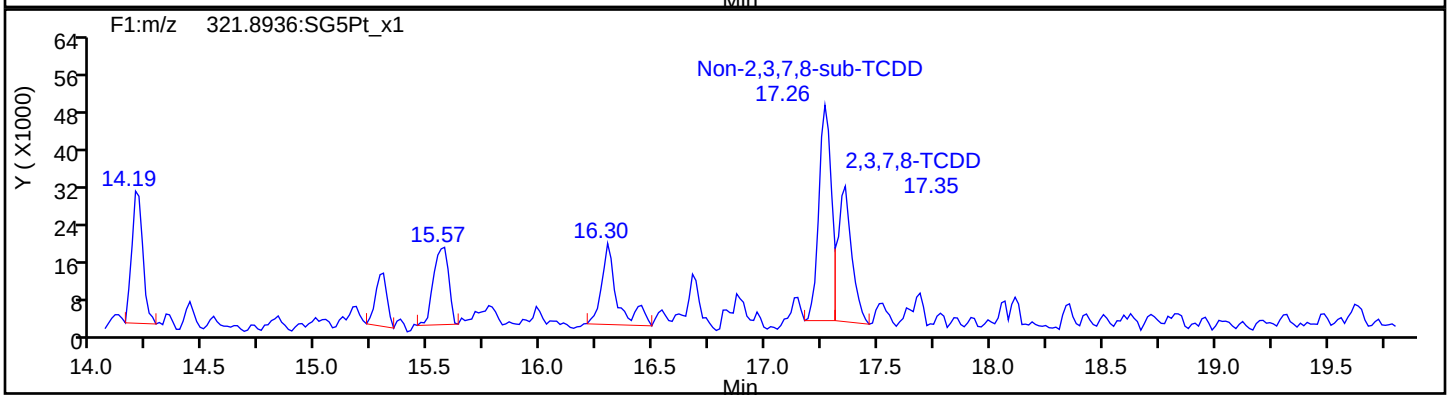
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d

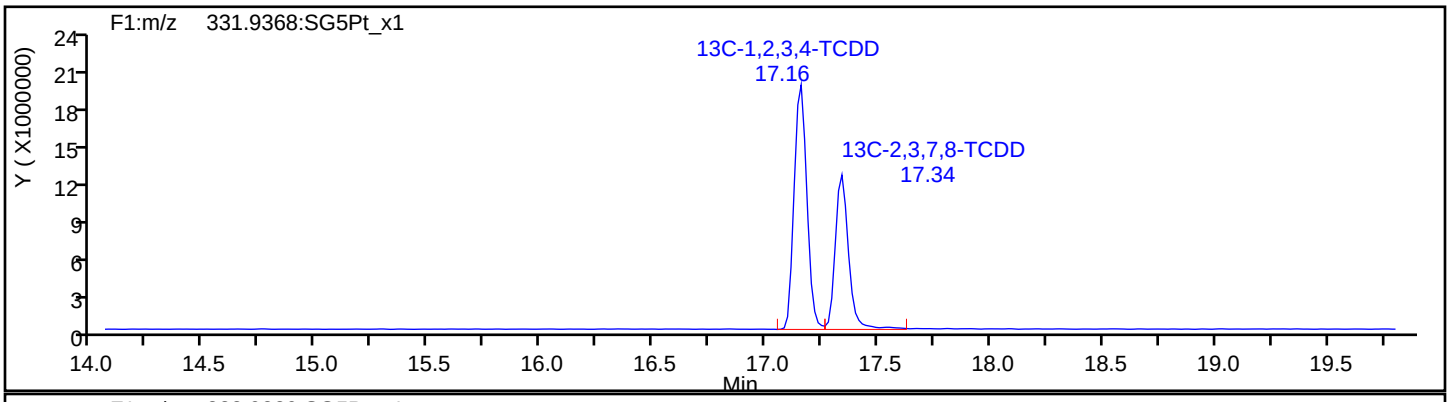
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

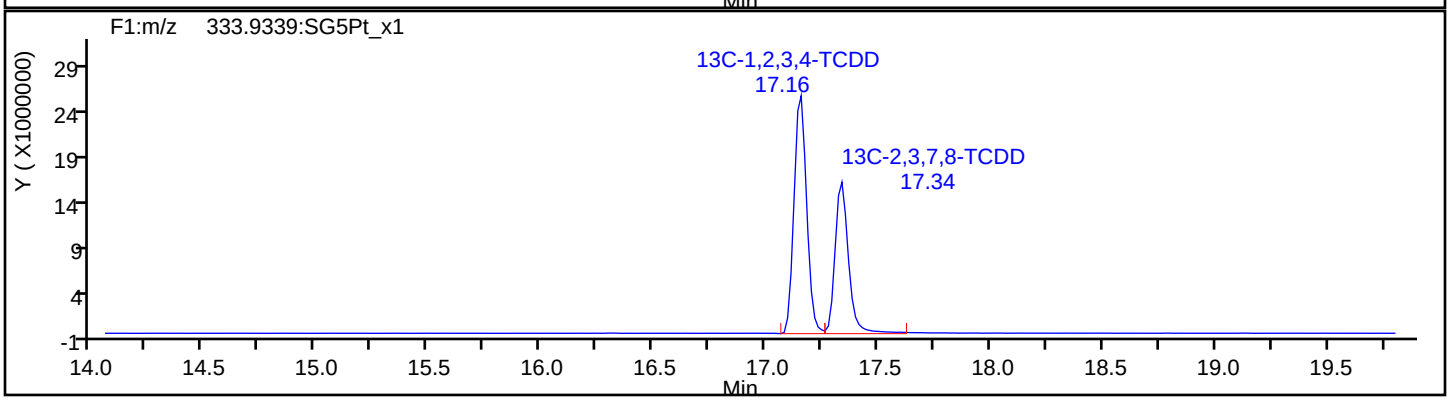
TCDD





TCDD Standards





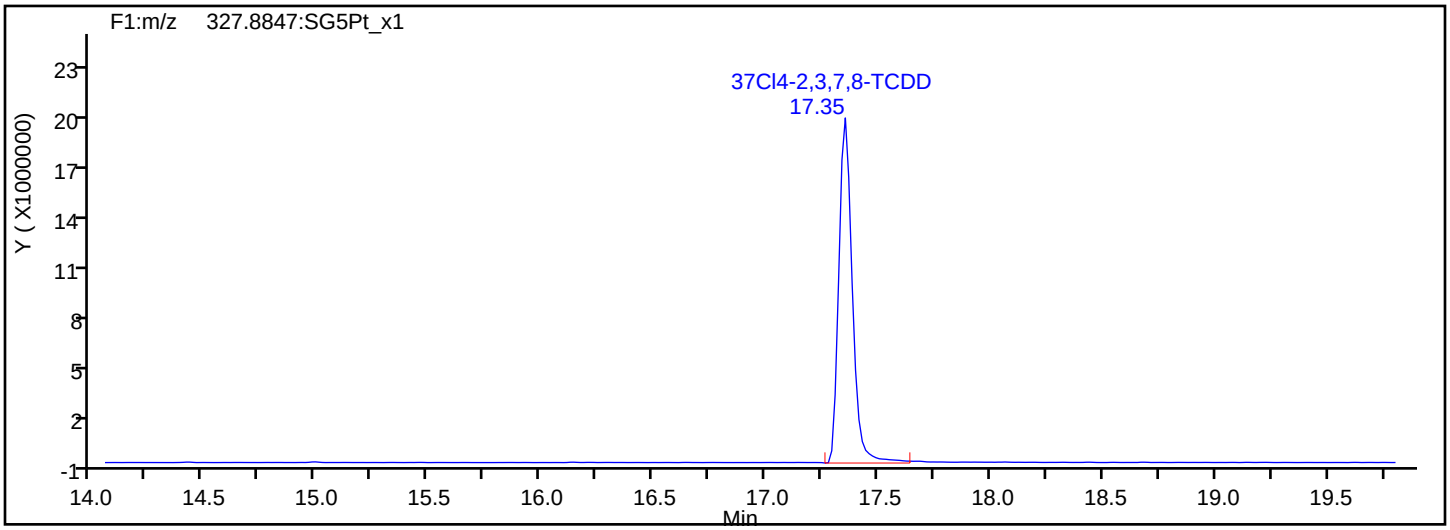
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

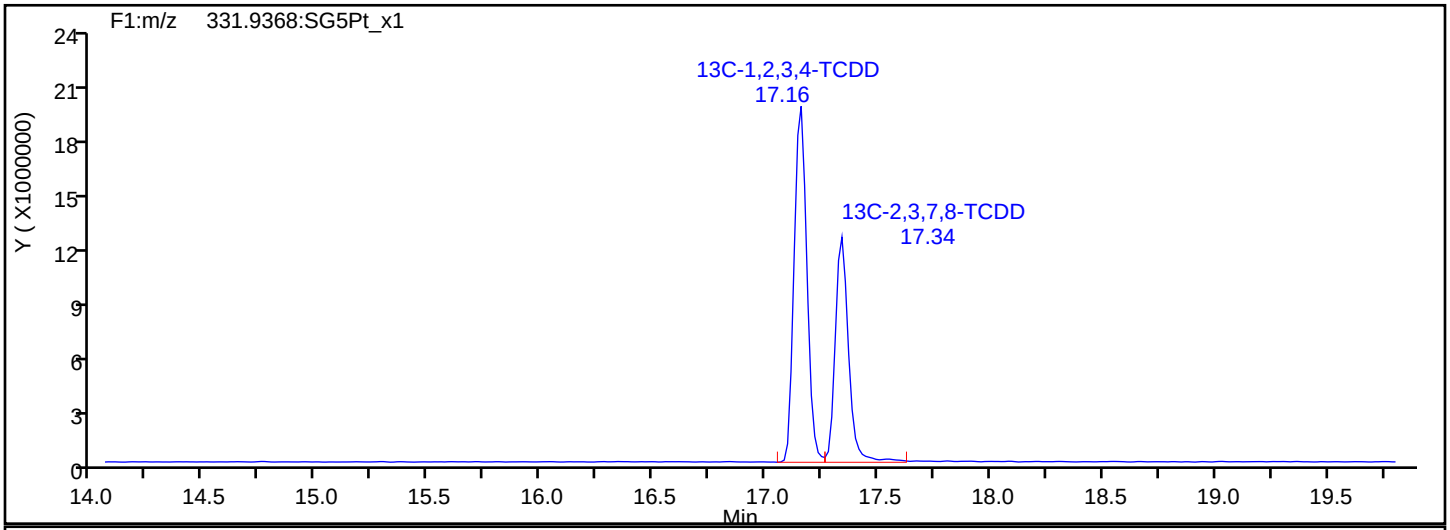
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d

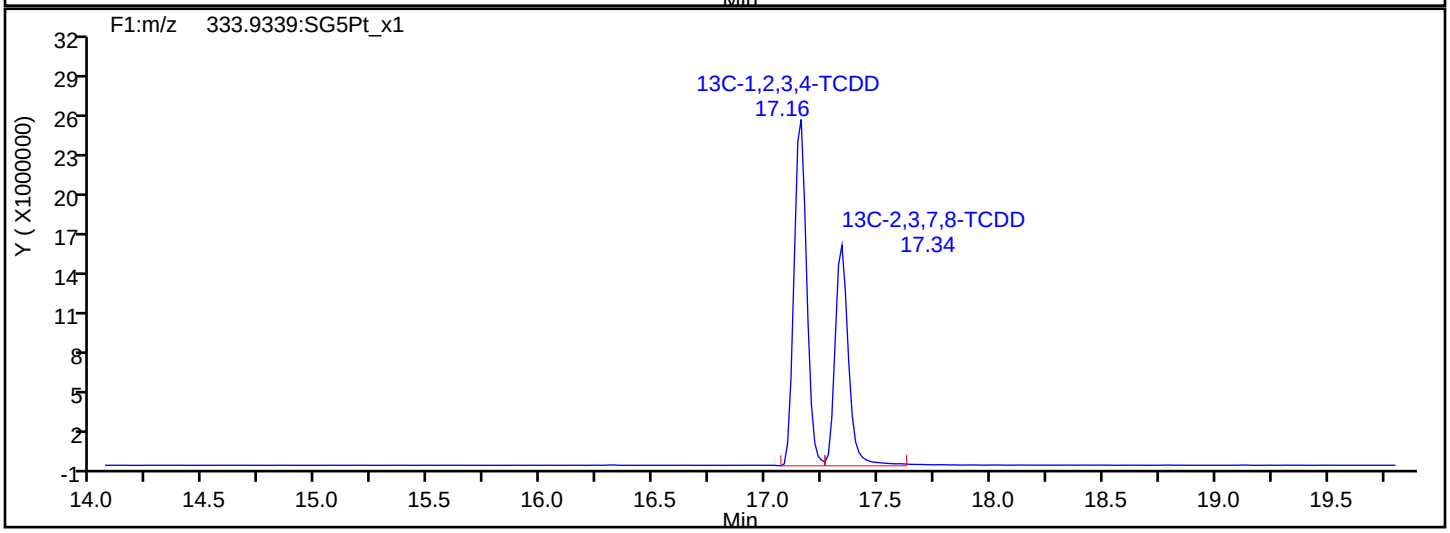
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



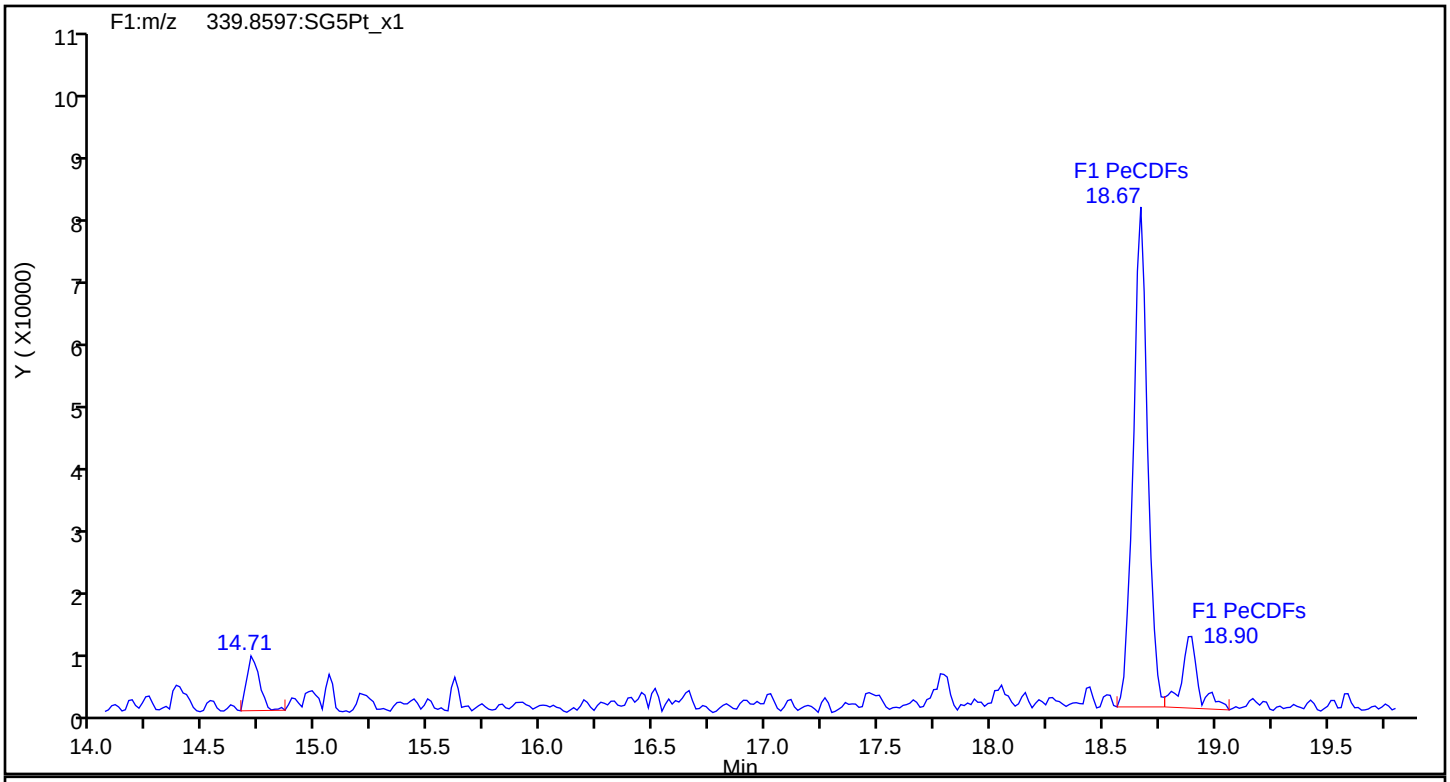


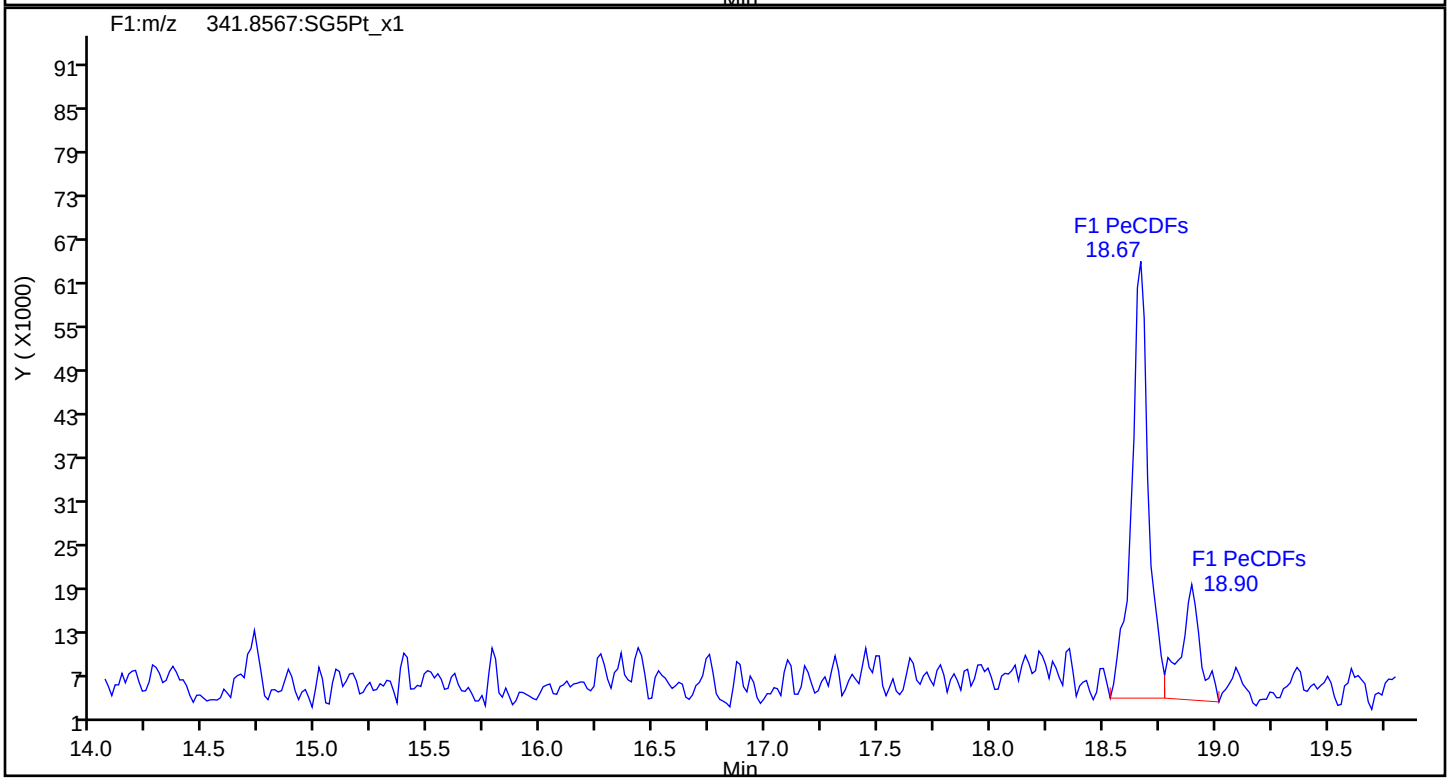
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



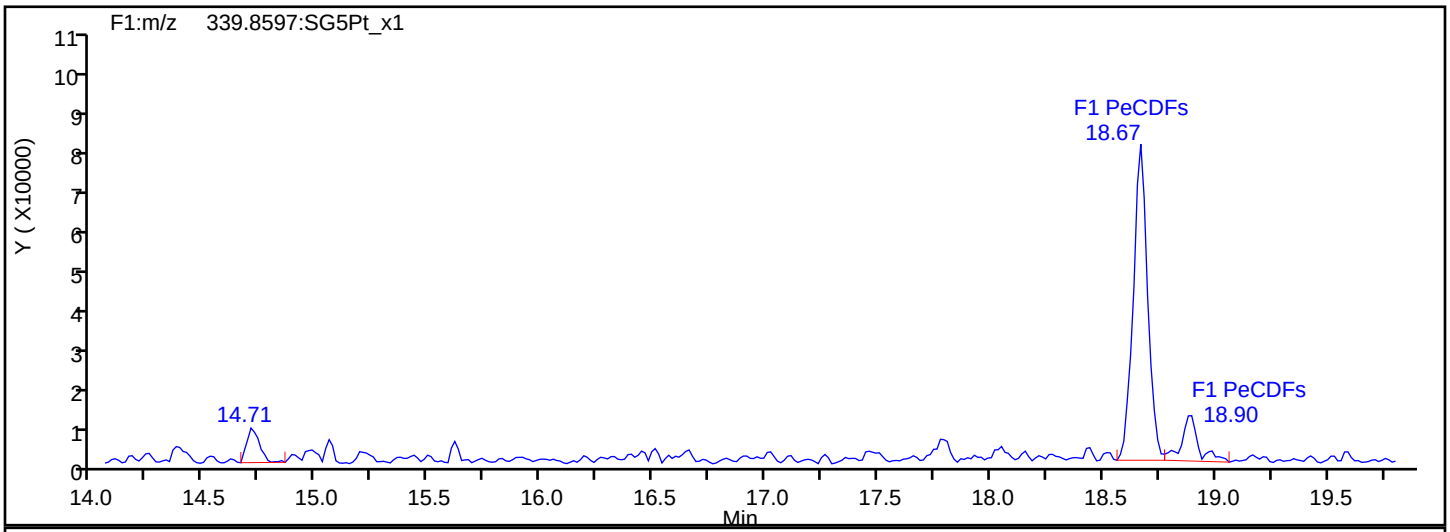


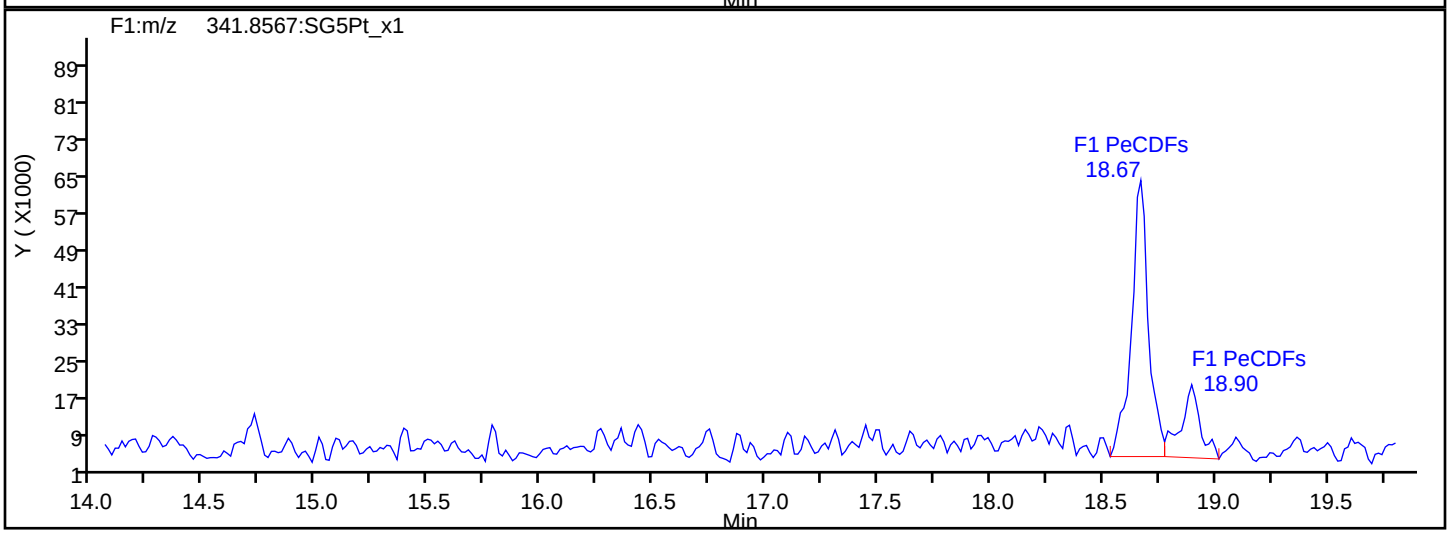
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

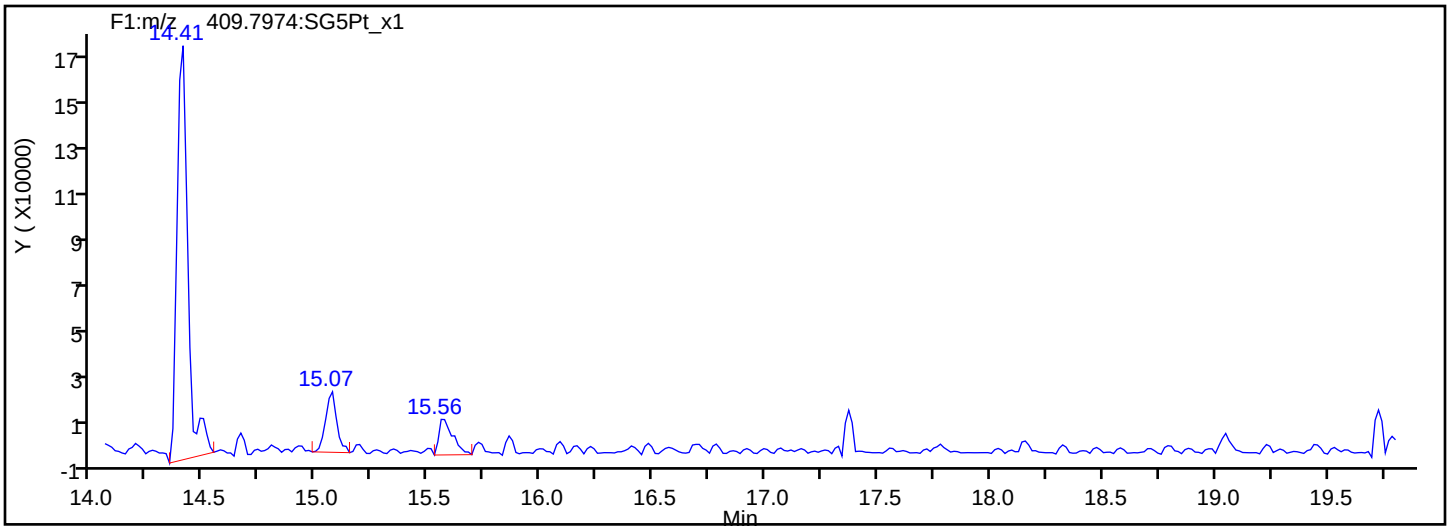
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

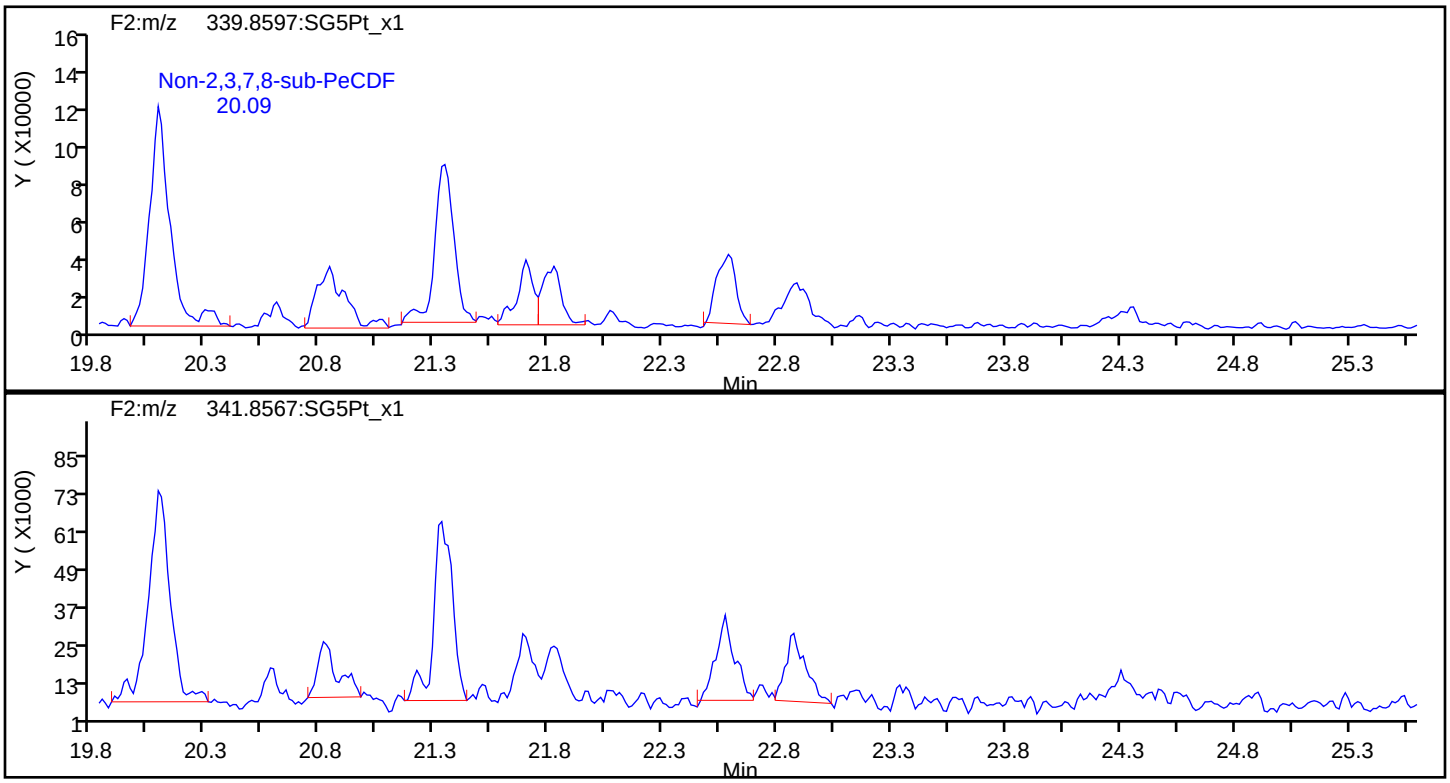


Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

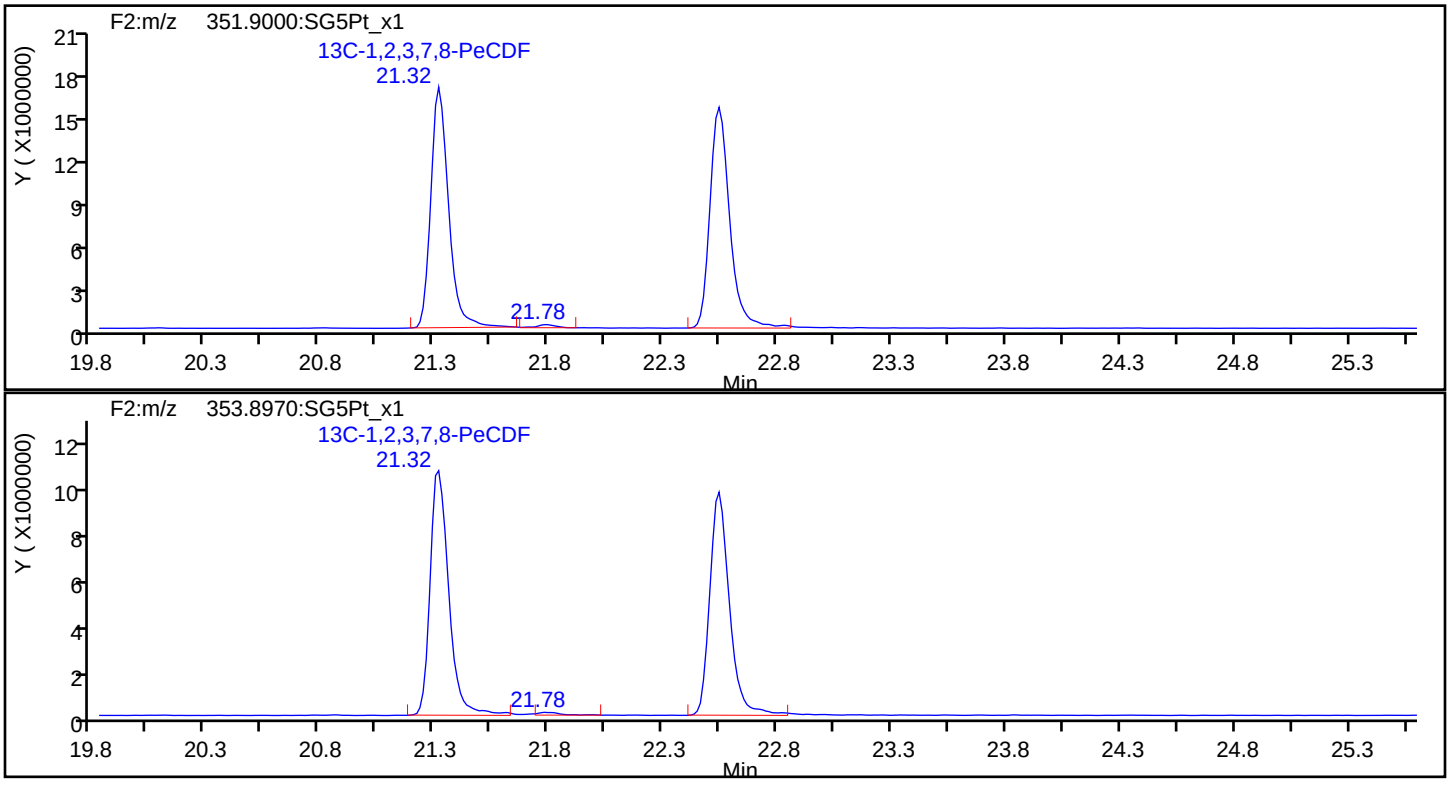
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

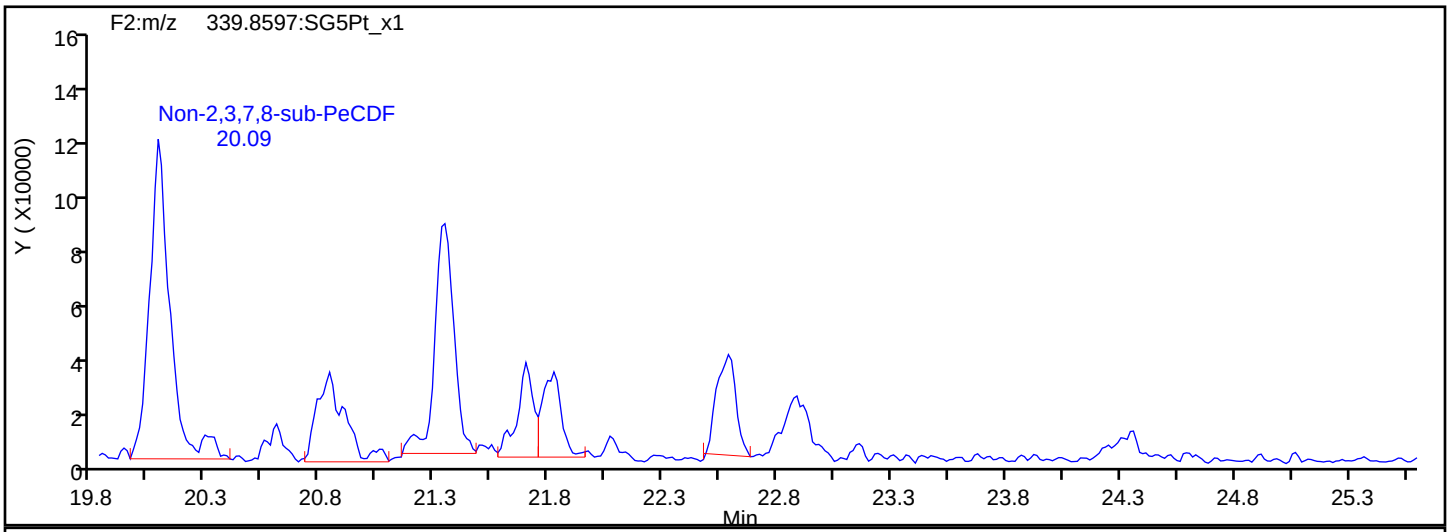


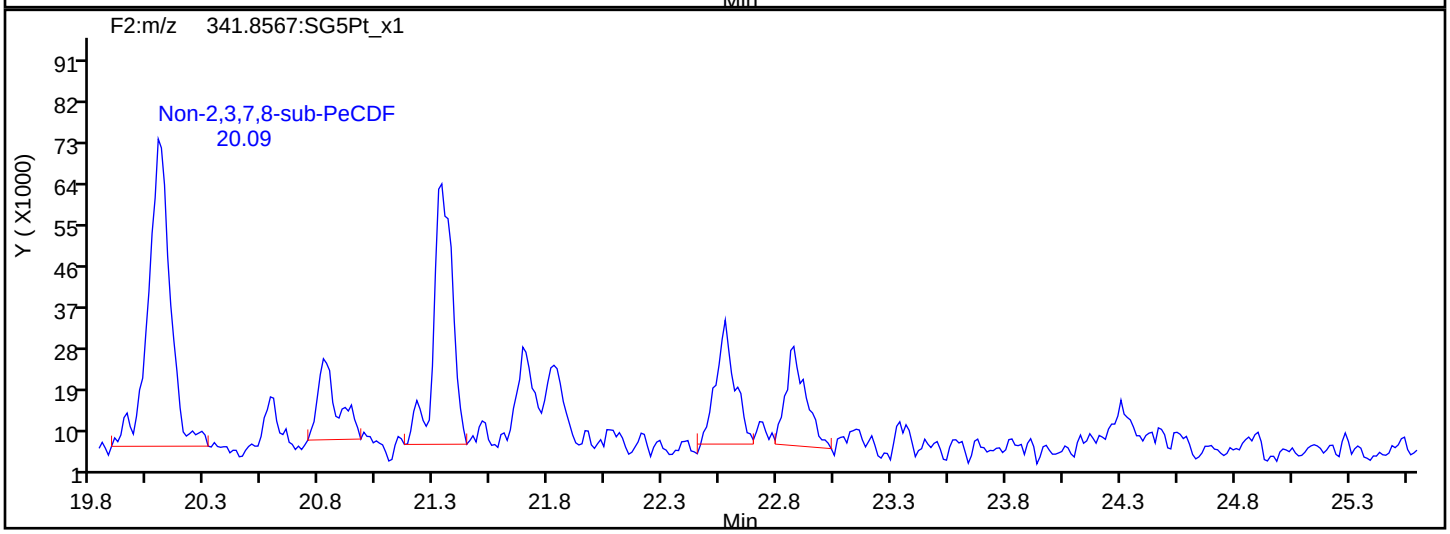
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

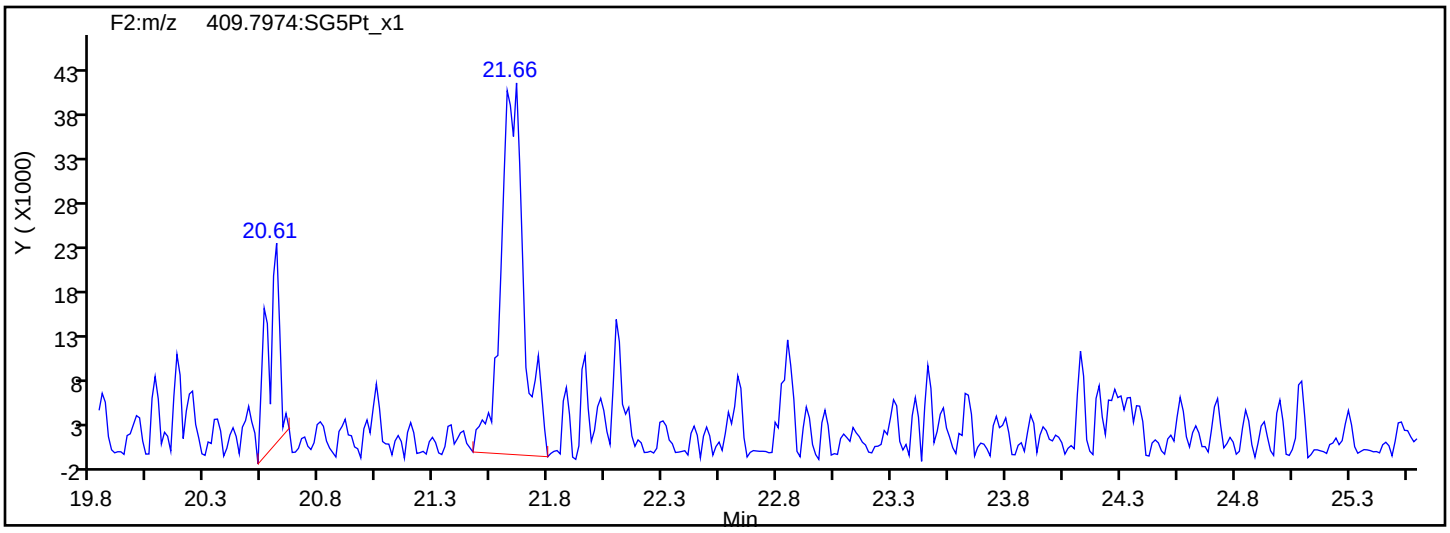
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

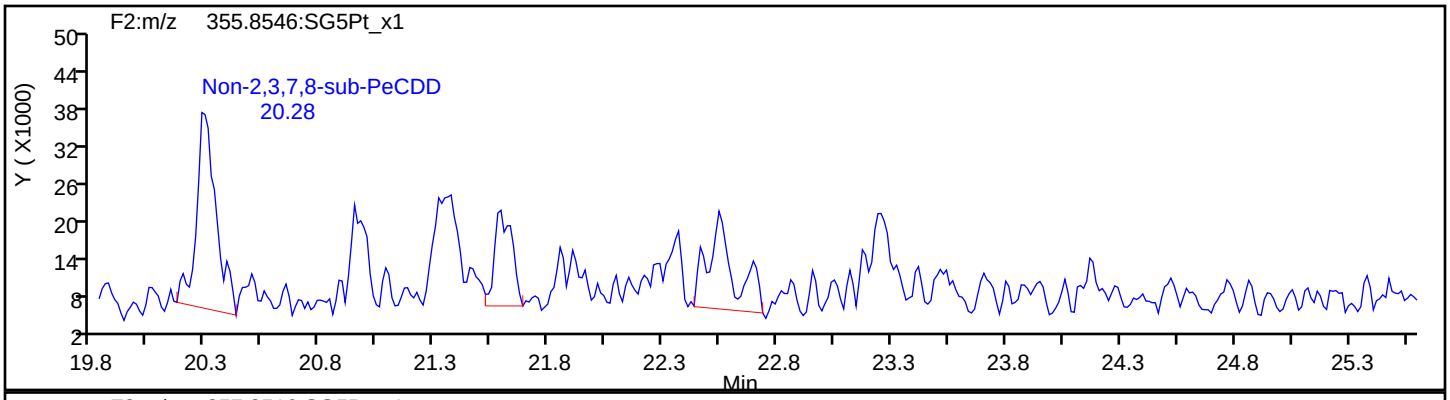


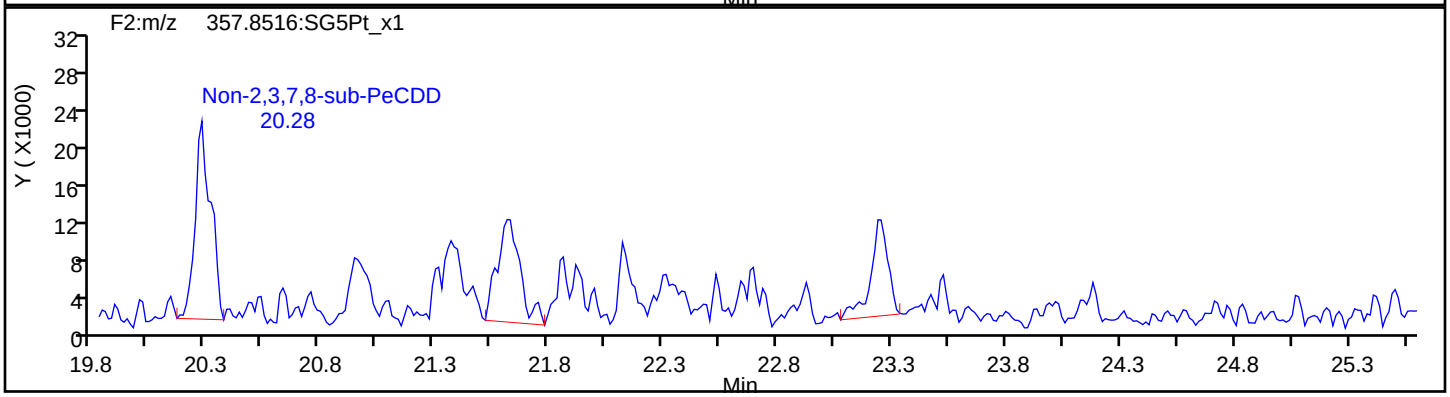
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

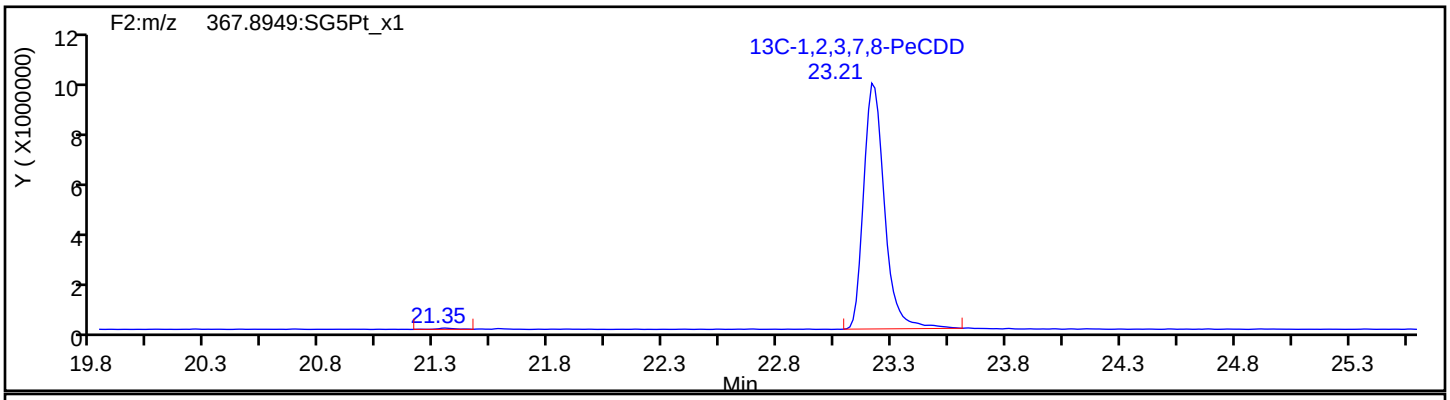
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

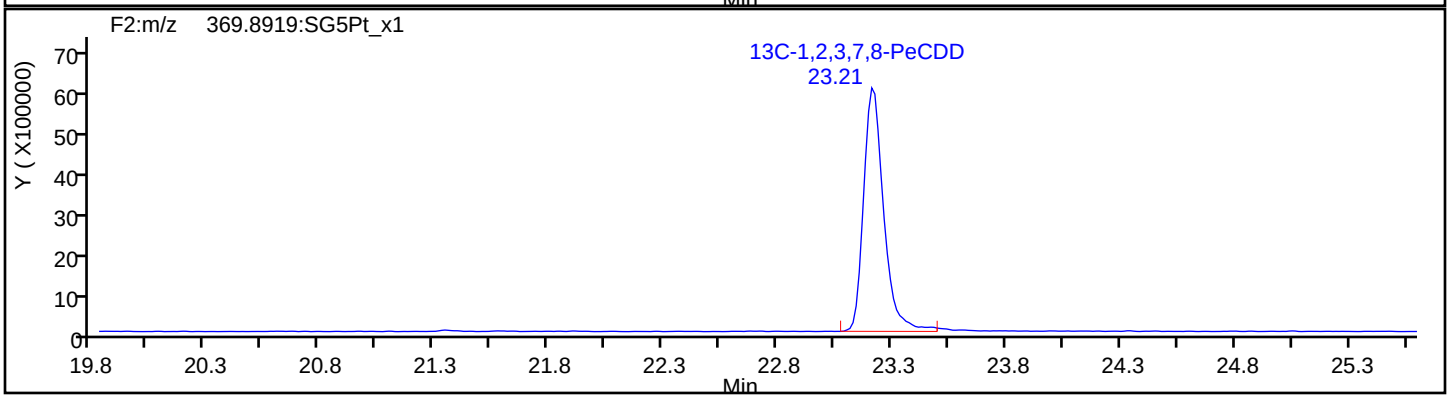
PeCDD





PeCDD Standards





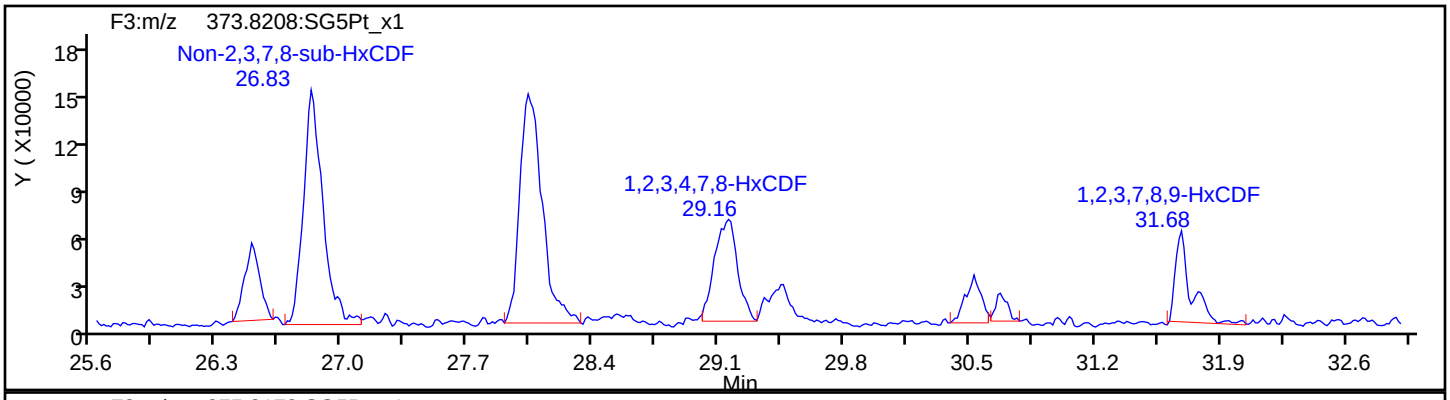
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

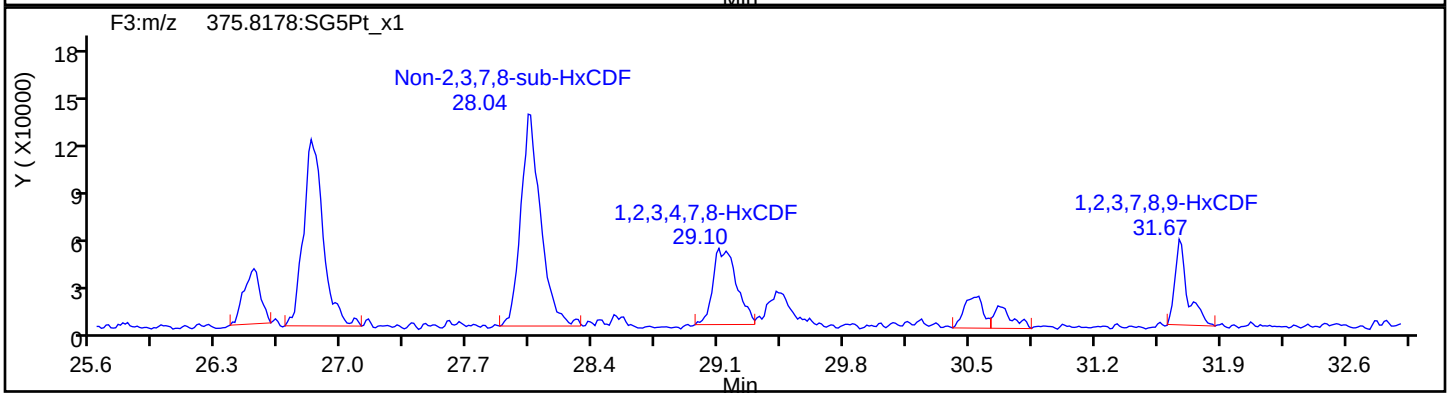
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d

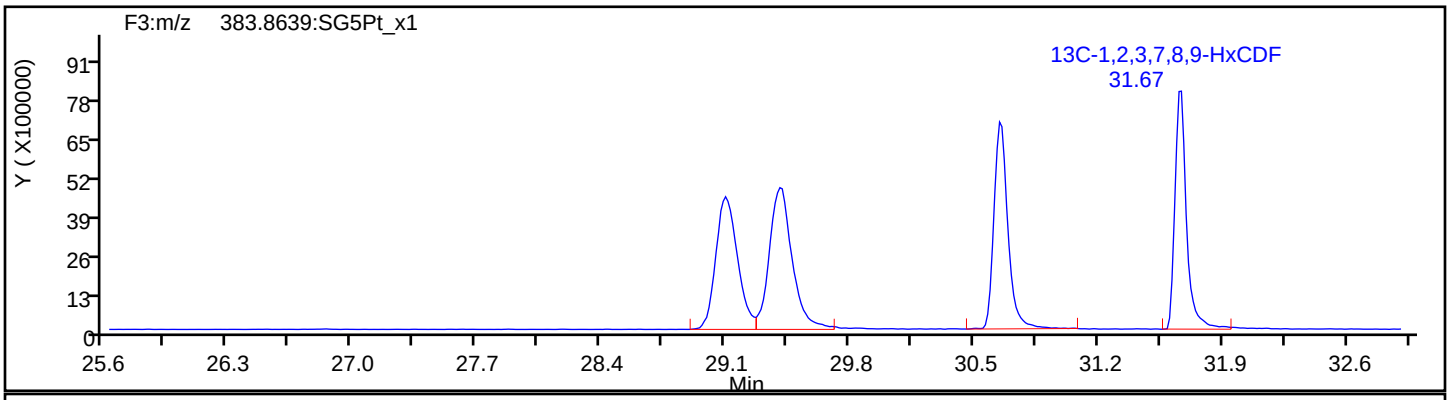
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

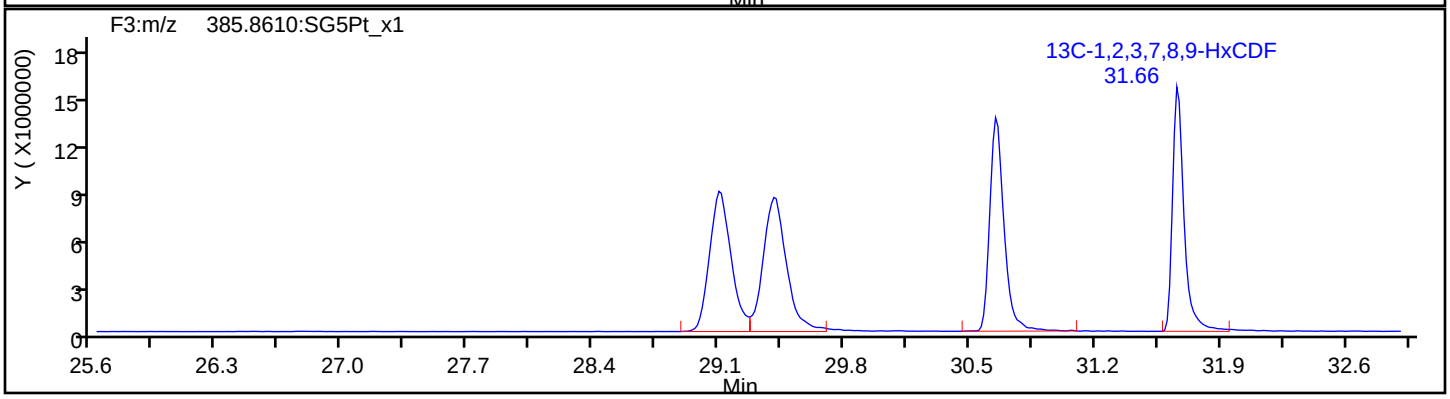
HxCDF





HxCDF Standards



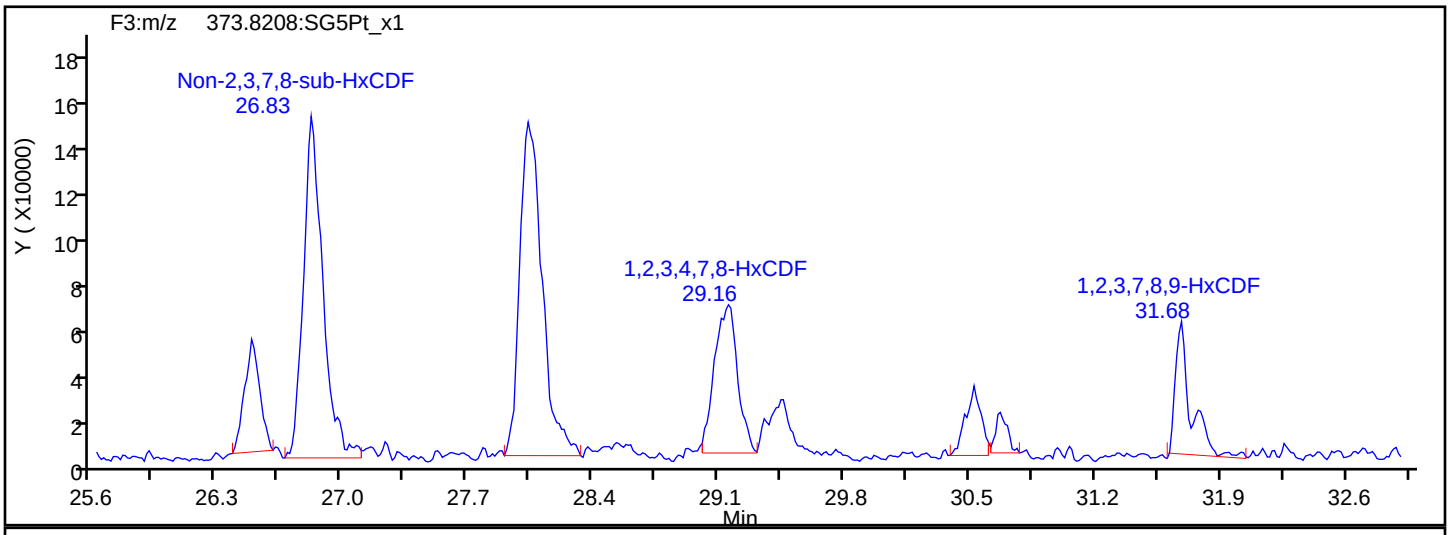


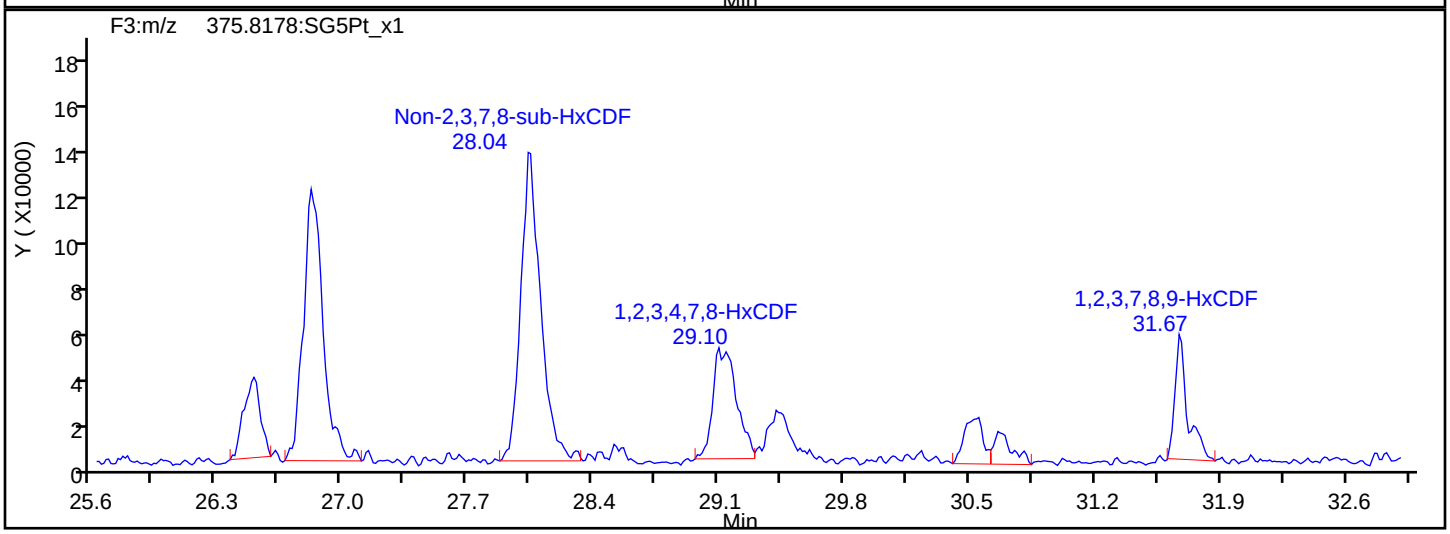
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

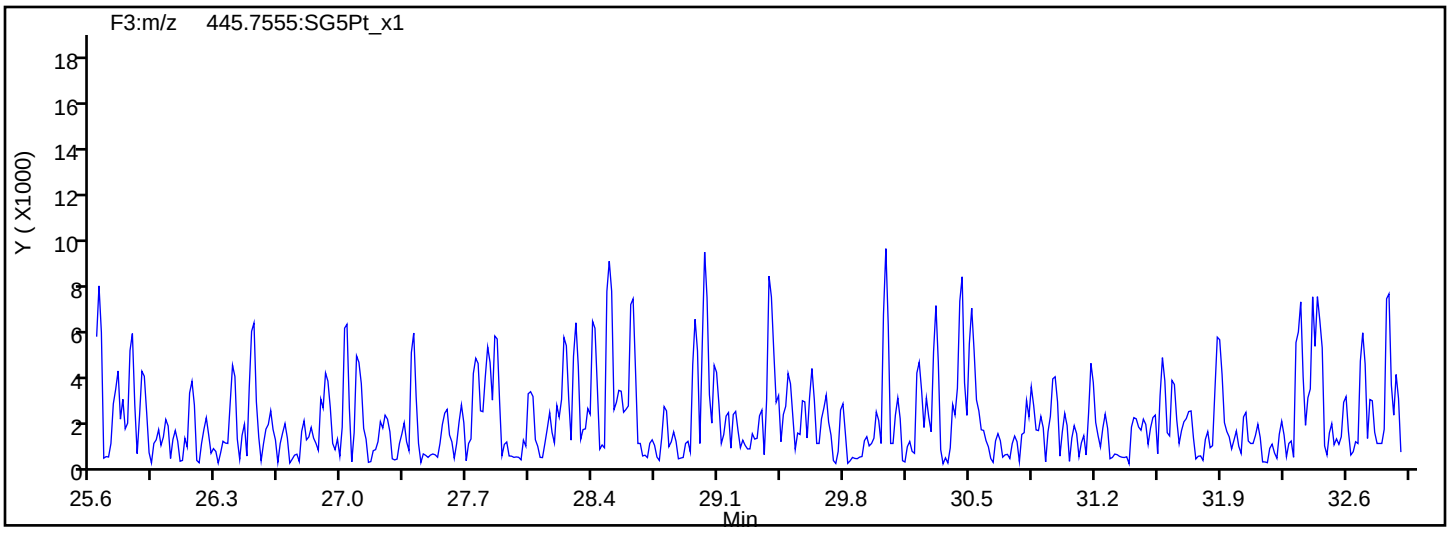
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



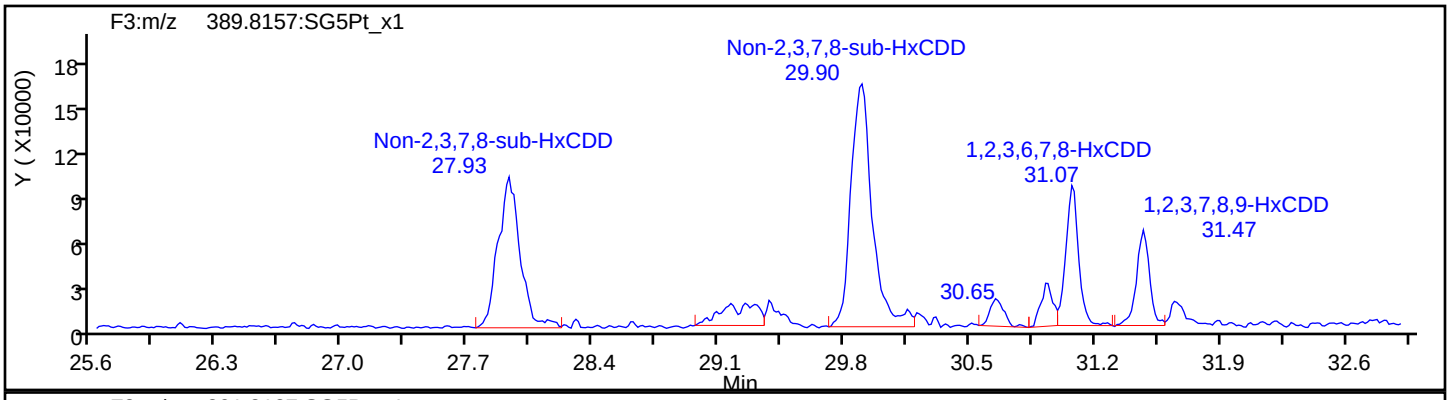
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

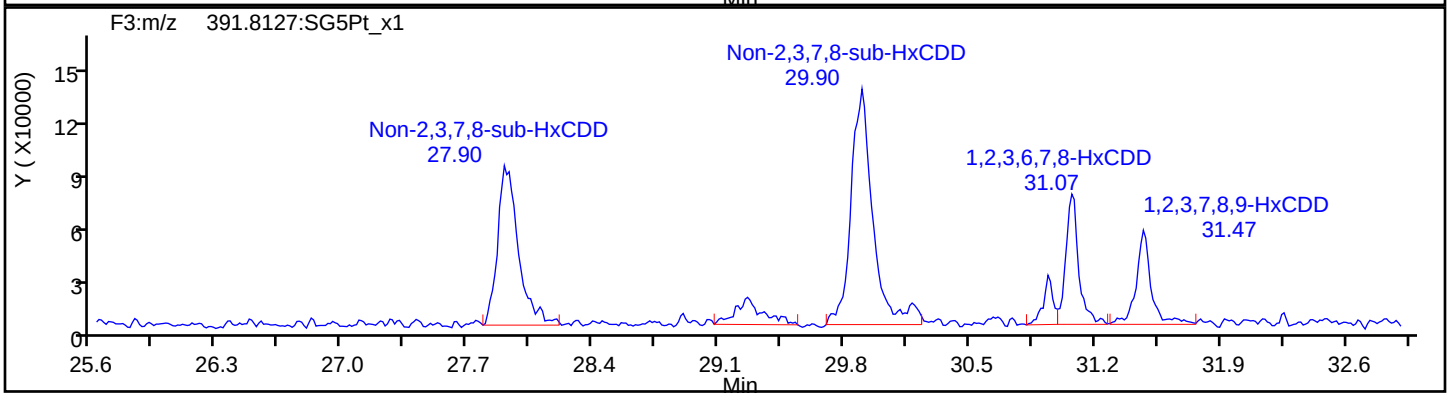
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d

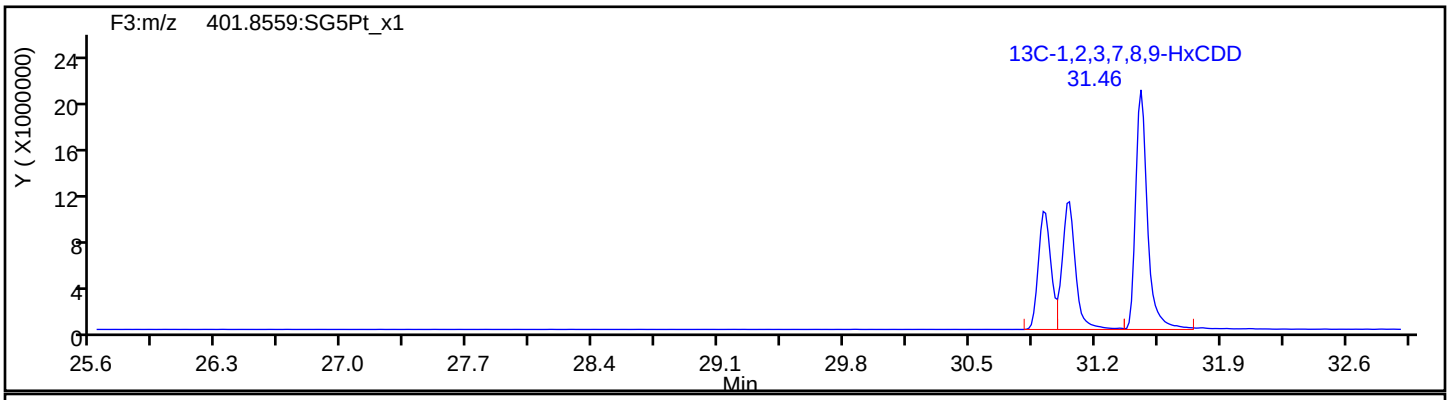
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

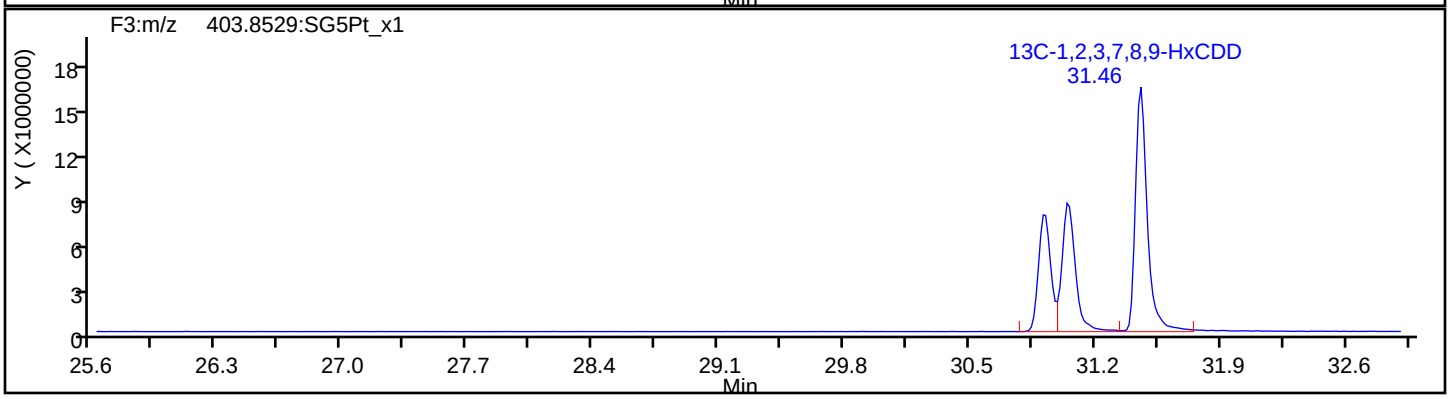
HxCDD





HxCDD Standards



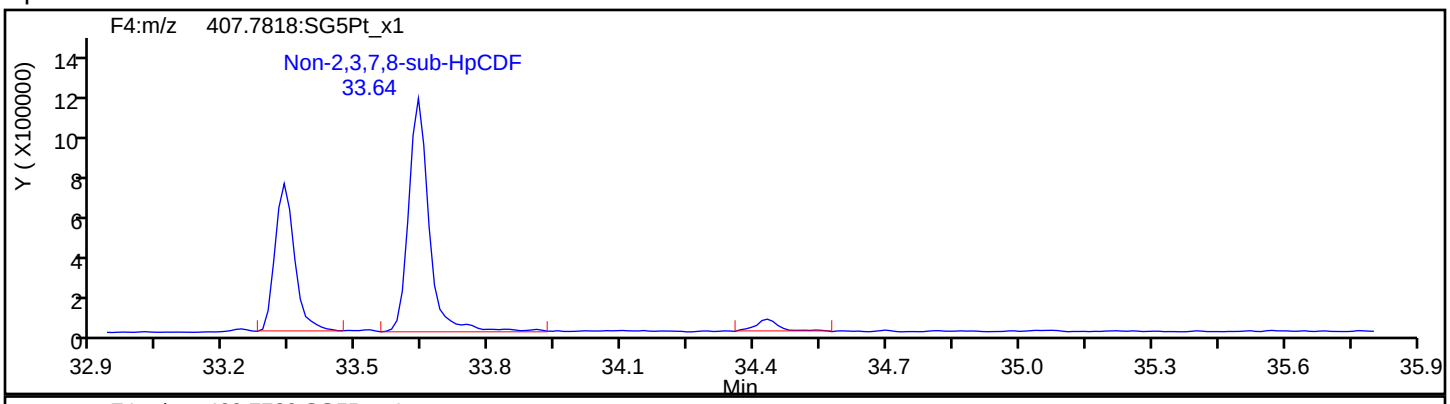


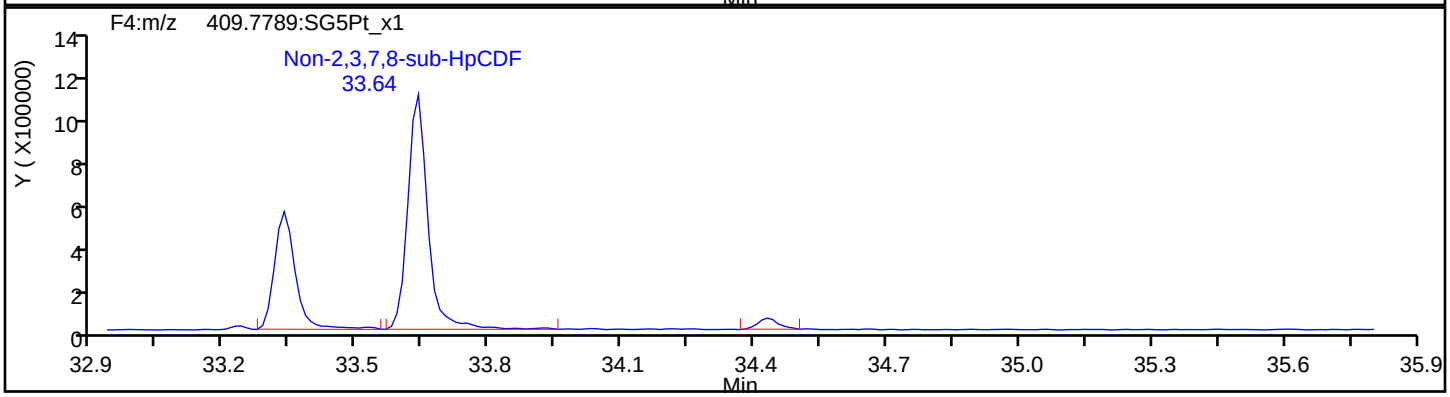
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

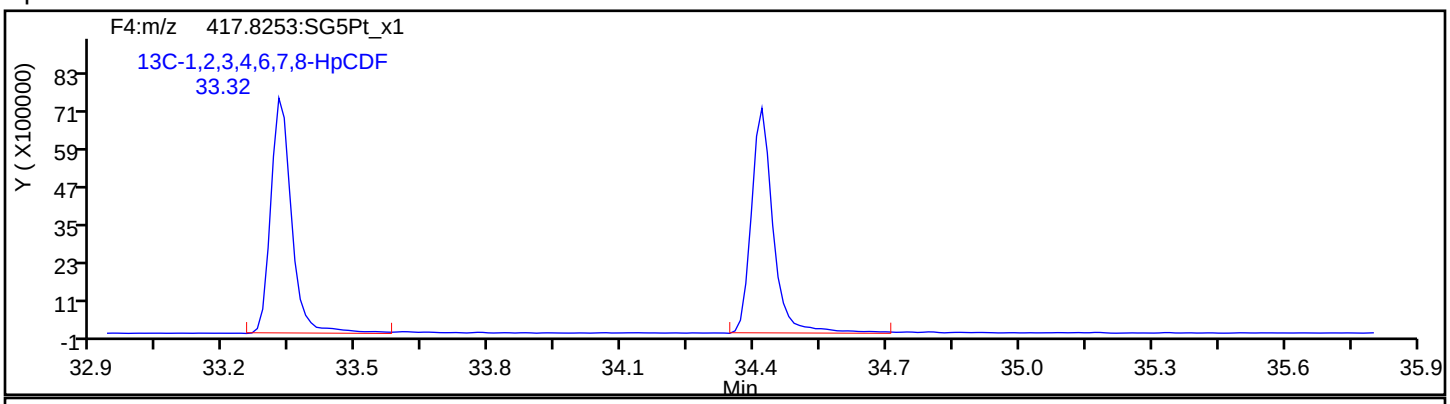
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

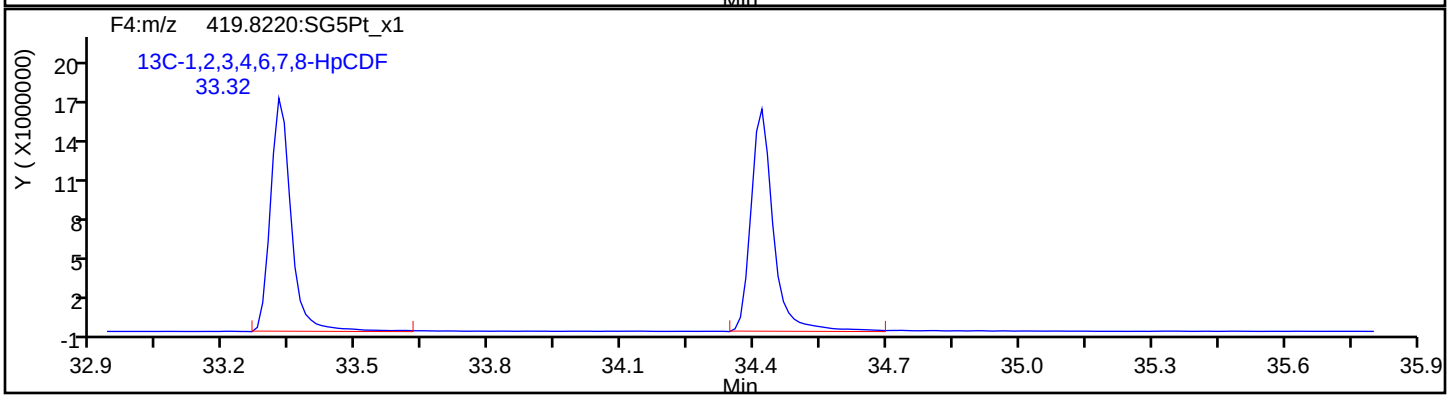
HpCDF





HpCDF Standards



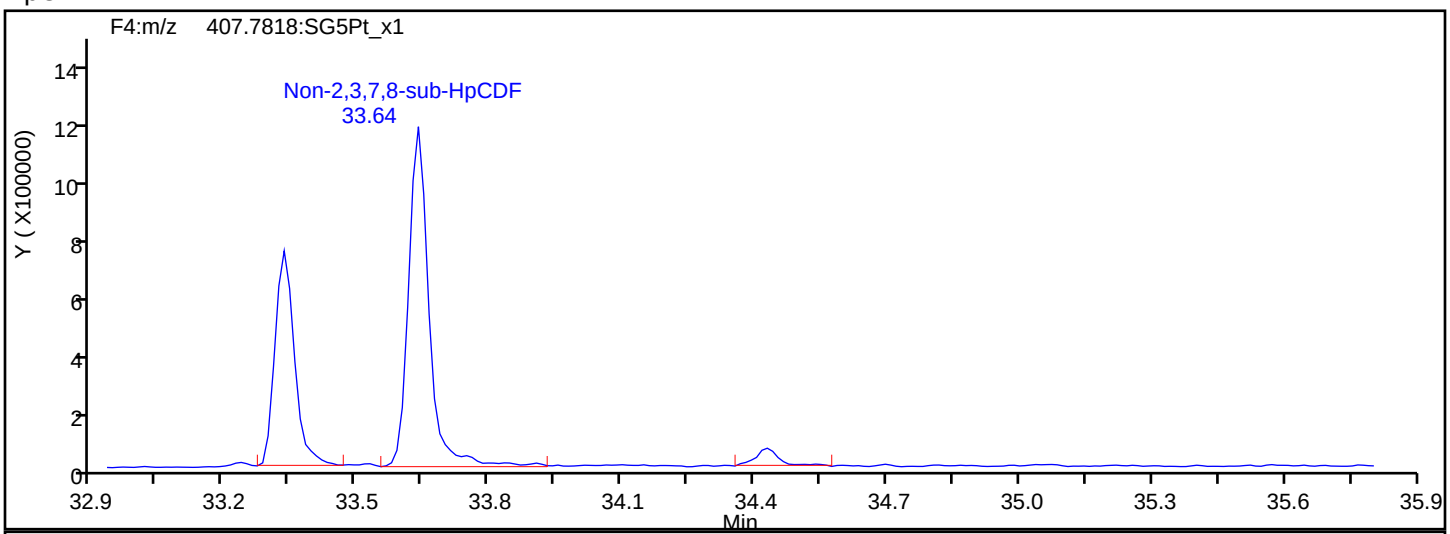


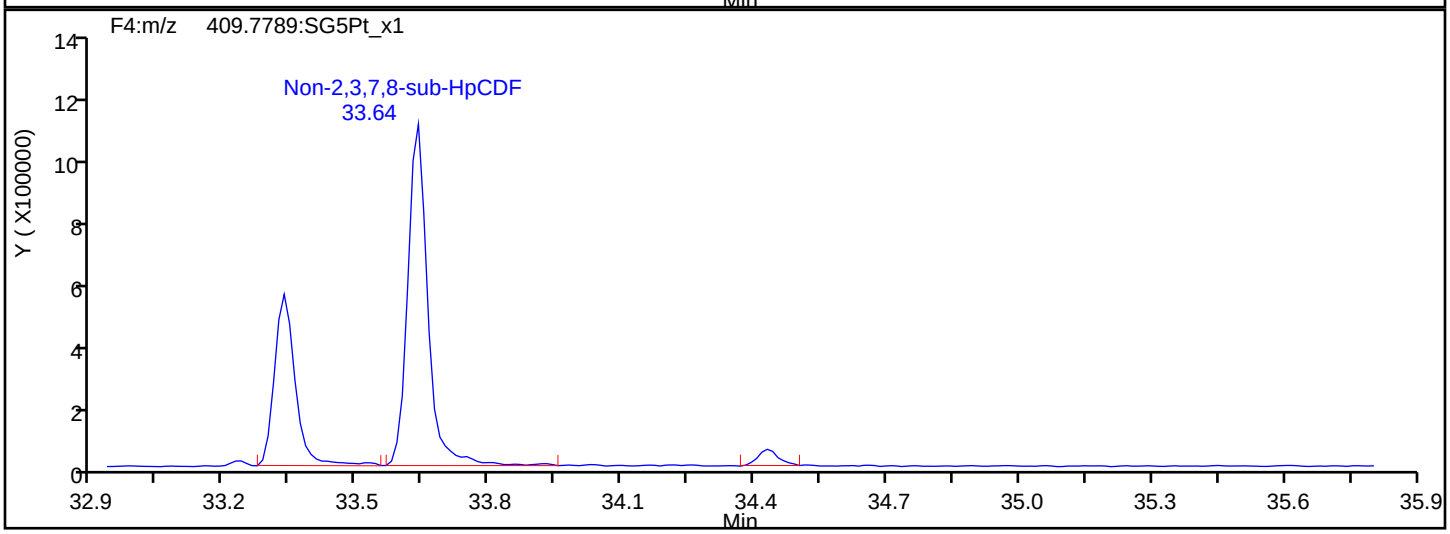
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

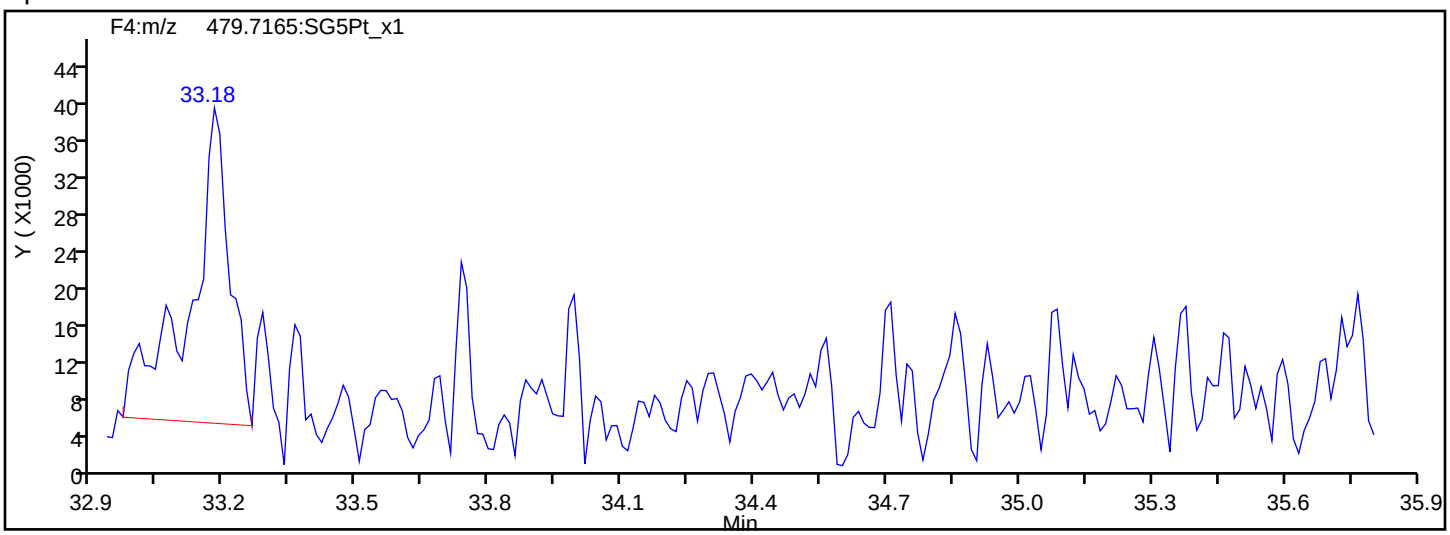
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



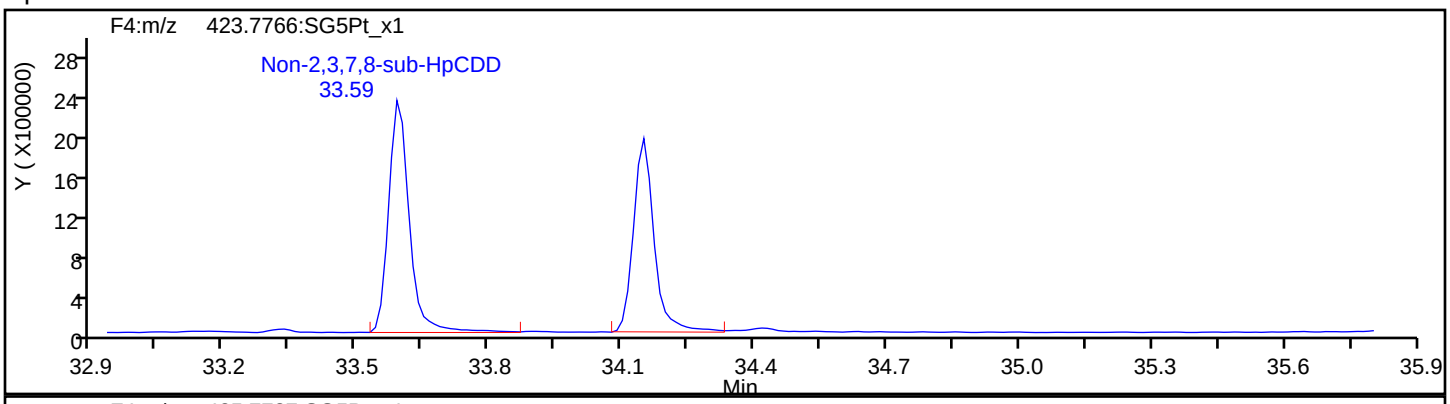
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

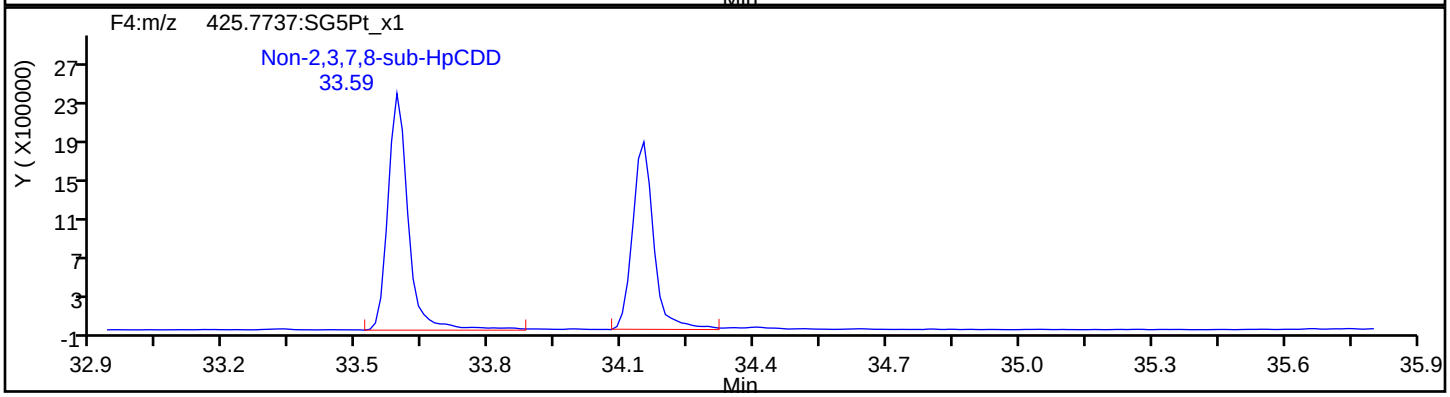
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d

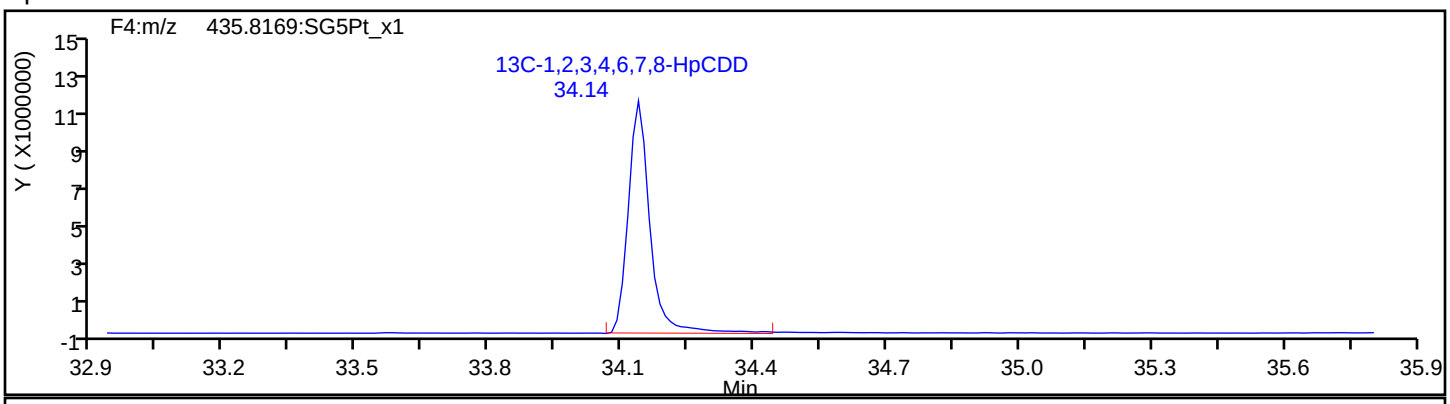
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

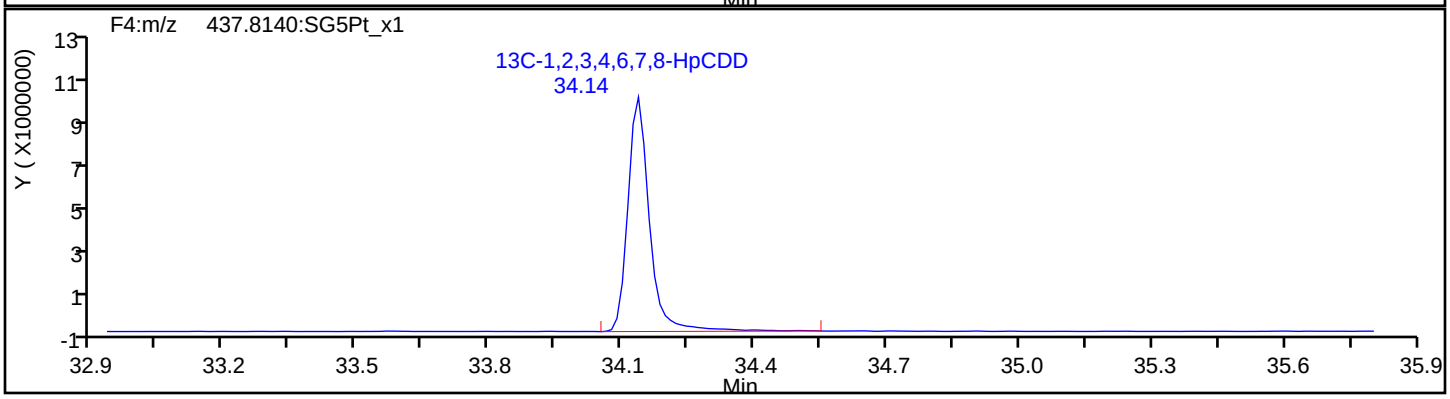
HpCDD





HpCDD Standards





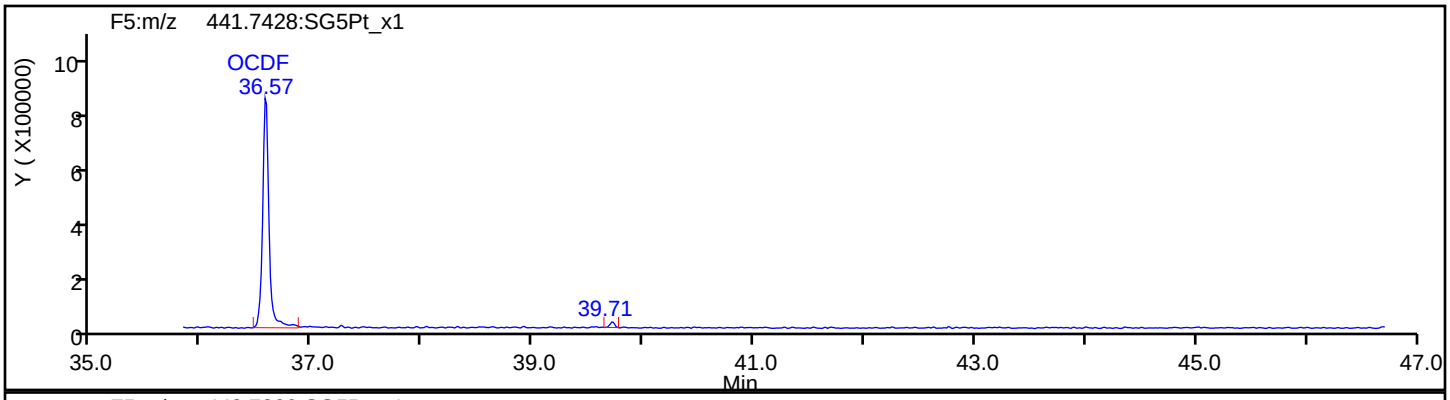
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

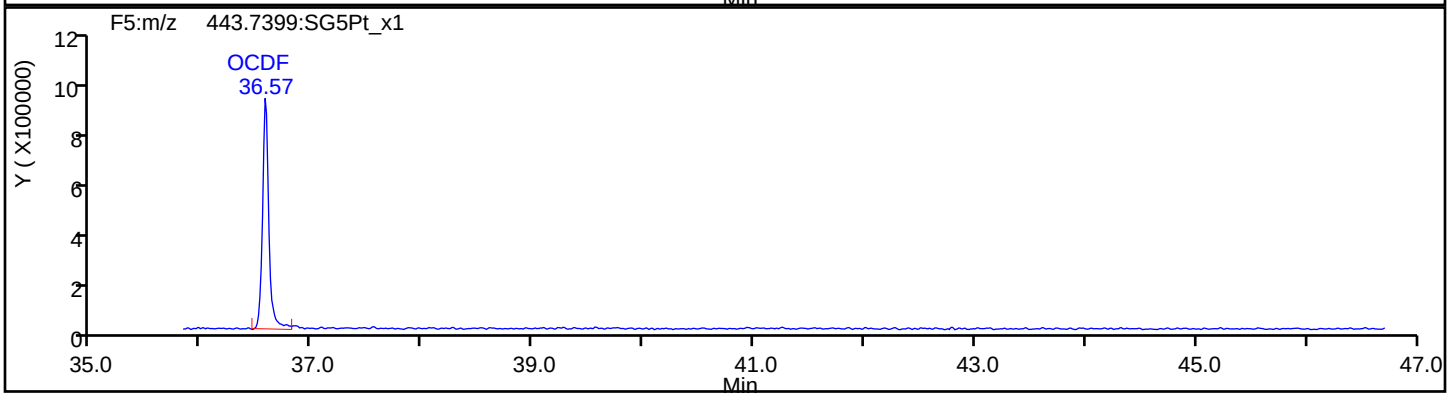
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d

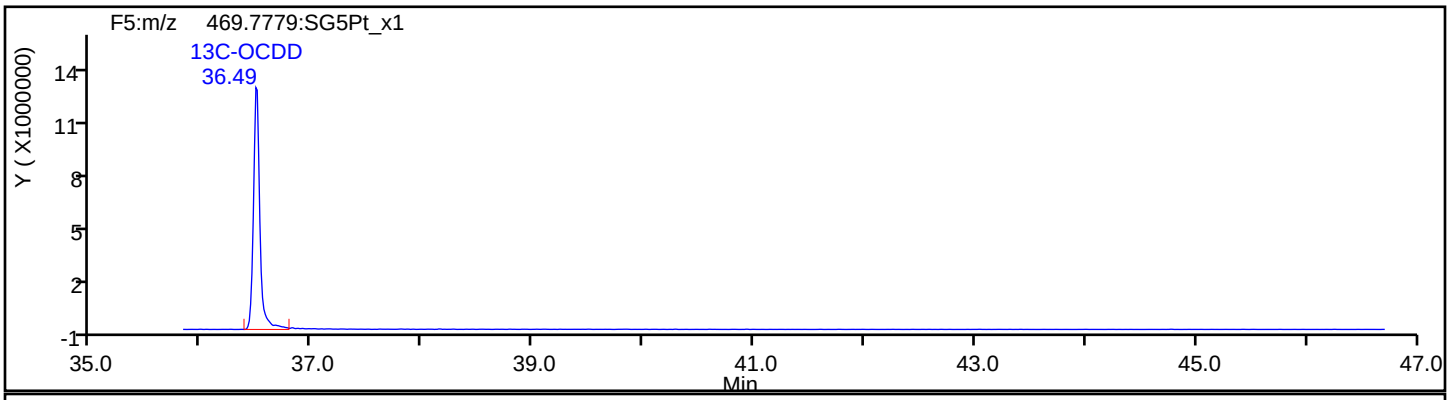
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

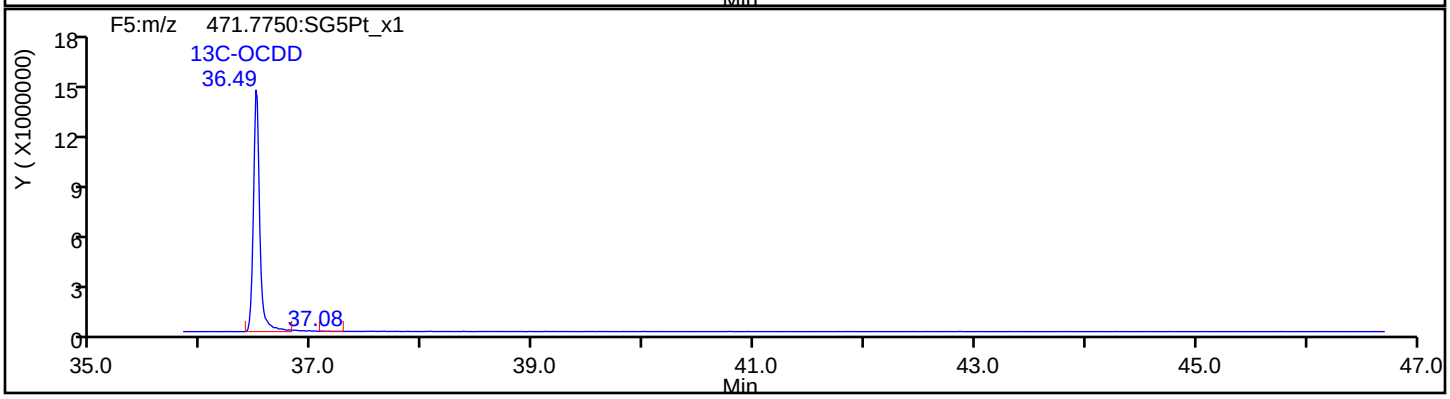
OCDF





OCDF Standards



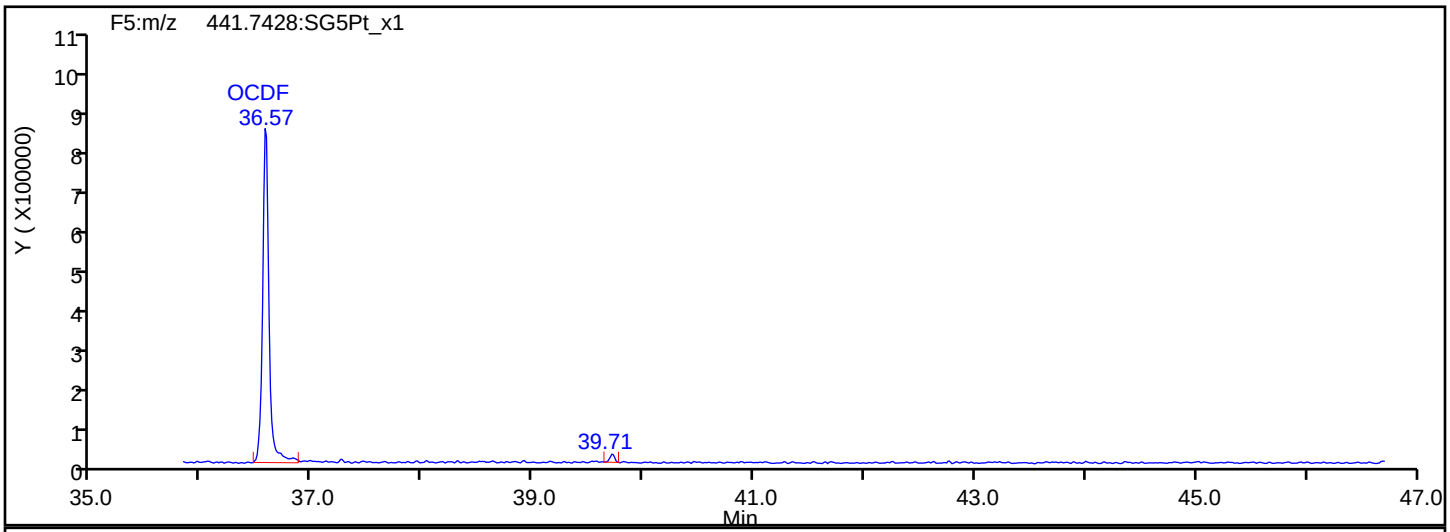


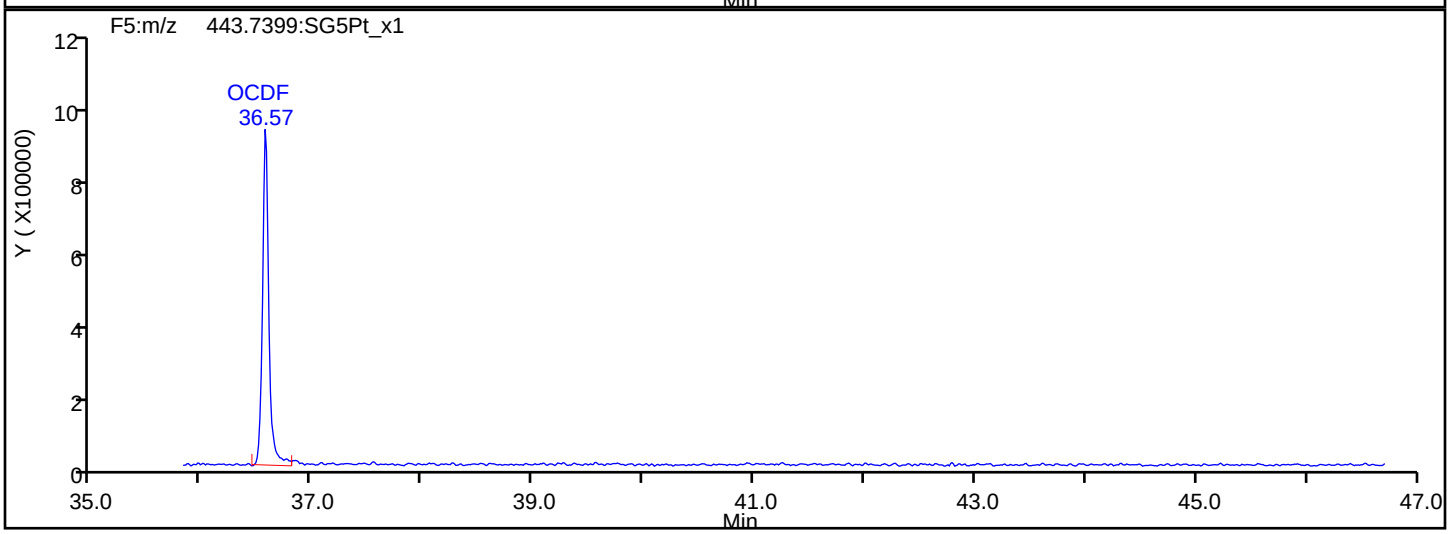
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

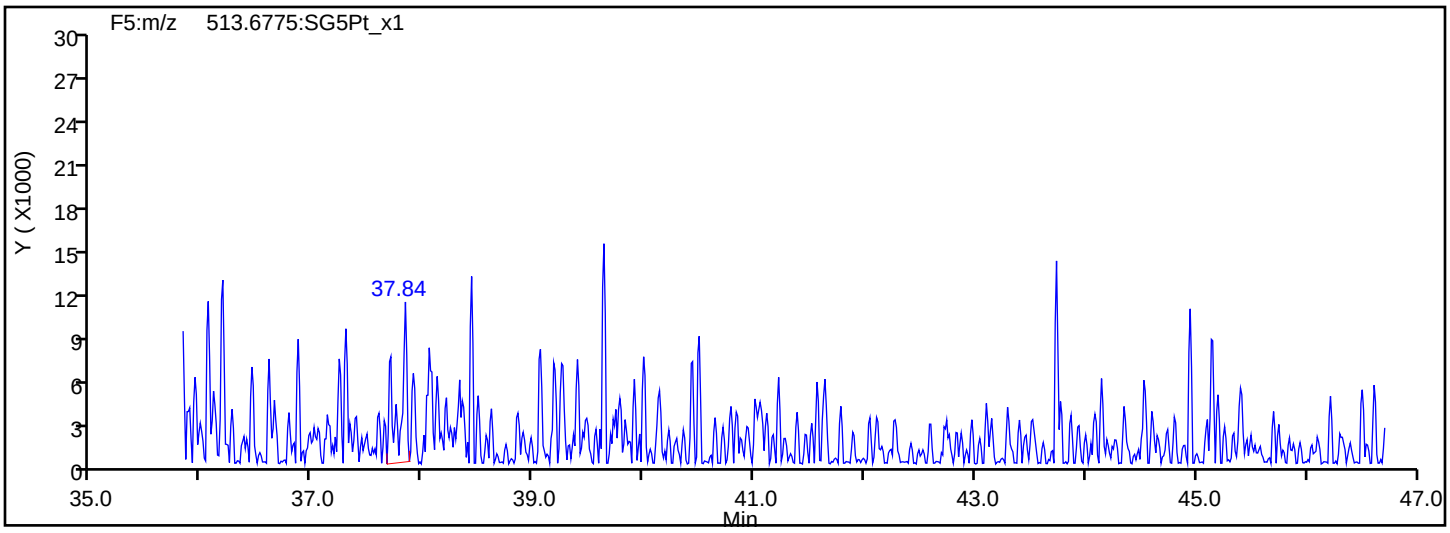
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

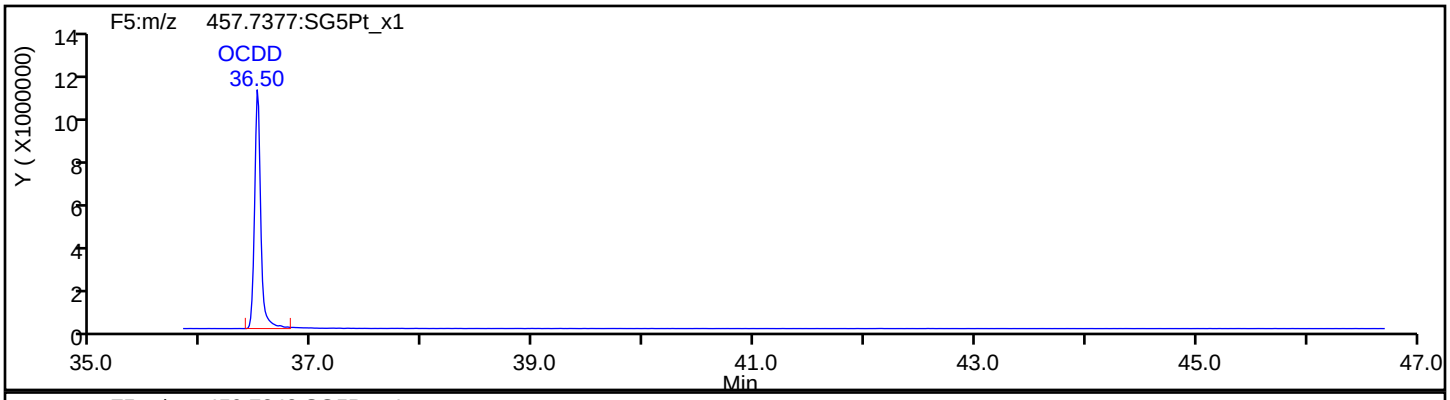


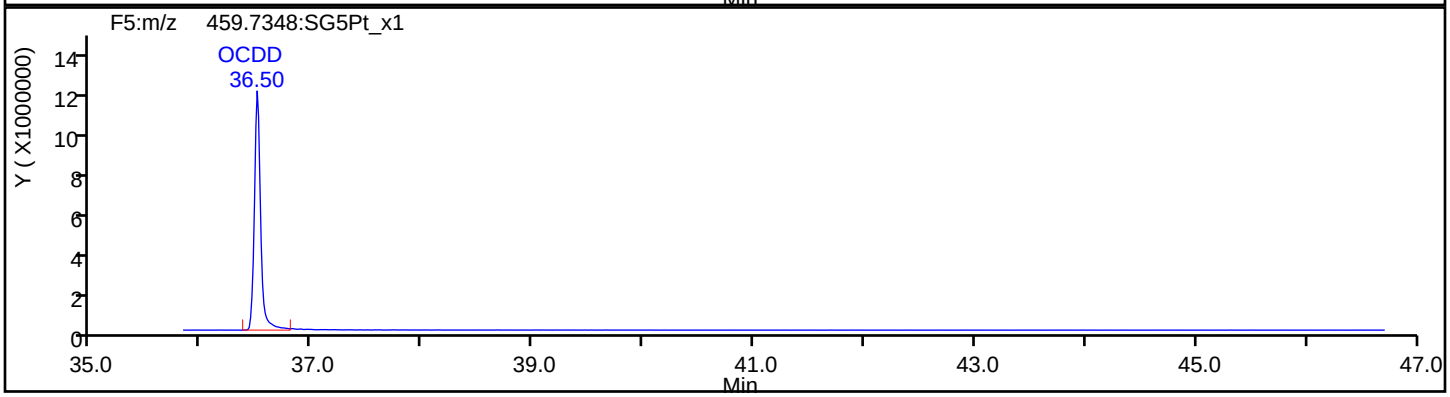
Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

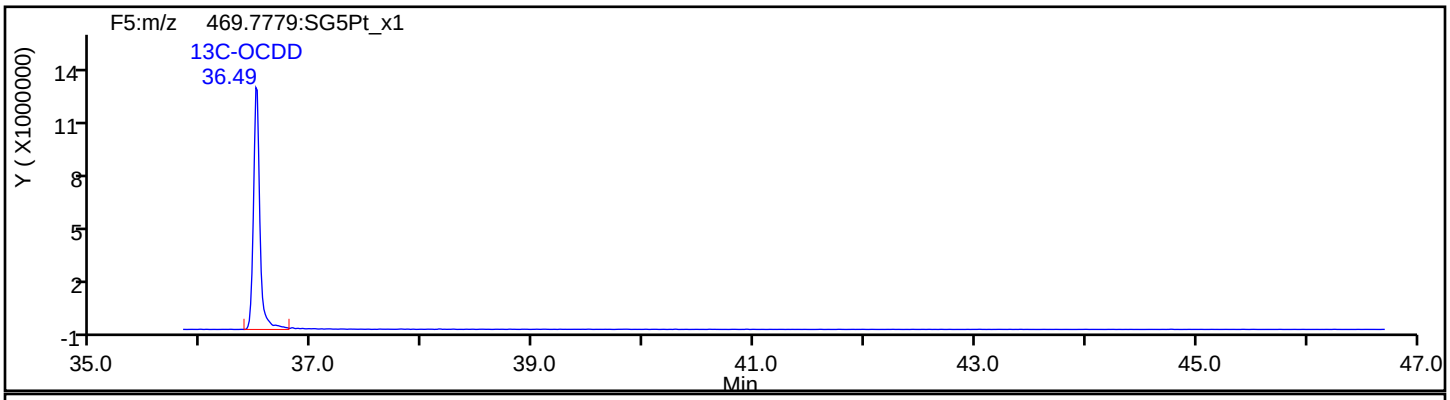
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm

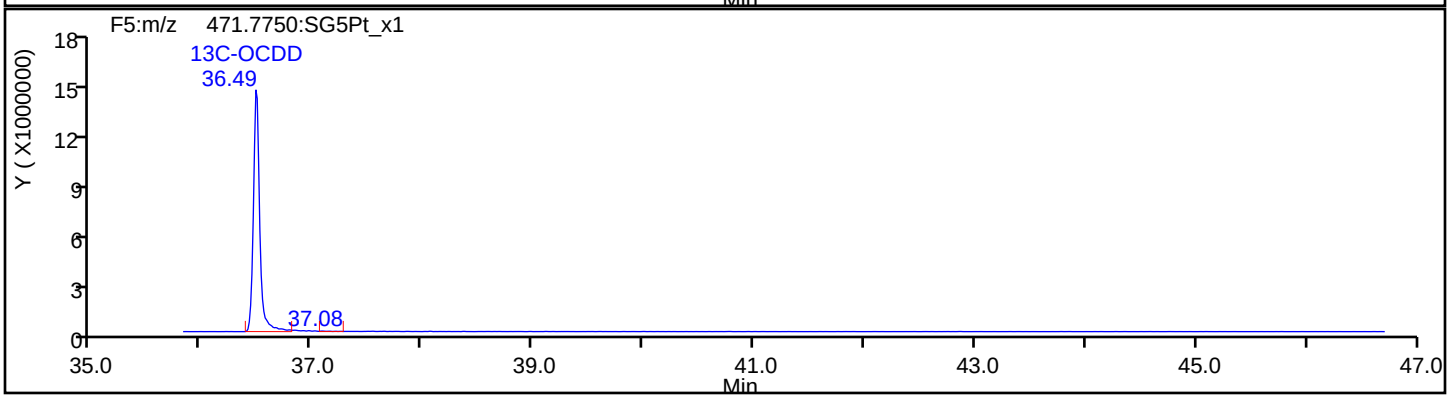
OCDD





OCDD Standards

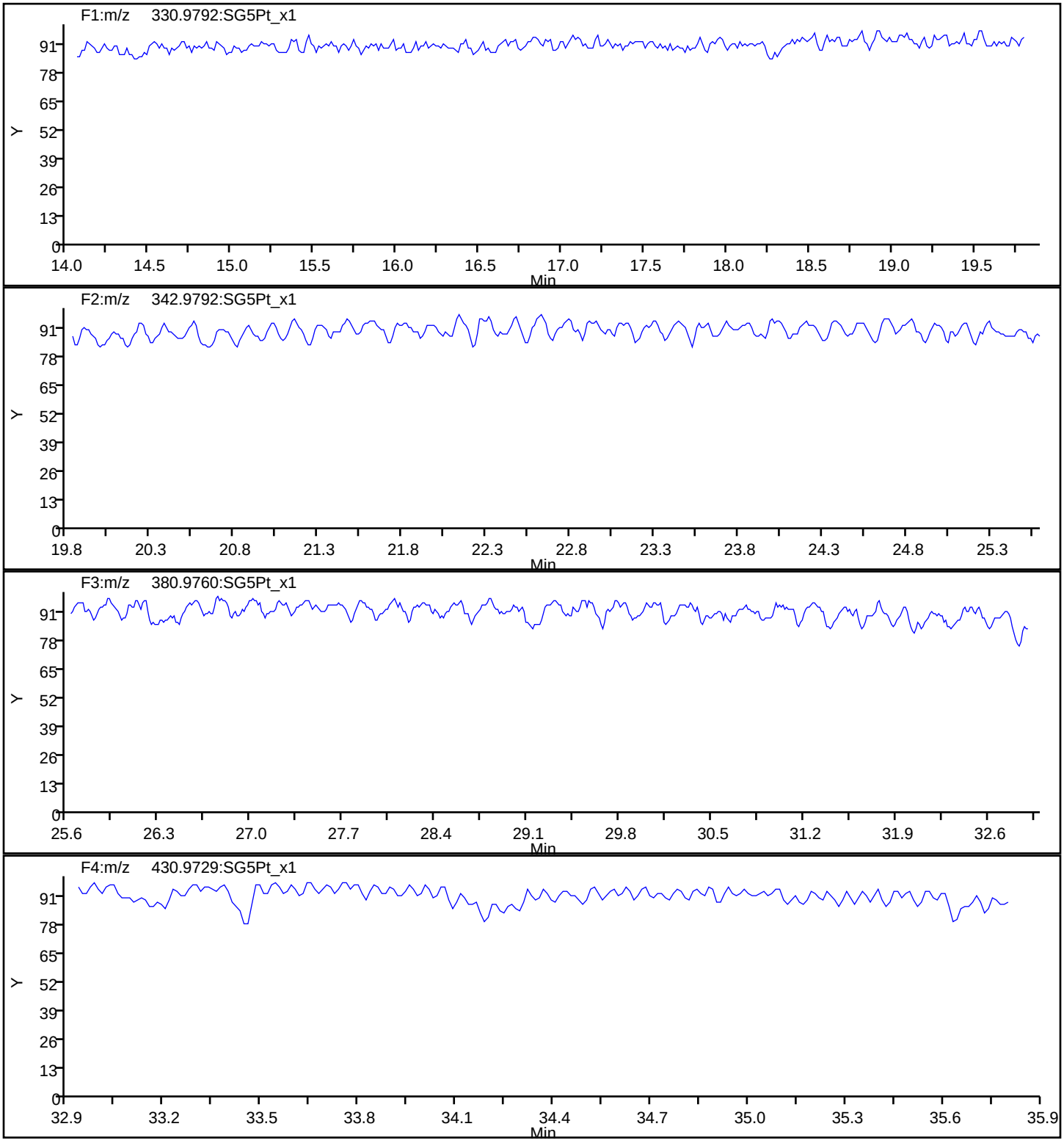




Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

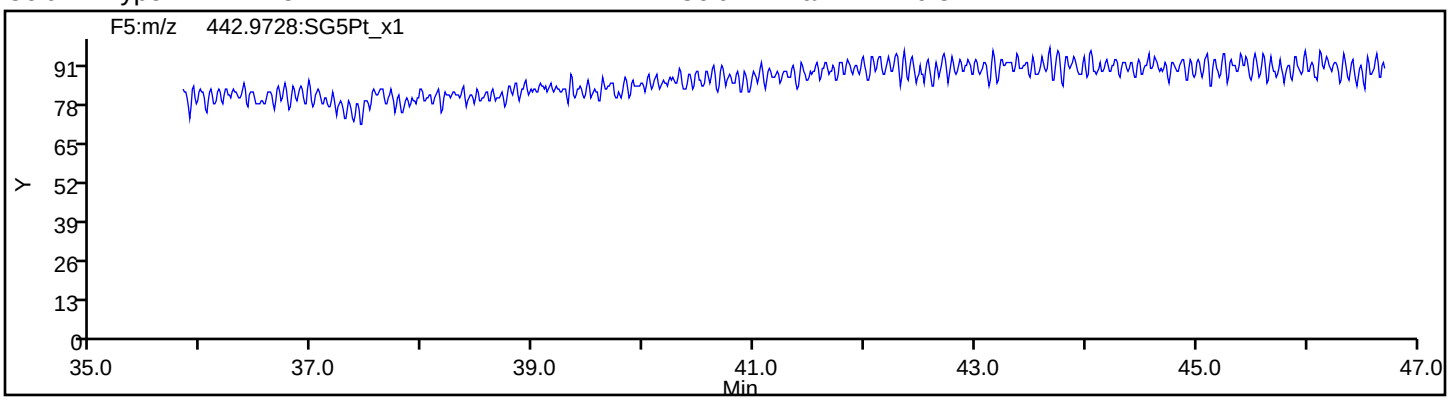
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:11:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_69.d		
Injection Date:	22-Jul-2019 08:18:58	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309104	Sample Line#:	69
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-14_20190716 RA Lab Sample ID: 580-87706-9 RA

Matrix: Solid Lab File ID: 22JL19A4D2_006.d

Analysis Method: 1613B Date Collected: 07/16/2019 11:06

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 9.94(g) Date Analyzed: 07/22/2019 14:05

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 61.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	4.2		2.6	0.15

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	73		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	80		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_006.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:05:07 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-9-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.920	102918033	0.79	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.044	101990396	0.82	1.3652	72.6	72.6	0.1388	0.1388	72.59	
2,3,7,8-TCDF	16.072	964221	0.75	1.1747	0.8048	0.8048	0.0295	0.0295		
D 13C-2,3,7,8-TCDD	14.645	66147103	0.79	0.9684	66.4	66.4	0.1187	0.1187	66.37	
$ 37Cl4-2,3,7,8-TCDD	14.659	42453832		1.2853	32.1	32.1	0.0223	0.0223	80.24	
2,3,7,8-TCDD	14.660						0.0366	0.0366		

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_006.d
Lims ID: 580-87706-C-9-A
Client ID: 22T-SG-14_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:05:07 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-9-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

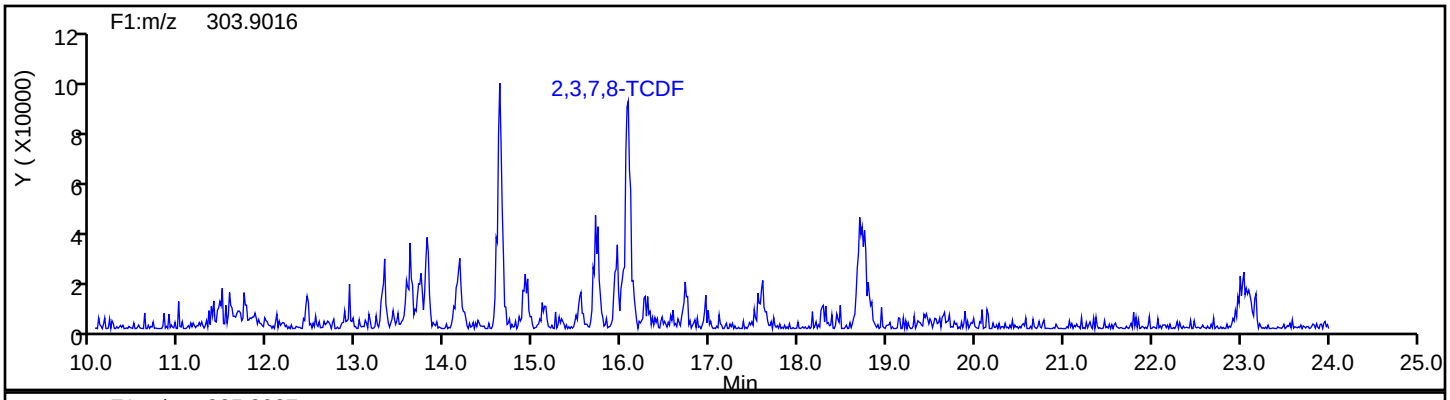
Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.920	14.915	0		45516300	9935510	6300	15750	1577		
333.9339	14.920	14.915	0		57401733	12693408	4104	10260	3093	0.79(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.044	16.068	0	1.075	45878792	9757707	10517	26292	928		
317.9389	16.058	16.068	1	1.076	56111604	11599268	6640	16600	1747	0.82(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.072	16.075	0	1.002	412443	89184	1302	3255	68		
305.8987	16.072	16.075	0	1.002	551778	121521	1655	4137	73	0.75(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.645	14.667	0	0.982	29171464	6483487	6300	15750	1029		
333.9339	14.645	14.667	0	0.982	36975639	8122289	4104	10260	1979	0.79(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.659	14.655	0	0.983	42453832	9183130	2599	6497	3533		
2,3,7,8-TCDD											
319.8965	14.675						1377	3442			
321.8936	14.675						1245	3112			

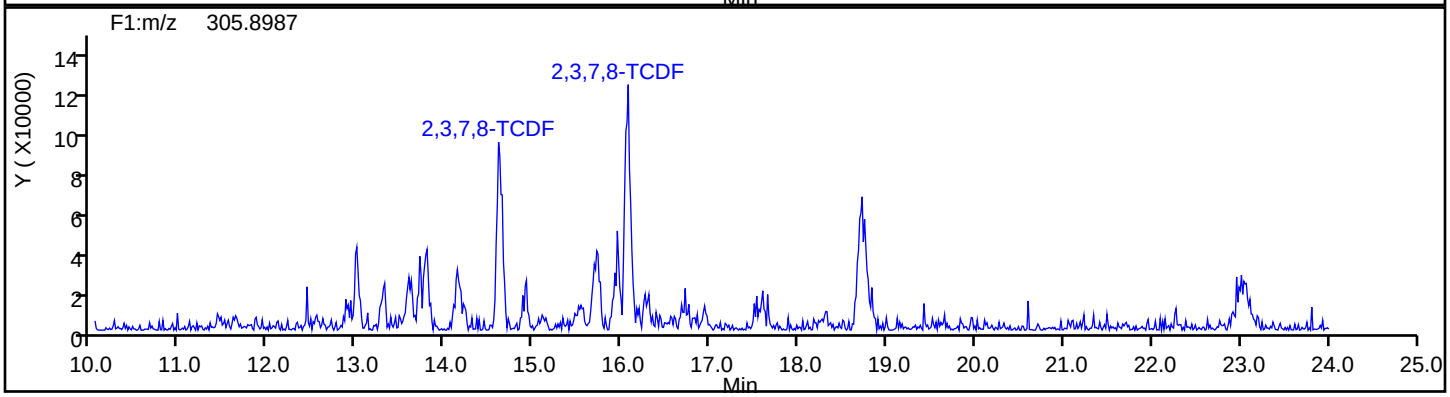
Report Date: 22-Jul-2019 20:21:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

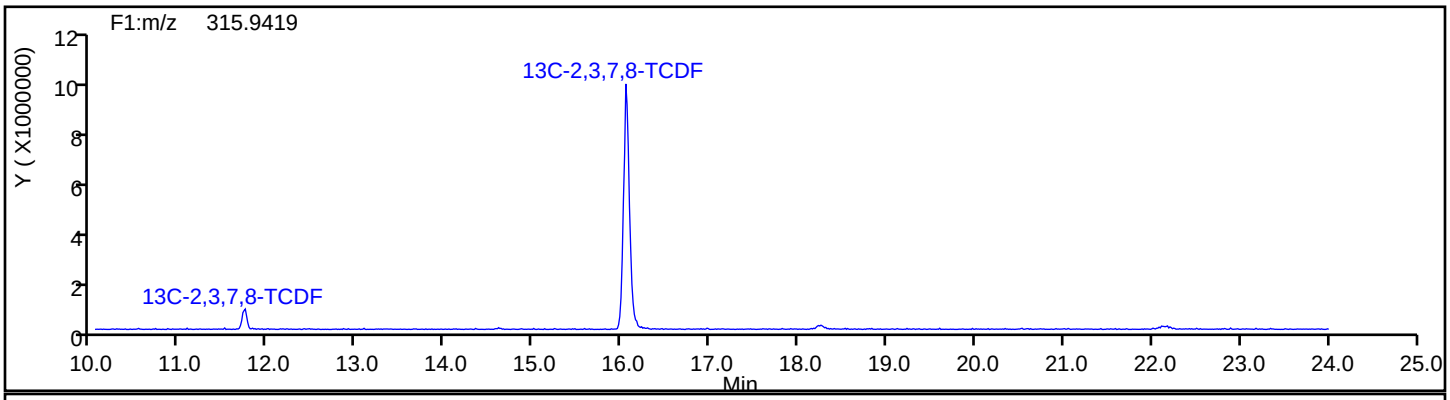
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_006.d		
Injection Date:	22-Jul-2019 14:05:07	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309356	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

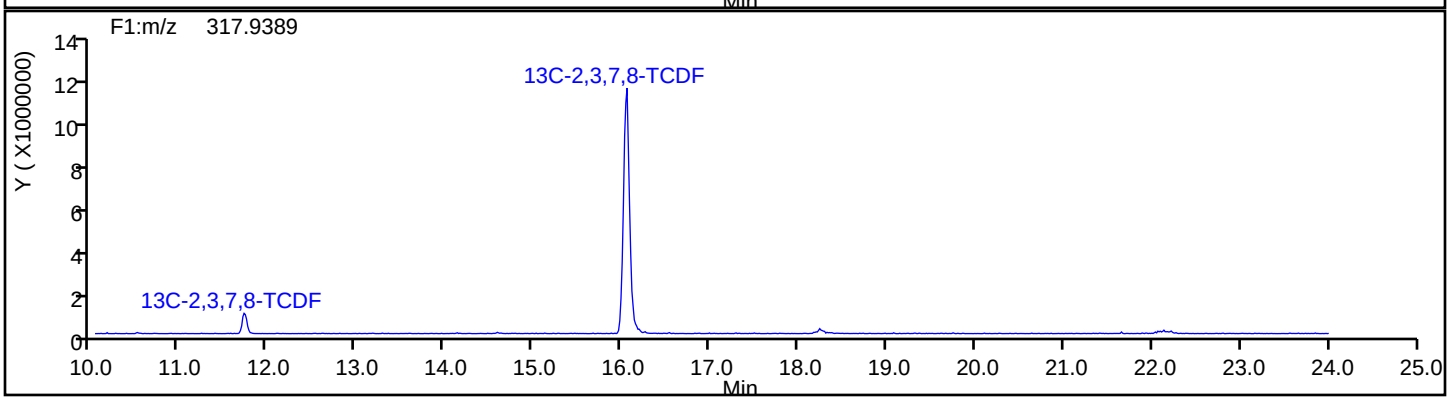
TCDF





TCDF Standards



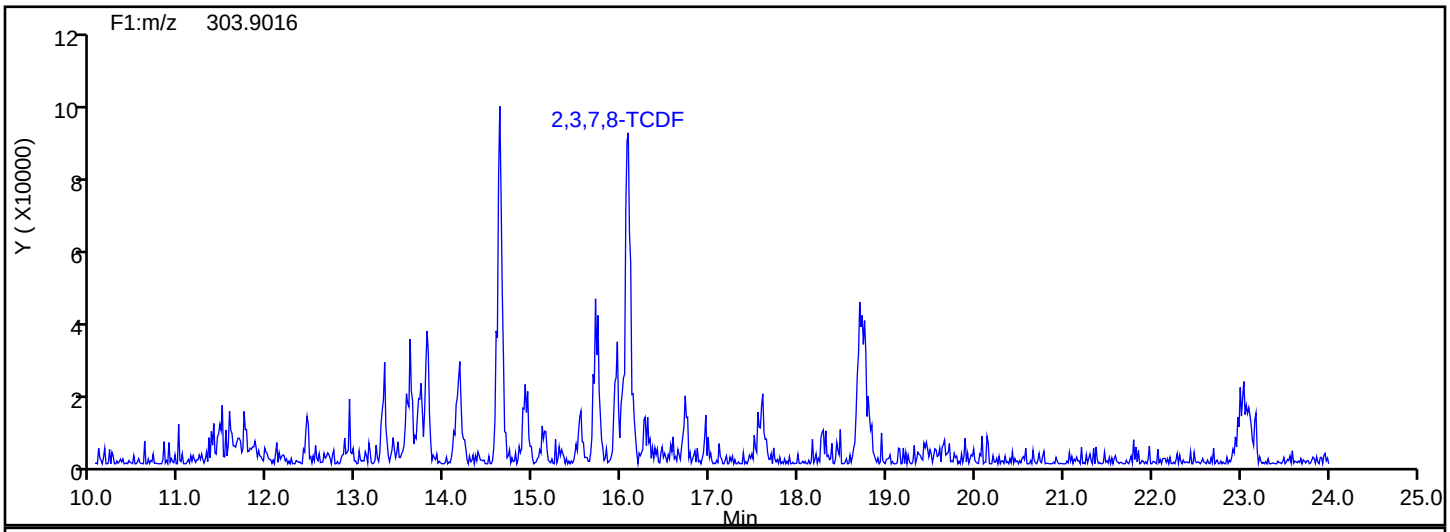


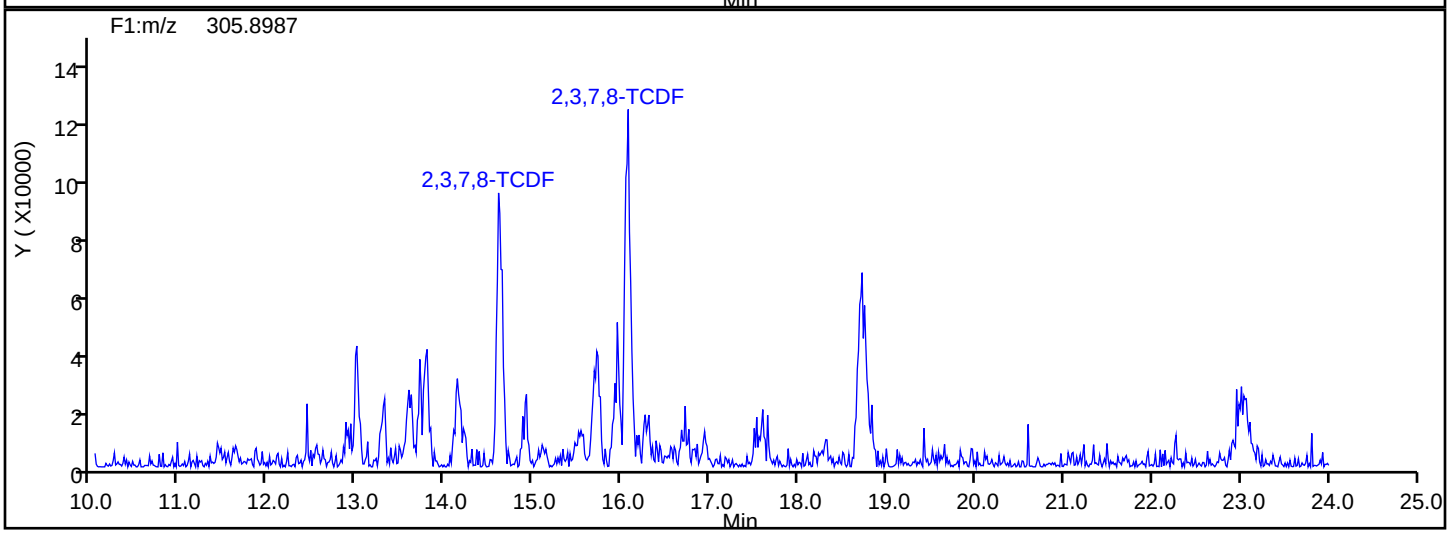
Report Date: 22-Jul-2019 20:21:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

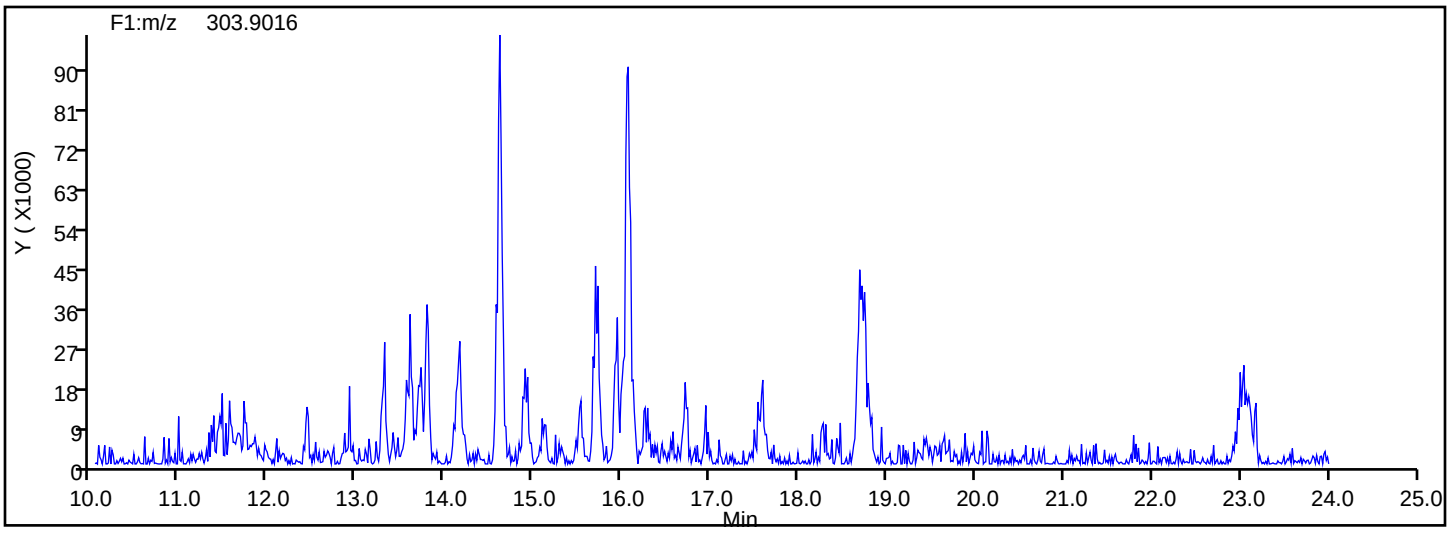
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_006.d		
Injection Date:	22-Jul-2019 14:05:07	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309356	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

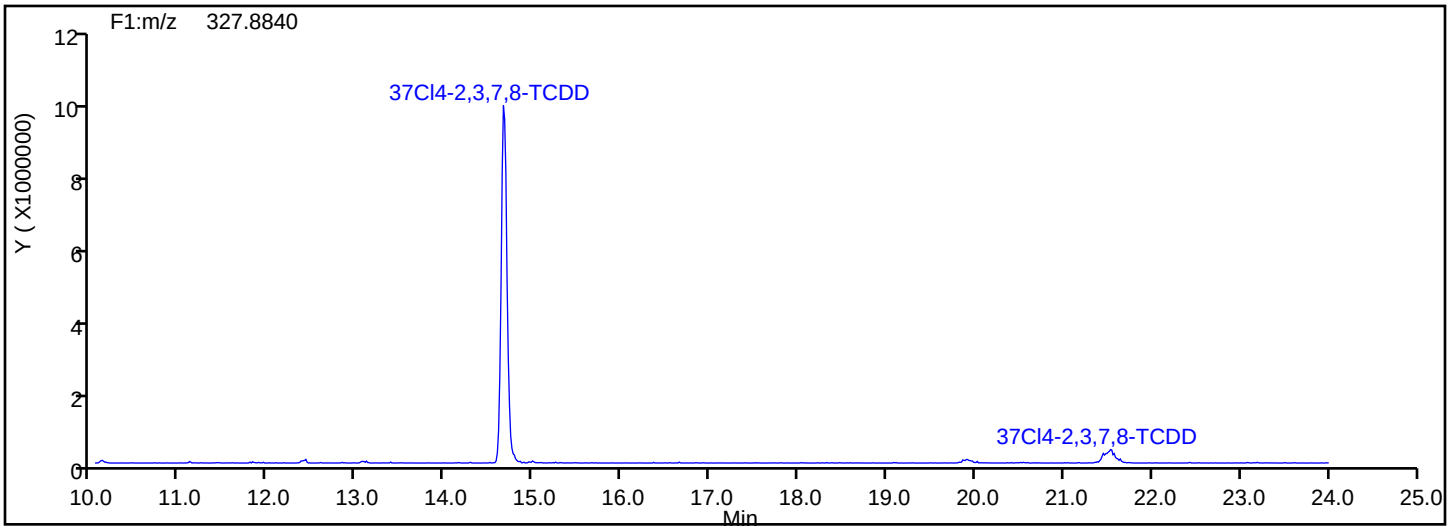


Report Date: 22-Jul-2019 20:21:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

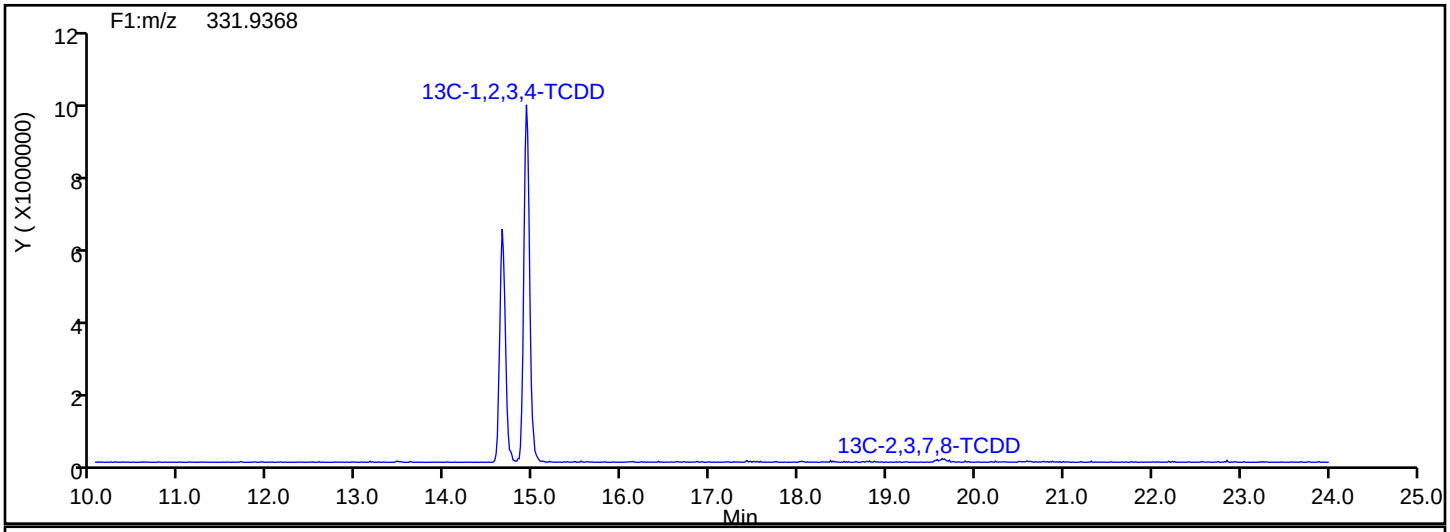
Eurofins TestAmerica, Sacramento

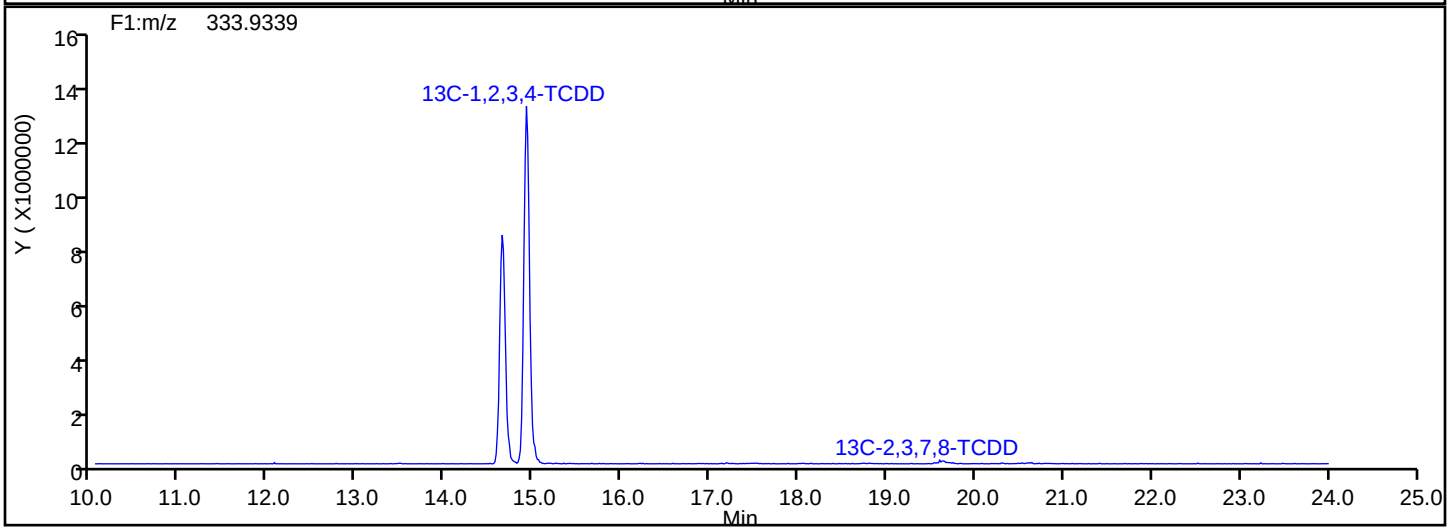
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_006.d		
Injection Date:	22-Jul-2019 14:05:07	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309356	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

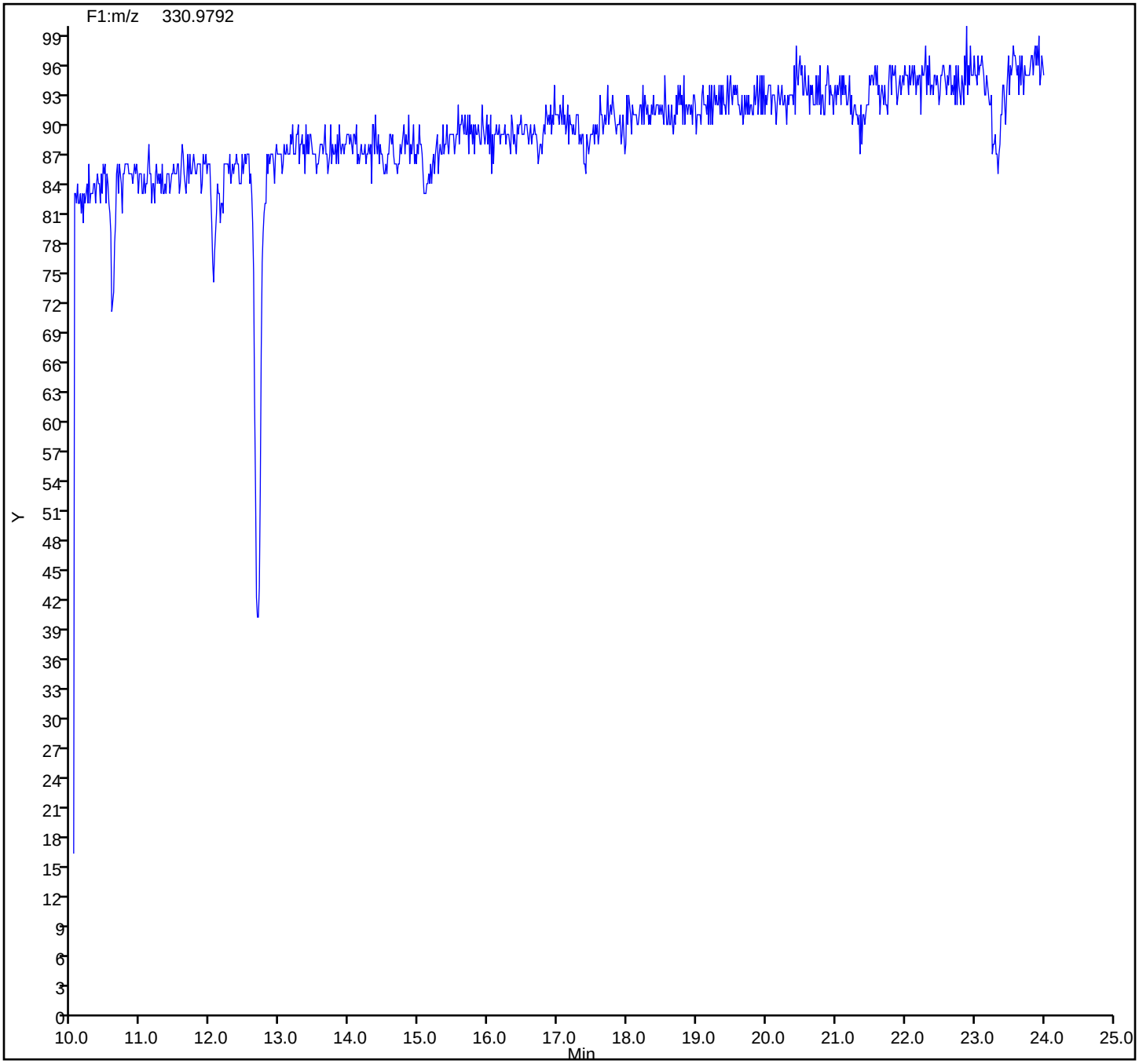




Report Date: 22-Jul-2019 20:21:44 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_006.d		
Injection Date:	22-Jul-2019 14:05:07	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-14_20190716		
Worklist#:	309356	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Matrix: Solid Lab File ID: 19JL19A3D5_70.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:12

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.10(g) Date Analyzed: 07/22/2019 09:06

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 60.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.80	J	2.5	0.33
51207-31-9	2,3,7,8-TCDF	1.9	J	2.5	0.29
40321-76-4	1,2,3,7,8-PeCDD	ND		12	0.46
57117-41-6	1,2,3,7,8-PeCDF	1.7	J q	12	0.35
57117-31-4	2,3,4,7,8-PeCDF	1.0	J	12	0.39
39227-28-6	1,2,3,4,7,8-HxCDD	1.1	J B	12	0.38
57653-85-7	1,2,3,6,7,8-HxCDD	2.8	J	12	0.37
19408-74-3	1,2,3,7,8,9-HxCDD	1.9	J	12	0.35
70648-26-9	1,2,3,4,7,8-HxCDF	3.7	J	12	0.44
57117-44-9	1,2,3,6,7,8-HxCDF	1.4	J	12	0.48
72918-21-9	1,2,3,7,8,9-HxCDF	2.4	J B	12	0.25
60851-34-5	2,3,4,6,7,8-HxCDF	ND		12	0.32
35822-46-9	1,2,3,4,6,7,8-HpCDD	61	B	12	0.86
67562-39-4	1,2,3,4,6,7,8-HpCDF	14		12	0.47
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.4	J	12	0.54
3268-87-9	OCDD	530	B	25	0.76
39001-02-0	OCDF	41	B	25	0.51

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Matrix: Solid Lab File ID: 19JL19A3D5_70.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:12

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.10(g) Date Analyzed: 07/22/2019 09:06

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 60.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	68		25-164
89059-46-1	13C-2,3,7,8-TCDF	73		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	76		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	75		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	74		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	63		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	64		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	71		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	62		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	63		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	74		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	69		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	69		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	78		26-138
114423-97-1	13C-OCDD	71		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	98		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 09:06:28 ALS Bottle#: 49 Worklist Smp#: 70
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-10-A 580-87706-C-10-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:15:24 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 10:52:37

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	171661119	0.77	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.674	173390259	0.81	1.3908	72.6	72.6	0.1905	0.1905	72.63	
2,3,7,8-TCDF	16.690	636219	0.80	0.9710	0.3779	0.3779	0.0595	0.0595		
A Non-2,3,7,8-sub-TCDF	16.402	290923	0.87	0.9710	0.1728	0.1728	0.0595	0.1728		
S Total TCDF					0.5507	0.5507	0.0595	0.0595		
D 13C-2,3,7,8-TCDD	17.340	114450303	0.79	0.9819	67.9	67.9	0.2034	0.2034	67.90	
2,3,7,8-TCDD	17.309	192212	0.73	1.0447	0.1608	0.1608	0.0657	0.0657		Ma
$ 37Cl4-2,3,7,8-TCDD	17.355	82012448		1.2205	39.1	39.1	0.1443	0.1443	97.86	
A Non-2,3,7,8-sub-TCDD	16.833	272506	0.80	1.0447	0.2279	0.2279	0.0657	0.2279		Ma
S Total TCDD					0.3887	0.3887	0.0657	0.0657		
D 13C-1,2,3,7,8-PeCDF	21.318	149501302	1.63	1.1585	75.2	75.2	0.2636	0.2636	75.18	
1,2,3,7,8-PeCDF	21.359	502123	1.55	0.9633	0.4067	0.3487	0.0710	0.0710		RQ
D 13C-2,3,4,7,8-PeCDF	22.545	145953784	1.64	1.1532	73.7	73.7	0.2648	0.2648	73.73	
2,3,4,7,8-PeCDF	22.559	287412	1.70	0.9495	0.2074	0.2074	0.0797	0.0797		
A F1 PeCDFs	19.215	554659	1.48	0.9564	0.3926	0.3926	0.0447	0.3926		
A Non-2,3,7,8-sub-PeCDF	22.104	713563	1.36	0.9564	0.5050	0.5050	0.0751	0.5050		
S Total PeCDF					1.512	1.454	0.0753	0.0753		RQ
D 13C-1,2,3,7,8-PeCDD	23.227	97515052	1.61	0.7431	76.4	76.4	0.1678	0.1678	76.44	
1,2,3,7,8-PeCDD	23.254						0.0929	0.0929		
A Non-2,3,7,8-sub-PeCDD	22.232	215254	1.33	1.0635	0.2076	0.2076	0.0929	0.2076		
S Total PeCDD					0.2076	0.2076	0.0929	0.0929		
D 13C-1,2,3,4,7,8-HxCDF	29.102	116817283	0.51	0.9837	71.4	71.4	0.3264	0.3264	71.42	
1,2,3,4,7,8-HxCDF	29.128	1065889	1.26	1.2173	0.7495	0.7495	0.0880	0.0880		
D 13C-1,2,3,6,7,8-HxCDF	29.421	119004062	0.50	1.1554	61.9	61.9	0.2779	0.2779	61.95	
1,2,3,6,7,8-HxCDF	29.435	381892	1.29	1.1311	0.2837	0.2837	0.0969	0.0969		
D 13C-2,3,4,6,7,8-HxCDF	30.646	108903511	0.51	1.0361	63.2	63.2	0.3099	0.3099	63.22	
2,3,4,6,7,8-HxCDF	30.687						0.0651	0.0651		
D 13C-1,2,3,7,8,9-HxCDF	31.672	111850722	0.54	0.9034	74.5	74.5	0.3554	0.3554	74.46	
1,2,3,7,8,9-HxCDF	31.672	635635	1.30	1.1787	0.4821	0.4821	0.0510	0.0510		
A Non-2,3,7,8-sub-HxCDF	29.135	3761026	1.24	1.1745	2.823	2.805	0.0707	1.247		RQM

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					4.338	4.321	0.0753	0.0753		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.459	166263223	1.30	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.913	86283019	1.28	0.8287	62.6	62.6	0.2569	0.2569	62.62	
1,2,3,4,7,8-HxCDD	30.939	189261	1.24	1.0267	0.2136	0.2136	0.0769	0.0769		Ma
D 13C-1,2,3,6,7,8-HxCDD	31.059	100266209	1.26	0.9495	63.5	63.5	0.2242	0.2242	63.52	
1,2,3,6,7,8-HxCDD	31.073	556239	1.18	0.9771	0.5678	0.5678	0.0753	0.0753		Ma
1,2,3,7,8,9-HxCDD	31.472	376412	1.40	1.0616	0.3801	0.3801	0.0717	0.0717		
A Non-2,3,7,8-sub-HxCDD	29.926	2551298	1.24	1.0218	2.677	2.677	0.0745	1.449		
S Total HxCDD					3.838	3.838	0.0746	0.0746		
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	83351538	0.42	0.7285	68.8	68.8	0.5781	0.5781	68.82	
1,2,3,4,6,7,8-HpCDF	33.335	3339843	1.18	1.4373	2.788	2.788	0.0941	0.0941		
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	84725105	0.46	0.6556	77.7	77.7	0.6424	0.6424	77.72	
1,2,3,4,7,8,9-HpCDF	34.429	320157	1.03	1.3091	0.2887	0.2887	0.1093	0.1093		
A Non-2,3,7,8-sub-HpCDF	33.894	6040873	1.05	1.3732	5.235	5.235	0.1013	5.235		
S Total HpCDF					8.311	8.311	0.1017	0.1017		
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	79616788	1.06	0.6978	68.6	68.6	0.3159	0.3159	68.62	
1,2,3,4,6,7,8-HpCDD	34.150	9992240	1.11	1.0102	12.4	12.4	0.1731	0.1731		
A Non-2,3,7,8-sub-HpCDD	35.074	11266256	1.07	1.0102	14.0	14.0	0.1731	14.0		a
S Total HpCDD					26.4	26.4	0.1731	0.1731		
D 13C-OCDD	36.498	113332149	0.91	0.4780	142.6	142.6	0.1828	0.1828	71.31	
OCDF	36.581	6263590	0.87	1.3501	8.187	8.187	0.1032	0.1032		
OCDD	36.509	64776005	0.91	1.0627	107.6	107.6	0.1542	0.1542		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 09:06:28 ALS Bottle#: 49 Worklist Smp#: 70
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-10-A 580-87706-C-10-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:15:24 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 10:52:37

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		74468508	19505439	22642	56605	861		
333.9339	17.158	17.158	0		97192611	25156738	13033	32582	1930	0.77(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.674	16.690	-1	0.972	77488390	19371784	24868	62170	779		
317.9389	16.674	16.690	-1	0.972	95901869	24235552	22464	56160	1079	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.690	16.705	-1	1.001	281956	62196	3479	8697	18		
305.8987	16.690	16.705	-1	1.001	354263	75773	6607	16517	11	0.80(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	14.905	16.402	-90	0.894	135516	36549	3479	8697	11		
305.8987	14.890	16.402	-91	0.893	155407	38371	6607	16517	6	0.87(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.011	50670982	12208782	22642	56605	539		
333.9339	17.340	17.355	-1	1.011	63779321	15545552	13033	32582	1193	0.79(0.65-0.89)	
2,3,7,8-TCDD											Ma
319.8965	17.309	17.355	-3	0.998	80950	15830	5212	13030	3		M
321.8936	17.355	17.355	0	1.001	111262	22043	2409	6022	9	0.73(0.65-0.89)	M
37Cl4-2,3,7,8-TCDD											
327.8847	17.355	17.370	-1	1.011	82012448	19417183	31461	78652	617		
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	17.264	16.833	26	0.996	121202	30231	5212	13030	6		M
321.8936	17.264	16.833	26	0.996	151304	44356	2409	6022	18	0.80(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.318	21.332	-1	1.242	92723049	16938579	32495	81237	521		
353.8970	21.318	21.332	-1	1.242	56778253	10234904	22067	55167	464	1.63(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8-PeCDF											RQ
339.8597	21.359	21.345	1	1.002	388790	56566	2868	7170	20		
	Empc Correction				305212	49861	2868	7170	17		
341.8567	21.359	21.345	1	1.002	196911	32169	4570	11425	7	1.97(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.545	22.559	-1	1.314	90682826	15245283	32495	81237	469		
353.8970	22.545	22.559	-1	1.314	55270958	9341380	22067	55167	423	1.64(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.559	22.586	-2	1.001	180843	31827	2868	7170	11		
341.8567	22.559	22.586	-2	1.001	106569	17164	4570	11425	4	1.70(1.32-1.78)	
A F1 PeCDFs											
339.8597	18.670	19.215	-33	0.876	331249	65990	1636	4090	40		
341.8567	18.670	19.215	-33	0.876	223410	49053	2790	6975	18	1.48(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDF											
339.8597	20.091	22.104	-121	0.942	411418	64276	2868	7170	22		
341.8567	20.091	22.104	-121	0.942	302145	46998	4570	11425	10	1.36(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.227	23.227	0	1.354	60111723	9505986	12335	30837	771		
369.8919	23.213	23.227	-1	1.353	37403329	5987527	9947	24867	602	1.61(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4287	10717			
357.8516	23.254						1837	4592			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.309	22.232	-115	0.874	122841	23360	4287	10717	5		
357.8516	20.281	22.232	-117	0.873	92413	16573	1837	4592	9	1.33(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.102	29.115	-1	0.925	39299279	4515847	15561	38902	290		
385.8610	29.102	29.115	-1	0.925	77518004	9091558	31441	78602	289	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.128	29.155	-2	1.001	594991	66170	3114	7785	21		
375.8178	29.115	29.155	-2	1.000	470898	55971	2716	6790	21	1.26(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.421	29.421	0	0.935	39927037	4466919	15561	38902	287		
385.8610	29.395	29.421	-2	0.934	79077025	8833335	31441	78602	281	0.50(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.435	29.462	-2	1.000	215000	26081	3114	7785	8		
375.8178	29.435	29.462	-2	1.000	166892	22941	2716	6790	8	1.29(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.646	30.660	-1	0.974	37003276	6420032	15561	38902	413		
385.8610	30.646	30.660	-1	0.974	71900235	12685586	31441	78602	403	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.687						3114	7785			
375.8178	30.687						2716	6790			
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.007	39169111	8555990	15561	38902	550		
385.8610	31.658	31.672	-1	1.006	72681611	15687483	31441	78602	499	0.54(0.43-0.59)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8,9-HxCDF											
373.8208	31.672	31.685	-1	1.000	359429	60625	3114	7785	19		
375.8178	31.672	31.685	-1	1.000	276206	40778	2716	6790	15	1.30(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQM
373.8208	26.465	29.135	-160	0.909	249718	37737	3114	7785	12		
375.8178	26.479	29.135	-159	0.910	191558	27162	2716	6790	10	1.30(1.05-1.43)	
373.8208	26.838	29.135	-138	0.922	810513	101950	3114	7785	33		
375.8178	26.838	29.135	-138	0.922	590277	78766	2716	6790	29	1.37(1.05-1.43)	
373.8208	28.037	29.135	-66	0.963	922067	120516	3114	7785	39		
375.8178	28.037	29.135	-66	0.963	749682	89090	2716	6790	33	1.23(1.05-1.43)	
373.8208	30.513	29.135	83	1.049	136849	24550	3114	7785	8		
375.8178	30.500	29.135	82	1.048	133918	22115	2716	6790	8	1.02(1.05-1.43)	M
	Empc Correction				110362	19798	2716	6790	7		
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.459	31.472	-1		94038662	20702706	15633	39082	1324		
403.8529	31.459	31.472	-1		72224561	15889794	15526	38815	1023	1.30(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.913	30.926	-1	0.983	48513776	10005250	15633	39082	640		
403.8529	30.926	30.926	0	0.983	37769243	7961339	15526	38815	513	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											Ma
389.8157	30.939	30.953	-1	1.001	104639	23844	2618	6545	9		M
391.8127	30.939	30.953	-1	1.001	84622	16865	3053	7632	6	1.24(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	55840972	10595961	15633	39082	678		
403.8529	31.059	31.059	0	0.987	44425237	8672559	15526	38815	559	1.26(1.05-1.43)	
1,2,3,6,7,8-HxCDD											Ma
389.8157	31.073	31.086	-1	1.000	300507	53961	2618	6545	21		M
391.8127	31.059	31.086	-2	1.000	255732	40454	3053	7632	13	1.18(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.472	31.485	-1	1.018	219782	44270	2618	6545	17		
391.8127	31.472	31.485	-1	1.018	156630	35375	3053	7632	12	1.40(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.930	29.926	-120	0.899	632912	77889	2618	6545	30		
391.8127	27.930	29.926	-120	0.899	537339	65542	3053	7632	21	1.18(1.05-1.43)	
389.8157	29.914	29.926	-1	0.963	777676	87323	2618	6545	33		
391.8127	29.901	29.926	-2	0.963	603371	74316	3053	7632	24	1.29(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.060	24821182	7742917	20443	51107	379		
419.8220	33.323	33.335	-1	1.059	58530356	17637620	41201	103002	428	0.42(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.335	33.347	-1	1.000	1809976	611093	8820	22050	69		
409.7789	33.335	33.347	-1	1.000	1529867	467090	4904	12260	95	1.18(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	26815912	7623243	20443	51107	373		
419.8220	34.417	34.429	-1	1.094	57909193	16349423	41201	103002	397	0.46(0.37-0.51)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.441	-1	1.000	162744	51545	8820	22050	6		
409.7789	34.429	34.441	-1	1.000	157413	41541	4904	12260	8	1.03(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.639	33.894	-15	1.009	3094085	954486	8820	22050	108		
409.7789	33.639	33.894	-15	1.009	2946788	902575	4904	12260	184	1.05(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.085	40986790	12104498	16761	41902	722		
437.8140	34.138	34.150	-1	1.085	38629998	11418778	15505	38762	736	1.06(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	5249884	1585806	9175	22937	173		
425.7737	34.150	34.162	-1	1.000	4742356	1471883	7279	18197	202	1.11(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	5835108	1789380	9175	22937	195		a
425.7737	33.591	35.074	-89	0.984	5431148	1692363	7279	18197	232	1.07(0.88-1.20)	
13C-OCDD											
469.7779	36.498	36.498	0	1.160	54112752	13119720	5916	14790	2218		
471.7750	36.498	36.498	0	1.160	59219397	14693654	6875	17187	2137	0.91(0.76-1.02)	
OCDF											
441.7428	36.581	36.582	0	1.002	2907440	732713	3196	7990	229		
443.7399	36.581	36.582	0	1.002	3356150	834447	4553	11382	183	0.87(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	30861047	7450574	4466	11165	1668		
459.7348	36.498	36.509	-1	1.000	33914958	8447735	4652	11630	1816	0.91(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	173390259	43607336

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	173390259	43607336

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.905	135516	36549	155407	38371	0.1728	0.87	
Signal Totals:							
	135516	36549	155407	38371			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	290923	74920				0.87	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1728 = (290923 * 100.000) / (173390259 * 0.971)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	114450303	27754334

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	114450303	27754334

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.264	121202	30231	151304	44356	0.2279	0.80	Ma
Signal Totals:							
	121202	30231	151304	44356			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	272506	74587				0.80	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2279 = (272506 * 100.000) / (114450303 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 12:15:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	149501302	27173483
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	145953784	24586663

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	147727543	25880073

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.670	331249	65990	223410	49053	0.3926	1.48	
Signal Totals:							
	331249	65990	223410	49053			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	554659	115043				1.48	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3926 = (554659 * 100.000) / (147727543 * 0.956)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	149501302	27173483
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	145953784	24586663

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	147727543	25880073

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.091	411418	64276	302145	46998	0.5050	1.36	
Signal Totals:							
	411418	64276	302145	46998			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	713563	111274				1.36	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5050 = (713563 * 100.000) / (147727543 * 0.956)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	97515052	15493513

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	97515052	15493513

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.309	122841	23360	92413	16573	0.2076	1.33	
Signal Totals:							
	122841	23360	92413	16573			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	215254	39933				1.33	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2076 = (215254 * 100.000) / (97515052 * 1.063)

Report Date: 23-Jul-2019 12:15:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	116817283	13607405
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	119004062	13300254
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	108903511	19105618
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	111850722	24243473

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	114143894	17564187

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.465	249718	37737	191558	27162	0.3291	1.30	
26.838	810513	101950	590277	78766	1.04	1.37	
28.037	922067	120516	749682	89090	1.25	1.23	
30.513	136849	24550	133918	22115	0.2020	1.02	RQM
30.513	136849	24550	110362	19798	0.1844		Empc Correction
Signal Totals:							
	2119147	284753	1641879	214816			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3784582	501886				1.27	RQM
	3761026	499569					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.823 = (3784582 * 100.000) / (114143894 * 1.175)
Empc Amount: 2.805 = (3761026 * 100.000) / (114143894 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	86283019	17966589
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	100266209	19268520
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	93274614	18617554

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.930	632912	77889	537339	65542	1.23	1.18	
29.914	777676	87323	603371	74316	1.45	1.29	
Signal Totals:							
	1410588	165212	1140710	139858			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2551298	305070				1.24	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.677 = (2551298 * 100.000) / (93274614 * 1.022)

Report Date: 23-Jul-2019 12:15:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	83351538	25380537
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	84725105	23972666

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	84038321	24676601

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.639	3094085	954486	2946788	902575	5.23	1.05	
Signal Totals:							
	3094085	954486	2946788	902575			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6040873	1857061				1.05	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.235 = (6040873 * 100.000) / (84038321 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d
Lims ID: 580-87706-C-10-A
Client ID: 22T-SG-13_20190716
Inject. Date: 22-Jul-2019 09:06:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 70

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	79616788	23523276

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	79616788	23523276

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	5835108	1789380	5431148	1692363	14.0	1.07	a
Signal Totals:							
	5835108	1789380	5431148	1692363			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	11266256	3481743				1.07	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 14.008 = (11266256 * 100.000) / (79616788 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

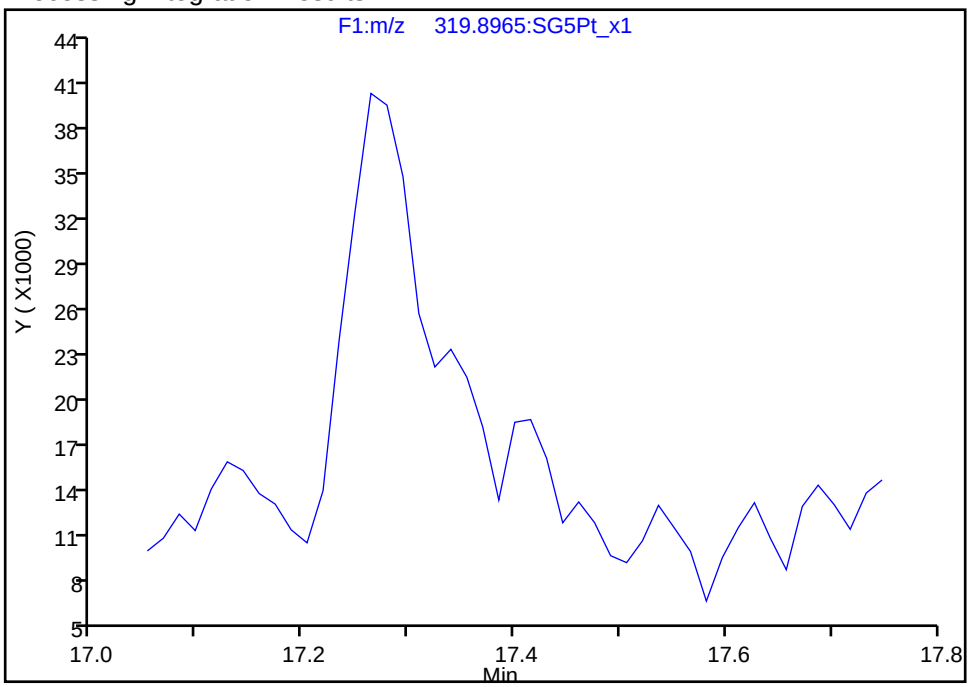
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d				
Injection Date:	22-Jul-2019 09:06:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-10-A	Lab Sample ID:	320-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	49	Worklist Smp#:	70
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

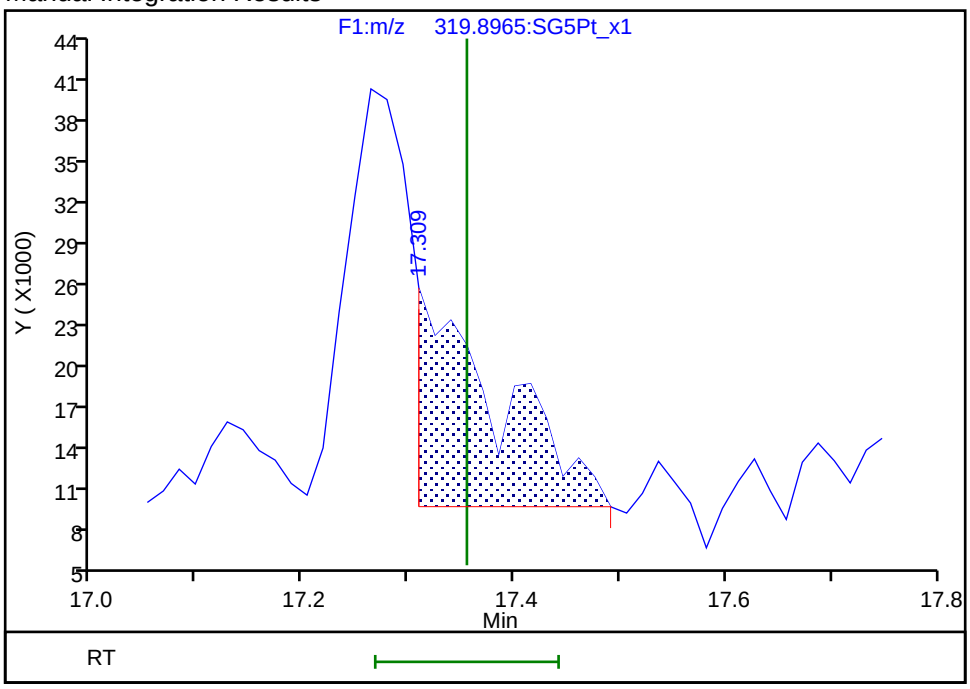
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.31
Area: 80950
Amount: 0.160755
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:12:23
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

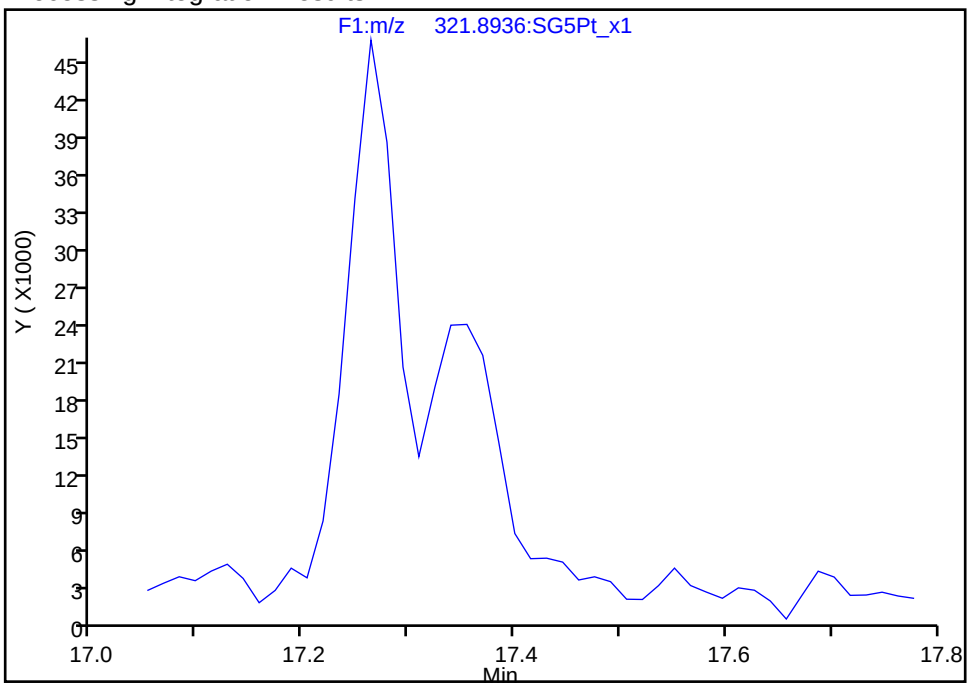
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d				
Injection Date:	22-Jul-2019 09:06:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-10-A	Lab Sample ID:	320-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	49	Worklist Smp#:	70
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

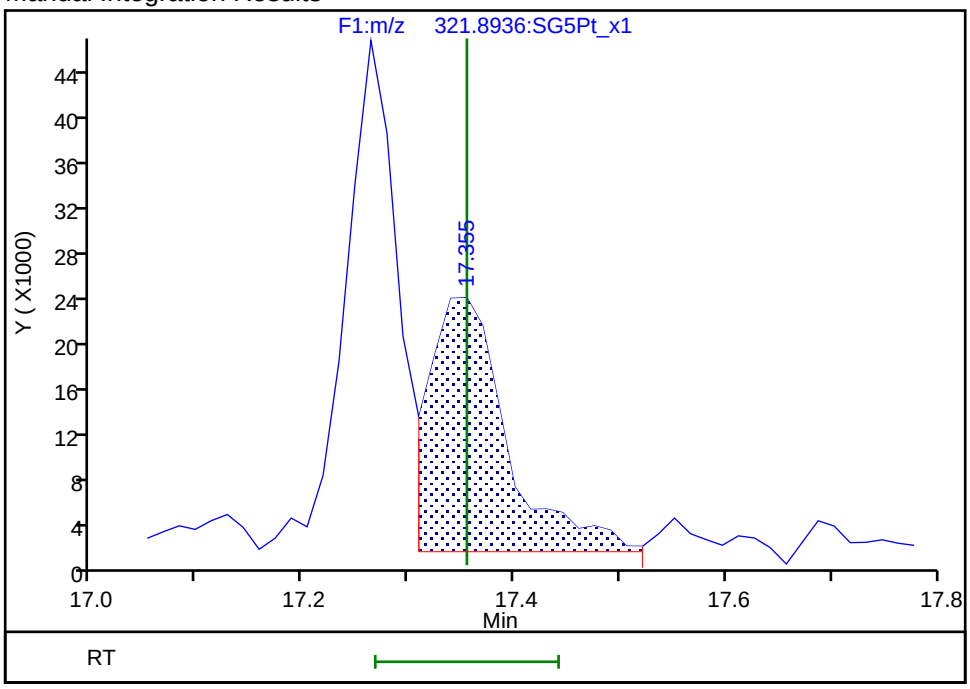
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.35
Area: 111262
Amount: 0.160755
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:12:25
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

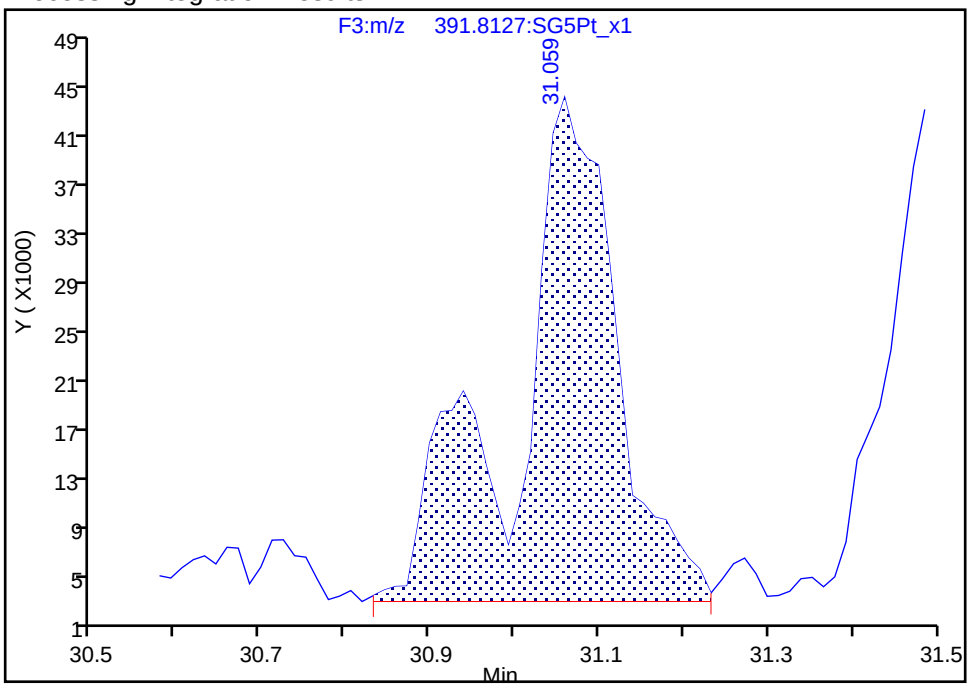
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d				
Injection Date:	22-Jul-2019 09:06:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-10-A	Lab Sample ID:	320-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	49	Worklist Smp#:	70
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 2

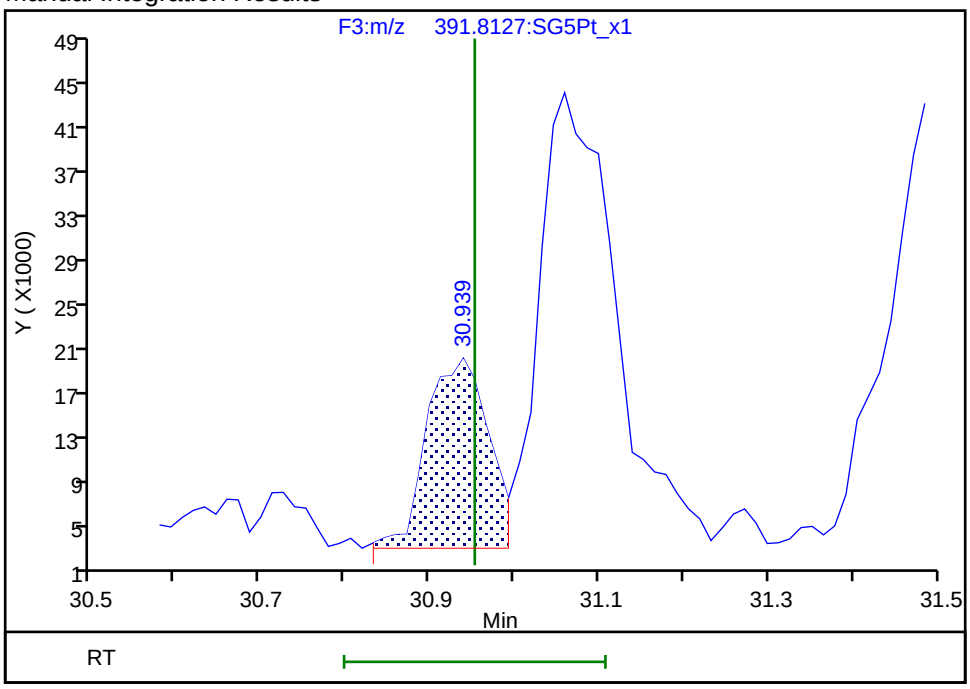
Processing Integration Results

RT: 31.06
Area: 340354
Amount: 0.723439
Amount Units: pg/ul



Manual Integration Results

RT: 30.94
Area: 84622
Amount: 0.213648
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:14:17

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

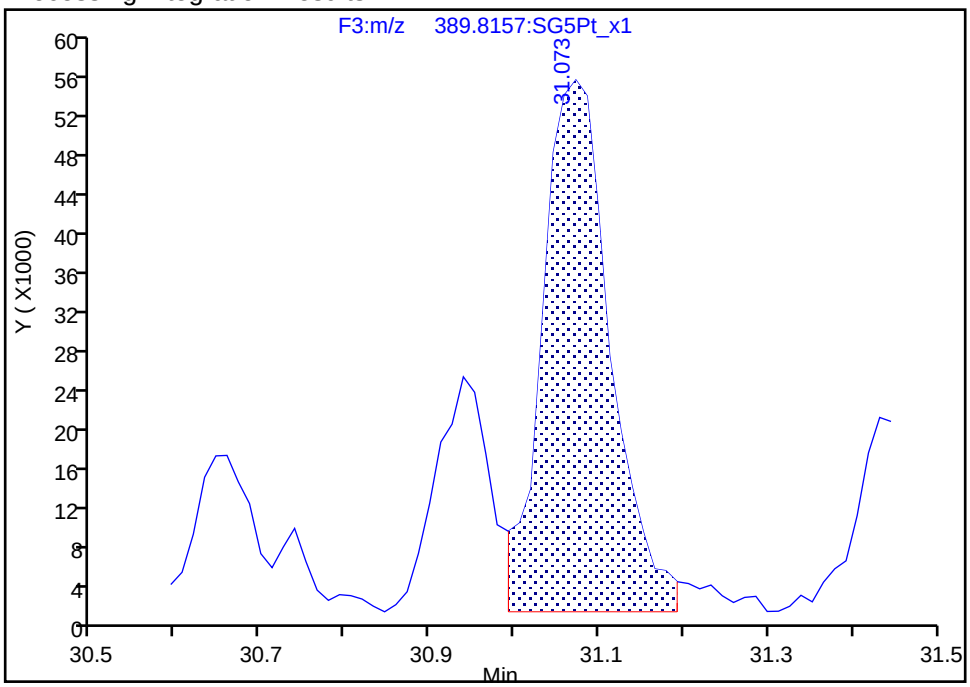
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d				
Injection Date:	22-Jul-2019 09:06:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-10-A	Lab Sample ID:	320-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	49	Worklist Smp#:	70
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

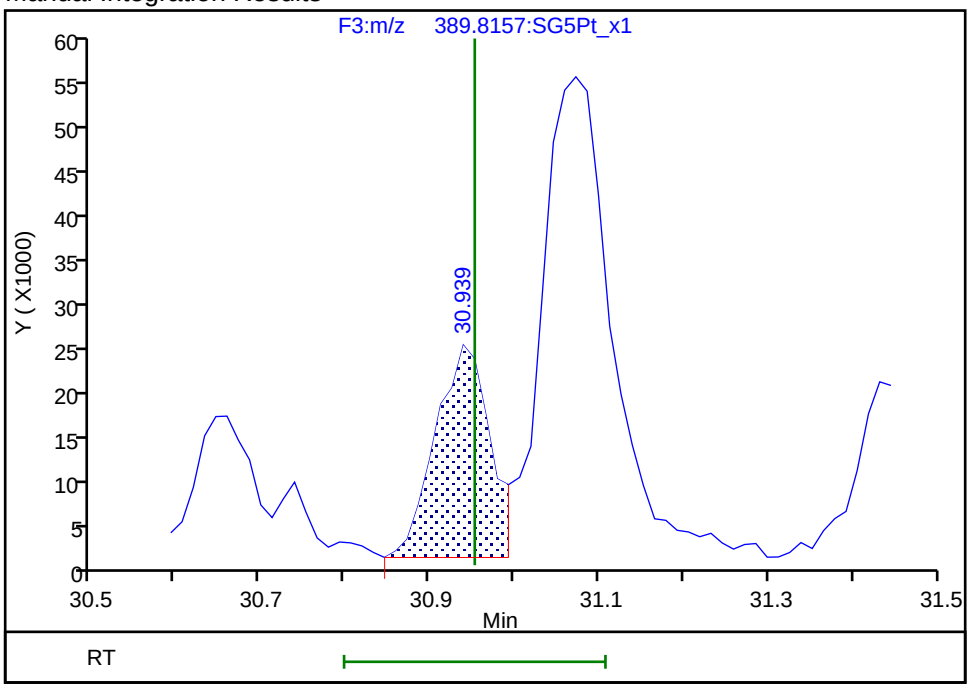
Processing Integration Results

RT: 31.07
Area: 300507
Amount: 0.723439
Amount Units: pg/ul



Manual Integration Results

RT: 30.94
Area: 104639
Amount: 0.213648
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:14:22
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

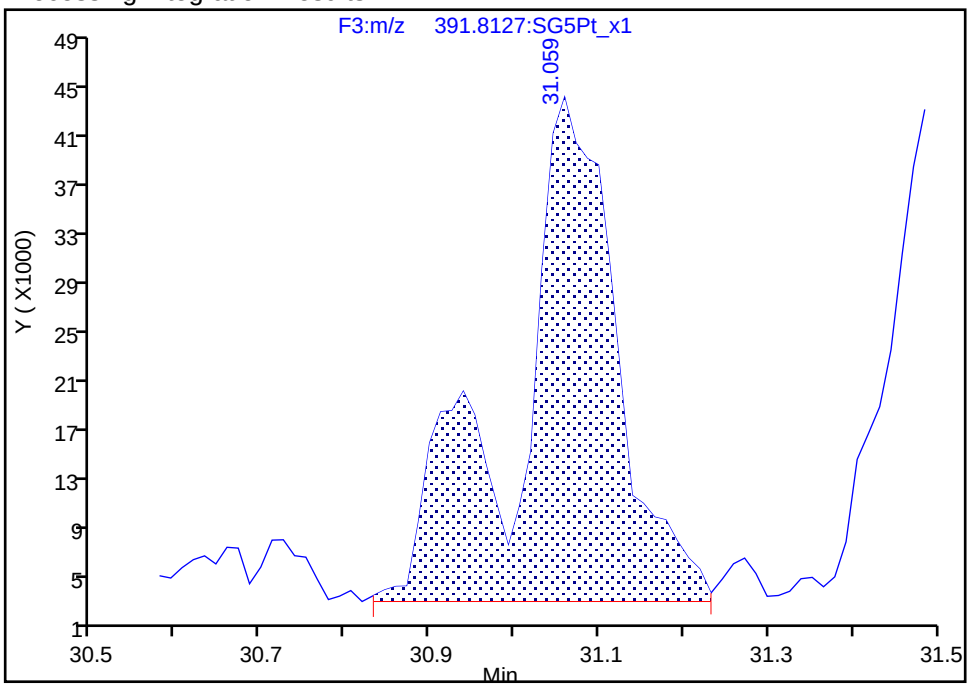
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d				
Injection Date:	22-Jul-2019 09:06:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-10-A	Lab Sample ID:	320-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	49	Worklist Smp#:	70
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 2

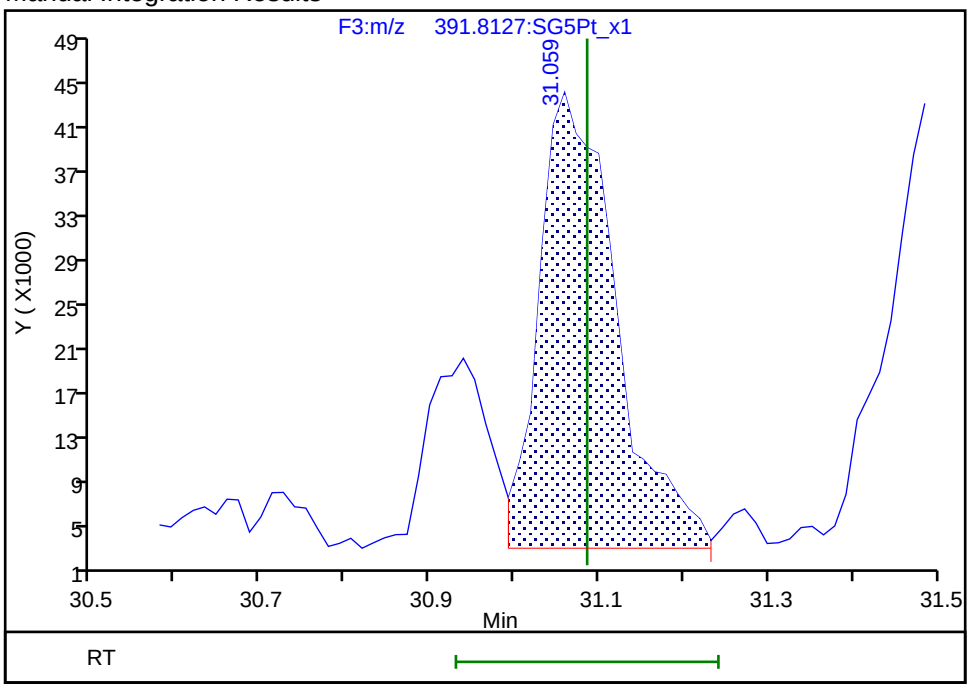
Processing Integration Results

RT: 31.06
Area: 340354
Amount: 0.654150
Amount Units: pg/ul



Manual Integration Results

RT: 31.06
Area: 255732
Amount: 0.567774
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:14:17
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

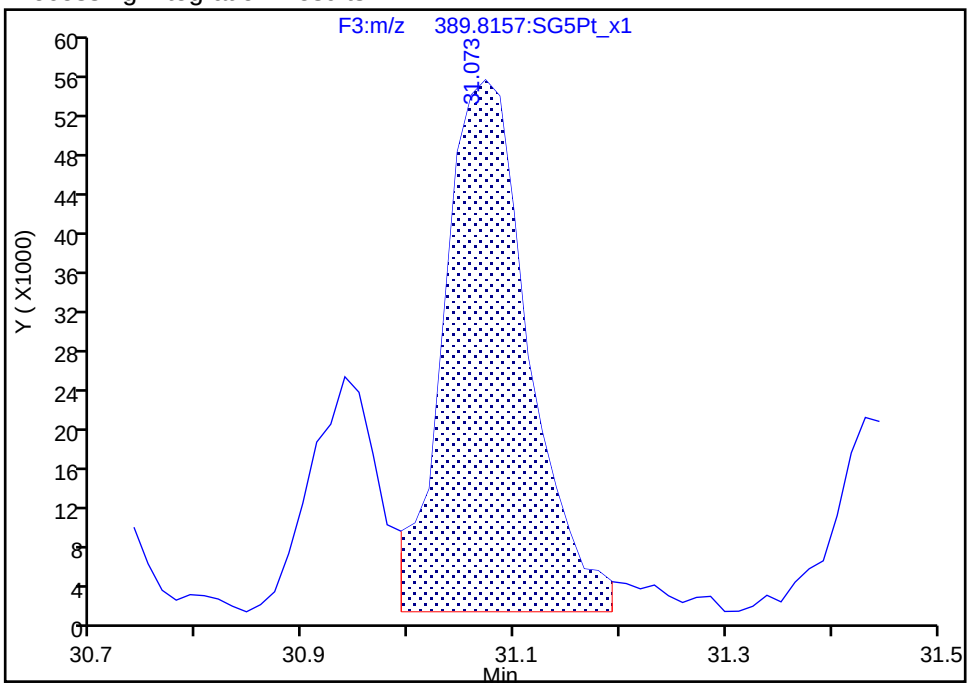
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d				
Injection Date:	22-Jul-2019 09:06:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-10-A	Lab Sample ID:	320-87706-10		
Client ID:	22T-SG-13_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	49	Worklist Smp#:	70
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

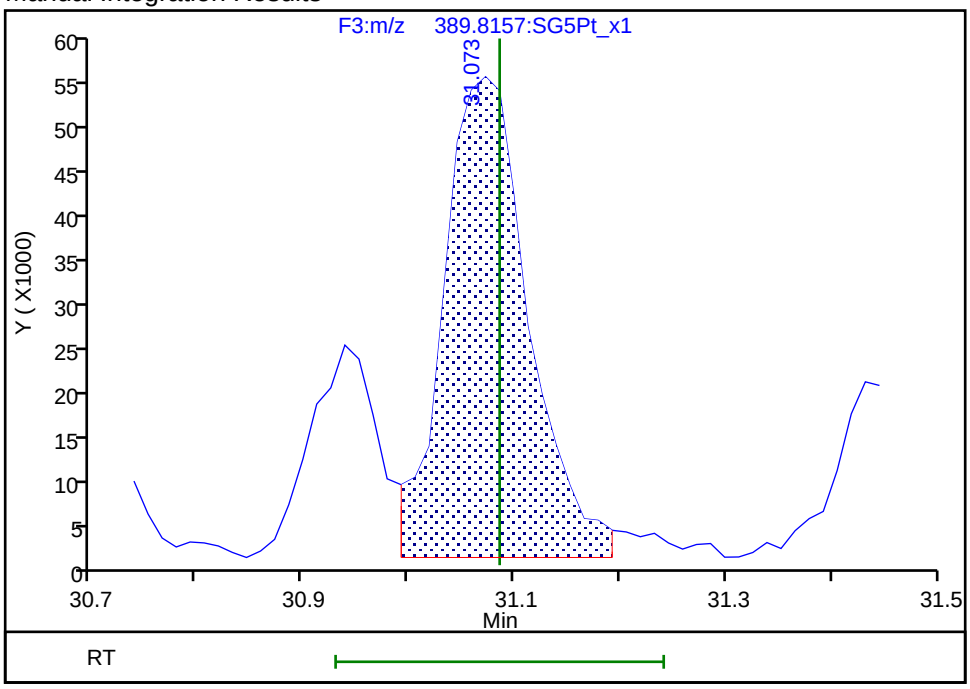
Processing Integration Results

RT: 31.07
Area: 300507
Amount: 0.654150
Amount Units: pg/ul



Manual Integration Results

RT: 31.07
Area: 300507
Amount: 0.567774
Amount Units: pg/ul



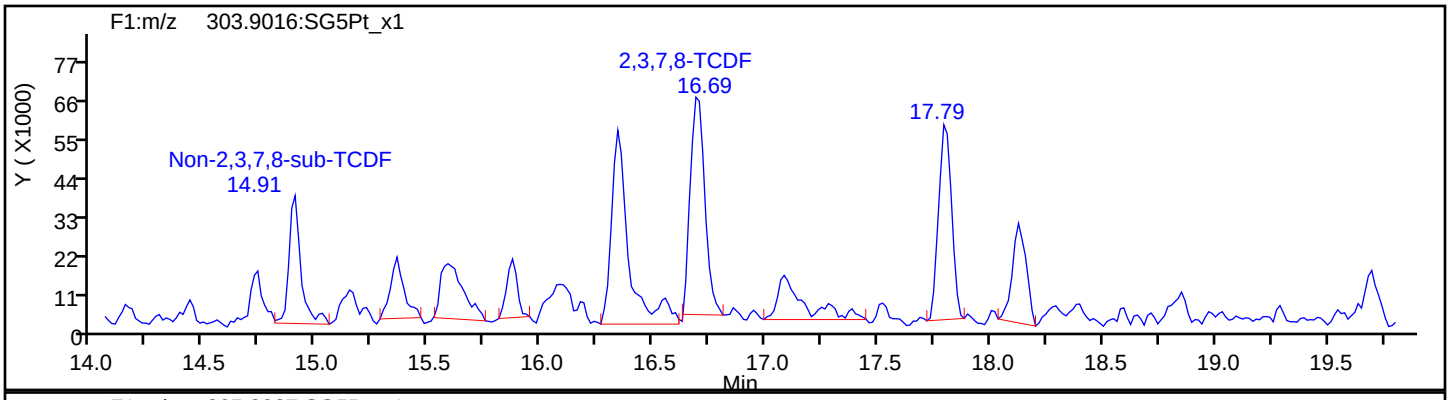
Reviewer: krongsingn, 23-Jul-2019 12:14:33
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

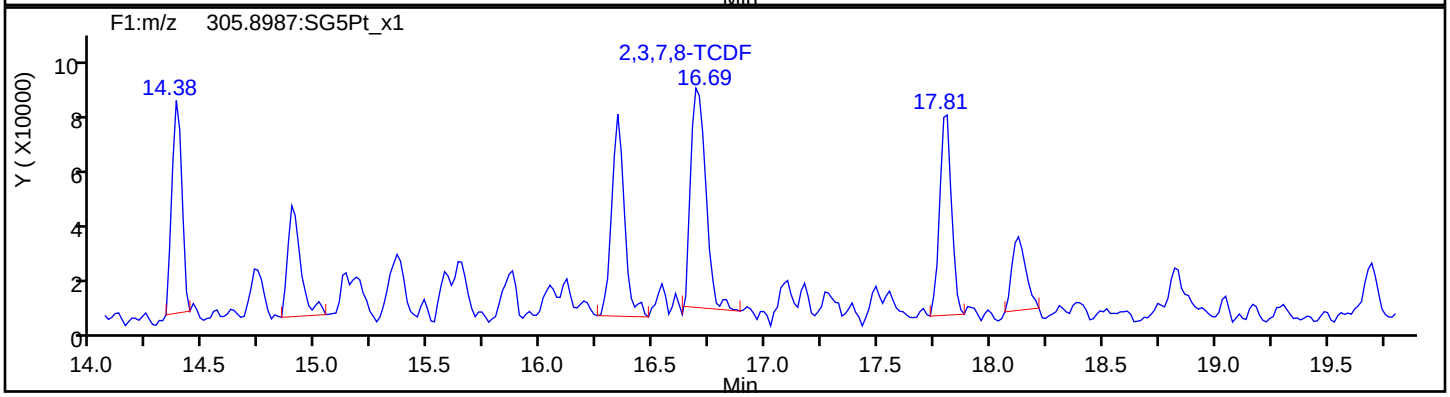
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

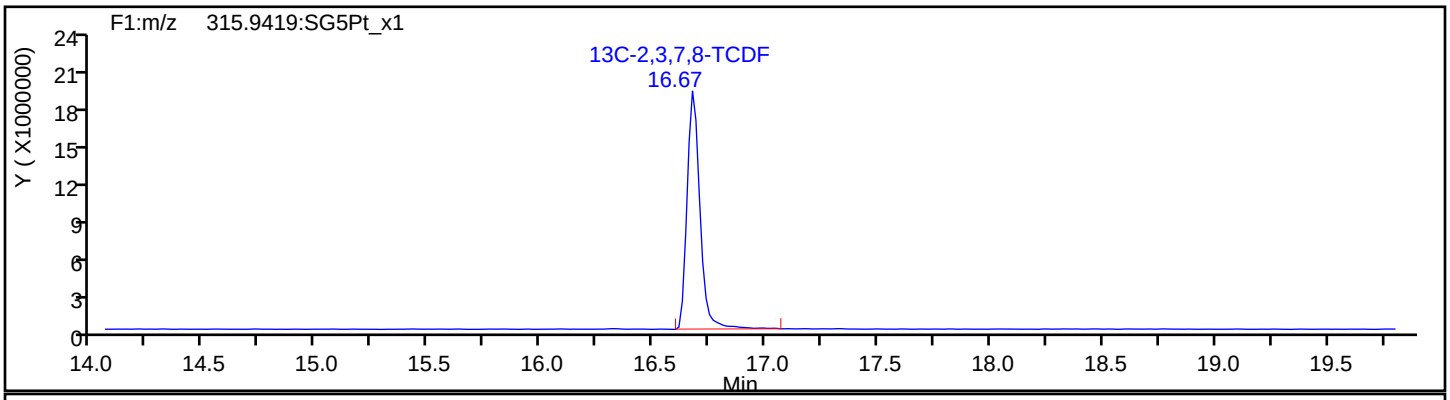
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

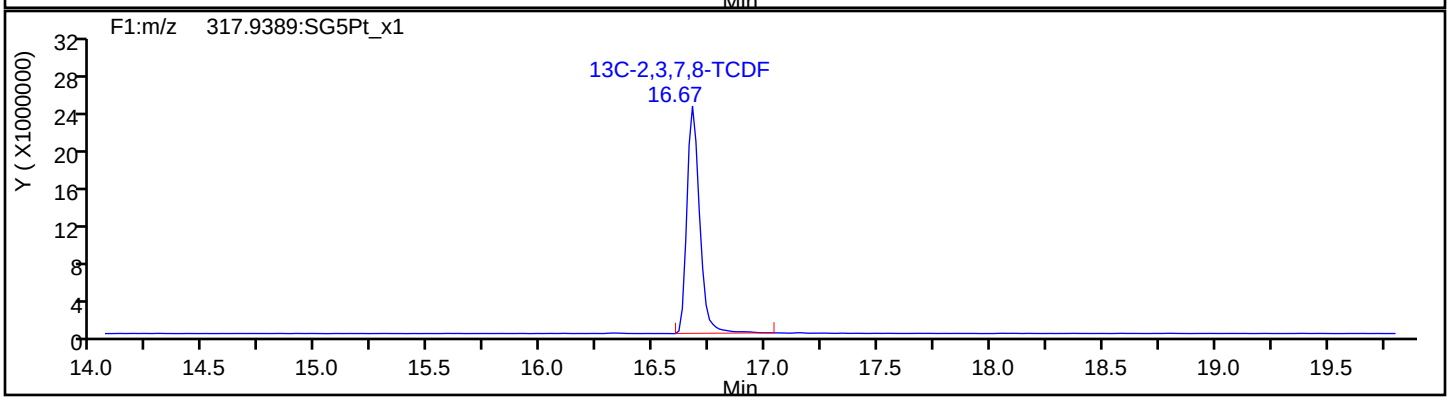
TCDF





TCDF Standards



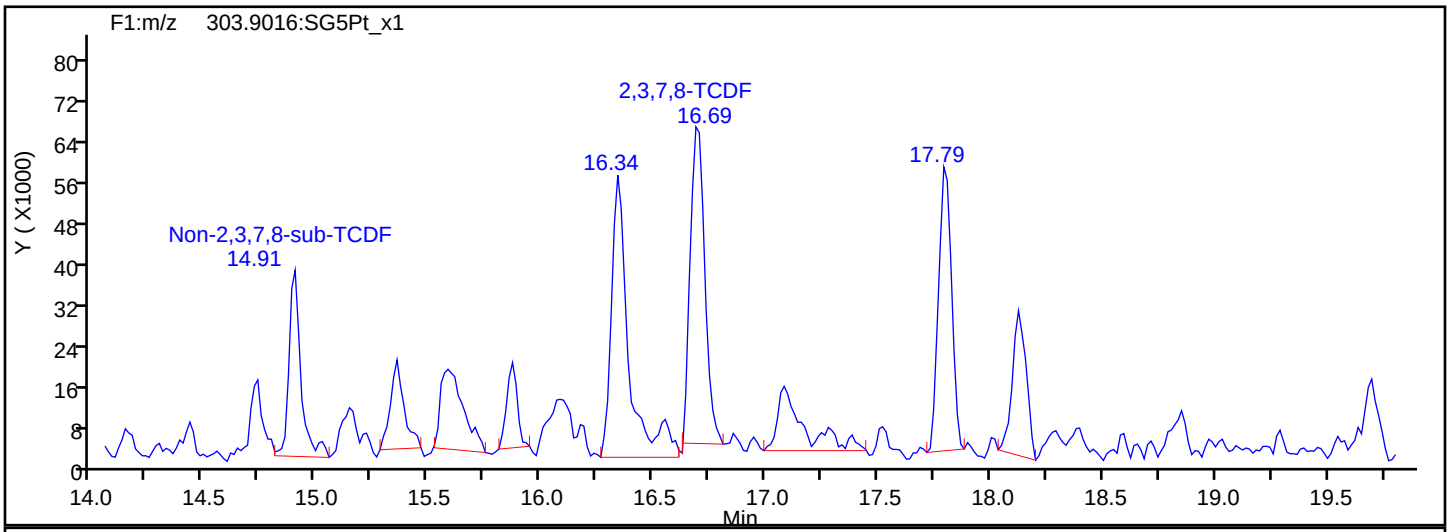


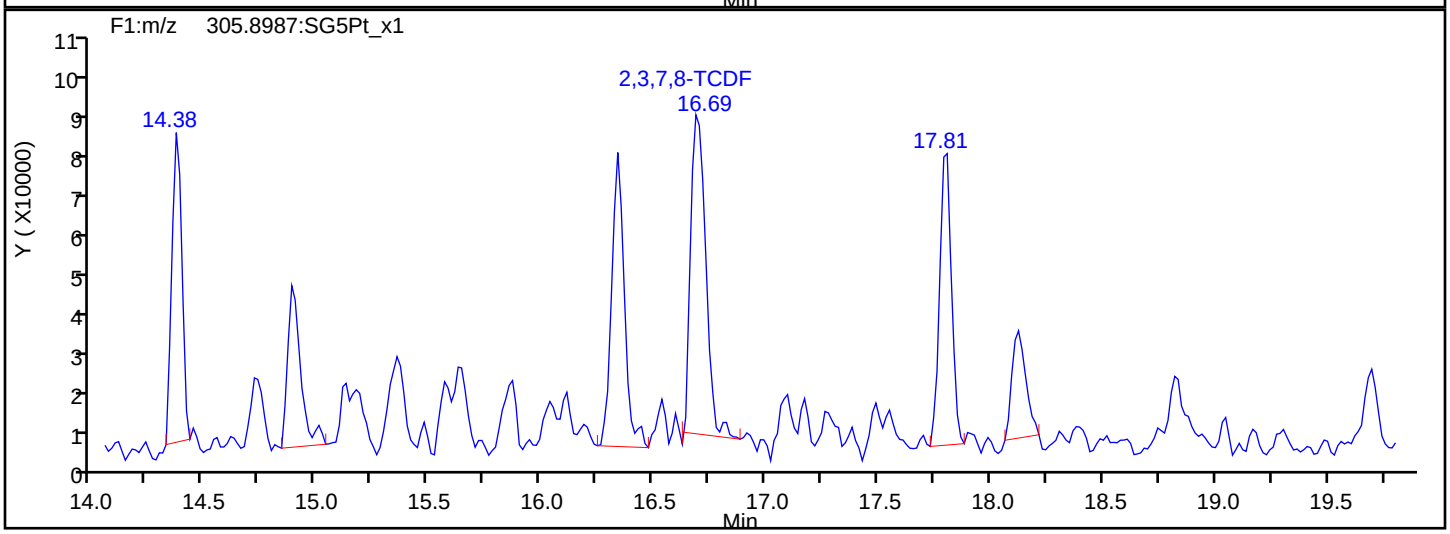
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

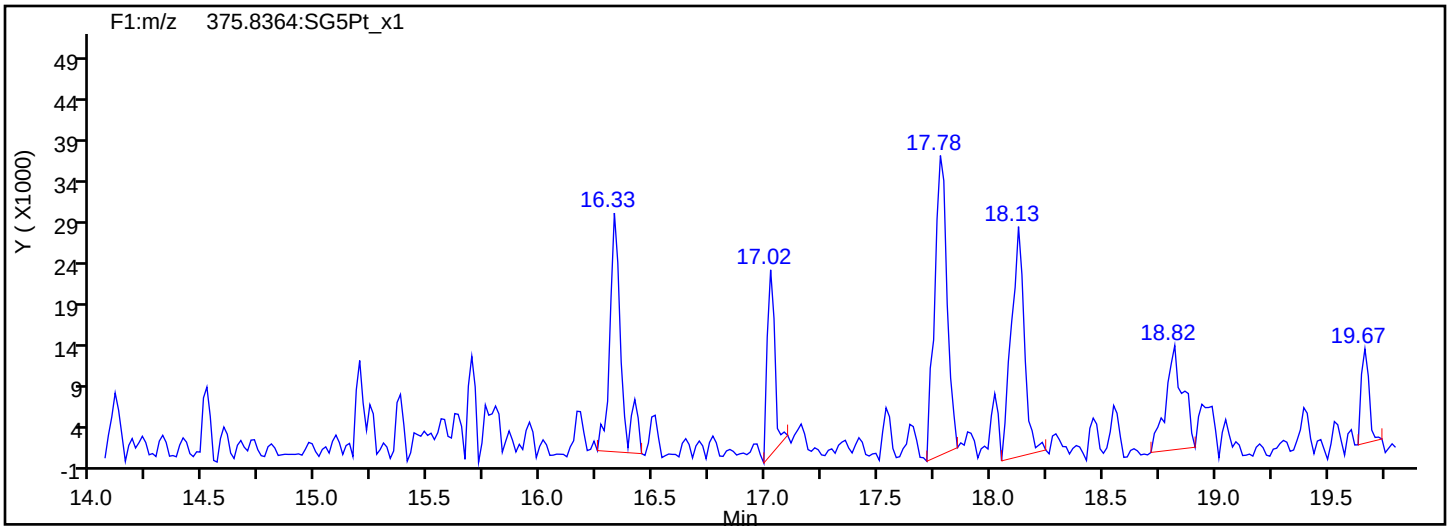
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

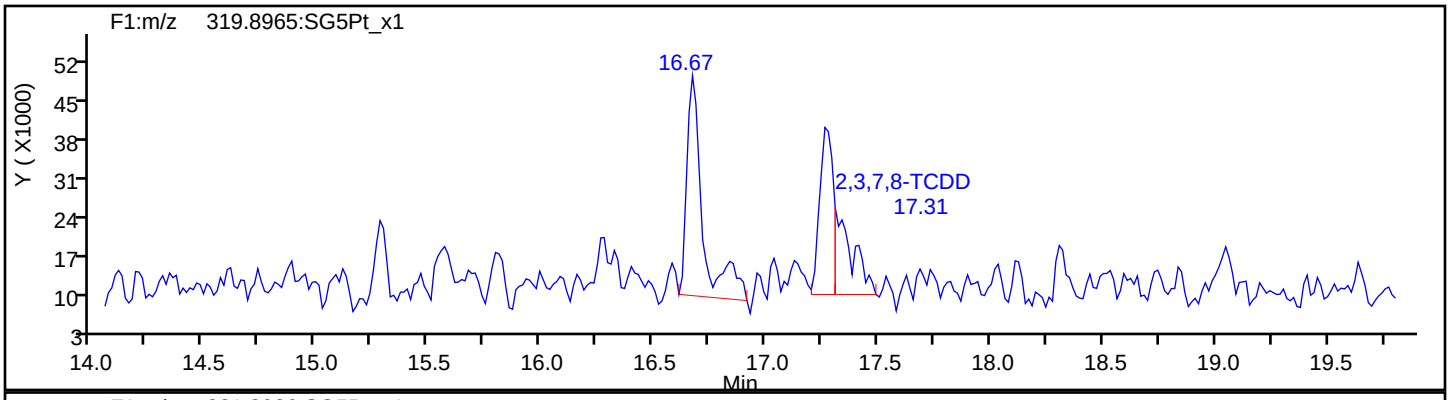


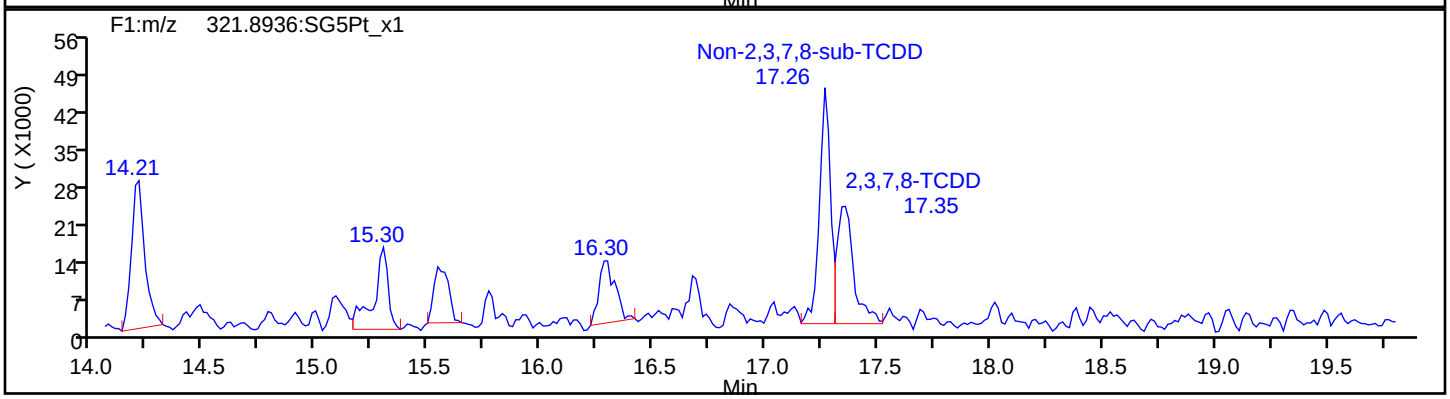
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

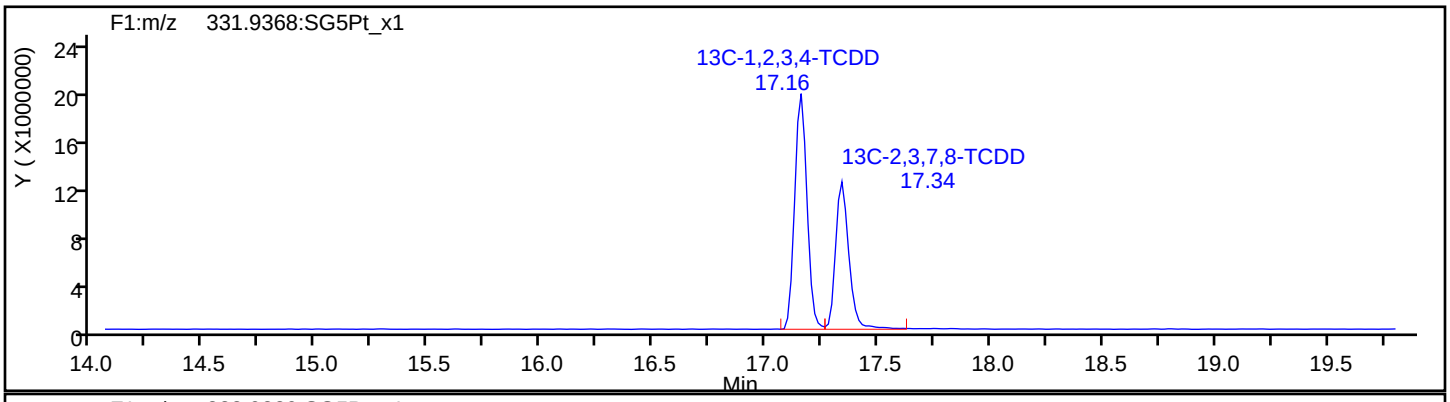
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

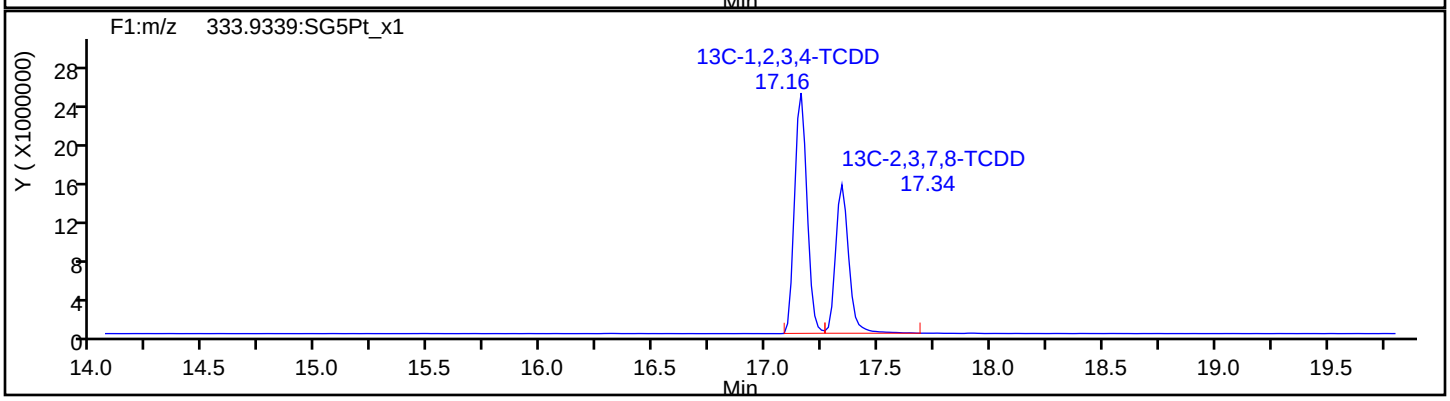
TCDD





TCDD Standards



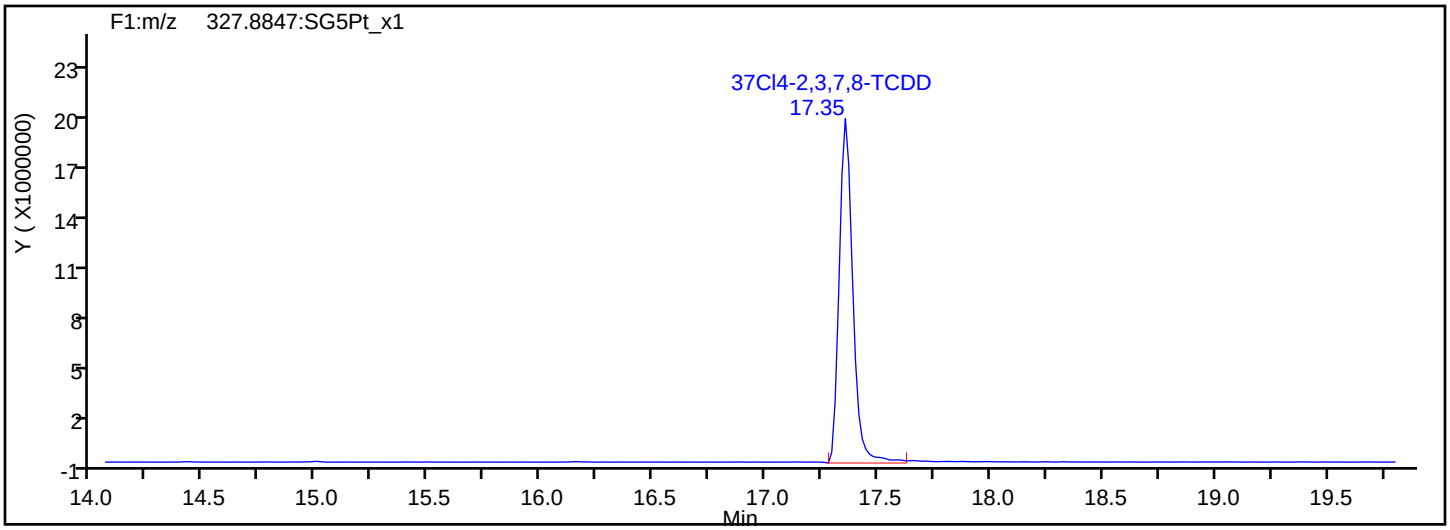


Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

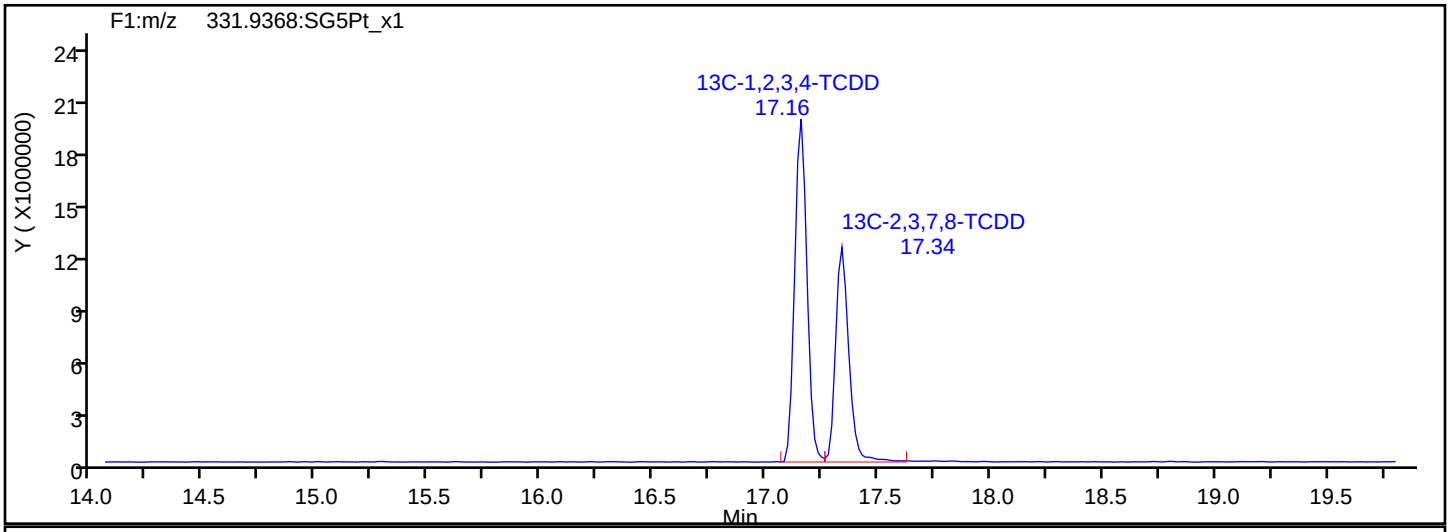
Eurofins TestAmerica, Sacramento

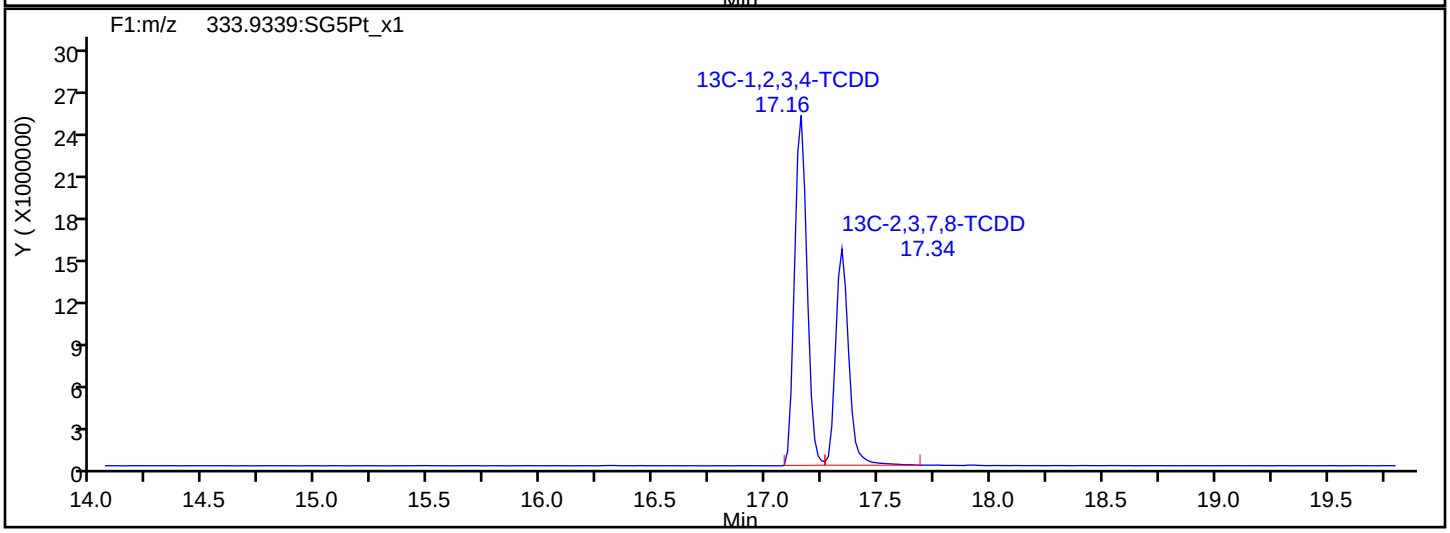
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



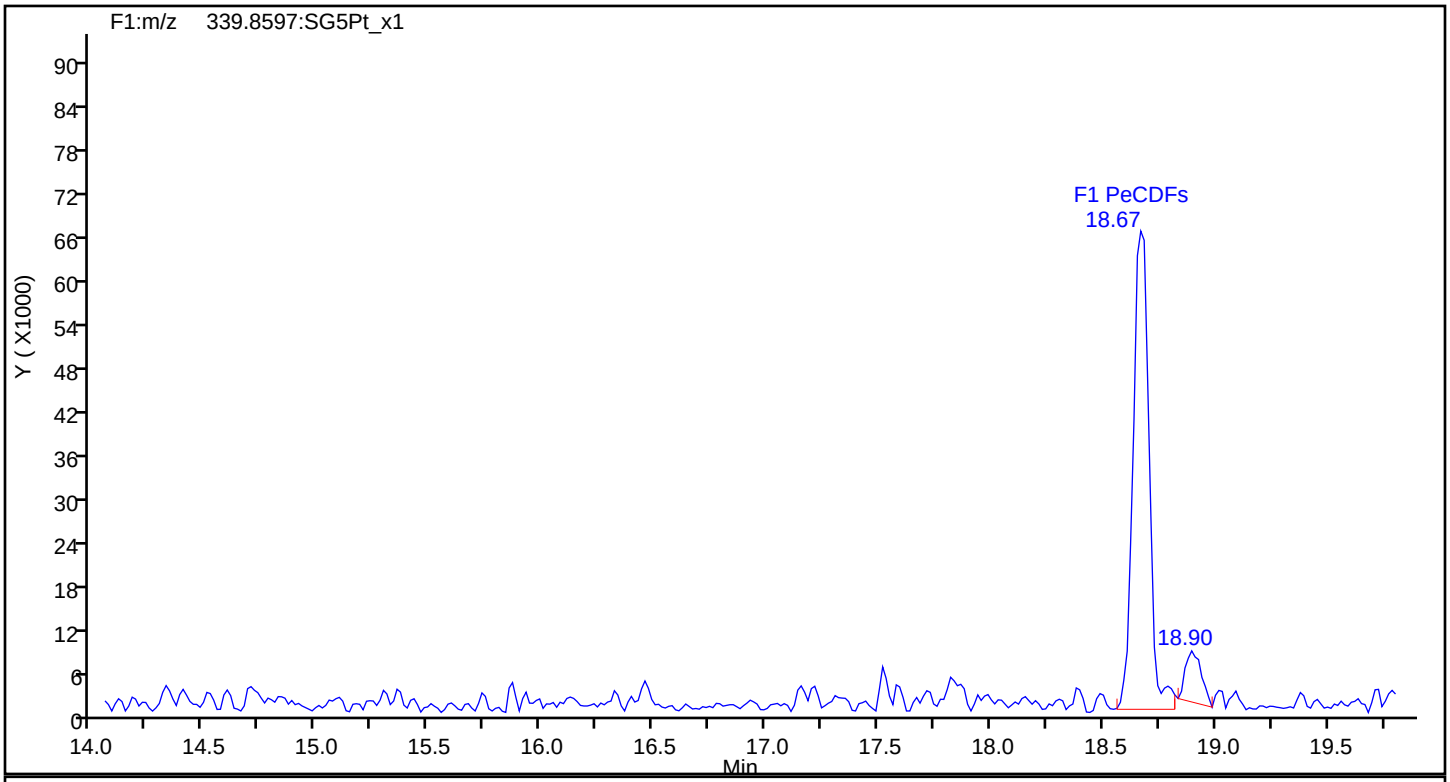


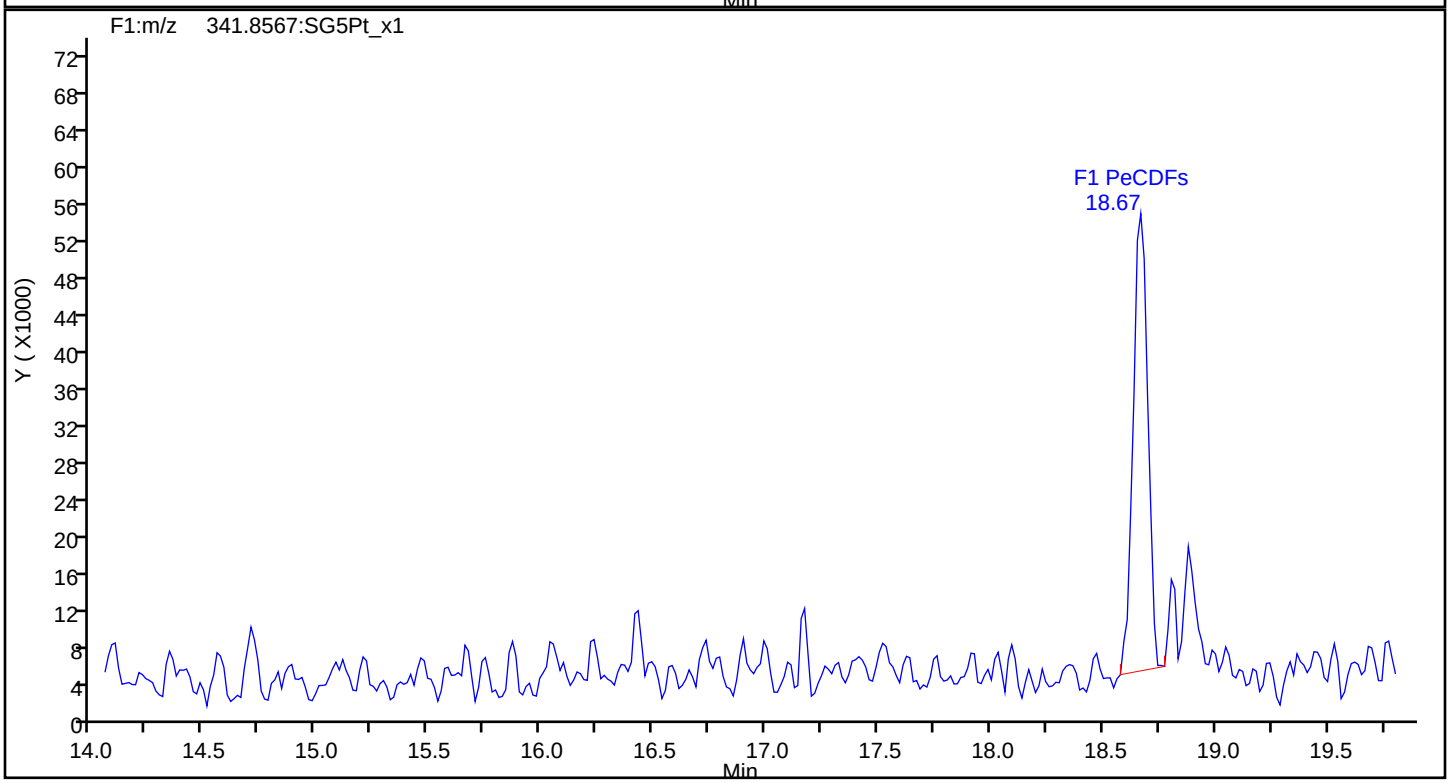
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



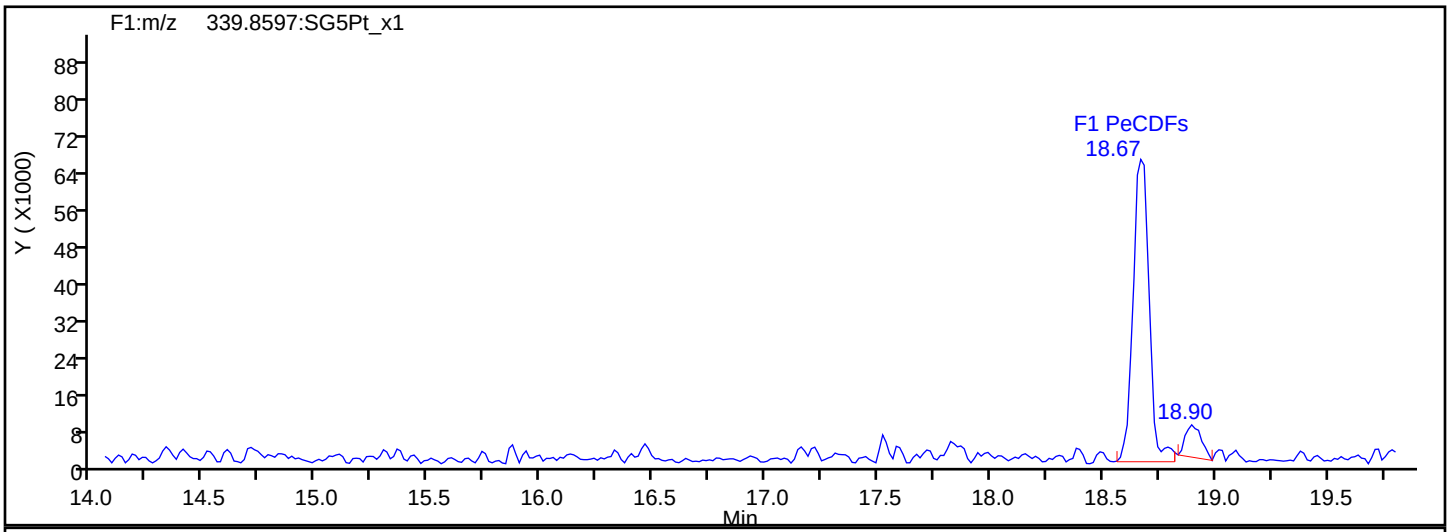


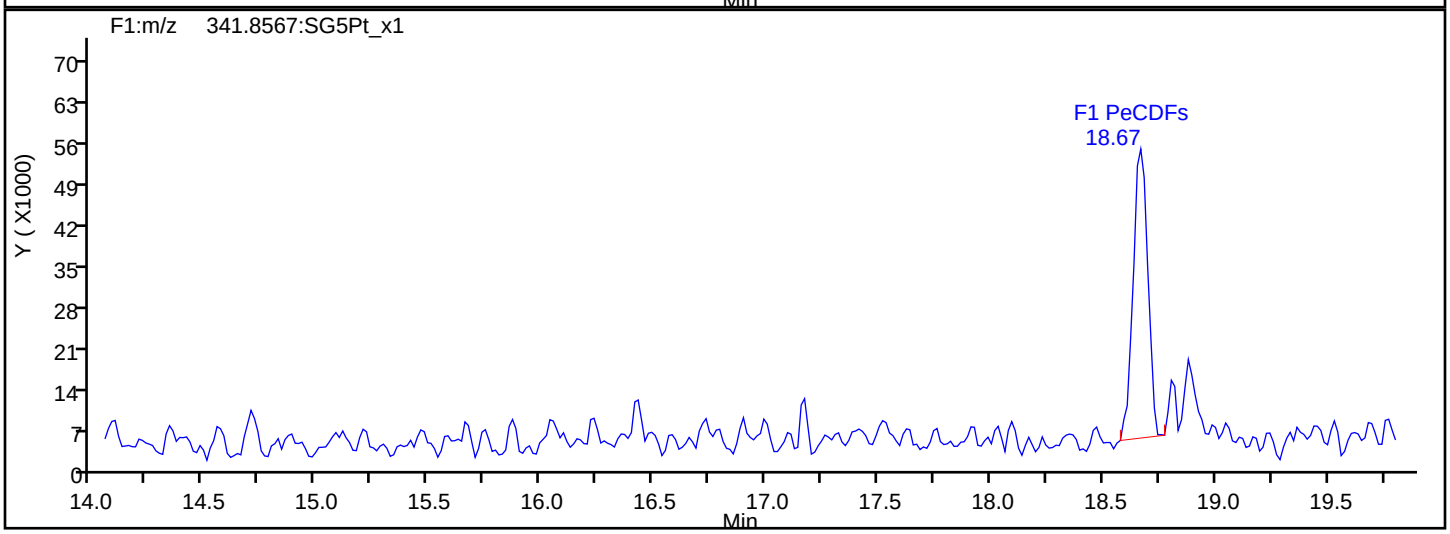
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

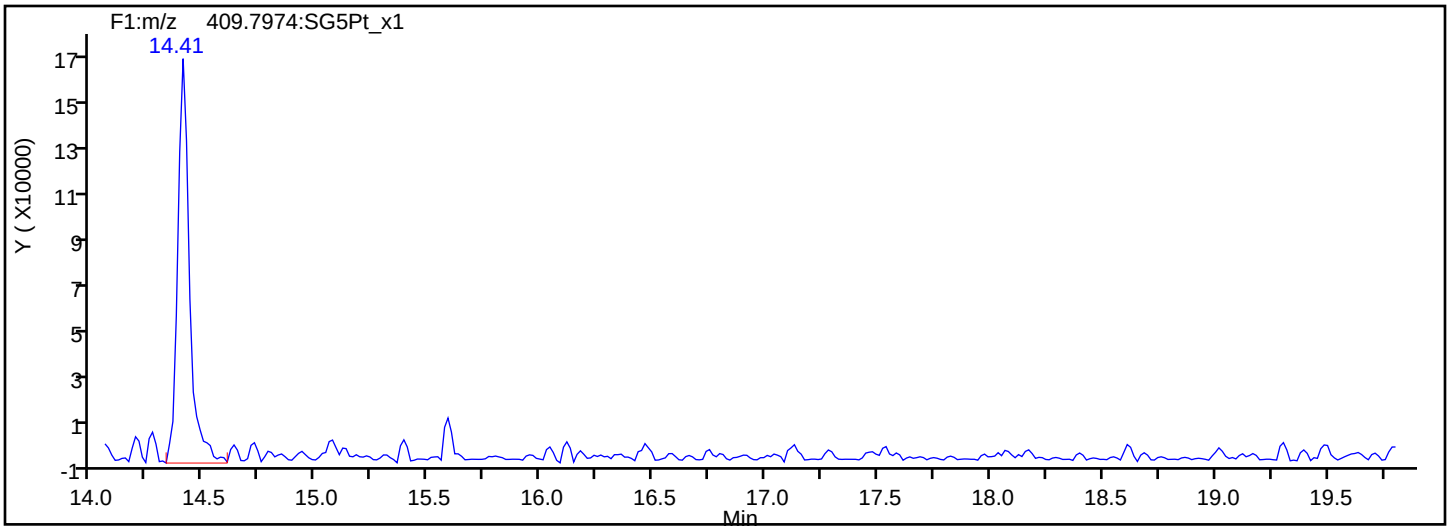
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

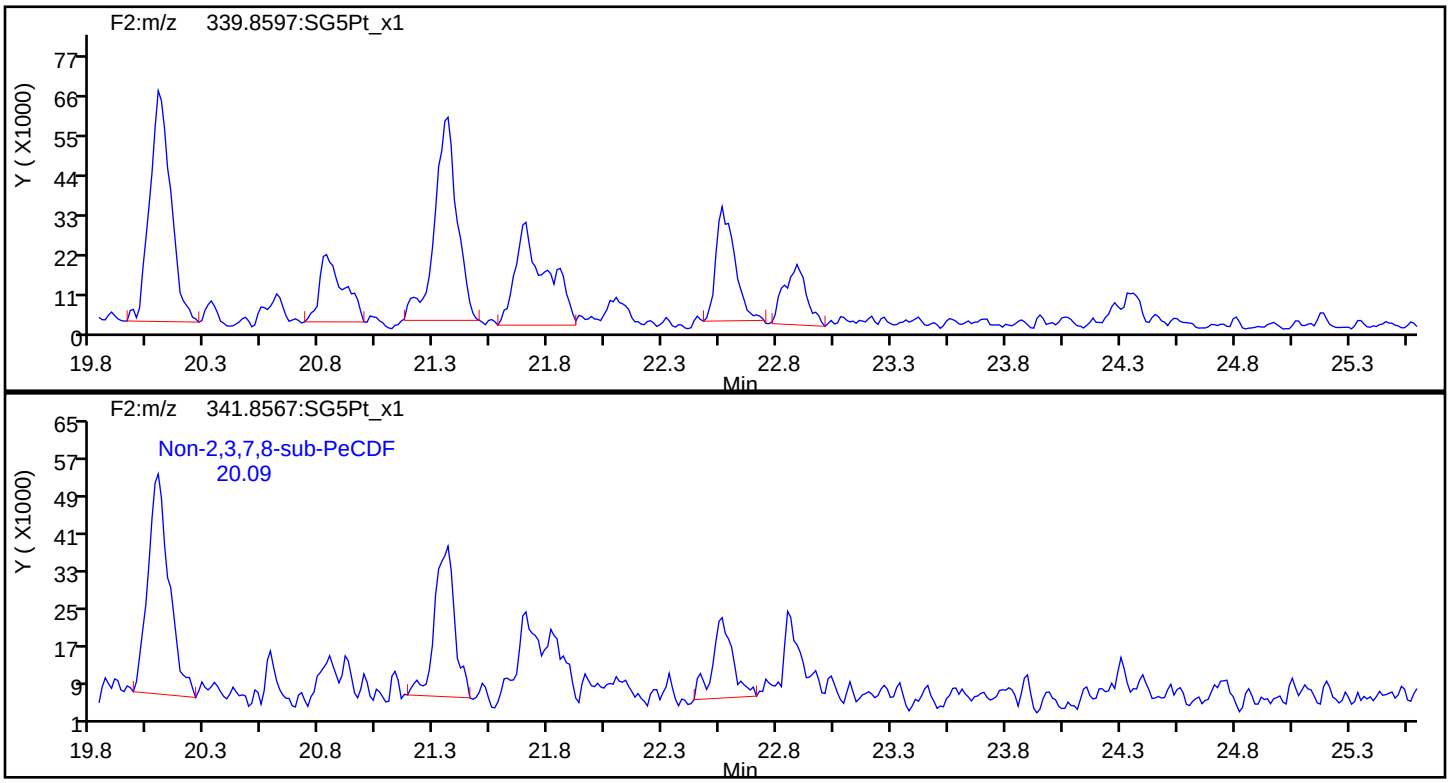


Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

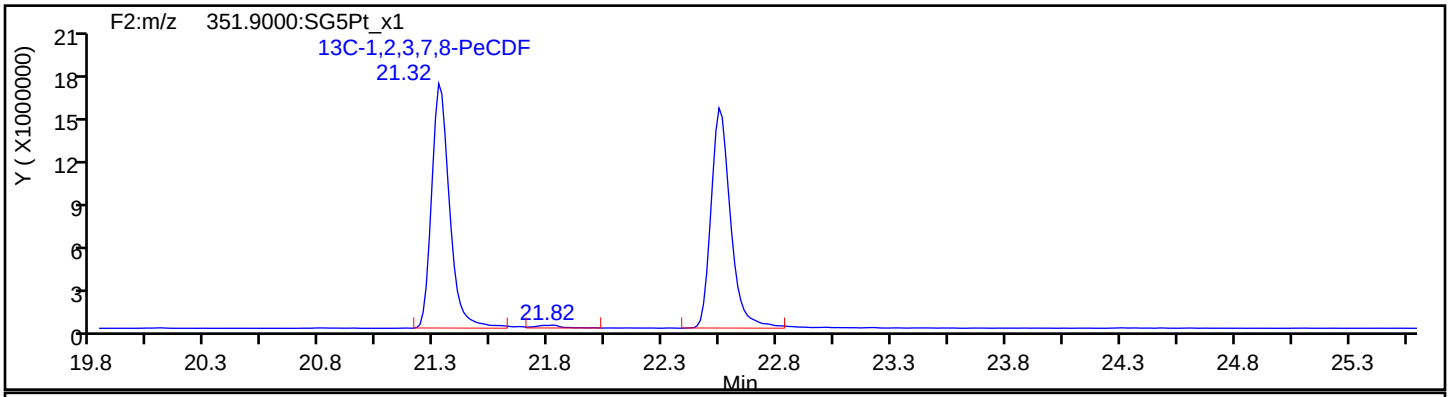
Eurofins TestAmerica, Sacramento

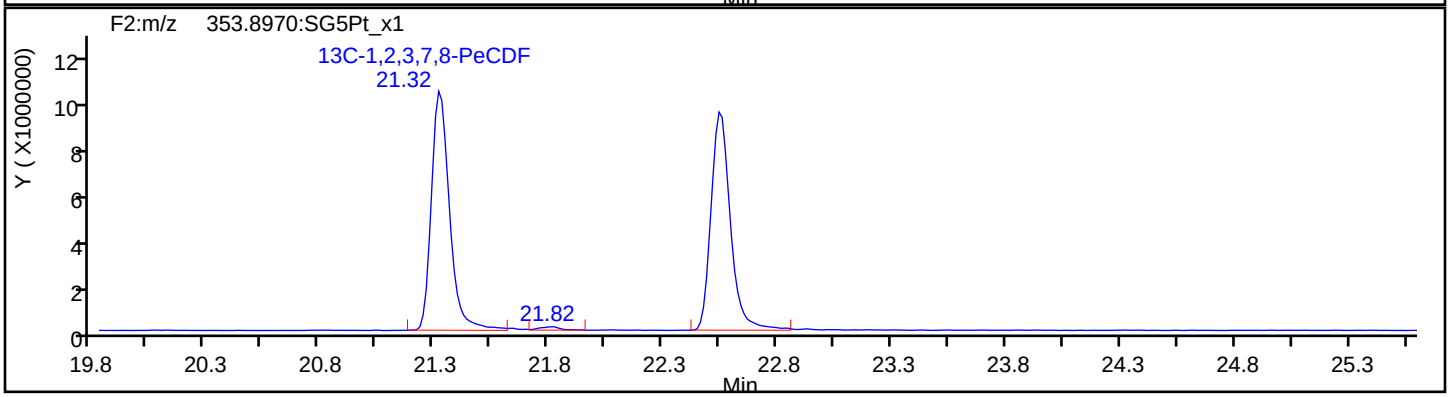
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards



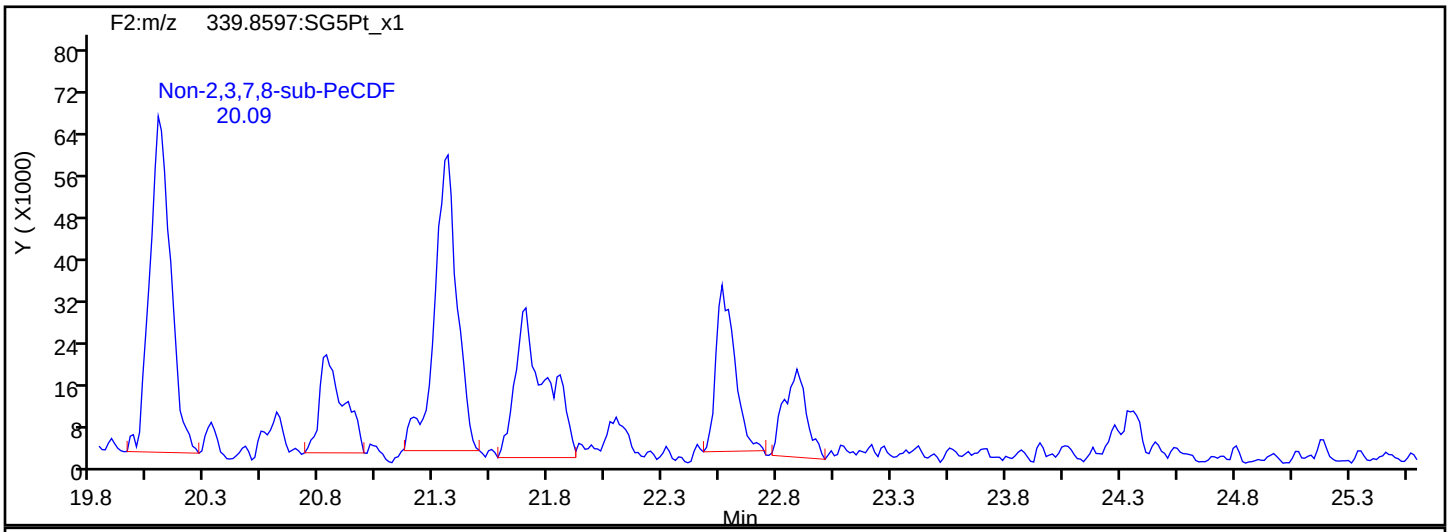


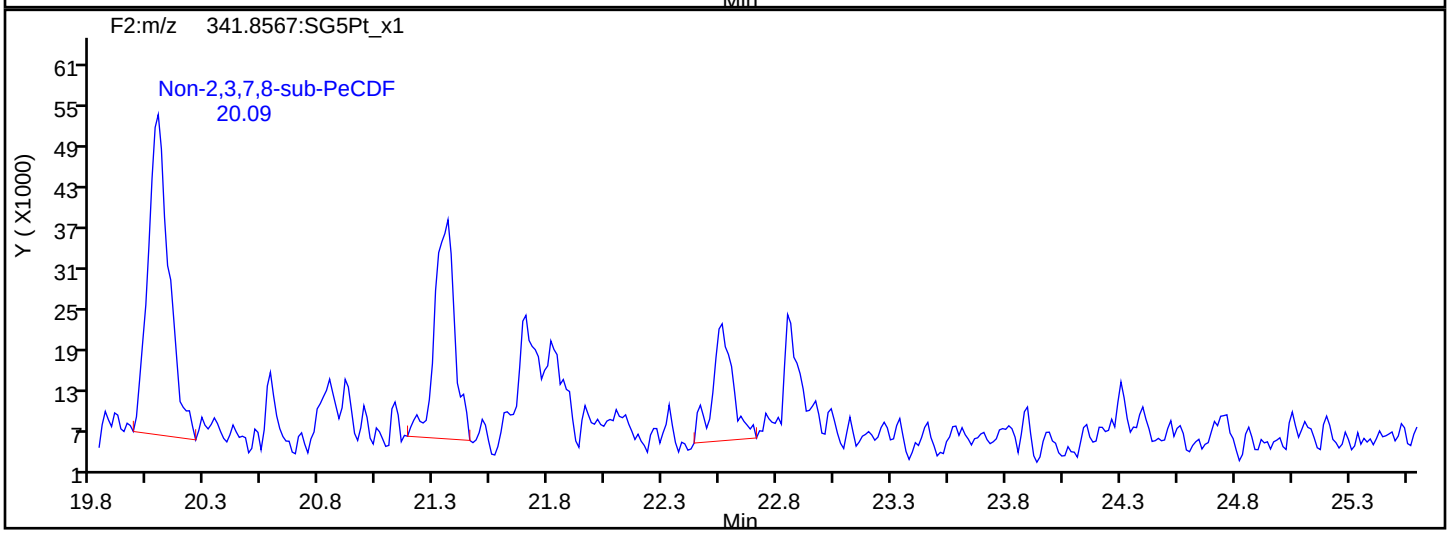
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

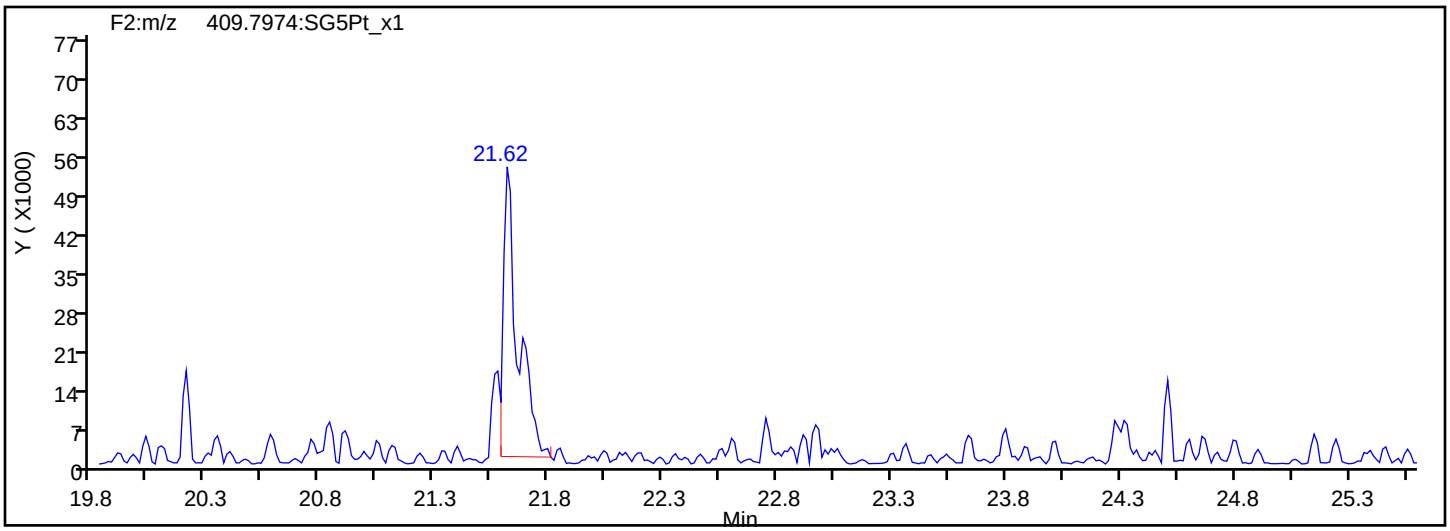
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

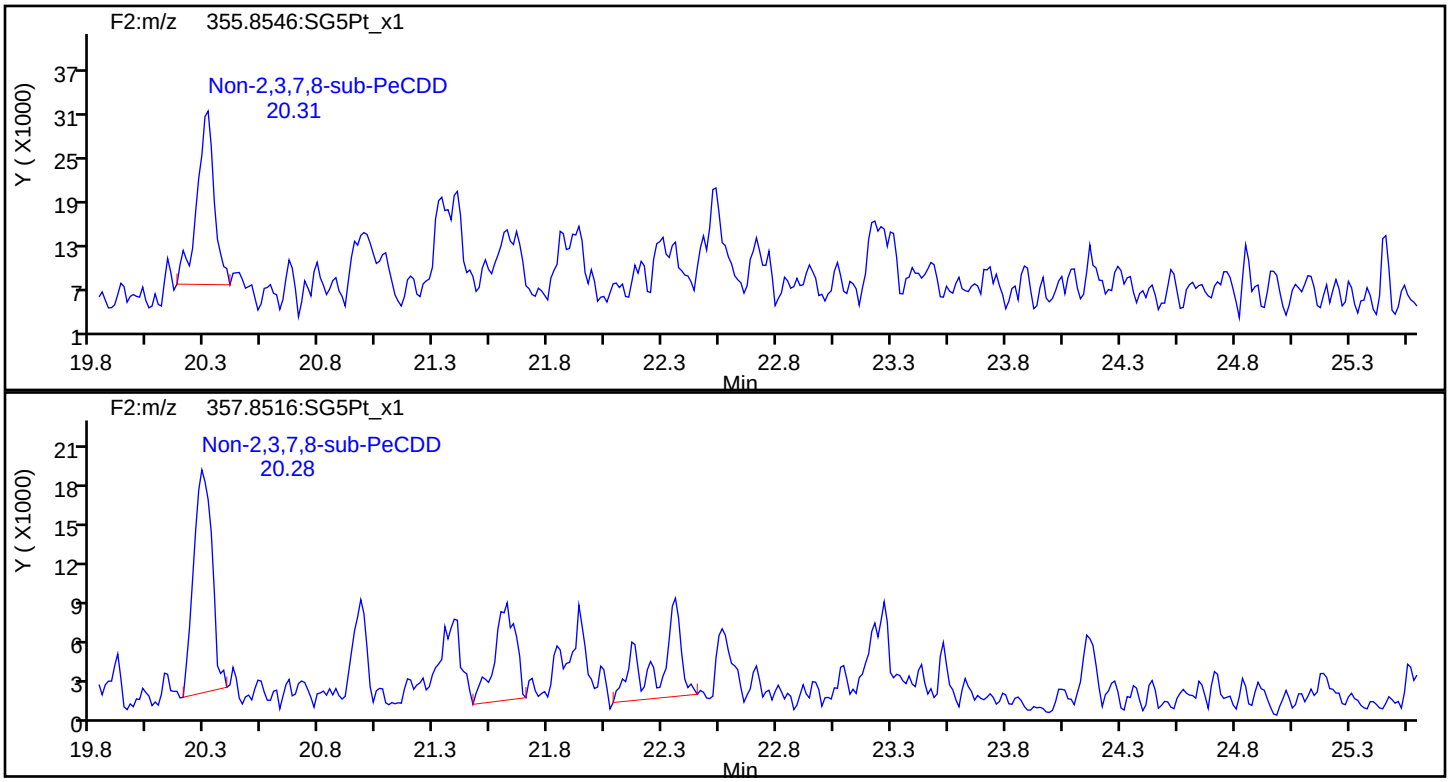


Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

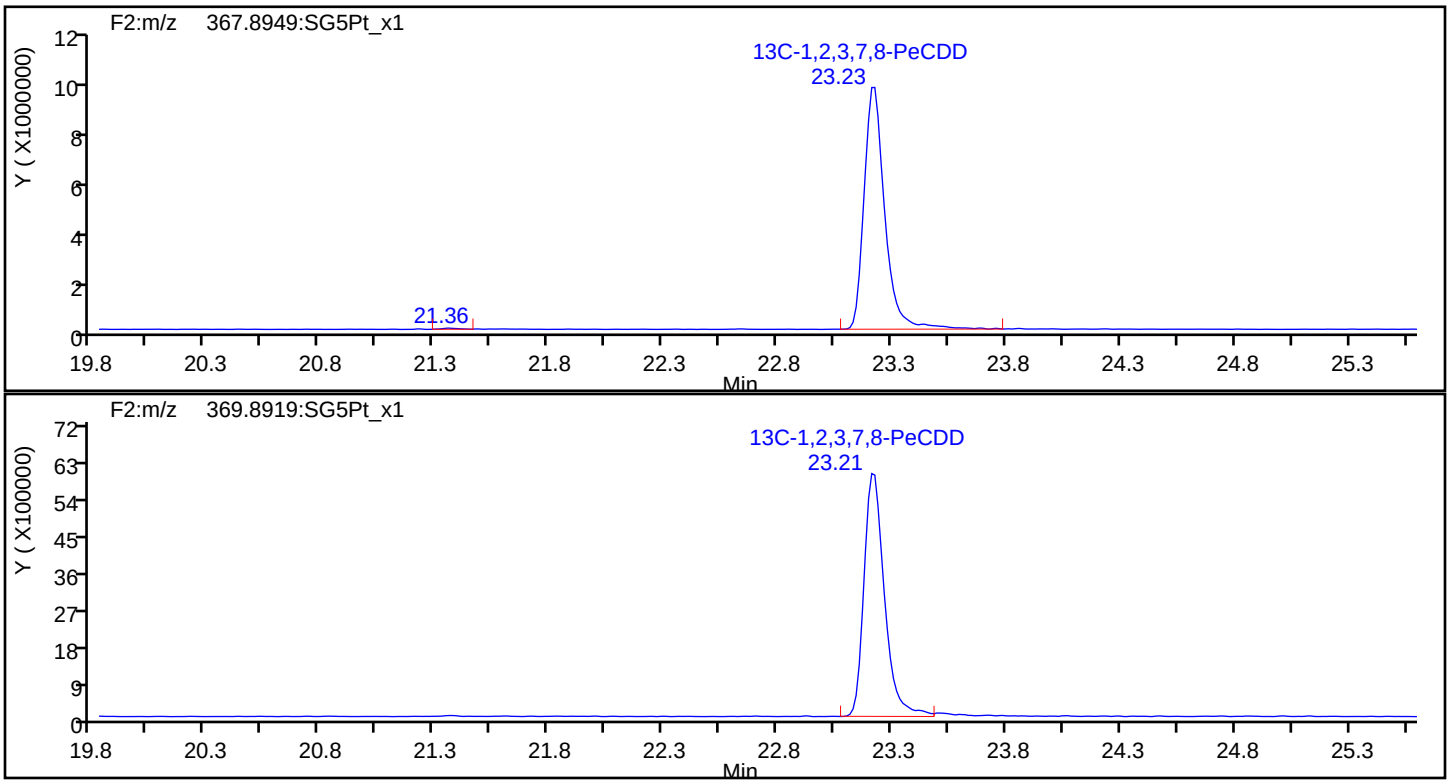
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDD



PeCDD Standards

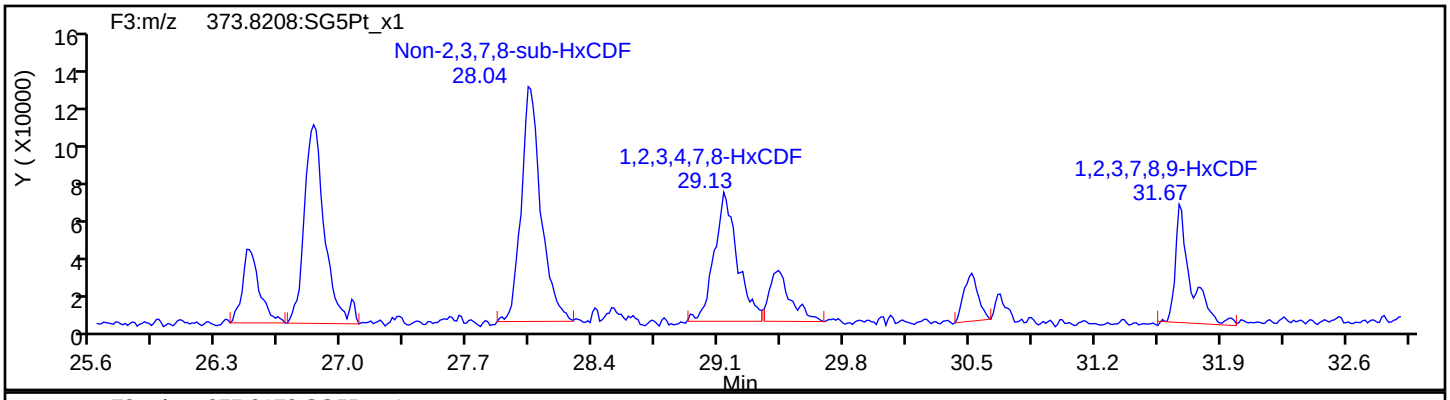


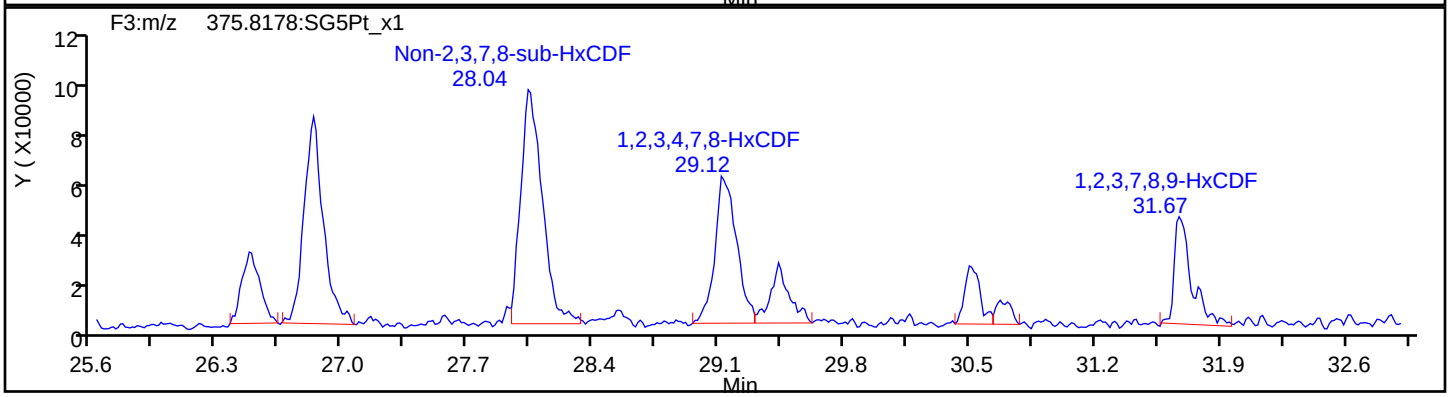
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

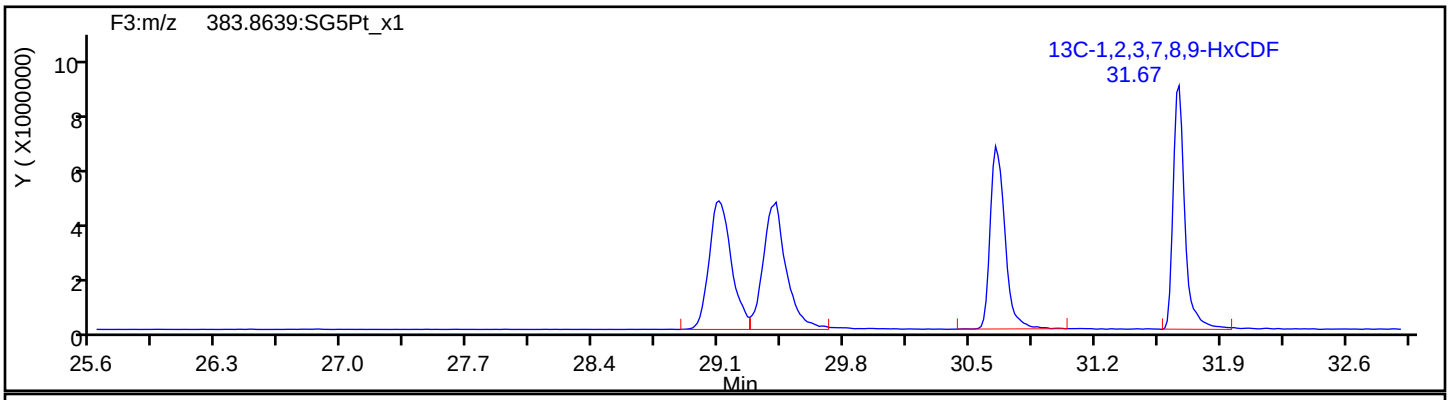
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

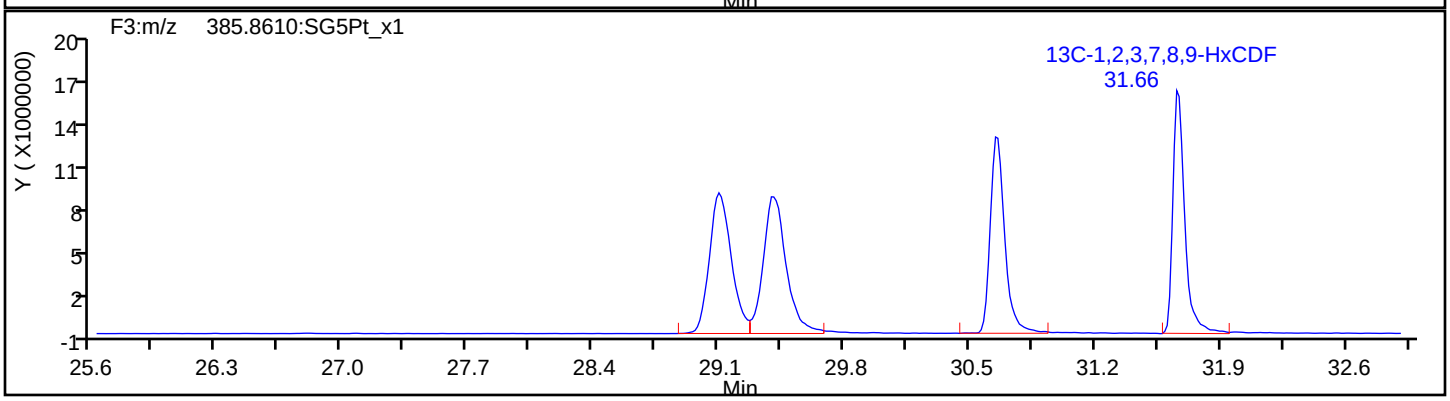
HxCDF





HxCDF Standards



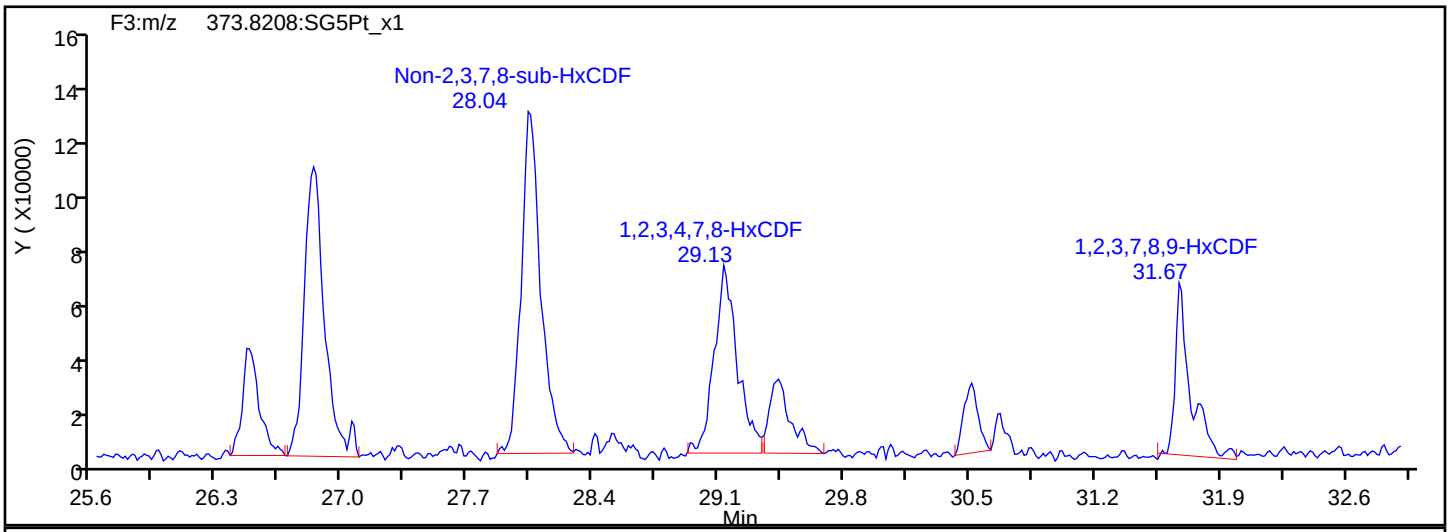


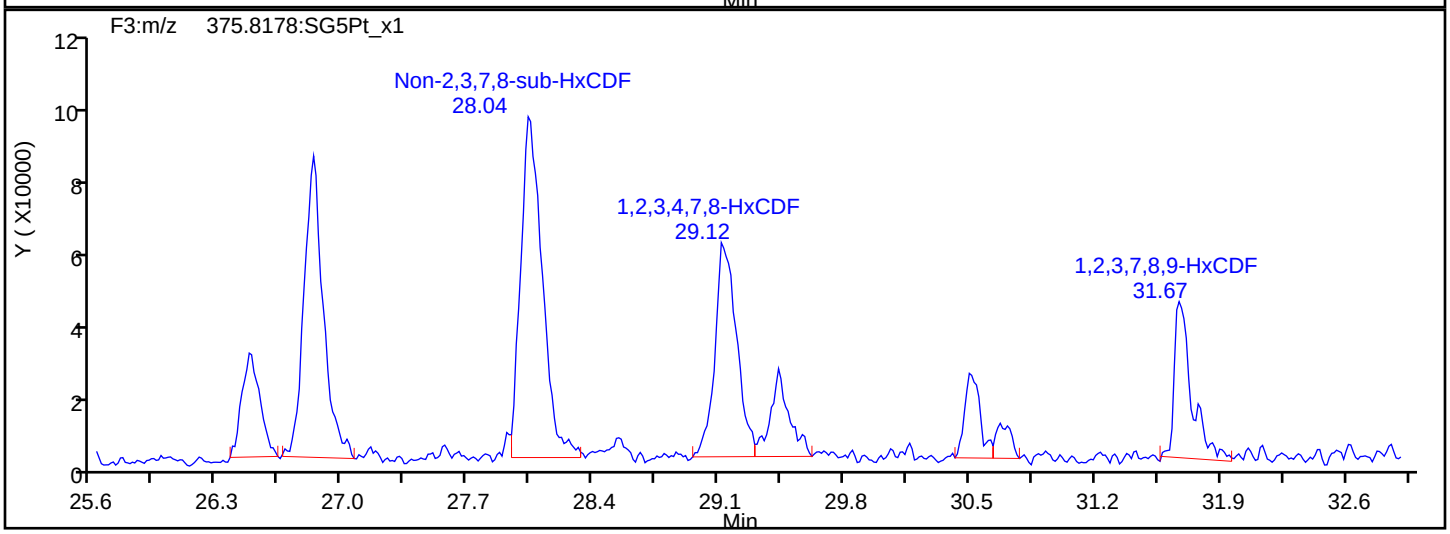
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

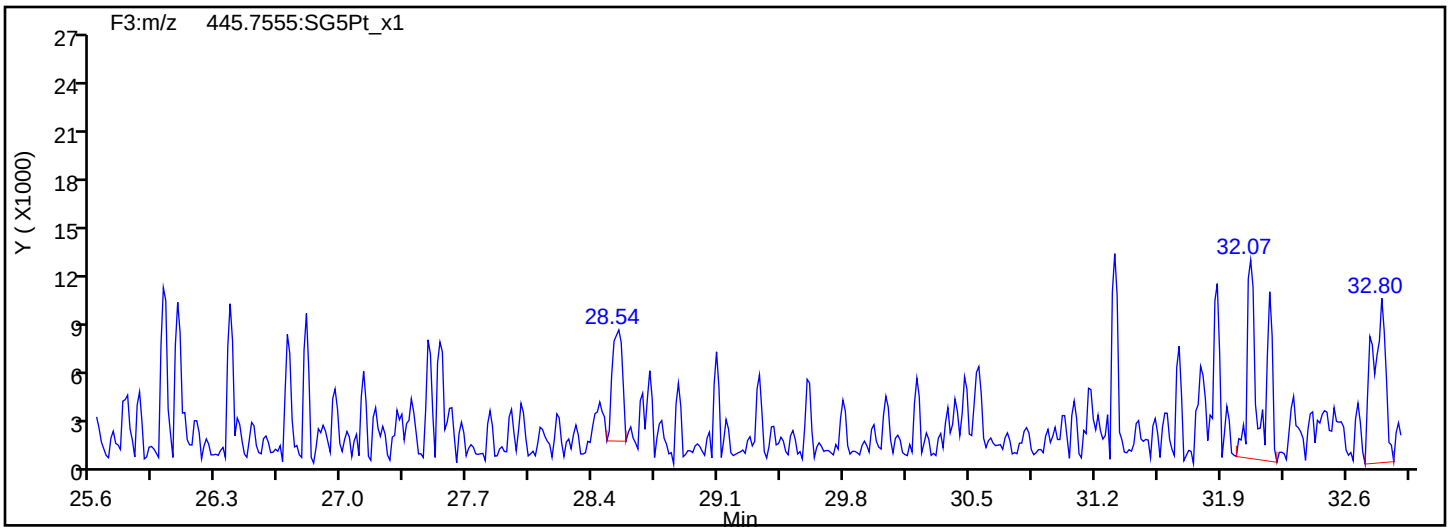
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

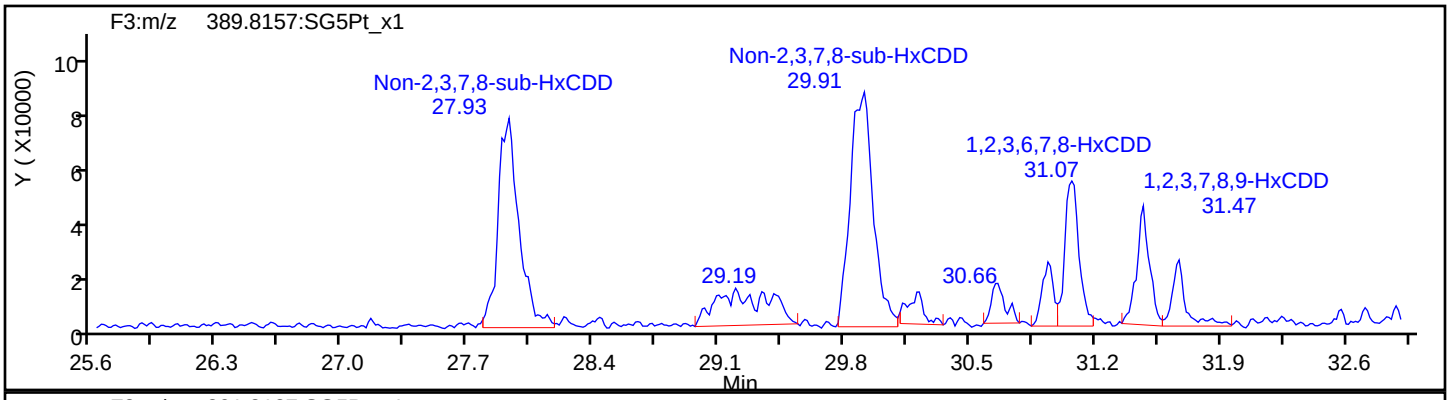


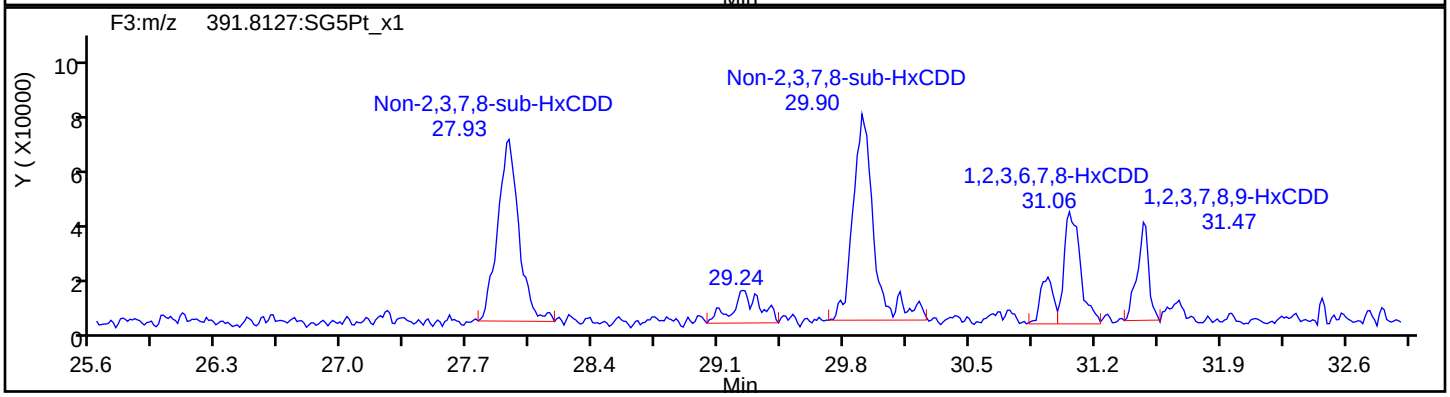
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

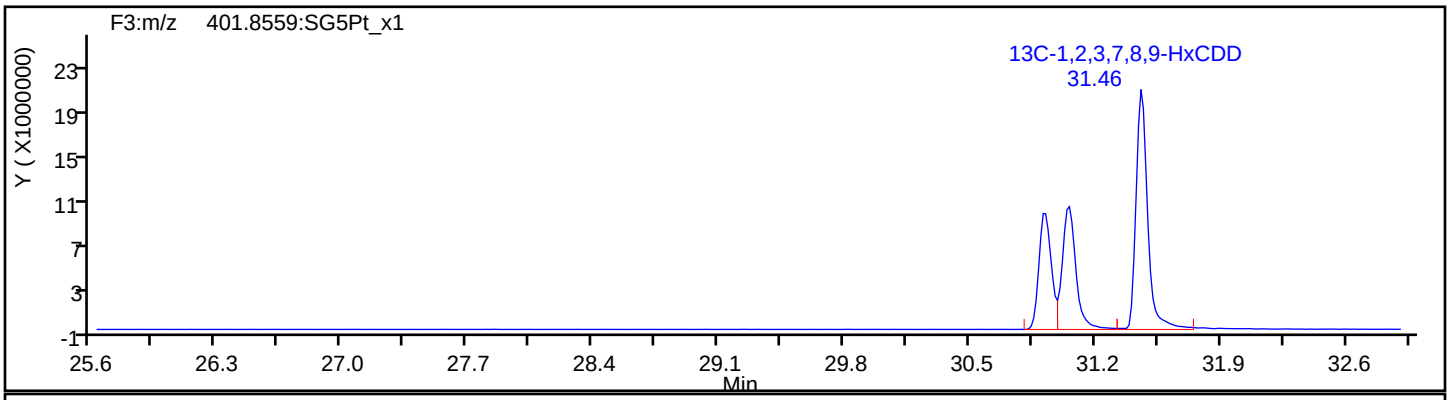
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

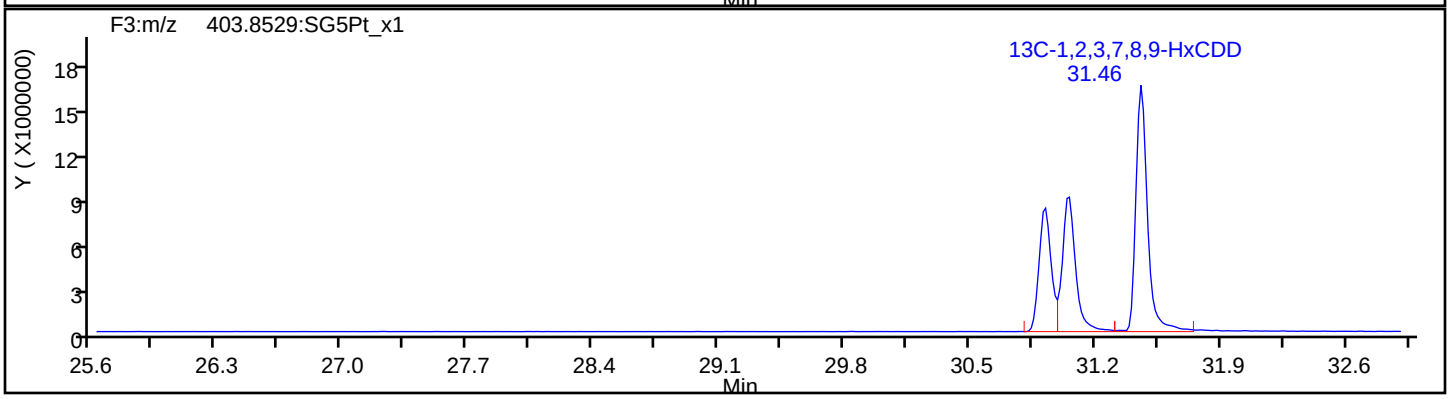
HxCDD





HxCDD Standards





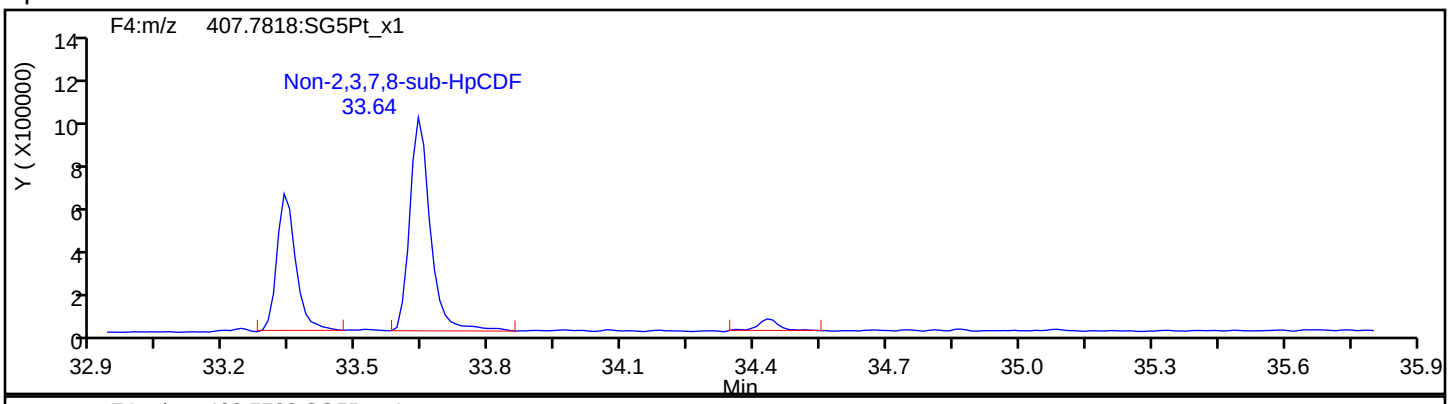
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

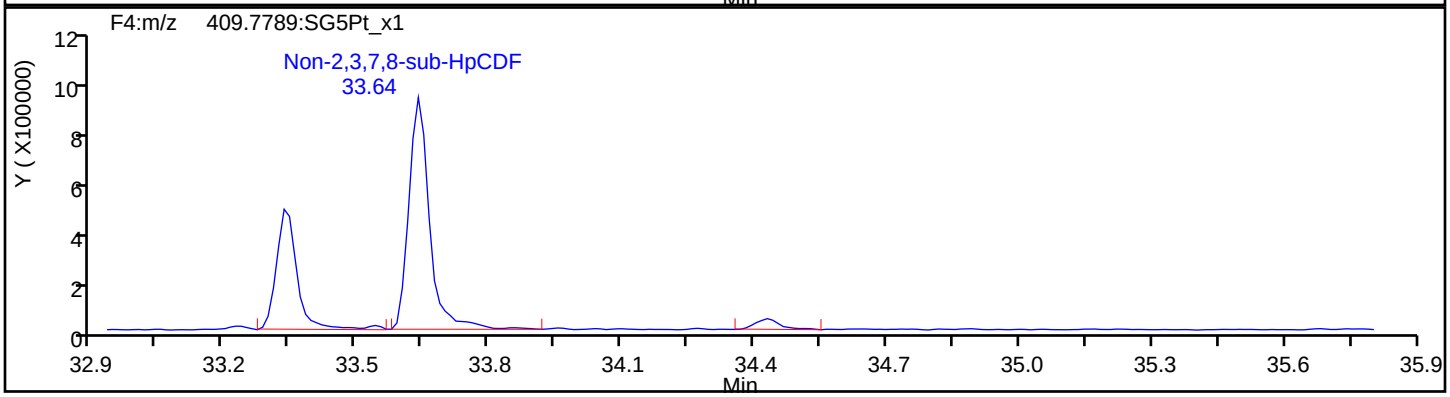
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d

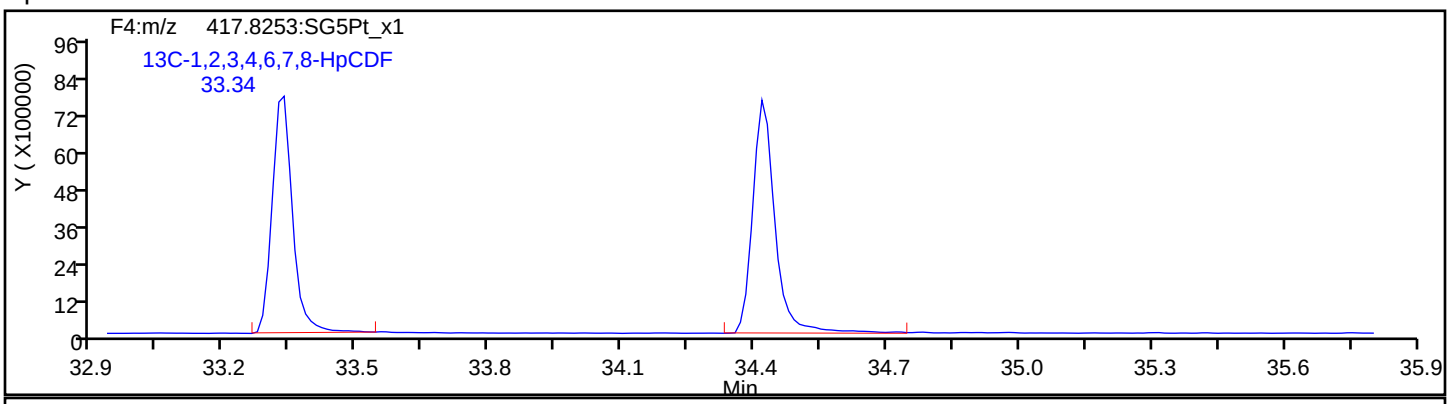
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

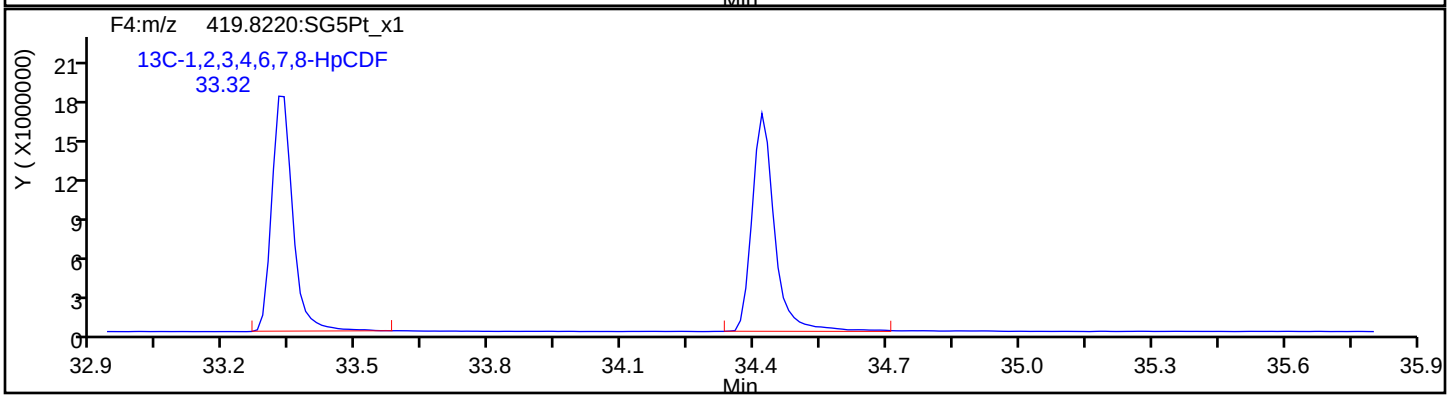
HpCDF





HpCDF Standards



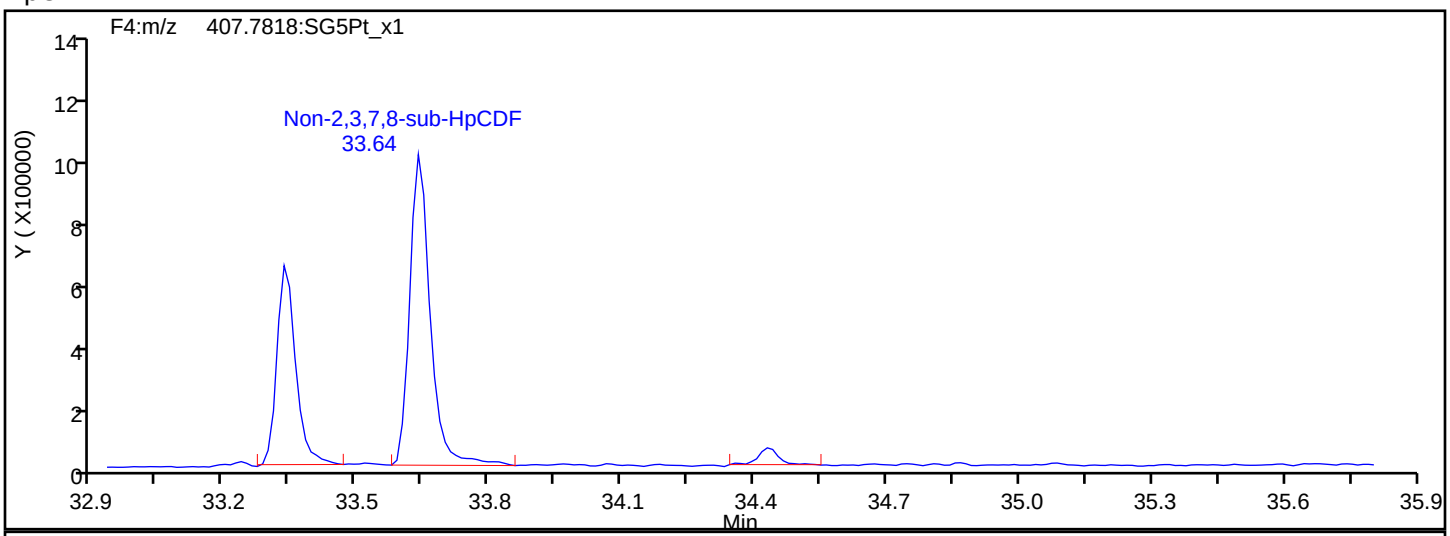


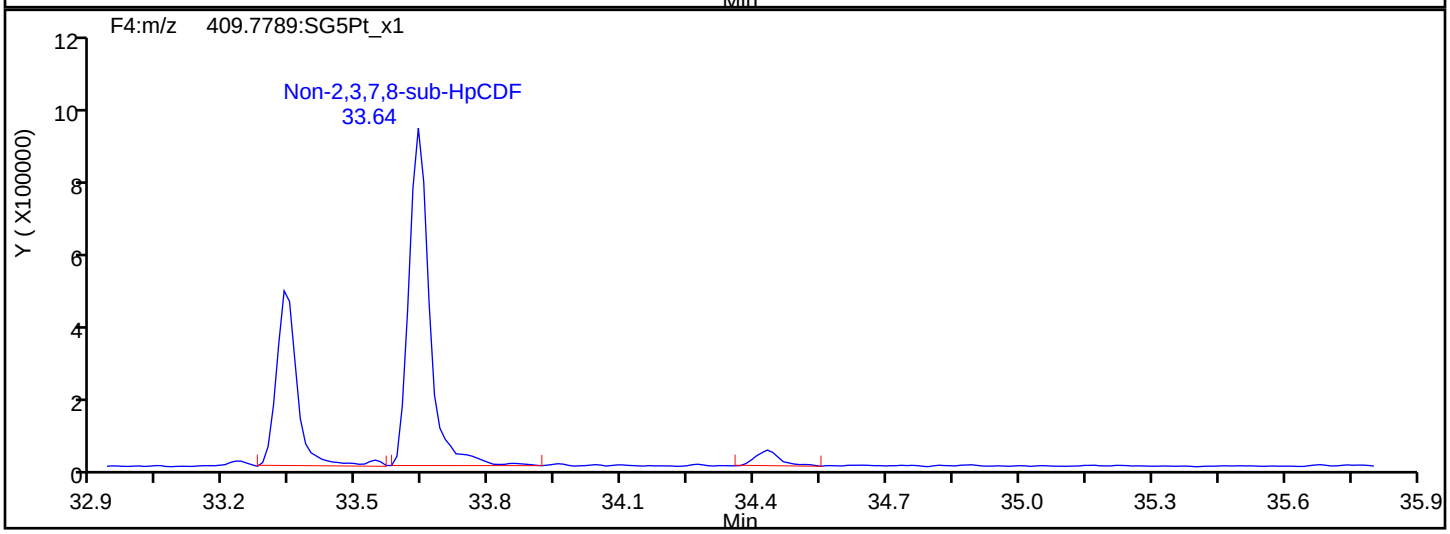
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

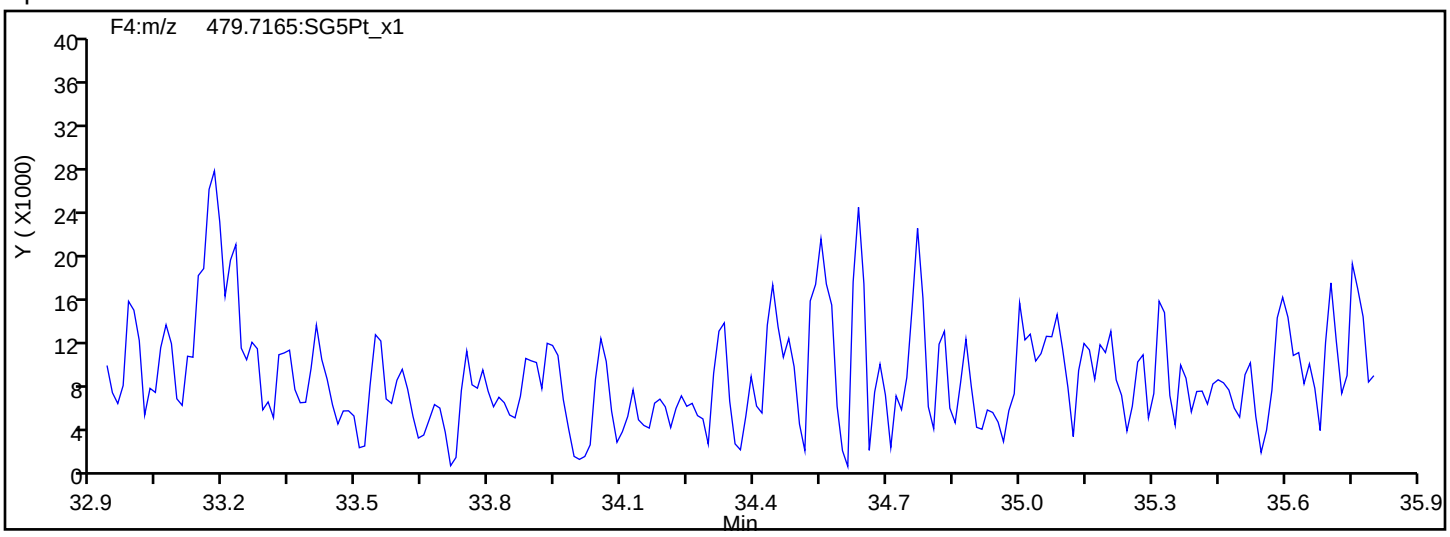
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



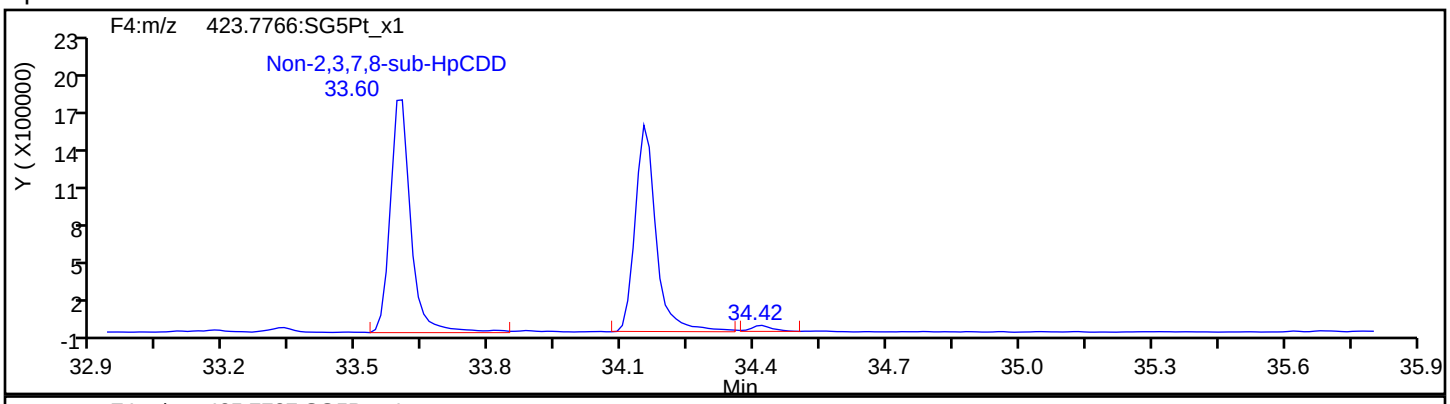
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

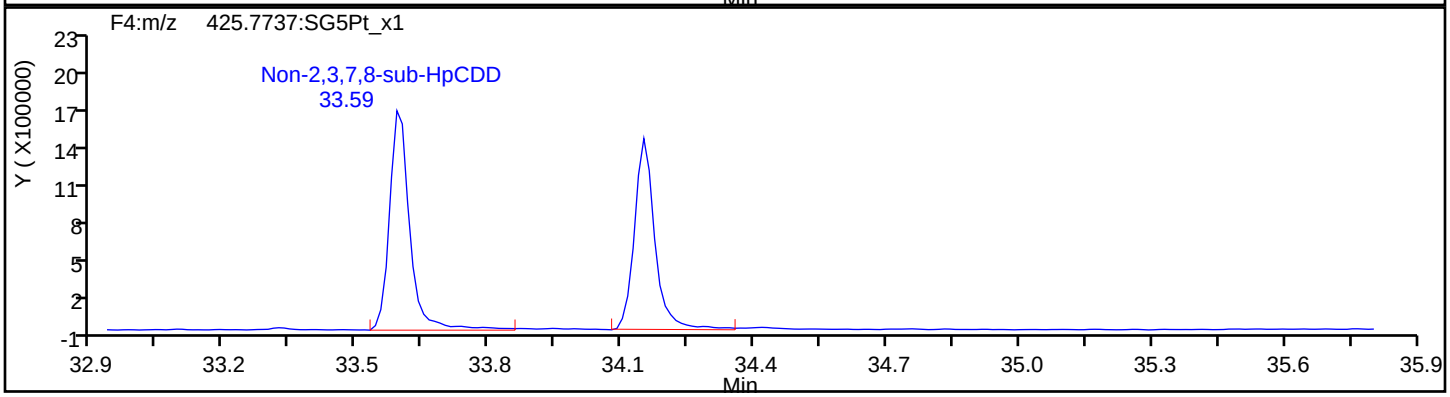
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d

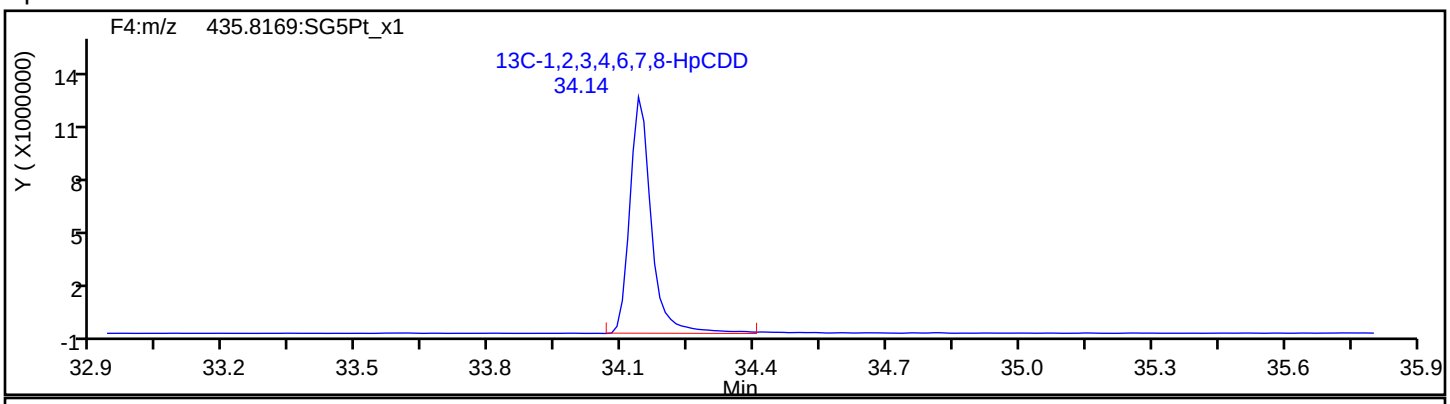
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

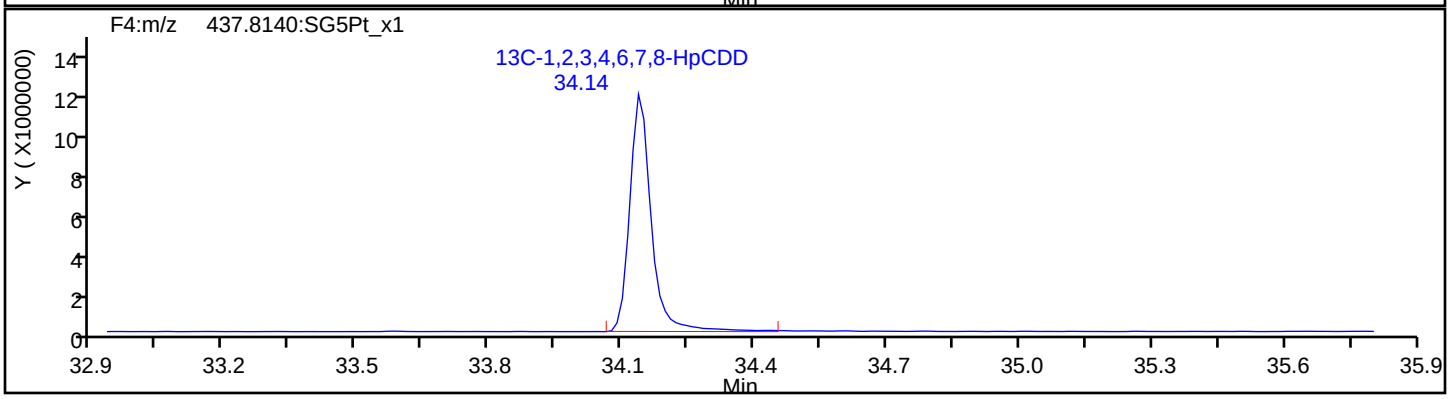
HpCDD





HpCDD Standards



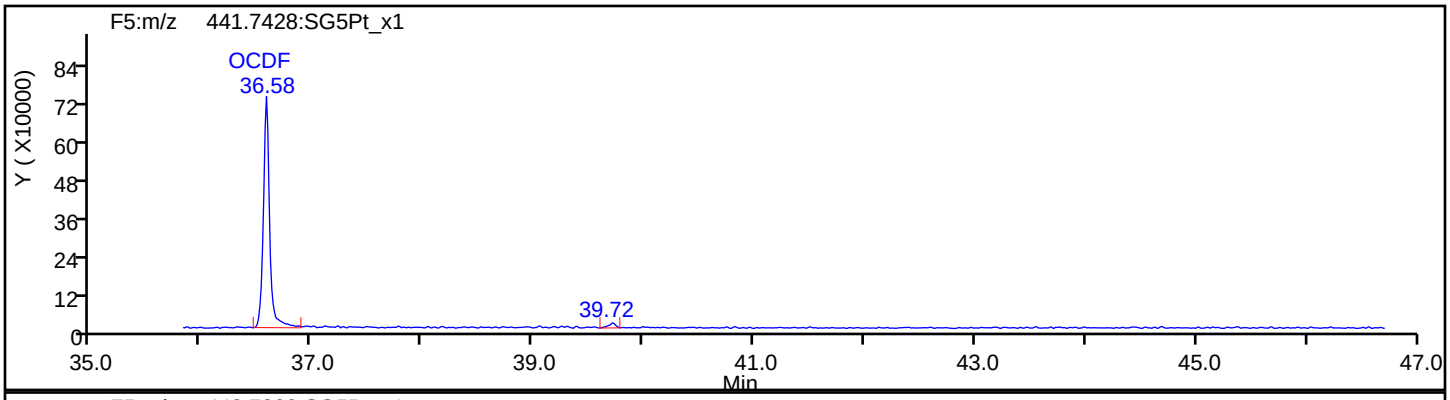


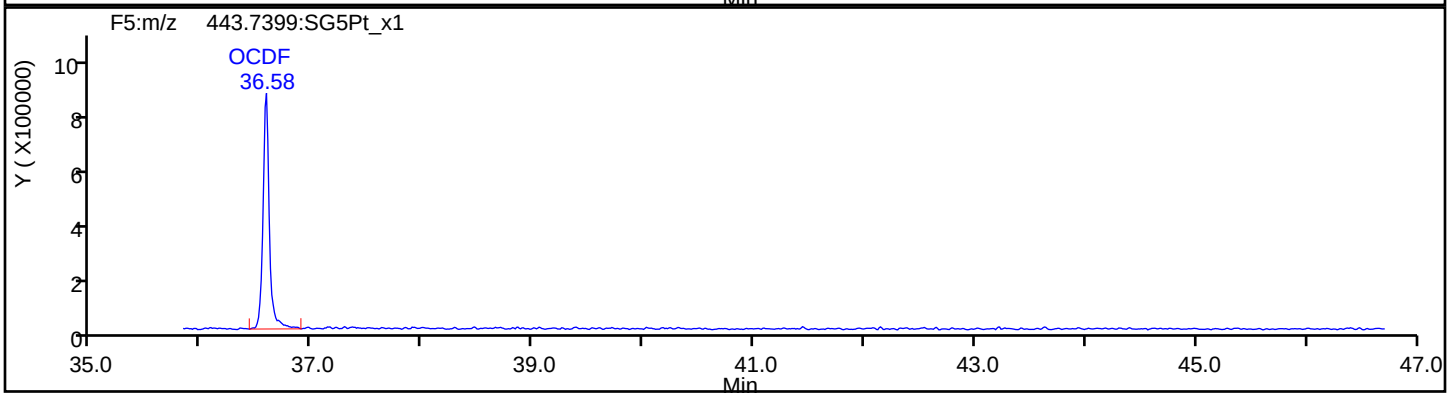
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

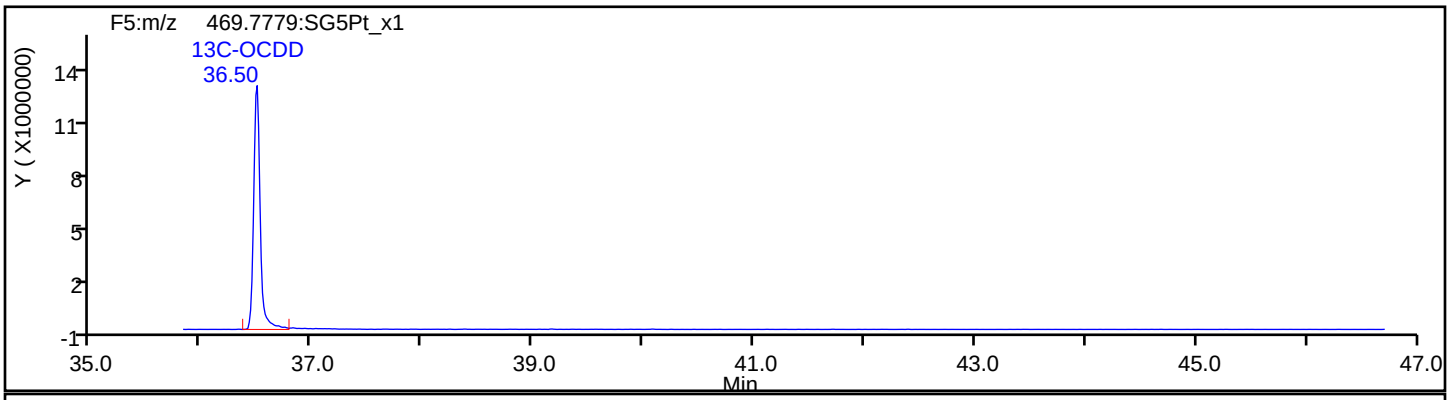
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

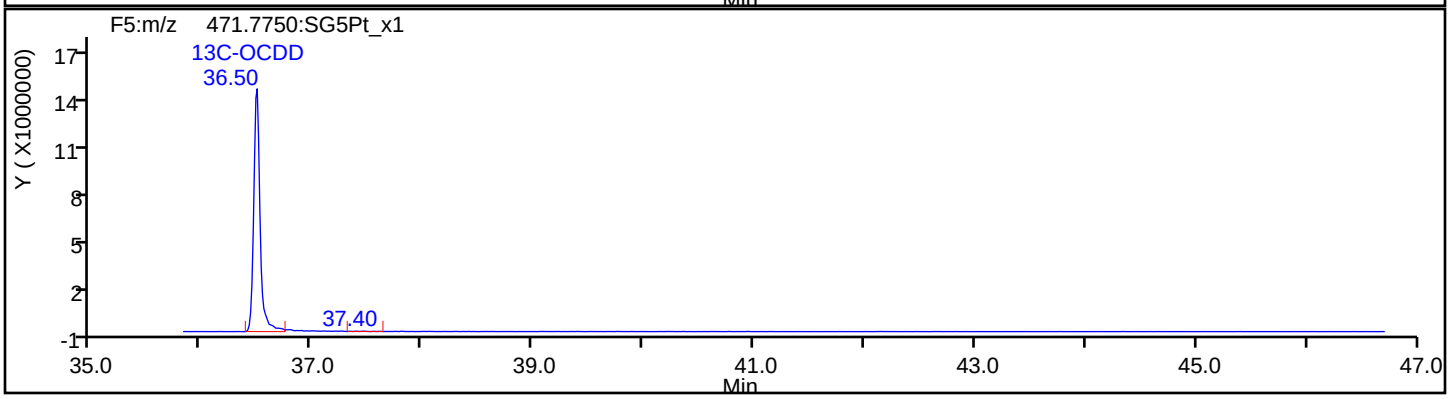
OCDF





OCDF Standards



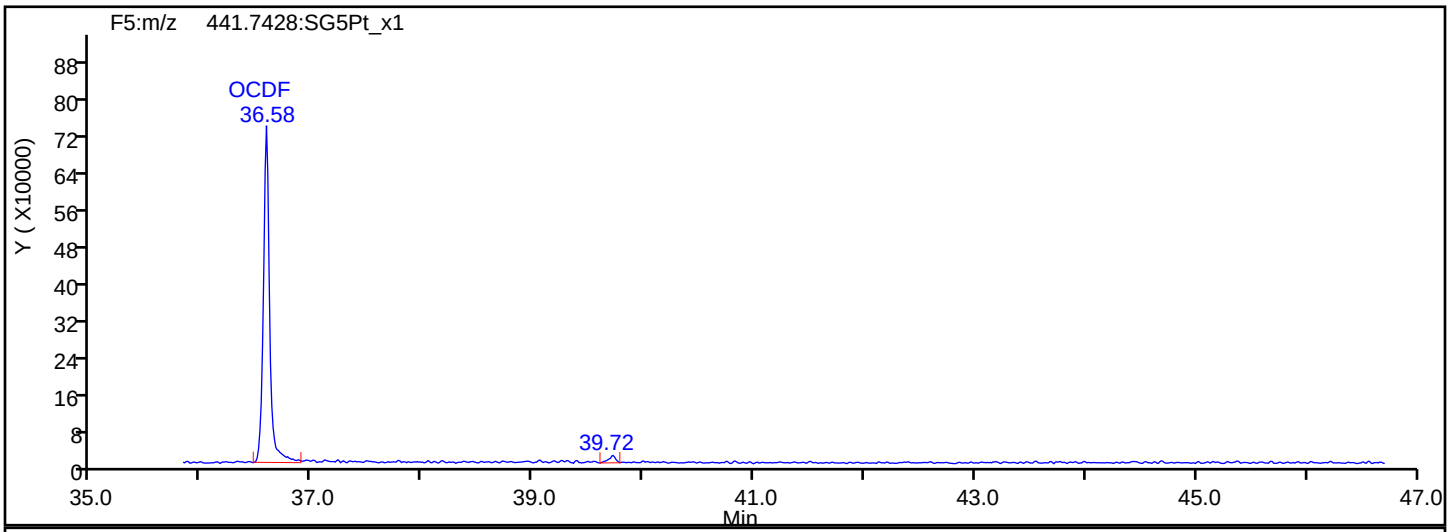


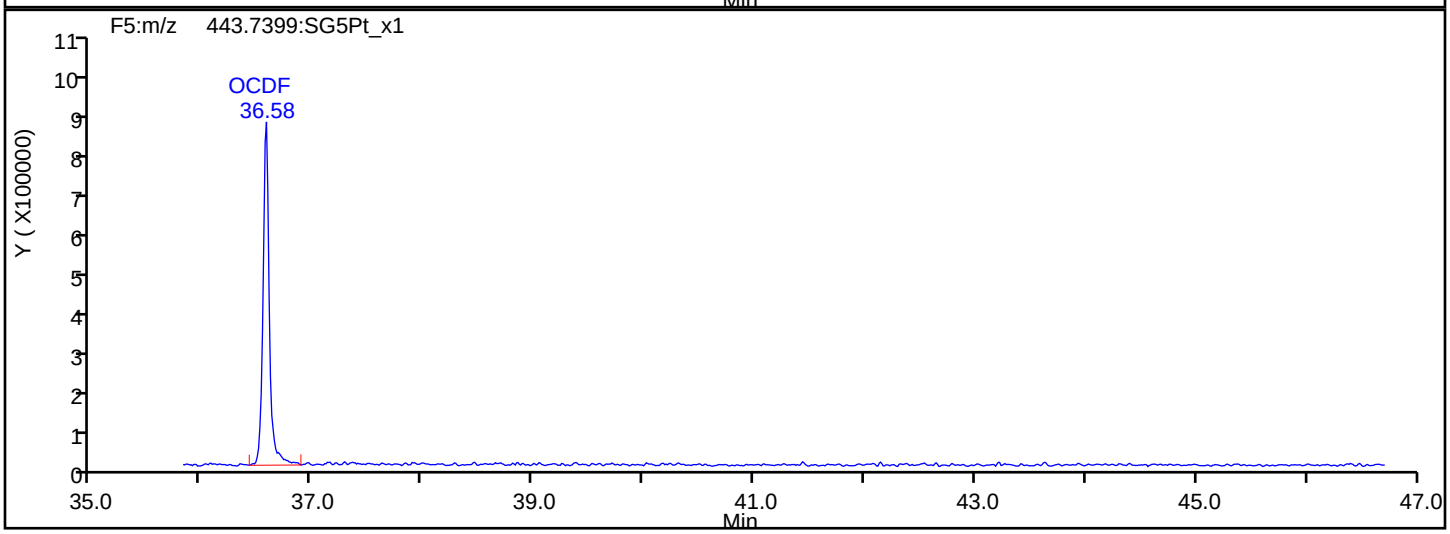
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

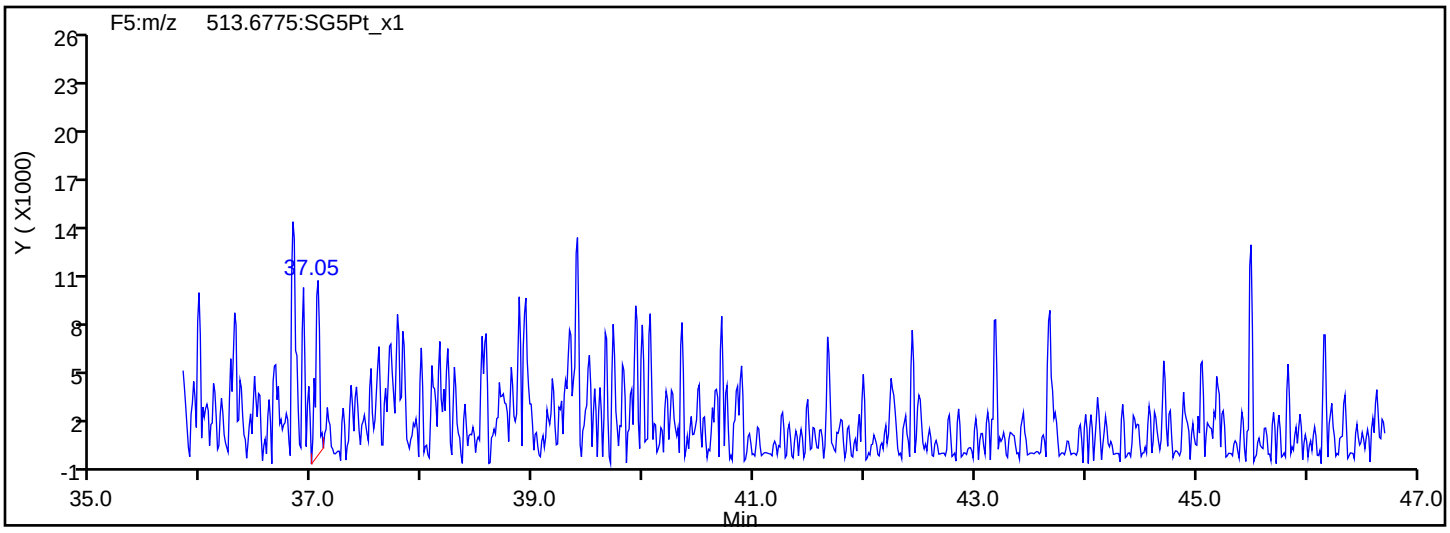
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

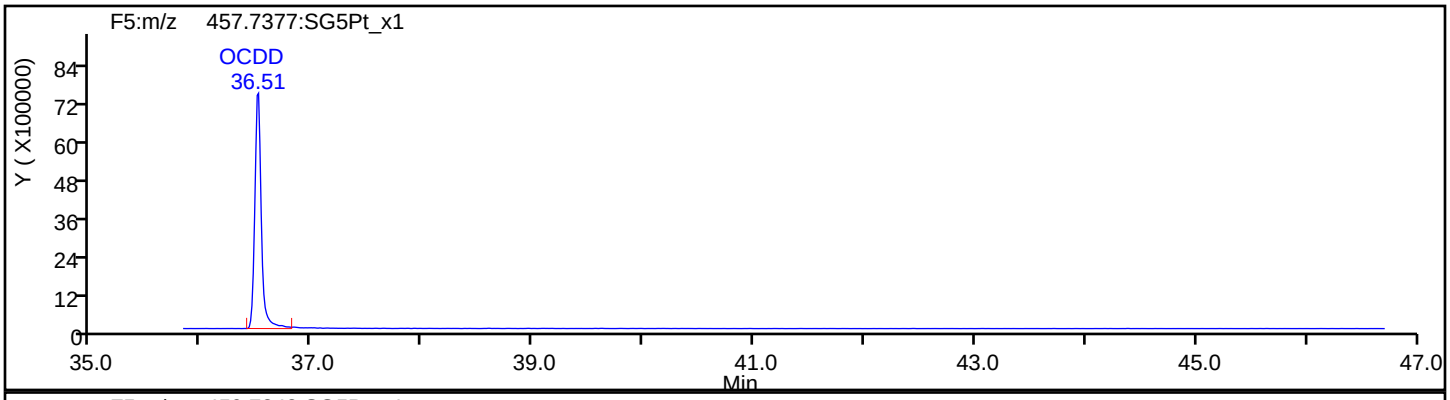


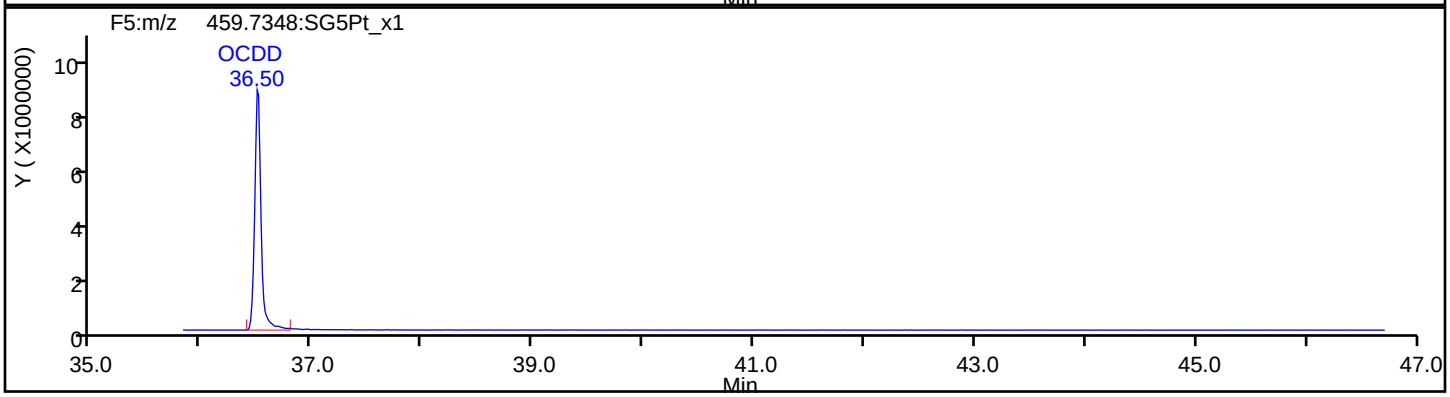
Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

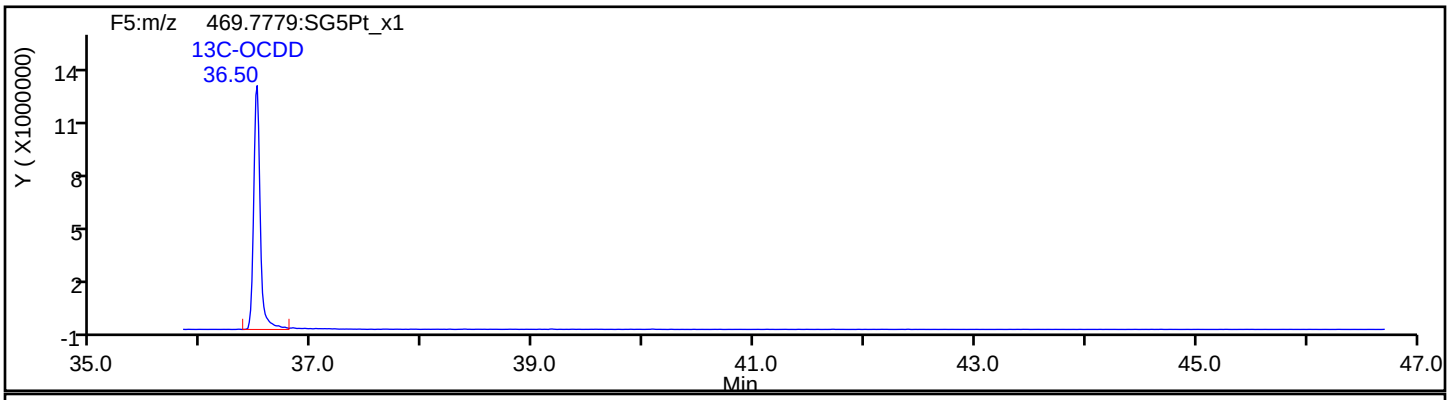
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm

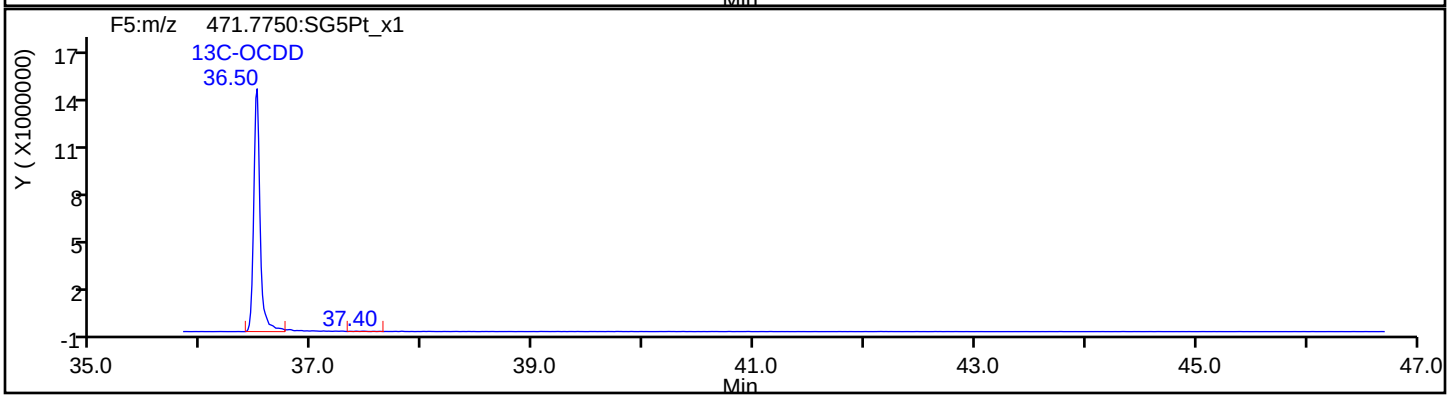
OCDD





OCDD Standards

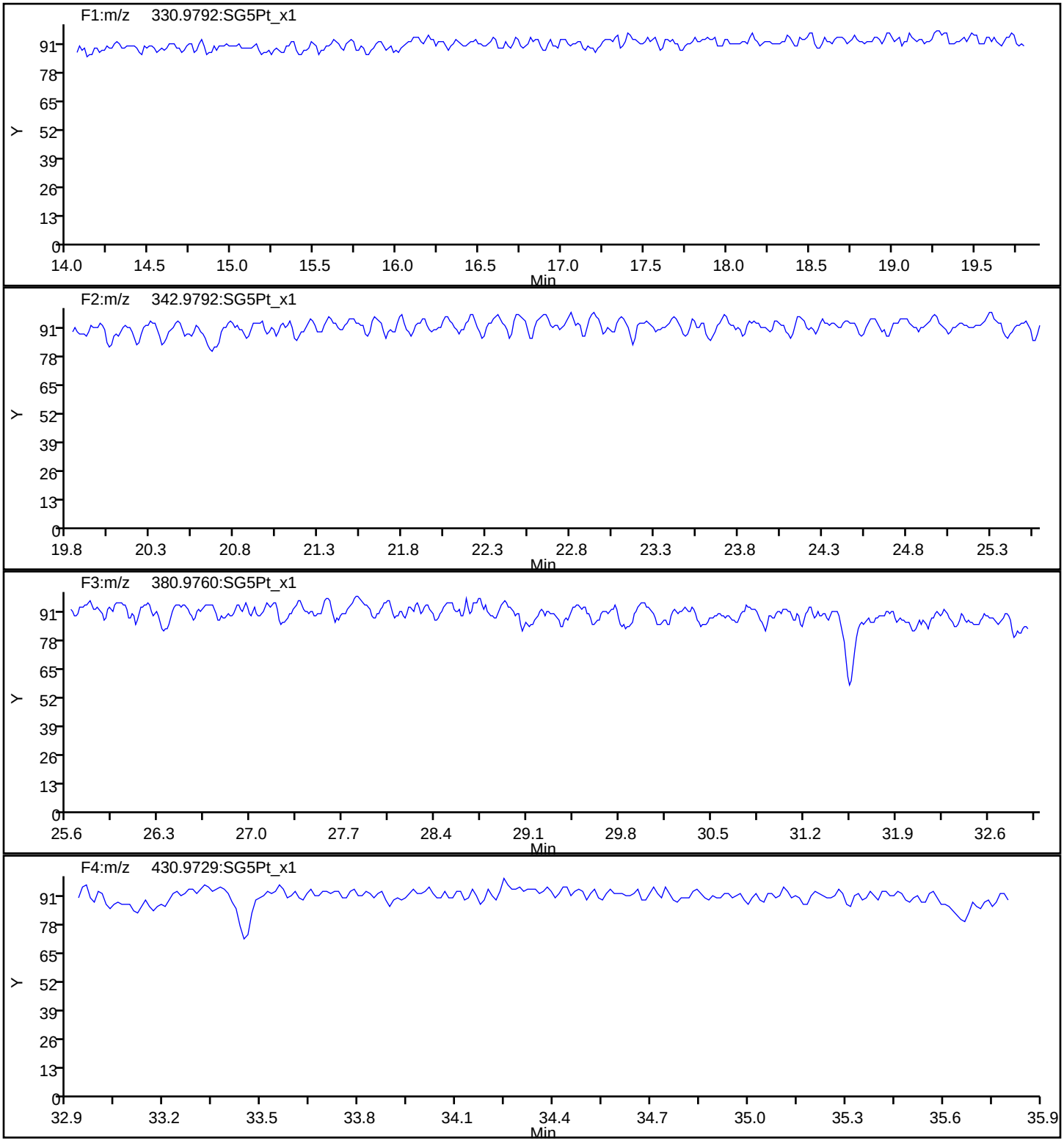




Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

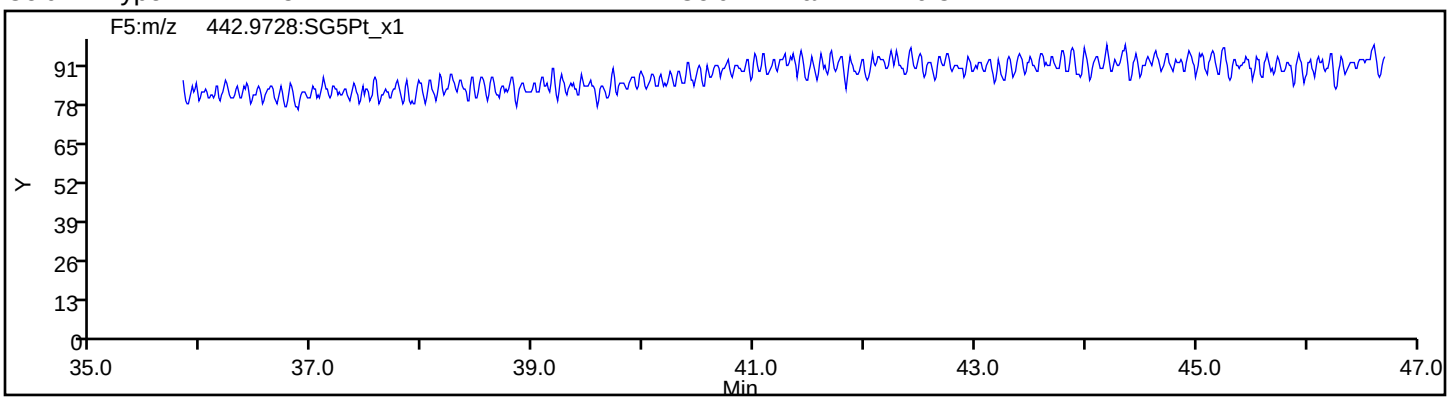
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:15:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_70.d		
Injection Date:	22-Jul-2019 09:06:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-13_20190716		
Worklist#:	309104	Sample Line#:	70
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Matrix: Solid Lab File ID: 19JL19A3D5_71.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:30

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.00(g) Date Analyzed: 07/22/2019 09:53

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 60.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.91	J q	2.5	0.32
40321-76-4	1,2,3,7,8-PeCDD	ND		13	0.43
57117-41-6	1,2,3,7,8-PeCDF	3.0	J	13	0.35
57117-31-4	2,3,4,7,8-PeCDF	1.0	J	13	0.39
39227-28-6	1,2,3,4,7,8-HxCDD	1.1	J B	13	0.40
57653-85-7	1,2,3,6,7,8-HxCDD	2.3	J q	13	0.40
19408-74-3	1,2,3,7,8,9-HxCDD	2.1	J	13	0.38
70648-26-9	1,2,3,4,7,8-HxCDF	3.1	J	13	0.42
57117-44-9	1,2,3,6,7,8-HxCDF	1.1	J	13	0.46
72918-21-9	1,2,3,7,8,9-HxCDF	2.5	J B	13	0.24
60851-34-5	2,3,4,6,7,8-HxCDF	0.63	J	13	0.30
35822-46-9	1,2,3,4,6,7,8-HpCDD	69	B	13	0.92
67562-39-4	1,2,3,4,6,7,8-HpCDF	12	J q	13	0.44
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.2	J	13	0.54
3268-87-9	OCDD	610	B	25	0.76
39001-02-0	OCDF	42	B	25	0.51

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	69		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	73		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	72		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	73		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	62		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	62		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	71		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	62		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	65		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	73		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	68		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	69		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	77		26-138
114423-97-1	13C-OCDD	68		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Matrix: Solid Lab File ID: 19JL19A3D5_71.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:30

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.00(g) Date Analyzed: 07/22/2019 09:53

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 60.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	98		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 09:53:59 ALS Bottle#: 50 Worklist Smp#: 71
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-11-A 580-87706-C-11-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:18:05 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 10:52:10

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	192480314	0.82	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.674	198411172	0.81	1.3908	74.1	74.1	0.2439	0.2439	74.12	
2,3,7,8-TCDF	16.705	1569340	0.78	0.9710	0.8145	0.8145	0.0577	0.0577		
A Non-2,3,7,8-sub-TCDF	16.402	741322	0.77	0.9710	0.4183	0.3848	0.0577	0.1515		RQ
S Total TCDF					1.233	1.199	0.0577	0.0577		RQ
D 13C-2,3,7,8-TCDD	17.340	129717814	0.82	0.9819	68.6	68.6	0.2110	0.2110	68.64	
2,3,7,8-TCDD	17.324	241673	0.77	1.0447	0.1997	0.1783	0.0620	0.0620		RQMa
$ 37Cl4-2,3,7,8-TCDD	17.355	91791898		1.2205	39.1	39.1	0.1101	0.1101	97.68	
A Non-2,3,7,8-sub-TCDD	16.833	255737	0.77	1.0447	0.2341	0.1887	0.0620	0.1887		RQMa
S Total TCDD					0.4337	0.3670	0.0620	0.0620		RQ
D 13C-1,2,3,7,8-PeCDF	21.318	161393497	1.58	1.1585	72.4	72.4	0.2308	0.2308	72.38	
1,2,3,7,8-PeCDF	21.332	912781	1.72	0.9633	0.5871	0.5871	0.0691	0.0691		
D 13C-2,3,4,7,8-PeCDF	22.545	162330577	1.60	1.1532	73.1	73.1	0.2319	0.2319	73.13	
2,3,4,7,8-PeCDF	22.573	307026	1.73	0.9495	0.1992	0.1992	0.0763	0.0763		
A F1 PeCDFs	19.215	675824	1.55	0.9564	0.4532	0.4366	0.0392	0.3774		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	899081	1.67	0.9564	0.5808	0.5808	0.0725	0.5808		
S Total PeCDF					1.820	1.804	0.0727	0.0727		RQ
D 13C-1,2,3,7,8-PeCDD	23.213	104308111	1.54	0.7431	72.9	72.9	0.1524	0.1524	72.93	
1,2,3,7,8-PeCDD	23.254						0.0849	0.0849		
A Non-2,3,7,8-sub-PeCDD	22.232	313404	1.35	1.0635	0.2825	0.2825	0.0849	0.2825		
S Total PeCDD					0.2825	0.2825	0.0849	0.0849		
D 13C-1,2,3,4,7,8-HxCDF	29.115	127164143	0.52	0.9837	70.8	70.8	0.3233	0.3233	70.77	
1,2,3,4,7,8-HxCDF	29.142	934268	1.17	1.2173	0.6035	0.6035	0.0822	0.0822		
D 13C-1,2,3,6,7,8-HxCDF	29.408	131504676	0.52	1.1554	62.3	62.3	0.2753	0.2753	62.31	
1,2,3,6,7,8-HxCDF	29.435	335654	1.14	1.1311	0.2256	0.2256	0.0905	0.0905		
D 13C-2,3,4,6,7,8-HxCDF	30.660	122216718	0.50	1.0361	64.6	64.6	0.3070	0.3070	64.58	
2,3,4,6,7,8-HxCDF	30.673	178486	1.22	1.1710	0.1247	0.1247	0.0582	0.0582		
D 13C-1,2,3,7,8,9-HxCDF	31.672	120129403	0.50	0.9034	72.8	72.8	0.3520	0.3520	72.80	
1,2,3,7,8,9-HxCDF	31.685	682699	1.06	1.1787	0.4822	0.4822	0.0473	0.0473		
A Non-2,3,7,8-sub-HxCDF	29.135	4142072	1.25	1.1745	2.816	2.816	0.0650	1.238		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					4.252	4.252	0.0695	0.0695		
* 13C-1,2,3,7,8,9-HxCDD	31.459	182652706	1.28	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.926	93790643	1.27	0.8287	62.0	62.0	0.2549	0.2549	61.96	
1,2,3,4,7,8-HxCDD	30.953	216438	1.06	1.0267	0.2248	0.2248	0.0782	0.0782		a
D 13C-1,2,3,6,7,8-HxCDD	31.059	107228314	1.25	0.9495	61.8	61.8	0.2225	0.2225	61.83	
1,2,3,6,7,8-HxCDD	31.073	474474	1.24	0.9771	0.5194	0.4529	0.0782	0.0782		RQa
1,2,3,7,8,9-HxCDD	31.472	445776	1.12	1.0616	0.4178	0.4178	0.0737	0.0737		
A Non-2,3,7,8-sub-HxCDD	29.926	3239982	1.27	1.0218	3.155	3.155	0.0766	1.718		
S Total HxCDD					4.317	4.250	0.0767	0.0767		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	91371860	0.44	0.7285	68.7	68.7	0.6788	0.6788	68.67	
1,2,3,4,6,7,8-HpCDF	33.347	3062672	1.04	1.4373	2.606	2.332	0.0874	0.0874		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	92017529	0.43	0.6556	76.8	76.8	0.7543	0.7543	76.84	
1,2,3,4,7,8,9-HpCDF	34.429	295098	1.09	1.3091	0.2450	0.2450	0.1061	0.1061		
A Non-2,3,7,8-sub-HpCDF	33.894	6340623	1.05	1.3732	5.036	5.036	0.0960	5.036		
S Total HpCDF					7.887	7.613	0.0967	0.0967		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	86978773	1.07	0.6978	68.2	68.2	0.3736	0.3736	68.24	
1,2,3,4,6,7,8-HpCDD	34.150	11849499	1.10	1.0102	13.5	13.5	0.1808	0.1808		
A Non-2,3,7,8-sub-HpCDD	35.074	14685544	1.05	1.0102	16.7	16.7	0.1808	16.7		a
S Total HpCDD					30.2	30.2	0.1808	0.1808		
D 13C-OCDD	36.498	117943701	0.91	0.4780	135.1	135.1	0.1954	0.1954	67.55	
OCDF	36.581	6635617	0.87	1.3501	8.334	8.334	0.0999	0.0999		
OCDD	36.509	75176244	0.87	1.0627	120.0	120.0	0.1492	0.1492		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 09:53:59 ALS Bottle#: 50 Worklist Smp#: 71
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-11-A 580-87706-C-11-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:18:05 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 10:52:10

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		86583682	22594594	25080	62700	901		
333.9339	17.158	17.158	0		105896632	27722050	16624	41560	1668	0.82(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.674	16.690	-1	0.972	88673312	22541265	26562	66405	849		
317.9389	16.674	16.690	-1	0.972	109737860	27790003	41713	104282	666	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.002	688543	157657	4446	11115	35		
305.8987	16.690	16.705	-1	1.001	880797	206959	6840	17100	30	0.78(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.905	16.402	-90	0.894	127014	31662	4446	11115	7		
	Empc Correction				105128	29680	4446	11115	7		
305.8987	14.905	16.402	-90	0.894	136531	38546	6840	17100	6	0.93(0.65-0.89)	
303.9016	15.374	16.402	-62	0.922	133045	36027	4446	11115	8		
	Empc Correction				90386	21454	4446	11115	5		
305.8987	15.374	16.402	-62	0.922	117385	27863	6840	17100	4	1.13(0.65-0.89)	
303.9016	15.586	16.402	-49	0.935	118420	18260	4446	11115	4		
305.8987	15.631	16.402	-46	0.937	173472	30784	6840	17100	5	0.68(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.011	58335312	14121449	25080	62700	563		
333.9339	17.340	17.355	-1	1.011	71382502	16707318	16624	41560	1005	0.82(0.65-0.89)	
2,3,7,8-TCDD											RQMa
319.8965	17.324	17.355	-2	0.999	105135	19873	5346	13365	4		M
321.8936	17.355	17.355	0	1.001	165428	34855	2637	6592	13	0.64(0.65-0.89)	M
	Empc Correction				136538	25809	2637	6592	10		
37Cl4-2,3,7,8-TCDD											
327.8847	17.355	17.370	-1	1.011	91791898	21470498	27045	67612	794		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											RQMa
319.8965	17.264	16.833	26	0.996	111253	24914	5346	13365	5		M
321.8936	17.279	16.833	27	0.997	205990	52597	2637	6592	20	0.54(0.65-0.89)	
	Empc Correction				144484	32355	2637	6592	12		
13C-1,2,3,7,8-PeCDF											
351.9000	21.318	21.332	-1	1.242	98855204	18061076	30703	76757	588		
353.8970	21.318	21.332	-1	1.242	62538293	11656904	23113	57782	504	1.58(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.332	21.345	-1	1.001	577706	104592	2863	7157	37		
341.8567	21.345	21.345	0	1.001	335075	64308	5045	12612	13	1.72(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.545	22.559	-1	1.314	99884404	16762767	30703	76757	546		
353.8970	22.545	22.559	-1	1.314	62446173	10540259	23113	57782	456	1.60(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.573	22.586	-1	1.001	194434	32836	2863	7157	11		
341.8567	22.545	22.586	-2	1.000	112592	21068	5045	12612	4	1.73(1.32-1.78)	
A F1 PeCDFs											RQ
339.8597	18.670	19.215	-33	0.876	357413	79041	1321	3302	60		
341.8567	18.655	19.215	-34	0.875	226871	41065	2953	7382	14	1.58(1.32-1.78)	
339.8597	18.897	19.215	-19	0.886	55642	8711	1321	3302	7		
341.8567	18.912	19.215	-18	0.887	61676	13138	2953	7382	4	0.90(1.32-1.78)	
	Empc Correction				35898	5620	2953	7382	2		
A Non-2,3,7,8-sub-PeCDF											
339.8597	20.118	22.104	-119	0.944	562368	89017	2863	7157	31		
341.8567	20.104	22.104	-120	0.943	336713	57754	5045	12612	11	1.67(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.213	23.227	-1	1.353	63183320	10370627	14175	35437	732		
369.8919	23.213	23.227	-1	1.353	41124791	6737441	8623	21557	781	1.54(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4226	10565			
357.8516	23.254						1951	4877			
A Non-2,3,7,8-sub-PeCDD											
355.8546	20.295	22.232	-116	0.874	179930	38020	4226	10565	9		
357.8516	20.282	22.232	-117	0.874	133474	24728	1951	4877	13	1.35(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.115	29.115	0	0.926	43382311	5239973	18280	45700	287		
385.8610	29.115	29.115	0	0.926	83781832	9925996	31878	79695	311	0.52(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.142	29.155	-1	1.001	504315	62468	3530	8825	18		
375.8178	29.128	29.155	-2	1.000	429953	45282	2539	6347	18	1.17(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.408	29.421	-1	0.935	45150090	5060431	18280	45700	277		
385.8610	29.408	29.421	-1	0.935	86354586	9754730	31878	79695	306	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.435	29.462	-2	1.001	179128	21494	3530	8825	6		
375.8178	29.475	29.462	1	1.002	156526	18025	2539	6347	7	1.14(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.660	30.660	0	0.975	40787247	7446709	18280	45700	407		
385.8610	30.660	30.660	0	0.975	81429471	14831570	31878	79695	465	0.50(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.673	30.687	-1	1.000	97960	17841	3530	8825	5		
375.8178	30.660	30.687	-2	1.000	80526	11964	2539	6347	5	1.22(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.007	40182708	9078402	18280	45700	497		
385.8610	31.672	31.672	0	1.007	79946695	18125655	31878	79695	569	0.50(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	351693	57446	3530	8825	16		
375.8178	31.685	31.685	0	1.000	331006	54643	2539	6347	22	1.06(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	26.492	29.135	-158	0.910	290954	40458	3530	8825	11		
375.8178	26.505	29.135	-157	0.910	229882	40775	2539	6347	16	1.27(1.05-1.43)	
373.8208	26.825	29.135	-138	0.921	847014	107121	3530	8825	30		
375.8178	26.852	29.135	-137	0.922	712640	95440	2539	6347	38	1.19(1.05-1.43)	
373.8208	28.063	29.135	-64	0.964	1028168	128555	3530	8825	36		
375.8178	28.050	29.135	-65	0.963	793670	98524	2539	6347	39	1.30(1.05-1.43)	
373.8208	30.527	29.135	83	1.048	133692	22707	3530	8825	6		
375.8178	30.527	29.135	83	1.048	106052	19100	2539	6347	8	1.26(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.459	31.472	-1		102653932	22009749	16305	40762	1350		
403.8529	31.459	31.472	-1		79998774	17416979	17005	42512	1024	1.28(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.926	30.926	0	0.983	52425094	11195301	16305	40762	687		
403.8529	30.926	30.926	0	0.983	41365549	8805004	17005	42512	518	1.27(1.05-1.43)	
1,2,3,4,7,8-HxCDD											a
389.8157	30.953	30.953	0	1.001	111304	29932	2590	6475	12		a
391.8127	30.953	30.953	0	1.001	105134	21060	3831	9577	5	1.06(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	59611477	11603246	16305	40762	712		
403.8529	31.059	31.059	0	0.987	47616837	9402151	17005	42512	553	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											RQa
389.8157	31.073	31.086	-1	1.000	332401	72966	2590	6475	28		a
	Empc Correction				262655	55590	2590	6475	21		
391.8127	31.059	31.086	-2	1.000	211819	44831	3831	9577	12	1.57(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.472	31.485	-1	1.018	235852	41428	2590	6475	16		
391.8127	31.485	31.485	0	1.018	209924	34314	3831	9577	9	1.12(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.944	29.926	-119	0.900	814180	100367	2590	6475	39		
391.8127	27.930	29.926	-120	0.899	661055	83479	3831	9577	22	1.23(1.05-1.43)	
389.8157	29.901	29.926	-2	0.963	997451	124161	2590	6475	48		
391.8127	29.901	29.926	-2	0.963	767296	88195	3831	9577	23	1.30(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.060	27914051	8683043	26709	66772	325		
419.8220	33.335	33.335	0	1.060	63457809	19594704	51282	128205	382	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.347	33.347	0	1.000	1921426	609347	9449	23622	64		
	Empc Correction				1561362	509073	9449	23622	54		
409.7789	33.335	33.347	-1	1.000	1501310	489494	4752	11880	103	1.28(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	27526649	7554242	26709	66772	283		
419.8220	34.417	34.429	-1	1.094	64490880	18005536	51282	128205	351	0.43(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.441	-1	1.000	153649	41785	9449	23622	4		
409.7789	34.429	34.441	-1	1.000	141449	42328	4752	11880	9	1.09(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.639	33.894	-15	1.009	3251231	1016910	9449	23622	108		
409.7789	33.639	33.894	-15	1.009	3089392	959120	4752	11880	202	1.05(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.085	44985228	12838957	23286	58215	551		
437.8140	34.138	34.150	-1	1.085	41993545	12103801	17829	44572	679	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	6215261	1881894	10172	25430	185		
425.7737	34.150	34.162	-1	1.000	5634238	1668576	8048	20120	207	1.10(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.603	35.074	-88	0.984	7530392	2294957	10172	25430	226		a
425.7737	33.603	35.074	-88	0.984	7155152	2262083	8048	20120	281	1.05(0.88-1.20)	
13C-OCDD											
469.7779	36.498	36.498	0	1.160	56231763	14120094	7473	18682	1889		
471.7750	36.498	36.498	0	1.160	61711938	15450282	7254	18135	2130	0.91(0.76-1.02)	
OCDF											
441.7428	36.581	36.582	0	1.002	3091751	761292	3021	7552	252		
443.7399	36.581	36.582	0	1.002	3543866	904336	4956	12390	182	0.87(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	35064291	8687214	4613	11532	1883		
459.7348	36.509	36.509	0	1.000	40111953	9843518	4763	11907	2067	0.87(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	198411172	50331268

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	198411172	50331268

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.905	127014	31662	136531	38546	0.1368	0.93	RQ
14.905	105128	29680	136531	38546	0.1254		Empc Correction
15.374	133045	36027	117385	27863	0.1300	1.13	RQ
15.374	90386	21454	117385	27863	0.1078		Empc Correction
15.586	118420	18260	173472	30784	0.1515	0.68	
Signal Totals:							
	313934	69394	427388	97193			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	805867	183142				0.89	RQ
	741322	166587					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4183 = (805867 * 100.000) / (198411172 * 0.971)
Empc Amount: 0.3848 = (741322 * 100.000) / (198411172 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	129717814	30828767

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	129717814	30828767

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.264	111253	24914	205990	52597	0.2341	0.54	RQMa
17.264	111253	24914	144484	32355	0.1887		Empc Correction
Signal Totals:							
	111253	24914	144484	32355			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	317243	77511				0.54	RQMa
	255737	57269					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2341 = (317243 * 100.000) / (129717814 * 1.045)
Empc Amount: 0.1887 = (255737 * 100.000) / (129717814 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	161393497	29717980
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	162330577	27303026

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	161862037	28510503

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.670	357413	79041	226871	41065	0.3774	1.58	
18.897	55642	8711	61676	13138	0.0758	0.90	RQ
18.897	55642	8711	35898	5620	0.0591		Empc Correction
Signal Totals:							
	413055	87752	262769	46685			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	701602	141955				1.43	RQ
	675824	134437					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4532 = (701602 * 100.000) / (161862037 * 0.956)
Empc Amount: 0.4366 = (675824 * 100.000) / (161862037 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	161393497	29717980
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	162330577	27303026

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	161862037	28510503

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	562368	89017	336713	57754	0.5808	1.67	
Signal Totals:							
	562368	89017	336713	57754			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	899081	146771				1.67	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5808 = (899081 * 100.000) / (161862037 * 0.956)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	104308111	17108068

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	104308111	17108068

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.295	179930	38020	133474	24728	0.2825	1.35	
Signal Totals:							
	179930	38020	133474	24728			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	313404	62748				1.35	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2825 = (313404 * 100.000) / (104308111 * 1.063)

Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	127164143	15165969
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	131504676	14815161
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	122216718	22278279
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	120129403	27204057

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	125253735	19865866

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.492	290954	40458	229882	40775	0.3540	1.27	
26.825	847014	107121	712640	95440	1.06	1.19	
28.063	1028168	128555	793670	98524	1.24	1.30	
30.527	133692	22707	106052	19100	0.1630	1.26	
Signal Totals:							
	2299828	298841	1842244	253839			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	4142072	552680				1.25	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.816 = (4142072 * 100.000) / (125253735 * 1.175)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	93790643	20000305
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	107228314	21005397
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	100509478	20502851

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.944	814180	100367	661055	83479	1.44	1.23	
29.901	997451	124161	767296	88195	1.72	1.30	
Signal Totals:							
	1811631	224528	1428351	171674			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3239982	396202				1.27	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.155 = (3239982 * 100.000) / (100509478 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	91371860	28277747
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	92017529	25559778

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	91694694	26918762

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.639	3251231	1016910	3089392	959120	5.04	1.05	
Signal Totals:							
	3251231	1016910	3089392	959120			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6340623	1976030				1.05	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.036 = (6340623 * 100.000) / (91694694 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Inject. Date: 22-Jul-2019 09:53:59 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 71

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	86978773	24942758

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	86978773	24942758

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.603	7530392	2294957	7155152	2262083	16.7	1.05	a
Signal Totals:							
	7530392	2294957	7155152	2262083			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	14685544	4557040				1.05	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 16.714 = (14685544 * 100.000) / (86978773 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

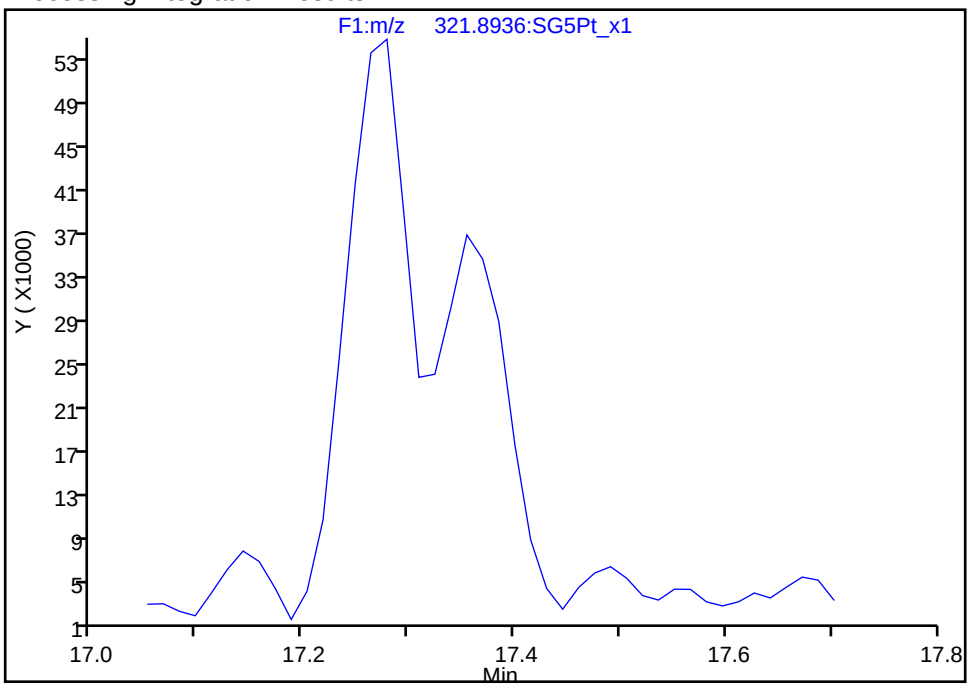
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d				
Injection Date:	22-Jul-2019 09:53:59	Instrument ID:	3D5		
Lims ID:	580-87706-C-11-A	Lab Sample ID:	320-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	50	Worklist Smp#:	71
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

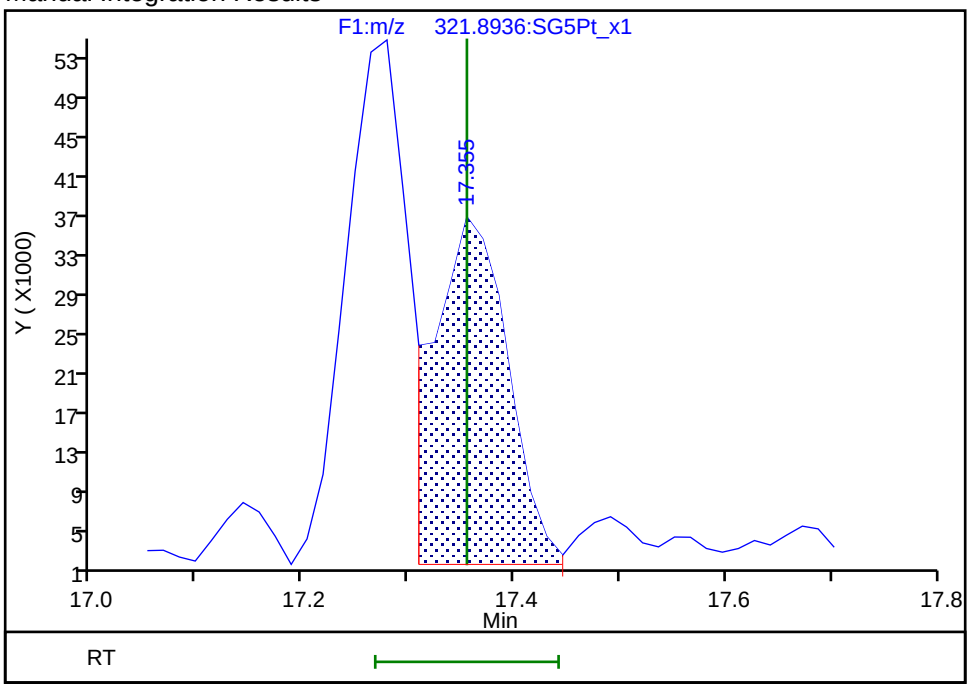
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.35
Area: 165428
Amount: 0.199650
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:16:35
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

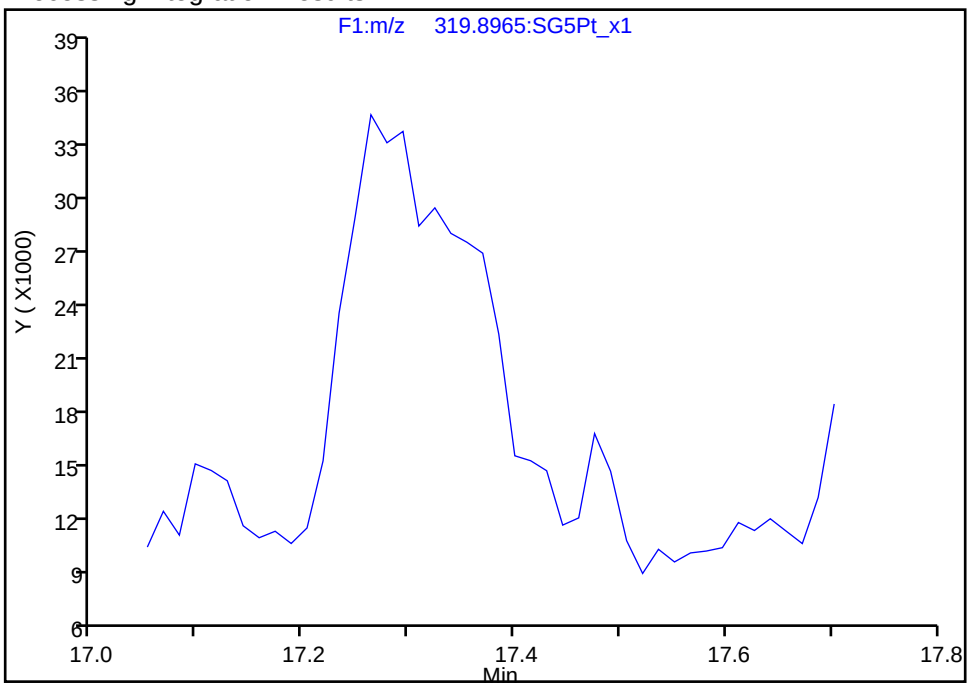
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d				
Injection Date:	22-Jul-2019 09:53:59	Instrument ID:	3D5		
Lims ID:	580-87706-C-11-A	Lab Sample ID:	320-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	50	Worklist Smp#:	71
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

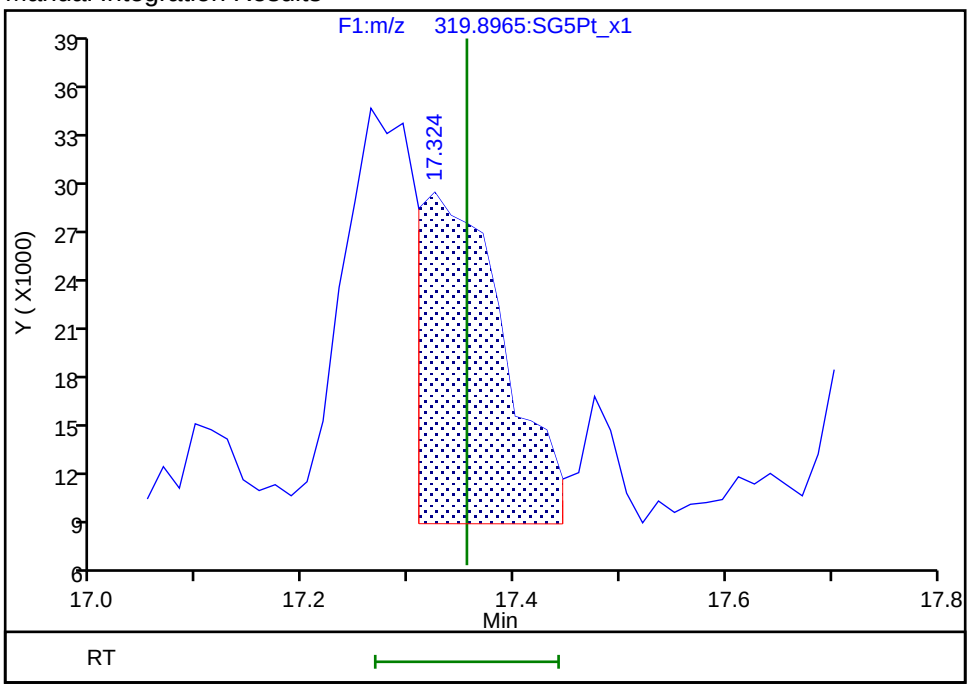
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.32
Area: 105135
Amount: 0.199650
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:16:38
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

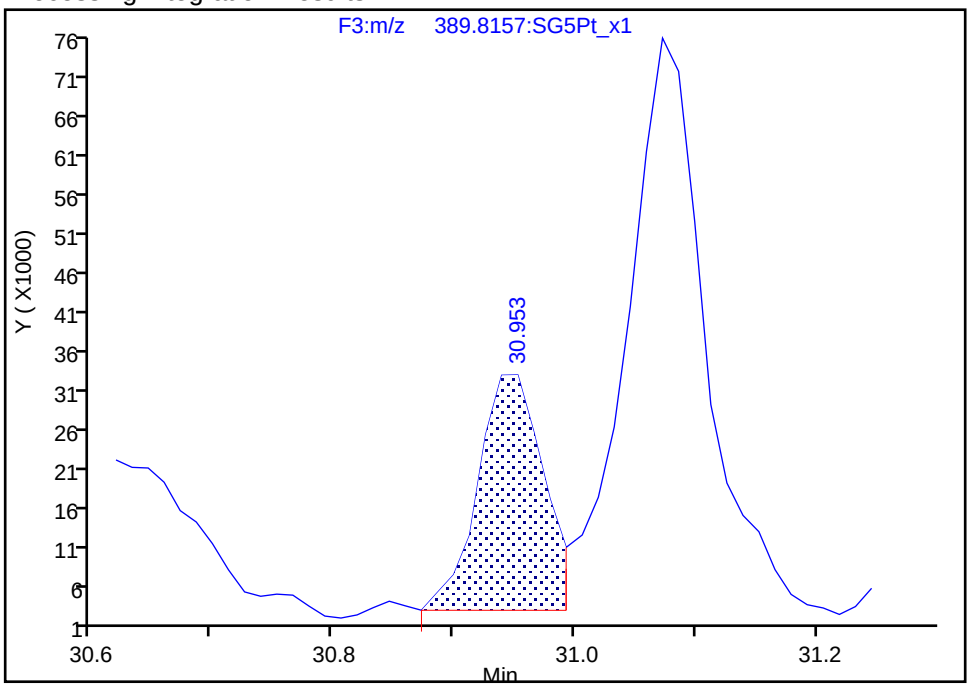
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d				
Injection Date:	22-Jul-2019 09:53:59	Instrument ID:	3D5		
Lims ID:	580-87706-C-11-A	Lab Sample ID:	320-87706-11		
Client ID:	22T-SG-22_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	50	Worklist Smp#:	71
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

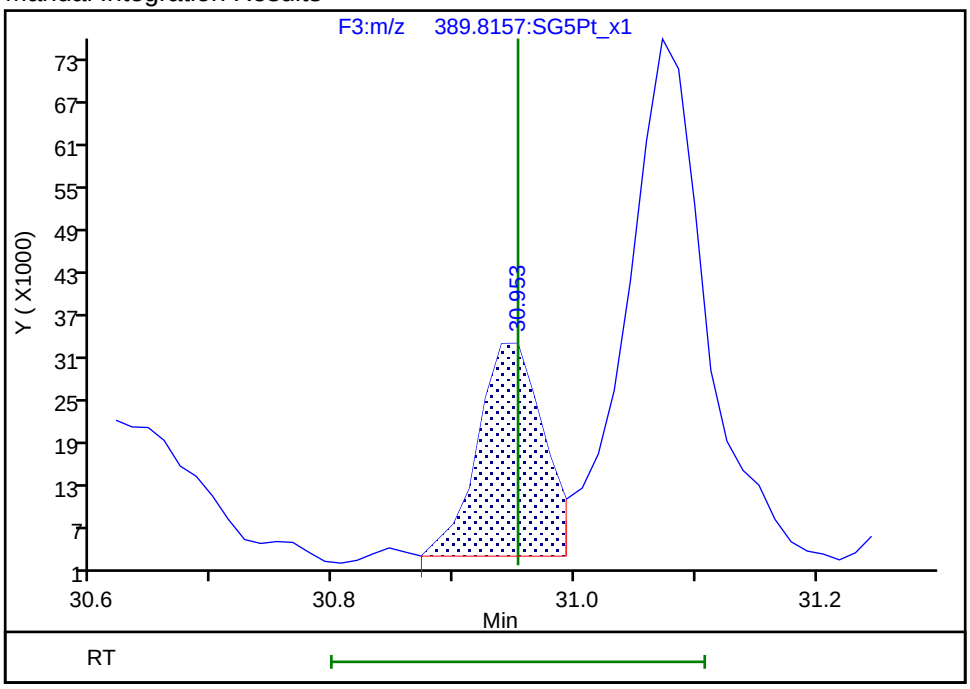
Processing Integration Results

RT: 30.95
Area: 111304
Amount: 0.224770
Amount Units: pg/ul



Manual Integration Results

RT: 30.95
Area: 111304
Amount: 0.224770
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:17:19
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

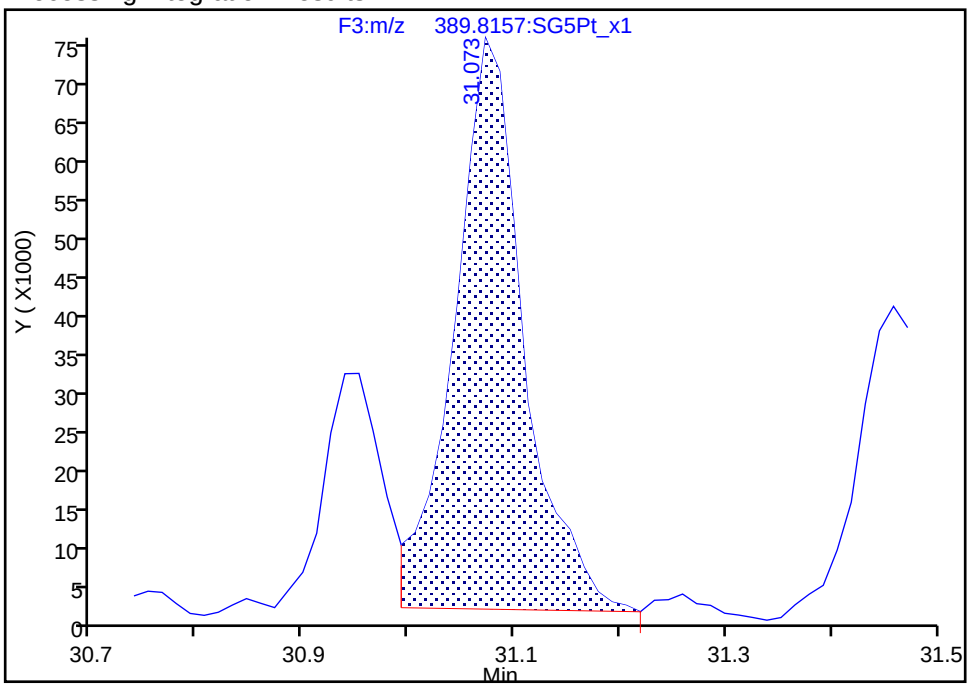
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Instrument ID:	3D5
Lims ID:	580-87706-C-11-A	Lab Sample ID:	320-87706-11
Client ID:	22T-SG-22_20190716		
Operator ID:	ALM, AJS	ALS Bottle#:	50 Worklist Smp#: 71
Injection Vol:	2.0 ul	Dil. Factor:	1.0000
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

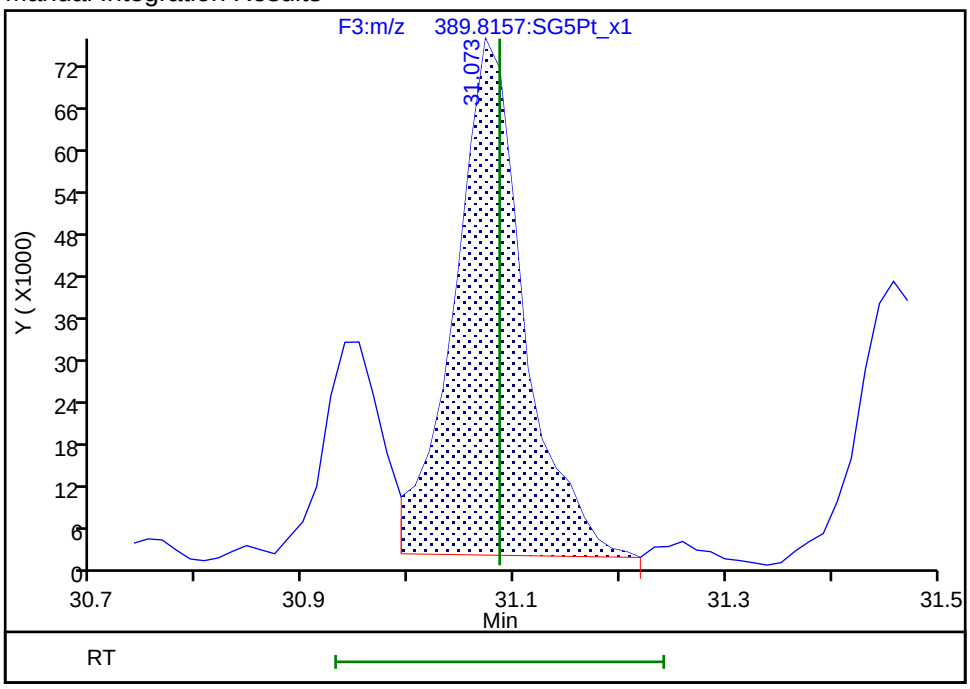
Processing Integration Results

RT: 31.07
Area: 332401
Amount: 0.519438
Amount Units: pg/ul



Manual Integration Results

RT: 31.07
Area: 332401
Amount: 0.519438
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:17:23

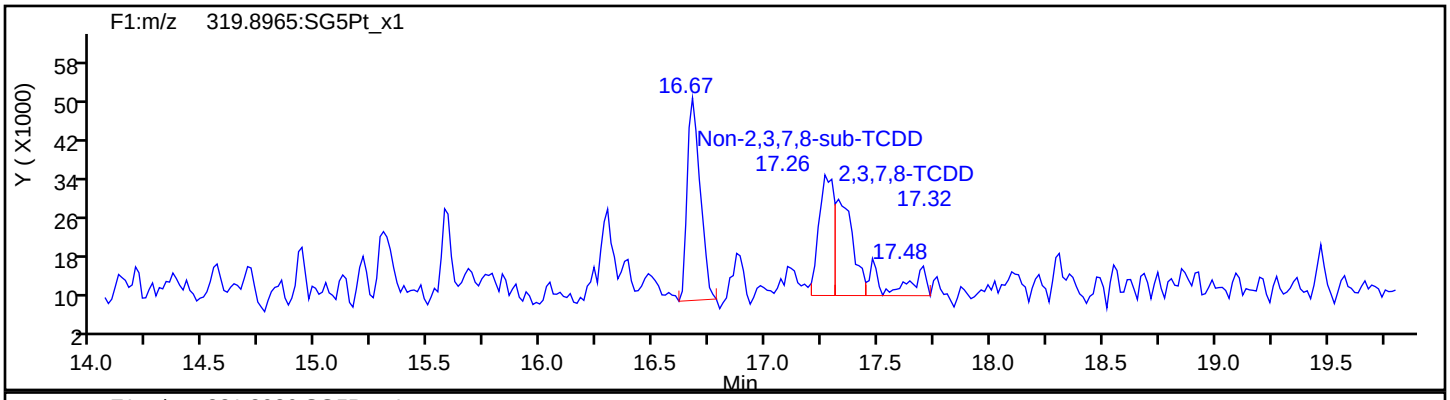
Audit Action: Assigned Compound ID Audit Reason: Split Peak

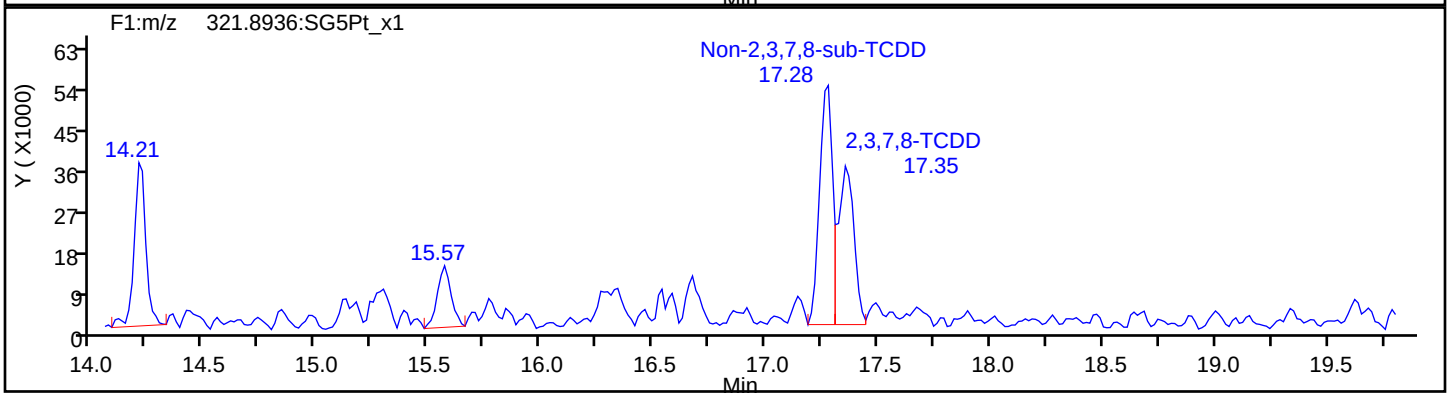
Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

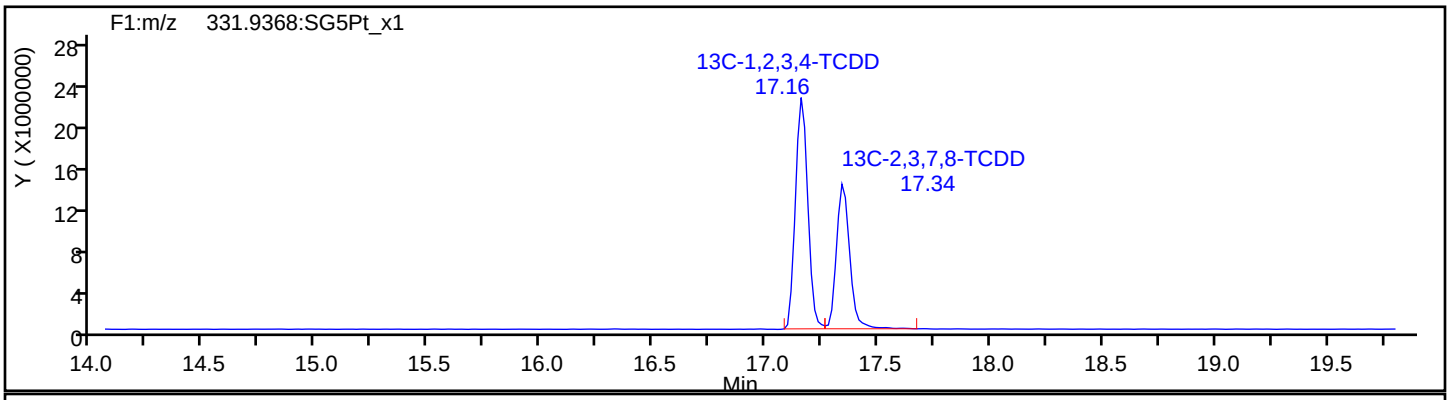
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

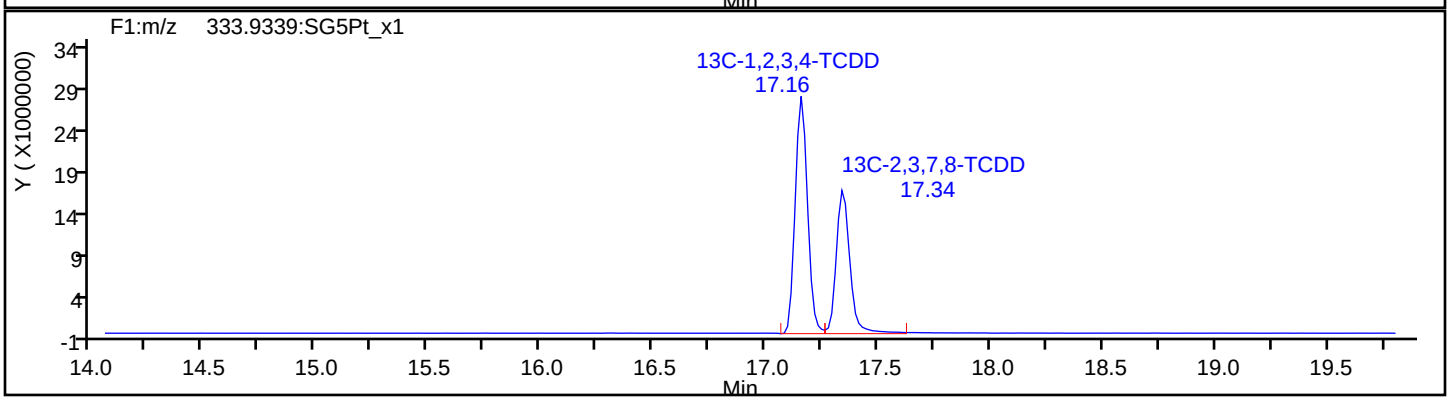
TCDD





TCDD Standards



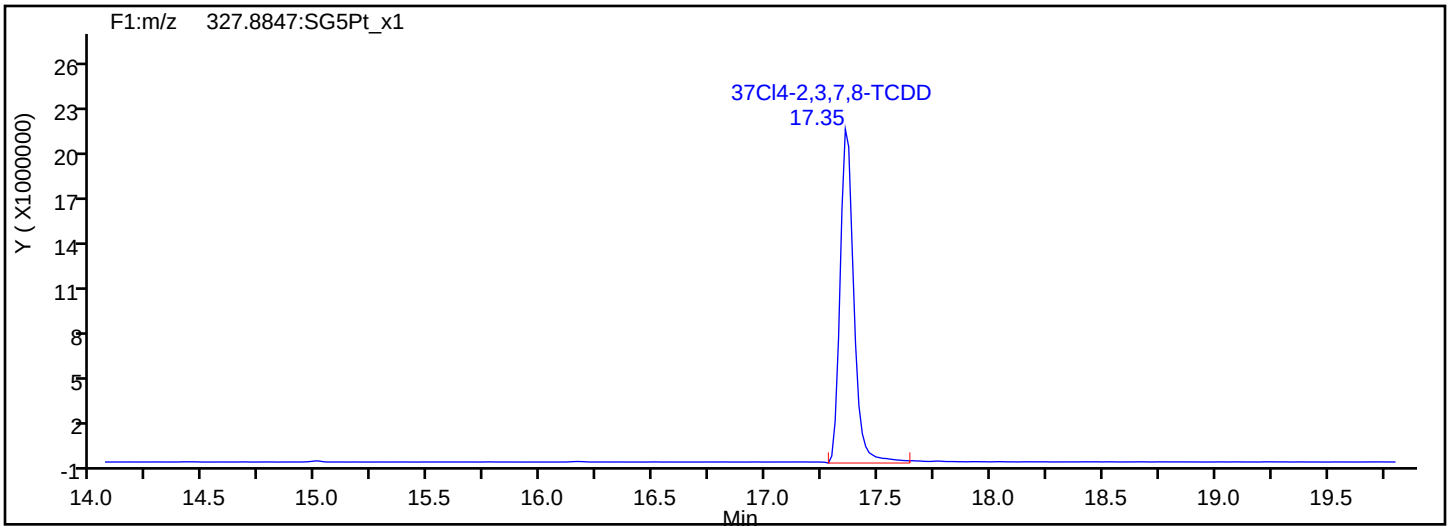


Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

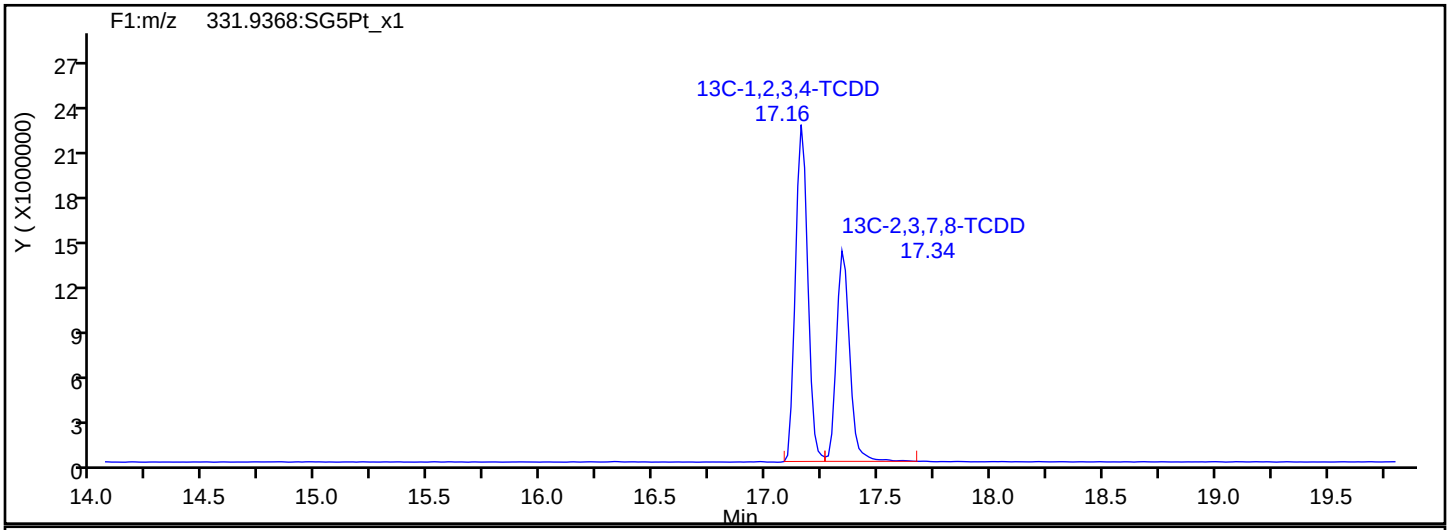
Eurofins TestAmerica, Sacramento

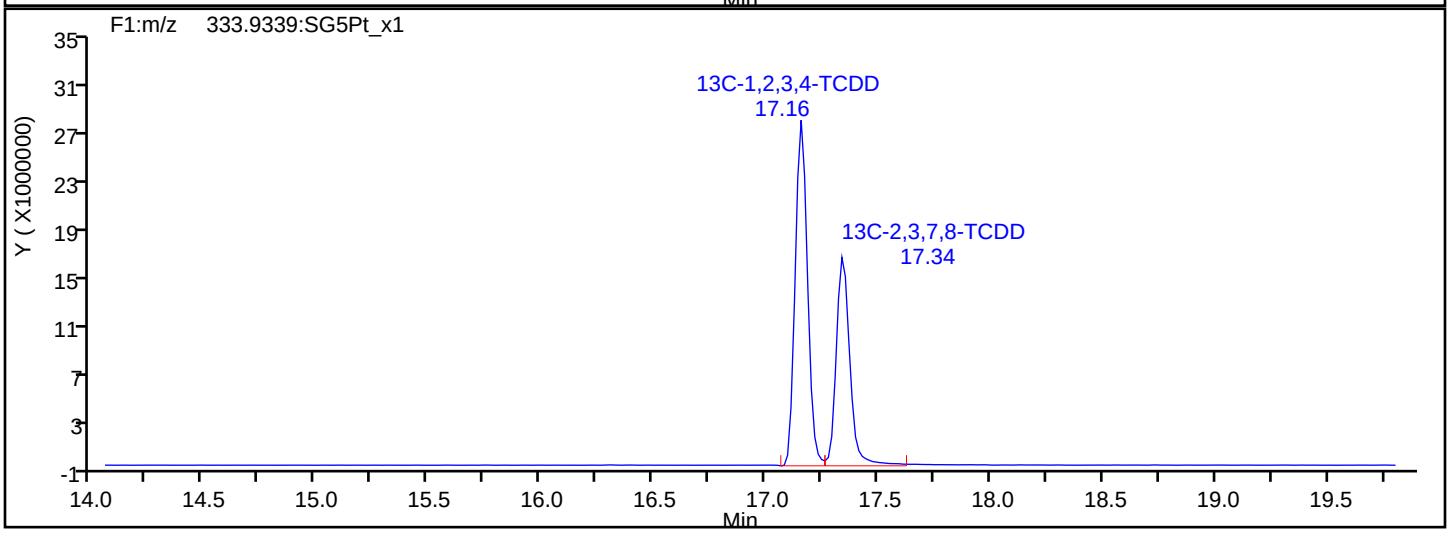
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



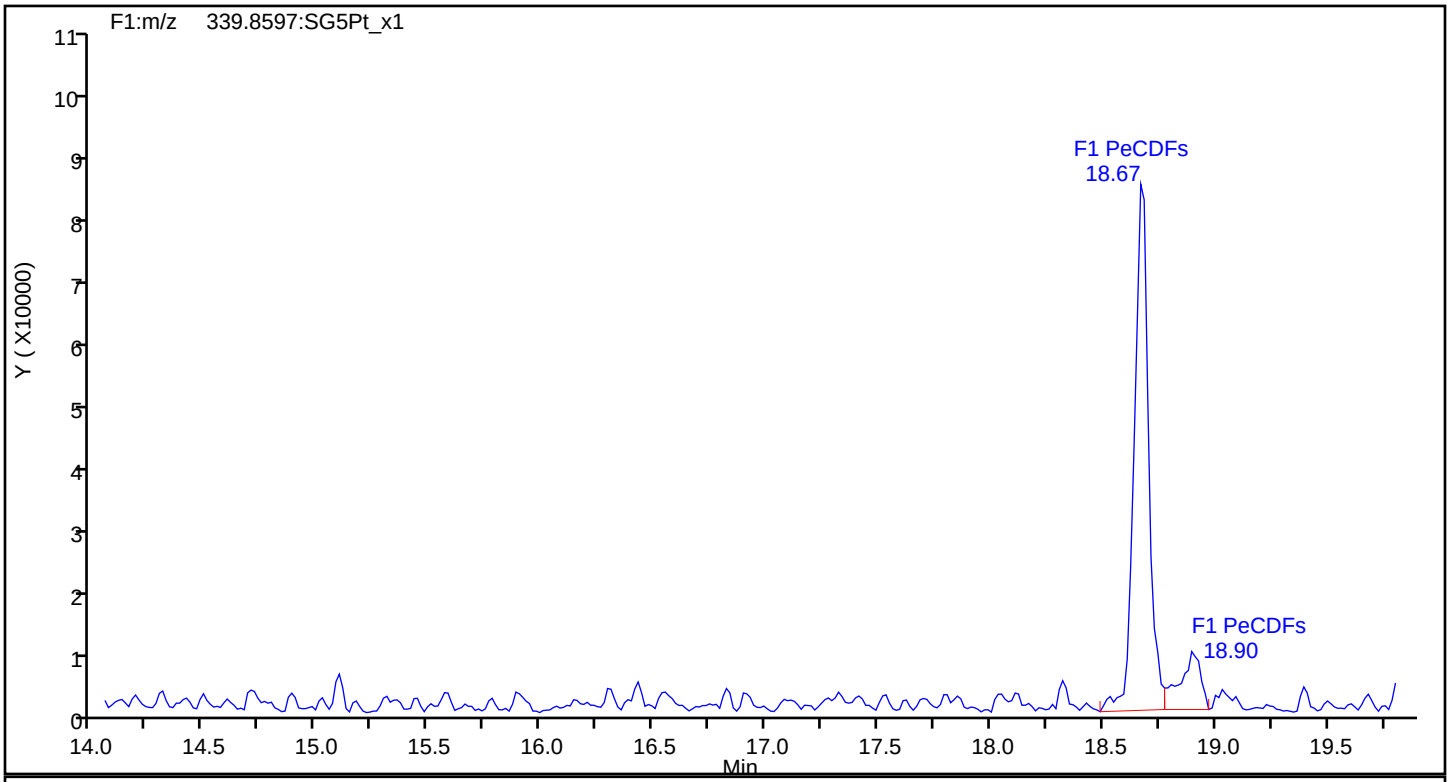


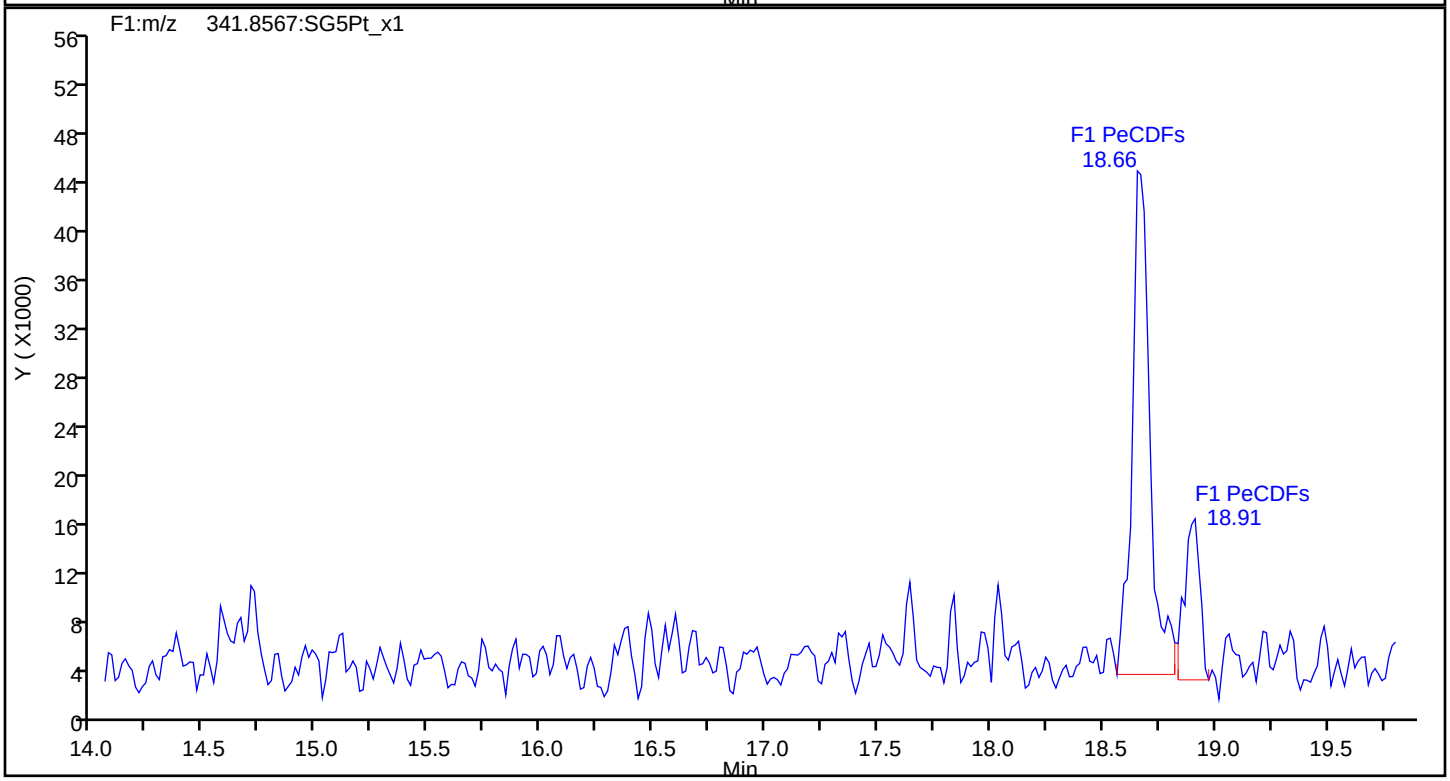
Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



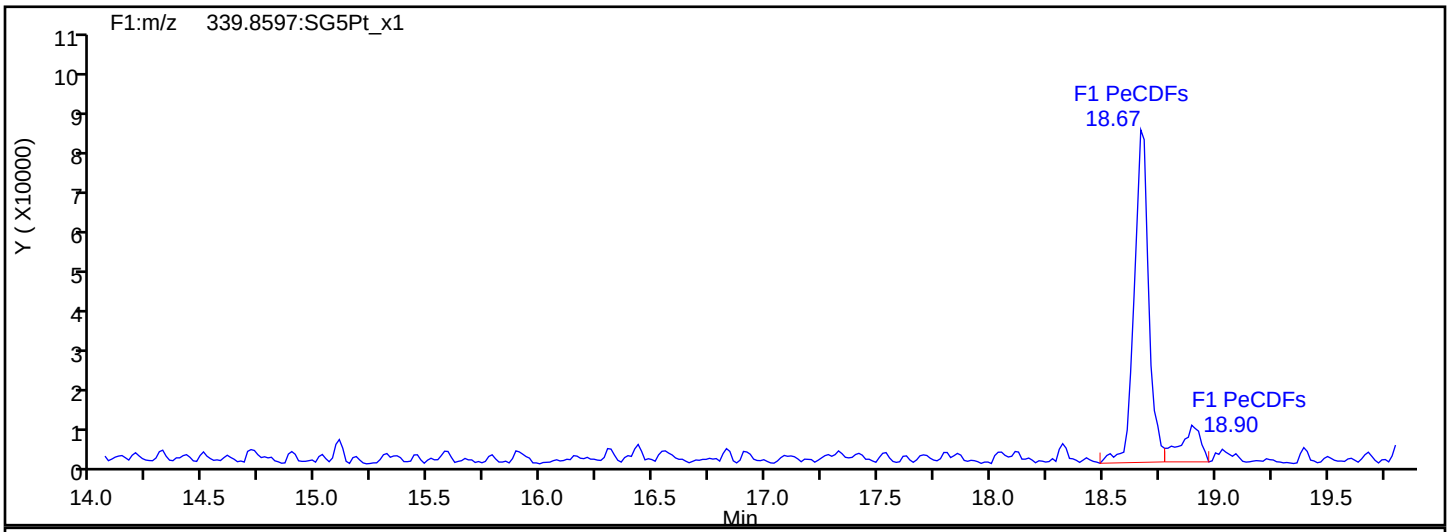


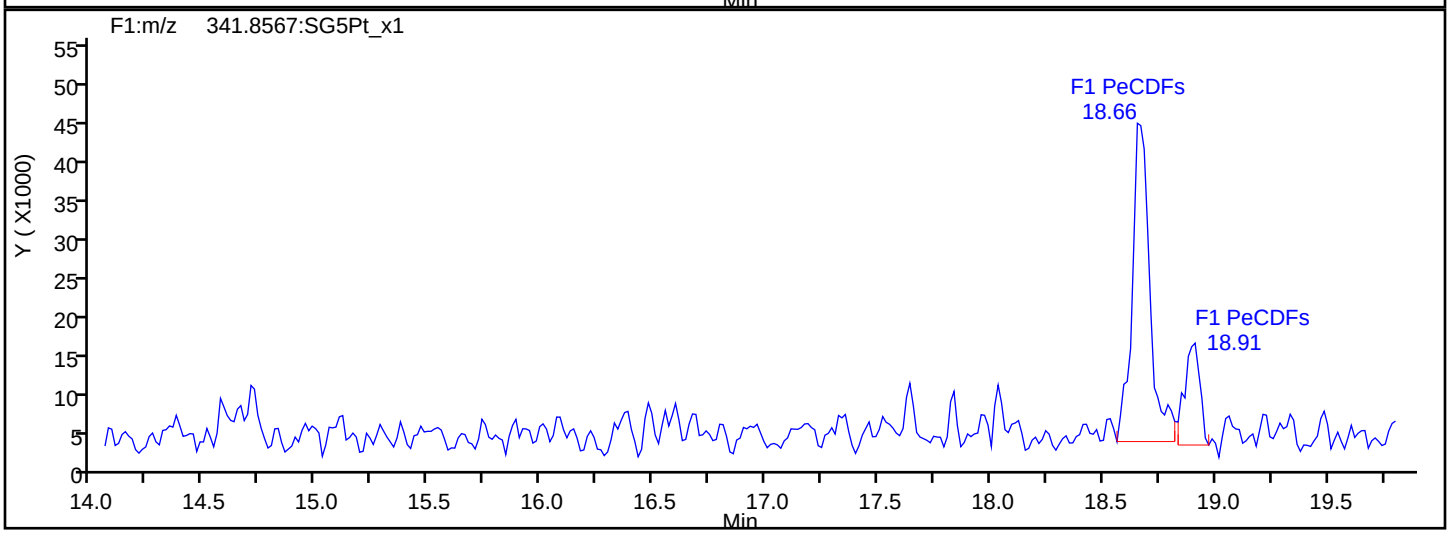
Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

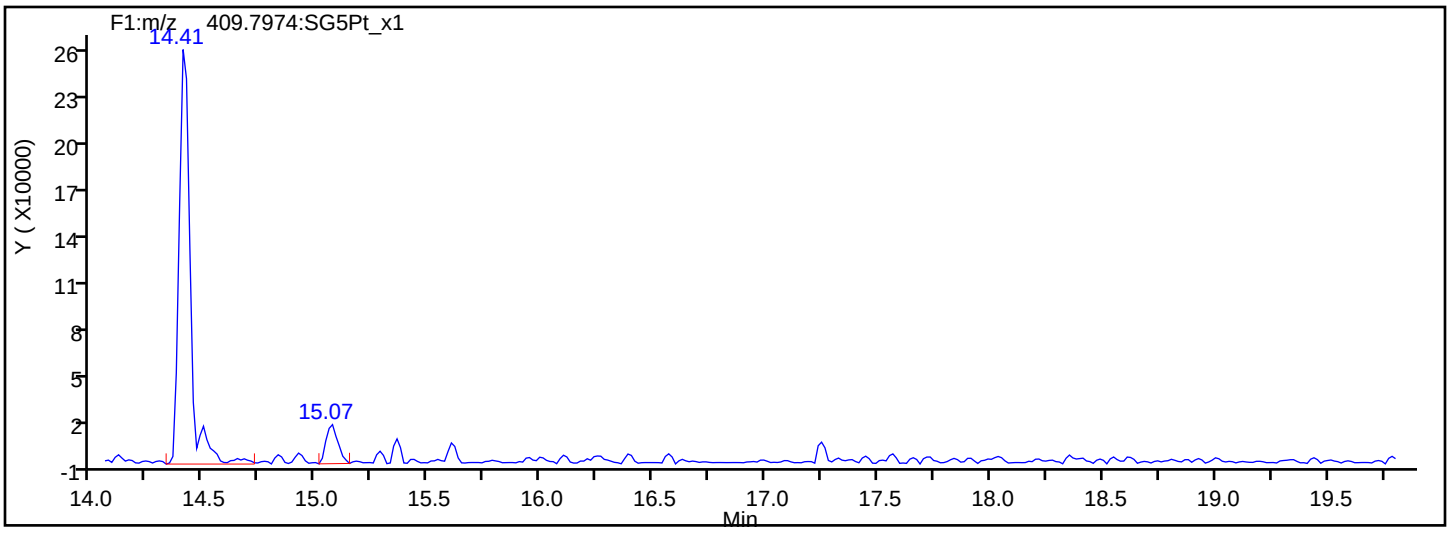
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

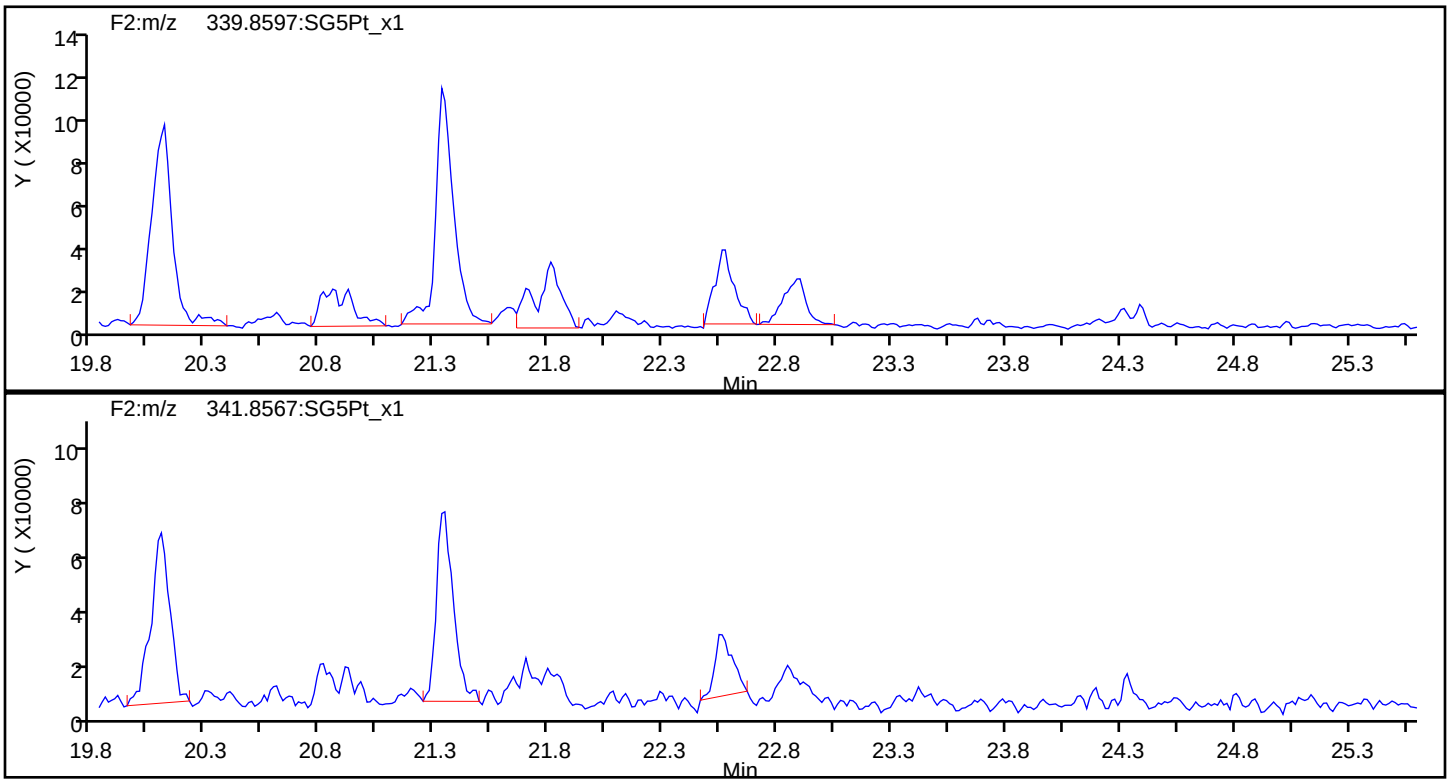


Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

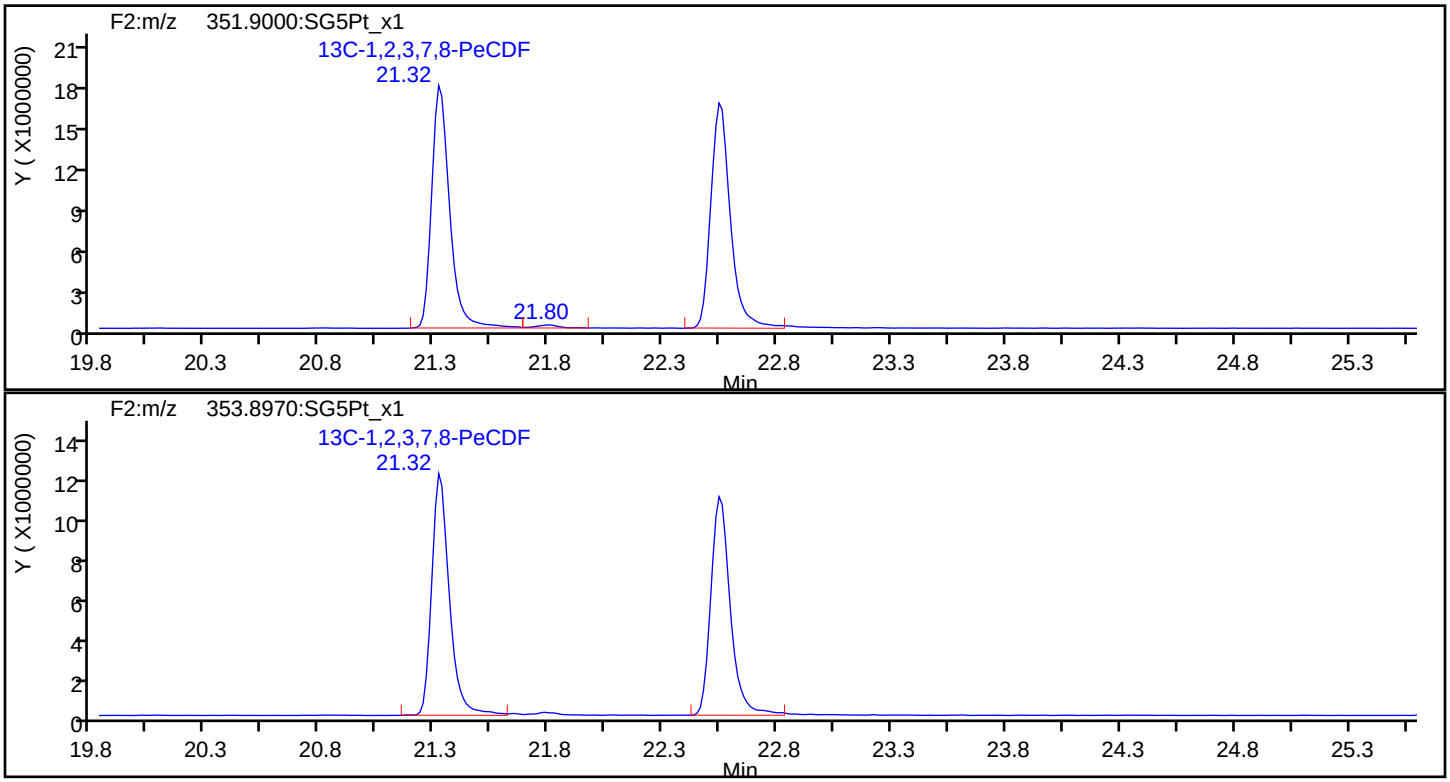
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

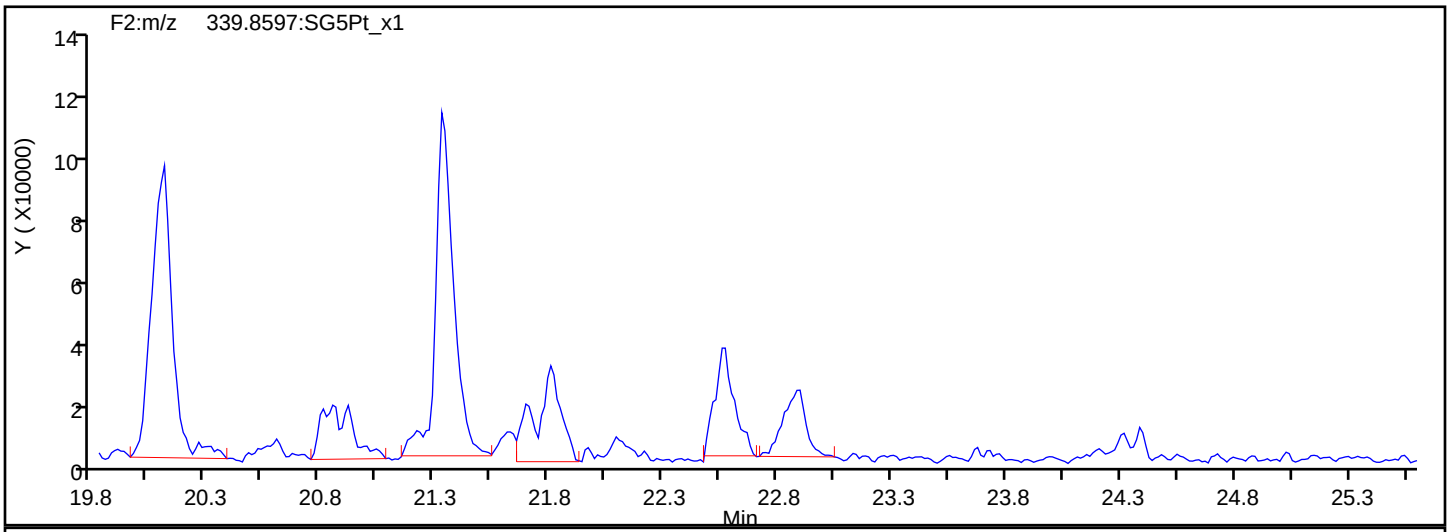


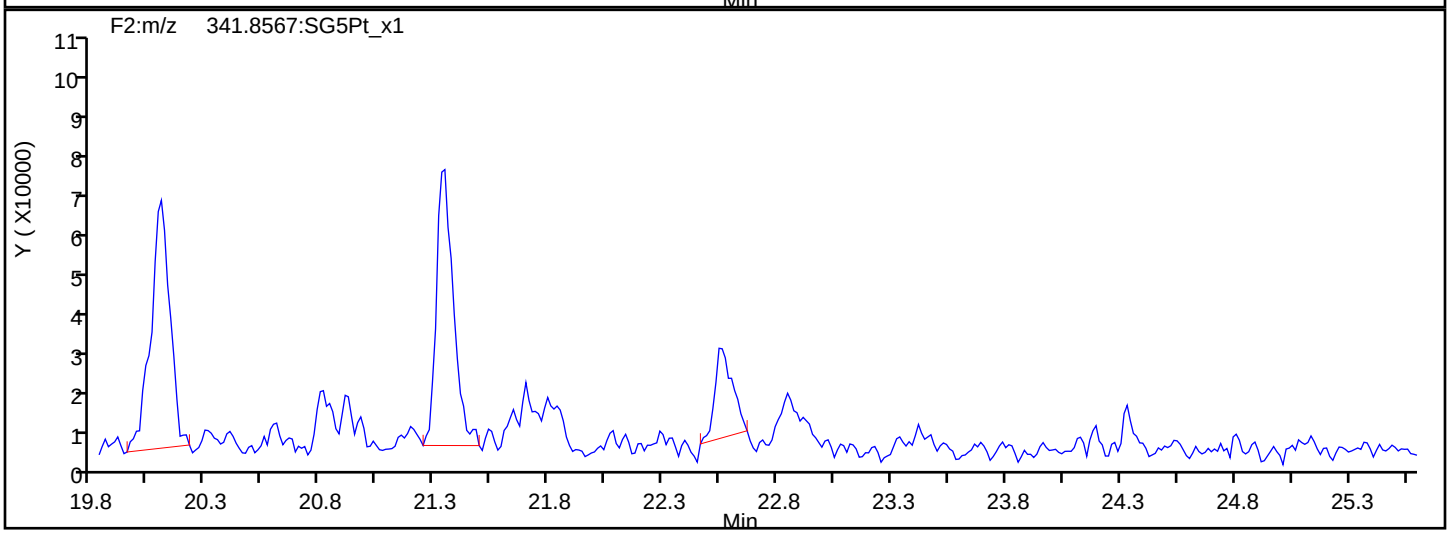
Report Date: 23-Jul-2019 12:18:07 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

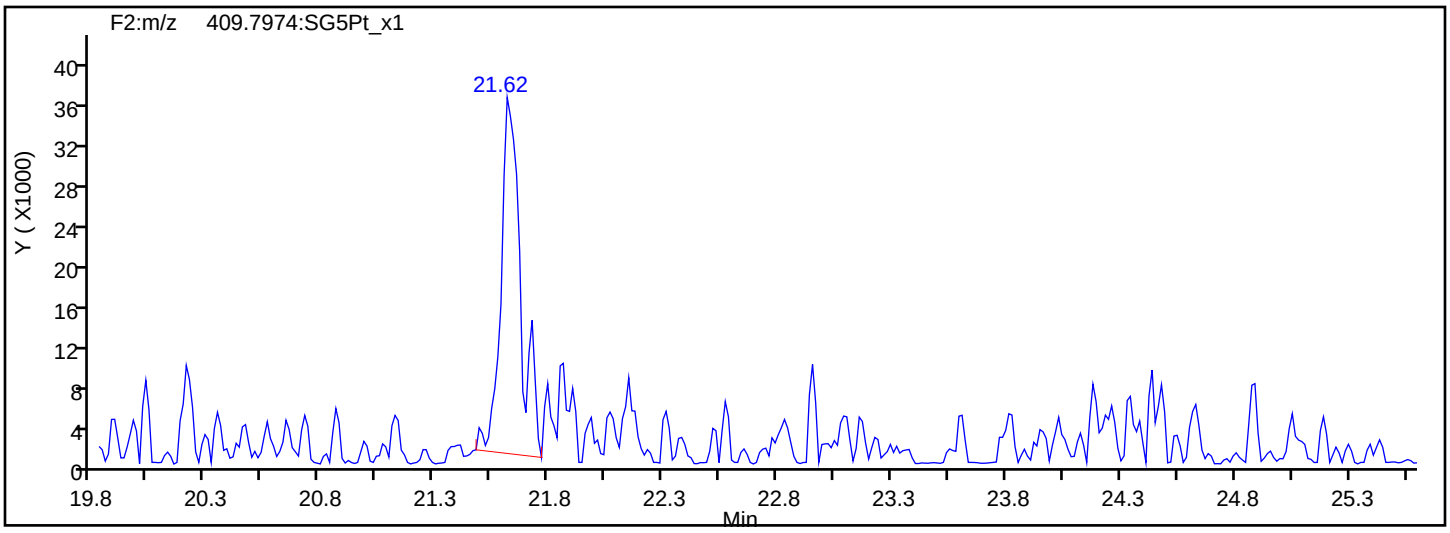
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

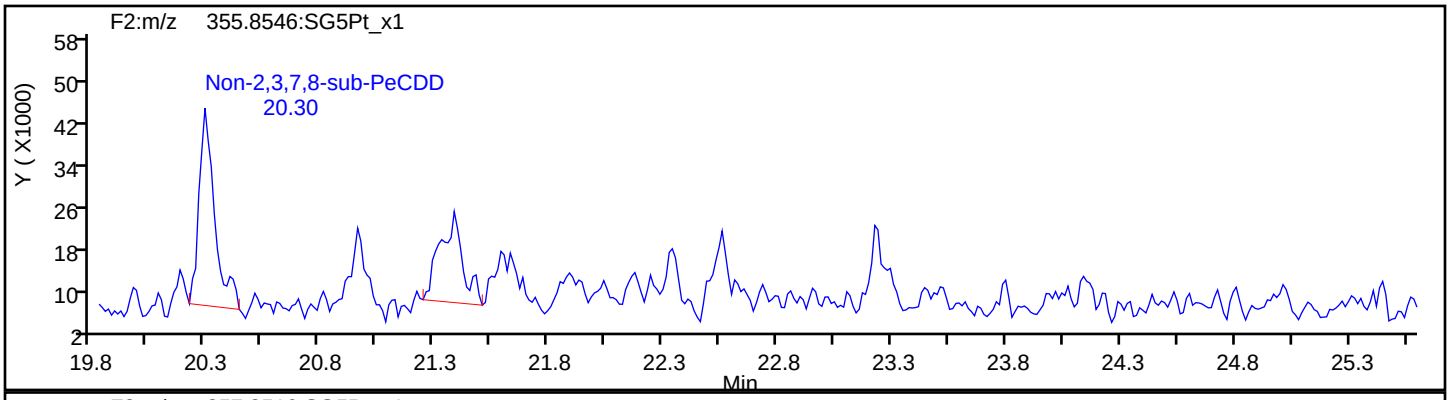


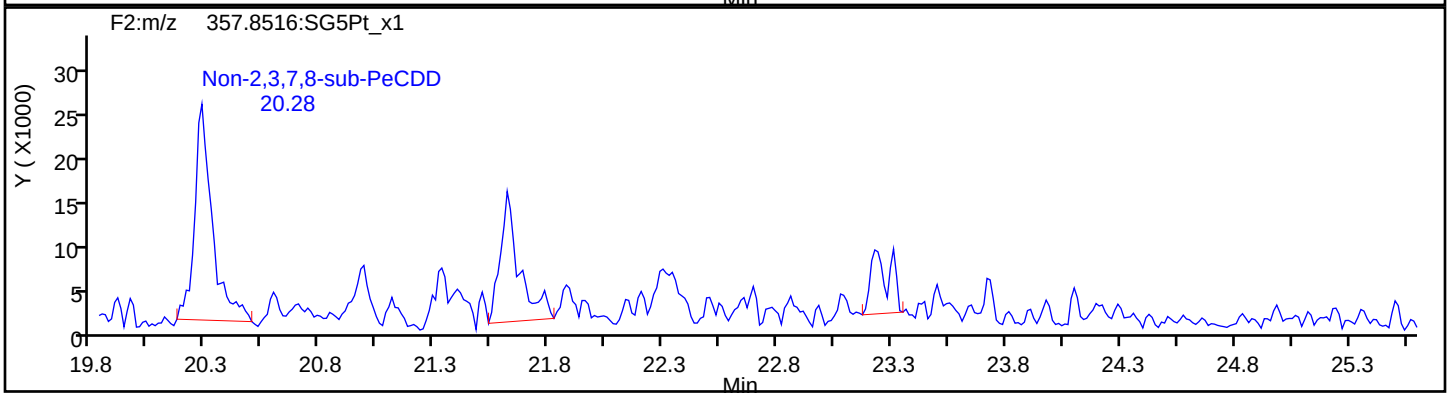
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

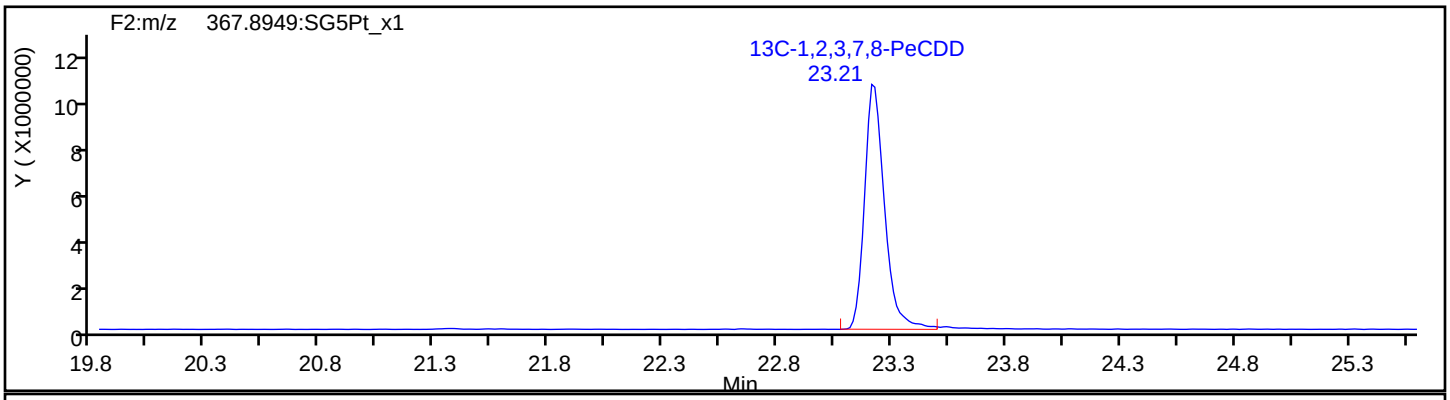
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

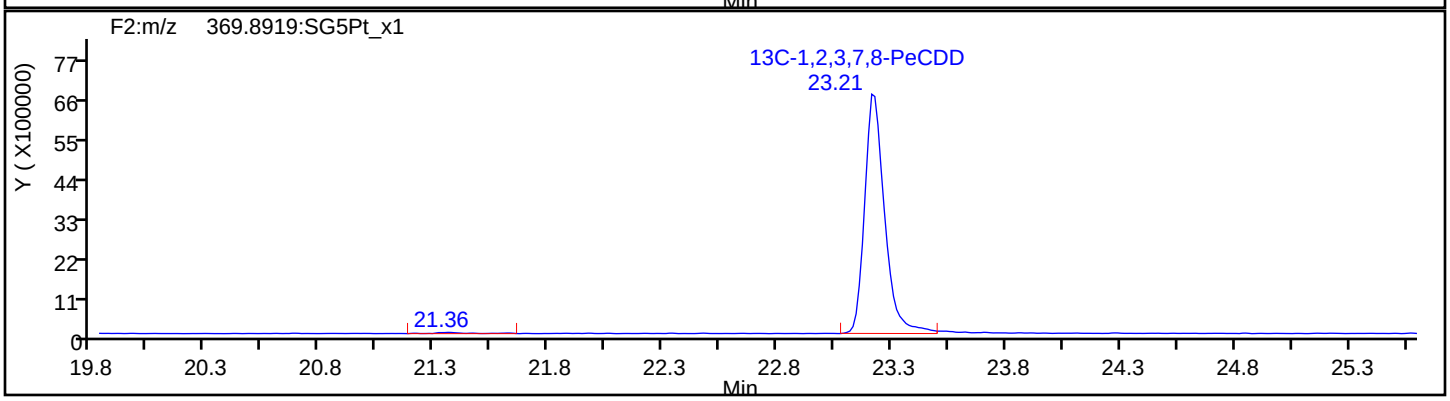
PeCDD





PeCDD Standards



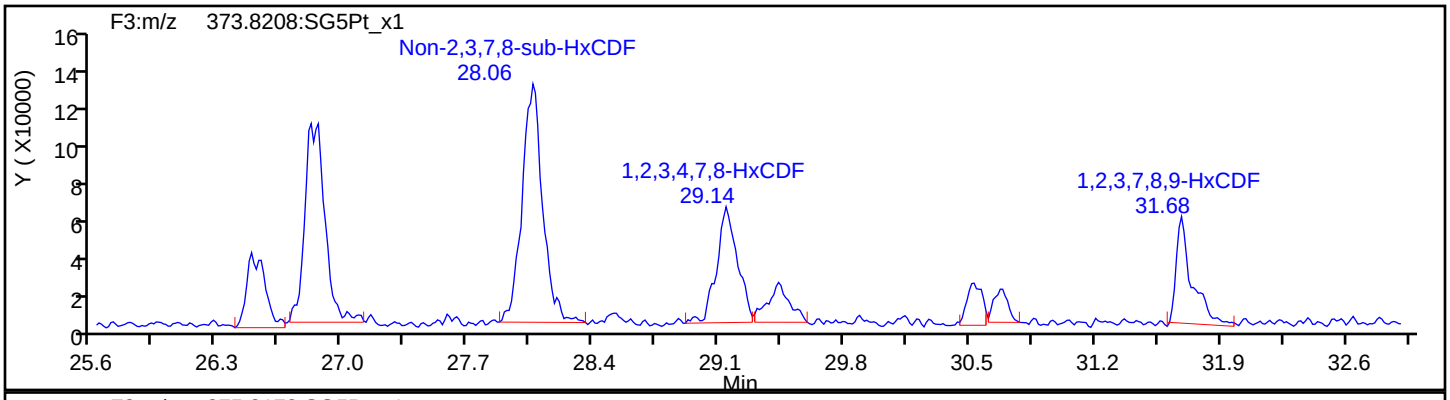


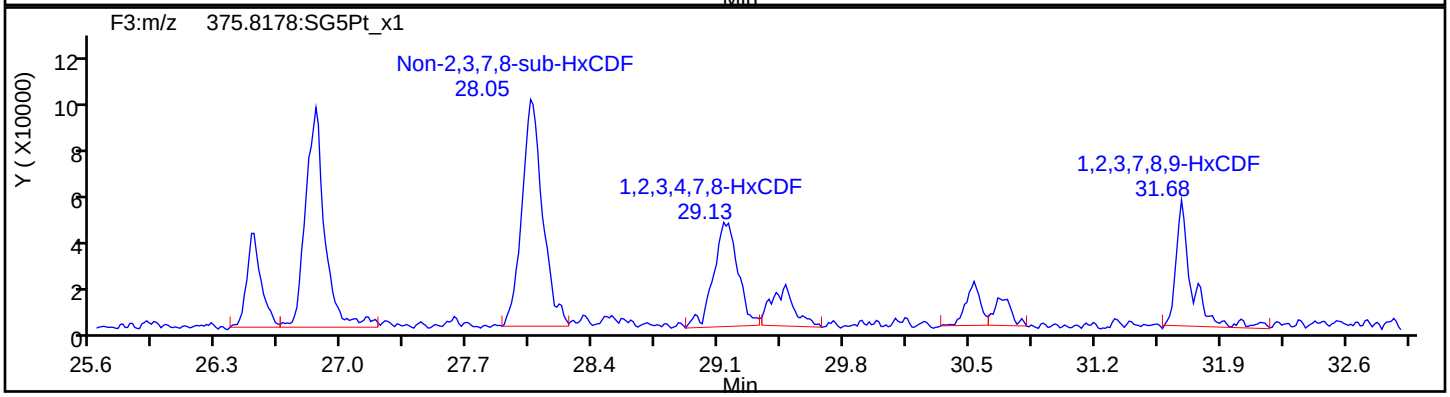
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

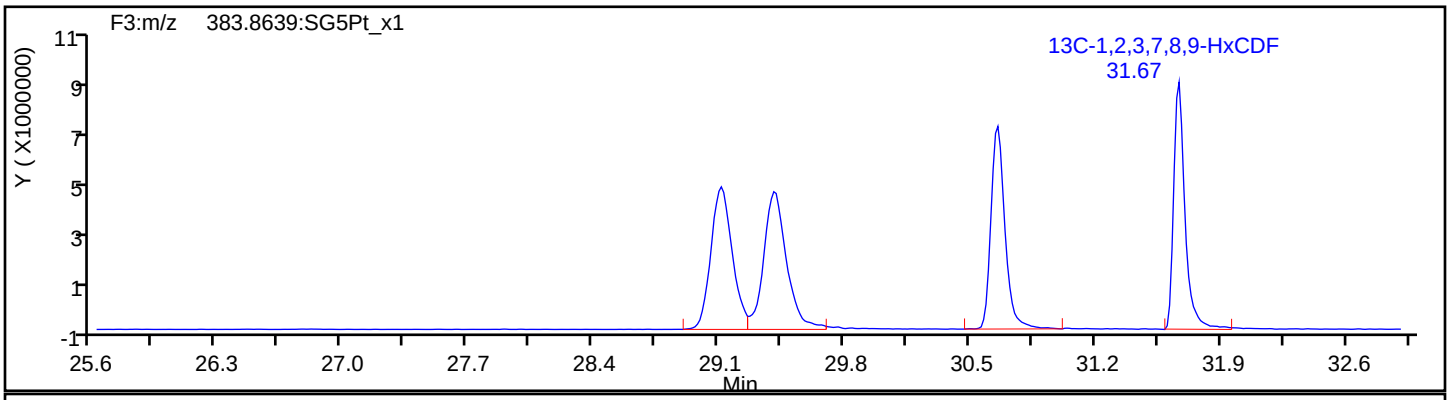
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

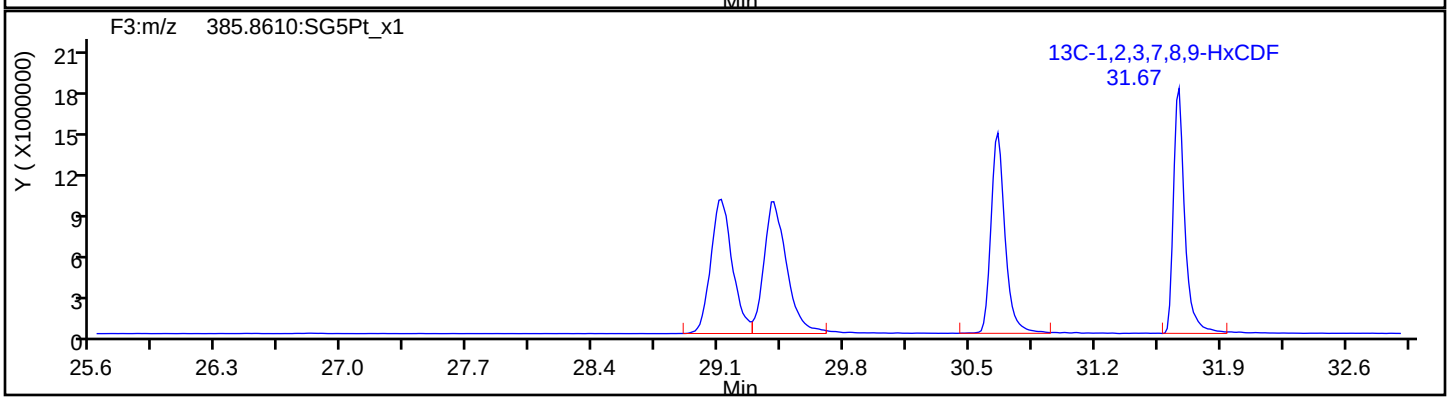
HxCDF





HxCDF Standards



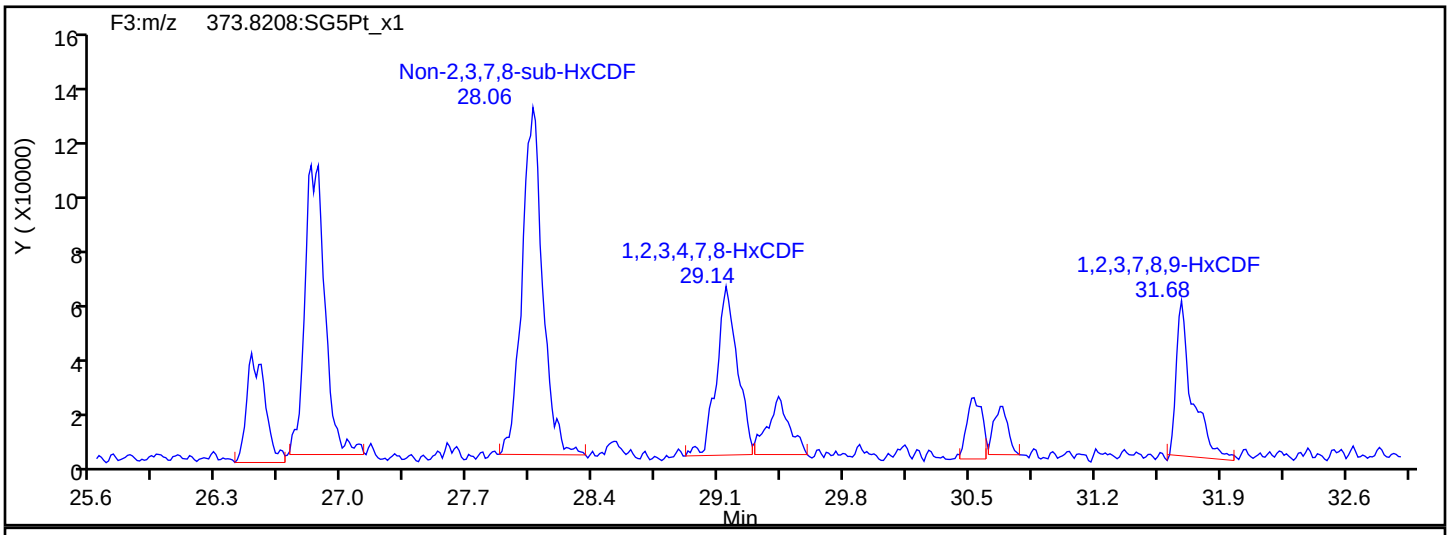


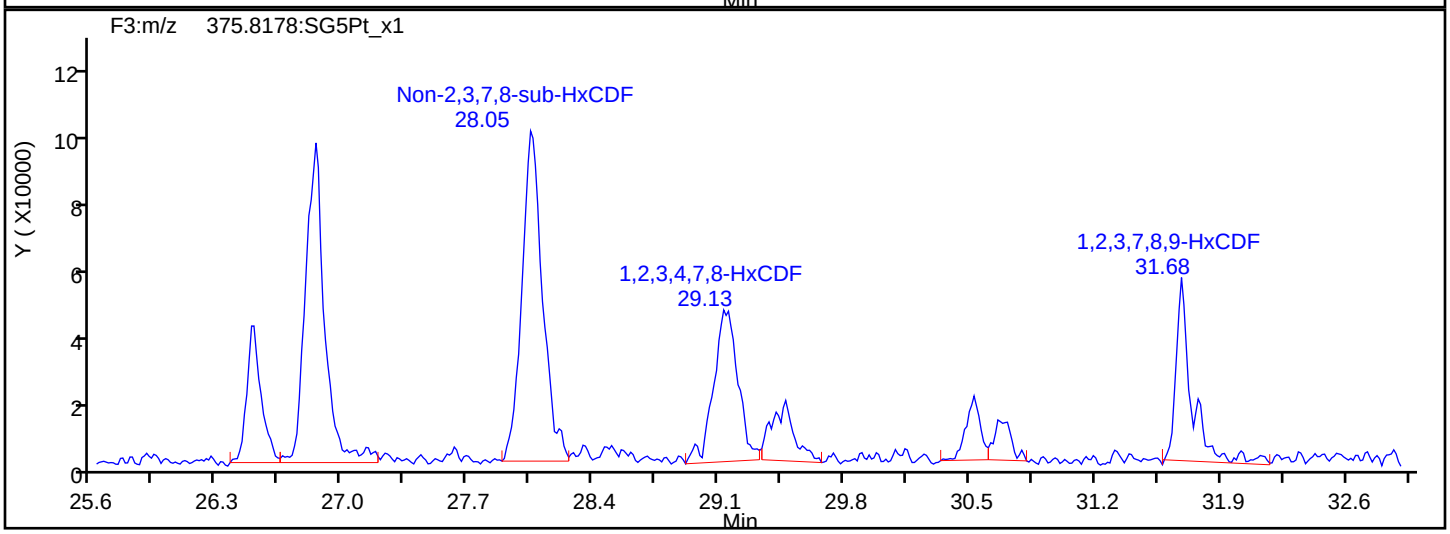
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

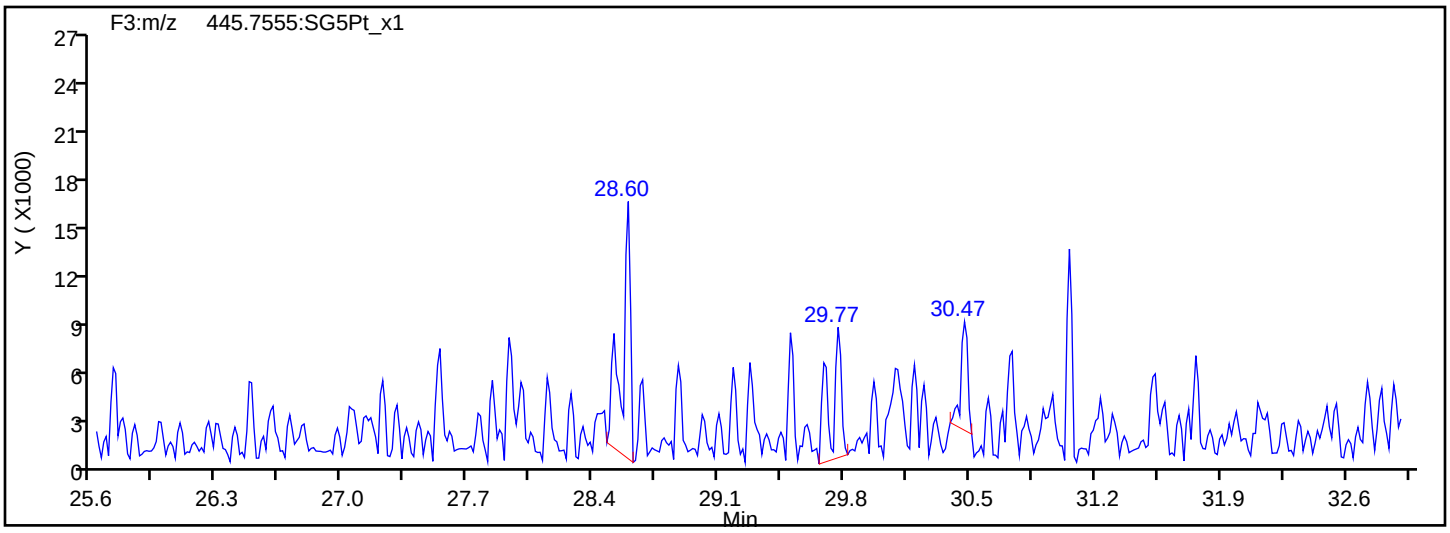
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

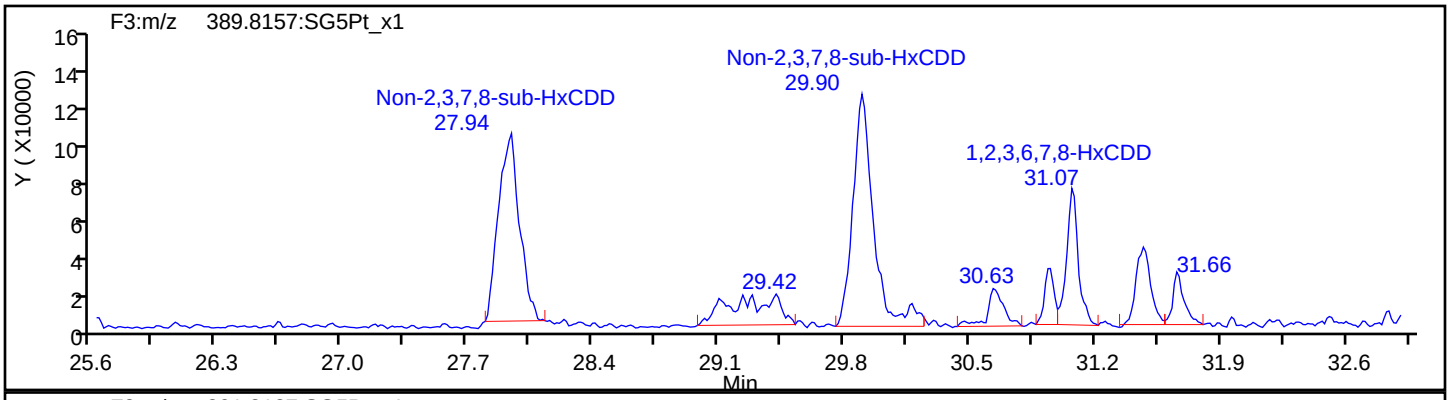


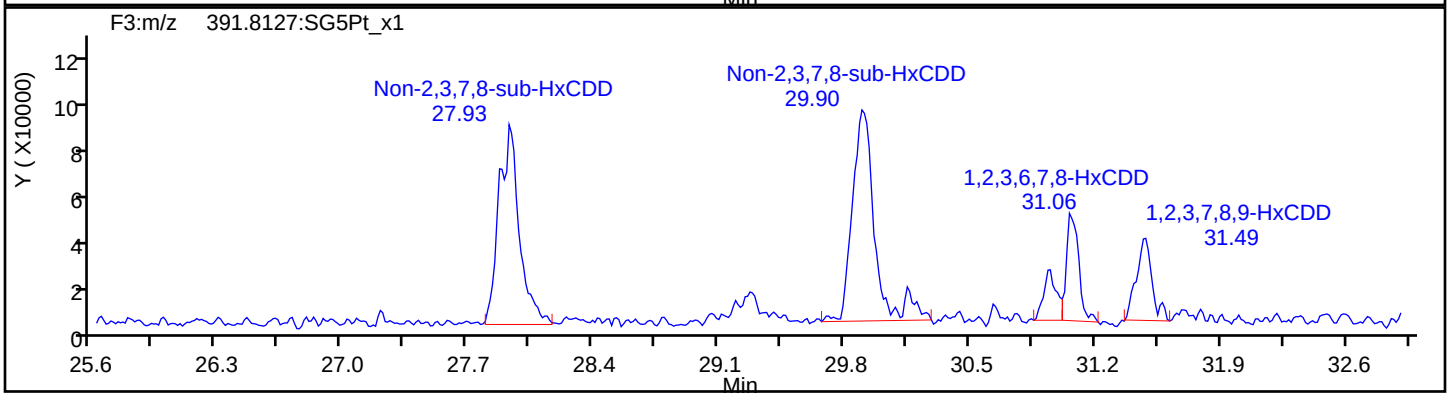
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

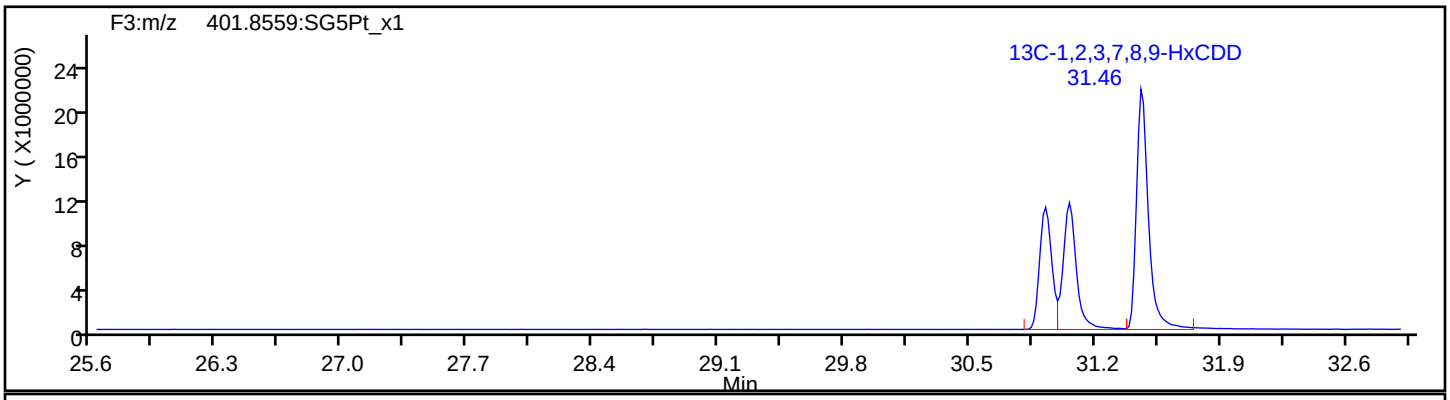
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

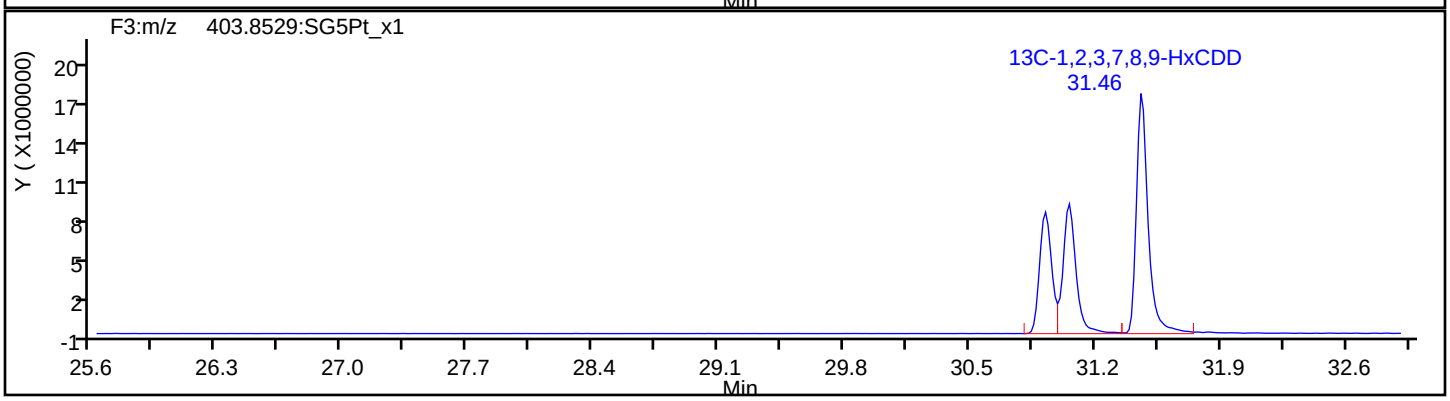
HxCDD





HxCDD Standards





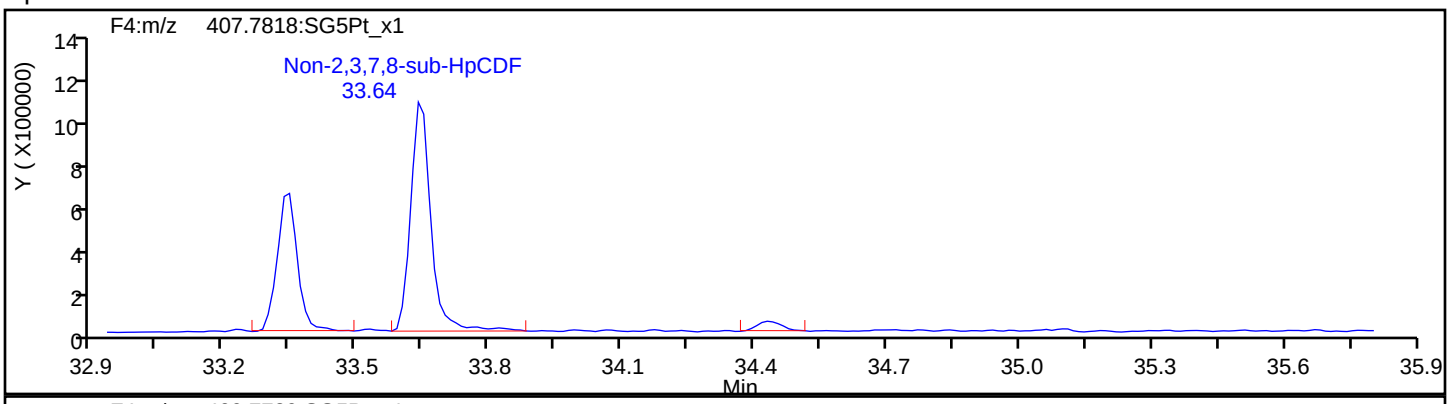
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

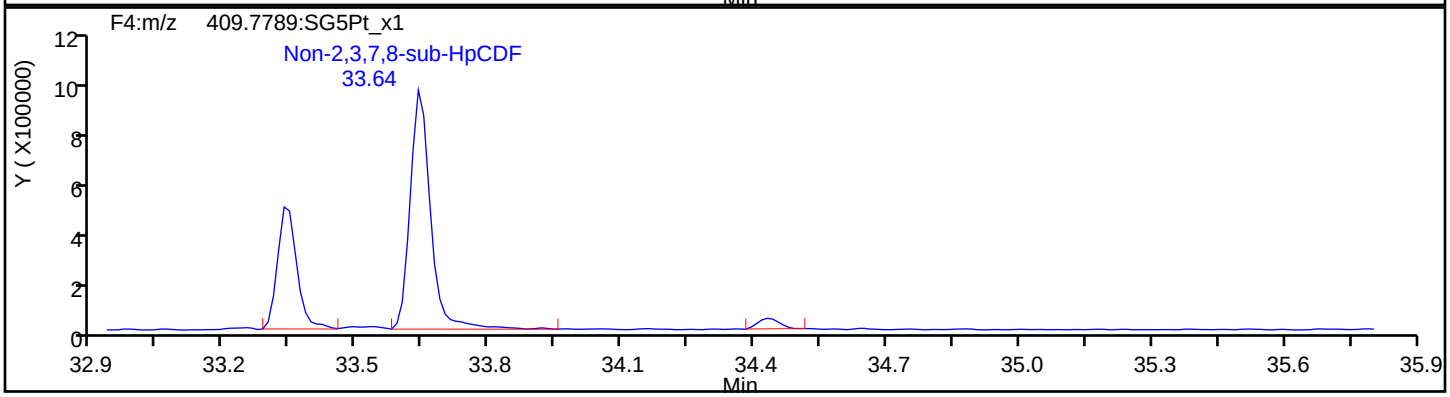
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d

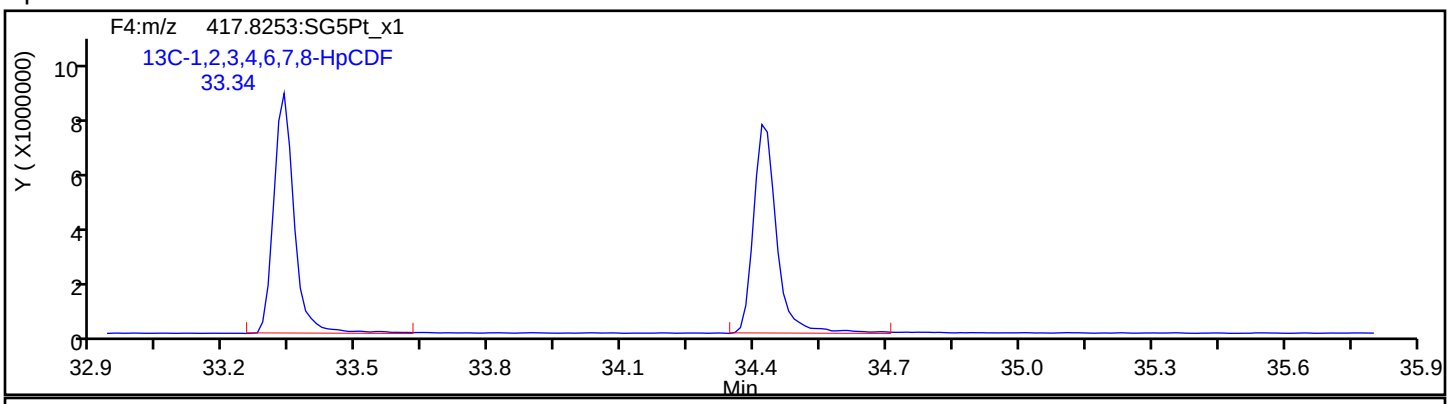
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

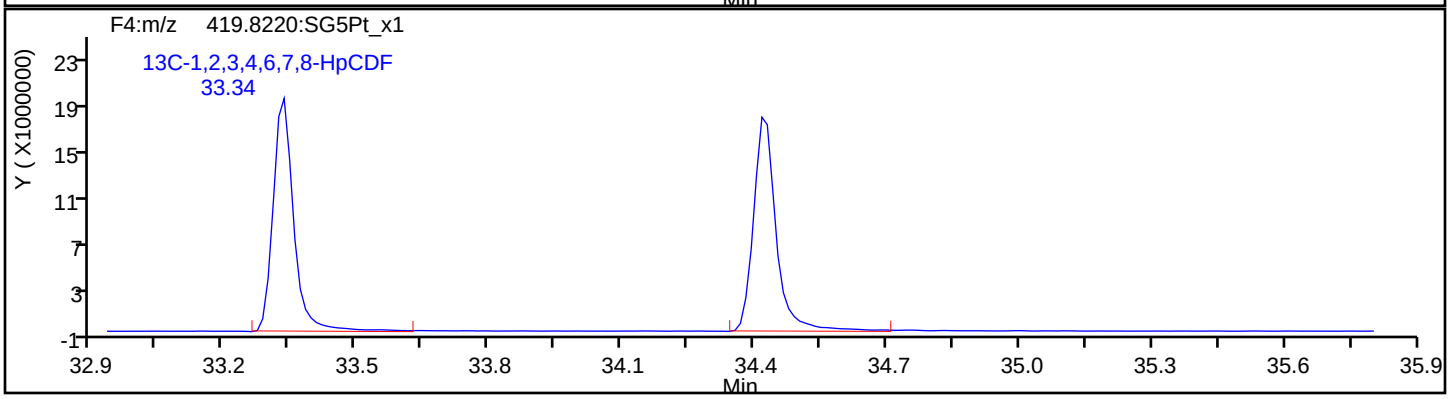
HpCDF





HpCDF Standards



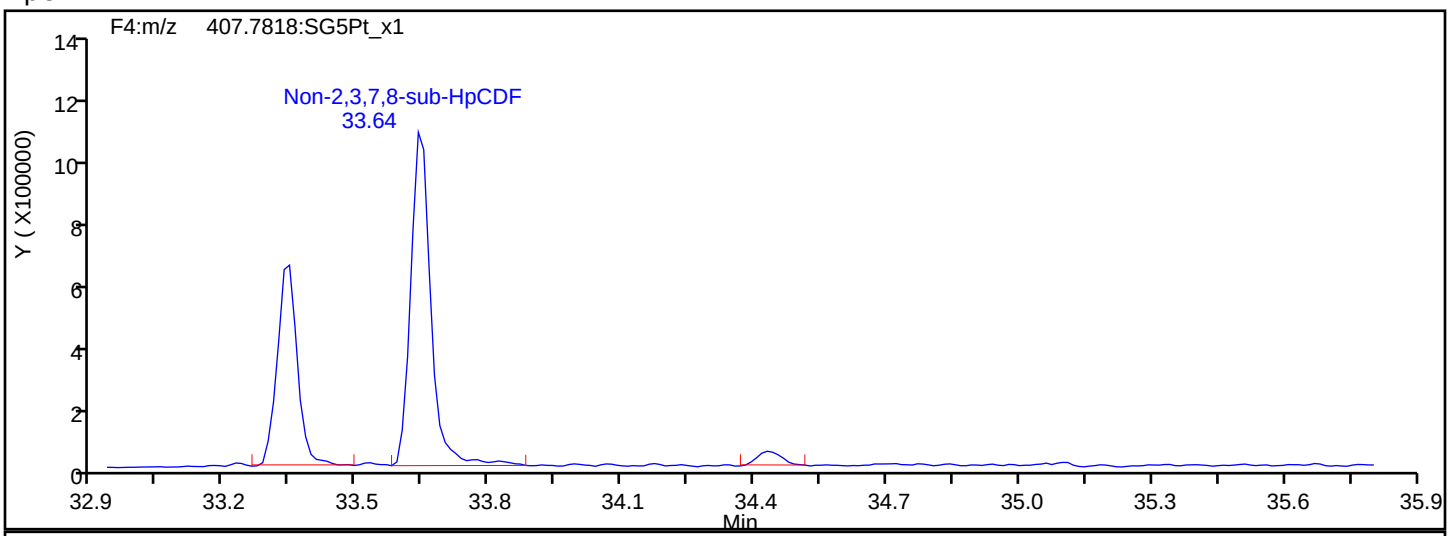


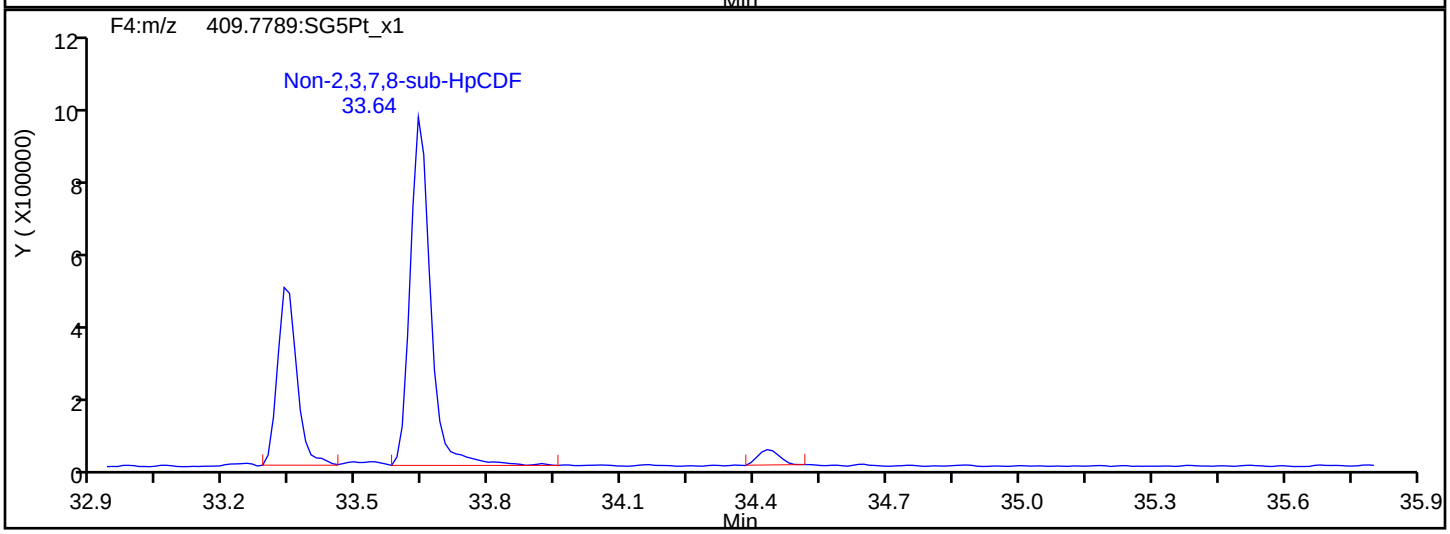
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

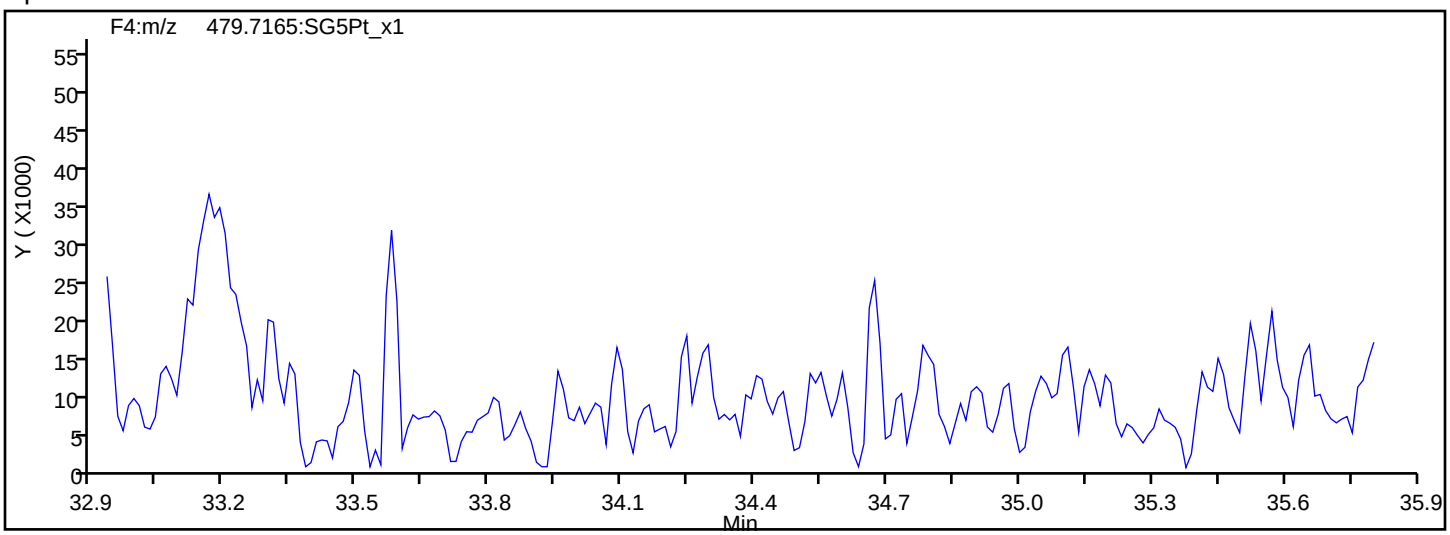
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

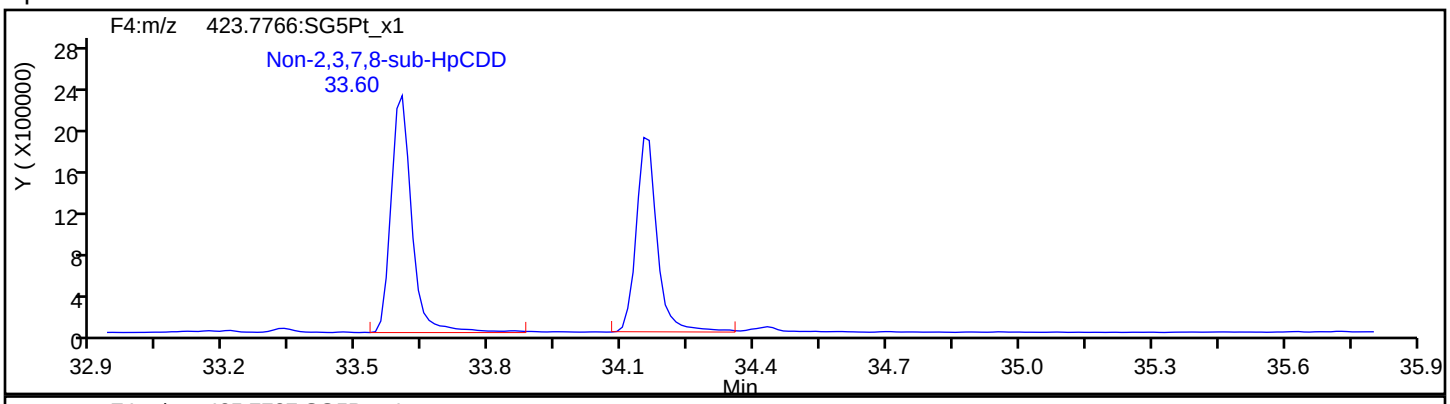


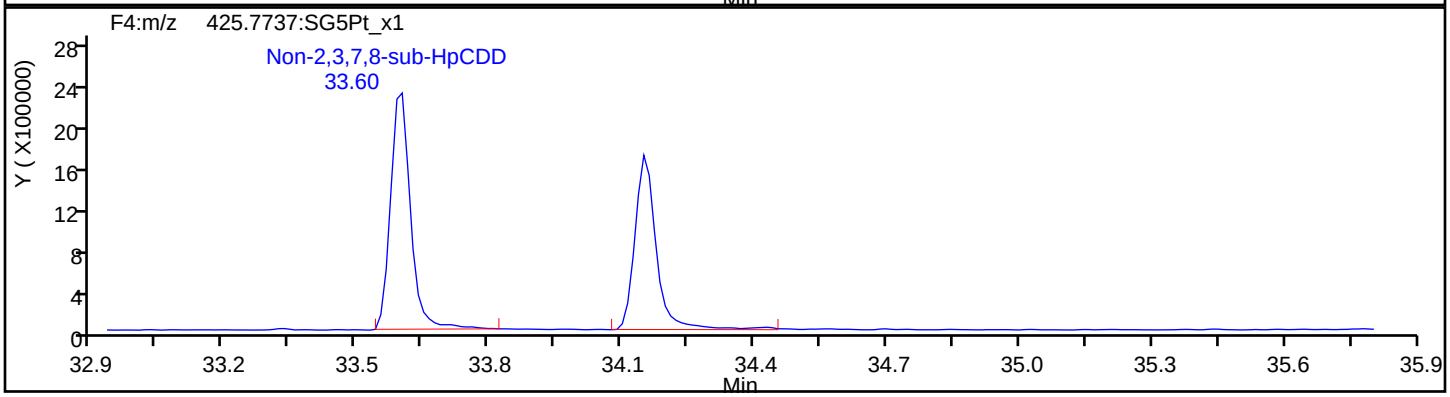
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

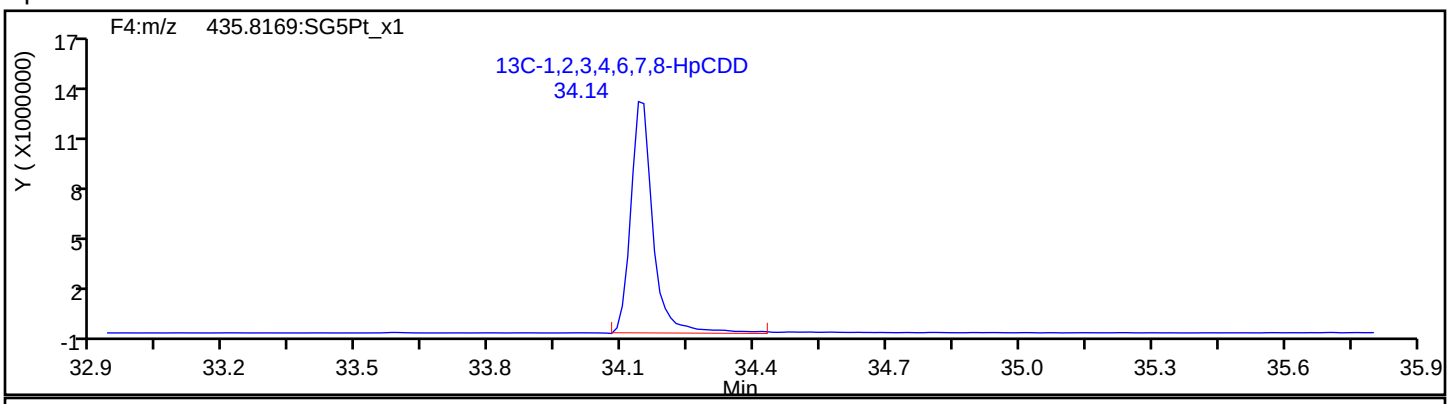
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

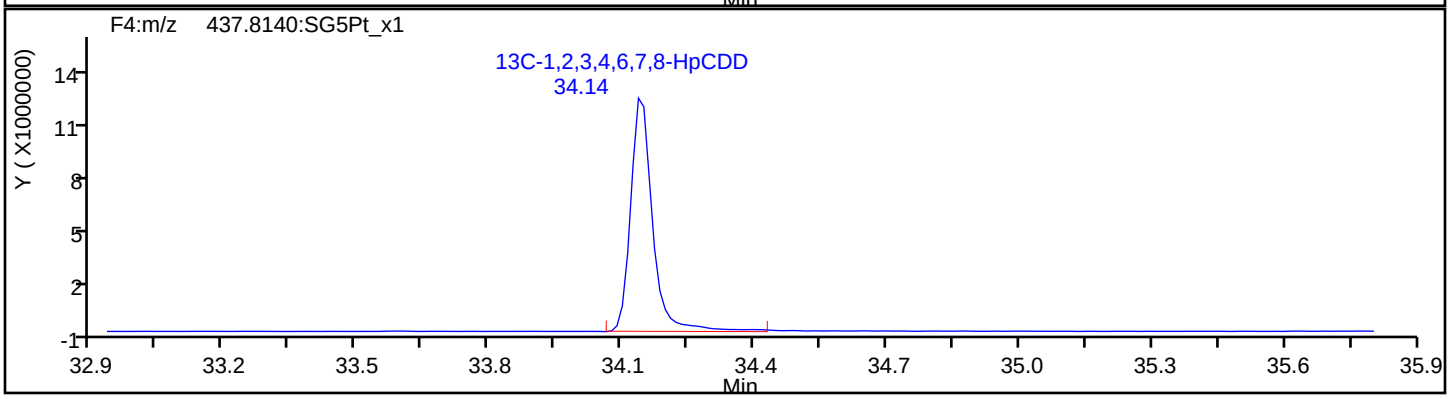
HpCDD





HpCDD Standards



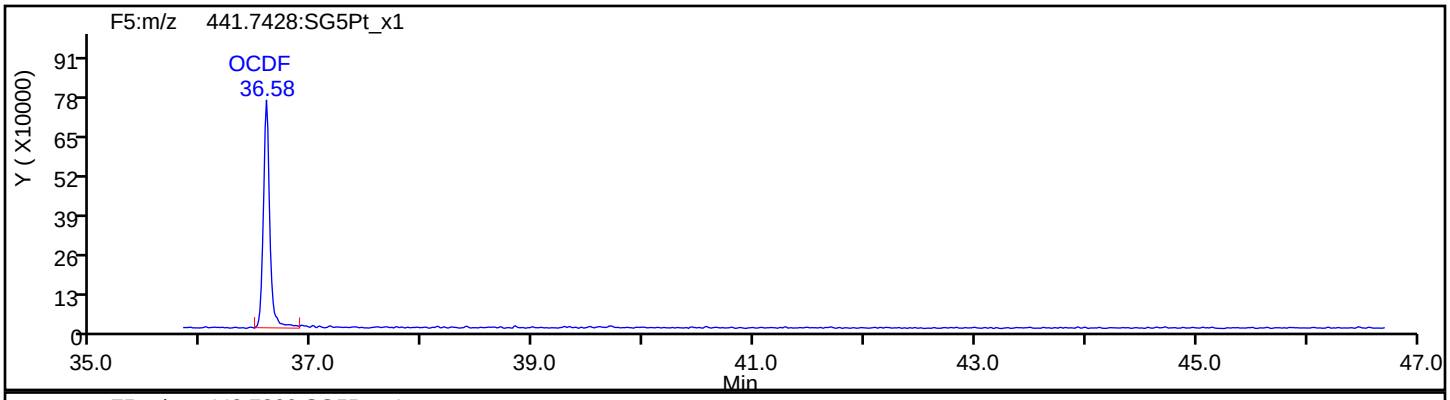


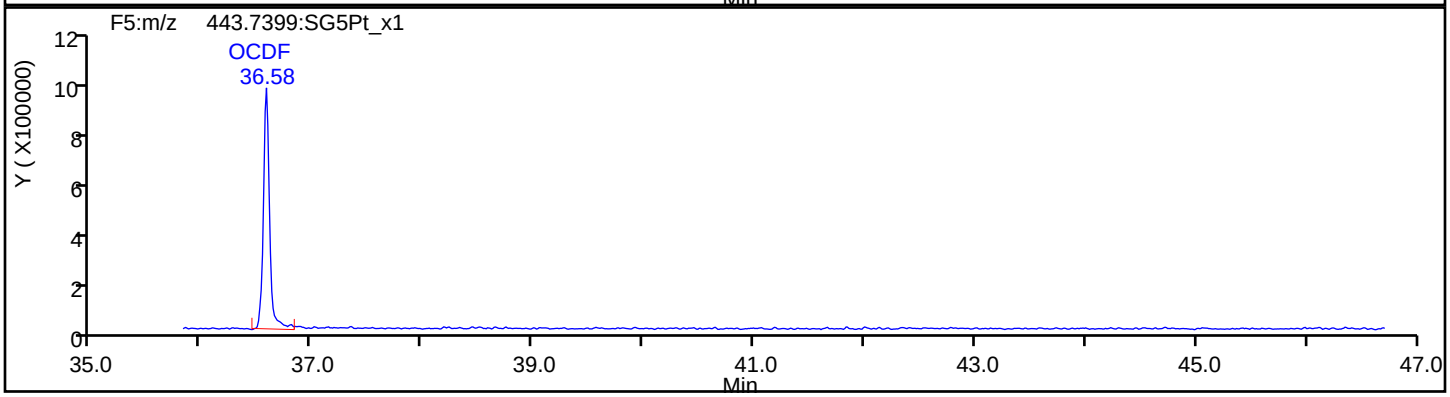
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

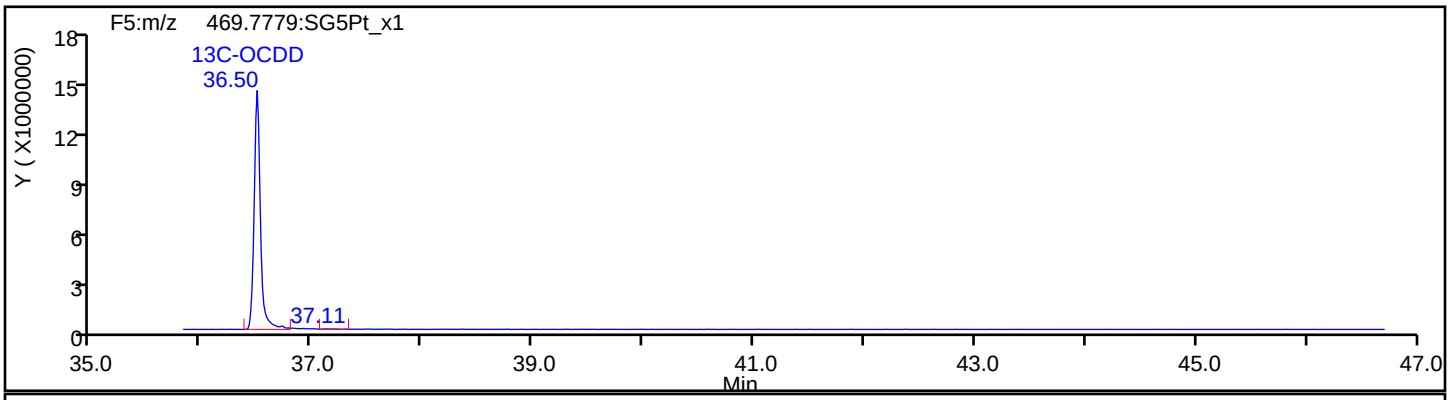
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

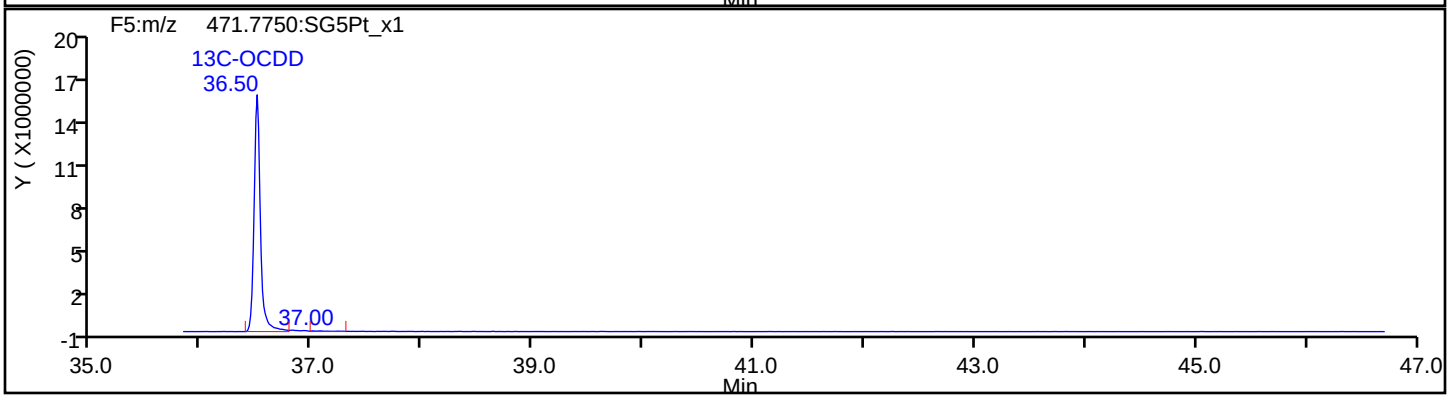
OCDF





OCDF Standards



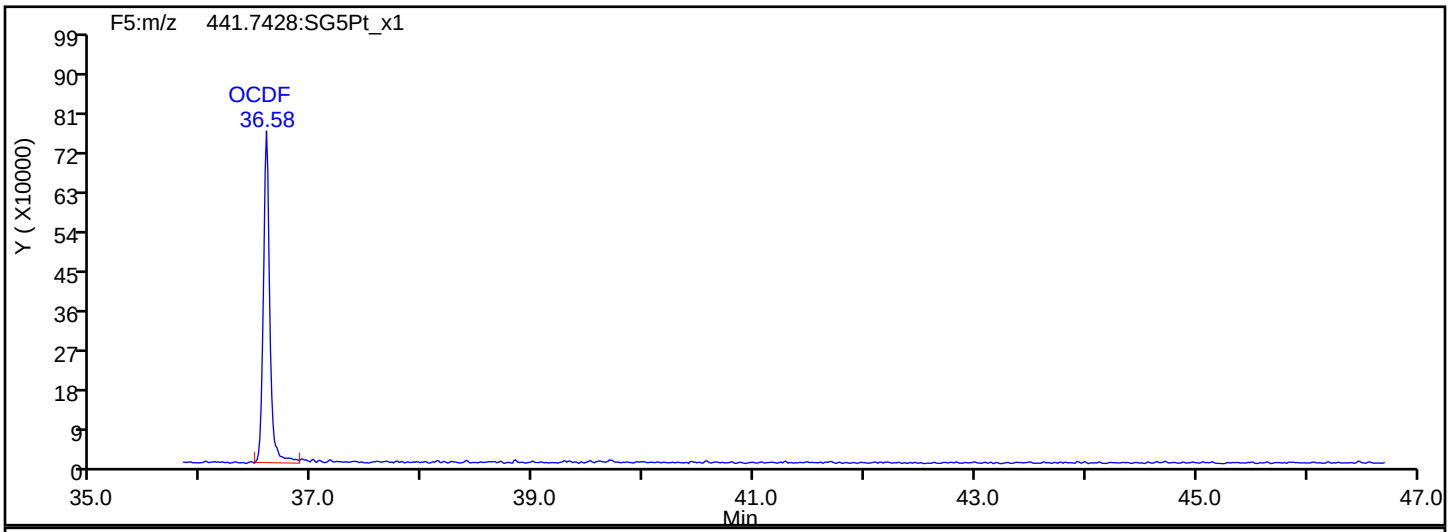


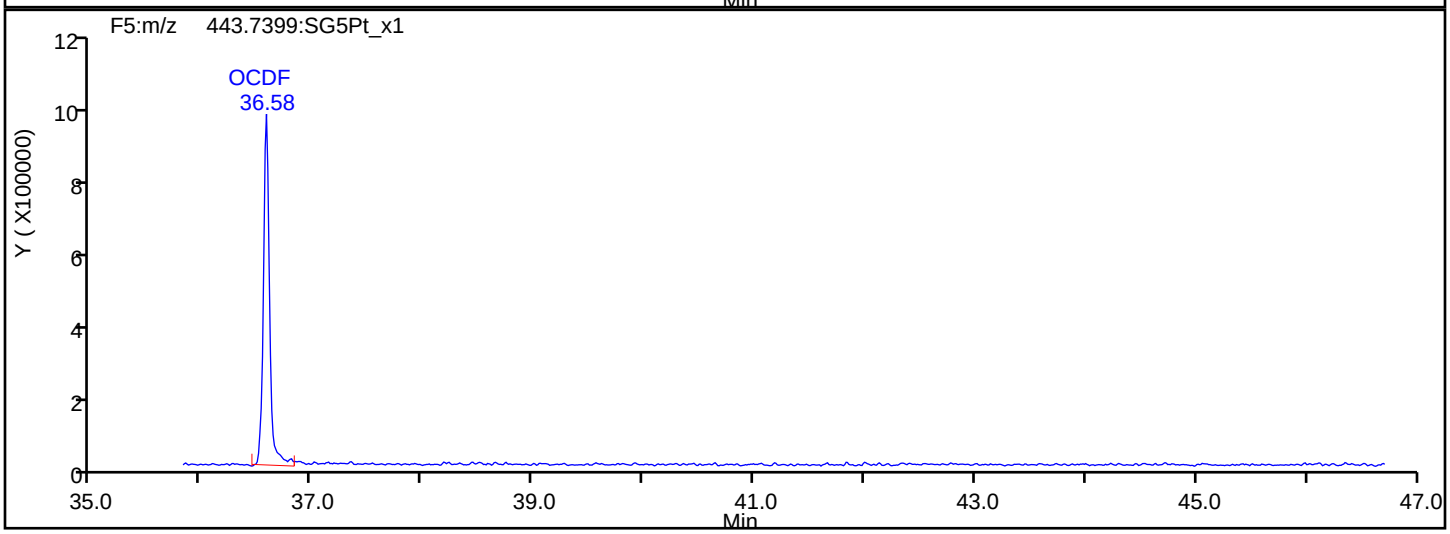
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

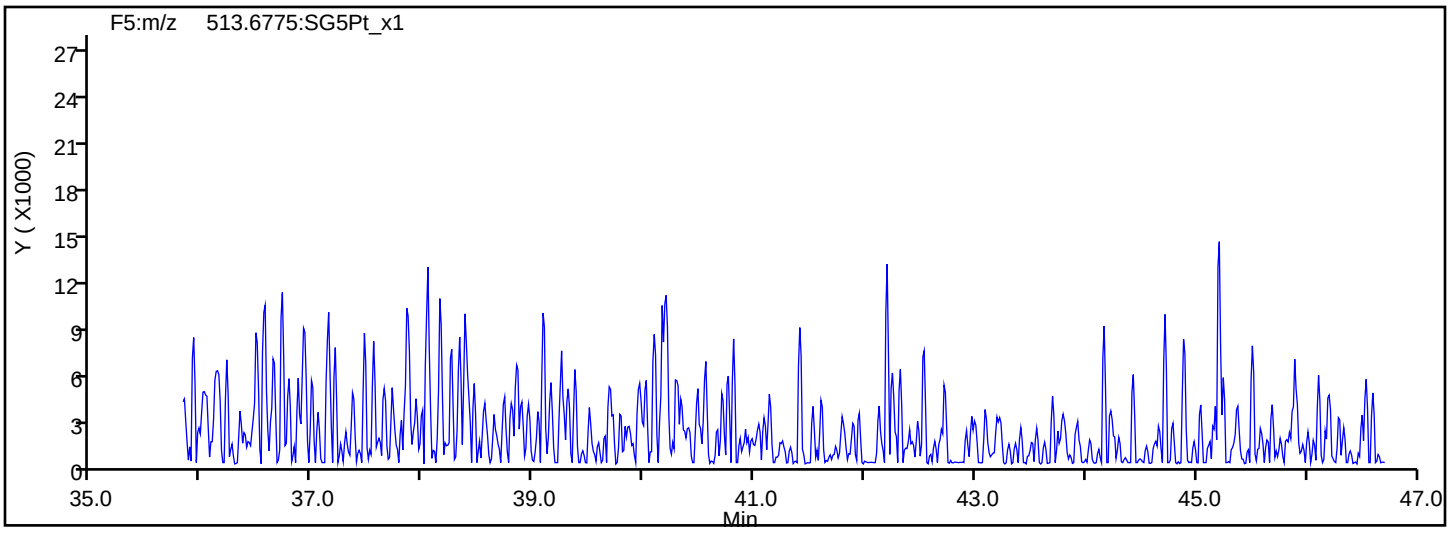
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

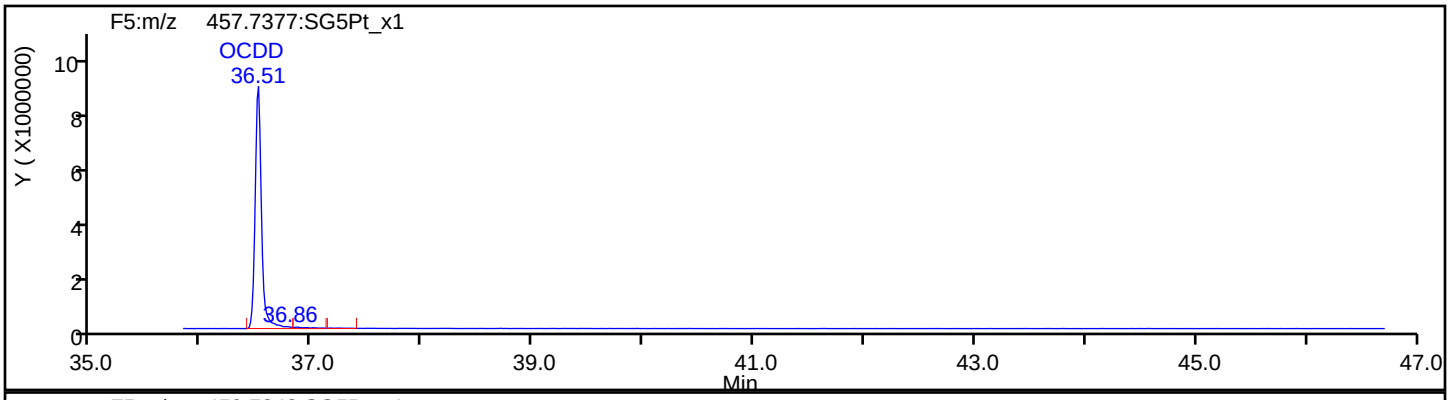


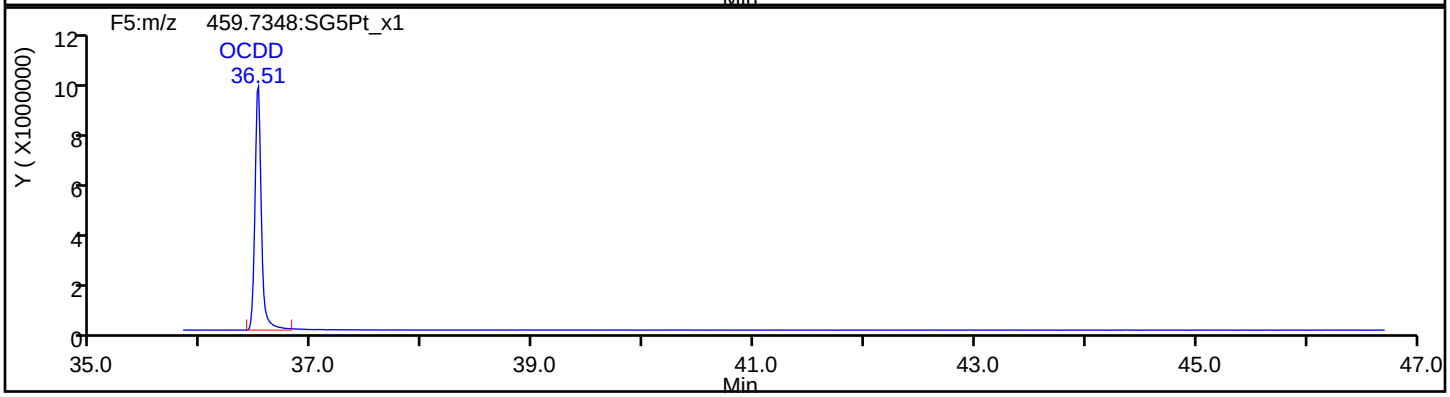
Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

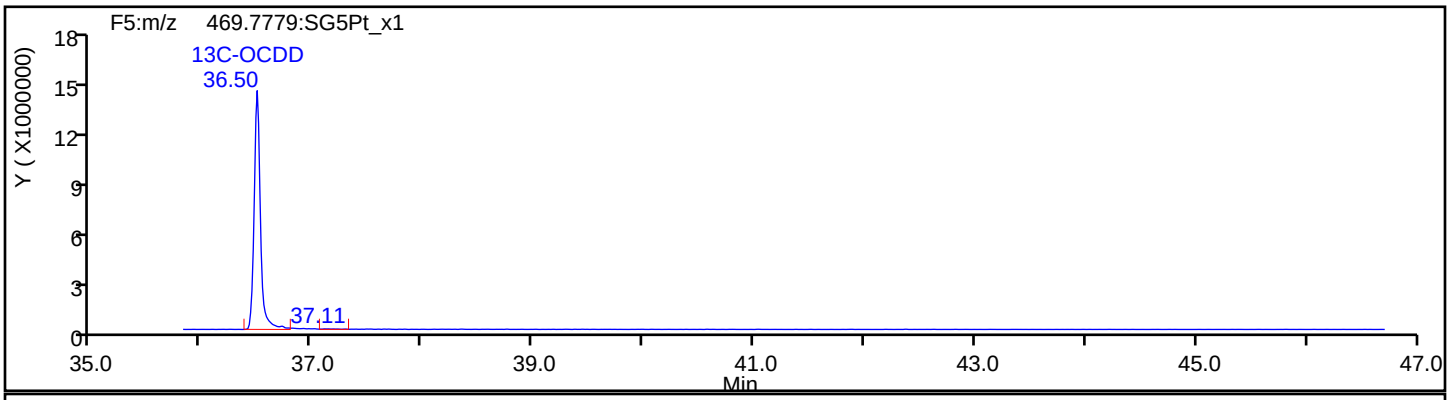
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm

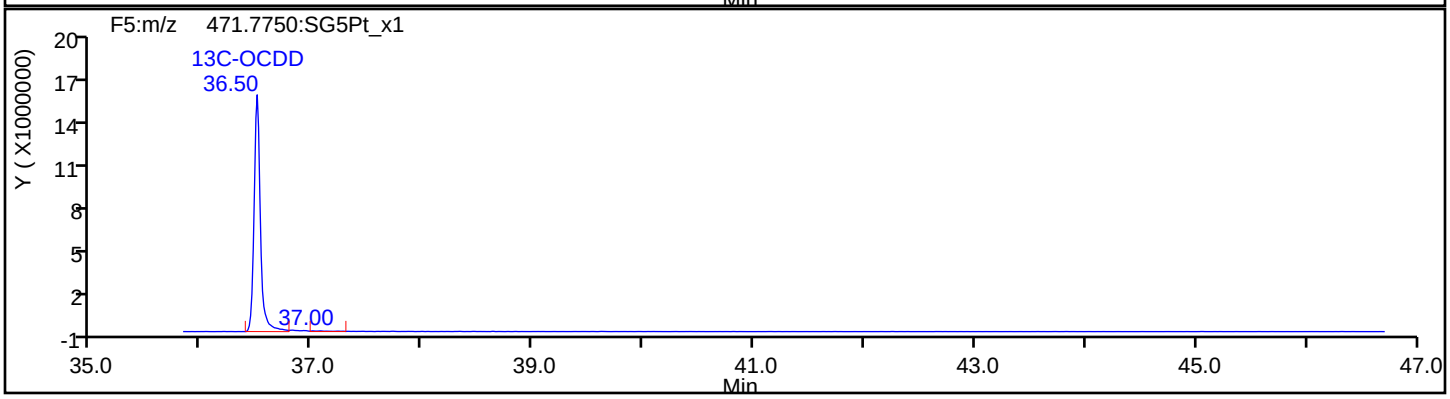
OCDD





OCDD Standards

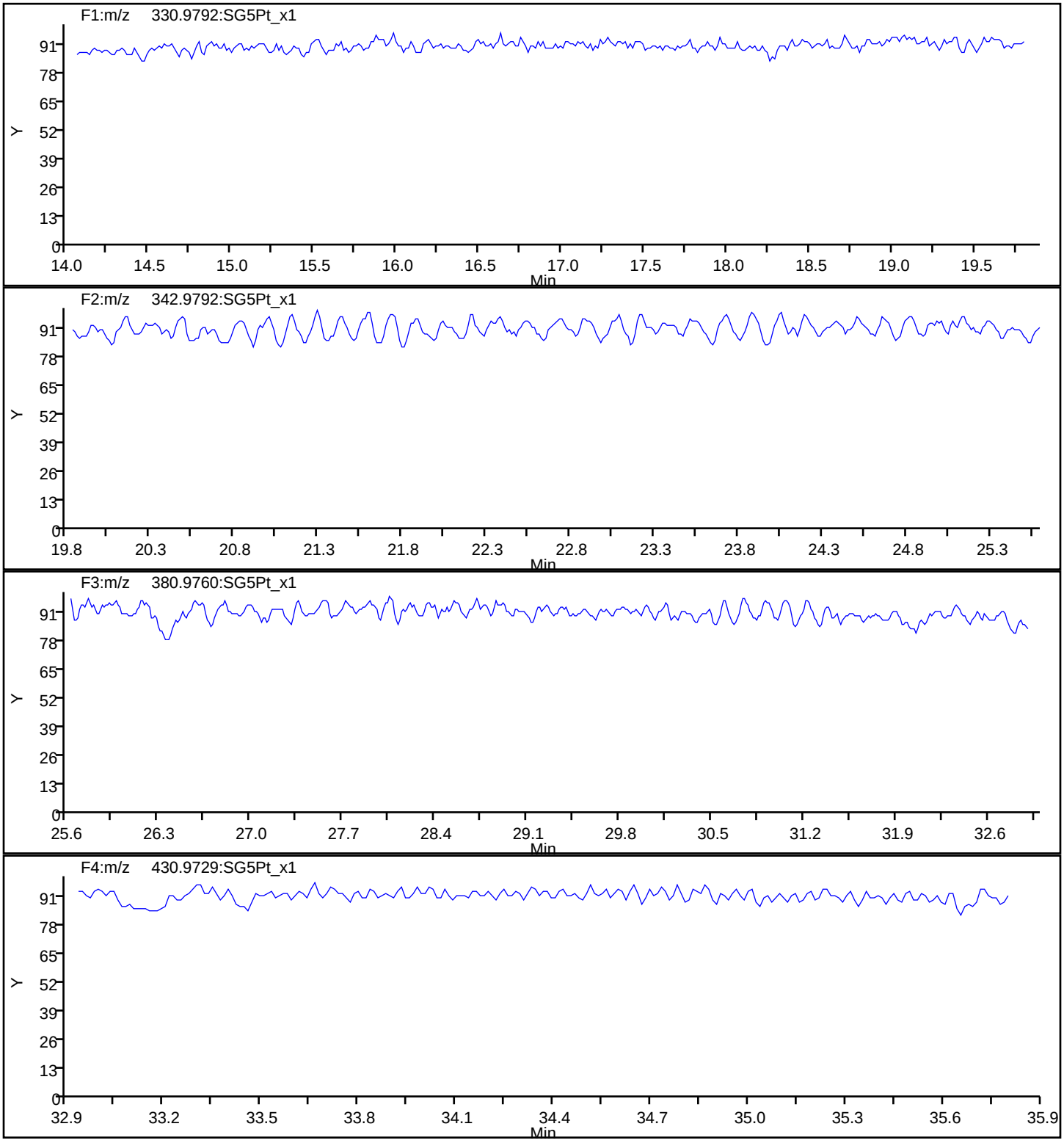




Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

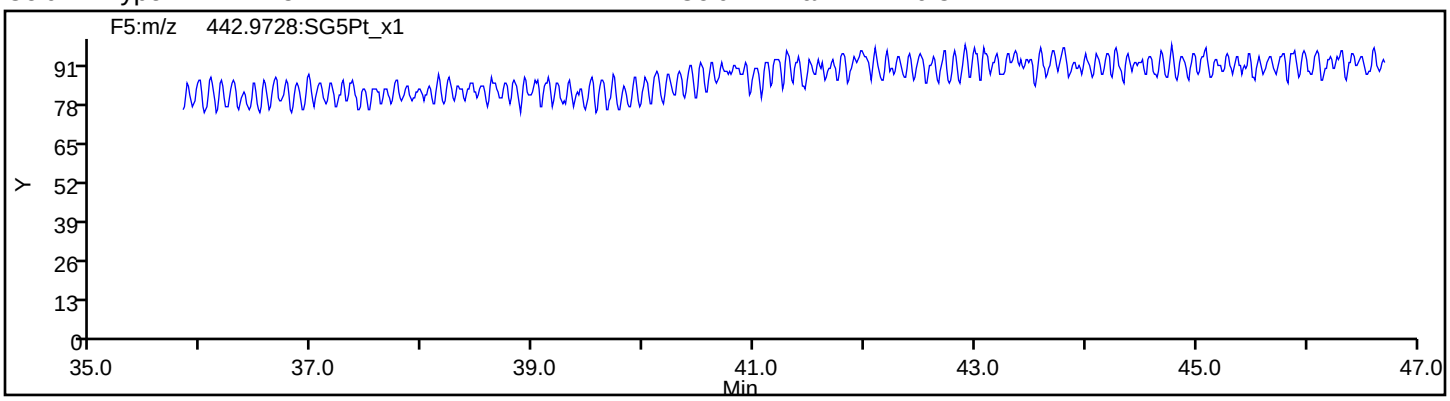
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:18:08 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_71.d		
Injection Date:	22-Jul-2019 09:53:59	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309104	Sample Line#:	71
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-22_20190716 RA Lab Sample ID: 580-87706-11 RA

Matrix: Solid Lab File ID: 22JL19A4D2_007.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:30

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.00(g) Date Analyzed: 07/22/2019 14:42

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 60.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	4.3		2.5	0.15

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	76		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	83		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_007.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:42:55 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-11-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.906	106818292	0.80	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.031	110151271	0.81	1.3652	75.5	75.5	0.1464	0.1464	75.53	
2,3,7,8-TCDF	16.059	1089216	0.75	1.1747	0.8418	0.8418	0.0294	0.0294		
D 13C-2,3,7,8-TCDD	14.646	72024640	0.81	0.9684	69.6	69.6	0.1048	0.1048	69.63	
$ 37Cl4-2,3,7,8-TCDD	14.659	45606089		1.2853	33.2	33.2	0.0307	0.0307	83.05	
2,3,7,8-TCDD	14.659	250109	0.68	1.2259	0.2833	0.2833	0.0359	0.0359		

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_007.d
Lims ID: 580-87706-C-11-A
Client ID: 22T-SG-22_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 14:42:55 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-11-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

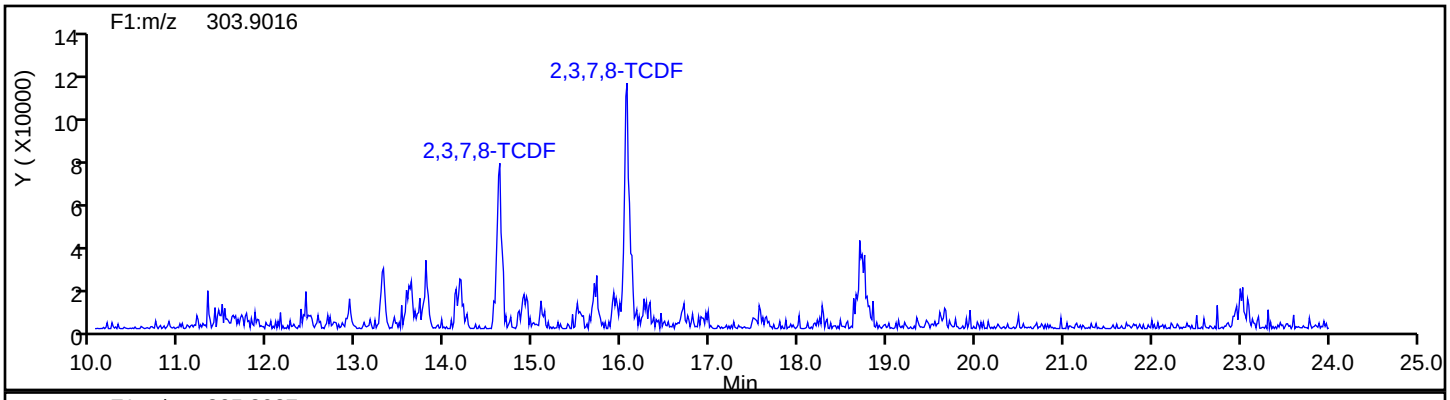
Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.906	14.915	-1		47317908	10080158	5581	13952	1806		
333.9339	14.920	14.915	0		59500384	13045742	3807	9517	3427	0.80(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.031	16.068	-1	1.075	49306697	9464137	10345	25862	915		
317.9389	16.045	16.068	0	1.076	60844574	12092169	8144	20360	1485	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.059	16.075	-1	1.002	467229	113821	1353	3382	84		
305.8987	16.045	16.075	-2	1.001	621987	138266	1625	4062	85	0.75(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.646	14.667	0	0.983	32129755	7028628	5581	13952	1259		
333.9339	14.646	14.667	0	0.983	39894885	8437742	3807	9517	2216	0.81(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.659	14.655	0	0.983	45606089	9826290	3647	9117	2694		
2,3,7,8-TCDD											
319.8965	14.659	14.675	0	1.001	100882	21863	1386	3465	16		
321.8936	14.659	14.675	0	1.001	149227	35489	1337	3342	27	0.68(0.65-0.89)	

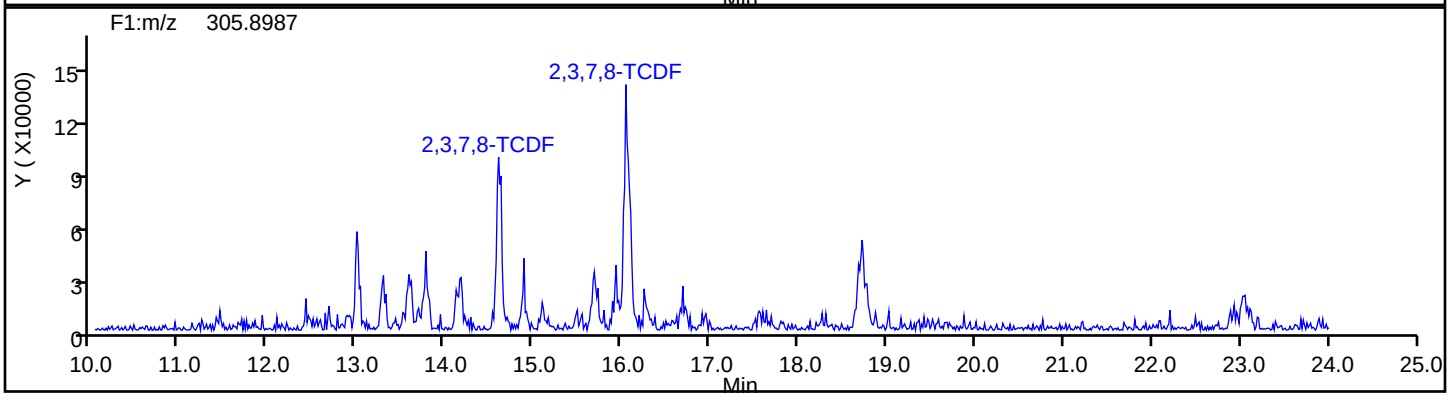
Report Date: 22-Jul-2019 20:21:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

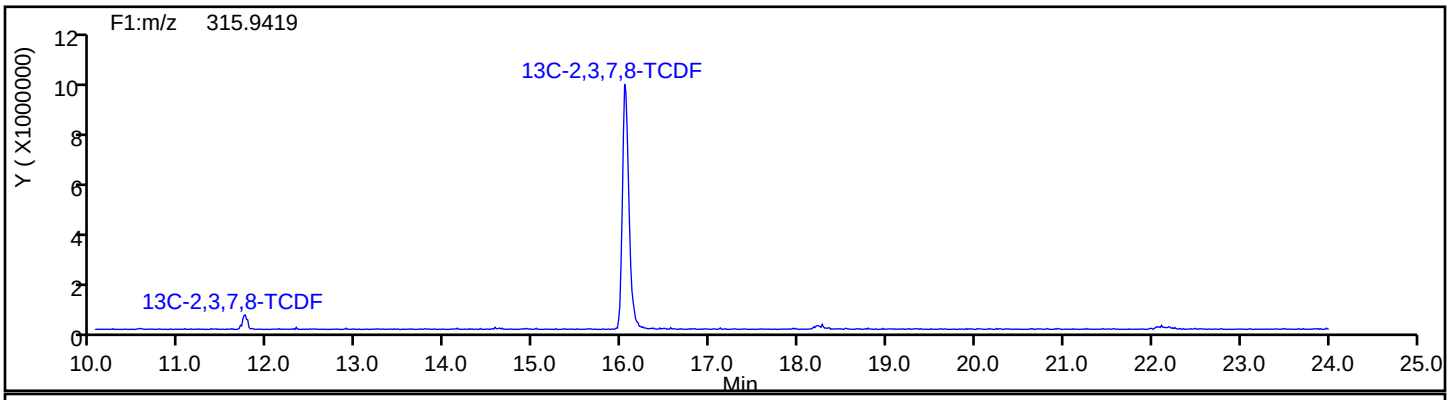
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_007.d		
Injection Date:	22-Jul-2019 14:42:55	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309356	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

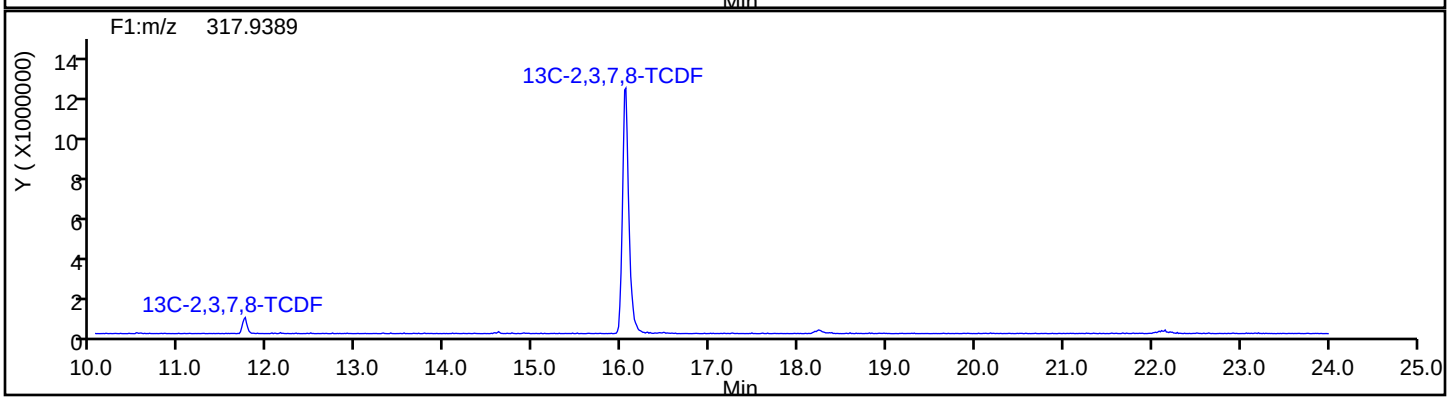
TCDF





TCDF Standards



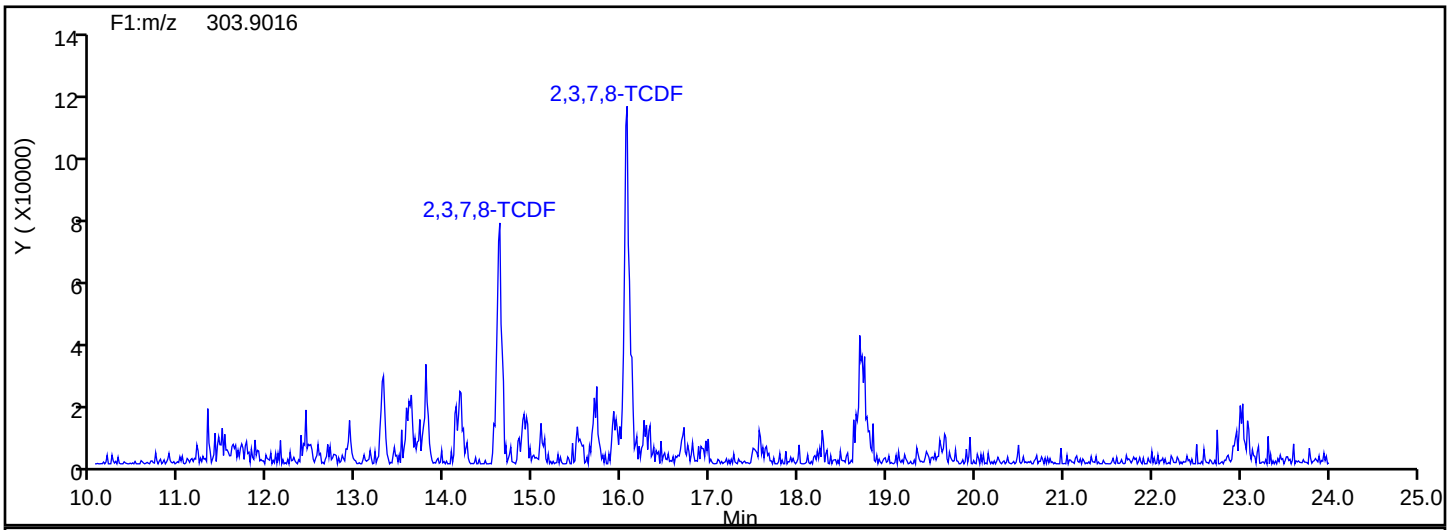


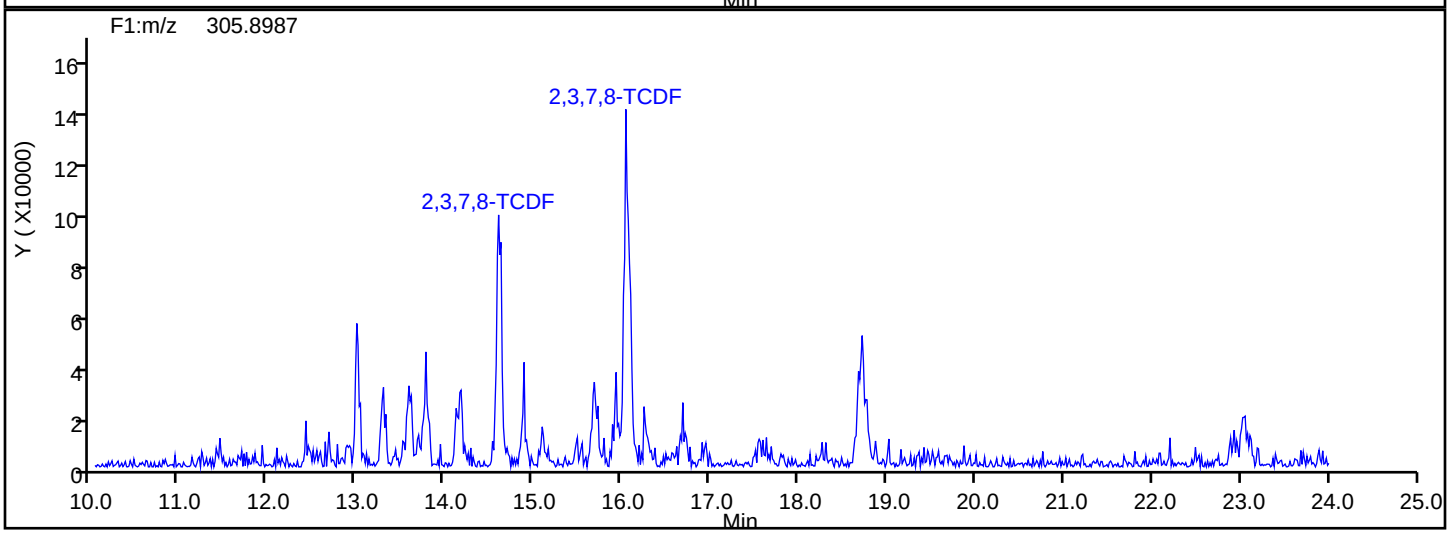
Report Date: 22-Jul-2019 20:21:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

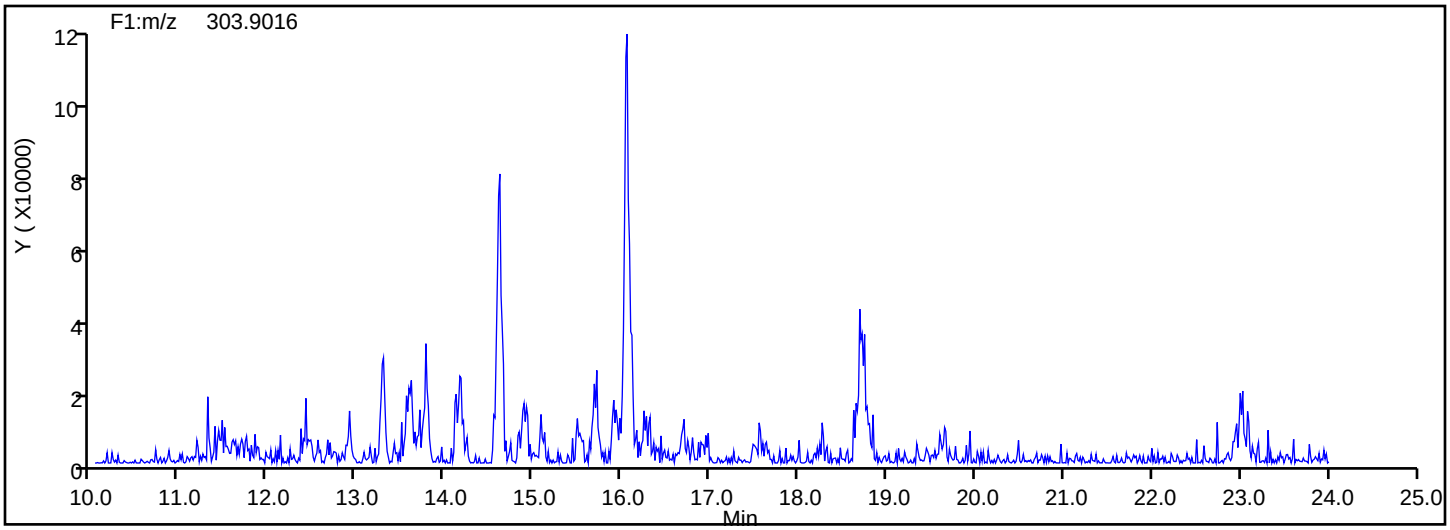
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_007.d		
Injection Date:	22-Jul-2019 14:42:55	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309356	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

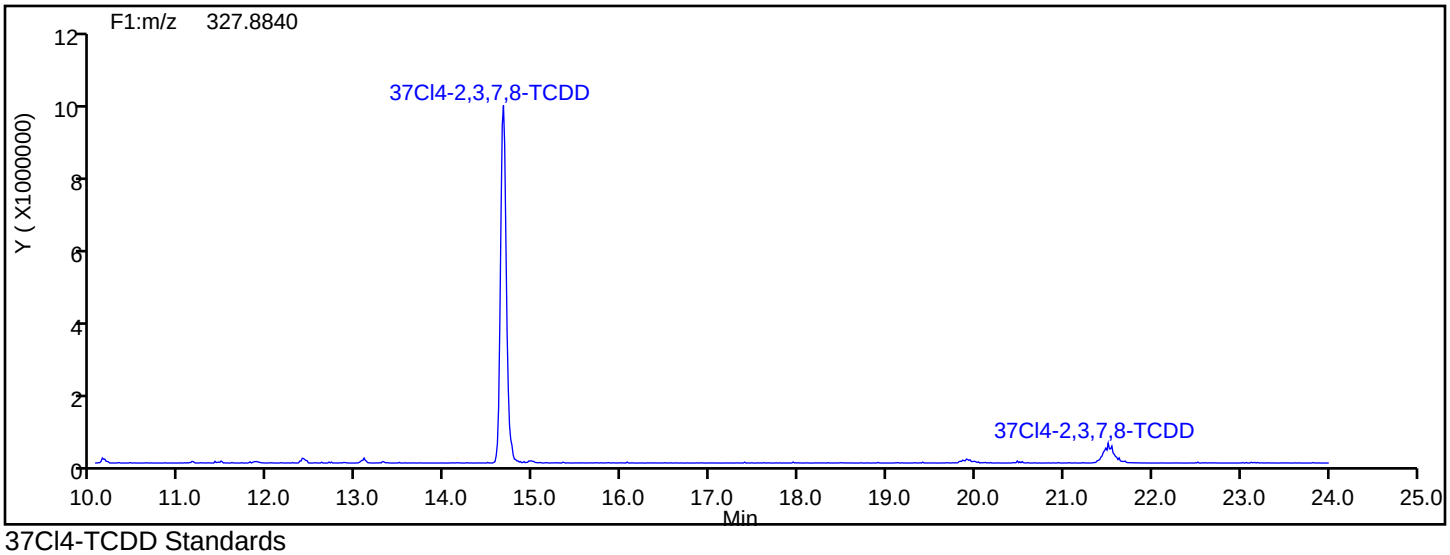


Report Date: 22-Jul-2019 20:21:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

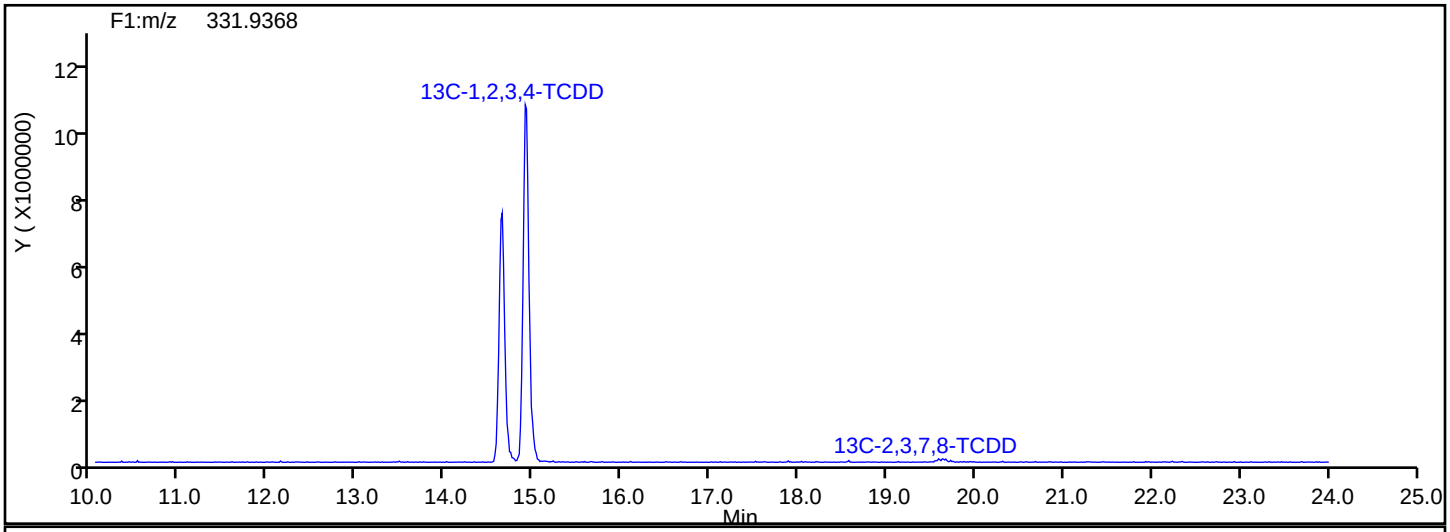
Eurofins TestAmerica, Sacramento

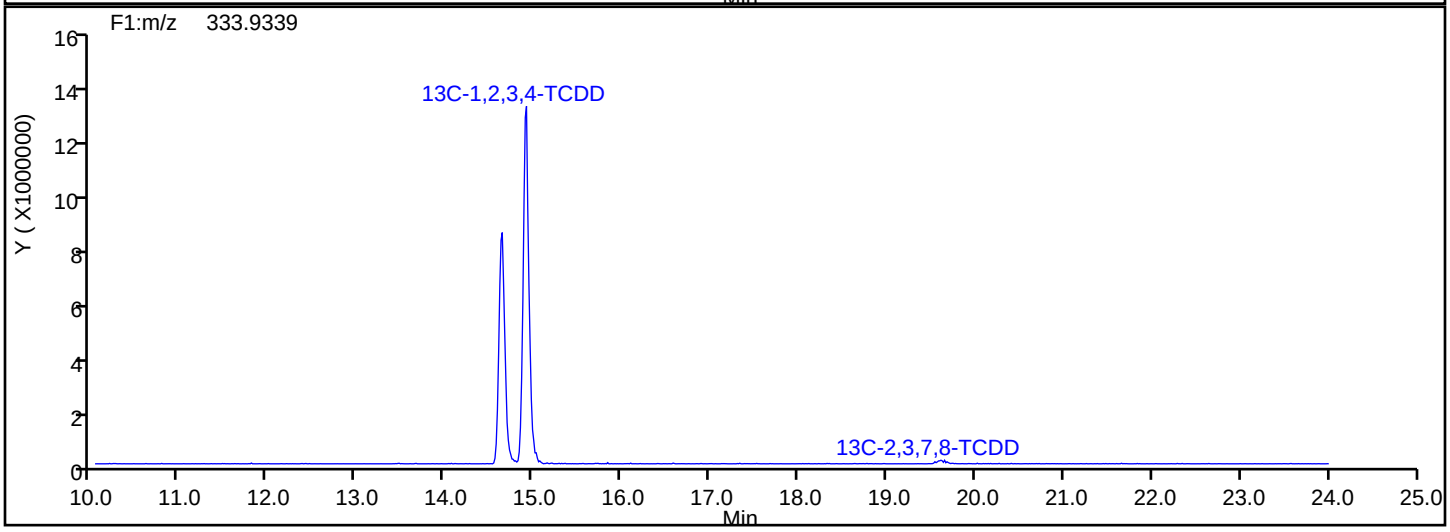
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_007.d		
Injection Date:	22-Jul-2019 14:42:55	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309356	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

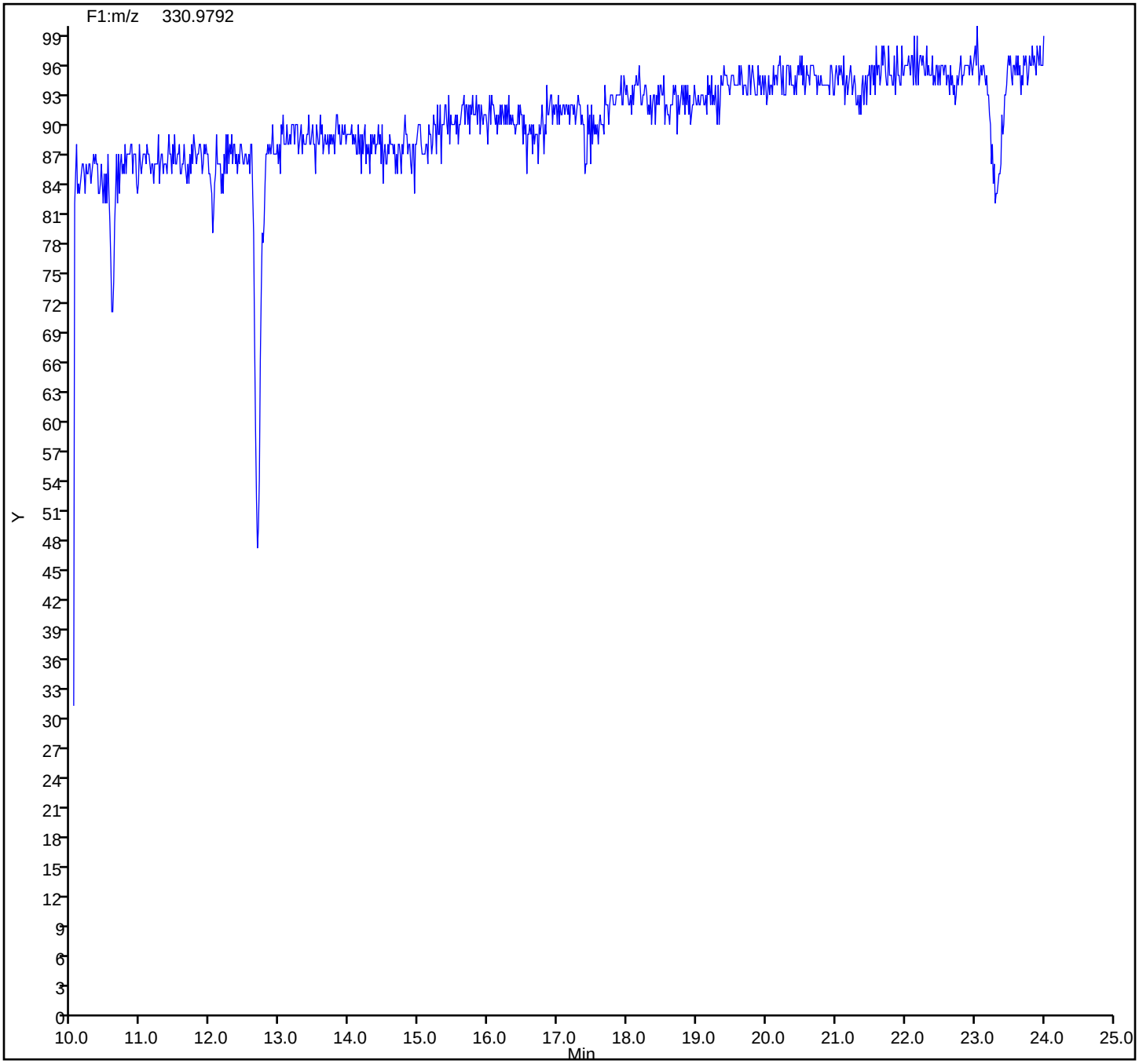




Report Date: 22-Jul-2019 20:21:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_007.d		
Injection Date:	22-Jul-2019 14:42:55	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-22_20190716		
Worklist#:	309356	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 19JL19A3D5_72.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:58

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.08(g) Date Analyzed: 07/22/2019 10:41

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.73	J	2.2	0.30
51207-31-9	2,3,7,8-TCDF	1.4	J	2.2	0.23
40321-76-4	1,2,3,7,8-PeCDD	ND		11	0.33
57117-41-6	1,2,3,7,8-PeCDF	1.3	J	11	0.27
57117-31-4	2,3,4,7,8-PeCDF	ND		11	0.30
39227-28-6	1,2,3,4,7,8-HxCDD	0.98	J B	11	0.32
57653-85-7	1,2,3,6,7,8-HxCDD	2.3	J	11	0.30
19408-74-3	1,2,3,7,8,9-HxCDD	2.0	J	11	0.29
70648-26-9	1,2,3,4,7,8-HxCDF	2.0	J	11	0.33
57117-44-9	1,2,3,6,7,8-HxCDF	0.82	J q	11	0.37
72918-21-9	1,2,3,7,8,9-HxCDF	1.8	J B	11	0.18
60851-34-5	2,3,4,6,7,8-HxCDF	0.52	J	11	0.22
35822-46-9	1,2,3,4,6,7,8-HpCDD	59	B	11	0.78
67562-39-4	1,2,3,4,6,7,8-HpCDF	9.1	J q	11	0.38
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.1	J	11	0.44
3268-87-9	OCDD	520	B	22	0.56
39001-02-0	OCDF	31	B	22	0.37

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Matrix: Solid Lab File ID: 19JL19A3D5_72.d

Analysis Method: 1613B Date Collected: 07/16/2019 12:58

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.08(g) Date Analyzed: 07/22/2019 10:41

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 54.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	72		25-164
89059-46-1	13C-2,3,7,8-TCDF	74		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	78		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	77		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	78		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	65		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	69		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	76		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	67		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	70		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	77		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	73		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	76		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	86		26-138
114423-97-1	13C-OCDD	77		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	96		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 10:41:28 ALS Bottle#: 51 Worklist Smp#: 72
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-12-A 580-87706-C-12-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:21:36 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:42:28

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.143	190545927	0.78	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.674	195594108	0.79	1.3908	73.8	73.8	0.2675	0.2675	73.81	
2,3,7,8-TCDF	16.690	621033	0.85	0.9710	0.3270	0.3270	0.0537	0.0537		
A Non-2,3,7,8-sub-TCDF	16.402	492051	0.80	0.9710	0.2591	0.2591	0.0537	0.1346		
S Total TCDF					0.5860	0.5860	0.0537	0.0537		
D 13C-2,3,7,8-TCDD	17.340	134744090	0.81	0.9819	72.0	72.0	0.2972	0.2972	72.02	
2,3,7,8-TCDD	17.355	239296	0.75	1.0447	0.1700	0.1700	0.0707	0.0707		Ma
$ 37Cl4-2,3,7,8-TCDD	17.355	89441038		1.2205	38.5	38.5	0.0823	0.0823	96.15	
A Non-2,3,7,8-sub-TCDD	16.833	712926	0.80	1.0447	0.5064	0.5064	0.0707	0.2909		Ma
S Total TCDD					0.6764	0.6764	0.0707	0.0707		
D 13C-1,2,3,7,8-PeCDF	21.318	170723131	1.60	1.1585	77.3	77.3	0.2506	0.2506	77.34	
1,2,3,7,8-PeCDF	21.318	482165	1.61	0.9633	0.2932	0.2932	0.0632	0.0632		
D 13C-2,3,4,7,8-PeCDF	22.545	171762227	1.59	1.1532	78.2	78.2	0.2517	0.2517	78.17	
2,3,4,7,8-PeCDF	22.586						0.0698	0.0698		
A F1 PeCDFs	19.215	456007	1.55	0.9564	0.3435	0.2784	0.0433	0.2784		RQ
A Non-2,3,7,8-sub-PeCDF	22.104	690614	1.75	0.9564	0.4217	0.4217	0.0664	0.4217		
S Total PeCDF					1.058	0.993	0.0665	0.0665		RQ
D 13C-1,2,3,7,8-PeCDD	23.213	111064326	1.62	0.7431	78.4	78.4	0.1522	0.1522	78.44	
1,2,3,7,8-PeCDD	23.254						0.0774	0.0774		
A Non-2,3,7,8-sub-PeCDD	22.232	599578	1.68	1.0635	0.5076	0.5076	0.0774	0.3409		M
S Total PeCDD					0.5076	0.5076	0.0774	0.0774		
D 13C-1,2,3,4,7,8-HxCDF	29.115	133722069	0.53	0.9837	76.3	76.3	0.3633	0.3633	76.28	
1,2,3,4,7,8-HxCDF	29.115	745963	1.22	1.2173	0.4582	0.4582	0.0767	0.0767		
D 13C-1,2,3,6,7,8-HxCDF	29.395	137673771	0.51	1.1554	66.9	66.9	0.3093	0.3093	66.87	
1,2,3,6,7,8-HxCDF	29.461	297308	1.24	1.1311	0.2087	0.1909	0.0860	0.0860		RQ
D 13C-2,3,4,6,7,8-HxCDF	30.646	128974326	0.52	1.0361	69.9	69.9	0.3449	0.3449	69.85	
2,3,4,6,7,8-HxCDF	30.660	181255	1.19	1.1710	0.1200	0.1200	0.0512	0.0512		Ma
D 13C-1,2,3,7,8,9-HxCDF	31.659	123459814	0.55	0.9034	76.7	76.7	0.3956	0.3956	76.68	
1,2,3,7,8,9-HxCDF	31.672	611591	1.22	1.1787	0.4203	0.4203	0.0426	0.0426		
A Non-2,3,7,8-sub-HxCDF	29.135	3721464	1.24	1.1745	2.465	2.419	0.0592	1.159		RQMa

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					3.673	3.609	0.0641	0.0641		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.445	178205020	1.27	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.913	96404069	1.38	0.8287	65.3	65.3	0.2412	0.2412	65.28	
1,2,3,4,7,8-HxCDD	30.926	223813	1.09	1.0267	0.2261	0.2261	0.0740	0.0740		
D 13C-1,2,3,6,7,8-HxCDD	31.046	116768587	1.27	0.9495	69.0	69.0	0.2105	0.2105	69.01	
1,2,3,6,7,8-HxCDD	31.073	597933	1.25	0.9771	0.5241	0.5241	0.0700	0.0700		
1,2,3,7,8,9-HxCDD	31.459	532068	1.11	1.0616	0.4702	0.4702	0.0678	0.0678		
A Non-2,3,7,8-sub-HxCDD	29.926	2879289	1.25	1.0218	2.644	2.644	0.0705	1.405		
S Total HxCDD					3.864	3.864	0.0706	0.0706		
D 13C-1,2,3,4,6,7,8-HpCDF	33.323	98364677	0.43	0.7285	75.8	75.8	0.6857	0.6857	75.77	
1,2,3,4,6,7,8-HpCDF	33.335	2974411	1.04	1.4373	2.427	2.104	0.0883	0.0883		RQ
D 13C-1,2,3,4,7,8,9-HpCDF	34.405	99968031	0.45	0.6556	85.6	85.6	0.7619	0.7619	85.56	
1,2,3,4,7,8,9-HpCDF	34.417	319068	1.05	1.3091	0.2438	0.2438	0.1031	0.1031		
A Non-2,3,7,8-sub-HpCDF	33.894	6083708	1.09	1.3732	4.468	4.468	0.0953	4.468		
S Total HpCDF					7.138	6.815	0.0957	0.0957		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	90771079	1.08	0.6978	73.0	73.0	0.3607	0.3607	72.99	
1,2,3,4,6,7,8-HpCDD	34.138	12528864	0.98	1.0102	13.7	13.7	0.1806	0.1806		
A Non-2,3,7,8-sub-HpCDD	35.074	13957781	1.03	1.0102	15.2	15.2	0.1806	15.2		a
S Total HpCDD					28.9	28.9	0.1806	0.1806		
D 13C-OCDD	36.486	131738570	0.90	0.4780	154.7	154.7	0.1937	0.1937	77.33	
OCDF	36.569	6365247	0.90	1.3501	7.157	7.157	0.0856	0.0856		
OCDD	36.498	84472515	0.88	1.0627	120.7	120.7	0.1309	0.1309		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 10:41:28 ALS Bottle#: 51 Worklist Smp#: 72
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-12-A 580-87706-C-12-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:21:36 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:42:28

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.143	17.158	-1		83694074	21181778	26335	65837	804		
333.9339	17.143	17.158	-1		106851853	26938124	29839	74597	903	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.674	16.690	-1	0.973	86347999	20761358	24883	62207	834		
317.9389	16.674	16.690	-1	0.973	109246109	26653429	46728	116820	570	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.690	16.705	-1	1.001	284574	73325	4020	10050	18		
305.8987	16.690	16.705	-1	1.001	336459	71480	5876	14690	12	0.85(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	14.890	16.402	-91	0.893	108484	31480	4020	10050	8		
305.8987	14.905	16.402	-90	0.894	127842	32017	5876	14690	5	0.85(0.65-0.89)	
303.9016	15.631	16.402	-46	0.937	110125	16709	4020	10050	4		
305.8987	15.571	16.402	-50	0.934	145600	20181	5876	14690	3	0.76(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.011	60264935	13658855	26335	65837	519		
333.9339	17.324	17.355	-2	1.011	74479155	17259095	29839	74597	578	0.81(0.65-0.89)	
2,3,7,8-TCDD											Ma
319.8965	17.355	17.355	0	1.001	102815	25804	6664	16660	4		M
321.8936	17.340	17.355	-1	1.000	136481	31465	2466	6165	13	0.75(0.65-0.89)	M
37Cl4-2,3,7,8-TCDD											
327.8847	17.355	17.370	-1	1.012	89441038	20318931	19327	48317	1051		
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	15.556	16.833	-77	0.897	141387	27675	6664	16660	4		
321.8936	15.556	16.833	-77	0.897	161997	42625	2466	6165	17	0.87(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
319.8965	17.264	16.833	26	0.996	176534	40867	6664	16660	6		M
321.8936	17.264	16.833	26	0.996	233008	61620	2466	6165	25	0.76(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.318	21.332	-1	1.244	105016783	19335815	33880	84700	571		
353.8970	21.318	21.332	-1	1.244	65706348	12210670	21996	54990	555	1.60(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.318	21.345	-2	1.000	297544	52140	3773	9432	14		
341.8567	21.359	21.345	1	1.002	184621	31989	3915	9787	8	1.61(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.545	22.559	-1	1.315	105520470	17957137	33880	84700	530		
353.8970	22.532	22.559	-2	1.314	66241757	11058101	21996	54990	503	1.59(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586						3773	9432			
341.8567	22.586						3915	9787			
A F1 PeCDFs											RQ
339.8597	18.655	19.215	-34	0.875	277181	58619	1750	4375	33		
341.8567	18.655	19.215	-34	0.875	285381	47617	3269	8172	15	0.97(1.32-1.78)	
	Empc Correction				178826	37818	3269	8172	12		
A Non-2,3,7,8-sub-PeCDF											
339.8597	20.091	22.104	-121	0.942	439296	65467	3773	9432	17		
341.8567	20.118	22.104	-119	0.944	251318	40687	3915	9787	10	1.75(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.213	23.227	-1	1.354	68645069	10888202	13143	32857	828		
369.8919	23.213	23.227	-1	1.354	42419257	6799168	8628	21570	788	1.62(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4101	10252			
357.8516	23.254						1725	4312			
A Non-2,3,7,8-sub-PeCDD											M
355.8546	20.282	22.232	-117	0.874	254172	45803	4101	10252	11		
357.8516	20.268	22.232	-118	0.873	148506	22655	1725	4312	13	1.71(1.32-1.78)	
355.8546	21.891	22.232	-20	0.943	121728	21112	4101	10252	5		M
357.8516	21.891	22.232	-20	0.943	75172	9314	1725	4312	5	1.62(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.115	29.115	0	0.926	46272388	5728526	18760	46900	305		
385.8610	29.102	29.115	-1	0.925	87449681	10229855	36413	91032	281	0.53(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.115	29.155	-2	1.000	409335	48737	3067	7667	16		
375.8178	29.142	29.155	-1	1.001	336628	40488	2896	7240	14	1.22(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.395	29.421	-2	0.935	46293796	5126273	18760	46900	273		
385.8610	29.408	29.421	-1	0.935	91379975	10203968	36413	91032	280	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											RQ
373.8208	29.461	29.462	0	1.002	192261	23073	3067	7667	8		
	Empc Correction				164581	16836	3067	7667	5		
375.8178	29.435	29.462	-2	1.001	132727	13578	2896	7240	5	1.45(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.646	30.660	-1	0.975	44291756	8422432	18760	46900	449		
385.8610	30.646	30.660	-1	0.975	84682570	16441945	36413	91032	452	0.52(0.43-0.59)	
2,3,4,6,7,8-HxCDF											Ma
373.8208	30.660	30.687	-2	1.000	98660	22425	3067	7667	7		a
375.8178	30.660	30.687	-2	1.000	82595	15191	2896	7240	5	1.19(1.05-1.43)	M
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.659	31.672	-1	1.007	43630468	10290355	18760	46900	549		
385.8610	31.659	31.672	-1	1.007	79829346	19371360	36413	91032	532	0.55(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.672	31.685	-1	1.000	336090	53121	3067	7667	17		
375.8178	31.659	31.685	-2	1.000	275501	52276	2896	7240	18	1.22(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											RQMa
373.8208	26.532	29.135	-156	0.911	318381	49426	3067	7667	16		
	Empc Correction				247831	43526	3067	7667	14		
375.8178	26.505	29.135	-157	0.910	199864	35102	2896	7240	12	1.59(1.05-1.43)	
373.8208	26.838	29.135	-138	0.922	827089	111162	3067	7667	36		
375.8178	26.838	29.135	-138	0.922	663753	98434	2896	7240	34	1.25(1.05-1.43)	
373.8208	28.037	29.135	-66	0.963	920384	112359	3067	7667	37		
375.8178	28.063	29.135	-64	0.964	862543	100533	2896	7240	35	1.07(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.445	31.472	-2		99548904	21559249	16044	40110	1344		
403.8529	31.445	31.472	-2		78656116	17036281	14817	37042	1150	1.27(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.913	30.926	-1	0.983	55907692	12002716	16044	40110	748		
403.8529	30.913	30.926	-1	0.983	40496377	8657293	14817	37042	584	1.38(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.926	30.953	-2	1.000	116635	20909	2249	5622	9		
391.8127	30.913	30.953	-2	1.000	107178	19751	4026	10065	5	1.09(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.046	31.059	-1	0.987	65389040	12825265	16044	40110	799		
403.8529	31.046	31.059	-1	0.987	51379547	10097058	14817	37042	681	1.27(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.073	31.086	-1	1.001	332315	67052	2249	5622	30		
391.8127	31.073	31.086	-1	1.001	265618	55194	4026	10065	14	1.25(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.459	31.485	-2	1.018	279781	62609	2249	5622	28		
391.8127	31.459	31.485	-2	1.018	252287	40950	4026	10065	10	1.11(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.917	29.926	-120	0.899	715567	99635	2249	5622	44		
391.8127	27.903	29.926	-121	0.899	633852	74208	4026	10065	18	1.13(1.05-1.43)	
389.8157	29.901	29.926	-2	0.963	881605	117563	2249	5622	52		
391.8127	29.901	29.926	-2	0.963	648265	79135	4026	10065	20	1.36(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.323	33.335	-1	1.060	29515525	8888627	24934	62335	356		
419.8220	33.323	33.335	-1	1.060	68849152	21131662	52183	130457	405	0.43(0.37-0.51)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,6,7,8-HpCDF											RQ
407.7818	33.335	33.347	-1	1.000	1973004	633179	9327	23317	68		
	Empc Correction				1516366	454628	9327	23317	49		
409.7789	33.335	33.347	-1	1.000	1458045	437143	5915	14787	74	1.35(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.405	34.429	-1	1.094	31155208	8692439	24934	62335	349		
419.8220	34.405	34.429	-1	1.094	68812823	19536070	52183	130457	374	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.417	34.441	-1	1.000	163179	56650	9327	23317	6		
409.7789	34.417	34.441	-1	1.000	155889	47866	5915	14787	8	1.05(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.627	33.894	-16	1.009	3175664	963842	9327	23317	103		
409.7789	33.627	33.894	-16	1.009	2908044	875678	5915	14787	148	1.09(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.086	47137362	13374362	21981	54952	608		
437.8140	34.125	34.150	-1	1.085	43633717	12420185	16883	42207	736	1.08(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.138	34.162	-1	1.000	6190198	1826429	10267	25667	178		
425.7737	34.138	34.162	-1	1.000	6338666	1848657	8558	21395	216	0.98(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.591	35.074	-89	0.984	7088144	2227959	10267	25667	217		a
425.7737	33.591	35.074	-89	0.984	6869637	2118597	8558	21395	248	1.03(0.88-1.20)	
13C-OCDD											
469.7779	36.486	36.498	-1	1.160	62472724	15639740	7425	18562	2106		
471.7750	36.486	36.498	-1	1.160	69265846	17069697	6870	17175	2485	0.90(0.76-1.02)	
OCDF											
441.7428	36.569	36.582	-1	1.002	3015091	768950	3315	8287	232		
443.7399	36.569	36.582	-1	1.002	3350156	841707	4242	10605	198	0.90(0.76-1.02)	
OCDD											
457.7377	36.498	36.509	-1	1.000	39452788	9729806	4463	11157	2180		
459.7348	36.486	36.509	-1	1.000	45019727	11023984	4640	11600	2376	0.88(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	195594108	47414787

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	195594108	47414787

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.890	108484	31480	127842	32017	0.1244	0.85	
15.631	110125	16709	145600	20181	0.1346	0.76	
Signal Totals:							
	218609	48189	273442	52198			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	492051	100387				0.80	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2591 = (492051 * 100.000) / (195594108 * 0.971)

Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	134744090	30917950

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	134744090	30917950

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
15.556	141387	27675	161997	42625	0.2155	0.87	
17.264	176534	40867	233008	61620	0.2909	0.76	Ma
Signal Totals:							
	317921	68542	395005	104245			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	712926	172787				0.80	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5064 = (712926 * 100.000) / (134744090 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	170723131	31546485
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	171762227	29015238

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	171242679	30280861

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.655	277181	58619	285381	47617	0.3435	0.97	RQ
18.655	277181	58619	178826	37818	0.2784		Empc Correction
Signal Totals:							
	277181	58619	178826	37818			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	562562	106236				0.97	RQ
	456007	96437					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.3435 = (562562 * 100.000) / (171242679 * 0.956)
Empc Amount: 0.2784 = (456007 * 100.000) / (171242679 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	170723131	31546485
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	171762227	29015238

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	171242679	30280861

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.091	439296	65467	251318	40687	0.4217	1.75	
Signal Totals:							
	439296	65467	251318	40687			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	690614	106154				1.75	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4217 = (690614 * 100.000) / (171242679 * 0.956)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	111064326	17687370

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	111064326	17687370

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.282	254172	45803	148506	22655	0.3409	1.71	
21.891	121728	21112	75172	9314	0.1667	1.62	M
Signal Totals:							
	375900	66915	223678	31969			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	599578	98884				1.68	M

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.5076 = (599578 * 100.000) / (111064326 * 1.063)

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	133722069	15958381
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	137673771	15330241
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	128974326	24864377
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	123459814	29661715

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	130957495	21453678

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.532	318381	49426	199864	35102	0.3369	1.59	RQ
26.532	247831	43526	199864	35102	0.2911		Empc Correction
26.838	827089	111162	663753	98434	0.9692	1.25	
28.037	920384	112359	862543	100533	1.16	1.07	
Signal Totals:							
	1995304	267047	1726160	234069			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3792014	507016				1.20	RQ
	3721464	501116					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.465 = (3792014 * 100.000) / (130957495 * 1.175)
Empc Amount: 2.419 = (3721464 * 100.000) / (130957495 * 1.175)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	96404069	20660009
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	116768587	22922323
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	106586328	21791166

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.917	715567	99635	633852	74208	1.24	1.13	
29.901	881605	117563	648265	79135	1.40	1.36	
Signal Totals:							
	1597172	217198	1282117	153343			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2879289	370541				1.25	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.644 = (2879289 * 100.000) / (106586328 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	98364677	30020289
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	99968031	28228509

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	99166354	29124399

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.627	3175664	963842	2908044	875678	4.47	1.09	
Signal Totals:							
	3175664	963842	2908044	875678			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6083708	1839520				1.09	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 4.468 = (6083708 * 100.000) / (99166354 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d
Lims ID: 580-87706-C-12-A
Client ID: 22T-SG-23_20190716
Inject. Date: 22-Jul-2019 10:41:28 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 72

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	90771079	25794547

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	90771079	25794547

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.591	7088144	2227959	6869637	2118597	15.2	1.03	a
Signal Totals:							
	7088144	2227959	6869637	2118597			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	13957781	4346556				1.03	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 15.222 = (13957781 * 100.000) / (90771079 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

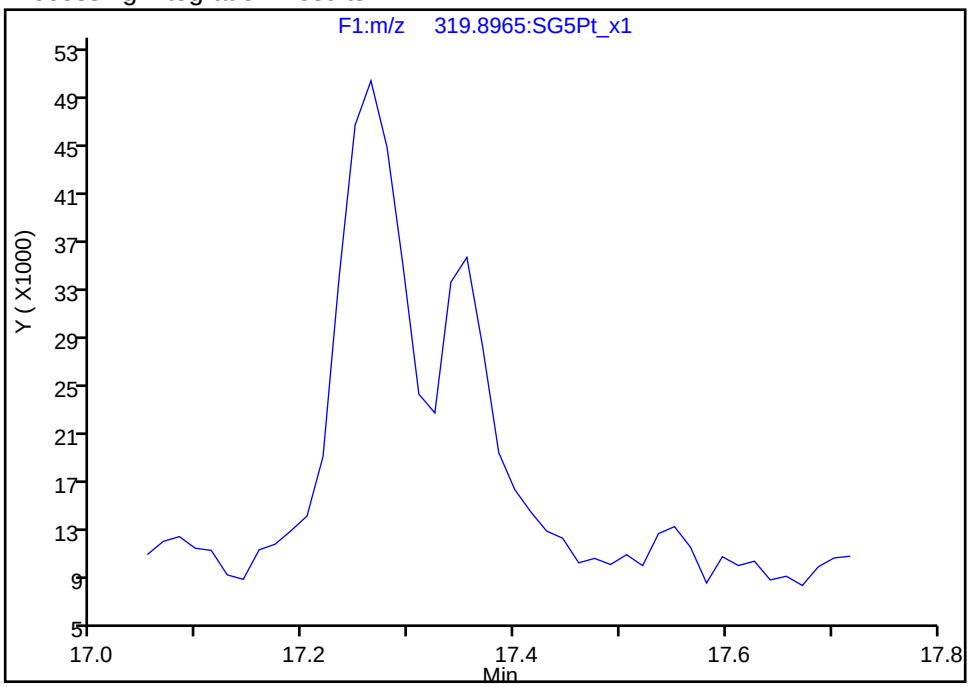
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d				
Injection Date:	22-Jul-2019 10:41:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-12-A	Lab Sample ID:	320-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	51	Worklist Smp#:	72
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

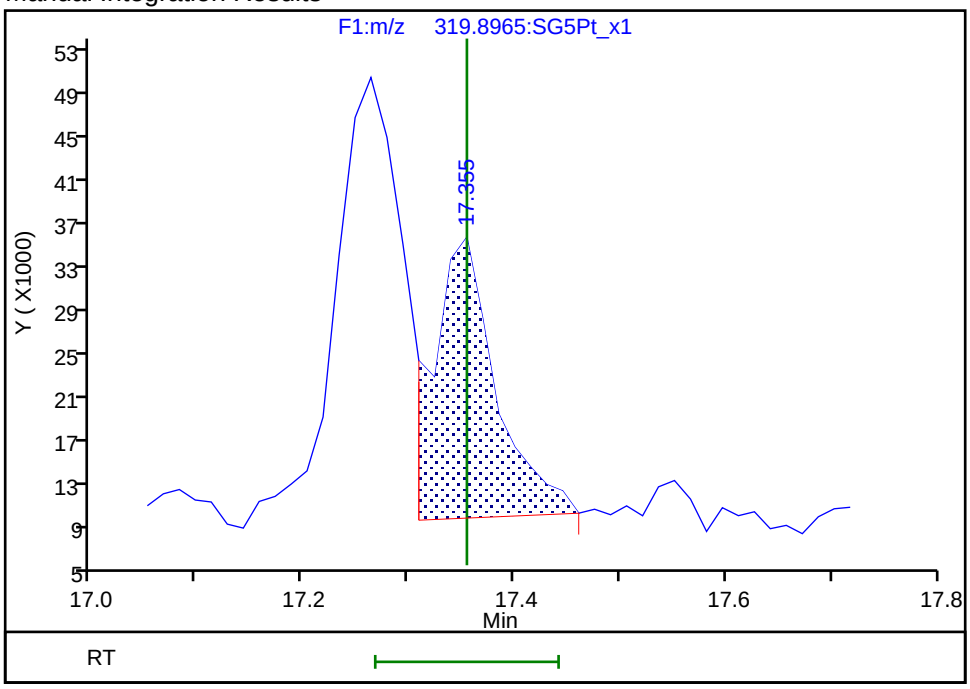
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.35
Area: 102815
Amount: 0.169991
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:19:01
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

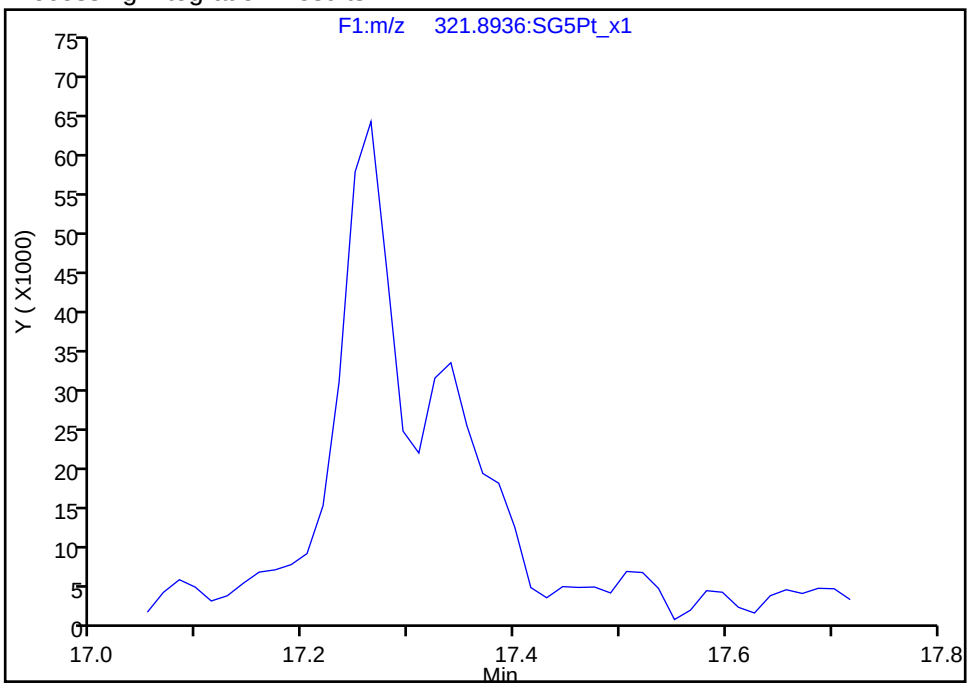
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d				
Injection Date:	22-Jul-2019 10:41:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-12-A	Lab Sample ID:	320-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	51	Worklist Smp#:	72
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

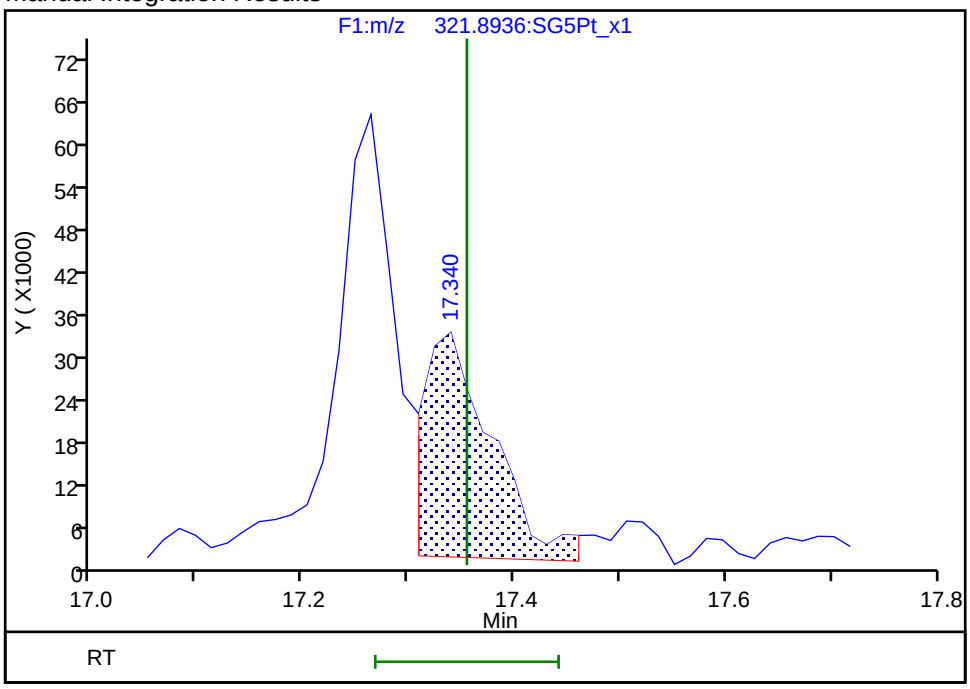
Processing Integration Results

Not Detected
Expected RT: 17.35



Manual Integration Results

RT: 17.34
Area: 136481
Amount: 0.169991
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:19:06
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

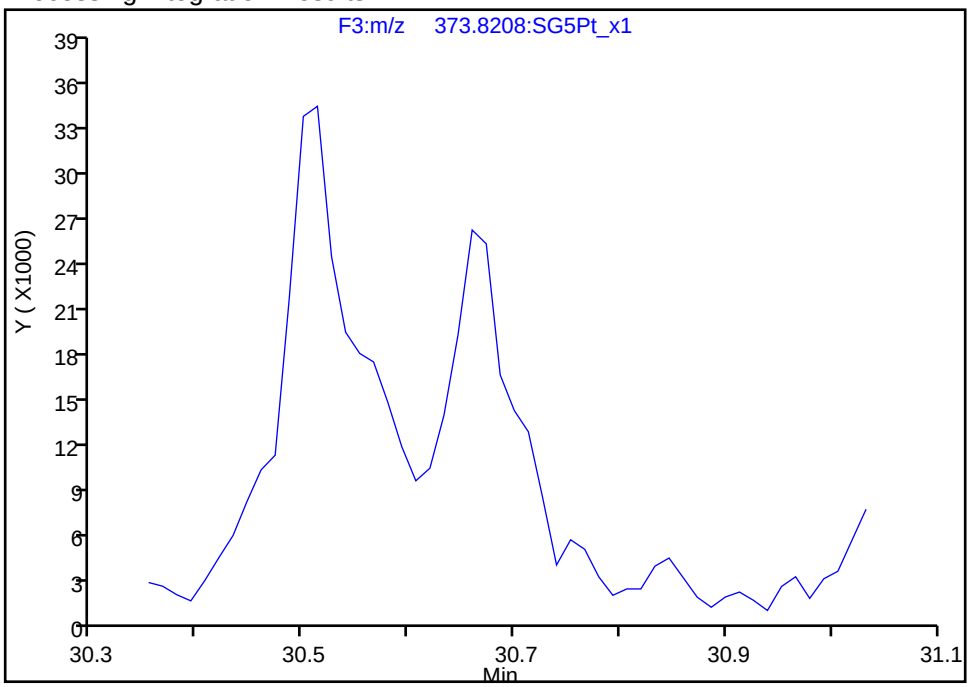
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d				
Injection Date:	22-Jul-2019 10:41:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-12-A	Lab Sample ID:	320-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	51	Worklist Smp#:	72
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

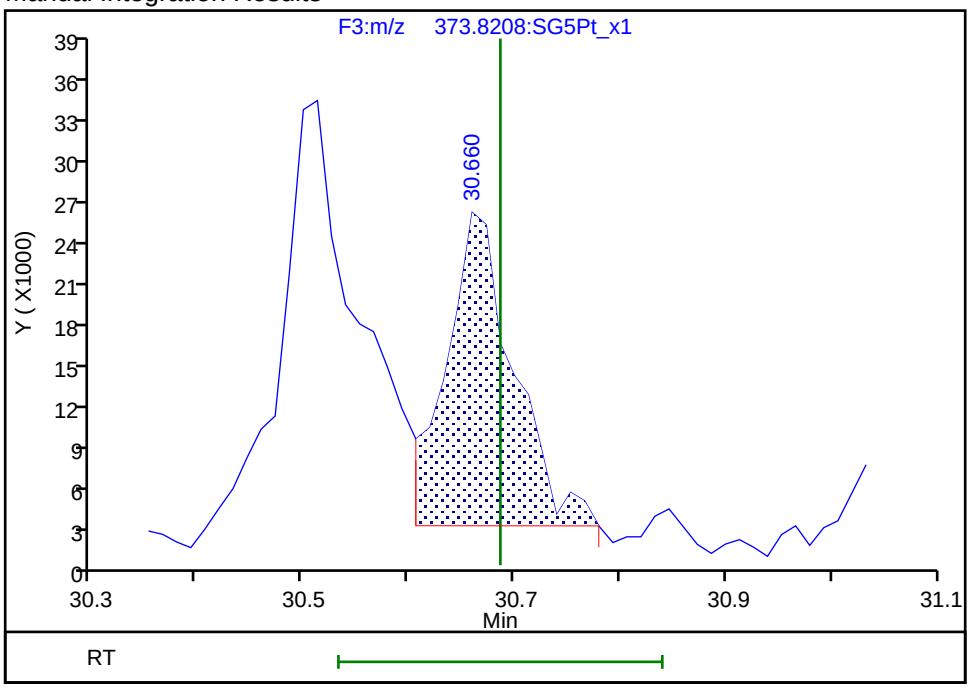
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.66
Area: 98660
Amount: 0.120015
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:20:07
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

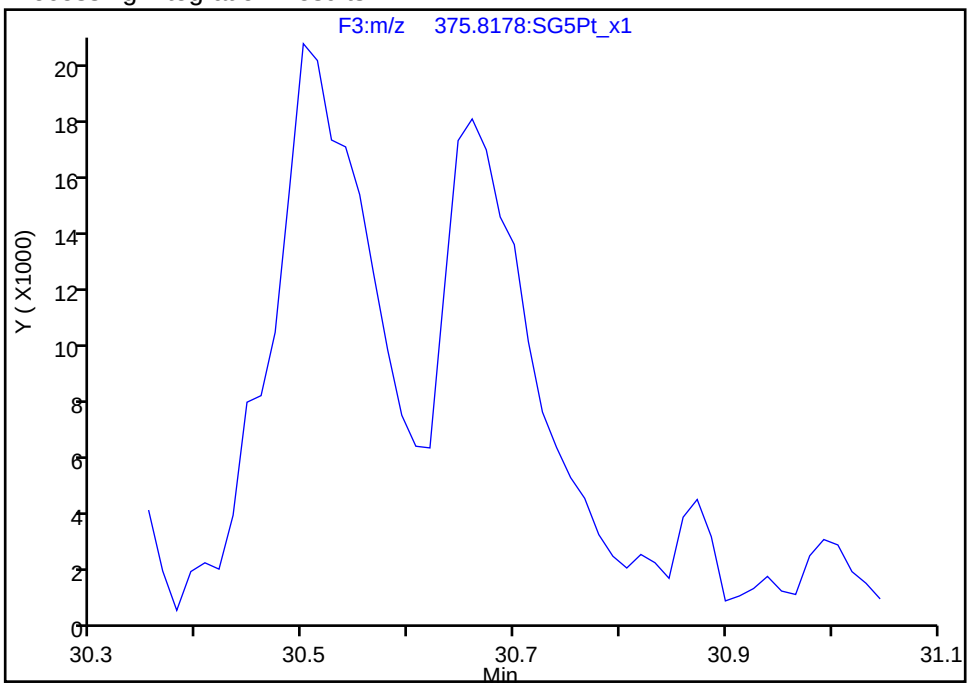
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d				
Injection Date:	22-Jul-2019 10:41:28	Instrument ID:	3D5		
Lims ID:	580-87706-C-12-A	Lab Sample ID:	320-87706-12		
Client ID:	22T-SG-23_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	51	Worklist Smp#:	72
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 2

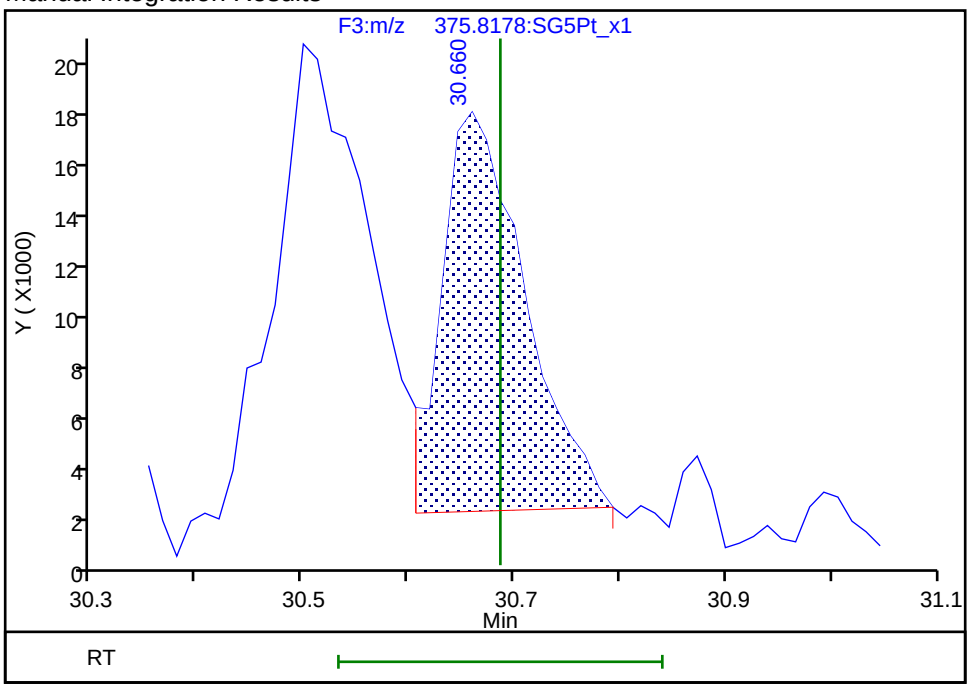
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.66
Area: 82595
Amount: 0.120015
Amount Units: pg/ul



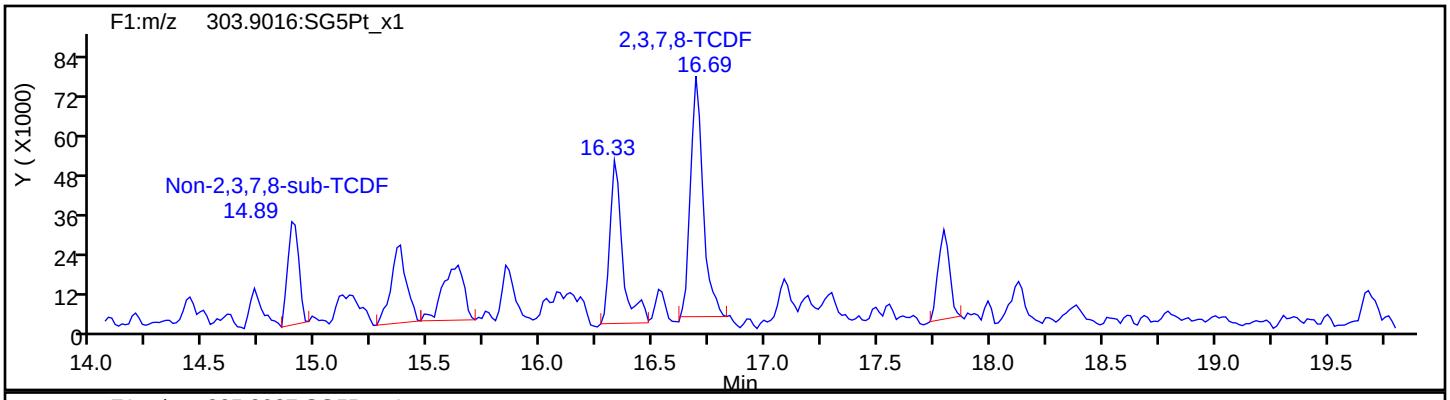
Reviewer: krongsingn, 23-Jul-2019 12:20:10
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

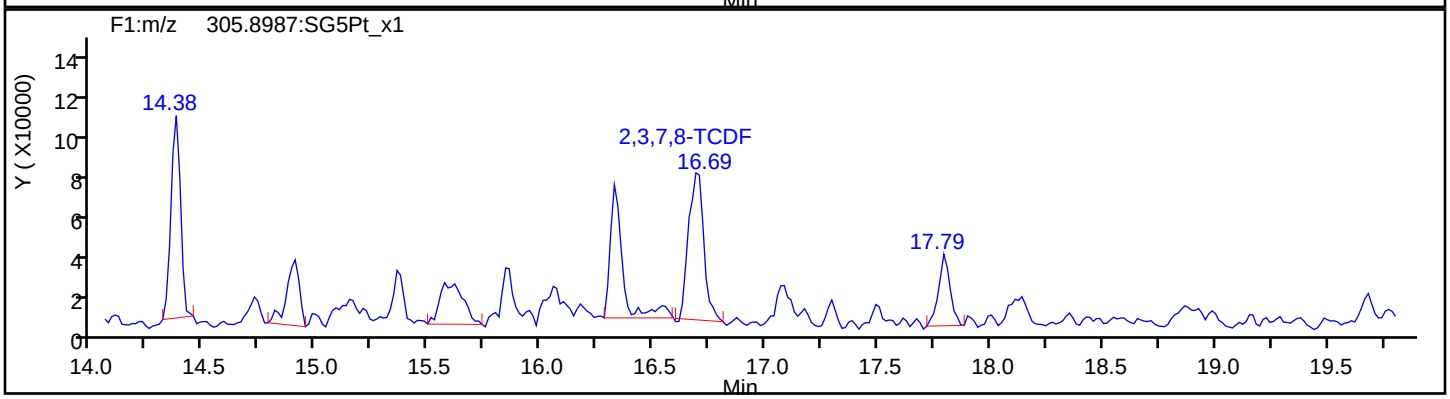
Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

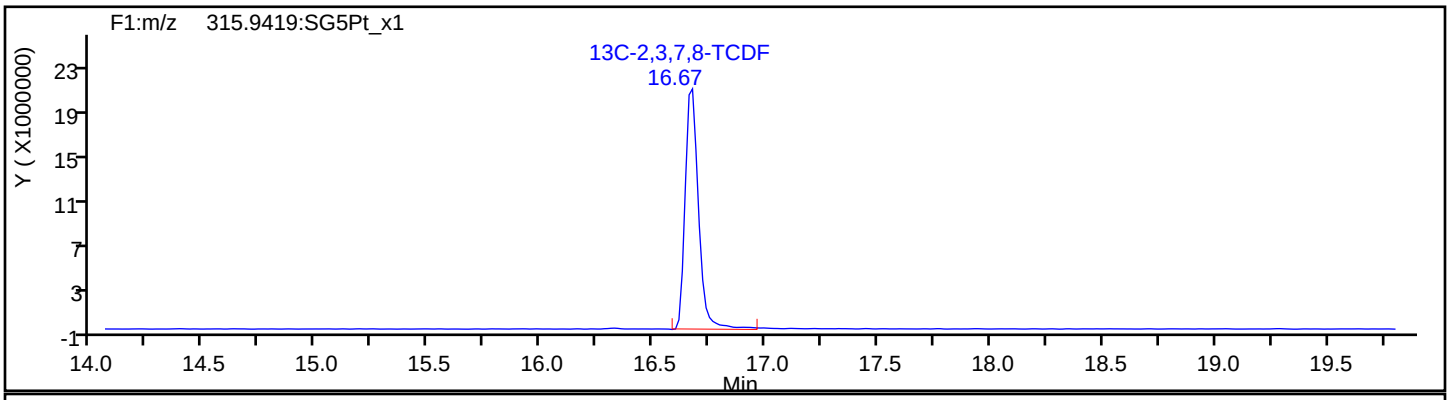
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

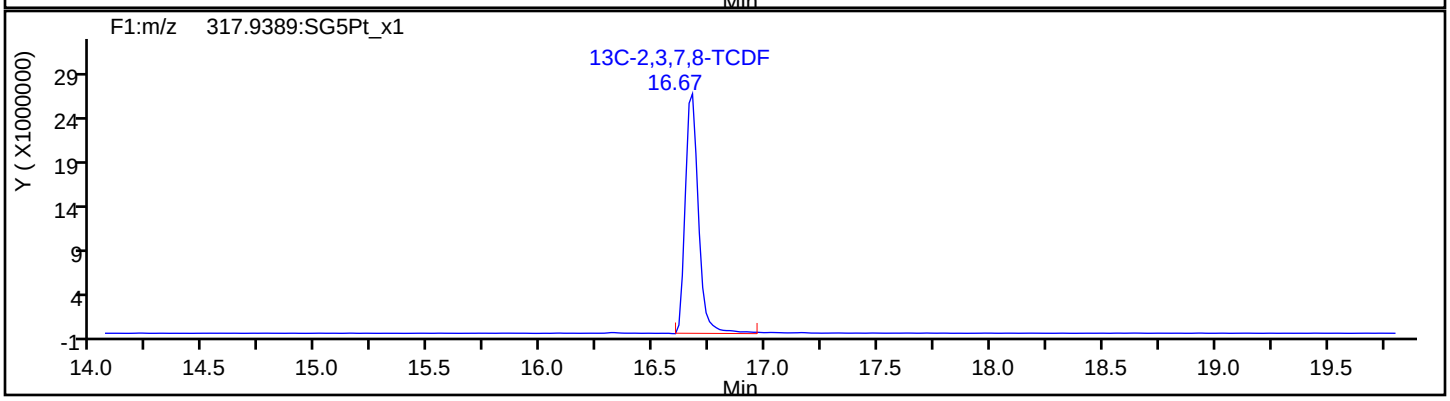
TCDF





TCDF Standards



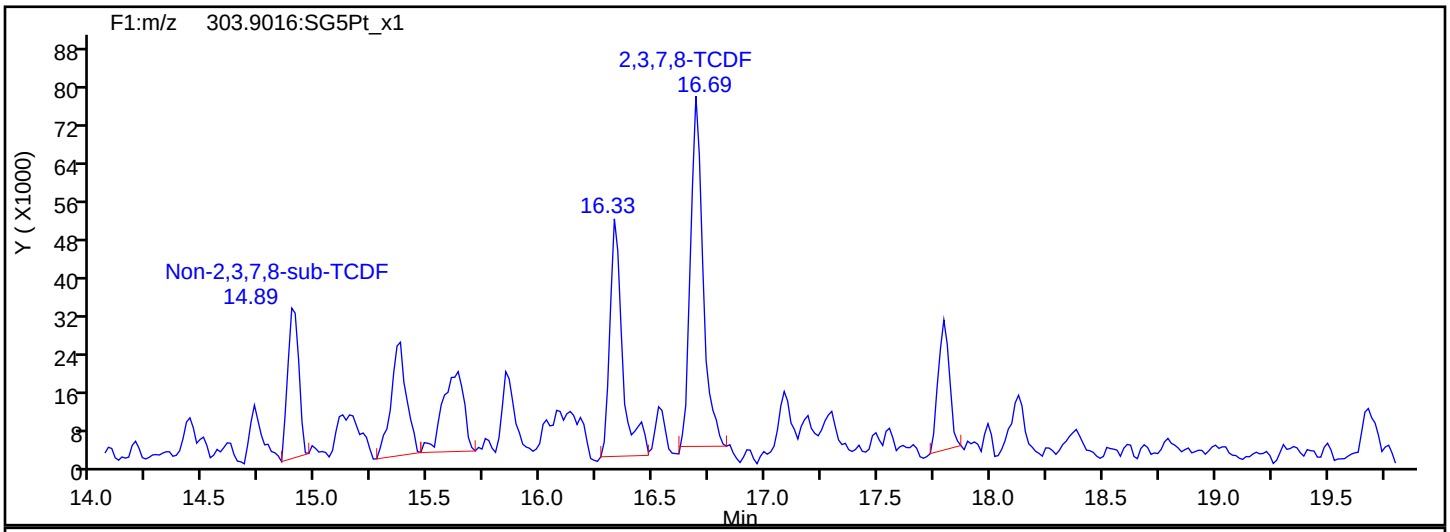


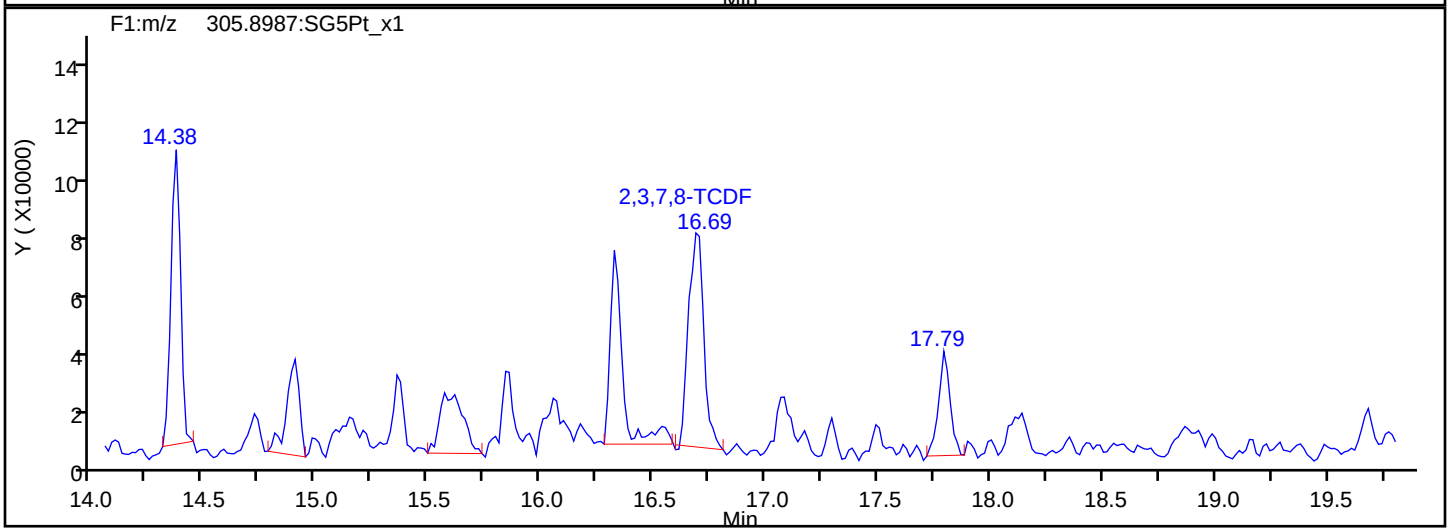
Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

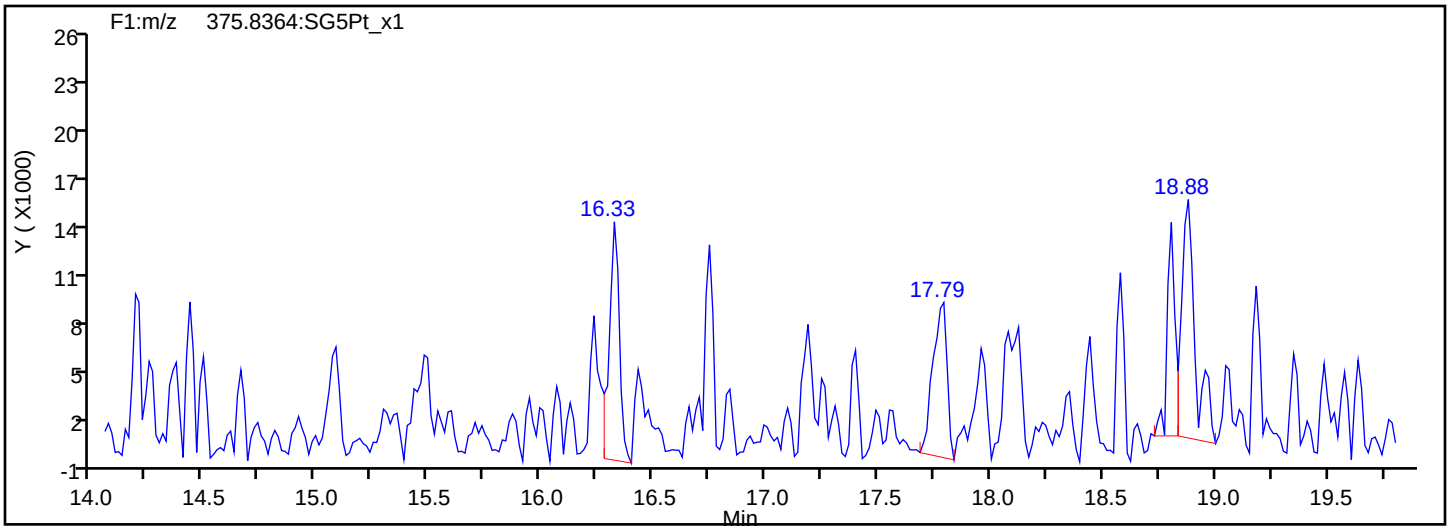
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

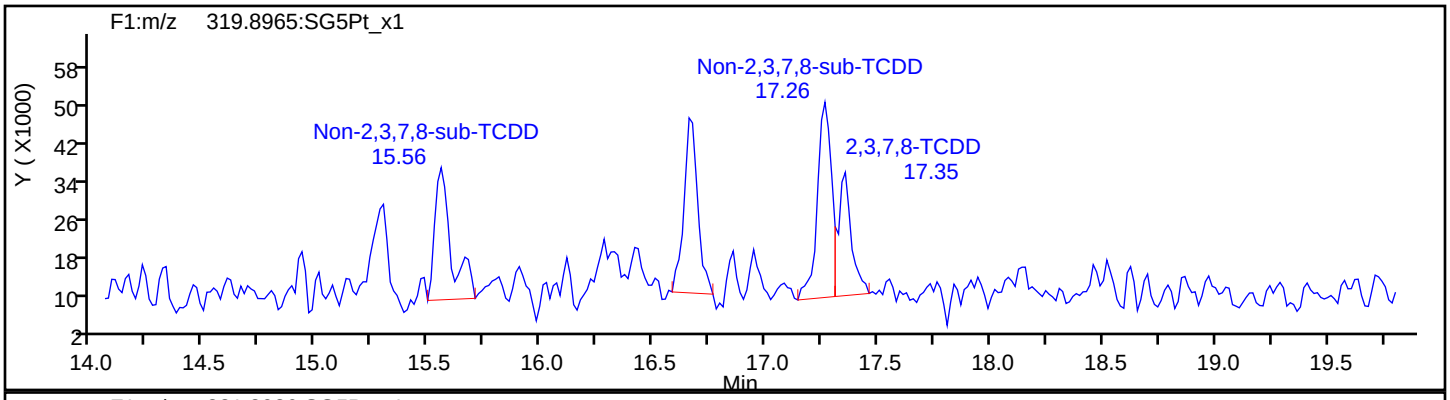


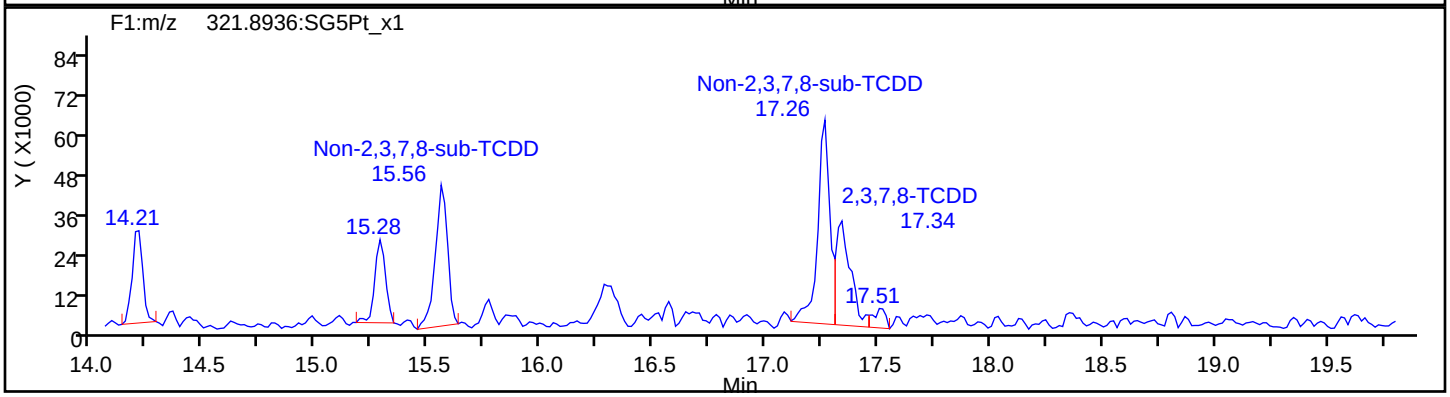
Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

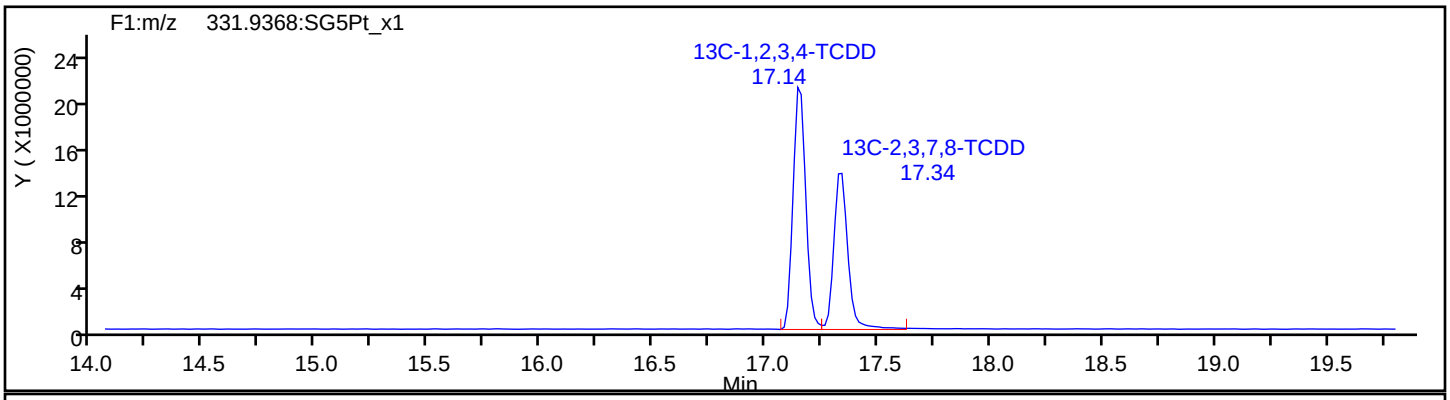
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

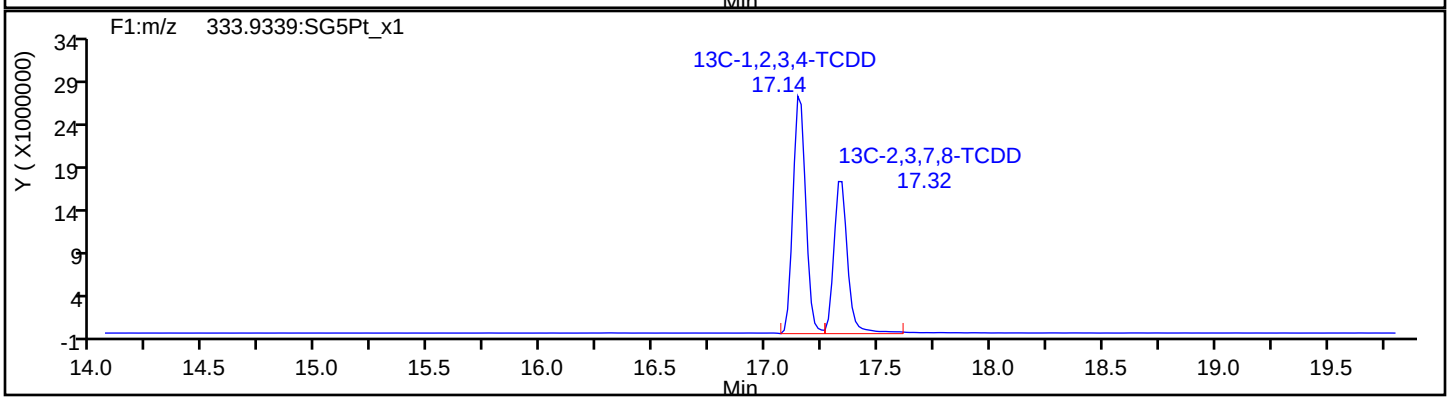
TCDD





TCDD Standards



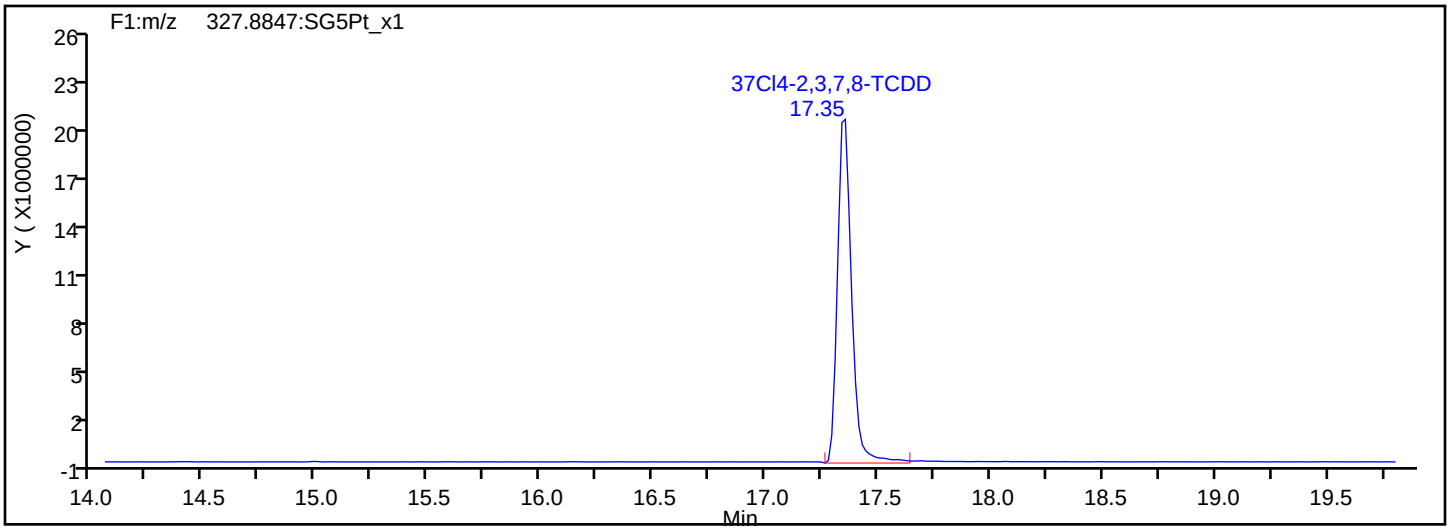


Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

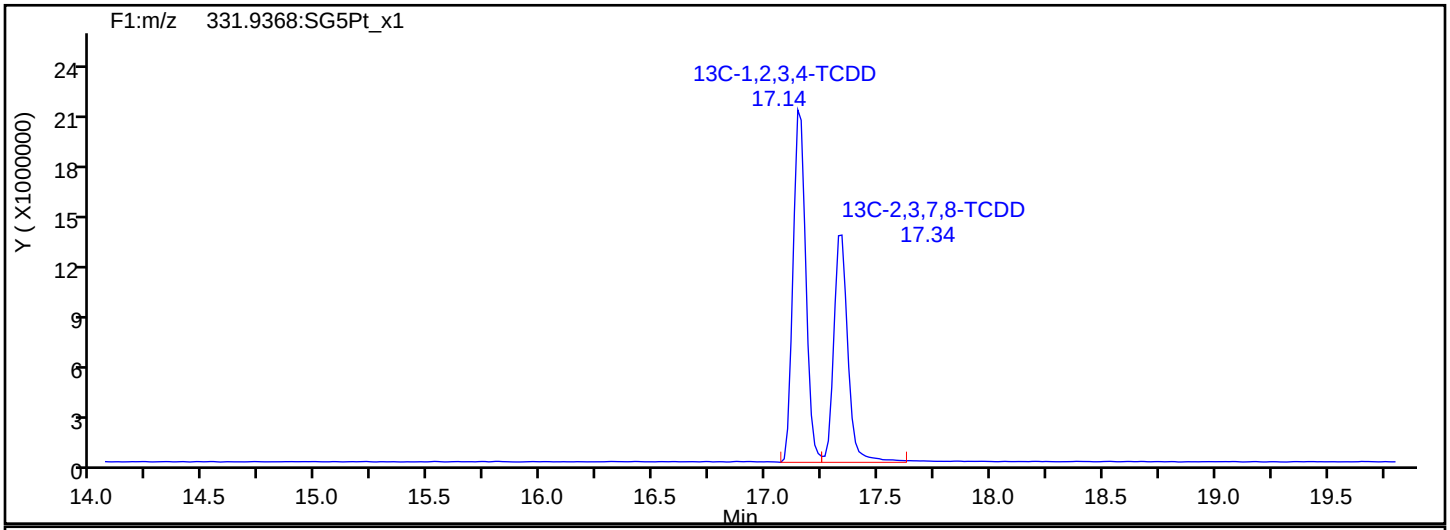
Eurofins TestAmerica, Sacramento

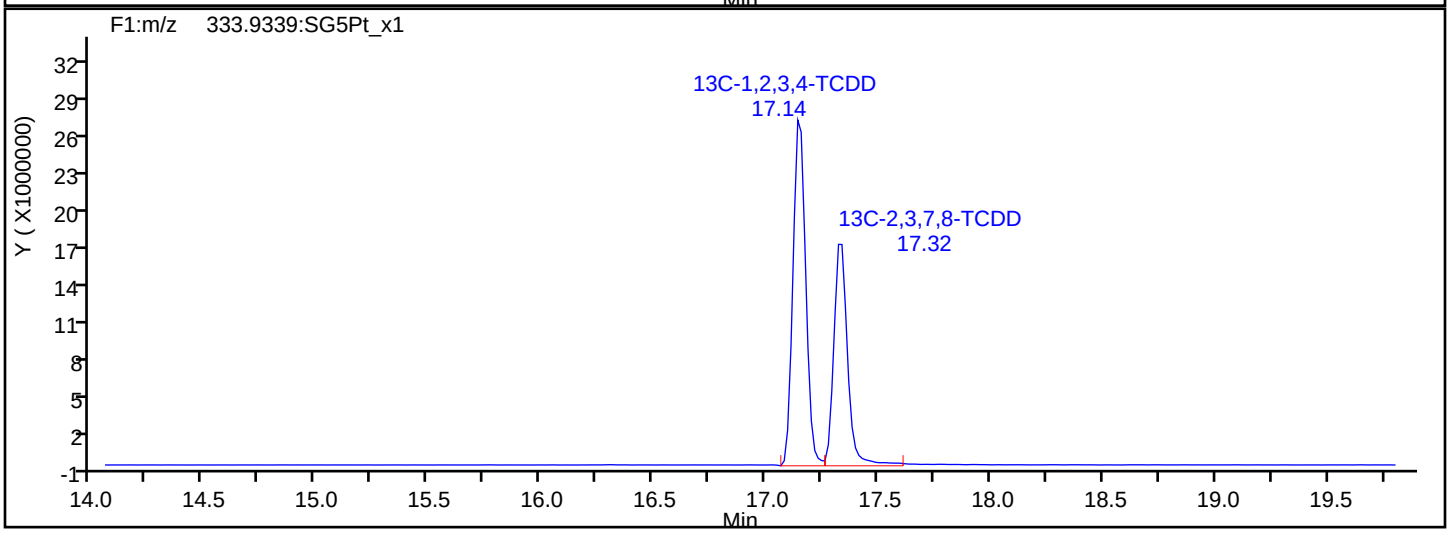
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



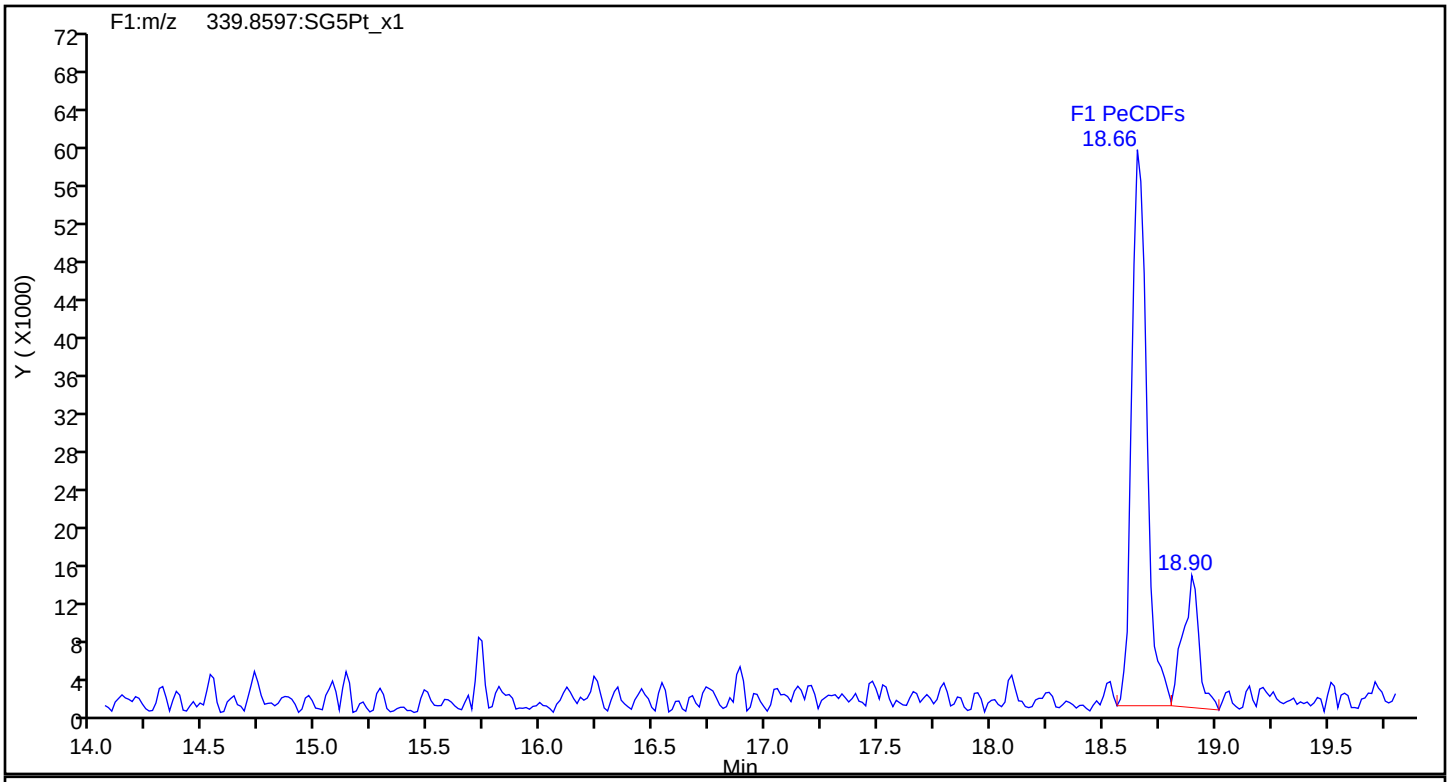


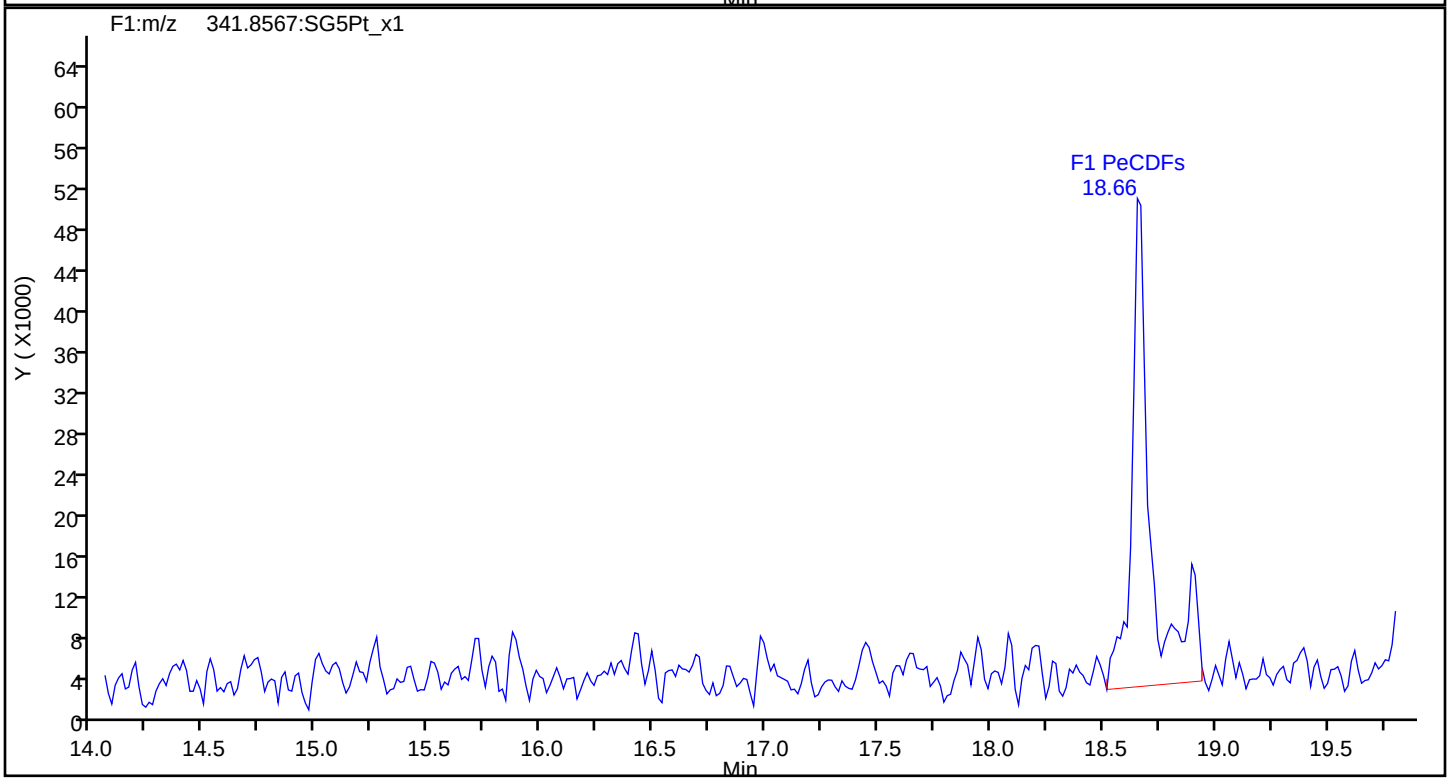
Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs

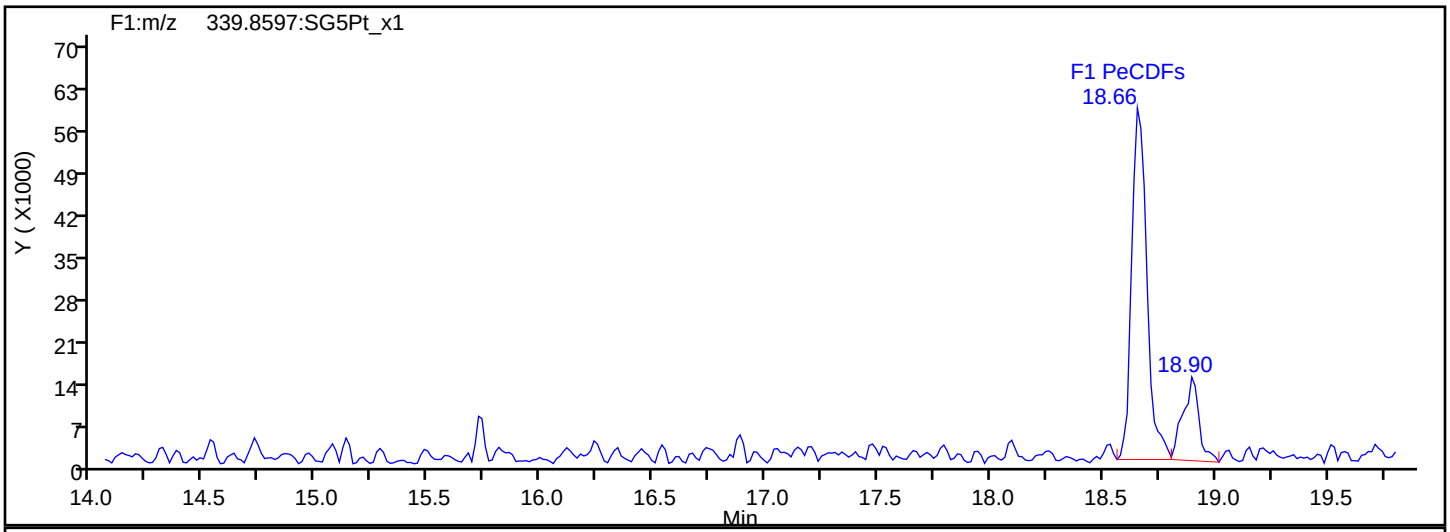


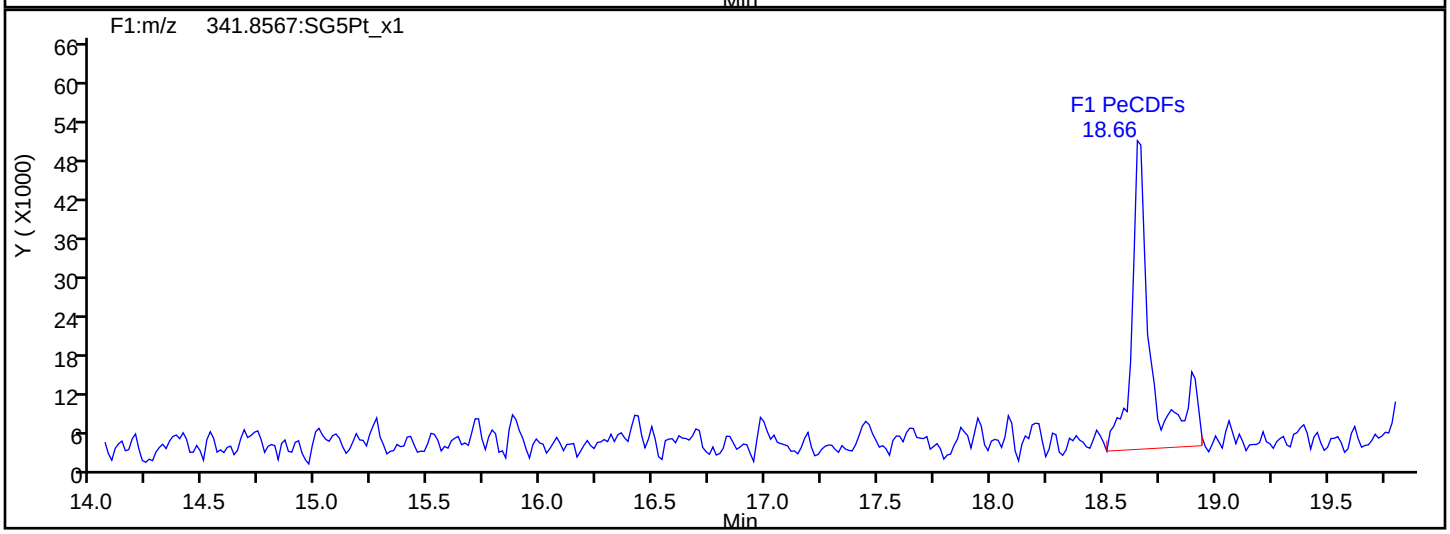


Eurofins TestAmerica, Sacramento

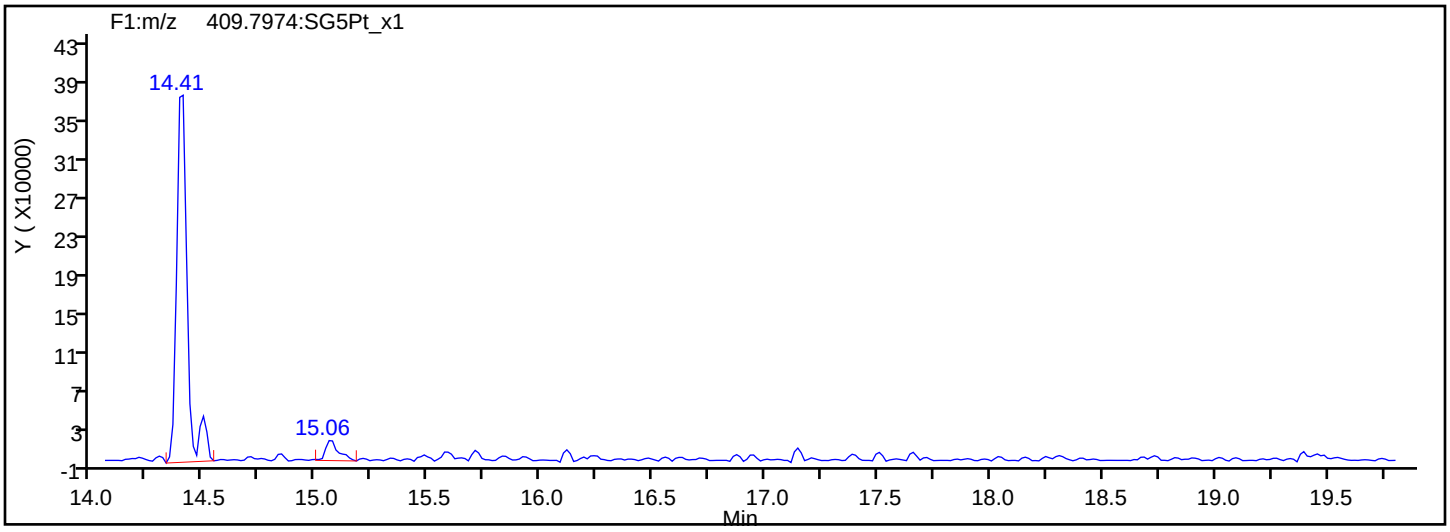
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

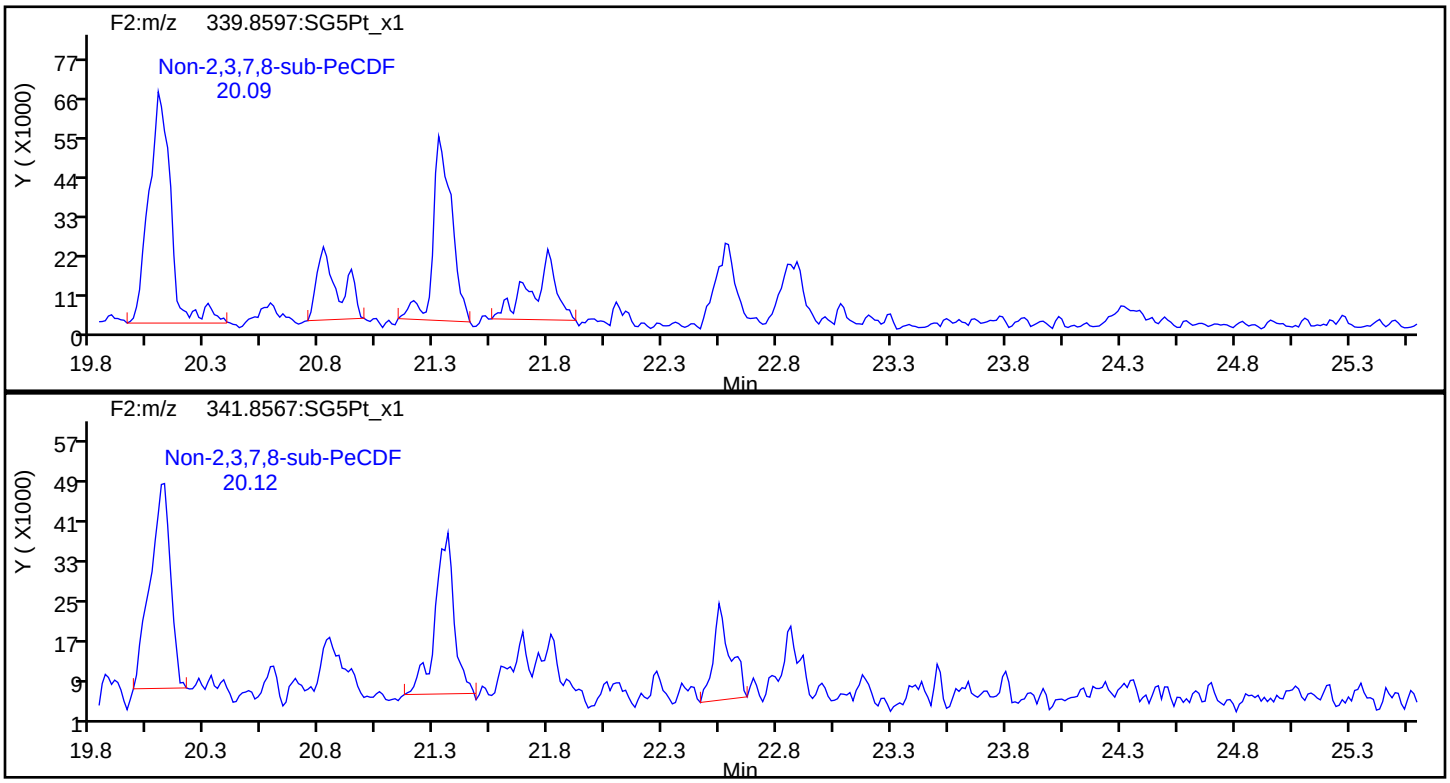


Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

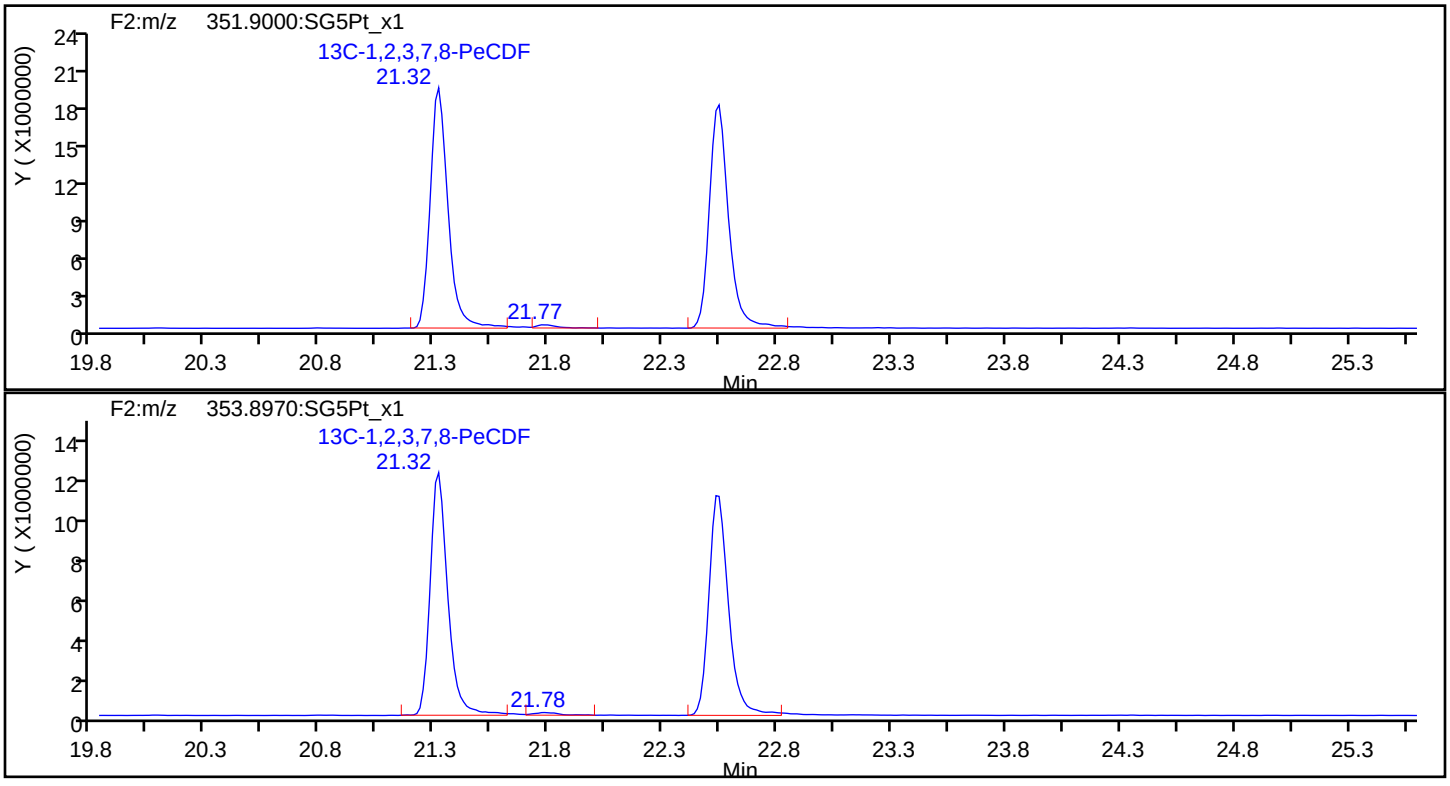
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

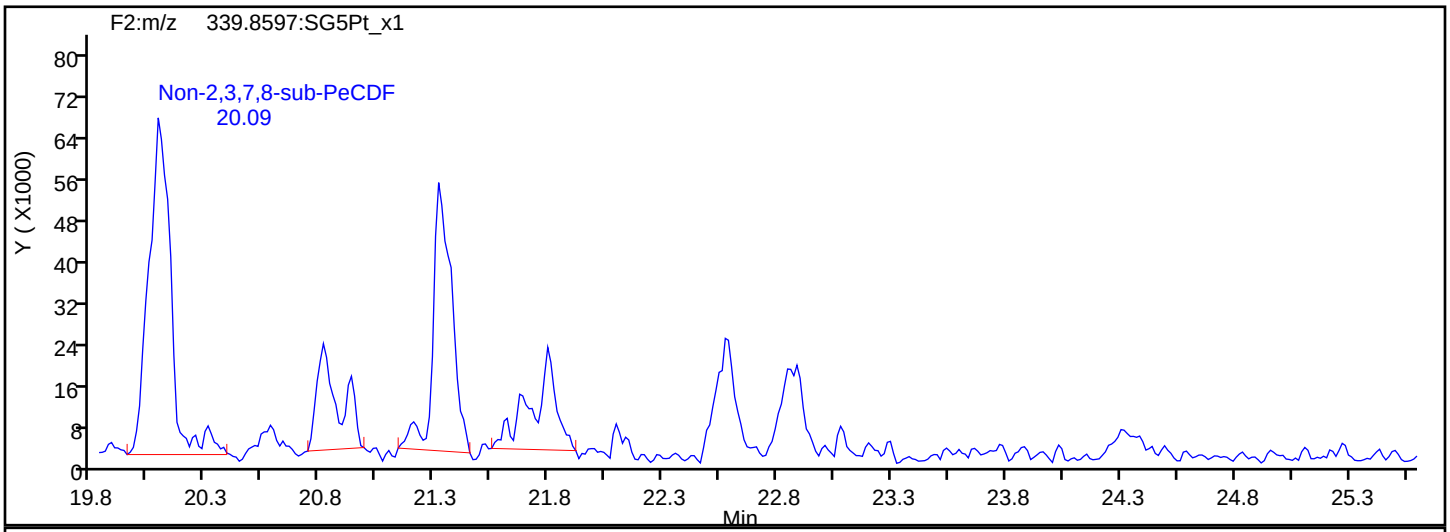


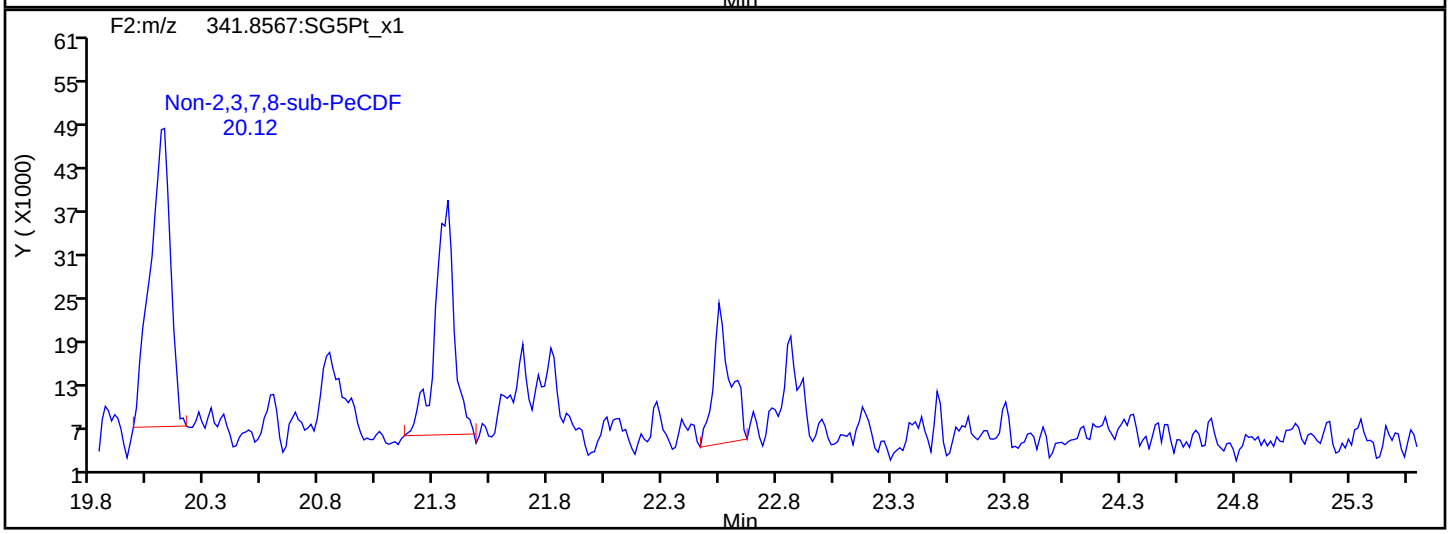
Report Date: 23-Jul-2019 12:21:41 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

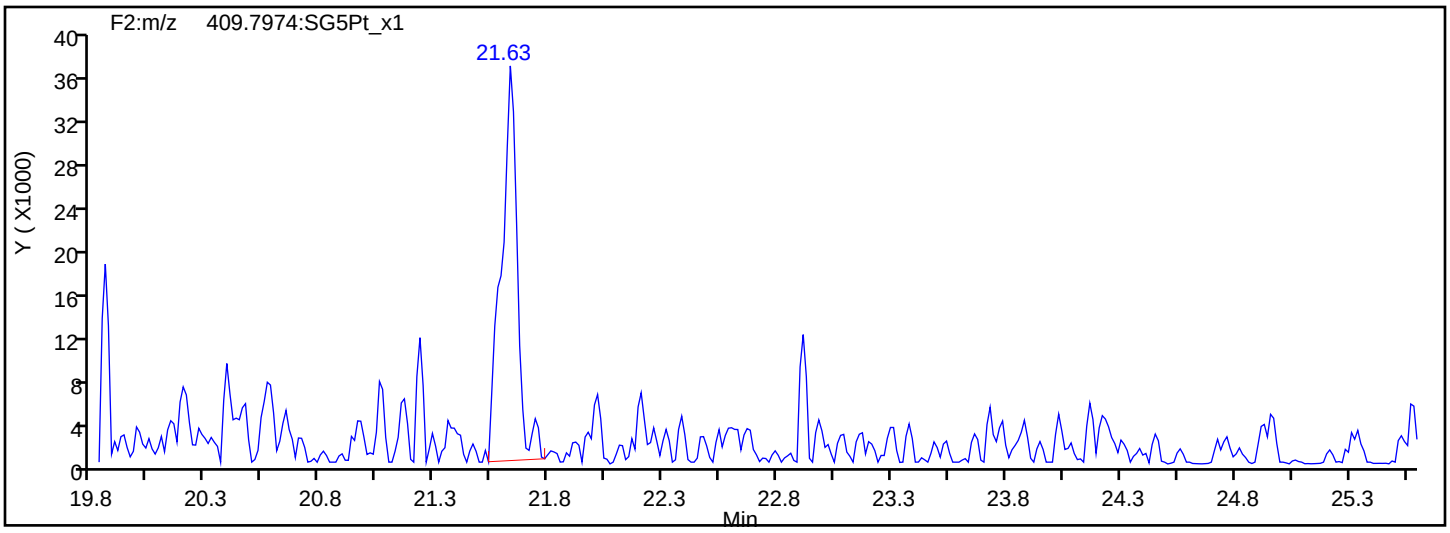
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

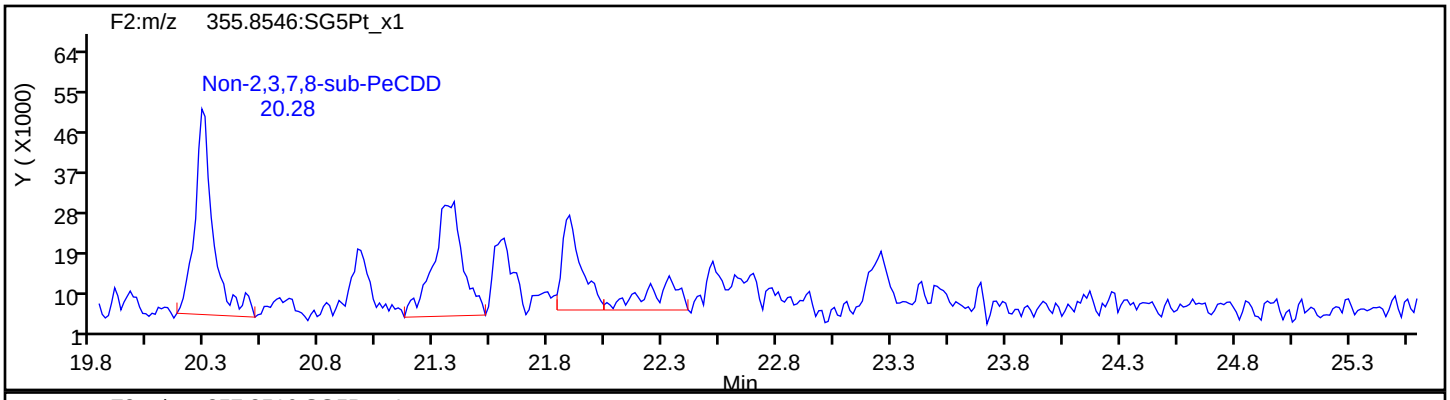


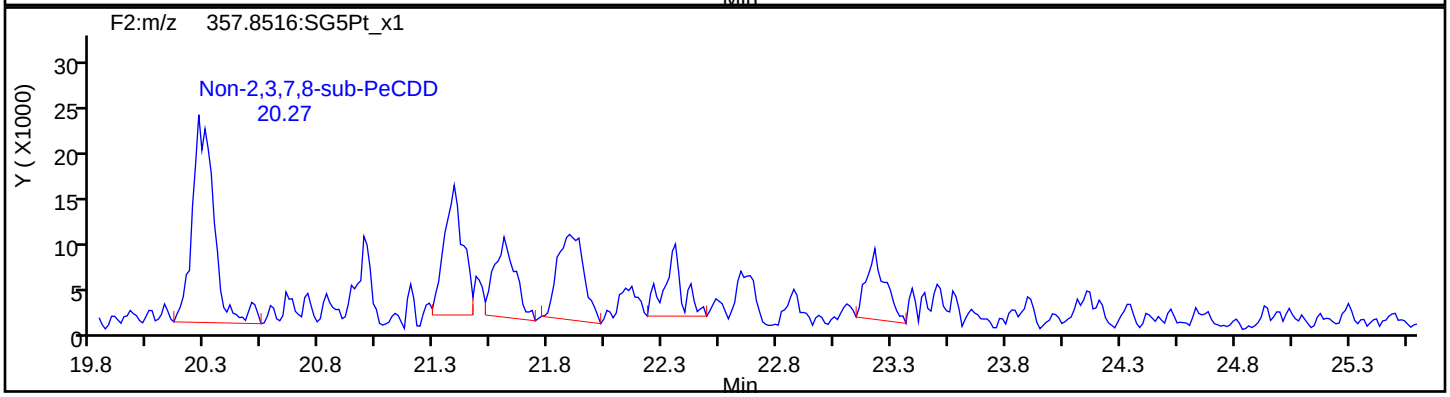
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

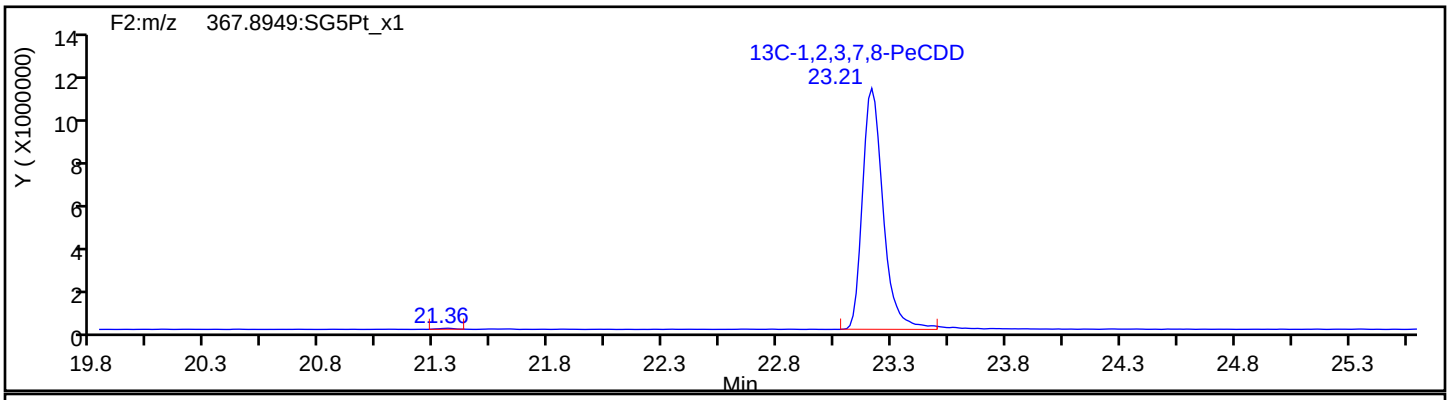
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

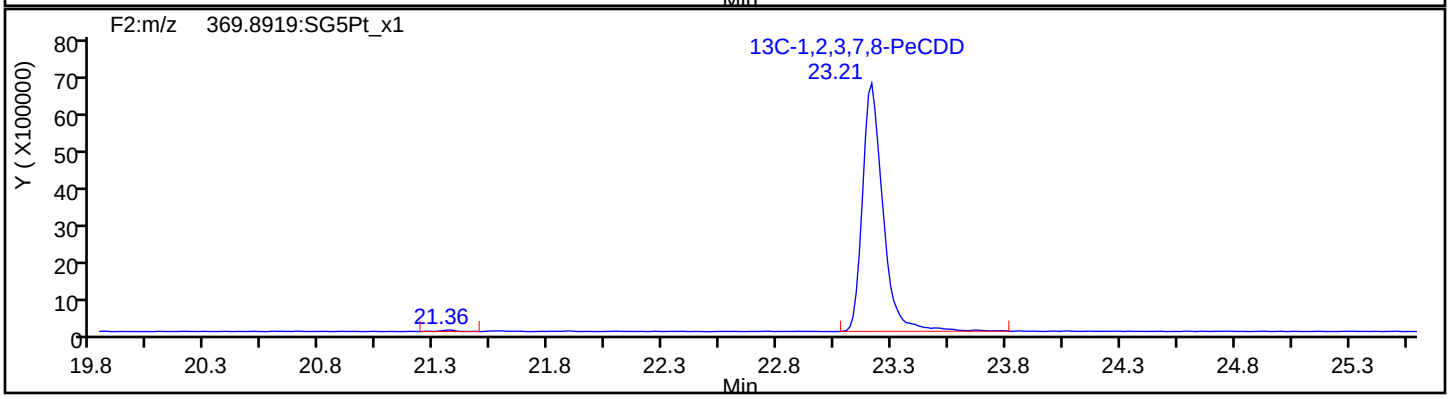
PeCDD





PeCDD Standards





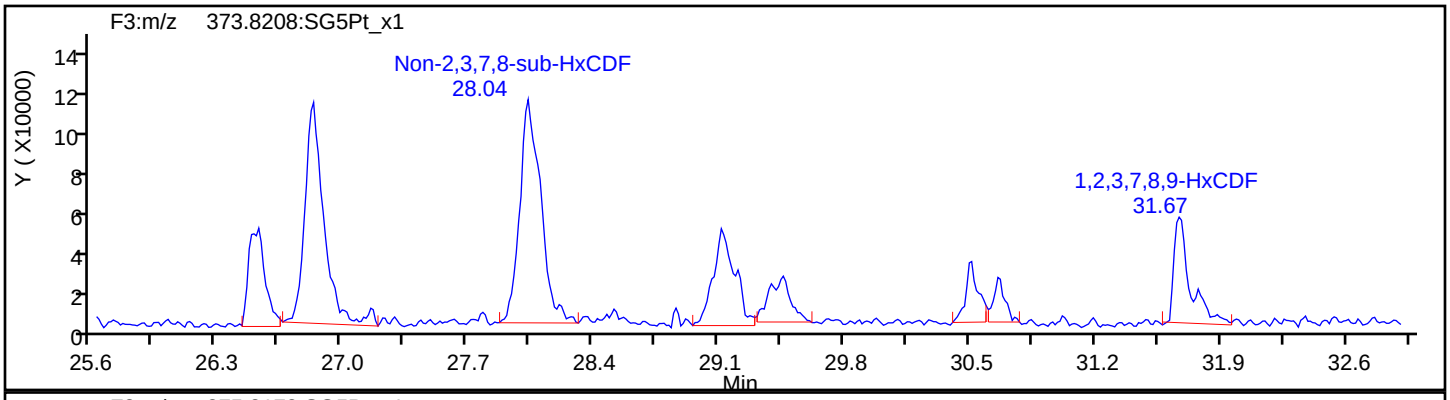
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

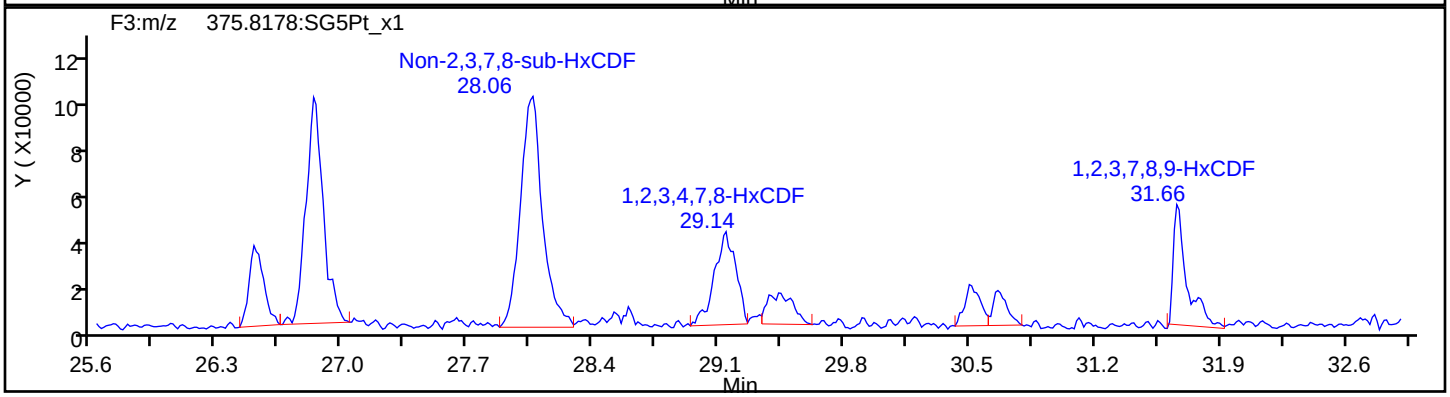
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d

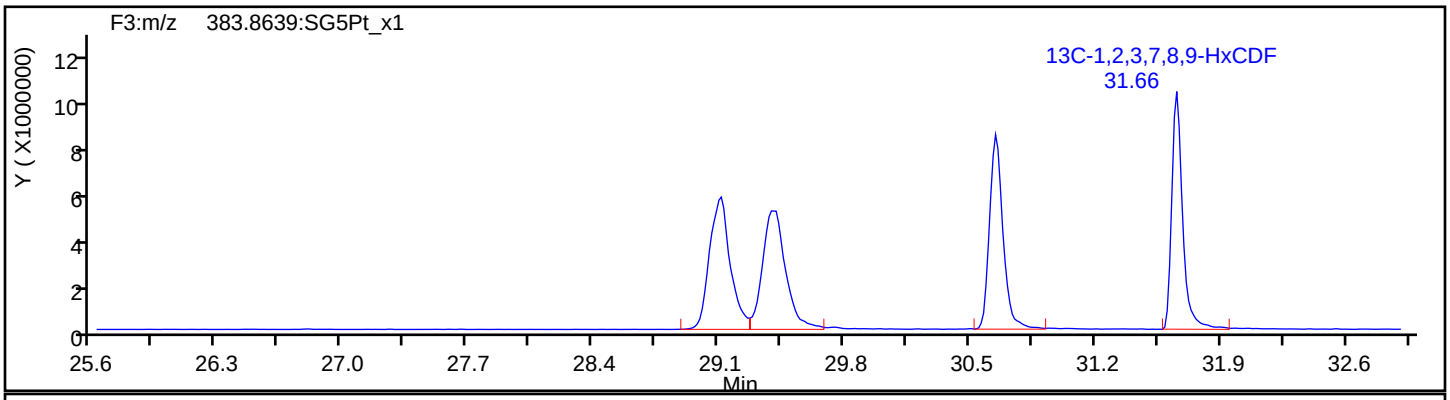
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

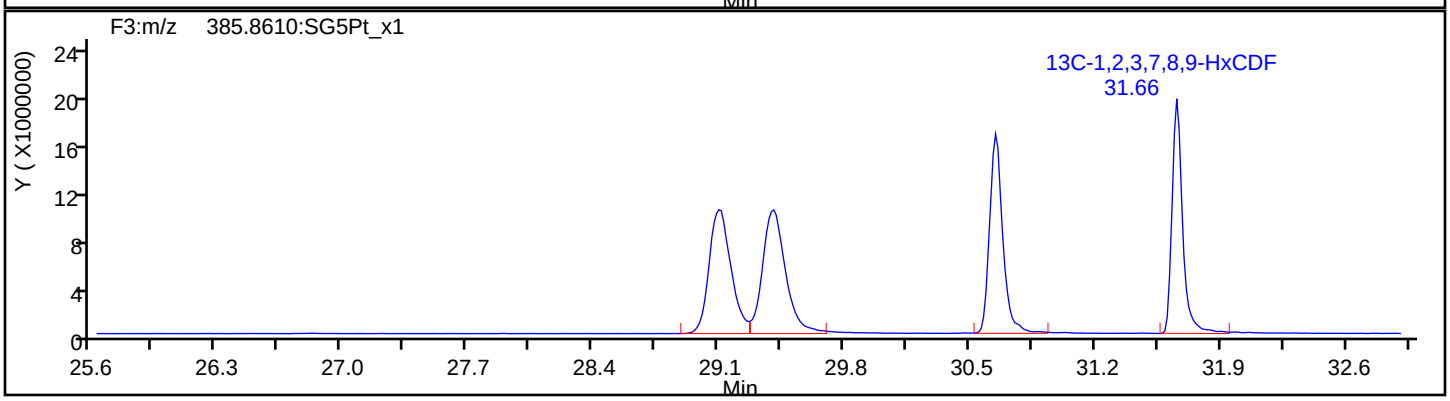
HxCDF





HxCDF Standards



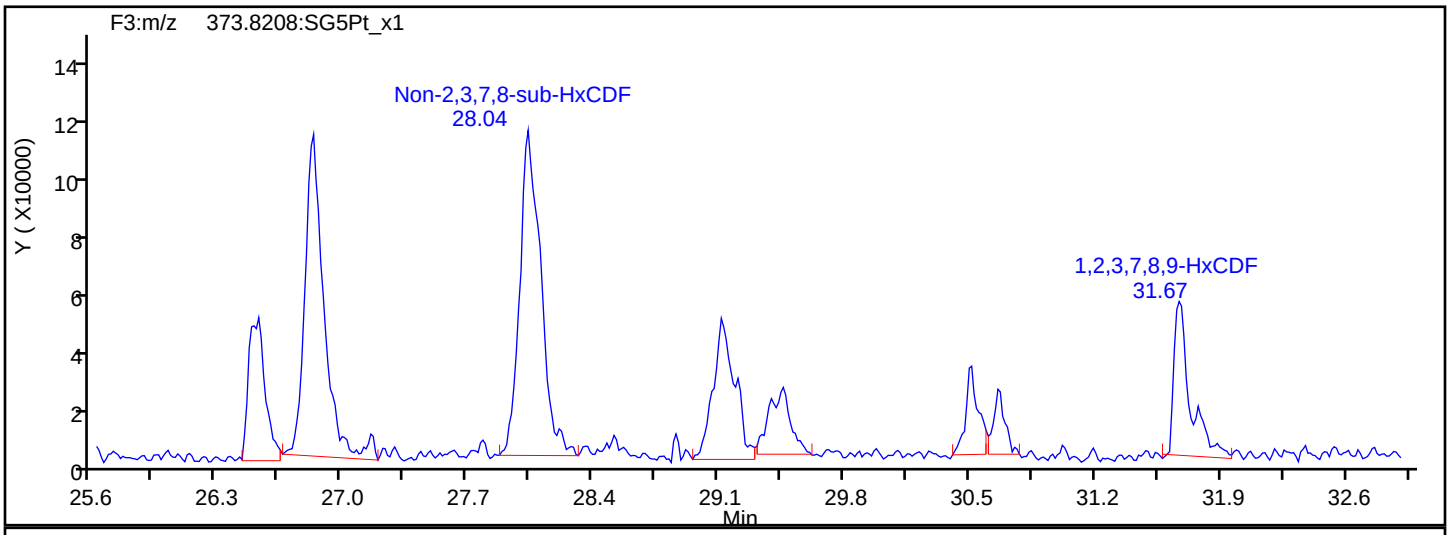


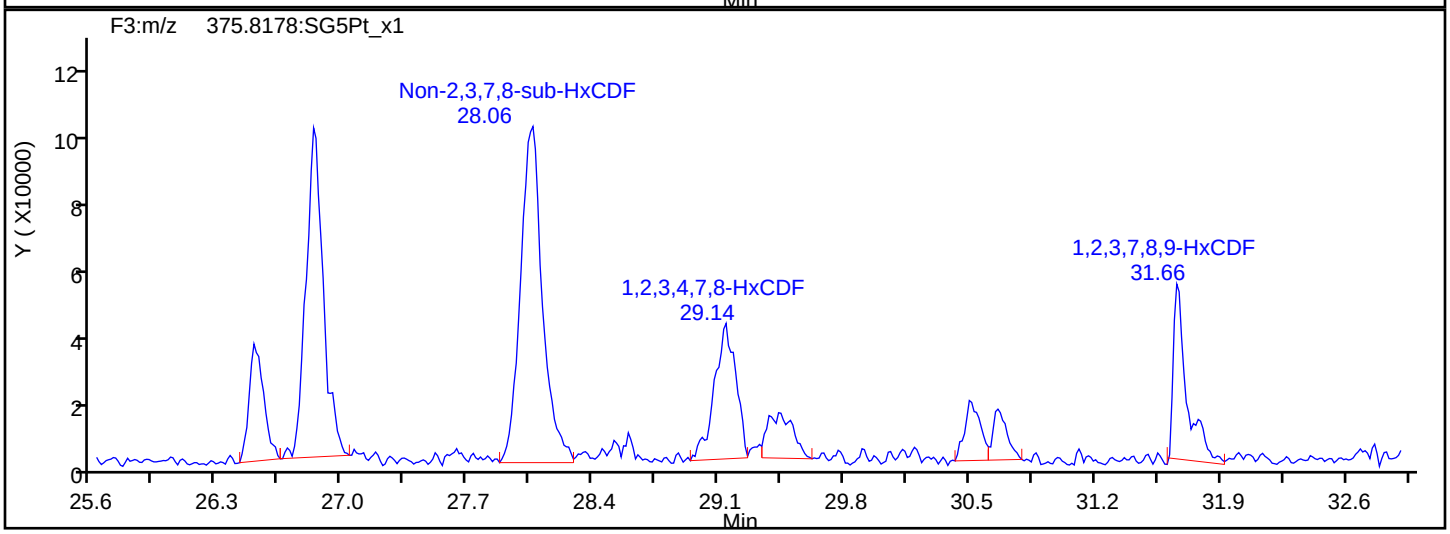
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

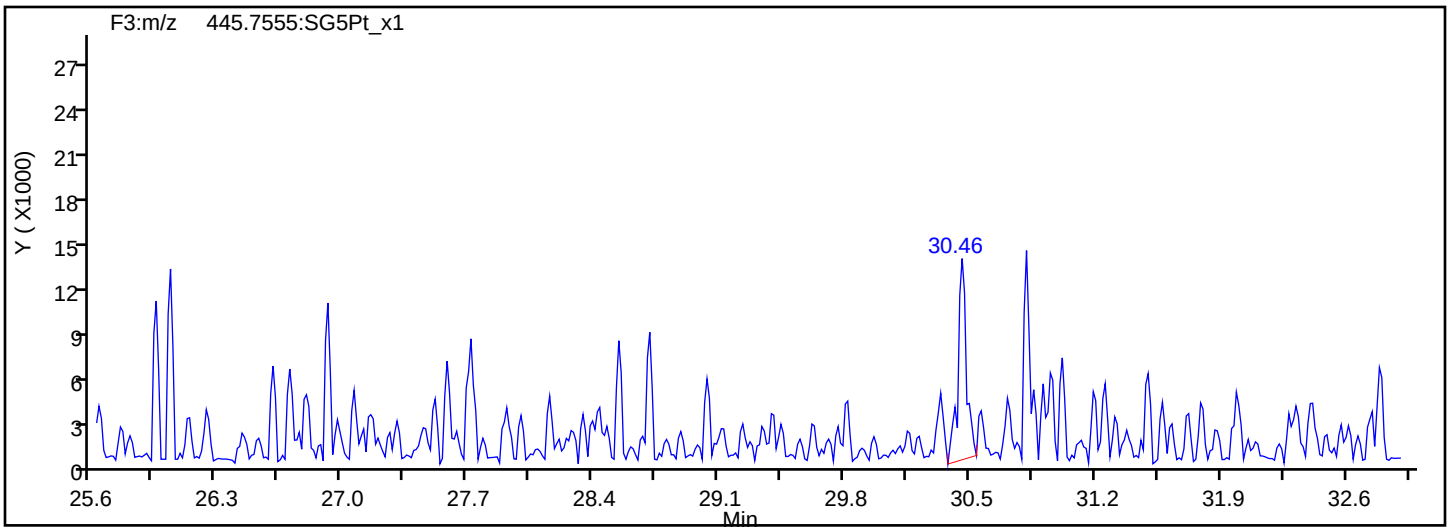
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

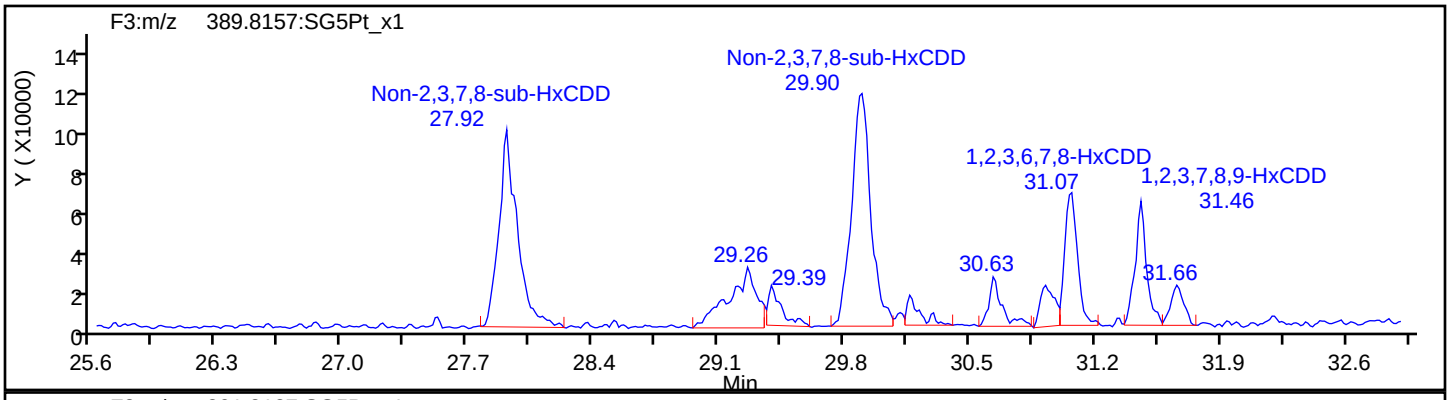


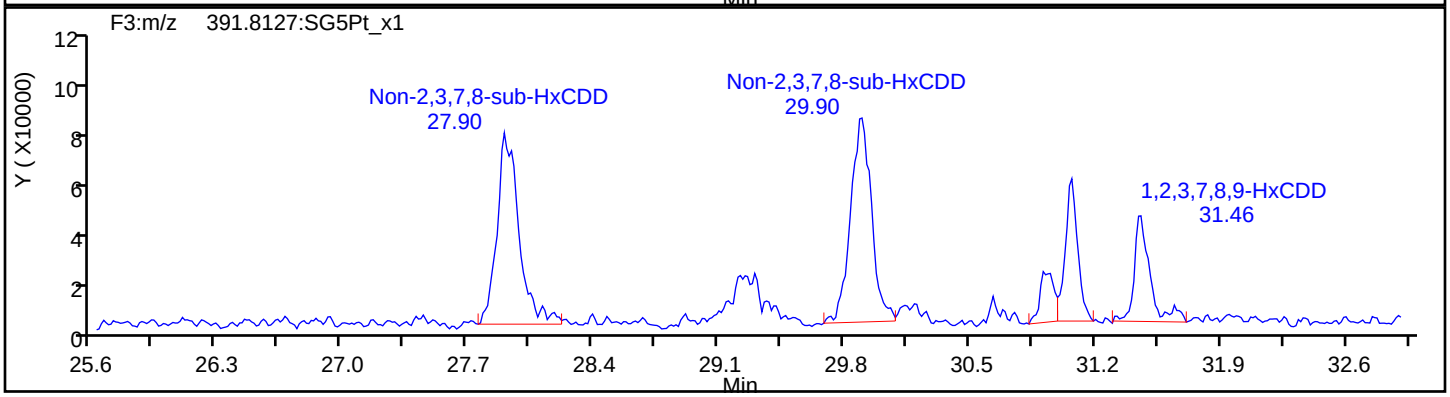
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

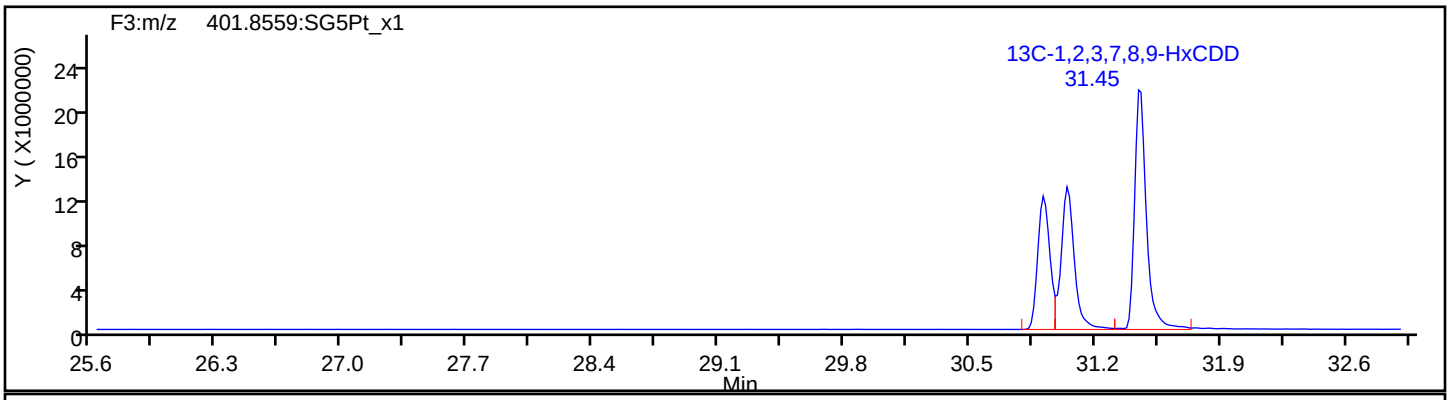
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

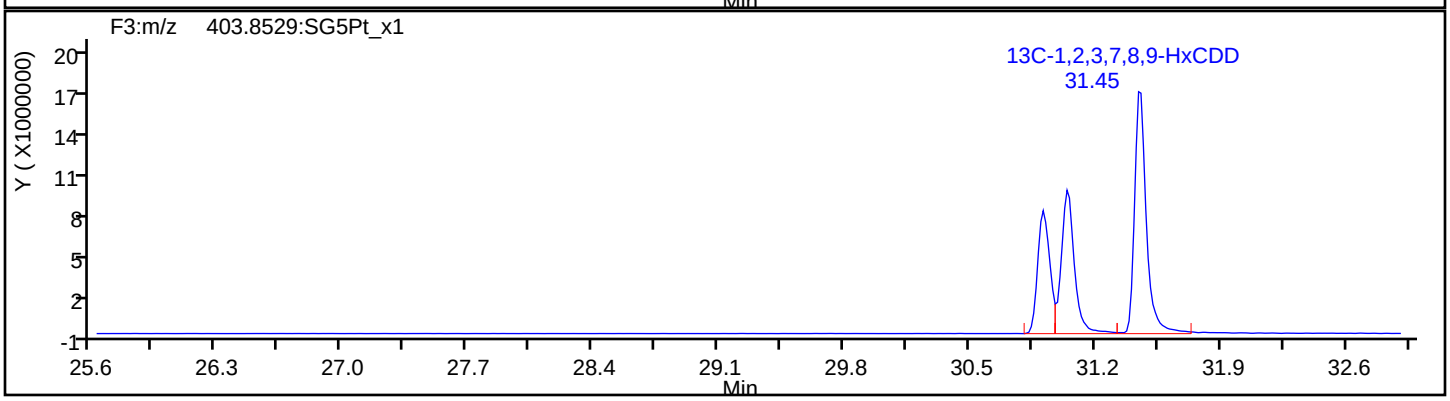
HxCDD





HxCDD Standards



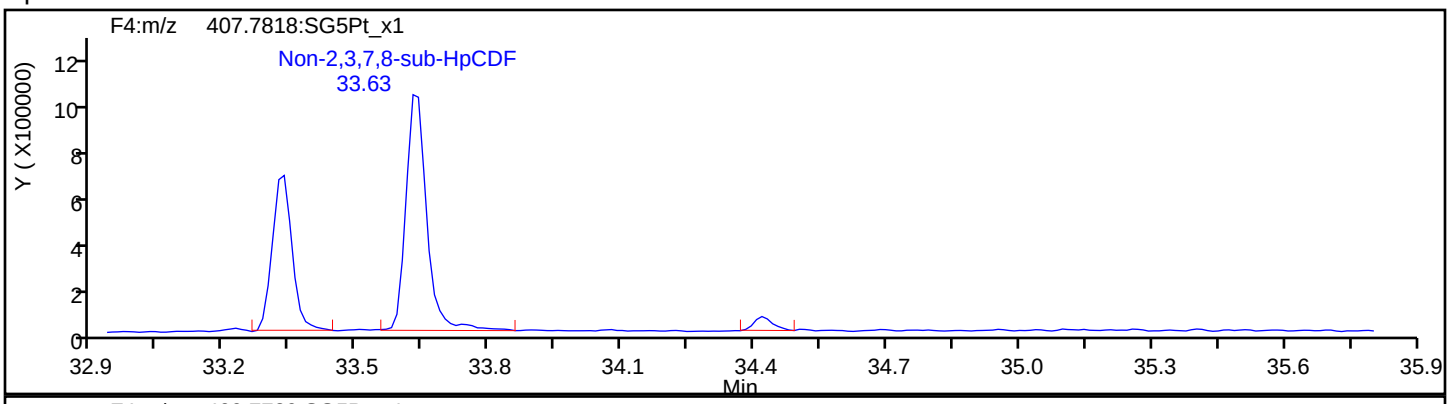


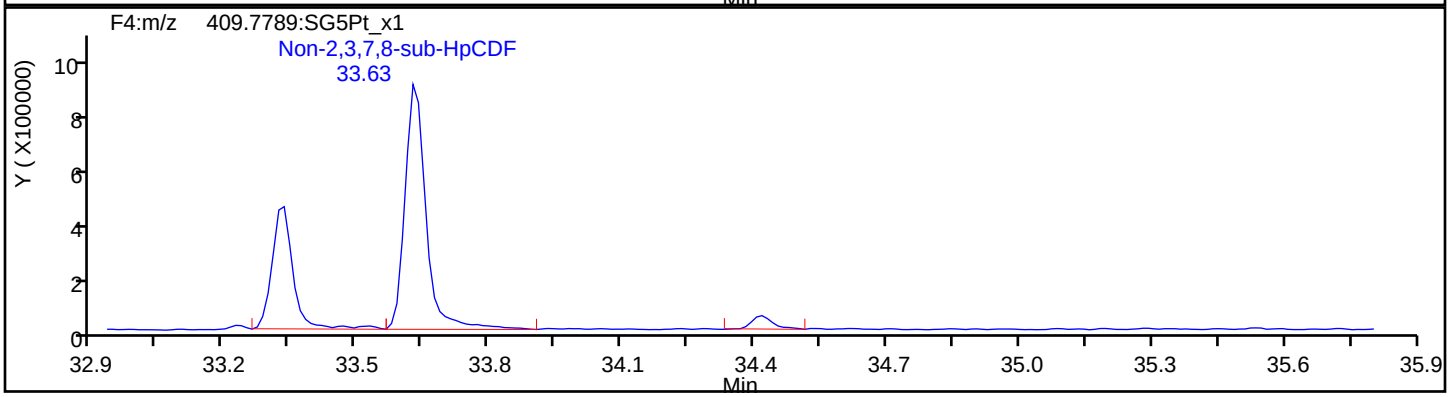
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

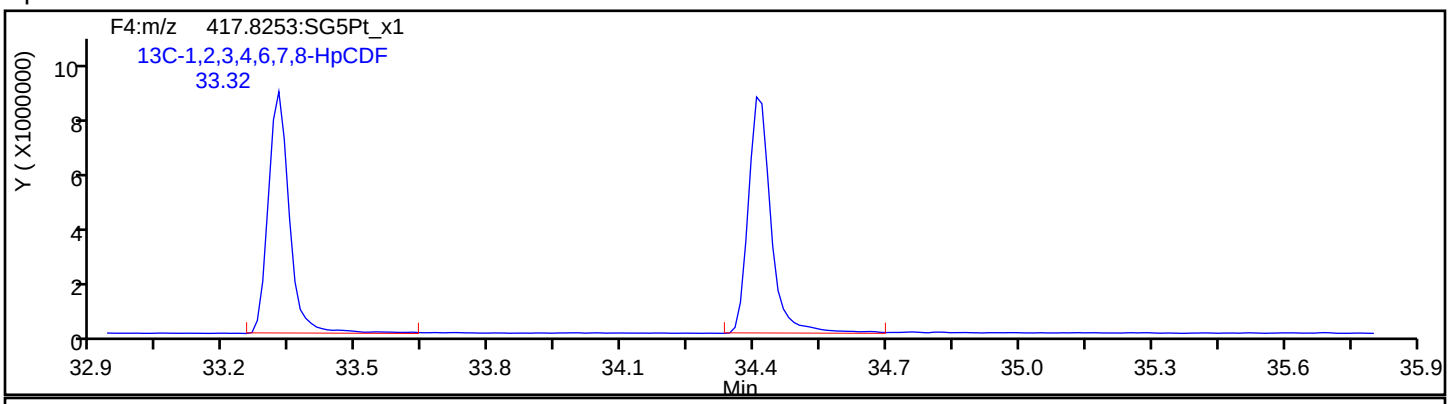
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

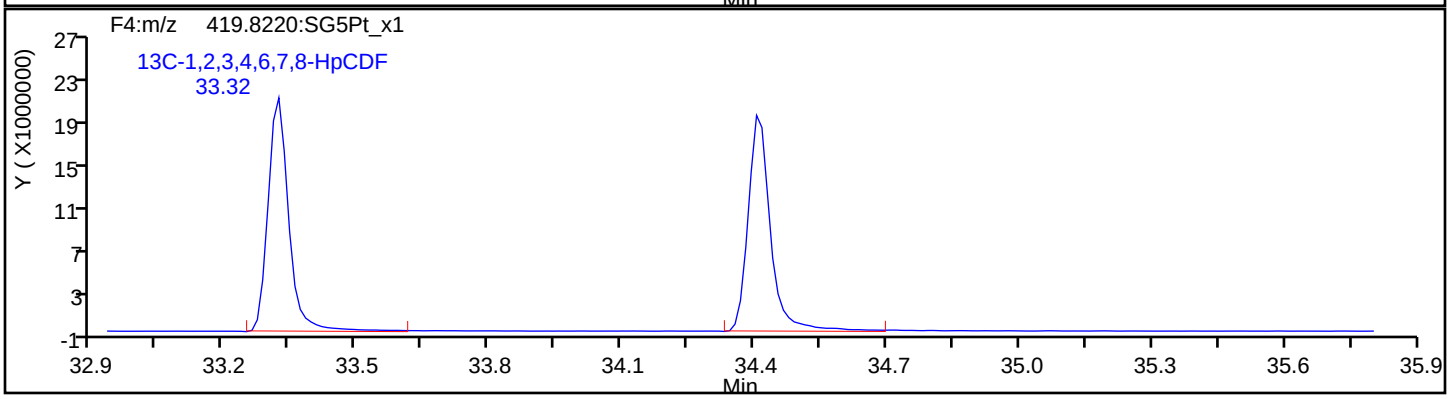
HpCDF





HpCDF Standards



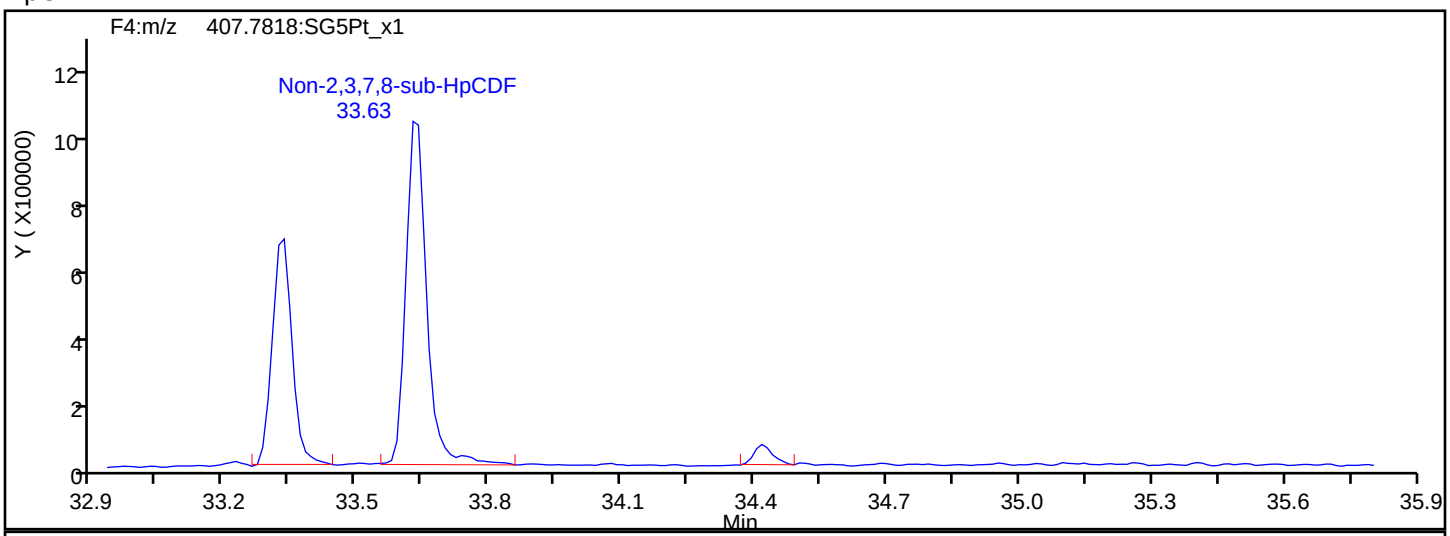


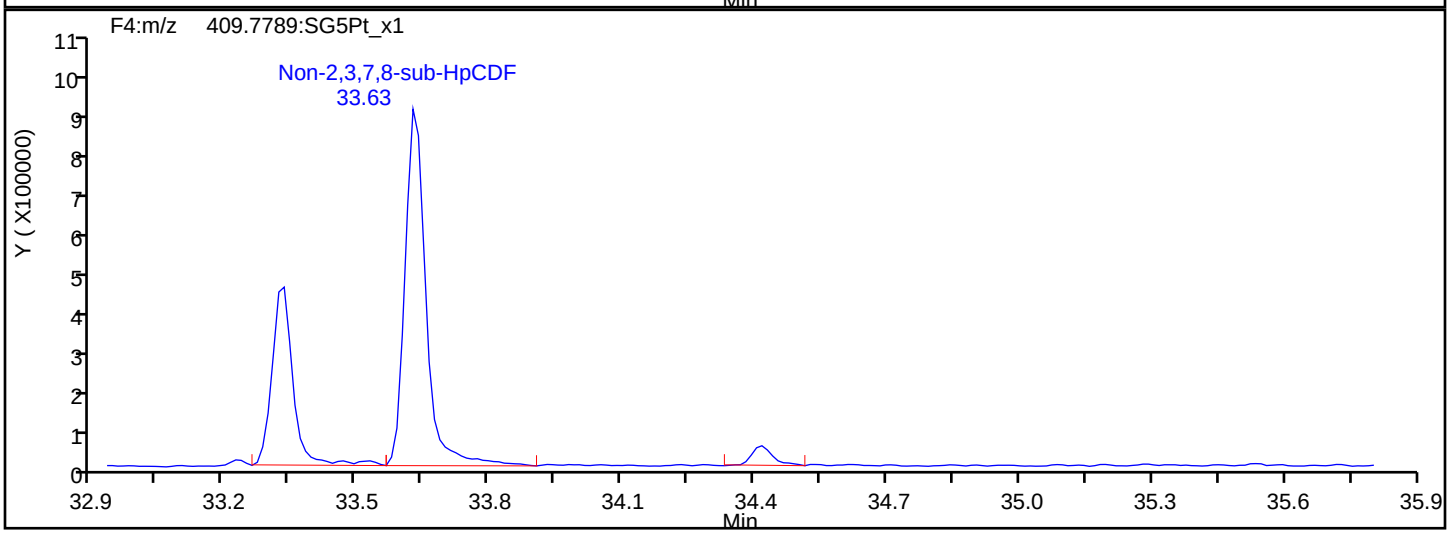
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

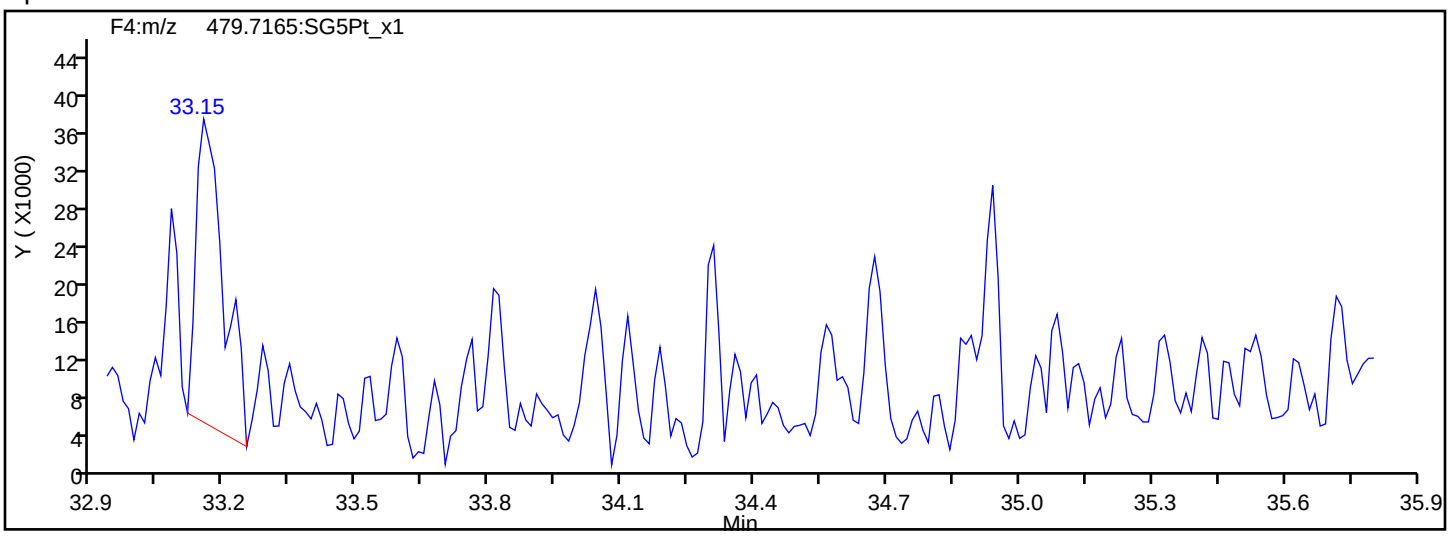
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

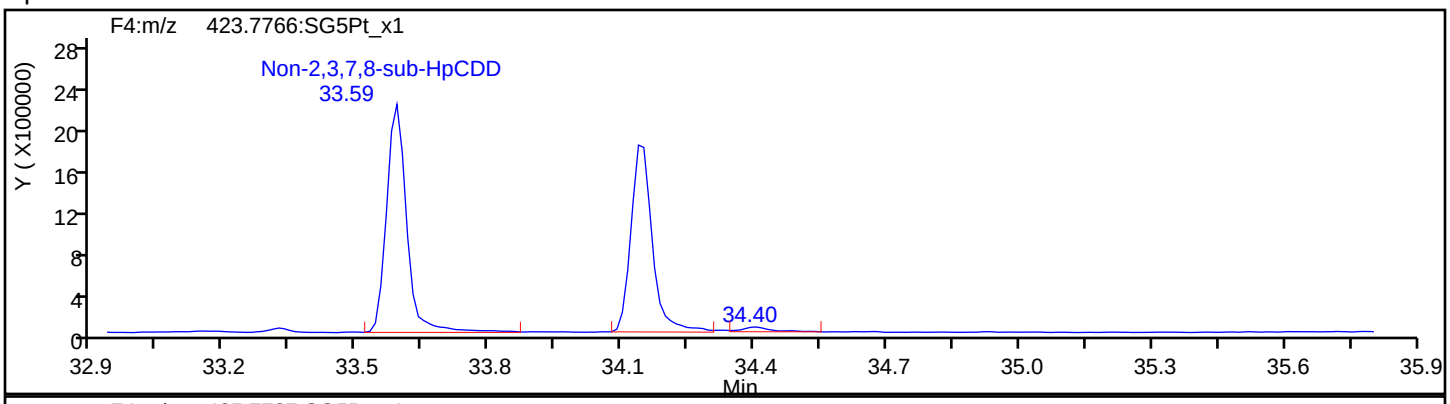


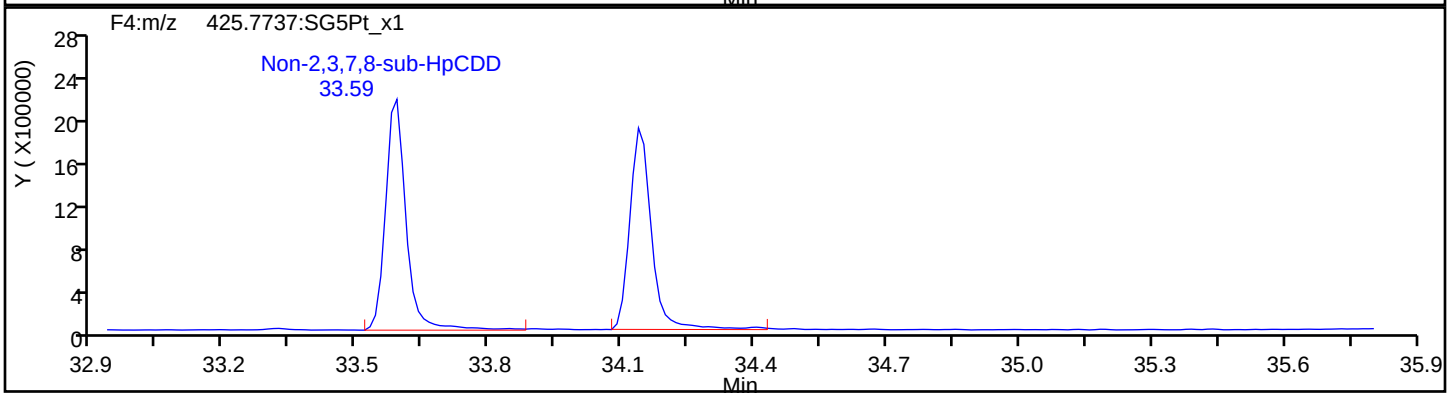
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

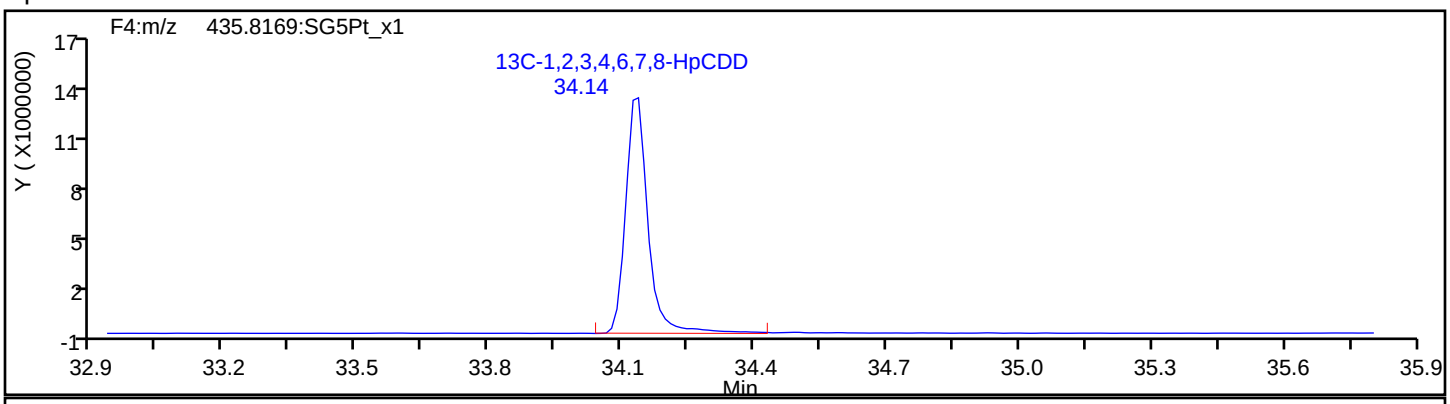
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

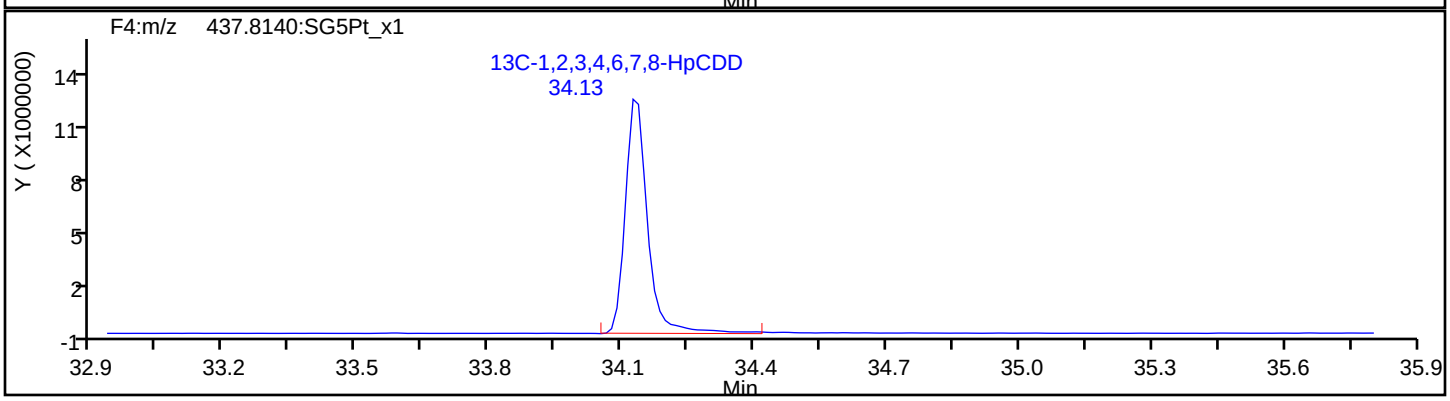
HpCDD





HpCDD Standards



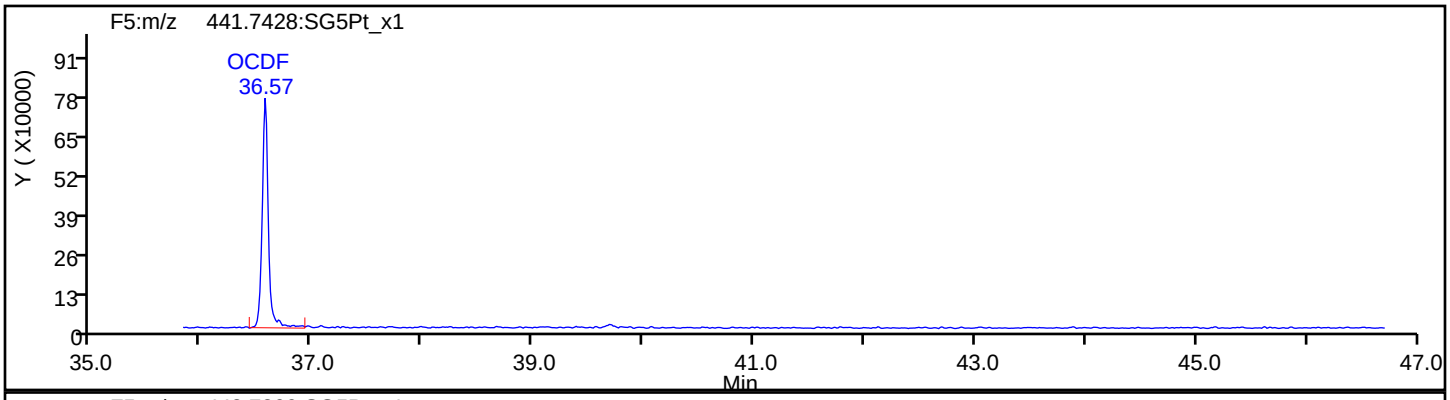


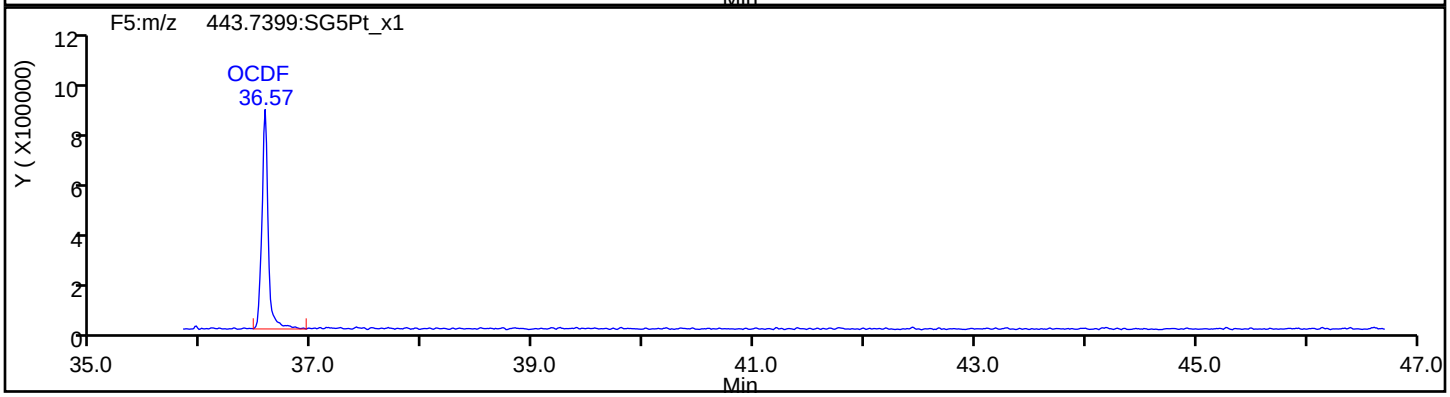
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

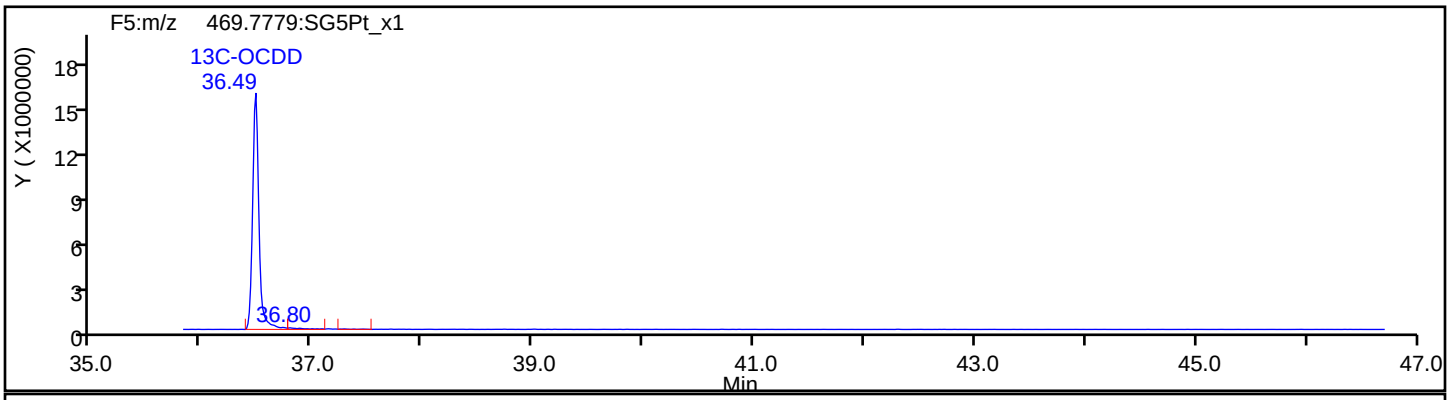
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

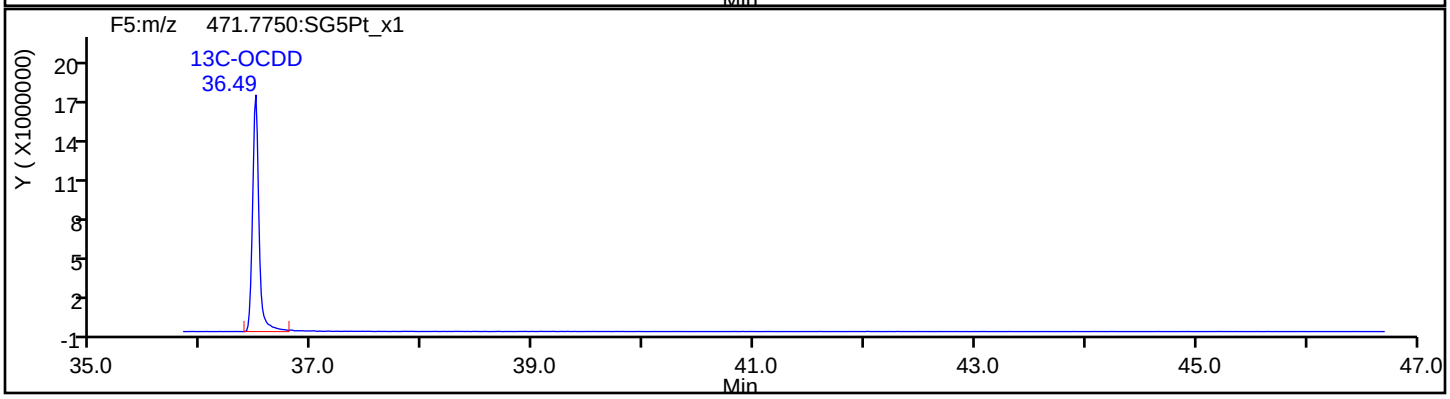
OCDF





OCDF Standards



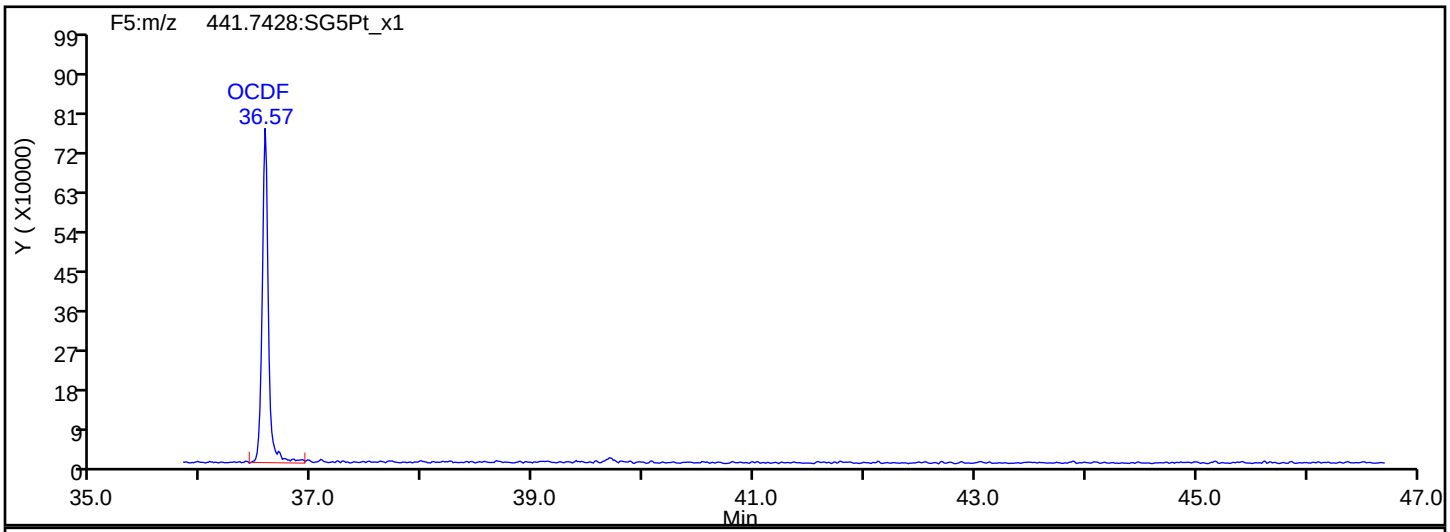


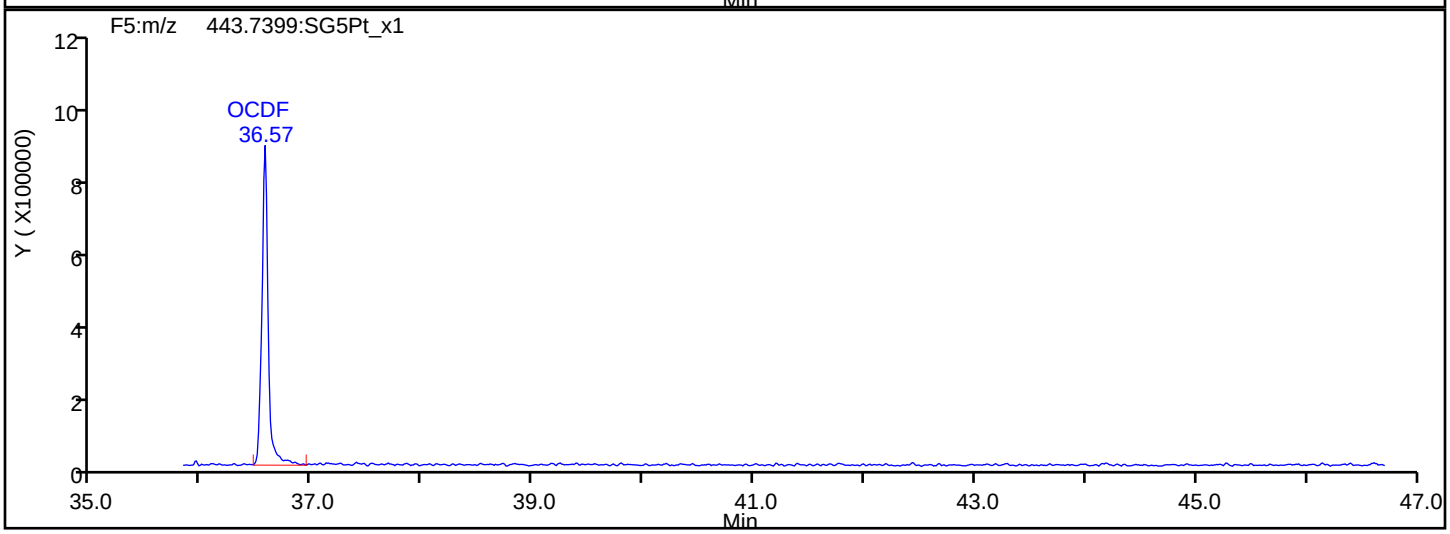
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

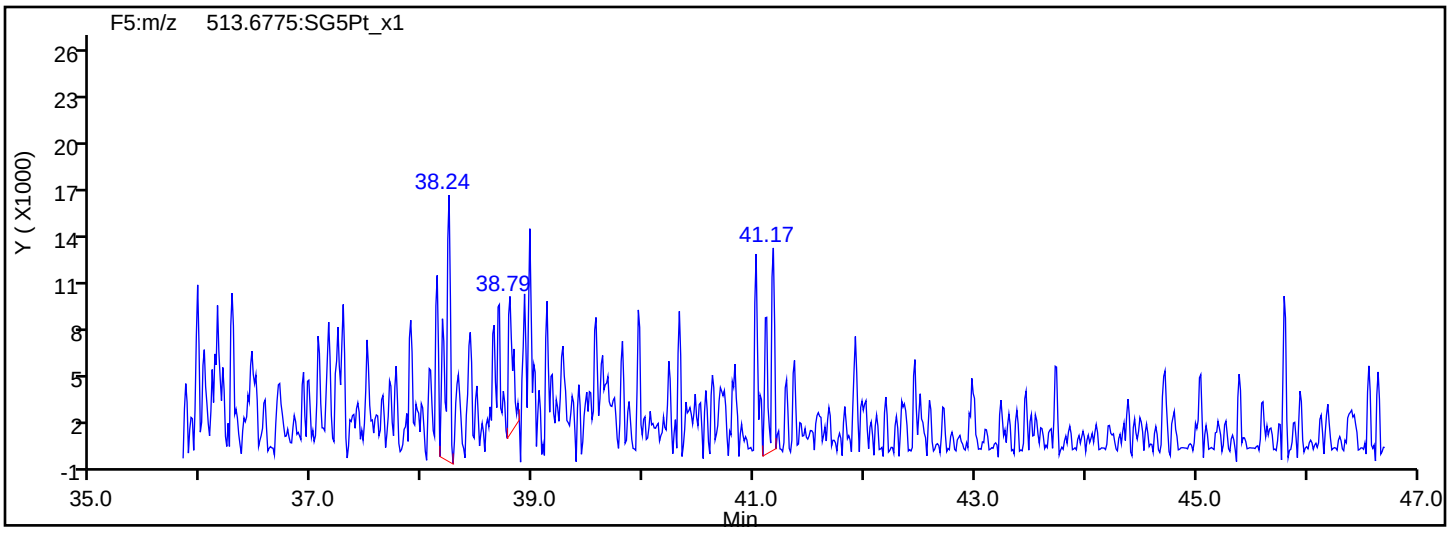
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

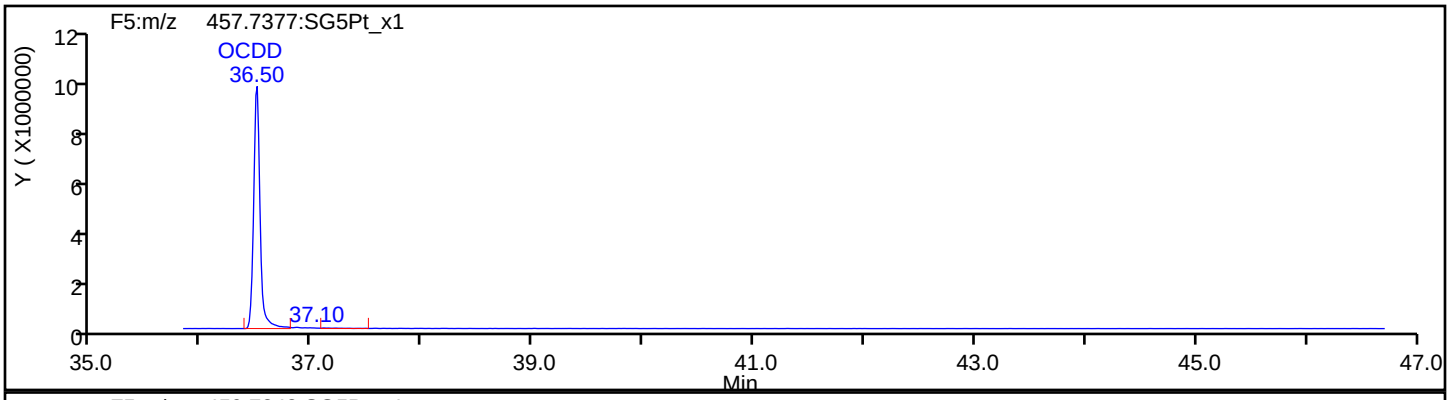


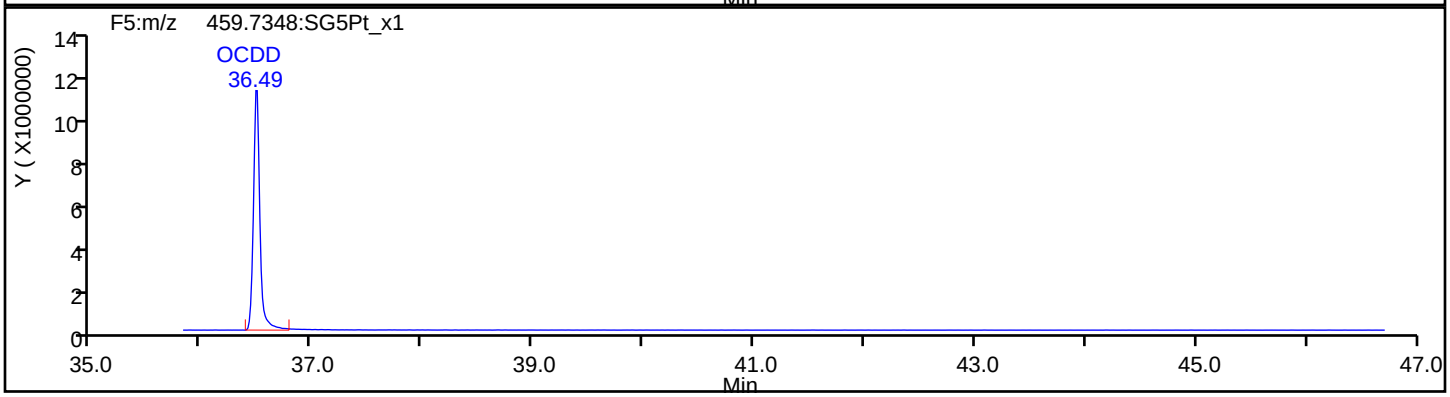
Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

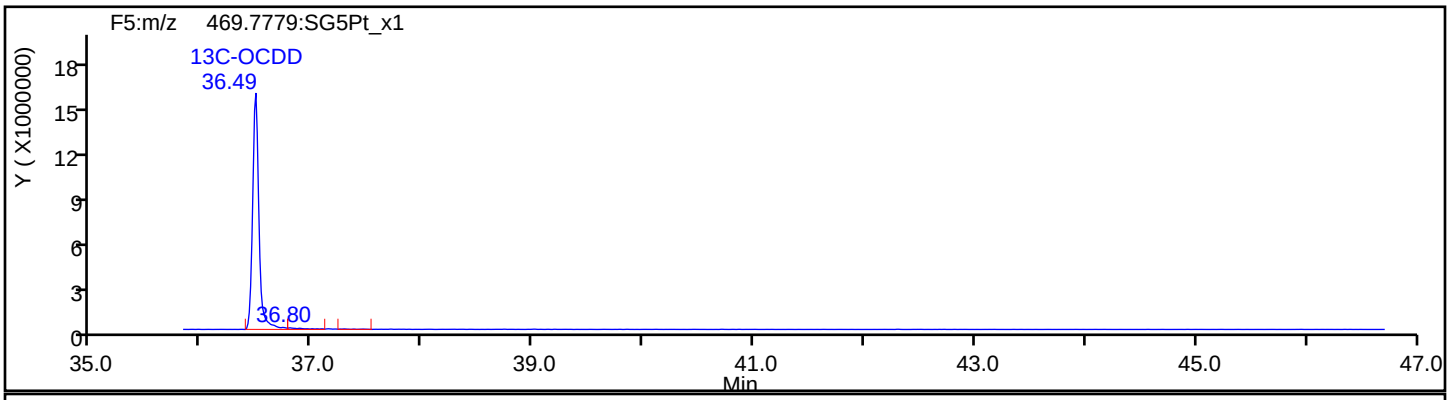
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm

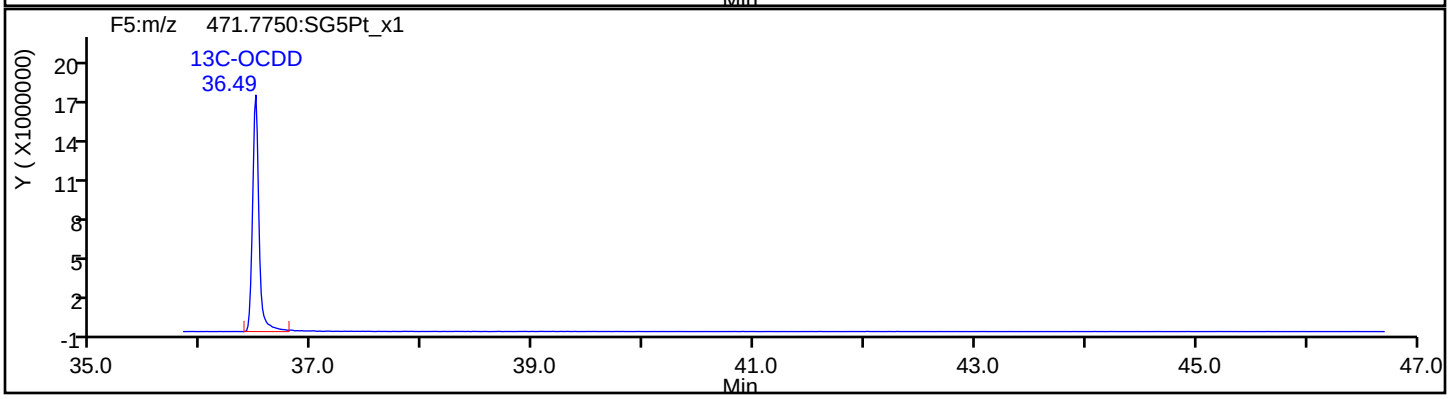
OCDD





OCDD Standards

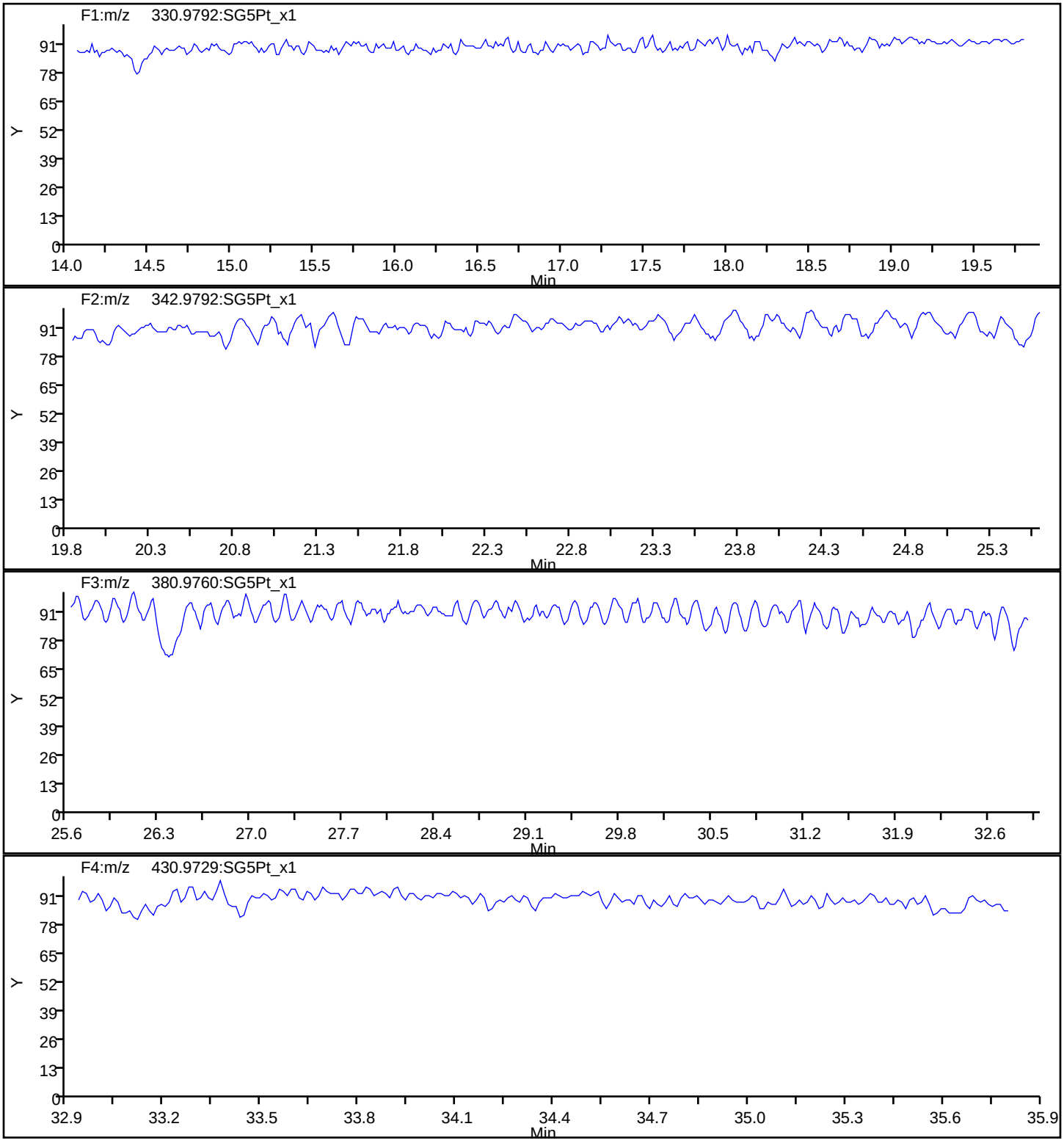




Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

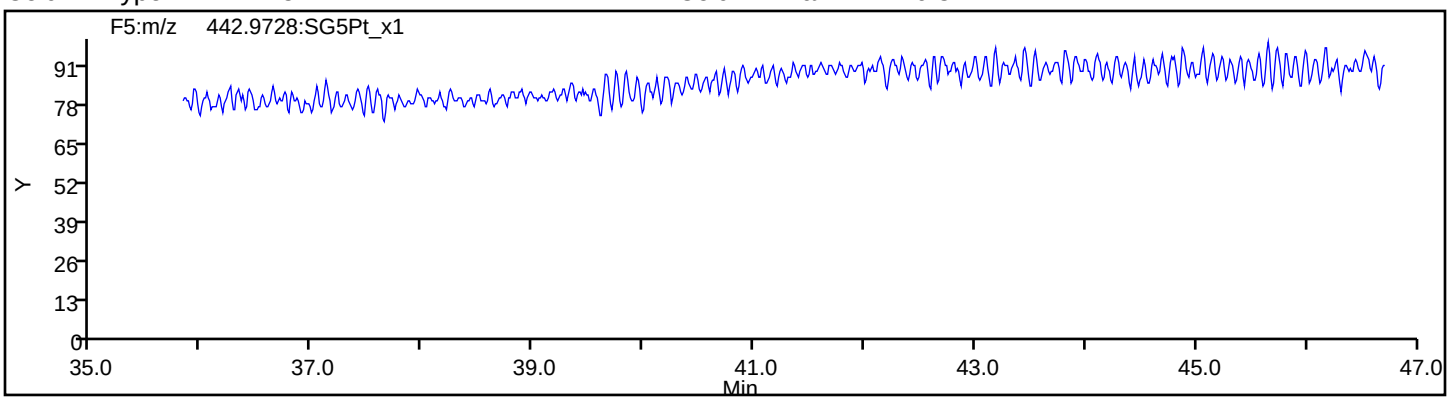
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:21:42 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_72.d		
Injection Date:	22-Jul-2019 10:41:28	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-23_20190716		
Worklist#:	309104	Sample Line#:	72
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Matrix: Solid Lab File ID: 19JL19A3D5_73.d

Analysis Method: 1613B Date Collected: 07/16/2019 13:15

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.06(g) Date Analyzed: 07/22/2019 11:29

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	0.40	J q	1.8	0.21
40321-76-4	1,2,3,7,8-PeCDD	ND		8.9	0.28
57117-41-6	1,2,3,7,8-PeCDF	4.0	J	8.9	0.24
57117-31-4	2,3,4,7,8-PeCDF	1.6	J	8.9	0.27
39227-28-6	1,2,3,4,7,8-HxCDD	0.73	J B	8.9	0.26
57653-85-7	1,2,3,6,7,8-HxCDD	2.0	J	8.9	0.26
19408-74-3	1,2,3,7,8,9-HxCDD	1.4	J	8.9	0.25
70648-26-9	1,2,3,4,7,8-HxCDF	3.8	J	8.9	0.30
57117-44-9	1,2,3,6,7,8-HxCDF	1.7	J	8.9	0.33
72918-21-9	1,2,3,7,8,9-HxCDF	2.2	J B	8.9	0.17
60851-34-5	2,3,4,6,7,8-HxCDF	0.54	J	8.9	0.21
35822-46-9	1,2,3,4,6,7,8-HpCDD	48	B	8.9	0.63
67562-39-4	1,2,3,4,6,7,8-HpCDF	10		8.9	0.35
55673-89-7	1,2,3,4,7,8,9-HpCDF	1.5	J	8.9	0.41
3268-87-9	OCDD	630	B	18	0.62
39001-02-0	OCDF	36	B	18	0.34

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	67		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	71		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	72		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	70		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	60		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	62		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	68		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	60		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	63		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	71		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	66		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	66		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	77		26-138
114423-97-1	13C-OCDD	66		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Matrix: Solid Lab File ID: 19JL19A3D5_73.d

Analysis Method: 1613B Date Collected: 07/16/2019 13:15

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.06(g) Date Analyzed: 07/22/2019 11:29

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	94		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 11:29:03 ALS Bottle#: 52 Worklist Smp#: 73
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-13-A 580-87706-C-13-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:26:48 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 12:33:59

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	198891300	0.78	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.674	198481131	0.80	1.3908	71.8	71.8	0.2714	0.2714	71.75	
2,3,7,8-TCDF	16.690	1764440	0.76	0.9710	0.9155	0.9155	0.0556	0.0556		
A Non-2,3,7,8-sub-TCDF	16.402	1088625	0.77	0.9710	0.6403	0.5648	0.0556	0.1988		RQ
S Total TCDF					1.556	1.480	0.0556	0.0556		RQ
D 13C-2,3,7,8-TCDD	17.340	131313202	0.78	0.9819	67.2	67.2	0.2607	0.2607	67.24	
2,3,7,8-TCDD	17.355	152622	0.77	1.0447	0.1373	0.1113	0.0595	0.0595		RQMa
$ 37Cl4-2,3,7,8-TCDD	17.355	91709210		1.2205	37.8	37.8	0.0579	0.0579	94.45	
A Non-2,3,7,8-sub-TCDD	16.833	260890	0.82	1.0447	0.1902	0.1902	0.0595	0.1902		Ma
S Total TCDD					0.3275	0.3014	0.0595	0.0595		RQ
D 13C-1,2,3,7,8-PeCDF	21.318	164747655	1.62	1.1585	71.5	71.5	0.2244	0.2244	71.50	
1,2,3,7,8-PeCDF	21.332	1794947	1.48	0.9633	1.131	1.131	0.0684	0.0684		
D 13C-2,3,4,7,8-PeCDF	22.545	161685778	1.60	1.1532	70.5	70.5	0.2254	0.2254	70.50	
2,3,4,7,8-PeCDF	22.573	672655	1.46	0.9495	0.4382	0.4382	0.0757	0.0757		
A F1 PeCDFs	19.215	728068	1.40	0.9564	0.4664	0.4664	0.0465	0.4664		
A Non-2,3,7,8-sub-PeCDF	22.104	2179907	1.55	0.9564	1.466	1.396	0.0719	0.9817		RQ
S Total PeCDF					3.502	3.432	0.0720	0.0720		RQ
D 13C-1,2,3,7,8-PeCDD	23.213	104862179	1.65	0.7431	70.9	70.9	0.1376	0.1376	70.95	
1,2,3,7,8-PeCDD	23.254						0.0779	0.0779		
A Non-2,3,7,8-sub-PeCDD	22.232	258049	1.55	1.0635	0.2629	0.2314	0.0779	0.2314		RQ
S Total PeCDD					0.2629	0.2314	0.0779	0.0779		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.102	127039769	0.53	0.9837	67.6	67.6	0.3300	0.3300	67.57	
1,2,3,4,7,8-HxCDF	29.128	1668580	1.18	1.2173	1.079	1.079	0.0836	0.0836		
D 13C-1,2,3,6,7,8-HxCDF	29.395	131991330	0.49	1.1554	59.8	59.8	0.2810	0.2810	59.77	
1,2,3,6,7,8-HxCDF	29.448	704055	1.13	1.1311	0.4716	0.4716	0.0926	0.0926		
D 13C-2,3,4,6,7,8-HxCDF	30.646	124569084	0.51	1.0361	62.9	62.9	0.3133	0.3133	62.91	
2,3,4,6,7,8-HxCDF	30.660	220202	1.41	1.1710	0.1510	0.1510	0.0578	0.0578		Ma
D 13C-1,2,3,7,8,9-HxCDF	31.658	121979468	0.53	0.9034	70.6	70.6	0.3593	0.3593	70.65	
1,2,3,7,8,9-HxCDF	31.672	883984	1.35	1.1787	0.6148	0.6148	0.0464	0.0464		
A Non-2,3,7,8-sub-HxCDF	29.135	5058997	1.27	1.1745	3.408	3.408	0.0650	1.567		Ma

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					5.724	5.724	0.0701	0.0701		
* 13C-1,2,3,7,8,9-HxCDD	31.459	191116075	1.26	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.913	95139488	1.28	0.8287	60.1	60.1	0.2239	0.2239	60.07	
1,2,3,4,7,8-HxCDD	30.939	199100	1.43	1.0267	0.2038	0.2038	0.0733	0.0733		
D 13C-1,2,3,6,7,8-HxCDD	31.046	112969420	1.27	0.9495	62.3	62.3	0.1954	0.1954	62.26	
1,2,3,6,7,8-HxCDD	31.073	608129	1.20	0.9771	0.5509	0.5509	0.0728	0.0728		
1,2,3,7,8,9-HxCDD	31.472	446652	1.36	1.0616	0.4043	0.4043	0.0689	0.0689		M
A Non-2,3,7,8-sub-HxCDD	29.926	3144941	1.25	1.0218	2.958	2.958	0.0716	1.625		
S Total HxCDD					4.117	4.117	0.0717	0.0717		
D 13C-1,2,3,4,6,7,8-HpCDF	33.323	92267619	0.44	0.7285	66.3	66.3	0.6127	0.6127	66.27	
1,2,3,4,6,7,8-HpCDF	33.335	3725397	1.16	1.4373	2.809	2.809	0.0985	0.0985		
D 13C-1,2,3,4,7,8,9-HpCDF	34.405	96771495	0.44	0.6556	77.2	77.2	0.6808	0.6808	77.23	
1,2,3,4,7,8,9-HpCDF	34.417	524260	0.99	1.3091	0.4138	0.4138	0.1158	0.1158		
A Non-2,3,7,8-sub-HpCDF	33.894	8467374	1.06	1.3732	6.524	6.524	0.1066	6.524		
S Total HpCDF					9.747	9.747	0.1071	0.1071		
D 13C-1,2,3,4,6,7,8-HpCDD	34.125	87958729	1.06	0.6978	66.0	66.0	0.2969	0.2969	65.95	
1,2,3,4,6,7,8-HpCDD	34.138	11954456	1.01	1.0102	13.5	13.5	0.1780	0.1780		
A Non-2,3,7,8-sub-HpCDD	35.074	15833747	1.12	1.0102	17.8	17.8	0.1780	17.8		a
S Total HpCDD					31.3	31.3	0.1780	0.1780		
D 13C-OCDD	36.486	120551040	0.92	0.4780	132.0	132.0	0.1671	0.1671	65.99	
OCDF	36.569	8192556	0.94	1.3501	10.1	10.1	0.0945	0.0945		
OCDD	36.486	113969205	0.91	1.0627	177.9	177.9	0.1728	0.1728		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 11:29:03 ALS Bottle#: 52 Worklist Smp#: 73
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-13-A 580-87706-C-13-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:26:48 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 12:33:59

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		87039848	21833077	28035	70087	779		
333.9339	17.158	17.158	0		111851452	27746092	22728	56820	1221	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.674	16.690	-1	0.972	88409053	22063318	38037	95092	580		
317.9389	16.674	16.690	-1	0.972	110072078	27317696	36818	92045	742	0.80(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.690	16.705	-1	1.001	760738	187878	3584	8960	52		
305.8987	16.690	16.705	-1	1.001	1003702	248051	7080	17700	35	0.76(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.905	16.402	-90	0.894	202362	37773	3584	8960	11		
	Empc Correction				118689	33106	3584	8960	9		
305.8987	14.890	16.402	-91	0.893	154142	42995	7080	17700	6	1.31(0.65-0.89)	
303.9016	15.374	16.402	-62	0.922	148420	35504	3584	8960	10		
	Empc Correction				119984	33882	3584	8960	9		
305.8987	15.374	16.402	-62	0.922	155824	44003	7080	17700	6	0.95(0.65-0.89)	
303.9016	15.586	16.402	-49	0.935	179999	26020	3584	8960	7		
305.8987	15.571	16.402	-50	0.934	203191	37254	7080	17700	5	0.89(0.65-0.89)	
303.9016	15.858	16.402	-33	0.951	68211	19932	3584	8960	6		
305.8987	15.858	16.402	-33	0.951	121950	32345	7080	17700	5	0.56(0.65-0.89)	
	Empc Correction				88585	25885	7080	17700	4		
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.011	57458757	13745567	28035	70087	490		
333.9339	17.340	17.355	-1	1.011	73854445	18094213	22728	56820	796	0.78(0.65-0.89)	
2,3,7,8-TCDD											RQMa
319.8965	17.355	17.355	0	1.001	66395	18761	5187	12967	4		M
321.8936	17.355	17.355	0	1.001	121964	31741	2725	6812	12	0.54(0.65-0.89)	M
	Empc Correction				86227	24364	2725	6812	9		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
37Cl4-2,3,7,8-TCDD											
327.8847	17.355	17.370	-1	1.011	91709210	22150209	14027	35067	1579		
A Non-2,3,7,8-sub-TCDD											Ma
319.8965	17.264	16.833	26	0.996	117724	24214	5187	12967	5		M
321.8936	17.264	16.833	26	0.996	143166	30189	2725	6812	11	0.82(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.318	21.332	-1	1.242	101753592	18135518	30851	77127	588		
353.8970	21.318	21.332	-1	1.242	62994063	11199864	20701	51752	541	1.62(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.332	21.345	-1	1.001	1070972	190075	3049	7622	62		
341.8567	21.332	21.345	-1	1.001	723975	119514	4684	11710	26	1.48(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.545	22.559	-1	1.314	99503470	16621787	30851	77127	539		
353.8970	22.532	22.559	-2	1.313	62182308	10285230	20701	51752	497	1.60(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.573	22.586	-1	1.001	399325	72212	3049	7622	24		
341.8567	22.545	22.586	-2	1.000	273330	39941	4684	11710	9	1.46(1.32-1.78)	
A F1 PeCDFs											
339.8597	18.670	19.215	-33	0.876	424654	94618	1615	4037	59		
341.8567	18.655	19.215	-34	0.875	303414	58990	3384	8460	17	1.40(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.104	22.104	-120	0.943	919904	142845	3049	7622	47		
341.8567	20.104	22.104	-120	0.943	612564	104137	4684	11710	22	1.50(1.32-1.78)	
339.8597	20.813	22.104	-77	0.976	170216	23494	3049	7622	8		
341.8567	20.841	22.104	-76	0.978	186527	20945	4684	11710	4	0.91(1.32-1.78)	
	Empc Correction				109816	15157	4684	11710	3		
339.8597	22.872	22.104	46	1.073	223326	36315	3049	7622	12		
341.8567	22.872	22.104	46	1.073	176030	27138	4684	11710	6	1.27(1.32-1.78)	
	Empc Correction				144081	23429	4684	11710	5		
13C-1,2,3,7,8-PeCDD											
367.8949	23.213	23.227	-1	1.353	65352759	10411871	11668	29170	892		
369.8919	23.213	23.227	-1	1.353	39509420	6366758	8616	21540	739	1.65(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						3844	9610			
357.8516	23.254						1714	4285			
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.295	22.232	-116	0.874	191953	28436	3844	9610	7		
	Empc Correction				156853	31919	3844	9610	8		
357.8516	20.282	22.232	-117	0.874	101196	20593	1714	4285	12	1.90(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.102	29.115	-1	0.925	43888672	5349022	18614	46535	287		
385.8610	29.102	29.115	-1	0.925	83151097	9916249	35242	88105	281	0.53(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.128	29.155	-2	1.001	902885	110119	3686	9215	30		
375.8178	29.115	29.155	-2	1.000	765695	91007	2530	6325	36	1.18(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.395	29.421	-2	0.934	43340711	4937021	18614	46535	265		
385.8610	29.408	29.421	-1	0.935	88650619	9892723	35242	88105	281	0.49(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.448	29.462	-1	1.002	374099	42016	3686	9215	11		
375.8178	29.421	29.462	-2	1.001	329956	38692	2530	6325	15	1.13(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.646	30.660	-1	0.974	42103895	7827380	18614	46535	421		
385.8610	30.646	30.660	-1	0.974	82465189	15136254	35242	88105	429	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											Ma
373.8208	30.660	30.687	-2	1.000	128903	20022	3686	9215	5		M
375.8178	30.673	30.687	-1	1.001	91299	16097	2530	6325	6	1.41(1.05-1.43)	M
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.658	31.672	-1	1.006	42266259	9650946	18614	46535	518		
385.8610	31.658	31.672	-1	1.006	79713209	18752538	35242	88105	532	0.53(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.672	31.685	-1	1.000	507606	86593	3686	9215	23		
375.8178	31.672	31.685	-1	1.000	376378	59089	2530	6325	23	1.35(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											Ma
373.8208	26.465	29.135	-160	0.909	343597	50030	3686	9215	14		
375.8178	26.479	29.135	-159	0.910	243207	36364	2530	6325	14	1.41(1.05-1.43)	
373.8208	26.825	29.135	-138	0.922	997657	132619	3686	9215	36		
375.8178	26.838	29.135	-138	0.922	798758	102913	2530	6325	41	1.25(1.05-1.43)	
373.8208	28.037	29.135	-66	0.963	1299579	155017	3686	9215	42		
375.8178	28.037	29.135	-66	0.963	1027308	122234	2530	6325	48	1.27(1.05-1.43)	
373.8208	30.487	29.135	81	1.048	190479	33715	3686	9215	9		M
375.8178	30.527	29.135	83	1.049	158412	26232	2530	6325	10	1.20(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.459	31.472	-1		106586782	23162509	16262	40655	1424		
403.8529	31.445	31.472	-2		84529293	18315345	14523	36307	1261	1.26(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.913	30.926	-1	0.983	53498366	11591950	16262	40655	713		
403.8529	30.913	30.926	-1	0.983	41641122	9066203	14523	36307	624	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.939	30.953	-1	1.001	117313	25993	2720	6800	10		
391.8127	30.926	30.953	-2	1.000	81787	19391	3502	8755	6	1.43(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.046	31.059	-1	0.987	63288020	12321606	16262	40655	758		
403.8529	31.046	31.059	-1	0.987	49681400	9555569	14523	36307	658	1.27(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.073	31.086	-1	1.001	331631	68624	2720	6800	25		
391.8127	31.073	31.086	-1	1.001	276498	49997	3502	8755	14	1.20(1.05-1.43)	
1,2,3,7,8,9-HxCDD											M
389.8157	31.472	31.485	-1	1.018	257536	49078	2720	6800	18		
391.8127	31.472	31.485	-1	1.018	189116	39066	3502	8755	11	1.36(1.05-1.43)	M

Signal	RT (min.)	Exp RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-HxCDD											
389.8157	27.917	29.926	-120	0.899	798201	100954	2720	6800	37		
391.8127	27.917	29.926	-120	0.899	619206	73877	3502	8755	21	1.29(1.05-1.43)	
389.8157	29.901	29.926	-2	0.963	946691	102805	2720	6800	38		
391.8127	29.901	29.926	-2	0.963	780843	94769	3502	8755	27	1.21(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.323	33.335	-1	1.059	28349774	9123461	26336	65840	346		
419.8220	33.323	33.335	-1	1.059	63917845	19838976	47721	119302	416	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.335	33.347	-1	1.000	2003639	656991	10518	26295	62		
409.7789	33.335	33.347	-1	1.000	1721758	536935	5880	14700	91	1.16(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.405	34.429	-1	1.094	29590275	8223805	26336	65840	312		
419.8220	34.405	34.429	-1	1.094	67181220	18829628	47721	119302	395	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.417	34.441	-1	1.000	260688	77360	10518	26295	7		
409.7789	34.417	34.441	-1	1.000	263572	74260	5880	14700	13	0.99(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.627	33.894	-16	1.009	4364520	1318160	10518	26295	125		
409.7789	33.627	33.894	-16	1.009	4102854	1289510	5880	14700	219	1.06(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.125	34.150	-1	1.085	45205736	12928679	17413	43532	742		
437.8140	34.138	34.150	-1	1.085	42752993	12042384	16960	42400	710	1.06(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.138	34.162	-1	1.000	6007278	1743705	9732	24330	179		
425.7737	34.138	34.162	-1	1.000	5947178	1784422	8228	20570	217	1.01(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.591	35.074	-89	0.984	8351454	2670238	9732	24330	274		a
425.7737	33.591	35.074	-89	0.984	7482293	2383281	8228	20570	290	1.12(0.88-1.20)	
13C-OCDD											
469.7779	36.486	36.498	-1	1.160	57821036	14533794	6828	17070	2129		
471.7750	36.486	36.498	-1	1.160	62730004	15788701	6424	16060	2458	0.92(0.76-1.02)	
OCDF											
441.7428	36.569	36.582	-1	1.002	3980262	951416	3037	7592	313		
443.7399	36.557	36.582	-1	1.002	4212294	1015615	4700	11750	216	0.94(0.76-1.02)	
OCDD											
457.7377	36.486	36.509	-1	1.000	54313628	13922629	5555	13887	2506		
459.7348	36.486	36.509	-1	1.000	59655577	15771051	5583	13957	2825	0.91(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Report Date: 23-Jul-2019 12:26:50 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	198481131	49381014

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	198481131	49381014

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.905	202362	37773	154142	42995	0.1850	1.31	RQ
14.905	118689	33106	154142	42995	0.1416		Empc Correction
15.374	148420	35504	155824	44003	0.1579	0.95	RQ
15.374	119984	33882	155824	44003	0.1431		Empc Correction
15.586	179999	26020	203191	37254	0.1988	0.89	
15.858	68211	19932	121950	32345	0.0987	0.56	RQ
15.858	68211	19932	88585	25885	0.0814		Empc Correction
Signal Totals:							
	486883	112940	601742	150137			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1234099	275826				0.94	RQ
	1088625	263077					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6403 = (1234099 * 100.000) / (198481131 * 0.971)
Empc Amount: 0.5648 = (1088625 * 100.000) / (198481131 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	131313202	31839780

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	131313202	31839780

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
17.264	117724	24214	143166	30189	0.1902	0.82	Ma
Signal Totals:							
	117724	24214	143166	30189			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	260890	54403				0.82	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1902 = (260890 * 100.000) / (131313202 * 1.045)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	164747655	29335382
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	161685778	26907017

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	163216716	28121199

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.670	424654	94618	303414	58990	0.4664	1.40	
Signal Totals:							
	424654	94618	303414	58990			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	728068	153608				1.40	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.4664 = (728068 * 100.000) / (163216716 * 0.956)

Report Date: 23-Jul-2019 12:26:50 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	164747655	29335382
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	161685778	26907017

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	163216716	28121199

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.104	919904	142845	612564	104137	0.9817	1.50	
20.813	170216	23494	186527	20945	0.2285	0.91	RQ
20.813	170216	23494	109816	15157	0.1794		Empc Correction
22.872	223326	36315	176030	27138	0.2558	1.27	RQ
22.872	223326	36315	144081	23429	0.2354		Empc Correction
Signal Totals:							
	1313446	202654	866461	142723			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2288567	354874				1.35	RQ
	2179907	345377					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.466 = (2288567 * 100.000) / (163216716 * 0.956)
Empc Amount: 1.396 = (2179907 * 100.000) / (163216716 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	104862179	16778629

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	104862179	16778629

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.295	191953	28436	101196	20593	0.2629	1.90	RQ
20.295	156853	31919	101196	20593	0.2314		Empc Correction
Signal Totals:							
	156853	31919	101196	20593			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	293149	49029				1.90	RQ
	258049	52512					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.2629 = (293149 * 100.000) / (104862179 * 1.063)
Empc Amount: 0.2314 = (258049 * 100.000) / (104862179 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 12:26:50 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	127039769	15265271
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	131991330	14829744
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	124569084	22963634
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	121979468	28403484

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	126394912	20365533

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.465	343597	50030	243207	36364	0.3953	1.41	
26.825	997657	132619	798758	102913	1.21	1.25	
28.037	1299579	155017	1027308	122234	1.57	1.27	
30.487	190479	33715	158412	26232	0.2350	1.20	Ma
Signal Totals:							
	2831312	371381	2227685	287743			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	5058997	659124				1.27	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.408 = (5058997 * 100.000) / (126394912 * 1.175)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	95139488	20658153
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	112969420	21877175
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	104054454	21267664

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.917	798201	100954	619206	73877	1.33	1.29	
29.901	946691	102805	780843	94769	1.62	1.21	
Signal Totals:							
	1744892	203759	1400049	168646			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	3144941	372405				1.25	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 2.958 = (3144941 * 100.000) / (104054454 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	92267619	28962437
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	96771495	27053433

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	94519557	28007935

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.627	4364520	1318160	4102854	1289510	6.52	1.06	
Signal Totals:							
	4364520	1318160	4102854	1289510			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	8467374	2607670				1.06	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 6.524 = (8467374 * 100.000) / (94519557 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Inject. Date: 22-Jul-2019 11:29:03 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 73

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	87958729	24971063

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	87958729	24971063

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.591	8351454	2670238	7482293	2383281	17.8	1.12	a
Signal Totals:							
	8351454	2670238	7482293	2383281			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	15833747	5053519				1.12	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 17.820 = (15833747 * 100.000) / (87958729 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

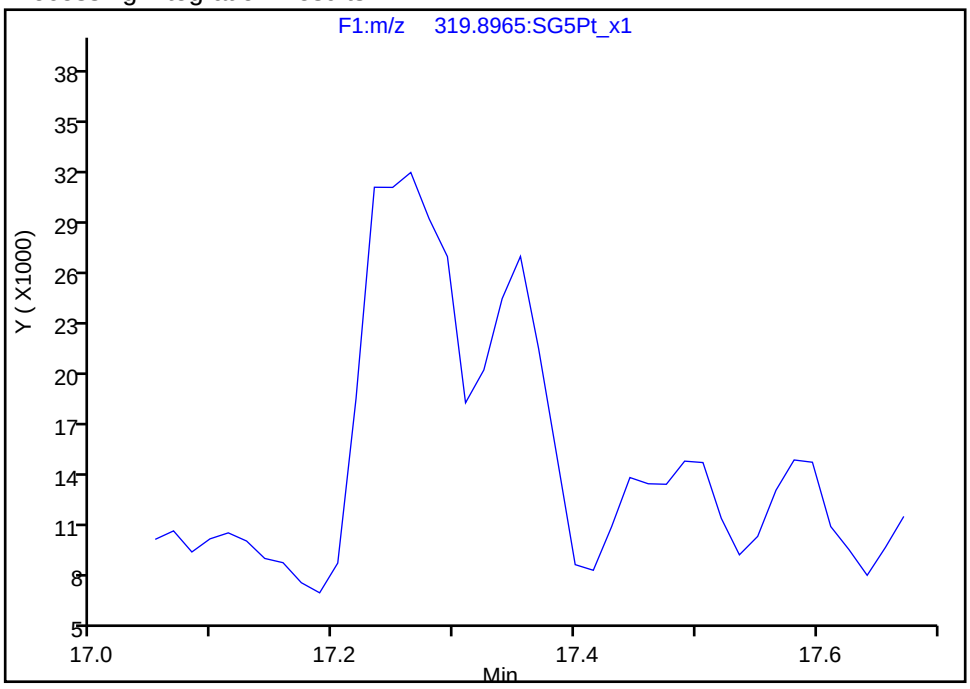
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d				
Injection Date:	22-Jul-2019 11:29:03	Instrument ID:	3D5		
Lims ID:	580-87706-C-13-A	Lab Sample ID:	320-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	52	Worklist Smp#:	73
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

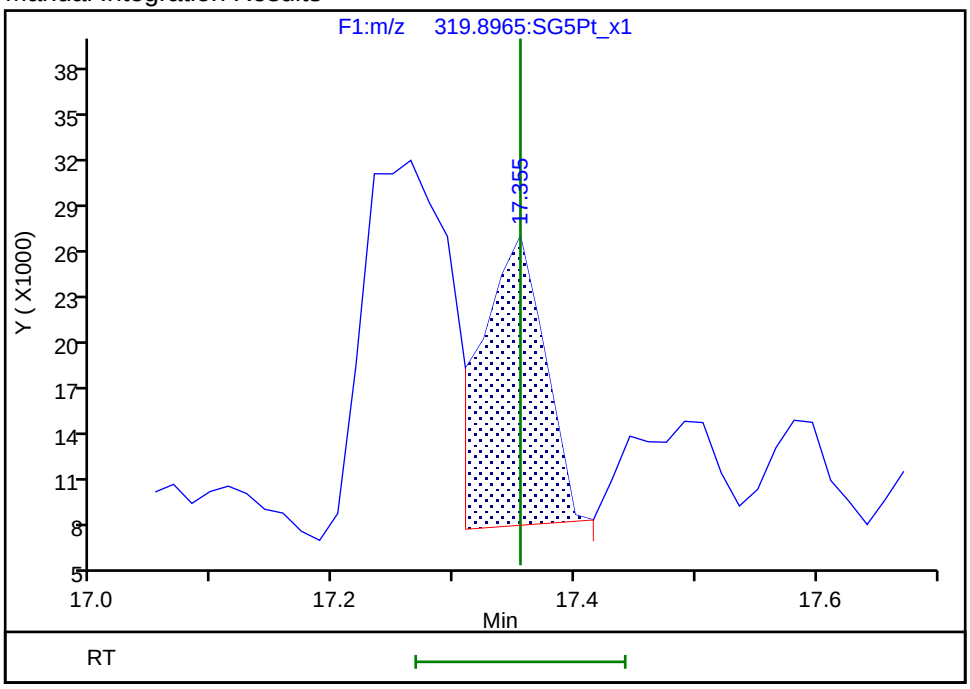
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.35
Area: 66395
Amount: 0.137303
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:22:58
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

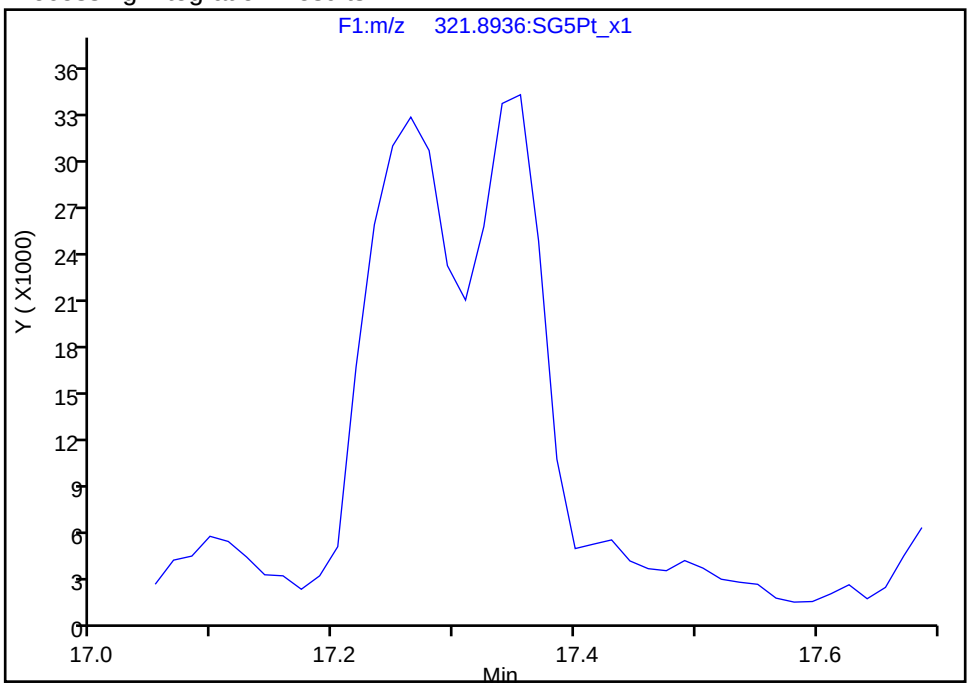
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d				
Injection Date:	22-Jul-2019 11:29:03	Instrument ID:	3D5		
Lims ID:	580-87706-C-13-A	Lab Sample ID:	320-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	52	Worklist Smp#:	73
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

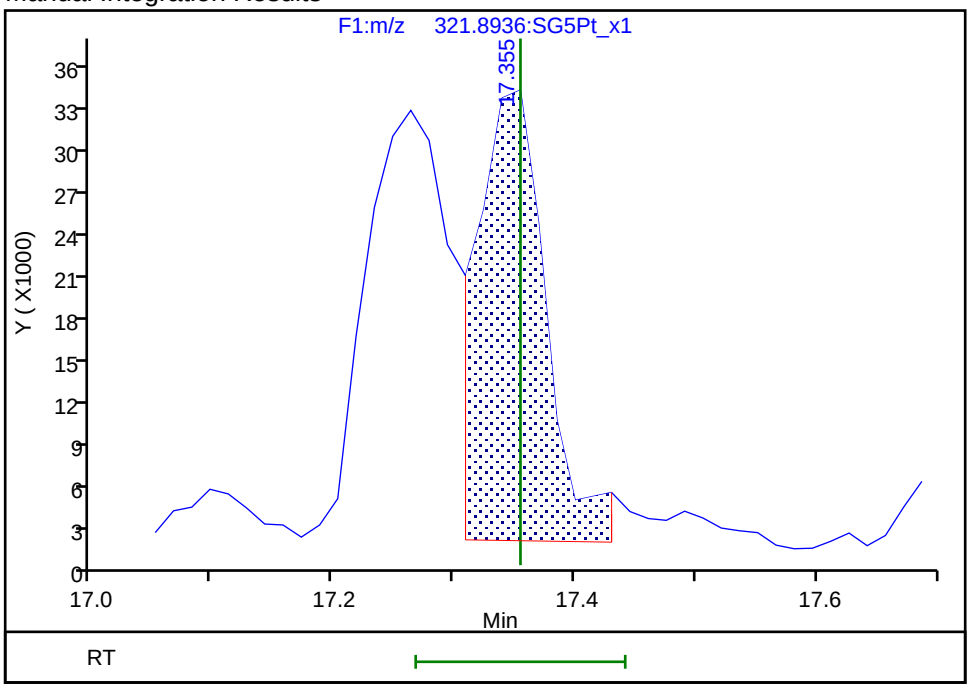
Not Detected
Expected RT: 17.35

Processing Integration Results



Manual Integration Results

RT: 17.35
Area: 121964
Amount: 0.137303
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:23:05
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

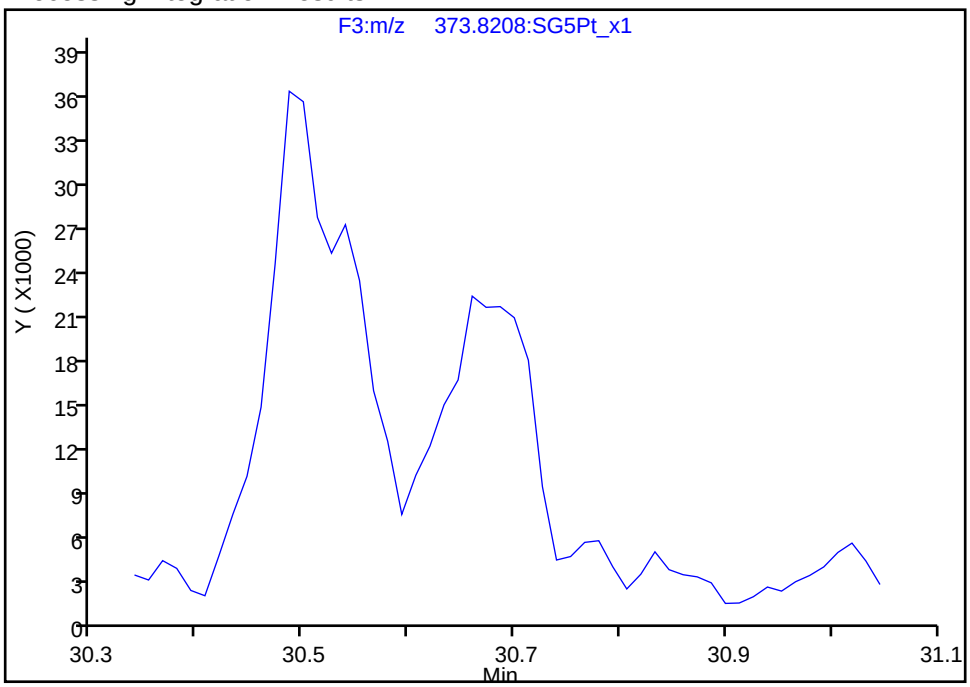
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d				
Injection Date:	22-Jul-2019 11:29:03	Instrument ID:	3D5		
Lims ID:	580-87706-C-13-A	Lab Sample ID:	320-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	52	Worklist Smp#:	73
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

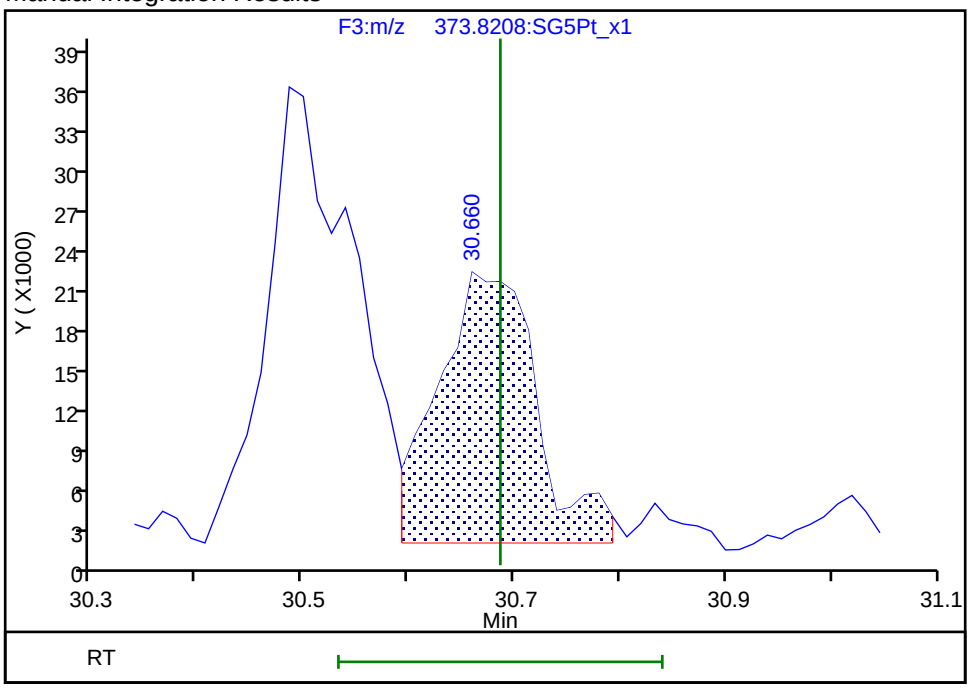
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.66
Area: 128903
Amount: 0.150959
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:24:30
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

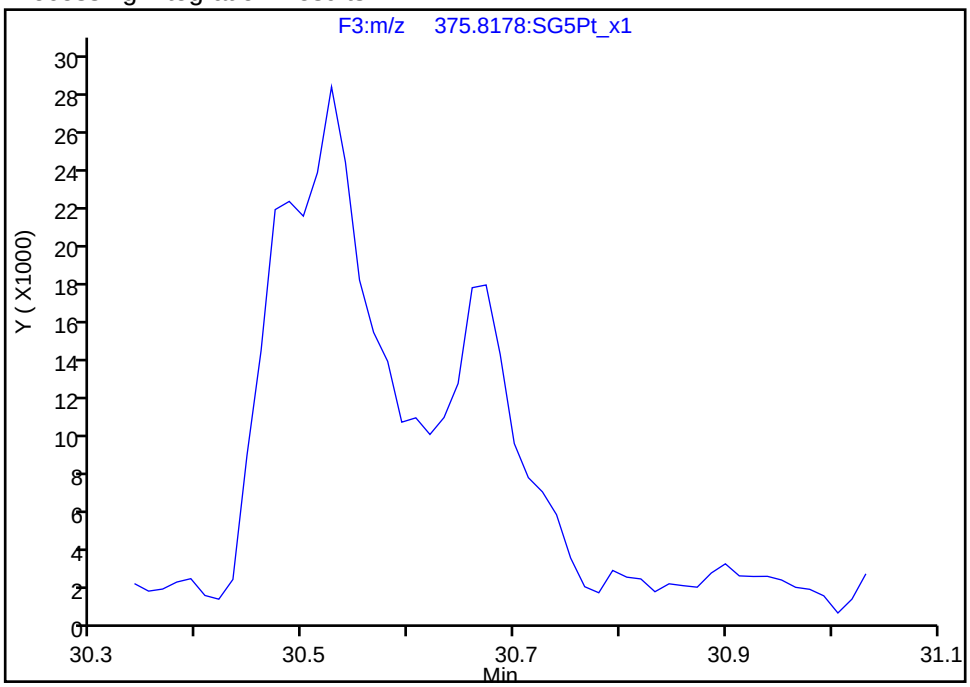
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d				
Injection Date:	22-Jul-2019 11:29:03	Instrument ID:	3D5		
Lims ID:	580-87706-C-13-A	Lab Sample ID:	320-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	52	Worklist Smp#:	73
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 2

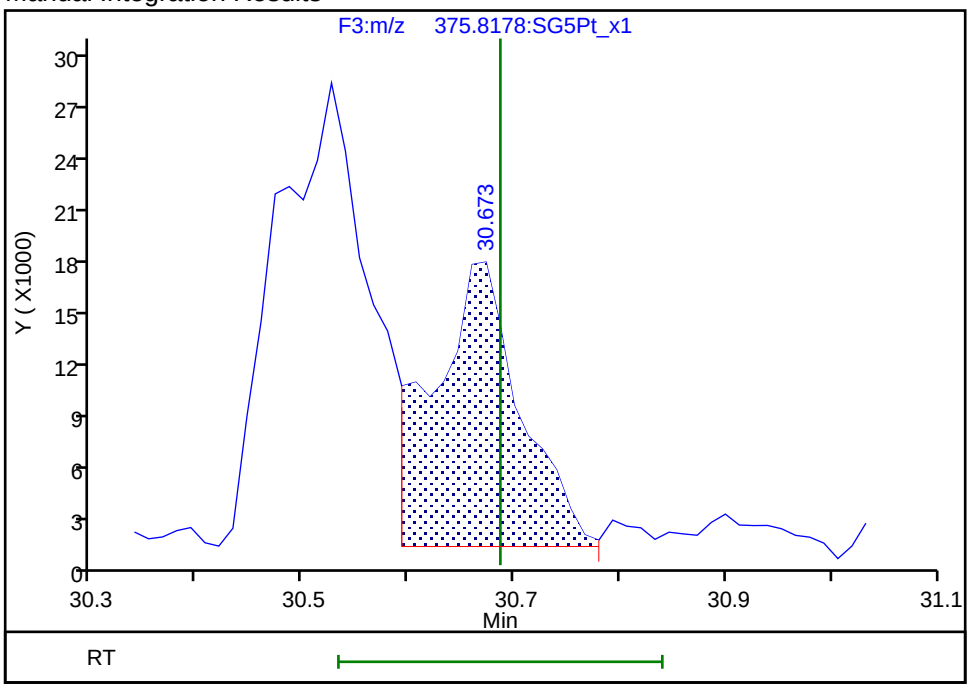
Not Detected
Expected RT: 30.69

Processing Integration Results



Manual Integration Results

RT: 30.67
Area: 91299
Amount: 0.150959
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:24:33
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

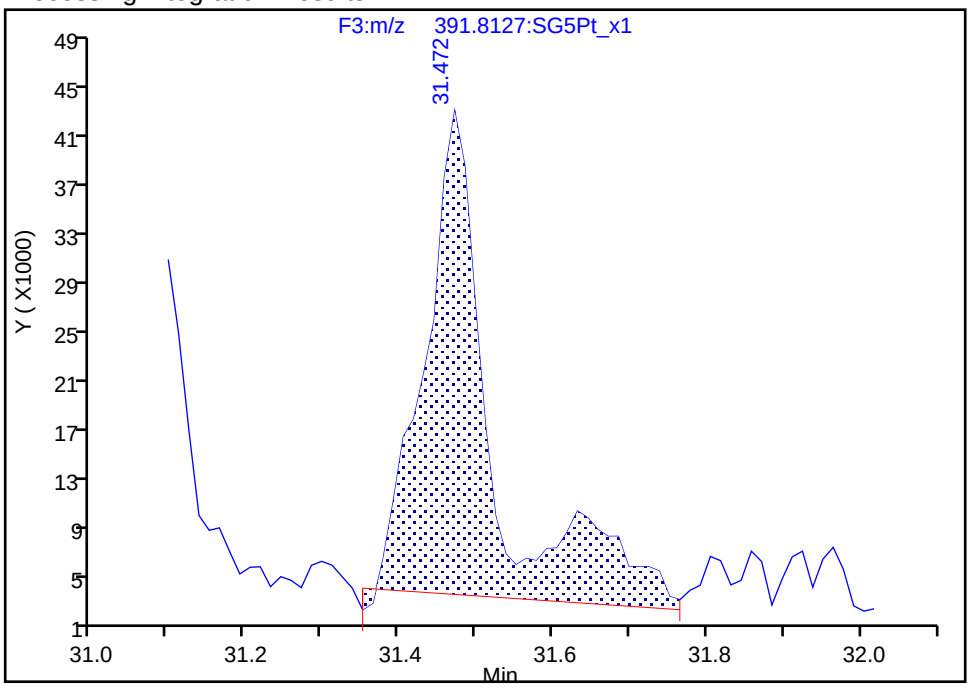
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d				
Injection Date:	22-Jul-2019 11:29:03	Instrument ID:	3D5		
Lims ID:	580-87706-C-13-A	Lab Sample ID:	320-87706-13		
Client ID:	22T-SG-10_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	52	Worklist Smp#:	73
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,7,8,9-HxCDD, CAS: 19408-74-3

Signal: 2

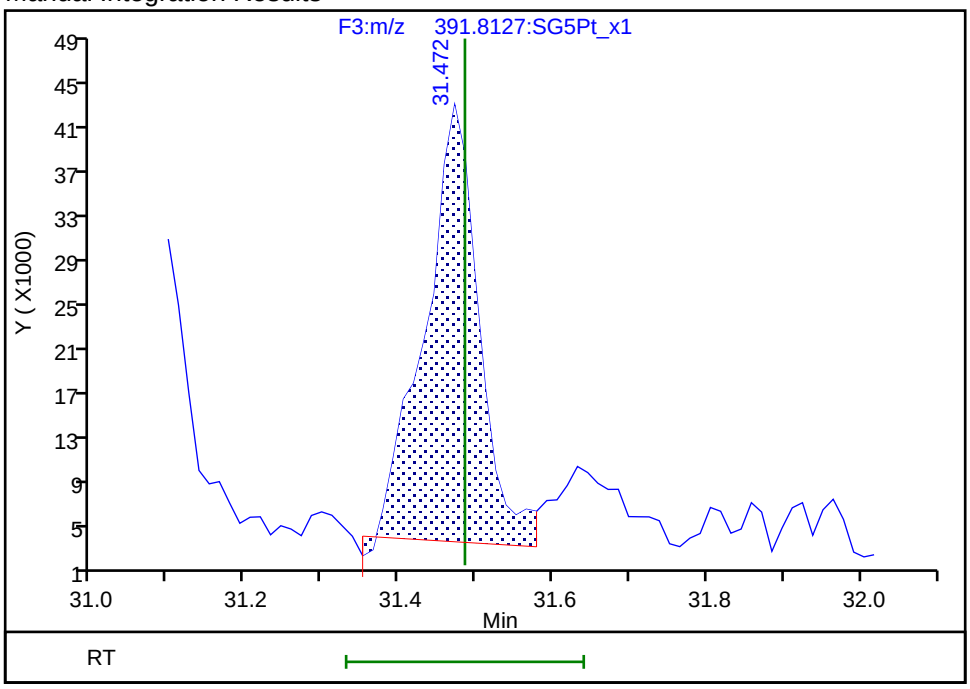
Processing Integration Results

RT: 31.47
Area: 238175
Amount: 0.448756
Amount Units: pg/ul



Manual Integration Results

RT: 31.47
Area: 189116
Amount: 0.404344
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:25:47

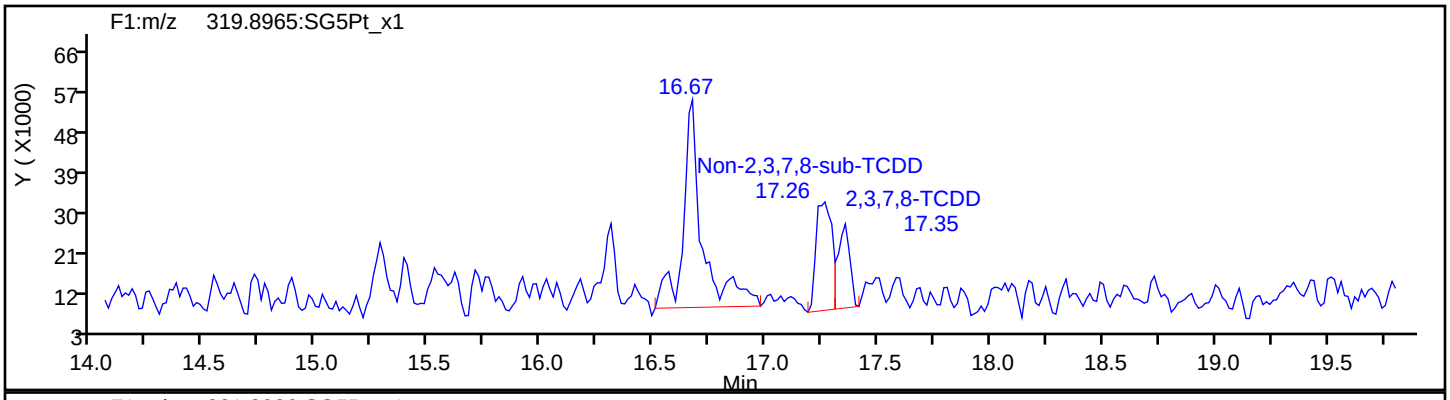
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

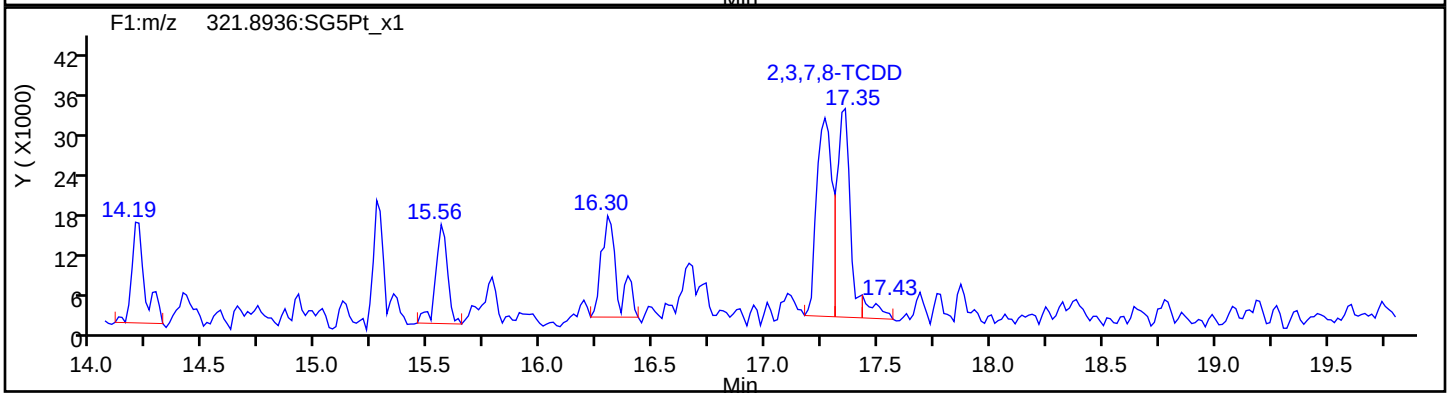
Report Date: 23-Jul-2019 12:26:51 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

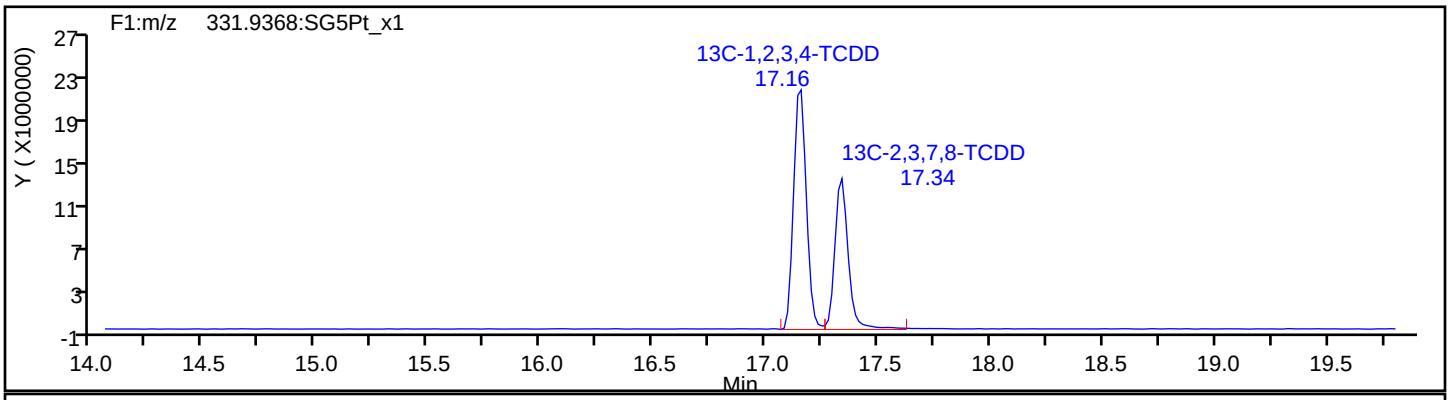
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

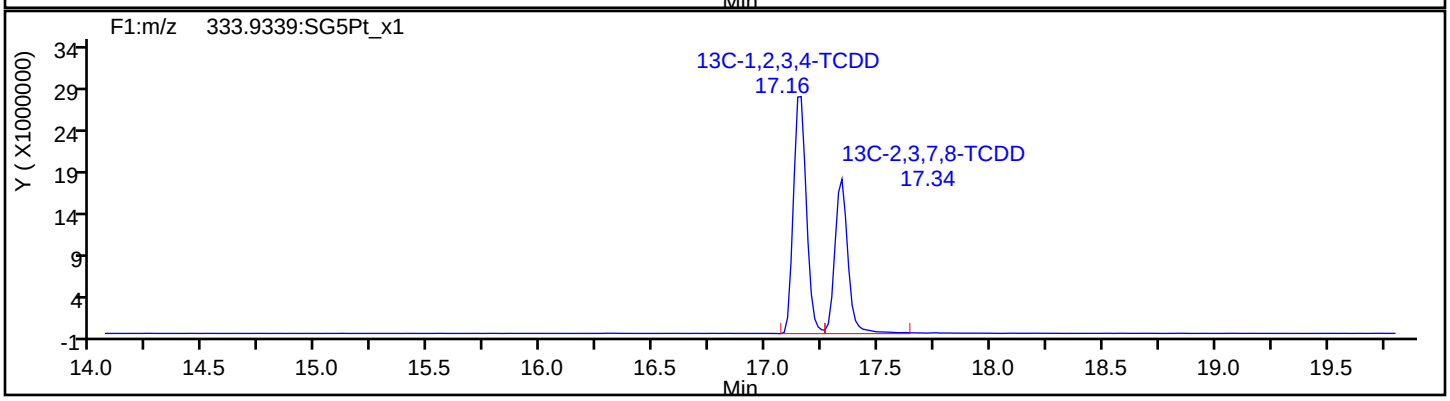
TCDD





TCDD Standards



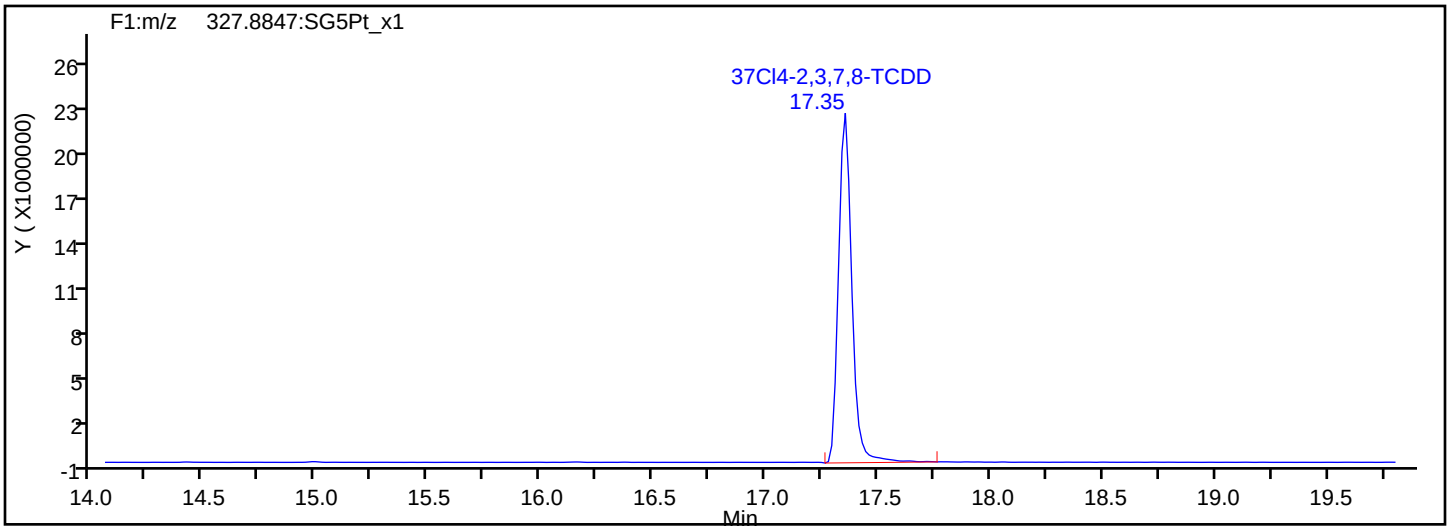


Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

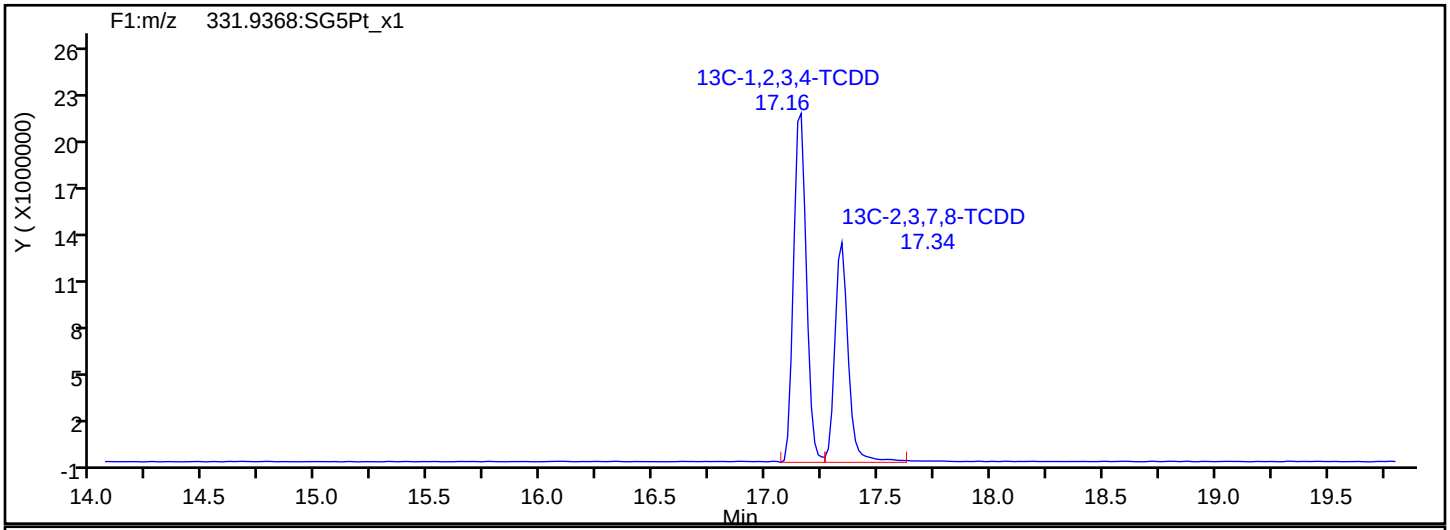
Eurofins TestAmerica, Sacramento

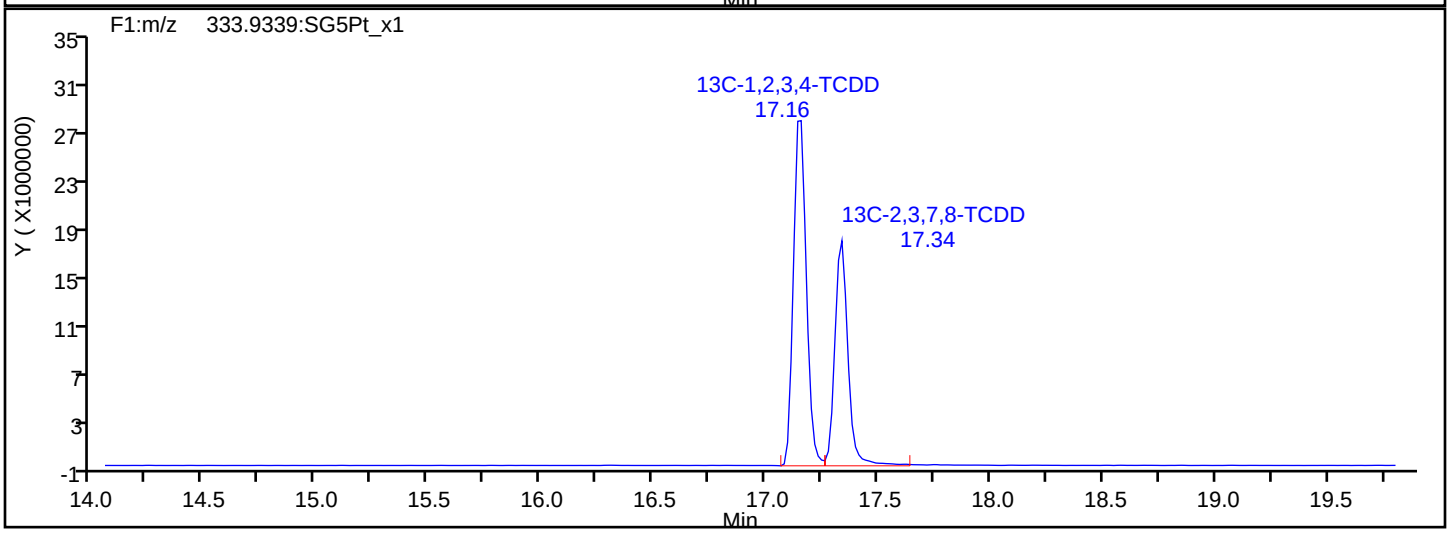
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



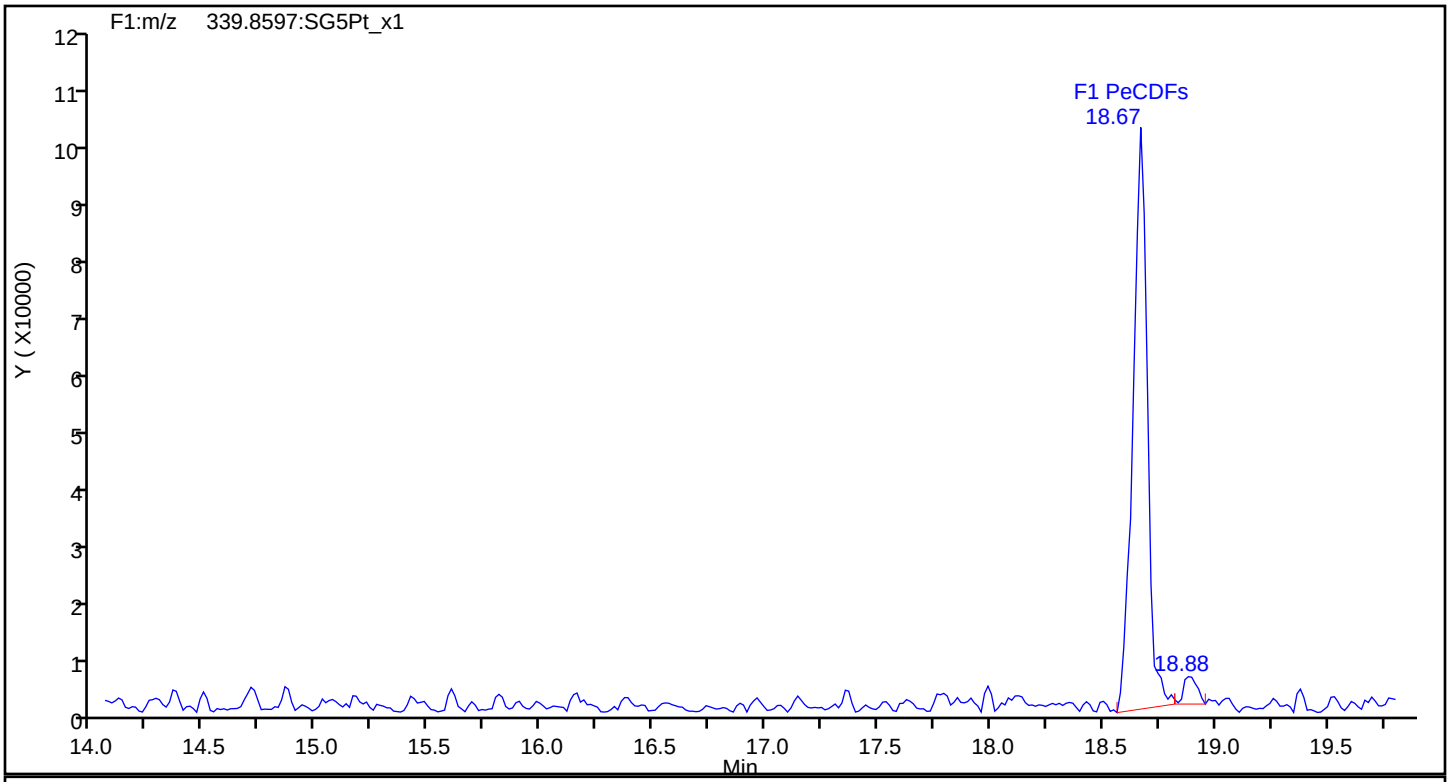


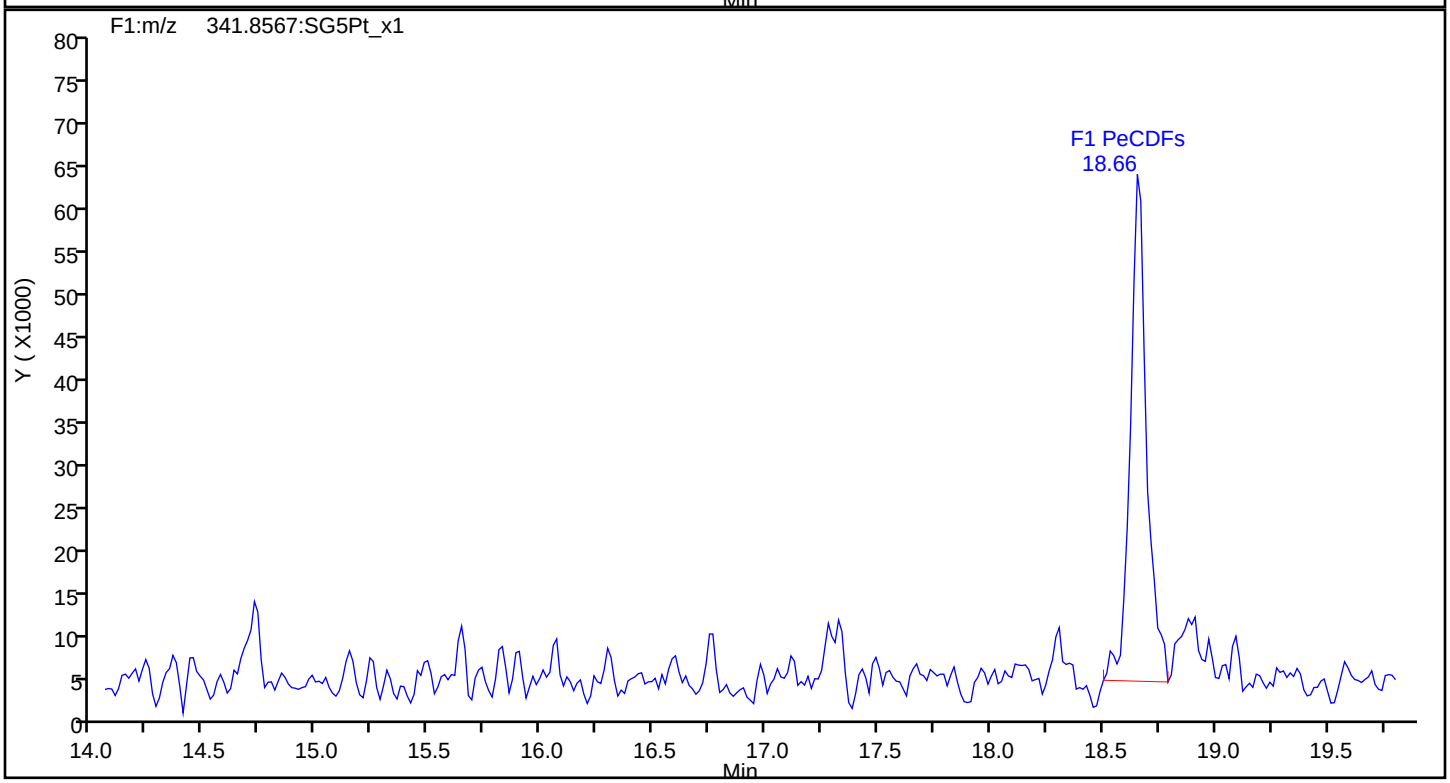
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



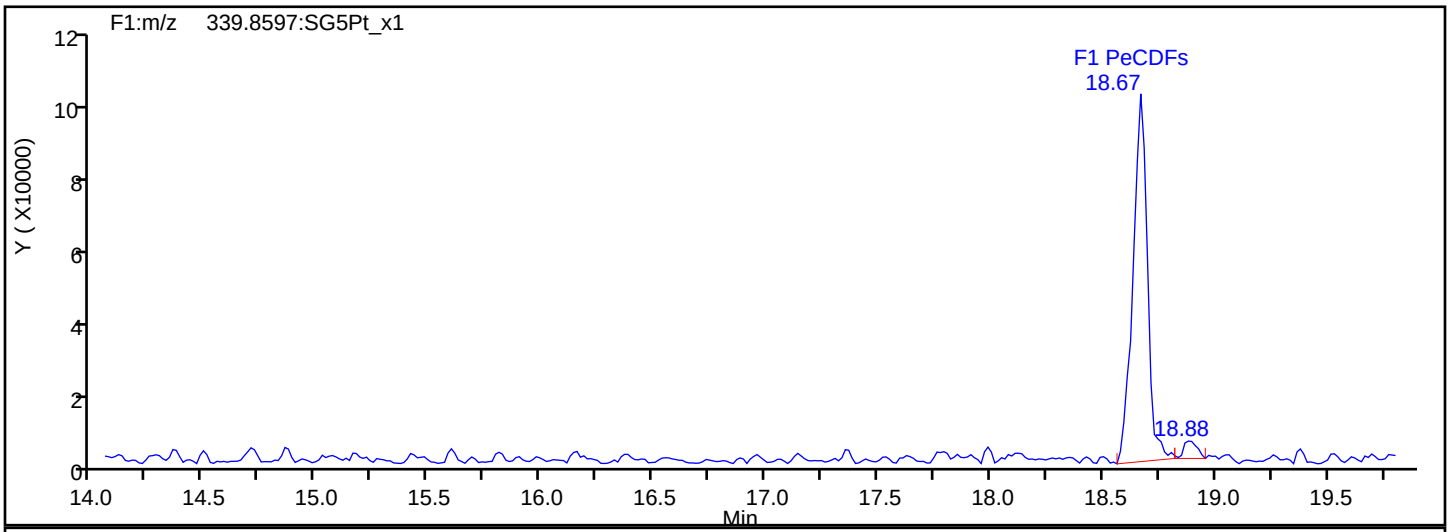


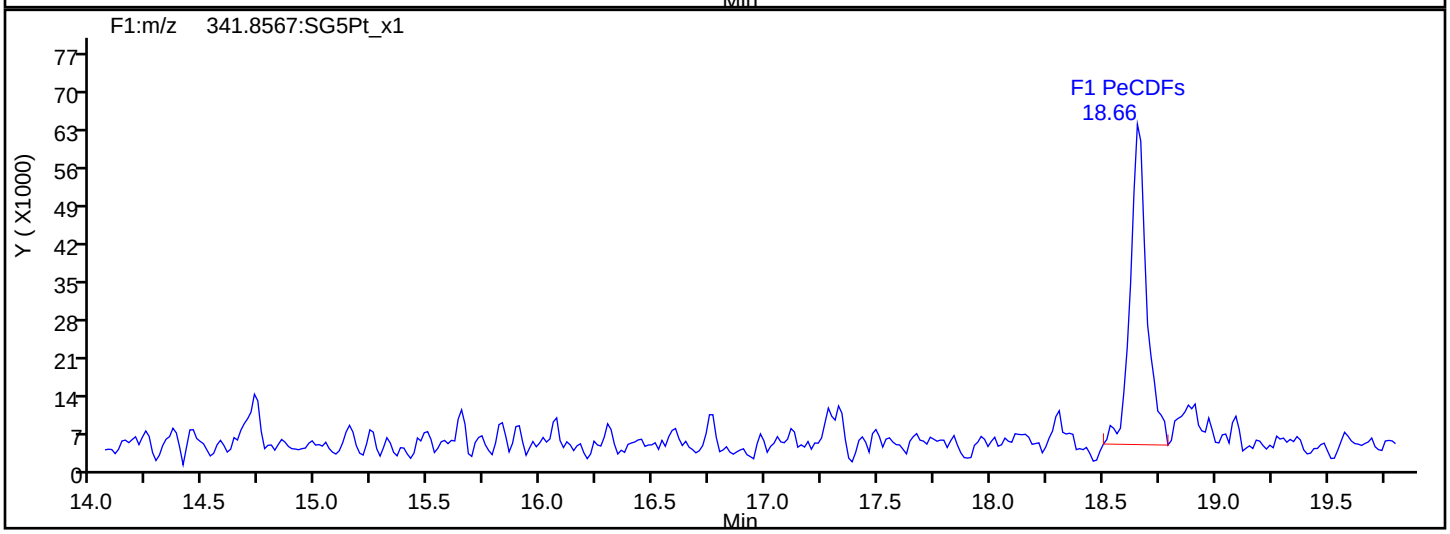
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

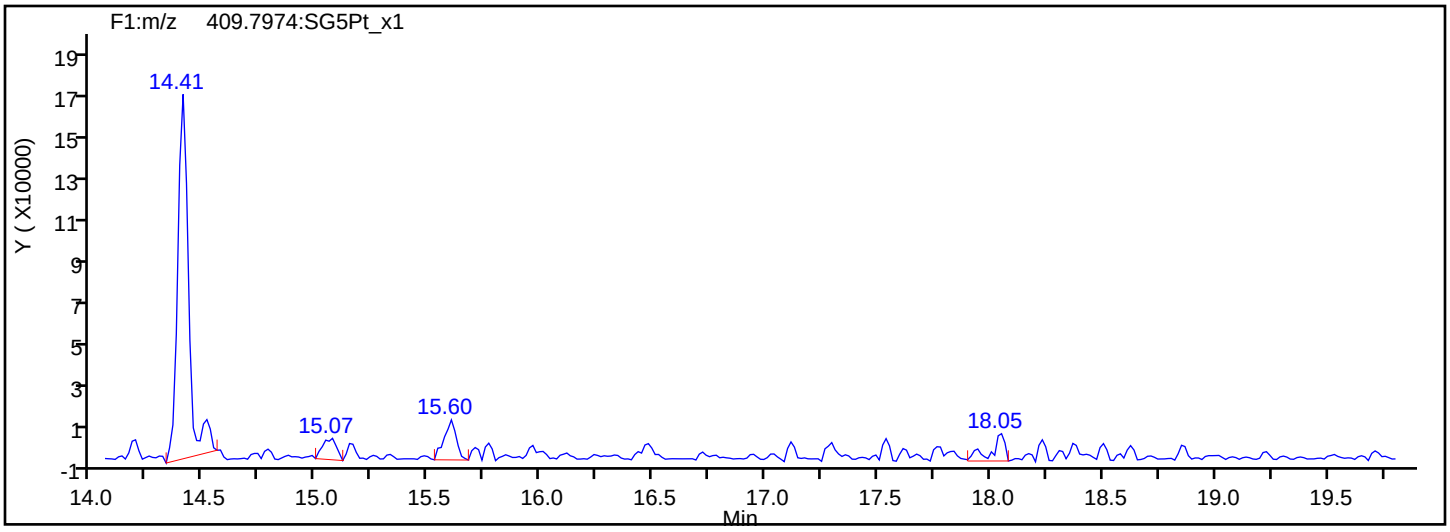
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

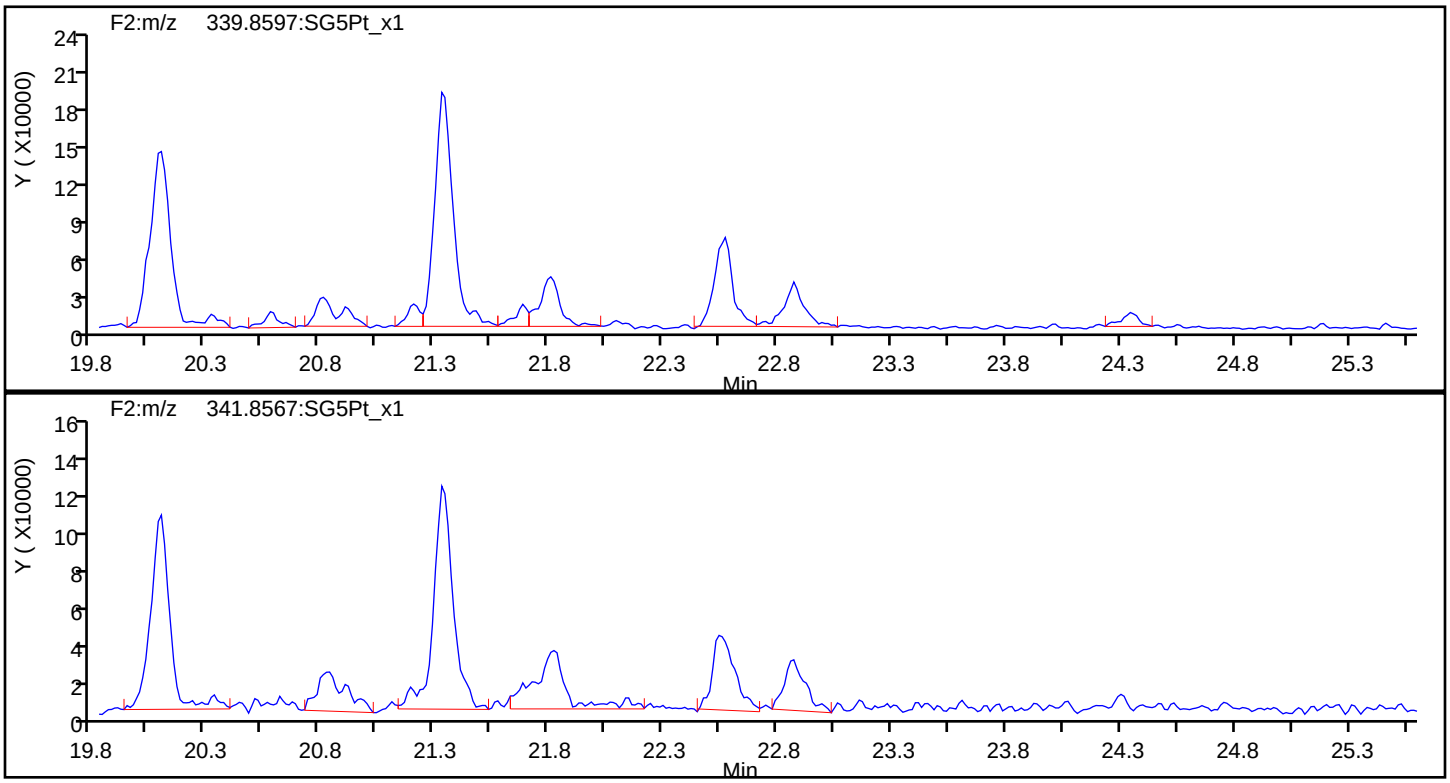


Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

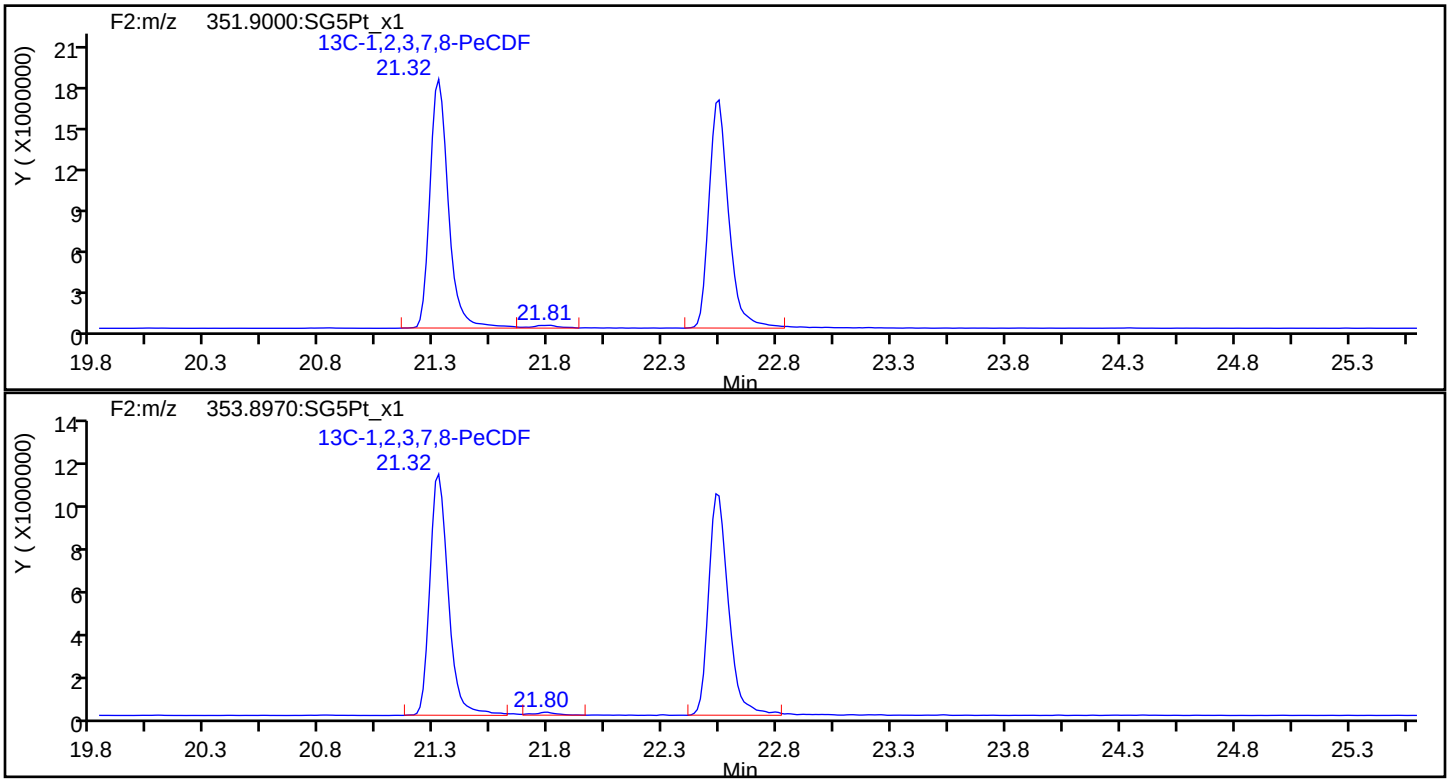
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

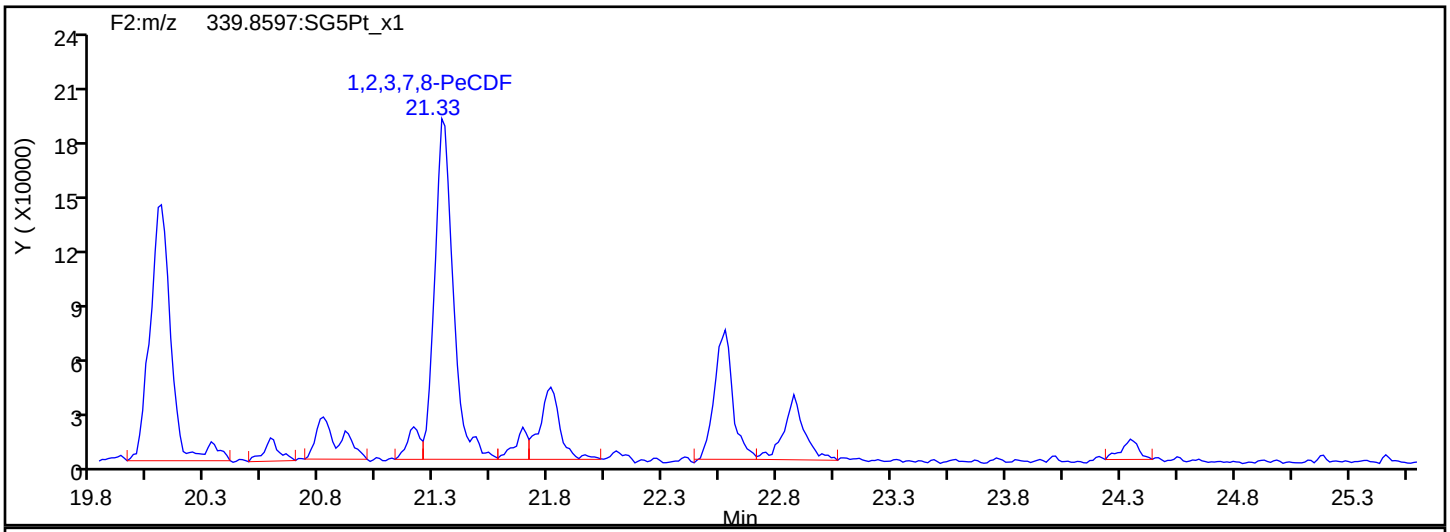


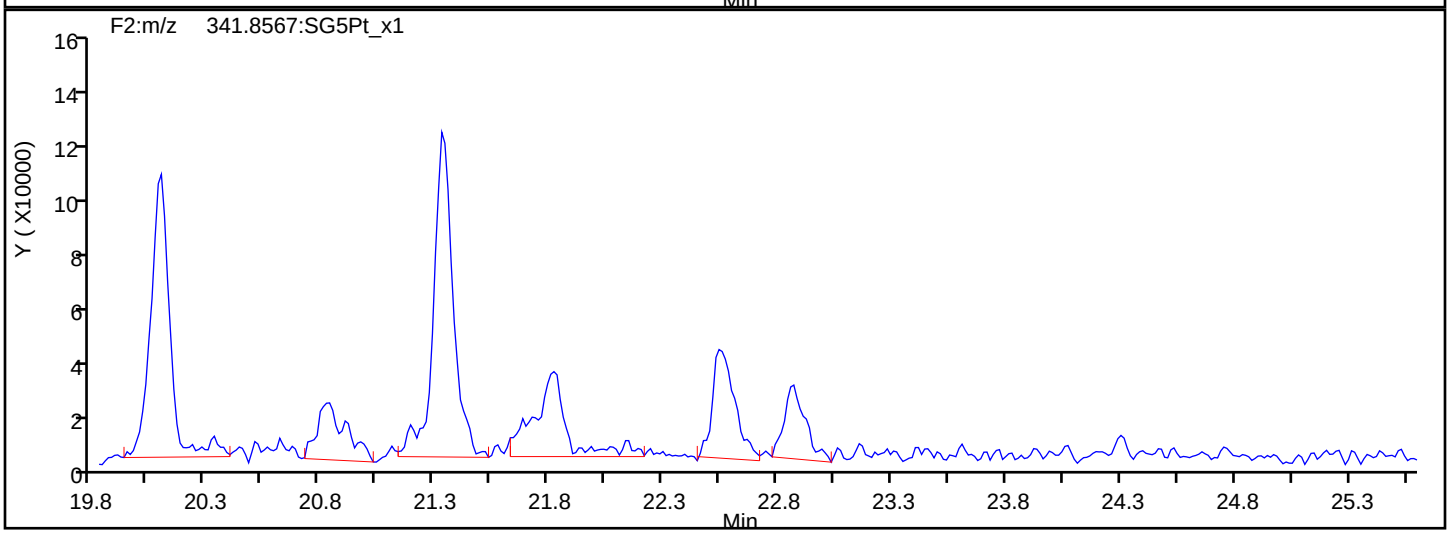
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

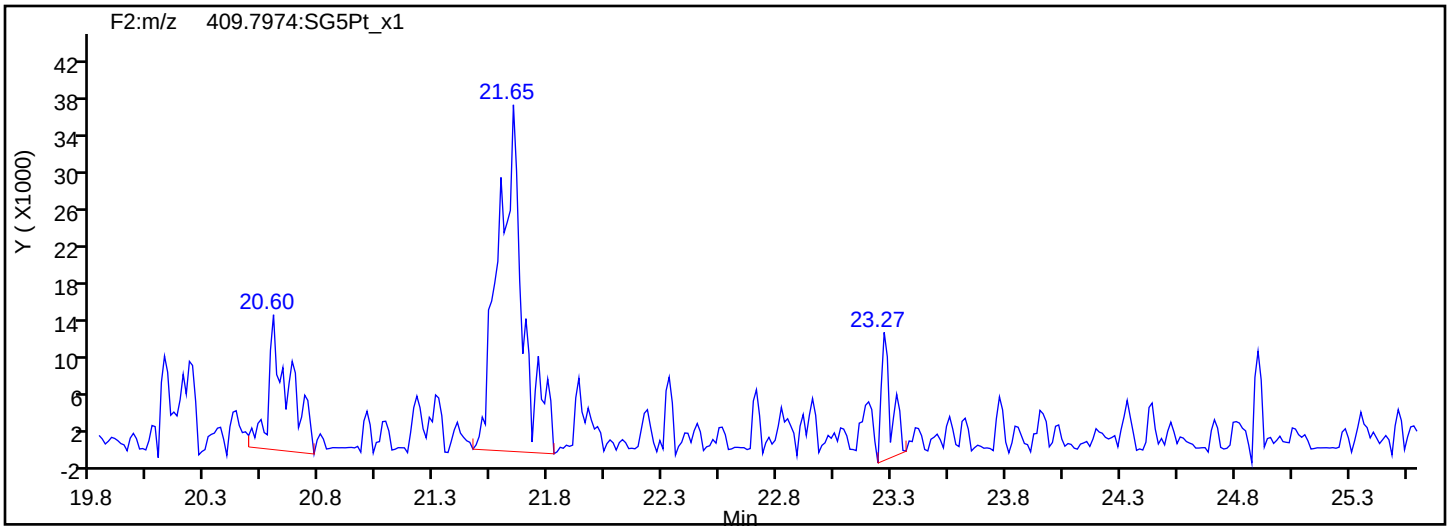
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

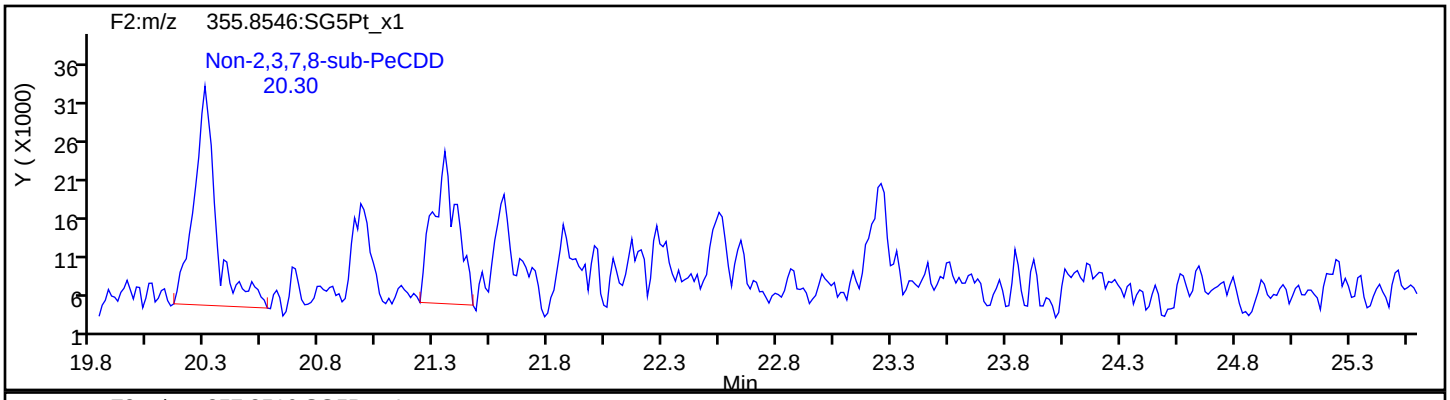


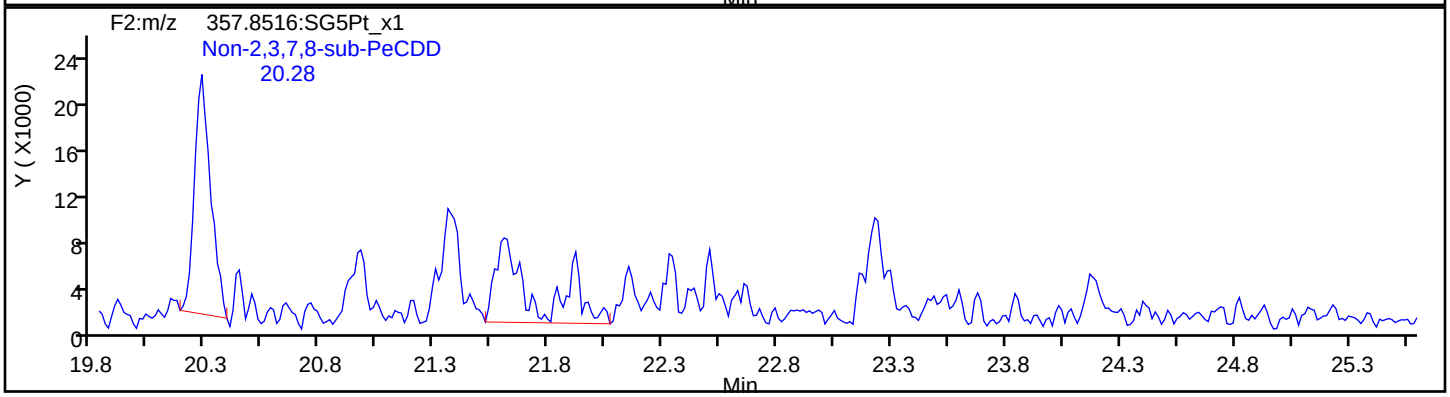
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

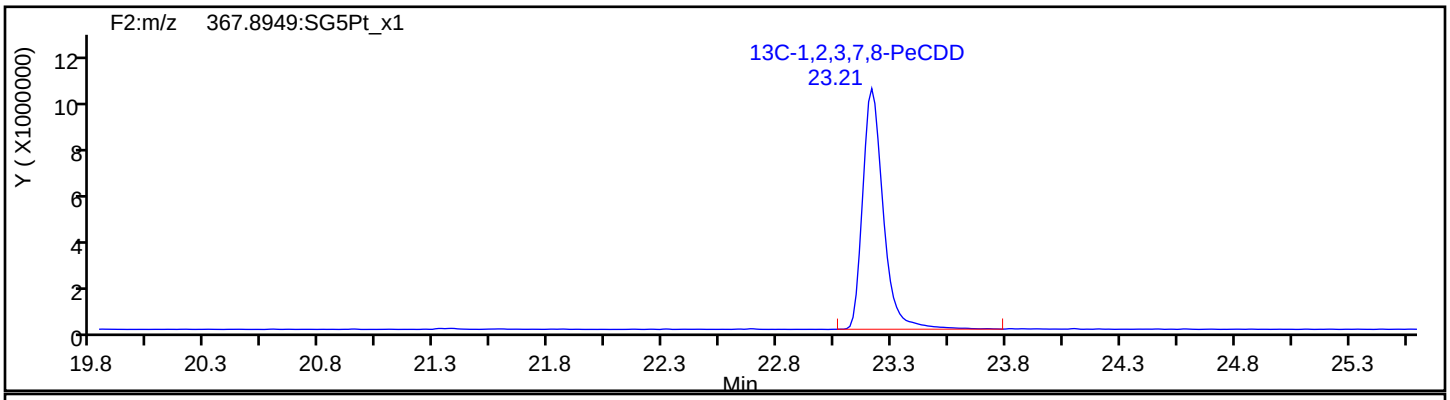
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

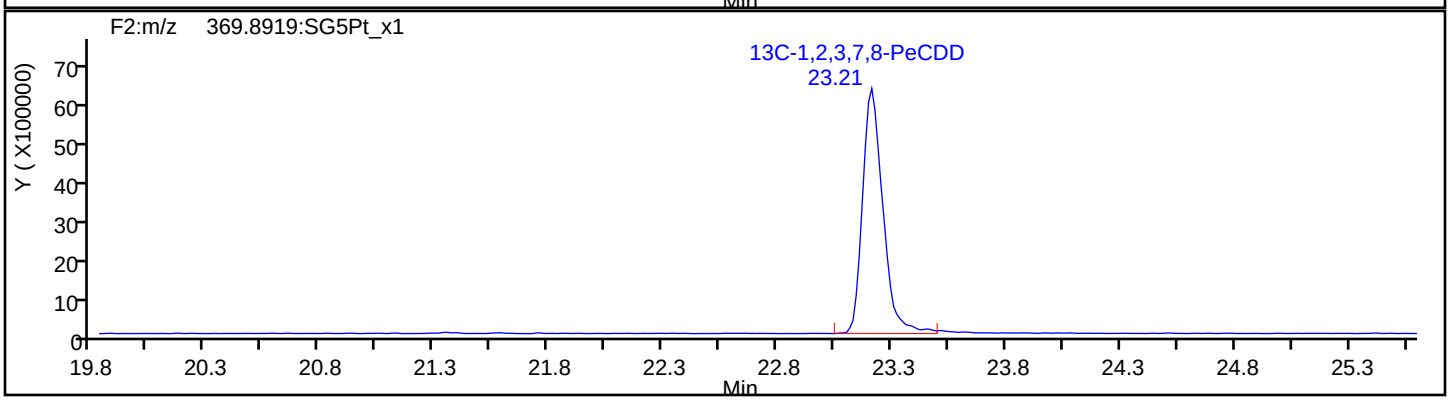
PeCDD





PeCDD Standards



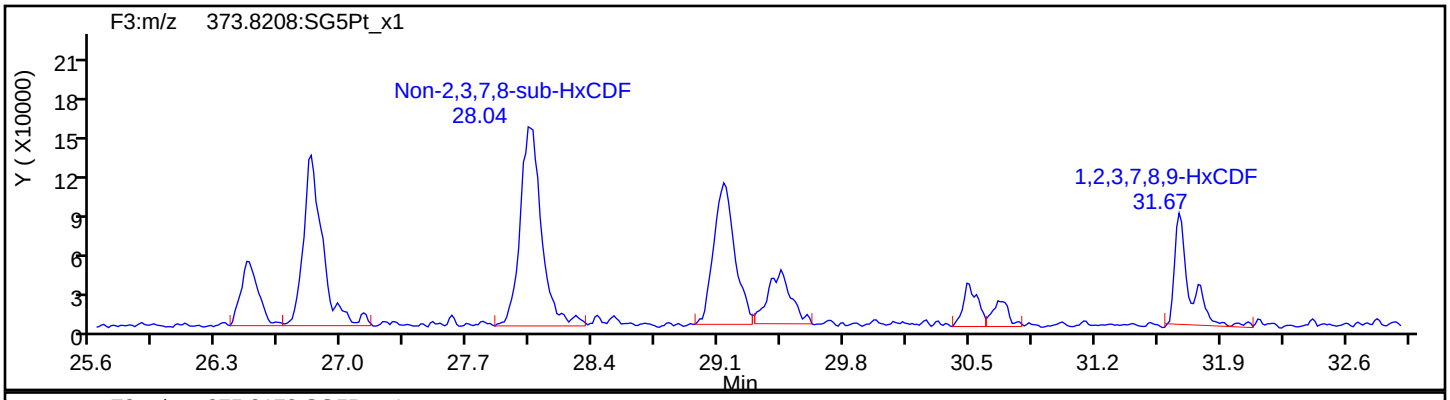


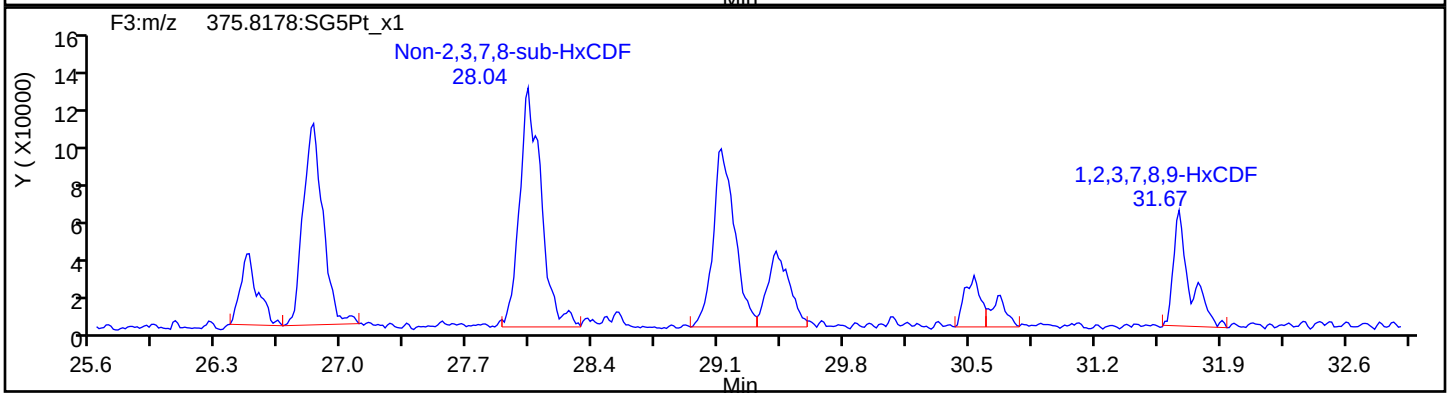
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

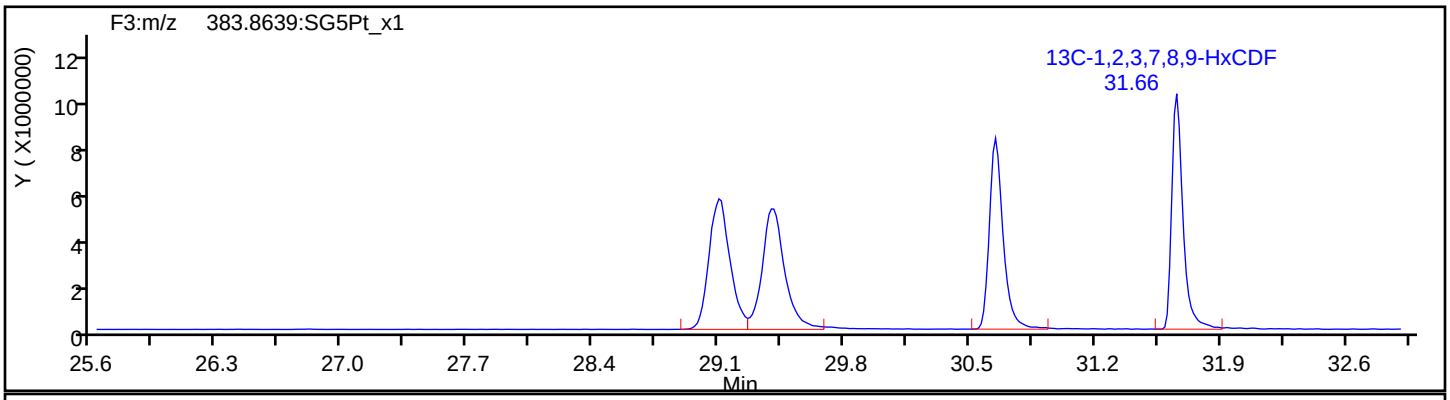
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

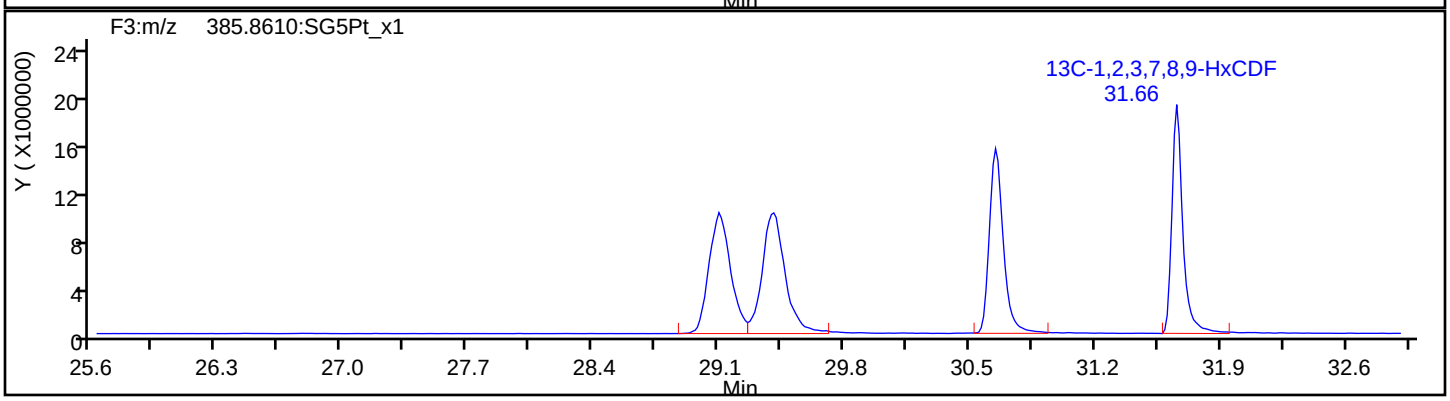
HxCDF





HxCDF Standards



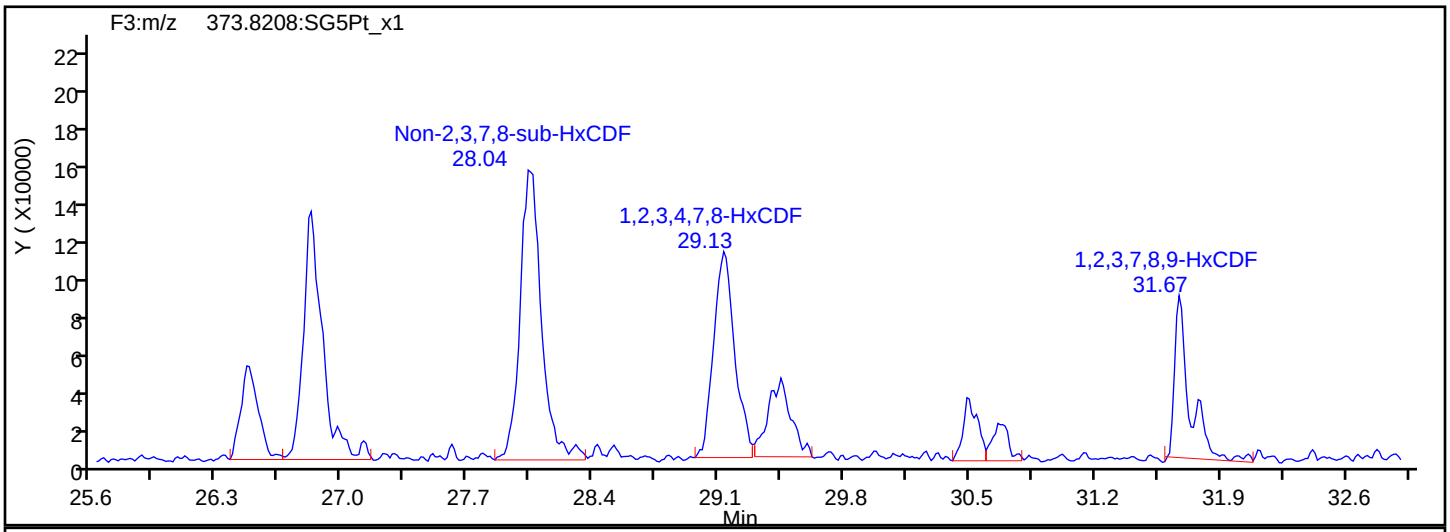


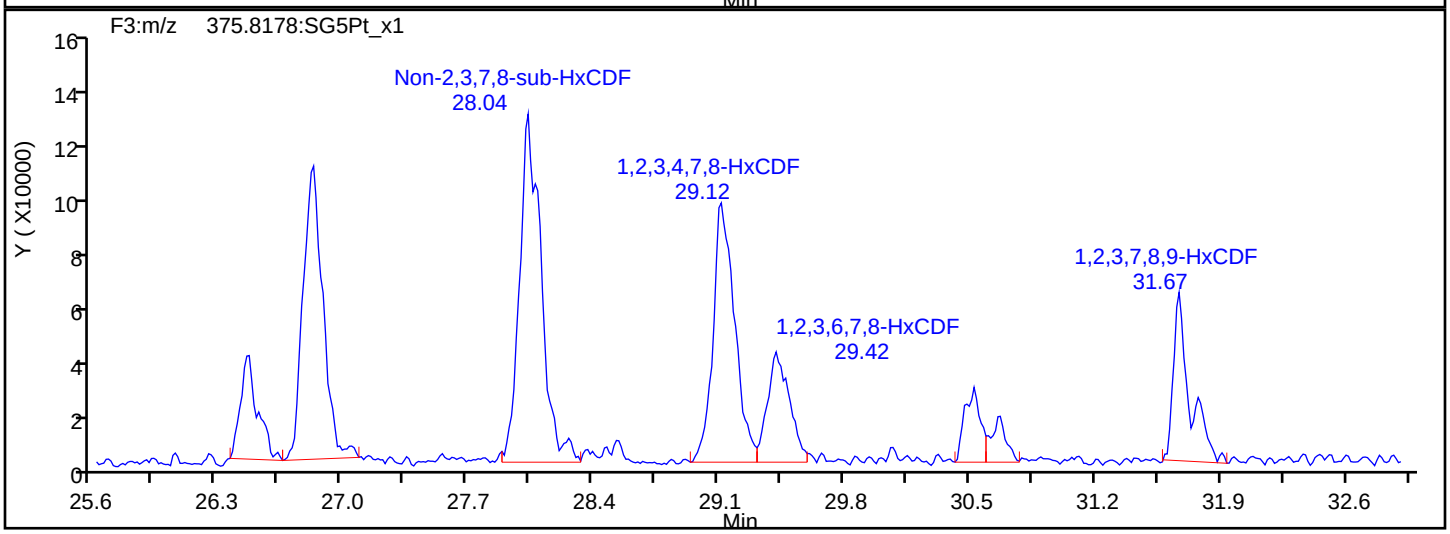
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

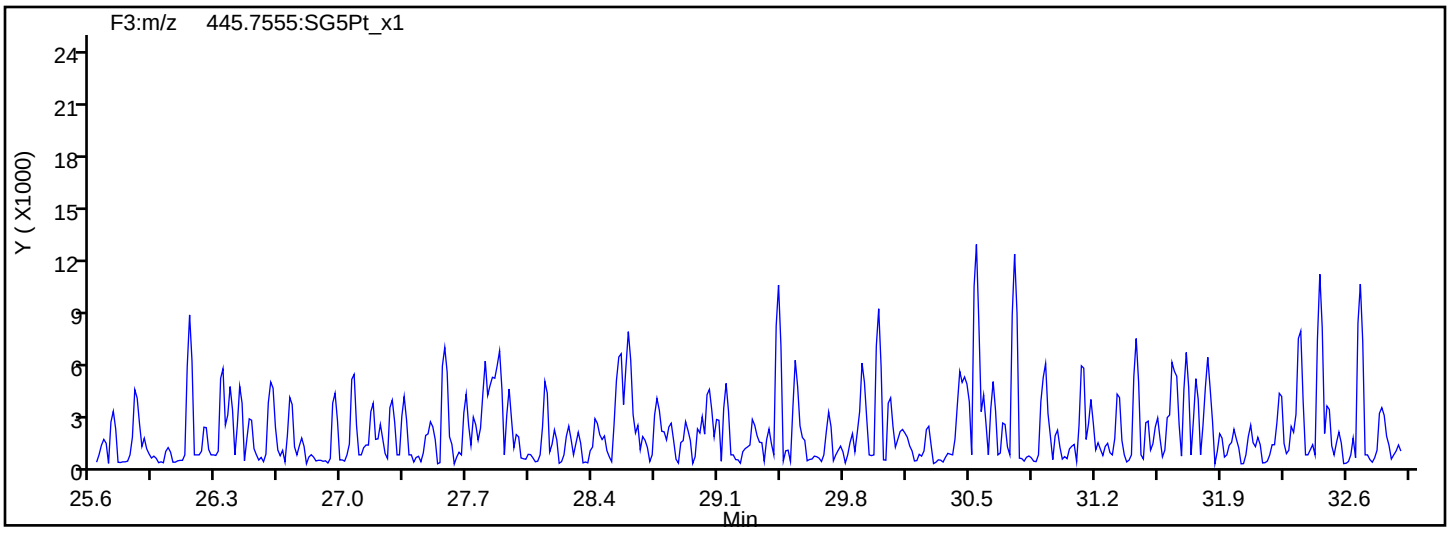
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

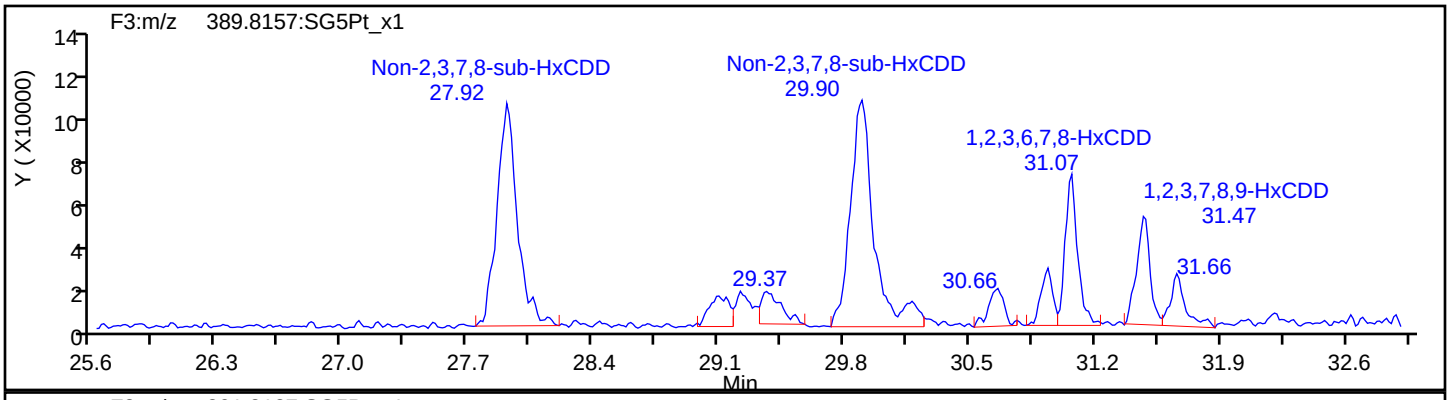


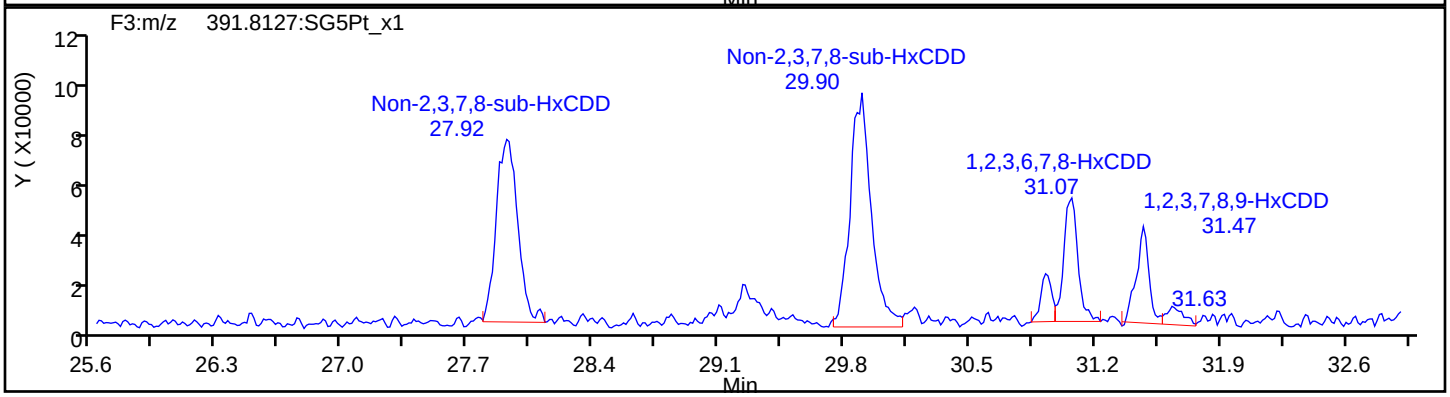
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

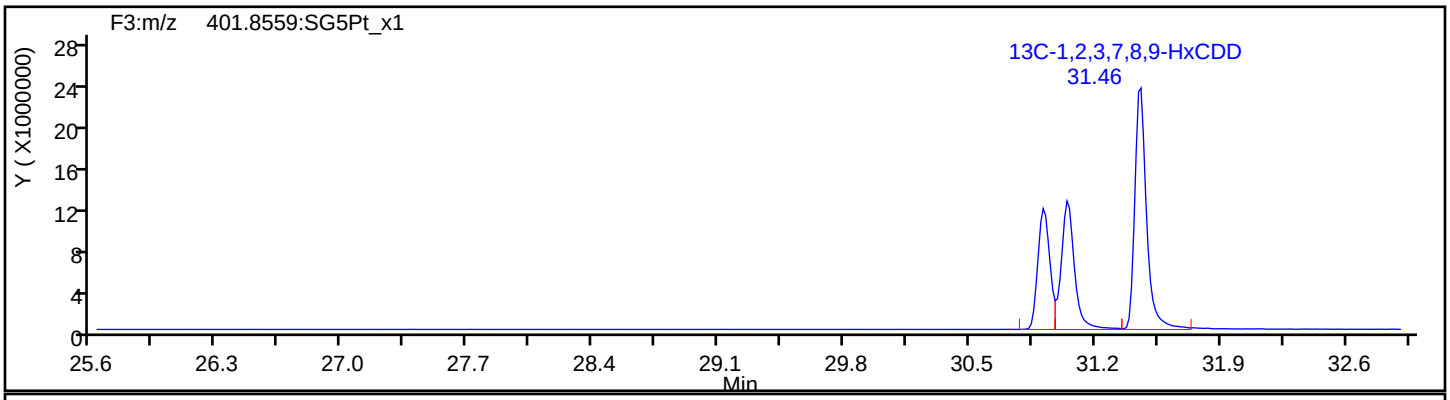
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

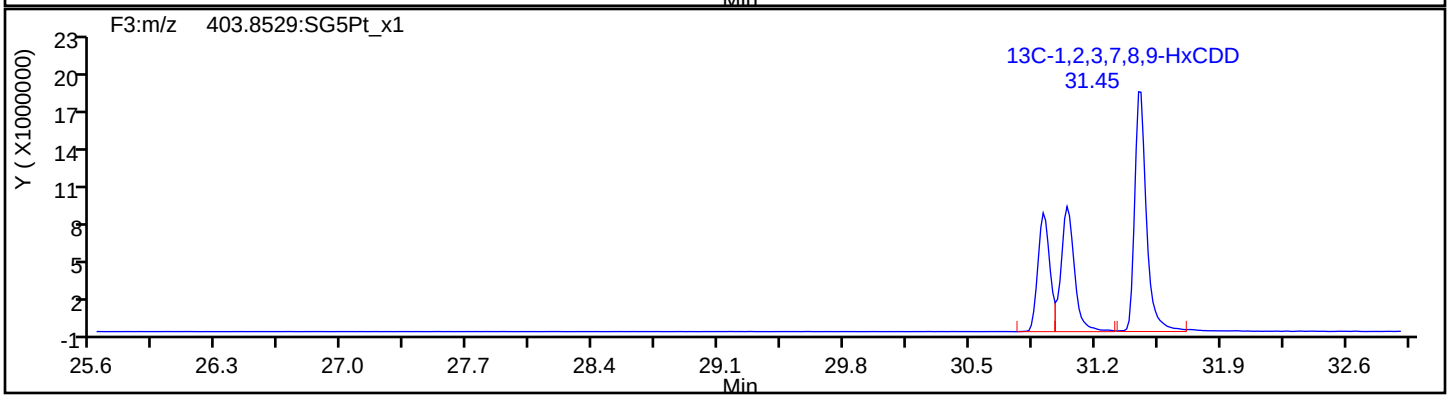
HxCDD





HxCDD Standards





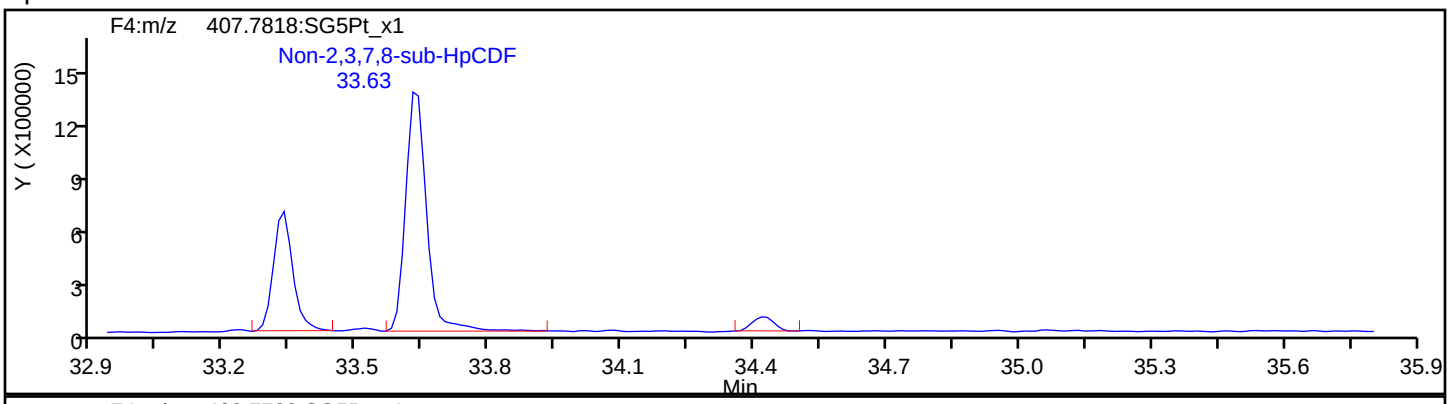
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

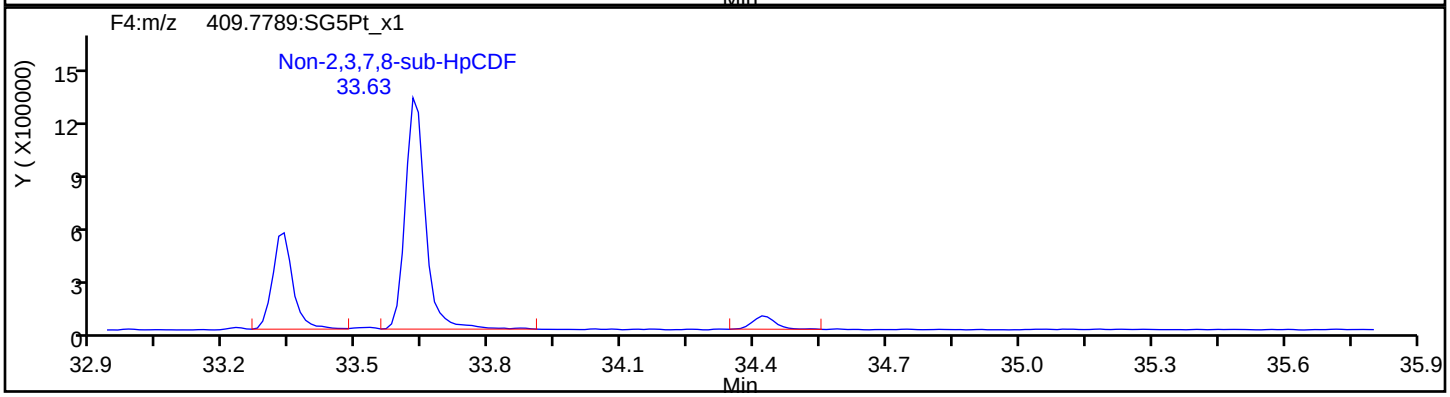
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d

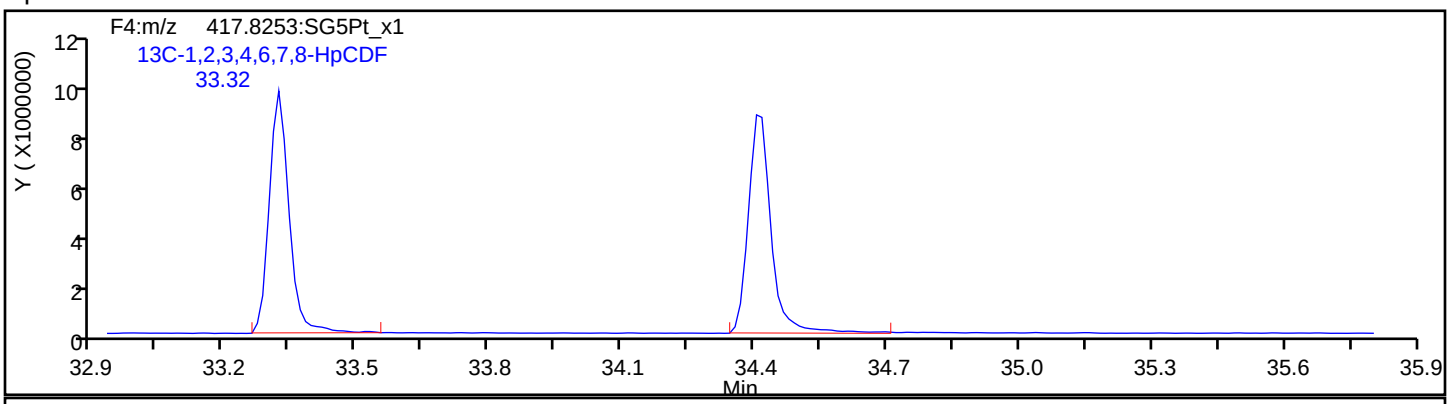
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

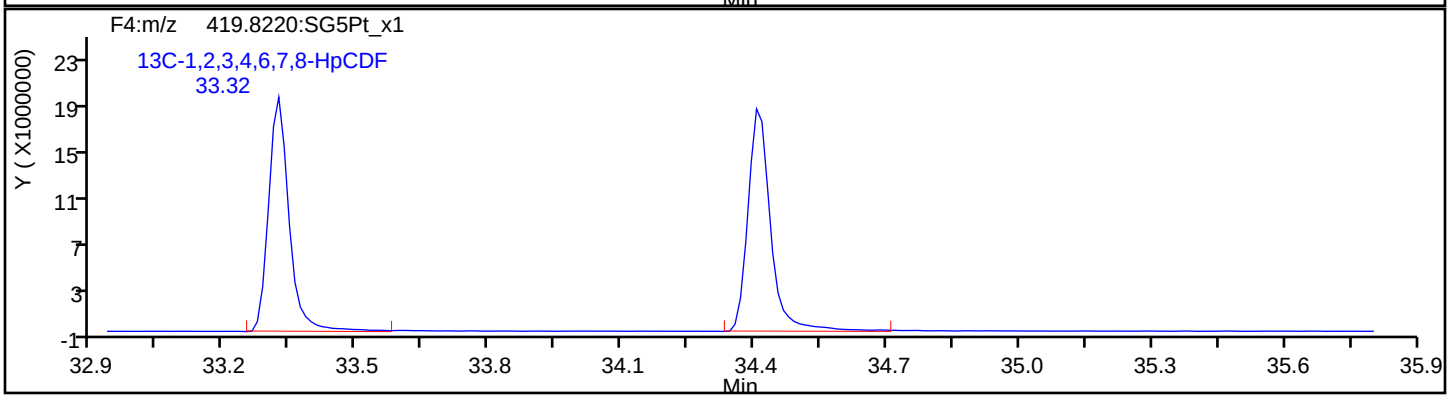
HpCDF





HpCDF Standards



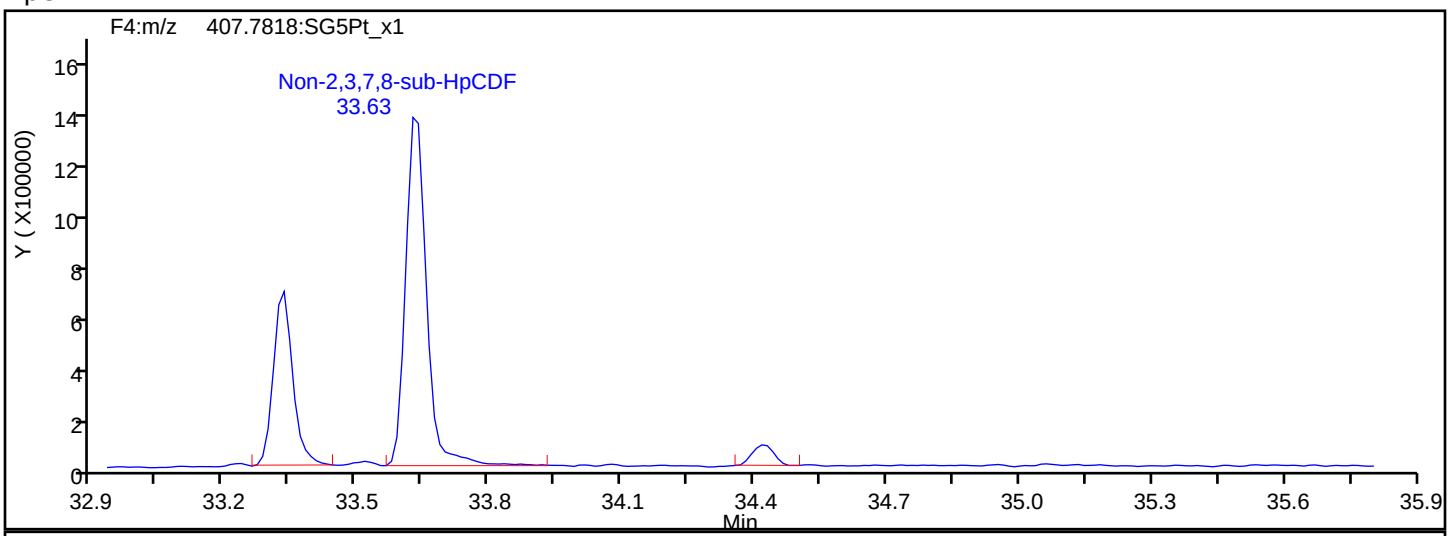


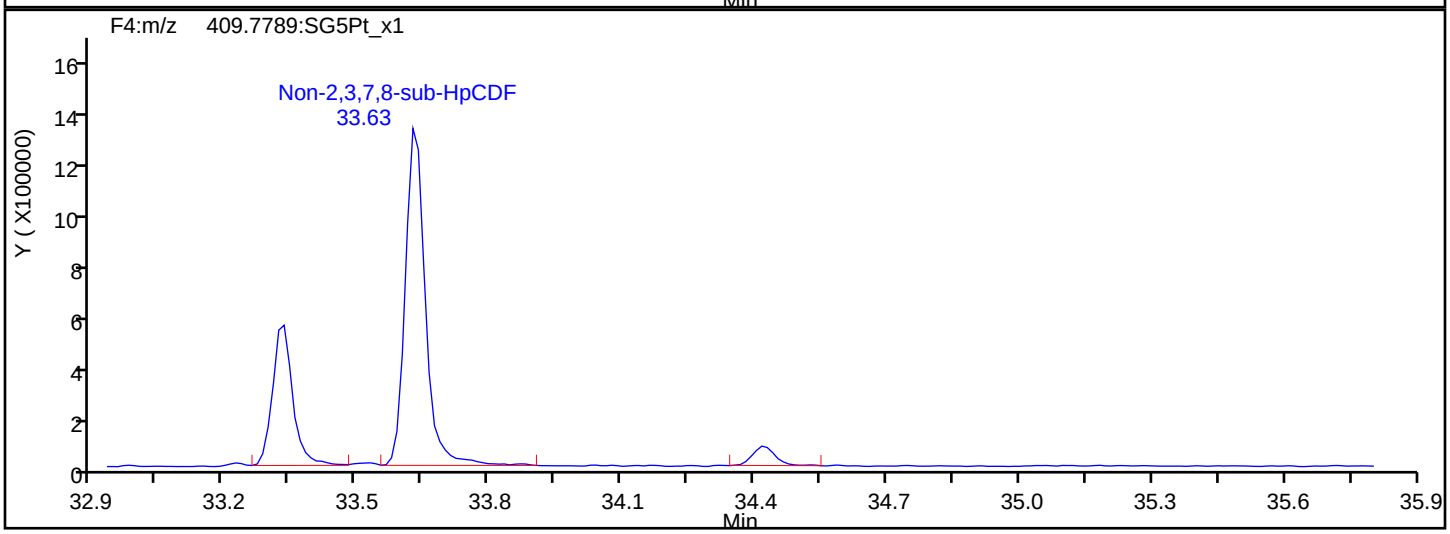
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

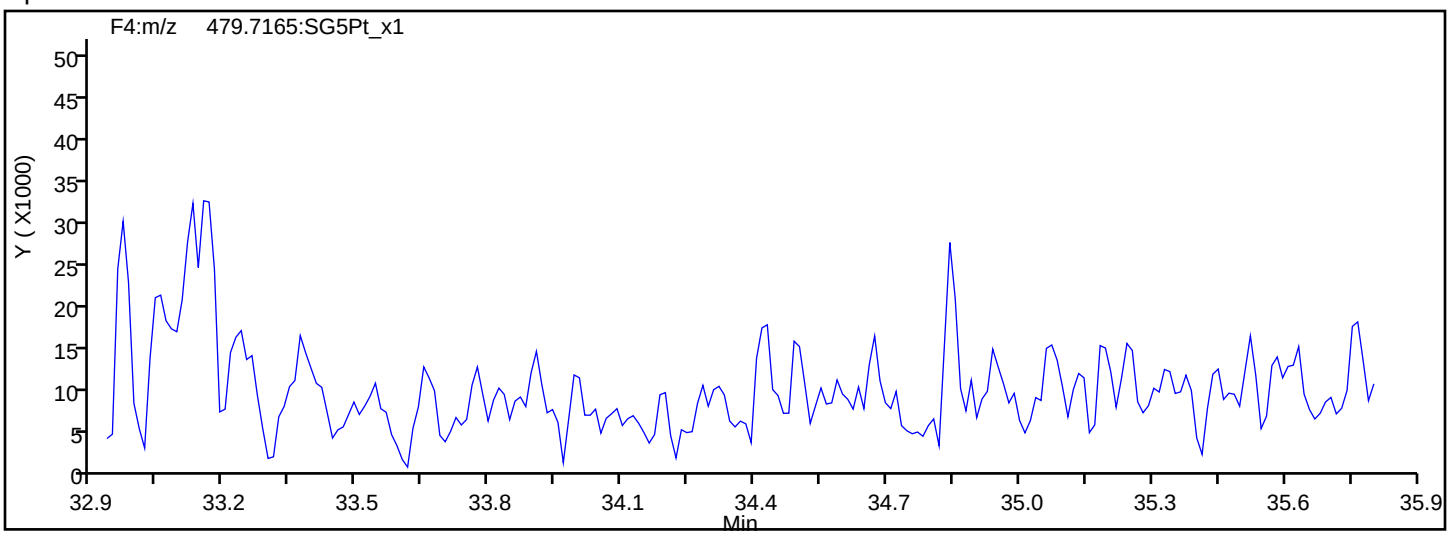
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



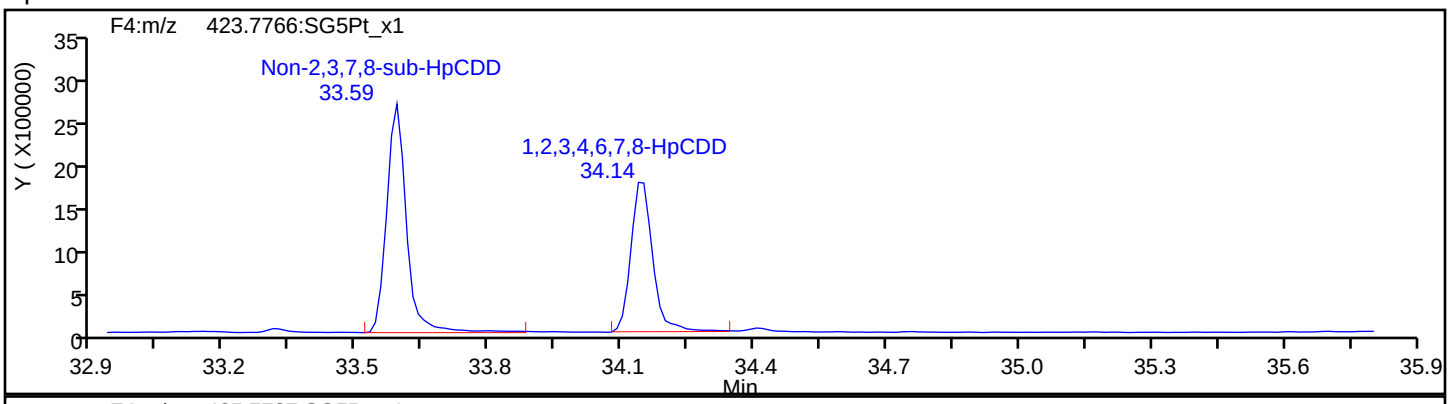
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

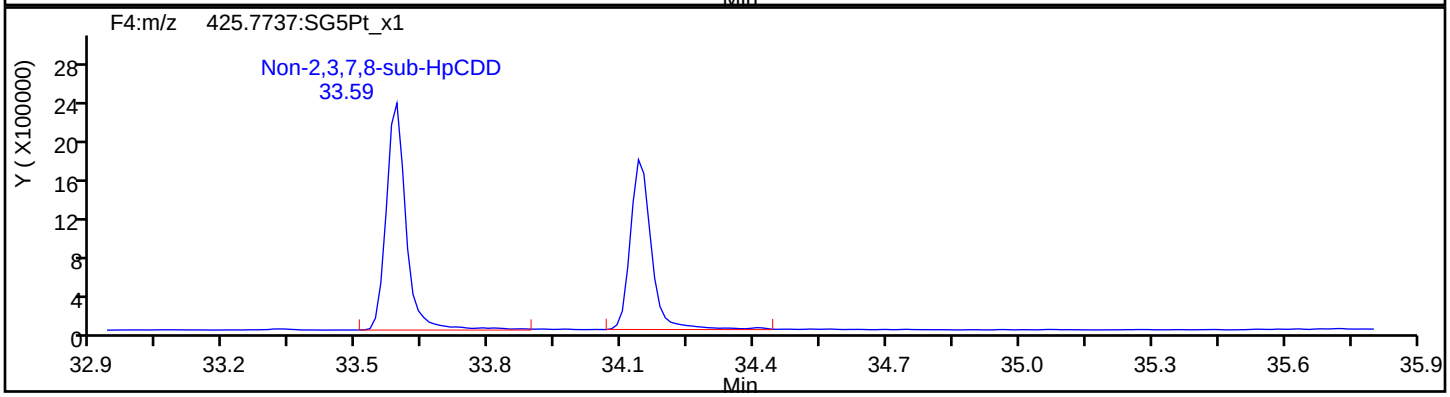
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d

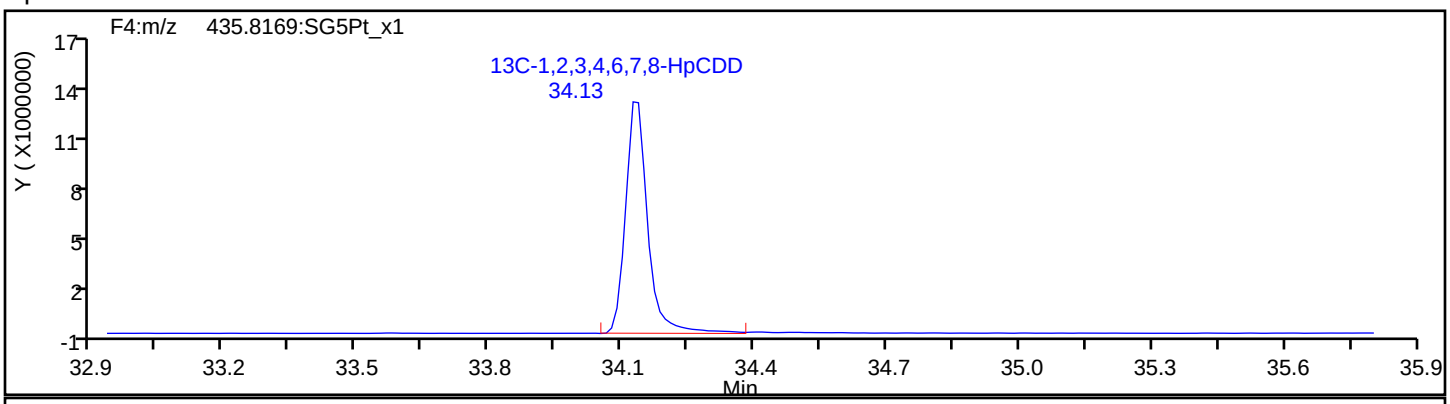
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

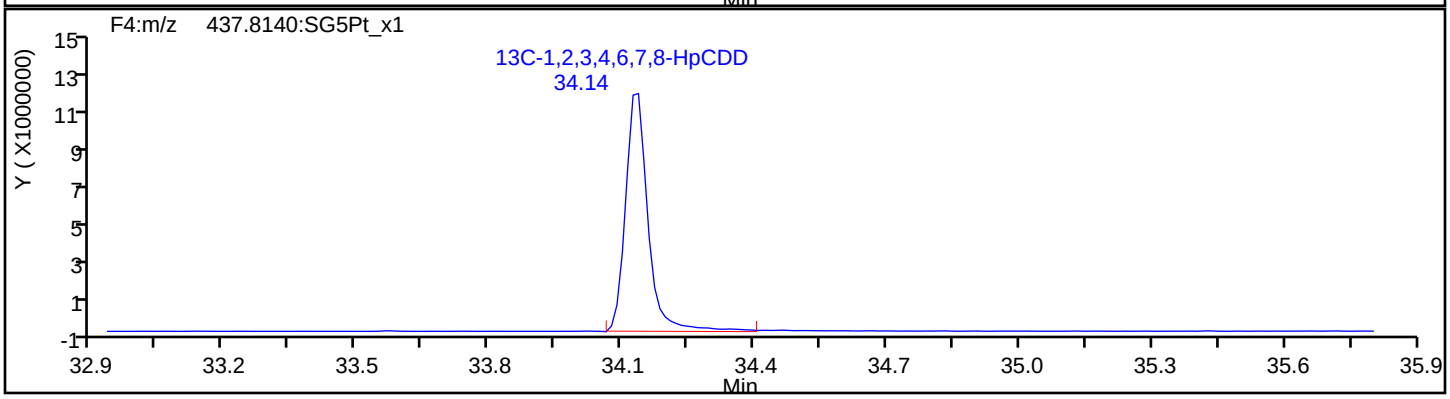
HpCDD





HpCDD Standards



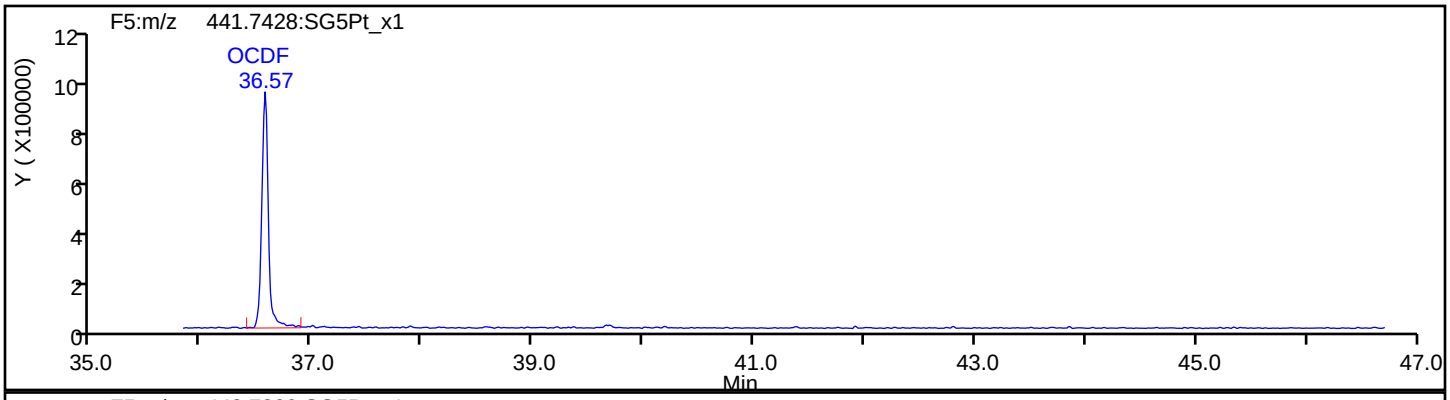


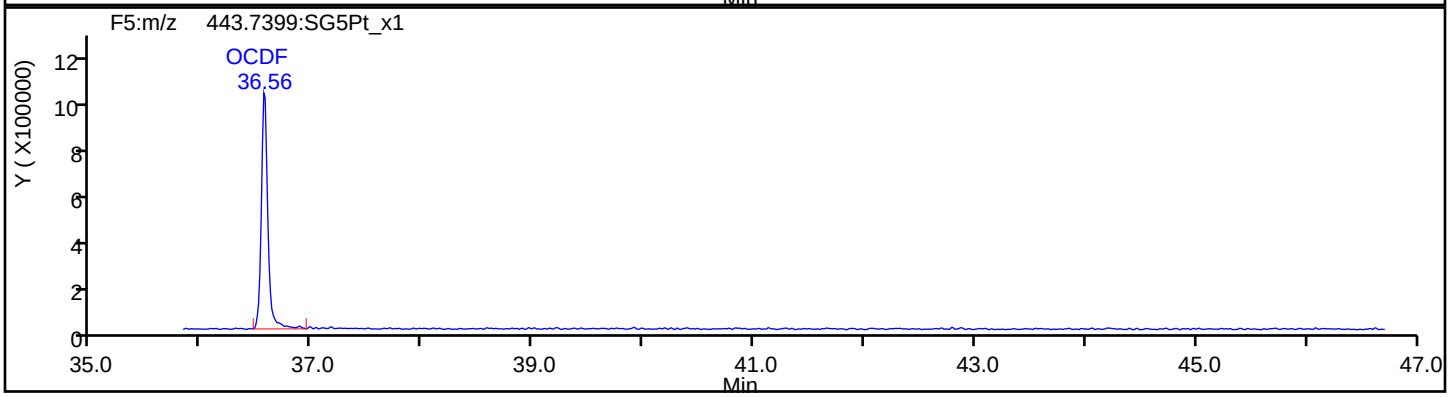
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

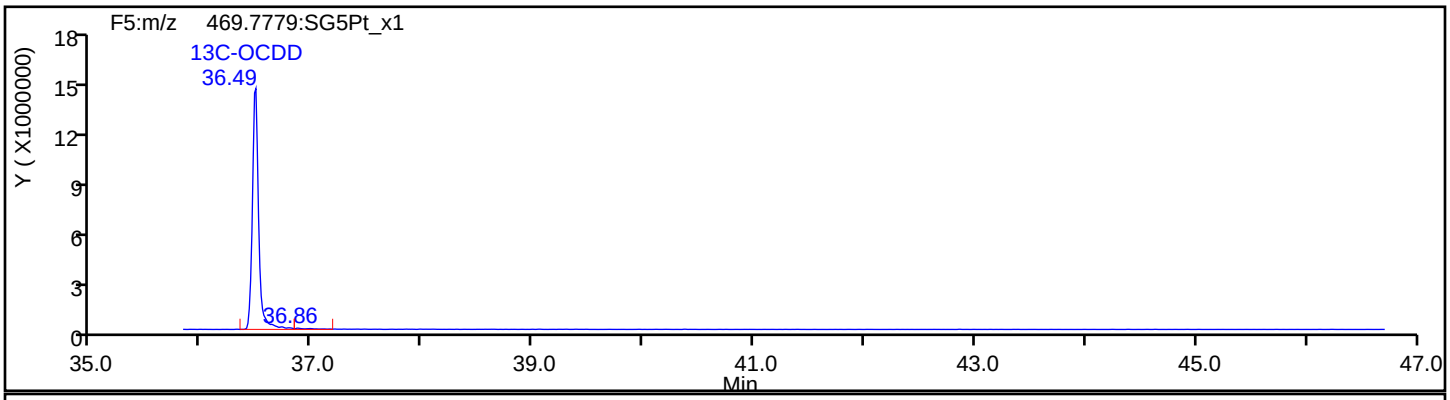
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

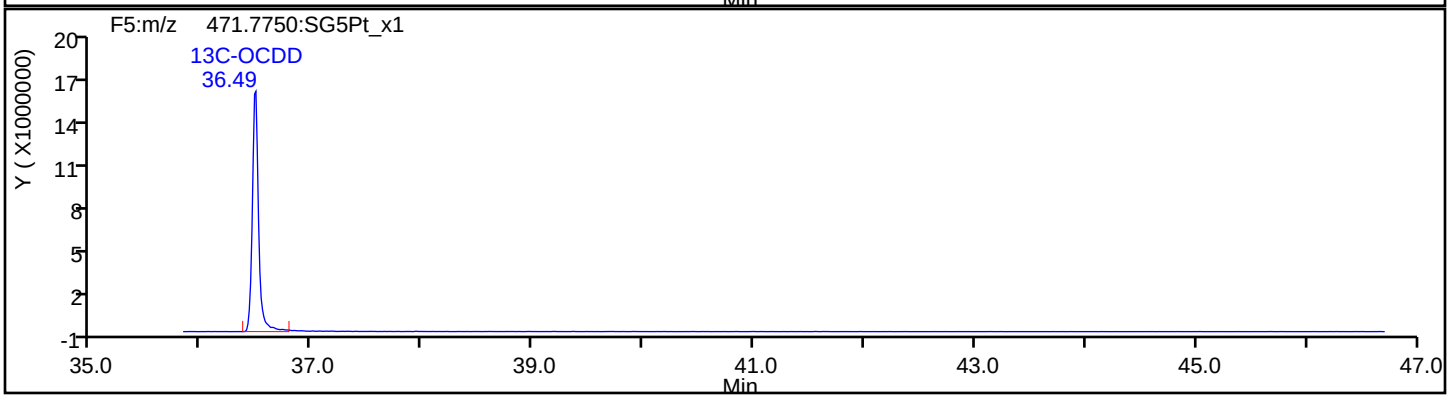
OCDF





OCDF Standards



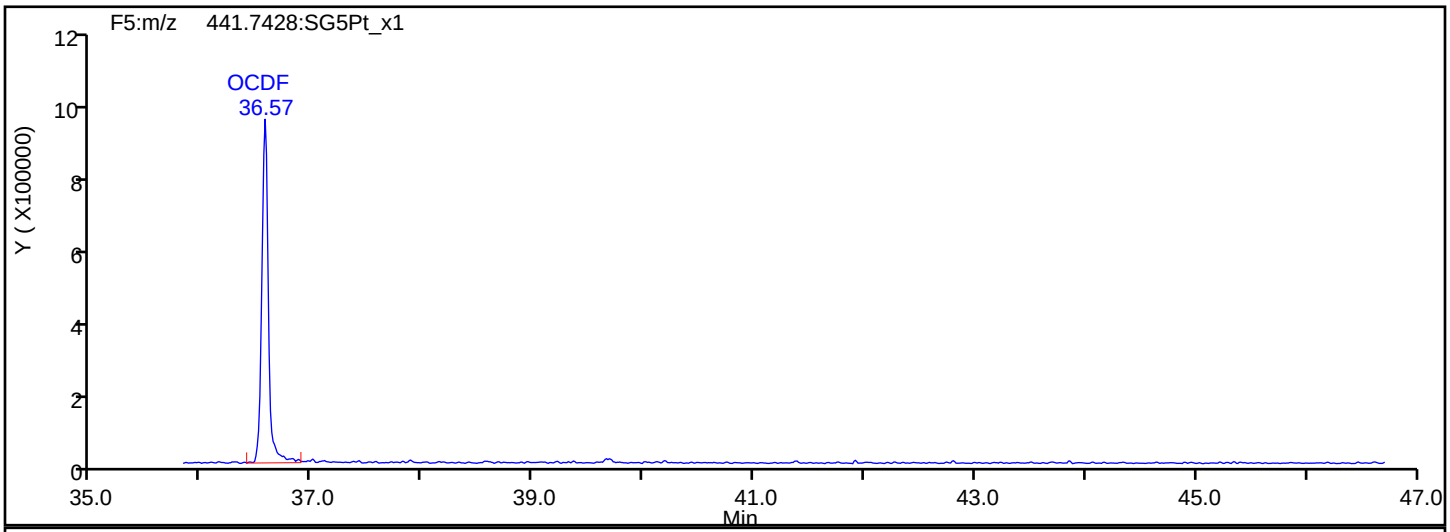


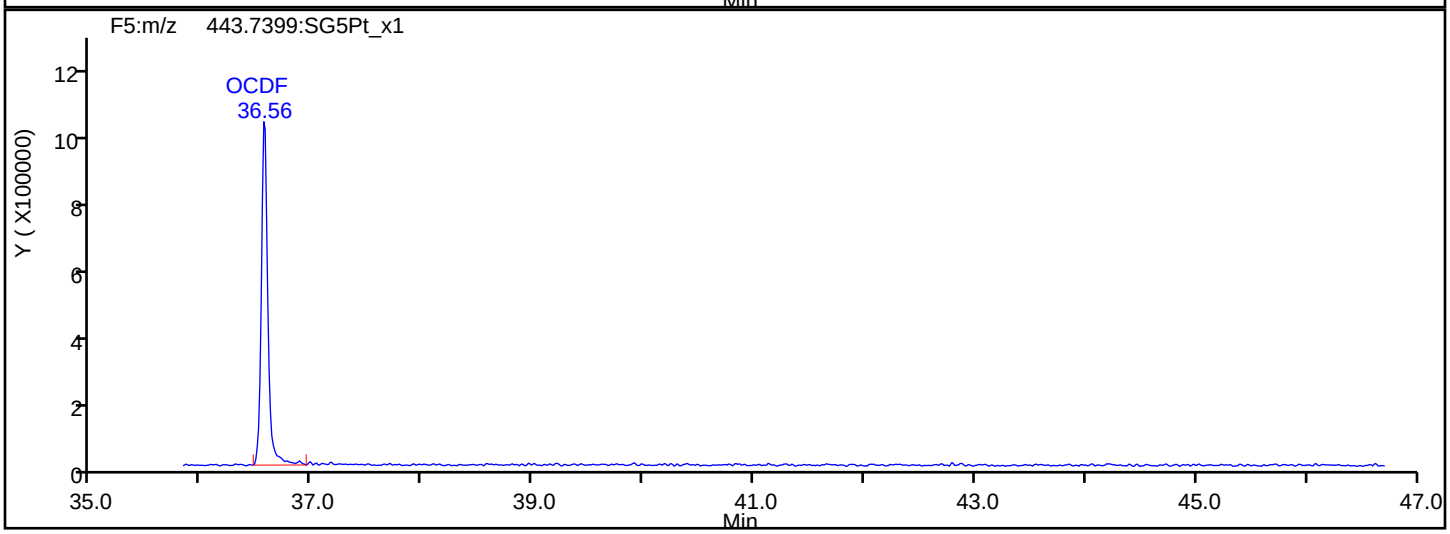
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

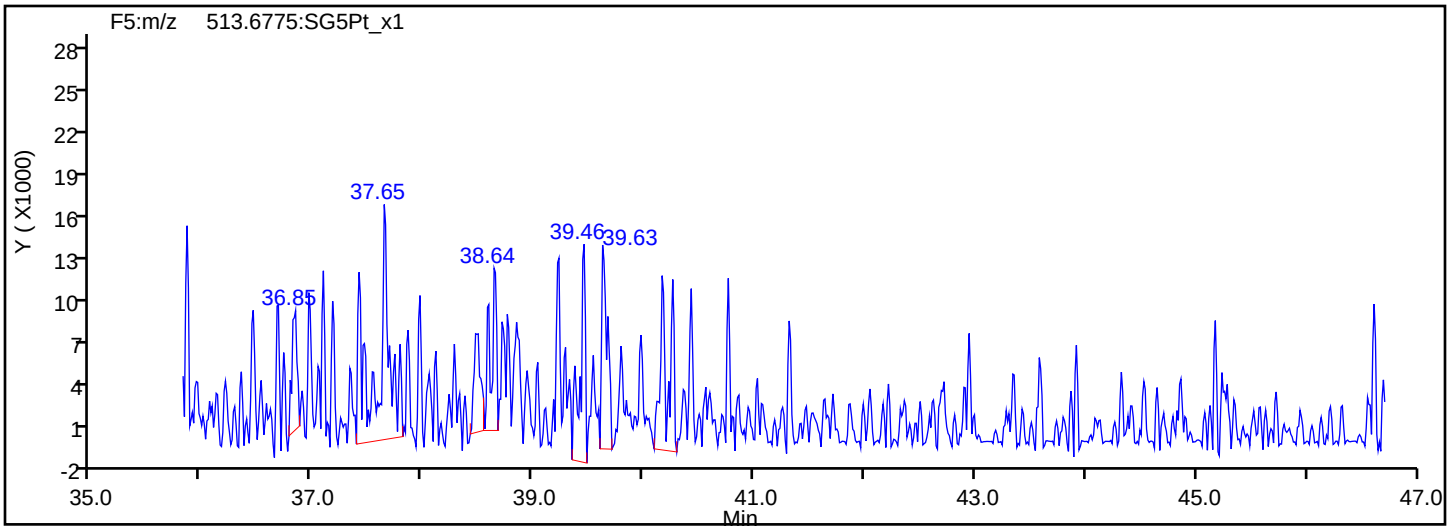
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

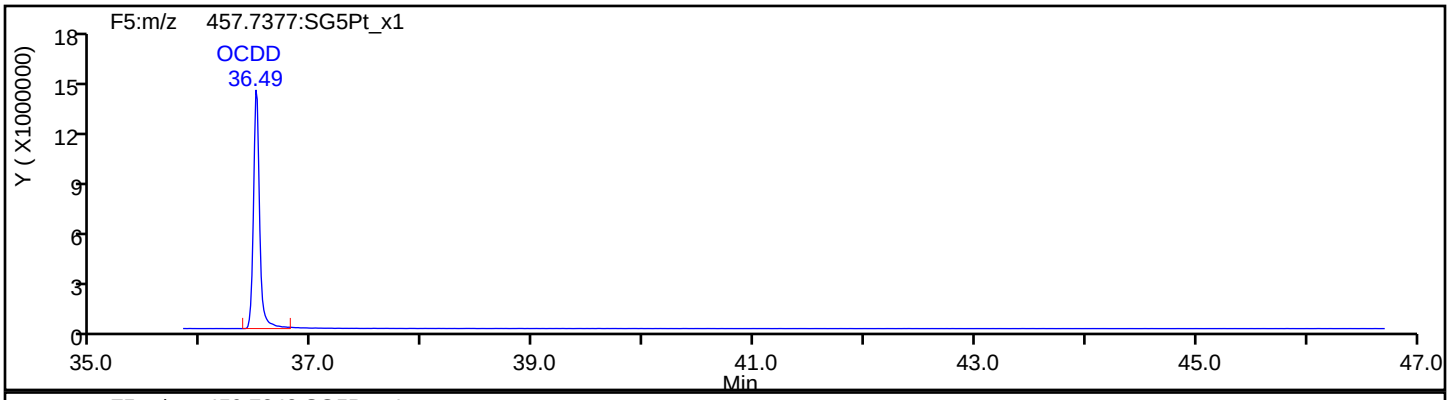


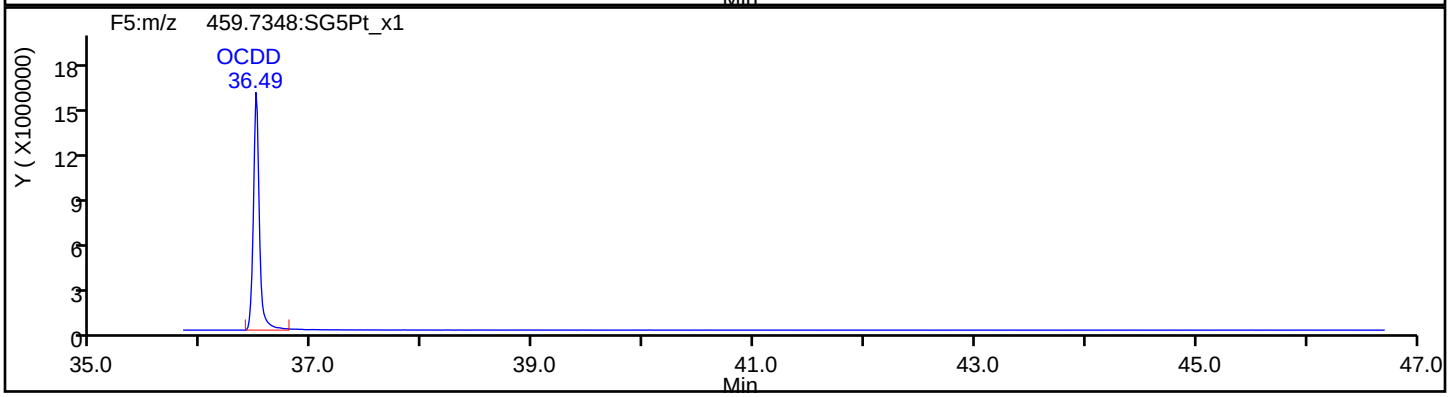
Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

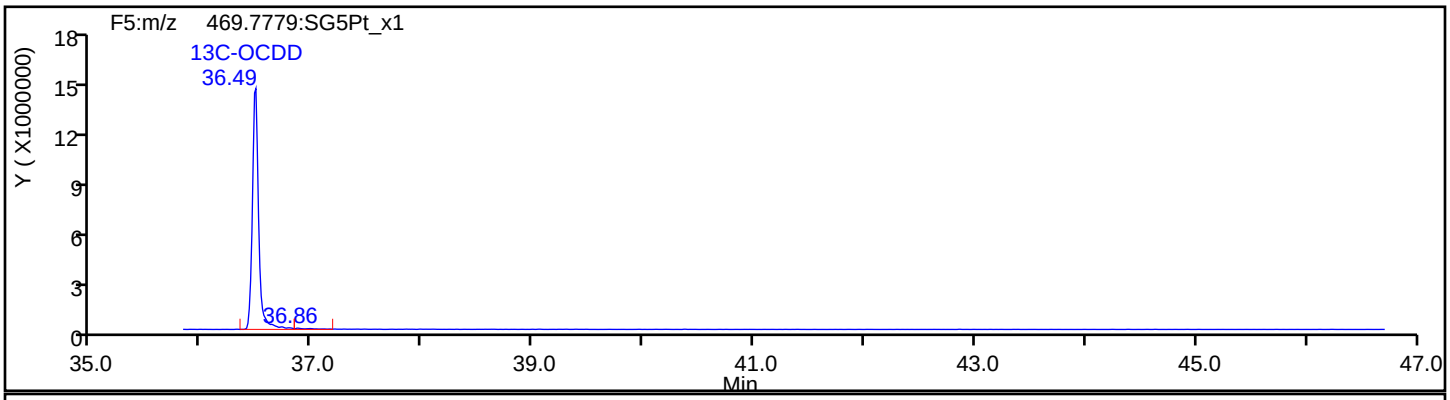
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm

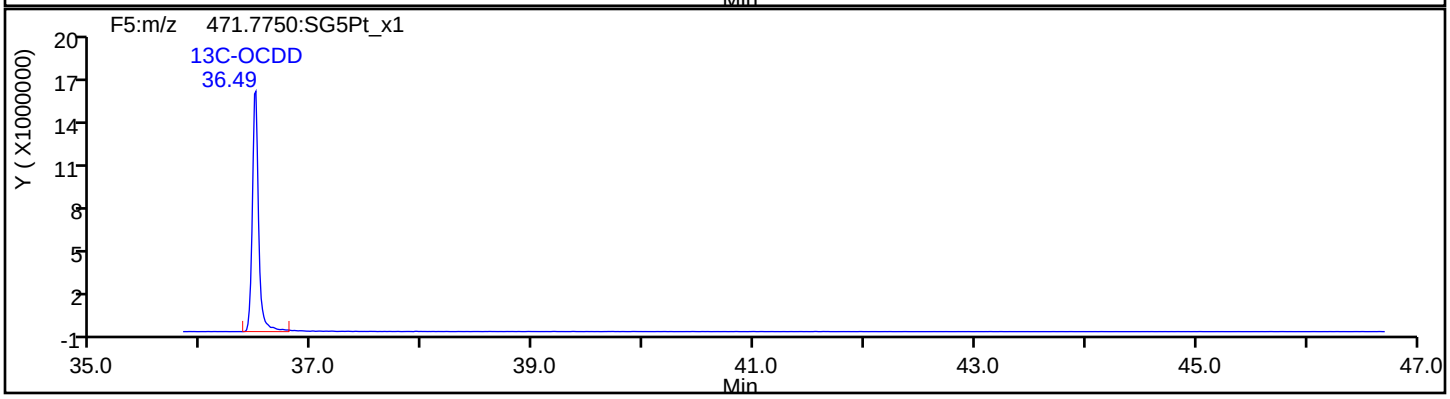
OCDD





OCDD Standards

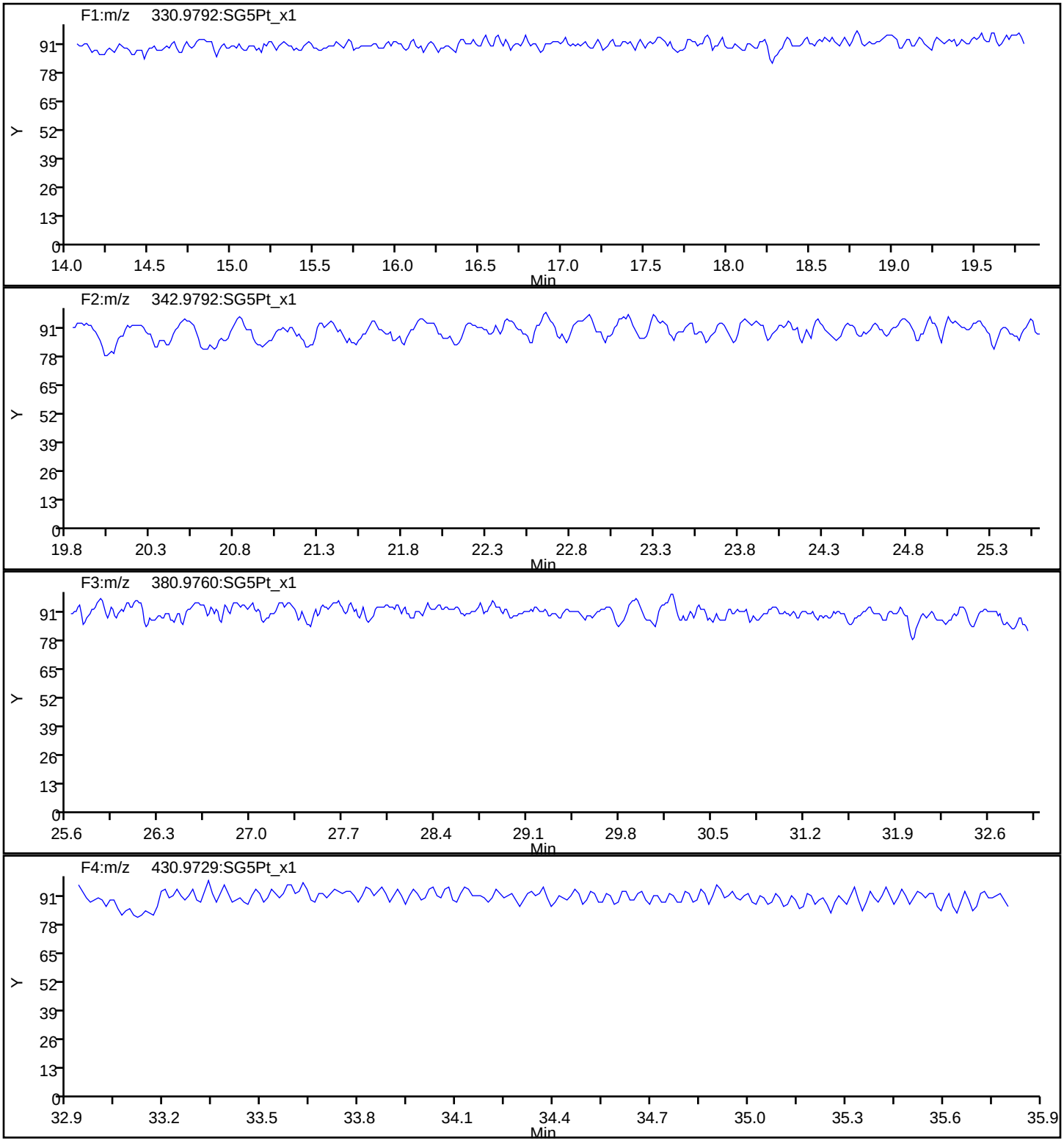




Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

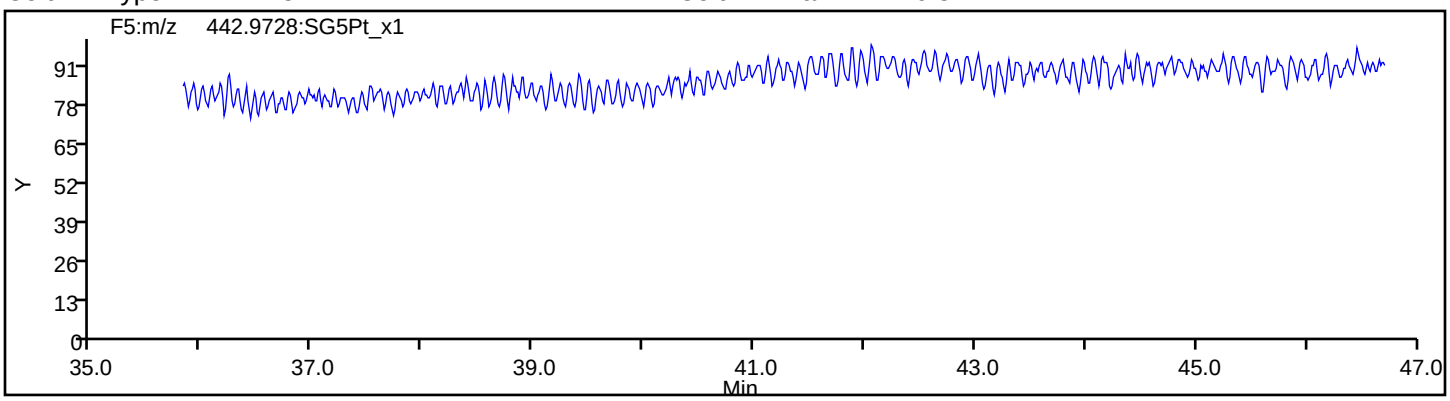
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:26:52 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_73.d		
Injection Date:	22-Jul-2019 11:29:03	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309104	Sample Line#:	73
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-10_20190716 RA Lab Sample ID: 580-87706-13 RA

Matrix: Solid Lab File ID: 22JL19A4D2_008.d

Analysis Method: 1613B Date Collected: 07/16/2019 13:15

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.06(g) Date Analyzed: 07/22/2019 15:20

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 44.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	3.3		1.8	0.15

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	74		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	85		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_008.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 15:20:41 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-13-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.920	74431640	0.81	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.045	75430600	0.81	1.3652	74.2	74.2	0.2016	0.2016	74.23	
2,3,7,8-TCDF	16.086	812429	0.72	1.1747	0.9169	0.9169	0.0417	0.0417		
D 13C-2,3,7,8-TCDD	14.645	49392159	0.76	0.9684	68.5	68.5	0.1547	0.1547	68.53	
$ 37Cl4-2,3,7,8-TCDD	14.673	32676130		1.2853	34.2	34.2	0.0384	0.0384	85.39	
2,3,7,8-TCDD	14.660						0.0552	0.0552		

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_008.d
Lims ID: 580-87706-C-13-A
Client ID: 22T-SG-10_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 15:20:41 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-13-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

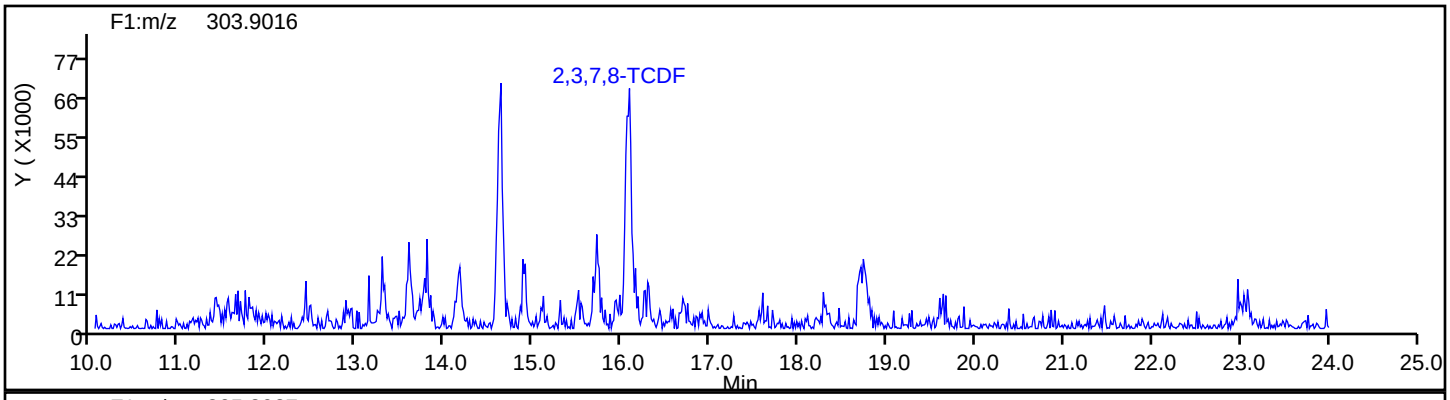
Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.920	14.915	0		33196477	7197989	5766	14415	1248		
333.9339	14.920	14.915	0		41235163	8708068	3764	9410	2314	0.81(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.045	16.068	0	1.075	33750268	6642171	10255	25637	648		
317.9389	16.045	16.068	0	1.075	41680332	8315740	7252	18130	1147	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.086	16.075	1	1.003	338775	66796	1186	2965	56		
305.8987	16.058	16.075	-1	1.001	473654	97752	1745	4362	56	0.72(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.645	14.667	0	0.982	21405946	4825711	5766	14415	837		
333.9339	14.645	14.667	0	0.982	27986213	6035428	3764	9410	1603	0.76(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.673	14.655	1	0.983	32676130	6793173	3142	7855	2162		
2,3,7,8-TCDD											
319.8965	14.675						1577	3942			
321.8936	14.675						1361	3402			

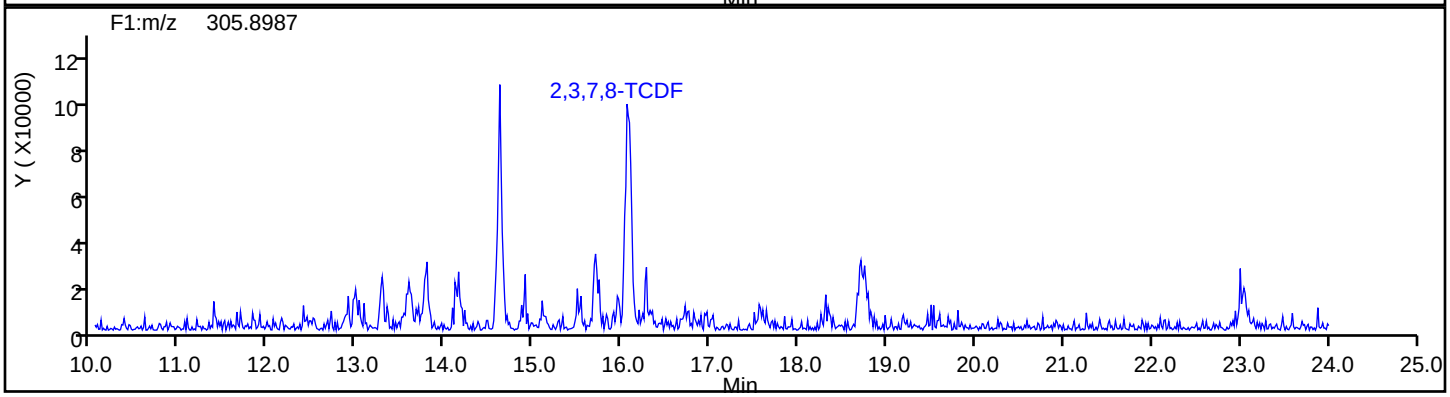
Report Date: 22-Jul-2019 20:21:54 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

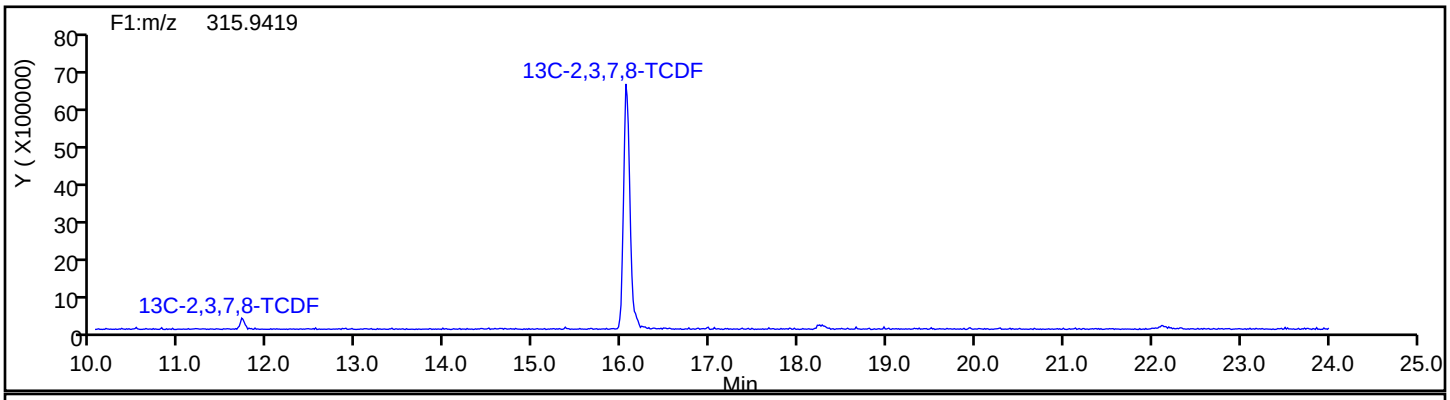
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_008.d		
Injection Date:	22-Jul-2019 15:20:41	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309356	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

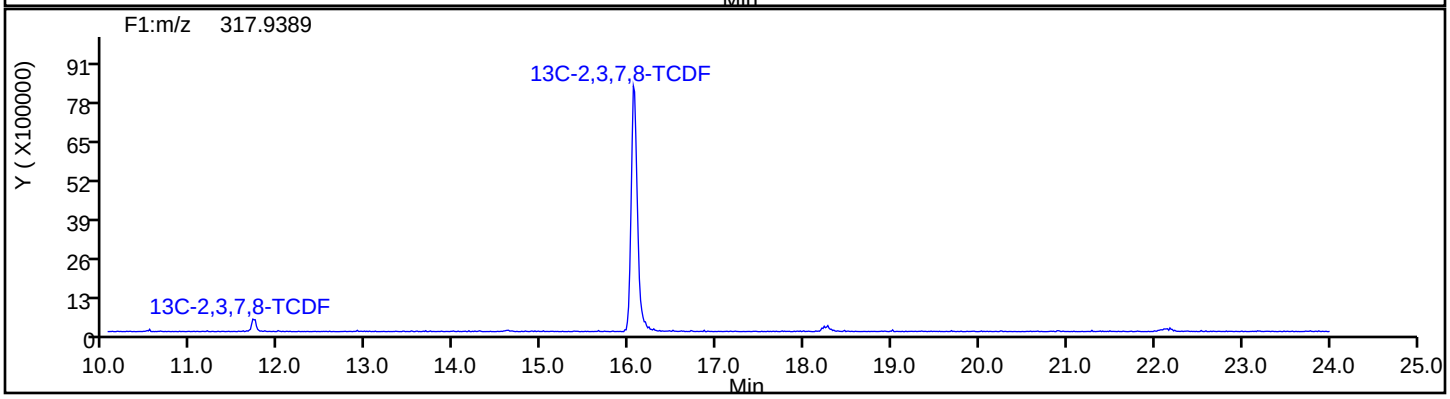
TCDF





TCDF Standards



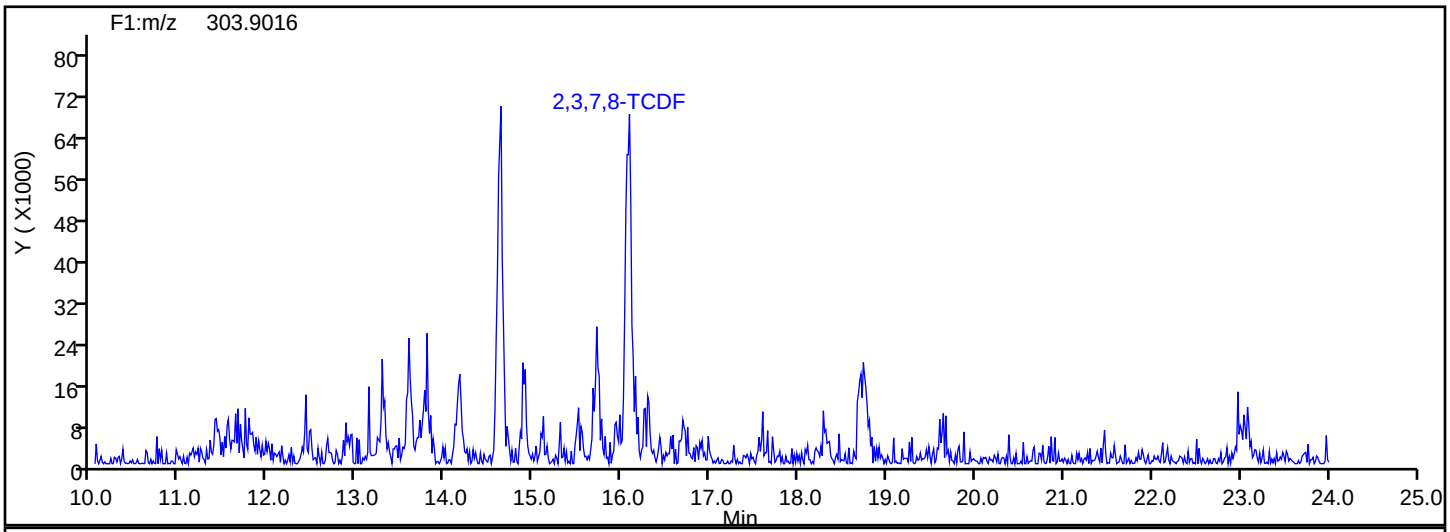


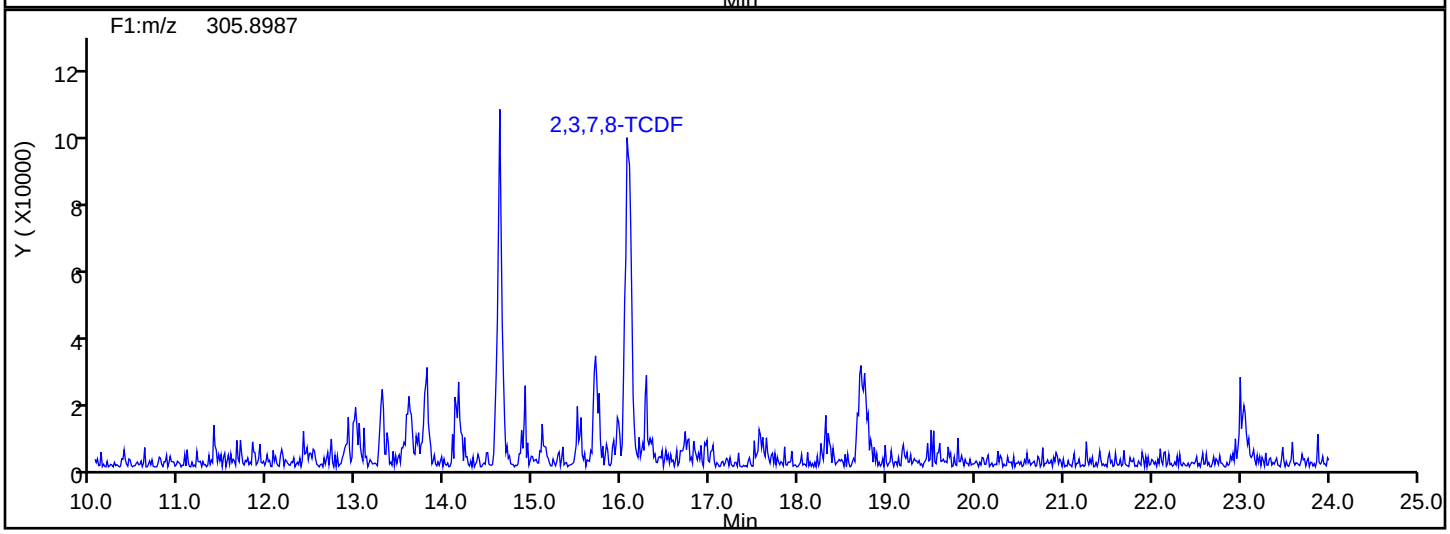
Report Date: 22-Jul-2019 20:21:54 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

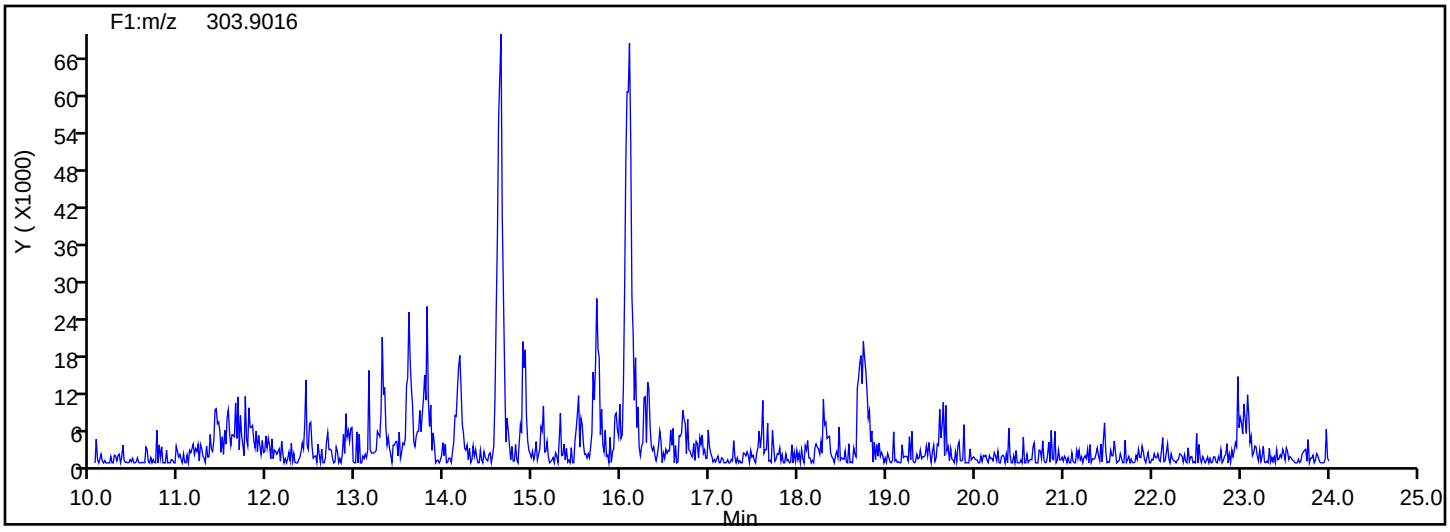
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_008.d		
Injection Date:	22-Jul-2019 15:20:41	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309356	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

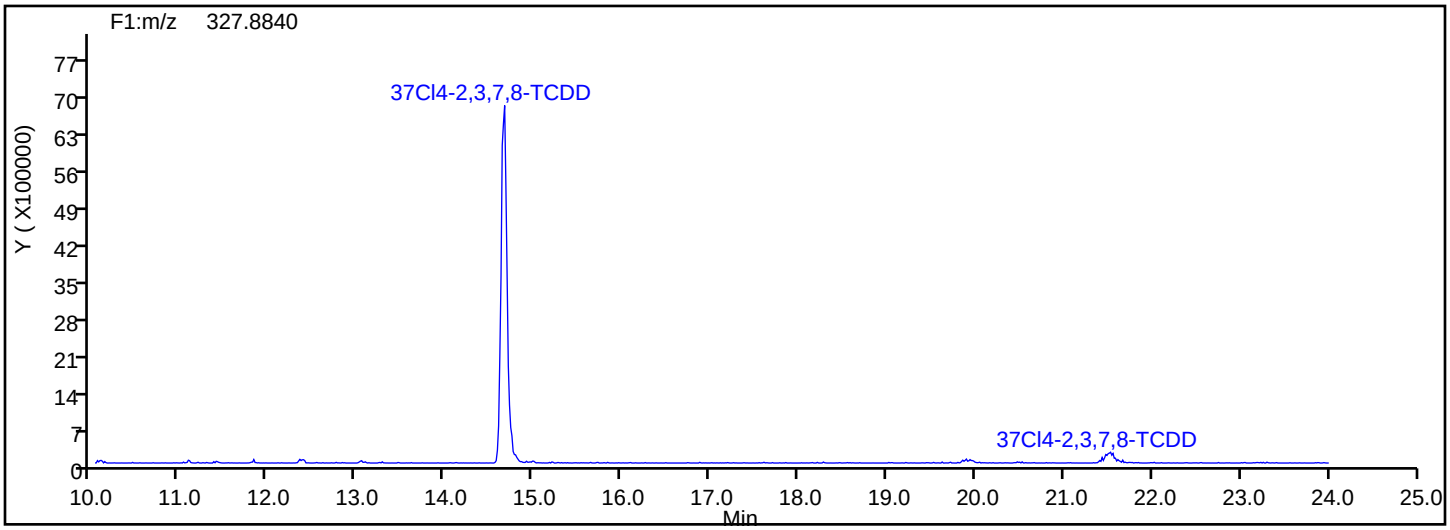


Report Date: 22-Jul-2019 20:21:54 Chrom Revision: 2.3 15-Jul-2019 06:58:08

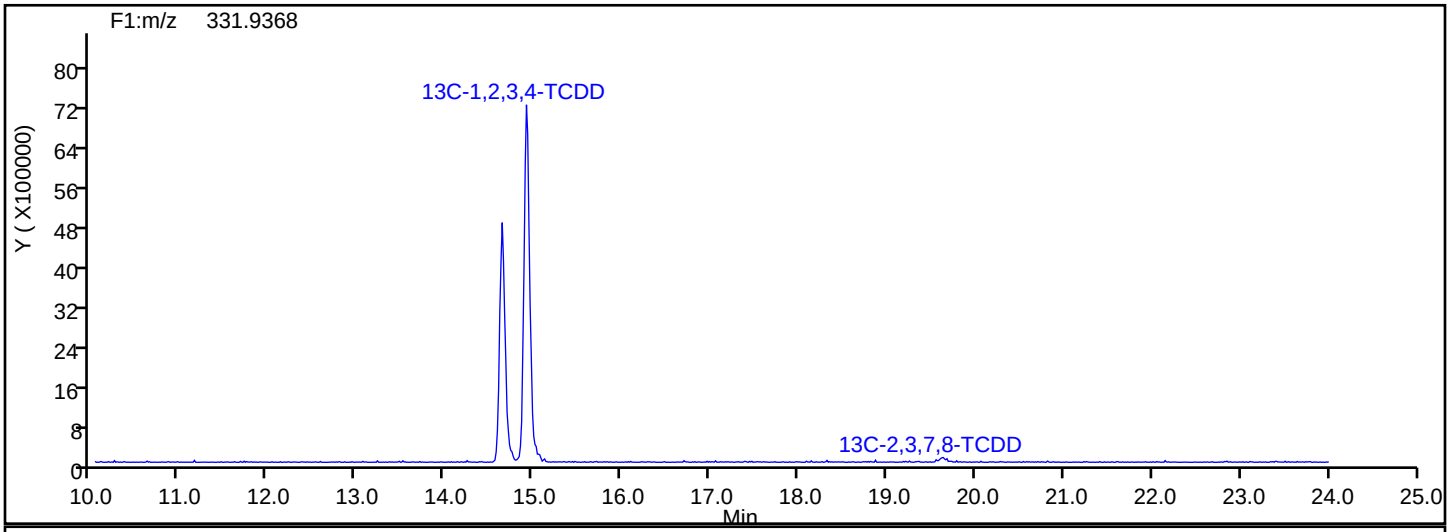
Eurofins TestAmerica, Sacramento

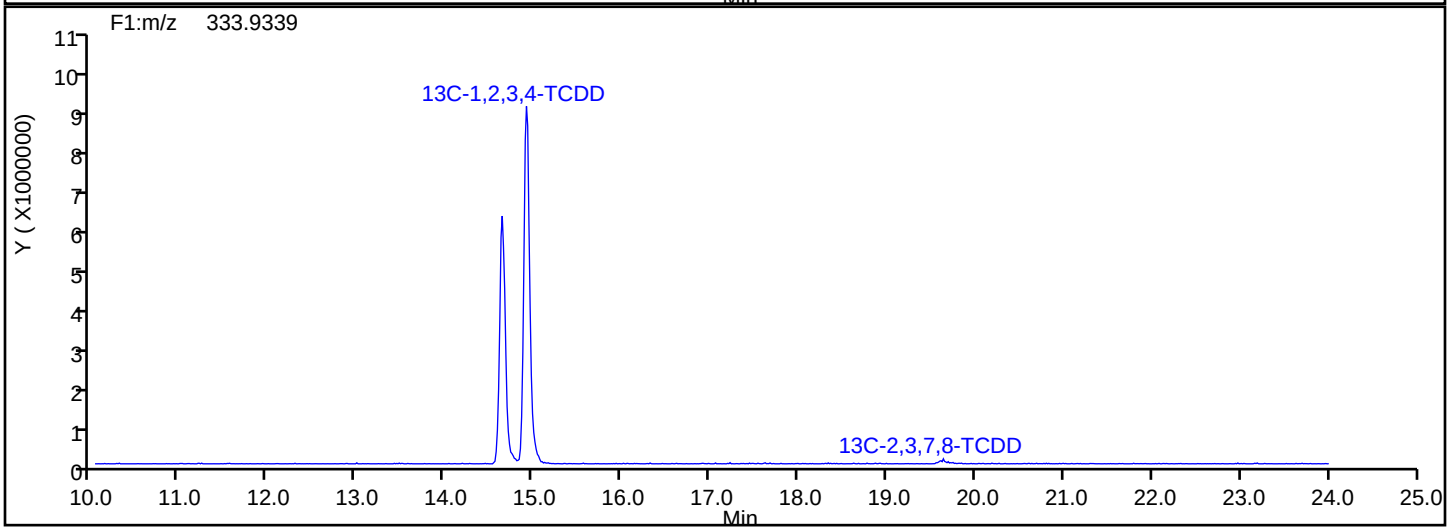
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_008.d		
Injection Date:	22-Jul-2019 15:20:41	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309356	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

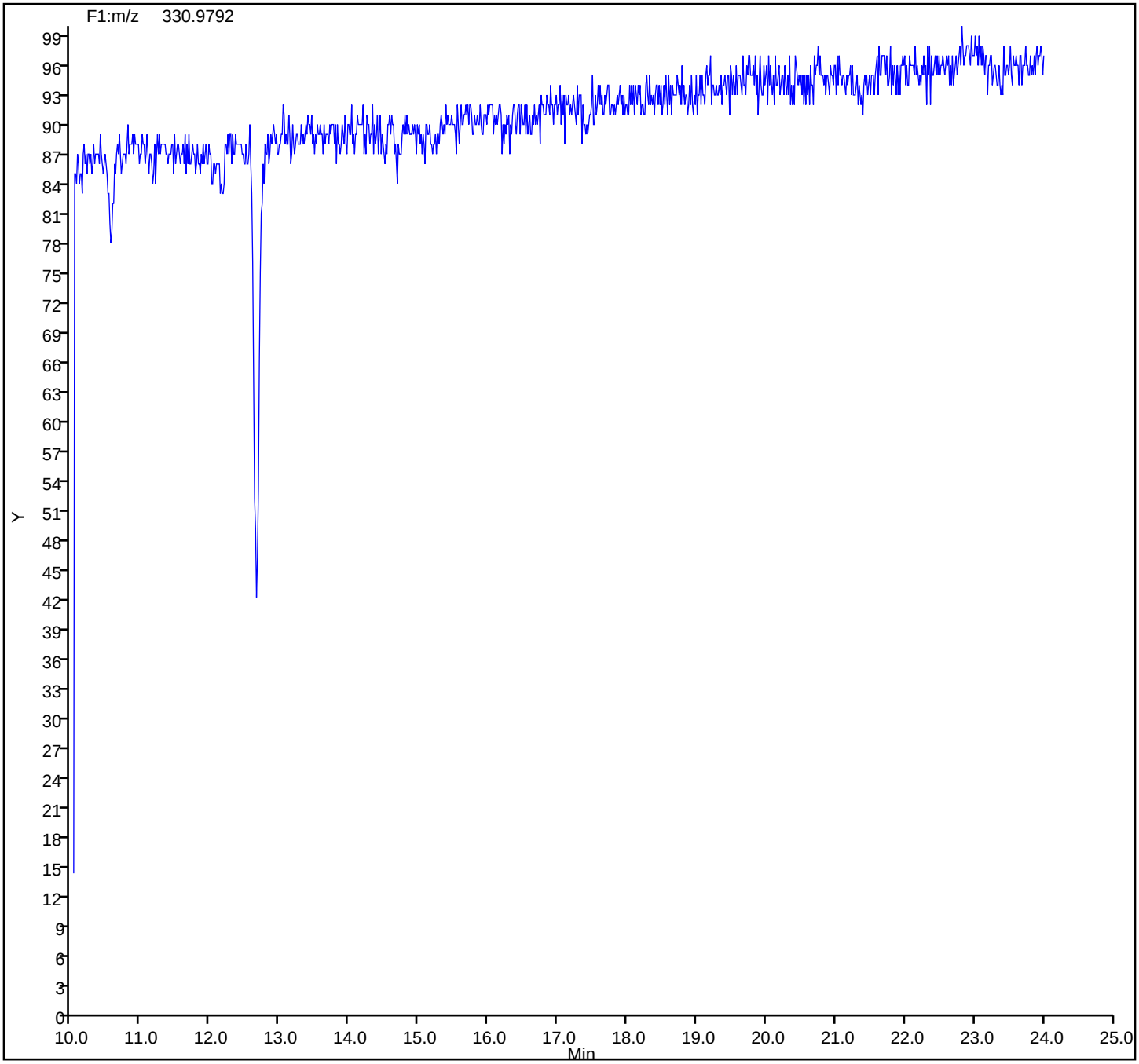




Report Date: 22-Jul-2019 20:21:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_008.d		
Injection Date:	22-Jul-2019 15:20:41	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-10_20190716		
Worklist#:	309356	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 19JL19A3D5_74.d

Analysis Method: 1613B Date Collected: 07/16/2019 14:08

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.01(g) Date Analyzed: 07/22/2019 12:16

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	ND		2.3	0.52
40321-76-4	1,2,3,7,8-PeCDD	ND		12	0.58
57117-41-6	1,2,3,7,8-PeCDF	19		12	0.74
57117-31-4	2,3,4,7,8-PeCDF	7.6	J	12	0.85
39227-28-6	1,2,3,4,7,8-HxCDD	1.0	J q B	12	0.43
57653-85-7	1,2,3,6,7,8-HxCDD	4.5	J	12	0.42
19408-74-3	1,2,3,7,8,9-HxCDD	3.0	J	12	0.40
70648-26-9	1,2,3,4,7,8-HxCDF	21		12	0.60
57117-44-9	1,2,3,6,7,8-HxCDF	7.7	J	12	0.68
72918-21-9	1,2,3,7,8,9-HxCDF	1.9	J B	12	0.35
60851-34-5	2,3,4,6,7,8-HxCDF	1.5	J q	12	0.42
35822-46-9	1,2,3,4,6,7,8-HpCDD	210	B	12	1.8
67562-39-4	1,2,3,4,6,7,8-HpCDF	39		12	0.71
55673-89-7	1,2,3,4,7,8,9-HpCDF	5.1	J	12	0.93
3268-87-9	OCDD	2100	B	23	1.3
39001-02-0	OCDF	99	B	23	0.58

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	67		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	76		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	76		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	76		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	67		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	61		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	72		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	62		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	64		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	72		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	65		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	65		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	70		26-138
114423-97-1	13C-OCDD	66		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Matrix: Solid Lab File ID: 19JL19A3D5_74.d

Analysis Method: 1613B Date Collected: 07/16/2019 14:08

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.01(g) Date Analyzed: 07/22/2019 12:16

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	96		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 12:16:36 ALS Bottle#: 53 Worklist Smp#: 74
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-14-A 580-87706-C-14-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:34:37 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 13:57:05

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.294	167401502	0.79	3.2E+06	100.0	100.0				a
D 13C-2,3,7,8-TCDF	16.795	172692169	0.81	1.3908	74.2	74.2	0.2359	0.2359	74.17	
2,3,7,8-TCDF	16.810	5572769	0.81	0.9710	3.323	3.323	0.1969	0.1969		a
A Non-2,3,7,8-sub-TCDF	16.402	6397361	0.79	0.9710	3.815	3.815	0.1969	1.053		
S Total TCDF					7.138	7.138	0.1969	0.1969		
D 13C-2,3,7,8-TCDD	17.536	109738622	0.77	0.9819	66.8	66.8	0.2525	0.2525	66.76	a
2,3,7,8-TCDD	17.355						0.1121	0.1121		
$ 37Cl4-2,3,7,8-TCDD	17.551	78515738		1.2205	38.4	38.4	0.0614	0.0614	96.07	
A Non-2,3,7,8-sub-TCDD	16.833	1239031	0.77	1.0447	1.098	1.081	0.1121	0.6731		RQ
S Total TCDD					1.098	1.081	0.1121	0.1121		RQ
D 13C-1,2,3,7,8-PeCDF	21.427	147986604	1.60	1.1585	76.3	76.3	0.1861	0.1861	76.31	
1,2,3,7,8-PeCDF	21.454	5768515	1.62	0.9633	4.046	4.046	0.1592	0.1592		Ma
D 13C-2,3,4,7,8-PeCDF	22.641	146237286	1.56	1.1532	75.8	75.8	0.1869	0.1869	75.75	
2,3,4,7,8-PeCDF	22.654	2278389	1.49	0.9495	1.641	1.641	0.1836	0.1836		
A F1 PeCDFs	19.215	4847893	1.63	0.9564	3.446	3.446	0.0619	3.446		
A Non-2,3,7,8-sub-PeCDF	22.104	9895364	1.44	0.9564	7.033	7.033	0.1706	2.835		Ma
S Total PeCDF					16.2	16.2	0.1714	0.1714		
D 13C-1,2,3,7,8-PeCDD	23.336	94662783	1.59	0.7431	76.1	76.1	0.1708	0.1708	76.10	
1,2,3,7,8-PeCDD	23.254						0.1243	0.1243		
A Non-2,3,7,8-sub-PeCDD	22.232	945965	1.55	1.0635	1.088	0.9397	0.1243	0.7222		RQ
S Total PeCDD					1.088	0.9397	0.1243	0.1243		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.222	120214731	0.51	0.9837	71.7	71.7	0.2222	0.2222	71.75	
1,2,3,4,7,8-HxCDF	29.248	6520919	1.20	1.2173	4.456	4.456	0.1284	0.1284		
D 13C-1,2,3,6,7,8-HxCDF	29.515	122223546	0.49	1.1554	62.1	62.1	0.1892	0.1892	62.11	
1,2,3,6,7,8-HxCDF	29.541	2310929	1.25	1.1311	1.672	1.672	0.1468	0.1468		
D 13C-2,3,4,6,7,8-HxCDF	30.740	112549181	0.55	1.0361	63.8	63.8	0.2109	0.2109	63.78	
2,3,4,6,7,8-HxCDF	30.766	418690	1.24	1.1710	0.3690	0.3177	0.0907	0.0907		RQMa
D 13C-1,2,3,7,8,9-HxCDF	31.712	111313530	0.56	0.9034	72.3	72.3	0.2419	0.2419	72.34	
1,2,3,7,8,9-HxCDF	31.725	549375	1.34	1.1787	0.4187	0.4187	0.0759	0.0759		
A Non-2,3,7,8-sub-HxCDF	29.135	14655386	1.19	1.1745	10.7	10.7	0.1031	5.425		M

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					17.6	17.6	0.1104	0.1104		RQ
* 13C-1,2,3,7,8,9-HxCDD	31.512	170326532	1.26	2.6E+06	100.0	100.0				a
D 13C-1,2,3,4,7,8-HxCDD	30.993	94126173	1.28	0.8287	66.7	66.7	0.1640	0.1640	66.68	
1,2,3,4,7,8-HxCDD	31.006	215175	1.24	1.0267	0.2484	0.2227	0.0933	0.0933		RQMa
D 13C-1,2,3,6,7,8-HxCDD	31.112	99344186	1.31	0.9495	61.4	61.4	0.1431	0.1431	61.43	
1,2,3,6,7,8-HxCDD	31.139	942155	1.19	0.9771	0.9706	0.9706	0.0915	0.0915		M
1,2,3,7,8,9-HxCDD	31.525	655955	1.07	1.0616	0.6388	0.6388	0.0871	0.0871		
A Non-2,3,7,8-sub-HxCDD	29.926	11613478	1.26	1.0218	11.7	11.7	0.0905	6.704		
S Total HxCDD					13.6	13.6	0.0906	0.0906		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.347	81066900	0.46	0.7285	65.3	65.3	0.6058	0.6058	65.33	
1,2,3,4,6,7,8-HpCDF	33.360	9714649	1.11	1.4373	8.338	8.338	0.1539	0.1539		
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	77701320	0.45	0.6556	69.6	69.6	0.6732	0.6732	69.58	
1,2,3,4,7,8,9-HpCDF	34.441	1125769	1.06	1.3091	1.107	1.107	0.2016	0.2016		
A Non-2,3,7,8-sub-HpCDF	33.894	18349191	1.06	1.3732	16.8	16.8	0.1753	16.8		
S Total HpCDF					26.3	26.3	0.1777	0.1777		
D 13C-1,2,3,4,6,7,8-HpCDD	34.162	77092202	1.06	0.6978	64.9	64.9	0.2437	0.2437	64.86	
1,2,3,4,6,7,8-HpCDD	34.174	35515777	1.07	1.0102	45.6	45.6	0.3885	0.3885		
A Non-2,3,7,8-sub-HpCDD	35.074	55387756	1.02	1.0102	71.1	71.1	0.3885	71.1		a
S Total HpCDD					116.7	116.7	0.3885	0.3885		
D 13C-OCDD	36.509	107410554	0.92	0.4780	131.9	131.9	0.1810	0.1810	65.97	
OCDF	36.593	15504933	0.92	1.3501	21.4	21.4	0.1254	0.1254		
OCDD	36.521	254750118	0.91	1.0627	446.4	446.4	0.2906	0.2906		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 12:16:36 ALS Bottle#: 53 Worklist Smp#: 74
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-14-A 580-87706-C-14-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:34:37 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 13:57:05

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											a
331.9368	17.294	17.158	8		73699891	16177948	26475	66187	611		a
333.9339	17.294	17.158	8		93701611	19508712	8921	22302	2187	0.79(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.795	16.690	6	0.971	77128487	17654523	28092	70230	628		
317.9389	16.795	16.690	6	0.971	95563682	22210963	18745	46862	1185	0.81(0.65-0.89)	
2,3,7,8-TCDF											a
303.9016	16.810	16.705	6	1.001	2496477	562068	11983	29957	47		a
305.8987	16.810	16.705	6	1.001	3076292	737148	18500	46250	40	0.81(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	14.799	16.402	-96	0.881	765551	217903	11983	29957	18		
305.8987	14.799	16.402	-96	0.881	1000668	299379	18500	46250	16	0.77(0.65-0.89)	
303.9016	14.996	16.402	-84	0.893	767548	203105	11983	29957	17		
305.8987	14.981	16.402	-85	0.892	923914	256679	18500	46250	14	0.83(0.65-0.89)	
303.9016	15.450	16.402	-57	0.920	637108	175895	11983	29957	15		
305.8987	15.450	16.402	-57	0.920	808600	212215	18500	46250	11	0.79(0.65-0.89)	
303.9016	15.948	16.402	-27	0.950	658360	162976	11983	29957	14		
305.8987	15.948	16.402	-27	0.950	835612	197007	18500	46250	11	0.79(0.65-0.89)	
13C-2,3,7,8-TCDD											a
331.9368	17.536	17.355	11	1.014	47867697	9548680	26475	66187	361		a
333.9339	17.536	17.355	11	1.014	61870925	12299089	8921	22302	1379	0.77(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.355						7154	17885			
321.8936	17.355						3082	7705			
37Cl4-2,3,7,8-TCDD											
327.8847	17.551	17.370	11	1.015	78515738	16200934	10689	26722	1516		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-TCDD											RQ
319.8965	15.374	16.833	-87	0.877	355183	94765	7154	17885	13		
321.8936	15.359	16.833	-88	0.876	416458	112406	3082	7705	36	0.85(0.65-0.89)	
319.8965	15.646	16.833	-71	0.892	106234	30590	7154	17885	4		
	Empc Correction				86841	24803	7154	17885	3		
321.8936	15.646	16.833	-71	0.892	112781	32212	3082	7705	10	0.94(0.65-0.89)	
319.8965	16.402	16.833	-26	0.935	120131	28604	7154	17885	4		
321.8936	16.387	16.833	-27	0.934	147637	22468	3082	7705	7	0.81(0.65-0.89)	
13C-1,2,3,7,8-PeCDF											
351.9000	21.427	21.332	6	1.239	91054133	17784406	16801	42002	1059		
353.8970	21.427	21.332	6	1.239	56932471	11246207	13971	34927	805	1.60(1.32-1.78)	
1,2,3,7,8-PeCDF											Ma
339.8597	21.454	21.345	7	1.001	3566091	709621	8522	21305	83		M
341.8567	21.454	21.345	7	1.001	2202424	425935	9292	23230	46	1.62(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.641	22.559	5	1.309	89072082	15467025	16801	42002	921		
353.8970	22.641	22.559	5	1.309	57165204	10080911	13971	34927	722	1.56(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.654	22.586	4	1.001	1362901	251245	8522	21305	29		
341.8567	22.654	22.586	4	1.001	915488	177493	9292	23230	19	1.49(1.32-1.78)	
A F1 PeCDFs											
339.8597	18.806	19.215	-24	0.878	3001978	650734	2376	5940	274		
341.8567	18.806	19.215	-24	0.878	1845915	389624	4084	10210	95	1.63(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDF											Ma
339.8597	20.282	22.104	-109	0.947	2389608	782408	8522	21305	92		
341.8567	20.282	22.104	-109	0.947	1599128	509701	9292	23230	55	1.49(1.32-1.78)	
339.8597	20.909	22.104	-72	0.976	835594	143750	8522	21305	17		
341.8567	20.923	22.104	-71	0.976	631651	95675	9292	23230	10	1.32(1.32-1.78)	
339.8597	21.332	22.104	-46	0.996	274436	66514	8522	21305	8		M
341.8567	21.318	22.104	-47	0.995	208053	44845	9292	23230	5	1.32(1.32-1.78)	
339.8597	21.904	22.104	-12	1.022	1007294	204744	8522	21305	24		M
341.8567	21.904	22.104	-12	1.022	709753	140350	9292	23230	15	1.42(1.32-1.78)	
339.8597	22.968	22.104	52	1.072	1331714	230909	8522	21305	27		
341.8567	22.968	22.104	52	1.072	908133	138652	9292	23230	15	1.47(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.336	23.227	7	1.349	58081961	9257835	10641	26602	870		
369.8919	23.336	23.227	7	1.349	36580822	5846554	7473	18682	782	1.59(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						5554	13885			
357.8516	23.254						2431	6077			
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.391	22.232	-110	0.874	441953	83477	5554	13885	15		
357.8516	20.377	22.232	-111	0.873	434329	74236	2431	6077	31	1.02(1.32-1.78)	
	Empc Correction				285130	53856	2431	6077	22		

Signal	RT (min.)	Exp RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
355.8546	21.073	22.232	-69	0.903	130115	27630	5554	13885	5		
357.8516	21.073	22.232	-69	0.903	88767	18977	2431	6077	8	1.47(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.222	29.115	6	0.927	40718348	4921930	11604	29010	424		
385.8610	29.235	29.115	7	0.928	79496383	9384455	21147	52867	444	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.248	29.155	6	1.001	3563534	425587	4813	12032	88		
375.8178	29.235	29.155	5	1.000	2957385	353563	4130	10325	86	1.20(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.515	29.421	6	0.937	40020824	4395191	11604	29010	379		
385.8610	29.528	29.421	6	0.937	82202722	9070890	21147	52867	429	0.49(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.541	29.462	5	1.001	1283265	154759	4813	12032	32		
375.8178	29.555	29.462	6	1.001	1027664	106451	4130	10325	26	1.25(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.740	30.660	5	0.975	39734472	7514156	11604	29010	648		
385.8610	30.740	30.660	5	0.975	72814709	13537267	21147	52867	640	0.55(0.43-0.59)	
2,3,4,6,7,8-HxCDF											RQMa
373.8208	30.766	30.687	5	1.001	231775	46707	4813	12032	10		M
375.8178	30.766	30.687	5	1.001	254563	48469	4130	10325	12	0.91(1.05-1.43)	
	Empc Correction				186915	37666	4130	10325	9		
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.712	31.672	2	1.006	39882066	9238490	11604	29010	796		
385.8610	31.712	31.672	2	1.006	71431464	15754829	21147	52867	745	0.56(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.725	31.685	2	1.000	314433	78166	4813	12032	16		
375.8178	31.725	31.685	2	1.000	234942	56559	4130	10325	14	1.34(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											M
373.8208	26.599	29.135	-152	0.910	727886	117642	4813	12032	24		
375.8178	26.599	29.135	-152	0.910	640996	126309	4130	10325	31	1.14(1.05-1.43)	
373.8208	26.945	29.135	-131	0.922	2755984	411702	4813	12032	86		
375.8178	26.931	29.135	-132	0.922	2160995	299985	4130	10325	73	1.28(1.05-1.43)	
373.8208	28.143	29.135	-59	0.963	3979987	513939	4813	12032	107		
375.8178	28.143	29.135	-59	0.963	3448649	451027	4130	10325	109	1.15(1.05-1.43)	M
373.8208	31.818	29.135	161	1.089	498517	122865	4813	12032	26		
375.8178	31.831	29.135	161	1.089	442372	99706	4130	10325	24	1.13(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											a
401.8559	31.512	31.472	2		94994301	20904197	10544	26360	1983		a
403.8529	31.512	31.472	2		75332231	16557547	9817	24542	1687	1.26(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.993	30.926	4	0.984	52811732	11601193	10544	26360	1100		
403.8529	30.993	30.926	4	0.984	41314441	9132687	9817	24542	930	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											RQMa
389.8157	31.006	30.953	3	1.000	119115	28073	3919	9797	7		M
391.8127	31.006	30.953	3	1.000	120981	24078	4028	10070	6	0.98(1.05-1.43)	
	Empc Correction				96060	22639	4028	10070	6		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.112	31.059	3	0.987	56387683	12556899	10544	26360	1191		
403.8529	31.112	31.059	3	0.987	42956503	9672484	9817	24542	985	1.31(1.05-1.43)	
1,2,3,6,7,8-HxCDD											M
389.8157	31.139	31.086	3	1.001	512415	112933	3919	9797	29		M
391.8127	31.139	31.086	3	1.001	429740	87203	4028	10070	22	1.19(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.525	31.485	2	1.017	339489	54772	3919	9797	14		
391.8127	31.512	31.485	2	1.017	316466	53114	4028	10070	13	1.07(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	28.023	29.926	-114	0.901	3685836	498790	3919	9797	127		
391.8127	28.037	29.926	-113	0.901	2940526	409838	4028	10070	102	1.25(1.05-1.43)	
389.8157	29.981	29.926	3	0.964	2570185	322195	3919	9797	82		
391.8127	29.967	29.926	2	0.963	2014894	266425	4028	10070	66	1.28(1.05-1.43)	
389.8157	30.260	29.926	20	0.973	214242	34558	3919	9797	9		
391.8127	30.274	29.926	21	0.973	187795	28478	4028	10070	7	1.14(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.347	33.335	1	1.058	25566469	8787603	21630	54075	406		
419.8220	33.347	33.335	1	1.058	55500431	18640994	44506	111265	419	0.46(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.360	33.347	1	1.000	5109629	1822112	13581	33952	134		
409.7789	33.360	33.347	1	1.000	4605020	1664262	10684	26710	156	1.11(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.093	24172639	7216063	21630	54075	334		
419.8220	34.429	34.429	0	1.093	53528681	15769754	44506	111265	354	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	580260	176240	13581	33952	13		
409.7789	34.441	34.441	0	1.000	545509	176171	10684	26710	16	1.06(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.664	33.894	-14	1.009	9447374	3165284	13581	33952	233		
409.7789	33.664	33.894	-14	1.009	8901817	2873468	10684	26710	269	1.06(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.162	34.150	1	1.084	39683254	12237024	12529	31322	977		
437.8140	34.162	34.150	1	1.084	37408948	11306338	12956	32390	873	1.06(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.174	34.162	1	1.000	18317235	5684064	20370	50925	279		
425.7737	34.162	34.162	0	1.000	17198542	5083952	16589	41472	306	1.07(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.615	35.074	-87	0.984	28008227	9240881	20370	50925	454		a
425.7737	33.615	35.074	-87	0.984	27379529	9132930	16589	41472	551	1.02(0.88-1.20)	
13C-OCDD											
469.7779	36.509	36.498	1	1.159	51350680	13560120	6485	16212	2091		
471.7750	36.509	36.498	1	1.159	56059874	14658388	6479	16197	2262	0.92(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	7449986	2035067	4055	10137	502		
443.7399	36.593	36.582	1	1.002	8054947	2273902	5497	13742	414	0.92(0.76-1.02)	

Signal	RT (min.)	Exp RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
OCDD											
457.7377	36.521	36.509	1	1.000	121309627	32563742	8418	21045	3868		
459.7348	36.521	36.509	1	1.000	133440491	35687698	9012	22530	3960	0.91(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	172692169	39865486

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	172692169	39865486

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.799	765551	217903	1000668	299379	1.05	0.77	
14.996	767548	203105	923914	256679	1.01	0.83	
15.450	637108	175895	808600	212215	0.8621	0.79	
15.948	658360	162976	835612	197007	0.8909	0.79	
Signal Totals:							
	2828567	759879	3568794	965280			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	6397361	1725159				0.79	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.815 = (6397361 * 100.000) / (172692169 * 0.971)

Report Date: 23-Jul-2019 12:34:47 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	109738622	21847769

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	109738622	21847769

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
15.374	355183	94765	416458	112406	0.6731	0.85	
15.646	106234	30590	112781	32212	0.1910	0.94	RQ
15.646	86841	24803	112781	32212	0.1741		Empc Correction
16.402	120131	28604	147637	22468	0.2336	0.81	
Signal Totals:							
	562155	148172	676876	167086			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1258424	321045				0.86	RQ
	1239031	315258					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.098 = (1258424 * 100.000) / (109738622 * 1.045)
Empc Amount: 1.081 = (1239031 * 100.000) / (109738622 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	147986604	29030613
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	146237286	25547936

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	147111945	27289274

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.806	3001978	650734	1845915	389624	3.45	1.63	
Signal Totals:							
	3001978	650734	1845915	389624			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	4847893	1040358				1.63	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.446 = (4847893 * 100.000) / (147111945 * 0.956)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	147986604	29030613
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	146237286	25547936

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	147111945	27289274

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.282	2389608	782408	1599128	509701	2.83	1.49	
20.909	835594	143750	631651	95675	1.04	1.32	
21.332	274436	66514	208053	44845	0.3429	1.32	Ma
21.904	1007294	204744	709753	140350	1.22	1.42	Ma
22.968	1331714	230909	908133	138652	1.59	1.47	
Signal Totals:							
	5838646	1428325	4056718	929223			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	9895364	2357548				1.44	Ma

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 7.033 = (9895364 * 100.000) / (147111945 * 0.956)

QC Flag Legend

Review Flags
M - Manually Integrated
a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	94662783	15104389

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	94662783	15104389

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.391	441953	83477	434329	74236	0.8704	1.02	RQ
20.391	441953	83477	285130	53856	0.7222		Empc Correction
21.073	130115	27630	88767	18977	0.2174	1.47	
Signal Totals:							
	572068	111107	373897	72833			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1095164	204320				1.09	RQ
	945965	183940					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 1.088 = (1095164 * 100.000) / (94662783 * 1.063)
Empc Amount: 0.9397 = (945965 * 100.000) / (94662783 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 23-Jul-2019 12:34:47 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	120214731	14306385
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	122223546	13466081
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	112549181	21051423
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	111313530	24993319

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	116575247	18454302

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.599	727886	117642	640996	126309	1.00	1.14	
26.945	2755984	411702	2160995	299985	3.59	1.28	
28.143	3979987	513939	3448649	451027	5.43	1.15	M
31.818	498517	122865	442372	99706	0.6872	1.13	
Signal Totals:							
	7962374	1166148	6693012	977027			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	14655386	2143175				1.19	M

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 10.703 = (14655386 * 100.000) / (116575247 * 1.175)

QC Flag Legend

Review Flags
M - Manually Integrated

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	94126173	20733880
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	99344186	22229383
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	96735179	21481631

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
28.023	3685836	498790	2940526	409838	6.70	1.25	
29.981	2570185	322195	2014894	266425	4.64	1.28	
30.260	214242	34558	187795	28478	0.4067	1.14	
Signal Totals:							
	6470263	855543	5143215	704741			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	11613478	1560284				1.26	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 11.749 = (11613478 * 100.000) / (96735179 * 1.022)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	81066900	27428597
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	77701320	22985817

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	79384110	25207207

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.664	9447374	3165284	8901817	2873468	16.8	1.06	
Signal Totals:							
	9447374	3165284	8901817	2873468			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	18349191	6038752				1.06	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 16.833 = (18349191 * 100.000) / (79384110 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Inject. Date: 22-Jul-2019 12:16:36 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 74

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	77092202	23543362

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	77092202	23543362

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.615	28008227	9240881	27379529	9132930	71.1	1.02	a
Signal Totals:							
	28008227	9240881	27379529	9132930			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	55387756	18373811				1.02	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 71.123 = (55387756 * 100.000) / (77092202 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

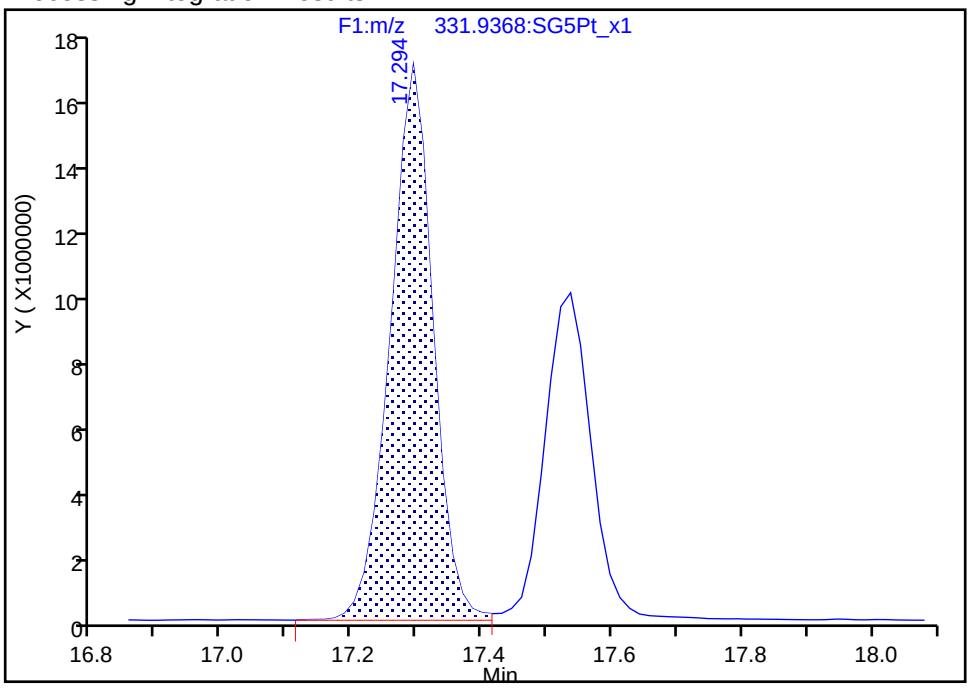
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Instrument ID:	3D5
Lims ID:	580-87706-C-14-A	Lab Sample ID:	320-87706-14
Client ID:	22T-SG-21_20190716		
Operator ID:	ALM, AJS	ALS Bottle#:	53 Worklist Smp#: 74
Injection Vol:	2.0 ul	Dil. Factor:	1.0000
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR

13C-2,3,7,8-TCDD, CAS: 76523-40-5

Signal: 1

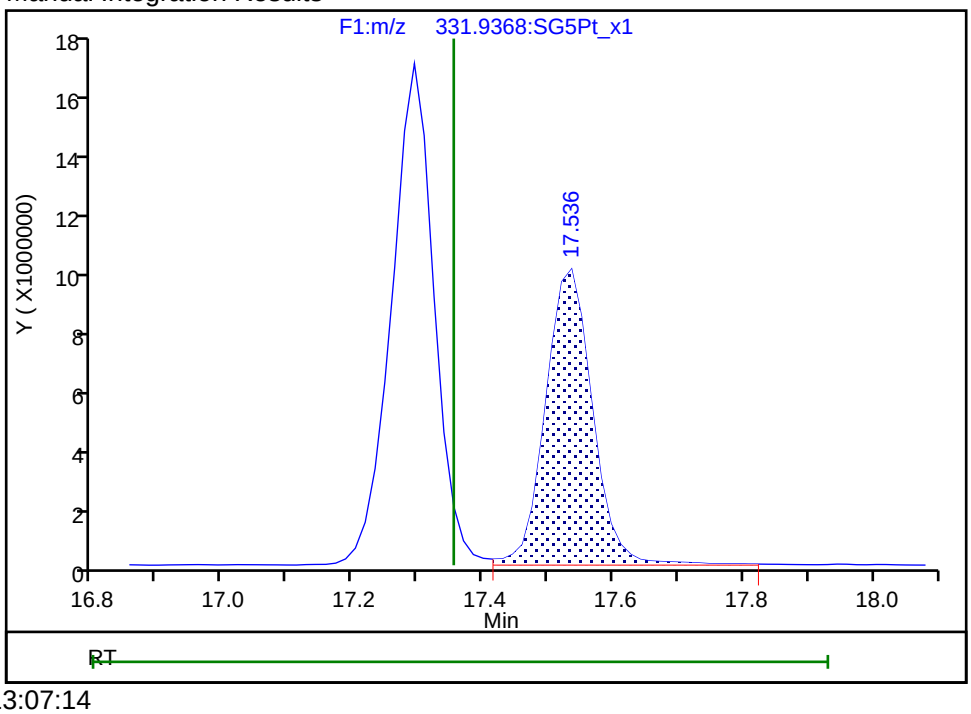
Processing Integration Results

RT: 17.29
Area: 73699891
Amount: 101.8468
Amount Units: pg/ul



Manual Integration Results

RT: 17.54
Area: 47867697
Amount: 66.764783
Amount Units: pg/ul



Reviewer: shardaa, 22-Jul-2019 13:07:14

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

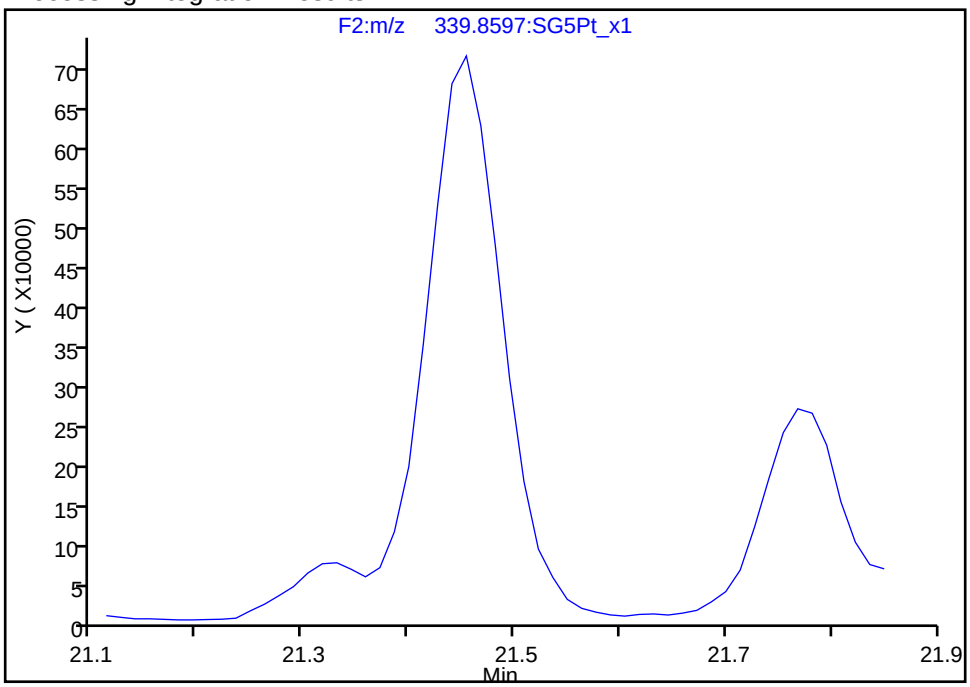
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d				
Injection Date:	22-Jul-2019 12:16:36	Instrument ID:	3D5		
Lims ID:	580-87706-C-14-A	Lab Sample ID:	320-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	53	Worklist Smp#:	74
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F2:HRSIR		

1,2,3,7,8-PeCDF, CAS: 57117-41-6

Signal: 1

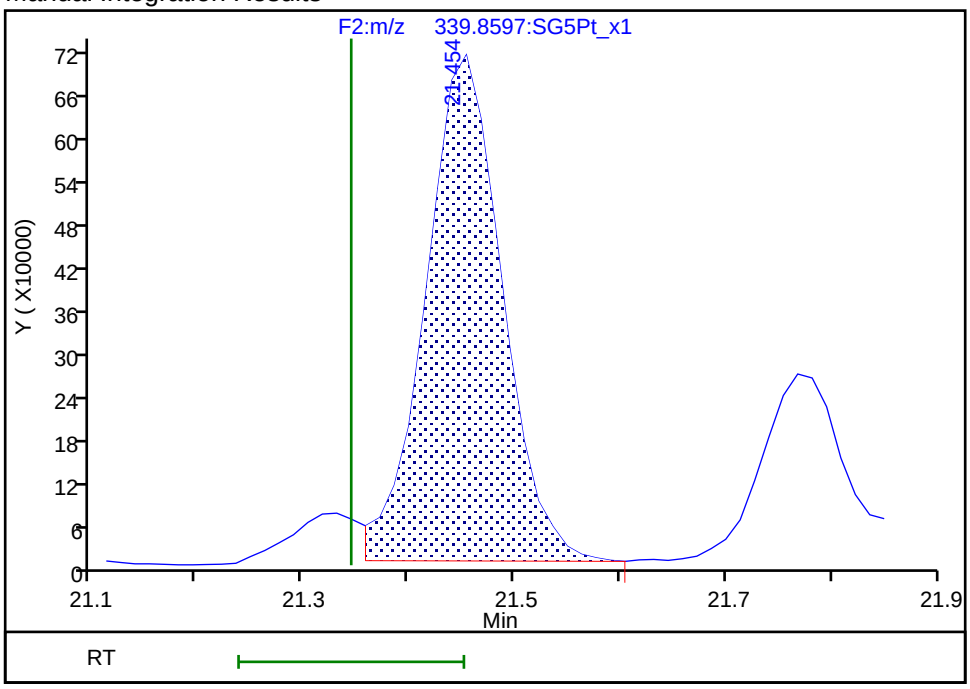
Not Detected
Expected RT: 21.35

Processing Integration Results



Manual Integration Results

RT: 21.45
Area: 3566091
Amount: 4.046380
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:28:16
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

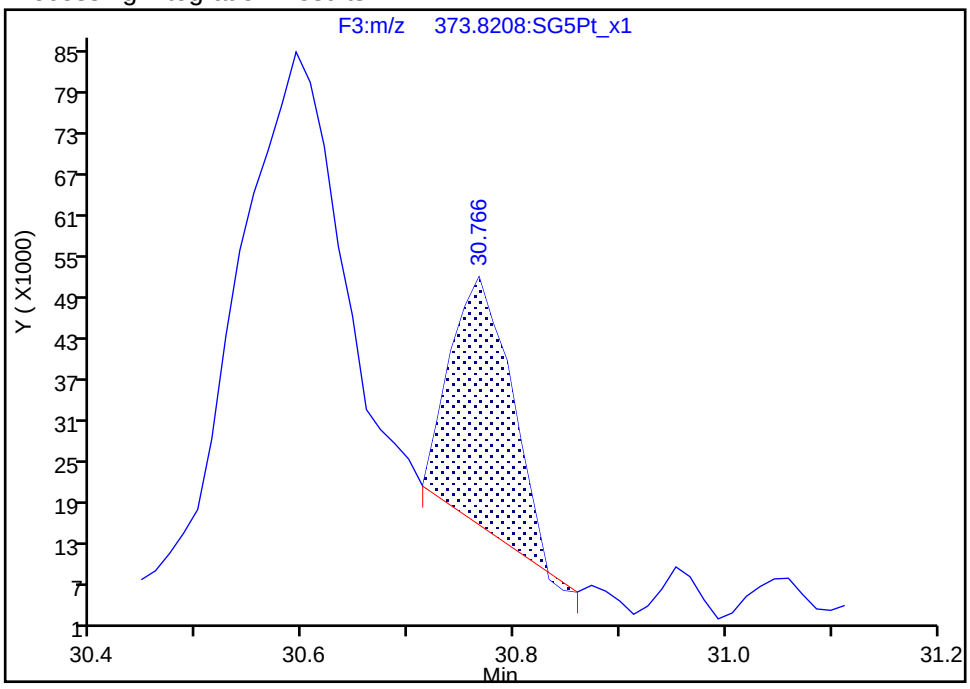
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d				
Injection Date:	22-Jul-2019 12:16:36	Instrument ID:	3D5		
Lims ID:	580-87706-C-14-A	Lab Sample ID:	320-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	53	Worklist Smp#:	74
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

2,3,4,6,7,8-HxCDF, CAS: 60851-34-5

Signal: 1

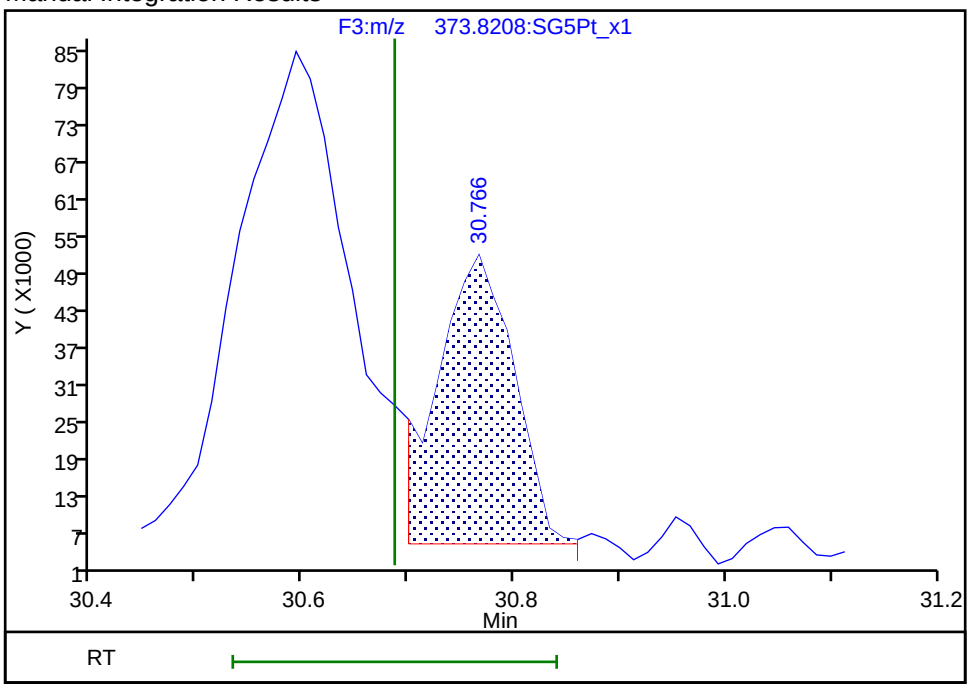
Processing Integration Results

RT: 30.77
Area: 143364
Amount: 0.301933
Amount Units: pg/ul



Manual Integration Results

RT: 30.77
Area: 231775
Amount: 0.369016
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:32:34
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

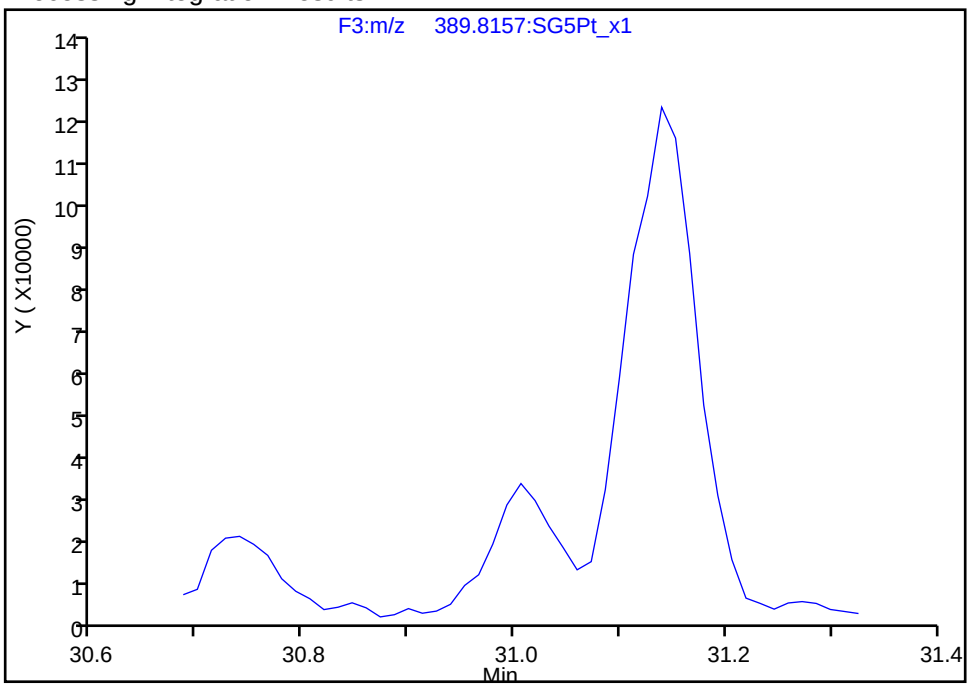
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d				
Injection Date:	22-Jul-2019 12:16:36	Instrument ID:	3D5		
Lims ID:	580-87706-C-14-A	Lab Sample ID:	320-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	53	Worklist Smp#:	74
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

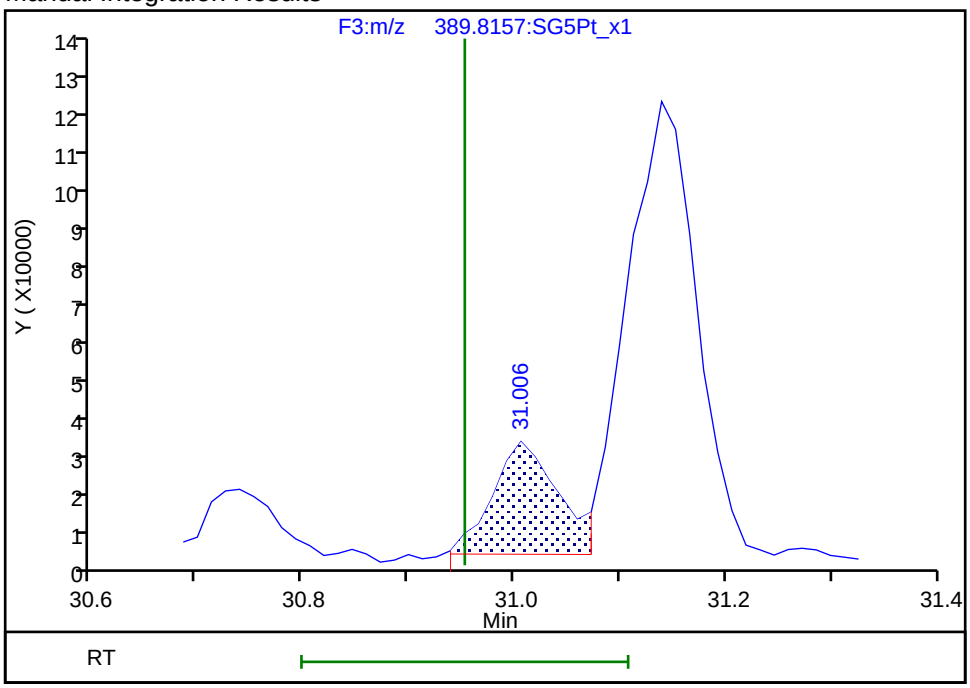
Not Detected
Expected RT: 30.95

Processing Integration Results



Manual Integration Results

RT: 31.01
Area: 119115
Amount: 0.248450
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:33:40
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

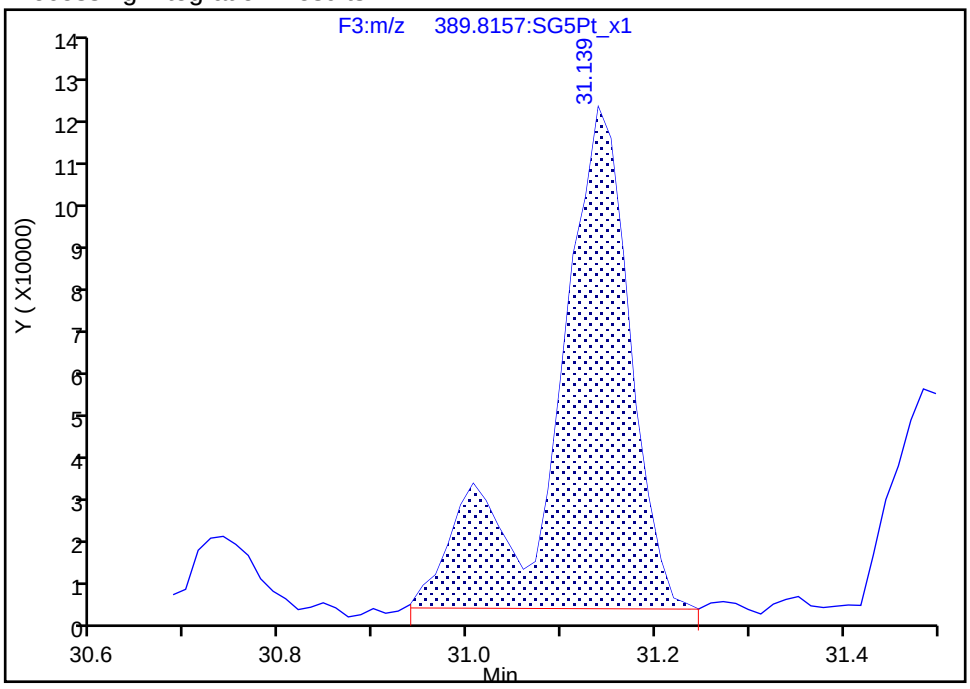
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d				
Injection Date:	22-Jul-2019 12:16:36	Instrument ID:	3D5		
Lims ID:	580-87706-C-14-A	Lab Sample ID:	320-87706-14		
Client ID:	22T-SG-21_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	53	Worklist Smp#:	74
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

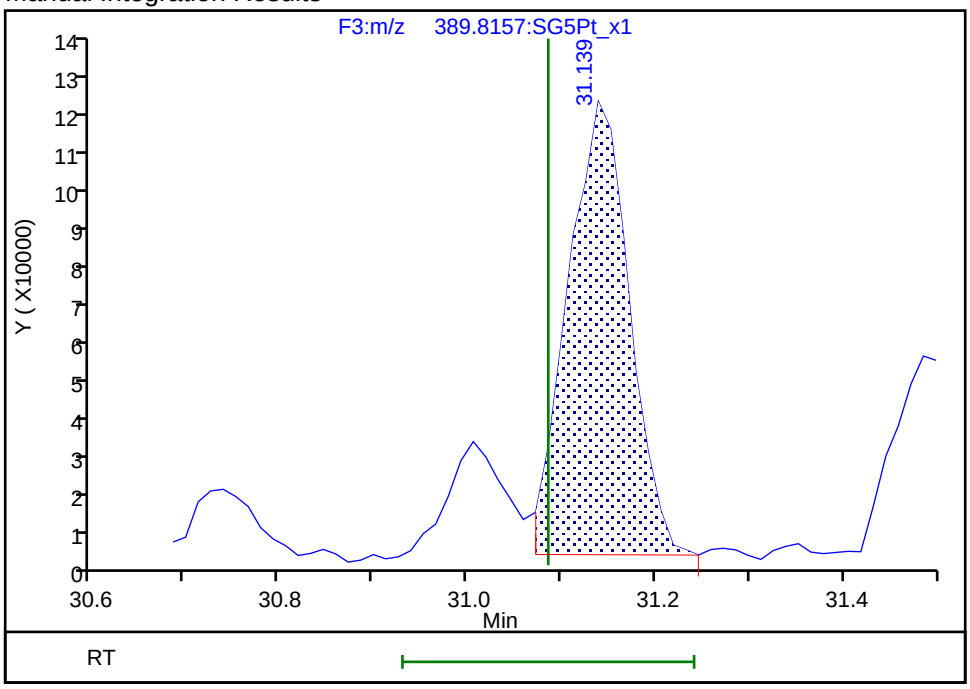
Processing Integration Results

RT: 31.14
Area: 631516
Amount: 1.093317
Amount Units: pg/ul



Manual Integration Results

RT: 31.14
Area: 512415
Amount: 0.970618
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:33:36

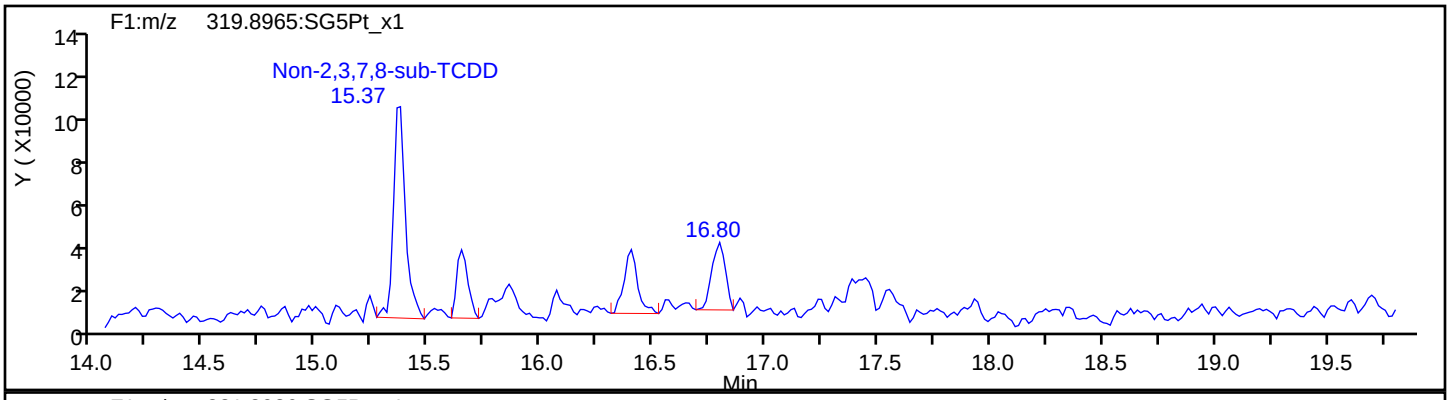
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

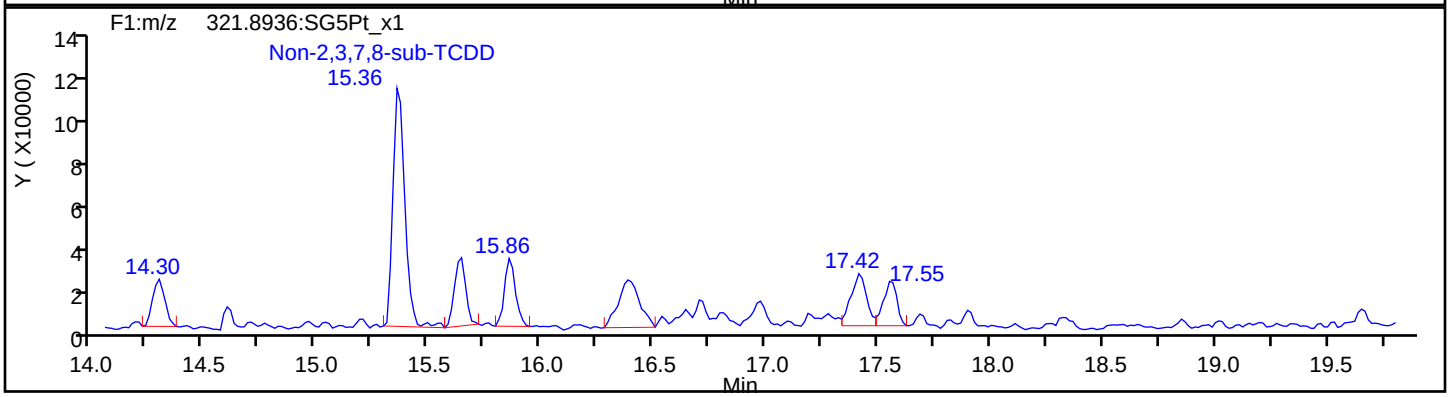
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

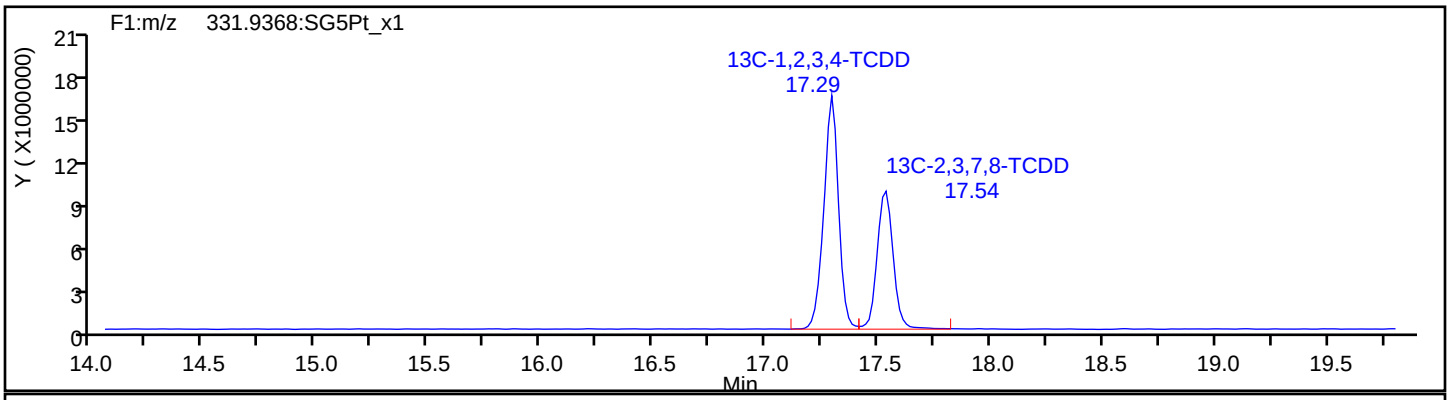
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

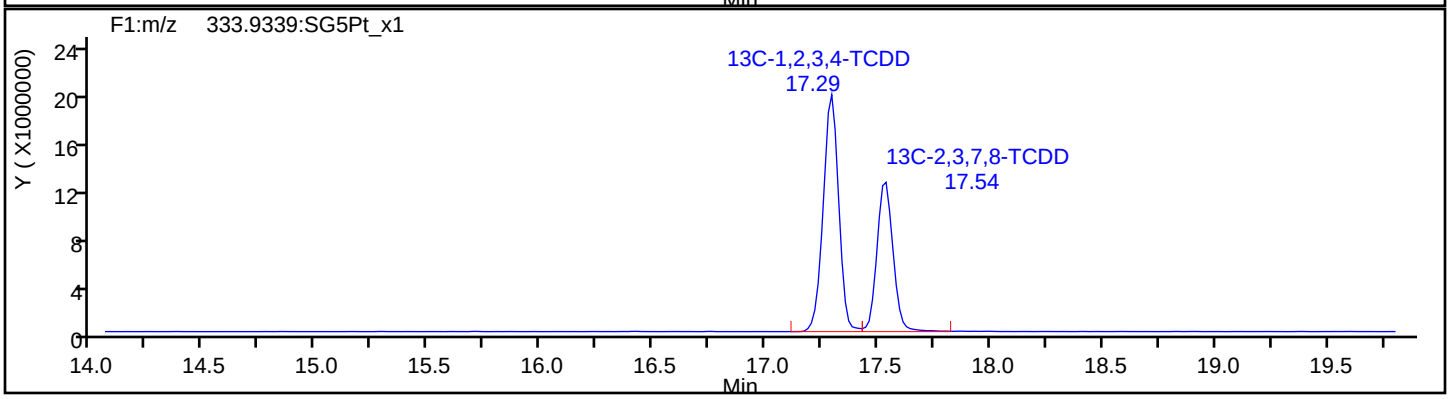
TCDD





TCDD Standards



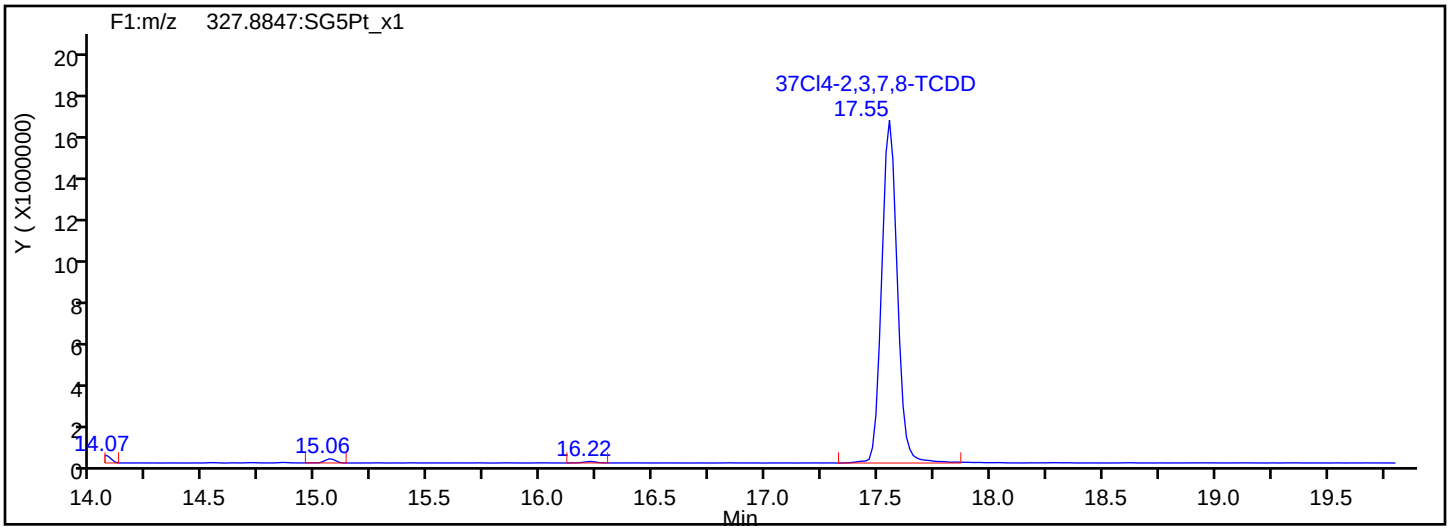


Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

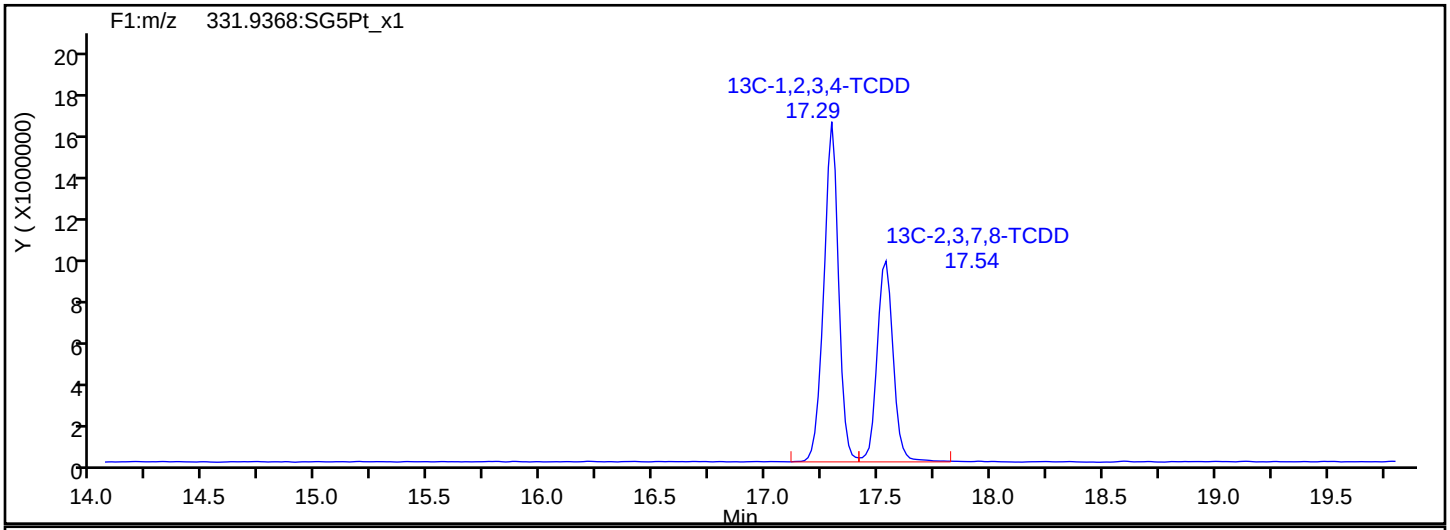
Eurofins TestAmerica, Sacramento

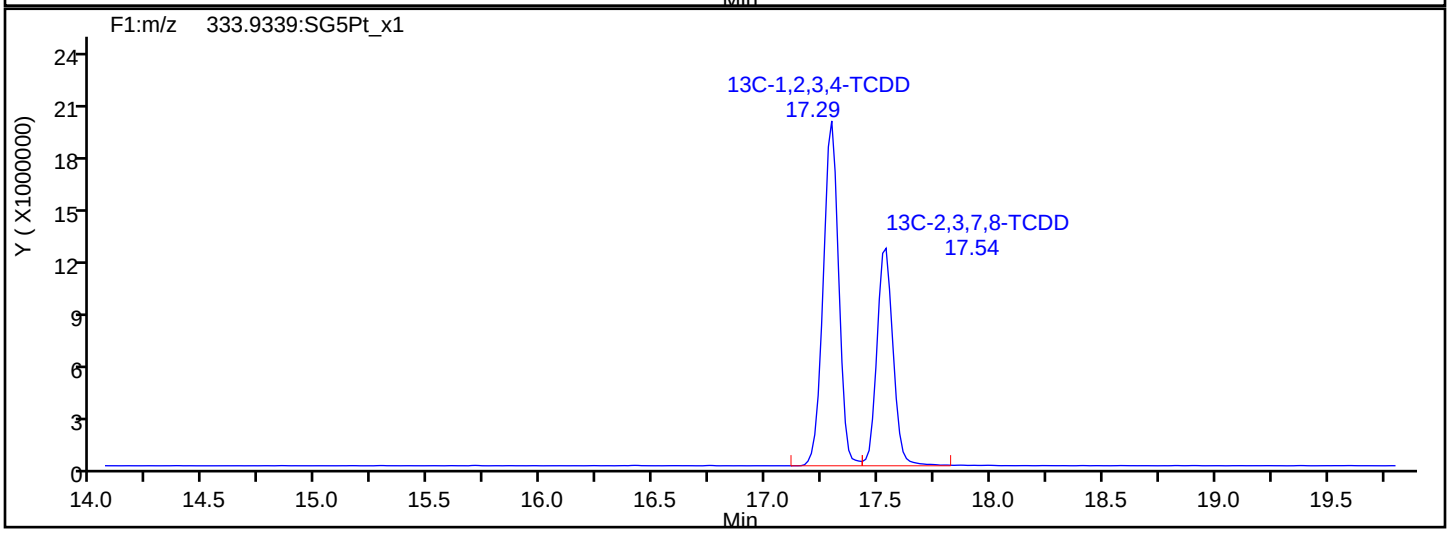
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



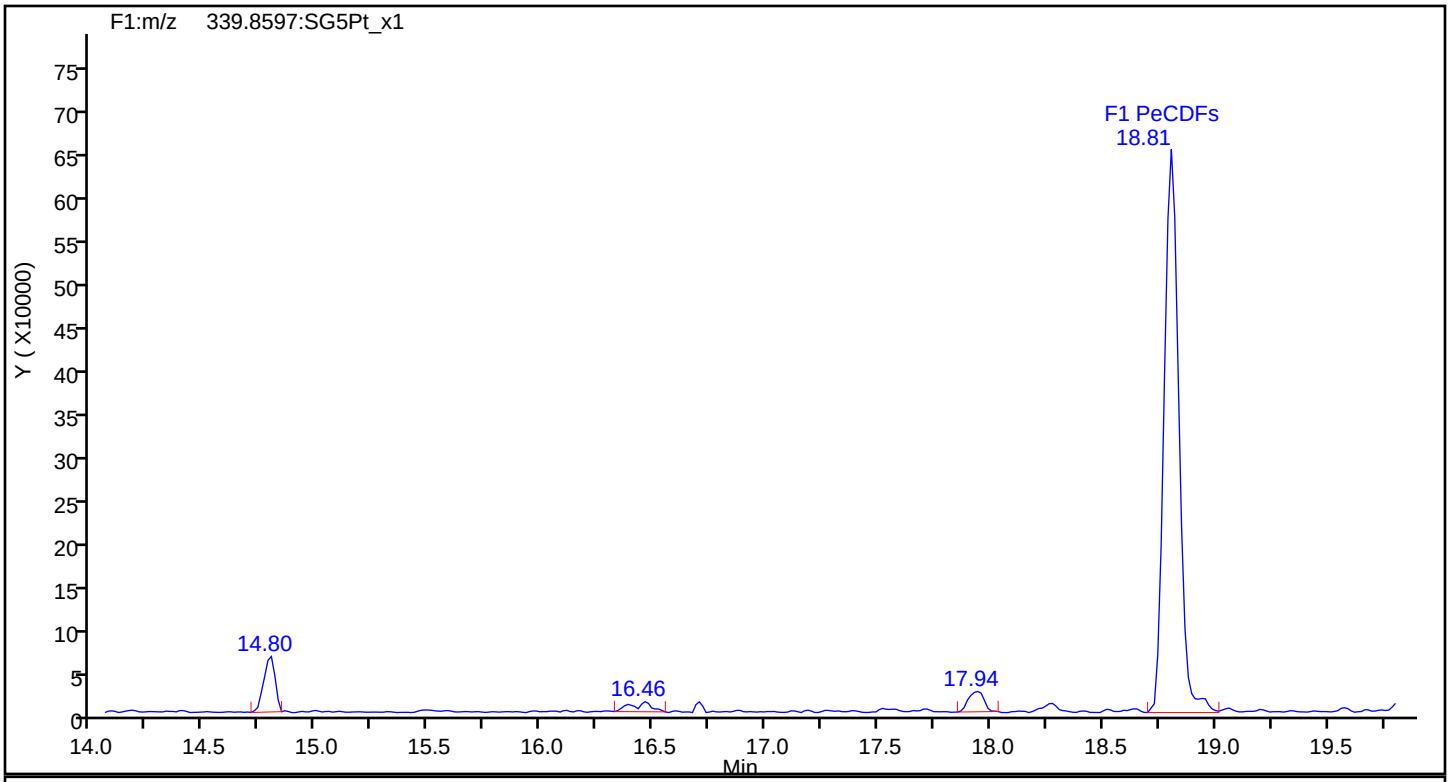


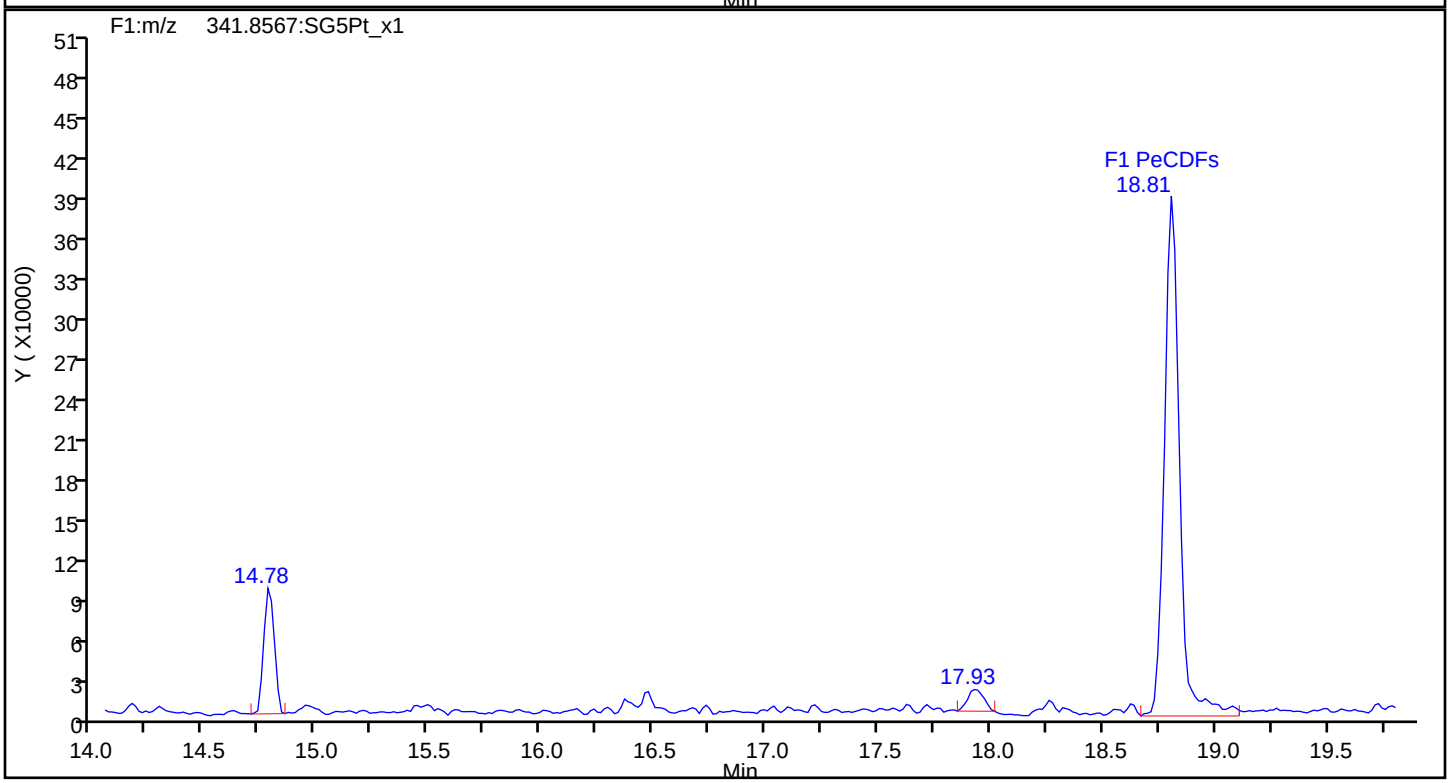
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



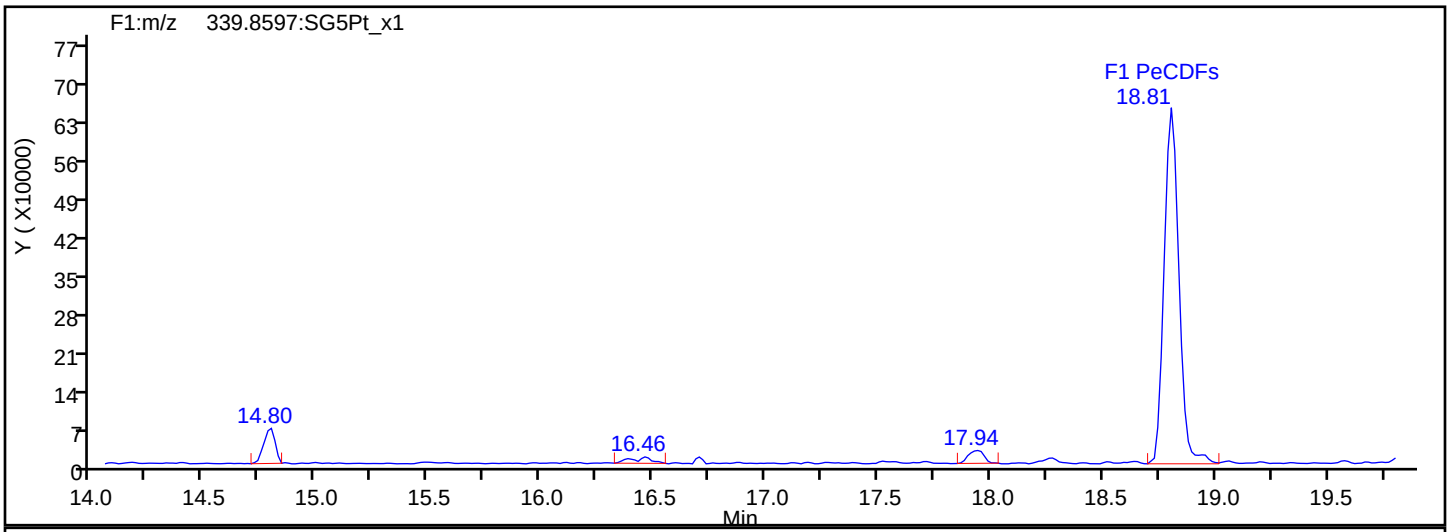


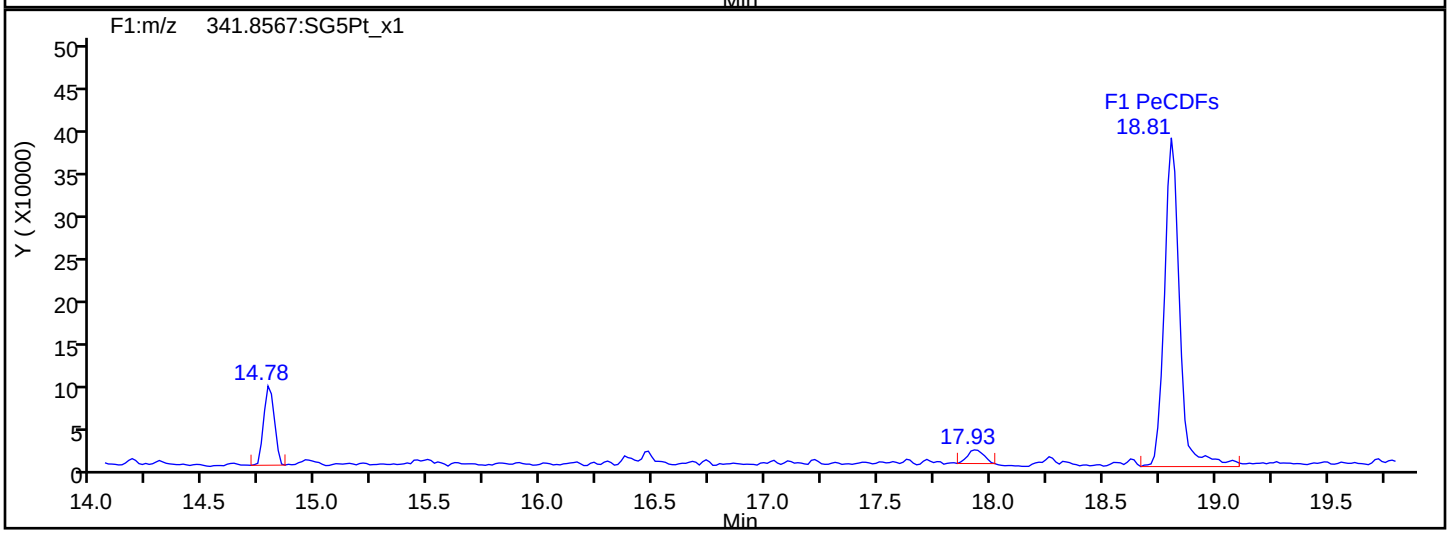
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

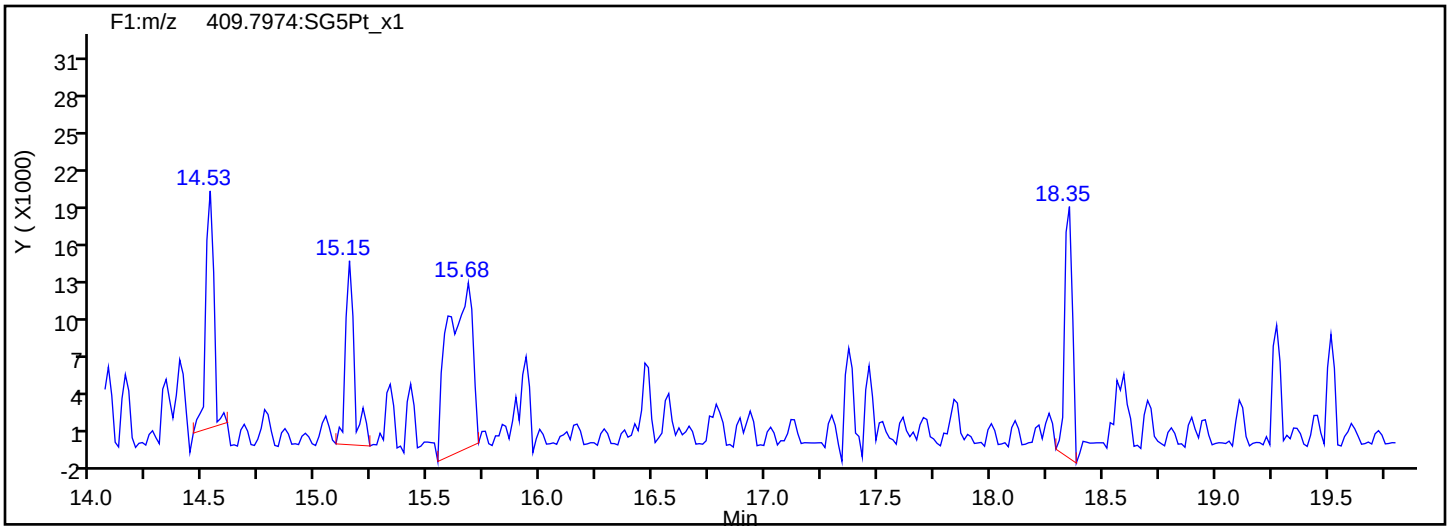
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

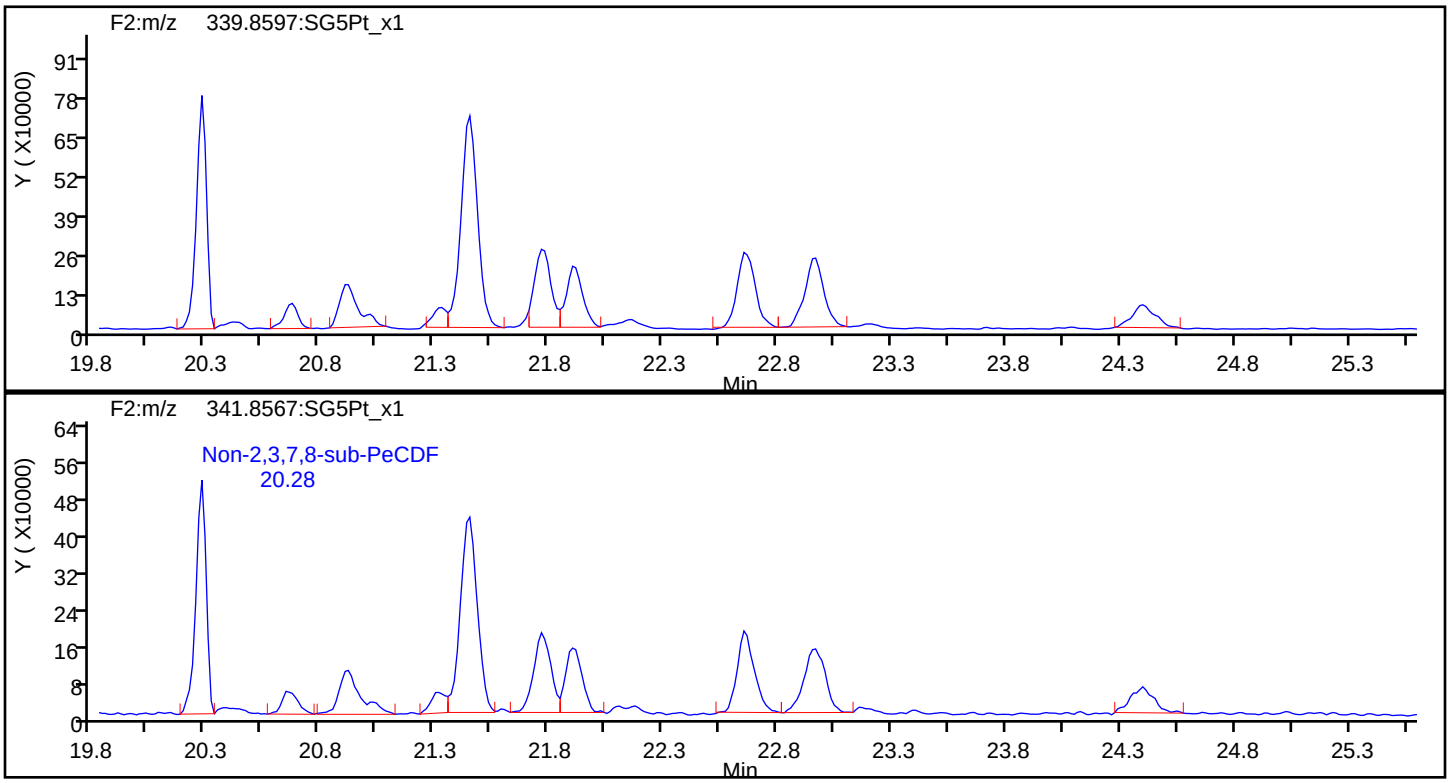


Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

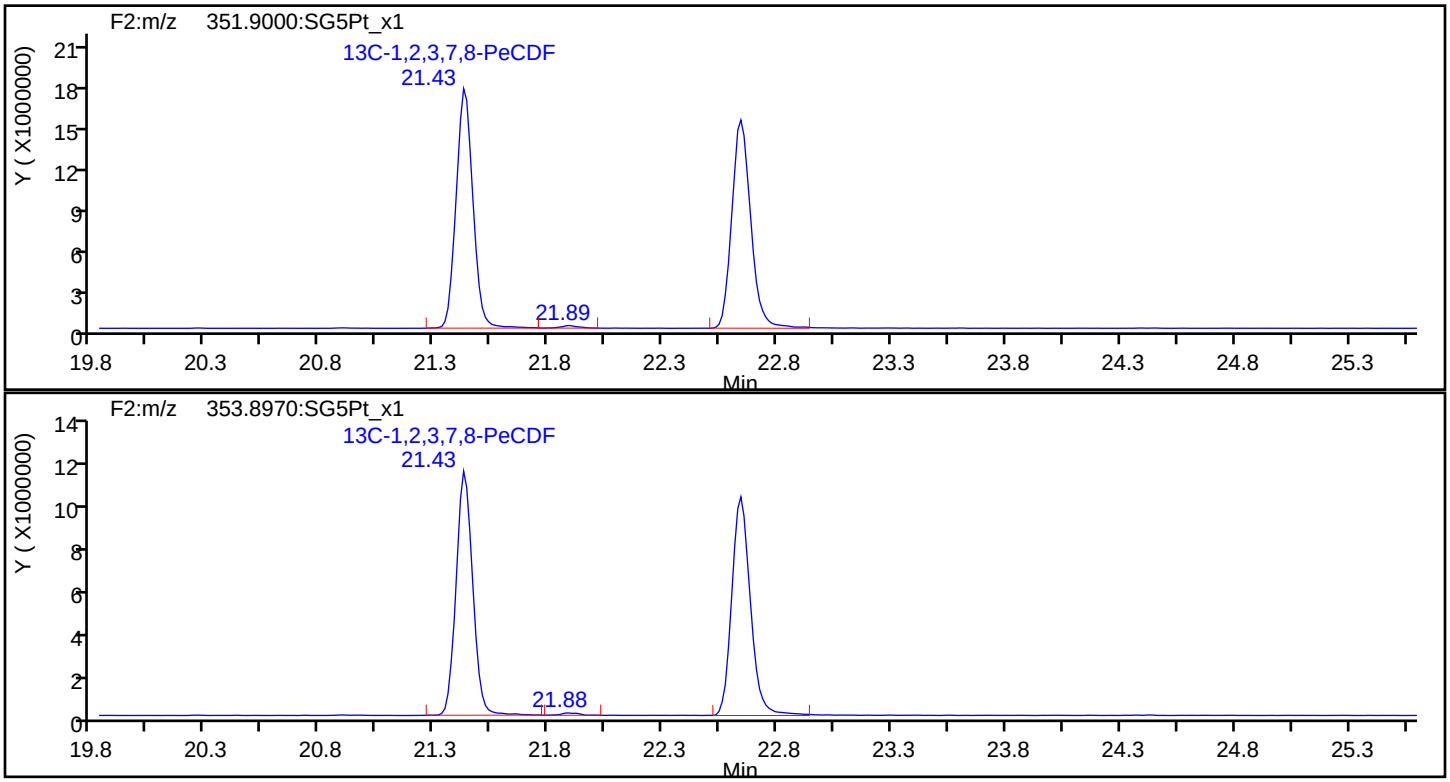
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

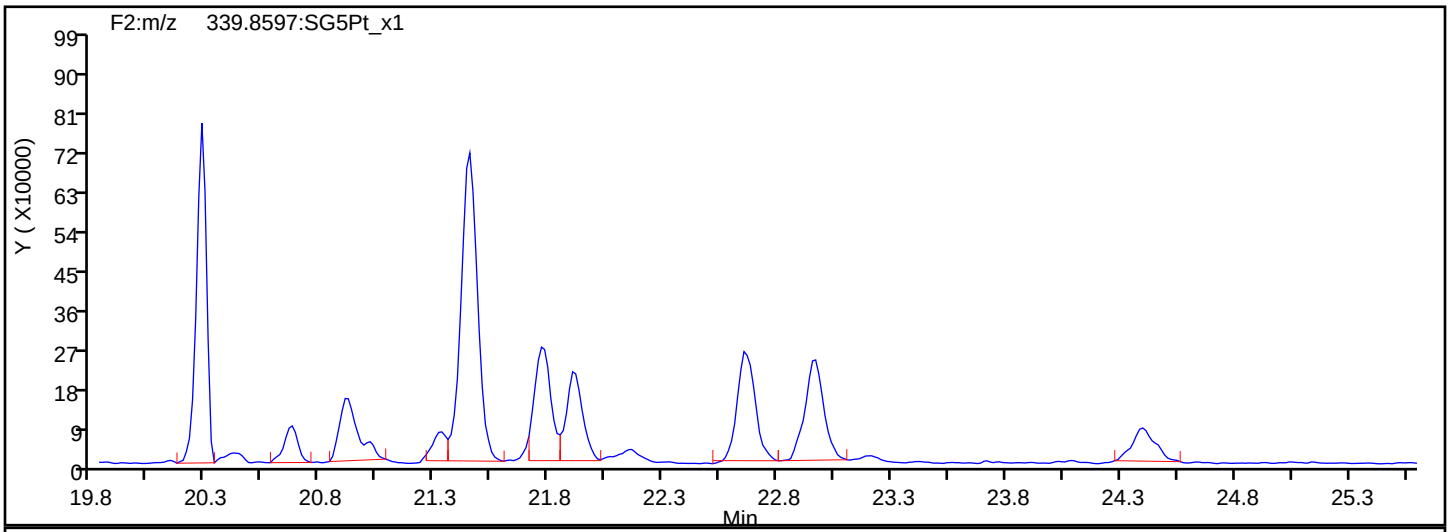


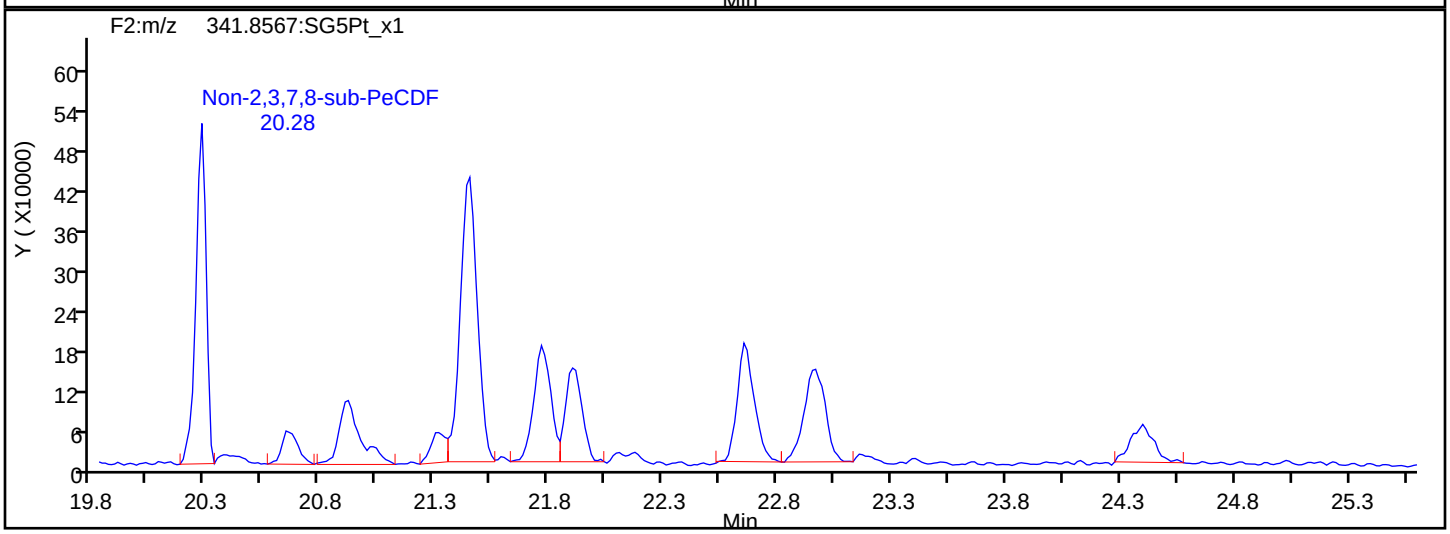
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

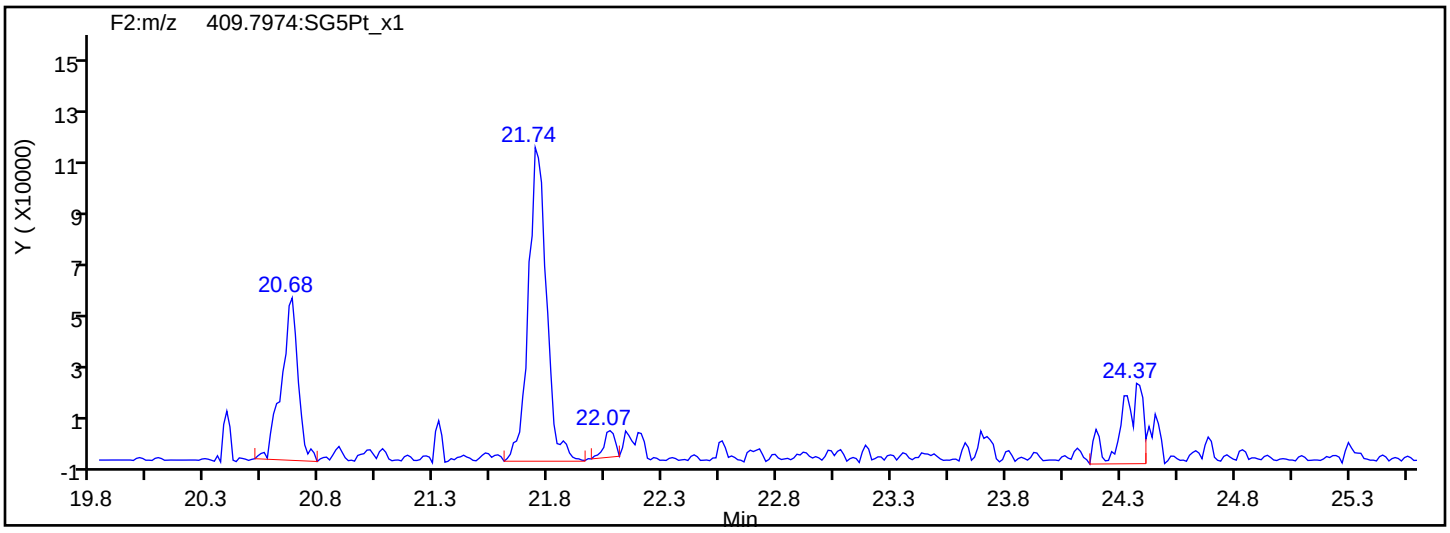
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

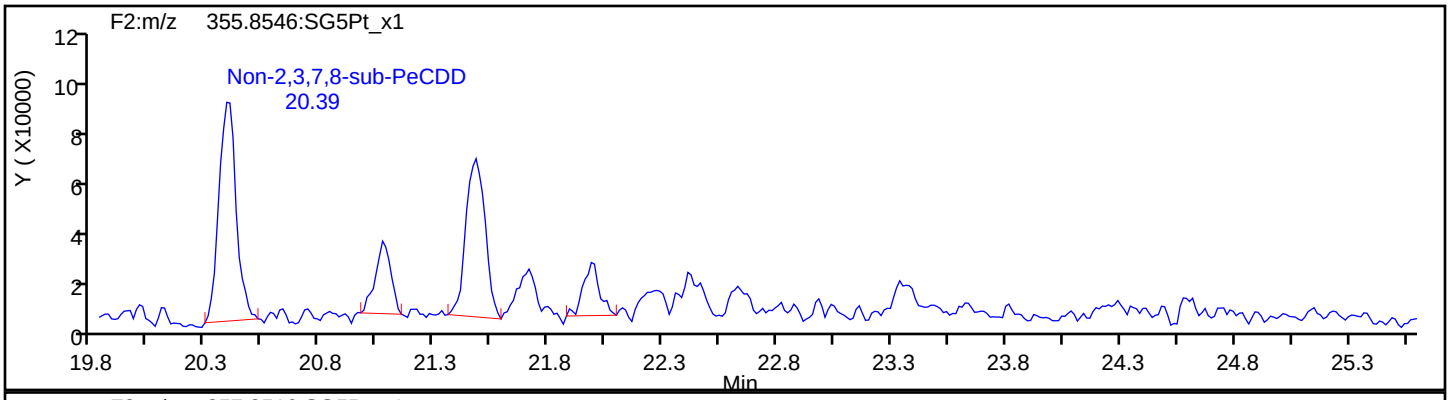


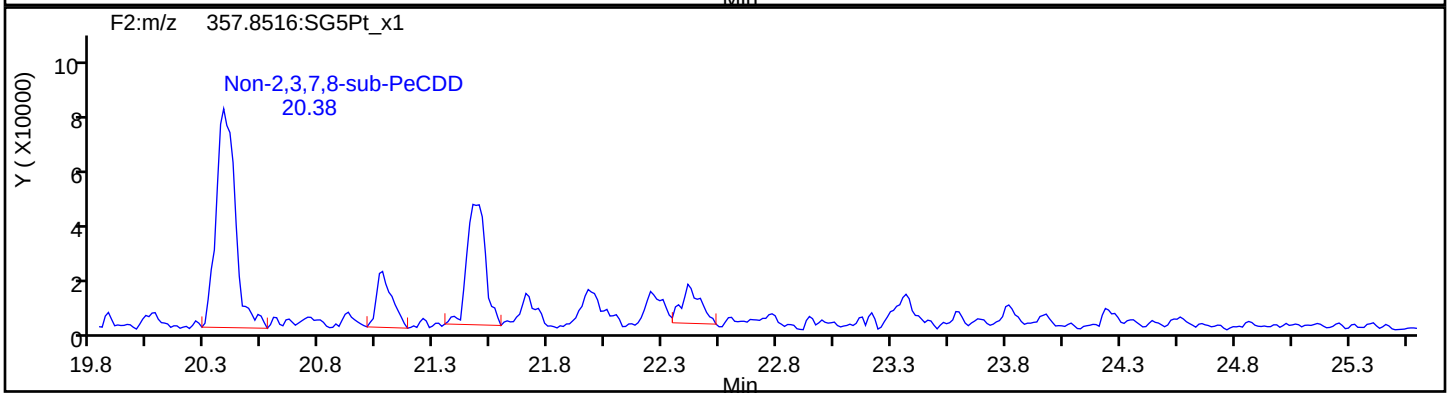
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

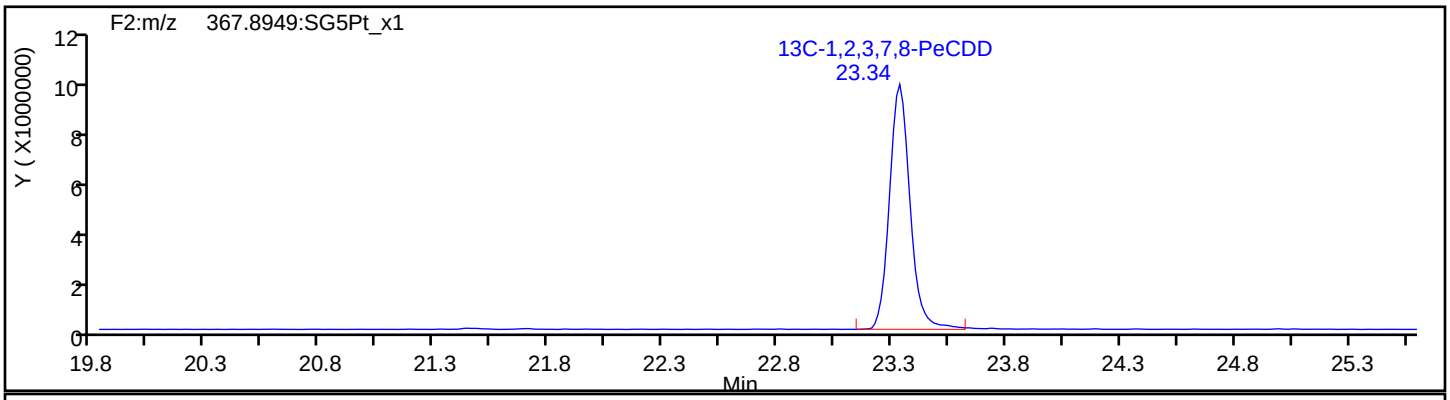
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

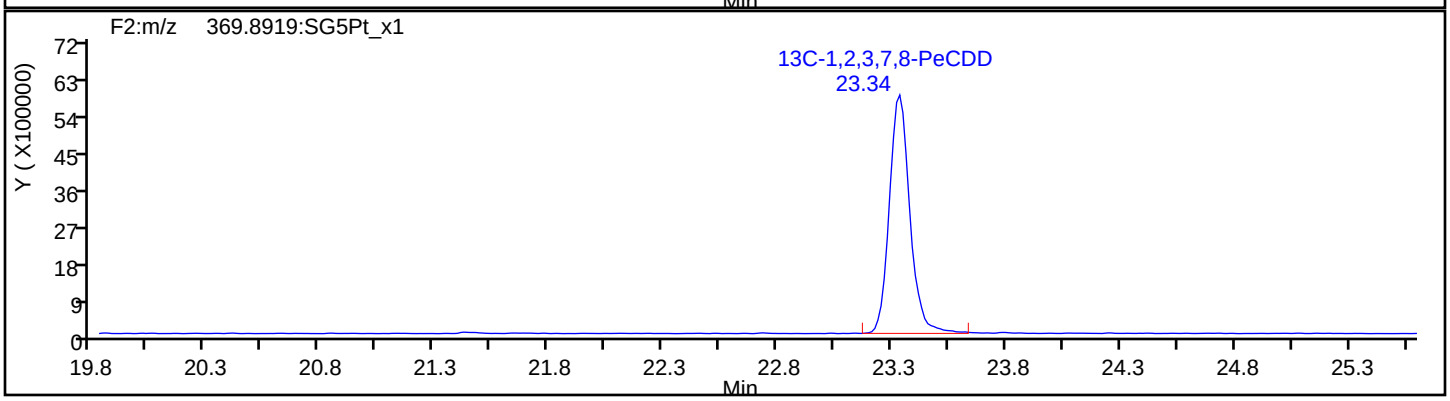
PeCDD





PeCDD Standards



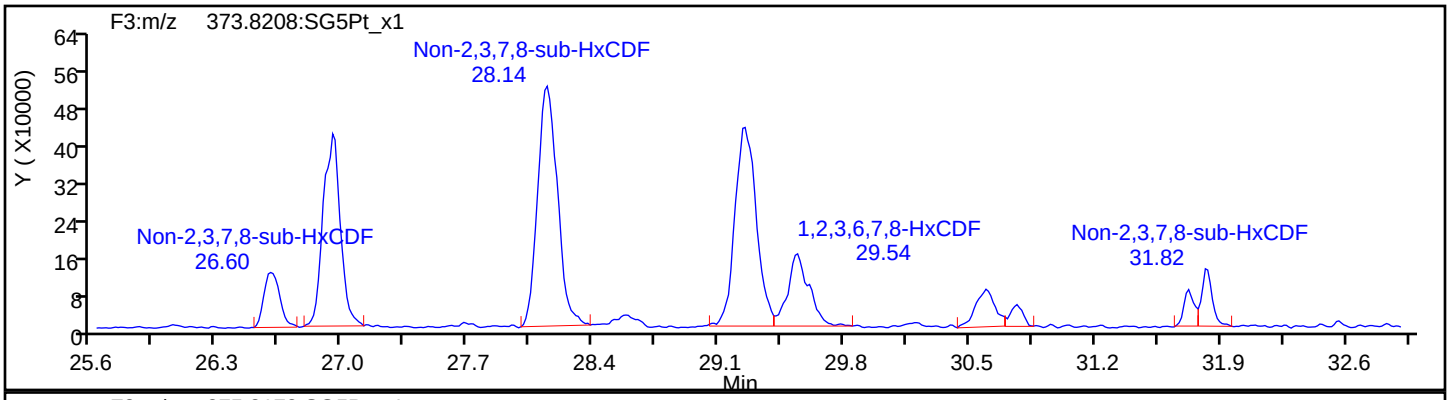


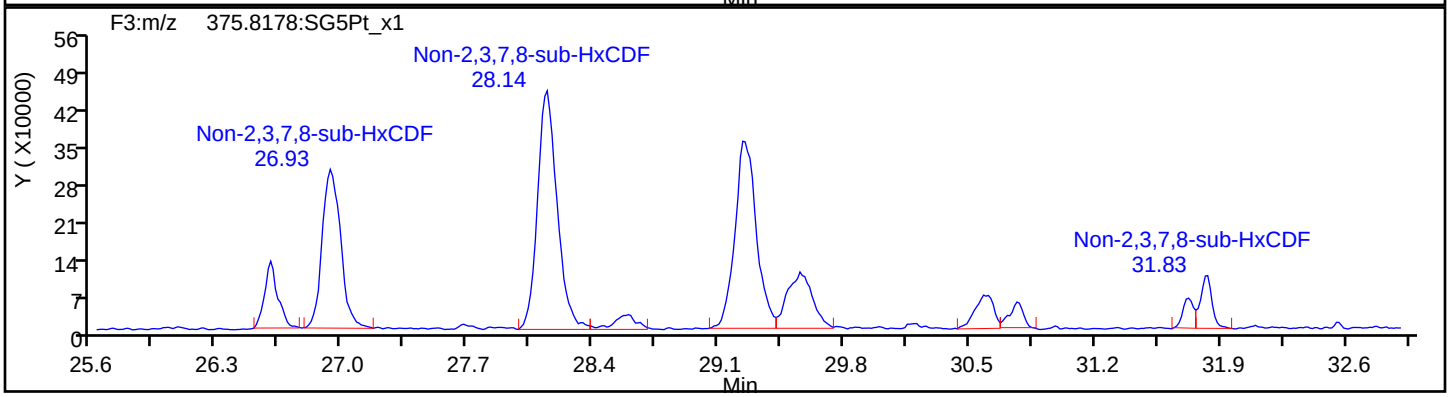
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

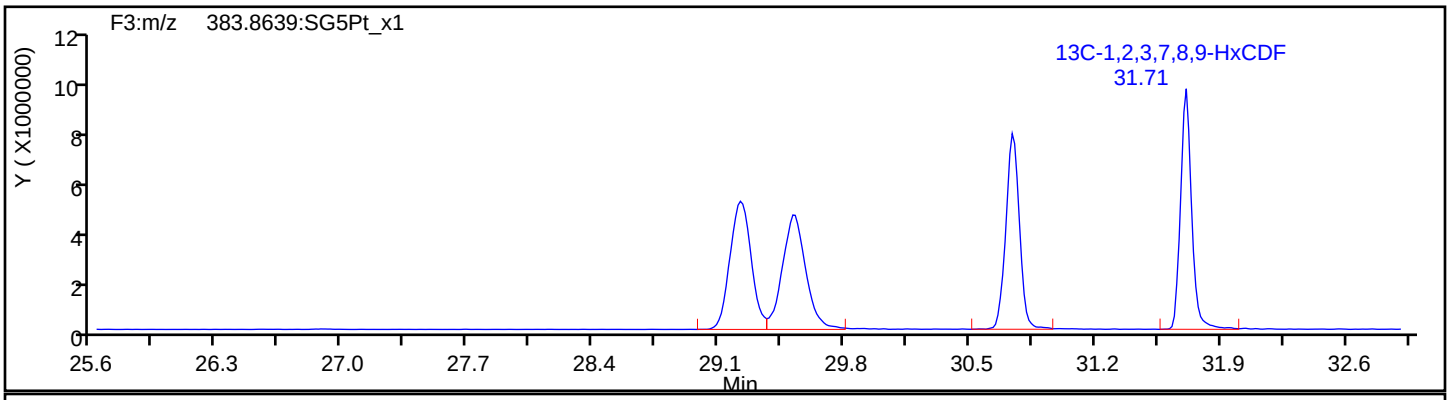
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

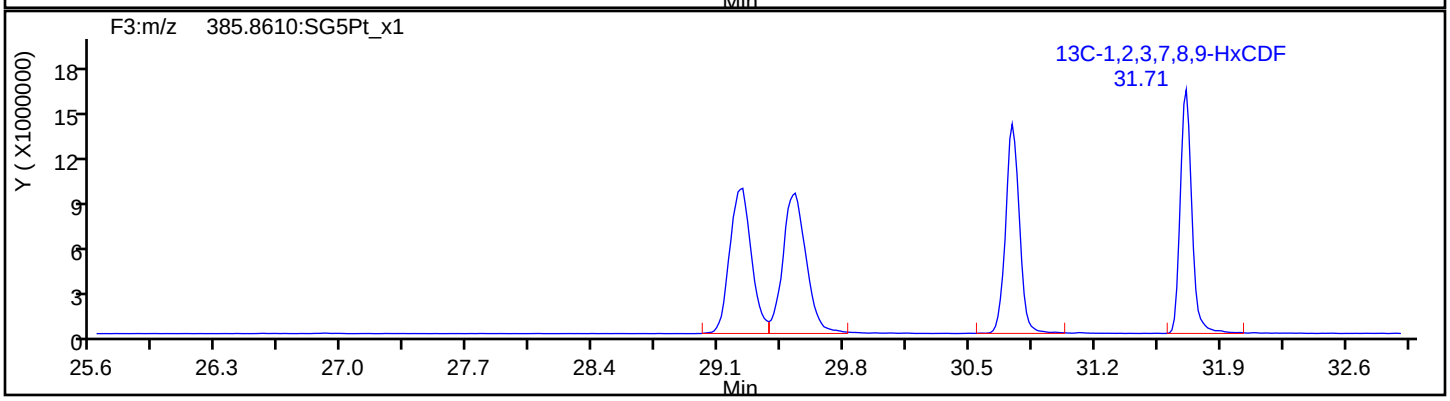
HxCDF





HxCDF Standards



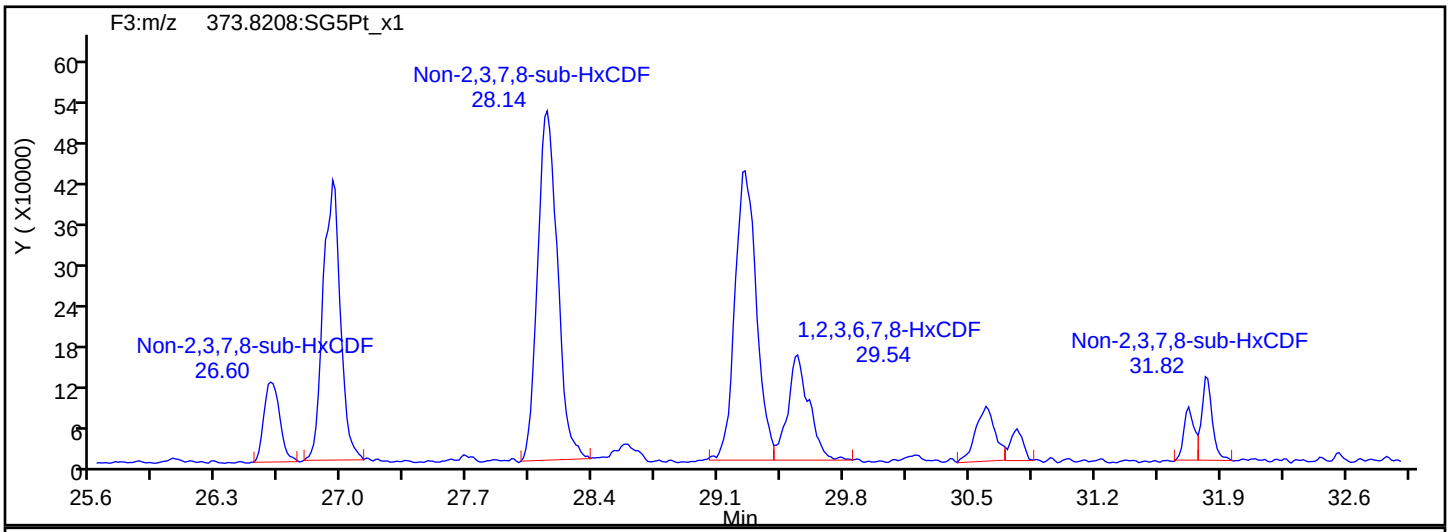


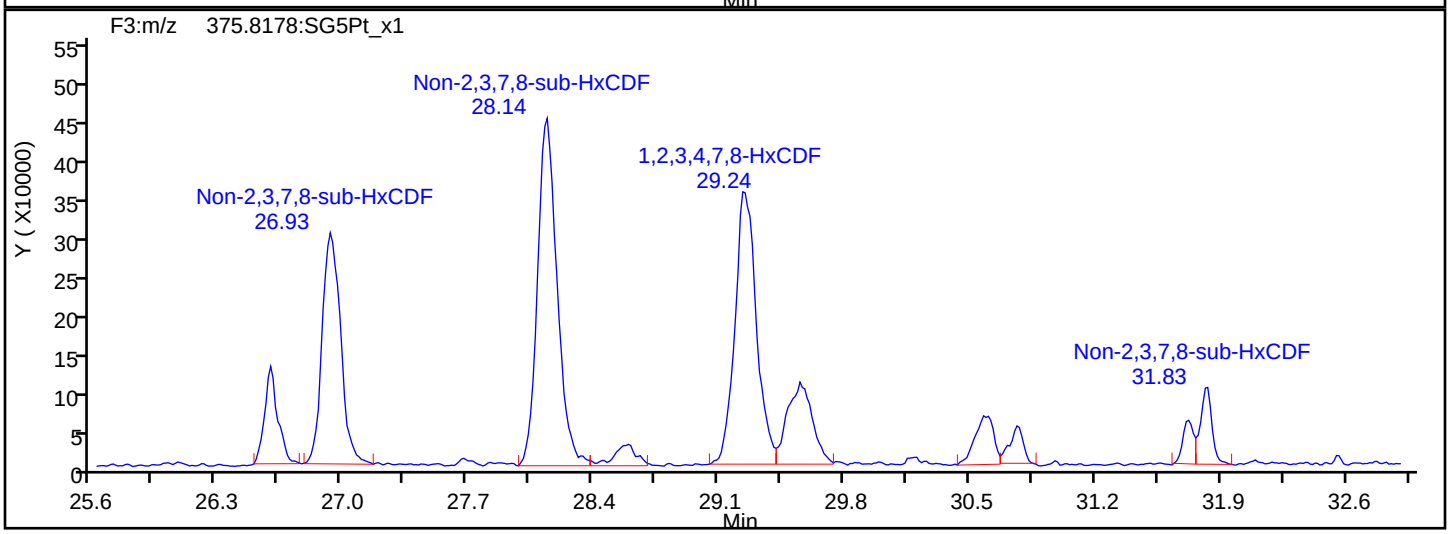
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

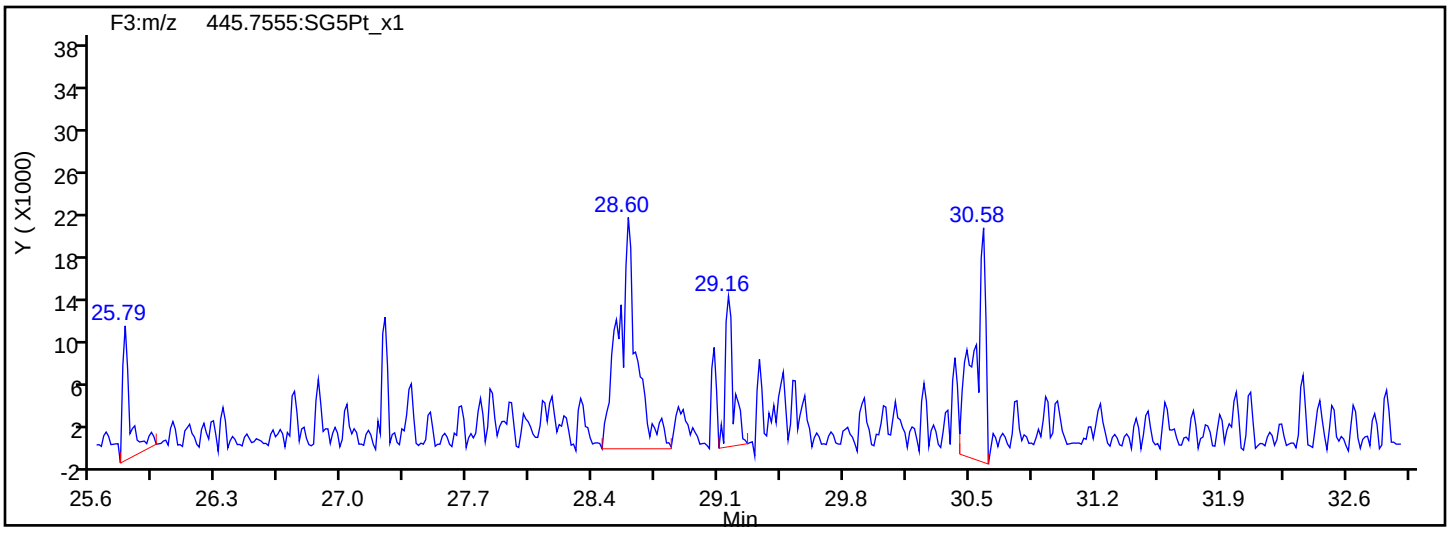
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

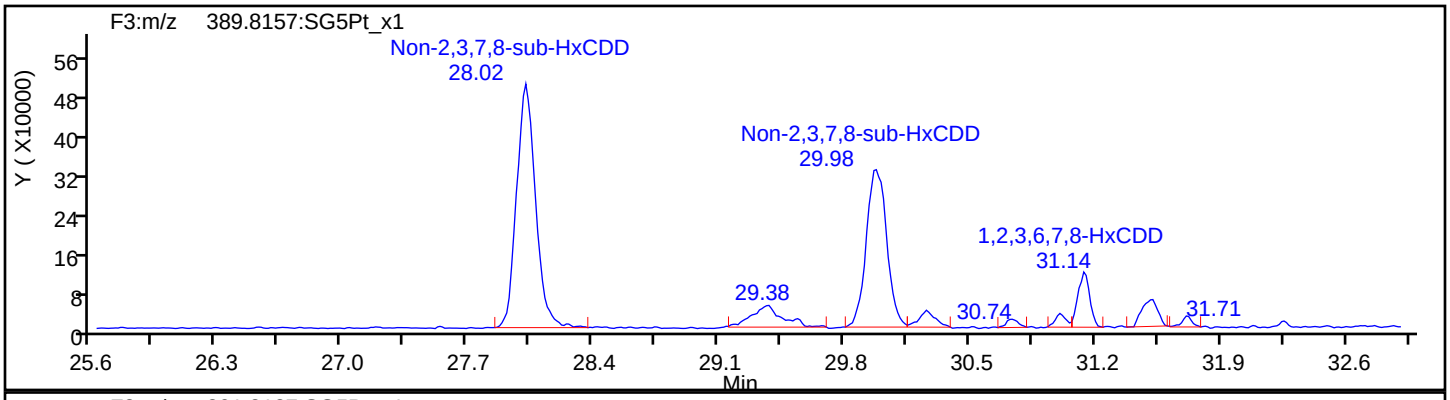


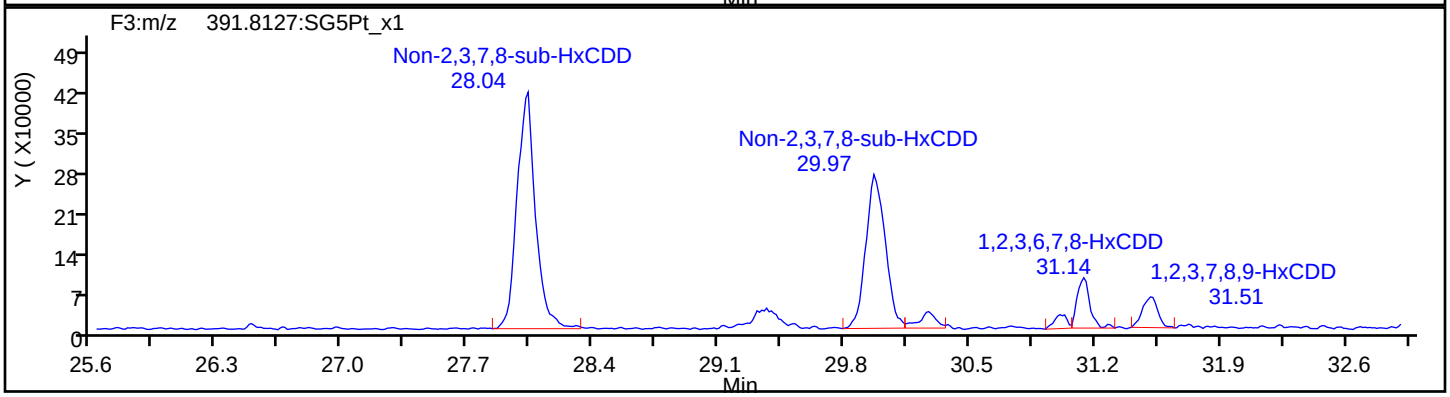
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

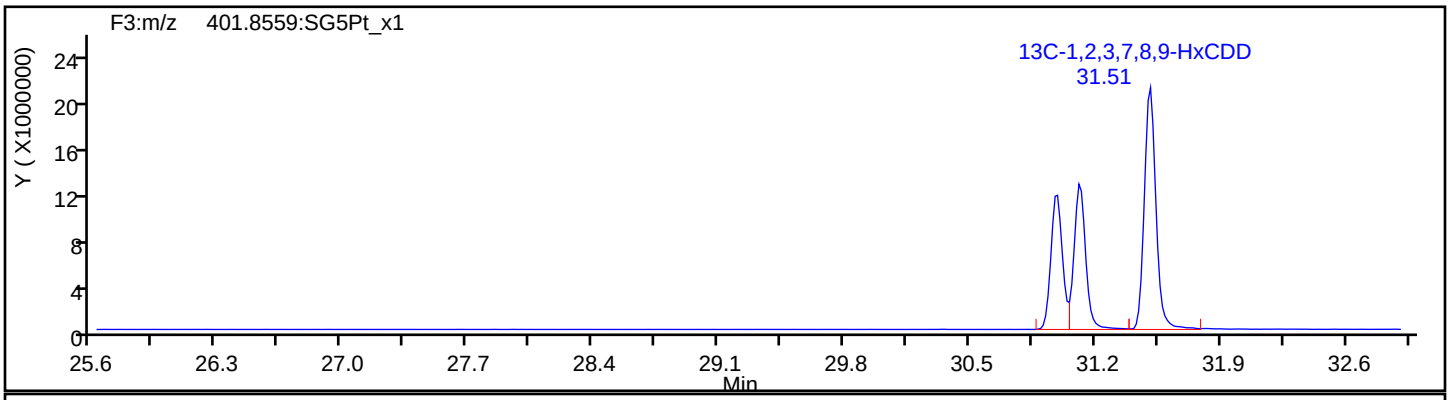
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

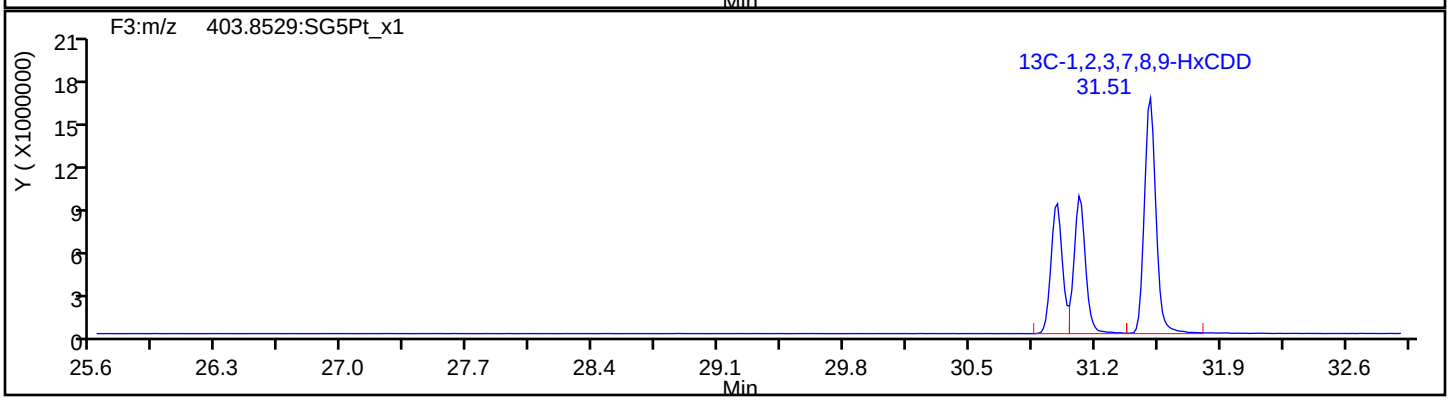
HxCDD





HxCDD Standards



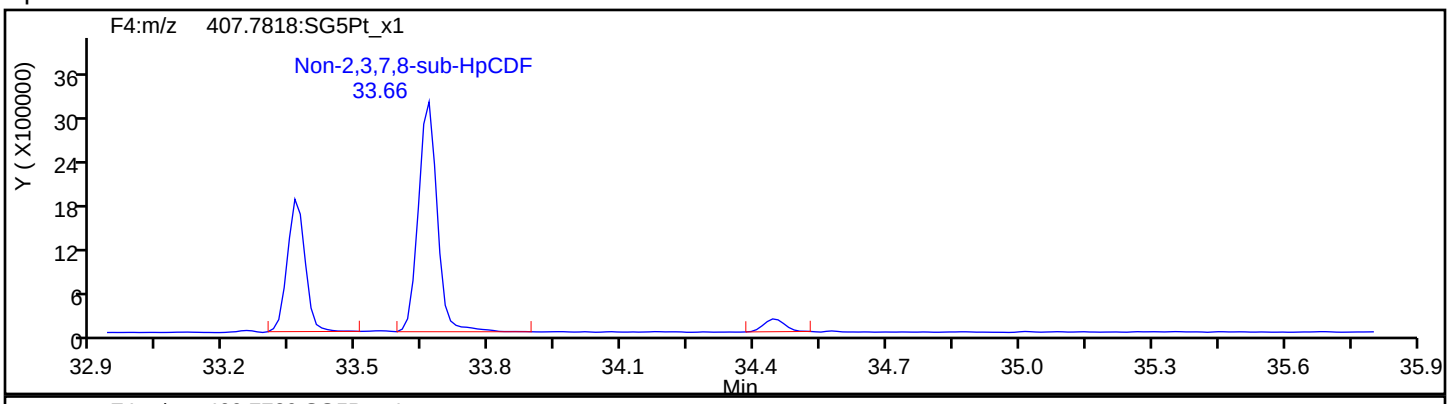


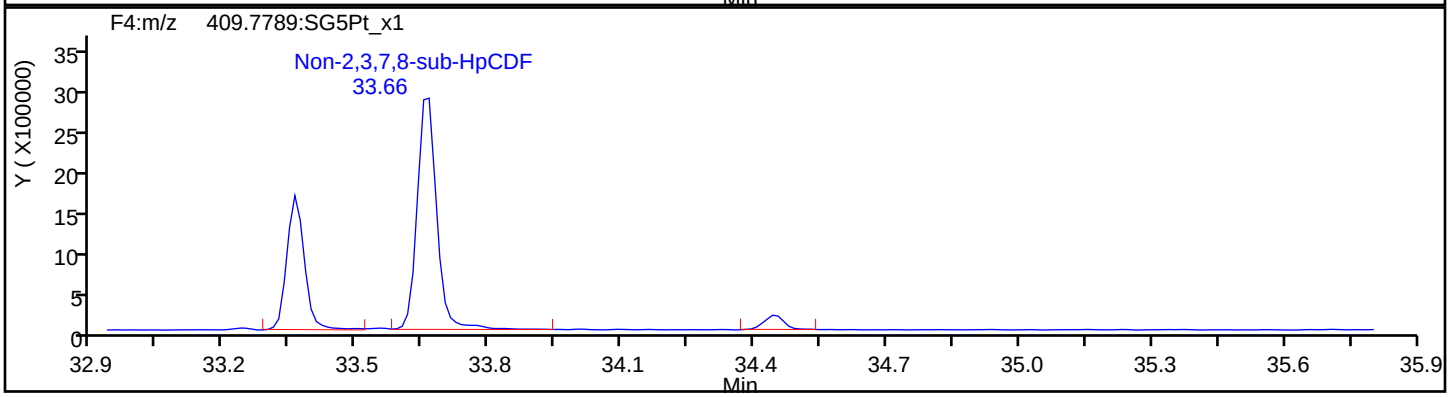
Report Date: 23-Jul-2019 12:34:48 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

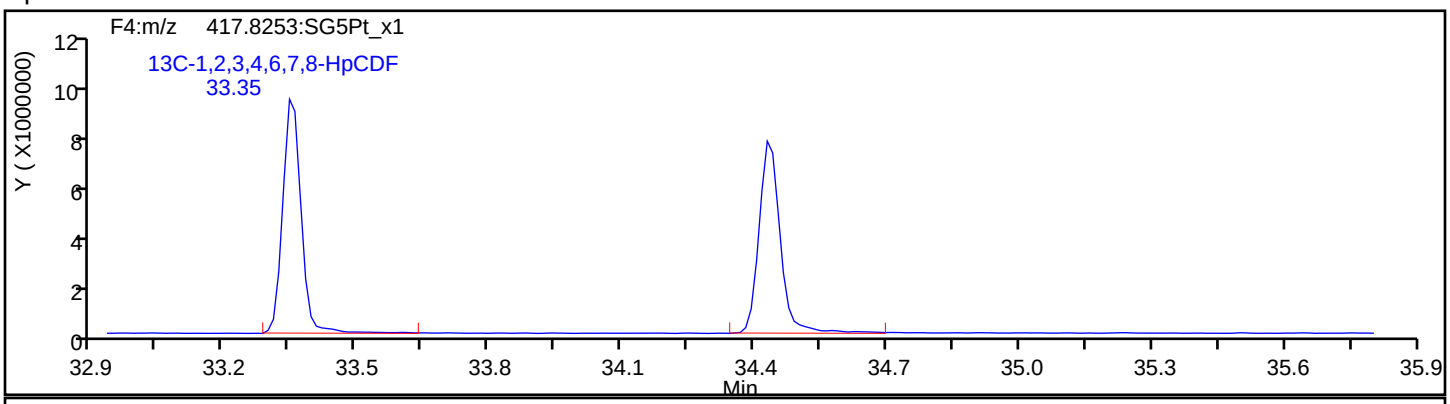
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

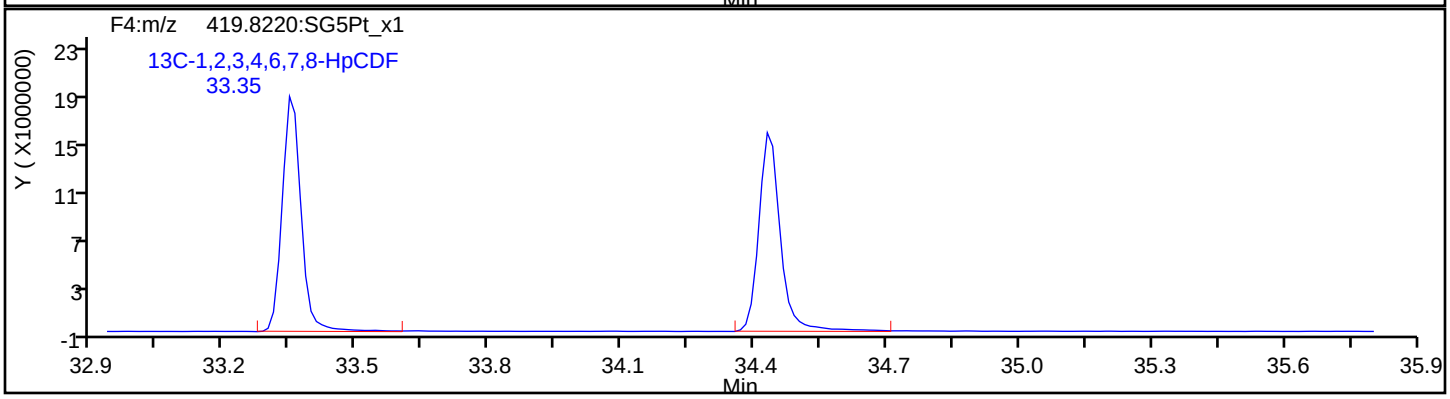
HpCDF





HpCDF Standards



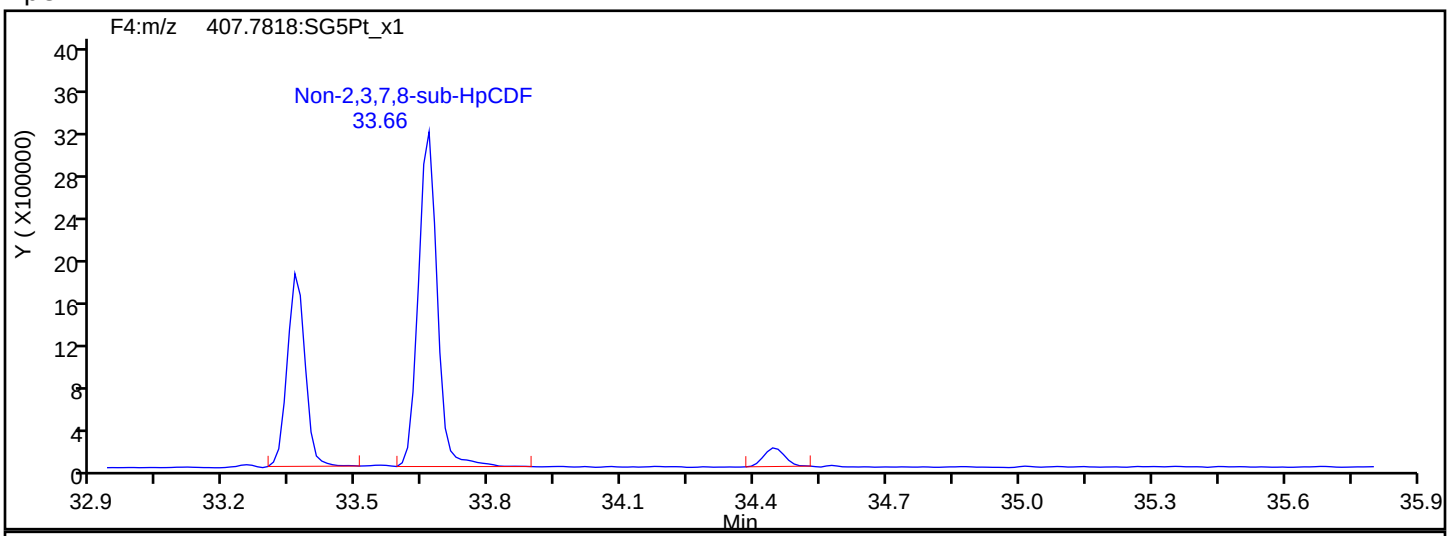


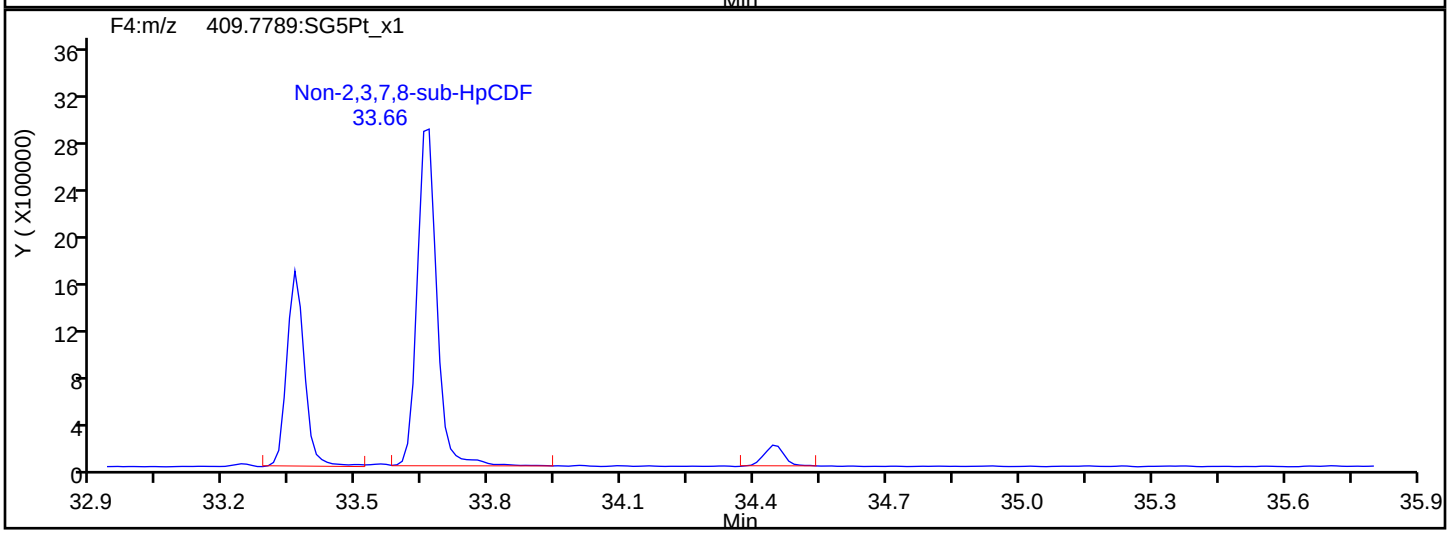
Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

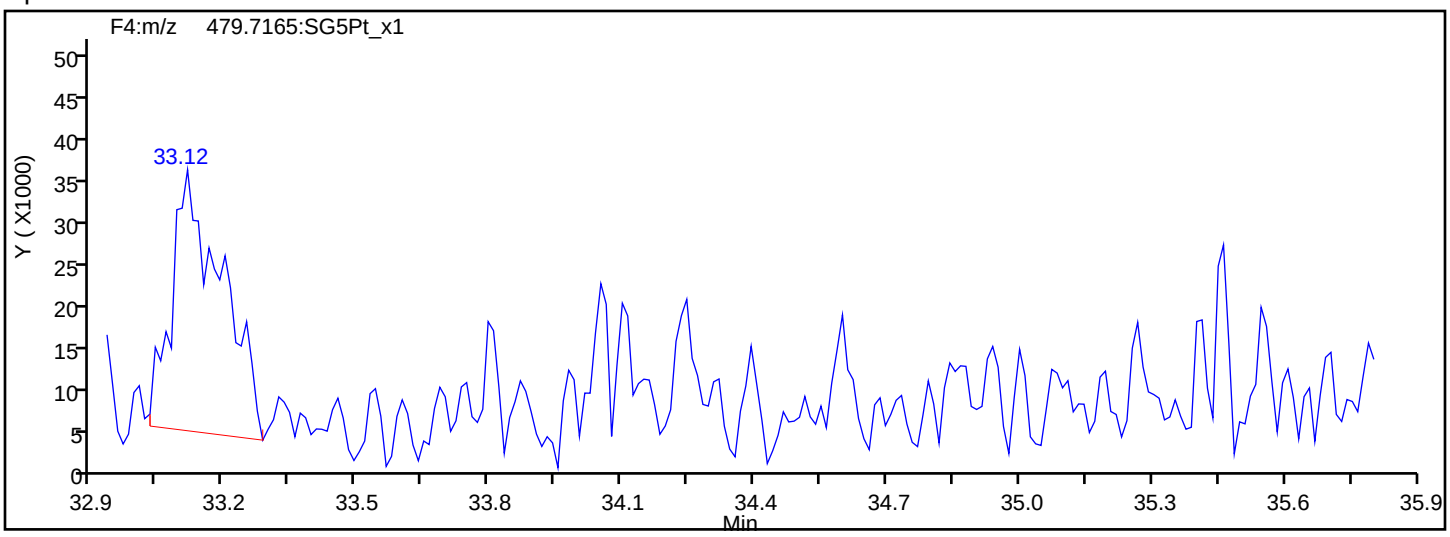
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



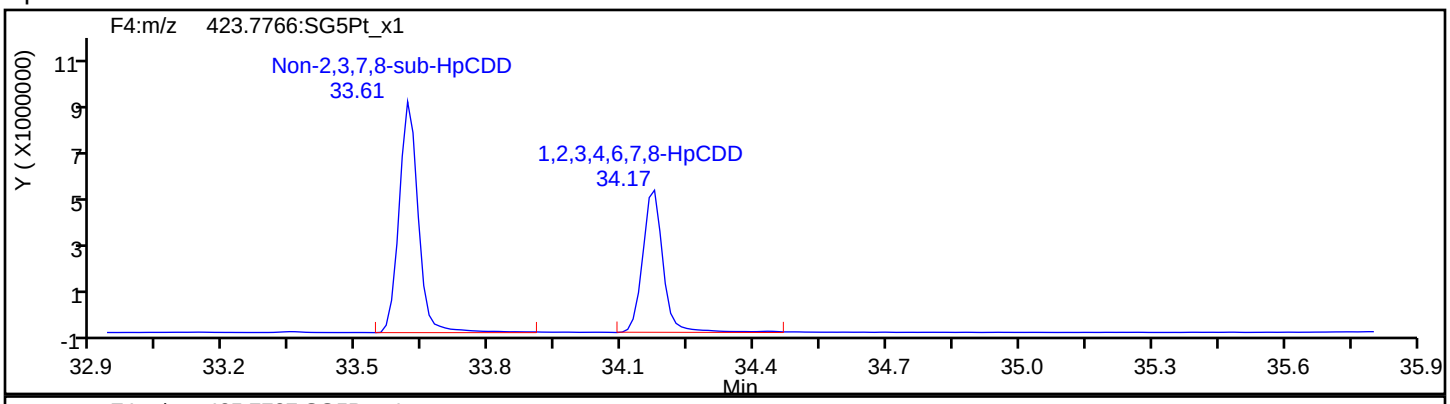
Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

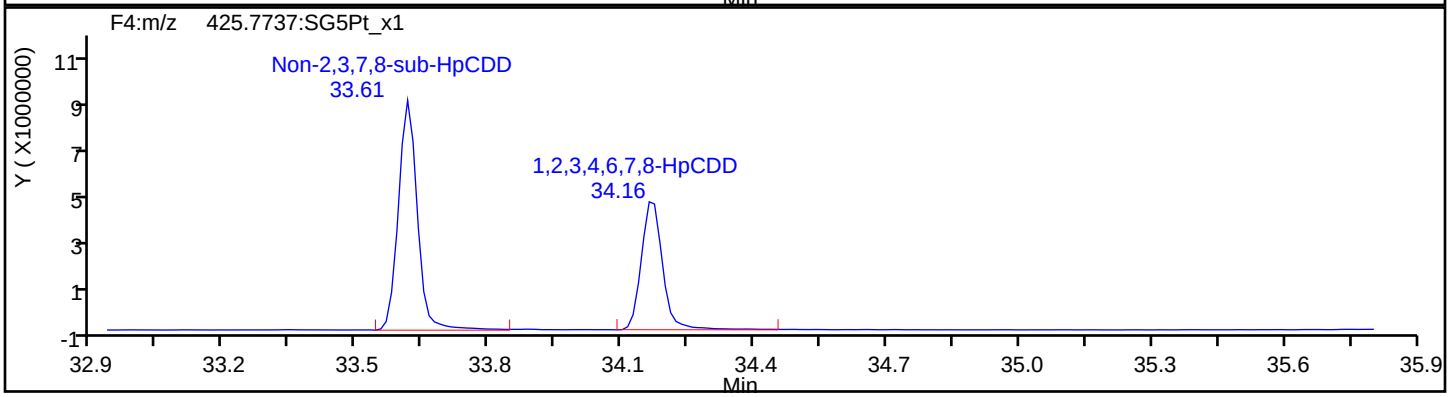
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d

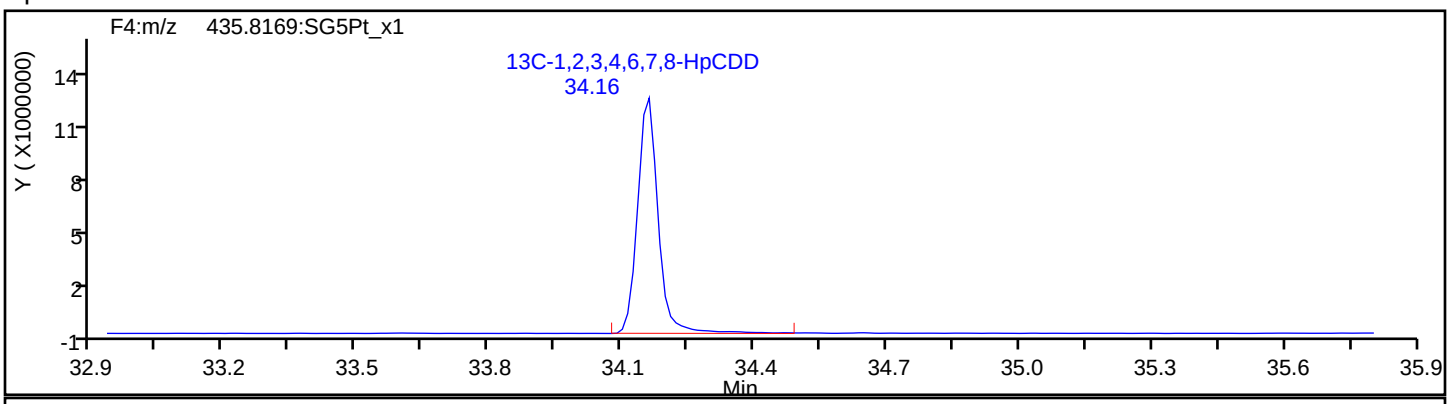
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

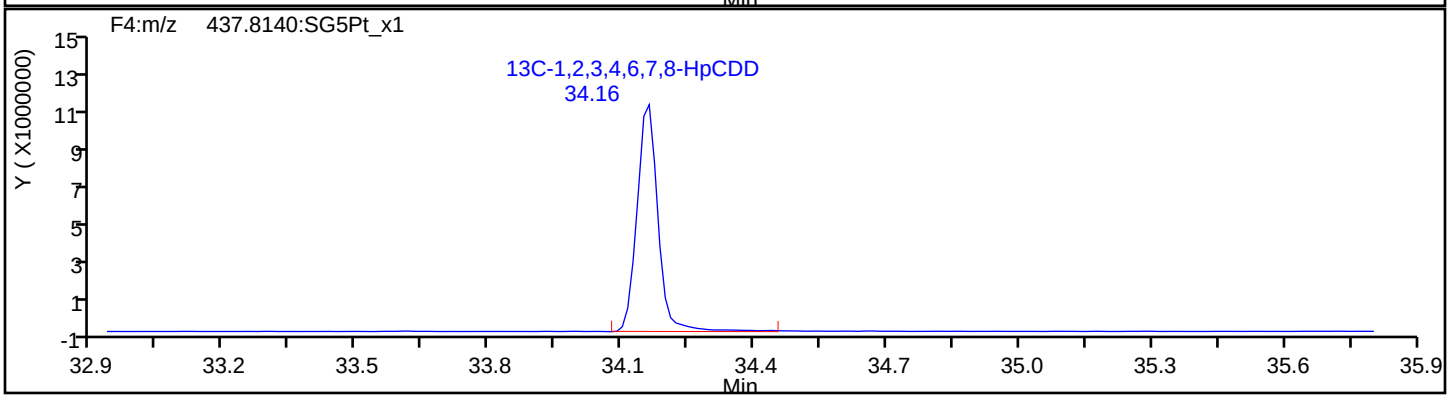
HpCDD





HpCDD Standards



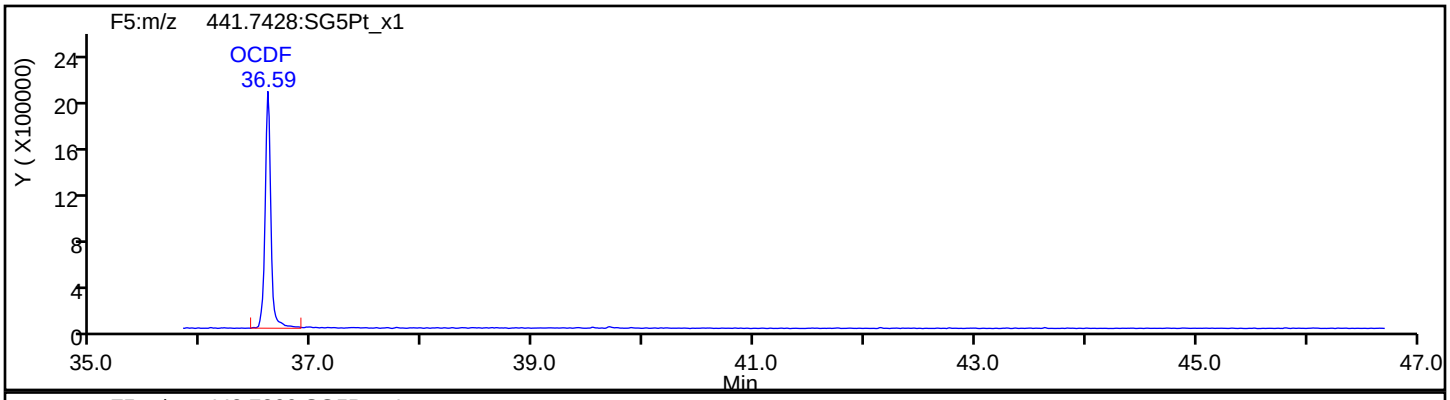


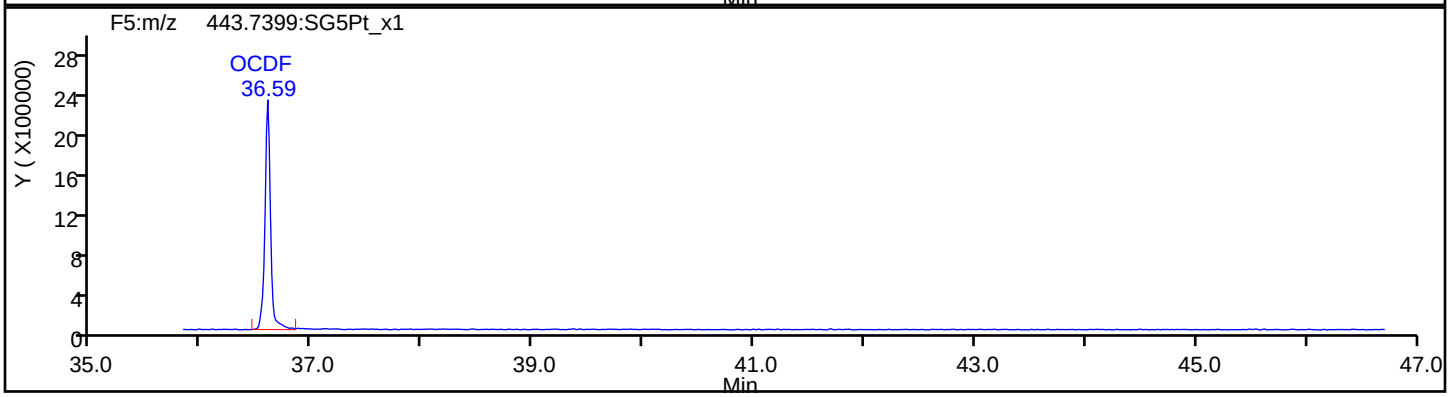
Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

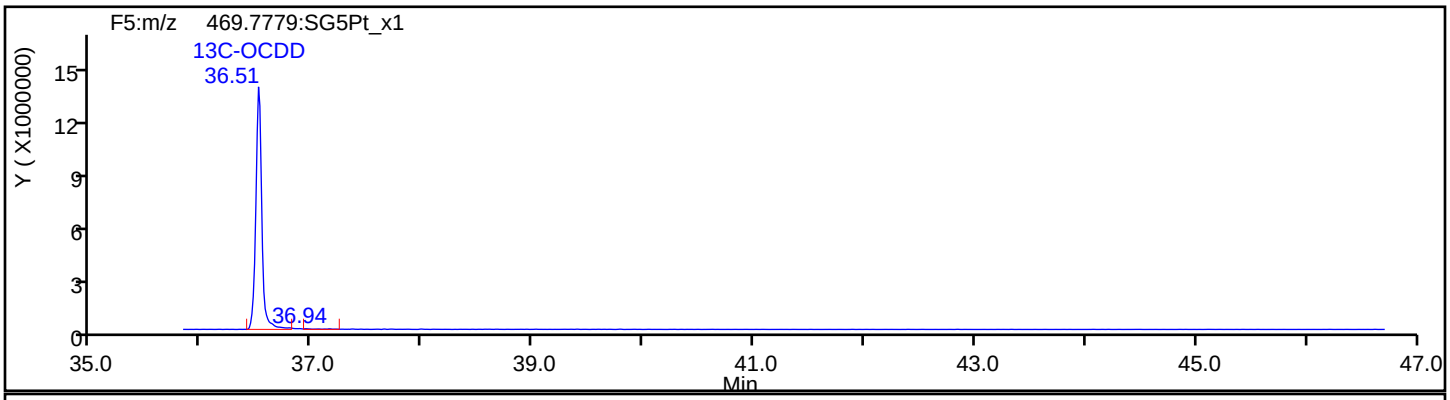
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

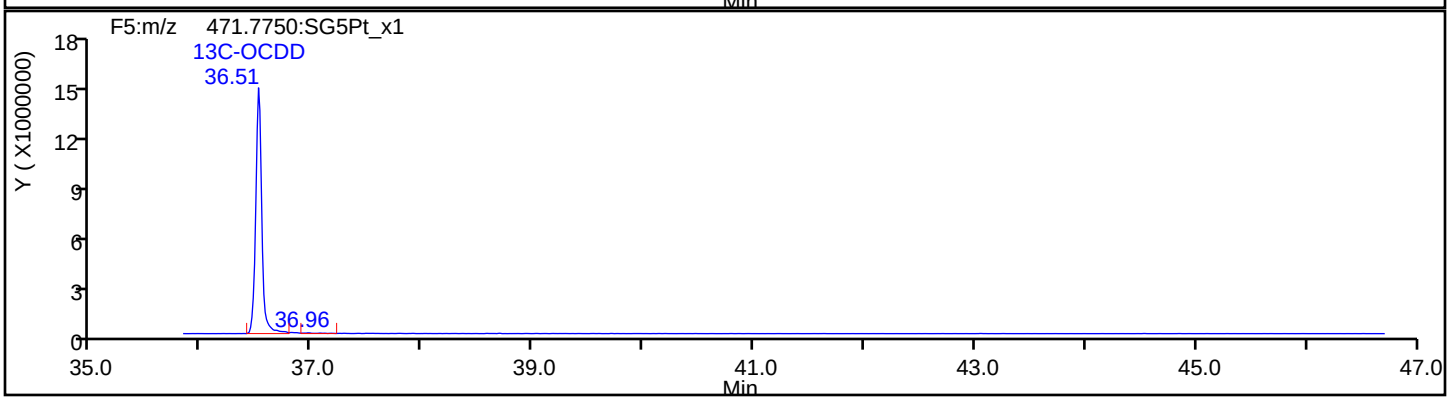
OCDF





OCDF Standards



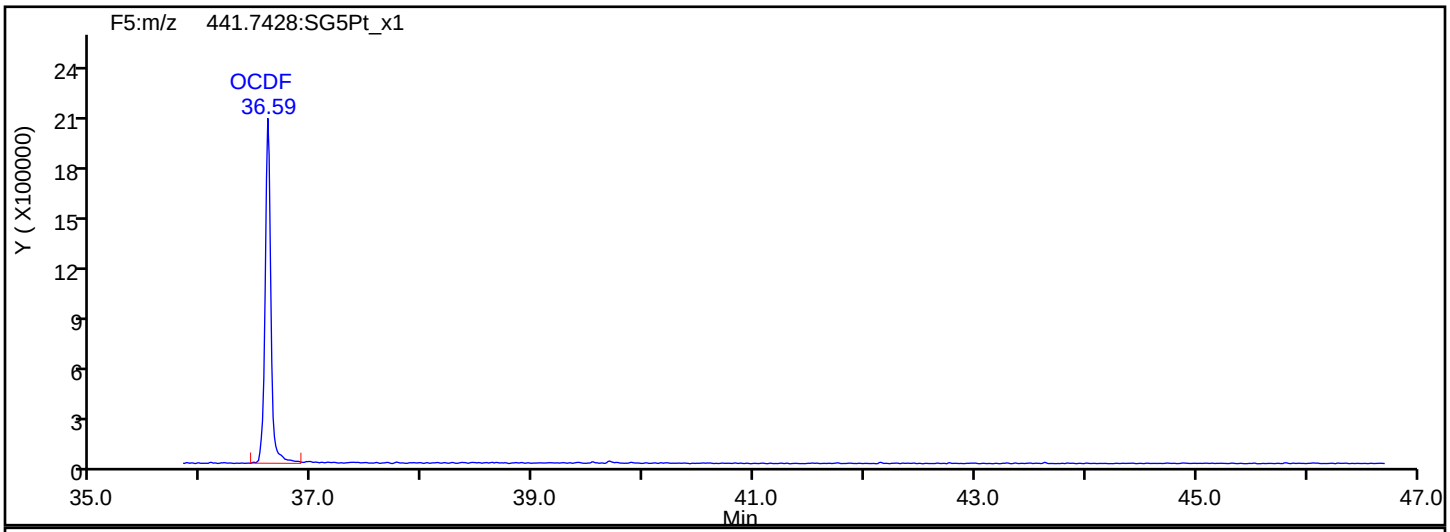


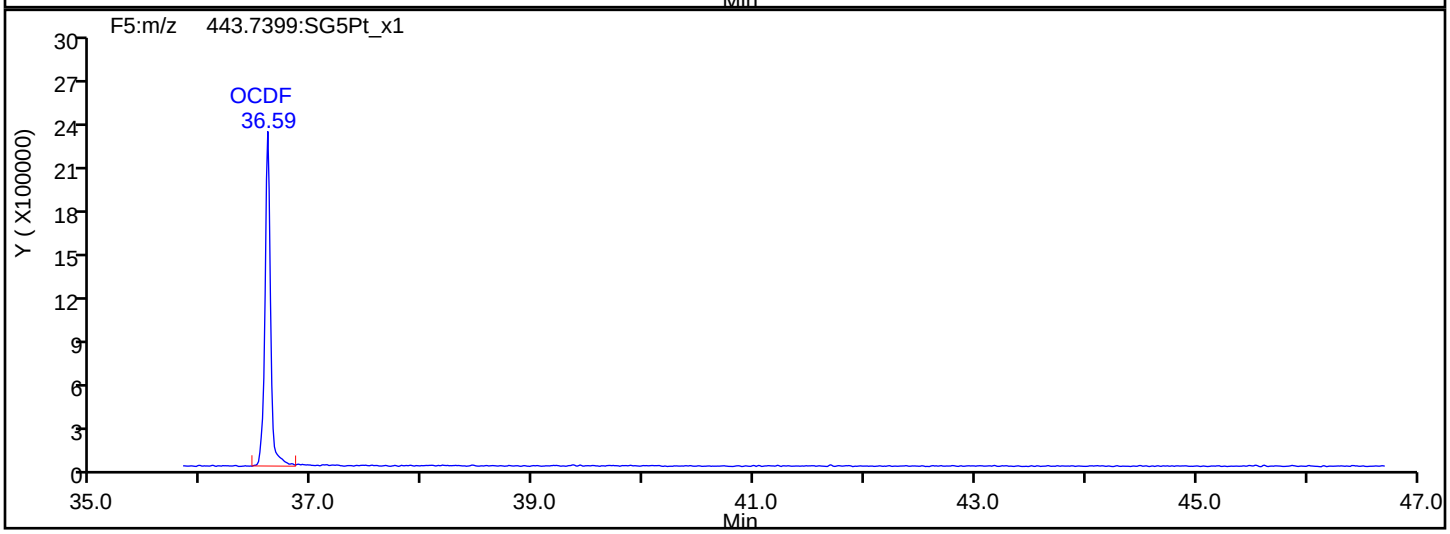
Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

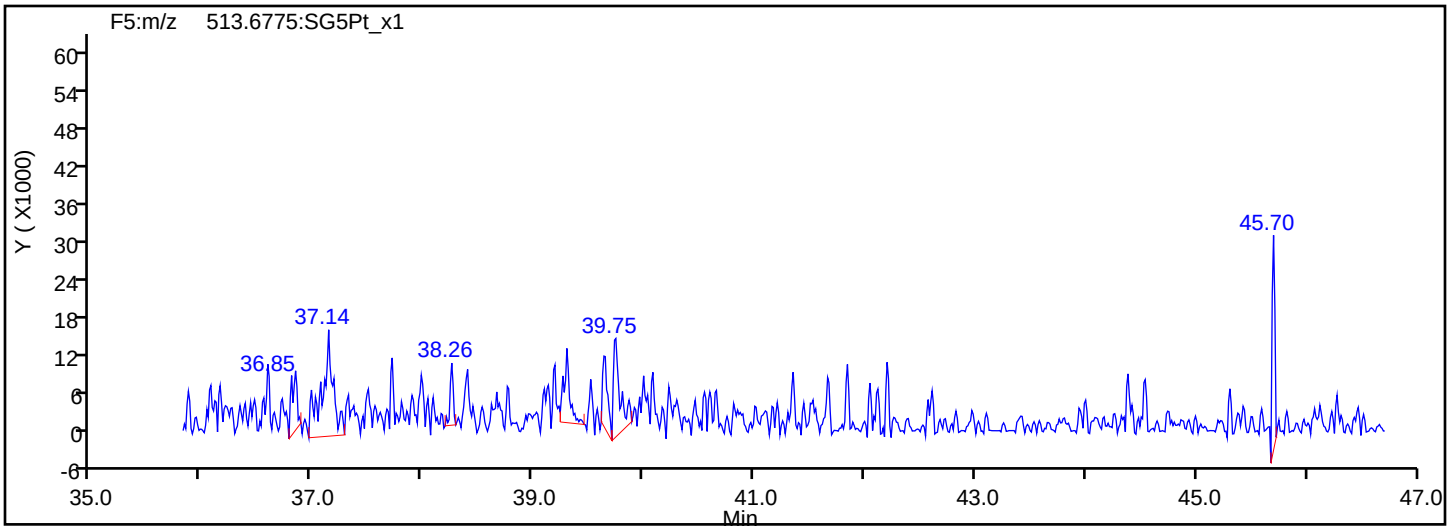
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass



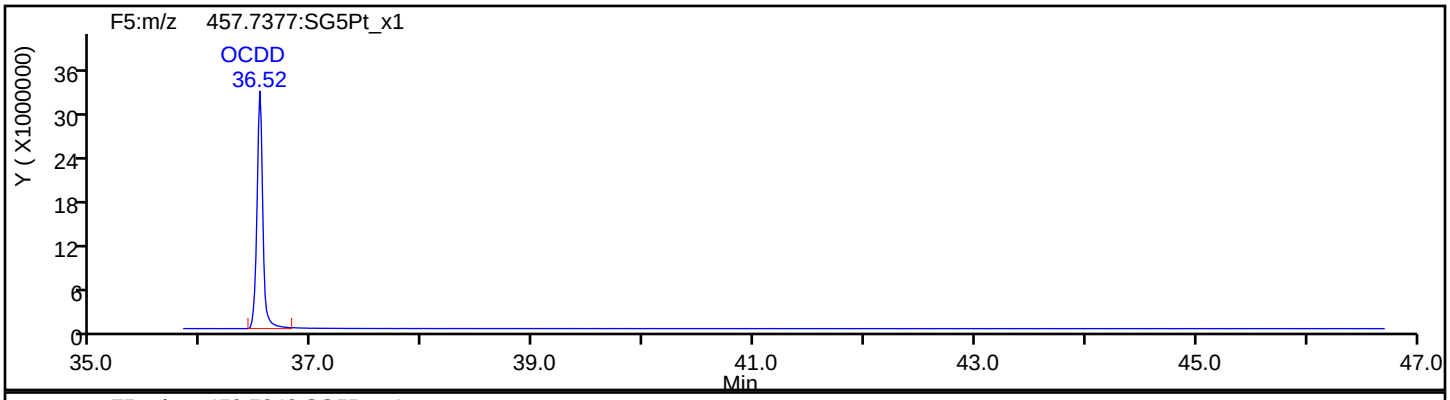
Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

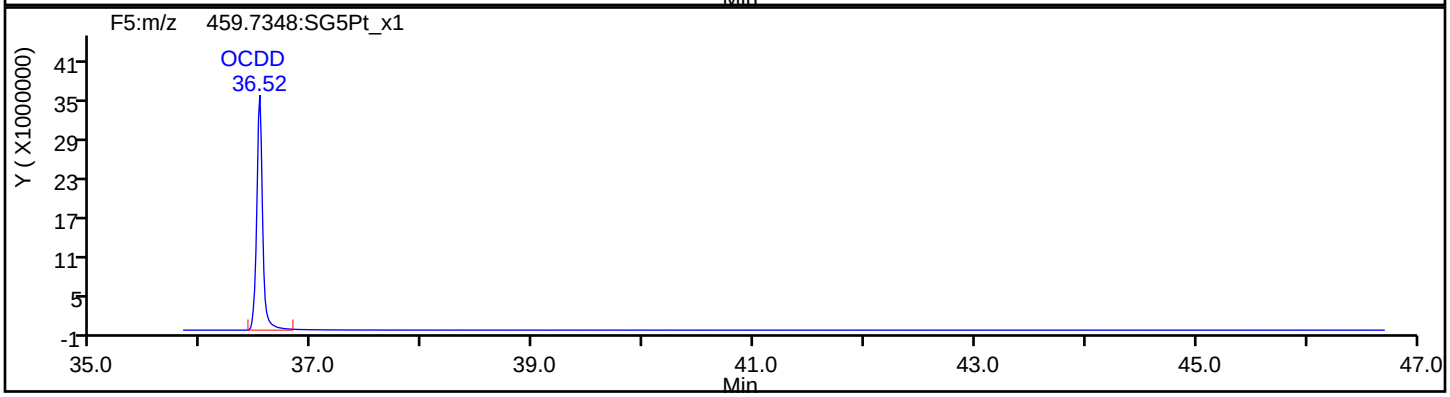
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d

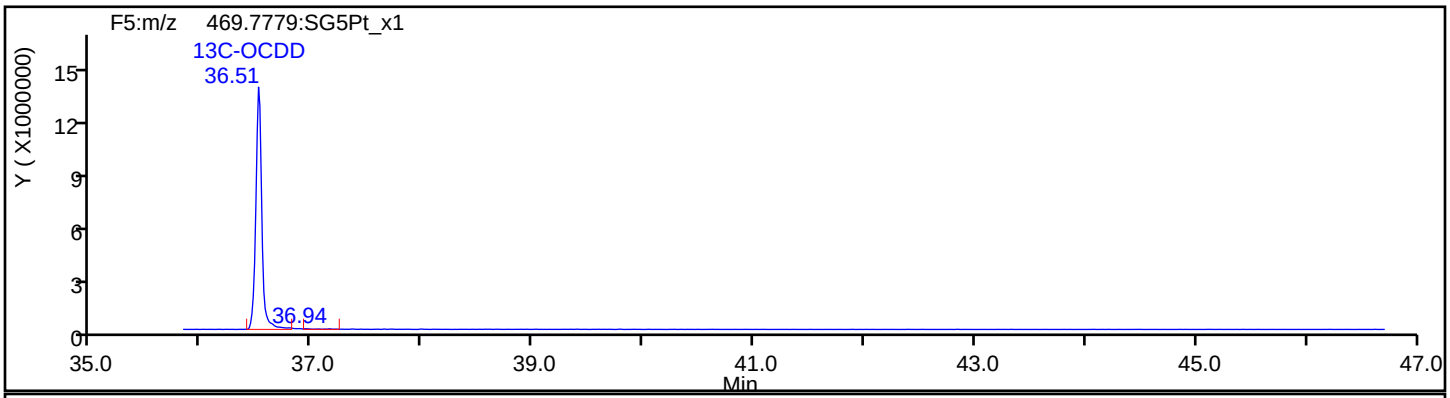
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm

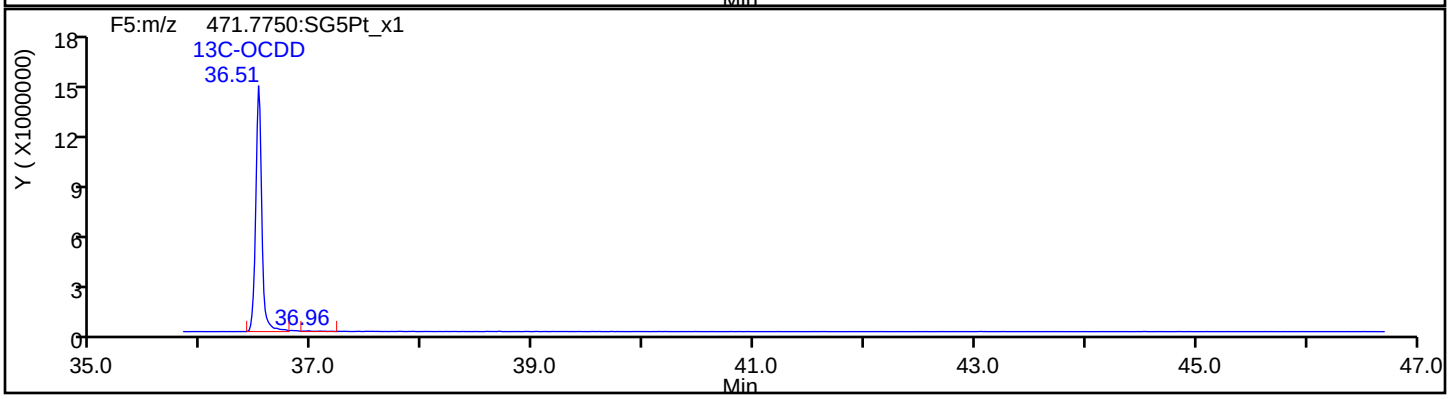
OCDD





OCDD Standards

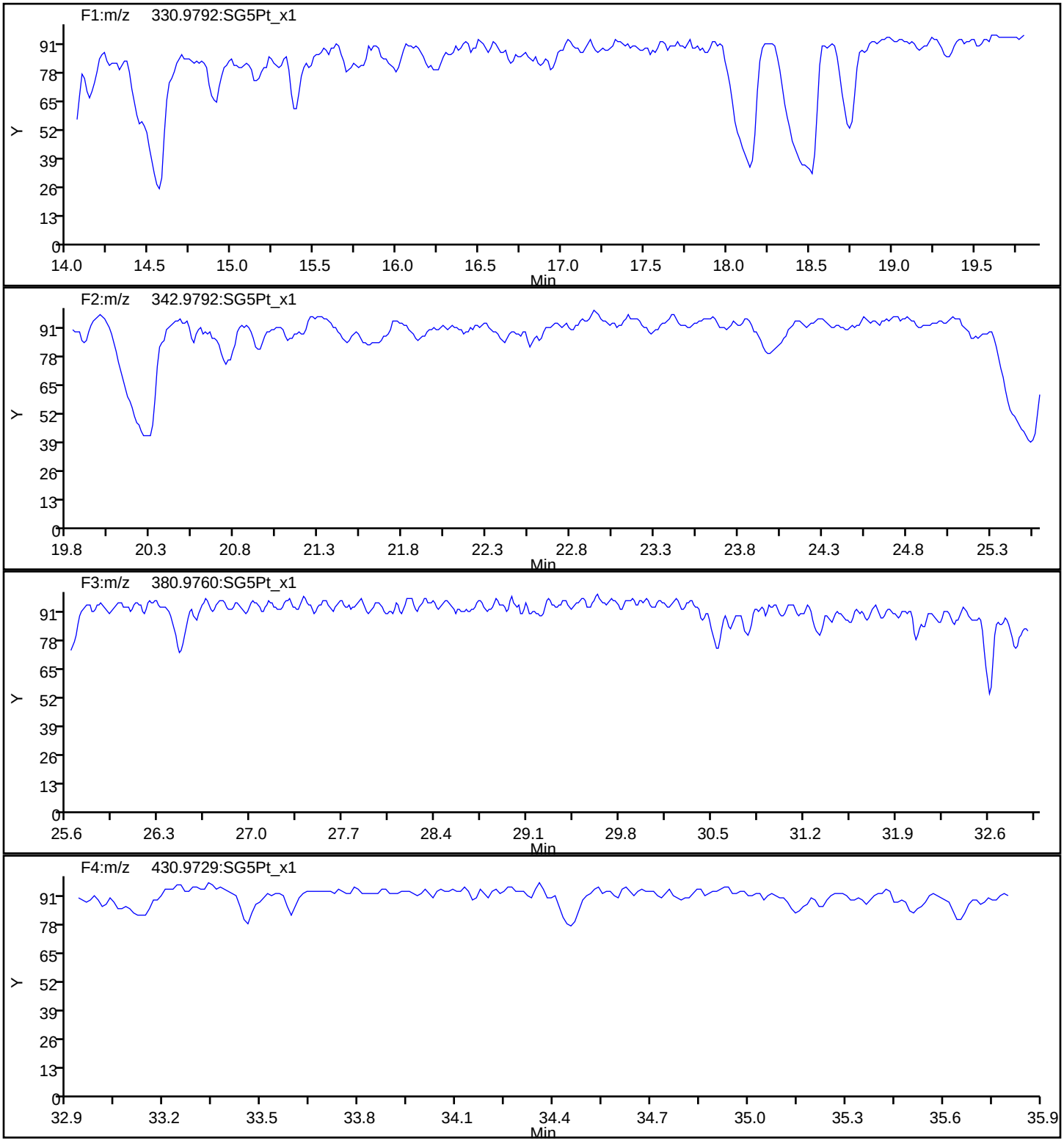




Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

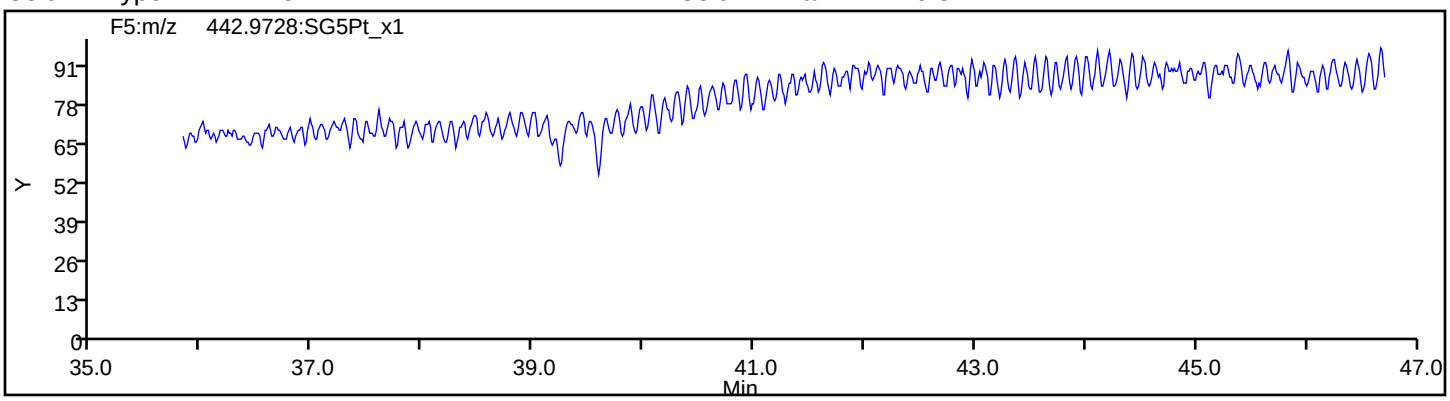
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:34:49 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_74.d		
Injection Date:	22-Jul-2019 12:16:36	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309104	Sample Line#:	74
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-21_20190716 RA Lab Sample ID: 580-87706-14 RA

Matrix: Solid Lab File ID: 22JL19A4D2_009.d

Analysis Method: 1613B Date Collected: 07/16/2019 14:08

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.01(g) Date Analyzed: 07/22/2019 15:58

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 56.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	14		2.3	0.20

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	78		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	89		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_009.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 15:58:28 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-14-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	15.030	85280043	0.78	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.114	91065353	0.79	1.3652	78.2	78.2	0.1798	0.1798	78.22	
2,3,7,8-TCDF	16.127	3130070	0.74	1.1747	2.926	2.926	0.0423	0.0423		
D 13C-2,3,7,8-TCDD	14.755	59315685	0.80	0.9684	71.8	71.8	0.1215	0.1215	71.83	
$ 37Cl4-2,3,7,8-TCDD	14.755	39093414		1.2853	35.7	35.7	0.0314	0.0314	89.17	
2,3,7,8-TCDD	14.660						0.0423	0.0423		

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_009.d
Lims ID: 580-87706-C-14-A
Client ID: 22T-SG-21_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 15:58:28 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-14-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

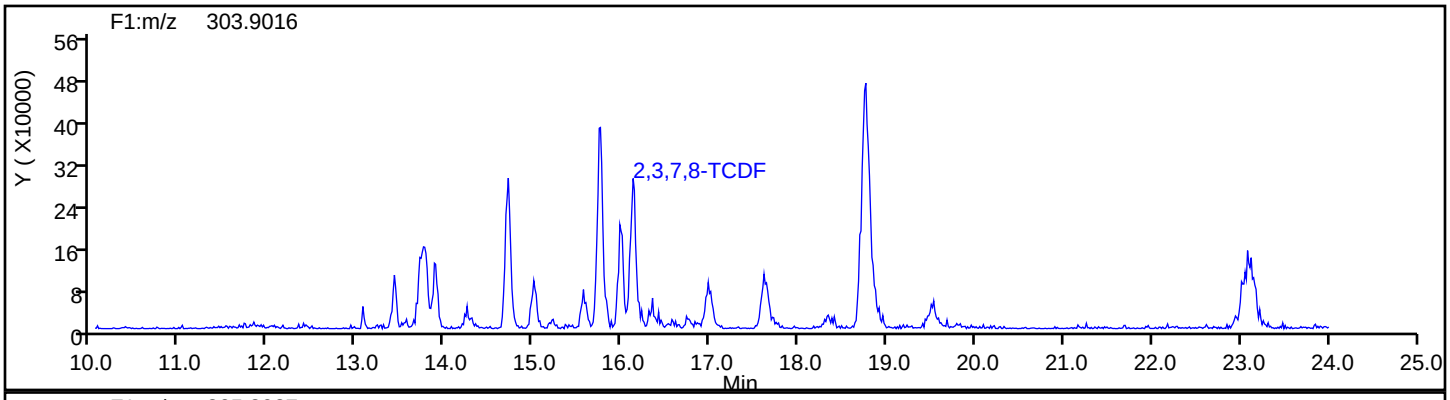
Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	15.030	14.915	7		37443211	7721115	4657	11642	1658		
333.9339	15.030	14.915	7		47836832	9625584	3504	8760	2747	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.114	16.068	4	1.072	40315588	8335845	10163	25407	820		
317.9389	16.114	16.068	4	1.072	50749765	10484994	6865	17162	1527	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.127	16.075	3	1.001	1332517	283858	1717	4292	165		
305.8987	16.127	16.075	3	1.001	1797553	409786	2020	5050	203	0.74(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.755	14.667	7	0.982	26396186	5651428	4657	11642	1214		
333.9339	14.742	14.667	6	0.981	32919499	6944757	3504	8760	1982	0.80(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.755	14.655	6	0.982	39093414	8288252	2802	7005	2958		
2,3,7,8-TCDD											
319.8965	14.675						1467	3667			
321.8936	14.675						1147	2867			

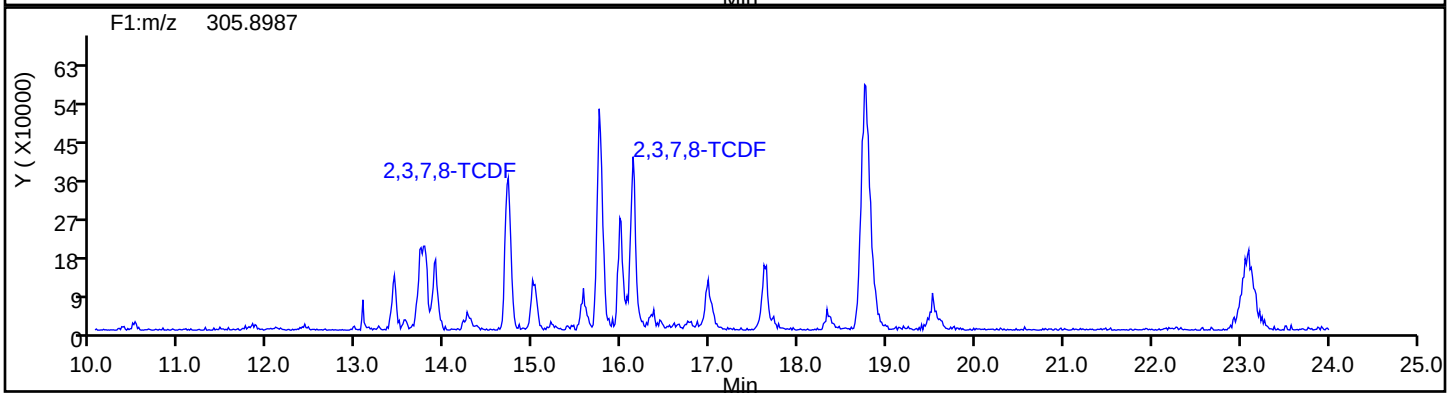
Report Date: 22-Jul-2019 20:22:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

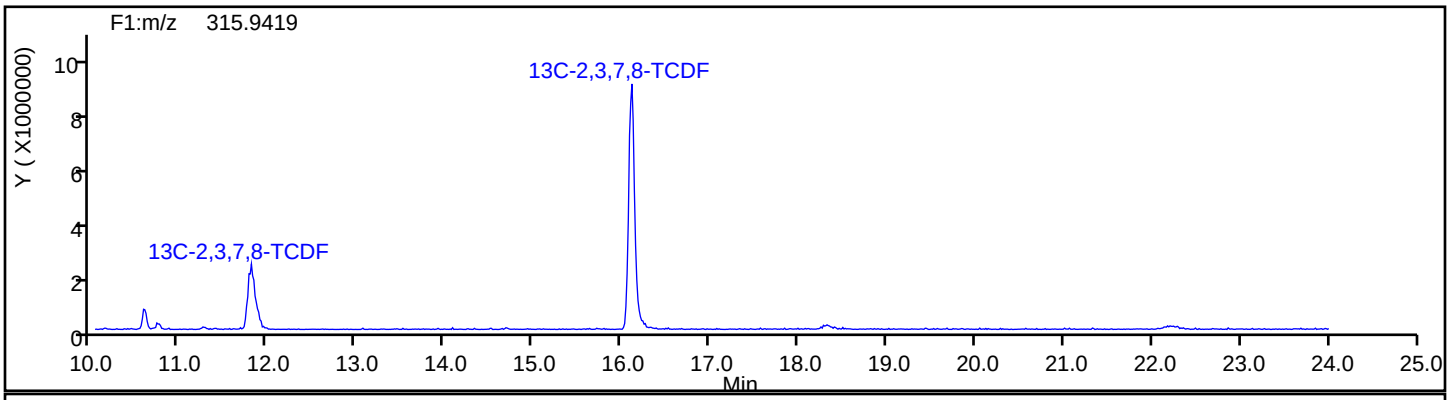
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_009.d		
Injection Date:	22-Jul-2019 15:58:28	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309356	Sample Line#:	9
Column Type:	DB-225	Column Dia:	0.32 mm

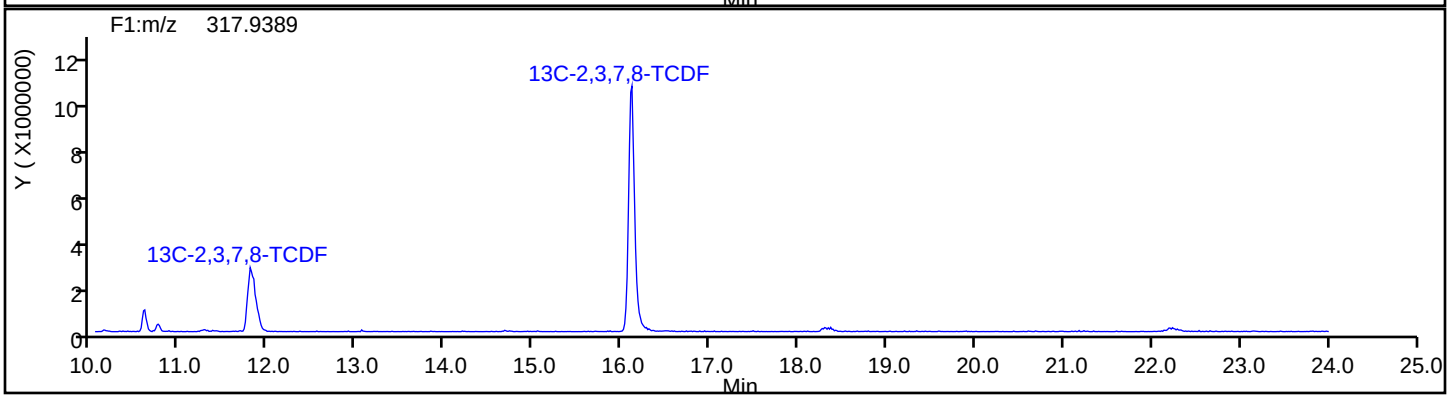
TCDF





TCDF Standards



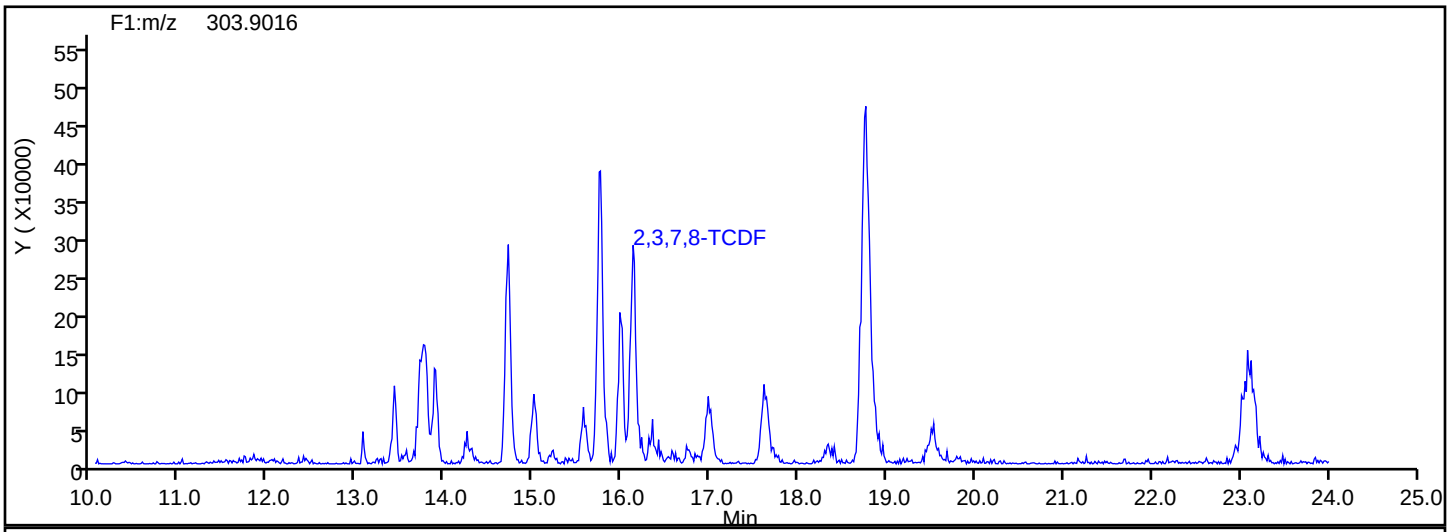


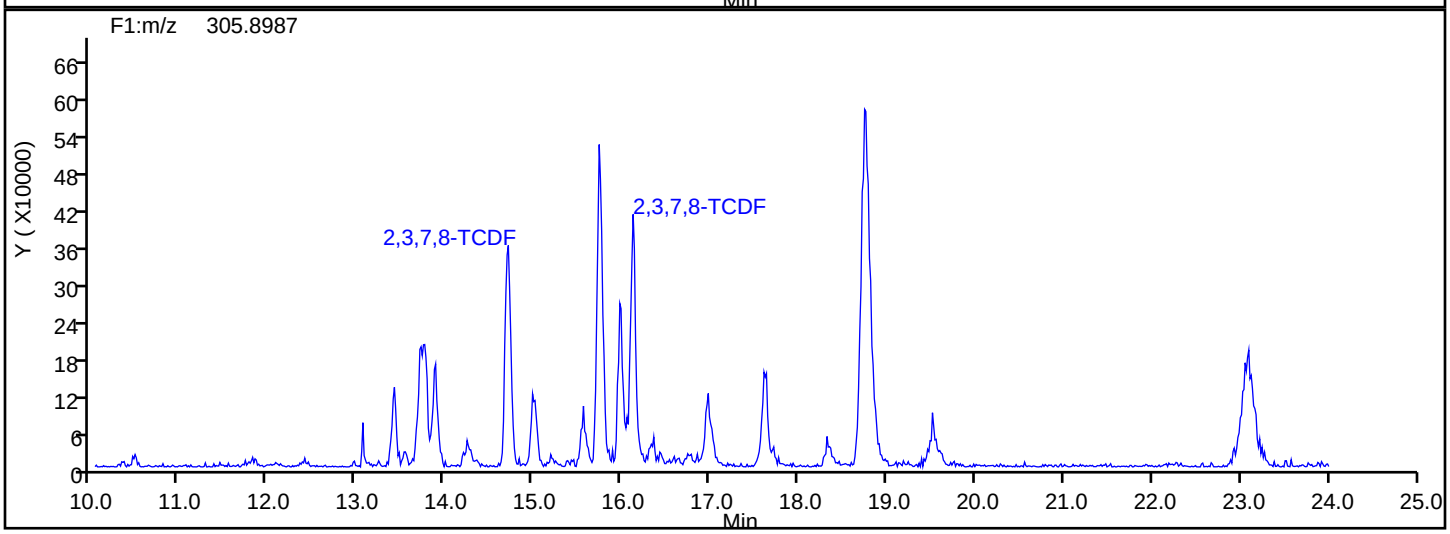
Report Date: 22-Jul-2019 20:22:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

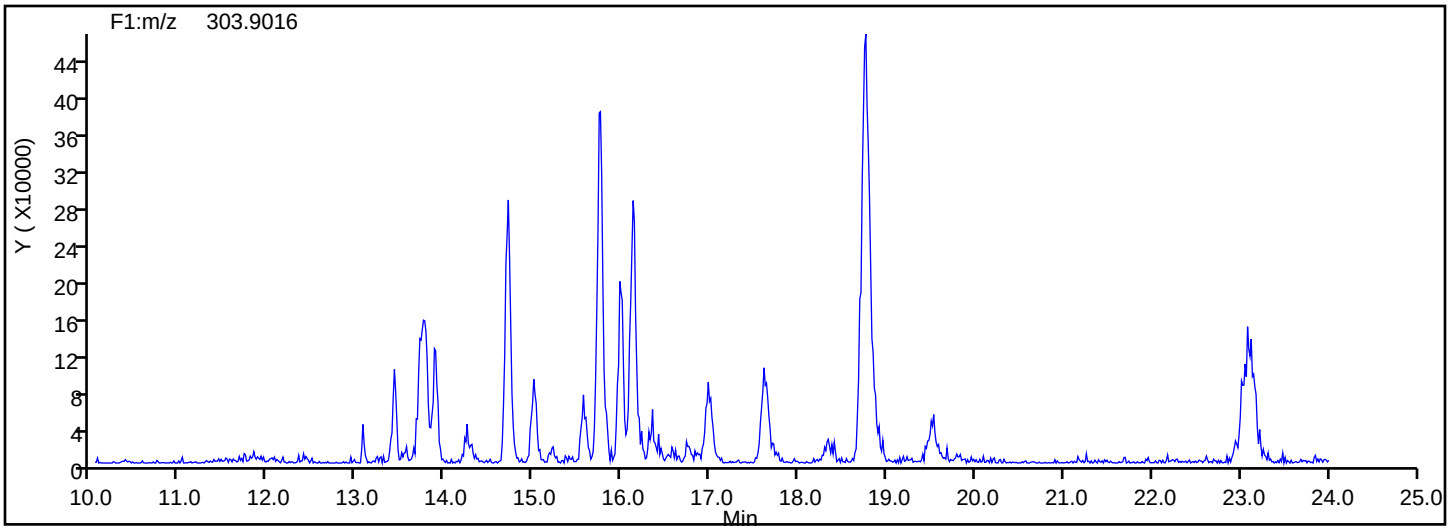
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_009.d		
Injection Date:	22-Jul-2019 15:58:28	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309356	Sample Line#:	9
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

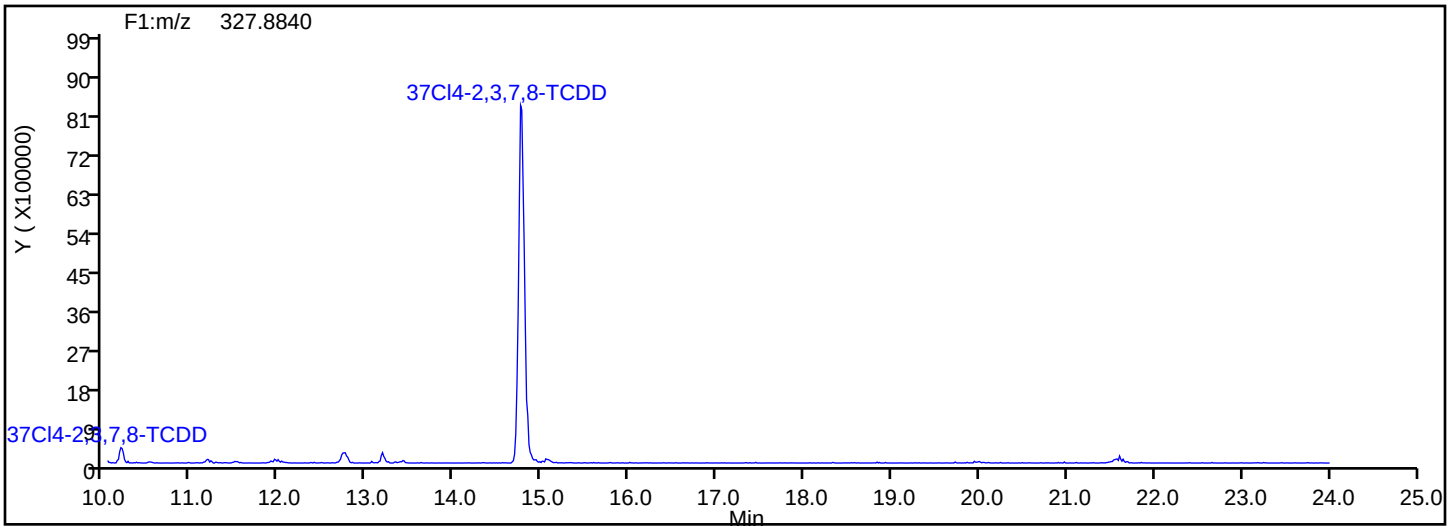


Report Date: 22-Jul-2019 20:22:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

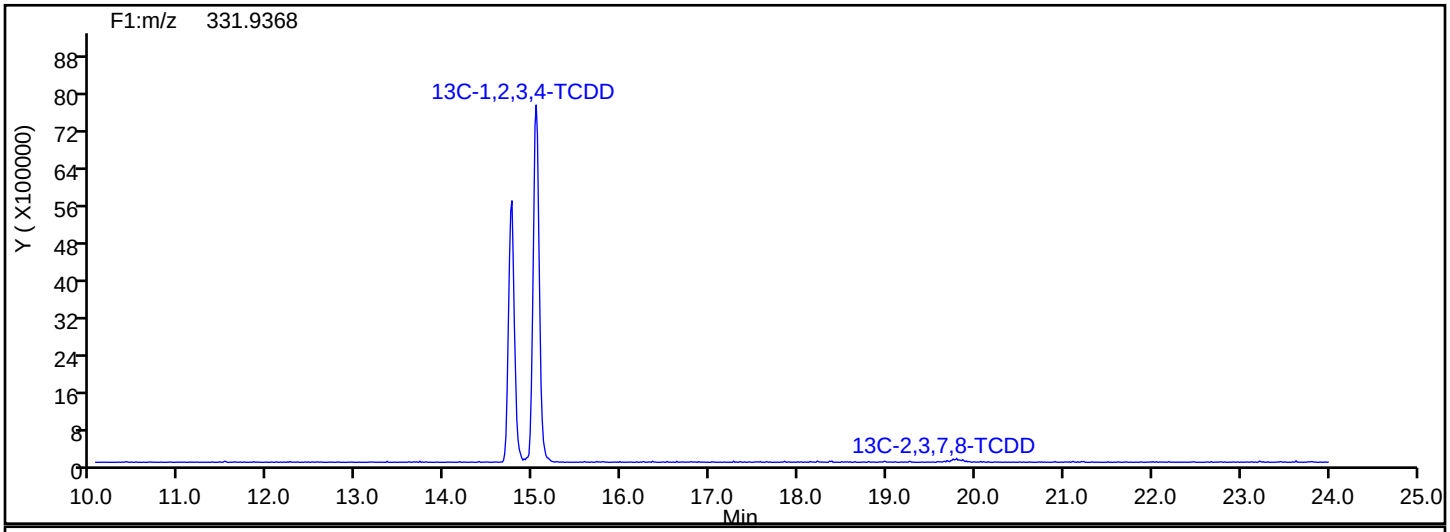
Eurofins TestAmerica, Sacramento

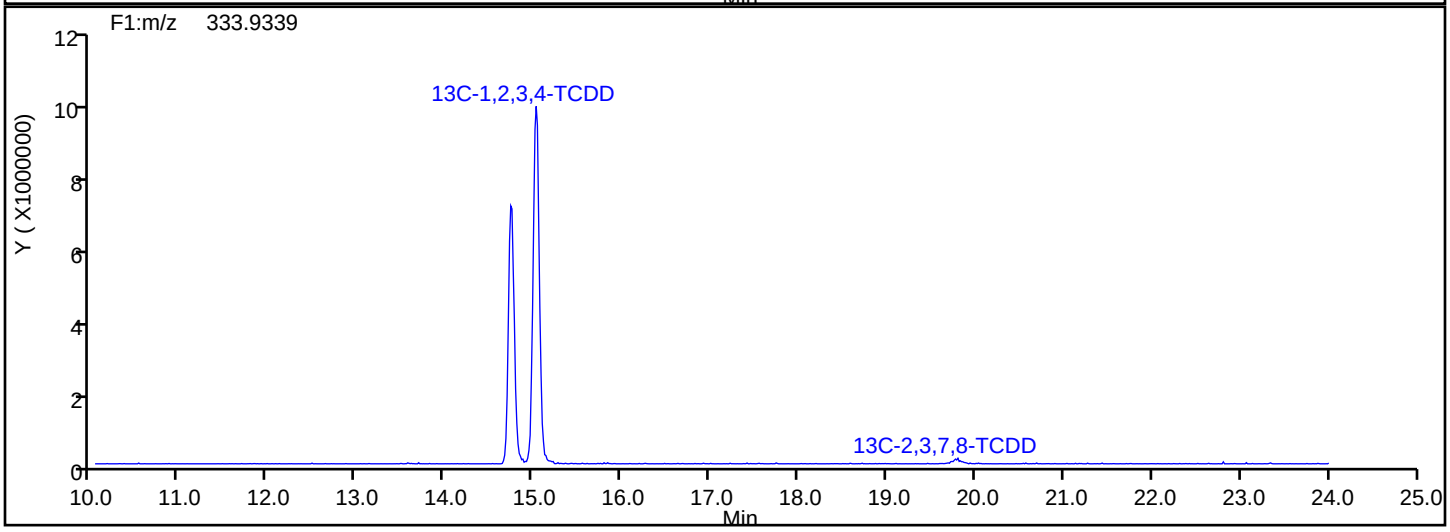
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_009.d		
Injection Date:	22-Jul-2019 15:58:28	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309356	Sample Line#:	9
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

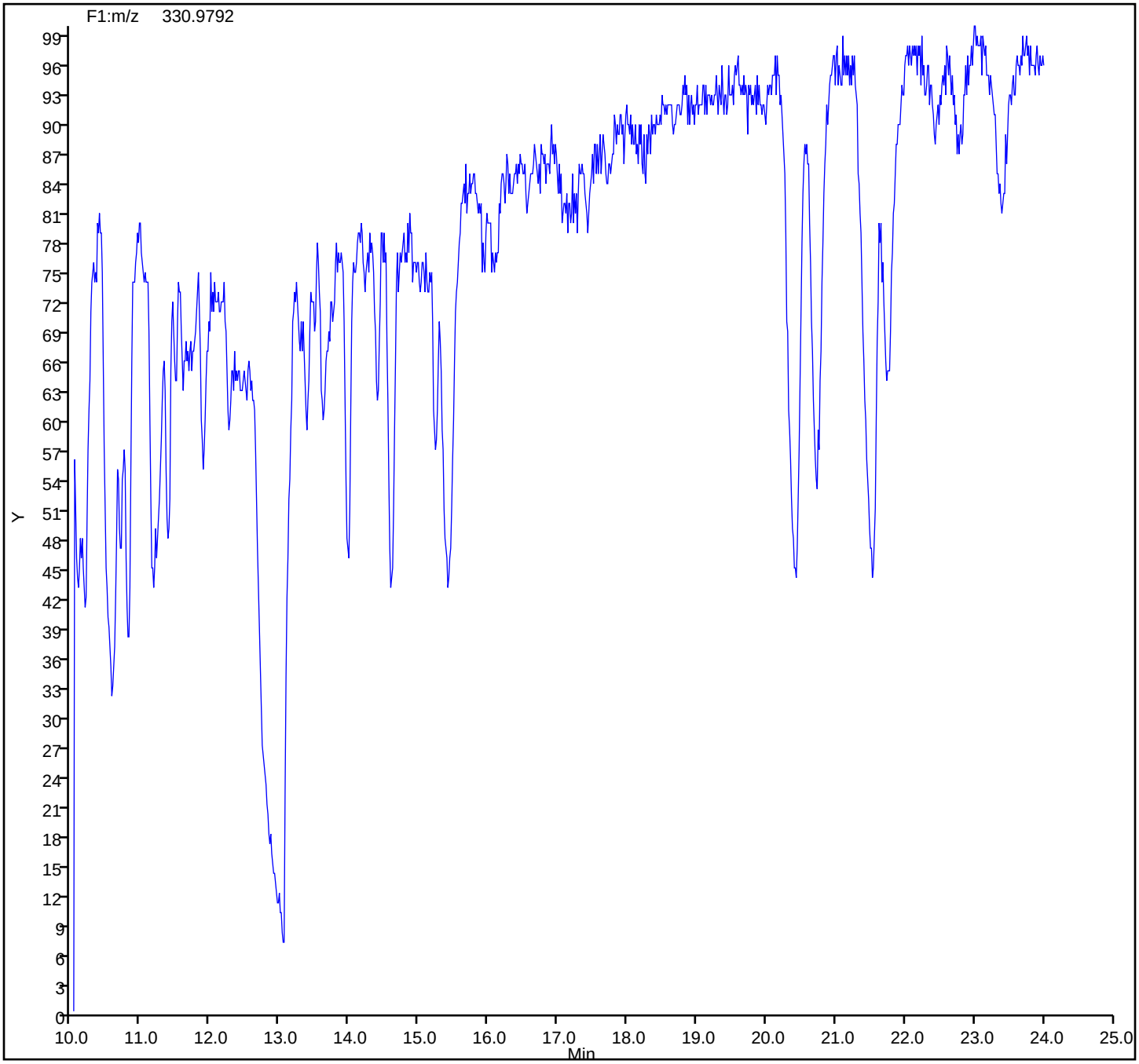




Report Date: 22-Jul-2019 20:22:00 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_009.d		
Injection Date:	22-Jul-2019 15:58:28	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-21_20190716		
Worklist#:	309356	Sample Line#:	9
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Matrix: Solid Lab File ID: 19JL19A3D5_75.d

Analysis Method: 1613B Date Collected: 07/16/2019 14:24

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.08(g) Date Analyzed: 07/22/2019 13:04

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	ND		2.3	0.31
40321-76-4	1,2,3,7,8-PeCDD	ND		11	0.45
57117-41-6	1,2,3,7,8-PeCDF	25		11	0.57
57117-31-4	2,3,4,7,8-PeCDF	6.7	J	11	0.62
39227-28-6	1,2,3,4,7,8-HxCDD	1.4	J q B	11	0.42
57653-85-7	1,2,3,6,7,8-HxCDD	5.8	J	11	0.41
19408-74-3	1,2,3,7,8,9-HxCDD	3.2	J	11	0.39
70648-26-9	1,2,3,4,7,8-HxCDF	29		11	0.57
57117-44-9	1,2,3,6,7,8-HxCDF	7.8	J	11	0.62
72918-21-9	1,2,3,7,8,9-HxCDF	1.9	J B	11	0.31
60851-34-5	2,3,4,6,7,8-HxCDF	1.7	J	11	0.39
35822-46-9	1,2,3,4,6,7,8-HpCDD	120	B	11	1.1
67562-39-4	1,2,3,4,6,7,8-HpCDF	24		11	0.55
55673-89-7	1,2,3,4,7,8,9-HpCDF	3.6	J q	11	0.63
3268-87-9	OCDD	1200	B	23	0.90
39001-02-0	OCDF	67	B	23	0.44

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	69		25-164
109719-79-1	13C-1,2,3,7,8-PeCDD	75		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	77		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	78		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	62		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	63		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	69		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	60		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	65		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	72		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	66		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	66		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	74		26-138
114423-97-1	13C-OCDD	66		17-157

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Matrix: Solid Lab File ID: 19JL19A3D5_75.d

Analysis Method: 1613B Date Collected: 07/16/2019 14:24

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.08(g) Date Analyzed: 07/22/2019 13:04

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309104 Units: pg/g

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	94		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:04:04 ALS Bottle#: 54 Worklist Smp#: 75
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-15-A 580-87706-C-15-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:40:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 12:40:18

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	209627864	0.83	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	217039805	0.78	1.3908	74.4	74.4	0.1960	0.1960	74.44	
2,3,7,8-TCDF	16.705	4538566	0.75	0.9710	2.153	2.153	0.0764	0.0764		
A Non-2,3,7,8-sub-TCDF	16.402	7247871	0.77	0.9710	3.552	3.439	0.0764	1.862		RQ
S Total TCDF					5.705	5.592	0.0764	0.0764		RQ
D 13C-2,3,7,8-TCDD	17.355	142286453	0.81	0.9819	69.1	69.1	0.1798	0.1798	69.13	
2,3,7,8-TCDD	17.355						0.0682	0.0682		
$ 37Cl4-2,3,7,8-TCDD	17.370	96221888		1.2205	37.6	37.6	0.1532	0.1532	94.02	
A Non-2,3,7,8-sub-TCDD	16.833						0.0682	0.0682		
S Total TCDD							0.0682	0.0682		
D 13C-1,2,3,7,8-PeCDF	21.332	185853619	1.59	1.1585	76.5	76.5	0.2045	0.2045	76.53	
1,2,3,7,8-PeCDF	21.359	9764231	1.71	0.9633	5.454	5.454	0.1248	0.1248		M
D 13C-2,3,4,7,8-PeCDF	22.559	187711022	1.59	1.1532	77.7	77.7	0.2054	0.2054	77.65	
2,3,4,7,8-PeCDF	22.586	2638909	1.55	0.9495	1.481	1.481	0.1362	0.1362		
A F1 PeCDFs	19.215	1645547	1.68	0.9564	0.9211	0.9211	0.0464	0.9211		
A Non-2,3,7,8-sub-PeCDF	22.104	9170917	1.55	0.9564	5.280	5.134	0.1303	2.970		RQMa
S Total PeCDF					13.1	13.0	0.1305	0.1305		RQ
D 13C-1,2,3,7,8-PeCDD	23.227	116286809	1.59	0.7431	74.6	74.6	0.1457	0.1457	74.65	
1,2,3,7,8-PeCDD	23.254						0.0995	0.0995		
A Non-2,3,7,8-sub-PeCDD	22.232	830972	1.55	1.0635	0.6913	0.6719	0.0995	0.5078		RQ
S Total PeCDD					0.6913	0.6719	0.0995	0.0995		RQ
D 13C-1,2,3,4,7,8-HxCDF	29.128	144450831	0.51	0.9837	69.3	69.3	0.2603	0.2603	69.34	
1,2,3,4,7,8-HxCDF	29.169	11133138	1.24	1.2173	6.331	6.331	0.1256	0.1256		
D 13C-1,2,3,6,7,8-HxCDF	29.421	147779960	0.53	1.1554	60.4	60.4	0.2216	0.2216	60.40	
1,2,3,6,7,8-HxCDF	29.475	2889292	1.14	1.1311	1.728	1.728	0.1376	0.1376		
D 13C-2,3,4,6,7,8-HxCDF	30.660	141572283	0.51	1.0361	64.5	64.5	0.2471	0.2471	64.52	
2,3,4,6,7,8-HxCDF	30.660	628205	1.37	1.1710	0.3789	0.3789	0.0852	0.0852		
D 13C-1,2,3,7,8,9-HxCDF	31.672	138334430	0.49	0.9034	72.3	72.3	0.2834	0.2834	72.31	
1,2,3,7,8,9-HxCDF	31.685	670999	1.28	1.1787	0.4115	0.4115	0.0694	0.0694		
A Non-2,3,7,8-sub-HxCDF	29.135	11656695	1.15	1.1745	6.939	6.939	0.0967	3.283		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					15.8	15.8	0.1045	0.1045		
* 13C-1,2,3,7,8,9-HxCDD	31.459	211767009	1.27	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.926	109018340	1.28	0.8287	62.1	62.1	0.1892	0.1892	62.12	
1,2,3,4,7,8-HxCDD	30.939	338901	1.24	1.0267	0.3317	0.3028	0.0926	0.0926		RQMa
D 13C-1,2,3,6,7,8-HxCDD	31.059	125874775	1.29	0.9495	62.6	62.6	0.1651	0.1651	62.60	
1,2,3,6,7,8-HxCDD	31.086	1584111	1.19	0.9771	1.288	1.288	0.0914	0.0914		M
1,2,3,7,8,9-HxCDD	31.485	885578	1.07	1.0616	0.7103	0.7103	0.0868	0.0868		
A Non-2,3,7,8-sub-HxCDD	29.926	8885791	1.24	1.0218	7.465	7.405	0.0901	4.188		RQ
S Total HxCDD					9.795	9.706	0.0902	0.0902		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	101411396	0.42	0.7285	65.7	65.7	0.4646	0.4646	65.74	
1,2,3,4,6,7,8-HpCDF	33.335	7835624	1.04	1.4373	5.376	5.376	0.1203	0.1203		
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	102991284	0.45	0.6556	74.2	74.2	0.5163	0.5163	74.18	
1,2,3,4,7,8,9-HpCDF	34.429	1067720	1.04	1.3091	0.8832	0.7919	0.1388	0.1388		RQ
A Non-2,3,7,8-sub-HpCDF	33.894	14469253	1.08	1.3732	10.3	10.3	0.1290	10.3		
S Total HpCDF					16.6	16.5	0.1295	0.1295		RQ
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	97991843	1.04	0.6978	66.3	66.3	0.2932	0.2932	66.31	
1,2,3,4,6,7,8-HpCDD	34.150	25643770	1.02	1.0102	25.9	25.9	0.2421	0.2421		
A Non-2,3,7,8-sub-HpCDD	35.074	30687437	1.02	1.0102	31.0	31.0	0.2421	31.0		a
S Total HpCDD					56.9	56.9	0.2421	0.2421		
D 13C-OCDD	36.486	133802952	0.92	0.4780	132.2	132.2	0.1475	0.1475	66.10	
OCDF	36.569	13304899	0.94	1.3501	14.7	14.7	0.0973	0.0973		
OCDD	36.498	192105391	0.90	1.0627	270.2	270.2	0.1982	0.1982		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 13:04:04 ALS Bottle#: 54 Worklist Smp#: 75
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-15-A 580-87706-C-15-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 12:40:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 12:40:18

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		94815007	24803789	26393	65982	940		
333.9339	17.173	17.158	1		114812857	29698643	12098	30245	2455	0.83(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	95399498	24587110	23279	58197	1056		
317.9389	16.690	16.690	0	0.972	121640307	31008164	36165	90412	857	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.001	1949385	459389	7358	18395	62		
305.8987	16.705	16.705	0	1.001	2589181	630024	9138	22845	69	0.75(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											RQ
303.9016	14.739	16.402	-100	0.883	158089	49579	7358	18395	7		
305.8987	14.739	16.402	-100	0.883	216144	60010	9138	22845	7	0.73(0.65-0.89)	
303.9016	14.905	16.402	-90	0.893	243899	68547	7358	18395	9		
305.8987	14.905	16.402	-90	0.893	339529	97665	9138	22845	11	0.72(0.65-0.89)	
303.9016	15.147	16.402	-75	0.908	151898	45022	7358	18395	6		
305.8987	15.147	16.402	-75	0.908	247695	78678	9138	22845	9	0.61(0.65-0.89)	
	Empc Correction				197270	58470	9138	22845	6		
303.9016	15.389	16.402	-61	0.922	324109	83924	7358	18395	11		
305.8987	15.389	16.402	-61	0.922	466132	123809	9138	22845	14	0.70(0.65-0.89)	
303.9016	15.873	16.402	-32	0.951	202037	48756	7358	18395	7		
	Empc Correction				152843	41690	7358	18395	6		
305.8987	15.858	16.402	-33	0.950	198498	54144	9138	22845	6	1.02(0.65-0.89)	
303.9016	16.085	16.402	-19	0.964	228565	39335	7358	18395	5		
305.8987	16.085	16.402	-19	0.964	344776	58387	9138	22845	6	0.66(0.65-0.89)	
303.9016	16.357	16.402	-3	0.980	1789763	413652	7358	18395	56		
305.8987	16.357	16.402	-3	0.980	2133557	508363	9138	22845	56	0.84(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
303.9016	17.098	16.402	42	1.024	269863	29044	7358	18395	4		
	Empc Correction				131726	33221	7358	18395	5		
305.8987	17.098	16.402	42	1.024	171073	43145	9138	22845	5	1.58(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	63547979	15104348	26393	65982	572		
333.9339	17.355	17.355	0	1.011	78738474	18926341	12098	30245	1564	0.81(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.355						6256	15640			
321.8936	17.355						3448	8620			
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	96221888	22566252	40776	101940	553		
A Non-2,3,7,8-sub-TCDD											
319.8965	16.833						6256	15640			
321.8936	16.833						3448	8620			
13C-1,2,3,7,8-PeCDF											
351.9000	21.332	21.332	0	1.242	114081192	21439680	30821	77052	696		
353.8970	21.332	21.332	0	1.242	71772427	13415082	20824	52060	644	1.59(1.32-1.78)	
1,2,3,7,8-PeCDF											M
339.8597	21.359	21.345	1	1.001	6167385	1244466	7161	17902	174		
341.8567	21.345	21.345	0	1.001	3596846	695447	9596	23990	72	1.71(1.32-1.78)	M
13C-2,3,4,7,8-PeCDF											
351.9000	22.559	22.559	0	1.314	115210772	19816704	30821	77052	643		
353.8970	22.559	22.559	0	1.314	72500250	12578801	20824	52060	604	1.59(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586	22.586	0	1.001	1605793	283156	7161	17902	40		
341.8567	22.586	22.586	0	1.001	1033116	194308	9596	23990	20	1.55(1.32-1.78)	
A F1 PeCDFs											
339.8597	18.685	19.215	-32	0.876	1032304	213774	2055	5137	104		
341.8567	18.685	19.215	-32	0.876	613243	140893	3916	9790	36	1.68(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDF											RQMa
339.8597	20.118	22.104	-119	0.943	3211567	628863	7161	17902	88		
341.8567	20.118	22.104	-119	0.943	2094166	421501	9596	23990	44	1.53(1.32-1.78)	
339.8597	21.222	22.104	-53	0.995	277557	64678	7161	17902	9		M
	Empc Correction				192415	53242	7161	17902	7		
341.8567	21.236	22.104	-52	0.996	124139	34350	9596	23990	4	2.24(1.32-1.78)	
339.8597	21.823	22.104	-17	1.023	1516766	248754	7161	17902	35		M
341.8567	21.823	22.104	-17	1.023	997146	183905	9596	23990	19	1.52(1.32-1.78)	M
339.8597	22.900	22.104	48	1.074	804945	123440	7161	17902	17		
	Empc Correction				628946	117331	7161	17902	16		
341.8567	22.886	22.104	47	1.073	405772	75698	9596	23990	8	1.98(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	23.227	23.227	0	1.353	71350412	11818574	12467	31167	948		
369.8919	23.227	23.227	0	1.353	44936397	7498684	11141	27852	673	1.59(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						5514	13785			
357.8516	23.254						2660	6650			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-PeCDD											RQ
355.8546	20.309	22.232	-115	0.874	375562	70885	5514	13785	13		
357.8516	20.309	22.232	-115	0.874	252413	58527	2660	6650	22	1.49(1.32-1.78)	
355.8546	20.977	22.232	-75	0.903	147282	22826	5514	13785	4		
	Empc Correction				123390	24776	5514	13785	4		
357.8516	21.004	22.232	-73	0.904	79607	15985	2660	6650	6	1.85(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.128	29.115	1	0.926	48481175	5849279	18526	46315	316		
385.8610	29.115	29.115	0	0.926	95969656	11756311	31248	78120	376	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.169	29.155	1	1.001	6162272	750080	6295	15737	119		
375.8178	29.155	29.155	0	1.001	4970866	605609	4471	11177	135	1.24(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.421	29.421	0	0.935	51449001	5971870	18526	46315	322		
385.8610	29.421	29.421	0	0.935	96330959	11316758	31248	78120	362	0.53(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.475	29.462	1	1.002	1537871	173208	6295	15737	28		
375.8178	29.448	29.462	-1	1.001	1351421	151866	4471	11177	34	1.14(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.660	30.660	0	0.975	47548218	8906895	18526	46315	481		
385.8610	30.660	30.660	0	0.975	94024065	18058707	31248	78120	578	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.660	30.687	-2	1.000	362762	55133	6295	15737	9		
375.8178	30.673	30.687	-1	1.000	265443	45339	4471	11177	10	1.37(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.007	45481981	10994297	18526	46315	593		
385.8610	31.672	31.672	0	1.007	92852449	21908605	31248	78120	701	0.49(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	376200	94119	6295	15737	15		
375.8178	31.685	31.685	0	1.000	294799	79894	4471	11177	18	1.28(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	26.505	29.135	-157	0.910	602011	85756	6295	15737	14		
375.8178	26.479	29.135	-159	0.909	556821	78037	4471	11177	17	1.08(1.05-1.43)	
373.8208	26.838	29.135	-138	0.921	2077061	285863	6295	15737	45		
375.8178	26.825	29.135	-138	0.921	1856696	232629	4471	11177	52	1.12(1.05-1.43)	
373.8208	28.063	29.135	-64	0.963	3013608	383892	6295	15737	61		
375.8178	28.063	29.135	-64	0.963	2501837	333780	4471	11177	75	1.20(1.05-1.43)	
373.8208	31.792	29.135	159	1.091	548606	137730	6295	15737	22		
375.8178	31.792	29.135	159	1.091	500055	117332	4471	11177	26	1.10(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.459	31.472	-1		118613592	27023742	16408	41020	1647		
403.8529	31.459	31.472	-1		93153417	21572712	14068	35170	1533	1.27(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.926	30.926	0	0.983	61192499	13376294	16408	41020	815		
403.8529	30.926	30.926	0	0.983	47825841	10493707	14068	35170	746	1.28(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,7,8-HxCDD											RQMa
389.8157	30.939	30.953	-1	1.000	187606	40400	4525	11312	9		M
391.8127	30.953	30.953	0	1.001	183697	36956	4552	11380	8	1.02(1.05-1.43)	
	Empc Correction				151295	32580	4552	11380	7		
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	70962459	14316249	16408	41020	873		
403.8529	31.059	31.059	0	0.987	54912316	11092538	14068	35170	788	1.29(1.05-1.43)	
1,2,3,6,7,8-HxCDD											M
389.8157	31.086	31.086	0	1.001	859550	189180	4525	11312	42		M
391.8127	31.073	31.086	-1	1.000	724561	149654	4552	11380	33	1.19(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.485	31.485	0	1.018	457337	97584	4525	11312	22		
391.8127	31.472	31.485	-1	1.018	428241	82468	4552	11380	18	1.07(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											RQ
389.8157	27.930	29.926	-120	0.899	1753275	247655	4525	11312	55		
391.8127	27.930	29.926	-120	0.899	1501423	206168	4552	11380	45	1.17(1.05-1.43)	
389.8157	29.262	29.926	-40	0.942	407401	26700	4525	11312	6		
	Empc Correction				335376	36301	4525	11312	8		
391.8127	29.288	29.926	-38	0.943	270465	29275	4552	11380	6	1.51(1.05-1.43)	
389.8157	29.888	29.926	-2	0.962	2715995	344261	4525	11312	76		
391.8127	29.901	29.926	-2	0.963	2309257	296316	4552	11380	65	1.18(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.060	30177388	9714741	22611	56527	430		
419.8220	33.335	33.335	0	1.060	71234008	22679093	43185	107962	525	0.42(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.335	33.347	-1	1.000	3993772	1365972	15806	39515	86		
409.7789	33.335	33.347	-1	1.000	3841852	1213209	6603	16507	184	1.04(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	32081884	9627258	22611	56527	426		
419.8220	34.417	34.429	-1	1.094	70909400	21212202	43185	107962	491	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											RQ
407.7818	34.429	34.441	-1	1.000	544328	177687	15806	39515	11		
409.7789	34.429	34.441	-1	1.000	646499	209300	6603	16507	32	0.84(0.88-1.20)	
	Empc Correction				523392	170852	6603	16507	26		
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.639	33.894	-15	1.009	7520789	2498109	15806	39515	158		
409.7789	33.639	33.894	-15	1.009	6948464	2316573	6603	16507	351	1.08(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.085	49918942	15261884	15260	38150	1000		
437.8140	34.138	34.150	-1	1.085	48072901	14679048	24518	61295	599	1.04(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	12975668	4142977	15455	38637	268		
425.7737	34.150	34.162	-1	1.000	12668102	3934057	13831	34577	284	1.02(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.591	35.074	-89	0.984	15520907	4958016	15455	38637	321		a
425.7737	33.591	35.074	-89	0.984	15166530	4933795	13831	34577	357	1.02(0.88-1.20)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-OCDD											
469.7779	36.486	36.498	-1	1.160	63982345	16462745	6540	16350	2517		
471.7750	36.486	36.498	-1	1.160	69820607	18056909	7164	17910	2521	0.92(0.76-1.02)	
OCDF											
441.7428	36.569	36.582	-1	1.002	6431216	1646317	3645	9112	452		
443.7399	36.569	36.582	-1	1.002	6873683	1809087	5427	13567	333	0.94(0.76-1.02)	
OCDD											
457.7377	36.498	36.509	-1	1.000	90834306	24211008	6941	17352	3488		
459.7348	36.498	36.509	-1	1.000	101271085	27133120	7600	19000	3570	0.90(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Report Date: 23-Jul-2019 12:40:19 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-TCDF, RT: 16.402

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDF	0.971	D 13C-2,3,7,8-TCDF	100.000	217039805	55595274

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.971		100.000	217039805	55595274

Sum the Uncalibrated Results

RT	303.9016 Area	303.9016 Height	305.8987 Area	305.8987 Height	Amount	Ratio	Flags
14.739	158089	49579	216144	60010	0.1776	0.73	
14.905	243899	68547	339529	97665	0.2768	0.72	
15.147	151898	45022	247695	78678	0.1896	0.61	RQ
15.147	151898	45022	197270	58470	0.1657		Empc Correction
15.389	324109	83924	466132	123809	0.3750	0.70	
15.873	202037	48756	198498	54144	0.1900	1.02	RQ
15.873	152843	41690	198498	54144	0.1667		Empc Correction
16.085	228565	39335	344776	58387	0.2720	0.66	
16.357	1789763	413652	2133557	508363	1.86	0.84	
17.098	269863	29044	171073	43145	0.2092	1.58	RQ
17.098	131726	33221	171073	43145	0.1437		Empc Correction
Signal Totals:							
	3180892	774970	4066979	1003993			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	7485627	1802060				0.82	RQ
	7247871	1778963					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 3.552 = (7485627 * 100.000) / (217039805 * 0.971)
Empc Amount: 3.439 = (7247871 * 100.000) / (217039805 * 0.971)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

F1 PeCDFs, RT: 19.215

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	185853619	34854762
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	187711022	32395505

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	186782320	33625133

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
18.685	1032304	213774	613243	140893	0.9211	1.68	
Signal Totals:							
	1032304	213774	613243	140893			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1645547	354667				1.68	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.9211 = (1645547 * 100.000) / (186782320 * 0.956)

Report Date: 23-Jul-2019 12:40:19 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	185853619	34854762
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	187711022	32395505

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	186782320	33625133

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.118	3211567	628863	2094166	421501	2.97	1.53	
21.222	277557	64678	124139	34350	0.2249	2.24	RQMa
21.222	192415	53242	124139	34350	0.1772		Empc Correction
21.823	1516766	248754	997146	183905	1.41	1.52	M
22.900	804945	123440	405772	75698	0.6777	1.98	RQ
22.900	628946	117331	405772	75698	0.5792		Empc Correction
Signal Totals:							
	5549694	1048190	3621223	715454			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	9432058	1781189				1.60	RQMa
	9170917	1763644					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 5.280 = (9432058 * 100.000) / (186782320 * 0.956)
Empc Amount: 5.134 = (9170917 * 100.000) / (186782320 * 0.956)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 23-Jul-2019 12:40:19 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-PeCDD, RT: 22.232

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDD	1.063	D 13C-1,2,3,7,8-PeCDD	100.000	116286809	19317258

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.063		100.000	116286809	19317258

Sum the Uncalibrated Results

RT	355.8546 Area	355.8546 Height	357.8516 Area	357.8516 Height	Amount	Ratio	Flags
20.309	375562	70885	252413	58527	0.5078	1.49	
20.977	147282	22826	79607	15985	0.1835	1.85	RQ
20.977	123390	24776	79607	15985	0.1641		Empc Correction
Signal Totals:							
	498952	95661	332020	74512			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	854864	168223				1.57	RQ
	830972	170173					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6913 = (854864 * 100.000) / (116286809 * 1.063)
Empc Amount: 0.6719 = (830972 * 100.000) / (116286809 * 1.063)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-HxCDF, RT: 29.135

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDF	1.217	D 13C-1,2,3,4,7,8-HxCDF	100.000	144450831	17605590
1,2,3,6,7,8-HxCDF	1.131	D 13C-1,2,3,6,7,8-HxCDF	100.000	147779960	17288628
2,3,4,6,7,8-HxCDF	1.171	D 13C-2,3,4,6,7,8-HxCDF	100.000	141572283	26965602
1,2,3,7,8,9-HxCDF	1.179	D 13C-1,2,3,7,8,9-HxCDF	100.000	138334430	32902902

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.175		100.000	143034376	23690680

Sum the Uncalibrated Results

RT	373.8208 Area	373.8208 Height	375.8178 Area	375.8178 Height	Amount	Ratio	Flags
26.505	602011	85756	556821	78037	0.6898	1.08	
26.838	2077061	285863	1856696	232629	2.34	1.12	
28.063	3013608	383892	2501837	333780	3.28	1.20	
31.792	548606	137730	500055	117332	0.6242	1.10	
Signal Totals:							
	6241286	893241	5415409	761778			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	11656695	1655019				1.15	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 6.939 = (11656695 * 100.000) / (143034376 * 1.175)

Report Date: 23-Jul-2019 12:40:19 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-HxCDD, RT: 29.926

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027	D 13C-1,2,3,4,7,8-HxCDD	100.000	109018340	23870001
1,2,3,6,7,8-HxCDD	0.977	D 13C-1,2,3,6,7,8-HxCDD	100.000	125874775	25408787
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.022		100.000	117446557	24639394

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
27.930	1753275	247655	1501423	206168	2.71	1.17	
29.262	407401	26700	270465	29275	0.5649	1.51	RQ
29.262	335376	36301	270465	29275	0.5048		Empc Correction
29.888	2715995	344261	2309257	296316	4.19	1.18	
Signal Totals:							
	4804646	628217	4081145	531759			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	8957816	1150375				1.19	RQ
	8885791	1159976					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 7.465 = (8957816 * 100.000) / (117446557 * 1.022)
Empc Amount: 7.405 = (8885791 * 100.000) / (117446557 * 1.022)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-HpCDF, RT: 33.894

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDF	1.437	D 13C-1,2,3,4,6,7,8-HpCDF	100.000	101411396	32393834
1,2,3,4,7,8,9-HpCDF	1.309	D 13C-1,2,3,4,7,8,9-HpCDF	100.000	102991284	30839460

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.373		100.000	102201340	31616647

Sum the Uncalibrated Results

RT	407.7818 Area	407.7818 Height	409.7789 Area	409.7789 Height	Amount	Ratio	Flags
33.639	7520789	2498109	6948464	2316573	10.3	1.08	
Signal Totals:							
	7520789	2498109	6948464	2316573			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	14469253	4814682				1.08	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 10.310 = (14469253 * 100.000) / (102201340 * 1.373)

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Inject. Date: 22-Jul-2019 13:04:04 Dil. Factor: 1.0000
Sample Type: Client Sample
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 75

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	97991843	29940932

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	97991843	29940932

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.591	15520907	4958016	15166530	4933795	31.0	1.02	a
Signal Totals:							
	15520907	4958016	15166530	4933795			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	30687437	9891811				1.02	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 31.001 = (30687437 * 100.000) / (97991843 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

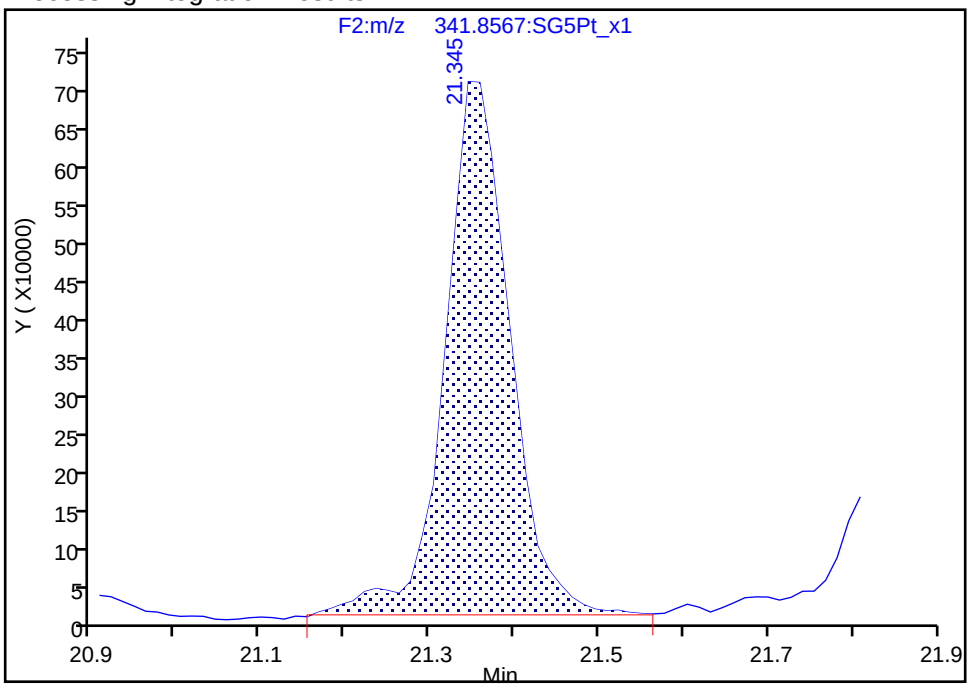
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d				
Injection Date:	22-Jul-2019 13:04:04	Instrument ID:	3D5		
Lims ID:	580-87706-C-15-A	Lab Sample ID:	320-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	54	Worklist Smp#:	75
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F2:HRSIR		

1,2,3,7,8-PeCDF, CAS: 57117-41-6

Signal: 2

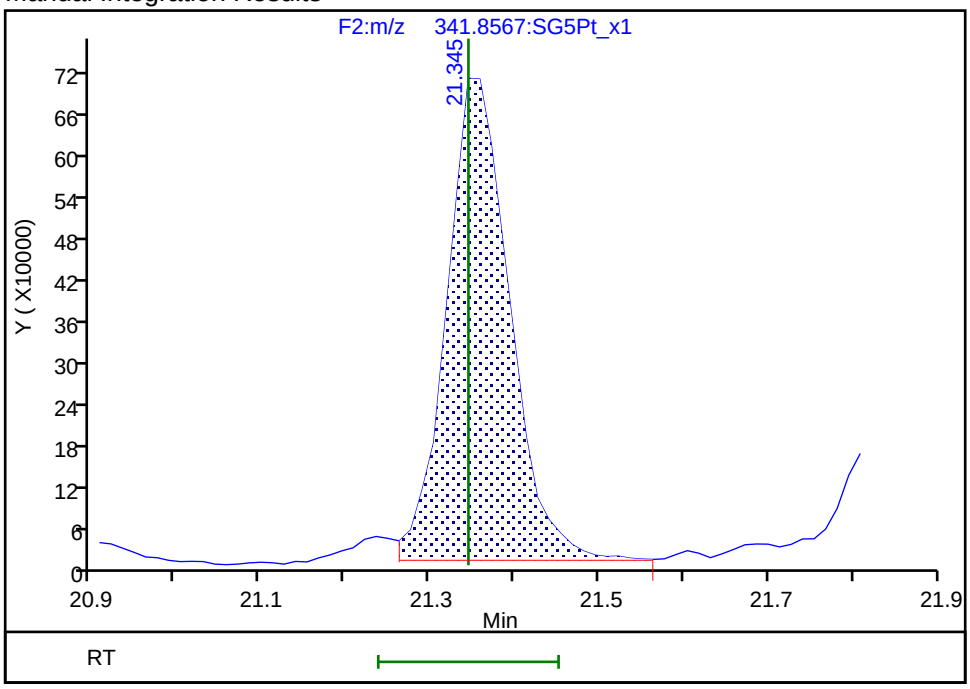
Processing Integration Results

RT: 21.35
Area: 3720986
Amount: 5.523048
Amount Units: pg/ul



Manual Integration Results

RT: 21.35
Area: 3596846
Amount: 5.453711
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:36:11

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

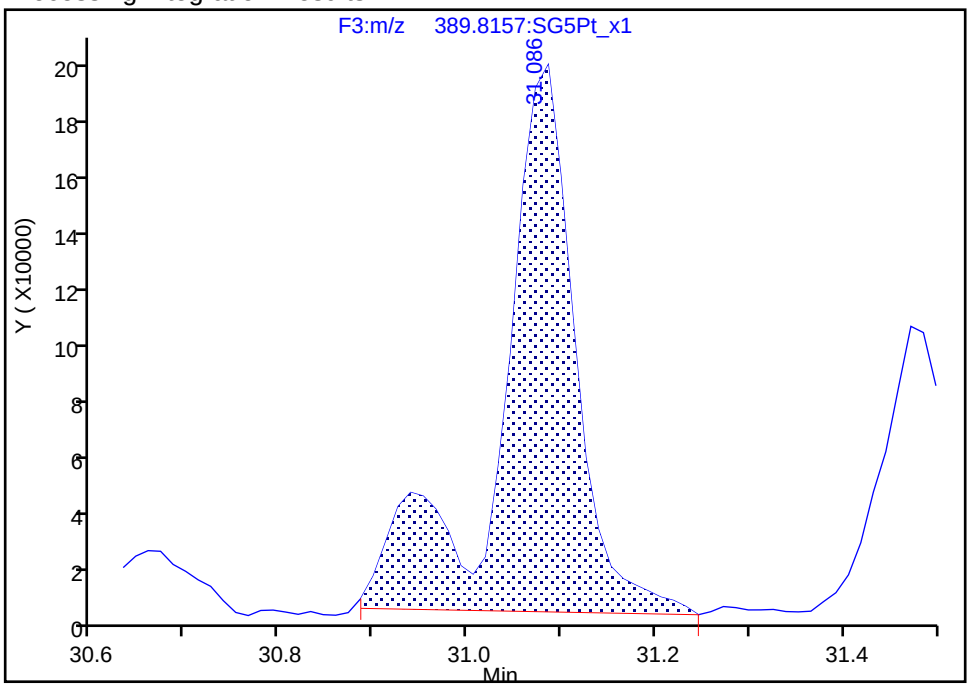
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d				
Injection Date:	22-Jul-2019 13:04:04	Instrument ID:	3D5		
Lims ID:	580-87706-C-15-A	Lab Sample ID:	320-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	54	Worklist Smp#:	75
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 1

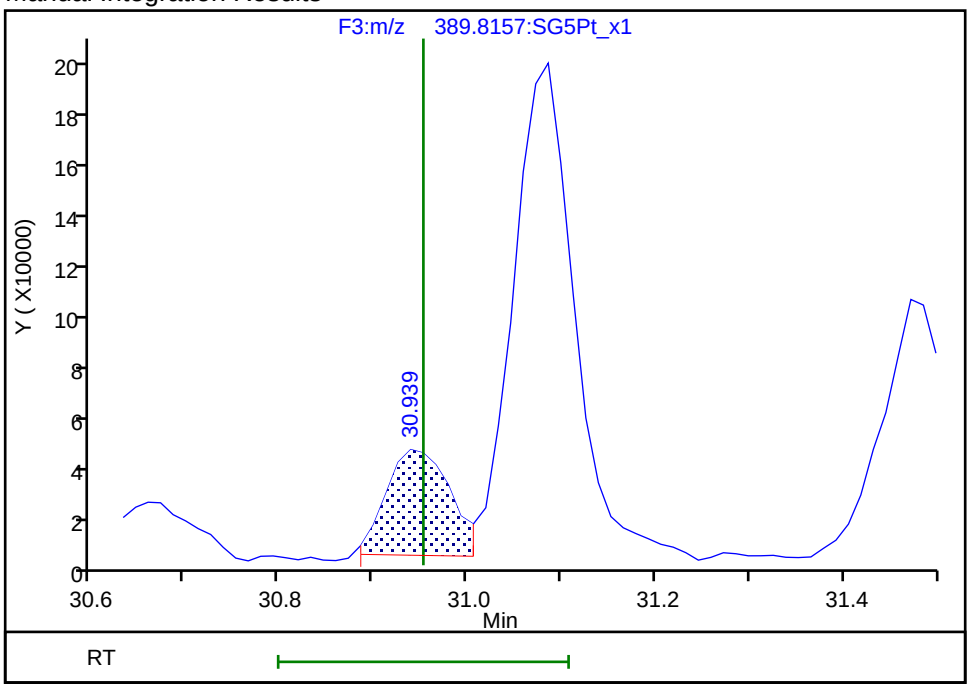
Processing Integration Results

RT: 31.09
Area: 1047221
Amount: 1.582976
Amount Units: pg/ul



Manual Integration Results

RT: 30.94
Area: 187606
Amount: 0.331736
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:39:09

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

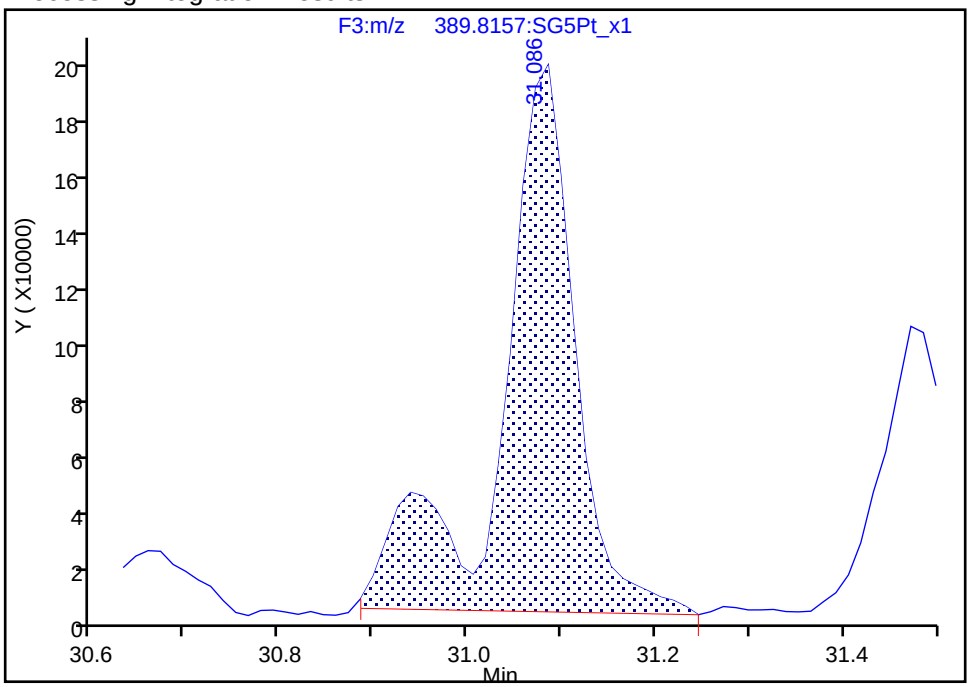
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d				
Injection Date:	22-Jul-2019 13:04:04	Instrument ID:	3D5		
Lims ID:	580-87706-C-15-A	Lab Sample ID:	320-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:	ALM, AJS	ALS Bottle#:	54	Worklist Smp#:	75
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

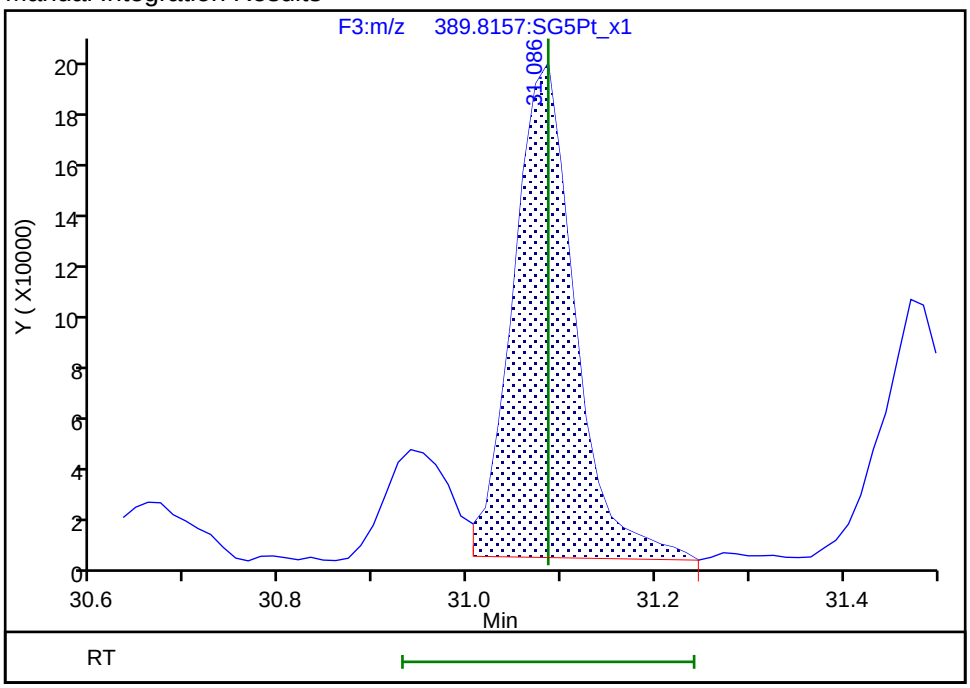
Processing Integration Results

RT: 31.09
Area: 1047221
Amount: 1.440589
Amount Units: pg/ul



Manual Integration Results

RT: 31.09
Area: 859550
Amount: 1.287998
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 12:38:59

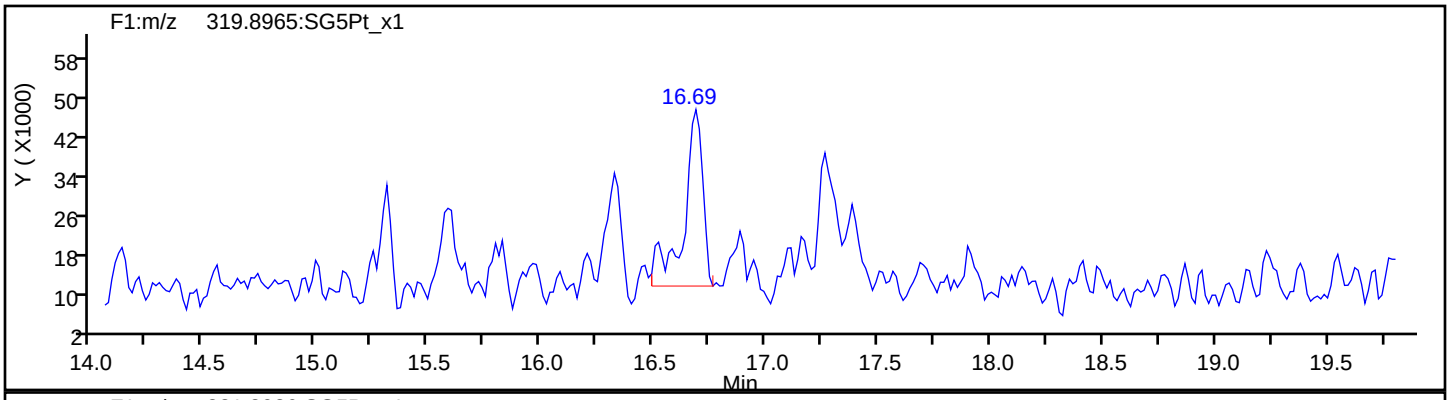
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

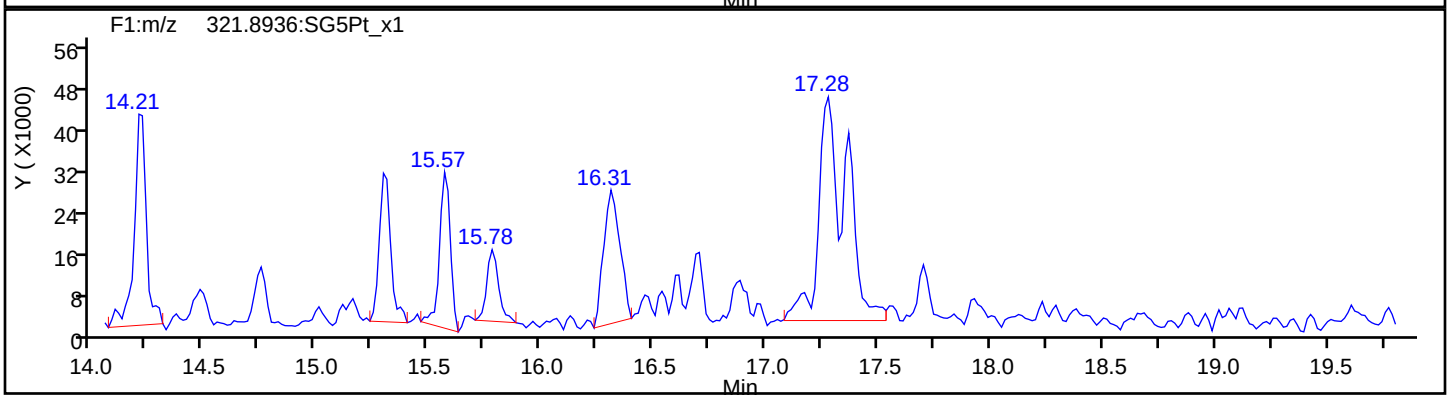
Report Date: 23-Jul-2019 12:40:19 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

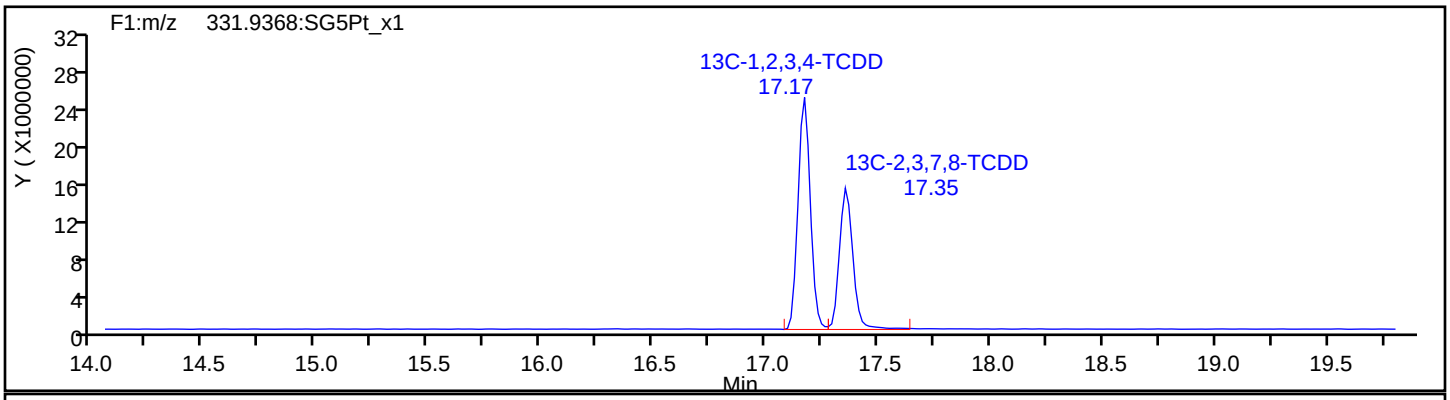
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

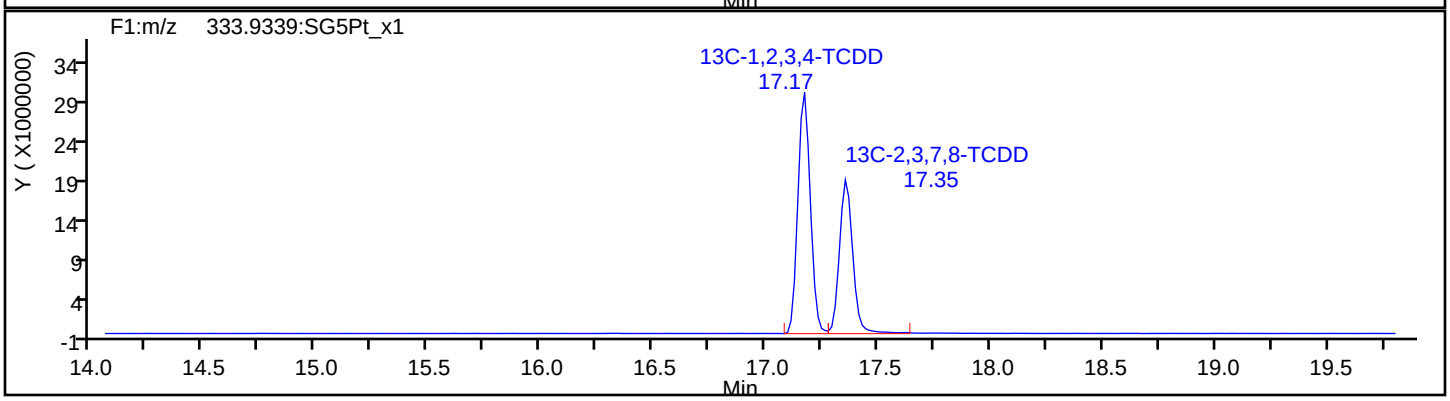
TCDD





TCDD Standards



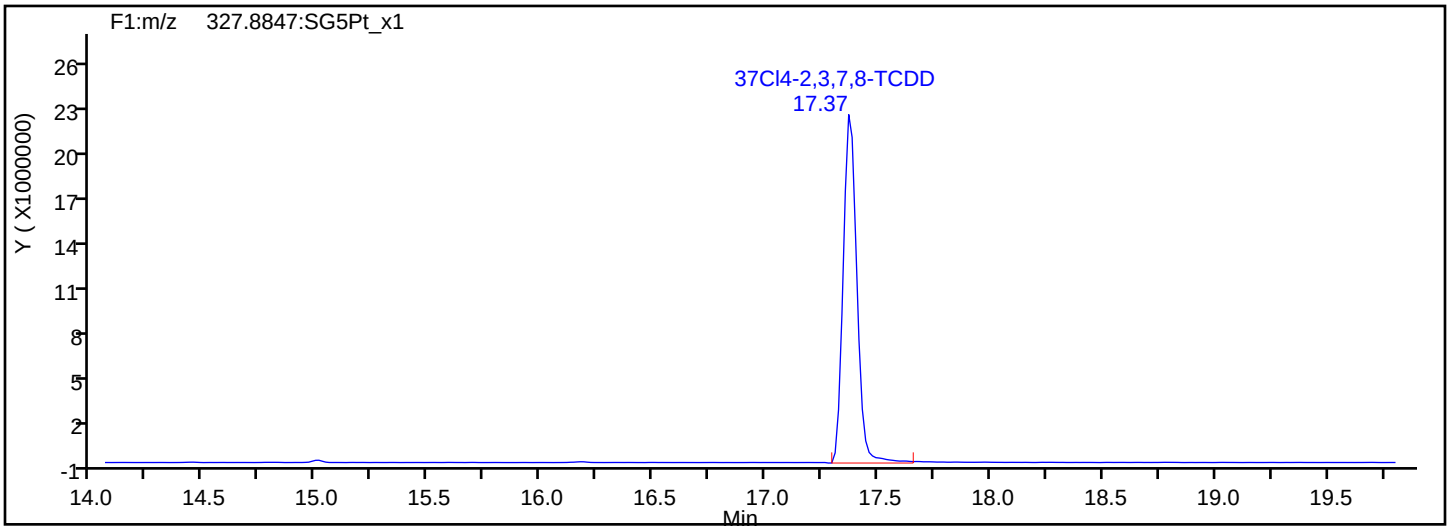


Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

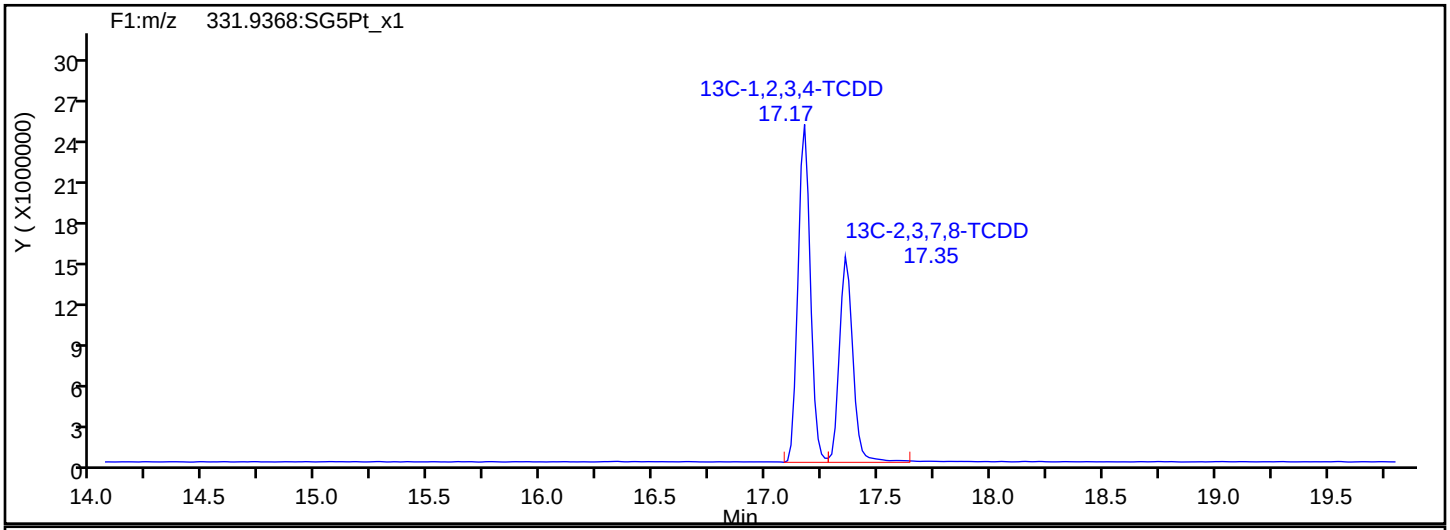
Eurofins TestAmerica, Sacramento

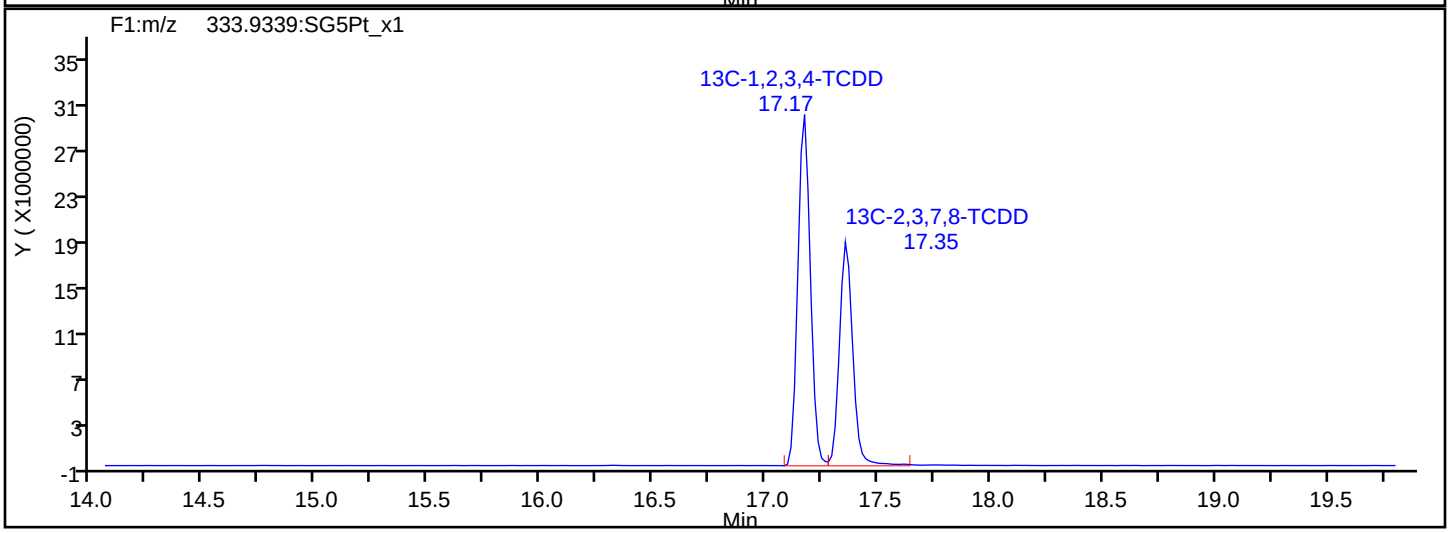
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



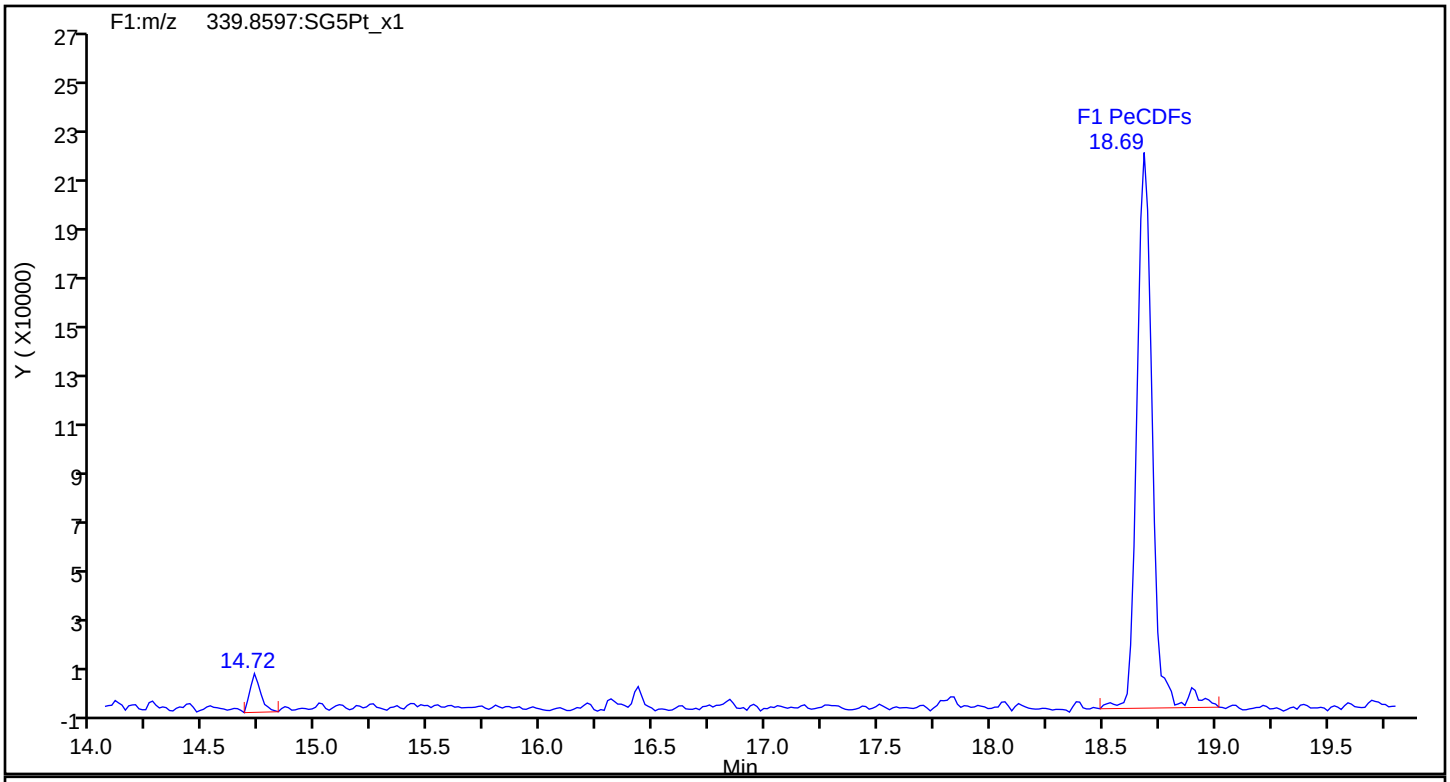


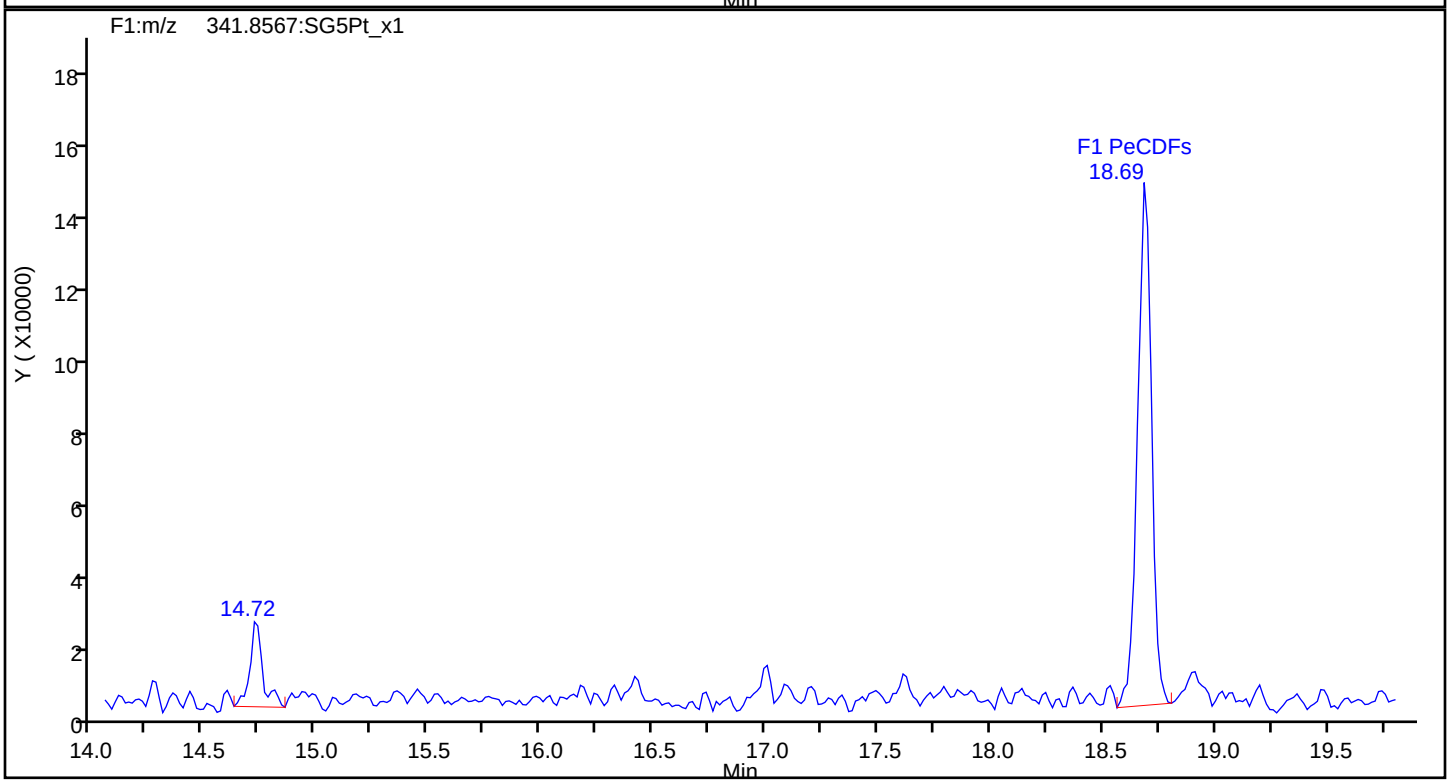
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



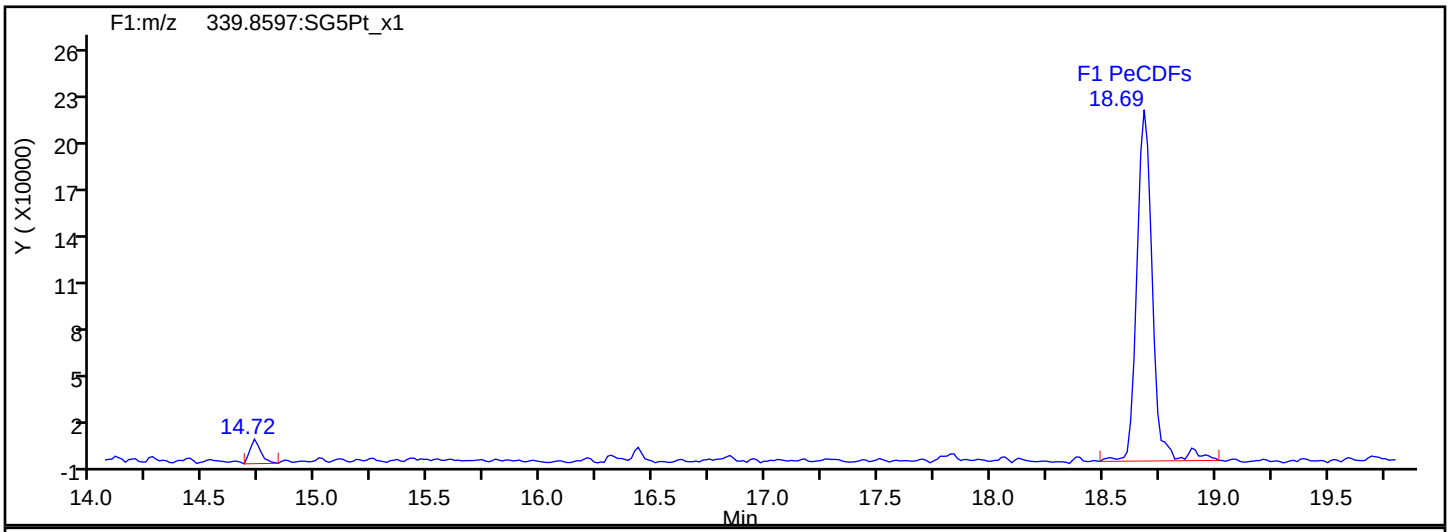


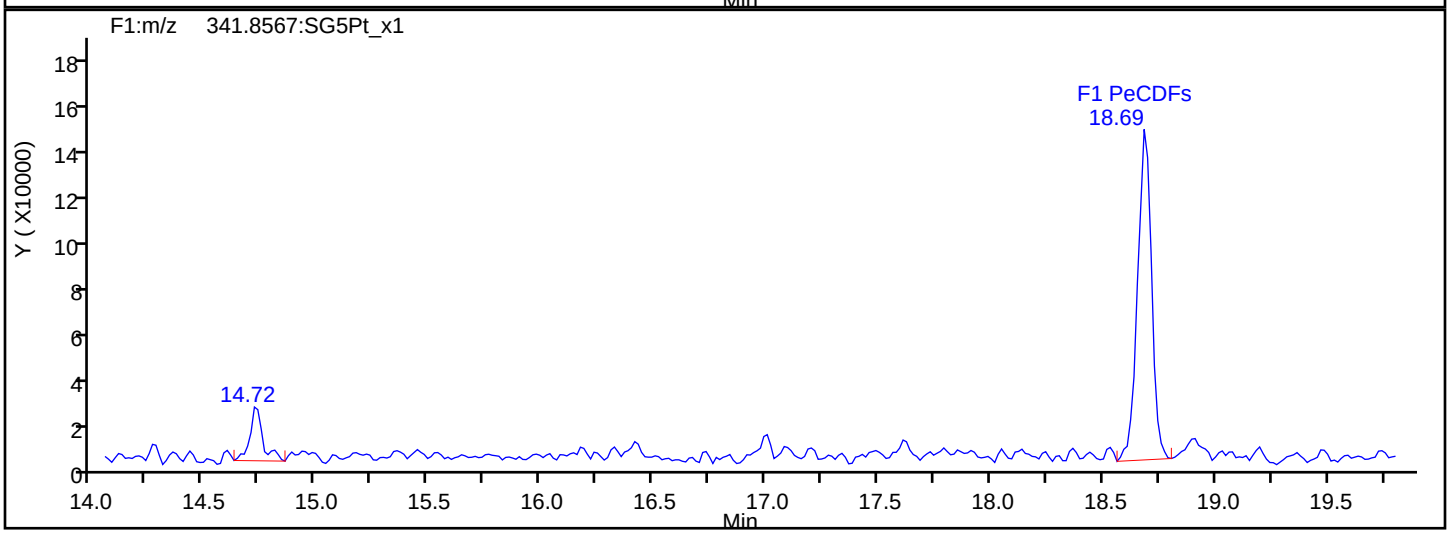
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

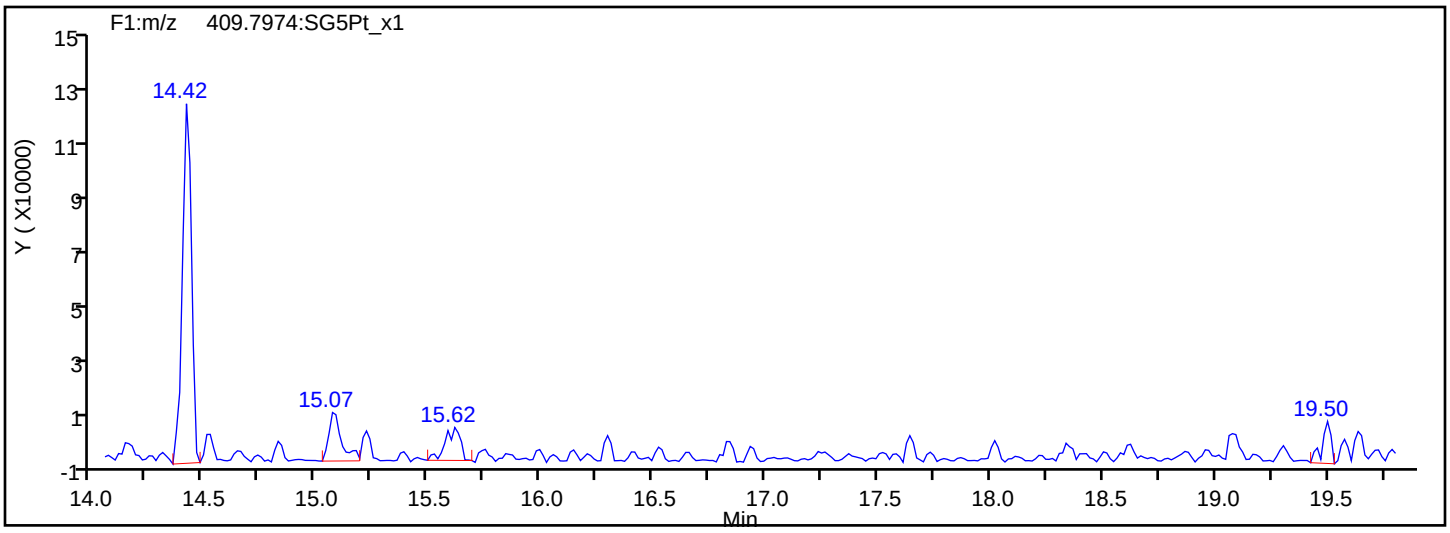
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

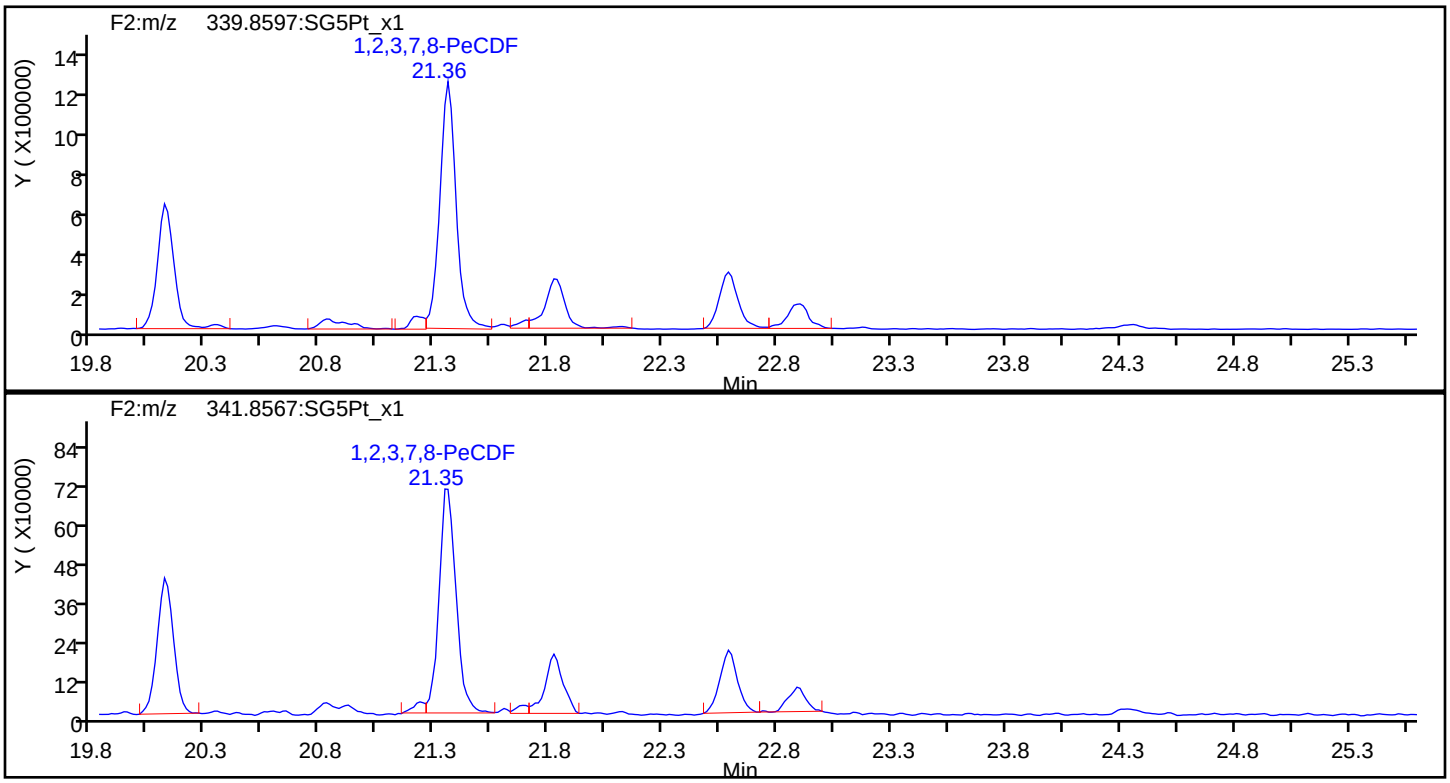


Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

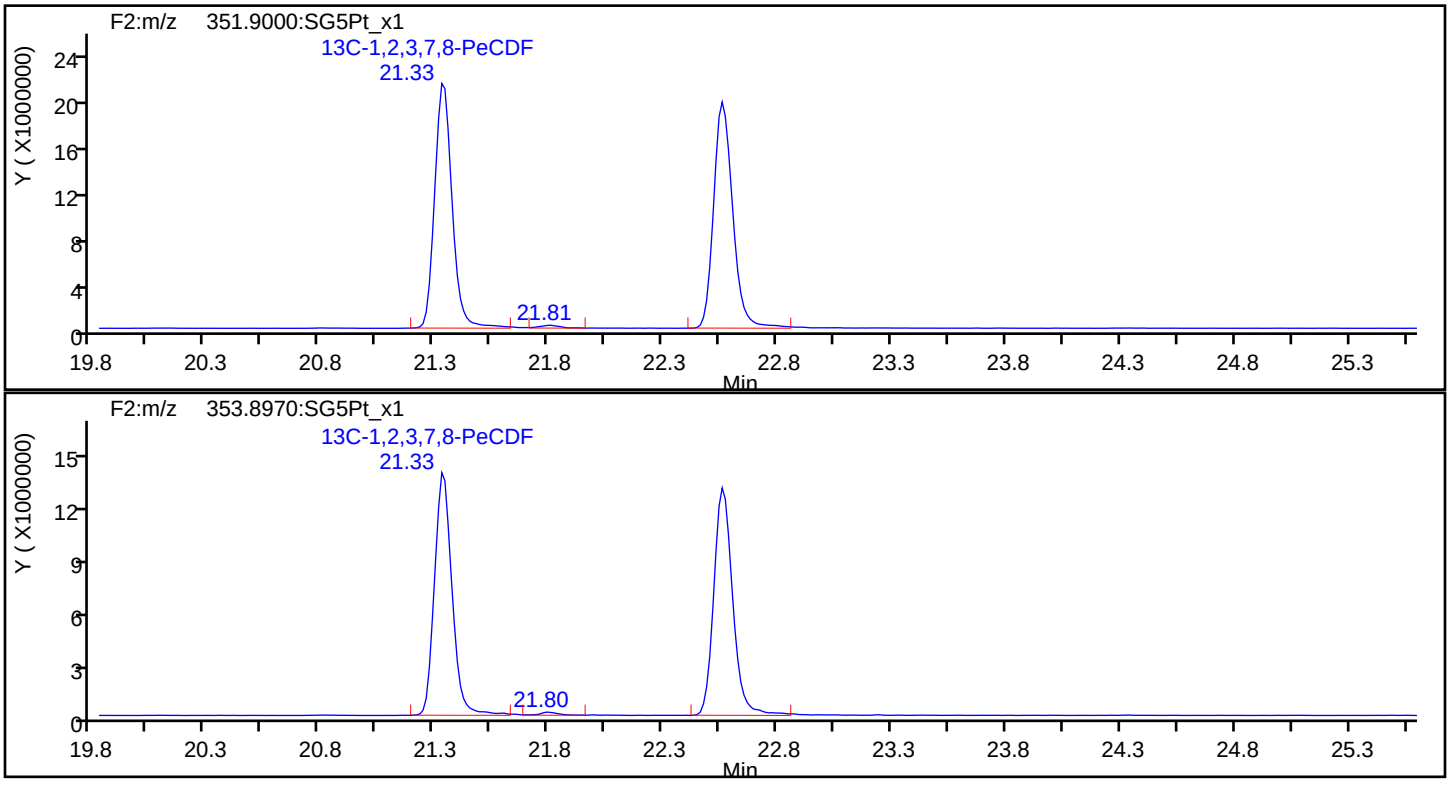
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

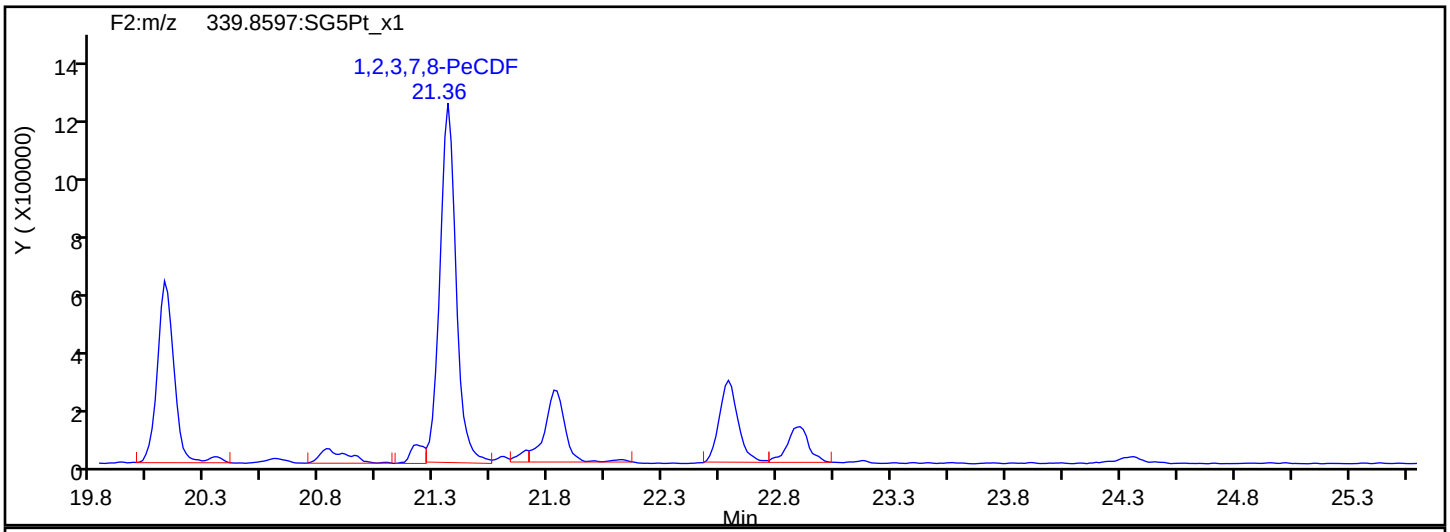


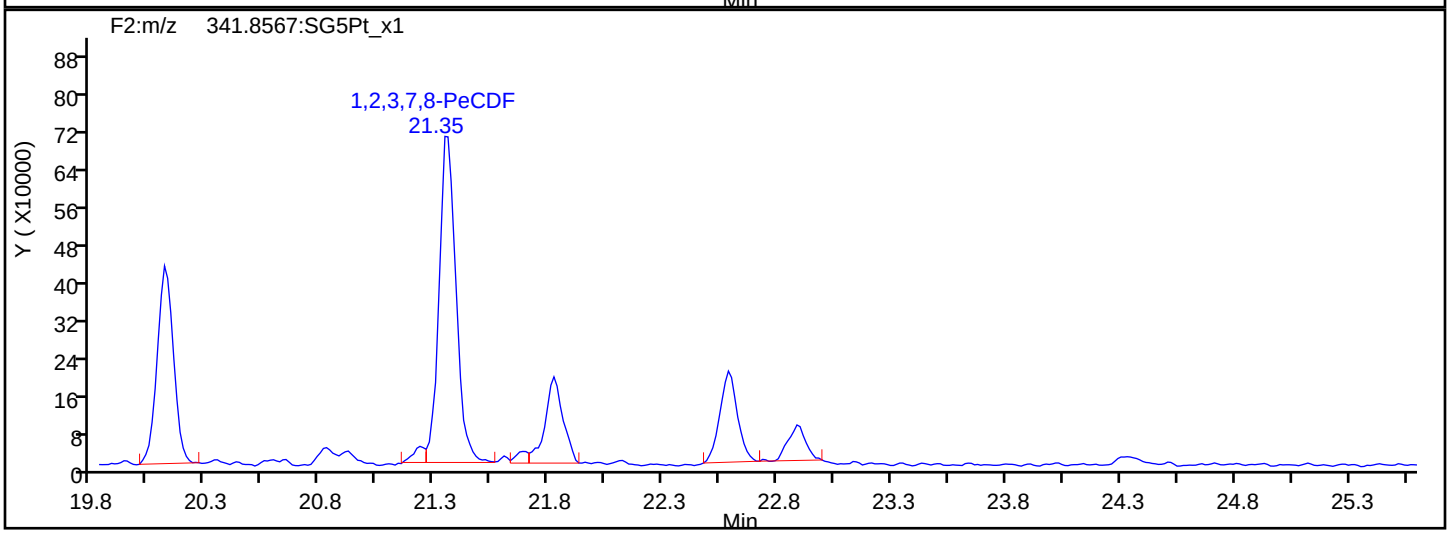
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

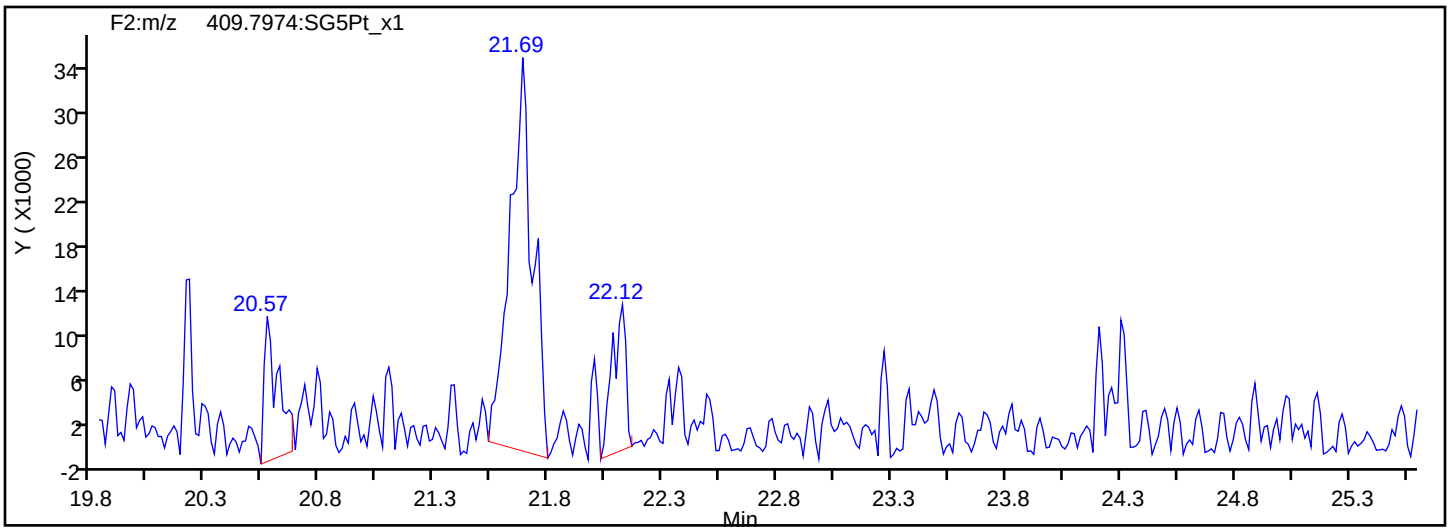
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

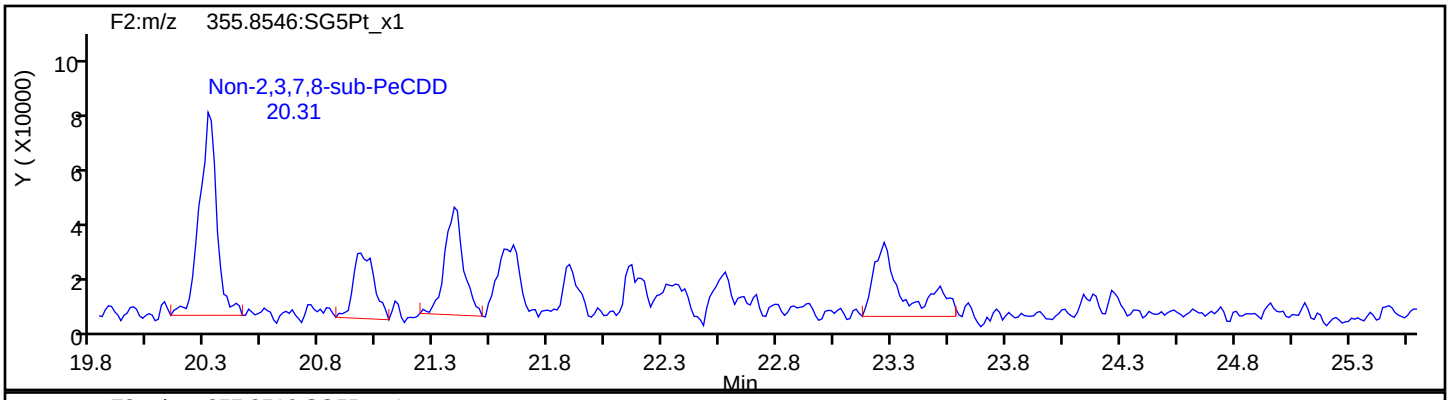


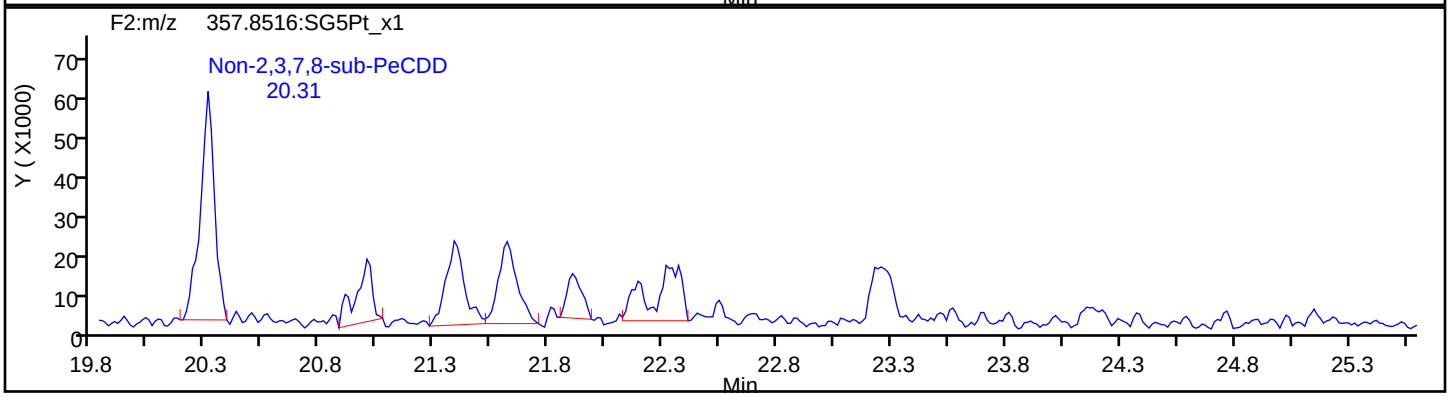
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

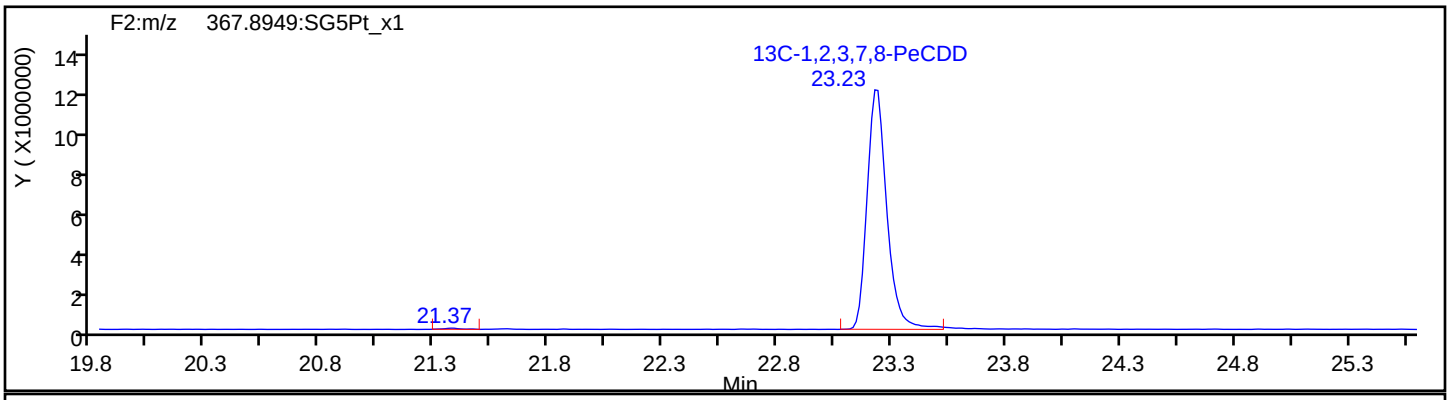
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

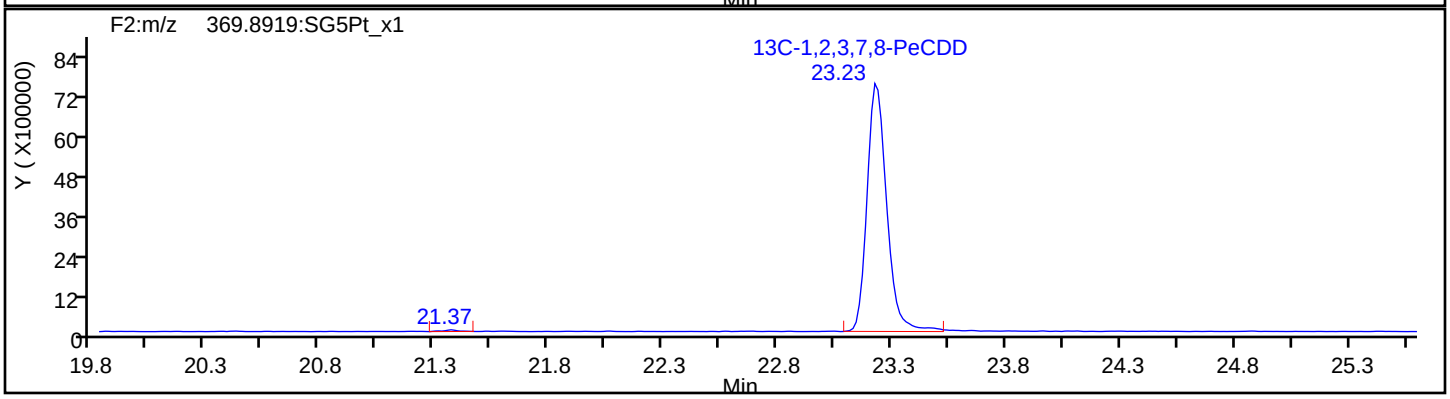
PeCDD





PeCDD Standards



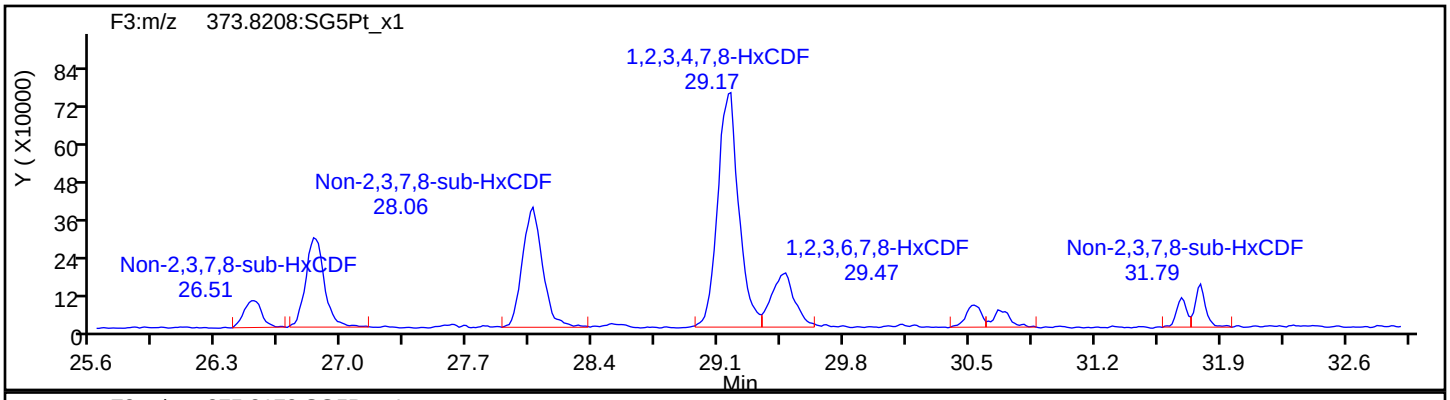


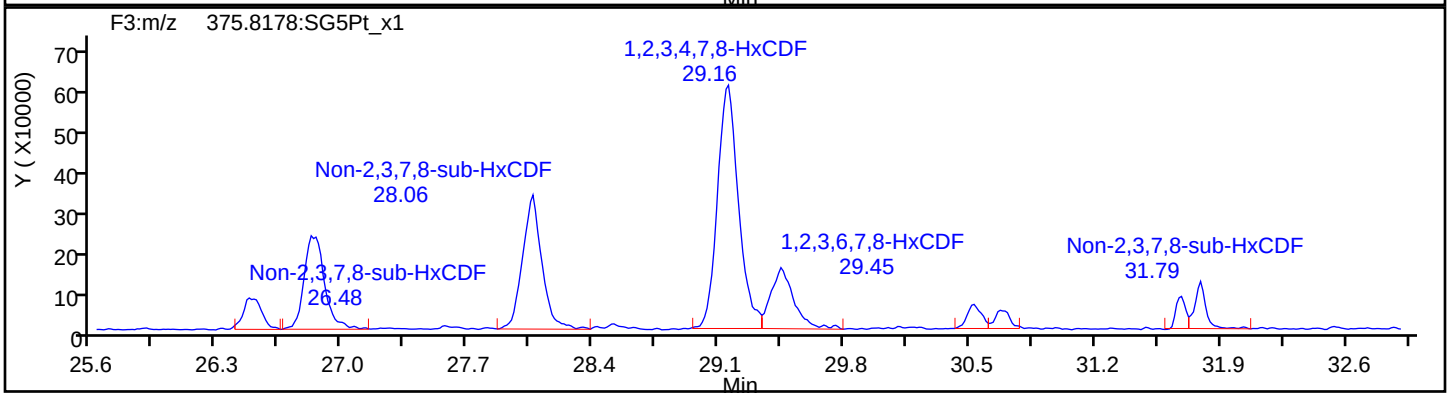
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

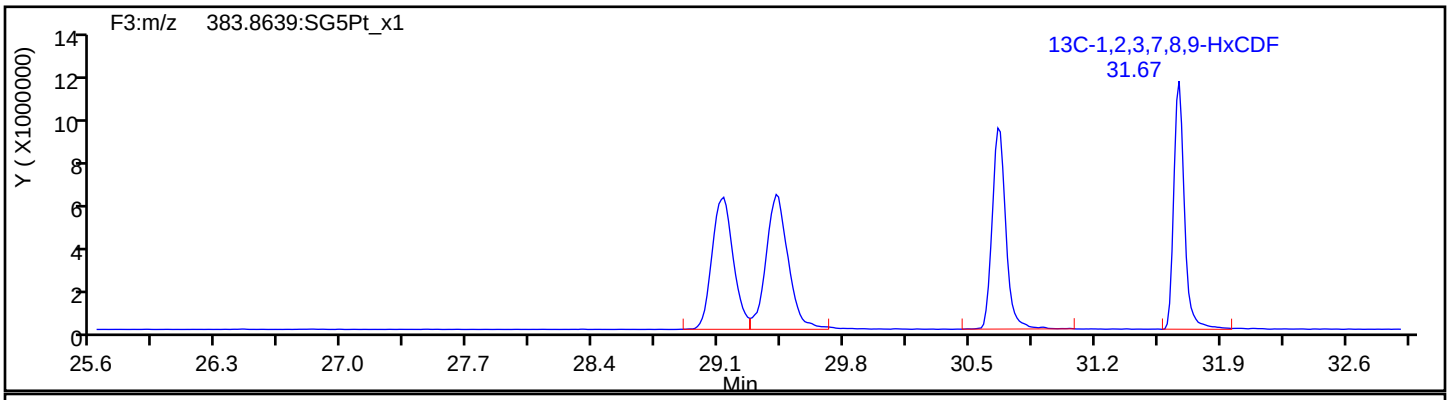
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

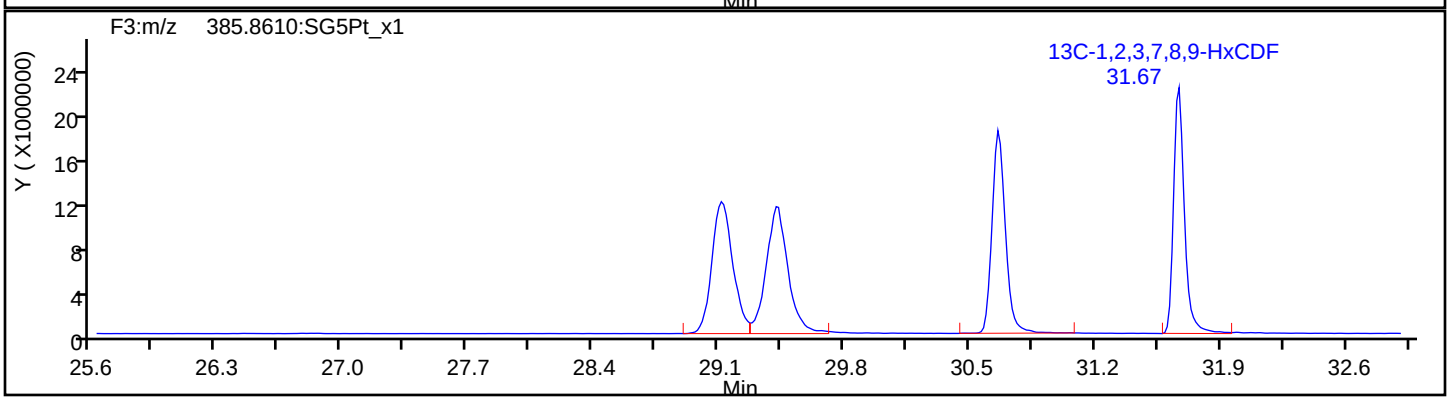
HxCDF





HxCDF Standards



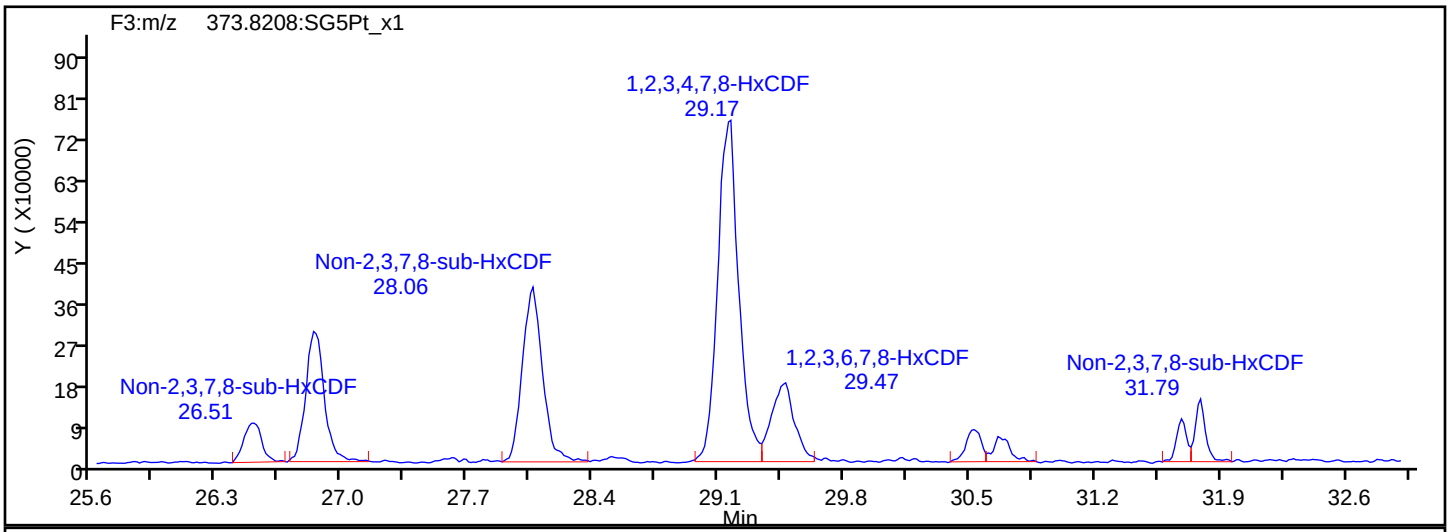


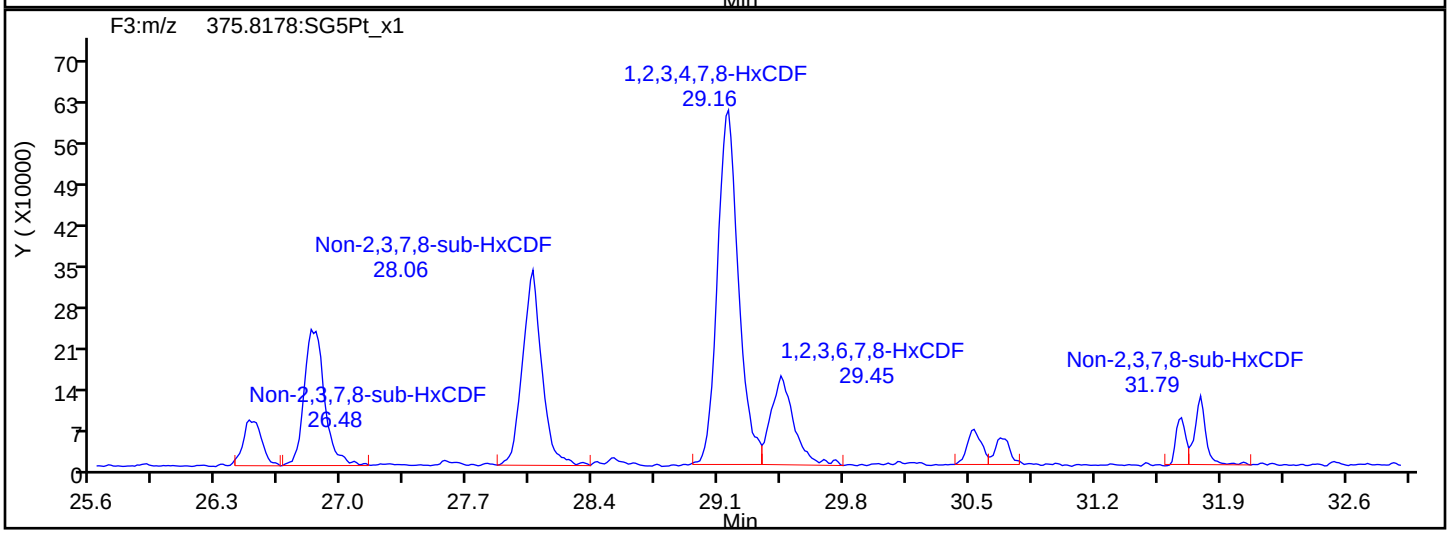
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

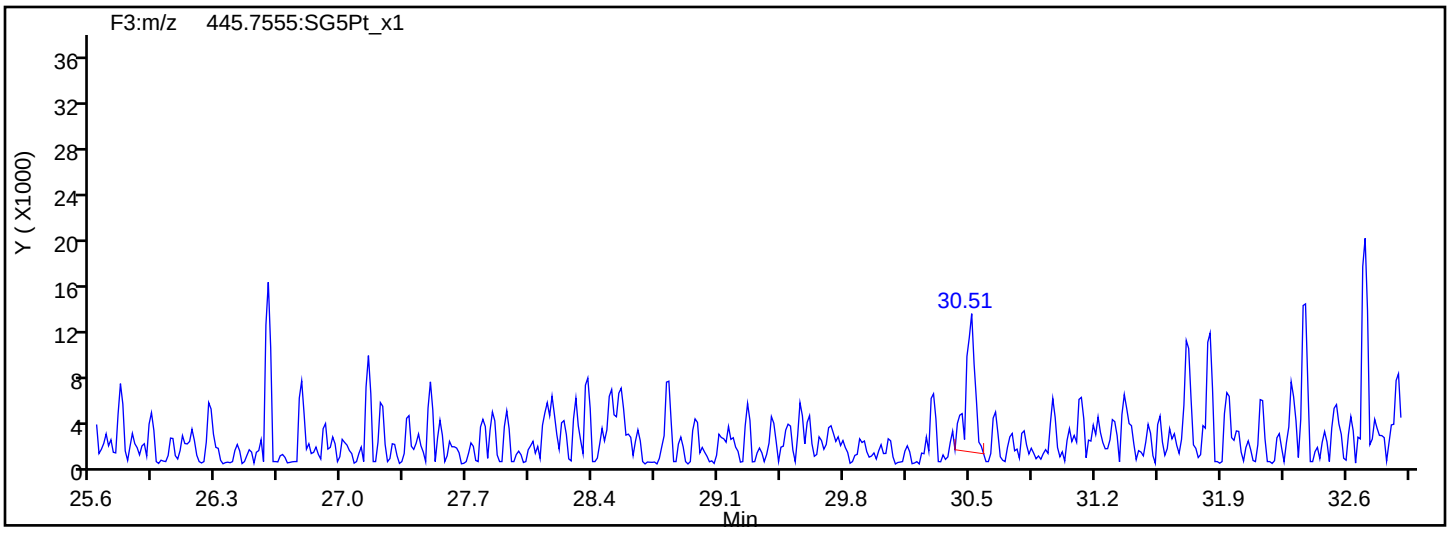
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d

Injection Date: 22-Jul-2019 13:04:04 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

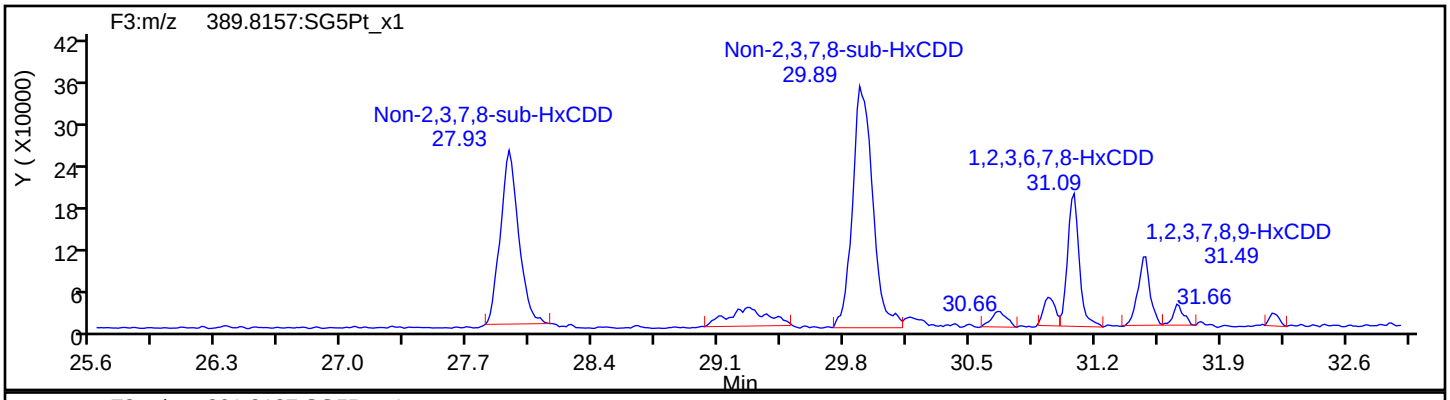
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

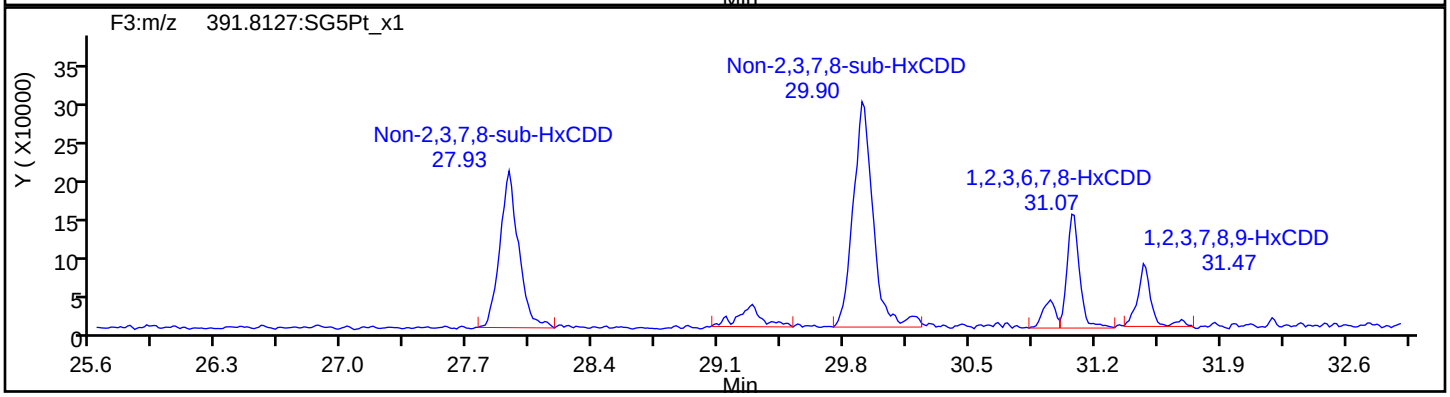
Client ID: 22T-SG-16_20190716

Worklist#: 309104 Sample Line#: 75

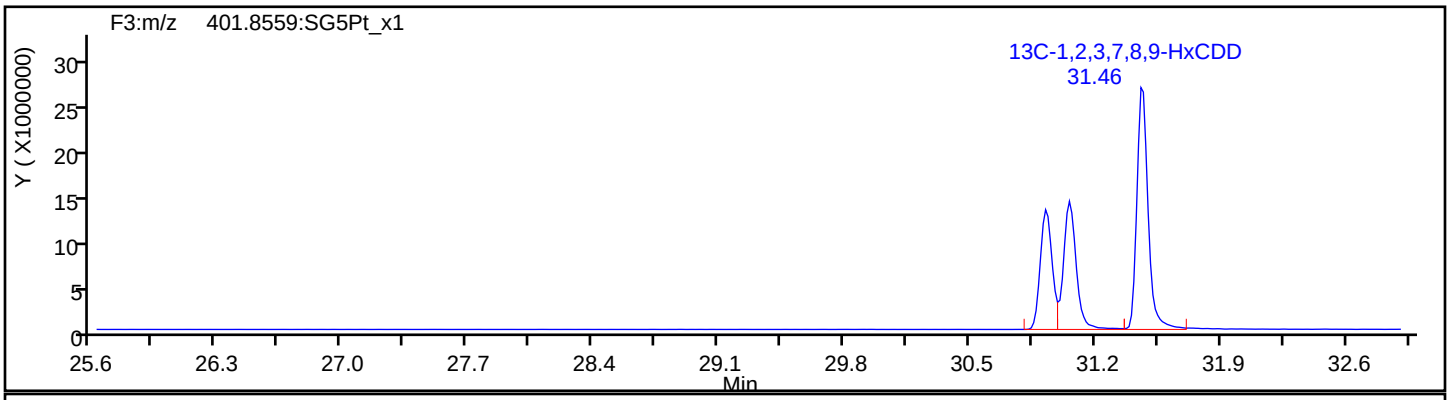
Column Type: DB-5 Column Dia: 0.32 mm

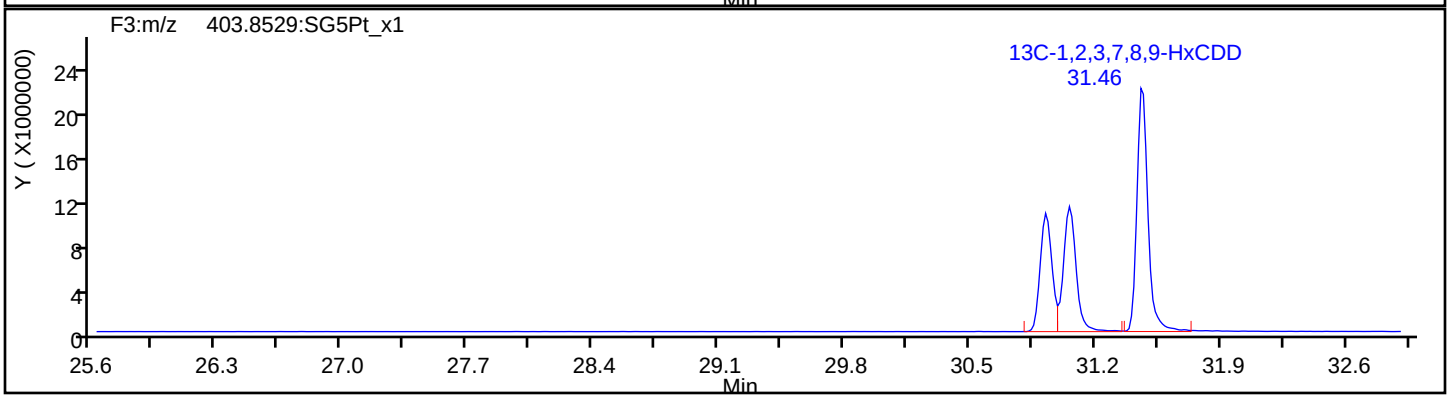
HxCDD





HxCDD Standards



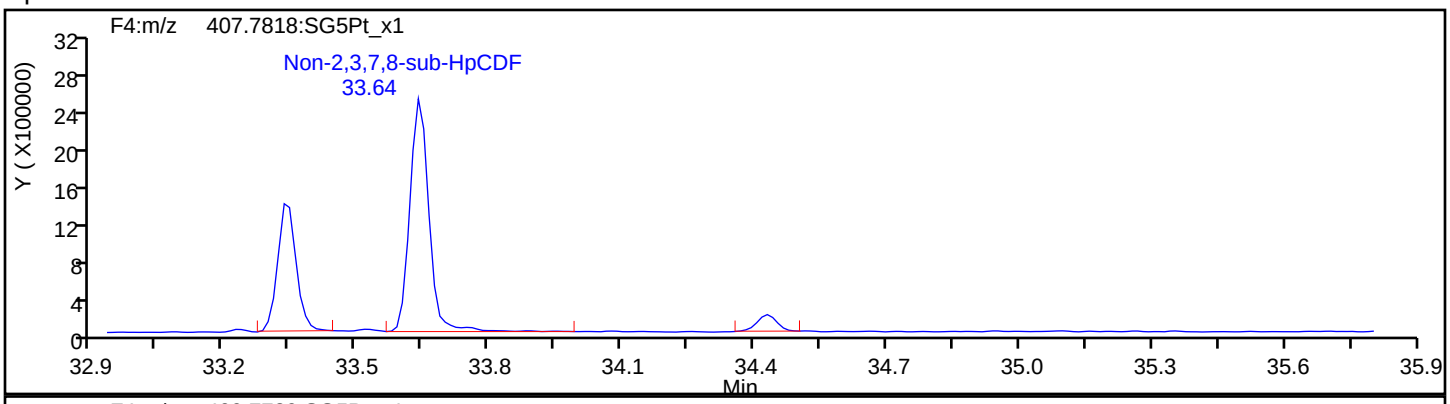


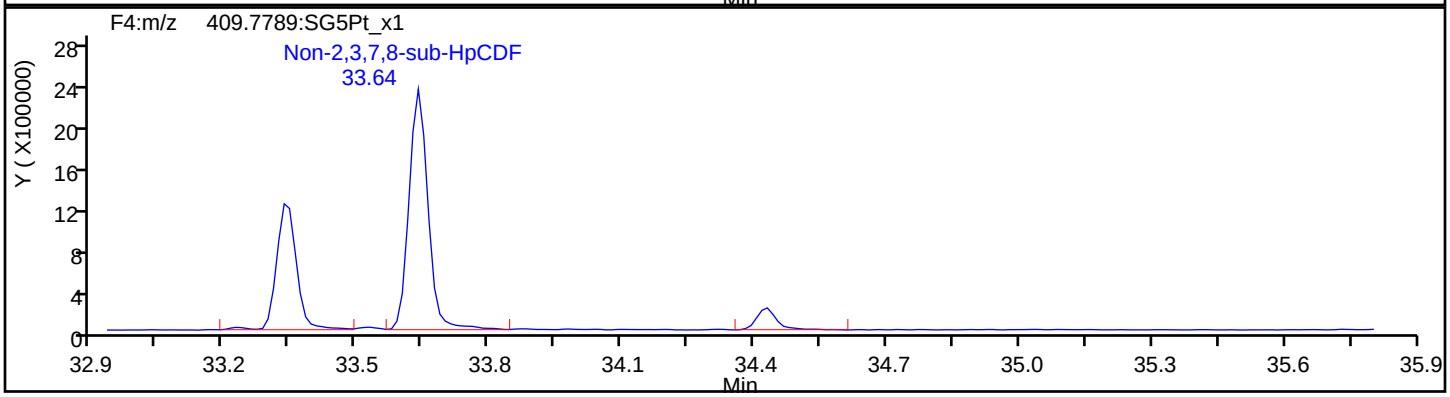
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

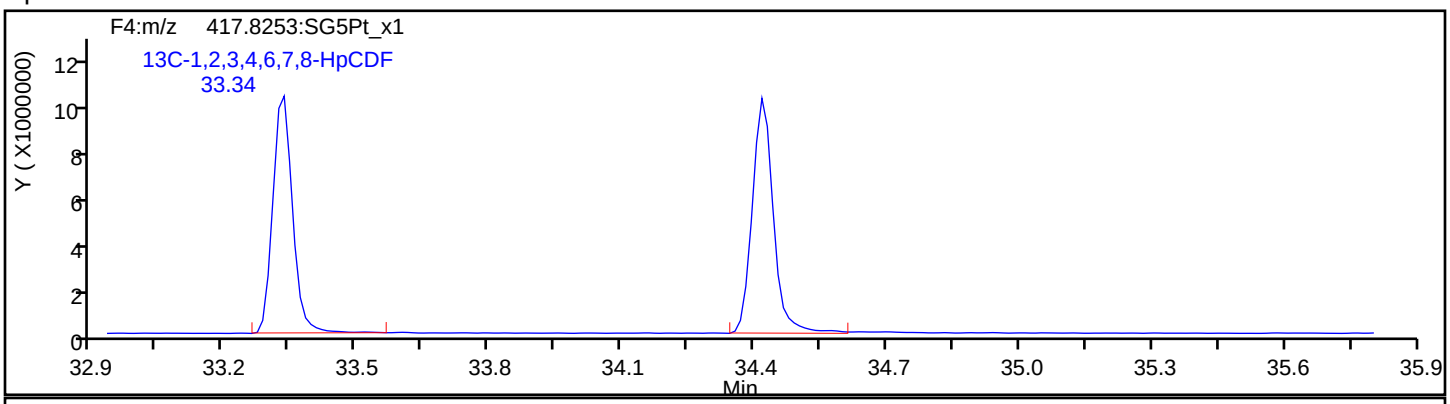
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

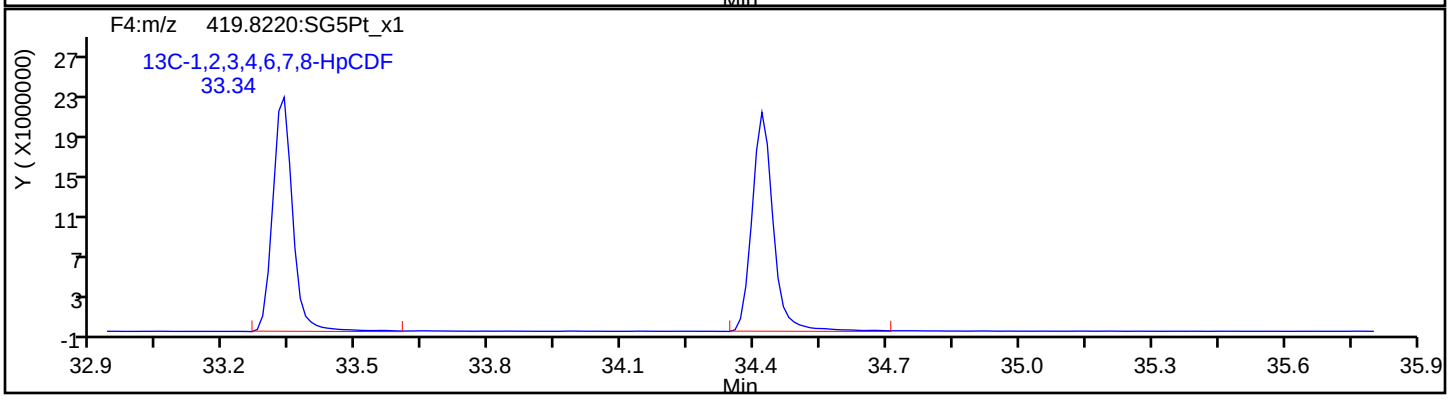
HpCDF





HpCDF Standards



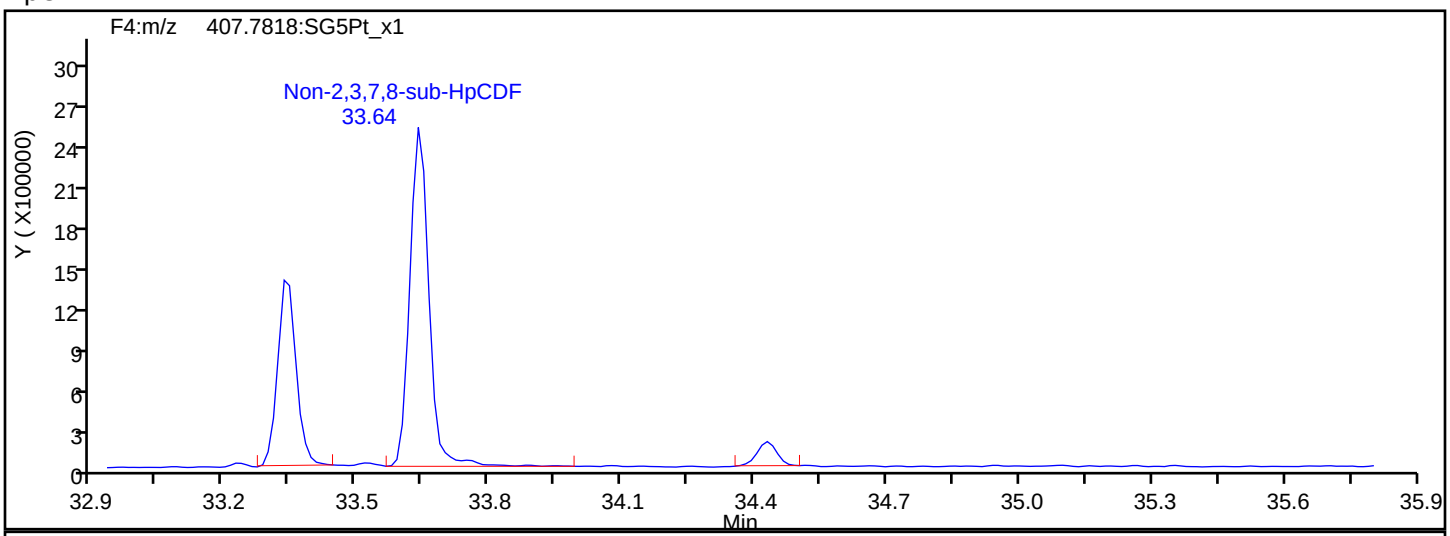


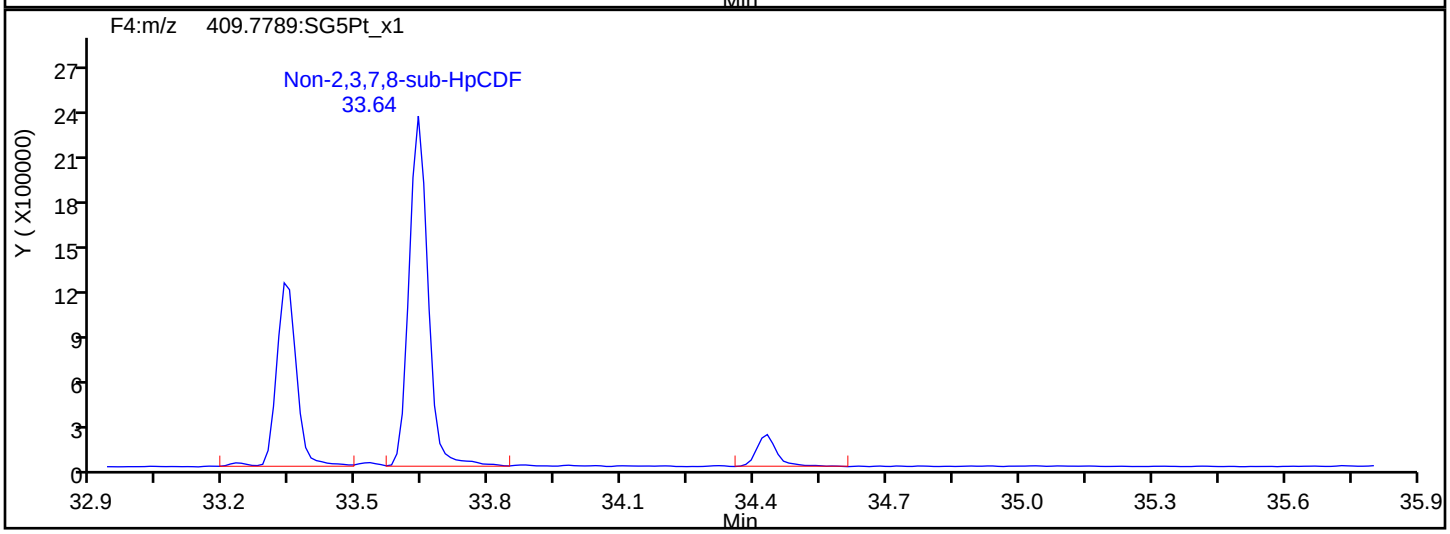
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

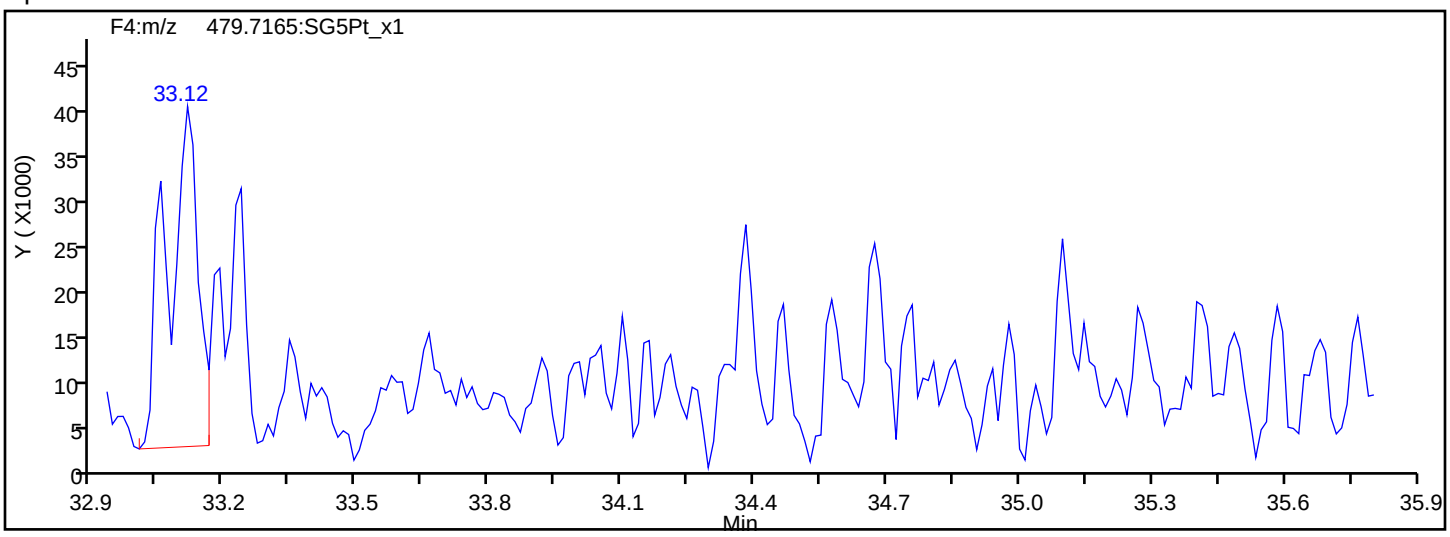
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

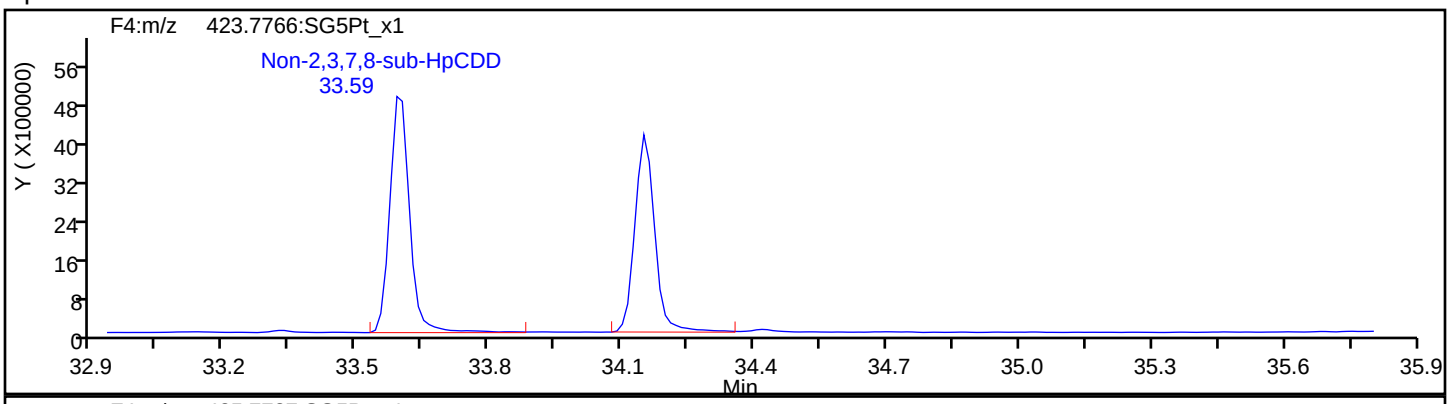


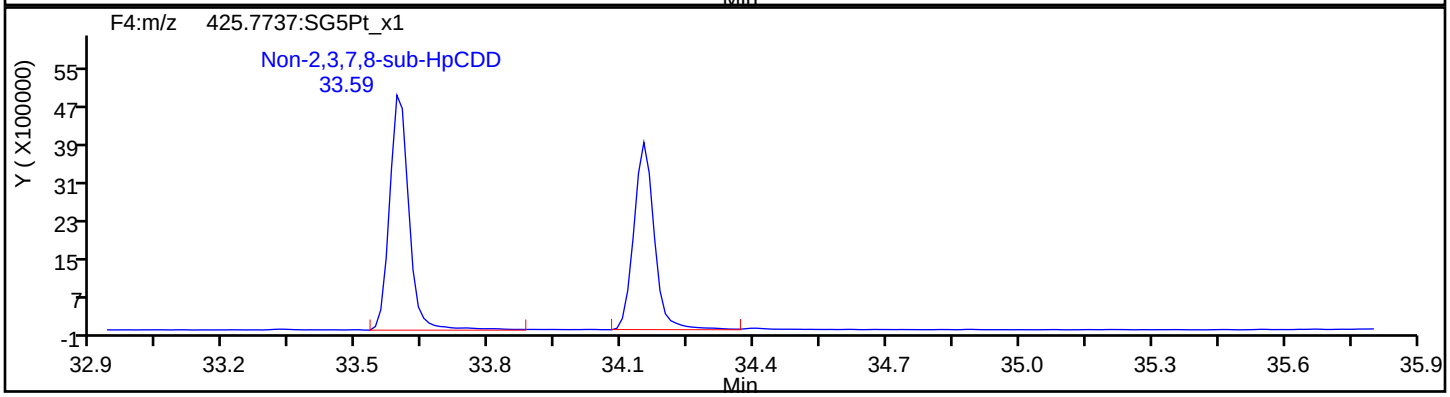
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

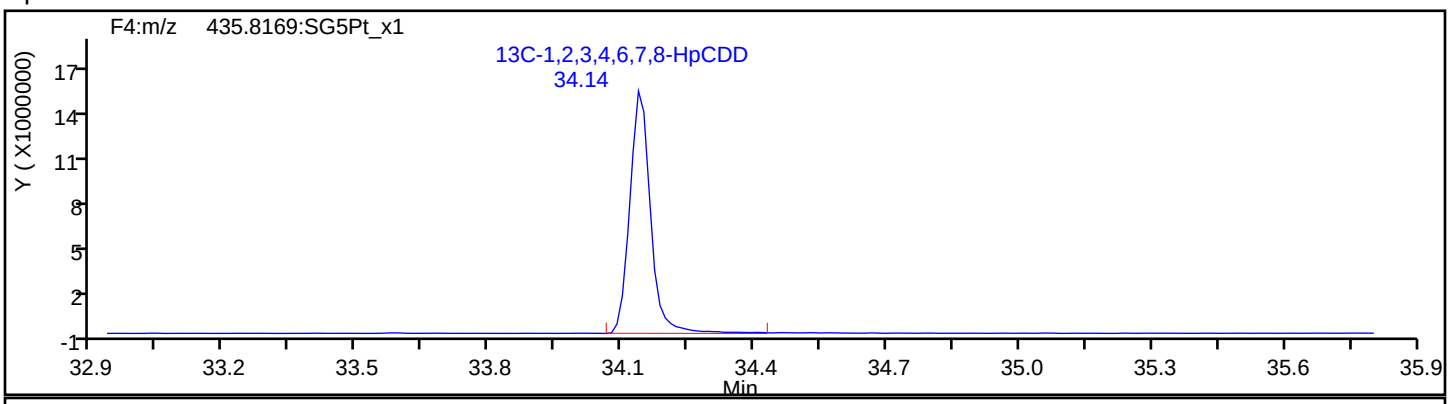
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

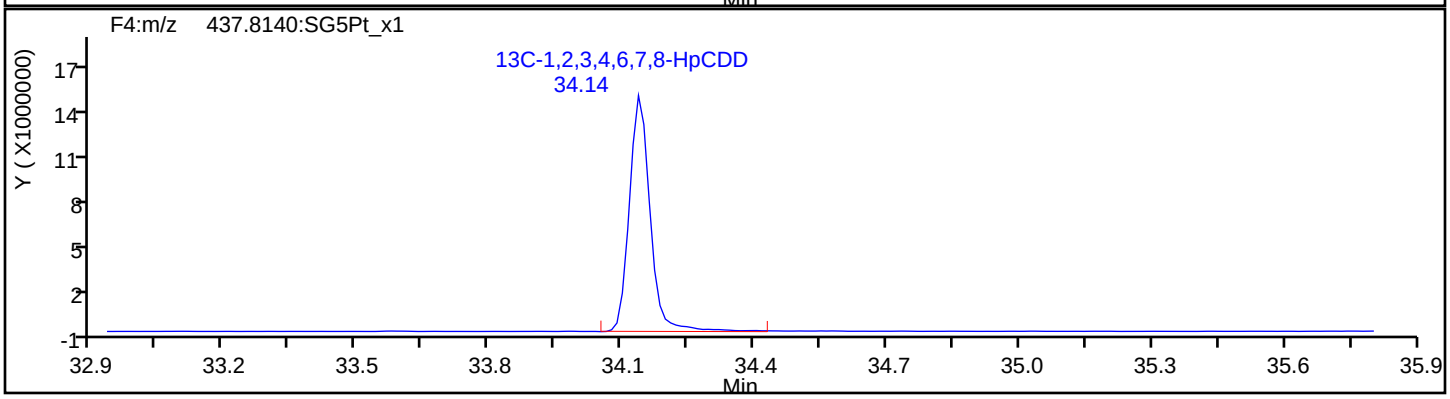
HpCDD





HpCDD Standards





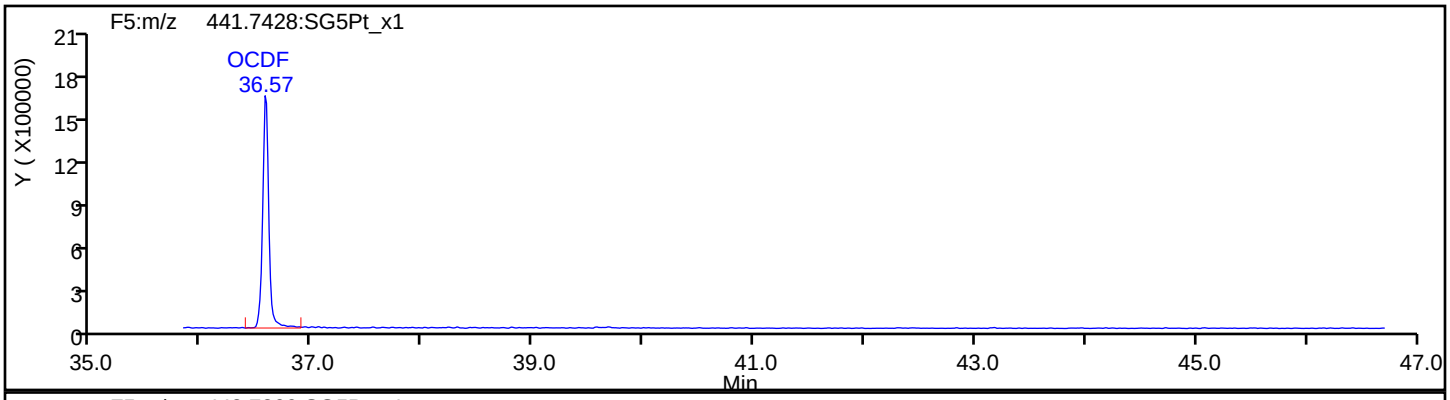
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

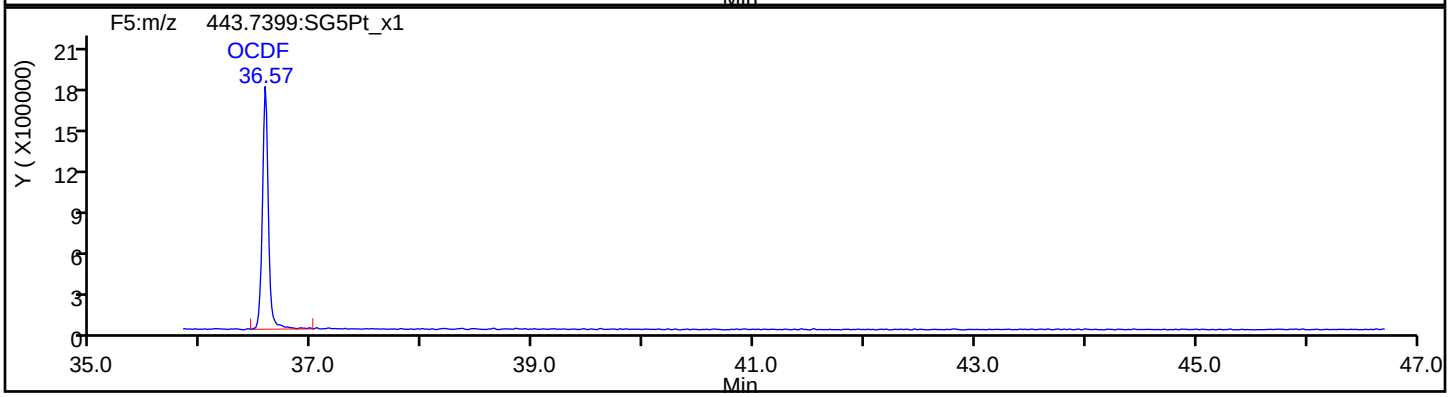
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d

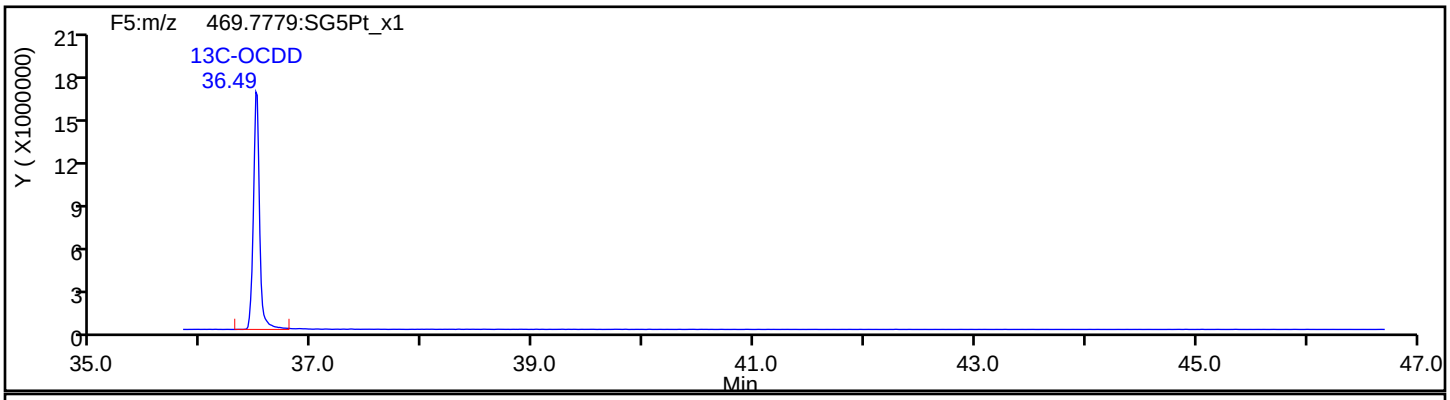
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

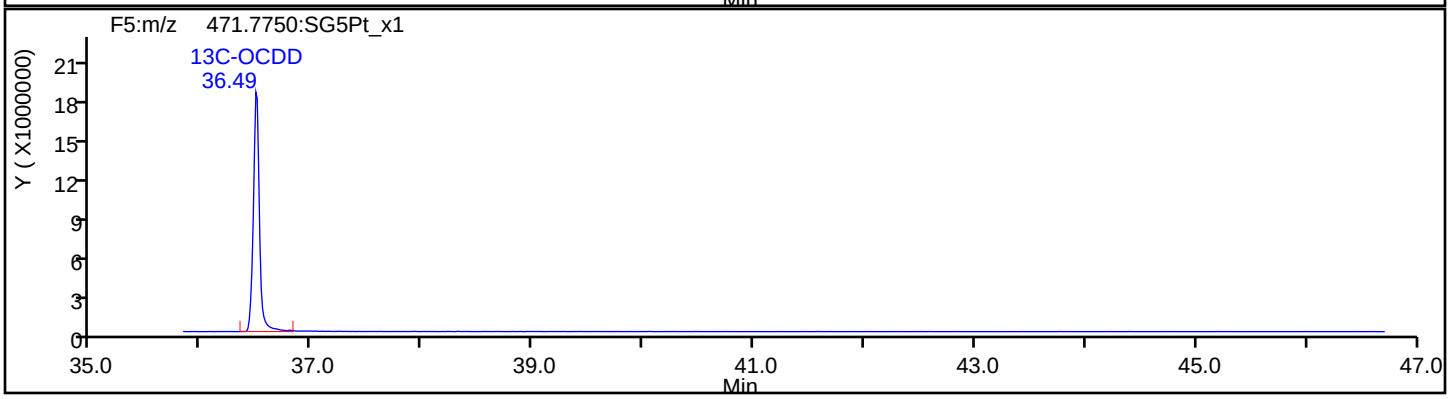
OCDF





OCDF Standards



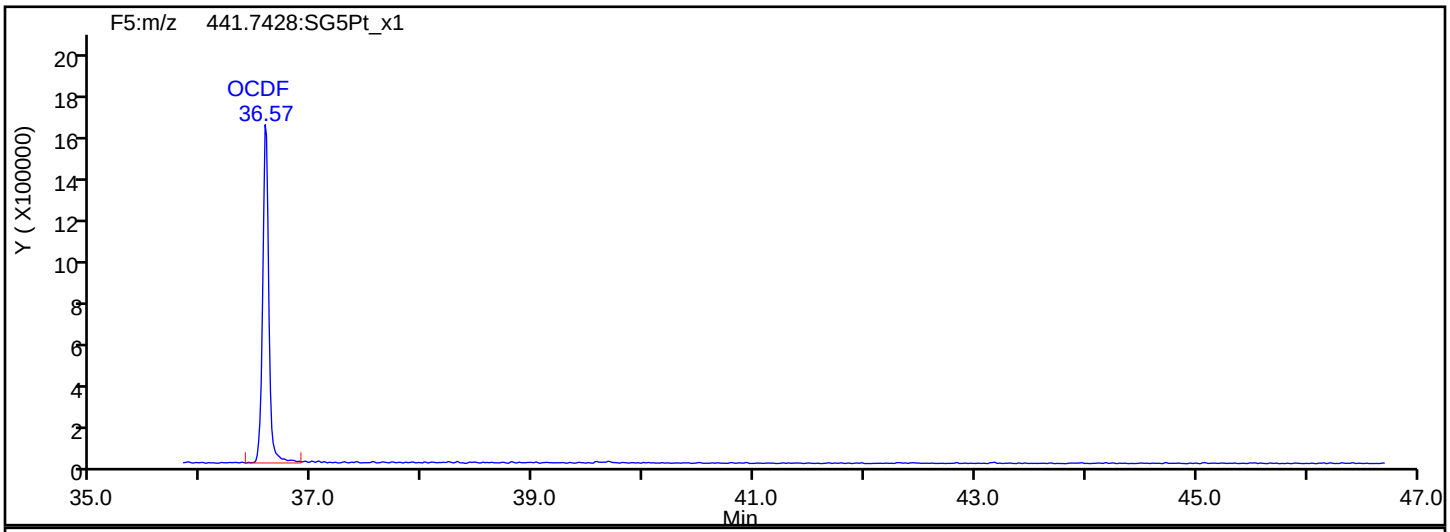


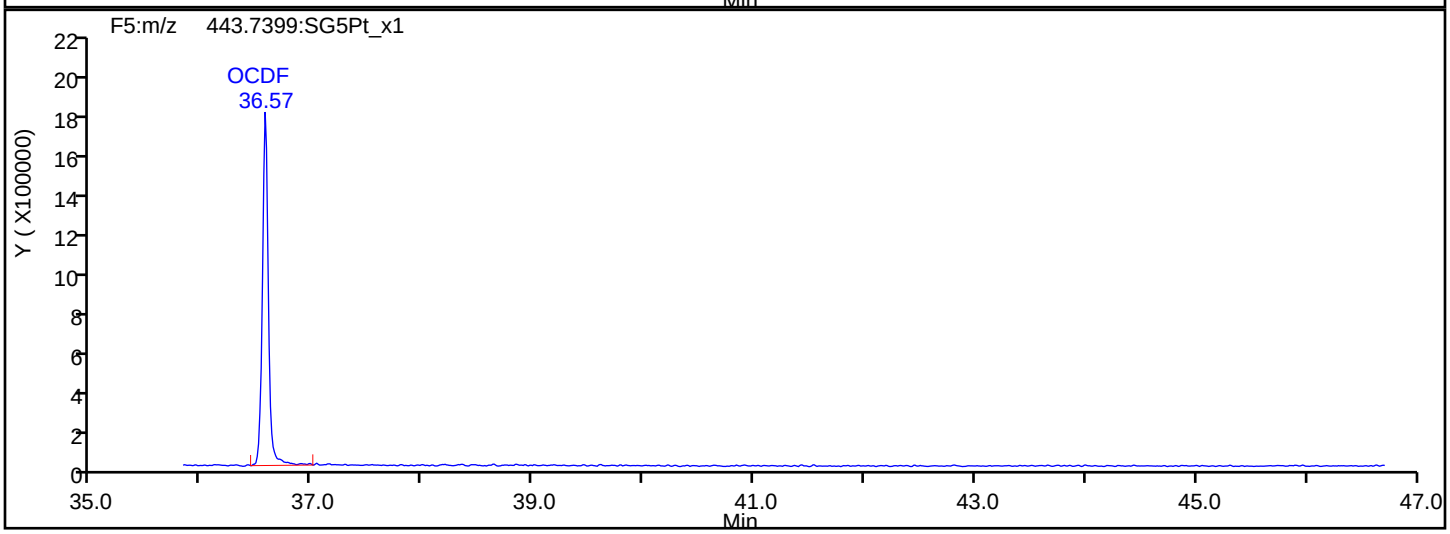
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

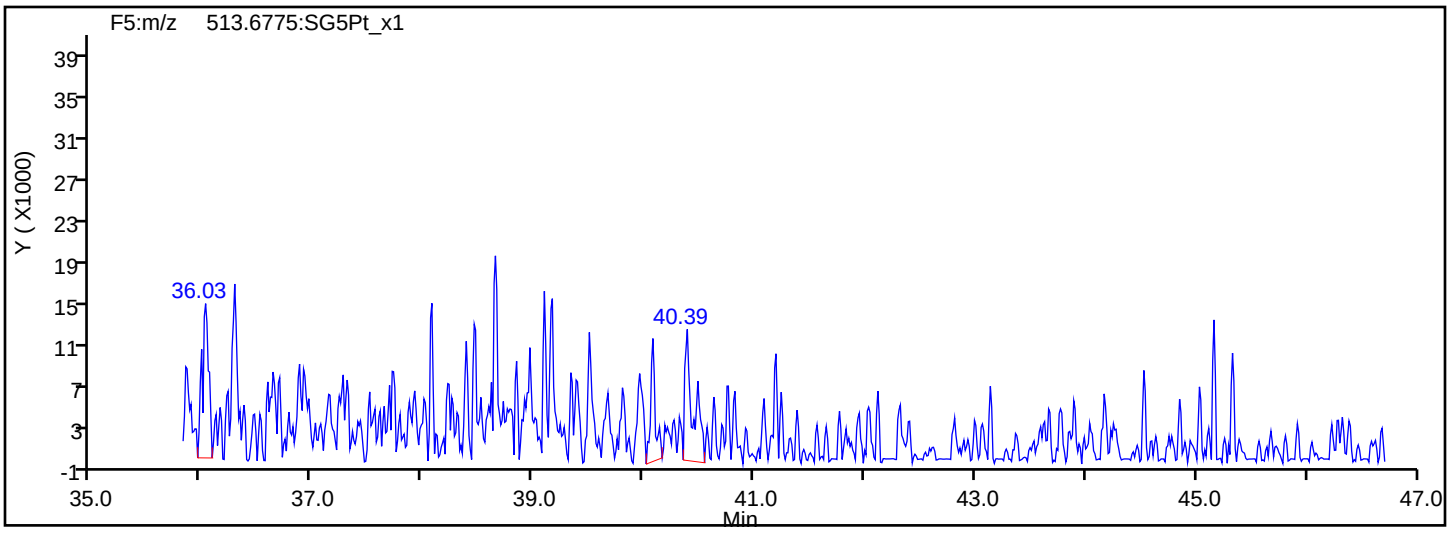
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

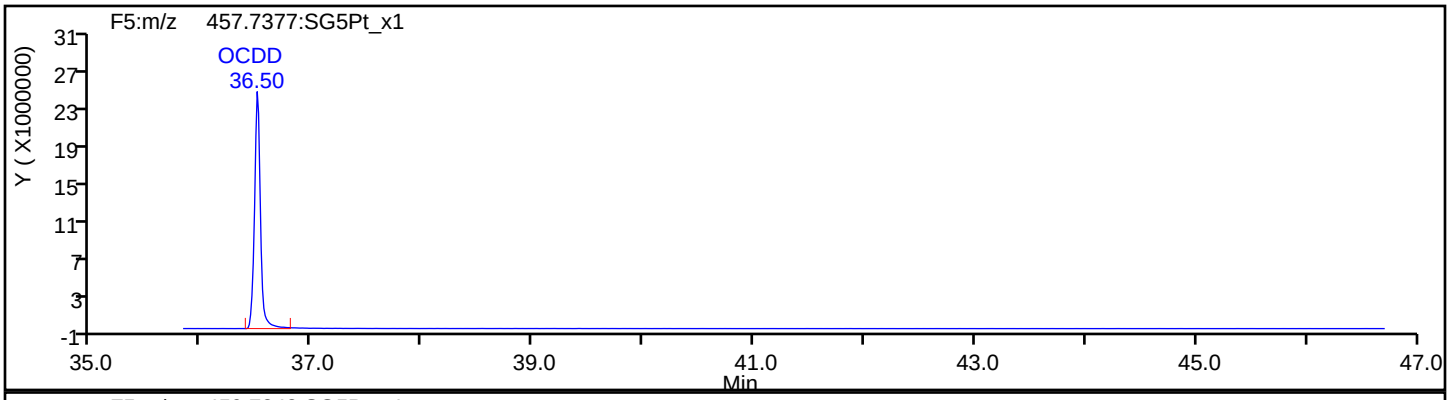


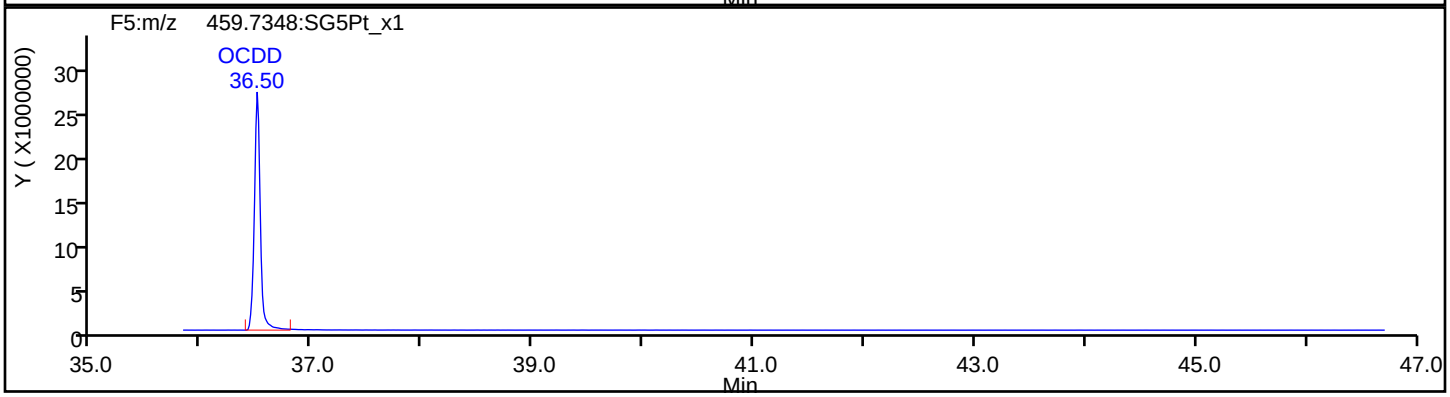
Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

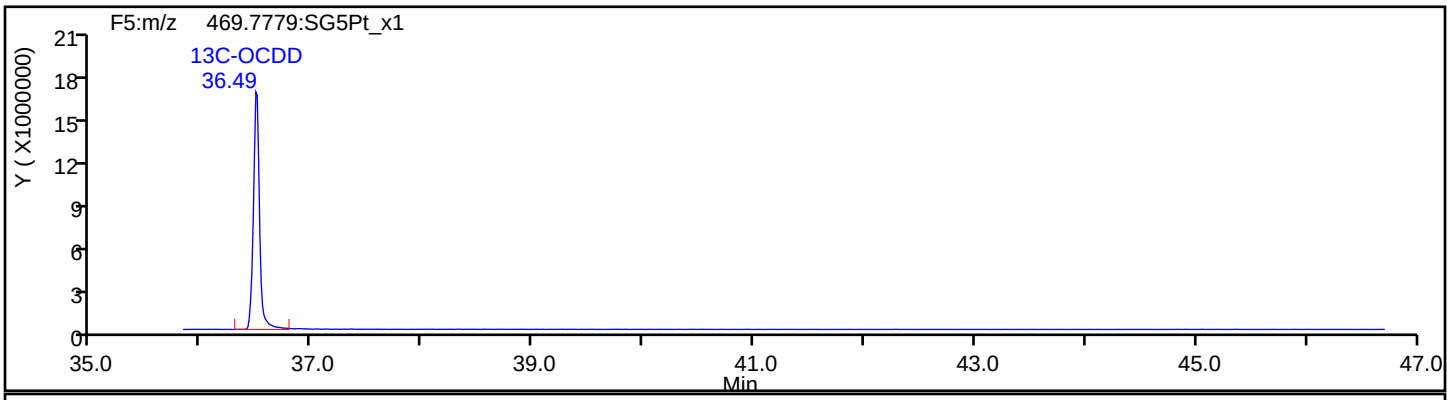
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm

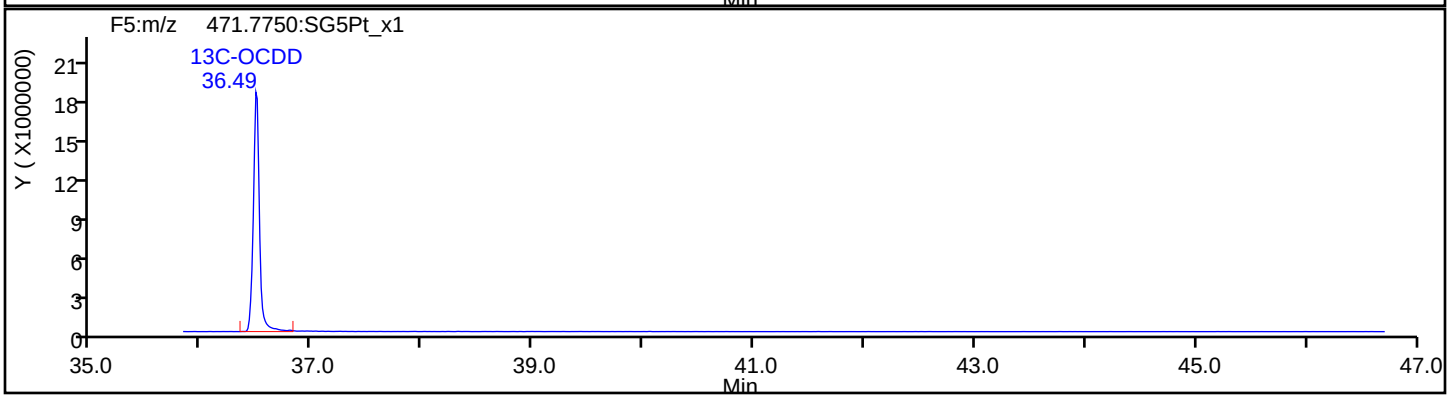
OCDD





OCDD Standards

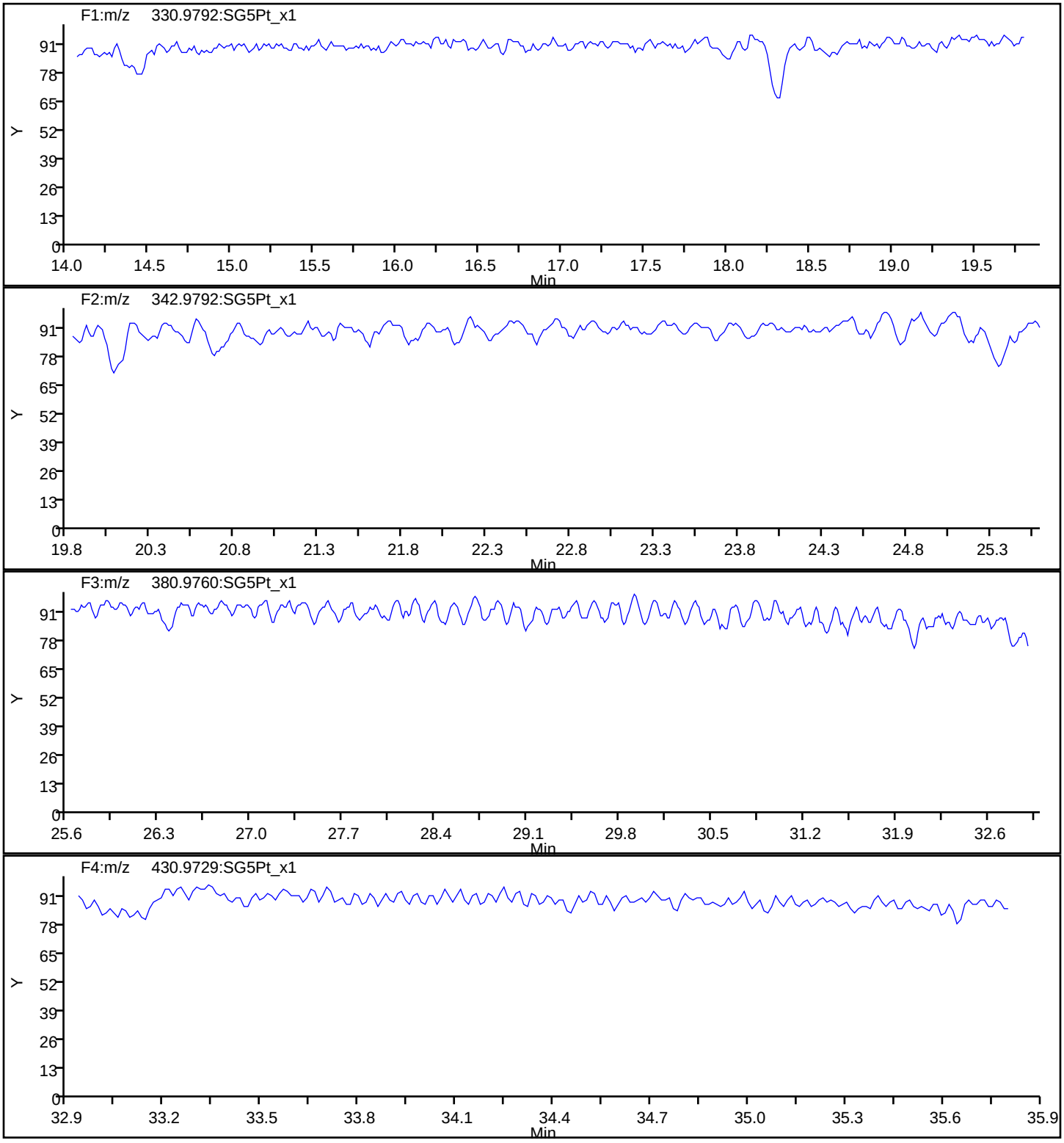




Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

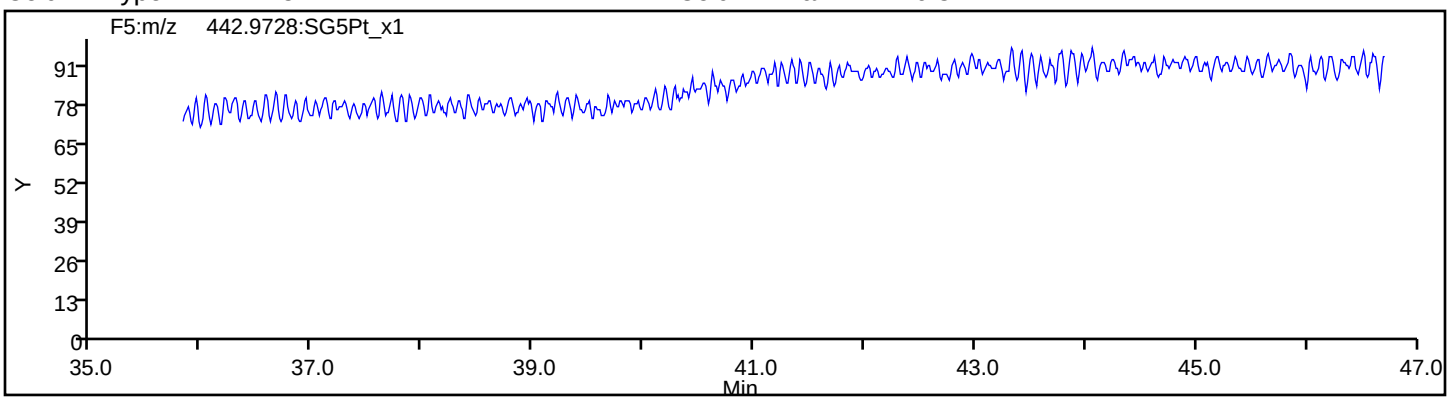
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 12:40:20 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_75.d		
Injection Date:	22-Jul-2019 13:04:04	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309104	Sample Line#:	75
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: 22T-SG-16_20190716 RA Lab Sample ID: 580-87706-15 RA

Matrix: Solid Lab File ID: 22JL19A4D2_010.d

Analysis Method: 1613B Date Collected: 07/16/2019 14:24

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10.08(g) Date Analyzed: 07/22/2019 16:36

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: 56.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 309356 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
51207-31-9	2,3,7,8-TCDF	8.5		2.3	0.35

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
89059-46-1	13C-2,3,7,8-TCDF	77		24-169

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	87		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d				
Lims ID:	580-87706-C-15-A				
Client ID:	22T-SG-16_20190716				
Sample Type:	Client				
Inject. Date:	22-Jul-2019 16:36:15	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Sample Info:	580-87706-C-15-A				
Misc. Info.:	DB225RES				
Operator ID:		Instrument ID:	4D2		
Method:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m				
Limit Group:	HR - 1613B - ICAL				
Last Update:	22-Jul-2019 20:19:56	Calib Date:	13-May-2019 21:39:42		
Integrator:	Picker				
Quant Method:	Isotopic Dilution	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d				
Column 1 :	DB-225 (0.32 mm)		Det: F1:HRSIR		
Process Host:	CTX0331				
First Level Reviewer: messecara		Date:	22-Jul-2019 20:20:14		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.936	42377171	0.82	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.089	44399134	0.78	1.3652	76.7	76.7	0.3929	0.3929	76.74	
2,3,7,8-TCDF	16.089	972832	0.76	1.1747	1.865	1.865	0.0783	0.0783		M
D 13C-2,3,7,8-TCDD	14.662	28287838	0.81	0.9684	68.9	68.9	0.2694	0.2694	68.93	
$ 37Cl4-2,3,7,8-TCDD	14.676	18859923		1.2853	34.6	34.6	0.0629	0.0629	86.57	
2,3,7,8-TCDD	14.660						0.0931	0.0931		

QC Flag Legend

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d
Lims ID: 580-87706-C-15-A
Client ID: 22T-SG-16_20190716
Sample Type: Client
Inject. Date: 22-Jul-2019 16:36:15 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 580-87706-C-15-A
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:19:56 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

First Level Reviewer: messecara Date: 22-Jul-2019 20:20:14

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.936	14.915	1		19052429	3938201	5513	13782	714		
333.9339	14.936	14.915	1		23324742	4874171	3684	9210	1323	0.82(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.089	16.068	3	1.077	19410661	3517444	10626	26565	331		
317.9389	16.075	16.068	2	1.076	24988473	4544149	8281	20702	549	0.78(0.65-0.89)	
2,3,7,8-TCDF											M
303.9016	16.089	16.075	1	1.000	420161	86379	1318	3295	66		M
305.8987	16.075	16.075	0	0.999	552671	110204	1648	4120	67	0.76(0.65-0.89)	M
13C-2,3,7,8-TCDD											
331.9368	14.662	14.667	1	0.982	12626084	2861990	5513	13782	519		
333.9339	14.648	14.667	0	0.981	15661754	3313595	3684	9210	899	0.81(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.676	14.655	1	0.983	18859923	4296686	2849	7122	1508		
2,3,7,8-TCDD											
319.8965	14.675						1336	3340			
321.8936	14.675						1483	3707			

QC Flag Legend

Review Flags
M - Manually Integrated

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

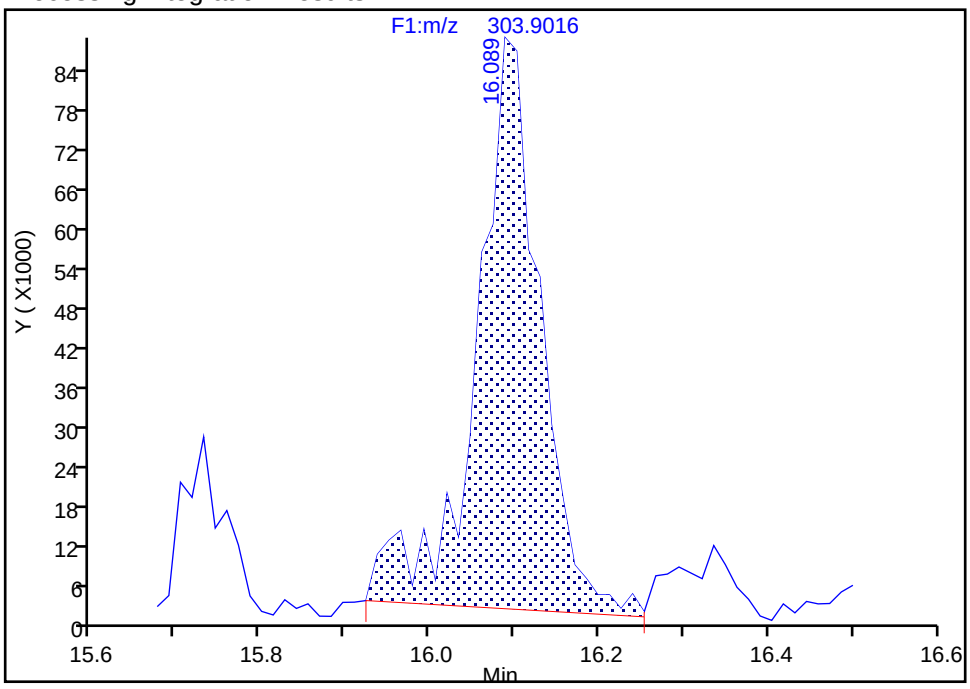
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d				
Injection Date:	22-Jul-2019 16:36:15	Instrument ID:	4D2		
Lims ID:	580-87706-C-15-A	Lab Sample ID:	320-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL		
Column:	DB-225 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDF, CAS: 51207-31-9

Signal: 1

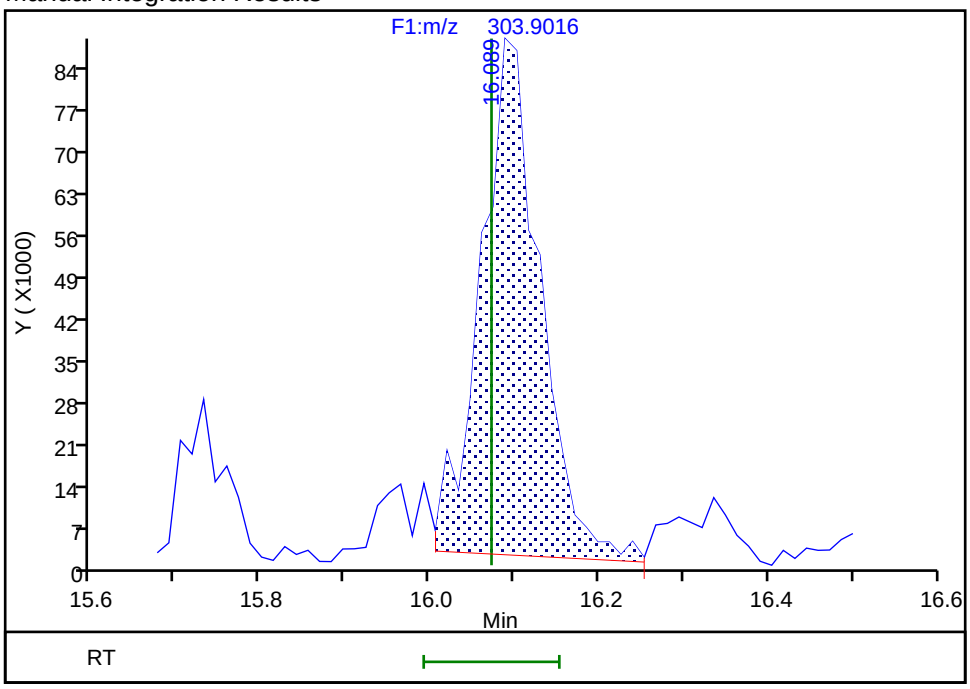
Processing Integration Results

RT: 16.09
Area: 455118
Amount: 2.036254
Amount Units: pg/ul



Manual Integration Results

RT: 16.09
Area: 420161
Amount: 1.865285
Amount Units: pg/ul



Reviewer: messecara, 22-Jul-2019 20:19:06

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

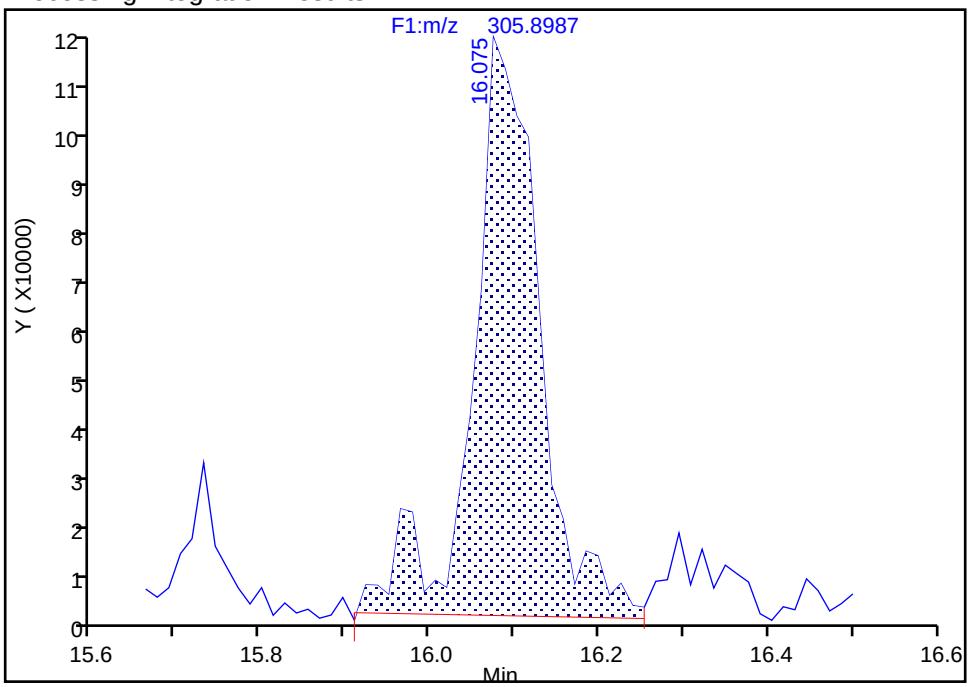
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d				
Injection Date:	22-Jul-2019 16:36:15	Instrument ID:	4D2		
Lims ID:	580-87706-C-15-A	Lab Sample ID:	320-87706-15		
Client ID:	22T-SG-16_20190716				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL		
Column:	DB-225 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDF, CAS: 51207-31-9

Signal: 2

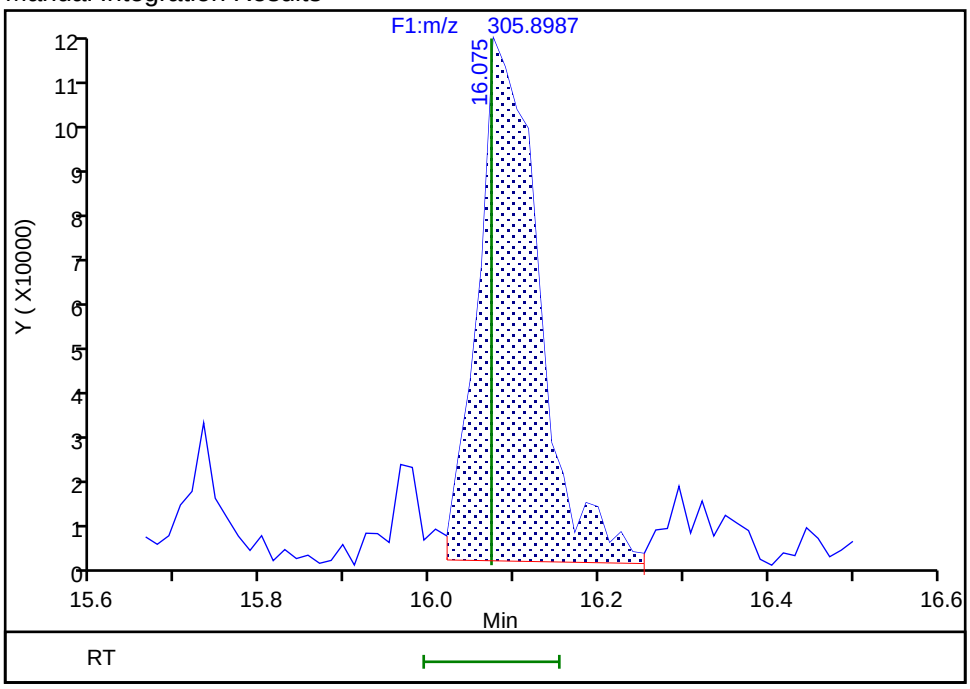
Processing Integration Results

RT: 16.07
Area: 606882
Amount: 2.036254
Amount Units: pg/ul



Manual Integration Results

RT: 16.07
Area: 552671
Amount: 1.865285
Amount Units: pg/ul



Reviewer: messecara, 22-Jul-2019 20:19:14

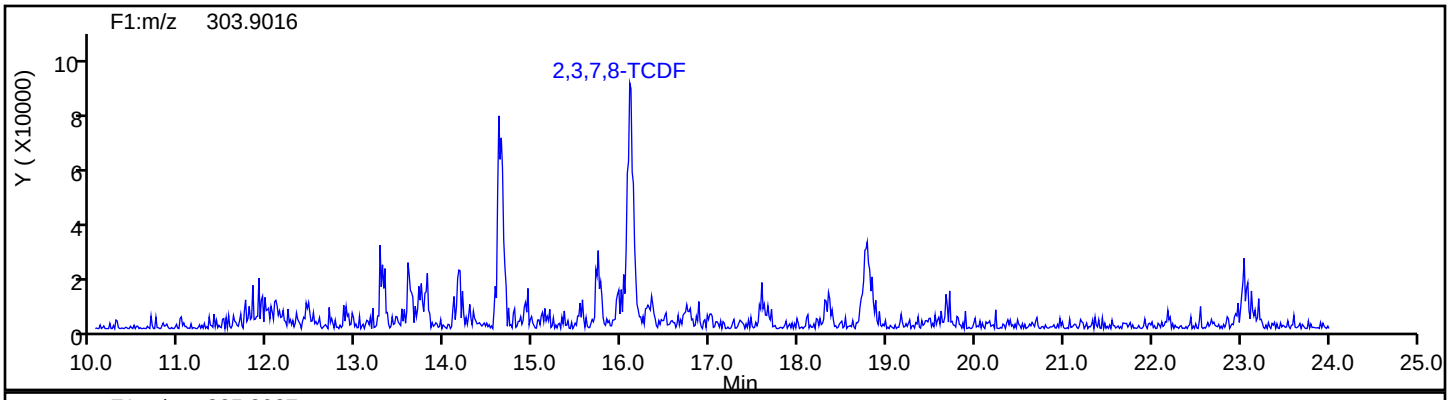
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

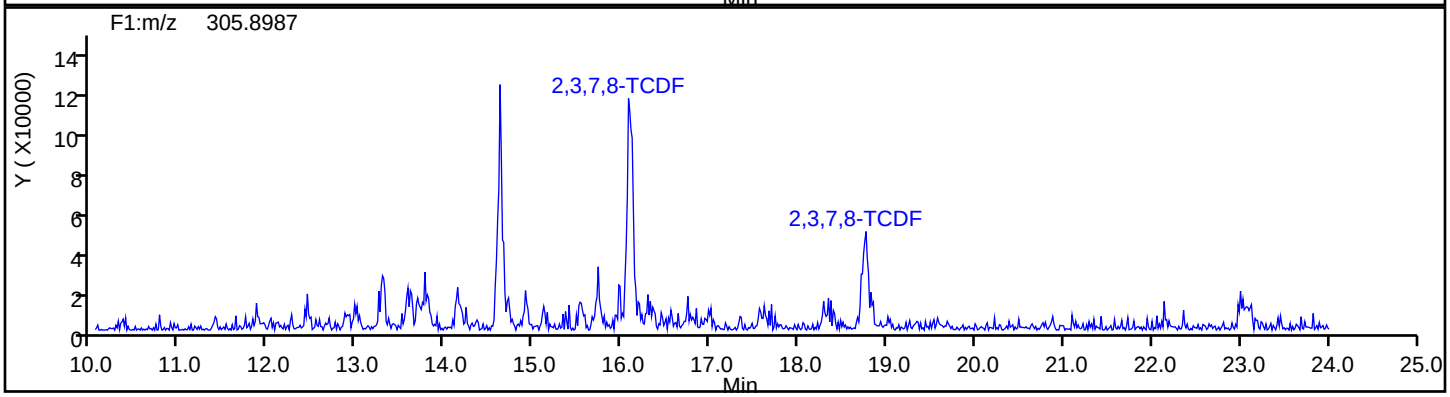
Report Date: 22-Jul-2019 20:22:05 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

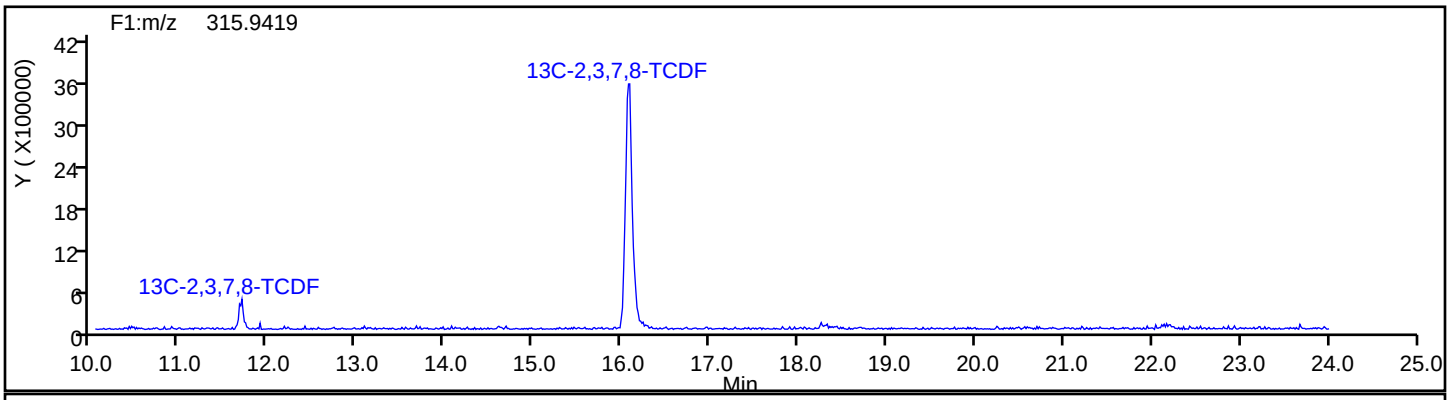
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d		
Injection Date:	22-Jul-2019 16:36:15	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309356	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

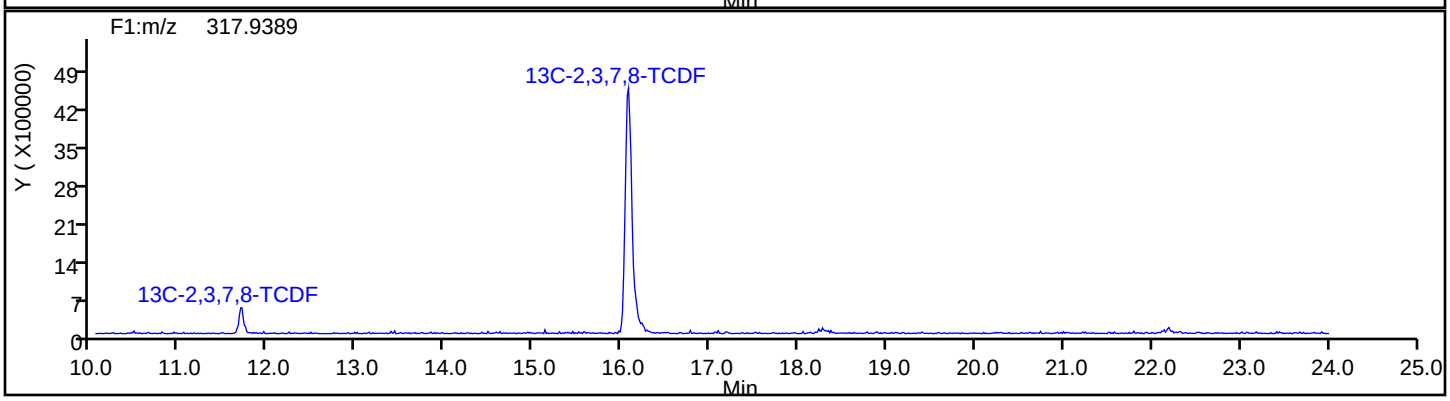
TCDF





TCDF Standards



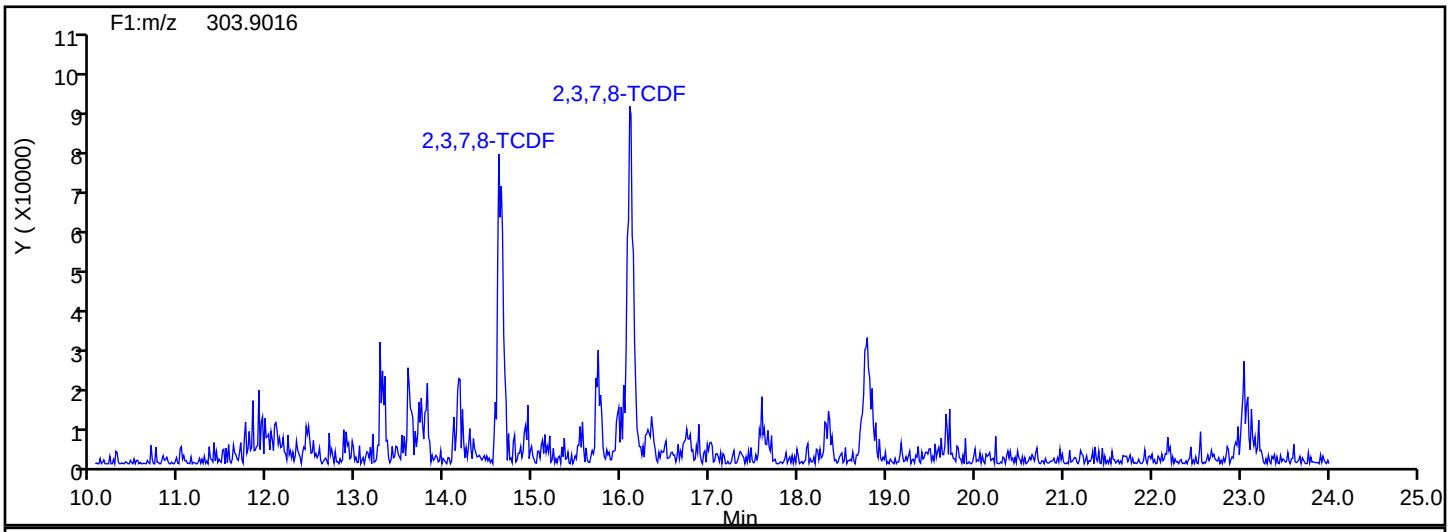


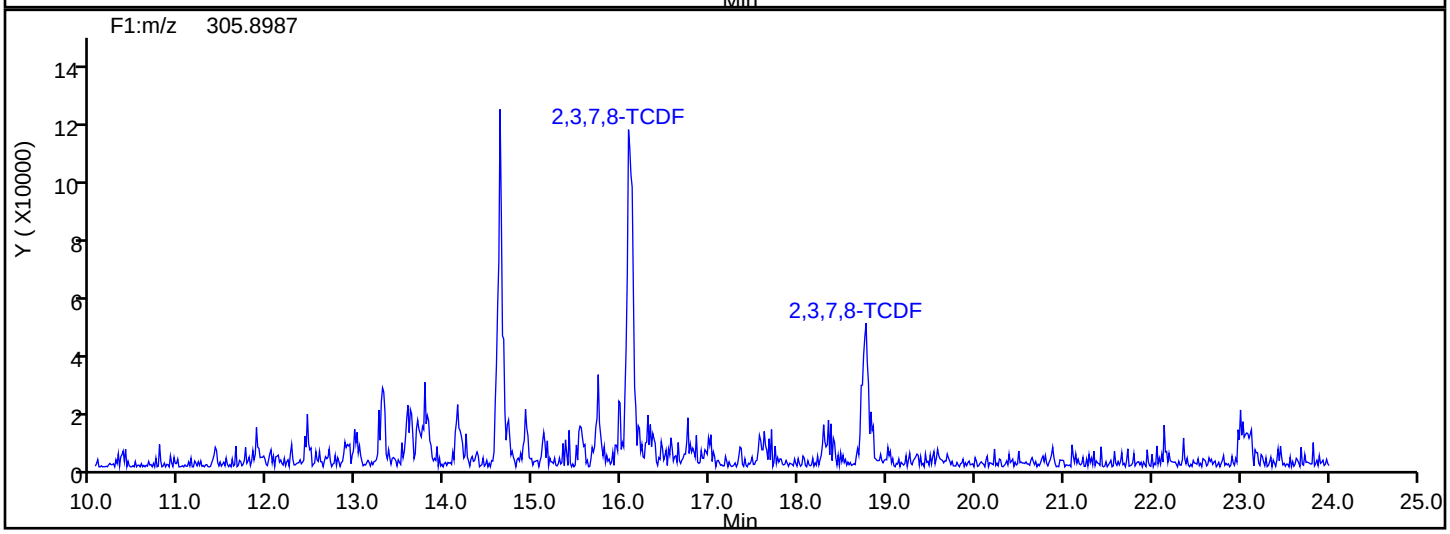
Report Date: 22-Jul-2019 20:22:05 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

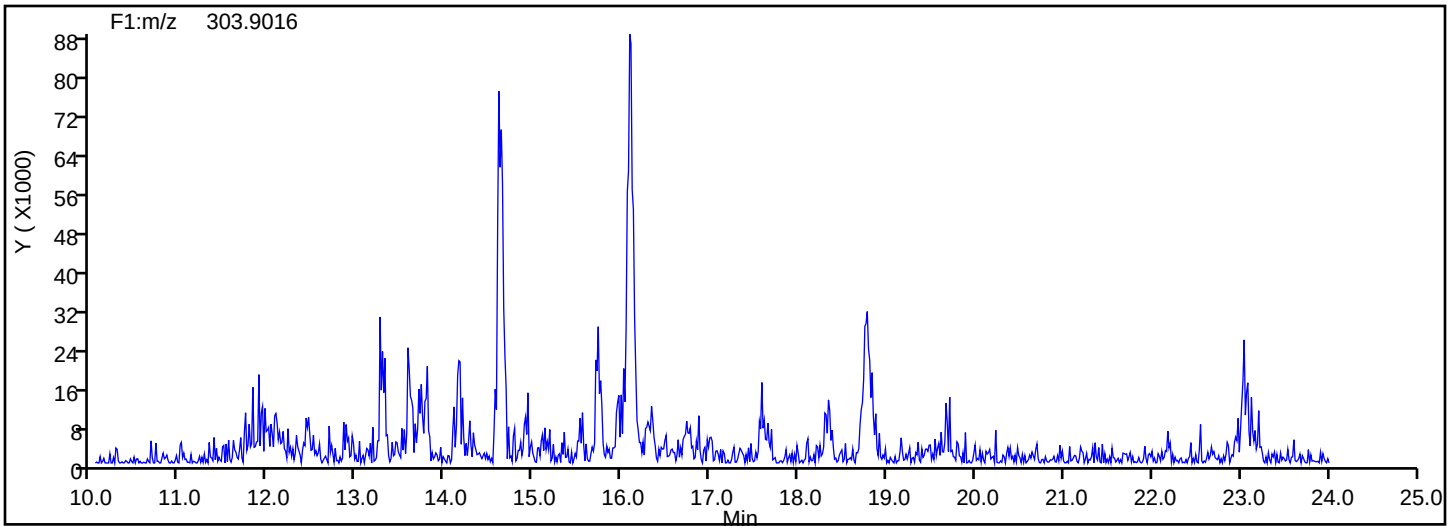
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d		
Injection Date:	22-Jul-2019 16:36:15	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309356	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

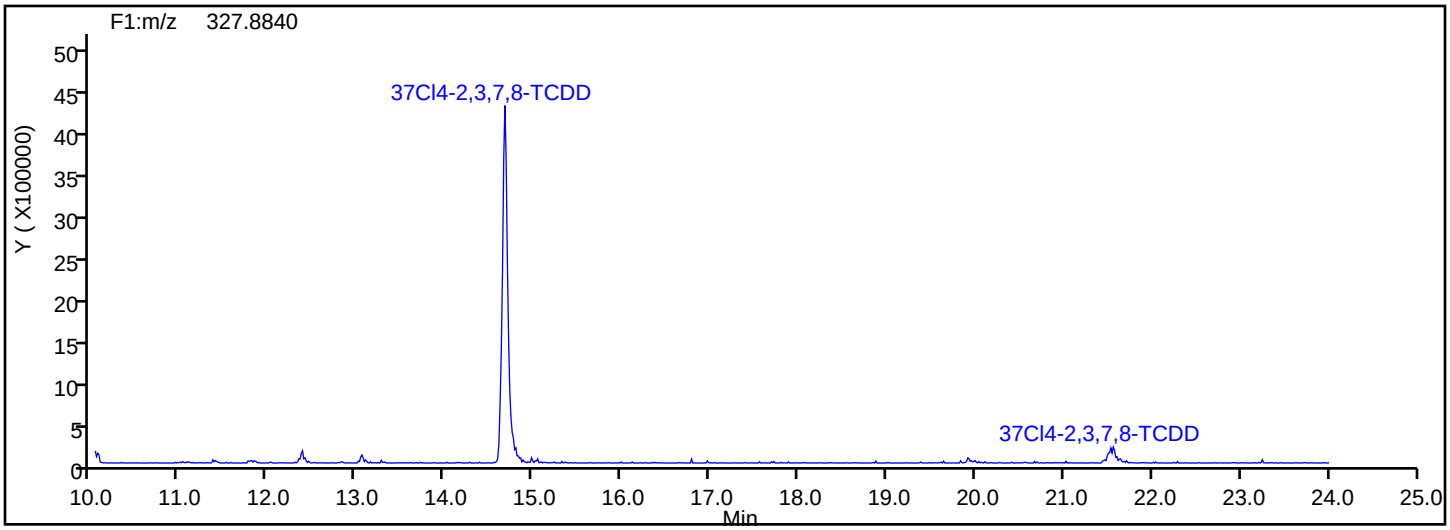


Report Date: 22-Jul-2019 20:22:05 Chrom Revision: 2.3 15-Jul-2019 06:58:08

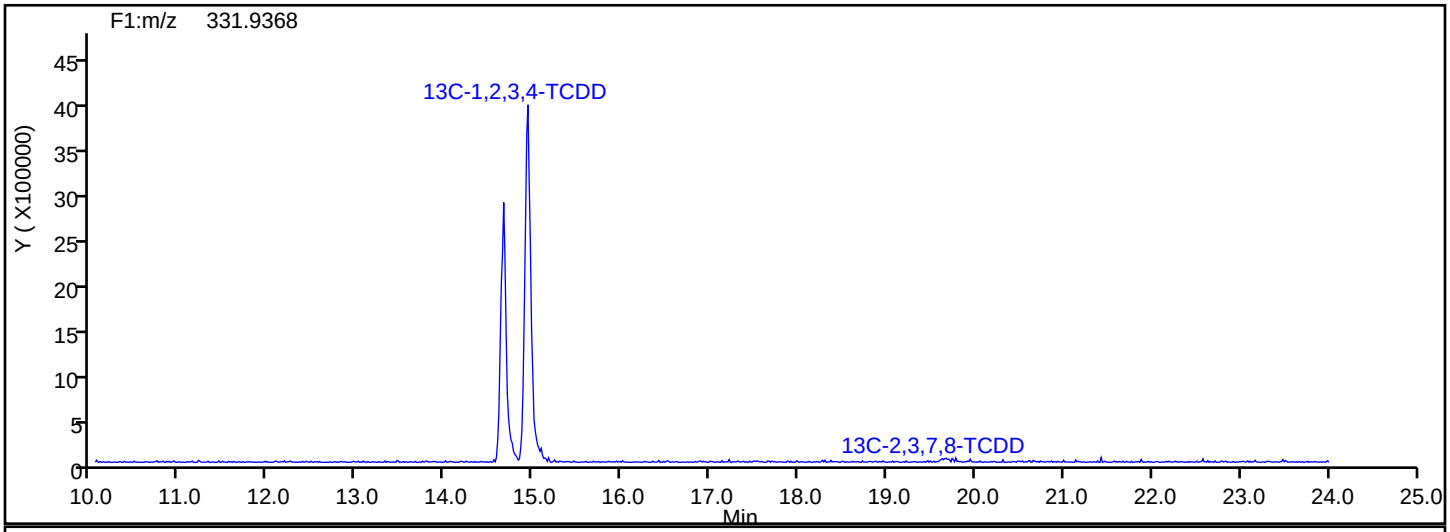
Eurofins TestAmerica, Sacramento

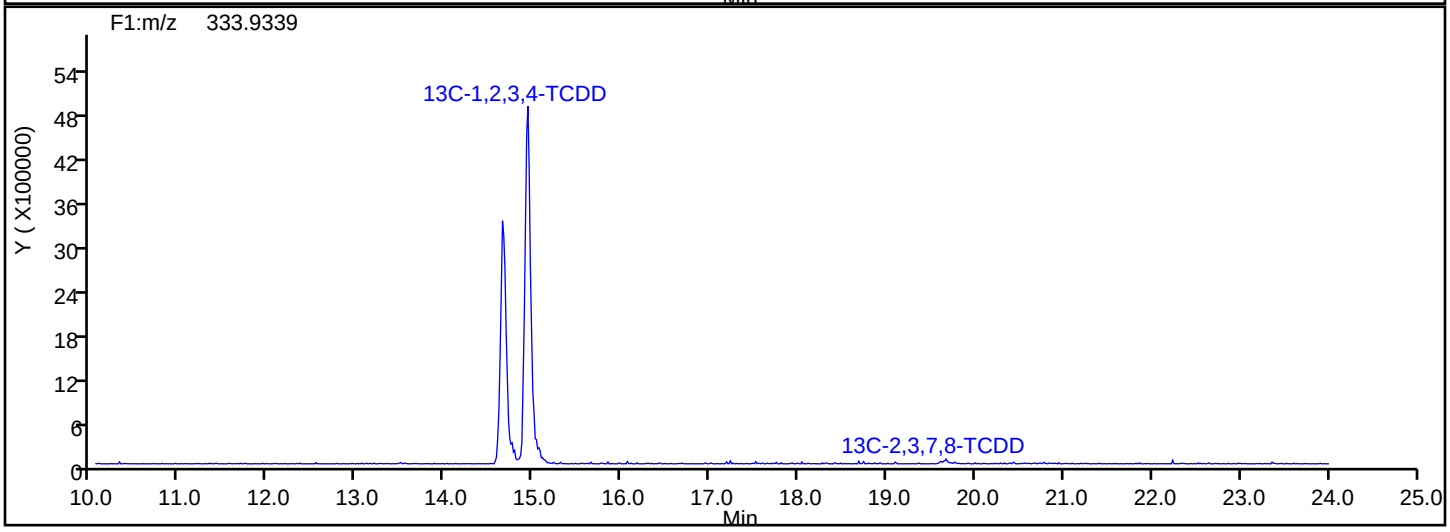
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d		
Injection Date:	22-Jul-2019 16:36:15	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309356	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

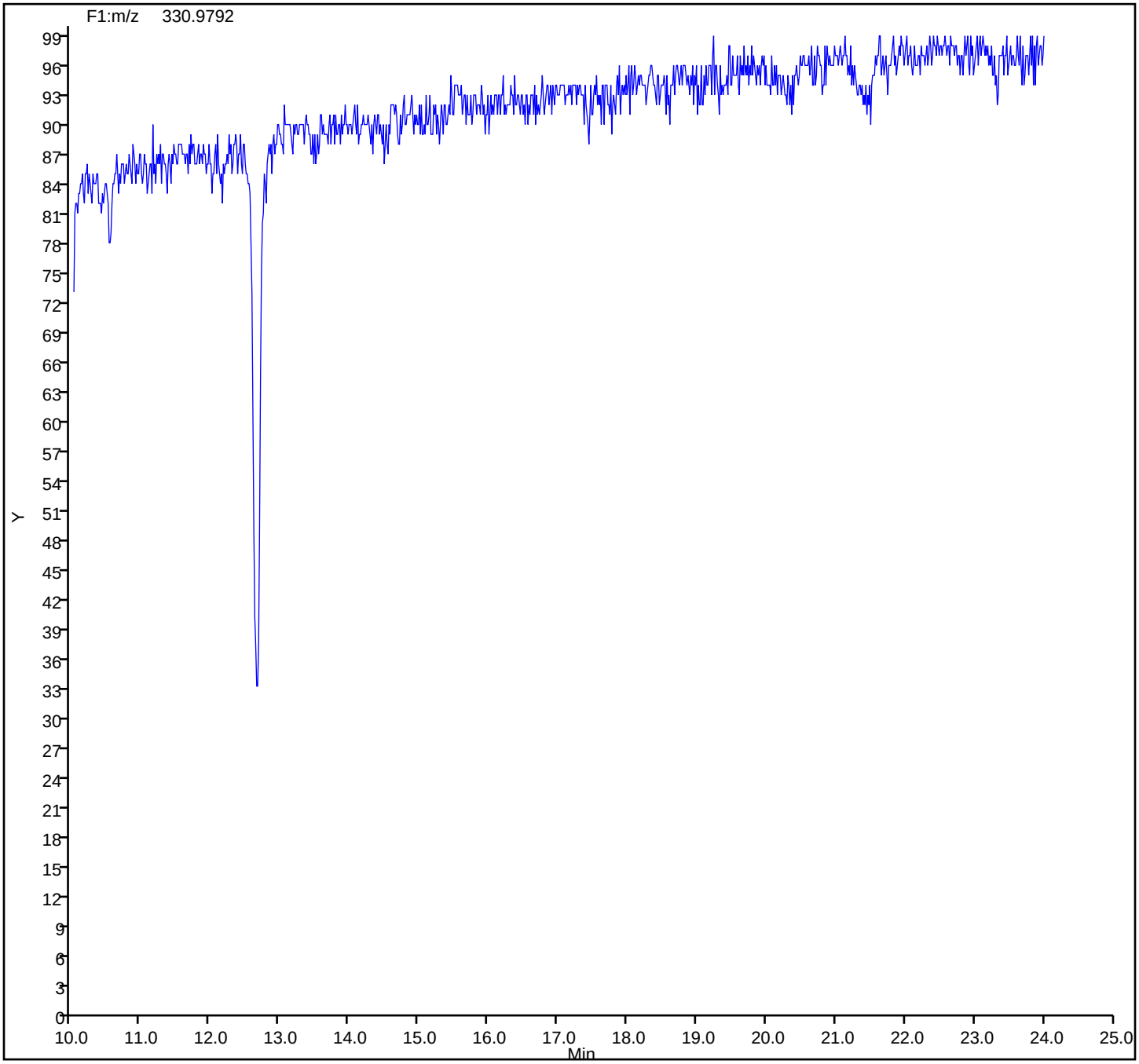




Report Date: 22-Jul-2019 20:22:05 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_010.d		
Injection Date:	22-Jul-2019 16:36:15	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:	22T-SG-16_20190716		
Worklist#:	309356	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm



FORM VI
DIOXIN BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1 Analy Batch No.: 296020

SDG No.:

Instrument ID: 3D5 GC Column: DB-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/21/2019 13:31 Calibration End Date: 05/21/2019 16:41 Calibration ID: 45441

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 320-296020/3	L2	21MY193D5_3.d
Level 2	IC 320-296020/4	L3	21MY193D5_4.d
Level 3	IC 320-296020/5	L4	21MY193D5_5.d
Level 4	IC 320-296020/6	L5	21MY193D5_6.d
Level 5	IC 320-296020/7	L6	21MY193D5_7.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2,3,7,8-TCDF	0.9235	1.0277	0.9254	0.9642	1.0145	AveID		0.9710				5.0		20.0			
2,3,7,8-TCDD	0.9868	1.0854	0.9844	1.0576	1.1094	AveID		1.0447				5.5		20.0			
1,2,3,7,8-PeCDF	0.9212	1.0165	0.9310	0.9500	0.9980	AveID		0.9633				4.4		20.0			
2,3,4,7,8-PeCDF	0.9013	0.9595	0.9315	0.9479	1.0073	AveID		0.9495				4.1		20.0			
1,2,3,7,8-PeCDD	1.0348	1.1118	1.0315	1.0467	1.0926	AveID		1.0635				3.4		20.0			
1,2,3,4,7,8-HxCDF	1.2235	1.2530	1.1683	1.1699	1.2720	AveID		1.2173				3.9		20.0			
1,2,3,6,7,8-HxCDF	1.1546	1.1775	1.0909	1.0893	1.1435	AveID		1.1311				3.5		20.0			
2,3,4,6,7,8-HxCDF	1.1529	1.2452	1.1372	1.1343	1.1854	AveID		1.1710				3.9		20.0			
1,2,3,4,7,8-HxCDD	1.0623	1.0361	0.9949	1.0012	1.0389	AveID		1.0267				2.7		20.0			
1,2,3,6,7,8-HxCDD	0.9427	1.0364	0.9432	0.9546	1.0086	AveID		0.9771				4.4		20.0			
1,2,3,7,8,9-HxCDD	1.0287	1.1350	1.0333	1.0230	1.0879	AveID		1.0616				4.6		20.0			
1,2,3,7,8,9-HxCDF	1.1727	1.2389	1.1185	1.1557	1.2075	AveID		1.1787				3.9		20.0			
1,2,3,4,6,7,8-HpCDF	1.4662	1.5189	1.3796	1.3864	1.4354	AveID		1.4373				4.0		20.0			
1,2,3,4,6,7,8-HpCDD	0.9834	1.0670	0.9676	0.9919	1.0410	AveID		1.0102				4.2		20.0			
1,2,3,4,7,8,9-HpCDF	1.3247	1.3173	1.2830	1.2914	1.3291	AveID		1.3091				1.6		20.0			
OCDD	1.0637	1.1266	1.0057	1.0394	1.0781	AveID		1.0627				4.2		20.0			
OCDF	1.2978	1.4332	1.2848	1.3407	1.3941	AveID		1.3501				4.7		20.0			
13C-2,3,7,8-TCDF	1.3836	1.3338	1.3849	1.4223	1.4295	Ave		1.3908				2.7		35.0			
13C-2,3,7,8-TCDD	0.9573	0.9495	0.9844	0.9897	1.0284	Ave		0.9819				3.2		35.0			
13C-1,2,3,7,8-PeCDF	1.1429	1.1045	1.1235	1.1955	1.2260	Ave		1.1585				4.4		35.0			
13C-2,3,4,7,8-PeCDF	1.1386	1.1650	1.0868	1.1757	1.1996	Ave		1.1532				3.7		35.0			
13C-1,2,3,7,8-PeCDD	0.7434	0.7190	0.7050	0.7662	0.7820	Ave		0.7431				4.3		35.0			
13C-1,2,3,4,7,8-HxCDF	0.9384	0.9755	0.9735	1.0280	1.0031	Ave		0.9837				3.4		35.0			
13C-1,2,3,6,7,8-HxCDF	1.1307	1.1096	1.1600	1.1851	1.1916	Ave		1.1554				3.0		35.0			
13C-2,3,4,6,7,8-HxCDF	1.0239	0.9881	1.0230	1.0763	1.0691	Ave		1.0361				3.5		35.0			
13C-1,2,3,4,7,8-HxCDD	0.8114	0.8376	0.7976	0.8574	0.8396	Ave		0.8287				2.9		35.0			
13C-1,2,3,6,7,8-HxCDD	0.9660	0.9004	0.9453	0.9731	0.9625	Ave		0.9495				3.1		35.0			
13C-1,2,3,7,8,9-HxCDF	0.8833	0.8510	0.9177	0.9172	0.9480	Ave		0.9034				4.1		35.0			
13C-1,2,3,4,6,7,8-HpCDF	0.7187	0.6940	0.7219	0.7512	0.7566	Ave		0.7285				3.5		35.0			
13C-1,2,3,4,6,7,8-HpCDD	0.6890	0.6687	0.6928	0.7169	0.7218	Ave		0.6978				3.1		35.0			
13C-1,2,3,4,7,8,9-HpCDF	0.6326	0.6528	0.6328	0.6636	0.6964	Ave		0.6556				4.0		35.0			
13C-OCDD	0.4760	0.4434	0.4715	0.4888	0.5101	Ave		0.4780				5.1		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
DIOXIN BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1 Analy Batch No.: 296020

SDG No.:

Instrument ID: 3D5 GC Column: DB-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/21/2019 13:31 Calibration End Date: 05/21/2019 16:41 Calibration ID: 45441

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
37Cl4-2,3,7,8-TCDD	1.1582	1.1480	1.2123	1.2520	1.3321	Ave		1.2205				6.2					

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
DIOXIN BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1 Analy Batch No.: 296020

SDG No.:

Instrument ID: 3D5 GC Column: DB-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/21/2019 13:31 Calibration End Date: 05/21/2019 16:41 Calibration ID: 45441

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-296020/3	21MY193D5_3.d
Level 2	IC 320-296020/4	21MY193D5_4.d
Level 3	IC 320-296020/5	21MY193D5_5.d
Level 4	IC 320-296020/6	21MY193D5_6.d
Level 5	IC 320-296020/7	21MY193D5_7.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
2,3,7,8-TCDF		AveID	2583748	8507151	34095990	180787829	840711981	0.500	2.00	10.0	40.0	200
2,3,7,8-TCDD		AveID	1910360	6396242	25780110	137985150	661466014	0.500	2.00	10.0	40.0	200
1,2,3,7,8-PeCDF		AveID	10644451	34842727	139131385	748579428	3546729328	2.50	10.0	50.0	200	1000
2,3,4,7,8-PeCDF		AveID	10376103	34688810	134668117	734611177	3502921768	2.50	10.0	50.0	200	1000
1,2,3,7,8-PeCDD		AveID	7777334	24806651	96734118	528599914	2476692315	2.50	10.0	50.0	200	1000
1,2,3,4,7,8-HxCDF		AveID	9674677	31309357	119503669	655348032	3039345430	2.50	10.0	50.0	200	1000
1,2,3,6,7,8-HxCDF		AveID	10999512	33467672	132954258	703421366	3245921873	2.50	10.0	50.0	200	1000
2,3,4,6,7,8-HxCDF		AveID	9947333	31515470	122235023	665213059	3018880889	2.50	10.0	50.0	200	1000
1,2,3,4,7,8-HxCDD		AveID	7262639	22229107	83380770	467745053	2077802739	2.50	10.0	50.0	200	1000
1,2,3,6,7,8-HxCDD		AveID	7672652	23903470	93685468	506126926	2312494869	2.50	10.0	50.0	200	1000
1,2,3,7,8,9-HxCDD		AveID	7703029	25265795	94615681	510175959	2335014918	2.50	10.0	50.0	200	1000
1,2,3,7,8,9-HxCDF		AveID	8728060	27006700	107848697	577594332	2727034804	2.50	10.0	50.0	200	1000
1,2,3,4,6,7,8-HpCDF		AveID	8879120	27002265	104642592	567482020	2587172494	2.50	10.0	50.0	200	1000
1,2,3,4,6,7,8-HpCDD		AveID	5709139	18276752	70431011	387463236	1789936585	2.50	10.0	50.0	200	1000
1,2,3,4,7,8,9-HpCDF		AveID	7060600	22029367	85304719	466922689	2204844968	2.50	10.0	50.0	200	1000
OCDD		AveID	8532557	25589607	99639255	553694600	2620168751	5.00	20.0	100	400	2000
OCDF		AveID	10410040	32555639	127299796	714185718	3388401360	5.00	20.0	100	400	2000
13C-2,3,7,8-TCDF	13CTC	Ave	559566492	413896652	368458287	468743621	414364714	100	100	100	100	100
13C-2,3,7,8-TCDD	13CTC	Ave	387167733	294655621	261889190	326174325	298123322	100	100	100	100	100
13C-1,2,3,7,8-PeCDF	13CTC	Ave	462221066	342759465	298897976	393996346	355379894	100	100	100	100	100
13C-2,3,4,7,8-PeCDF	13CTC	Ave	460498490	361518043	289155560	387486784	347746656	100	100	100	100	100
13C-1,2,3,7,8-PeCDD	13CTC	Ave	300639105	223121425	187564907	252511444	226685680	100	100	100	100	100
13C-1,2,3,4,7,8-HxCDF	13CHx	Ave	316288036	249870872	204574619	280079795	238951430	100	100	100	100	100
13C-1,2,3,6,7,8-HxCDF	13CHx	Ave	381078003	284216868	243762567	322882273	283858684	100	100	100	100	100
13C-2,3,4,6,7,8-HxCDF	13CHx	Ave	345112458	253100793	214979709	293235329	254680303	100	100	100	100	100
13C-1,2,3,4,7,8-HxCDD	13CHx	Ave	273468265	214549850	167611922	233591591	199999683	100	100	100	100	100
13C-1,2,3,6,7,8-HxCDD	13CHx	Ave	325568612	230647502	198645382	265112485	229281992	100	100	100	100	100
13C-1,2,3,7,8,9-HxCDF	13CHx	Ave	297701088	217982814	192845424	249896301	225835692	100	100	100	100	100
13C-1,2,3,4,6,7,8-HpCDF	13CHx	Ave	242234960	177773786	151704886	204661502	180241372	100	100	100	100	100
13C-1,2,3,4,6,7,8-HpCDD	13CHx	Ave	232219606	171291409	145580797	195316121	171947941	100	100	100	100	100
13C-1,2,3,4,7,8,9-HpCDF	13CHx	Ave	213198749	167226325	132981445	180782541	165887161	100	100	100	100	100
13C-OCDD	13CHx	Ave	320855579	227149918	198157571	266344587	243044959	200	200	200	200	200
37Cl4-2,3,7,8-TCDD	13CTC	Ave	2342162	7124853	32252457	165050919	772302983	0.500	2.00	10.0	40.0	200

FORM VI
DIOXIN BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1 Analy Batch No.: 296020

SDG No.:

Instrument ID: 3D5 GC Column: DB-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/21/2019 13:31 Calibration End Date: 05/21/2019 16:41 Calibration ID: 45441

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

	File Name	File Text	Sample ID	Bottle	Method/Matrix	Box #	User	Sample Size
1	21MY193D5_1	WDM HRDXNCP_00038	WDM 052119	Tray01:1			AJS	1.000000
2	21MY193D5_2	Solvent Blank C-14	SB 052119	Tray01:3			AJS	1.000000
3	21MY193D5_3	CS-2 HRDXNL2_00024	IC 052119	Tray01:4	Dioxin		AJS	1.000000
4	21MY193D5_4	CS-3 HRDXNL3_00022	IC 052119A	Tray01:5	Dioxin		AJS	1.000000
5	21MY193D5_5	CS-4 HRDXNL4_00077	IC 052119B	Tray01:6	Dioxin		AJS	1.000000
6	21MY193D5_6	CS-5 HRDXNL5_00025	IC 052119C	Tray01:7	Dioxin		AJS	1.000000
7	21MY193D5_7	CS-6 HRDXNL6_00021	IC 052119D	Tray01:8	Dioxin		AJS	1.000000
8	21MY193D5_8	Solvent Blank C-14	SB 052119A	Tray01:3			AJS	1.000000
9	21MY193D5_9	ICV HRDXNIC_00038	ICV 052119	Tray01:9	Dioxin		AJS	1.000000
10	21MY193D5_10	Solvent Blank C-14	SB 052119B	Tray01:3			AJS	1.000000
11	21MY193D5_11	WDM HRDXNCP_00038	WDM 052119	Tray01:1			AJS	1.000000
12	21MY193D5_12	CS-4 HRDXNL4_00077	CCV 052119	Tray01:2			AJS	1.000000
13	21MY193D5_13	Solvent Blank C-14	SB 052119C	Tray01:3			AJS	1.000000

logfile checked
5-21-19 ALM

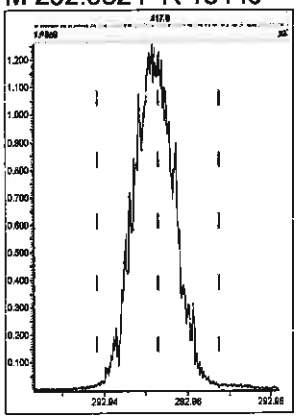
Units	MS File	Inlet File	Inject Volume	Sample Type	Conc A	Conc B	Conc C	Conc D	Conc E	Conc F
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---
	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	0.5	2.5	5	100	200	0.25
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	2	10	20	100	200	1
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	10	50	100	100	200	5
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	40	200	400	100	200	20
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	200	1000	2000	100	200	100
	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---
	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---
	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---
---	Dioxin3D5	dioxinnogc	2.000000	Analyte	10	50	100	100	200	5
	Dioxin3D5	dioxinnogc	2.000000	Analyte	---	---	---	---	---	---

Conc G	Process	Process Options	Action On Error	s5
---	FBAT_ML_FileMover	---	---	C:\CHROM
---	FBAT_ML_FileMover	---	---	C:\CHROM
100	FBAT_ML_FileMover	---	---	C:\CHROM
100	FBAT_ML_FileMover	---	---	C:\CHROM
100	FBAT_ML_FileMover	---	---	C:\CHROM
100	FBAT_ML_FileMover	---	---	C:\CHROM
100	FBAT_ML_FileMover	---	---	C:\CHROM
---	FBAT_ML_FileMover	---	---	C:\CHROM
---	ResolutionCheck	C:\MassLynx\Autospec\dioxinendres.dat	Ignore Error	---
---	ResolutionCheck	C:\MassLynx\Autospec\dioxinendres.dat	Ignore Error	---
---	ResolutionCheck	C:\MassLynx\Autospec\dioxinendres.dat	Ignore Error	---
100	FBAT_ML_FileMover	---	---	C:\CHROM
---	FBAT_ML_FileMover	---	---	C:\CHROM

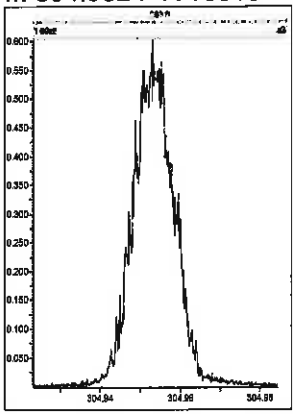
File: Experiment: Dioxin3D5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, May 21, 2019 11:47:36 Pacific Daylight Time

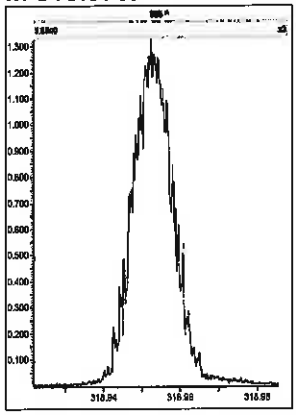
M 292.9824 R 13440



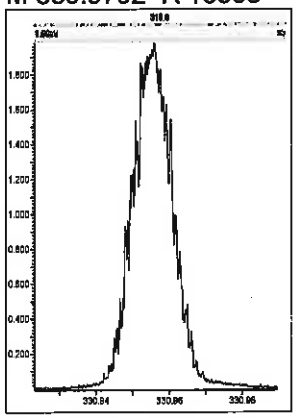
M 304.9824 R 13510



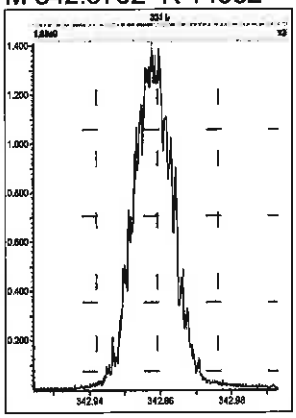
M 318.9792 R 13814



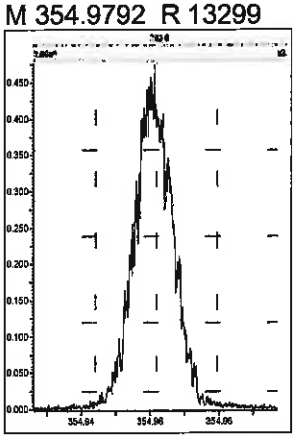
M 330.9792 R 13368



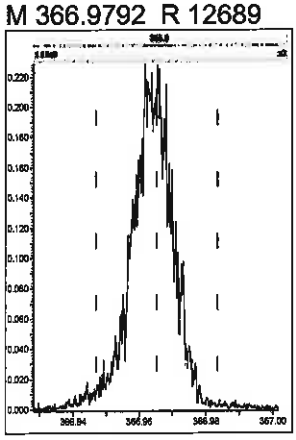
M 342.9792 R 14532



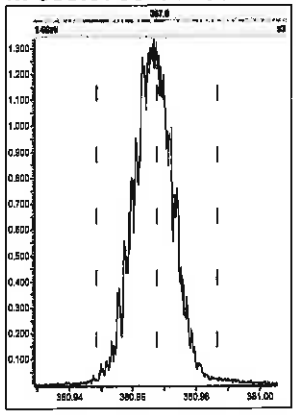
M 354.9792 R 13299



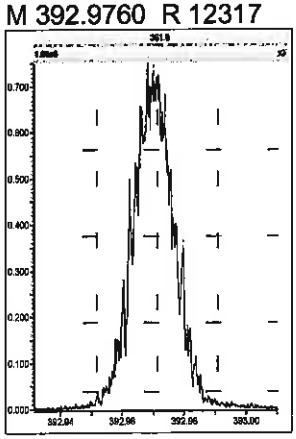
M 366.9792 R 12689



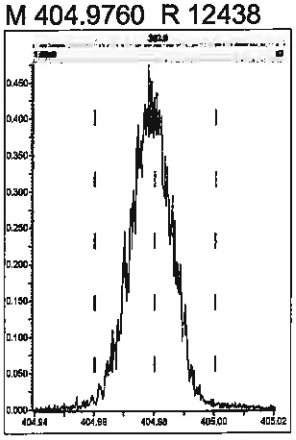
M 380.9760 R 13585



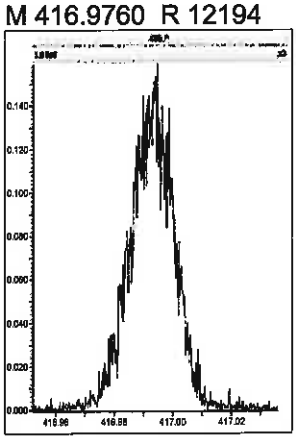
M 392.9760 R 12317



M 404.9760 R 12438



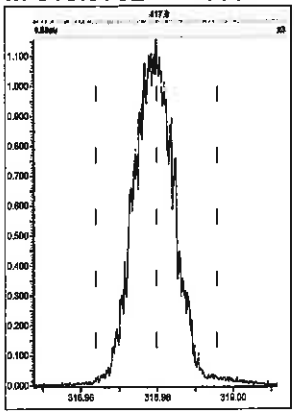
M 416.9760 R 12194



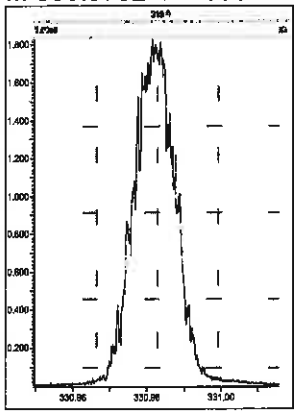
File: Experiment: Dioxin3D5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, May 21, 2019 11:48:07 Pacific Daylight Time

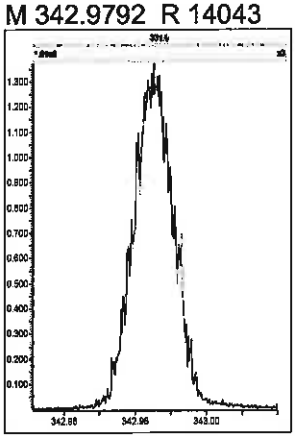
M 318.9792 R 13657



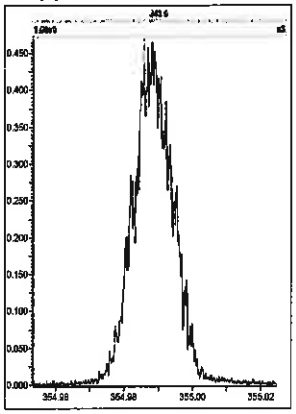
M 330.9792 R 13089



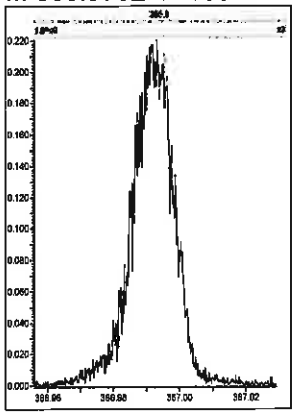
M 342.9792 R 14043



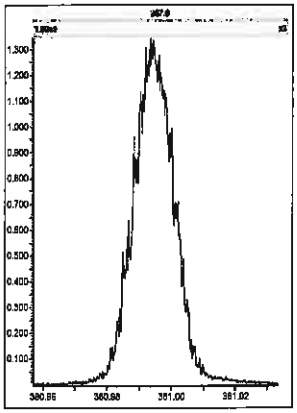
M 354.9792 R 13583



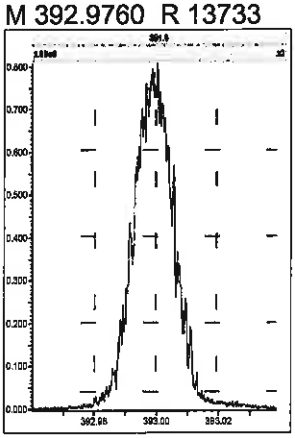
M 366.9792 R 13021



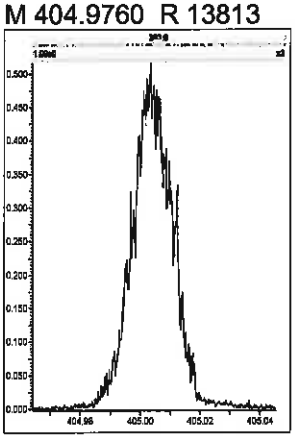
M 380.9760 R 13440



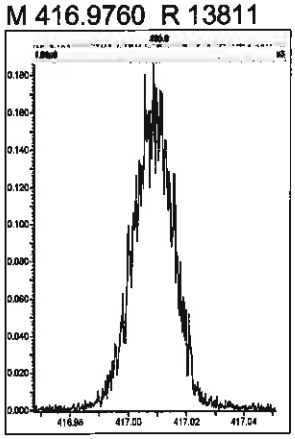
M 392.9760 R 13733



M 404.9760 R 13813



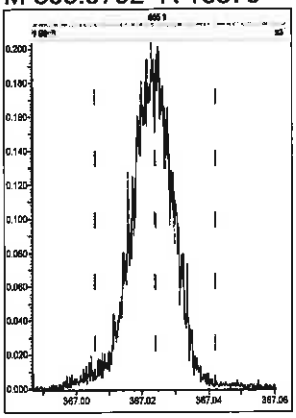
M 416.9760 R 13811



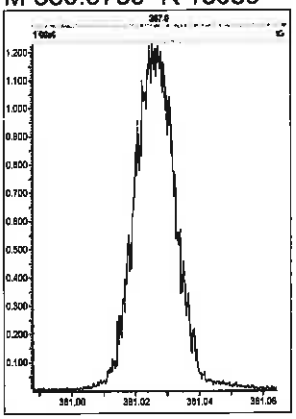
File: Experiment: Dioxin3D5.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, May 21, 2019 11:48:42 Pacific Daylight Time

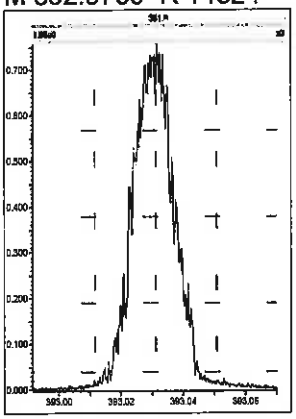
M 366.9792 R 13370



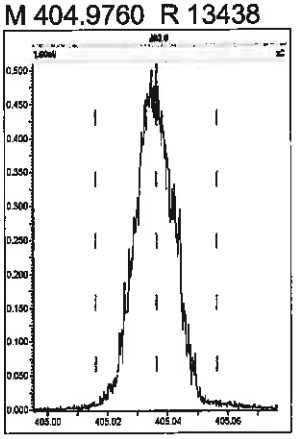
M 380.9760 R 13089



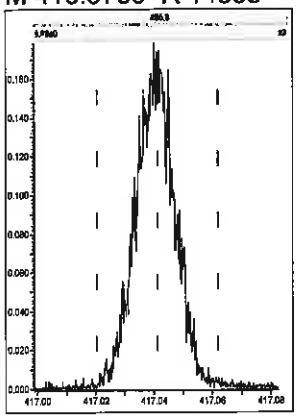
M 392.9760 R 14624



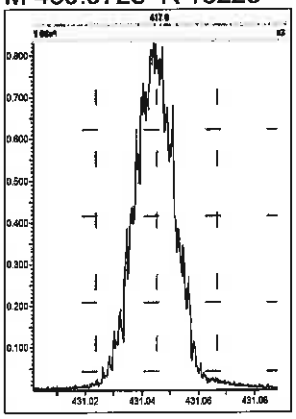
M 404.9760 R 13438



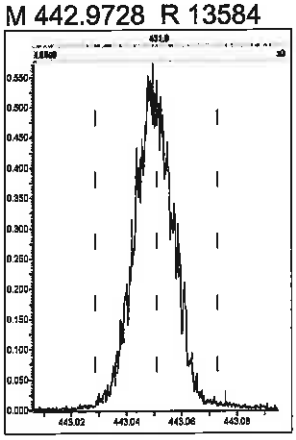
M 416.9760 R 14368



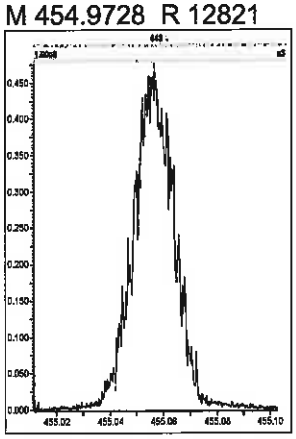
M 430.9728 R 13226



M 442.9728 R 13584



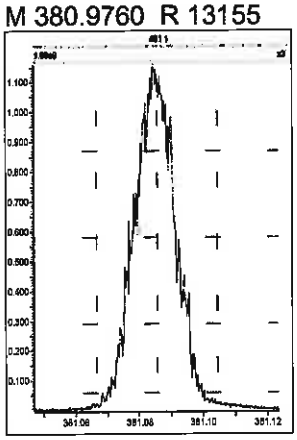
M 454.9728 R 12821



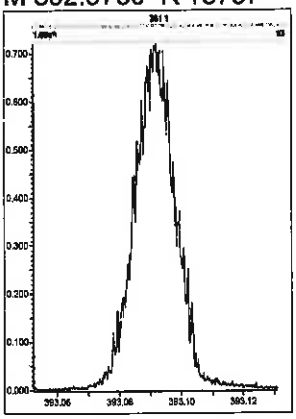
File: Experiment: Dioxin3D5.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, May 21, 2019 11:49:34 Pacific Daylight Time

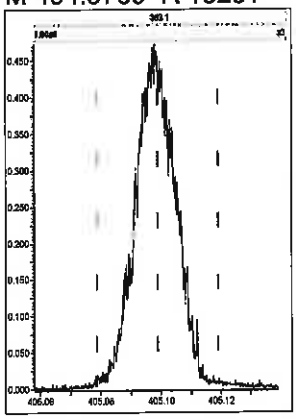
M 380.9760 R 13155



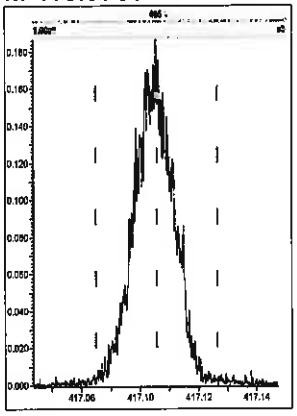
M 392.9760 R 13737



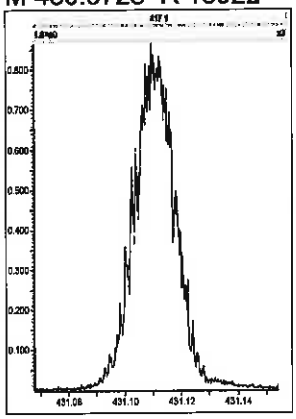
M 404.9760 R 13231



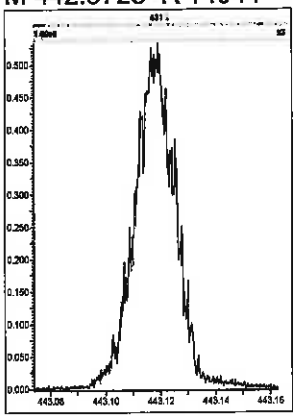
M 416.9760 R 13891



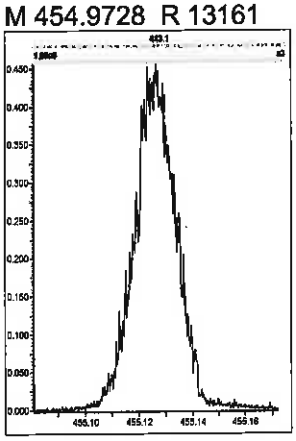
M 430.9728 R 13022



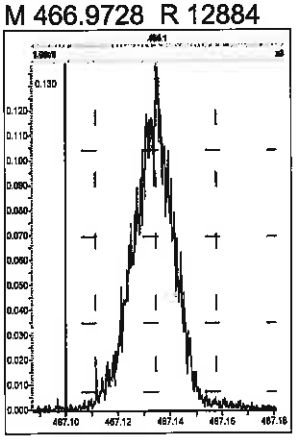
M 442.9728 R 14044



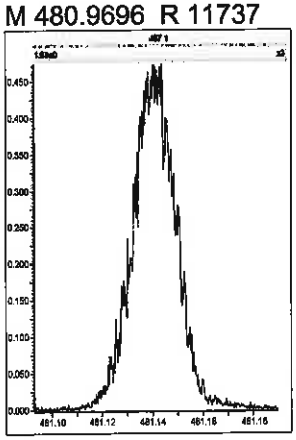
M 454.9728 R 13161



M 466.9728 R 12884



M 480.9696 R 11737

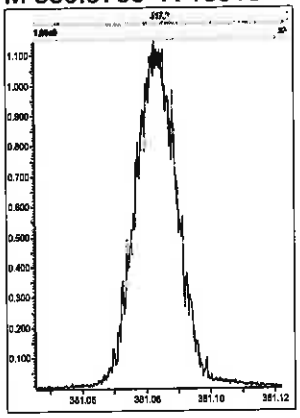


Experiment Calibration Report **MassLynx 4.1**

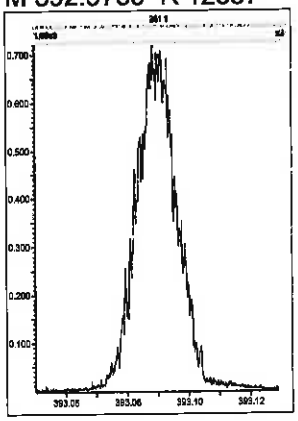
File: Experiment: Dioxin3D5.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, May 21, 2019 11:50:16 Pacific Daylight Time

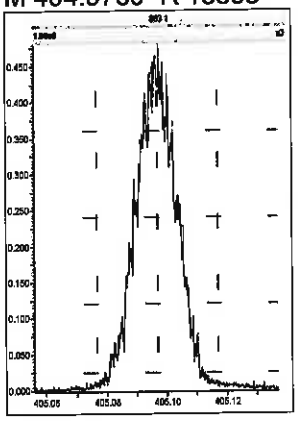
M 380.9760 R 13510



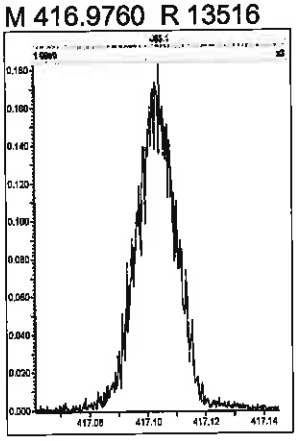
M 392.9760 R 12887



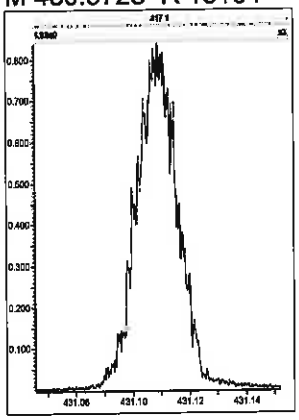
M 404.9760 R 13368



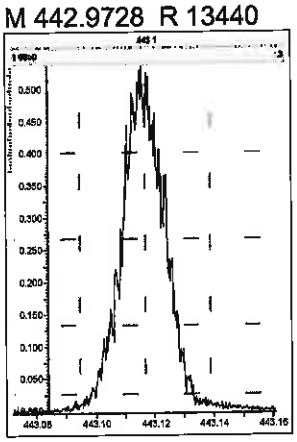
M 416.9760 R 13516



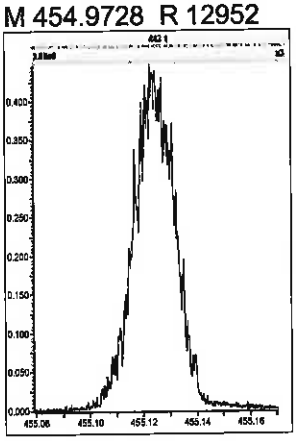
M 430.9728 R 13154



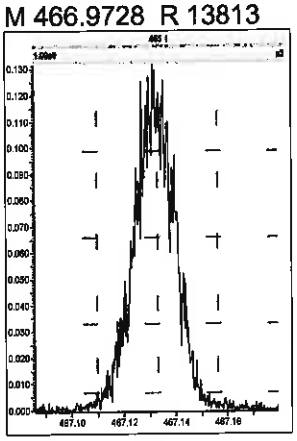
M 442.9728 R 13440



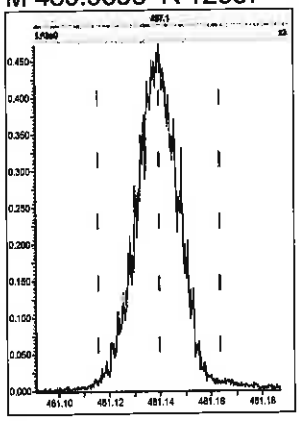
M 454.9728 R 12952



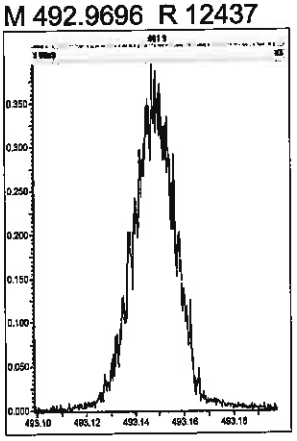
M 466.9728 R 13813



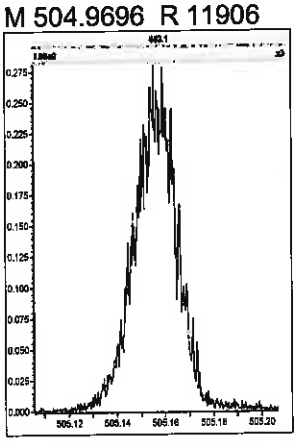
M 480.9696 R 12687



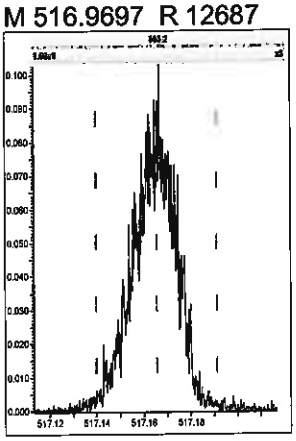
M 492.9696 R 12437



M 504.9696 R 11906

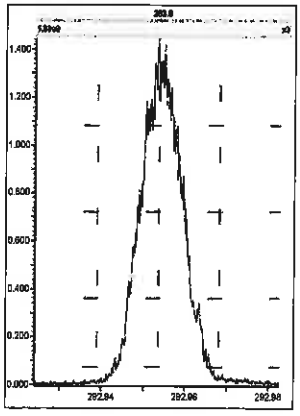


M 516.9697 R 12687

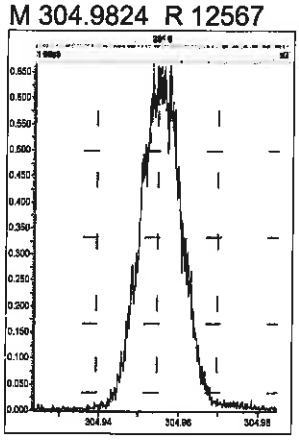


Printed: Tuesday, May 21, 2019 19:13:39 Pacific Daylight Time

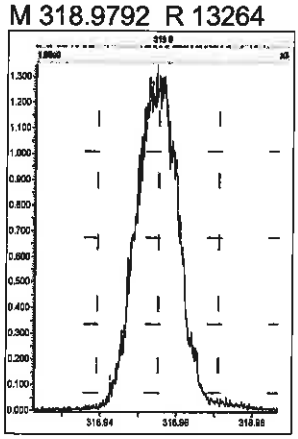
M 292.9824 R 12857



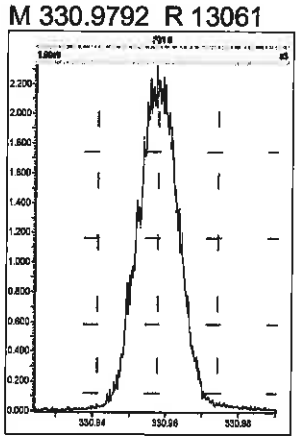
M 304.9824 R 12567



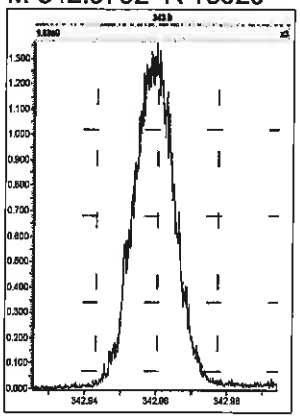
M 318.9792 R 13264



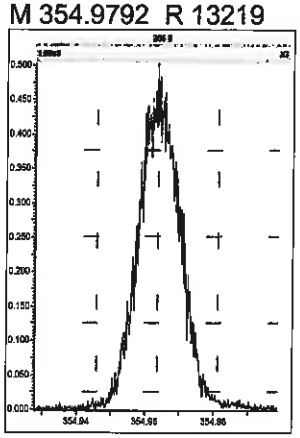
M 330.9792 R 13061



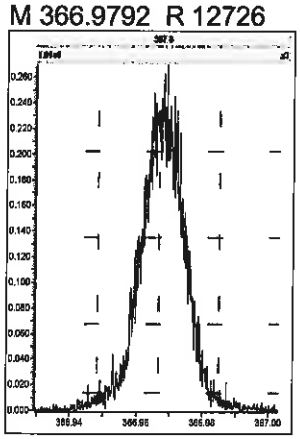
M 342.9792 R 13020



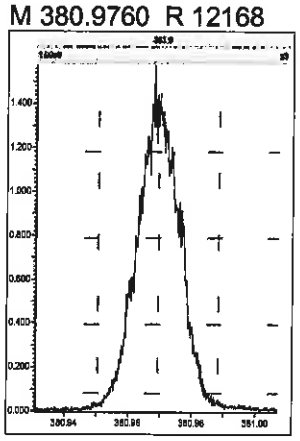
M 354.9792 R 13219



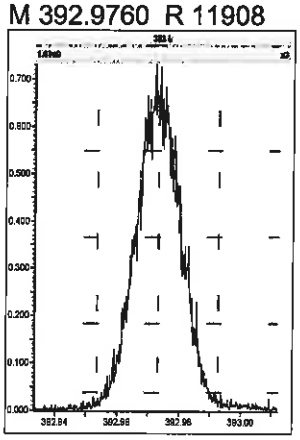
M 366.9792 R 12726



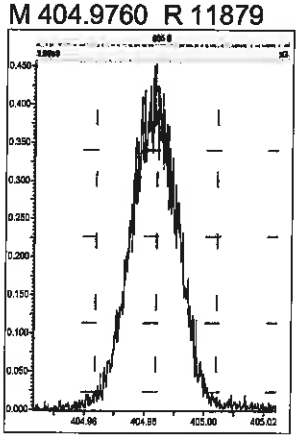
M 380.9760 R 12168



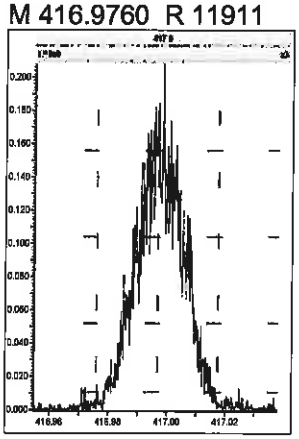
M 392.9760 R 11908



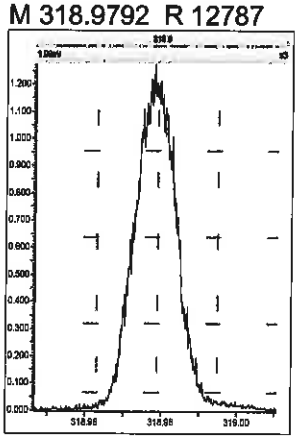
M 404.9760 R 11879



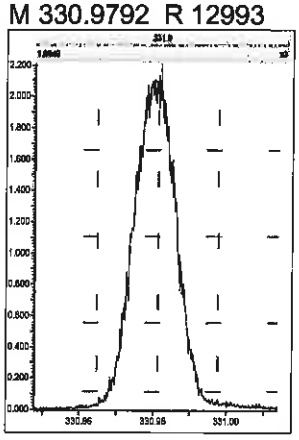
M 416.9760 R 11911



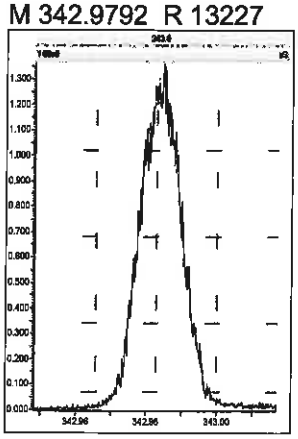
M 318.9792 R 12787



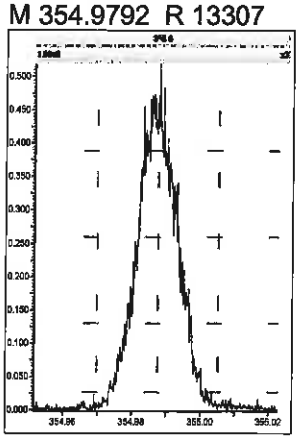
M 330.9792 R 12993



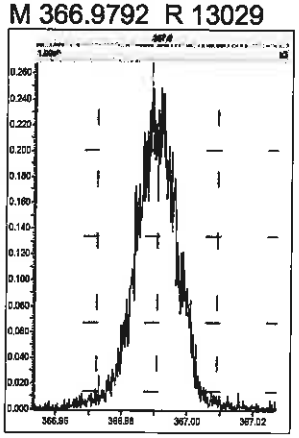
M 342.9792 R 13227



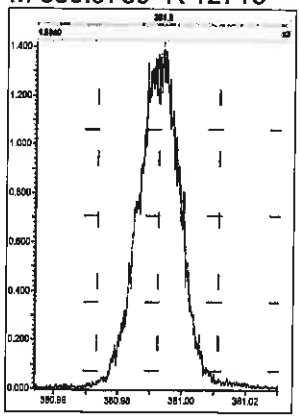
M 354.9792 R 13307



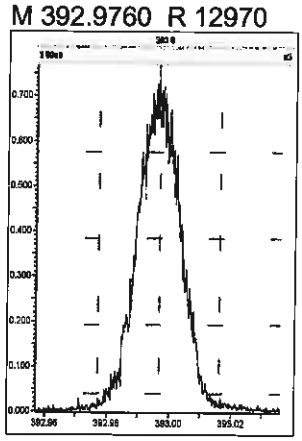
M 366.9792 R 13029



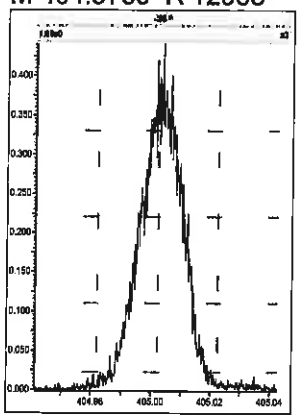
M 380.9760 R 12716



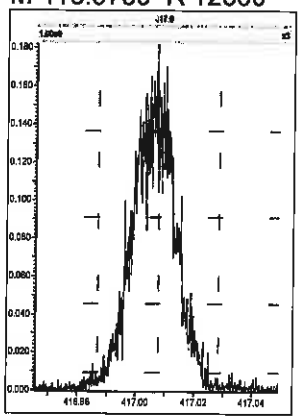
M 392.9760 R 12970



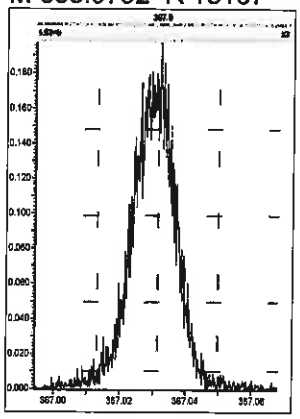
M 404.9760 R 12953



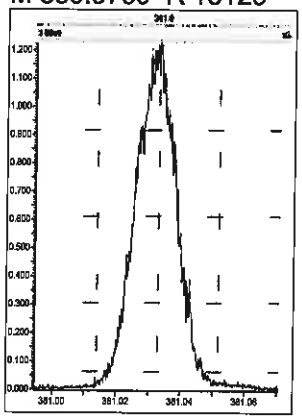
M 416.9760 R 12600



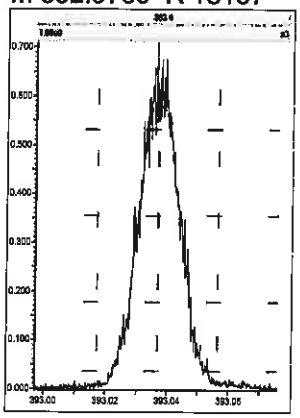
M 366.9792 R 13157



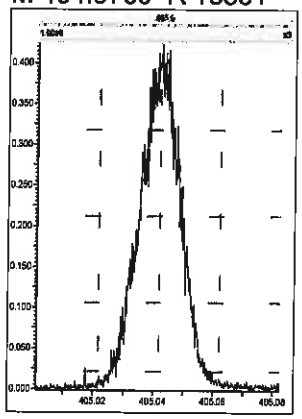
M 380.9760 R 13125



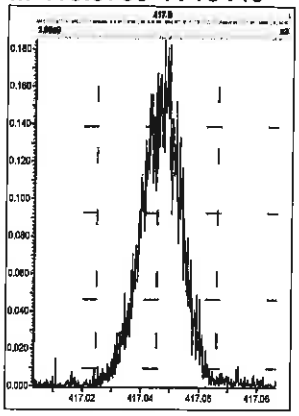
M 392.9760 R 13157



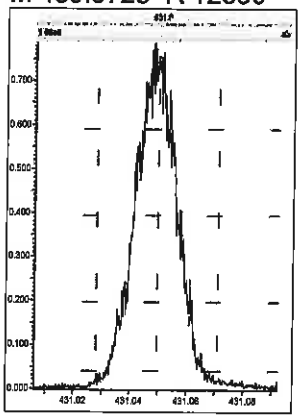
M 404.9760 R 13851



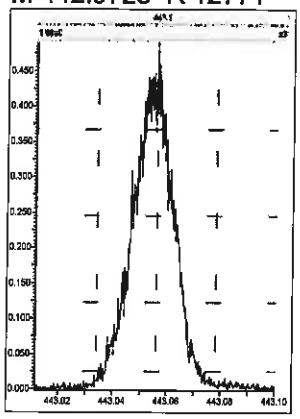
M 416.9760 R 13446



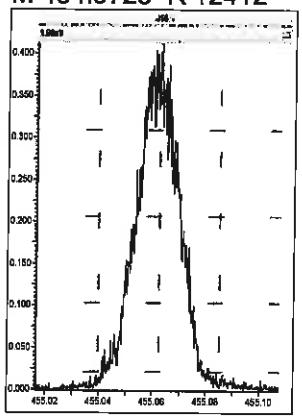
M 430.9728 R 12690



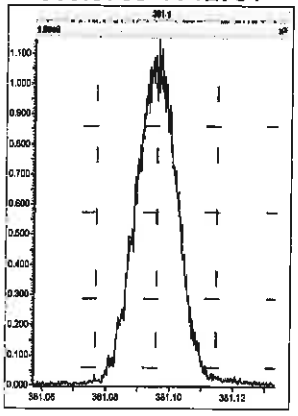
M 442.9728 R 12771



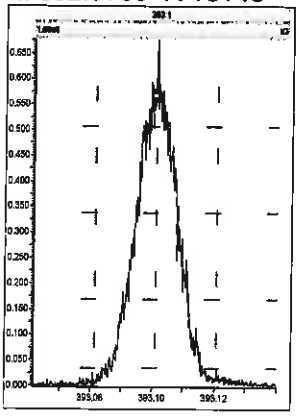
M 454.9728 R 12412



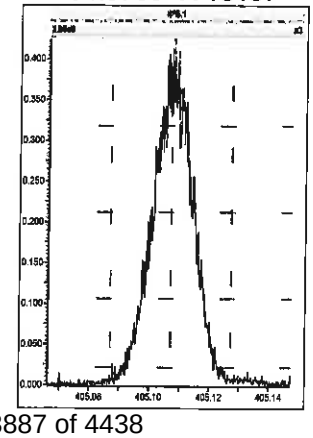
M 380.9760 R 12791



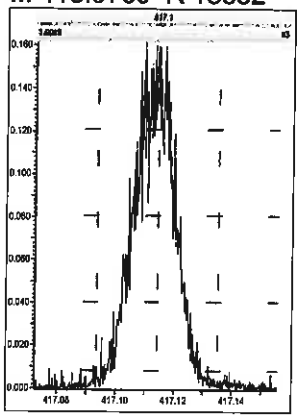
M 392.9760 R 13143



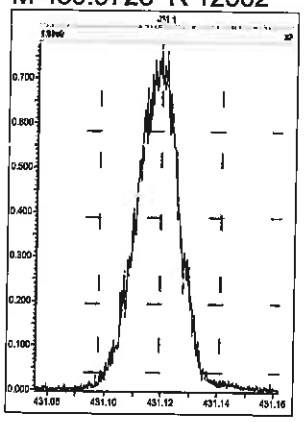
M 404.9760 R 13187



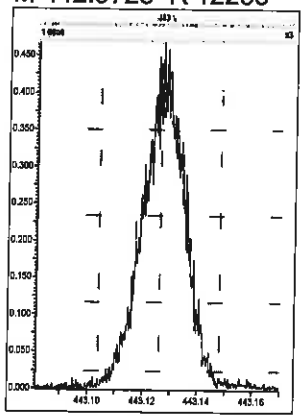
M 416.9760 R 13382



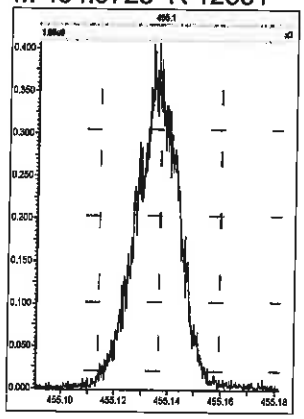
M 430.9728 R 12562



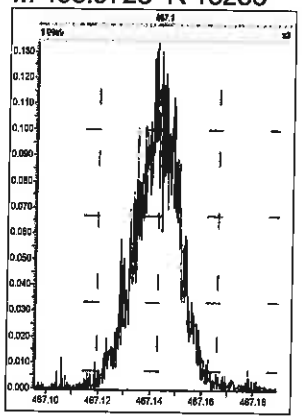
M 442.9728 R 12255



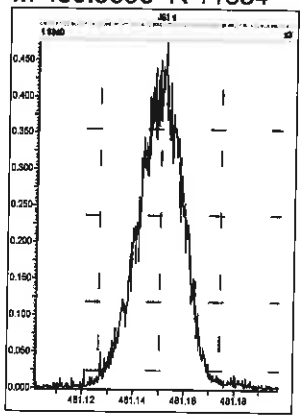
M 454.9728 R 12661



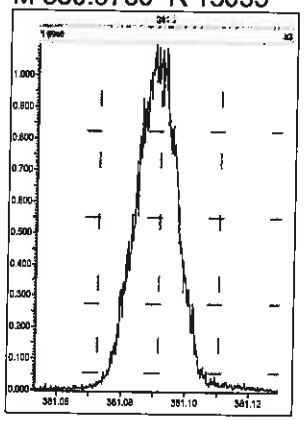
M 466.9728 R 13283



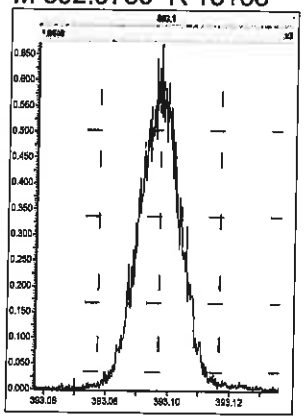
M 480.9696 R 11884



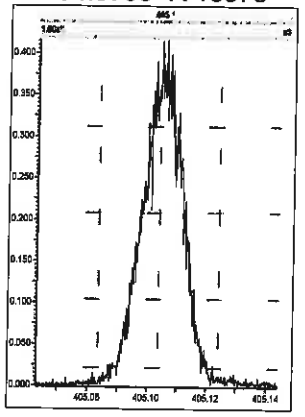
M 380.9760 R 13055



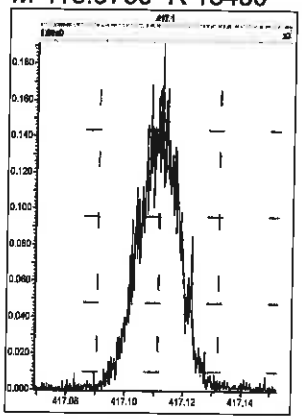
M 392.9760 R 13158



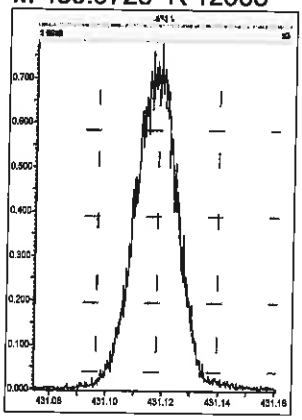
M 404.9760 R 13578



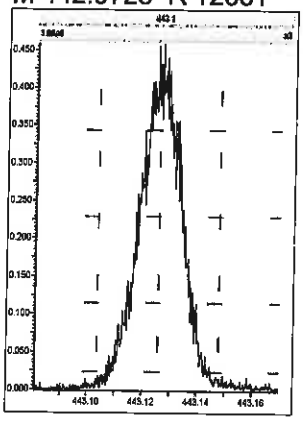
M 416.9760 R 13450



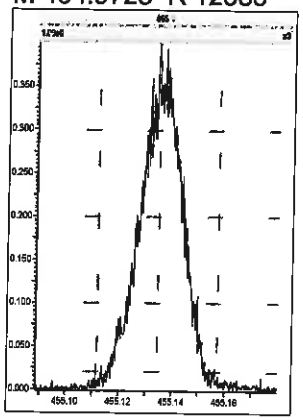
M 430.9728 R 12563



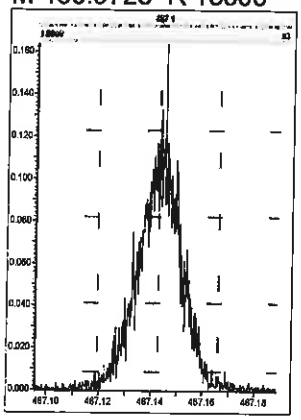
M 442.9728 R 12661



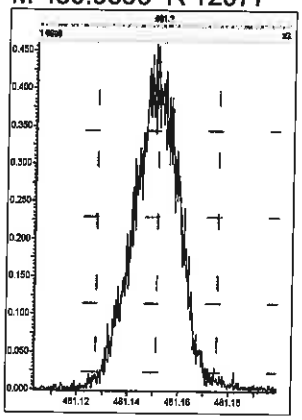
M 454.9728 R 12535



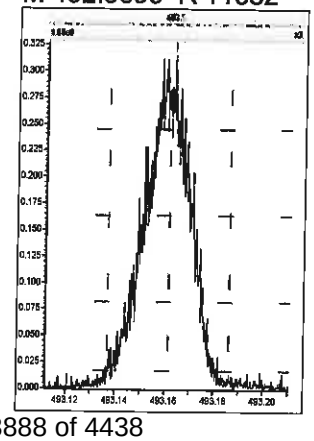
M 466.9728 R 13606



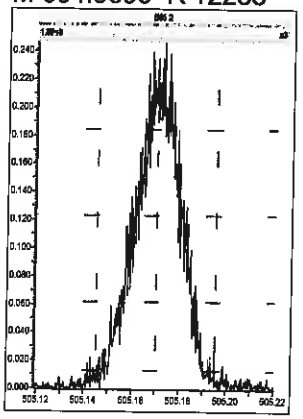
M 480.9696 R 12077



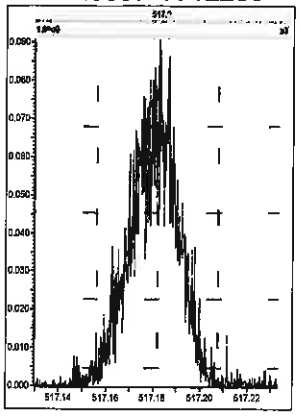
M 492.9696 R 11682



M 504.9696 R 12288



M 516.9697 R 12255



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d
Lims ID: IC 2
Client ID: L2
Sample Type: IC Calib Level: 2
Inject. Date: 21-May-2019 13:31:22 ALS Bottle#: 4 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119 CS-2 HRDXNL2_00024
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:07 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 14:48:36

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	18.429	404433354	0.83	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	17.900	559566492	0.78	1.3908	99.5	99.5	0.2139	0.2139	99.48	
2,3,7,8-TCDF	17.915	2583748	0.76	0.9710	0.4755	0.4755	0.0196	0.0196	95.10	M
S Total TCDF					0.4755	0.4755	0.0196	0.0196		
D 13C-2,3,7,8-TCDD	18.626	387167733	0.81	0.9819	97.5	97.5	0.1823	0.1823	97.50	
2,3,7,8-TCDD	18.641	1910360	0.80	1.0447	0.4723	0.4723	0.0230	0.0230	94.46	M
$ 37Cl4-2,3,7,8-TCDD	18.641	2342162		1.2205	0.4745	0.4745	0.0205	0.0205	94.90	
S Total TCDD					0.4723	0.4723	0.0230	0.0230		
D 13C-1,2,3,7,8-PeCDF	23.093	462221066	1.58	1.1585	98.7	98.7	0.2621	0.2621	98.65	
1,2,3,7,8-PeCDF	23.107	10644451	1.60	0.9633	2.391	2.391	0.0337	0.0337	95.62	
D 13C-2,3,4,7,8-PeCDF	24.484	460498490	1.60	1.1532	98.7	98.7	0.2633	0.2633	98.74	a
2,3,4,7,8-PeCDF	24.511	10376103	1.52	0.9495	2.373	2.373	0.0373	0.0373	94.92	
S Total PeCDF					4.764	4.764	0.0355	0.0355		
D 13C-1,2,3,7,8-PeCDD	25.234	300639105	1.61	0.7431	100.0	100.0	0.1302	0.1302	100	
1,2,3,7,8-PeCDD	25.262	7777334	1.69	1.0635	2.433	2.433	0.0418	0.0418	97.30	
S Total PeCDD					2.433	2.433	0.0418	0.0418		
D 13C-1,2,3,4,7,8-HxCDF	31.045	316288036	0.54	0.9837	95.4	95.4	0.3407	0.3407	95.40	a
1,2,3,4,7,8-HxCDF	31.071	9674677	1.18	1.2173	2.513	2.513	0.0337	0.0337	101	
D 13C-1,2,3,6,7,8-HxCDF	31.204	381078003	0.52	1.1554	97.9	97.9	0.2901	0.2901	97.86	
1,2,3,6,7,8-HxCDF	31.218	10999512	1.21	1.1311	2.552	2.552	0.0309	0.0309	102	
D 13C-2,3,4,6,7,8-HxCDF	31.923	345112458	0.51	1.0361	98.8	98.8	0.3235	0.3235	98.83	
2,3,4,6,7,8-HxCDF	31.937	9947333	1.21	1.1710	2.461	2.461	0.0265	0.0265	98.46	
D 13C-1,2,3,7,8,9-HxCDF	32.669	297701088	0.51	0.9034	97.8	97.8	0.3710	0.3710	97.77	
1,2,3,7,8,9-HxCDF	32.696	8728060	1.23	1.1787	2.487	2.487	0.0305	0.0305	99.50	
S Total HxCDF					10.0	10.0	0.0304	0.0304		
* 13C-1,2,3,7,8,9-HxCDD	32.496	337041446	1.26	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	32.097	273468265	1.30	0.8287	97.9	97.9	0.3237	0.3237	97.91	a
1,2,3,4,7,8-HxCDD	32.110	7262639	1.27	1.0267	2.587	2.587	0.0402	0.0402	103	
D 13C-1,2,3,6,7,8-HxCDD	32.190	325568612	1.28	0.9495	101.7	101.7	0.2825	0.2825	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,3,6,7,8-HxCDD	32.203	7672652	1.11	0.9771	2.412	2.412	0.0401	0.0401	96.48	
1,2,3,7,8,9-HxCDD	32.509	7703029	1.21	1.0616	2.423	2.423	0.0379	0.0379	96.90	
S Total HxCDD					7.421	7.421	0.0394	0.0394		
D 13C-1,2,3,4,6,7,8-HpCDF	34.097	242234960	0.45	0.7285	98.7	98.7	0.6343	0.6343	98.66	
1,2,3,4,6,7,8-HpCDF	34.097	8879120	1.10	1.4373	2.550	2.550	0.0535	0.0535	102	
D 13C-1,2,3,4,7,8,9-HpCDF	35.227	213198749	0.45	0.6556	96.5	96.5	0.7048	0.7048	96.48	a
1,2,3,4,7,8,9-HpCDF	35.239	7060600	1.13	1.3091	2.530	2.530	0.0754	0.0754	101	
S Total HpCDF					5.080	5.080	0.0644	0.0644		
D 13C-1,2,3,4,6,7,8-HpCDD	34.923	232219606	1.07	0.6978	98.7	98.7	0.2838	0.2838	98.73	
1,2,3,4,6,7,8-HpCDD	34.935	5709139	1.03	1.0102	2.434	2.434	0.0321	0.0321	97.35	
S Total HpCDD					2.434	2.434	0.0321	0.0321		
D 13C-OCDD	37.395	320855579	0.90	0.4780	199.2	199.2	0.1608	0.1608	99.59	
OCDF	37.502	10410040	0.96	1.3501	4.806	4.806	0.0474	0.0474	96.12	
OCDD	37.395	8532557	0.86	1.0627	5.005	5.005	0.0395	0.0395	100	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

HRDXNL2_00024 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d
Lims ID: IC 2
Client ID: L2
Sample Type: IC Calib Level: 2
Inject. Date: 21-May-2019 13:31:22 ALS Bottle#: 4 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119 CS-2 HRDXNL2_00024
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:07 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 14:48:36

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	18.429	18.432	0		183276556	43187774	40795	101987	1059		
333.9339	18.429	18.432	0		221156798	51793311	27228	68070	1902	0.83(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	17.900	17.900	0	0.971	244562131	57000698	37161	92902	1534		
317.9389	17.900	17.900	0	0.971	315004361	72611605	75866	189665	957	0.78(0.65-0.89)	
2,3,7,8-TCDF											M
303.9016	17.915	17.915	0	1.001	1115906	260352	3222	8055	81		
305.8987	17.915	17.915	0	1.001	1467842	319056	6633	16582	48	0.76(0.65-0.89)	M
13C-2,3,7,8-TCDD											
331.9368	18.626	18.629	0	1.011	173498327	38826204	40795	101987	952		
333.9339	18.626	18.629	0	1.011	213669406	47945107	27228	68070	1761	0.81(0.65-0.89)	
2,3,7,8-TCDD											M
319.8965	18.641	18.650	-1	1.001	847401	201535	5666	14165	36		M
321.8936	18.641	18.650	-1	1.001	1062959	247438	2690	6725	92	0.80(0.65-0.89)	M
37Cl4-2,3,7,8-TCDD											
327.8847	18.641	18.650	-1	1.011	2342162	522995	9493	23732	55		
13C-1,2,3,7,8-PeCDF											
351.9000	23.093	23.102	0	1.253	283109696	48401573	69475	173687	697		
353.8970	23.093	23.102	0	1.253	179111370	30625127	45883	114707	667	1.58(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	23.107	23.123	-1	1.001	6553697	1120472	3466	8665	323		
341.8567	23.107	23.123	-1	1.001	4090754	710881	6785	16962	105	1.60(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,7,8-PeCDF											a
351.9000	24.484	24.487	0	1.329	283327157	44554170	69475	173687	641		a
353.8970	24.484	24.487	0	1.329	177171333	27896316	45883	114707	608	1.60(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	24.511	24.512	0	1.001	6262580	999274	3466	8665	288		
341.8567	24.511	24.512	0	1.001	4113523	652900	6785	16962	96	1.52(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	25.234	25.237	0	1.369	185602729	27975765	24635	61587	1136		
369.8919	25.234	25.237	0	1.369	115036376	17235373	12112	30280	1423	1.61(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	25.262	25.264	0	1.001	4885021	727344	5341	13352	136		
357.8516	25.262	25.264	0	1.001	2892313	426610	2691	6727	159	1.69(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											a
383.8639	31.045	31.050	0	0.955	111273946	24331177	42287	105717	575		a
385.8610	31.045	31.050	0	0.955	205014090	43519844	81368	203420	535	0.54(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	31.071	31.069	0	1.001	5243142	1168538	6081	15202	192		
375.8178	31.071	31.069	0	1.001	4431535	1003398	5039	12597	199	1.18(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	31.204	31.202	0	0.960	130445997	28066139	42287	105717	664		
385.8610	31.204	31.202	0	0.960	250632006	51588290	81368	203420	634	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	31.218	31.223	0	1.000	6014008	1350689	6081	15202	222		
375.8178	31.218	31.223	0	1.000	4985504	1103271	5039	12597	219	1.21(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	31.923	31.923	0	0.982	116574906	30065507	42287	105717	711		
385.8610	31.923	31.923	0	0.982	228537552	59425776	81368	203420	730	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	31.937	31.942	0	1.000	5439515	1447005	6081	15202	238		
375.8178	31.937	31.942	0	1.000	4507818	1203053	5039	12597	239	1.21(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	32.669	32.674	0	1.005	100952587	26194980	42287	105717	619		
385.8610	32.669	32.674	0	1.005	196748501	51240494	81368	203420	630	0.51(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	32.696	32.690	0	1.001	4806334	1242648	6081	15202	204		
375.8178	32.682	32.690	0	1.000	3921726	1038148	5039	12597	206	1.23(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	32.496	32.499	0		187589634	51397165	62269	155672	825		
403.8529	32.496	32.499	0		149451812	40834427	36691	91727	1113	1.26(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											a
401.8559	32.097	32.094	0	0.988	154547817	45083952	62269	155672	724		a
403.8529	32.097	32.094	0	0.988	118920448	34258781	36691	91727	934	1.30(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	32.110	32.110	0	1.000	4058227	1118101	6673	16682	168		
391.8127	32.110	32.110	0	1.000	3204412	939416	6420	16050	146	1.27(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDD											
401.8559	32.190	32.192	0	0.991	182758181	46673629	62269	155672	750		
403.8529	32.190	32.192	0	0.991	142810431	36786181	36691	91727	1003	1.28(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	32.203	32.208	0	1.000	4042900	1167490	6673	16682	175		
391.8127	32.203	32.208	0	1.000	3629752	954143	6420	16050	149	1.11(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	32.509	32.515	0	1.013	4221414	1208684	6673	16682	181		
391.8127	32.509	32.515	0	1.013	3481615	957535	6420	16050	149	1.21(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	34.097	34.097	0	1.049	74717590	23014568	57763	144407	398		
419.8220	34.097	34.097	0	1.049	167517370	51801598	112703	281757	460	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.097	34.104	0	1.000	4657130	1359394	17814	44535	76		
409.7789	34.109	34.104	0	1.000	4221990	1264352	5187	12967	244	1.10(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											a
417.8253	35.227	35.232	0	1.084	66152303	17890837	57763	144407	310		a
419.8220	35.227	35.232	0	1.084	147046446	40389371	112703	281757	358	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.239	35.244	0	1.000	3745852	1033253	17814	44535	58		
409.7789	35.239	35.244	0	1.000	3314748	924360	5187	12967	178	1.13(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.923	34.928	0	1.075	119930467	34987461	38690	96725	904		
437.8140	34.923	34.928	0	1.075	112289139	32910155	34382	85955	957	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.935	34.940	0	1.000	2898308	888279	4127	10317	215		
425.7737	34.935	34.940	0	1.000	2810831	843795	4670	11675	181	1.03(0.88-1.20)	
13C-OCDD											
469.7779	37.395	37.392	0	1.151	152093740	38035593	16157	40392	2354		
471.7750	37.395	37.392	0	1.151	168761839	41911695	12198	30495	3436	0.90(0.76-1.02)	
OCDF											
441.7428	37.502	37.500	0	1.003	5093406	1203722	3151	7877	382		
443.7399	37.491	37.500	-1	1.003	5316634	1309164	7071	17677	185	0.96(0.76-1.02)	
OCDD											
457.7377	37.395	37.402	0	1.000	3949914	1009695	3442	8605	293		
459.7348	37.395	37.402	0	1.000	4582643	1182393	3275	8187	361	0.86(0.76-1.02)	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

HRDXNL2_00024 Amount Added: 1.00 Units: mL

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

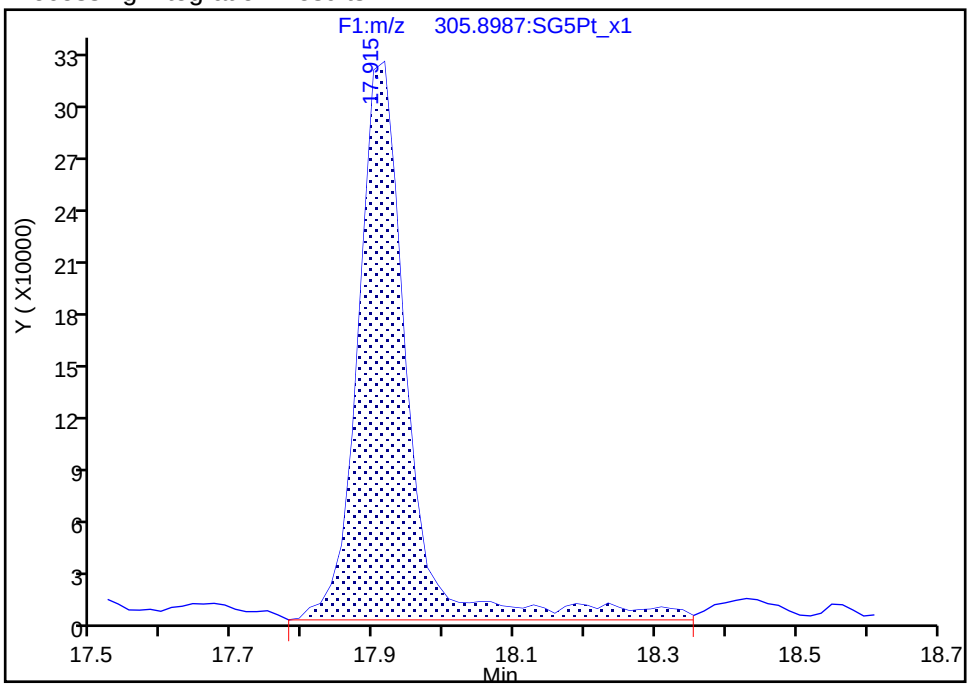
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDF, CAS: 51207-31-9

Signal: 2

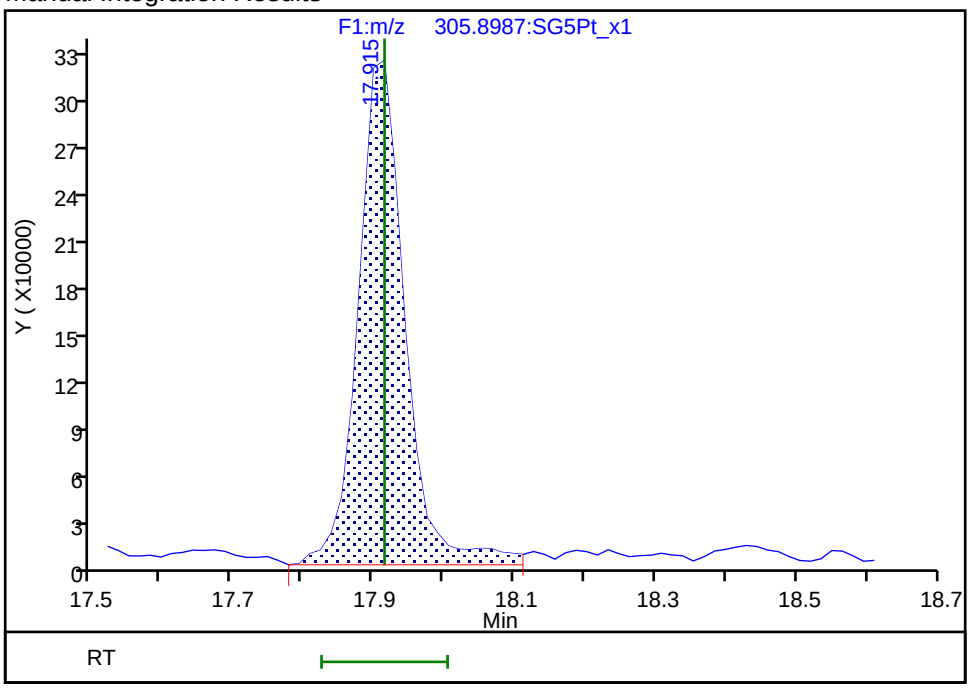
Processing Integration Results

RT: 17.92
Area: 1565011
Amount: 0.489889
Amount Units: pg/ul



Manual Integration Results

RT: 17.92
Area: 1467842
Amount: 0.475510
Amount Units: pg/ul



Reviewer: shardaa, 21-May-2019 17:52:10

Audit Action: Split an Integrated Peak Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

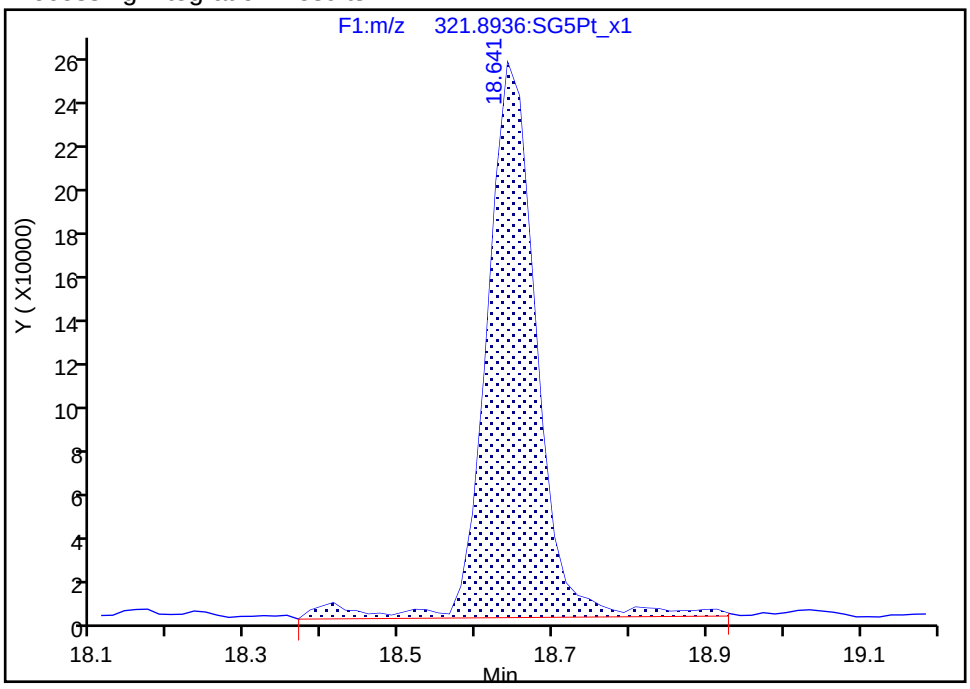
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 2

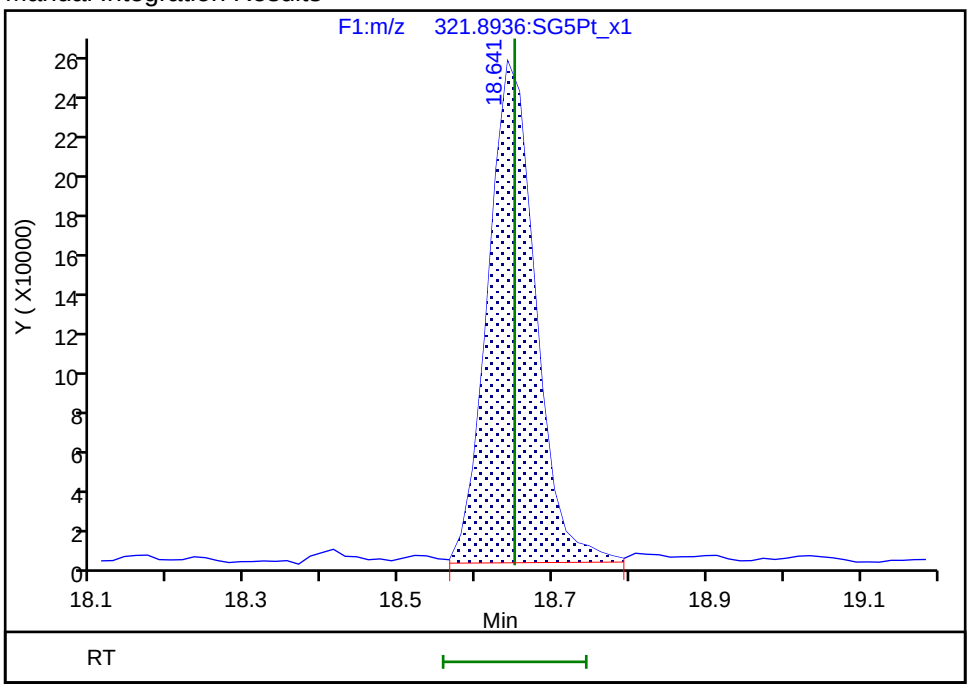
Processing Integration Results

RT: 18.64
Area: 1125060
Amount: 0.492554
Amount Units: pg/ul



Manual Integration Results

RT: 18.64
Area: 1062959
Amount: 0.472299
Amount Units: pg/ul



Reviewer: shardaa, 21-May-2019 17:52:42

Audit Action: Split an Integrated Peak Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

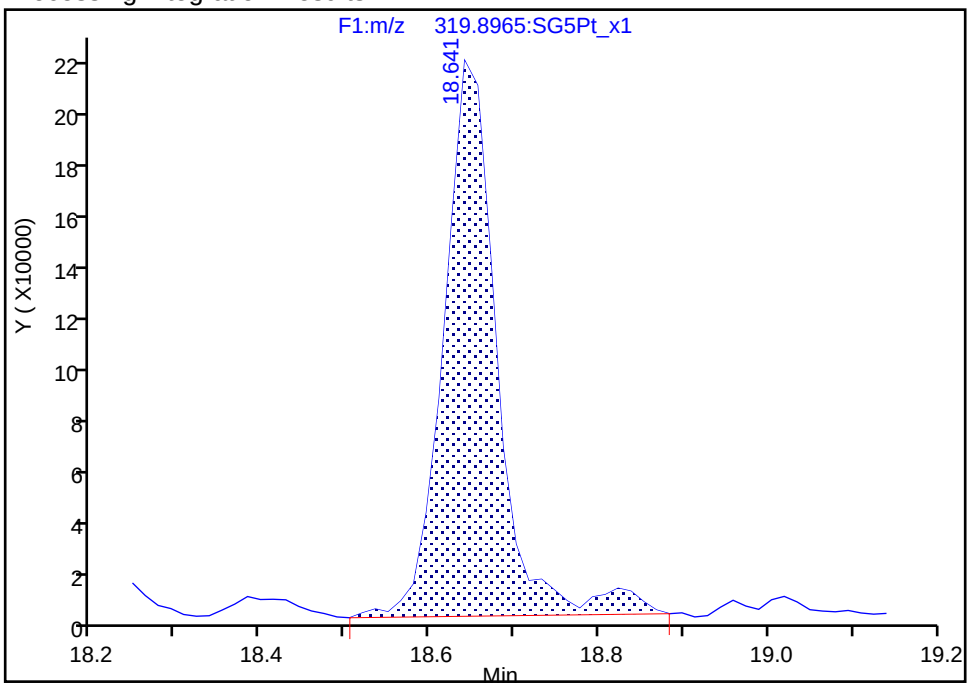
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F1:HRSIR		

2,3,7,8-TCDD, CAS: 1746-01-6

Signal: 1

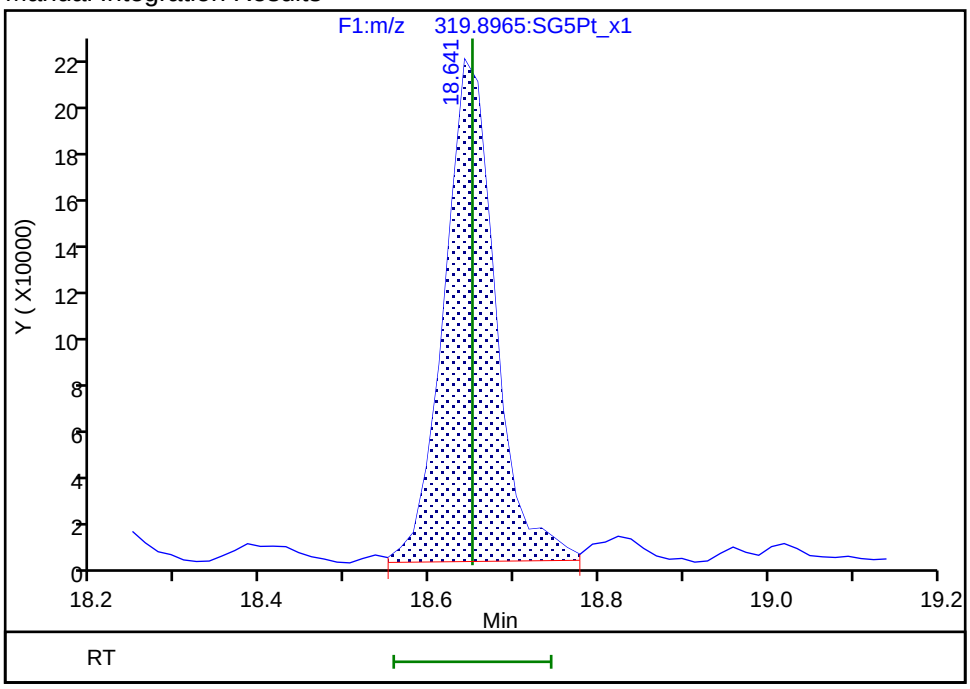
Processing Integration Results

RT: 18.64
Area: 887331
Amount: 0.492554
Amount Units: pg/ul



Manual Integration Results

RT: 18.64
Area: 847401
Amount: 0.472299
Amount Units: pg/ul



Reviewer: shardaa, 21-May-2019 17:52:45

Audit Action: Split an Integrated Peak Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

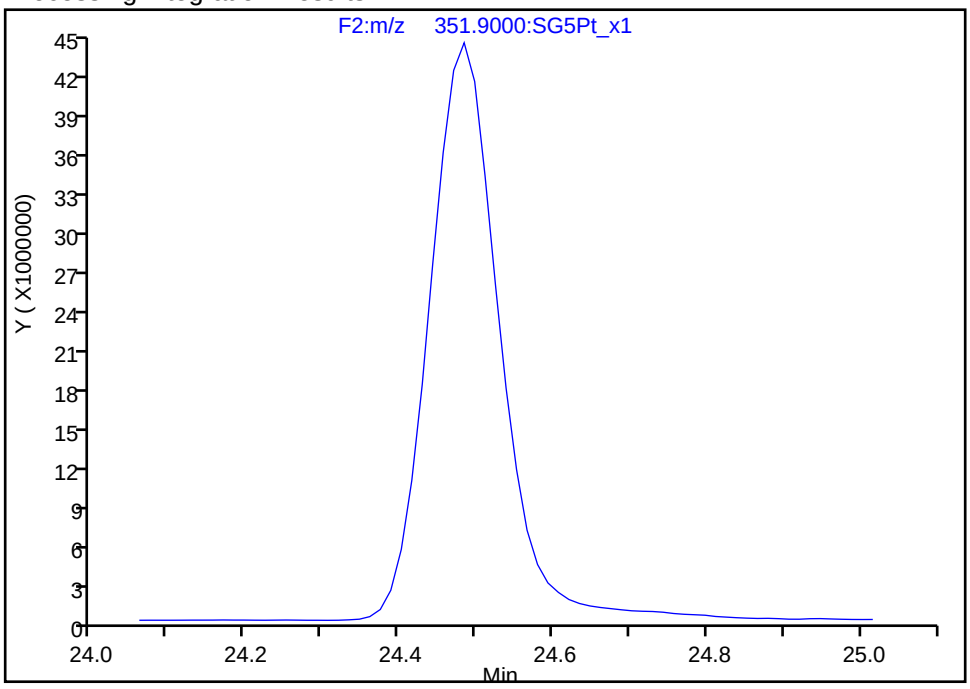
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F2:HRSIR		

13C-2,3,4,7,8-PeCDF, CAS: 116843-02-8

Signal: 1

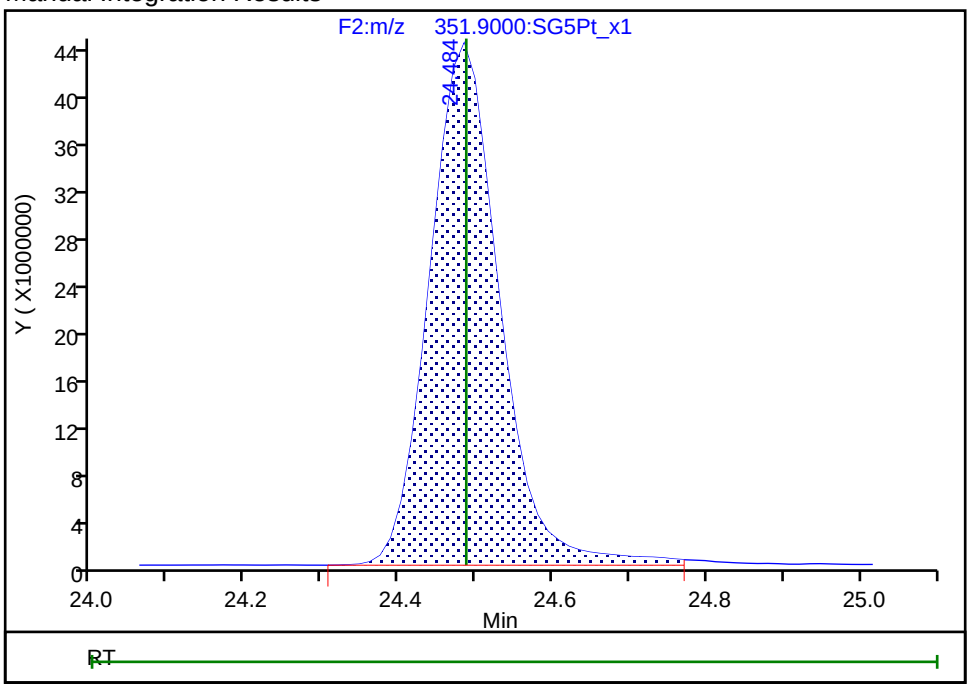
Not Detected
Expected RT: 24.49

Processing Integration Results



Manual Integration Results

RT: 24.48
Area: 283327157
Amount: 98.739210
Amount Units: pg/ul



Reviewer: shardaa, 21-May-2019 17:48:59
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

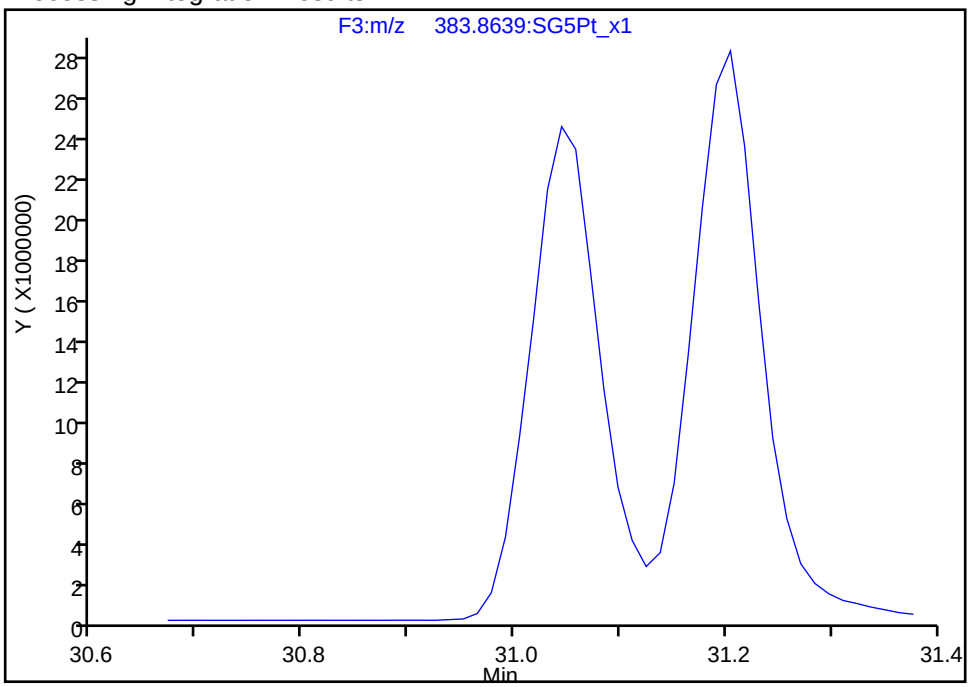
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

13C-1,2,3,4,7,8-HxCDF, CAS: 114423-98-2

Signal: 1

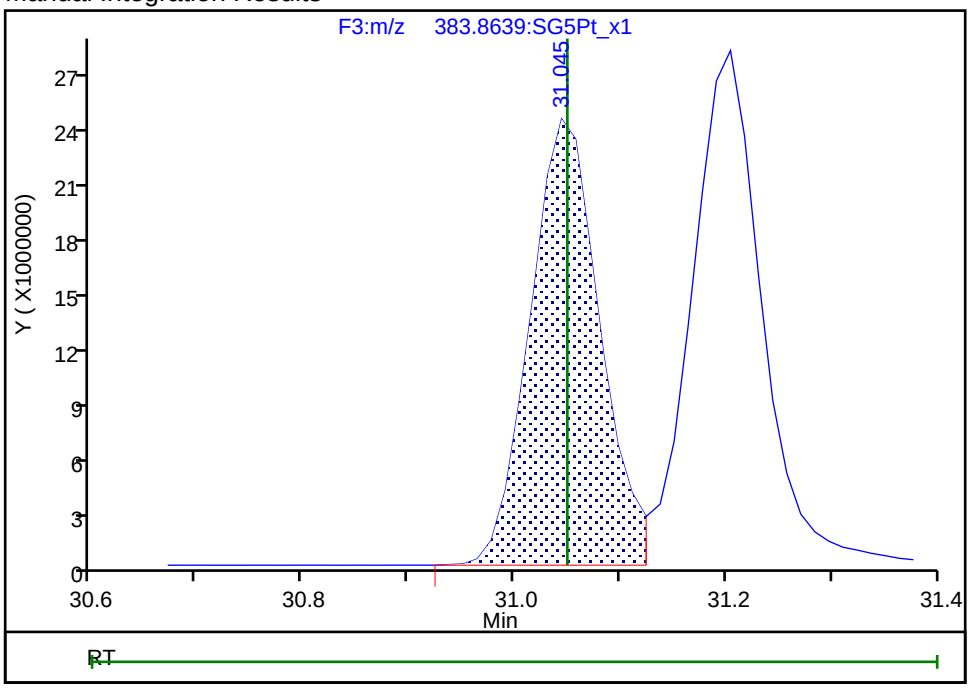
Not Detected
Expected RT: 31.05

Processing Integration Results



Manual Integration Results

RT: 31.04
Area: 111273946
Amount: 95.396857
Amount Units: pg/ul



Reviewer: shardaa, 21-May-2019 17:49:07
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

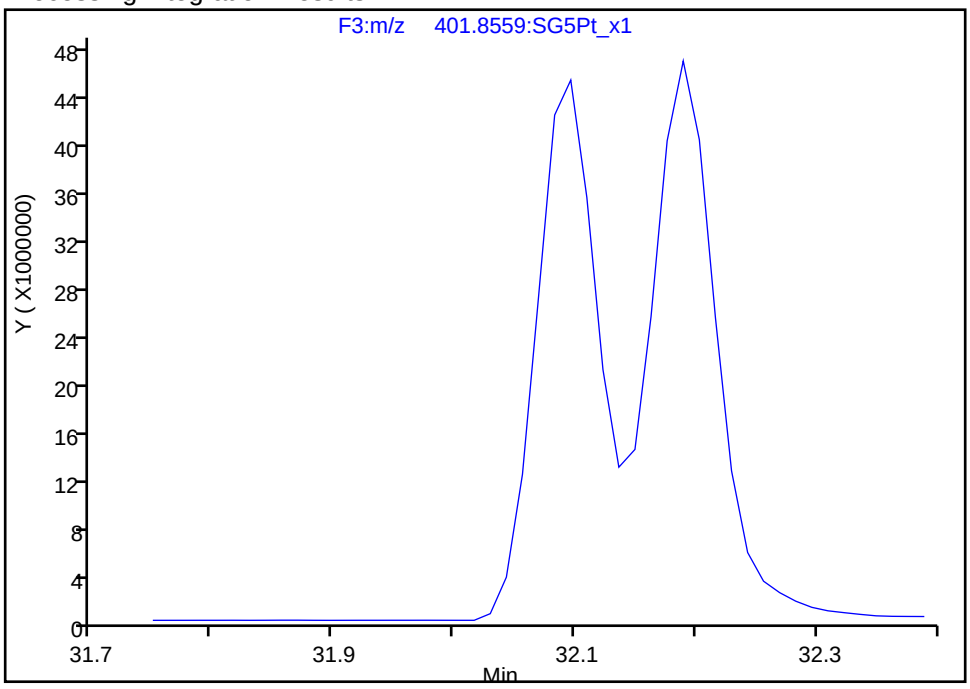
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

13C-1,2,3,4,7,8-HxCDD, CAS: 109719-80-4

Signal: 1

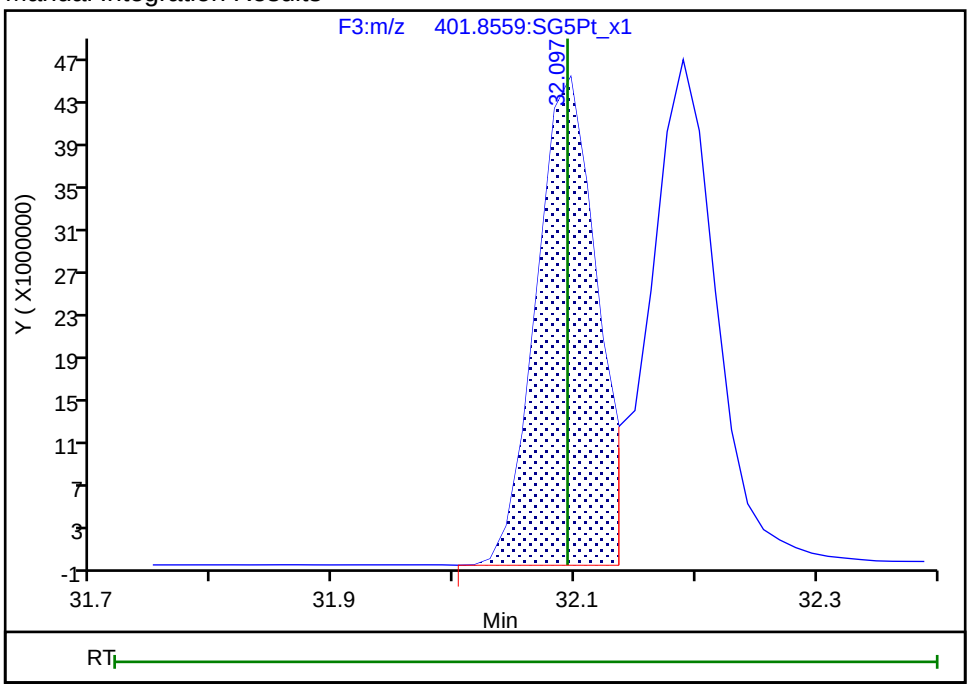
Not Detected
Expected RT: 32.09

Processing Integration Results



Manual Integration Results

RT: 32.10
Area: 154547817
Amount: 97.908635
Amount Units: pg/ul



Reviewer: shardaa, 21-May-2019 17:49:16
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

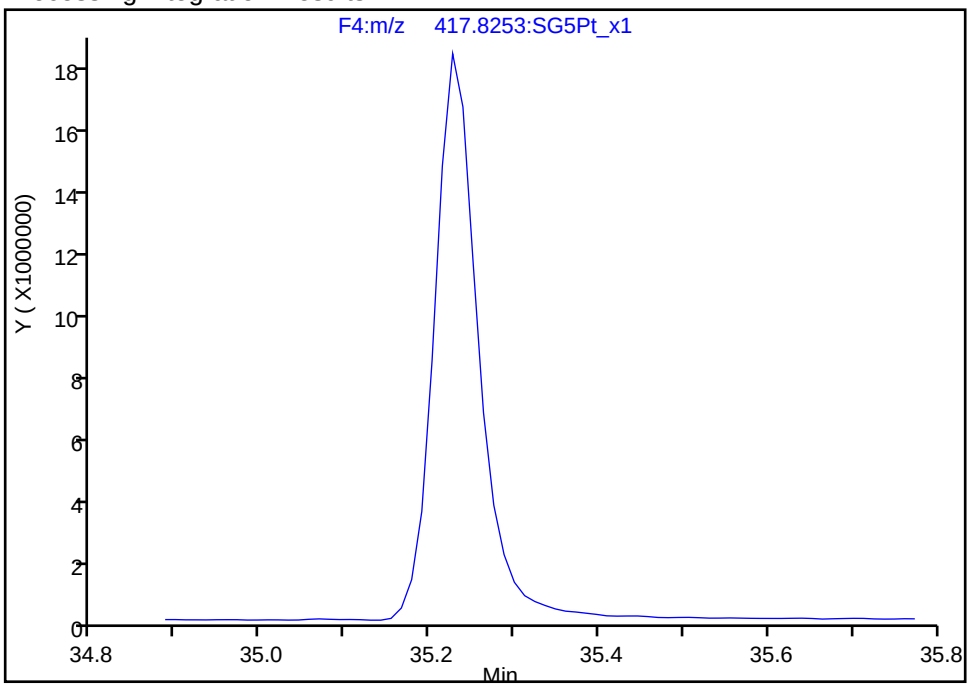
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d				
Injection Date:	21-May-2019 13:31:22	Instrument ID:	3D5		
Lims ID:	IC 2				
Client ID:	L2				
Operator ID:	AJS	ALS Bottle#:	4	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F4:HRSIR		

13C-1,2,3,4,7,8,9-HpCDF, CAS: 109719-94-0

Signal: 1

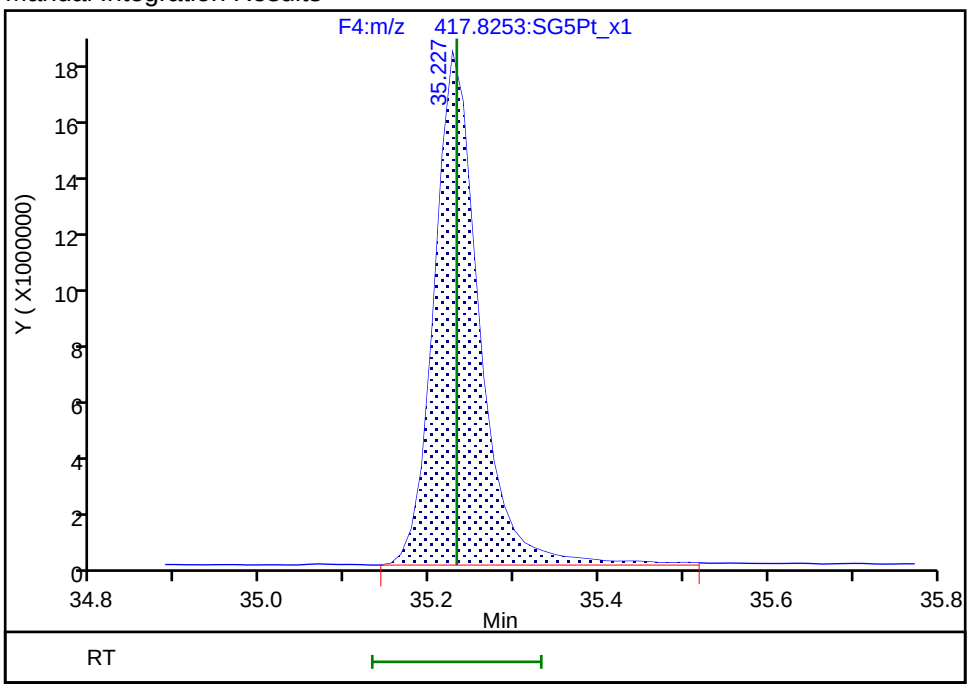
Not Detected
Expected RT: 35.23

Processing Integration Results



Manual Integration Results

RT: 35.23
Area: 66152303
Amount: 96.481083
Amount Units: pg/ul



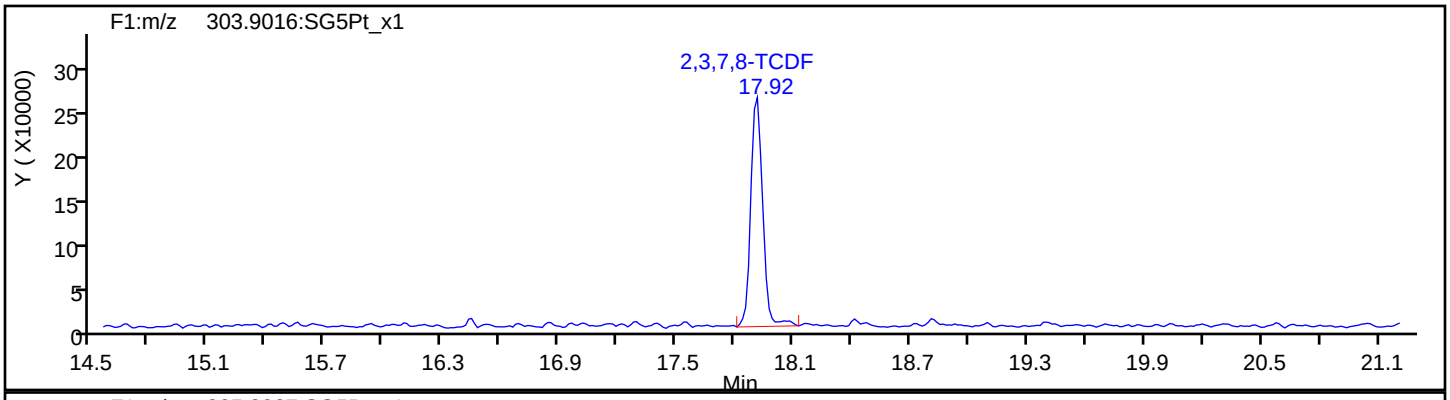
Reviewer: shardaa, 21-May-2019 17:49:23
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

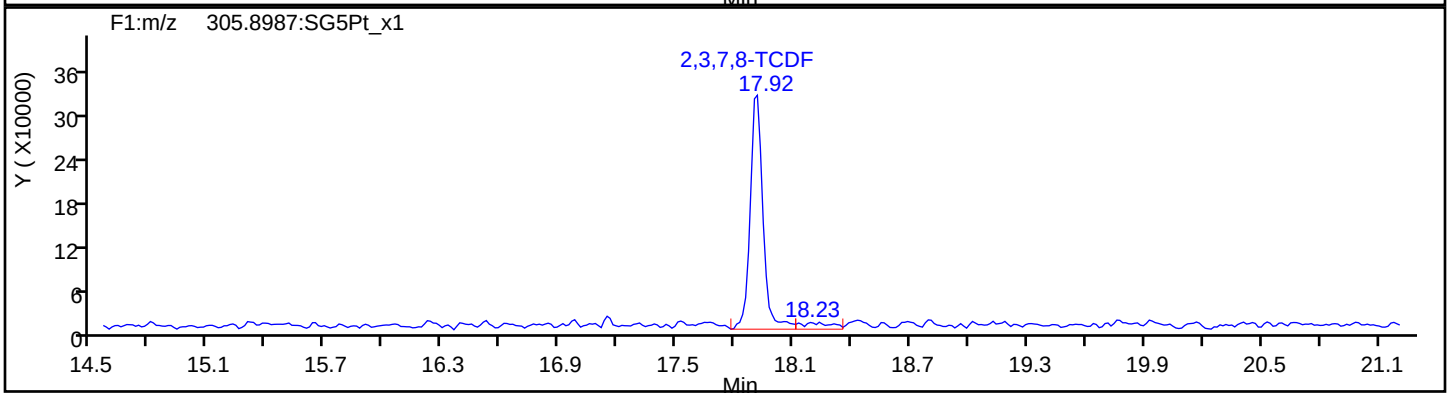
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

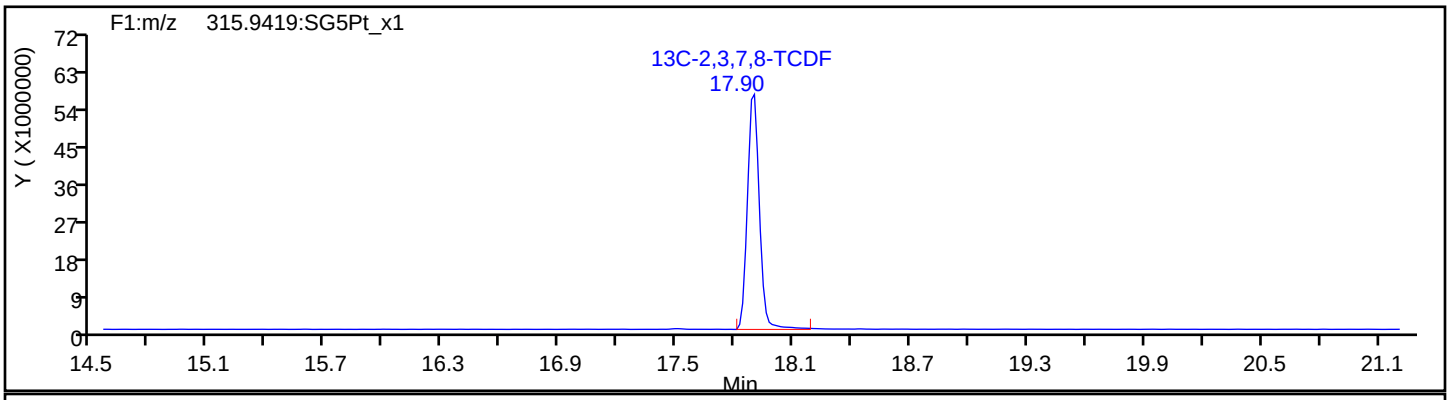
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

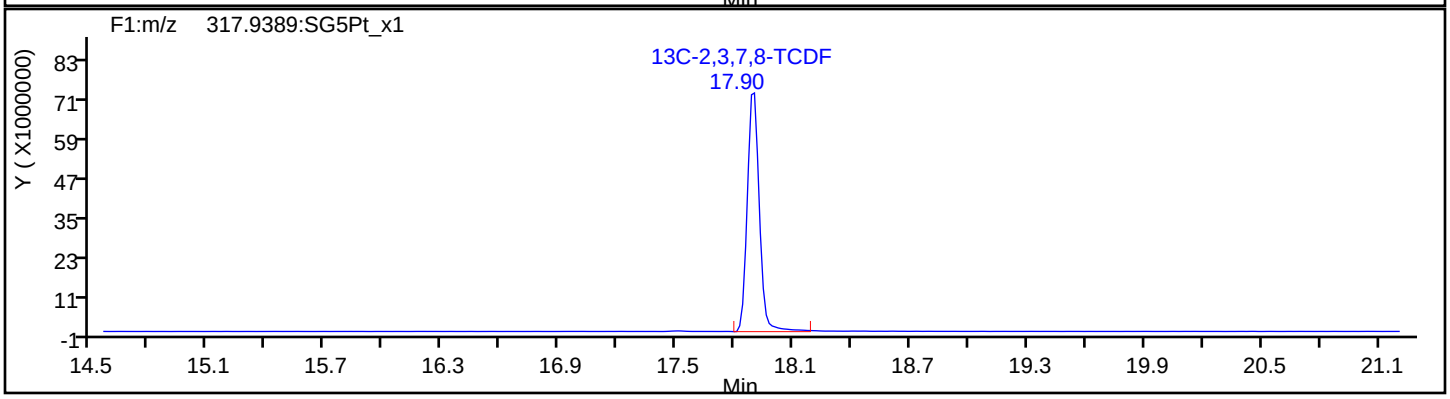
TCDF





TCDF Standards



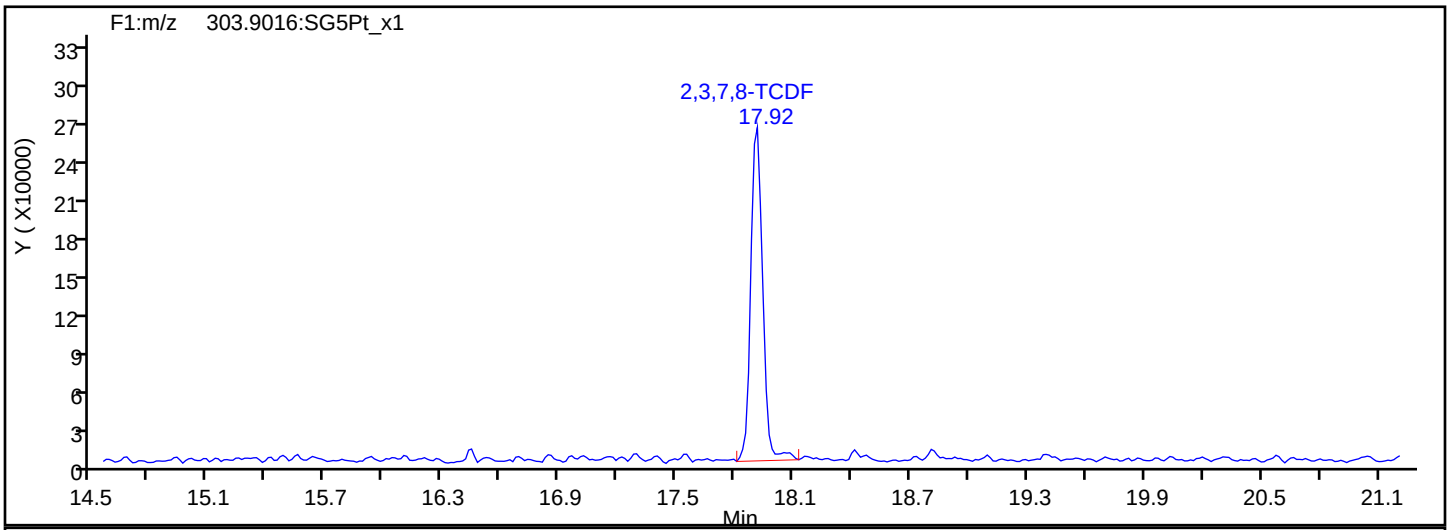


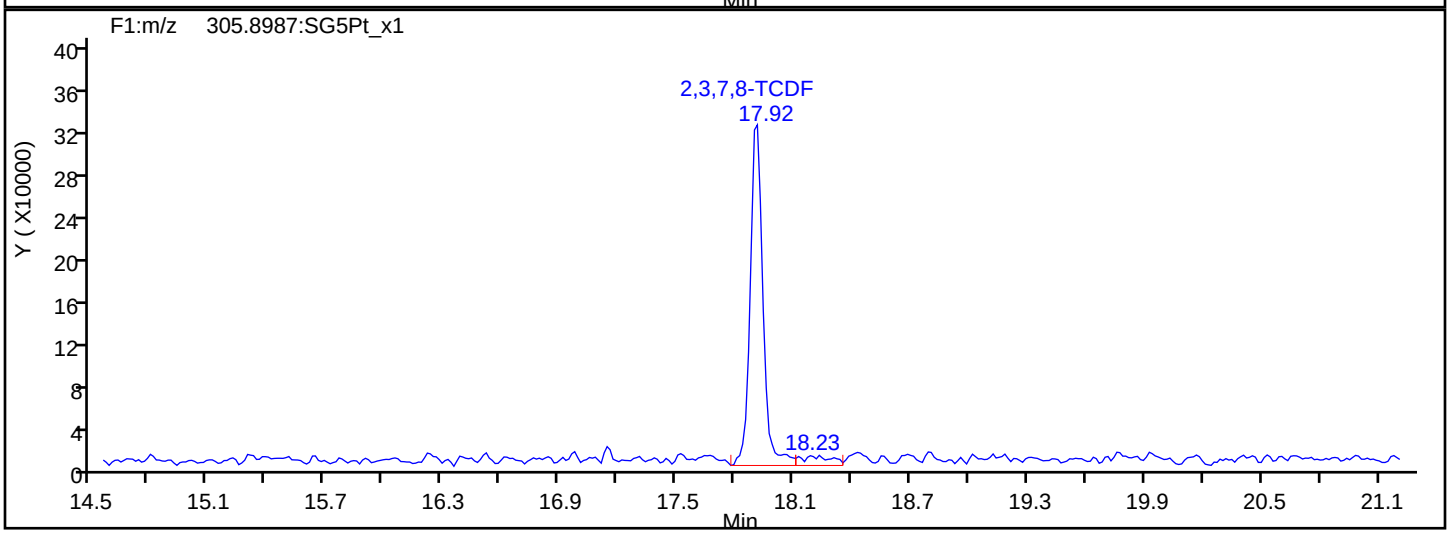
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

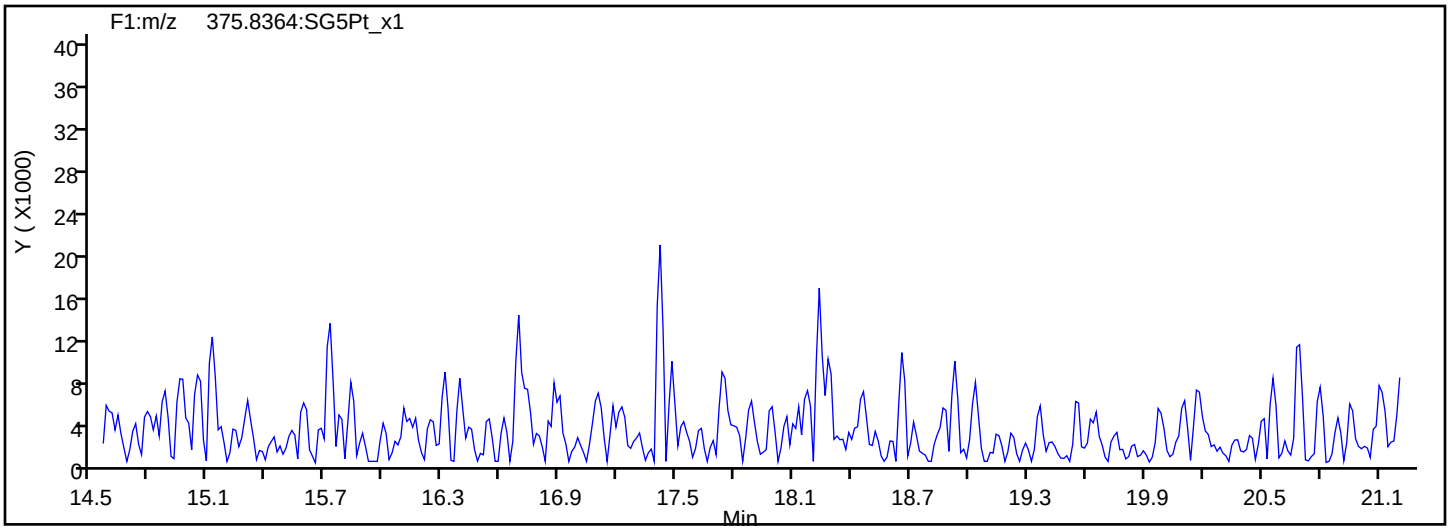
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

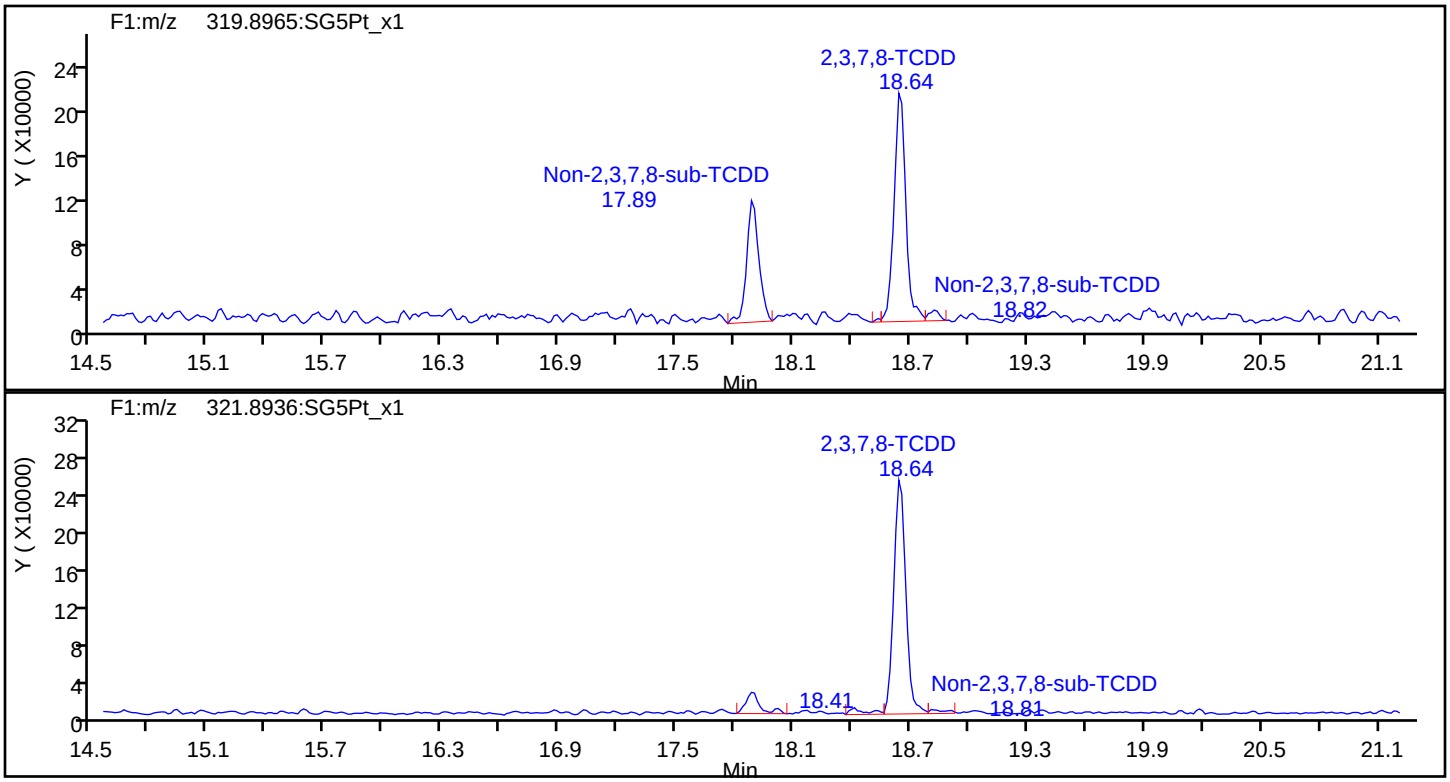


Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

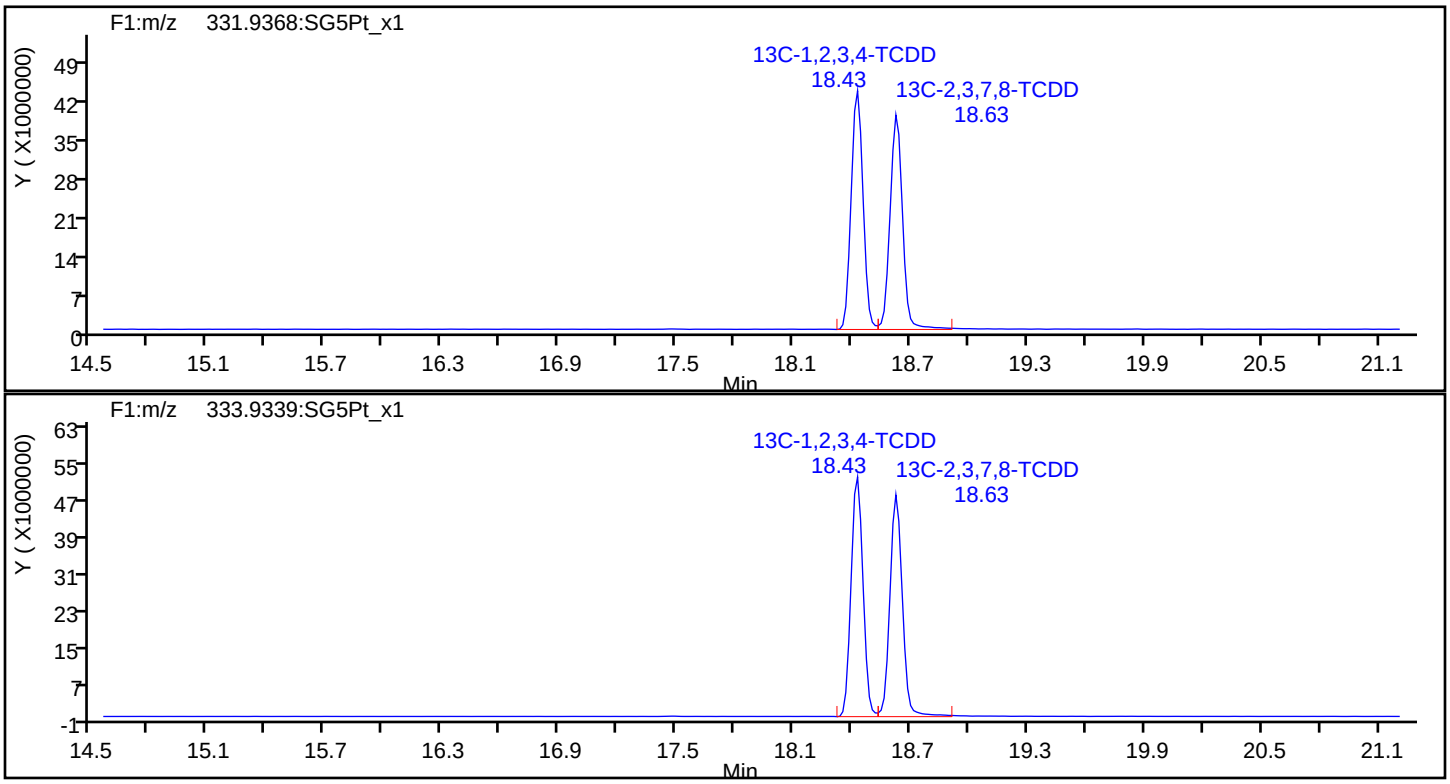
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

TCDD



TCDD Standards

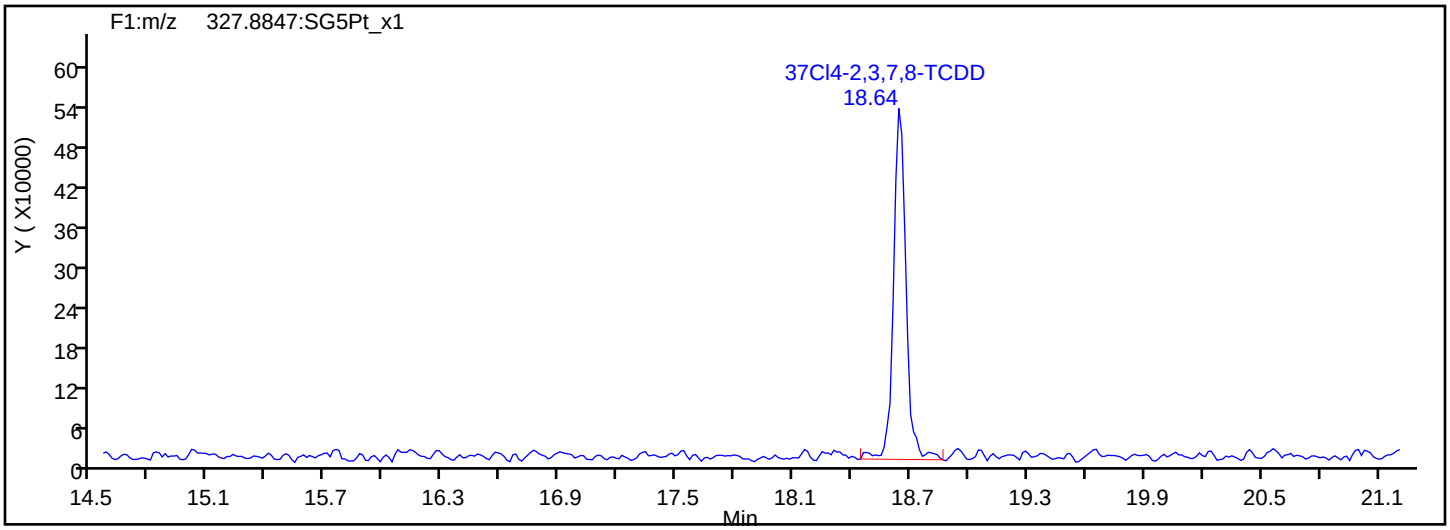


Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

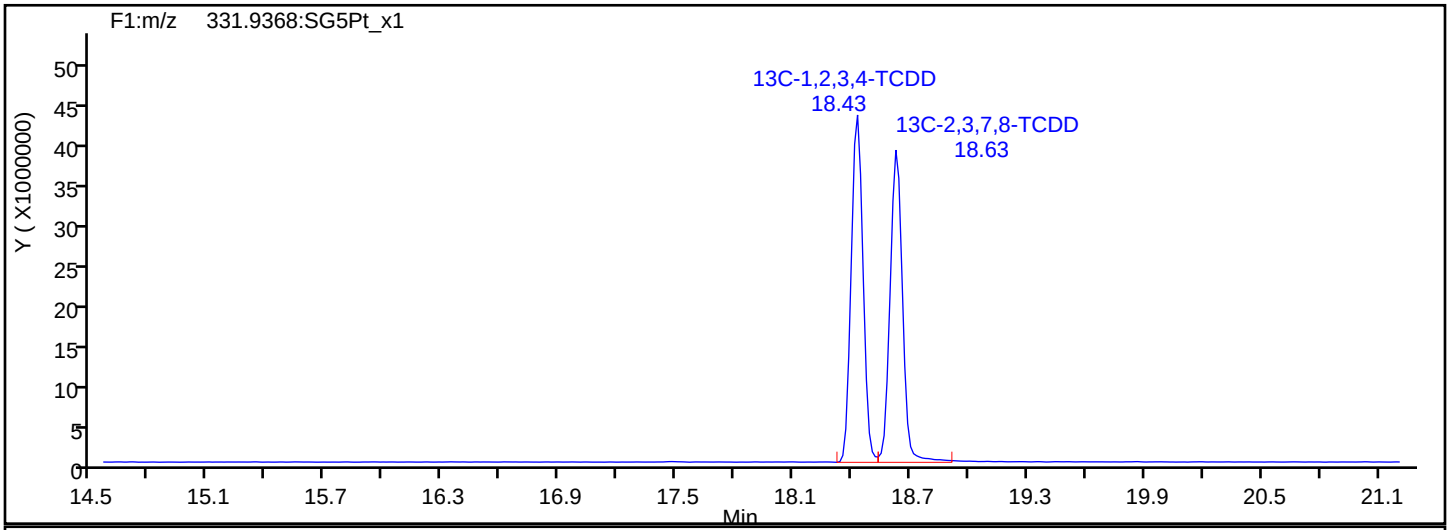
Eurofins TestAmerica, Sacramento

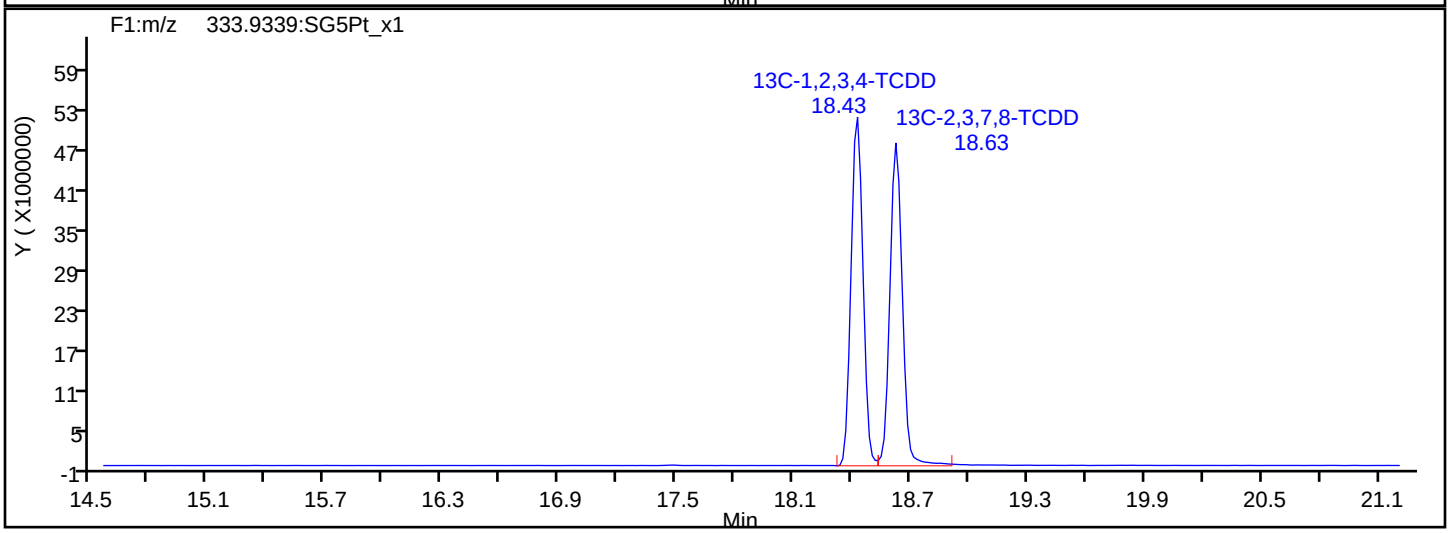
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



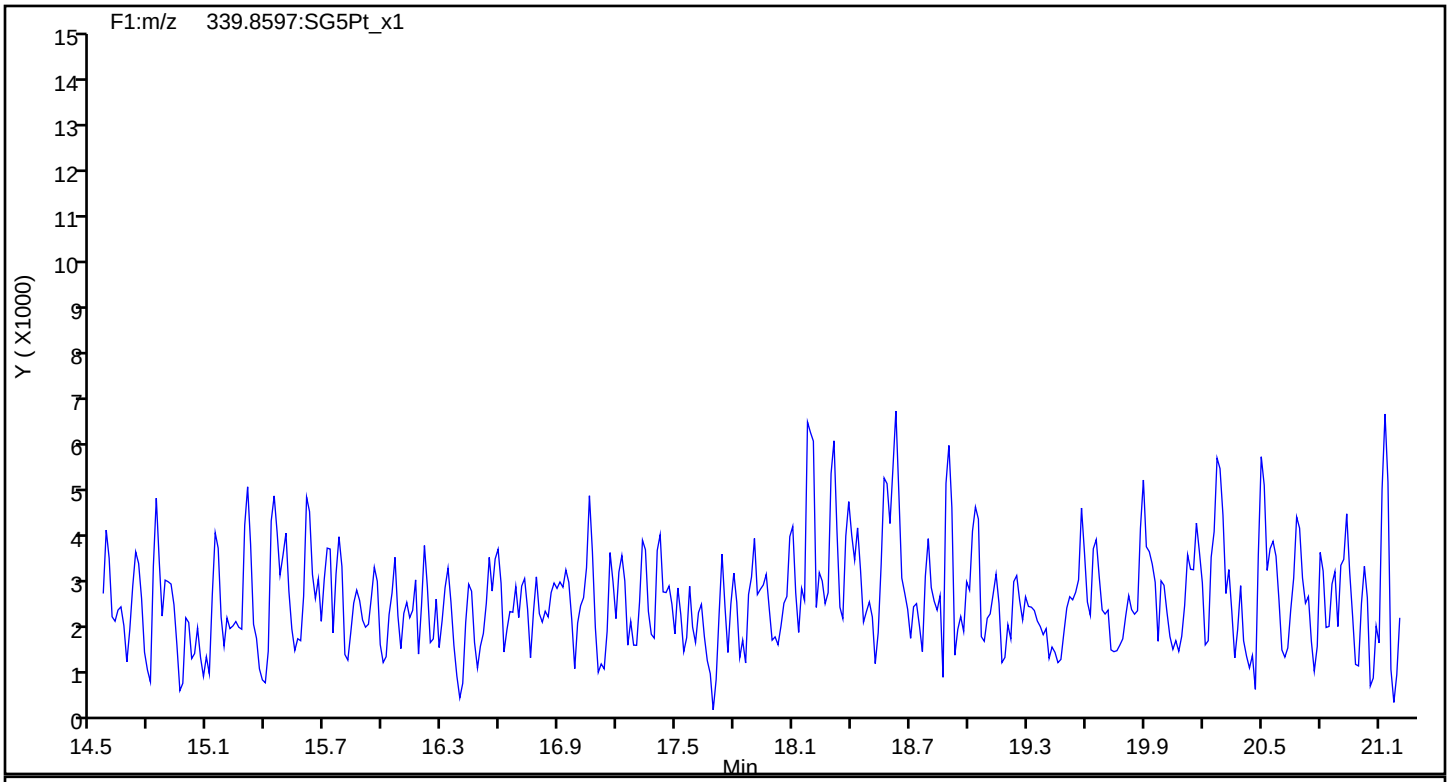


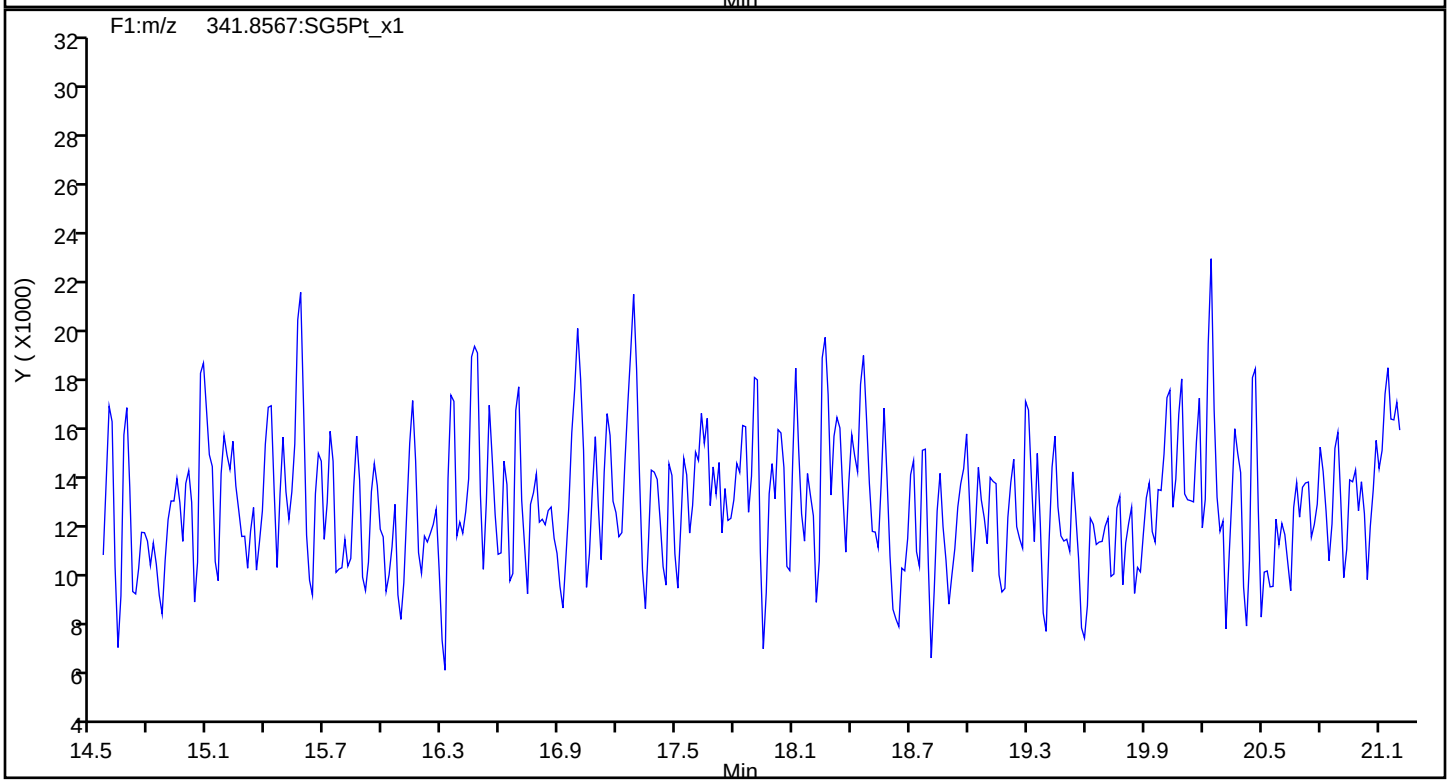
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



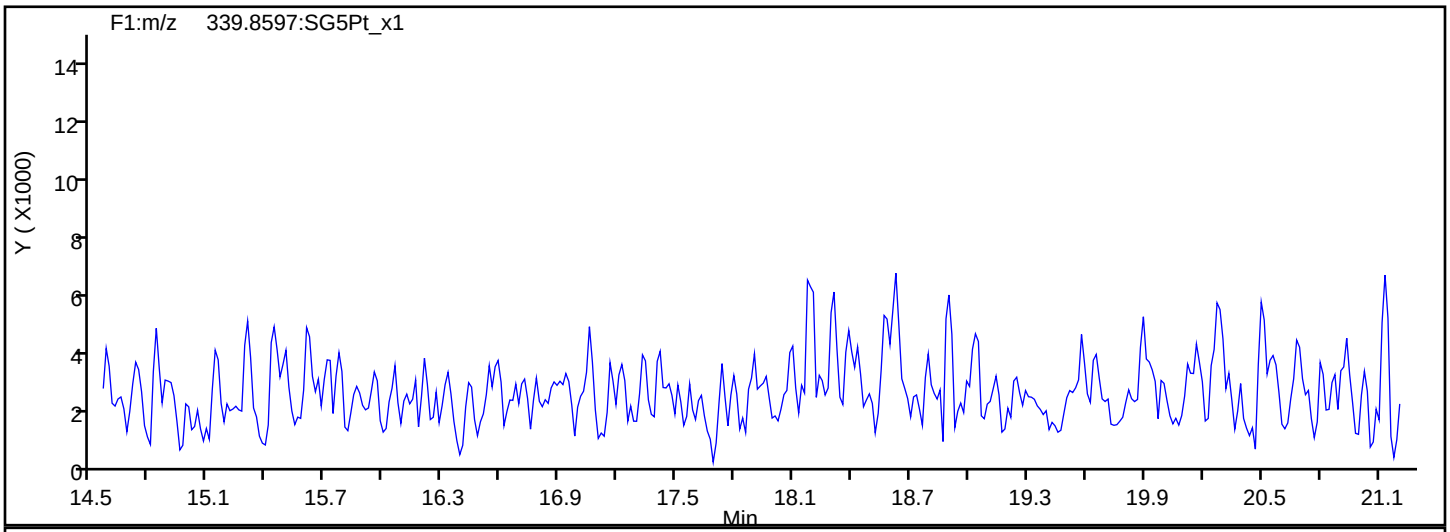


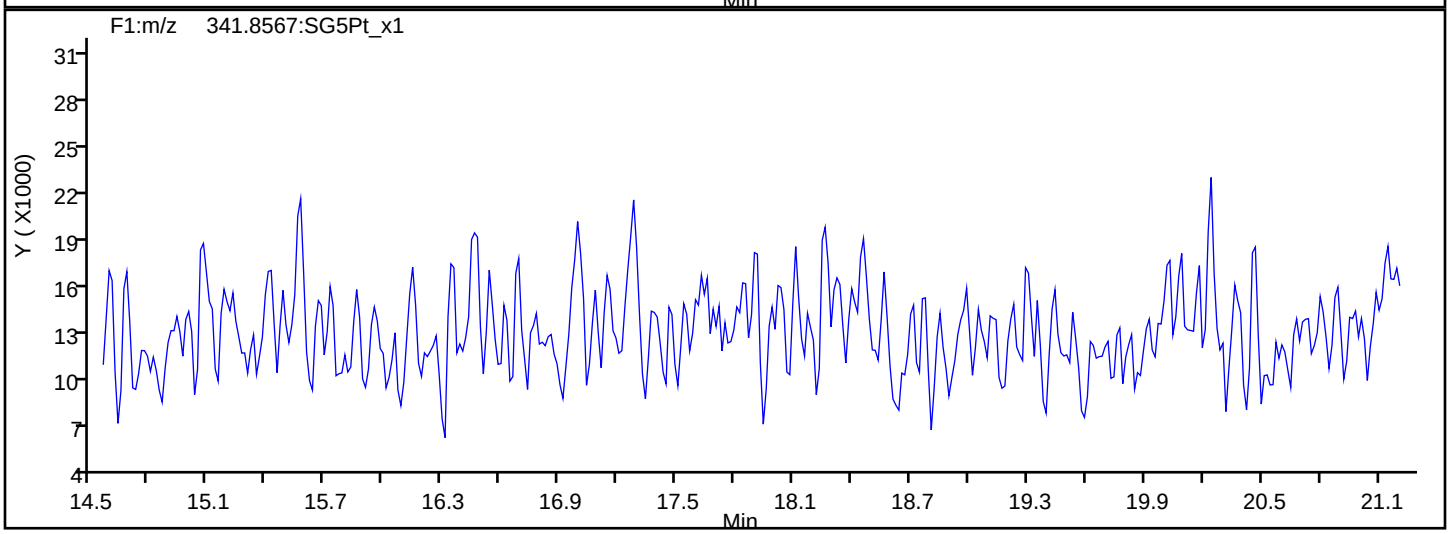
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

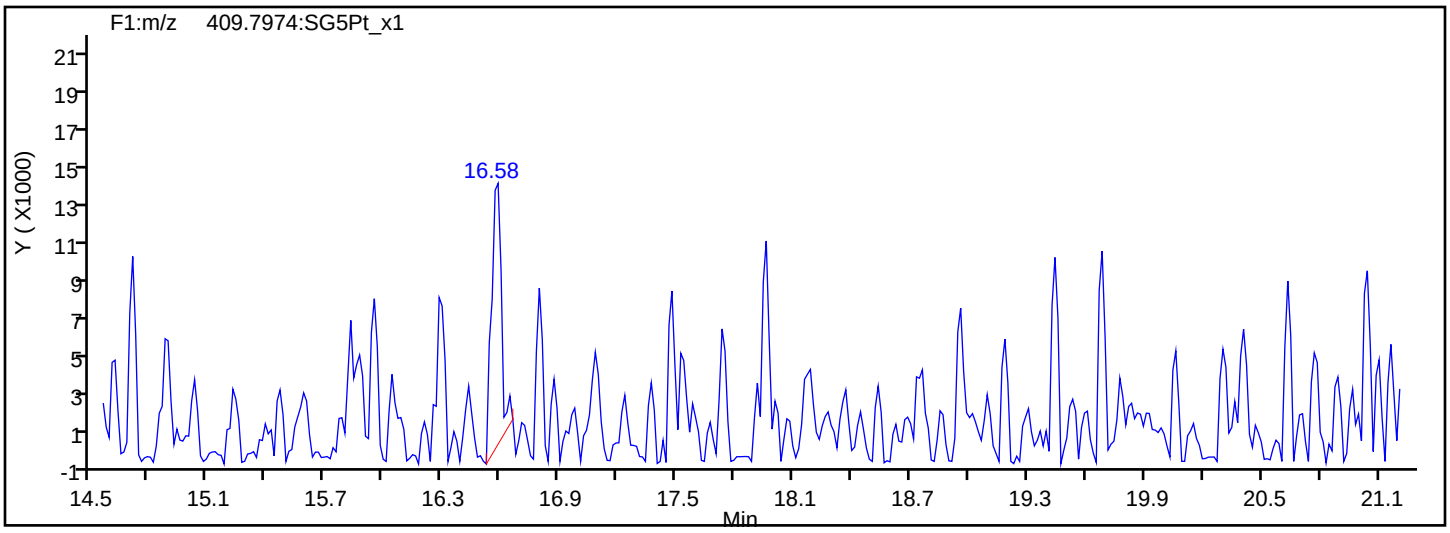
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

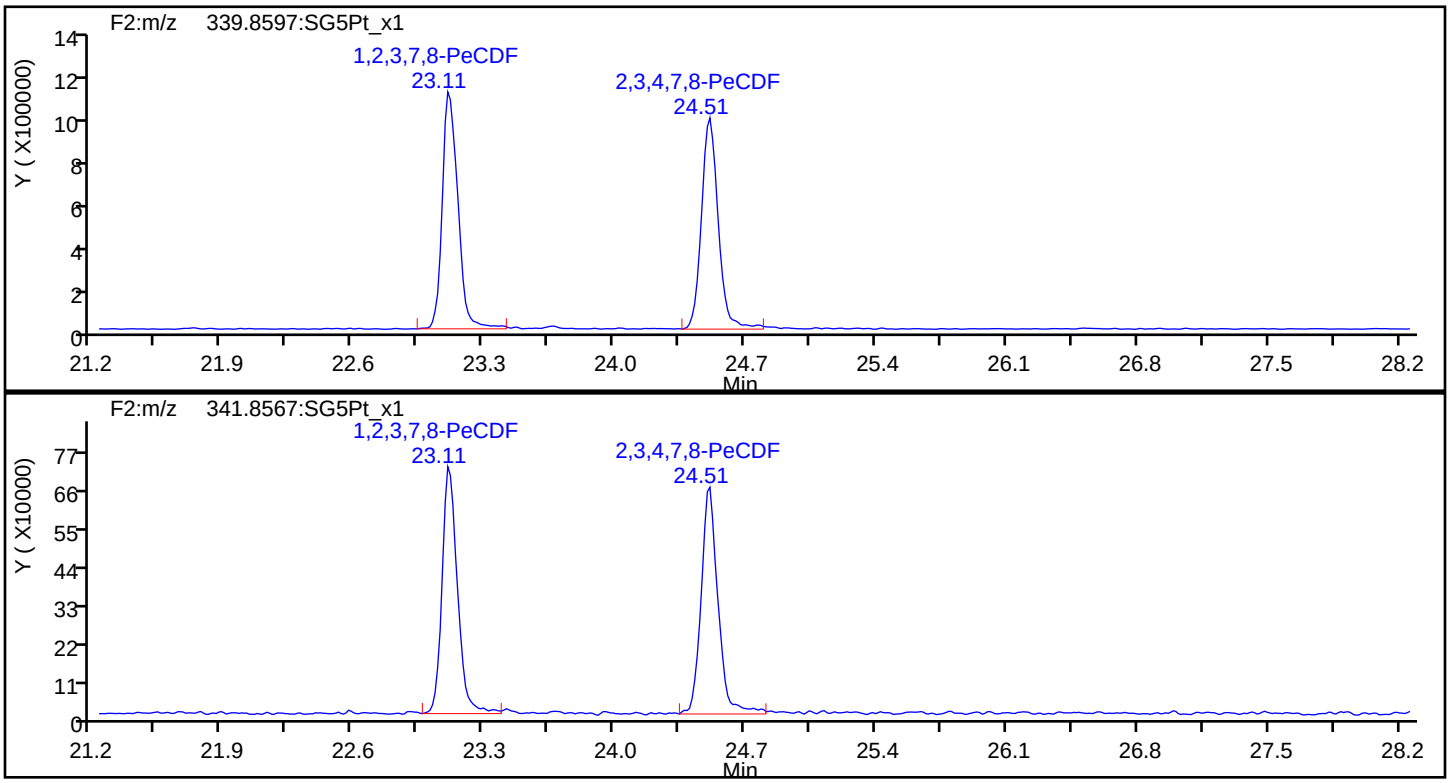


Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

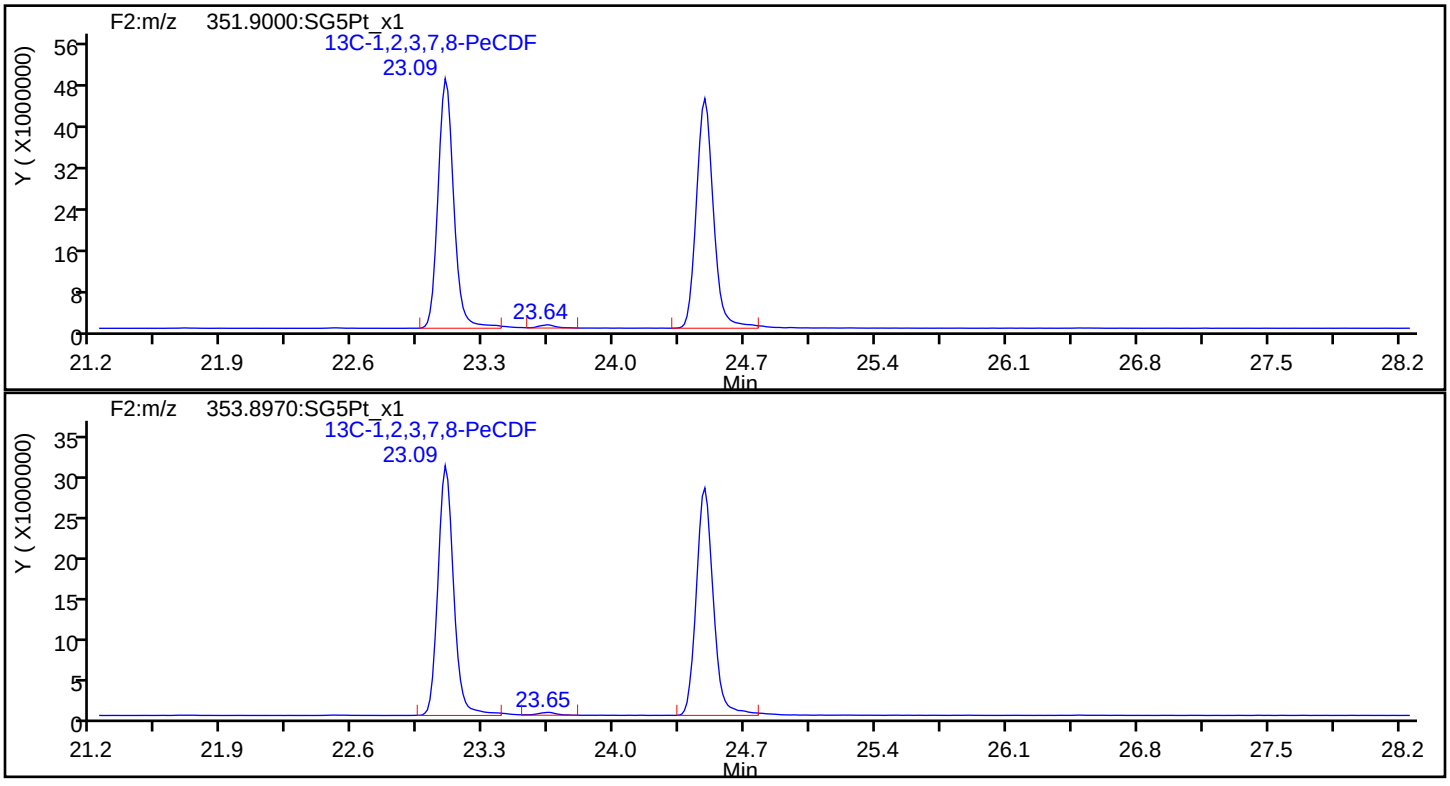
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

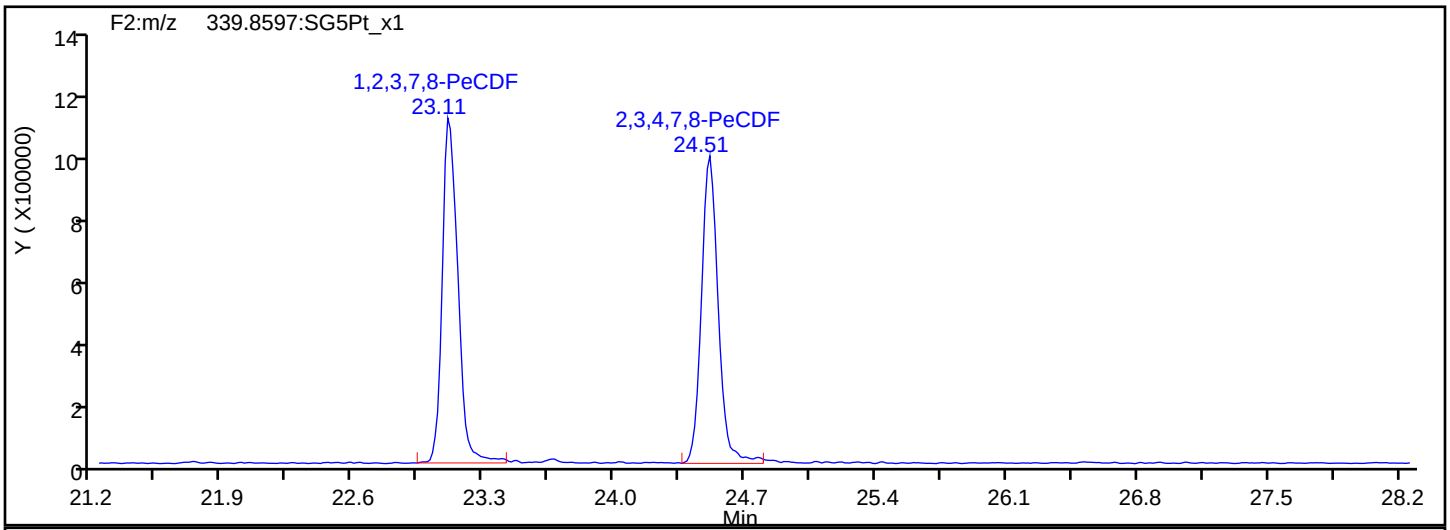


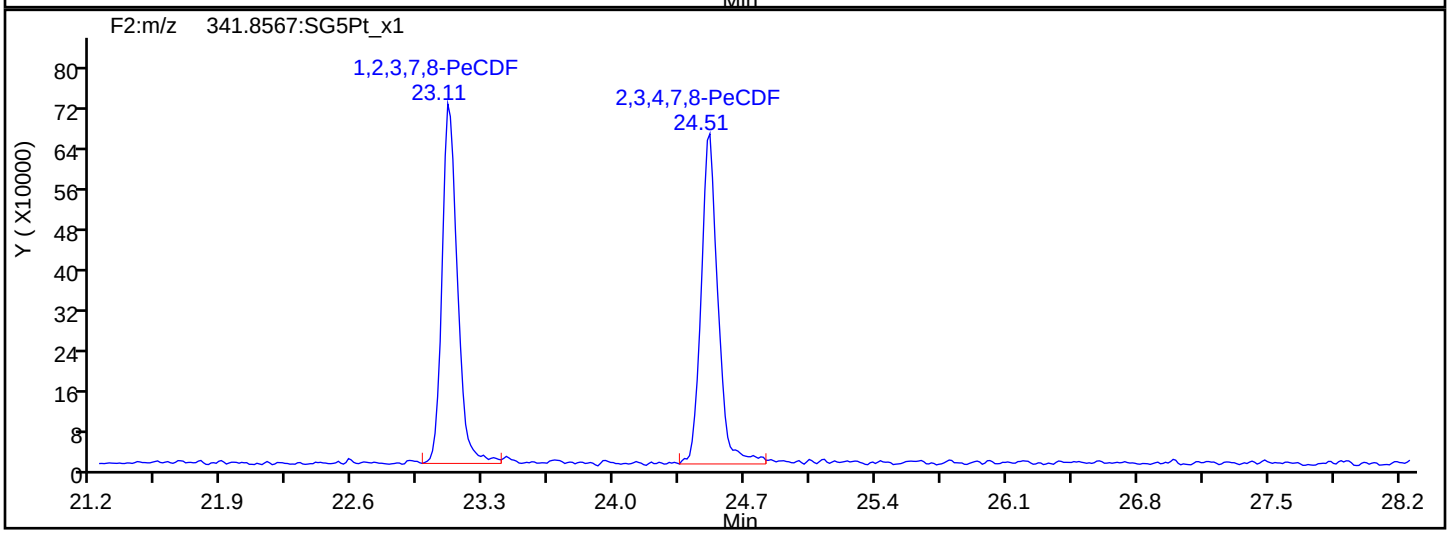
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

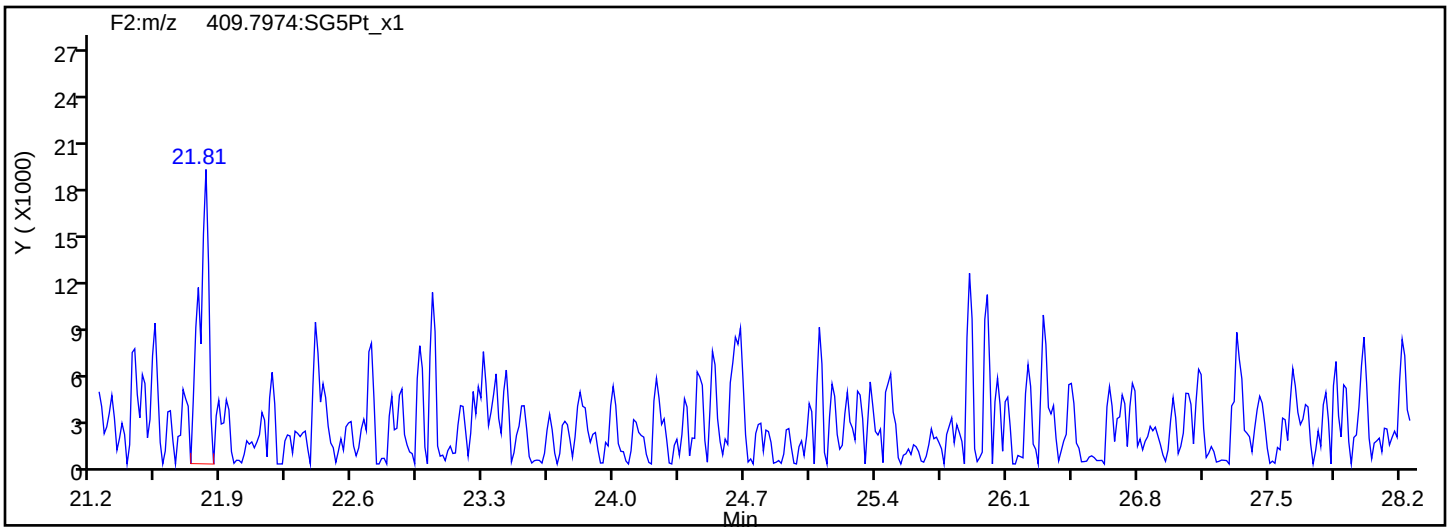
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

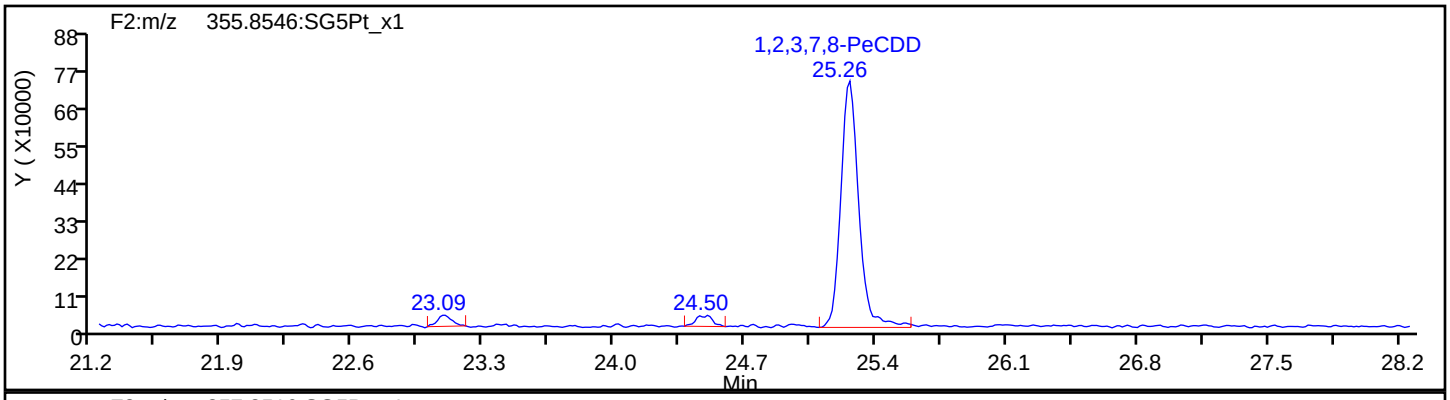


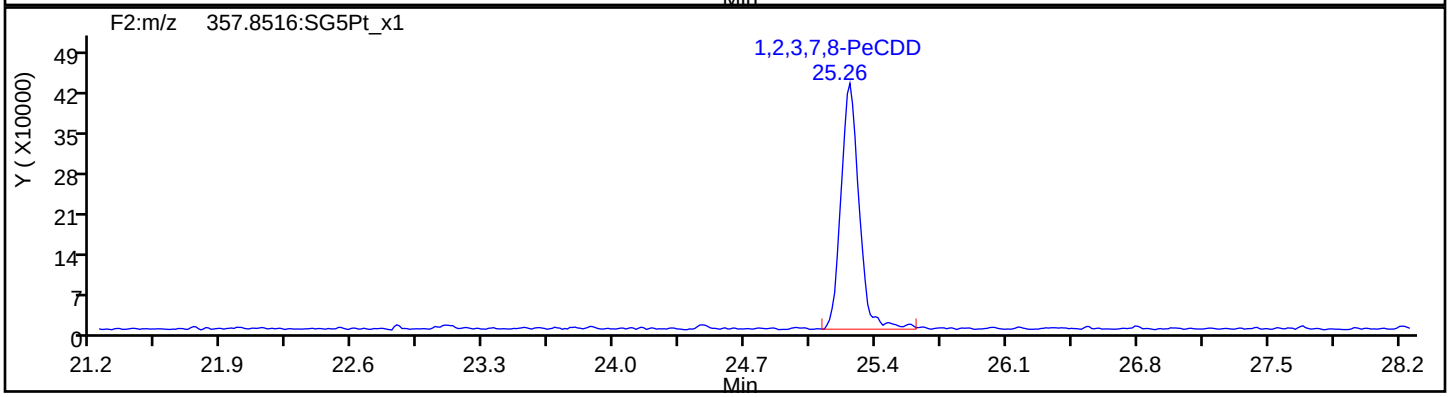
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

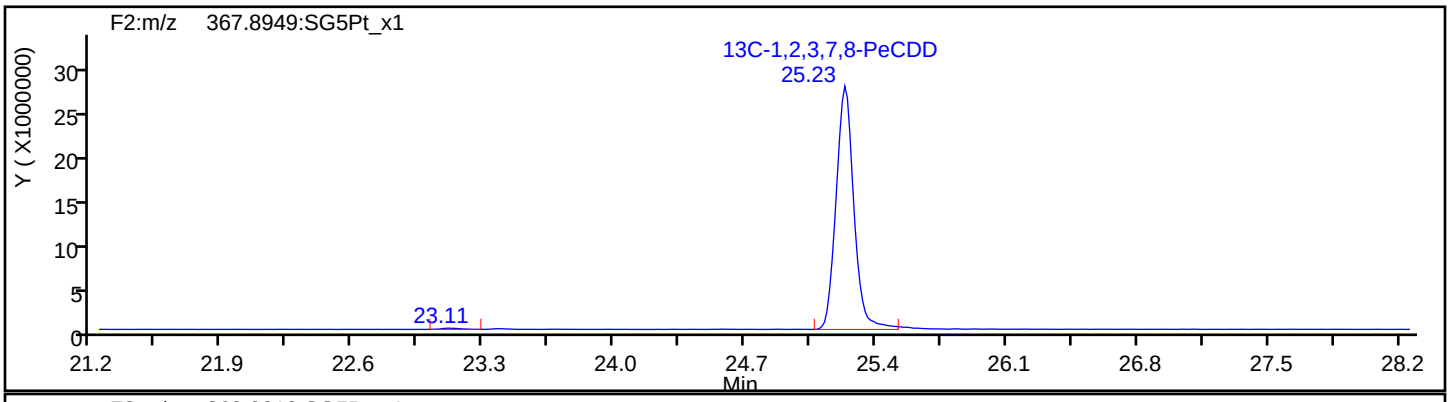
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

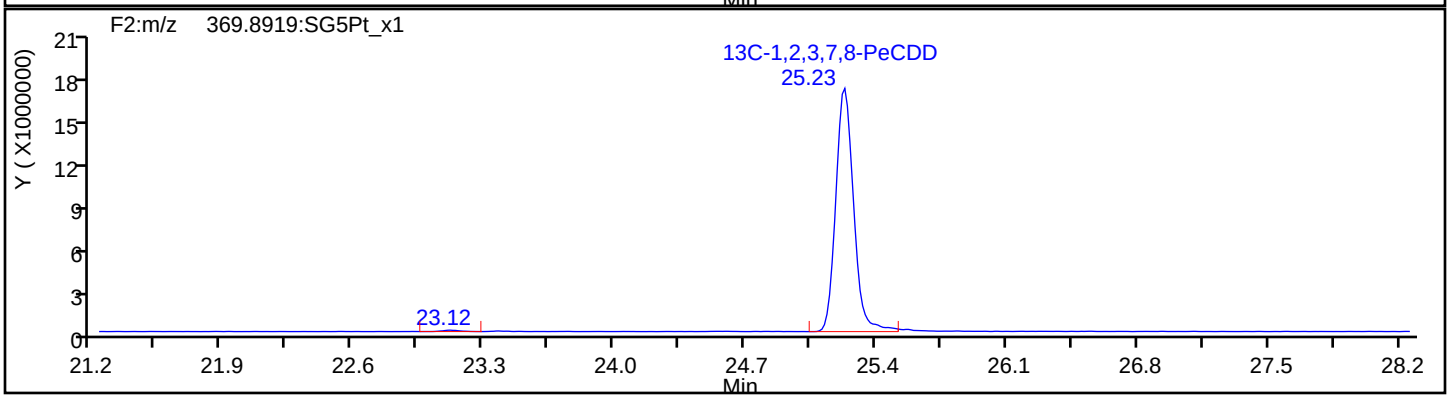
PeCDD





PeCDD Standards



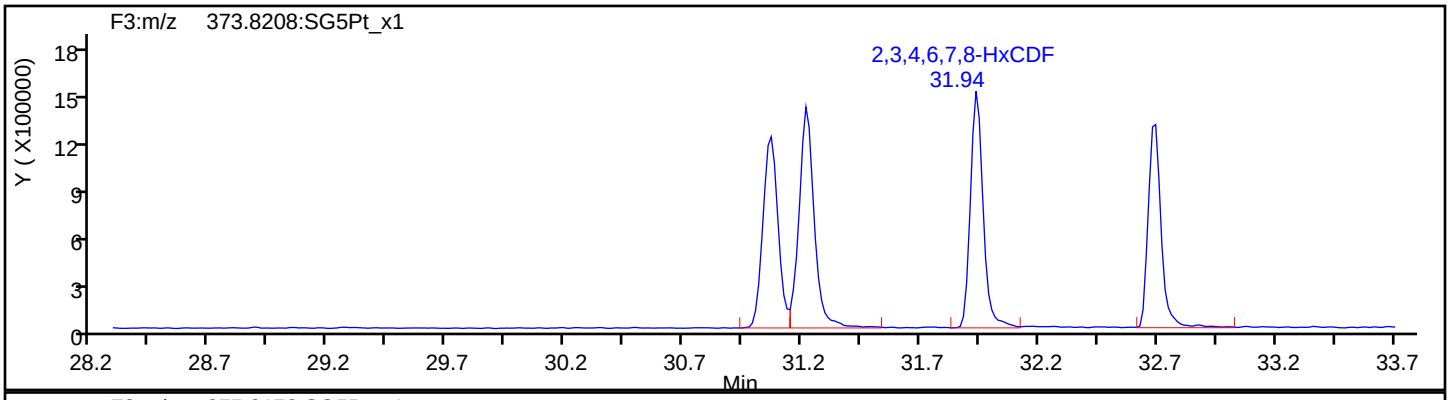


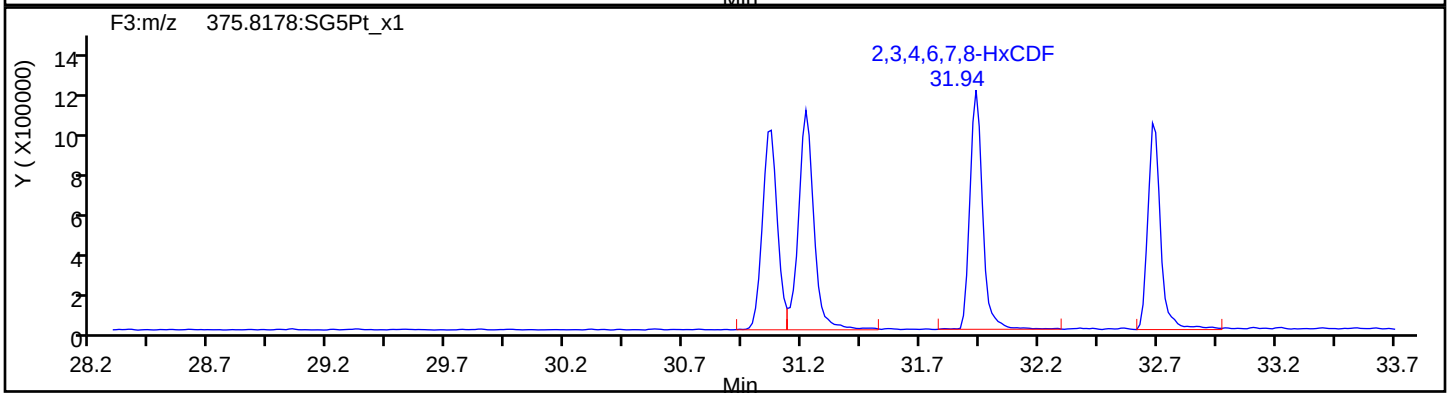
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

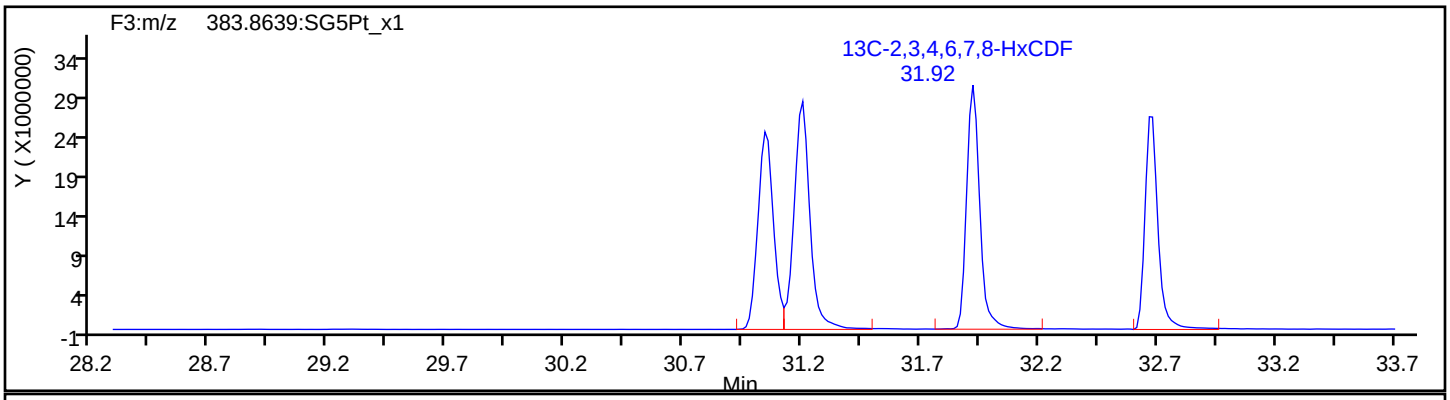
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

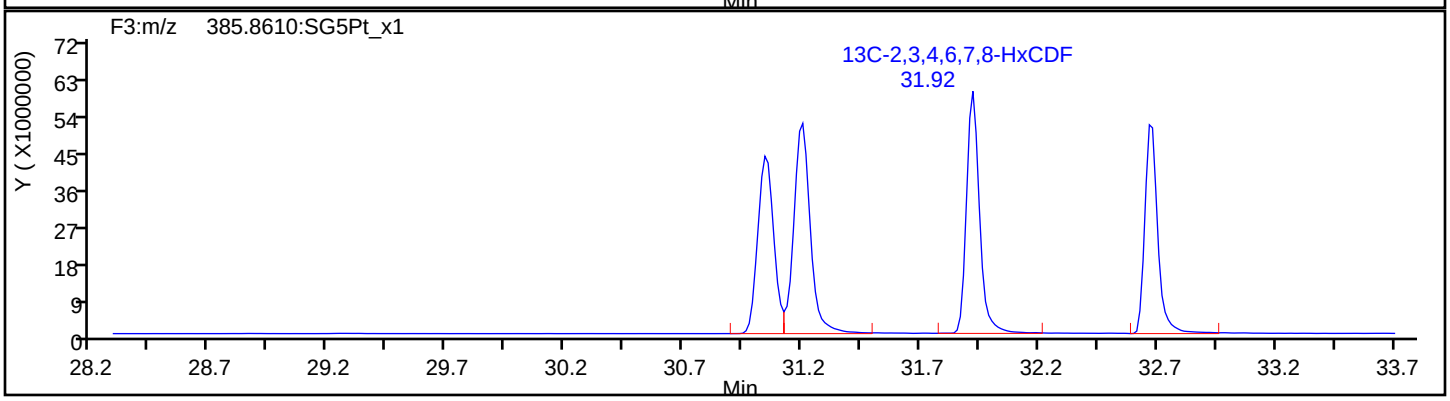
HxCDF





HxCDF Standards



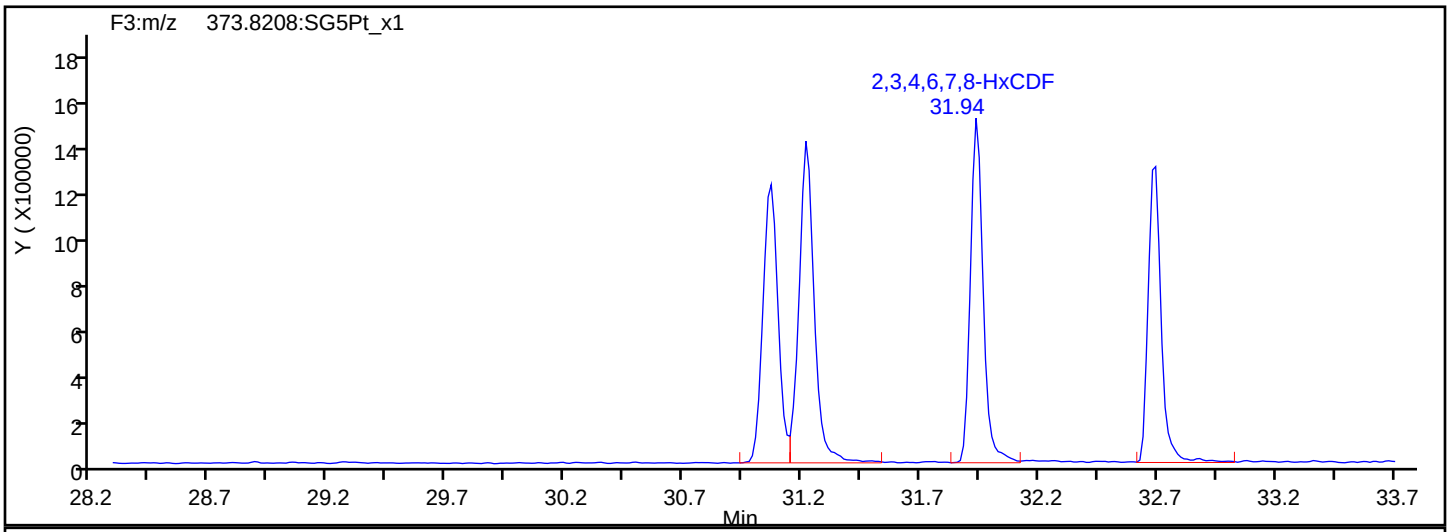


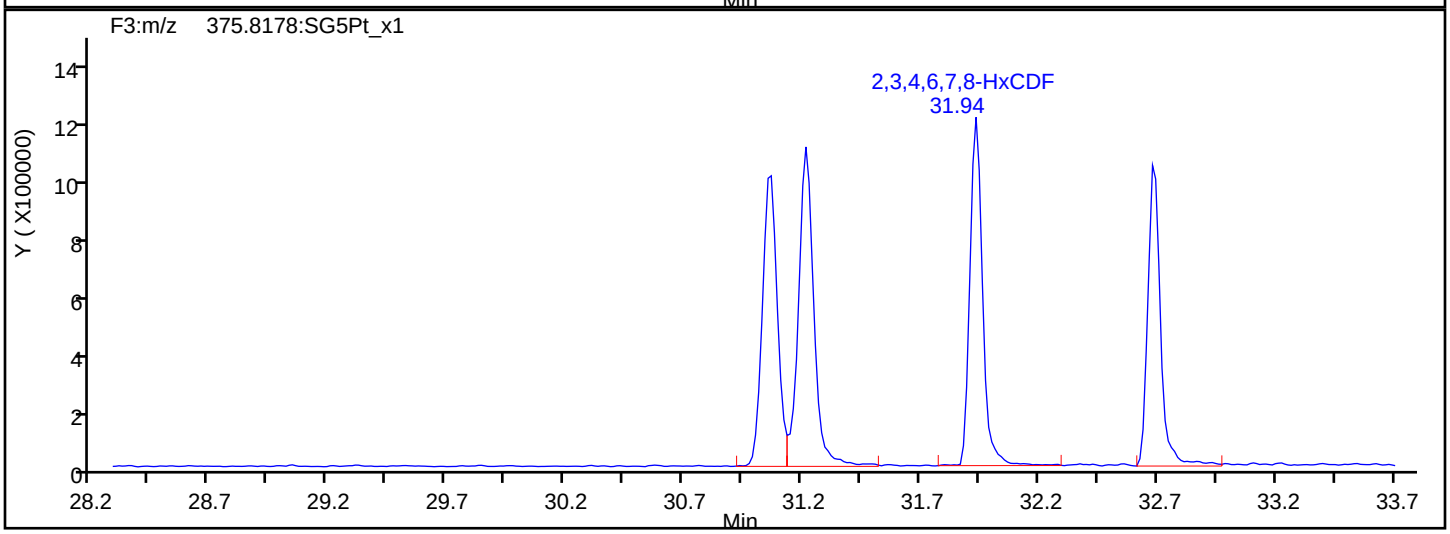
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

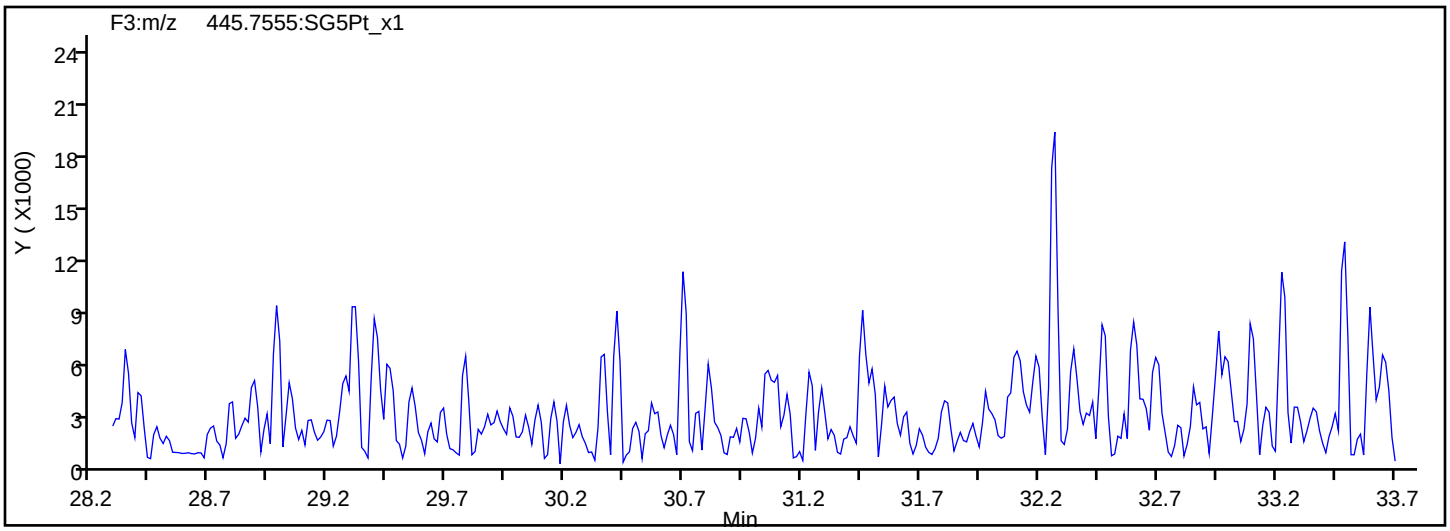
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

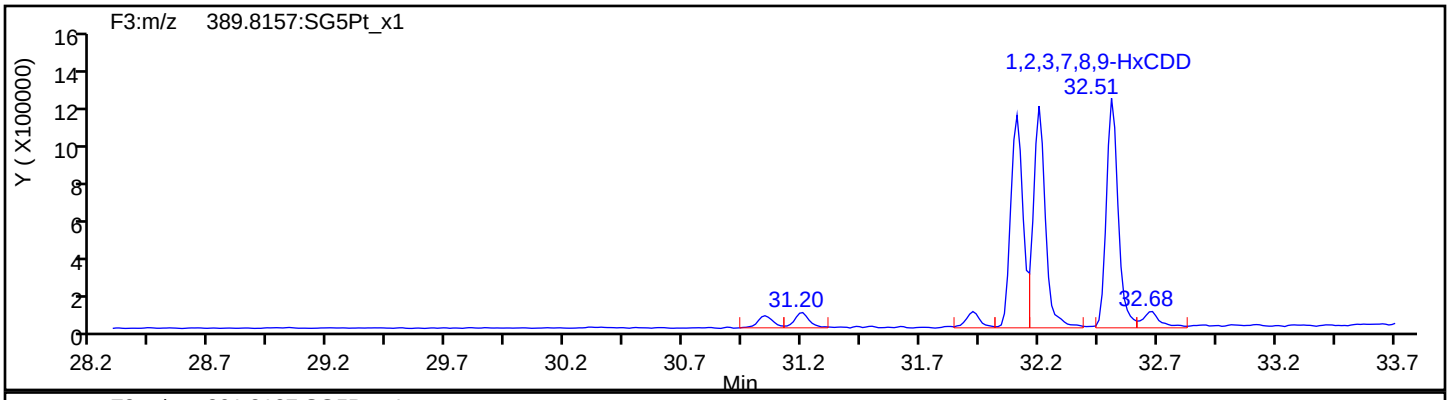


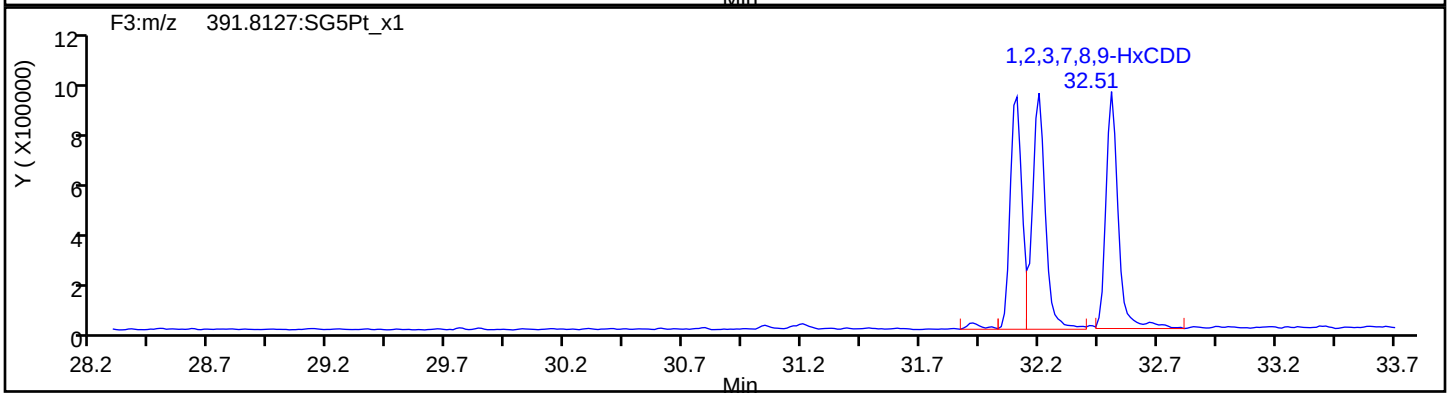
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

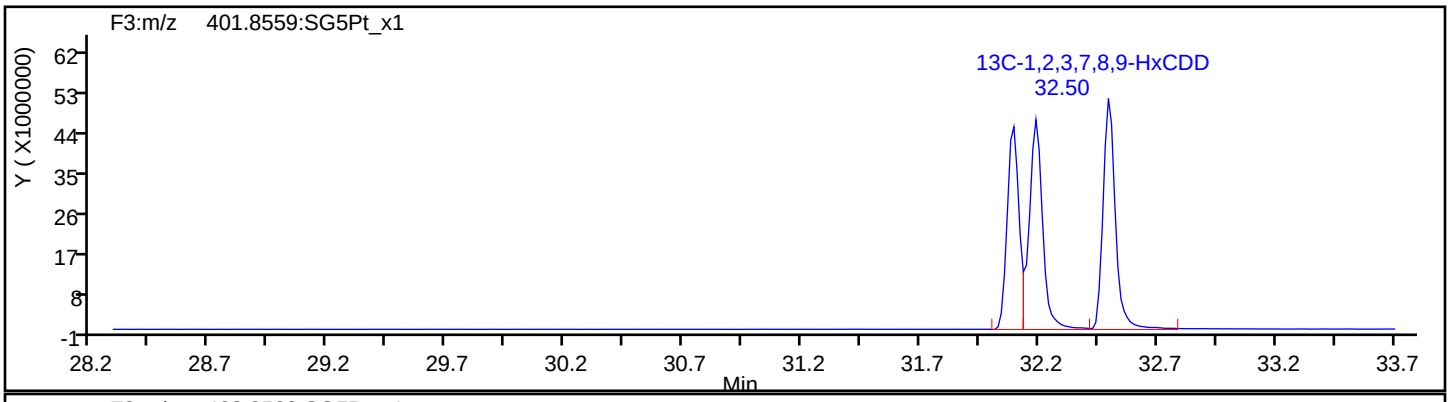
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

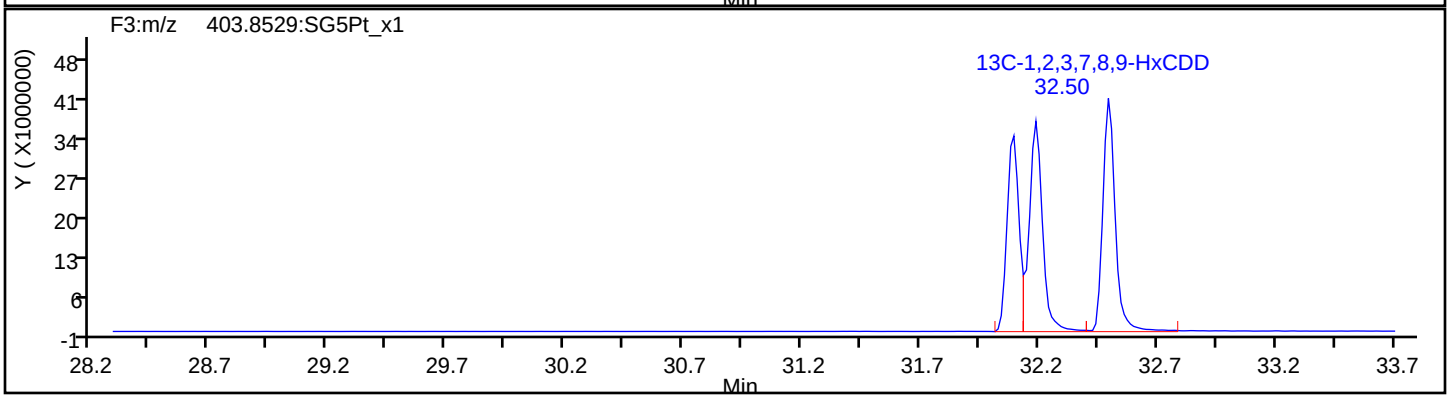
HxCDD





HxCDD Standards



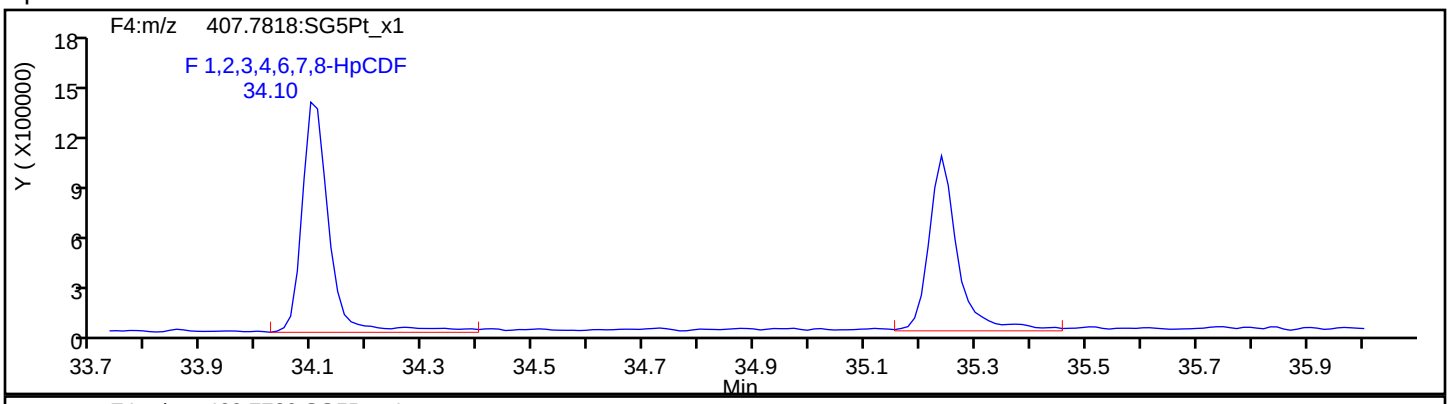


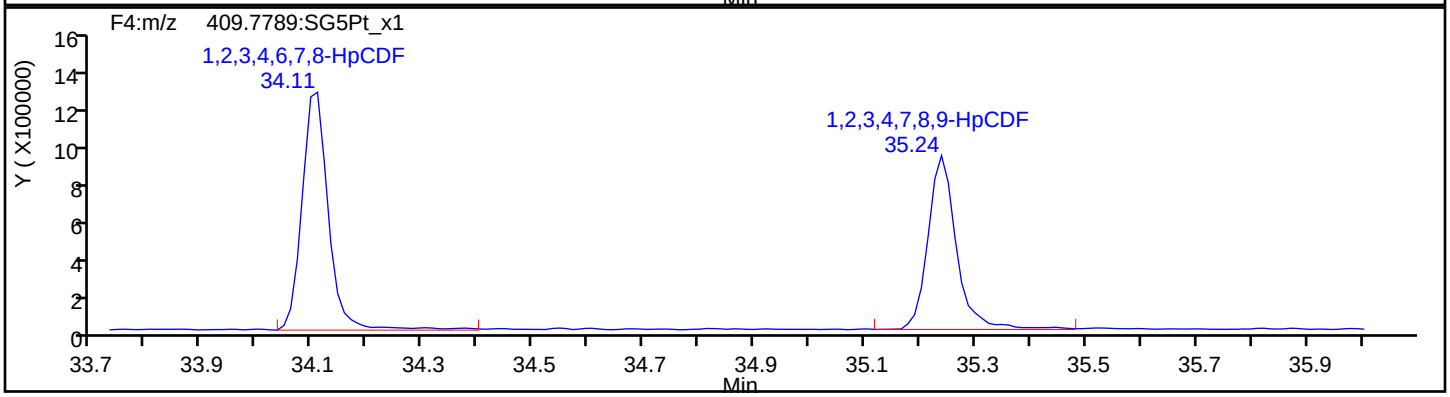
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

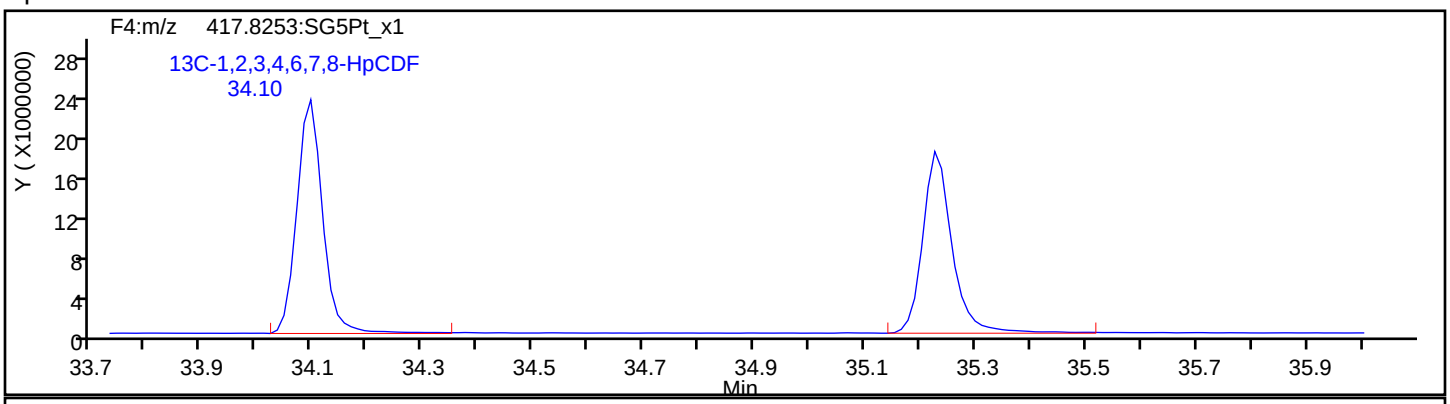
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

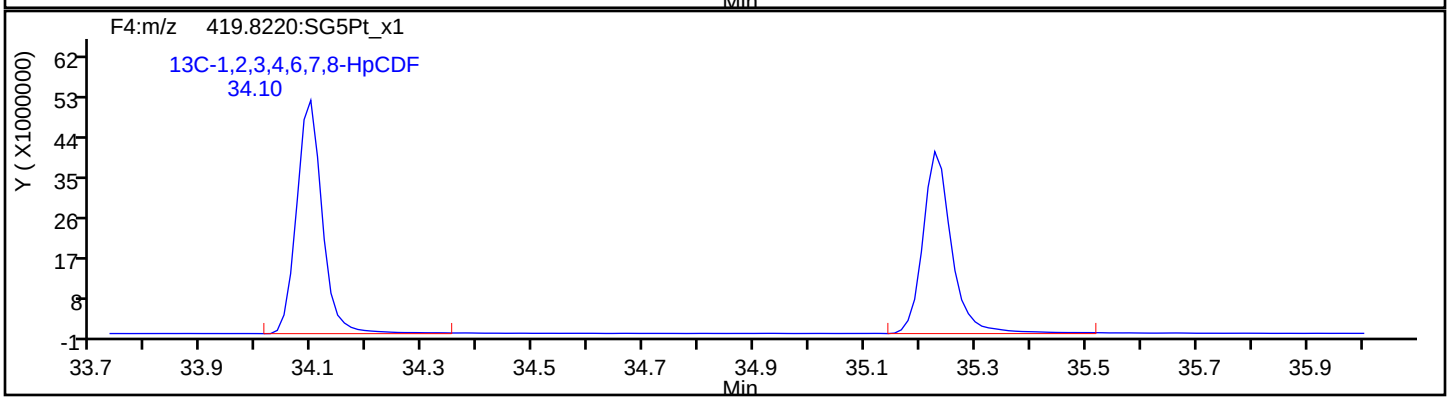
HpCDF





HpCDF Standards



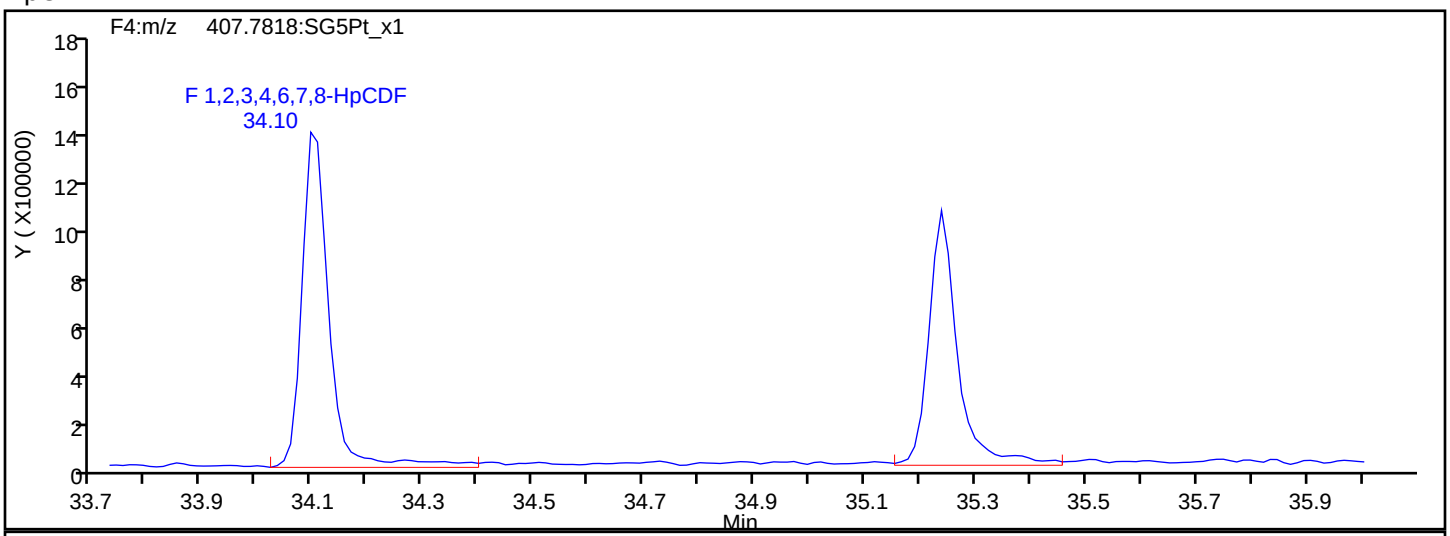


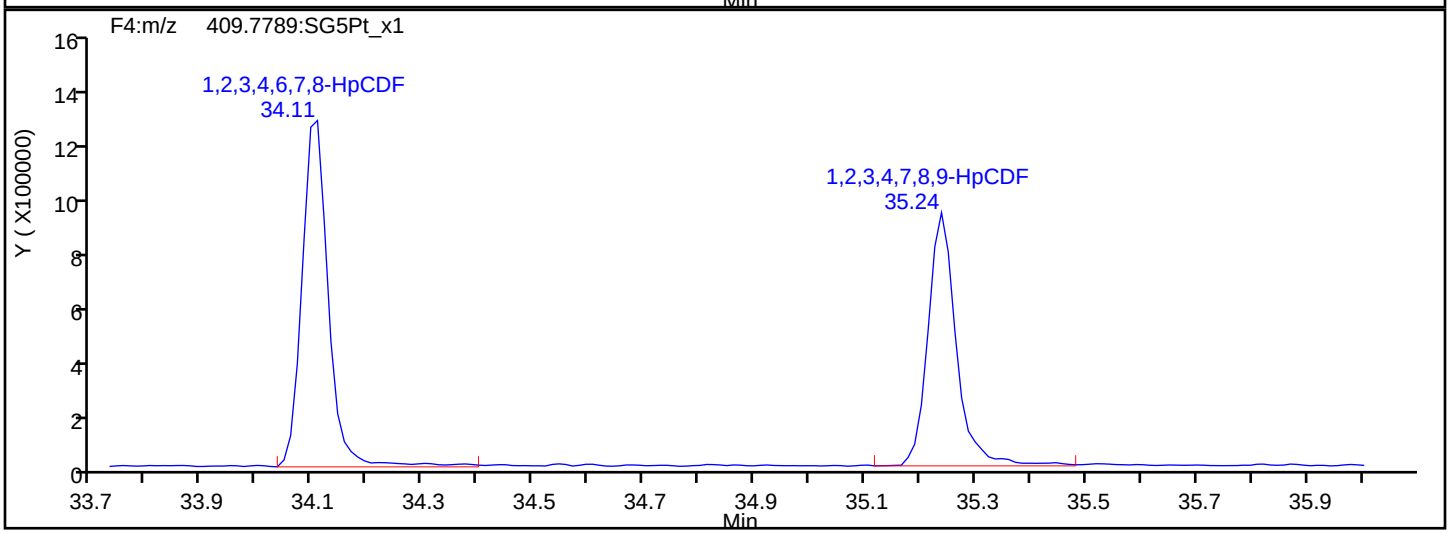
Report Date: 22-May-2019 11:44:12 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

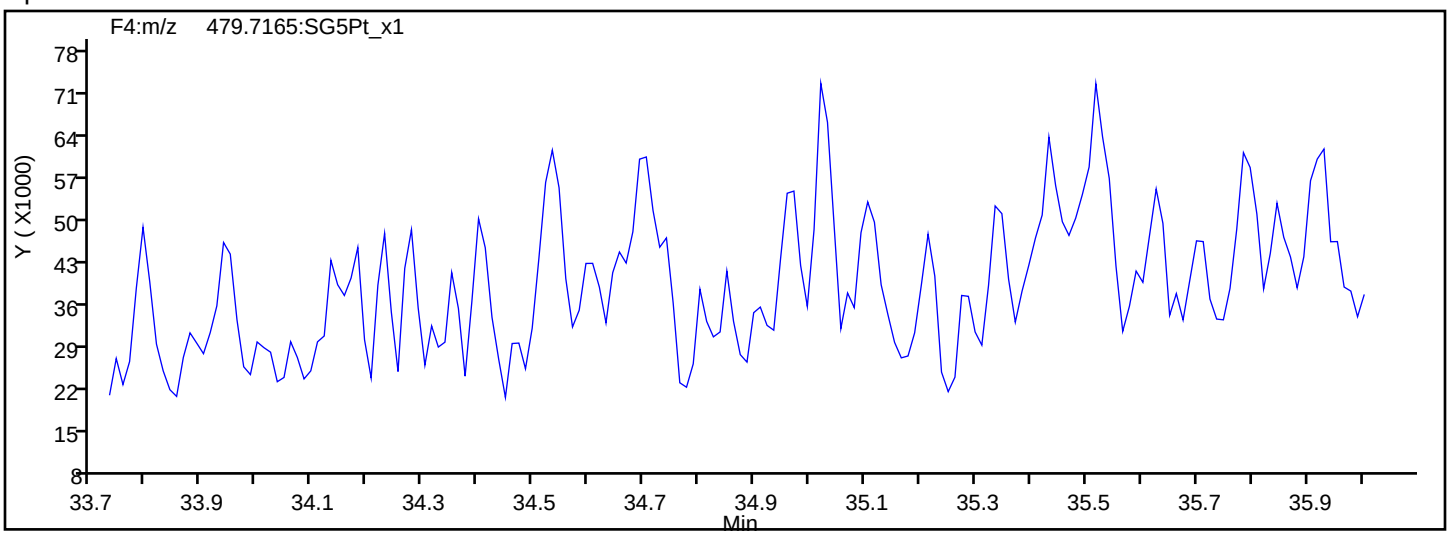
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

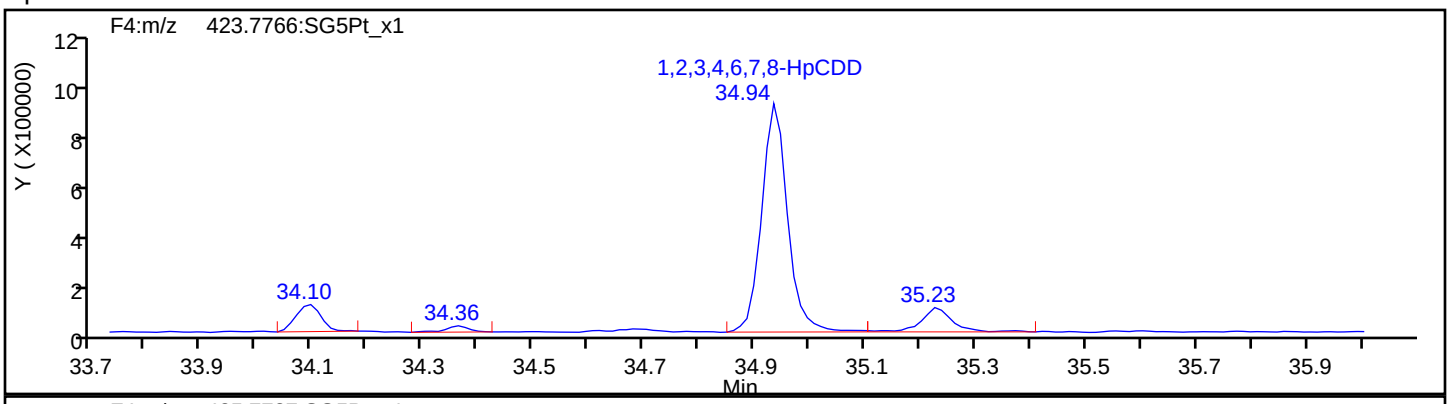


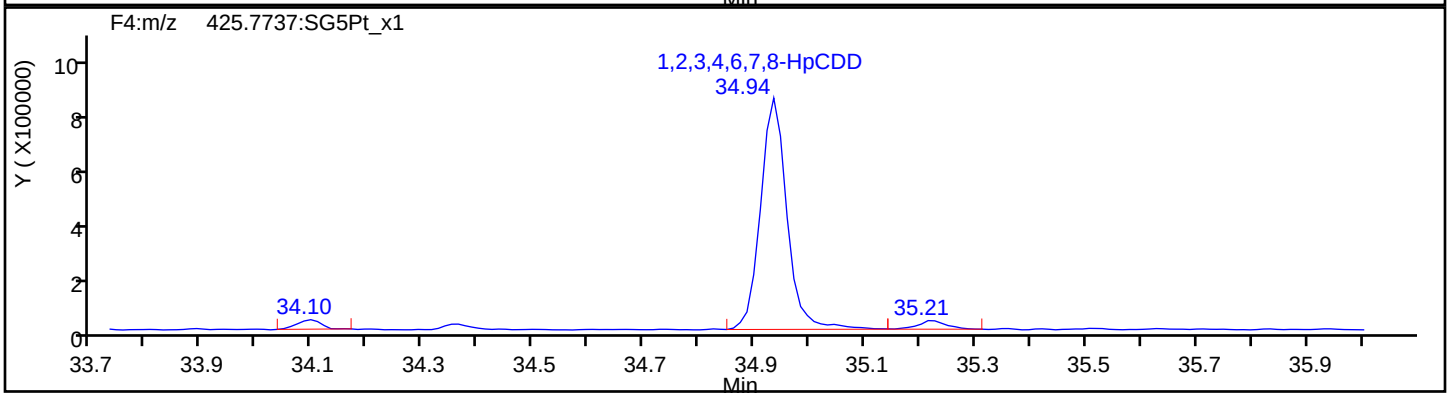
Report Date: 22-May-2019 11:44:13 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

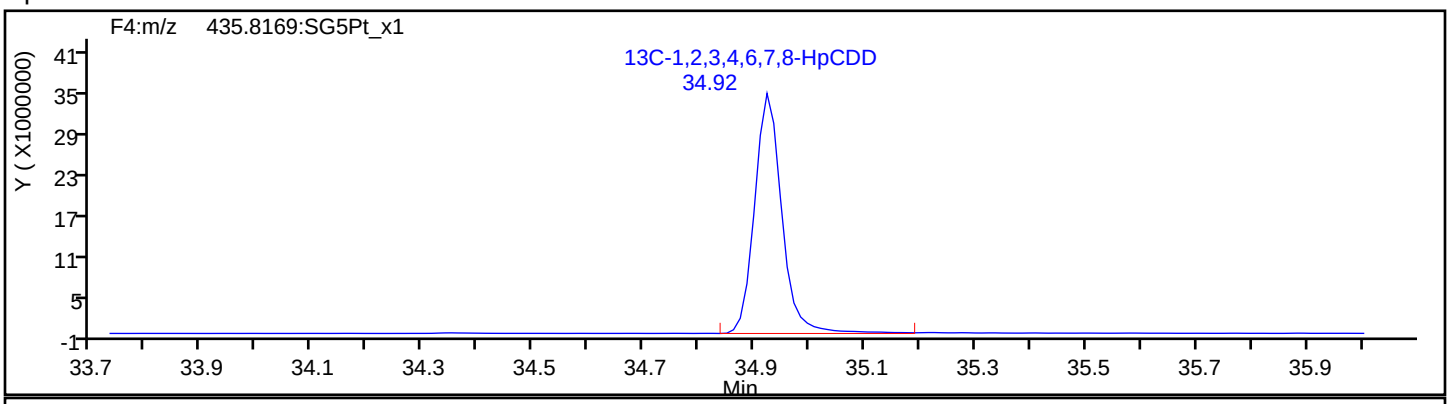
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

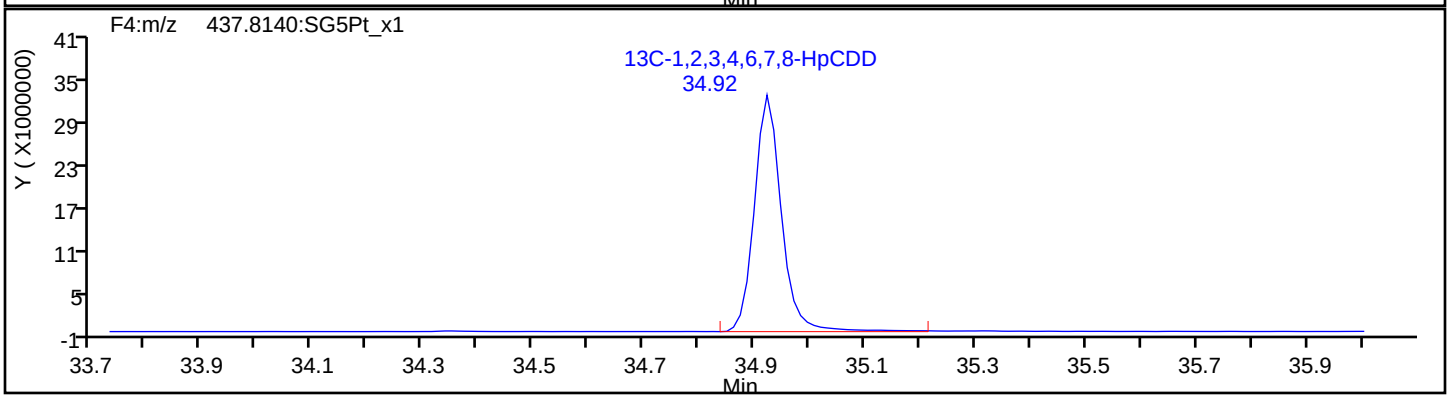
HpCDD





HpCDD Standards



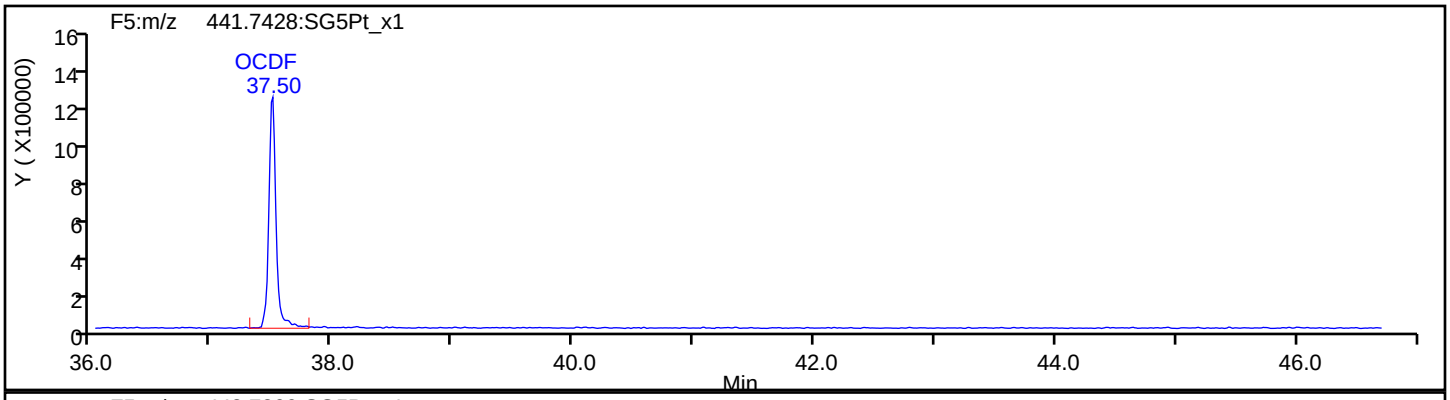


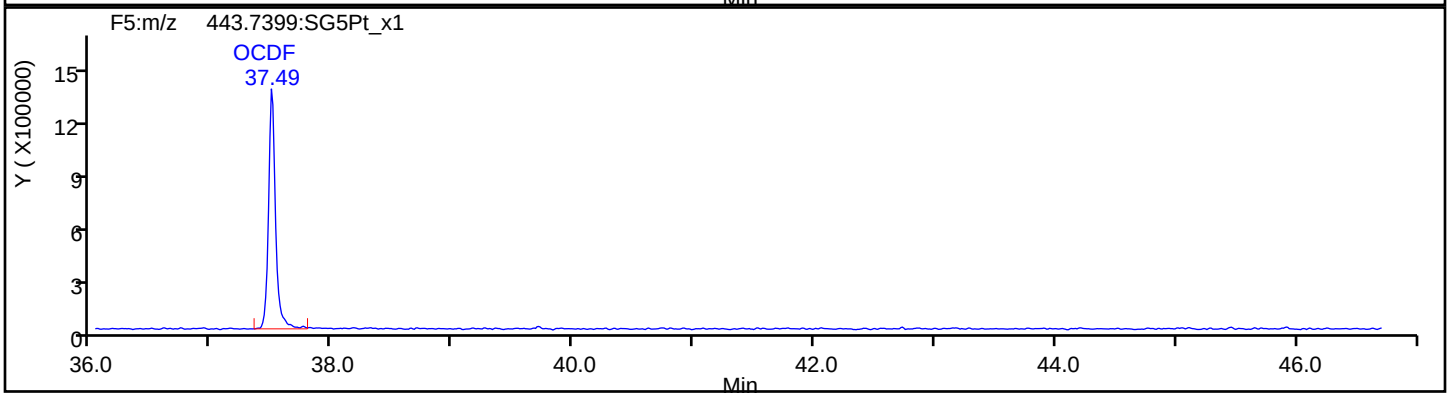
Report Date: 22-May-2019 11:44:13 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

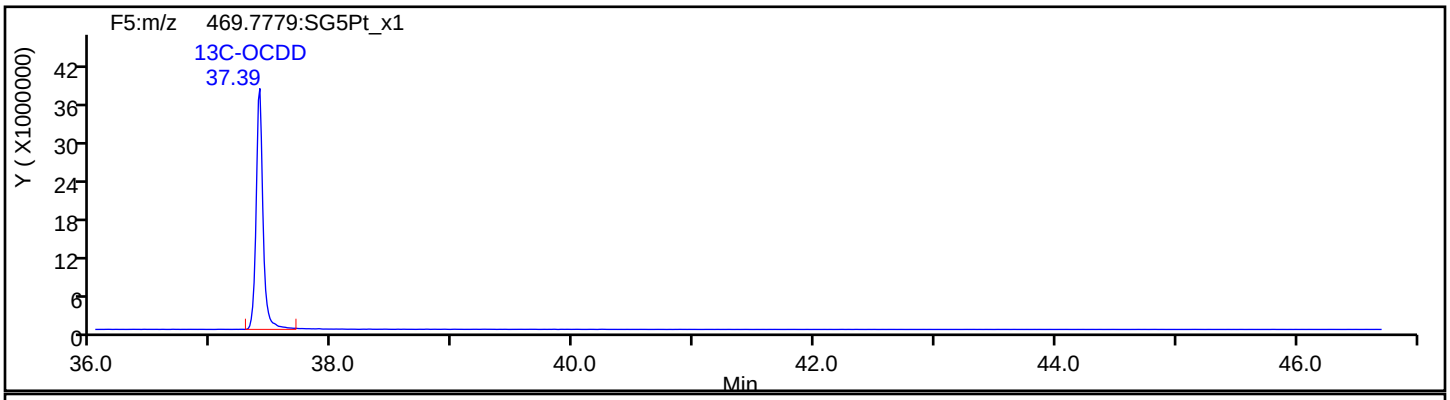
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

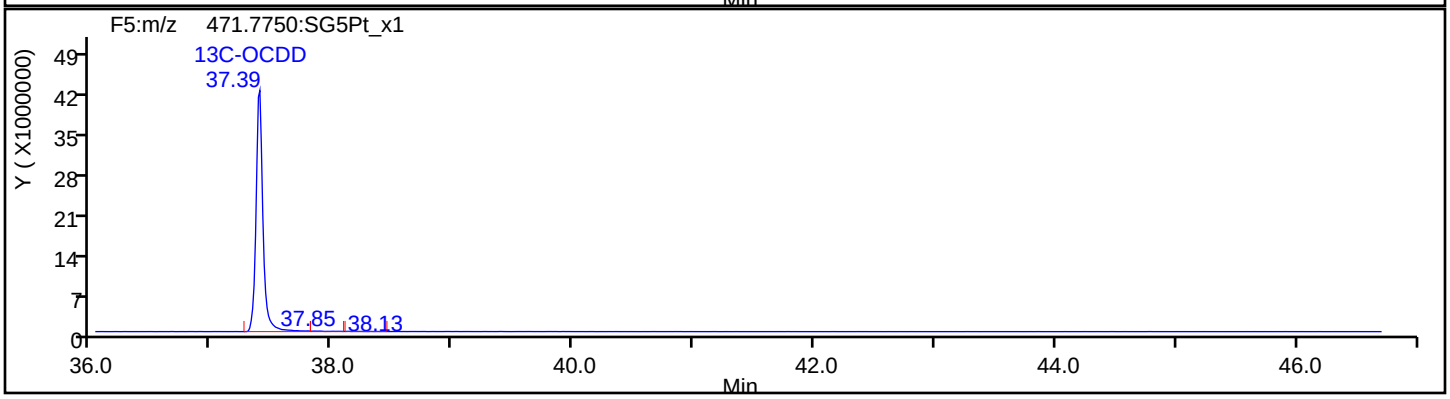
OCDF





OCDF Standards



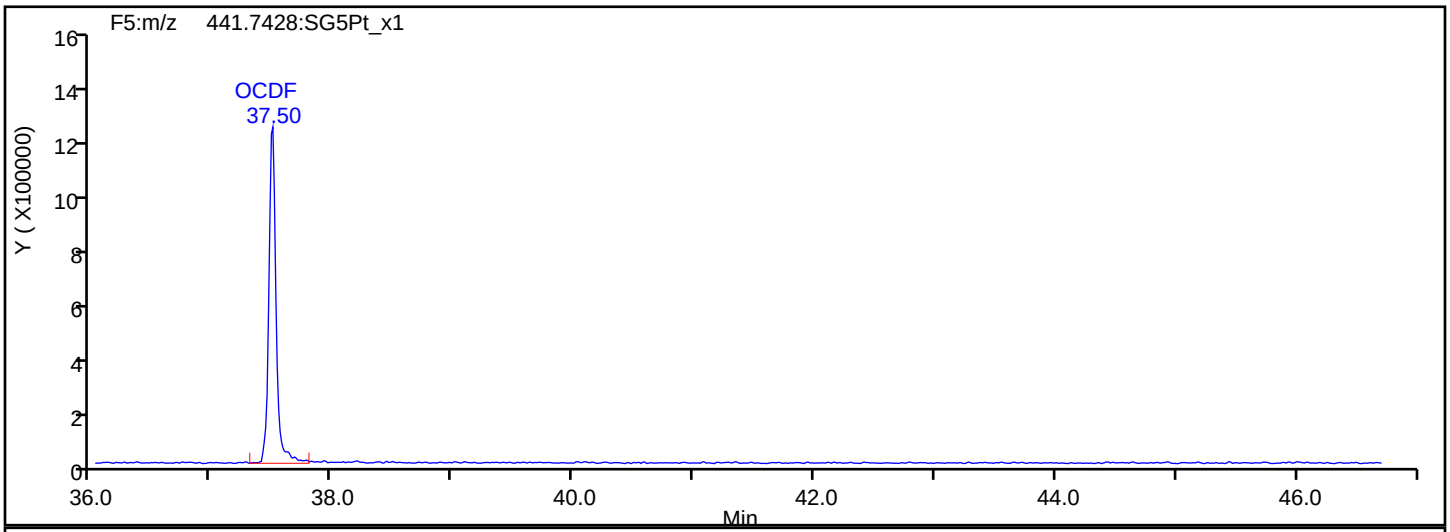


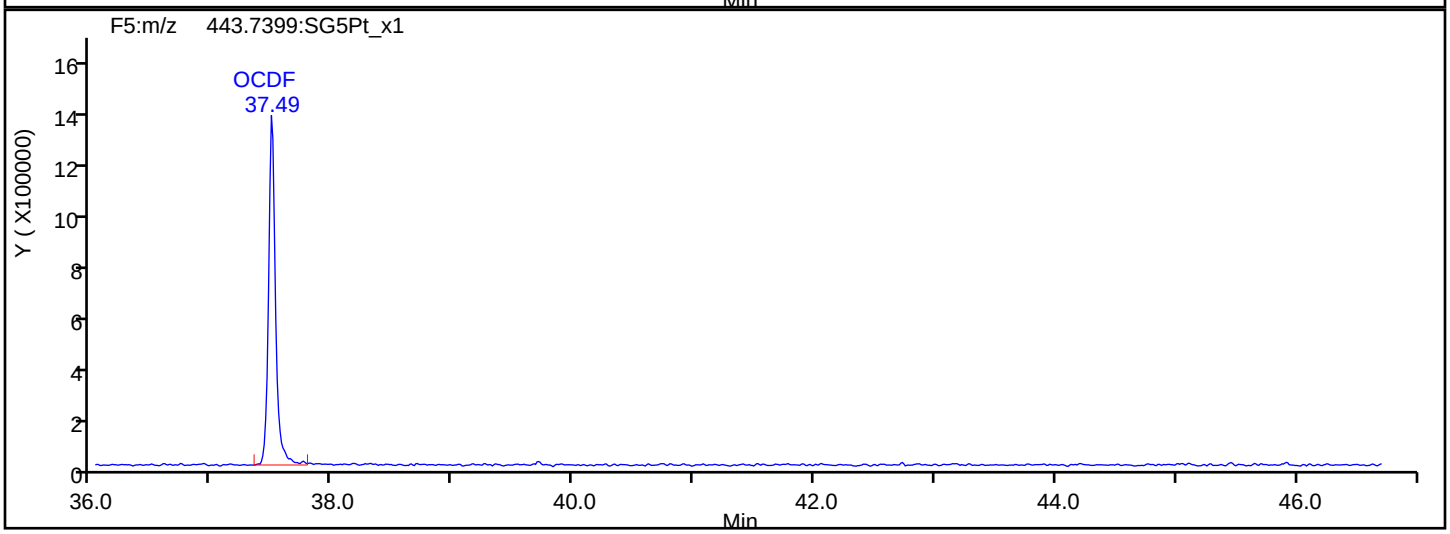
Report Date: 22-May-2019 11:44:13 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

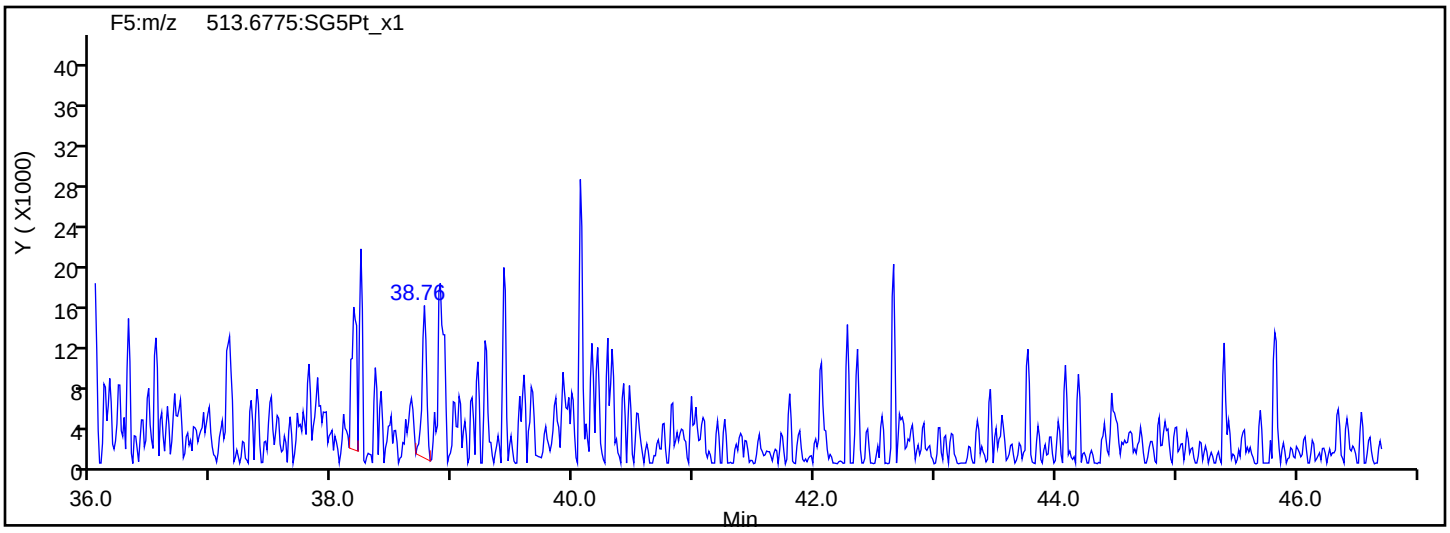
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

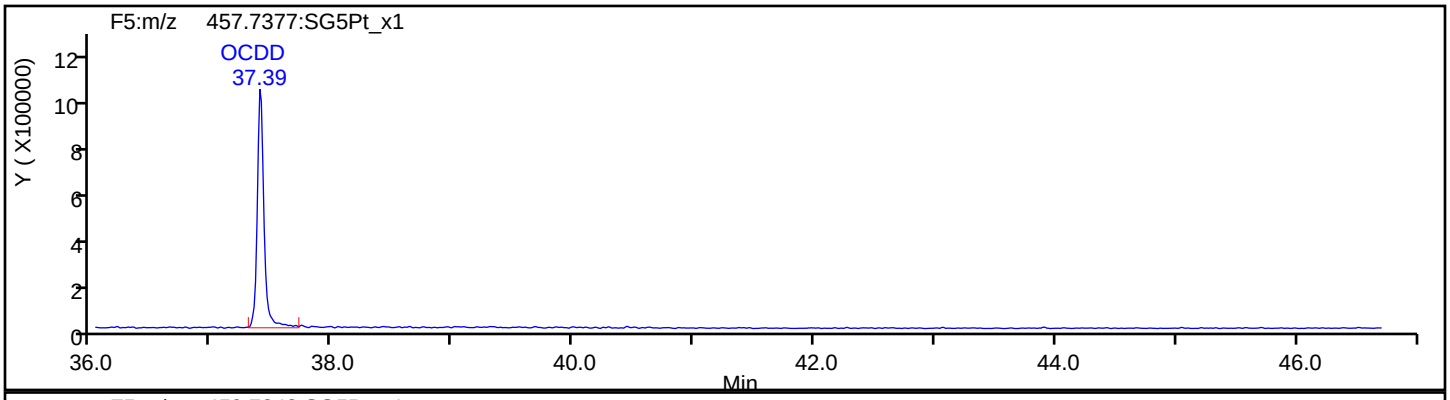


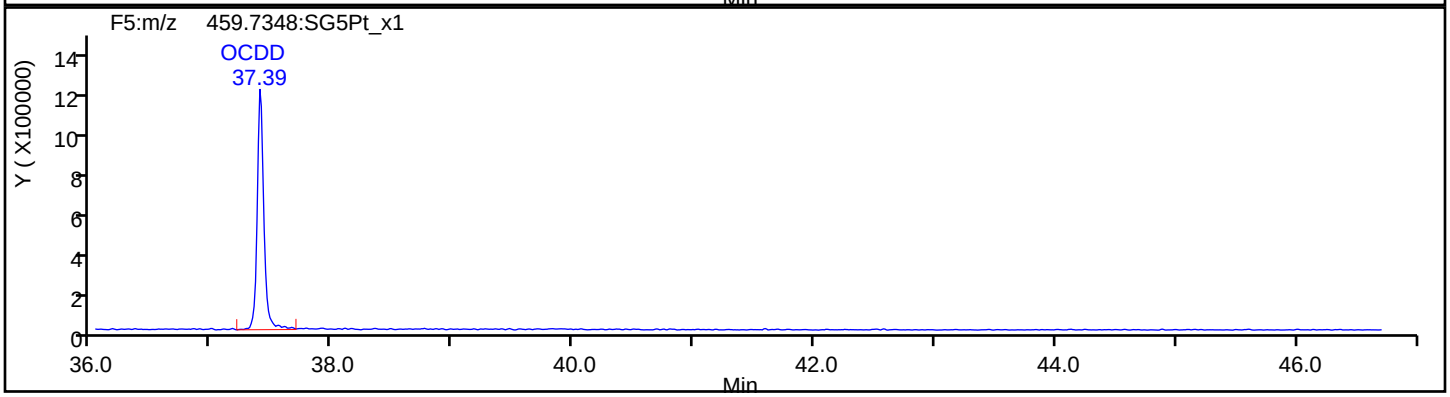
Report Date: 22-May-2019 11:44:13 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

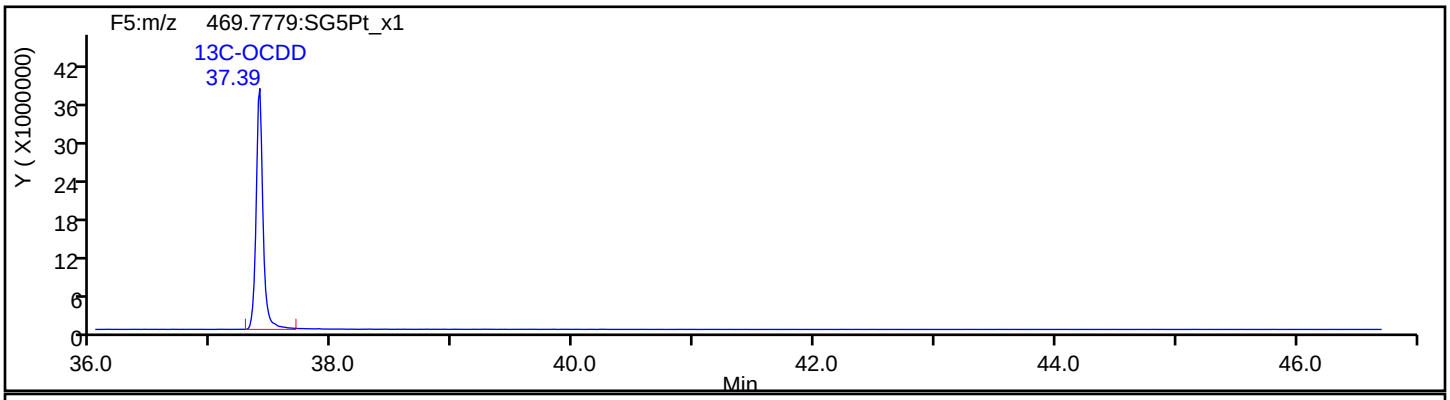
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm

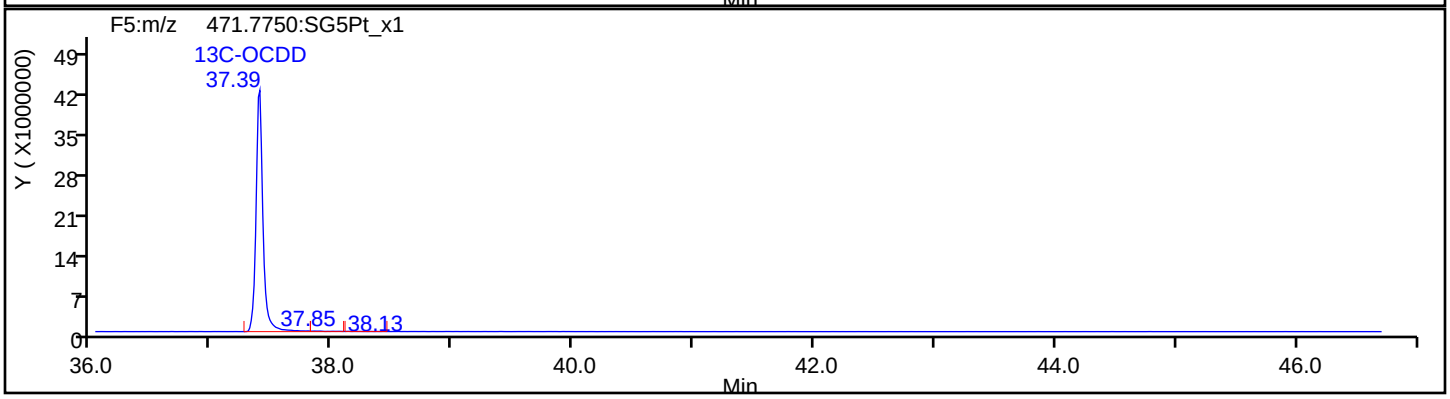
OCDD





OCDD Standards

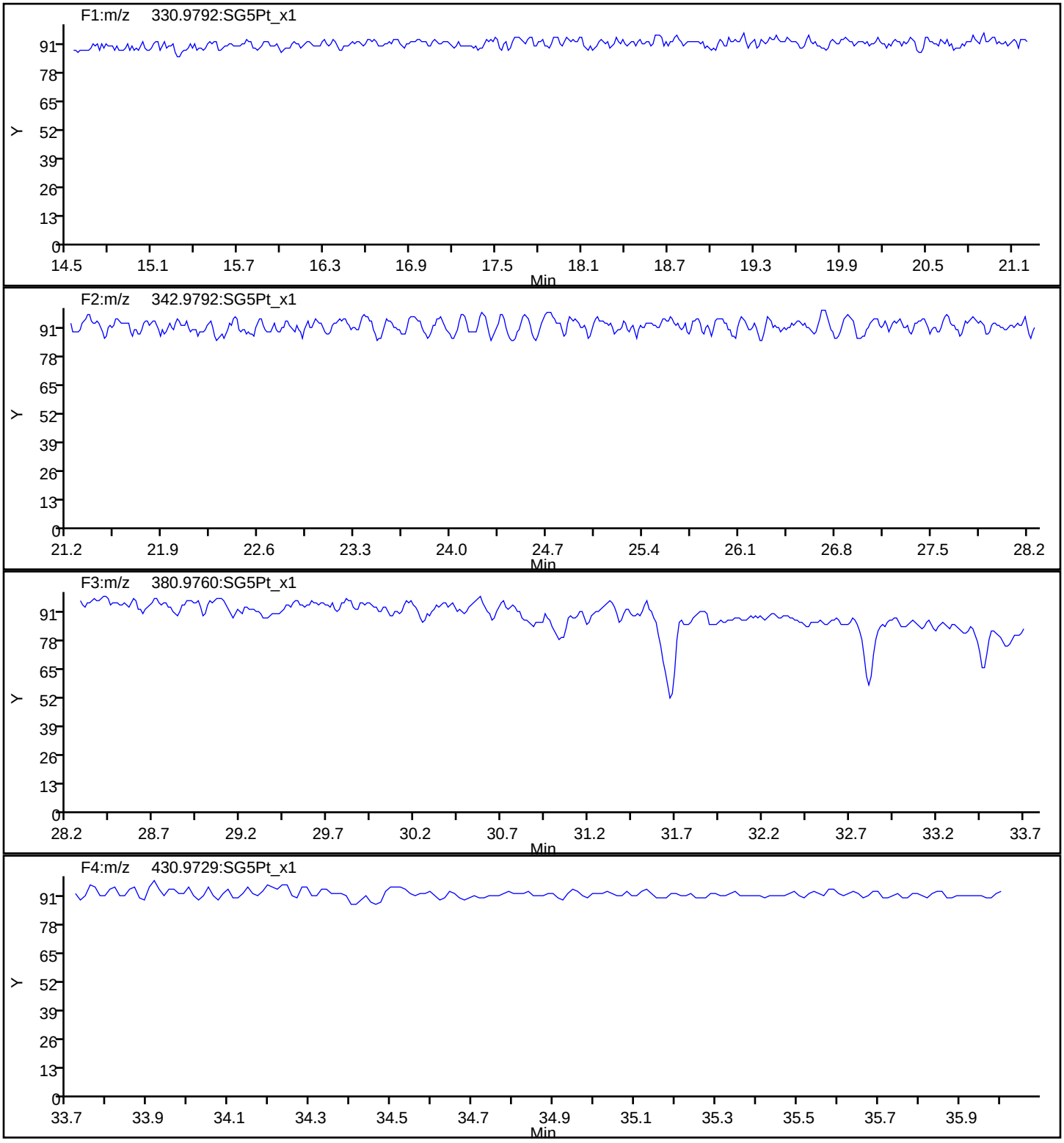




Report Date: 22-May-2019 11:44:13 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

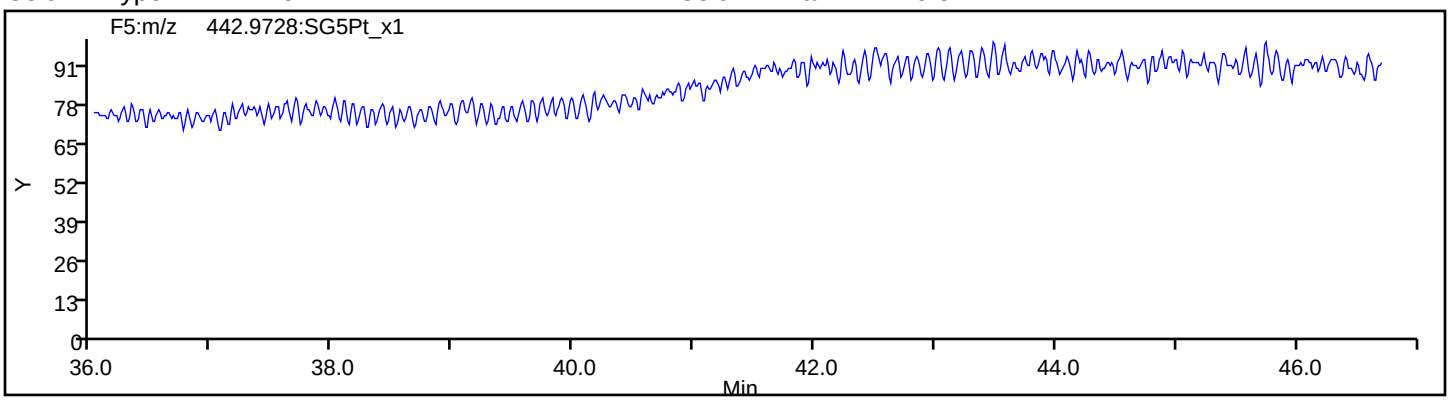
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-May-2019 11:44:13 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_3.d		
Injection Date:	21-May-2019 13:31:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L2		
Worklist#:	296020	Sample Line#:	3
Column Type:	DB-5	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d
Lims ID: IC 3
Client ID: L3
Sample Type: IC Calib Level: 3
Inject. Date: 21-May-2019 14:18:50 ALS Bottle#: 5 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119A CS-3 HRDXNL3_00022
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:24 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 15:15:40

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	18.429	310316271	0.83	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	17.900	413896652	0.79	1.3908	95.9	95.9	0.2164	0.2164	95.90	
2,3,7,8-TCDF	17.915	8507151	0.76	0.9710	2.117	2.117	0.0265	0.0265	106	
S Total TCDF					2.117	2.117	0.0265	0.0265		
D 13C-2,3,7,8-TCDD	18.626	294655621	0.78	0.9819	96.7	96.7	0.2316	0.2316	96.71	
2,3,7,8-TCDD	18.656	6396242	0.75	1.0447	2.078	2.078	0.0329	0.0329	104	
$ 37Cl4-2,3,7,8-TCDD	18.656	7124853		1.2205	1.881	1.881	0.0280	0.0280	94.06	
S Total TCDD					2.078	2.078	0.0329	0.0329		
D 13C-1,2,3,7,8-PeCDF	23.107	342759465	1.59	1.1585	95.3	95.3	0.2653	0.2653	95.35	
1,2,3,7,8-PeCDF	23.134	34842727	1.56	0.9633	10.6	10.6	0.0668	0.0668	106	
D 13C-2,3,4,7,8-PeCDF	24.484	361518043	1.59	1.1532	101.0	101.0	0.2665	0.2665	101	
2,3,4,7,8-PeCDF	24.512	34688810	1.57	0.9495	10.1	10.1	0.0692	0.0692	101	
S Total PeCDF					20.7	20.7	0.0680	0.0680		
D 13C-1,2,3,7,8-PeCDD	25.234	223121425	1.56	0.7431	96.8	96.8	0.1324	0.1324	96.76	
1,2,3,7,8-PeCDD	25.262	24806651	1.64	1.0635	10.5	10.5	0.0773	0.0773	105	
S Total PeCDD					10.5	10.5	0.0773	0.0773		
D 13C-1,2,3,4,7,8-HxCDF	31.058	249870872	0.52	0.9837	99.2	99.2	0.3834	0.3834	99.16	
1,2,3,4,7,8-HxCDF	31.071	31309357	1.23	1.2173	10.3	10.3	0.0647	0.0647	103	
D 13C-1,2,3,6,7,8-HxCDF	31.205	284216868	0.51	1.1554	96.0	96.0	0.3264	0.3264	96.03	
1,2,3,6,7,8-HxCDF	31.231	33467672	1.24	1.1311	10.4	10.4	0.0646	0.0646	104	
D 13C-2,3,4,6,7,8-HxCDF	31.924	253100793	0.54	1.0361	95.4	95.4	0.3640	0.3640	95.37	
2,3,4,6,7,8-HxCDF	31.950	31515470	1.21	1.1710	10.6	10.6	0.0555	0.0555	106	
D 13C-1,2,3,7,8,9-HxCDF	32.682	217982814	0.51	0.9034	94.2	94.2	0.4175	0.4175	94.19	
1,2,3,7,8,9-HxCDF	32.696	27006700	1.24	1.1787	10.5	10.5	0.0613	0.0613	105	
S Total HxCDF					41.8	41.8	0.0615	0.0615		
* 13C-1,2,3,7,8,9-HxCDD	32.496	256154728	1.29	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	32.097	214549850	1.27	0.8287	101.1	101.1	0.2887	0.2887	101	
1,2,3,4,7,8-HxCDD	32.110	22229107	1.24	1.0267	10.1	10.1	0.0801	0.0801	101	
D 13C-1,2,3,6,7,8-HxCDD	32.190	230647502	1.26	0.9495	94.8	94.8	0.2520	0.2520	94.84	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,3,6,7,8-HxCDD	32.216	23903470	1.21	0.9771	10.6	10.6	0.0849	0.0849	106	
1,2,3,7,8,9-HxCDD	32.523	25265795	1.28	1.0616	10.7	10.7	0.0778	0.0778	107	
S Total HxCDD					31.4	31.4	0.0810	0.0810		
D 13C-1,2,3,4,6,7,8-HpCDF	34.097	177773786	0.45	0.7285	95.3	95.3	0.6497	0.6497	95.27	
1,2,3,4,6,7,8-HpCDF	34.109	27002265	1.07	1.4373	10.6	10.6	0.1000	0.1000	106	
D 13C-1,2,3,4,7,8,9-HpCDF	35.239	167226325	0.44	0.6556	99.6	99.6	0.7219	0.7219	99.57	
1,2,3,4,7,8,9-HpCDF	35.251	22029367	1.09	1.3091	10.1	10.1	0.1374	0.1374	101	
S Total HpCDF					20.6	20.6	0.1187	0.1187		
D 13C-1,2,3,4,6,7,8-HpCDD	34.935	171291409	1.04	0.6978	95.8	95.8	0.3132	0.3132	95.82	
1,2,3,4,6,7,8-HpCDD	34.947	18276752	1.12	1.0102	10.6	10.6	0.0852	0.0852	106	
S Total HpCDD					10.6	10.6	0.0852	0.0852		
D 13C-OCDD	37.395	227149918	0.91	0.4780	185.5	185.5	0.1906	0.1906	92.77	
OCDF	37.503	32555639	0.89	1.3501	21.2	21.2	0.0595	0.0595	106	
OCDD	37.407	25589607	0.86	1.0627	21.2	21.2	0.0621	0.0621	106	

Reagents:

HRDXNL3_00022 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d
Lims ID: IC 3
Client ID: L3
Sample Type: IC Calib Level: 3
Inject. Date: 21-May-2019 14:18:50 ALS Bottle#: 5 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119A CS-3 HRDXNL3_00022
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:24 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 15:15:40

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	18.429	18.432	0		140590507	33497670	45867	114667	730		
333.9339	18.429	18.432	0		169725764	39965720	20964	52410	1906	0.83(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	17.900	17.900	0	0.971	183107277	42390083	41657	104142	1018		
317.9389	17.900	17.900	0	0.971	230789375	53791143	46798	116995	1149	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	17.915	17.915	0	1.001	3674027	900401	3467	8667	260		
305.8987	17.915	17.915	0	1.001	4833124	1119459	6429	16072	174	0.76(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	18.626	18.629	0	1.011	129420255	28813661	45867	114667	628		
333.9339	18.626	18.629	0	1.011	165235366	37242633	20964	52410	1777	0.78(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	18.656	18.650	0	1.002	2750476	616798	6357	15892	97		
321.8936	18.656	18.650	0	1.002	3645766	841077	2725	6812	309	0.75(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	18.656	18.650	0	1.012	7124853	1608772	10054	25135	160		
13C-1,2,3,7,8-PeCDF											
351.9000	23.107	23.102	0	1.254	210447264	35221454	53434	133585	659		
353.8970	23.107	23.102	0	1.254	132312201	22597192	36880	92200	613	1.59(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	23.134	23.123	1	1.001	21225388	3573393	6476	16190	552		
341.8567	23.121	23.123	0	1.001	13617339	2291357	8397	20992	273	1.56(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,7,8-PeCDF											
351.9000	24.484	24.487	0	1.329	222061288	34738175	53434	133585	650		
353.8970	24.484	24.487	0	1.329	139456755	21846000	36880	92200	592	1.59(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	24.512	24.512	0	1.001	21194086	3384085	6476	16190	523		
341.8567	24.512	24.512	0	1.001	13494724	2175642	8397	20992	259	1.57(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	25.234	25.237	0	1.369	135970890	20433668	15844	39610	1290		
369.8919	25.234	25.237	0	1.369	87150535	13005284	13057	32642	996	1.56(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	25.262	25.264	0	1.001	15418995	2298978	7621	19052	302		
357.8516	25.262	25.264	0	1.001	9387656	1383834	3376	8440	410	1.64(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	31.058	31.050	0	0.956	85701673	18684130	37378	93445	500		
385.8610	31.058	31.050	0	0.956	164169199	35549337	65606	164015	542	0.52(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	31.071	31.069	0	1.000	17290998	3917632	9223	23057	425		
375.8178	31.071	31.069	0	1.000	14018359	3225713	7862	19655	410	1.23(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	31.205	31.202	0	0.960	95757374	20232501	37378	93445	541		
385.8610	31.205	31.202	0	0.960	188459494	38244778	65606	164015	583	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	31.231	31.223	0	1.001	18527969	4112338	9223	23057	446		
375.8178	31.218	31.223	0	1.000	14939703	3243221	7862	19655	413	1.24(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	31.924	31.923	0	0.982	88513662	23049811	37378	93445	617		
385.8610	31.924	31.923	0	0.982	164587131	42702099	65606	164015	651	0.54(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	31.950	31.942	0	1.001	17256945	4414181	9223	23057	479		
375.8178	31.937	31.942	0	1.000	14258525	3764632	7862	19655	479	1.21(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	32.682	32.674	0	1.006	73751013	20239330	37378	93445	541		
385.8610	32.682	32.674	0	1.006	144231801	38919139	65606	164015	593	0.51(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	32.696	32.690	0	1.000	14932342	4087062	9223	23057	443		
375.8178	32.696	32.690	0	1.000	12074358	3259223	7862	19655	415	1.24(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	32.496	32.499	0		144204150	38298919	34068	85170	1124		
403.8529	32.496	32.499	0		111950578	29964760	31258	78145	959	1.29(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	32.097	32.094	0	0.988	120069198	34345192	34068	85170	1008		
403.8529	32.097	32.094	0	0.988	94480652	27316417	31258	78145	874	1.27(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	32.110	32.110	0	1.000	12324615	3628397	11871	29677	306		
391.8127	32.110	32.110	0	1.000	9904492	2854417	8424	21060	339	1.24(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDD											
401.8559	32.190	32.192	0	0.991	128802545	33910380	34068	85170	995		
403.8529	32.190	32.192	0	0.991	101844957	27227979	31258	78145	871	1.26(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	32.216	32.208	0	1.001	13090824	3508085	11871	29677	296		
391.8127	32.203	32.208	0	1.000	10812646	2902071	8424	21060	345	1.21(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	32.523	32.515	0	1.013	14196640	3867913	11871	29677	326		
391.8127	32.509	32.515	0	1.013	11069155	3020401	8424	21060	359	1.28(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	34.097	34.097	0	1.049	55099975	17628473	52264	130660	337		
419.8220	34.097	34.097	0	1.049	122673811	39310377	76980	192450	511	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.109	34.104	0	1.000	13964484	4503758	21394	53485	211		
409.7789	34.109	34.104	0	1.000	13037781	4336593	11338	28345	382	1.07(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	35.239	35.232	0	1.084	50958944	14097284	52264	130660	270		
419.8220	35.239	35.232	0	1.084	116267381	31392259	76980	192450	408	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.251	35.244	0	1.000	11486016	3112286	21394	53485	145		
409.7789	35.251	35.244	0	1.000	10543351	2859827	11338	28345	252	1.09(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.935	34.928	0	1.075	87511638	25757189	30110	75275	855		
437.8140	34.935	34.928	0	1.075	83779771	24379517	29574	73935	824	1.04(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.947	34.940	0	1.000	9658086	2858633	10742	26855	266		
425.7737	34.935	34.940	0	1.000	8618666	2619626	6519	16297	402	1.12(0.88-1.20)	
13C-OCDD											
469.7779	37.395	37.392	0	1.151	108329582	27793896	13191	32977	2107		
471.7750	37.395	37.392	0	1.151	118820336	30618211	11686	29215	2620	0.91(0.76-1.02)	
OCDF											
441.7428	37.503	37.500	0	1.003	15358412	3854992	3776	9440	1021		
443.7399	37.503	37.500	0	1.003	17197227	4322547	5615	14037	770	0.89(0.76-1.02)	
OCDD											
457.7377	37.407	37.402	0	1.000	11812690	3097739	3713	9282	834		
459.7348	37.407	37.402	0	1.000	13776917	3645291	4001	10002	911	0.86(0.76-1.02)	

Reagents:

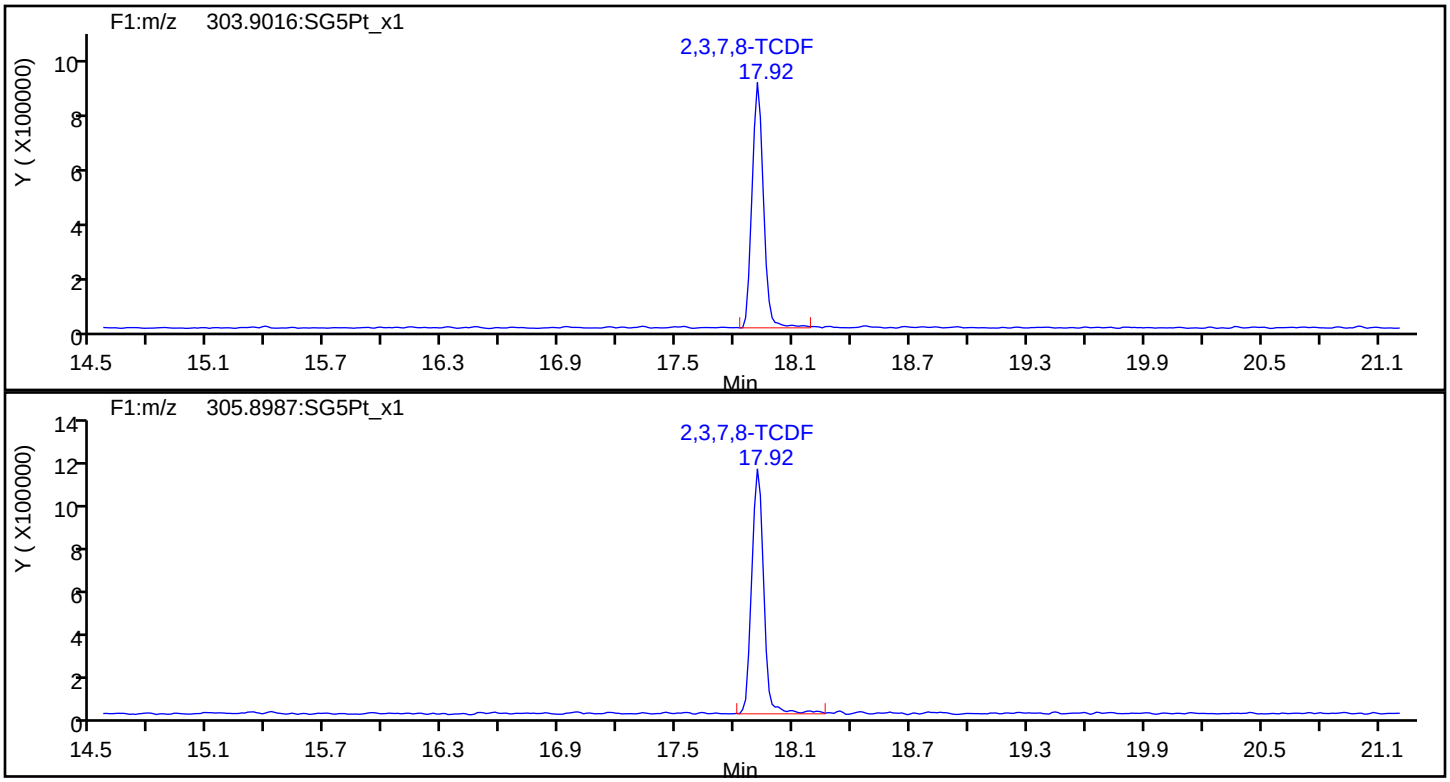
HRDXNL3_00022 Amount Added: 1.00 Units: mL

Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

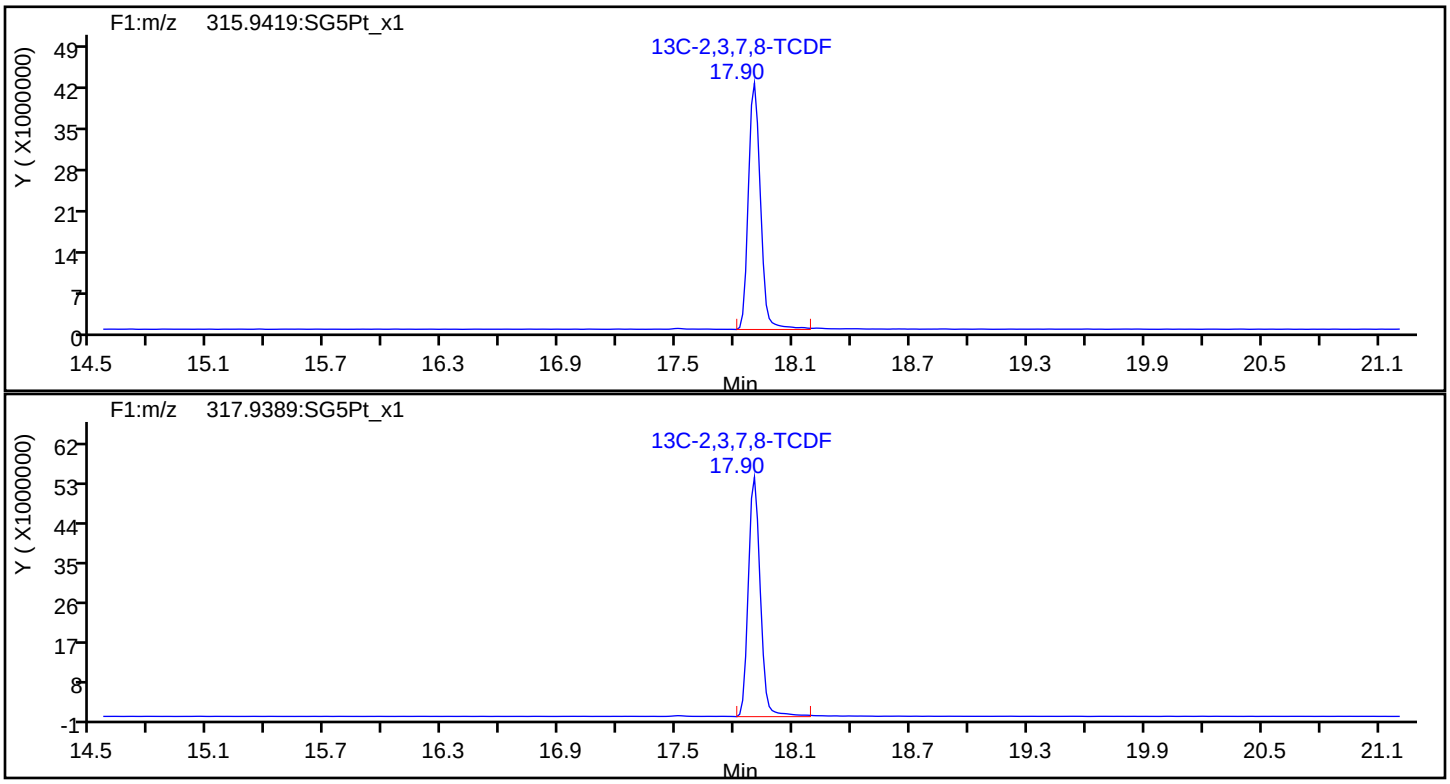
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF



TCDF Standards

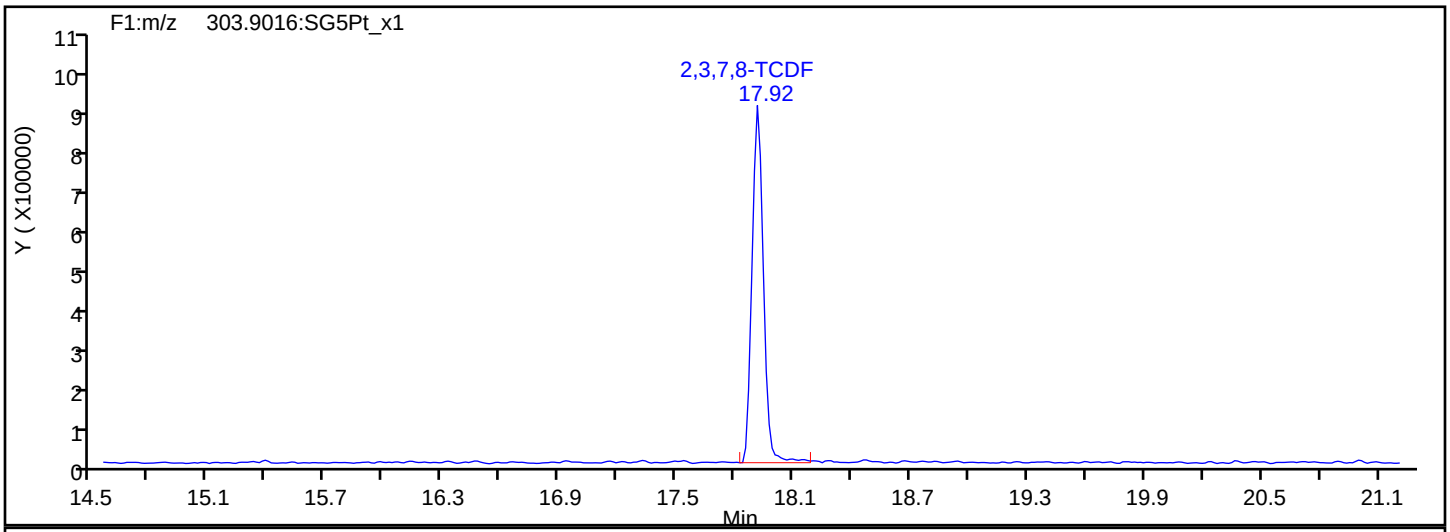


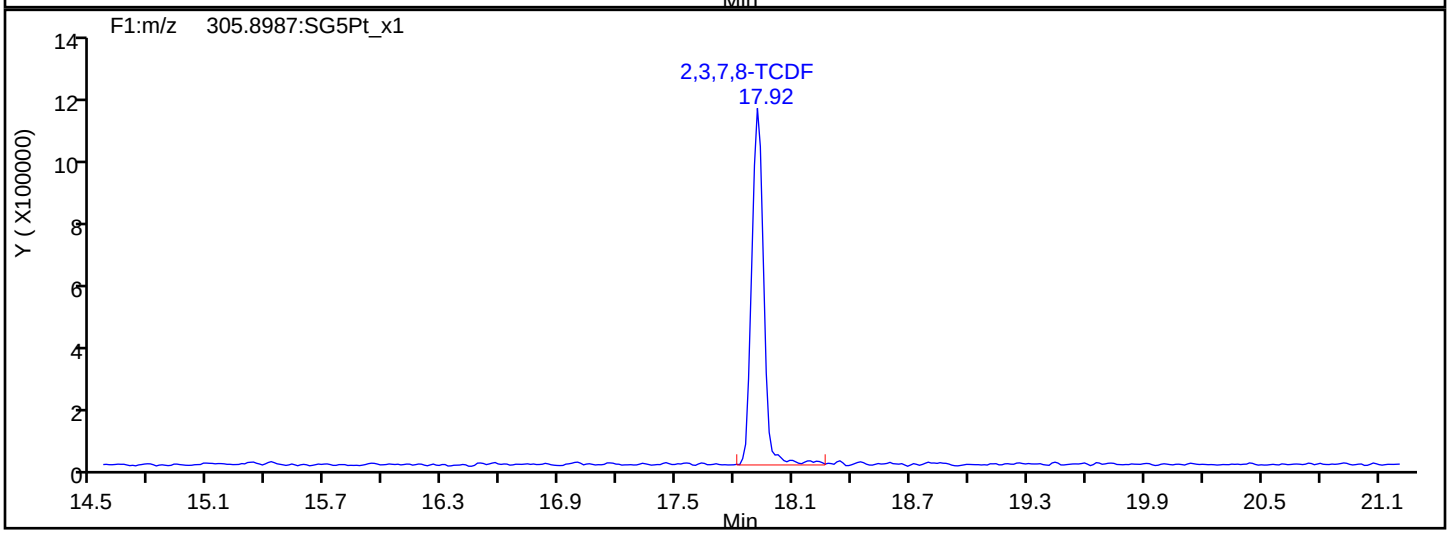
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

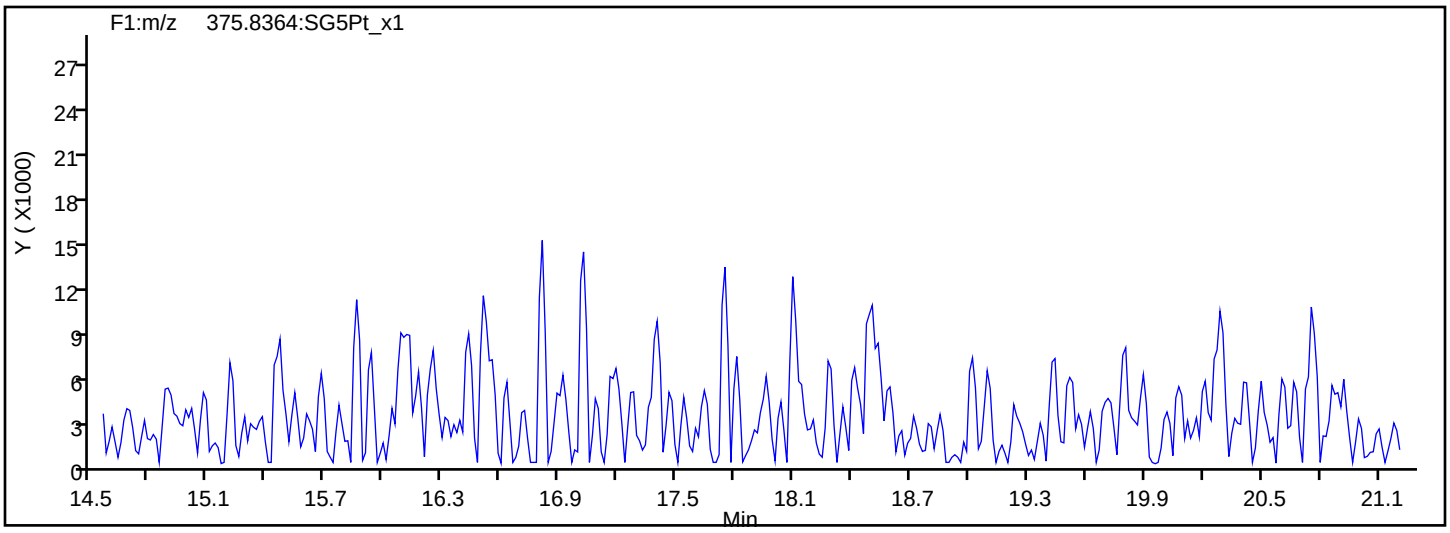
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

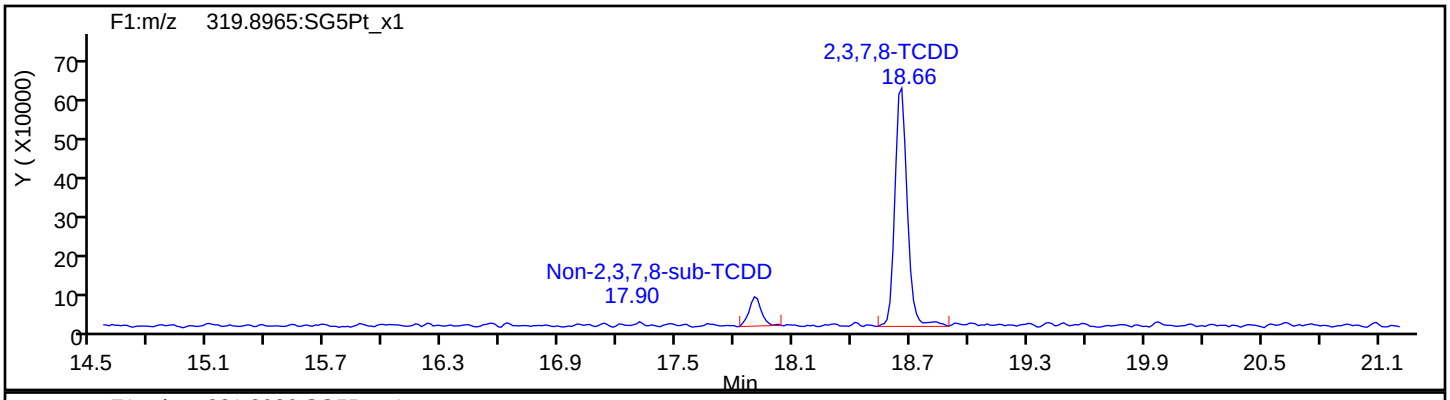


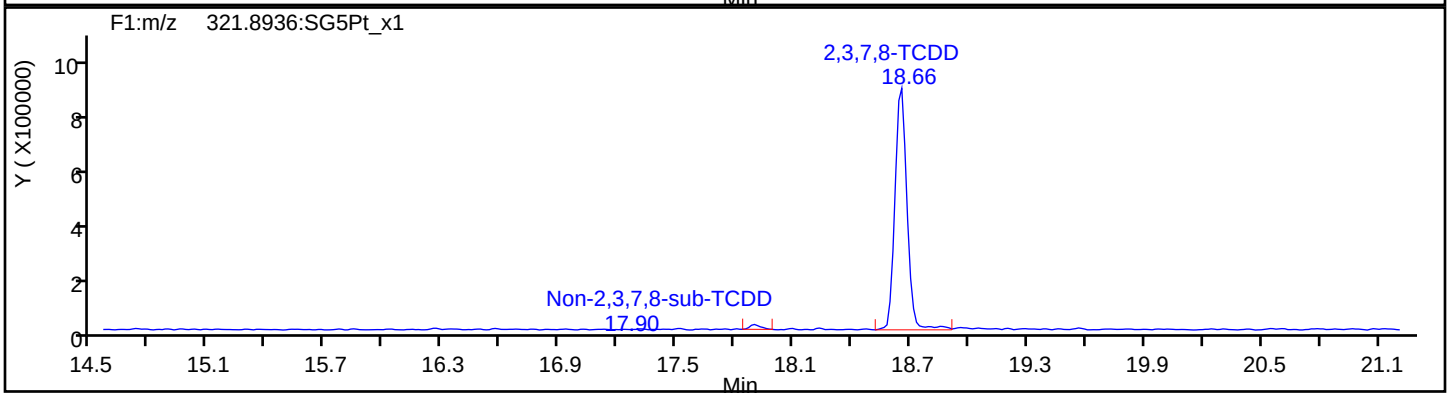
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

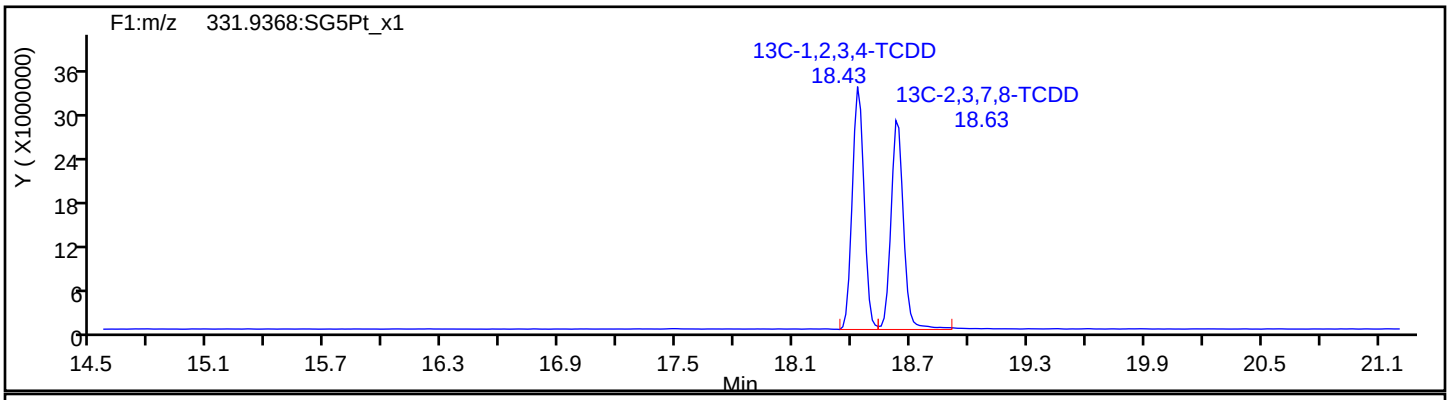
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

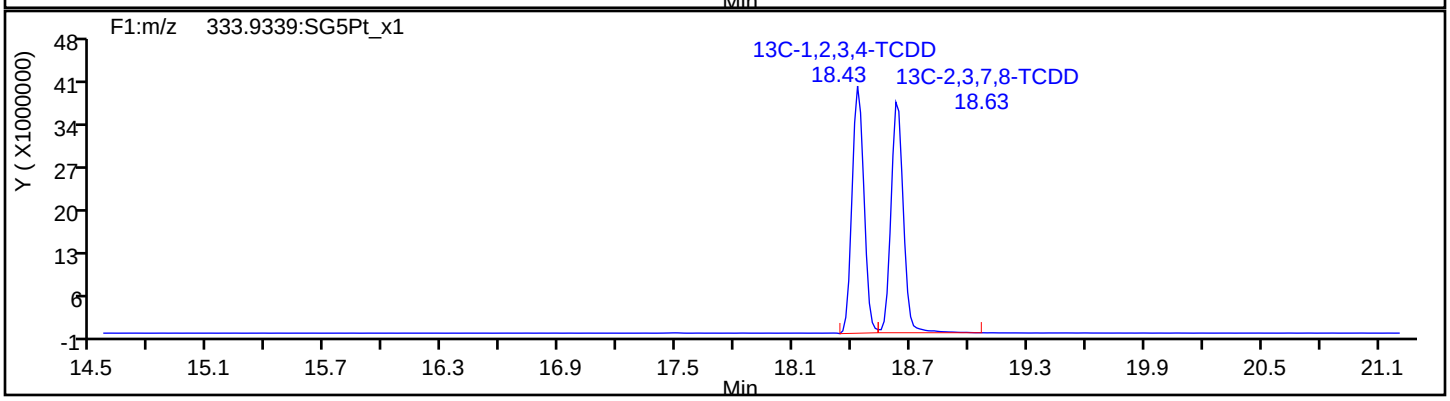
TCDD





TCDD Standards



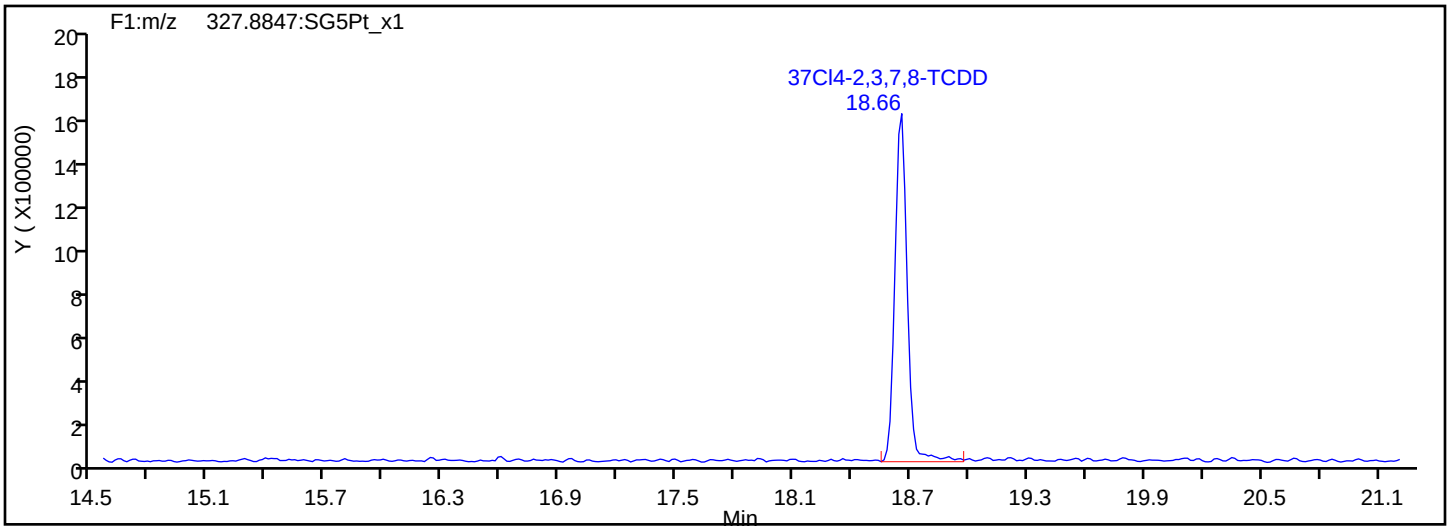


Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

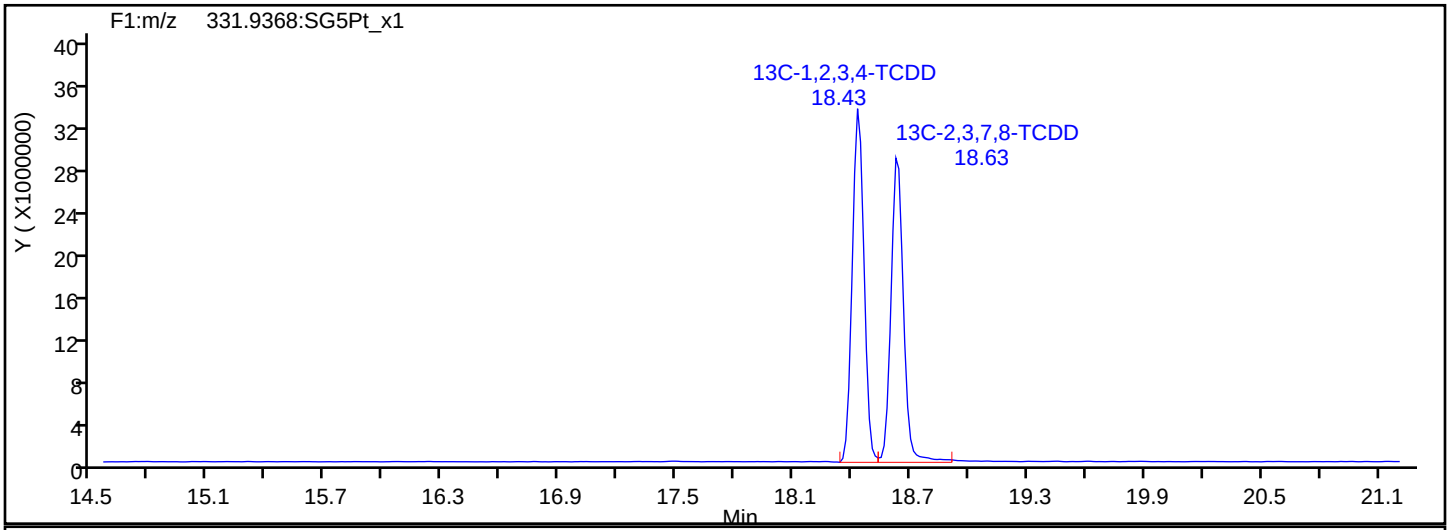
Eurofins TestAmerica, Sacramento

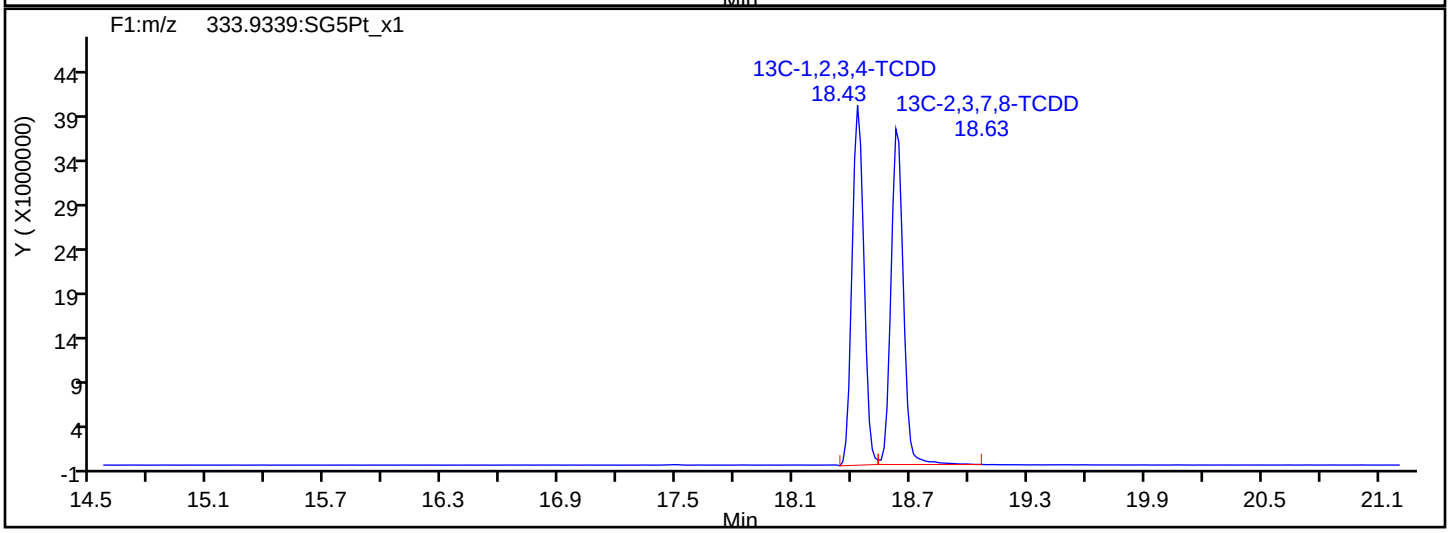
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



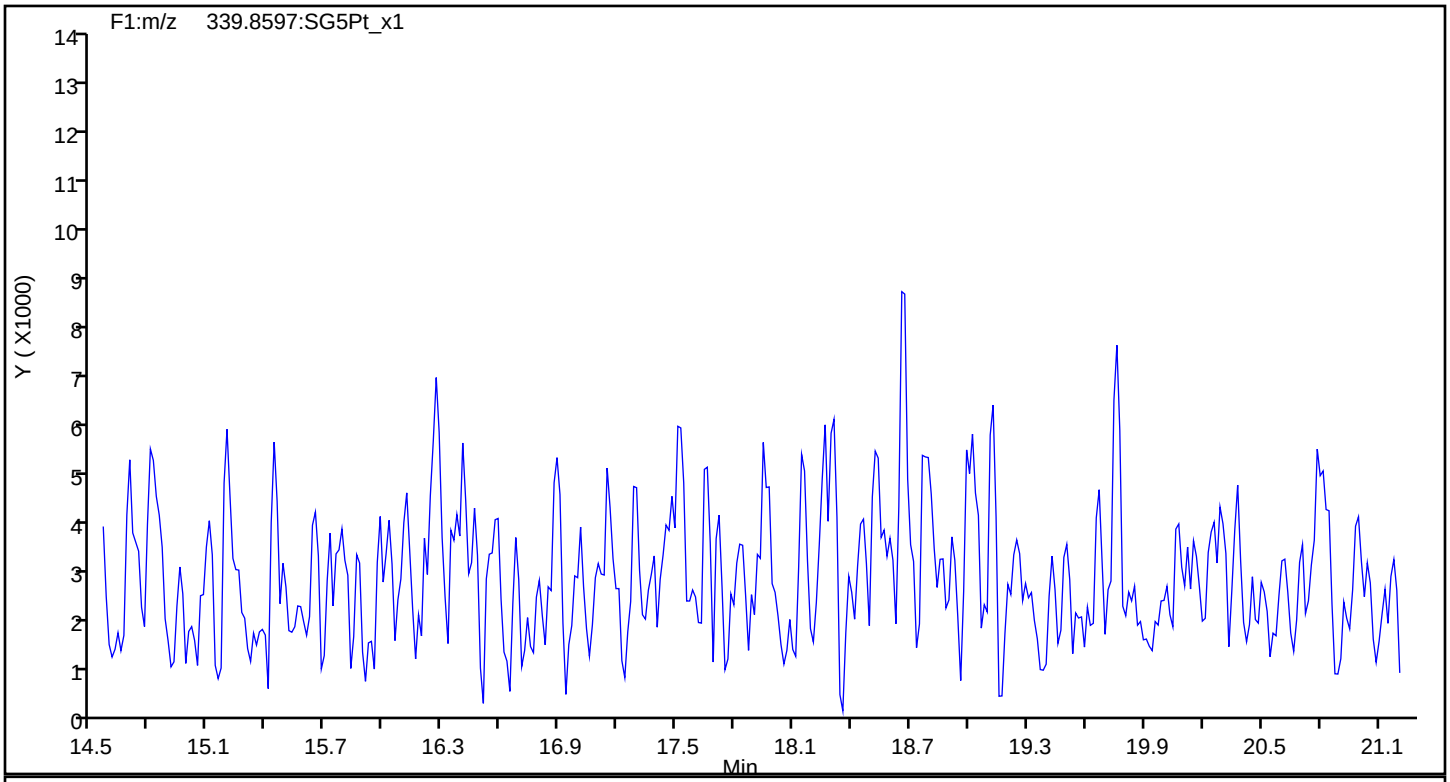


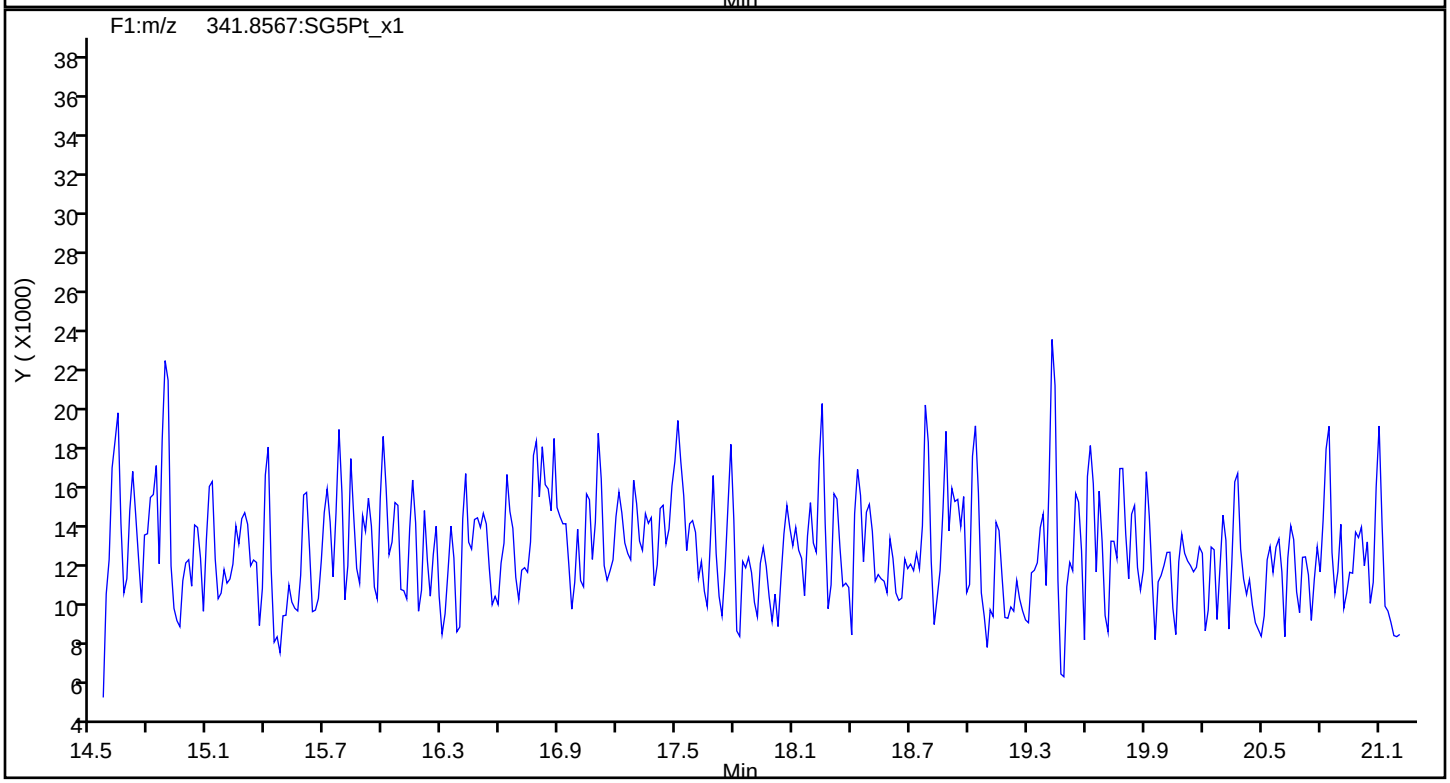
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs

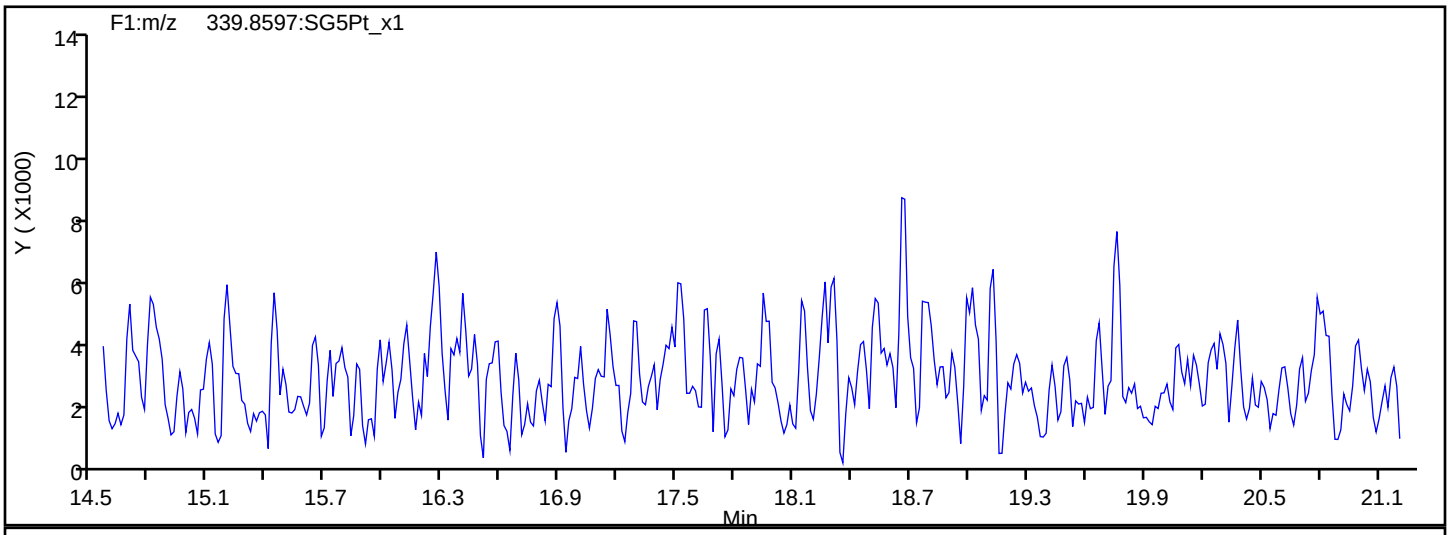


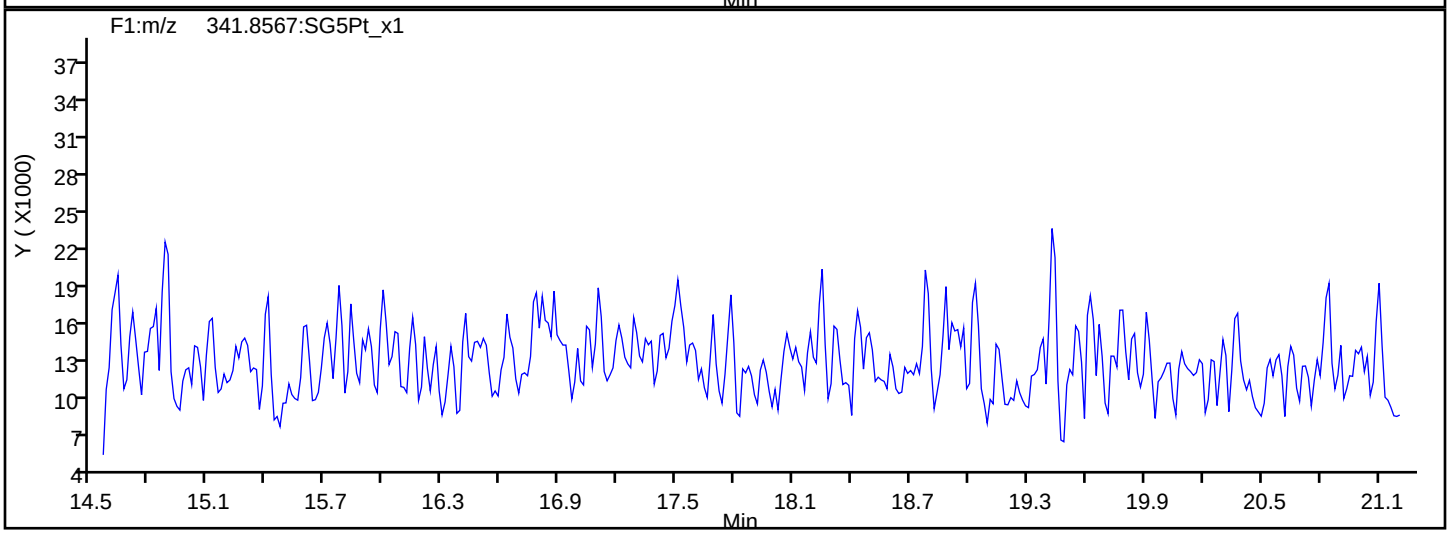


Eurofins TestAmerica, Sacramento

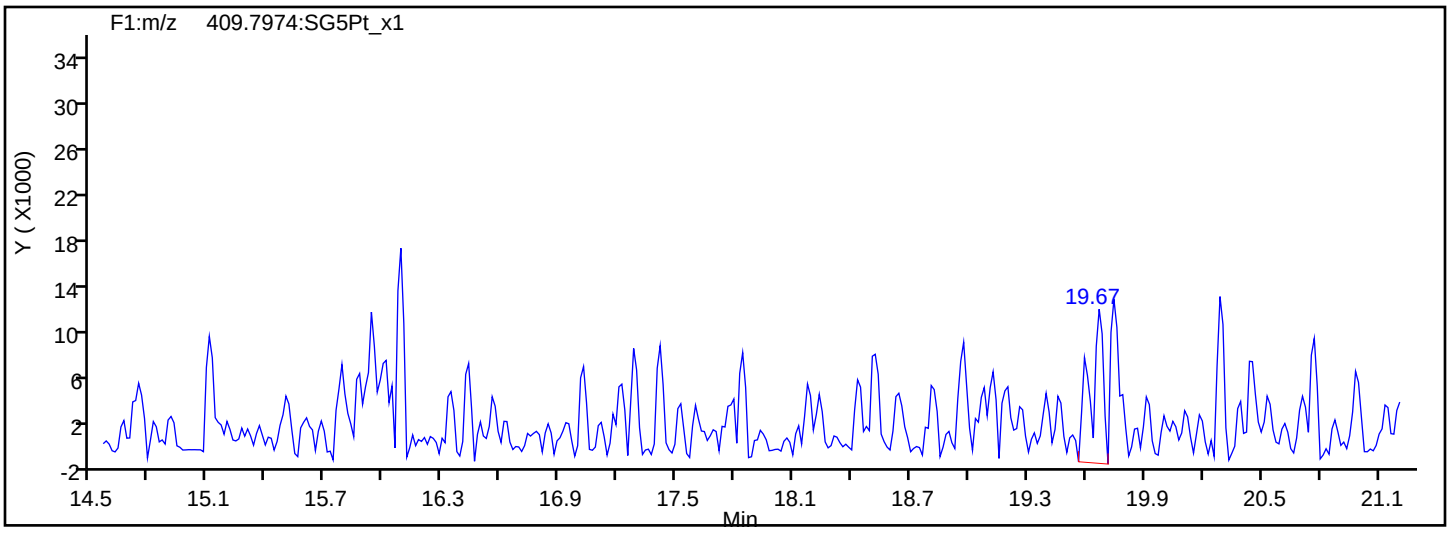
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

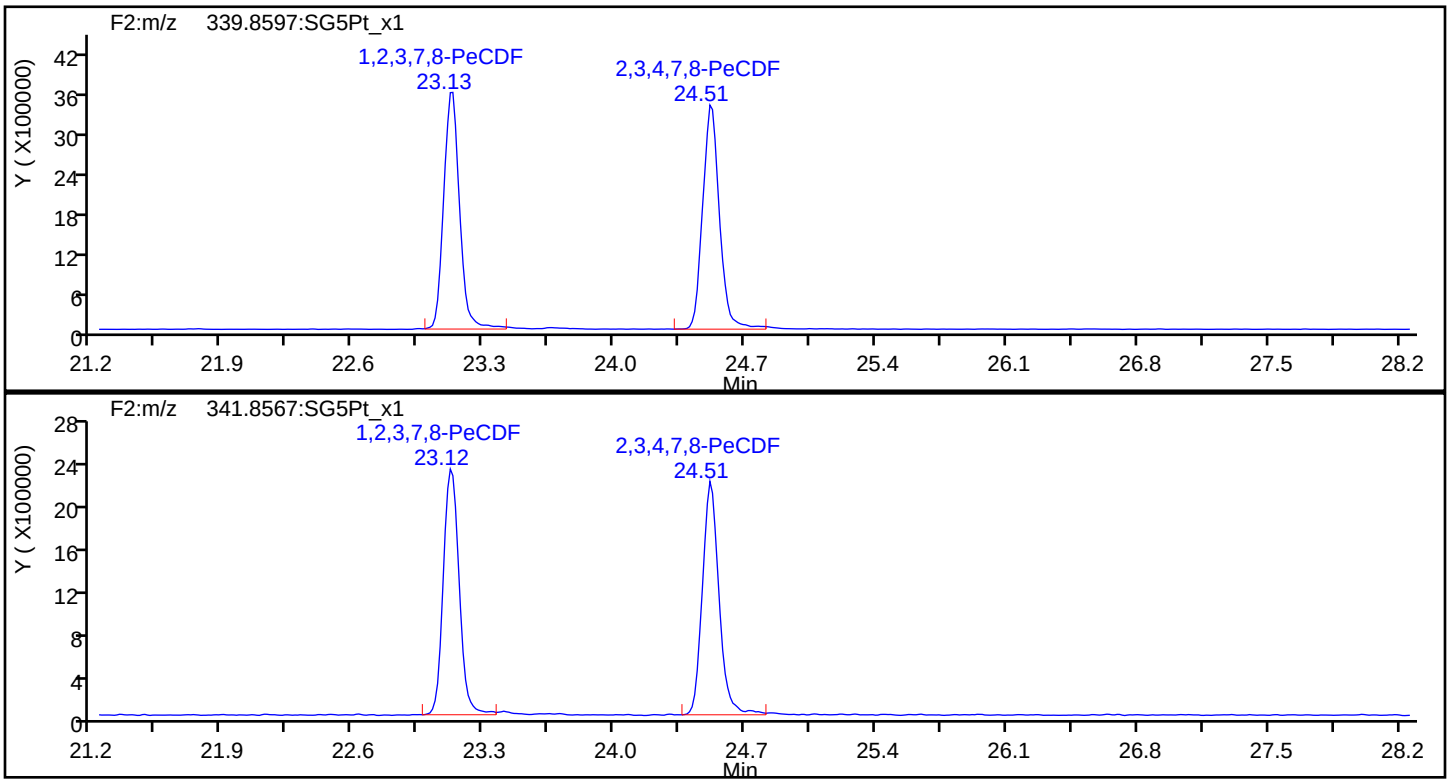


Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

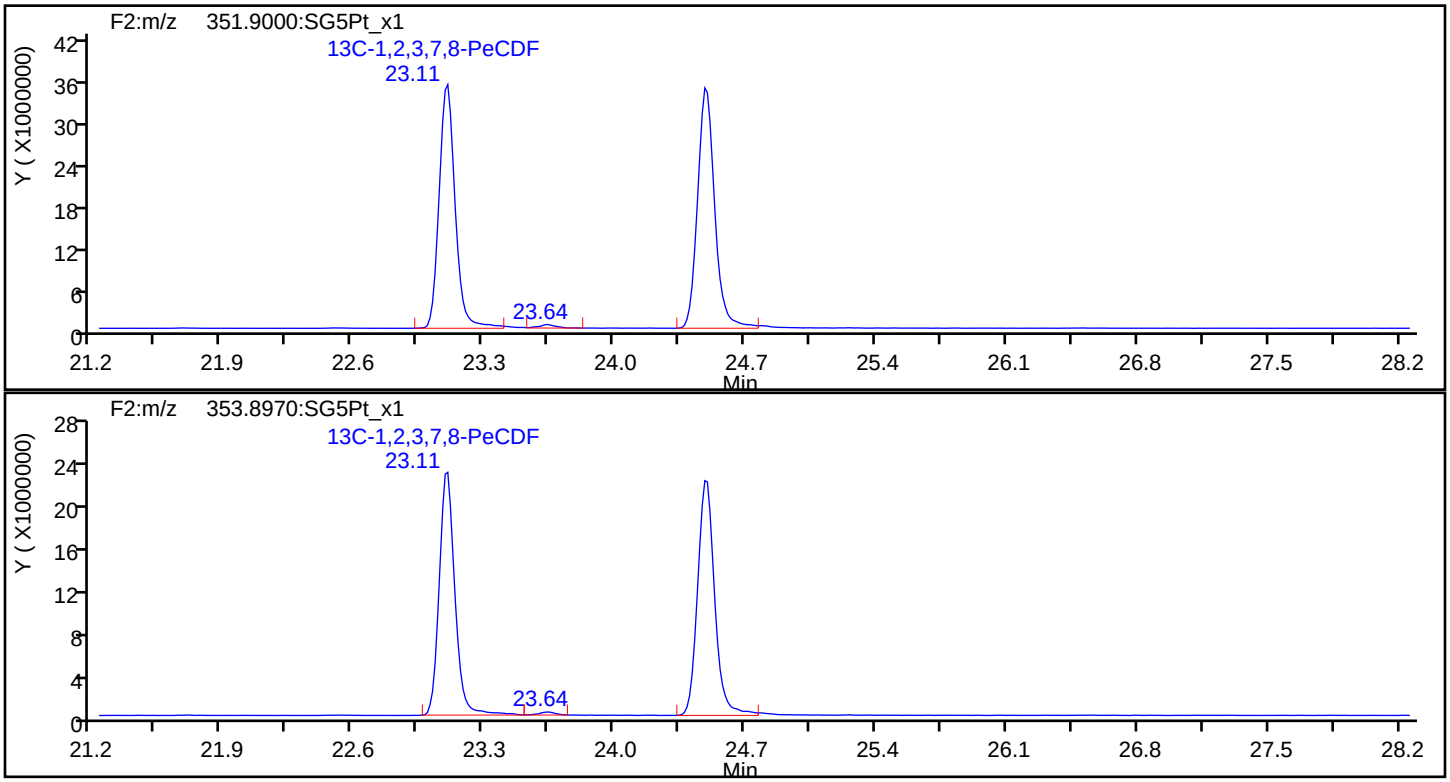
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

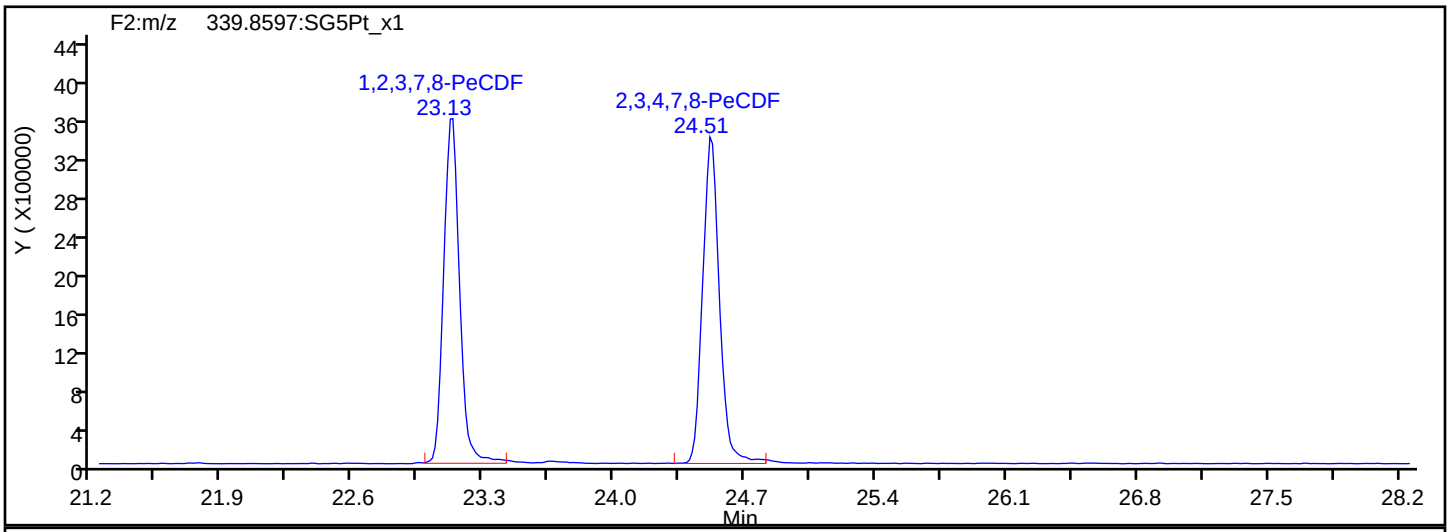


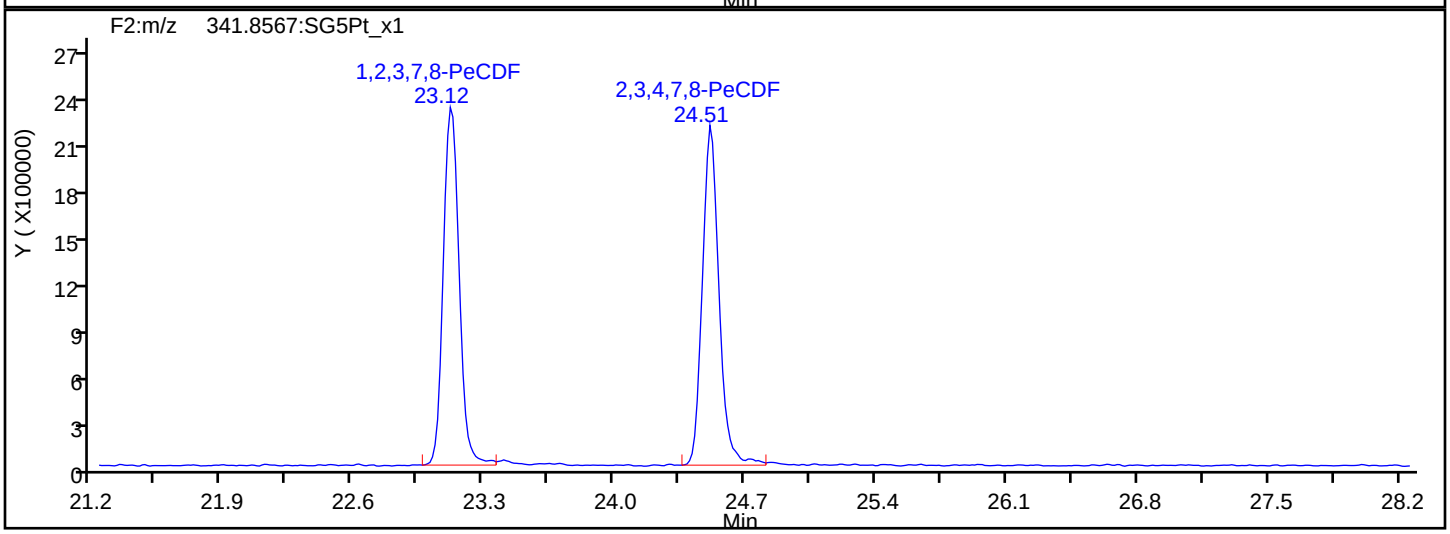
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

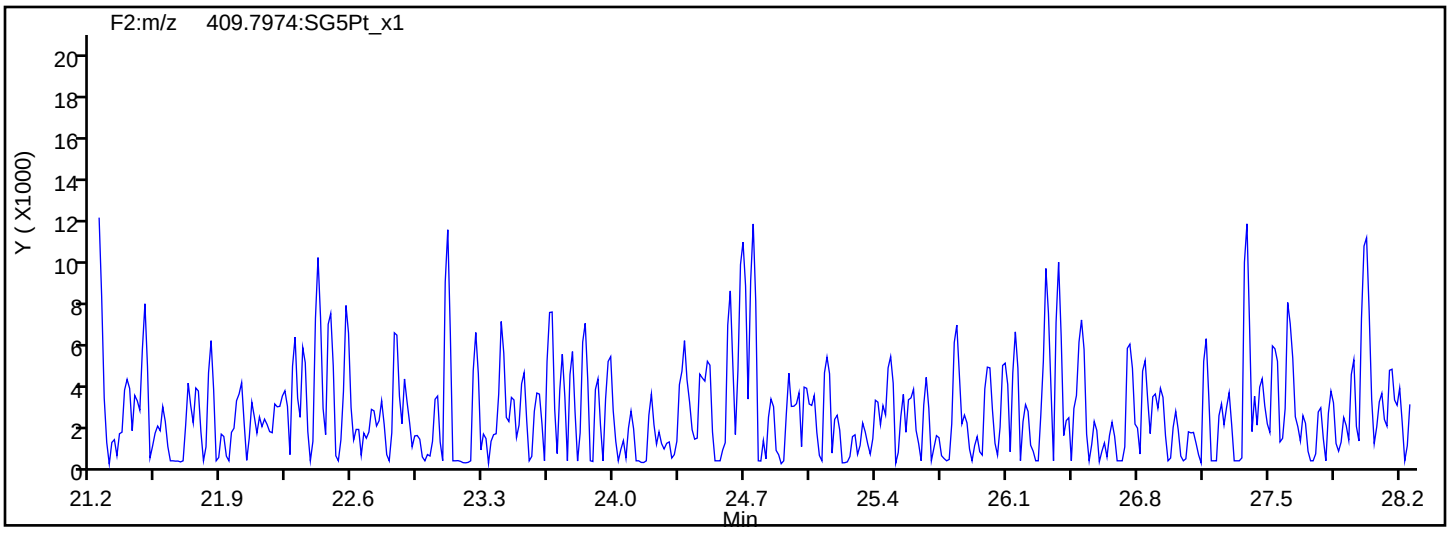
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

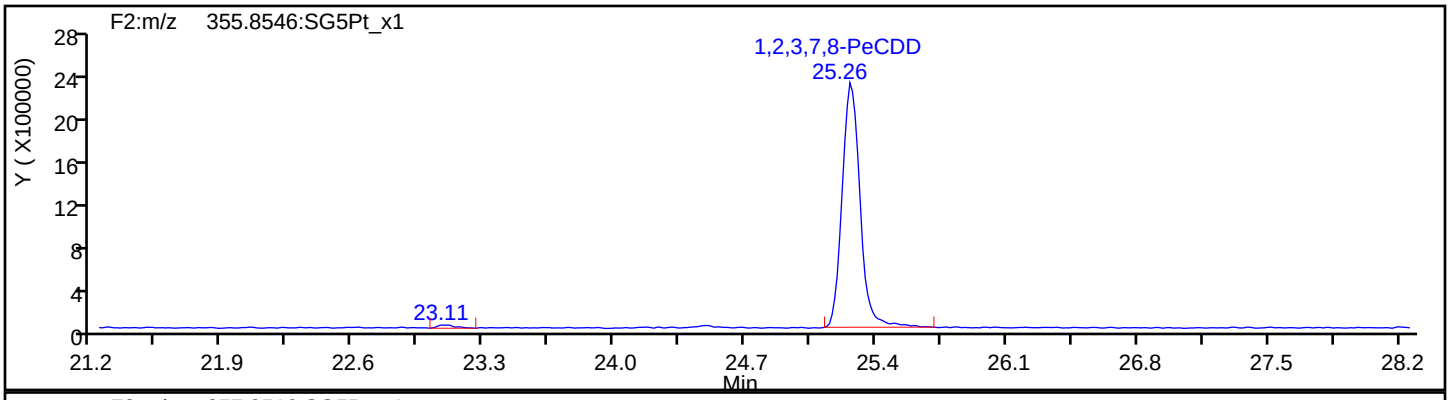


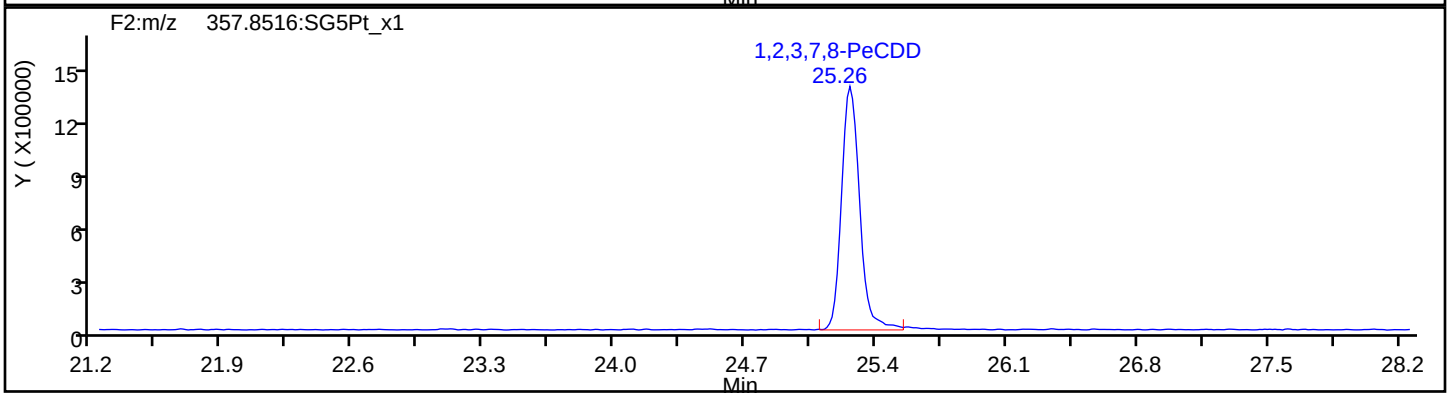
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

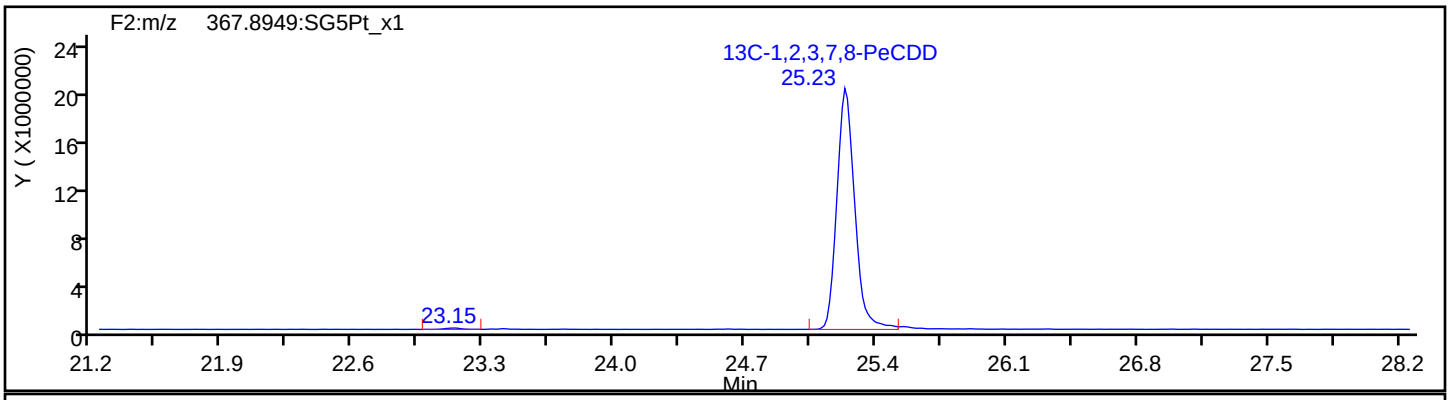
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

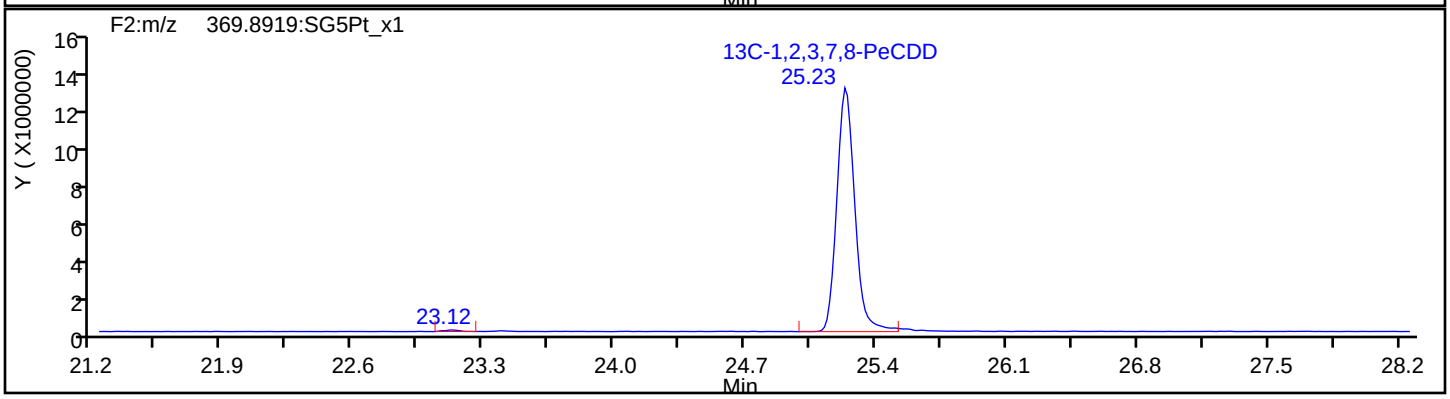
PeCDD





PeCDD Standards



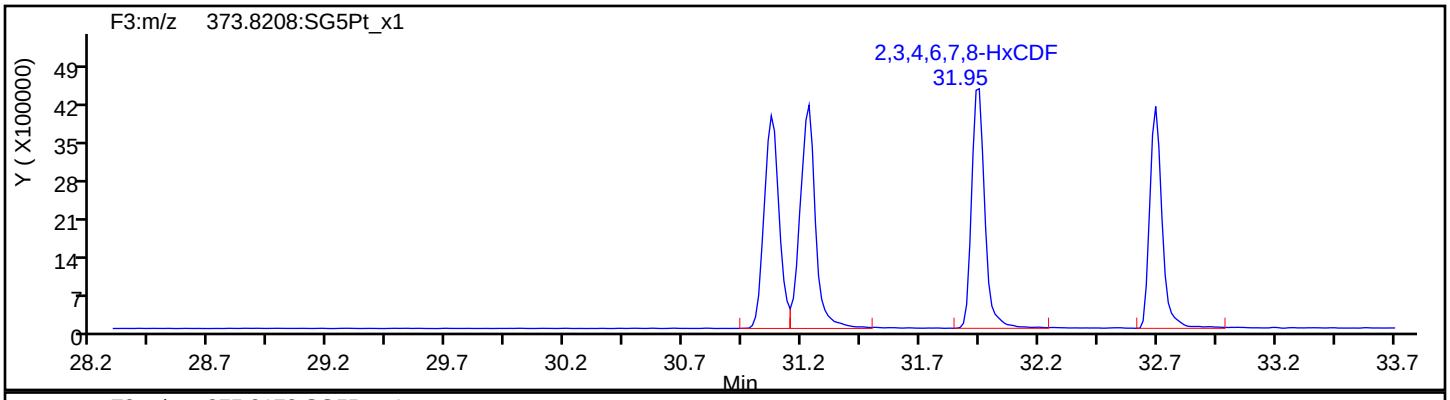


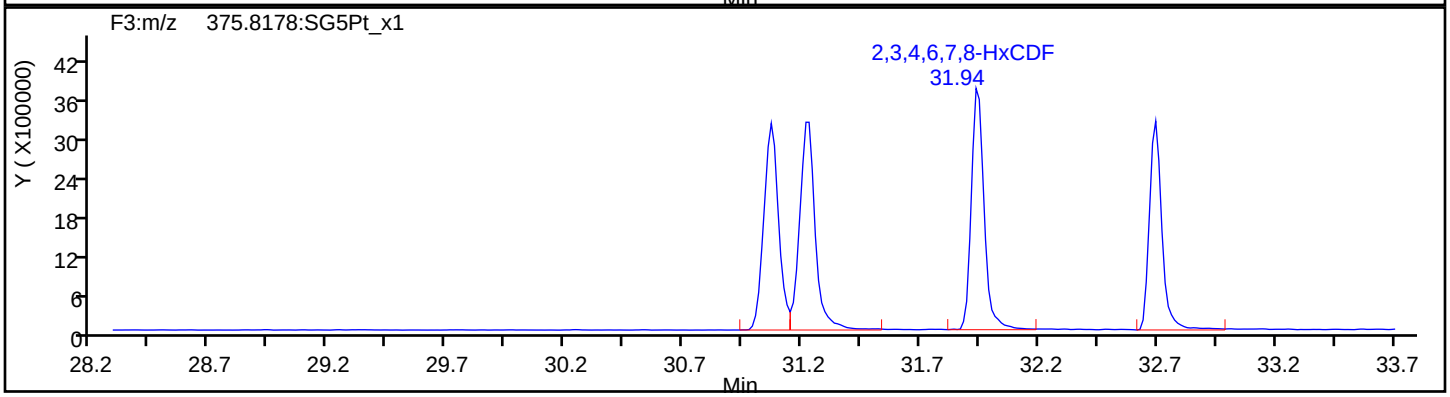
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

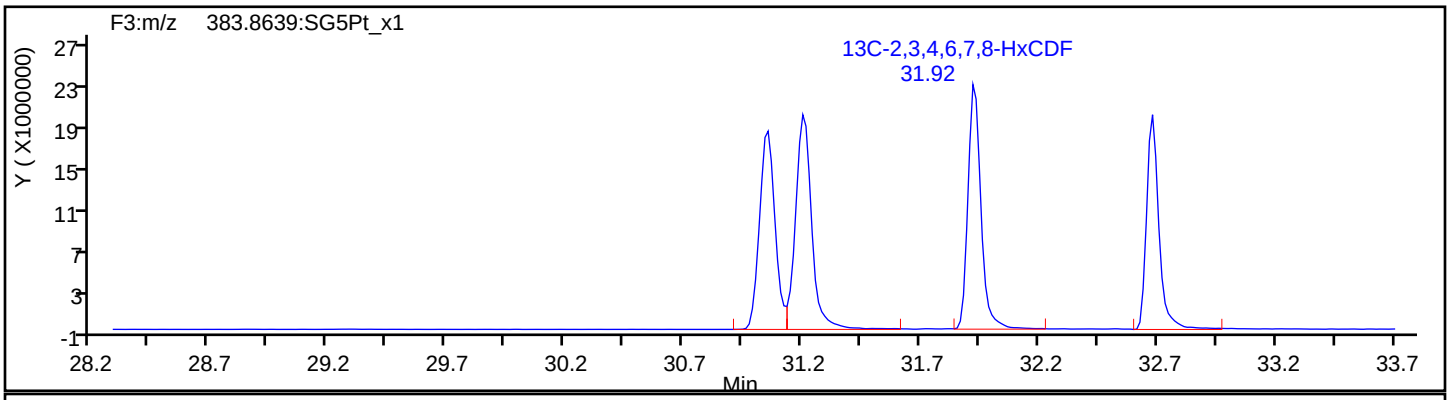
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

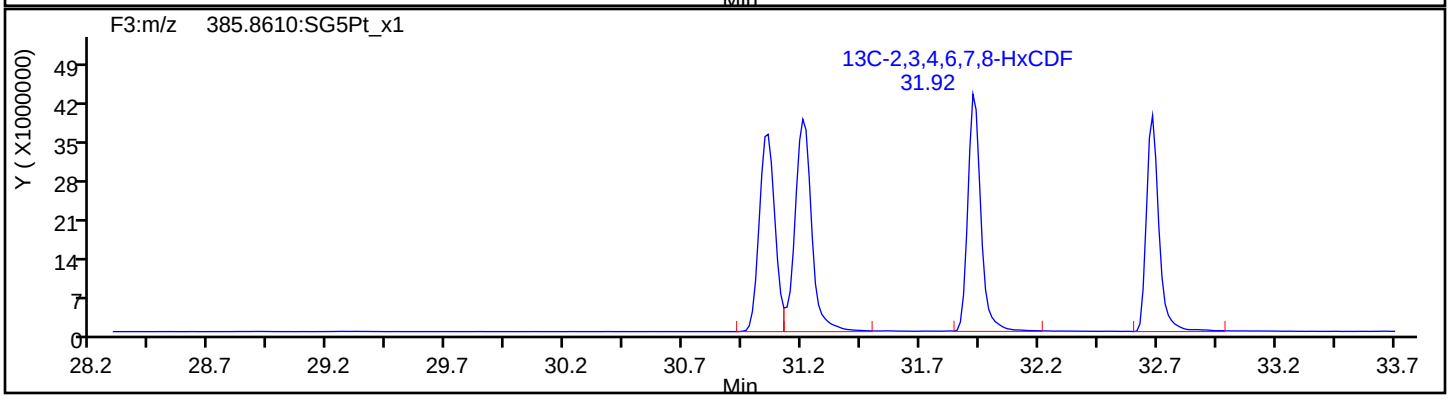
HxCDF





HxCDF Standards



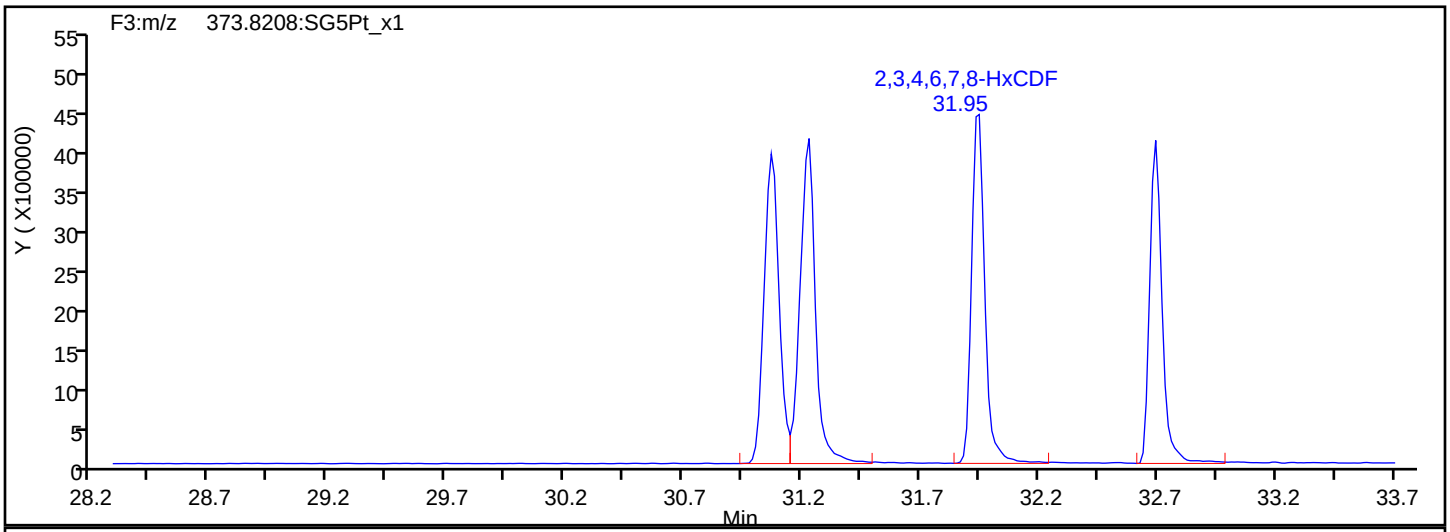


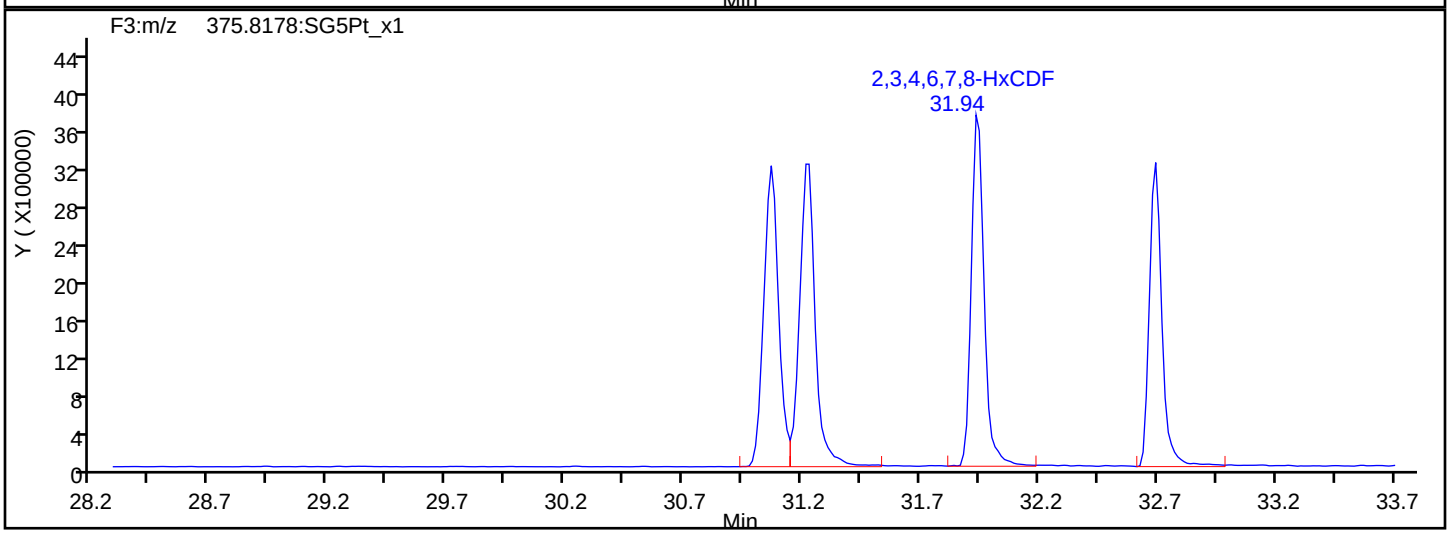
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

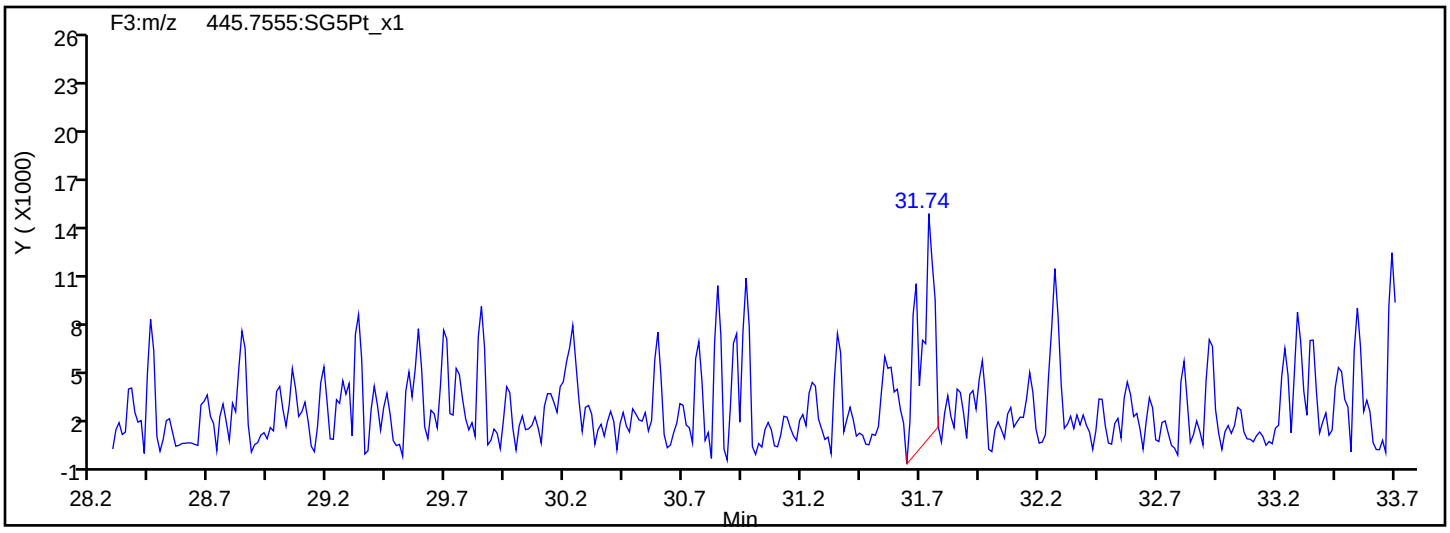
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

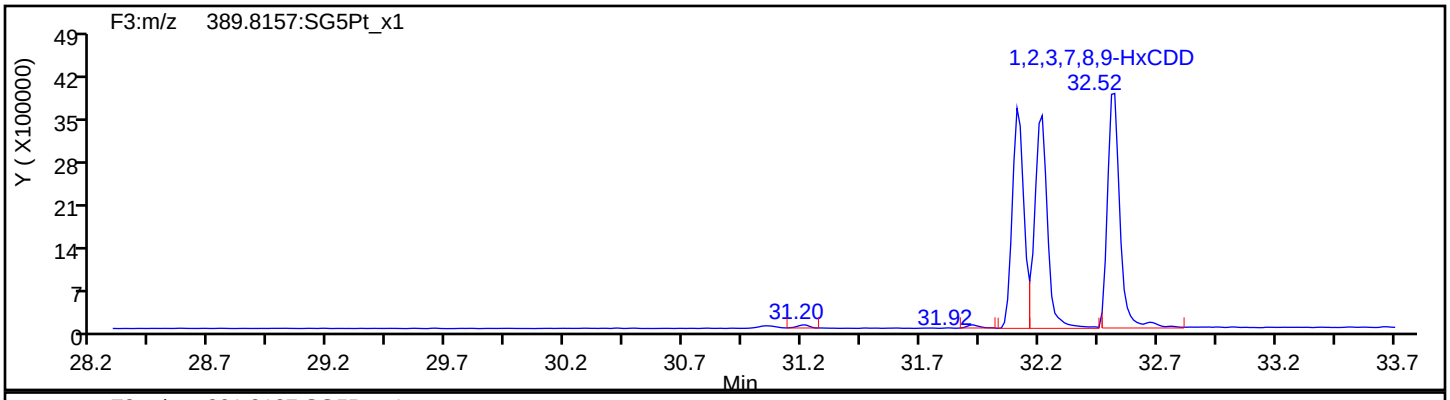


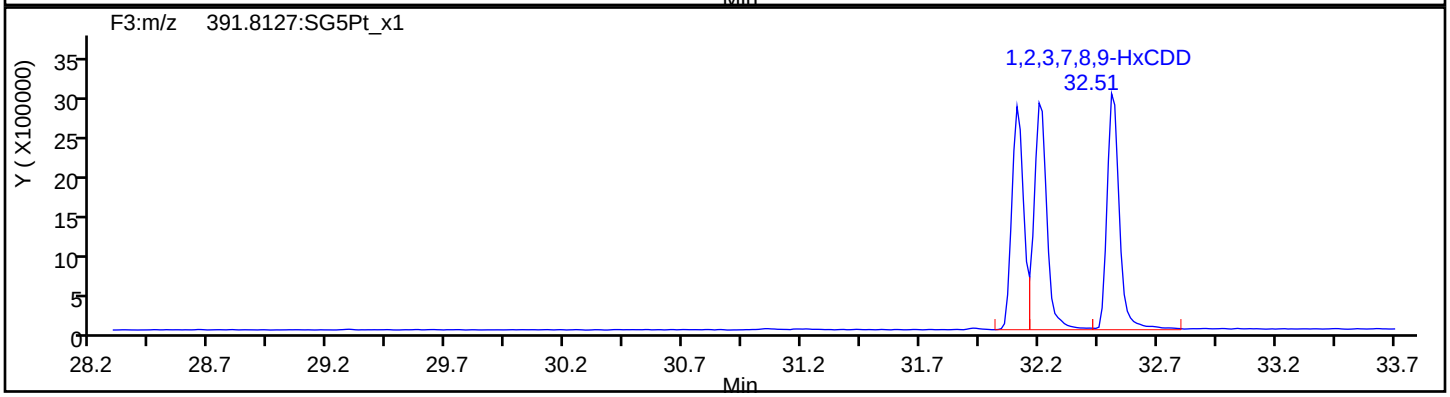
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

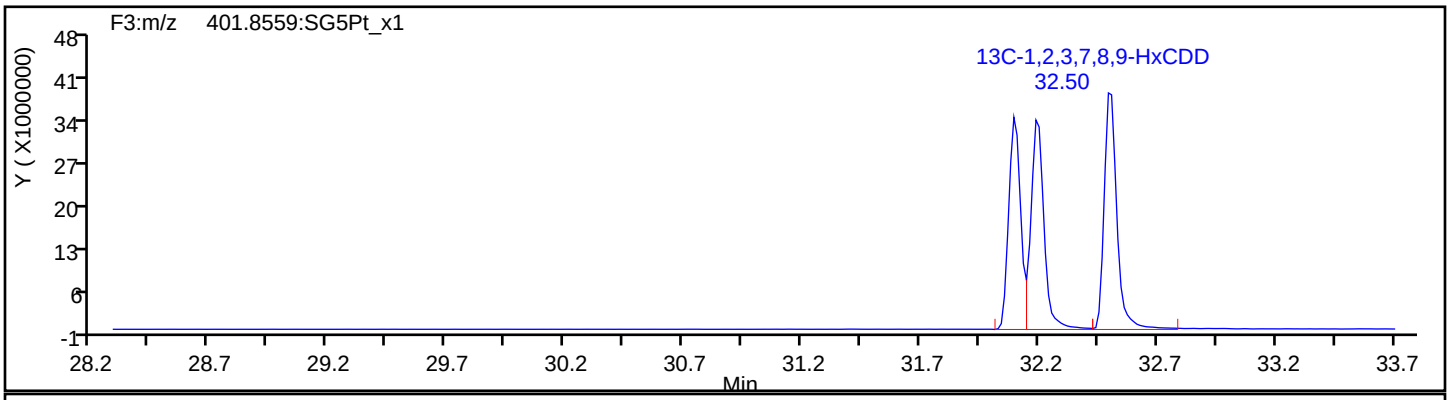
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

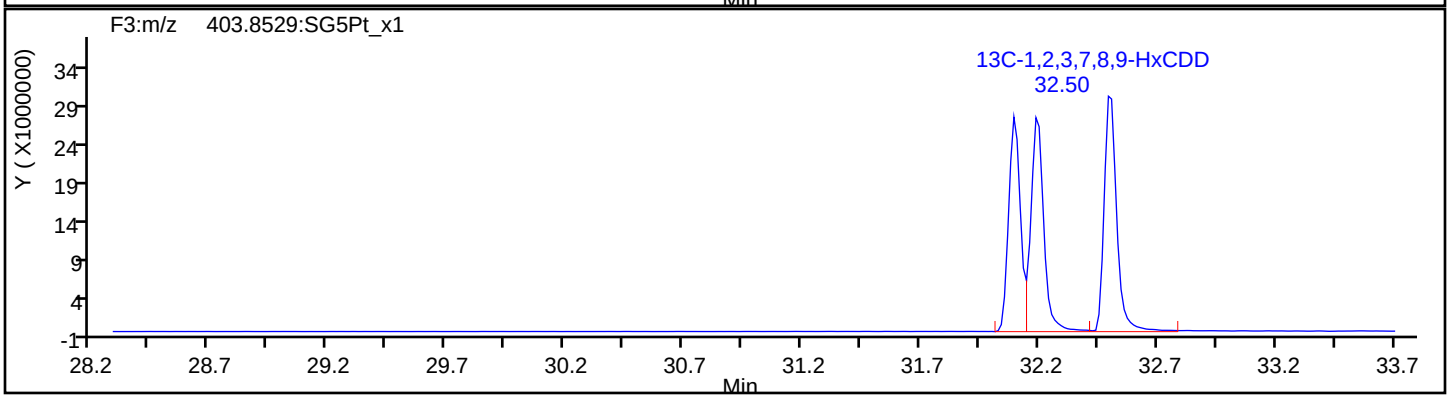
HxCDD





HxCDD Standards



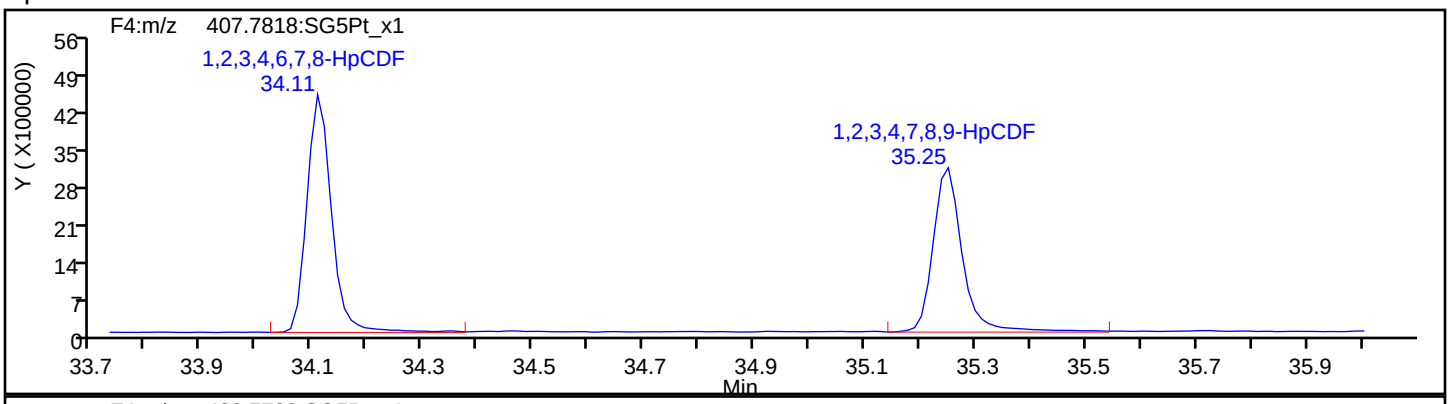


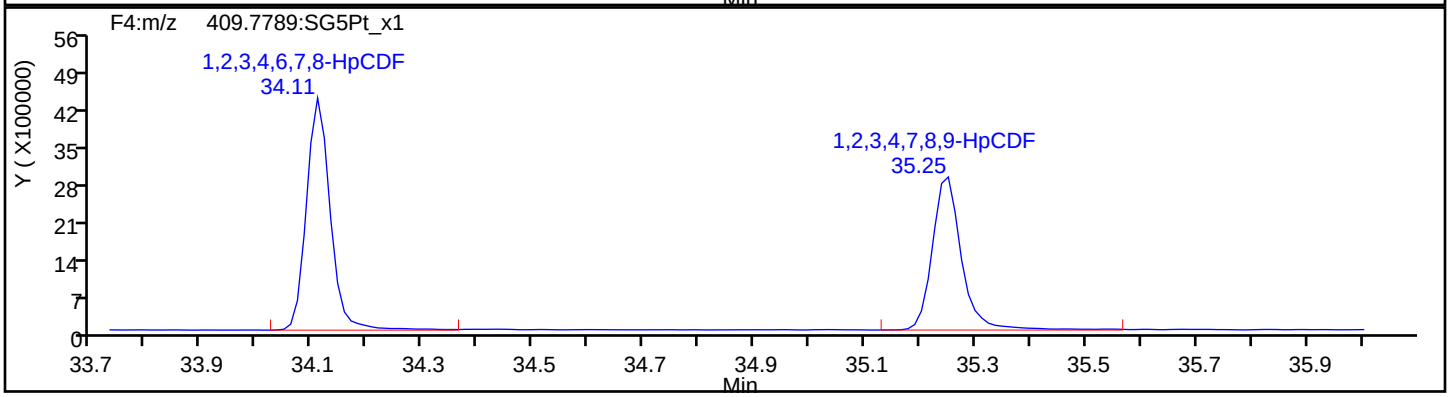
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

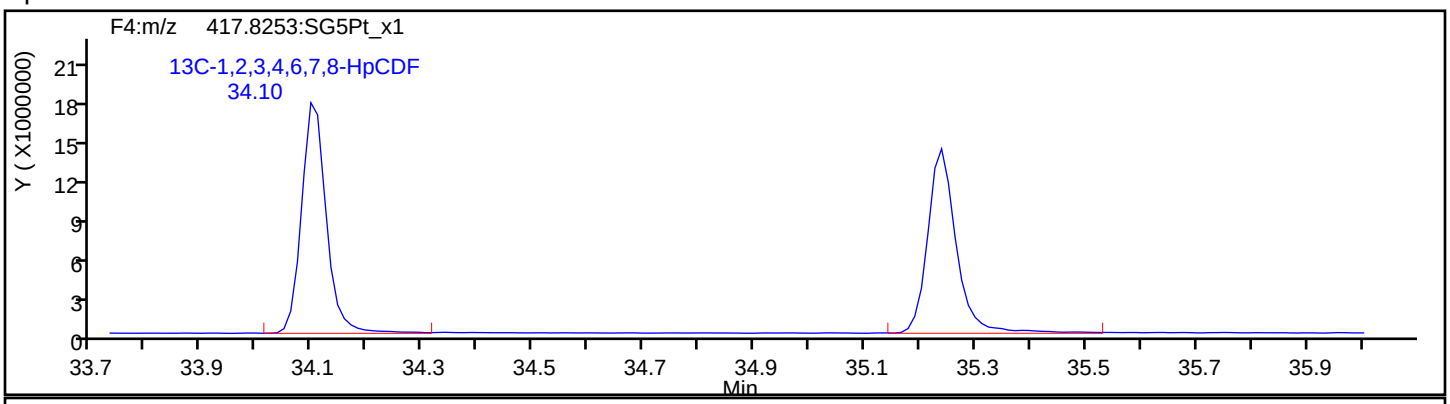
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

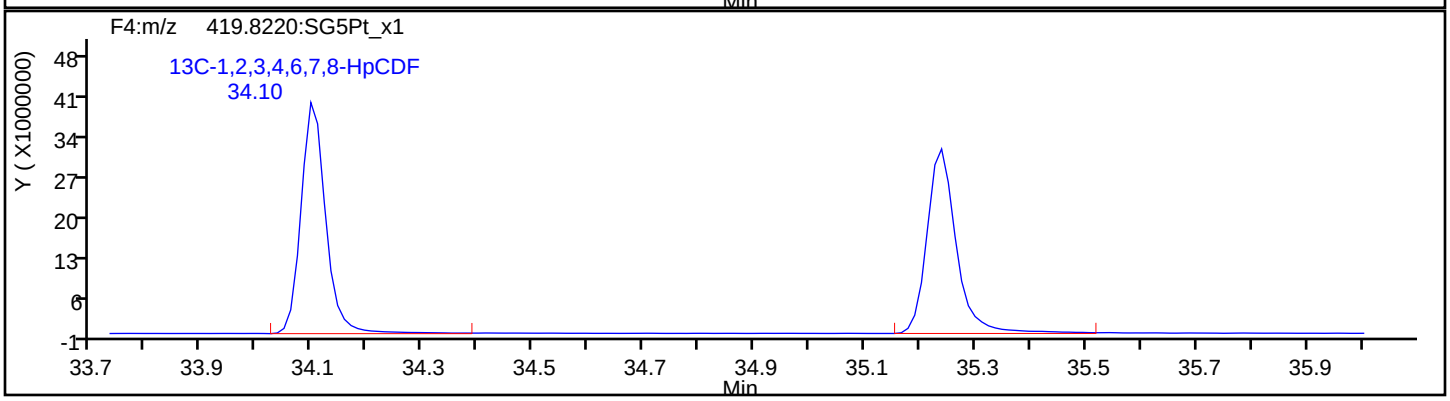
HpCDF





HpCDF Standards



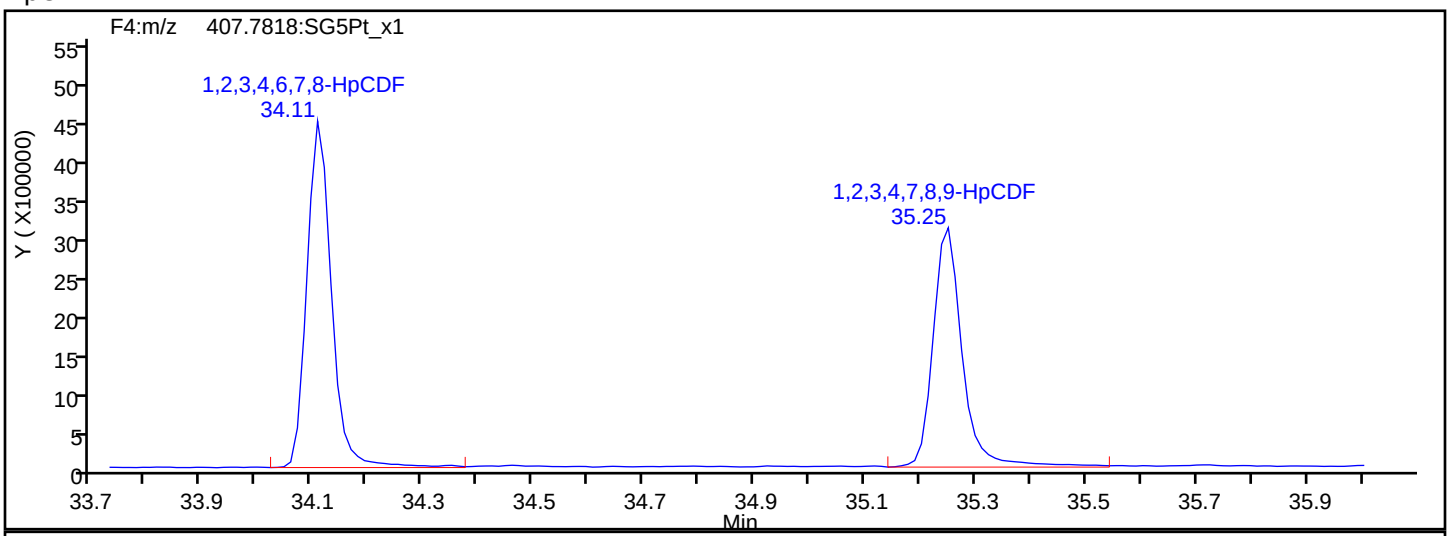


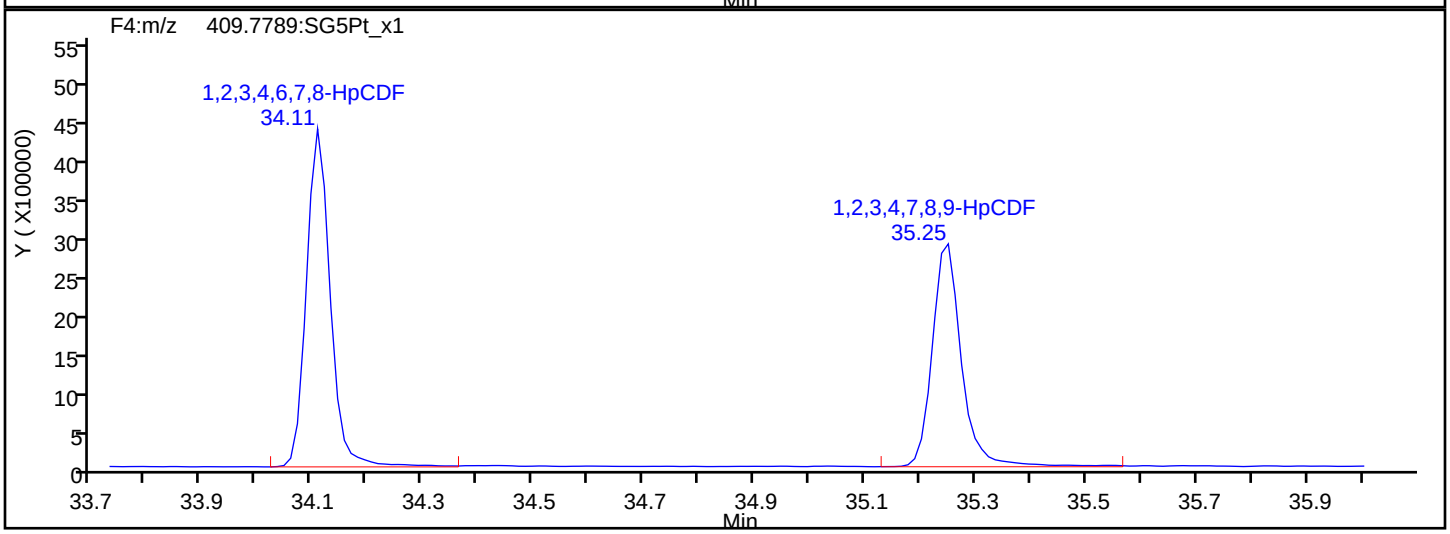
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

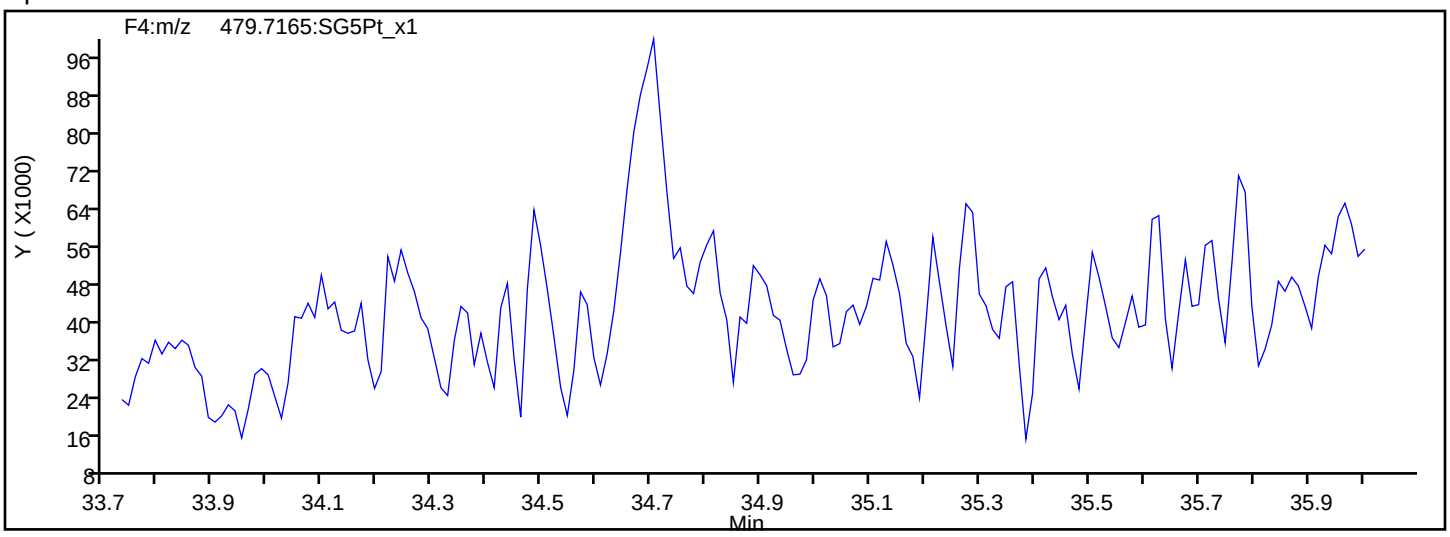
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

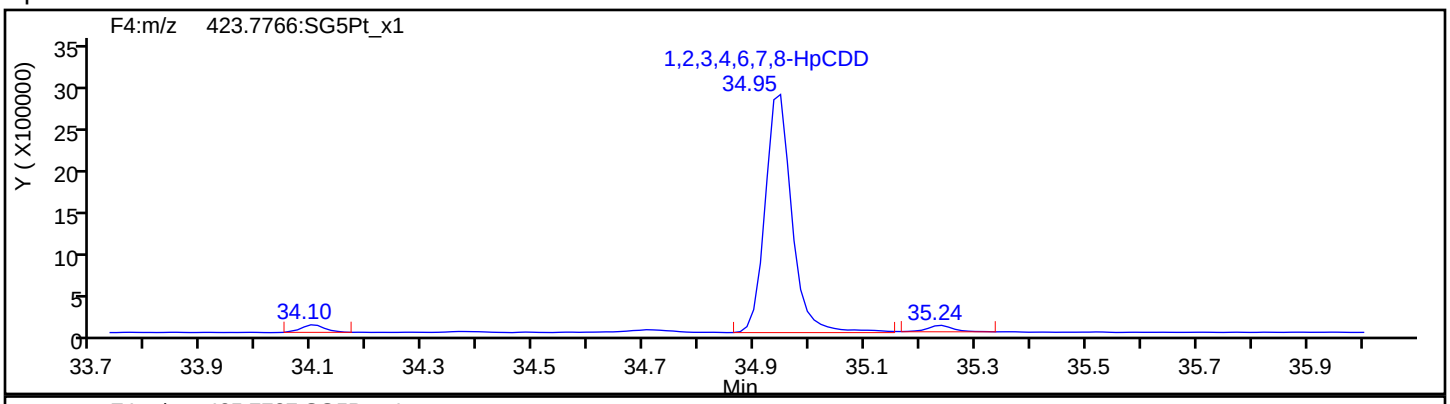


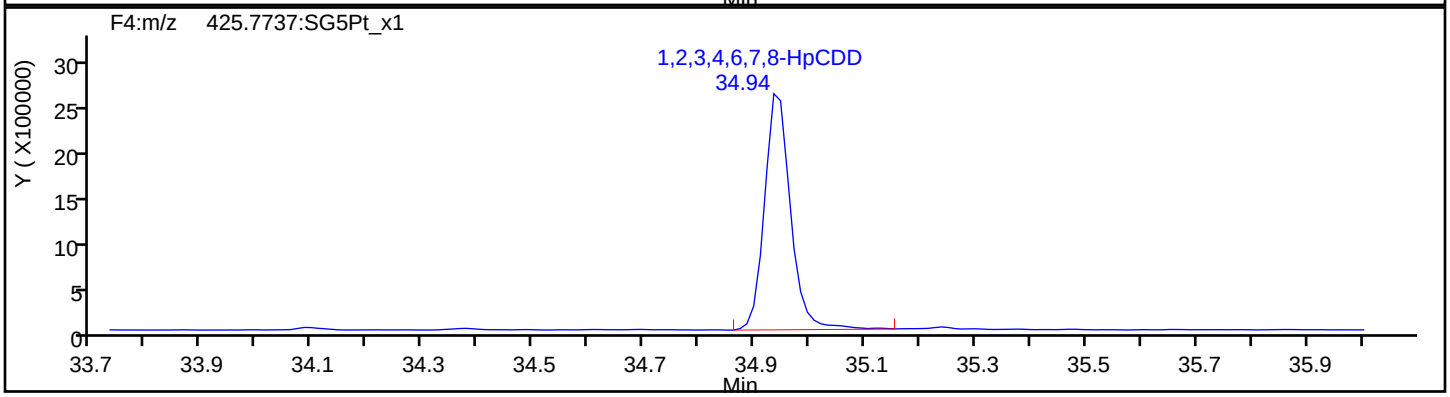
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

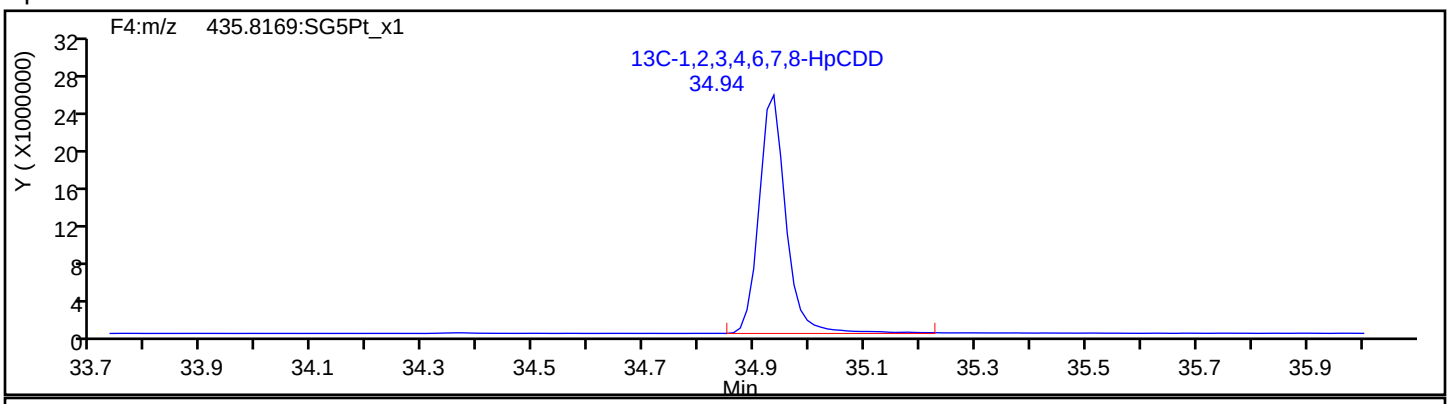
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

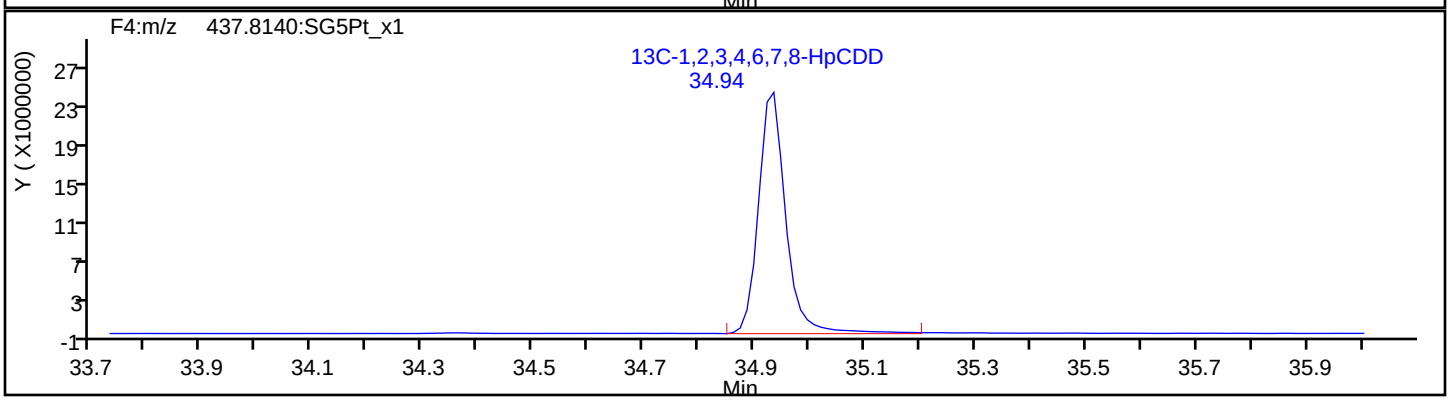
HpCDD





HpCDD Standards



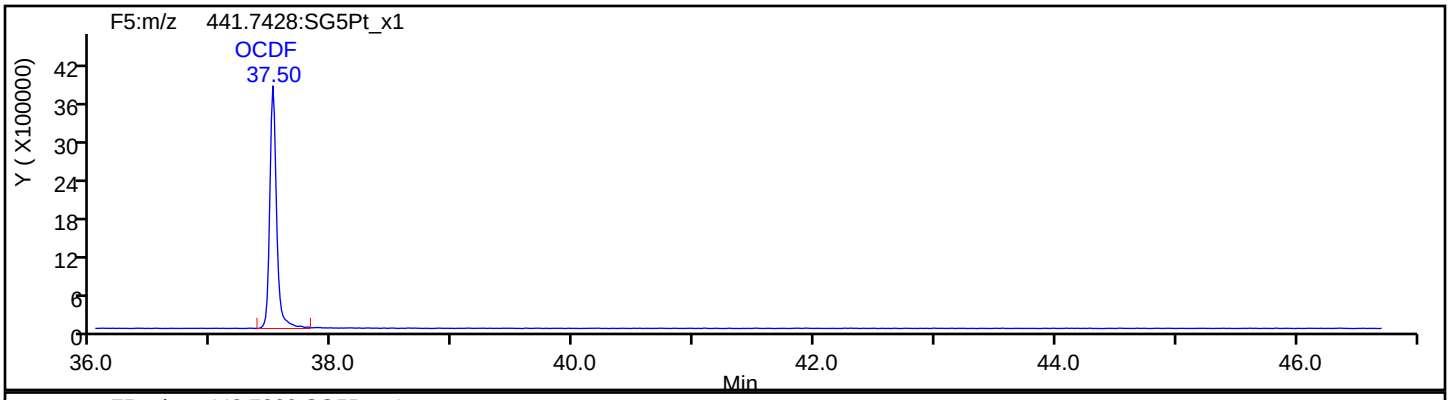


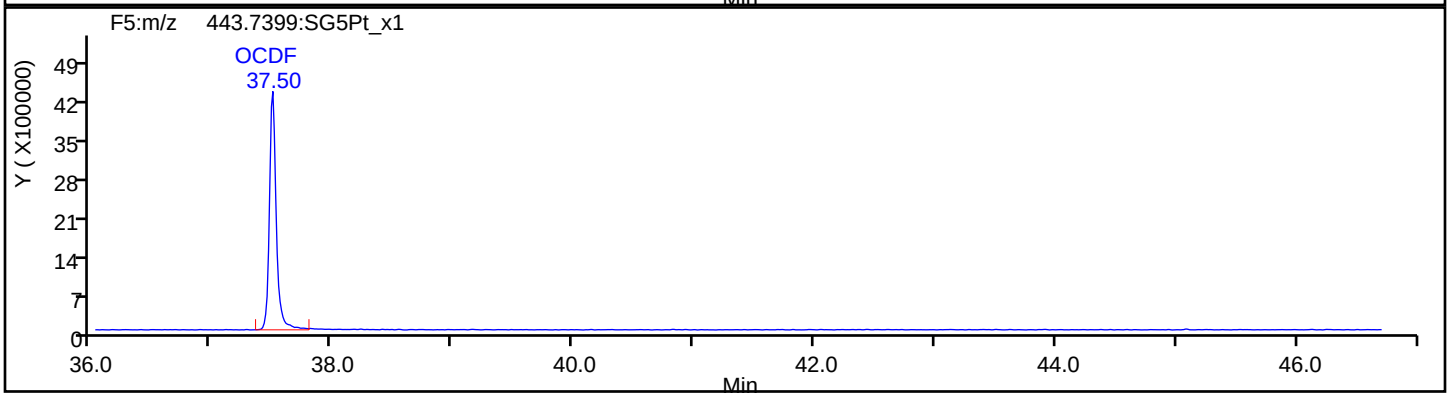
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

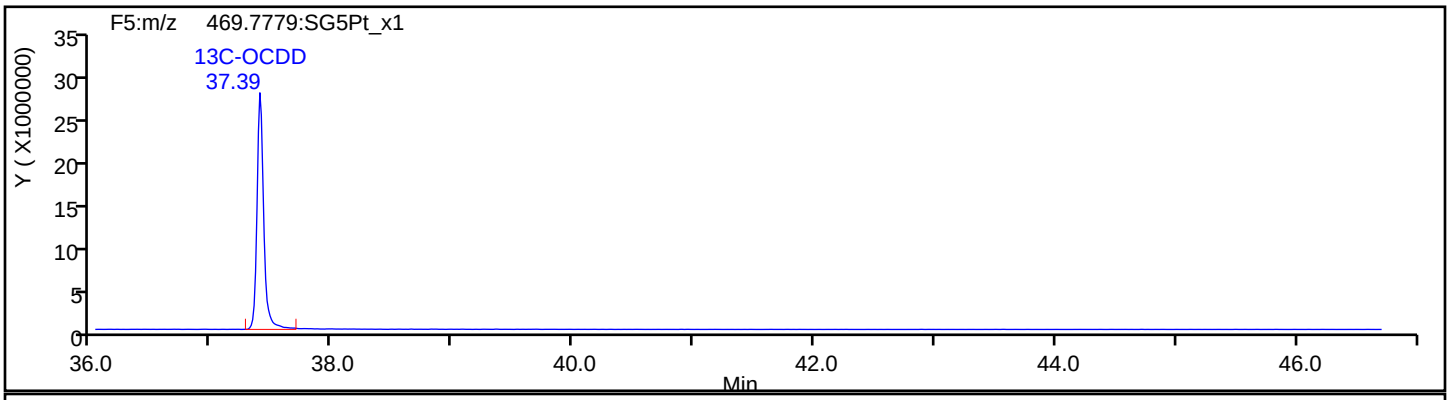
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

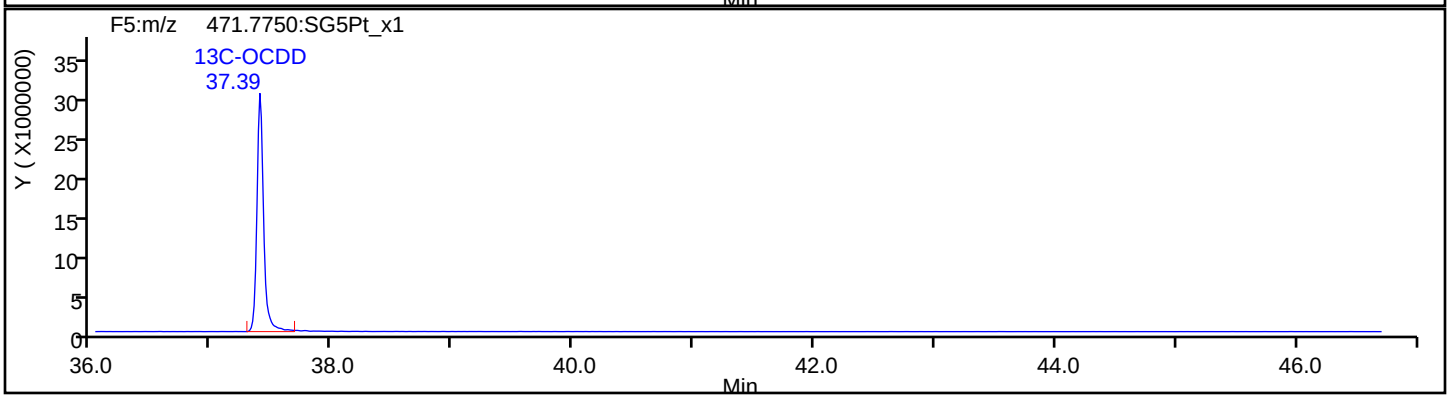
OCDF





OCDF Standards



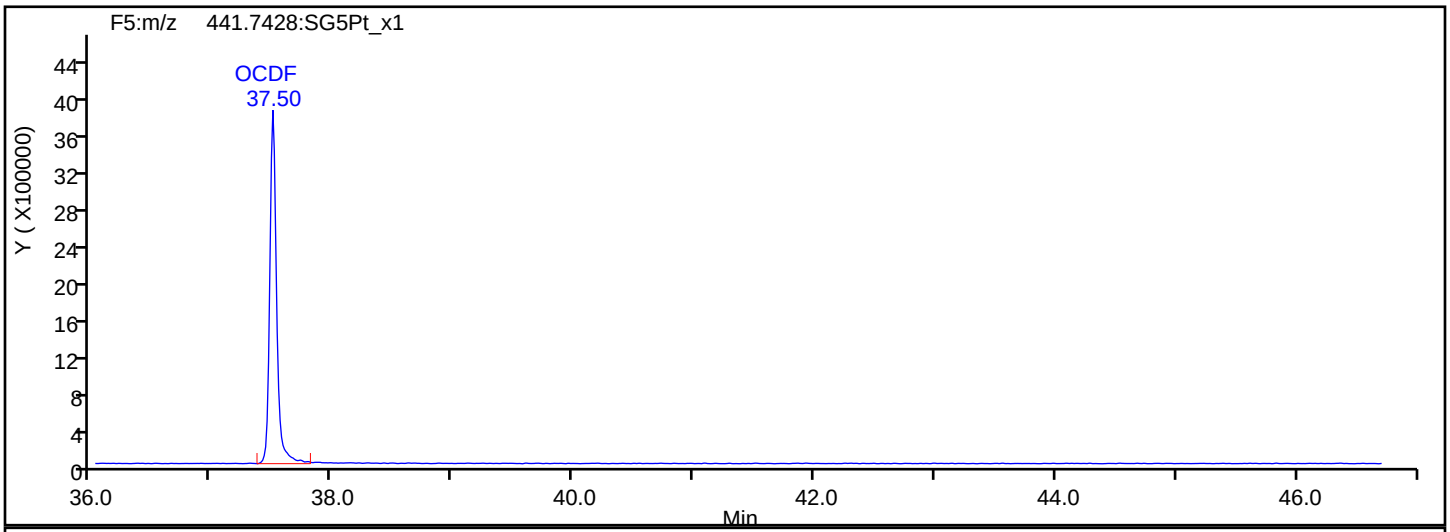


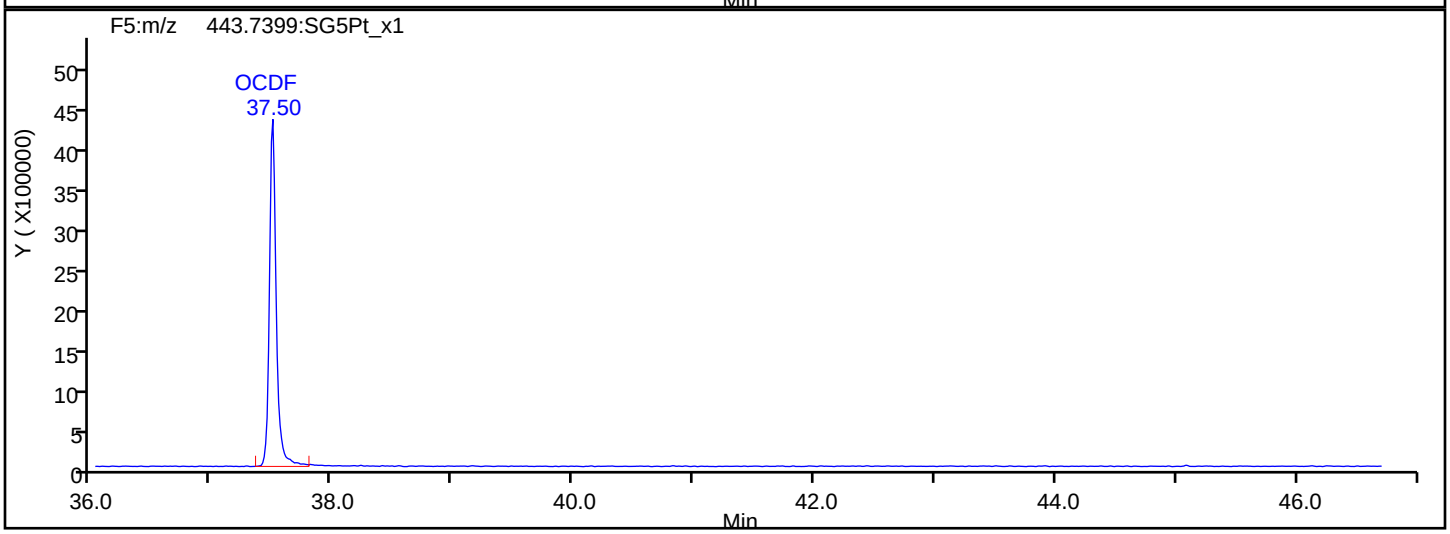
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

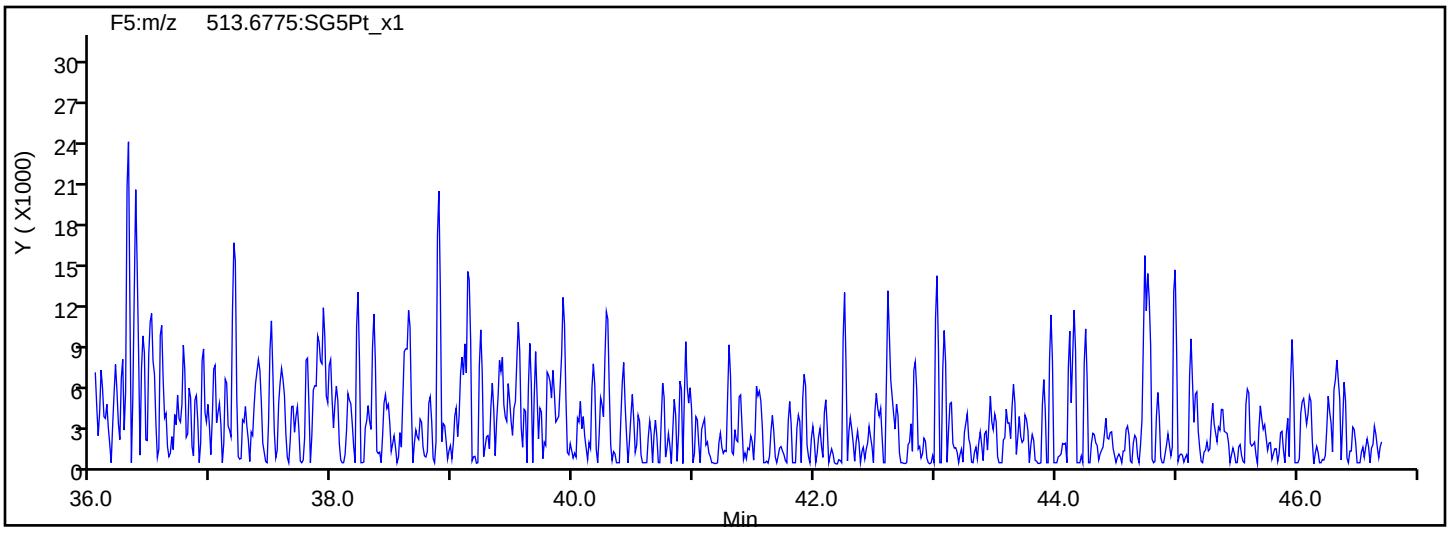
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

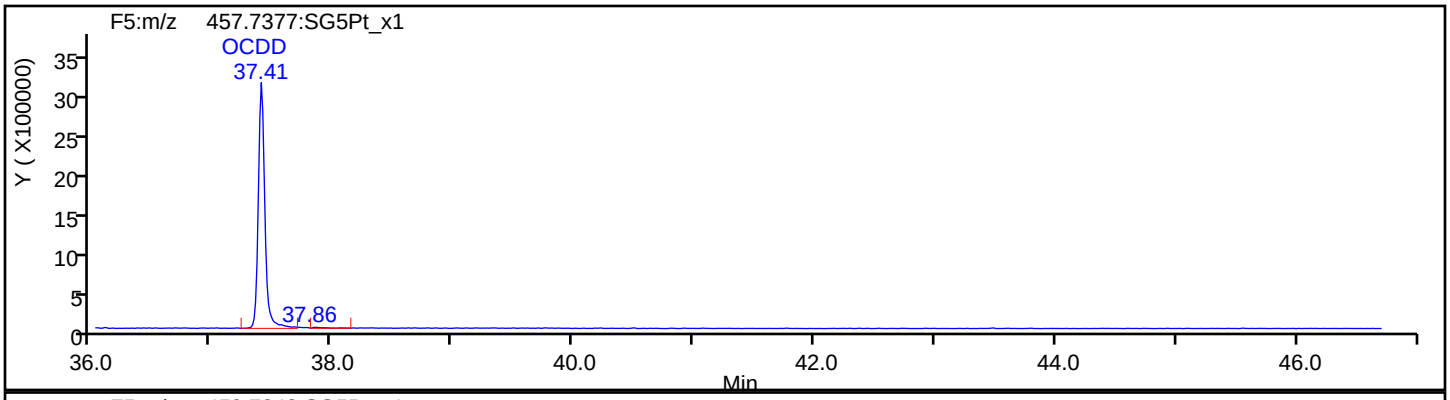


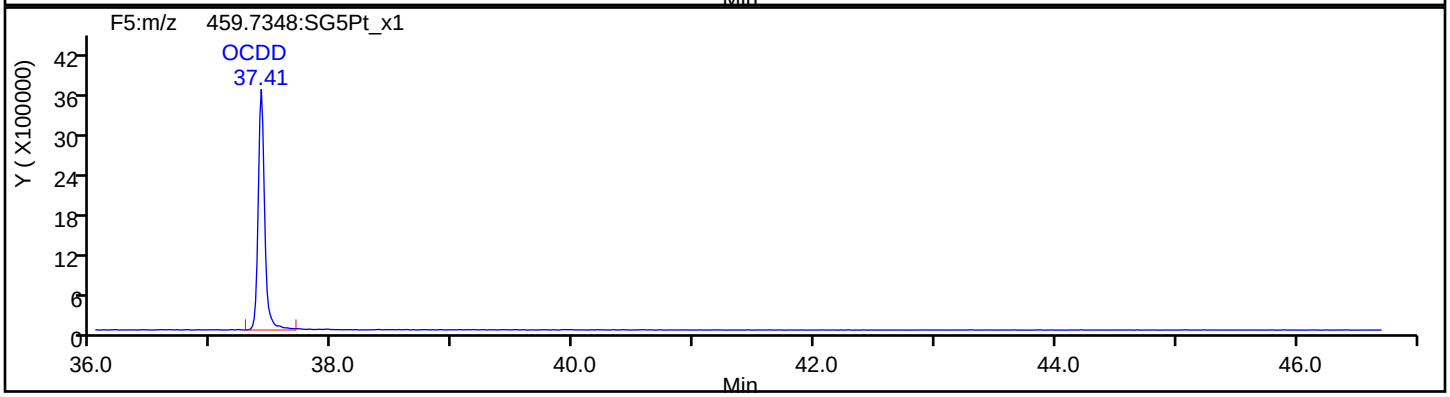
Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

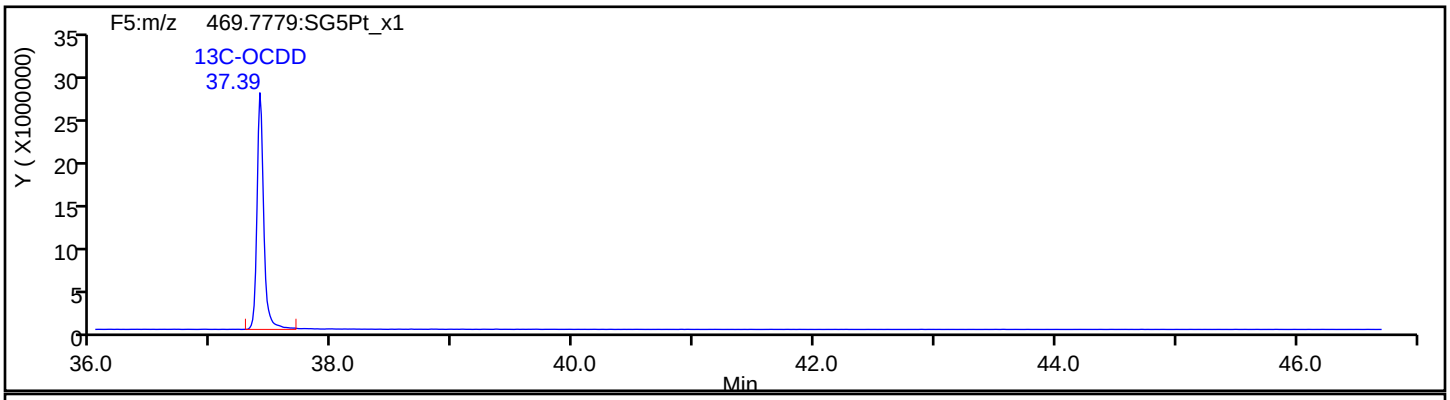
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm

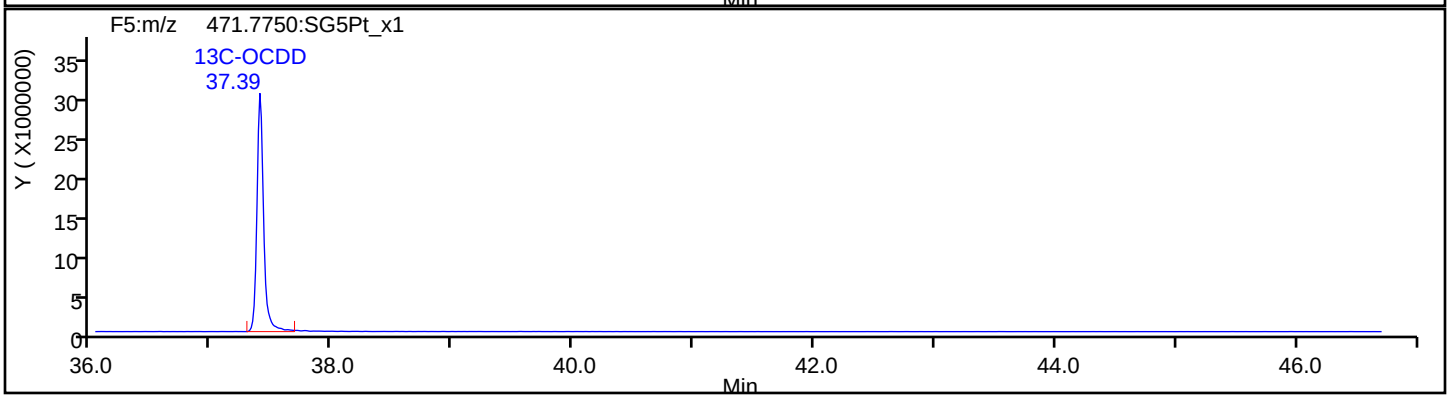
OCDD





OCDD Standards

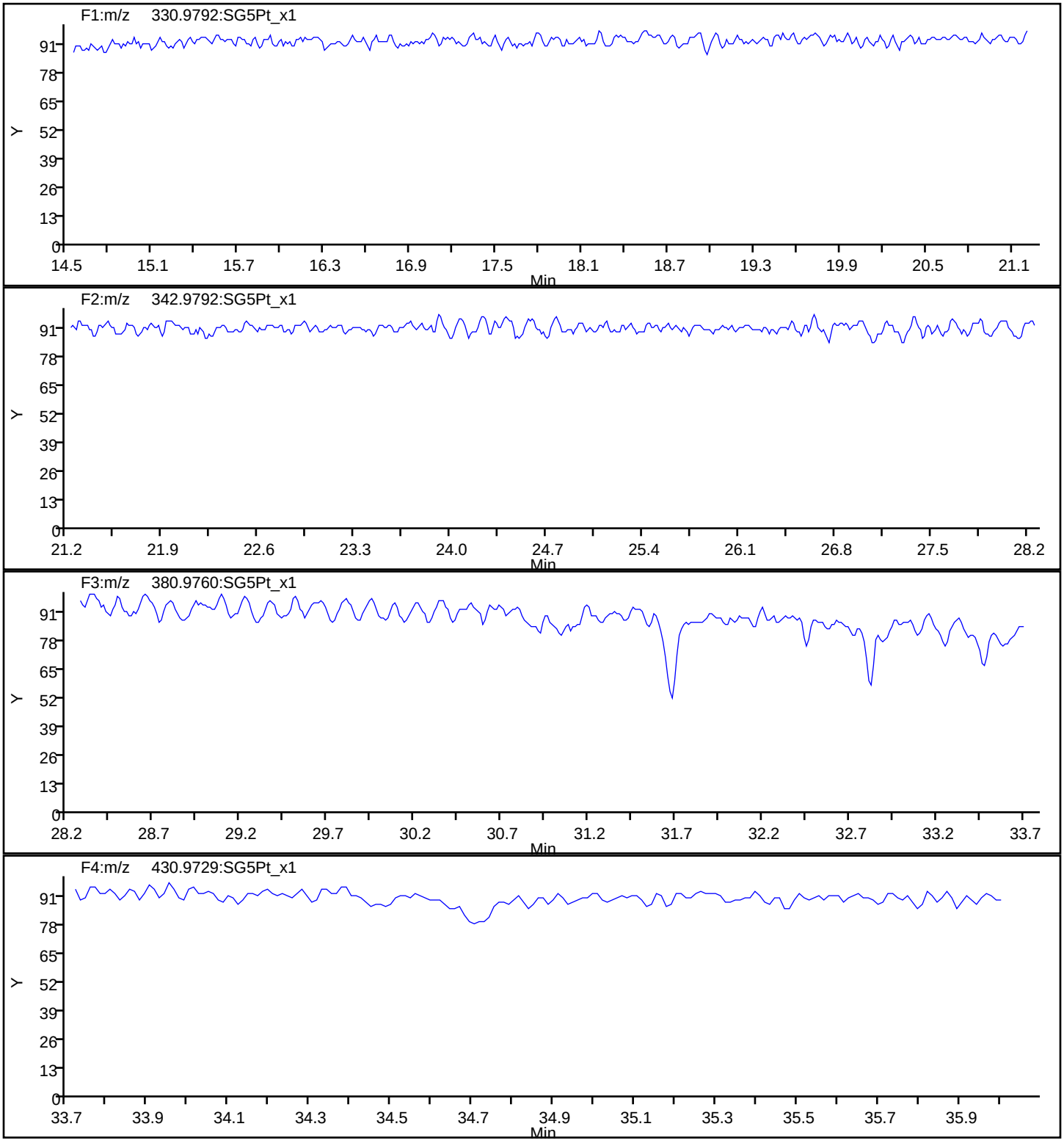




Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

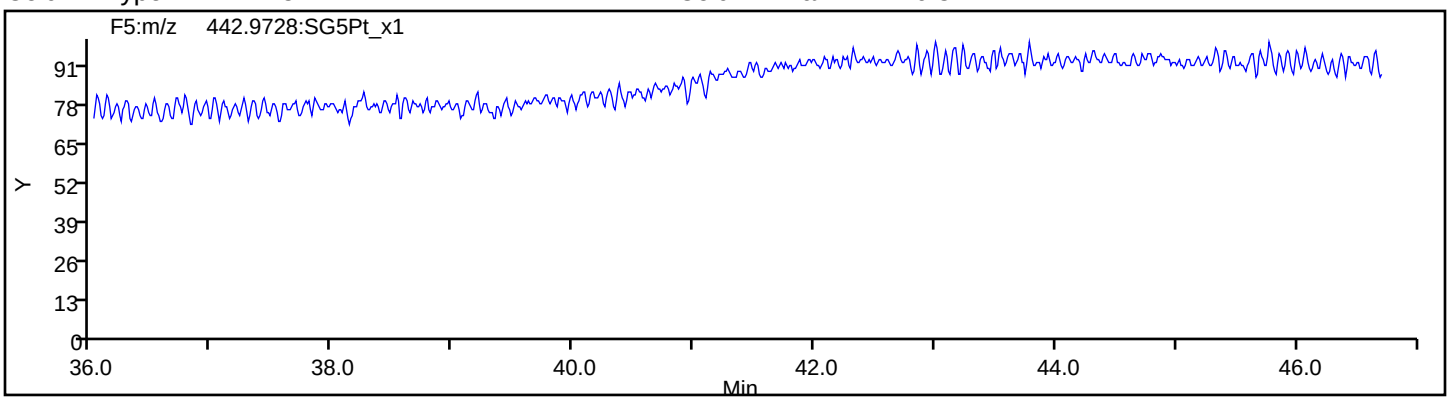
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-May-2019 11:44:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_4.d		
Injection Date:	21-May-2019 14:18:50	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L3		
Worklist#:	296020	Sample Line#:	4
Column Type:	DB-5	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d
Lims ID: IC 4
Client ID: L4
Sample Type: IC Calib Level: 4
Inject. Date: 21-May-2019 15:06:18 ALS Bottle#: 6 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119B CS-4 HRDXNL4_00077
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:36 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 18:28:08

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	18.444	266049262	0.77	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	17.900	368458287	0.78	1.3908	99.6	99.6	0.2009	0.2009	99.58	
2,3,7,8-TCDF	17.915	34095990	0.80	0.9710	9.530	9.530	0.0358	0.0358	95.30	
S Total TCDF					9.530	9.530	0.0358	0.0358		
D 13C-2,3,7,8-TCDD	18.641	261889190	0.80	0.9819	100.3	100.3	0.2183	0.2183	100	
2,3,7,8-TCDD	18.656	25780110	0.76	1.0447	9.423	9.423	0.0450	0.0450	94.23	
$ 37Cl4-2,3,7,8-TCDD	18.656	32252457		1.2205	9.932	9.932	0.0388	0.0388	99.32	
S Total TCDD					9.423	9.423	0.0450	0.0450		
D 13C-1,2,3,7,8-PeCDF	23.107	298897976	1.58	1.1585	97.0	97.0	0.2736	0.2736	96.98	
1,2,3,7,8-PeCDF	23.134	139131385	1.59	0.9633	48.3	48.3	0.2002	0.2002	96.64	
D 13C-2,3,4,7,8-PeCDF	24.498	289155560	1.61	1.1532	94.2	94.2	0.2748	0.2748	94.25	
2,3,4,7,8-PeCDF	24.512	134668117	1.60	0.9495	49.0	49.0	0.2285	0.2285	98.10	
S Total PeCDF					97.4	97.4	0.2143	0.2143		
D 13C-1,2,3,7,8-PeCDD	25.248	187564907	1.55	0.7431	94.9	94.9	0.1307	0.1307	94.87	
1,2,3,7,8-PeCDD	25.275	96734118	1.59	1.0635	48.5	48.5	0.1237	0.1237	96.99	
S Total PeCDD					48.5	48.5	0.1237	0.1237		
D 13C-1,2,3,4,7,8-HxCDF	31.058	204574619	0.51	0.9837	99.0	99.0	0.3905	0.3905	98.96	
1,2,3,4,7,8-HxCDF	31.071	119503669	1.26	1.2173	48.0	48.0	0.2220	0.2220	95.97	
D 13C-1,2,3,6,7,8-HxCDF	31.204	243762567	0.51	1.1554	100.4	100.4	0.3325	0.3325	100	
1,2,3,6,7,8-HxCDF	31.231	132954258	1.24	1.1311	48.2	48.2	0.2080	0.2080	96.44	
D 13C-2,3,4,6,7,8-HxCDF	31.923	214979709	0.53	1.0361	98.7	98.7	0.3708	0.3708	98.74	
2,3,4,6,7,8-HxCDF	31.950	122235023	1.22	1.1710	48.6	48.6	0.1945	0.1945	97.11	
D 13C-1,2,3,7,8,9-HxCDF	32.682	192845424	0.51	0.9034	101.6	101.6	0.4252	0.4252	102	
1,2,3,7,8,9-HxCDF	32.696	107848697	1.27	1.1787	47.4	47.4	0.1963	0.1963	94.89	
S Total HxCDF					192.2	192.2	0.2052	0.2052		
* 13C-1,2,3,7,8,9-HxCDD	32.509	210143837	1.24	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	32.097	167611922	1.28	0.8287	96.2	96.2	0.3109	0.3109	96.25	
1,2,3,4,7,8-HxCDD	32.123	83380770	1.22	1.0267	48.5	48.5	0.1554	0.1554	96.91	
D 13C-1,2,3,6,7,8-HxCDD	32.203	198645382	1.25	0.9495	99.6	99.6	0.2714	0.2714	99.56	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,3,6,7,8-HxCDD	32.216	93685468	1.24	0.9771	48.3	48.3	0.1493	0.1493	96.54	
1,2,3,7,8,9-HxCDD	32.522	94615681	1.22	1.0616	48.7	48.7	0.1436	0.1436	97.34	
S Total HxCDD					145.4	145.4	0.1495	0.1495		
D 13C-1,2,3,4,6,7,8-HpCDF	34.109	151704886	0.44	0.7285	99.1	99.1	0.6761	0.6761	99.10	
1,2,3,4,6,7,8-HpCDF	34.109	104642592	1.05	1.4373	48.0	48.0	0.3018	0.3018	95.98	
D 13C-1,2,3,4,7,8,9-HpCDF	35.239	132981445	0.44	0.6556	96.5	96.5	0.7512	0.7512	96.52	
1,2,3,4,7,8,9-HpCDF	35.251	85304719	1.08	1.3091	49.0	49.0	0.4205	0.4205	98.00	
S Total HpCDF					97.0	97.0	0.3612	0.3612		
D 13C-1,2,3,4,6,7,8-HpCDD	34.935	145580797	1.06	0.6978	99.3	99.3	0.3229	0.3229	99.27	
1,2,3,4,6,7,8-HpCDD	34.947	70431011	1.07	1.0102	47.9	47.9	0.1683	0.1683	95.78	
S Total HpCDD					47.9	47.9	0.1683	0.1683		
D 13C-OCDD	37.395	198157571	0.91	0.4780	197.3	197.3	0.1963	0.1963	98.64	
OCDF	37.502	127299796	0.90	1.3501	95.2	95.2	0.1005	0.1005	95.16	
OCDD	37.407	99639255	0.88	1.0627	94.6	94.6	0.0948	0.0948	94.63	

Reagents:

HRDXNL4_00077 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d
Lims ID: IC 4
Client ID: L4
Sample Type: IC Calib Level: 4
Inject. Date: 21-May-2019 15:06:18 ALS Bottle#: 6 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119B CS-4 HRDXNL4_00077
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:36 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 18:28:08

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	18.444	18.432	1		115409102	26876030	32374	80935	830		
333.9339	18.429	18.432	0		150640160	34794780	20496	51240	1698	0.77(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	17.900	17.900	0	0.970	161611339	37857902	37163	92907	1019		
317.9389	17.900	17.900	0	0.970	206846948	48544839	31755	79387	1529	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	17.915	17.915	0	1.001	15155491	3540914	4388	10970	807		
305.8987	17.915	17.915	0	1.001	18940499	4391318	7617	19042	577	0.80(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	18.641	18.629	1	1.011	116390874	26085587	32374	80935	806		
333.9339	18.641	18.629	1	1.011	145498316	32377032	20496	51240	1580	0.80(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	18.656	18.650	0	1.001	11105372	2557544	7211	18027	355		
321.8936	18.656	18.650	0	1.001	14674738	3371473	3781	9452	892	0.76(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	18.656	18.650	0	1.011	32252457	7507581	11695	29237	642		
13C-1,2,3,7,8-PeCDF											
351.9000	23.107	23.102	0	1.253	183093949	30991106	47422	118555	654		
353.8970	23.107	23.102	0	1.253	115804027	19703925	30757	76892	641	1.58(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	23.134	23.123	1	1.001	85372872	14692390	21519	53797	683		
341.8567	23.134	23.123	1	1.001	53758513	9133099	17591	43977	519	1.59(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,7,8-PeCDF											
351.9000	24.498	24.487	1	1.328	178351094	27915830	47422	118555	589		
353.8970	24.498	24.487	1	1.328	110804466	17158662	30757	76892	558	1.61(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	24.512	24.512	0	1.001	82957658	12768013	21519	53797	593		
341.8567	24.512	24.512	0	1.001	51710459	7992834	17591	43977	454	1.60(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	25.248	25.237	1	1.369	113879311	16891506	13841	34602	1220		
369.8919	25.248	25.237	1	1.369	73685596	10806687	10115	25287	1068	1.55(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	25.275	25.264	1	1.001	59364444	8621004	9389	23472	918		
357.8516	25.262	25.264	0	1.001	37369674	5641991	5185	12962	1088	1.59(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	31.058	31.050	0	0.955	69170755	15462791	29852	74630	518		
385.8610	31.058	31.050	0	0.955	135403864	30489139	57905	144762	527	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	31.071	31.069	0	1.000	66722074	15152198	28009	70022	541		
375.8178	31.071	31.069	0	1.000	52781595	11824196	21672	54180	546	1.26(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	31.204	31.202	0	0.960	82294114	17939751	29852	74630	601		
385.8610	31.204	31.202	0	0.960	161468453	34852309	57905	144762	602	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	31.231	31.223	0	1.001	73634652	16064424	28009	70022	574		
375.8178	31.231	31.223	0	1.001	59319606	12673810	21672	54180	585	1.24(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	31.923	31.923	0	0.982	74428362	19086994	29852	74630	639		
385.8610	31.937	31.923	1	0.982	140551347	35443376	57905	144762	612	0.53(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	31.950	31.942	0	1.001	67241149	17462291	28009	70022	623		
375.8178	31.950	31.942	0	1.001	54993874	14100239	21672	54180	651	1.22(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	32.682	32.674	0	1.005	65214236	18185504	29852	74630	609		
385.8610	32.682	32.674	0	1.005	127631188	35502412	57905	144762	613	0.51(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	32.696	32.690	0	1.000	60238244	16299014	28009	70022	582		
375.8178	32.696	32.690	0	1.000	47610453	13156851	21672	54180	607	1.27(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	32.509	32.499	1		116316729	31649024	31377	78442	1009		
403.8529	32.509	32.499	1		93827108	25460428	27484	68710	926	1.24(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	32.097	32.094	0	0.987	93966382	26505162	31377	78442	845		
403.8529	32.097	32.094	0	0.987	73645540	20875533	27484	68710	760	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	32.123	32.110	1	1.001	45886132	12984809	17184	42960	756		
391.8127	32.110	32.110	0	1.000	37494638	10729855	13057	32642	822	1.22(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDD											
401.8559	32.203	32.192	1	0.991	110256363	28819201	31377	78442	918		
403.8529	32.203	32.192	1	0.991	88389019	22989210	27484	68710	836	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	32.216	32.208	0	1.000	51880686	13336545	17184	42960	776		
391.8127	32.216	32.208	0	1.000	41804782	10671735	13057	32642	817	1.24(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	32.522	32.515	0	1.013	51996898	14524491	17184	42960	845		
391.8127	32.522	32.515	0	1.013	42618783	11370334	13057	32642	871	1.22(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	34.109	34.097	1	1.049	46437684	14562239	43102	107755	338		
419.8220	34.109	34.097	1	1.049	105267202	31836549	69410	173525	459	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.109	34.104	0	1.000	53669497	16365625	48996	122490	334		
409.7789	34.109	34.104	0	1.000	50973095	15923444	31519	78797	505	1.05(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	35.239	35.232	0	1.084	40848270	11335642	43102	107755	263		
419.8220	35.239	35.232	0	1.084	92133175	25226760	69410	173525	363	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.251	35.244	0	1.000	44232261	12025615	48996	122490	245		
409.7789	35.251	35.244	0	1.000	41072458	11169863	31519	78797	354	1.08(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.935	34.928	0	1.075	75046592	22172961	27595	68987	804		
437.8140	34.935	34.928	0	1.075	70534205	20663187	23874	59685	866	1.06(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.947	34.940	0	1.000	36447681	10763040	16962	42405	635		
425.7737	34.947	34.940	0	1.000	33983330	9873100	12169	30422	811	1.07(0.88-1.20)	
13C-OCDD											
469.7779	37.395	37.392	0	1.150	94612024	23602015	12332	30830	1914		
471.7750	37.395	37.392	0	1.150	103545547	26272538	9097	22742	2888	0.91(0.76-1.02)	
OCDF											
441.7428	37.502	37.500	0	1.003	60453653	15029871	5725	14312	2625		
443.7399	37.502	37.500	0	1.003	66846143	16385060	7807	19517	2099	0.90(0.76-1.02)	
OCDD											
457.7377	37.407	37.402	0	1.000	46609560	11941191	5098	12745	2342		
459.7348	37.407	37.402	0	1.000	53029695	13454490	4948	12370	2719	0.88(0.76-1.02)	

Reagents:

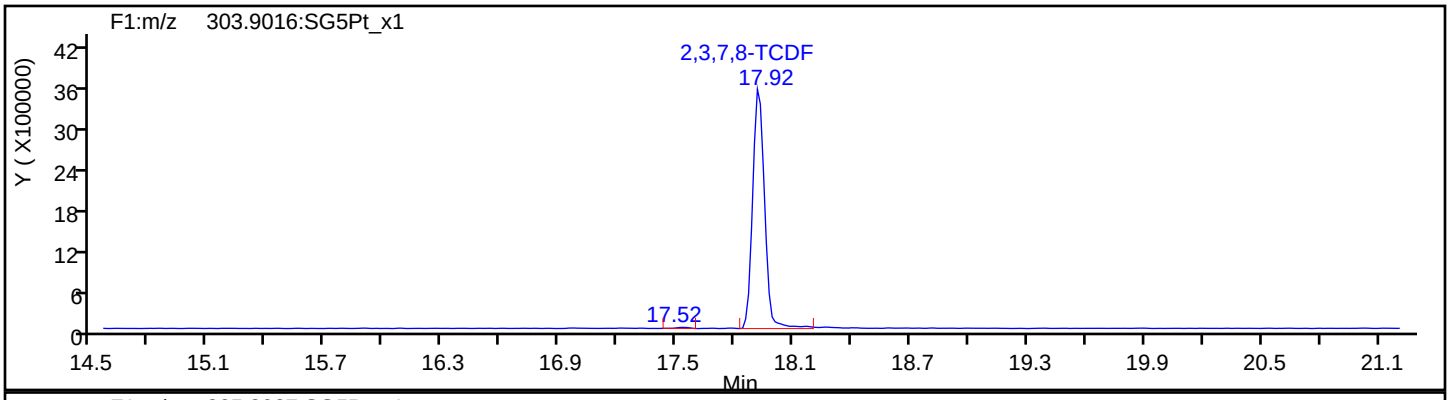
HRDXNL4_00077 Amount Added: 1.00 Units: mL

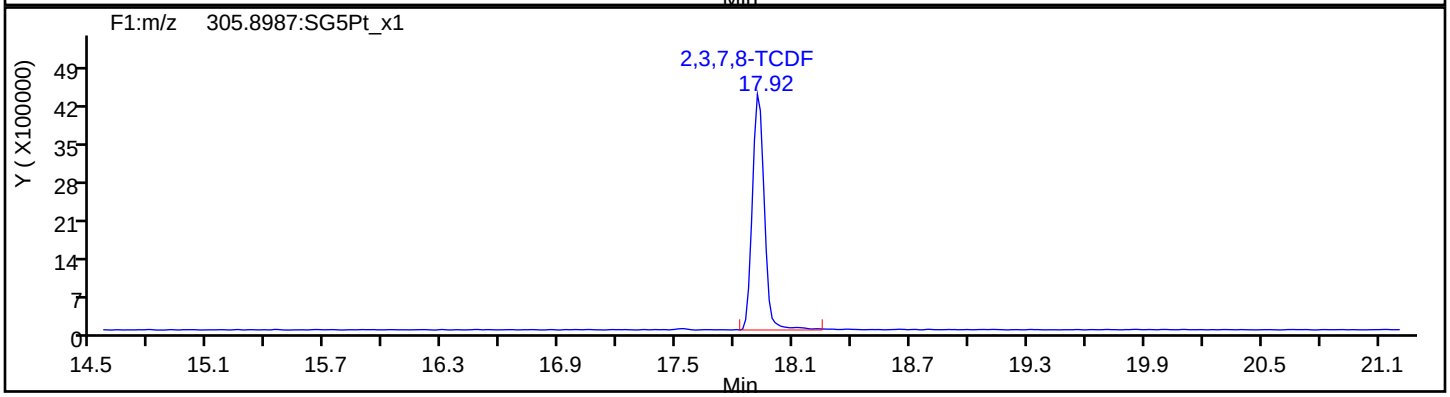
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

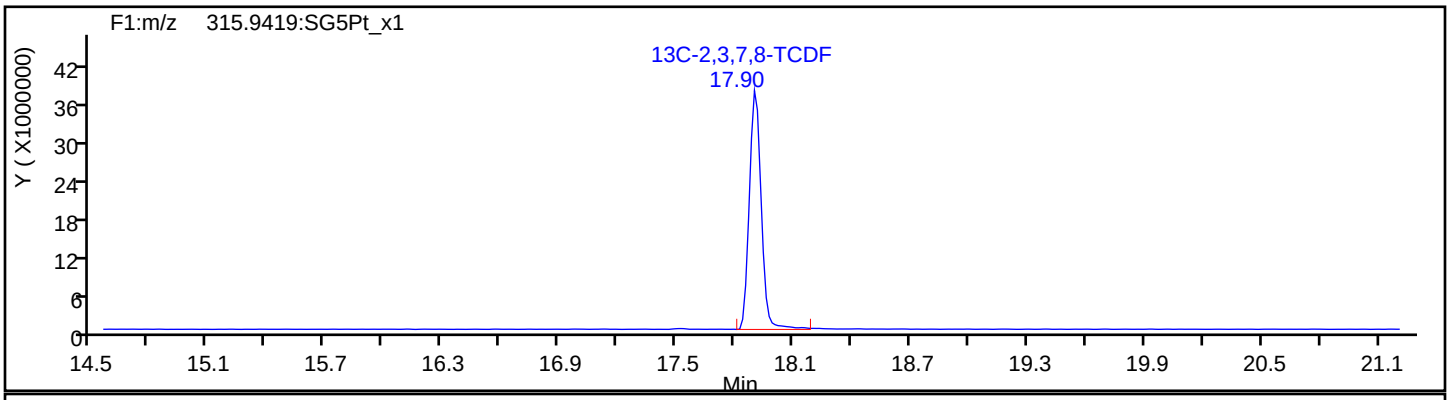
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

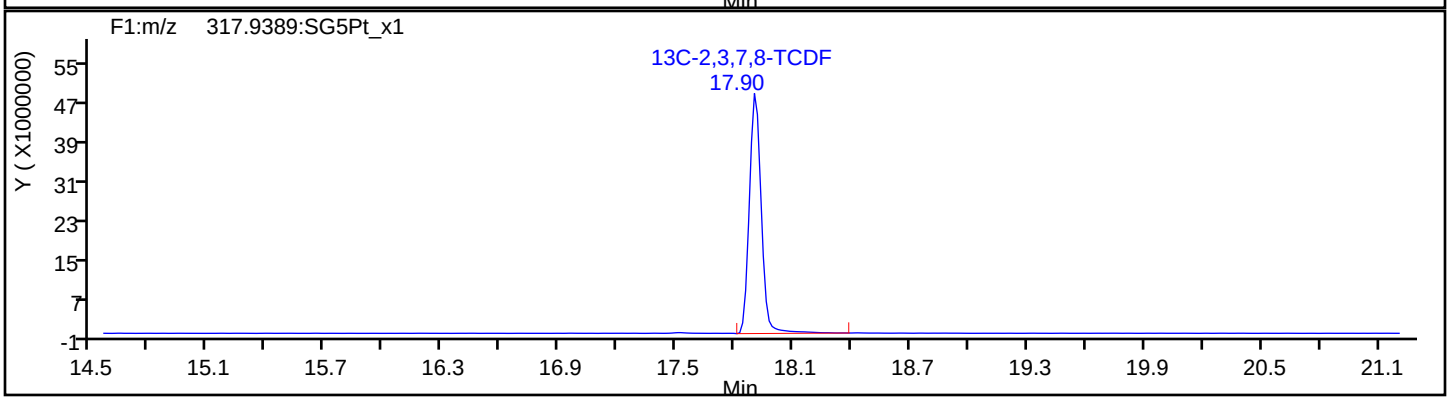
TCDF





TCDF Standards



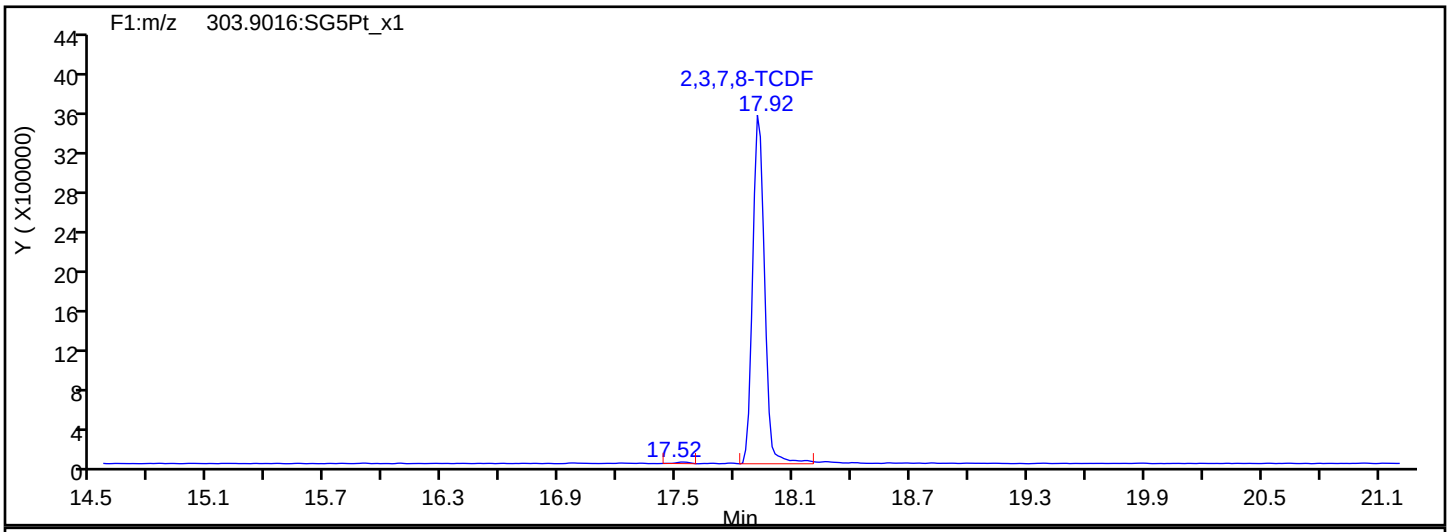


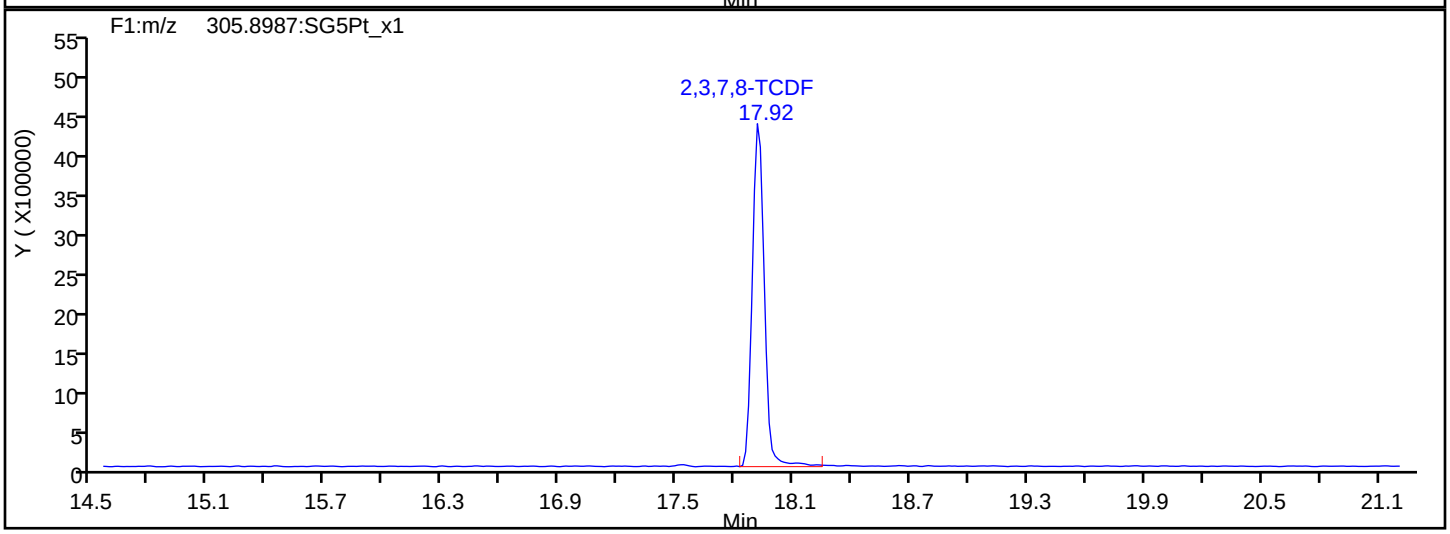
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

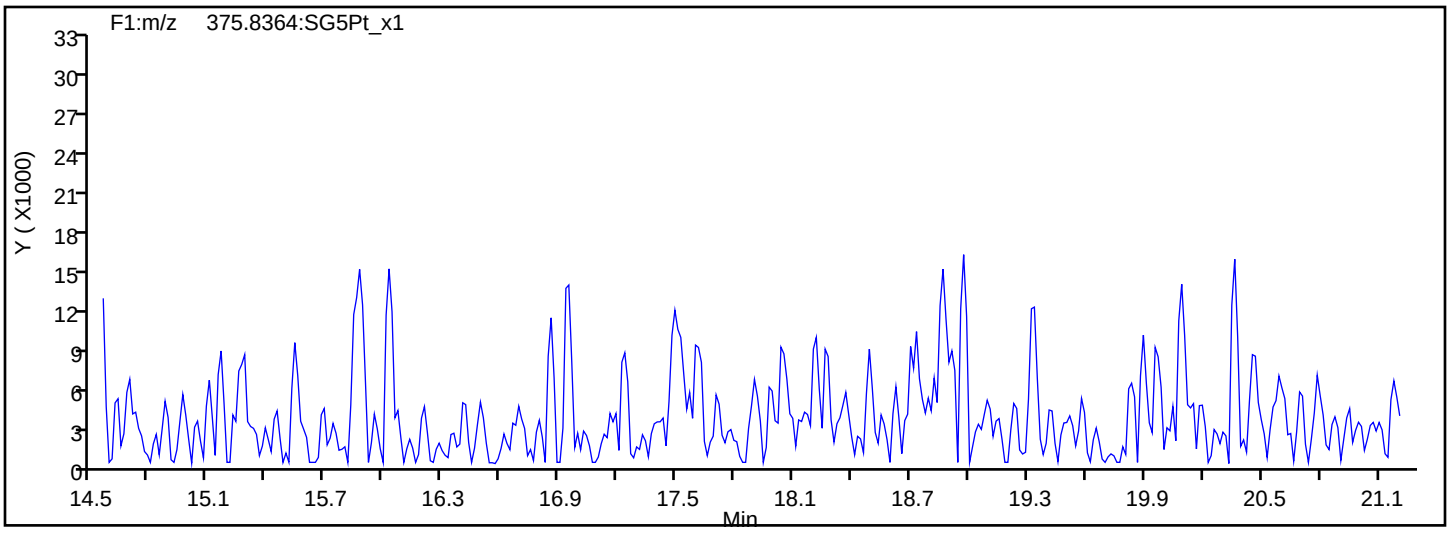
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

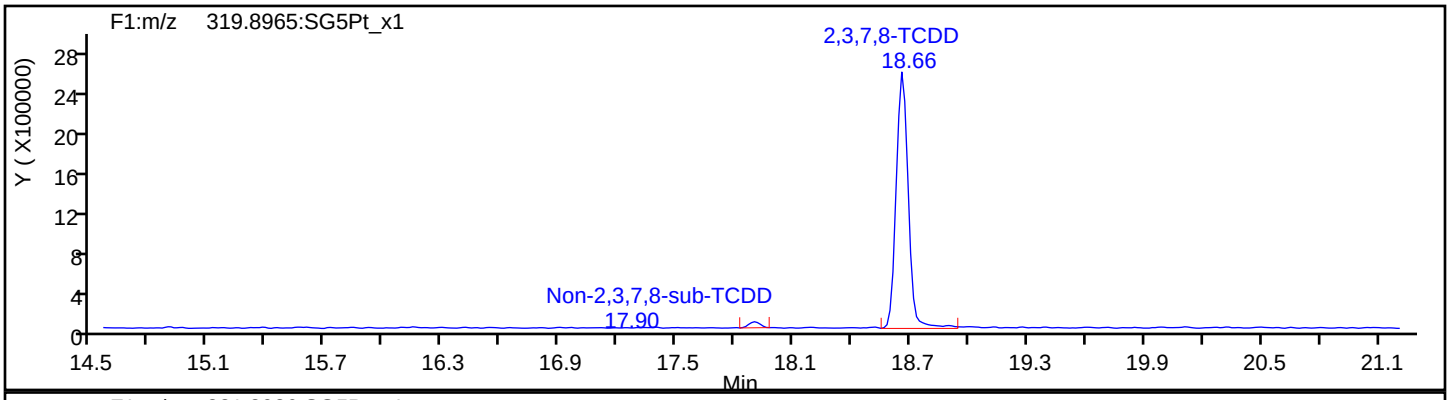


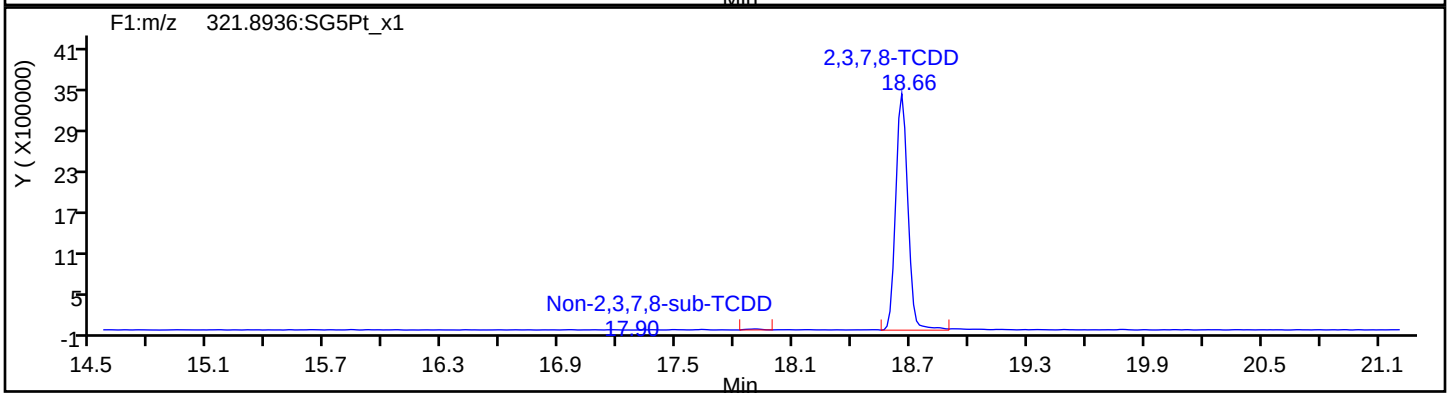
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

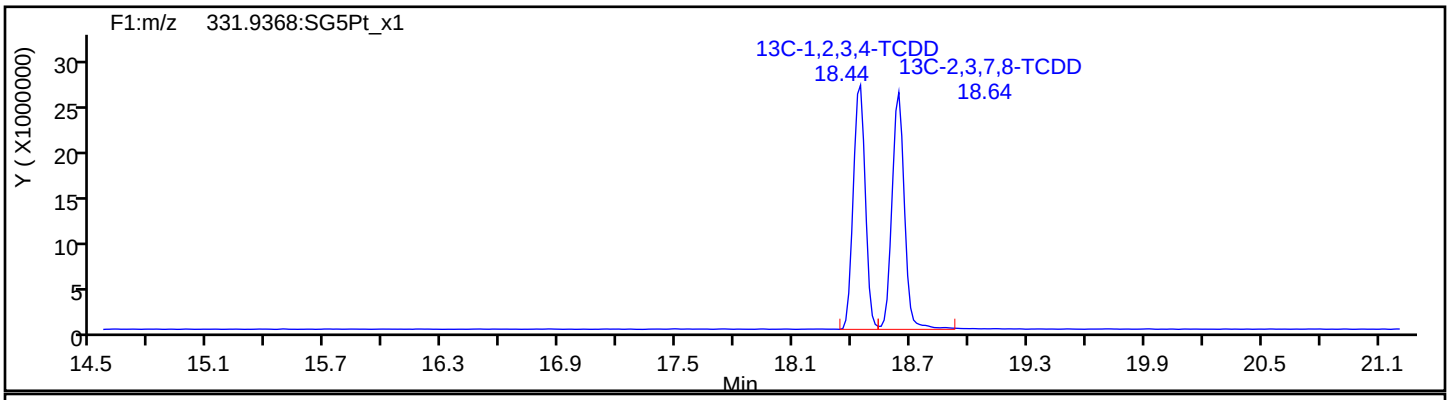
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

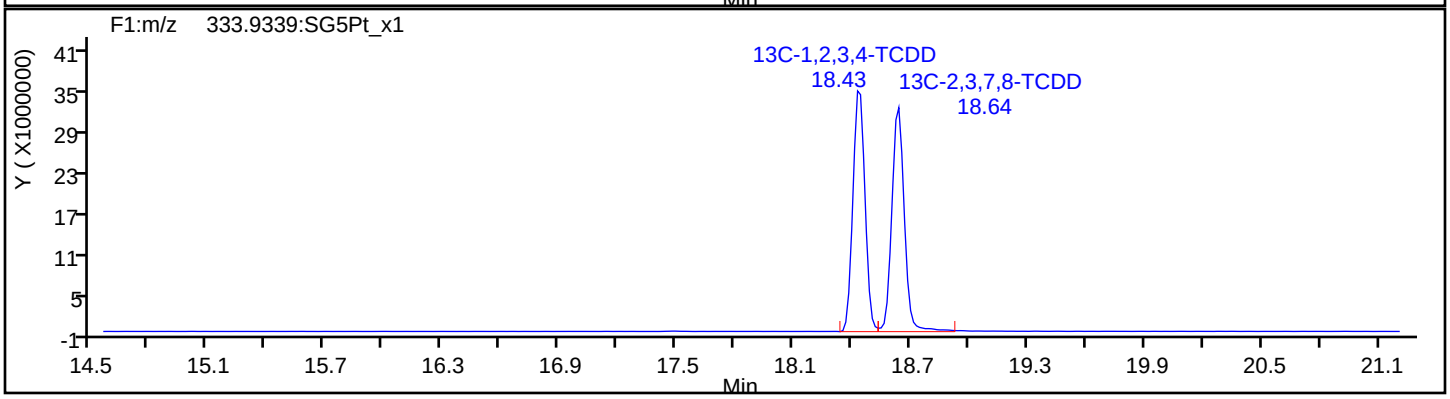
TCDD





TCDD Standards



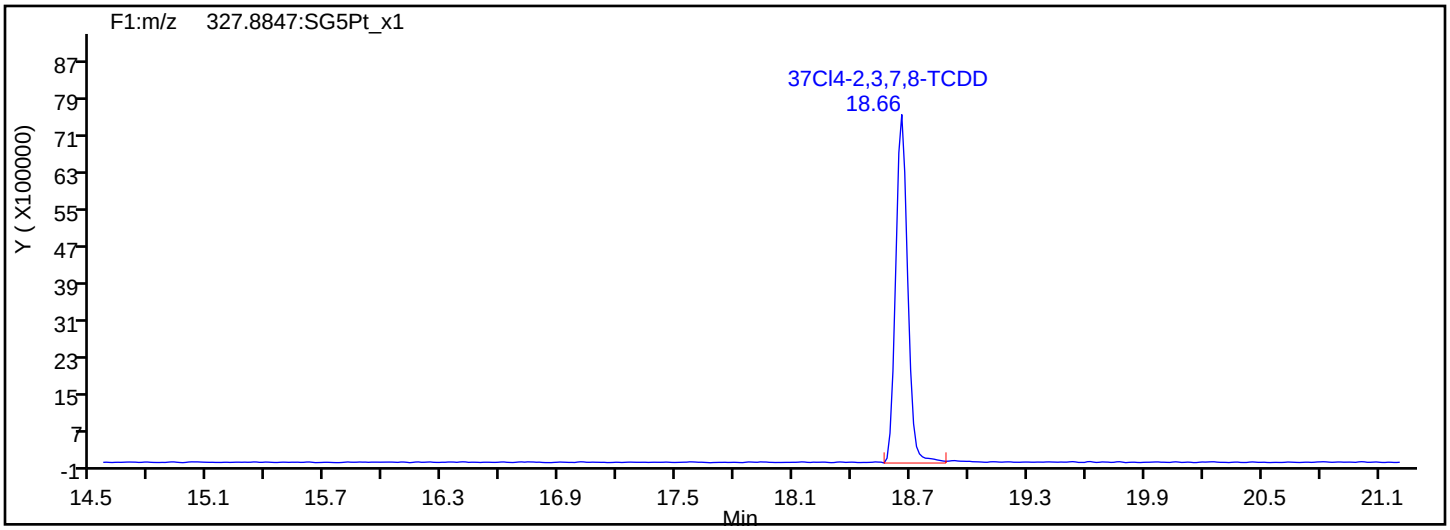


Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

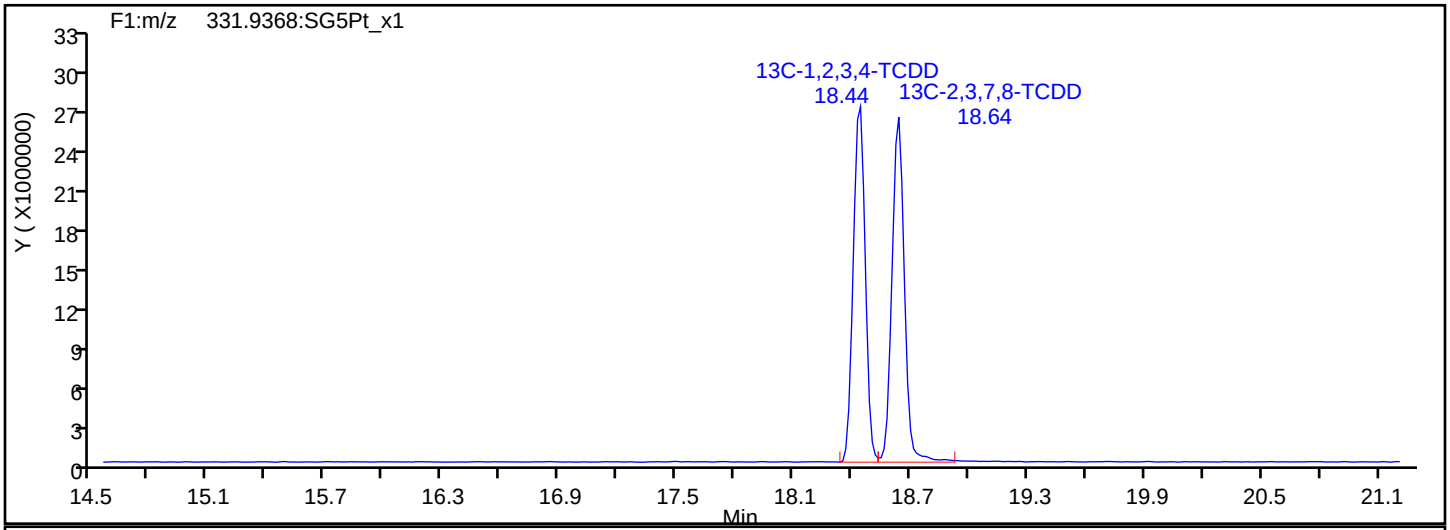
Eurofins TestAmerica, Sacramento

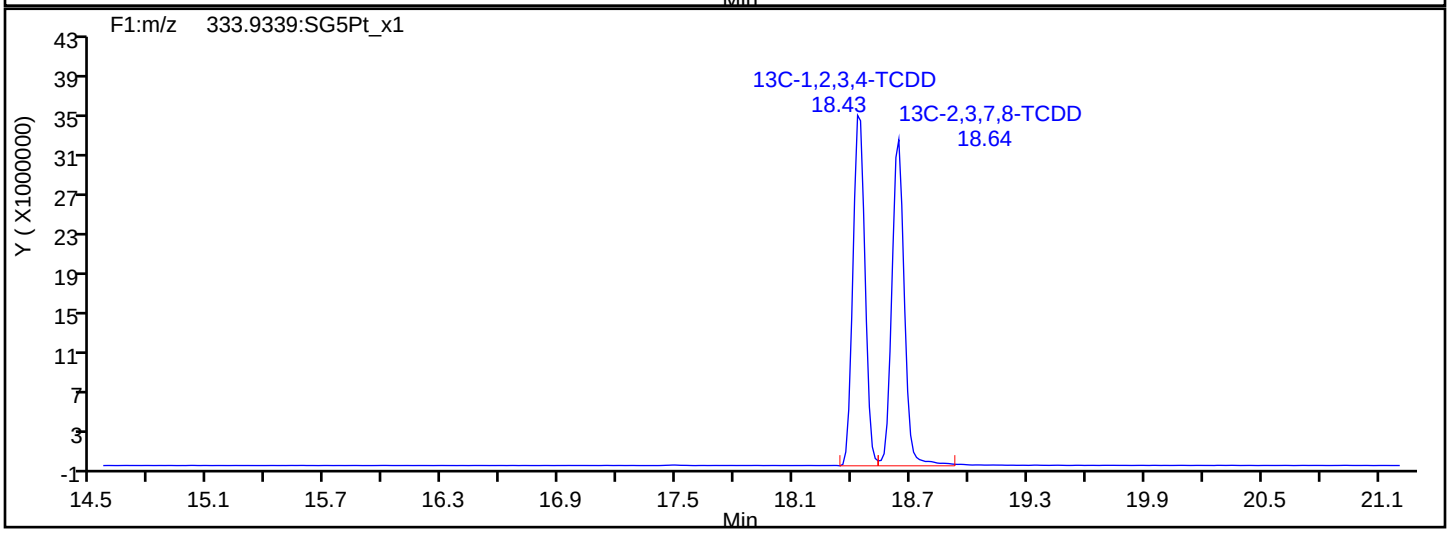
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



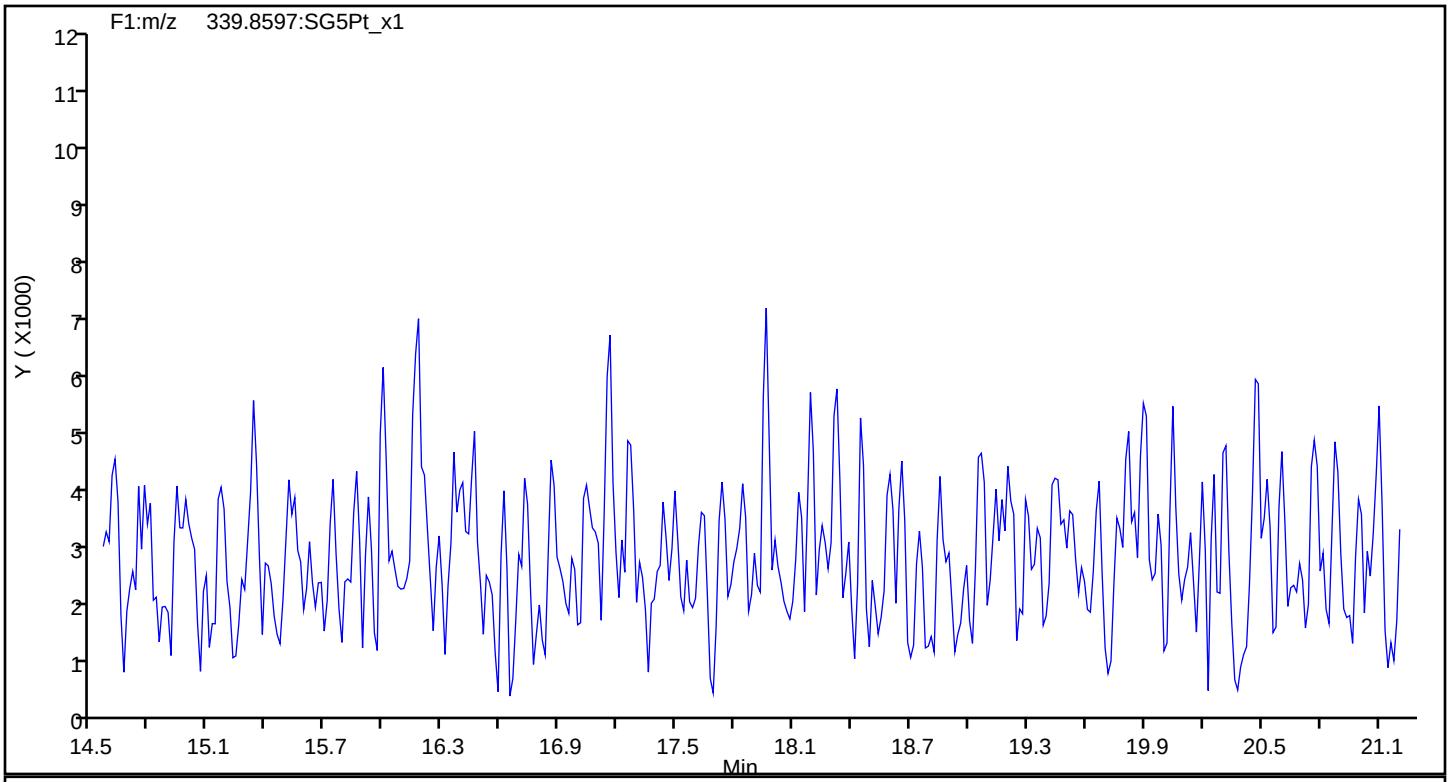


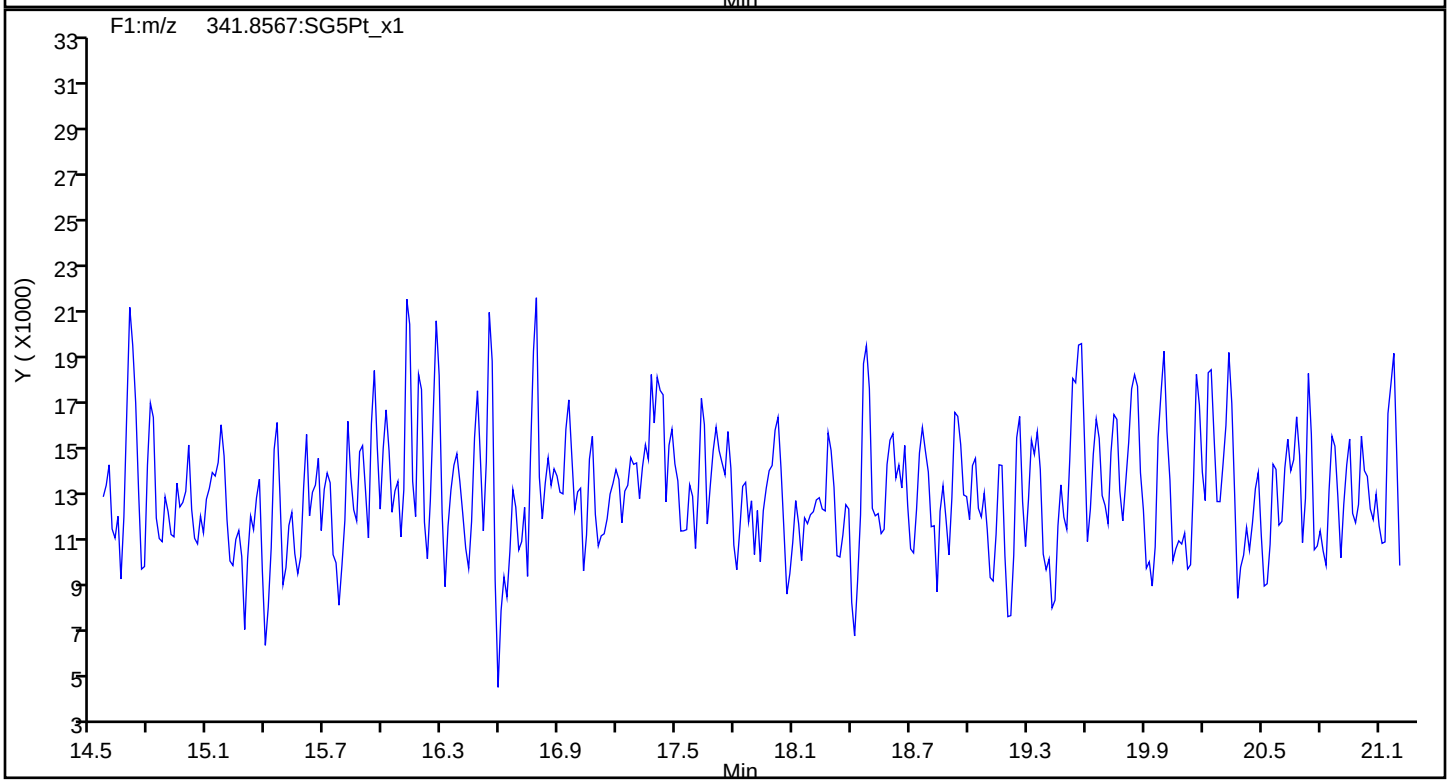
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



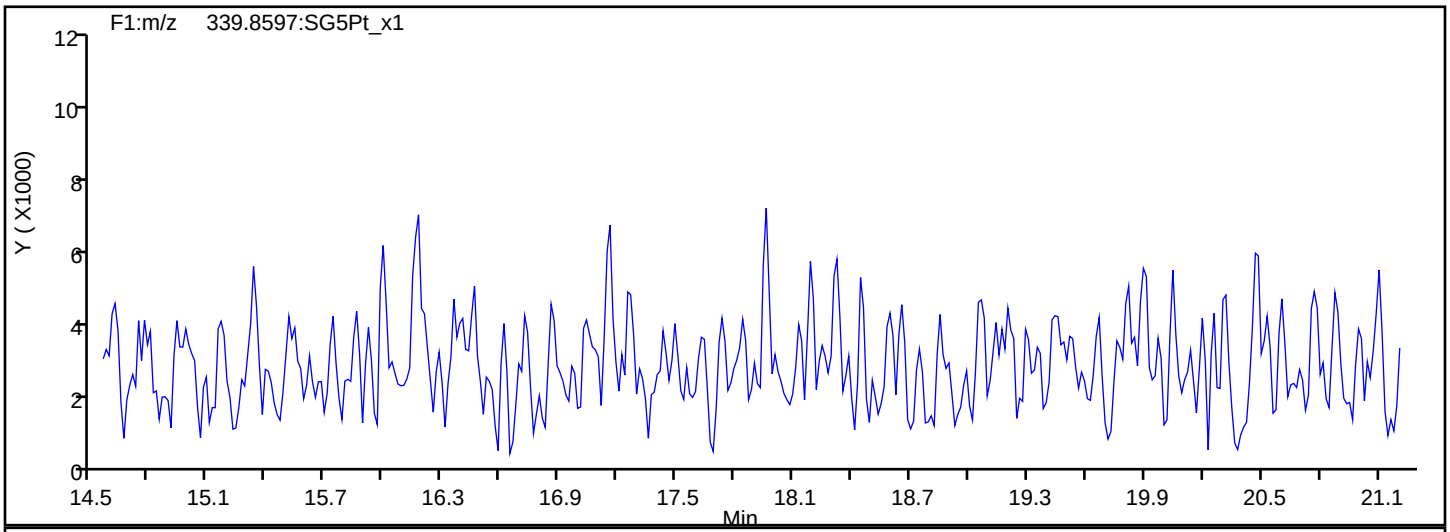


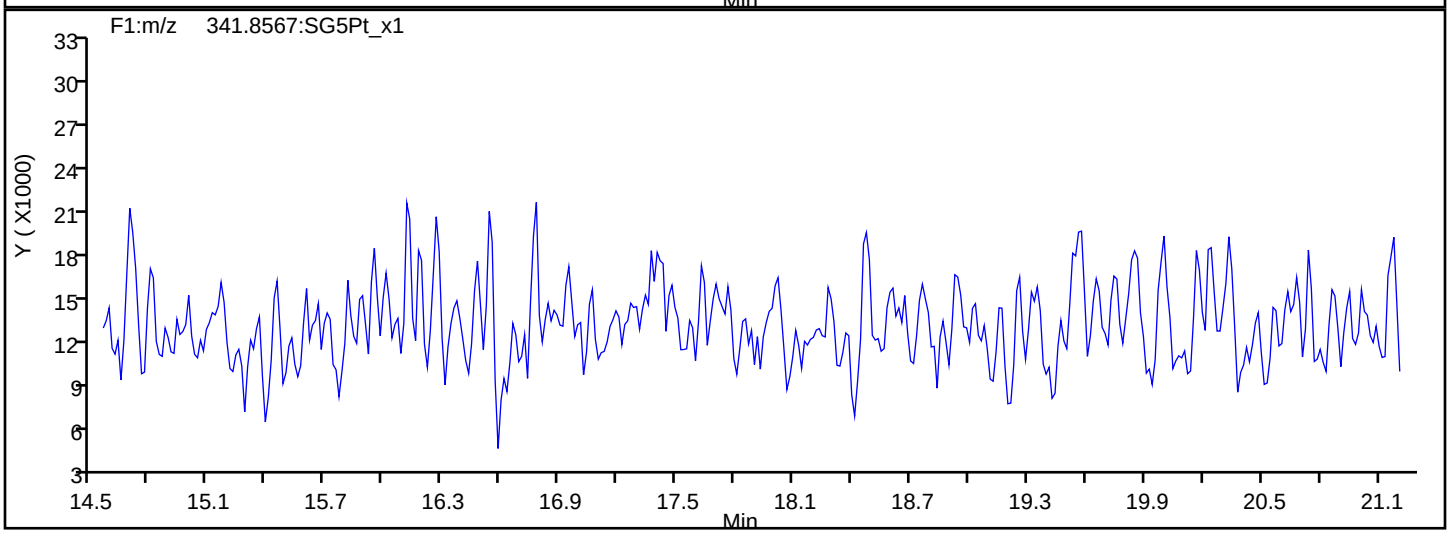
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

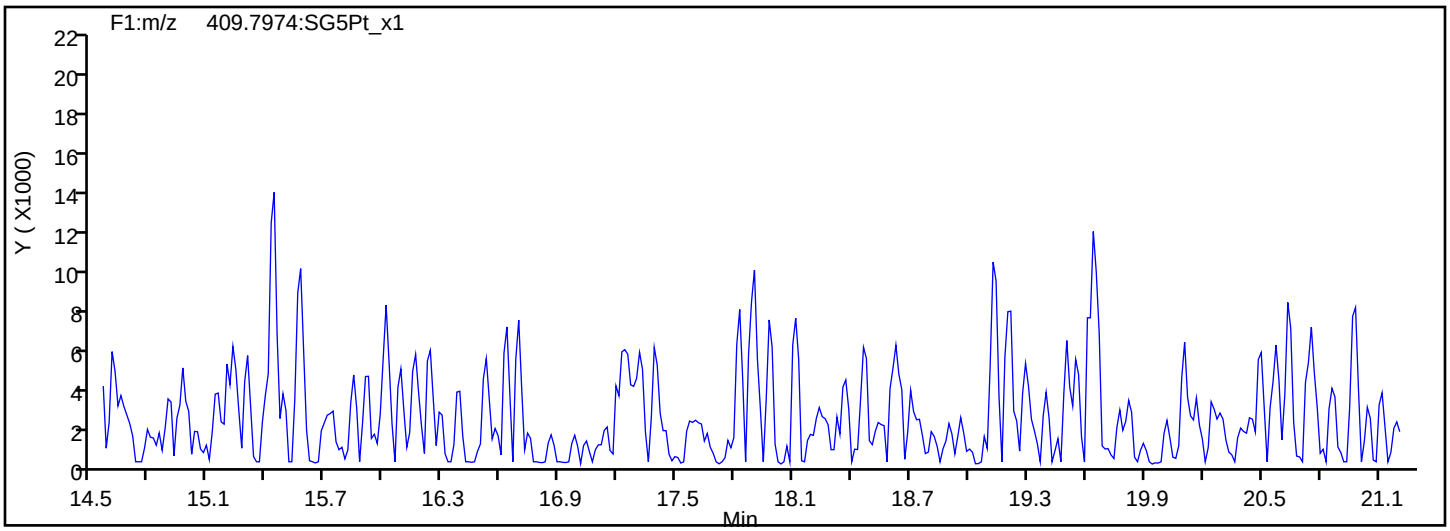
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

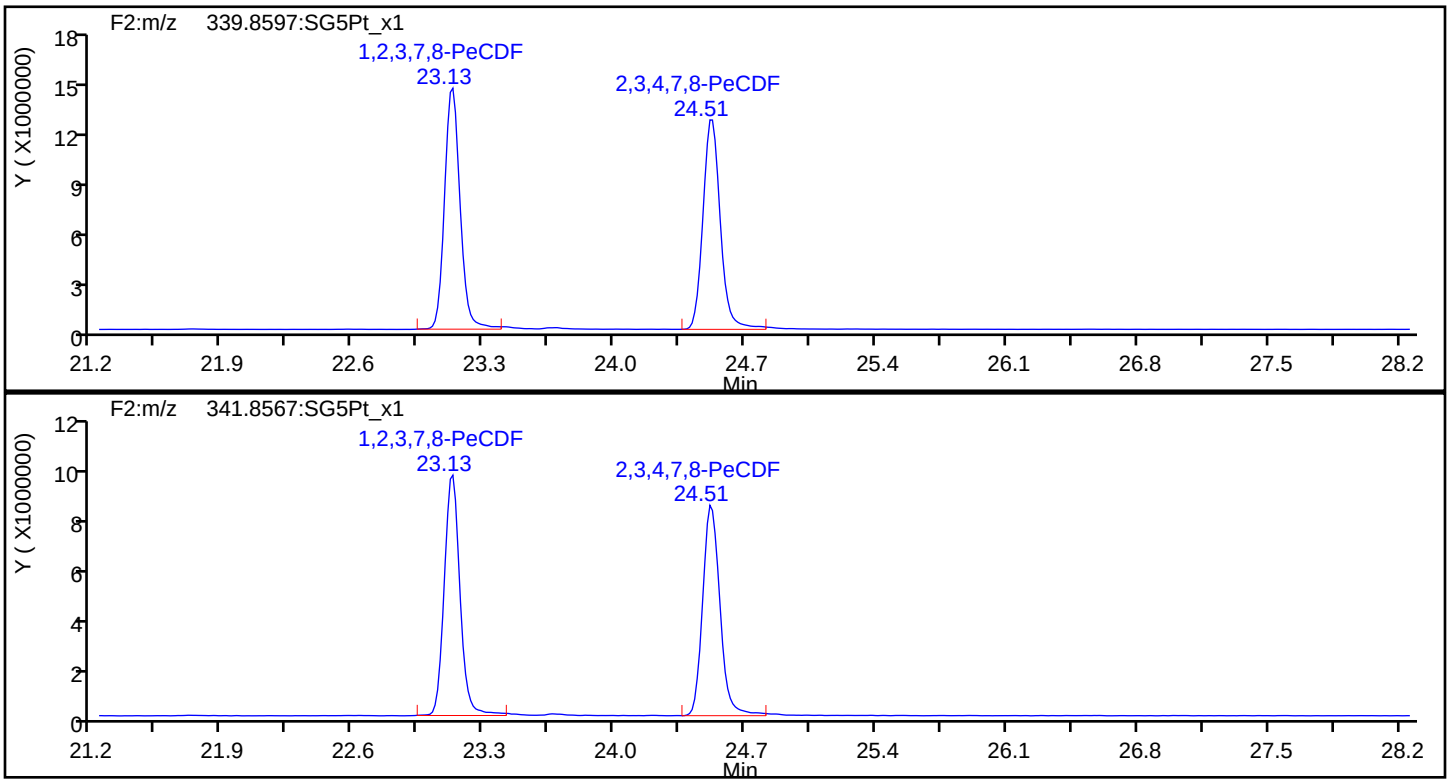


Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

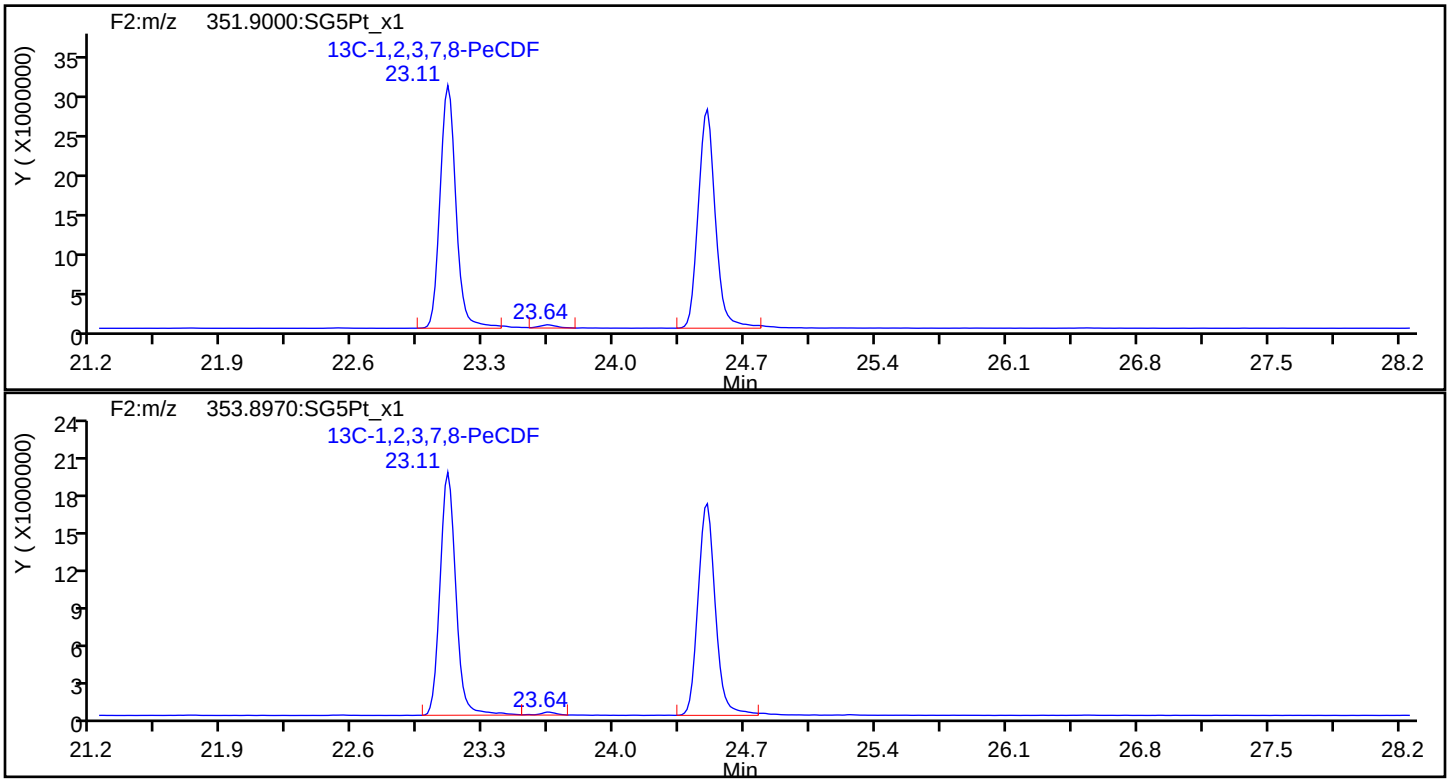
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



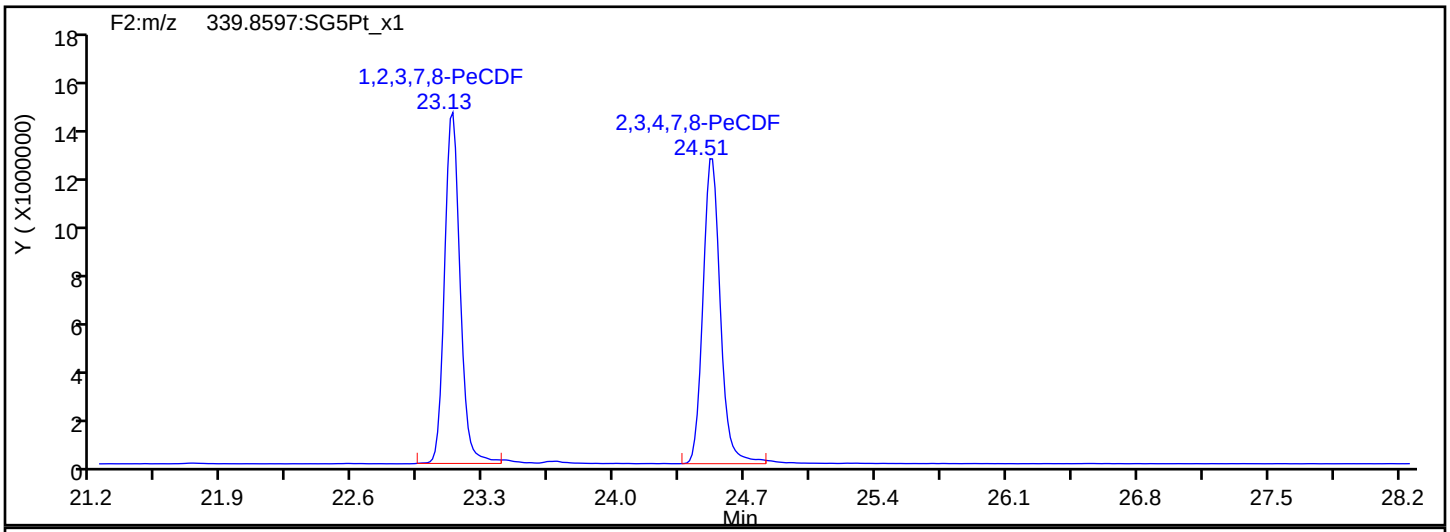
PeCDF Standards

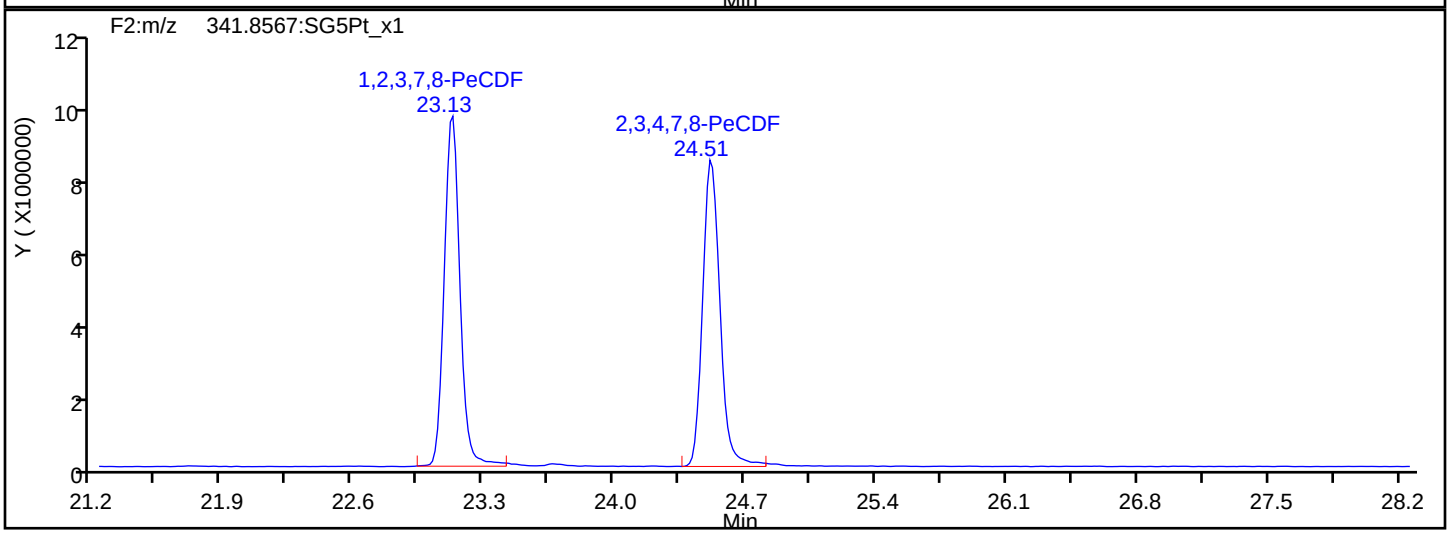


Eurofins TestAmerica, Sacramento

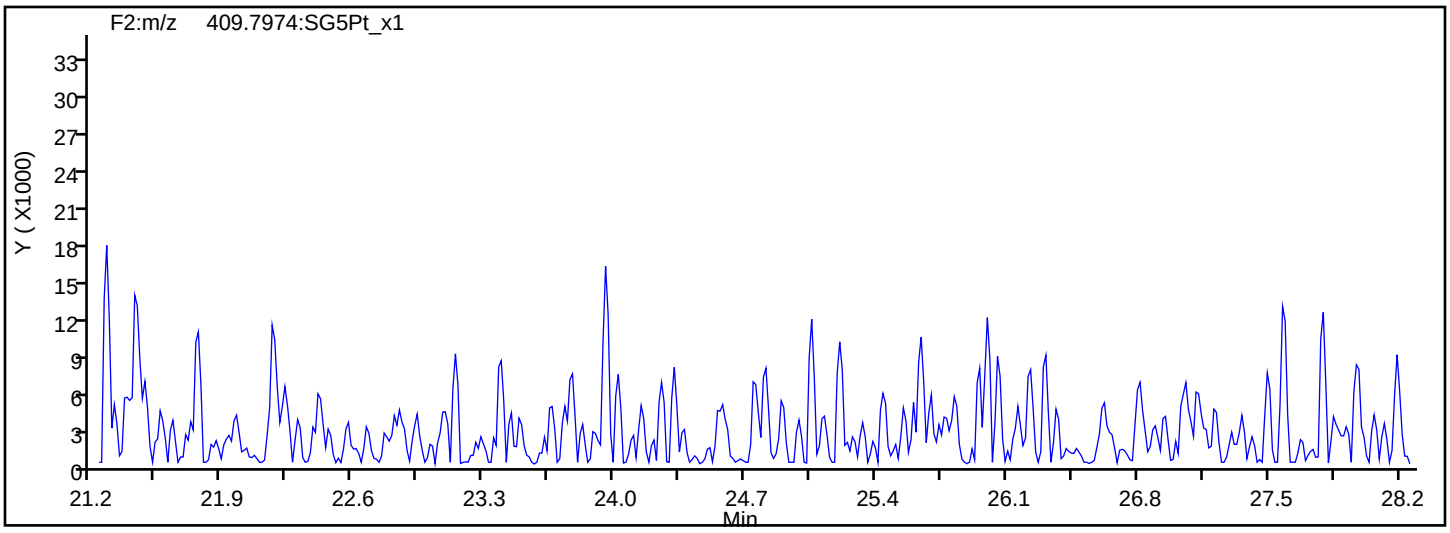
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

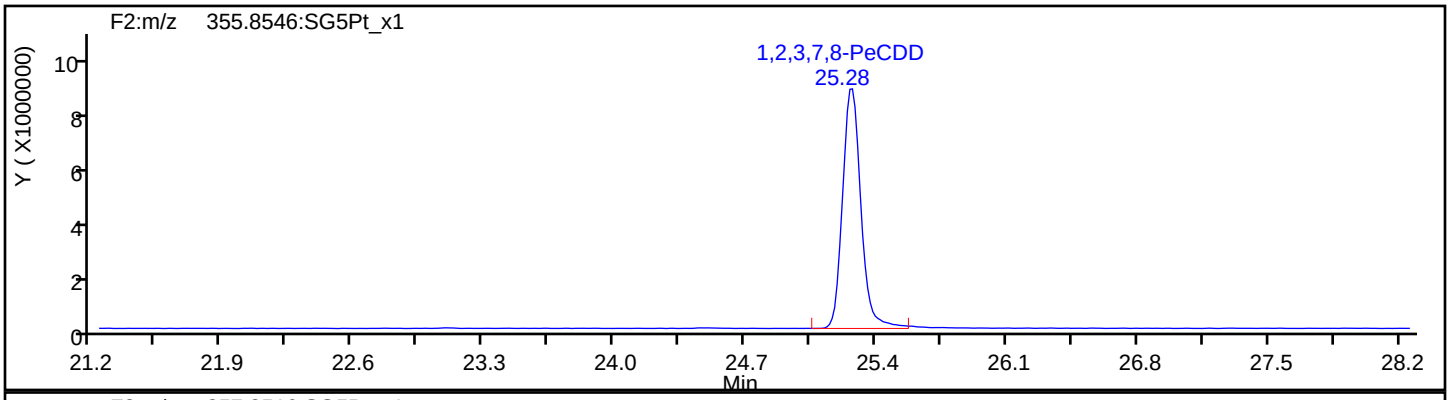


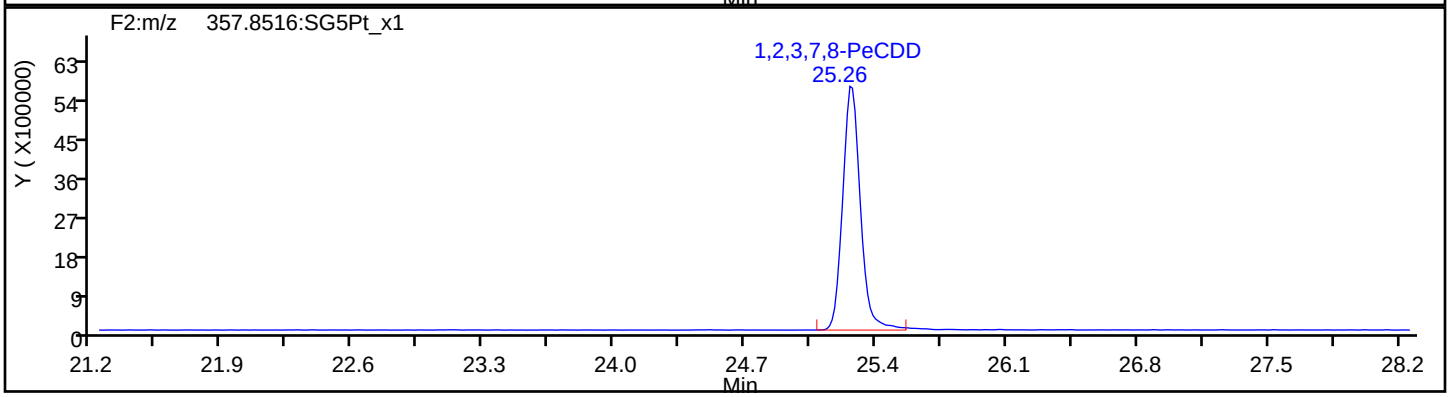
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

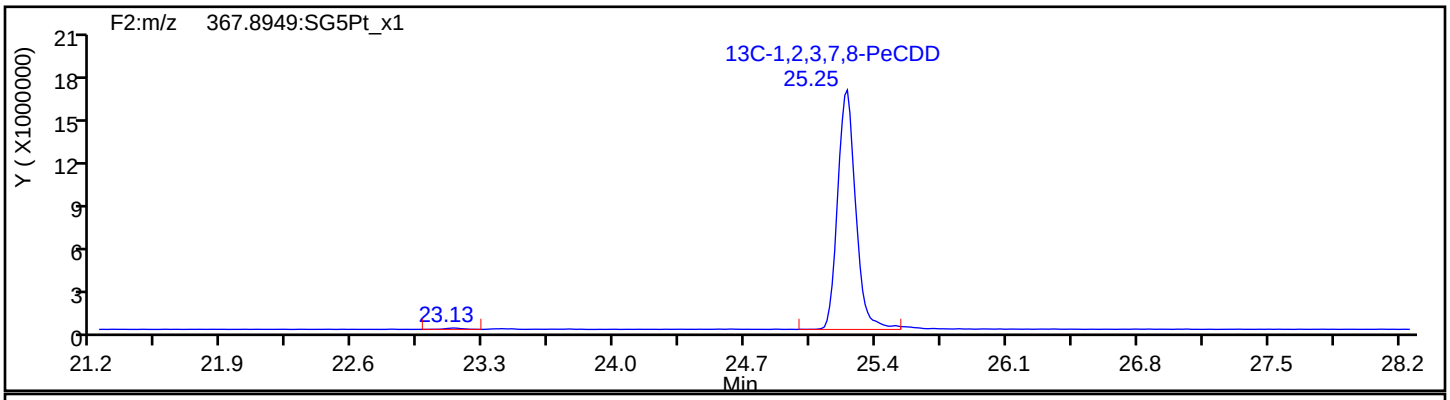
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

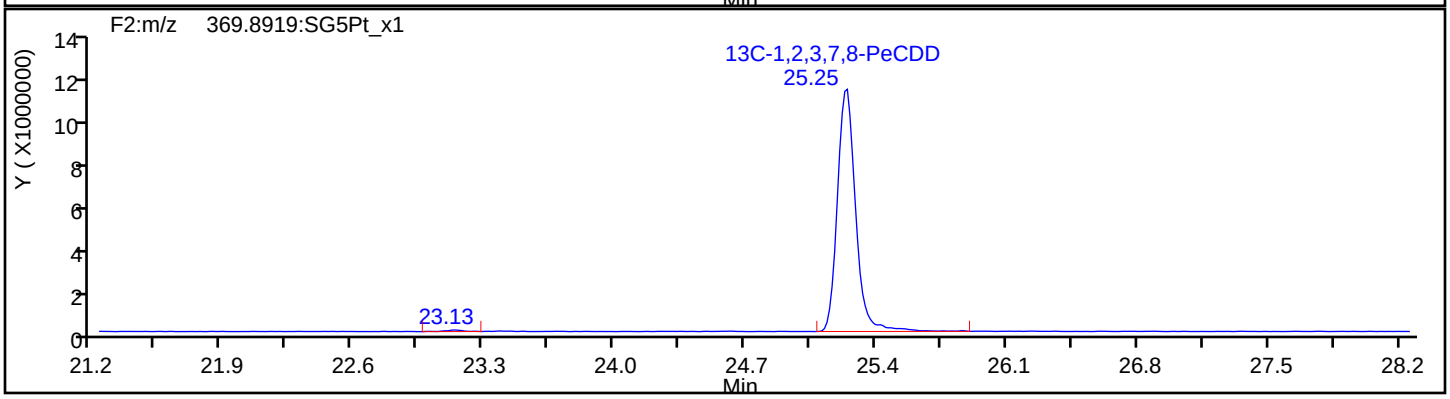
PeCDD





PeCDD Standards



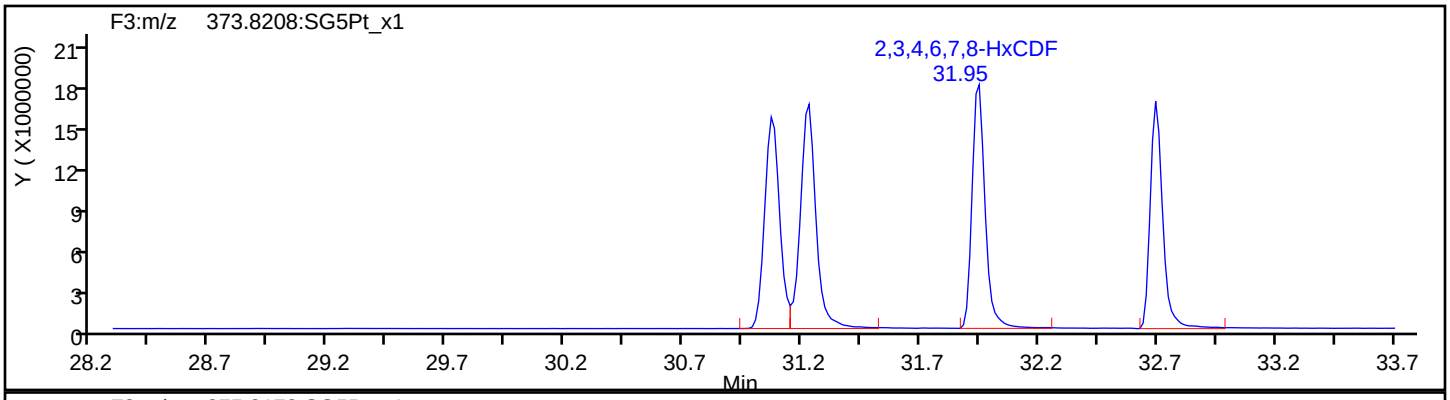


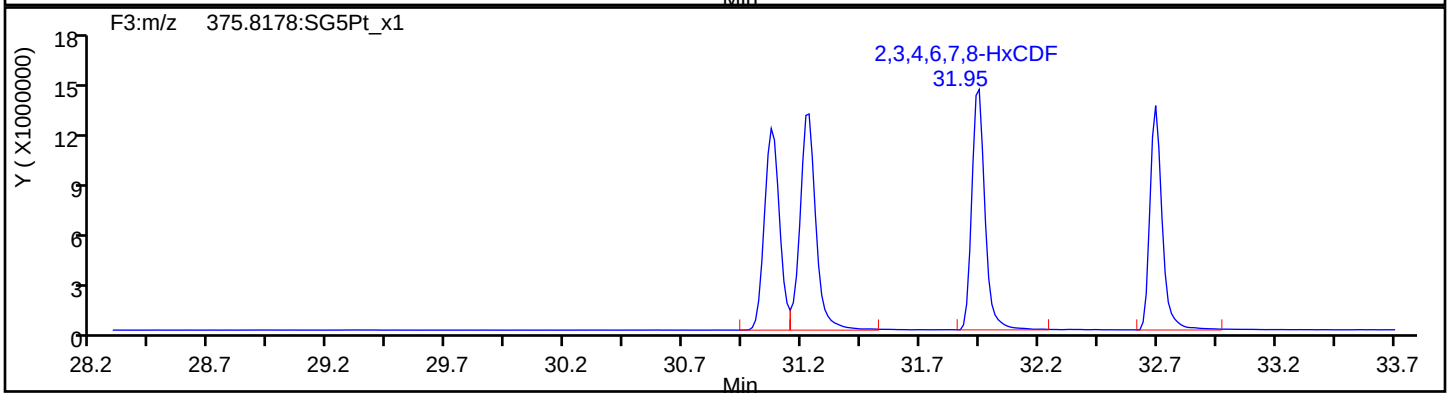
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

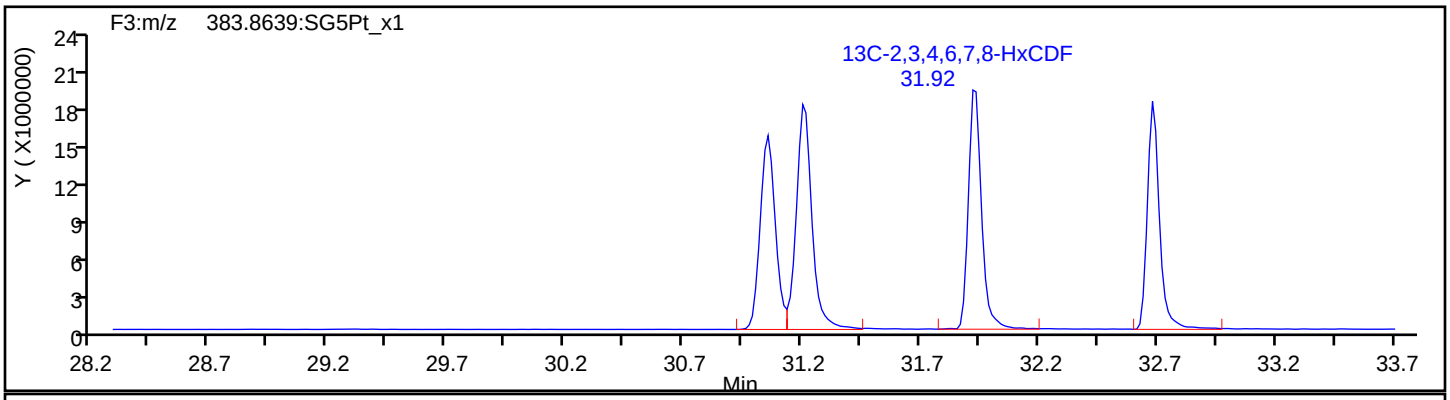
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

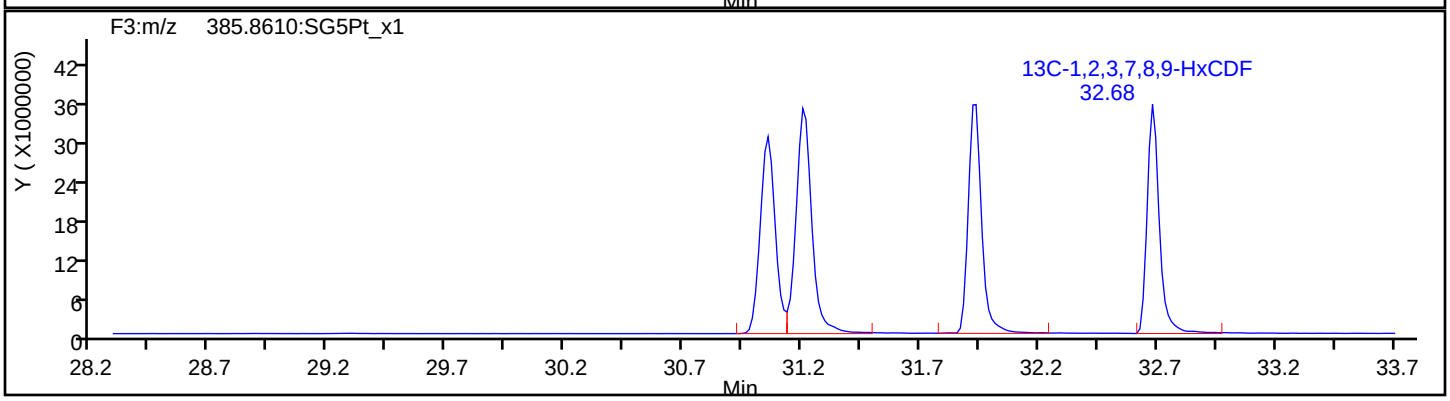
HxCDF





HxCDF Standards



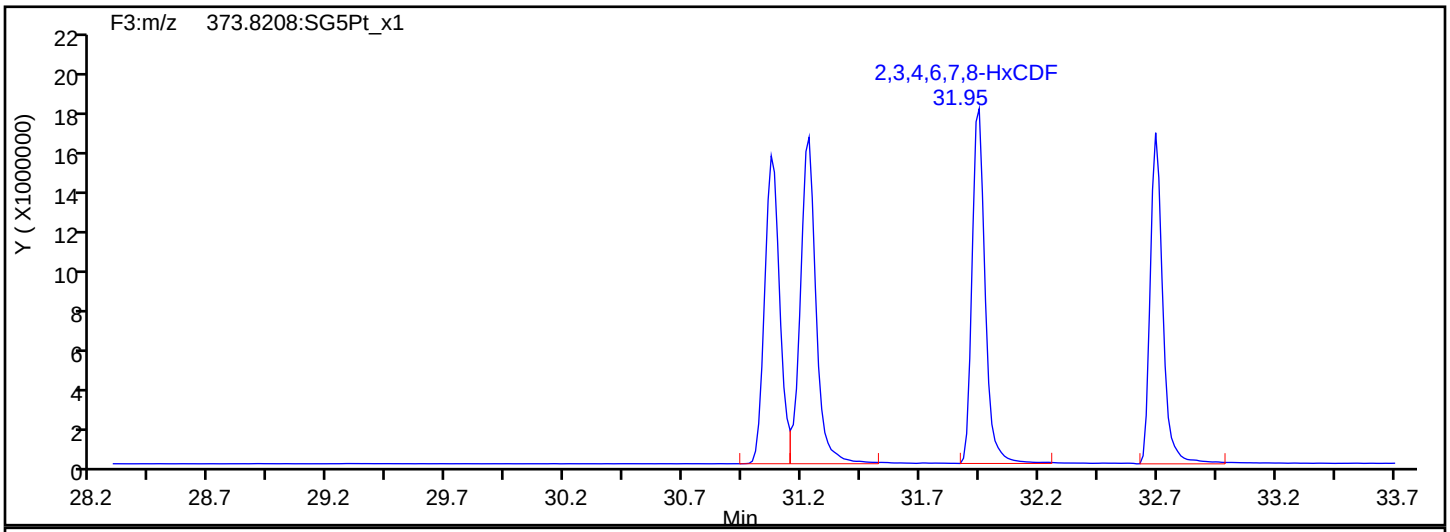


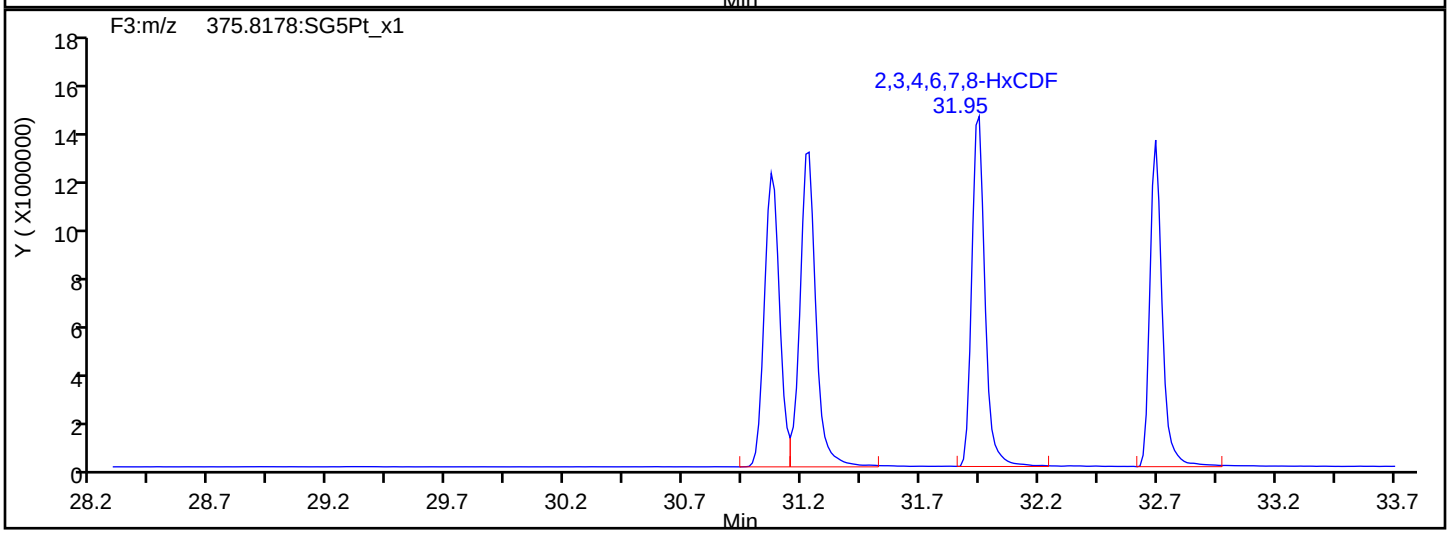
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

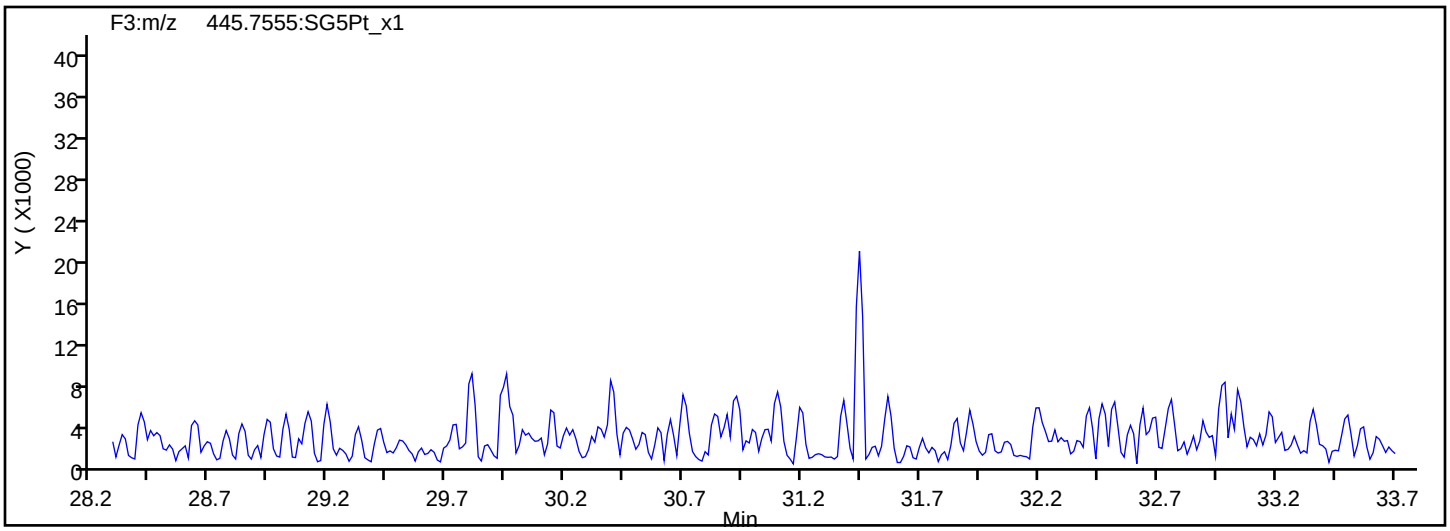
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

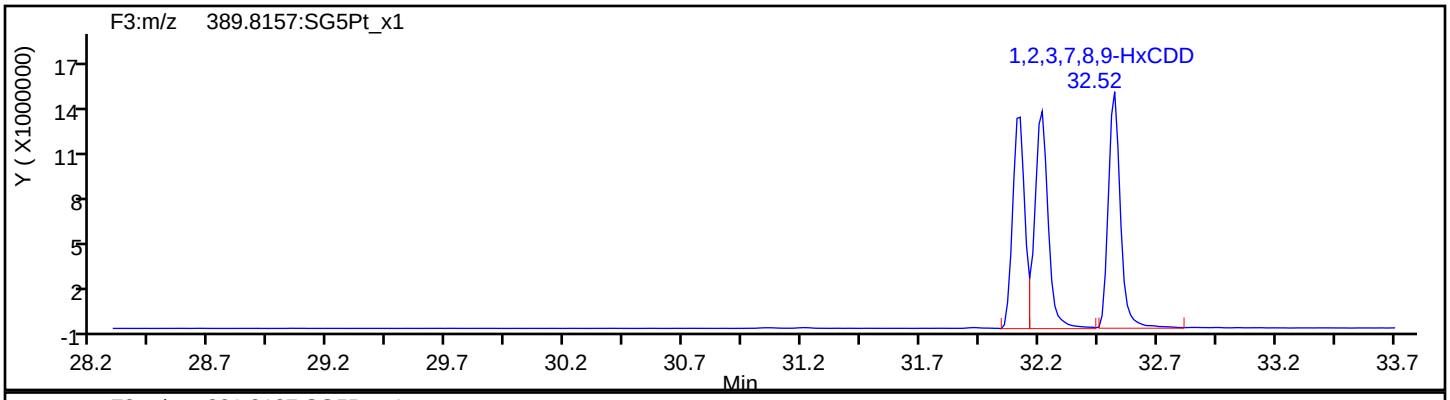


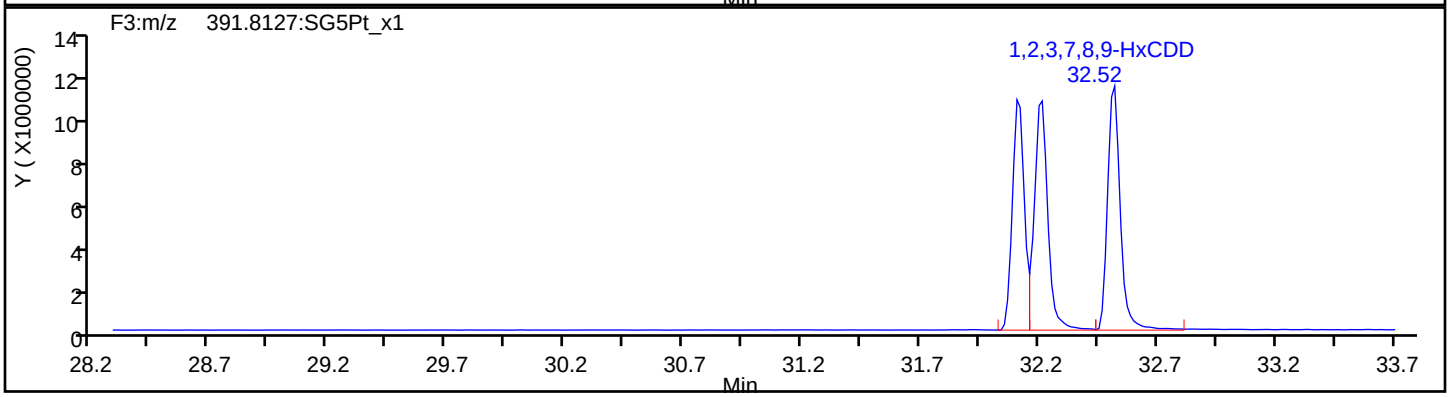
Report Date: 22-May-2019 11:44:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

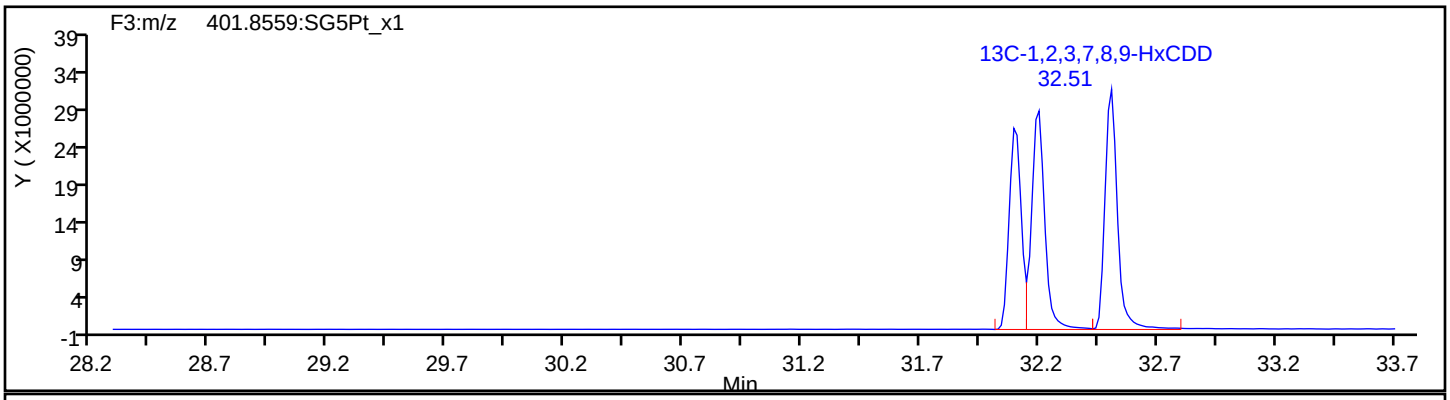
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

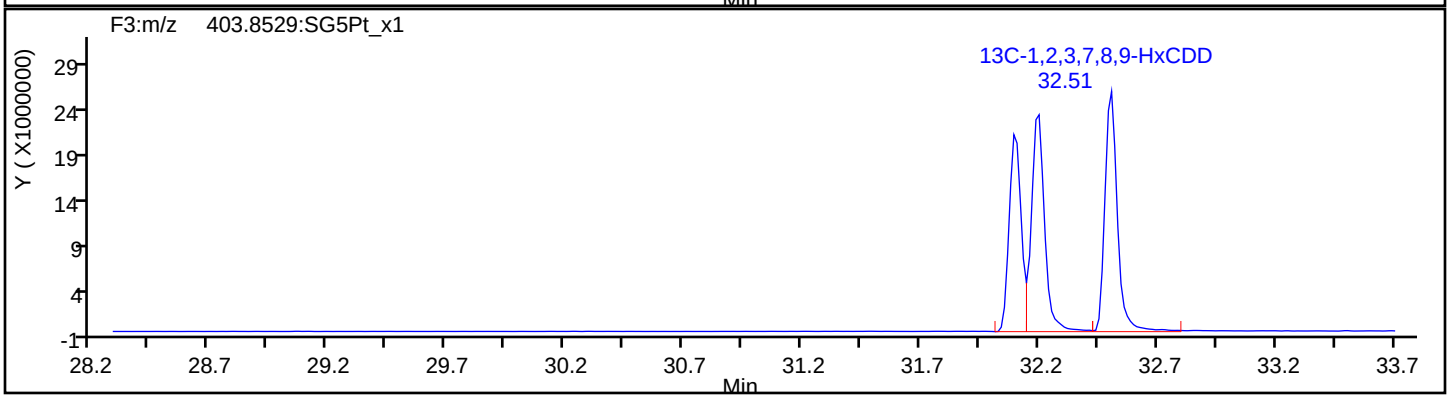
HxCDD





HxCDD Standards



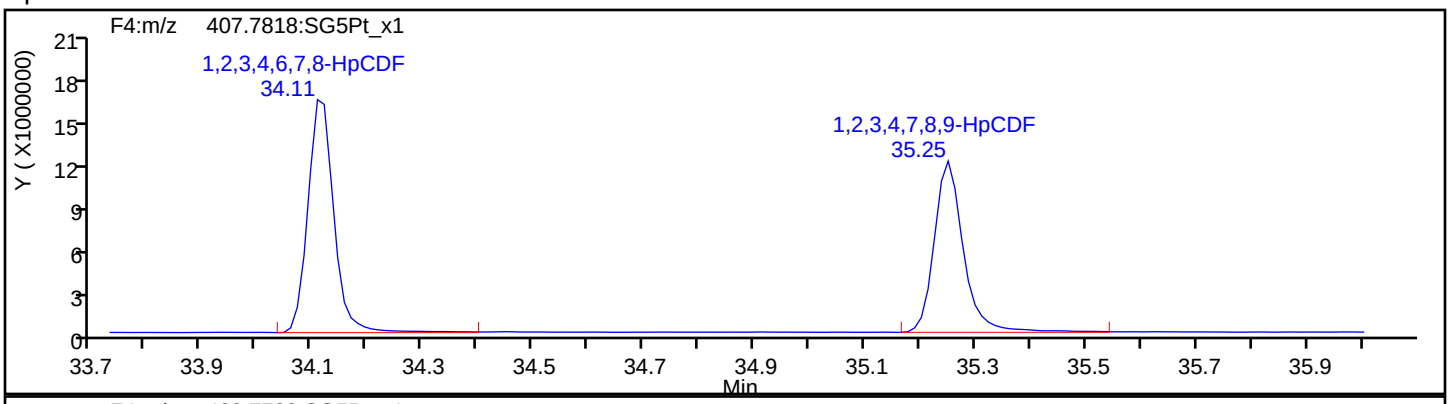


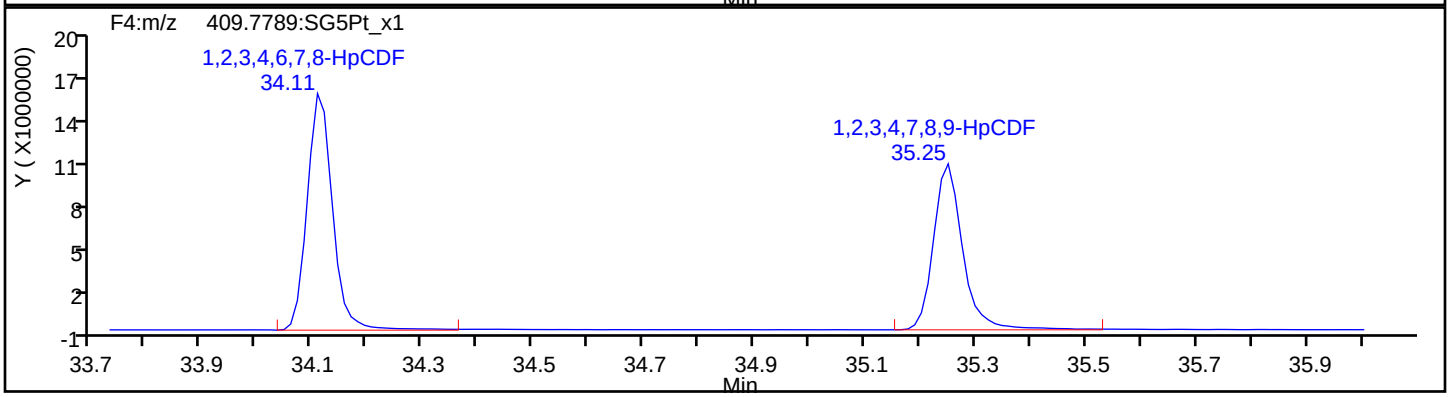
Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

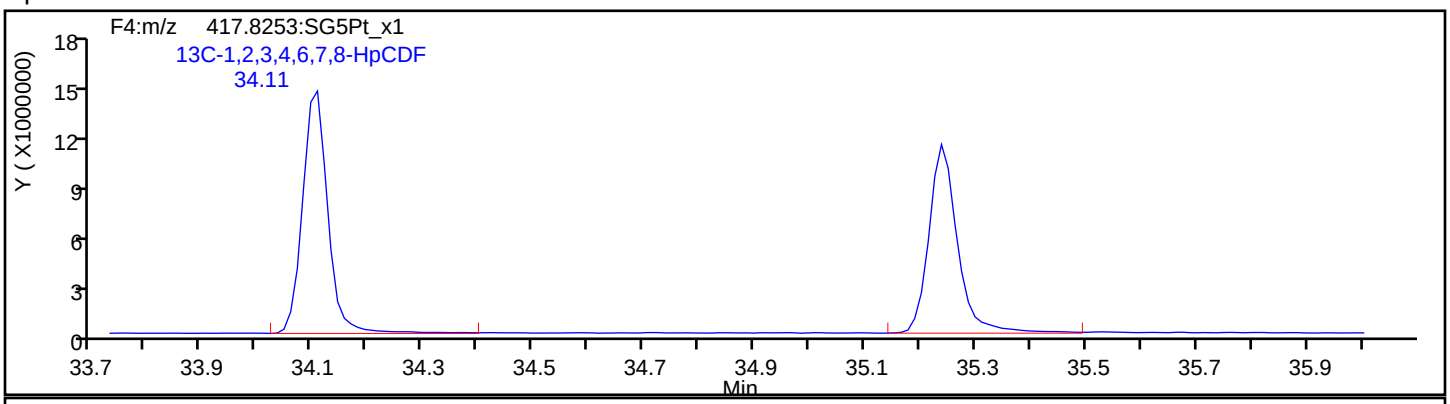
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

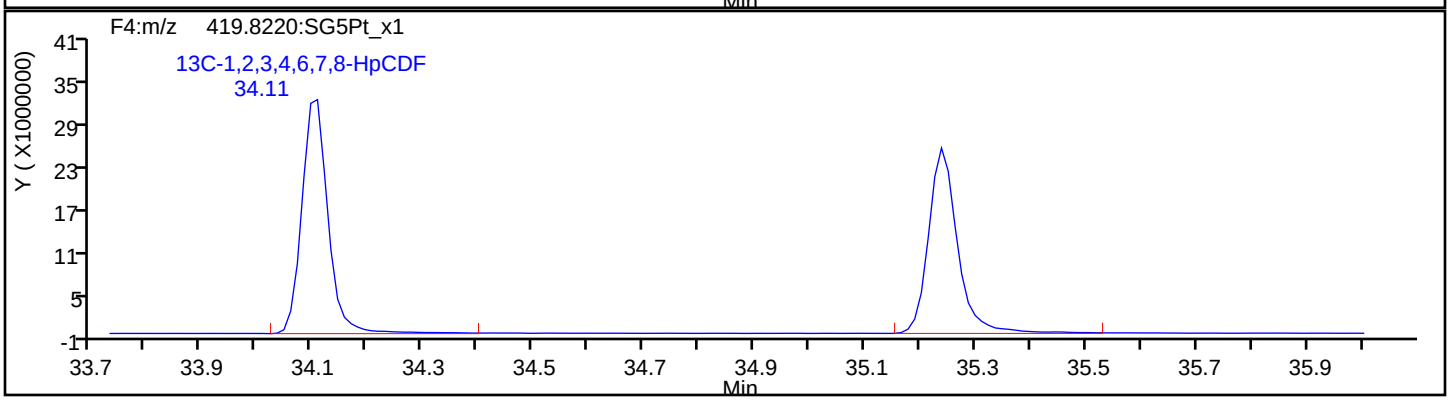
HpCDF





HpCDF Standards



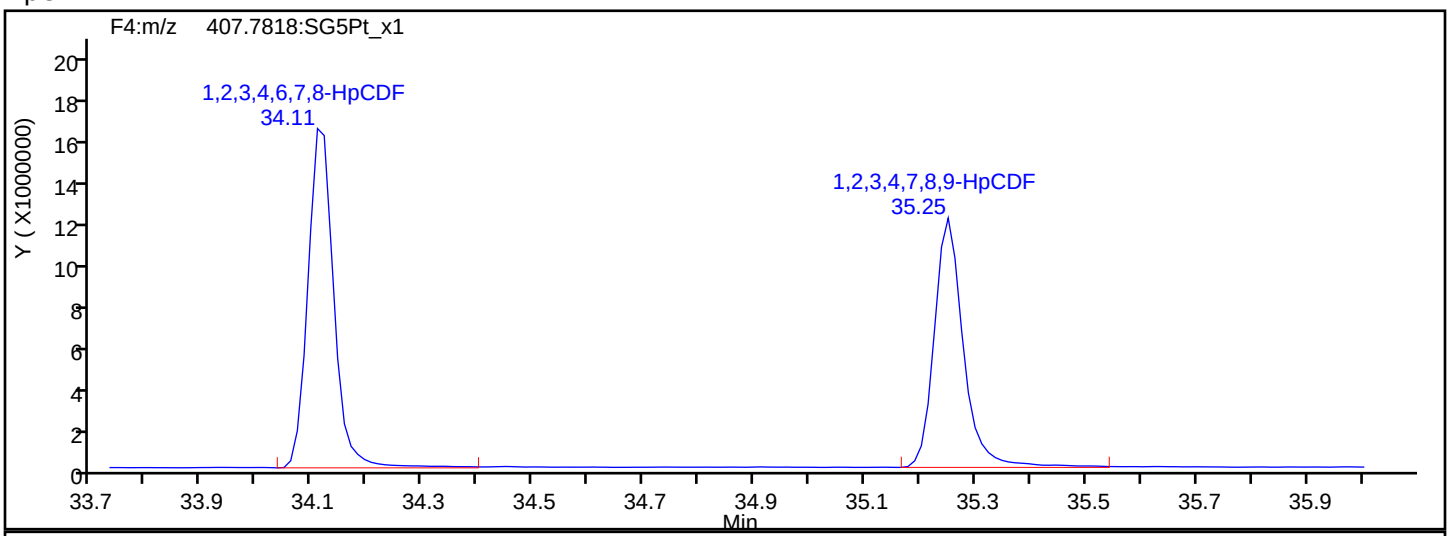


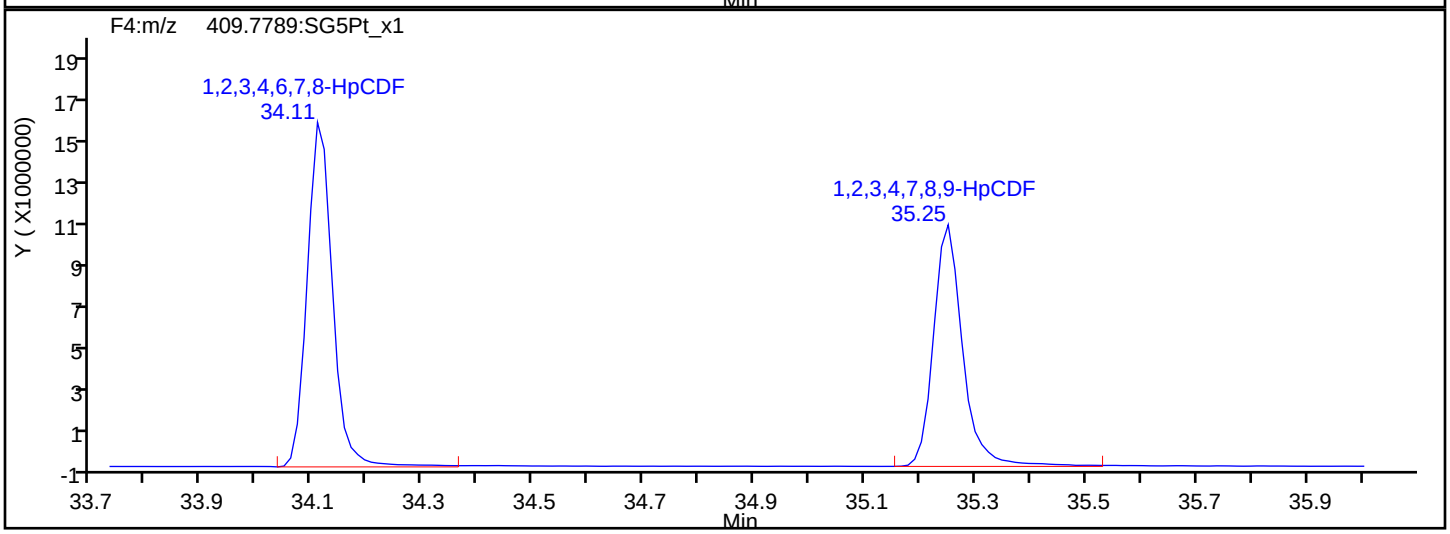
Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

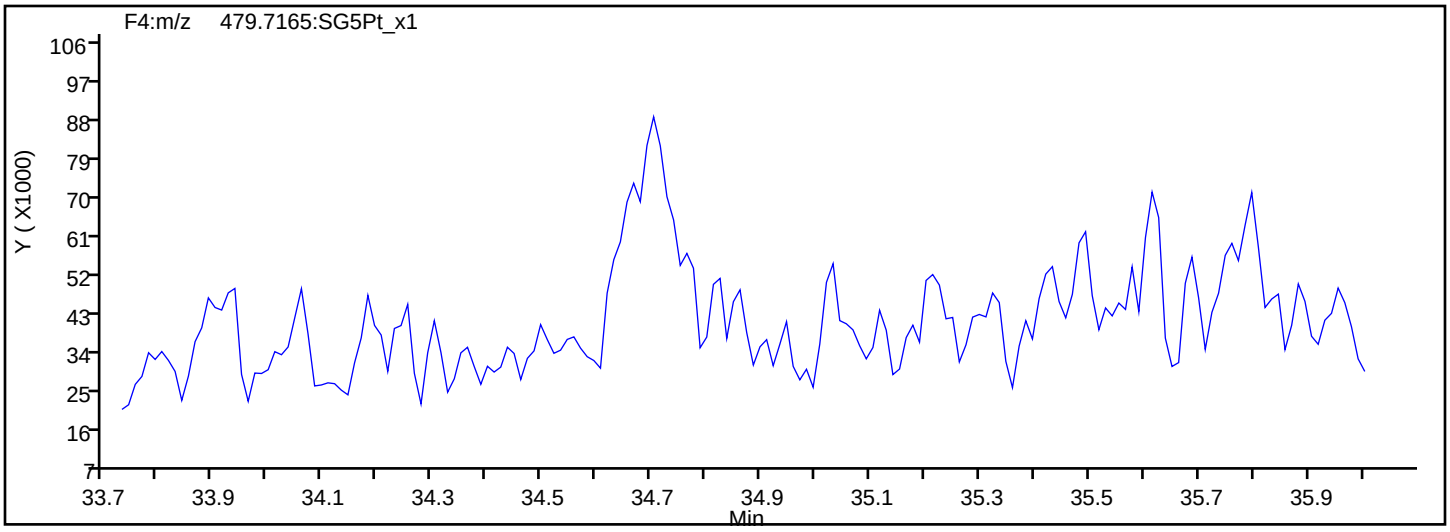
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

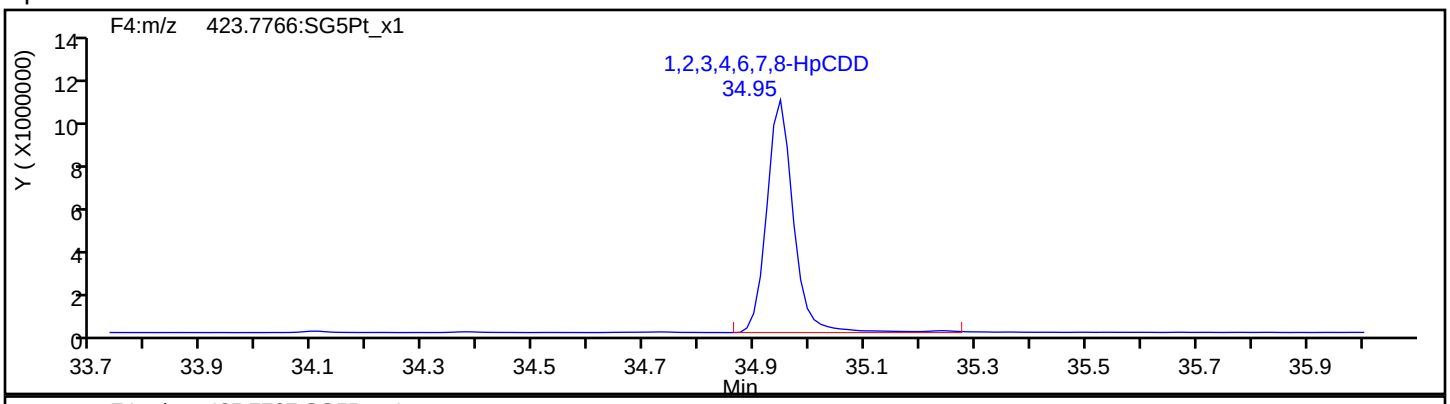


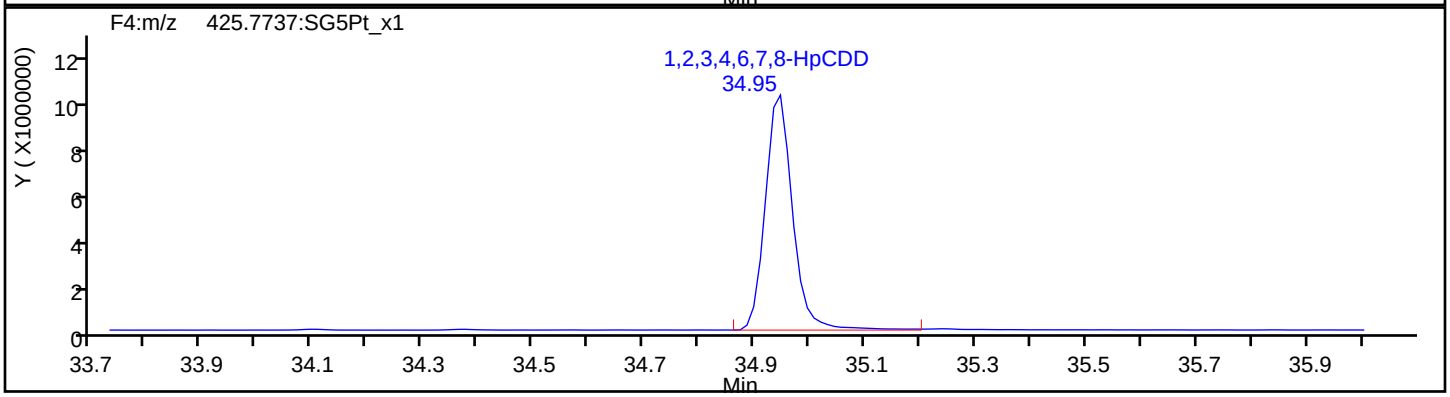
Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

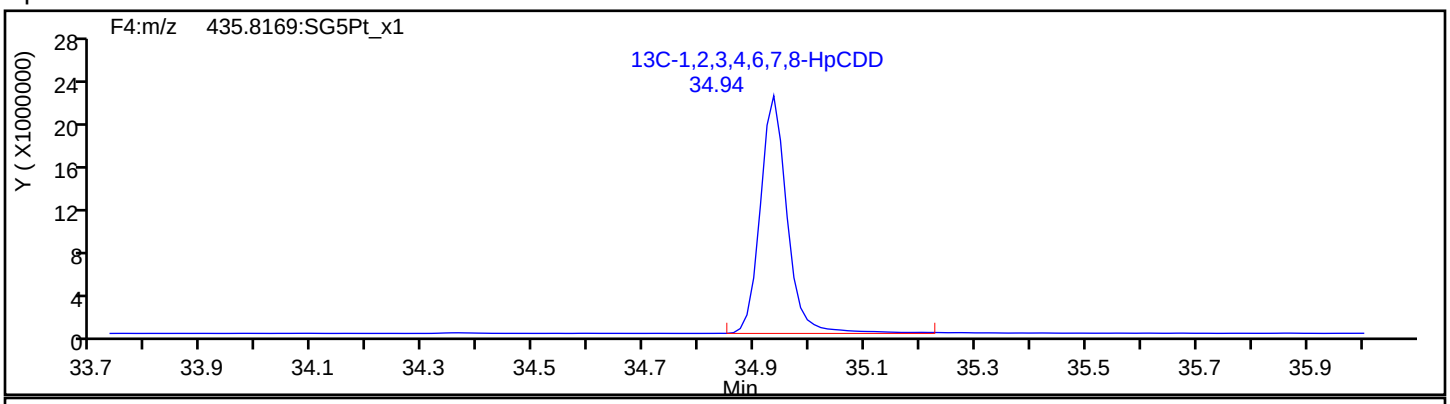
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

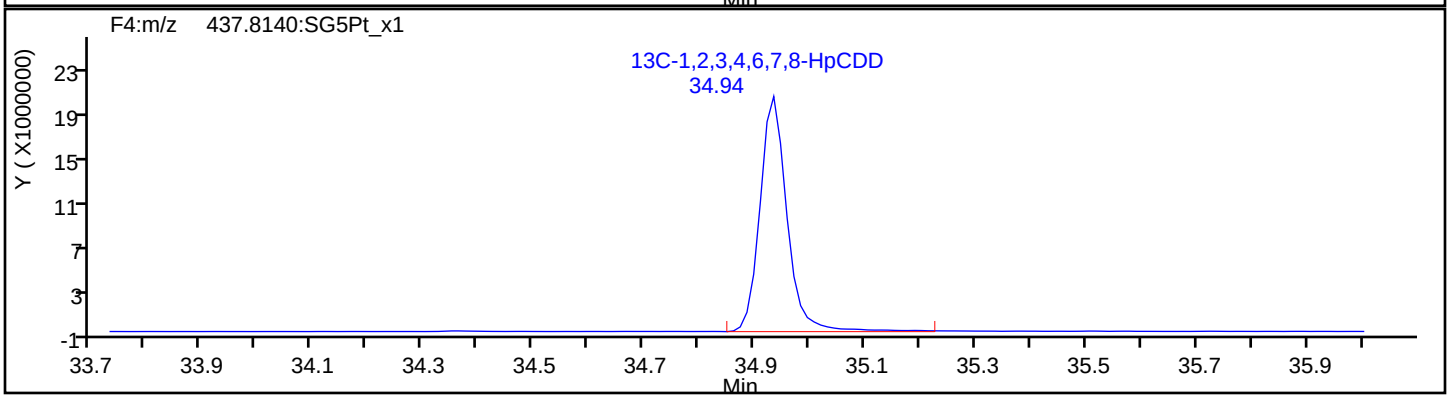
HpCDD





HpCDD Standards



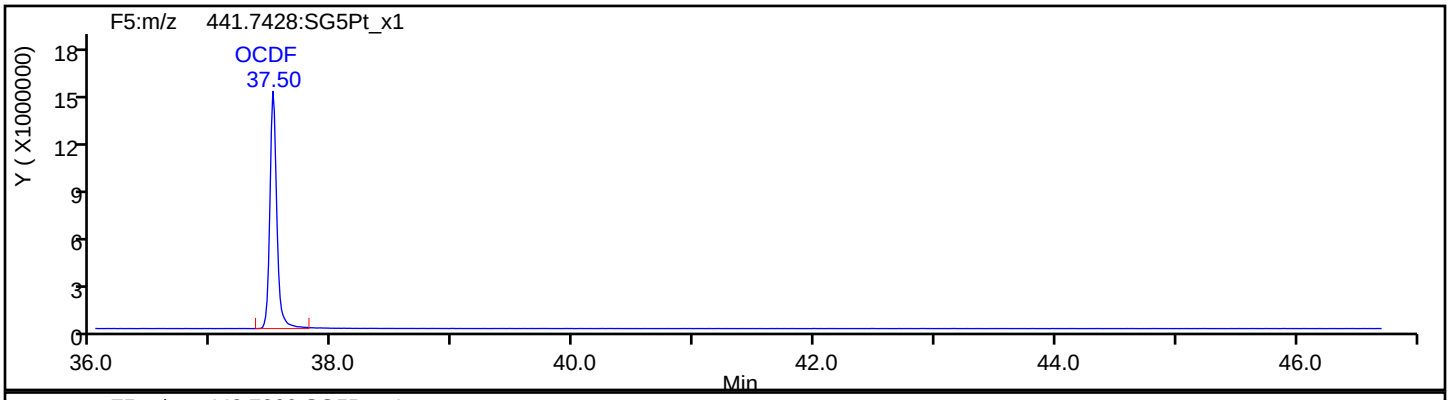


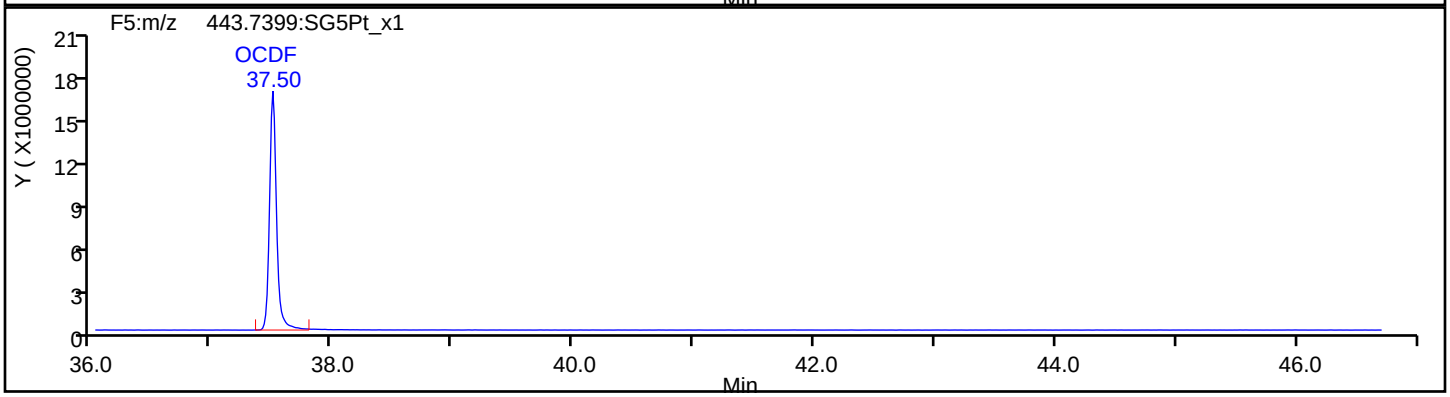
Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

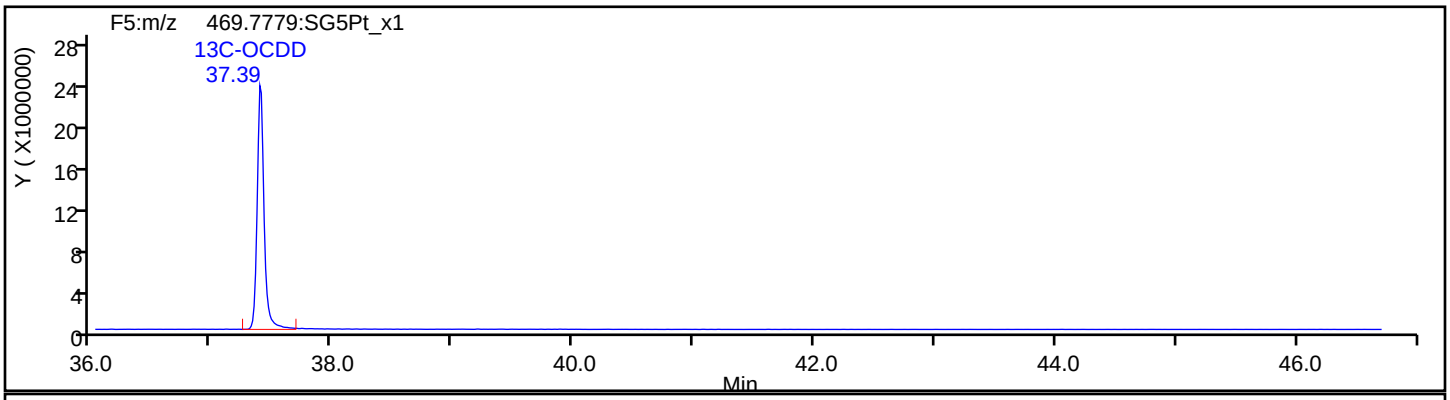
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

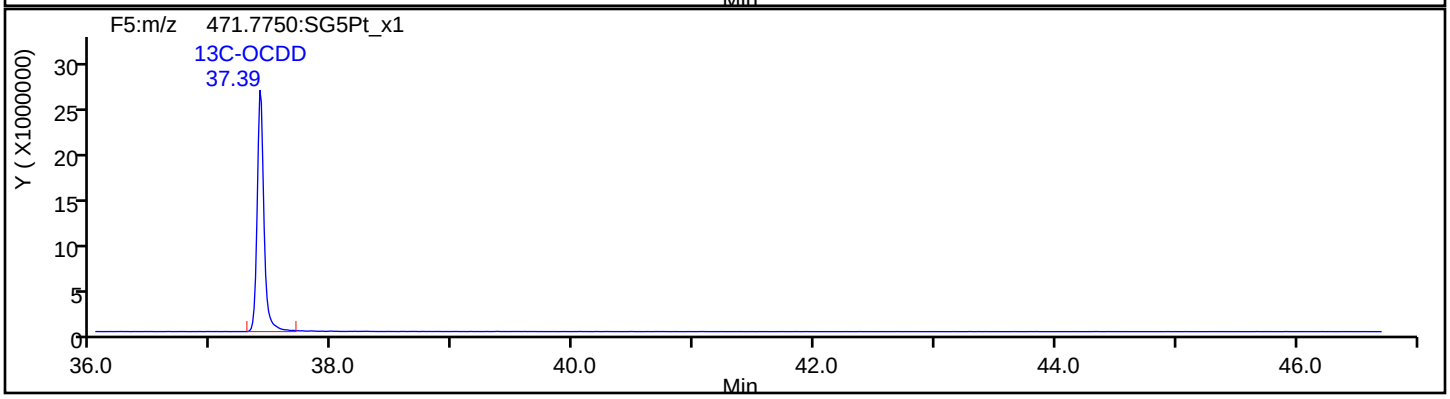
OCDF





OCDF Standards



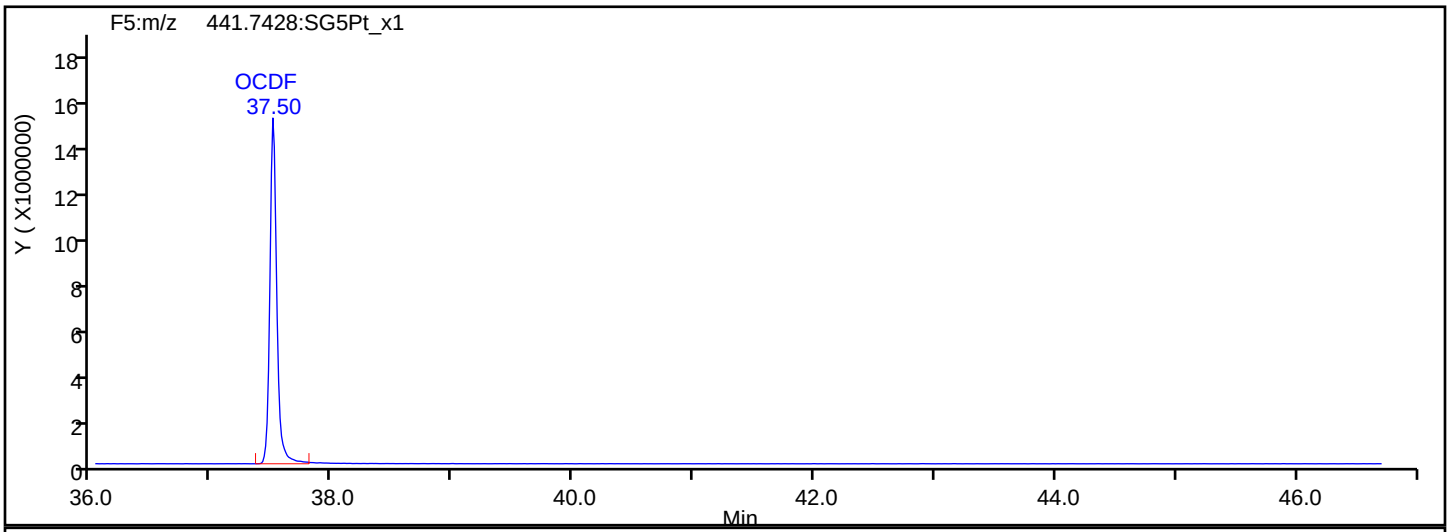


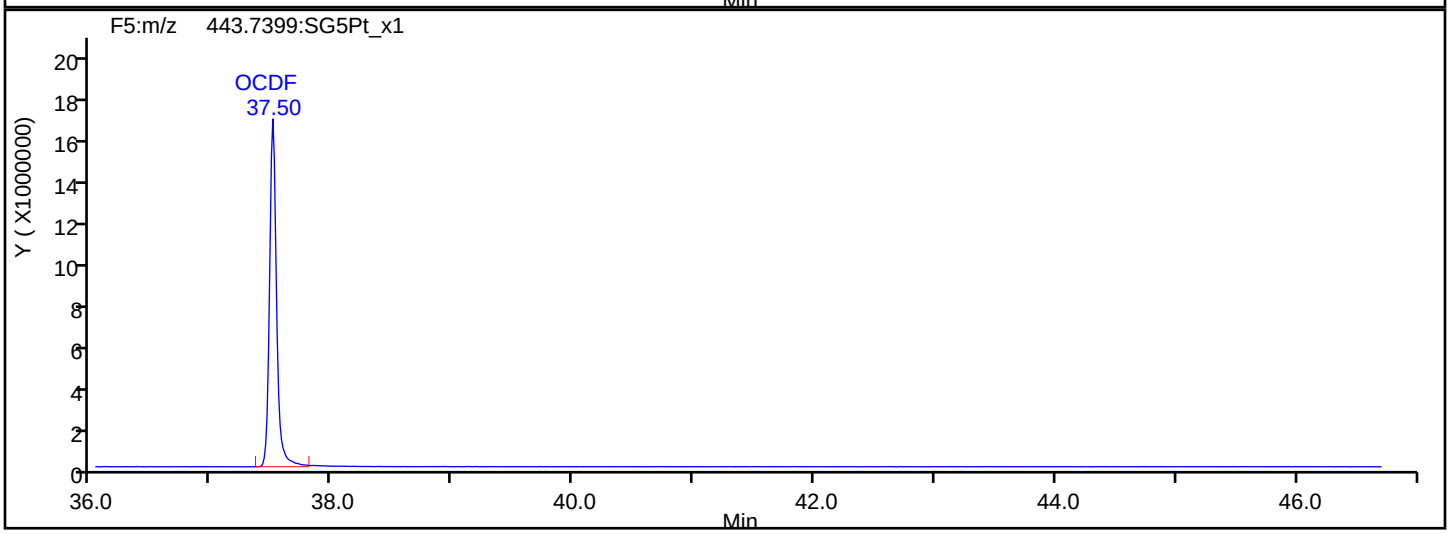
Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

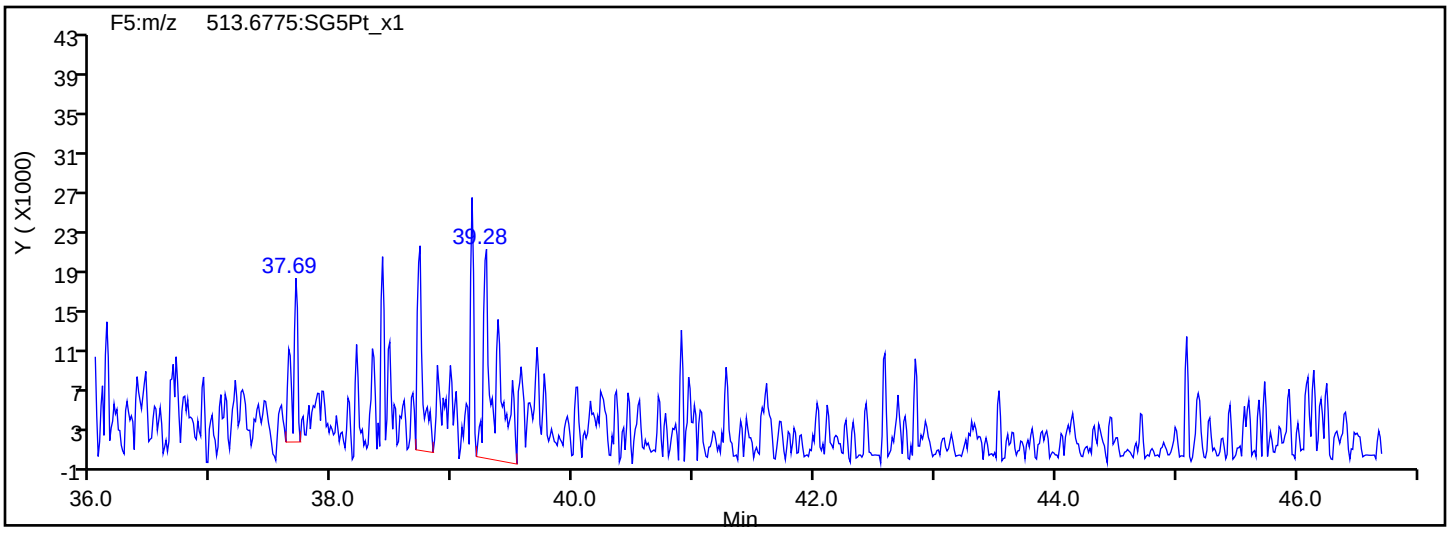
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

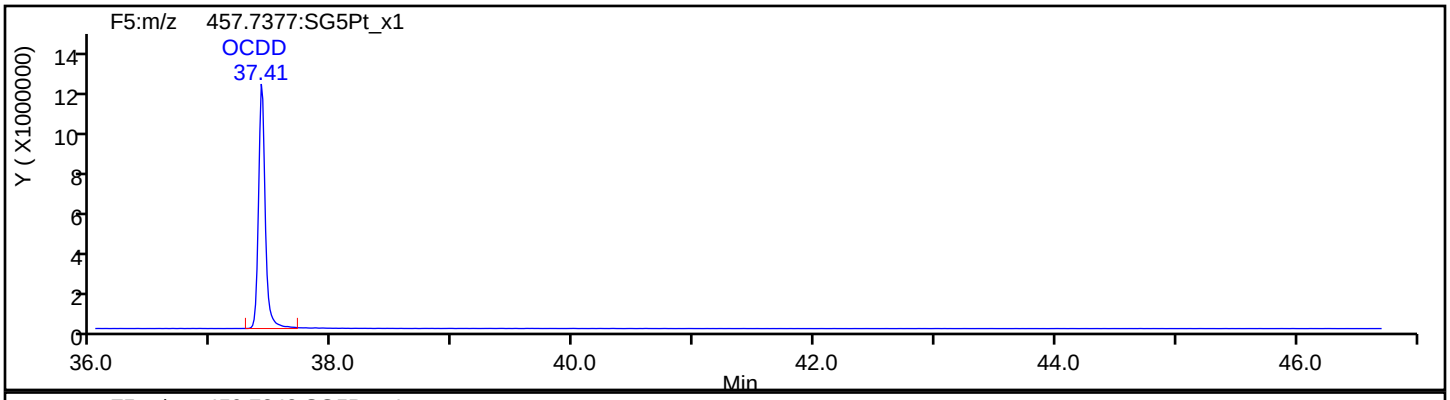


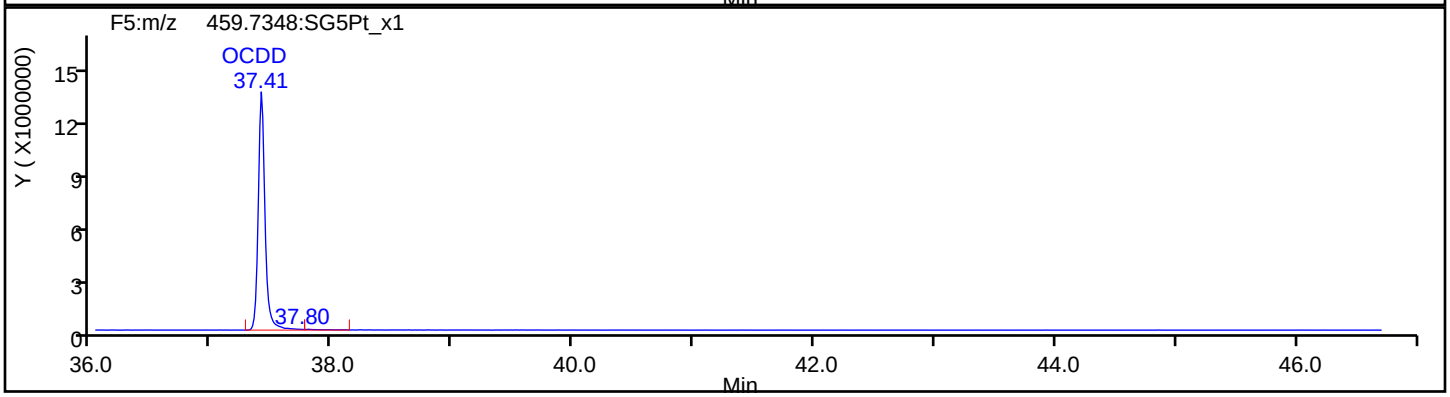
Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

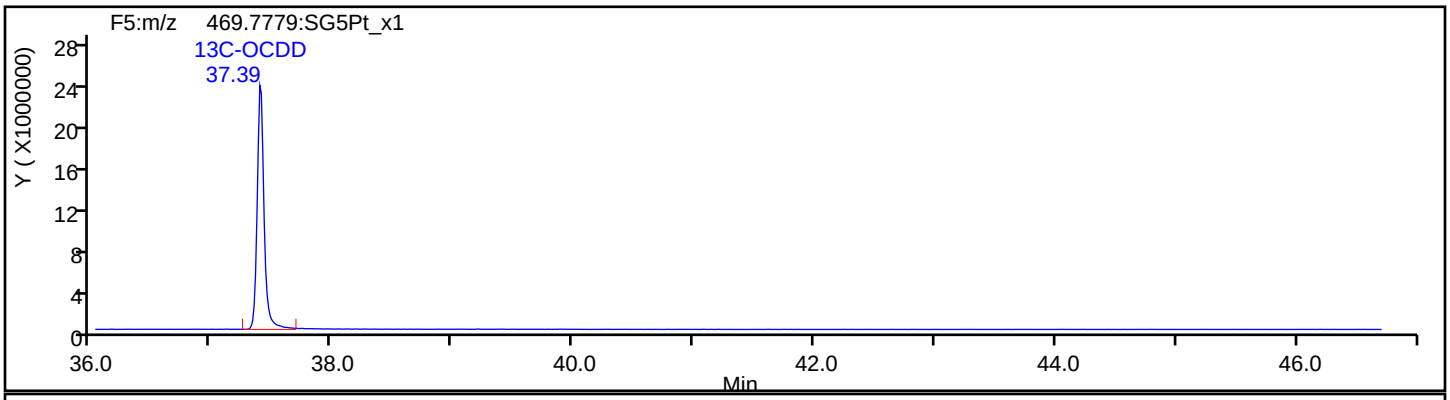
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm

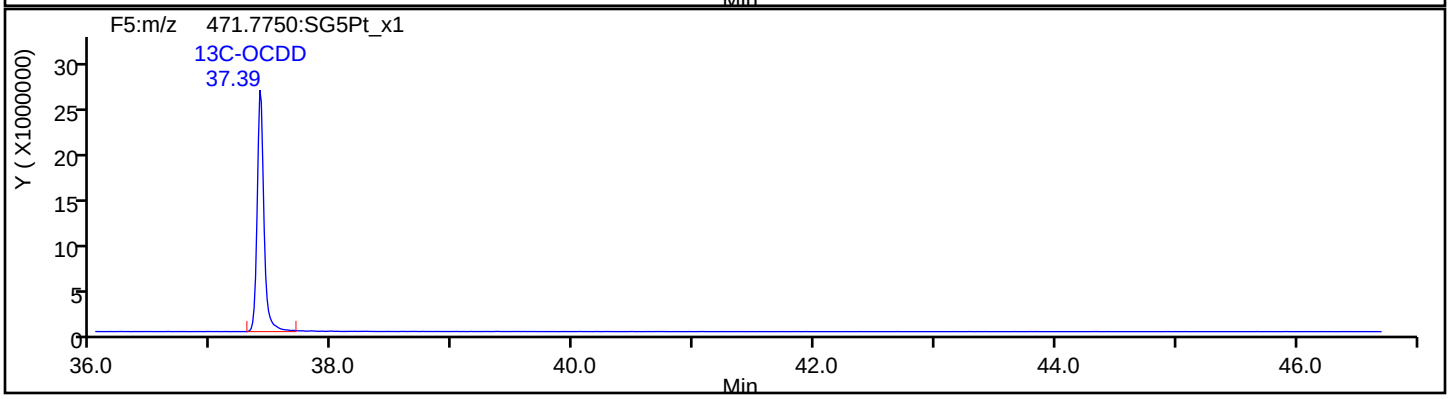
OCDD





OCDD Standards

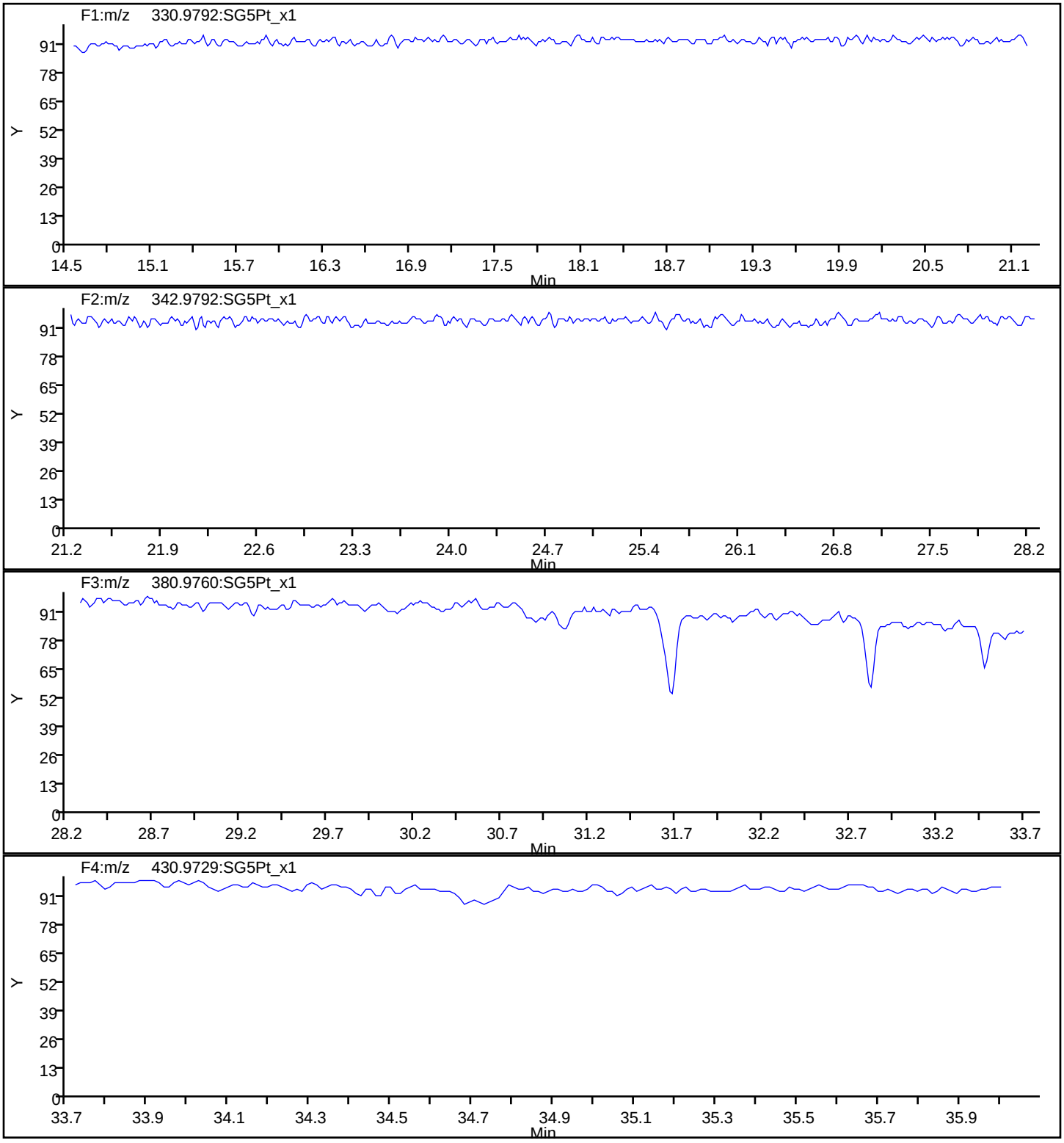




Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

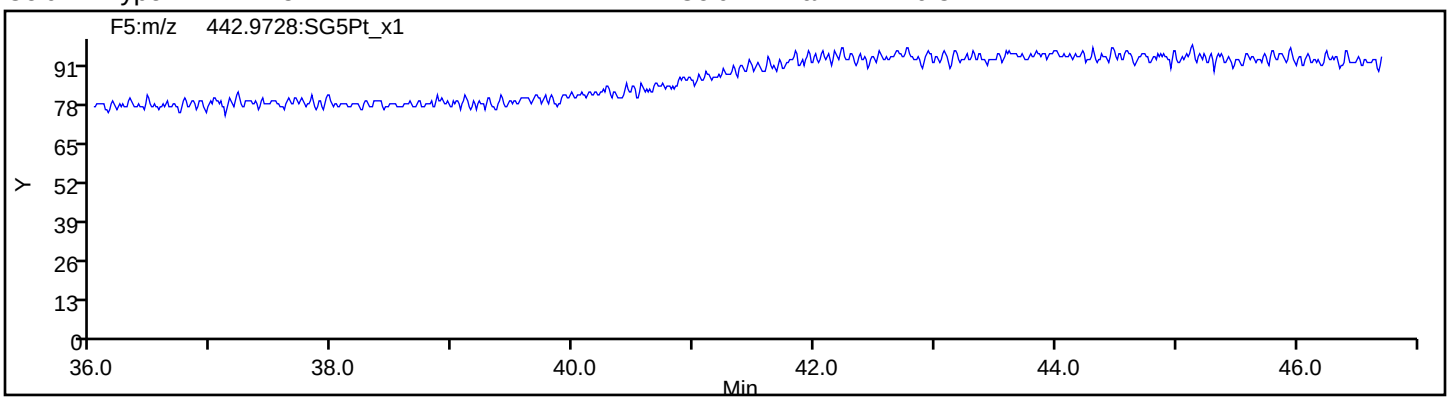
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-May-2019 11:44:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_5.d		
Injection Date:	21-May-2019 15:06:18	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L4		
Worklist#:	296020	Sample Line#:	5
Column Type:	DB-5	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d
Lims ID: IC 5
Client ID: L5
Sample Type: IC Calib Level: 5
Inject. Date: 21-May-2019 15:53:46 ALS Bottle#: 7 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119C CS-5 HRDXNL5_00025
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:47 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 17:12:49

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	18.429	329575237	0.81	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	17.900	468743621	0.79	1.3908	102.3	102.3	0.2177	0.2177	102	
2,3,7,8-TCDF	17.915	180787829	0.77	0.9710	39.7	39.7	0.0693	0.0693	99.30	
S Total TCDF					39.7	39.7	0.0693	0.0693		
D 13C-2,3,7,8-TCDD	18.626	326174325	0.83	0.9819	100.8	100.8	0.1817	0.1817	101	
2,3,7,8-TCDD	18.641	137985150	0.80	1.0447	40.5	40.5	0.0713	0.0713	101	
$ 37Cl4-2,3,7,8-TCDD	18.641	165050919		1.2205	41.0	41.0	0.0469	0.0469	103	
S Total TCDD					40.5	40.5	0.0713	0.0713		
D 13C-1,2,3,7,8-PeCDF	23.094	393996346	1.58	1.1585	103.2	103.2	0.2508	0.2508	103	
1,2,3,7,8-PeCDF	23.121	748579428	1.58	0.9633	197.2	197.2	0.5739	0.5739	98.61	
D 13C-2,3,4,7,8-PeCDF	24.484	387486784	1.58	1.1532	102.0	102.0	0.2520	0.2520	102	
2,3,4,7,8-PeCDF	24.512	734611177	1.60	0.9495	199.7	199.7	0.6503	0.6503	99.83	
S Total PeCDF					396.9	396.9	0.6121	0.6121		
D 13C-1,2,3,7,8-PeCDD	25.234	252511444	1.57	0.7431	103.1	103.1	0.1168	0.1168	103	
1,2,3,7,8-PeCDD	25.262	528599914	1.58	1.0635	196.8	196.8	0.1724	0.1724	98.42	
S Total PeCDD					196.8	196.8	0.1724	0.1724		
D 13C-1,2,3,4,7,8-HxCDF	31.045	280079795	0.51	0.9837	104.5	104.5	0.3071	0.3071	105	
1,2,3,4,7,8-HxCDF	31.058	655348032	1.23	1.2173	192.2	192.2	0.6169	0.6169	96.10	
D 13C-1,2,3,6,7,8-HxCDF	31.191	322882273	0.52	1.1554	102.6	102.6	0.2615	0.2615	103	
1,2,3,6,7,8-HxCDF	31.218	703421366	1.24	1.1311	192.6	192.6	0.5675	0.5675	96.30	
D 13C-2,3,4,6,7,8-HxCDF	31.923	293235329	0.52	1.0361	103.9	103.9	0.2916	0.2916	104	
2,3,4,6,7,8-HxCDF	31.937	665213059	1.22	1.1710	193.7	193.7	0.5211	0.5211	96.86	
D 13C-1,2,3,7,8,9-HxCDF	32.669	249896301	0.54	0.9034	101.5	101.5	0.3344	0.3344	102	
1,2,3,7,8,9-HxCDF	32.682	577594332	1.23	1.1787	196.1	196.1	0.5630	0.5630	98.05	
S Total HxCDF					774.6	774.6	0.5671	0.5671		
* 13C-1,2,3,7,8,9-HxCDD	32.496	272441551	1.28	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	32.083	233591591	1.29	0.8287	103.5	103.5	0.2506	0.2506	103	
1,2,3,4,7,8-HxCDD	32.097	467745053	1.25	1.0267	195.0	195.0	0.2914	0.2914	97.52	
D 13C-1,2,3,6,7,8-HxCDD	32.190	265112485	1.26	0.9495	102.5	102.5	0.2187	0.2187	102	

Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34
Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,3,6,7,8-HxCDD	32.203	506126926	1.27	0.9771	195.4	195.4	0.2892	0.2892	97.69	
1,2,3,7,8,9-HxCDD	32.509	510175959	1.27	1.0616	192.7	192.7	0.2738	0.2738	96.37	
S Total HxCDD					583.2	583.2	0.2848	0.2848		
D 13C-1,2,3,4,6,7,8-HpCDF	34.084	204661502	0.45	0.7285	103.1	103.1	0.5681	0.5681	103	
1,2,3,4,6,7,8-HpCDF	34.097	567482020	1.04	1.4373	192.9	192.9	0.8432	0.8432	96.46	
D 13C-1,2,3,4,7,8,9-HpCDF	35.227	180782541	0.46	0.6556	101.2	101.2	0.6313	0.6313	101	
1,2,3,4,7,8,9-HpCDF	35.239	466922689	1.06	1.3091	197.3	197.3	1.186	1.186	98.65	
S Total HpCDF					390.2	390.2	1.015	1.015		
D 13C-1,2,3,4,6,7,8-HpCDD	34.923	195316121	1.07	0.6978	102.7	102.7	0.2686	0.2686	103	
1,2,3,4,6,7,8-HpCDD	34.935	387463236	1.07	1.0102	196.4	196.4	0.4740	0.4740	98.19	
S Total HpCDD					196.4	196.4	0.4740	0.4740		
D 13C-OCDD	37.383	266344587	0.92	0.4780	204.5	204.5	0.1681	0.1681	102	
OCDF	37.491	714185718	0.92	1.3501	397.2	397.2	0.1625	0.1625	99.30	
OCDD	37.395	553694600	0.90	1.0627	391.2	391.2	0.1597	0.1597	97.81	

Reagents:

HRDXNL5_00025 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d
Lims ID: IC 5
Client ID: L5
Sample Type: IC Calib Level: 5
Inject. Date: 21-May-2019 15:53:46 ALS Bottle#: 7 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119C CS-5 HRDXNL5_00025
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:47 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 17:12:49

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	18.429	18.432	0		147237259	35106255	36112	90280	972		
333.9339	18.429	18.432	0		182337978	43674697	20122	50305	2170	0.81(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	17.900	17.900	0	0.971	206397164	47847477	55611	139027	860		
317.9389	17.885	17.900	-1	0.970	262346457	60979356	39809	99522	1532	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	17.915	17.915	0	1.001	78695731	18297986	13410	33525	1365		
305.8987	17.915	17.915	0	1.001	102092098	23491319	15886	39715	1479	0.77(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	18.626	18.629	0	1.011	148156216	33874967	36112	90280	938		
333.9339	18.626	18.629	0	1.011	178018109	40307174	20122	50305	2003	0.83(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	18.641	18.650	-1	1.001	61269577	14125983	13568	33920	1041		
321.8936	18.641	18.650	-1	1.001	76715573	17579248	8547	21367	2057	0.80(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	18.641	18.650	-1	1.011	165050919	38184784	18027	45067	2118		
13C-1,2,3,7,8-PeCDF											
351.9000	23.094	23.102	0	1.253	241093376	41737517	54419	136047	767		
353.8970	23.094	23.102	0	1.253	152902970	26622498	37145	92862	717	1.58(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	23.121	23.123	0	1.001	458905466	77887388	92025	230062	846		
341.8567	23.121	23.123	0	1.001	289673962	49048747	59149	147872	829	1.58(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,7,8-PeCDF											
351.9000	24.484	24.487	0	1.329	237587200	37540432	54419	136047	690		
353.8970	24.484	24.487	0	1.329	149899584	23663156	37145	92862	637	1.58(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	24.512	24.512	0	1.001	452519272	71231609	92025	230062	774		
341.8567	24.498	24.512	-1	1.001	282091905	44013649	59149	147872	744	1.60(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	25.234	25.237	0	1.369	154250667	23613494	15354	38385	1538		
369.8919	25.234	25.237	0	1.369	98260777	14715745	11994	29985	1227	1.57(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	25.262	25.264	0	1.001	324095649	49999851	18567	46417	2693		
357.8516	25.262	25.264	0	1.001	204504265	31468478	9542	23855	3298	1.58(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	31.045	31.050	0	0.955	94606507	20720928	31296	78240	662		
385.8610	31.045	31.050	0	0.955	185473288	40925430	58570	146425	699	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	31.058	31.069	-1	1.000	362096061	81014081	102168	255420	793		
375.8178	31.058	31.069	-1	1.000	293251971	65840097	83021	207552	793	1.23(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	31.191	31.202	-1	0.960	110163154	24590117	31296	78240	786		
385.8610	31.191	31.202	-1	0.960	212719119	47530005	58570	146425	812	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	31.218	31.223	0	1.001	389119145	85955119	102168	255420	841		
375.8178	31.204	31.223	-1	1.000	314302221	68333803	83021	207552	823	1.24(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	31.923	31.923	0	0.982	99864351	25972461	31296	78240	830		
385.8610	31.910	31.923	-1	0.982	193370978	49893522	58570	146425	852	0.52(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	31.937	31.942	0	1.000	365853935	95743389	102168	255420	937		
375.8178	31.937	31.942	0	1.000	299359124	77803619	83021	207552	937	1.22(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	32.669	32.674	0	1.005	87842859	24692934	31296	78240	789		
385.8610	32.669	32.674	0	1.005	162053442	45074663	58570	146425	770	0.54(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	32.682	32.690	0	1.000	318655522	90198782	102168	255420	883		
375.8178	32.682	32.690	0	1.000	258938810	72087978	83021	207552	868	1.23(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	32.496	32.499	0		153030063	41693135	31978	79945	1304		
403.8529	32.496	32.499	0		119411488	32663682	29789	74472	1097	1.28(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	32.083	32.094	-1	0.987	131384987	37149381	31978	79945	1162		
403.8529	32.083	32.094	-1	0.987	102206604	29343785	29789	74472	985	1.29(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	32.097	32.110	-1	1.000	259598074	74171702	43989	109972	1686		
391.8127	32.097	32.110	-1	1.000	208146979	58936352	35593	88982	1656	1.25(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDD											
401.8559	32.190	32.192	0	0.991	147873455	39025263	31978	79945	1220		
403.8529	32.190	32.192	0	0.991	117239030	31393947	29789	74472	1054	1.26(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	32.203	32.208	0	1.000	282703046	74384618	43989	109972	1691		
391.8127	32.203	32.208	0	1.000	223423880	59122445	35593	88982	1661	1.27(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	32.509	32.515	0	1.013	285407608	77943746	43989	109972	1772		
391.8127	32.509	32.515	0	1.013	224768351	60469405	35593	88982	1699	1.27(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	34.084	34.097	-1	1.049	63696984	20433560	50234	125585	407		
419.8220	34.084	34.097	-1	1.049	140964518	45130574	72869	182172	619	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.097	34.104	0	1.000	289555184	92903843	162083	405207	573		
409.7789	34.097	34.104	0	1.000	277926836	89595967	155767	389417	575	1.04(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	35.227	35.232	0	1.084	56734287	16296132	50234	125585	324		
419.8220	35.227	35.232	0	1.084	124048254	34880856	72869	182172	479	0.46(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.239	35.244	0	1.000	239928170	68579324	162083	405207	423		
409.7789	35.239	35.244	0	1.000	226994519	63510796	155767	389417	408	1.06(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.923	34.928	0	1.075	100927153	30173181	30146	75365	1001		
437.8140	34.923	34.928	0	1.075	94388968	27895545	25597	63992	1090	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.935	34.940	0	1.000	199931934	58852810	57720	144300	1020		
425.7737	34.923	34.940	-1	1.000	187531302	55140180	53490	133725	1031	1.07(0.88-1.20)	
13C-OCDD											
469.7779	37.383	37.392	-1	1.150	127348867	32927210	13240	33100	2487		
471.7750	37.383	37.392	-1	1.150	138995720	35916601	10652	26630	3372	0.92(0.76-1.02)	
OCDF											
441.7428	37.491	37.500	-1	1.003	342535975	90904716	13298	33245	6836		
443.7399	37.491	37.500	-1	1.003	371649743	96795887	16910	42275	5724	0.92(0.76-1.02)	
OCDD											
457.7377	37.395	37.402	0	1.000	261595073	68219223	11749	29372	5806		
459.7348	37.395	37.402	0	1.000	292099527	76647700	11611	29027	6601	0.90(0.76-1.02)	

Reagents:

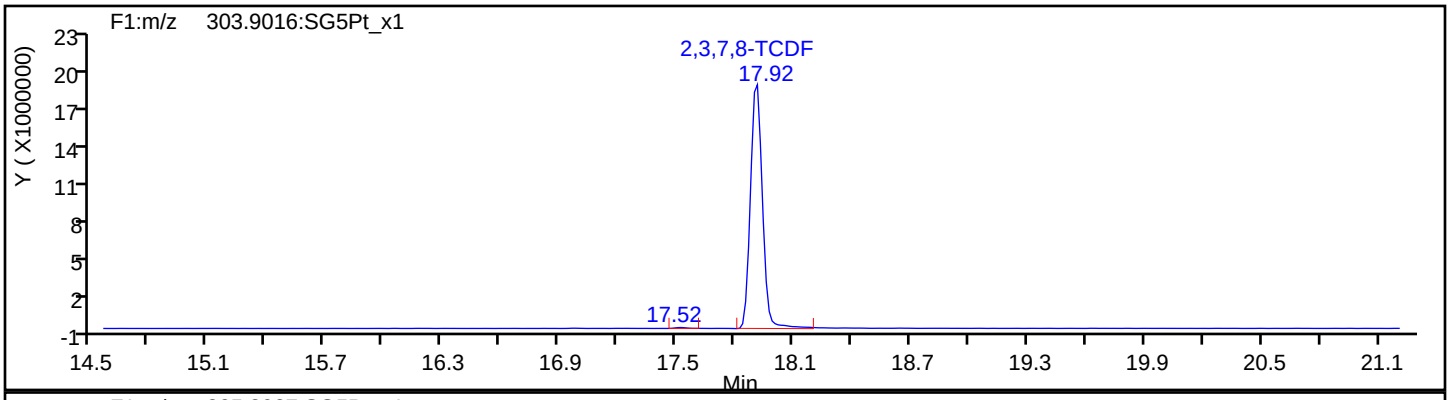
HRDXNL5_00025 Amount Added: 1.00 Units: mL

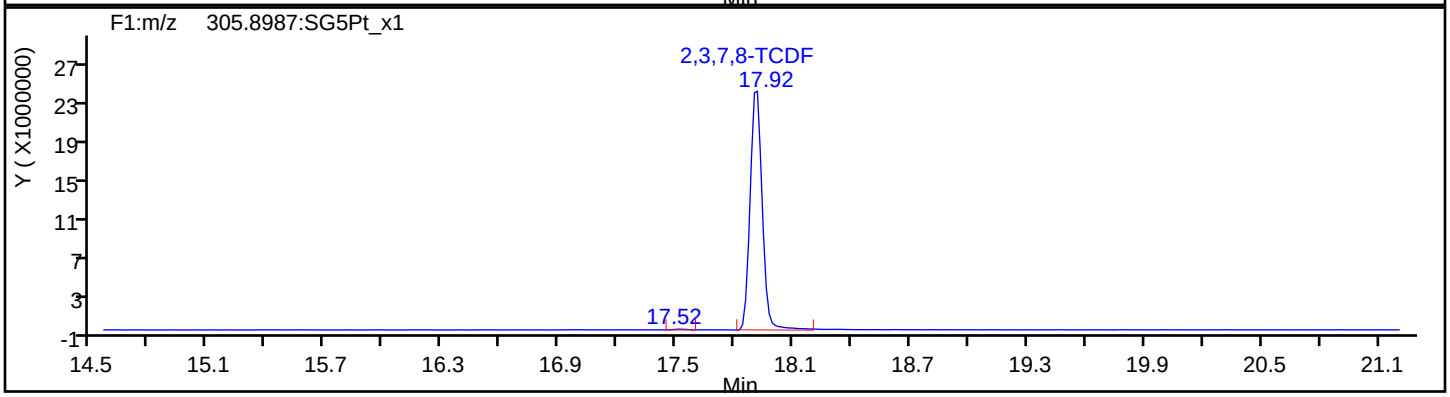
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

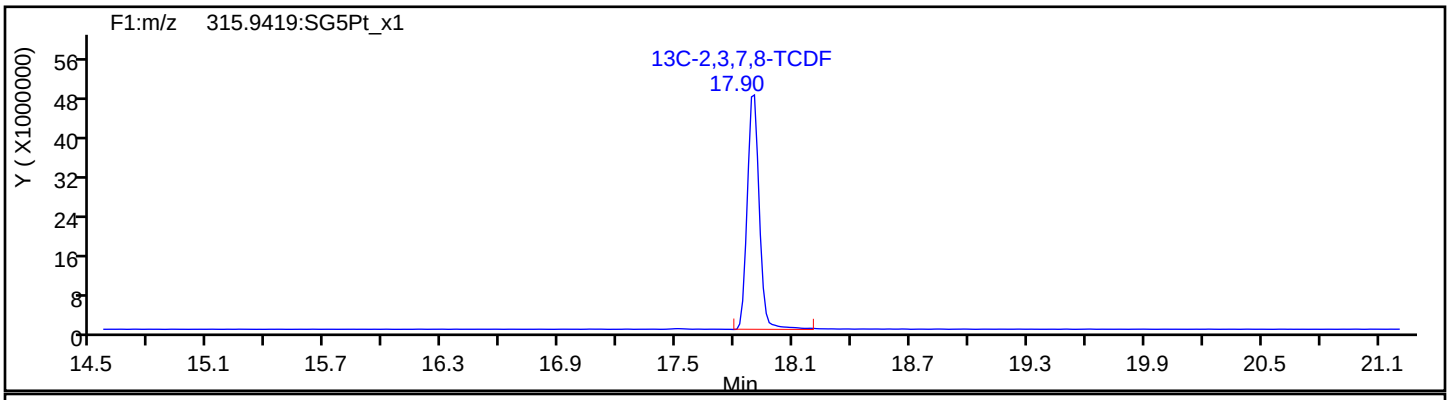
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

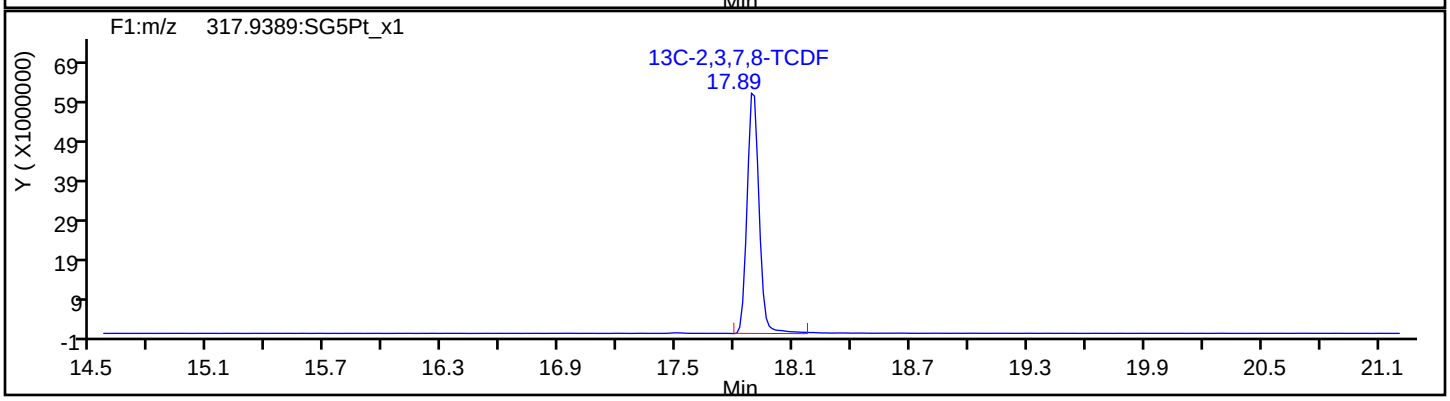
TCDF





TCDF Standards



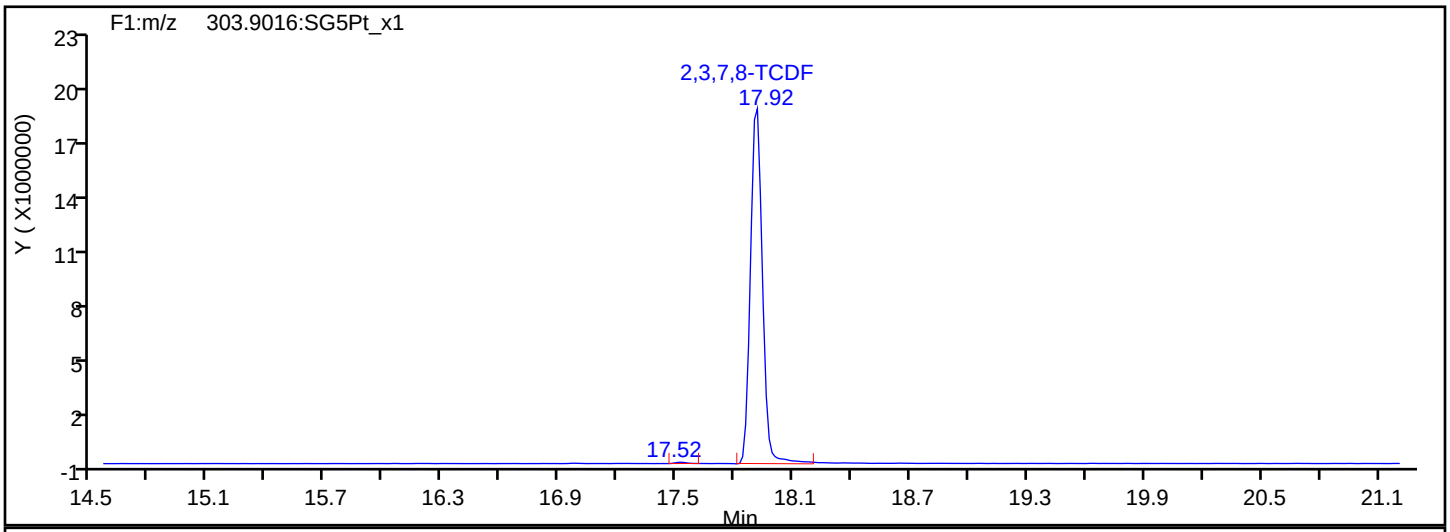


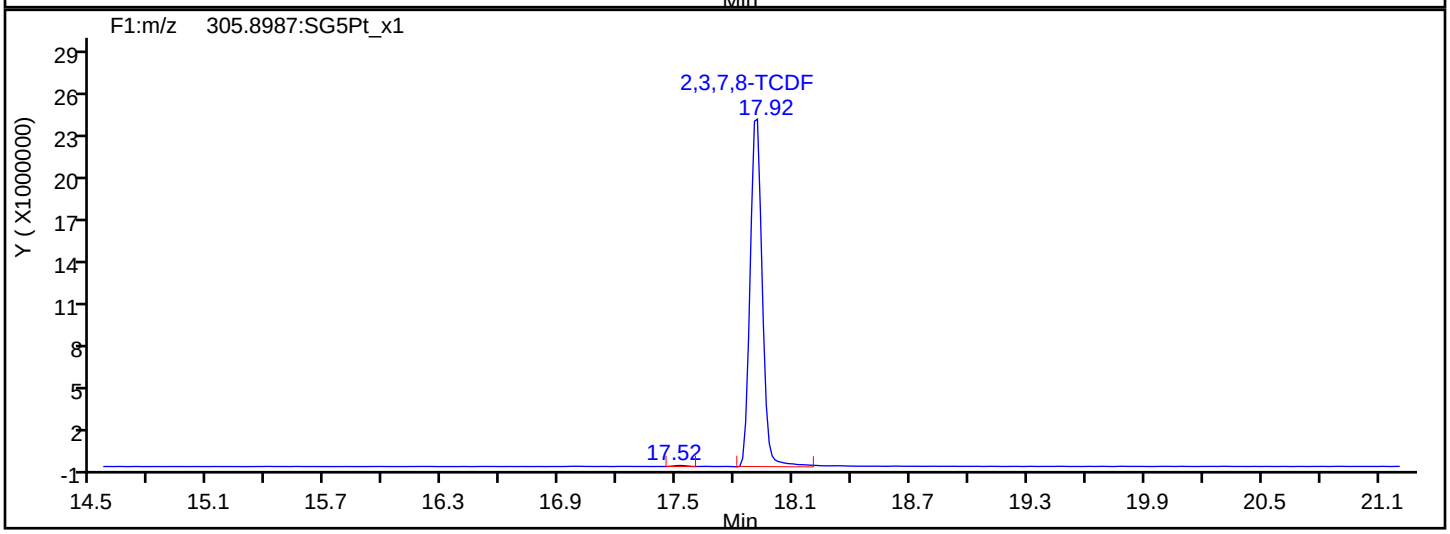
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

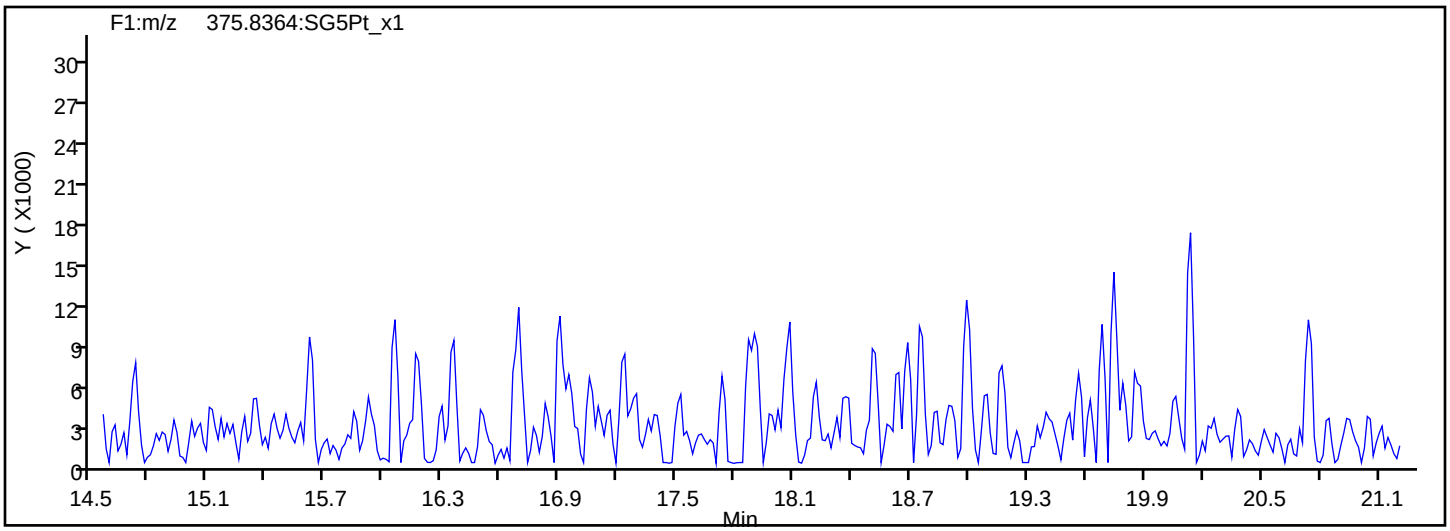
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

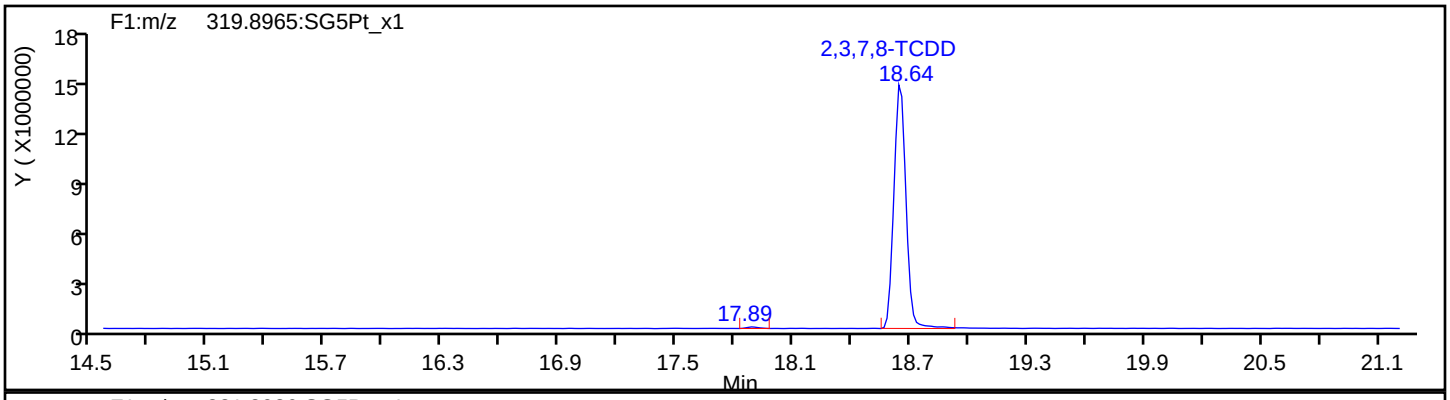


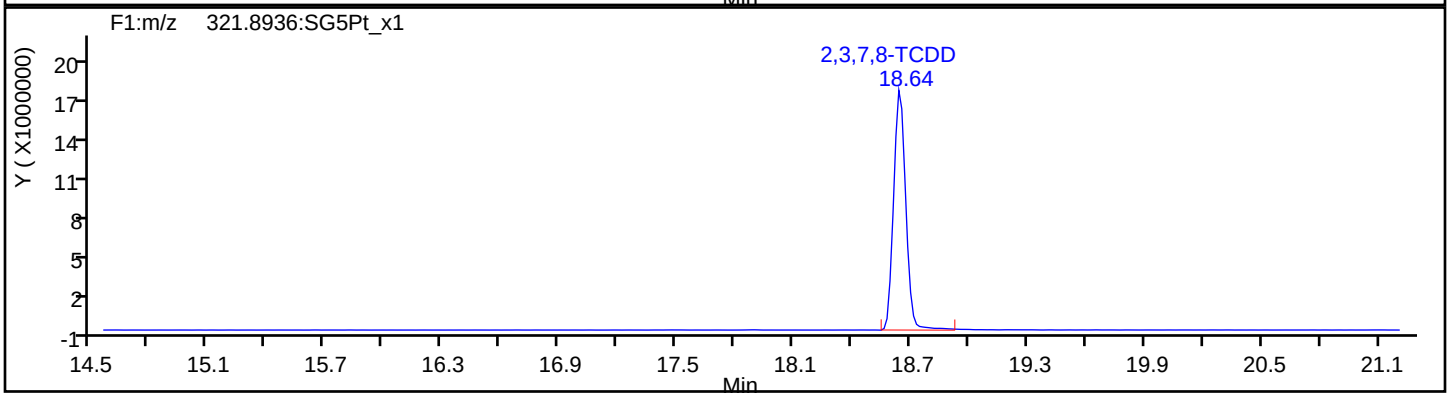
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

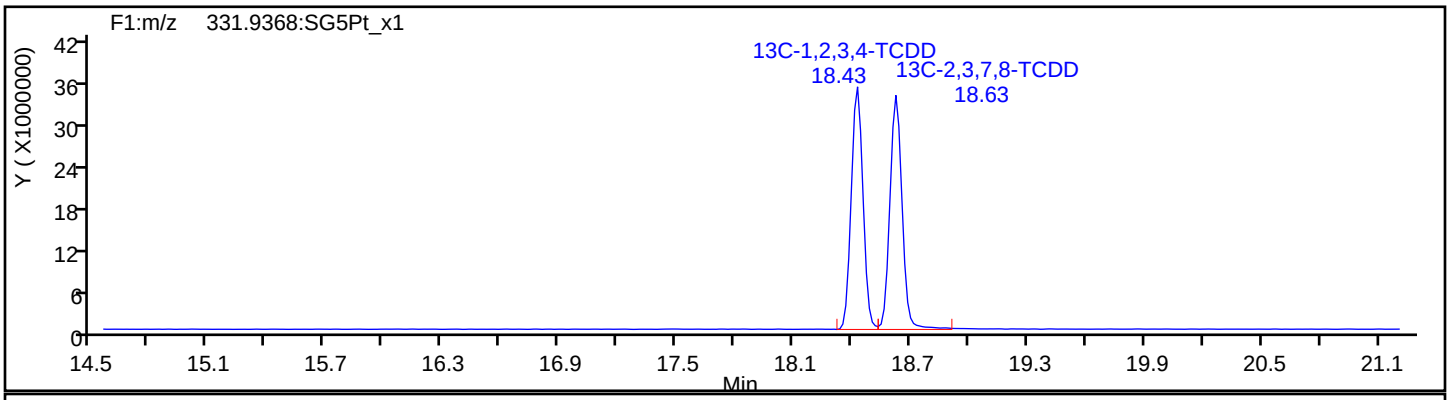
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

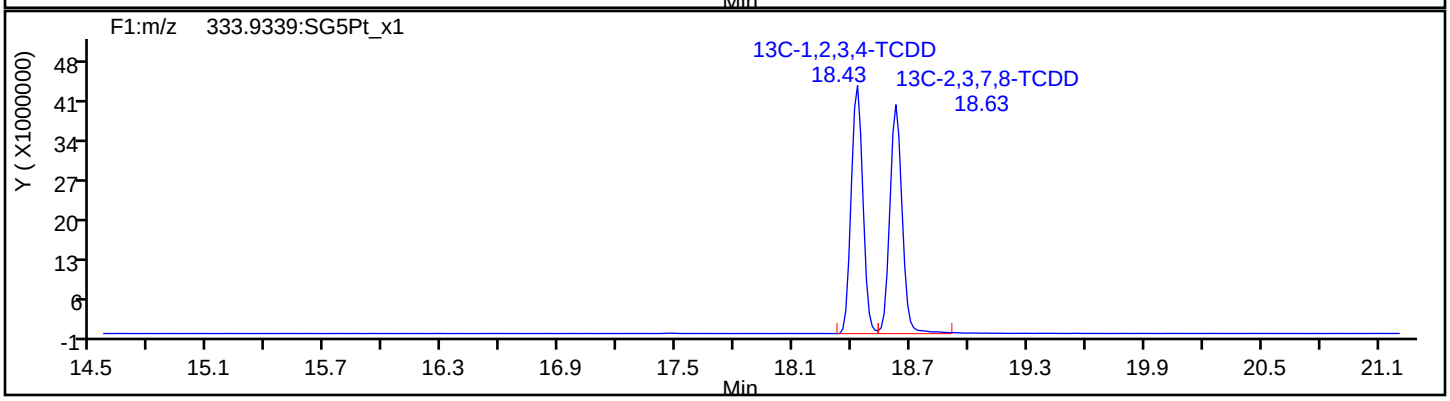
TCDD





TCDD Standards



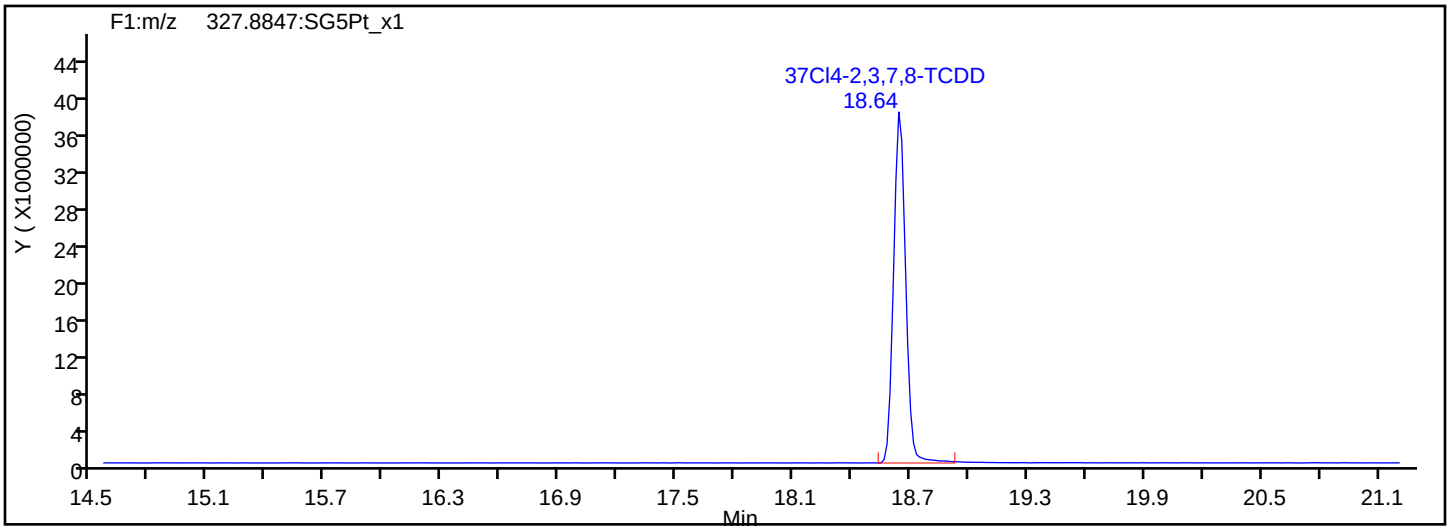


Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

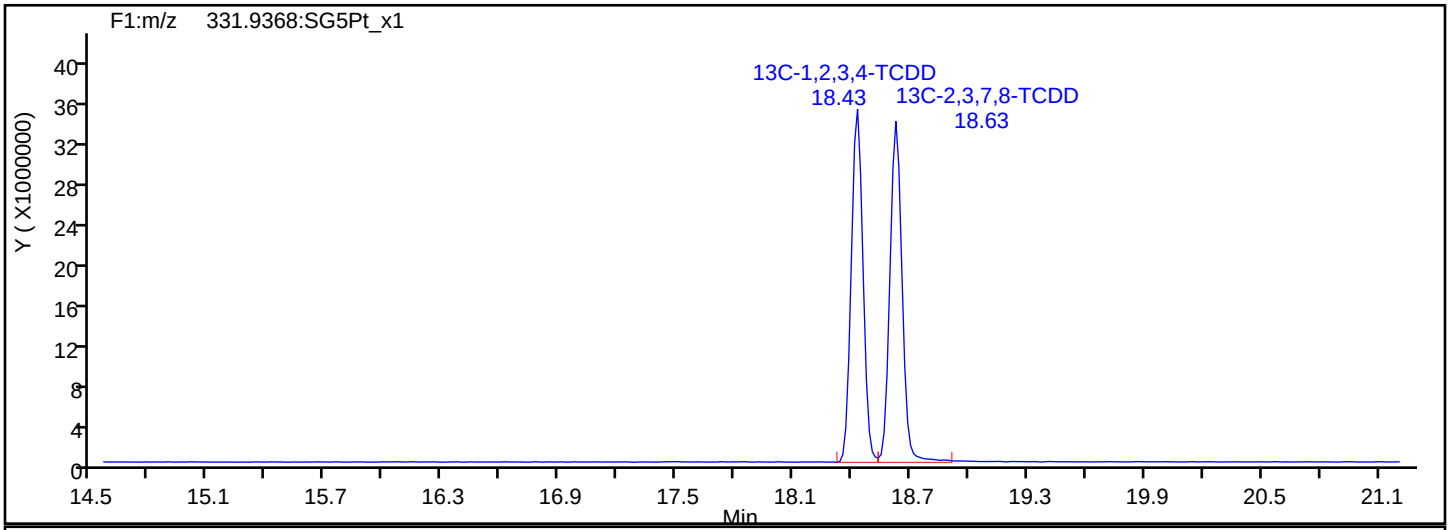
Eurofins TestAmerica, Sacramento

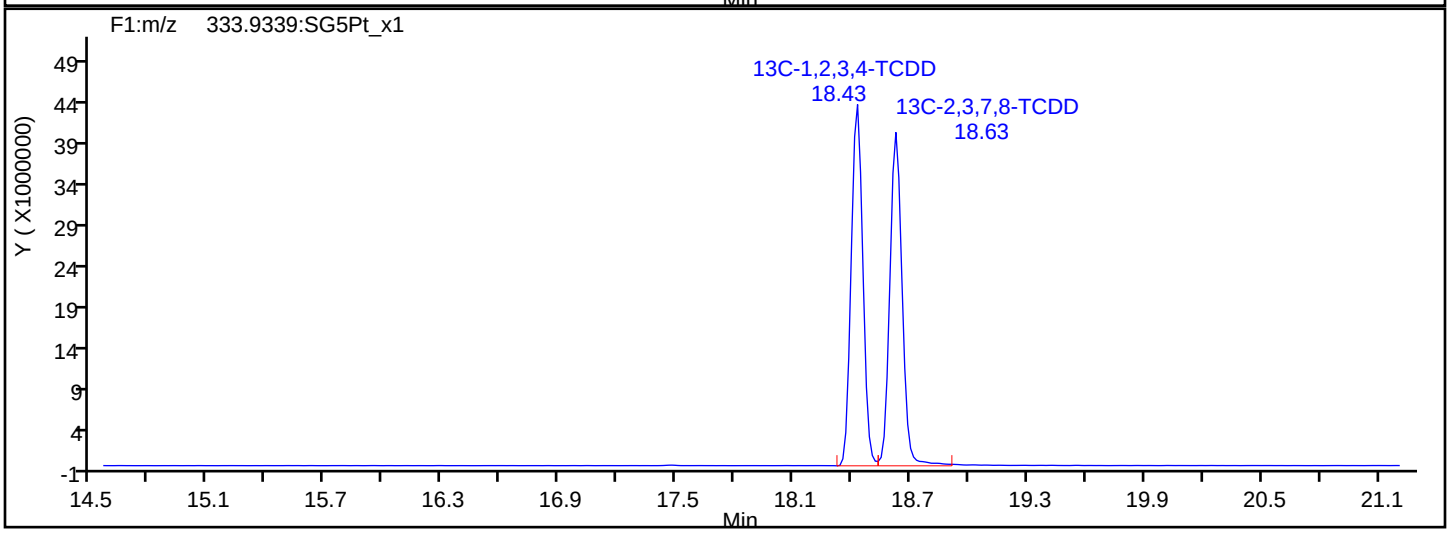
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



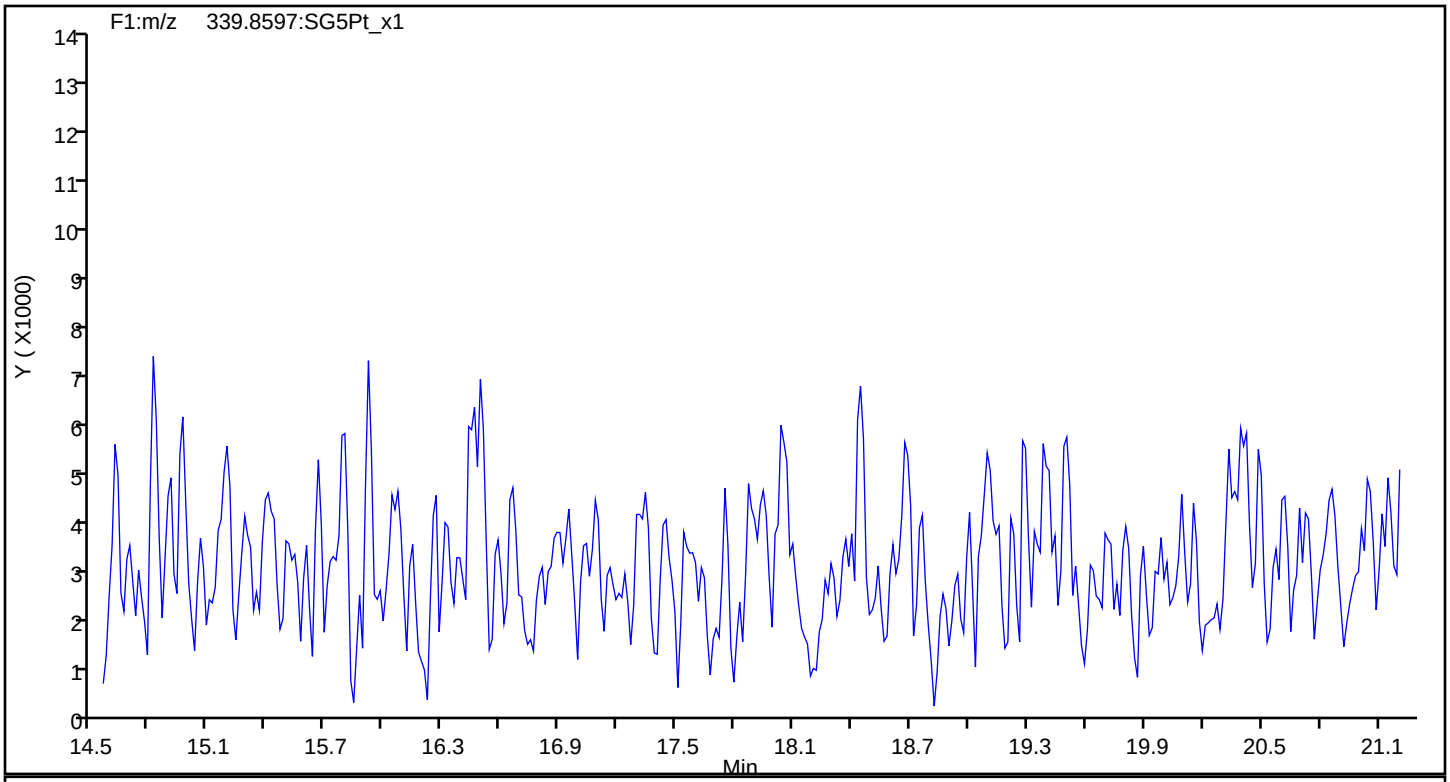


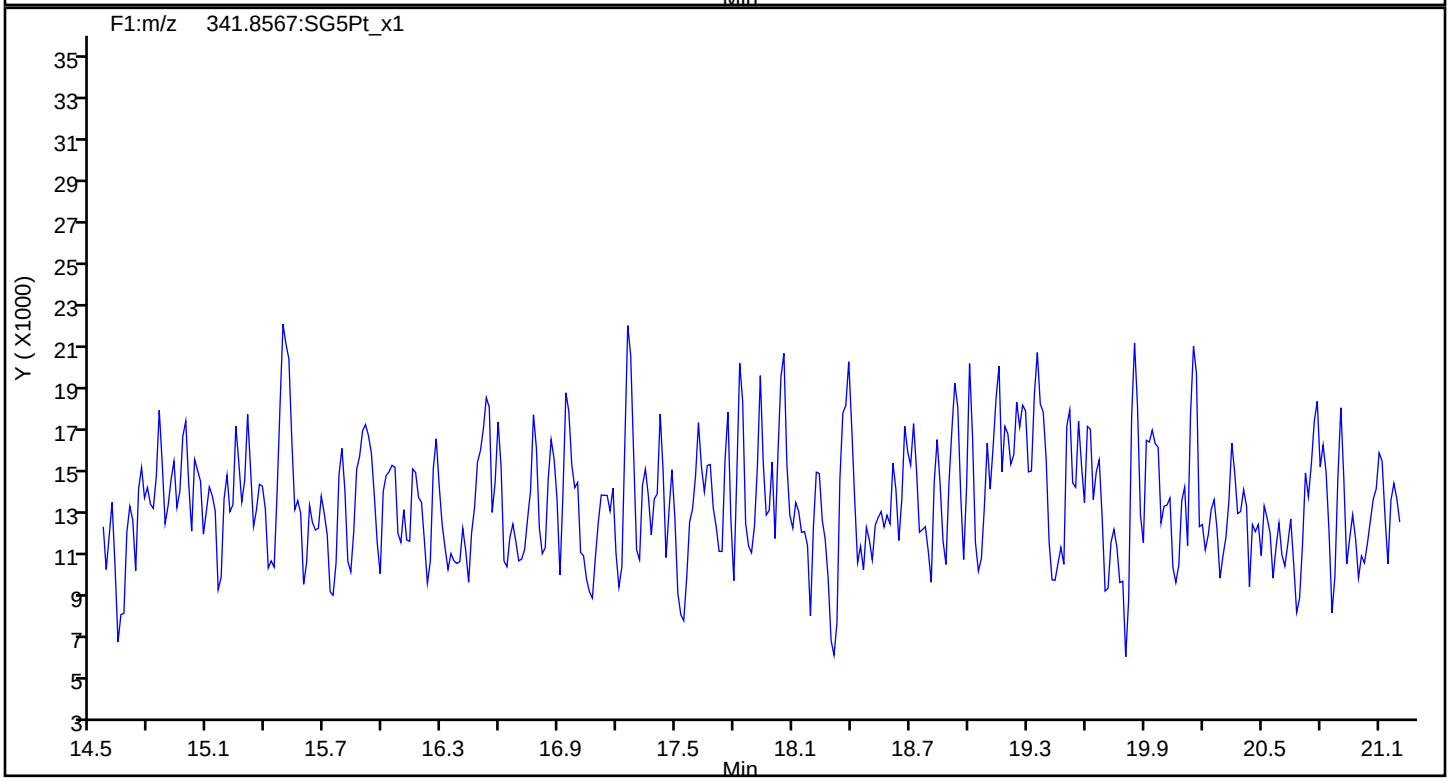
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



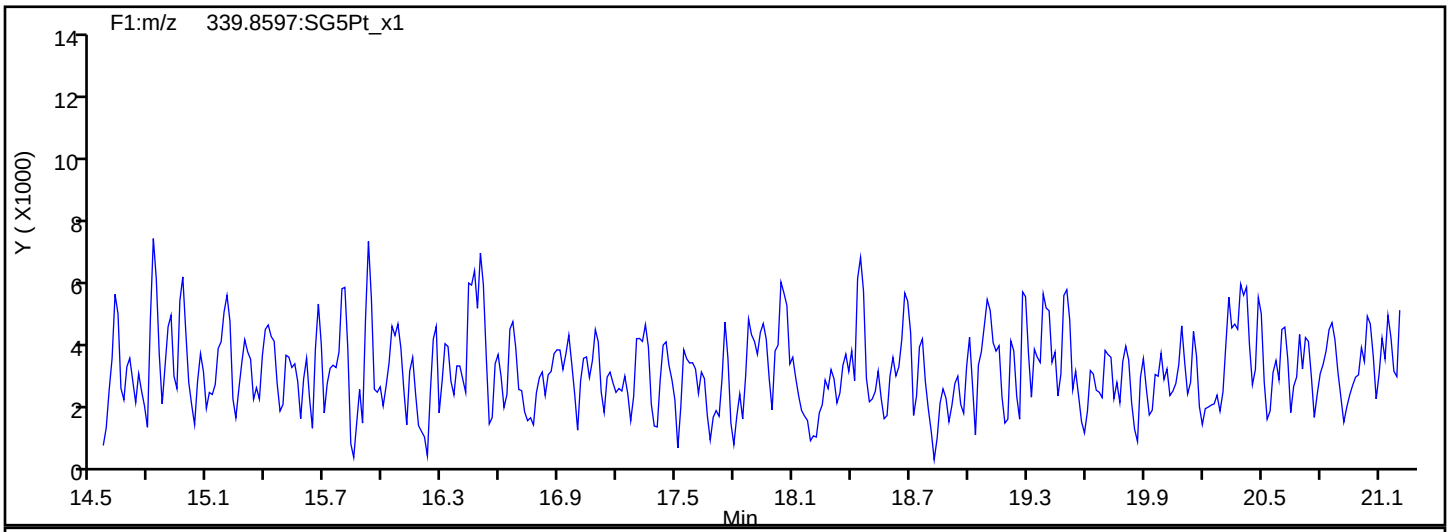


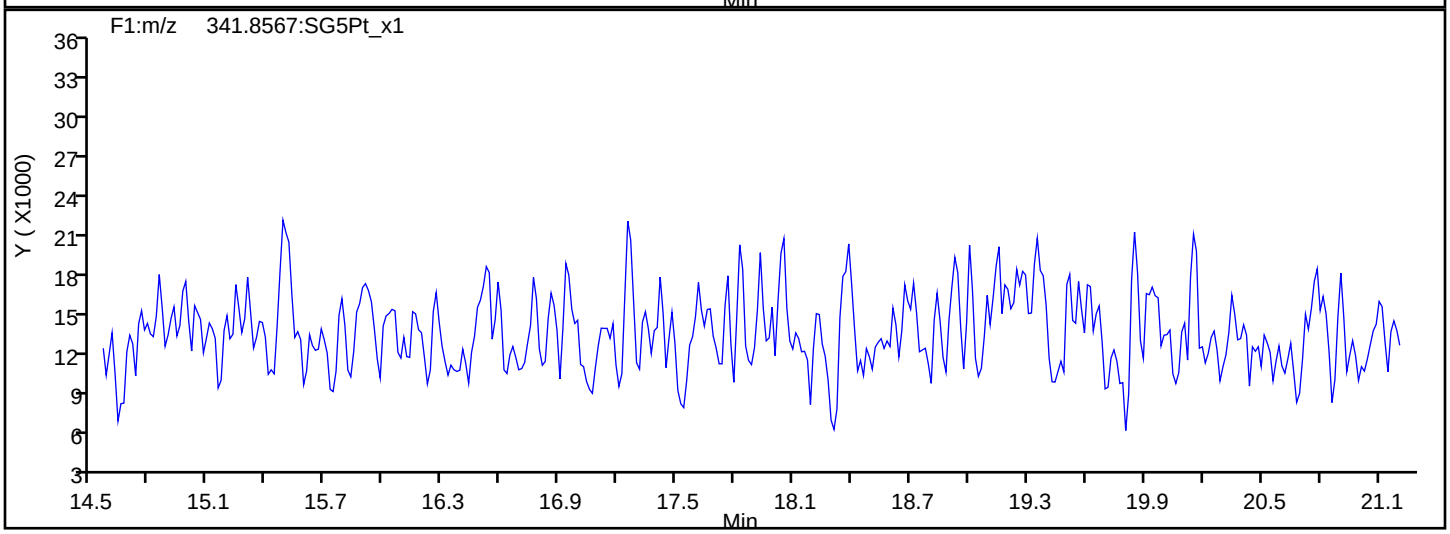
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

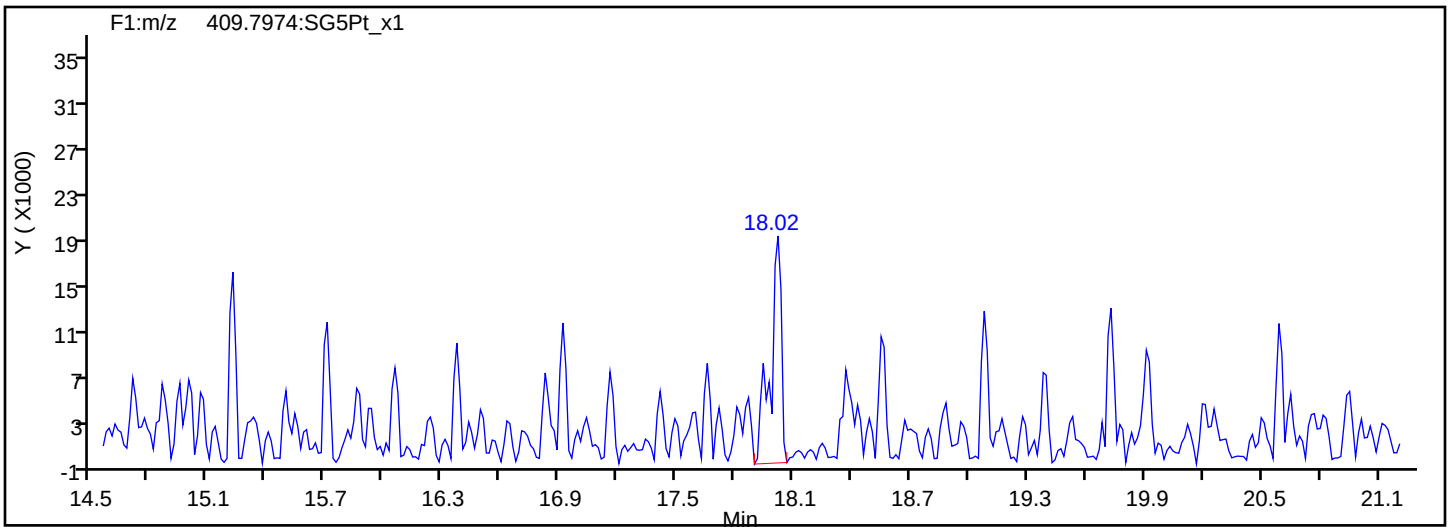
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

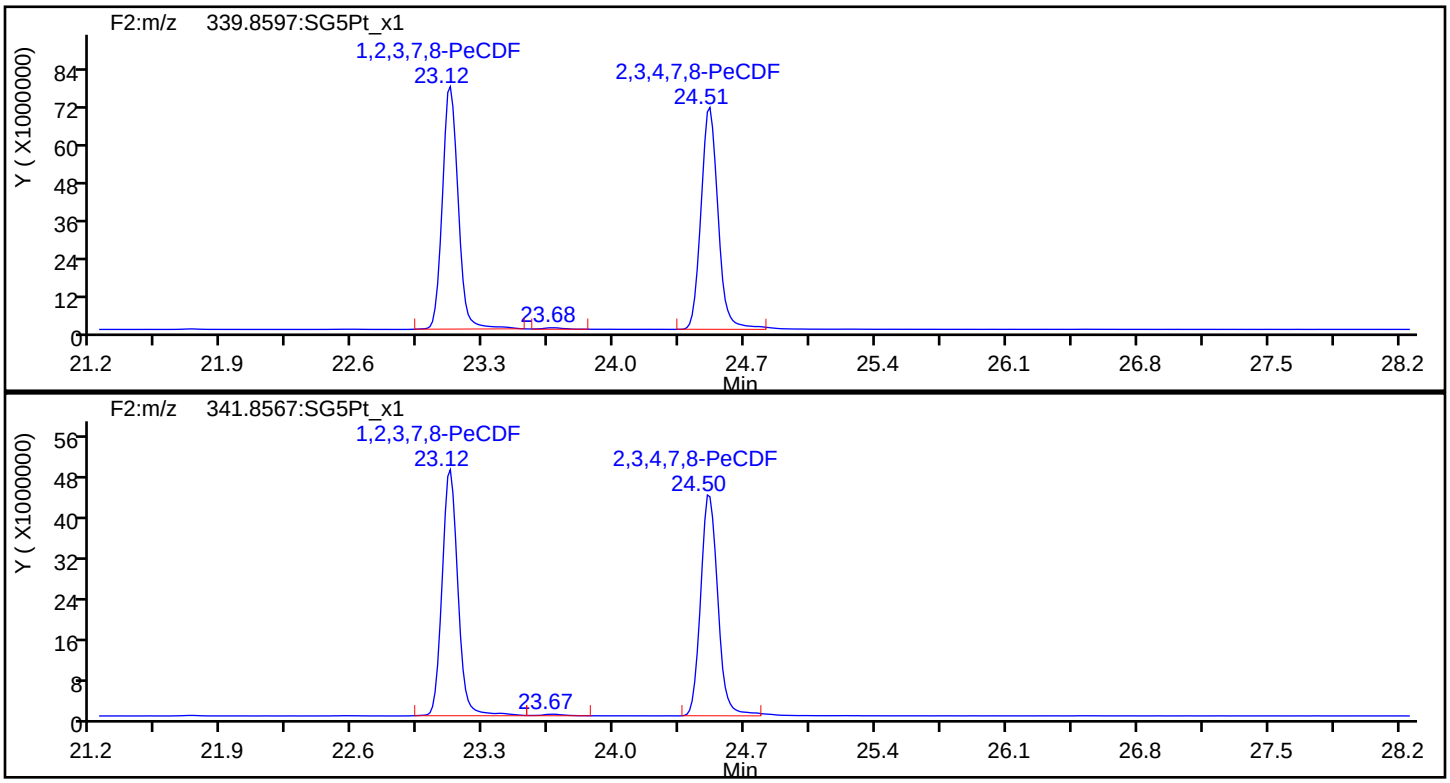


Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

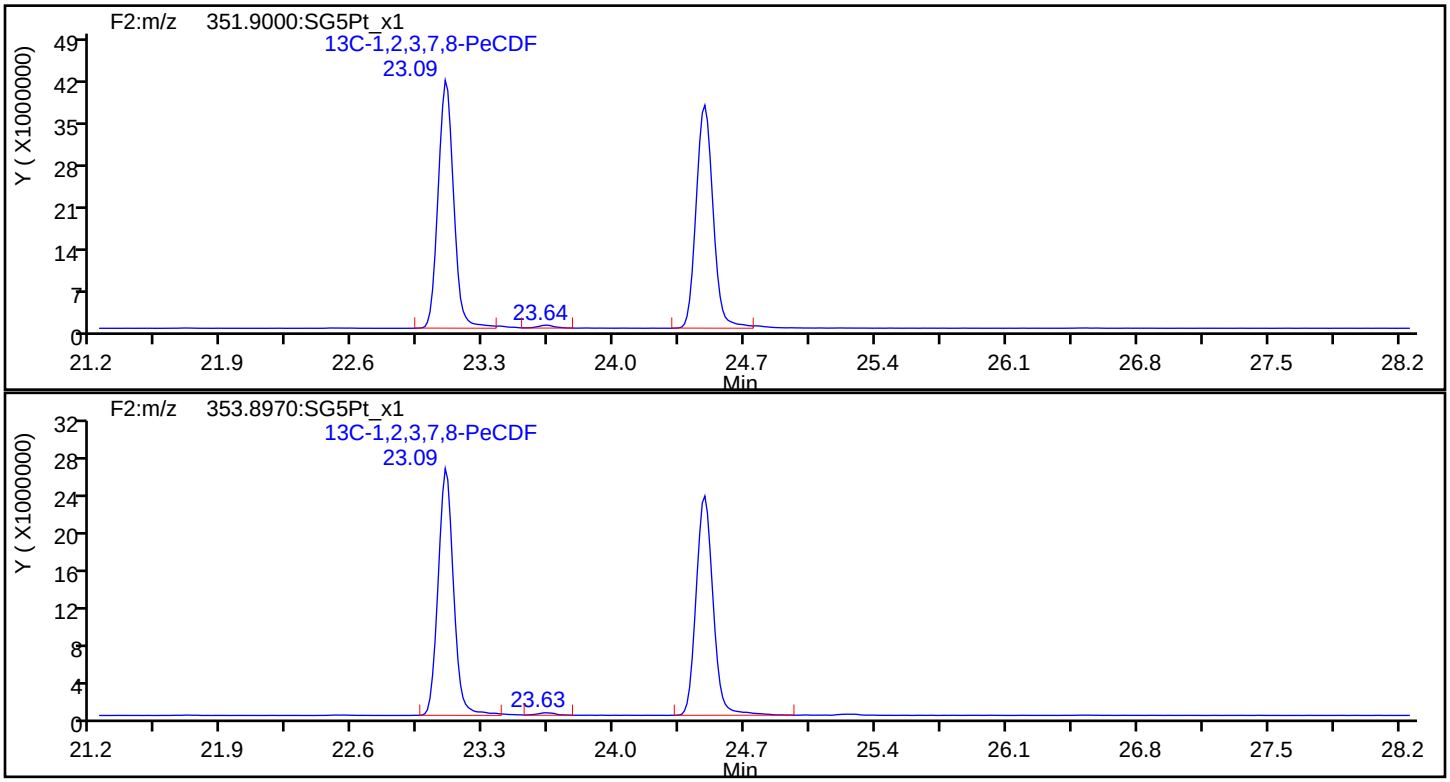
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

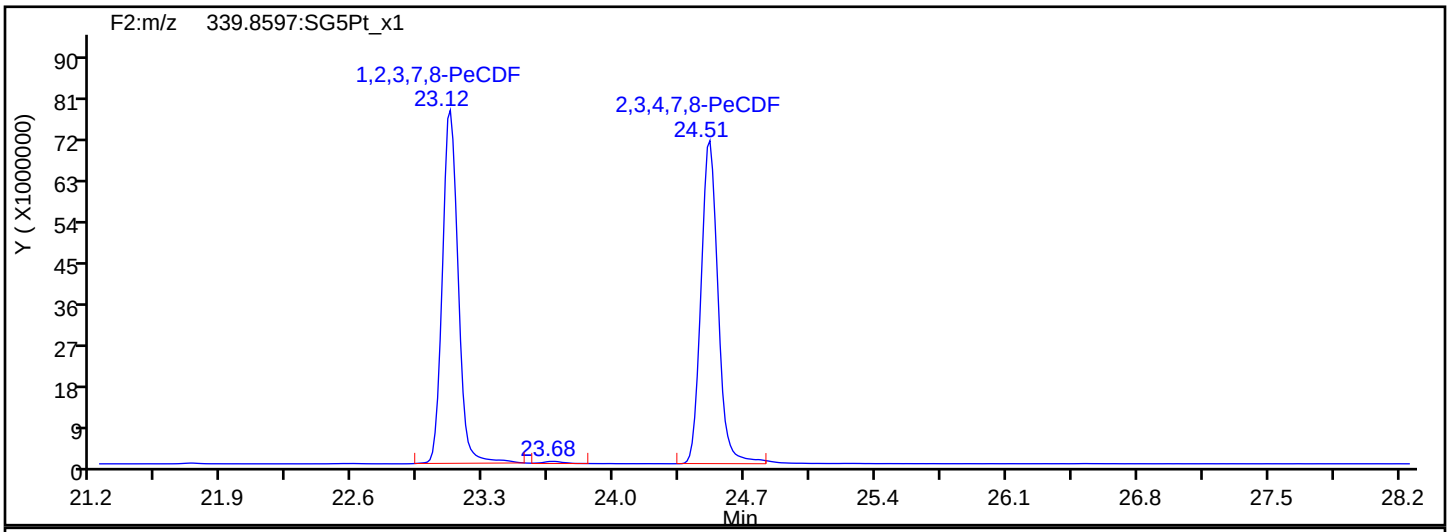


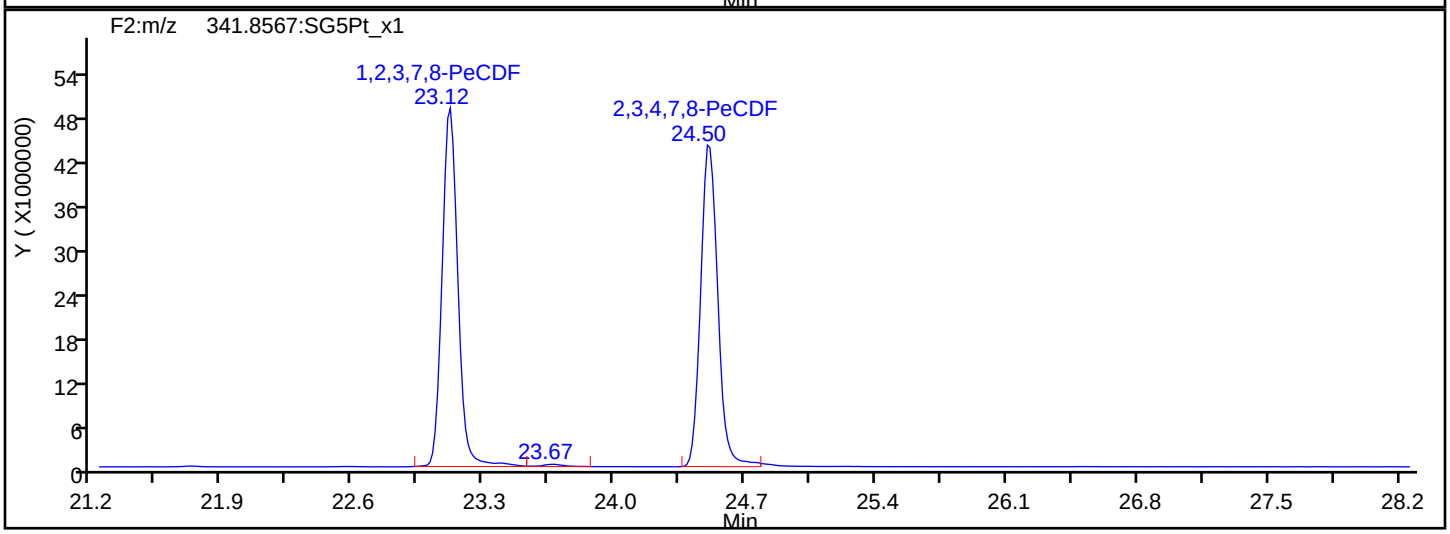
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

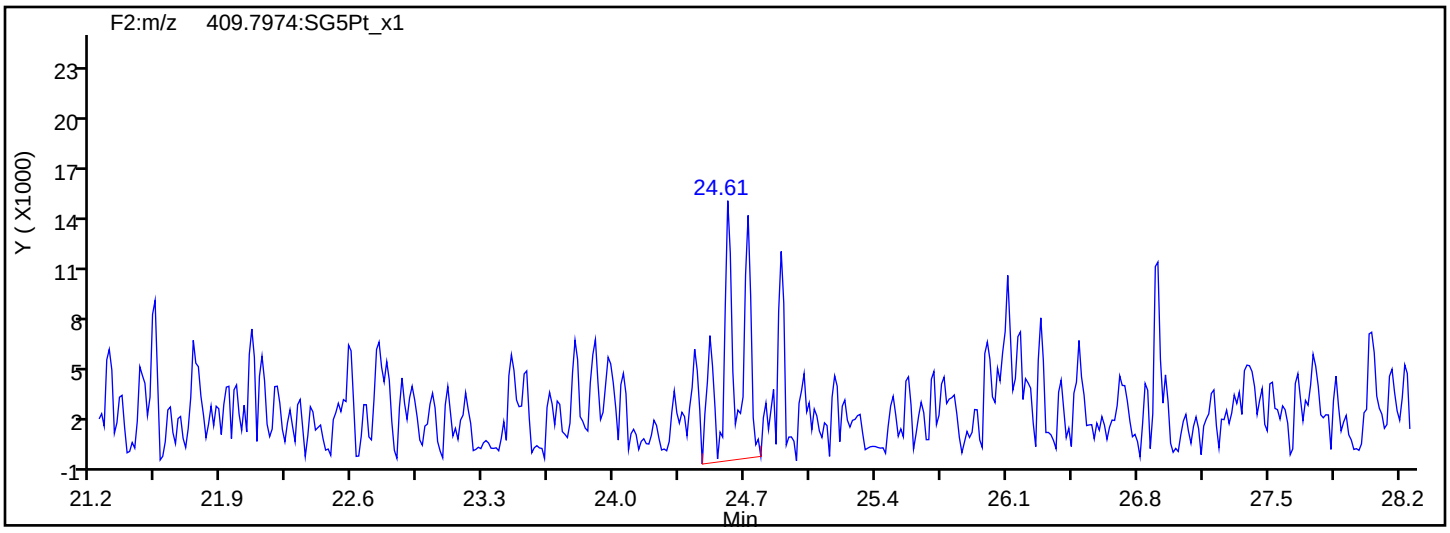
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

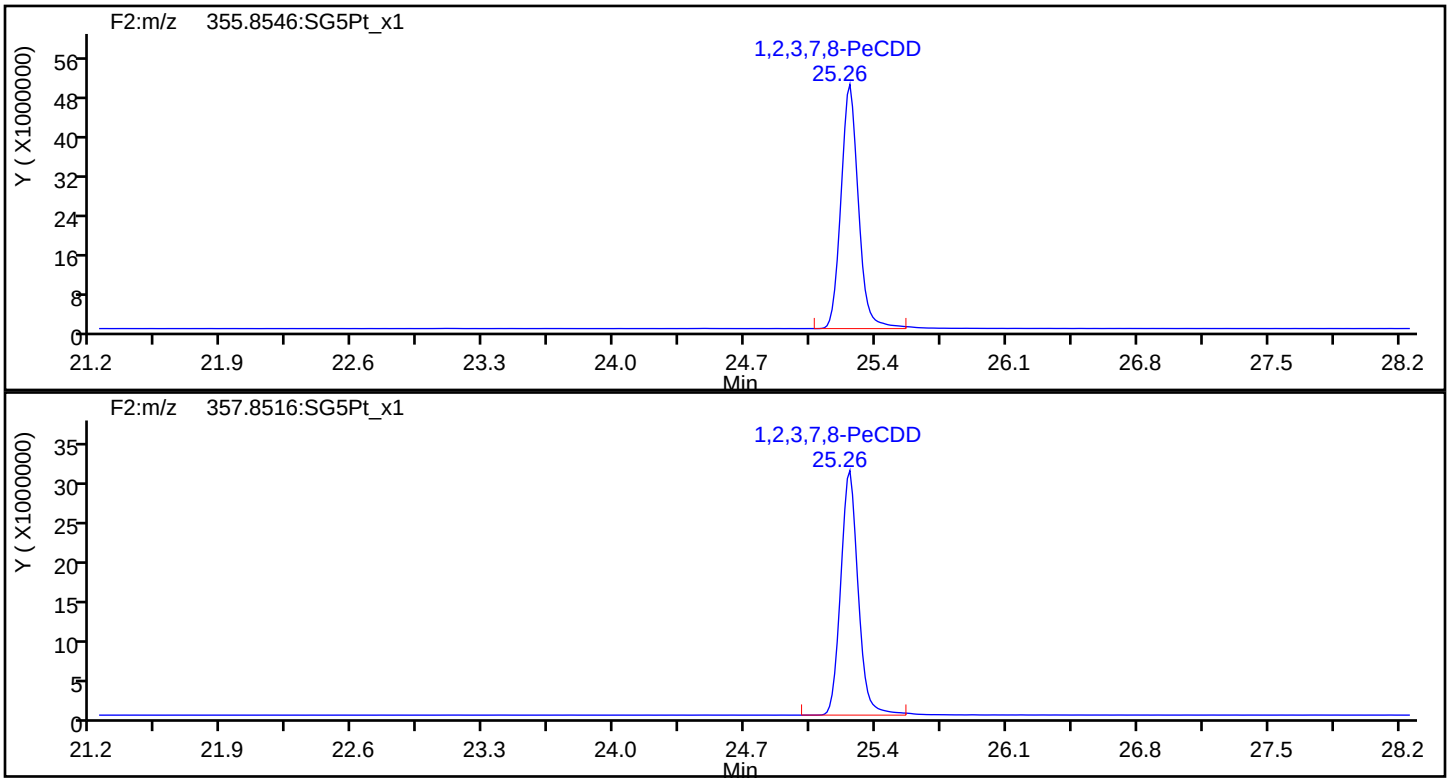


Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

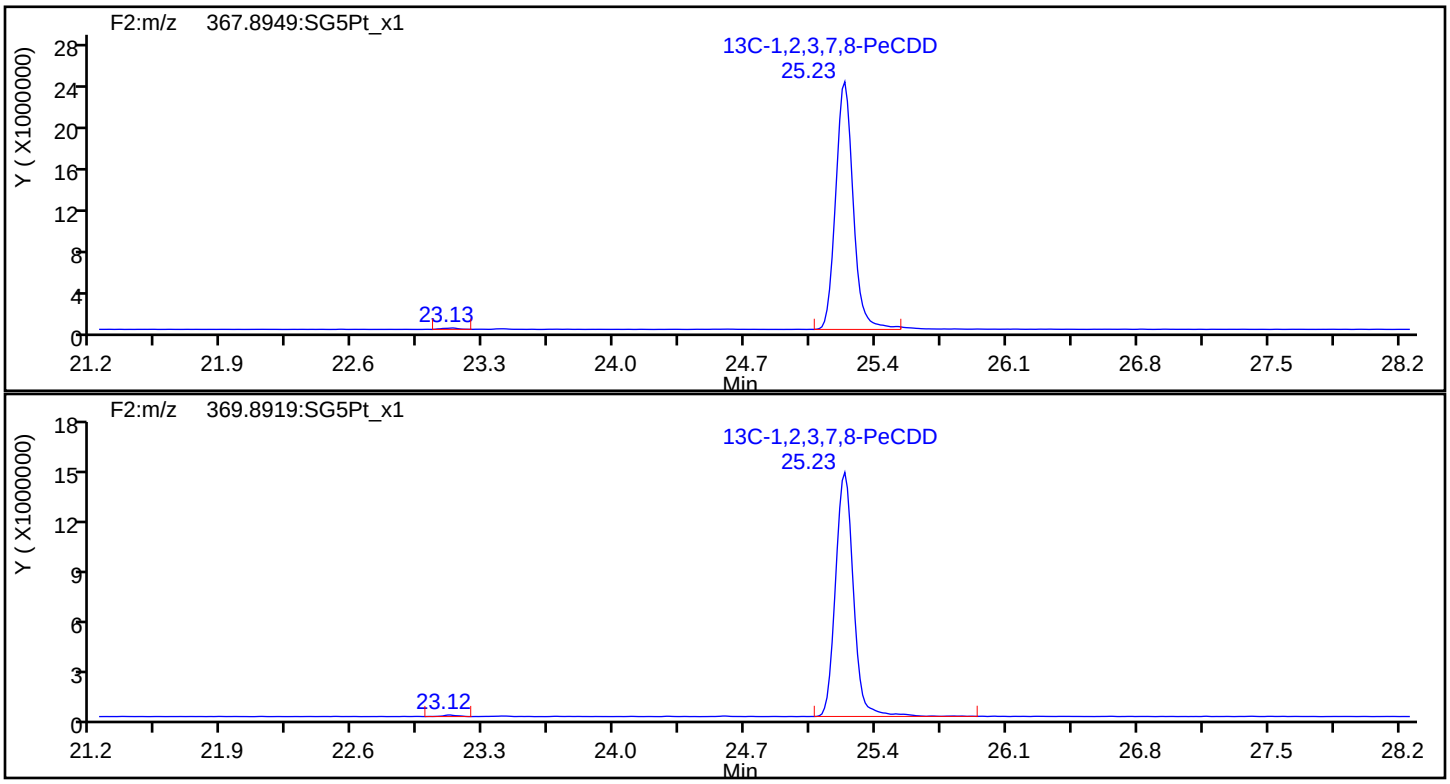
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDD



PeCDD Standards

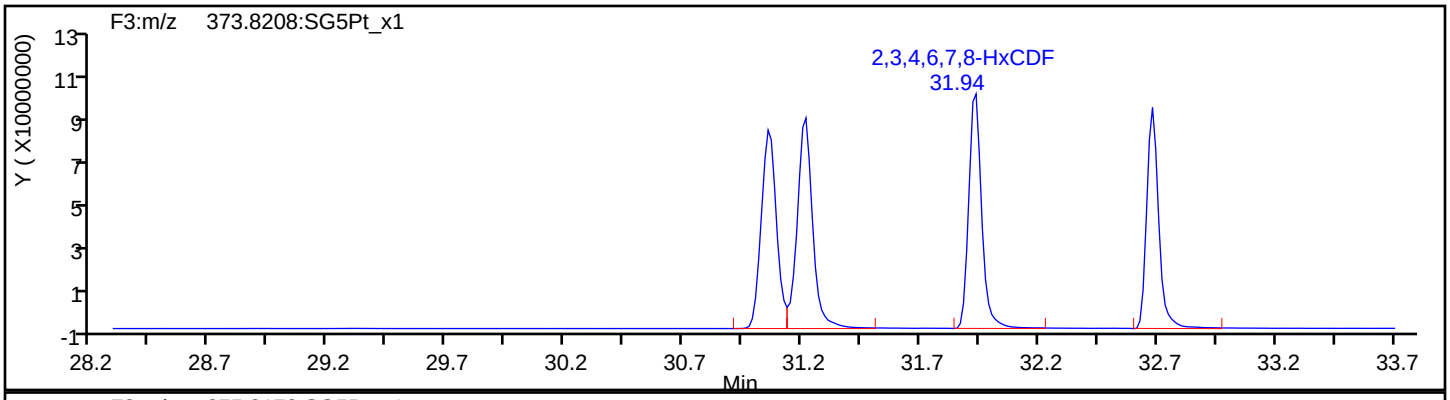


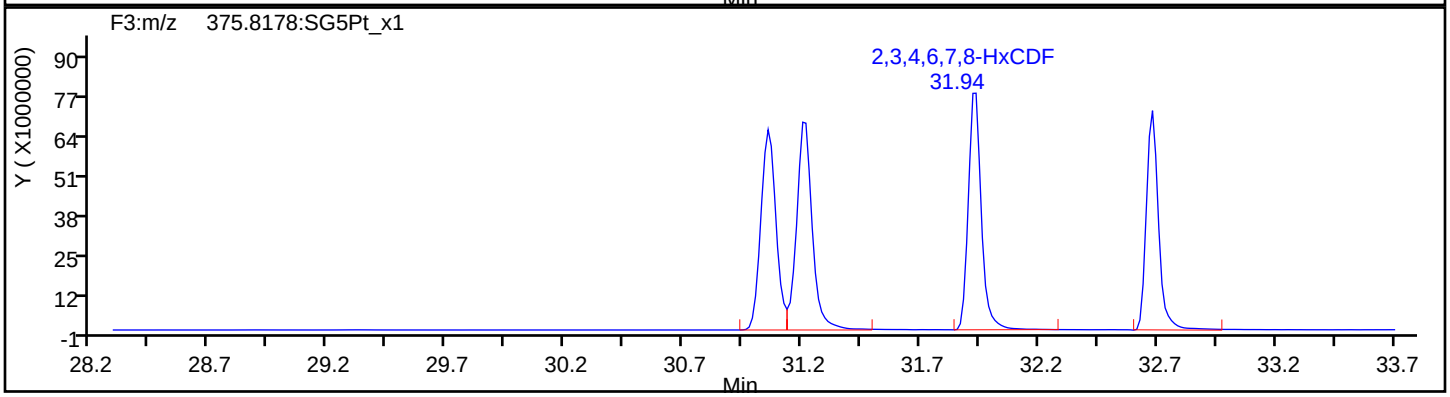
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

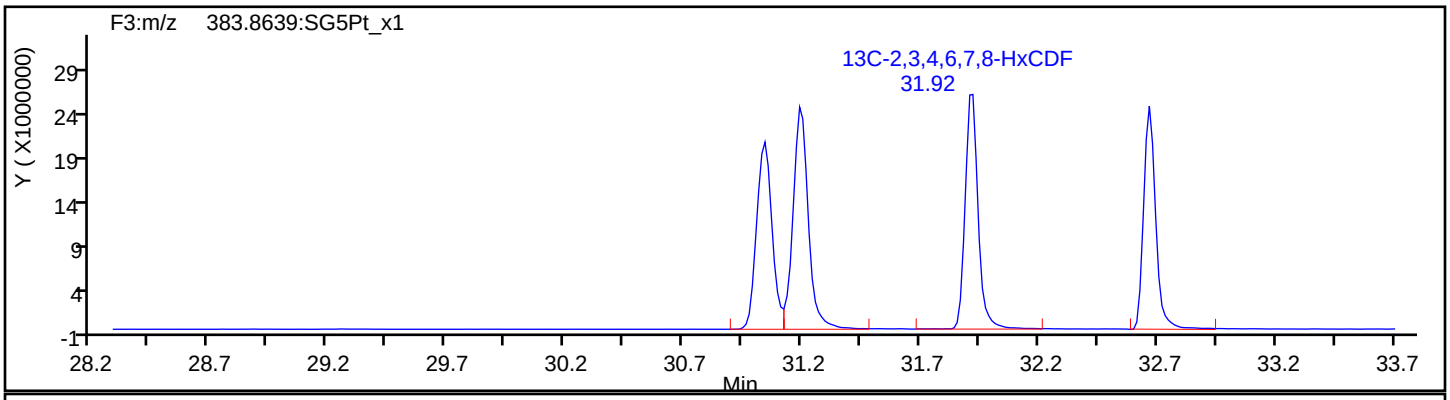
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

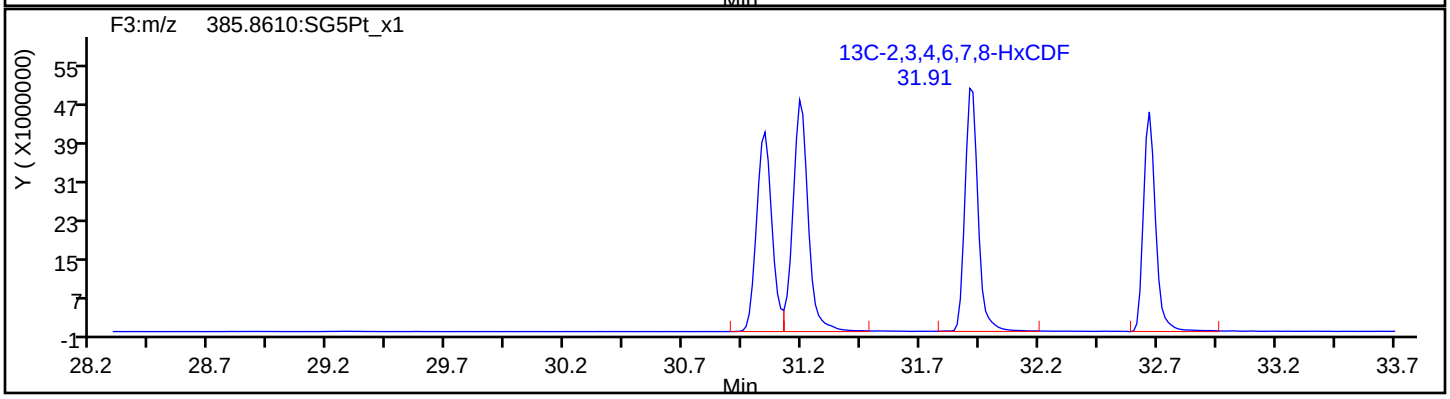
HxCDF





HxCDF Standards



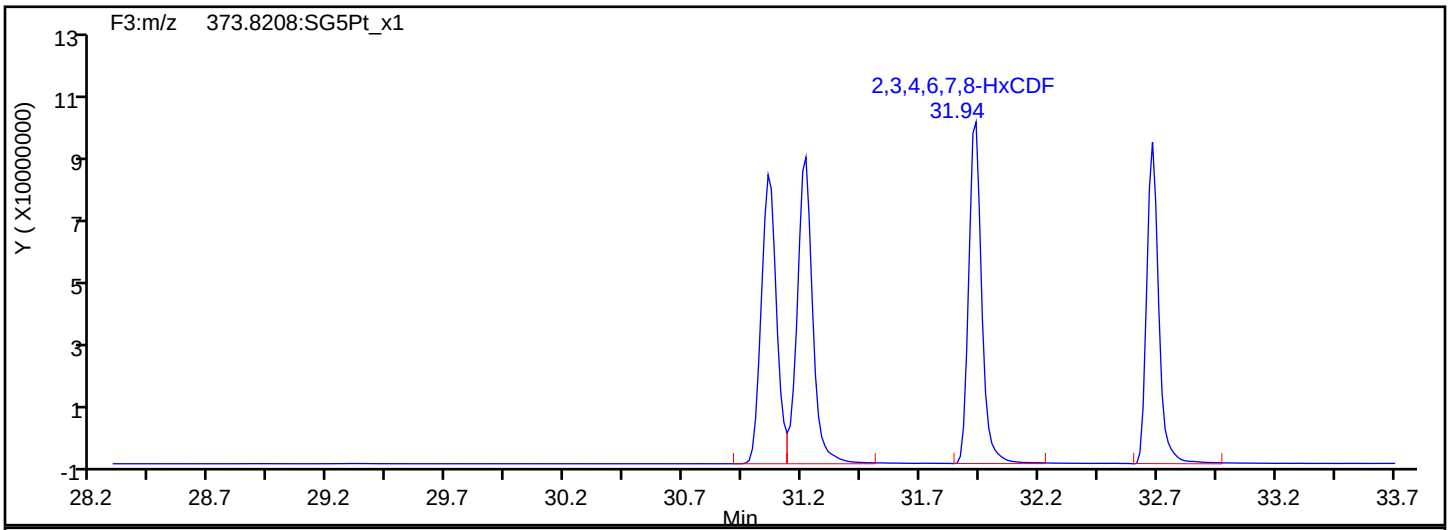


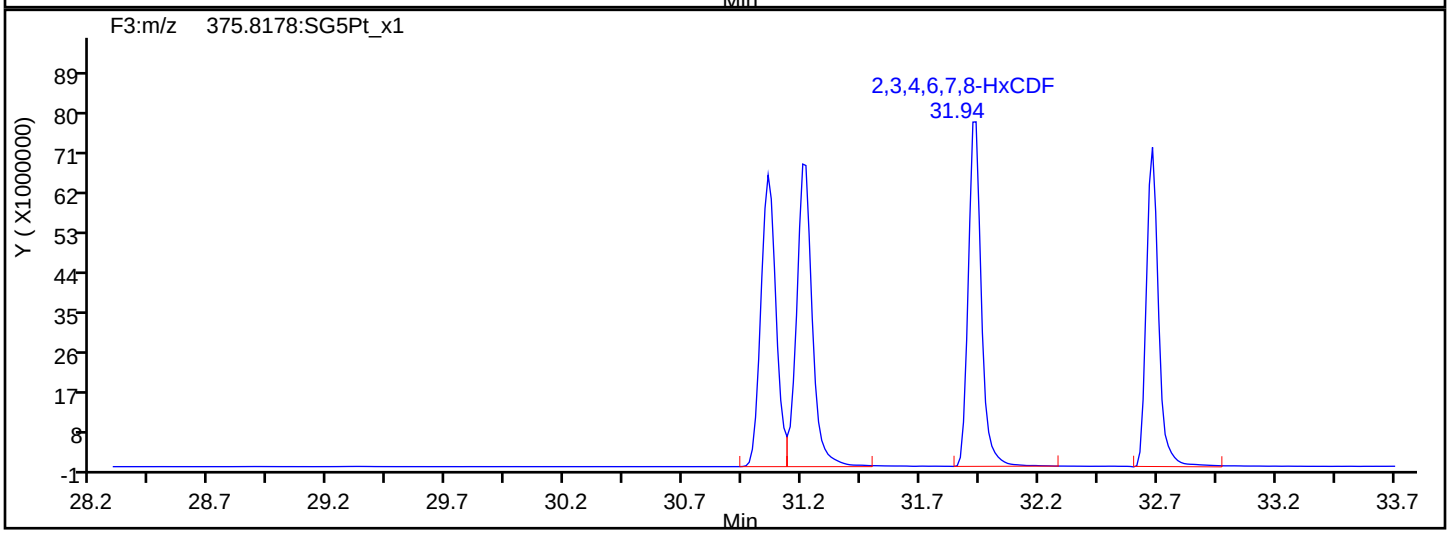
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

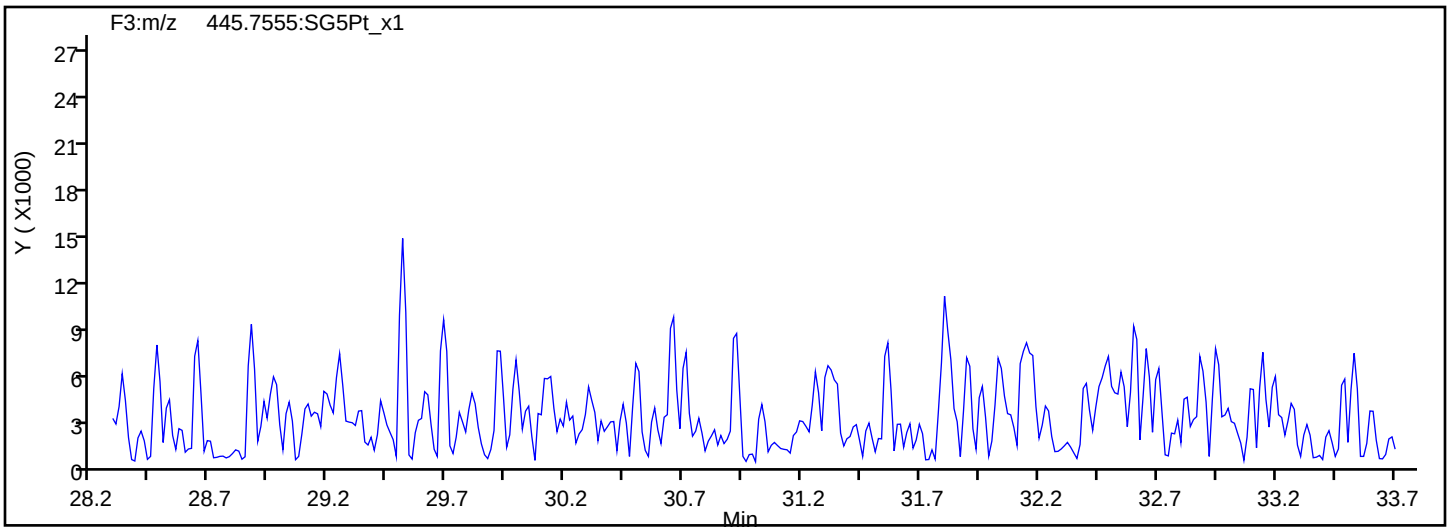
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

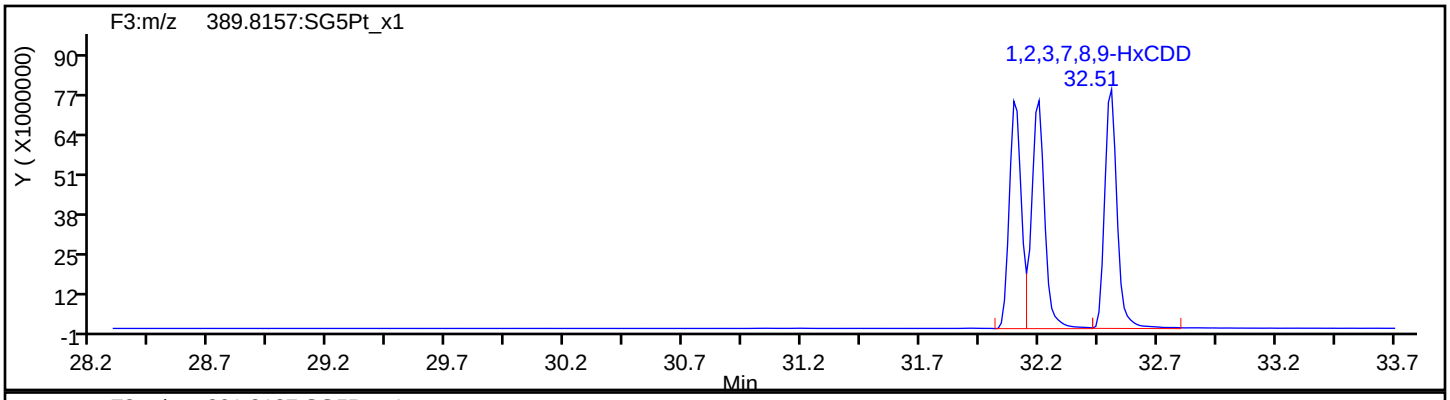


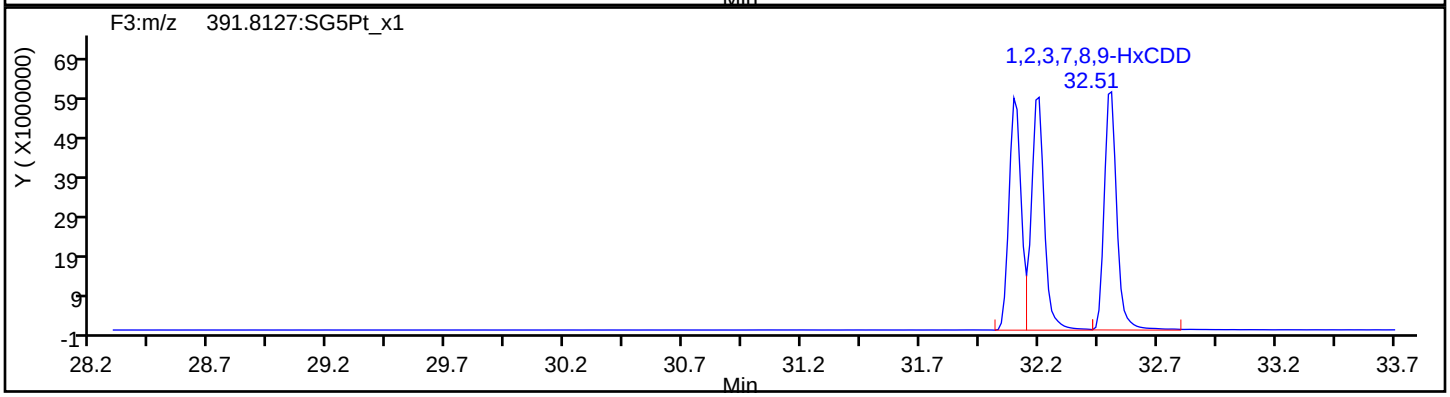
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

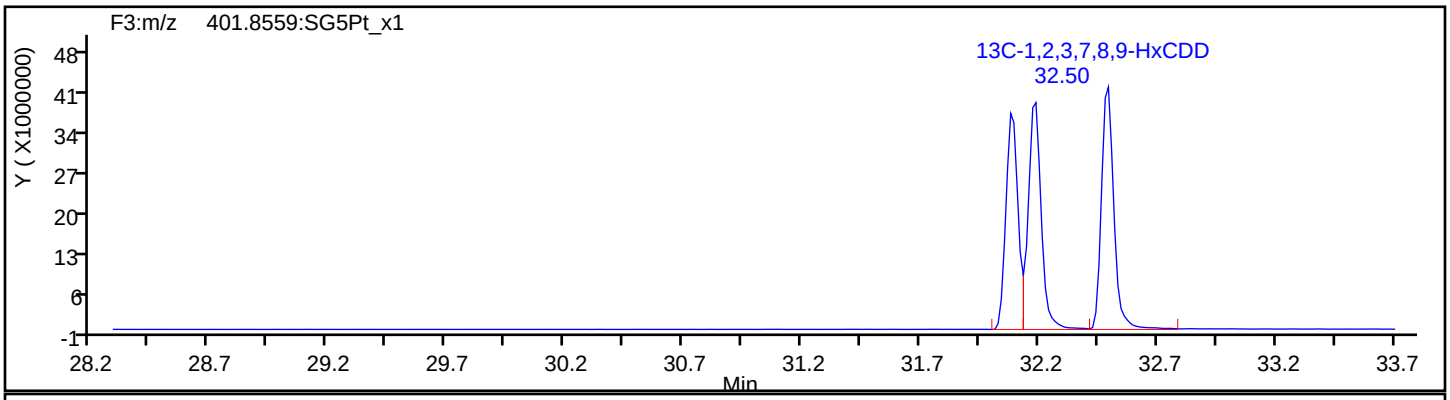
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

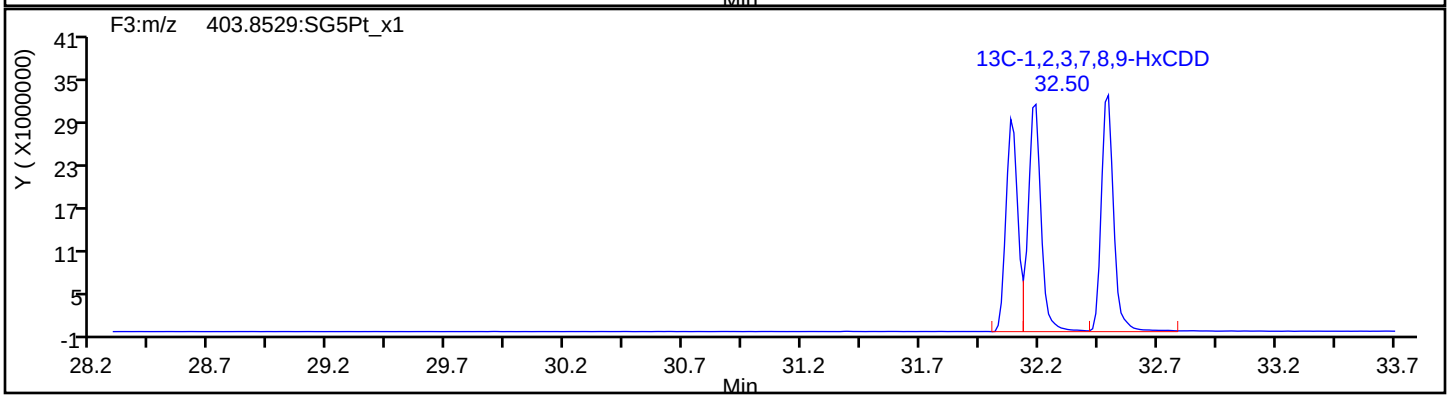
HxCDD





HxCDD Standards



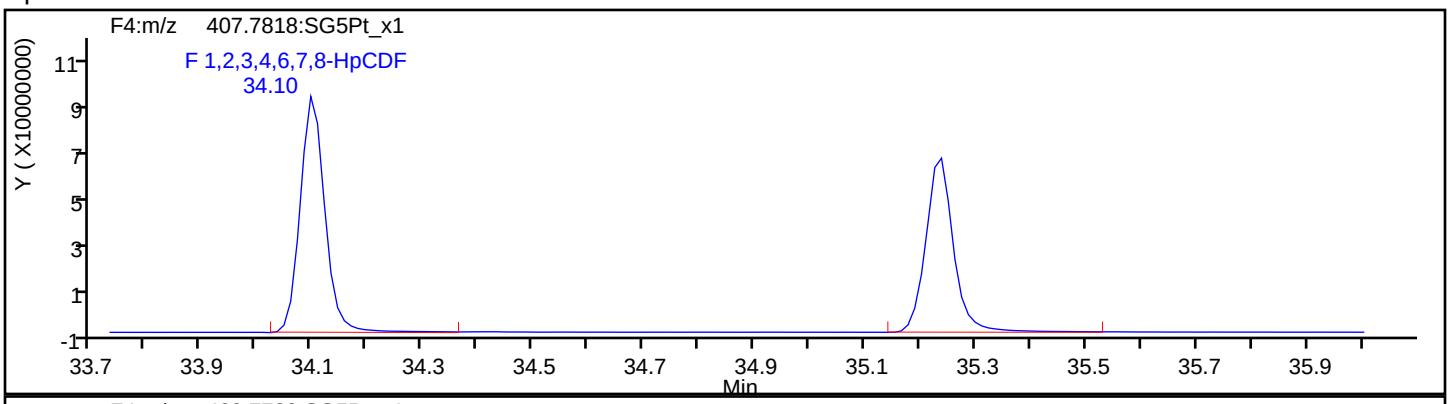


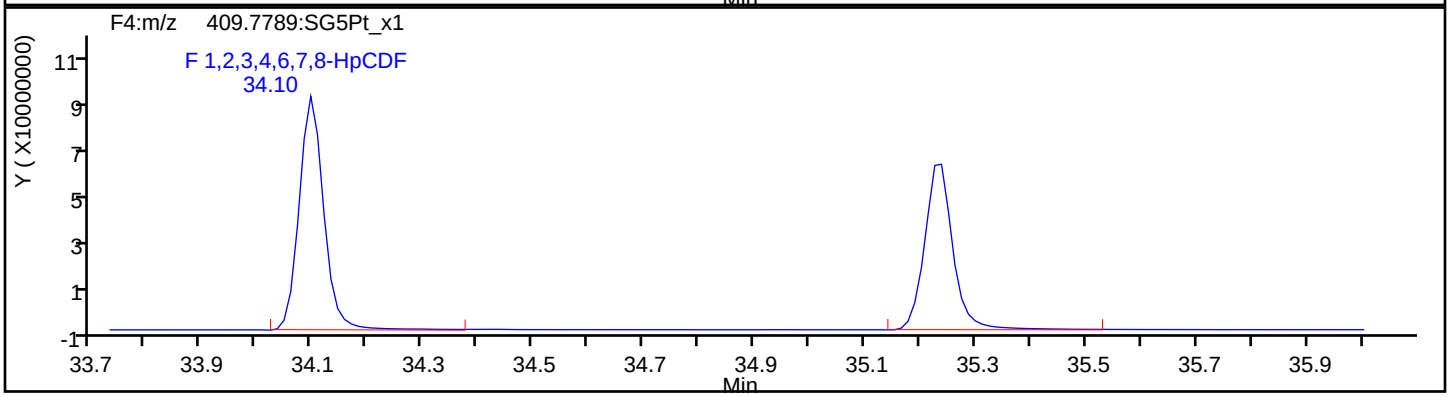
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

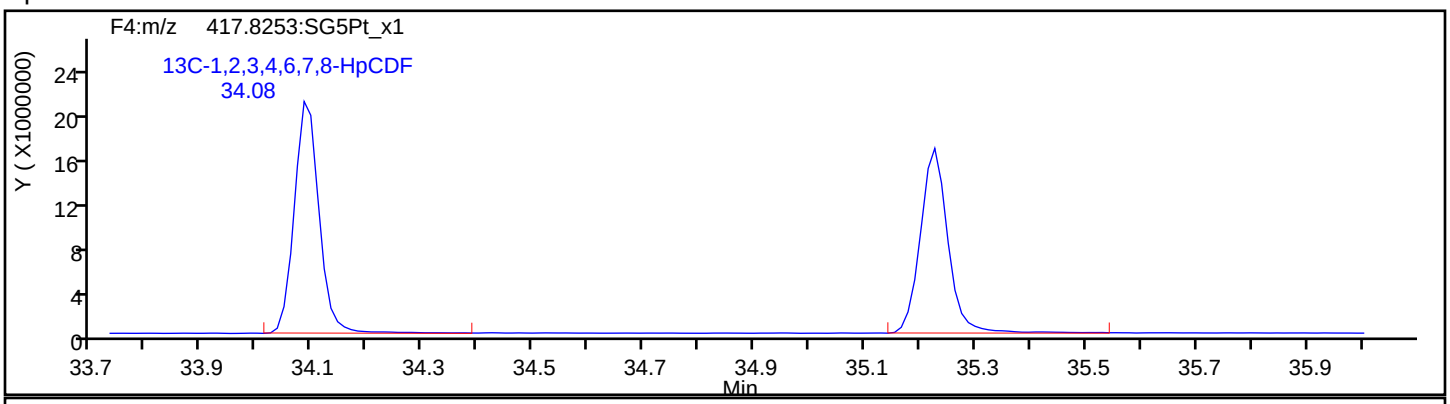
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

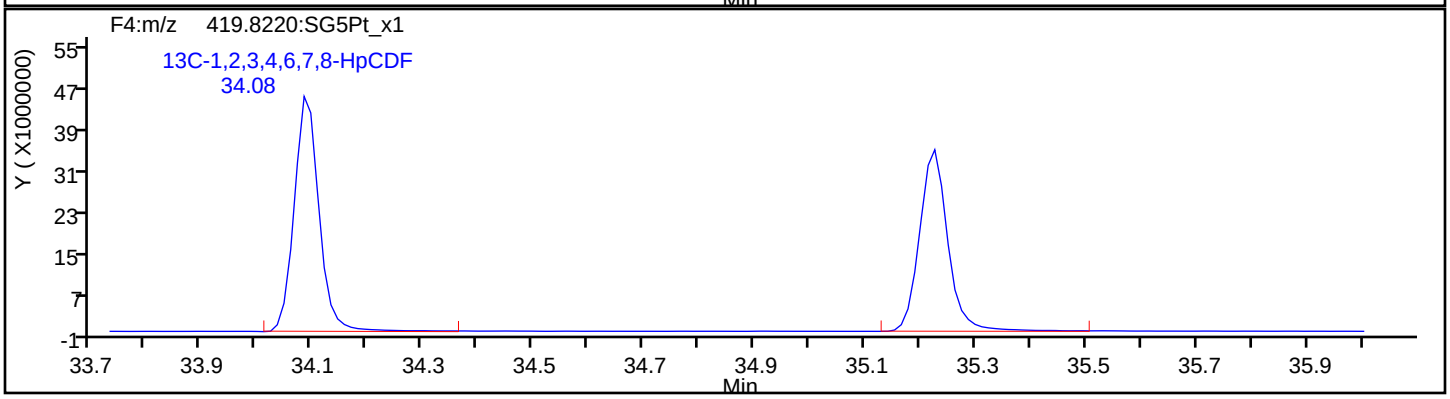
HpCDF





HpCDF Standards



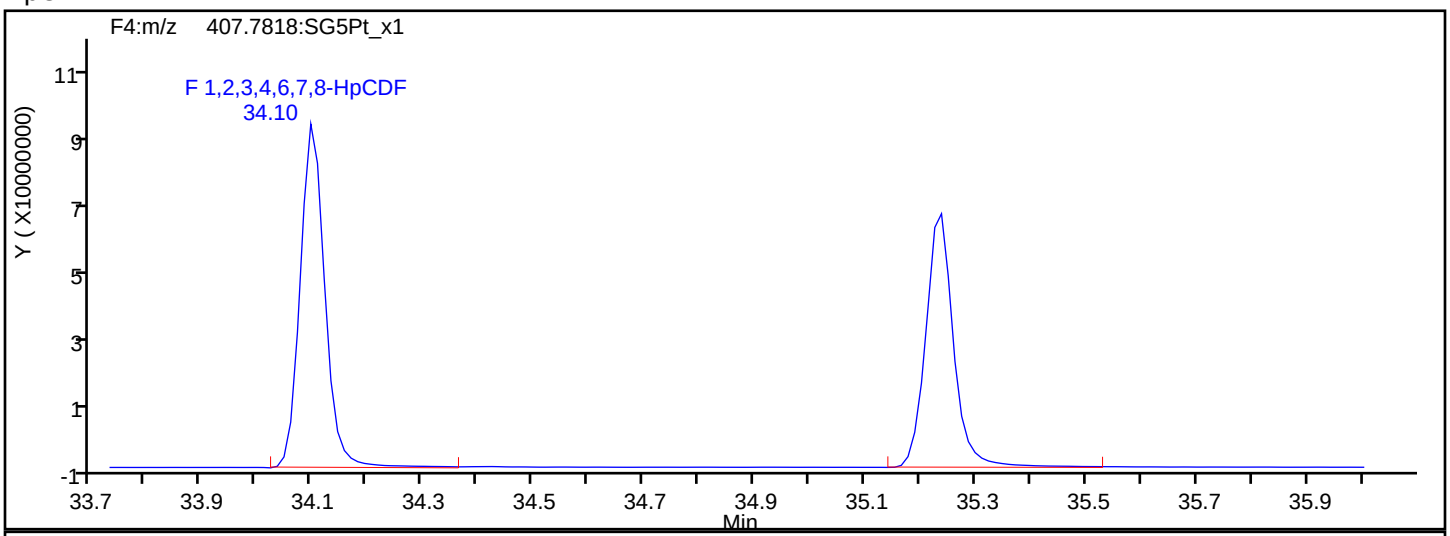


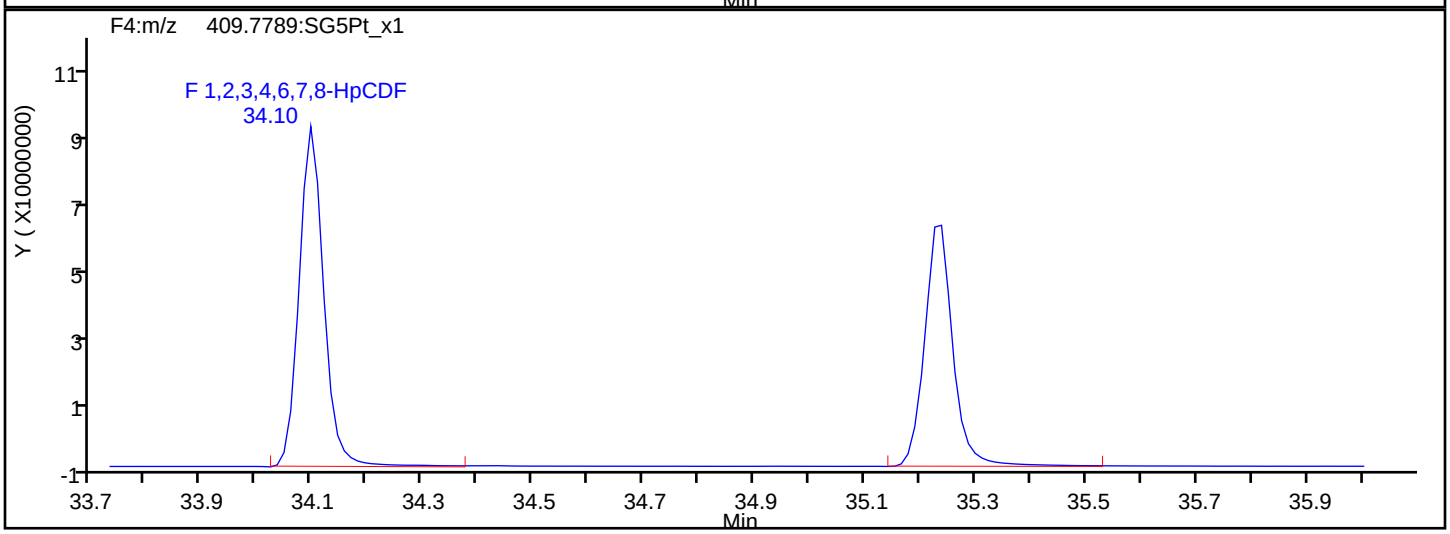
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

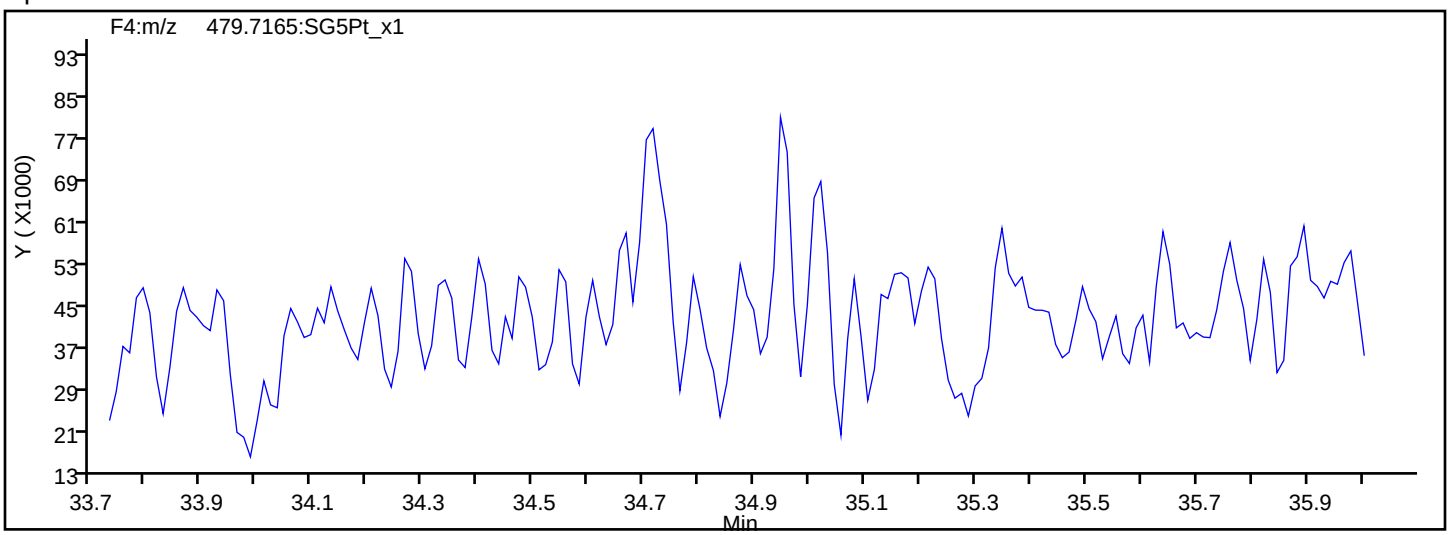
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

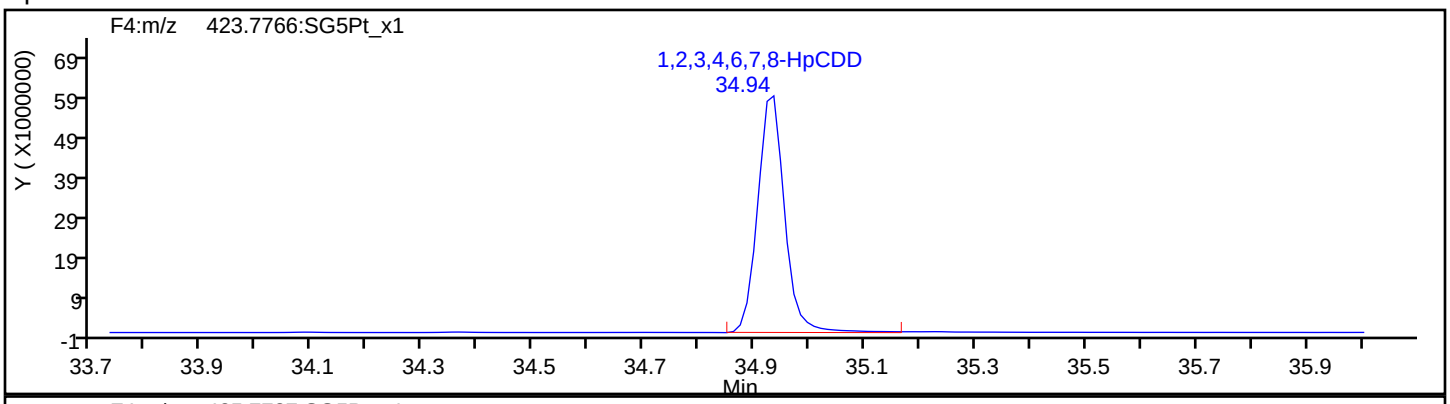


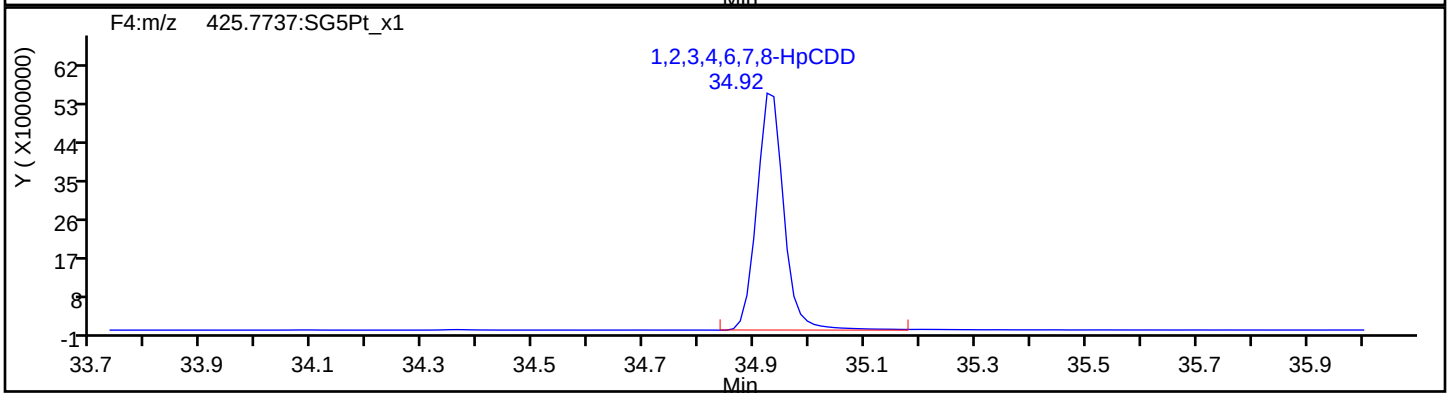
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

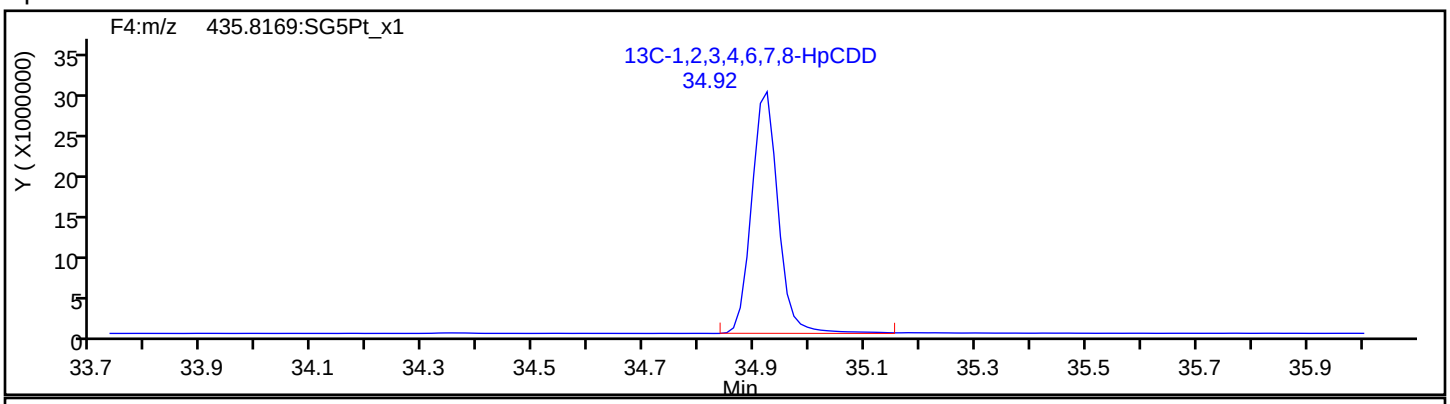
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

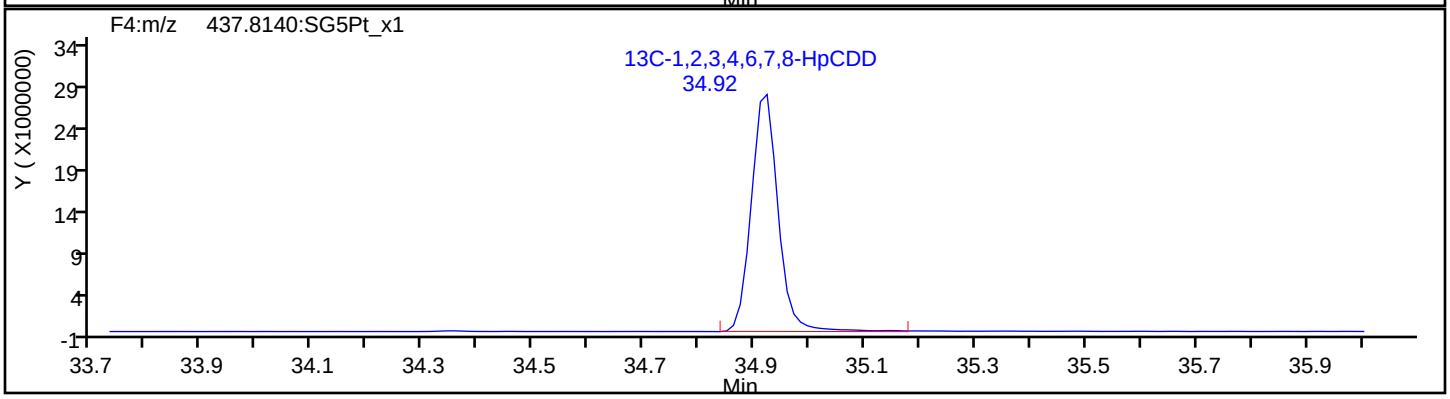
HpCDD





HpCDD Standards



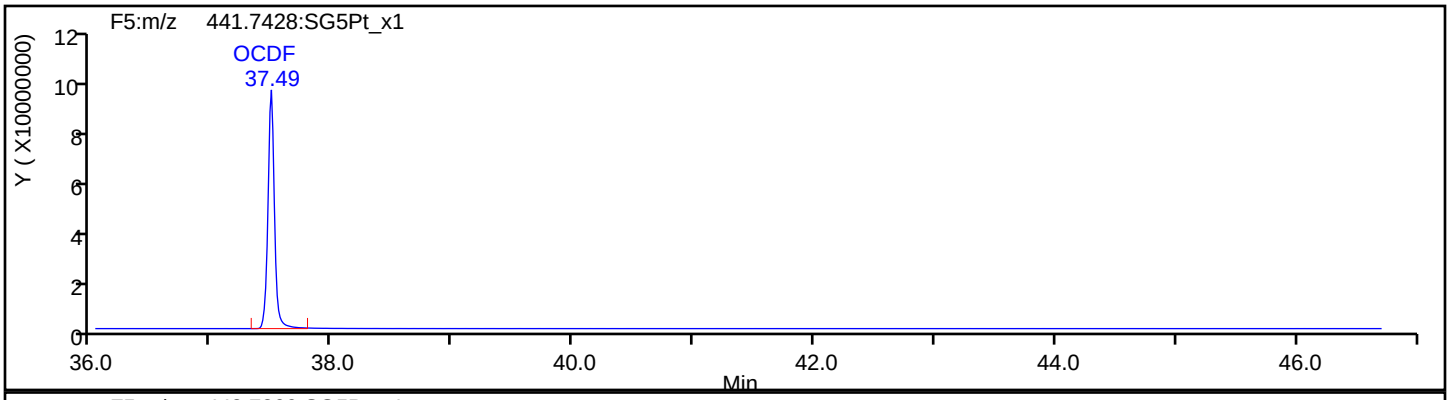


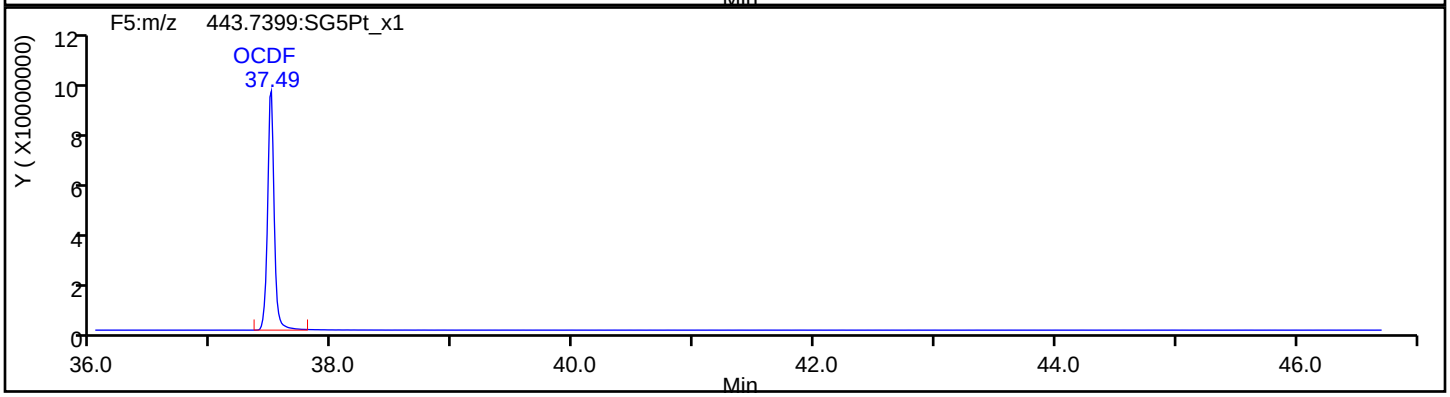
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

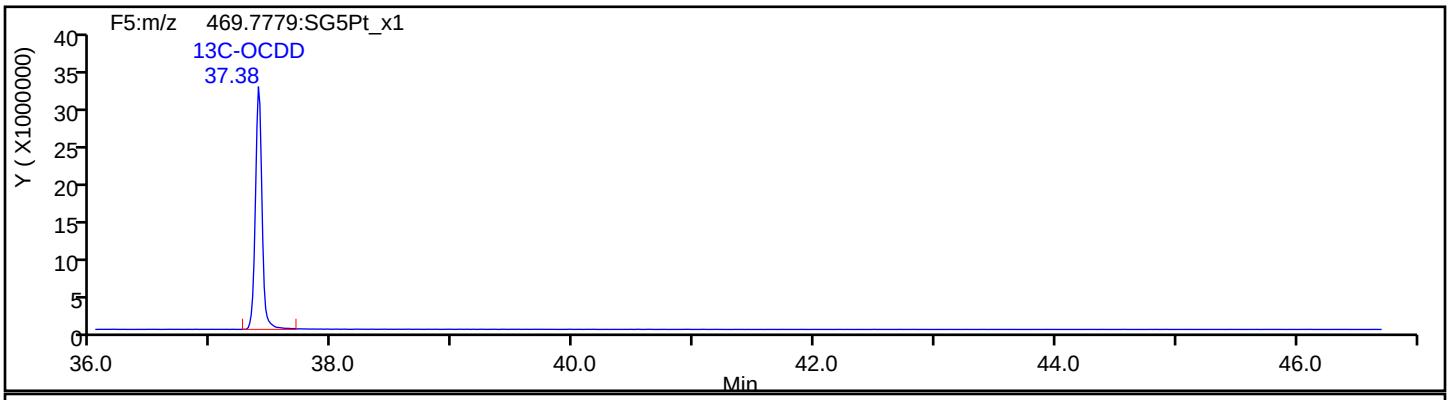
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

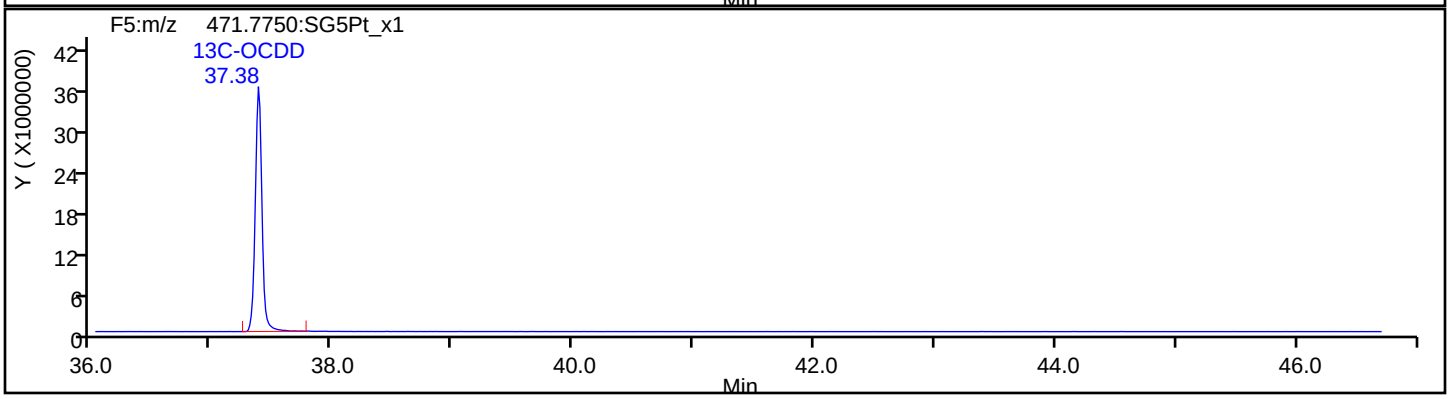
OCDF





OCDF Standards



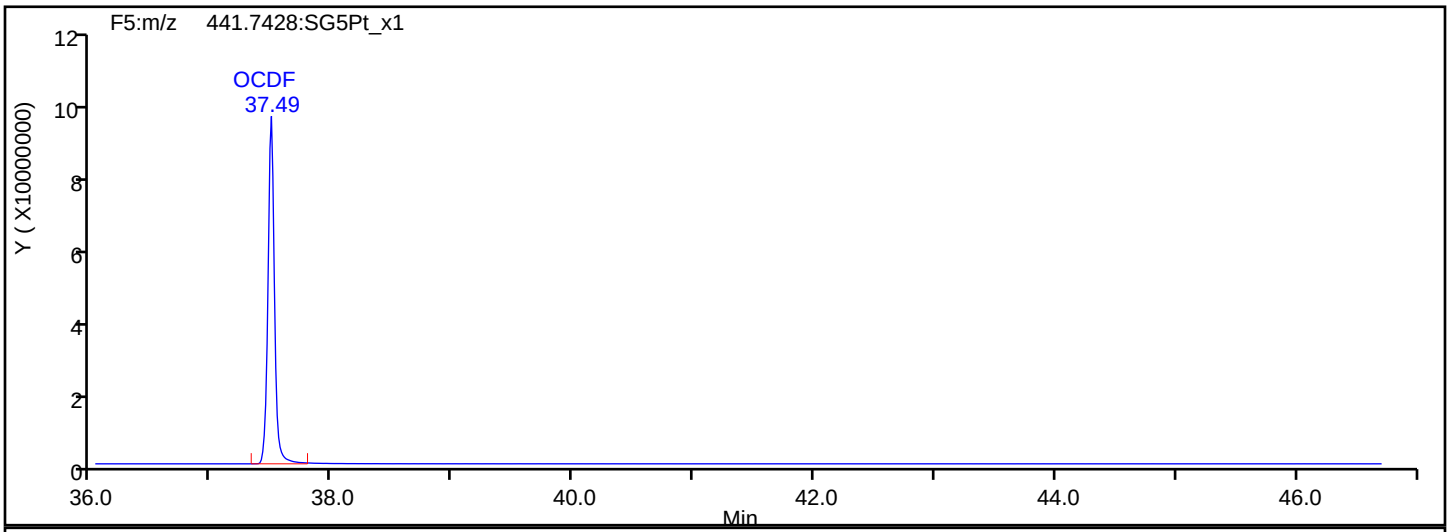


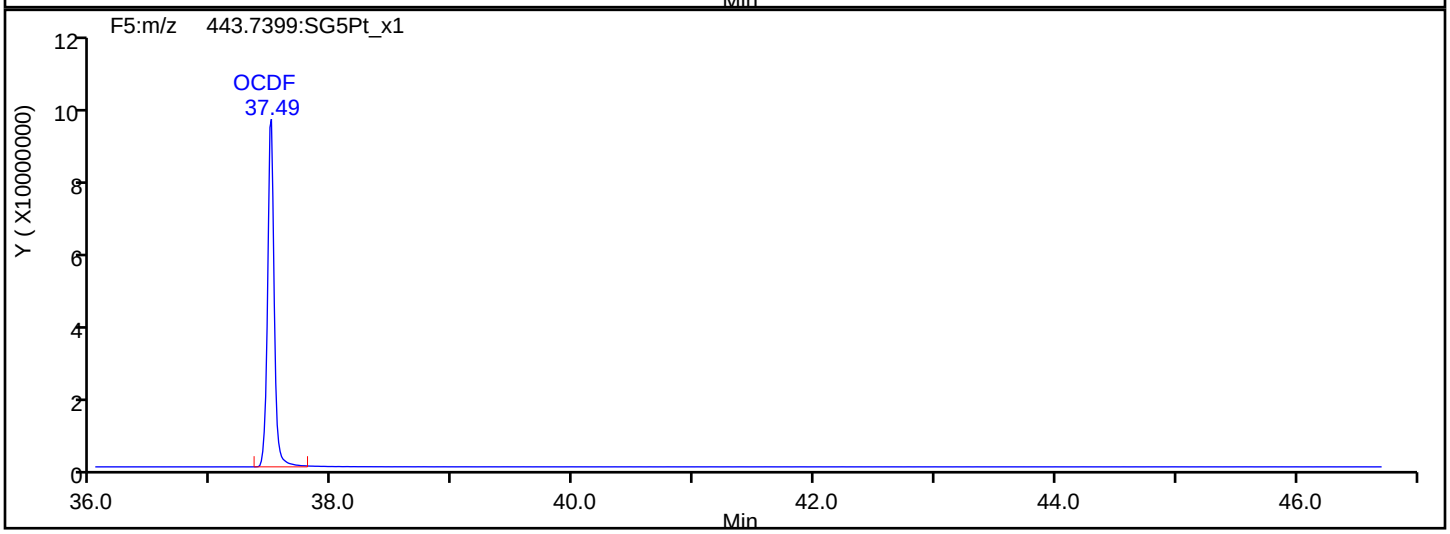
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

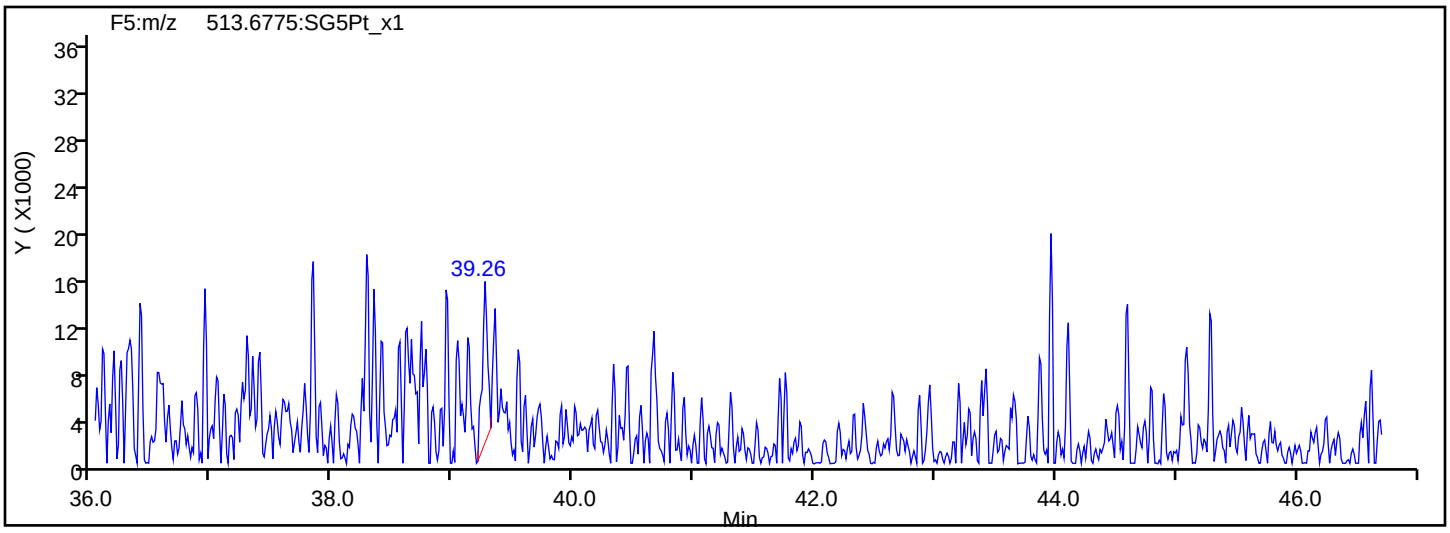
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

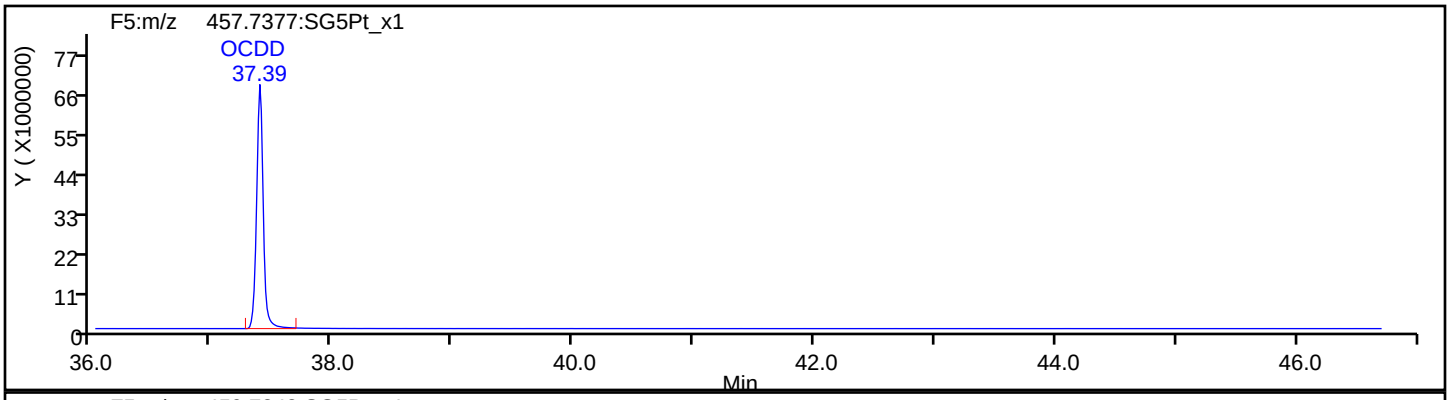


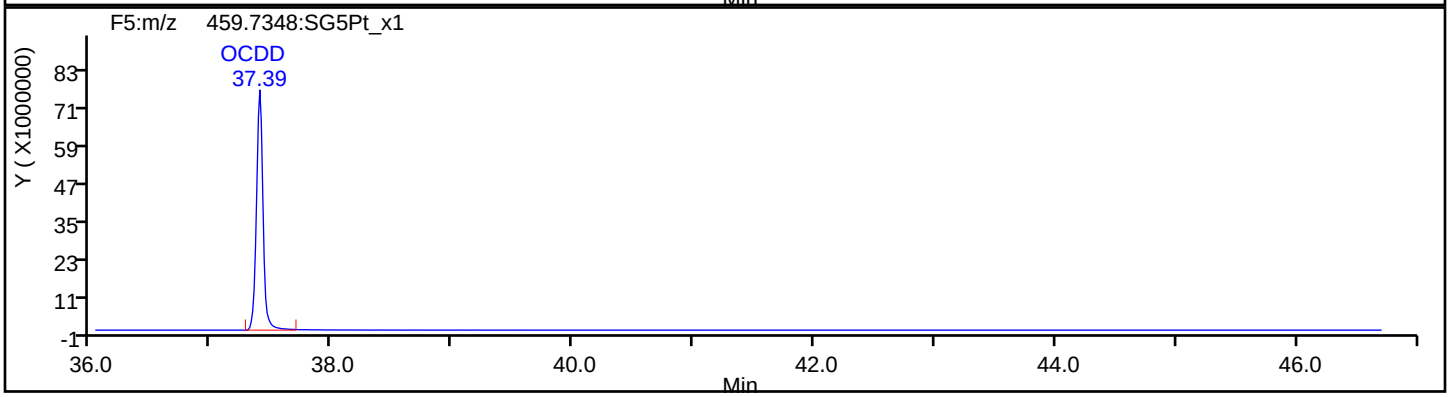
Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

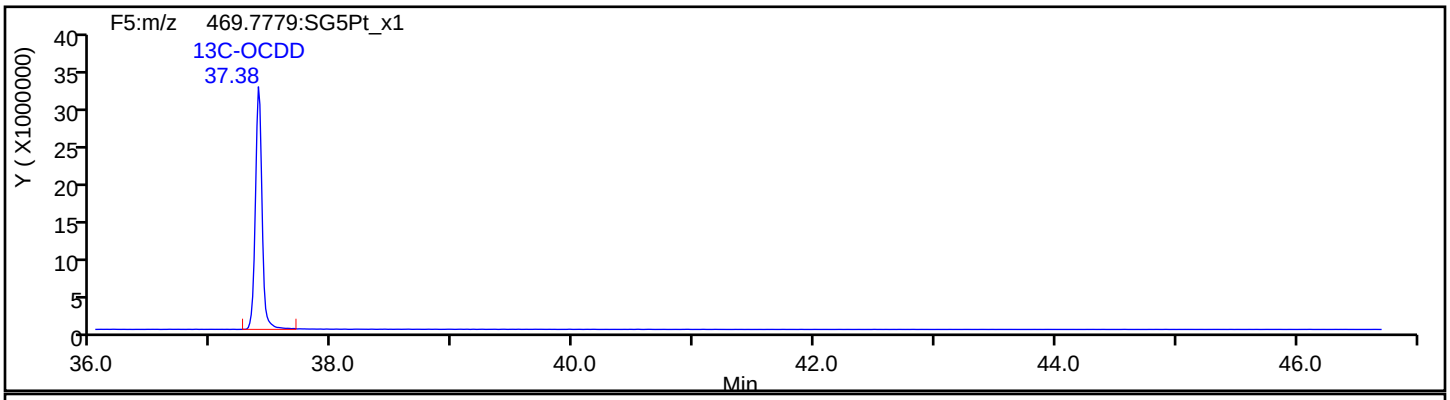
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm

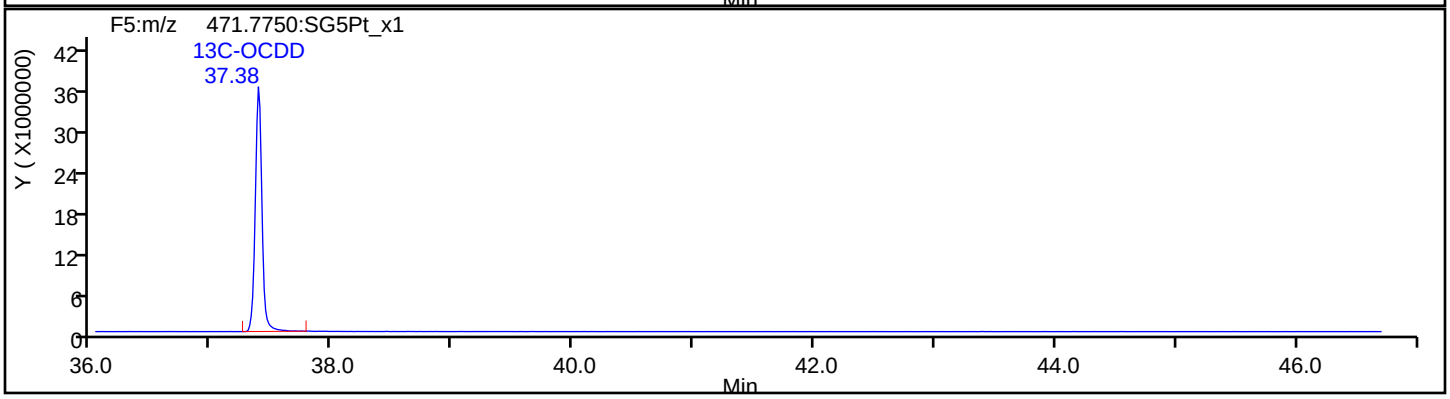
OCDD





OCDD Standards

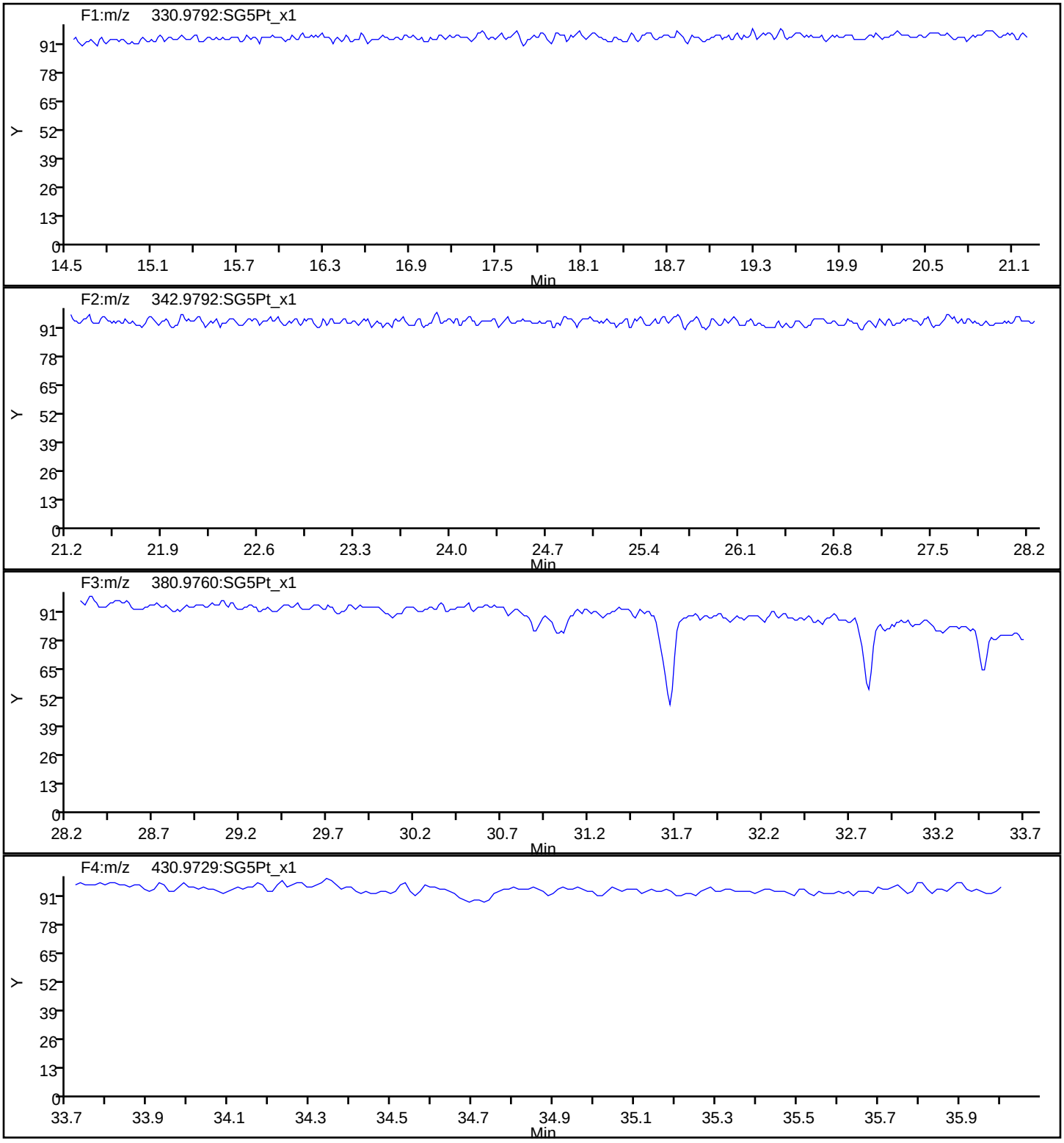




Report Date: 22-May-2019 11:44:50 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

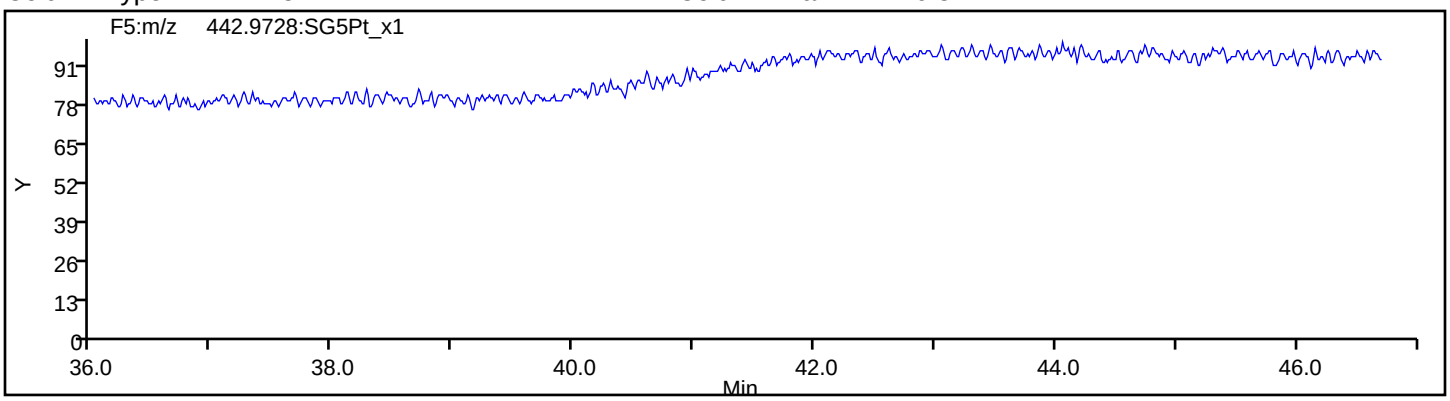
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-May-2019 11:44:51 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_6.d		
Injection Date:	21-May-2019 15:53:46	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L5		
Worklist#:	296020	Sample Line#:	6
Column Type:	DB-5	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d
Lims ID: IC 6
Client ID: L6
Sample Type: IC Calib Level: 6
Inject. Date: 21-May-2019 16:41:15 ALS Bottle#: 8 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119D CS-6 HRDXNL6_00021
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:59 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 17:54:45

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	18.429	289876700	0.83	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	17.900	414364714	0.78	1.3908	102.8	102.8	0.2046	0.2046	103	
2,3,7,8-TCDF	17.915	840711981	0.79	0.9710	208.9	208.9	0.4510	0.4510	104	
S Total TCDF					208.9	208.9	0.4510	0.4510		
D 13C-2,3,7,8-TCDD	18.626	298123322	0.78	0.9819	104.7	104.7	0.2000	0.2000	105	
2,3,7,8-TCDD	18.656	661466014	0.79	1.0447	212.4	212.4	0.1572	0.1572	106	
$ 37Cl4-2,3,7,8-TCDD	18.656	772302983		1.2205	218.3	218.3	0.2208	0.2208	109	
S Total TCDD					212.4	212.4	0.1572	0.1572		
D 13C-1,2,3,7,8-PeCDF	23.107	355379894	1.59	1.1585	105.8	105.8	0.2366	0.2366	106	
1,2,3,7,8-PeCDF	23.121	3546729328	1.60	0.9633	1036.0	1036.0	2.631	2.631	104	
D 13C-2,3,4,7,8-PeCDF	24.484	347746656	1.61	1.1532	104.0	104.0	0.2376	0.2376	104	
2,3,4,7,8-PeCDF	24.512	3502921768	1.55	0.9495	1060.9	1060.9	2.959	2.959	106	
S Total PeCDF					2096.9	2096.9	2.795	2.795		
D 13C-1,2,3,7,8-PeCDD	25.234	226685680	1.66	0.7431	105.2	105.2	0.1298	0.1298	105	
1,2,3,7,8-PeCDD	25.262	2476692315	1.59	1.0635	1027.4	1027.4	0.8398	0.8398	103	
S Total PeCDD					1027.4	1027.4	0.8398	0.8398		
D 13C-1,2,3,4,7,8-HxCDF	31.045	238951430	0.53	0.9837	102.0	102.0	0.2853	0.2853	102	
1,2,3,4,7,8-HxCDF	31.071	3039345430	1.24	1.2173	1044.9	1044.9	3.232	3.232	104	
D 13C-1,2,3,6,7,8-HxCDF	31.204	283858684	0.52	1.1554	103.1	103.1	0.2429	0.2429	103	
1,2,3,6,7,8-HxCDF	31.218	3245921873	1.21	1.1311	1010.9	1010.9	2.803	2.803	101	
D 13C-2,3,4,6,7,8-HxCDF	31.923	254680303	0.53	1.0361	103.2	103.2	0.2709	0.2709	103	
2,3,4,6,7,8-HxCDF	31.937	3018880889	1.23	1.1710	1012.3	1012.3	2.506	2.506	101	
D 13C-1,2,3,7,8,9-HxCDF	32.669	225835692	0.55	0.9034	104.9	104.9	0.3107	0.3107	105	
1,2,3,7,8,9-HxCDF	32.682	2727034804	1.24	1.1787	1024.5	1024.5	2.611	2.611	102	
S Total HxCDF					4092.5	4092.5	2.788	2.788		
* 13C-1,2,3,7,8,9-HxCDD	32.496	238212216	1.28	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	32.097	199999683	1.27	0.8287	101.3	101.3	0.2340	0.2340	101	
1,2,3,4,7,8-HxCDD	32.110	2077802739	1.26	1.0267	1011.9	1011.9	2.057	2.057	101	
D 13C-1,2,3,6,7,8-HxCDD	32.190	229281992	1.26	0.9495	101.4	101.4	0.2043	0.2043	101	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,3,6,7,8-HxCDD	32.203	2312494869	1.24	0.9771	1032.2	1032.2	2.022	2.022	103	
1,2,3,7,8,9-HxCDD	32.509	2335014918	1.24	1.0616	1024.8	1024.8	1.923	1.923	102	
S Total HxCDD					3068.9	3068.9	2.001	2.001		
D 13C-1,2,3,4,6,7,8-HpCDF	34.097	180241372	0.46	0.7285	103.9	103.9	0.4477	0.4477	104	
1,2,3,4,6,7,8-HpCDF	34.109	2587172494	1.04	1.4373	998.7	998.7	3.269	3.269	99.87	
D 13C-1,2,3,4,7,8,9-HpCDF	35.227	165887161	0.45	0.6556	106.2	106.2	0.4974	0.4974	106	
1,2,3,4,7,8,9-HpCDF	35.239	2204844968	1.05	1.3091	1015.3	1015.3	4.124	4.124	102	
S Total HpCDF					2014.0	2014.0	3.697	3.697		
D 13C-1,2,3,4,6,7,8-HpCDD	34.923	171947941	1.07	0.6978	103.4	103.4	0.2157	0.2157	103	
1,2,3,4,6,7,8-HpCDD	34.935	1789936585	1.04	1.0102	1030.5	1030.5	1.734	1.734	103	
S Total HpCDD					1030.5	1030.5	1.734	1.734		
D 13C-OCDD	37.395	243044959	0.91	0.4780	213.5	213.5	0.1639	0.1639	107	
OCDF	37.502	3388401360	0.91	1.3501	2065.2	2065.2	0.4794	0.4794	103	
OCDD	37.407	2620168751	0.89	1.0627	2028.9	2028.9	0.5672	0.5672	101	

Reagents:

HRDXNL6_00021 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d
Lims ID: IC 6
Client ID: L6
Sample Type: IC Calib Level: 6
Inject. Date: 21-May-2019 16:41:15 ALS Bottle#: 8 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC 052119D CS-6 HRDXNL6_00021
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:44:59 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 17:54:45

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	18.429	18.432	0		131563609	31579111	34011	85027	928		
333.9339	18.429	18.432	0		158313091	37430788	20202	50505	1853	0.83(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	17.900	17.900	0	0.971	181891401	43793642	36351	90877	1205		
317.9389	17.900	17.900	0	0.971	232473313	56364854	42186	105465	1336	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	17.915	17.915	0	1.001	370763883	89656102	74261	185652	1207		
305.8987	17.915	17.915	0	1.001	469948098	113262600	101211	253027	1119	0.79(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	18.626	18.629	0	1.011	131030054	29903162	34011	85027	879		
333.9339	18.626	18.629	0	1.011	167093268	38088529	20202	50505	1885	0.78(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	18.656	18.650	0	1.002	291178685	67239425	22081	55202	3045		
321.8936	18.656	18.650	0	1.002	370287329	84352753	22571	56427	3737	0.79(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	18.656	18.650	0	1.012	772302983	174422300	74383	185957	2345		
13C-1,2,3,7,8-PeCDF											
351.9000	23.107	23.102	0	1.254	218001065	37846952	38119	95297	993		
353.8970	23.107	23.102	0	1.254	137378829	23831506	37526	93815	635	1.59(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	23.121	23.123	0	1.001	2183114289	367903864	379003	947507	971		
341.8567	23.121	23.123	0	1.001	1363615039	233569565	246291	615727	948	1.60(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,4,7,8-PeCDF											
351.9000	24.484	24.487	0	1.329	214523978	34074347	38119	95297	894		
353.8970	24.484	24.487	0	1.329	133222678	21565231	37526	93815	575	1.61(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	24.512	24.512	0	1.001	2127419999	337557691	379003	947507	891		
341.8567	24.512	24.512	0	1.001	1375501769	218222701	246291	615727	886	1.55(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	25.234	25.237	0	1.369	141318226	22134384	14815	37037	1494		
369.8919	25.234	25.237	0	1.369	85367454	13145782	11819	29547	1112	1.66(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	25.262	25.264	0	1.001	1519454794	234124110	78604	196510	2979		
357.8516	25.262	25.264	0	1.001	957237521	147129456	47428	118570	3102	1.59(1.32-1.78)	
13C-1,2,3,4,7,8-HxCDF											
383.8639	31.045	31.050	0	0.955	82395400	18178175	28845	72112	630		
385.8610	31.045	31.050	0	0.955	156556030	33429575	48028	120070	696	0.53(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	31.071	31.069	0	1.001	1685005571	368633622	414324	1035810	890		
375.8178	31.071	31.069	0	1.001	1354339859	298512800	397761	994402	750	1.24(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	31.204	31.202	0	0.960	97515170	21905263	28845	72112	759		
385.8610	31.204	31.202	0	0.960	186343514	42119581	48028	120070	877	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	31.218	31.223	0	1.000	1779036684	405582478	414324	1035810	979		
375.8178	31.218	31.223	0	1.000	1466885189	333032019	397761	994402	837	1.21(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	31.923	31.923	0	0.982	88059632	24218845	28845	72112	840		
385.8610	31.923	31.923	0	0.982	166620671	44953907	48028	120070	936	0.53(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	31.937	31.942	0	1.000	1666569595	457556585	414324	1035810	1104		
375.8178	31.937	31.942	0	1.000	1352311294	370516103	397761	994402	932	1.23(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	32.669	32.674	0	1.005	79692907	23337429	28845	72112	809		
385.8610	32.669	32.674	0	1.005	146142785	42622394	48028	120070	887	0.55(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	32.682	32.690	0	1.000	1509028191	439143899	414324	1035810	1060		
375.8178	32.682	32.690	0	1.000	1218006613	356683002	397761	994402	897	1.24(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDD											
401.8559	32.496	32.499	0		133867063	38186265	27075	67687	1410		
403.8529	32.496	32.499	0		104345153	30282023	26040	65100	1163	1.28(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	32.097	32.094	0	0.988	111906748	33111191	27075	67687	1223		
403.8529	32.097	32.094	0	0.988	88092935	25908205	26040	65100	995	1.27(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	32.110	32.110	0	1.000	1158993649	350495418	276229	690572	1269		
391.8127	32.110	32.110	0	1.000	918809090	271841918	222274	555685	1223	1.26(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,6,7,8-HxCDD											
401.8559	32.190	32.192	0	0.991	127743398	35155569	27075	67687	1298		
403.8529	32.190	32.192	0	0.991	101538594	27924062	26040	65100	1072	1.26(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	32.203	32.208	0	1.000	1279892914	345743959	276229	690572	1252		
391.8127	32.203	32.208	0	1.000	1032601955	282397830	222274	555685	1270	1.24(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	32.509	32.515	0	1.013	1290863461	378133246	276229	690572	1369		
391.8127	32.509	32.515	0	1.013	1044151457	305743514	222274	555685	1376	1.24(1.05-1.43)	
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	34.097	34.097	0	1.049	57063987	18440729	40221	100552	458		
419.8220	34.097	34.097	0	1.049	123177385	39917592	49095	122737	813	0.46(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.109	34.104	0	1.000	1316710218	419013336	562025	1405062	746		
409.7789	34.097	34.104	0	1.000	1270462276	397353071	534823	1337057	743	1.04(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	35.227	35.232	0	1.084	51156957	15770167	40221	100552	392		
419.8220	35.227	35.232	0	1.084	114730204	35016246	49095	122737	713	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.239	35.244	0	1.000	1127796114	343366945	562025	1405062	611		
409.7789	35.239	35.244	0	1.000	1077048854	327235133	534823	1337057	612	1.05(0.88-1.20)	
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.923	34.928	0	1.075	88989645	28666860	20973	52432	1367		
437.8140	34.923	34.928	0	1.075	82958296	26754622	20254	50635	1321	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.935	34.940	0	1.000	911717168	292124425	202155	505387	1445		
425.7737	34.935	34.940	0	1.000	878219417	280761001	186203	465507	1508	1.04(0.88-1.20)	
13C-OCDD											
469.7779	37.395	37.392	0	1.151	116103517	32090990	12539	31347	2559		
471.7750	37.395	37.392	0	1.151	126941442	34910750	8913	22282	3917	0.91(0.76-1.02)	
OCDF											
441.7428	37.502	37.500	0	1.003	1612771727	435751853	41084	102710	10606		
443.7399	37.491	37.500	-1	1.003	1775629633	485850088	45659	114147	10641	0.91(0.76-1.02)	
OCDD											
457.7377	37.407	37.402	0	1.000	1230725466	338966907	33869	84672	10008		
459.7348	37.407	37.402	0	1.000	1389443285	375496464	46902	117255	8006	0.89(0.76-1.02)	

Reagents:

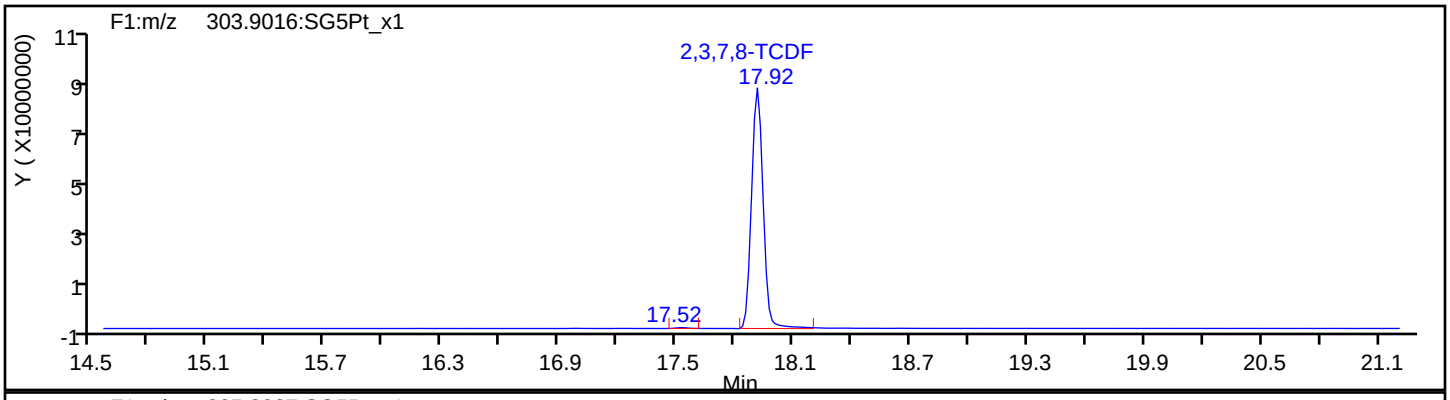
HRDXNL6_00021 Amount Added: 1.00 Units: mL

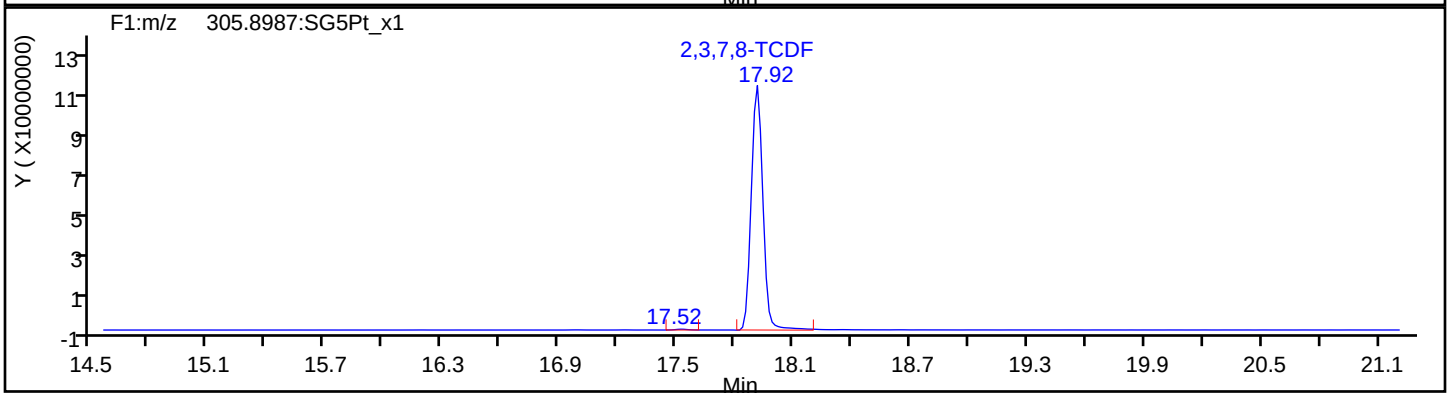
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

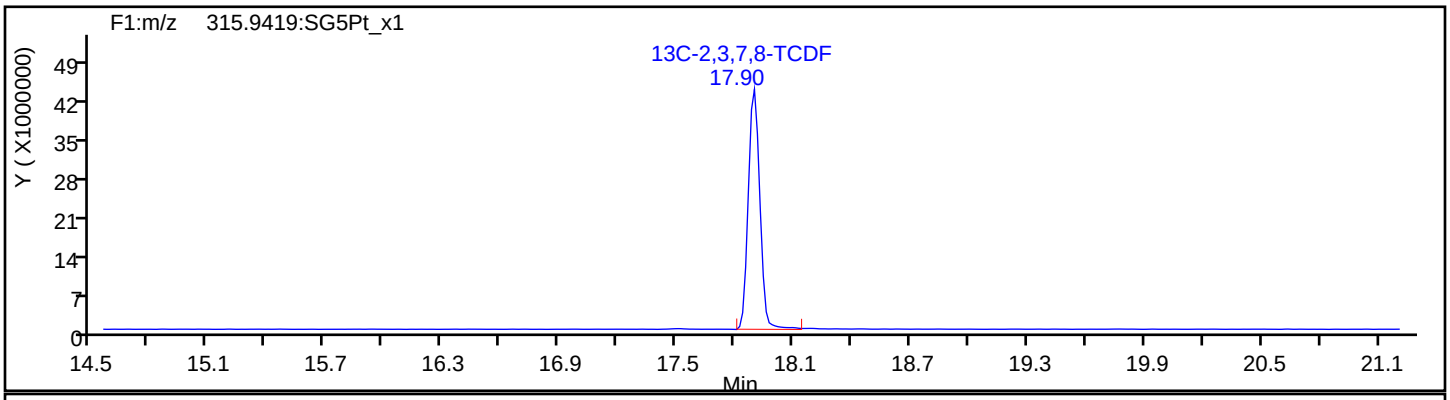
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

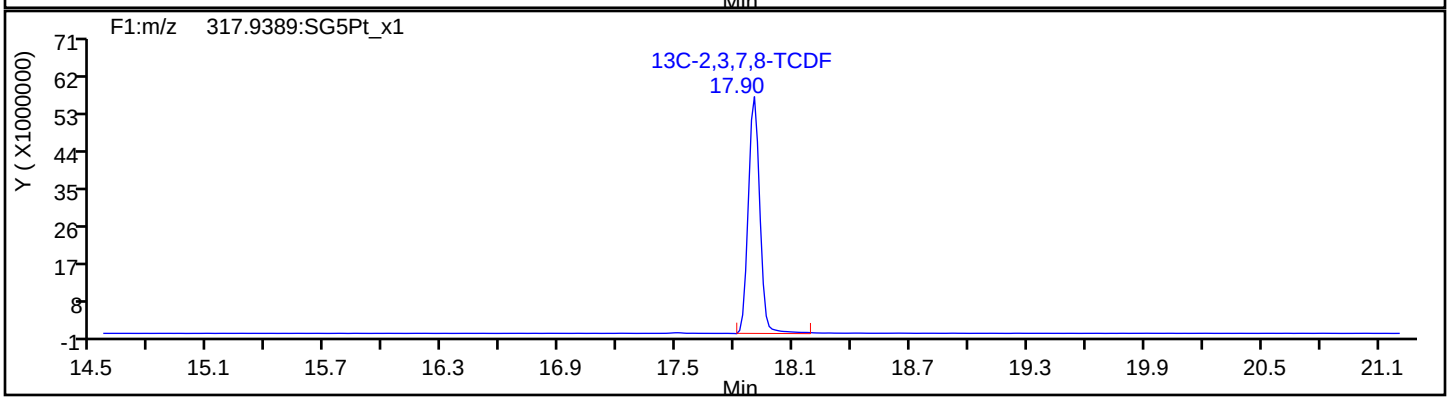
TCDF





TCDF Standards

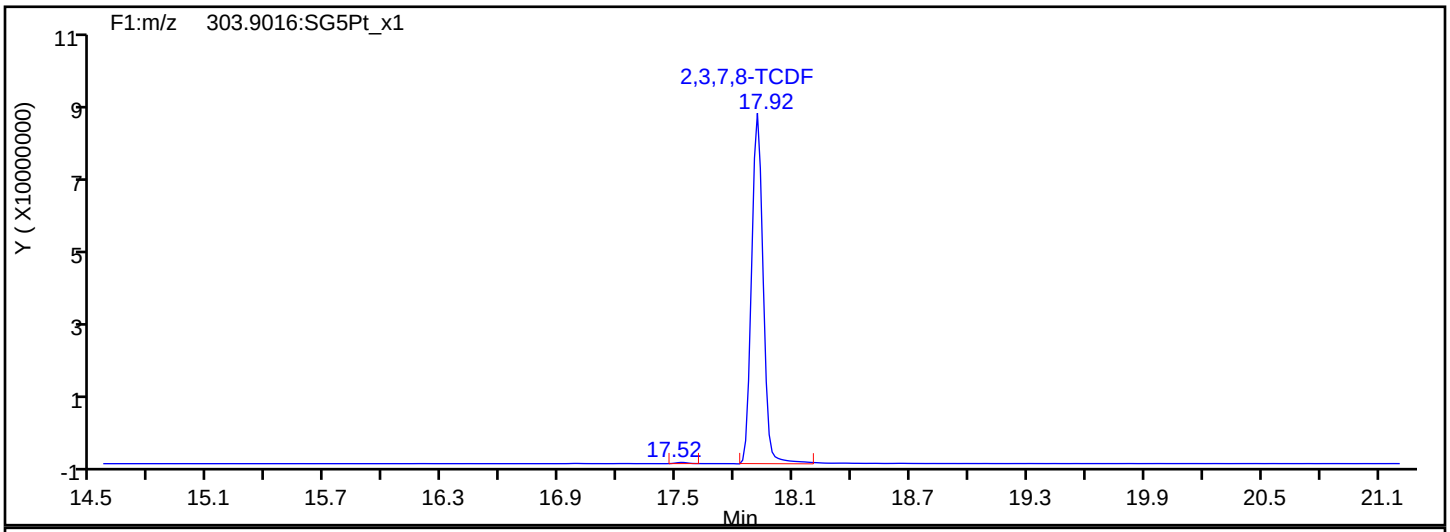


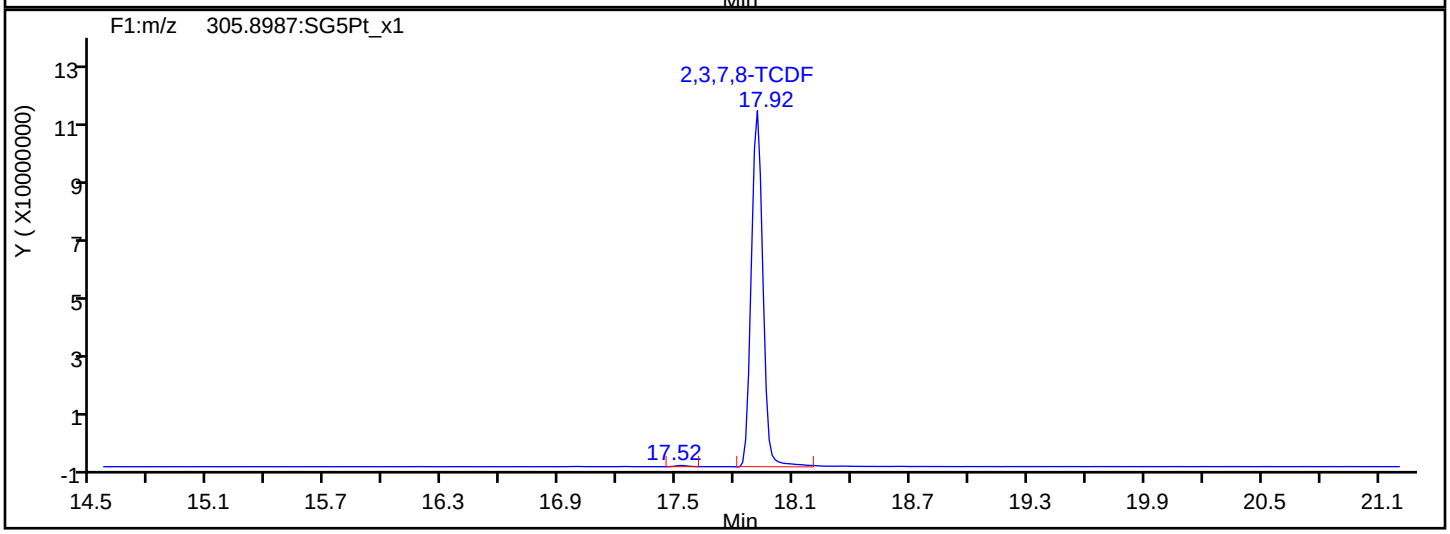


Eurofins TestAmerica, Sacramento

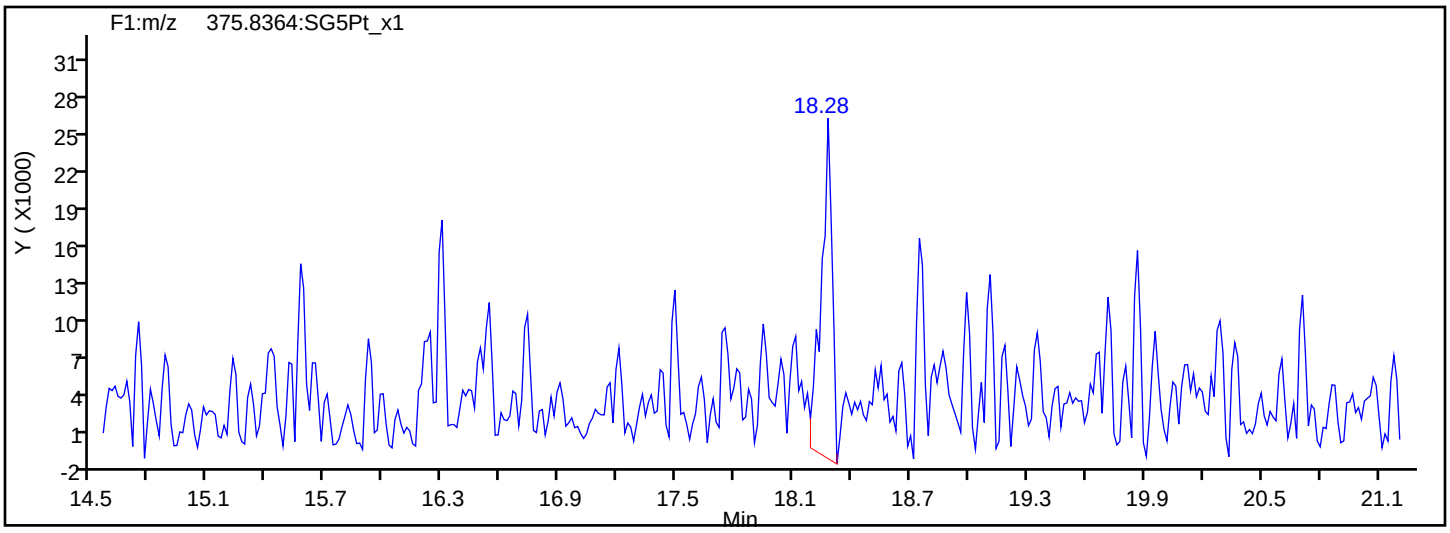
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

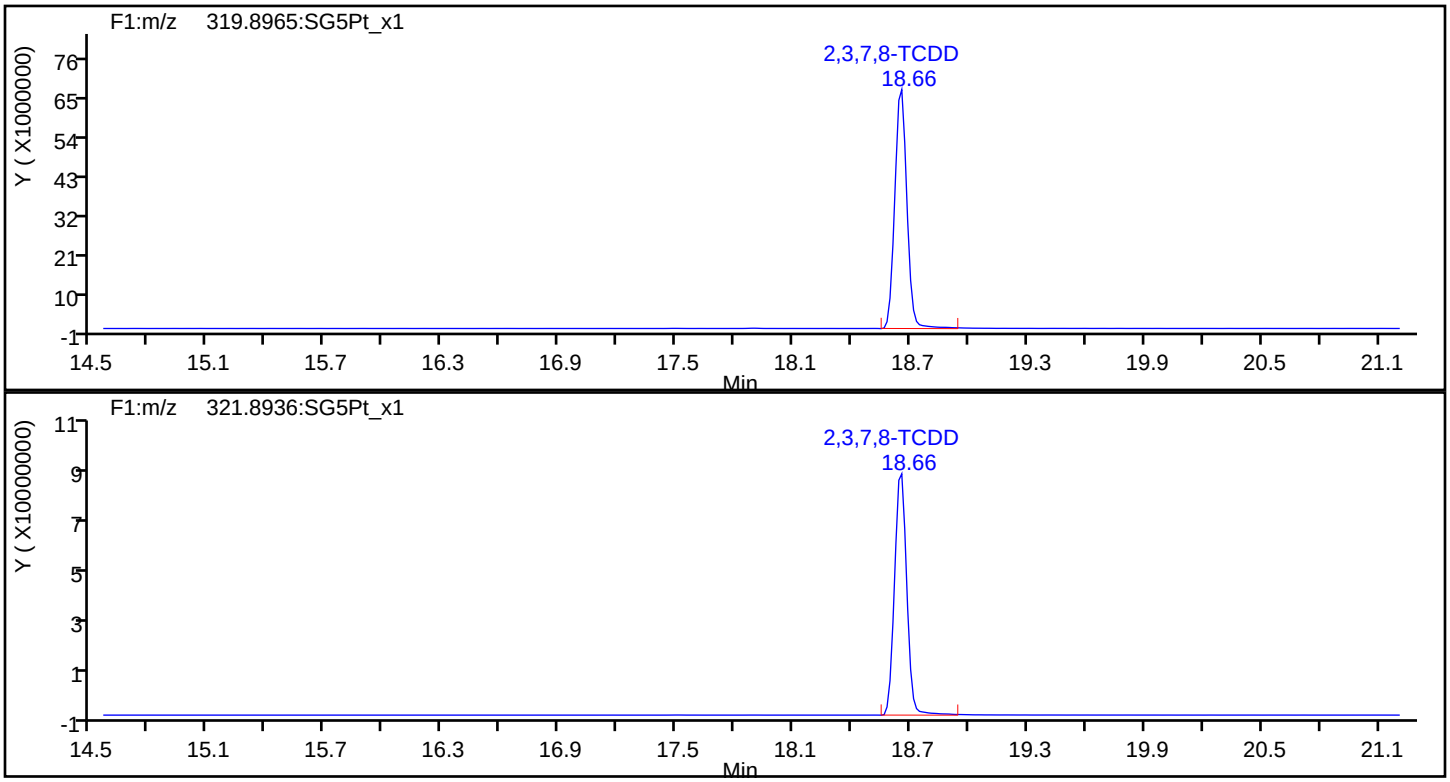


Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

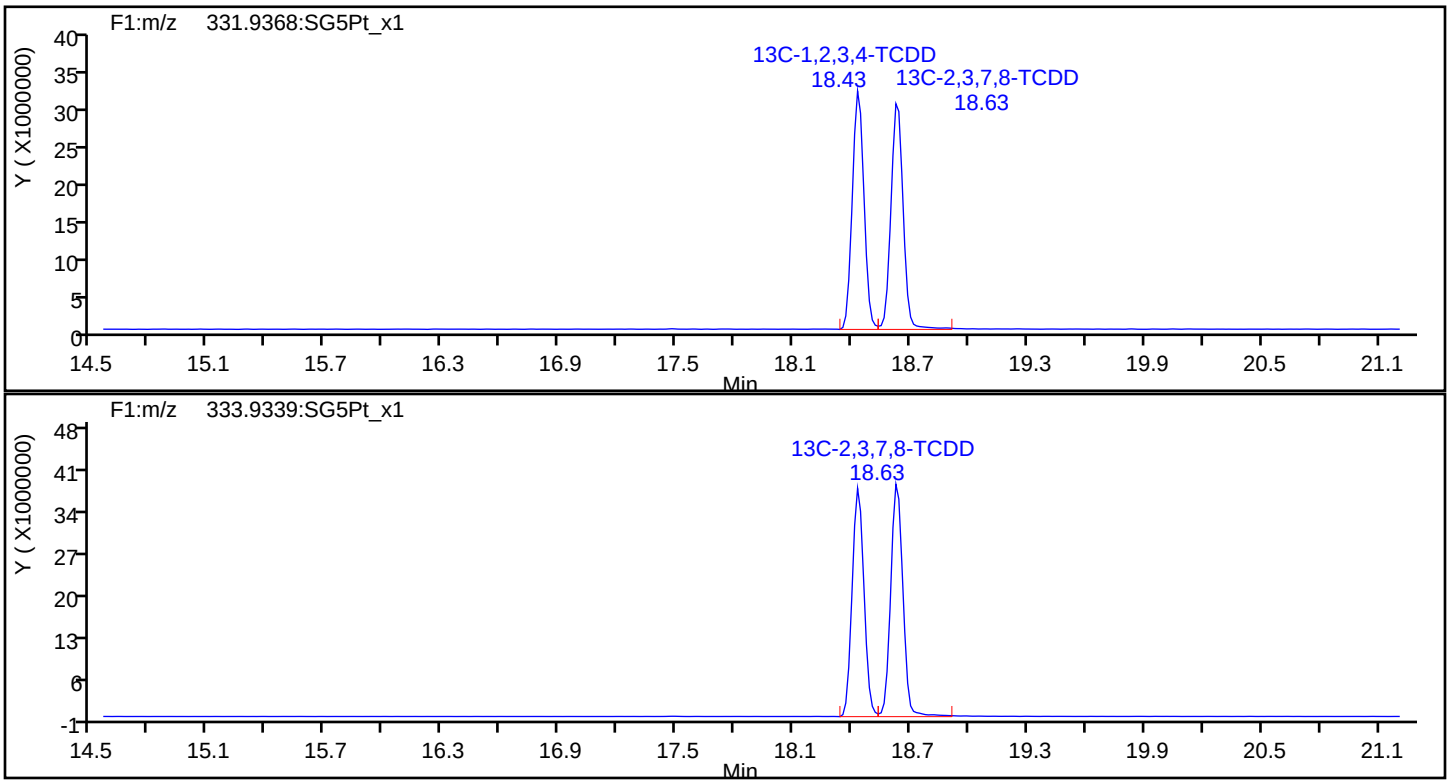
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

TCDD



TCDD Standards

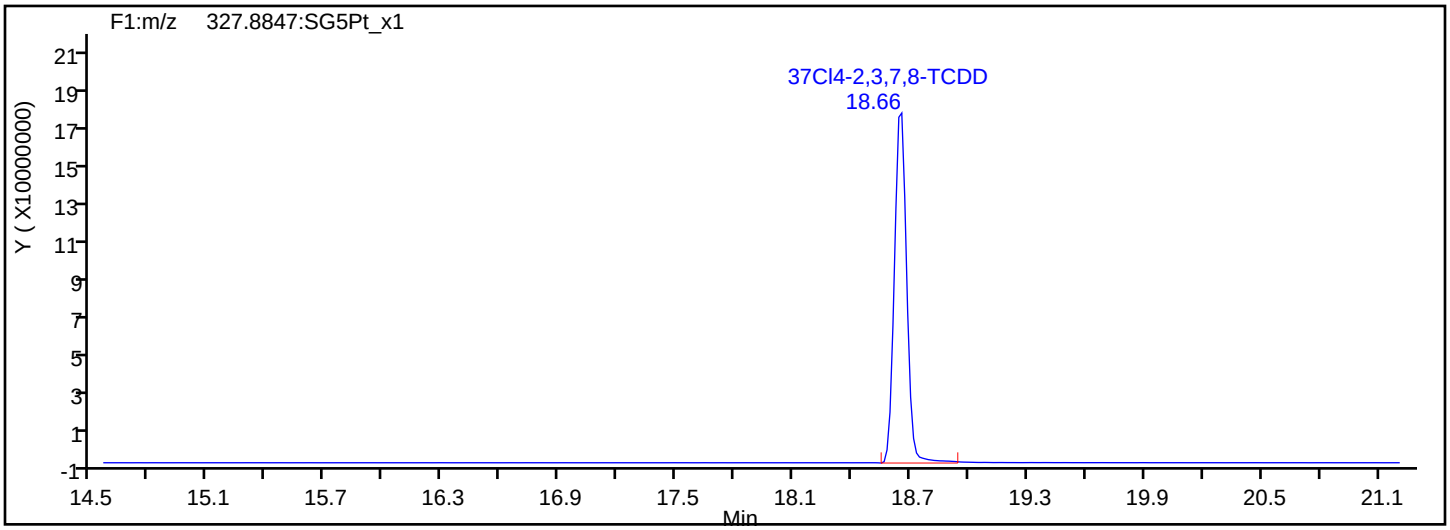


Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

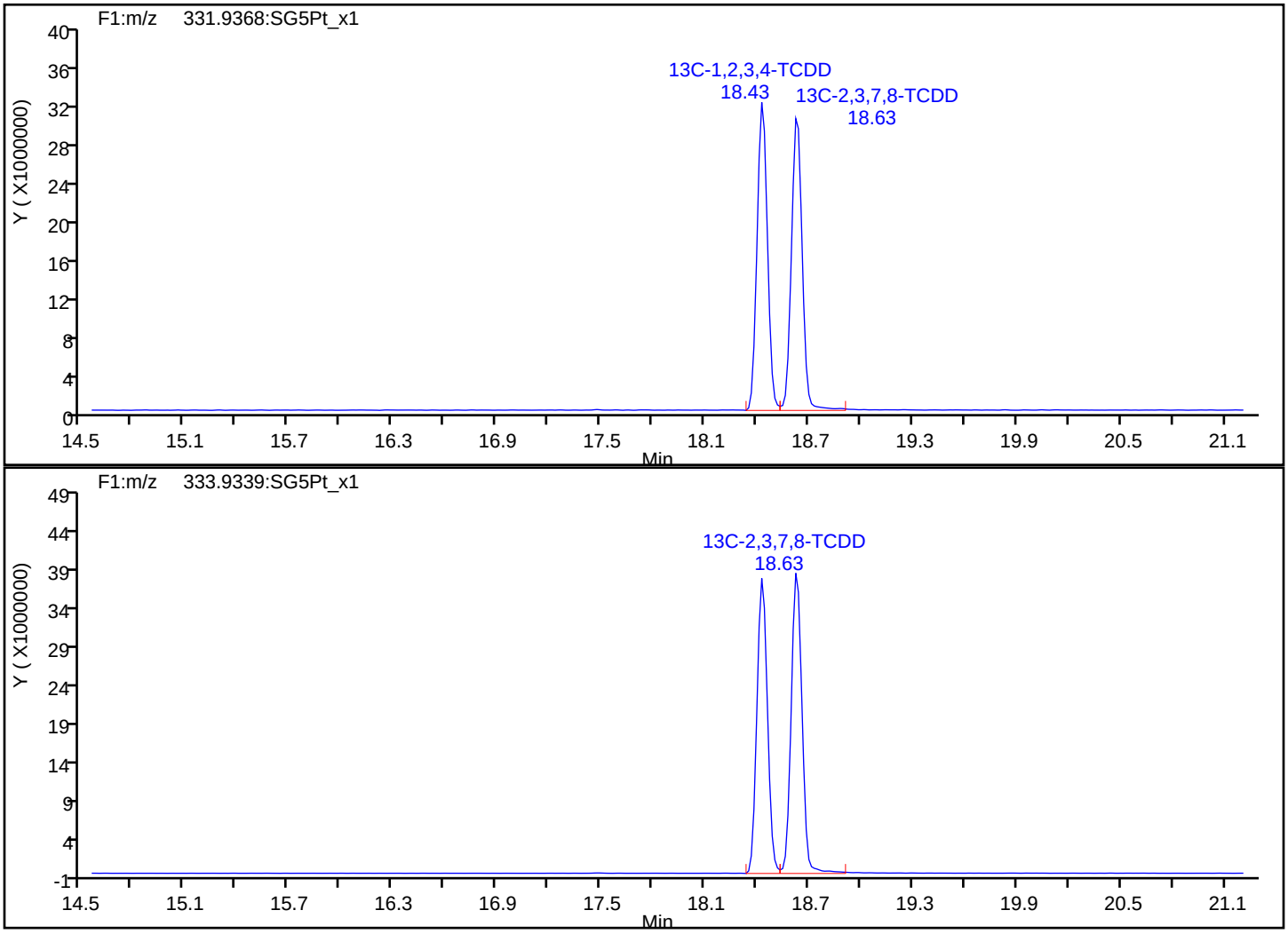
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

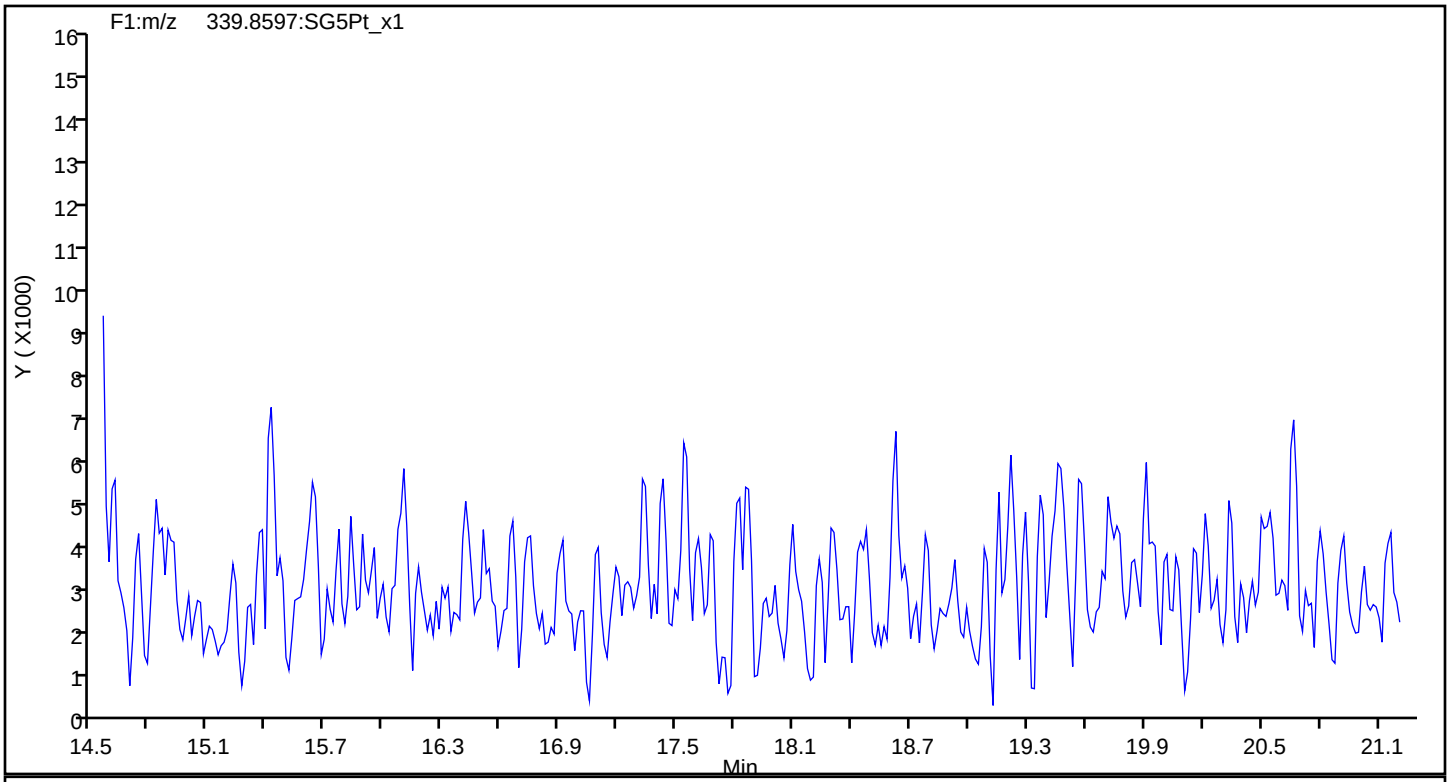


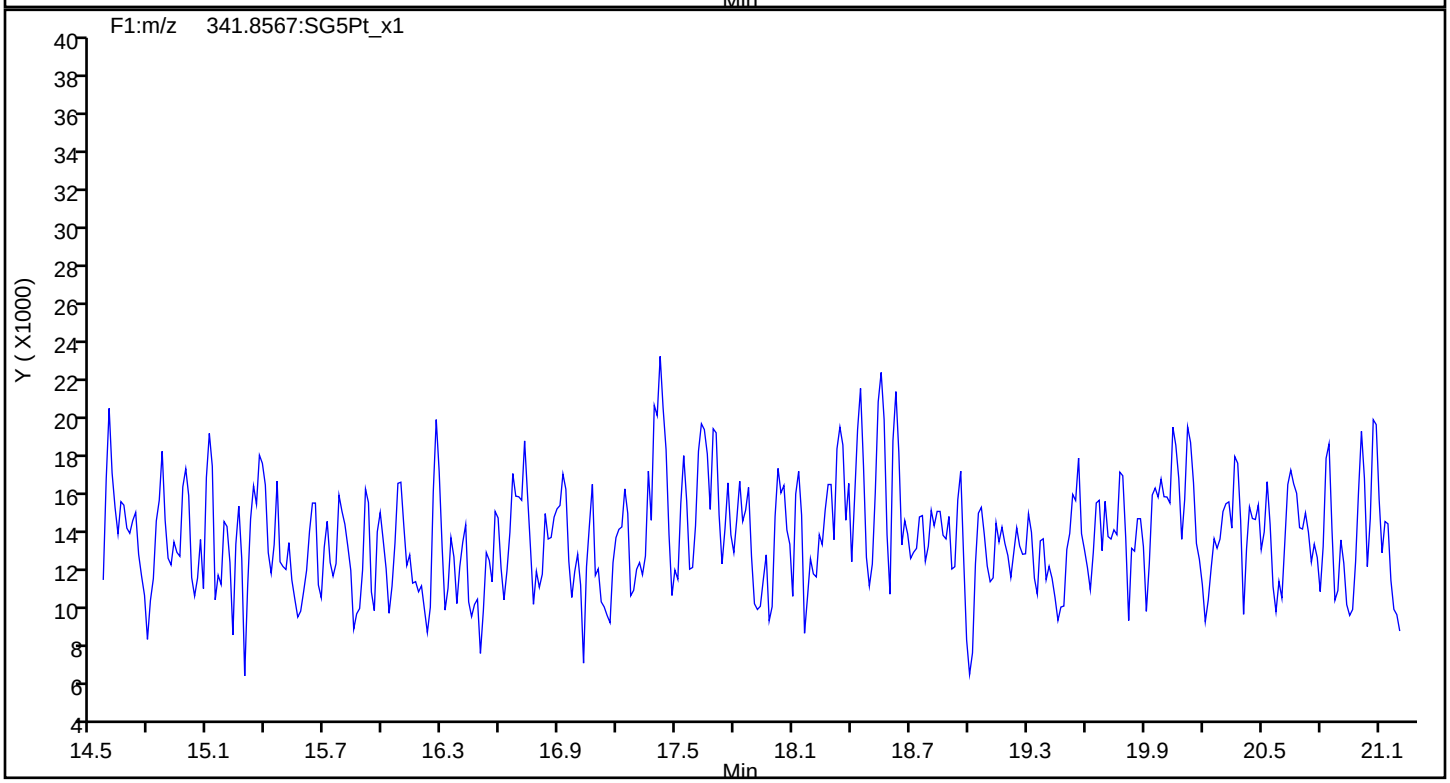
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



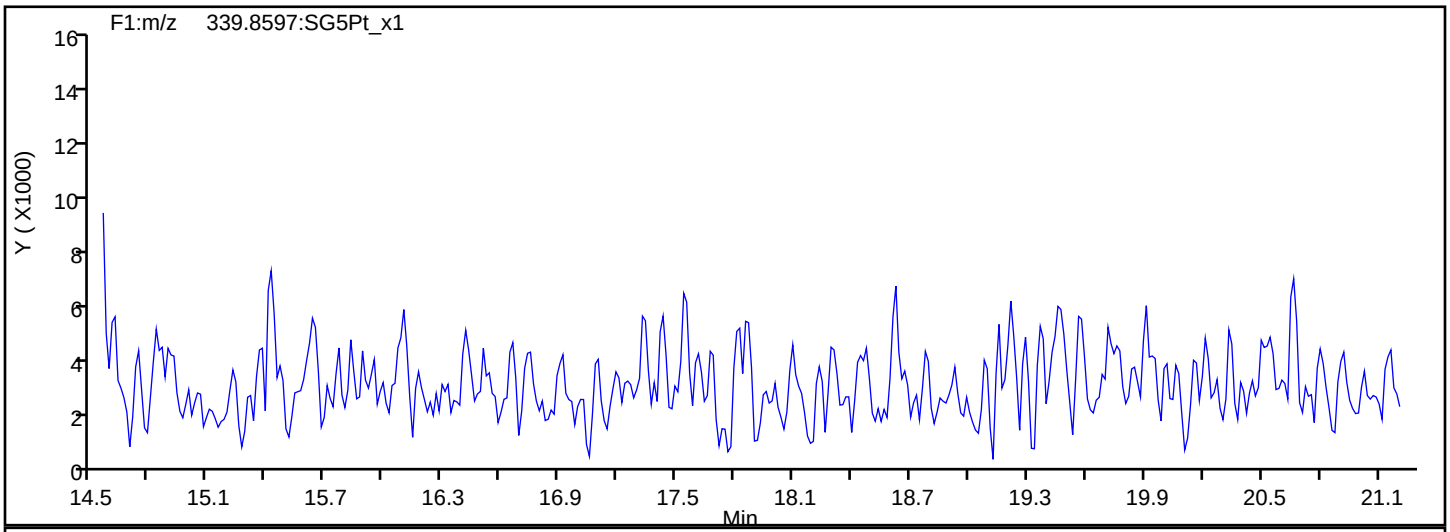


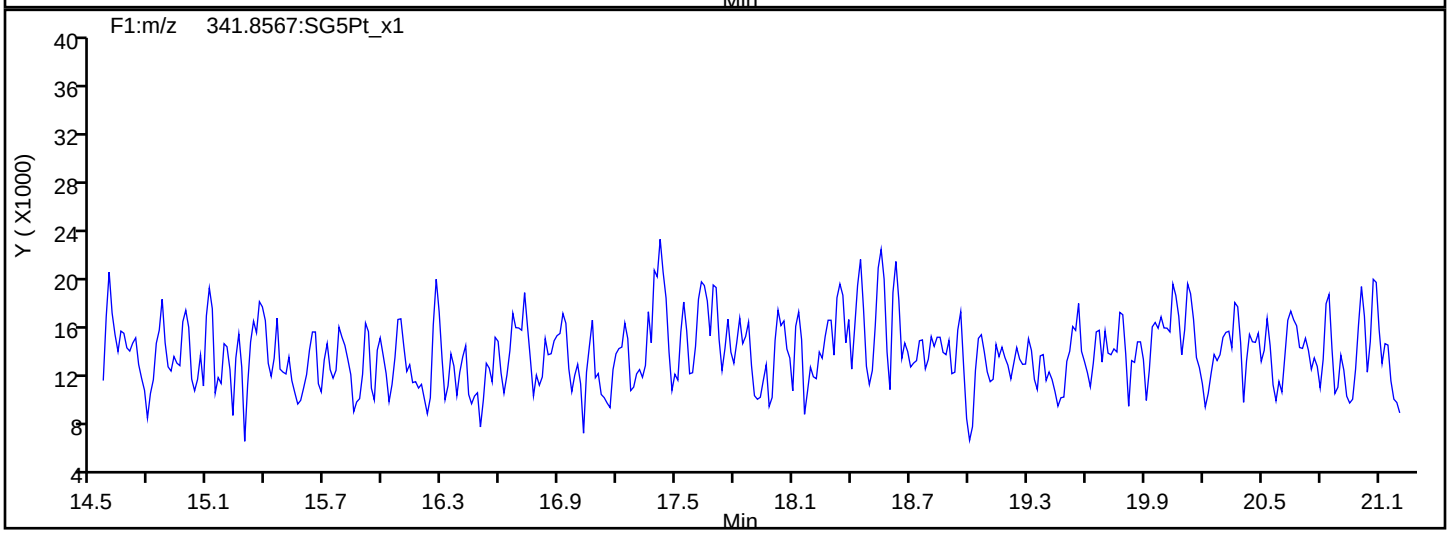
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

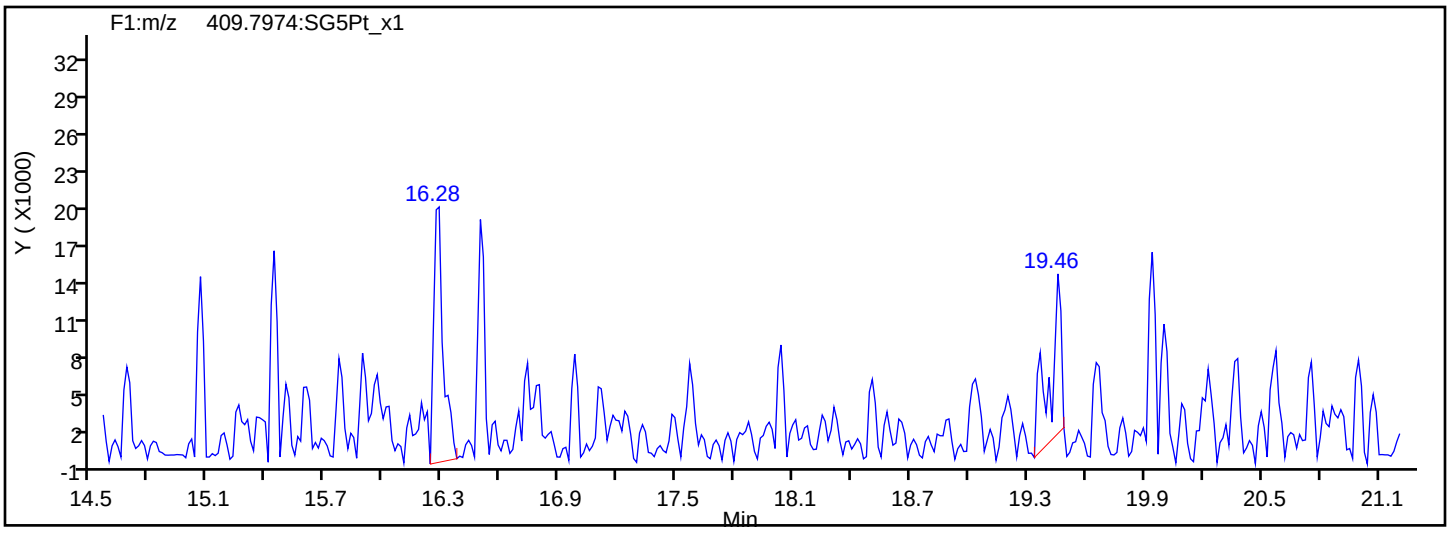
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

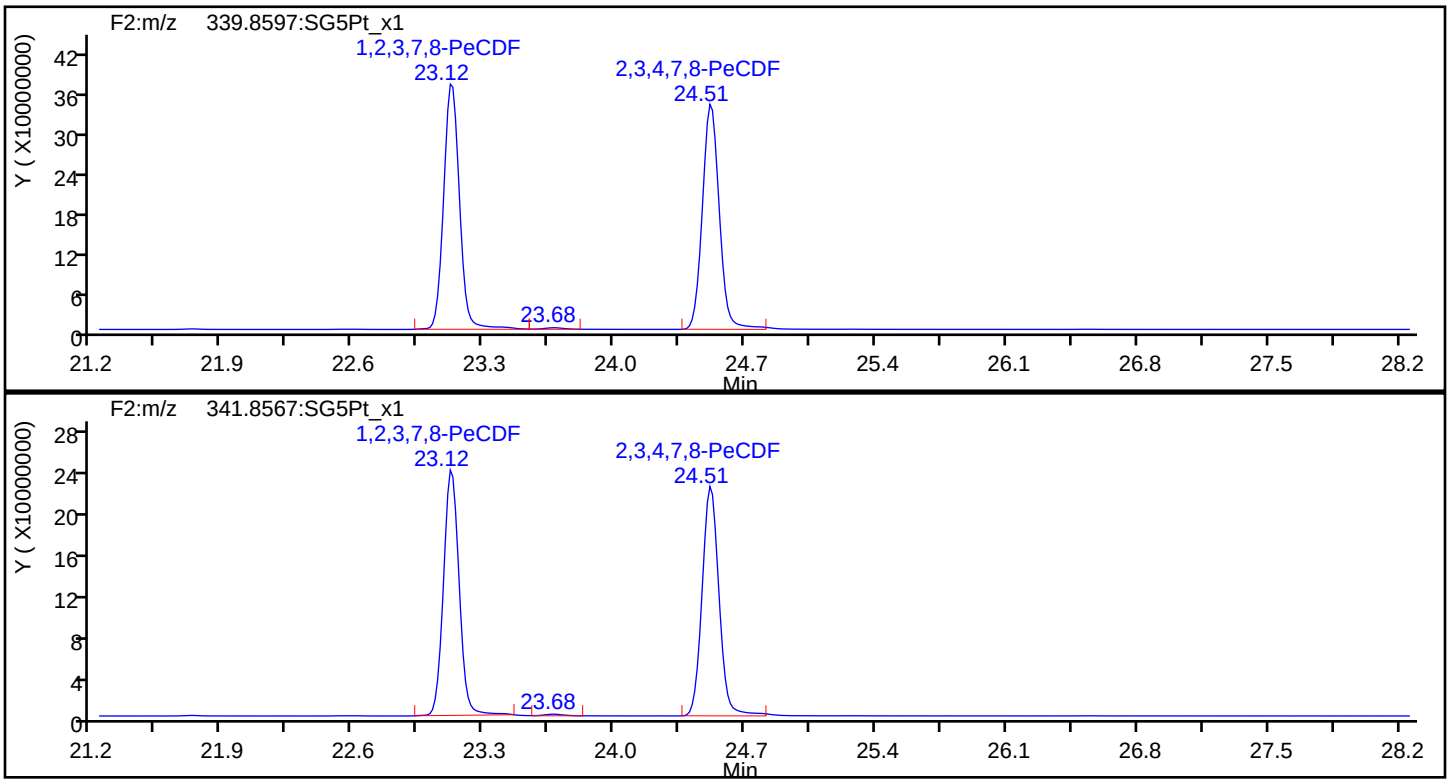


Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

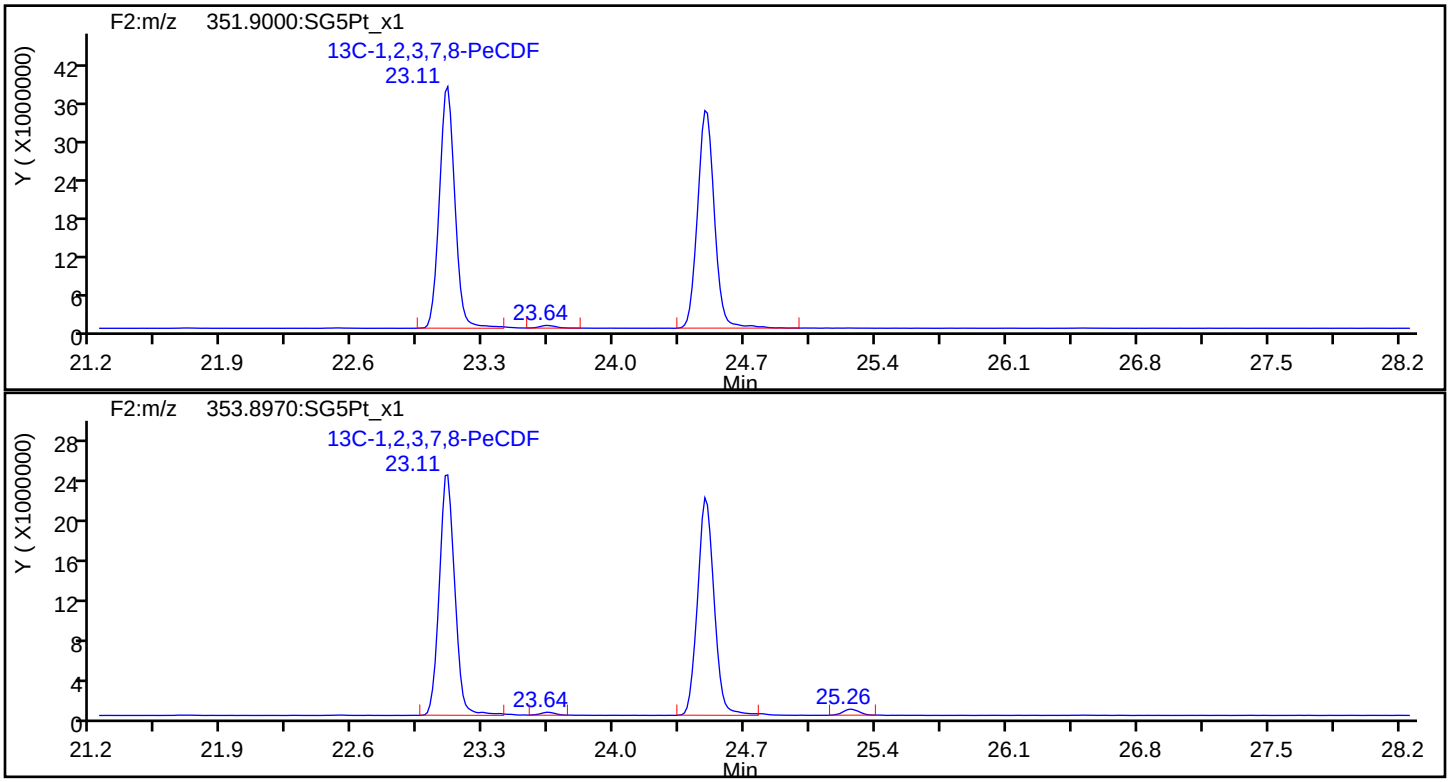
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

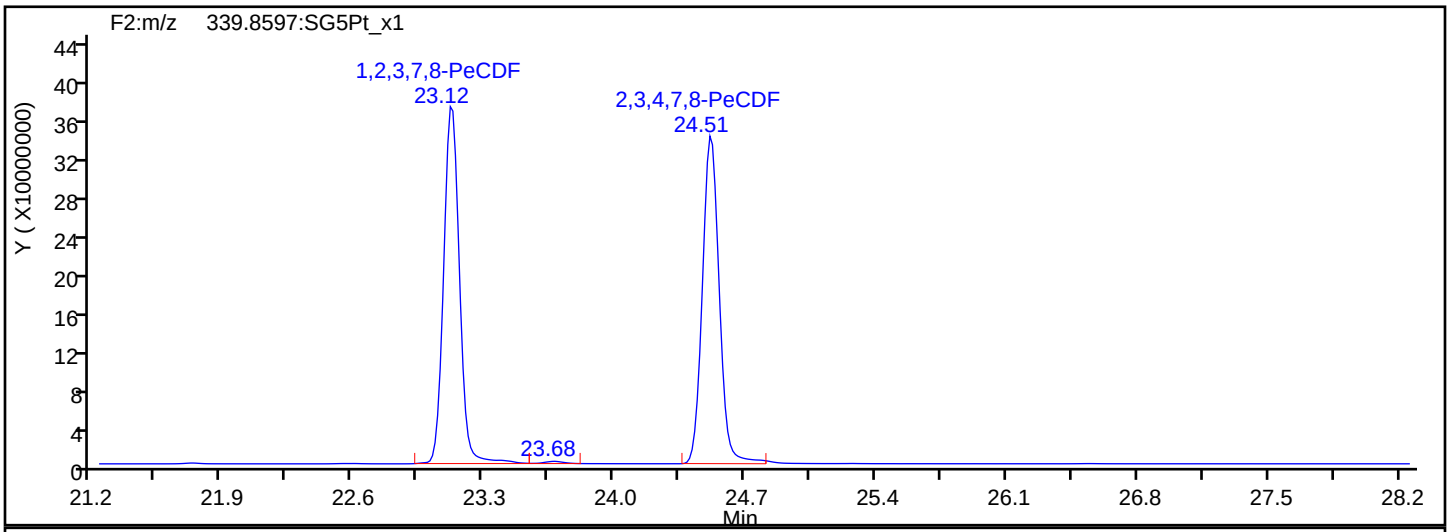


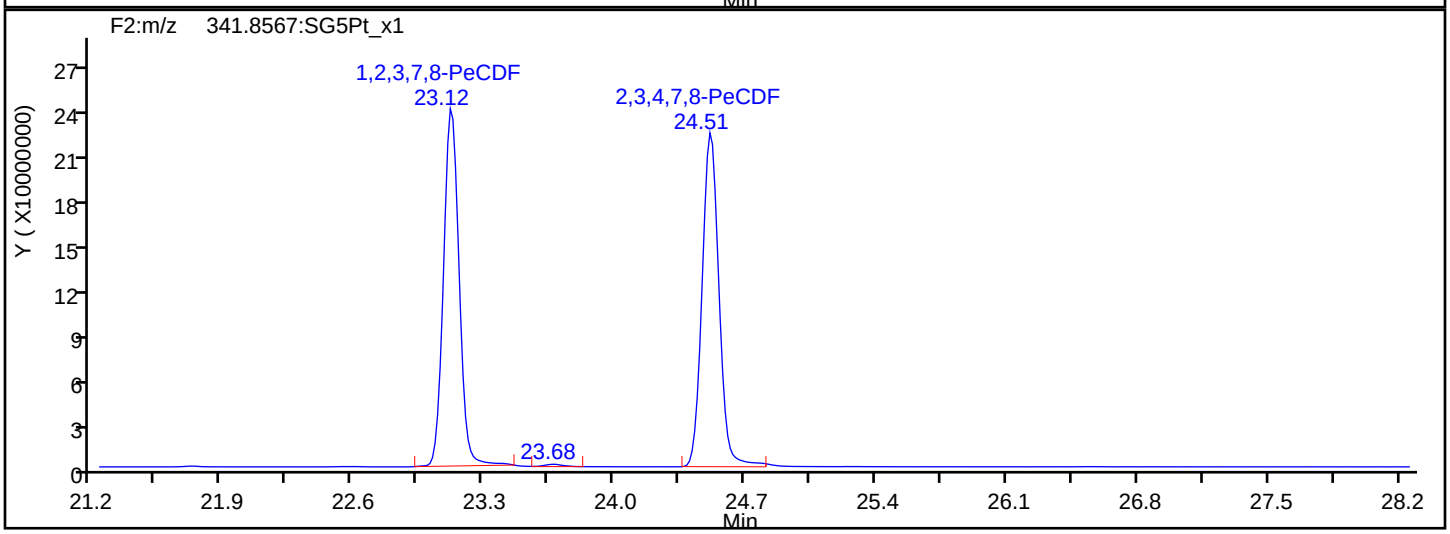
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

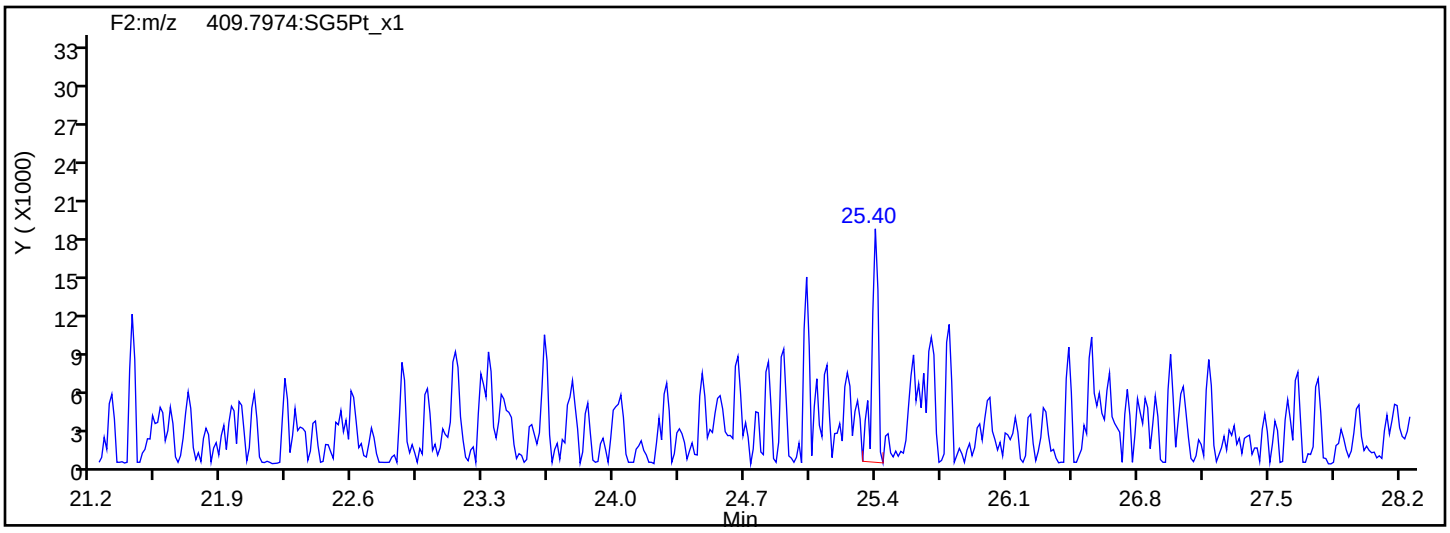
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

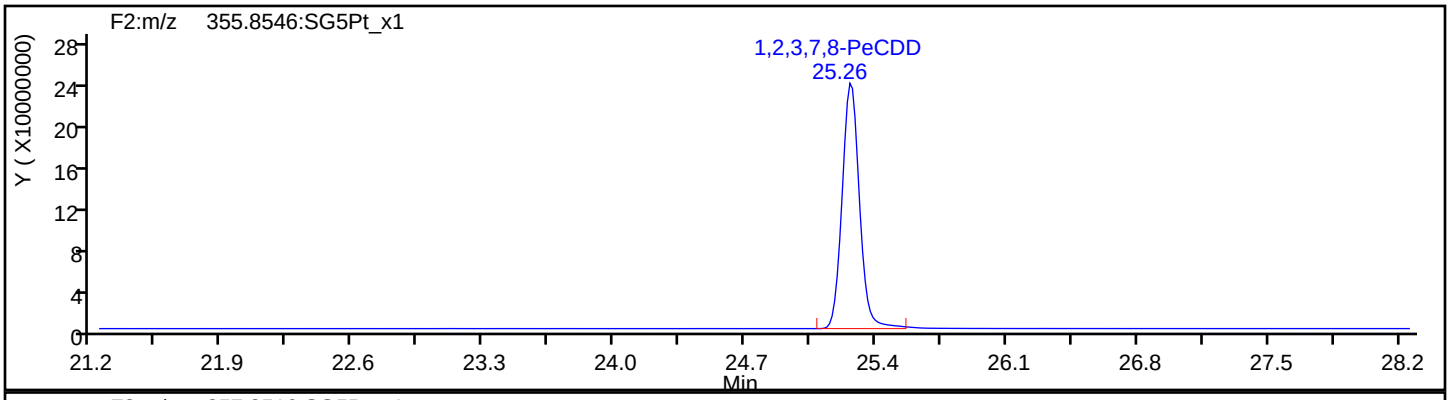


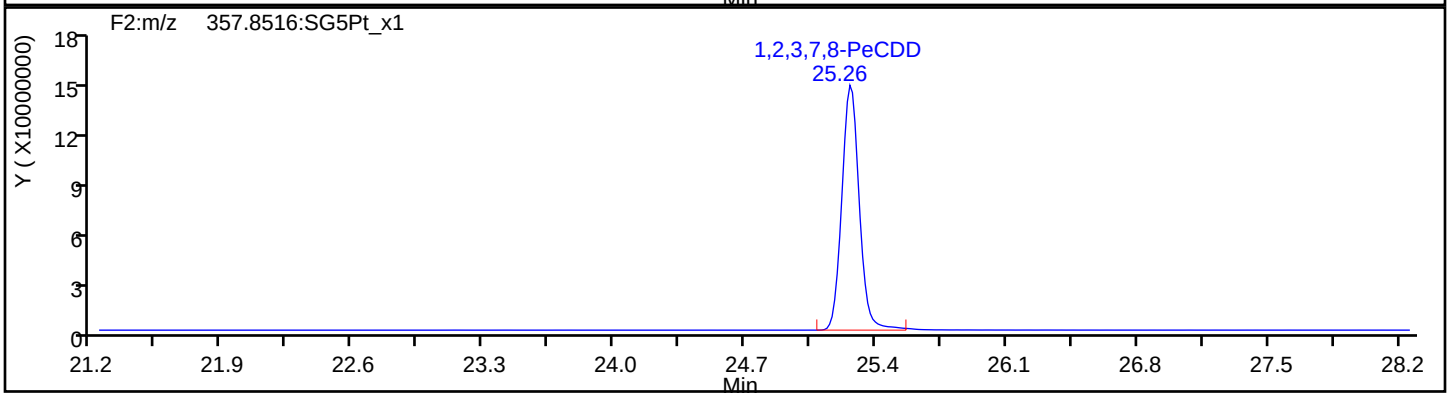
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

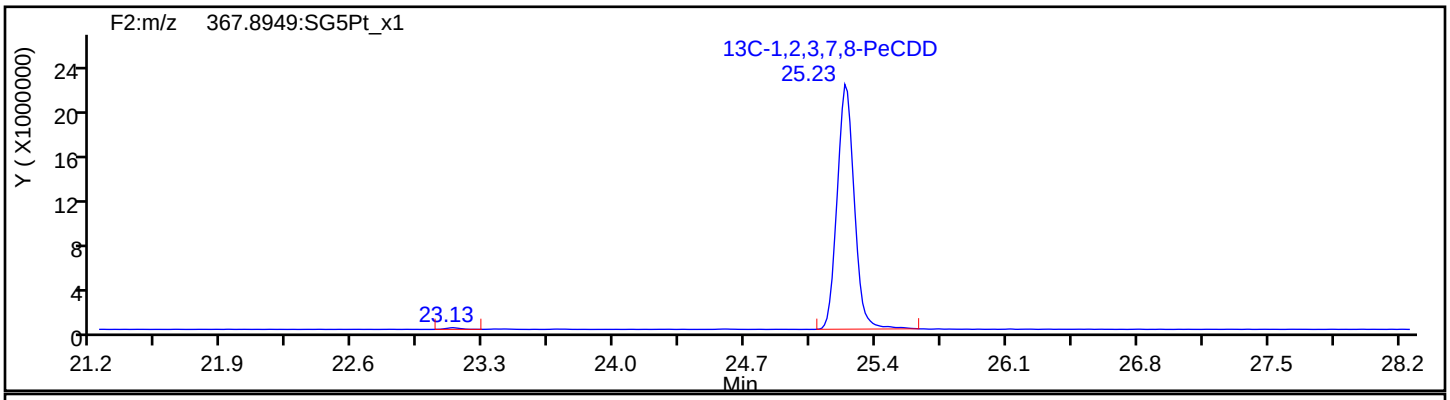
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

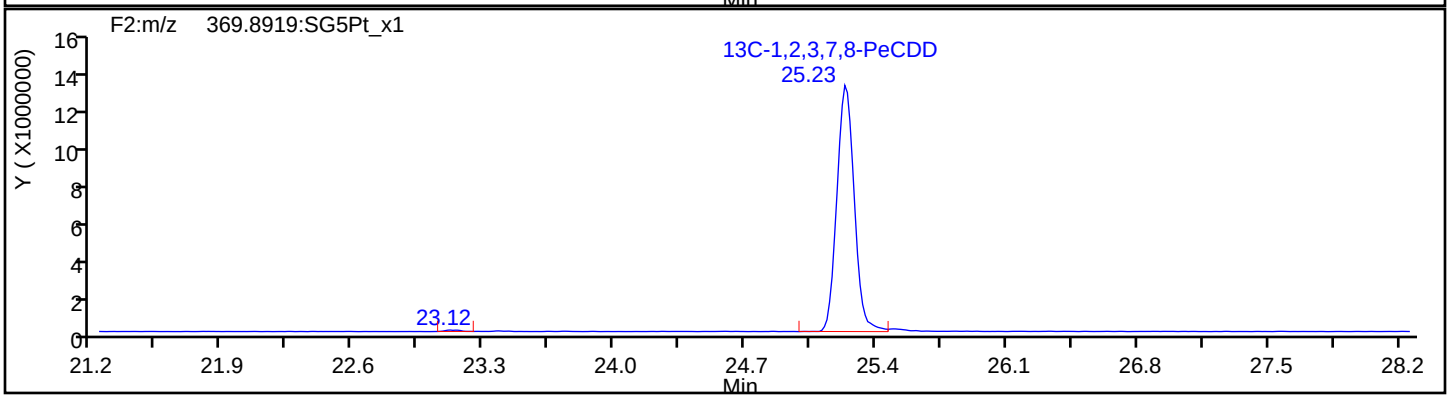
PeCDD





PeCDD Standards



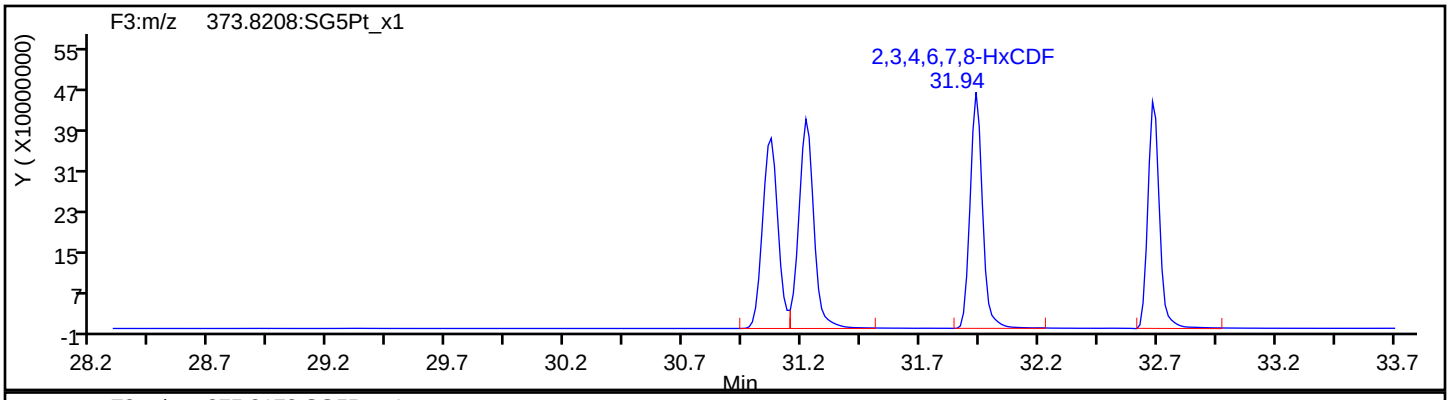


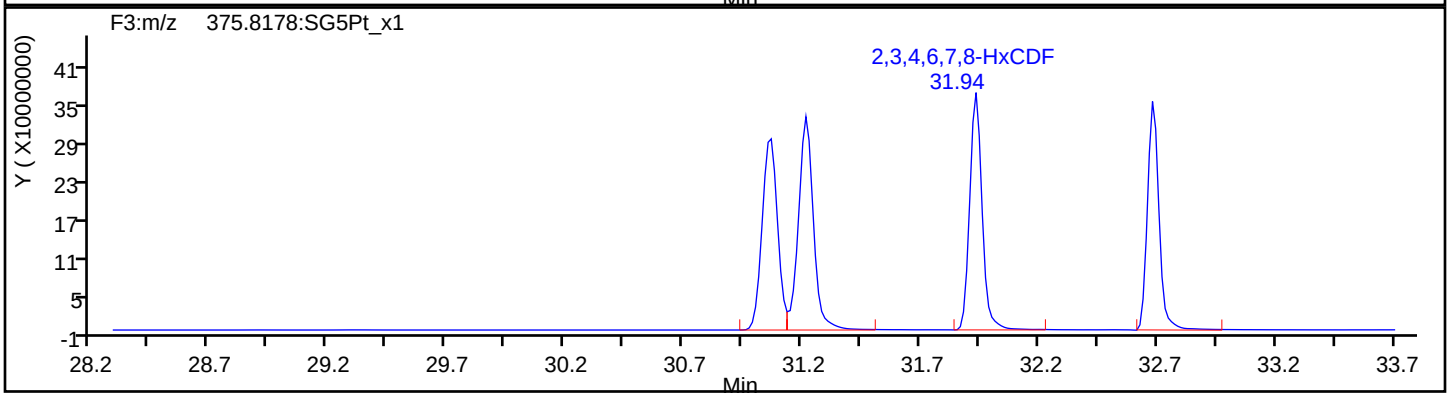
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

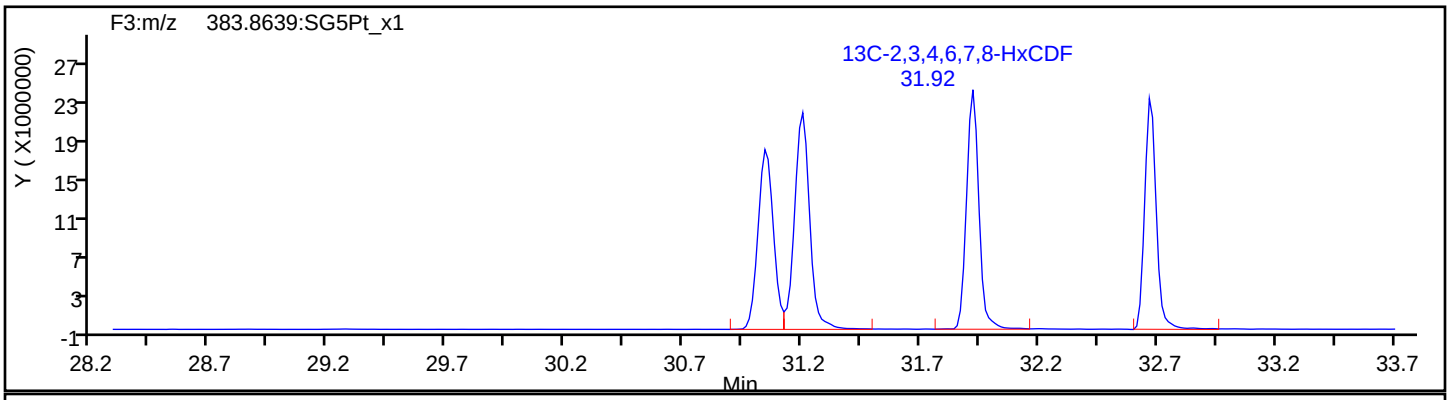
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

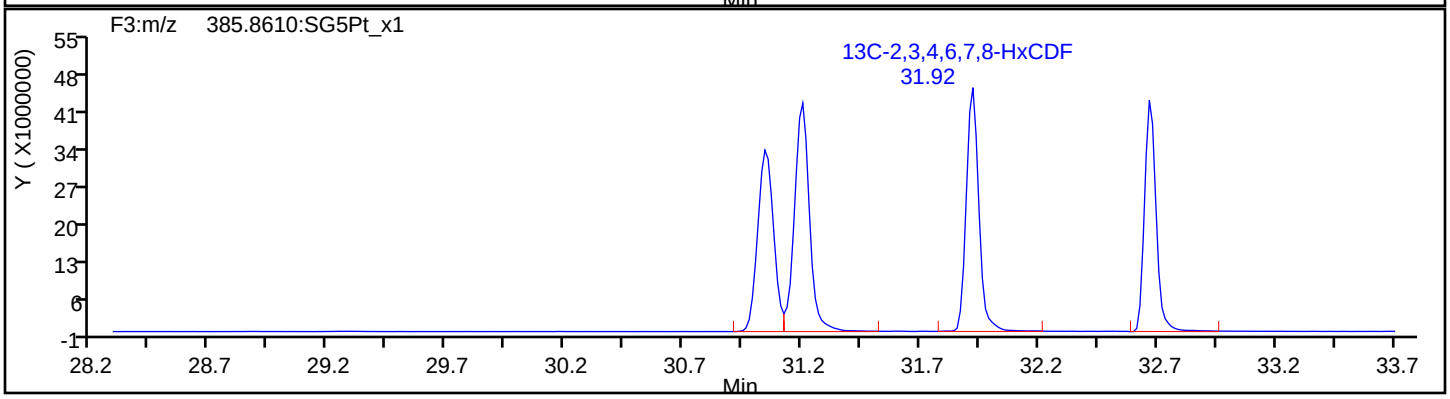
HxCDF





HxCDF Standards



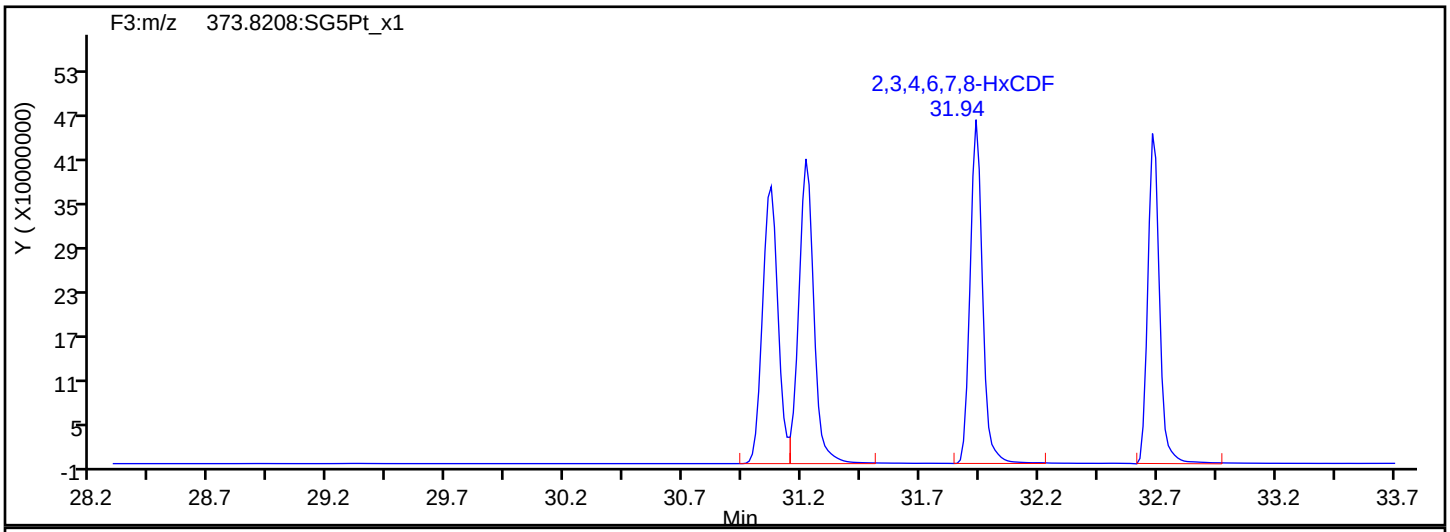


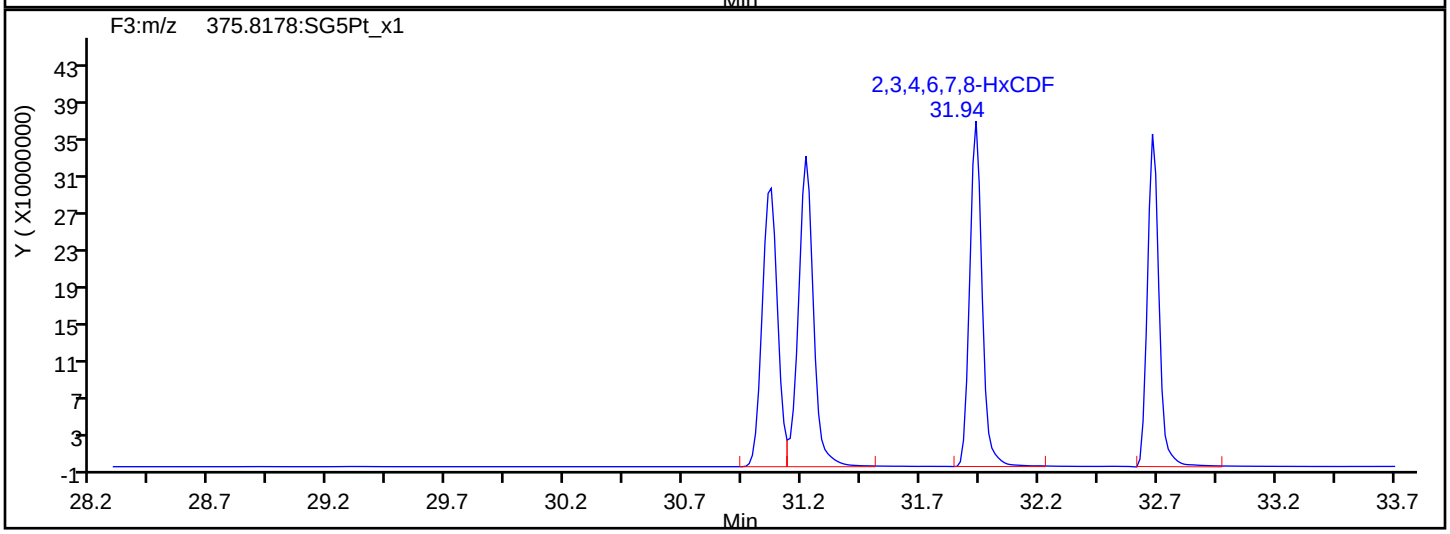
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

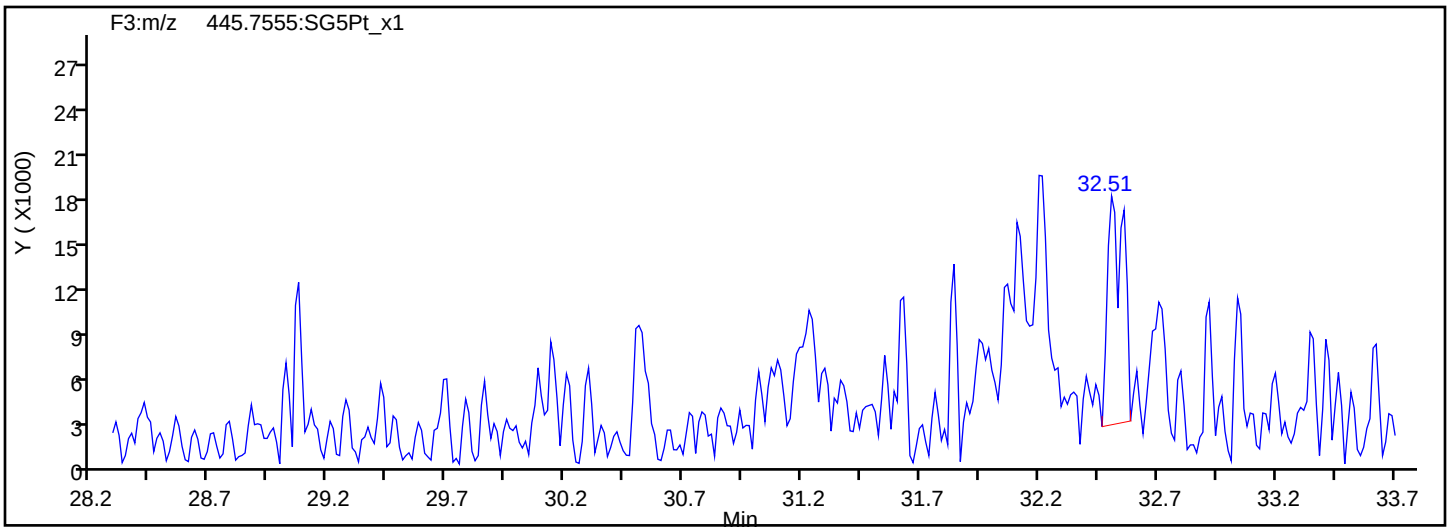
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

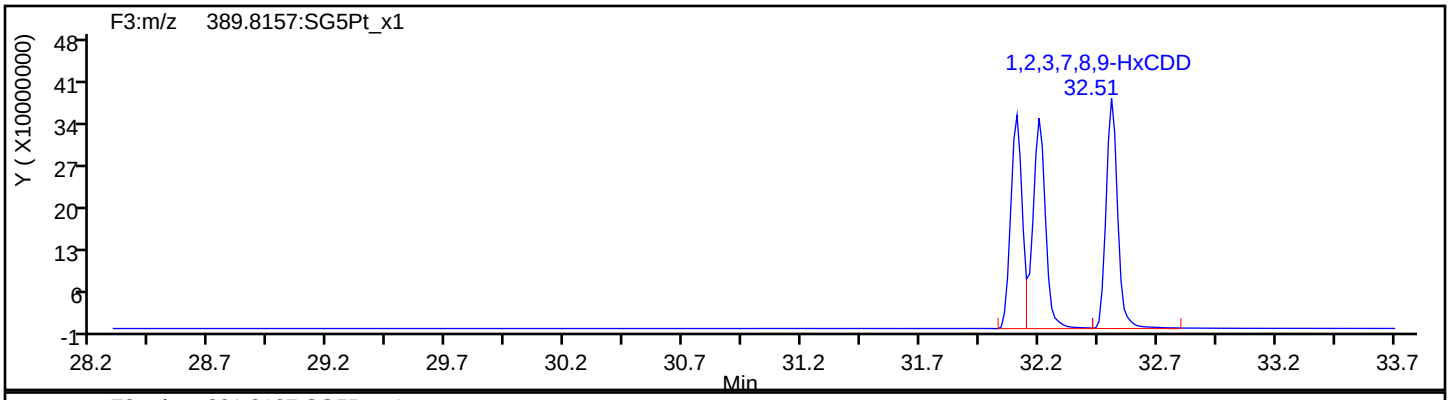


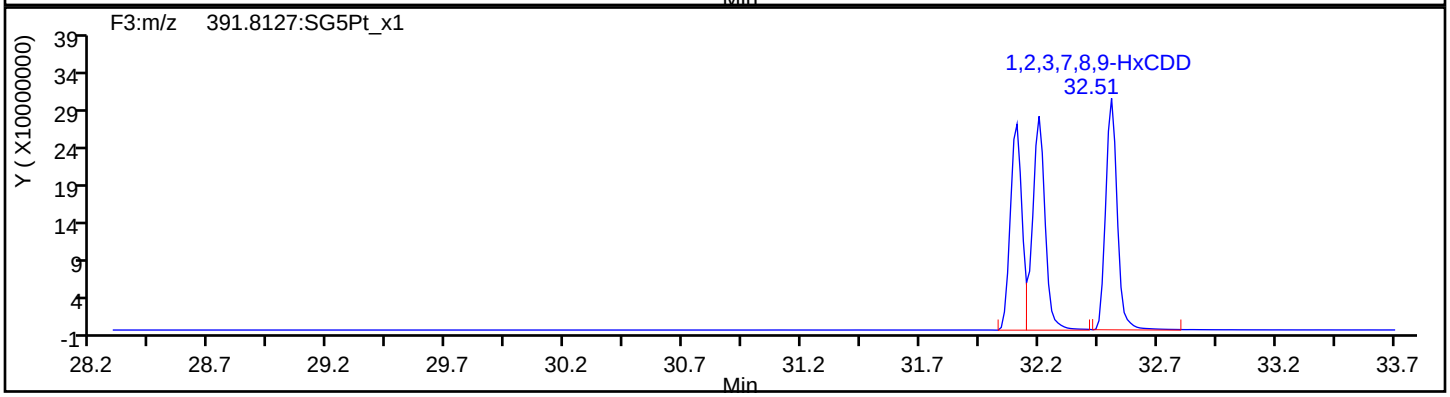
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

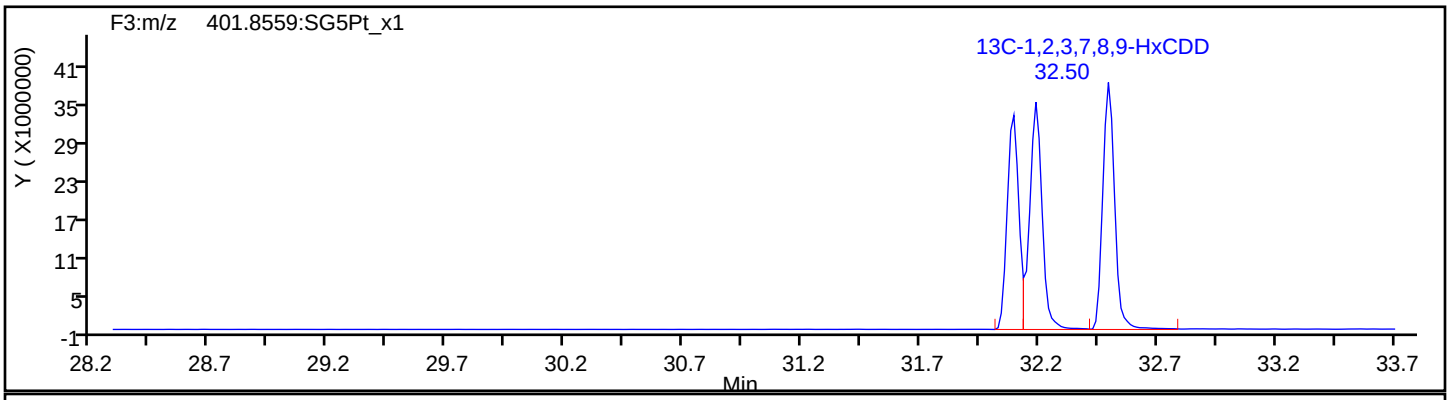
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

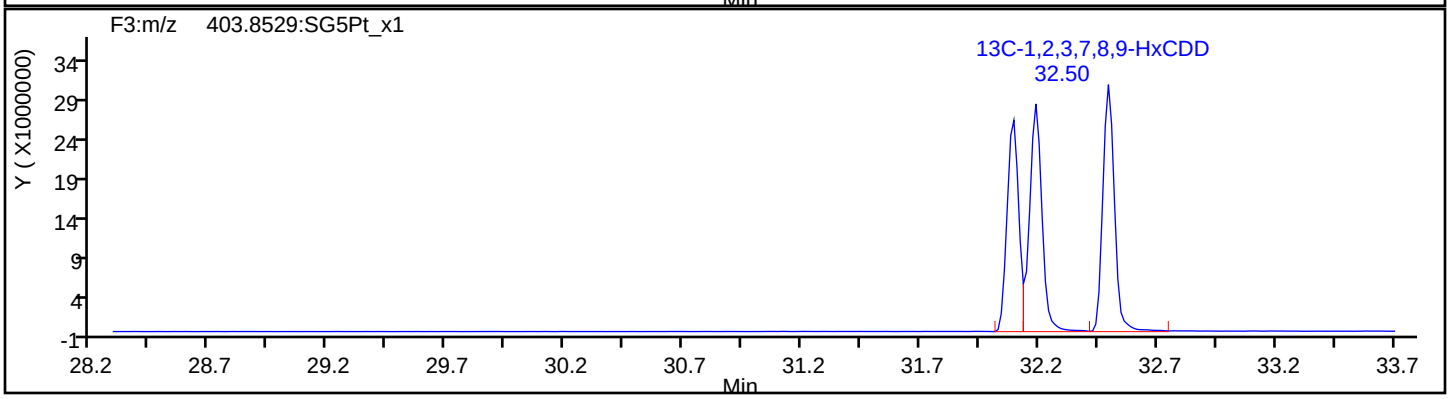
HxCDD





HxCDD Standards



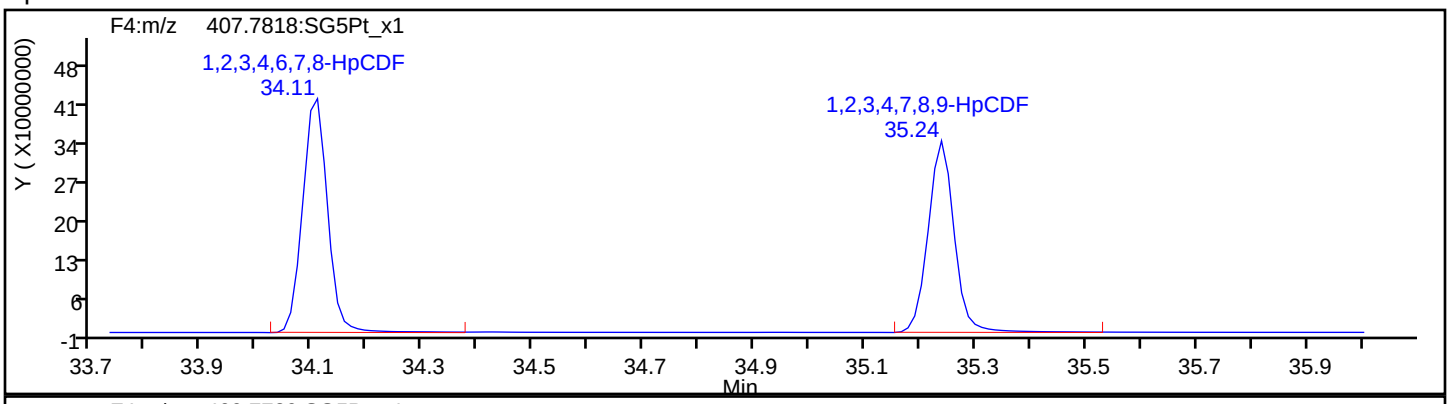


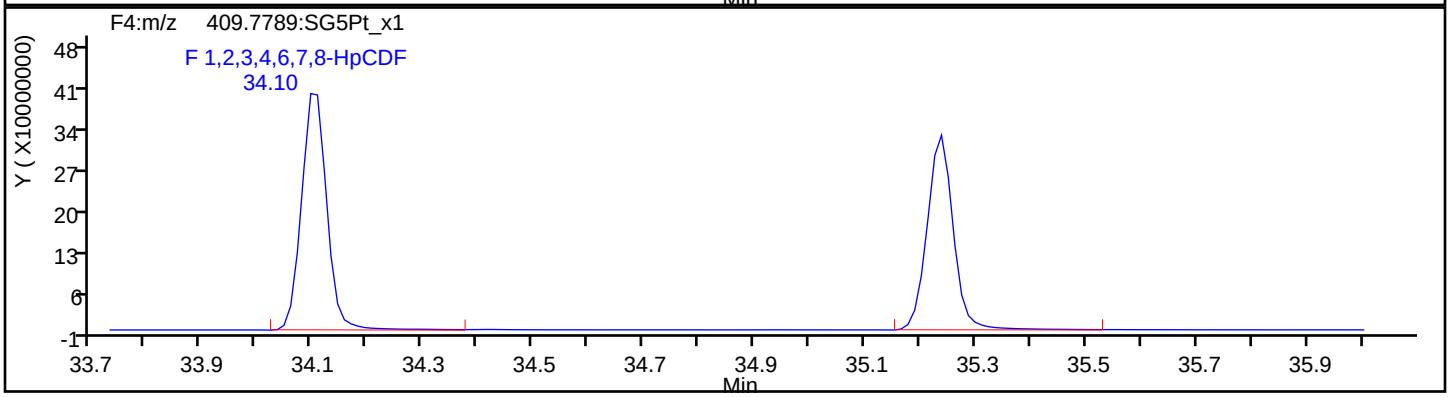
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

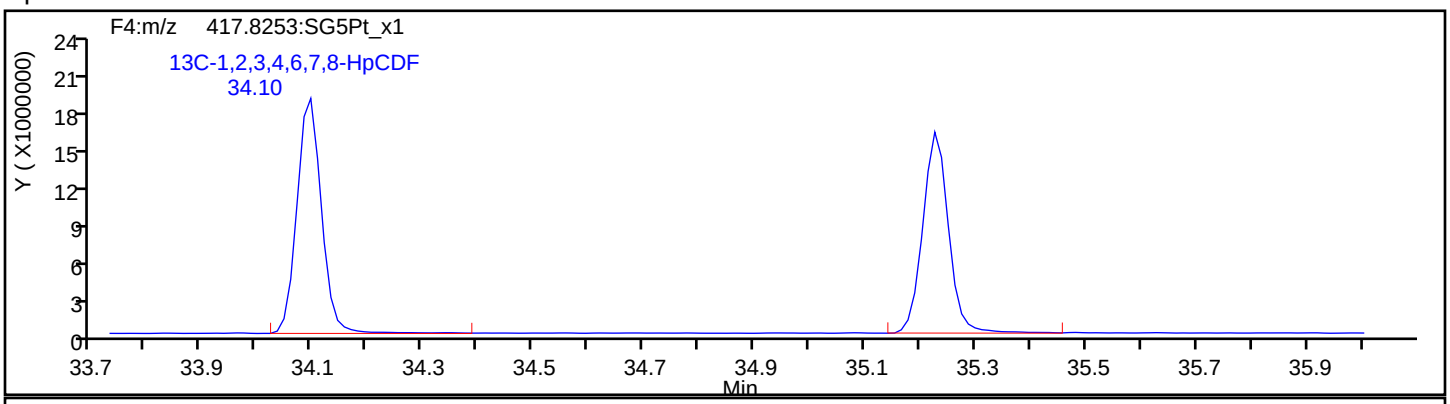
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

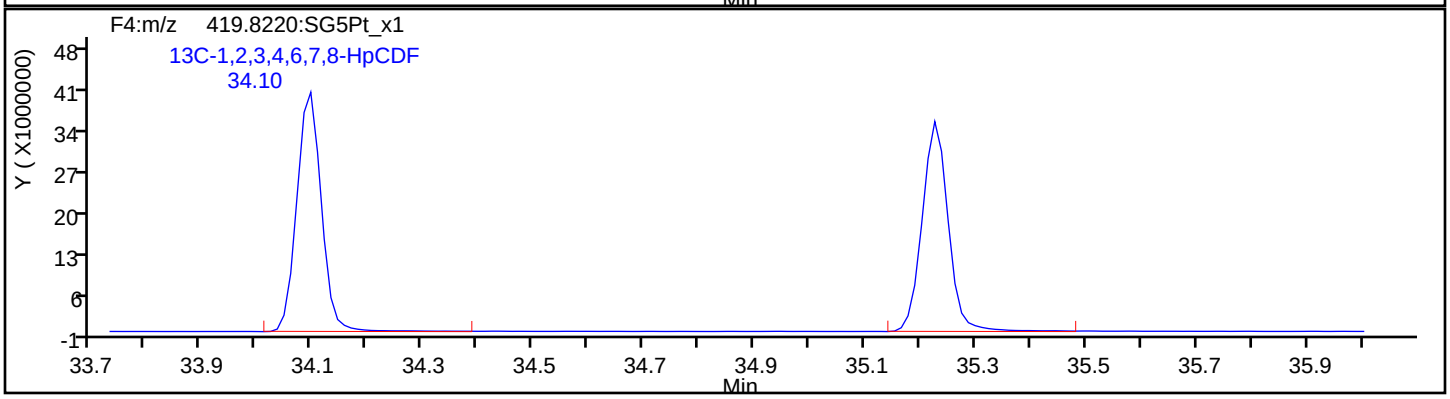
HpCDF





HpCDF Standards



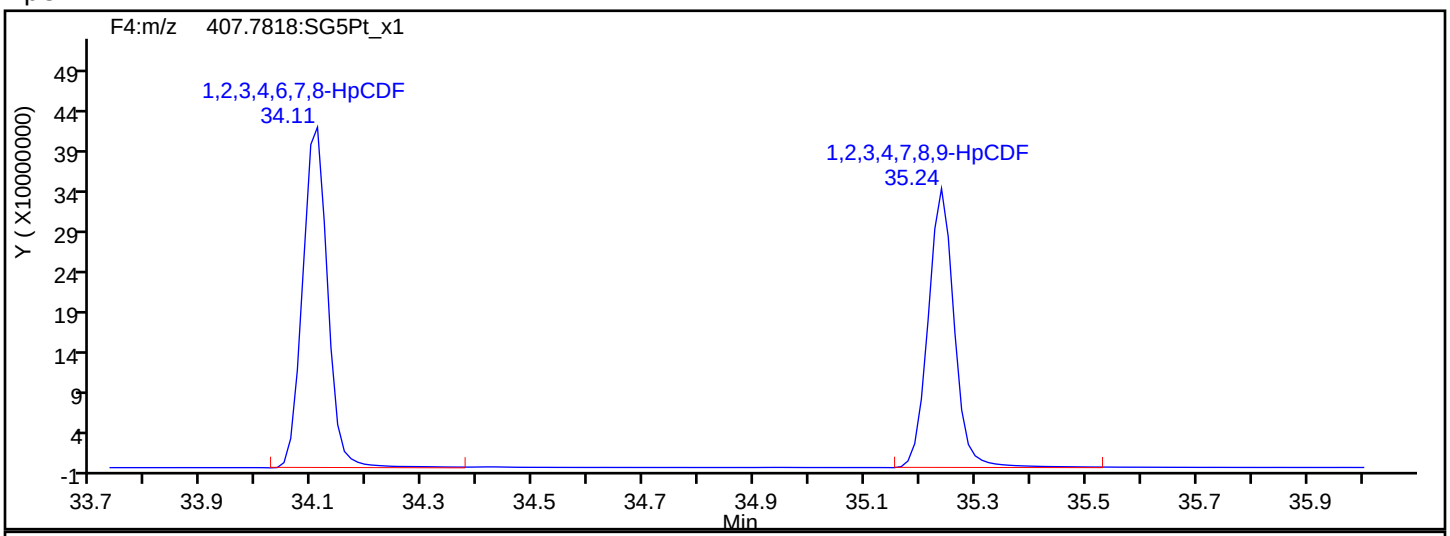


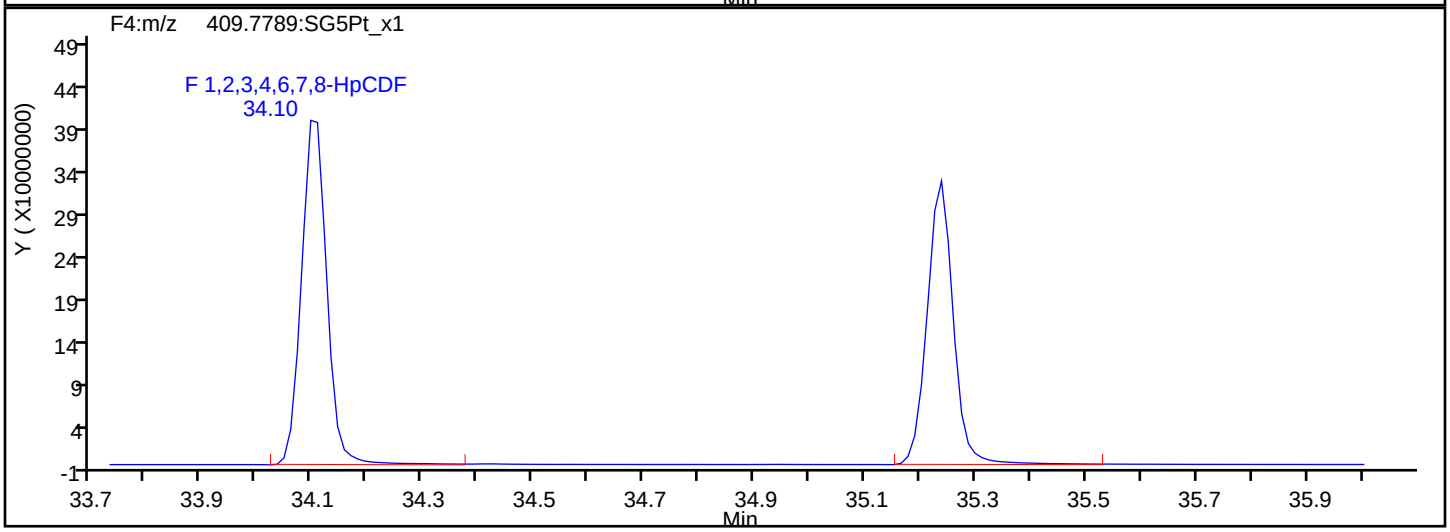
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

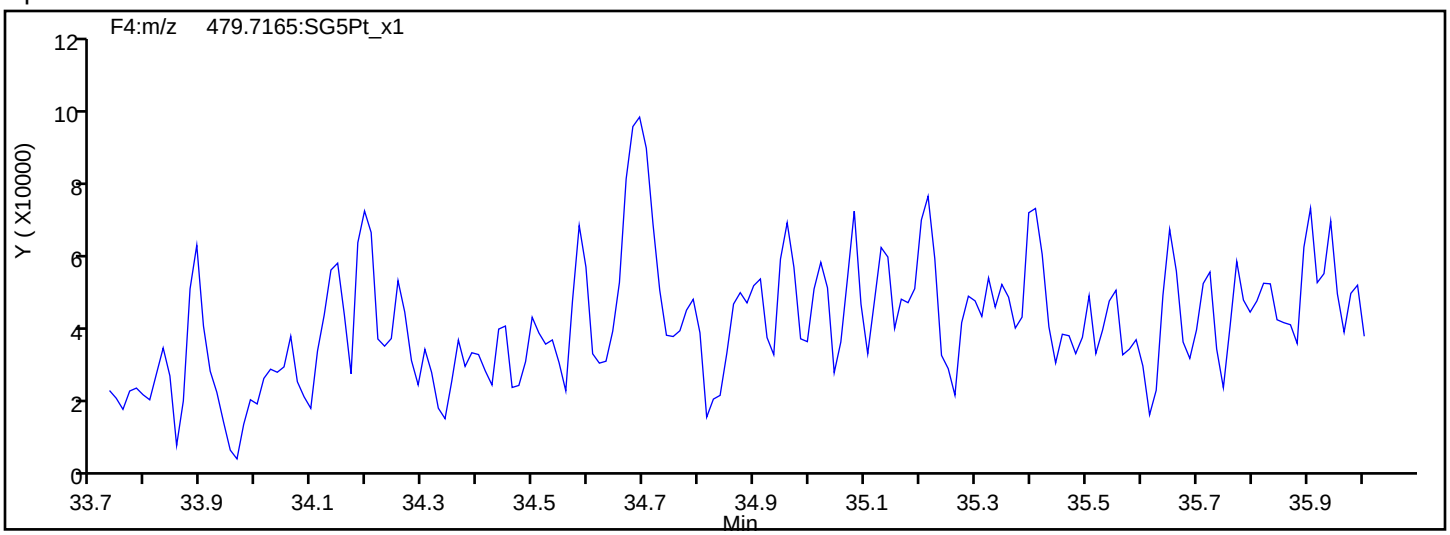
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

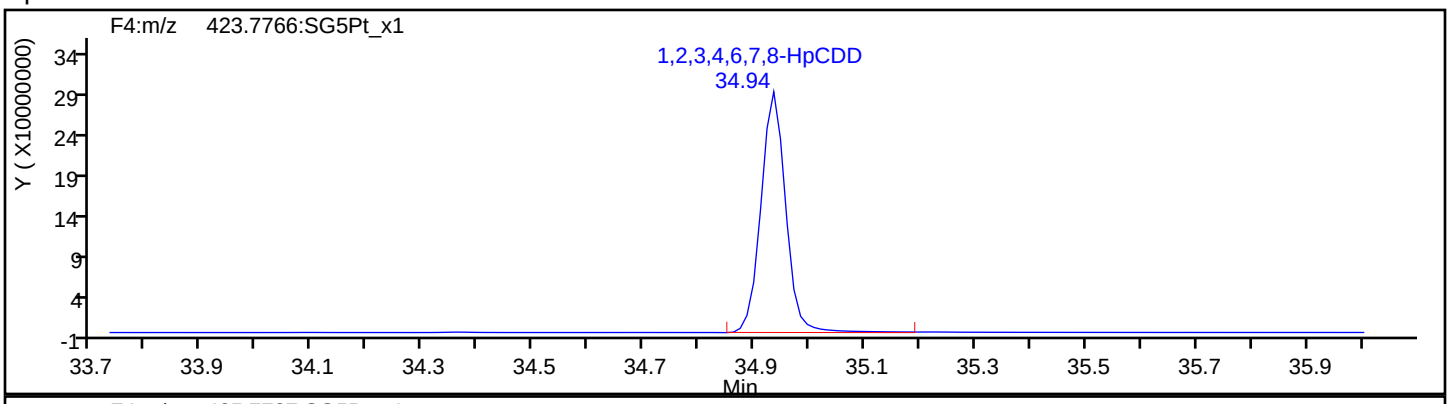


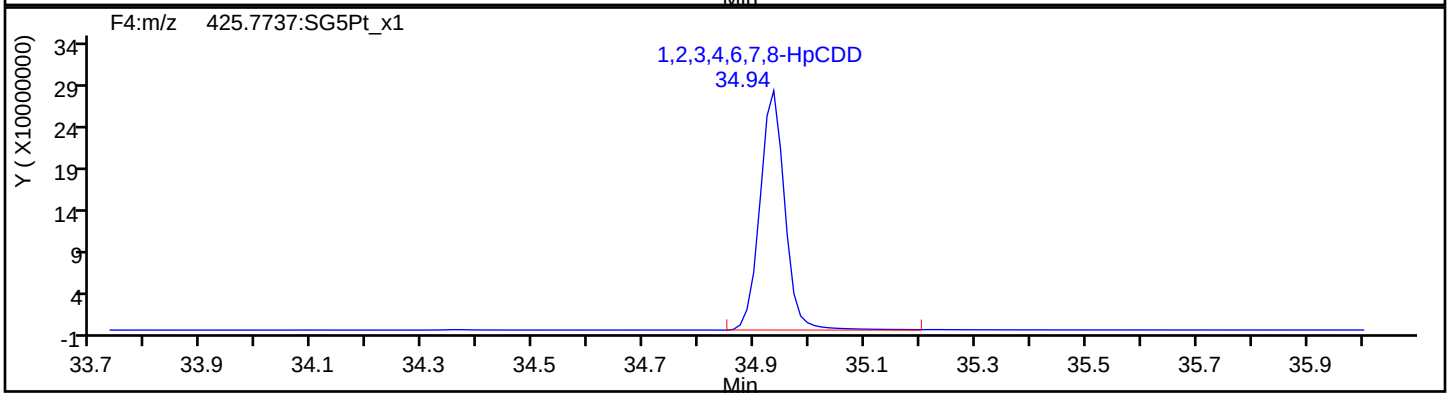
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

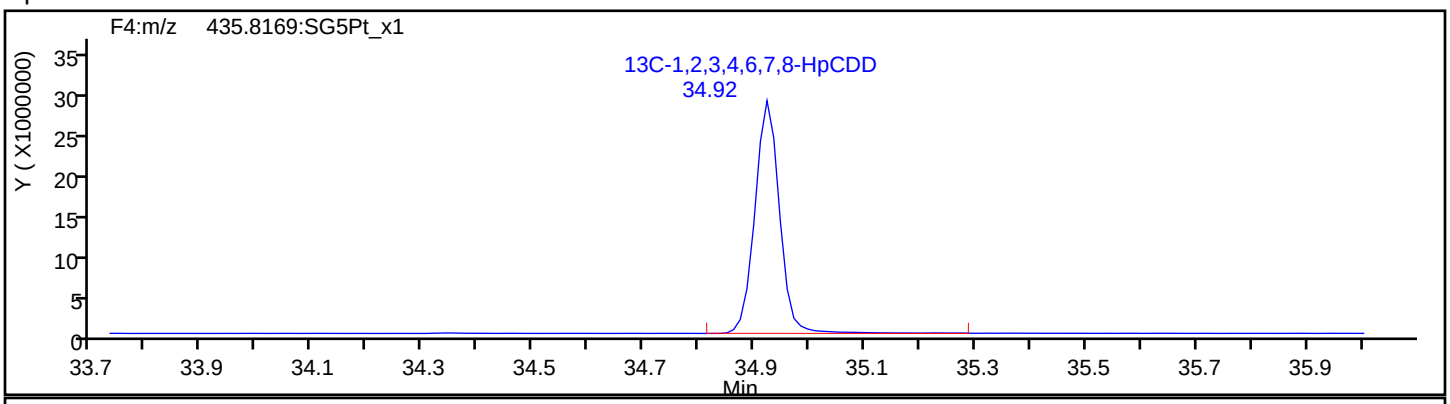
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

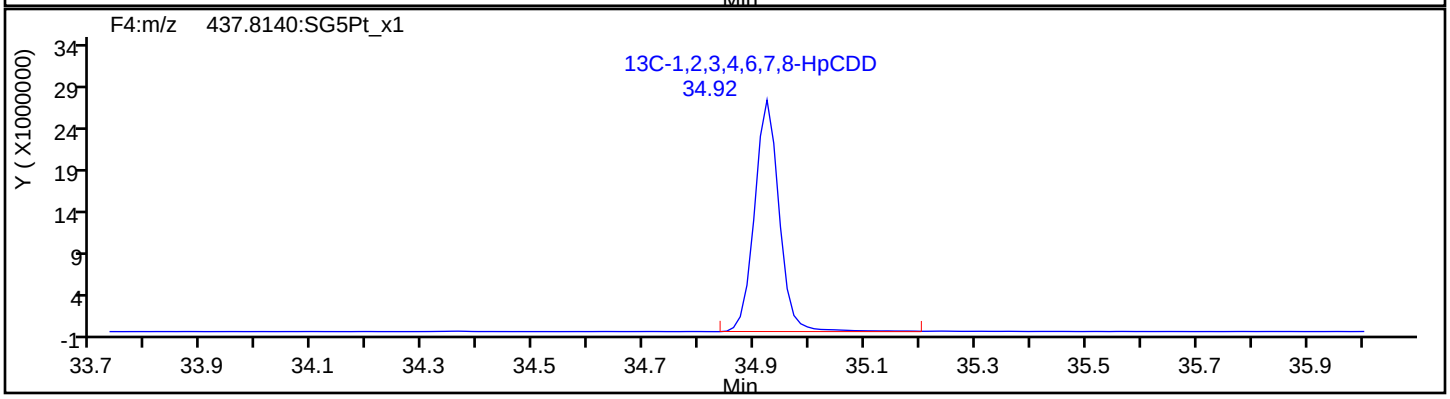
HpCDD





HpCDD Standards



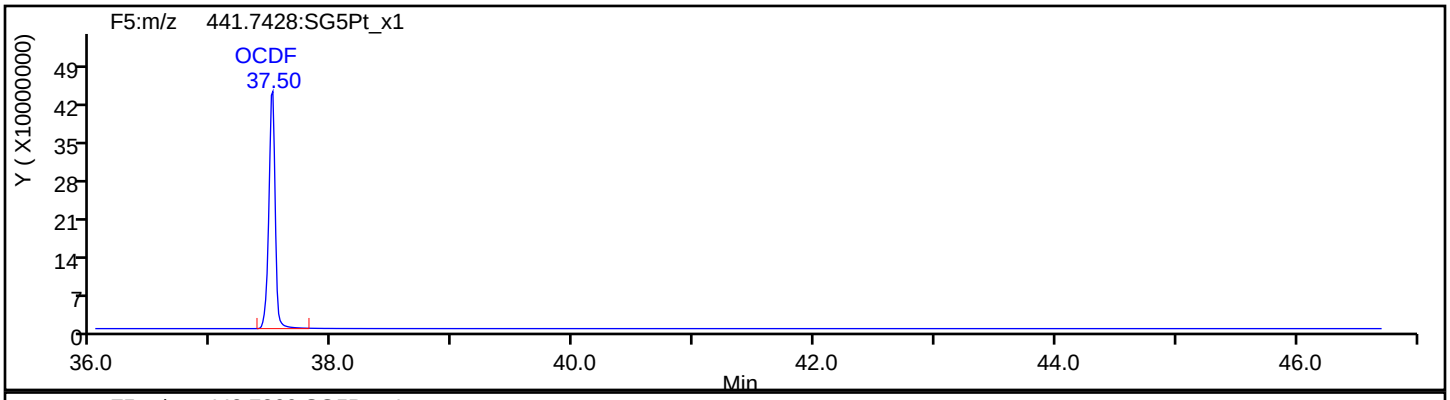


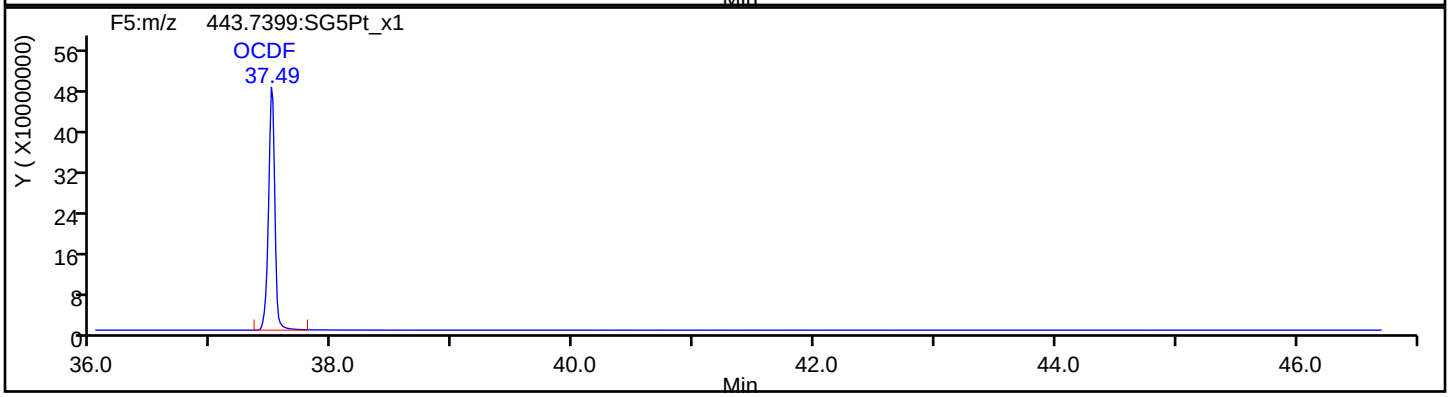
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

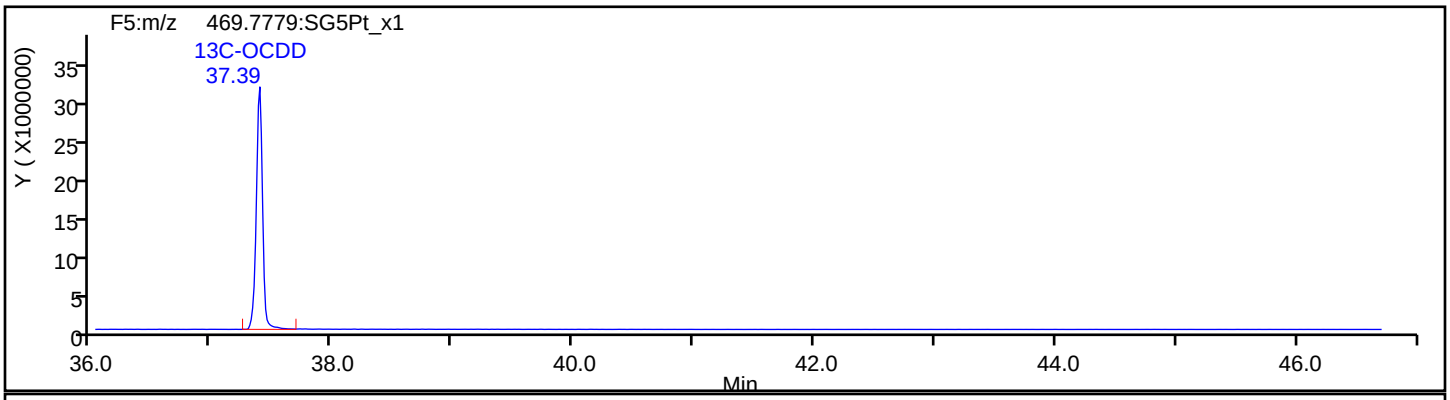
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

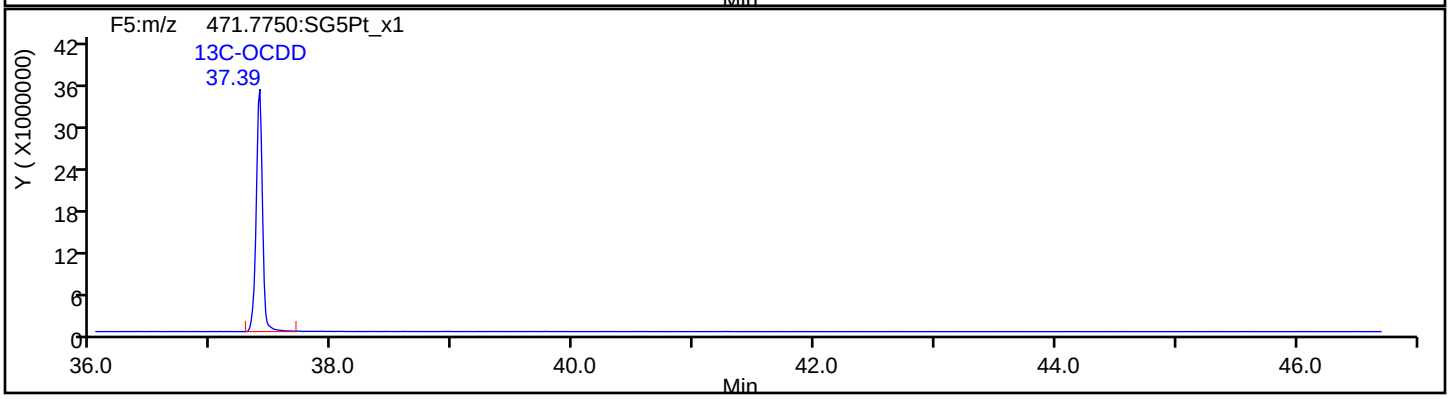
OCDF





OCDF Standards



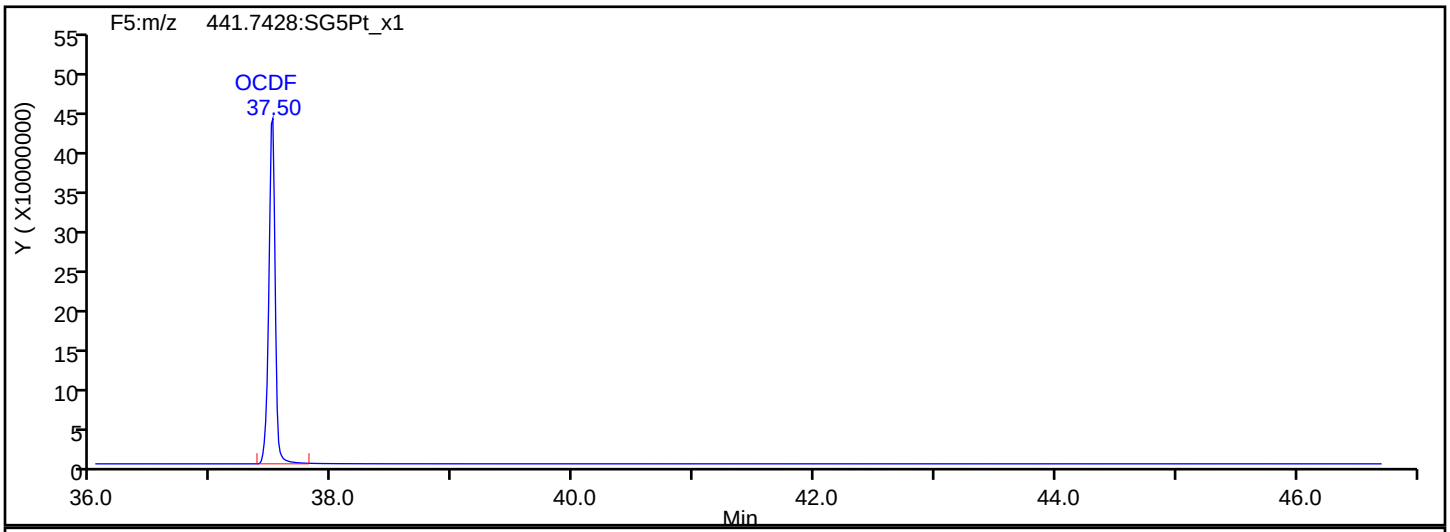


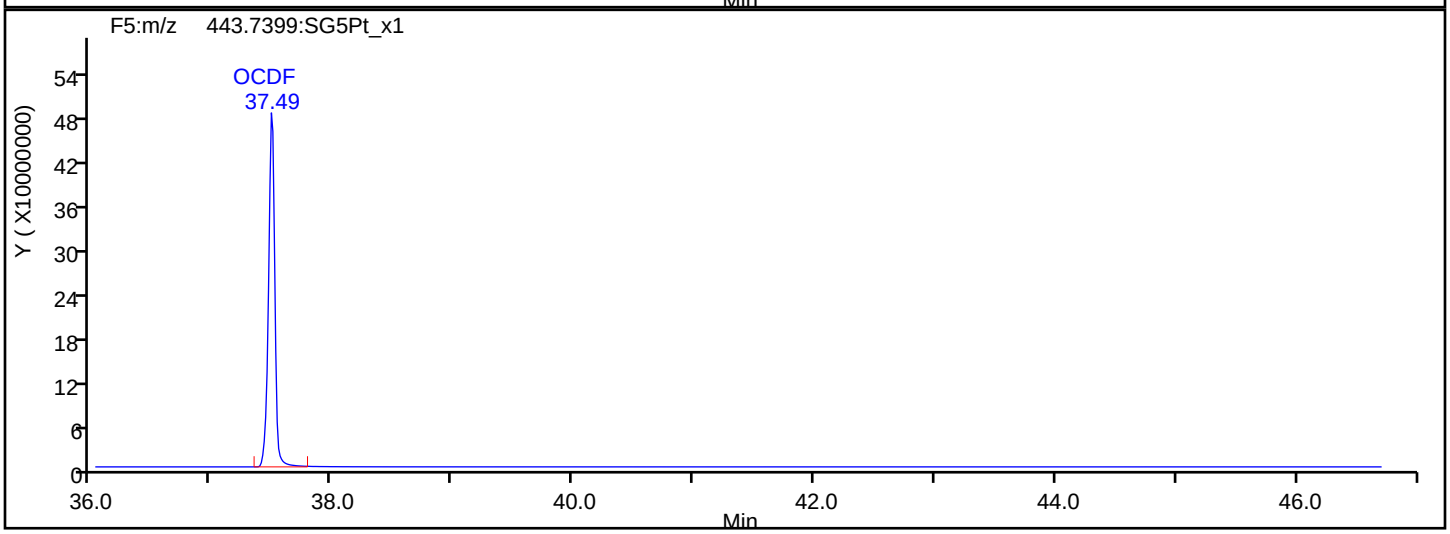
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

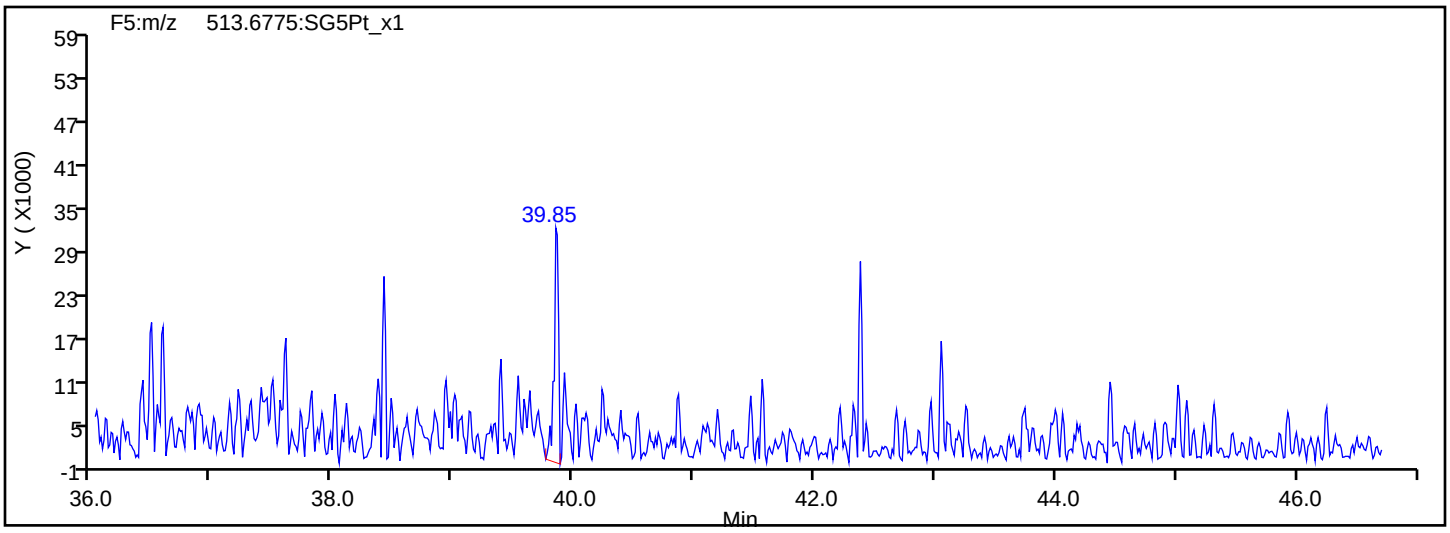
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

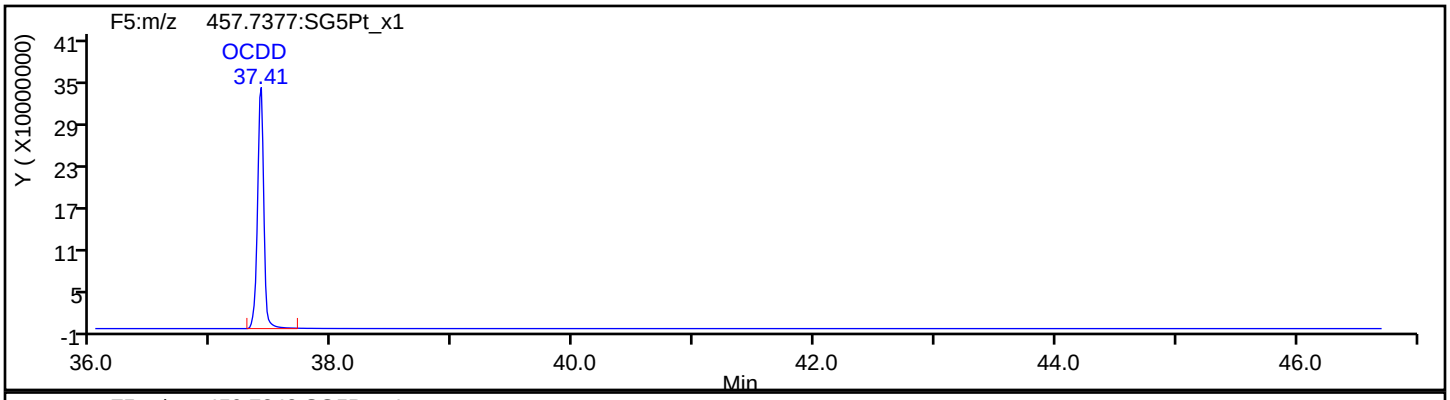


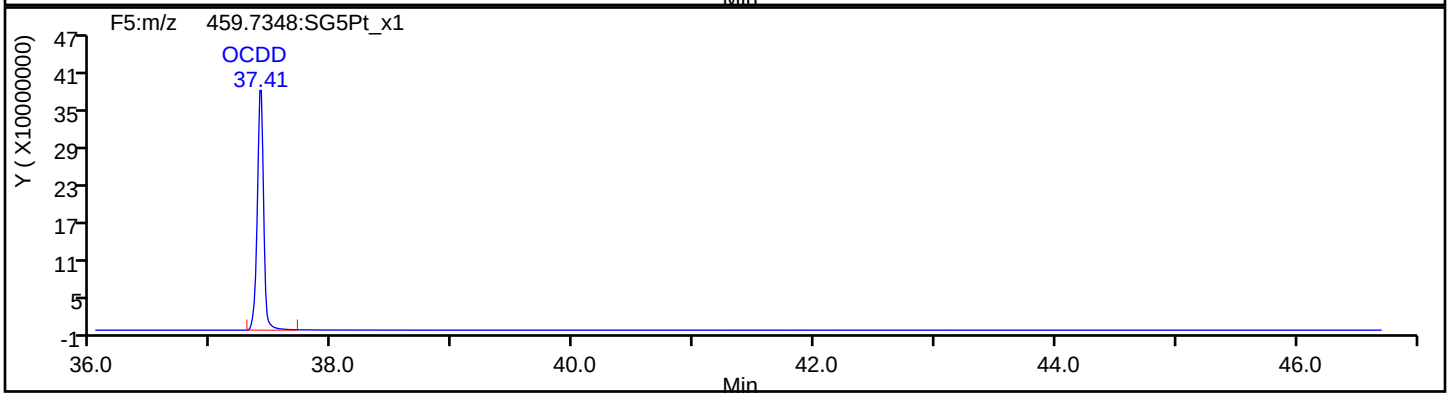
Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

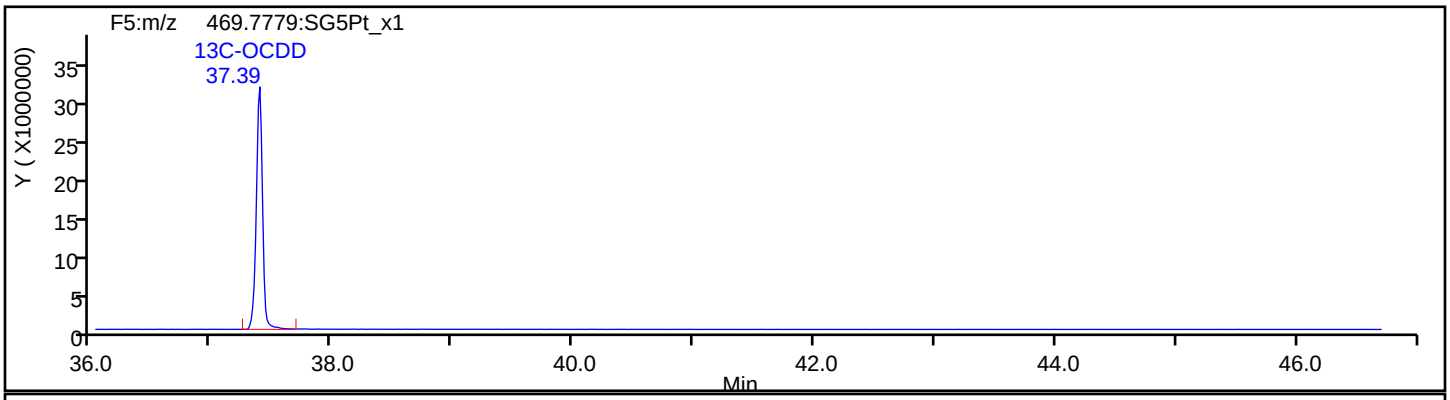
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm

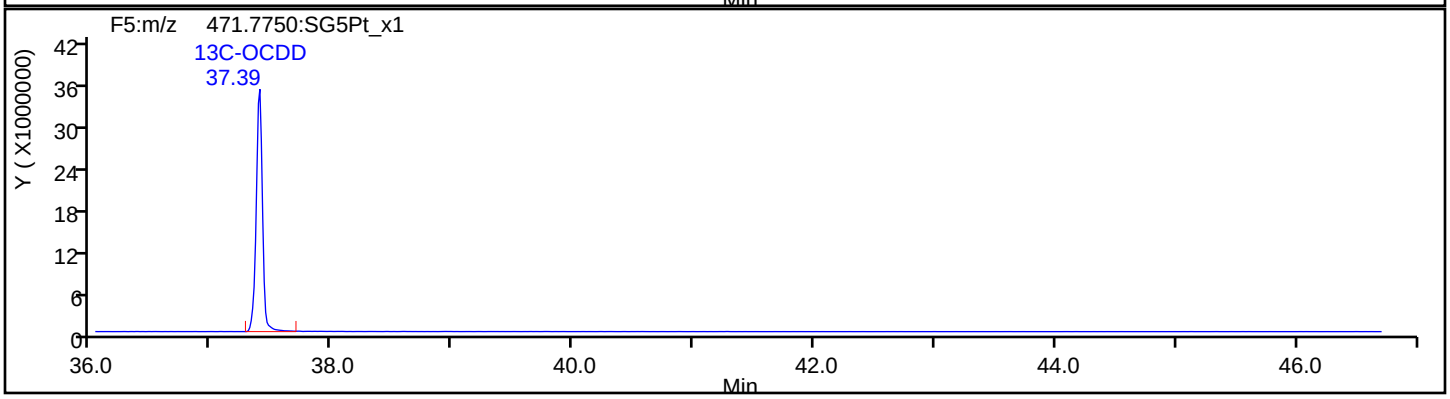
OCDD





OCDD Standards

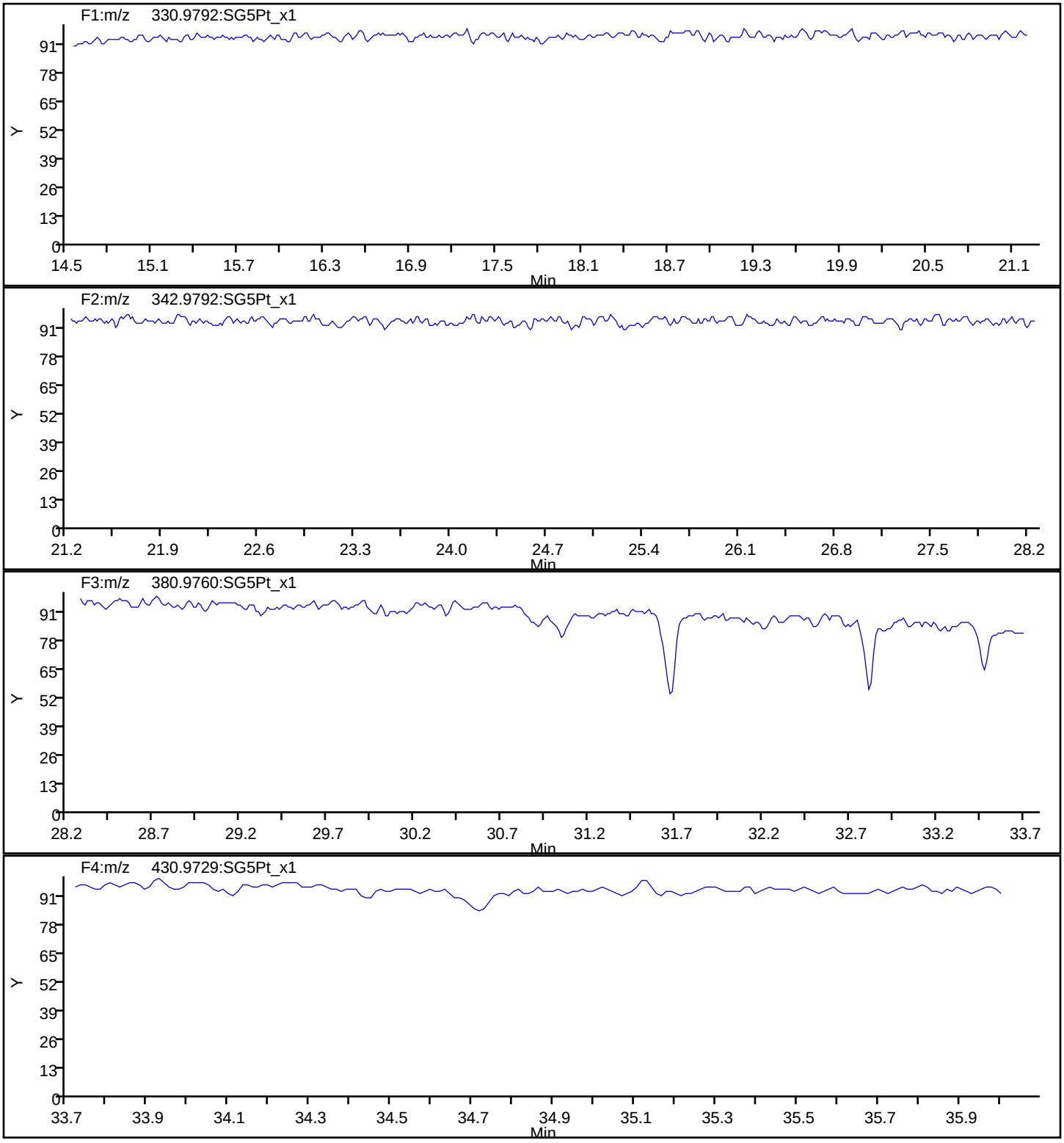




Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

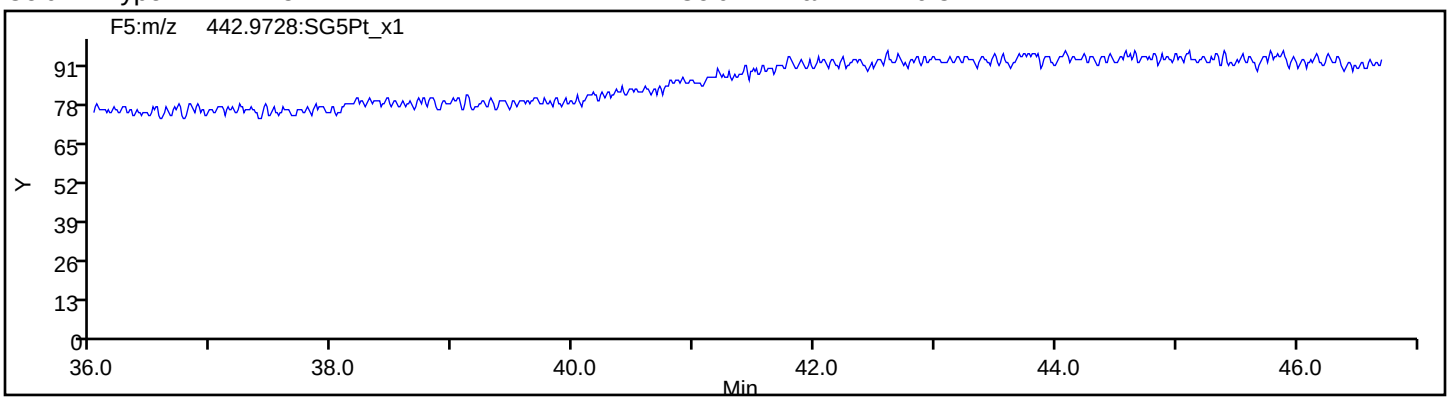
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-May-2019 11:45:03 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d		
Injection Date:	21-May-2019 16:41:15	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	L6		
Worklist#:	296020	Sample Line#:	7
Column Type:	DB-5	Column Dia:	0.32 mm



FORM VI
DIOXIN BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1 Analy Batch No.: 294351

SDG No.:

Instrument ID: 4D2 GC Column: DB-225 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2019 19:08 Calibration End Date: 05/13/2019 21:39 Calibration ID: 45326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-294351/4	13MY19C4D2_004.d
Level 2	IC 320-294351/5	13MY19C4D2_005.d
Level 3	IC 320-294351/6	13MY19C4D2_006.d
Level 4	IC 320-294351/7	13MY19C4D2_007.d
Level 5	IC 320-294351/8	13MY19C4D2_008.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2,3,7,8-TCDD	1.4438	1.3633	1.1590	1.0688	1.0946	AveID		1.2259				13.7		20.0			
2,3,7,8-TCDF	1.4288	1.3411	1.0912	1.0025	1.0097	AveID		1.1747				16.8		20.0			
13C-2,3,7,8-TCDD	0.9530	0.9272	0.9793	0.9953	0.9871	Ave		0.9684				2.9		35.0			
13C-2,3,7,8-TCDF	1.3577	1.2985	1.3839	1.4083	1.3776	Ave		1.3652				3.0		35.0			
37Cl4-2,3,7,8-TCDD	1.4337	1.3624	1.2252	1.1983	1.2067	Ave		1.2853				8.3					

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
DIOXIN BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1 Analy Batch No.: 294351

SDG No.:

Instrument ID: 4D2 GC Column: DB-225 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2019 19:08 Calibration End Date: 05/13/2019 21:39 Calibration ID: 45326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-294351/4	13MY19C4D2_004.d
Level 2	IC 320-294351/5	13MY19C4D2_005.d
Level 3	IC 320-294351/6	13MY19C4D2_006.d
Level 4	IC 320-294351/7	13MY19C4D2_007.d
Level 5	IC 320-294351/8	13MY19C4D2_008.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
2,3,7,8-TCDD		AveID	2519071	9067576	34230095	124405299	677106058	0.500	2.00	10.0	40.0	200
2,3,7,8-TCDF		AveID	3551413	12492611	45545342	165117606	871577101	0.500	2.00	10.0	40.0	200
13C-2,3,7,8-TCDD	13CTC	Ave	348941928	332557222	295341298	290981153	309288909	100	100	100	100	100
13C-2,3,7,8-TCDF	13CTC	Ave	497121701	465748127	417369908	411749776	431613486	100	100	100	100	100
37Cl4-2,3,7,8-TCDD	13CTC	Ave	2624897	9773285	36949892	140142033	756156586	0.500	2.00	10.0	40.0	200

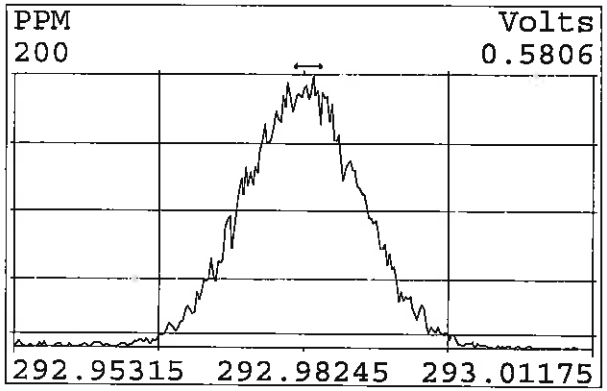
Curve Type Legend:

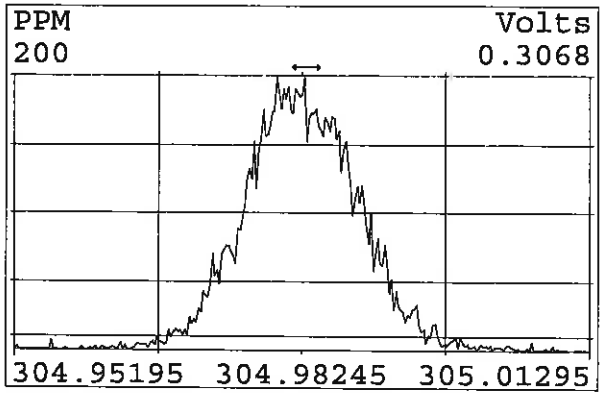
Ave = Average ISTD
AveID = Average isotope dilution

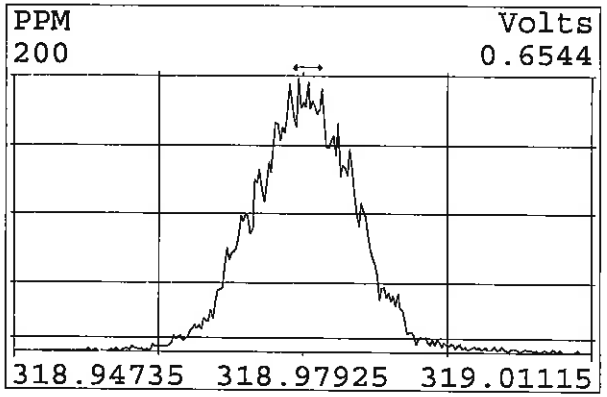
Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
13MY19C4D2	1	CCV 051319B	CS-4 HRDXNL4_00077		Dioxin		1.000	
13MY19C4D2	2	CPS 051319B	CPS HRDXNCP_00038		Dioxin		1.000	
13MY19C4D2	3	SB 051319	SB Solvent Blank C-14		Dioxin		1.000	
13MY19C4D2	4	IC 051319	IC CS-2 HRDXNL2_00024		Dioxin		1.000	
13MY19C4D2	5	IC 051319A	IC CS-3 HRDXNL3_00022		Dioxin		1.000	
13MY19C4D2	6	IC 051319B	IC CS-4 HRDXNL4_00077		Dioxin		1.000	
13MY19C4D2	7	IC 051319C	IC CS-5 HRDXNL5_00025		Dioxin		1.000	
13MY19C4D2	8	IC 051319D	IC CS-6 HRDXNL6_00021		Dioxin		1.000	
13MY19C4D2	9	SB 051319A	SB Solvent Blank C-14		Dioxin		1.000	
13MY19C4D2	10	ICV 051319	ICV HRDXNIC_00038		Dioxin		1.000	
13MY19C4D2	11	SB 051319B	SB Solvent Blank C-14		Dioxin		1.000	
13MY19C4D2	12	320-293356	MB 320-293356/1-A	40	8290/Water	29	2.000	L
13MY19C4D2	13	320-293356	320-49657-A-36-A MDLV 24	40	8290/Water		2.000	L
13MY19C4D2	14	320-293356	320-49657-A-37-A MDLV 25	40	8290/Water		2.000	L
13MY19C4D2	15	CCV 051319C	CS-4 HRDXNL4_00077		Dioxin		1.000	
13MY19C4D2	16						1.000	
13MY19C4D2	17						1.000	
13MY19C4D2	18						1.000	
13MY19C4D2	19						1.000	
13MY19C4D2	20						1.000	
13MY19C4D2	21						1.000	
13MY19C4D2	22		KSS 05-13-19				1.000	
13MY19C4D2	23						1.000	

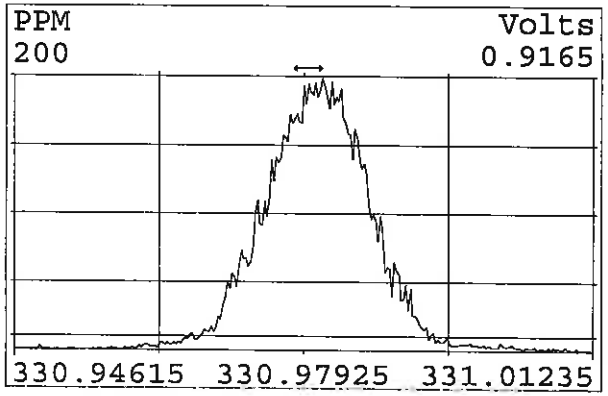
Log file checked
05/14/19 SMA

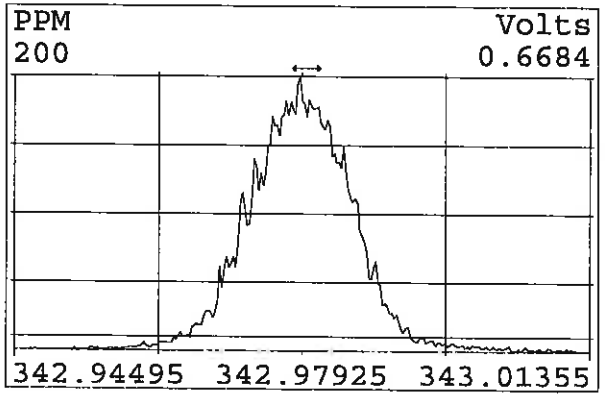
Peak Locate Examination:13-MAY-2019:17:06 File:13MY19C4D2
Experiment:DB225RES Function:1 Reference:PFK

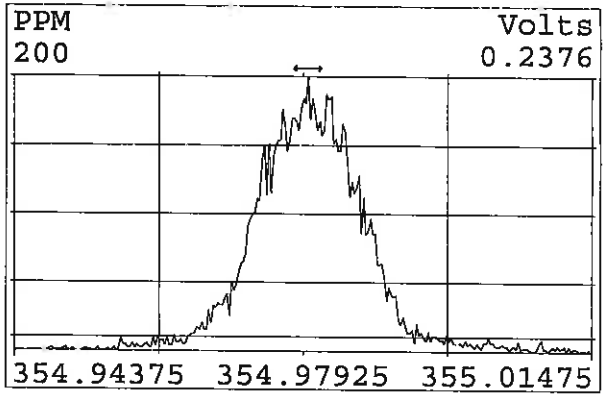


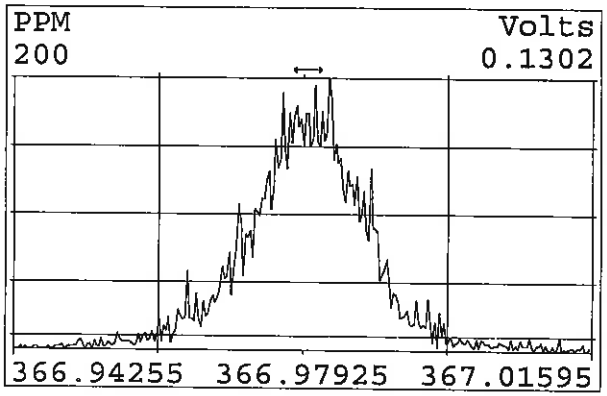


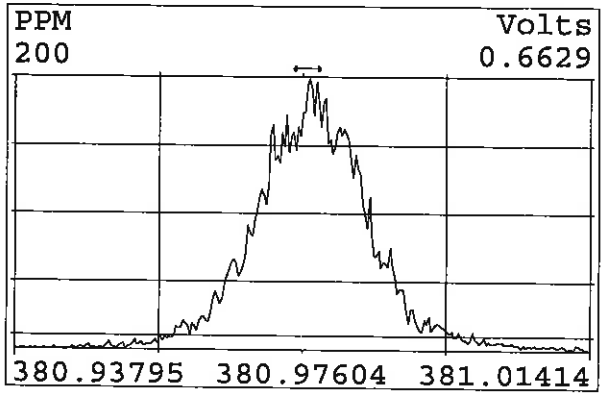




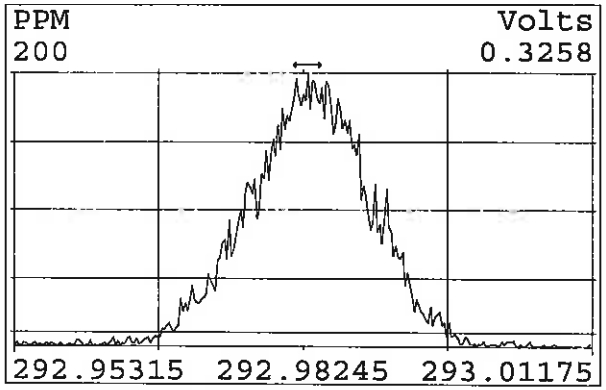


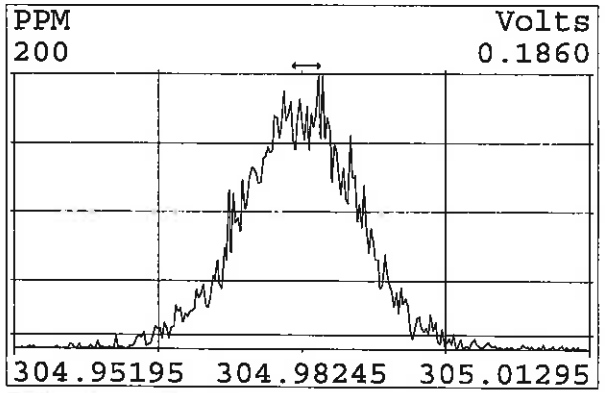


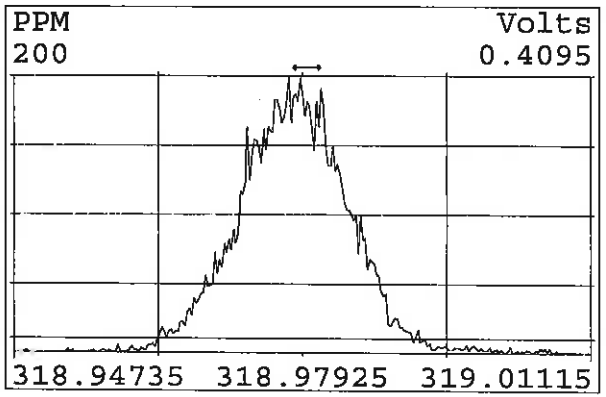


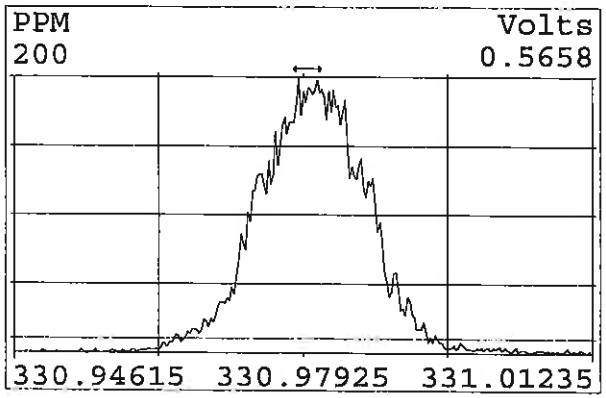


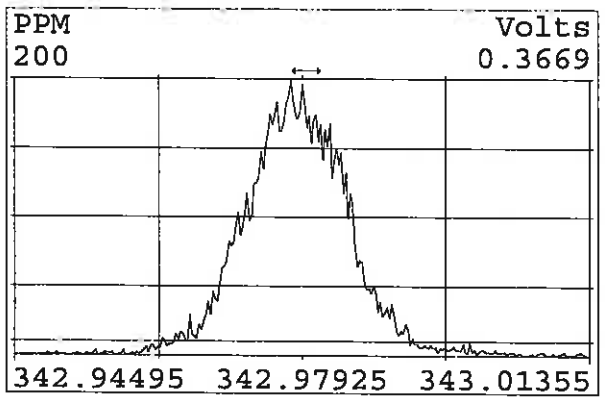
Peak Locate Examination:14-MAY-2019:04:53 File:RESCHECK4D2
Experiment:DB225RES Function:1 Reference:PFK

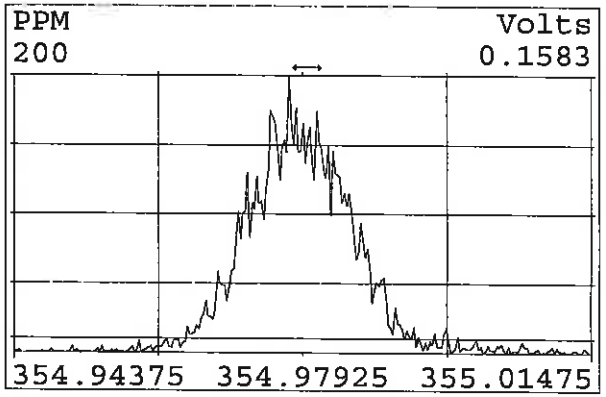


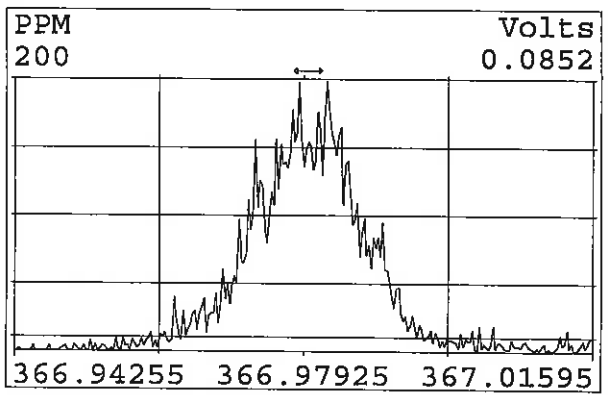


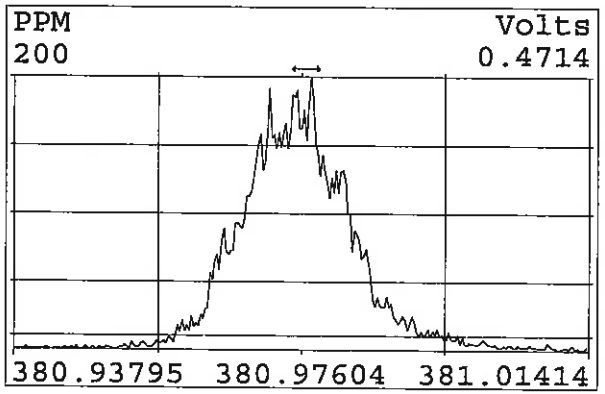












Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d
Lims ID: IC CS2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-May-2019 19:08:19 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-2 HRDXNL2_00024
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:09 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:07

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.386	366162568	0.78	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	15.483	497121701	0.79	1.3652	99.4	99.4	0.0780	0.0780	99.45	
2,3,7,8-TCDF	15.497	3551413	0.78	1.1747	0.6082	0.6082	0.007018	0.007018	122	
D 13C-2,3,7,8-TCDD	14.111	348941928	0.78	0.9684	98.4	98.4	0.0527	0.0527	98.41	
$ 37Cl4-2,3,7,8-TCDD	14.139	2624897		1.2853	0.5578	0.5578	0.008514	0.008514	112	
2,3,7,8-TCDD	14.139	2519071	0.72	1.2259	0.5889	0.5889	0.0148	0.0148	118	

Reagents:

HRDXNL2_00024 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d
Lims ID: IC CS2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-May-2019 19:08:19 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-2 HRDXNL2_00024
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:09 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:07

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.386	14.379	0		160120650	34875432	9333	23332	3737		
333.9339	14.386	14.379	0		206041918	45467784	7072	17680	6429	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	15.483	15.484	0	1.076	218686175	49156395	19458	48645	2526		
317.9389	15.483	15.484	0	1.076	278435526	61860042	14781	36952	4185	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.497	15.501	0	1.001	1561552	327122	1530	3825	214		
305.8987	15.497	15.501	0	1.001	1989861	451626	2131	5327	212	0.78(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.111	14.110	0	0.981	152912305	33813352	9333	23332	3623		
333.9339	14.111	14.110	0	0.981	196029623	43605719	7072	17680	6166	0.78(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.139	14.130	1	0.983	2624897	569812	3517	8792	162		
2,3,7,8-TCDD											
319.8965	14.139	14.132	0	1.002	1058388	229834	2893	7232	79		
321.8936	14.125	14.132	0	1.001	1460683	309478	2733	6832	113	0.72(0.65-0.89)	

Reagents:

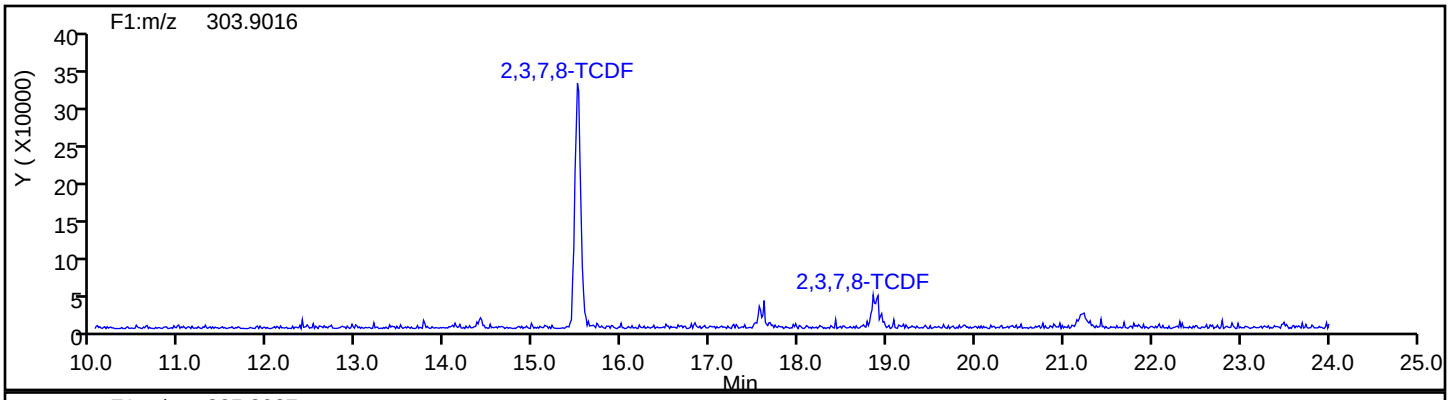
HRDXNL2_00024 Amount Added: 1.00 Units: mL

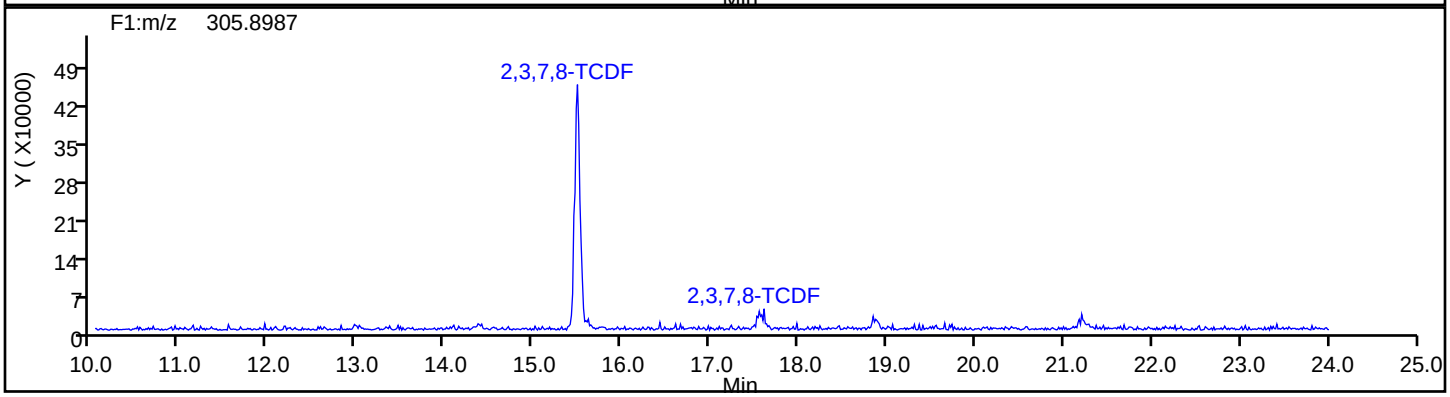
Report Date: 14-May-2019 10:27:11 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

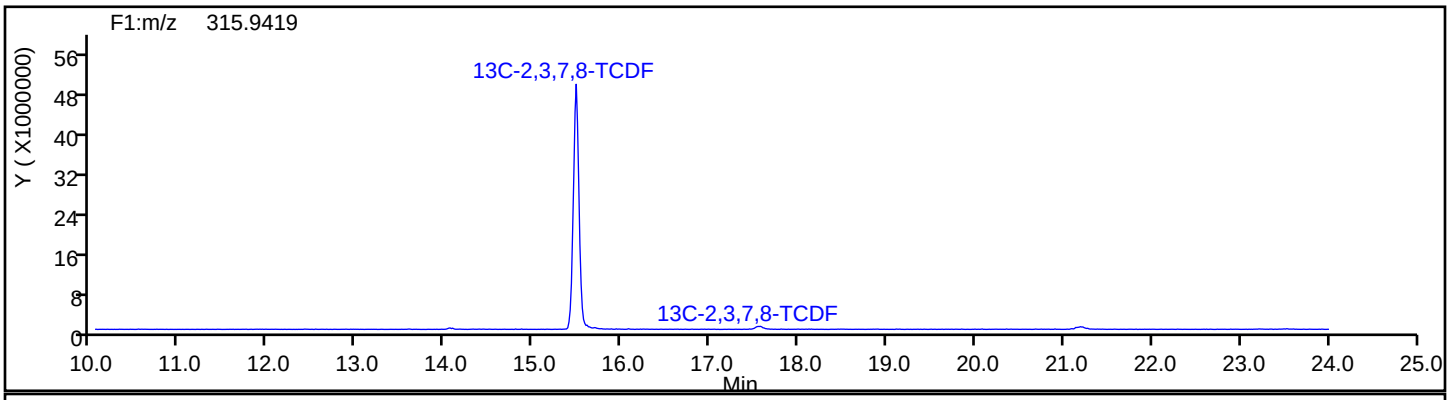
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d		
Injection Date:	13-May-2019 19:08:19	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

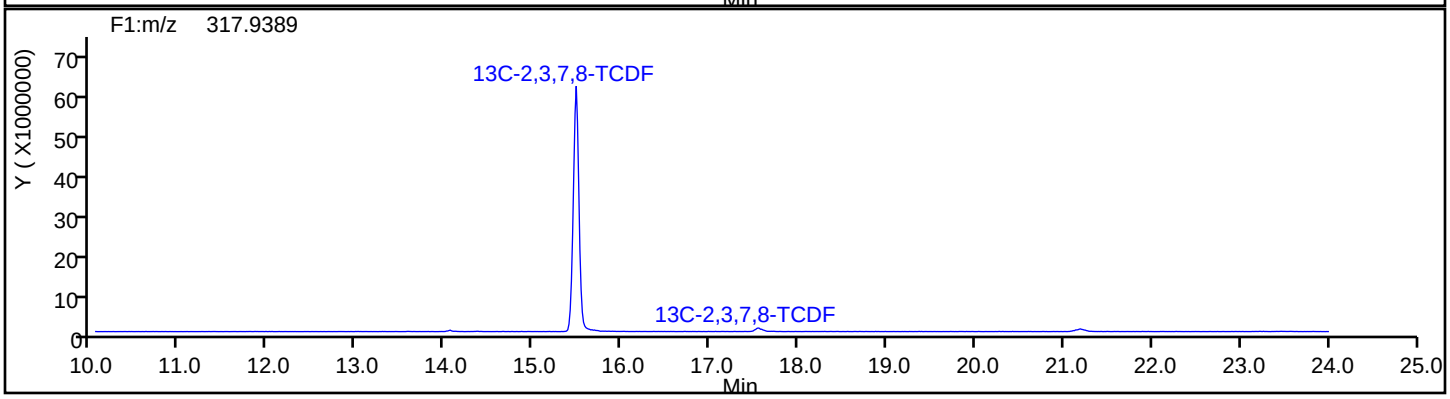
TCDF





TCDF Standards



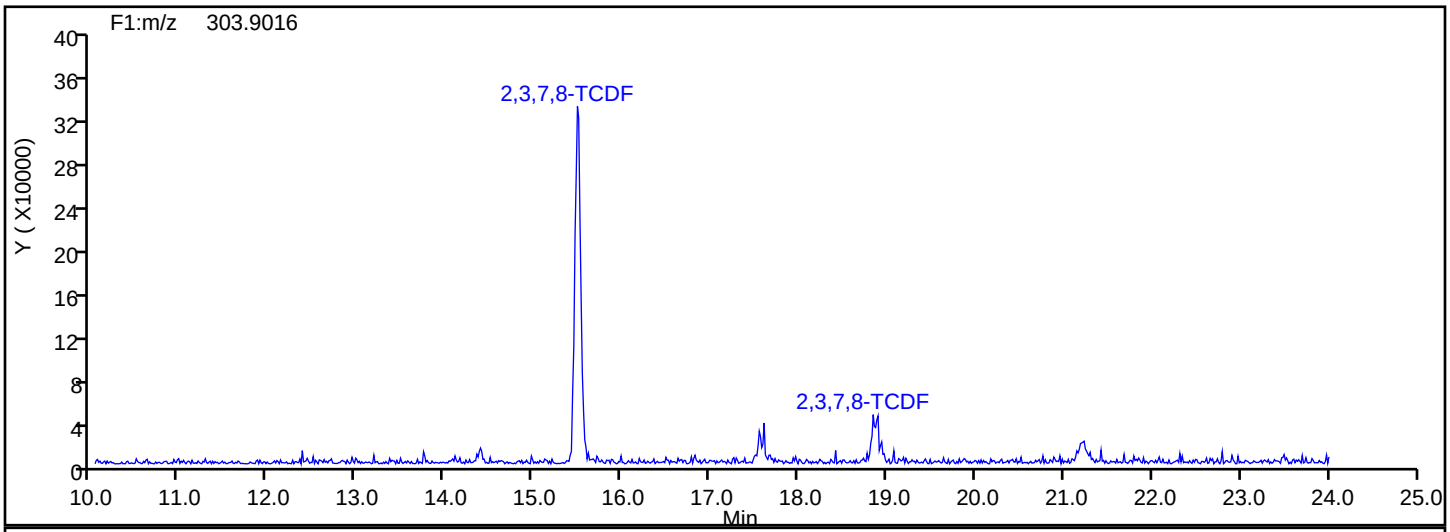


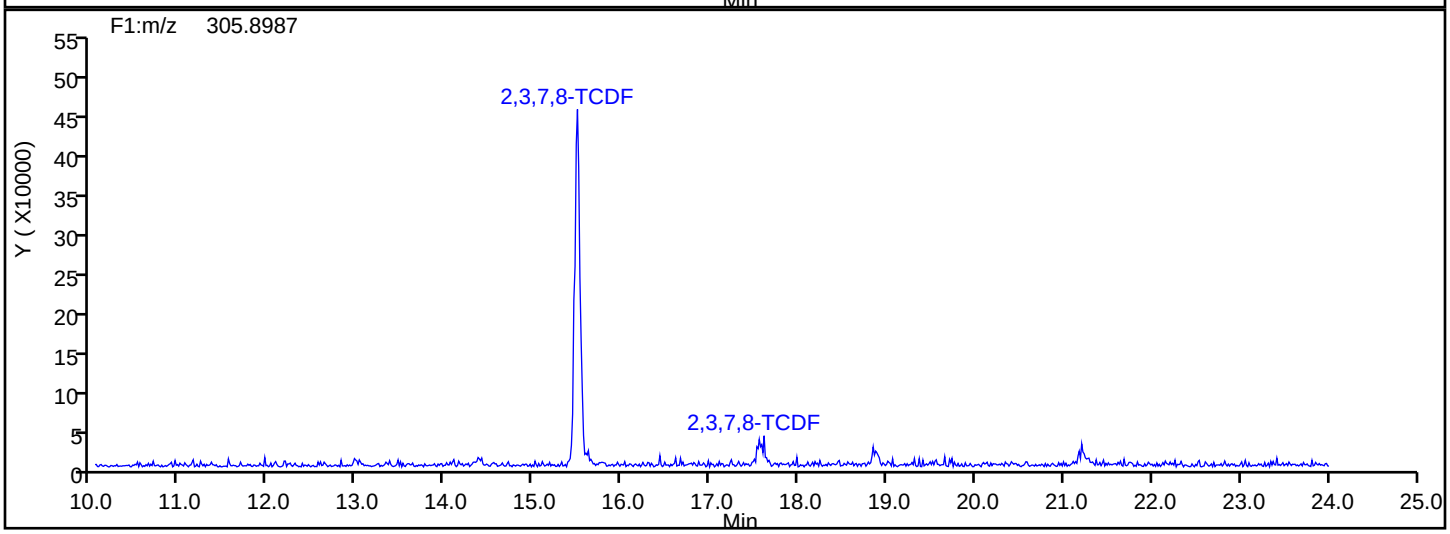
Report Date: 14-May-2019 10:27:11 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

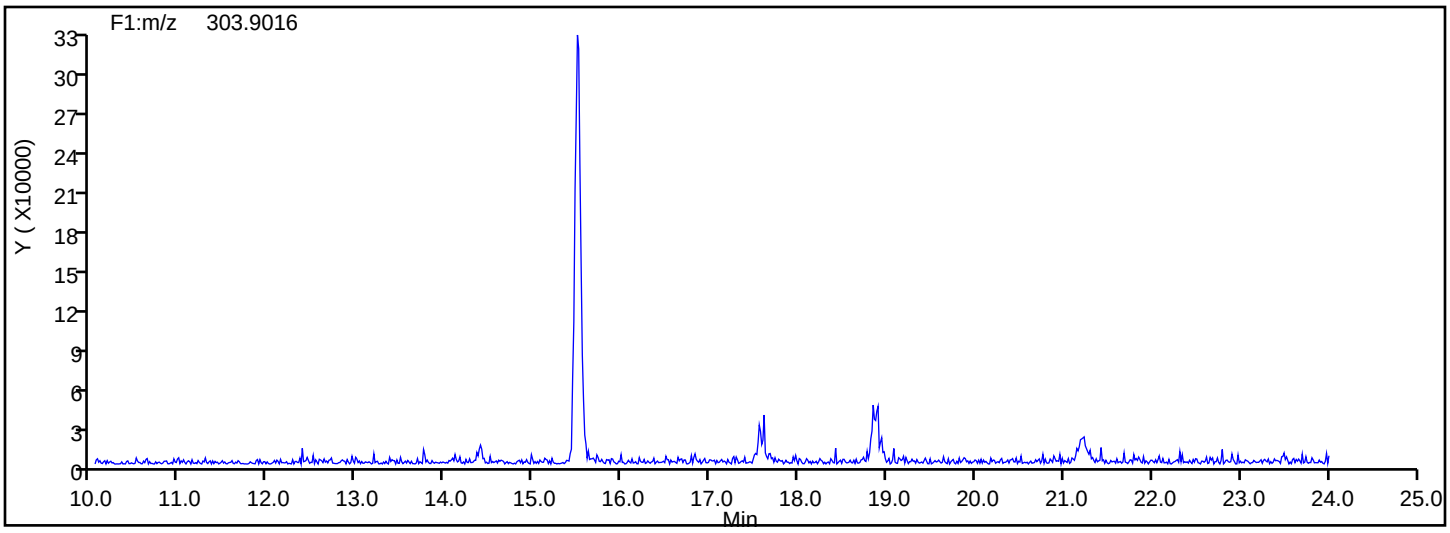
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d		
Injection Date:	13-May-2019 19:08:19	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



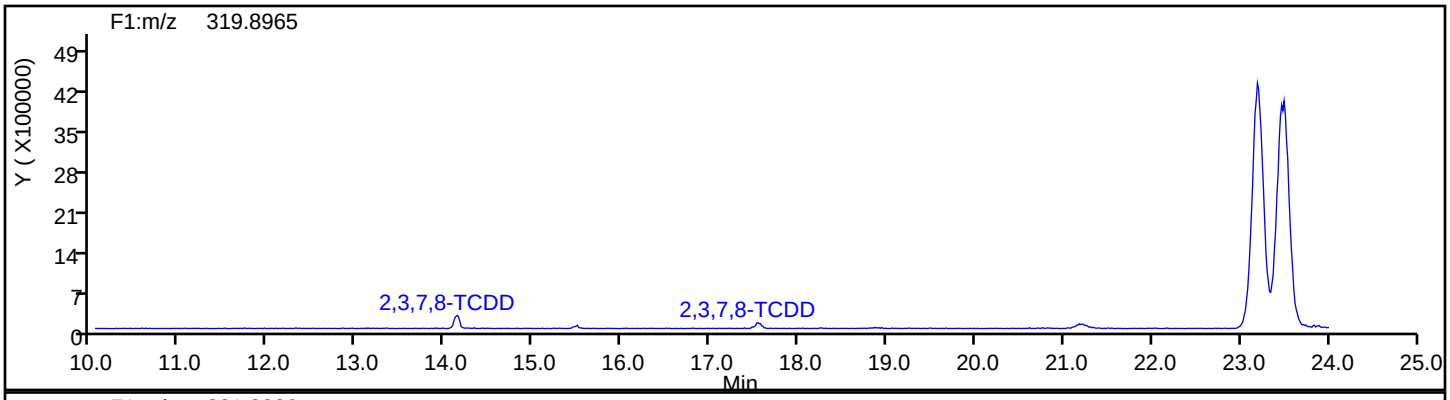
Report Date: 14-May-2019 10:27:11 Chrom Revision: 2.3 12-May-2019 16:28:34

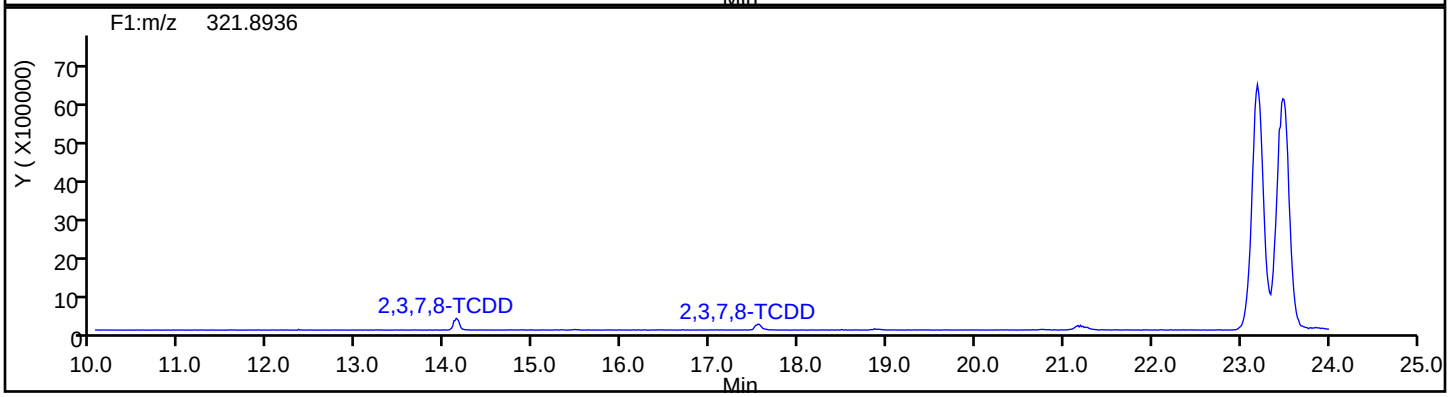
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d

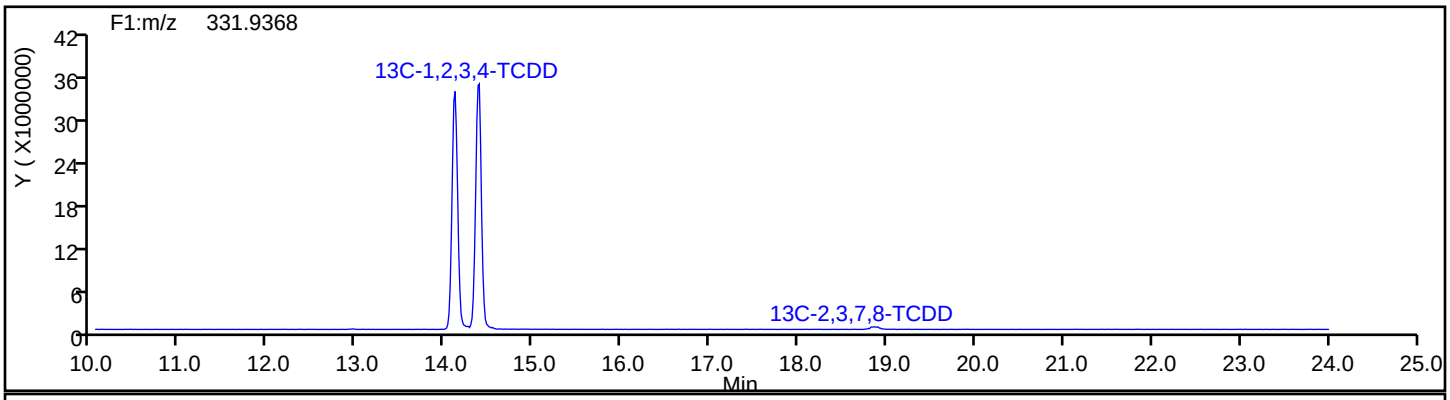
Injection Date:	13-May-2019 19:08:19	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

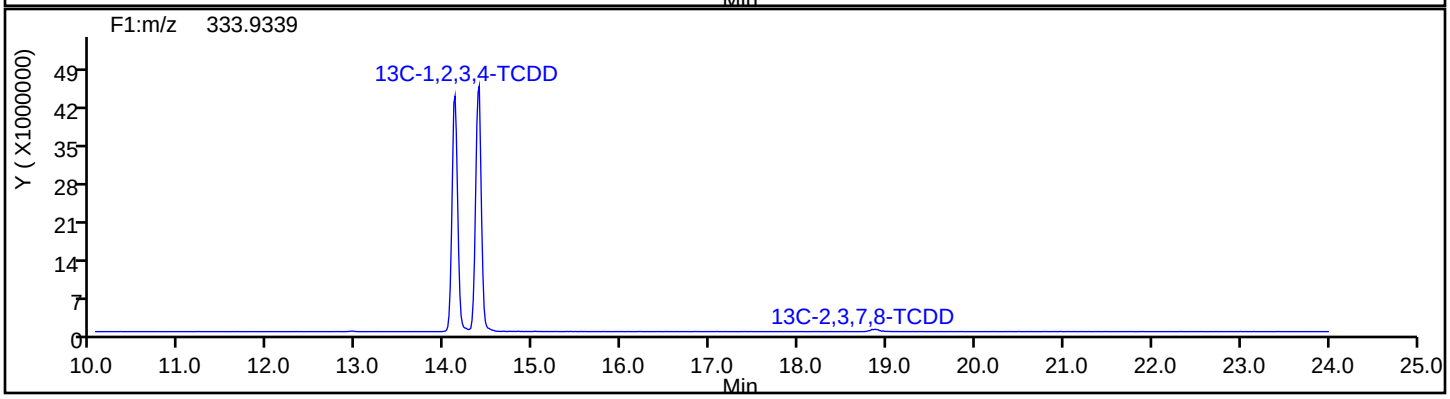
TCDD





TCDD Standards





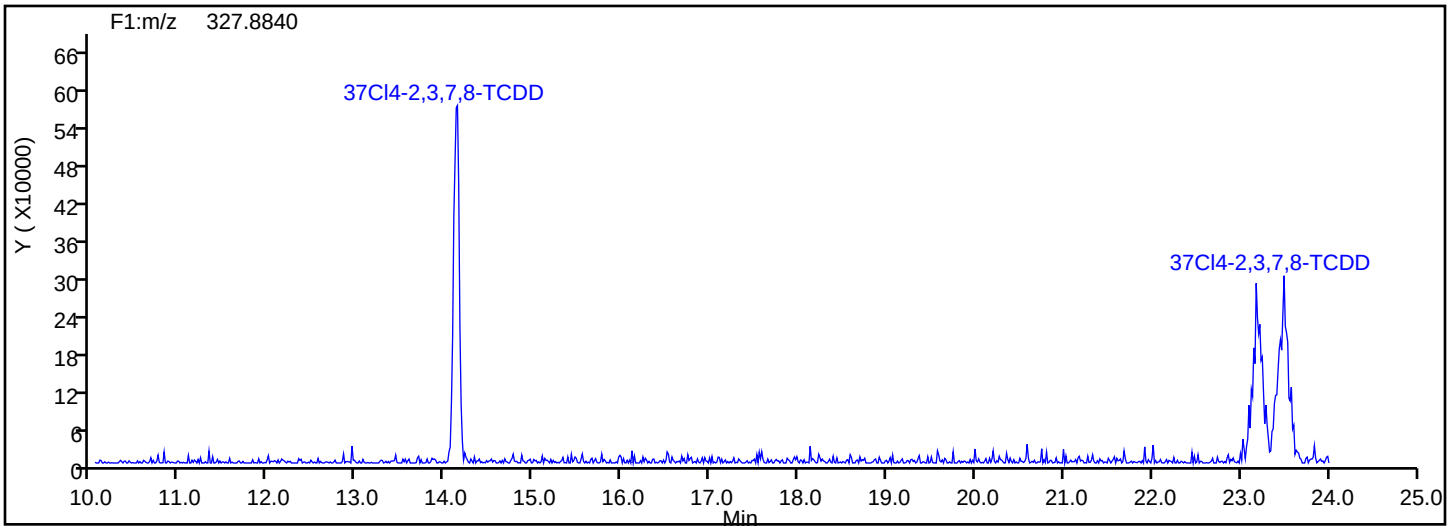
Report Date: 14-May-2019 10:27:11 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

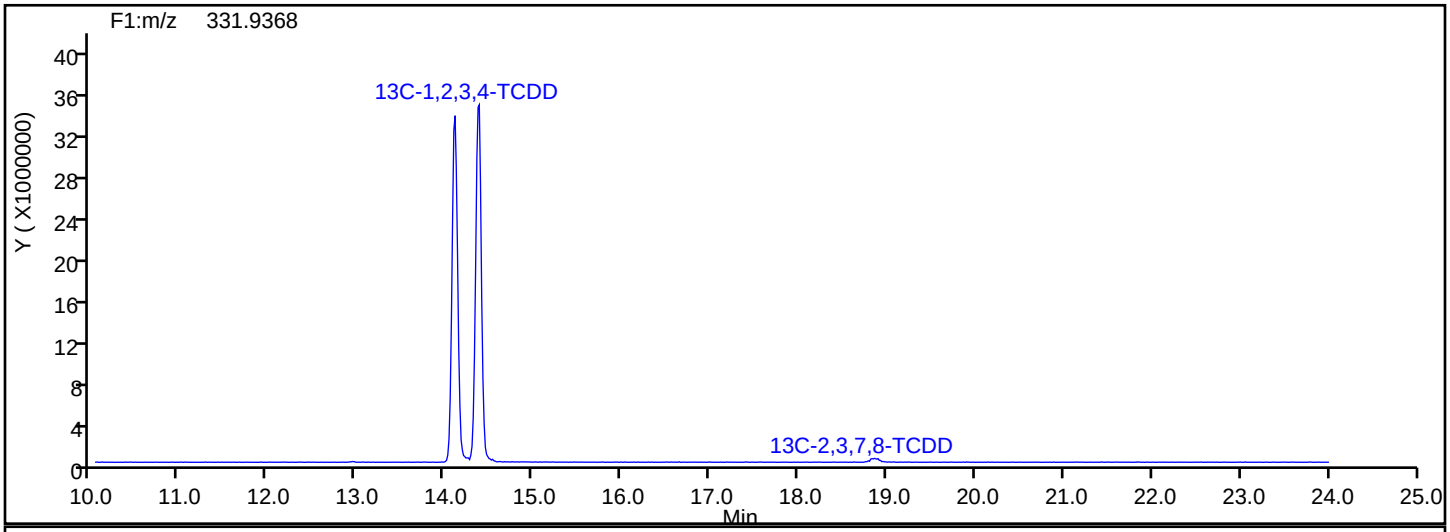
Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d

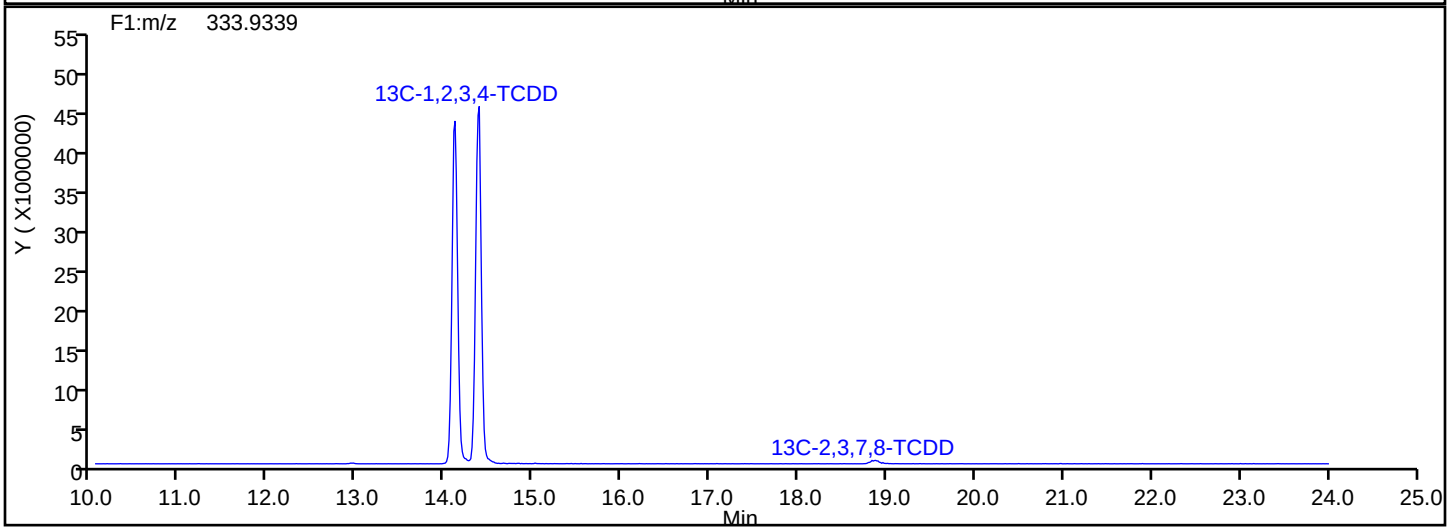
Injection Date:	13-May-2019 19:08:19	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

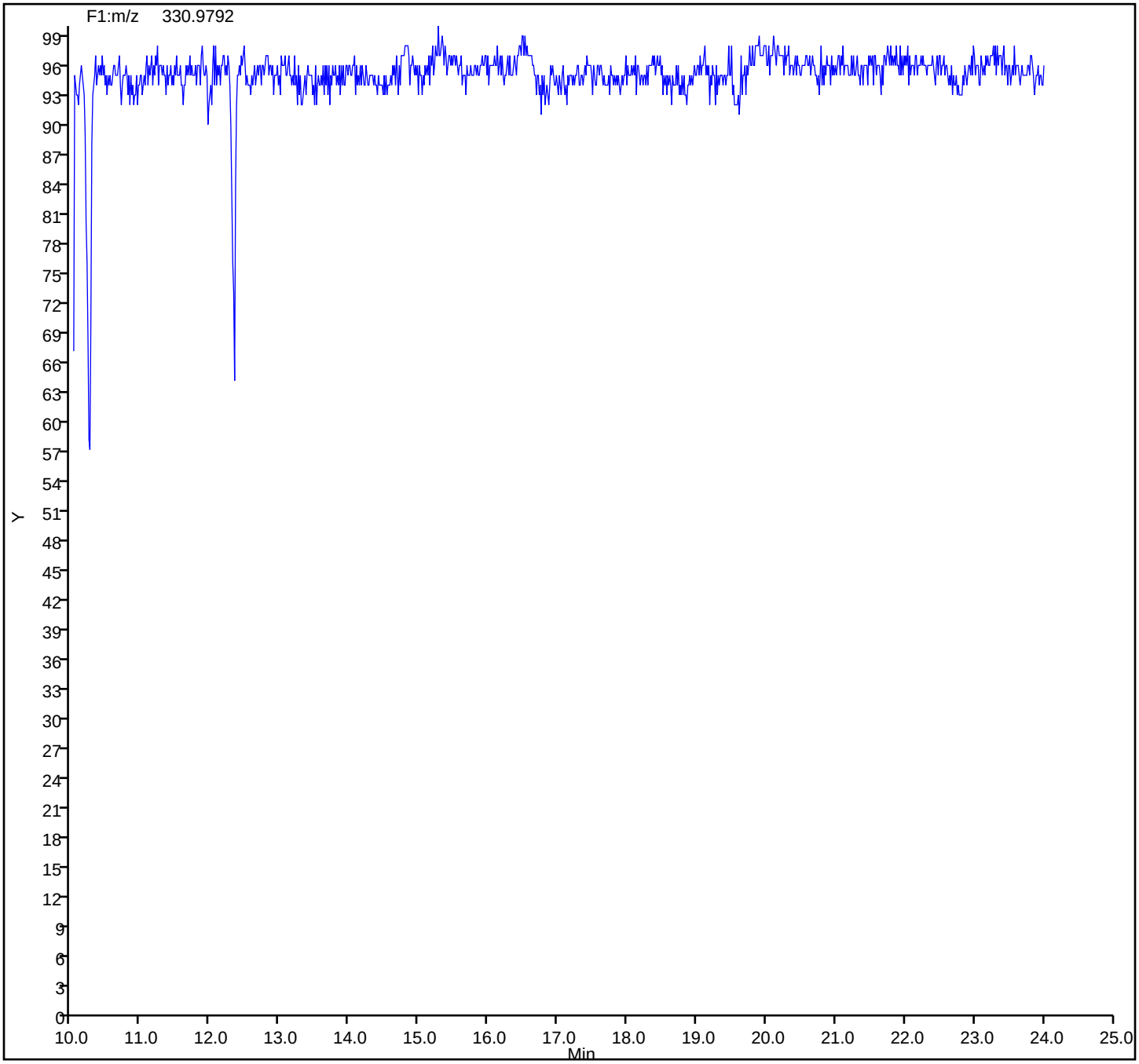




Report Date: 14-May-2019 10:27:11 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_004.d		
Injection Date:	13-May-2019 19:08:19	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	4
Column Type:	DB-225	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d
Lims ID: IC CS3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-May-2019 19:46:10 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-3 HRDXNL3_00022
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:14 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:22

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.361	358674740	0.78	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	15.472	465748127	0.78	1.3652	95.1	95.1	0.0753	0.0753	95.12	
2,3,7,8-TCDF	15.486	12492611	0.76	1.1747	2.283	2.283	0.009280	0.009280	114	
D 13C-2,3,7,8-TCDD	14.100	332557222	0.77	0.9684	95.7	95.7	0.0526	0.0526	95.75	
$ 37Cl4-2,3,7,8-TCDD	14.114	9773285		1.2853	2.120	2.120	0.009048	0.009048	106	
2,3,7,8-TCDD	14.127	9067576	0.78	1.2259	2.224	2.224	0.0169	0.0169	111	

Reagents:

HRDXNL3_00022 Amount Added: 1.00 Units: mL

Report Date: 14-May-2019 10:27:16 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d
Lims ID: IC CS3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-May-2019 19:46:10 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-3 HRDXNL3_00022
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:14 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:22

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.361	14.379	-1		156885026	35118668	9161	22902	3833		
333.9339	14.361	14.379	-1		201789714	45301490	7210	18025	6283	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	15.472	15.484	-1	1.077	203713070	42484236	18864	47160	2252		
317.9389	15.472	15.484	-1	1.077	262035057	55256262	14192	35480	3893	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.486	15.501	-1	1.001	5413017	1144226	1934	4835	592		
305.8987	15.486	15.501	-1	1.001	7079594	1406877	2328	5820	604	0.76(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.100	14.110	-1	0.982	144654114	33128012	9161	22902	3616		
333.9339	14.100	14.110	-1	0.982	187903108	43220722	7210	18025	5995	0.77(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.114	14.130	-1	0.983	9773285	2228501	3741	9352	596		
2,3,7,8-TCDD											
319.8965	14.127	14.132	0	1.002	3970925	931930	3022	7555	308		
321.8936	14.127	14.132	0	1.002	5096651	1210575	3293	8232	368	0.78(0.65-0.89)	

Reagents:

HRDXNL3_00022 Amount Added: 1.00 Units: mL

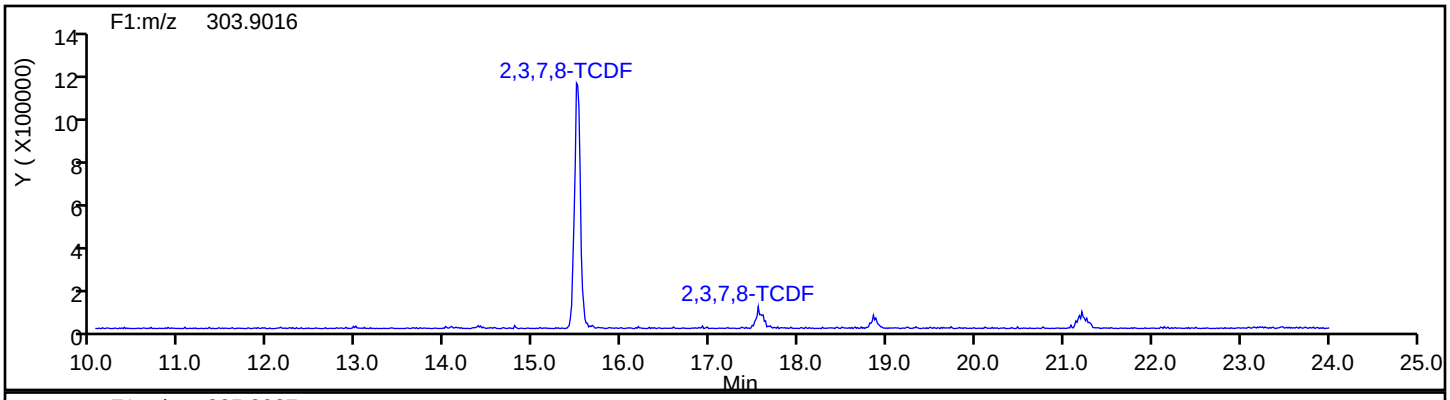
Report Date: 14-May-2019 10:27:16 Chrom Revision: 2.3 12-May-2019 16:28:34

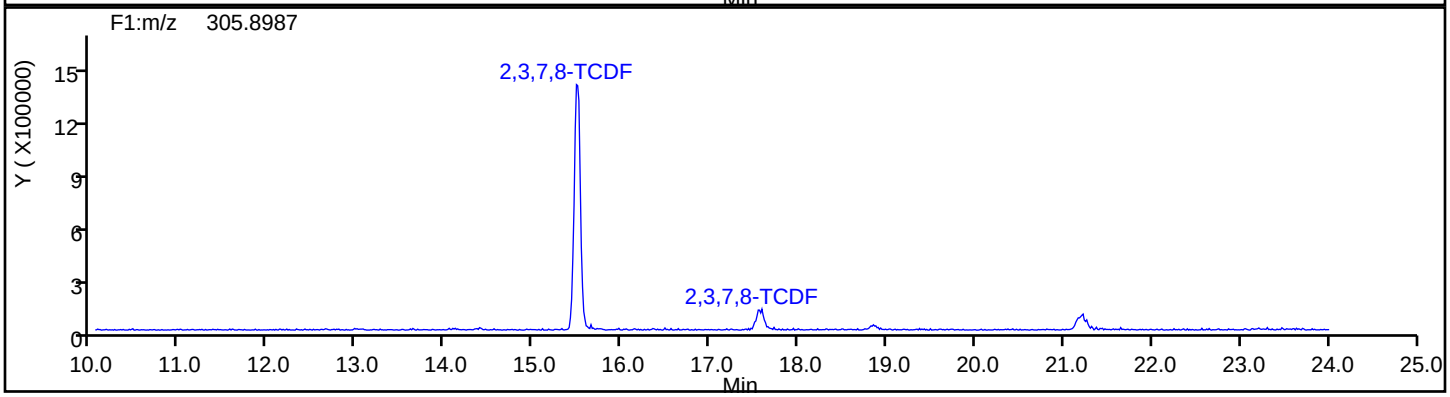
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d

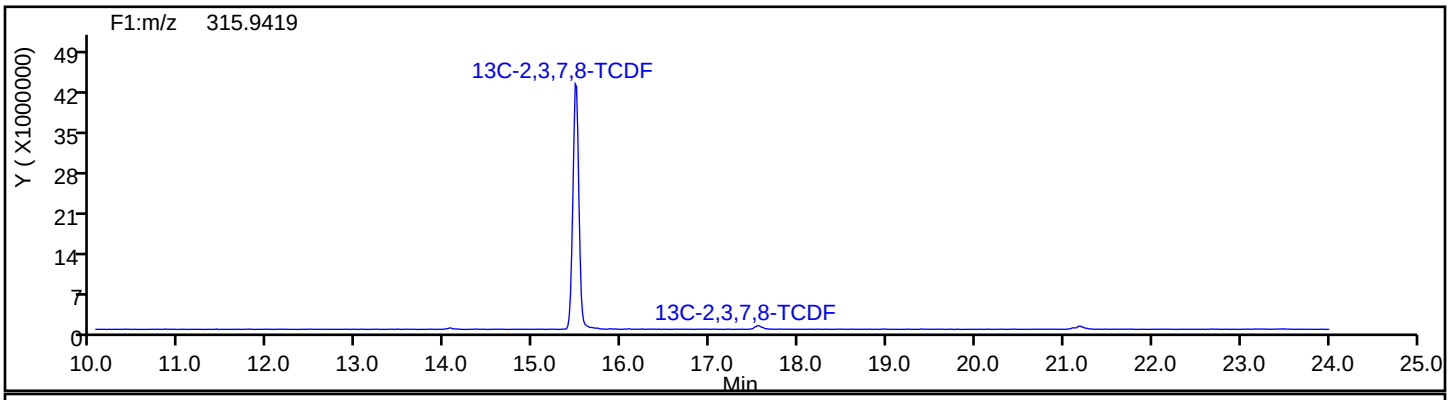
Injection Date:	13-May-2019 19:46:10	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

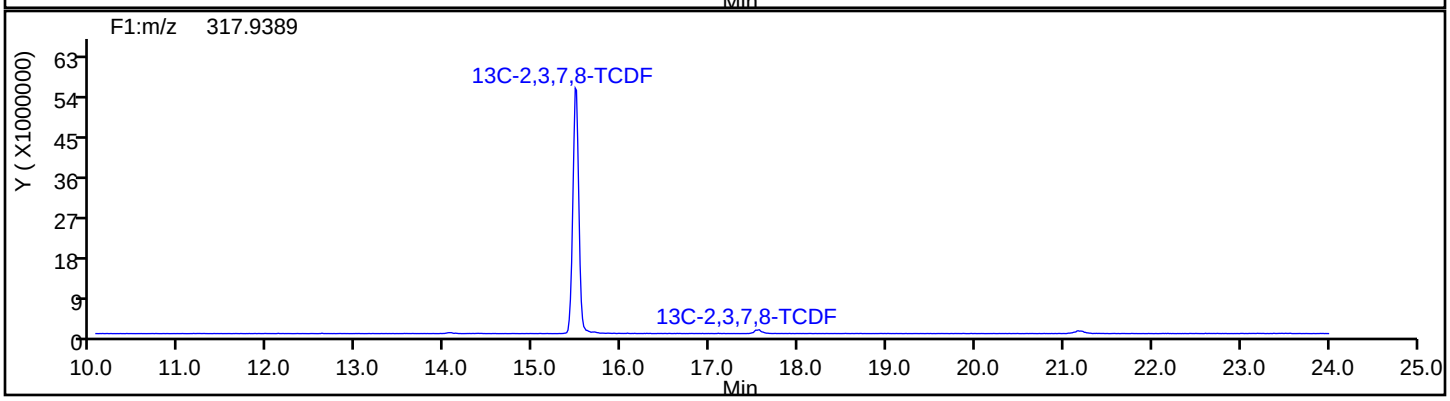
TCDF





TCDF Standards



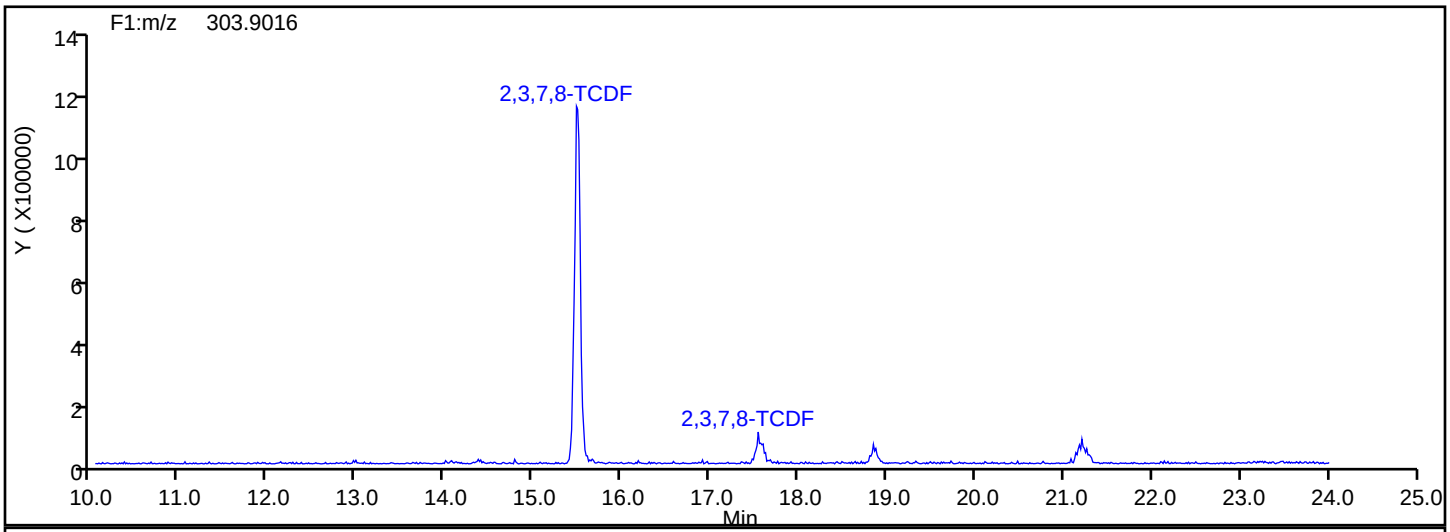


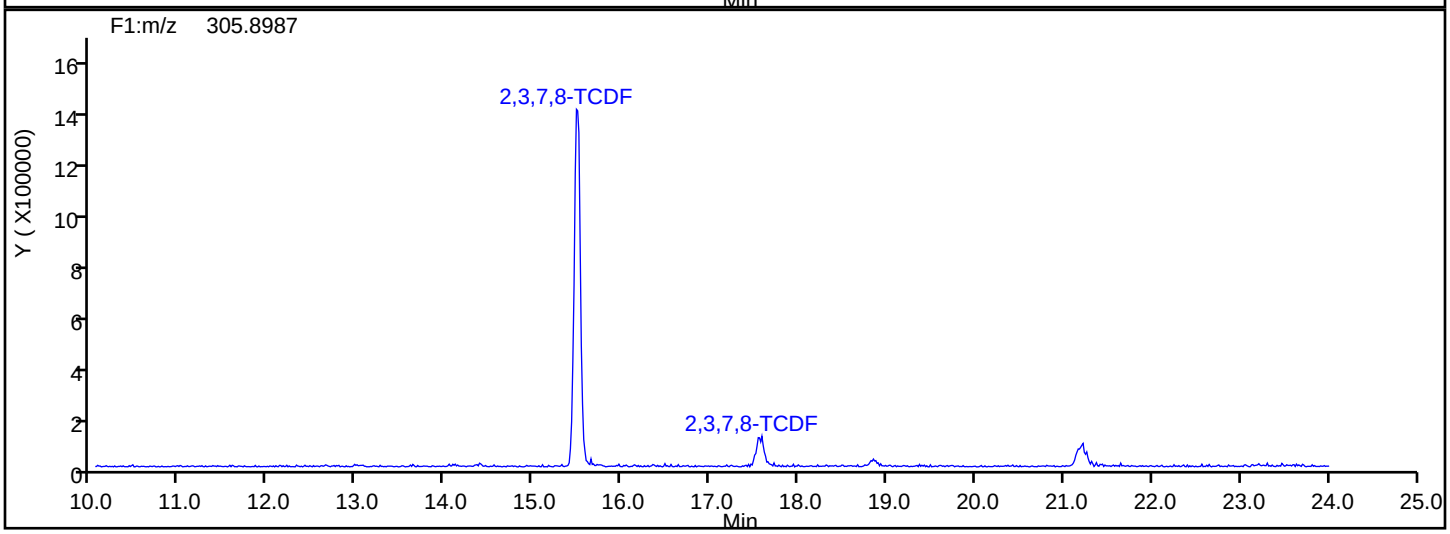
Report Date: 14-May-2019 10:27:16 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

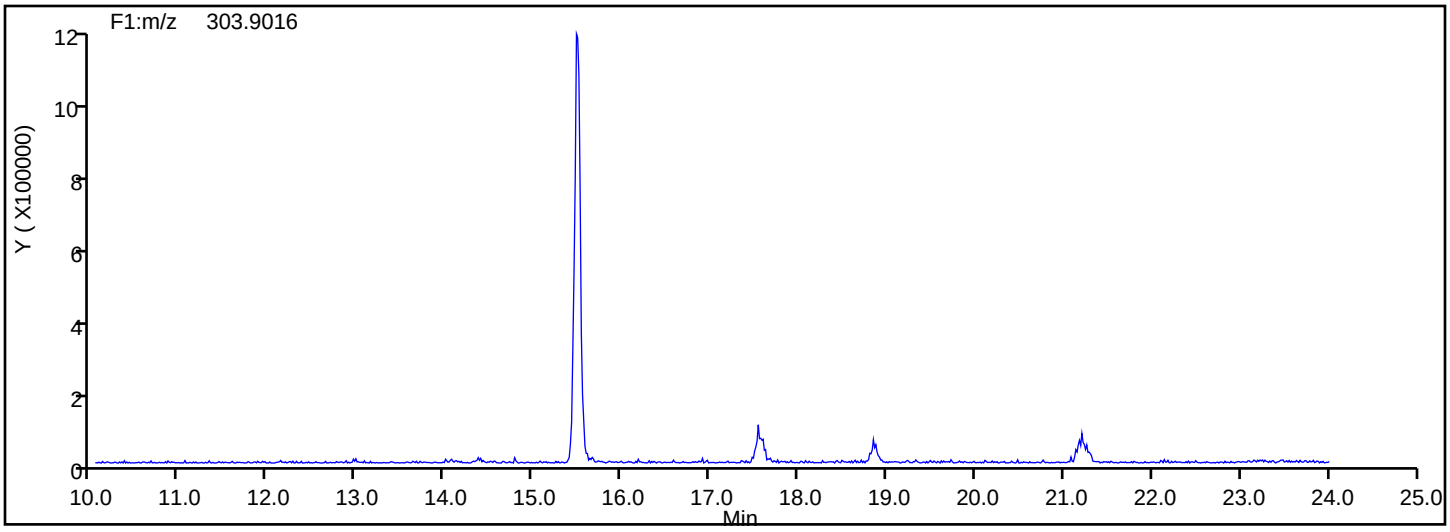
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d		
Injection Date:	13-May-2019 19:46:10	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



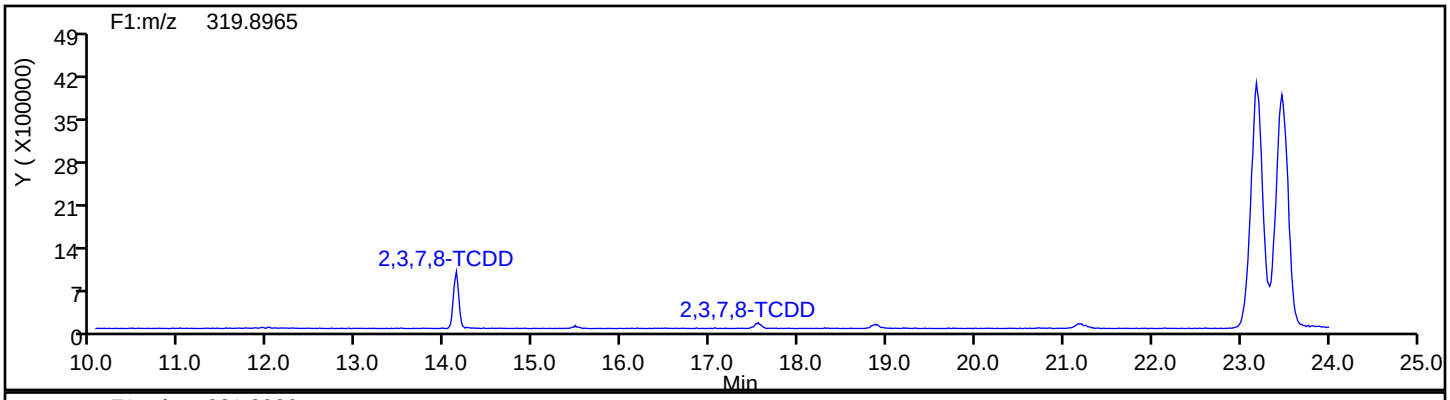
Report Date: 14-May-2019 10:27:16 Chrom Revision: 2.3 12-May-2019 16:28:34

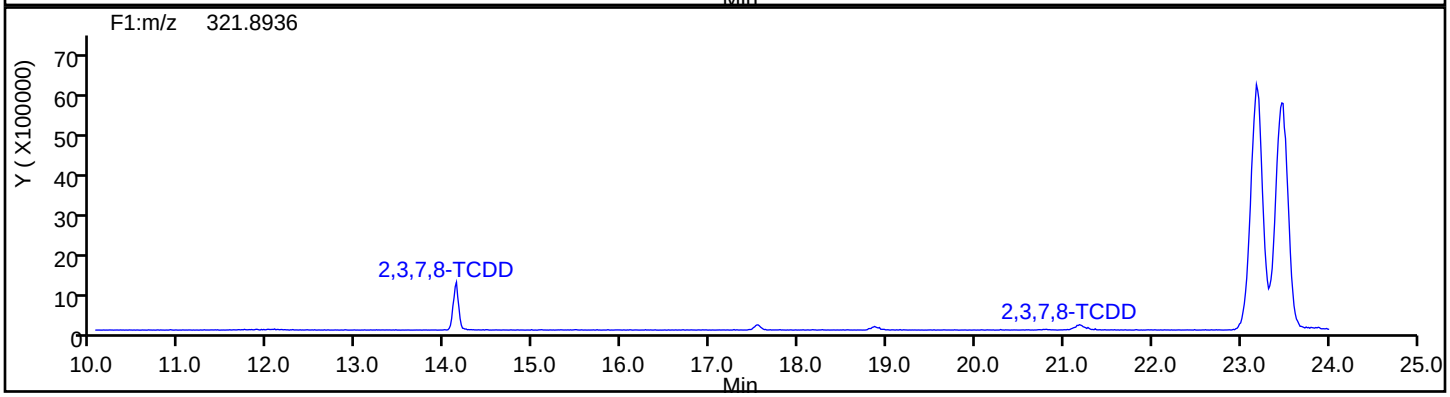
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d

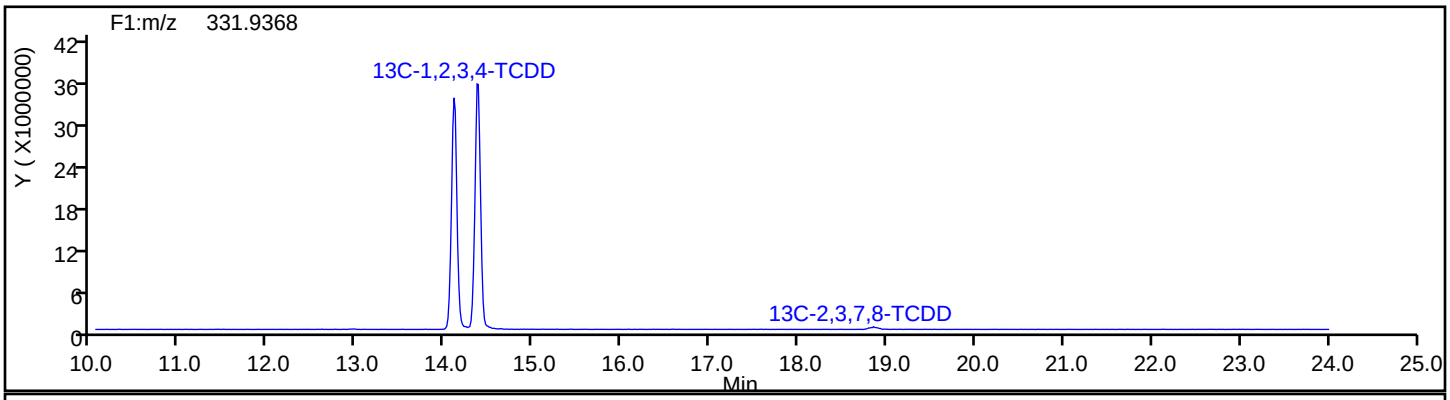
Injection Date:	13-May-2019 19:46:10	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

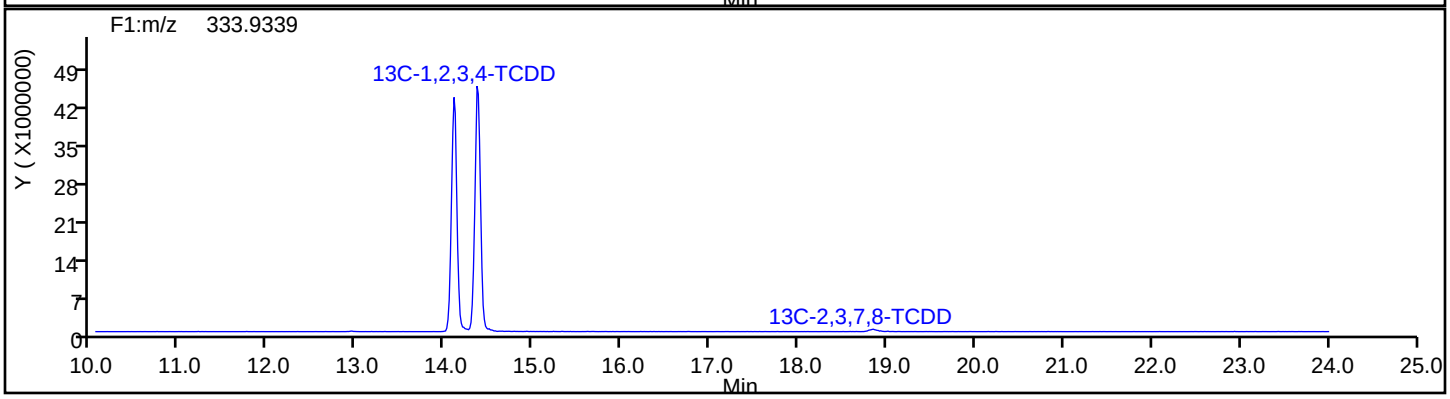
TCDD





TCDD Standards





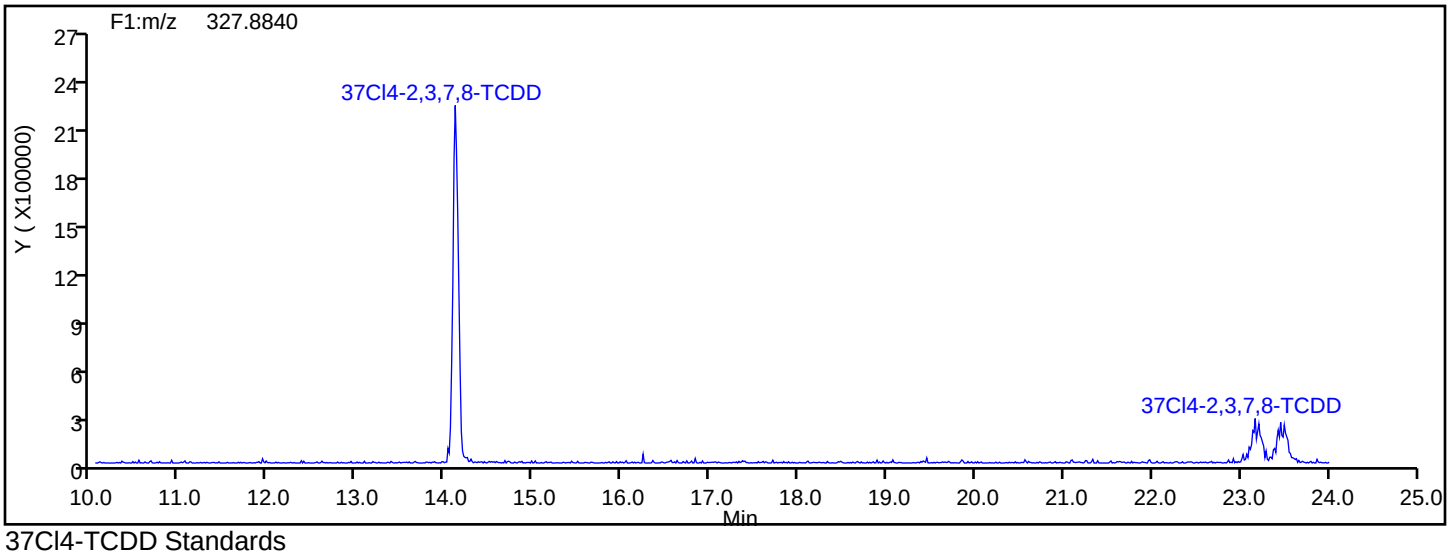
Report Date: 14-May-2019 10:27:16 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

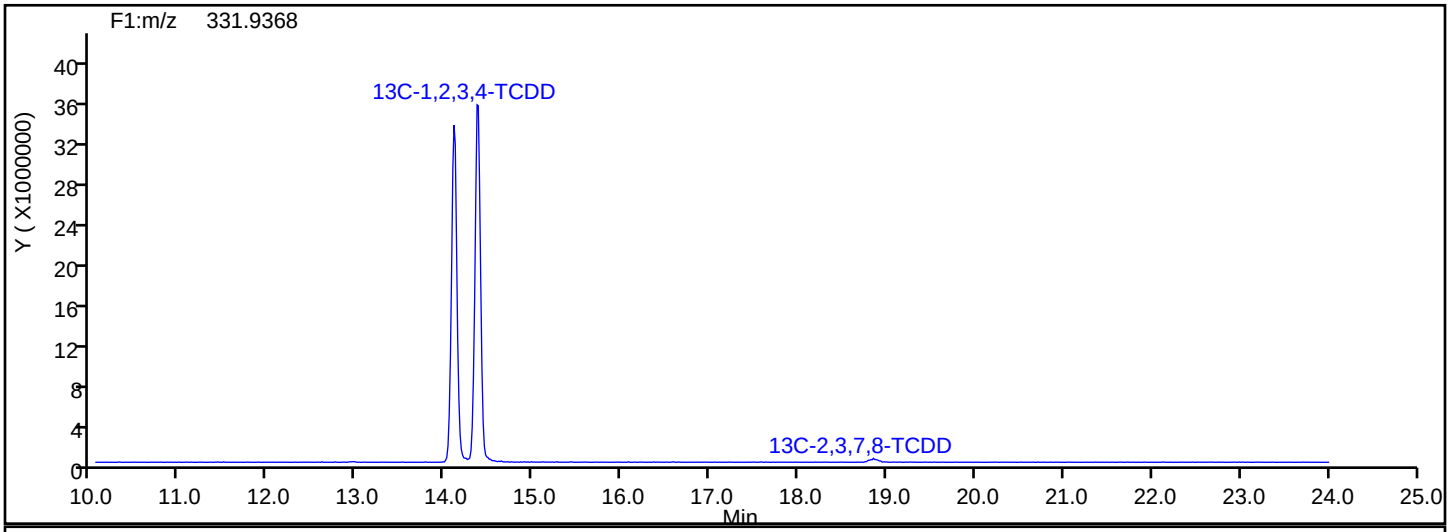
Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d

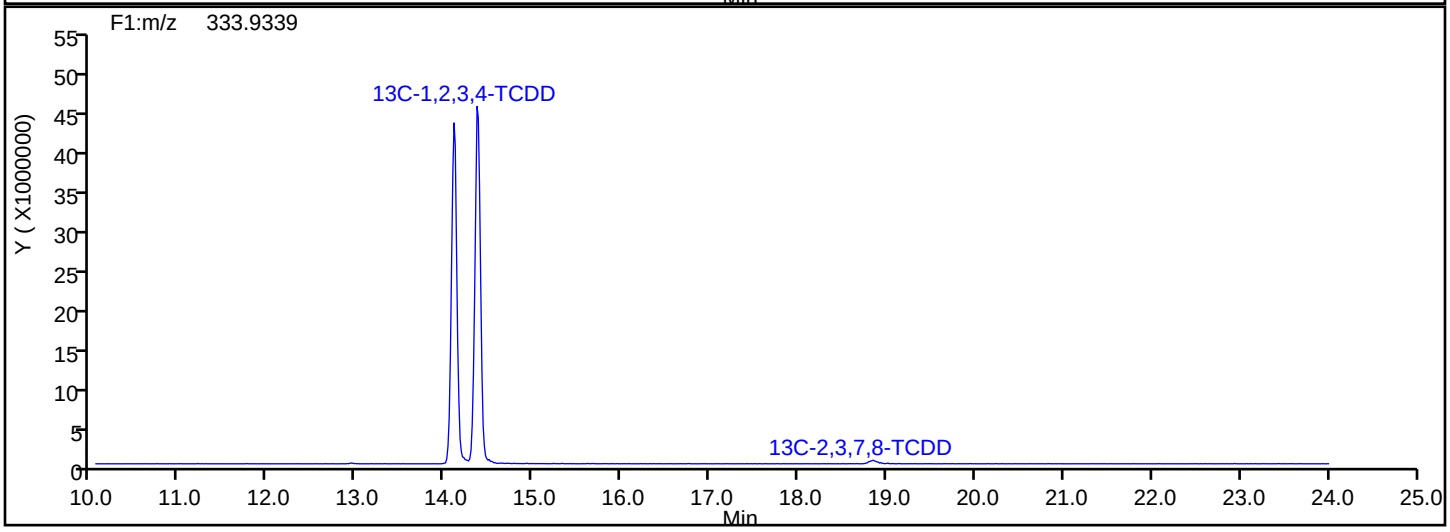
Injection Date:	13-May-2019 19:46:10	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

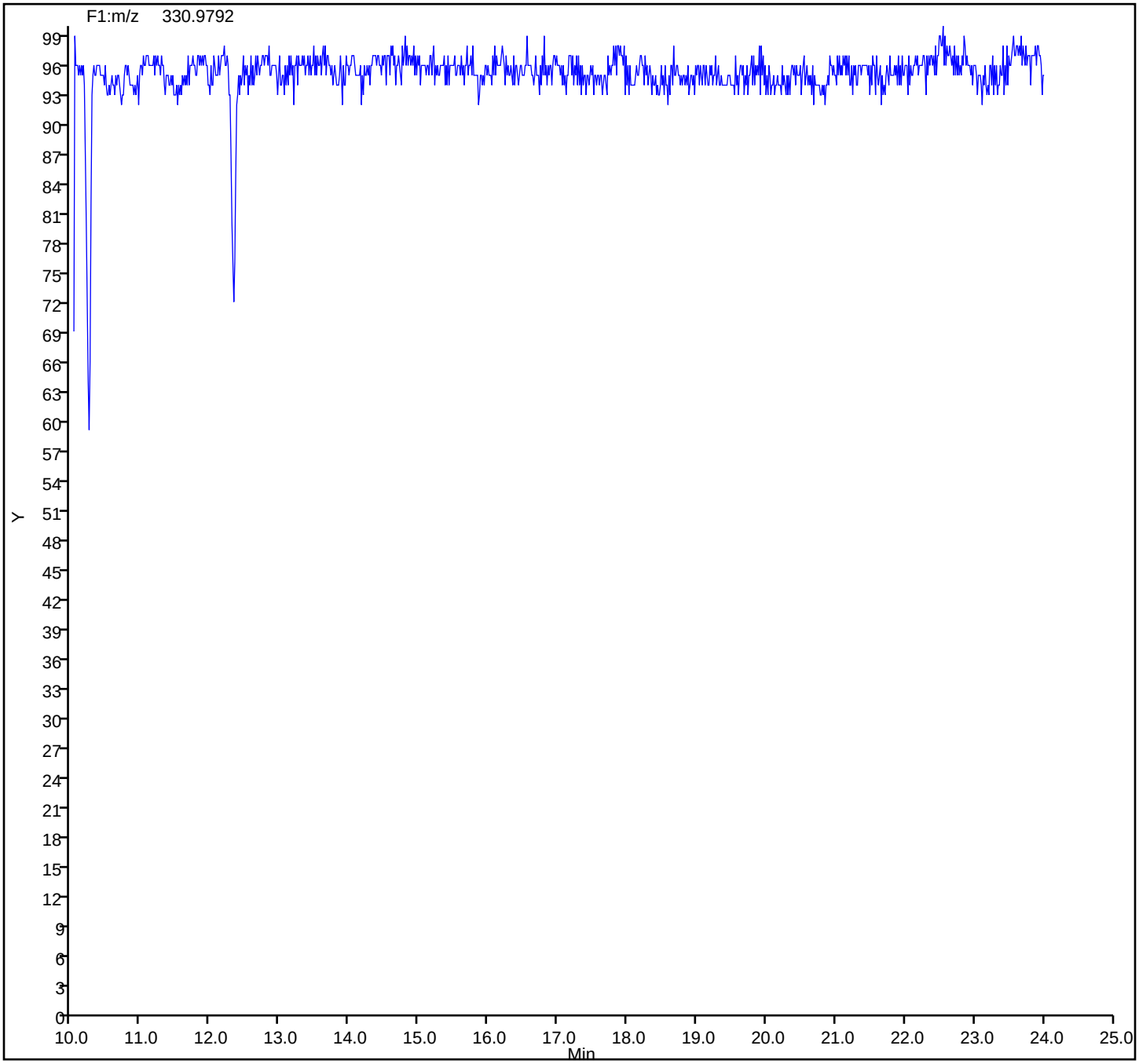




Report Date: 14-May-2019 10:27:16 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_005.d		
Injection Date:	13-May-2019 19:46:10	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	5
Column Type:	DB-225	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d
Lims ID: IC CS4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-May-2019 20:24:02 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-4 HRDXNL4_00077
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:19 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:36

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.371	301581415	0.78	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	15.482	417369908	0.80	1.3652	101.4	101.4	0.0852	0.0852	101	
2,3,7,8-TCDF	15.510	45545342	0.78	1.1747	9.290	9.290	0.0118	0.0118	92.90	
D 13C-2,3,7,8-TCDD	14.110	295341298	0.78	0.9684	101.1	101.1	0.0605	0.0605	101	
$ 37Cl4-2,3,7,8-TCDD	14.124	36949892		1.2853	9.533	9.533	0.0139	0.0139	95.33	
2,3,7,8-TCDD	14.124	34230095	0.79	1.2259	9.454	9.454	0.0190	0.0190	94.54	

Reagents:

HRDXNL4_00077 Amount Added: 1.00 Units: mL

Report Date: 14-May-2019 10:27:21 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d
Lims ID: IC CS4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-May-2019 20:24:02 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-4 HRDXNL4_00077
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:19 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:36

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.371	14.379	0		131810390	29989842	8944	22360	3353		
333.9339	14.371	14.379	0		169771025	38991393	7222	18055	5399	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	15.482	15.484	0	1.077	185026396	39606652	18031	45077	2197		
317.9389	15.482	15.484	0	1.077	232343512	50536973	14045	35112	3598	0.80(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.510	15.501	1	1.002	19898194	4096177	2356	5890	1739		
305.8987	15.496	15.501	0	1.001	25647148	5307533	2638	6595	2012	0.78(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.110	14.110	0	0.982	129099739	29236178	8944	22360	3269		
333.9339	14.110	14.110	0	0.982	166241559	37572502	7222	18055	5203	0.78(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.124	14.130	0	0.983	36949892	8032180	4945	12362	1624		
2,3,7,8-TCDD											
319.8965	14.124	14.132	0	1.001	15088007	3353144	3281	8202	1022		
321.8936	14.124	14.132	0	1.001	19142088	4316478	2955	7387	1461	0.79(0.65-0.89)	

Reagents:

HRDXNL4_00077 Amount Added: 1.00 Units: mL

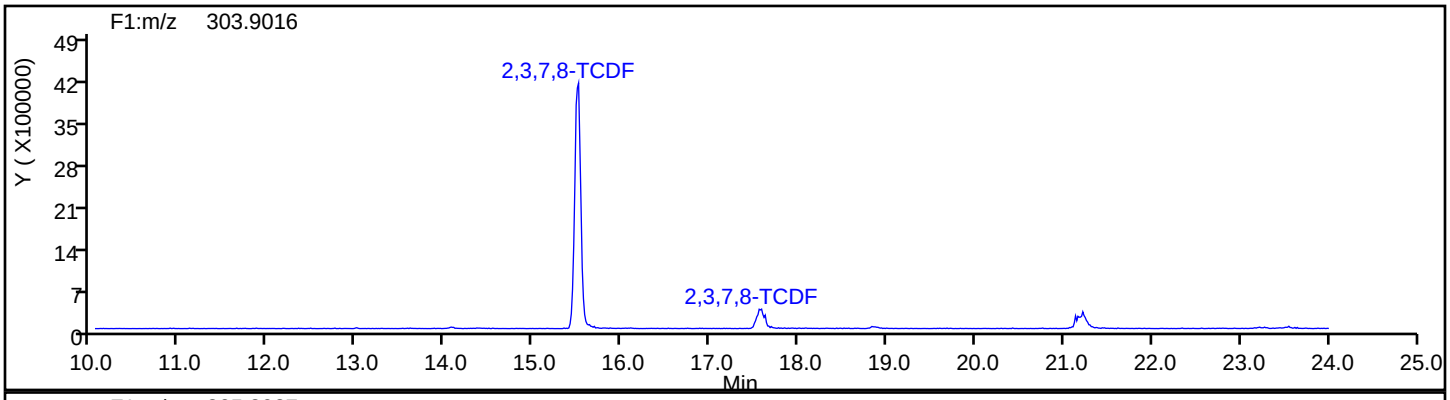
Report Date: 14-May-2019 10:27:21 Chrom Revision: 2.3 12-May-2019 16:28:34

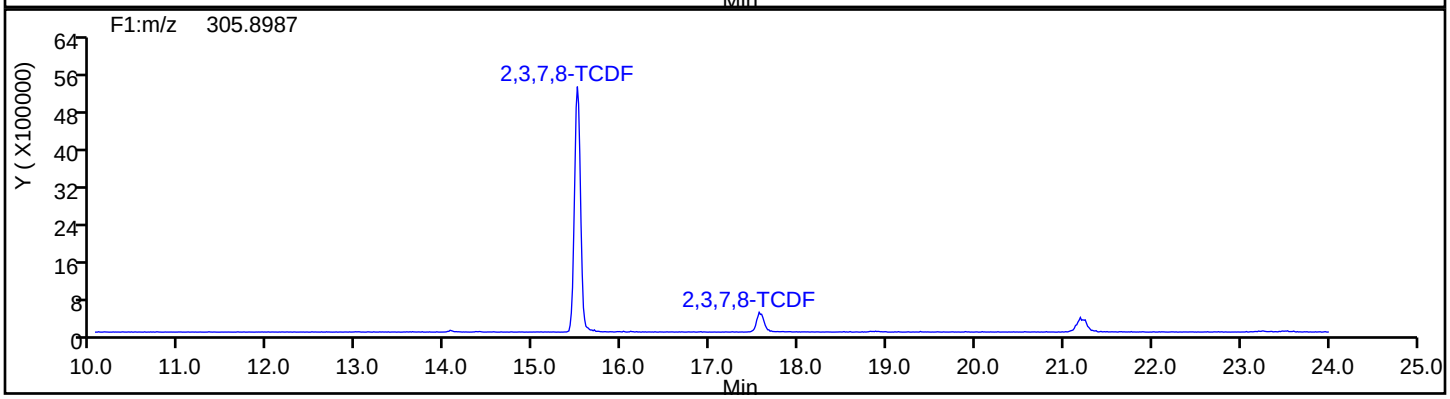
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d

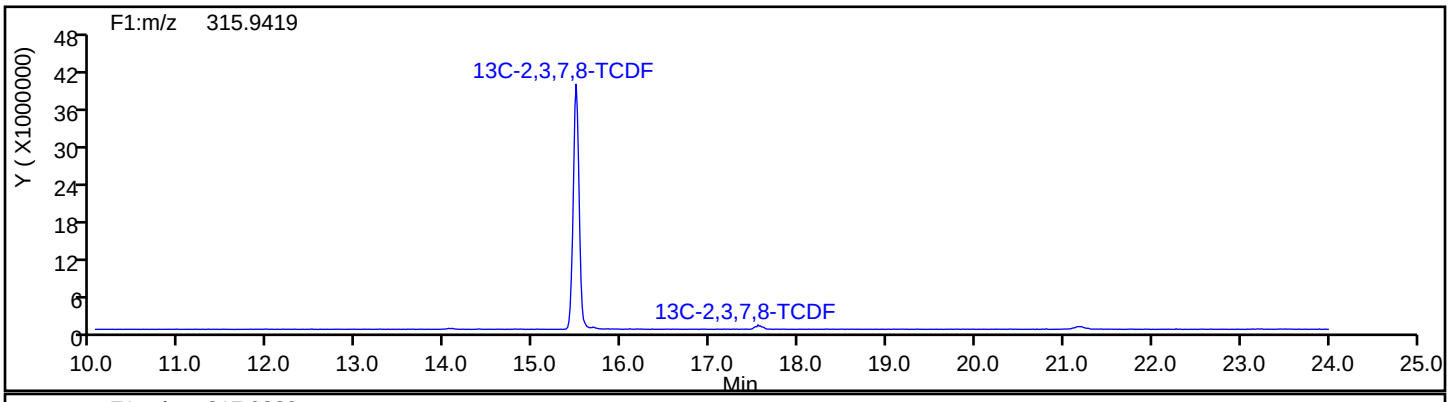
Injection Date:	13-May-2019 20:24:02	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

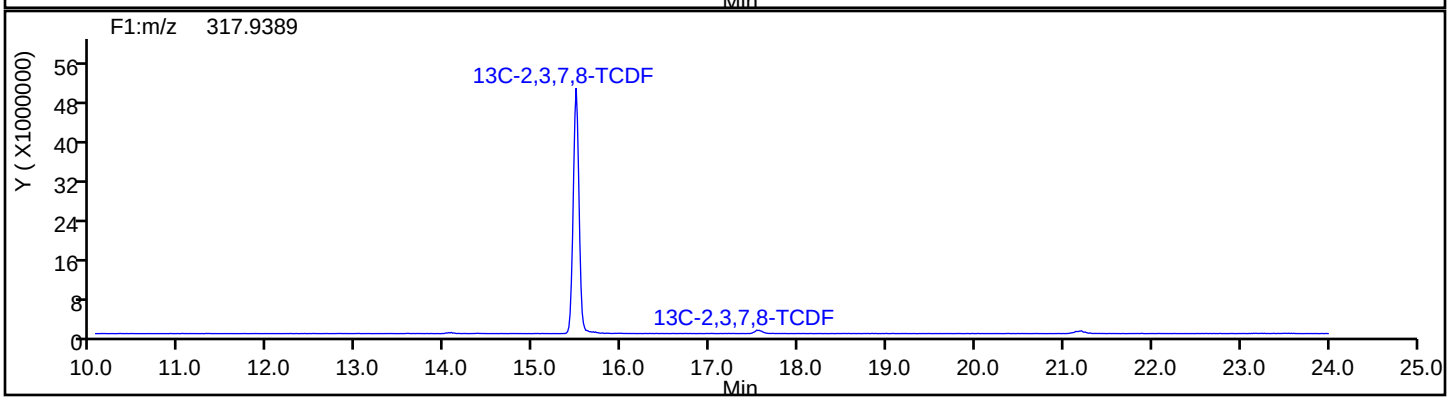
TCDF





TCDF Standards



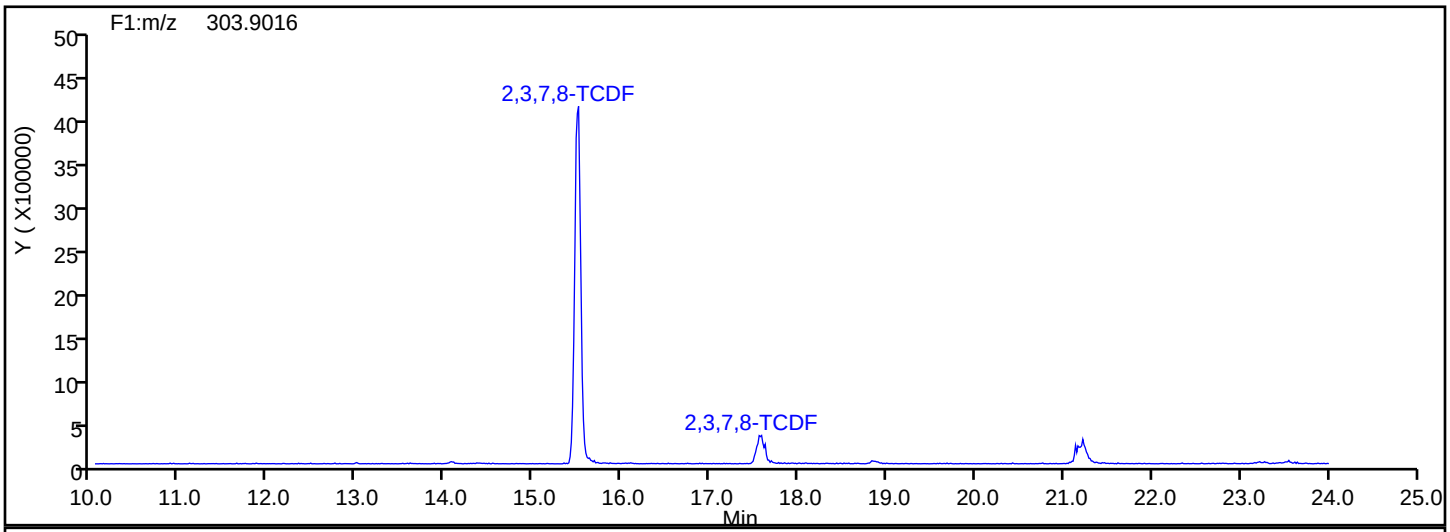


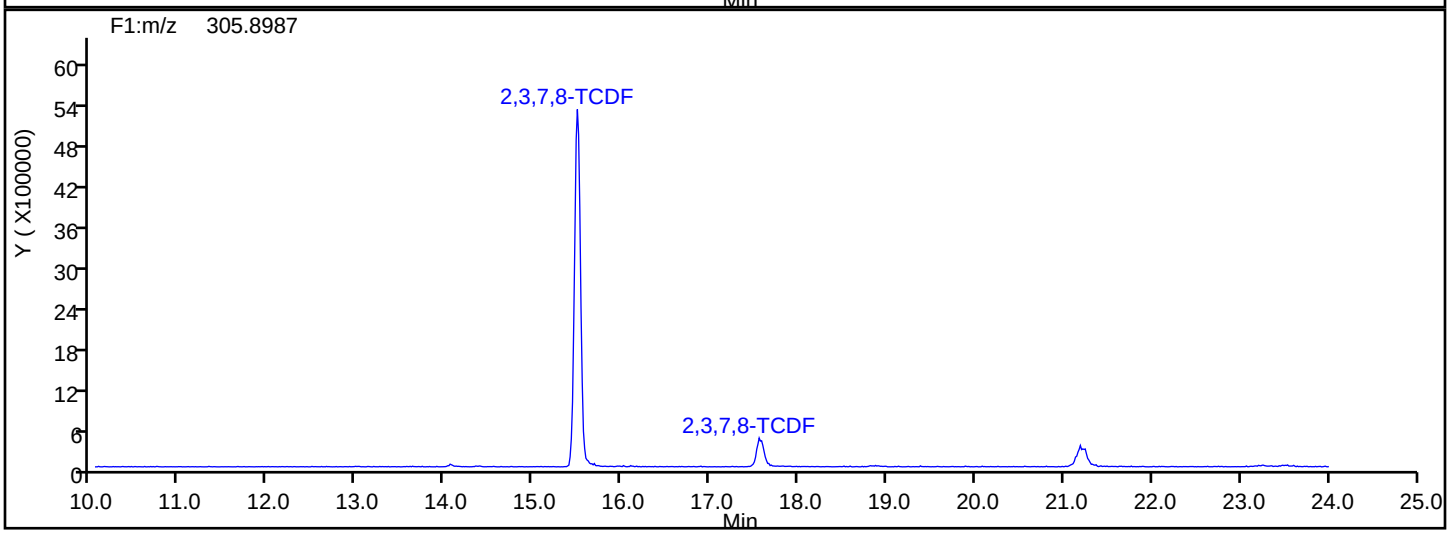
Report Date: 14-May-2019 10:27:21 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

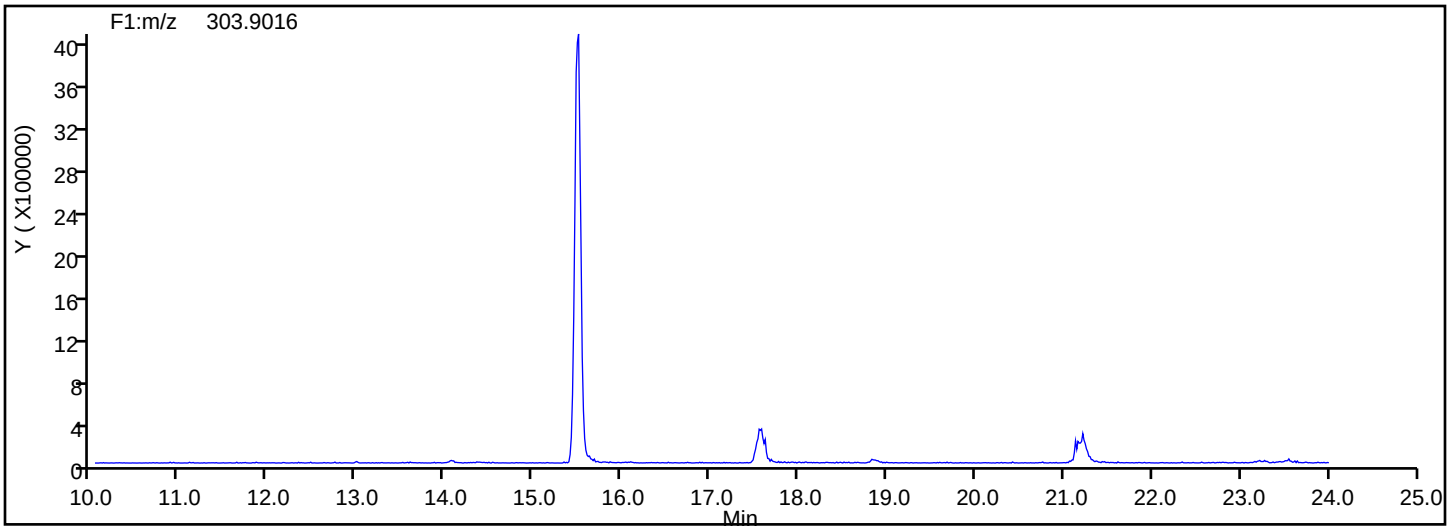
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d		
Injection Date:	13-May-2019 20:24:02	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



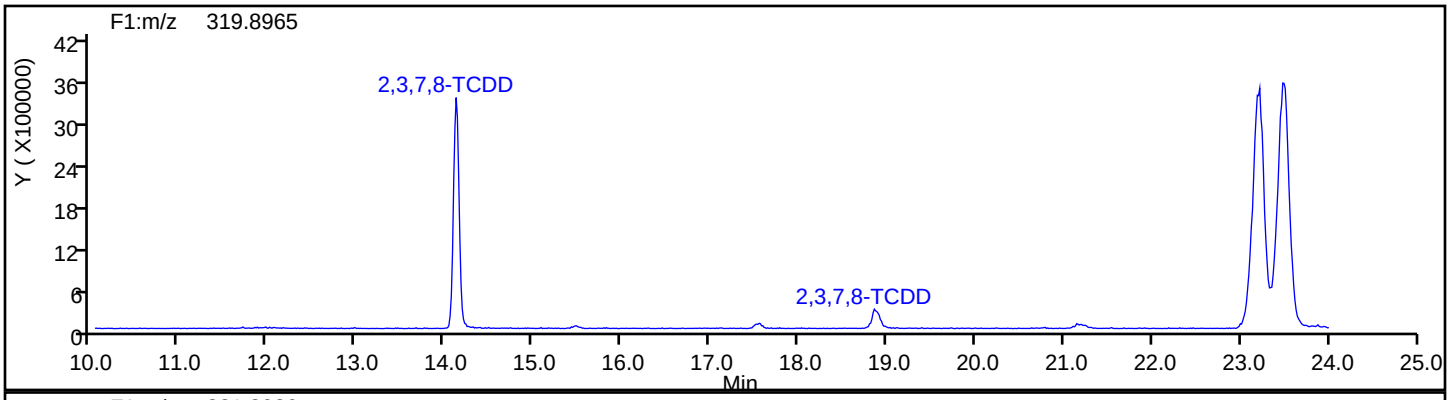
Report Date: 14-May-2019 10:27:21 Chrom Revision: 2.3 12-May-2019 16:28:34

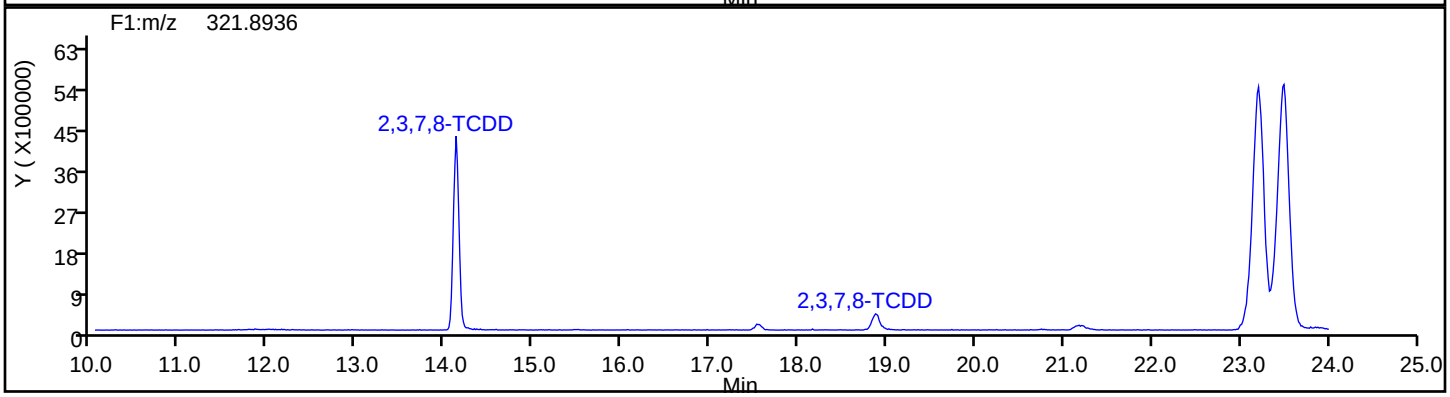
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d

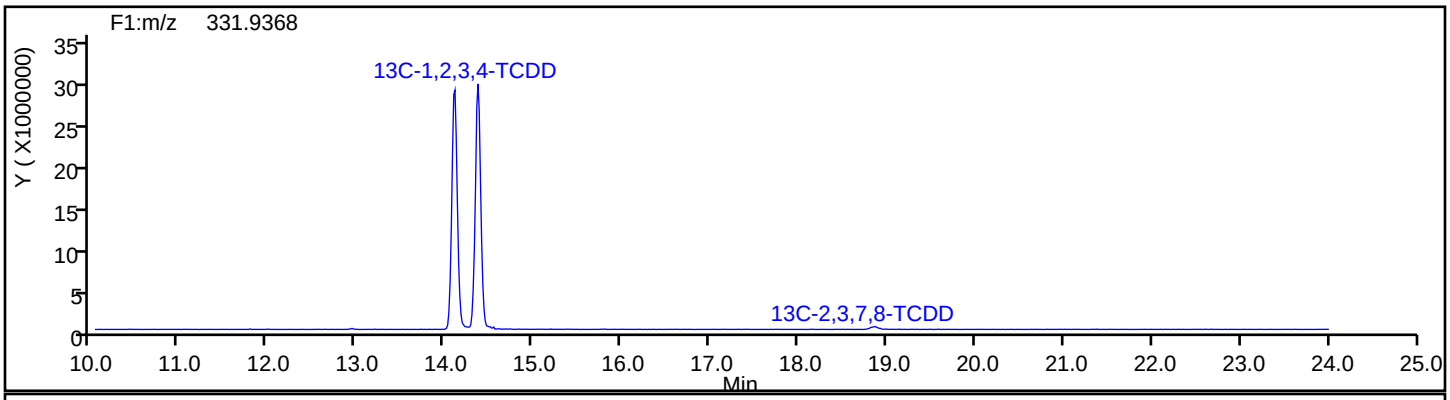
Injection Date:	13-May-2019 20:24:02	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

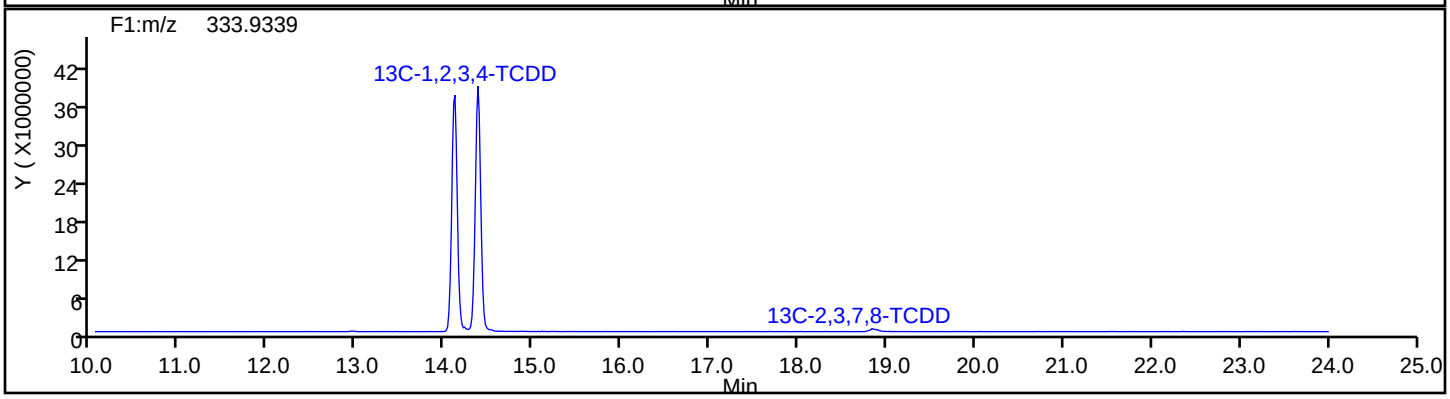
TCDD





TCDD Standards





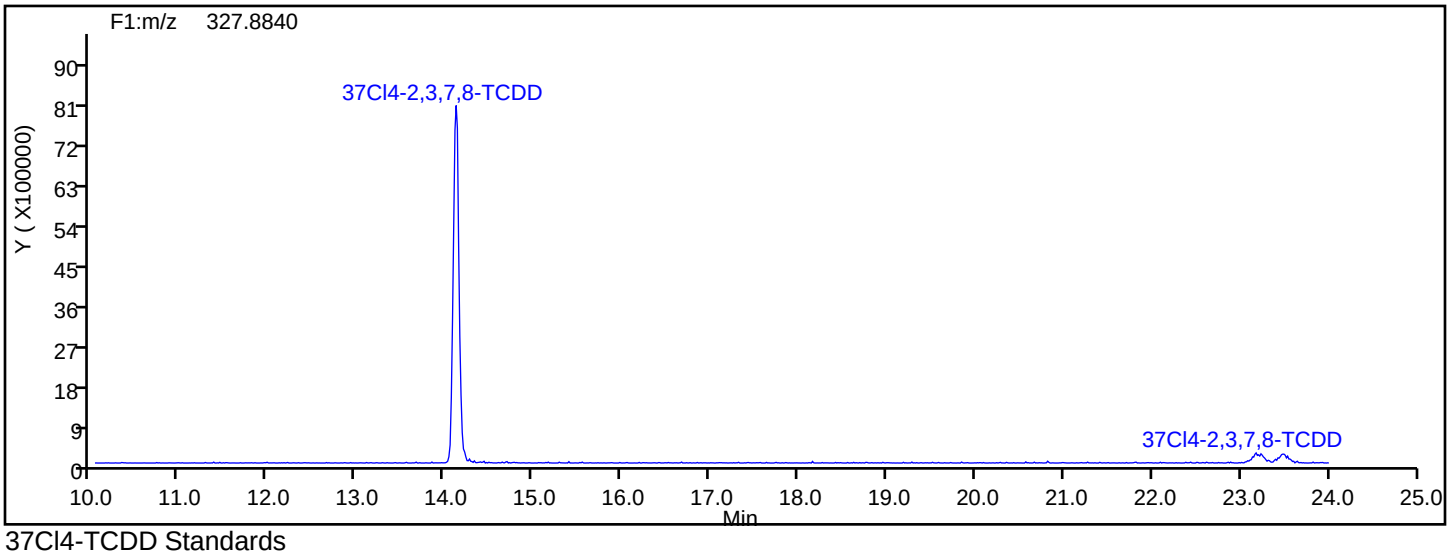
Report Date: 14-May-2019 10:27:21 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

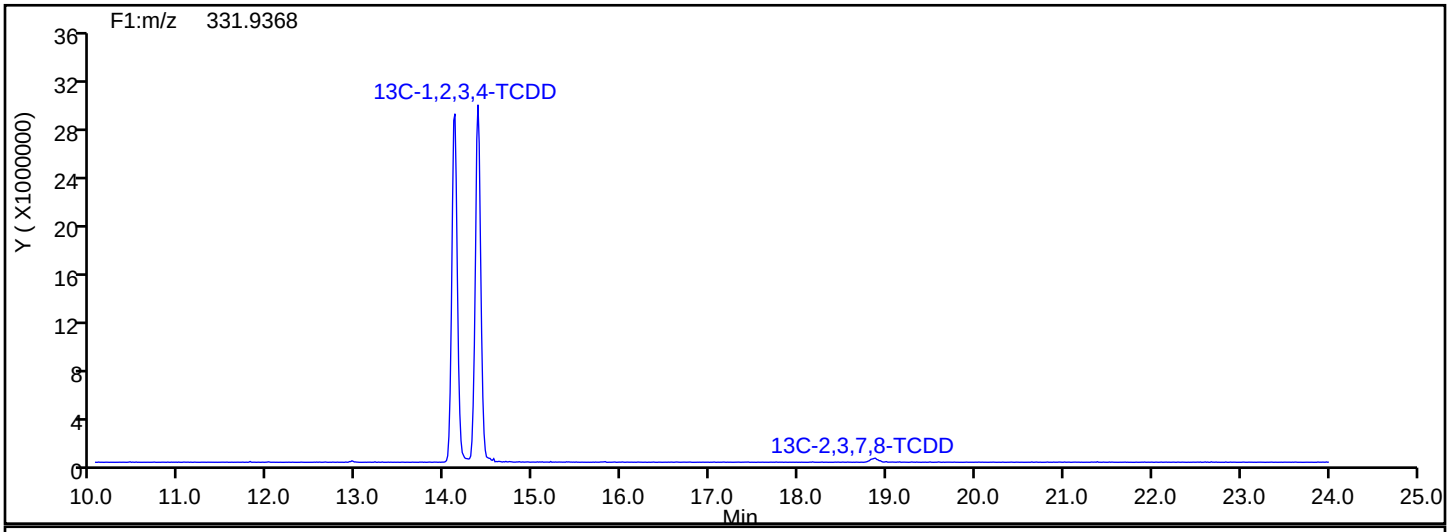
Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d

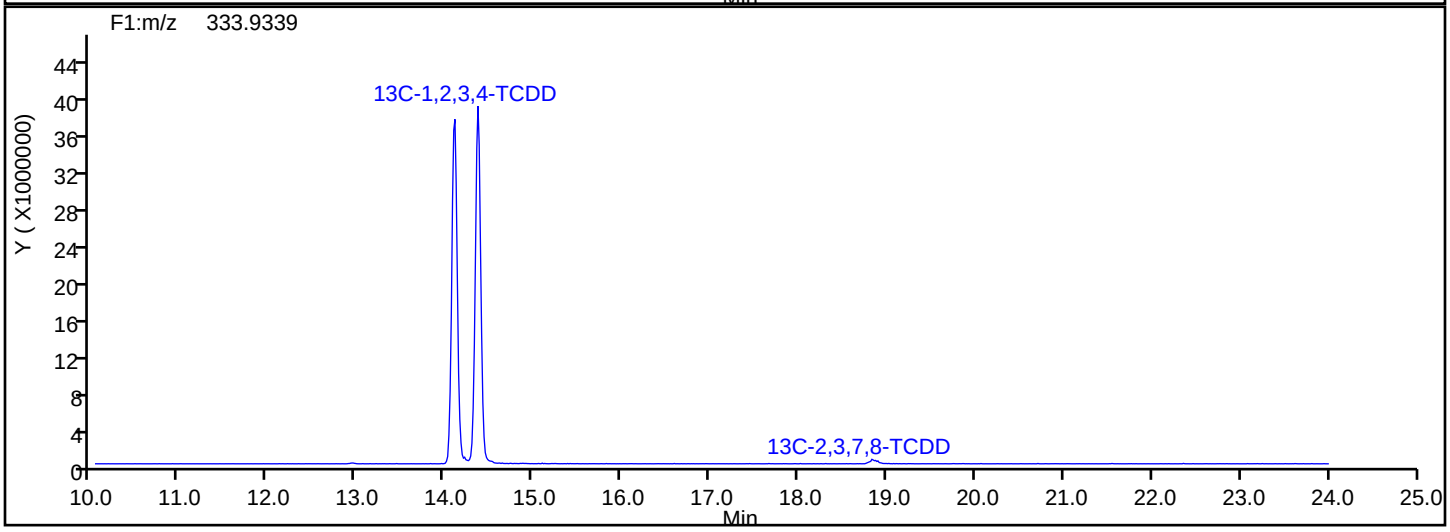
Injection Date:	13-May-2019 20:24:02	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

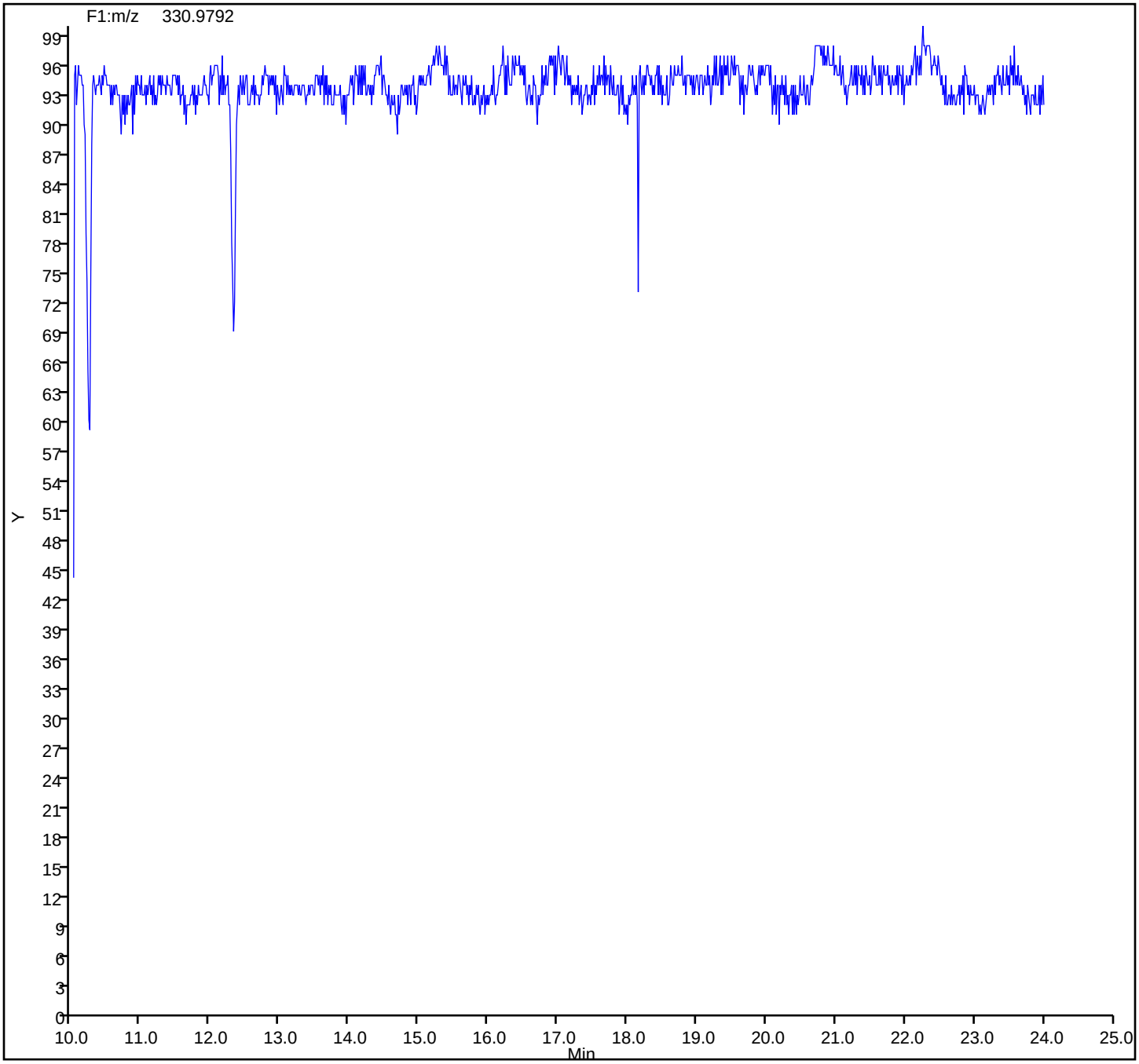




Report Date: 14-May-2019 10:27:21 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_006.d		
Injection Date:	13-May-2019 20:24:02	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	6
Column Type:	DB-225	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d
Lims ID: IC CS5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2019 21:01:51 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-5 HRDXNL5_00025
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:25 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:48

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.392	292366991	0.77	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	15.503	411749776	0.80	1.3652	103.2	103.2	0.0914	0.0914	103	
2,3,7,8-TCDF	15.517	165117606	0.77	1.1747	34.1	34.1	0.0170	0.0170	85.35	
D 13C-2,3,7,8-TCDD	14.118	290981153	0.77	0.9684	102.8	102.8	0.0628	0.0628	103	
$ 37Cl4-2,3,7,8-TCDD	14.145	140142033		1.2853	37.3	37.3	0.0156	0.0156	93.24	
2,3,7,8-TCDD	14.145	124405299	0.79	1.2259	34.9	34.9	0.0226	0.0226	87.19	

Reagents:

HRDXNL5_00025 Amount Added: 1.00 Units: mL

Report Date: 14-May-2019 10:27:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d
Lims ID: IC CS5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-May-2019 21:01:51 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-5 HRDXNL5_00025
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:25 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:53:48

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.392	14.379	1		127112685	28043207	8792	21980	3190		
333.9339	14.392	14.379	1		165254306	36217485	6834	17085	5300	0.77(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	15.503	15.484	1	1.077	182814982	39097850	17141	42852	2281		
317.9389	15.503	15.484	1	1.077	228934794	49327316	14920	37300	3306	0.80(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.517	15.501	1	1.001	72000022	15787782	3257	8142	4847		
305.8987	15.517	15.501	1	1.001	93117584	20144803	3809	9522	5289	0.77(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.118	14.110	0	0.981	126479953	28354995	8792	21980	3225		
333.9339	14.118	14.110	0	0.981	164501200	37038181	6834	17085	5420	0.77(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.145	14.130	1	0.983	140142033	30785467	5161	12902	5965		
2,3,7,8-TCDD											
319.8965	14.145	14.132	1	1.002	54773324	12069023	3583	8957	3368		
321.8936	14.145	14.132	1	1.002	69631975	15101983	3673	9182	4112	0.79(0.65-0.89)	

Reagents:

HRDXNL5_00025 Amount Added: 1.00 Units: mL

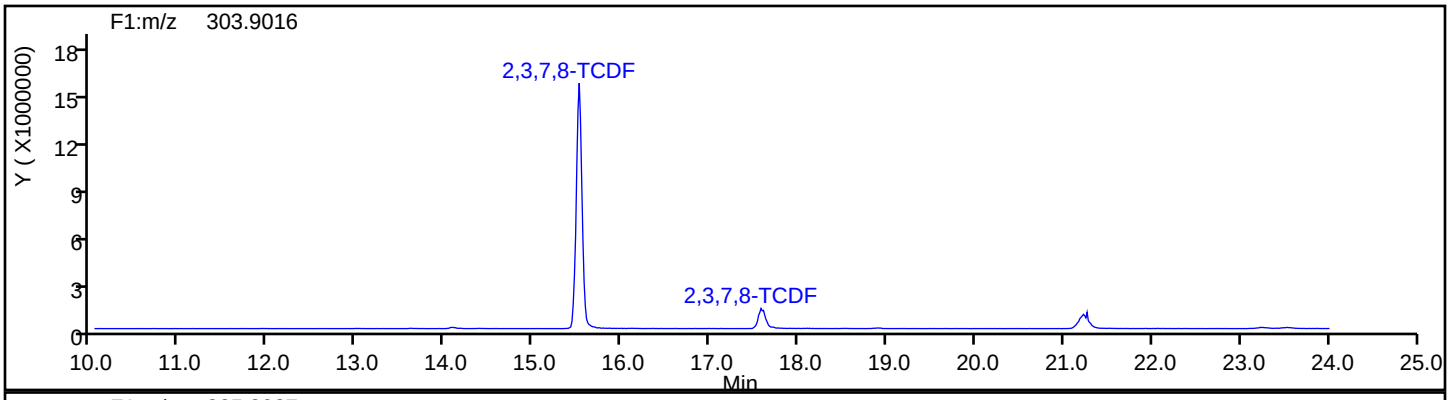
Report Date: 14-May-2019 10:27:27 Chrom Revision: 2.3 12-May-2019 16:28:34

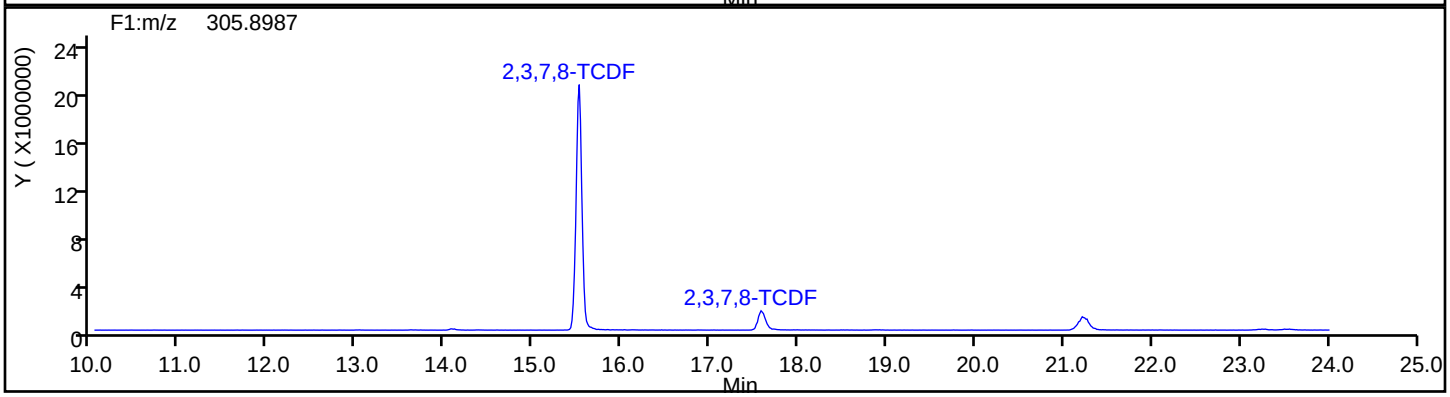
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d

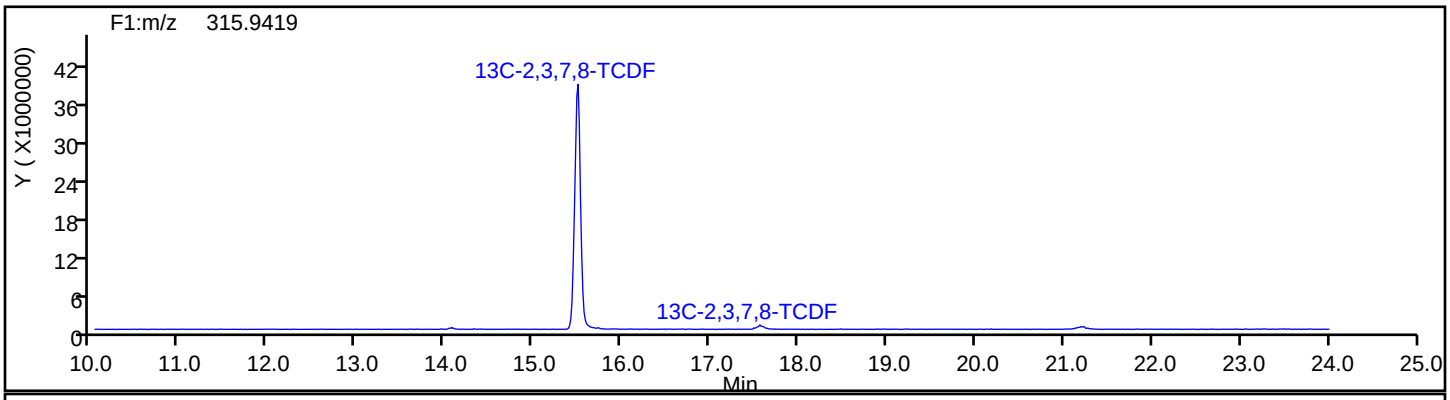
Injection Date:	13-May-2019 21:01:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

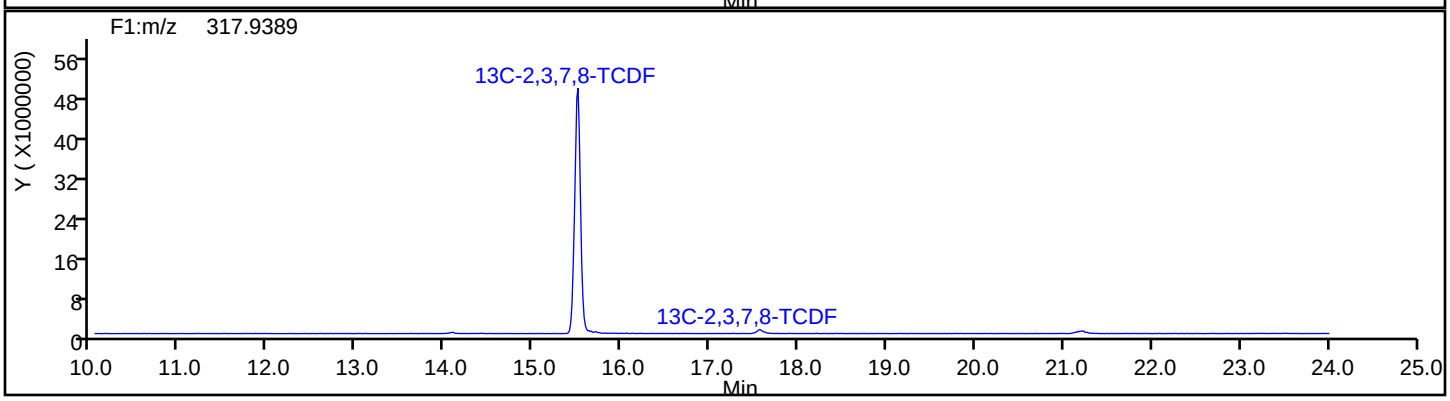
TCDF





TCDF Standards



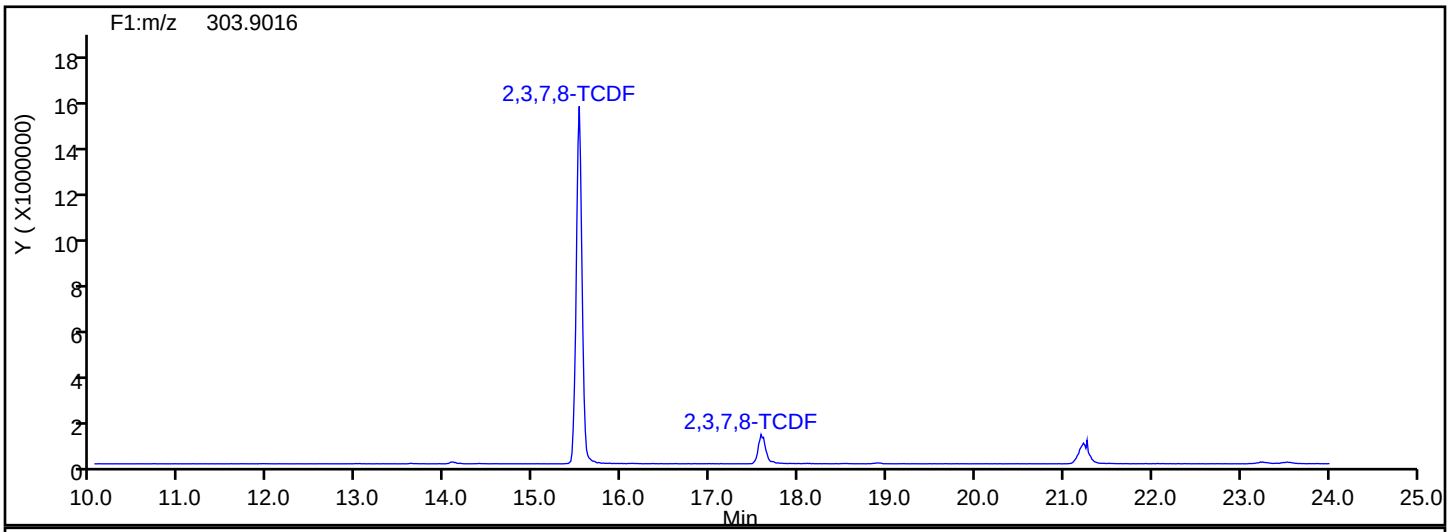


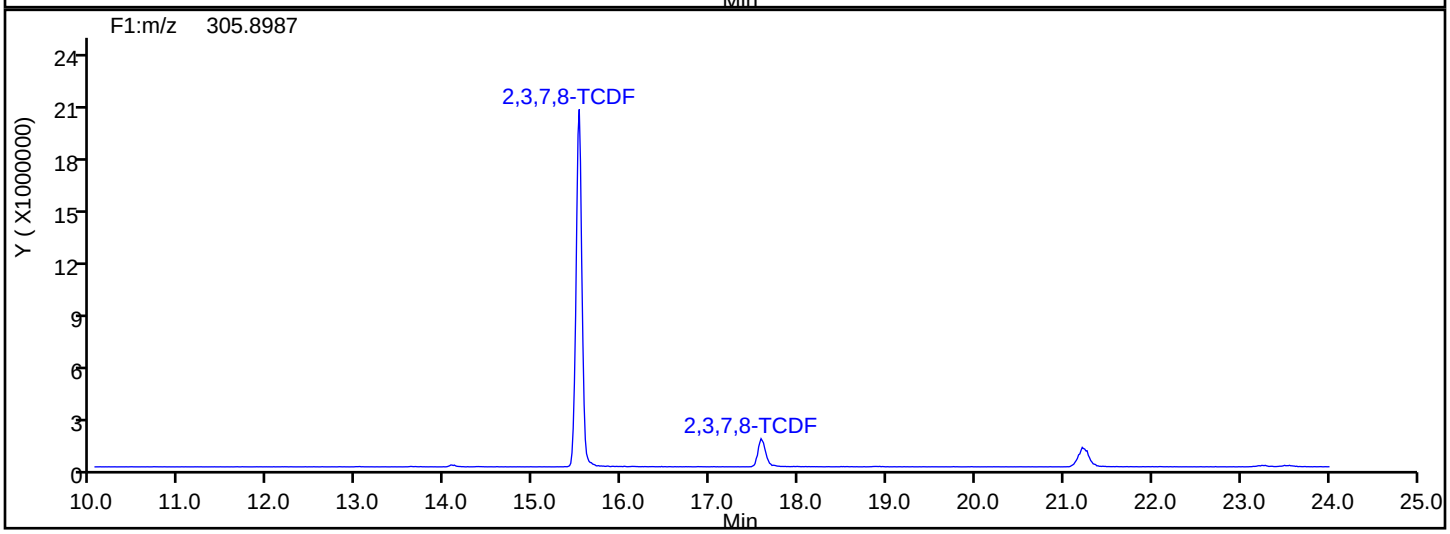
Report Date: 14-May-2019 10:27:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

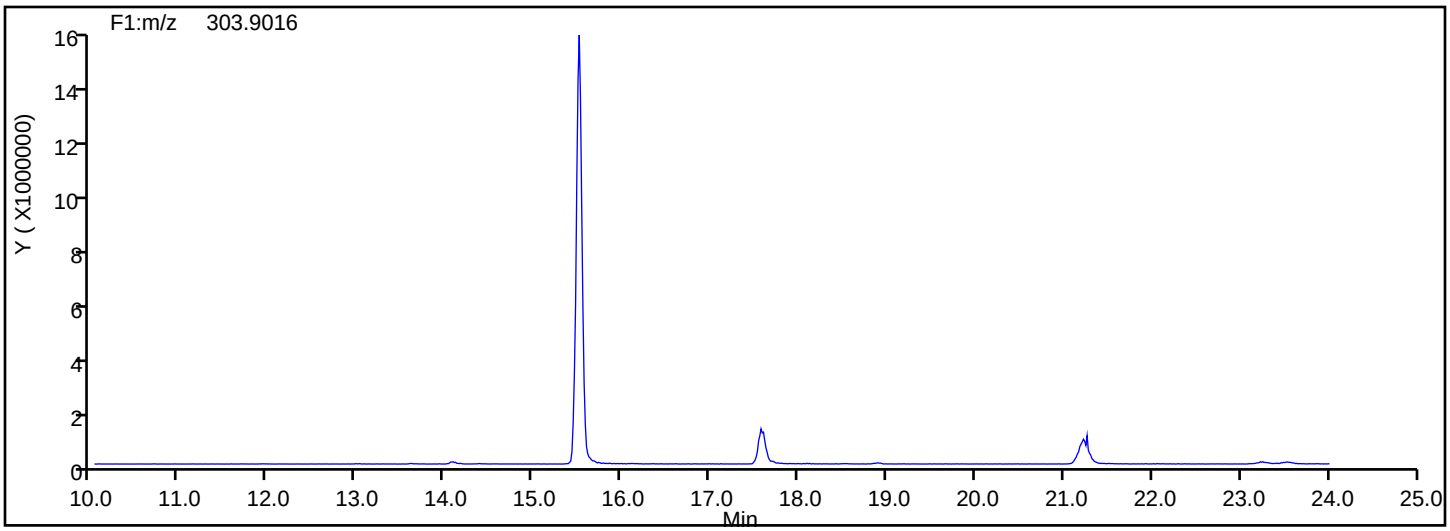
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d		
Injection Date:	13-May-2019 21:01:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



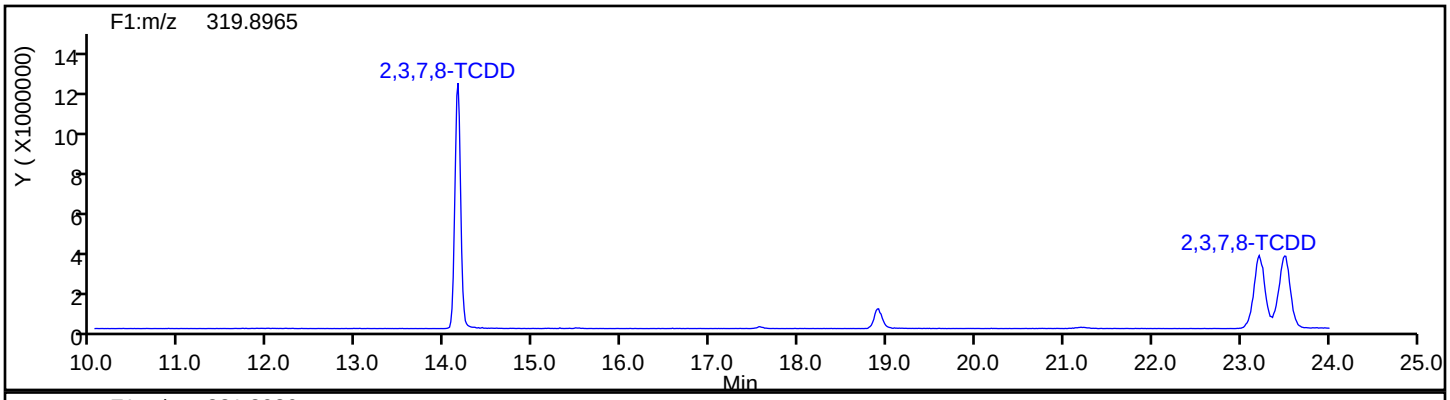
Report Date: 14-May-2019 10:27:27 Chrom Revision: 2.3 12-May-2019 16:28:34

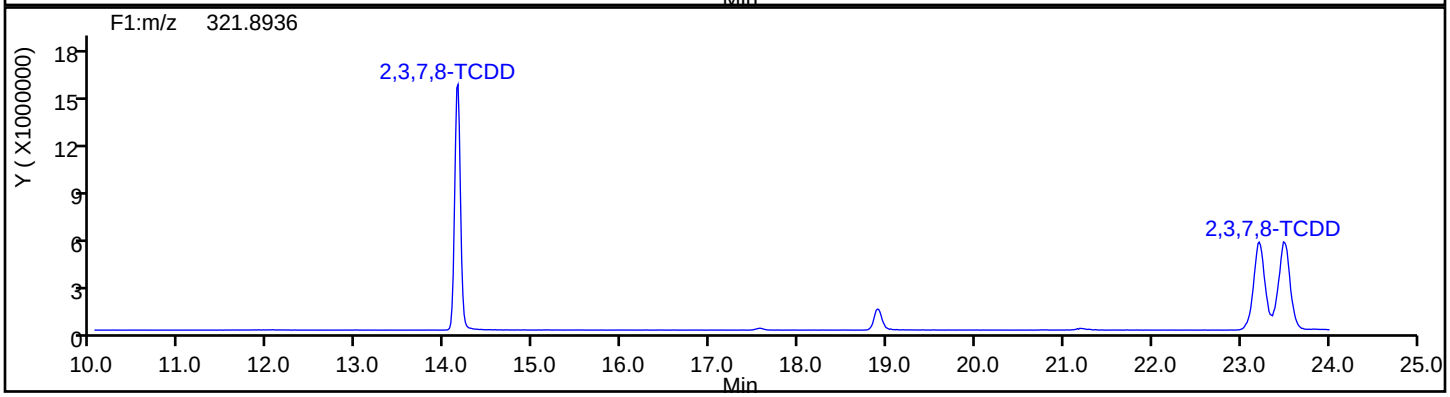
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d

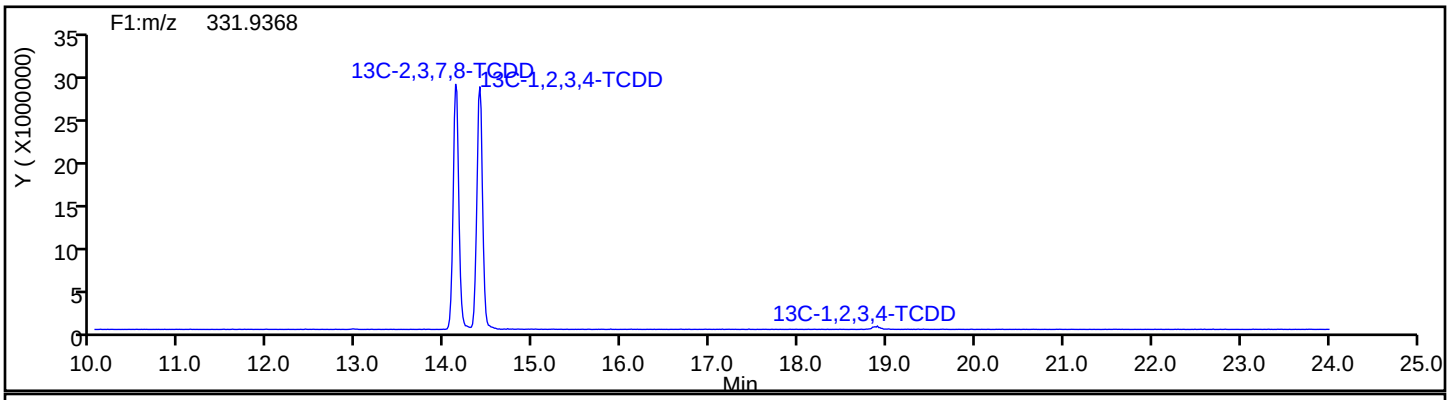
Injection Date:	13-May-2019 21:01:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

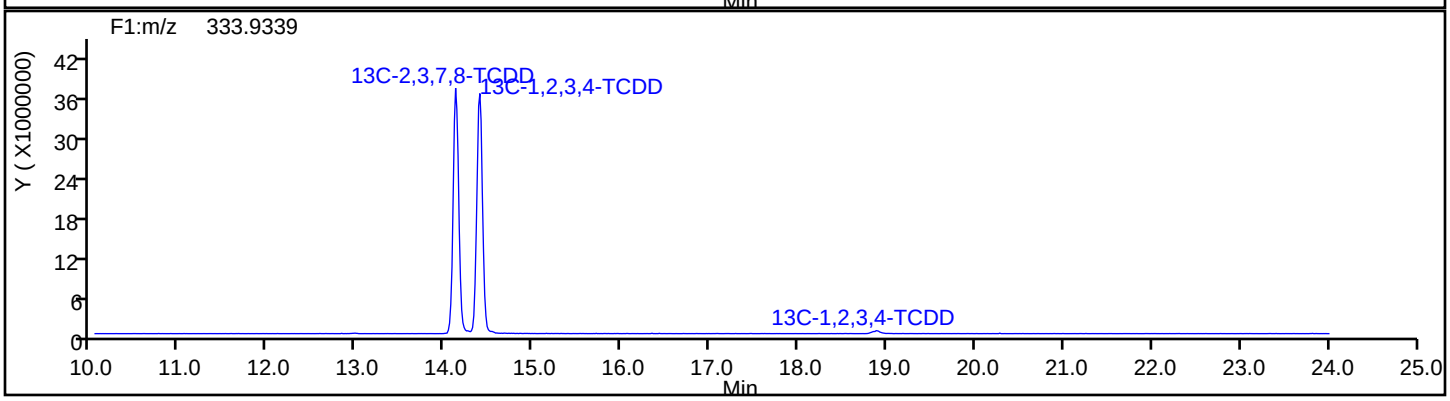
TCDD





TCDD Standards





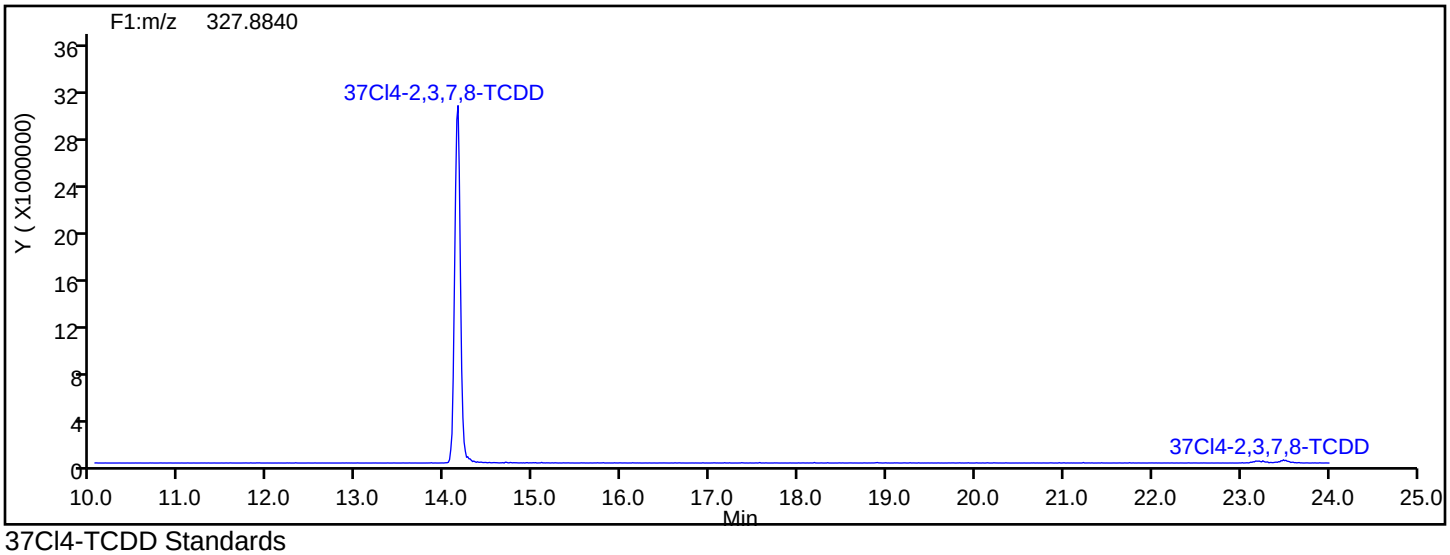
Report Date: 14-May-2019 10:27:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

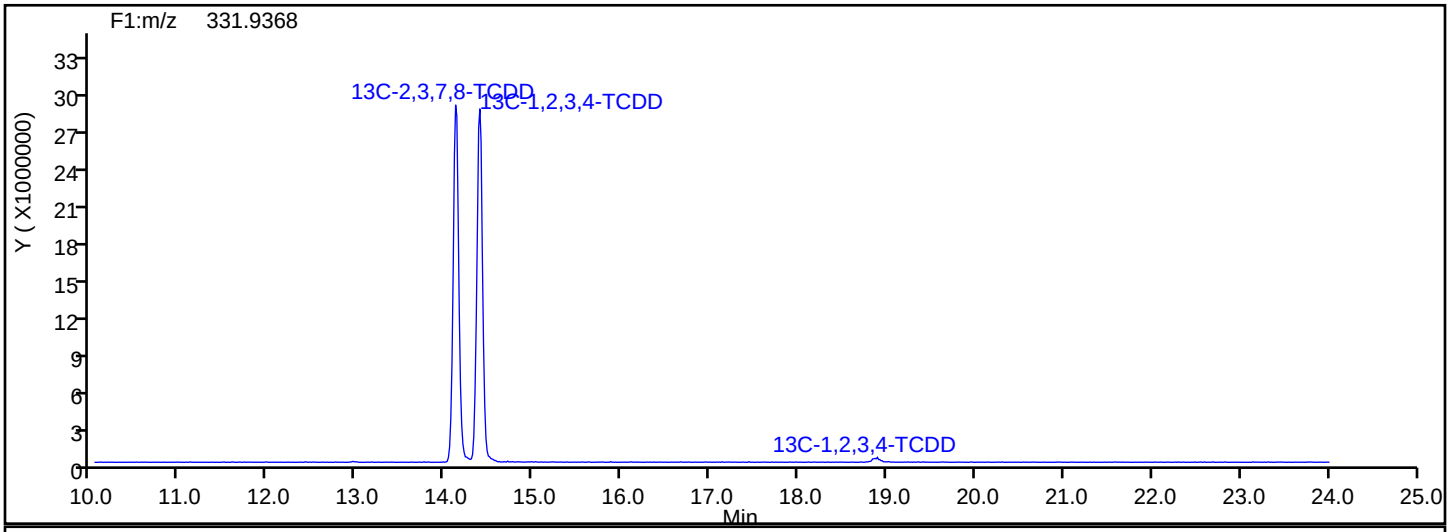
Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d

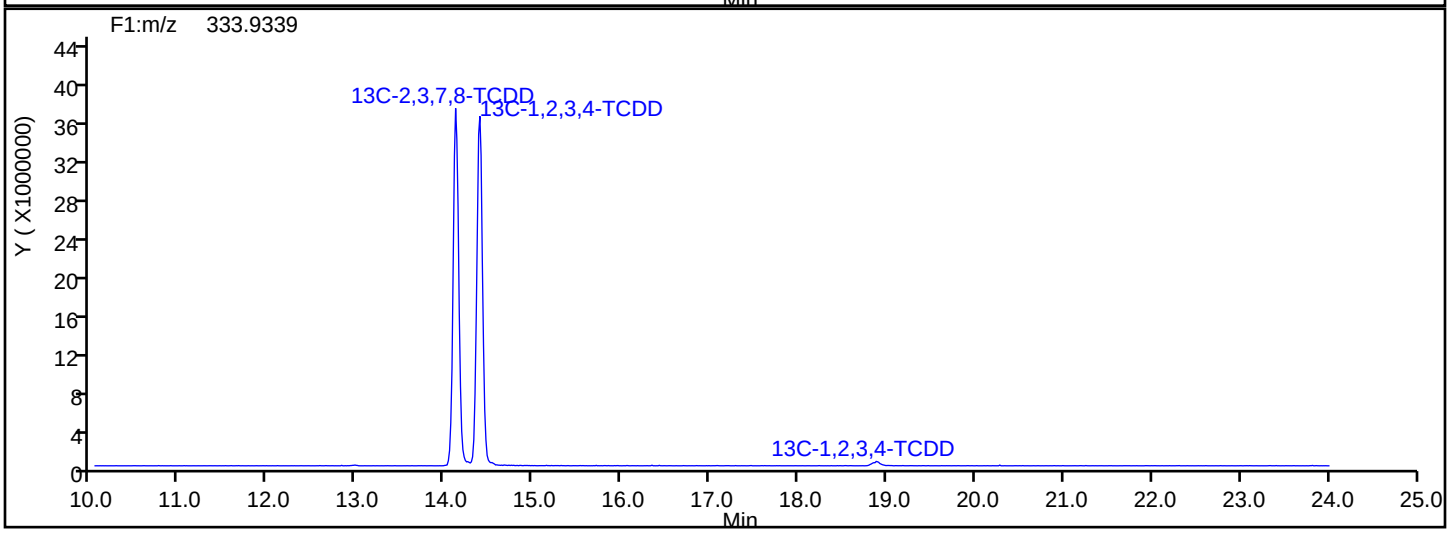
Injection Date:	13-May-2019 21:01:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

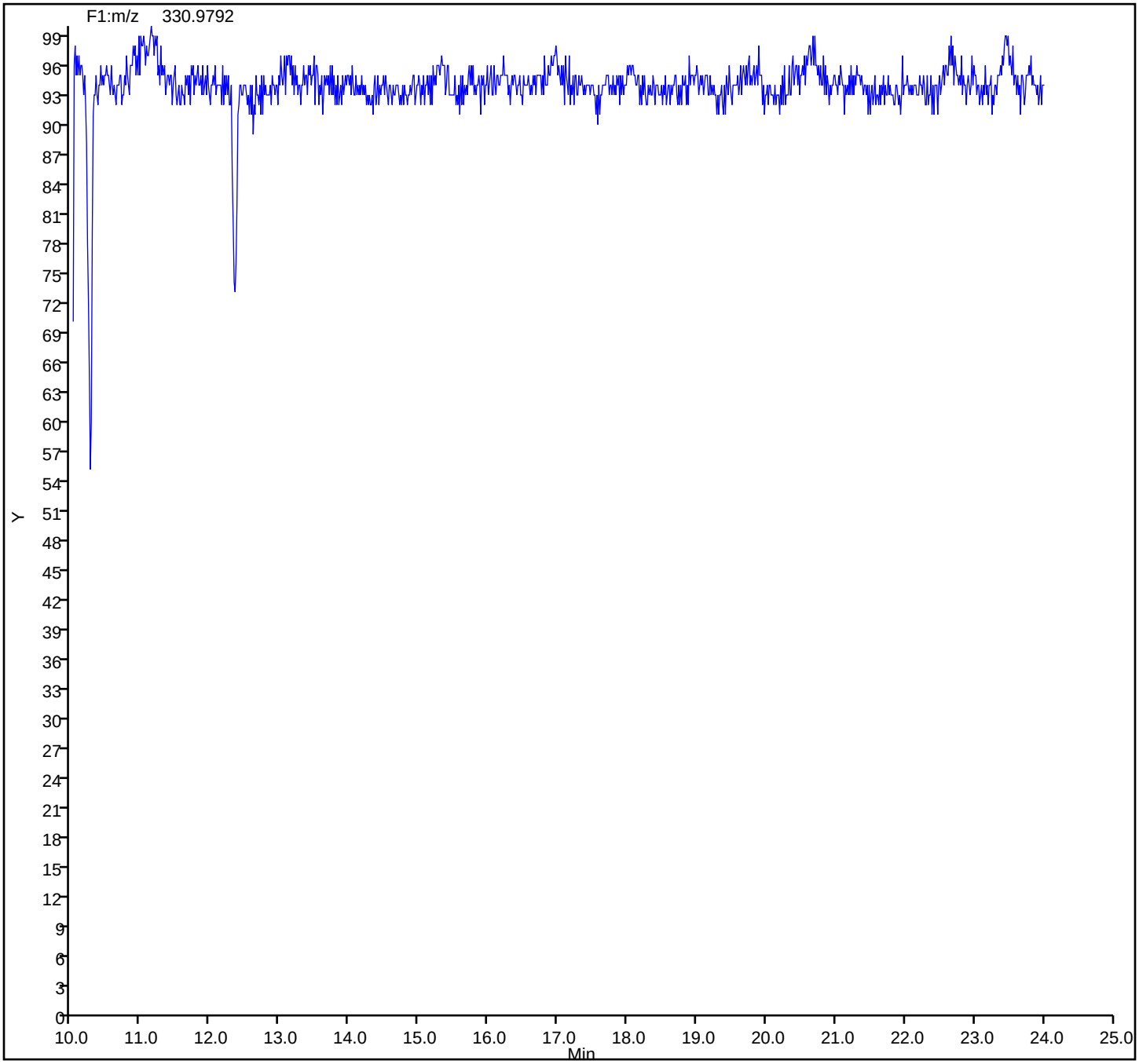




Report Date: 14-May-2019 10:27:27 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_007.d		
Injection Date:	13-May-2019 21:01:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	7
Column Type:	DB-225	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d
Lims ID: IC CS6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-May-2019 21:39:42 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-6 HRDXNL6_00021
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:30 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:56:59

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.384	313318824	0.77	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	15.482	431613486	0.78	1.3652	100.9	100.9	0.0898	0.0898	101	
2,3,7,8-TCDF	15.495	871577101	0.77	1.1747	171.9	171.9	0.0348	0.0348	85.95	
D 13C-2,3,7,8-TCDD	14.110	309288909	0.77	0.9684	101.9	101.9	0.0629	0.0629	102	
$ 37Cl4-2,3,7,8-TCDD	14.123	756156586		1.2853	187.8	187.8	0.0242	0.0242	93.89	
2,3,7,8-TCDD	14.123	677106058	0.78	1.2259	178.6	178.6	0.0287	0.0287	89.29	

Reagents:

HRDXNL6_00021 Amount Added: 1.00 Units: mL

Report Date: 14-May-2019 10:27:33 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d
Lims ID: IC CS6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-May-2019 21:39:42 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: IC CS-6 HRDXNL6_00021
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:27:30 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:56:59

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.384	14.379	0		136715683	28987446	9411	23527	3080		
333.9339	14.384	14.379	0		176603141	37534393	6809	17022	5512	0.77(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	15.482	15.484	0	1.076	189264867	42080924	17725	44312	2374		
317.9389	15.482	15.484	0	1.076	242348619	53518465	14908	37270	3590	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.495	15.501	0	1.001	379810501	81303291	7207	18017	11281		
305.8987	15.495	15.501	0	1.001	491766600	106016282	8404	21010	12615	0.77(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.110	14.110	0	0.981	134278362	29544502	9411	23527	3139		
333.9339	14.110	14.110	0	0.981	175010547	38812345	6809	17022	5700	0.77(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.123	14.130	0	0.982	756156586	171310996	8271	20677	20712		
2,3,7,8-TCDD											
319.8965	14.123	14.132	0	1.001	297275123	65413009	4553	11382	14367		
321.8936	14.123	14.132	0	1.001	379830935	85095427	5056	12640	16831	0.78(0.65-0.89)	

Reagents:

HRDXNL6_00021 Amount Added: 1.00 Units: mL

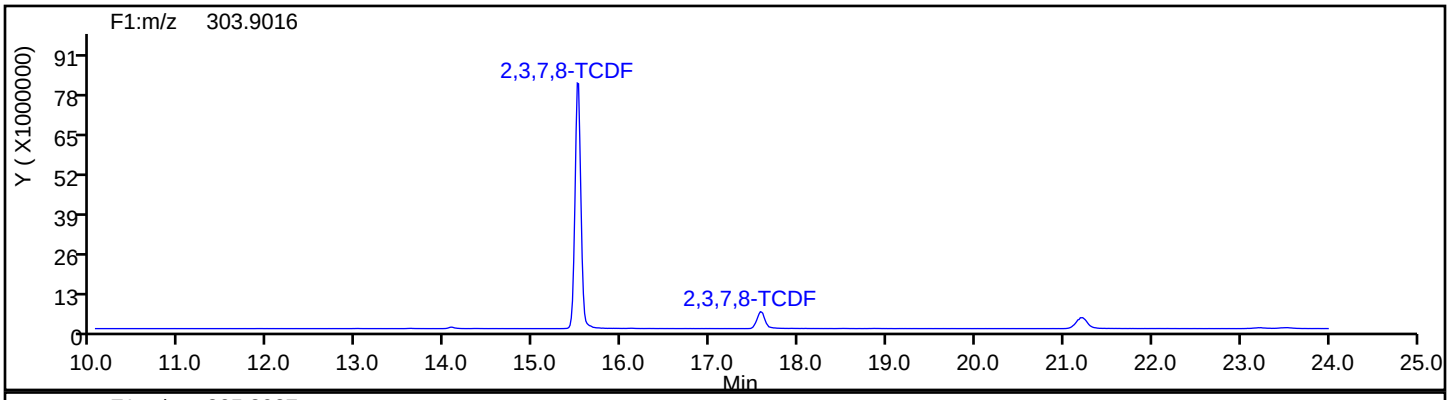
Report Date: 14-May-2019 10:27:33 Chrom Revision: 2.3 12-May-2019 16:28:34

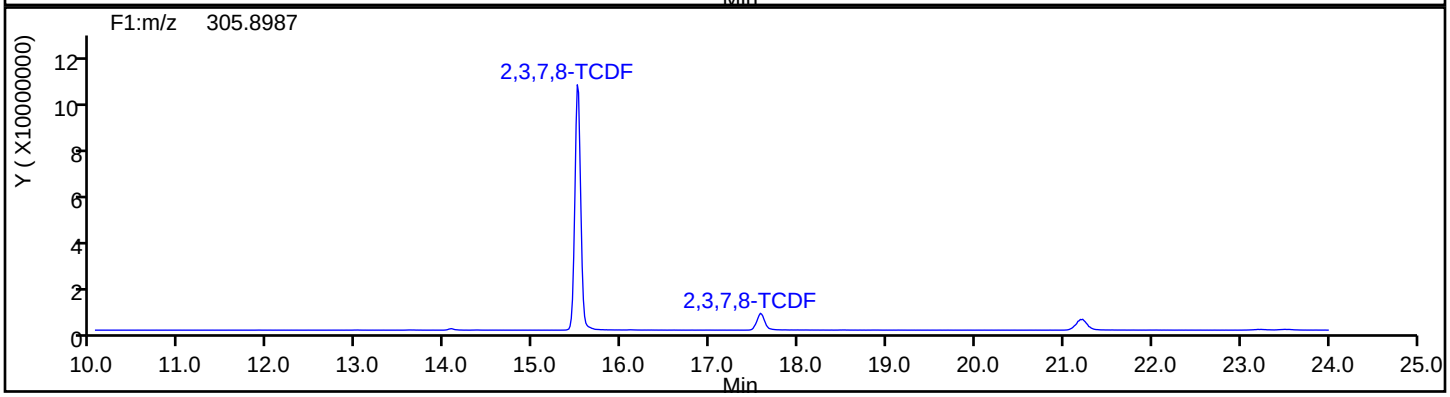
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

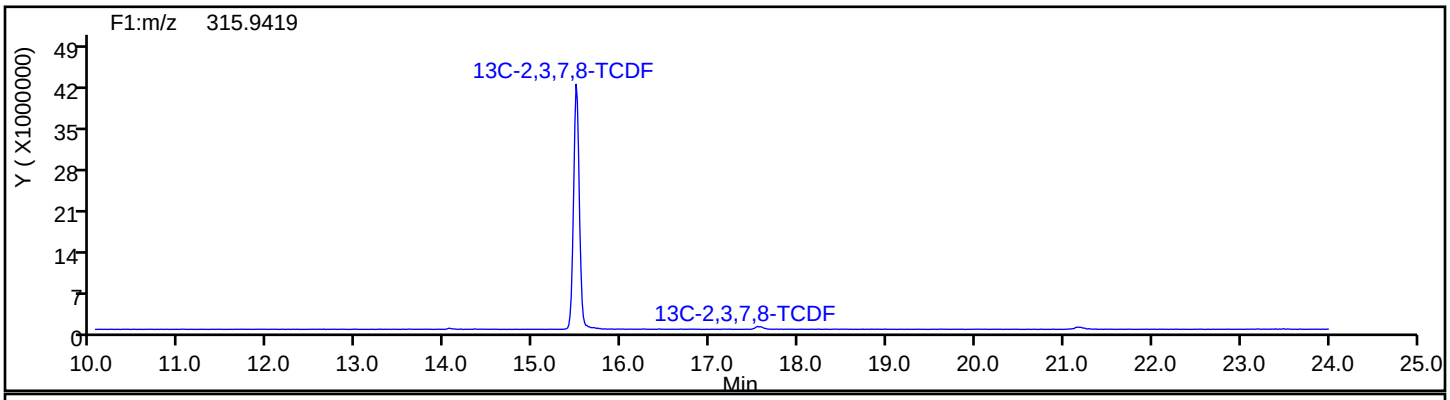
Injection Date:	13-May-2019 21:39:42	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

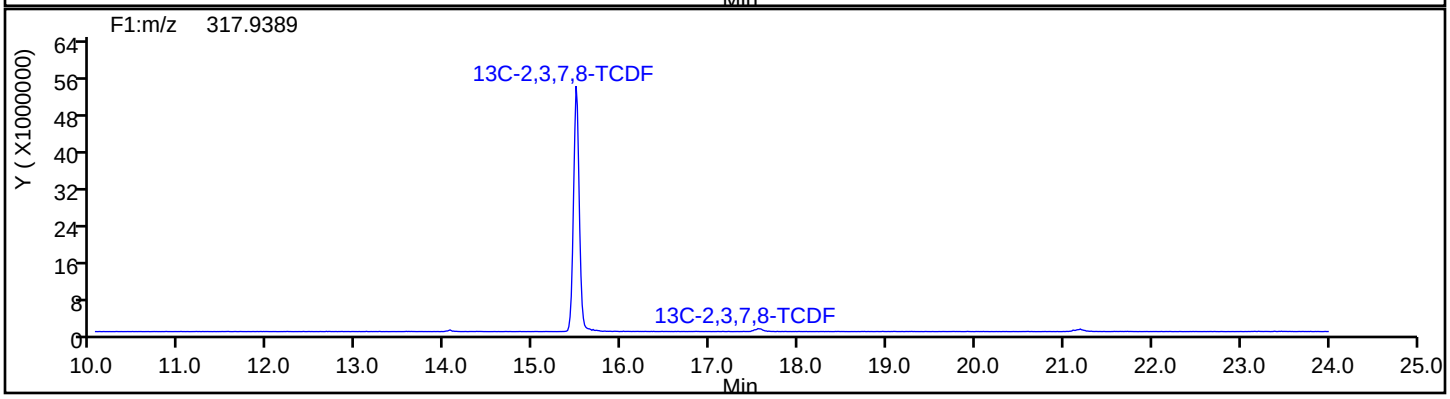
TCDF





TCDF Standards



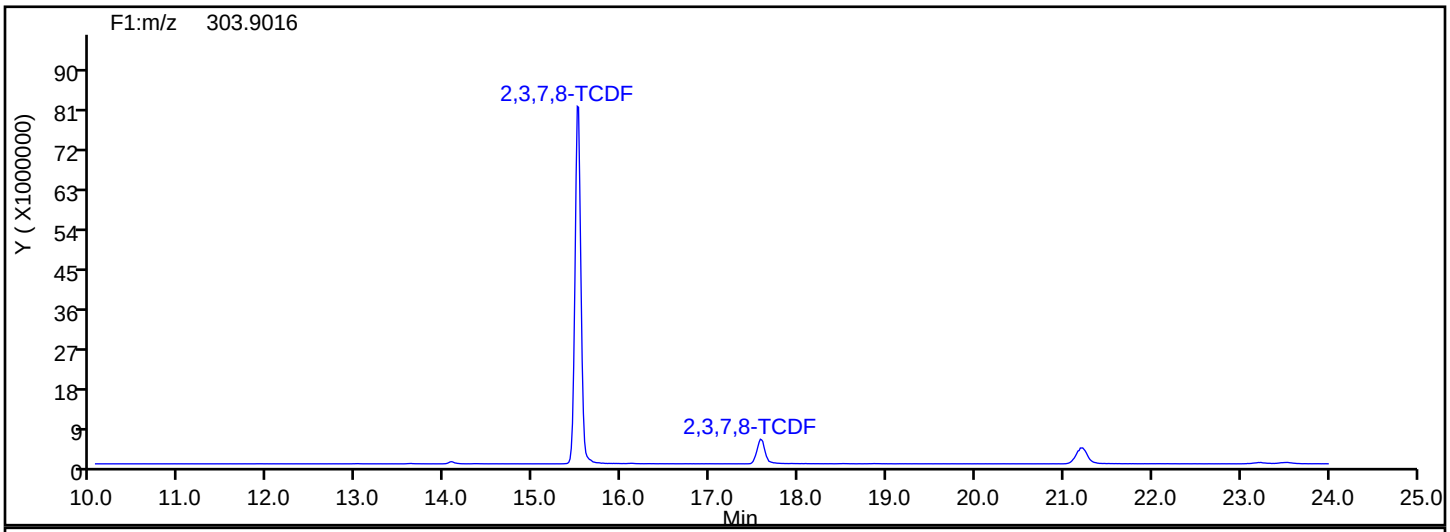


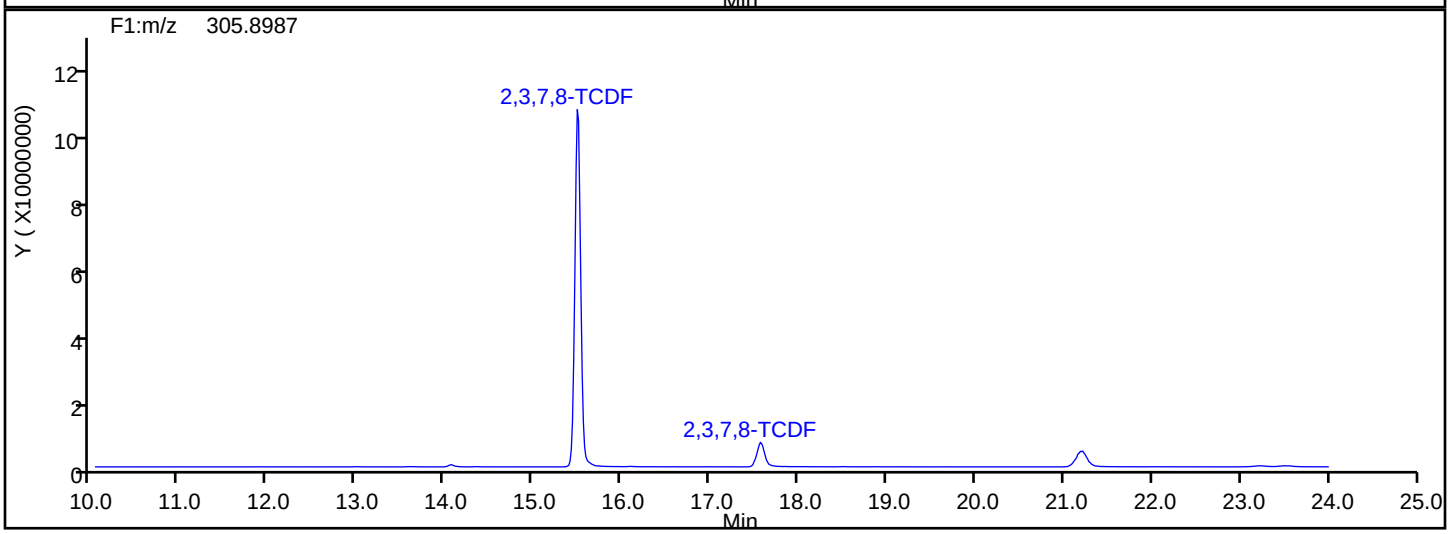
Report Date: 14-May-2019 10:27:33 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

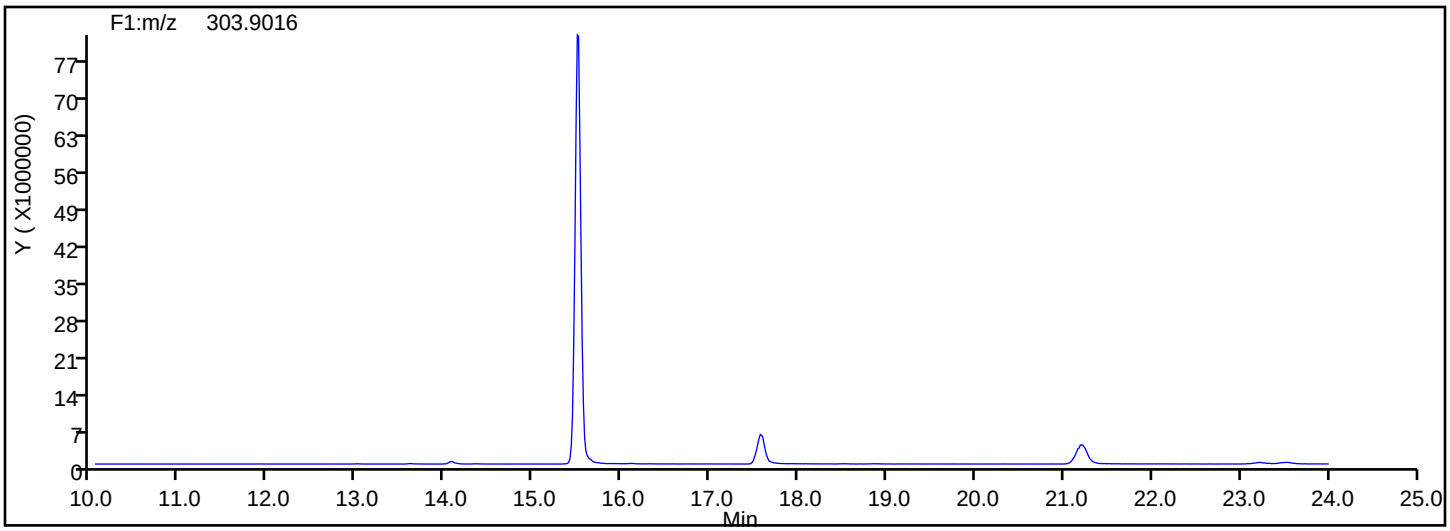
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d		
Injection Date:	13-May-2019 21:39:42	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



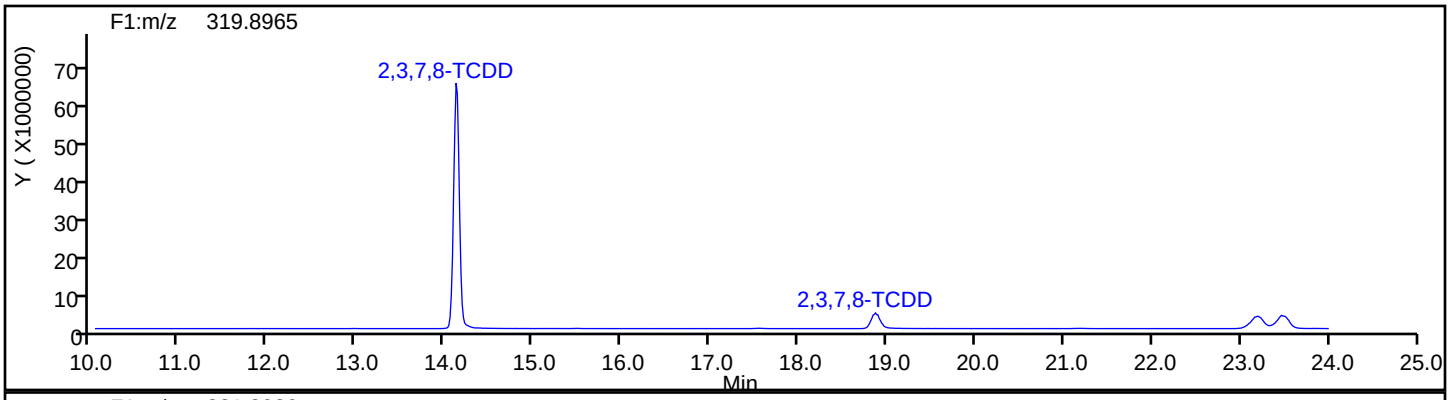
Report Date: 14-May-2019 10:27:33 Chrom Revision: 2.3 12-May-2019 16:28:34

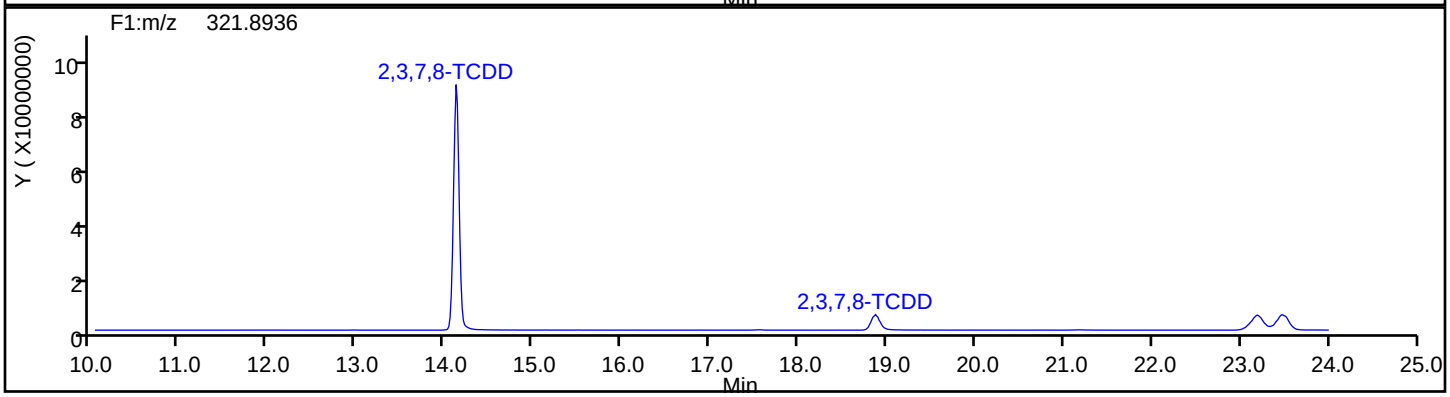
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

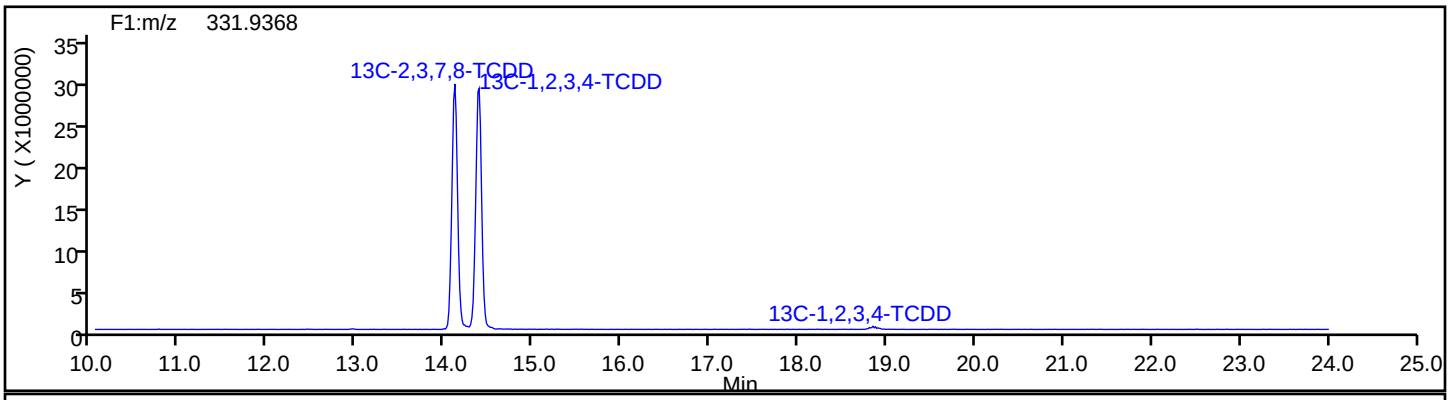
Injection Date:	13-May-2019 21:39:42	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

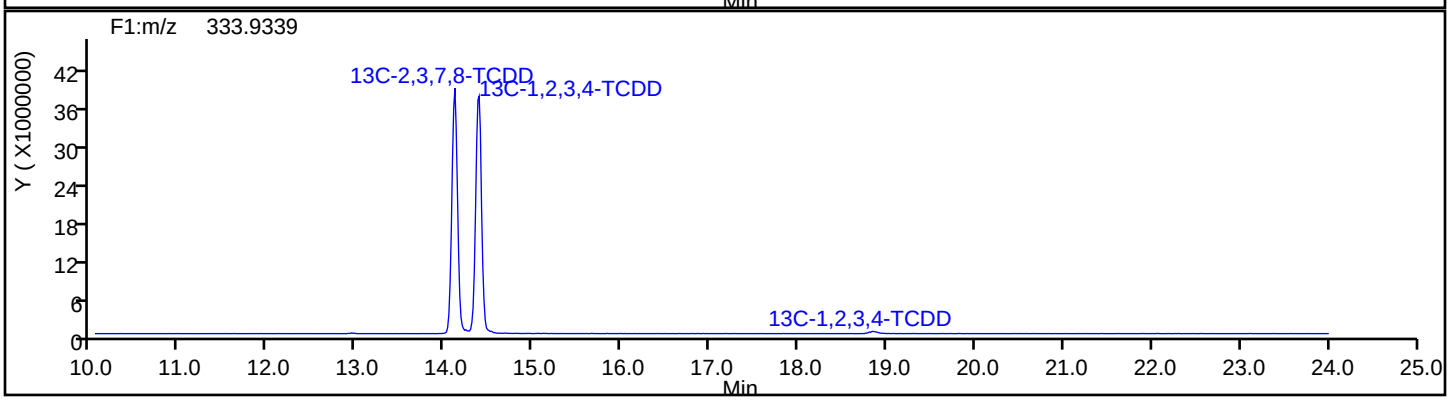
TCDD





TCDD Standards





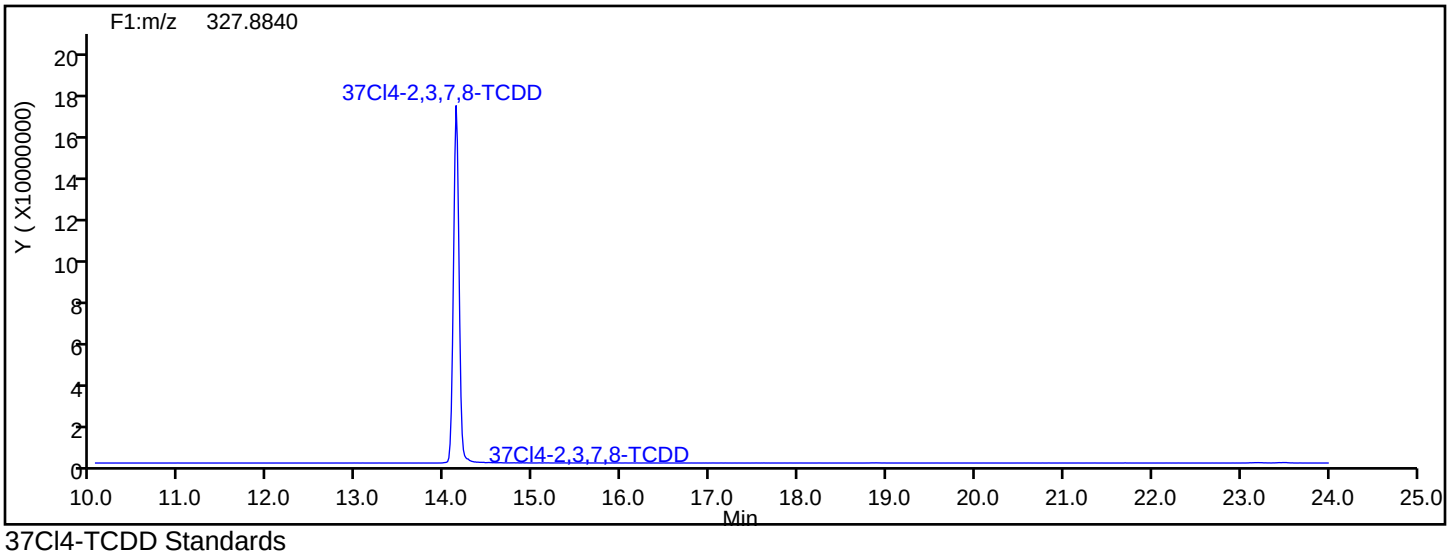
Report Date: 14-May-2019 10:27:33 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

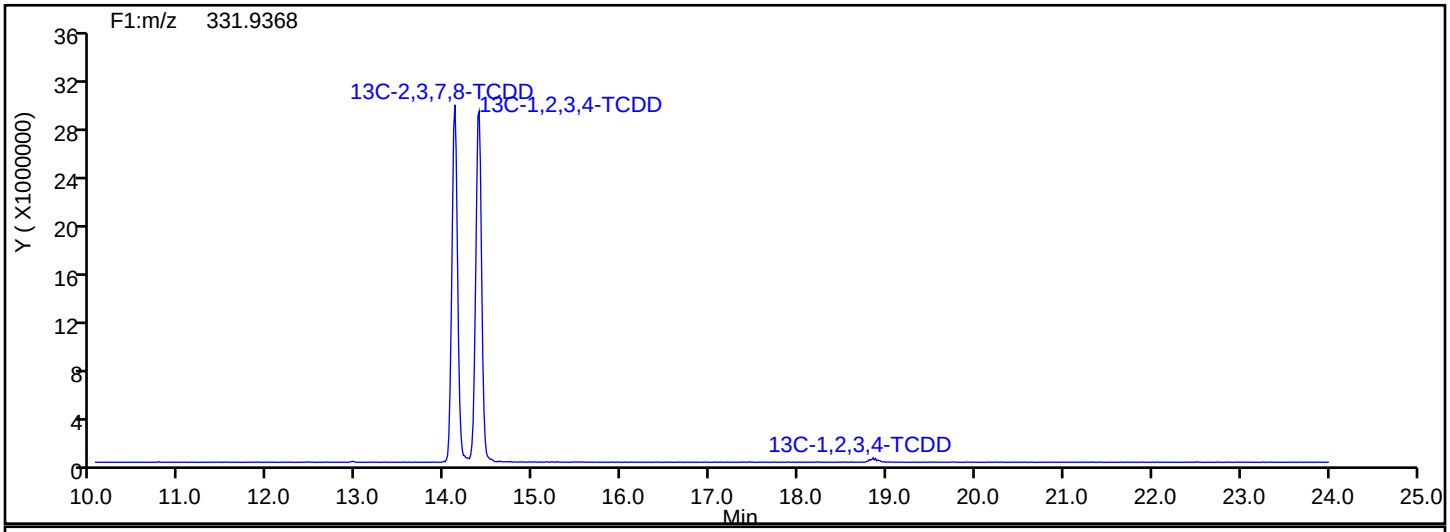
Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

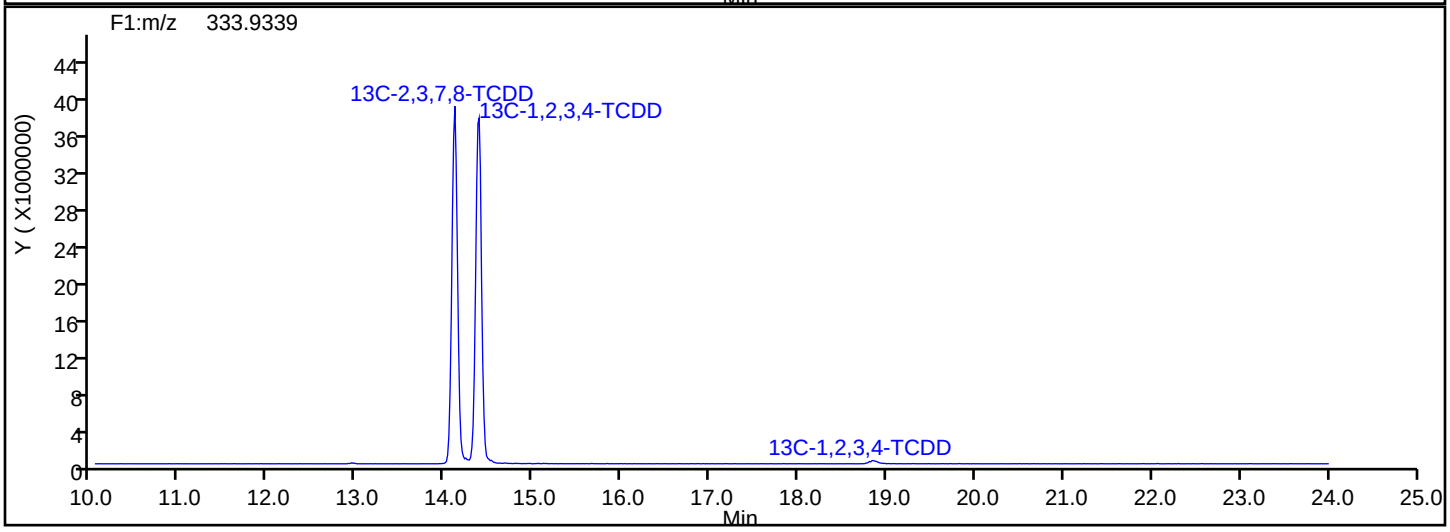
Injection Date:	13-May-2019 21:39:42	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

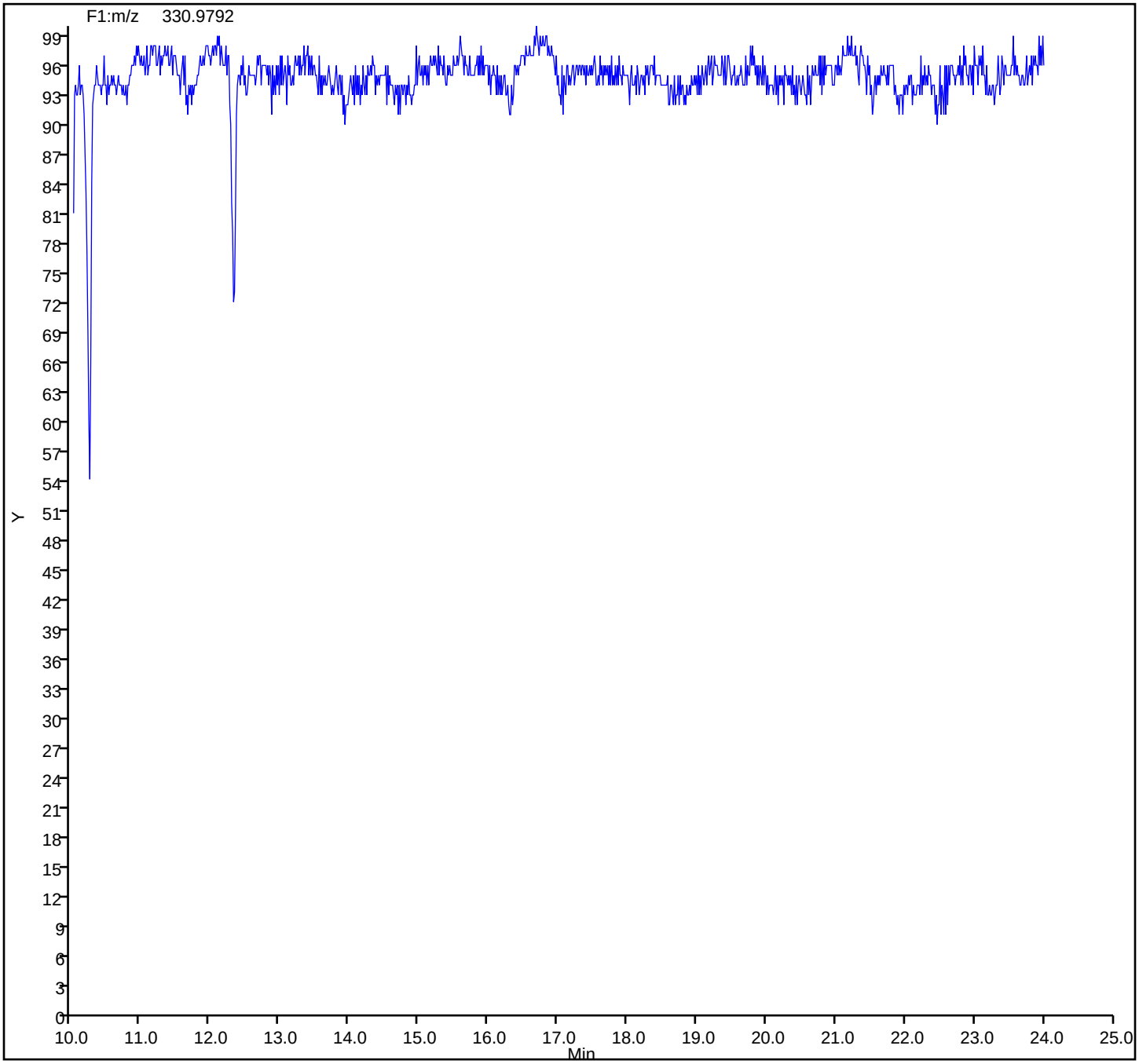




Report Date: 14-May-2019 10:27:33 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d		
Injection Date:	13-May-2019 21:39:42	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	8
Column Type:	DB-225	Column Dia:	0.32 mm



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): CPS 320-294351/2 Instrument ID (1): 4D2

GC Column (1): DB-225 ID: 0.32(mm) Date Analyzed (1): 05/13/2019 17:44

ANALYTE	RT	RESOLUTION (%)
2,3,7,8-TCDF	15.52	25

Resolution Report

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d
Injection Date: 13-May-2019 17:44:51 Instrument ID: 4D2
Lims ID: CPS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Column: DB-225 (0.32 mm)
Method: DXN_DB225_4D2 Limit Group: HR - 1613B - ICAL

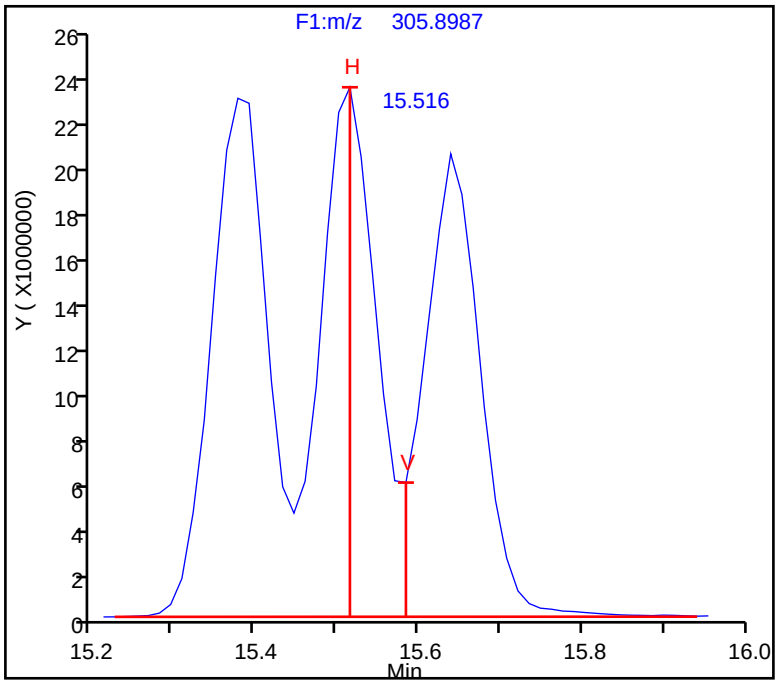
2,3,7,8-TCDF

Isotopic Dilution Dioxin Method

%R = (V / H) * 100

V (Valley Height) = 5887805
H (Peak Height) = 23248552

%R = 25 <= 25
Passed



Resolution Report

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d				
Injection Date:	13-May-2019 17:44:51	Instrument ID:	4D2		
Lims ID:	CPS				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Column:	DB-225 (0.32 mm)		
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL		

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): WDM 320-296020/1 Instrument ID (1): 3D5

GC Column (1): DB-5 ID: 0.32(mm) Date Analyzed (1): 05/21/2019 11:56

ANALYTE	RT	RESOLUTION (%)
2,3,7,8-TCDD	18.64	16

Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

Resolution Report

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d
Injection Date: 21-May-2019 11:56:21 Instrument ID: 3D5
Lims ID: WDM
Client ID:
Operator ID: AJS ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 2.0 ul Column:
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

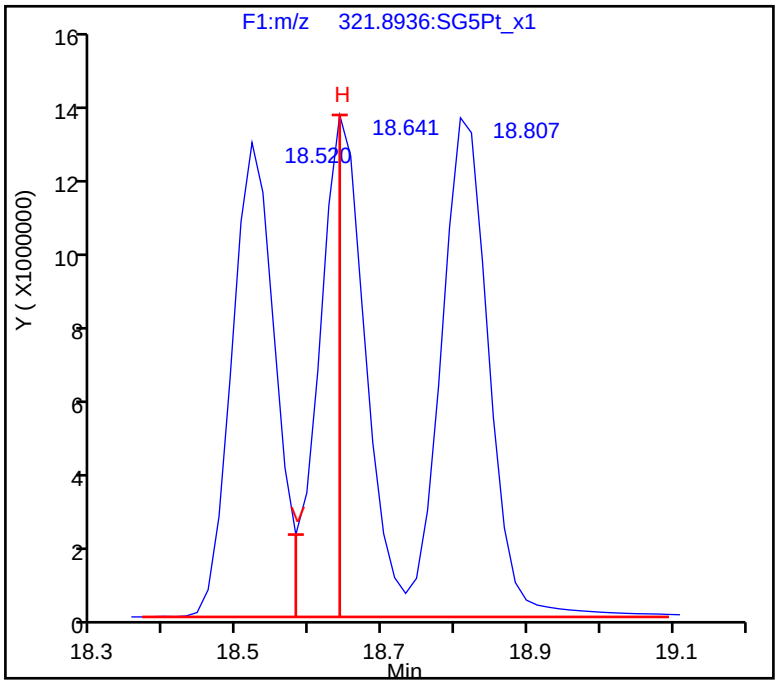
2,3,7,8-TCDD

Isotopic Dilution Dioxin Method

%R = (V / H) * 100

V (Valley Height) = 2235020
H (Peak Height) = 13619735

%R = 16 <= 25
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): WDM 320-309103/52 Instrument ID (1): 3D5

GC Column (1): DB-5 ID: 0.32(mm) Date Analyzed (1): 07/21/2019 18:11

ANALYTE	RT	RESOLUTION (%)
2,3,7,8-TCDD	17.37	19

Resolution Report

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d
Injection Date: 21-Jul-2019 18:11:22 Instrument ID: 3D5
Lims ID: WDM
Client ID:
Operator ID: ALM, AJS ALS Bottle#: 1 Worklist Smp#: 52
Injection Vol: 2.0 ul Column: DB-5 (0.32 mm)
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

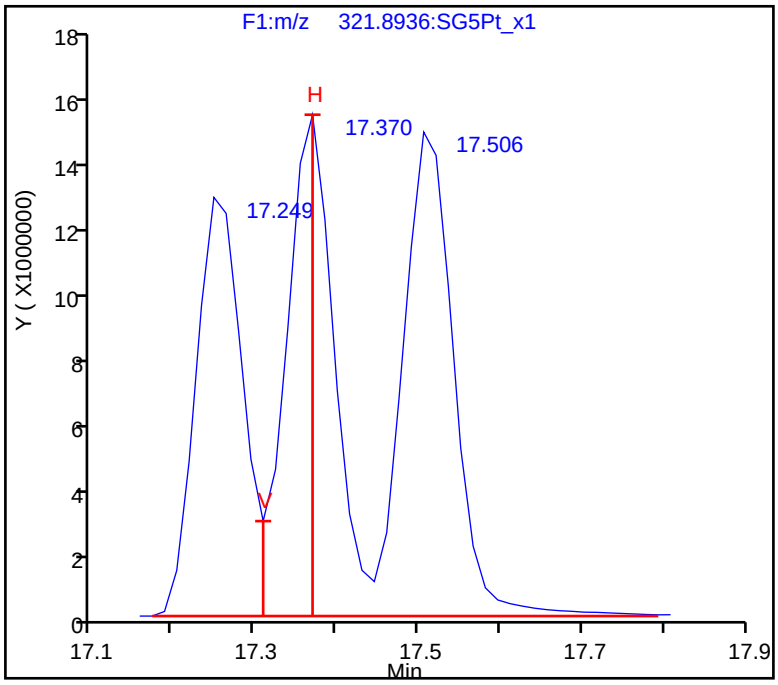
2,3,7,8-TCDD

Isotopic Dilution Dioxin Method

%R = (V / H) * 100

V (Valley Height) = 2965066
H (Peak Height) = 15422194

%R = 19 <= 25
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): WDM 320-309104/67 Instrument ID (1): 3D5

GC Column (1): DB-5 ID: 0.32(mm) Date Analyzed (1): 07/22/2019 06:43

ANALYTE	RT	RESOLUTION (%)
2,3,7,8-TCDD	17.36	24

Resolution Report

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d
Injection Date: 22-Jul-2019 06:43:55 Instrument ID: 3D5
Lims ID: WDM
Client ID:
Operator ID: ALM, AJS ALS Bottle#: 1 Worklist Smp#: 67
Injection Vol: 2.0 ul Column: DB-5 (0.32 mm)
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

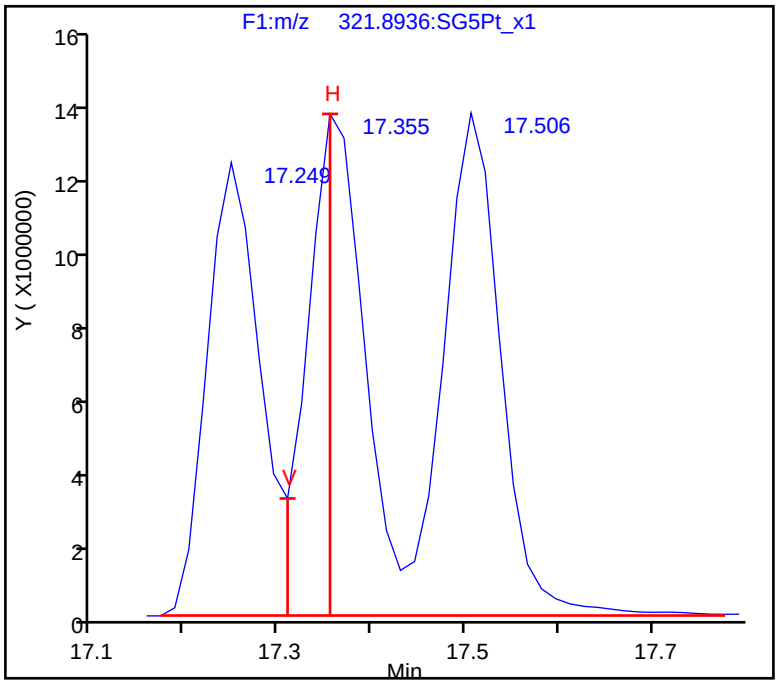
2,3,7,8-TCDD

Isotopic Dilution Dioxin Method

%R = (V / H) * 100

V (Valley Height) = 3251468
H (Peak Height) = 13680499

%R = 24 <= 25
Passed



FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID (1): CPS 320-309356/2 Instrument ID (1): 4D2

GC Column (1): DB-225 ID: 0.32(mm) Date Analyzed (1): 07/22/2019 11:34

ANALYTE	RT	RESOLUTION (%)
2,3,7,8-TCDF	16.07	21

Resolution Report

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d		
Injection Date:	22-Jul-2019 11:34:03	Instrument ID:	4D2
Lims ID:	CPS		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 2
Injection Vol:	2.0 ul	Column:	DB-225 (0.32 mm)
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL

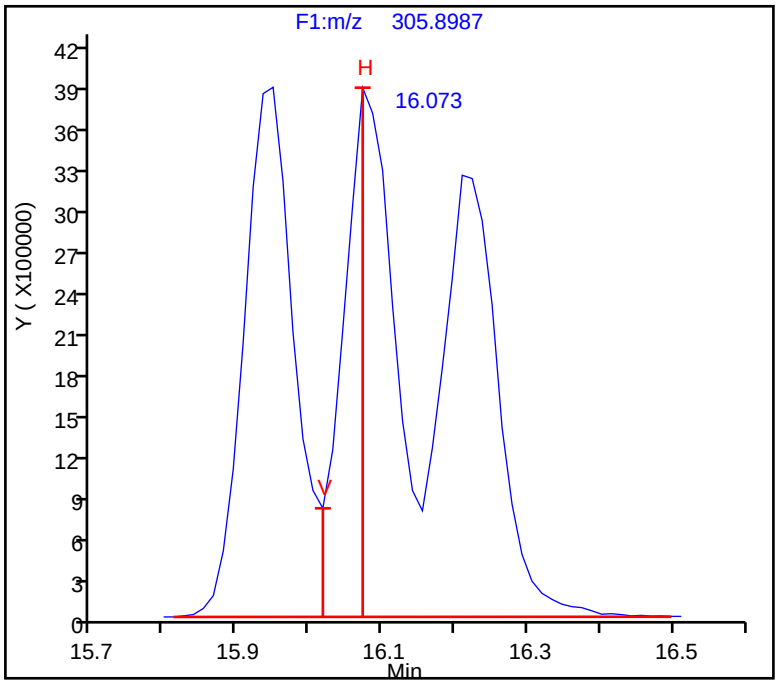
2,3,7,8-TCDF

Isotopic Dilution Dioxin Method

%R = (V / H) * 100

V (Valley Height) = 797324
H (Peak Height) = 3886527

%R = 21 <= 25
Passed



Resolution Report

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d				
Injection Date:	22-Jul-2019 11:34:03	Instrument ID:	4D2		
Lims ID:	CPS				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	2.0 ul	Column:	DB-225 (0.32 mm)		
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL		

FORM VII
DIOXIN CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 320-296020/9 Calibration Date: 05/21/2019 18:16

Instrument ID: 3D5 Calib Start Date: 05/21/2019 13:31

GC Column: DB-5 ID: 0.32(mm) Calib End Date: 05/21/2019 16:41

Lab File ID: 21MY193D5_9.d Conc. Units: pg/uL

EPA Sample No.: ICV

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
2,3,7,8-TCDF	AveID	0.9710	1.042		42.9	40.0	107	70-130
2,3,7,8-TCDD	AveID	1.045	1.193		45.7	40.0	114	70-130
1,2,3,7,8-PeCDF	AveID	0.9633	1.015		211	200	105	70-130
2,3,4,7,8-PeCDF	AveID	0.9495	1.100		232	200	116	70-130
1,2,3,7,8-PeCDD	AveID	1.063	1.079		203	200	101	70-130
1,2,3,4,7,8-HxCDF	AveID	1.217	1.277		210	200	105	70-130
1,2,3,6,7,8-HxCDF	AveID	1.131	1.224		216	200	108	70-130
2,3,4,6,7,8-HxCDF	AveID	1.171	1.282		219	200	109	70-130
1,2,3,4,7,8-HxCDD	AveID	1.027	1.071		209	200	104	70-130
1,2,3,6,7,8-HxCDD	AveID	0.9771	1.086		222	200	111	70-130
1,2,3,7,8,9-HxCDD	AveID	1.062	1.143		215	200	108	70-130
1,2,3,7,8,9-HxCDF	AveID	1.179	1.227		208	200	104	70-130
1,2,3,4,6,7,8-HpCDF	AveID	1.437	1.557		217	200	108	70-130
1,2,3,4,6,7,8-HpCDD	AveID	1.010	1.083		214	200	107	70-130
1,2,3,4,7,8,9-HpCDF	AveID	1.309	1.331		203	200	102	70-130
OCDD	AveID	1.063	1.158		436	400	109	70-130
OCDF	AveID	1.350	1.475		437	400	109	70-130
13C-2,3,7,8-TCDF	Ave	1.391	1.390		100	100	100	71-140
13C-2,3,7,8-TCDD	Ave	0.9819	0.9657		98.4	100	98	82-121
13C-1,2,3,7,8-PeCDF	Ave	1.158	1.139		98.3	100	98	76-130
13C-2,3,4,7,8-PeCDF	Ave	1.153	1.161		101	100	101	77-130
13C-1,2,3,7,8-PeCDD	Ave	0.7431	0.7258		97.7	100	98	62-160
13C-1,2,3,4,7,8-HxCDF	Ave	0.9837	1.011		103	100	103	76-131
13C-1,2,3,6,7,8-HxCDF	Ave	1.155	1.118		96.8	100	97	70-143
13C-2,3,4,6,7,8-HxCDF	Ave	1.036	1.016		98.1	100	98	73-137
13C-1,2,3,4,7,8-HxCDD	Ave	0.8287	0.8224		99.2	100	99	85-117
13C-1,2,3,6,7,8-HxCDD	Ave	0.9495	0.8971		94.5	100	94	85-118
13C-1,2,3,7,8,9-HxCDF	Ave	0.9034	0.9095		101	100	101	74-135
13C-1,2,3,4,6,7,8-HpCDF	Ave	0.7285	0.6949		95.4	100	95	78-129
13C-1,2,3,4,6,7,8-HpCDD	Ave	0.6978	0.6686		95.8	100	96	72-138
13C-1,2,3,4,7,8,9-HpCDF	Ave	0.6556	0.6593		101	100	101	77-129
13C-OCDD	Ave	0.4780	0.4512		189	200	94	48-208
37Cl4-2,3,7,8-TCDD	Ave	1.221	1.264		41.4	40.0	104	79-127

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d
Lims ID: ICV
Client ID: ICV
Sample Type: ICV
Inject. Date: 21-May-2019 18:16:13 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV 052119 ICV HRDXNIC_00038
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist:

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:37:01 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 19:10:28

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	18.414	222346657	0.82	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	17.885	309115802	0.79	1.3908	100.0	100.0	0.2444	0.2444	99.96	
2,3,7,8-TCDF	17.900	128893357	0.78	0.9710	42.9	42.9	0.0930	0.0930	107	
A Non-2,3,7,8-sub-TCDF	17.590						0.0930	0.0930		n
S Total TCDF					42.9	42.9	0.0930	0.0930		
D 13C-2,3,7,8-TCDD	18.611	214726573	0.81	0.9819	98.4	98.4	0.2893	0.2893	98.36	
$ 37Cl4-2,3,7,8-TCDD	18.626	112432067		1.2205	41.4	41.4	0.0682	0.0682	104	
2,3,7,8-TCDD	18.641	102443831	0.82	1.0447	45.7	45.7	0.0806	0.0806	114	
A Non-2,3,7,8-sub-TCDD	18.066	1316919	0.77	1.0447	0.6610	0.5870	0.0806	0.5870		RQ
S Total TCDD					46.3	46.3	0.0806	0.0806		RQ
D 13C-1,2,3,7,8-PeCDF	23.094	253215229	1.59	1.1585	98.3	98.3	0.2491	0.2491	98.30	
1,2,3,7,8-PeCDF	23.121	514226216	1.58	0.9633	210.8	210.8	0.8921	0.8921	105	
D 13C-2,3,4,7,8-PeCDF	24.485	258131492	1.61	1.1532	100.7	100.7	0.2502	0.2502	101	
2,3,4,7,8-PeCDF	24.512	568080692	1.57	0.9495	231.8	231.8	0.9439	0.9439	116	
A F1 PeCDFs	20.637						0.0627	0.0627		
A Non-2,3,7,8-sub-PeCDF	23.899	11866221	1.56	0.9564	4.853	4.853	0.9174	4.853		
S Total PeCDF					447.4	447.4	0.9180	0.9180		
D 13C-1,2,3,7,8-PeCDD	25.235	161383501	1.64	0.7431	97.7	97.7	0.1753	0.1753	97.67	
1,2,3,7,8-PeCDD	25.262	348250092	1.60	1.0635	202.9	202.9	0.2446	0.2446	101	
A Non-2,3,7,8-sub-PeCDD	24.123						0.2446	0.2446		
S Total PeCDD					202.9	202.9	0.2446	0.2446		
D 13C-1,2,3,4,7,8-HxCDF	31.058	187845398	0.51	0.9837	102.8	102.8	0.3425	0.3425	103	
1,2,3,4,7,8-HxCDF	31.071	479692619	1.24	1.2173	209.8	209.8	0.8857	0.8857	105	
D 13C-1,2,3,6,7,8-HxCDF	31.205	207713319	0.51	1.1554	96.8	96.8	0.2916	0.2916	96.77	
1,2,3,6,7,8-HxCDF	31.231	508351905	1.25	1.1311	216.4	216.4	0.8359	0.8359	108	
D 13C-2,3,4,6,7,8-HxCDF	31.924	188804826	0.52	1.0361	98.1	98.1	0.3252	0.3252	98.09	
2,3,4,6,7,8-HxCDF	31.937	484083560	1.24	1.1710	219.0	219.0	0.7443	0.7443	109	
D 13C-1,2,3,7,8,9-HxCDF	32.682	168965577	0.51	0.9034	100.7	100.7	0.3729	0.3729	101	
1,2,3,7,8,9-HxCDF	32.696	414786546	1.24	1.1787	208.3	208.3	0.7662	0.7662	104	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
A Non-2,3,7,8-sub-HxCDF	30.845						0.8033	0.8033		
S Total HxCDF					853.4	853.4	0.8080	0.8080		
* 13C-1,2,3,7,8,9-HxCDD	32.509	185780773	1.26	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	32.097	152784448	1.28	0.8287	99.2	99.2	0.3524	0.3524	99.24	
1,2,3,4,7,8-HxCDD	32.110	327345678	1.20	1.0267	208.7	208.7	0.4918	0.4918	104	
D 13C-1,2,3,6,7,8-HxCDD	32.203	166664971	1.27	0.9495	94.5	94.5	0.3076	0.3076	94.49	
1,2,3,6,7,8-HxCDD	32.216	362035074	1.22	0.9771	222.3	222.3	0.5142	0.5142	111	
1,2,3,7,8,9-HxCDD	32.523	365083187	1.26	1.0616	215.3	215.3	0.4745	0.4745	108	
A Non-2,3,7,8-sub-HxCDD	31.471						0.4929	0.4929		
S Total HxCDD					646.3	646.3	0.4935	0.4935		
D 13C-1,2,3,4,6,7,8-HpCDF	34.097	129098673	0.45	0.7285	95.4	95.4	0.6850	0.6850	95.39	
1,2,3,4,6,7,8-HpCDF	34.109	401958783	1.03	1.4373	216.6	216.6	1.334	1.334	108	
D 13C-1,2,3,4,7,8,9-HpCDF	35.239	122483391	0.45	0.6556	100.6	100.6	0.7611	0.7611	101	
1,2,3,4,7,8,9-HpCDF	35.251	326170724	1.05	1.3091	203.4	203.4	1.687	1.687	102	
A Non-2,3,7,8-sub-HpCDF	34.686						1.495	1.495		
S Total HpCDF					420.0	420.0	1.511	1.511		
D 13C-1,2,3,4,6,7,8-HpCDD	34.935	124213475	1.06	0.6978	95.8	95.8	0.3457	0.3457	95.81	
1,2,3,4,6,7,8-HpCDD	34.947	269097158	1.06	1.0102	214.5	214.5	0.6764	0.6764	107	
A Non-2,3,7,8-sub-HpCDD	35.074						0.6764	0.6764		
S Total HpCDD					214.5	214.5	0.6764	0.6764		
D 13C-OCDD	37.395	167657373	0.90	0.4780	188.8	188.8	0.4438	0.4438	94.41	
OCDF	37.503	494569405	0.93	1.3501	437.0	437.0	0.7227	0.7227	109	
OCDD	37.407	388204926	0.90	1.0627	435.8	435.8	0.7118	0.7118	109	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNIC_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d
Lims ID: ICV
Client ID: ICV
Sample Type: ICV
Inject. Date: 21-May-2019 18:16:13 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV 052119 ICV HRDXNIC_00038
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5
Sublist:

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:37:01 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 19:10:28

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	18.414	18.433	-1		99998875	24006114	42112	105280	570		
333.9339	18.414	18.433	-1		122347782	29280130	18429	46072	1589	0.82(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	17.885	17.900	-1	0.971	136547837	32061236	45371	113427	707		
317.9389	17.885	17.900	-1	0.971	172567965	40423072	27075	67687	1493	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	17.900	17.915	-1	1.001	56332836	13171635	10321	25802	1276		
305.8987	17.900	17.915	-1	1.001	72560521	16618859	15852	39630	1048	0.78(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	17.507	17.590	-5	0.979	320674	84096	10321	25802	8		
305.8987	17.492	17.590	-6	0.978	399478	91923	15852	39630	6	0.80(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	18.611	18.629	-1	1.011	96308196	21747418	42112	105280	516		
333.9339	18.611	18.629	-1	1.011	118418377	26520969	18429	46072	1439	0.81(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	18.626	18.649	-1	1.011	112432067	24741004	17755	44387	1393		
2,3,7,8-TCDD											
319.8965	18.641	18.650	-1	1.002	46102269	10150841	9601	24002	1057		
321.8936	18.626	18.650	-1	1.001	56341562	12460512	6647	16617	1875	0.82(0.65-0.89)	
A Non-2,3,7,8-sub-TCDD											RQ
319.8965	18.520	18.066	27	0.995	572897	183752	9601	24002	19		
321.8936	18.520	18.066	27	0.995	909934	230675	6647	16617	35	0.63(0.65-0.89)	
	Empc Correction				744022	238638	6647	16617	36		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8-PeCDF											
351.9000	23.094	23.100	0	1.254	155609942	26715954	39133	97832	683		
353.8970	23.094	23.100	0	1.254	97605287	16855503	22374	55935	753	1.59(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	23.121	23.124	0	1.001	314768565	52838286	88608	221520	596		
341.8567	23.121	23.124	0	1.001	199457651	33977833	61167	152917	555	1.58(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	24.485	24.488	0	1.330	159231466	25548972	39133	97832	653		
353.8970	24.485	24.488	0	1.330	98900026	16231081	22374	55935	725	1.61(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	24.512	24.512	0	1.001	346904091	53860636	88608	221520	608		
341.8567	24.512	24.512	0	1.001	221176601	33722372	61167	152917	551	1.57(1.32-1.78)	
A F1 PeCDFs											
339.8597	20.637						2292	5730			
341.8567	20.637						7947	19867			
A Non-2,3,7,8-sub-PeCDF											
339.8597	23.666	23.899	-14	1.025	7234407	1237610	88608	221520	14		
341.8567	23.666	23.899	-14	1.025	4631814	744077	61167	152917	12	1.56(1.32-1.78)	
13C-1,2,3,7,8-PeCDD											
367.8949	25.235	25.238	0	1.370	100316941	15322953	16074	40185	953		
369.8919	25.235	25.238	0	1.370	61066560	9385882	11690	29225	803	1.64(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	25.262	25.265	0	1.001	214180722	31487894	17646	44115	1784		
357.8516	25.262	25.265	0	1.001	134069370	19967680	8060	20150	2477	1.60(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											
355.8546	24.123						17646	44115			
357.8516	24.123						8060	20150			
13C-1,2,3,4,7,8-HxCDF											
383.8639	31.058	31.051	0	0.955	63483256	13904438	27681	69202	502		
385.8610	31.058	31.051	0	0.955	124362142	27550372	43405	108512	635	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	31.071	31.068	0	1.000	265839934	61146447	92922	232305	658		
375.8178	31.071	31.068	0	1.000	213852685	49022738	85875	214687	571	1.24(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	31.205	31.201	0	0.960	70204373	15845366	27681	69202	572		
385.8610	31.205	31.201	0	0.960	137508946	31429354	43405	108512	724	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	31.231	31.224	0	1.001	282695535	62413716	92922	232305	672		
375.8178	31.218	31.224	0	1.000	225656370	49870592	85875	214687	581	1.25(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	31.924	31.923	0	0.982	64359571	17494429	27681	69202	632		
385.8610	31.924	31.923	0	0.982	124445255	33790751	43405	108512	778	0.52(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	31.937	31.943	0	1.000	268267778	71103914	92922	232305	765		
375.8178	31.937	31.943	0	1.000	215815782	58408869	85875	214687	680	1.24(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8,9-HxCDF											
383.8639	32.682	32.676	0	1.005	56960730	16704760	27681	69202	603		
385.8610	32.682	32.676	0	1.005	112004847	32790517	43405	108512	755	0.51(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	32.696	32.692	0	1.000	229904633	66857411	92922	232305	720		
375.8178	32.696	32.692	0	1.000	184881913	53379015	85875	214687	622	1.24(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	30.845						92922	232305			
375.8178	30.845						85875	214687			
13C-1,2,3,7,8,9-HxCDD											
401.8559	32.509	32.499	1		103676605	29367879	36346	90865	808		
403.8529	32.509	32.499	1		82104168	23381618	25282	63205	925	1.26(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	32.097	32.093	0	0.987	85749915	25357903	36346	90865	698		
403.8529	32.097	32.093	0	0.987	67034533	20037909	25282	63205	793	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	32.110	32.110	0	1.000	178879576	51819990	62141	155352	834		
391.8127	32.110	32.110	0	1.000	148466102	43158761	29554	73885	1460	1.20(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	32.203	32.193	1	0.991	93123035	25349565	36346	90865	697		
403.8529	32.190	32.193	0	0.990	73541936	20279951	25282	63205	802	1.27(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	32.216	32.210	0	1.000	199272975	54639752	62141	155352	879		
391.8127	32.203	32.210	0	1.000	162762099	45332865	29554	73885	1534	1.22(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	32.523	32.516	0	1.013	203524572	58820587	62141	155352	947		
391.8127	32.509	32.516	0	1.013	161558615	45545616	29554	73885	1541	1.26(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	31.471						62141	155352			
391.8127	31.471						29554	73885			
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	34.097	34.097	0	1.049	39991019	12974012	41081	102702	316		
419.8220	34.097	34.097	0	1.049	89107654	29352894	64212	160530	457	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.109	34.104	0	1.000	203632058	67875635	170553	426382	398		
409.7789	34.109	34.104	0	1.000	198326725	66253465	153965	384912	430	1.03(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	35.239	35.233	0	1.084	37725890	11239096	41081	102702	274		
419.8220	35.239	35.233	0	1.084	84757501	25487205	64212	160530	397	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.251	35.244	0	1.000	167391270	49015311	170553	426382	287		
409.7789	35.251	35.244	0	1.000	158779454	45891103	153965	384912	298	1.05(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	34.686						170553	426382			
409.7789	34.686						153965	384912			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.935	34.929	0	1.075	63852098	20705089	20822	52055	994		
437.8140	34.935	34.929	0	1.075	60361377	19019422	30079	75197	632	1.06(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.947	34.940	0	1.000	138620368	43789914	60091	150227	729		
425.7737	34.935	34.940	0	1.000	130476790	40536425	48474	121185	836	1.06(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						60091	150227			
425.7737	35.074						48474	121185			
13C-OCDD											
469.7779	37.395	37.392	0	1.150	79464321	22162125	21911	54777	1011		
471.7750	37.395	37.392	0	1.150	88193052	24670891	22850	57125	1080	0.90(0.76-1.02)	
OCDF											
441.7428	37.503	37.500	0	1.003	237735495	66167098	43276	108190	1529		
443.7399	37.503	37.500	0	1.003	256833910	70315607	48116	120290	1461	0.93(0.76-1.02)	
OCDD											
457.7377	37.407	37.401	0	1.000	183627219	50335536	32571	81427	1545		
459.7348	37.407	37.401	0	1.000	204577707	57305248	38275	95687	1497	0.90(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNIC_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d
Lims ID: ICV
Client ID: ICV
Inject. Date: 21-May-2019 18:16:13 Dil. Factor: 1.0000
Sample Type: ICV, ICal Verification
Instrument ID: 3D5 Operator: AJS
Lims Batch ID: 296020 Lims Sample ID: 9
Sublist:

Non-2,3,7,8-sub-TCDD, RT: 18.066

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	214726573	48268387

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	214726573	48268387

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
18.520	572897	183752	909934	230675	0.6610	0.63	RQ
18.520	572897	183752	744022	238638	0.5870		Empc Correction
Signal Totals:							
	572897	183752	744022	238638			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1482831	414427				0.63	RQ
	1316919	422390					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.6610 = (1482831 * 100.000) / (214726573 * 1.045)
Empc Amount: 0.5870 = (1316919 * 100.000) / (214726573 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d
Lims ID: ICV
Client ID: ICV
Inject. Date: 21-May-2019 18:16:13 Dil. Factor: 1.0000
Sample Type: ICV, ICal Verification
Instrument ID: 3D5 Operator: AJS
Lims Batch ID: 296020 Lims Sample ID: 9
Sublist:

Non-2,3,7,8-sub-PeCDF, RT: 23.899

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963	D 13C-1,2,3,7,8-PeCDF	100.000	253215229	43571457
2,3,4,7,8-PeCDF	0.950	D 13C-2,3,4,7,8-PeCDF	100.000	258131492	41780053

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.956		100.000	255673360	42675755

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
23.666	7234407	1237610	4631814	744077	4.85	1.56	
Signal Totals:							
	7234407	1237610	4631814	744077			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	11866221	1981687				1.56	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

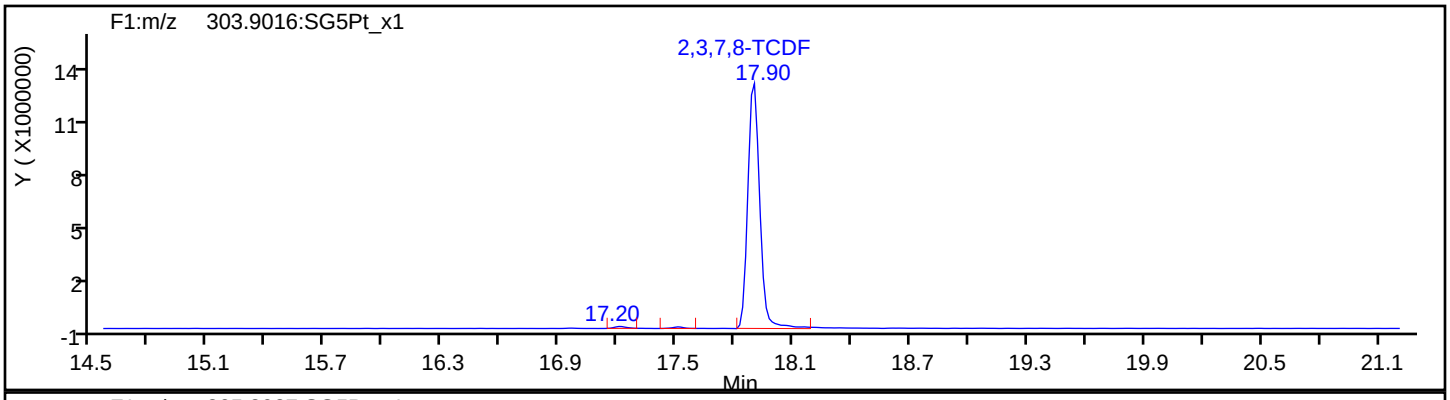
Amount: 4.853 = (11866221 * 100.000) / (255673360 * 0.956)

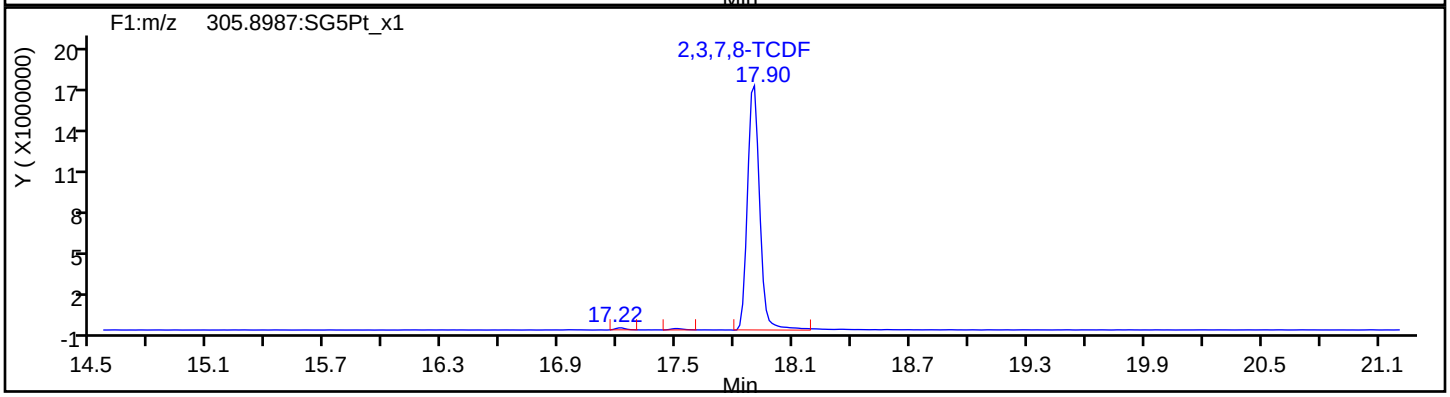
Report Date: 22-May-2019 11:37:06 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

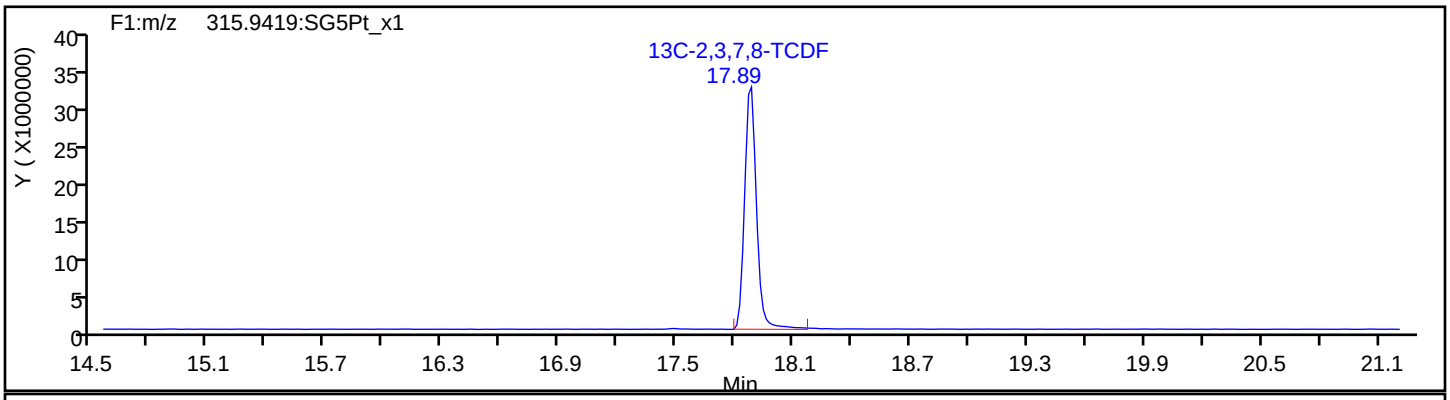
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

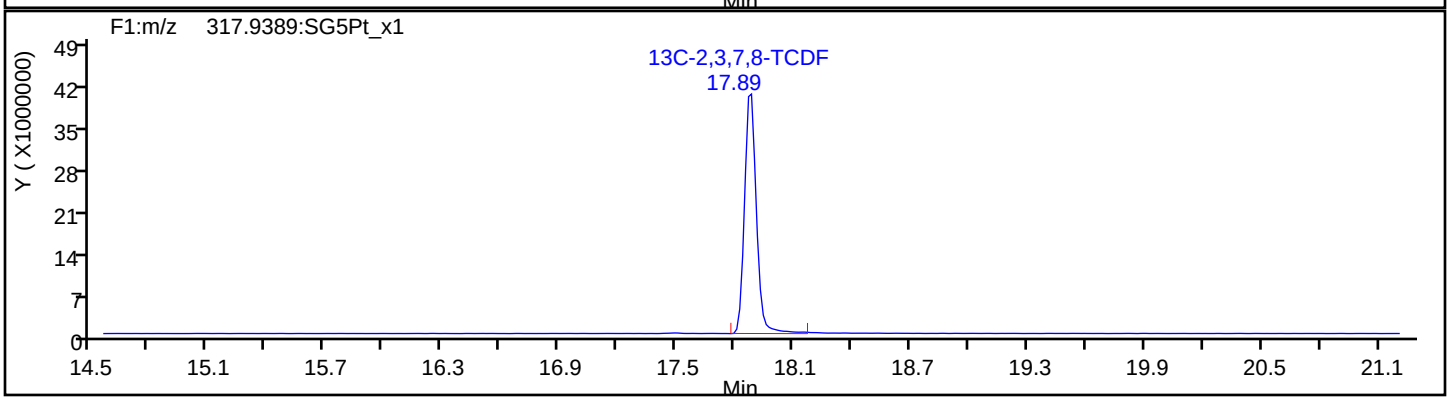
TCDF





TCDF Standards



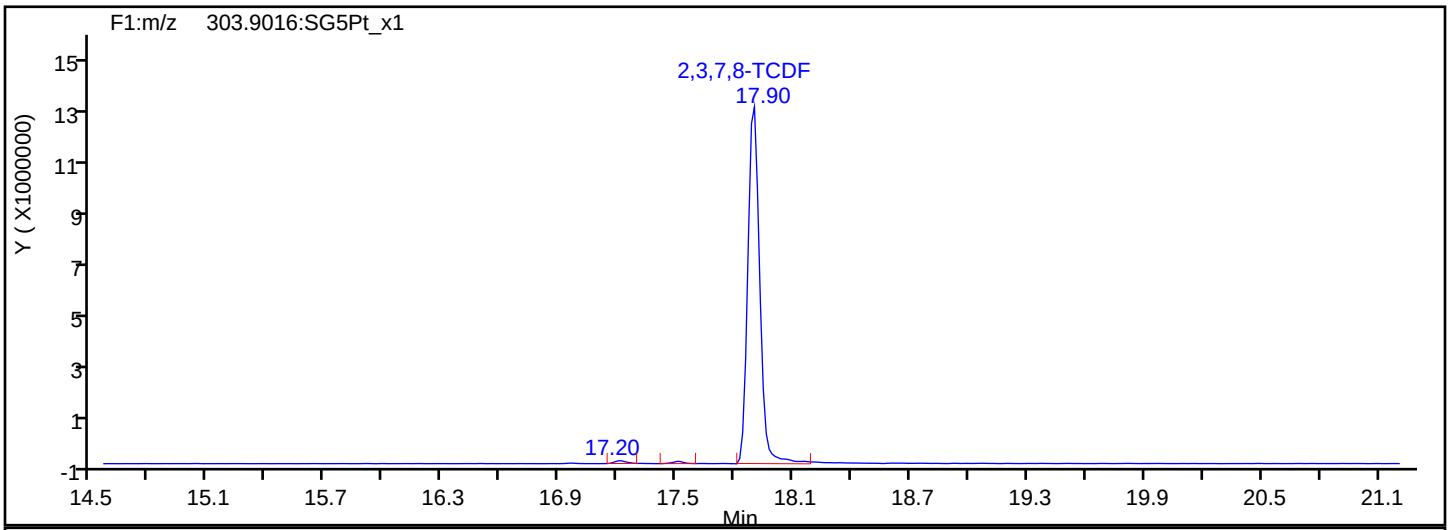


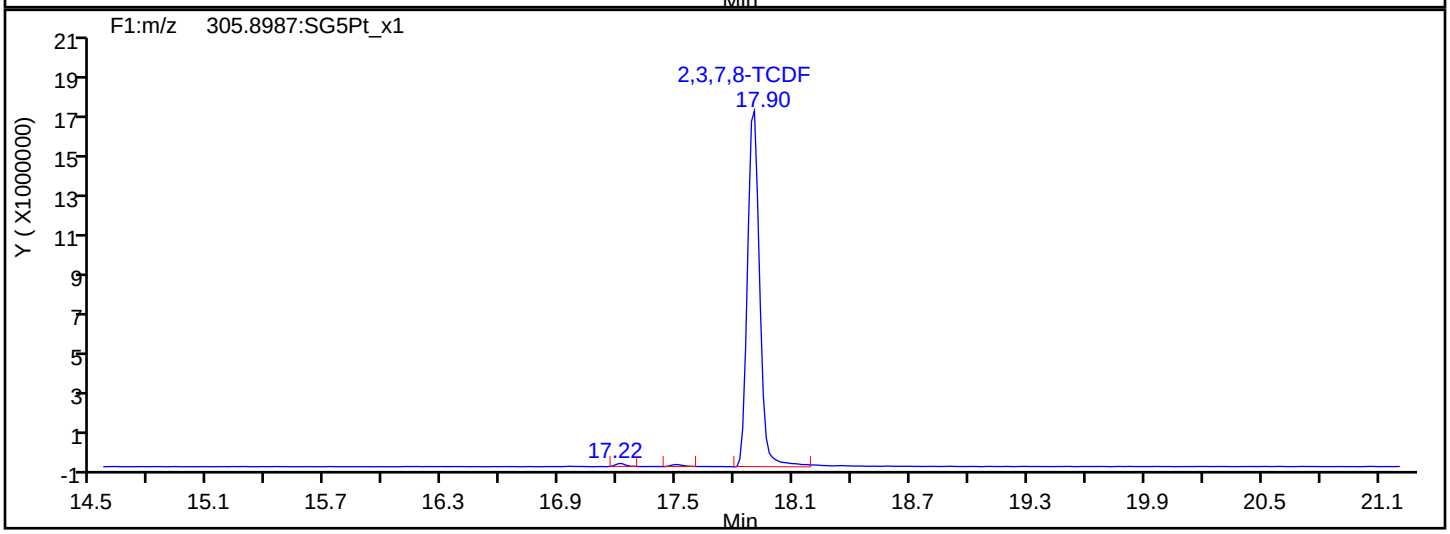
Report Date: 22-May-2019 11:37:06 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

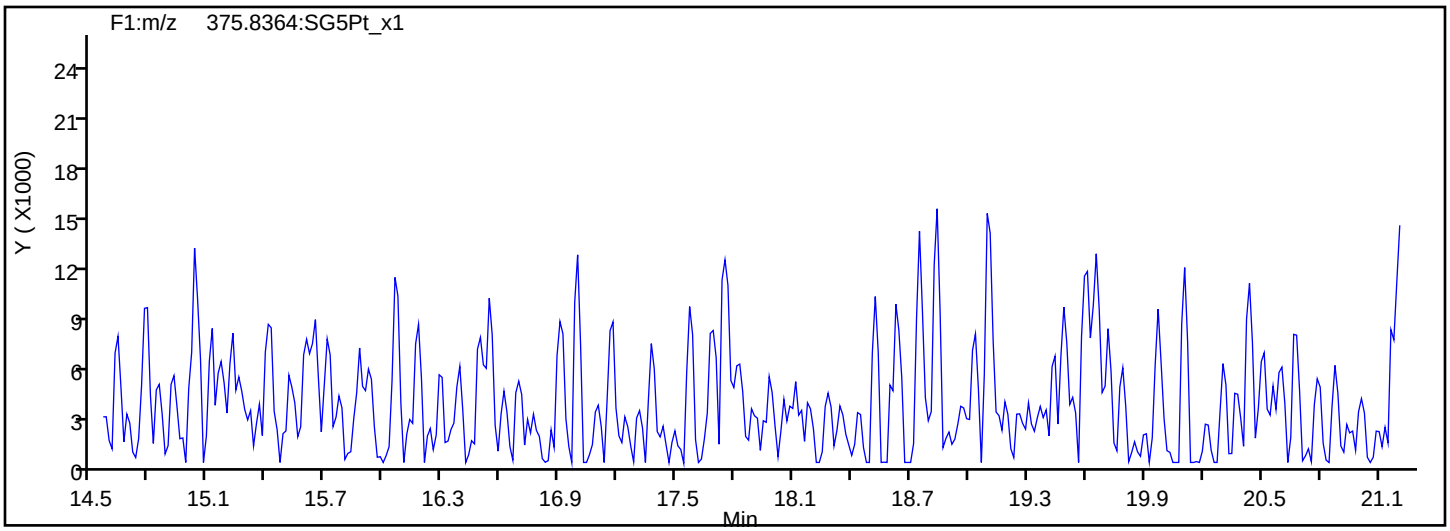
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

TCDF





TCDF Interference Mass



Report Date: 22-May-2019 11:37:06 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d

Injection Date: 21-May-2019 18:16:13 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: AJS

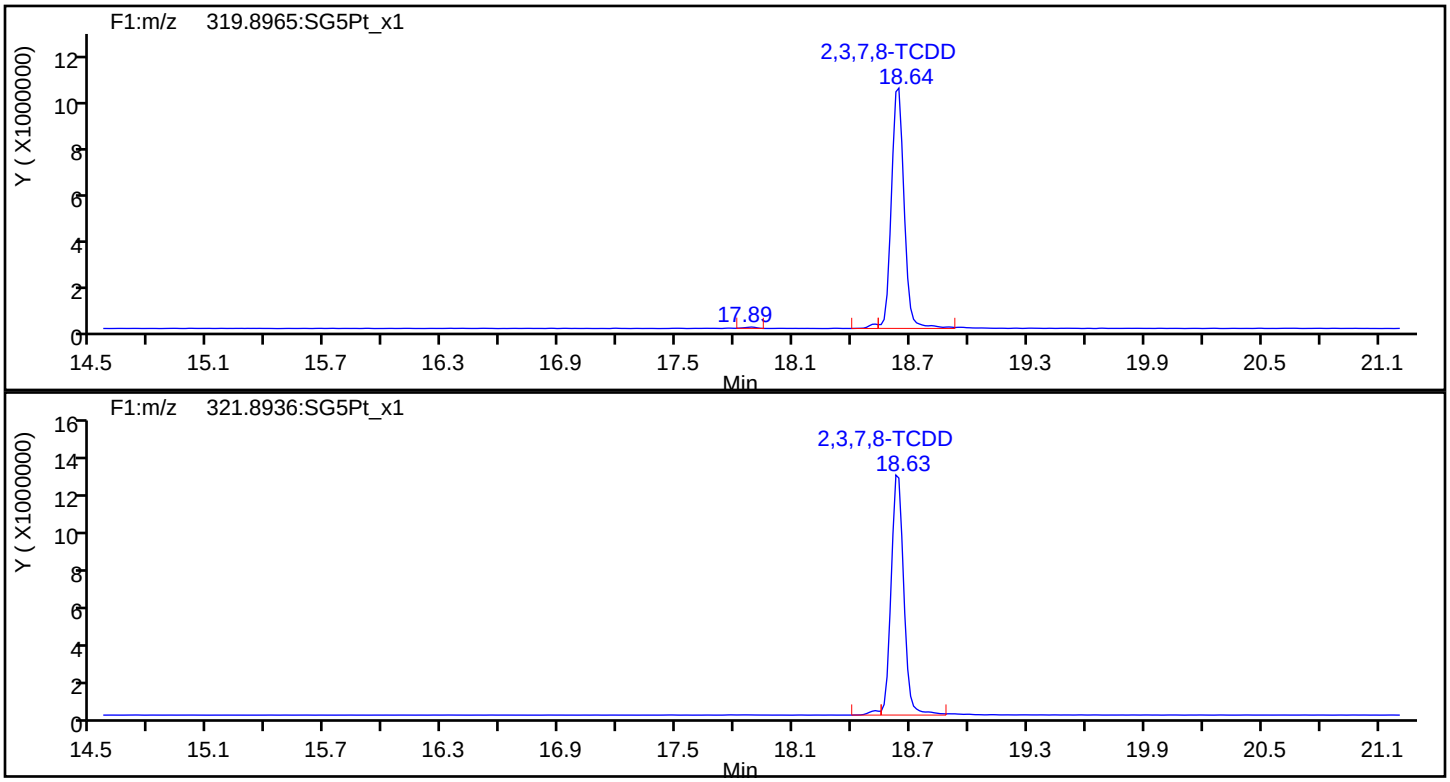
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

Client ID: ICV

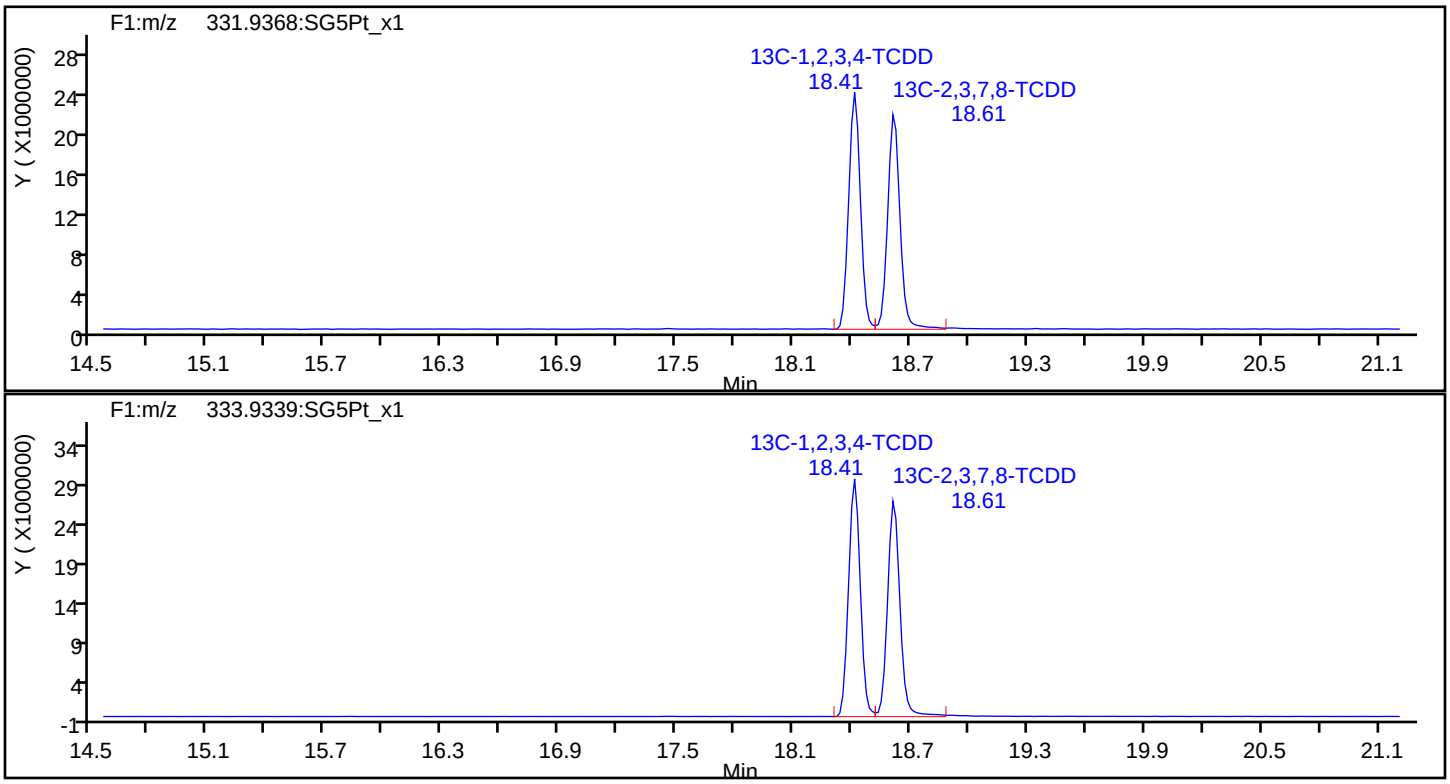
Worklist#: 296020 Sample Line#: 9

Column Type: Column Dia:

TCDD



TCDD Standards

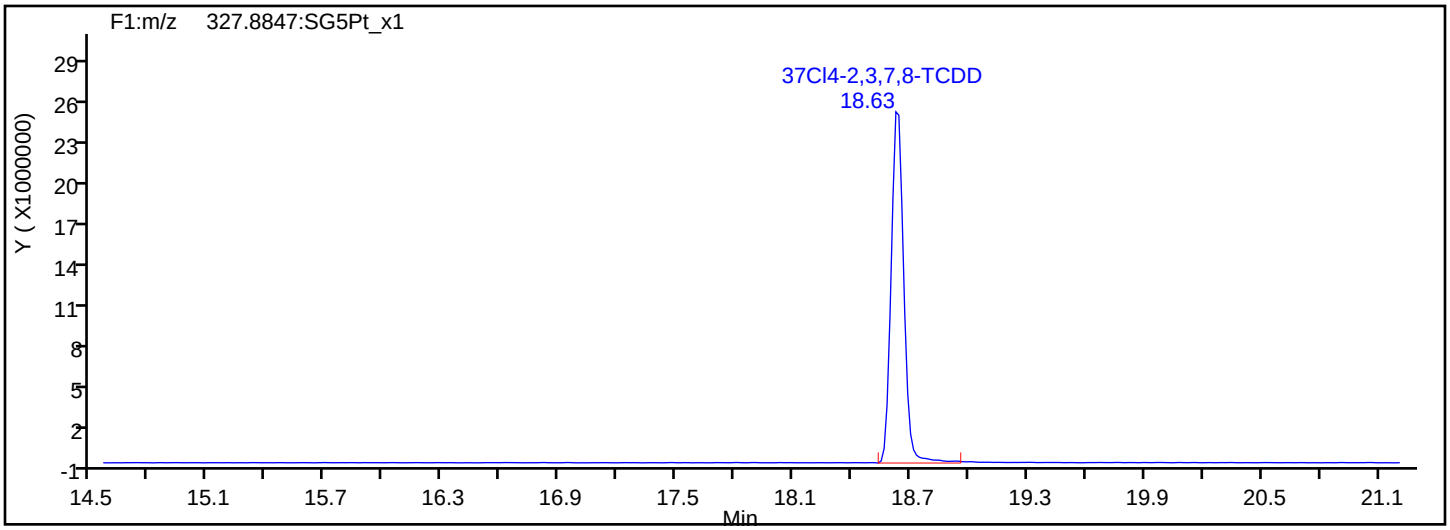


Report Date: 22-May-2019 11:37:06 Chrom Revision: 2.3 12-May-2019 16:28:34

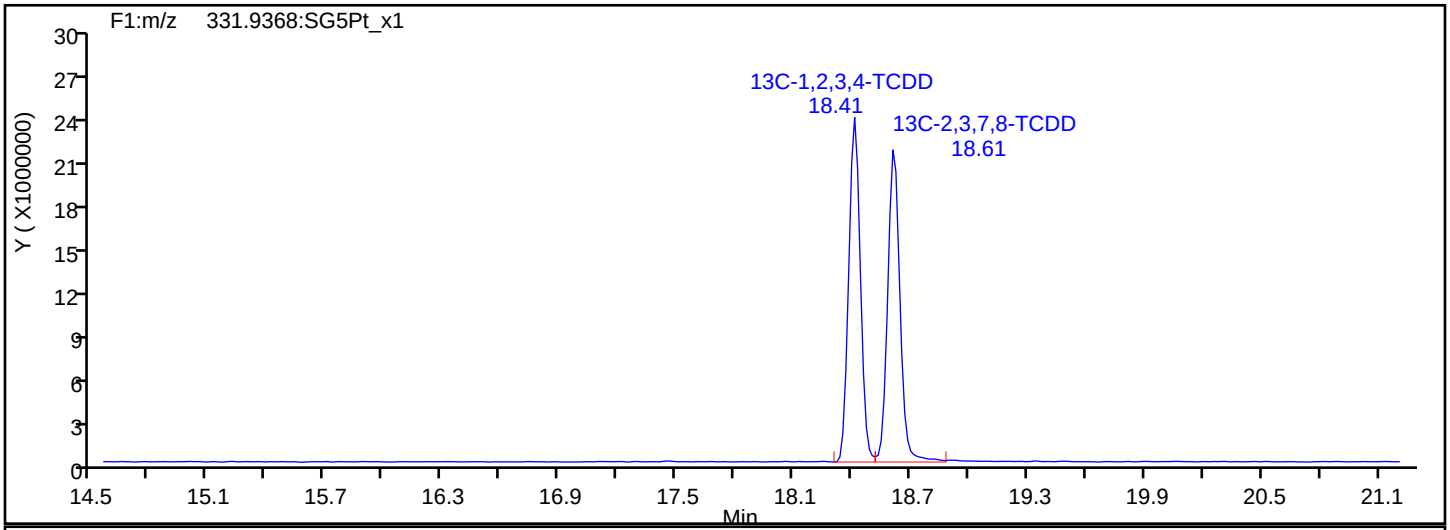
Eurofins TestAmerica, Sacramento

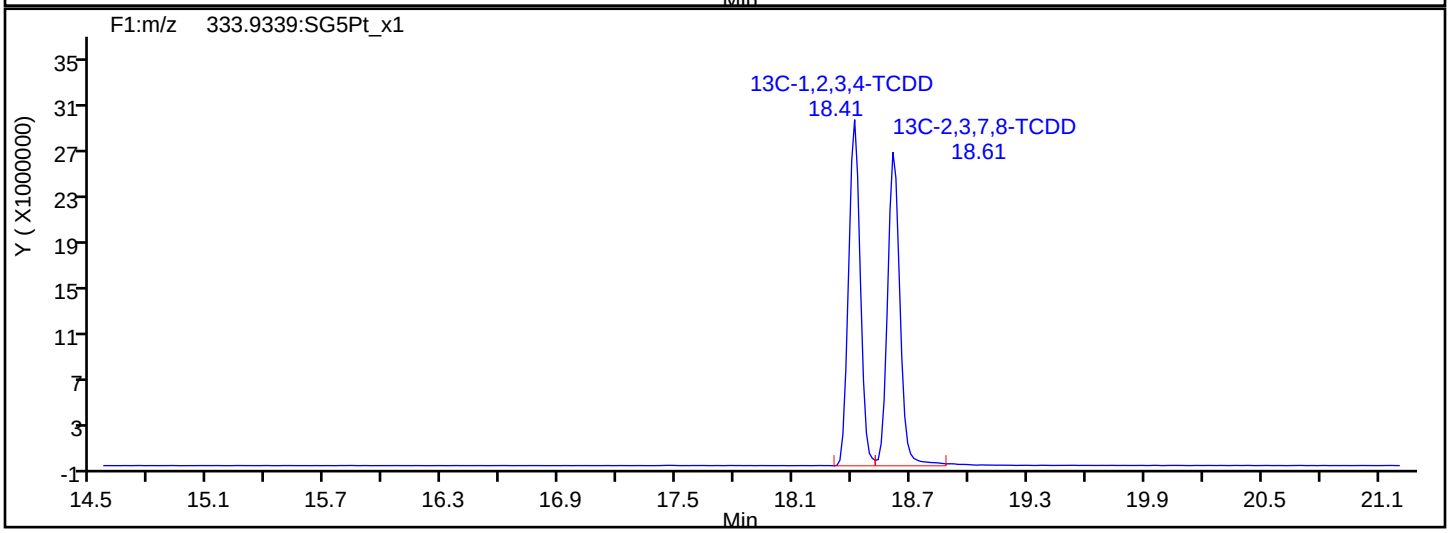
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

37Cl4-TCDD



37Cl4-TCDD Standards



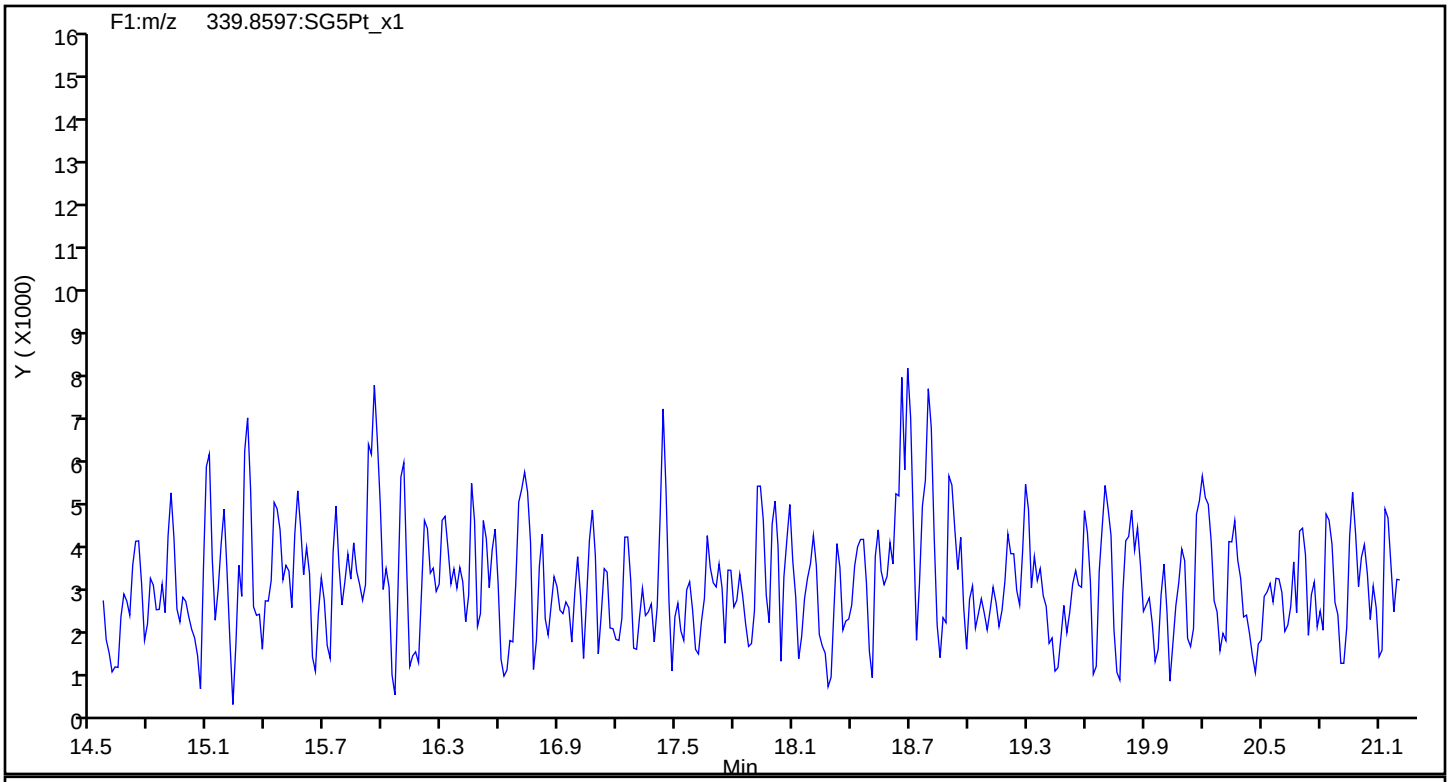


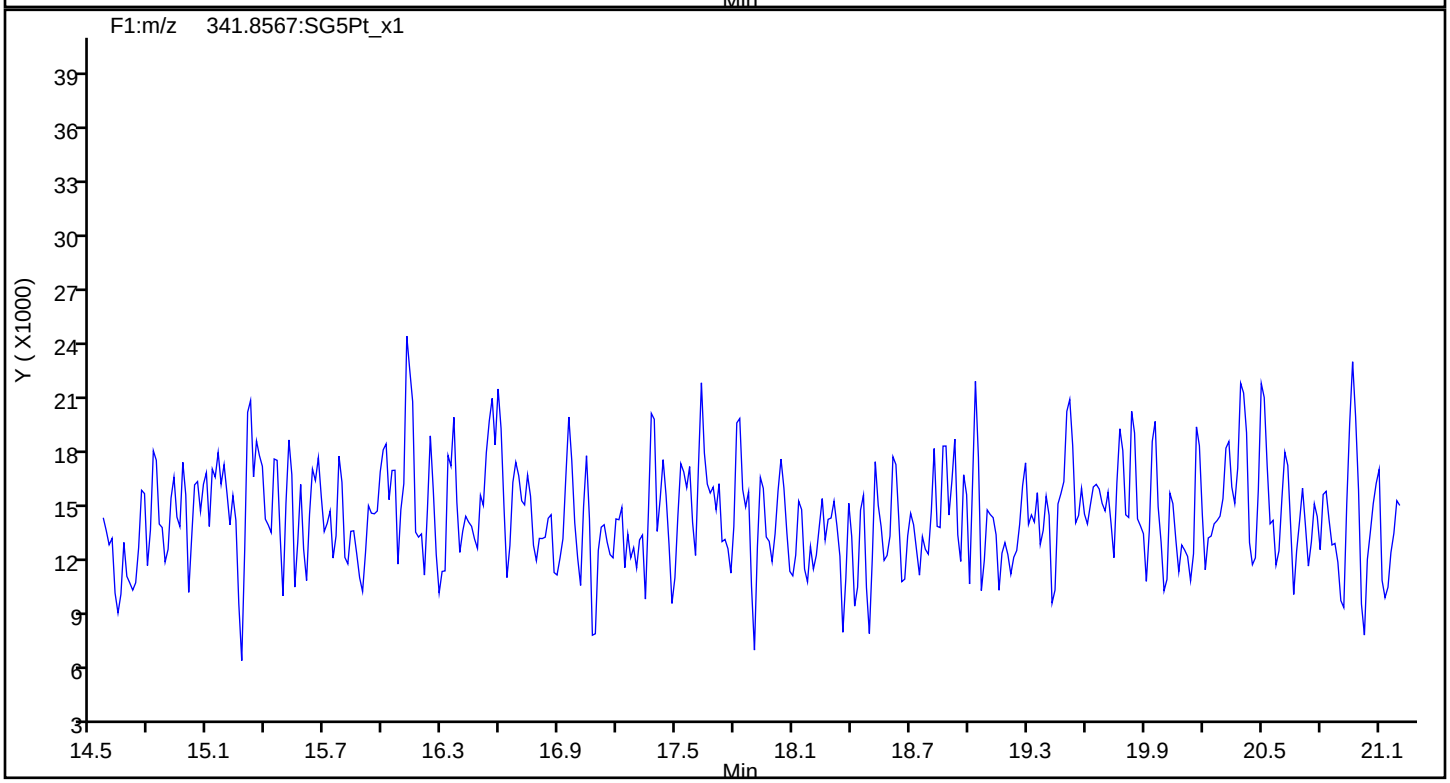
Report Date: 22-May-2019 11:37:06 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

F1 PeCDFs



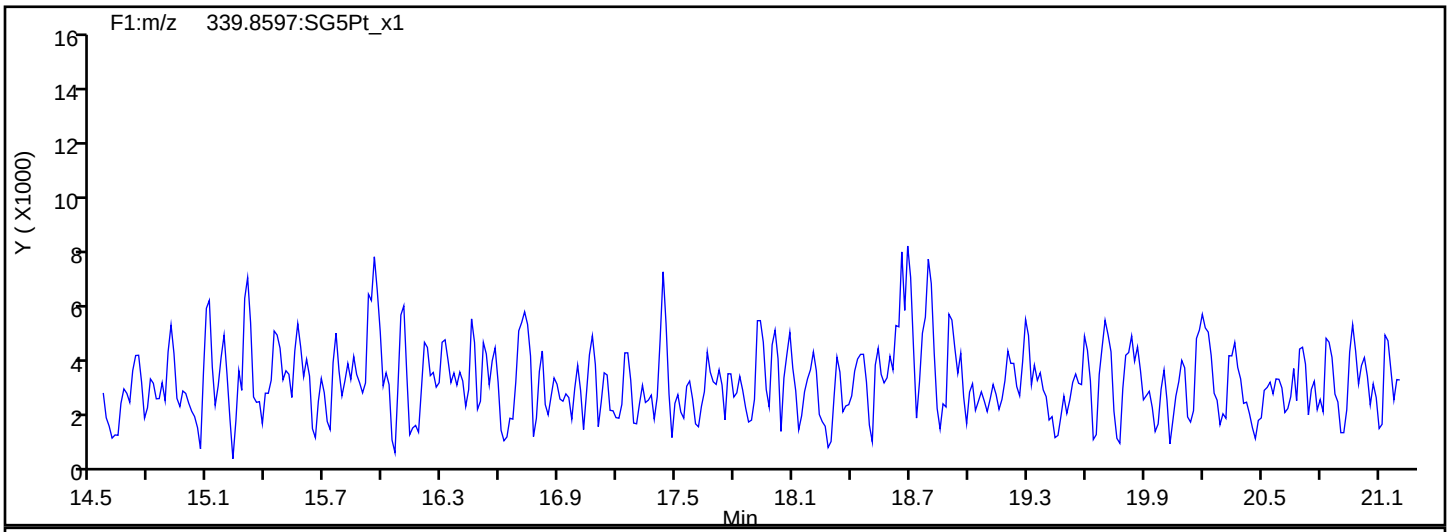


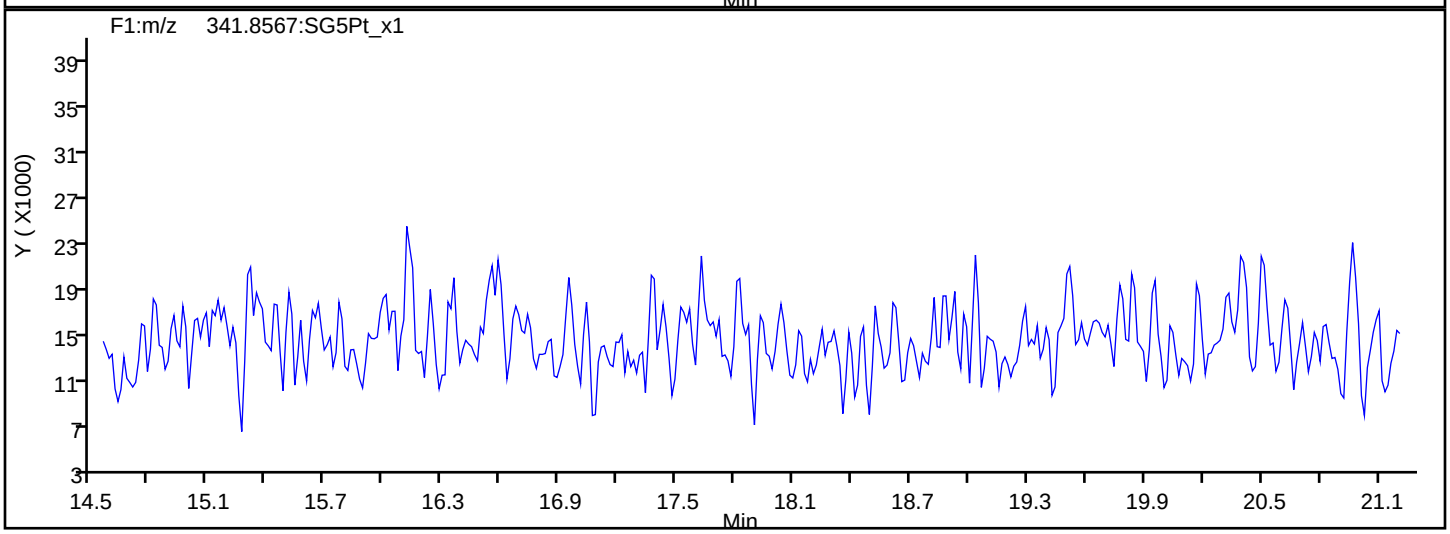
Report Date: 22-May-2019 11:37:06 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

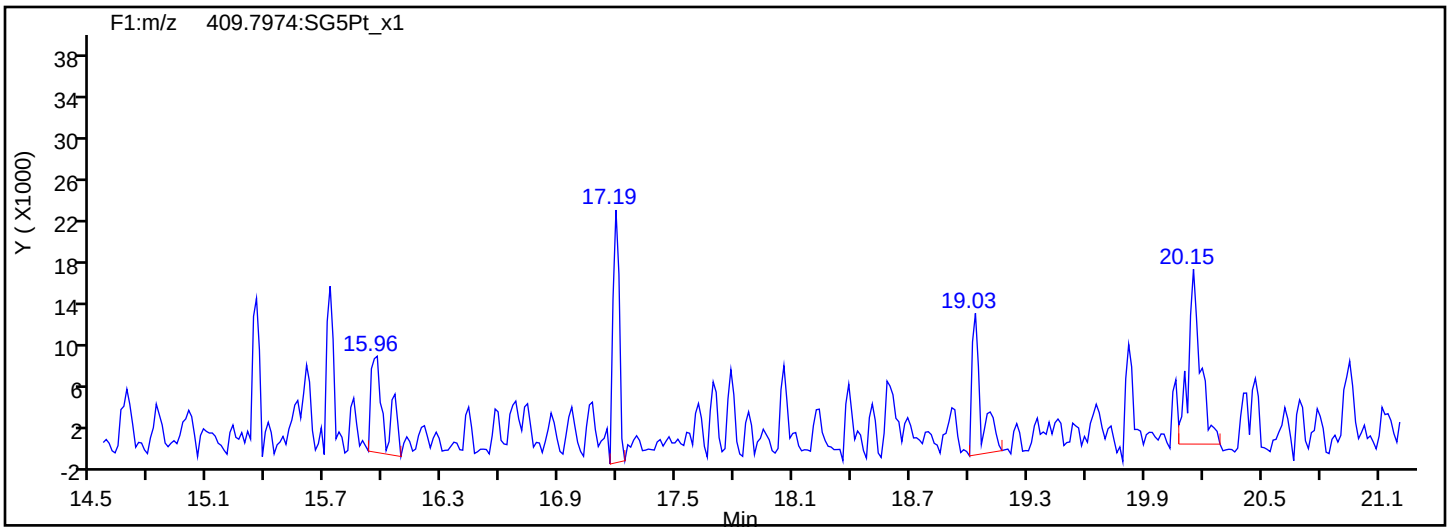
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

F1 PeCDFs





F1 PeCDFs Interference Mass

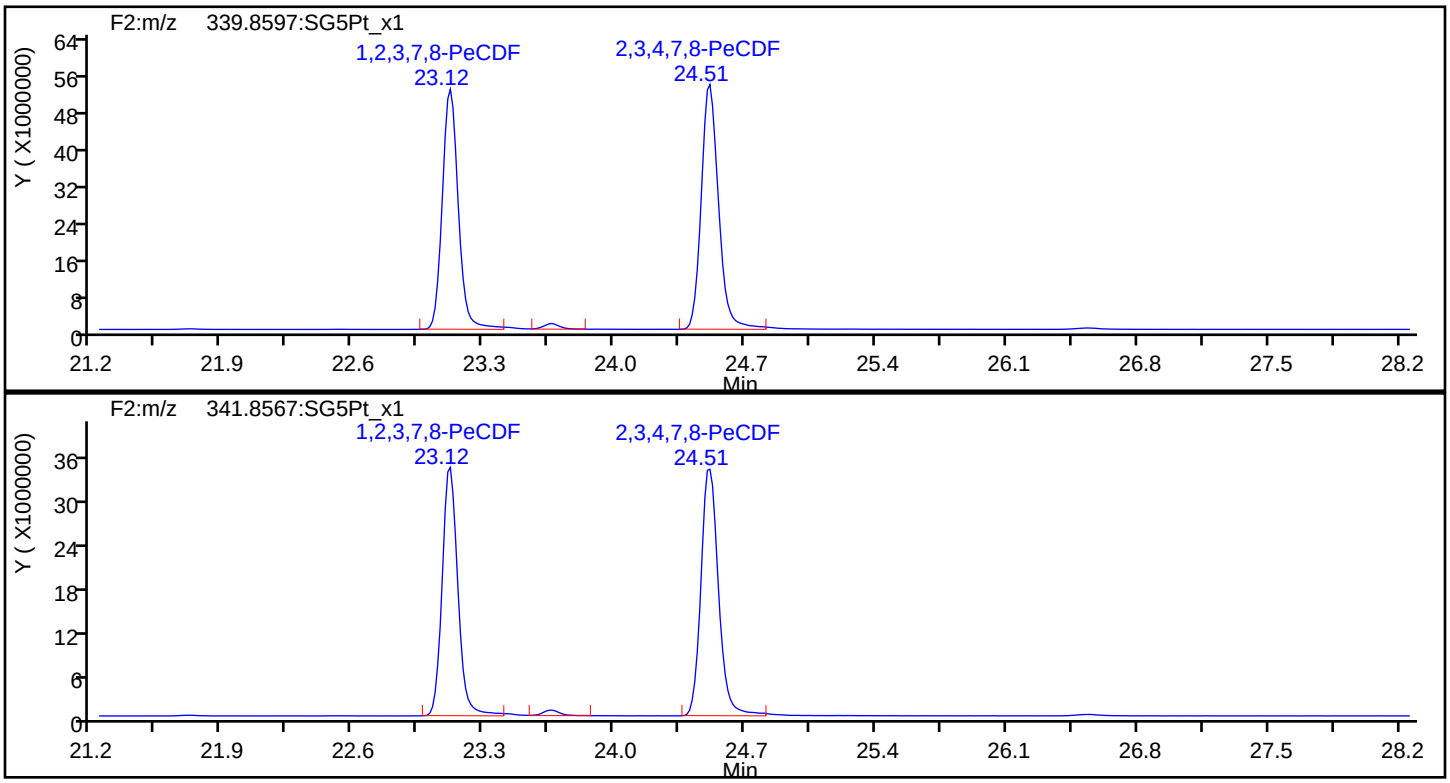


Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

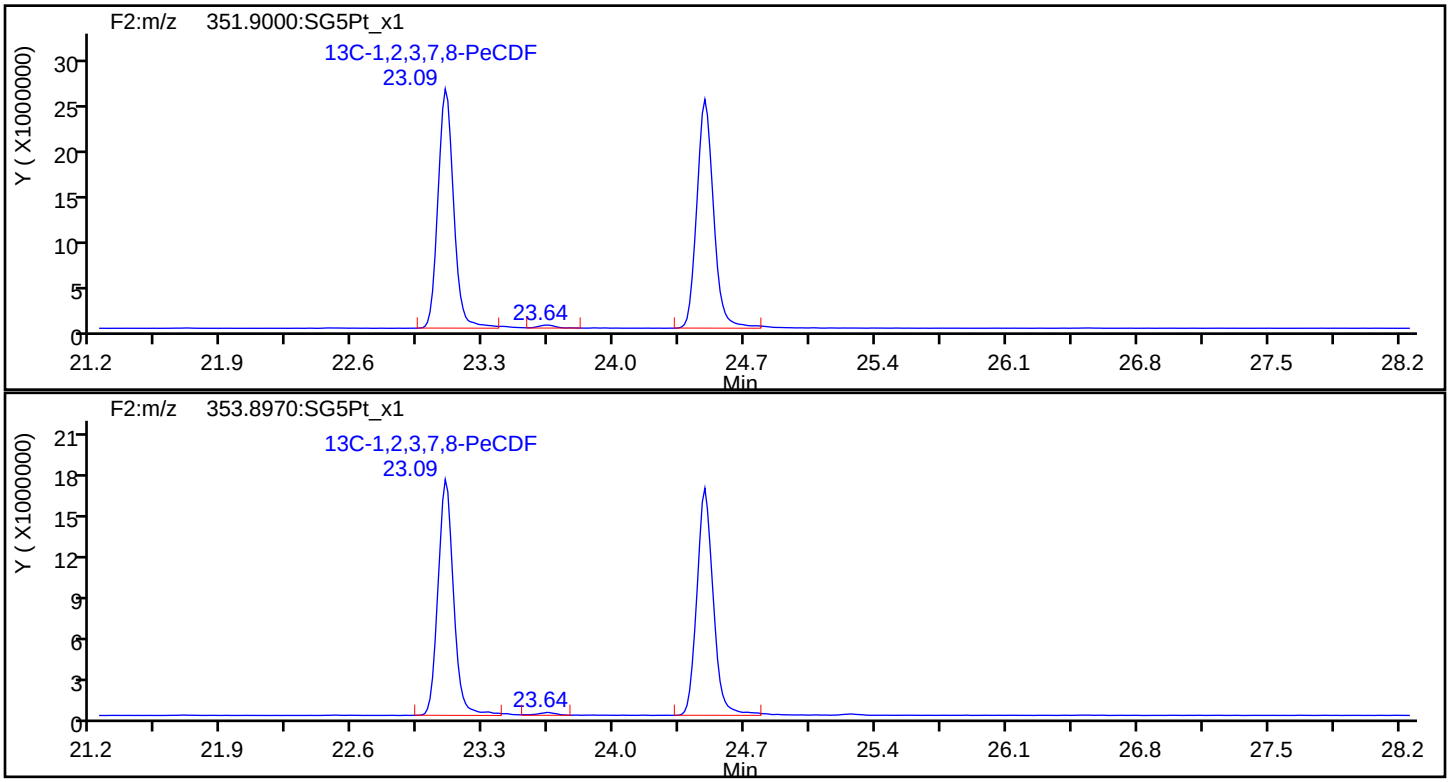
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

PeCDF



PeCDF Standards

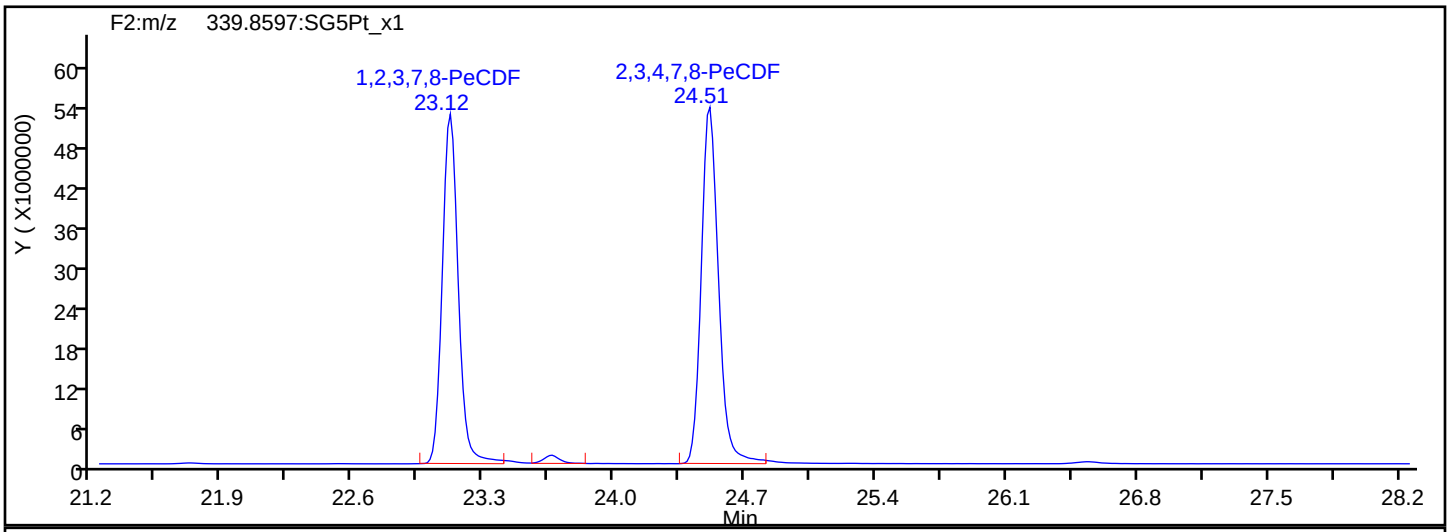


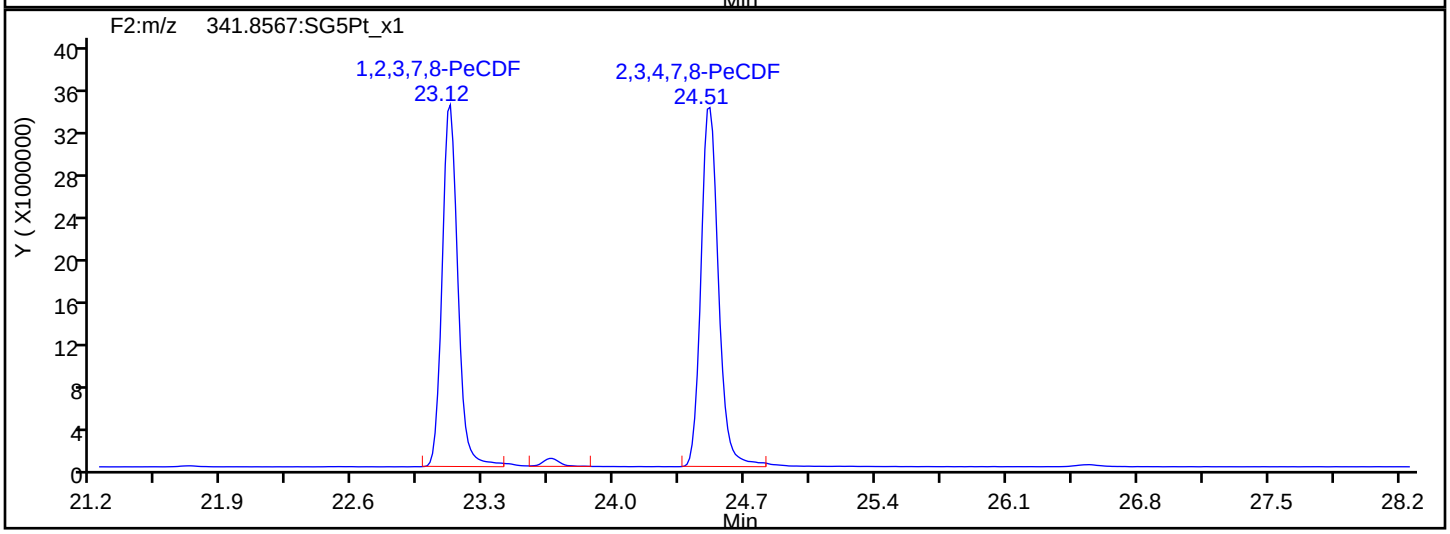
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

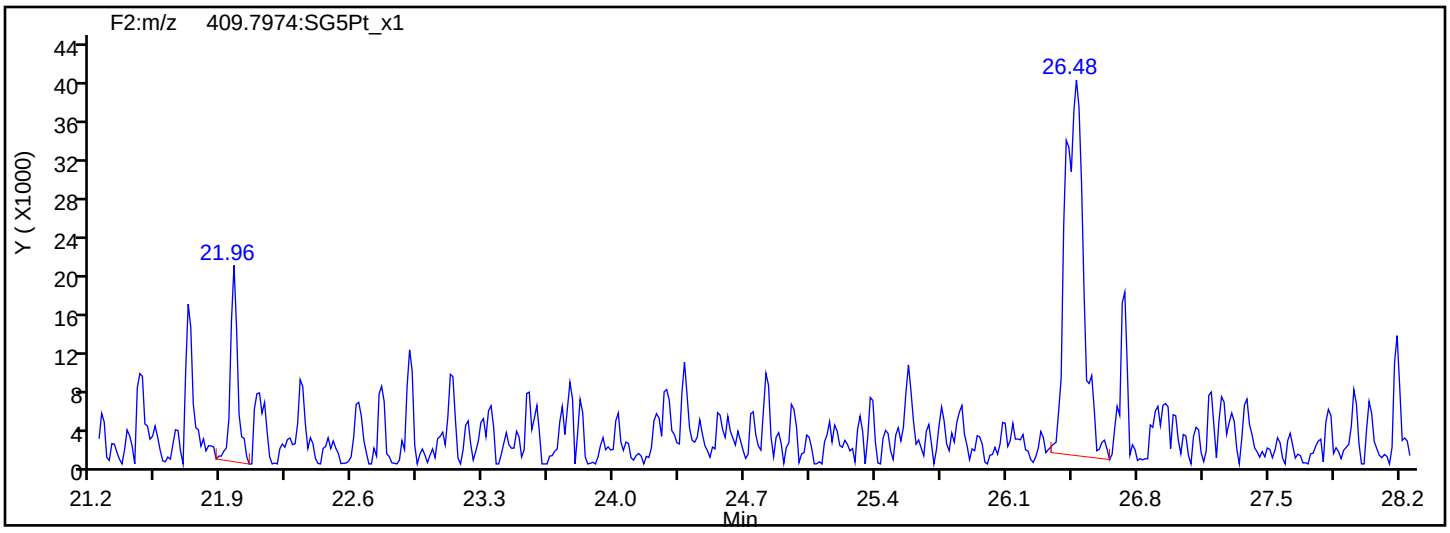
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

PeCDF





PeCDF Interference Mass

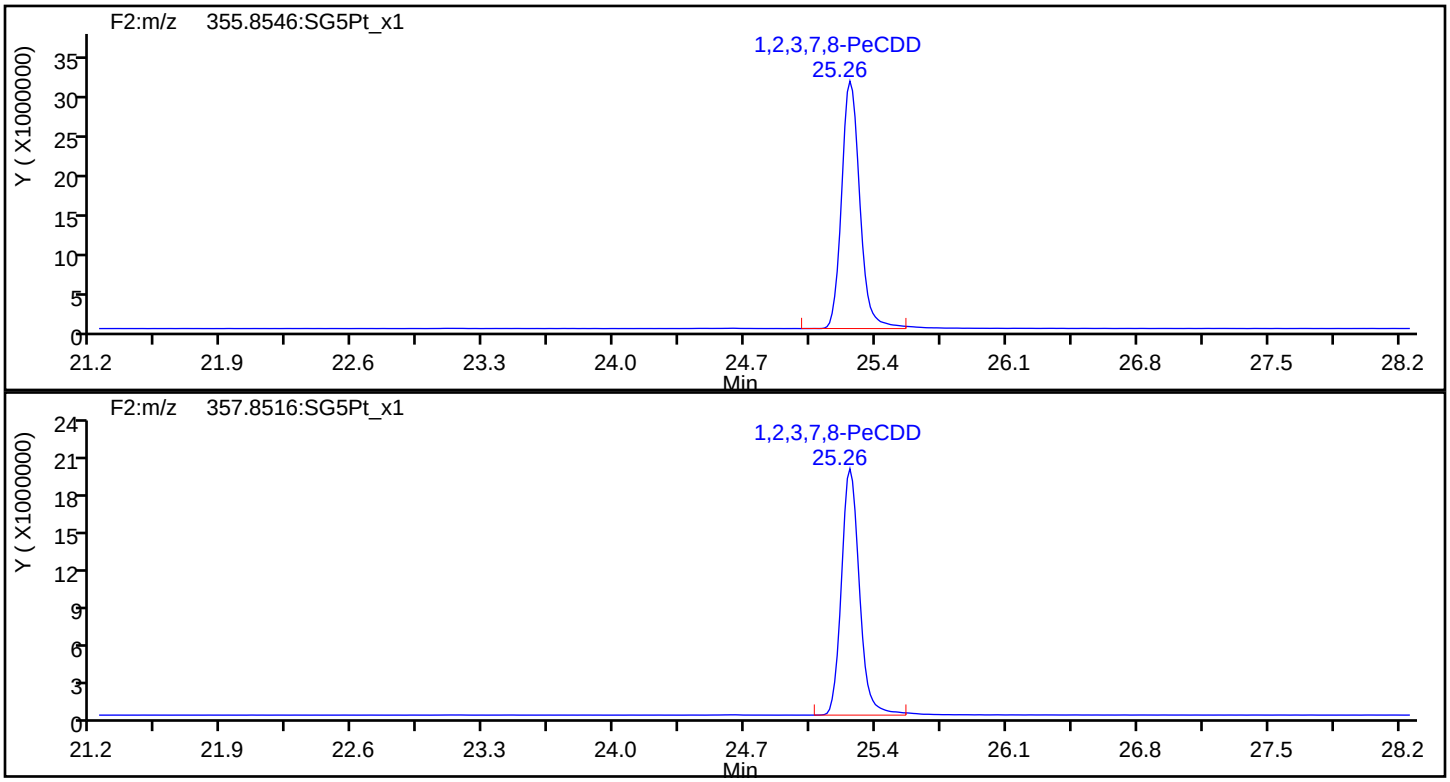


Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

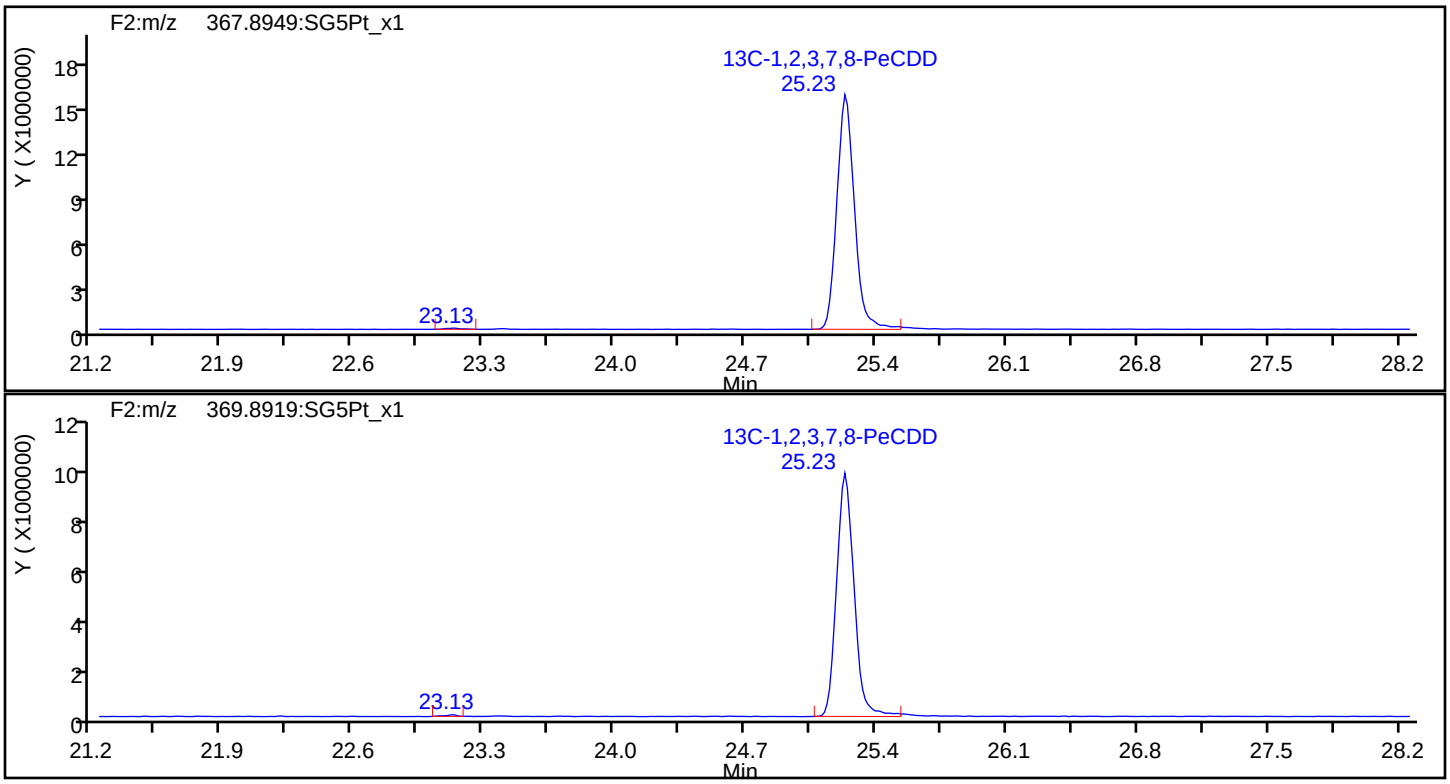
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

PeCDD



PeCDD Standards

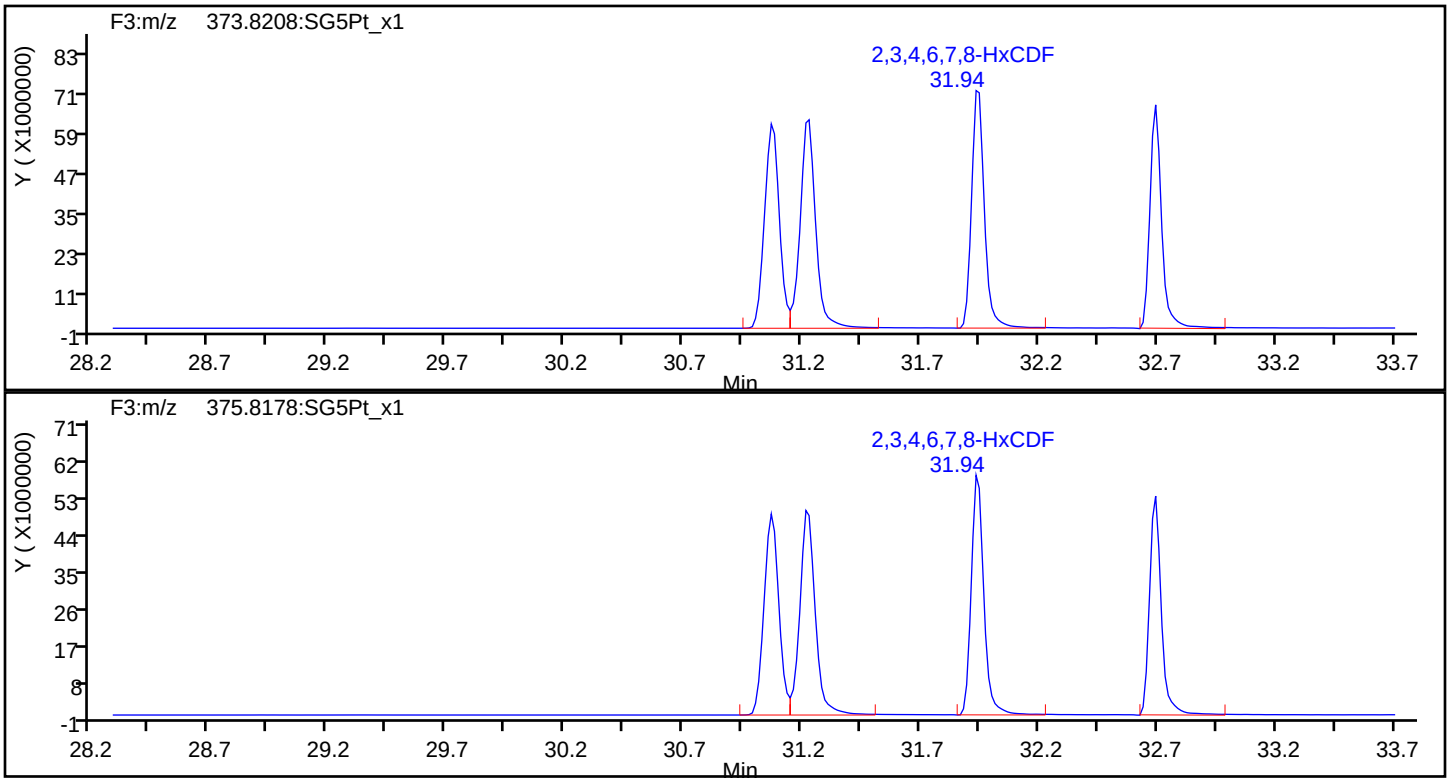


Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

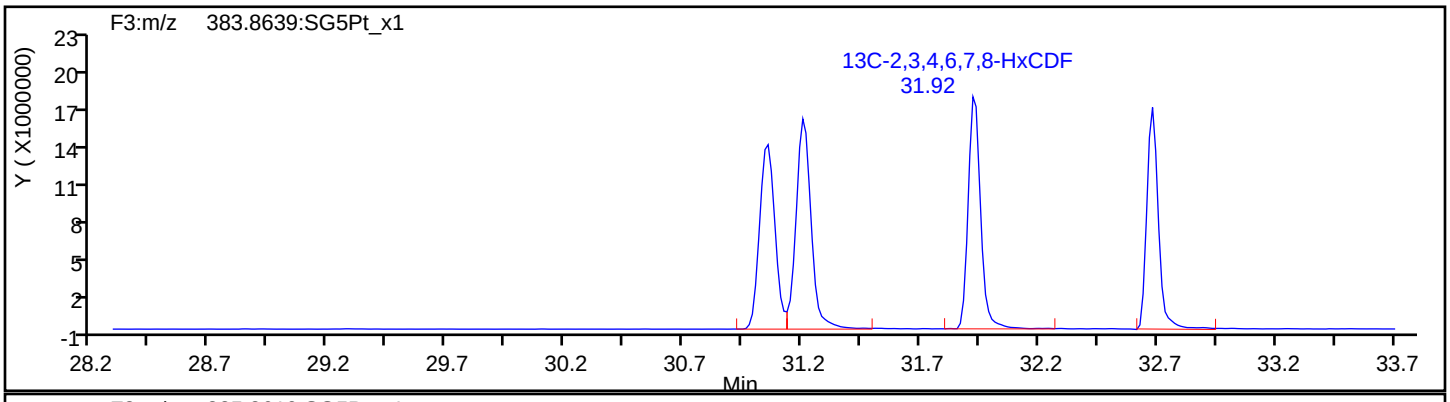
Eurofins TestAmerica, Sacramento

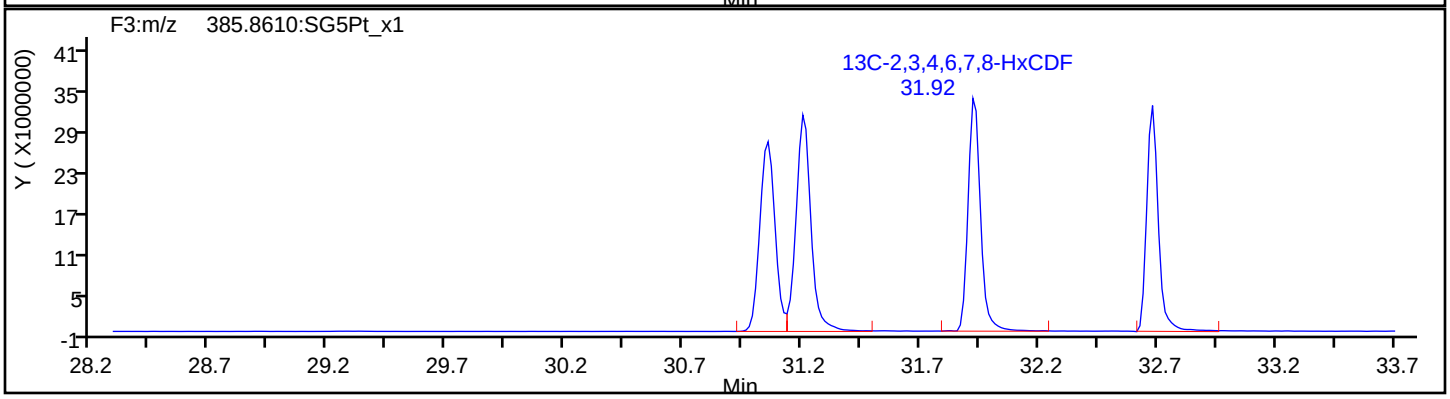
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

HxCDF



HxCDF Standards



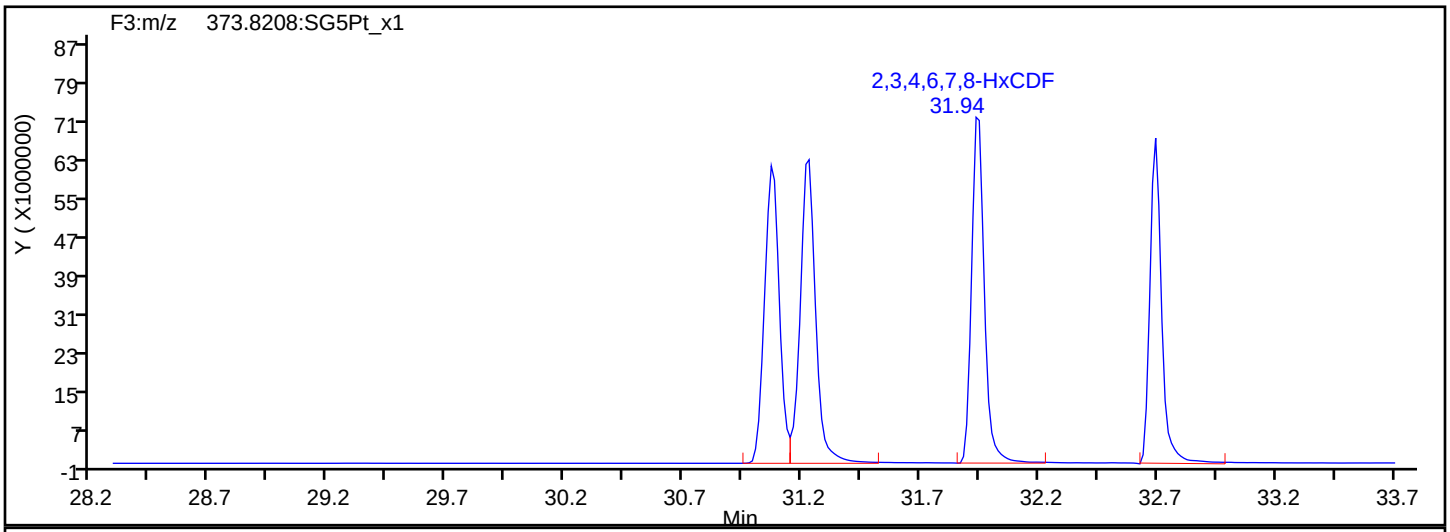


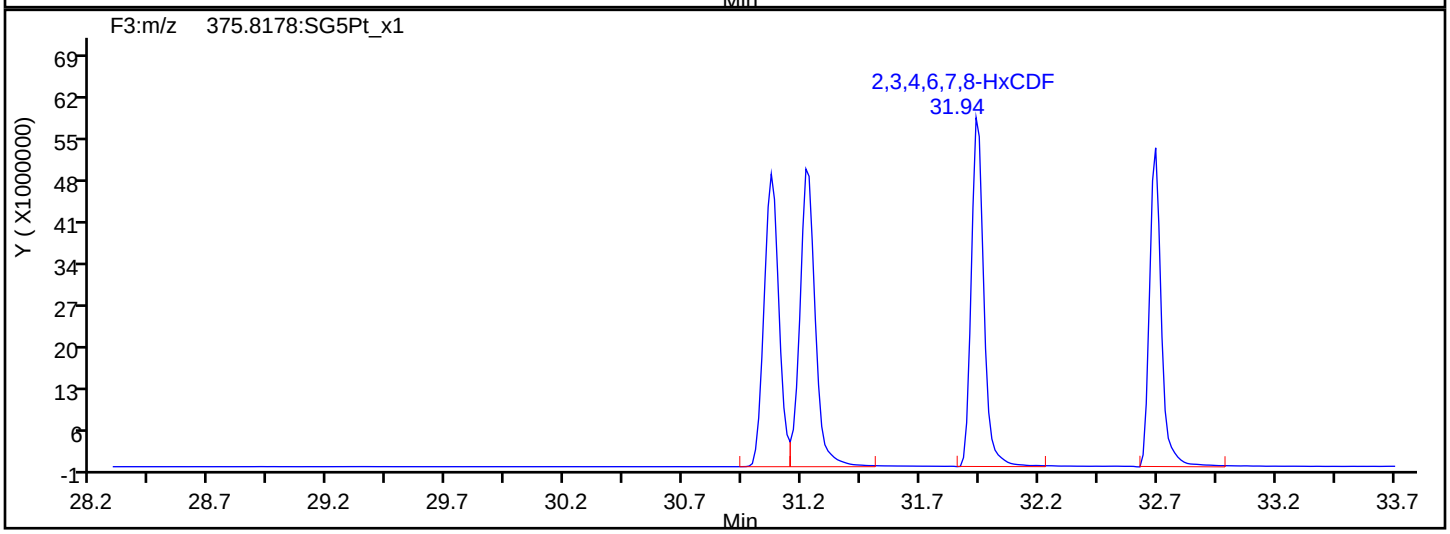
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

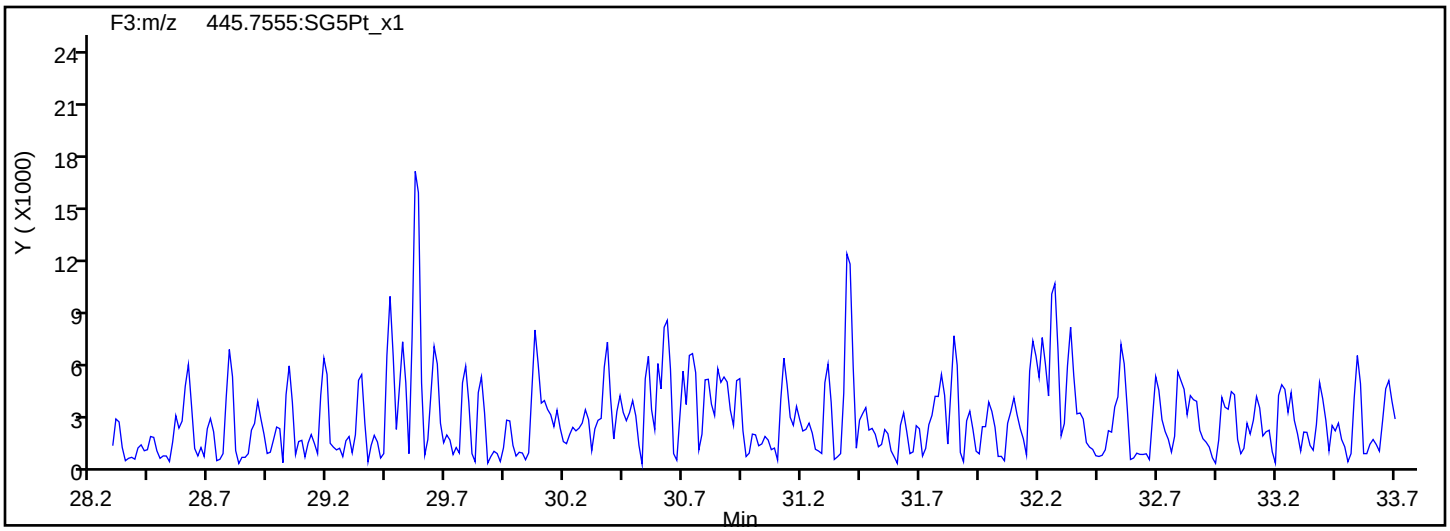
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

HxCDF





HxCDF Interference Mass

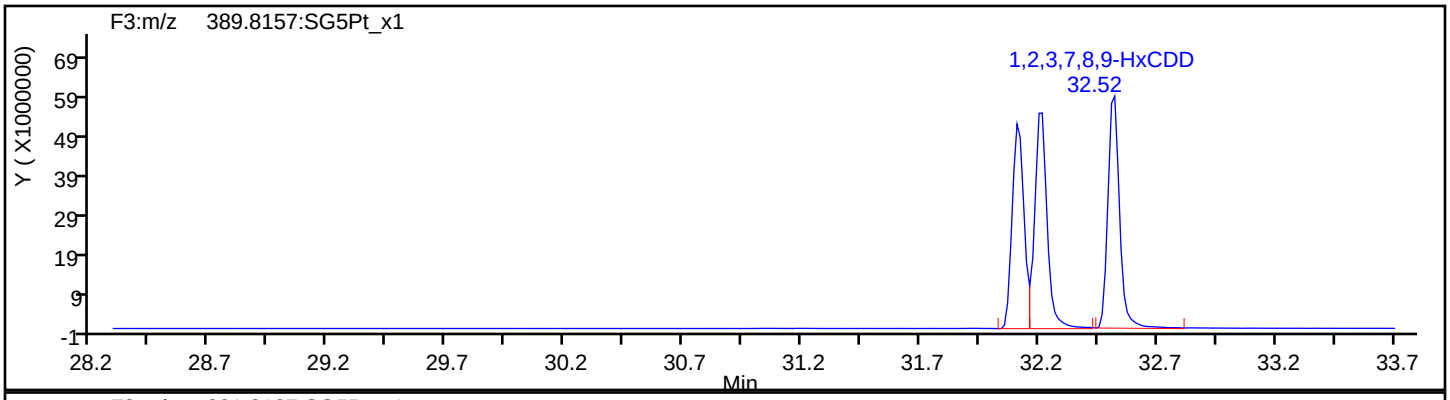


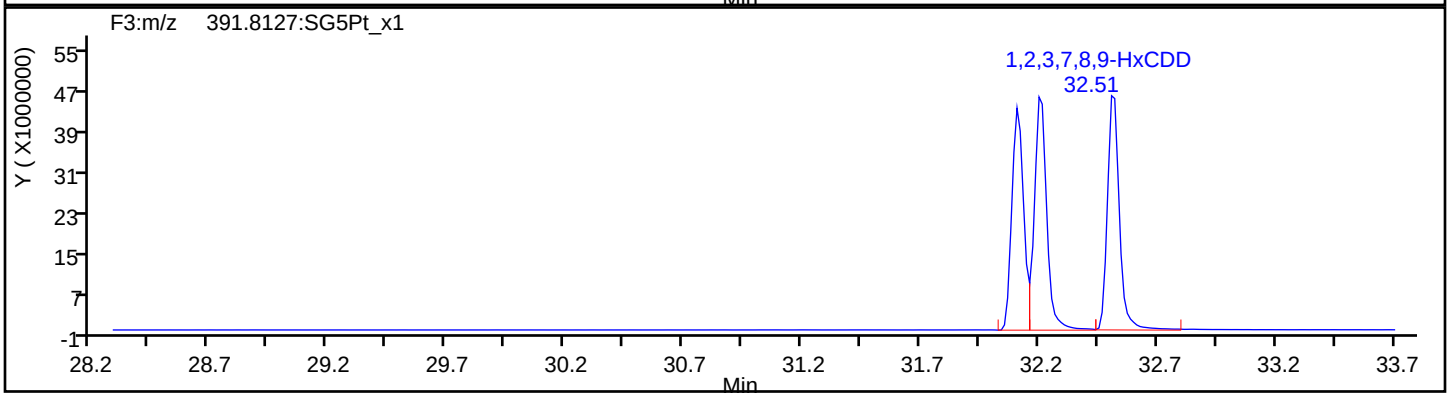
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

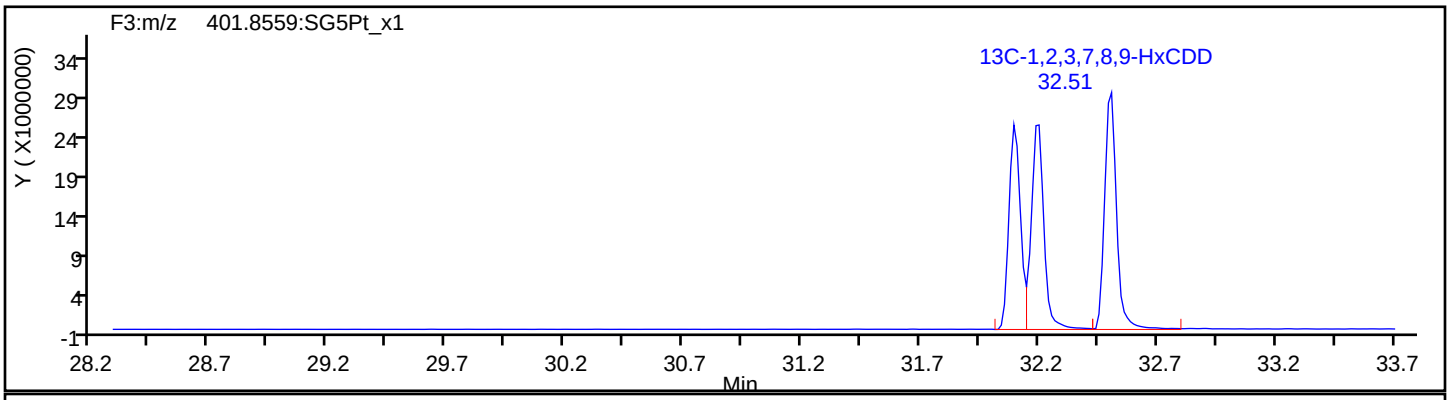
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

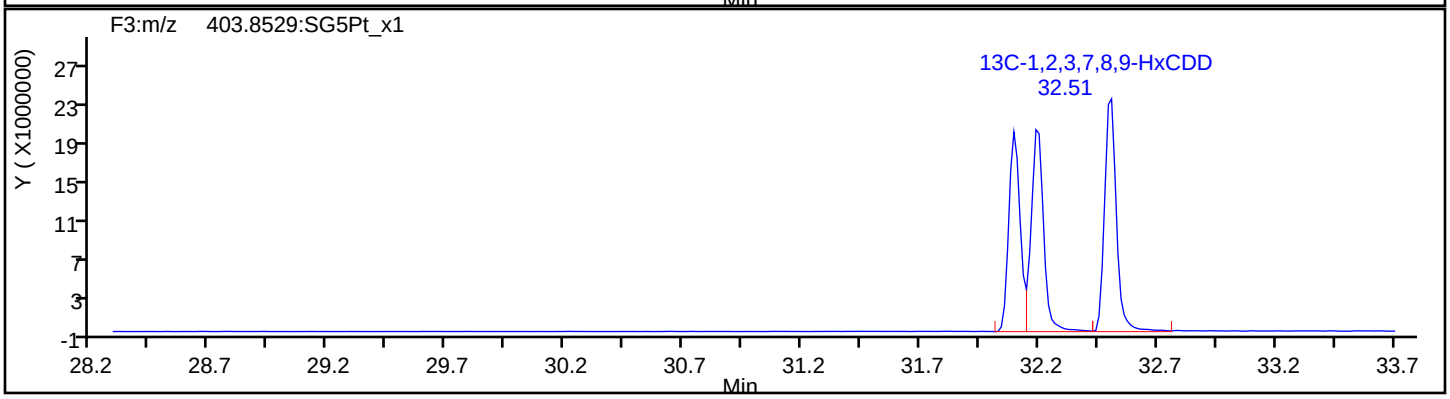
HxCDD





HxCDD Standards



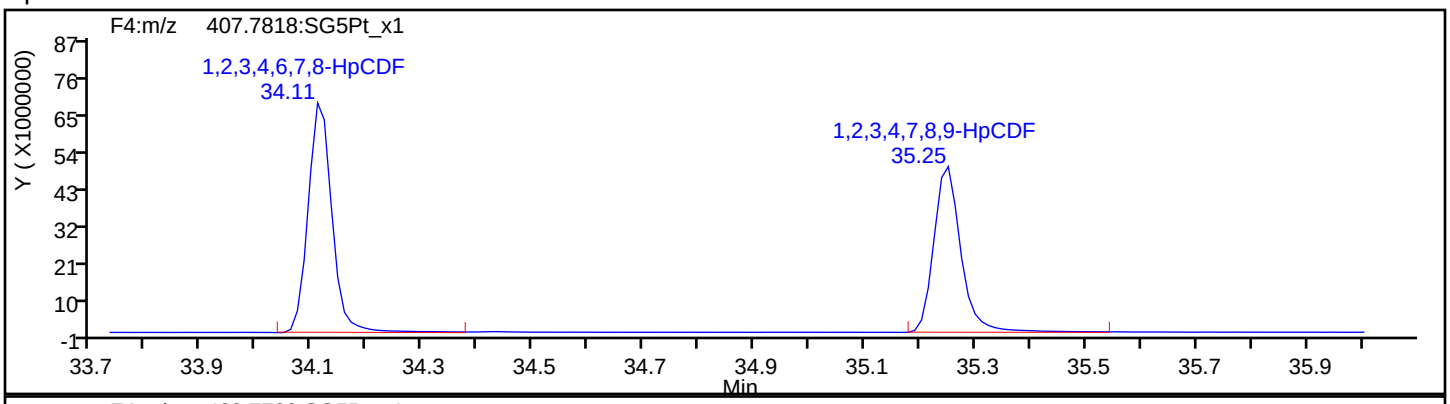


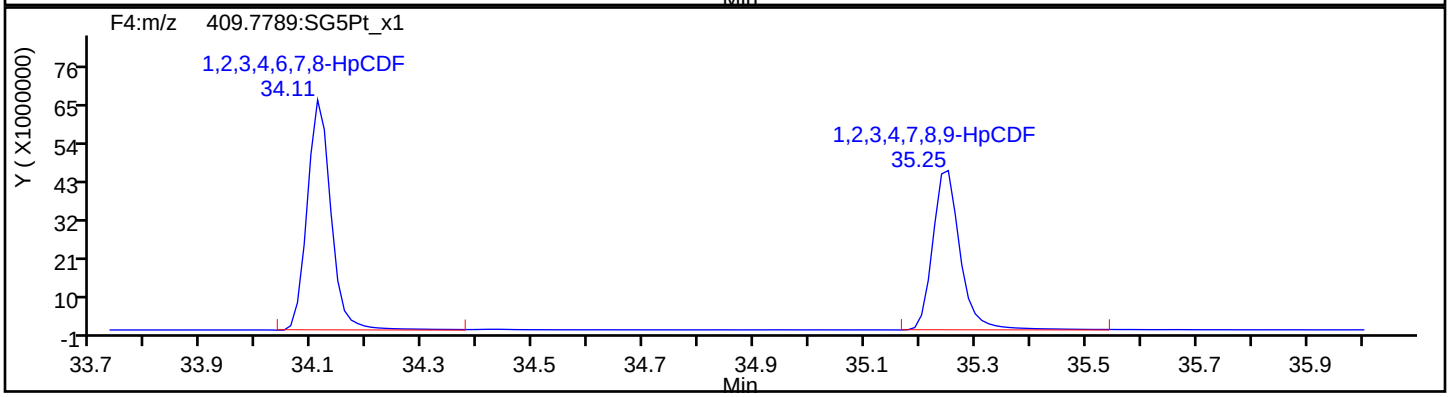
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

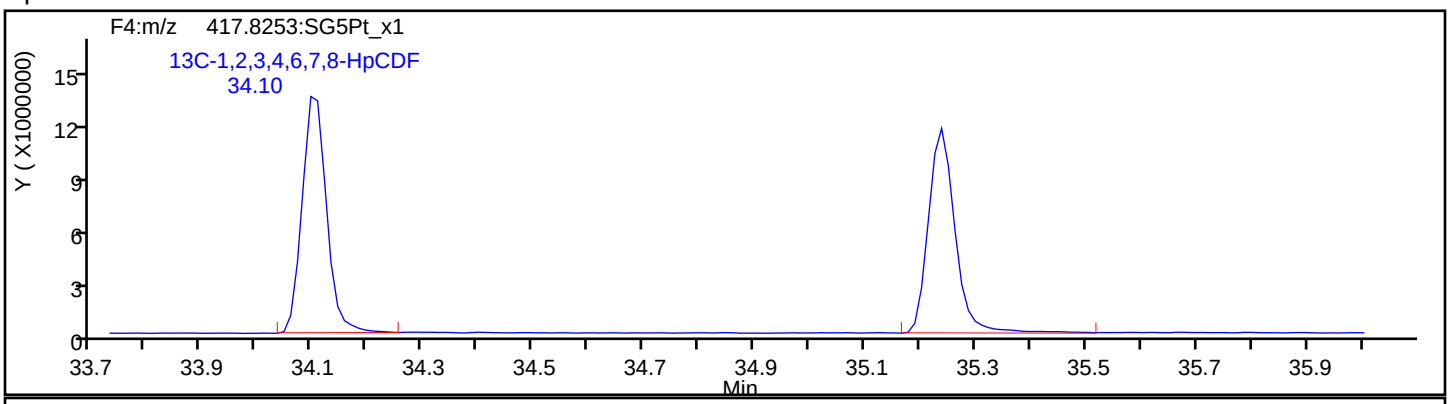
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

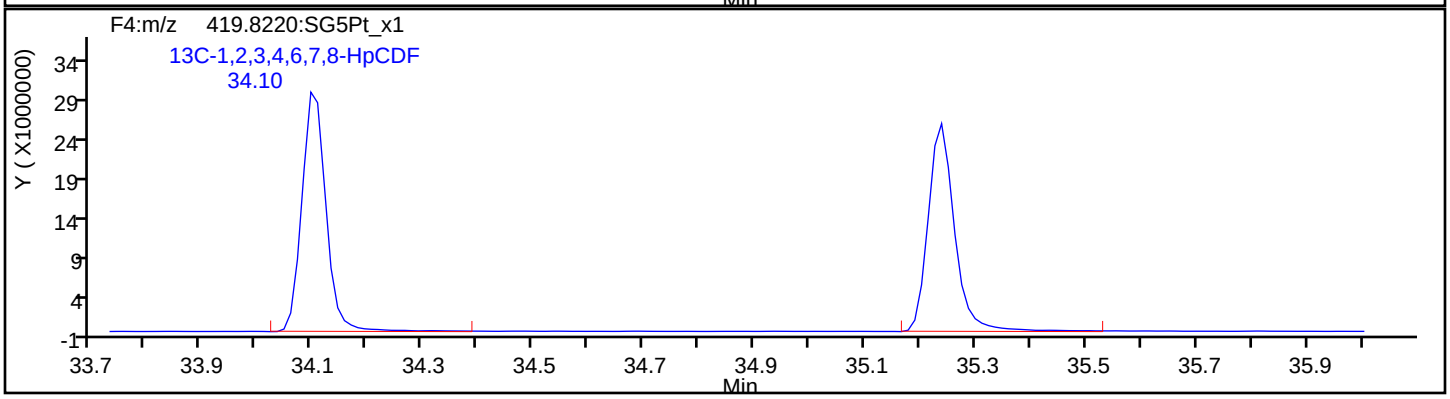
HpCDF





HpCDF Standards



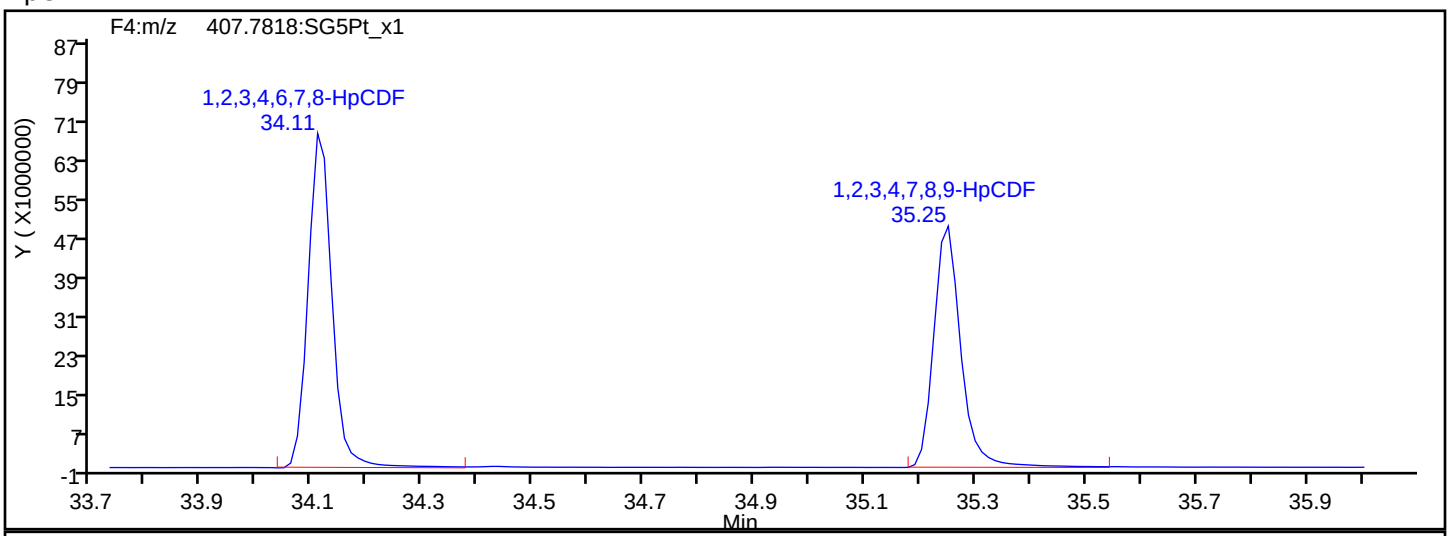


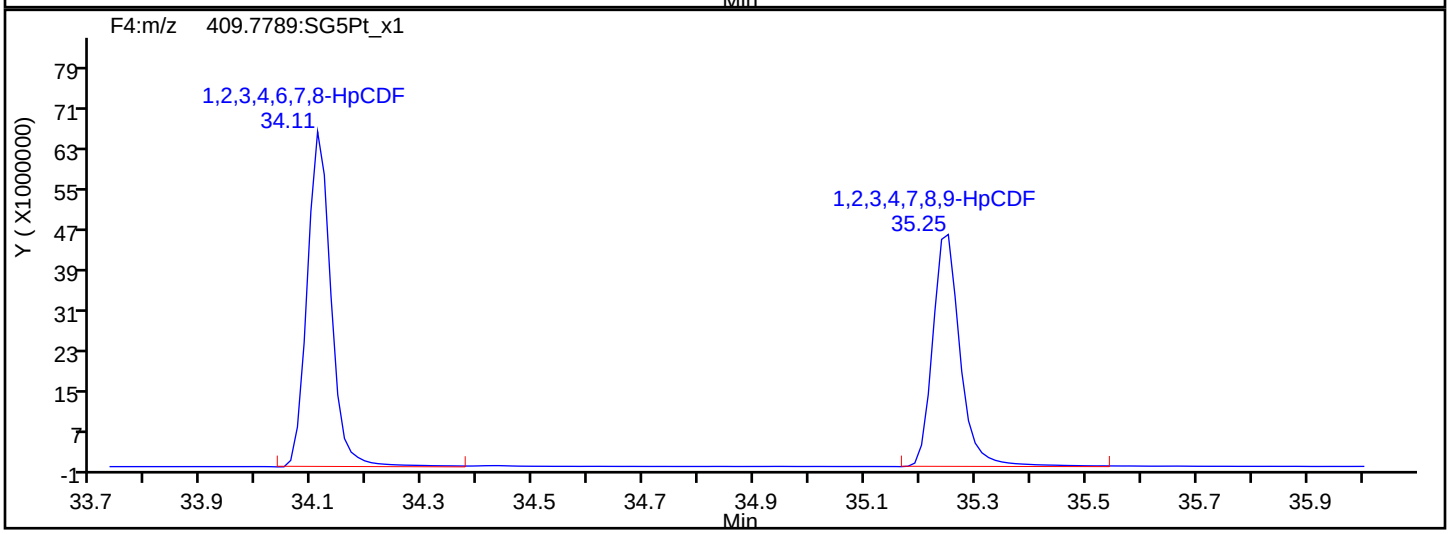
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

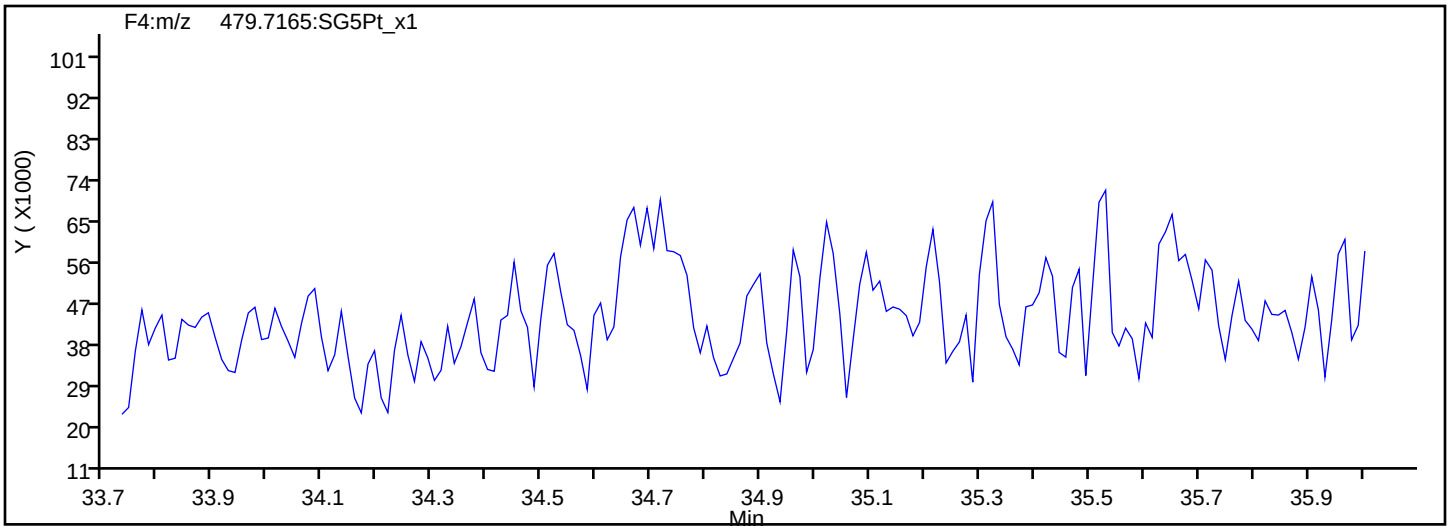
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

HpCDF





HpCDF Interference Mass

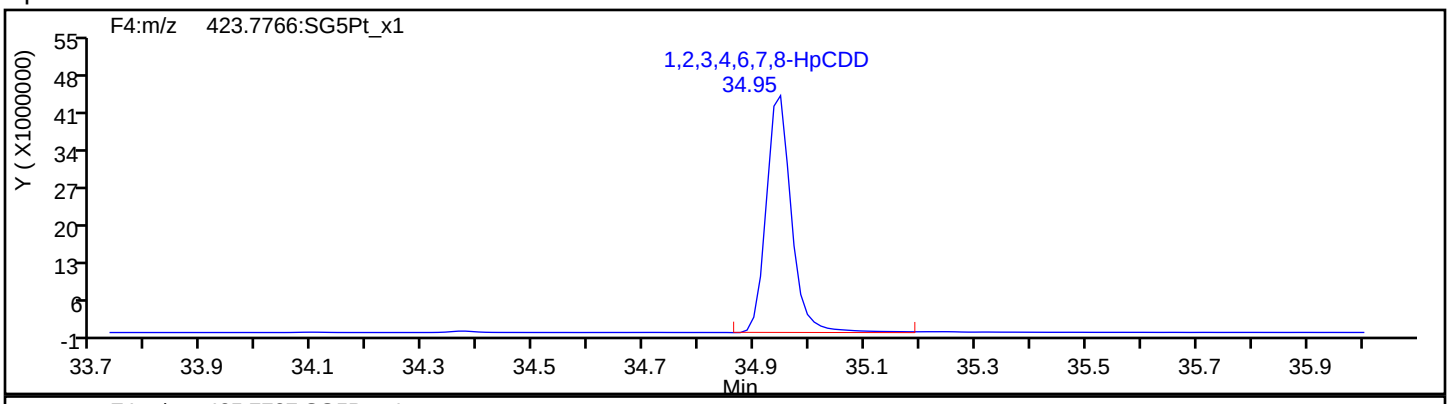


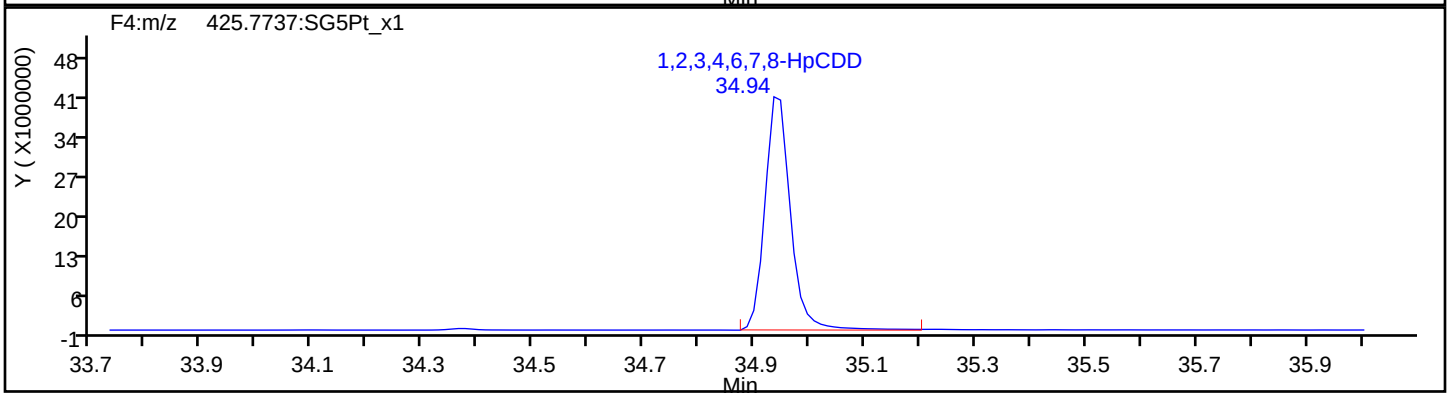
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

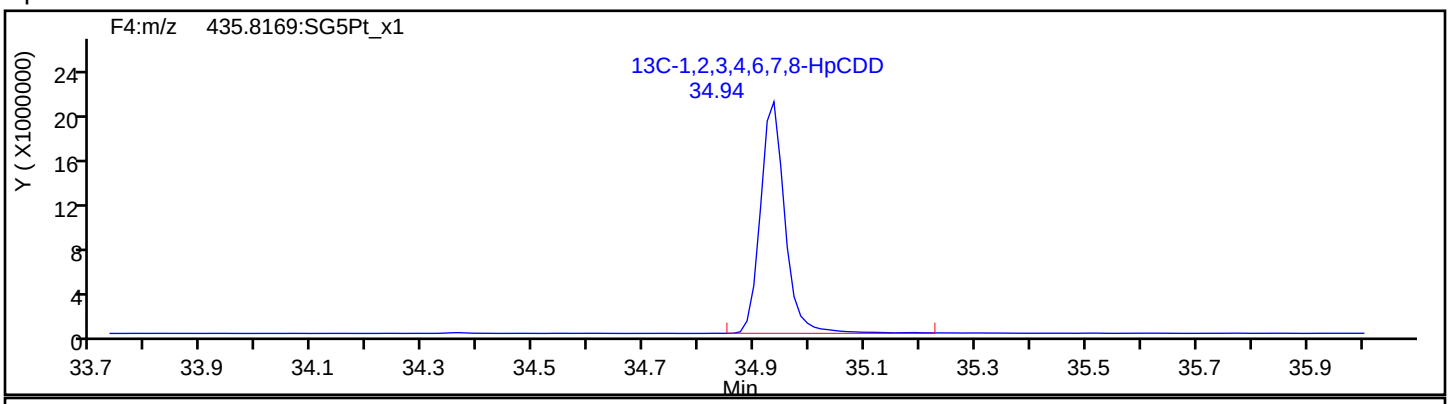
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

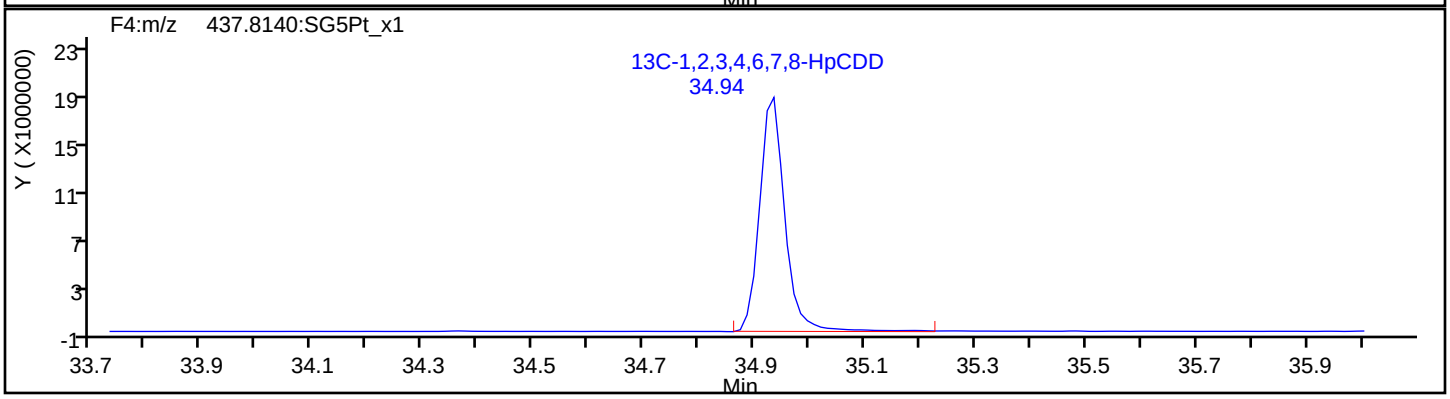
HpCDD





HpCDD Standards



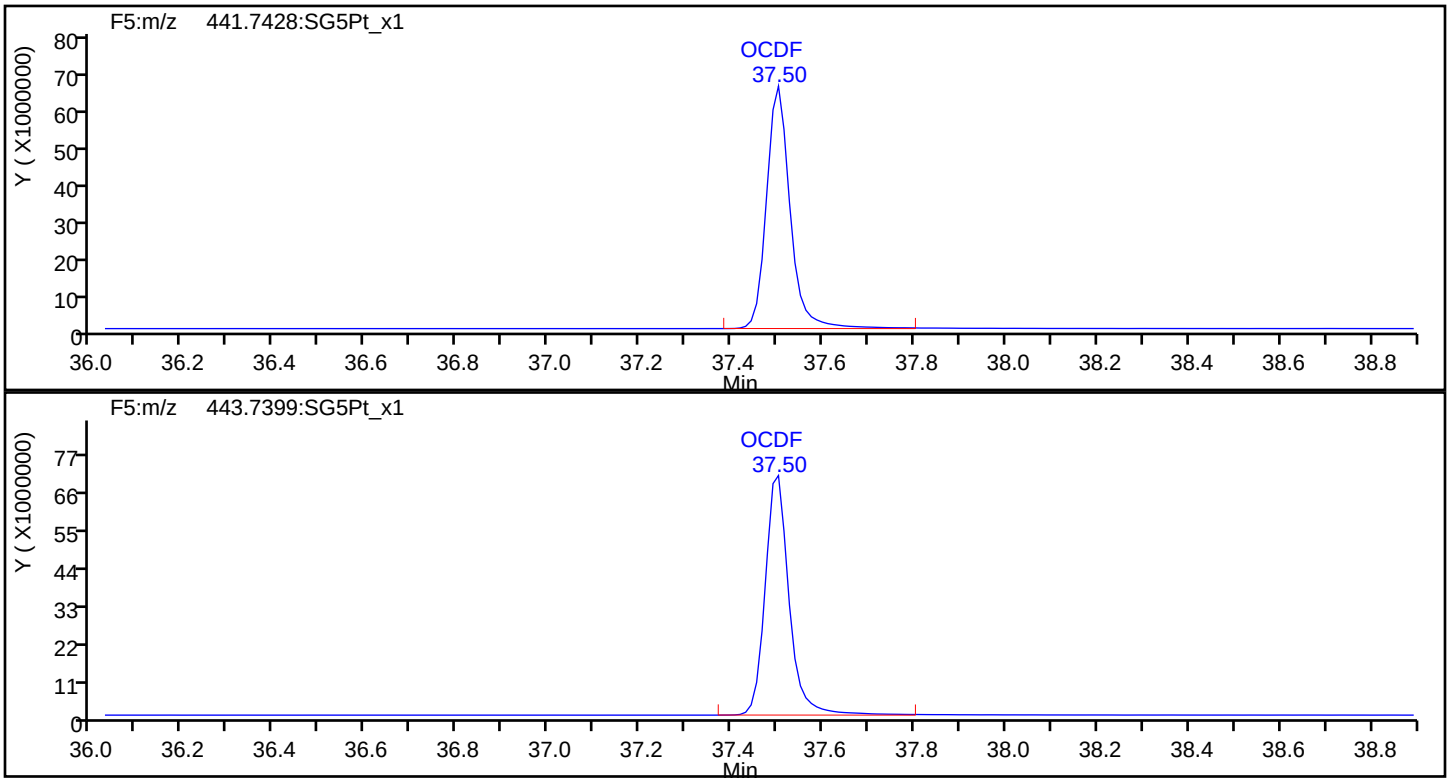


Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

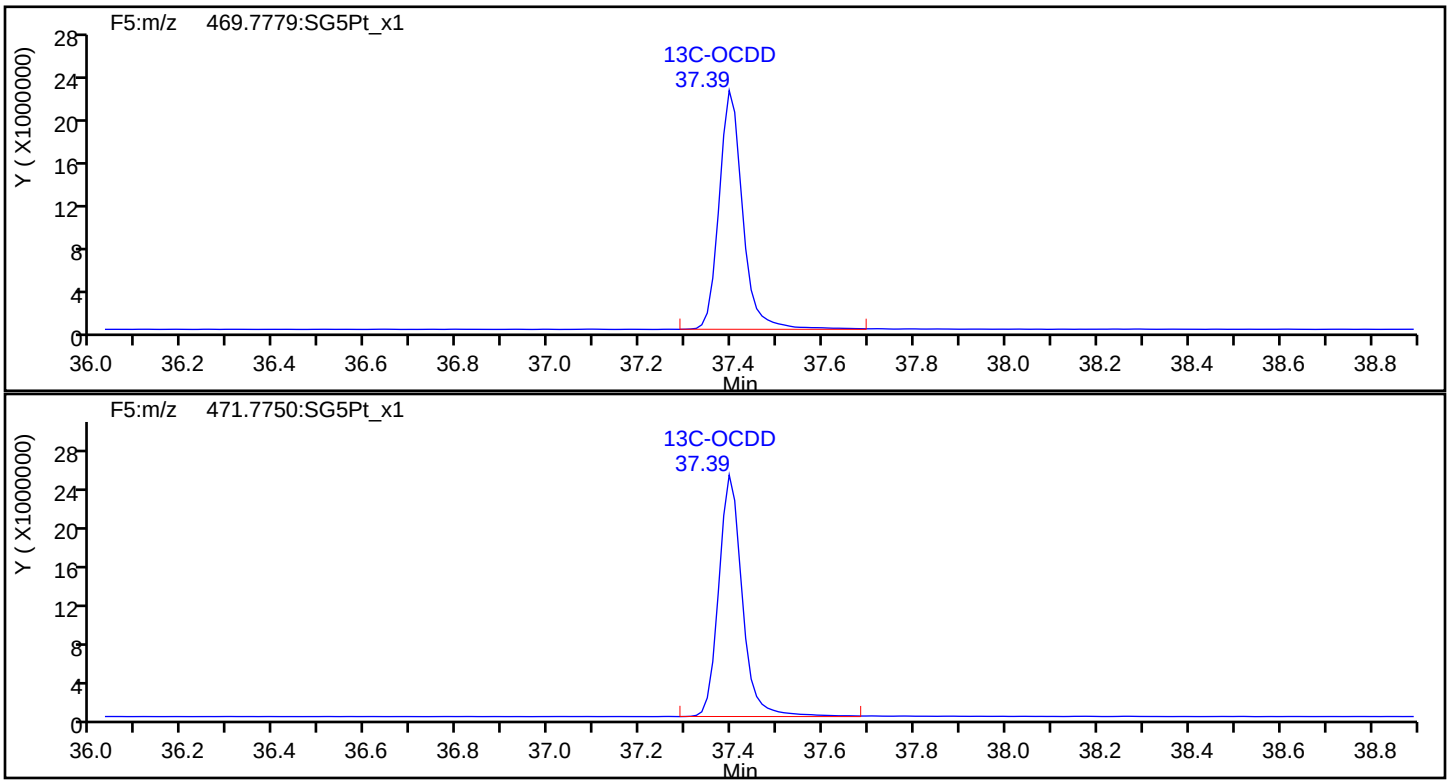
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

OCDF



OCDF Standards

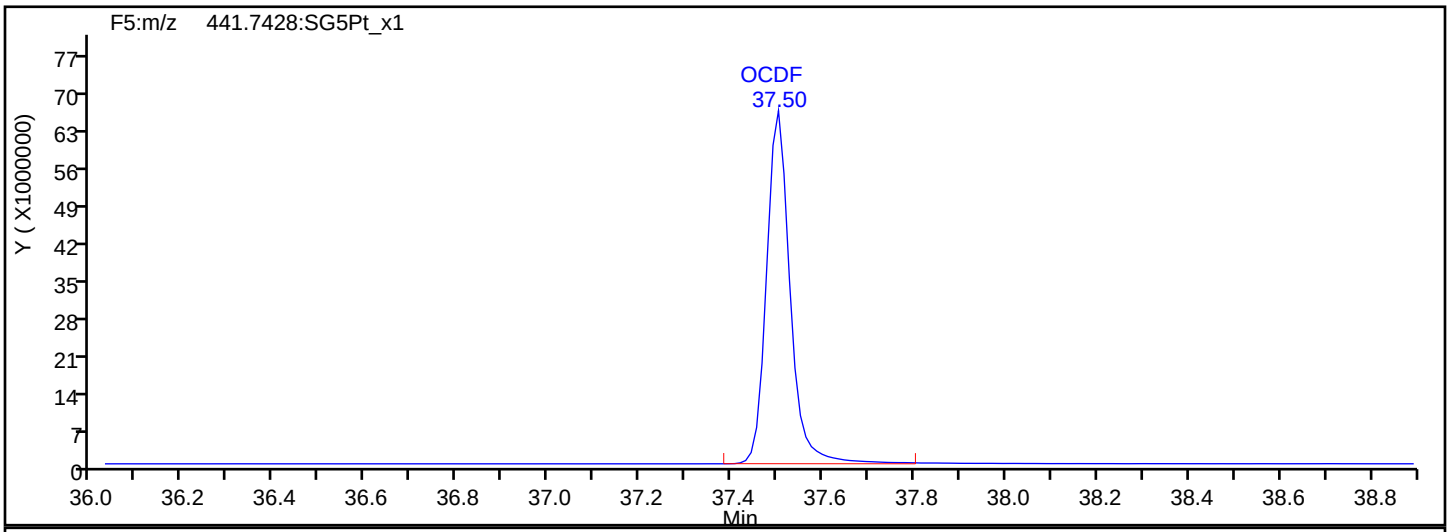


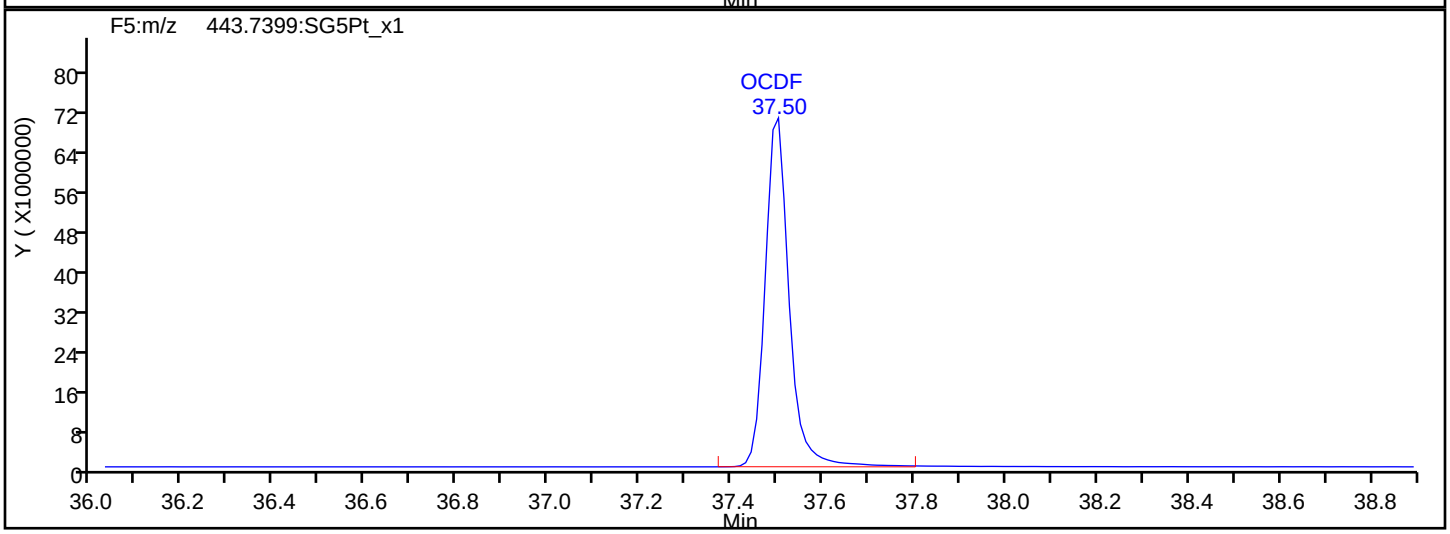
Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

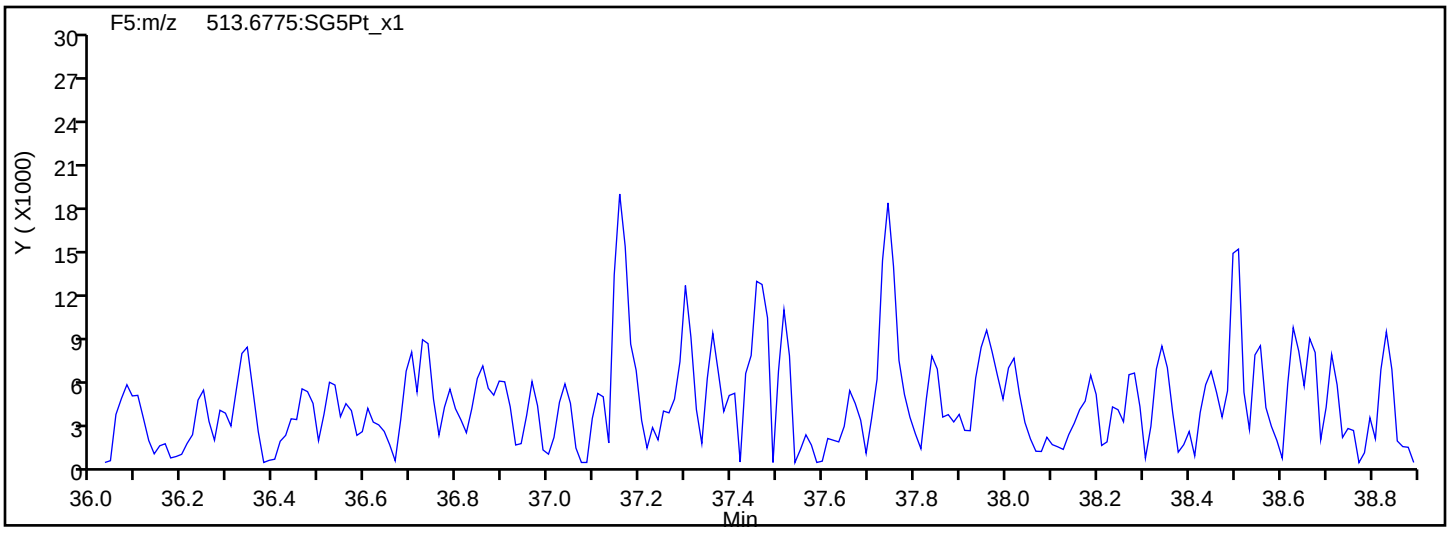
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

OCDF





OCDF Interference Mass

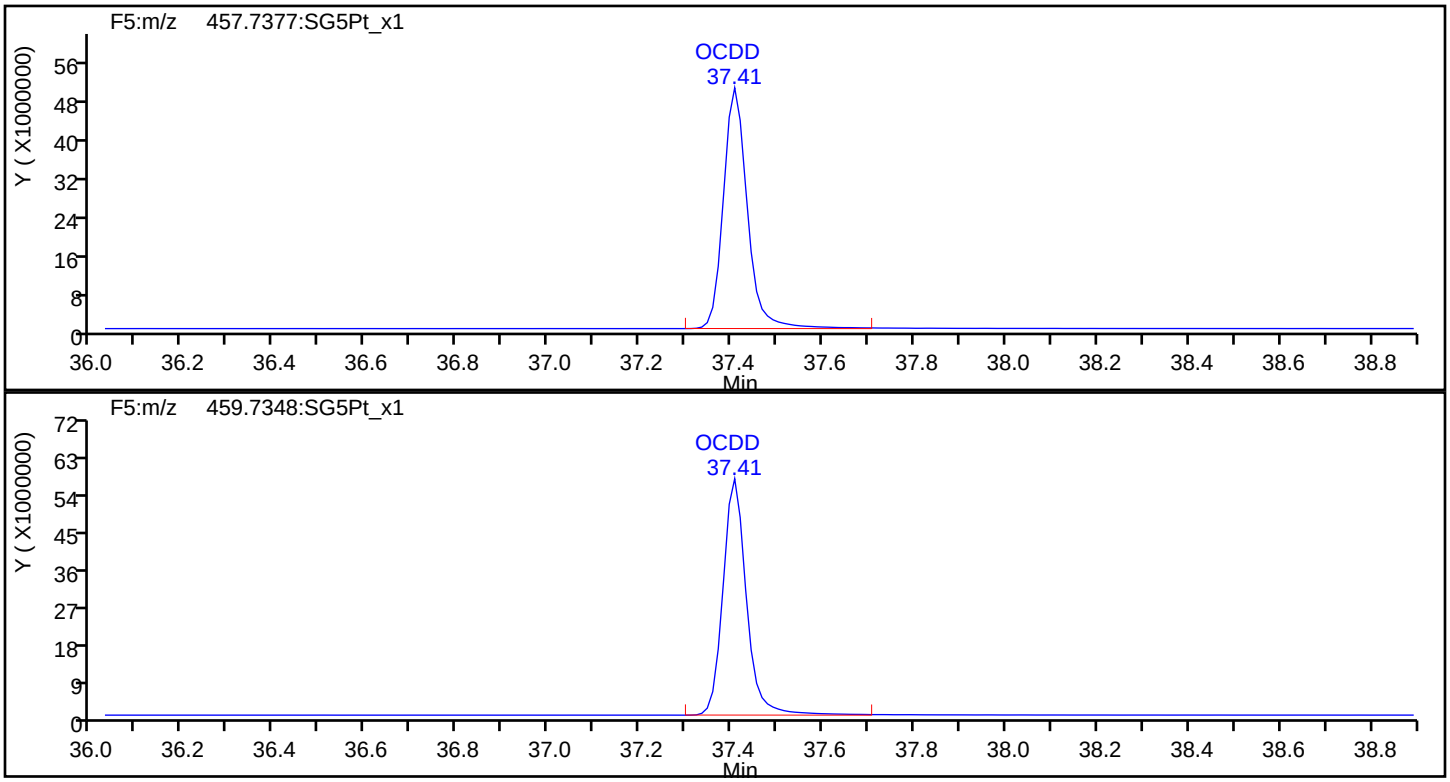


Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

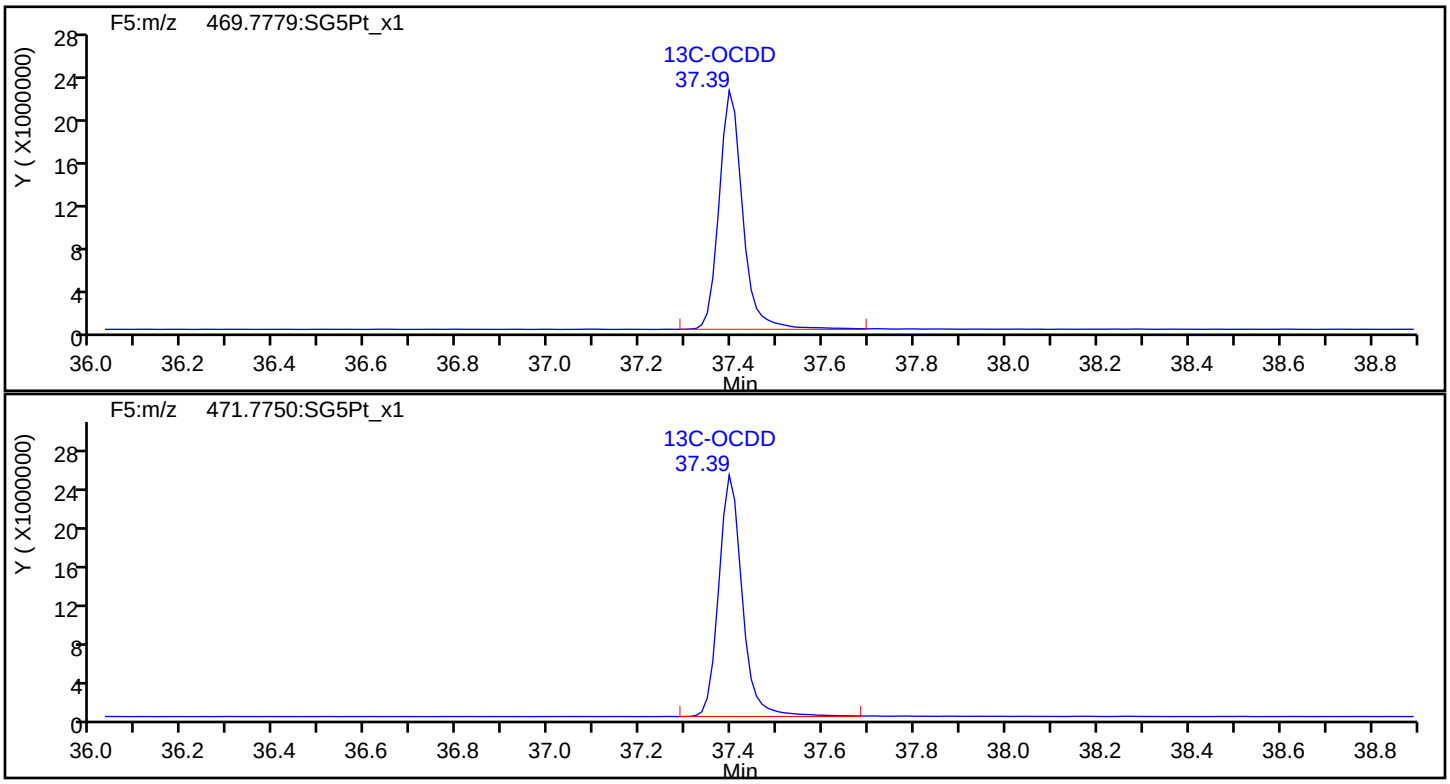
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	

OCDD



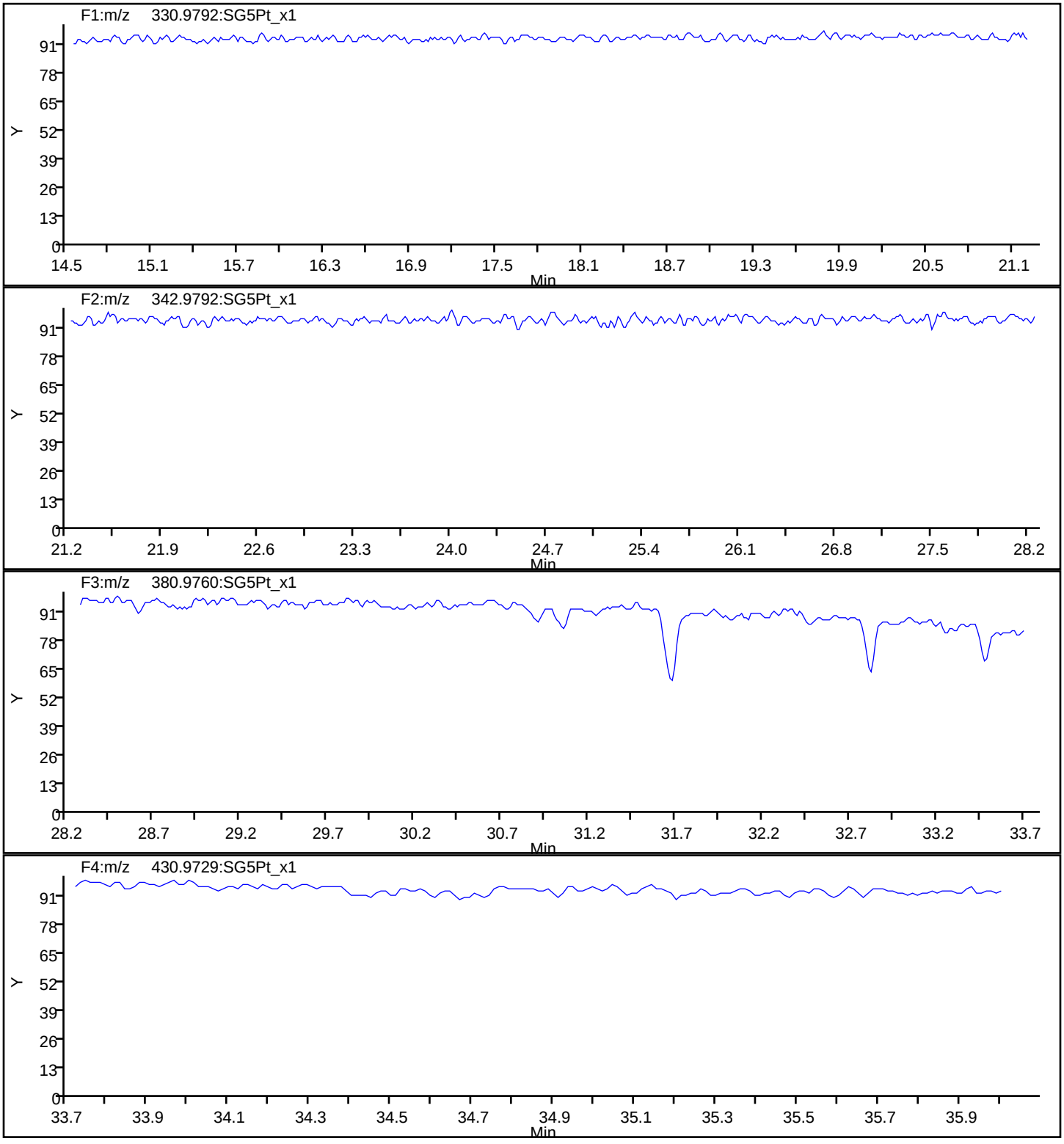
OCDD Standards



Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

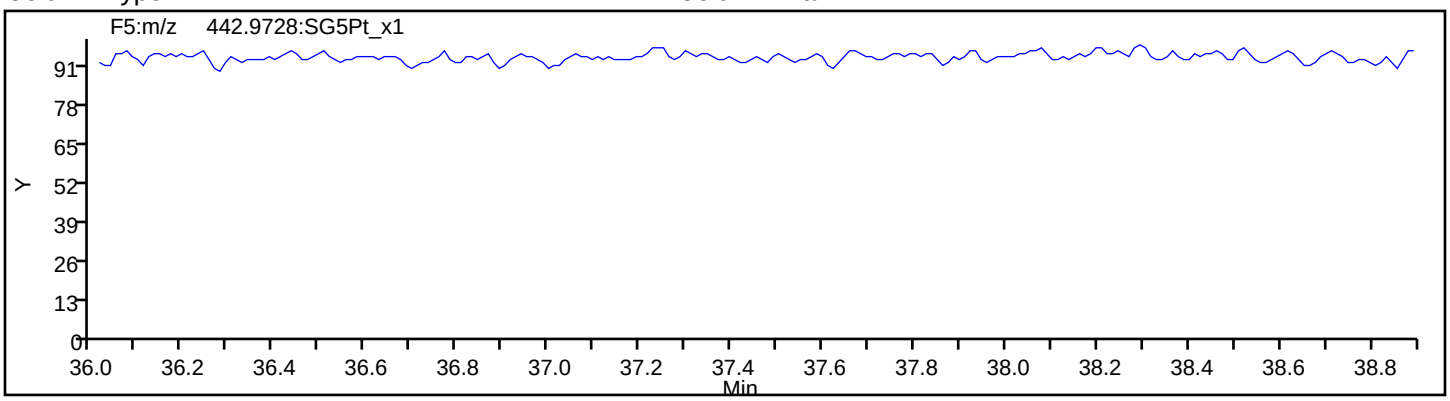
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	



Report Date: 22-May-2019 11:37:07 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_9.d		
Injection Date:	21-May-2019 18:16:13	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:	ICV		
Worklist#:	296020	Sample Line#:	9
Column Type:		Column Dia:	



FORM VII
DIOXIN CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 320-309103/51 Calibration Date: 07/21/2019 17:13

Instrument ID: 3D5 Calib Start Date: 05/21/2019 13:31

GC Column: DB-5 ID: 0.32(mm) Calib End Date: 05/21/2019 16:41

Lab File ID: 19JL19A3D5_51.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
2,3,7,8-TCDF	AveID	0.9710	0.9745		10.0	10.0	100	84-120
2,3,7,8-TCDD	AveID	1.045	1.062		10.2	10.0	102	78-129
1,2,3,7,8-PeCDF	AveID	0.9633	1.024		53.1	50.0	106	82-120
2,3,4,7,8-PeCDF	AveID	0.9495	1.026		54.0	50.0	108	82-122
1,2,3,7,8-PeCDD	AveID	1.063	1.081		50.8	50.0	102	78-130
1,2,3,4,7,8-HxCDF	AveID	1.217	1.214		49.9	50.0	100	90-112
1,2,3,6,7,8-HxCDF	AveID	1.131	1.189		52.6	50.0	105	88-114
2,3,4,6,7,8-HxCDF	AveID	1.171	1.170		50.0	50.0	100	88-114
1,2,3,4,7,8-HxCDD	AveID	1.027	1.027		50.0	50.0	100	78-128
1,2,3,6,7,8-HxCDD	AveID	0.9771	1.028		52.6	50.0	105	78-128
1,2,3,7,8,9-HxCDD	AveID	1.062	1.142		53.8	50.0	108	82-122
1,2,3,7,8,9-HxCDF	AveID	1.179	1.222		51.8	50.0	104	90-112
1,2,3,4,6,7,8-HpCDF	AveID	1.437	1.459		50.8	50.0	102	90-110
1,2,3,4,6,7,8-HpCDD	AveID	1.010	1.043		51.6	50.0	103	86-116
1,2,3,4,7,8,9-HpCDF	AveID	1.309	1.325		50.6	50.0	101	86-116
OCDD	AveID	1.063	1.090		103	100	103	79-126
OCDF	AveID	1.350	1.393		103	100	103	63-159
13C-2,3,7,8-TCDF	Ave	1.391	1.466		105	100	105	71-140
13C-2,3,7,8-TCDD	Ave	0.9819	0.9447		96.2	100	96	82-121
13C-1,2,3,7,8-PeCDF	Ave	1.158	1.219		105	100	105	76-130
13C-2,3,4,7,8-PeCDF	Ave	1.153	1.198		104	100	104	77-130
13C-1,2,3,7,8-PeCDD	Ave	0.7431	0.7704		104	100	104	62-160
13C-1,2,3,4,7,8-HxCDF	Ave	0.9837	1.013		103	100	103	76-131
13C-1,2,3,6,7,8-HxCDF	Ave	1.155	1.063		92.0	100	92	70-143
13C-2,3,4,6,7,8-HxCDF	Ave	1.036	1.025		98.9	100	99	73-137
13C-1,2,3,4,7,8-HxCDD	Ave	0.8287	0.7792		94.0	100	94	85-117
13C-1,2,3,6,7,8-HxCDD	Ave	0.9495	0.8792		92.6	100	93	85-118
13C-1,2,3,7,8,9-HxCDF	Ave	0.9034	0.9814		109	100	109	74-135
13C-1,2,3,4,6,7,8-HpCDF	Ave	0.7285	0.7933		109	100	109	78-129
13C-1,2,3,4,6,7,8-HpCDD	Ave	0.6978	0.6878		98.6	100	99	72-138
13C-1,2,3,4,7,8,9-HpCDF	Ave	0.6556	0.7477		114	100	114	77-129
13C-OCDD	Ave	0.4780	0.5286		221	200	111	48-208
37Cl4-2,3,7,8-TCDD	Ave	1.221	1.298		10.6	10.0	106	79-127

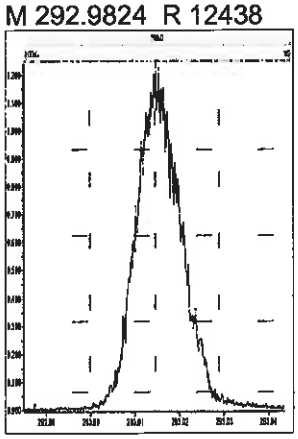
	File Name	File Text	Sample ID	Bottle	Method/Matrix	Box #
1	19JL19A3D5_1	WDM HRDXNCP_00038	WDM 071919	Tray01:1	DXN	
2	19JL19A3D5_2	CS-4 HRDXNL4_00081	CCV 071919	Tray01:2	DXN	
3	19JL19A3D5_3	Solvent Blank C-14	SB 071919	Tray01:3	DXN	
4	19JL19A3D5_4	MB 320-306270/1-A	MB 320-306270/1-A	Tray01:4	8290/Solid	39
5	19JL19A3D5_5	LCS 320-306270/2-A	LCS 320-306270/2-A	Tray01:5	8290/Solid	
6	19JL19A3D5_6	LCSD 320-306270/3-A	LCSD 320-306270/3-A	Tray01:6	8290/Solid	
7	19JL19A3D5_7	320-51810-A-2-C	320-51810-A-2-C	Tray01:7	8290/Solid	
8	19JL19A3D5_8	240-115225-D-13-A	240-115225-D-13-A	Tray01:8	8290A/Solid	D74
9	19JL19A3D5_9	320-51168-A-6-B (5X)	320-51168-A-6-B (5X)	Tray01:9	8290A_D5/Solid	D72
10	19JL19A3D5_10	320-51168-A-7-D (2X)	320-51168-A-7-D (2X)	Tray01:10	8290A_D5/Solid	
11	19JL19A3D5_11	320-51168-A-8-B (10X)	320-51168-A-8-B (10X)	Tray01:11	8290A_D5/Solid	
12	19JL19A3D5_12	Solvent Blank C-14	SB 071919A	Tray01:3	DXN	
13	19JL19A3D5_13	CS-4 HRDXNL4_00081	CCV 071919A	Tray01:2	DXN	
14	19JL19A3D5_14	WDM HRDXNCP_00038	WDM 071919A	Tray01:1	DXN	
15	19JL19A3D5_15	Solvent Blank C-14	SB 071919B	Tray01:3	DXN	
16	19JL19A3D5_16	MB 320-306813/1-A	MB 320-306813/1-A	Tray01:12	8290A/Solid	D74
17	19JL19A3D5_17	LCS 320-306813/2-A	LCS 320-306813/2-A	Tray01:13	8290A/Solid	
18	19JL19A3D5_18	LCSD 320-306813/3-A	LCSD 320-306813/3-A	Tray01:14	8290A/Solid	
19	19JL19A3D5_19	240-115225-D-20-A	240-115225-D-20-A	Tray01:15	8290A/Solid	
20	19JL19A3D5_20	240-115225-C-23-A	240-115225-C-23-A	Tray01:16	8290A/Solid	
21	19JL19A3D5_21	240-115225-D-24-A	240-115225-D-24-A	Tray01:17	8290A/Solid	
22	19JL19A3D5_22	240-115225-C-25-A	240-115225-C-25-A	Tray01:18	8290A/Solid	
23	19JL19A3D5_23	240-115225-D-26-A	240-115225-D-26-A	Tray01:19	8290A/Solid	
24	19JL19A3D5_24	240-115225-C-27-A	240-115225-C-27-A	Tray01:20	8290A/Solid	
25	19JL19A3D5_25	Solvent Blank C-14	SB 071919C	Tray01:3	DXN	
26	19JL19A3D5_26	CS-4 HRDXNL4_00081	CCV 071919B	Tray01:2	DXN	
27	19JL19A3D5_27	WDM HRDXNCP_00038	WDM 071919B	Tray01:1	DXN	
28	19JL19A3D5_28	CS-4 HRDXNL4_00081	CCV 071919C	Tray01:2	DXN	
29	19JL19A3D5_29	Solvent Blank C-14	SB 071919D	Tray01:3	DXN	
30	19JL19A3D5_30	240-115225-C-28-A	240-115225-C-28-A	Tray01:21	8290A/Solid	D74
31	19JL19A3D5_31	240-115225-C-29-A	240-115225-C-29-A	Tray01:22	8290A/Solid	
32	19JL19A3D5_32	240-115225-C-30-A	240-115225-C-30-A	Tray01:23	8290A/Solid	
33	19JL19A3D5_33	240-115225-C-31-A	240-115225-C-31-A	Tray01:24	8290A/Solid	
34	19JL19A3D5_34	240-115225-C-32-A	240-115225-C-32-A	Tray01:25	8290A/Solid	
35	19JL19A3D5_35	320-51169-A-1-B (100X)	320-51169-A-1-B (100X)	Tray01:26	8290A_D5/Solid	D66
36	19JL19A3D5_36	320-51169-A-2-C (100X)	320-51169-A-2-C (100X)	Tray01:27	8290A_D5/Solid	
37	19JL19A3D5_37	320-51169-A-3-B (100X)	320-51169-A-3-B (100X)	Tray01:28	8290A_D5/Solid	
38	19JL19A3D5_38	320-51171-A-8-A RI	320-51171-A-8-A RI	Tray01:29	8290A_D5/Solid	
39	19JL19A3D5_39	Solvent Blank C-14	SB 071919E	Tray01:3	DXN	
40	19JL19A3D5_40	CS-4 HRDXNL4_00081	CCV 071919D	Tray01:2	DXN	
41	19JL19A3D5_41	WDM HRDXNCP_00038	WDM 071919C	Tray01:1	DXN	
42	19JL19A3D5_42	Solvent Blank C-14	SB 071919F	Tray01:3	DXN	
43	19JL19A3D5_43	240-115225-C-33-A	240-115225-C-33-A	Tray01:30	8290A/Solid	D74
44	19JL19A3D5_44	240-115225-C-34-A	240-115225-C-34-A	Tray01:31	8290A/Solid	
45	19JL19A3D5_45	240-115225-C-35-A	240-115225-C-35-A	Tray01:32	8290A/Solid	
46	19JL19A3D5_46	240-115225-C-36-A	240-115225-C-36-A	Tray01:33	8290A/Solid	
47	19JL19A3D5_47	240-115225-C-37-A	240-115225-C-37-A	Tray01:34	8290A/Solid	
48	19JL19A3D5_48	240-115225-C-38-A	240-115225-C-38-A	Tray01:35	8290A/Solid	
49	19JL19A3D5_49	240-115225-C-39-A	240-115225-C-39-A	Tray01:36	8290A/Solid	
50	19JL19A3D5_50	Solvent Blank C-14	SB 071919G	Tray01:3	DXN	
51	19JL19A3D5_51	CS-4 HRDXNL4_00081	CCV 071919E	Tray01:2	DXN	
52	19JL19A3D5_52	WDM HRDXNCP_00038	WDM 071919D	Tray01:1	DXN	
53	19JL19A3D5_53	Solvent Blank C-14	SB 071919H	Tray01:3	DXN	
54	19JL19A3D5_54	MB 320-308663/1-A	MB 320-308663/1-A	Tray01:37	1613B/Solid	D76
55	19JL19A3D5_55	LCS 320-308663/2-A	LCS 320-308663/2-A	Tray01:38	1613B/Solid	
56	19JL19A3D5_56	LCSD 320-308663/3-A	LCSD 320-308663/3-A	Tray01:39	1613B/Solid	
57	19JL19A3D5_57	580-87706-C-1-A	580-87706-C-1-A	Tray01:40	1613B/Solid	
58	19JL19A3D5_58	580-87706-C-2-A	580-87706-C-2-A	Tray01:41	1613B/Solid	

	File Name	File Text	Sample ID	Bottle	Method/Matrix	Box #
59	19JL19A3D5_59	580-87706-C-3-A	580-87706-C-3-A	Tray01:42	1613B/Solid	
60	19JL19A3D5_60	580-87706-C-4-A	580-87706-C-4-A	Tray01:43	1613B/Solid	
61	19JL19A3D5_61	580-87706-C-5-A	580-87706-C-5-A	Tray01:44	1613B/Solid	
62	19JL19A3D5_62	580-87706-C-6-A	580-87706-C-6-A	Tray01:45	1613B/Solid	
63	19JL19A3D5_63	580-87706-C-7-A	580-87706-C-7-A	Tray01:46	1613B/Solid	
64	19JL19A3D5_64	580-87706-C-8-A	580-87706-C-8-A	Tray01:47	1613B/Solid	
65	19JL19A3D5_65	Solvent Blank C-14	SB 071919I	Tray01:3	DXN	
66	19JL19A3D5_66	CS-4 HRDXNL4_00081	CCV 071919F	Tray01:2	DXN	
67	19JL19A3D5_67	WDM HRDXNCP_00038	WDM 071919E	Tray01:1	DXN	
68	19JL19A3D5_68	Solvent Blank C-14	SB 071919J	Tray01:3	DXN	
69	19JL19A3D5_69	580-87706-C-9-A	580-87706-C-9-A	Tray01:48	1613B/Solid	D76
70	19JL19A3D5_70	580-87706-C-10-A	580-87706-C-10-A	Tray01:49	1613B/Solid	
71	19JL19A3D5_71	580-87706-C-11-A	580-87706-C-11-A	Tray01:50	1613B/Solid	
72	19JL19A3D5_72	580-87706-C-12-A	580-87706-C-12-A	Tray01:51	1613B/Solid	
73	19JL19A3D5_73	580-87706-C-13-A	580-87706-C-13-A	Tray01:52	1613B/Solid	
74	19JL19A3D5_74	580-87706-C-14-A	580-87706-C-14-A	Tray01:53	1613B/Solid	
75	19JL19A3D5_75	580-87706-C-15-A	580-87706-C-15-A	Tray01:54	1613B/Solid	
76	19JL19A3D5_76	Solvent Blank C-14	SB 071919K	Tray01:3	DXN	
77	19JL19A3D5_77	CS-4 HRDXNL4_00081	CCV 071919G	Tray01:2	DXN	
78	19JL19A3D5_78	WDM HRDXNCP_00038	WDM 071919F	Tray01:1	DXN	
79	19JL19A3D5_79	Solvent Blank C-14	SB 071919L	Tray01:3	DXN	

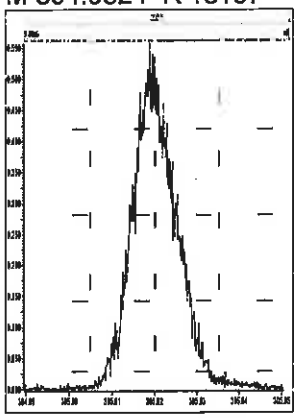
Logfile ✓d
7/20/19
KGS

Printed: Sunday, July 21, 2019 17:13:53 Pacific Daylight Time

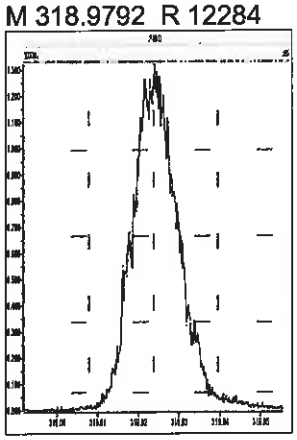
M 292.9824 R 12438



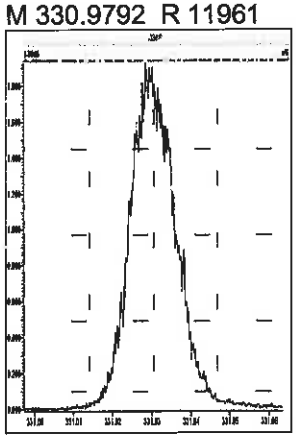
M 304.9824 R 13157



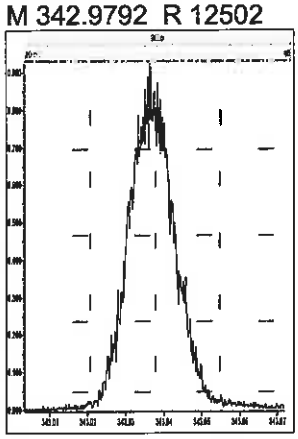
M 318.9792 R 12284



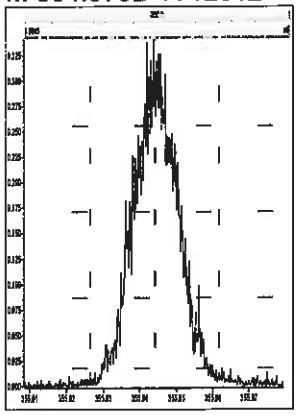
M 330.9792 R 11961



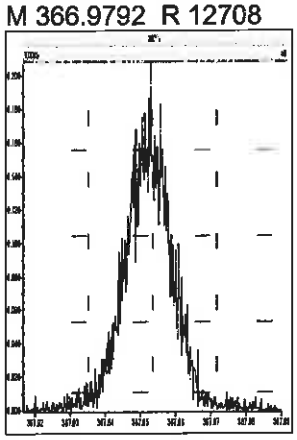
M 342.9792 R 12502



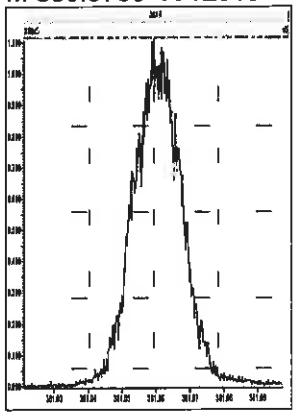
M 354.9792 R 12612



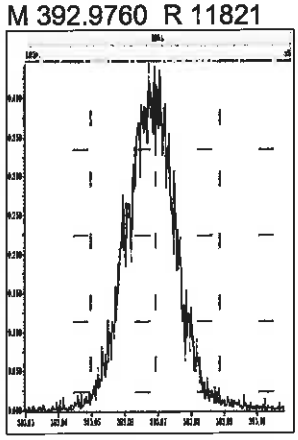
M 366.9792 R 12708



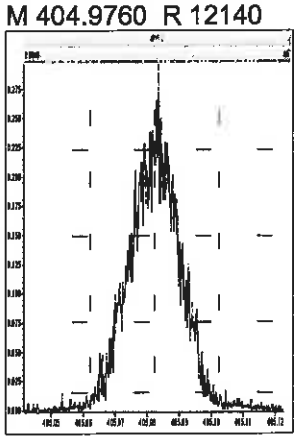
M 380.9760 R 12019



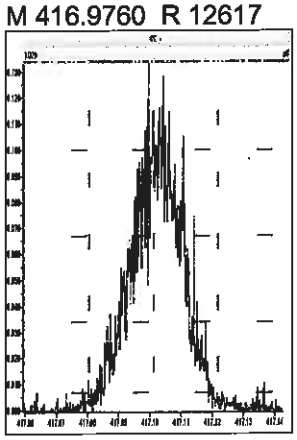
M 392.9760 R 11821



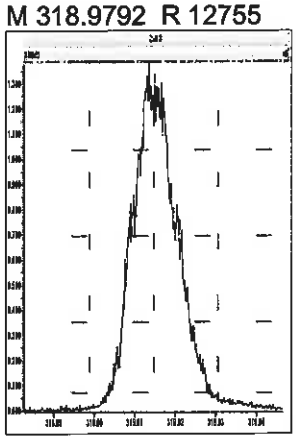
M 404.9760 R 12140



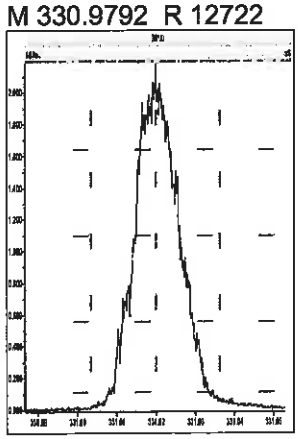
M 416.9760 R 12617



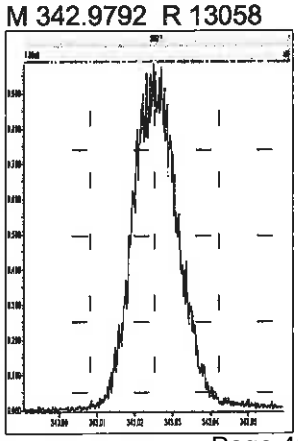
M 318.9792 R 12755



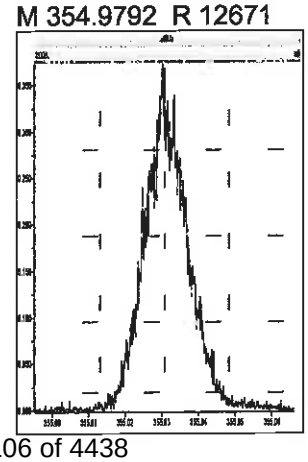
M 330.9792 R 12722



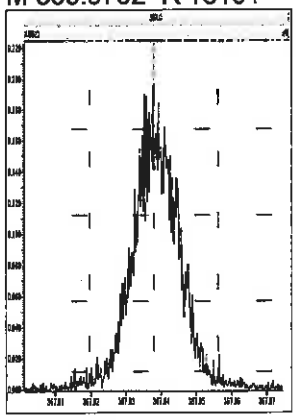
M 342.9792 R 13058



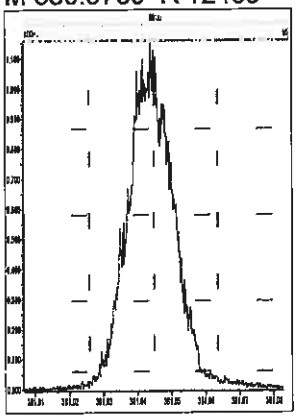
M 354.9792 R 12671



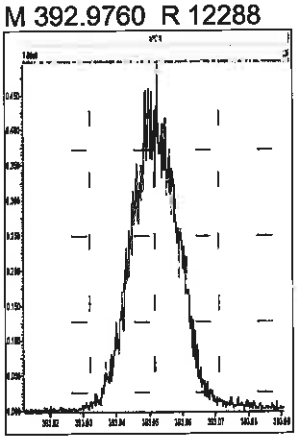
M 366.9792 R 13101



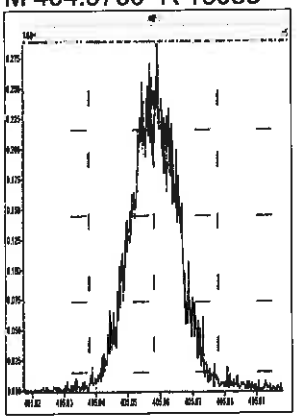
M 380.9760 R 12469



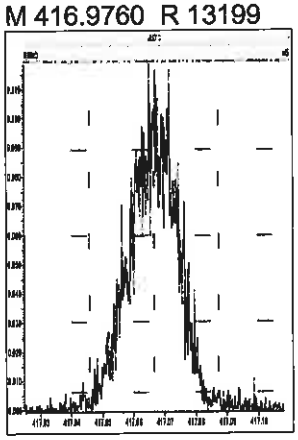
M 392.9760 R 12288



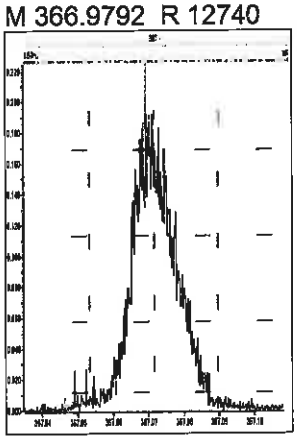
M 404.9760 R 13033



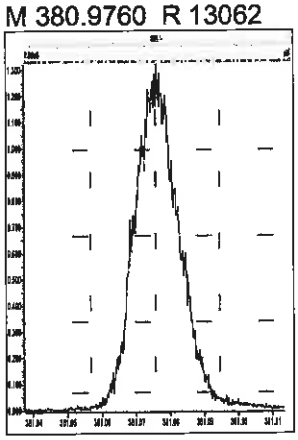
M 416.9760 R 13199



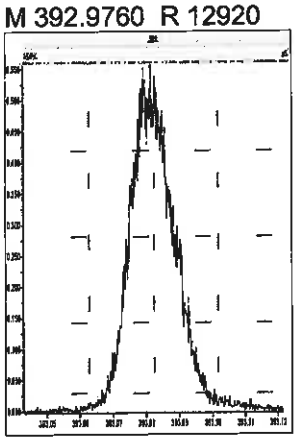
M 366.9792 R 12740



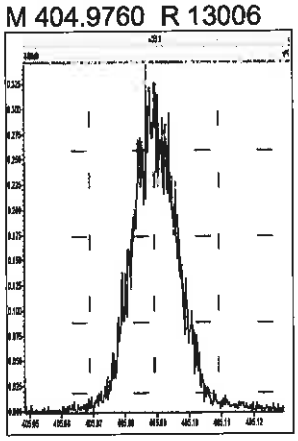
M 380.9760 R 13062



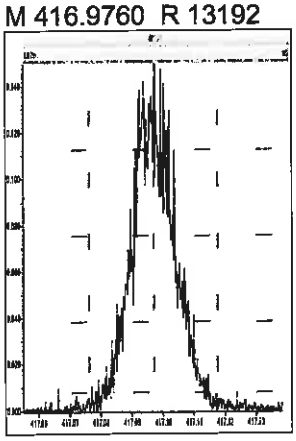
M 392.9760 R 12920



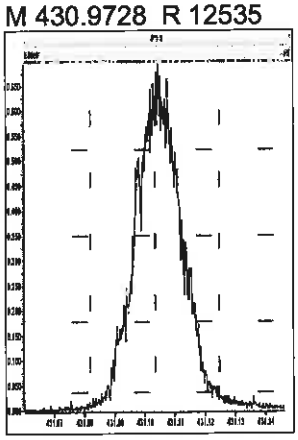
M 404.9760 R 13006



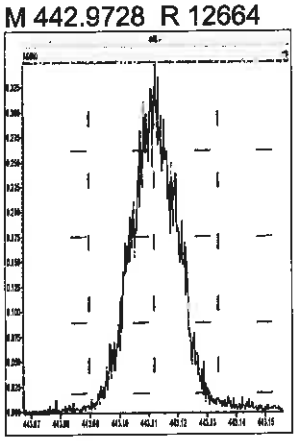
M 416.9760 R 13192



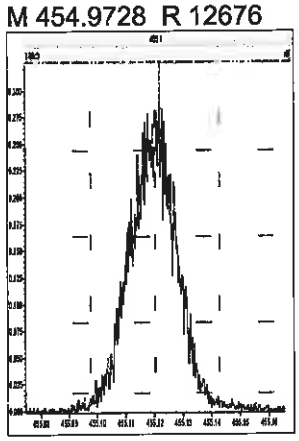
M 430.9728 R 12535



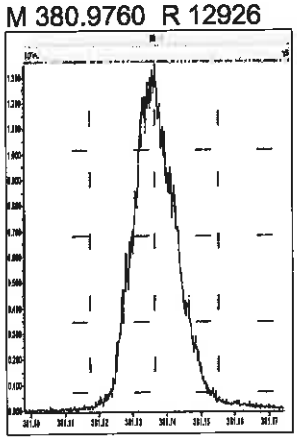
M 442.9728 R 12664



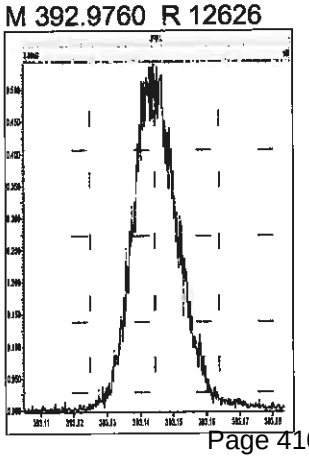
M 454.9728 R 12676



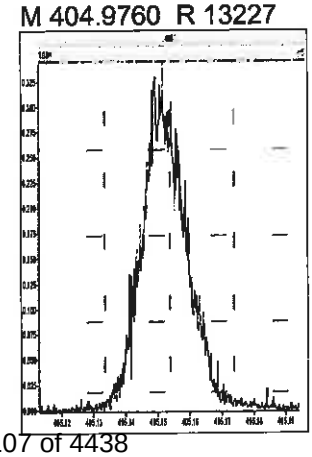
M 380.9760 R 12926



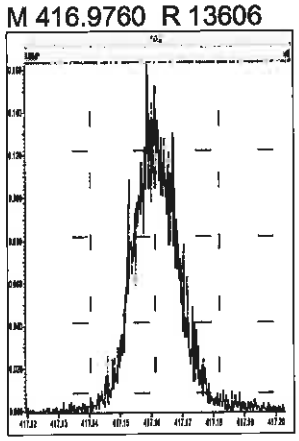
M 392.9760 R 12626



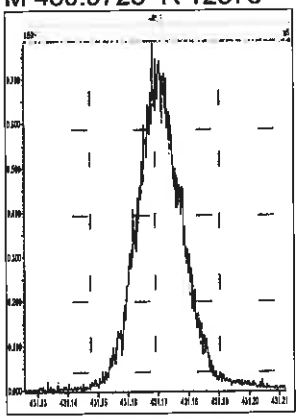
M 404.9760 R 13227



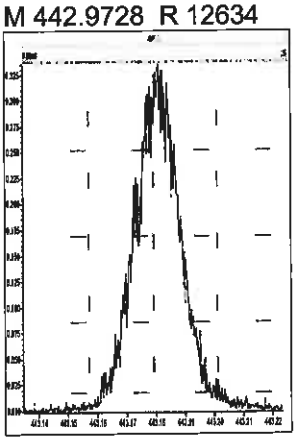
M 416.9760 R 13606



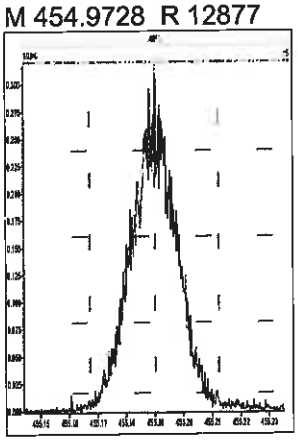
M 430.9728 R 12378



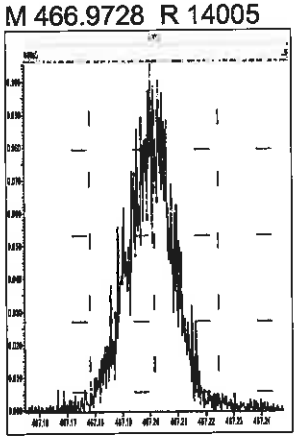
M 442.9728 R 12634



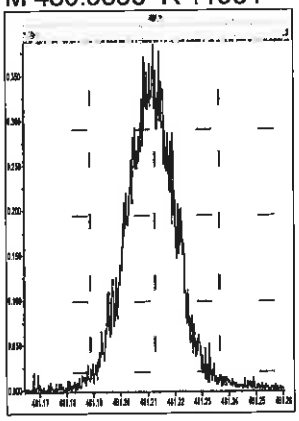
M 454.9728 R 12877



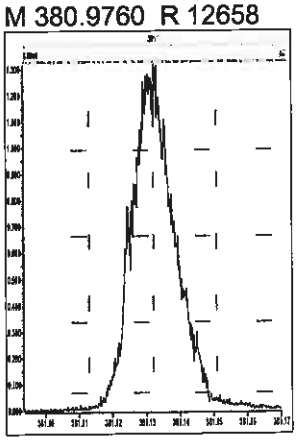
M 466.9728 R 14005



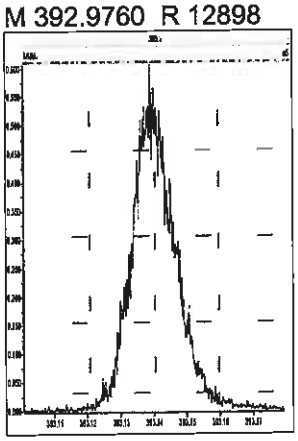
M 480.9696 R 11934



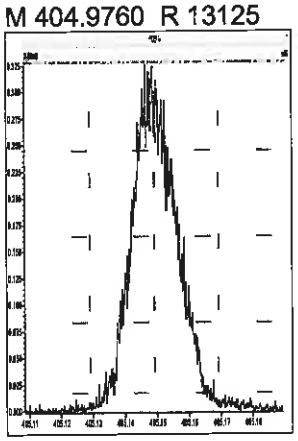
M 380.9760 R 12658



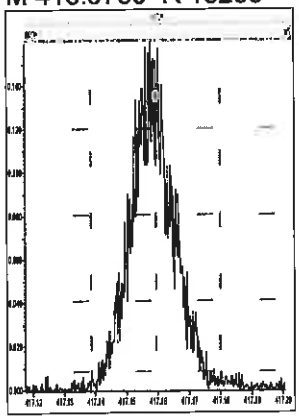
M 392.9760 R 12898



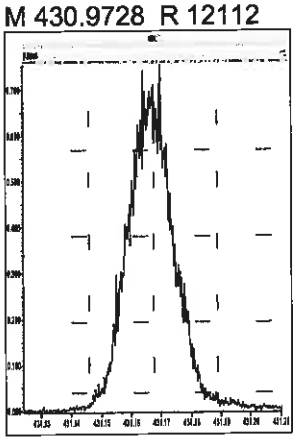
M 404.9760 R 13125



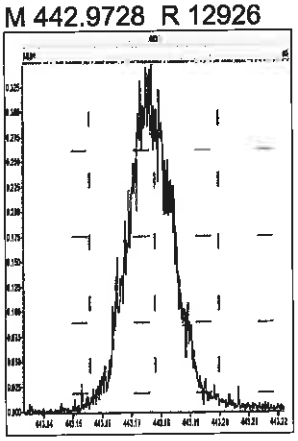
M 416.9760 R 13266



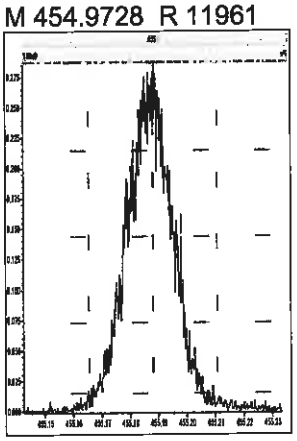
M 430.9728 R 12112



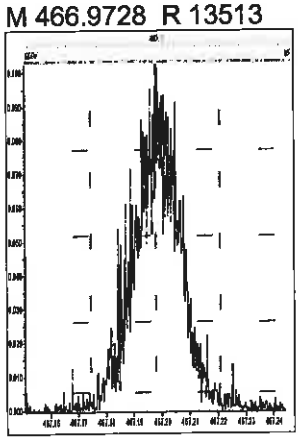
M 442.9728 R 12926



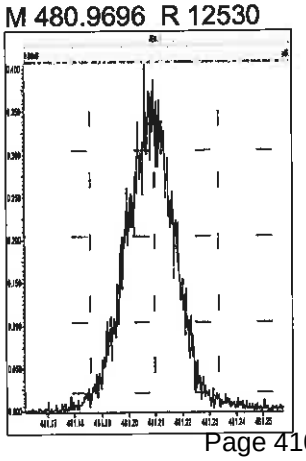
M 454.9728 R 11961



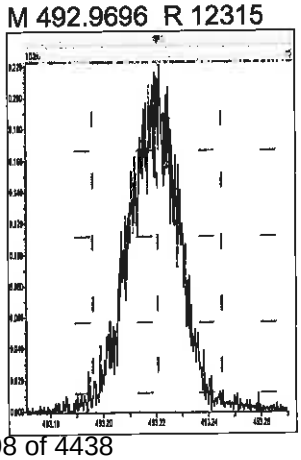
M 466.9728 R 13513



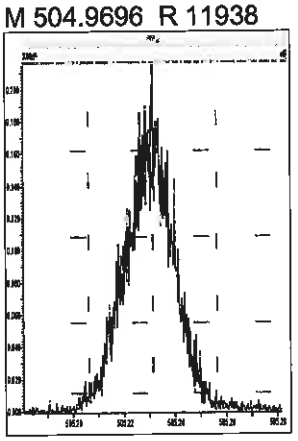
M 480.9696 R 12530



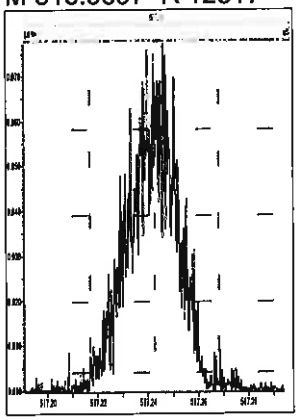
M 492.9696 R 12315



M 504.9696 R 11938

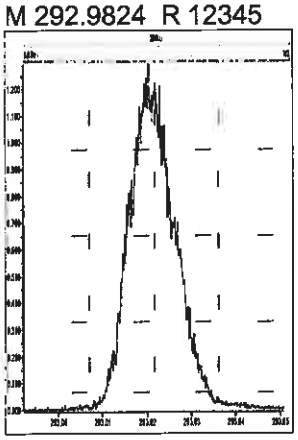


M 516.9697 R 12317

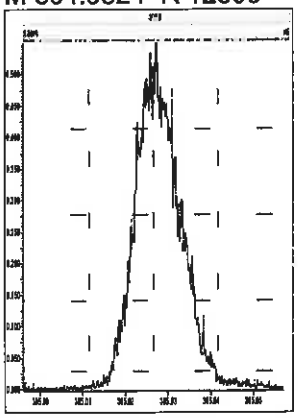


Printed: Sunday, July 21, 2019 19:08:50 Pacific Daylight Time

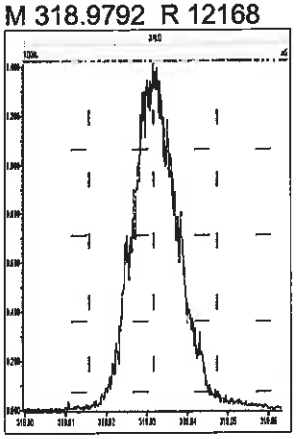
M 292.9824 R 12345



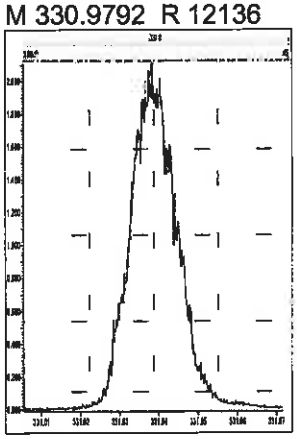
M 304.9824 R 12600



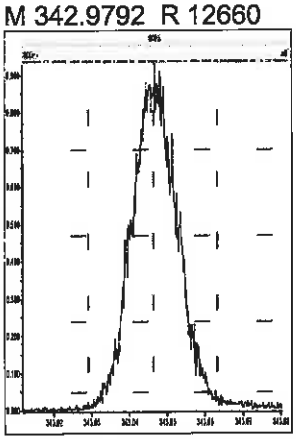
M 318.9792 R 12168



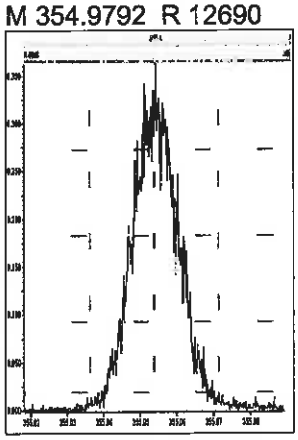
M 330.9792 R 12136



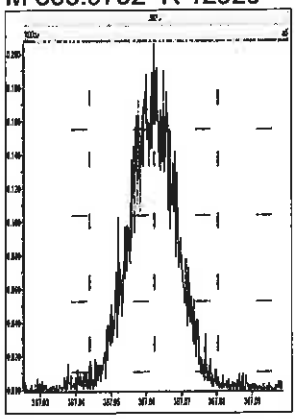
M 342.9792 R 12660



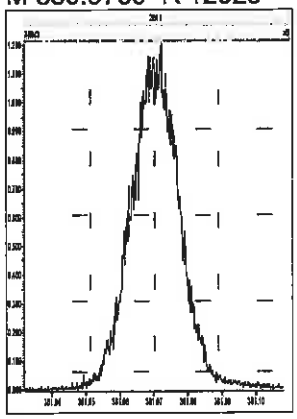
M 354.9792 R 12690



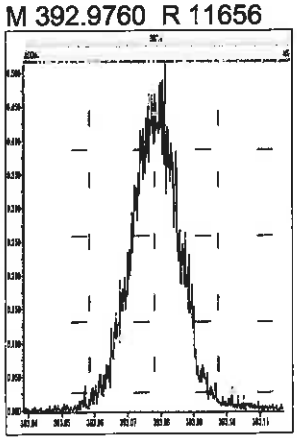
M 366.9792 R 12929



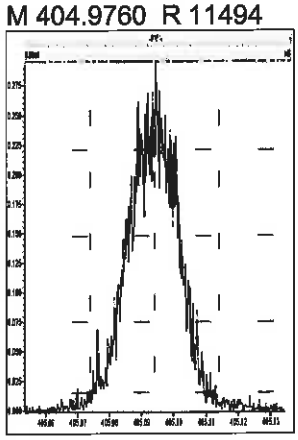
M 380.9760 R 12029



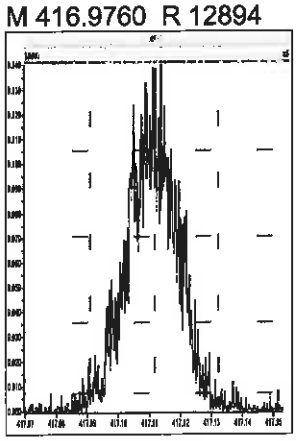
M 392.9760 R 11656



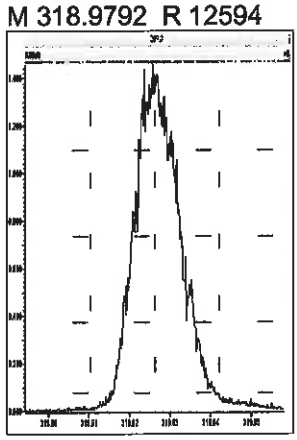
M 404.9760 R 11494



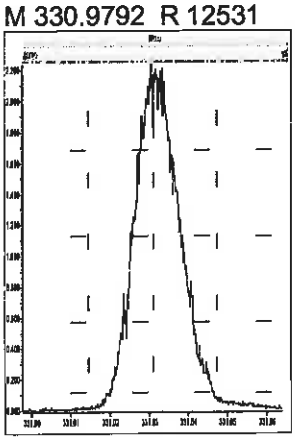
M 416.9760 R 12894



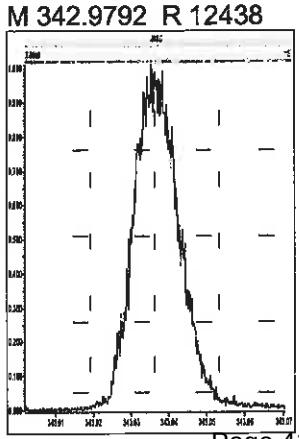
M 318.9792 R 12594



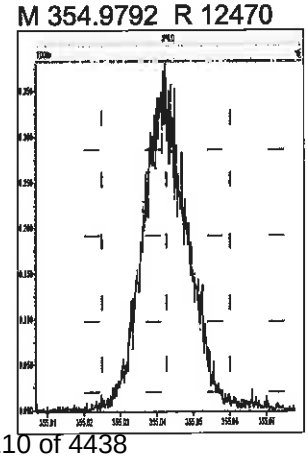
M 330.9792 R 12531



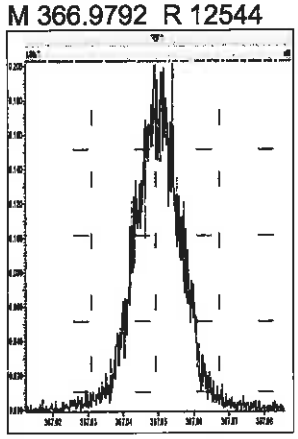
M 342.9792 R 12438



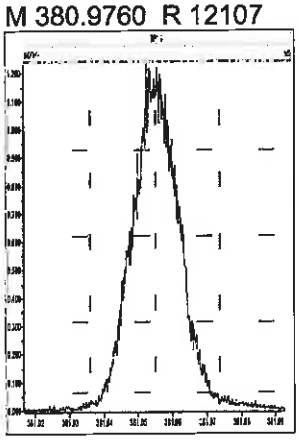
M 354.9792 R 12470



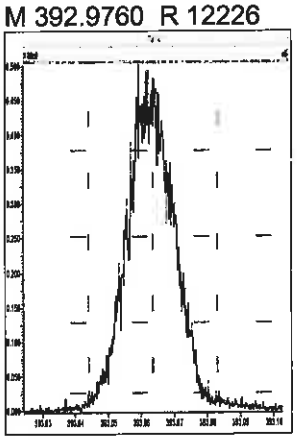
M 366.9792 R 12544



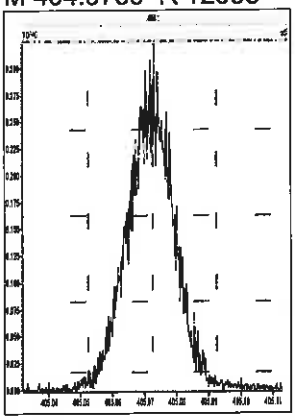
M 380.9760 R 12107



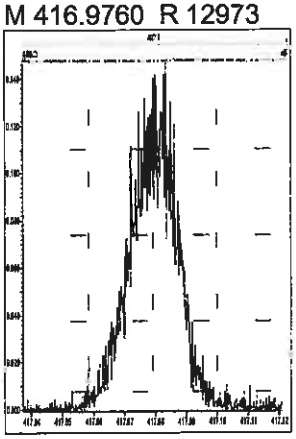
M 392.9760 R 12226



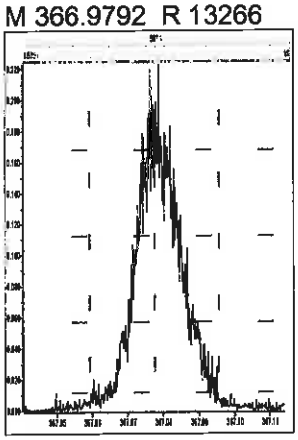
M 404.9760 R 12056



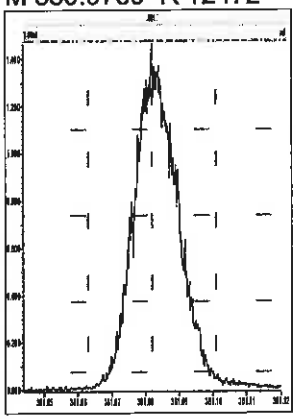
M 416.9760 R 12973



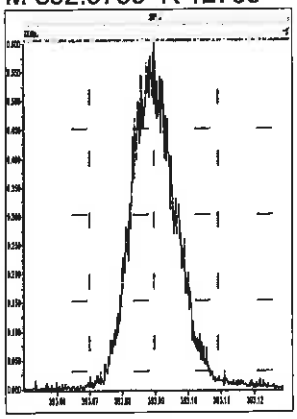
M 366.9792 R 13266



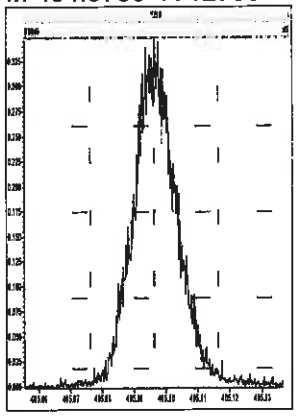
M 380.9760 R 12472



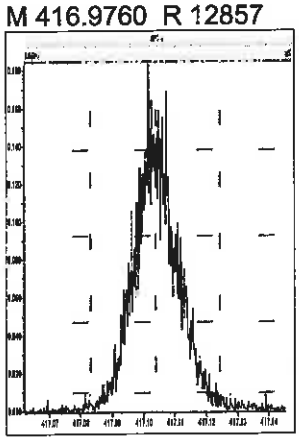
M 392.9760 R 12755



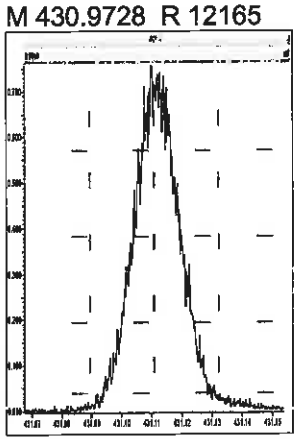
M 404.9760 R 12756



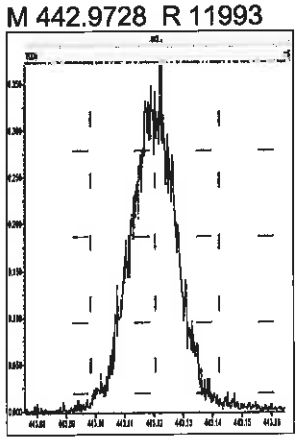
M 416.9760 R 12857



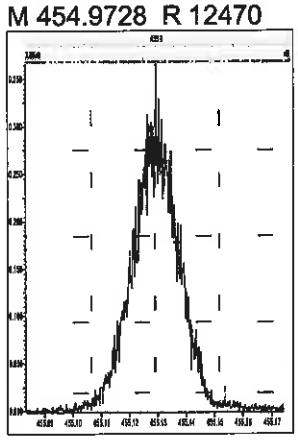
M 430.9728 R 12165



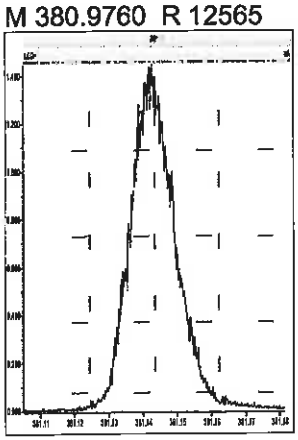
M 442.9728 R 11993



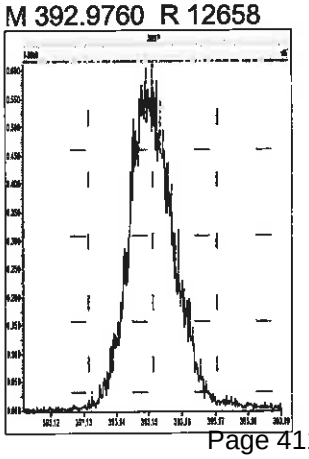
M 454.9728 R 12470



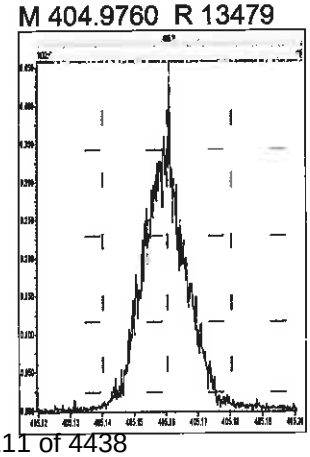
M 380.9760 R 12565



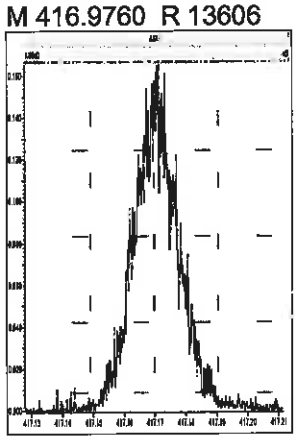
M 392.9760 R 12658



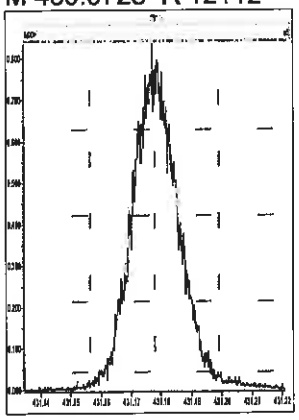
M 404.9760 R 13479



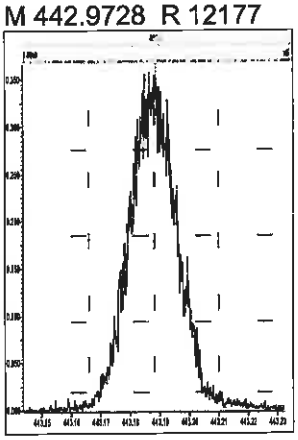
M 416.9760 R 13606



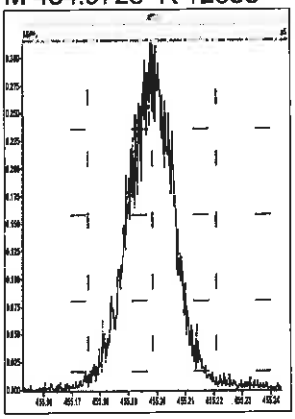
M 430.9728 R 12112



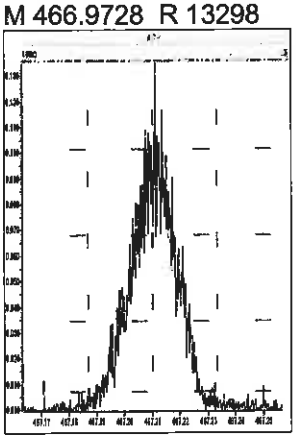
M 442.9728 R 12177



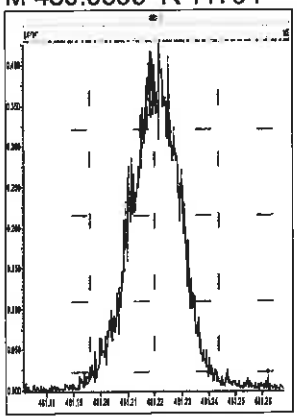
M 454.9728 R 12883



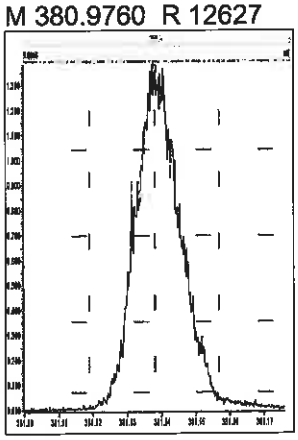
M 466.9728 R 13298



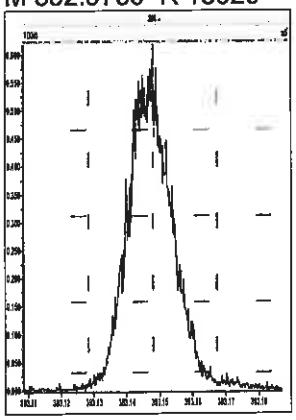
M 480.9696 R 11794



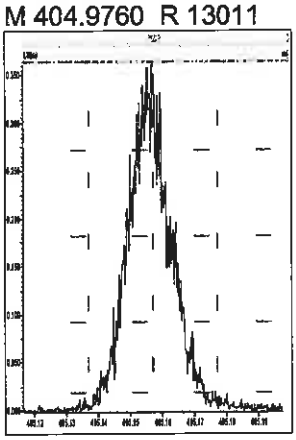
M 380.9760 R 12627



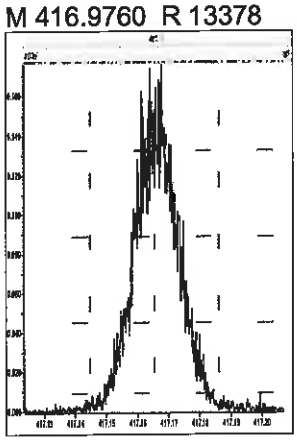
M 392.9760 R 13020



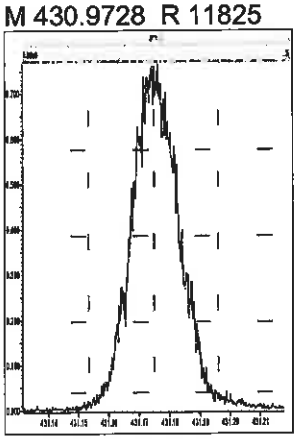
M 404.9760 R 13011



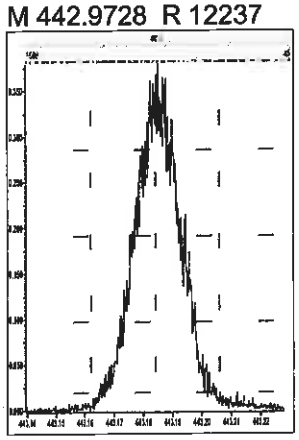
M 416.9760 R 13378



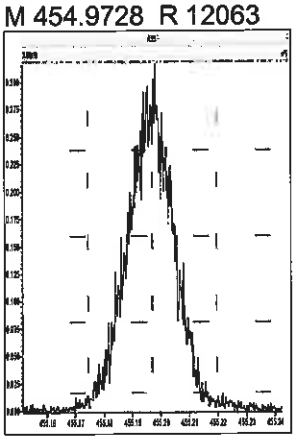
M 430.9728 R 11825



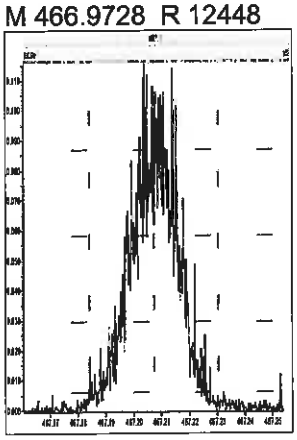
M 442.9728 R 12237



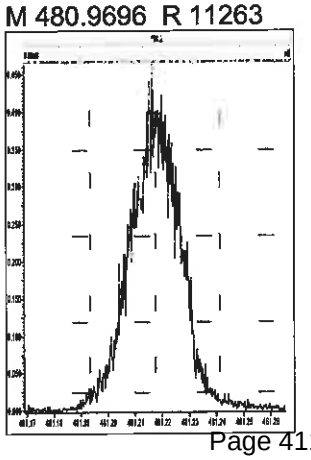
M 454.9728 R 12063



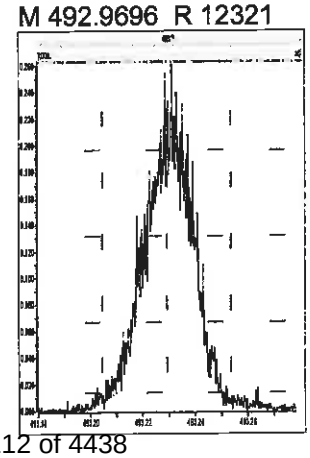
M 466.9728 R 12448



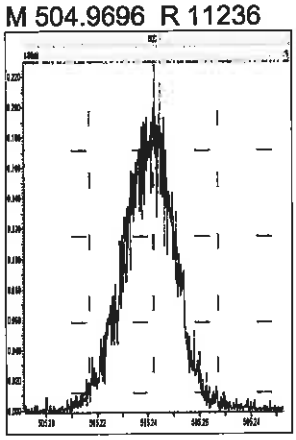
M 480.9696 R 11263



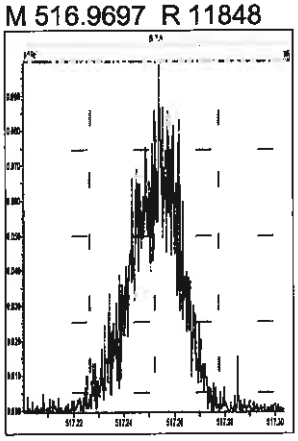
M 492.9696 R 12321



M 504.9696 R 11236

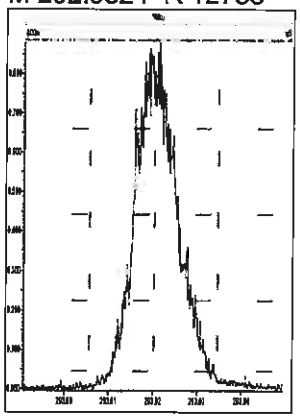


M 516.9697 R 11848

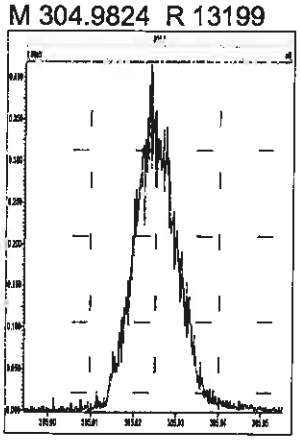


Printed: Monday, July 22, 2019 04:48:50 Pacific Daylight Time

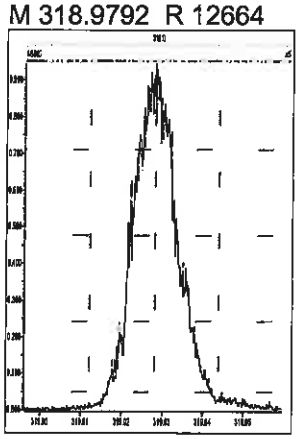
M 292.9824 R 12788



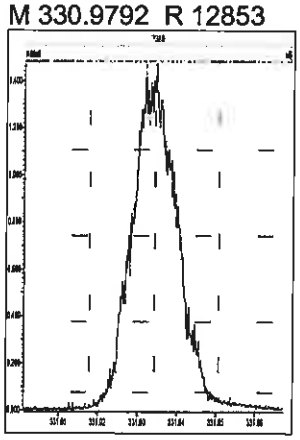
M 304.9824 R 13199



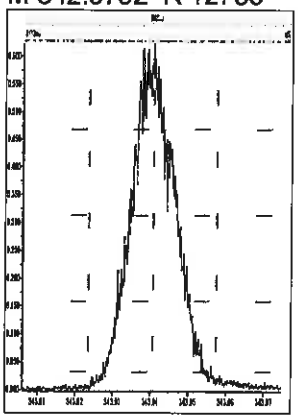
M 318.9792 R 12664



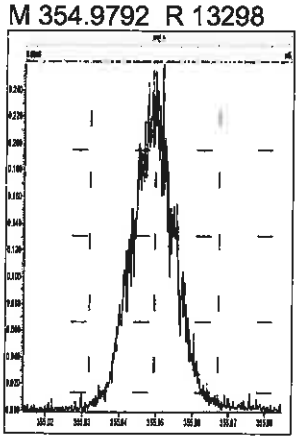
M 330.9792 R 12853



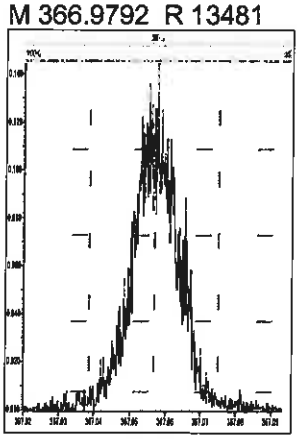
M 342.9792 R 12736



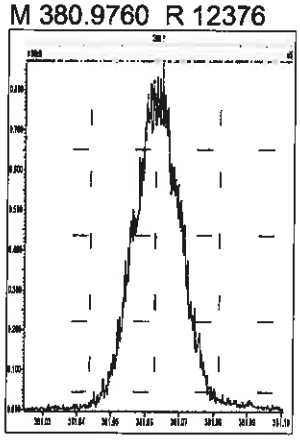
M 354.9792 R 13298



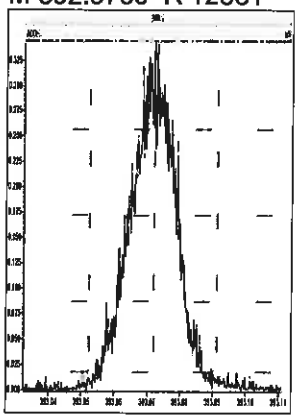
M 366.9792 R 13481



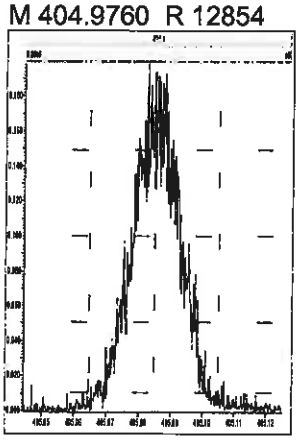
M 380.9760 R 12376



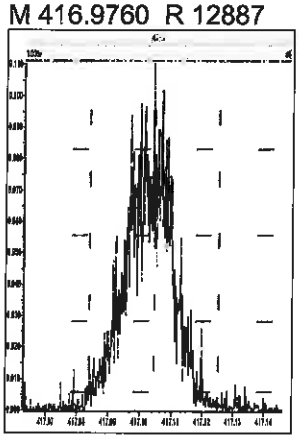
M 392.9760 R 12531



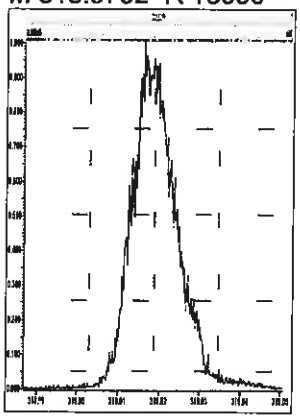
M 404.9760 R 12854



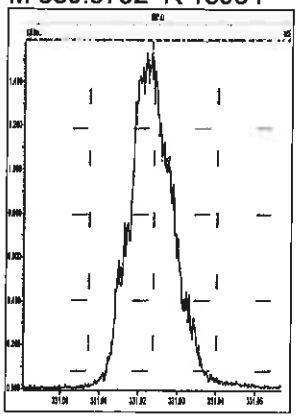
M 416.9760 R 12887



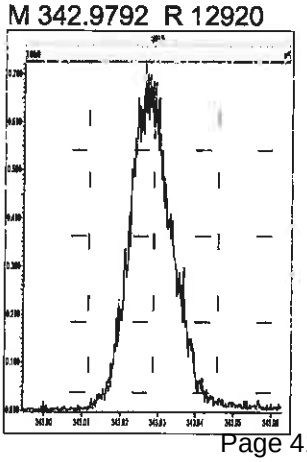
M 318.9792 R 13090



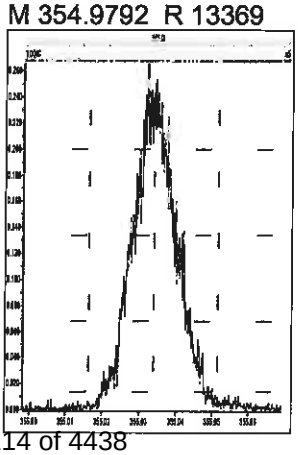
M 330.9792 R 13054



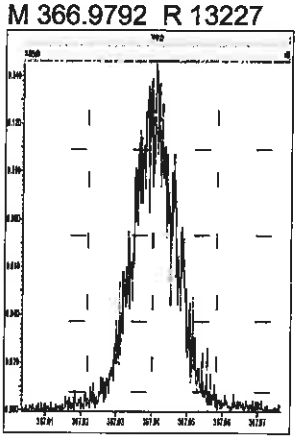
M 342.9792 R 12920



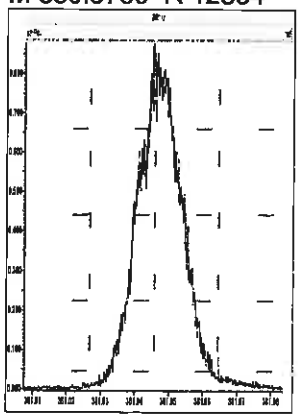
M 354.9792 R 13369



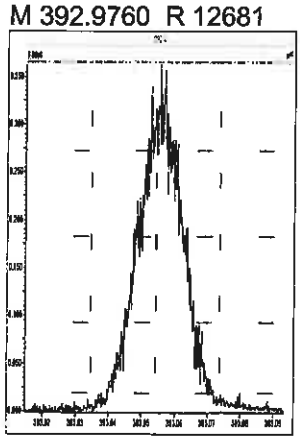
M 366.9792 R 13227



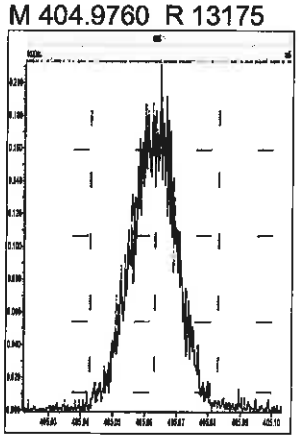
M 380.9760 R 12354



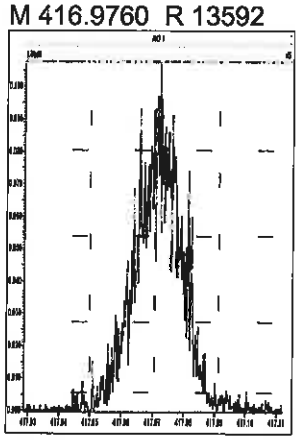
M 392.9760 R 12681



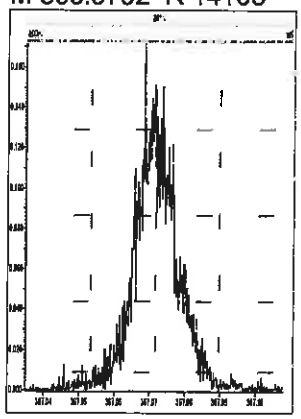
M 404.9760 R 13175



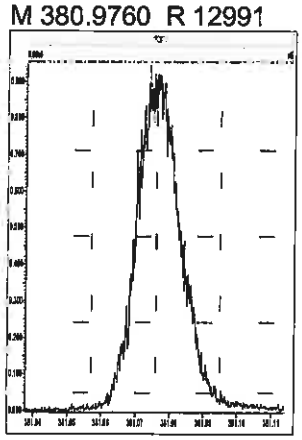
M 416.9760 R 13592



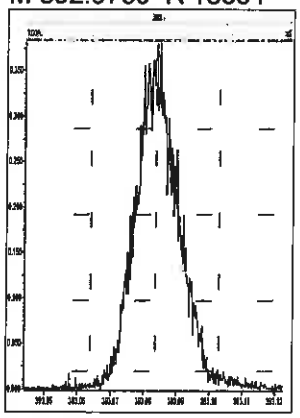
M 366.9792 R 14103



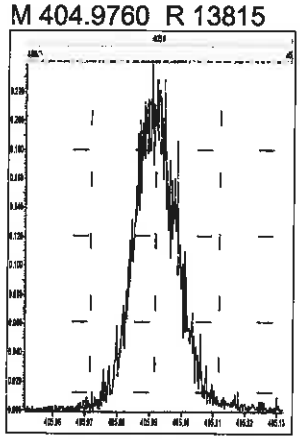
M 380.9760 R 12991



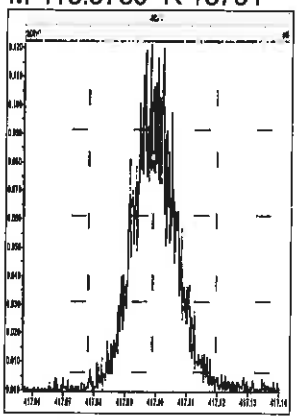
M 392.9760 R 13664



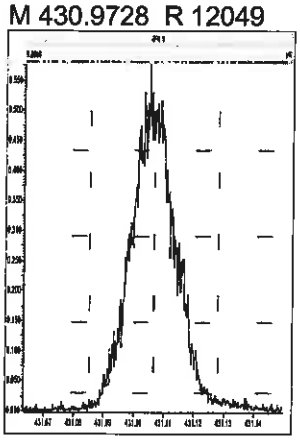
M 404.9760 R 13815



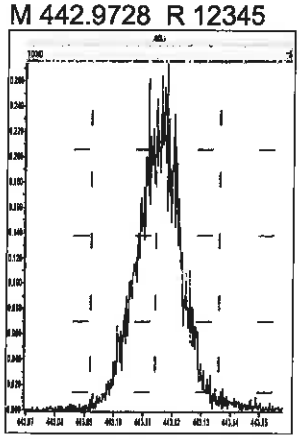
M 416.9760 R 13791



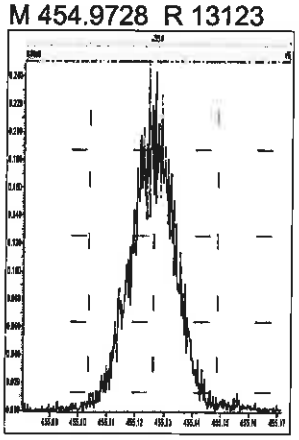
M 430.9728 R 12049



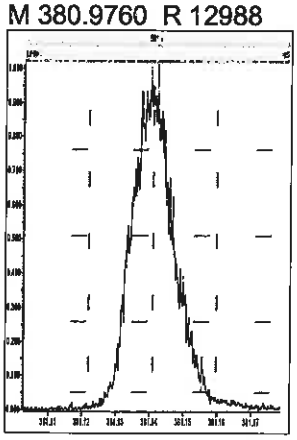
M 442.9728 R 12345



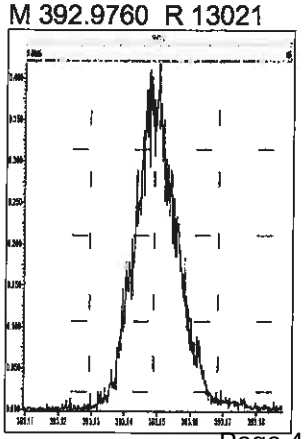
M 454.9728 R 13123



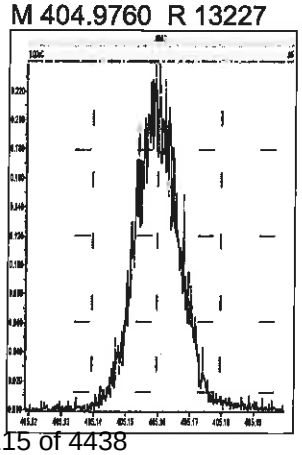
M 380.9760 R 12988



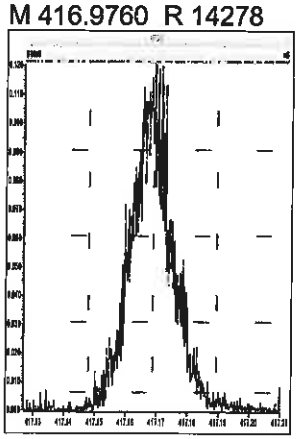
M 392.9760 R 13021



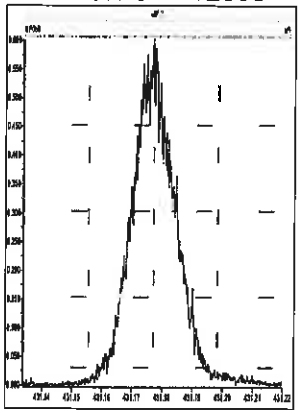
M 404.9760 R 13227



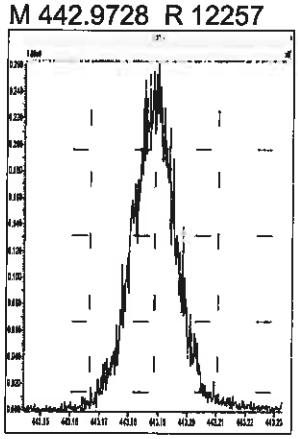
M 416.9760 R 14278



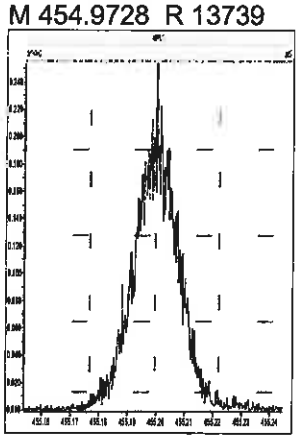
M 430.9728 R 12863



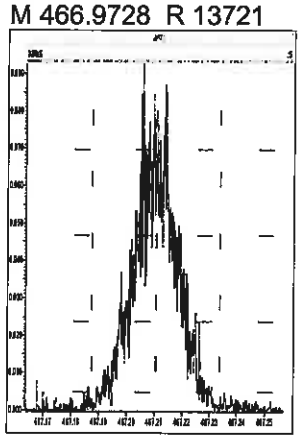
M 442.9728 R 12257



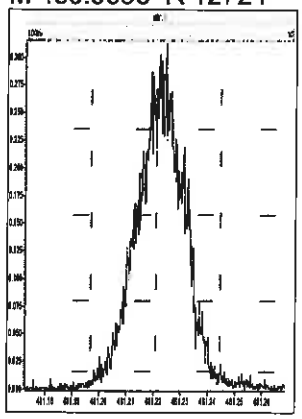
M 454.9728 R 13739



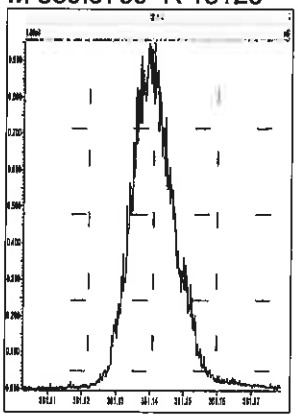
M 466.9728 R 13721



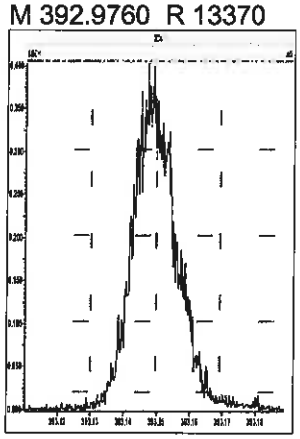
M 480.9696 R 12724



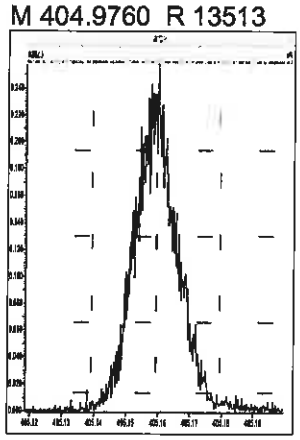
M 380.9760 R 13125



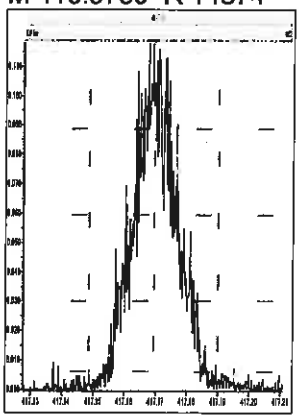
M 392.9760 R 13370



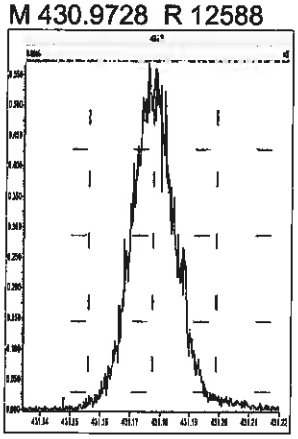
M 404.9760 R 13513



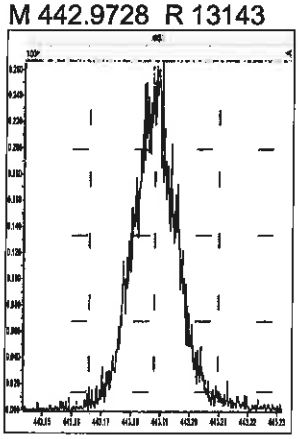
M 416.9760 R 14374



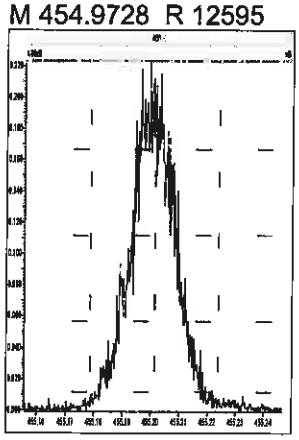
M 430.9728 R 12588



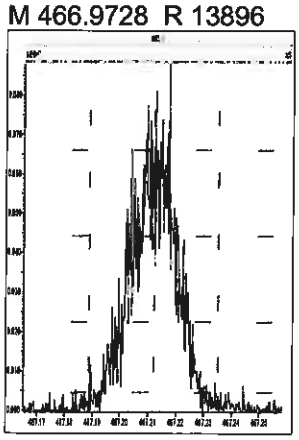
M 442.9728 R 13143



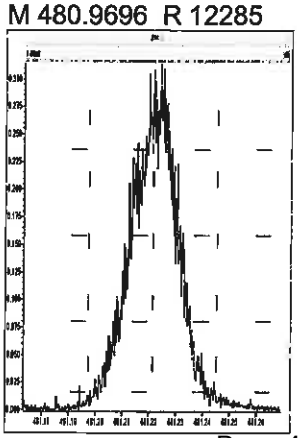
M 454.9728 R 12595



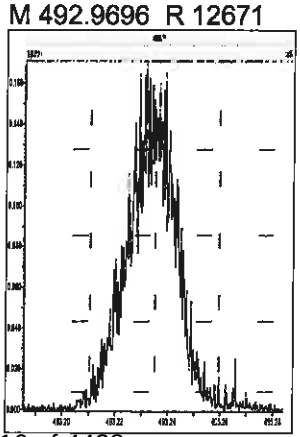
M 466.9728 R 13896



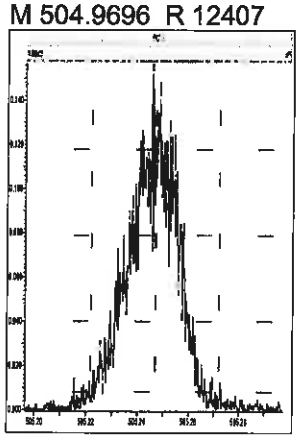
M 480.9696 R 12285



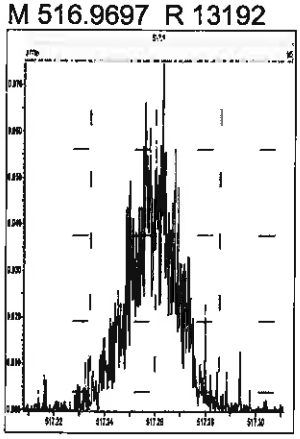
M 492.9696 R 12671



M 504.9696 R 12407



M 516.9697 R 13192



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 21-Jul-2019 17:13:56 ALS Bottle#: 2 Worklist Smp#: 51
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV 071919E CS-4 HRDXNL4_00081
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 10:47:22 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:34:45

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.188	217979123	0.78	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.705	319636511	0.79	1.3908	105.4	105.4	0.3178	0.3178	105	
2,3,7,8-TCDF	16.720	31149059	0.79	0.9710	10.0	10.0	0.0355	0.0355	100	
A Non-2,3,7,8-sub-TCDF	16.402						0.0355	0.0355		
S Total TCDF					10.0	10.0	0.0355	0.0355		
D 13C-2,3,7,8-TCDD	17.370	205932122	0.76	0.9819	96.2	96.2	0.2870	0.2870	96.22	
2,3,7,8-TCDD	17.385	21868907	0.79	1.0447	10.2	10.2	0.0492	0.0492	102	
$ 37Cl4-2,3,7,8-TCDD	17.385	28285297		1.2205	10.6	10.6	0.0212	0.0212	106	
A Non-2,3,7,8-sub-TCDD	16.826	83119	0.77	1.0447	0.1546	0.0386	0.0492	0.0492	0.00	RQ
S Total TCDD					10.3	10.2	0.0492	0.0492		RQ
D 13C-1,2,3,7,8-PeCDF	21.359	265816199	1.60	1.1585	105.3	105.3	0.3147	0.3147	105	
1,2,3,7,8-PeCDF	21.372	136063996	1.56	0.9633	53.1	53.1	0.2141	0.2141	106	
D 13C-2,3,4,7,8-PeCDF	22.586	261091093	1.61	1.1532	103.9	103.9	0.3162	0.3162	104	
2,3,4,7,8-PeCDF	22.614	133946295	1.58	0.9495	54.0	54.0	0.2312	0.2312	108	
A F1 PeCDFs	19.215						0.0307	0.0307		
A Non-2,3,7,8-sub-PeCDF	22.104						0.2224	0.2224		
S Total PeCDF					107.2	107.2	0.2227	0.2227		
D 13C-1,2,3,7,8-PeCDD	23.254	167933174	1.58	0.7431	103.7	103.7	0.1700	0.1700	104	
1,2,3,7,8-PeCDD	23.282	90790878	1.64	1.0635	50.8	50.8	0.1110	0.1110	102	
A Non-2,3,7,8-sub-PeCDD	22.232						0.1110	0.1110		
S Total PeCDD					50.8	50.8	0.1110	0.1110		
D 13C-1,2,3,4,7,8-HxCDF	29.155	211940878	0.55	0.9837	103.0	103.0	0.3429	0.3429	103	
1,2,3,4,7,8-HxCDF	29.195	128680323	1.24	1.2173	49.9	49.9	0.3066	0.3066	99.75	
D 13C-1,2,3,6,7,8-HxCDF	29.461	222387078	0.54	1.1554	92.0	92.0	0.2919	0.2919	92.00	
1,2,3,6,7,8-HxCDF	29.488	132242546	1.24	1.1311	52.6	52.6	0.3373	0.3373	105	
D 13C-2,3,4,6,7,8-HxCDF	30.686	214376208	0.51	1.0361	98.9	98.9	0.3256	0.3256	98.90	
2,3,4,6,7,8-HxCDF	30.700	125417955	1.20	1.1710	50.0	50.0	0.2004	0.2004	99.92	
D 13C-1,2,3,7,8,9-HxCDF	31.685	205315714	0.53	0.9034	108.6	108.6	0.3734	0.3734	109	
1,2,3,7,8,9-HxCDF	31.698	125409363	1.21	1.1787	51.8	51.8	0.1621	0.1621	104	
A Non-2,3,7,8-sub-HxCDF	29.142						0.2302	0.2302		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					204.2	204.2	0.2516	0.2516		
* 13C-1,2,3,7,8,9-HxCDD	31.485	209206959	1.26	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.953	163013165	1.28	0.8287	94.0	94.0	0.2073	0.2073	94.03	
1,2,3,4,7,8-HxCDD	30.966	83729220	1.25	1.0267	50.0	50.0	0.1377	0.1377	100	
D 13C-1,2,3,6,7,8-HxCDD	31.086	183938280	1.25	0.9495	92.6	92.6	0.1810	0.1810	92.60	
1,2,3,6,7,8-HxCDD	31.099	94530950	1.30	0.9771	52.6	52.6	0.1310	0.1310	105	
1,2,3,7,8,9-HxCDD	31.499	99061007	1.31	1.0616	53.8	53.8	0.1265	0.1265	108	
A Non-2,3,7,8-sub-HxCDD	29.926						0.1314	0.1314		
S Total HxCDD					156.4	156.4	0.1317	0.1317		
D 13C-1,2,3,4,6,7,8-HpCDF	33.347	165971196	0.45	0.7285	108.9	108.9	0.6527	0.6527	109	
1,2,3,4,6,7,8-HpCDF	33.360	121108059	1.08	1.4373	50.8	50.8	0.2855	0.2855	102	
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	156417638	0.45	0.6556	114.0	114.0	0.7253	0.7253	114	
1,2,3,4,7,8,9-HpCDF	34.441	103631388	1.09	1.3091	50.6	50.6	0.3531	0.3531	101	
A Non-2,3,7,8-sub-HpCDF	33.888						0.3166	0.3166		
S Total HpCDF					101.4	101.4	0.3193	0.3193		
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	143886548	1.08	0.6978	98.6	98.6	0.3796	0.3796	98.56	
1,2,3,4,6,7,8-HpCDD	34.162	75021736	1.08	1.0102	51.6	51.6	0.1922	0.1922	103	
A Non-2,3,7,8-sub-HpCDD	35.074						0.1922	0.1922		
S Total HpCDD					51.6	51.6	0.1922	0.1922		
D 13C-OCDD	36.509	221186757	0.90	0.4780	221.2	221.2	0.2349	0.2349	111	
OCDF	36.593	154027352	0.95	1.3501	103.2	103.2	0.1131	0.1131	103	
OCDD	36.509	120592901	0.88	1.0627	102.6	102.6	0.1088	0.1088	103	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNL4_00081 Amount Added: 1.00 Units: mL

Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 21-Jul-2019 17:13:56 ALS Bottle#: 2 Worklist Smp#: 51
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV 071919E CS-4 HRDXNL4_00081
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 10:47:22 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:34:45

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.188	17.188	0		95681647	24259711	32746	81865	741		
333.9339	17.173	17.188	-1		122297476	30799746	29311	73277	1051	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.705	16.705	0	0.972	141323895	34930879	67752	169380	516		
317.9389	16.705	16.705	0	0.972	178312616	43498571	29582	73955	1470	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.720	16.720	0	1.001	13737266	3467454	4352	10880	797		
305.8987	16.720	16.720	0	1.001	17411793	4265949	6467	16167	660	0.79(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	16.402						4352	10880			
305.8987	16.402						6467	16167			
13C-2,3,7,8-TCDD											
331.9368	17.370	17.370	0	1.011	89209282	21544586	32746	81865	658		
333.9339	17.370	17.370	0	1.011	116722840	27747169	29311	73277	947	0.76(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.385	17.385	0	1.001	9618573	2344263	6756	16890	347		
321.8936	17.385	17.385	0	1.001	12250334	3034122	3384	8460	897	0.79(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.385	17.385	0	1.011	28285297	6814002	5692	14230	1197		
A Non-2,3,7,8-sub-TCDD											RQ
319.8965	16.690	16.826	-8	0.961	285695	65804	6756	16890	10		
	Empc Correction				36159	11481	6756	16890	2		
321.8936	16.705	16.826	-7	0.962	46960	14911	3384	8460	4	6.08(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8-PeCDF											
351.9000	21.359	21.359	0	1.243	163549269	29967224	48173	120432	622		
353.8970	21.359	21.359	0	1.243	102266930	18885085	32122	80305	588	1.60(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.372	21.372	0	1.001	82855507	15450879	23515	58787	657		
341.8567	21.372	21.372	0	1.001	53208489	10087624	16797	41992	601	1.56(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.586	22.586	0	1.314	161156638	28402292	48173	120432	590		
353.8970	22.586	22.586	0	1.314	99934455	17504487	32122	80305	545	1.61(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.614	22.614	0	1.001	82071706	13919518	23515	58787	592		
341.8567	22.600	22.614	-1	1.001	51874589	8918899	16797	41992	531	1.58(1.32-1.78)	
A F1 PeCDFs											
339.8597	19.215						1668	4170			
341.8567	19.215						3899	9747			
A Non-2,3,7,8-sub-PeCDF											
339.8597	22.104						23515	58787			
341.8567	22.104						16797	41992			
13C-1,2,3,7,8-PeCDD											
367.8949	23.254	23.254	0	1.353	102949192	17459026	16395	40987	1065		
369.8919	23.254	23.254	0	1.353	64983982	10836832	11423	28557	949	1.58(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.282	23.282	0	1.001	56444500	9241953	9088	22720	1017		
357.8516	23.282	23.282	0	1.001	34346378	5535761	4273	10682	1296	1.64(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.232						9088	22720			
357.8516	22.232						4273	10682			
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.155	29.155	0	0.926	75475640	8856825	24082	60205	368		
385.8610	29.155	29.155	0	0.926	136465238	16839885	41400	103500	407	0.55(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.195	29.195	0	1.001	71345719	8432572	21033	52582	401		
375.8178	29.195	29.195	0	1.001	57334604	6893951	17334	43335	398	1.24(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.461	29.461	0	0.936	77971846	8797314	24082	60205	365		
385.8610	29.461	29.461	0	0.936	144415232	16344227	41400	103500	395	0.54(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.488	29.488	0	1.001	73142434	8267005	21033	52582	393		
375.8178	29.488	29.488	0	1.001	59100112	6632924	17334	43335	383	1.24(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.686	30.686	0	0.975	72462284	14142121	24082	60205	587		
385.8610	30.686	30.686	0	0.975	141913924	26736509	41400	103500	646	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.700	30.700	0	1.000	68381303	12730530	21033	52582	605		
375.8178	30.700	30.700	0	1.000	57036652	10742412	17334	43335	620	1.20(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.685	0	1.006	71311100	17459890	24082	60205	725		
385.8610	31.685	31.685	0	1.006	134004614	32727860	41400	103500	791	0.53(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.698	31.698	0	1.000	68542645	16099430	21033	52582	765		
375.8178	31.698	31.698	0	1.000	56866718	13591236	17334	43335	784	1.21(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.142						21033	52582			
375.8178	29.142						17334	43335			
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.485	31.485	0		116731830	27188611	18270	45675	1488		
403.8529	31.485	31.485	0		92475129	21344732	15088	37720	1415	1.26(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.953	30.953	0	0.983	91595636	19594632	18270	45675	1073		
403.8529	30.953	30.953	0	0.983	71417529	15523586	15088	37720	1029	1.28(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.966	30.966	0	1.000	46597149	10146437	10801	27002	939		
391.8127	30.966	30.966	0	1.000	37132071	8299155	9052	22630	917	1.25(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.086	31.086	0	0.987	102219364	21601551	18270	45675	1182		
403.8529	31.086	31.086	0	0.987	81718916	17186821	15088	37720	1139	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.099	31.099	0	1.000	53383113	11265771	10801	27002	1043		
391.8127	31.099	31.099	0	1.000	41147837	8663893	9052	22630	957	1.30(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.499	31.499	0	1.018	56226507	13028553	10801	27002	1206		
391.8127	31.499	31.499	0	1.018	42834500	10002022	9052	22630	1105	1.31(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						10801	27002			
391.8127	29.926						9052	22630			
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.347	33.347	0	1.059	51514592	16841096	34251	85627	492		
419.8220	33.347	33.347	0	1.059	114456604	36548013	58061	145152	629	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.360	33.360	0	1.000	62993698	19681149	43819	109547	449		
409.7789	33.347	33.360	-1	1.000	58114361	18510731	43807	109517	423	1.08(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.093	48414035	14664261	34251	85627	428		
419.8220	34.429	34.429	0	1.093	108003603	32721111	58061	145152	564	0.45(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	53935125	16386309	43819	109547	374		
409.7789	34.441	34.441	0	1.000	49696263	15175976	43807	109517	346	1.09(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.888						43819	109547			
409.7789	33.888						43807	109517			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	74543738	23175444	25599	63997	905		
437.8140	34.150	34.150	0	1.085	69342810	21611914	25828	64570	837	1.08(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	39036150	12313794	19219	48047	641		
425.7737	34.162	34.162	0	1.000	35985586	11119272	15559	38897	715	1.08(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						19219	48047			
425.7737	35.074						15559	38897			
13C-OCDD											
469.7779	36.509	36.509	0	1.160	104475566	27295099	11375	28437	2400		
471.7750	36.509	36.509	0	1.160	116711191	30069070	10417	26042	2887	0.90(0.76-1.02)	
OCDF											
441.7428	36.593	36.593	0	1.002	75005886	19352643	8752	21880	2211		
443.7399	36.581	36.593	-1	1.002	79021466	20720693	8765	21912	2364	0.95(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	56374622	14838457	7241	18102	2049		
459.7348	36.509	36.509	0	1.000	64218279	17000449	6022	15055	2823	0.88(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

n - Failed Sig-To-Noise Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNL4_00081 Amount Added: 1.00 Units: mL

Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d
Lims ID: CCV
Client ID:
Inject. Date: 21-Jul-2019 17:13:56 Dil. Factor: 1.0000
Sample Type: CCV, Cal Verification
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 51
Sublist: chrom-Dioxin_3D5*sub1

Non-2,3,7,8-sub-TCDD, RT: 16.826

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	205932122	49291755

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	205932122	49291755

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
16.690	285695	65804	46960	14911	0.1546	6.08	RnQ
16.690	36159	11481	46960	14911	0.0386		Empc Correction
Signal Totals:							
	36159	11481	46960	14911			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	332655	80715				6.08	RQ
	83119	26392					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1546 = (332655 * 100.000) / (205932122 * 1.045)
Empc Amount: 0.0386 = (83119 * 100.000) / (205932122 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
n - Failed Sig-To-Noise Test
Q - EMPC-Estimated Max. Possible Conc.

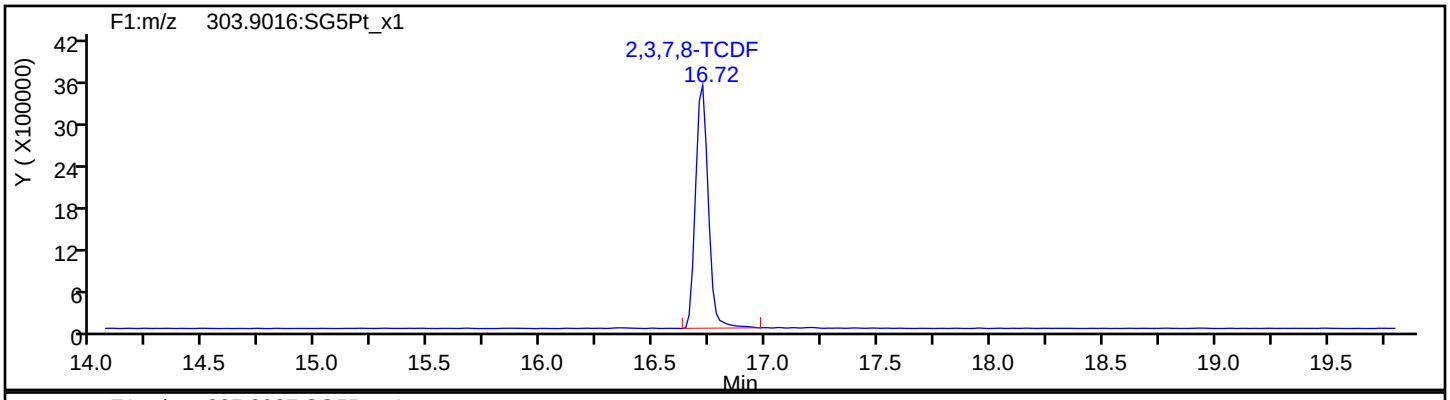
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

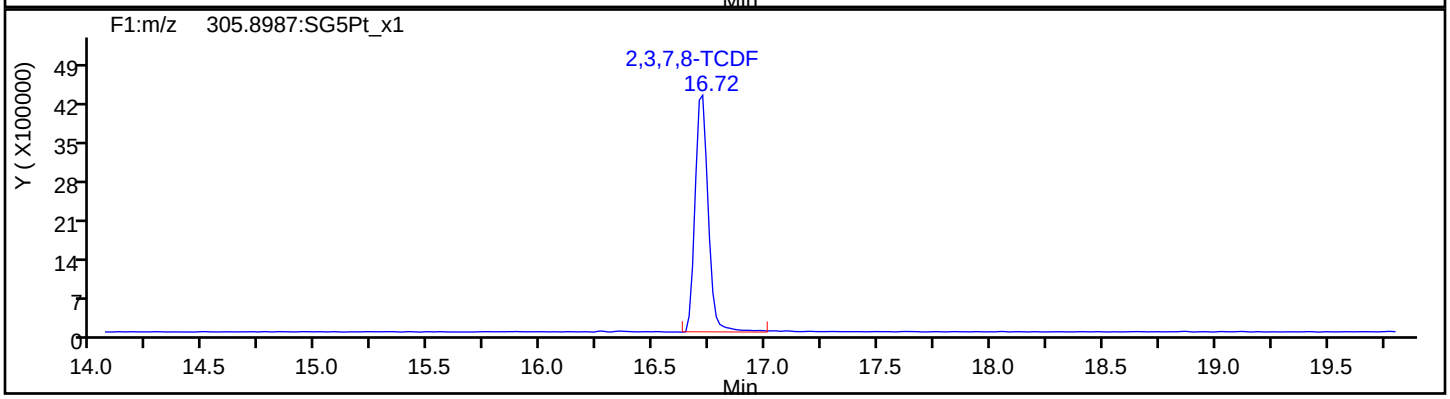
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

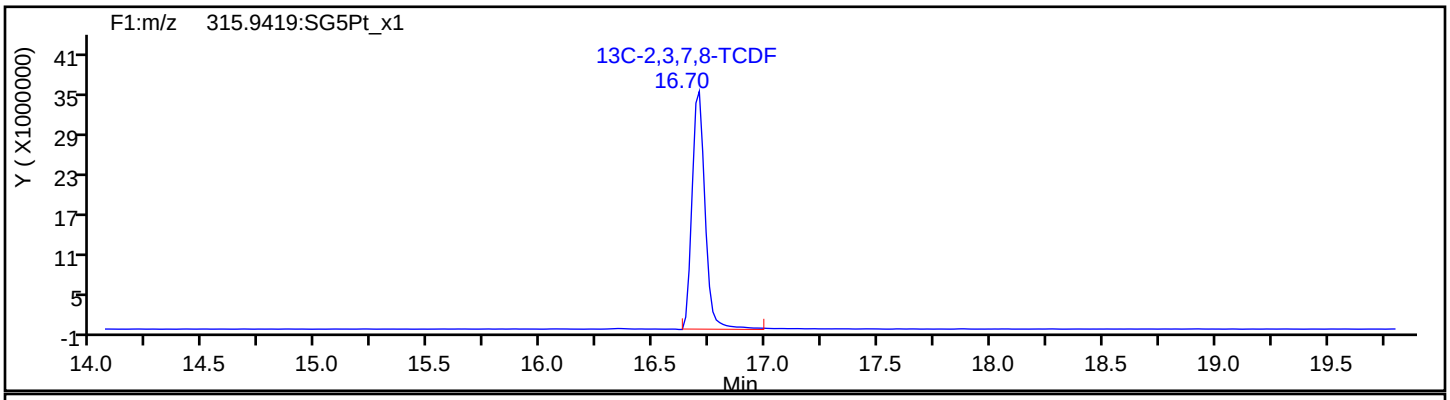
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

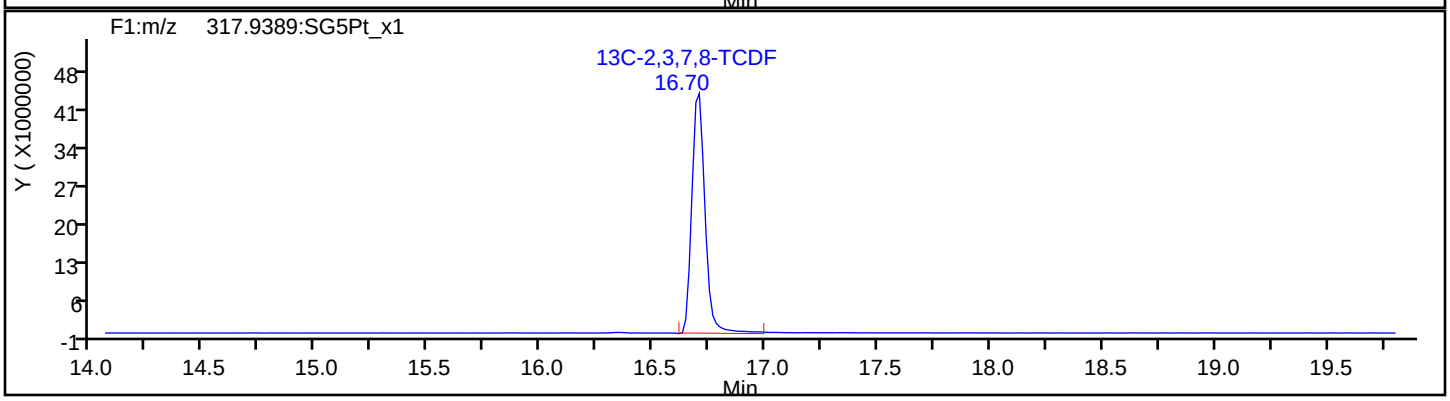
TCDF





TCDF Standards



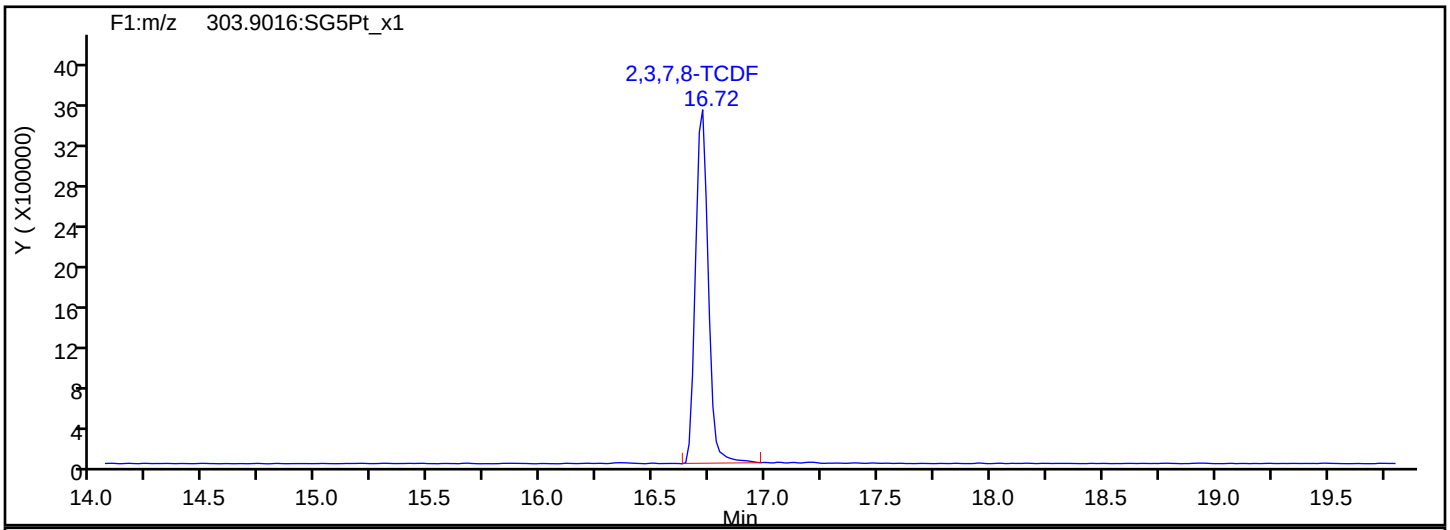


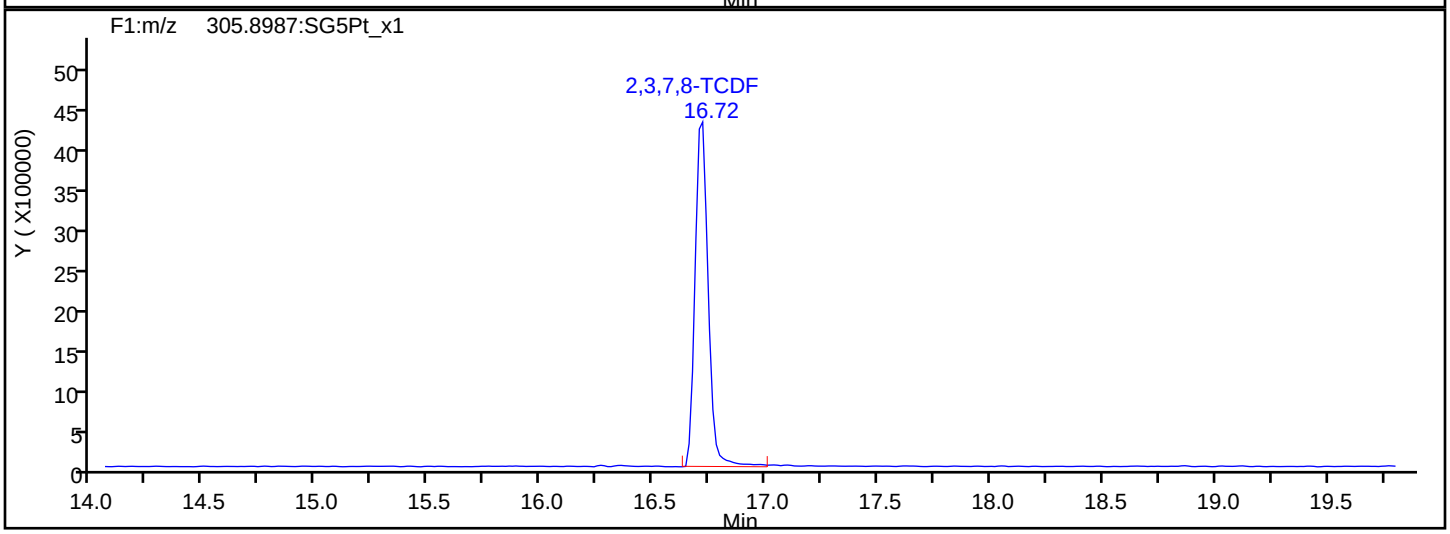
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

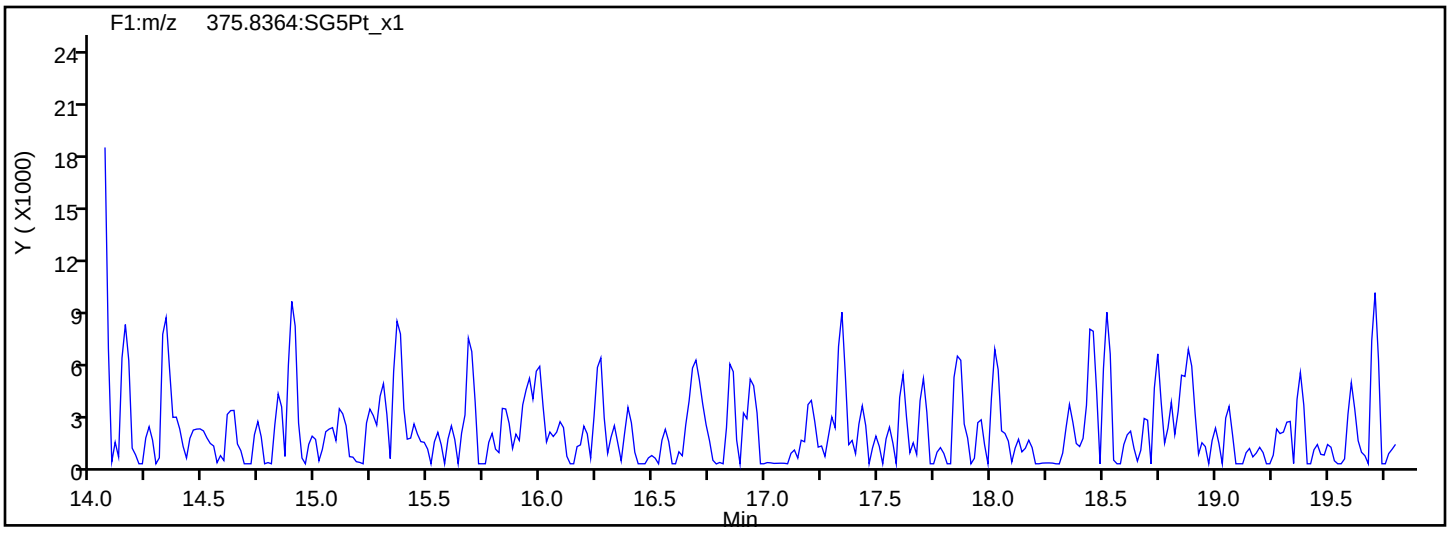
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



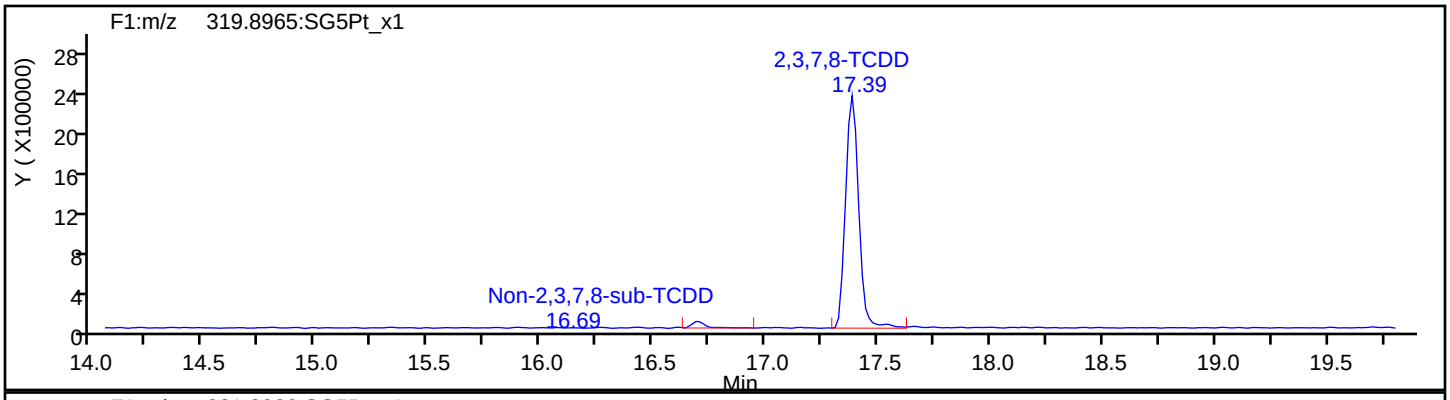
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

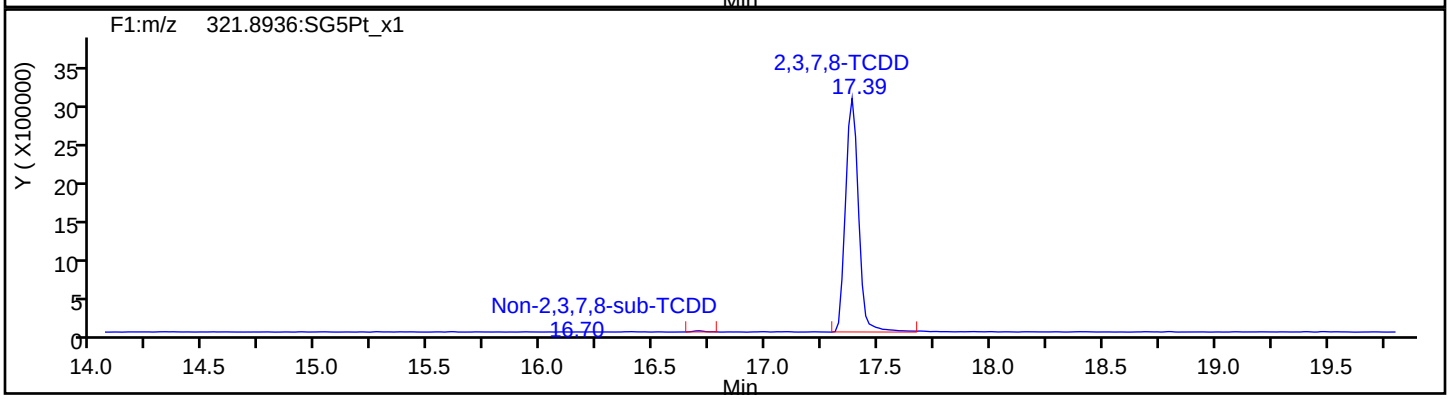
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

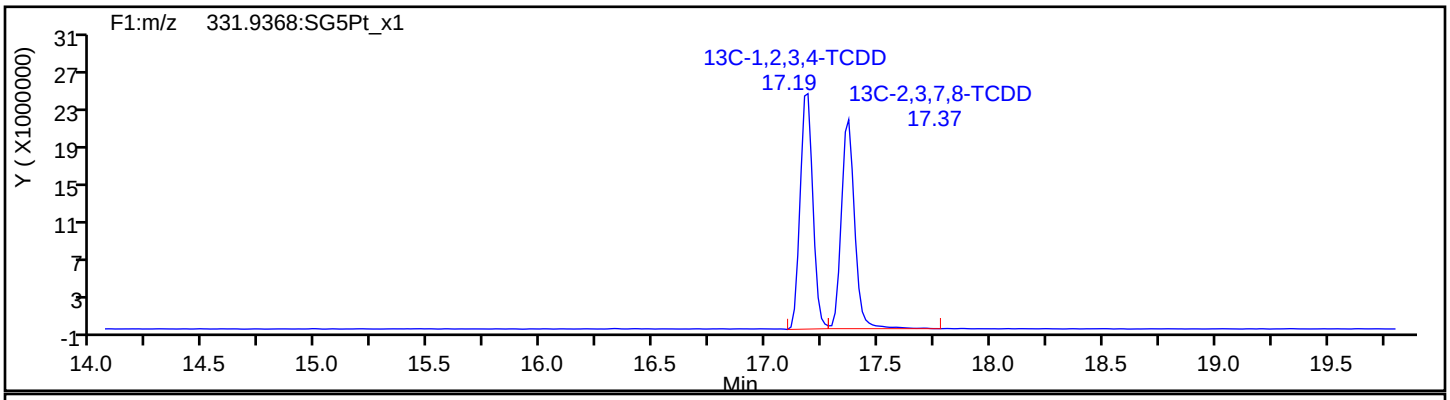
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

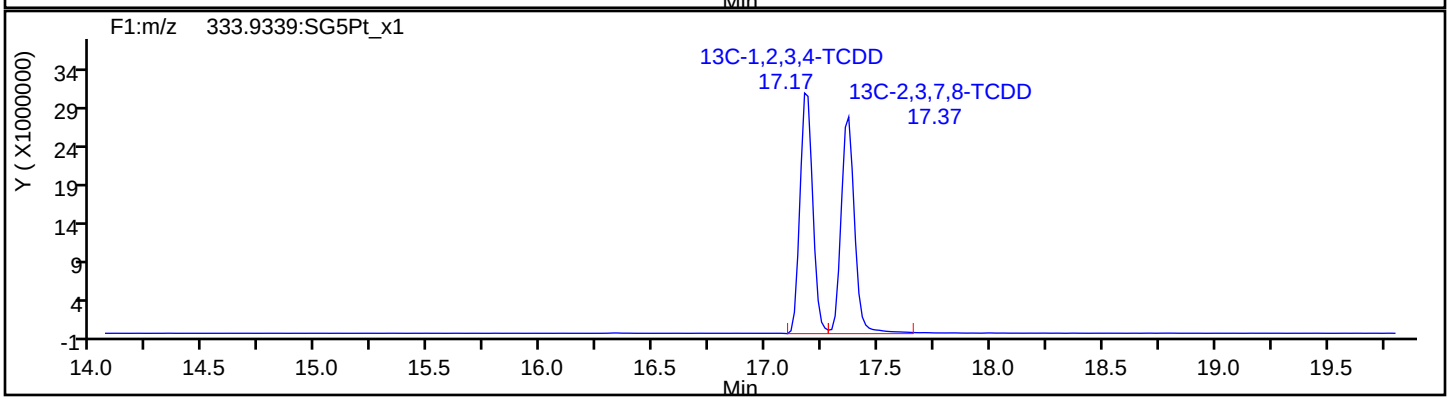
TCDD





TCDD Standards





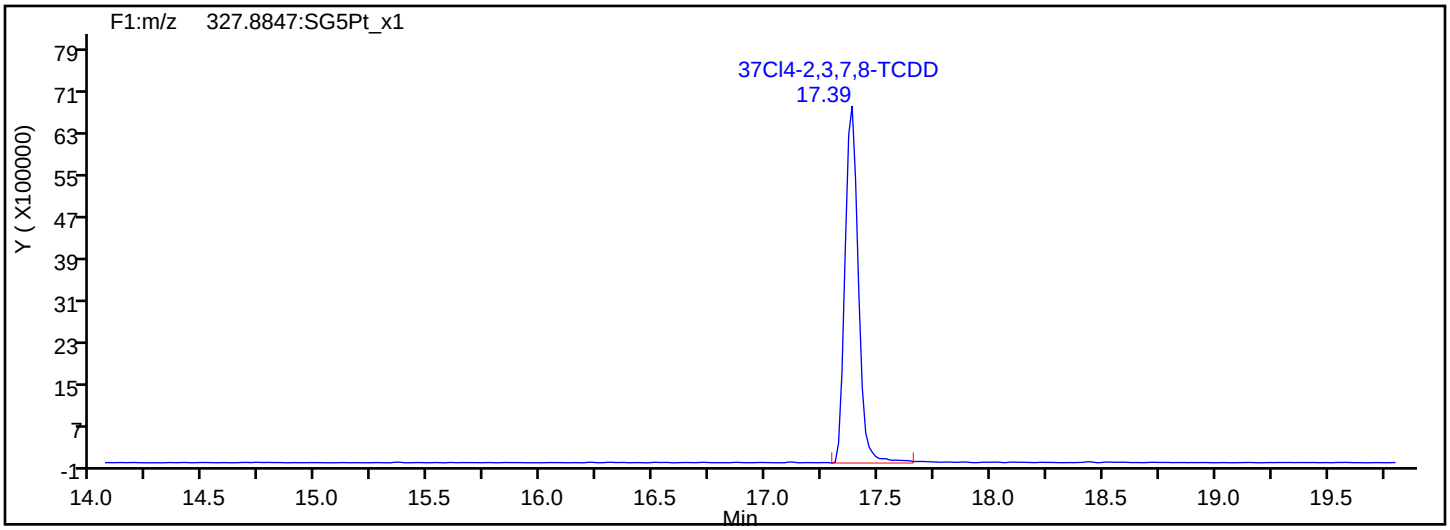
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

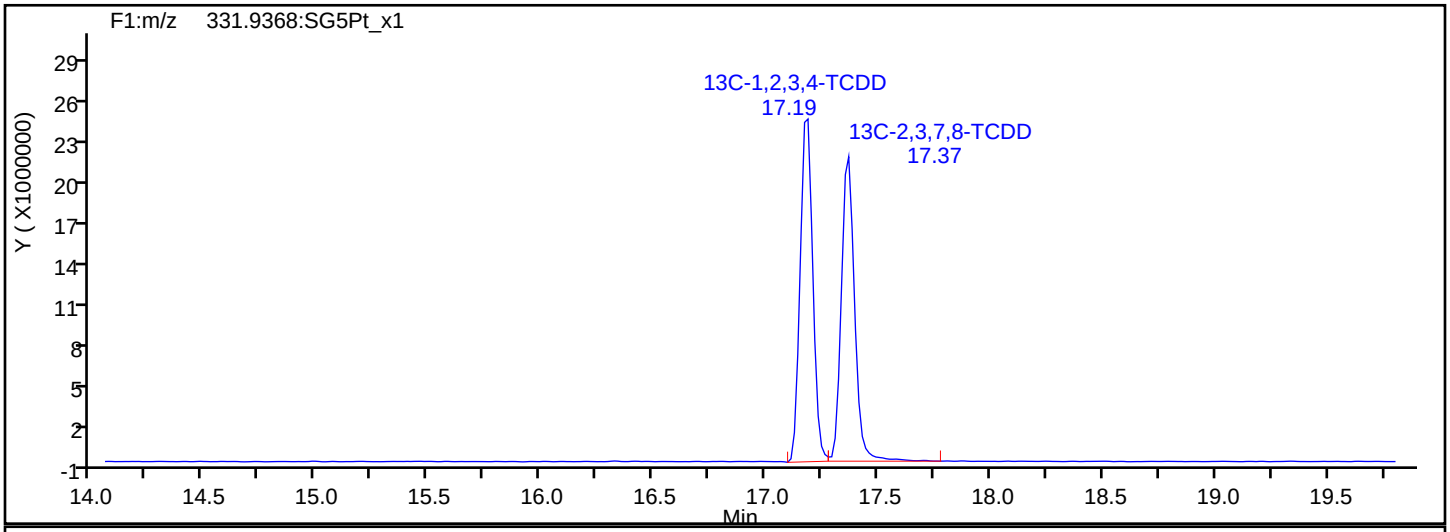
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

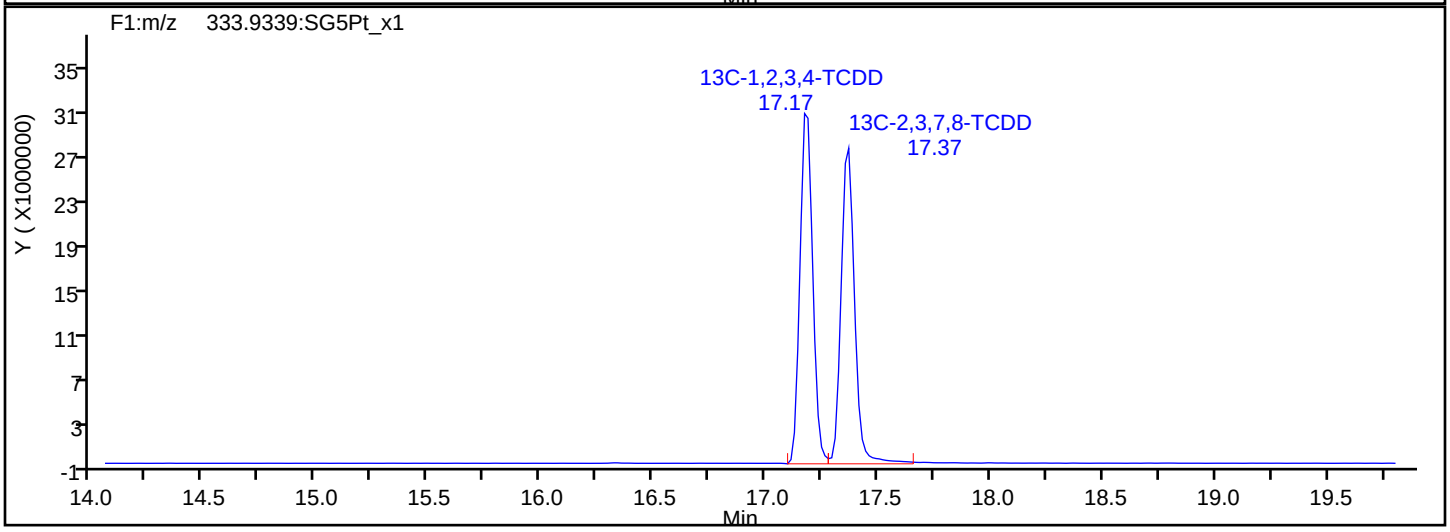
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



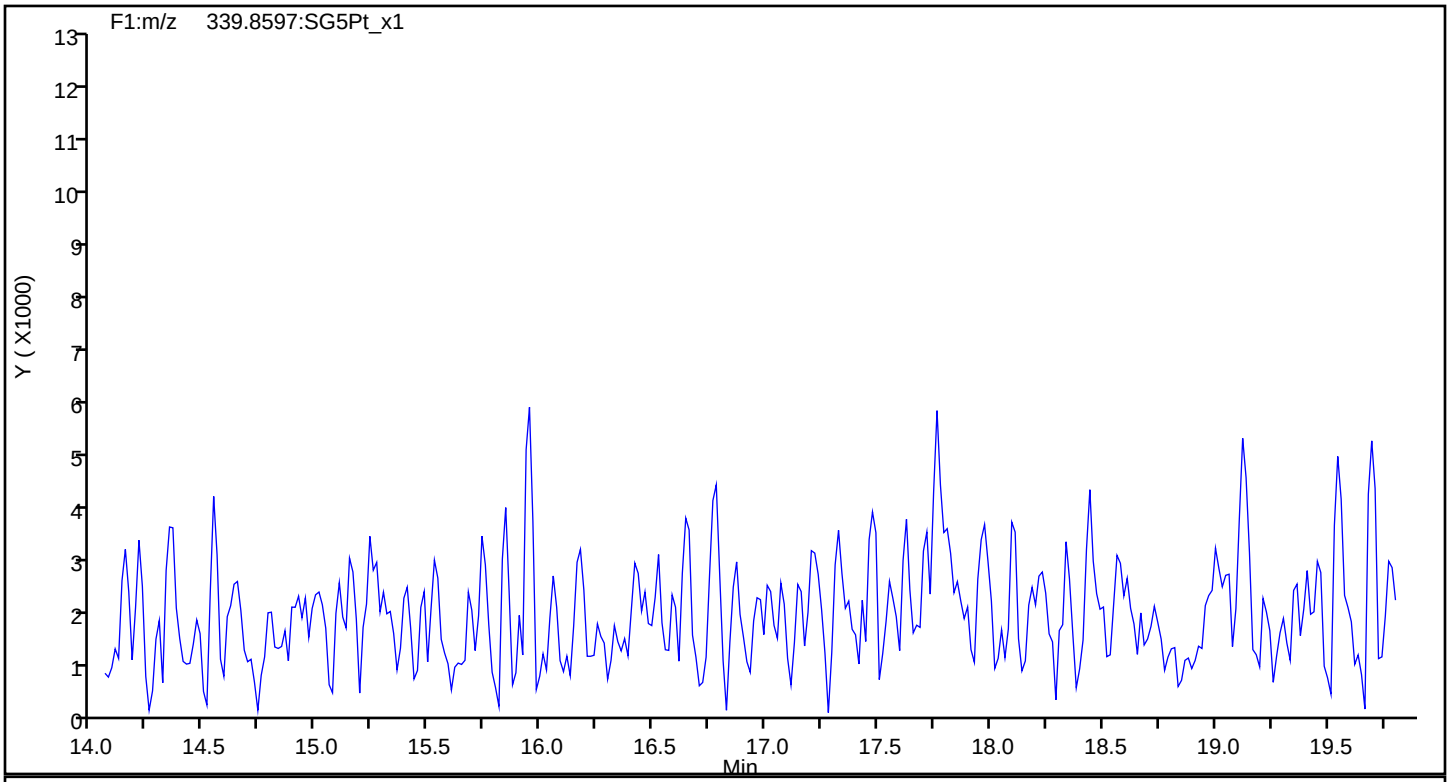


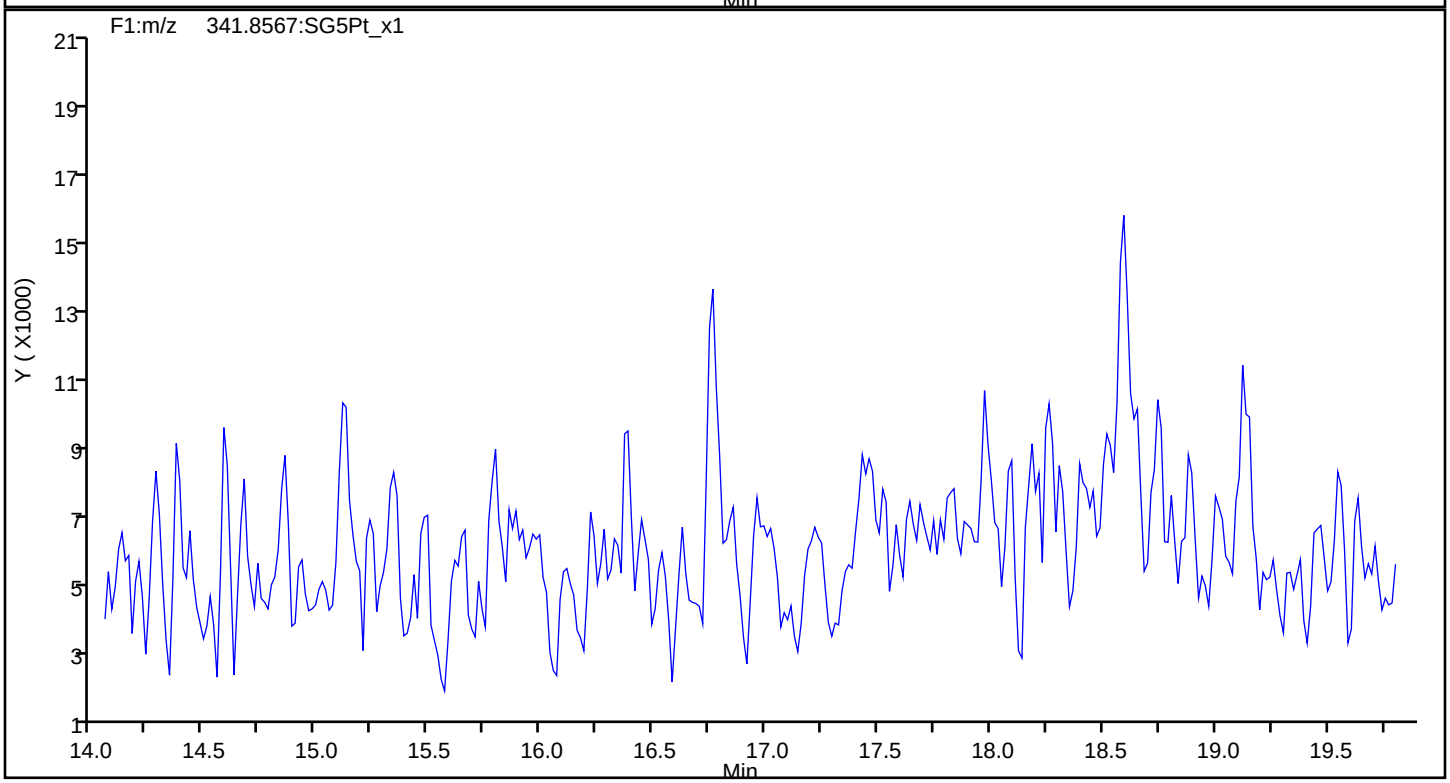
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



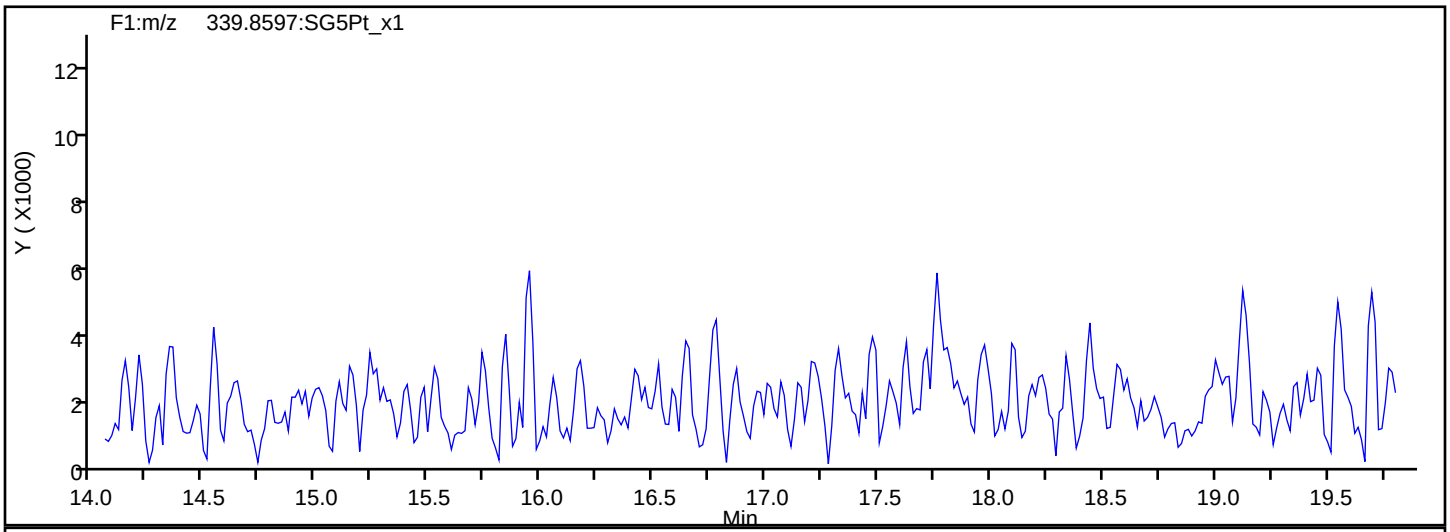


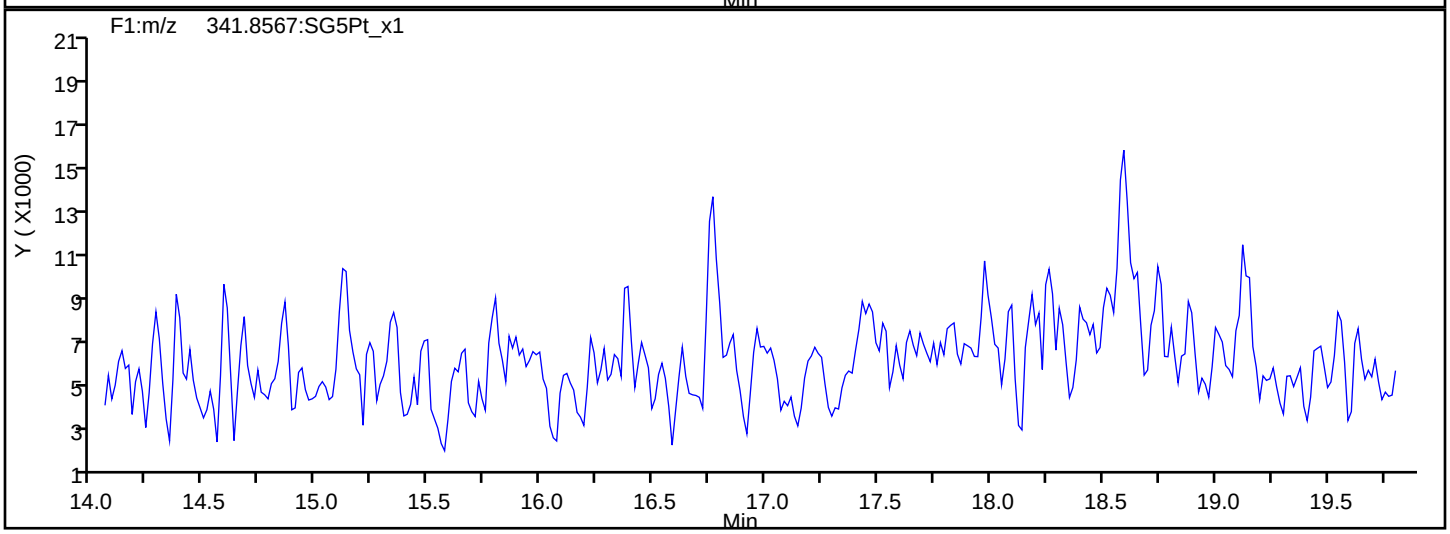
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

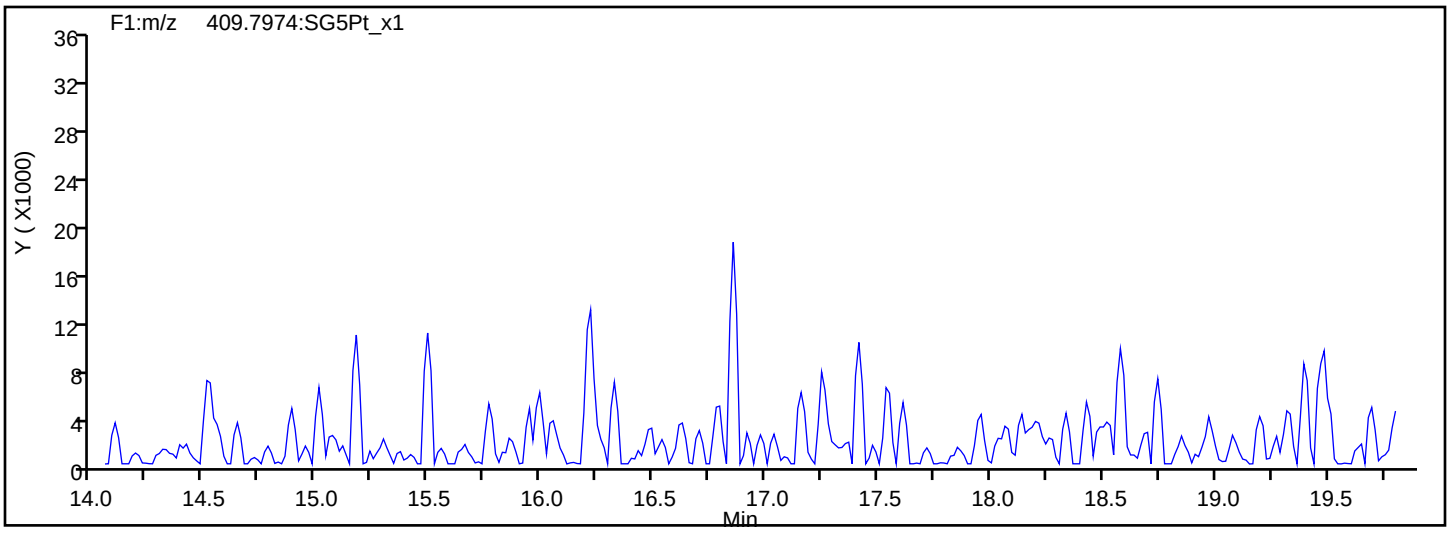
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass



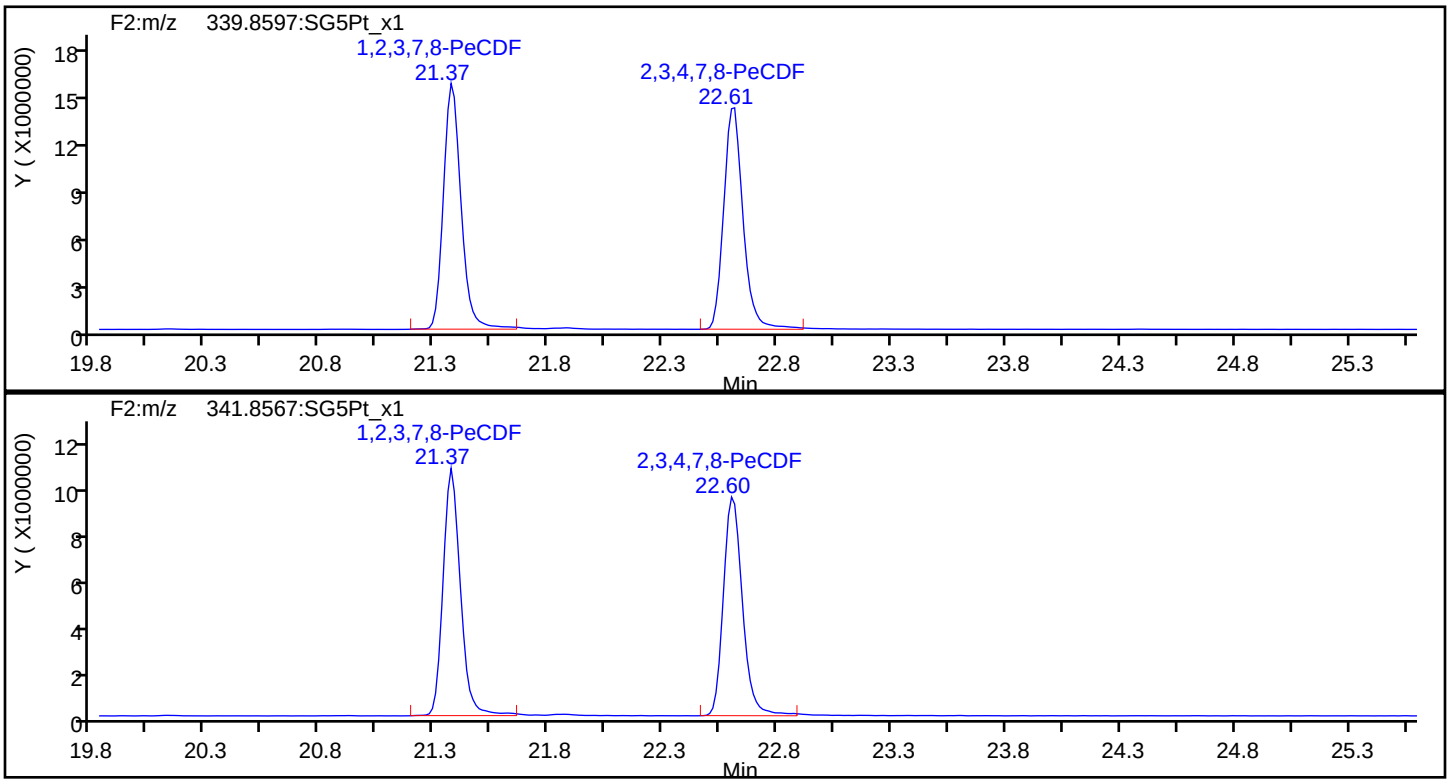
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

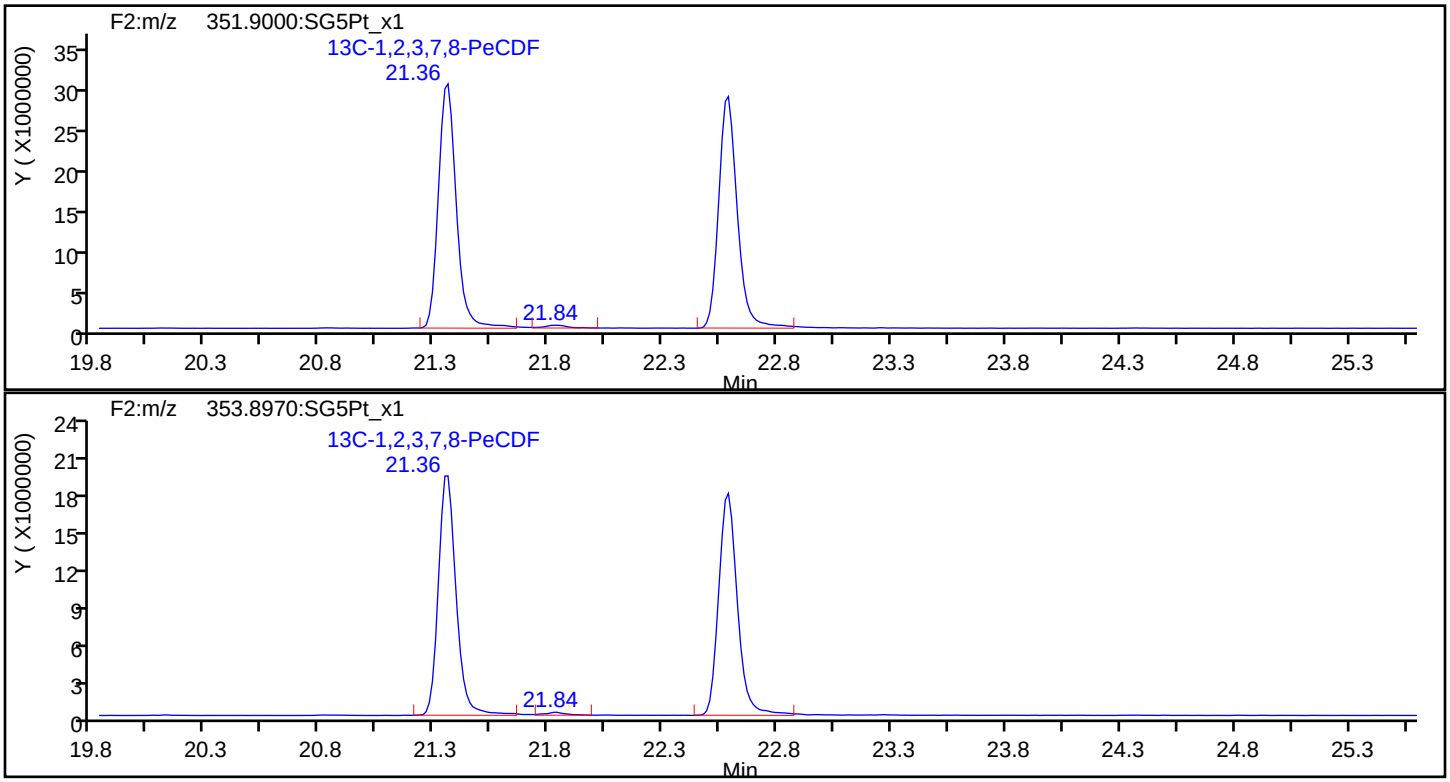
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

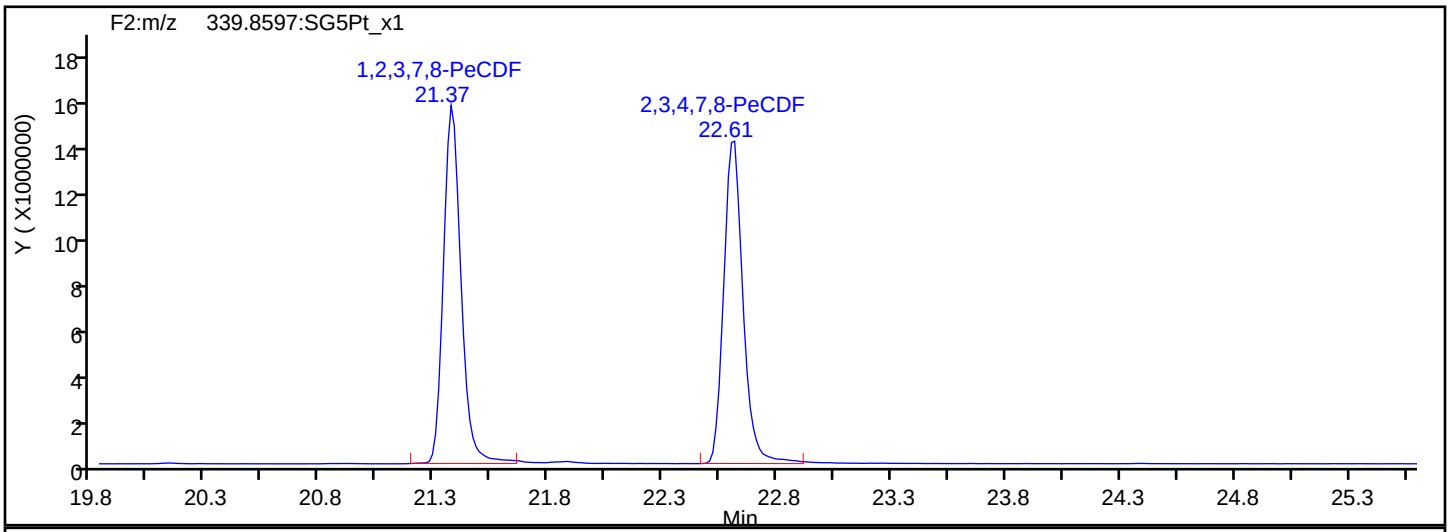


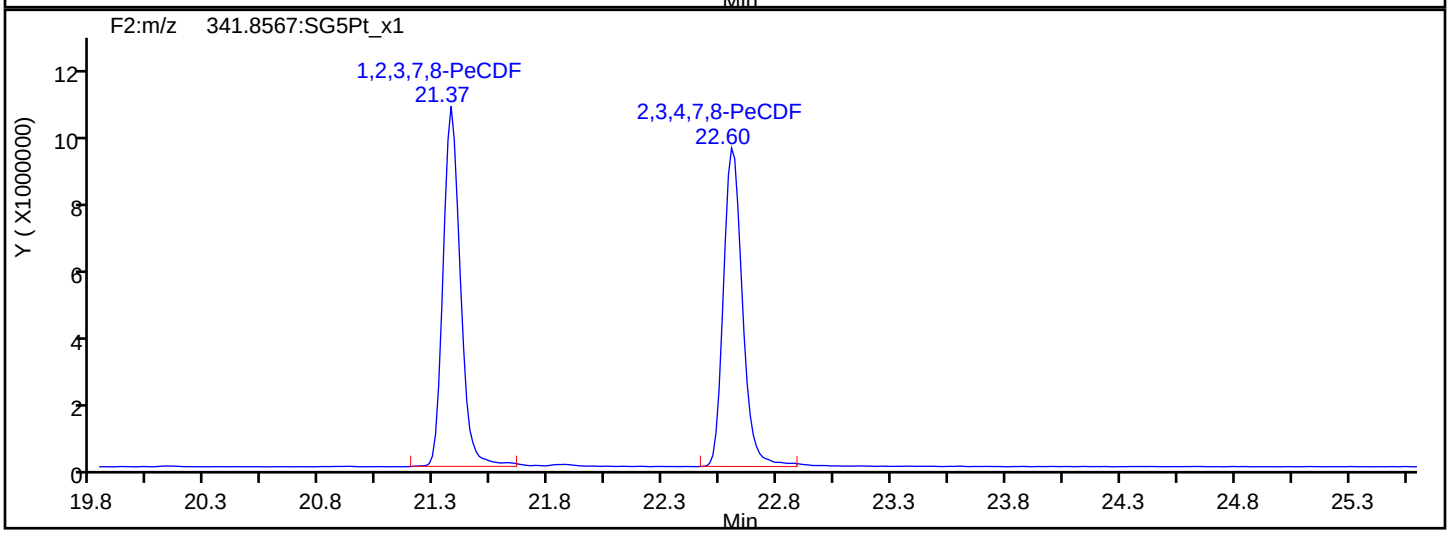
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

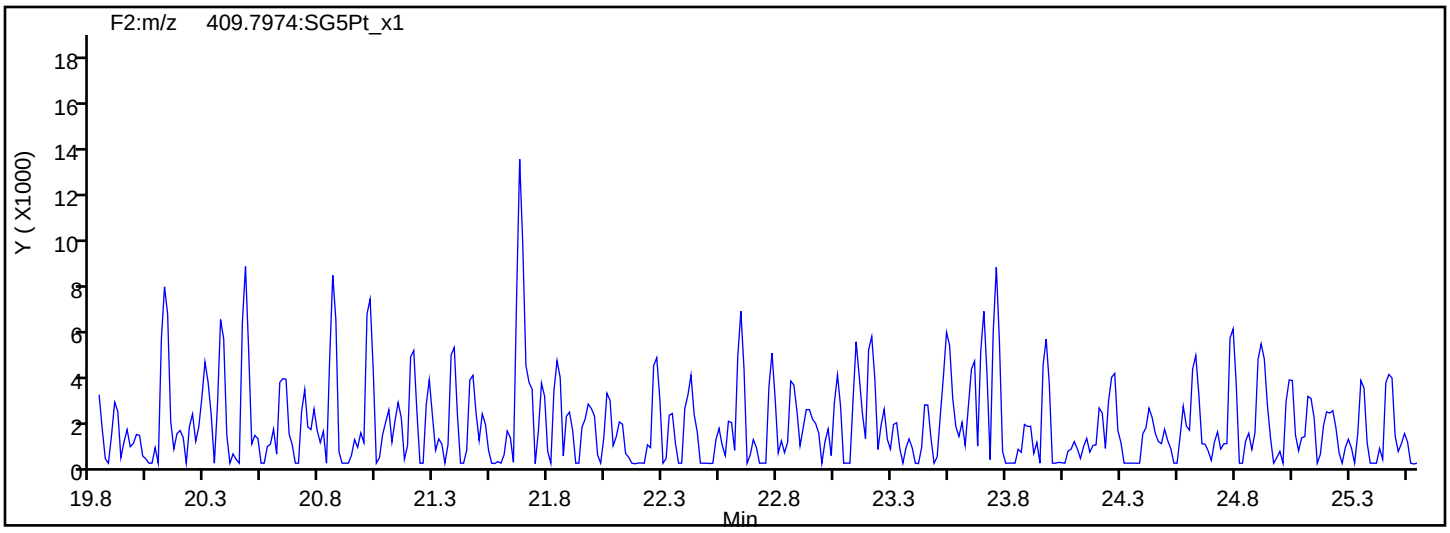
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



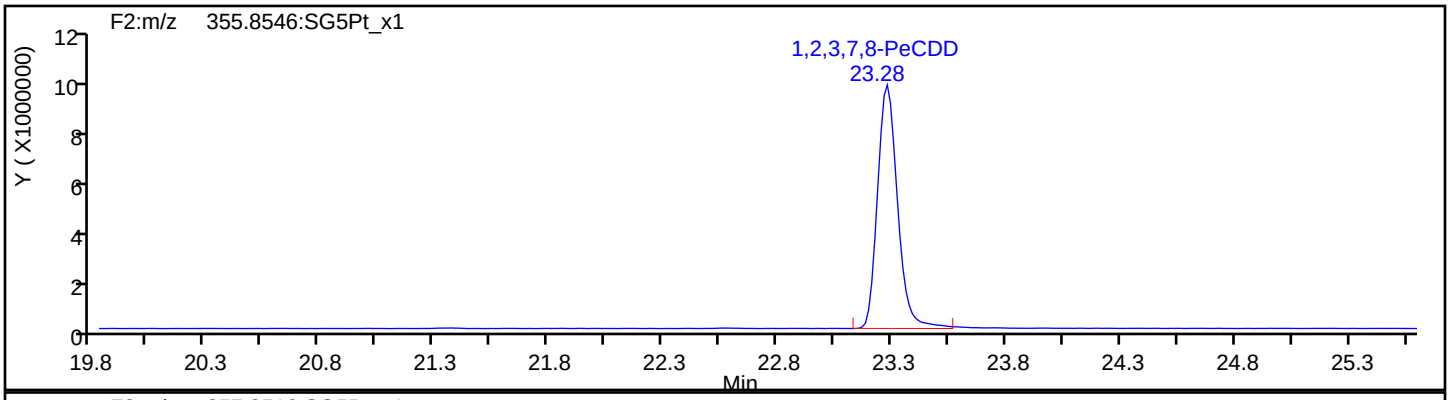
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

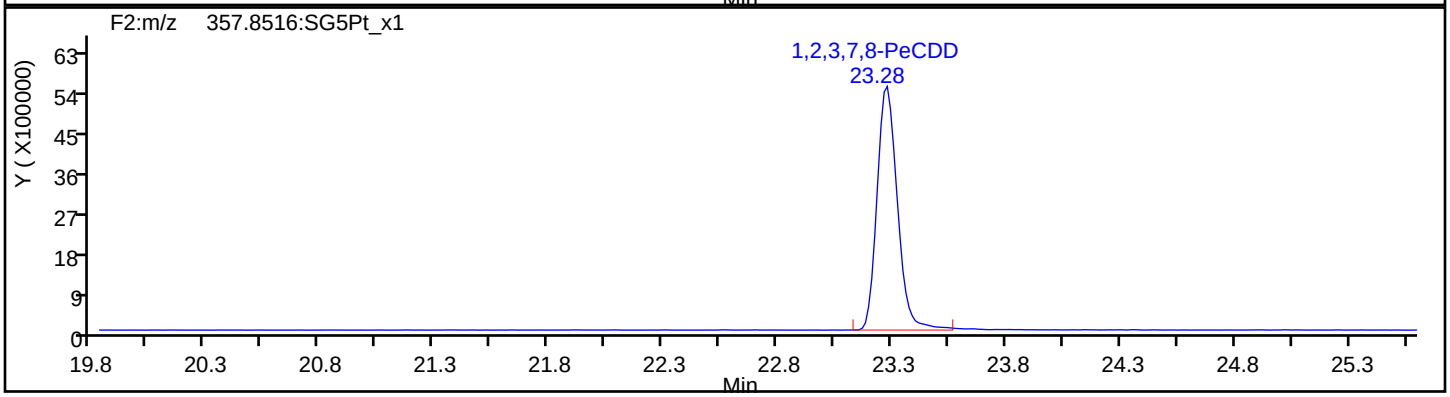
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

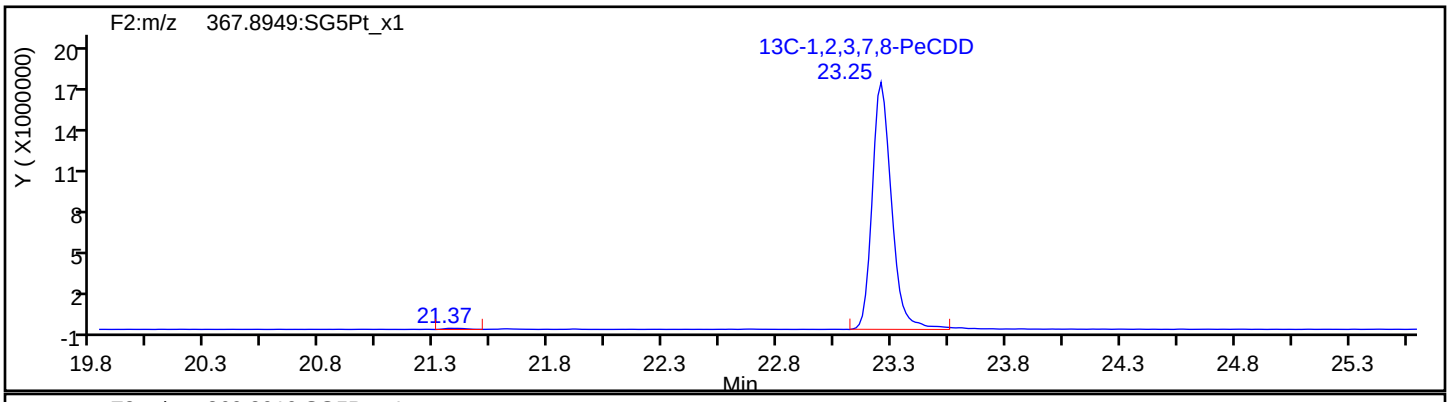
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

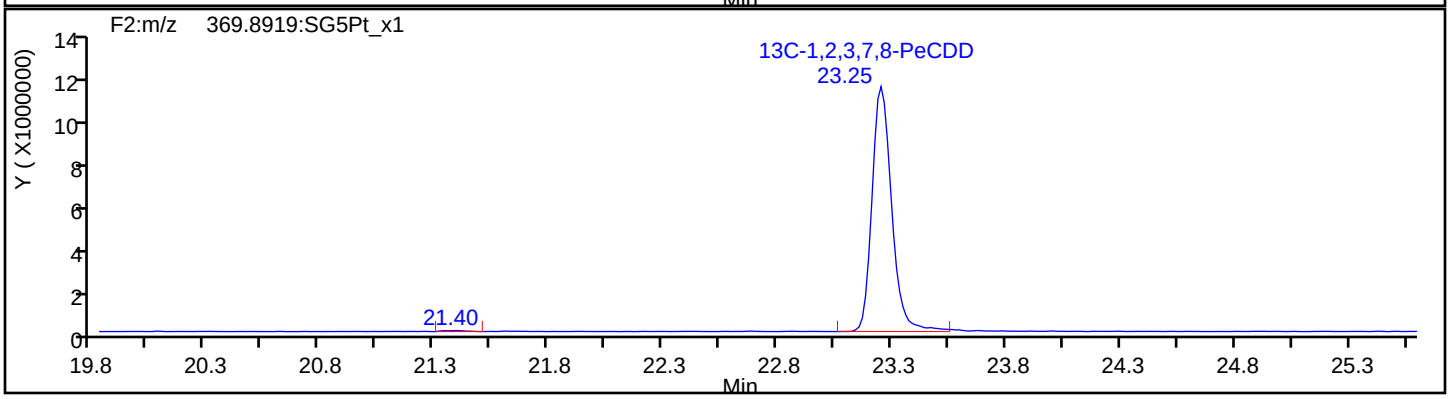
PeCDD





PeCDD Standards





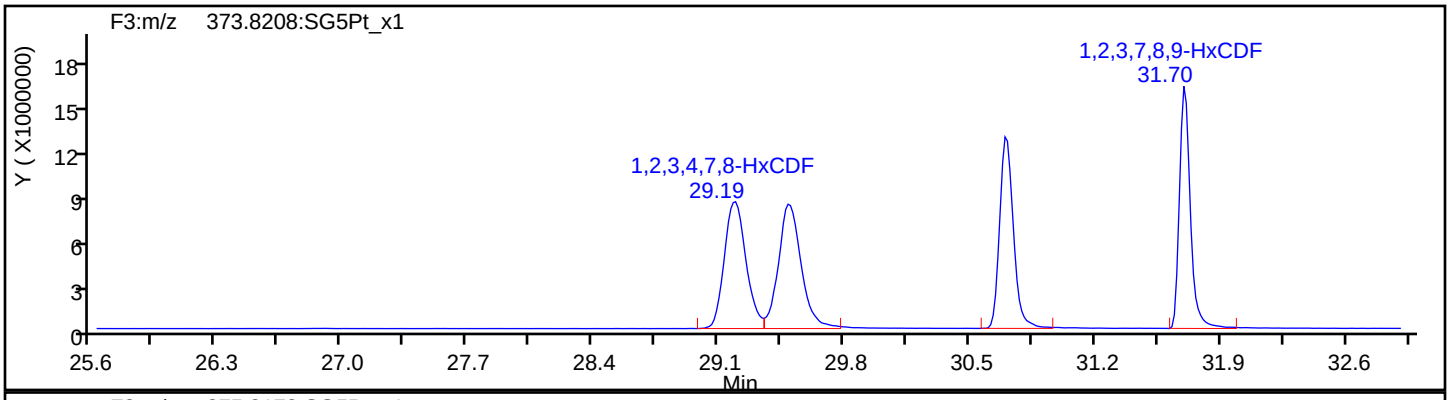
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

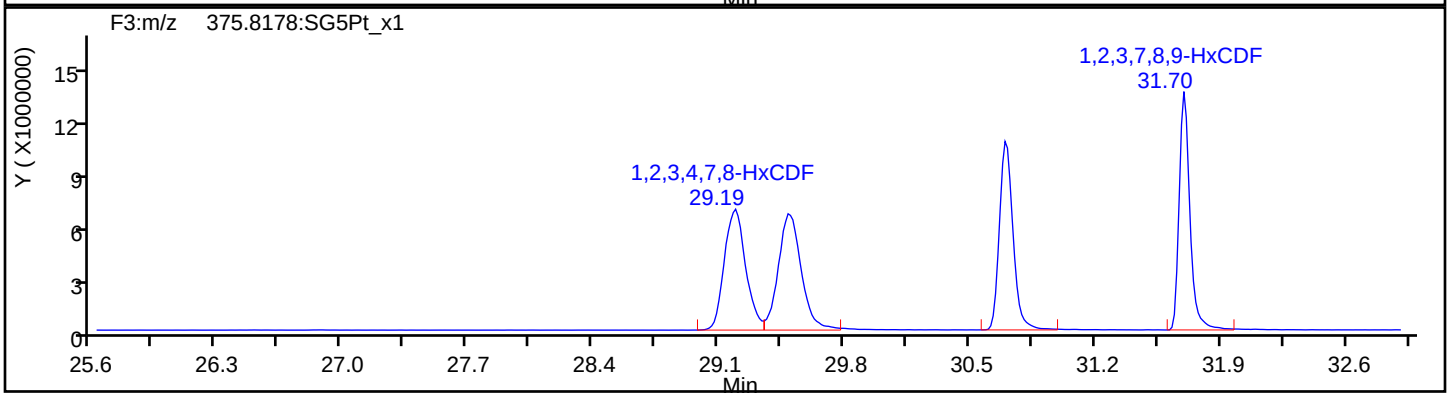
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

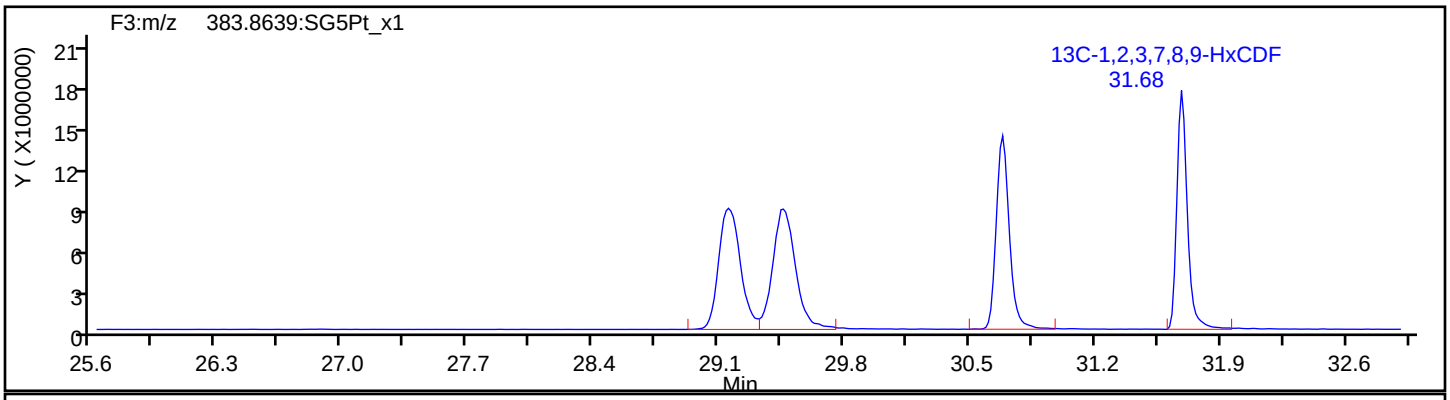
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

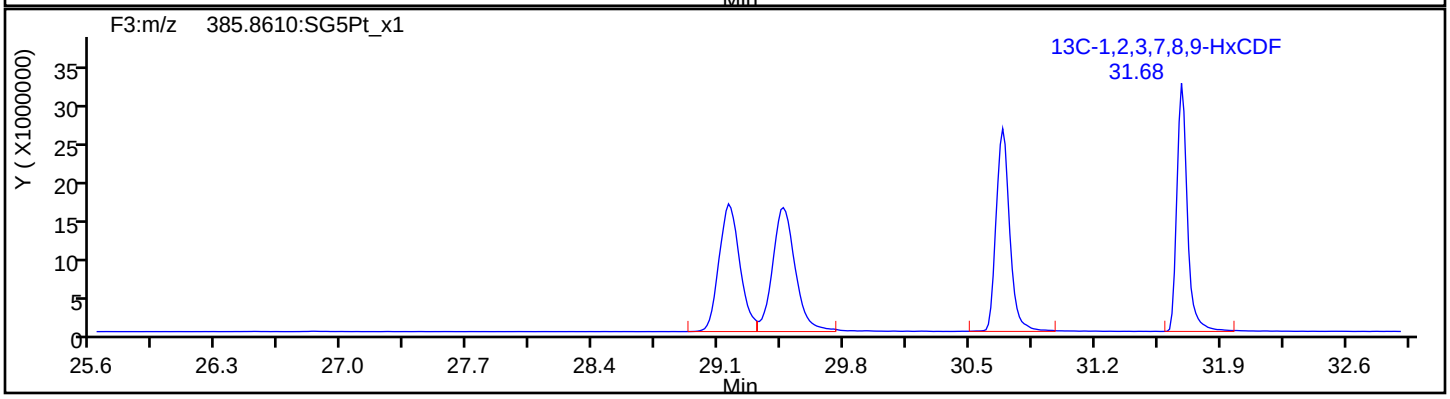
HxCDF





HxCDF Standards



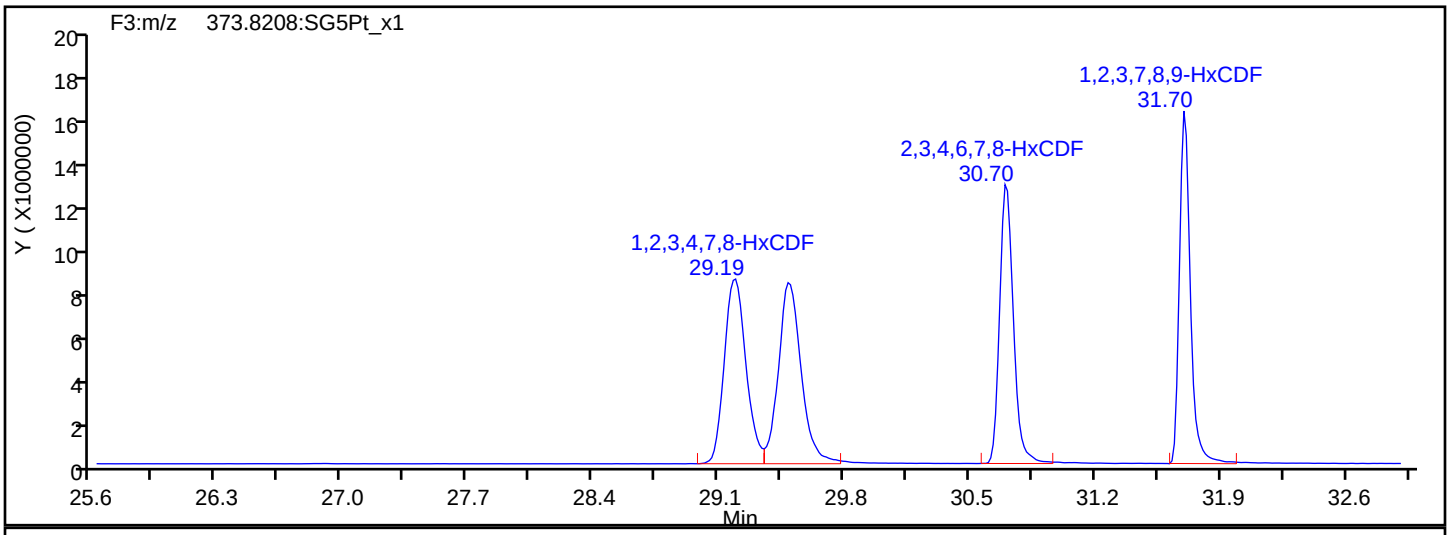


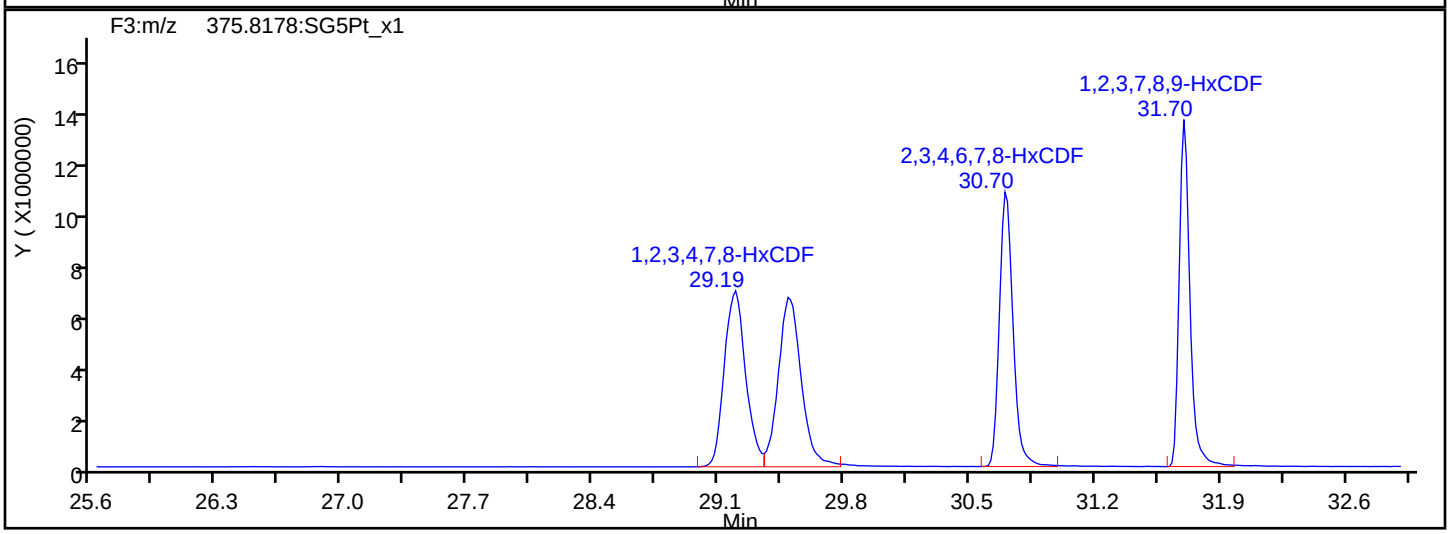
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

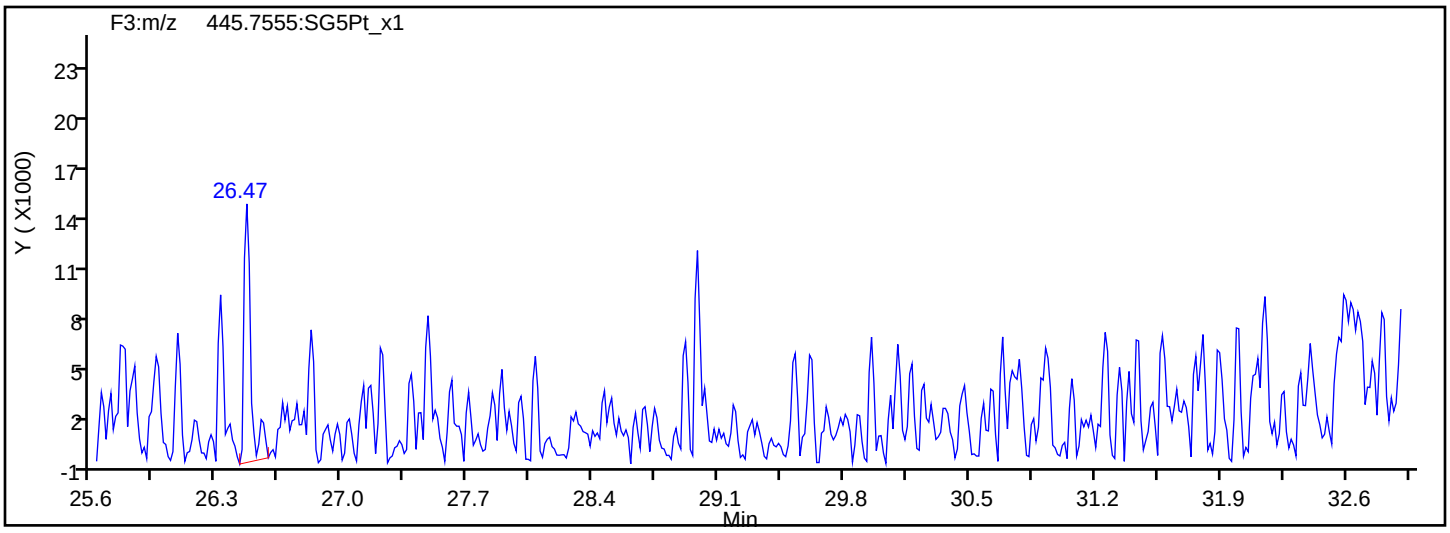
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

Injection Date: 21-Jul-2019 17:13:56 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

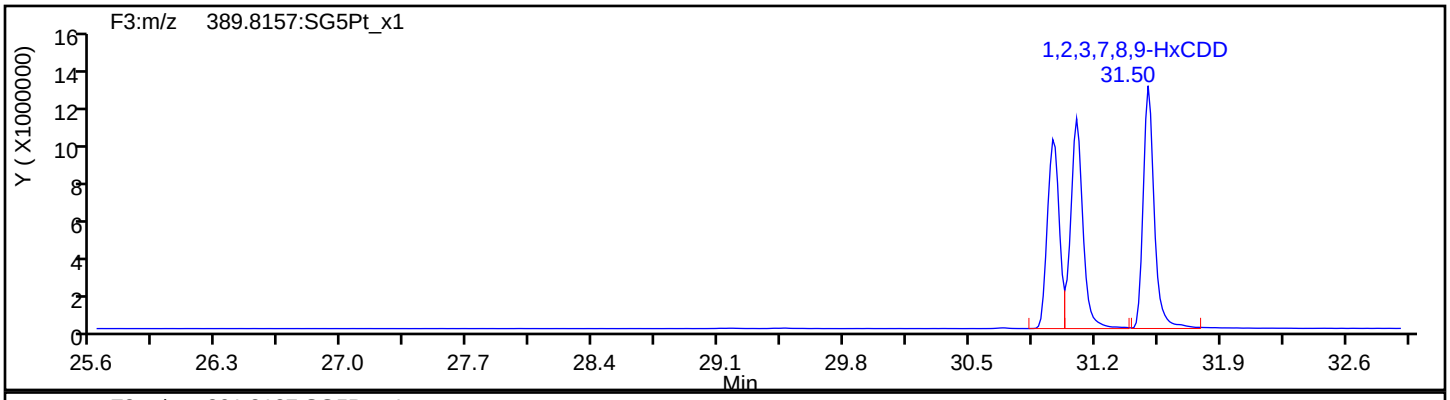
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

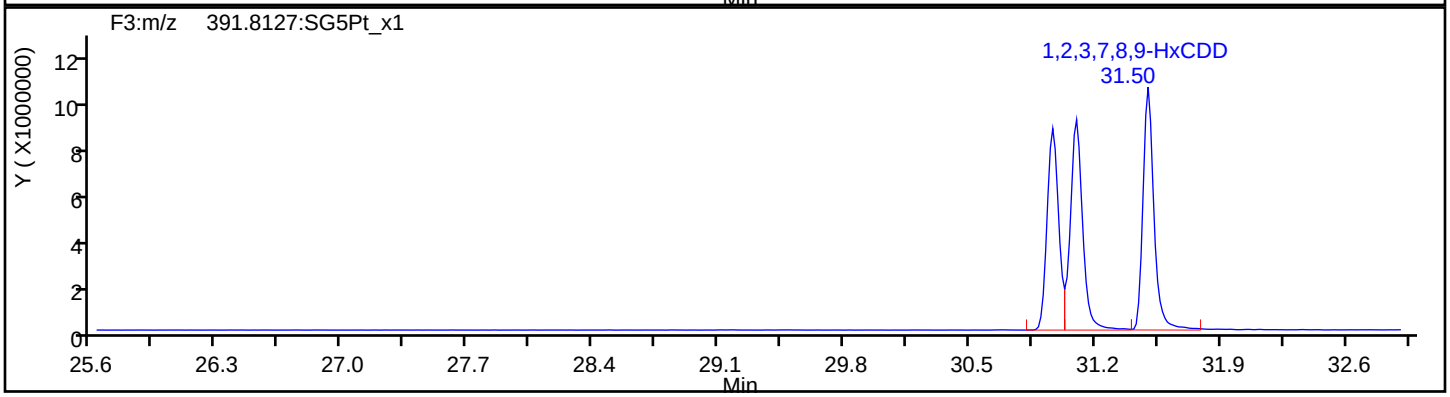
Client ID:

Worklist#: 309103 Sample Line#: 51

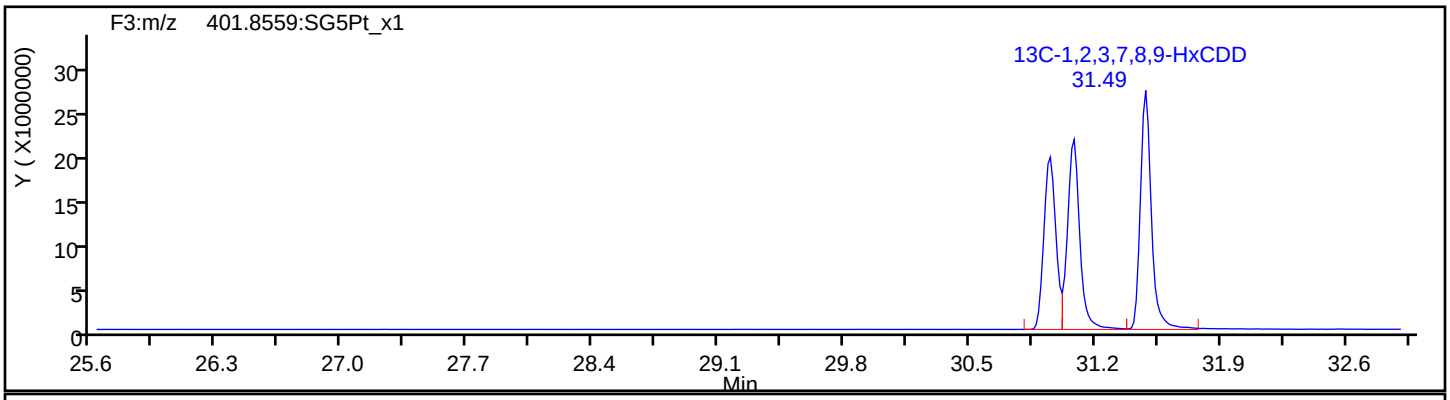
Column Type: DB-5 Column Dia: 0.32 mm

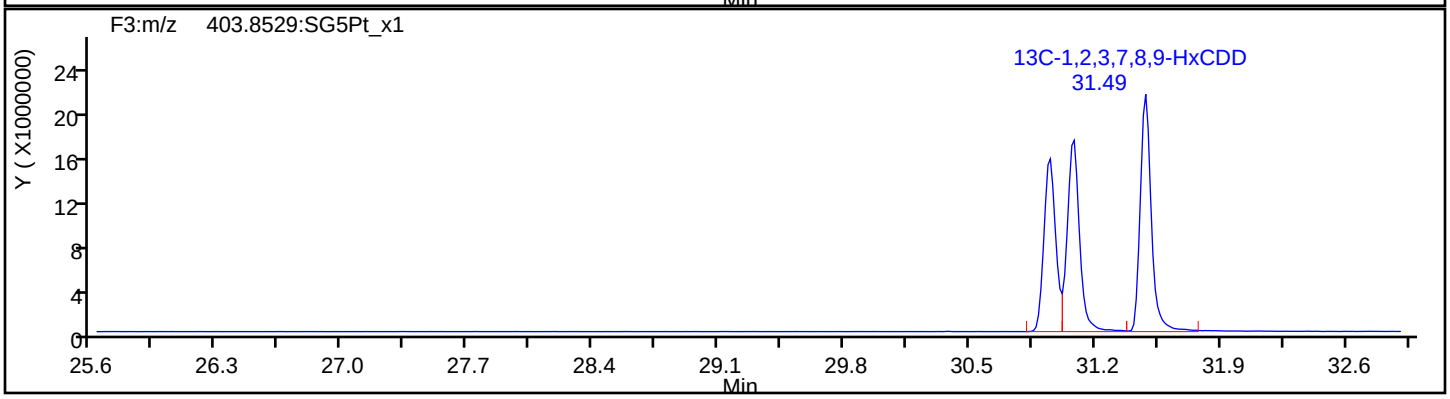
HxCDD





HxCDD Standards





Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

Injection Date: 21-Jul-2019 17:13:56 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

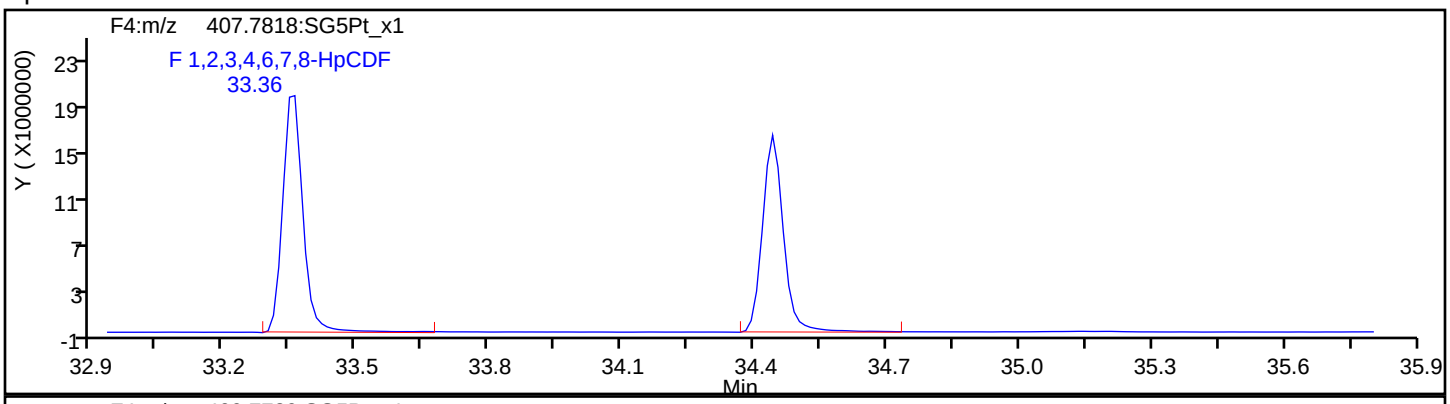
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

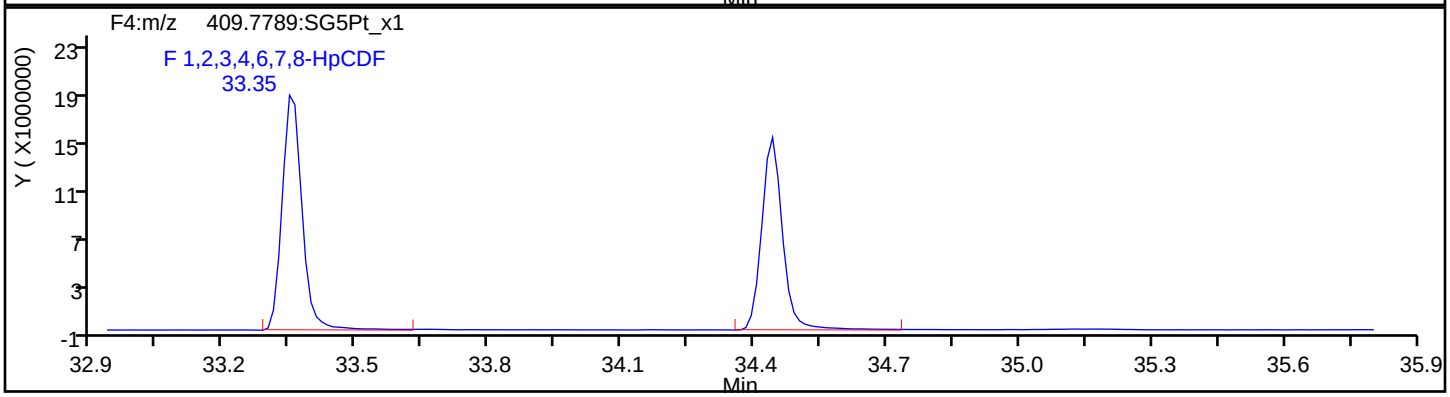
Client ID:

Worklist#: 309103 Sample Line#: 51

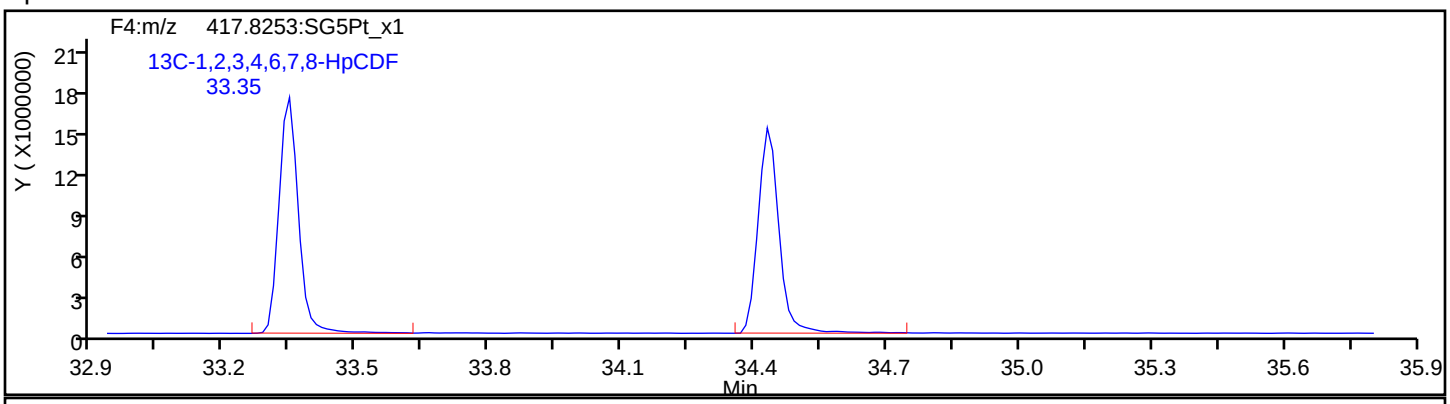
Column Type: DB-5 Column Dia: 0.32 mm

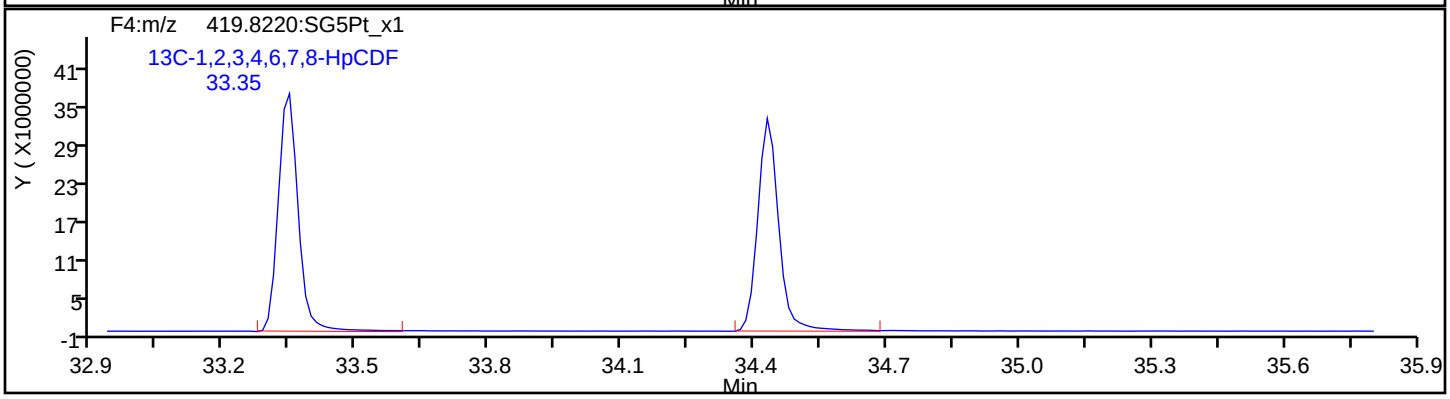
HpCDF





HpCDF Standards



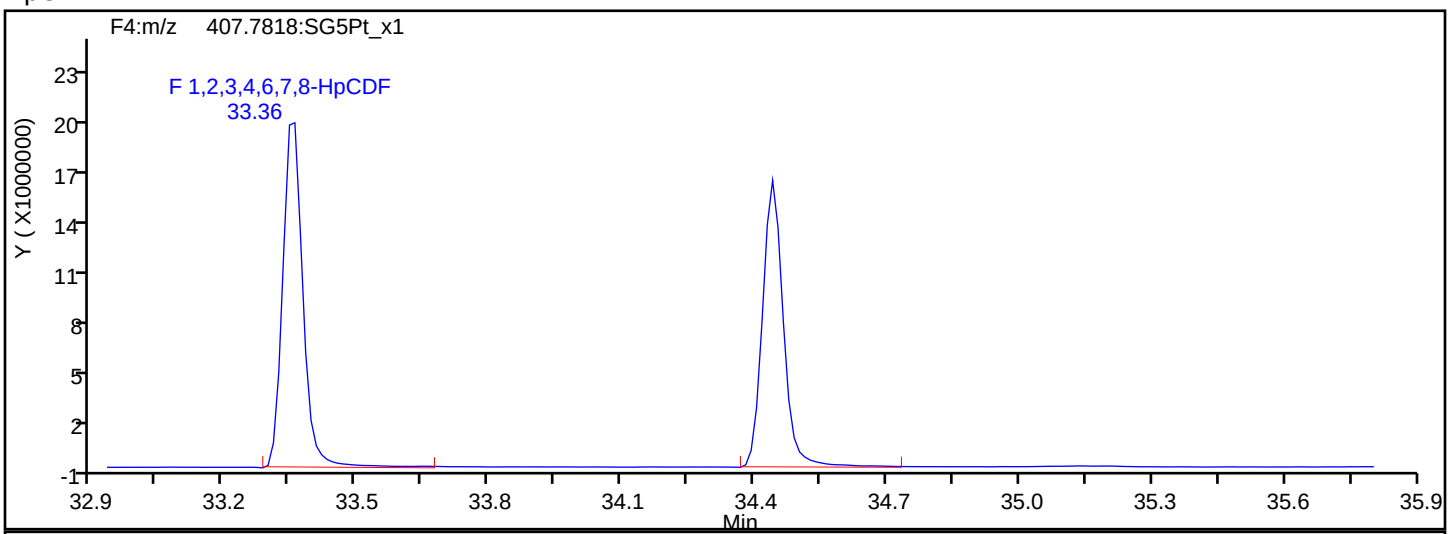


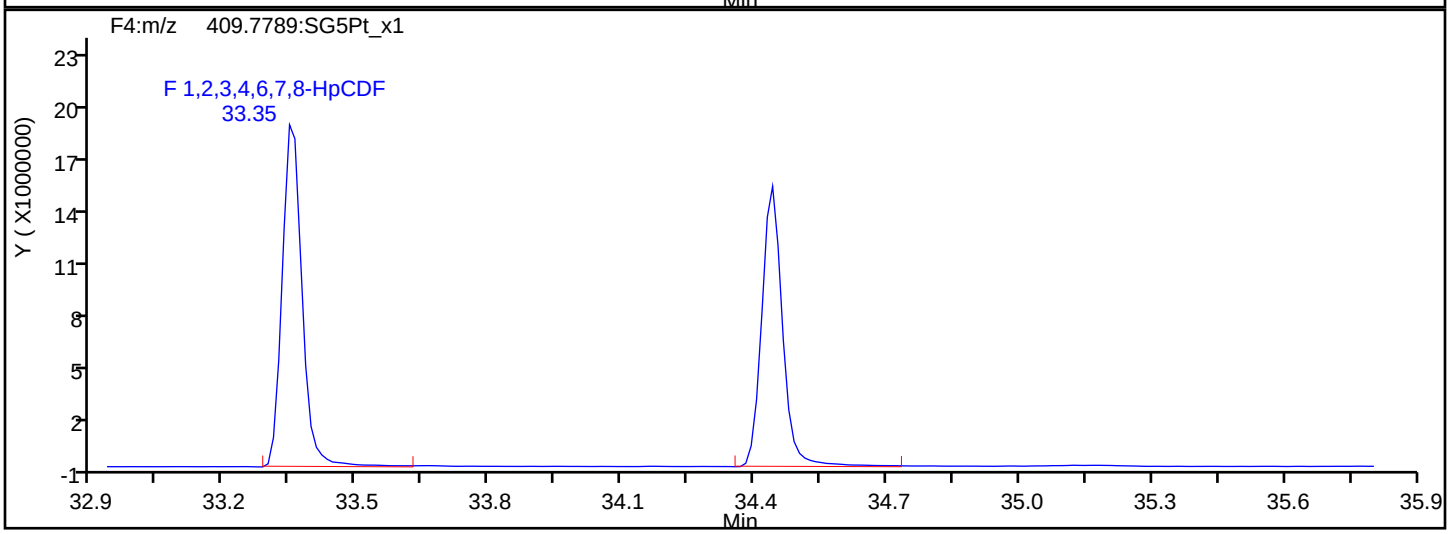
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

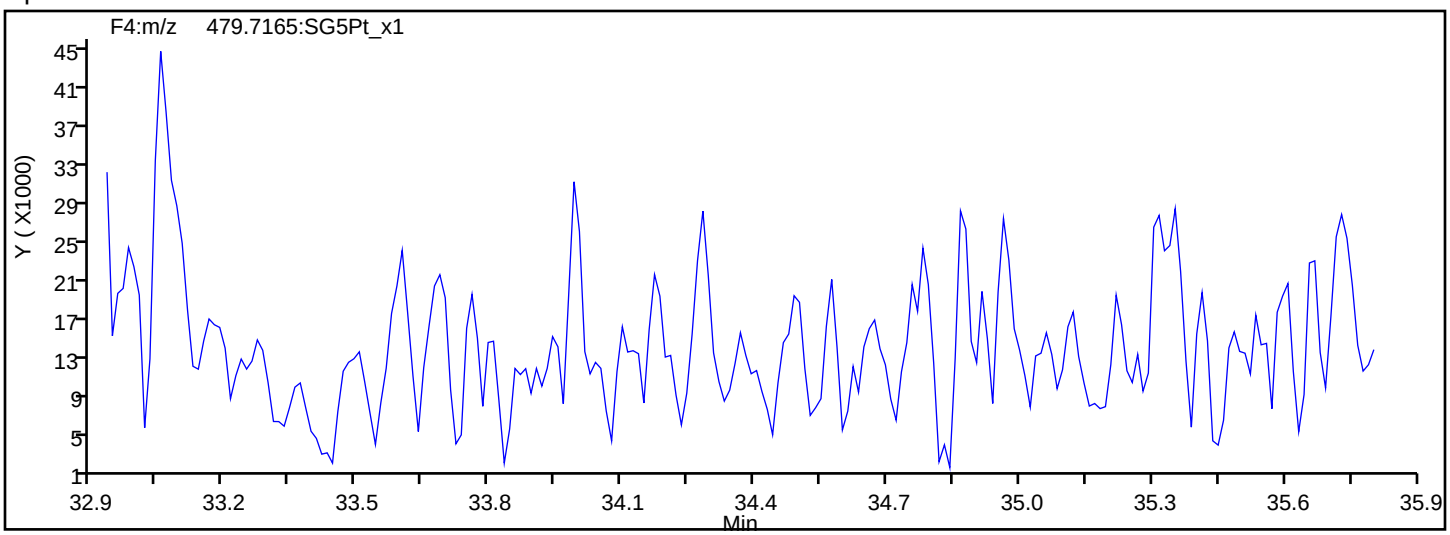
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



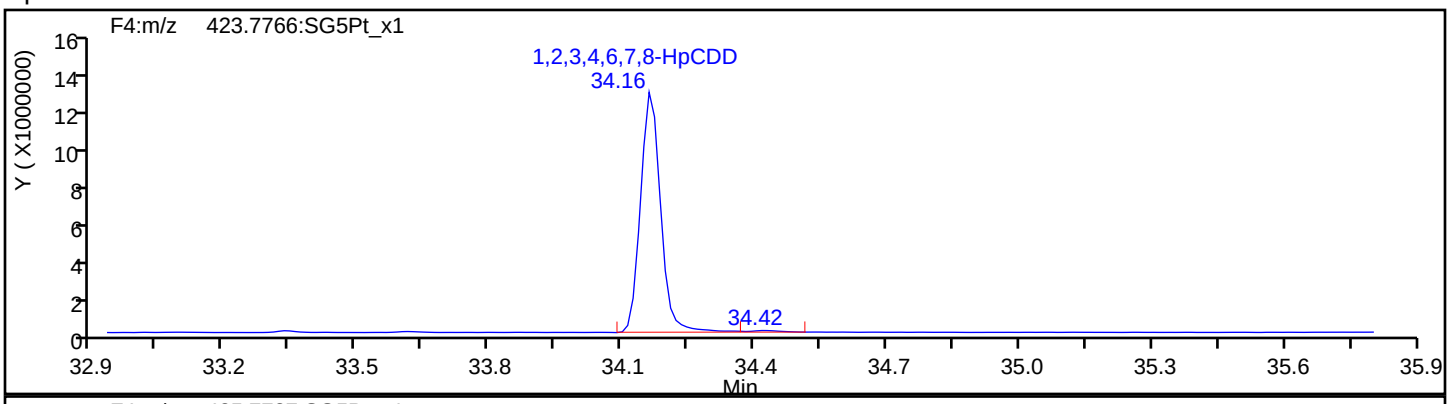
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

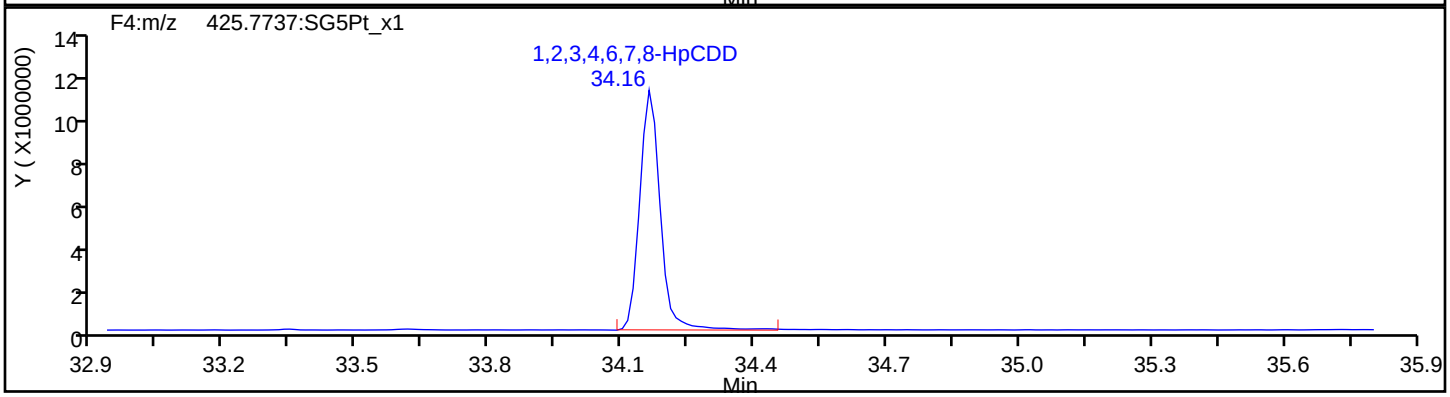
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

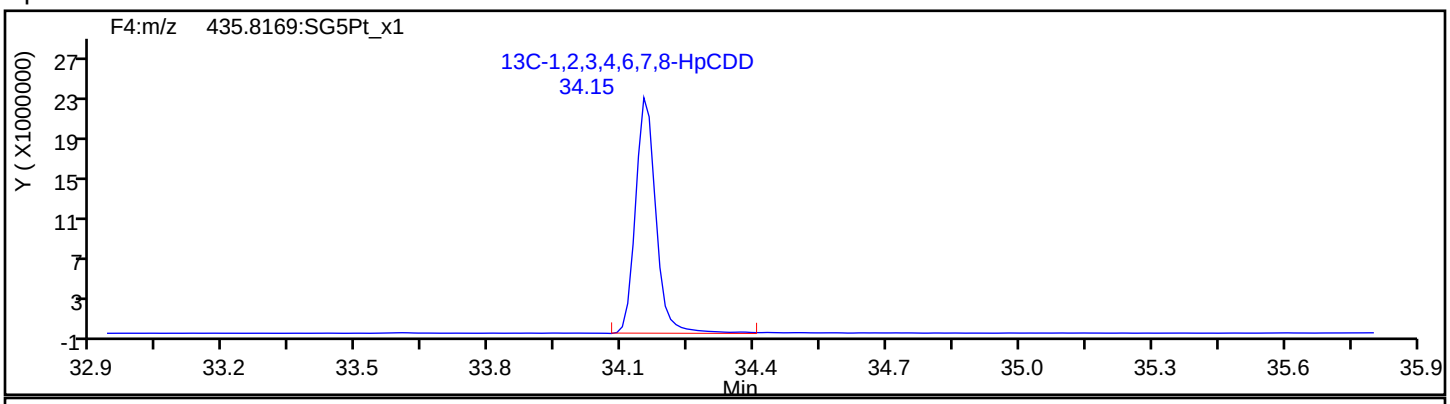
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

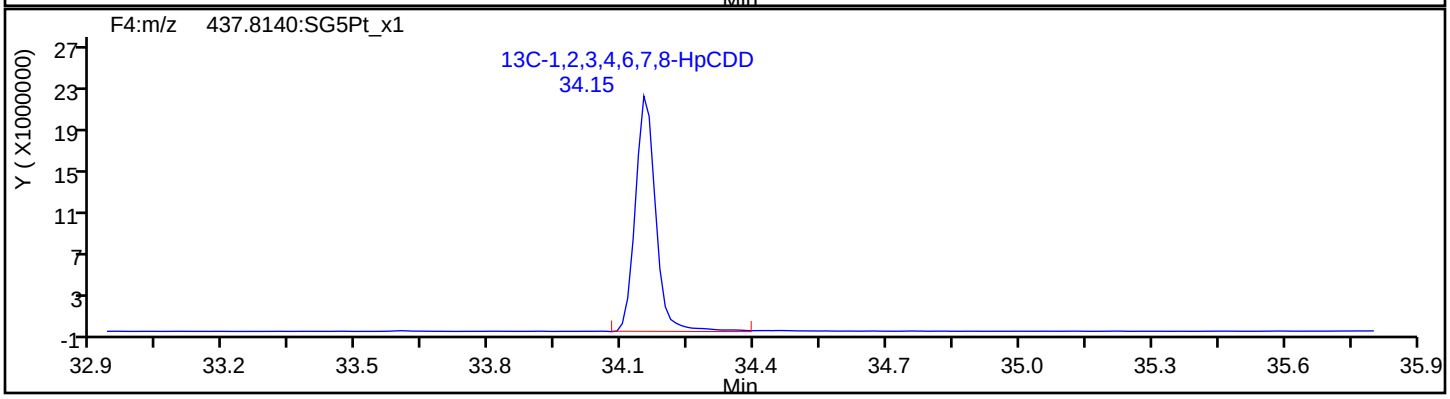
HpCDD





HpCDD Standards





Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d

Injection Date: 21-Jul-2019 17:13:56 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

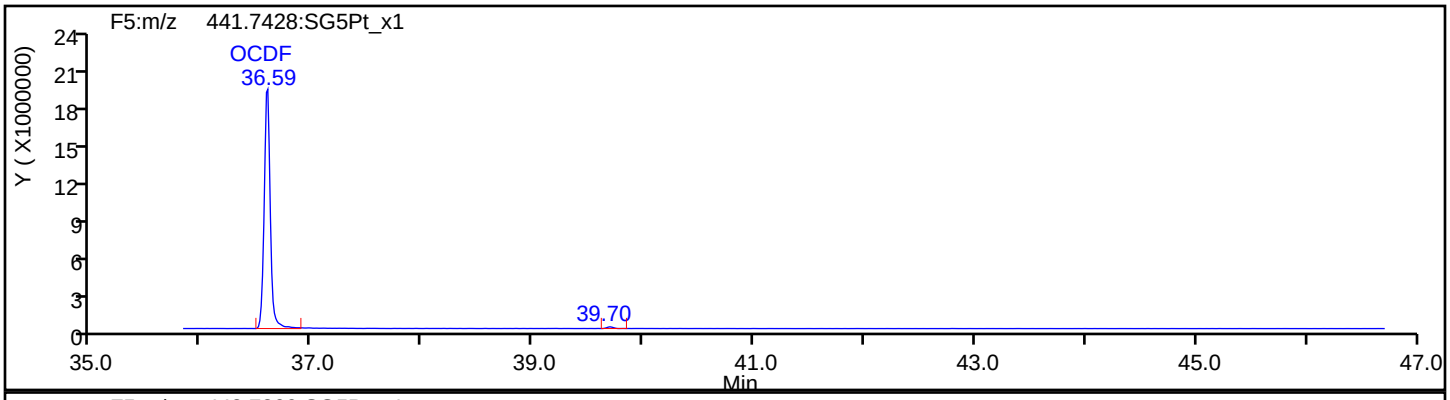
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

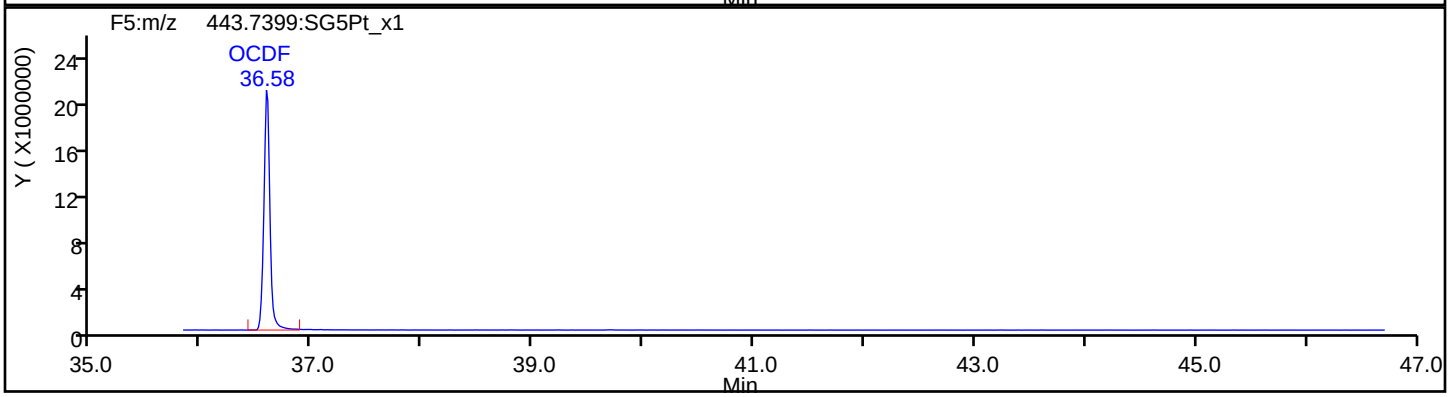
Client ID:

Worklist#: 309103 Sample Line#: 51

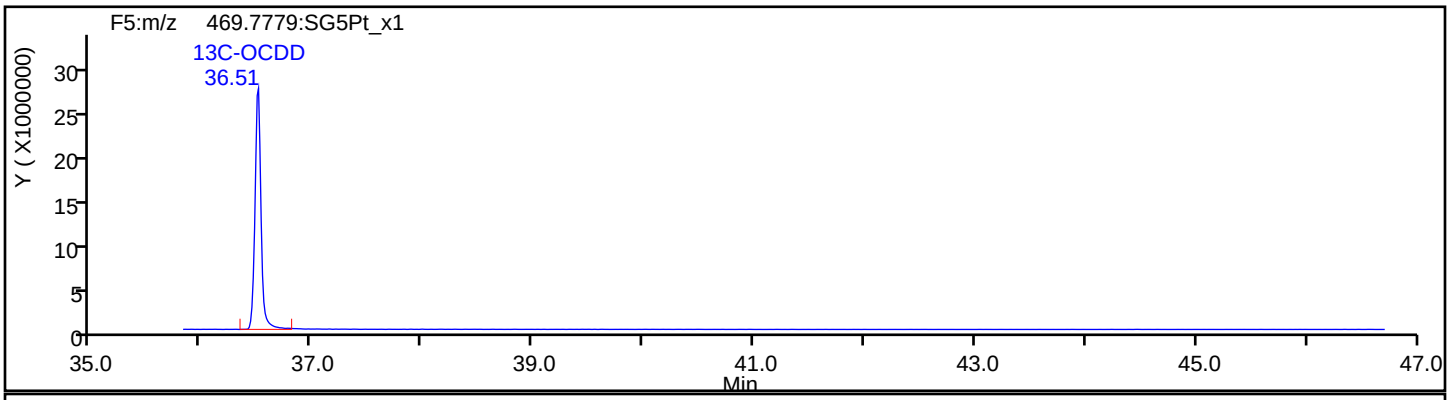
Column Type: DB-5 Column Dia: 0.32 mm

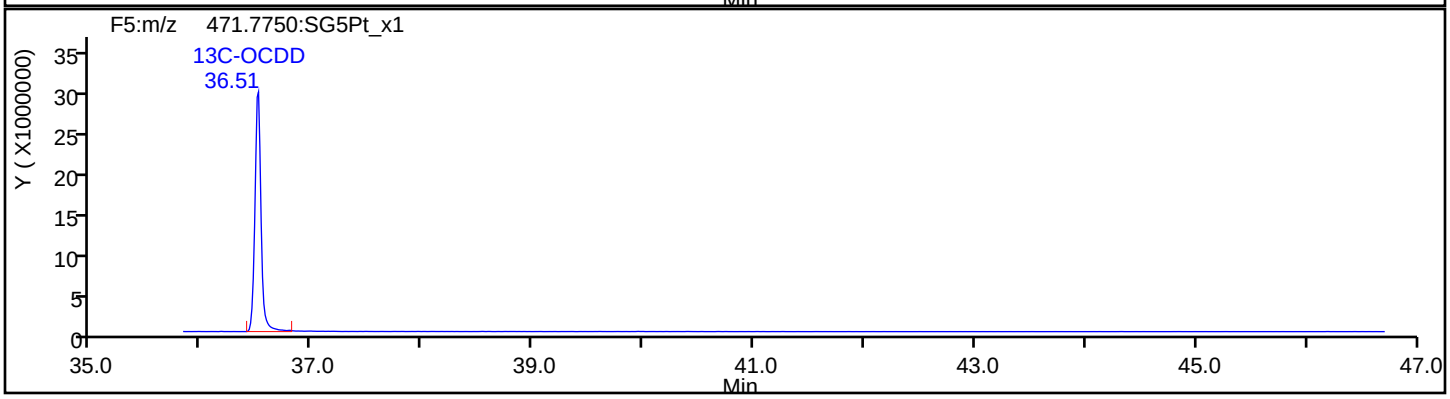
OCDF





OCDF Standards



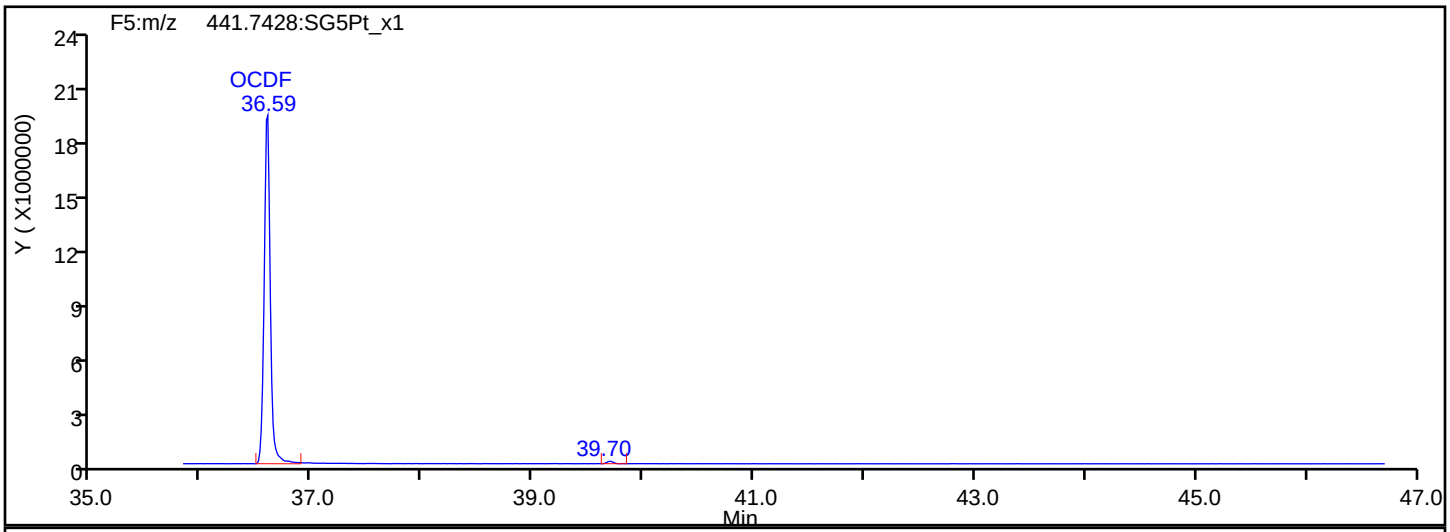


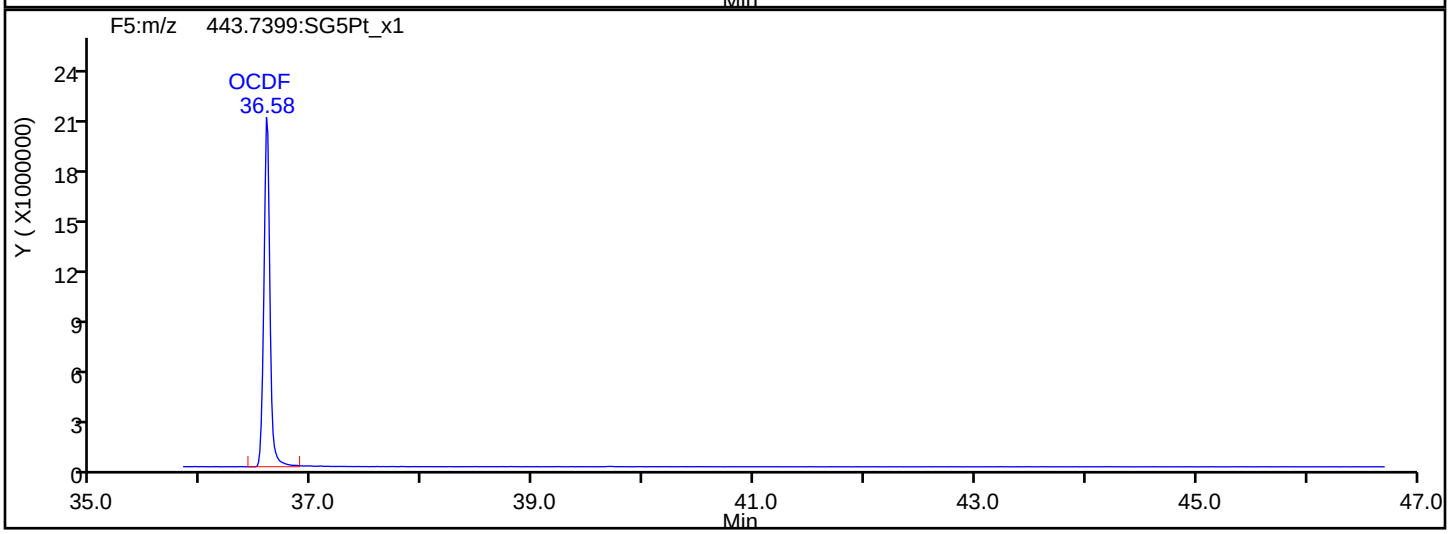
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

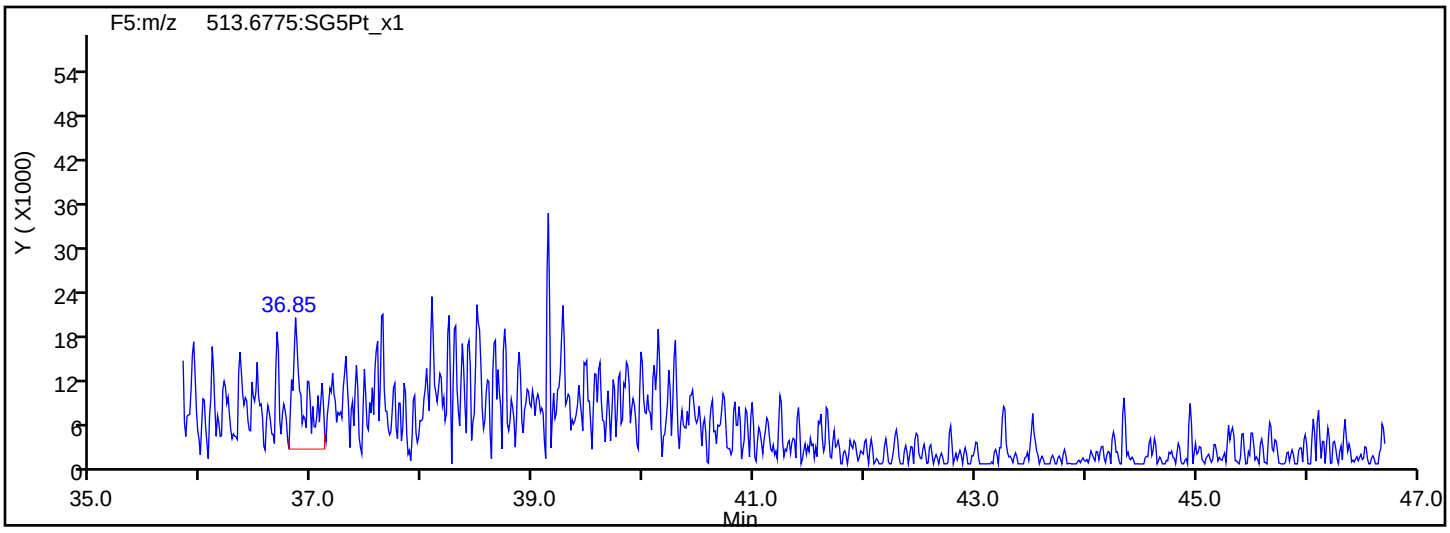
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

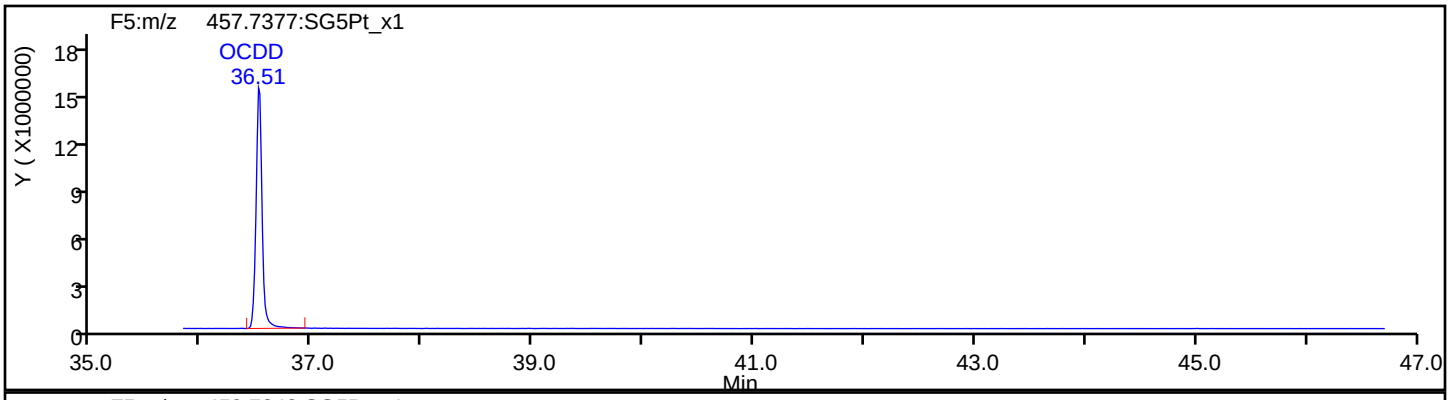


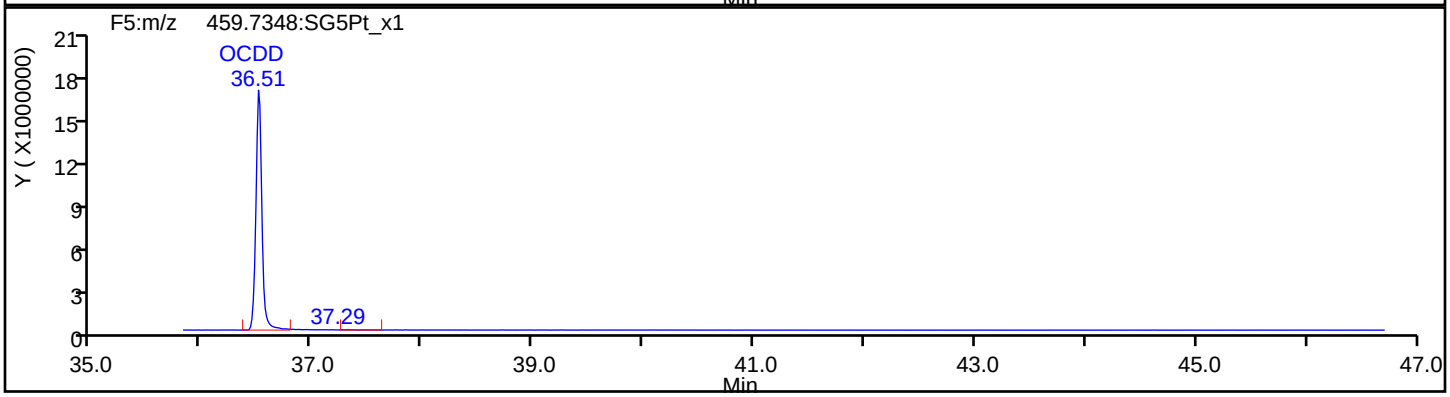
Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

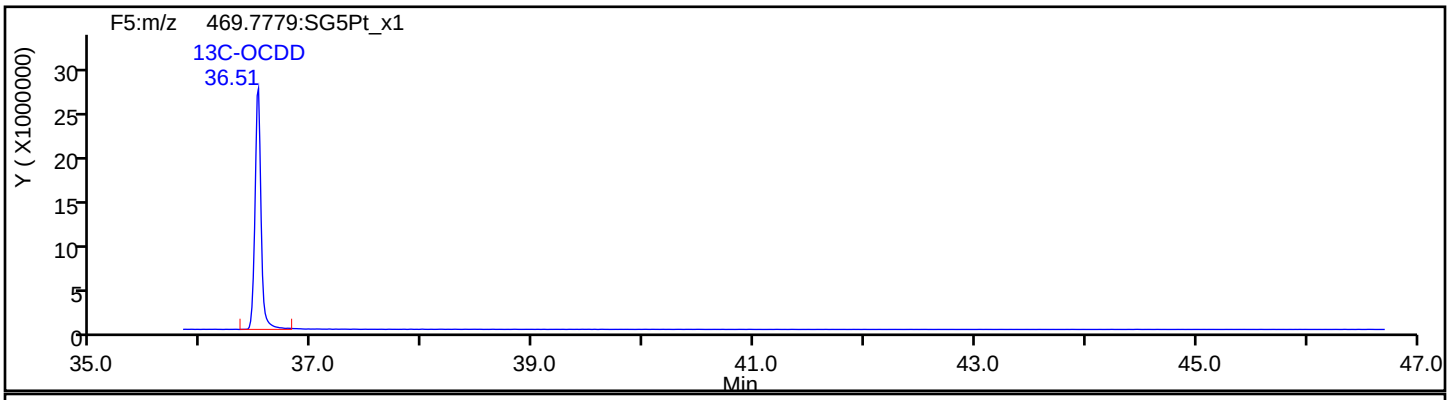
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm

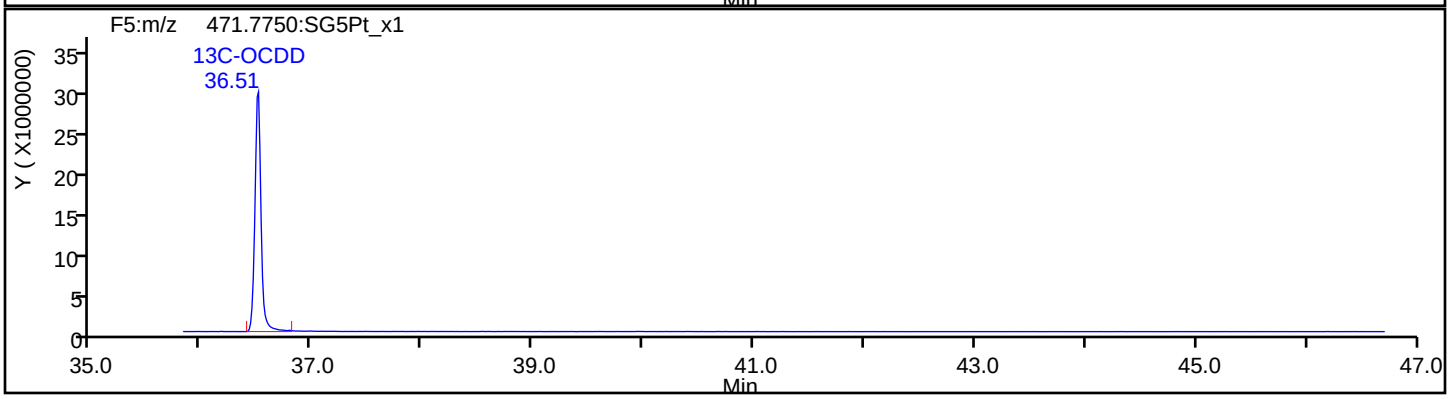
OCDD





OCDD Standards

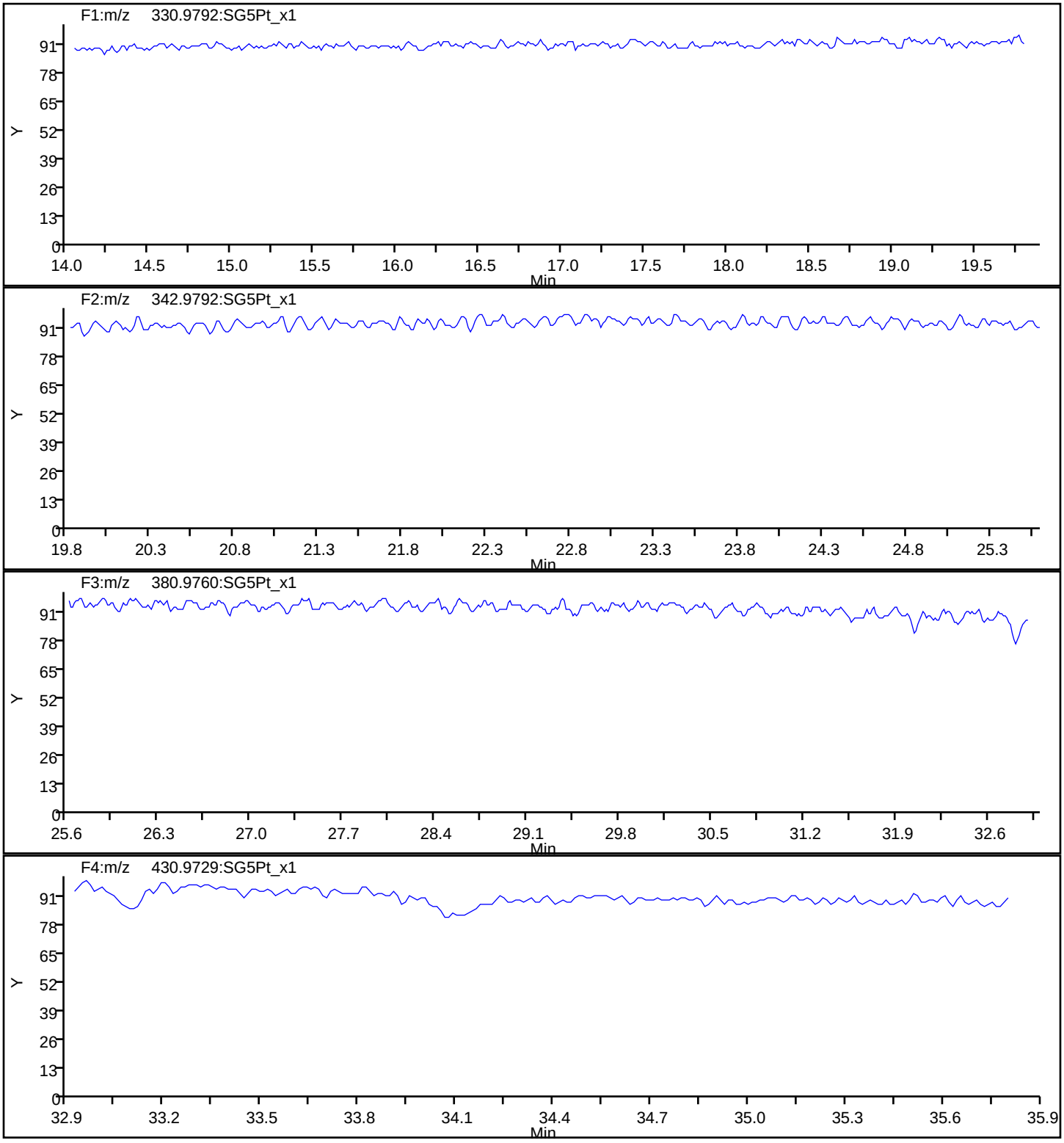




Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

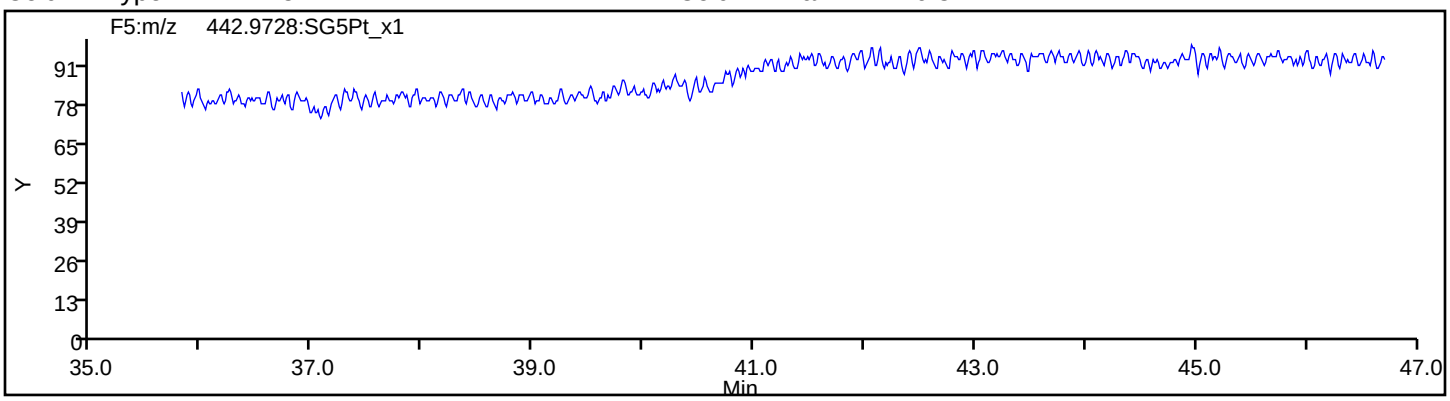
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-Jul-2019 10:47:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_51.d		
Injection Date:	21-Jul-2019 17:13:56	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	51
Column Type:	DB-5	Column Dia:	0.32 mm



FORM VII
DIOXIN CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 320-309104/66 Calibration Date: 07/22/2019 05:46

Instrument ID: 3D5 Calib Start Date: 05/21/2019 13:31

GC Column: DB-5 ID: 0.32(mm) Calib End Date: 05/21/2019 16:41

Lab File ID: 19JL19A3D5_66.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
2,3,7,8-TCDF	AveID	0.9710	0.9734		10.0	10.0	100	84-120
2,3,7,8-TCDD	AveID	1.045	1.011		9.68	10.0	97	78-129
1,2,3,7,8-PeCDF	AveID	0.9633	0.9807		50.9	50.0	102	82-120
2,3,4,7,8-PeCDF	AveID	0.9495	1.042		54.9	50.0	110	82-122
1,2,3,7,8-PeCDD	AveID	1.063	1.077		50.6	50.0	101	78-130
1,2,3,4,7,8-HxCDF	AveID	1.217	1.193		49.0	50.0	98	90-112
1,2,3,6,7,8-HxCDF	AveID	1.131	1.139		50.4	50.0	101	88-114
2,3,4,6,7,8-HxCDF	AveID	1.171	1.168		49.9	50.0	100	88-114
1,2,3,4,7,8-HxCDD	AveID	1.027	1.061		51.7	50.0	103	78-128
1,2,3,6,7,8-HxCDD	AveID	0.9771	0.9441		48.3	50.0	97	78-128
1,2,3,7,8,9-HxCDD	AveID	1.062	1.136		53.5	50.0	107	82-122
1,2,3,7,8,9-HxCDF	AveID	1.179	1.183		50.2	50.0	100	90-112
1,2,3,4,6,7,8-HpCDF	AveID	1.437	1.437		50.0	50.0	100	90-110
1,2,3,4,6,7,8-HpCDD	AveID	1.010	1.061		52.5	50.0	105	86-116
1,2,3,4,7,8,9-HpCDF	AveID	1.309	1.282		49.0	50.0	98	86-116
OCDD	AveID	1.063	1.082		102	100	102	79-126
OCDF	AveID	1.350	1.405		104	100	104	63-159
13C-2,3,7,8-TCDF	Ave	1.391	1.408		101	100	101	71-140
13C-2,3,7,8-TCDD	Ave	0.9819	0.9682		98.6	100	99	82-121
13C-1,2,3,7,8-PeCDF	Ave	1.158	1.238		107	100	107	76-130
13C-2,3,4,7,8-PeCDF	Ave	1.153	1.187		103	100	103	77-130
13C-1,2,3,7,8-PeCDD	Ave	0.7431	0.7820		105	100	105	62-160
13C-1,2,3,4,7,8-HxCDF	Ave	0.9837	1.003		102	100	102	76-131
13C-1,2,3,6,7,8-HxCDF	Ave	1.155	1.073		92.9	100	93	70-143
13C-2,3,4,6,7,8-HxCDF	Ave	1.036	0.997		96.3	100	96	73-137
13C-1,2,3,4,7,8-HxCDD	Ave	0.8287	0.7182		86.7	100	87	85-117
13C-1,2,3,6,7,8-HxCDD	Ave	0.9495	0.8827		93.0	100	93	85-118
13C-1,2,3,7,8,9-HxCDF	Ave	0.9034	0.9625		107	100	107	74-135
13C-1,2,3,4,6,7,8-HpCDF	Ave	0.7285	0.8042		110	100	110	78-129
13C-1,2,3,4,6,7,8-HpCDD	Ave	0.6978	0.6864		98.4	100	98	72-138
13C-1,2,3,4,7,8,9-HpCDF	Ave	0.6556	0.7511		115	100	115	77-129
13C-OCDD	Ave	0.4780	0.5326		223	200	111	48-208
37Cl4-2,3,7,8-TCDD	Ave	1.221	1.339		11.0	10.0	110	79-127

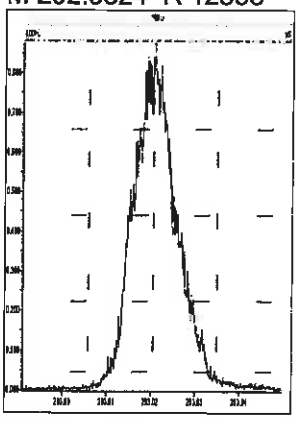
	File Name	File Text	Sample ID	Bottle	Method/Matrix	Box #
1	19JL19A3D5_1	WDM HRDXNCP_00038	WDM 071919	Tray01:1	DXN	
2	19JL19A3D5_2	CS-4 HRDXNL4_00081	CCV 071919	Tray01:2	DXN	
3	19JL19A3D5_3	Solvent Blank C-14	SB 071919	Tray01:3	DXN	
4	19JL19A3D5_4	MB 320-306270/1-A	MB 320-306270/1-A	Tray01:4	8290/Solid	39
5	19JL19A3D5_5	LCS 320-306270/2-A	LCS 320-306270/2-A	Tray01:5	8290/Solid	
6	19JL19A3D5_6	LCSD 320-306270/3-A	LCSD 320-306270/3-A	Tray01:6	8290/Solid	
7	19JL19A3D5_7	320-51810-A-2-C	320-51810-A-2-C	Tray01:7	8290/Solid	
8	19JL19A3D5_8	240-115225-D-13-A	240-115225-D-13-A	Tray01:8	8290A/Solid	D74
9	19JL19A3D5_9	320-51168-A-6-B (5X)	320-51168-A-6-B (5X)	Tray01:9	8290A_D5/Solid	D72
10	19JL19A3D5_10	320-51168-A-7-D (2X)	320-51168-A-7-D (2X)	Tray01:10	8290A_D5/Solid	
11	19JL19A3D5_11	320-51168-A-8-B (10X)	320-51168-A-8-B (10X)	Tray01:11	8290A_D5/Solid	
12	19JL19A3D5_12	Solvent Blank C-14	SB 071919A	Tray01:3	DXN	
13	19JL19A3D5_13	CS-4 HRDXNL4_00081	CCV 071919A	Tray01:2	DXN	
14	19JL19A3D5_14	WDM HRDXNCP_00038	WDM 071919A	Tray01:1	DXN	
15	19JL19A3D5_15	Solvent Blank C-14	SB 071919B	Tray01:3	DXN	
16	19JL19A3D5_16	MB 320-306813/1-A	MB 320-306813/1-A	Tray01:12	8290A/Solid	D74
17	19JL19A3D5_17	LCS 320-306813/2-A	LCS 320-306813/2-A	Tray01:13	8290A/Solid	
18	19JL19A3D5_18	LCSD 320-306813/3-A	LCSD 320-306813/3-A	Tray01:14	8290A/Solid	
19	19JL19A3D5_19	240-115225-D-20-A	240-115225-D-20-A	Tray01:15	8290A/Solid	
20	19JL19A3D5_20	240-115225-C-23-A	240-115225-C-23-A	Tray01:16	8290A/Solid	
21	19JL19A3D5_21	240-115225-D-24-A	240-115225-D-24-A	Tray01:17	8290A/Solid	
22	19JL19A3D5_22	240-115225-C-25-A	240-115225-C-25-A	Tray01:18	8290A/Solid	
23	19JL19A3D5_23	240-115225-D-26-A	240-115225-D-26-A	Tray01:19	8290A/Solid	
24	19JL19A3D5_24	240-115225-C-27-A	240-115225-C-27-A	Tray01:20	8290A/Solid	
25	19JL19A3D5_25	Solvent Blank C-14	SB 071919C	Tray01:3	DXN	
26	19JL19A3D5_26	CS-4 HRDXNL4_00081	CCV 071919B	Tray01:2	DXN	
27	19JL19A3D5_27	WDM HRDXNCP_00038	WDM 071919B	Tray01:1	DXN	
28	19JL19A3D5_28	CS-4 HRDXNL4_00081	CCV 071919C	Tray01:2	DXN	
29	19JL19A3D5_29	Solvent Blank C-14	SB 071919D	Tray01:3	DXN	
30	19JL19A3D5_30	240-115225-C-28-A	240-115225-C-28-A	Tray01:21	8290A/Solid	D74
31	19JL19A3D5_31	240-115225-C-29-A	240-115225-C-29-A	Tray01:22	8290A/Solid	
32	19JL19A3D5_32	240-115225-C-30-A	240-115225-C-30-A	Tray01:23	8290A/Solid	
33	19JL19A3D5_33	240-115225-C-31-A	240-115225-C-31-A	Tray01:24	8290A/Solid	
34	19JL19A3D5_34	240-115225-C-32-A	240-115225-C-32-A	Tray01:25	8290A/Solid	
35	19JL19A3D5_35	320-51169-A-1-B (100X)	320-51169-A-1-B (100X)	Tray01:26	8290A_D5/Solid	D66
36	19JL19A3D5_36	320-51169-A-2-C (100X)	320-51169-A-2-C (100X)	Tray01:27	8290A_D5/Solid	
37	19JL19A3D5_37	320-51169-A-3-B (100X)	320-51169-A-3-B (100X)	Tray01:28	8290A_D5/Solid	
38	19JL19A3D5_38	320-51171-A-8-A RI	320-51171-A-8-A RI	Tray01:29	8290A_D5/Solid	
39	19JL19A3D5_39	Solvent Blank C-14	SB 071919E	Tray01:3	DXN	
40	19JL19A3D5_40	CS-4 HRDXNL4_00081	CCV 071919D	Tray01:2	DXN	
41	19JL19A3D5_41	WDM HRDXNCP_00038	WDM 071919C	Tray01:1	DXN	
42	19JL19A3D5_42	Solvent Blank C-14	SB 071919F	Tray01:3	DXN	
43	19JL19A3D5_43	240-115225-C-33-A	240-115225-C-33-A	Tray01:30	8290A/Solid	D74
44	19JL19A3D5_44	240-115225-C-34-A	240-115225-C-34-A	Tray01:31	8290A/Solid	
45	19JL19A3D5_45	240-115225-C-35-A	240-115225-C-35-A	Tray01:32	8290A/Solid	
46	19JL19A3D5_46	240-115225-C-36-A	240-115225-C-36-A	Tray01:33	8290A/Solid	
47	19JL19A3D5_47	240-115225-C-37-A	240-115225-C-37-A	Tray01:34	8290A/Solid	
48	19JL19A3D5_48	240-115225-C-38-A	240-115225-C-38-A	Tray01:35	8290A/Solid	
49	19JL19A3D5_49	240-115225-C-39-A	240-115225-C-39-A	Tray01:36	8290A/Solid	
50	19JL19A3D5_50	Solvent Blank C-14	SB 071919G	Tray01:3	DXN	
51	19JL19A3D5_51	CS-4 HRDXNL4_00081	CCV 071919E	Tray01:2	DXN	
52	19JL19A3D5_52	WDM HRDXNCP_00038	WDM 071919D	Tray01:1	DXN	
53	19JL19A3D5_53	Solvent Blank C-14	SB 071919H	Tray01:3	DXN	
54	19JL19A3D5_54	MB 320-308663/1-A	MB 320-308663/1-A	Tray01:37	1613B/Solid	D76
55	19JL19A3D5_55	LCS 320-308663/2-A	LCS 320-308663/2-A	Tray01:38	1613B/Solid	
56	19JL19A3D5_56	LCSD 320-308663/3-A	LCSD 320-308663/3-A	Tray01:39	1613B/Solid	
57	19JL19A3D5_57	580-87706-C-1-A	580-87706-C-1-A	Tray01:40	1613B/Solid	
58	19JL19A3D5_58	580-87706-C-2-A	580-87706-C-2-A	Tray01:41	1613B/Solid	

	File Name	File Text	Sample ID	Bottle	Method/Matrix	Box #
59	19JL19A3D5_59	580-87706-C-3-A	580-87706-C-3-A	Tray01:42	1613B/Solid	
60	19JL19A3D5_60	580-87706-C-4-A	580-87706-C-4-A	Tray01:43	1613B/Solid	
61	19JL19A3D5_61	580-87706-C-5-A	580-87706-C-5-A	Tray01:44	1613B/Solid	
62	19JL19A3D5_62	580-87706-C-6-A	580-87706-C-6-A	Tray01:45	1613B/Solid	
63	19JL19A3D5_63	580-87706-C-7-A	580-87706-C-7-A	Tray01:46	1613B/Solid	
64	19JL19A3D5_64	580-87706-C-8-A	580-87706-C-8-A	Tray01:47	1613B/Solid	
65	19JL19A3D5_65	Solvent Blank C-14	SB 071919I	Tray01:3	DXN	
66	19JL19A3D5_66	CS-4 HRDXNL4_00081	CCV 071919F	Tray01:2	DXN	
67	19JL19A3D5_67	WDM HRDXNCP_00038	WDM 071919E	Tray01:1	DXN	
68	19JL19A3D5_68	Solvent Blank C-14	SB 071919J	Tray01:3	DXN	
69	19JL19A3D5_69	580-87706-C-9-A	580-87706-C-9-A	Tray01:48	1613B/Solid	D76
70	19JL19A3D5_70	580-87706-C-10-A	580-87706-C-10-A	Tray01:49	1613B/Solid	
71	19JL19A3D5_71	580-87706-C-11-A	580-87706-C-11-A	Tray01:50	1613B/Solid	
72	19JL19A3D5_72	580-87706-C-12-A	580-87706-C-12-A	Tray01:51	1613B/Solid	
73	19JL19A3D5_73	580-87706-C-13-A	580-87706-C-13-A	Tray01:52	1613B/Solid	
74	19JL19A3D5_74	580-87706-C-14-A	580-87706-C-14-A	Tray01:53	1613B/Solid	
75	19JL19A3D5_75	580-87706-C-15-A	580-87706-C-15-A	Tray01:54	1613B/Solid	
76	19JL19A3D5_76	Solvent Blank C-14	SB 071919K	Tray01:3	DXN	
77	19JL19A3D5_77	CS-4 HRDXNL4_00081	CCV 071919G	Tray01:2	DXN	
78	19JL19A3D5_78	WDM HRDXNCP_00038	WDM 071919F	Tray01:1	DXN	
79	19JL19A3D5_79	Solvent Blank C-14	SB 071919L	Tray01:3	DXN	

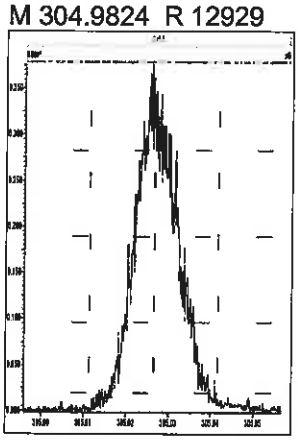
Logfile ✓d
7/20/19
KGS

Printed: Monday, July 22, 2019 05:46:21 Pacific Daylight Time

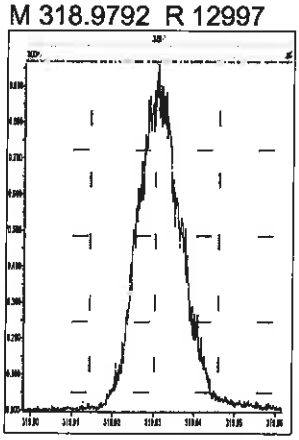
M 292.9824 R 12853



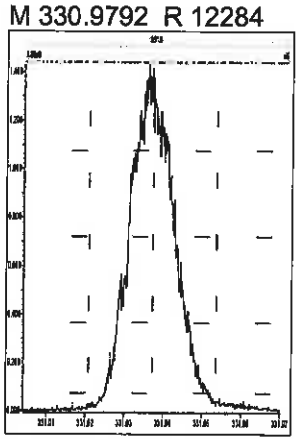
M 304.9824 R 12929



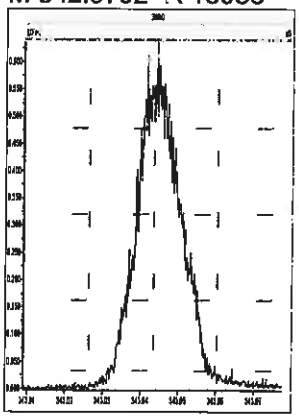
M 318.9792 R 12997



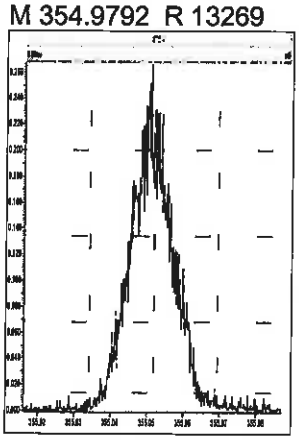
M 330.9792 R 12284



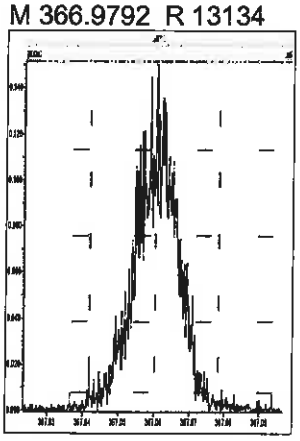
M 342.9792 R 13033



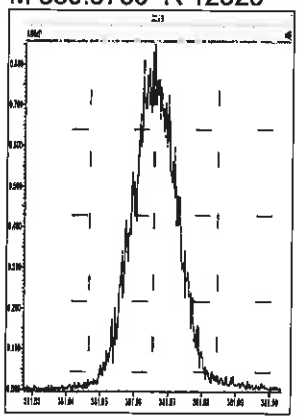
M 354.9792 R 13269



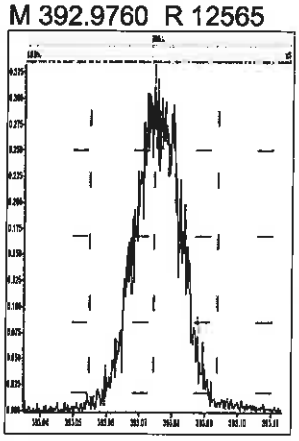
M 366.9792 R 13134



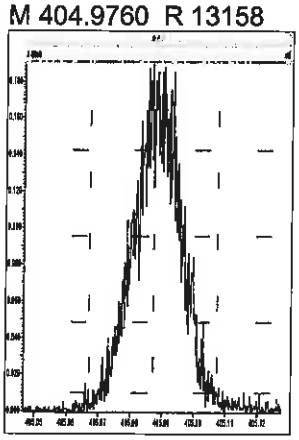
M 380.9760 R 12929



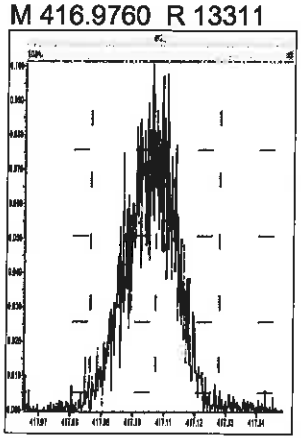
M 392.9760 R 12565



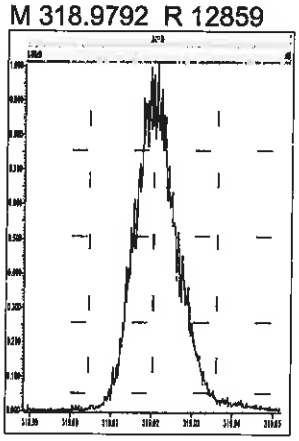
M 404.9760 R 13158



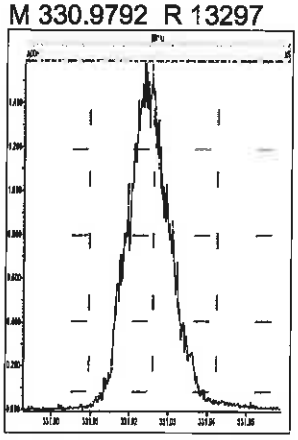
M 416.9760 R 13311



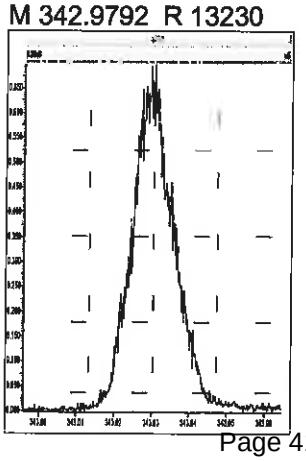
M 318.9792 R 12859



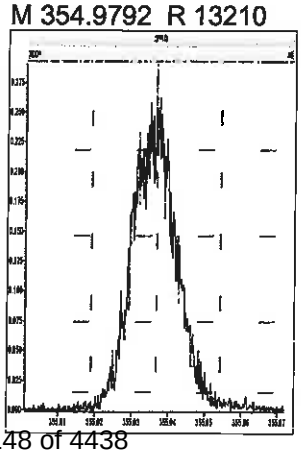
M 330.9792 R 13297



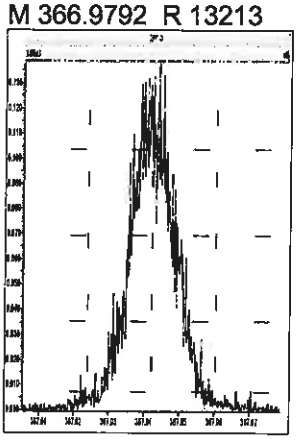
M 342.9792 R 13230



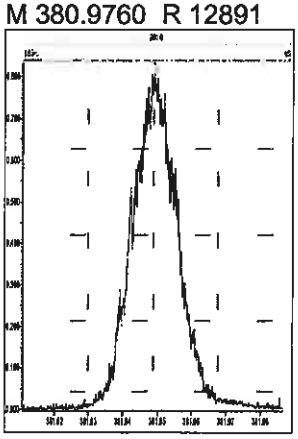
M 354.9792 R 13210



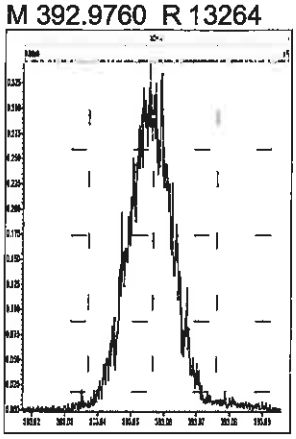
M 366.9792 R 13213



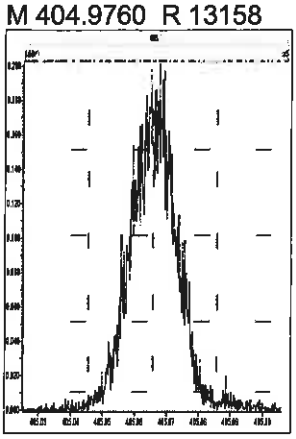
M 380.9760 R 12891



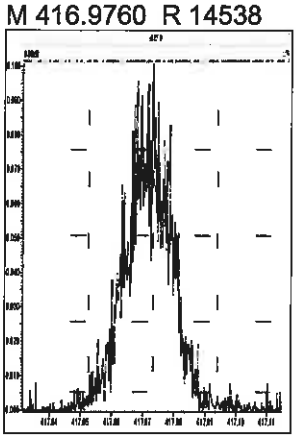
M 392.9760 R 13264



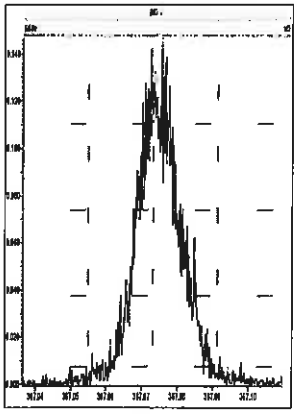
M 404.9760 R 13158



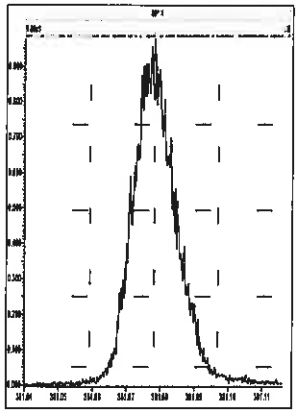
M 416.9760 R 14538



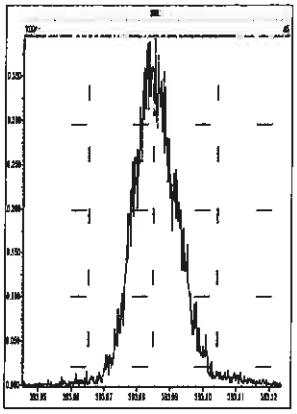
M 366.9792 R 14164



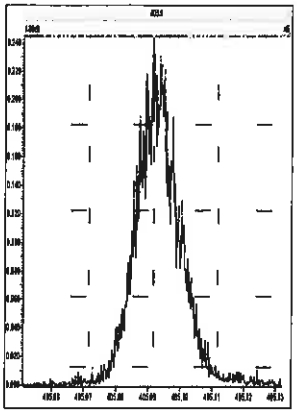
M 380.9760 R 12987



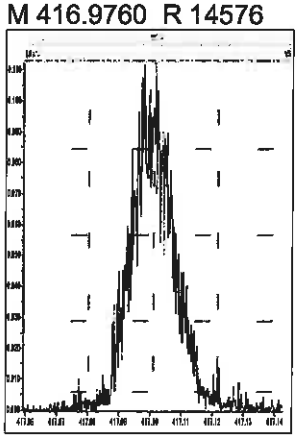
M 392.9760 R 13664



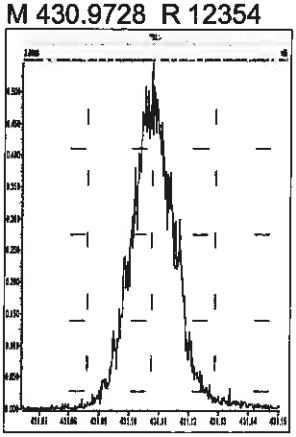
M 404.9760 R 13516



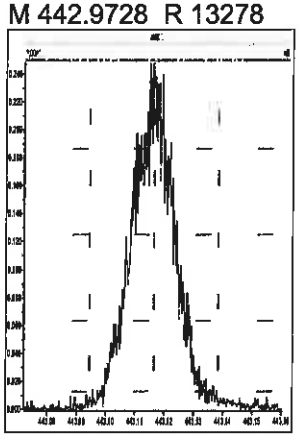
M 416.9760 R 14576



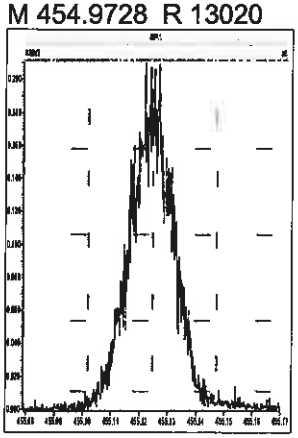
M 430.9728 R 12354



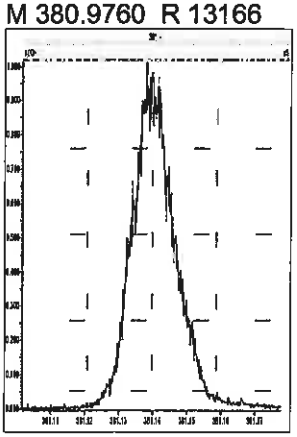
M 442.9728 R 13278



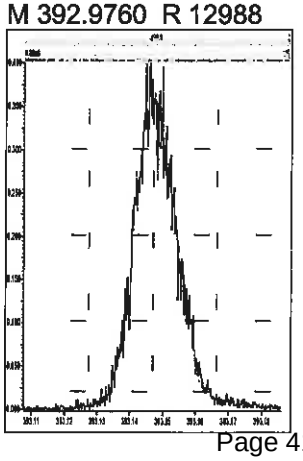
M 454.9728 R 13020



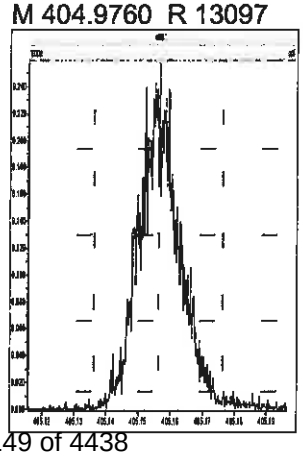
M 380.9760 R 13166



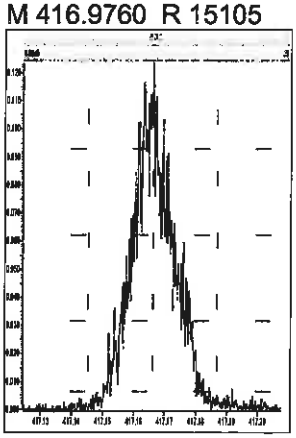
M 392.9760 R 12988



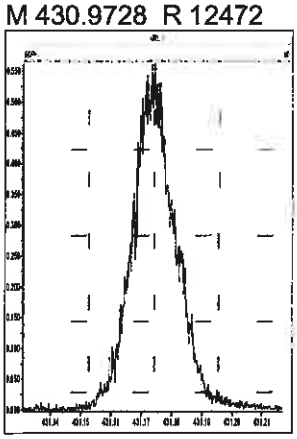
M 404.9760 R 13097



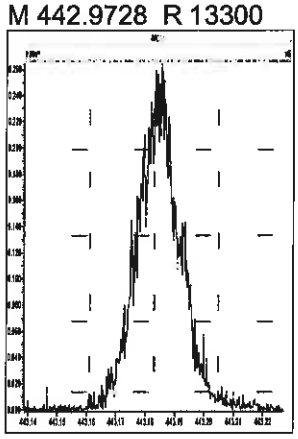
M 416.9760 R 15105



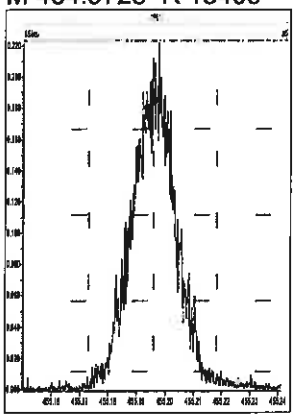
M 430.9728 R 12472



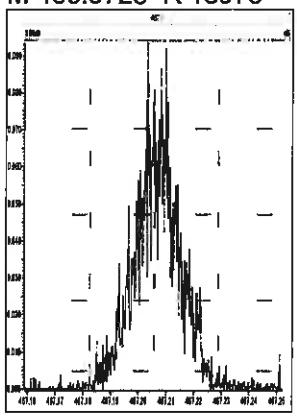
M 442.9728 R 13300



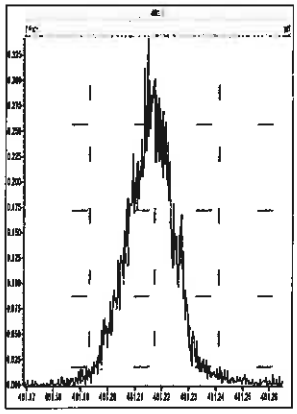
M 454.9728 R 13405



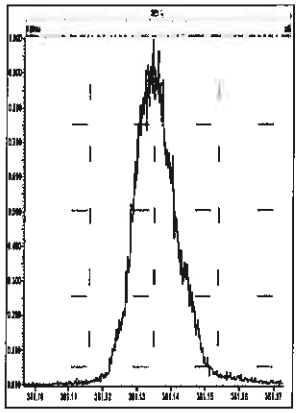
M 466.9728 R 13976



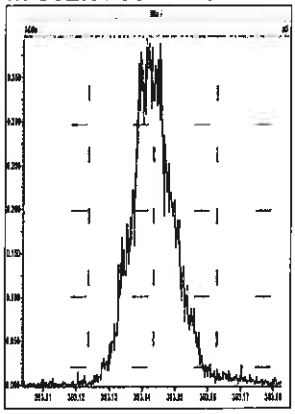
M 480.9696 R 12690



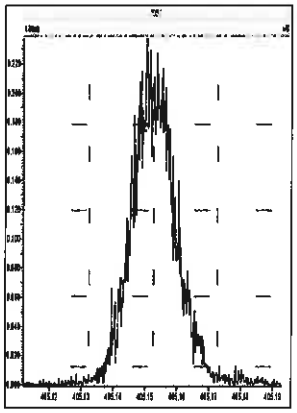
M 380.9760 R 13416



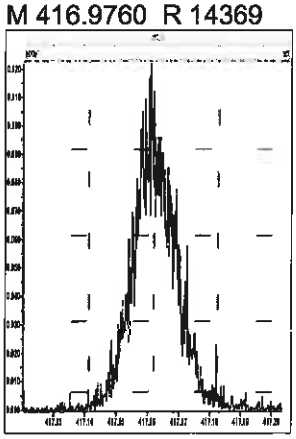
M 392.9760 R 13446



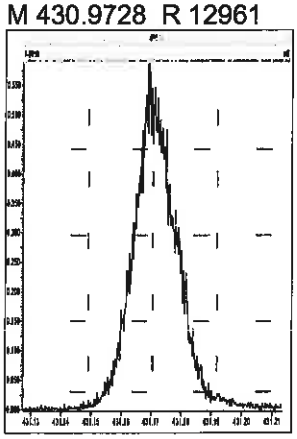
M 404.9760 R 13037



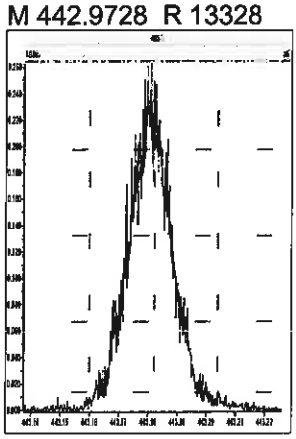
M 416.9760 R 14369



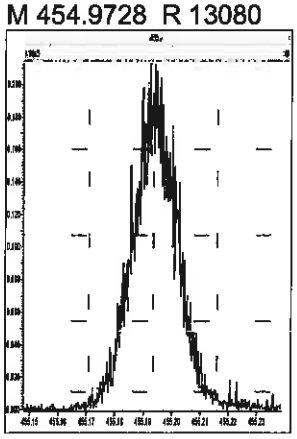
M 430.9728 R 12961



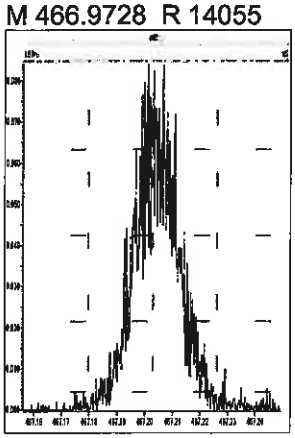
M 442.9728 R 13328



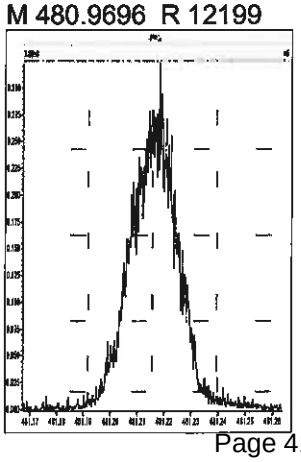
M 454.9728 R 13080



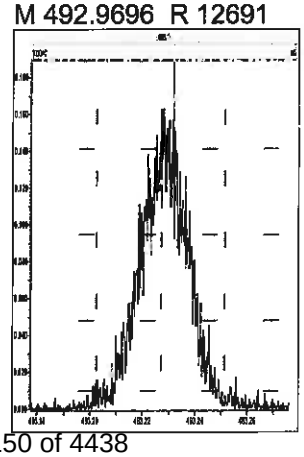
M 466.9728 R 14055



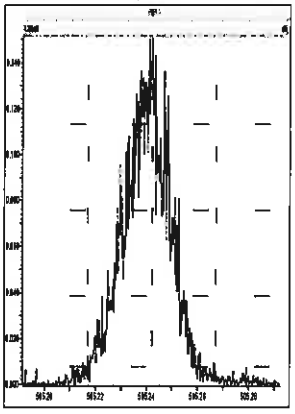
M 480.9696 R 12199



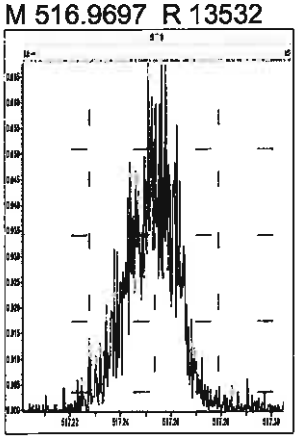
M 492.9696 R 12691



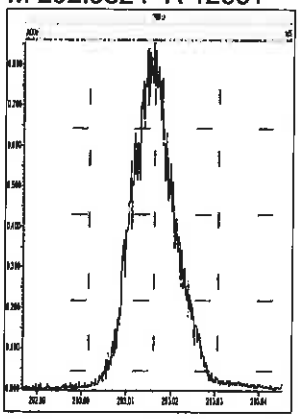
M 504.9696 R 12481



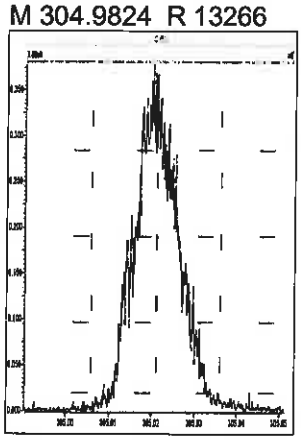
M 516.9697 R 13532



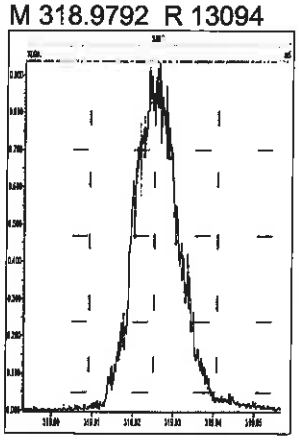
M 292.9824 R 12661



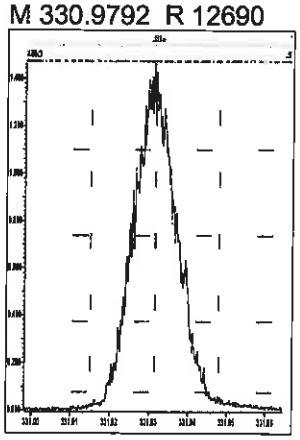
M 304.9824 R 13266



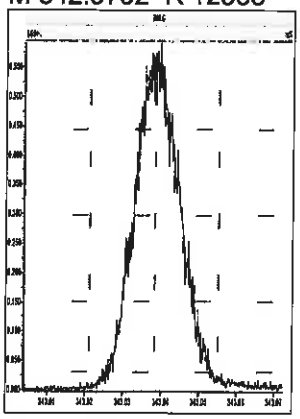
M 318.9792 R 13094



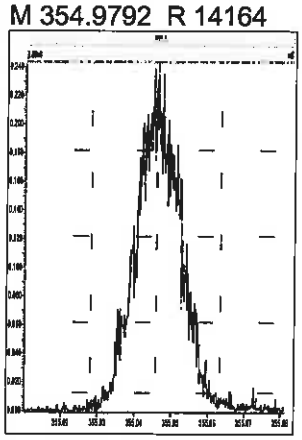
M 330.9792 R 12690



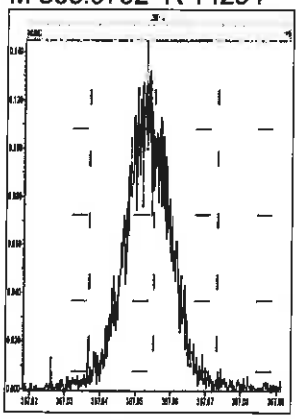
M 342.9792 R 12953



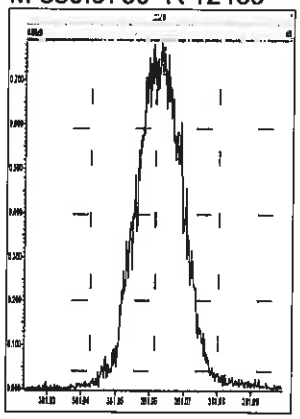
M 354.9792 R 14164



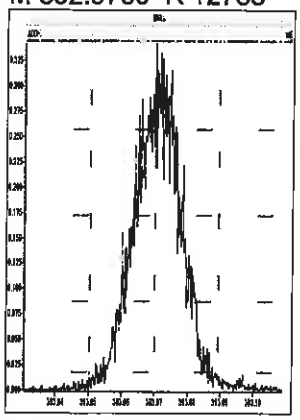
M 366.9792 R 14294



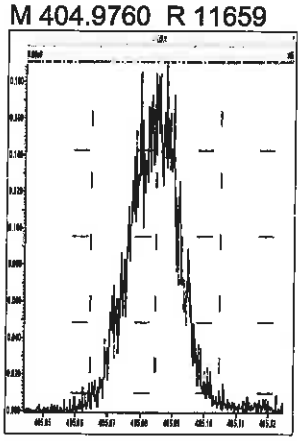
M 380.9760 R 12469



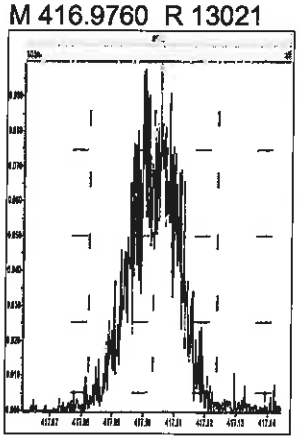
M 392.9760 R 12788



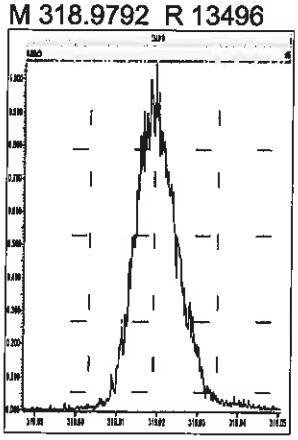
M 404.9760 R 11659



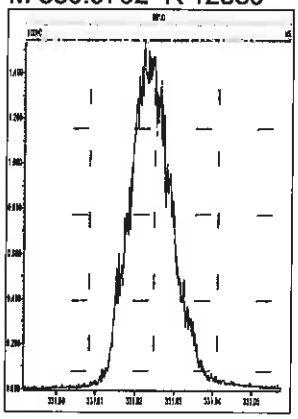
M 416.9760 R 13021



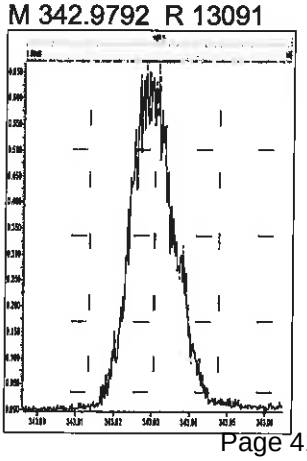
M 318.9792 R 13496



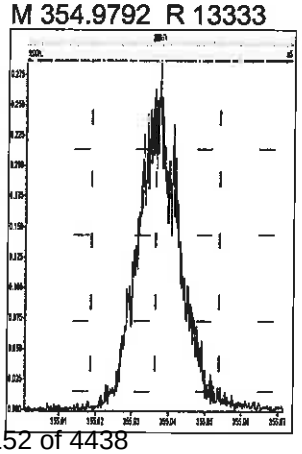
M 330.9792 R 12889



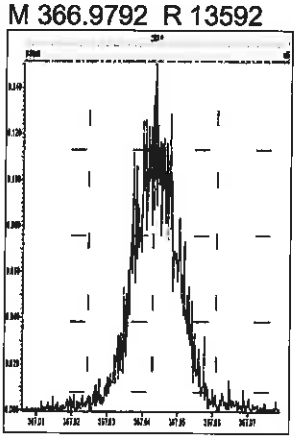
M 342.9792 R 13091



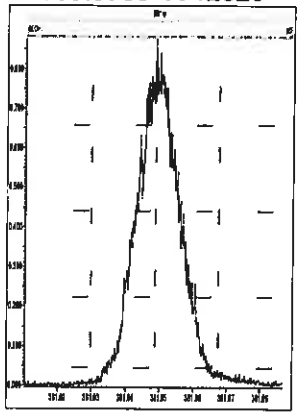
M 354.9792 R 13333



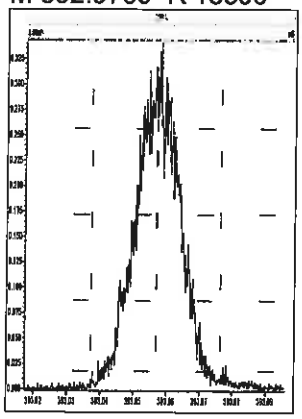
M 366.9792 R 13592



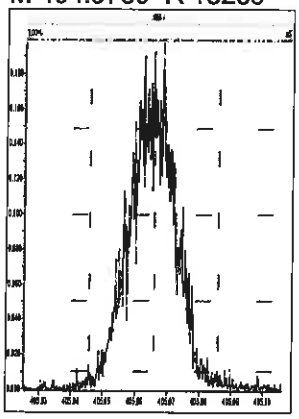
M 380.9760 R 12820



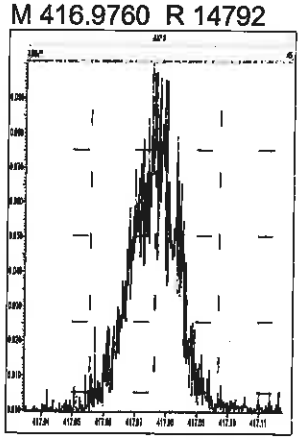
M 392.9760 R 13300



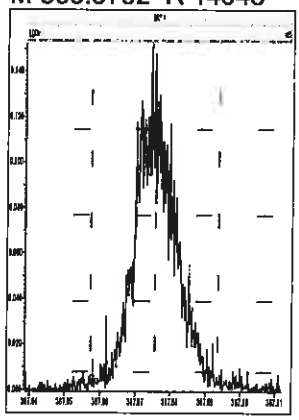
M 404.9760 R 13269



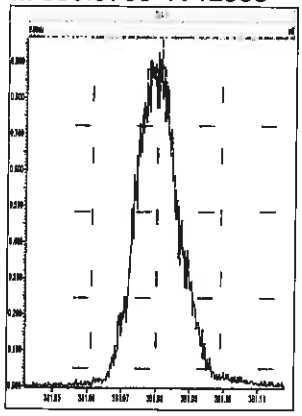
M 416.9760 R 14792



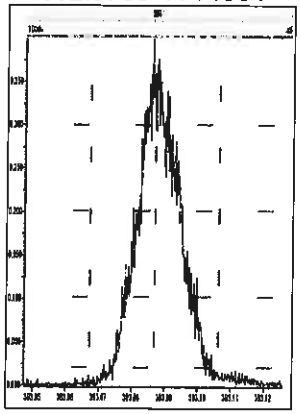
M 366.9792 R 14048



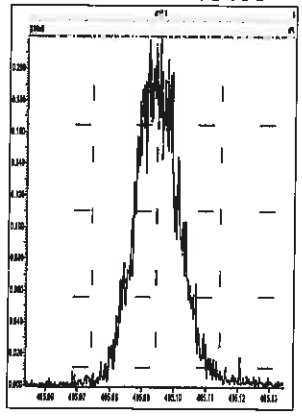
M 380.9760 R 12956



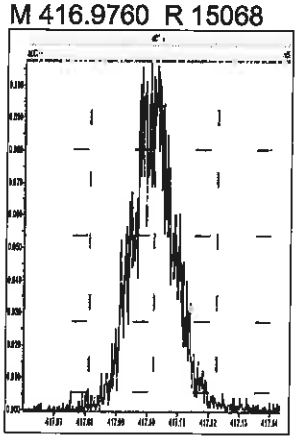
M 392.9760 R 14084



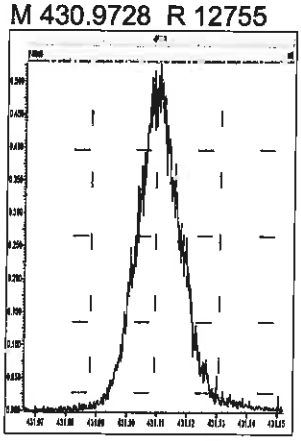
M 404.9760 R 13465



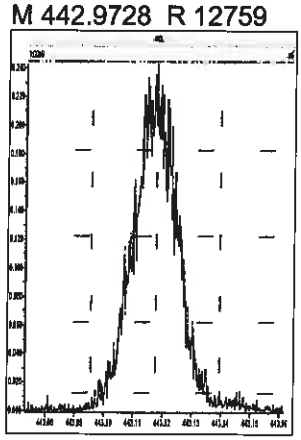
M 416.9760 R 15068



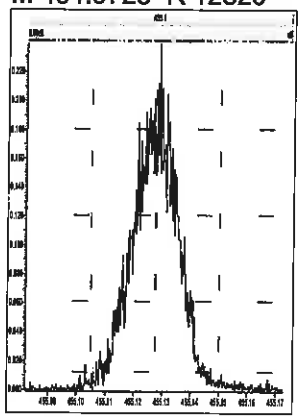
M 430.9728 R 12755



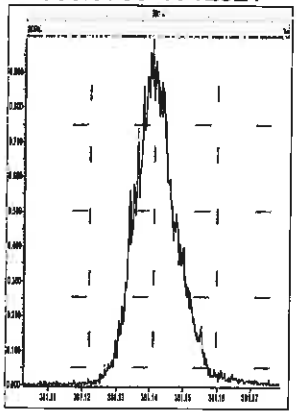
M 442.9728 R 12759



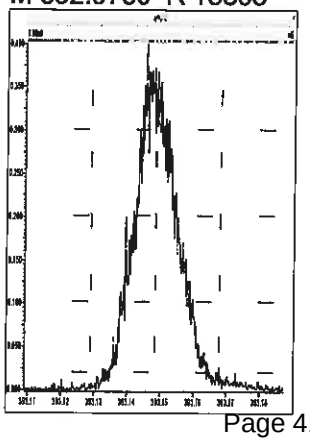
M 454.9728 R 12820



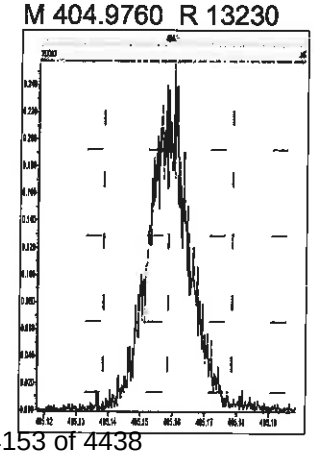
M 380.9760 R 12821



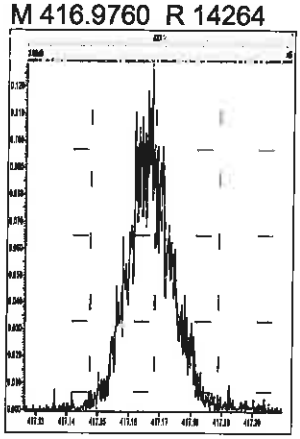
M 392.9760 R 13368



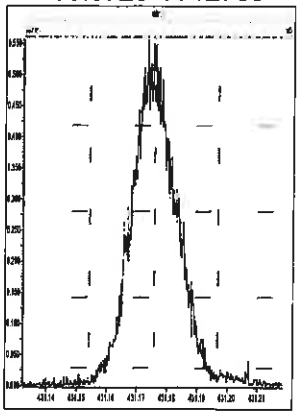
M 404.9760 R 13230



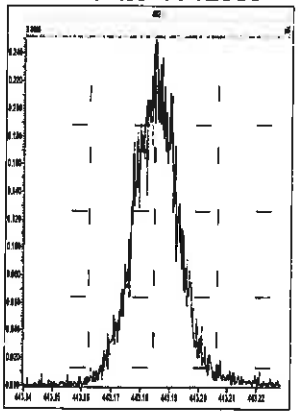
M 416.9760 R 14264



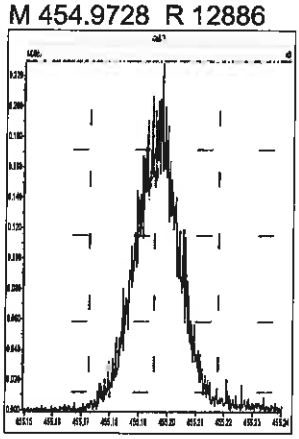
M 430.9728 R 12755



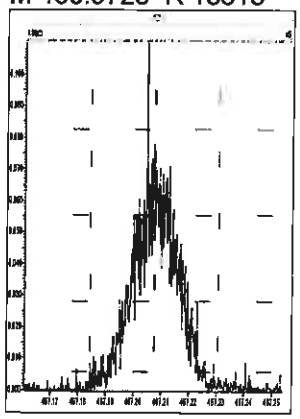
M 442.9728 R 12859



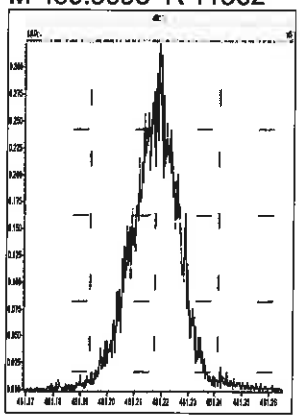
M 454.9728 R 12886



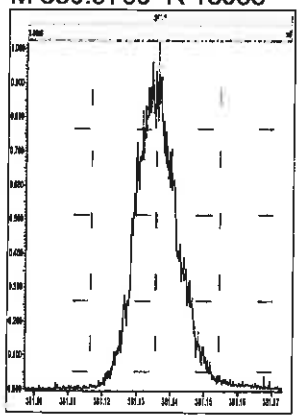
M 466.9728 R 13818



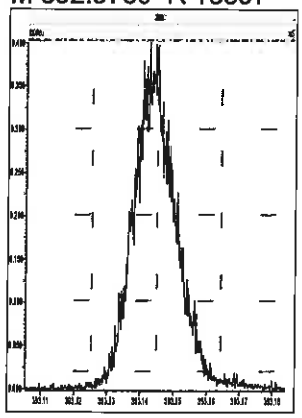
M 480.9696 R 11962



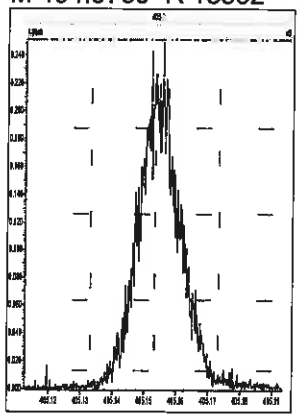
M 380.9760 R 13058



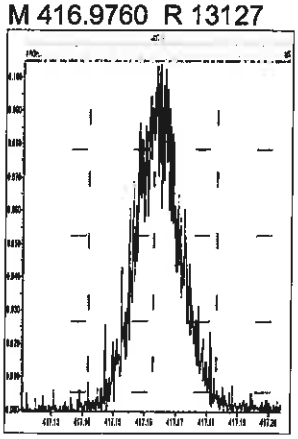
M 392.9760 R 13307



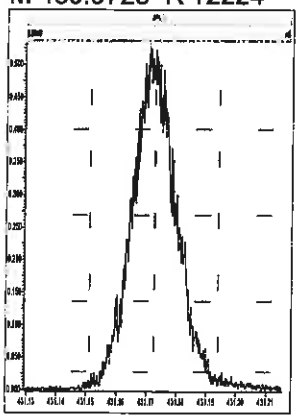
M 404.9760 R 13852



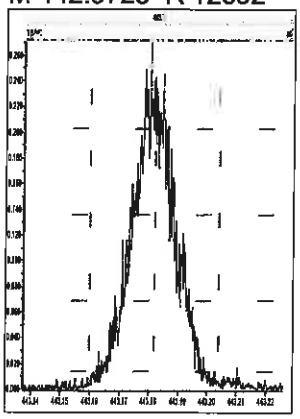
M 416.9760 R 13127



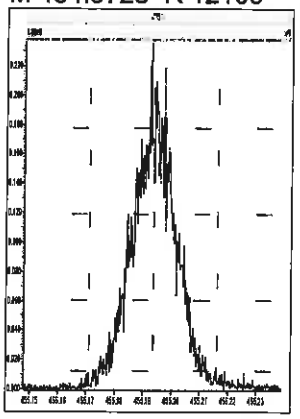
M 430.9728 R 12224



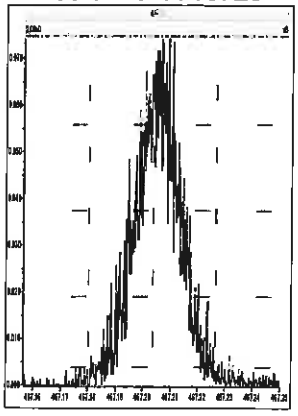
M 442.9728 R 12692



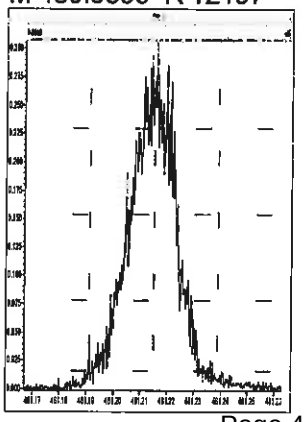
M 454.9728 R 12109



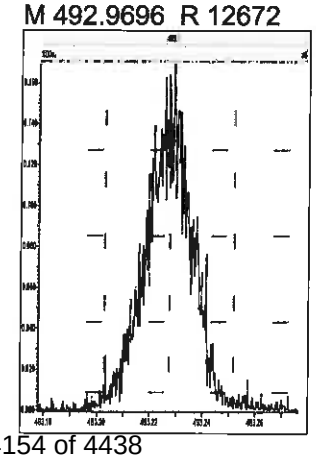
M 466.9728 R 15729



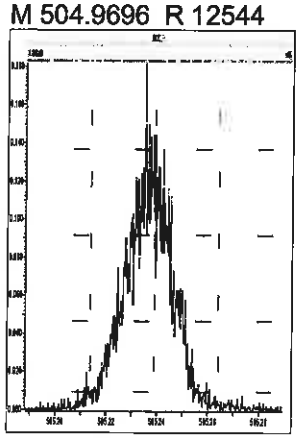
M 480.9696 R 12197



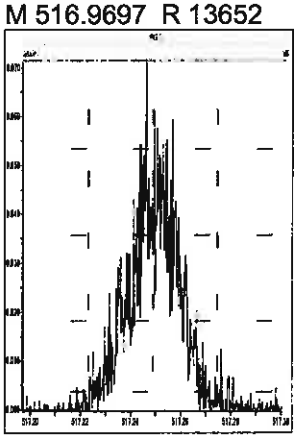
M 492.9696 R 12672



M 504.9696 R 12544

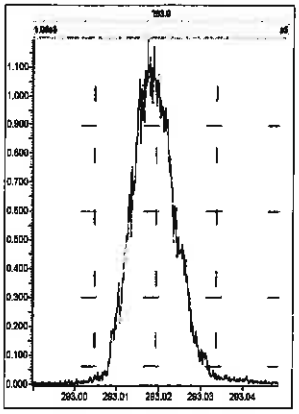


M 516.9697 R 13652

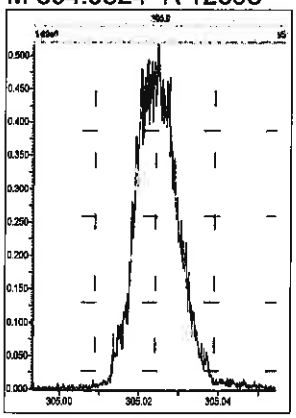


Printed: Monday, July 22, 2019 14:01:29 Pacific Daylight Time

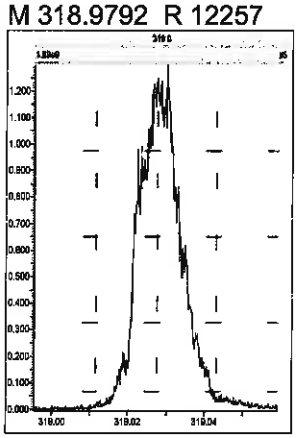
M 292.9824 R 12817



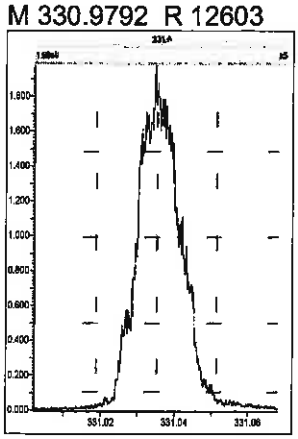
M 304.9824 R 12693



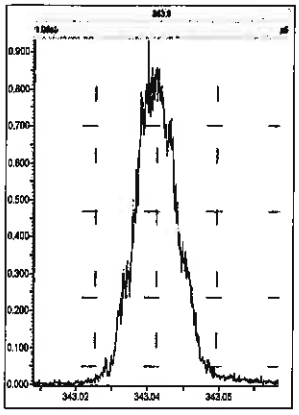
M 318.9792 R 12257



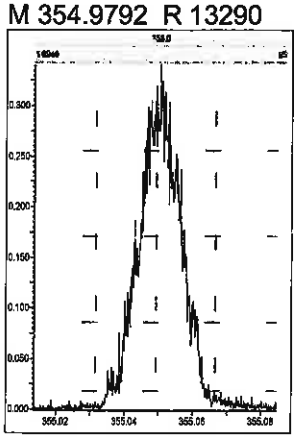
M 330.9792 R 12603



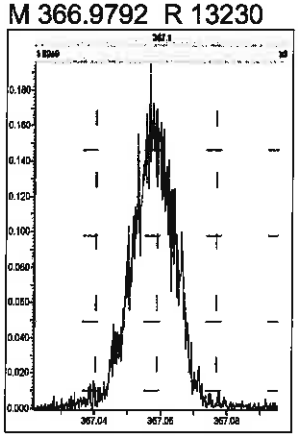
M 342.9792 R 12755



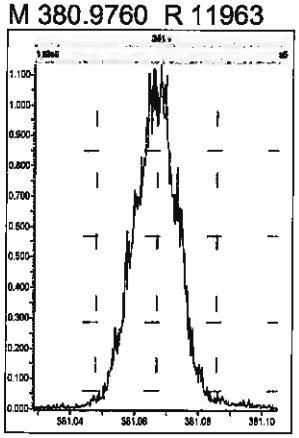
M 354.9792 R 13290



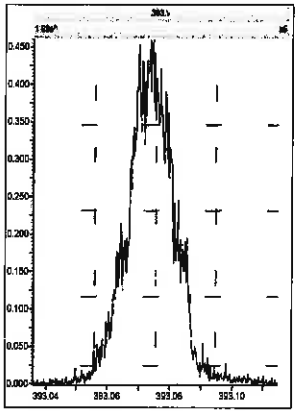
M 366.9792 R 13230



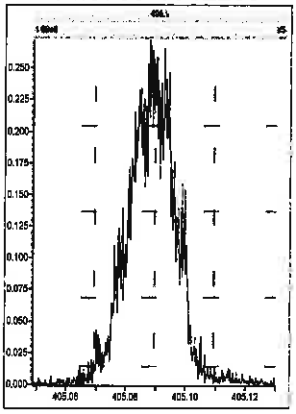
M 380.9760 R 11963



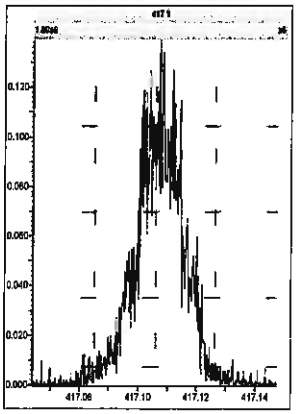
M 392.9760 R 11585



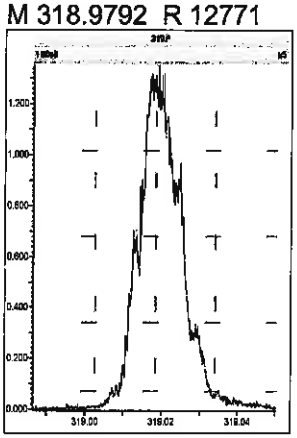
M 404.9760 R 12259



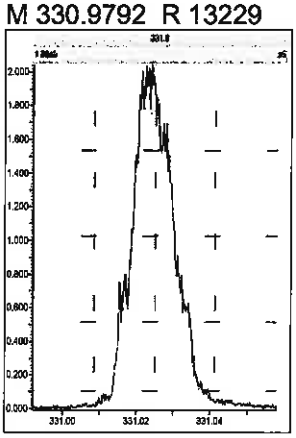
M 416.9760 R 12537



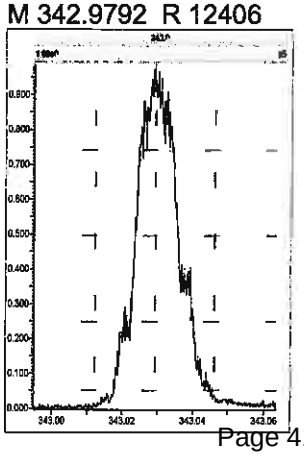
M 318.9792 R 12771



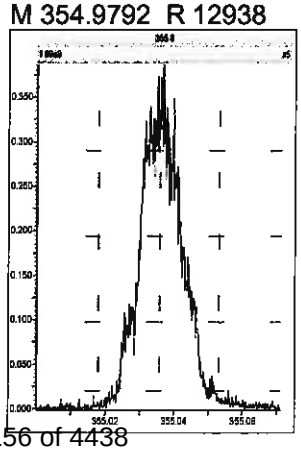
M 330.9792 R 13229



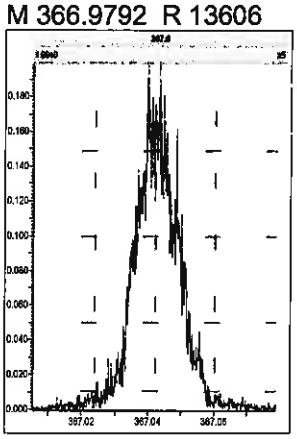
M 342.9792 R 12406



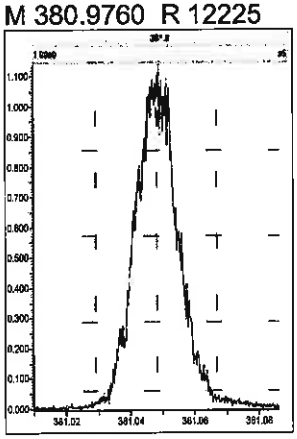
M 354.9792 R 12938



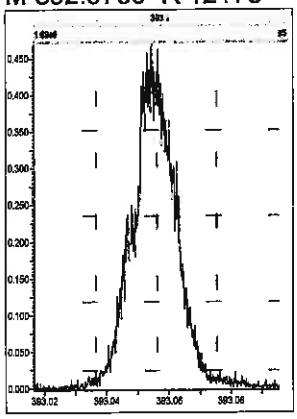
M 366.9792 R 13606



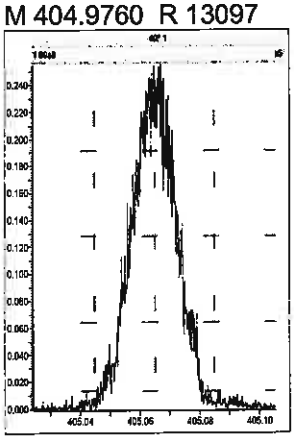
M 380.9760 R 12225



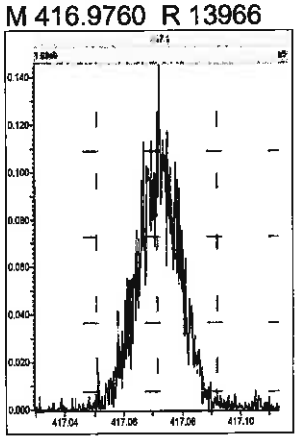
M 392.9760 R 12173



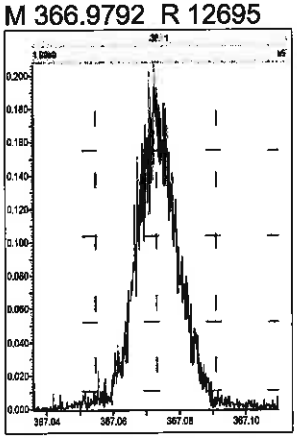
M 404.9760 R 13097



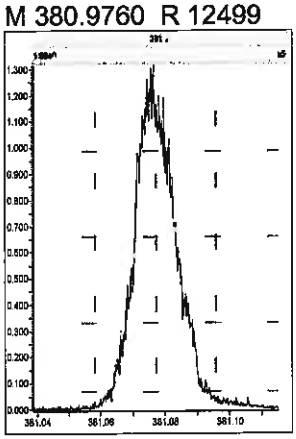
M 416.9760 R 13966



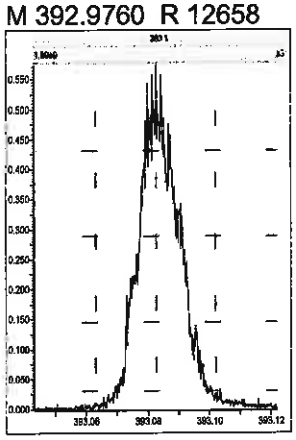
M 366.9792 R 12695



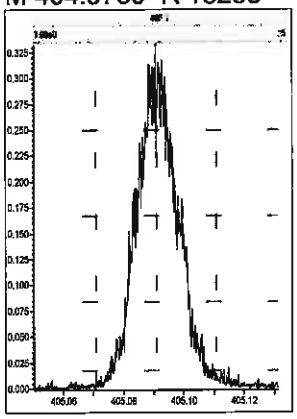
M 380.9760 R 12499



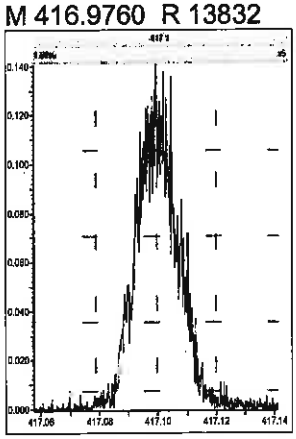
M 392.9760 R 12658



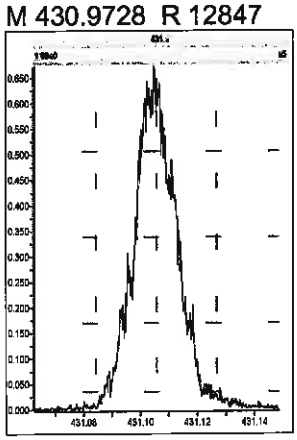
M 404.9760 R 13233



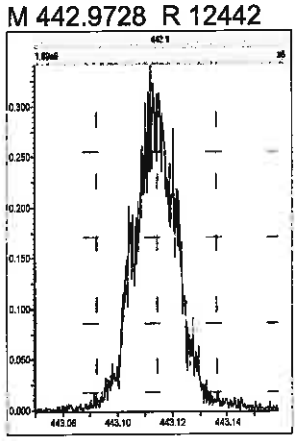
M 416.9760 R 13832



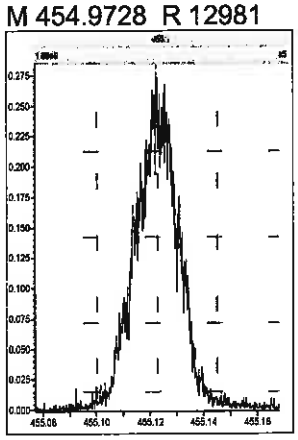
M 430.9728 R 12847



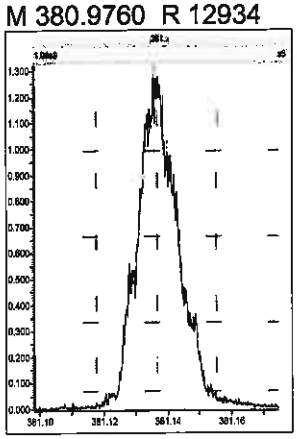
M 442.9728 R 12442



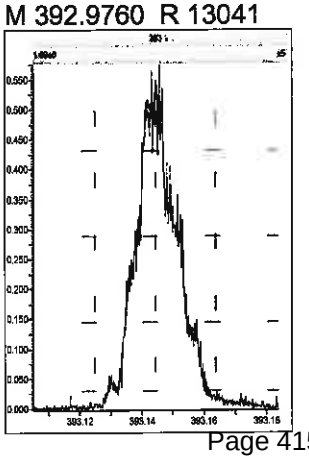
M 454.9728 R 12981



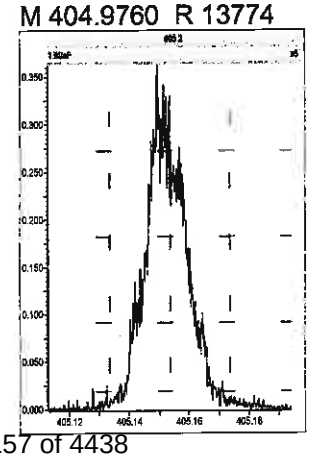
M 380.9760 R 12934



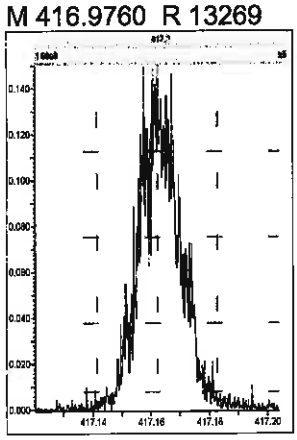
M 392.9760 R 13041



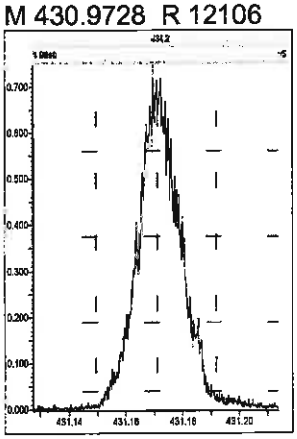
M 404.9760 R 13774



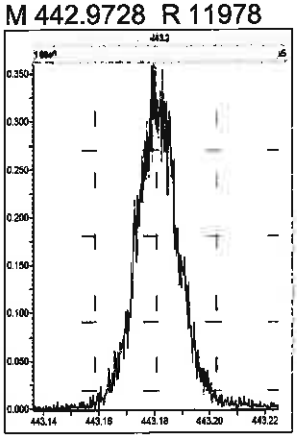
M 416.9760 R 13269



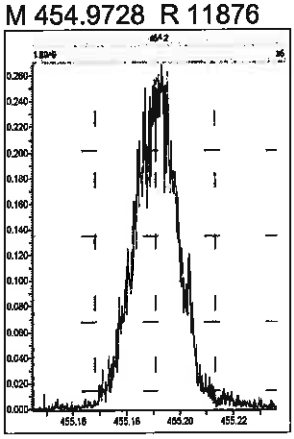
M 430.9728 R 12106



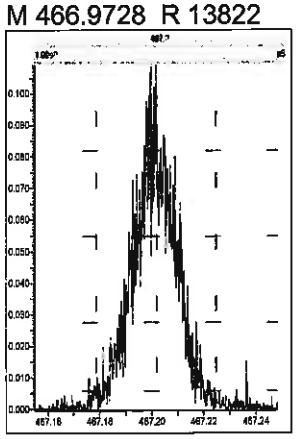
M 442.9728 R 11978



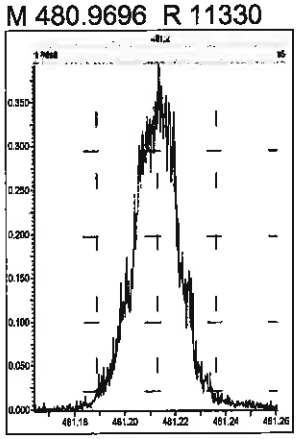
M 454.9728 R 11876



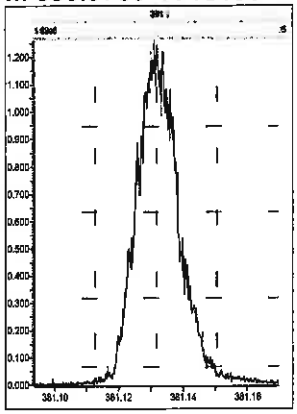
M 466.9728 R 13822



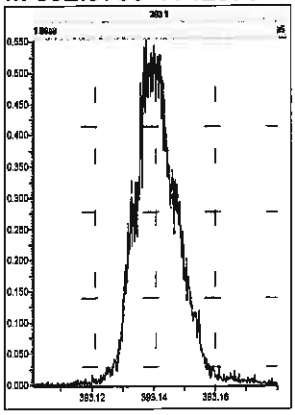
M 480.9696 R 11330



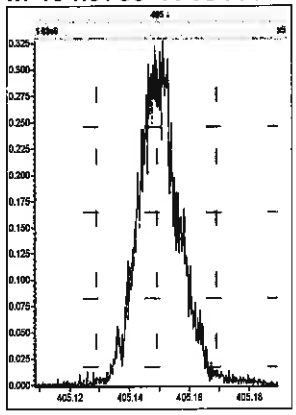
M 380.9760 R 13196



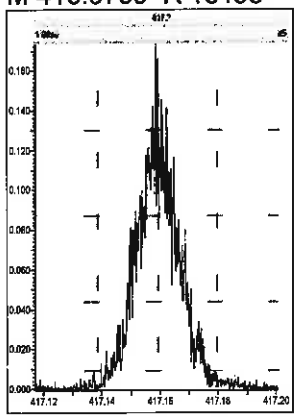
M 392.9760 R 12975



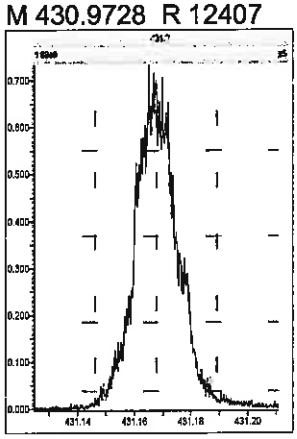
M 404.9760 R 13444



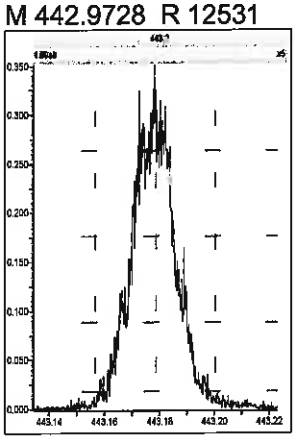
M 416.9760 R 13493



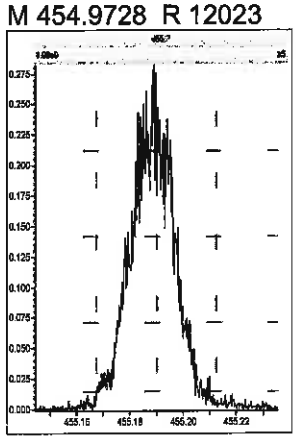
M 430.9728 R 12407



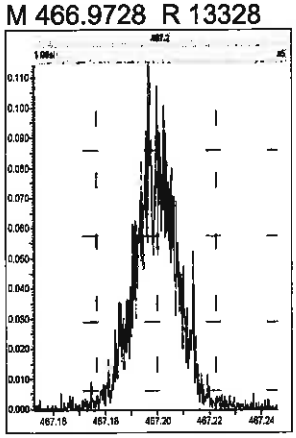
M 442.9728 R 12531



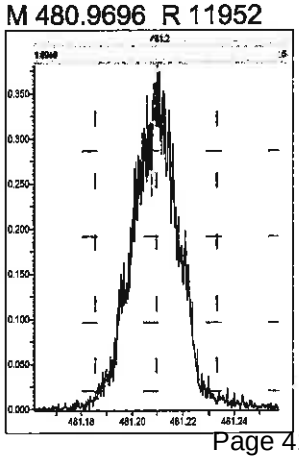
M 454.9728 R 12023



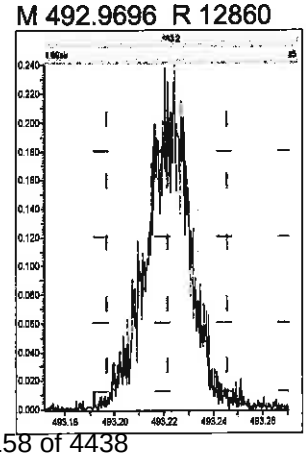
M 466.9728 R 13328



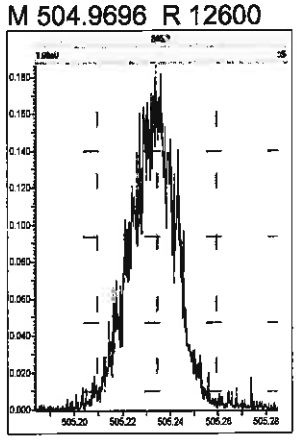
M 480.9696 R 11952



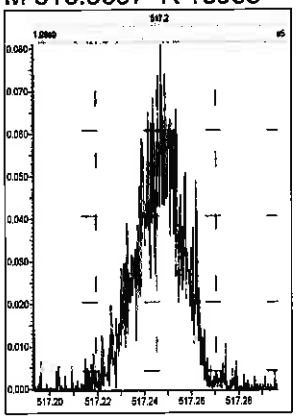
M 492.9696 R 12860



M 504.9696 R 12600



M 516.9697 R 13968



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 22-Jul-2019 05:46:24 ALS Bottle#: 2 Worklist Smp#: 66
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV 071919F CS-4 HRDXNL4_00081
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 12:37:13 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:58:29

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.158	217555693	0.78	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	306223482	0.79	1.3908	101.2	101.2	0.5090	0.5090	101	
2,3,7,8-TCDF	16.705	29808338	0.81	0.9710	10.0	10.0	0.0327	0.0327	100	
A Non-2,3,7,8-sub-TCDF	16.402						0.0327	0.0327		
S Total TCDF					10.0	10.0	0.0327	0.0327		
D 13C-2,3,7,8-TCDD	17.355	210640399	0.76	0.9819	98.6	98.6	0.2882	0.2882	98.61	
2,3,7,8-TCDD	17.370	21305152	0.79	1.0447	9.682	9.682	0.0543	0.0543	96.82	
$ 37Cl4-2,3,7,8-TCDD	17.370	29125199		1.2205	11.0	11.0	0.0235	0.0235	110	
A Non-2,3,7,8-sub-TCDD	16.833	82120	0.77	1.0447	0.1540	0.0373	0.0543	0.0543	0.00	RQ
S Total TCDD					9.836	9.719	0.0543	0.0543		RQ
D 13C-1,2,3,7,8-PeCDF	21.332	269370686	1.63	1.1585	106.9	106.9	0.3482	0.3482	107	
1,2,3,7,8-PeCDF	21.345	132087232	1.52	0.9633	50.9	50.9	0.2191	0.2191	102	
D 13C-2,3,4,7,8-PeCDF	22.559	258209986	1.59	1.1532	102.9	102.9	0.3498	0.3498	103	
2,3,4,7,8-PeCDF	22.586	134536054	1.59	0.9495	54.9	54.9	0.2482	0.2482	110	
A F1 PeCDFs	19.215						0.0257	0.0257		
A Non-2,3,7,8-sub-PeCDF	22.104						0.2328	0.2328		
S Total PeCDF					105.8	105.8	0.2336	0.2336		
D 13C-1,2,3,7,8-PeCDD	23.227	170132942	1.63	0.7431	105.2	105.2	0.1858	0.1858	105	
1,2,3,7,8-PeCDD	23.254	91595509	1.61	1.0635	50.6	50.6	0.1111	0.1111	101	
A Non-2,3,7,8-sub-PeCDD	22.232						0.1111	0.1111		
S Total PeCDD					50.6	50.6	0.1111	0.1111		
D 13C-1,2,3,4,7,8-HxCDF	29.115	207544088	0.54	0.9837	102.0	102.0	0.4125	0.4125	102	
1,2,3,4,7,8-HxCDF	29.155	123759395	1.26	1.2173	49.0	49.0	0.3273	0.3273	97.97	
D 13C-1,2,3,6,7,8-HxCDF	29.421	222055256	0.51	1.1554	92.9	92.9	0.3512	0.3512	92.87	
1,2,3,6,7,8-HxCDF	29.462	126495466	1.23	1.1311	50.4	50.4	0.3514	0.3514	101	
D 13C-2,3,4,6,7,8-HxCDF	30.660	206379503	0.51	1.0361	96.3	96.3	0.3916	0.3916	96.26	
2,3,4,6,7,8-HxCDF	30.687	120491299	1.20	1.1710	49.9	49.9	0.2307	0.2307	99.72	
D 13C-1,2,3,7,8,9-HxCDF	31.672	199182558	0.52	0.9034	106.5	106.5	0.4491	0.4491	107	
1,2,3,7,8,9-HxCDF	31.685	117816422	1.24	1.1787	50.2	50.2	0.1820	0.1820	100	
A Non-2,3,7,8-sub-HxCDF	29.135						0.2543	0.2543		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total HxCDF					199.4	199.4	0.2728	0.2728		
* 13C-1,2,3,7,8,9-HxCDD	31.472	206936352	1.28	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.926	148619124	1.34	0.8287	86.7	86.7	0.2537	0.2537	86.66	
1,2,3,4,7,8-HxCDD	30.953	78835723	1.23	1.0267	51.7	51.7	0.1454	0.1454	103	
D 13C-1,2,3,6,7,8-HxCDD	31.059	182664024	1.27	0.9495	93.0	93.0	0.2215	0.2215	92.97	
1,2,3,6,7,8-HxCDD	31.086	86225967	1.18	0.9771	48.3	48.3	0.1414	0.1414	96.62	
1,2,3,7,8,9-HxCDD	31.485	94057528	1.20	1.0616	53.5	53.5	0.1352	0.1352	107	
A Non-2,3,7,8-sub-HxCDD	29.926						0.1404	0.1404		
S Total HxCDD					153.5	153.5	0.1407	0.1407		
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	166421218	0.45	0.7285	110.4	110.4	1.219	1.219	110	
1,2,3,4,6,7,8-HpCDF	33.348	119581508	1.06	1.4373	50.0	50.0	0.2864	0.2864	99.99	
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	155422135	0.47	0.6556	114.6	114.6	1.354	1.354	115	
1,2,3,4,7,8,9-HpCDF	34.429	99640853	1.08	1.3091	49.0	49.0	0.3789	0.3789	97.94	
A Non-2,3,7,8-sub-HpCDF	33.894						0.3276	0.3276		
S Total HpCDF					99.0	99.0	0.3326	0.3326		
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	142034360	1.07	0.6978	98.4	98.4	0.5234	0.5234	98.36	
1,2,3,4,6,7,8-HpCDD	34.162	75380895	1.02	1.0102	52.5	52.5	0.1921	0.1921	105	
A Non-2,3,7,8-sub-HpCDD	35.074						0.1921	0.1921		
S Total HpCDD					52.5	52.5	0.1921	0.1921		
D 13C-OCDD	36.498	220425903	0.91	0.4780	222.9	222.9	0.2332	0.2332	111	
OCDF	36.582	154836042	0.89	1.3501	104.1	104.1	0.1029	0.1029	104	
OCDD	36.509	119204867	0.93	1.0627	101.8	101.8	0.0874	0.0874	102	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNL4_00081 Amount Added: 1.00 Units: mL

Report Date: 22-Jul-2019 12:37:13 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 22-Jul-2019 05:46:24 ALS Bottle#: 2 Worklist Smp#: 66
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV 071919F CS-4 HRDXNL4_00081
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5
Sublist: chrom-Dioxin_3D5*sub1

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 12:37:13 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:58:29

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.158	17.158	0		95263435	24108488	33433	83582	721		
333.9339	17.158	17.158	0		122292258	31099442	29054	72635	1070	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.973	134868651	33155373	62942	157355	527		
317.9389	16.690	16.690	0	0.973	171354831	42071509	93374	233435	451	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.001	13359683	3328182	4706	11765	707		
305.8987	16.705	16.705	0	1.001	16448655	3954533	4850	12125	815	0.81(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	16.402						4706	11765			
305.8987	16.402						4850	12125			
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	91251327	21243830	33433	83582	635		
333.9339	17.355	17.355	0	1.011	119389072	27385171	29054	72635	943	0.76(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.370	17.370	0	1.001	9408121	2314818	8062	20155	287		
321.8936	17.370	17.370	0	1.001	11897031	2858263	2972	7430	962	0.79(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.012	29125199	6895590	6341	15852	1087		
A Non-2,3,7,8-sub-TCDD											RQ
319.8965	16.690	16.833	-9	0.962	292466	68741	8062	20155	9		
	Empc Correction				35724	9613	8062	20155	1		
321.8936	16.690	16.833	-9	0.962	46396	12485	2972	7430	4	6.30(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8-PeCDF											
351.9000	21.332	21.332	0	1.243	166769100	31623051	53215	133037	594		
353.8970	21.332	21.332	0	1.243	102601586	19399405	35872	89680	541	1.63(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.345	21.345	0	1.001	79608677	14291347	24505	61262	583		
341.8567	21.345	21.345	0	1.001	52478555	9633406	18571	46427	519	1.52(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.559	22.559	0	1.315	158544049	27830714	53215	133037	523		
353.8970	22.559	22.559	0	1.315	99665937	17869146	35872	89680	498	1.59(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586	22.586	0	1.001	82623475	13868864	24505	61262	566		
341.8567	22.573	22.586	-1	1.001	51912579	8897785	18571	46427	479	1.59(1.32-1.78)	
A F1 PeCDFs											
339.8597	19.215						1292	3230			
341.8567	19.215						3458	8645			
A Non-2,3,7,8-sub-PeCDF											
339.8597	22.104						24505	61262			
341.8567	22.104						18571	46427			
13C-1,2,3,7,8-PeCDD											
367.8949	23.227	23.227	0	1.354	105558036	17469492	17667	44167	989		
369.8919	23.227	23.227	0	1.354	64574906	10534929	12819	32047	822	1.63(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254	23.254	0	1.001	56500361	9349146	8643	21607	1082		
357.8516	23.254	23.254	0	1.001	35095148	5716886	4592	11480	1245	1.61(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.232						8643	21607			
357.8516	22.232						4592	11480			
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.115	29.115	0	0.925	72620732	9114455	25173	62932	362		
385.8610	29.128	29.115	1	0.926	134923356	16215028	47209	118022	343	0.54(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.155	29.155	0	1.001	68902921	8264059	21552	53880	383		
375.8178	29.155	29.155	0	1.001	54856474	6686132	18816	47040	355	1.26(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.421	29.421	0	0.935	74685659	8418113	25173	62932	334		
385.8610	29.421	29.421	0	0.935	147369597	16969281	47209	118022	359	0.51(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.462	29.462	0	1.001	69856187	7731343	21552	53880	359		
375.8178	29.462	29.462	0	1.001	56639279	6225783	18816	47040	331	1.23(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.660	30.660	0	0.974	69462871	12348524	25173	62932	491		
385.8610	30.660	30.660	0	0.974	136916632	25017018	47209	118022	530	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.687	30.687	0	1.001	65665233	12080108	21552	53880	561		
375.8178	30.687	30.687	0	1.001	54826066	9975923	18816	47040	530	1.20(1.05-1.43)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.006	67924650	16439002	25173	62932	653		
385.8610	31.672	31.672	0	1.006	131257908	30615106	47209	118022	649	0.52(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	65312511	15490587	21552	53880	719		
375.8178	31.685	31.685	0	1.000	52503911	11978199	18816	47040	637	1.24(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.135						21552	53880			
375.8178	29.135						18816	47040			
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		116024741	25038703	20033	50082	1250		
403.8529	31.472	31.472	0		90911611	19559769	17478	43695	1119	1.28(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.926	30.926	0	0.983	85057531	18944564	20033	50082	946		
403.8529	30.926	30.926	0	0.983	63561593	14252203	17478	43695	815	1.34(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.953	30.953	0	1.001	43495120	9477493	11076	27690	856		
391.8127	30.940	30.953	-1	1.000	35340603	7574758	8751	21877	866	1.23(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	102333156	20034246	20033	50082	1000		
403.8529	31.059	31.059	0	0.987	80330868	15853288	17478	43695	907	1.27(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.086	31.086	0	1.001	46743209	9181087	11076	27690	829		
391.8127	31.086	31.086	0	1.001	39482758	7766389	8751	21877	887	1.18(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.485	31.485	0	1.018	51395628	10800204	11076	27690	975		
391.8127	31.485	31.485	0	1.018	42661900	9093855	8751	21877	1039	1.20(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						11076	27690			
391.8127	29.926						8751	21877			
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	51423537	15925174	52237	130592	305		
419.8220	33.335	33.335	0	1.059	114997681	36141532	106126	265315	341	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.348	33.348	0	1.000	61635098	19065037	43389	108472	439		
409.7789	33.348	33.348	0	1.000	57946410	17829323	42327	105817	421	1.06(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	49422235	13749683	52237	130592	263		
419.8220	34.429	34.429	0	1.094	105999900	29447680	106126	265315	277	0.47(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.429	0	1.000	51828365	14360482	43389	108472	331		
409.7789	34.429	34.429	0	1.000	47812488	13505944	42327	105817	319	1.08(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.894						43389	108472			
409.7789	33.894						42327	105817			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	73541534	21890227	36678	91695	597		
437.8140	34.150	34.150	0	1.085	68492826	20187528	28483	71207	709	1.07(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	37977723	10997518	17837	44592	617		
425.7737	34.150	34.162	-1	1.000	37403172	10735947	14828	37070	724	1.02(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						17837	44592			
425.7737	35.074						14828	37070			
13C-OCDD											
469.7779	36.498	36.498	0	1.160	104944455	26533536	10133	25332	2619		
471.7750	36.498	36.498	0	1.160	115481448	29086527	9755	24387	2982	0.91(0.76-1.02)	
OCDF											
441.7428	36.582	36.582	0	1.002	72955397	18516566	7218	18045	2565		
443.7399	36.582	36.582	0	1.002	81880645	20812176	8237	20592	2527	0.89(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	57507715	14718432	4603	11507	3198		
459.7348	36.509	36.509	0	1.000	61697152	15825920	5725	14312	2764	0.93(0.76-1.02)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

n - Failed Sig-To-Noise Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNL4_00081 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d
Lims ID: CCV
Client ID:
Inject. Date: 22-Jul-2019 05:46:24 Dil. Factor: 1.0000
Sample Type: CCV, Cal Verification
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 66
Sublist: chrom-Dioxin_3D5*sub1

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	210640399	48629001

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	210640399	48629001

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
16.690	292466	68741	46396	12485	0.1540	6.30	RnQ
16.690	35724	9613	46396	12485	0.0373		Empc Correction
Signal Totals:	35724	9613	46396	12485			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	338862	81226				6.30	RQ
	82120	22098					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1540 = (338862 * 100.000) / (210640399 * 1.045)
Empc Amount: 0.0373 = (82120 * 100.000) / (210640399 * 1.045)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
n - Failed Sig-To-Noise Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

Injection Date: 22-Jul-2019 05:46:24 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

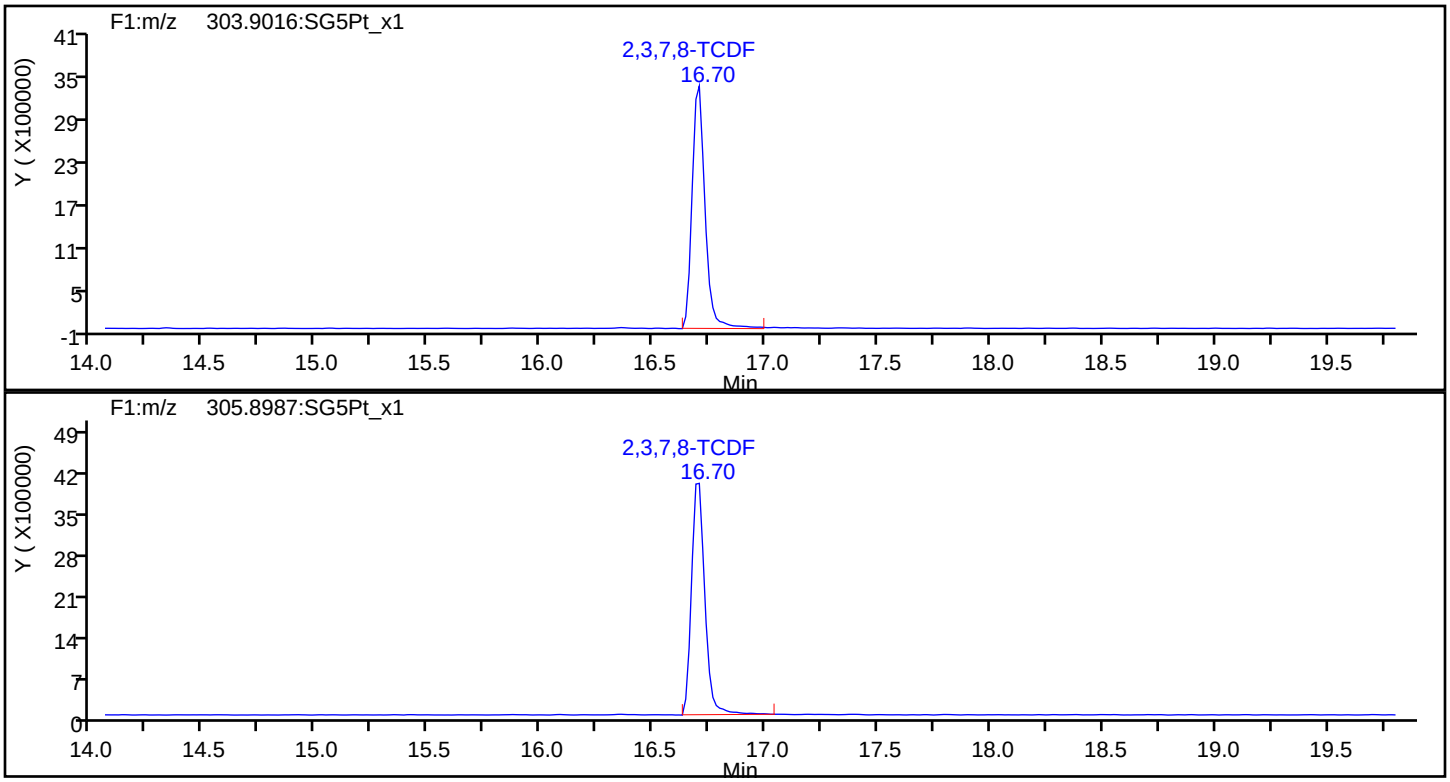
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

Client ID:

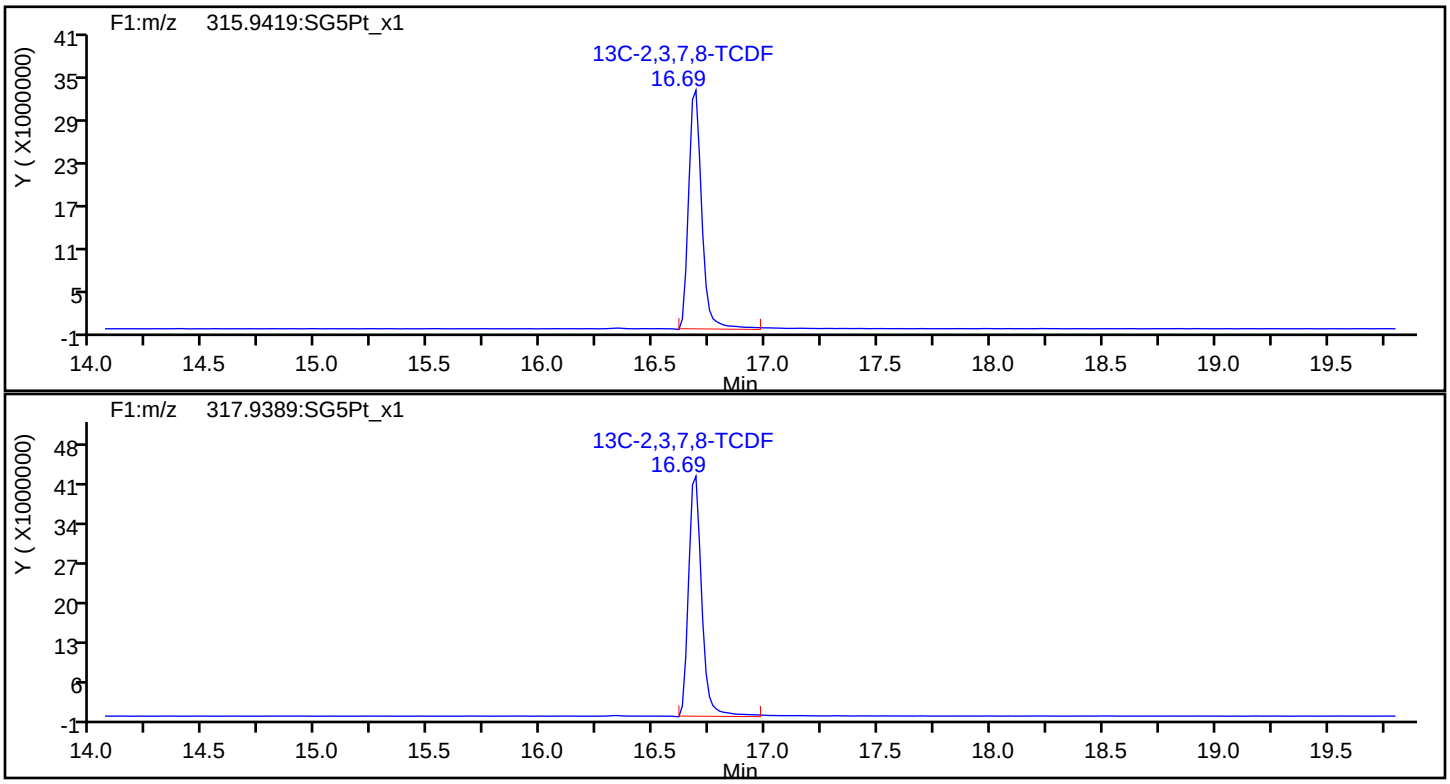
Worklist#: 309104 Sample Line#: 66

Column Type: DB-5 Column Dia: 0.32 mm

TCDF



TCDF Standards

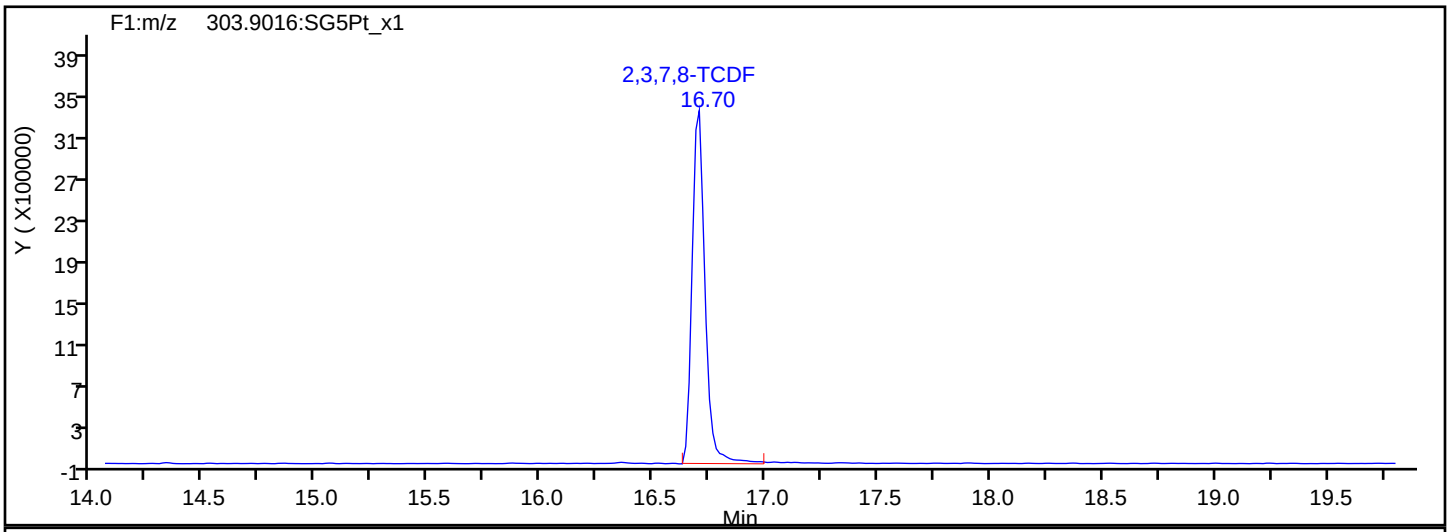


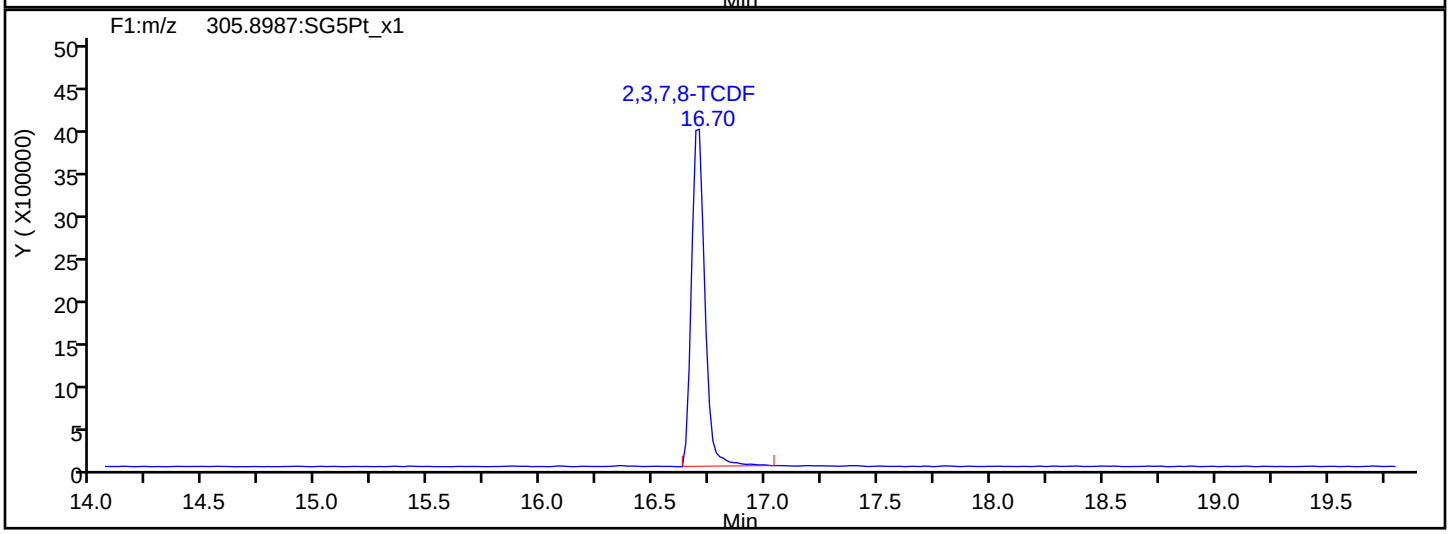
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

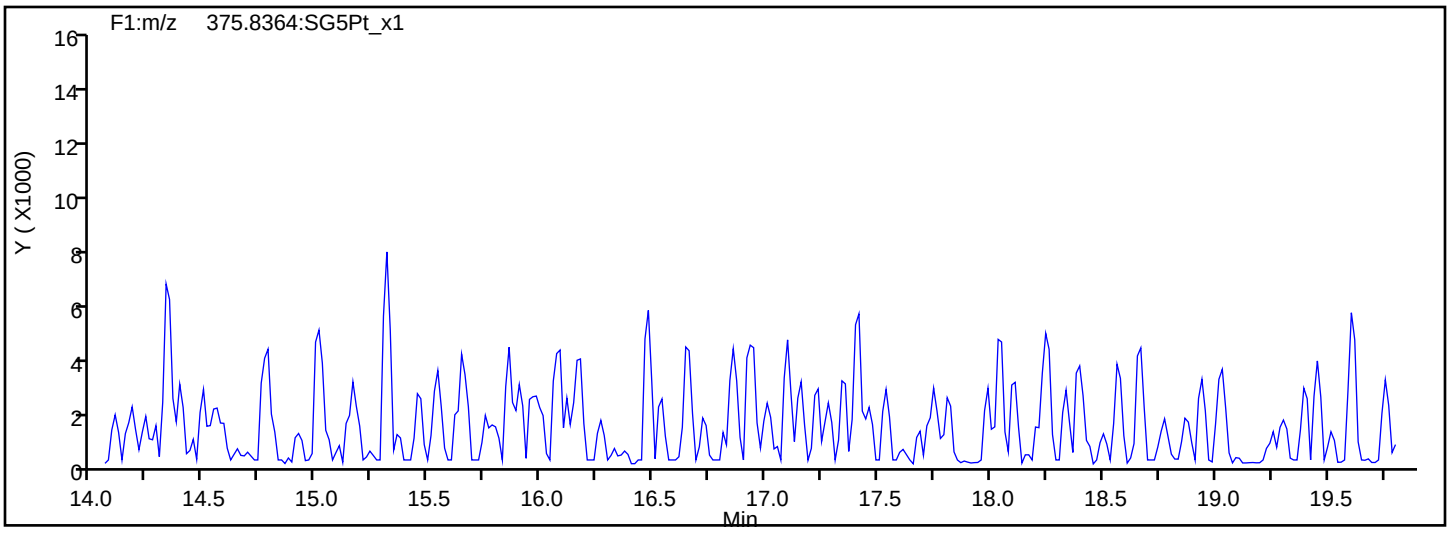
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

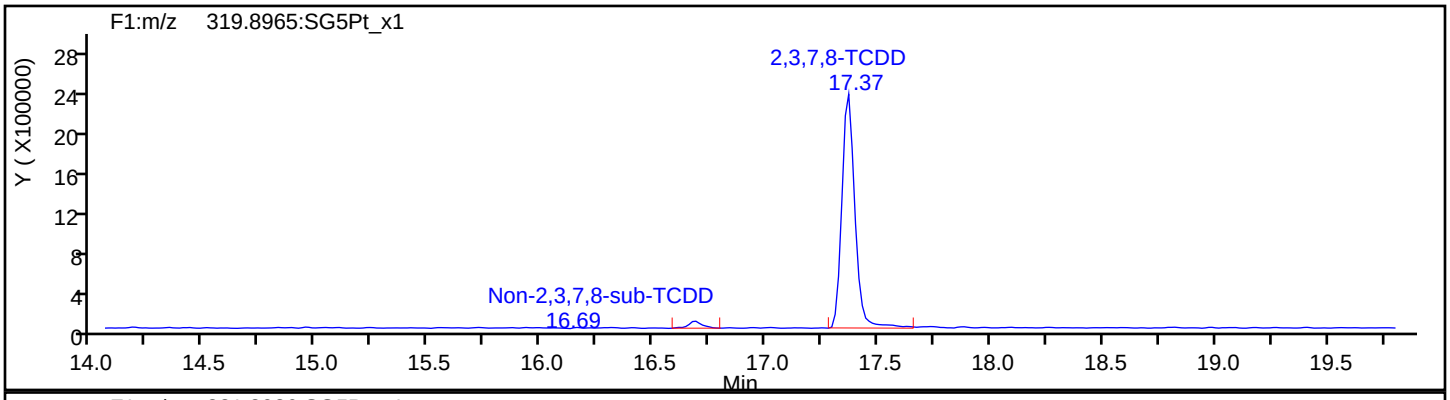


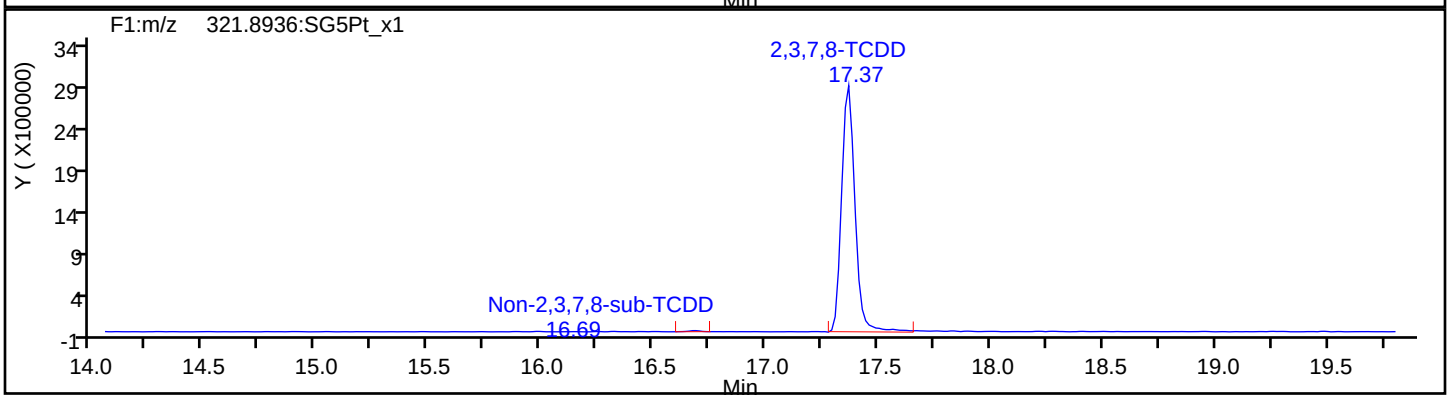
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

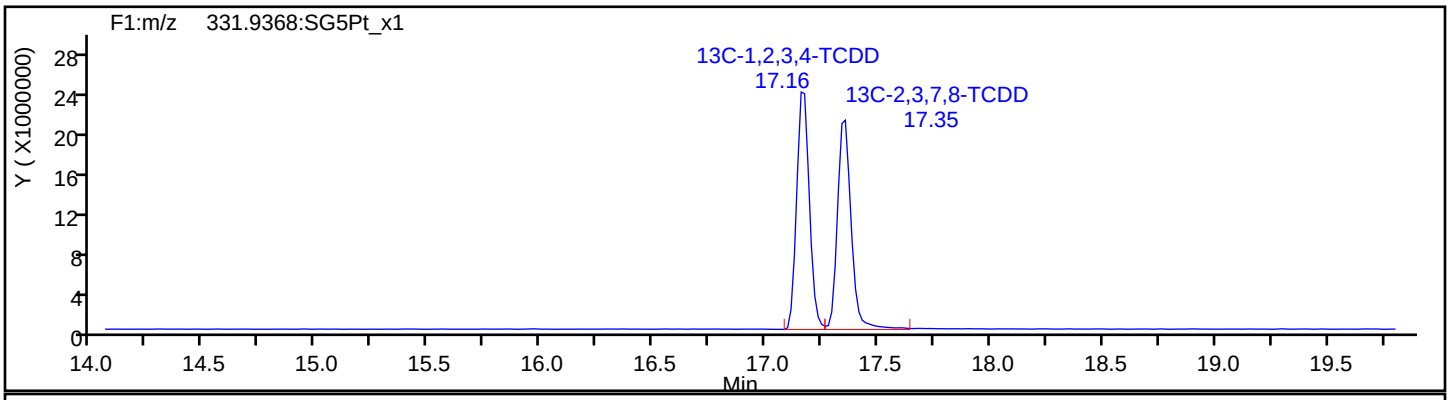
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

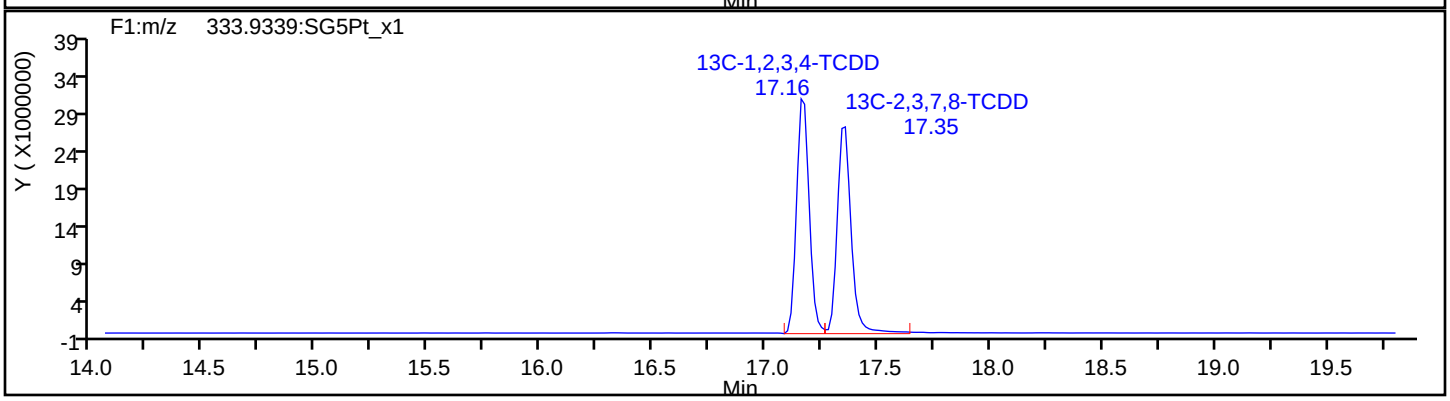
TCDD





TCDD Standards





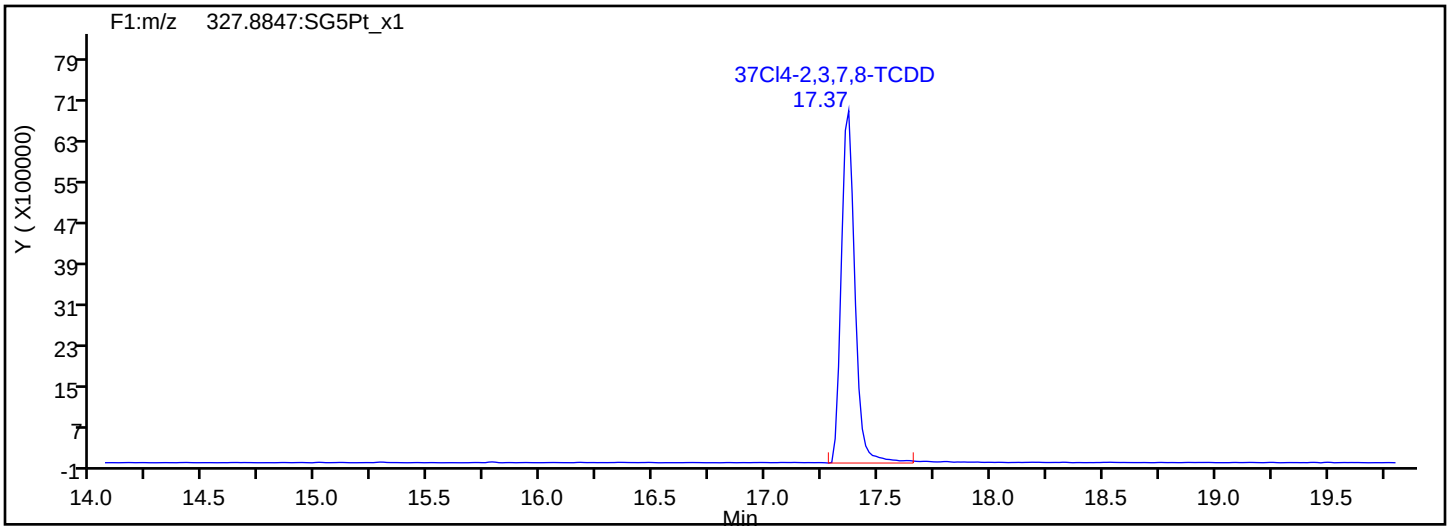
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

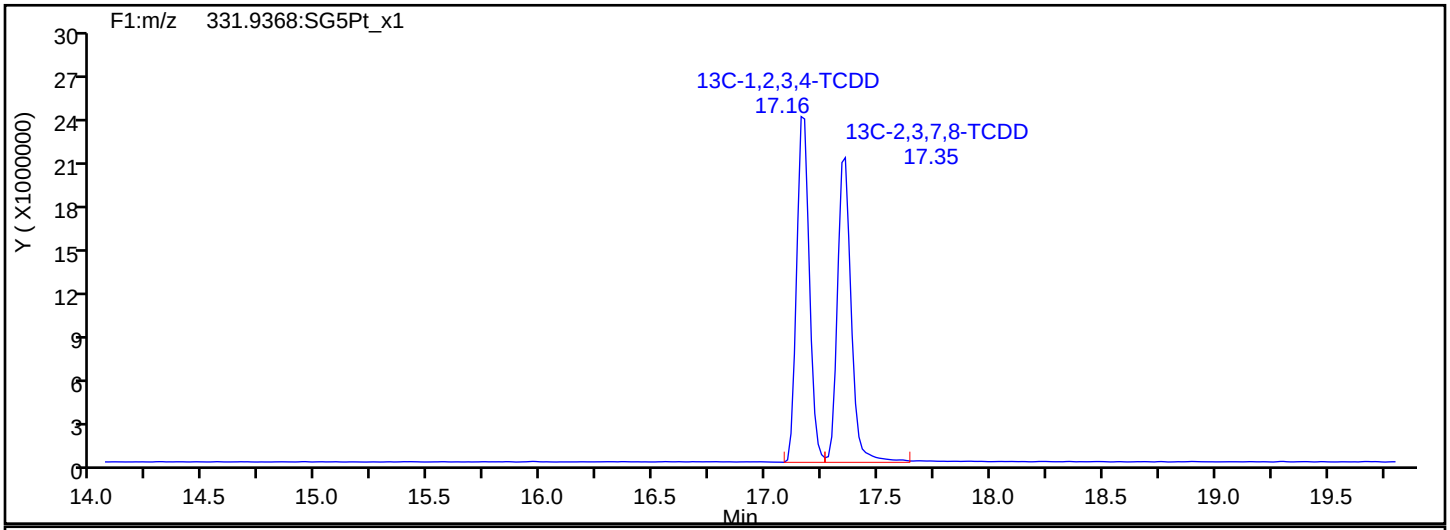
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

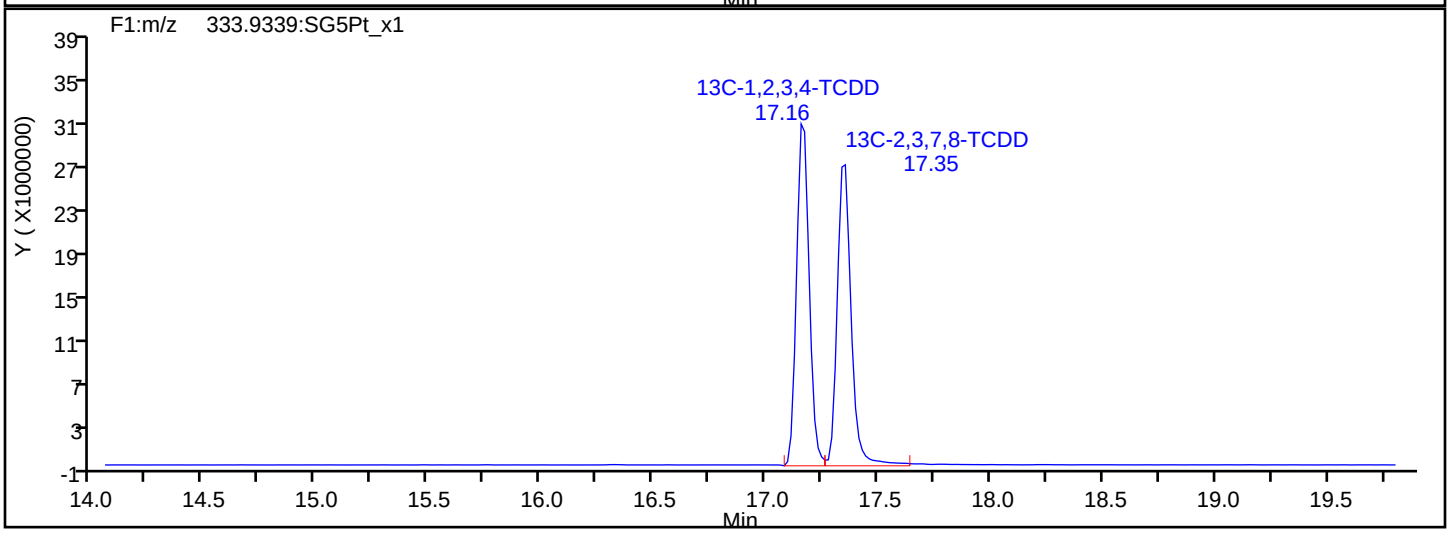
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



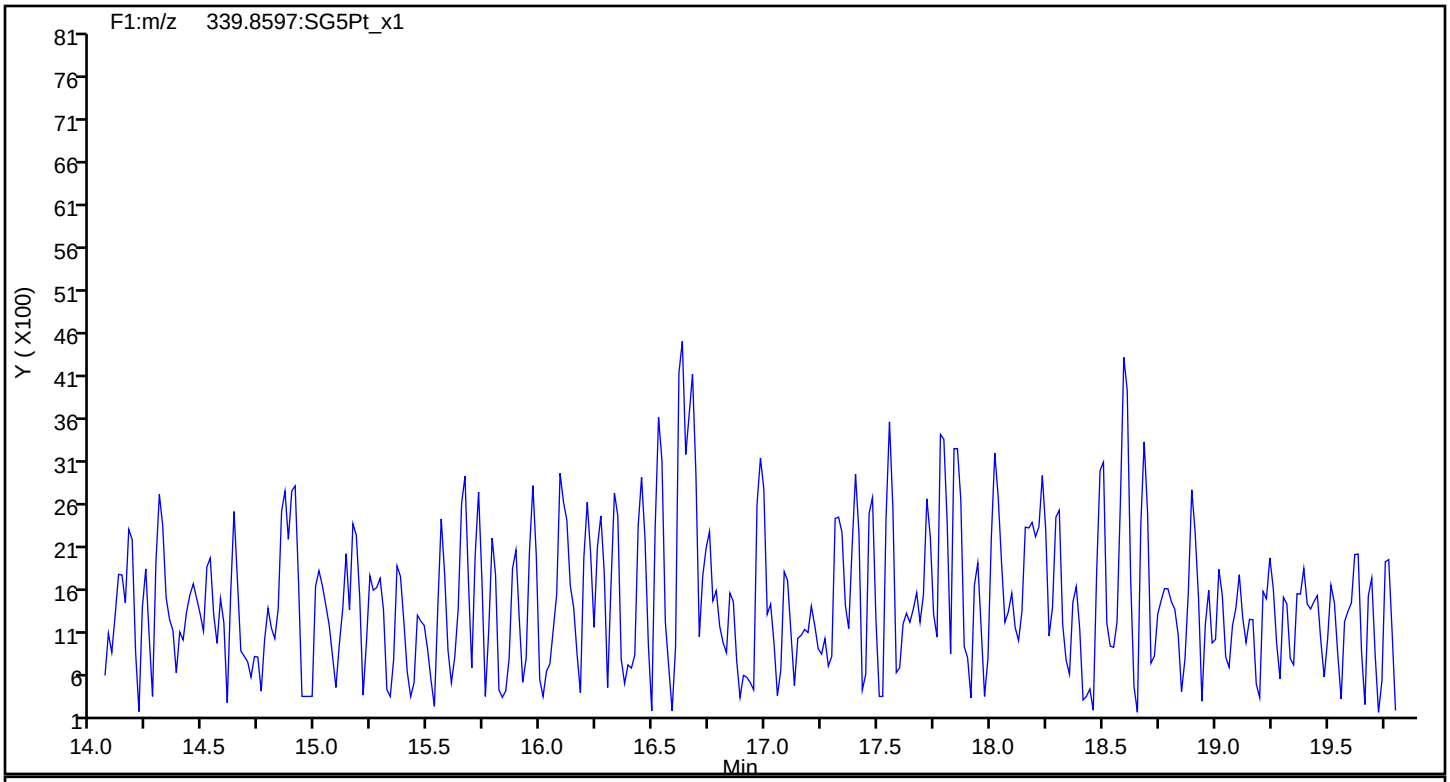


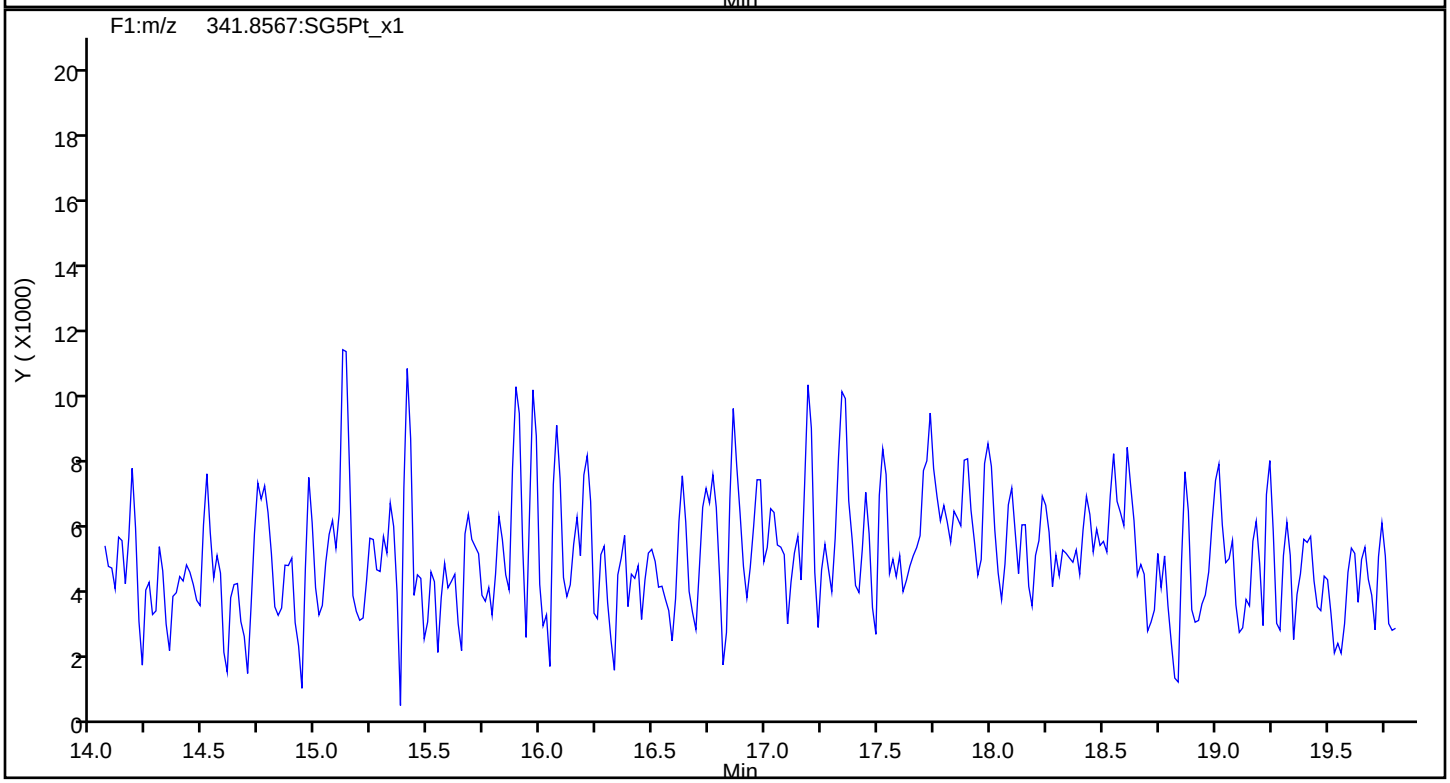
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



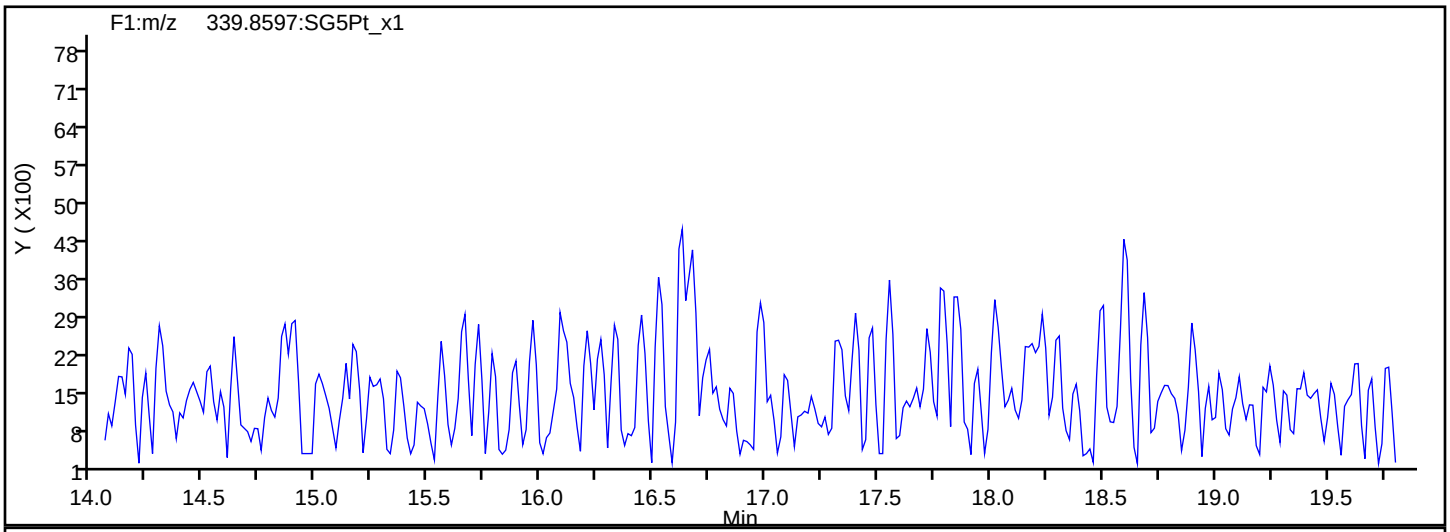


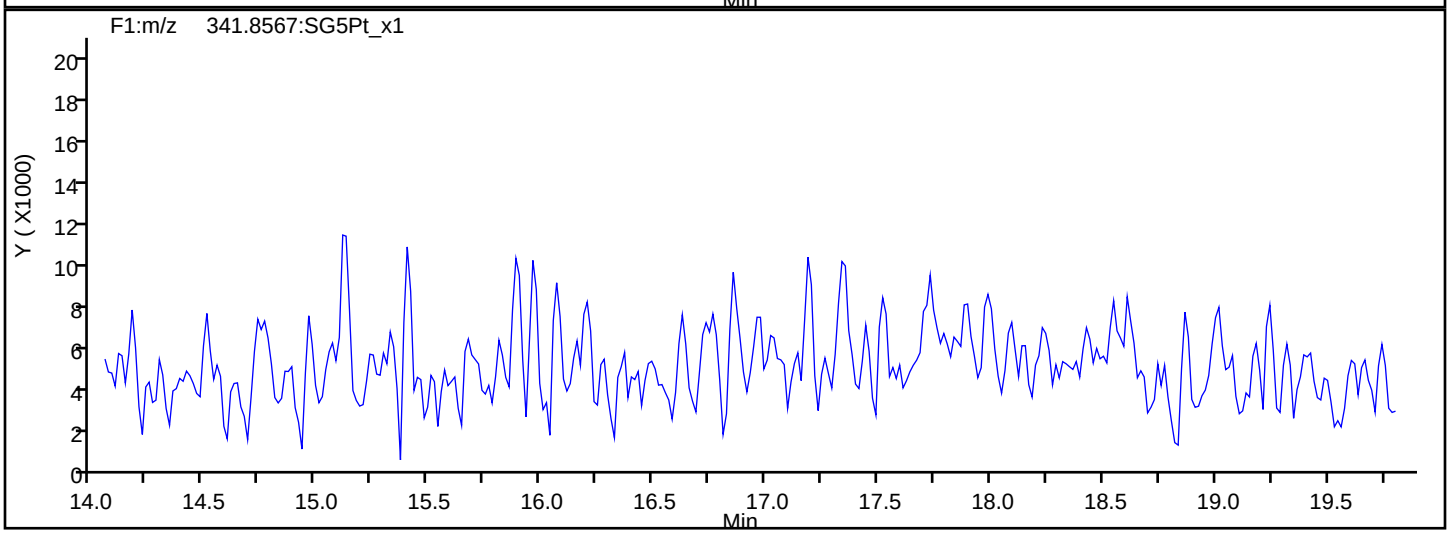
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

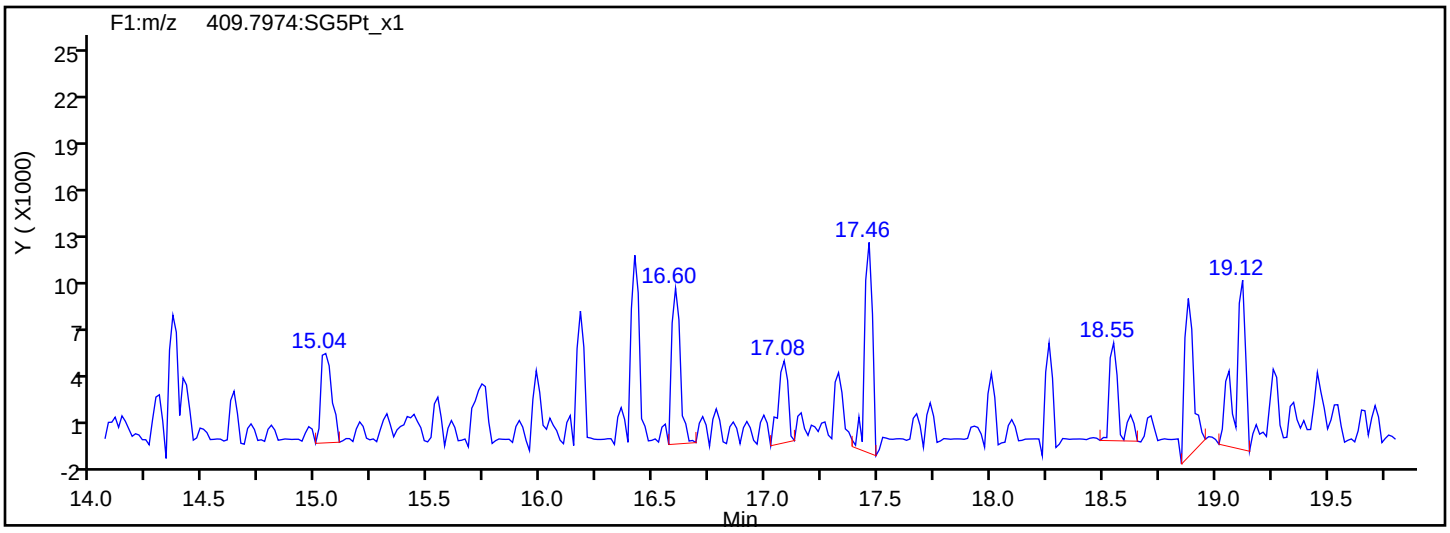
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

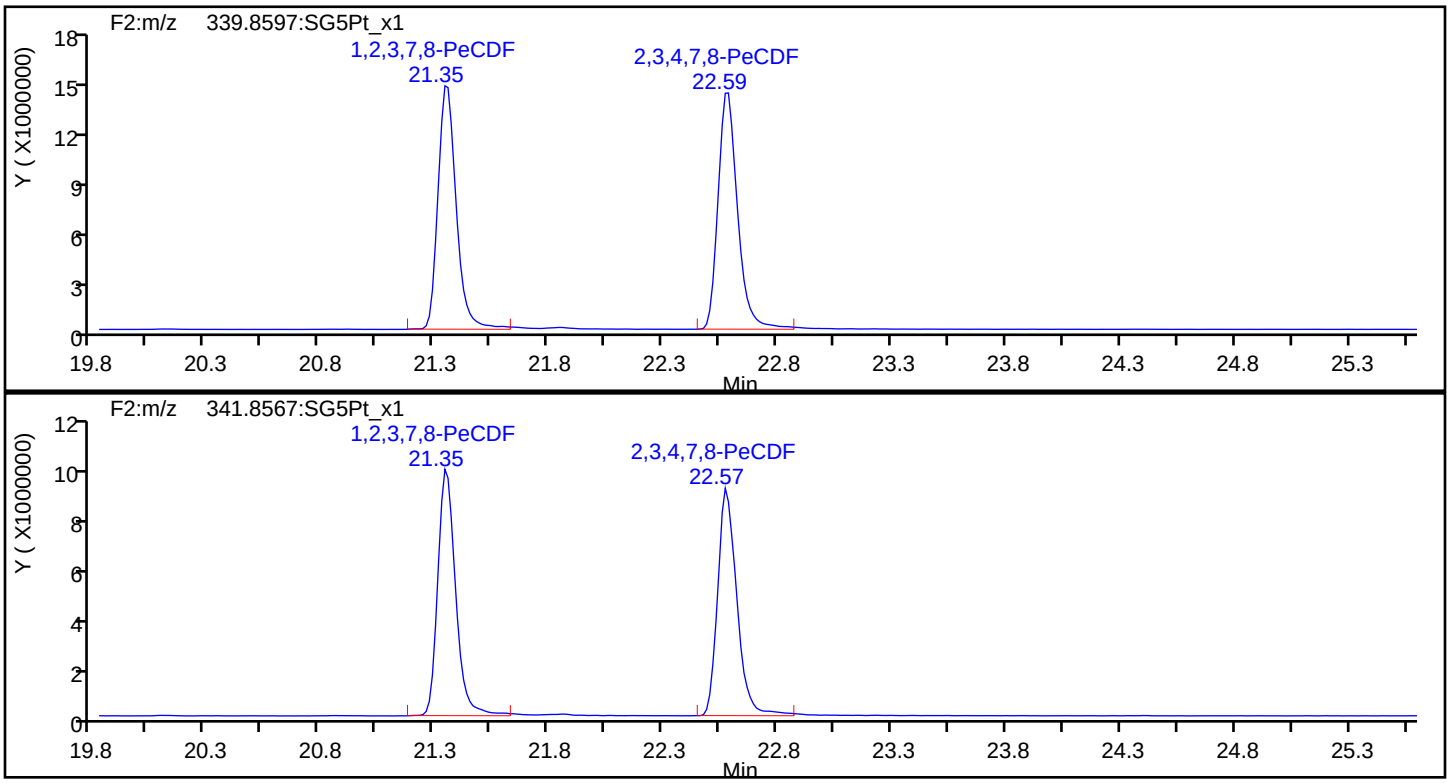


Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

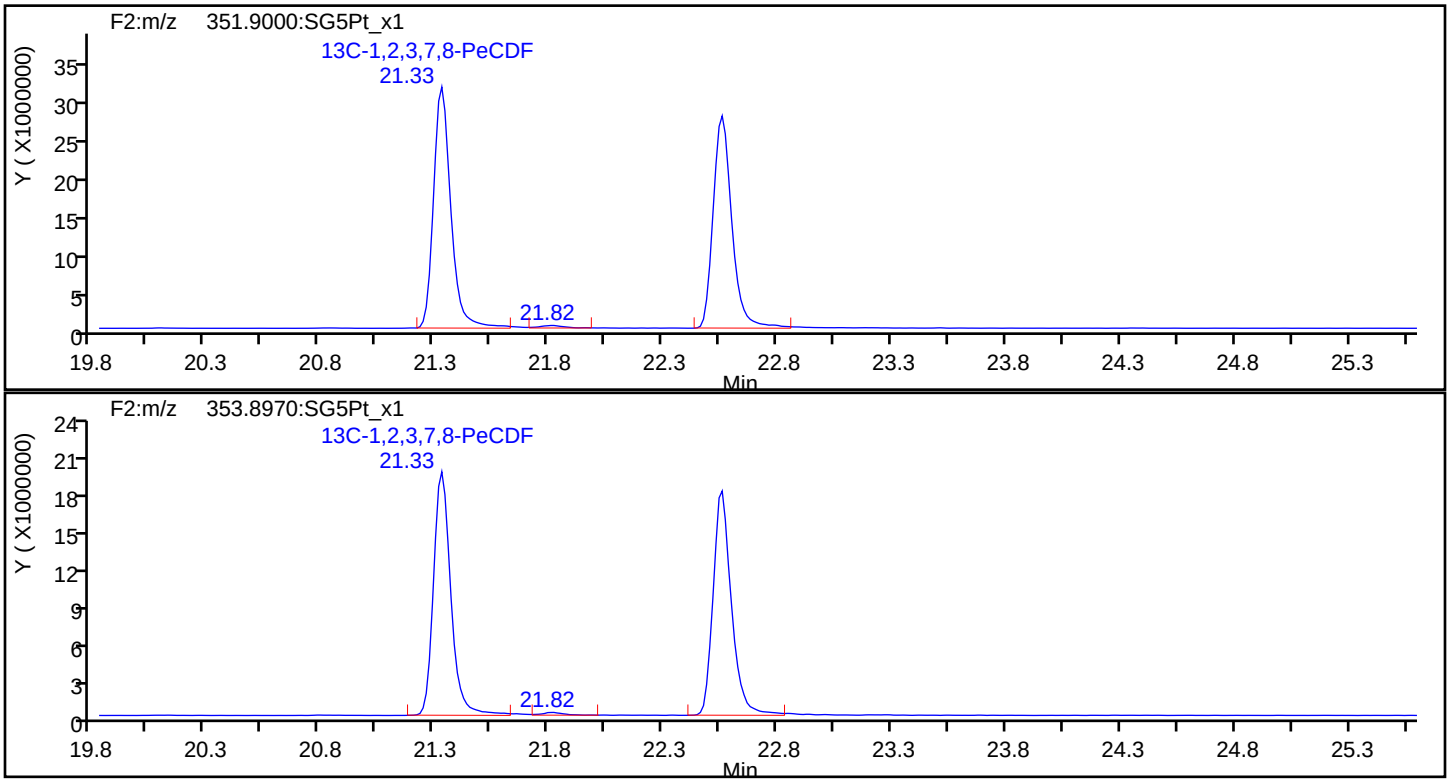
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

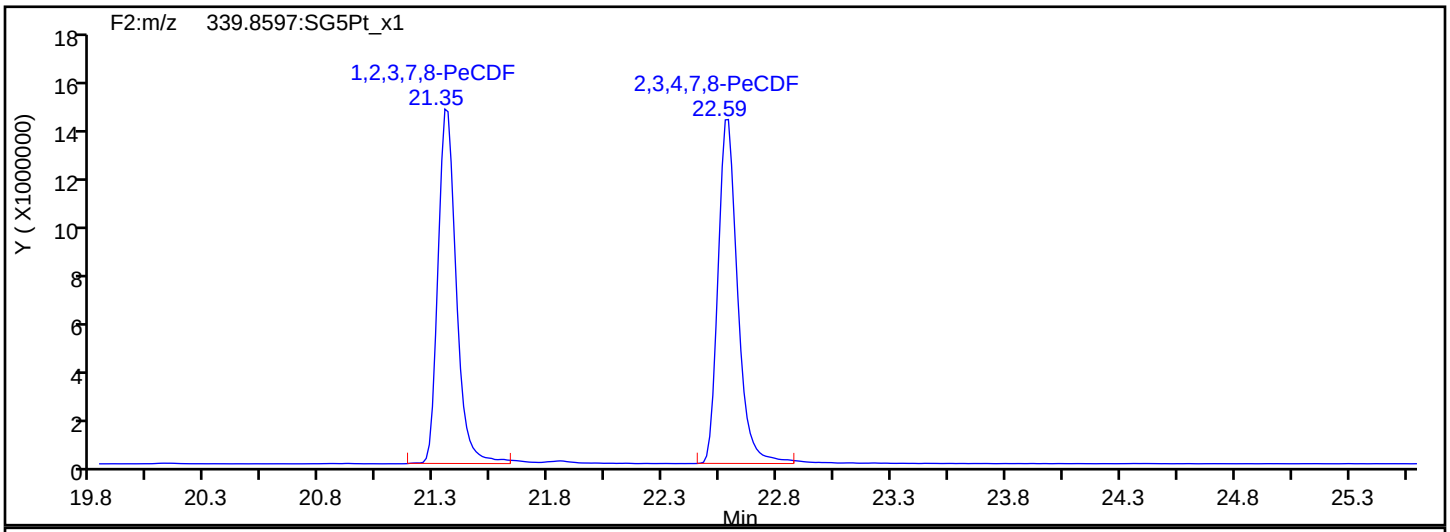


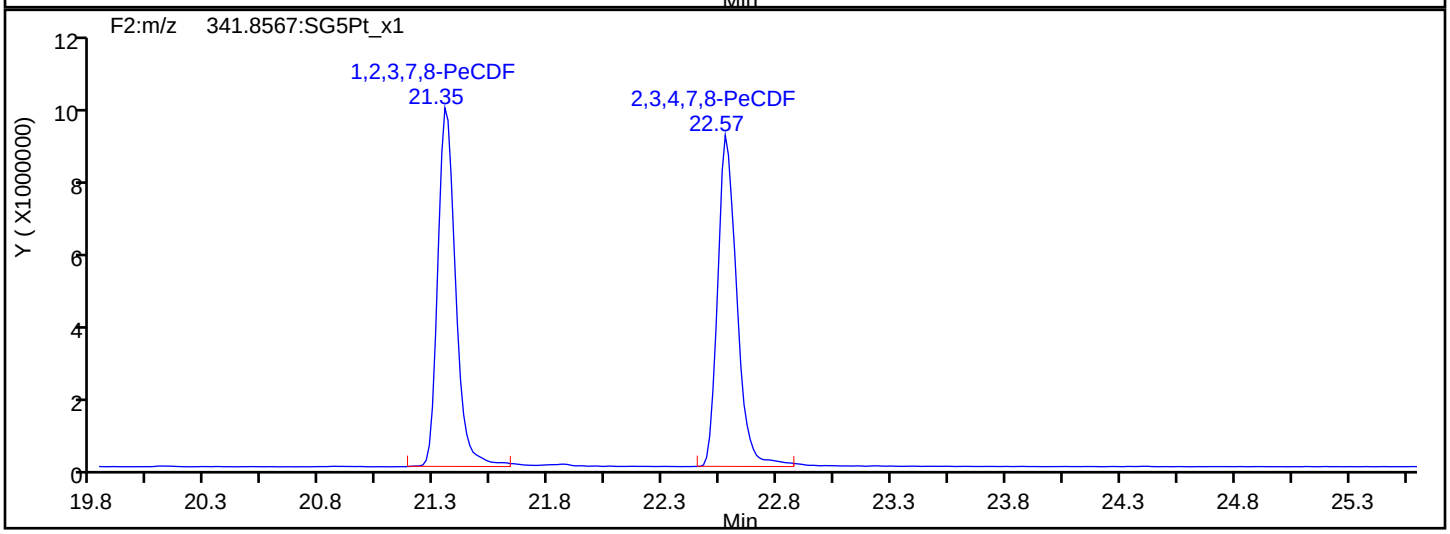
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

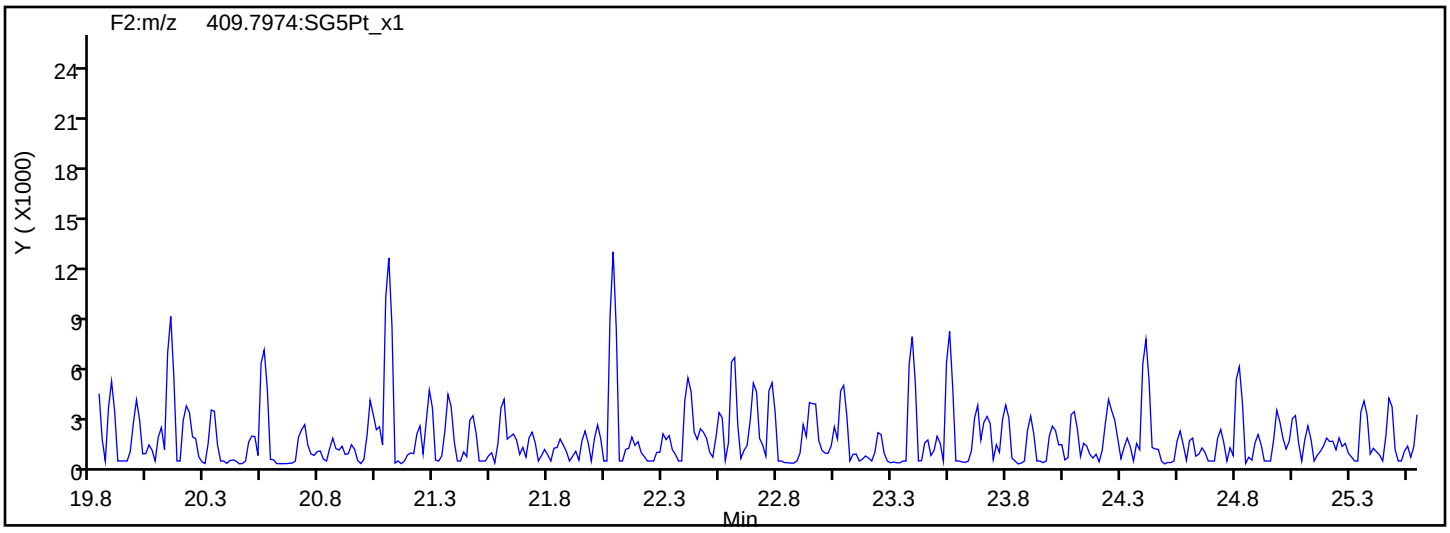
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



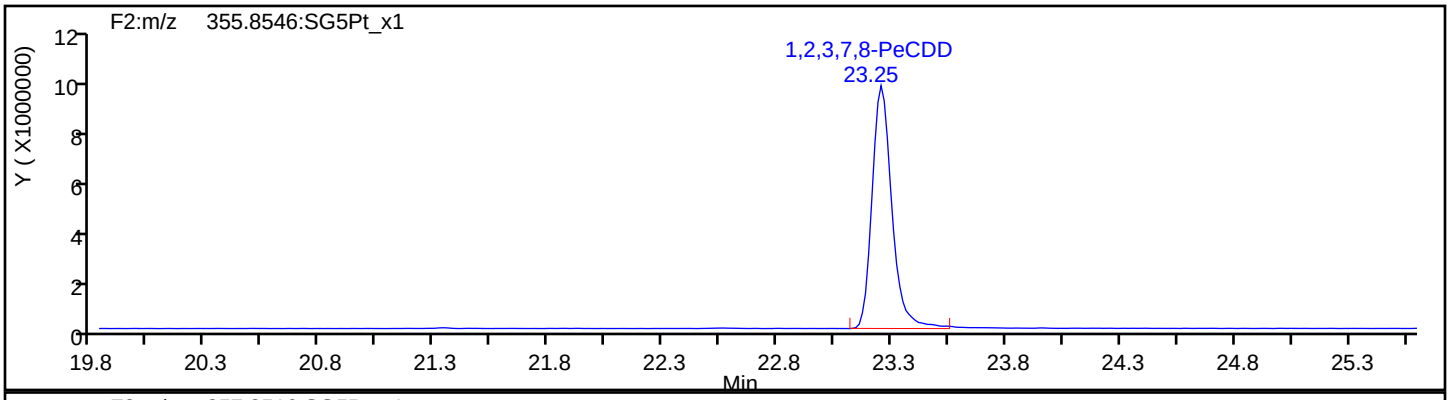
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

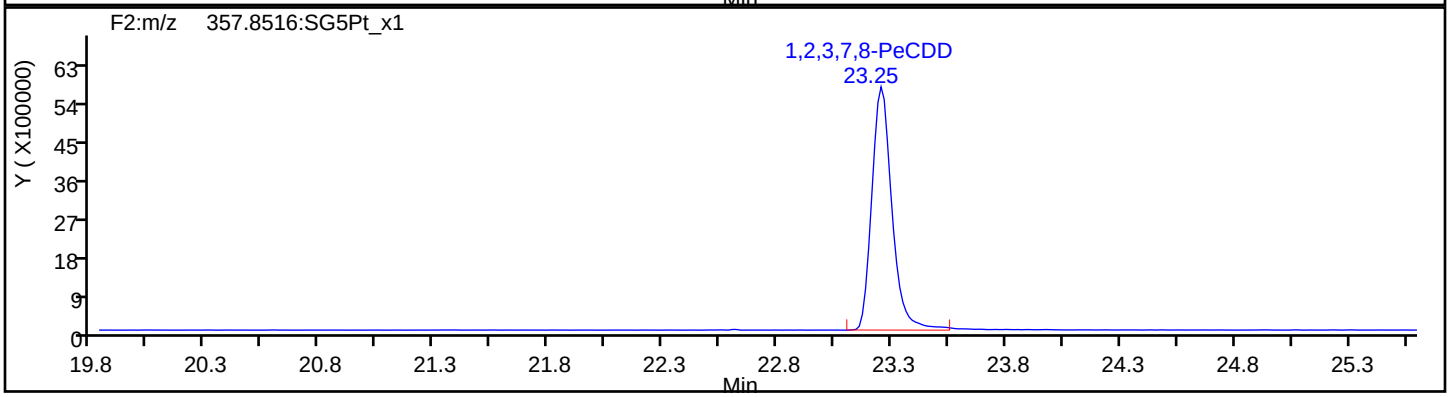
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

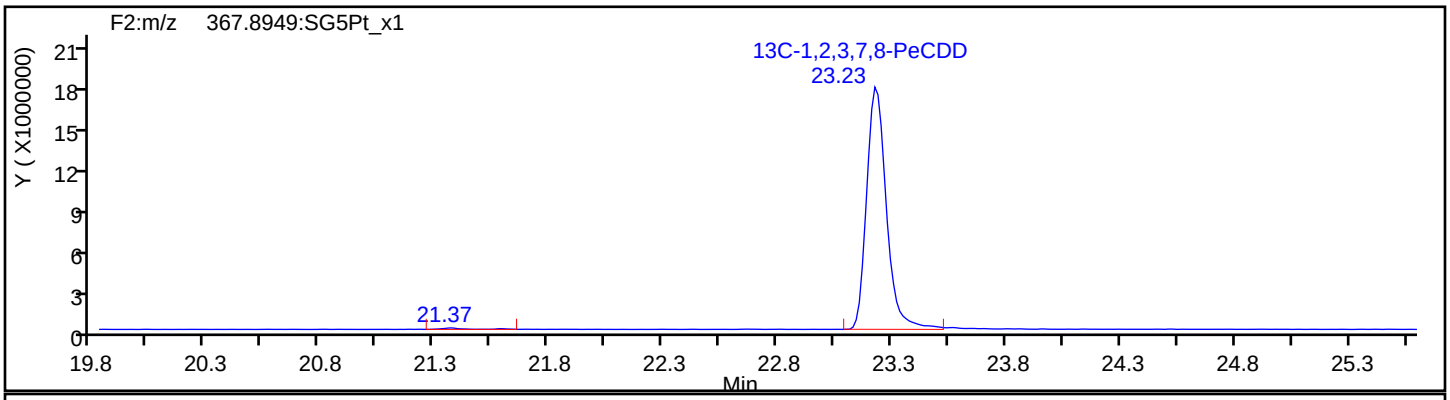
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

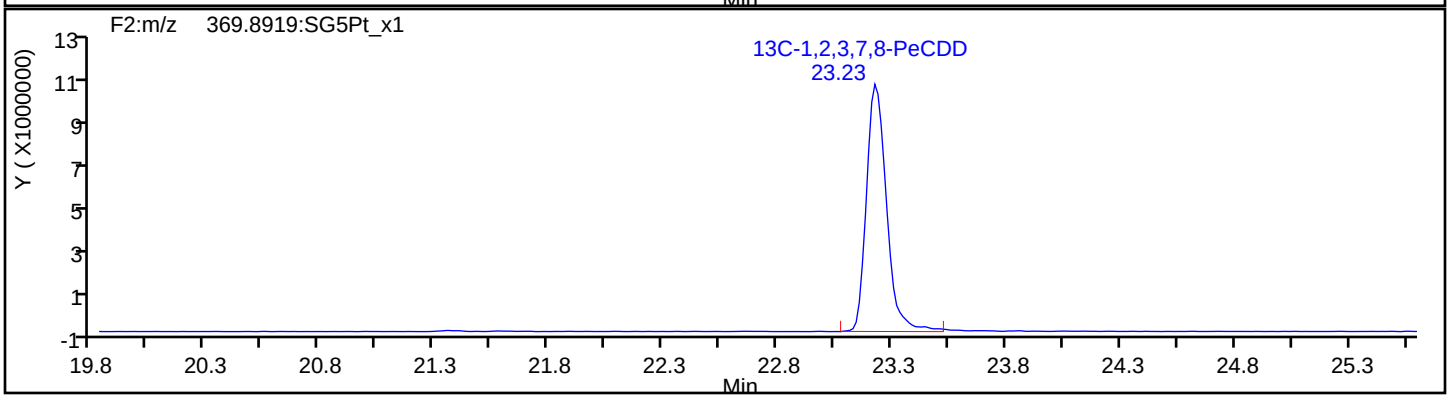
PeCDD





PeCDD Standards





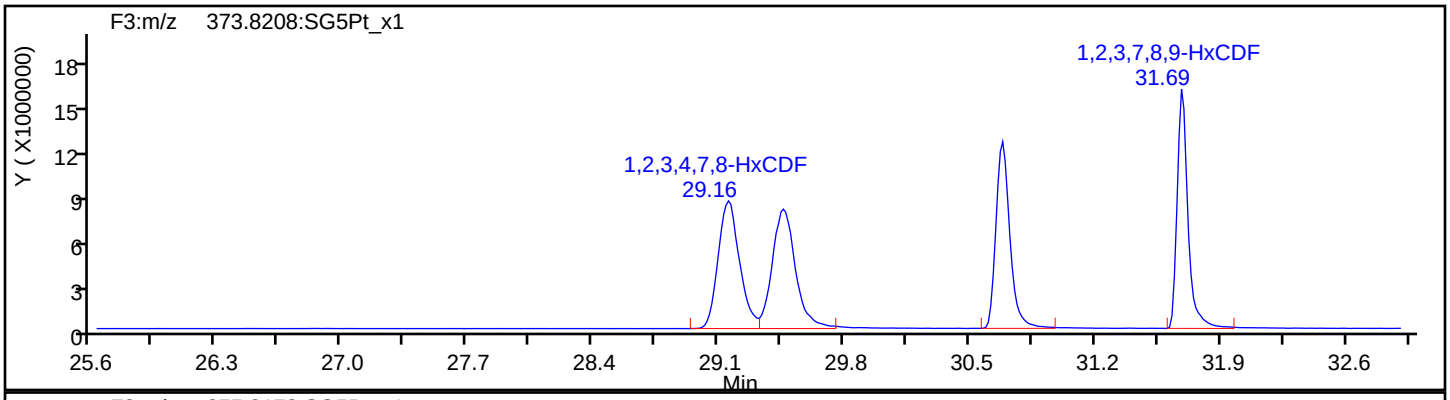
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

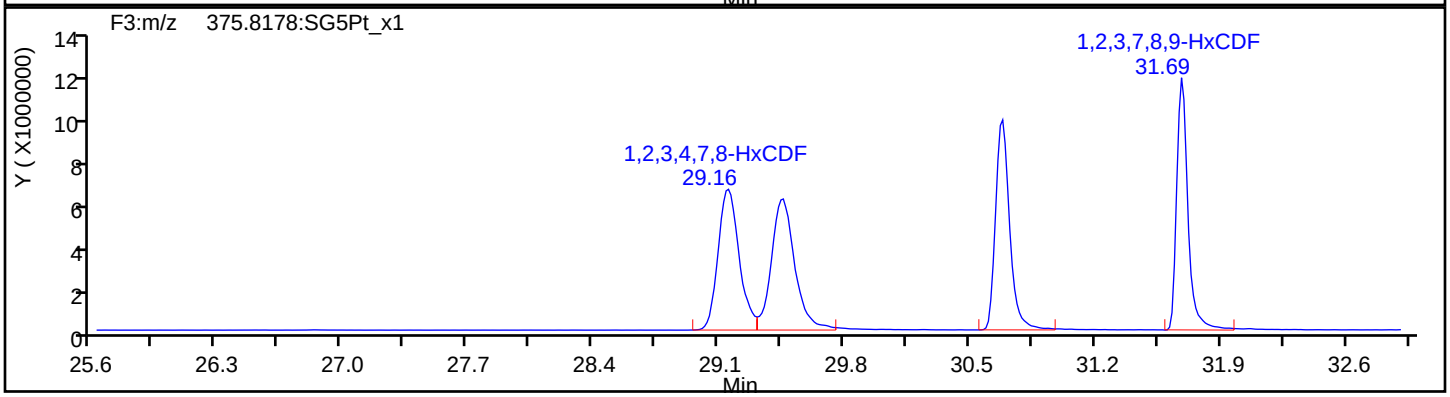
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

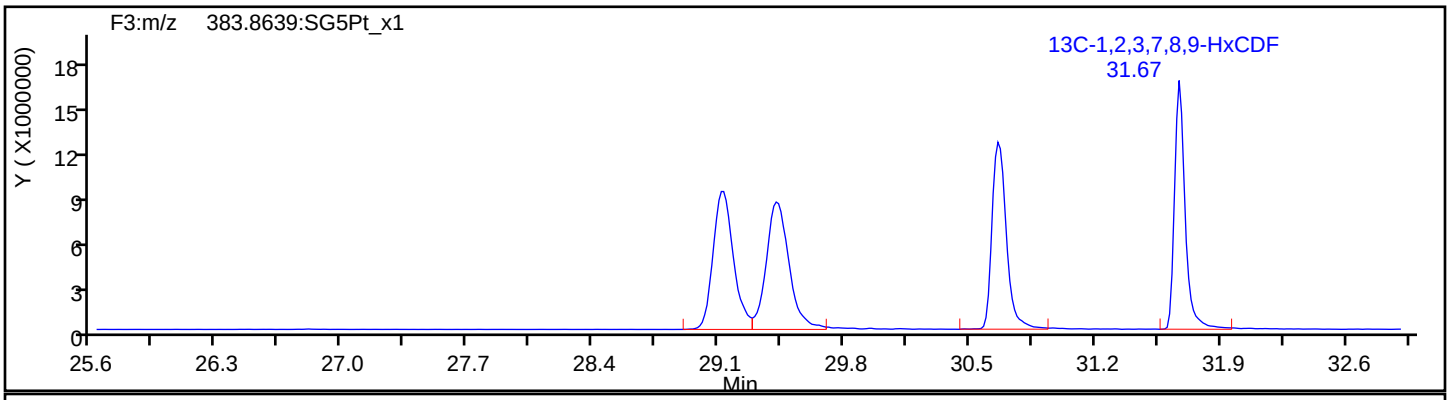
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

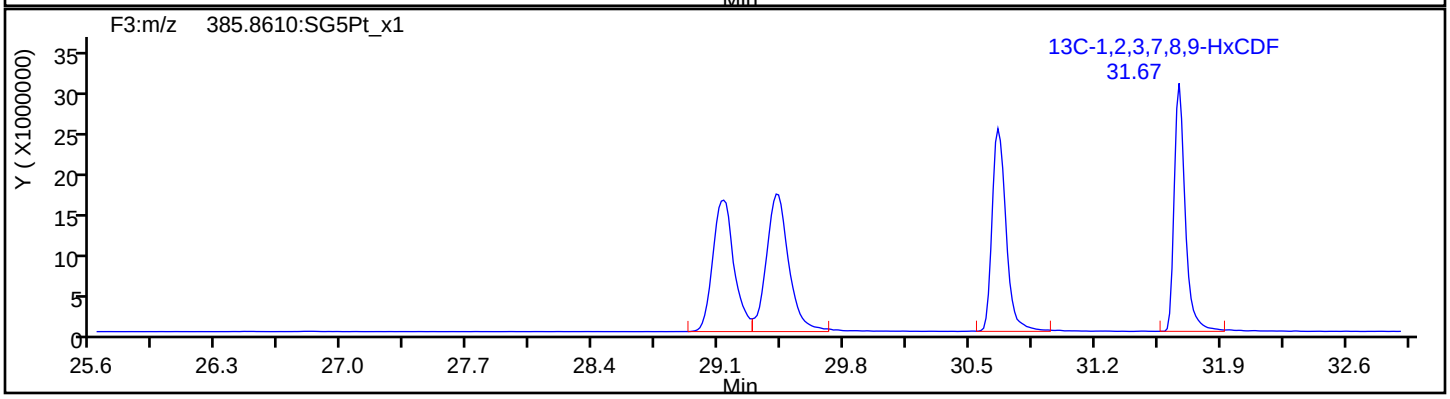
HxCDF





HxCDF Standards



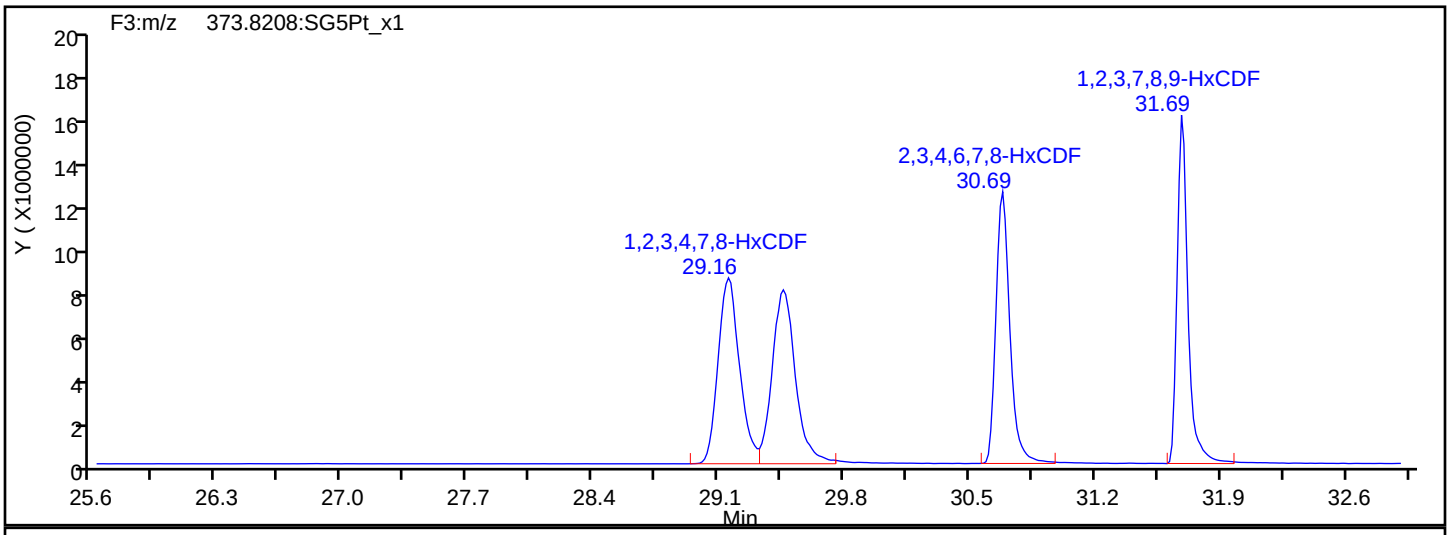


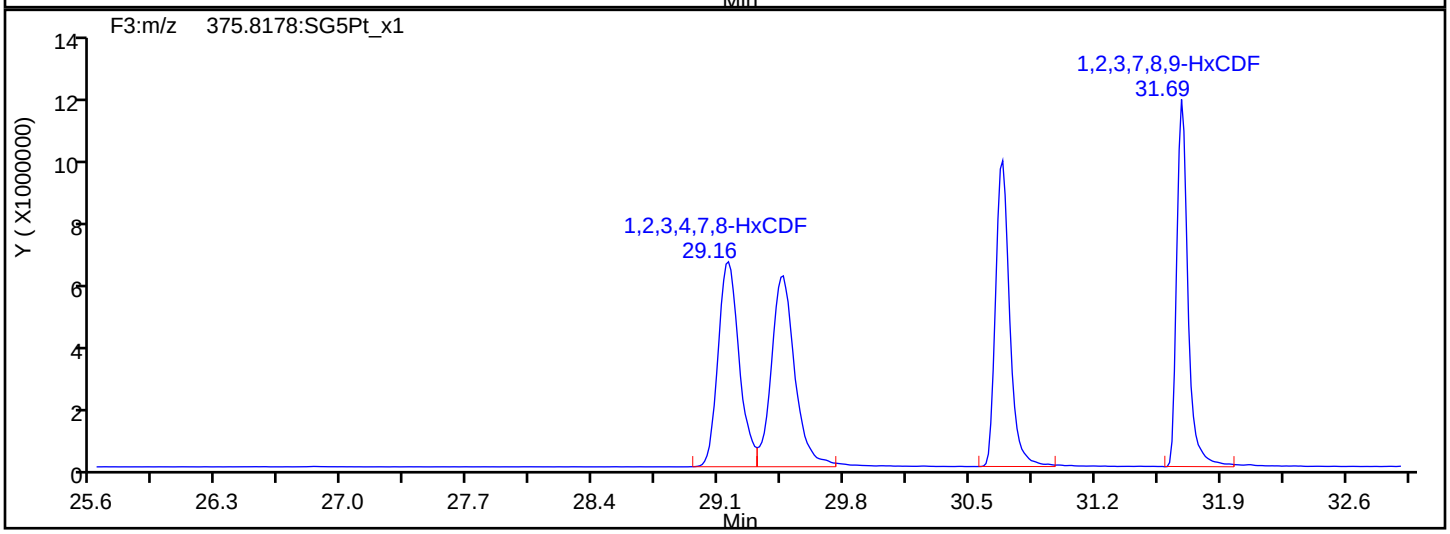
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

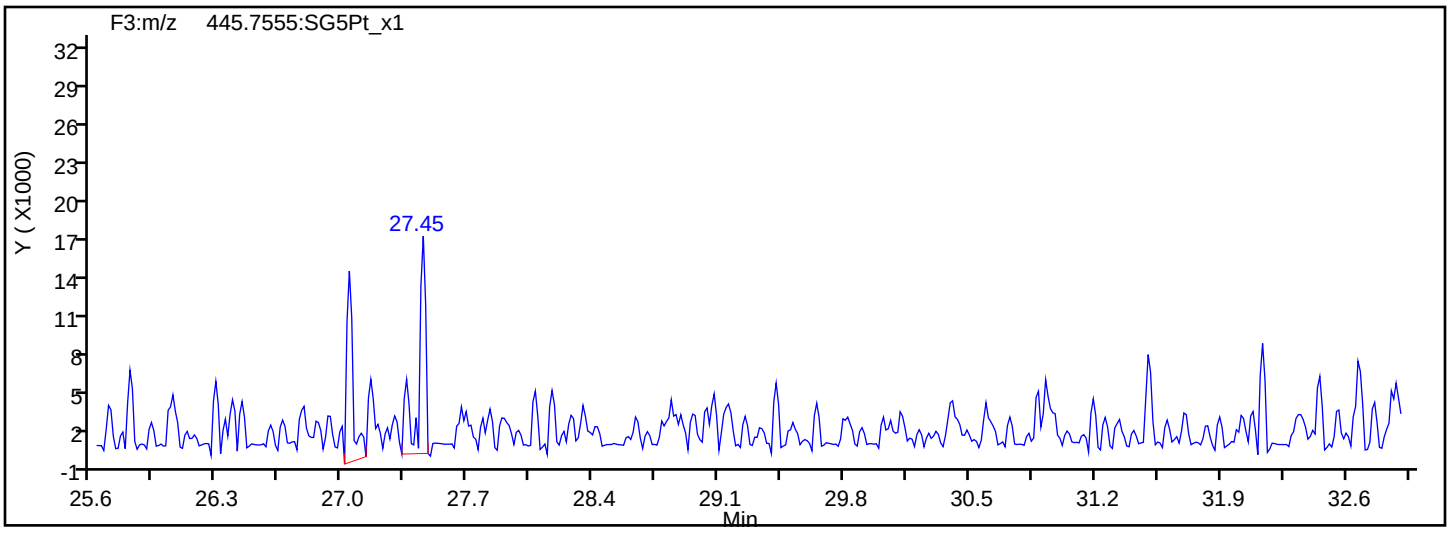
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

Injection Date: 22-Jul-2019 05:46:24 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

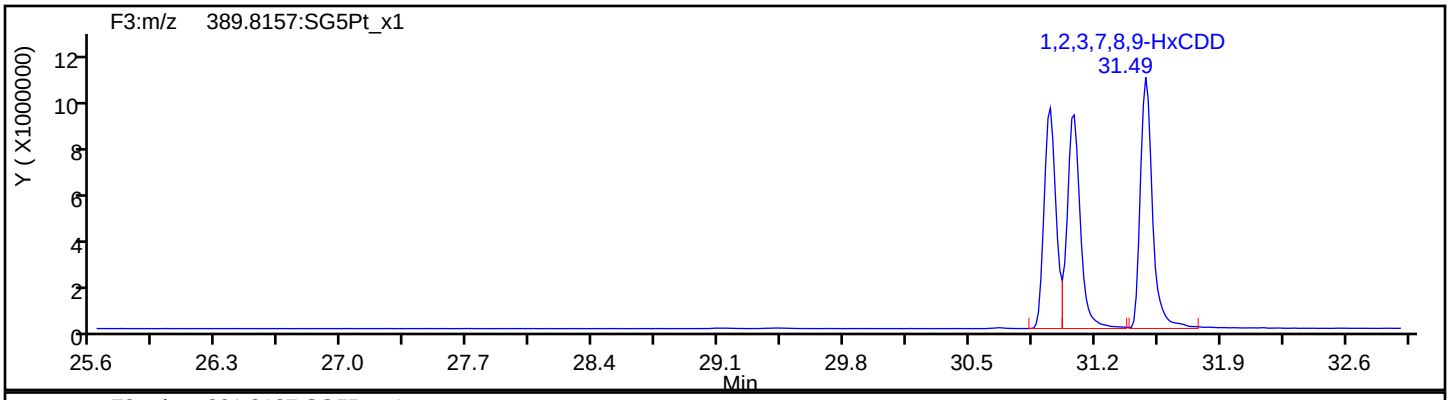
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

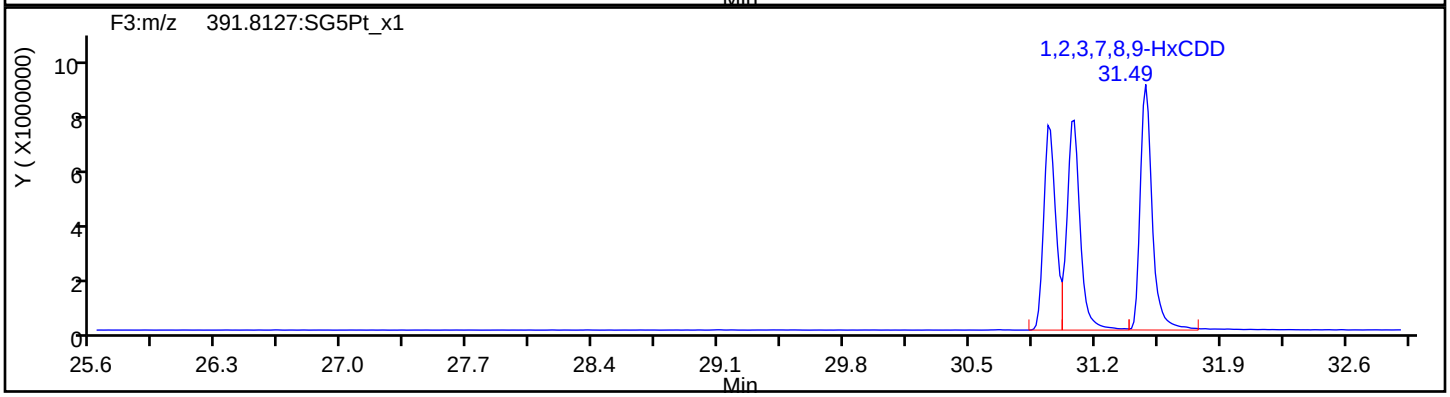
Client ID:

Worklist#: 309104 Sample Line#: 66

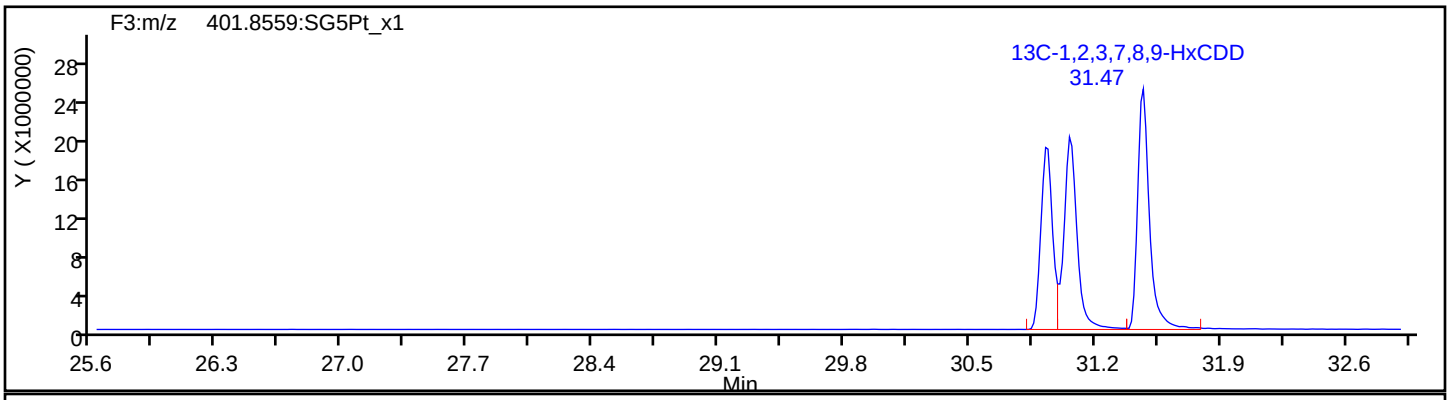
Column Type: DB-5 Column Dia: 0.32 mm

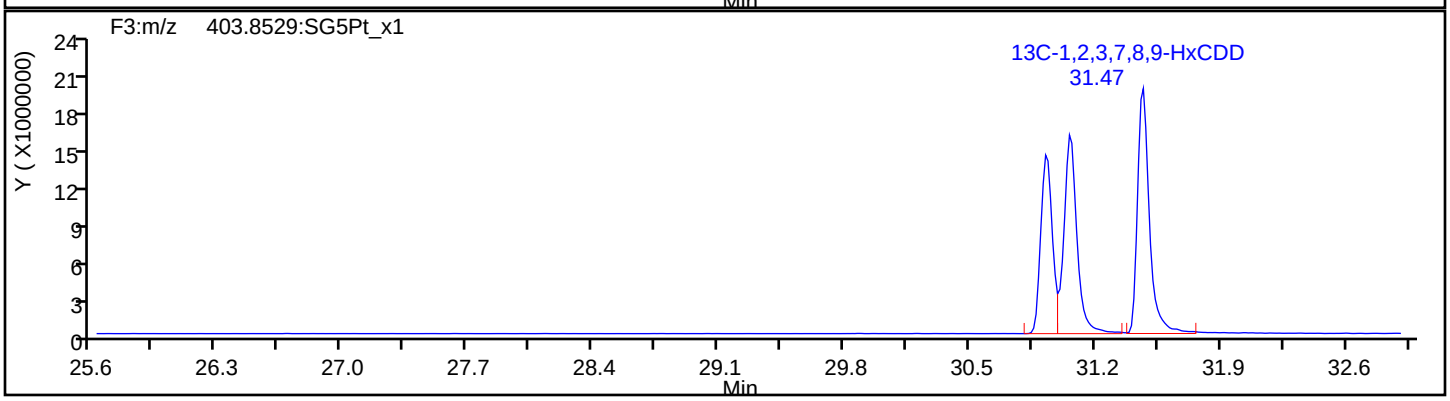
HxCDD





HxCDD Standards





Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

Injection Date: 22-Jul-2019 05:46:24 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

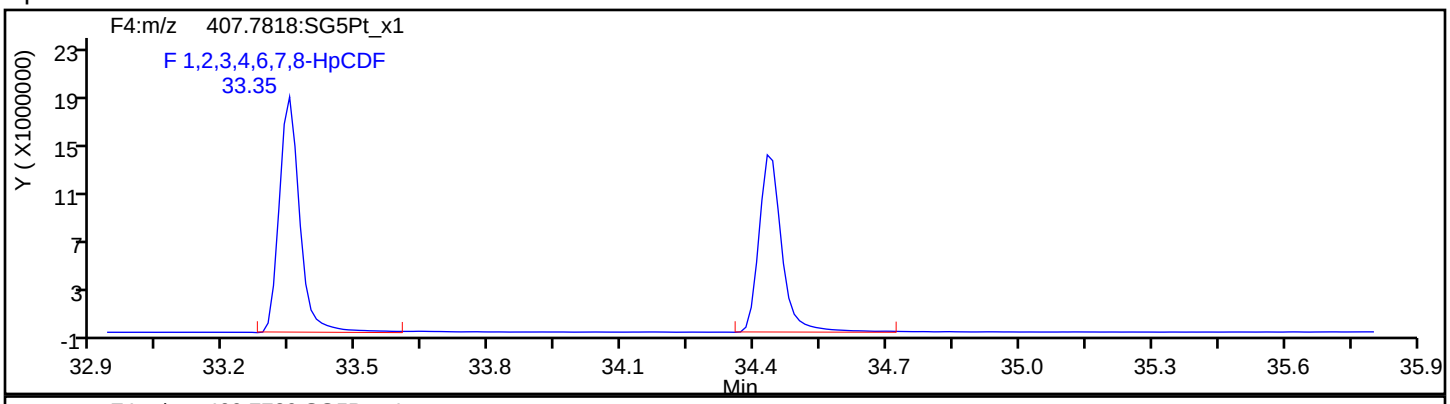
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

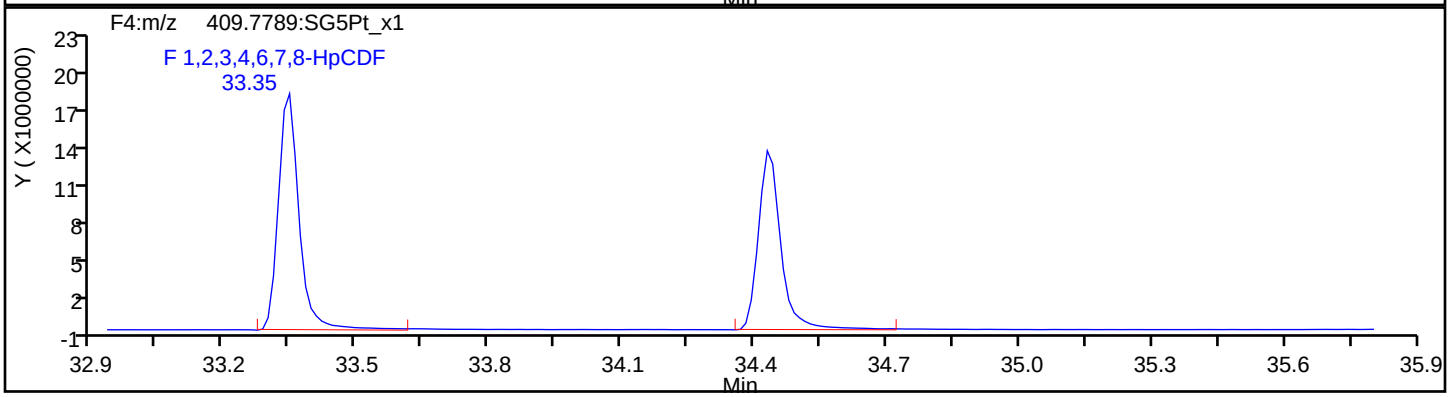
Client ID:

Worklist#: 309104 Sample Line#: 66

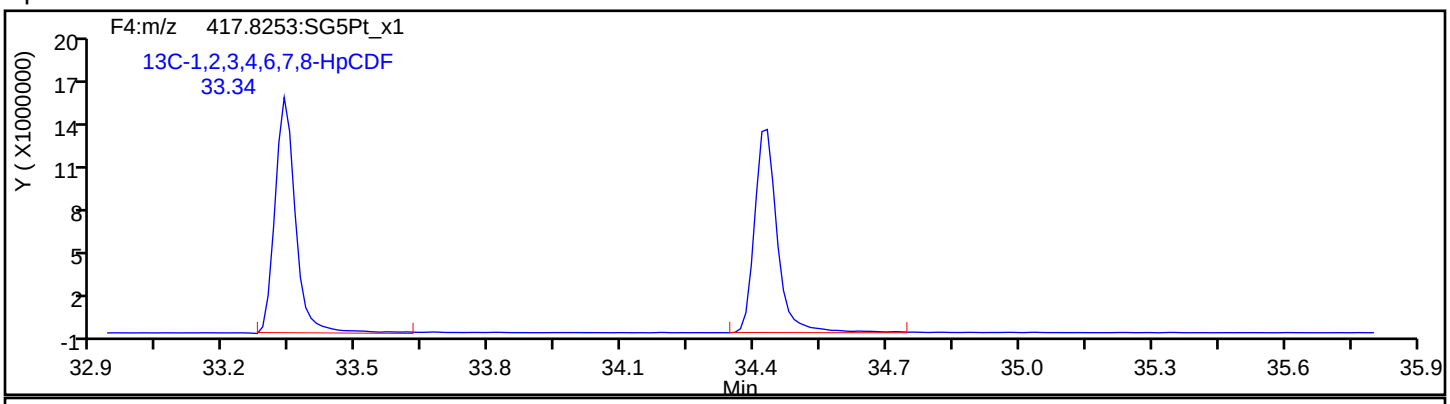
Column Type: DB-5 Column Dia: 0.32 mm

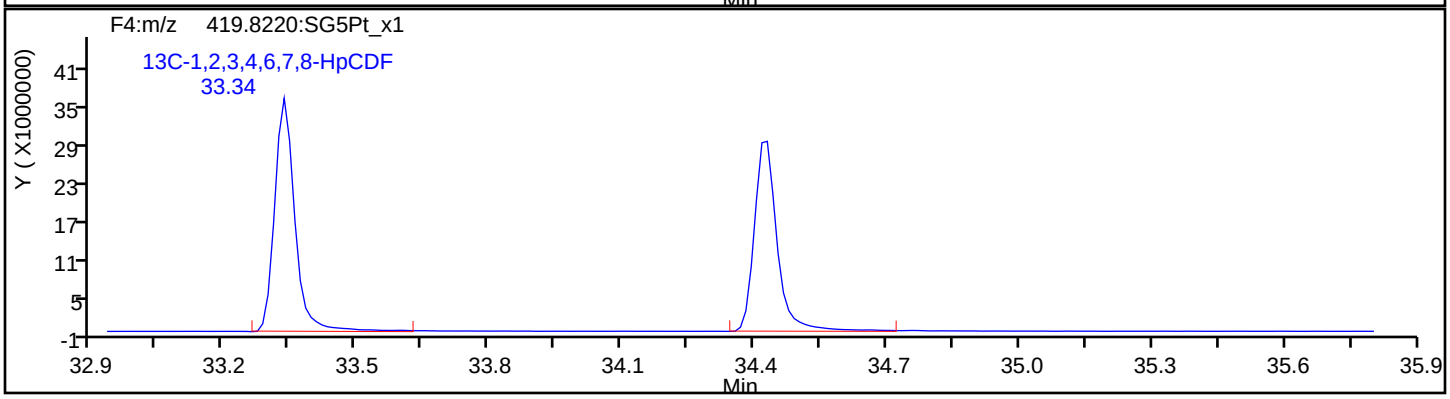
HpCDF





HpCDF Standards



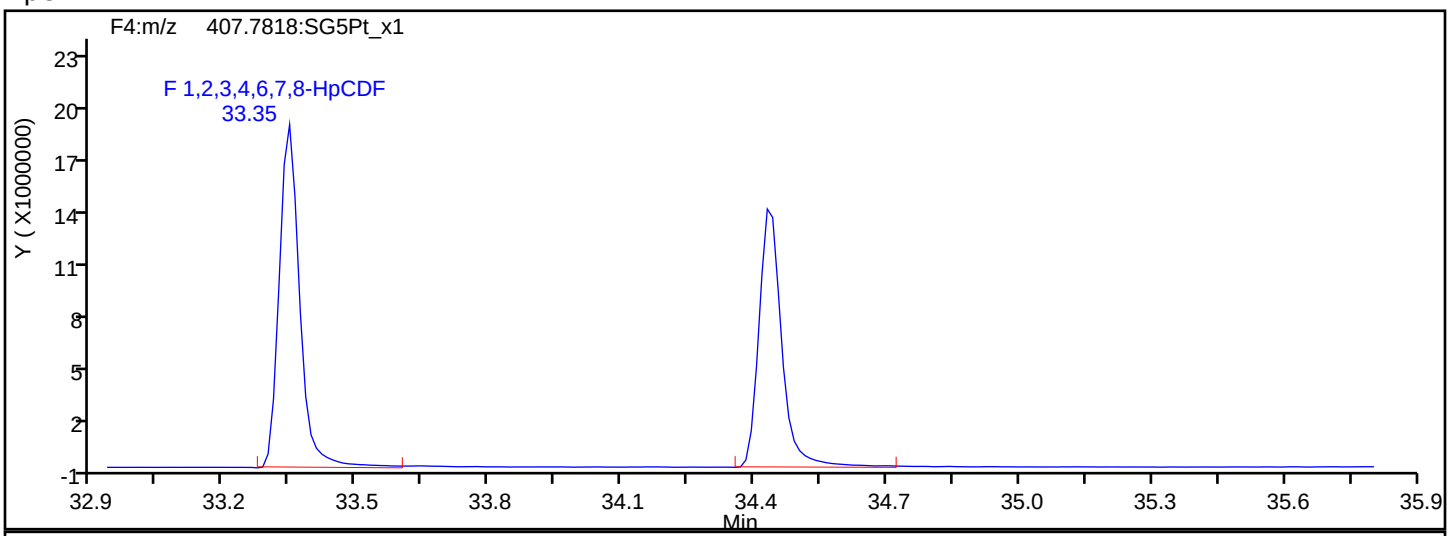


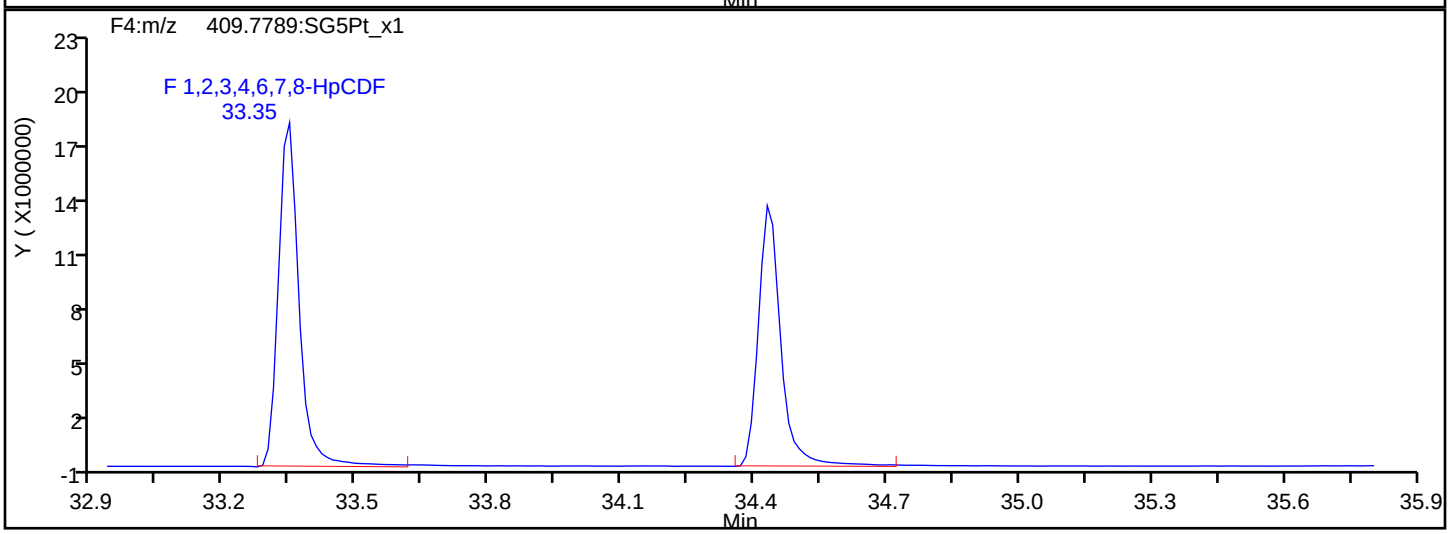
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

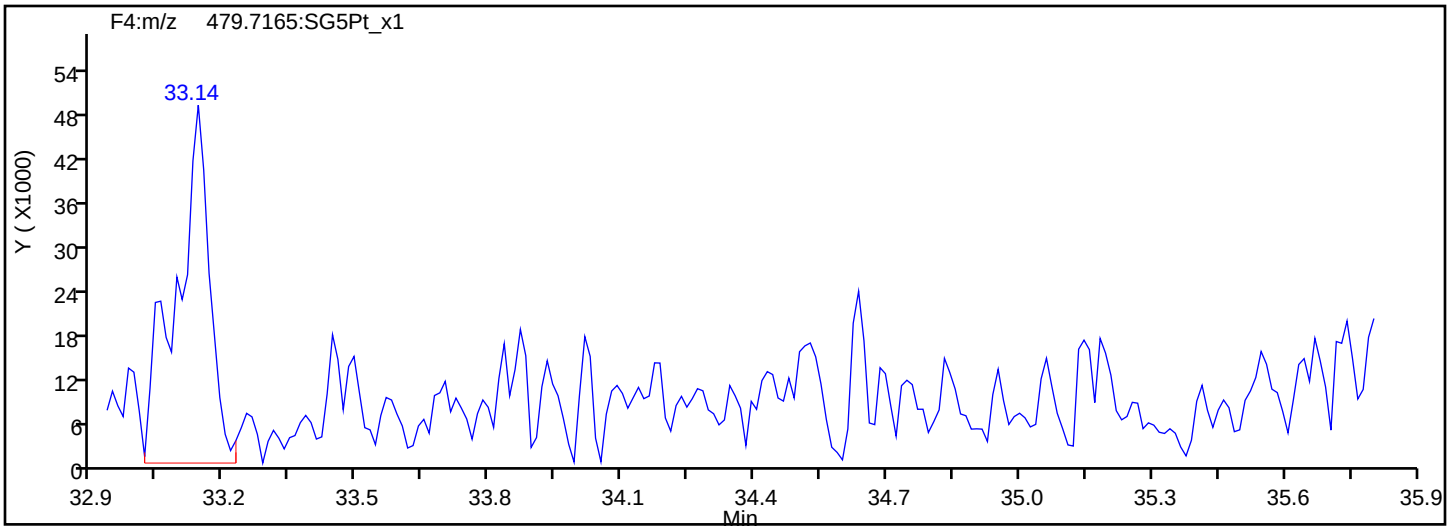
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



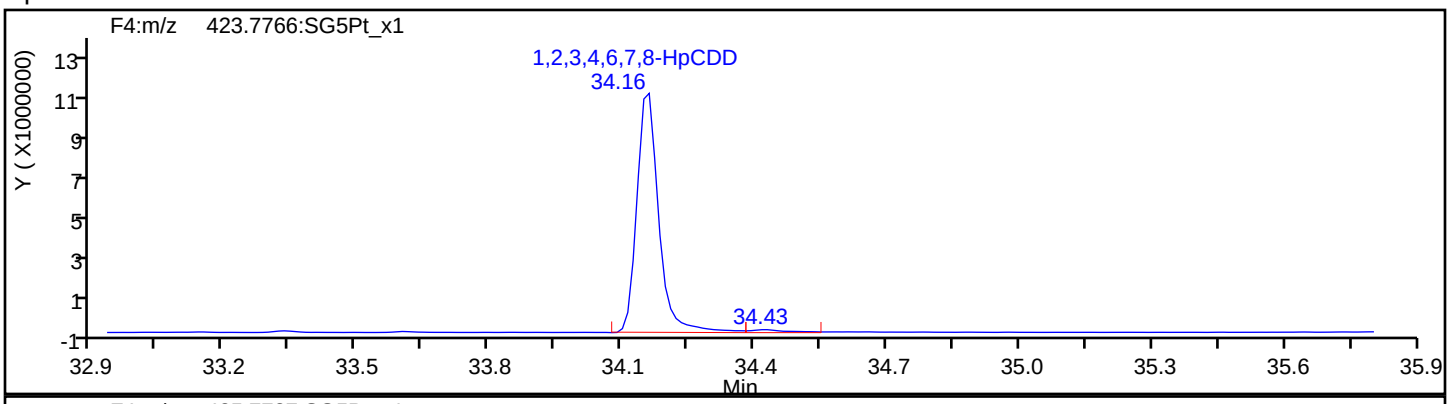
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

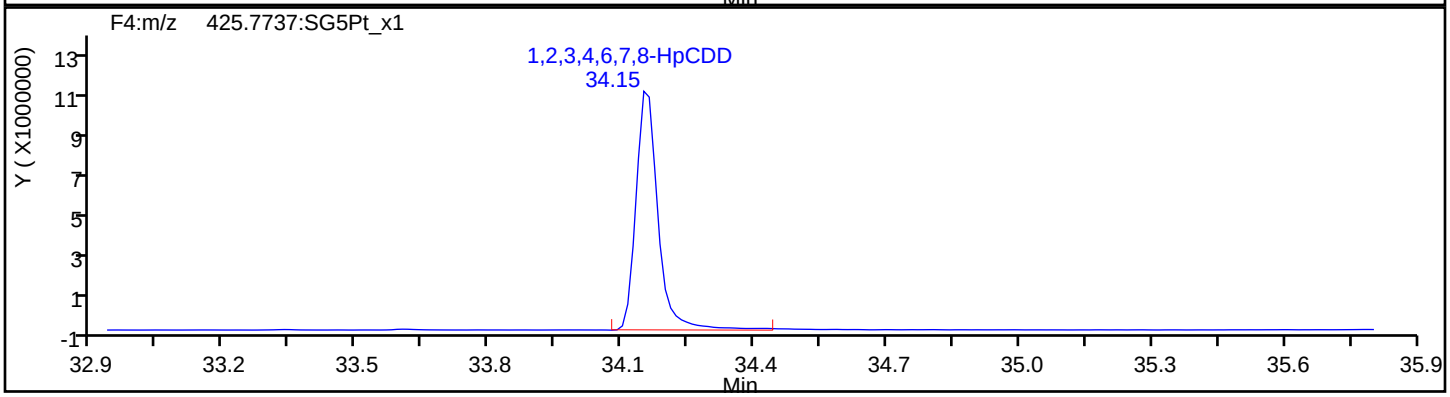
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

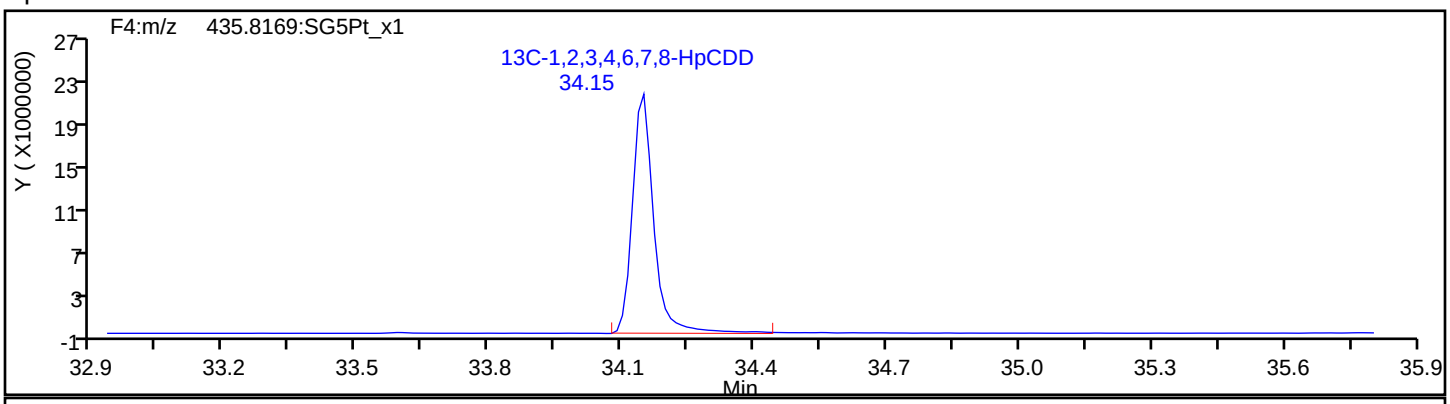
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

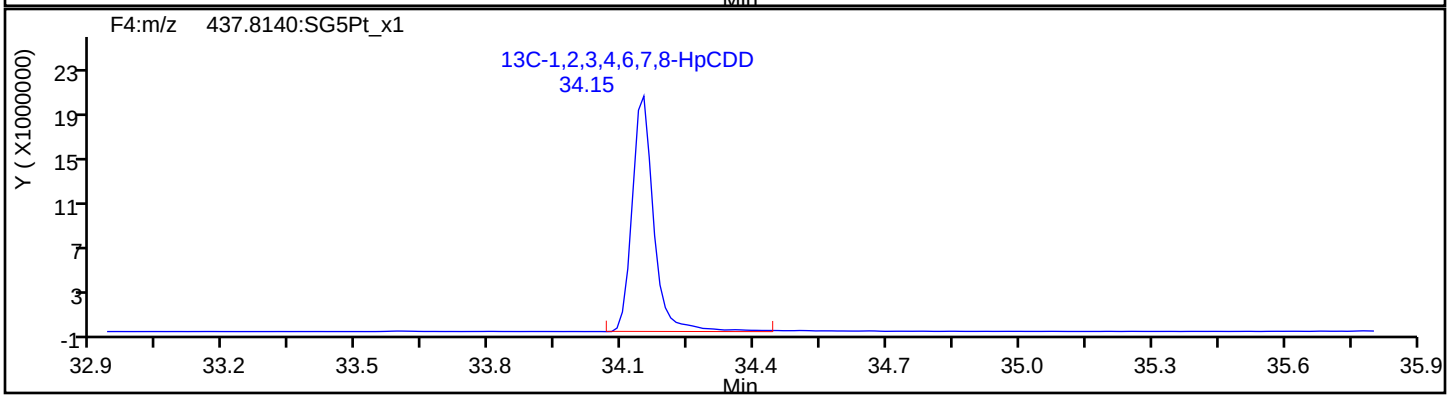
HpCDD





HpCDD Standards





Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

Injection Date: 22-Jul-2019 05:46:24 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

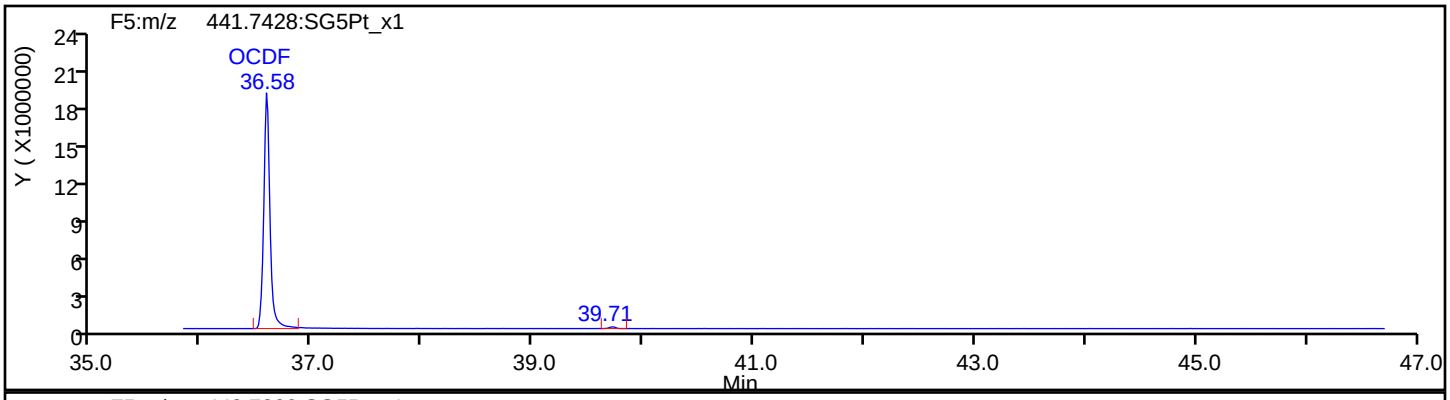
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

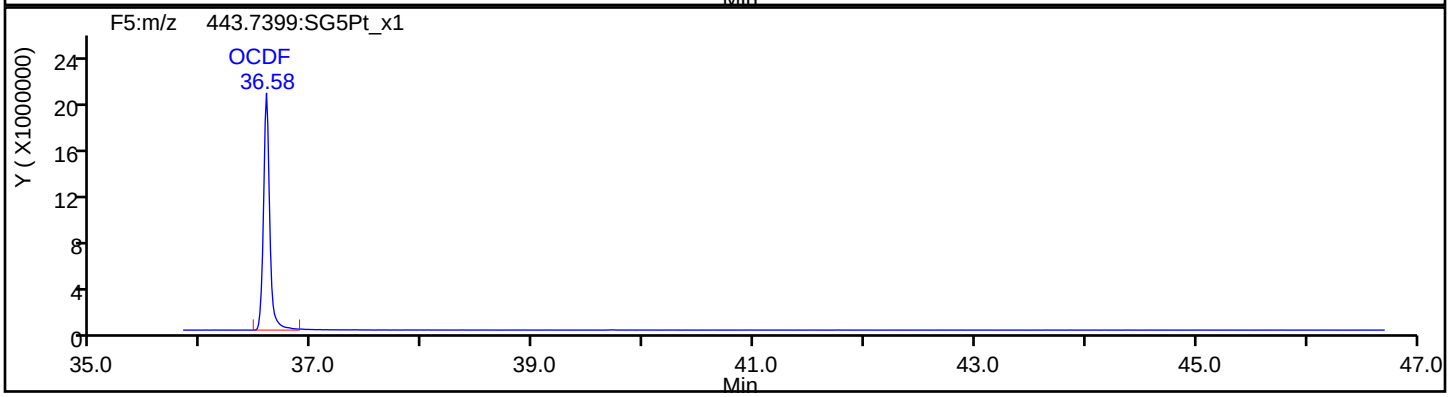
Client ID:

Worklist#: 309104 Sample Line#: 66

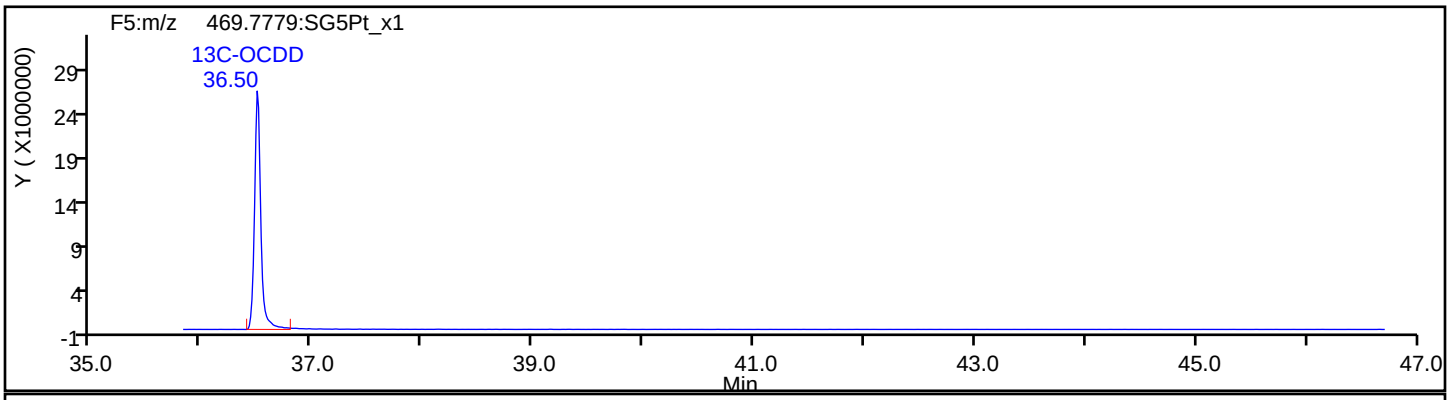
Column Type: DB-5 Column Dia: 0.32 mm

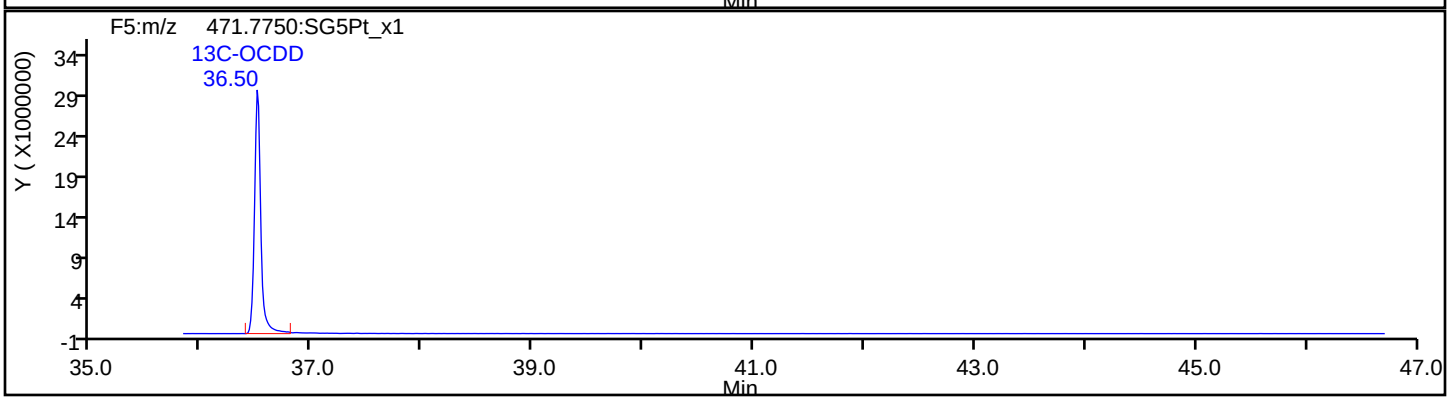
OCDF





OCDF Standards



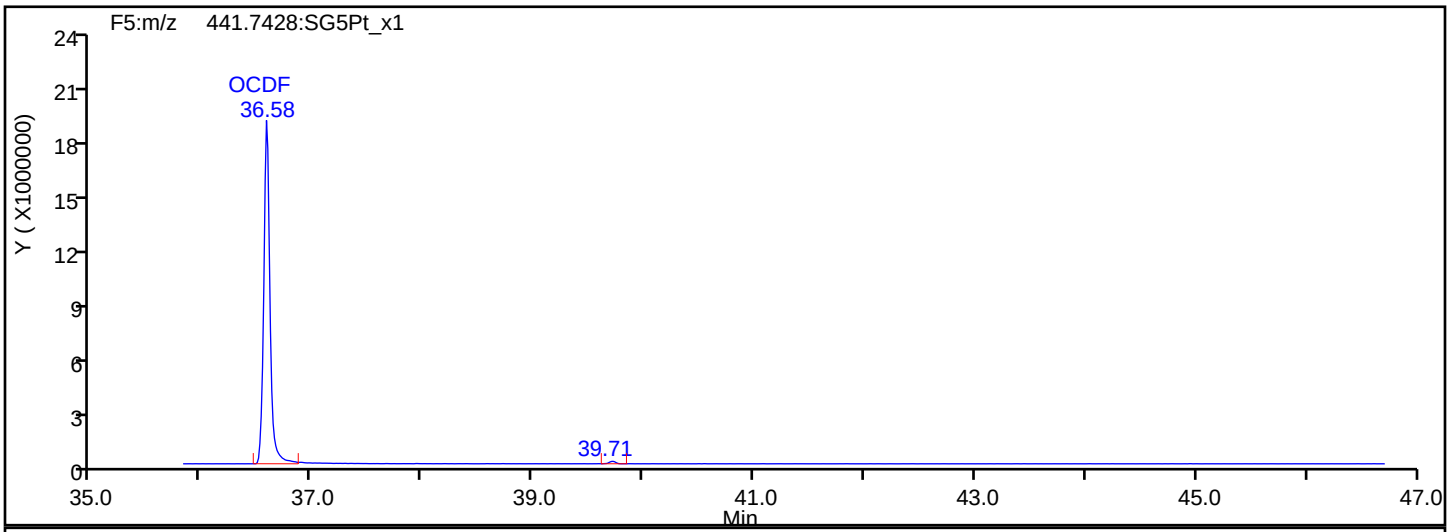


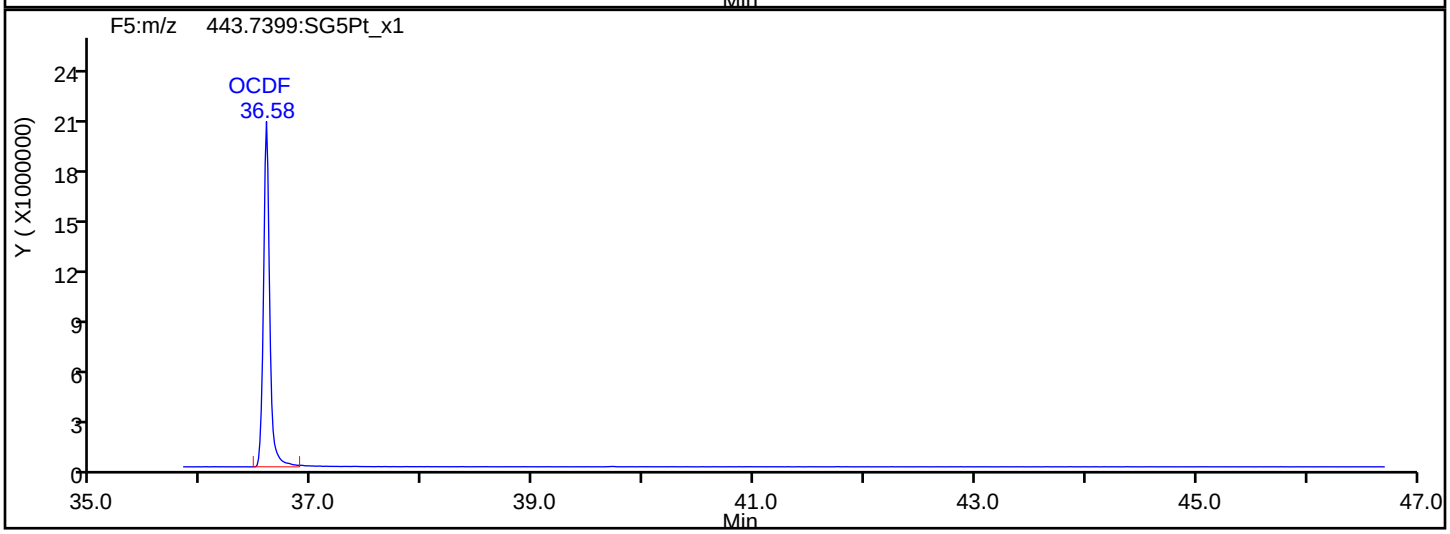
Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

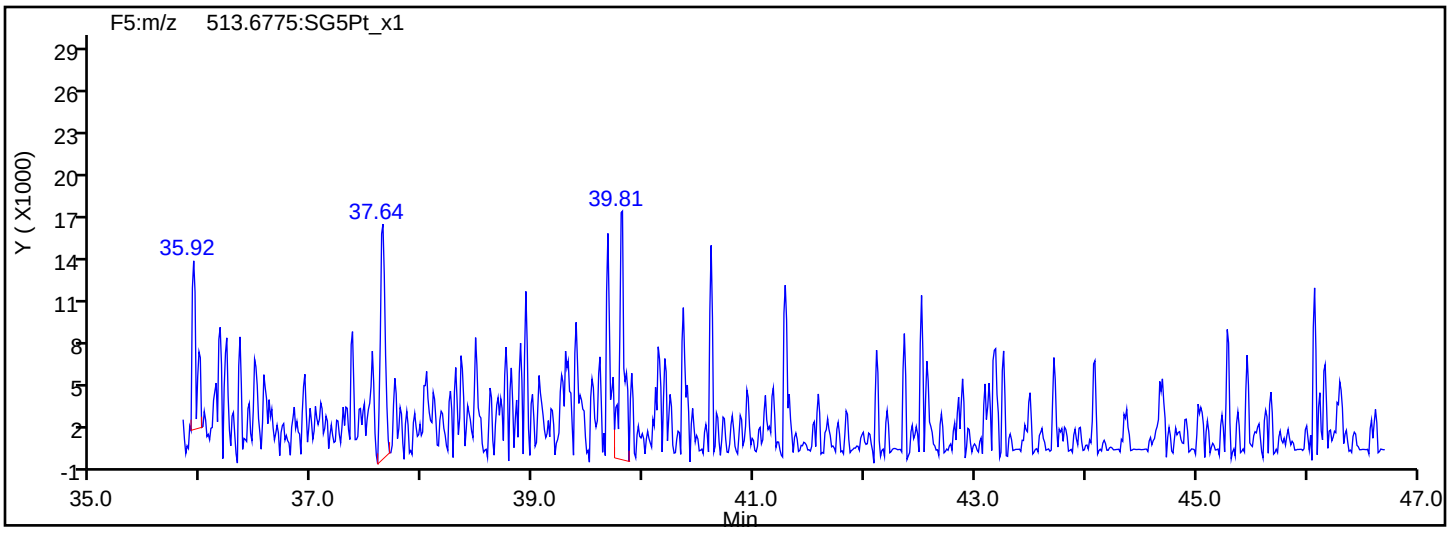
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass



Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d

Injection Date: 22-Jul-2019 05:46:24 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

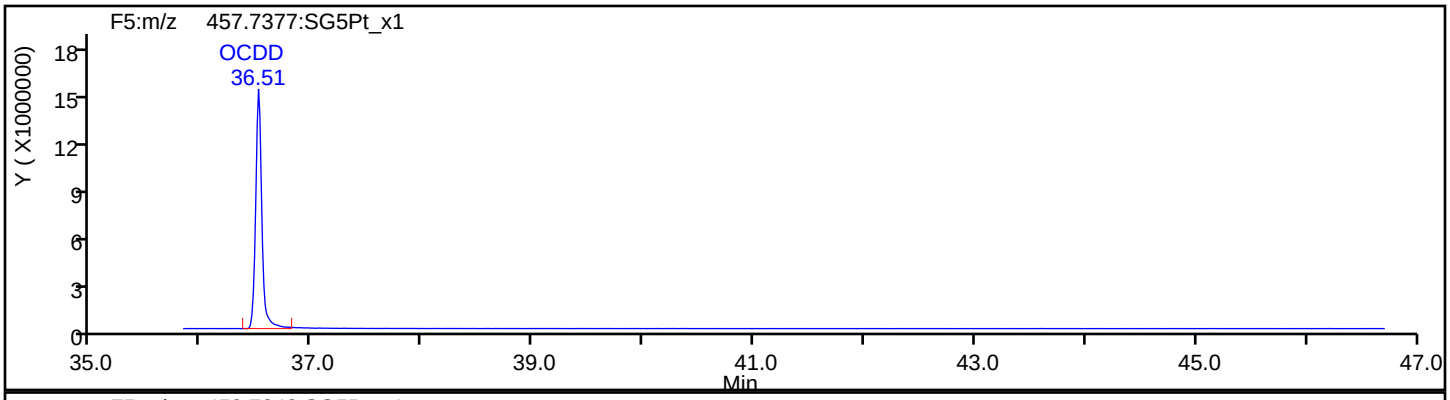
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

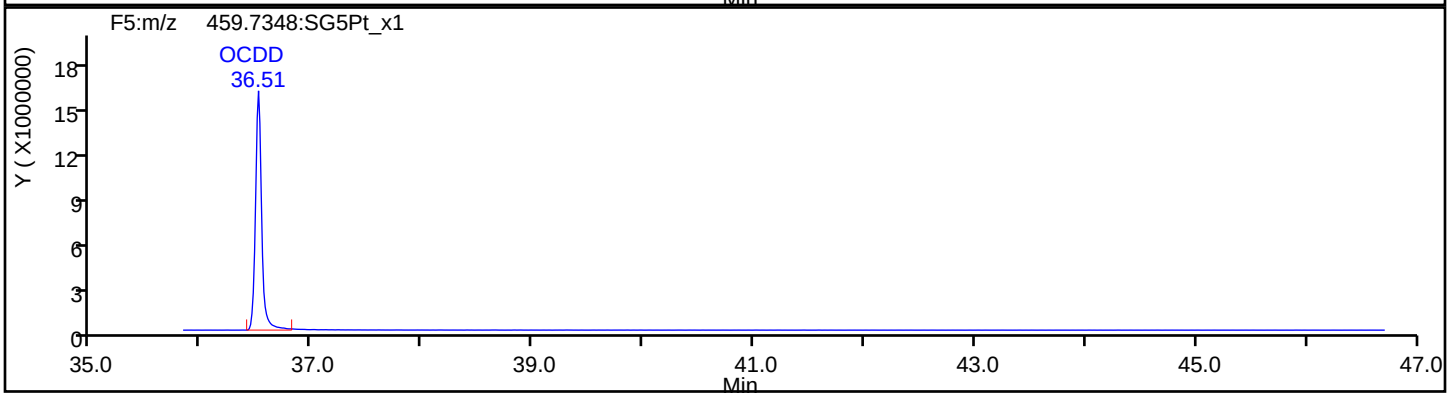
Client ID:

Worklist#: 309104 Sample Line#: 66

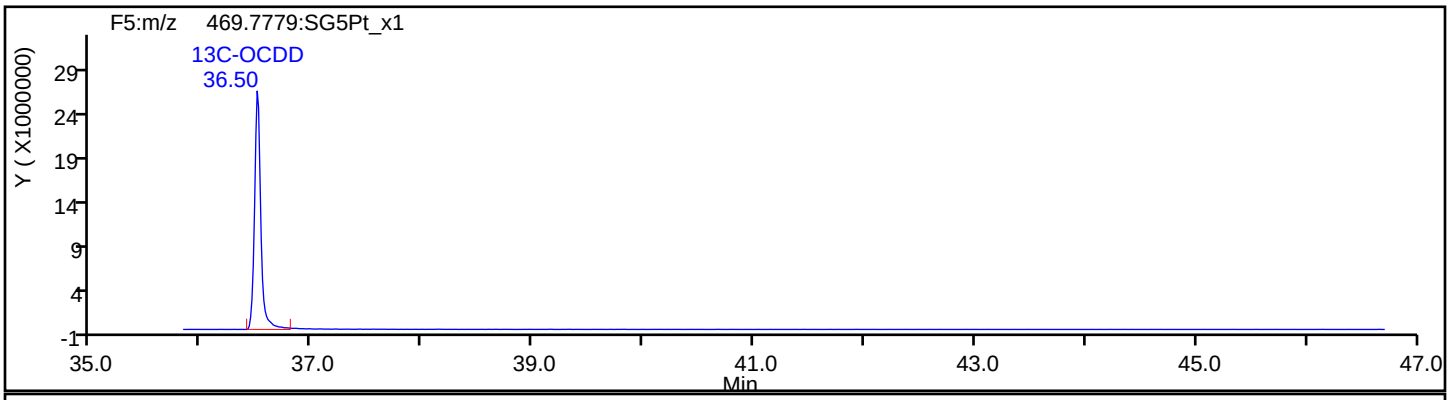
Column Type: DB-5 Column Dia: 0.32 mm

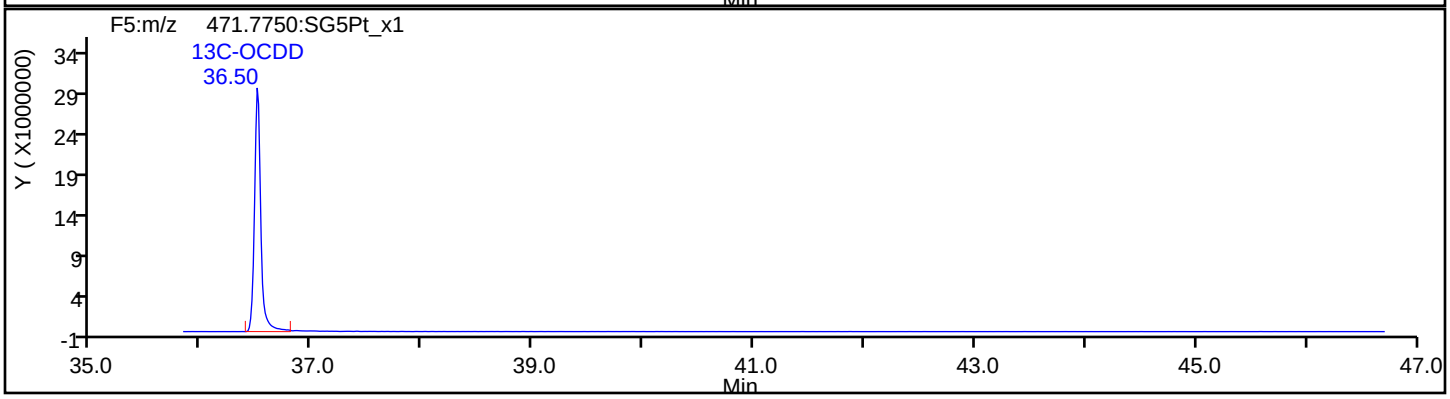
OCDD





OCDD Standards

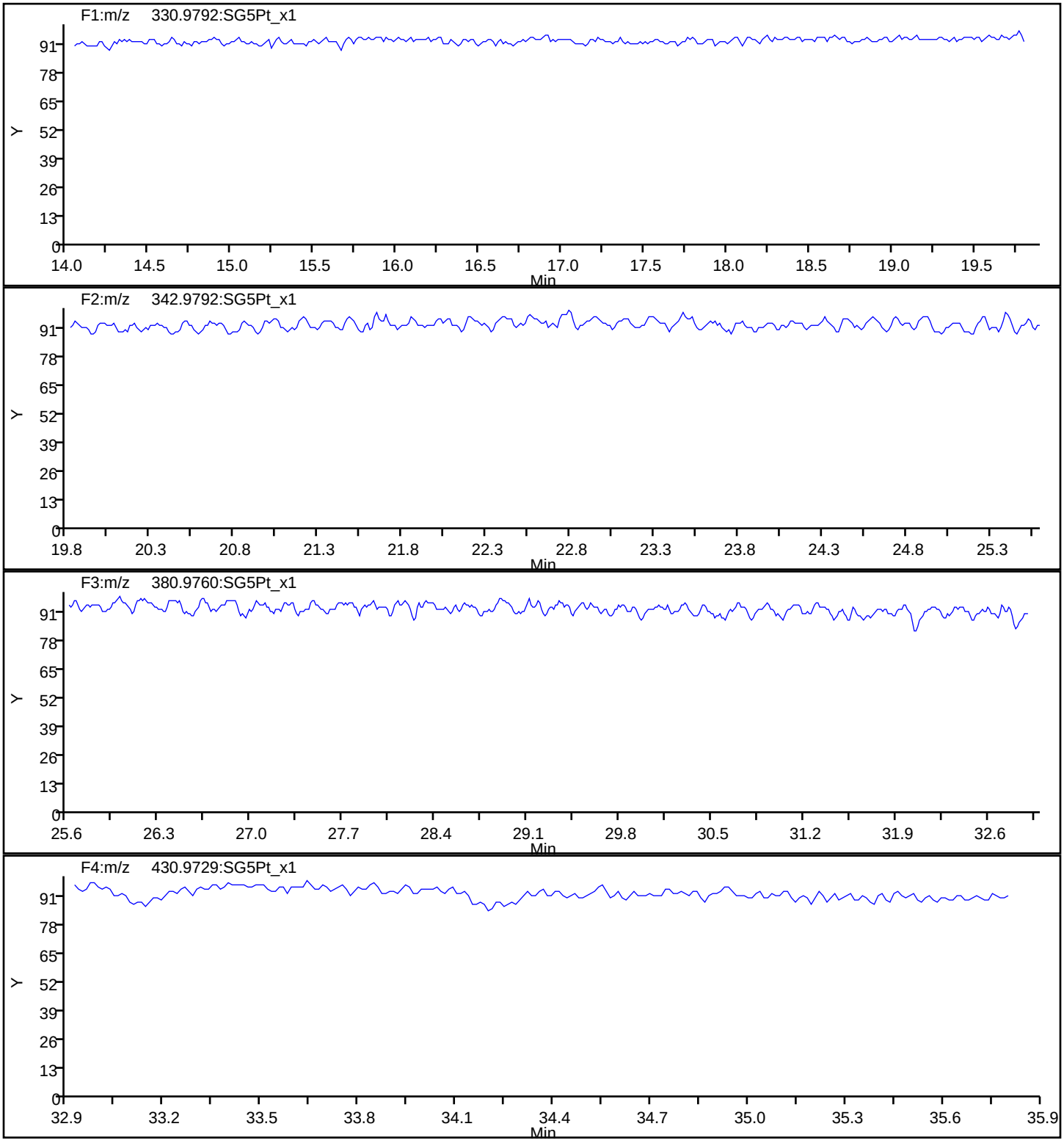




Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

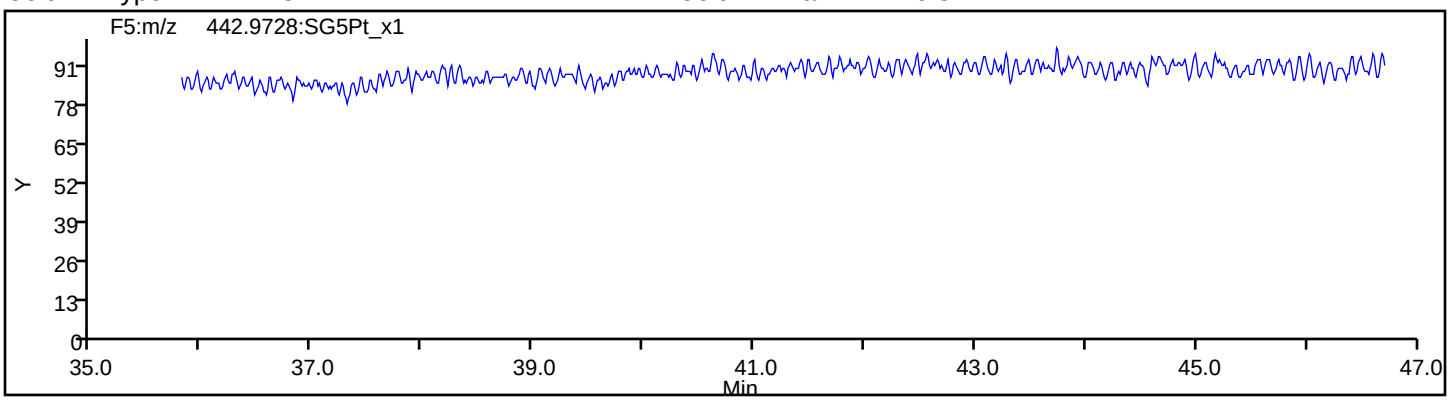
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-Jul-2019 12:37:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_66.d		
Injection Date:	22-Jul-2019 05:46:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	66
Column Type:	DB-5	Column Dia:	0.32 mm



FORM VII
DIOXIN CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID: ICV 320-294351/10 Calibration Date: 05/13/2019 22:55

Instrument ID: 4D2 Calib Start Date: 05/13/2019 19:08

GC Column: DB-225 ID: 0.32(mm) Calib End Date: 05/13/2019 21:39

Lab File ID: 13MY19C4D2_010.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
2,3,7,8-TCDD	AveID	1.226	1.219		39.8	40.0	99	70-130
2,3,7,8-TCDF	AveID	1.175	1.117		38.0	40.0	95	70-130
13C-2,3,7,8-TCDD	Ave	0.9684	0.9409		97.2	100	97	82-121
13C-2,3,7,8-TCDF	Ave	1.365	1.338		98.0	100	98	71-140
37Cl4-2,3,7,8-TCDD	Ave	1.285	1.192		37.1	40.0	93	79-127

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 13-May-2019 22:55:24 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV HRDXNIC_00038
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 14:49:34 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:59:54

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.360	201825034	0.78	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	15.471	270138054	0.79	1.3652	98.0	98.0	0.1288	0.1288	98.04	
2,3,7,8-TCDF	15.499	120736737	0.78	1.1747	38.0	38.0	0.0256	0.0256	95.12	
D 13C-2,3,7,8-TCDD	14.099	189901898	0.77	0.9684	97.2	97.2	0.0774	0.0774	97.17	
$ 37Cl4-2,3,7,8-TCDD	14.113	96222985		1.2853	37.1	37.1	0.0205	0.0205	92.74	
2,3,7,8-TCDD	14.113	92623196	0.80	1.2259	39.8	39.8	0.0289	0.0289	99.46	

Reagents:

HRDXNIC_00038 Amount Added: 1.00 Units: mL

Report Date: 14-May-2019 14:49:38 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 13-May-2019 22:55:24 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV HRDXNIC_00038
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 14:49:34 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:59:54

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.360	14.379	-1		88459273	20155605	8550	21375	2357		
333.9339	14.360	14.379	-1		113365761	25747262	5211	13027	4941	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	15.471	15.484	-1	1.077	119101384	24226584	18609	46522	1302		
317.9389	15.471	15.484	-1	1.077	151036670	30784634	13667	34167	2252	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.499	15.526	0	1.002	52926798	10944330	2984	7460	3668		
305.8987	15.499	15.526	0	1.002	67809939	14101405	3629	9072	3886	0.78(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.099	14.110	-1	0.982	82610833	19270869	8550	21375	2254		
333.9339	14.099	14.110	-1	0.982	107291065	25042750	5211	13027	4806	0.77(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.113	14.130	-1	0.983	96222985	22019702	4827	12067	4562		
2,3,7,8-TCDD											
319.8965	14.113	14.132	-1	1.001	41071359	9206557	2967	7417	3103		
321.8936	14.113	14.132	-1	1.001	51551837	11491459	3307	8267	3475	0.80(0.65-0.89)	

Reagents:

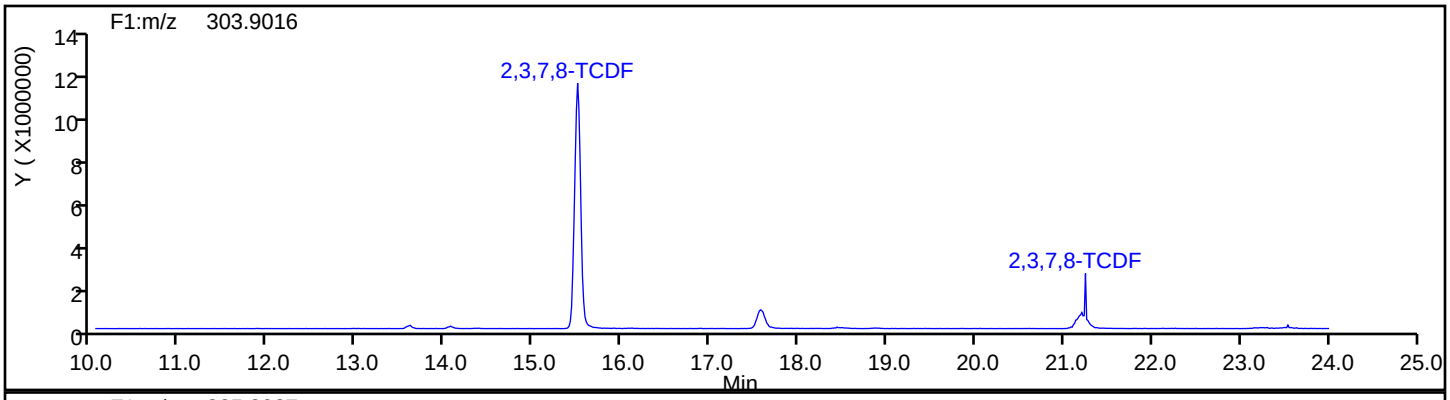
HRDXNIC_00038 Amount Added: 1.00 Units: mL

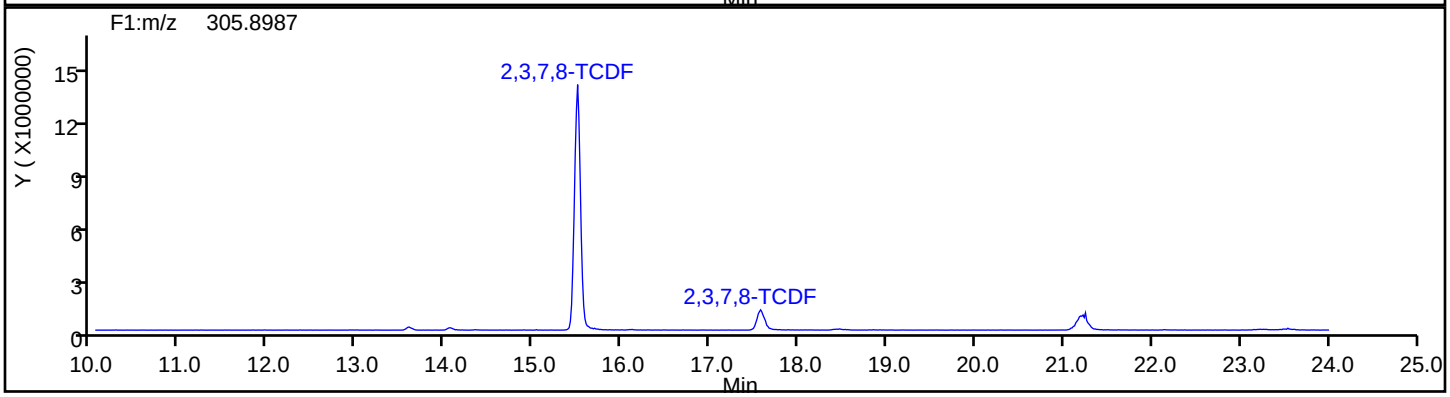
Report Date: 14-May-2019 14:49:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

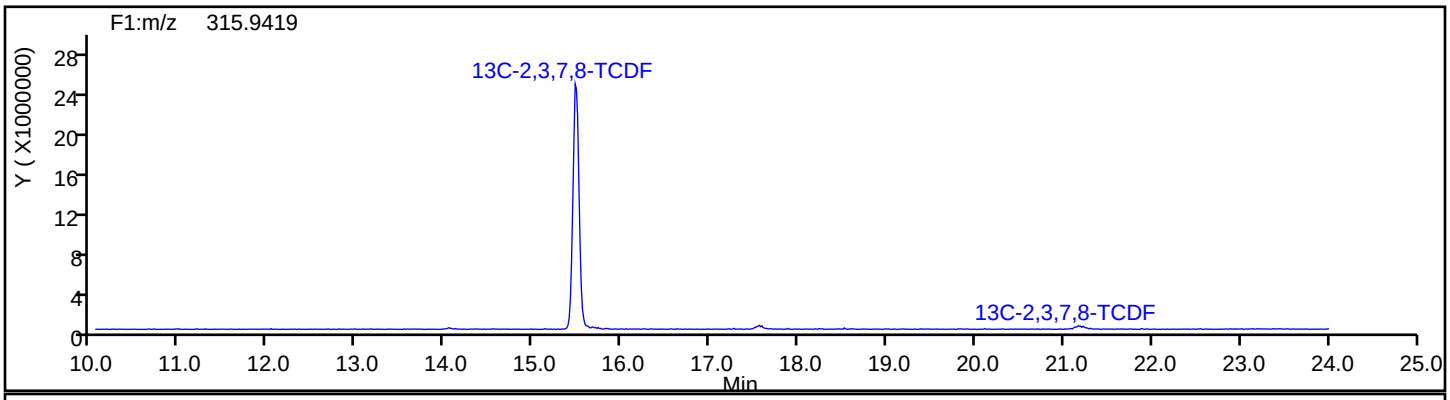
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d		
Injection Date:	13-May-2019 22:55:24	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

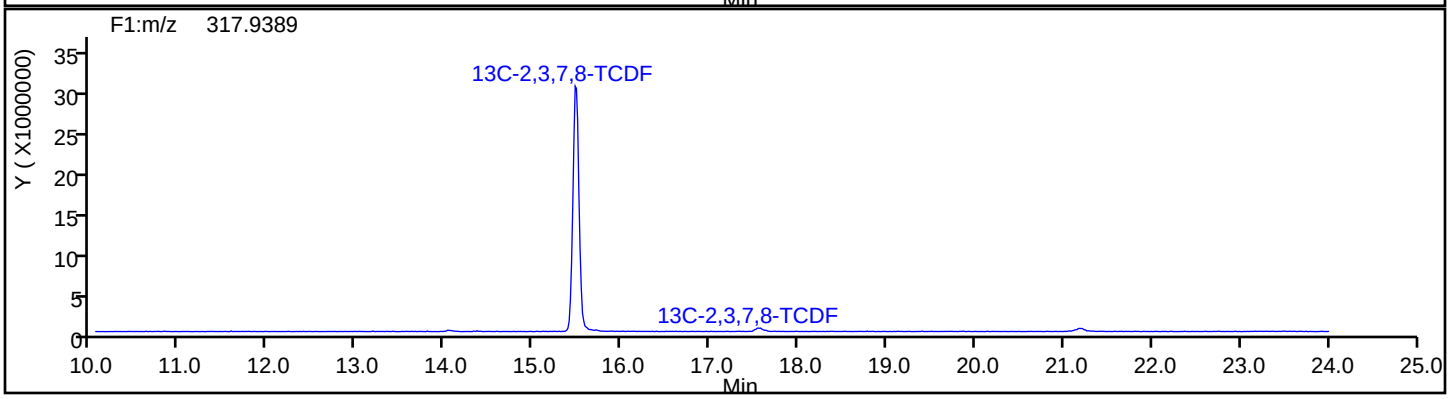
TCDF





TCDF Standards



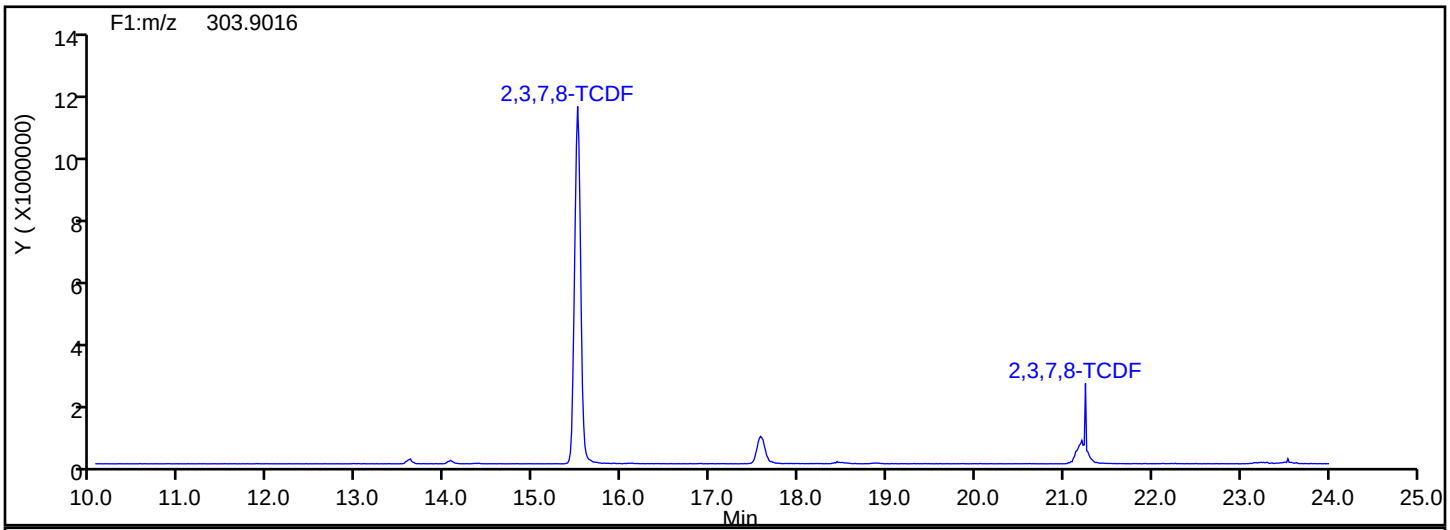


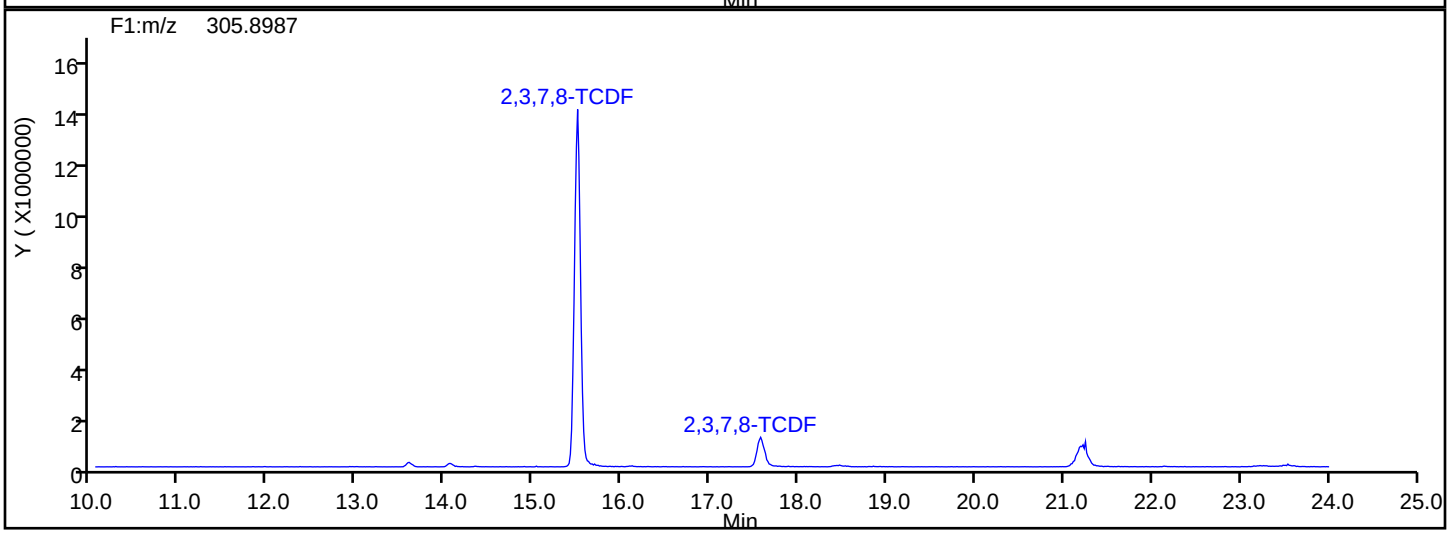
Report Date: 14-May-2019 14:49:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

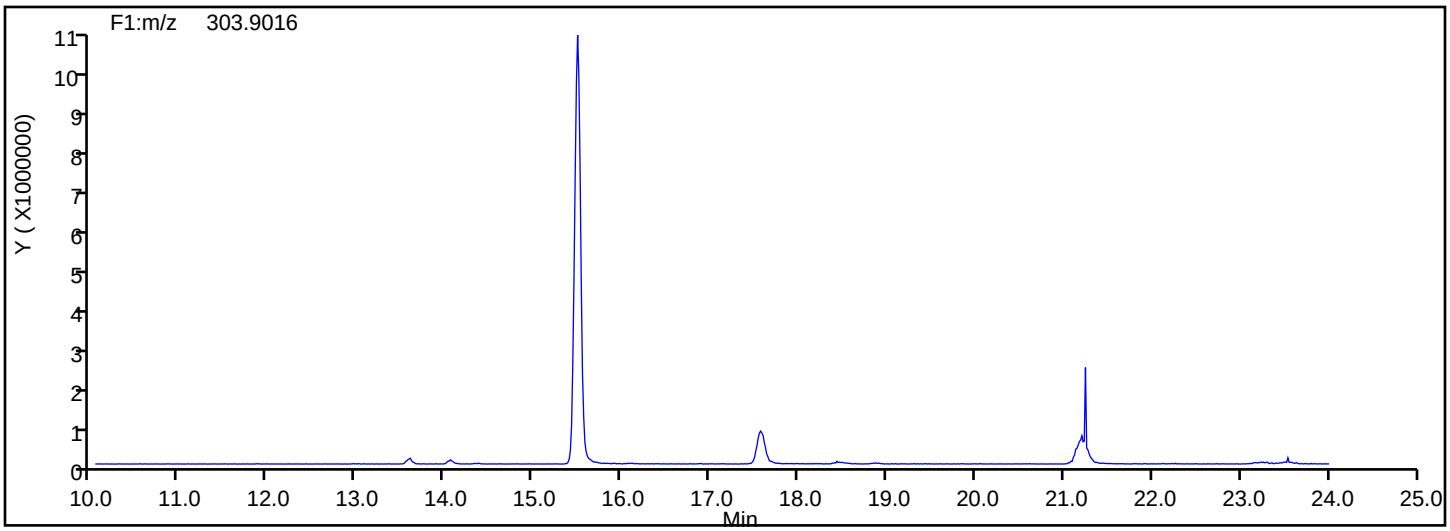
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d		
Injection Date:	13-May-2019 22:55:24	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



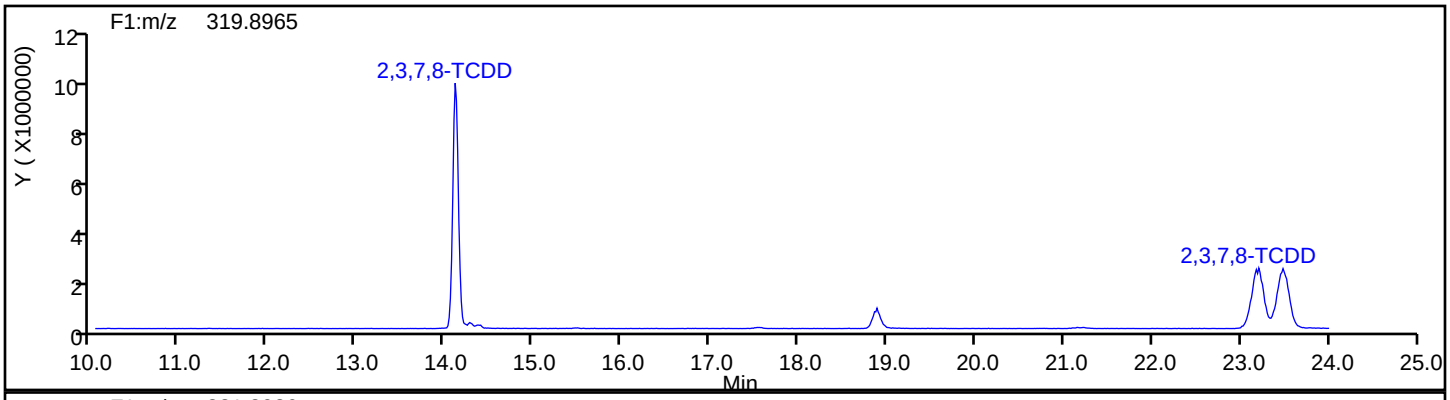
Report Date: 14-May-2019 14:49:39 Chrom Revision: 2.3 12-May-2019 16:28:34

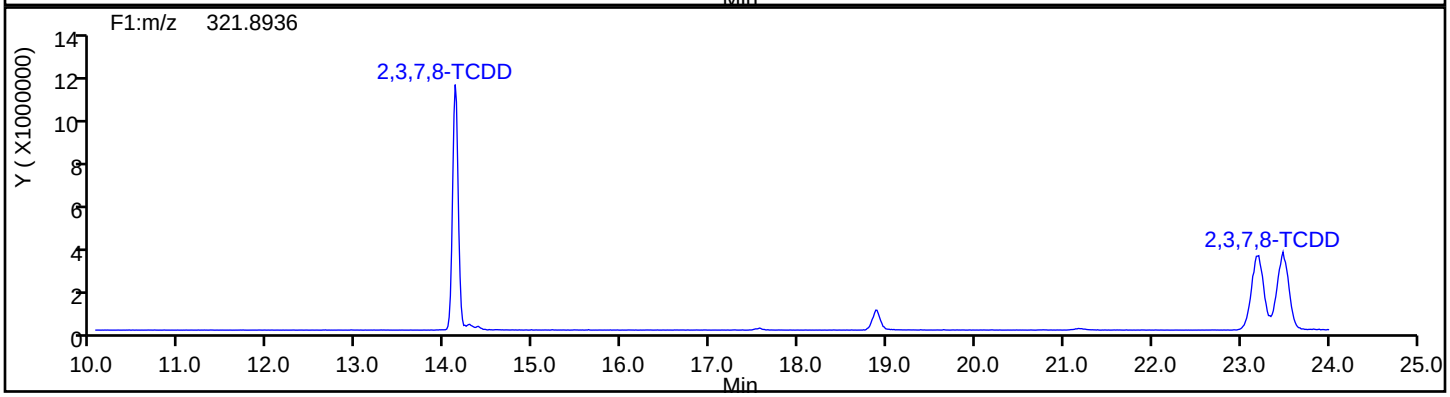
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d

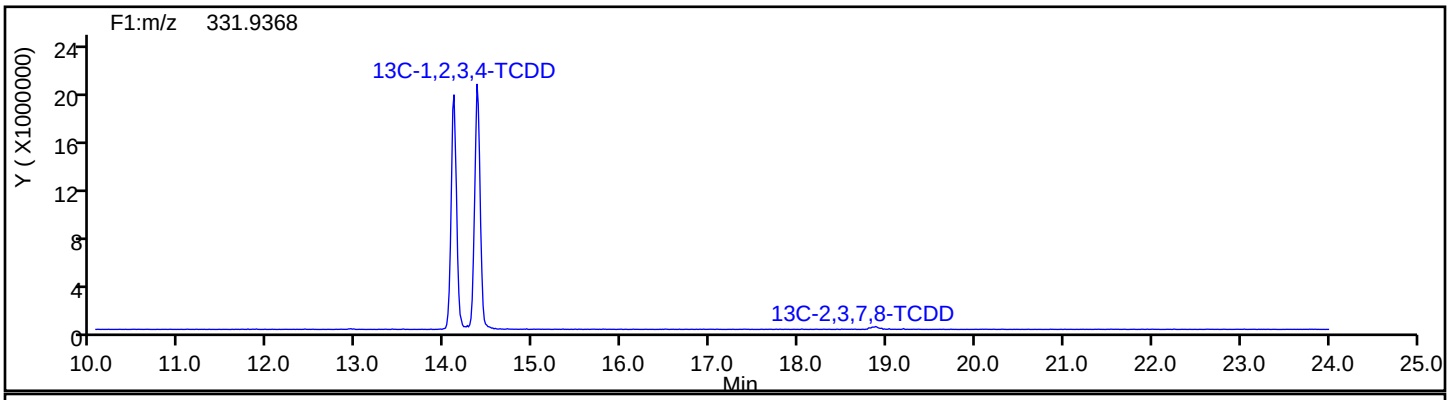
Injection Date:	13-May-2019 22:55:24	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

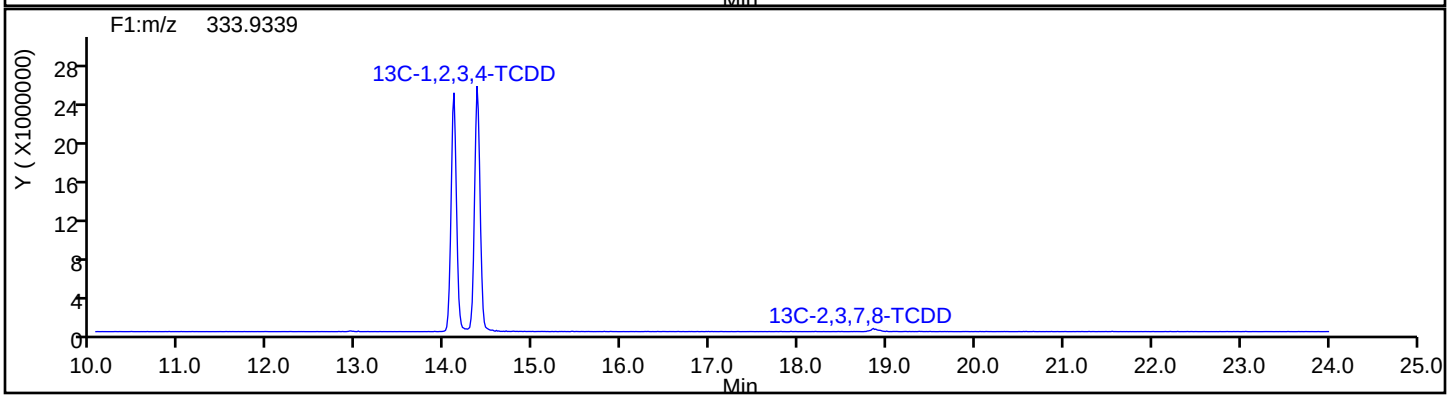
TCDD





TCDD Standards



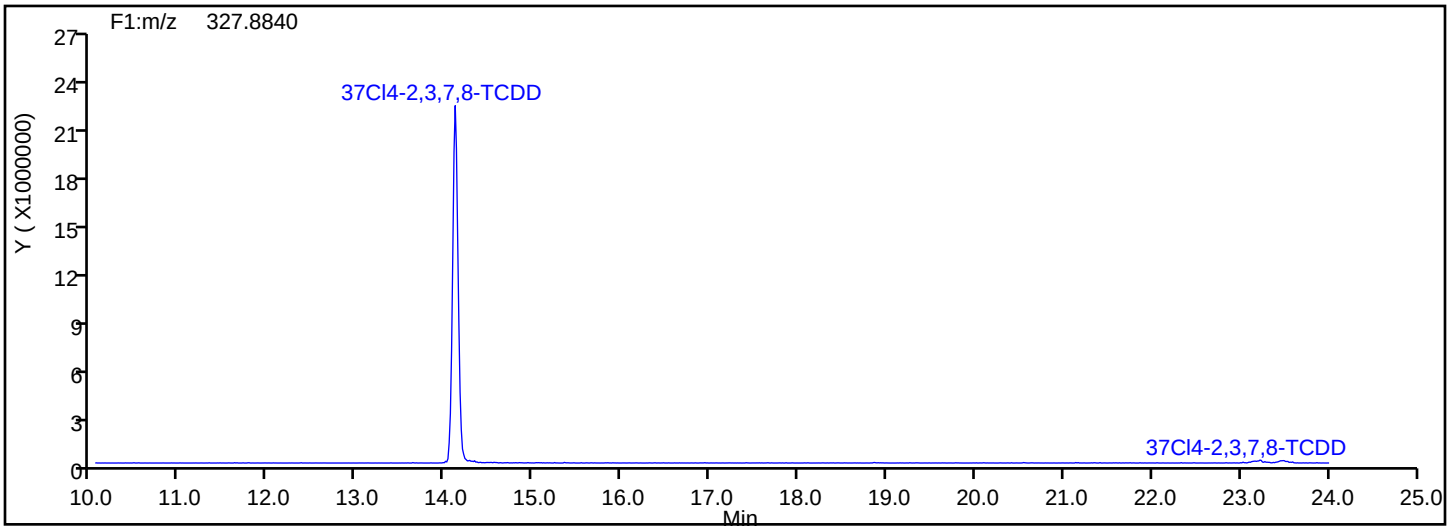


Report Date: 14-May-2019 14:49:39 Chrom Revision: 2.3 12-May-2019 16:28:34

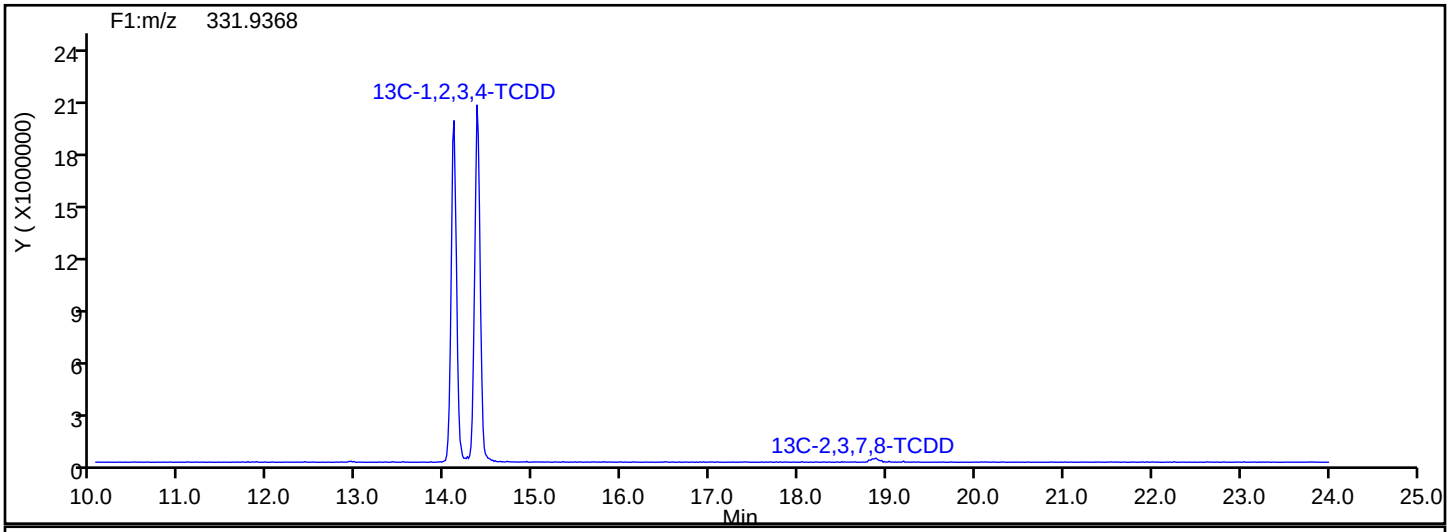
Eurofins TestAmerica, Sacramento

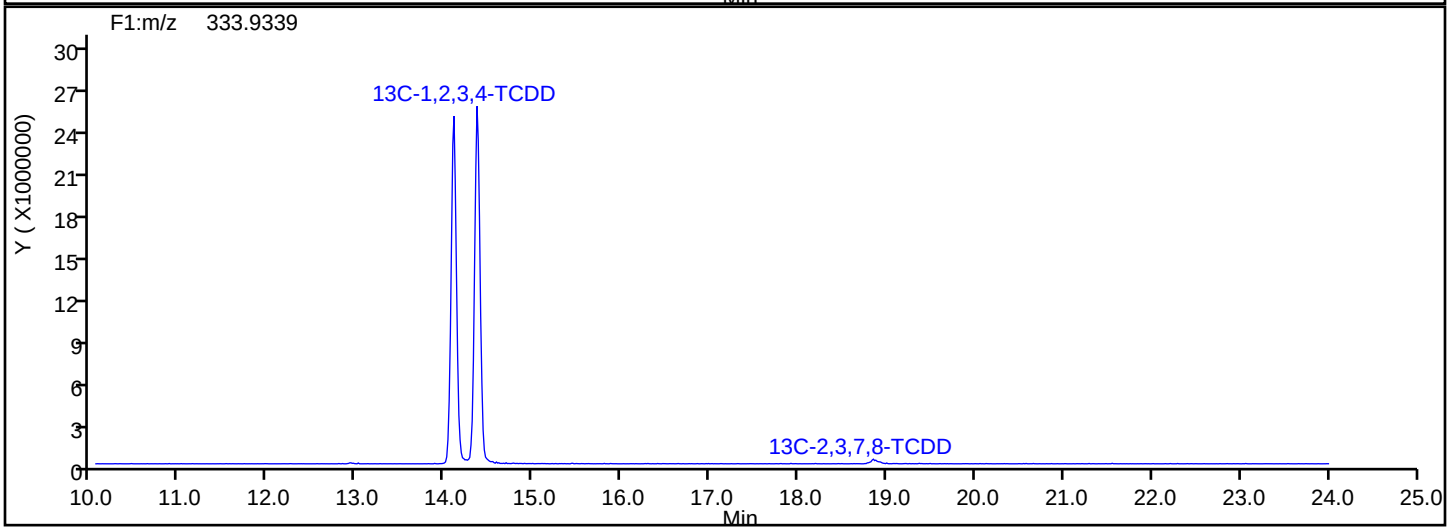
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d		
Injection Date:	13-May-2019 22:55:24	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

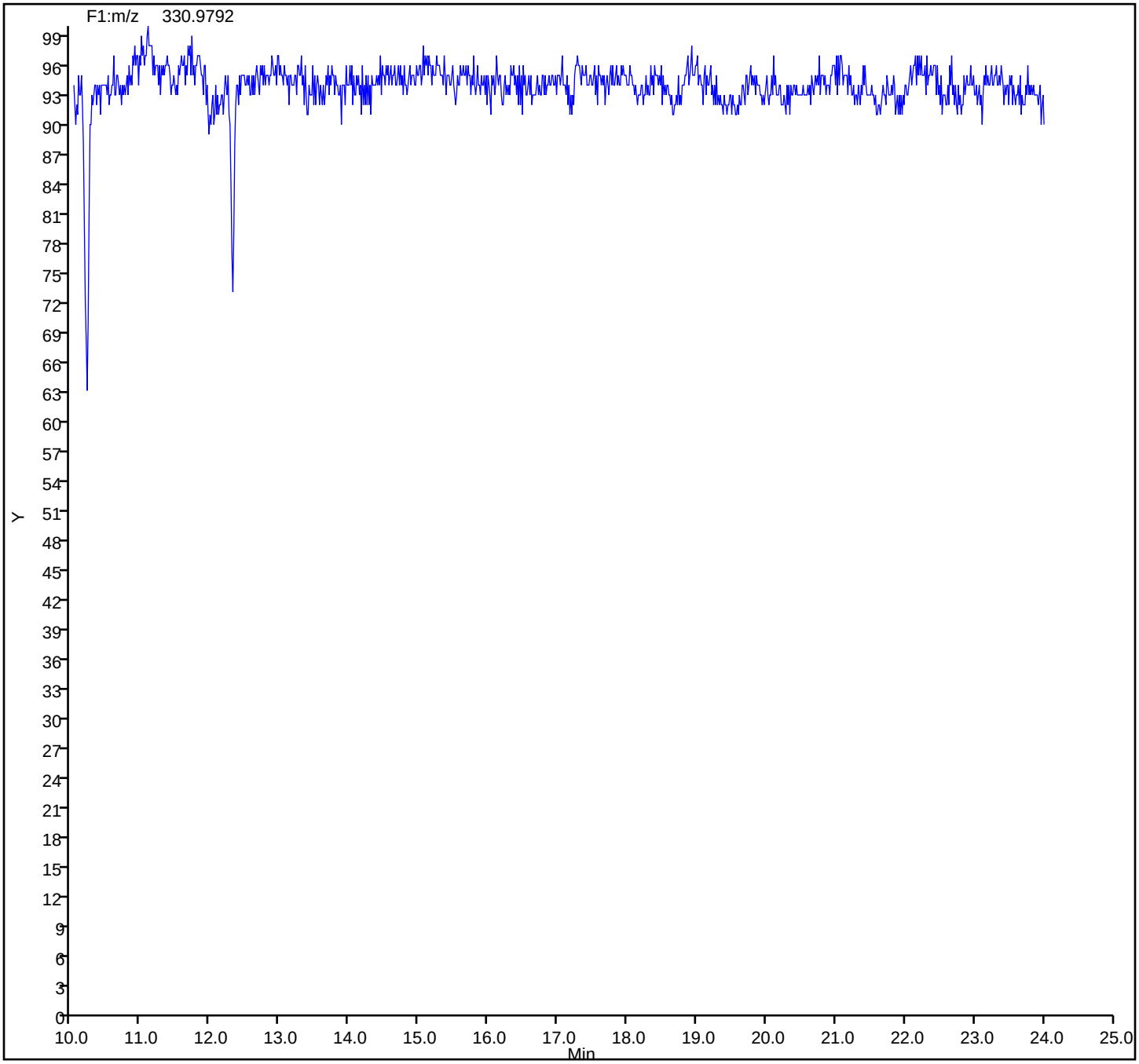




Report Date: 14-May-2019 14:49:39 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_010.d		
Injection Date:	13-May-2019 22:55:24	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	10
Column Type:	DB-225	Column Dia:	0.32 mm



FORM VII
DIOXIN CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Lab Sample ID: CCV 320-309356/1 Calibration Date: 07/22/2019 10:56

Instrument ID: 4D2 Calib Start Date: 05/13/2019 19:08

GC Column: DB-225 ID: 0.32(mm) Calib End Date: 05/13/2019 21:39

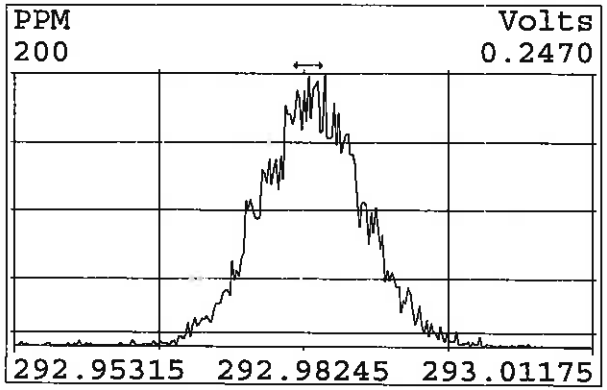
Lab File ID: 22JL19A4D2_001.d Conc. Units: pg/uL

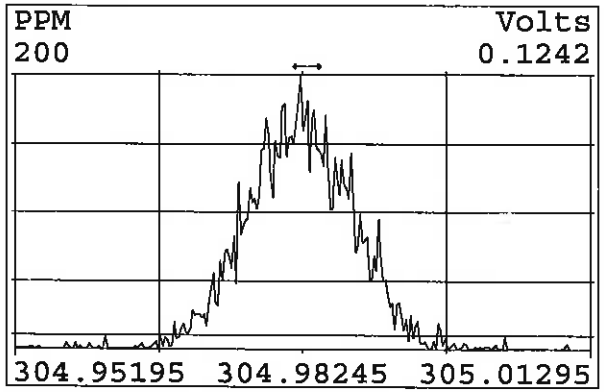
ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
2,3,7,8-TCDD	AveID	1.226	1.245		10.2	10.0	102	78-129
2,3,7,8-TCDF	AveID	1.175	1.311		11.2	10.0	112	84-120
13C-2,3,7,8-TCDD	Ave	0.9684	0.9512		98.2	100	98	82-121
13C-2,3,7,8-TCDF	Ave	1.365	1.372		100	100	100	71-140
37Cl4-2,3,7,8-TCDD	Ave	1.285	1.291		10.0	10.0	100	79-127

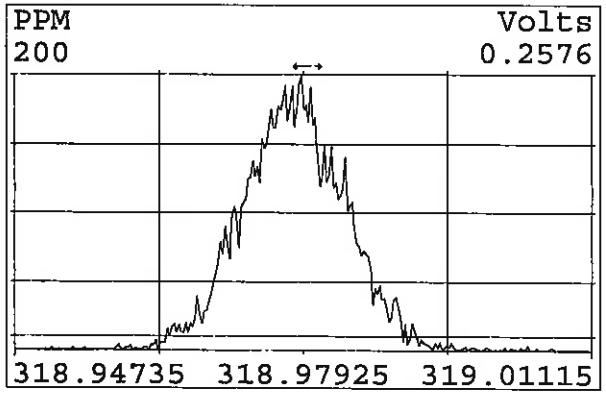
Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
22JL19A4D2	1	CCV 072219A	CCV CS-4 HRDXNL4_00081				1.000	
22JL19A4D2	2	CPS 072219A	CPS HRDXNCP_00038				1.000	
22JL19A4D2	3	SB 072219	SB Solvent Blank C-14				1.000	
22JL19A4D2	4	320-308663	580-87706-C-2-A	20	1613B/Solid	D76	10.000	g
22JL19A4D2	5	320-308663	580-87706-C-6-A	20	1613B/Solid		10.000	g
22JL19A4D2	6	320-308663	580-87706-C-9-A	20	1613B/Solid		10.000	g
22JL19A4D2	7	320-308663	580-87706-C-11-A	20	1613B/Solid		10.000	g
22JL19A4D2	8	320-308663	580-87706-C-13-A	20	1613B/Solid		10.000	g
22JL19A4D2	9	320-308663	580-87706-C-14-A	20	1613B/Solid		10.000	g
22JL19A4D2	10	320-308663	580-87706-C-15-A	20	1613B/Solid		10.000	g
22JL19A4D2	11						1.000	
22JL19A4D2	12						1.000	
22JL19A4D2	13						1.000	
22JL19A4D2	14						1.000	
22JL19A4D2	15						1.000	
22JL19A4D2	16						1.000	
22JL19A4D2	17						1.000	
22JL19A4D2	18						1.000	
22JL19A4D2	19		SMA, AJS 07-22-19				1.000	
22JL19A4D2	20						1.000	

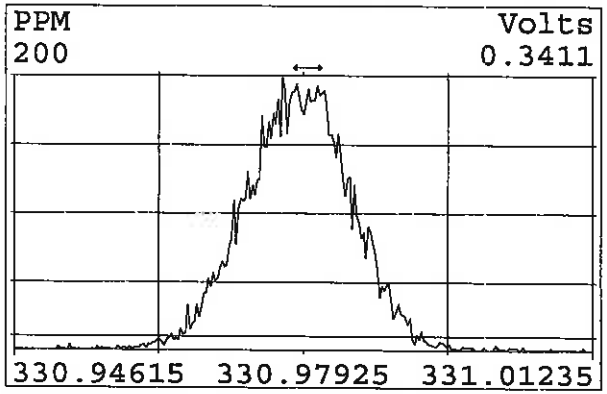
logfile checked
7-22-19 ALM

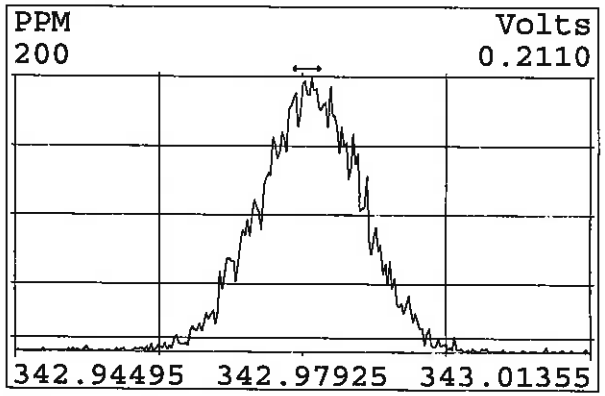
Peak Locate Examination:22-JUL-2019:10:55 File:22JL19A4D2
Experiment:DB225RES Function:1 Reference:PFK

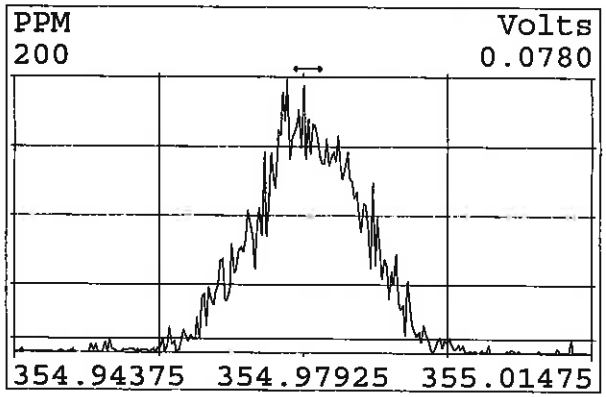


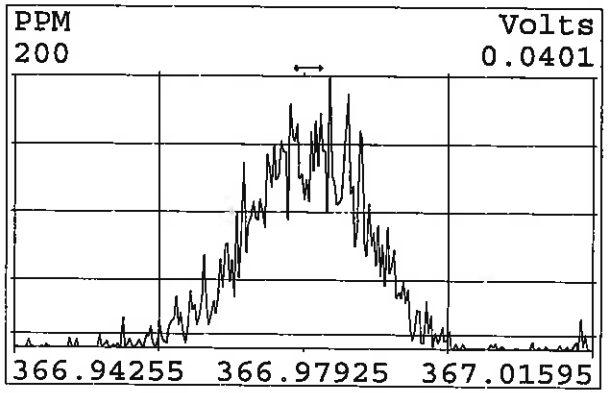


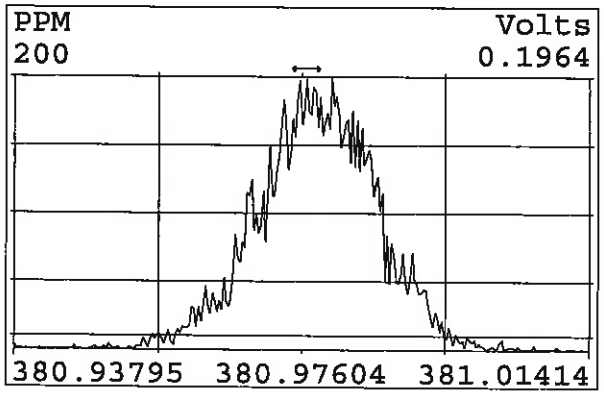




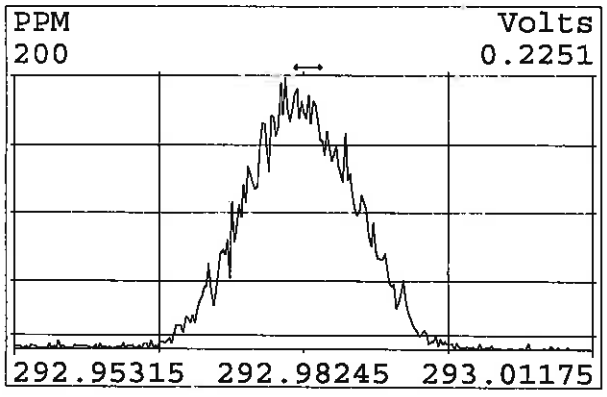


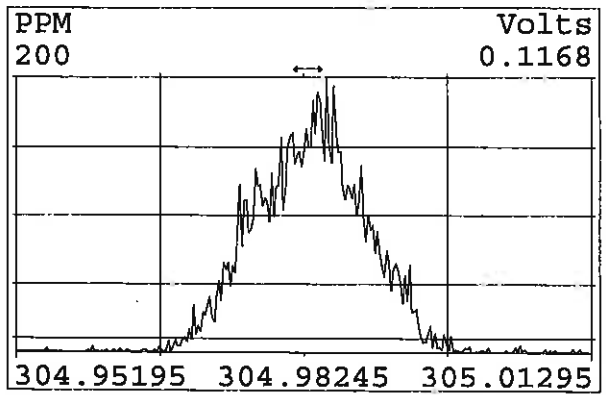


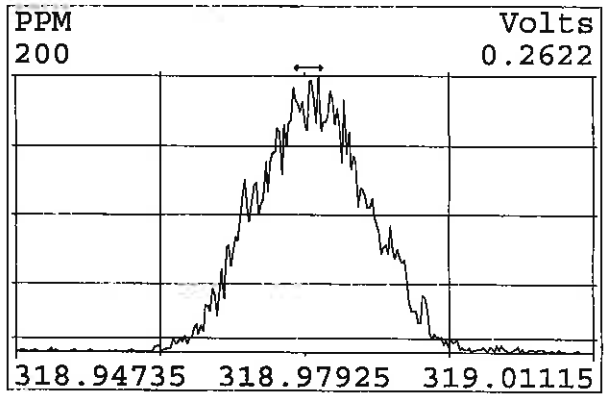


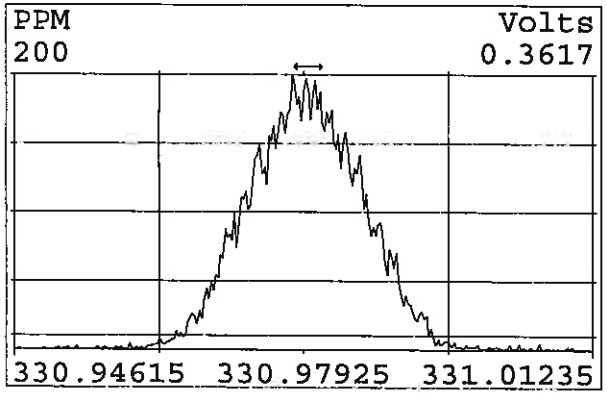


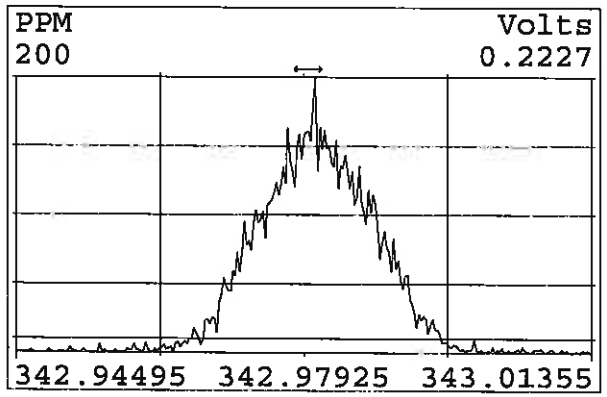
Peak Locate Examination:22-JUL-2019:17:25 File:22JL19A4D2ENDRES
Experiment:DB225RES Function:1 Reference:PFK

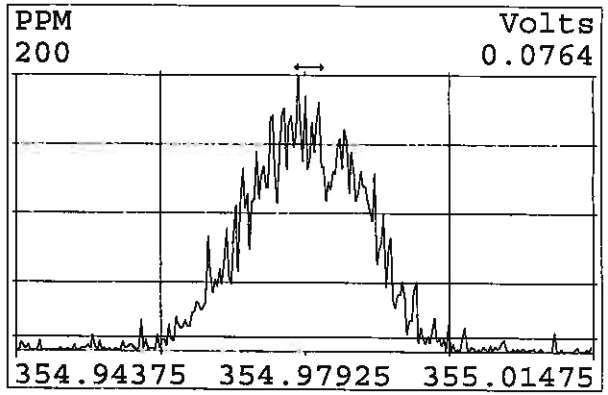


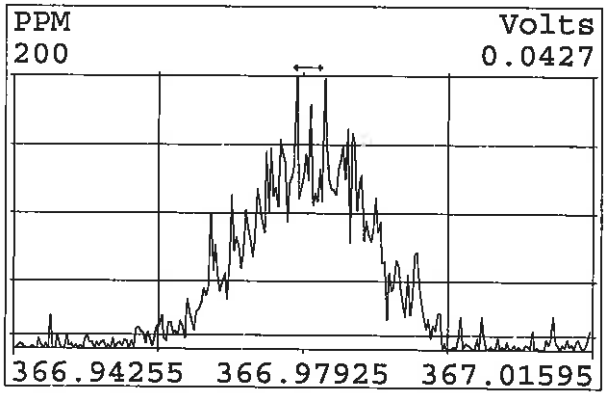


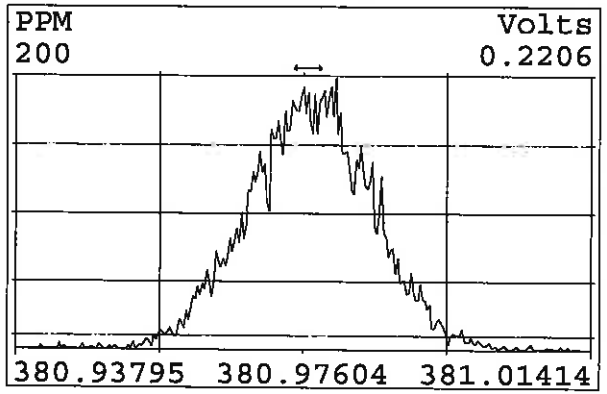












Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 22-Jul-2019 10:56:16 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:22:08 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

First Level Reviewer: messecara Date: 22-Jul-2019 19:34:08

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	14.915	99276496	0.80	3.3E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.040	136171699	0.83	1.3652	100.5	100.5	0.0989	0.0989	100	
2,3,7,8-TCDF	16.054	17849161	0.82	1.1747	11.2	11.2	0.0166	0.0166	112	
D 13C-2,3,7,8-TCDD	14.641	94434439	0.79	0.9684	98.2	98.2	0.0747	0.0747	98.23	
2,3,7,8-TCDD	14.655	11752766	0.84	1.2259	10.2	10.2	0.0263	0.0263	102	
$ 37Cl4-2,3,7,8-TCDD	14.655	12816005		1.2853	10.0	10.0	0.0129	0.0129	100	

Reagents:

HRDXNL4_00081 Amount Added: 1.00 Units: mL

Report Date: 22-Jul-2019 20:22:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 22-Jul-2019 10:56:16 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2
Sublist: chrom-DXN_DB225_4D2*sub1

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:22:08 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

First Level Reviewer: messecara Date: 22-Jul-2019 19:34:08

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	14.915	14.915	0		44152891	10311386	4243	10607	2430		
333.9339	14.915	14.915	0		55123605	13295503	2584	6460	5145	0.80(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.040	16.068	0	1.075	61612250	13411940	7856	19640	1707		
317.9389	16.040	16.068	0	1.075	74559449	16240600	4893	12232	3319	0.83(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.054	16.054	0	1.001	8031663	1737745	914	2285	1901		
305.8987	16.054	16.054	0	1.001	9817498	2035613	1405	3512	1449	0.82(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.641	14.667	0	0.982	41706312	9395107	4243	10607	2214		
333.9339	14.641	14.667	0	0.982	52728127	12165007	2584	6460	4708	0.79(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	14.655	14.655	0	1.001	5349832	1231661	1571	3927	784		
321.8936	14.655	14.655	0	1.001	6402934	1518882	1208	3020	1257	0.84(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8840	14.655	14.655	0	0.983	12816005	2873299	1565	3912	1836		

Reagents:

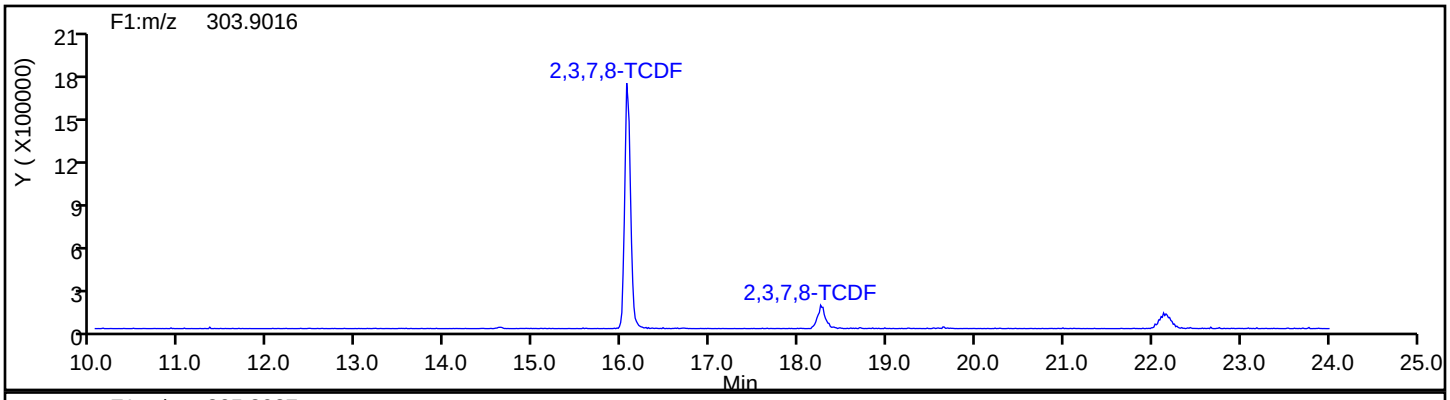
HRDXNL4_00081 Amount Added: 1.00 Units: mL

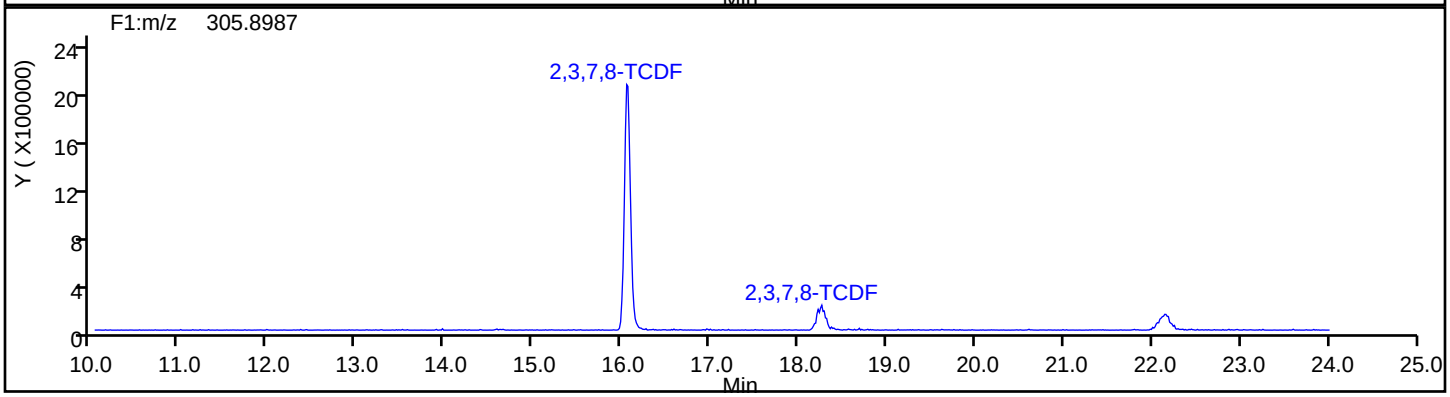
Report Date: 22-Jul-2019 20:22:09 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

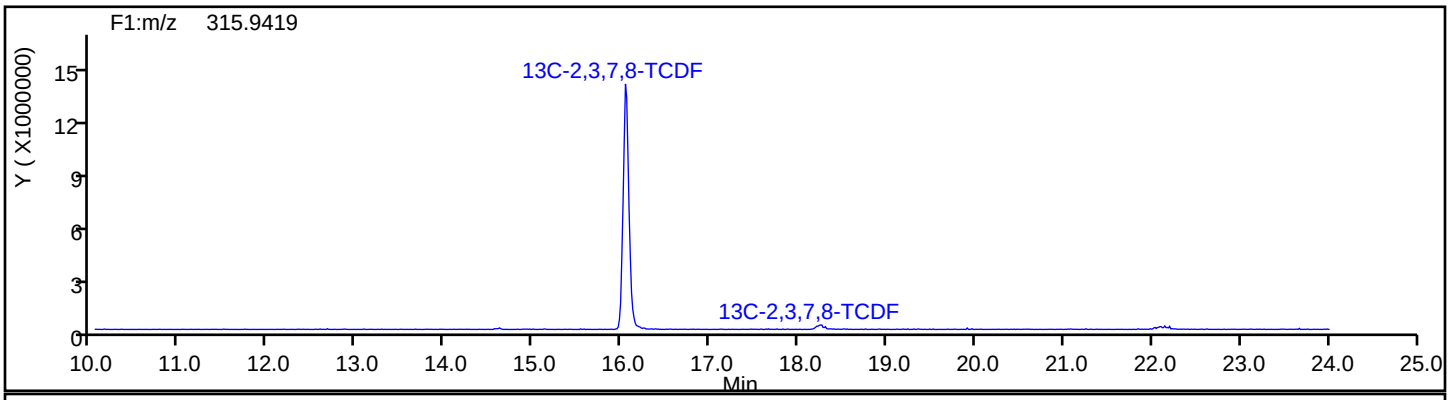
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d		
Injection Date:	22-Jul-2019 10:56:16	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	1
Column Type:	DB-225	Column Dia:	0.32 mm

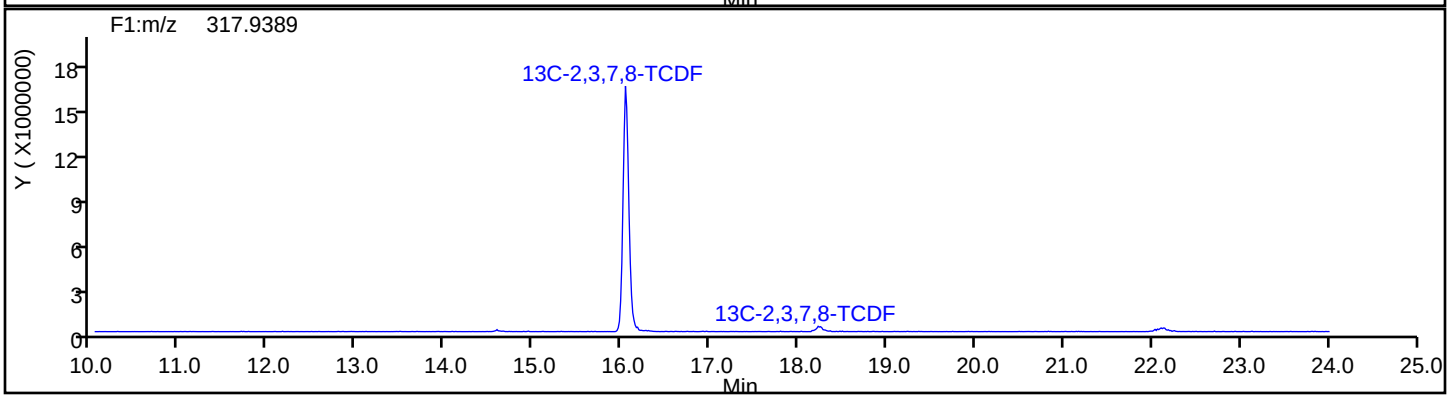
TCDF





TCDF Standards



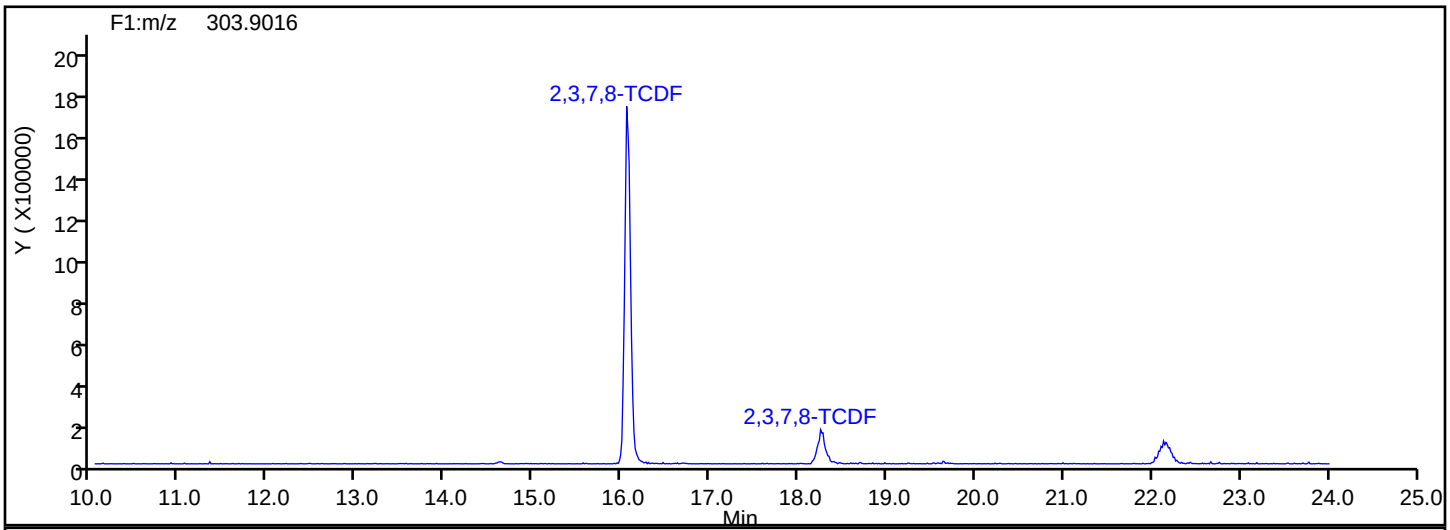


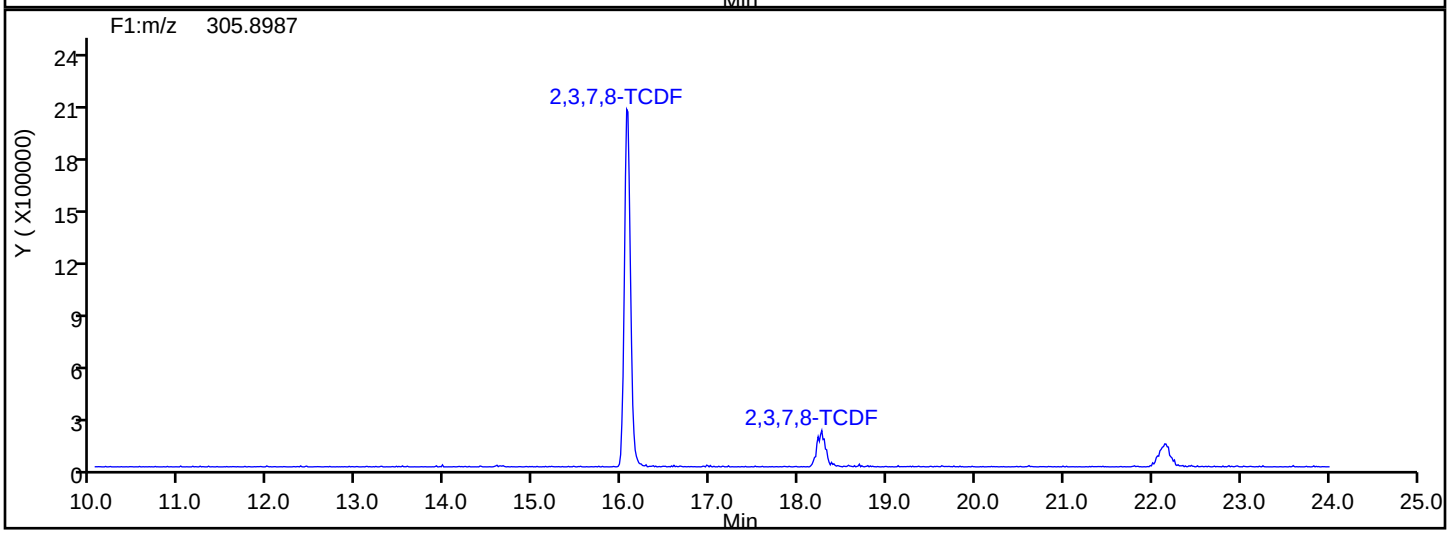
Report Date: 22-Jul-2019 20:22:10 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

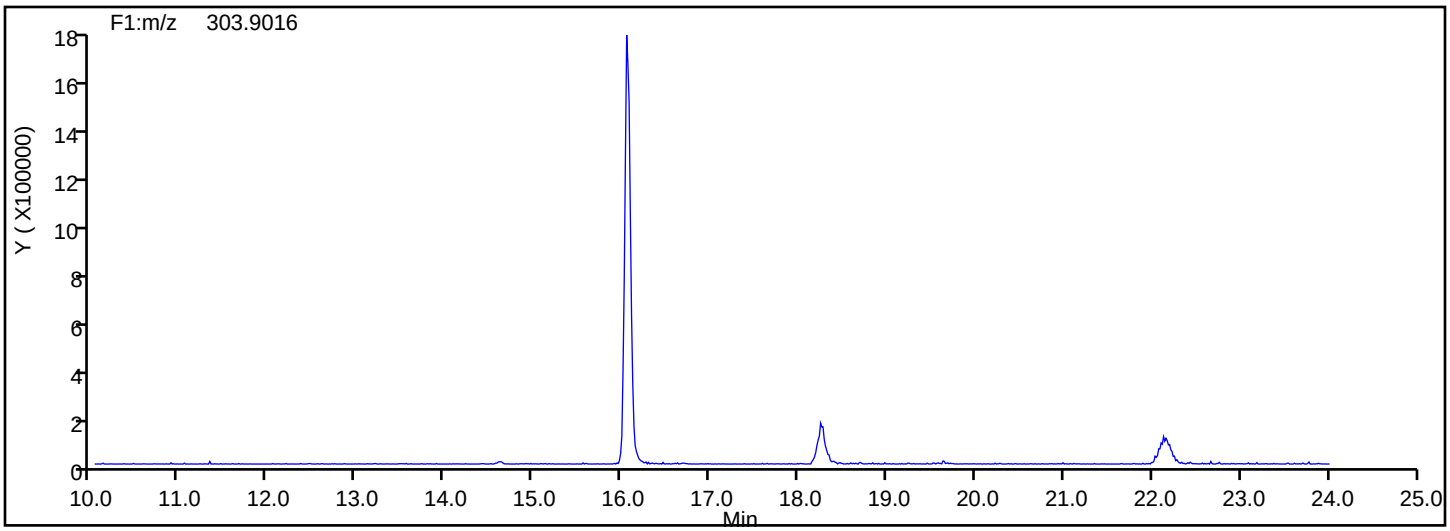
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d		
Injection Date:	22-Jul-2019 10:56:16	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	1
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

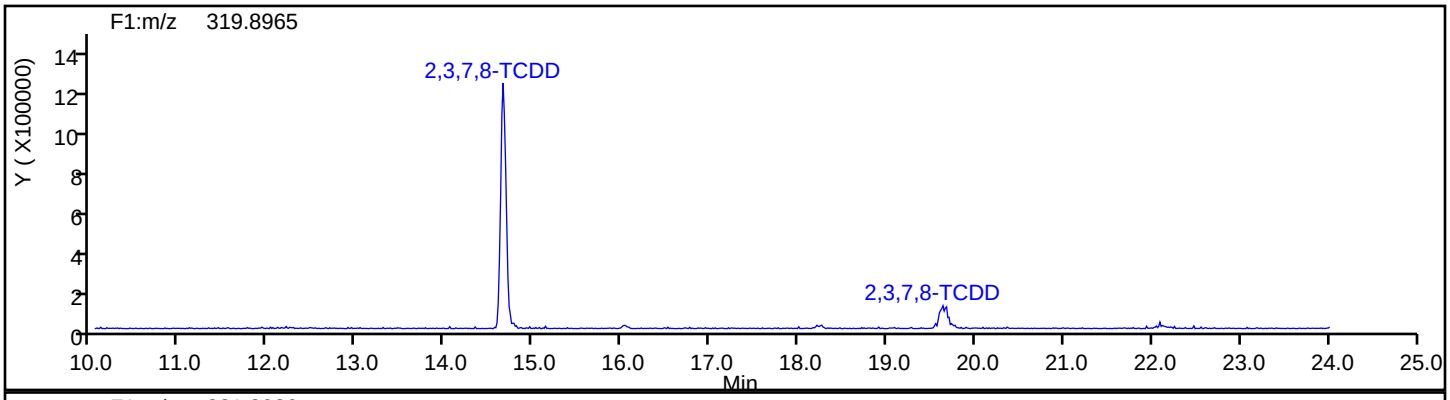


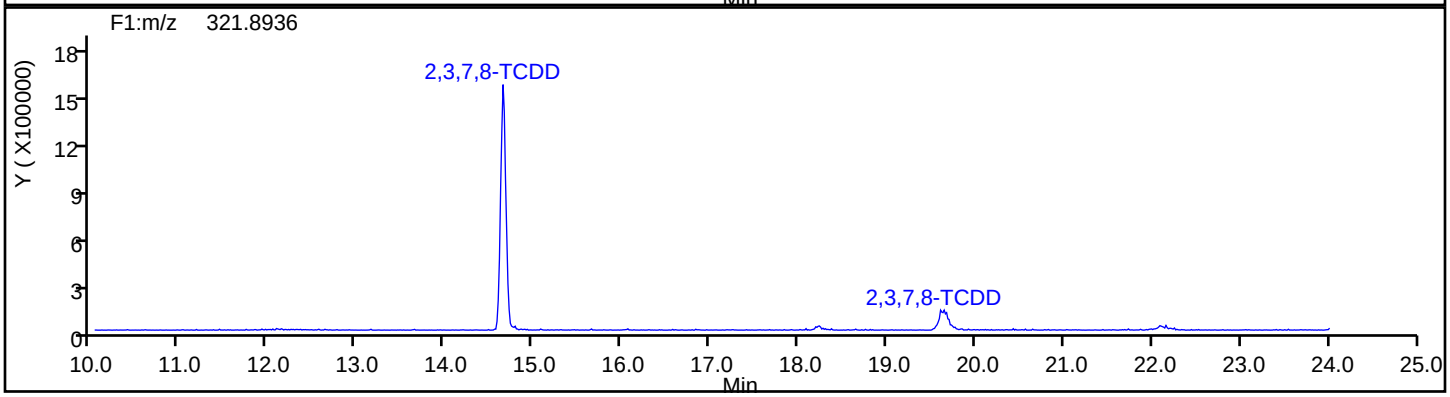
Report Date: 22-Jul-2019 20:22:10 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

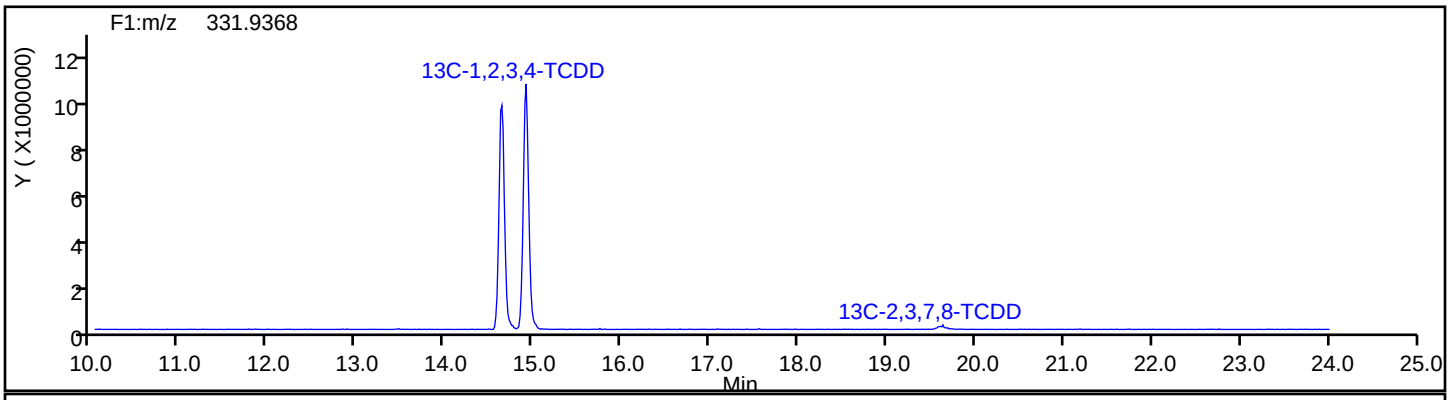
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d		
Injection Date:	22-Jul-2019 10:56:16	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	1
Column Type:	DB-225	Column Dia:	0.32 mm

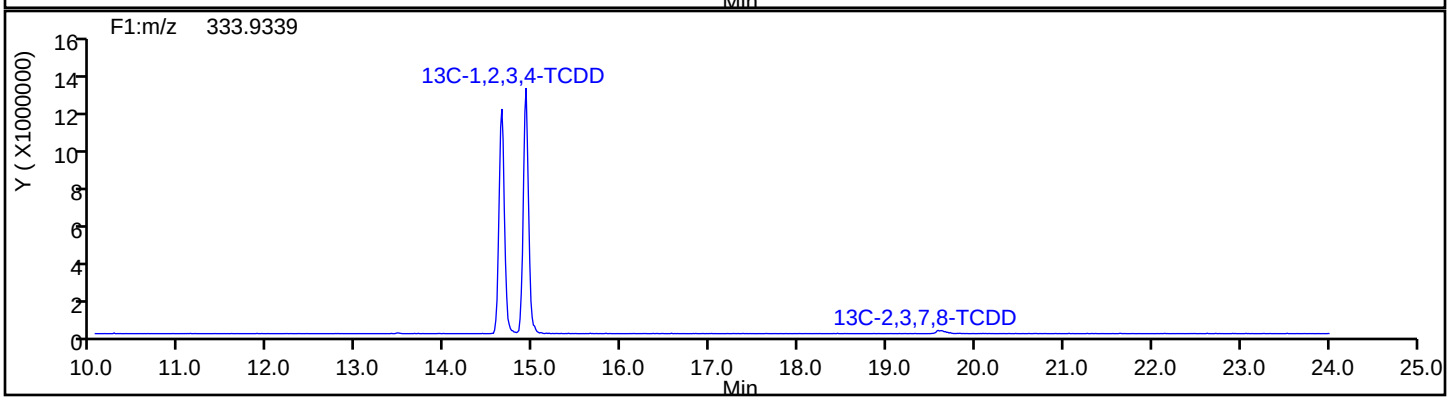
TCDD





TCDD Standards



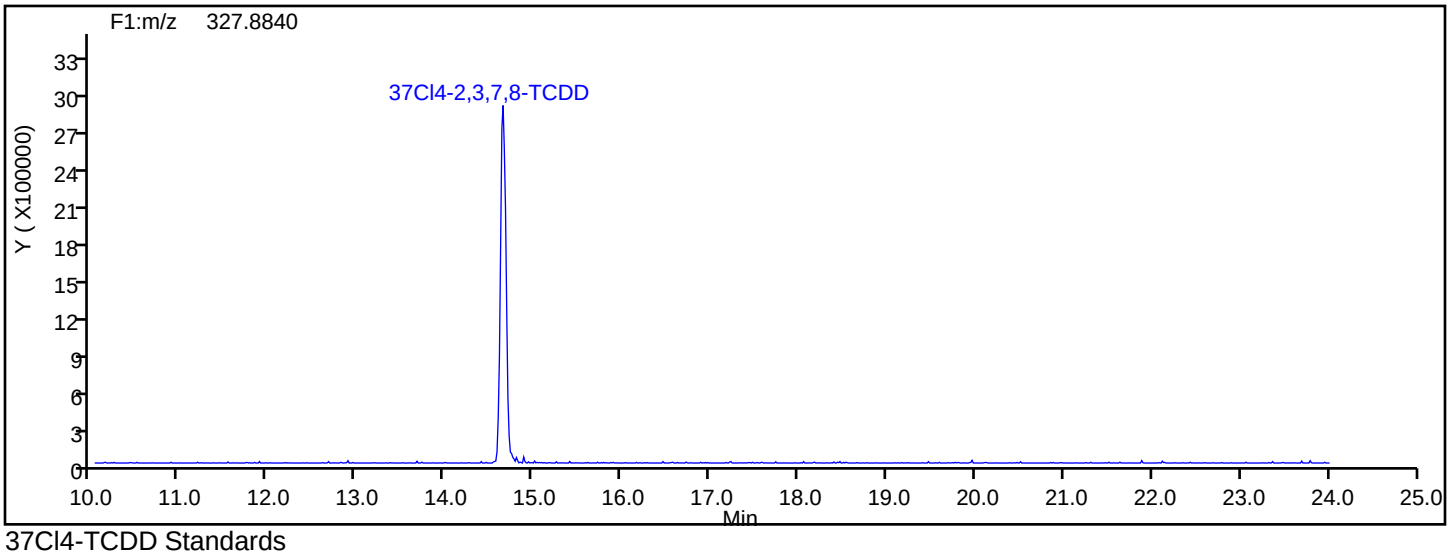


Report Date: 22-Jul-2019 20:22:10 Chrom Revision: 2.3 15-Jul-2019 06:58:08

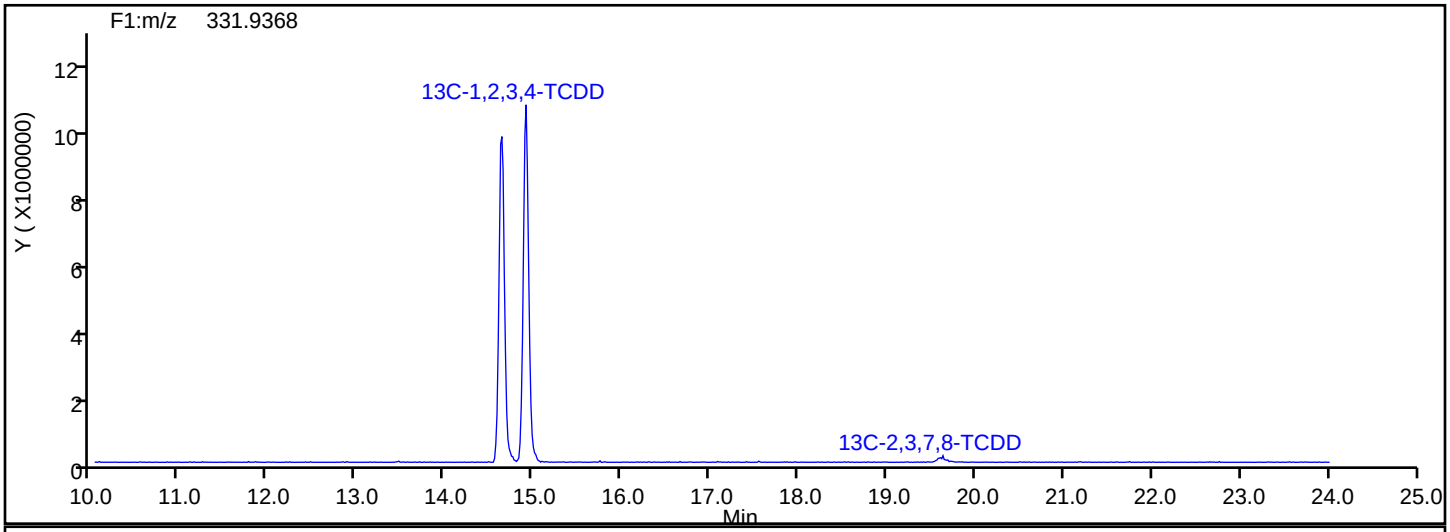
Eurofins TestAmerica, Sacramento

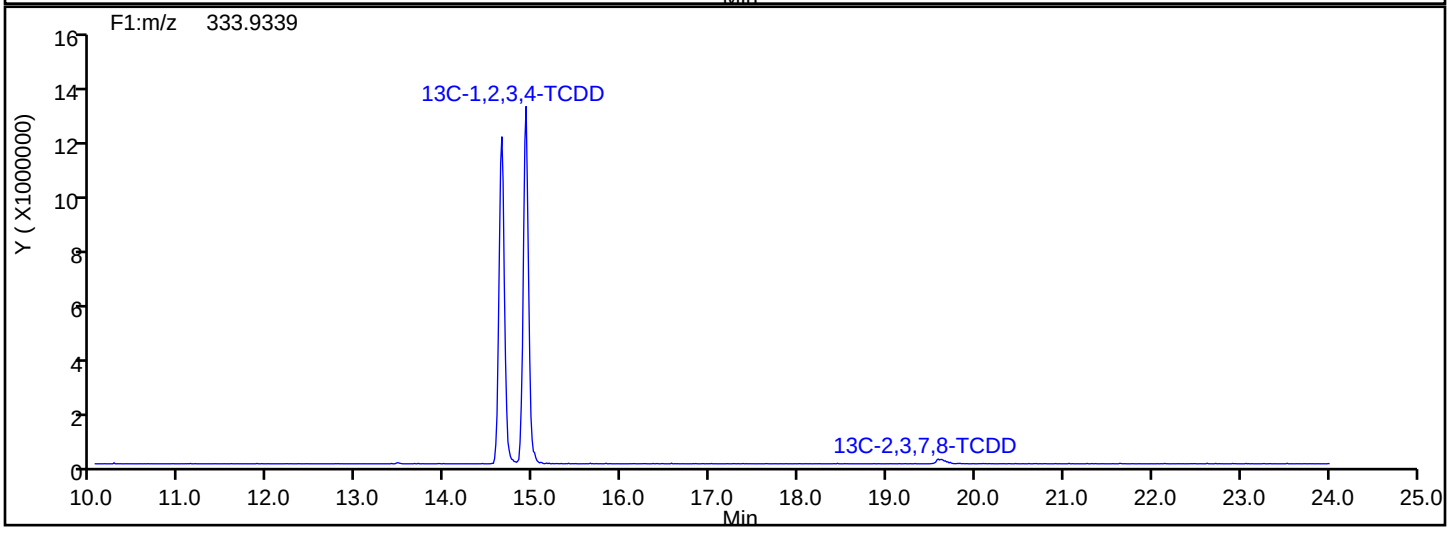
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d		
Injection Date:	22-Jul-2019 10:56:16	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	1
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

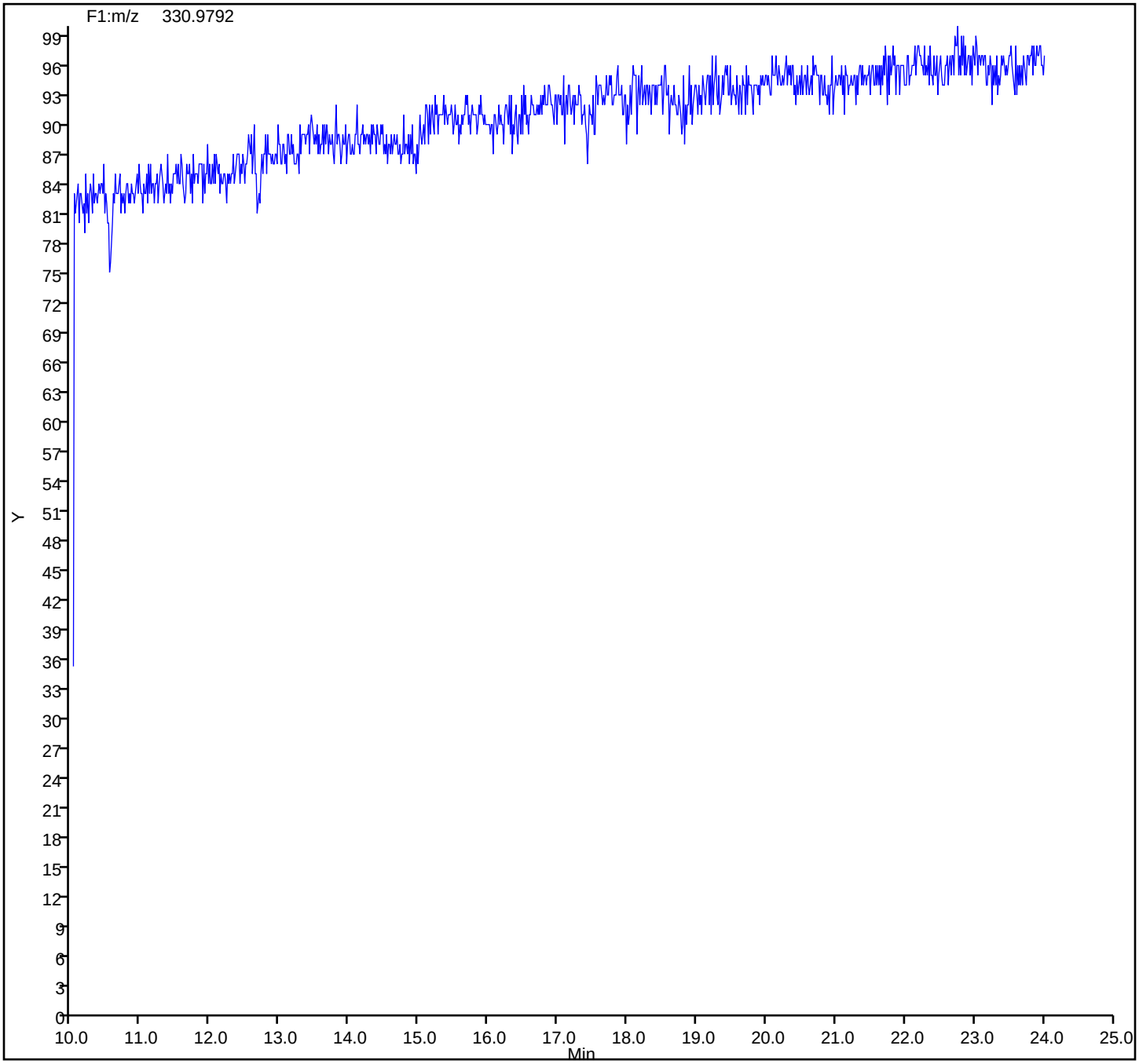




Report Date: 22-Jul-2019 20:22:10 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_001.d		
Injection Date:	22-Jul-2019 10:56:16	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	1
Column Type:	DB-225	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 21-May-2019 11:56:21 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: WDM 052119 WDM HRDXNCP_00038
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:06:38 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 13:38:59

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C-2,3,7,8-TCDF	17.900	142329176	0.79	1.3908					0.00	
2,3,7,8-TCDF	17.915	292857383	0.78	0.9710	84.8	84.8	0.5134	0.5134		
A Non-2,3,7,8-sub-TCDF	17.590						0.5134	0.5134		
S Total TCDF					84.8	84.8	0.5134	0.5134		
D 13C-2,3,7,8-TCDD	18.626	95381709	0.80	0.9819					0.00	
2,3,7,8-TCDD	18.641	105767650	0.78	1.0447	42.5	42.5	0.1646	0.1646		
A Non-2,3,7,8-sub-TCDD	18.066						0.1646	0.1646		
S Total TCDD					42.5	42.5	0.1646	0.1646		
A F1 PeCDFs	20.637						0.0	0.0		
A Non-2,3,7,8-sub-PeCDF	23.899						0.0	0.0		
S Total PeCDF										
A Non-2,3,7,8-sub-PeCDD	24.123						0.0	0.0		
S Total PeCDD										
A Non-2,3,7,8-sub-HxCDF	30.845						0.0	0.0		
S Total HxCDF										
A Non-2,3,7,8-sub-HxCDD	31.471	657931	1.26	0.0000						
S Total HxCDD										
1,2,3,4,6,7,8-HpCDF	34.121	82632779	1.06	1.4373						
1,2,3,4,7,8,9-HpCDF	35.251	67013075	1.05	1.3091						
A Non-2,3,7,8-sub-HpCDF	34.686						0.0	0.0		
S Total HpCDF										
1,2,3,4,6,7,8-HpCDD	34.947	57145761	1.06	1.0102						
A Non-2,3,7,8-sub-HpCDD	35.074						0.0	0.0		
S Total HpCDD										
1,3,6,8-TCDF	15.390	166246351	0.78							
1,3,6,8-TCDD	16.343	110635979	0.77							
2,3,4,7-TCDF	17.915	292857383	0.78							
1,2,3,7-TCDD	18.520	92728069	0.76							
1,2,3,9-TCDD	18.807	112930850	0.82							
1,2,3,9-TCDF	18.807	126390975	0.79							

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,8,9-TCDD	19.790	43123802								
1,2,8,9-TCDF	19.790	130326615	0.76							
1,3,4,6,8-PeCDF	20.093	129246738	1.59							
1,2,4,7,9-PeCDD	21.934	90103477	1.54							
1,2,3,8,9-PeCDD	26.312	84848214	1.58							
1,2,3,8,9-PeCDF	26.544	61703706								
1,2,3,4,6,8-HxCDF	28.914	104194761	1.22							
1,2,4,6,7,9-HxCDD	30.326	80751124	1.23							
1,2,3,4,6,7-HxCDD	32.483	77418581	1.27							
1,2,3,4,8,9-HxCDF	32.776	86047174	1.25							
1,2,3,4,6,7,9-HpCDD	34.364	65623565	1.05							

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 21-May-2019 11:56:21 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: WDM 052119 WDM HRDXNCP_00038
Misc. Info.: 21MY193D5
Operator ID: AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-May-2019 11:06:38 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : Det: F1:HRSIR
Process Host: CTX0302

First Level Reviewer: shardaa Date: 21-May-2019 13:38:59

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,7,8-TCDF											
315.9419	17.900	17.885	1	1.000	62901174	14444500	23508	58770	614		
317.9389	17.885	17.885	0	1.000	79428002	18619090	21886	54715	851	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	17.915	17.915	0	1.001	128275333	28855811	65043	162607	444		
305.8987	17.915	17.915	0	1.001	164582050	36880030	99790	249475	370	0.78(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	17.590						65043	162607			
305.8987	17.590						99790	249475			
13C-2,3,7,8-TCDD											
331.9368	18.626	18.611	1	1.000	42404747	9743193	24478	61195	398		
333.9339	18.626	18.611	1	1.000	52976962	12326201	8555	21387	1441	0.80(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	18.641	18.650	-1	1.001	46459771	10318495	17244	43110	598		
321.8936	18.641	18.650	-1	1.001	59307879	13616617	20709	51772	658	0.78(0.65-0.89)	
A Non-2,3,7,8-sub-TCDD											
319.8965	18.066						17244	43110			
321.8936	18.066						20709	51772			
A F1 PeCDFs											
339.8597	20.637						5411	13527			
341.8567	20.637						8692	21730			
A Non-2,3,7,8-sub-PeCDF											
339.8597	23.899						9009	22522			
341.8567	23.899						11975	29937			
A Non-2,3,7,8-sub-PeCDD											
355.8546	24.123						15878	39695			
357.8516	24.123						8168	20420			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-HxCDF											
373.8208	30.845						20487	51217			
375.8178	30.845						16652	41630			
A Non-2,3,7,8-sub-HxCDD											
389.8157	31.444	31.471	-2	1.000	366420	78878	22316	55790	4		
391.8127	31.444	31.471	-2	1.000	291511	71428	17277	43192	4	1.26(1.05-1.43)	
1,2,3,4,6,7,8-HpCDF											
407.7818	34.121	34.104	1	1.000	42538474	13039421	48634	121585	268		
409.7789	34.109	34.104	0	1.000	40094305	12217379	38817	97042	315	1.06(0.88-1.20)	
1,2,3,4,7,8,9-HpCDF											
407.7818	35.251	35.244	0	1.000	34323675	8398192	48634	121585	173		
409.7789	35.251	35.244	0	1.000	32689400	8355587	38817	97042	215	1.05(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	34.686						48634	121585			
409.7789	34.686						38817	97042			
1,2,3,4,6,7,8-HpCDD											
423.7766	34.947	34.940	0	1.000	29401308	8154945	26390	65975	309		
425.7737	34.947	34.940	0	1.000	27744453	7733751	25075	62687	308	1.06(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						26390	65975			
425.7737	35.074						25075	62687			
1,3,6,8-TCDF											
303.9016	15.390	15.390	0		72864110	21132563	65043	162607	325		
305.8987	15.390	15.390	0		93382241	27360068	99790	249475	274	0.78(0.65-0.89)	
1,3,6,8-TCDD											
319.8965	16.343	16.343	0		47983816	12916935	17244	43110	749		
321.8936	16.343	16.343	0		62652163	16568874	20709	51772	800	0.77(0.65-0.89)	
2,3,4,7-TCDF											
303.9016	17.915	17.915	0		128275333	28855811	65043	162607	444		
305.8987	17.915	17.915	0		164582050	36880030	99790	249475	370	0.78(0.65-0.89)	
1,2,3,7-TCDD											
319.8965	18.520	18.520	0		40014642	9867861	17244	43110	572		
321.8936	18.520	18.520	0		52713427	12869976	20709	51772	621	0.76(0.65-0.89)	
1,2,3,9-TCDD											
319.8965	18.807	18.807	0		50741930	11082748	17244	43110	643		
321.8936	18.807	18.807	0		62188920	13543053	20709	51772	654	0.82(0.65-0.89)	
1,2,3,9-TCDF											
303.9016	18.807	18.807	0		55627509	12223042	65043	162607	188		
305.8987	18.807	18.807	0		70763466	15547883	99790	249475	156	0.79(0.65-0.89)	
1,2,8,9-TCDD											
319.8965	19.790	19.790	0		43123802	8997243	17244	43110	522		
1,2,8,9-TCDF											
303.9016	19.790	19.790	0		56256810	11654152	65043	162607	179		
305.8987	19.790	19.790	0		74069805	15142079	99790	249475	152	0.76(0.65-0.89)	
1,3,4,6,8-PeCDF											
339.8597	20.093	20.093	0		79326074	17172146	5411	13527	3174		
341.8567	20.093	20.093	0		49920664	10665984	8692	21730	1227	1.59(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,4,7,9-PeCDD											
355.8546	21.934	21.934	0		54564293	8817781	15878	39695	555		
357.8516	21.921	21.934	-1		35539184	5806410	8168	20420	711	1.54(1.32-1.78)	
1,2,3,8,9-PeCDD											
355.8546	26.312	26.312	0		52007882	7329706	15878	39695	462		
357.8516	26.312	26.312	0		32840332	4579894	8168	20420	561	1.58(1.32-1.78)	
1,2,3,8,9-PeCDF											
339.8597	26.544	26.544	0		61703706	7926505	9009	22522	880		
1,2,3,4,6,8-HxCDF											
373.8208	28.914	28.914	0		57338539	6952076	20487	51217	339		
375.8178	28.914	28.914	0		46856222	5585431	16652	41630	335	1.22(1.05-1.43)	
1,2,4,6,7,9-HxCDD											
389.8157	30.326	30.326	0		44606732	7700135	22316	55790	345		
391.8127	30.326	30.326	0		36144392	6277802	17277	43192	363	1.23(1.05-1.43)	
1,2,3,4,6,7-HxCDD											
389.8157	32.483	32.483	0		43337403	12176658	22316	55790	546		
391.8127	32.483	32.483	0		34081178	9548413	17277	43192	553	1.27(1.05-1.43)	
1,2,3,4,8,9-HxCDF											
373.8208	32.776	32.776	0		47814875	13450039	20487	51217	657		
375.8178	32.776	32.776	0		38232299	10593800	16652	41630	636	1.25(1.05-1.43)	
1,2,3,4,6,7,9-HpCDD											
423.7766	34.364	34.364	0		33609170	10006778	26390	65975	379		
425.7737	34.364	34.364	0		32014395	9655474	25075	62687	385	1.05(0.88-1.20)	

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d
Lims ID: WDM
Client ID:
Inject. Date: 21-May-2019 11:56:21 Dil. Factor: 1.0000
Sample Type: WDM, Window Defining Mix
Instrument ID: 3D5 Operator: AJS
Lims Batch ID: 296020 Lims Sample ID: 1

Non-2,3,7,8-sub-HxCDD, RT: 31.471

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,7,8-HxCDD	1.027				
1,2,3,6,7,8-HxCDD	0.977				
1,2,3,7,8,9-HxCDD	1.062				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.000		0.0	0	0

Sum the Uncalibrated Results

RT	389.8157 Area	389.8157 Height	391.8127 Area	391.8127 Height	Amount	Ratio	Flags
31.444	366420	78878	291511	71428		1.26	
Signal Totals:							
	366420	78878	291511	71428			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	657931	150306				1.26	

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

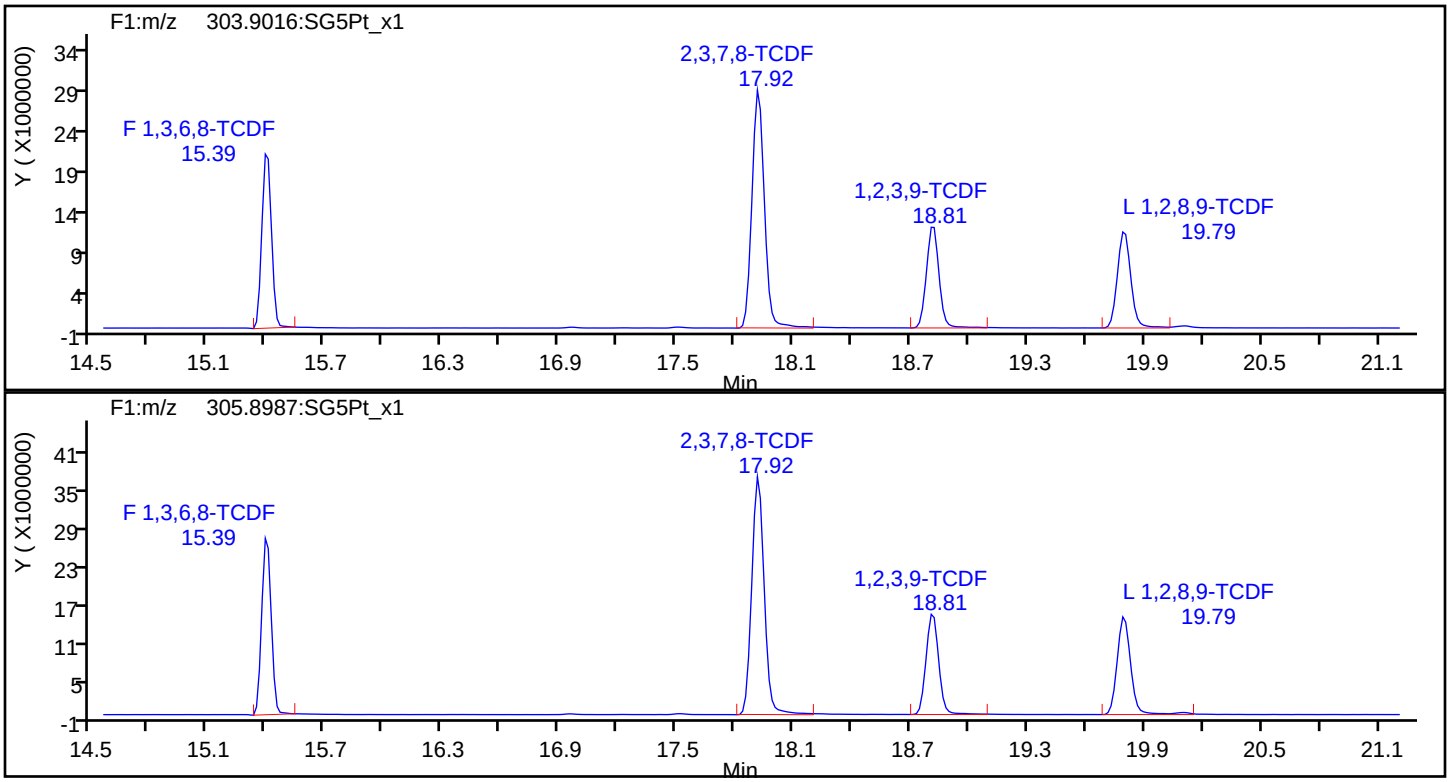
Amount: 0.0 = (657931 * 0.0) / (0 * 0.000)

Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

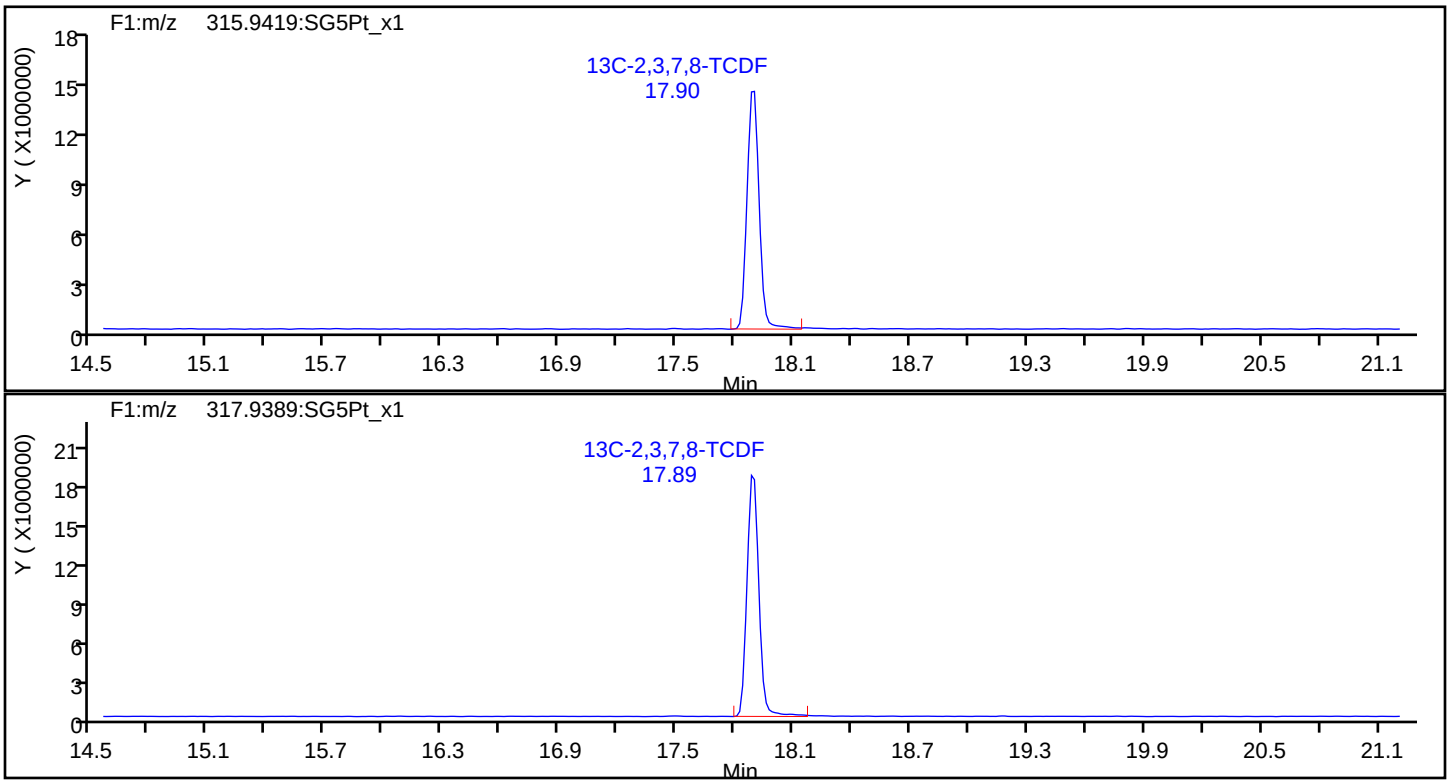
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

TCDF



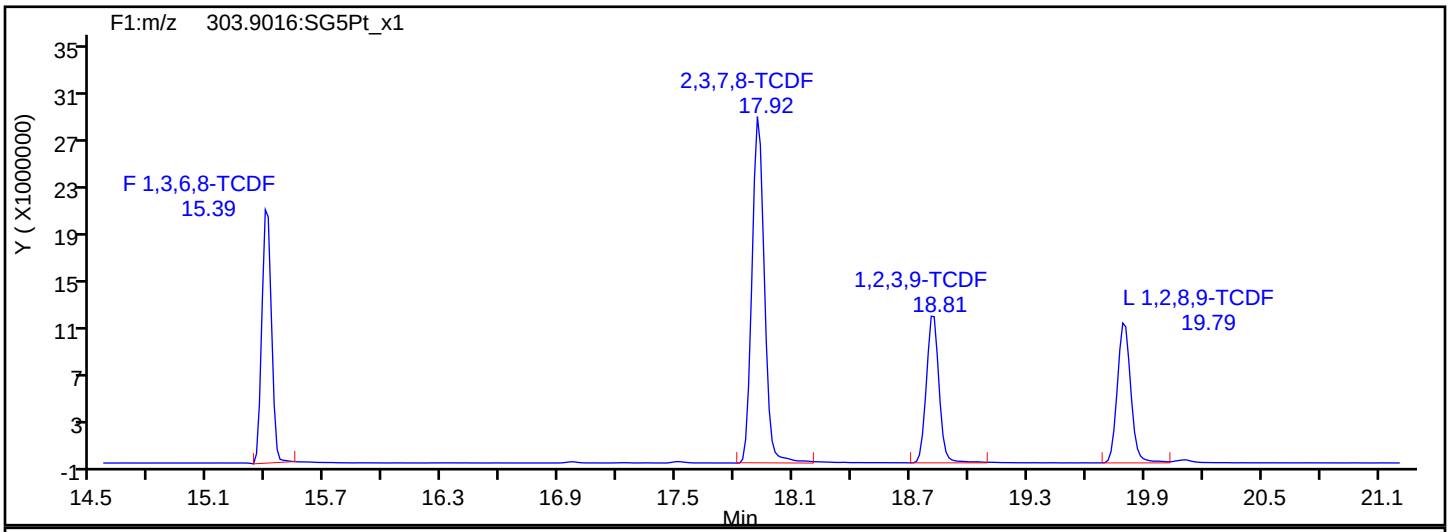
TCDF Standards

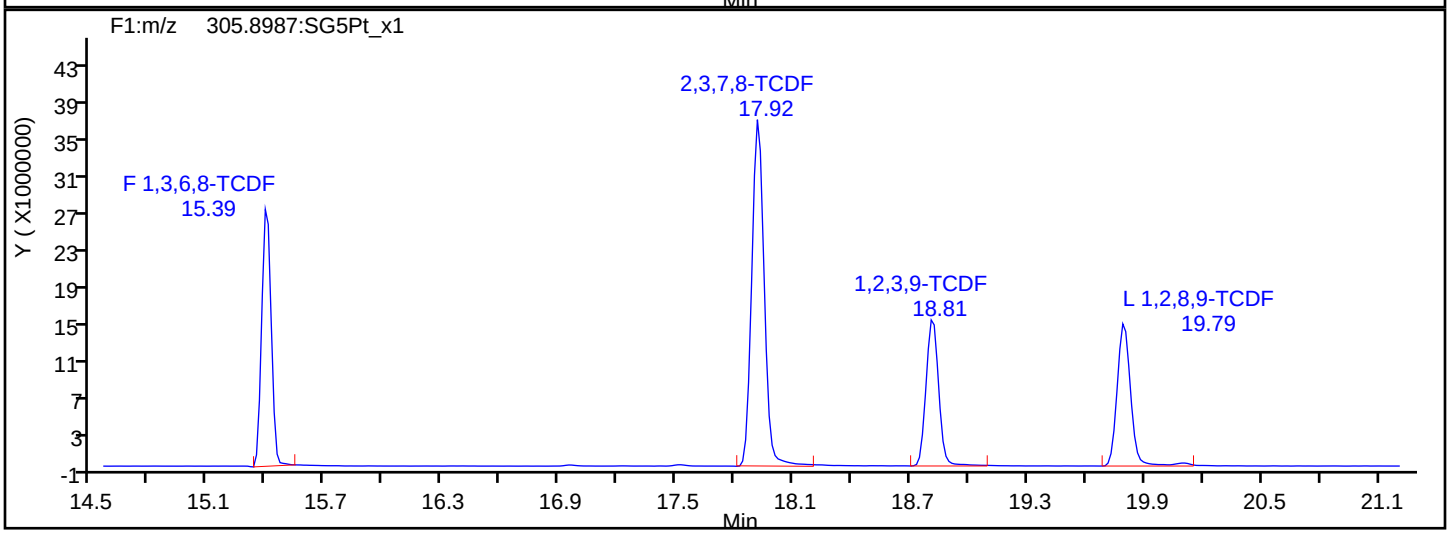


Eurofins TestAmerica, Sacramento

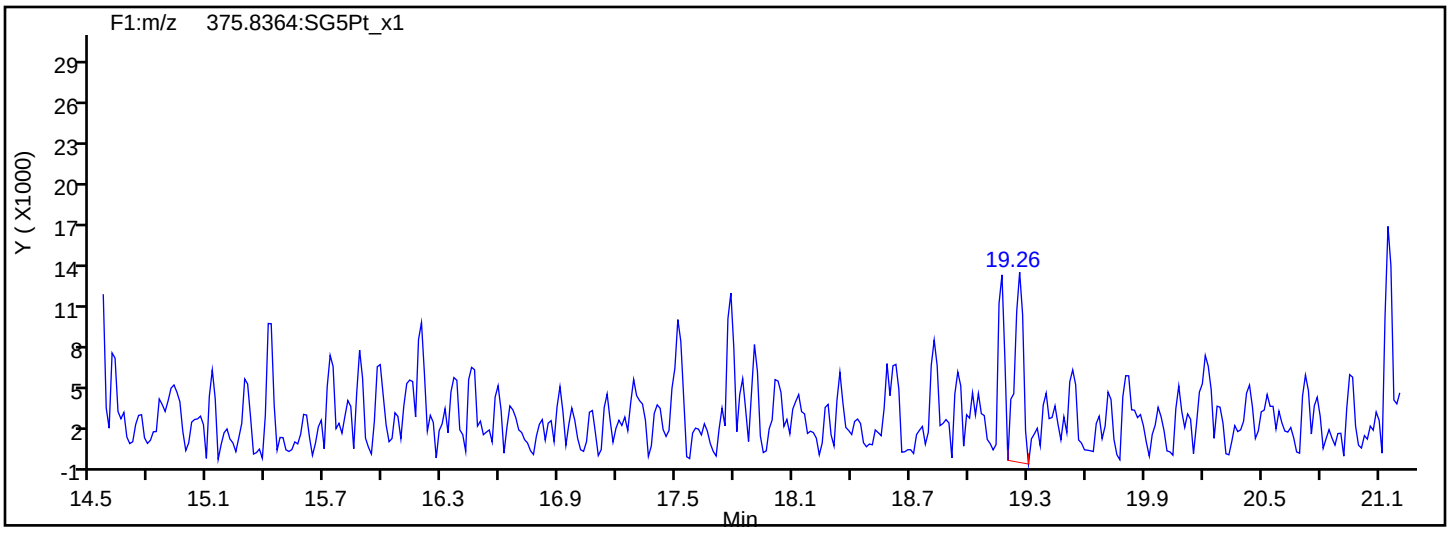
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

TCDF





TCDF Interference Mass

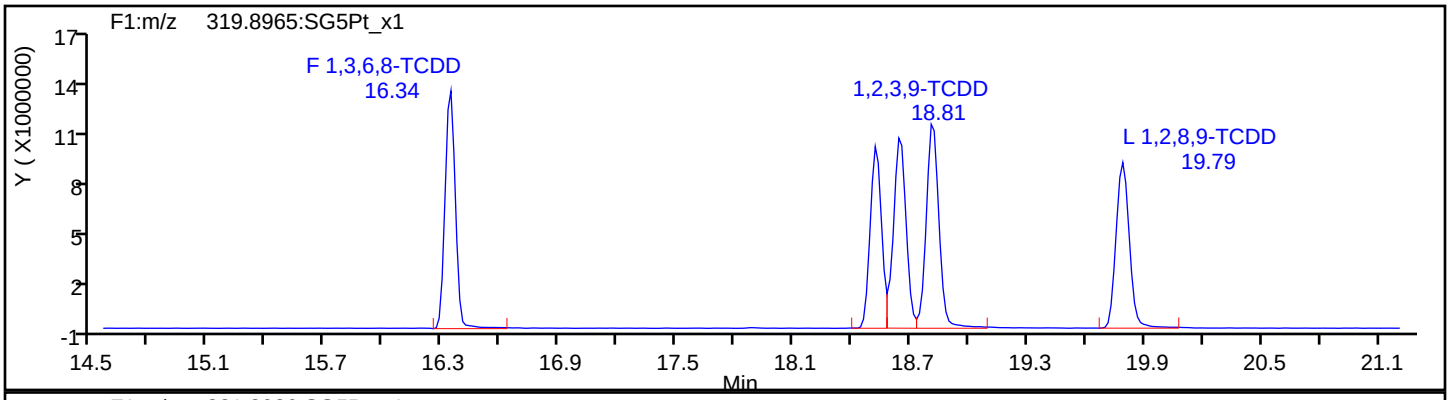


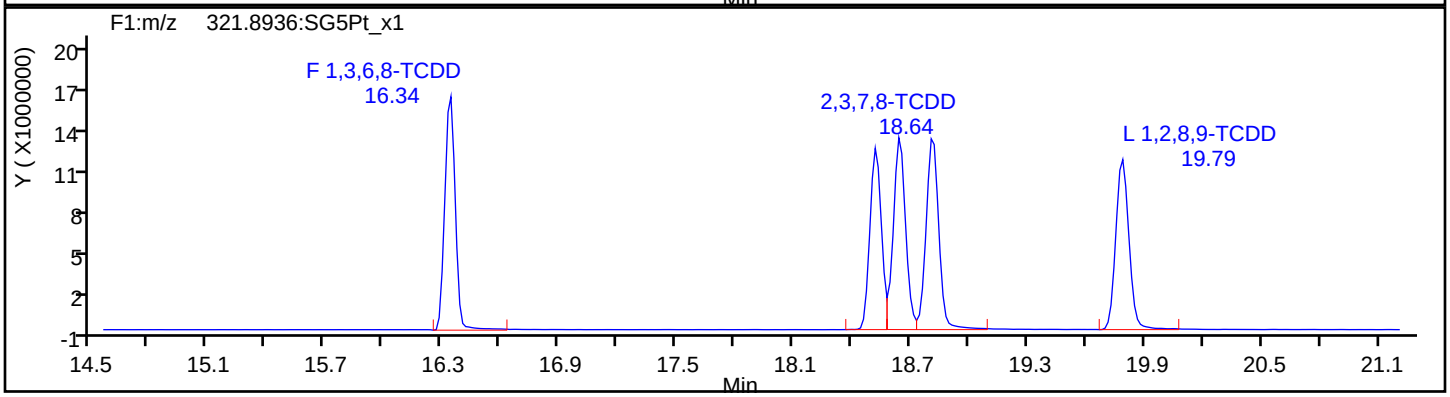
Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

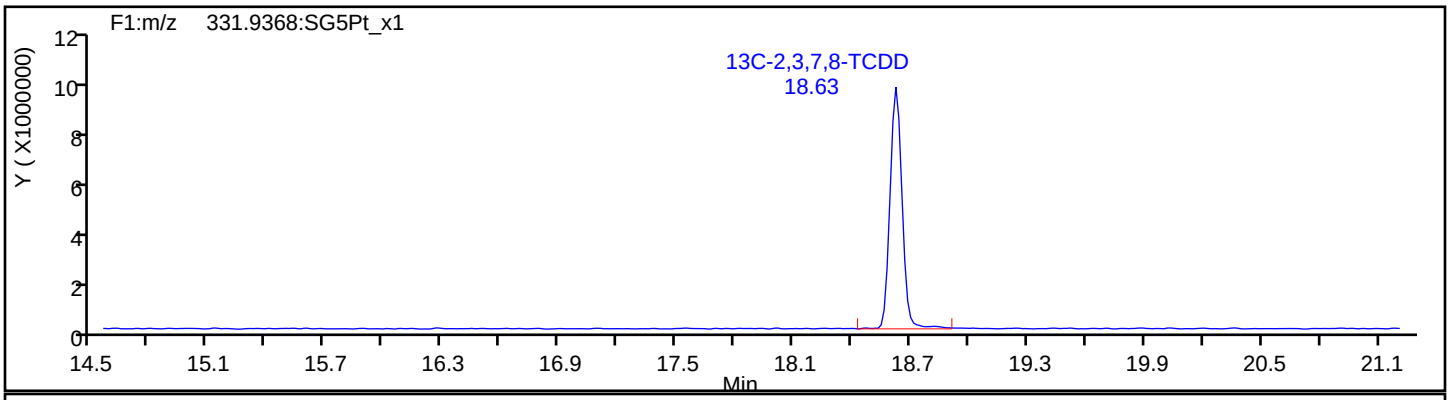
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

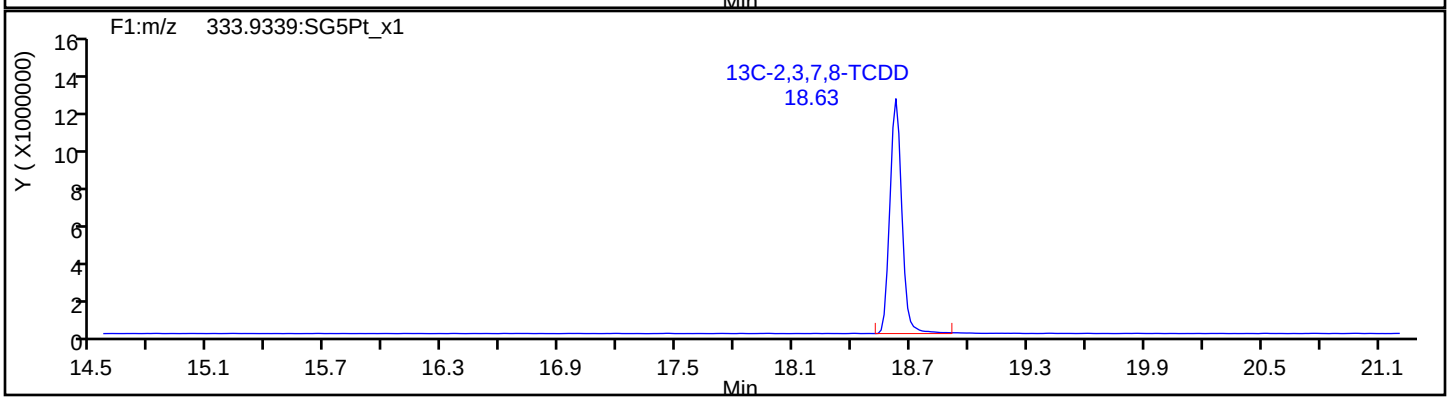
TCDD





TCDD Standards



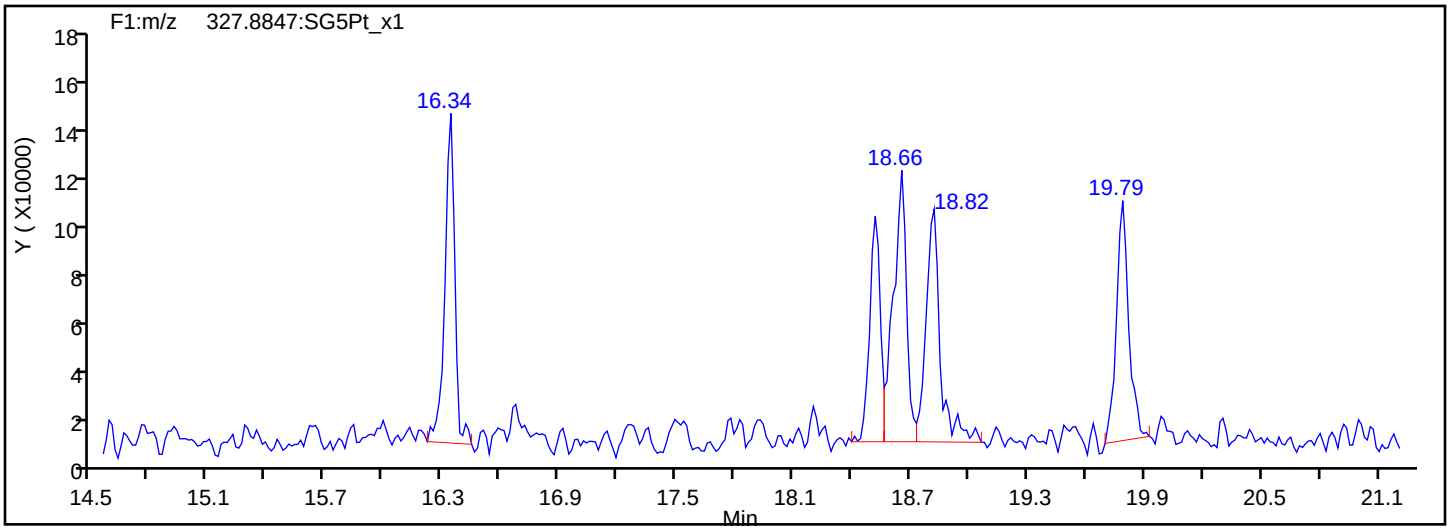


Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

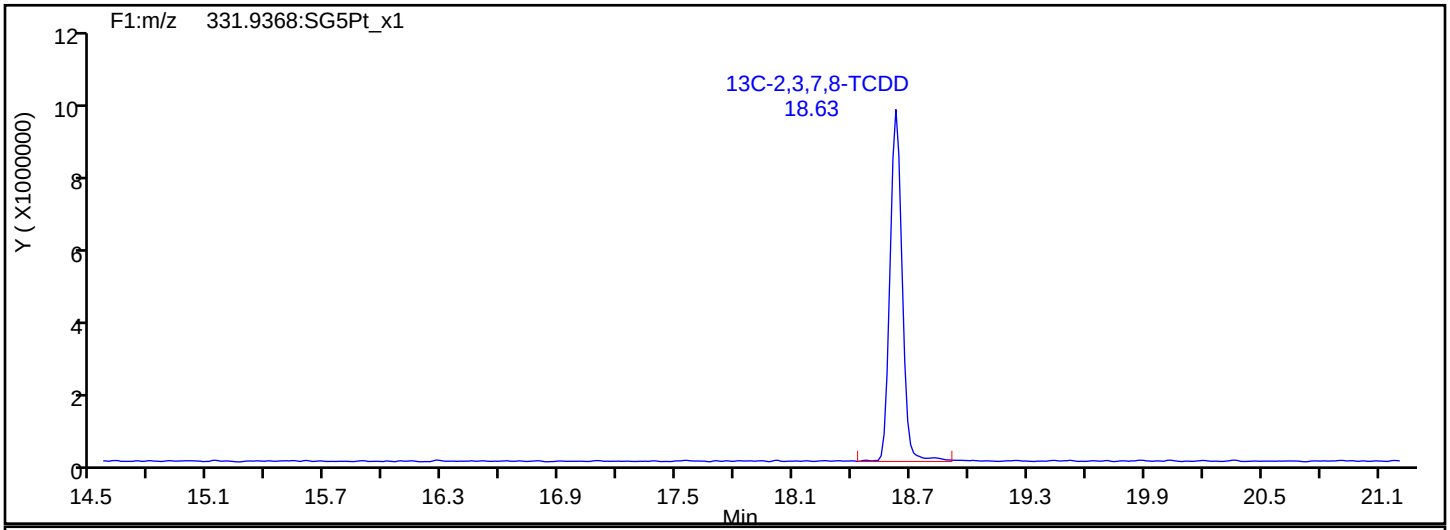
Eurofins TestAmerica, Sacramento

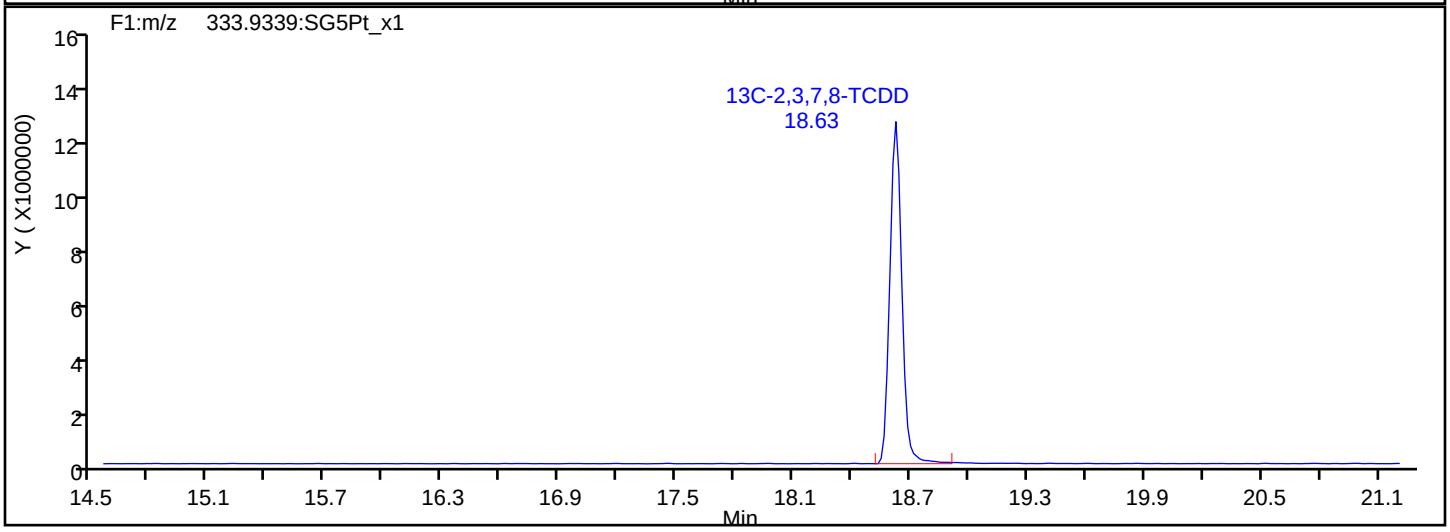
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

37Cl4-TCDD



37Cl4-TCDD Standards



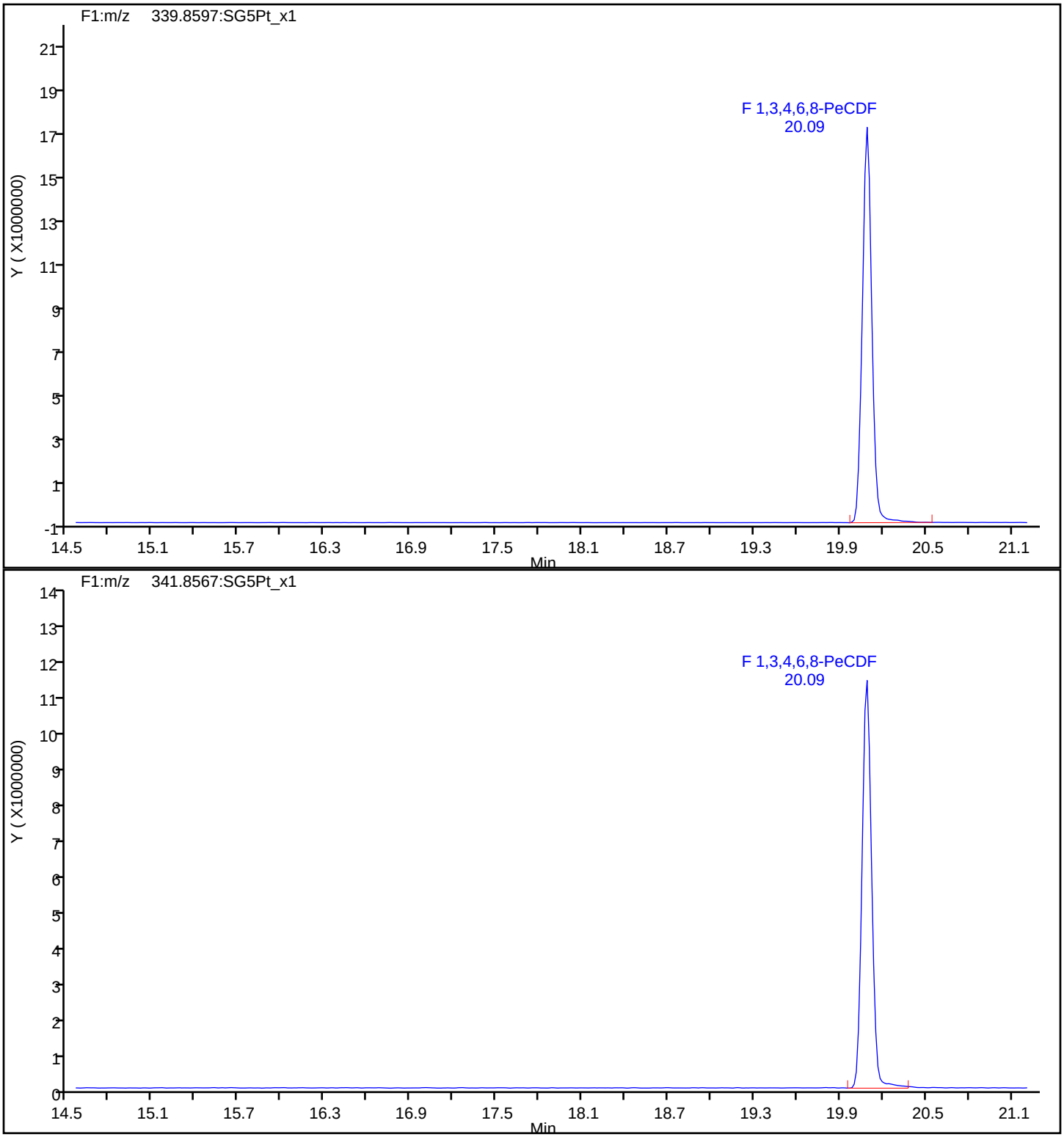


Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

F1 PeCDFs

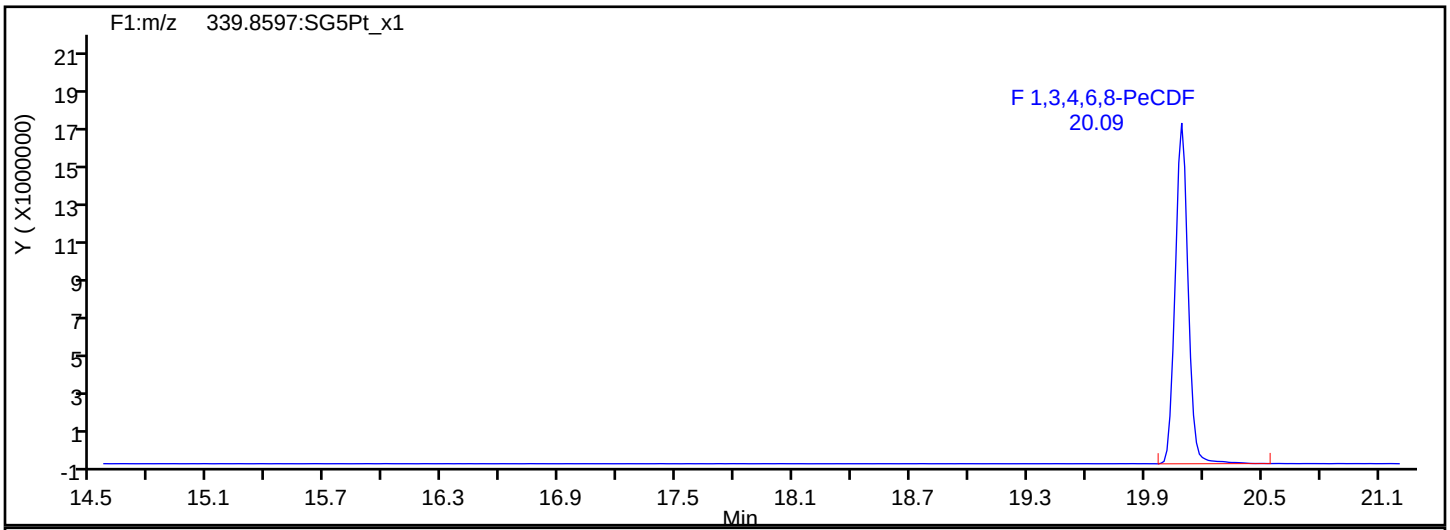


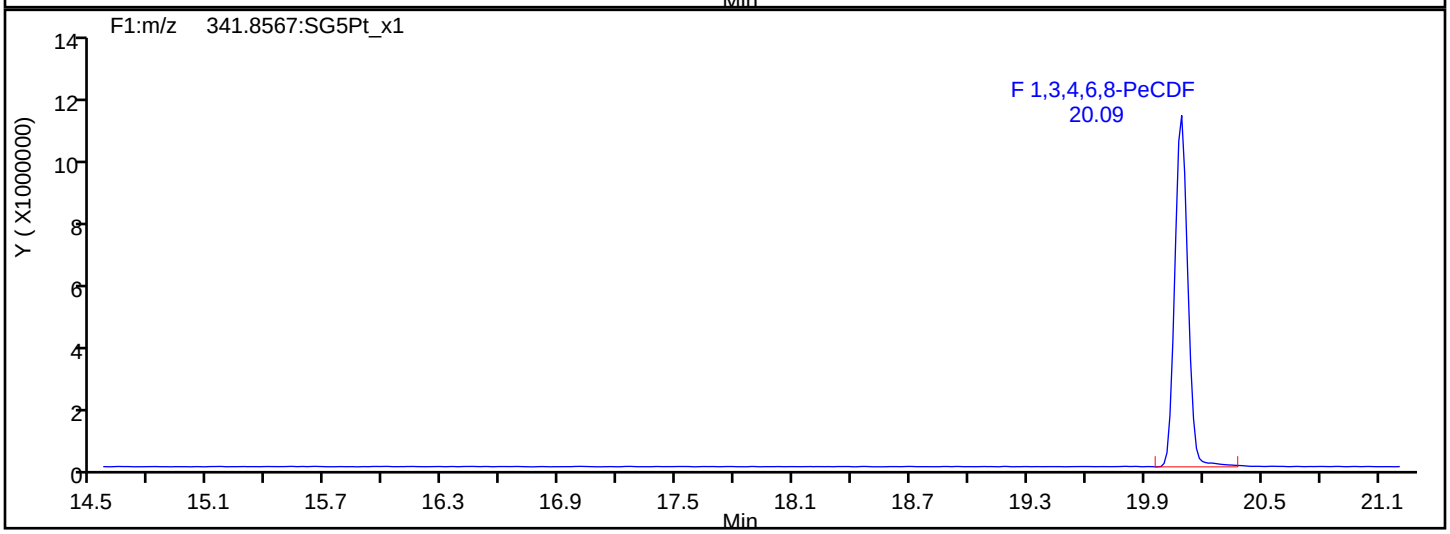
Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

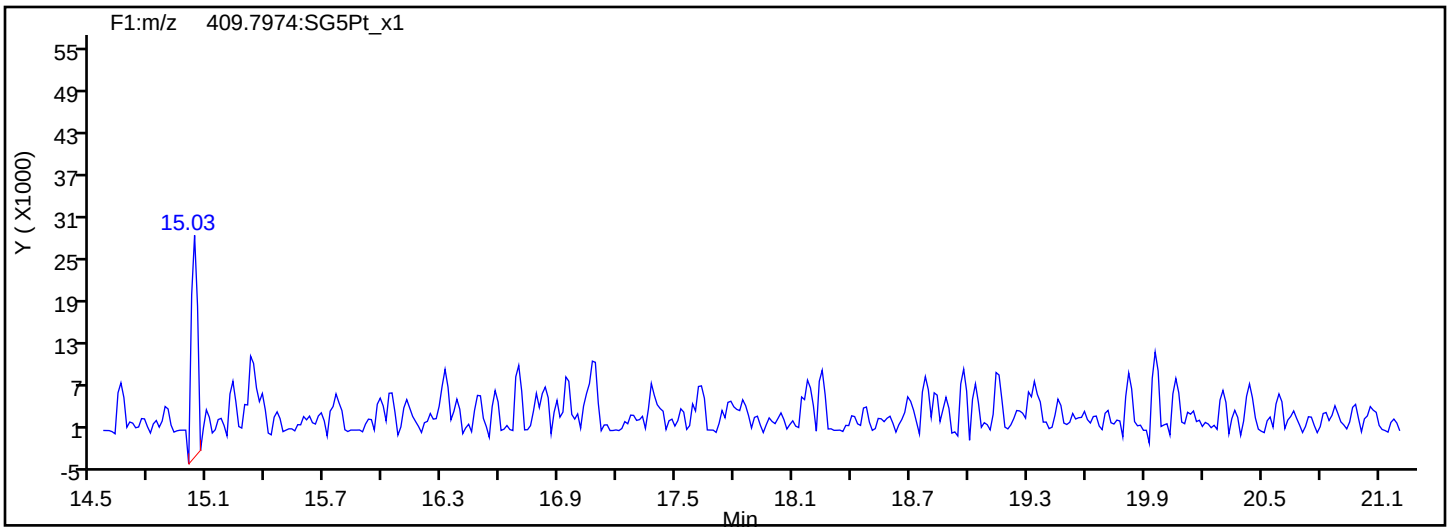
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

F1 PeCDFs





F1 PeCDFs Interference Mass

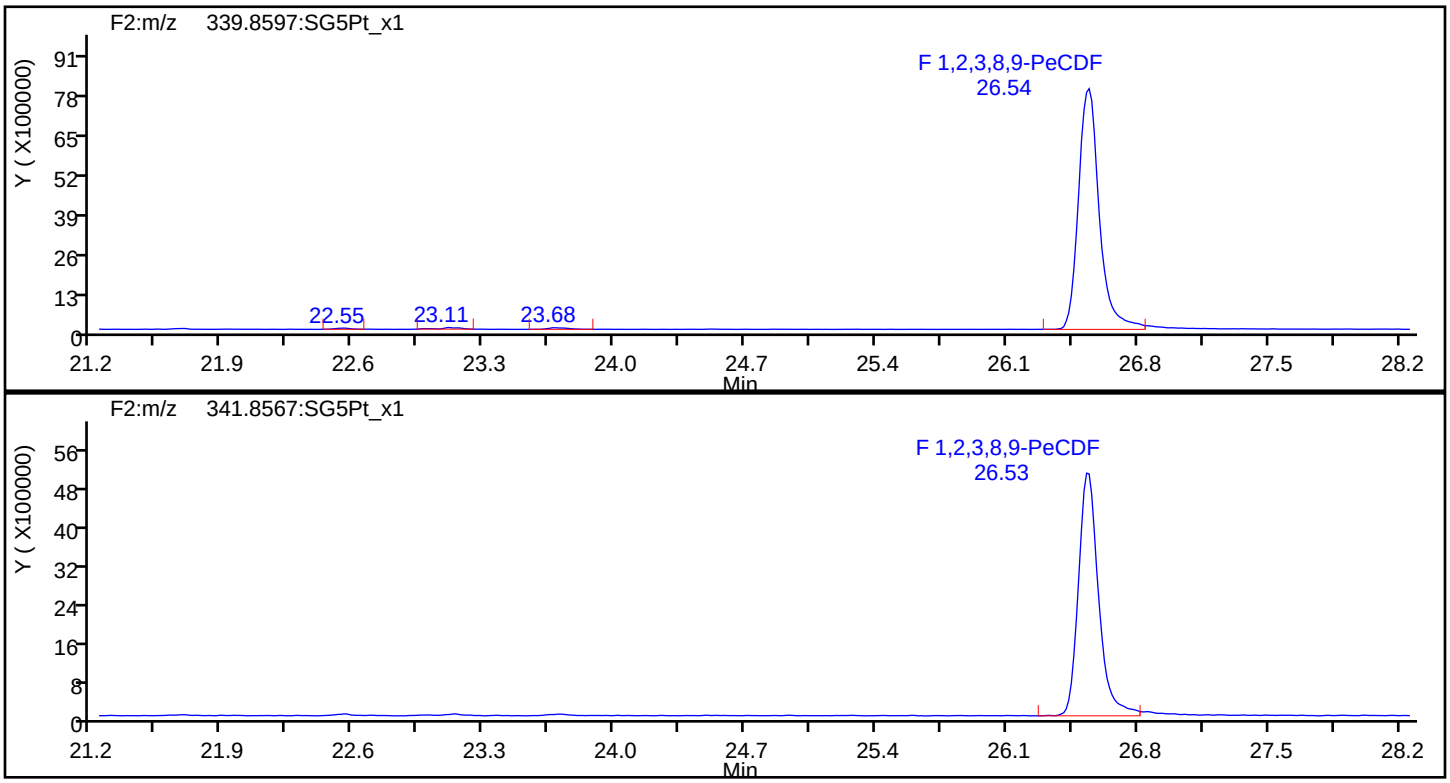


Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

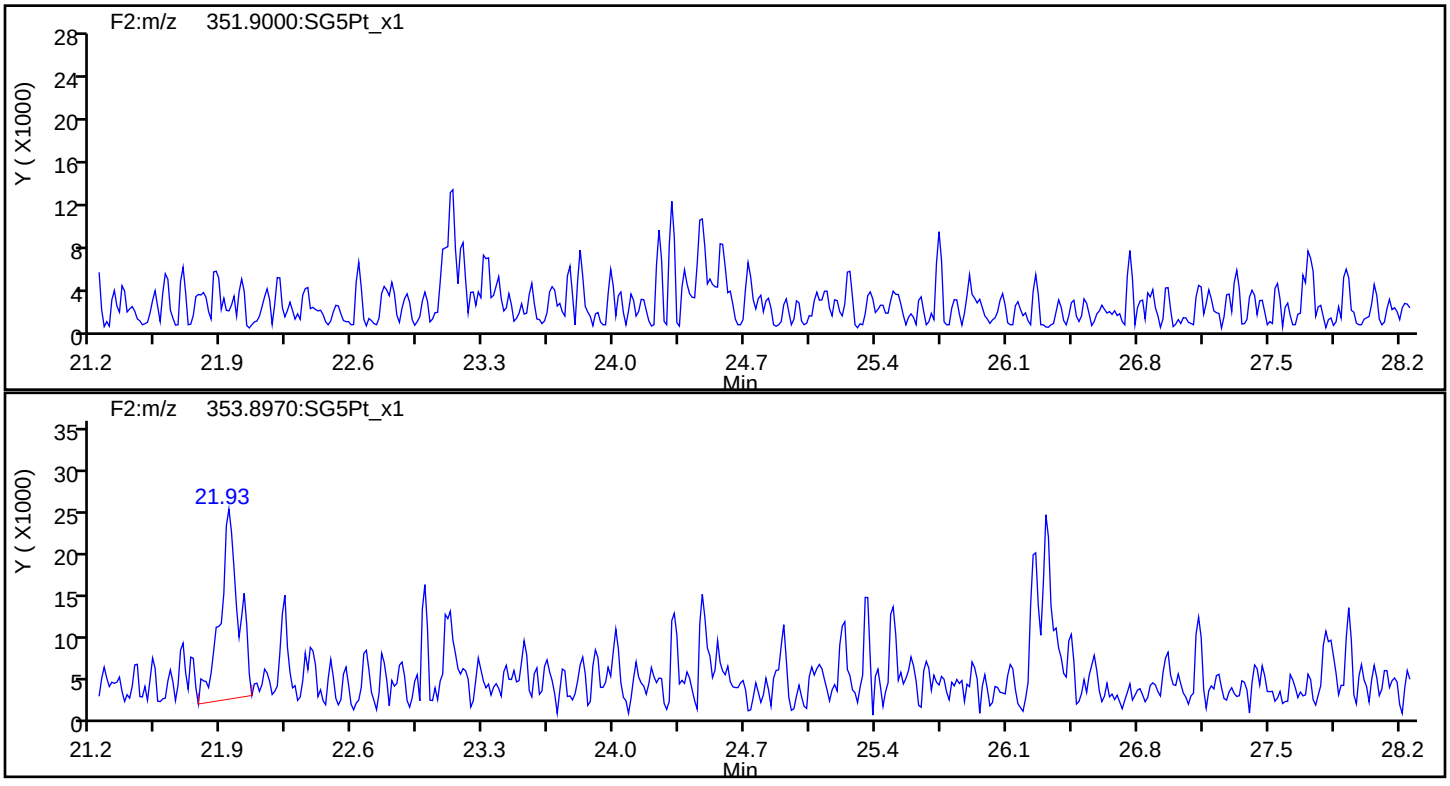
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

PeCDF



PeCDF Standards

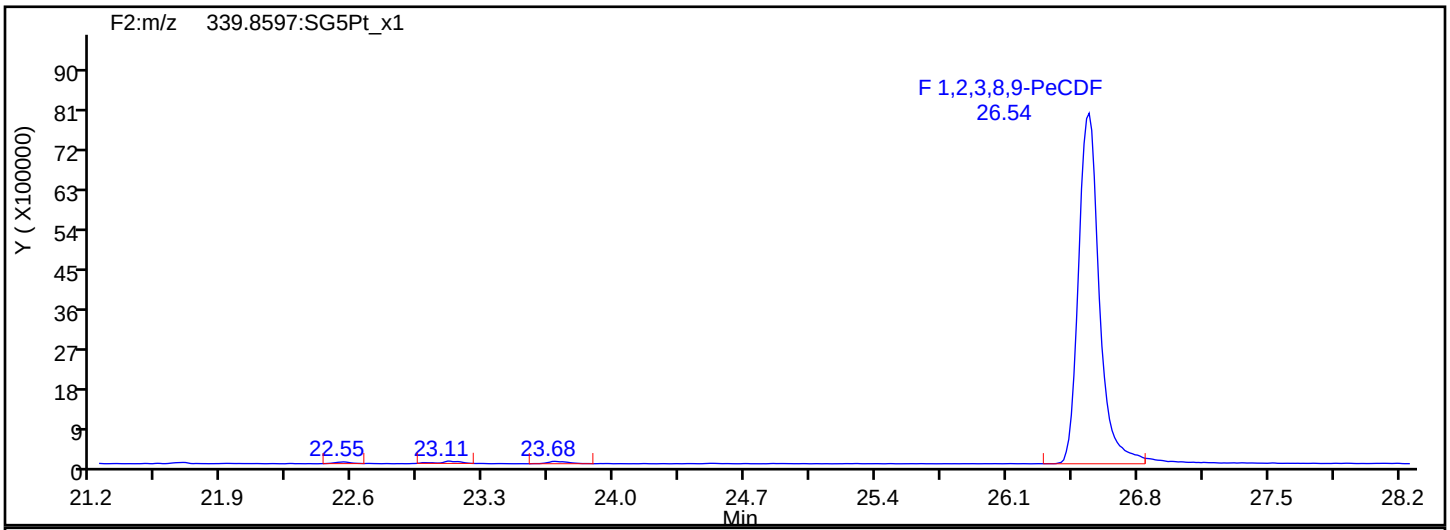


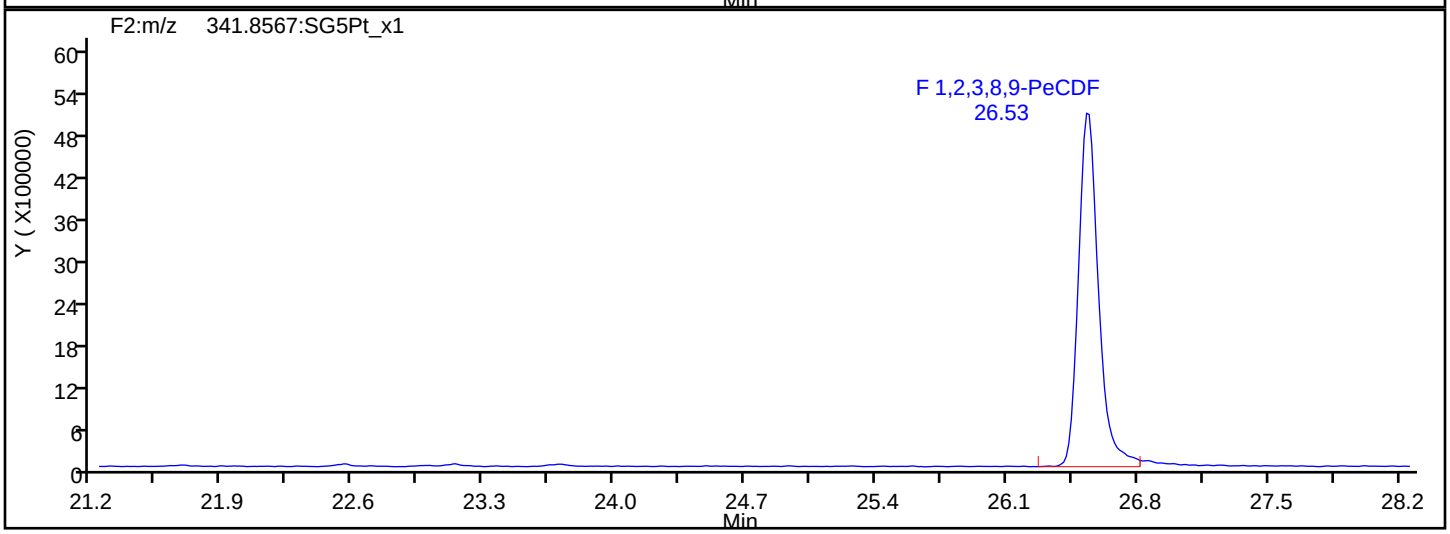
Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

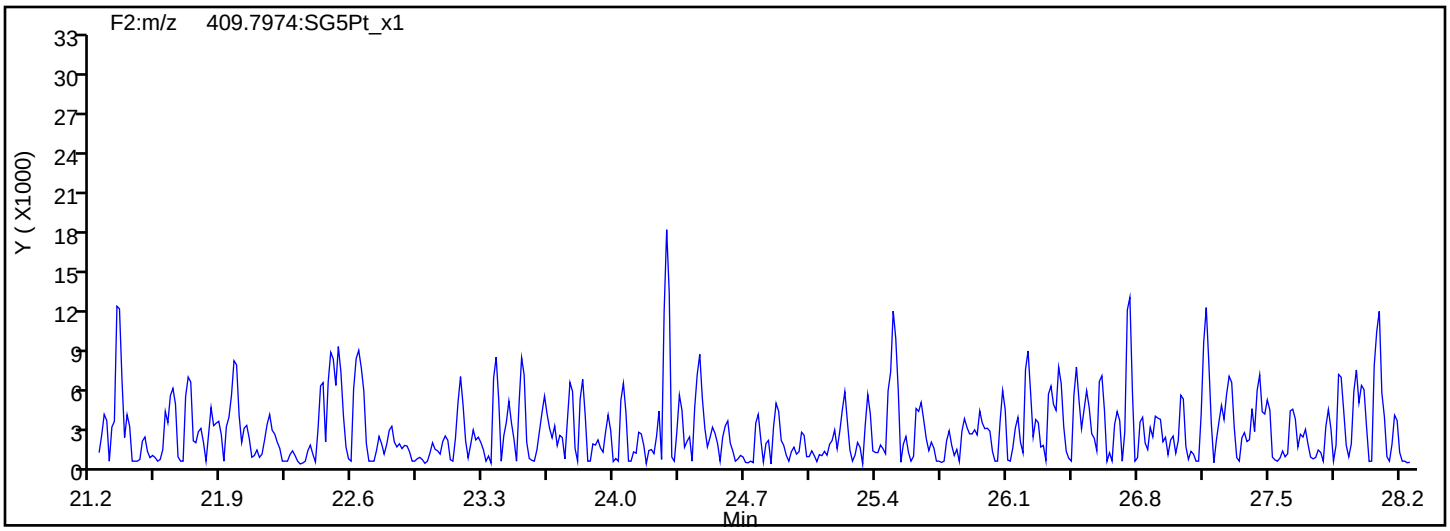
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

PeCDF





PeCDF Interference Mass

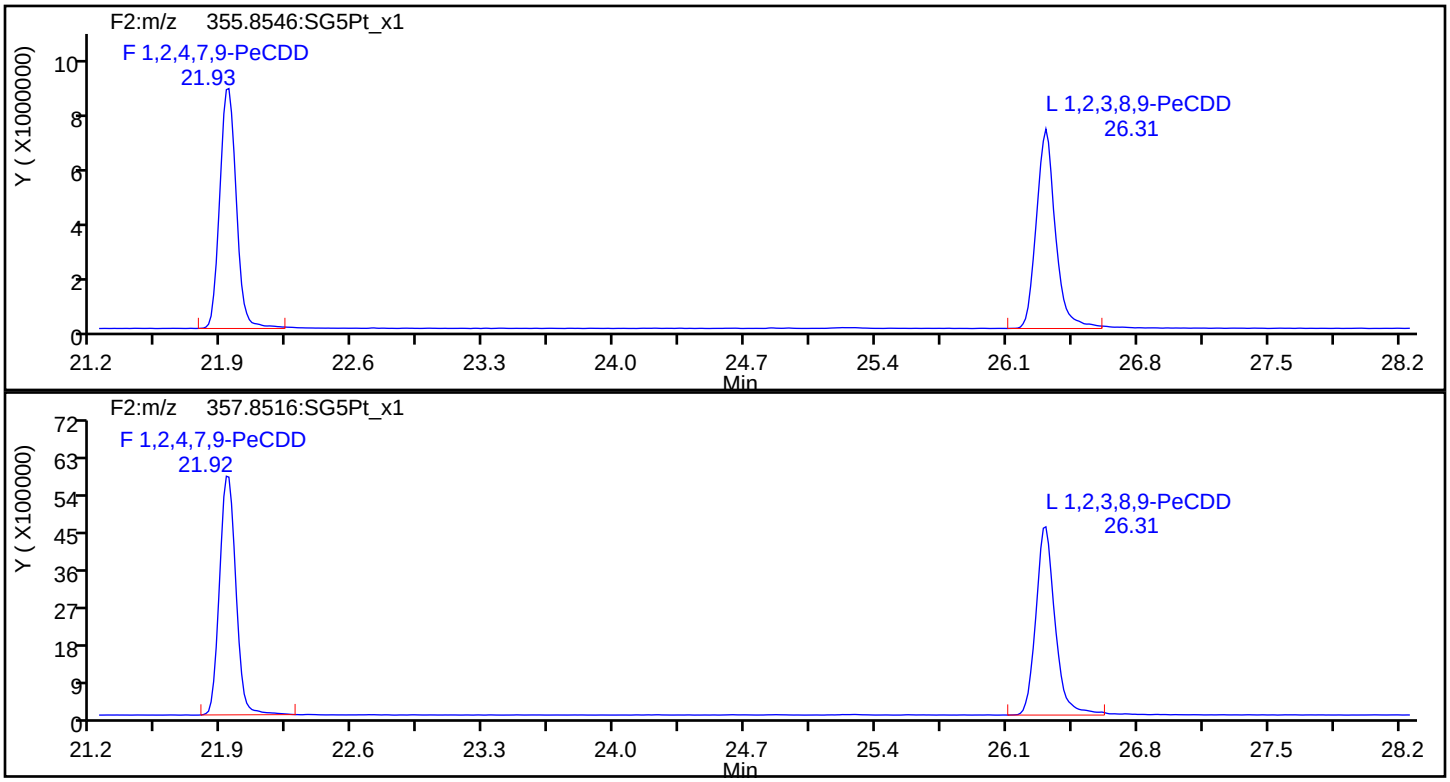


Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

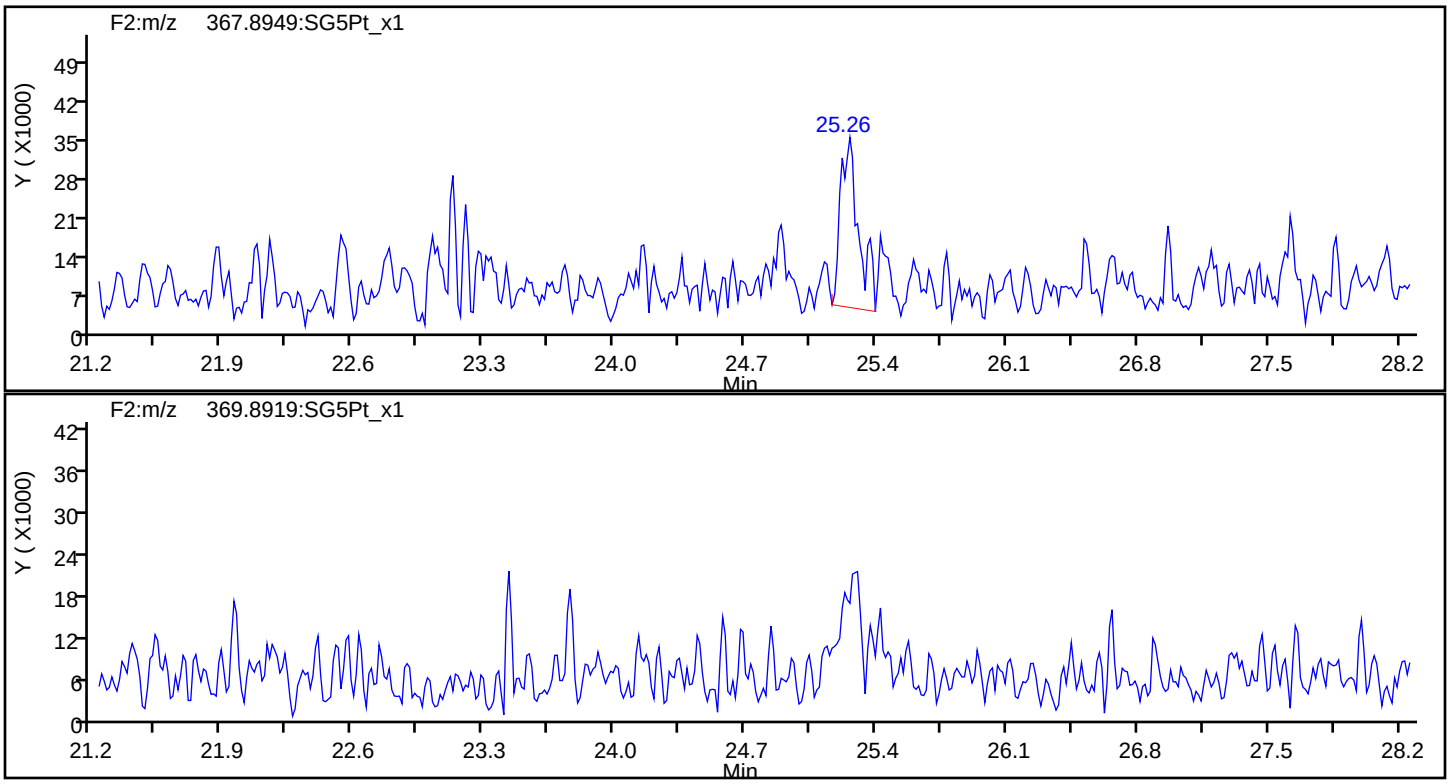
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

PeCDD



PeCDD Standards

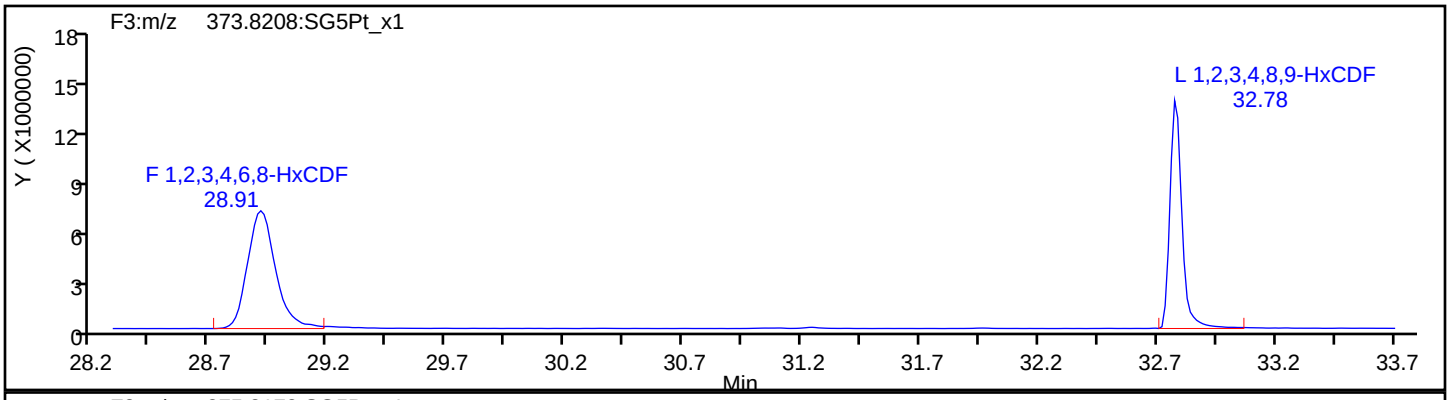


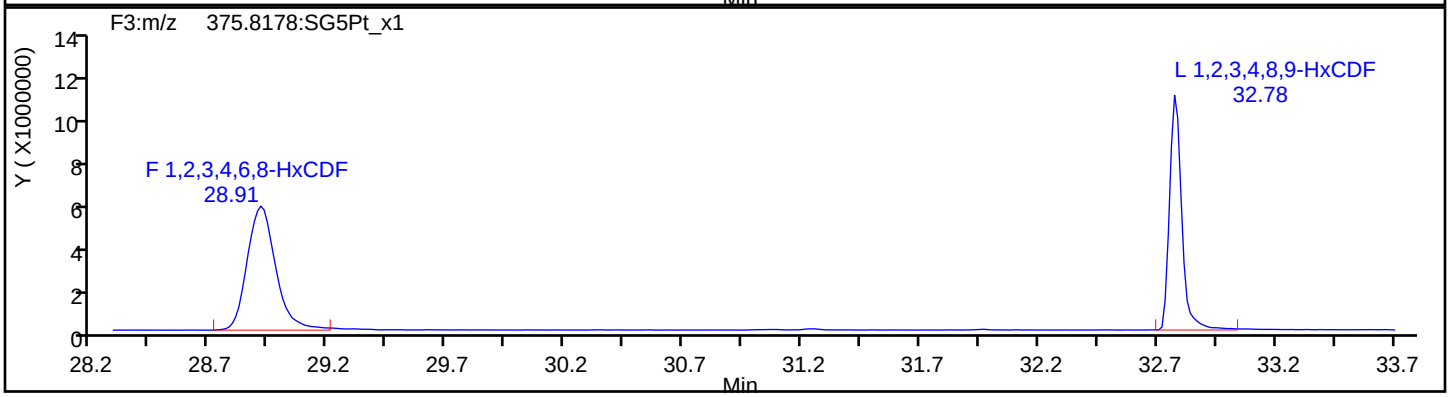
Report Date: 22-May-2019 11:06:43 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

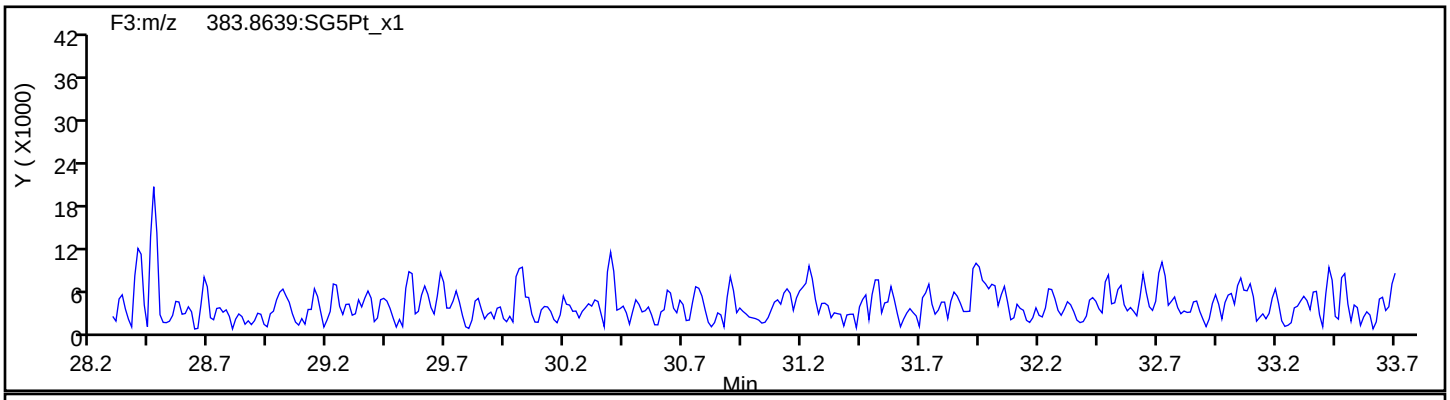
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

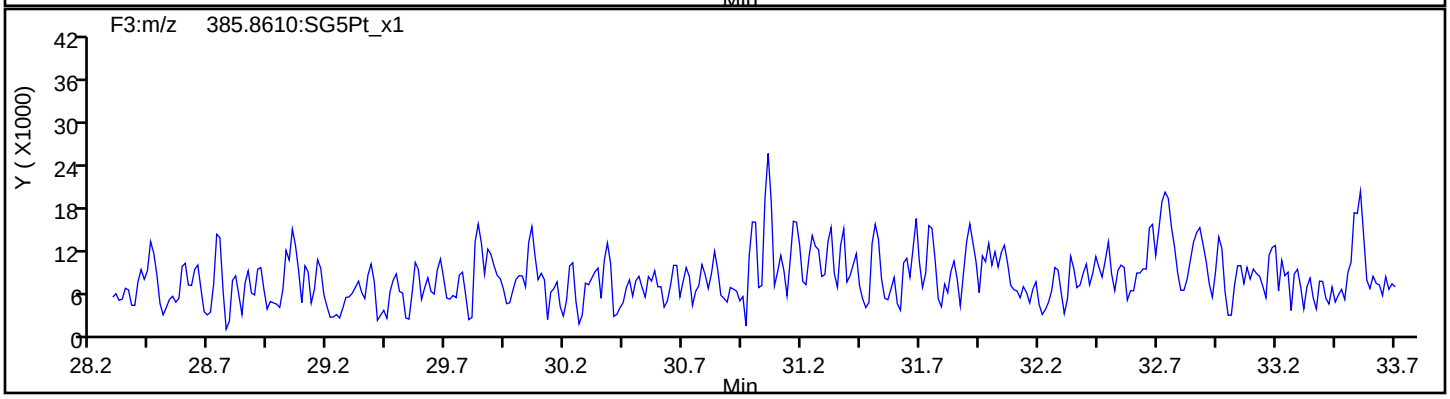
HxCDF





HxCDF Standards

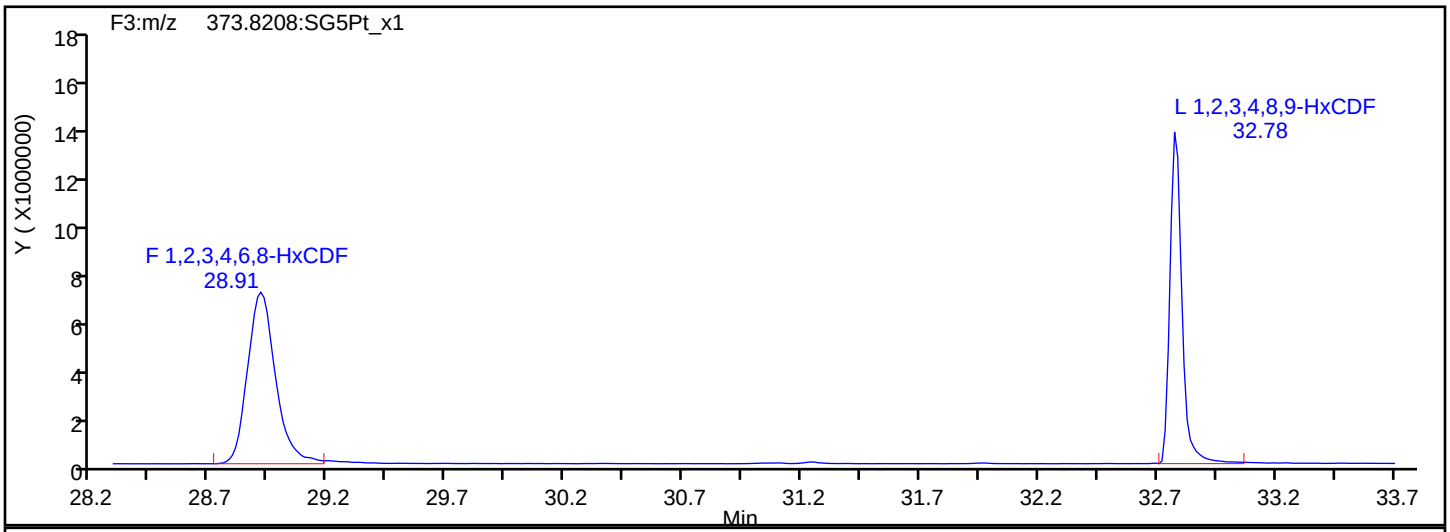


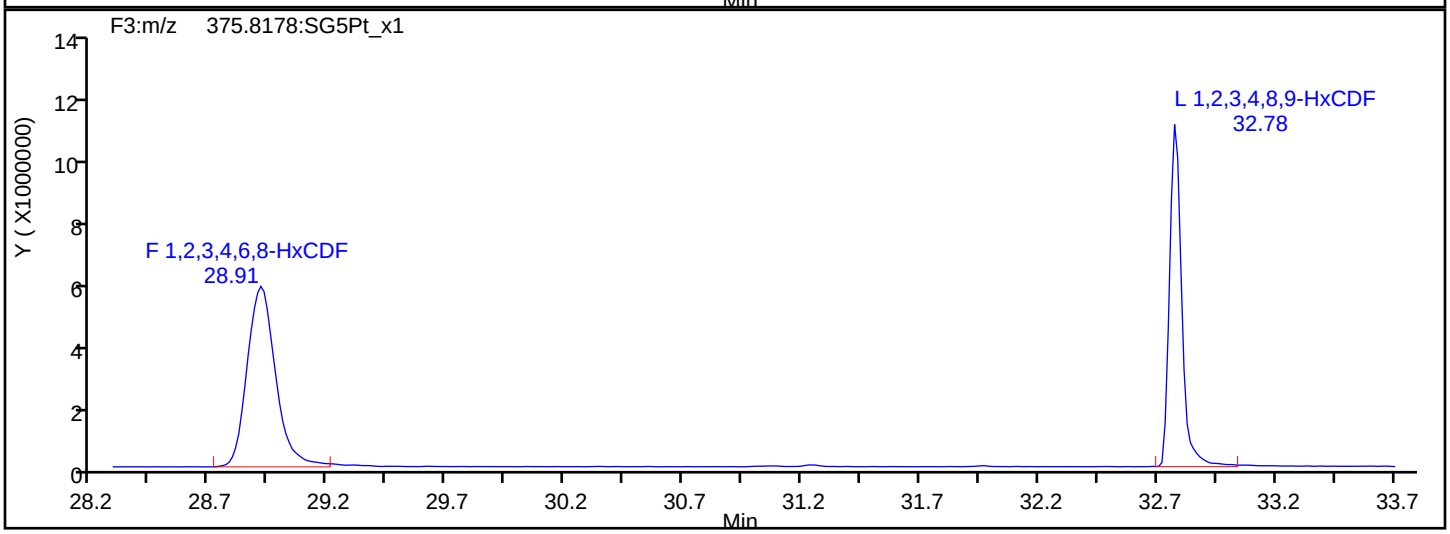


Eurofins TestAmerica, Sacramento

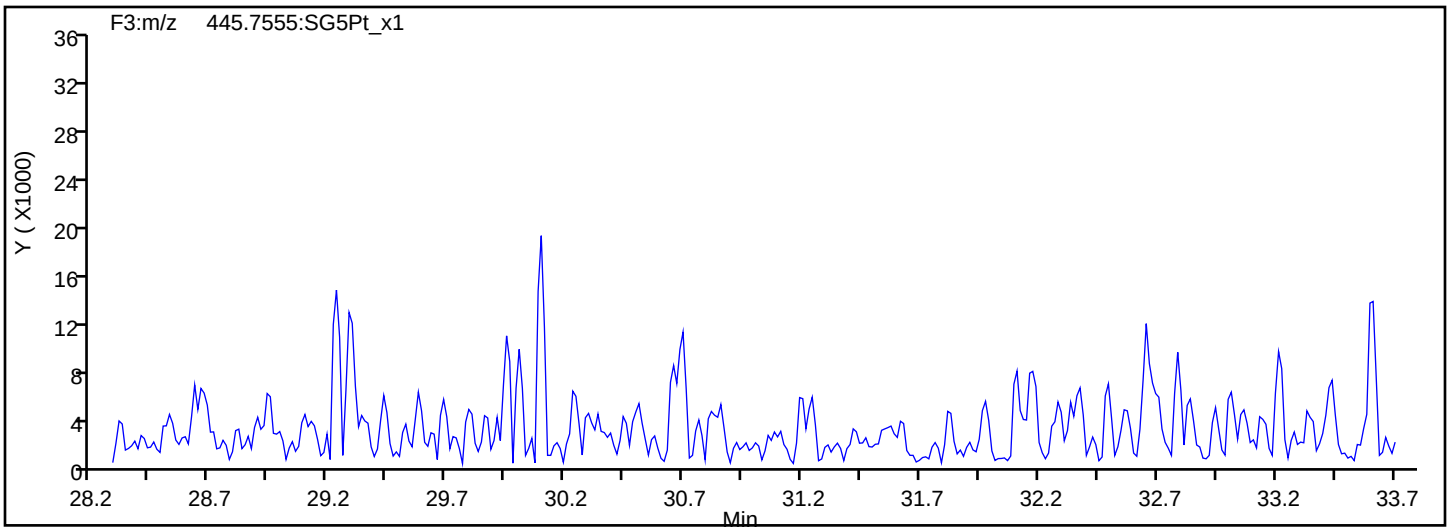
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

HxCDF





HxCDF Interference Mass

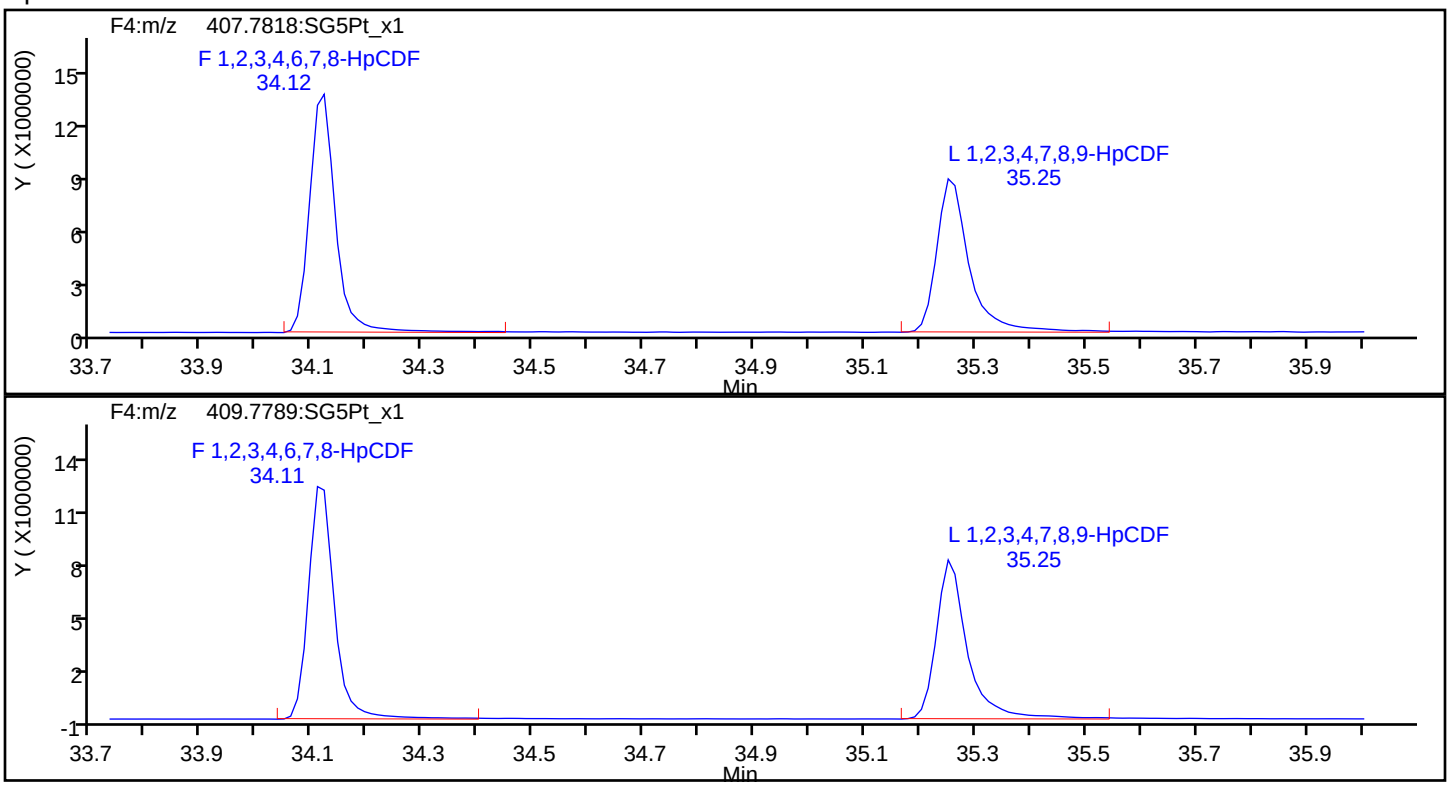


Report Date: 22-May-2019 11:06:44 Chrom Revision: 2.3 12-May-2019 16:28:34

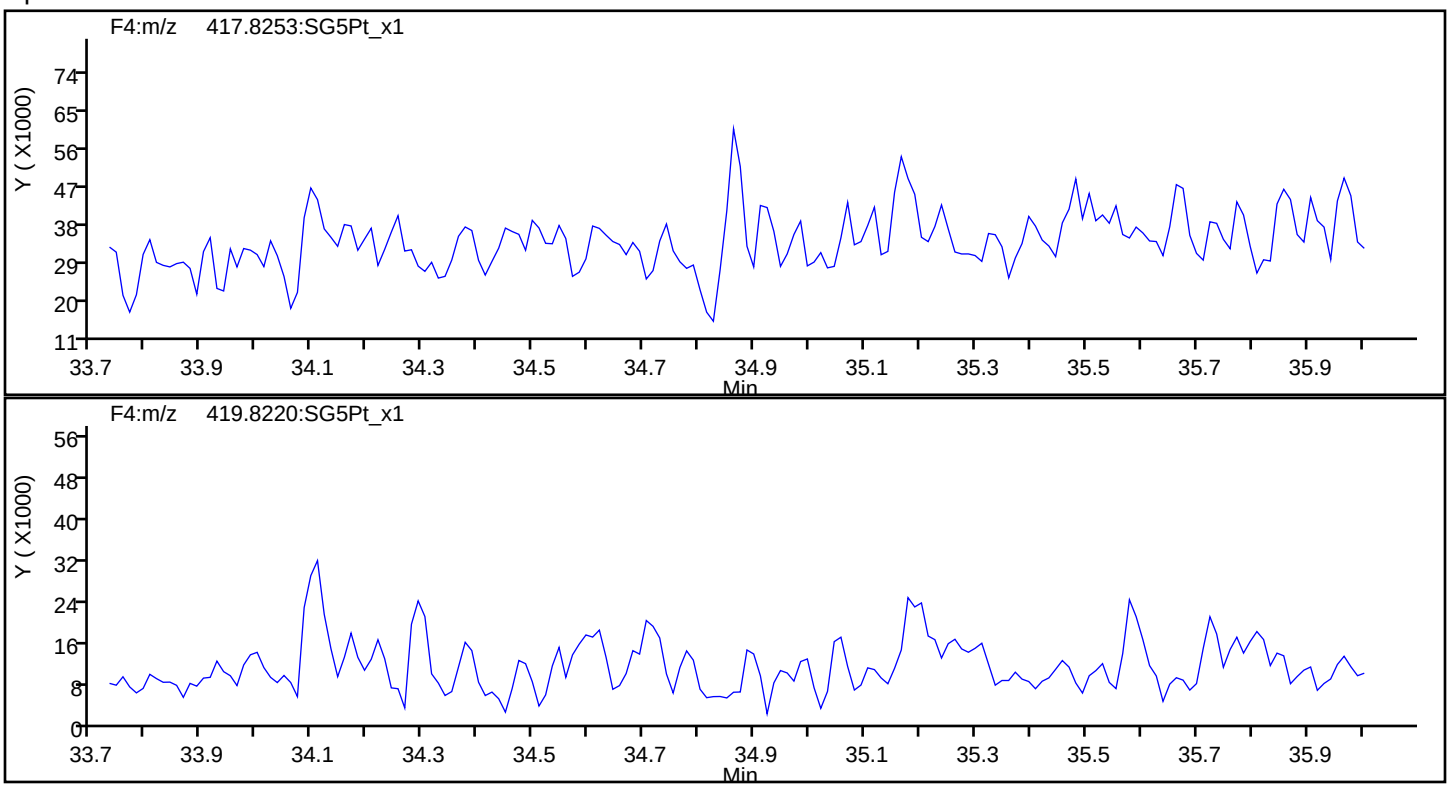
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

HpCDF



HpCDF Standards

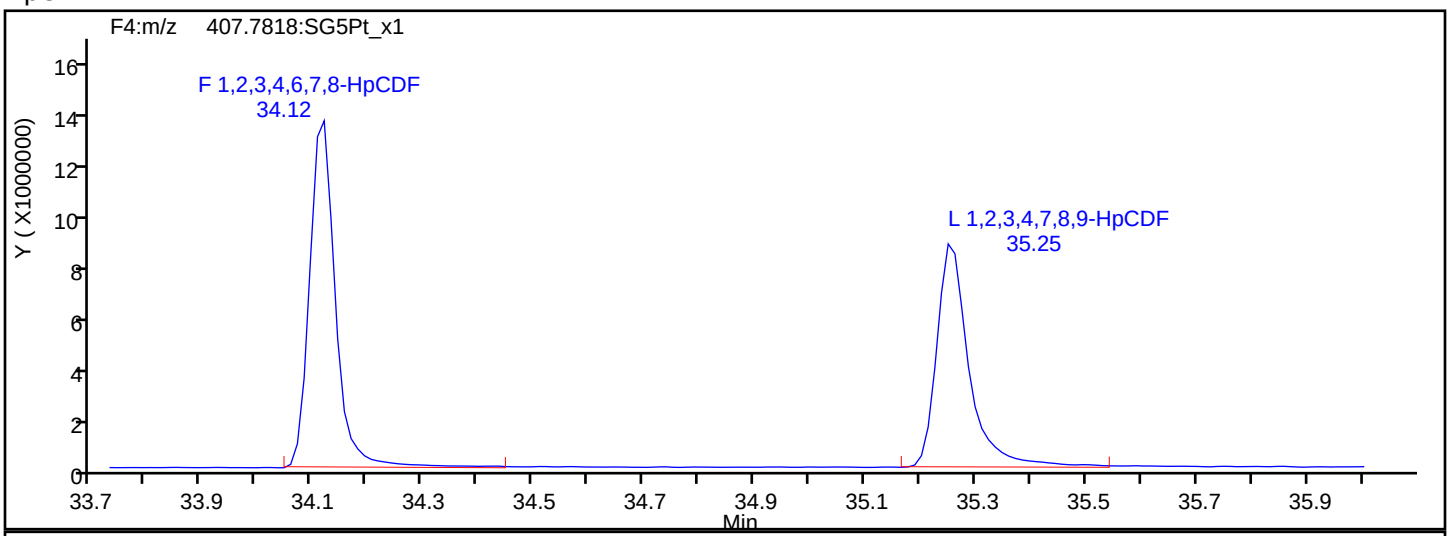


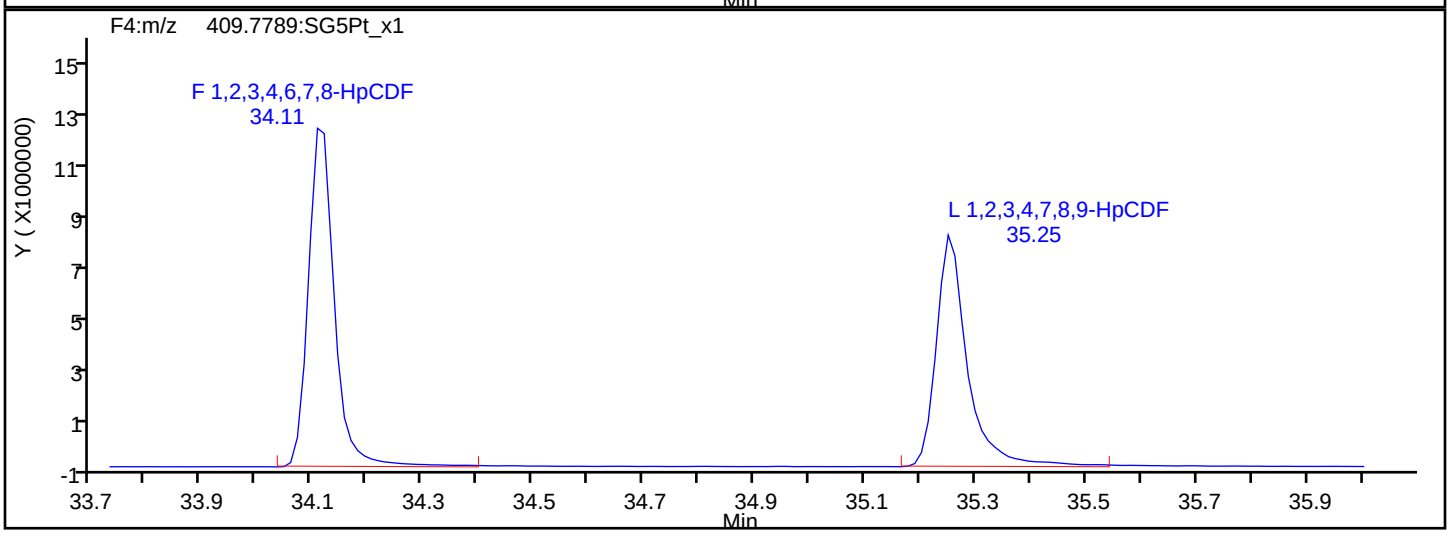
Report Date: 22-May-2019 11:06:44 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

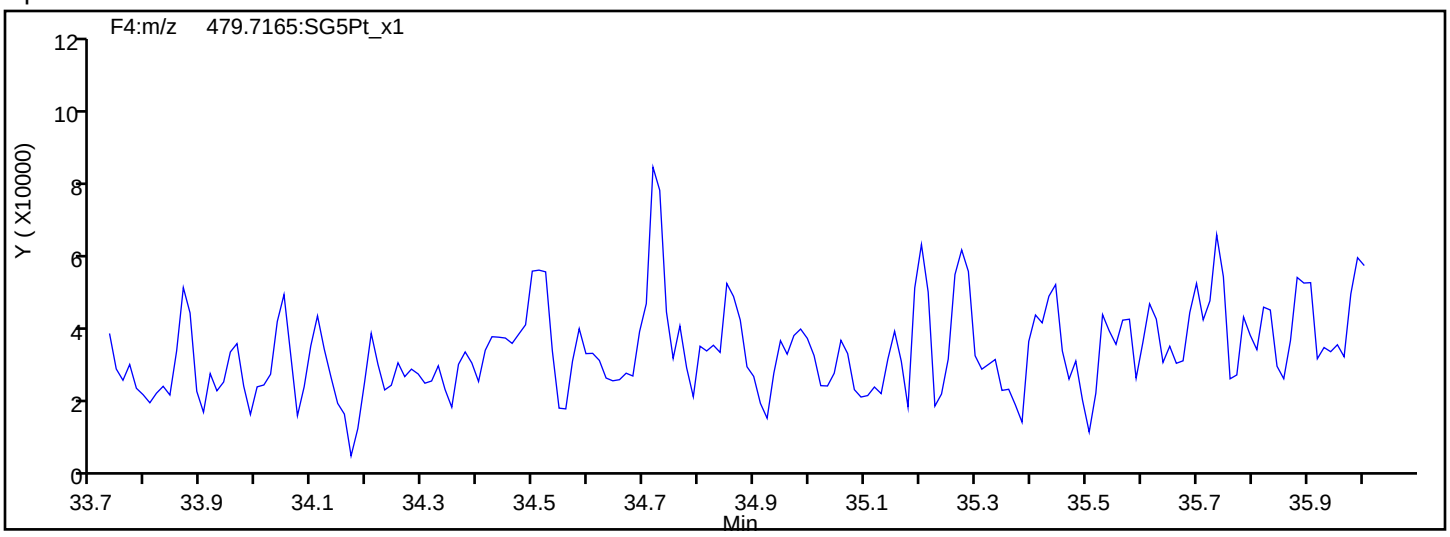
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

HpCDF





HpCDF Interference Mass

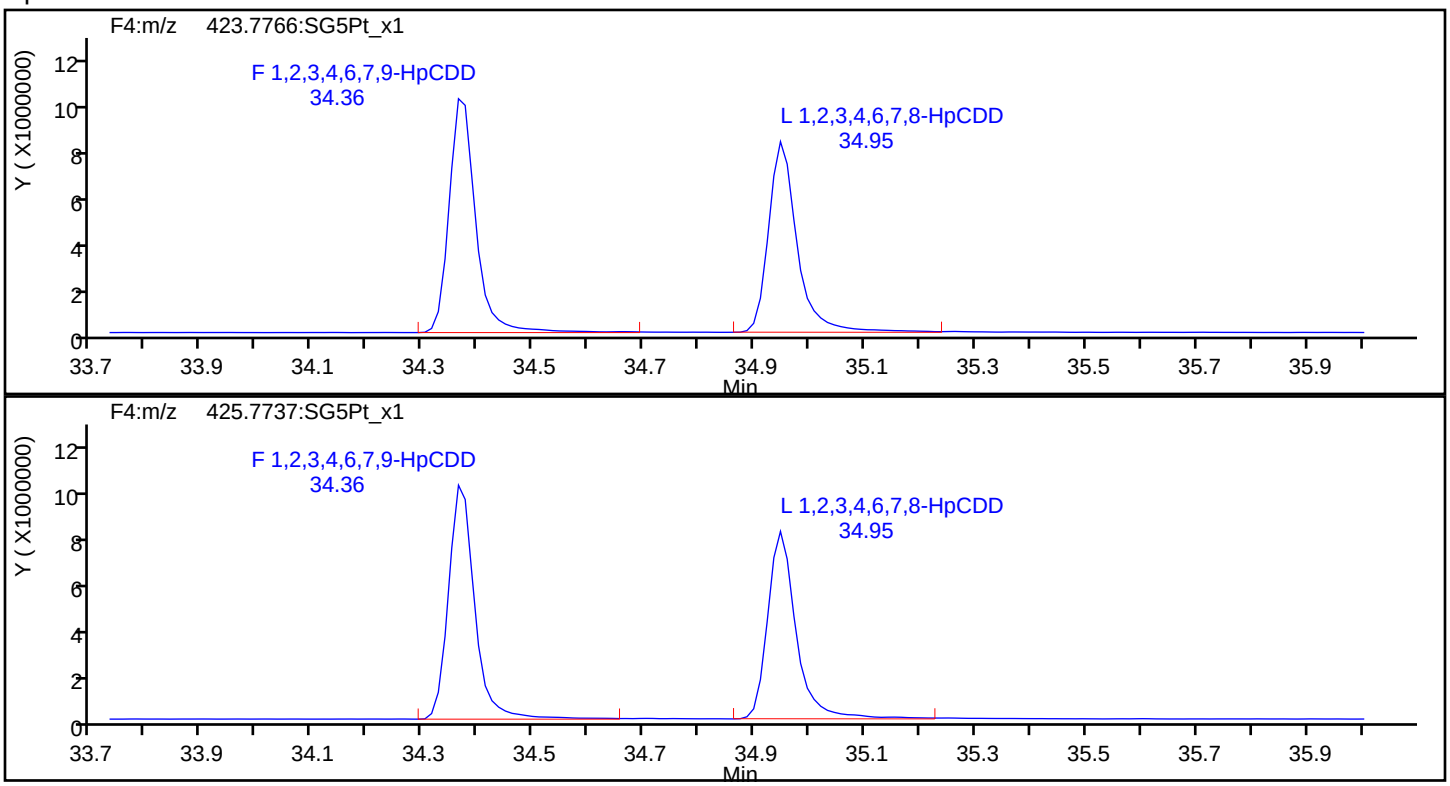


Report Date: 22-May-2019 11:06:44 Chrom Revision: 2.3 12-May-2019 16:28:34

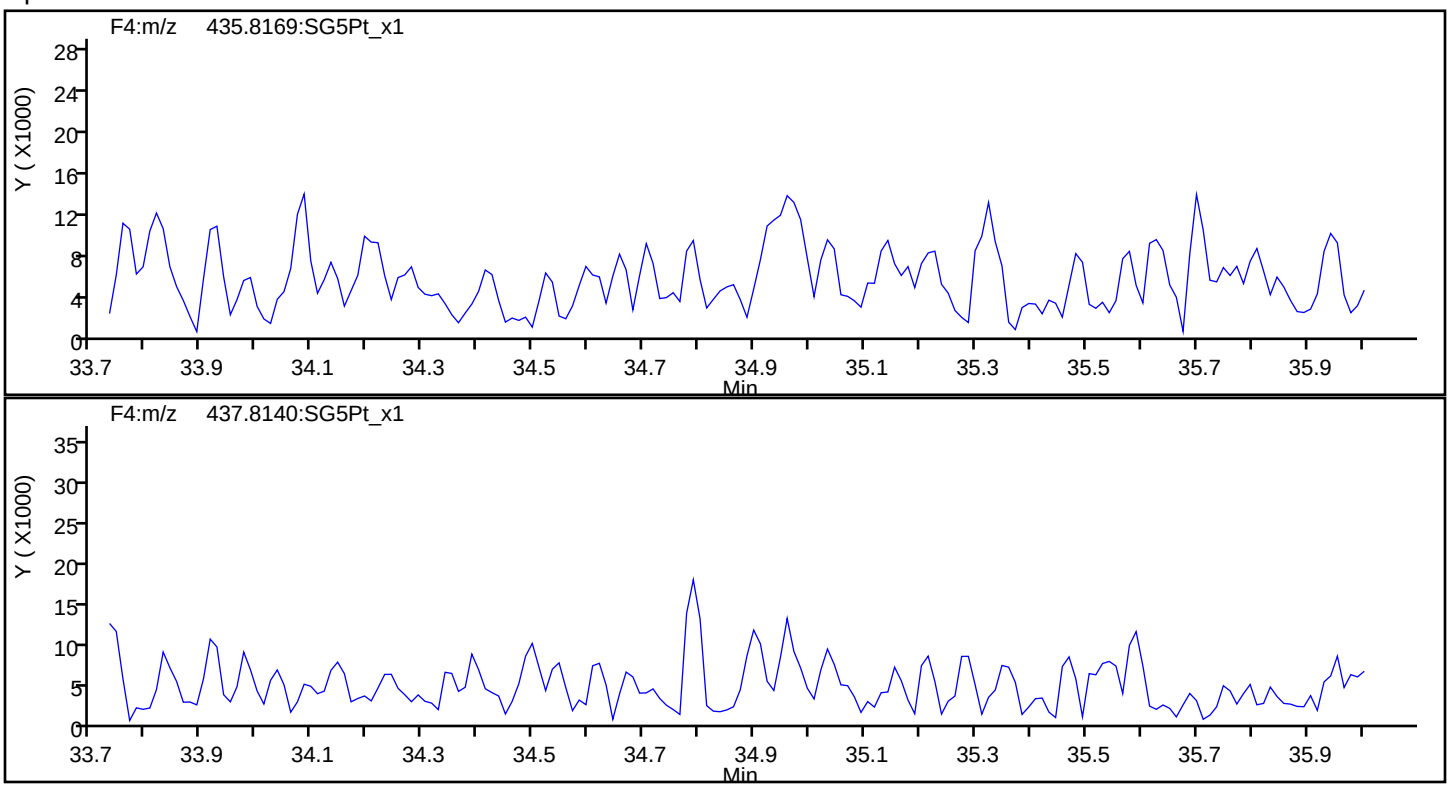
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	

HpCDD



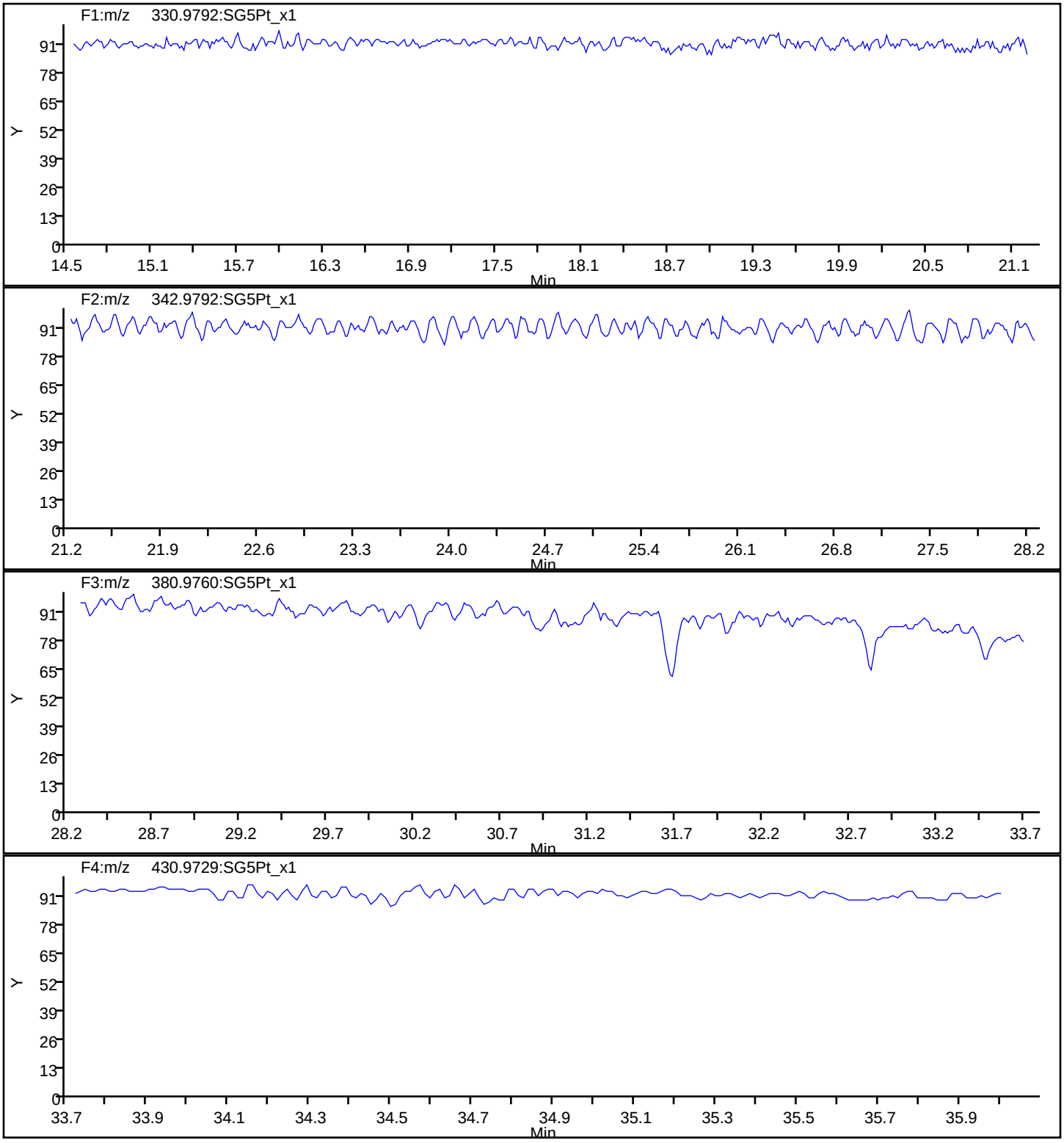
HpCDD Standards



Report Date: 22-May-2019 11:06:44 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

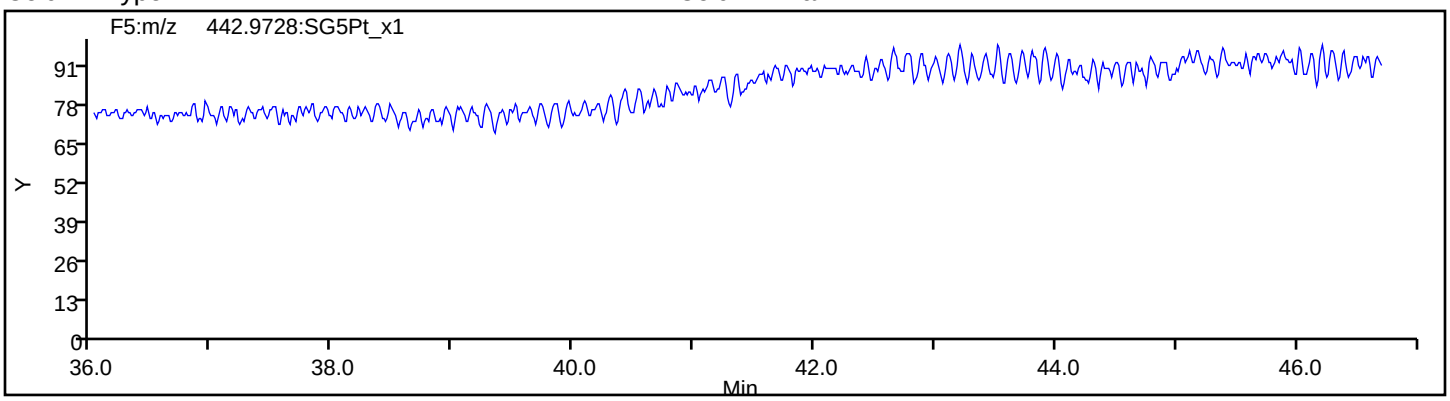
Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	



Report Date: 22-May-2019 11:06:44 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_1.d		
Injection Date:	21-May-2019 11:56:21	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	296020	Sample Line#:	1
Column Type:		Column Dia:	



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 21-Jul-2019 18:11:22 ALS Bottle#: 1 Worklist Smp#: 52
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: WDM 071919D WDM HRDXNCP_00038
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 11:47:54 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:57:56

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C-2,3,7,8-TCDF	16.690	154912797	0.79	1.3908					0.00	
2,3,7,8-TCDF	16.705	318950432	0.79	0.9710	84.8	84.8	0.5571	0.5571		
A Non-2,3,7,8-sub-TCDF	16.410						0.5571	0.5571		
S Total TCDF					84.8	84.8	0.5571	0.5571		
D 13C-2,3,7,8-TCDD	17.355	92452899	0.77	0.9819					0.00	
2,3,7,8-TCDD	17.370	111234270	0.79	1.0447	46.1	46.1	0.2707	0.2707		
A Non-2,3,7,8-sub-TCDD	16.841						0.2707	0.2707		
S Total TCDD					46.1	46.1	0.2707	0.2707		
A F1 PeCDFs	19.215						0.0	0.0		
A Non-2,3,7,8-sub-PeCDF	22.110	1974474	1.55	0.0000						RQ
S Total PeCDF										RQ
A Non-2,3,7,8-sub-PeCDD	22.245						0.0	0.0		
S Total PeCDD										
A Non-2,3,7,8-sub-HxCDF	29.148						0.0	0.0		
S Total HxCDF										
A Non-2,3,7,8-sub-HxCDD	29.926						0.0	0.0		
S Total HxCDD										
1,2,3,4,6,7,8-HpCDF	33.348	117962877	1.04	1.4373						
1,2,3,4,7,8,9-HpCDF	34.429	101127369	1.07	1.3091						
A Non-2,3,7,8-sub-HpCDF	33.888						0.0	0.0		
S Total HpCDF										
1,2,3,4,6,7,8-HpCDD	34.150	79401127	1.06	1.0102						
A Non-2,3,7,8-sub-HpCDD	35.074						0.0	0.0		
S Total HpCDD										
1,3,6,8-TCDF	14.436	176225694	0.77							
1,3,6,8-TCDD	15.298	107828170	0.80							
2,3,4,7-TCDF	16.705	320855595	0.79							
1,2,3,7-TCDD	17.264	91643568	0.79							
1,2,3,9-TCDF	17.506	137302901	0.79							
1,2,3,9-TCDD	17.506	116586309	0.78							

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,8,9-TCDF	18.383	148213126	0.80							
1,2,8,9-TCDD	18.383	46670956								
1,3,4,6,8-PeCDF	18.655	123290555	1.55							
1,2,4,7,9-PeCDD	20.309	91497587	1.65							
1,2,3,8,9-PeCDD	24.182	90479616	1.65							
1,2,3,8,9-PeCDF	24.372	77143973								
1,2,3,4,6,8-HxCDF	26.505	131093027	1.23							
1,2,4,6,7,9-HxCDD	27.957	97829532	1.28							
1,2,3,4,6,7-HxCDD	31.432	94505480	1.22							
1,2,3,4,8,9-HxCDF	31.792	122651061	1.22							
1,2,3,4,6,7,9-HpCDD	33.603	84563163	1.03							

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 21-Jul-2019 18:11:22 ALS Bottle#: 1 Worklist Smp#: 52
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: WDM 071919D WDM HRDXNCP_00038
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 11:47:54 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:57:56

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	1.000	68525020	17165953	42555	106387	403		
317.9389	16.690	16.690	0	1.000	86387777	22055166	28567	71417	772	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.001	140430560	33431094	87386	218465	383		
305.8987	16.705	16.705	0	1.001	178519872	43081623	124791	311977	345	0.79(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	16.410						87386	218465			
305.8987	16.410						124791	311977			
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.000	40269080	9711385	21546	53865	451		
333.9339	17.355	17.355	0	1.000	52183819	12518353	8524	21310	1469	0.77(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.370	17.370	0	1.001	49029146	12111789	25386	63465	477		
321.8936	17.370	17.370	0	1.001	62205124	15411721	37480	93700	411	0.79(0.65-0.89)	
A Non-2,3,7,8-sub-TCDD											
319.8965	16.841						25386	63465			
321.8936	16.841						37480	93700			
A F1 PeCDFs											
339.8597	19.215						5676	14190			
341.8567	19.215						5854	14635			
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	20.854	22.110	-75	1.000	338220	53701	12033	30082	4		
341.8567	20.854	22.110	-75	1.000	232195	37899	10544	26360	4	1.46(1.32-1.78)	
339.8597	21.359	22.110	-45	1.000	497934	68884	12033	30082	6		
341.8567	21.372	22.110	-44	1.000	167434	33156	10544	26360	3	2.97(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
339.8597	21.850	22.110	-16	1.000	619187	96258	12033	30082	8		
341.8567	21.836	22.110	-16	1.000	357916	56401	10544	26360	5	1.73(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.245						17094	42735			
357.8516	22.245						11040	27600			
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.148						15724	39310			
375.8178	29.148						14047	35117			
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						11970	29925			
391.8127	29.926						11024	27560			
1,2,3,4,6,7,8-HpCDF											
407.7818	33.348	33.348	0	1.000	60005127	18817080	35826	89565	525		
409.7789	33.348	33.348	0	1.000	57957750	18110171	38039	95097	476	1.04(0.88-1.20)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.429	0	1.000	52195807	15535203	35826	89565	434		
409.7789	34.429	34.429	0	1.000	48931562	14482873	38039	95097	381	1.07(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.888						35826	89565			
409.7789	33.888						38039	95097			
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.150	0	1.000	40775420	12375485	25576	63940	484		
425.7737	34.150	34.150	0	1.000	38625707	11759709	25686	64215	458	1.06(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						25576	63940			
425.7737	35.074						25686	64215			
1,3,6,8-TCDF											
303.9016	14.436	14.436	0		76756026	23950253	87386	218465	274		
305.8987	14.436	14.436	0		99469668	31726533	124791	311977	254	0.77(0.65-0.89)	
1,3,6,8-TCDD											
319.8965	15.298	15.298	0		47901596	14043177	25386	63465	553		
321.8936	15.298	15.298	0		59926574	17281352	37480	93700	461	0.80(0.65-0.89)	
2,3,4,7-TCDF											
303.9016	16.705	16.705	0		141279324	33487977	87386	218465	383		
305.8987	16.705	16.705	0		179576271	43152422	124791	311977	346	0.79(0.65-0.89)	
1,2,3,7-TCDD											
319.8965	17.264	17.264	0		40424933	10211501	25386	63465	402		
321.8936	17.249	17.264	-1		51218635	12888436	37480	93700	344	0.79(0.65-0.89)	
1,2,3,9-TCDF											
303.9016	17.506	17.506	0		60390469	14501387	87386	218465	166		
305.8987	17.506	17.506	0		76912432	18333722	124791	311977	147	0.79(0.65-0.89)	
1,2,3,9-TCDD											
319.8965	17.506	17.506	0		51259524	11529046	25386	63465	454		
321.8936	17.506	17.506	0		65326785	14890247	37480	93700	397	0.78(0.65-0.89)	
1,2,8,9-TCDF											
303.9016	18.383	18.383	0		65731233	14354111	87386	218465	164		
305.8987	18.368	18.383	-1		82481893	18326953	124791	311977	147	0.80(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,8,9-TCDD											
319.8965	18.383	18.383	0		46670956	10258621	25386	63465	404		
1,3,4,6,8-PeCDF											
339.8597	18.655	18.655	0		74974027	16419512	5676	14190	2893		
341.8567	18.655	18.655	0		48316528	10640234	5854	14635	1818	1.55(1.32-1.78)	
1,2,4,7,9-PeCDD											
355.8546	20.309	20.309	0		56941385	10355518	17094	42735	606		
357.8516	20.309	20.309	0		34556202	6191213	11040	27600	561	1.65(1.32-1.78)	
1,2,3,8,9-PeCDD											
355.8546	24.182	24.182	0		56294944	8568613	17094	42735	501		
357.8516	24.182	24.182	0		34184672	5314174	11040	27600	481	1.65(1.32-1.78)	
1,2,3,8,9-PeCDF											
339.8597	24.372	24.372	0		77143973	11273388	12033	30082	937		
1,2,3,4,6,8-HxCDF											
373.8208	26.505	26.505	0		72179954	9627296	15724	39310	612		
375.8178	26.505	26.505	0		58913073	8023439	14047	35117	571	1.23(1.05-1.43)	
1,2,4,6,7,9-HxCDD											
389.8157	27.957	27.957	0		54897837	6893835	11970	29925	576		
391.8127	27.970	27.957	1		42931695	5267321	11024	27560	478	1.28(1.05-1.43)	
1,2,3,4,6,7-HxCDD											
389.8157	31.432	31.432	0		52017270	11787587	11970	29925	985		
391.8127	31.432	31.432	0		42488210	9860236	11024	27560	894	1.22(1.05-1.43)	
1,2,3,4,8,9-HxCDF											
373.8208	31.792	31.792	0		67437606	16270181	15724	39310	1035		
375.8178	31.792	31.792	0		55213455	13460800	14047	35117	958	1.22(1.05-1.43)	
1,2,3,4,6,7,9-HpCDD											
423.7766	33.603	33.603	0		42937768	13498044	25576	63940	528		
425.7737	33.603	33.603	0		41625395	12763199	25686	64215	497	1.03(0.88-1.20)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d
Lims ID: WDM
Client ID:
Inject. Date: 21-Jul-2019 18:11:22 Dil. Factor: 1.0000
Sample Type: WDM, Window Defining Mix
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 52

Non-2,3,7,8-sub-PeCDF, RT: 22.110

Initial Calibration RRF

IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963				
2,3,4,7,8-PeCDF	0.950				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.000		0.0	0	0

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
20.854	338220	53701	232195	37899		1.46	
21.359	497934	68884	167434	33156		2.97	R
21.850	619187	96258	357916	56401		1.73	
Signal Totals:							
	1455341	218843	757545	127456			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	2212886	346299				1.92	RQ
	1974474	328806					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.0 = (2212886 * 0.0) / (0 * 0.000)
Empc Amount: 0.0 = (1974474 * 0.0) / (0 * 0.000)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

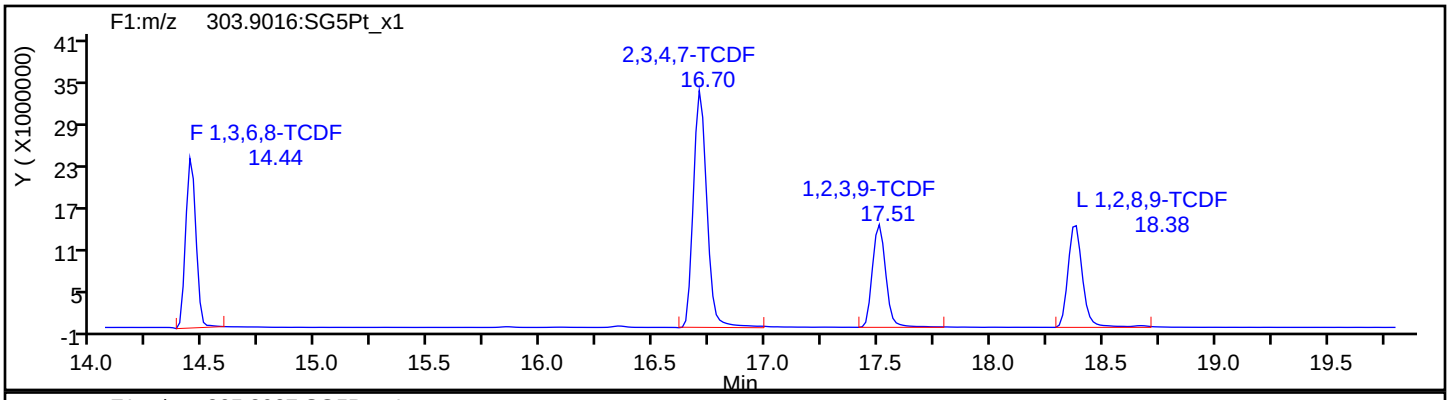
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

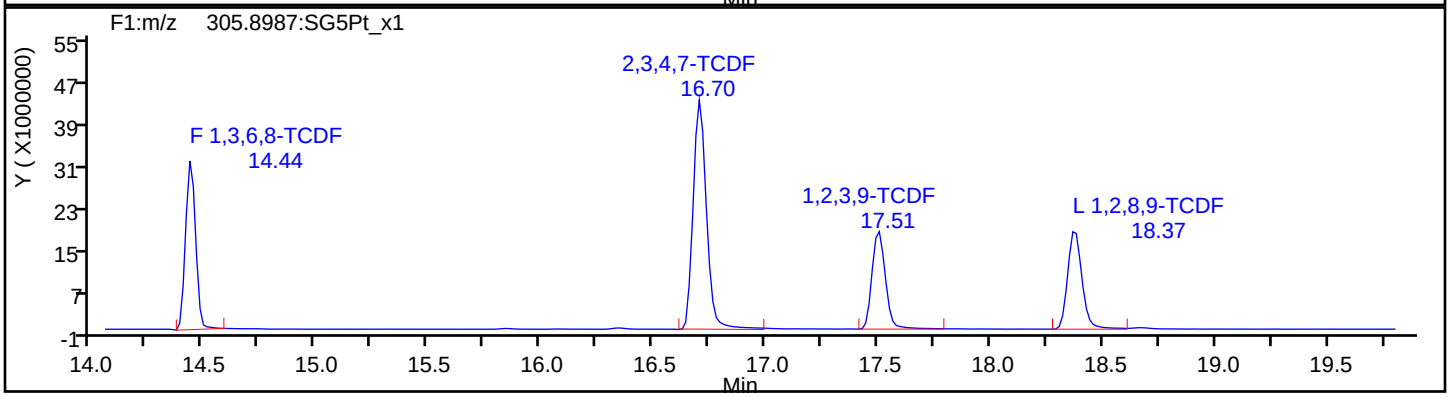
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

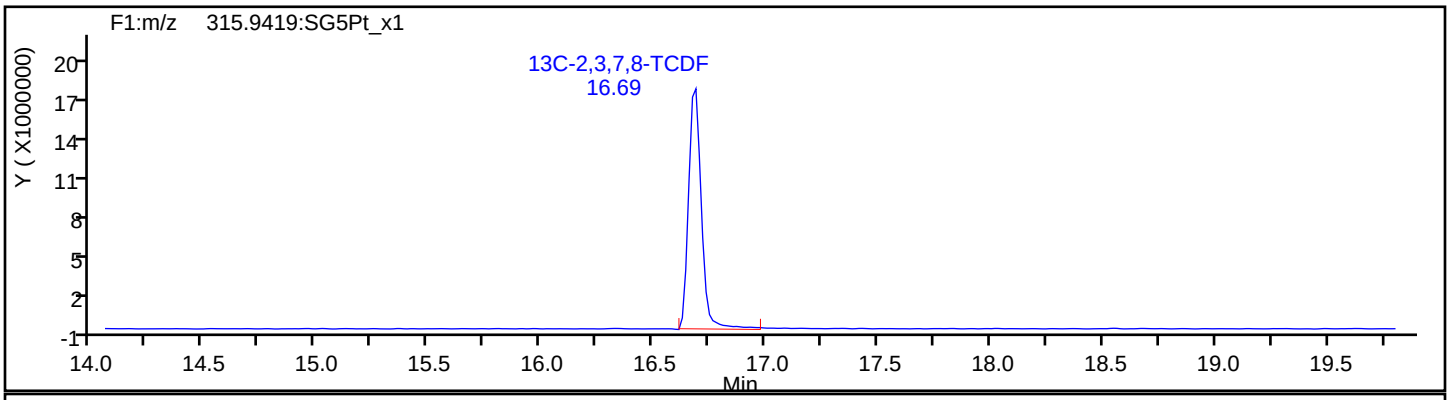
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

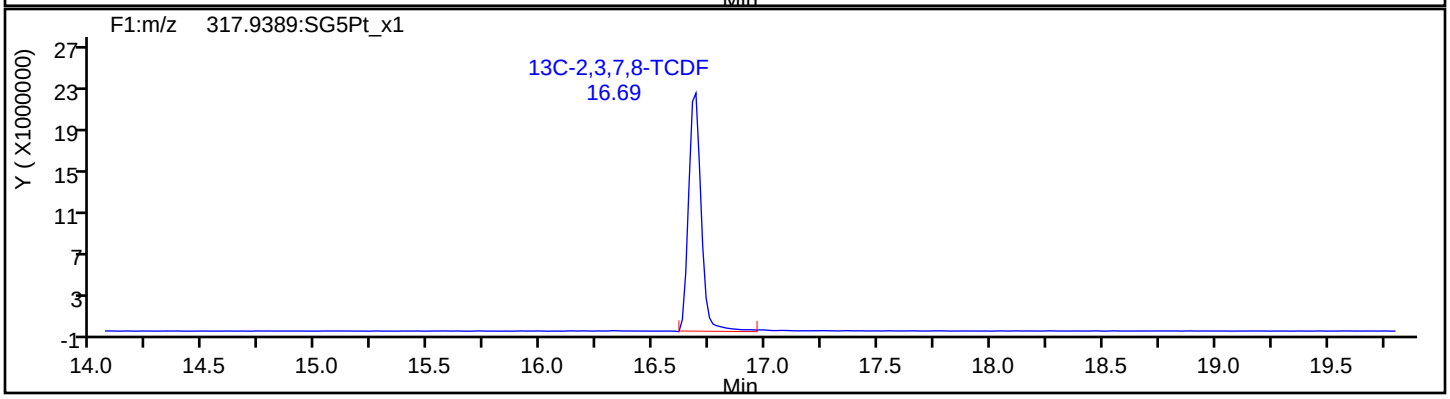
TCDF





TCDF Standards



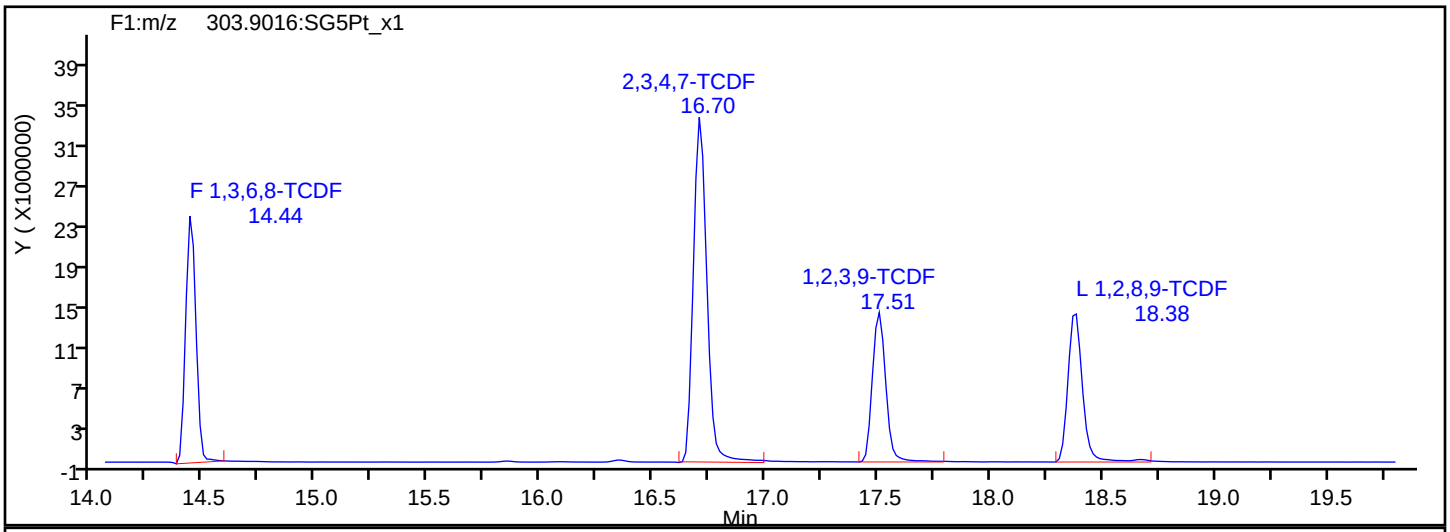


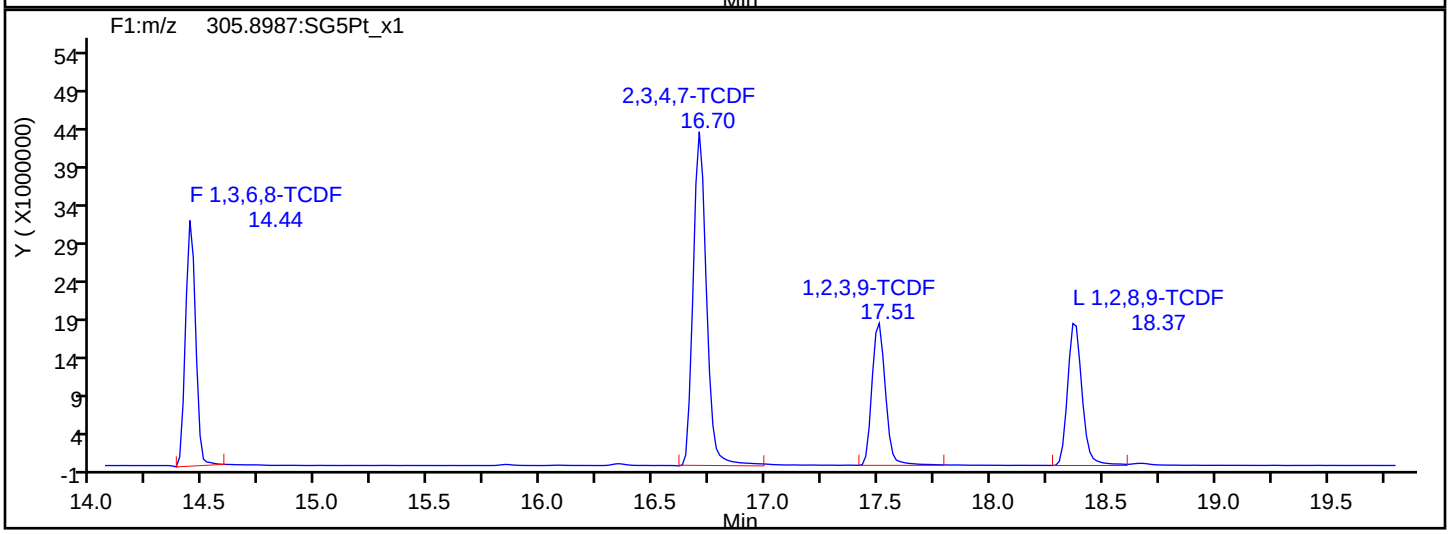
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

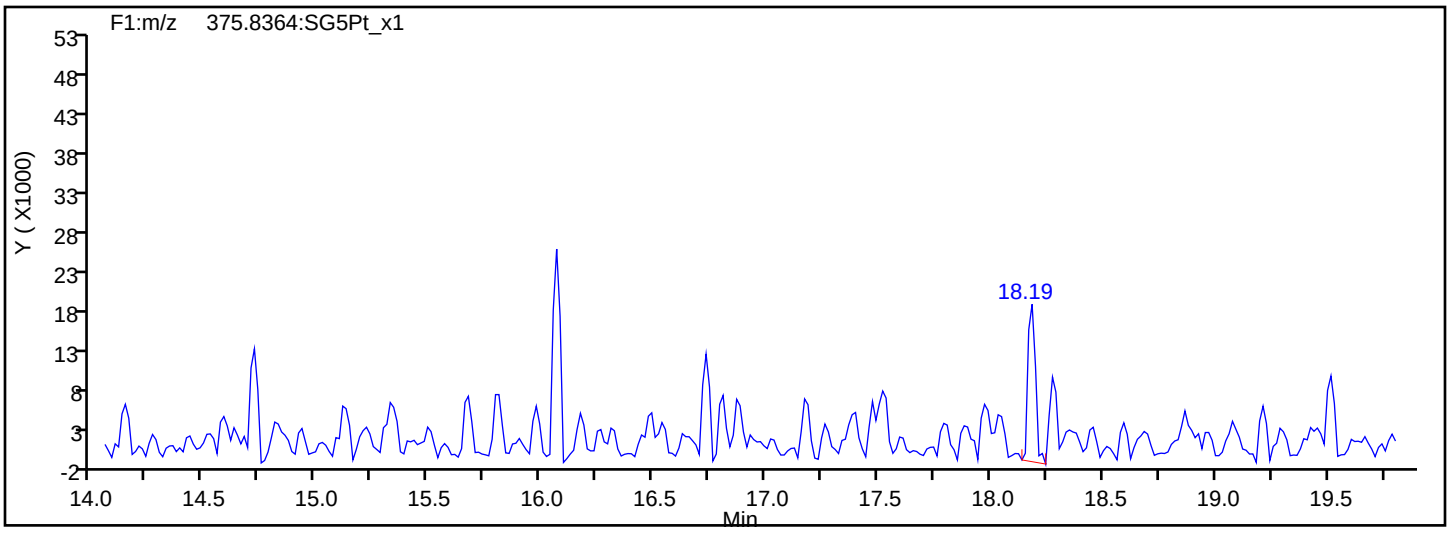
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

Injection Date: 21-Jul-2019 18:11:22 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

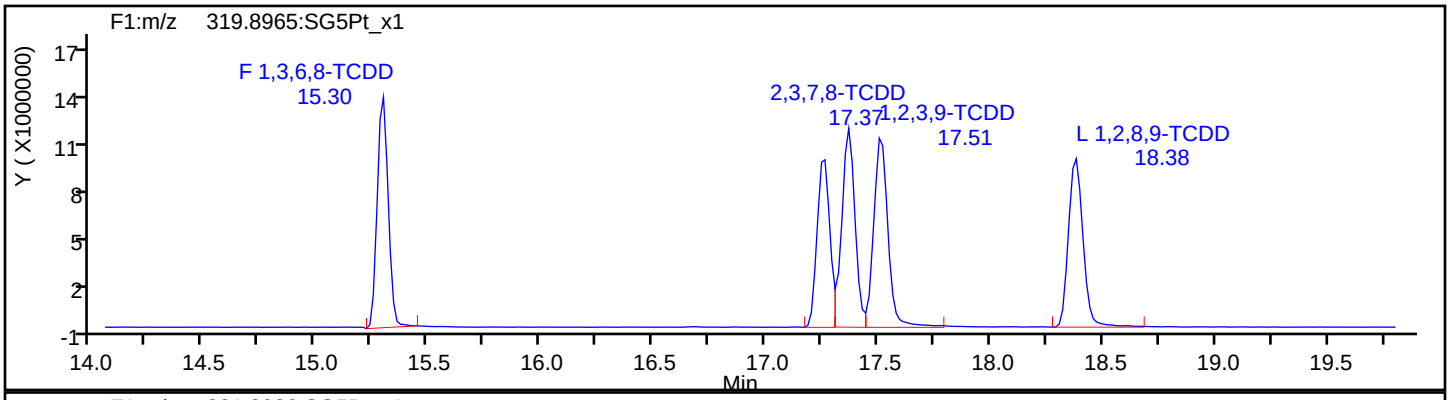
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

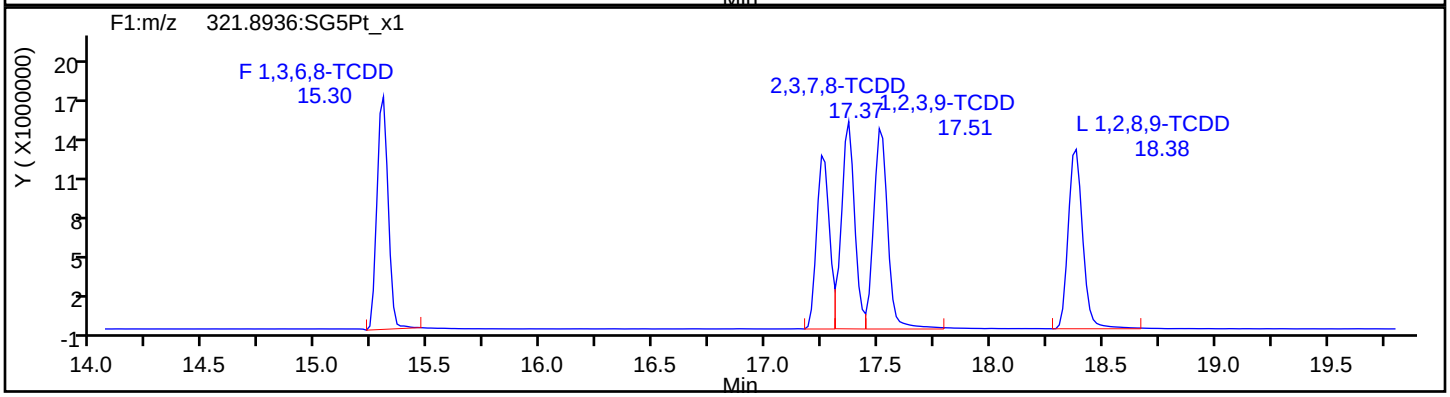
Client ID:

Worklist#: 309103 Sample Line#: 52

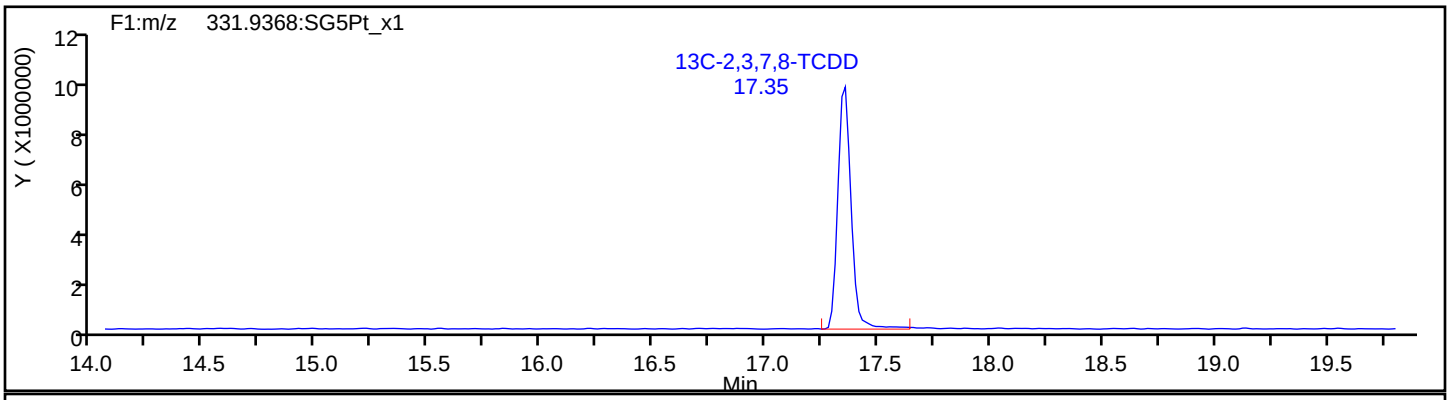
Column Type: DB-5 Column Dia: 0.32 mm

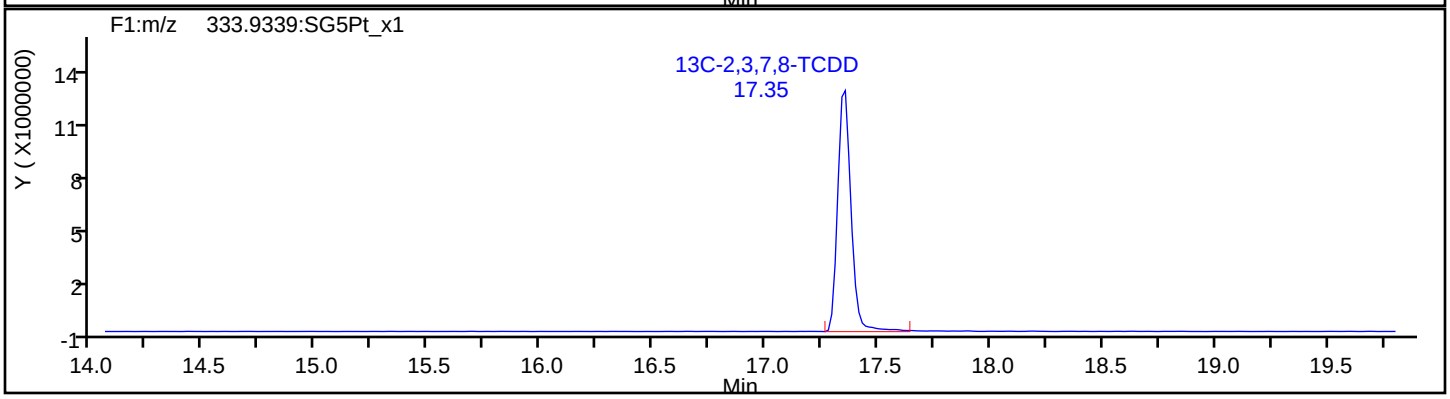
TCDD





TCDD Standards





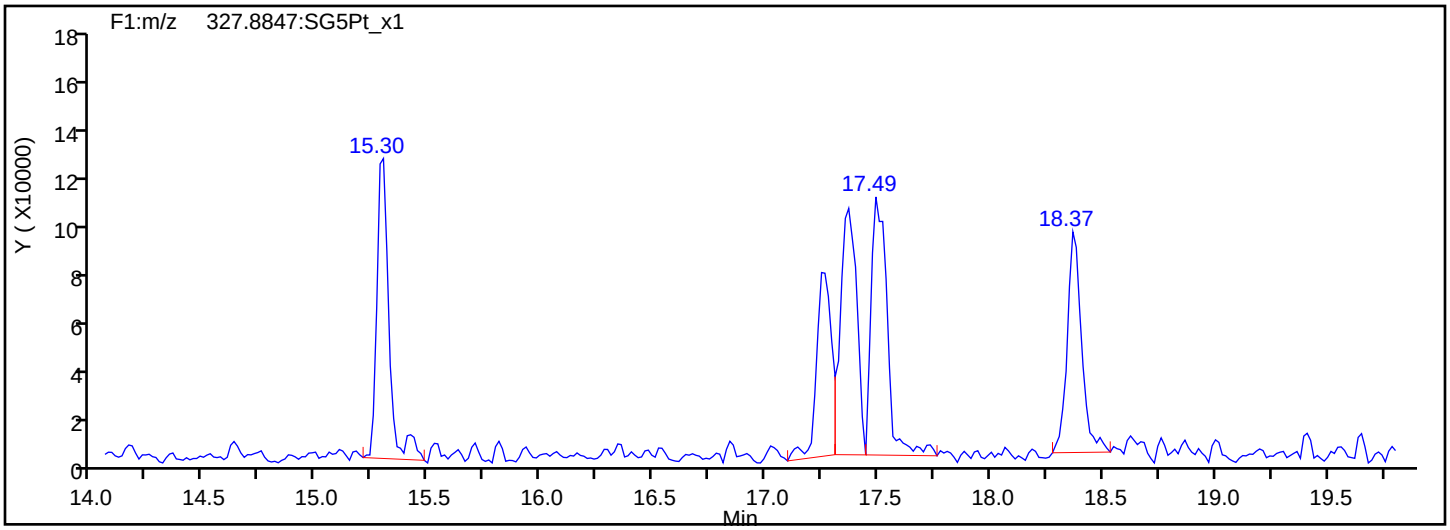
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

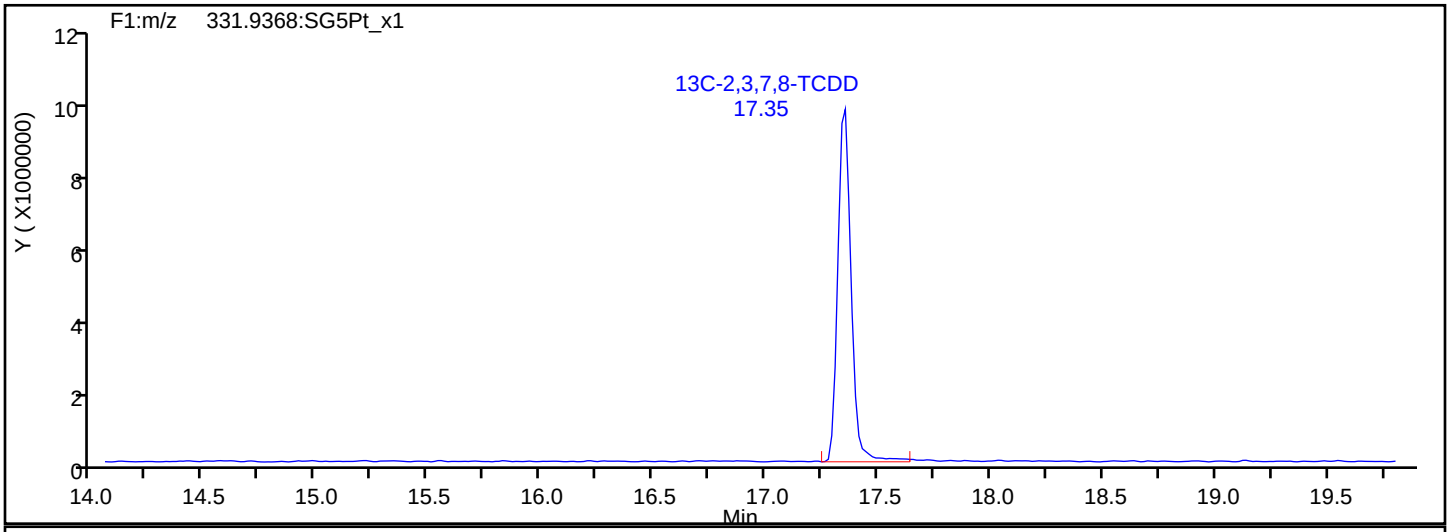
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

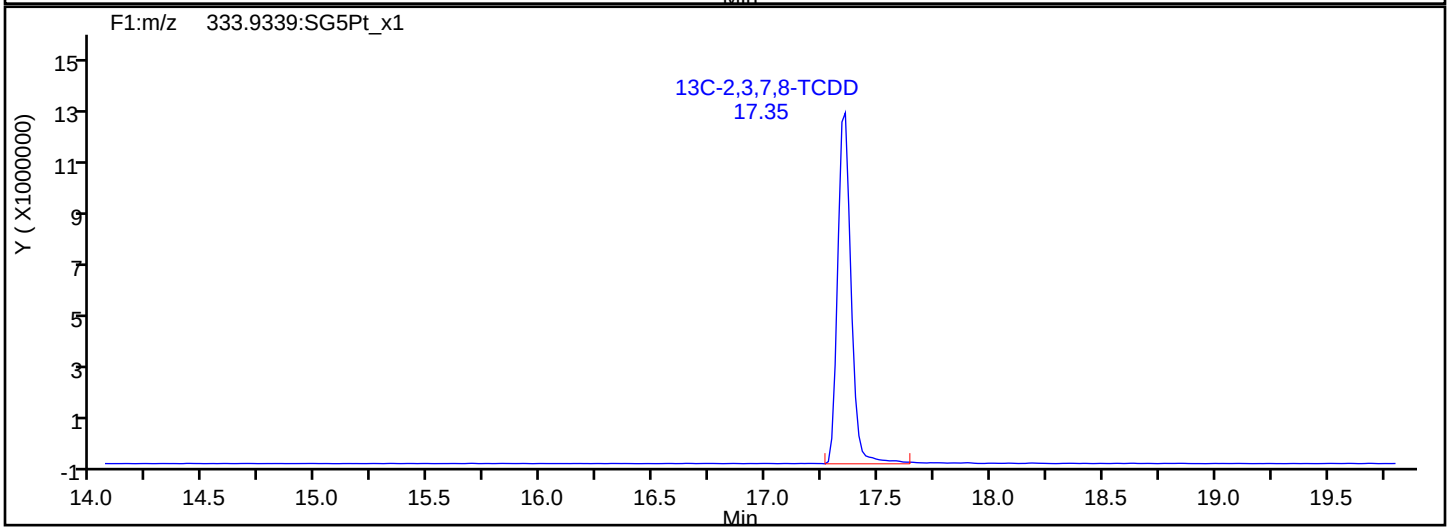
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards





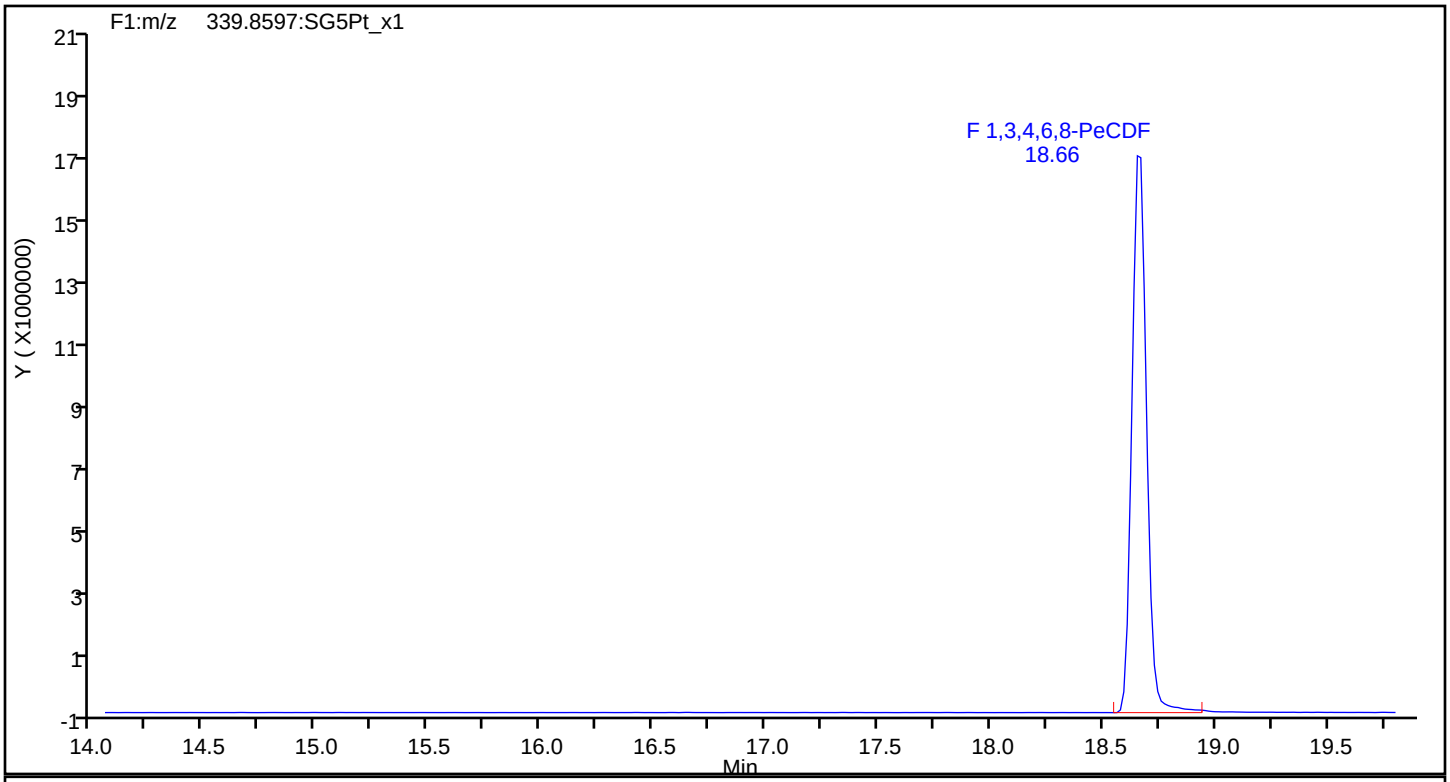
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

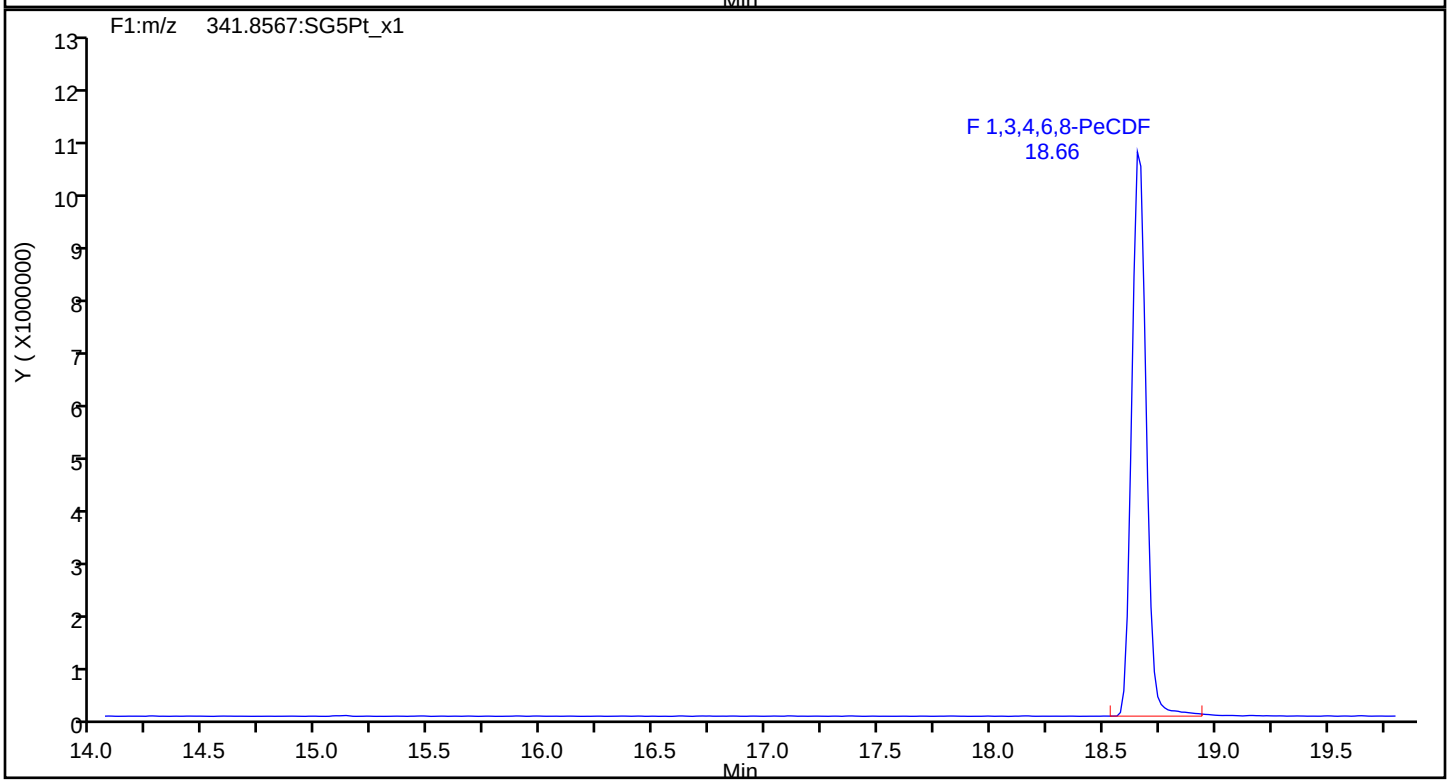
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



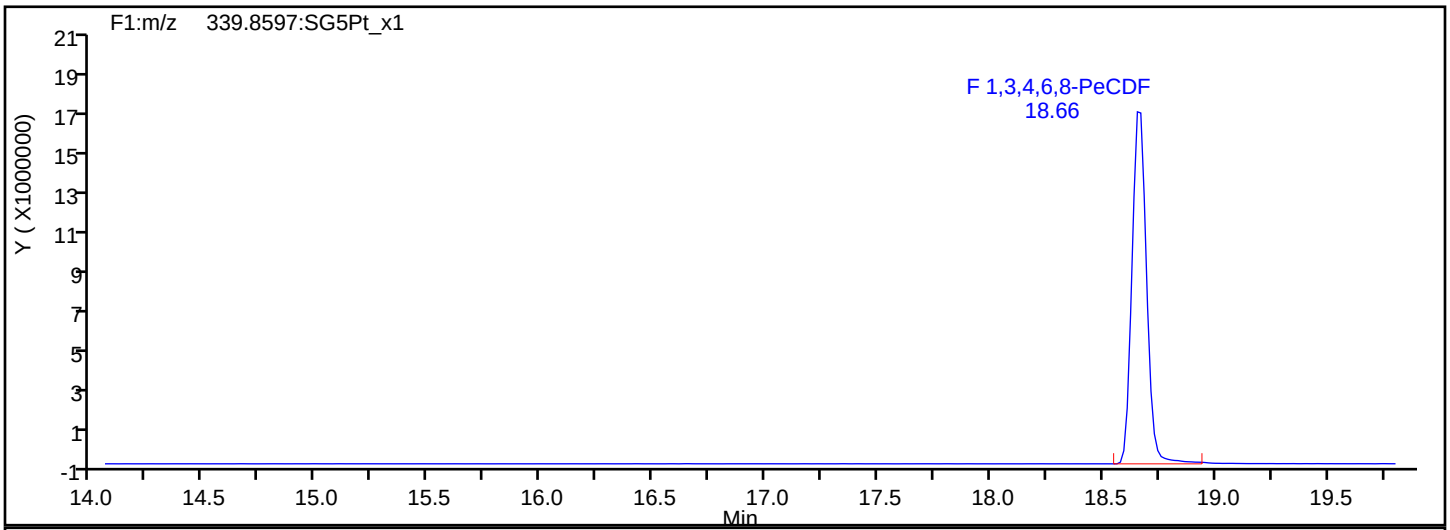


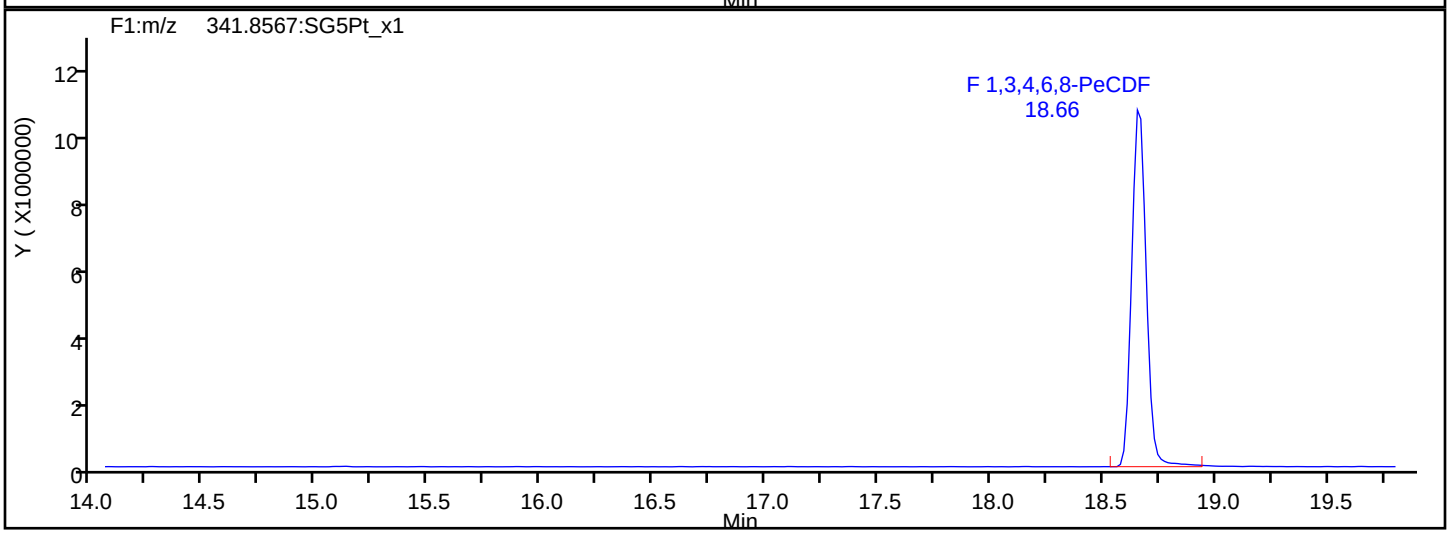
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

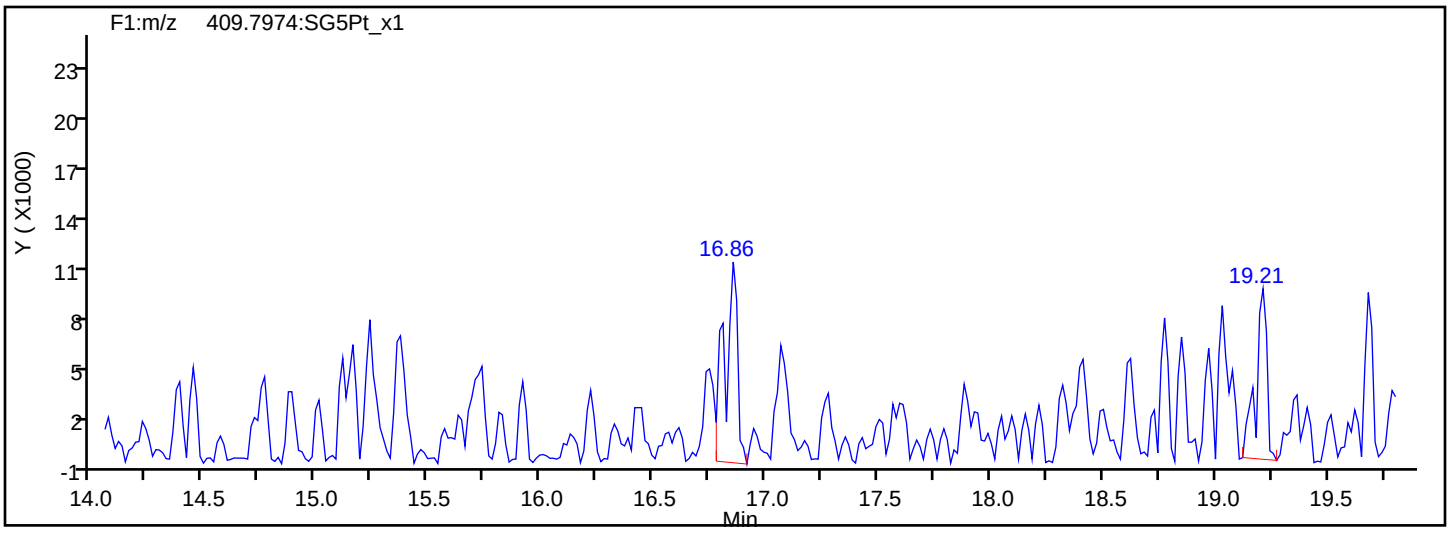
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

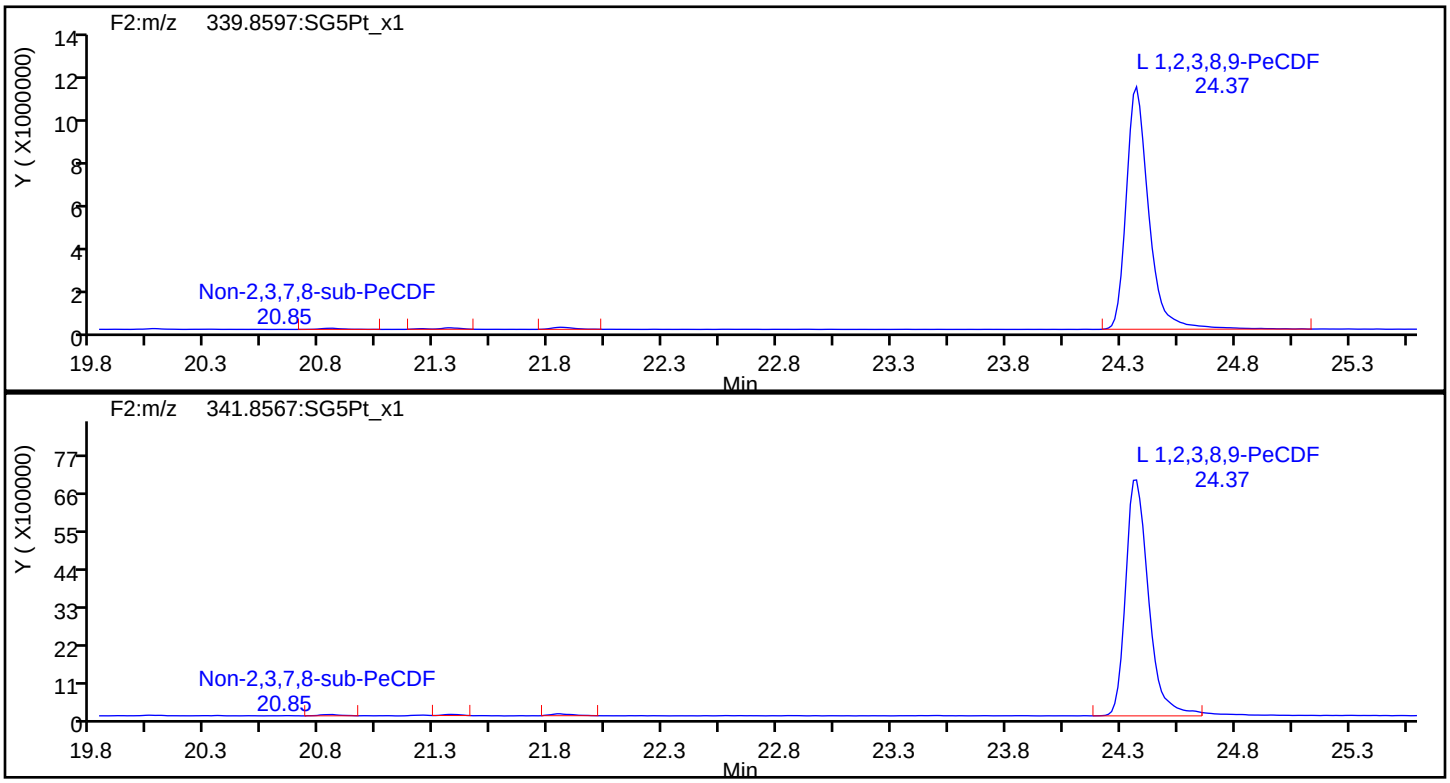


Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

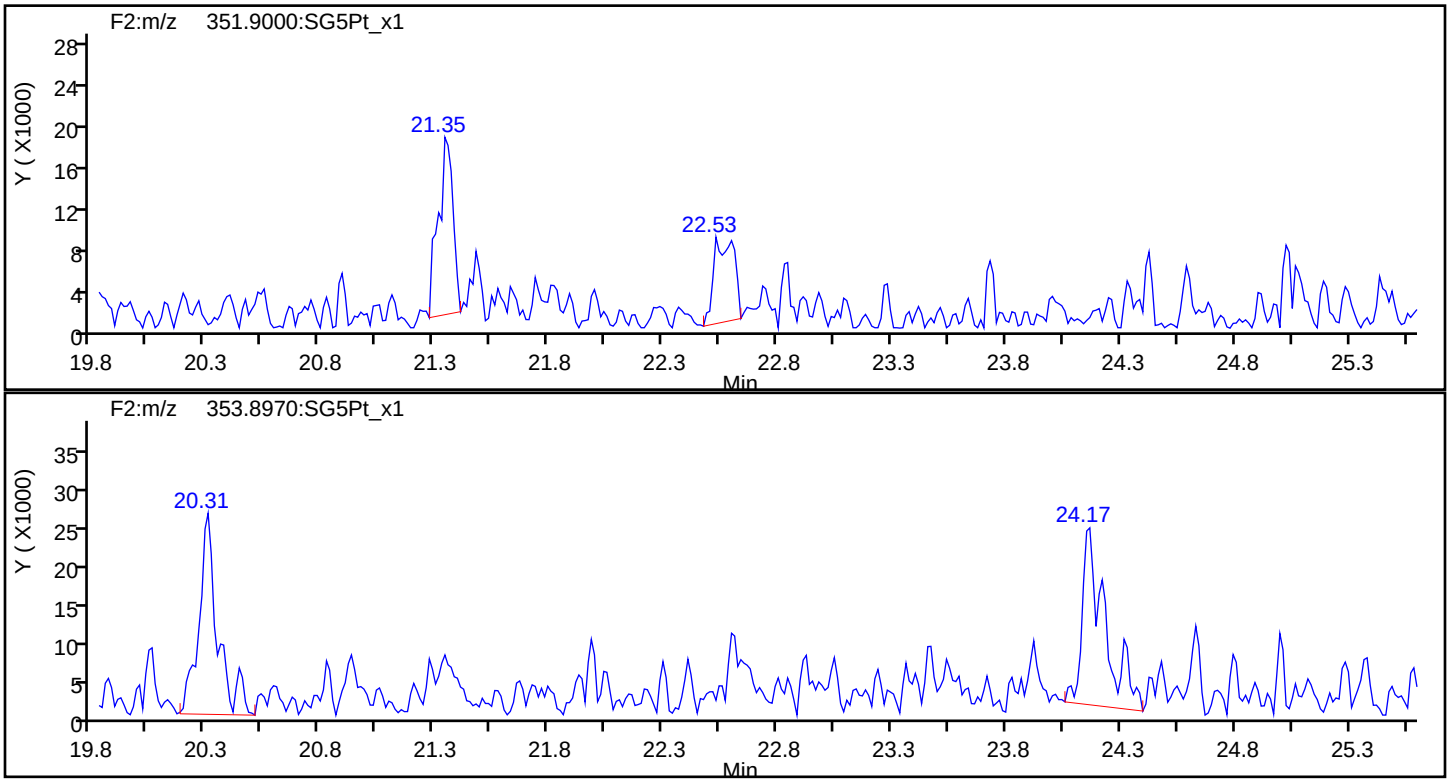
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

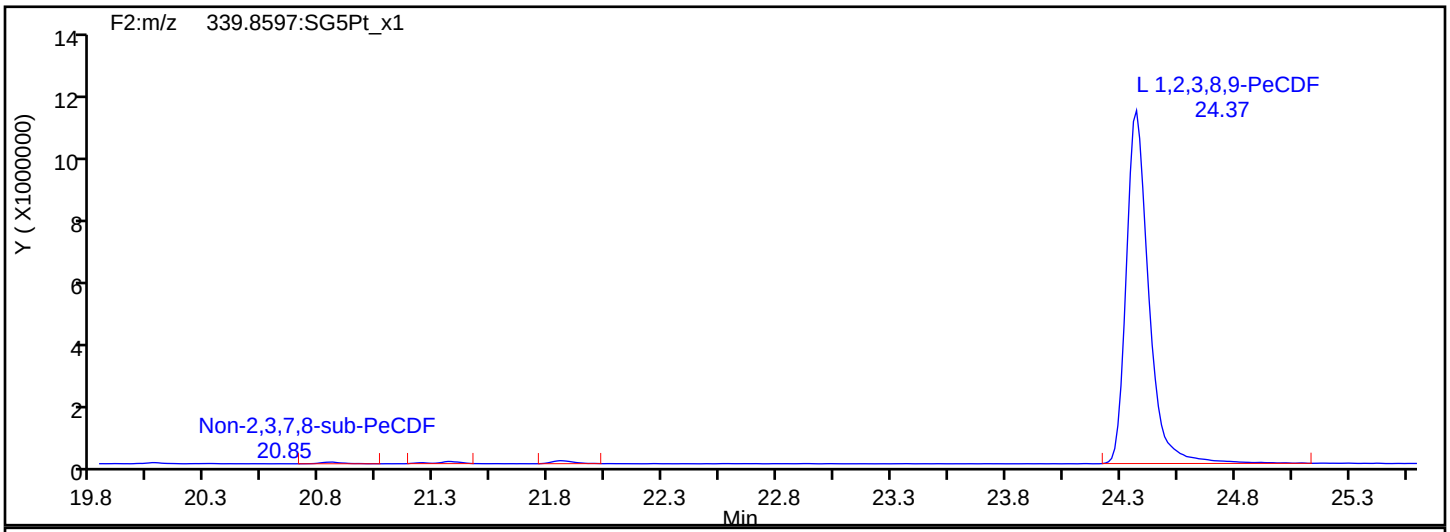


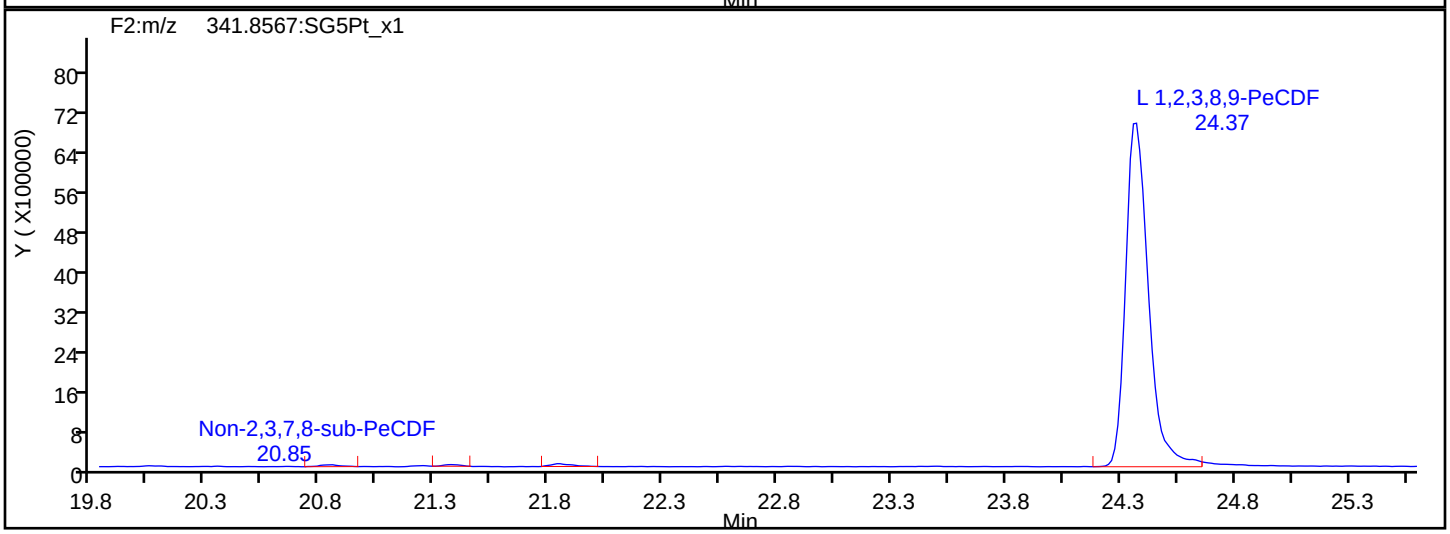
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

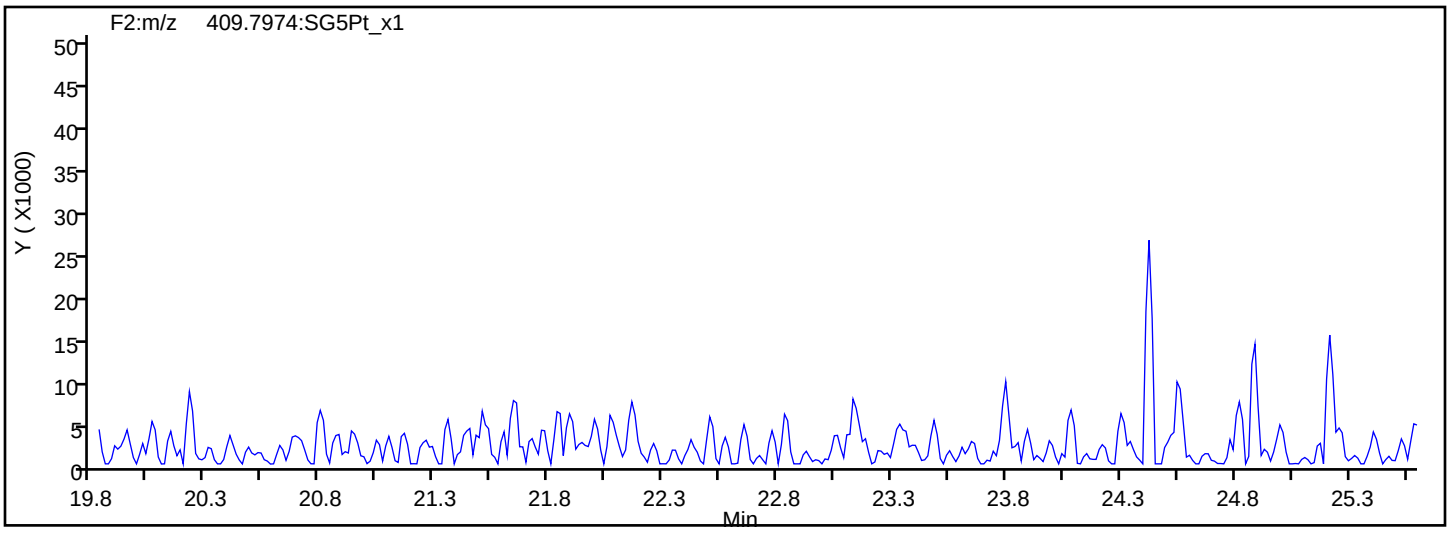
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



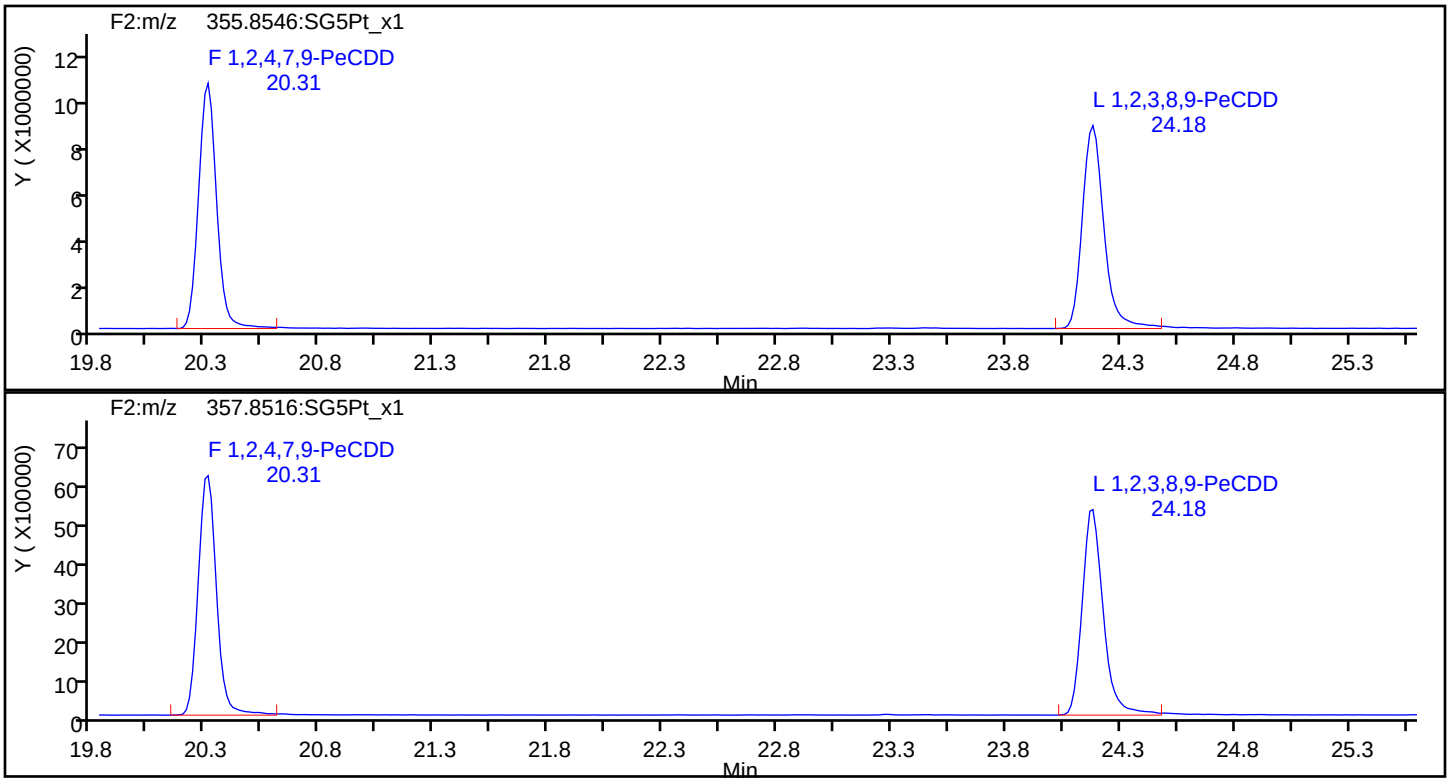
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

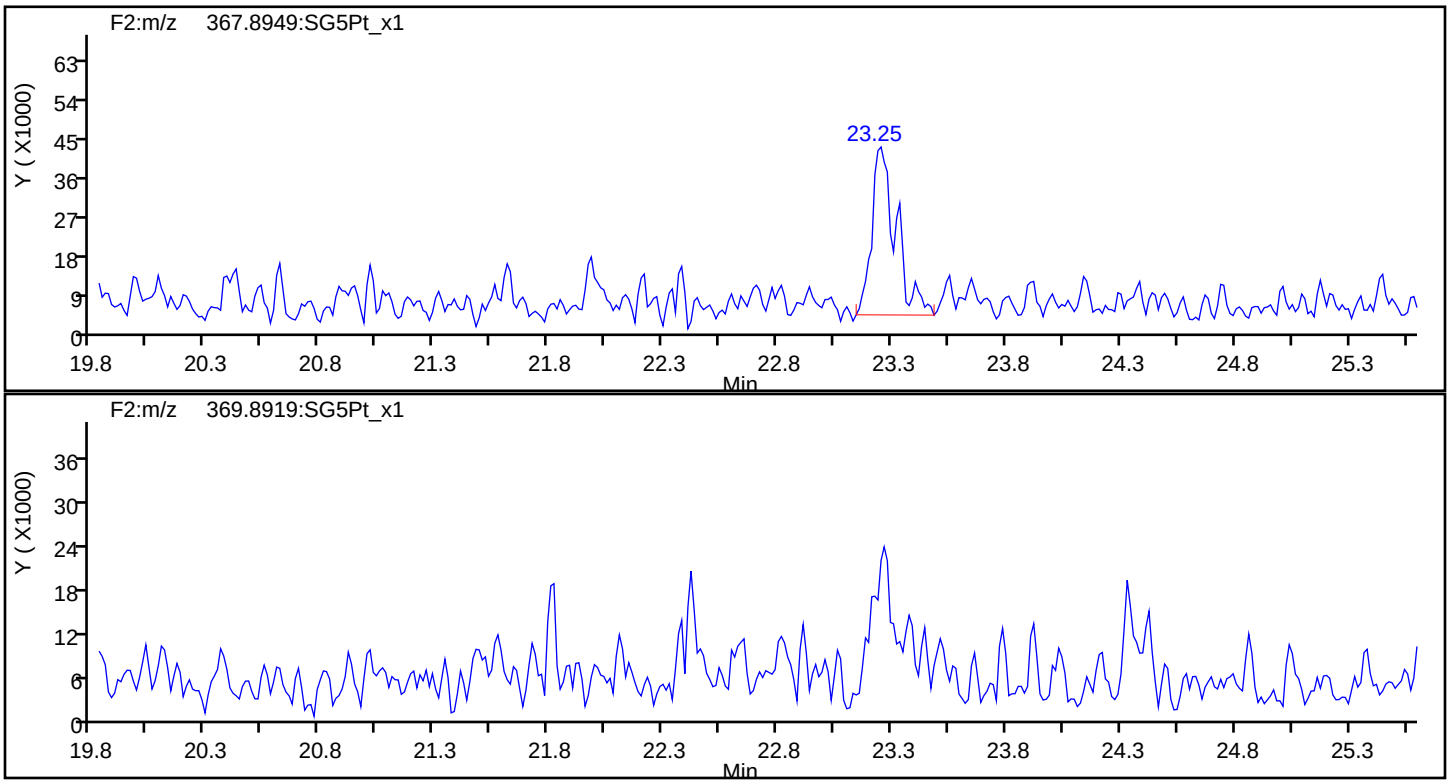
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDD



PeCDD Standards



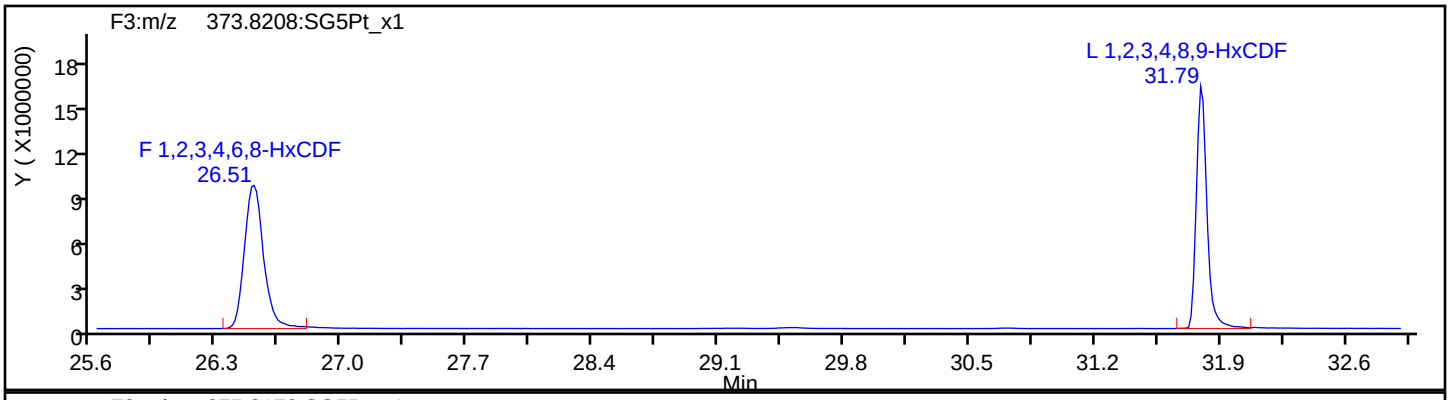
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

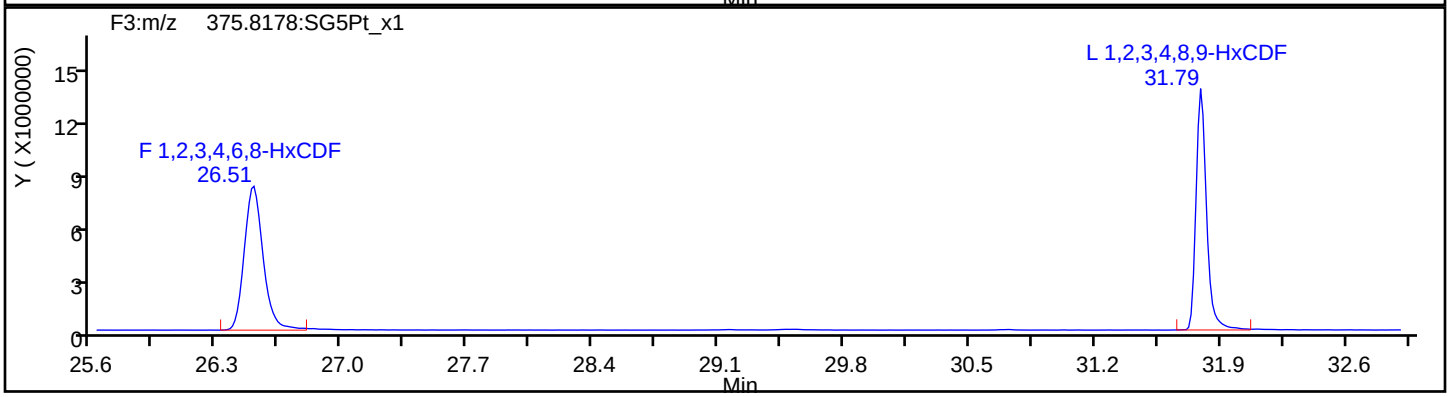
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

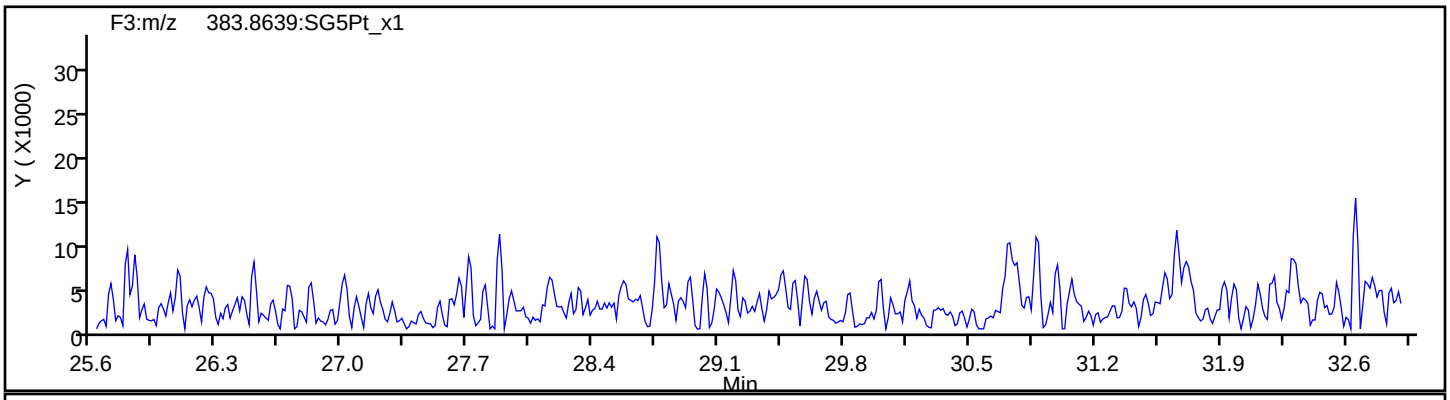
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

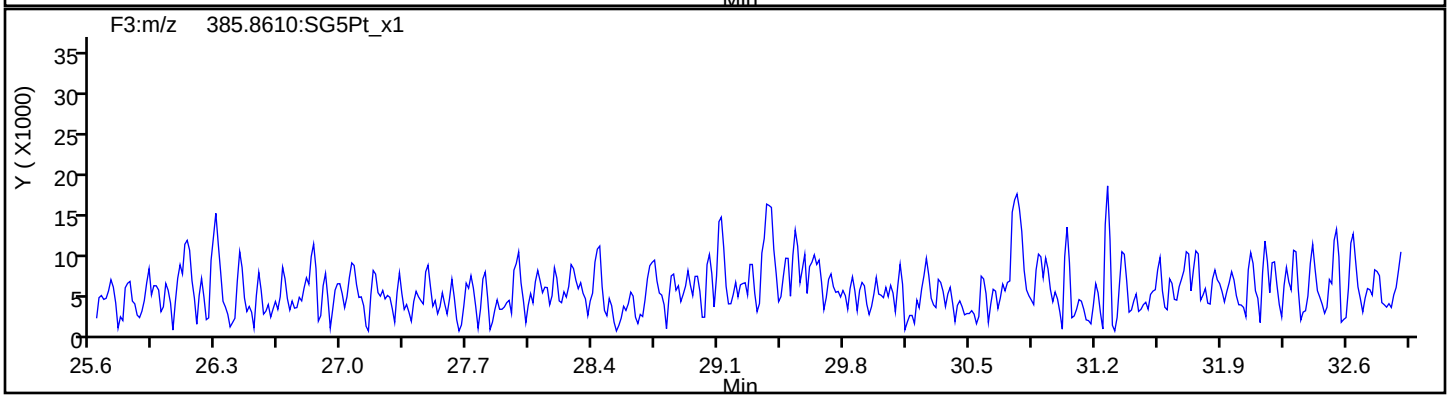
HxCDF





HxCDF Standards



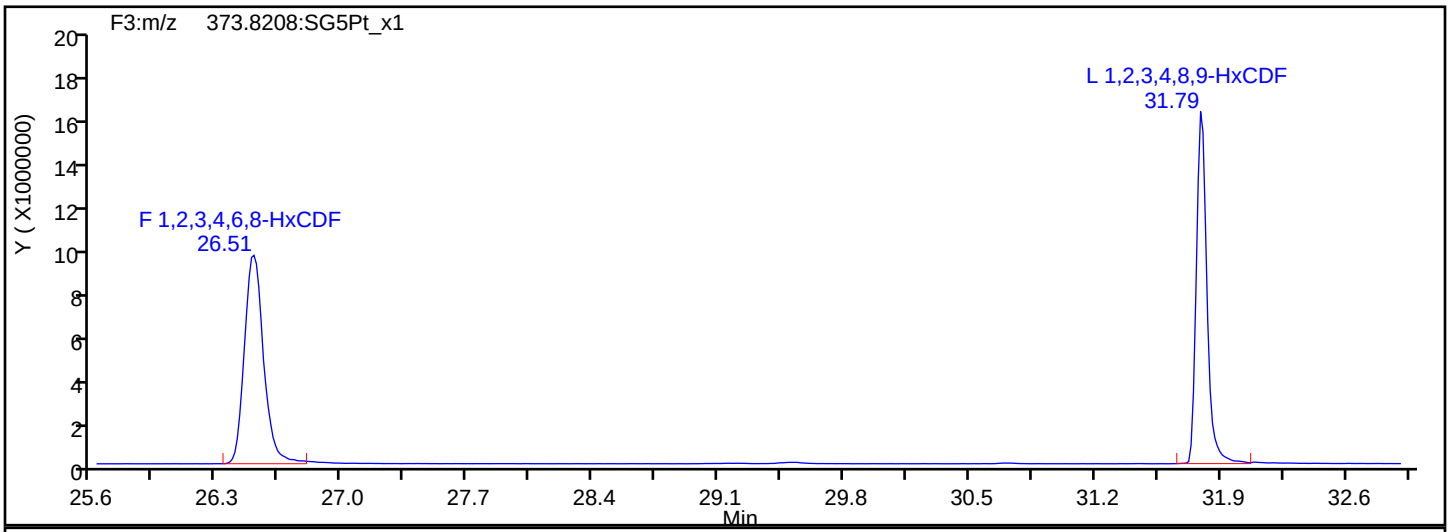


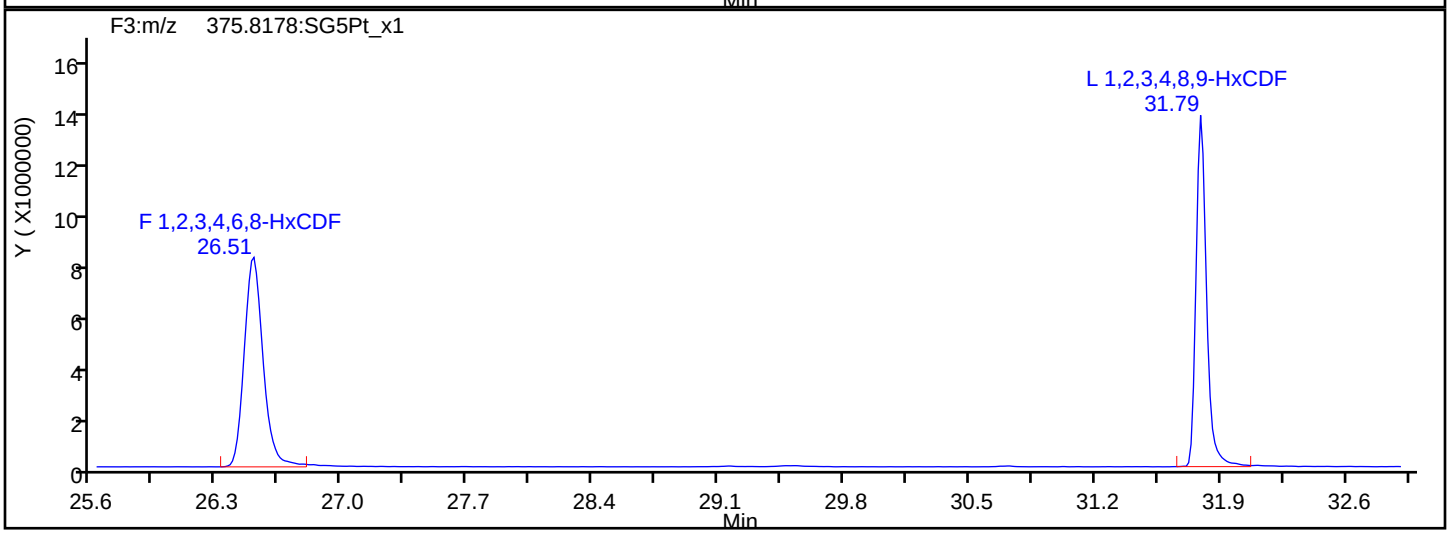
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

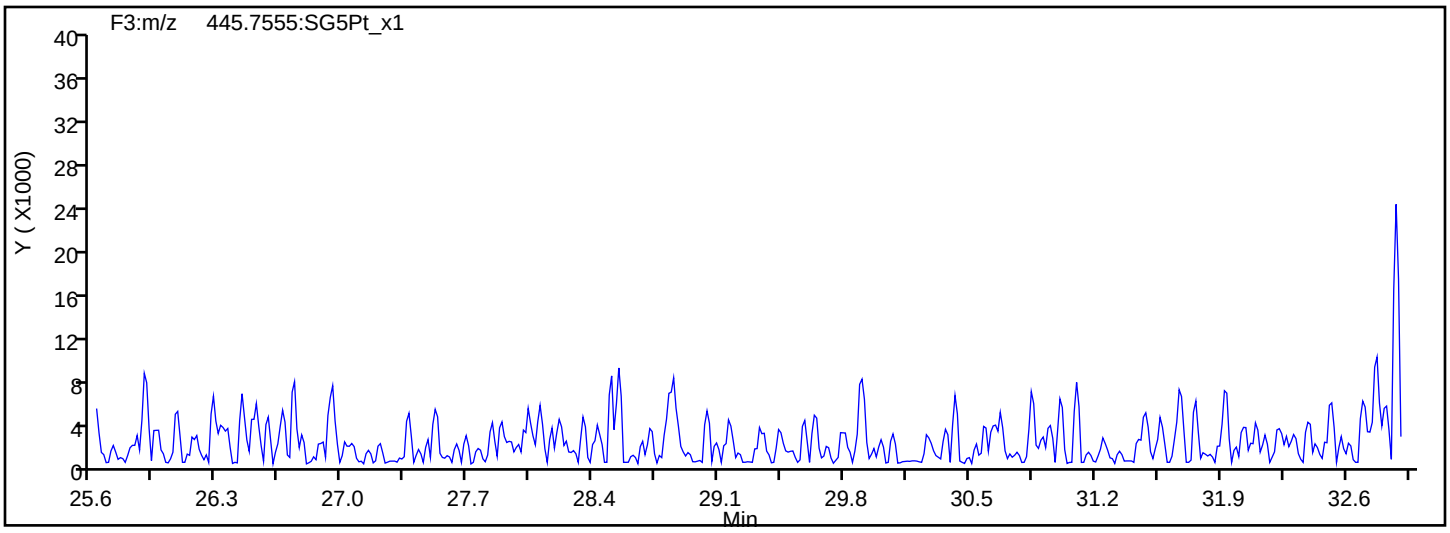
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

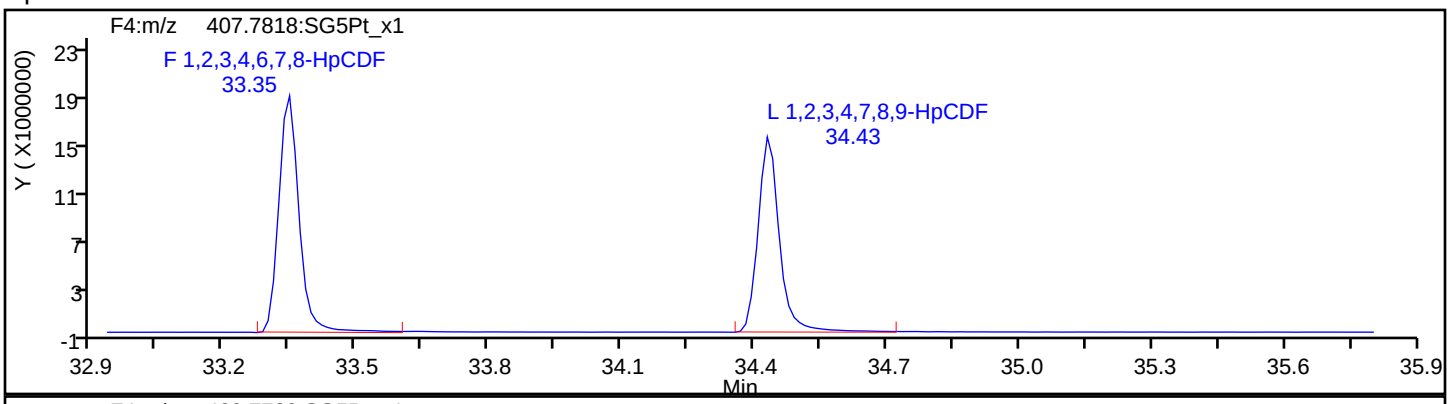


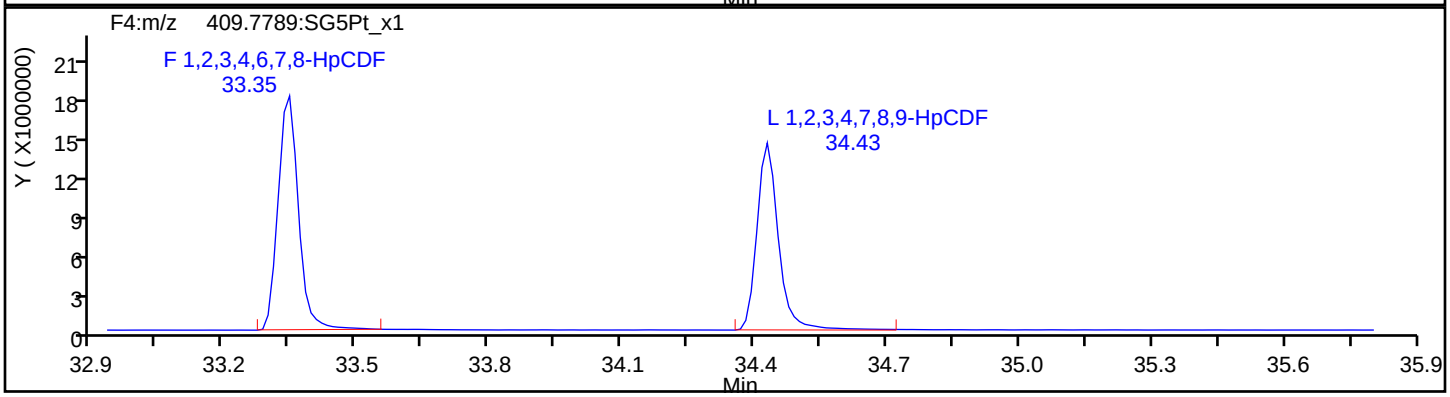
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

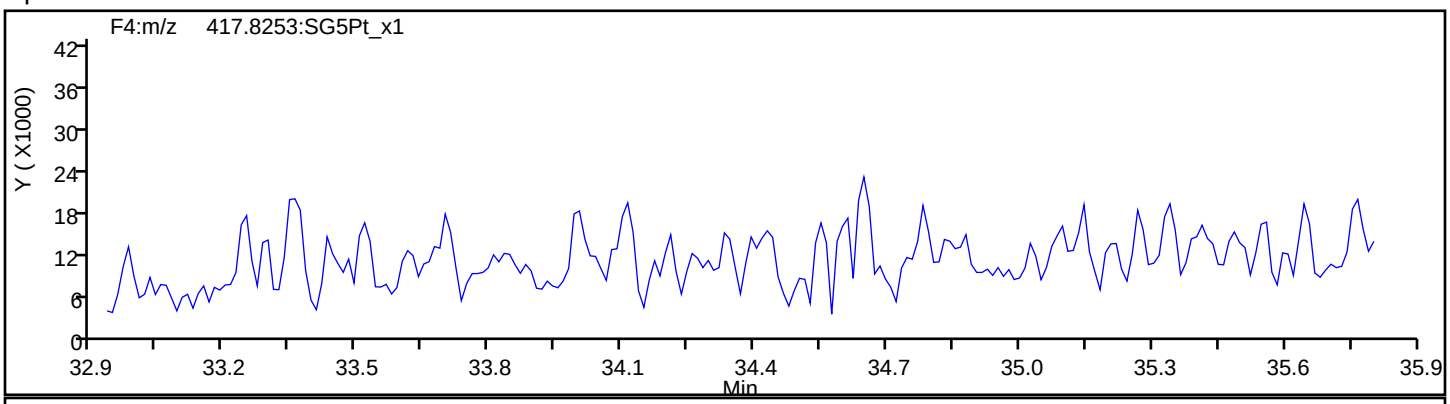
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

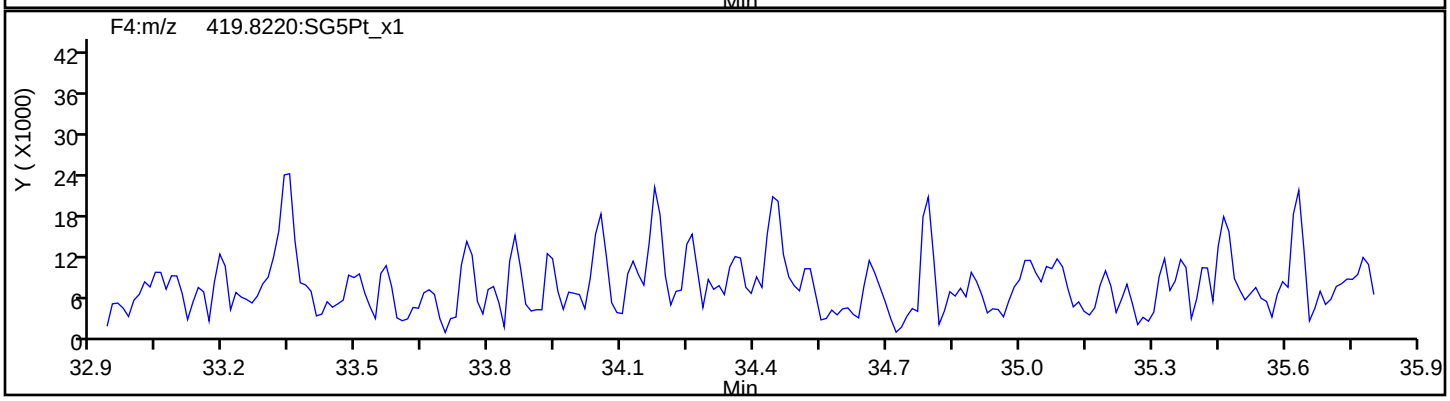
HpCDF





HpCDF Standards



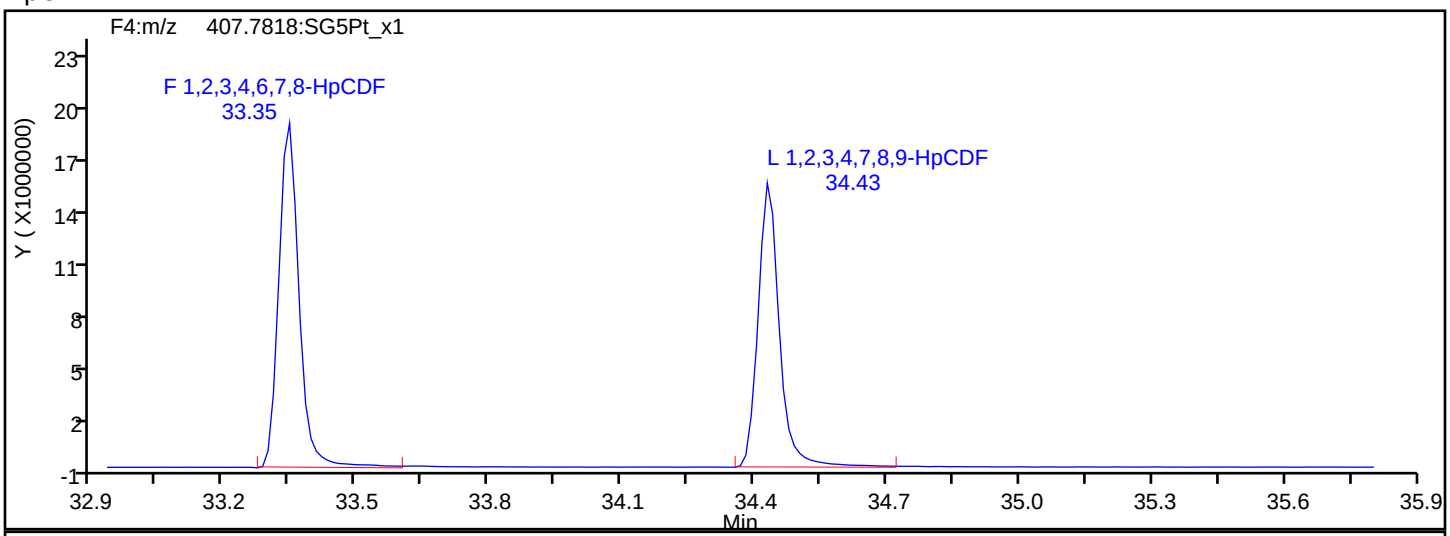


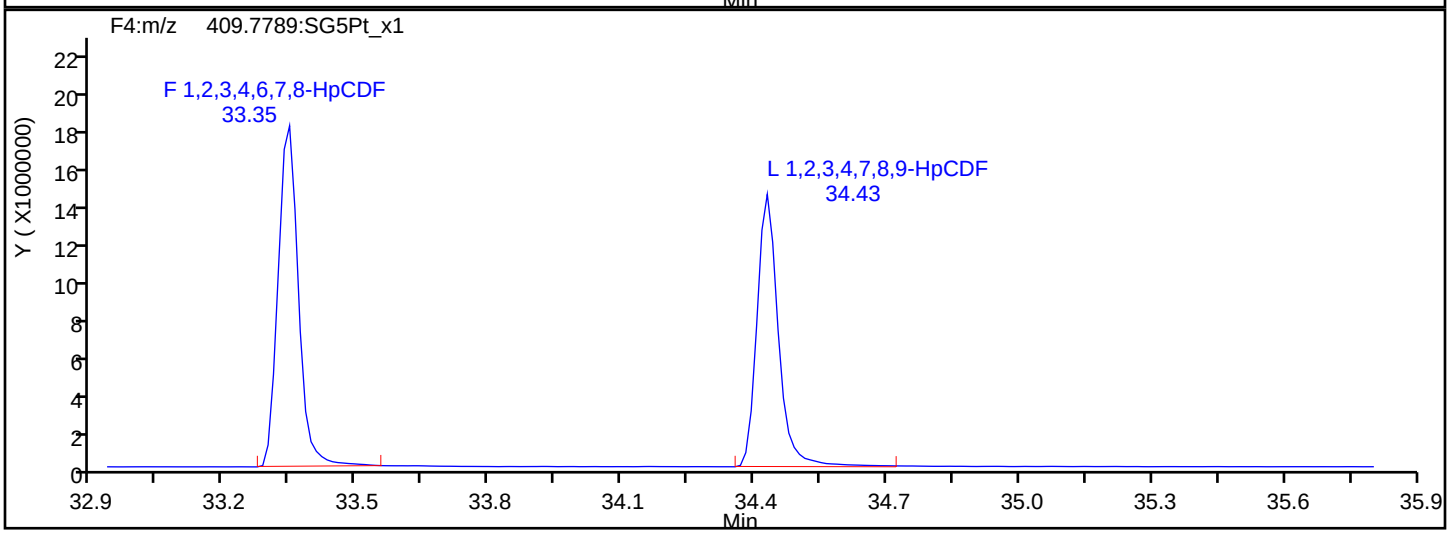
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

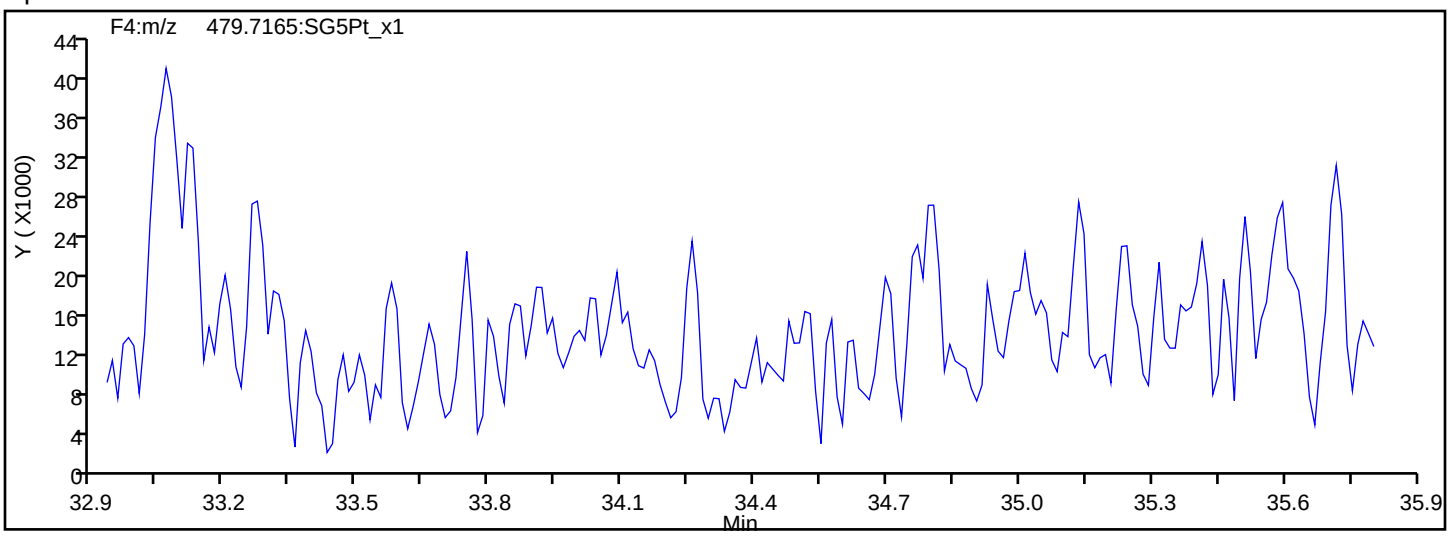
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



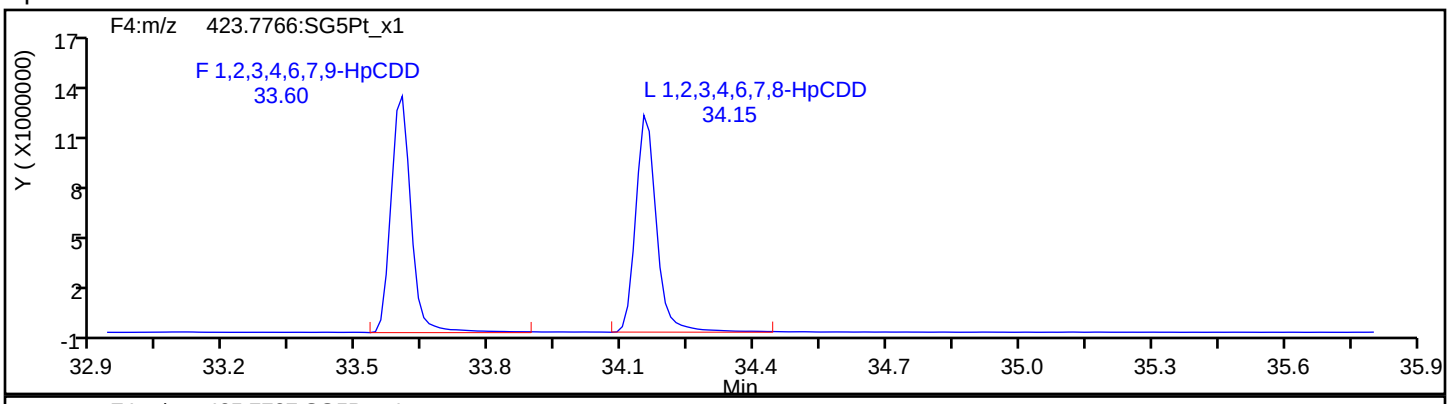
Report Date: 22-Jul-2019 11:47:55 Chrom Revision: 2.3 15-Jul-2019 06:58:08

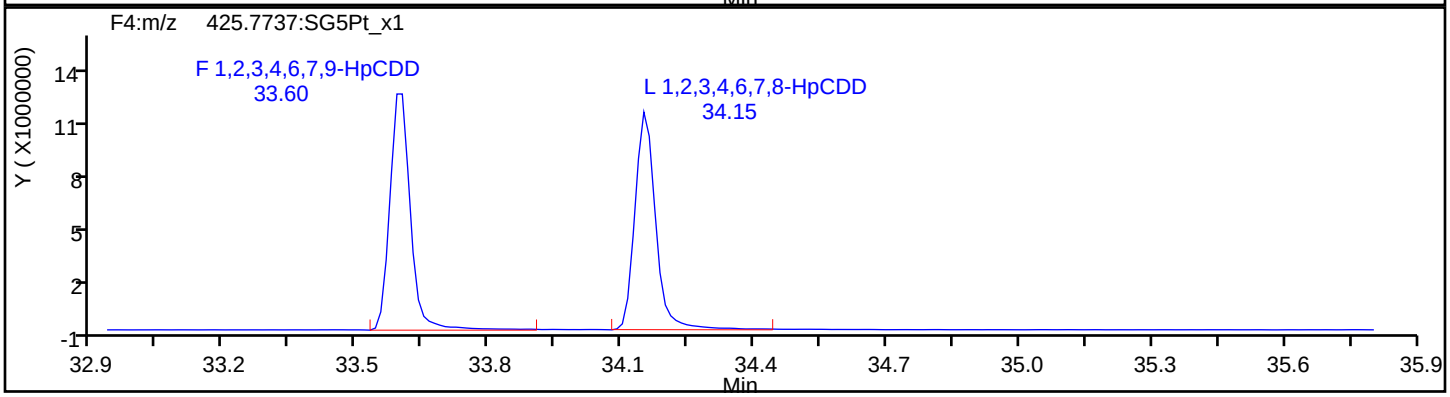
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d

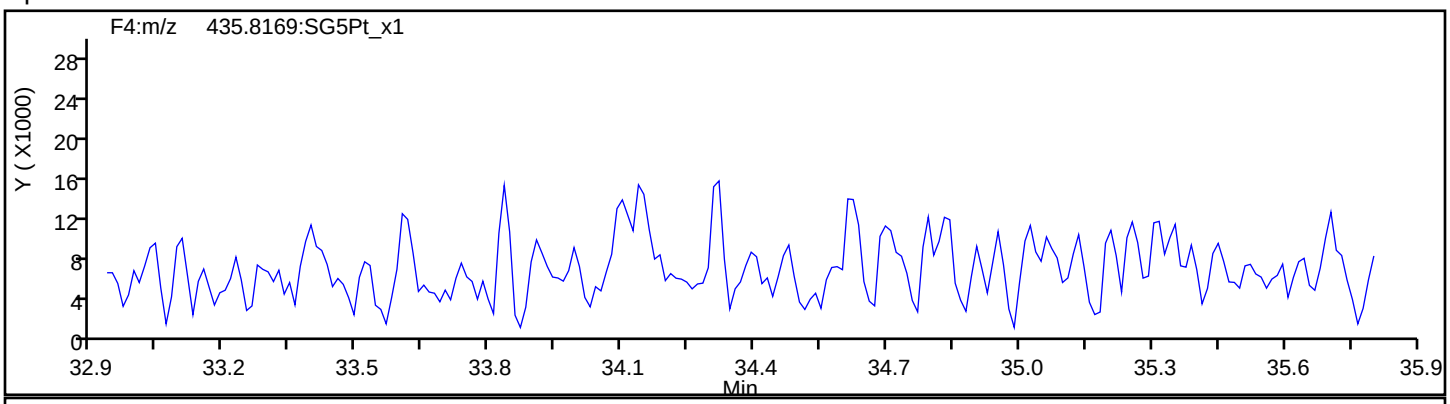
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm

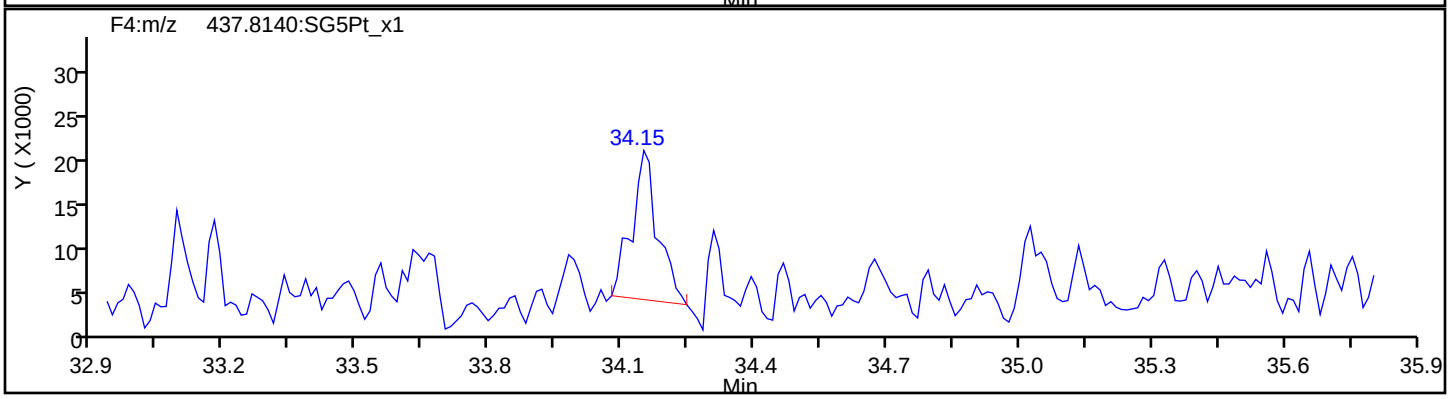
HpCDD





HpCDD Standards

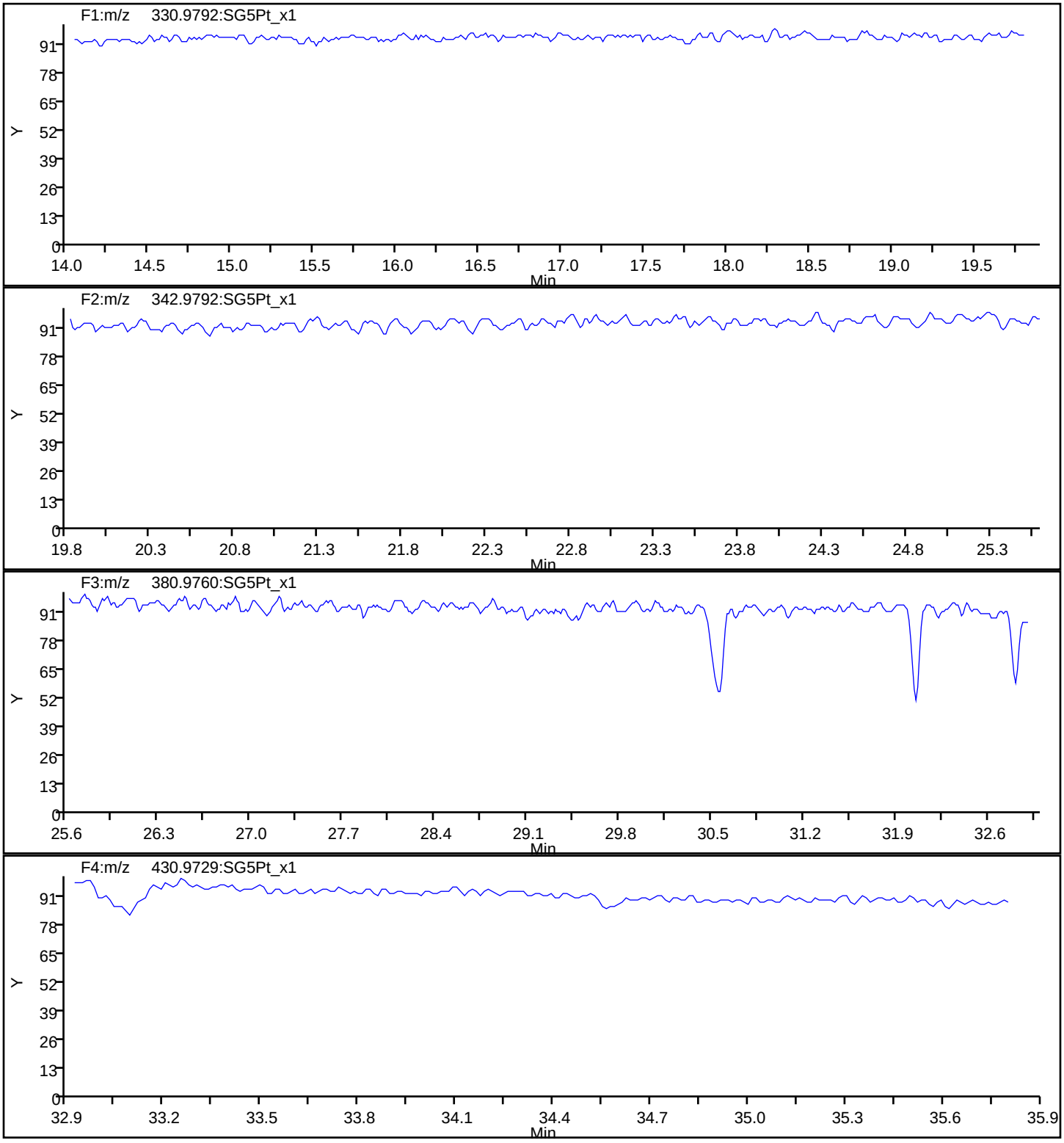




Report Date: 22-Jul-2019 11:47:56 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

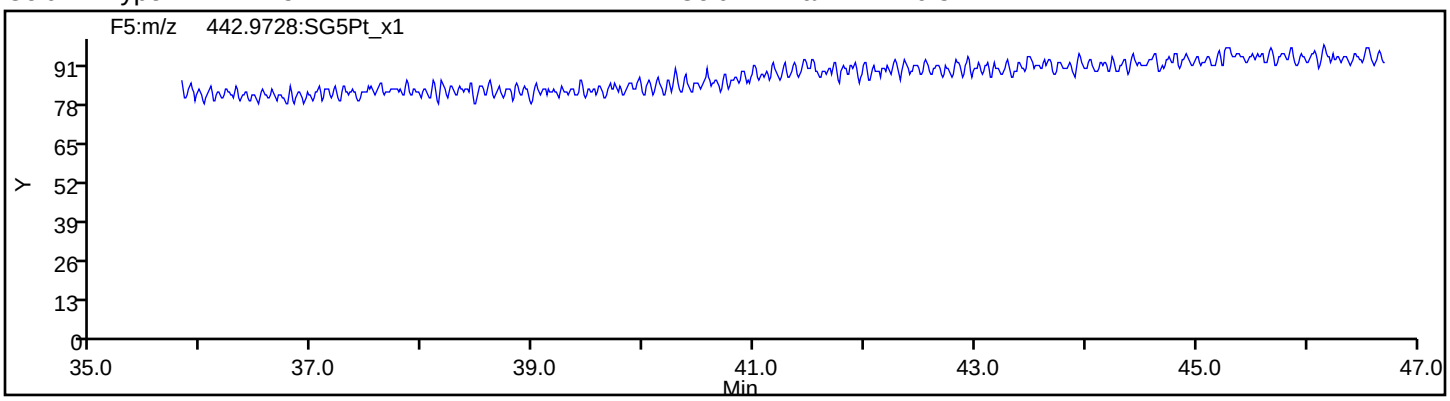
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-Jul-2019 11:47:56 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_52.d		
Injection Date:	21-Jul-2019 18:11:22	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	52
Column Type:	DB-5	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 22-Jul-2019 06:43:55 ALS Bottle#: 1 Worklist Smp#: 67
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: WDM 071919E WDM HRDXNCP_00038
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 12:37:15 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:59:15

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C-2,3,7,8-TCDF	16.674	136165598	0.78	1.3908					0.00	
2,3,7,8-TCDF	16.705	288455958	0.81	0.9710	87.3	87.3	0.6287	0.6287		
A Non-2,3,7,8-sub-TCDF	16.402						0.6287	0.6287		
S Total TCDF					87.3	87.3	0.6287	0.6287		
D 13C-2,3,7,8-TCDD	17.340	82954980	0.81	0.9819					0.00	
2,3,7,8-TCDD	17.355	99936030	0.78	1.0447	46.1	46.1	0.3826	0.3826		
A Non-2,3,7,8-sub-TCDD	16.833						0.3826	0.3826		
S Total TCDD					46.1	46.1	0.3826	0.3826		
A F1 PeCDFs	19.215						0.0	0.0		
A Non-2,3,7,8-sub-PeCDF	22.104	1356553	1.55	0.0000						RQ
S Total PeCDF										RQ
A Non-2,3,7,8-sub-PeCDD	22.232						0.0	0.0		
S Total PeCDD										
A Non-2,3,7,8-sub-HxCDF	29.135						0.0	0.0		
S Total HxCDF										
A Non-2,3,7,8-sub-HxCDD	29.926						0.0	0.0		
S Total HxCDD										
1,2,3,4,6,7,8-HpCDF	33.347	102669543	1.06	1.4373						
1,2,3,4,7,8,9-HpCDF	34.441	88604437	1.06	1.3091						
A Non-2,3,7,8-sub-HpCDF	33.894						0.0	0.0		
S Total HpCDF										
1,2,3,4,6,7,8-HpCDD	34.162	68815651	1.07	1.0102						
A Non-2,3,7,8-sub-HpCDD	35.074						0.0	0.0		
S Total HpCDD										
1,3,6,8-TCDF	14.436	164643365	0.79							
1,3,6,8-TCDD	15.298	100504462	0.79							
2,3,4,7-TCDF	16.705	288455958	0.81							
1,2,3,7-TCDD	17.249	85754109	0.76							
1,2,3,9-TCDF	17.491	125161046	0.79							
1,2,3,9-TCDD	17.506	108691094	0.81							

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
1,2,8,9-TCDF	18.368	130379755	0.77							
1,2,8,9-TCDD	18.368	41660465								
1,3,4,6,8-PeCDF	18.655	115592201	1.64							
1,2,4,7,9-PeCDD	20.295	82332756	1.62							
1,2,3,8,9-PeCDD	24.168	79734339	1.57							
1,2,3,8,9-PeCDF	24.359	66883748								
1,2,3,4,6,8-HxCDF	26.479	117260255	1.24							
1,2,4,6,7,9-HxCDD	27.944	85359546	1.33							
1,2,3,4,6,7-HxCDD	31.432	83122956	1.23							
1,2,3,4,8,9-HxCDF	31.792	104712750	1.22							
1,2,3,4,6,7,9-HpCDD	33.603	76420933	1.03							

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 22-Jul-2019 06:43:55 ALS Bottle#: 1 Worklist Smp#: 67
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: WDM 071919E WDM HRDXNCP_00038
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 12:37:15 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0307

First Level Reviewer: arghestanis Date: 22-Jul-2019 08:59:15

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,7,8-TCDF											
315.9419	16.674	16.690	-1	1.000	59676371	15084545	38529	96322	392		
317.9389	16.674	16.690	-1	1.000	76489227	19474637	62211	155527	313	0.78(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.002	128763055	29602281	87230	218075	339		
305.8987	16.705	16.705	0	1.002	159692903	36469558	123757	309392	295	0.81(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	16.402						87230	218075			
305.8987	16.402						123757	309392			
13C-2,3,7,8-TCDD											
331.9368	17.340	17.355	-1	1.000	37178013	8937290	20530	51325	435		
333.9339	17.340	17.355	-1	1.000	45776967	11245210	12370	30925	909	0.81(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.355	17.355	0	1.001	43733549	10477682	32883	82207	319		
321.8936	17.355	17.355	0	1.001	56202481	13663316	47786	119465	286	0.78(0.65-0.89)	
A Non-2,3,7,8-sub-TCDD											
319.8965	16.833						32883	82207			
321.8936	16.833						47786	119465			
A F1 PeCDFs											
339.8597	19.215						7120	17800			
341.8567	19.215						5044	12610			
A Non-2,3,7,8-sub-PeCDF											RQ
339.8597	21.372	22.104	-44	1.000	449776	57105	11454	28635	5		
341.8567	21.359	22.104	-45	1.000	170153	31076	10201	25502	3	2.64(1.32-1.78)	
339.8597	21.850	22.104	-15	1.000	524550	70909	11454	28635	6		
341.8567	21.850	22.104	-15	1.000	398113	48624	10201	25502	5	1.32(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.232						16650	41625			
357.8516	22.232						9908	24770			
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.135						16254	40635			
375.8178	29.135						13627	34067			
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						11129	27822			
391.8127	29.926						10460	26150			
1,2,3,4,6,7,8-HpCDF											
407.7818	33.347	33.347	0	1.000	52816267	16112165	50510	126275	319		
409.7789	33.347	33.347	0	1.000	49853276	15066068	45835	114587	329	1.06(0.88-1.20)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	45569202	12760536	50510	126275	253		
409.7789	34.441	34.441	0	1.000	43035235	12090734	45835	114587	264	1.06(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.894						50510	126275			
409.7789	33.894						45835	114587			
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	35492496	10336827	37095	92737	279		
425.7737	34.162	34.162	0	1.000	33323155	9428895	35511	88777	266	1.07(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						37095	92737			
425.7737	35.074						35511	88777			
1,3,6,8-TCDF											
303.9016	14.436	14.436	0		72778385	22912151	87230	218075	263		
305.8987	14.436	14.436	0		91864980	28862537	123757	309392	233	0.79(0.65-0.89)	
1,3,6,8-TCDD											
319.8965	15.298	15.298	0		44420095	12238858	32883	82207	372		
321.8936	15.283	15.298	-1		56084367	15830567	47786	119465	331	0.79(0.65-0.89)	
2,3,4,7-TCDF											
303.9016	16.705	16.705	0		128763055	29602281	87230	218075	339		
305.8987	16.705	16.705	0		159692903	36469558	123757	309392	295	0.81(0.65-0.89)	
1,2,3,7-TCDD											
319.8965	17.249	17.249	0		36926953	9466089	32883	82207	288		
321.8936	17.249	17.249	0		48827156	12361857	47786	119465	259	0.76(0.65-0.89)	
1,2,3,9-TCDF											
303.9016	17.491	17.491	0		55166239	13033121	87230	218075	149		
305.8987	17.491	17.491	0		69994807	16698482	123757	309392	135	0.79(0.65-0.89)	
1,2,3,9-TCDD											
319.8965	17.506	17.506	0		48758786	10968335	32883	82207	334		
321.8936	17.506	17.506	0		59932308	13706589	47786	119465	287	0.81(0.65-0.89)	
1,2,8,9-TCDF											
303.9016	18.368	18.368	0		56663888	12610053	87230	218075	145		
305.8987	18.368	18.368	0		73715867	16318581	123757	309392	132	0.77(0.65-0.89)	
1,2,8,9-TCDD											
319.8965	18.368	18.368	0		41660465	9044842	32883	82207	275		

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,3,4,6,8-PeCDF											
339.8597	18.655	18.655	0		71786383	16185471	7120	17800	2273		
341.8567	18.655	18.655	0		43805818	9719491	5044	12610	1927	1.64(1.32-1.78)	
1,2,4,7,9-PeCDD											
355.8546	20.295	20.295	0		50905078	9346875	16650	41625	561		
357.8516	20.295	20.295	0		31427678	5677836	9908	24770	573	1.62(1.32-1.78)	
1,2,3,8,9-PeCDD											
355.8546	24.168	24.168	0		48756471	7414175	16650	41625	445		
357.8516	24.168	24.168	0		30977868	4850799	9908	24770	490	1.57(1.32-1.78)	
1,2,3,8,9-PeCDF											
339.8597	24.359	24.359	0		66883748	9898423	11454	28635	864		
1,2,3,4,6,8-HxCDF											
373.8208	26.479	26.479	0		64961990	8799085	16254	40635	541		
375.8178	26.479	26.479	0		52298265	7034468	13627	34067	516	1.24(1.05-1.43)	
1,2,4,6,7,9-HxCDD											
389.8157	27.944	27.944	0		48684982	6132440	11129	27822	551		
391.8127	27.930	27.944	-1		36674564	4659733	10460	26150	445	1.33(1.05-1.43)	
1,2,3,4,6,7-HxCDD											
389.8157	31.432	31.432	0		45772942	10314072	11129	27822	927		
391.8127	31.432	31.432	0		37350014	8159559	10460	26150	780	1.23(1.05-1.43)	
1,2,3,4,8,9-HxCDF											
373.8208	31.792	31.792	0		57620121	13800105	16254	40635	849		
375.8178	31.792	31.792	0		47092629	11160437	13627	34067	819	1.22(1.05-1.43)	
1,2,3,4,6,7,9-HpCDD											
423.7766	33.603	33.603	0		38787834	12198838	37095	92737	329		
425.7737	33.603	33.603	0		37633099	11832767	35511	88777	333	1.03(0.88-1.20)	

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d
Lims ID: WDM
Client ID:
Inject. Date: 22-Jul-2019 06:43:55 Dil. Factor: 1.0000
Sample Type: WDM, Window Defining Mix
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309104 Lims Sample ID: 67

Non-2,3,7,8-sub-PeCDF, RT: 22.104

Initial Calibration RRF

IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,7,8-PeCDF	0.963				
2,3,4,7,8-PeCDF	0.950				

Averages:

	RRFn		Qis	Ris Area	Ris Height
	0.000		0.0	0	0

Sum the Uncalibrated Results

RT	339.8597 Area	339.8597 Height	341.8567 Area	341.8567 Height	Amount	Ratio	Flags
21.372	449776	57105	170153	31076		2.64	R
21.850	524550	70909	398113	48624		1.32	
Signal Totals:							
	974326	128014	568266	79700			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	1542592	207714				1.71	RQ
	1356553	198776					Empc Correction

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.0 = (1542592 * 0.0) / (0 * 0.000)
Empc Amount: 0.0 = (1356553 * 0.0) / (0 * 0.000)

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.

Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

Injection Date: 22-Jul-2019 06:43:55 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

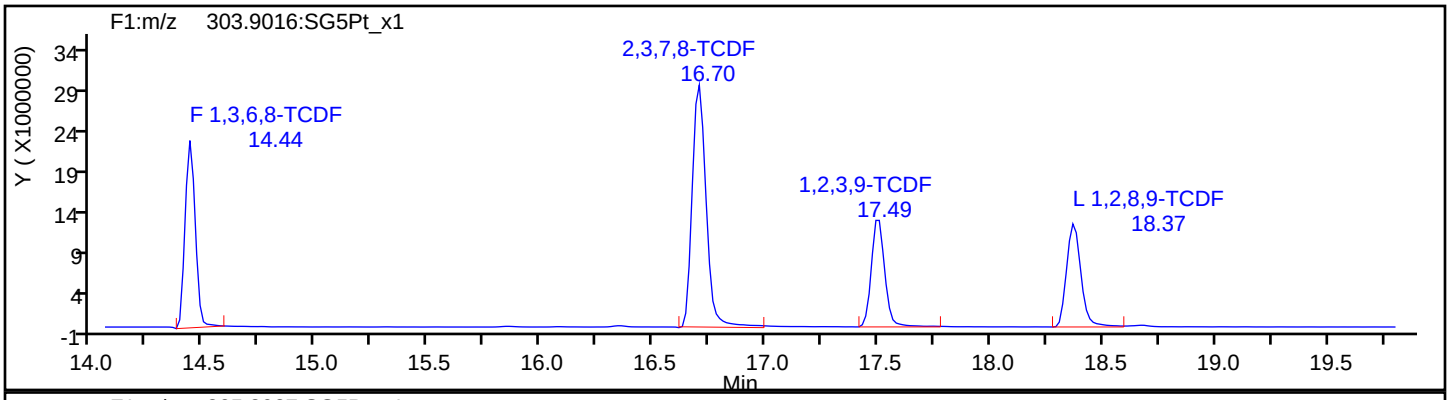
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

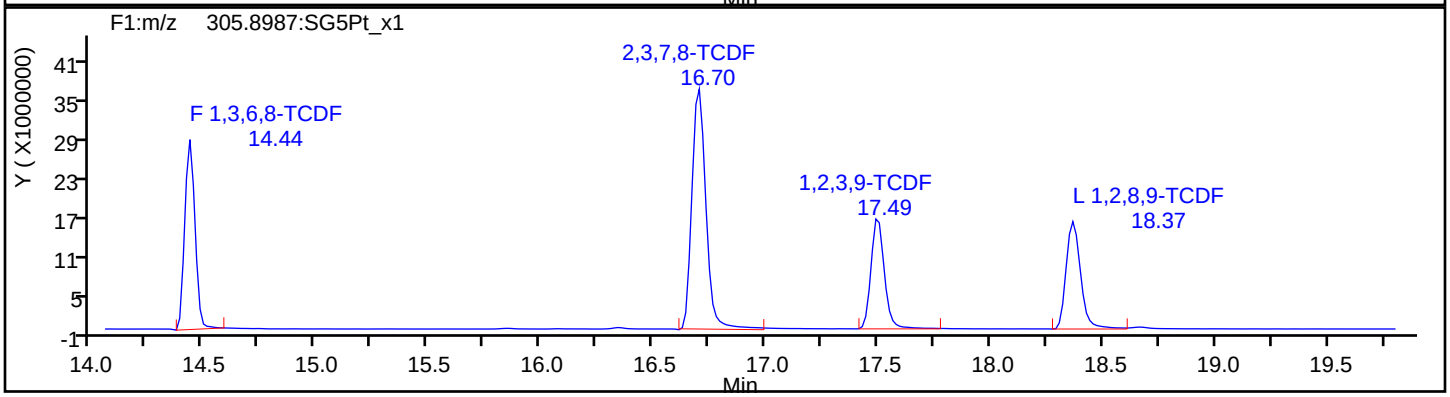
Client ID:

Worklist#: 309104 Sample Line#: 67

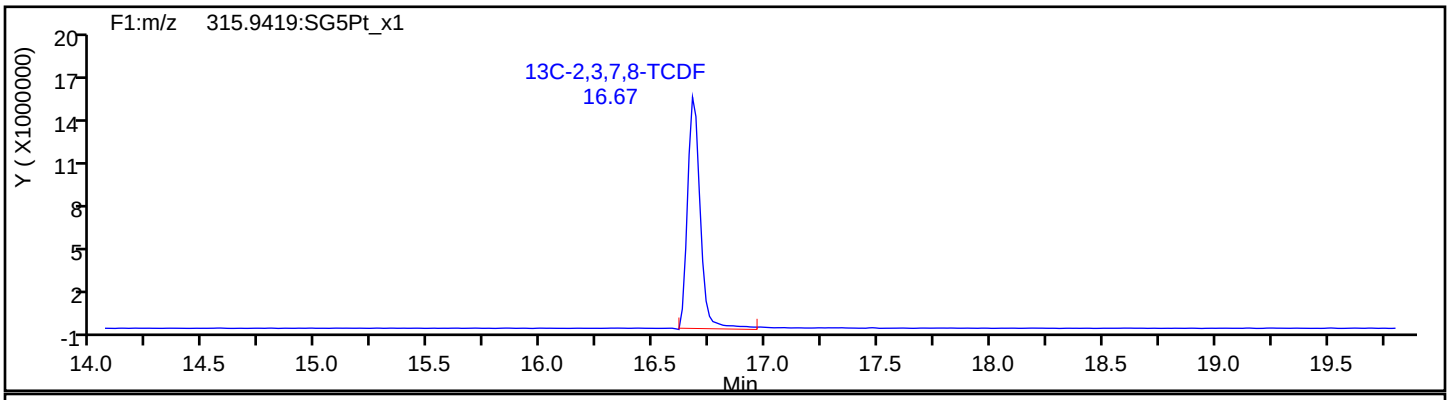
Column Type: DB-5 Column Dia: 0.32 mm

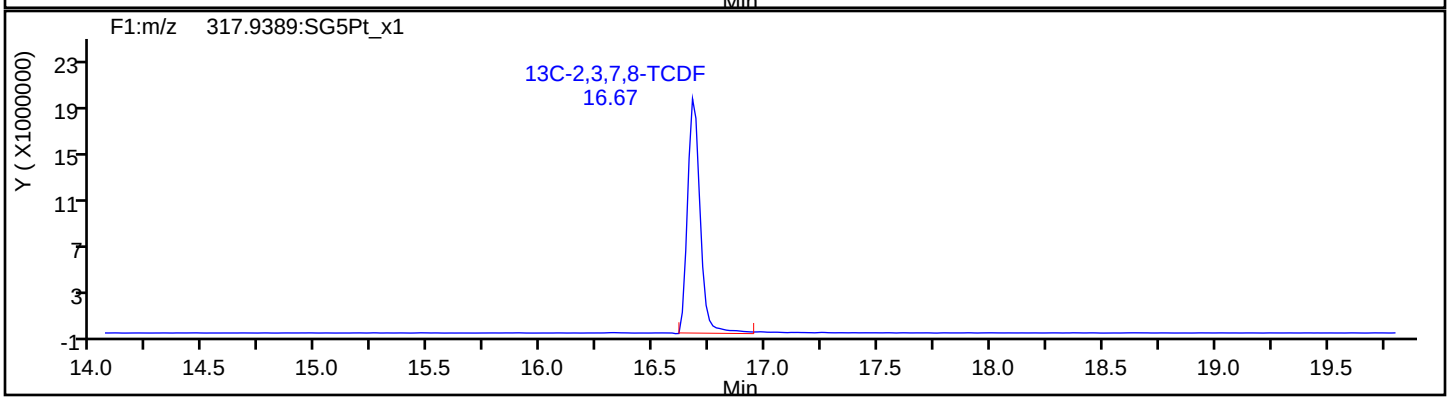
TCDF





TCDF Standards





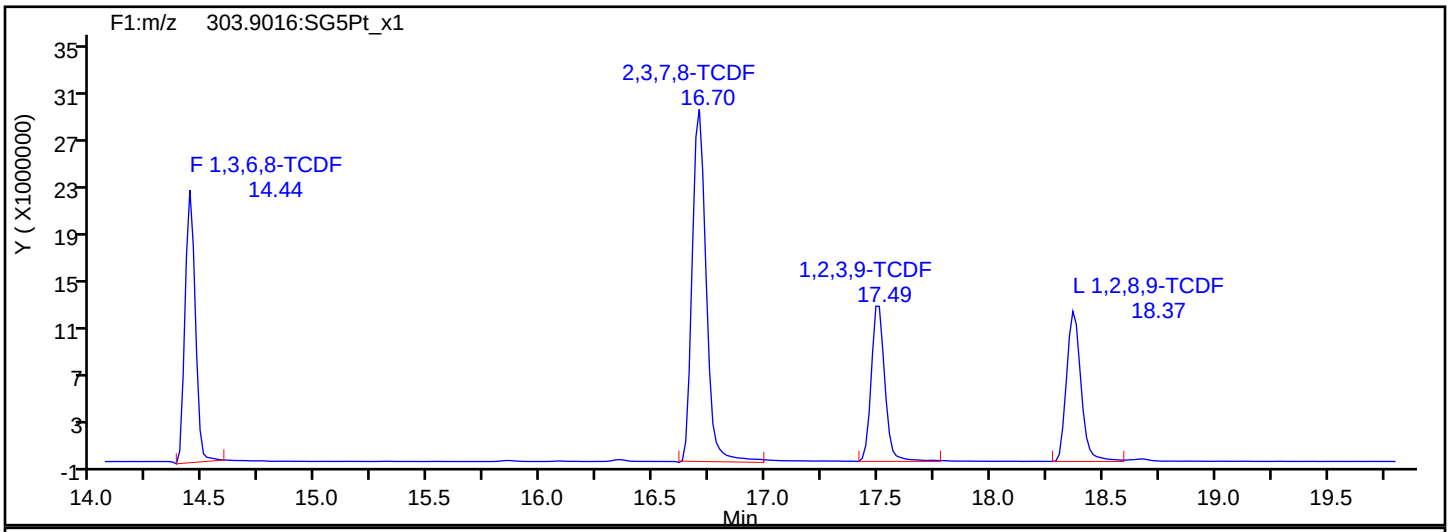
Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

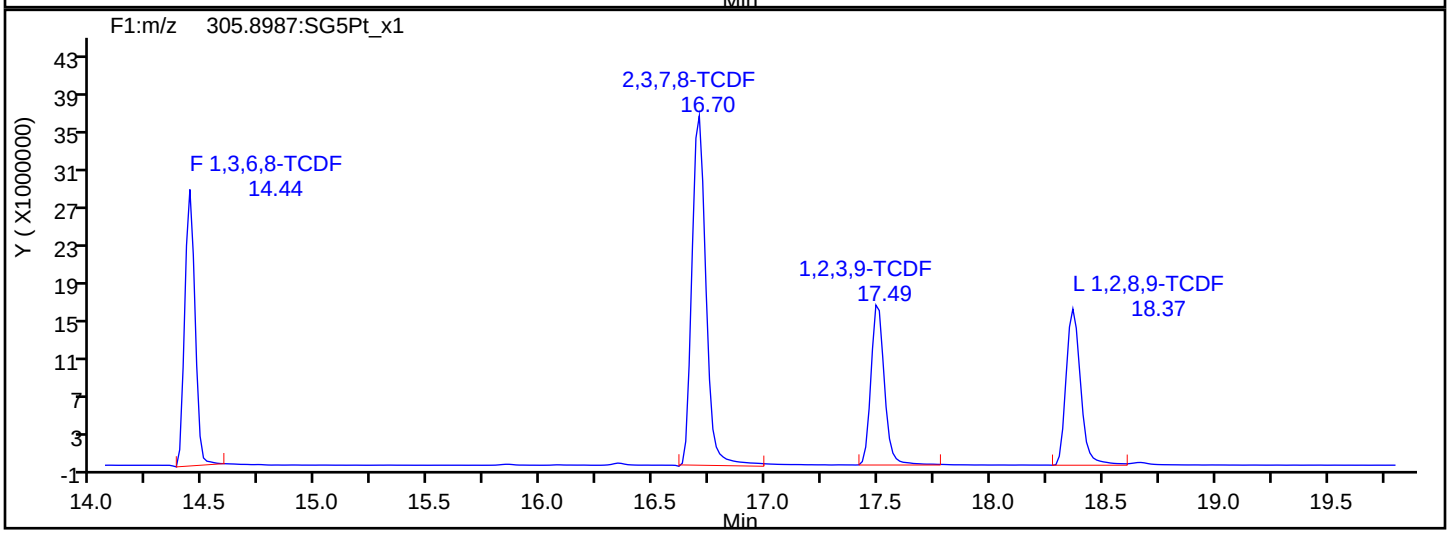
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

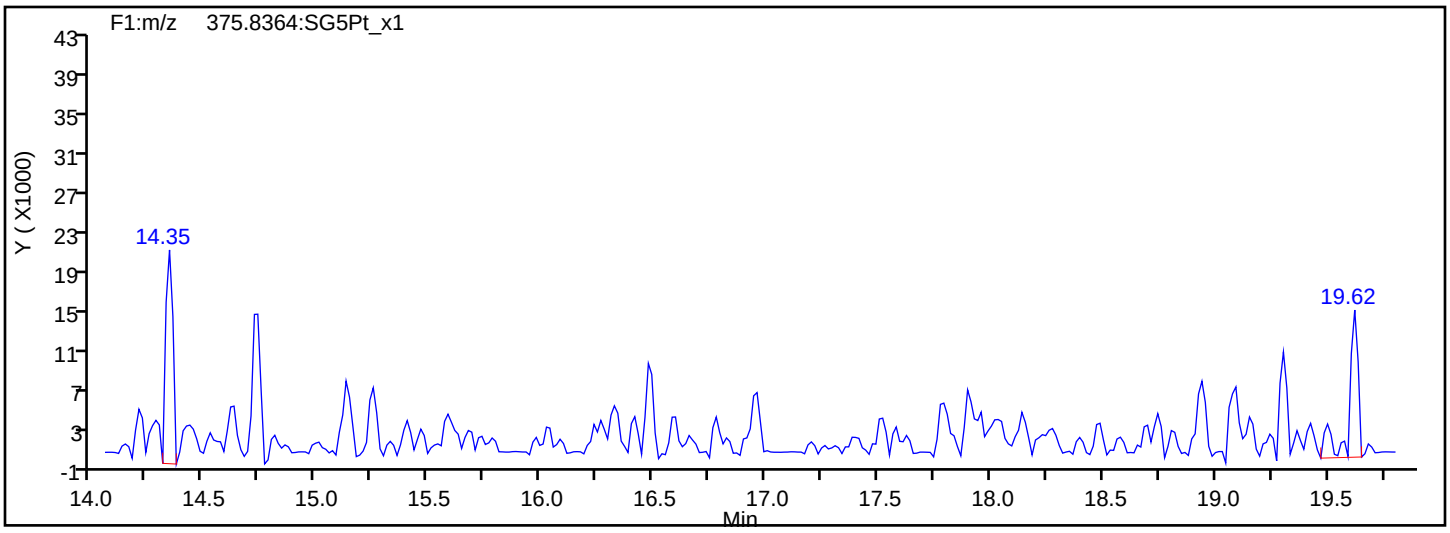
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



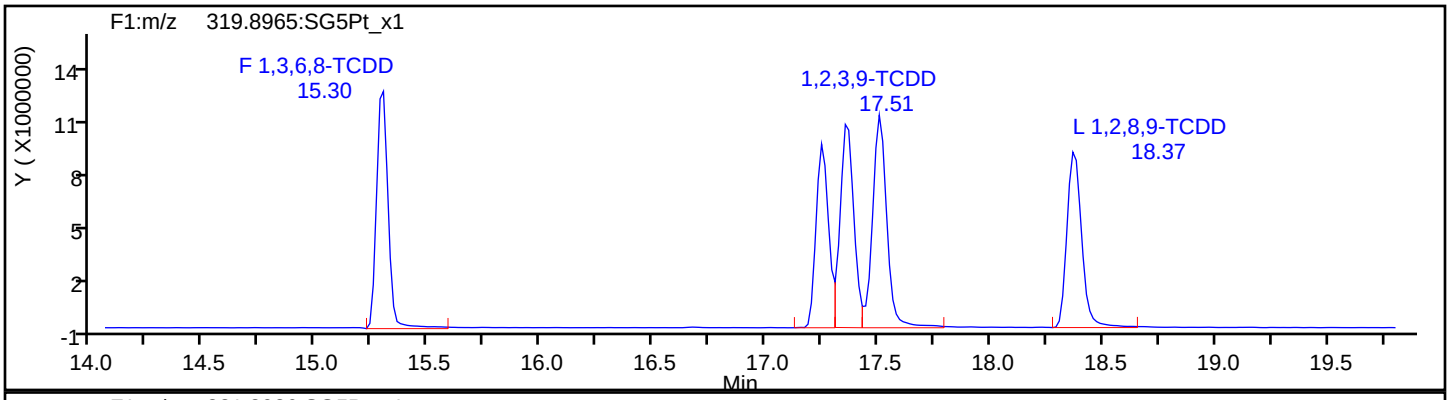
Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

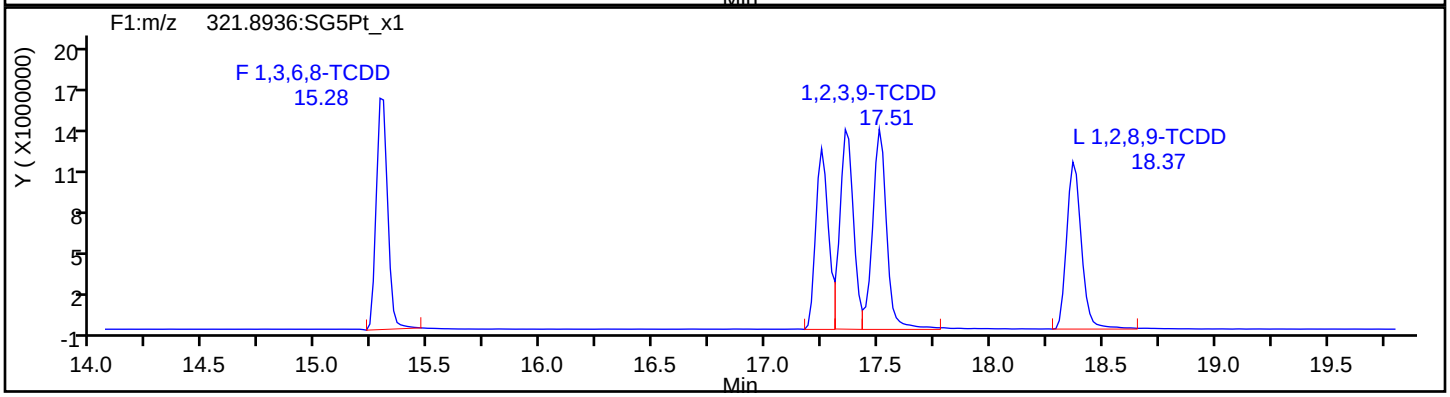
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

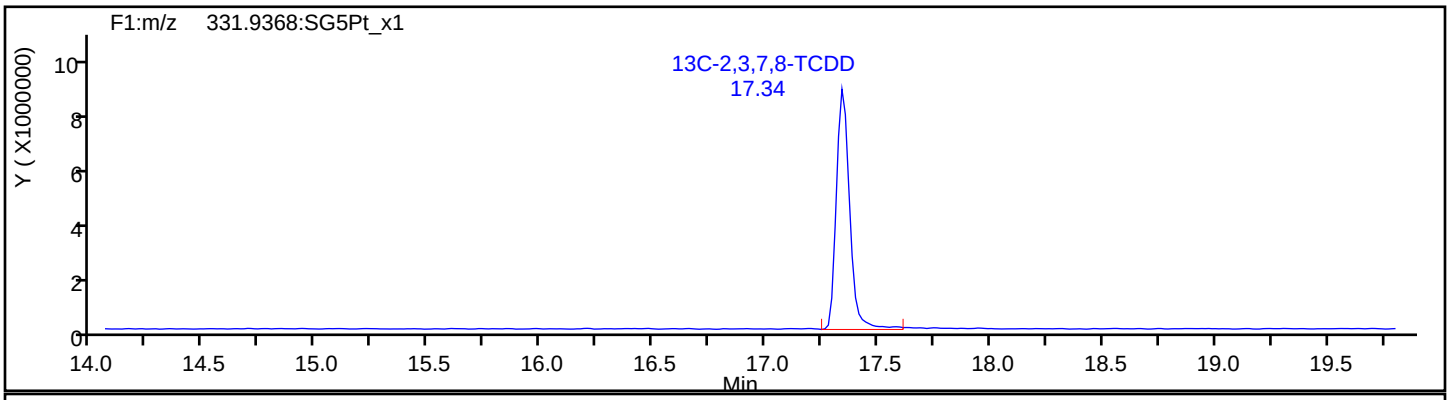
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

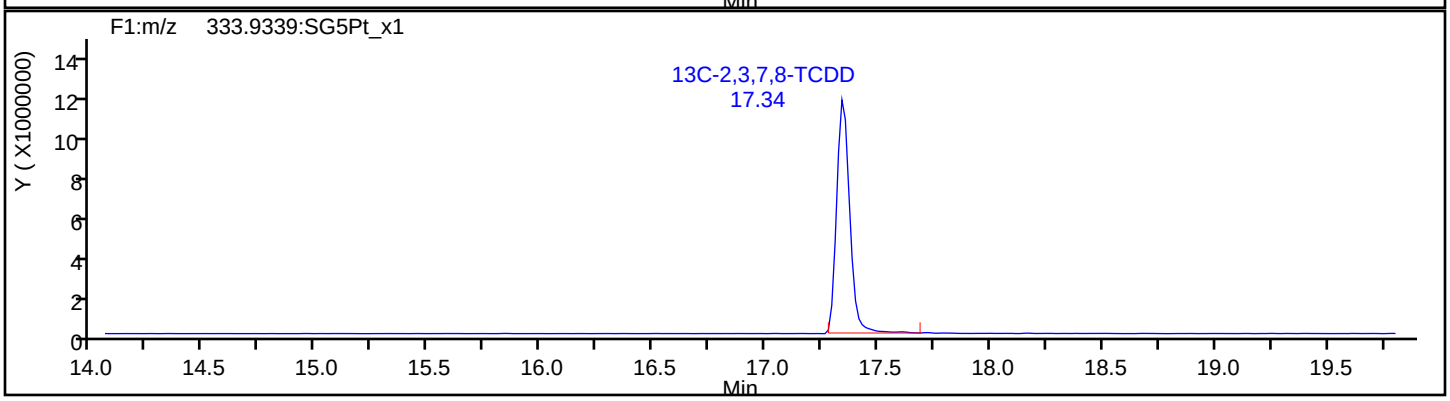
TCDD





TCDD Standards



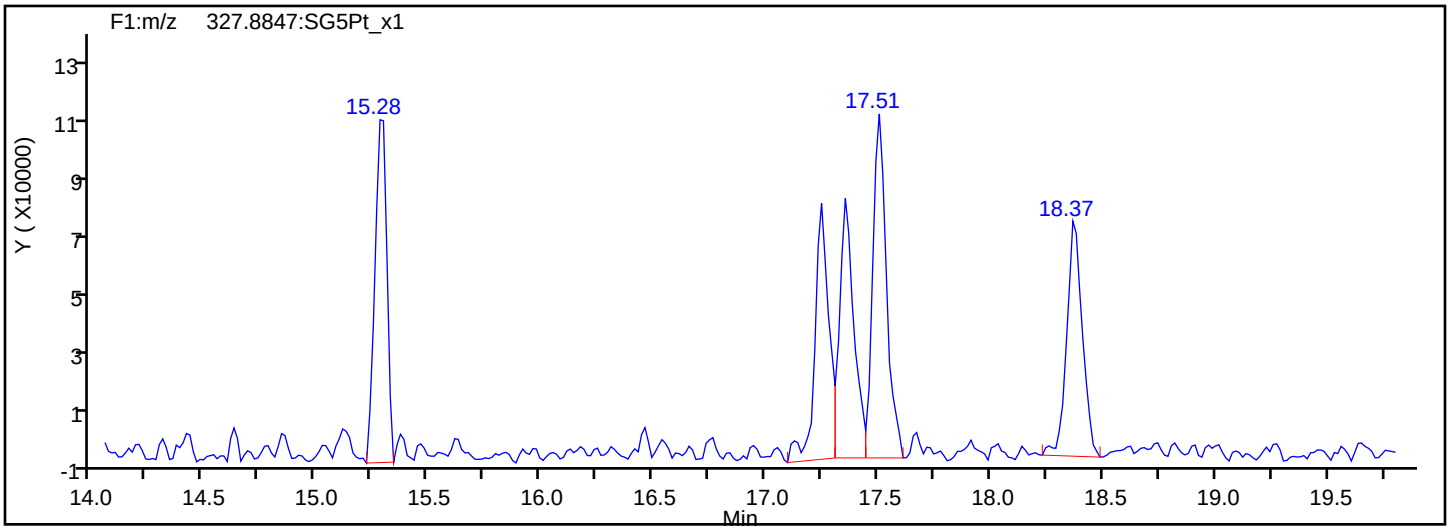


Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

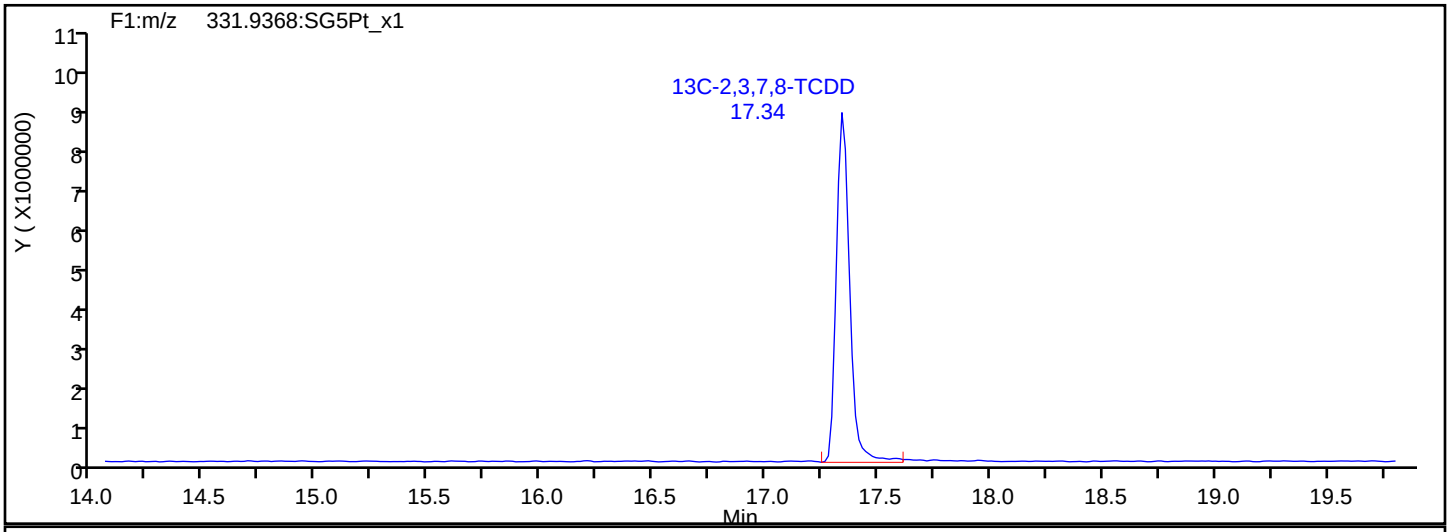
Eurofins TestAmerica, Sacramento

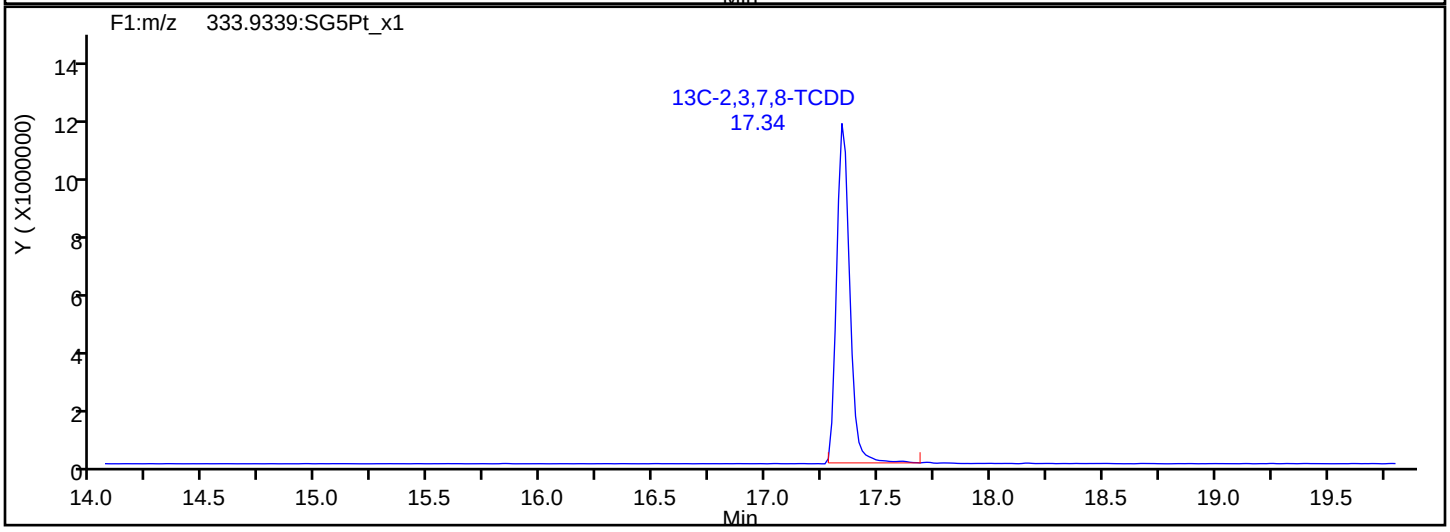
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards





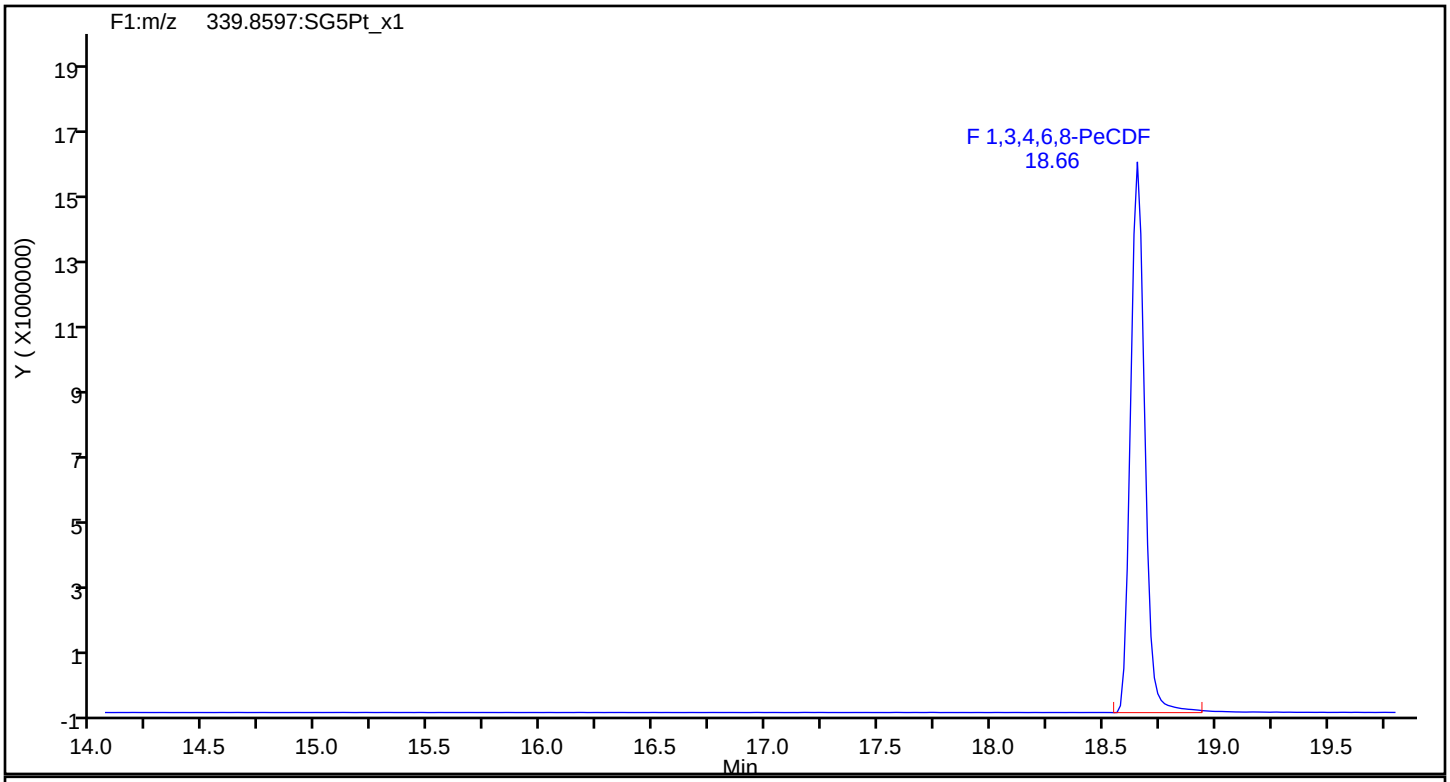
Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

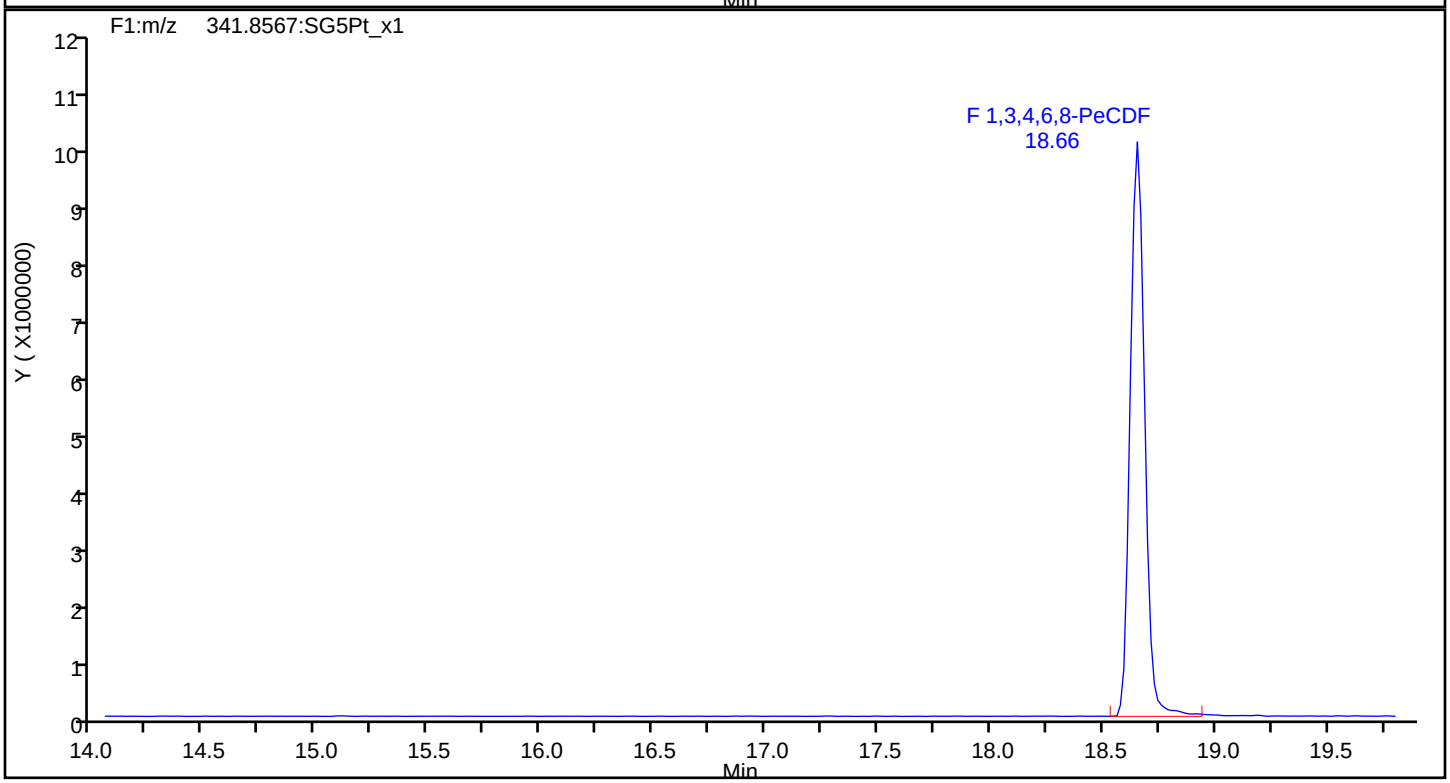
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



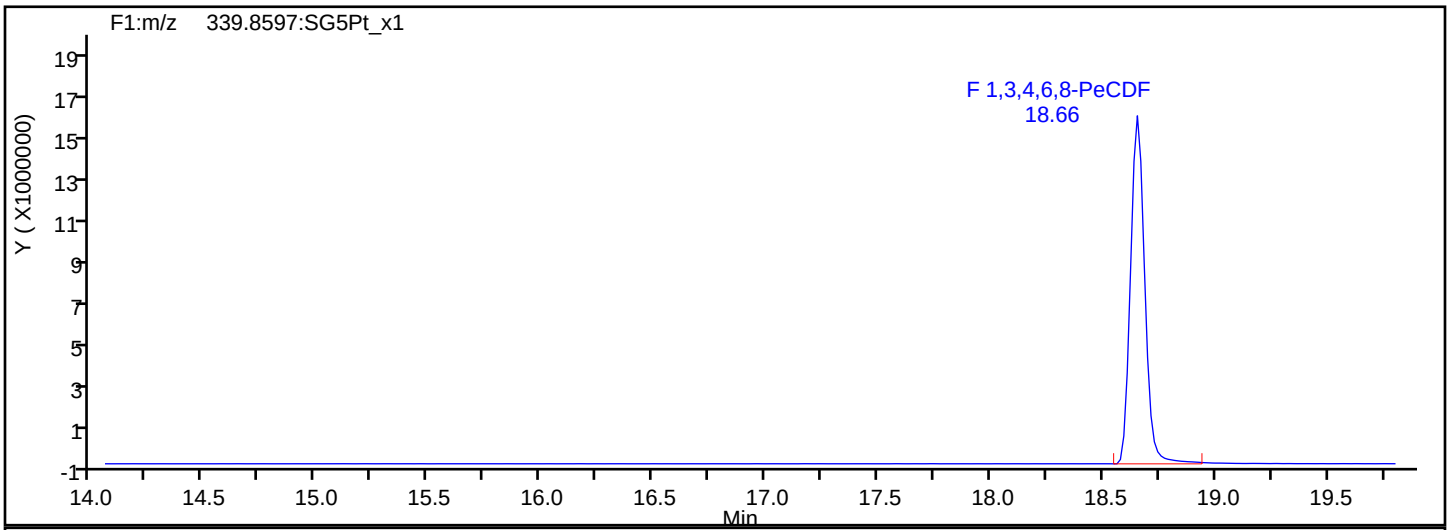


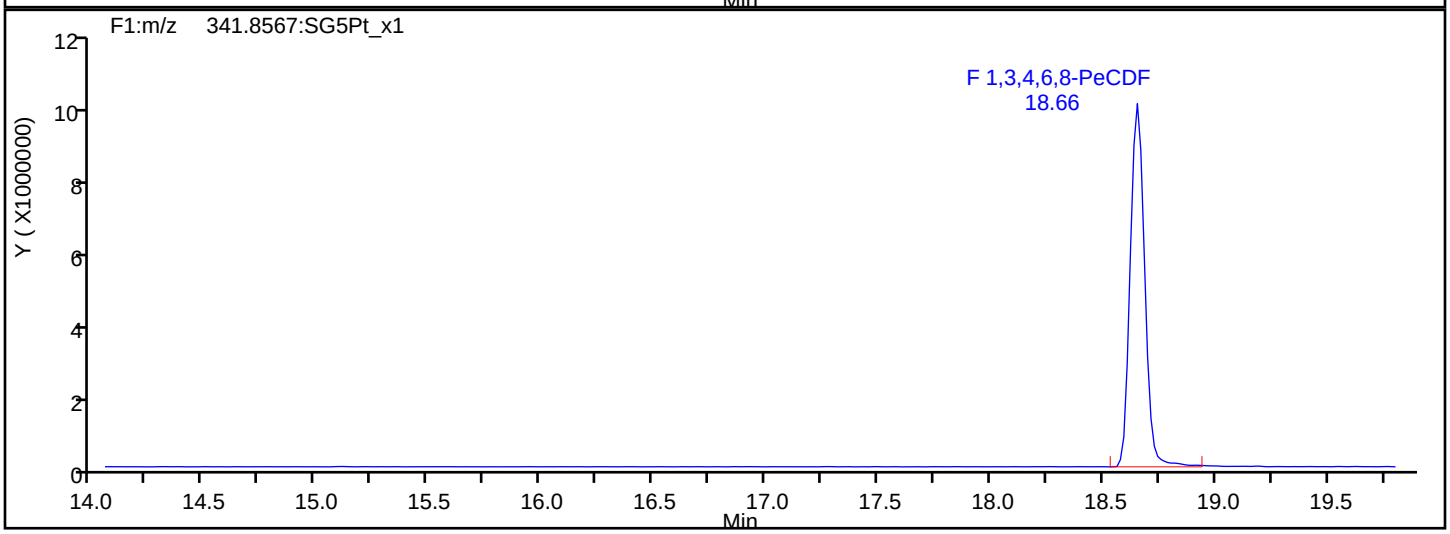
Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

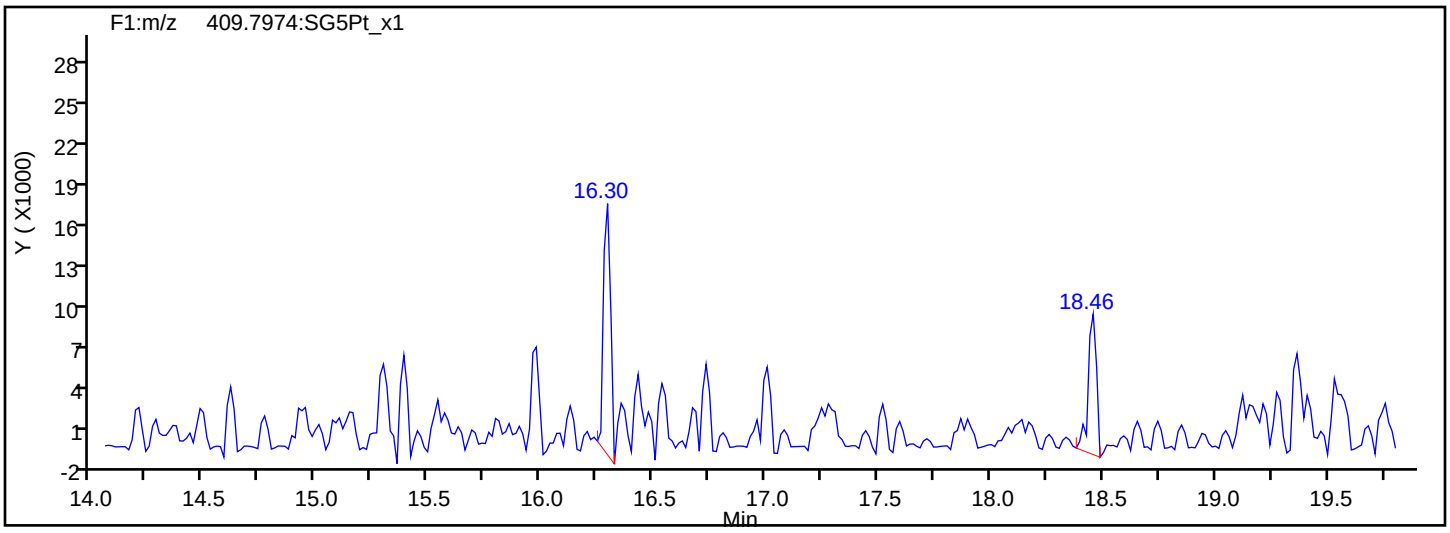
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

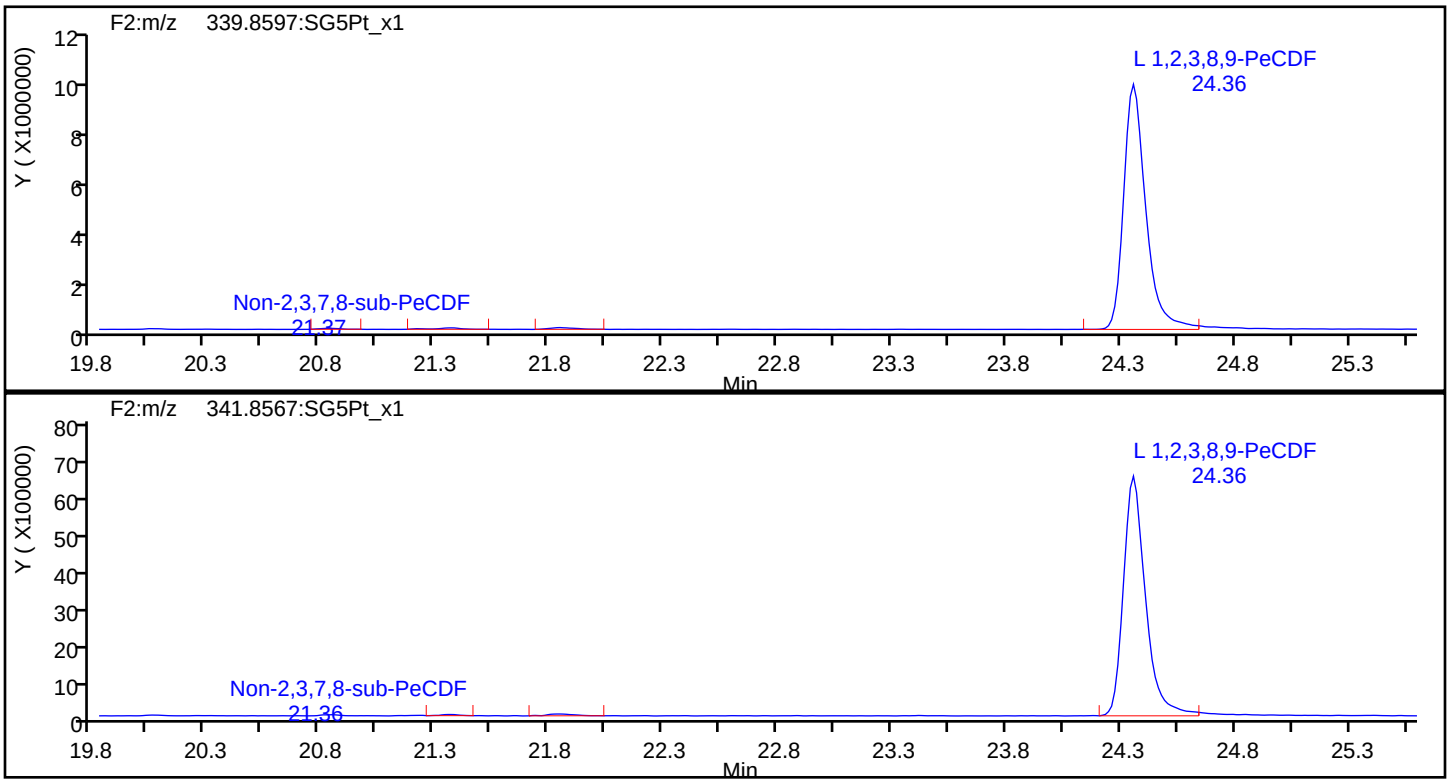


Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

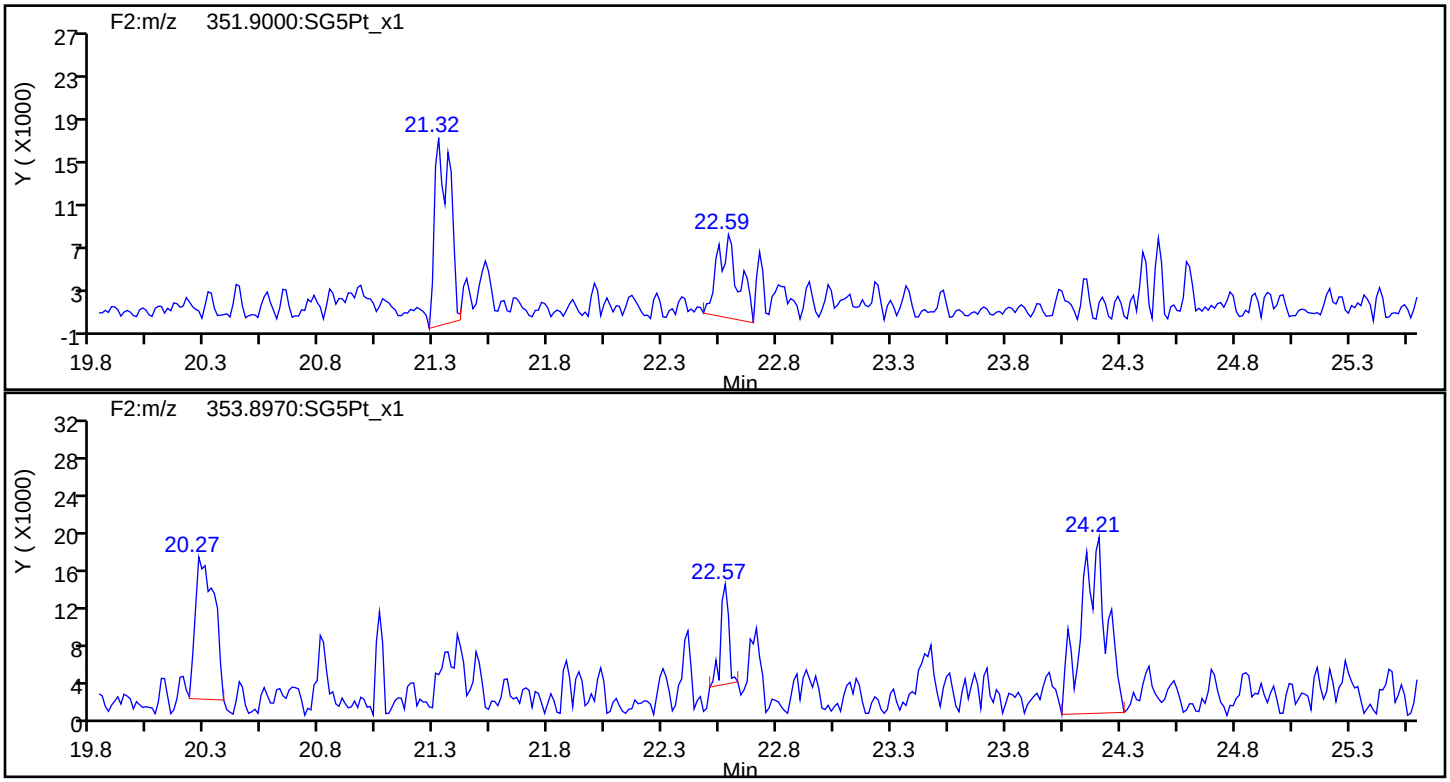
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

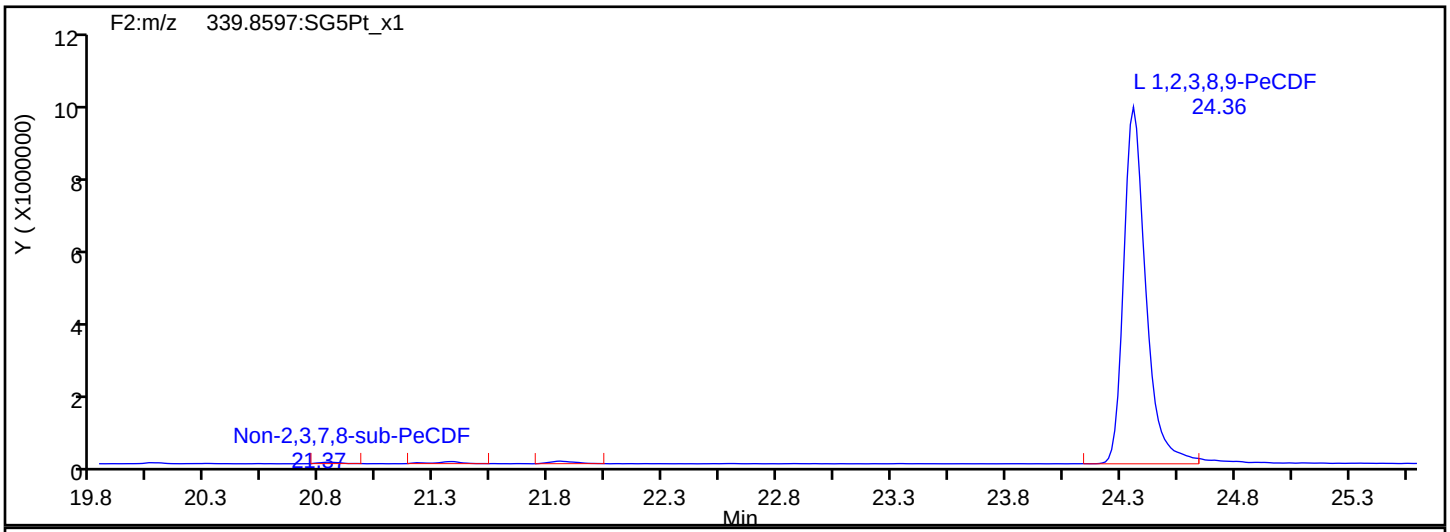


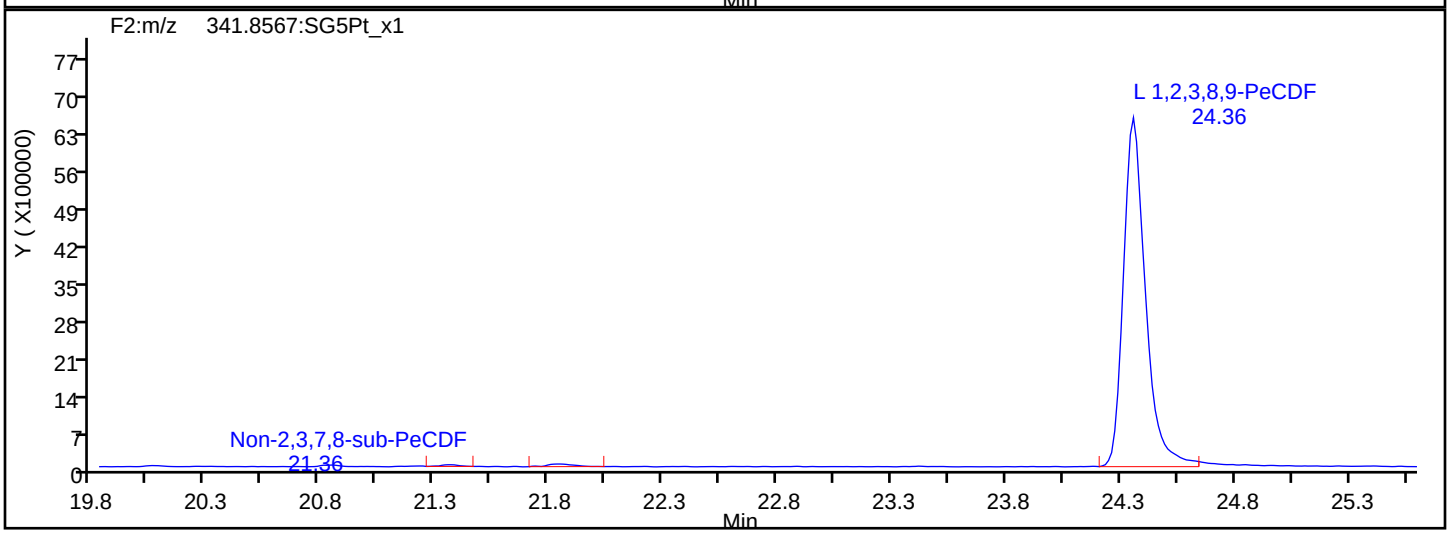
Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

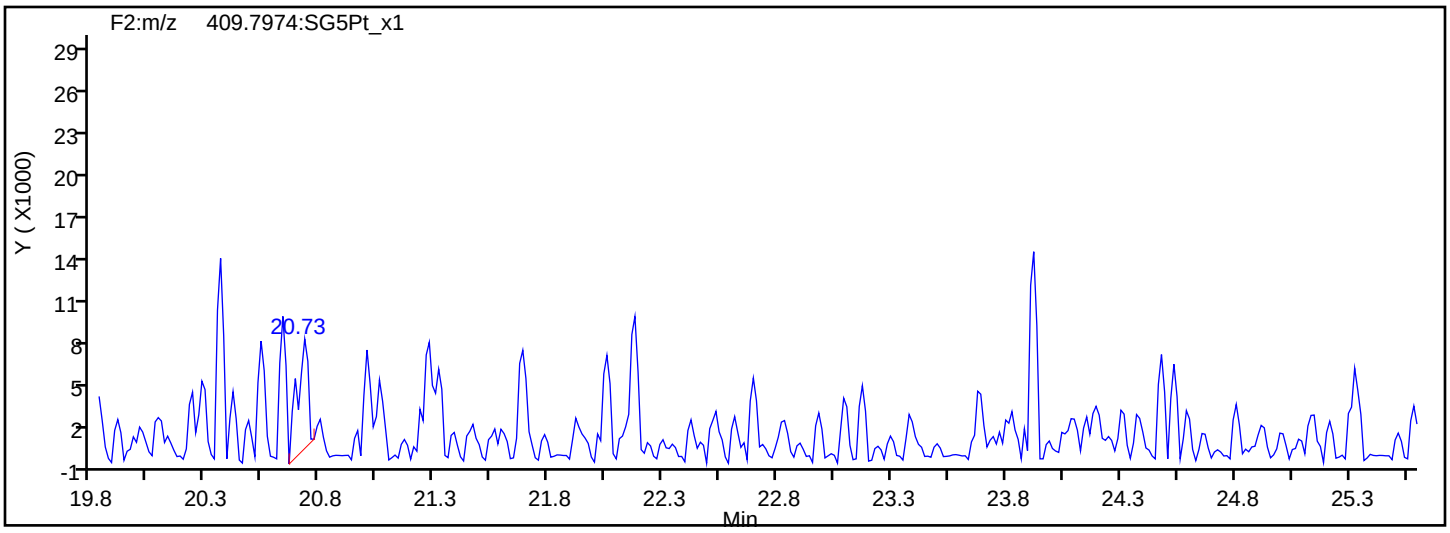
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



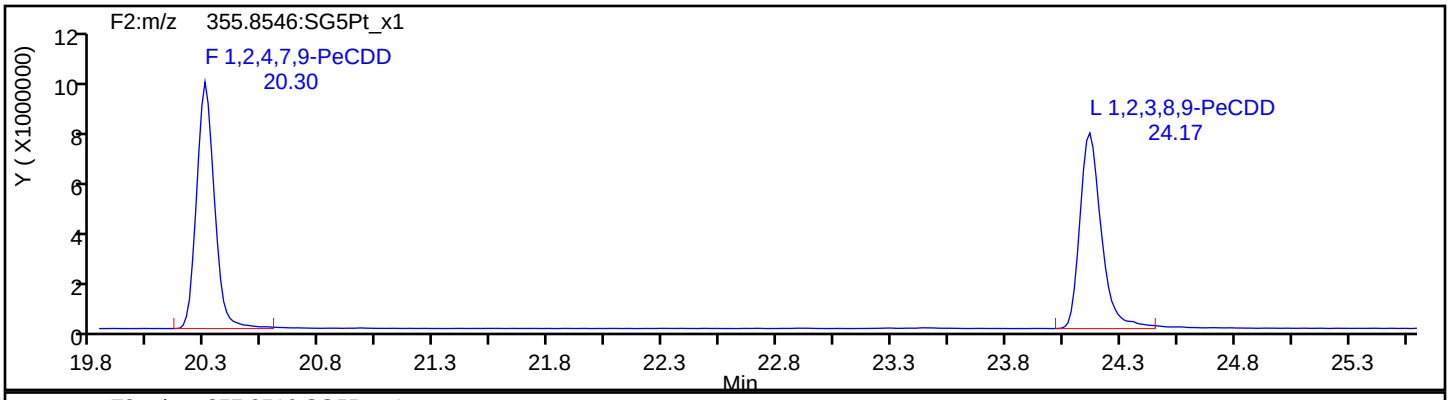
Report Date: 22-Jul-2019 12:37:15 Chrom Revision: 2.3 15-Jul-2019 06:58:08

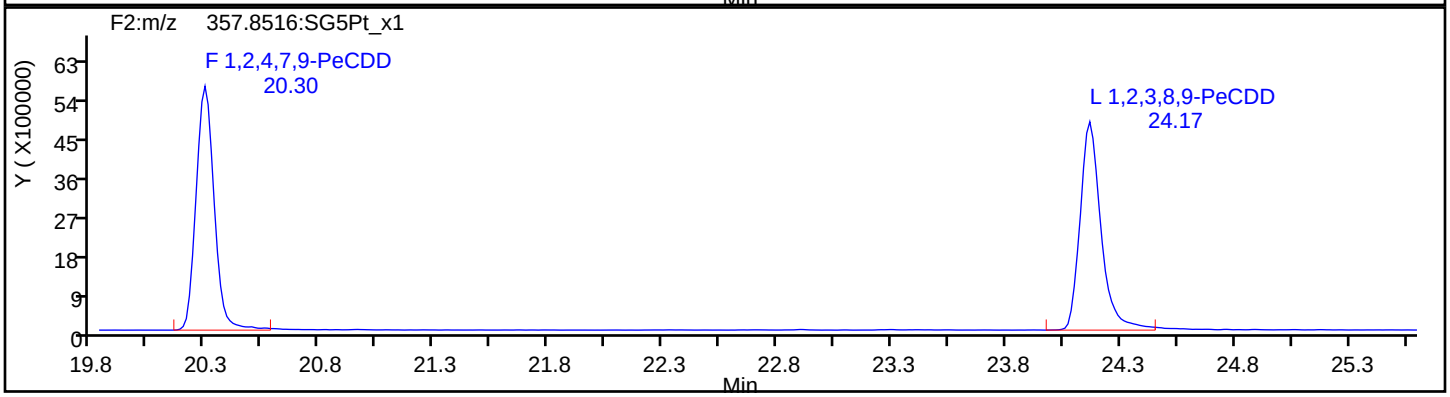
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

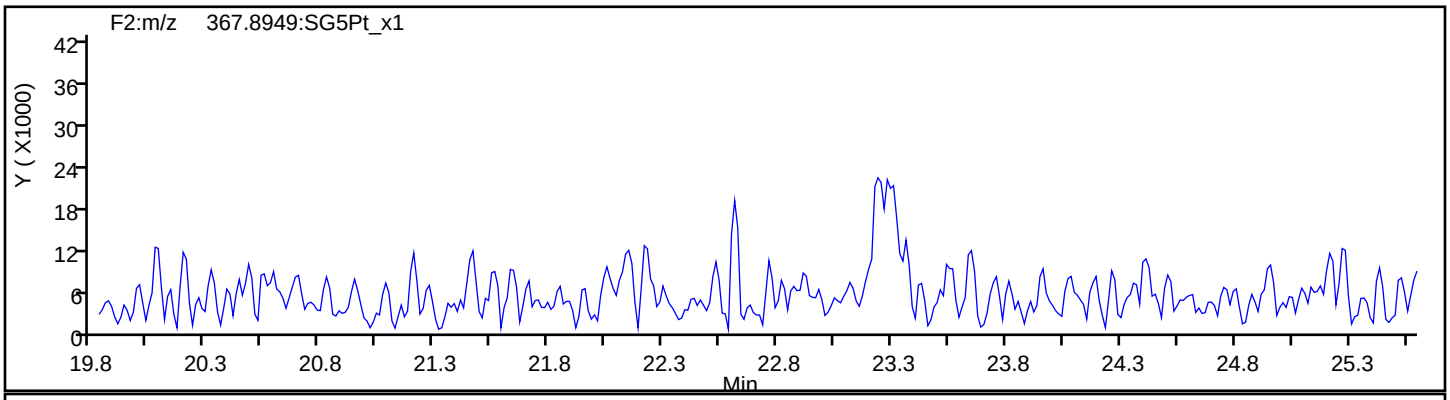
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

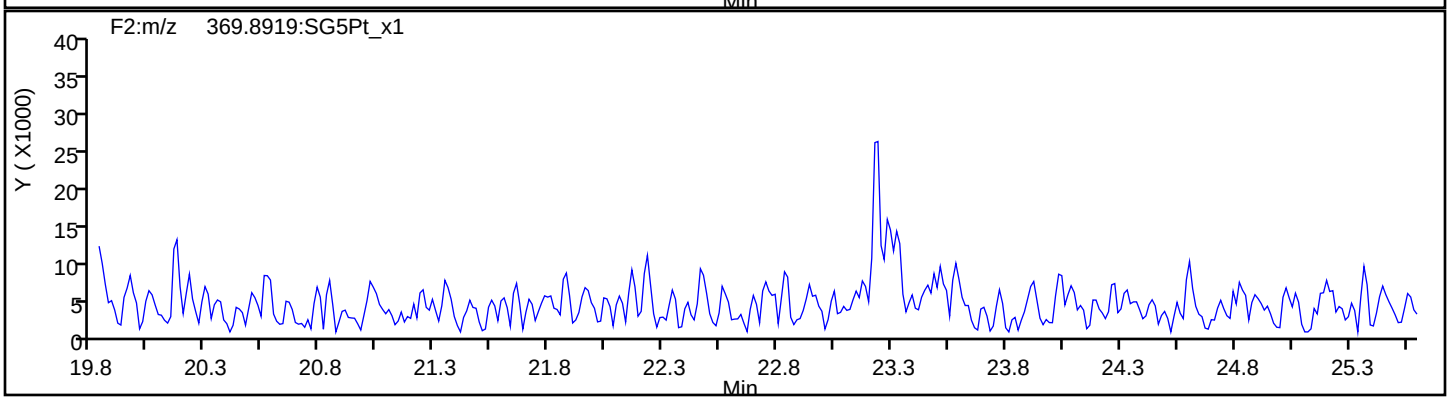
PeCDD





PeCDD Standards



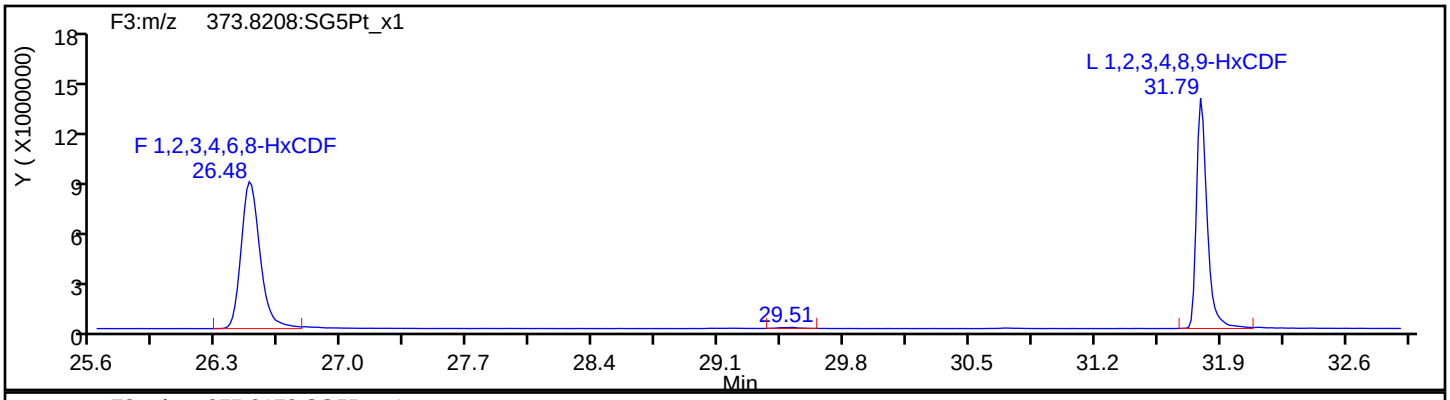


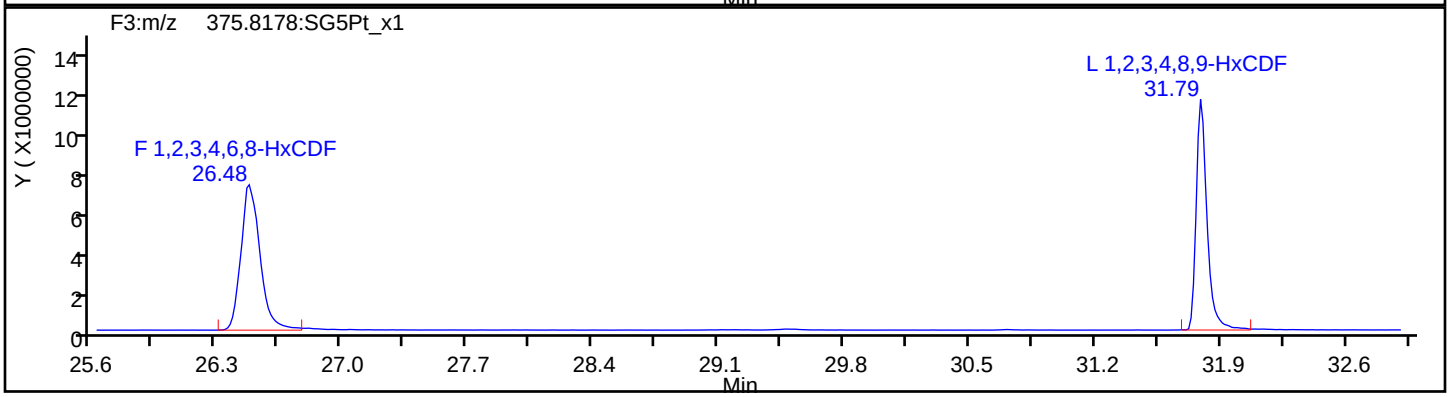
Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

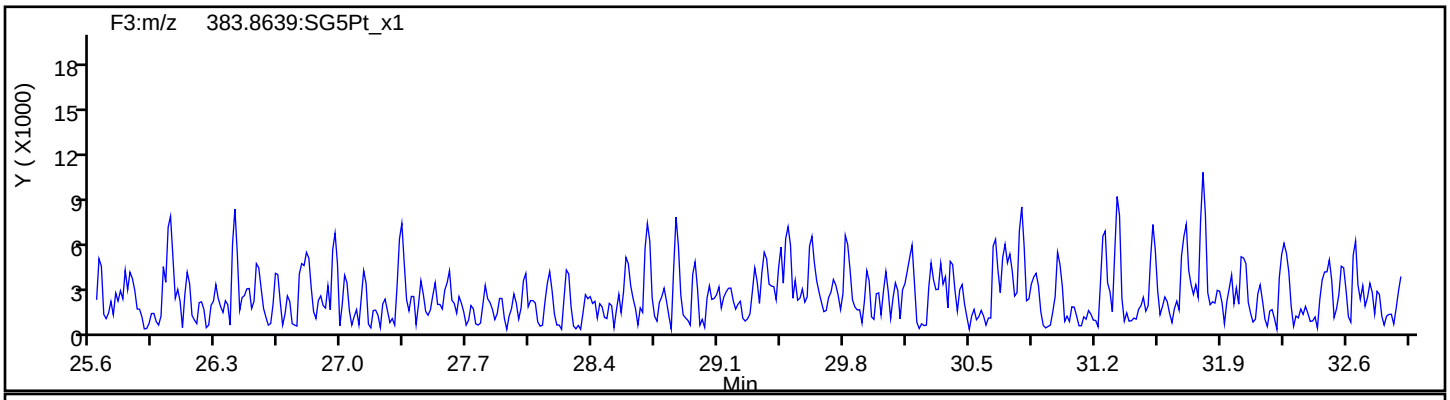
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

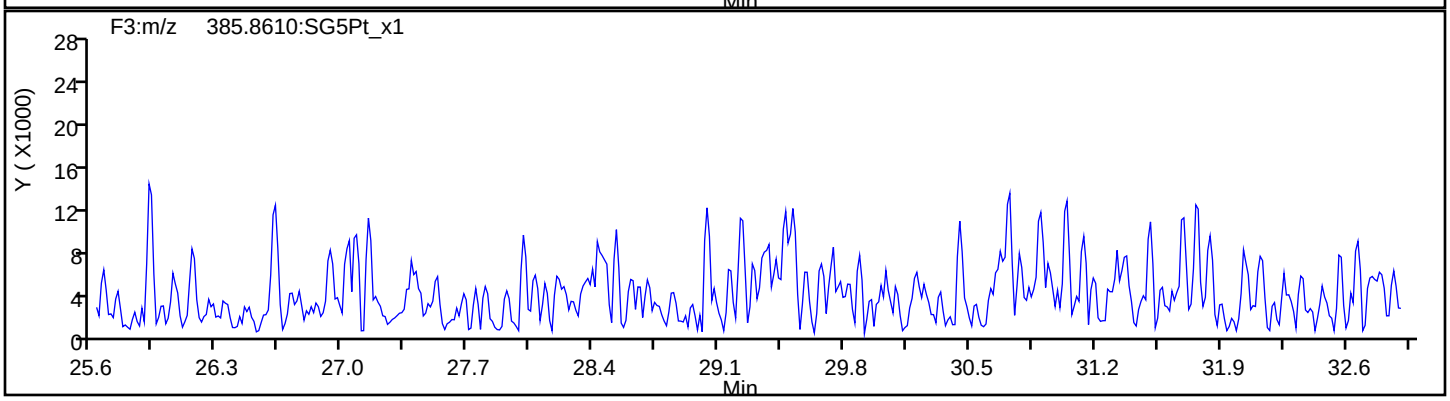
HxCDF





HxCDF Standards





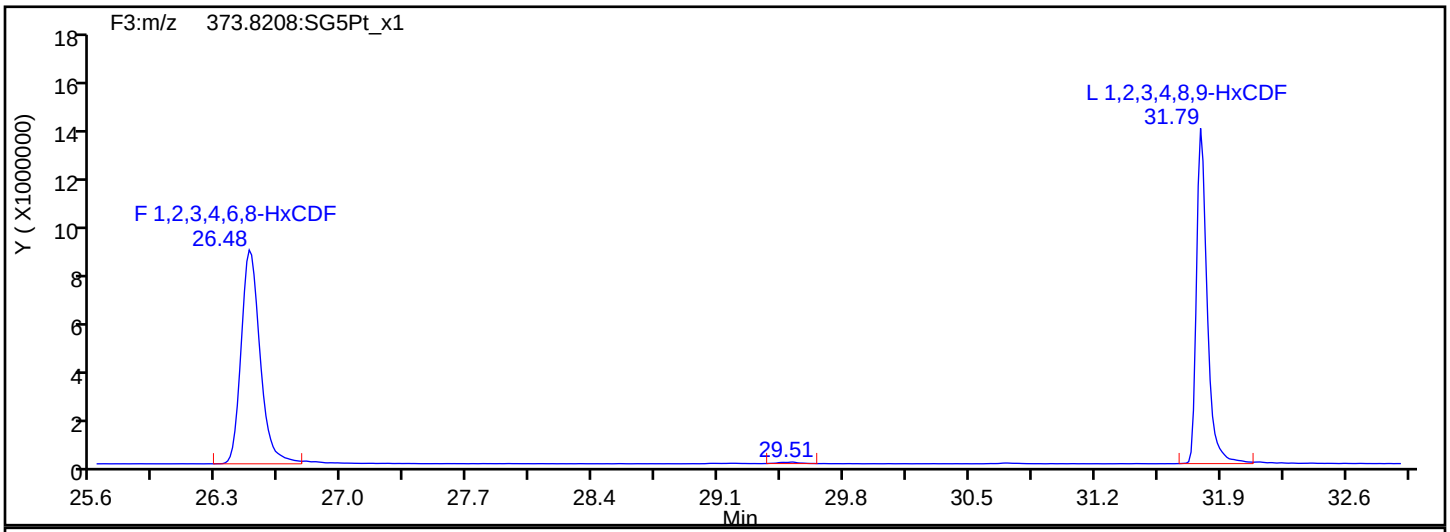
Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

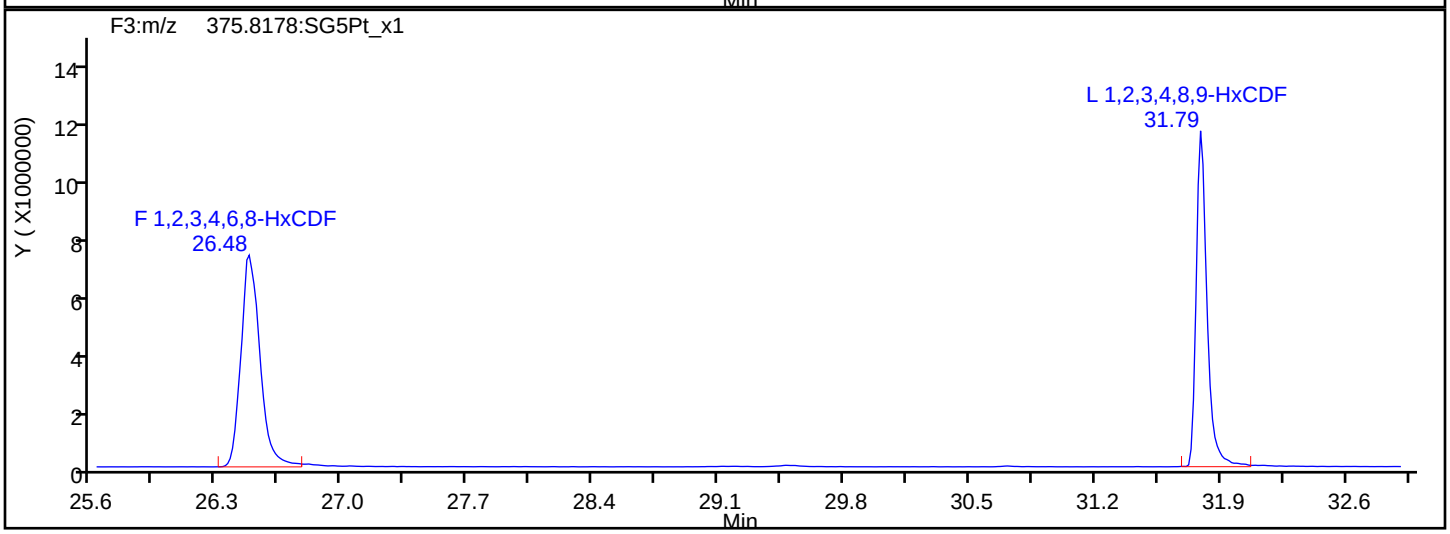
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

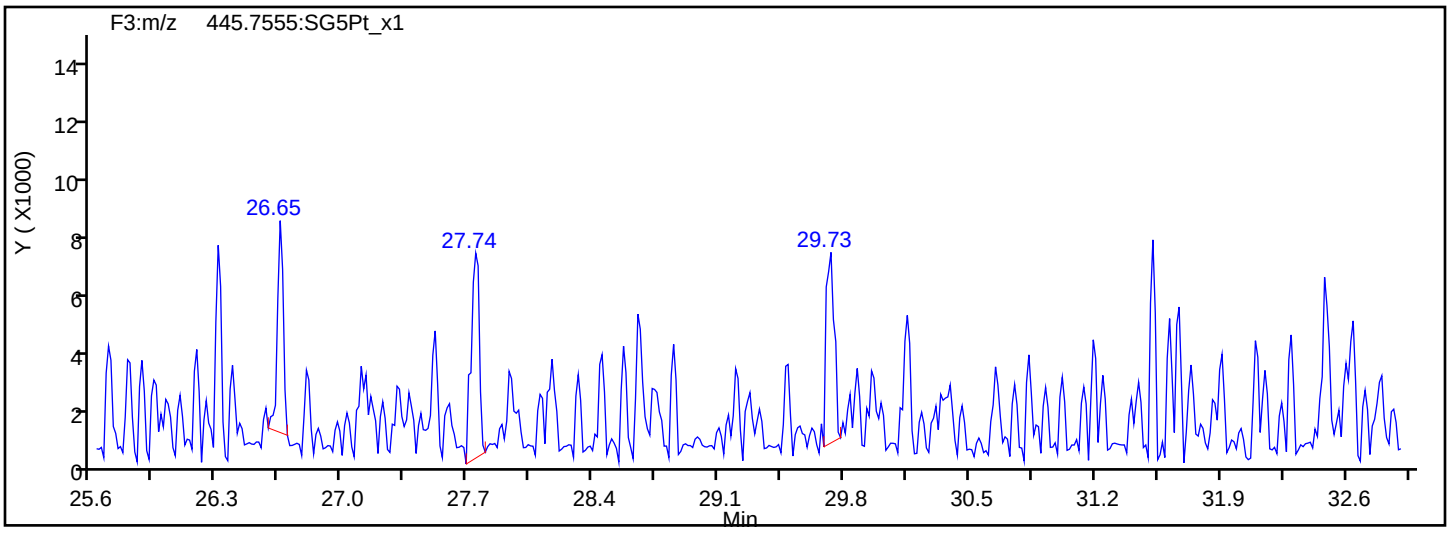
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



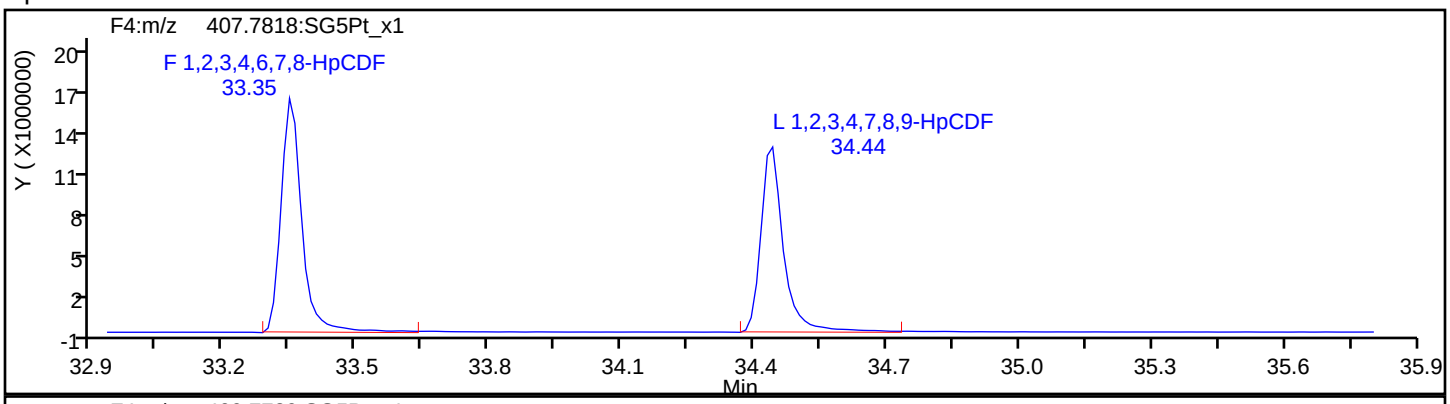
Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

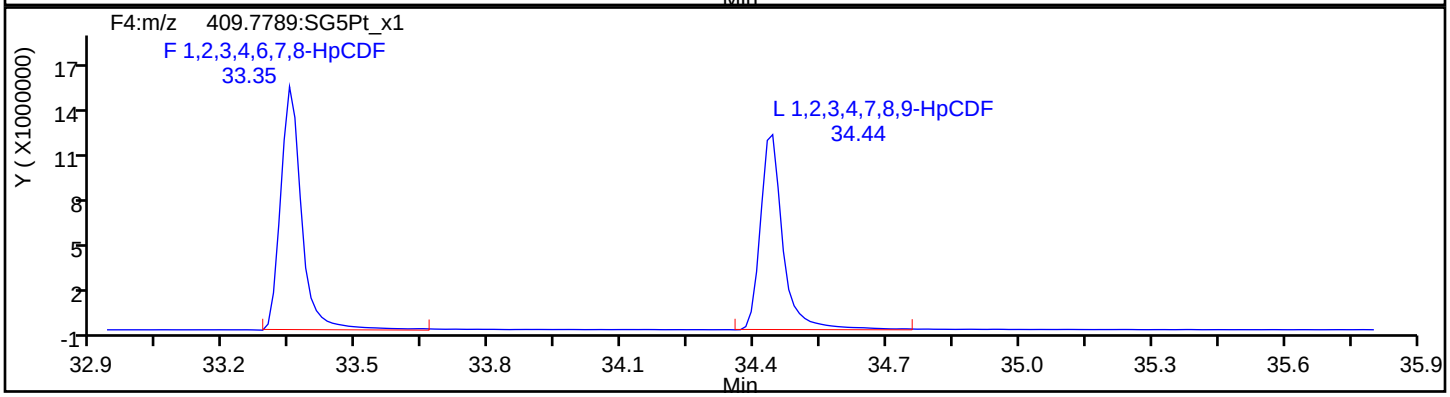
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

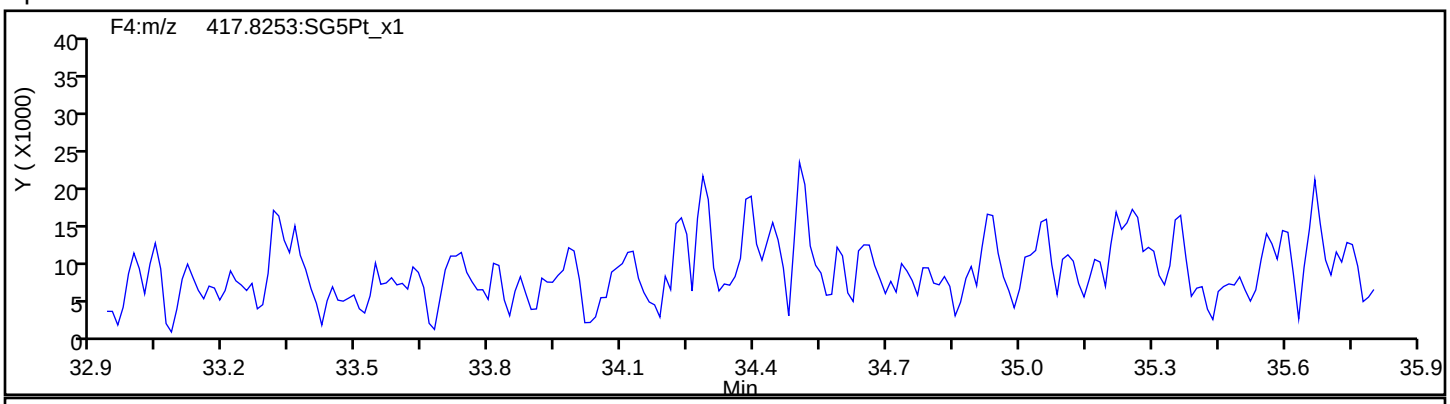
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

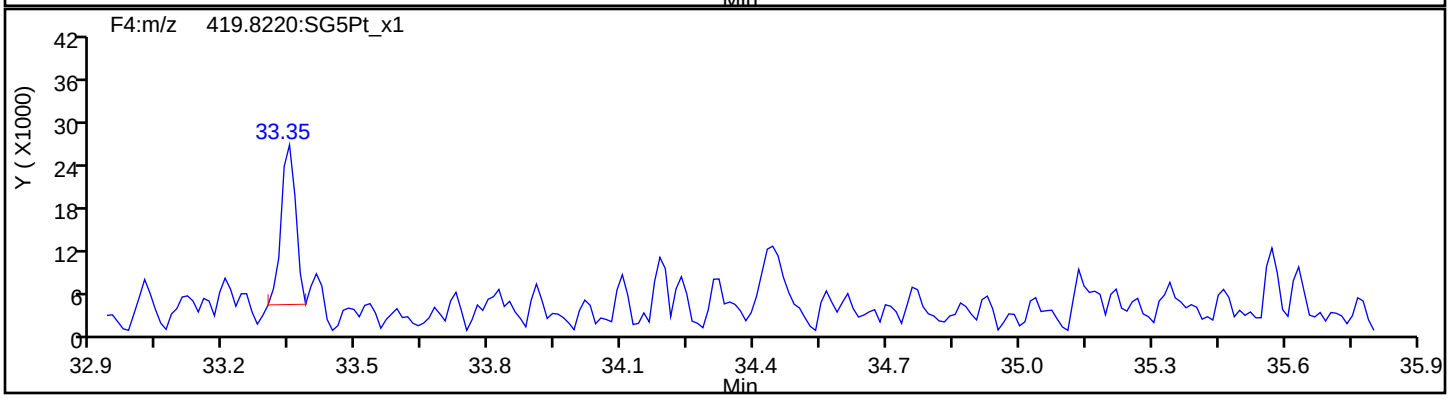
HpCDF





HpCDF Standards



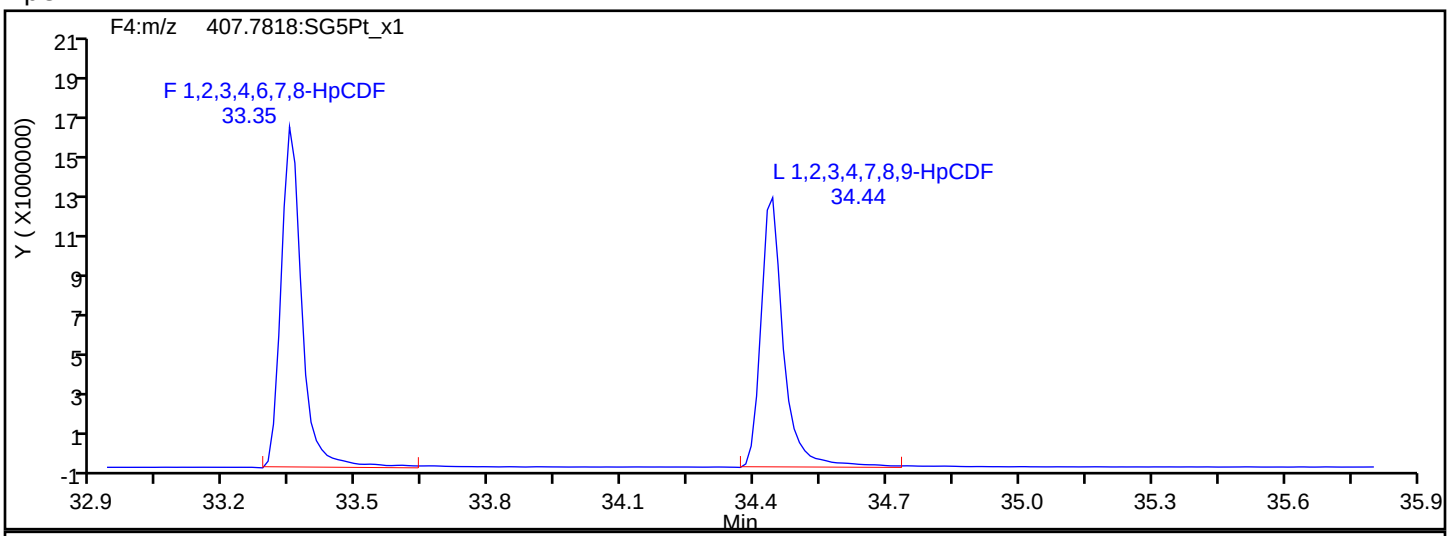


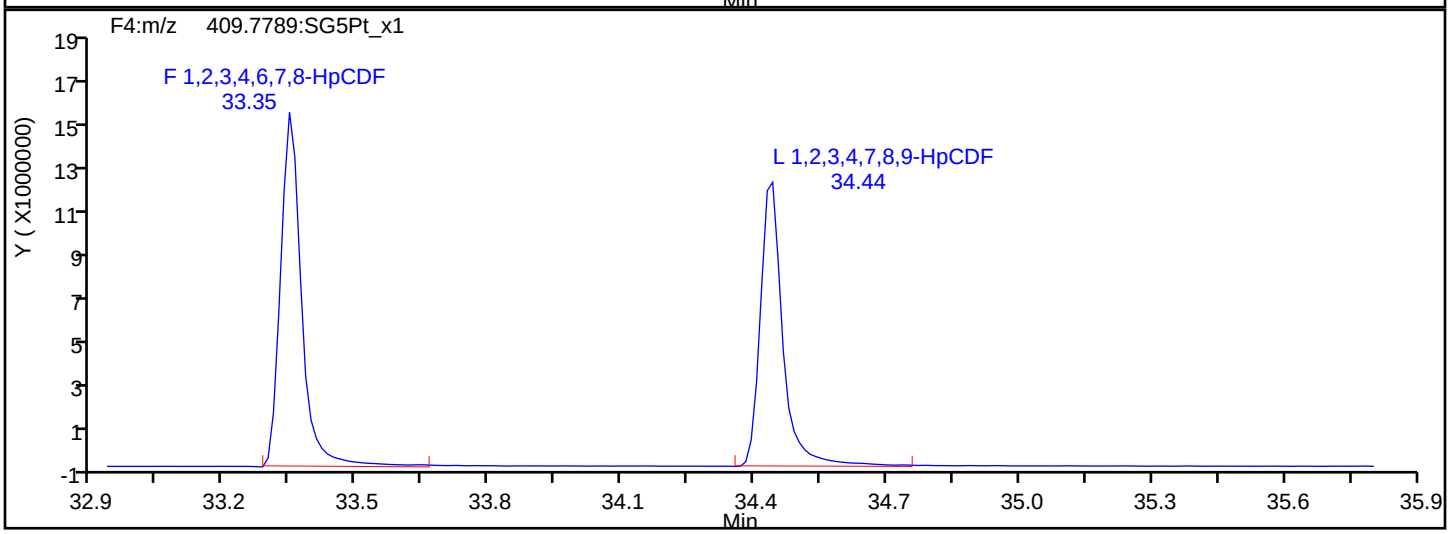
Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

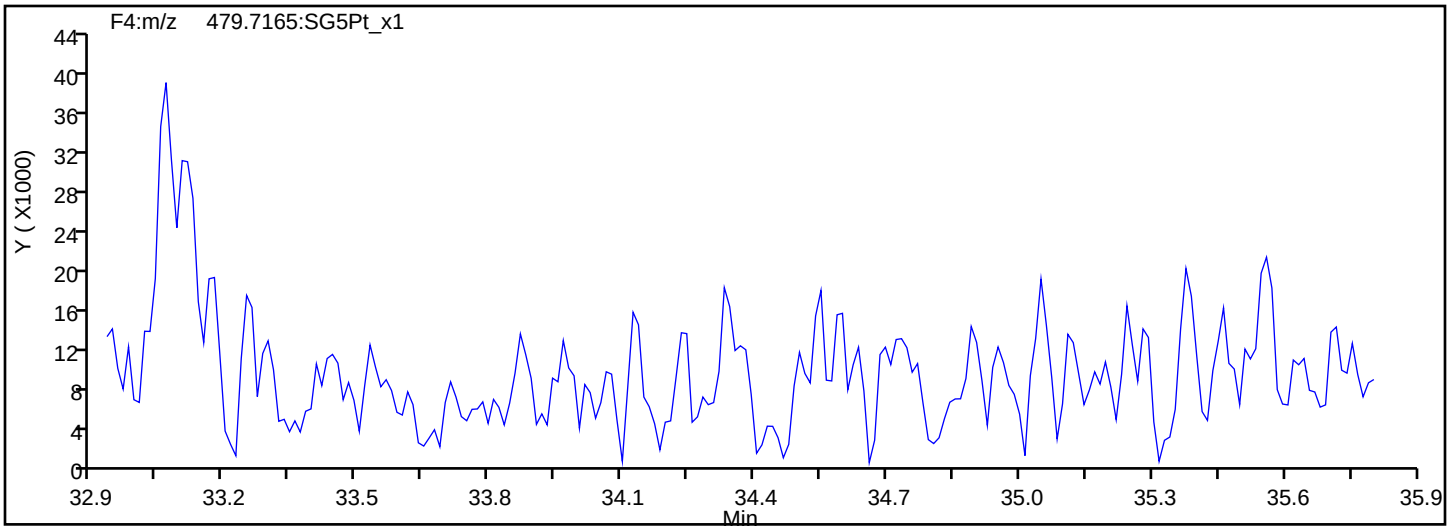
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



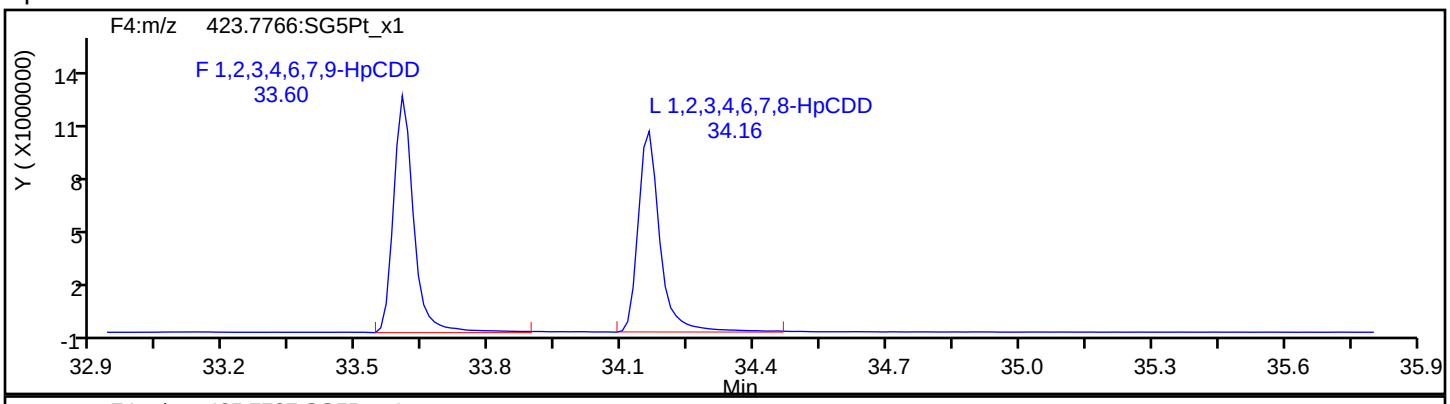
Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

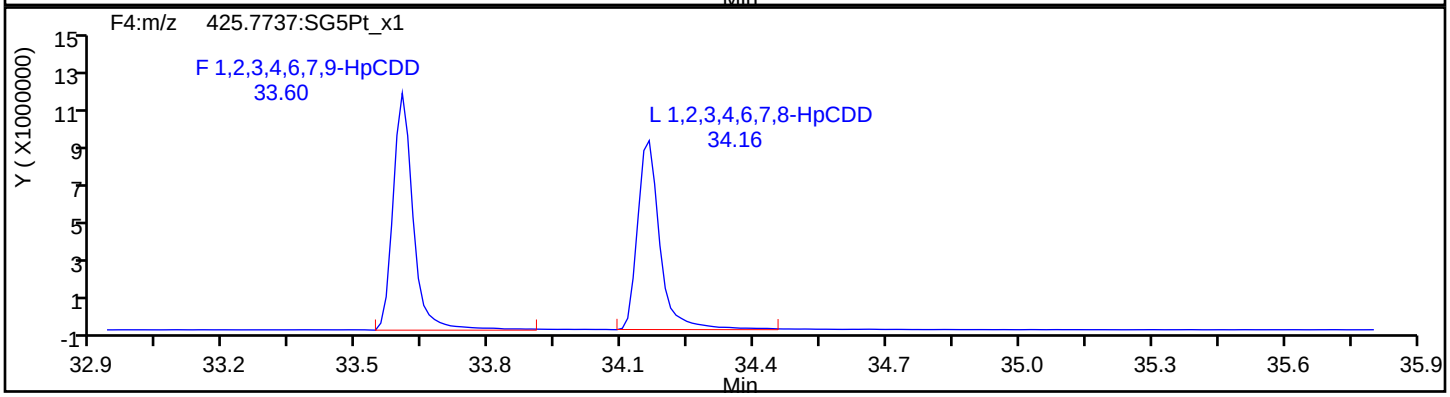
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d

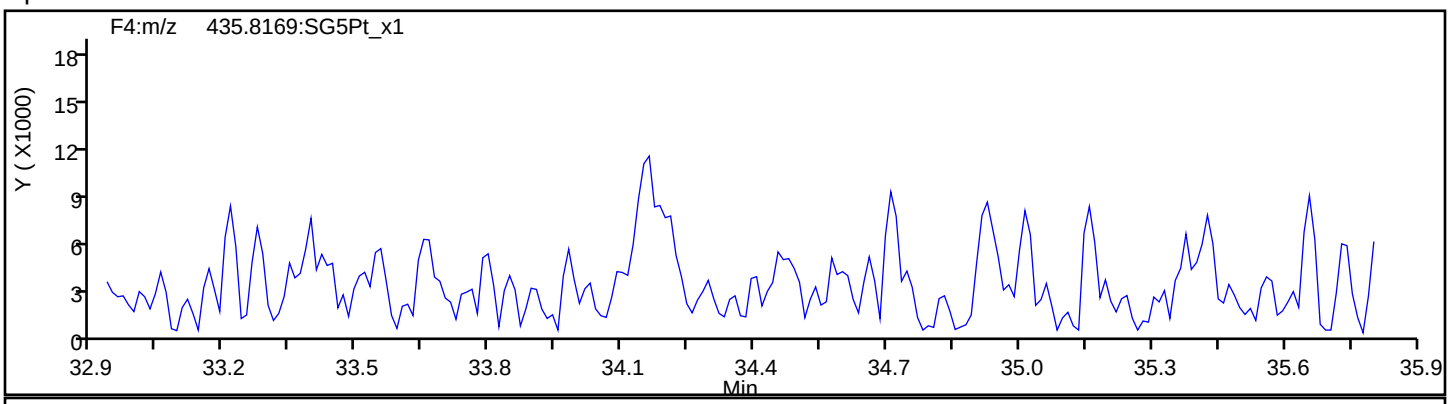
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm

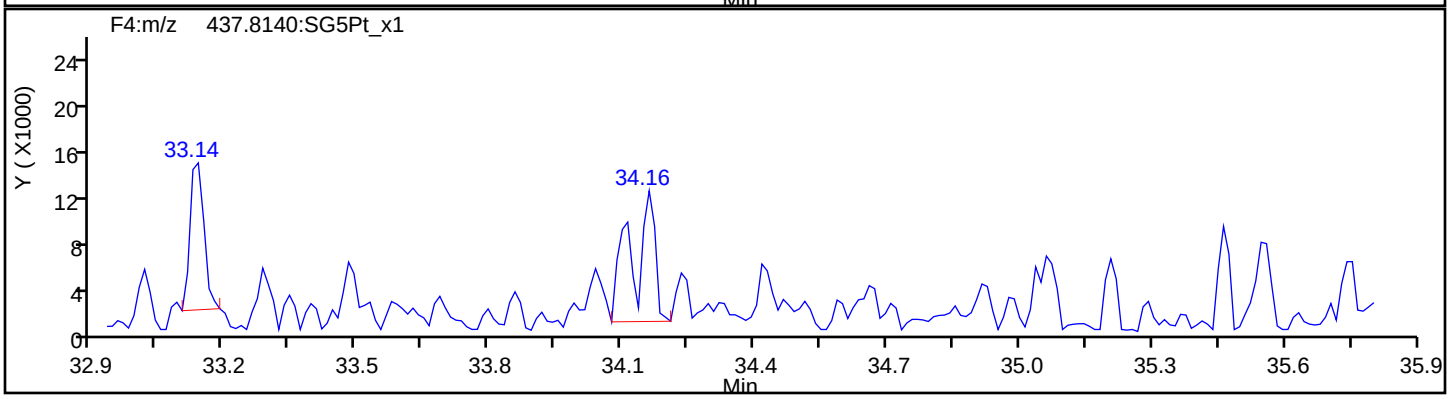
HpCDD





HpCDD Standards

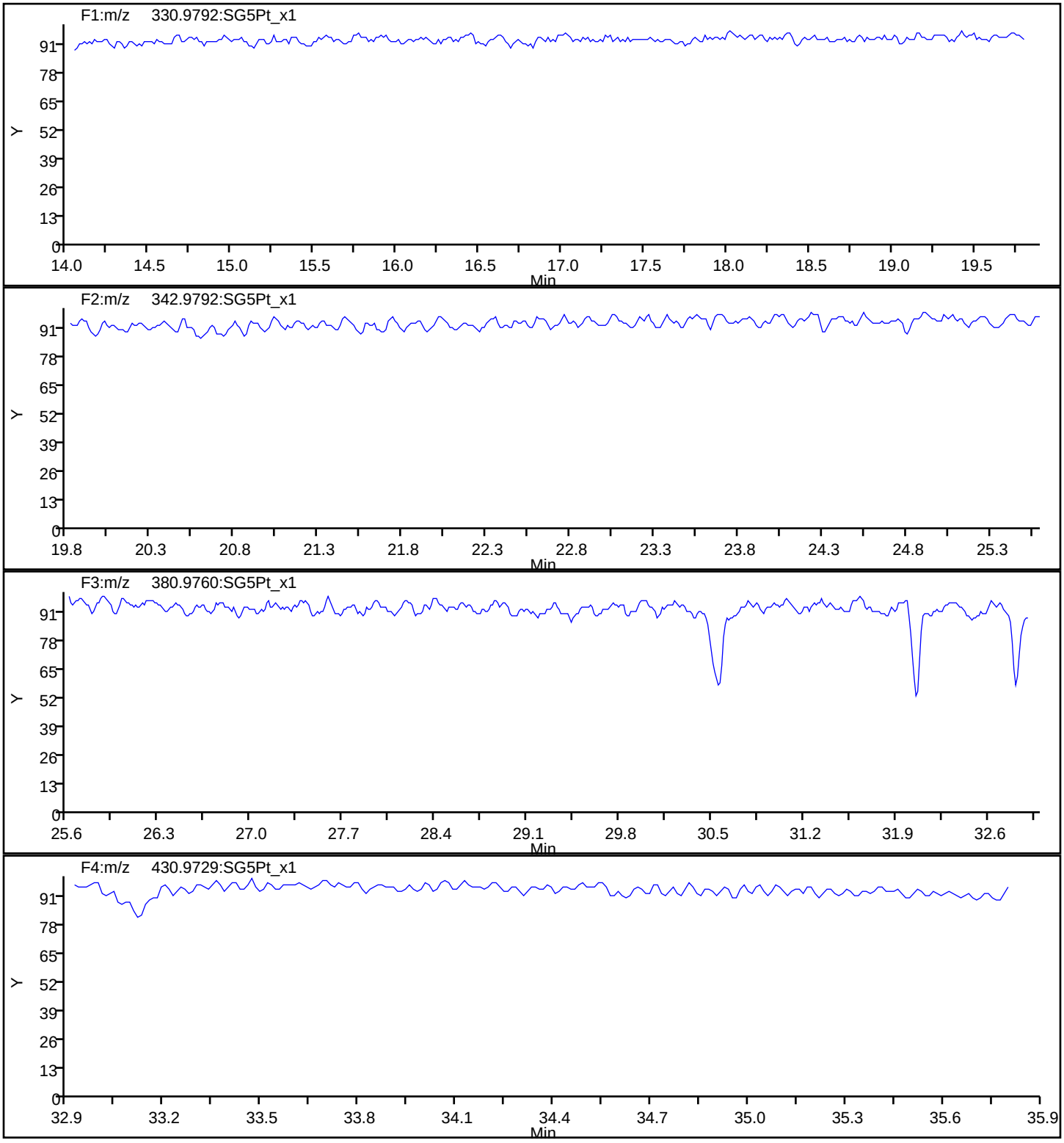




Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

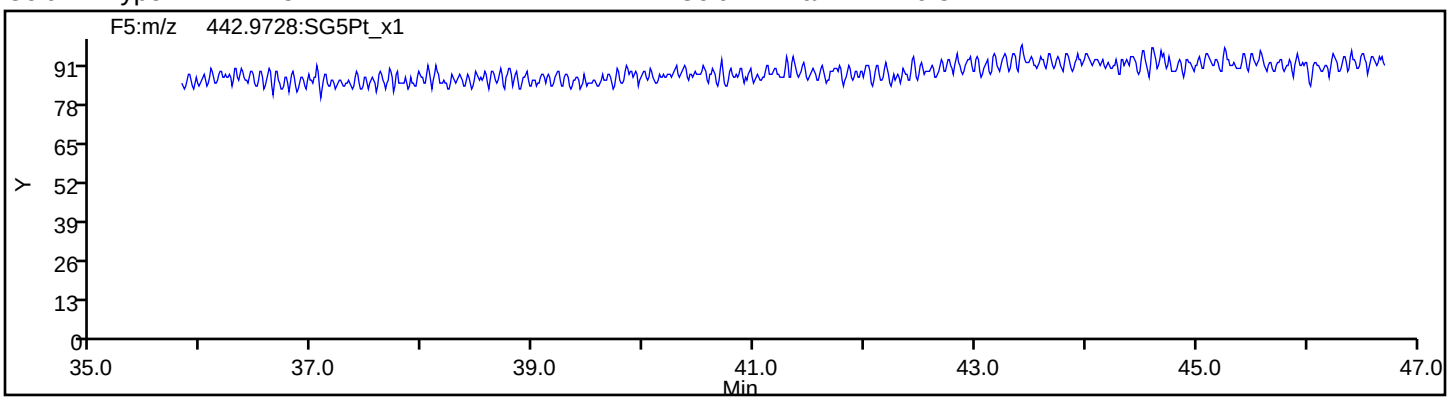
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 22-Jul-2019 12:37:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_67.d		
Injection Date:	22-Jul-2019 06:43:55	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309104	Sample Line#:	67
Column Type:	DB-5	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d
Lims ID: CPS
Client ID:
Sample Type: CPS
Inject. Date: 13-May-2019 17:44:51 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CPS HRDXNCP_00038
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:01:18 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:43:49

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C-2,3,7,8-TCDF	15.502	188885072	0.81	1.3652					0.00	
2,3,7,8-TCDF	15.516	197172555	0.78	1.1747	35.5	35.5	0.0231	0.0231		
D 13C-2,3,7,8-TCDD	14.116	127072640	0.77	0.9684					0.00	
2,3,7,8-TCDD	14.144	136735944	0.80	1.2259	35.1	35.1	0.0256	0.0256		

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Report Date: 14-May-2019 10:01:28 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d
Lims ID: CPS
Client ID:
Sample Type: CPS
Inject. Date: 13-May-2019 17:44:51 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CPS HRDXNCP_00038
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 14-May-2019 10:01:18 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0337

First Level Reviewer: stephensk Date: 14-May-2019 09:43:49

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,7,8-TCDF											
315.9419	15.502	15.484	1	1.000	84639935	18406896	17541	43852	1049		
317.9389	15.502	15.484	1	1.000	104245137	22438838	12816	32040	1751	0.81(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	15.516	15.501	1	1.001	86389259	18104471	4942	12355	3663		
305.8987	15.516	15.501	1	1.001	110783296	23248941	6131	15327	3792	0.78(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.116	14.110	0	1.000	55366312	12420937	8766	21915	1417		
333.9339	14.116	14.110	0	1.000	71706328	15764147	4962	12405	3177	0.77(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	14.144	14.132	1	1.002	60577559	13316382	4281	10702	3111		
321.8936	14.130	14.132	0	1.001	76158385	16780455	4569	11422	3673	0.80(0.65-0.89)	

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

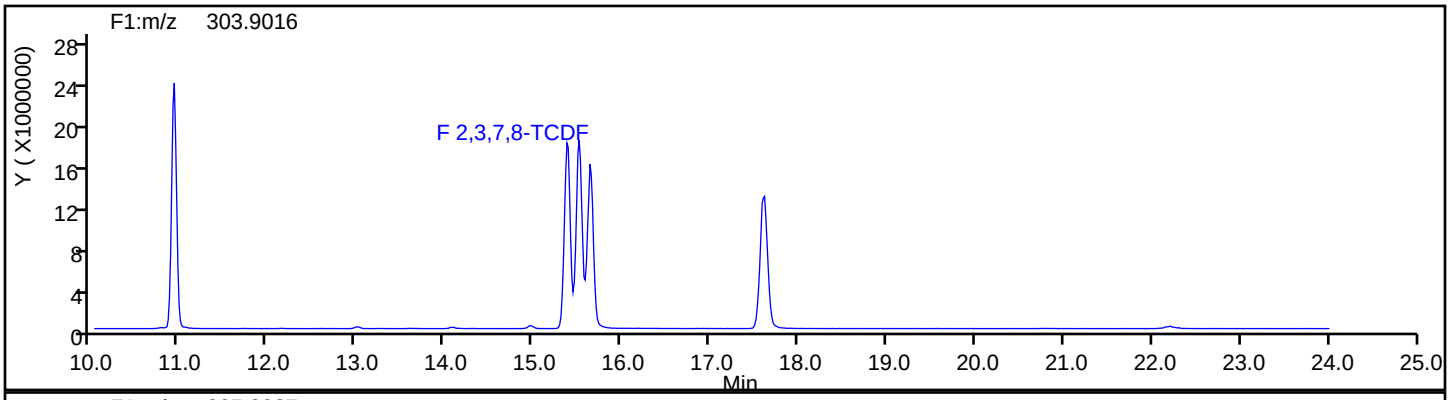
Report Date: 14-May-2019 10:01:28 Chrom Revision: 2.3 12-May-2019 16:28:34

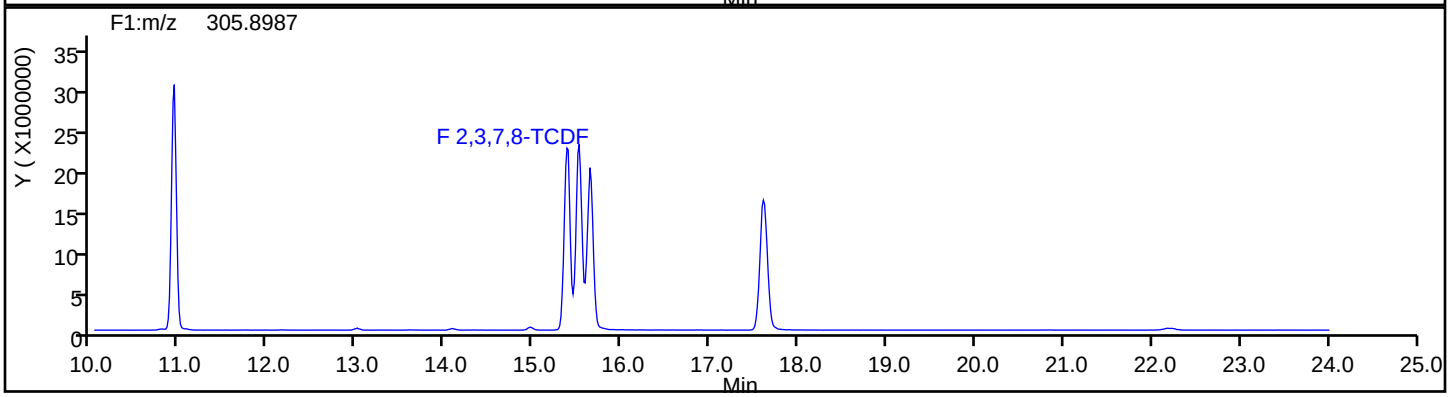
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d

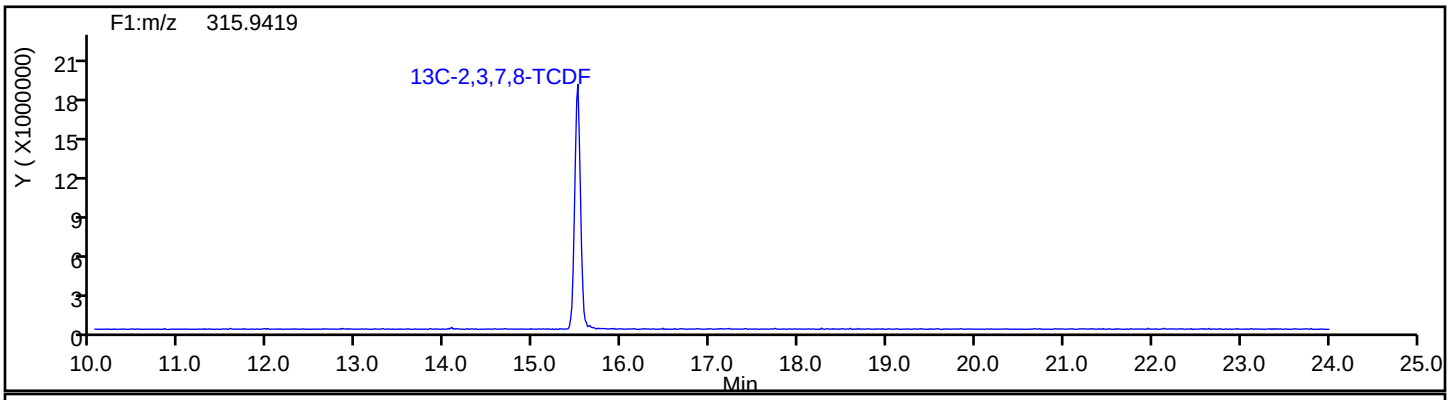
Injection Date:	13-May-2019 17:44:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

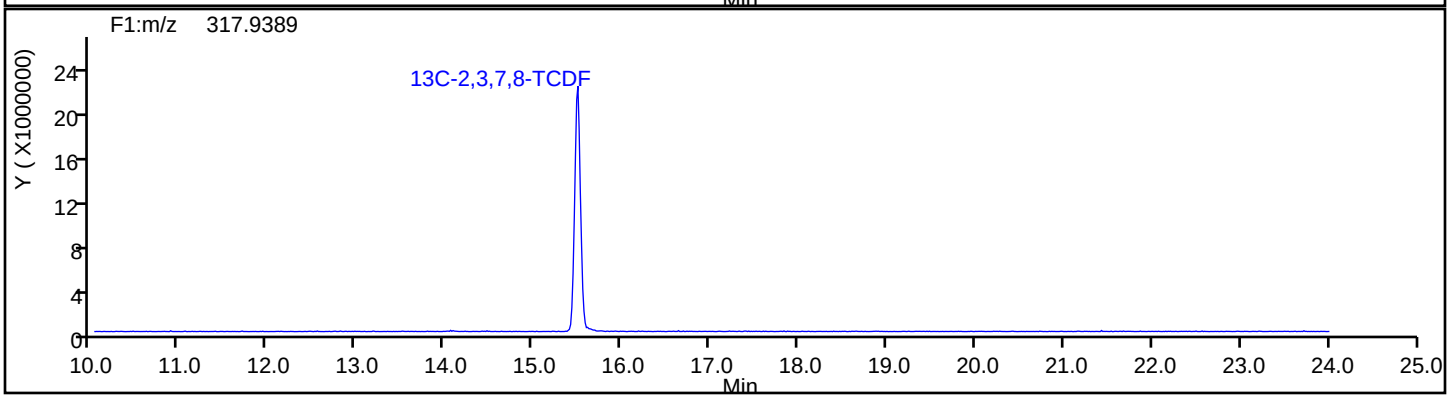
TCDF





TCDF Standards



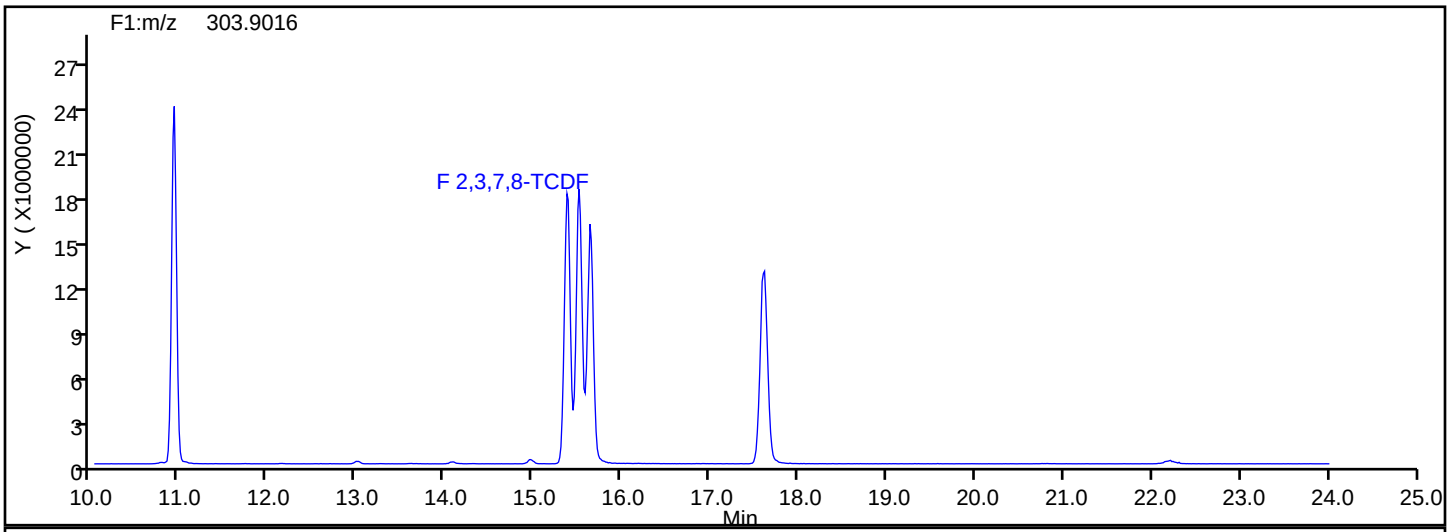


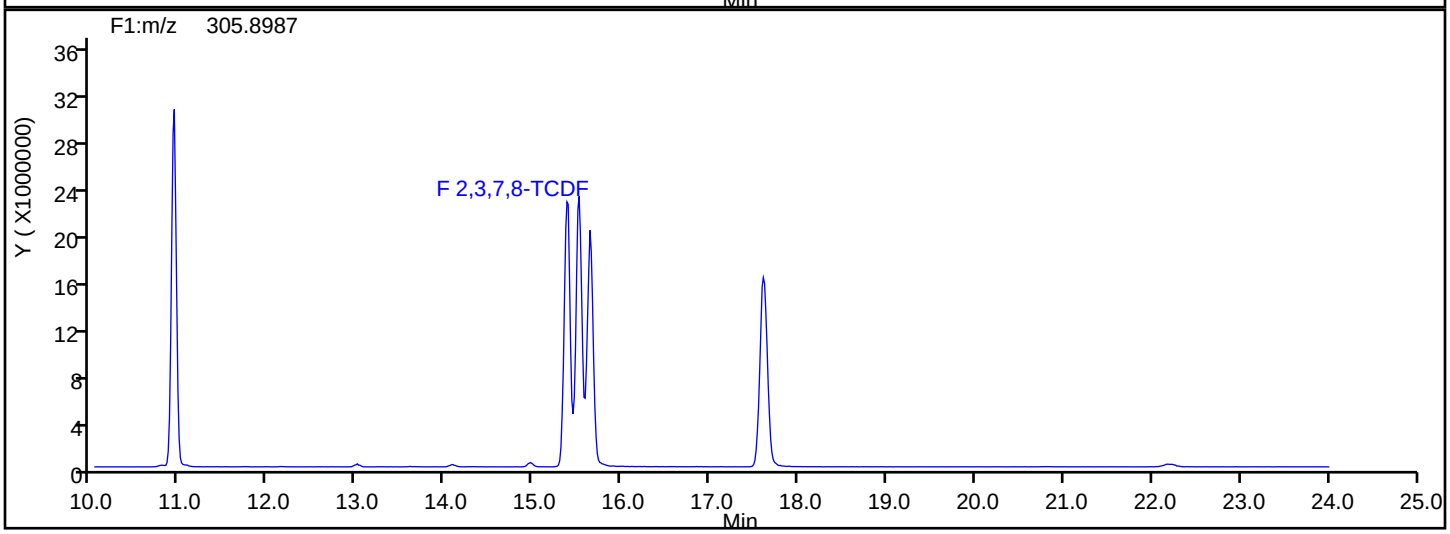
Report Date: 14-May-2019 10:01:28 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

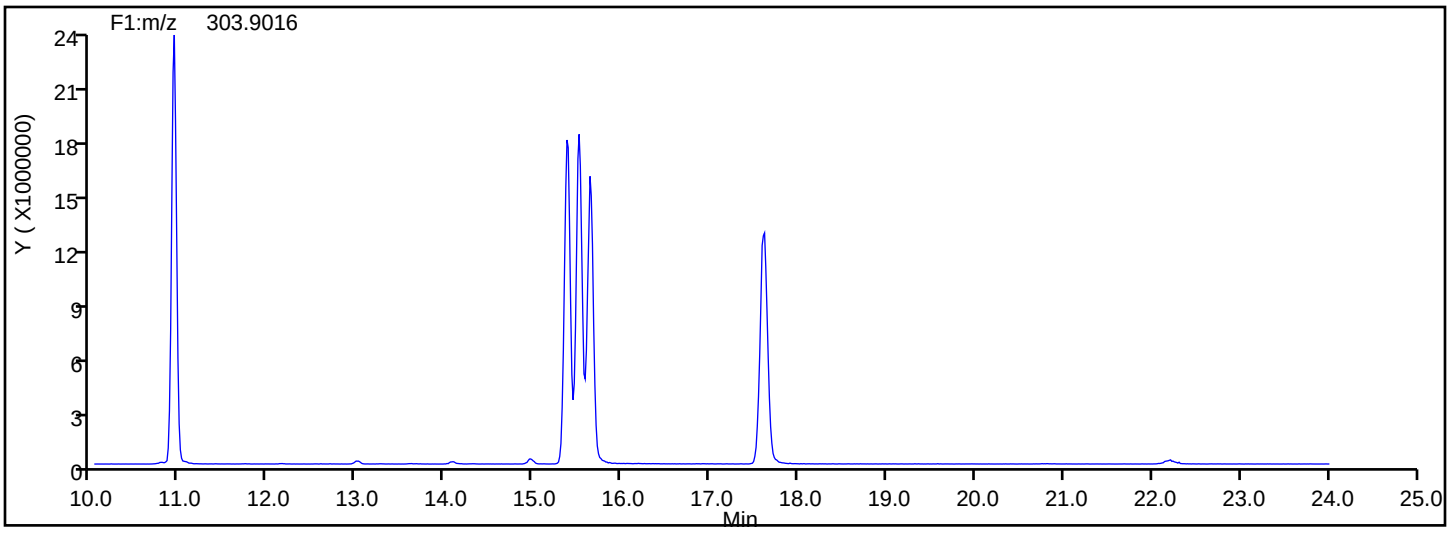
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d		
Injection Date:	13-May-2019 17:44:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



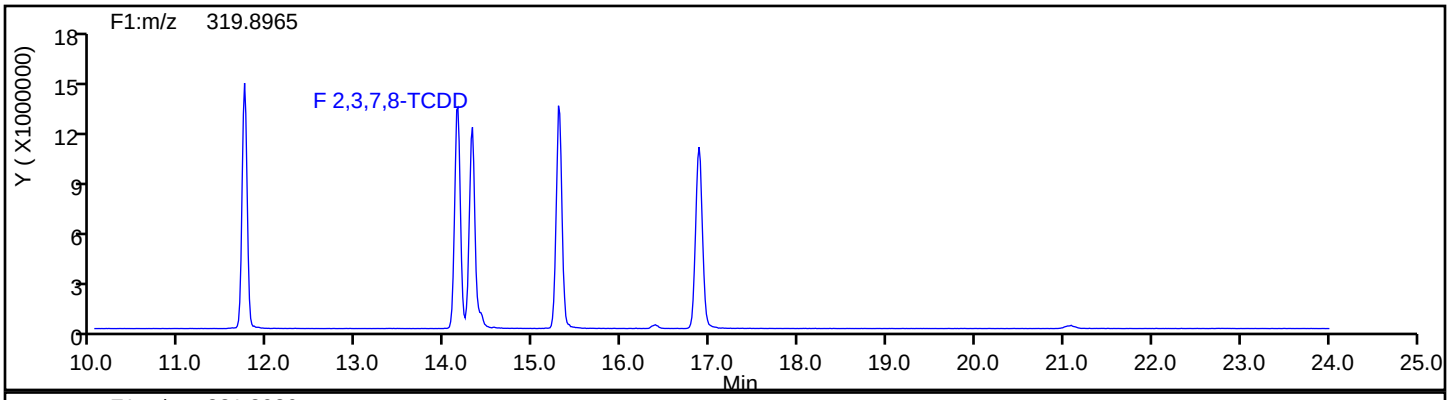
Report Date: 14-May-2019 10:01:28 Chrom Revision: 2.3 12-May-2019 16:28:34

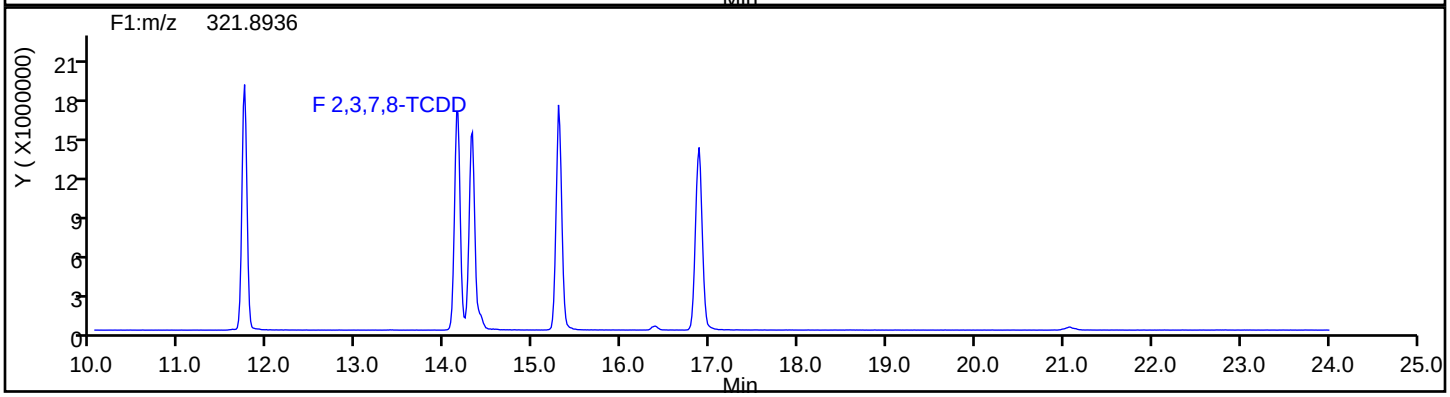
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d

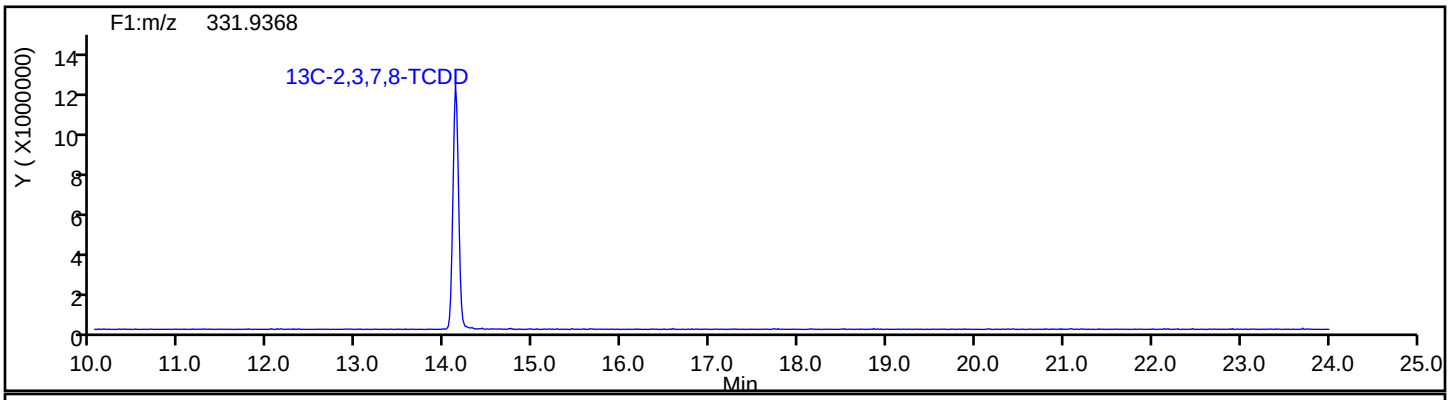
Injection Date:	13-May-2019 17:44:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

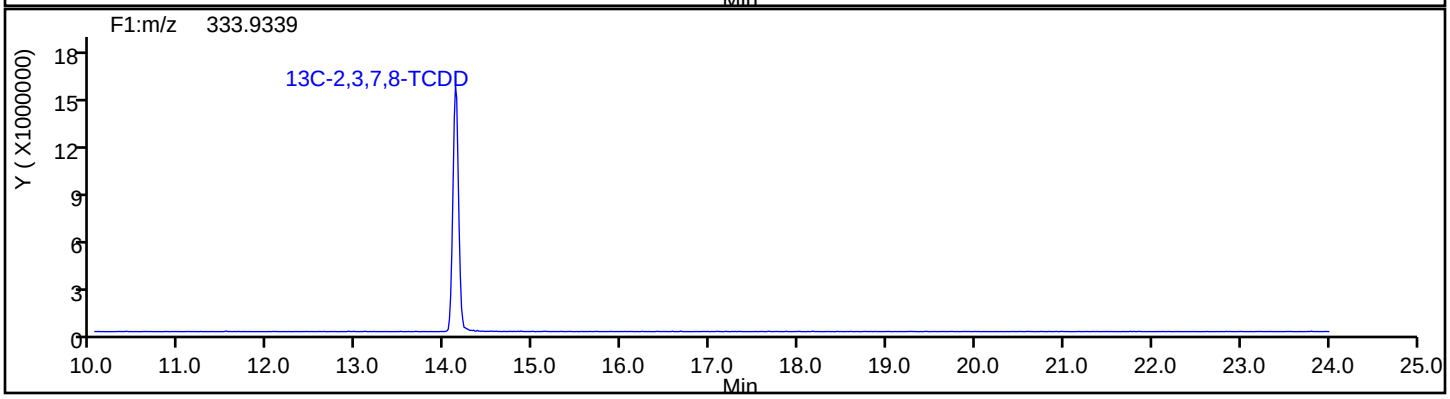
TCDD





TCDD Standards



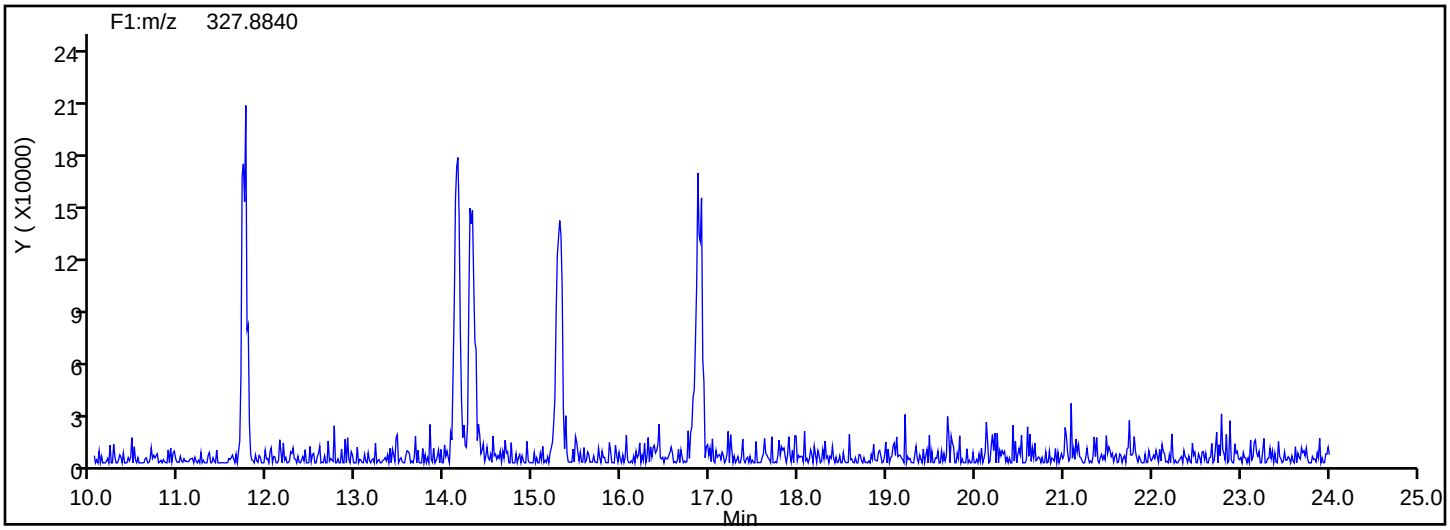


Report Date: 14-May-2019 10:01:28 Chrom Revision: 2.3 12-May-2019 16:28:34

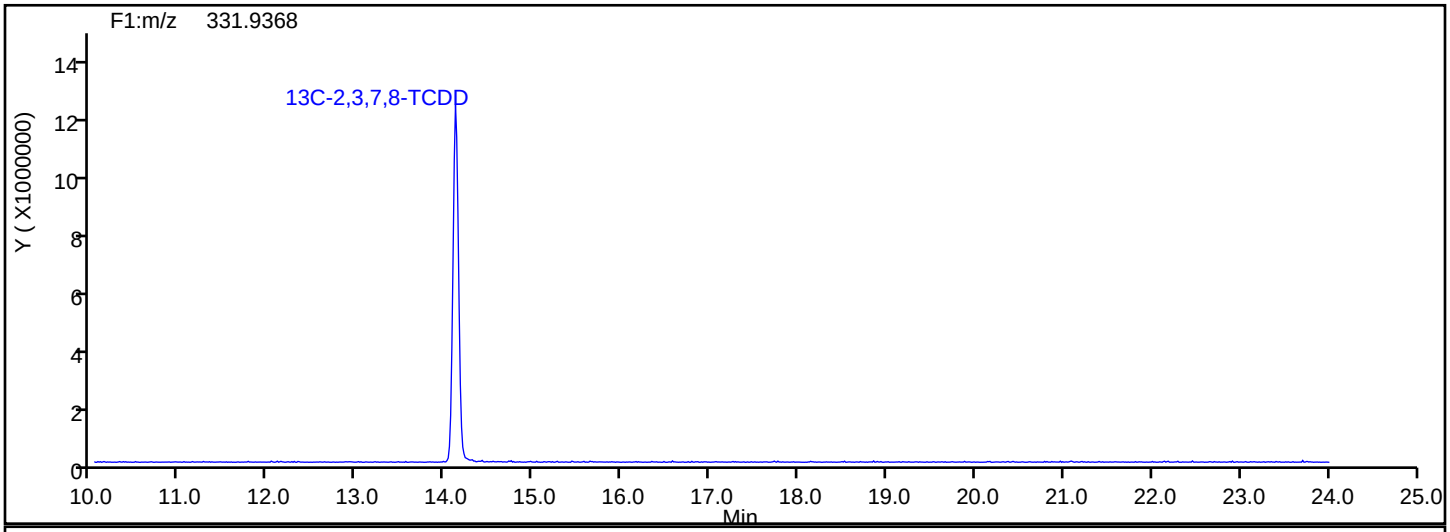
Eurofins TestAmerica, Sacramento

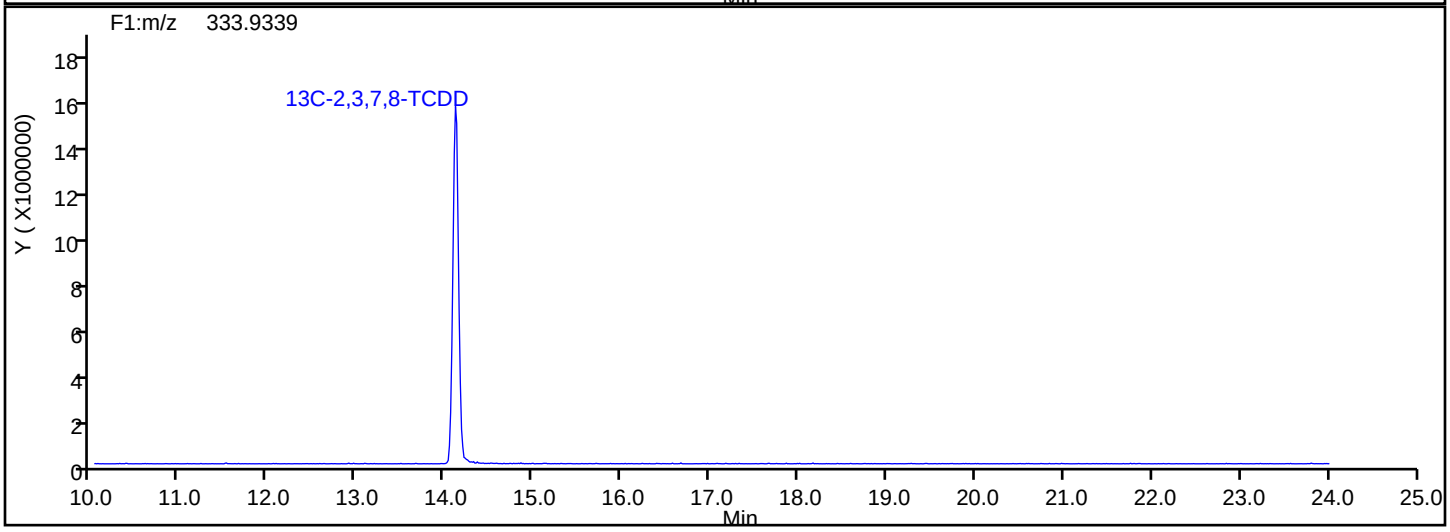
Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d		
Injection Date:	13-May-2019 17:44:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

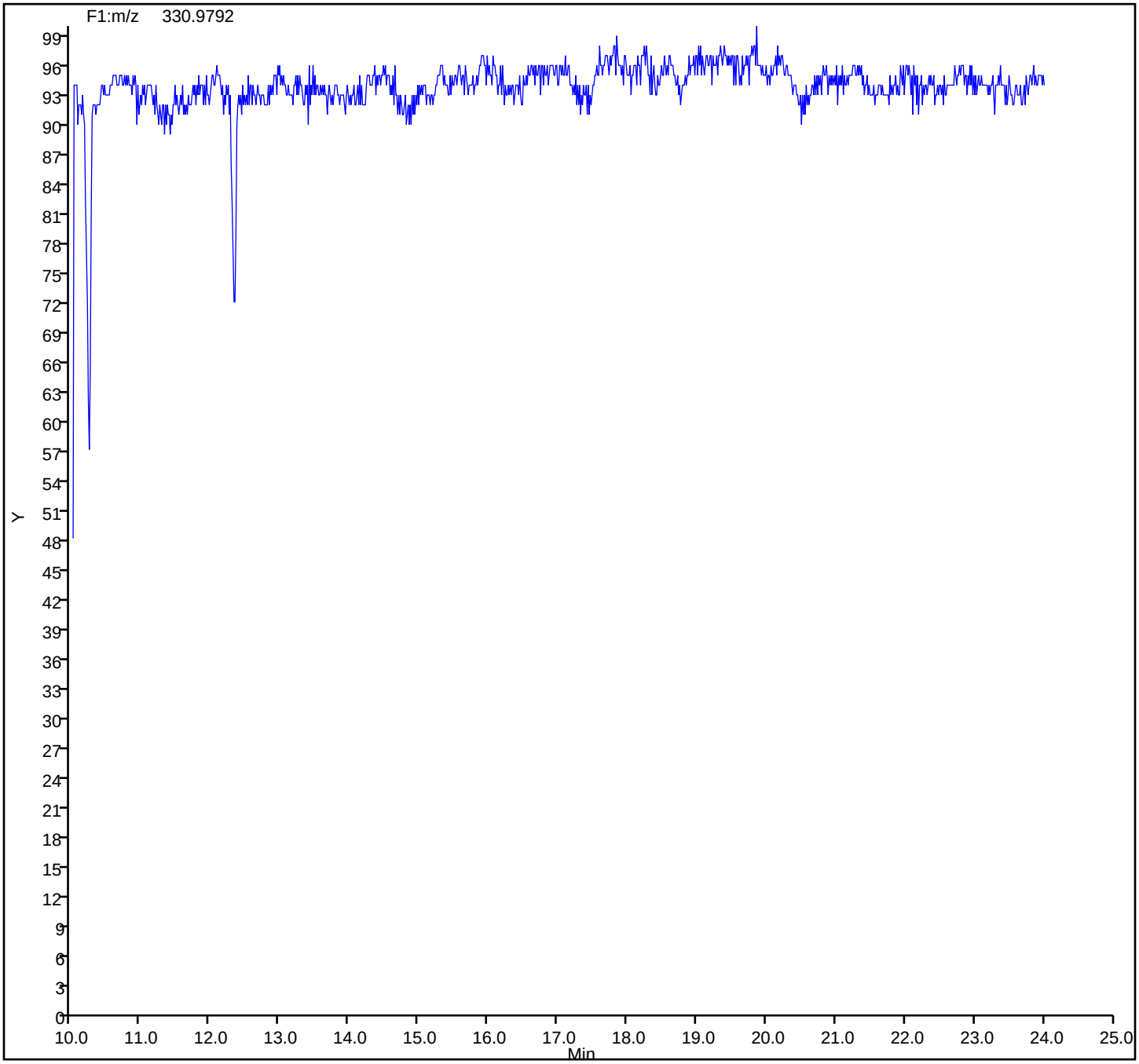




Report Date: 14-May-2019 10:01:28 Chrom Revision: 2.3 12-May-2019 16:28:34

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_002.d		
Injection Date:	13-May-2019 17:44:51	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	294351	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm



Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d
Lims ID: CPS
Client ID:
Sample Type: CPS
Inject. Date: 22-Jul-2019 11:34:03 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CPS HRDXNCP_00038
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:22:14 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C-2,3,7,8-TCDF	16.073	31057127	0.76	1.3652					0.00	
2,3,7,8-TCDF	16.073	33410619	0.79	1.1747	36.6	36.6	0.0516	0.0516		
D 13C-2,3,7,8-TCDD	14.646	20221690	0.85	0.9684					0.00	
2,3,7,8-TCDD	14.660	21997173	0.79	1.2259	35.5	35.5	0.0628	0.0628		

Reagents:

HRDXNCP_00038 Amount Added: 1.00 Units: mL

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d
Lims ID: CPS
Client ID:
Sample Type: CPS
Inject. Date: 22-Jul-2019 11:34:03 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CPS HRDXNCP_00038
Misc. Info.: DB225RES
Operator ID: Instrument ID: 4D2

Method: \\chromna\Sacramento\ChromData\4D2\20190722-79872.b\DXN_DB225_4D2.m
Limit Group: HR - 1613B - ICAL
Last Update: 22-Jul-2019 20:22:14 Calib Date: 13-May-2019 21:39:42
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\4D2\20190514-76275.b\13MY19C4D2_008.d

Column 1 : DB-225 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0331

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-2,3,7,8-TCDF											
315.9419	16.073	16.068	2	1.000	13433156	2782981	6545	16362	425		
317.9389	16.059	16.068	1	1.000	17623971	3413966	3972	9930	860	0.76(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.073	16.073	0	1.000	14752226	3013843	1613	4032	1868		
305.8987	16.073	16.073	0	1.000	18658393	3885333	2143	5357	1813	0.79(0.65-0.89)	
13C-2,3,7,8-TCDD											
331.9368	14.646	14.667	0	1.000	9266265	1971079	4131	10327	477		
333.9339	14.646	14.667	0	1.000	10955425	2562999	1772	4430	1446	0.85(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	14.660	14.660	0	1.001	9740307	2244879	1848	4620	1215		
321.8936	14.660	14.660	0	1.001	12256866	2894225	1643	4107	1762	0.79(0.65-0.89)	

Reagents:

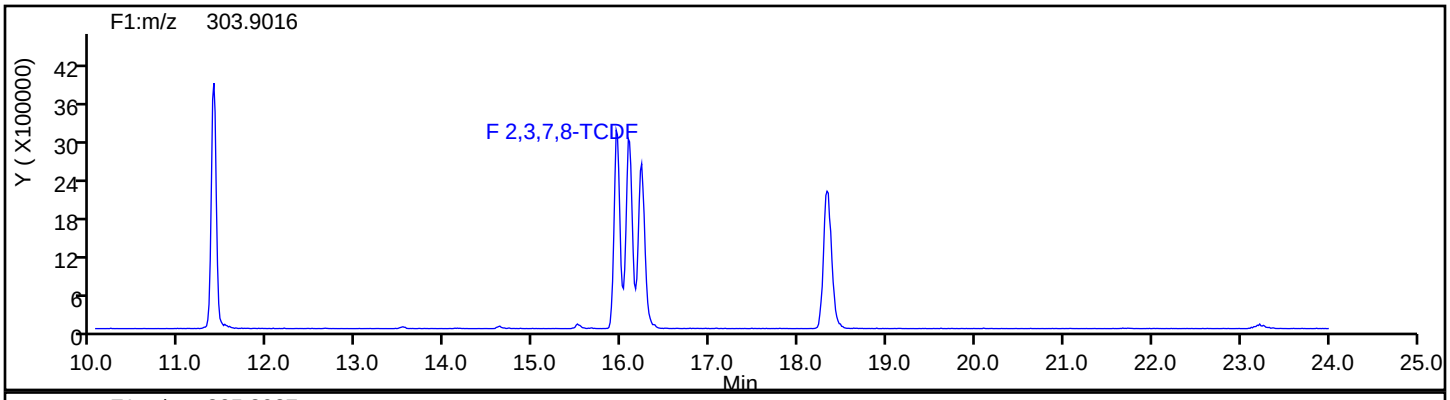
HRDXNCP_00038 Amount Added: 1.00 Units: mL

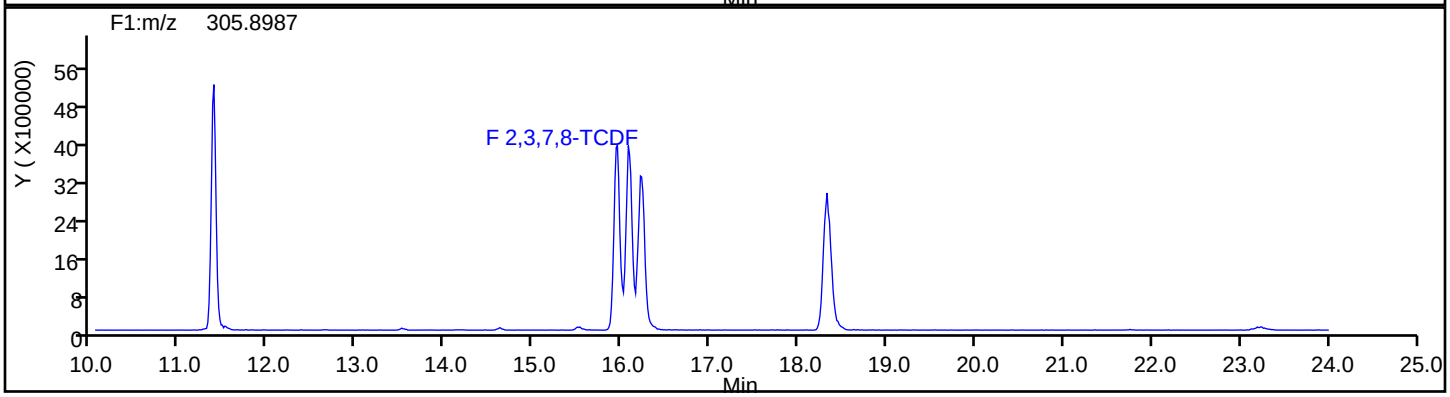
Report Date: 22-Jul-2019 20:22:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

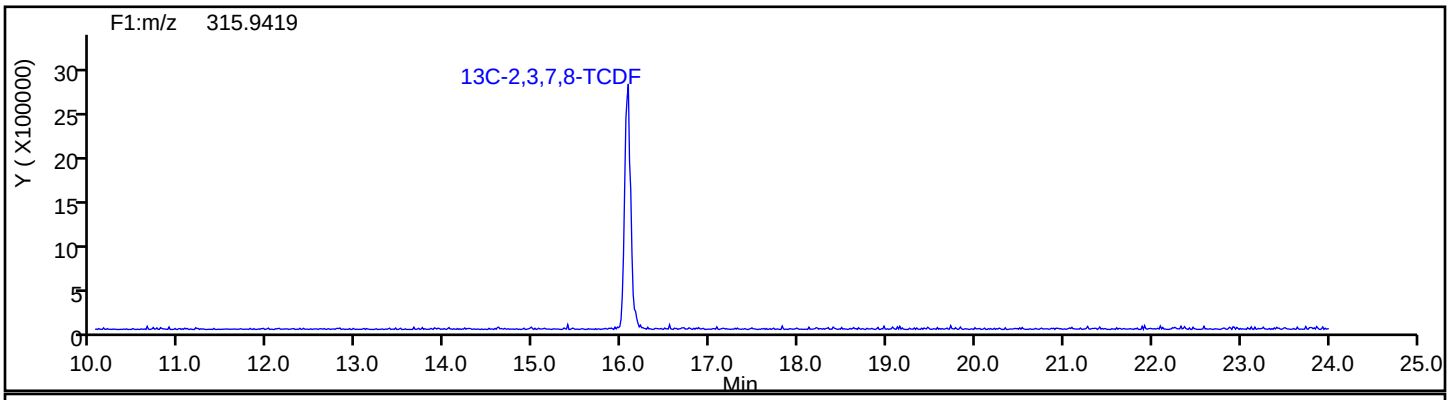
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d		
Injection Date:	22-Jul-2019 11:34:03	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

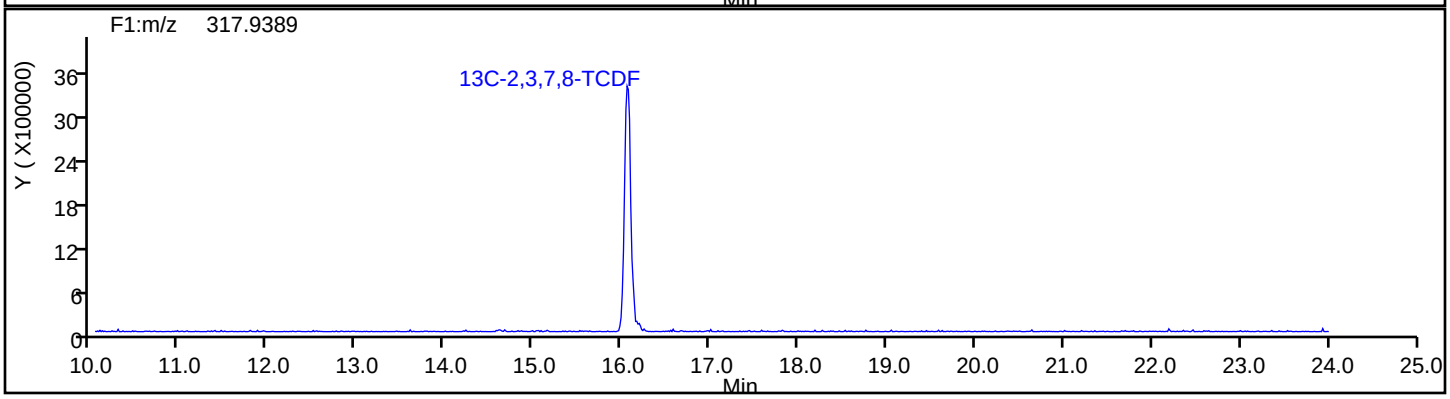
TCDF





TCDF Standards



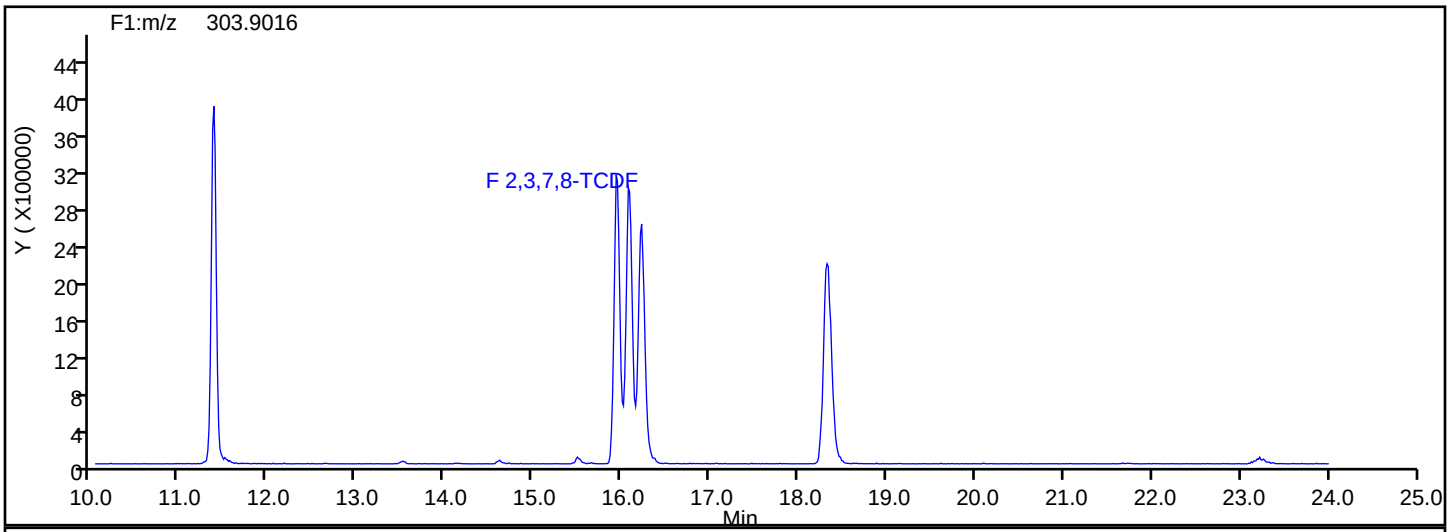


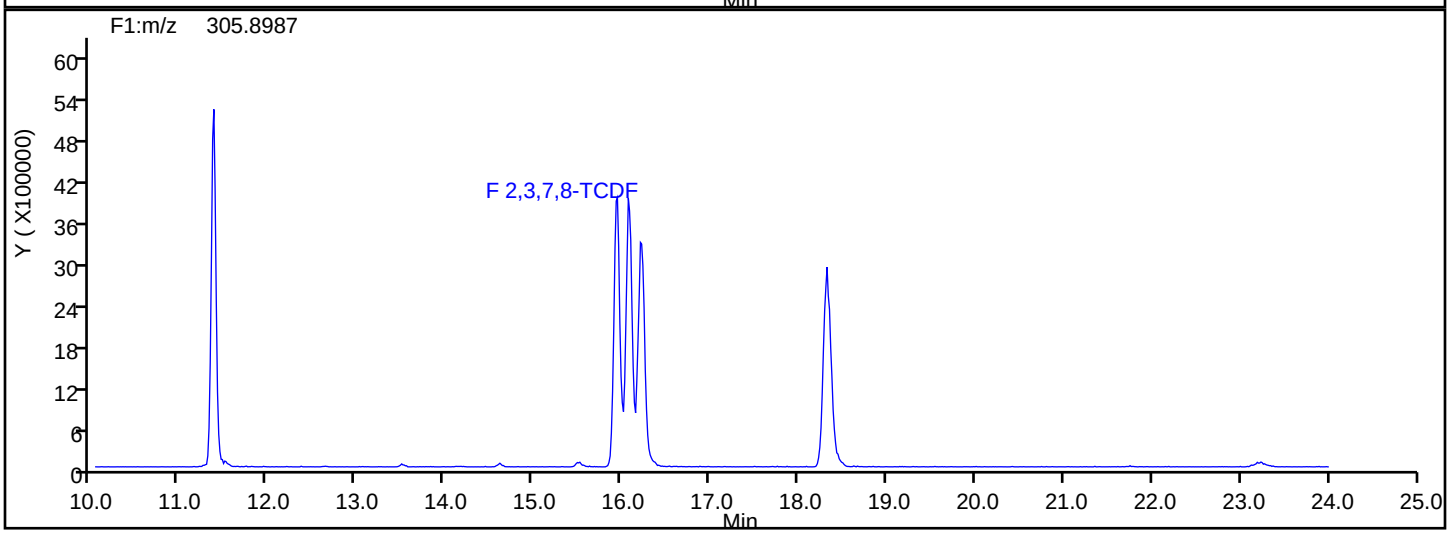
Report Date: 22-Jul-2019 20:22:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

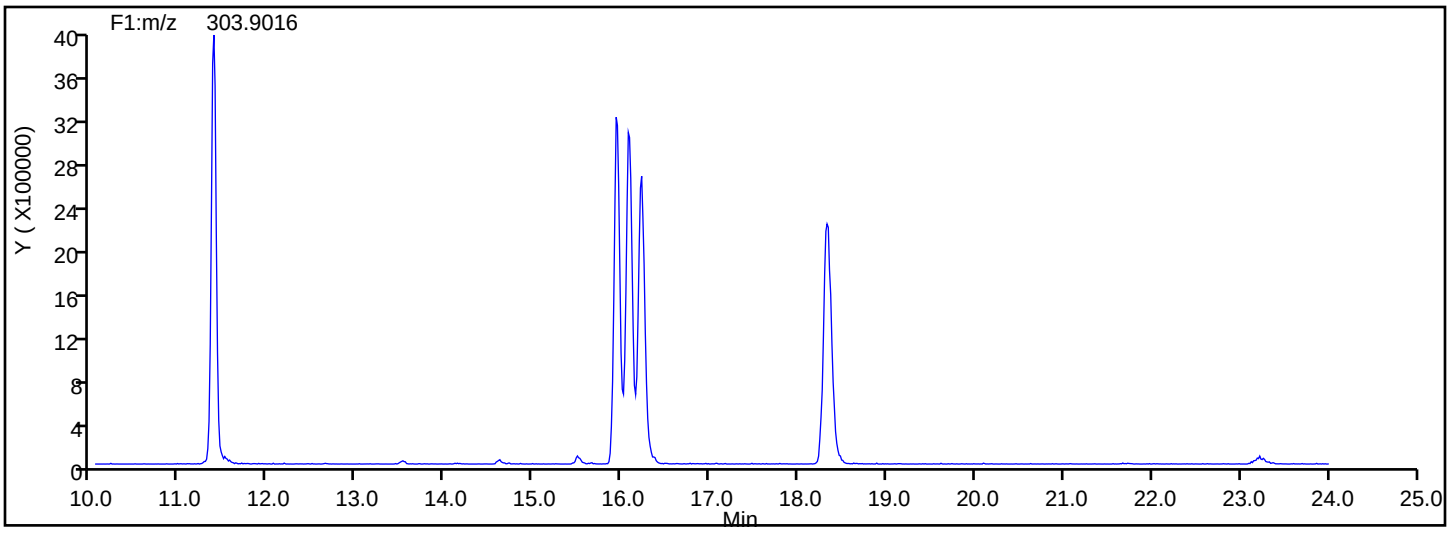
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d		
Injection Date:	22-Jul-2019 11:34:03	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

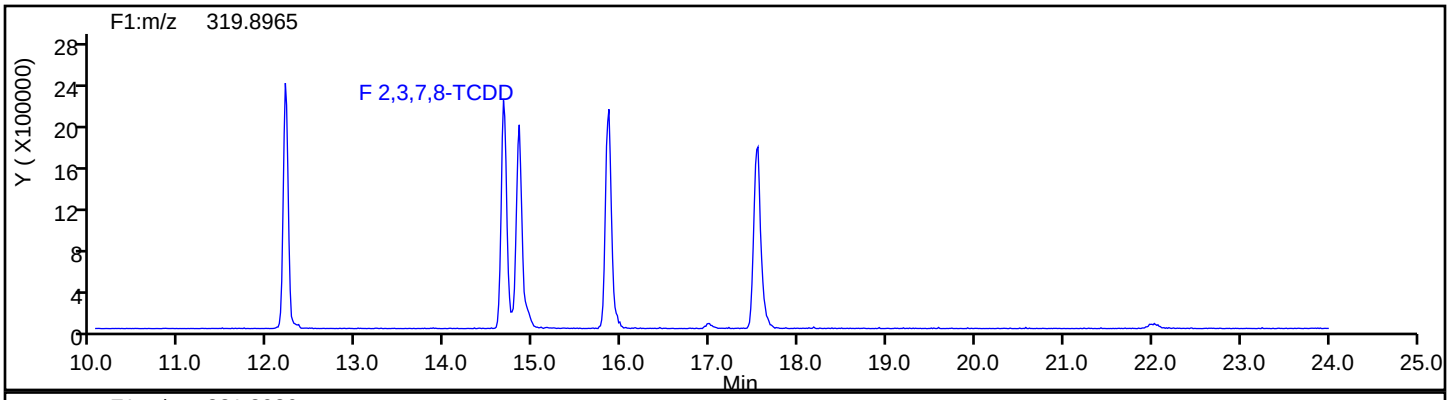


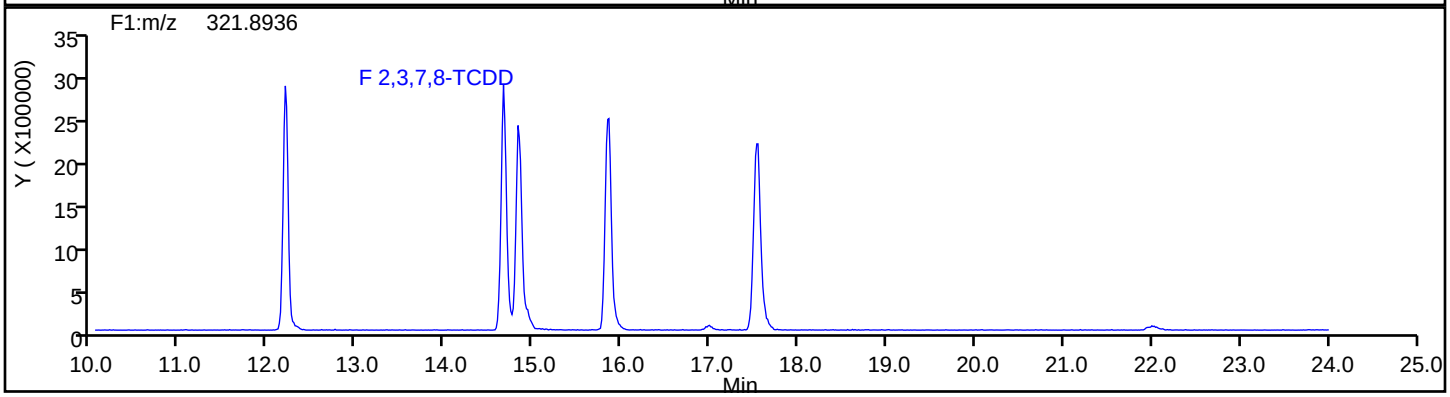
Report Date: 22-Jul-2019 20:22:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

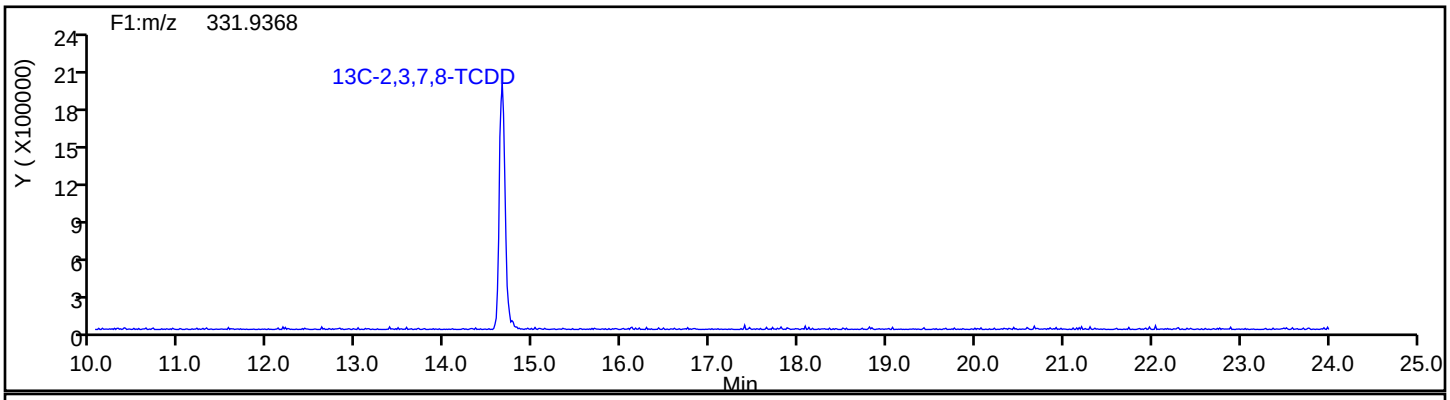
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d		
Injection Date:	22-Jul-2019 11:34:03	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

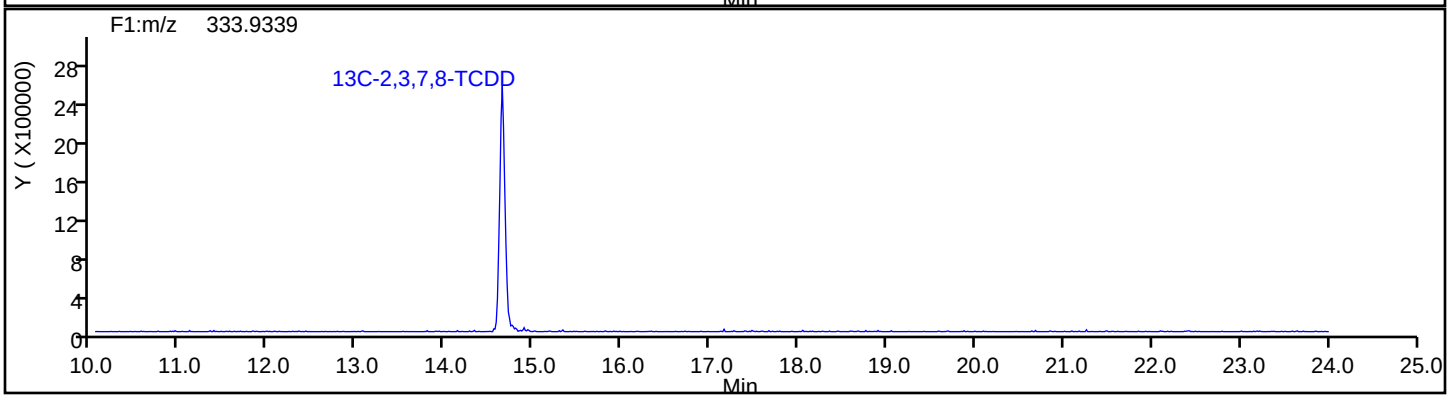
TCDD





TCDD Standards



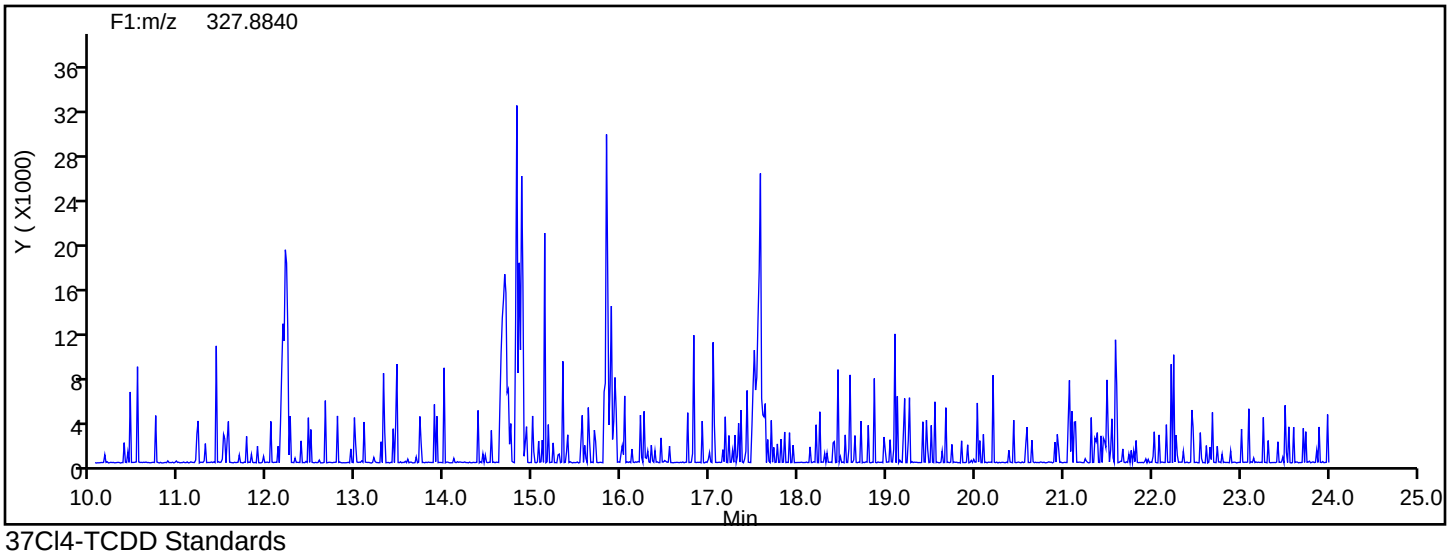


Report Date: 22-Jul-2019 20:22:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

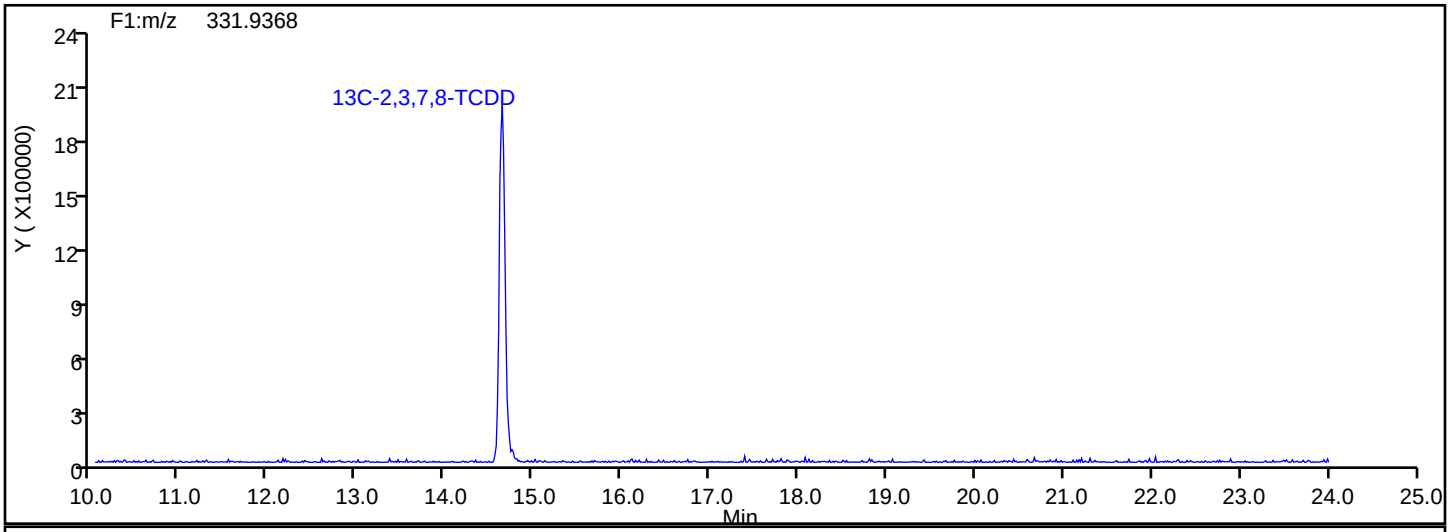
Eurofins TestAmerica, Sacramento

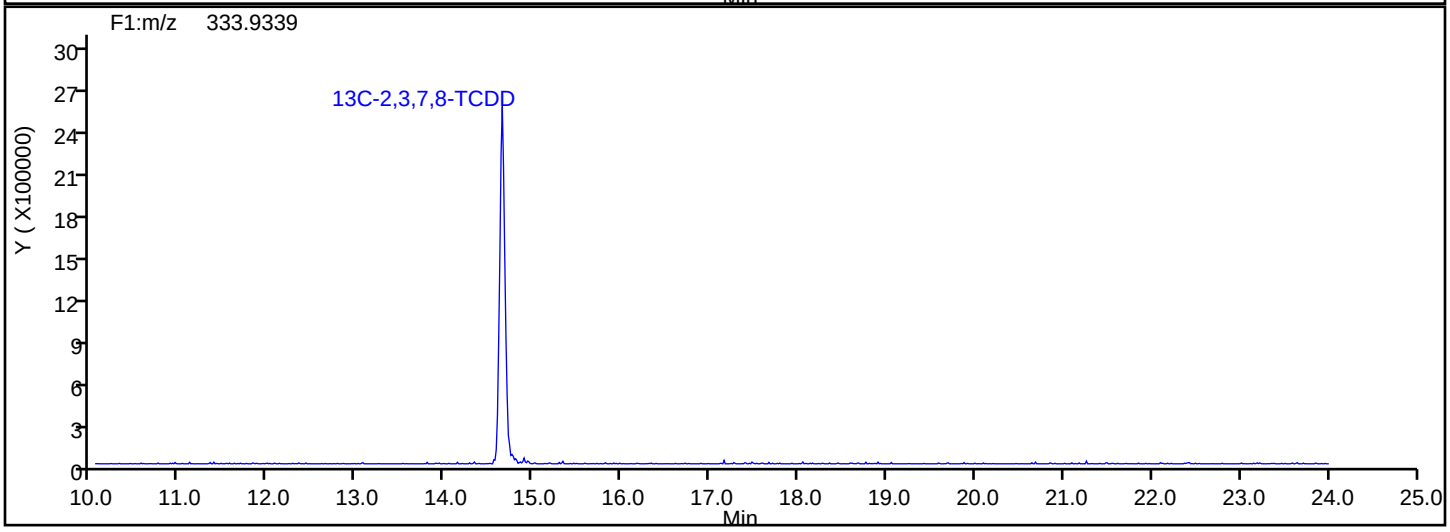
Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d		
Injection Date:	22-Jul-2019 11:34:03	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

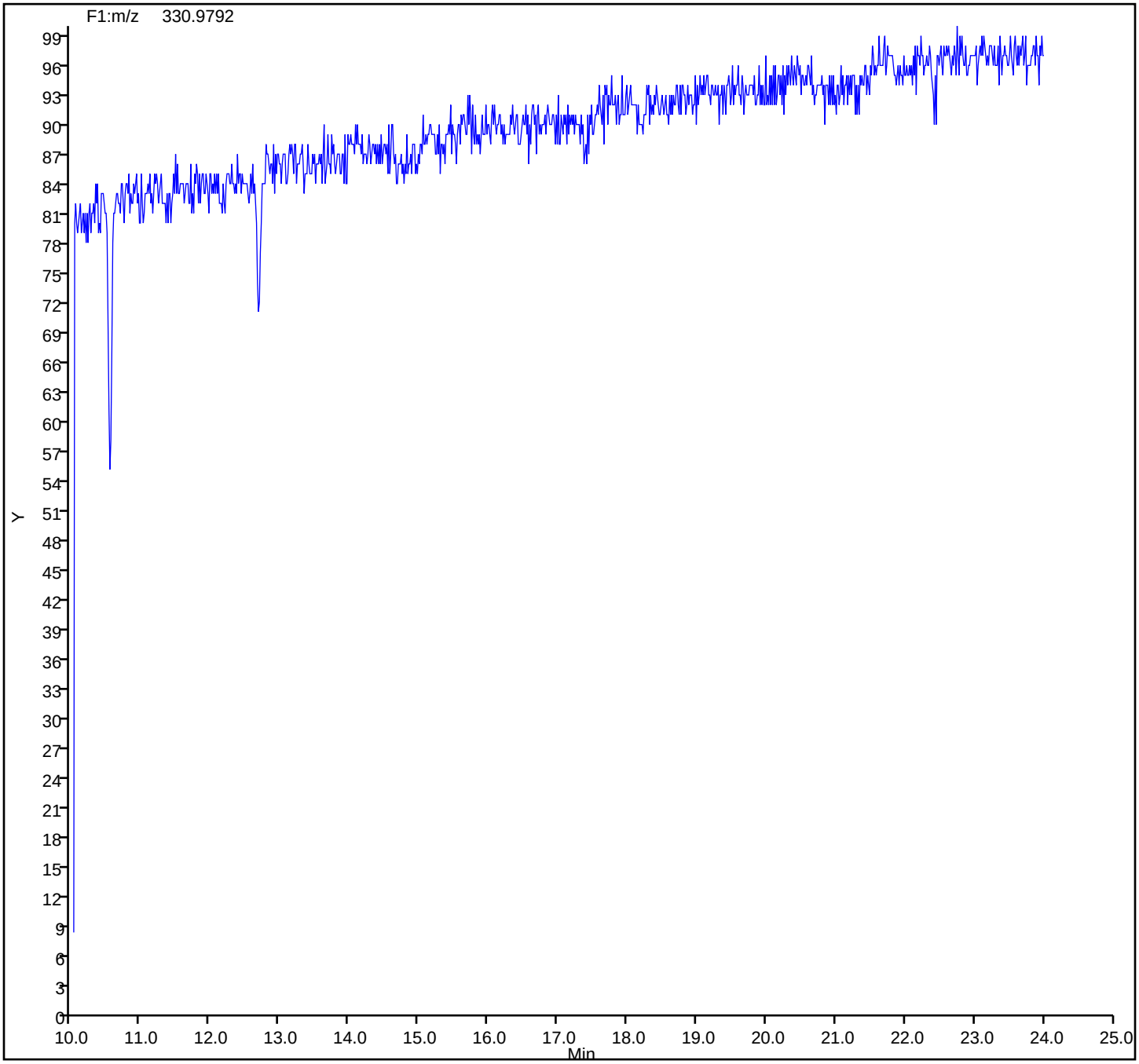




Report Date: 22-Jul-2019 20:22:14 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\4D2\20190722-79872.b\22JL19A4D2_002.d		
Injection Date:	22-Jul-2019 11:34:03	Injection Vol:	2.0 ul
Instrument ID:	4D2	Operator ID:	
Method:	DXN_DB225_4D2	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309356	Sample Line#:	2
Column Type:	DB-225	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-308663/1-A

Matrix: Solid Lab File ID: 19JL19A3D5_54.d

Analysis Method: 1613B Date Collected:

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10(g) Date Analyzed: 07/21/2019 19:56

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	ND		1.0	0.098
51207-31-9	2,3,7,8-TCDF	ND		1.0	0.068
40321-76-4	1,2,3,7,8-PeCDD	ND		5.0	0.14
57117-41-6	1,2,3,7,8-PeCDF	ND		5.0	0.098
57117-31-4	2,3,4,7,8-PeCDF	ND		5.0	0.11
39227-28-6	1,2,3,4,7,8-HxCDD	0.140	J	5.0	0.094
57653-85-7	1,2,3,6,7,8-HxCDD	ND		5.0	0.092
19408-74-3	1,2,3,7,8,9-HxCDD	ND		5.0	0.088
70648-26-9	1,2,3,4,7,8-HxCDF	ND		5.0	0.11
57117-44-9	1,2,3,6,7,8-HxCDF	ND		5.0	0.12
72918-21-9	1,2,3,7,8,9-HxCDF	0.681	J	5.0	0.066
60851-34-5	2,3,4,6,7,8-HxCDF	ND		5.0	0.076
35822-46-9	1,2,3,4,6,7,8-HpCDD	0.218	J	5.0	0.069
67562-39-4	1,2,3,4,6,7,8-HpCDF	ND		5.0	0.075
55673-89-7	1,2,3,4,7,8,9-HpCDF	ND		5.0	0.095
3268-87-9	OCDD	1.95	J	10	0.12
39001-02-0	OCDF	0.415	J	10	0.14

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-308663/1-A

Matrix: Solid Lab File ID: 19JL19A3D5_54.d

Analysis Method: 1613B Date Collected:

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10(g) Date Analyzed: 07/21/2019 19:56

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	71		25-164
89059-46-1	13C-2,3,7,8-TCDF	75		24-169
109719-79-1	13C-1,2,3,7,8-PeCDD	75		25-181
109719-77-9	13C-1,2,3,7,8-PeCDF	75		24-185
116843-02-8	13C-2,3,4,7,8-PeCDF	75		21-178
109719-80-4	13C-1,2,3,4,7,8-HxCDD	67		32-141
109719-81-5	13C-1,2,3,6,7,8-HxCDD	71		28-130
114423-98-2	13C-1,2,3,4,7,8-HxCDF	80		26-152
116843-03-9	13C-1,2,3,6,7,8-HxCDF	71		26-123
116843-05-1	13C-2,3,4,6,7,8-HxCDF	74		28-136
116843-04-0	13C-1,2,3,7,8,9-HxCDF	80		29-147
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	72		23-140
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	82		28-143
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	86		26-138
114423-97-1	13C-OCDD	84		17-157

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	95		35-197

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d
Lims ID: MB 320-308663/1-A
Client ID:
Sample Type: MB
Inject. Date: 21-Jul-2019 19:56:24 ALS Bottle#: 37 Worklist Smp#: 54
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-308663/1-A MB 320-308663/1-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:38:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 10:38:18

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	234038680	0.78	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	243279015	0.79	1.3908	74.7	74.7	0.1728	0.1728	74.74	
2,3,7,8-TCDF	16.705						0.0340	0.0340		
A Non-2,3,7,8-sub-TCDF	16.402						0.0340	0.0340		
S Total TCDF							0.0340	0.0340		
D 13C-2,3,7,8-TCDD	17.355	164269470	0.79	0.9819	71.5	71.5	0.2305	0.2305	71.49	
2,3,7,8-TCDD	17.355						0.0488	0.0488		
$ 37Cl4-2,3,7,8-TCDD	17.370	108097900		1.2205	37.8	37.8	0.0714	0.0714	94.61	
A Non-2,3,7,8-sub-TCDD	16.833						0.0488	0.0567		RQU
S Total TCDD							0.0567	0.0567		
D 13C-1,2,3,7,8-PeCDF	21.345	203819622	1.57	1.1585	75.2	75.2	0.2628	0.2628	75.18	
1,2,3,7,8-PeCDF	21.372						0.0492	0.0492		
D 13C-2,3,4,7,8-PeCDF	22.573	201540365	1.57	1.1532	74.7	74.7	0.2640	0.2640	74.68	
2,3,4,7,8-PeCDF	22.614						0.0540	0.0540		
A F1 PeCDFs	19.215						0.0409	0.0409		
A Non-2,3,7,8-sub-PeCDF	22.104						0.0515	0.0515		
S Total PeCDF							0.0540	0.0540		
D 13C-1,2,3,7,8-PeCDD	23.241	130546709	1.61	0.7431	75.1	75.1	0.1518	0.1518	75.06	
1,2,3,7,8-PeCDD	23.254						0.0680	0.0680		
A Non-2,3,7,8-sub-PeCDD	22.232						0.0680	0.0680		
S Total PeCDD							0.0680	0.0680		
D 13C-1,2,3,4,7,8-HxCDF	29.155	166251742	0.52	0.9837	79.6	79.6	0.3765	0.3765	79.57	
1,2,3,4,7,8-HxCDF	29.155						0.0547	0.0547		
D 13C-1,2,3,6,7,8-HxCDF	29.448	175132824	0.55	1.1554	71.4	71.4	0.3206	0.3206	71.37	
1,2,3,6,7,8-HxCDF	29.462						0.0596	0.0596		
D 13C-2,3,4,6,7,8-HxCDF	30.673	162332120	0.51	1.0361	73.8	73.8	0.3575	0.3575	73.77	
2,3,4,6,7,8-HxCDF	30.687						0.0381	0.0381		
D 13C-1,2,3,7,8,9-HxCDF	31.685	153499907	0.51	0.9034	80.0	80.0	0.4100	0.4100	80.00	
1,2,3,7,8,9-HxCDF	31.698	616423	1.24	1.1787	0.3407	0.3407	0.0329	0.0329		
A Non-2,3,7,8-sub-HxCDF	29.135						0.0436	0.0436		
S Total HxCDF					0.3407	0.3407	0.0463	0.0463		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,7,8,9-HxCDD	31.472	212391610	1.30	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	118547463	1.30	0.8287	67.4	67.4	0.2548	0.2548	67.35	
1,2,3,4,7,8-HxCDD	30.966	84905	1.24	1.0267	0.0765	0.0698	0.0471	0.0471		RQM
D 13C-1,2,3,6,7,8-HxCDD	31.073	143015673	1.28	0.9495	70.9	70.9	0.2224	0.2224	70.92	
1,2,3,6,7,8-HxCDD	31.099	38666	1.24	0.9771	0.0469	0.0277	0.0462	0.0462		RnQMa
1,2,3,7,8,9-HxCDD	31.485						0.0440	0.0440		
A Non-2,3,7,8-sub-HxCDD	29.926						0.0457	0.0457		
S Total HxCDD					0.1234	0.0974	0.0458	0.0458		RQ
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	127076680	0.44	0.7285	82.1	82.1	0.7442	0.7442	82.13	
1,2,3,4,6,7,8-HpCDF	33.347						0.0374	0.0374		
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	119898661	0.44	0.6556	86.1	86.1	0.8269	0.8269	86.10	
1,2,3,4,7,8,9-HpCDF	34.441						0.0477	0.0477		
A Non-2,3,7,8-sub-HpCDF	33.894						0.0421	0.0421		
S Total HpCDF							0.0477	0.0477		
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	106557787	1.05	0.6978	71.9	71.9	0.3772	0.3772	71.89	
1,2,3,4,6,7,8-HpCDD	34.162	117280	1.04	1.0102	0.1199	0.1090	0.0346	0.0346		RQ
A Non-2,3,7,8-sub-HpCDD	35.074	155288	1.05	1.0102	0.1443	0.1443	0.0346	0.1443		a
S Total HpCDD					0.2641	0.2532	0.0346	0.0346		RQ
D 13C-OCDD	36.498	171268623	0.90	0.4780	168.7	168.7	0.1850	0.1850	84.36	
OCDF	36.593	240000	0.99	1.3501	0.2076	0.2076	0.0725	0.0725		
OCDD	36.509	887834	0.80	1.0627	0.9756	0.9756	0.0601	0.0601		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- n - Failed Sig-To-Noise Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d
Lims ID: MB 320-308663/1-A
Client ID:
Sample Type: MB
Inject. Date: 21-Jul-2019 19:56:24 ALS Bottle#: 37 Worklist Smp#: 54
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-308663/1-A MB 320-308663/1-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:38:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: krongsingn Date: 23-Jul-2019 10:38:18

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		102473480	26283659	37638	94095	698		
333.9339	17.173	17.158	1		131565200	33522504	16500	41250	2032	0.78(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	107237609	26188521	26950	67375	972		
317.9389	16.690	16.690	0	0.972	136041406	33155054	30550	76375	1085	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705						2547	6367			
305.8987	16.705						5286	13215			
A Non-2,3,7,8-sub-TCDF											
303.9016	16.402						2547	6367			
305.8987	16.402						5286	13215			
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	72331389	17089274	37638	94095	454		
333.9339	17.355	17.355	0	1.011	91938081	21842284	16500	41250	1324	0.79(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.355						5684	14210			
321.8936	17.355						2256	5640			
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	108097900	25149417	20861	52152	1206		
A Non-2,3,7,8-sub-TCDD											U
319.8965	16.690	16.833	-9	0.962	307145	51957	5684	14210	9		
	Empc Correction				42329	6387	5684	14210	1		
321.8936	16.690	16.833	-9	0.962	54973	8296	2256	5640	4	5.59(0.65-0.89)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	124537777	22770265	43739	109347	521		
353.8970	21.345	21.332	1	1.243	79281845	14747091	29091	72727	507	1.57(1.32-1.78)	
1,2,3,7,8-PeCDF											
339.8597	21.345						1772	4430			
341.8567	21.345						5340	13350			
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	123205681	21067708	43739	109347	482		
353.8970	22.573	22.559	1	1.314	78334684	13618210	29091	72727	468	1.57(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586						1772	4430			
341.8567	22.586						5340	13350			
A F1 PeCDFs											
339.8597	19.215						1440	3600			
341.8567	19.215						4215	10537			
A Non-2,3,7,8-sub-PeCDF											
339.8597	22.104						1772	4430			
341.8567	22.104						5340	13350			
13C-1,2,3,7,8-PeCDD											
367.8949	23.241	23.227	1	1.353	80488335	12946242	15741	39352	822		
369.8919	23.241	23.227	1	1.353	50058374	8249879	11245	28112	734	1.61(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254						4518	11295			
357.8516	23.254						1613	4032			
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.232						4518	11295			
357.8516	22.232						1613	4032			
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.155	29.115	2	0.926	56790936	6714669	24109	60272	279		
385.8610	29.155	29.115	2	0.926	109460806	13158810	43474	108685	303	0.52(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.155						2979	7447			
375.8178	29.155						2313	5782			
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.936	61802906	6927153	24109	60272	287		
385.8610	29.448	29.421	2	0.936	113329918	12687455	43474	108685	292	0.55(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.462						2979	7447			
375.8178	29.462						2313	5782			
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.975	54828237	10128857	24109	60272	420		
385.8610	30.673	30.660	1	0.975	107503883	19561740	43474	108685	450	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.687						2979	7447			
375.8178	30.687						2313	5782			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.672	1	1.007	51720301	11583473	24109	60272	480		
385.8610	31.685	31.672	1	1.007	101779606	22540221	43474	108685	518	0.51(0.43-0.59)	
1,2,3,7,8,9-HxCDF											
373.8208	31.698	31.685	1	1.000	341197	64788	2979	7447	22		
375.8178	31.698	31.685	1	1.000	275226	51690	2313	5782	22	1.24(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.135						2979	7447			
375.8178	29.135						2313	5782			
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.472	31.472	0		120140591	25662207	19443	48607	1320		
403.8529	31.472	31.472	0		92251019	19952981	19090	47725	1045	1.30(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	67014657	14329468	19443	48607	737		
403.8529	30.939	30.926	1	0.983	51532806	11076724	19090	47725	580	1.30(1.05-1.43)	
1,2,3,4,7,8-HxCDD											RQM
389.8157	30.966	30.953	1	1.001	47001	13082	2014	5035	6		
391.8127	30.939	30.953	-1	1.000	46063	11837	2905	7262	4	1.02(1.05-1.43)	M
	Empc Correction				37904	10549	2905	7262	4		
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	80338765	15387660	19443	48607	791		
403.8529	31.073	31.059	1	0.987	62676908	11829245	19090	47725	620	1.28(1.05-1.43)	
1,2,3,6,7,8-HxCDD											RnQMa
389.8157	31.099	31.086	1	1.001	48328	9068	2014	5035	5		a
	Empc Correction				21404	6626	2014	5035	3		
391.8127	31.059	31.086	-2	1.000	17262	5344	2905	7262	2	2.80(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.485						2014	5035			
391.8127	31.485						2905	7262			
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						2014	5035			
391.8127	29.926						2905	7262			
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.059	38728107	11591010	28441	71102	408		
419.8220	33.335	33.335	0	1.059	88348573	27159154	70481	176202	385	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.347						5609	14022			
409.7789	33.347						2731	6827			
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.094	36600672	10430462	28441	71102	367		
419.8220	34.429	34.429	0	1.094	83297989	22985735	70481	176202	326	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441						5609	14022			
409.7789	34.441						2731	6827			
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.894						5609	14022			
409.7789	33.894						2731	6827			

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	54470252	15684226	24046	60115	652		
437.8140	34.150	34.150	0	1.085	52087535	14957178	23987	59967	624	1.05(0.88-1.20)	
1,2,3,4,6,7,8-HpCDD											RQ
423.7766	34.162	34.162	0	1.000	59790	19150	2138	5345	9		
425.7737	34.162	34.162	0	1.000	69244	16820	2140	5350	8	0.86(0.88-1.20)	
	Empc Correction				57490	18413	2140	5350	9		
A Non-2,3,7,8-sub-HpCDD											a
423.7766	33.615	35.074	-87	0.984	79435	24064	2138	5345	11		a
425.7737	33.615	35.074	-87	0.984	75853	21281	2140	5350	10	1.05(0.88-1.20)	
13C-OCDD											
469.7779	36.498	36.498	0	1.160	81290109	20693845	8537	21342	2424		
471.7750	36.498	36.498	0	1.160	89978514	22775692	7600	19000	2997	0.90(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.003	119687	20726	3231	8077	6		
443.7399	36.581	36.582	0	1.002	120313	21946	5276	13190	4	0.99(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	394676	98922	2575	6437	38		
459.7348	36.509	36.509	0	1.000	493158	107602	2977	7442	36	0.80(0.76-1.02)	

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- n - Failed Sig-To-Noise Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d
Lims ID: MB 320-308663/1-A
Client ID:
Inject. Date: 21-Jul-2019 19:56:24 Dil. Factor: 1.0000
Sample Type: MB, Method Blank
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 54

Non-2,3,7,8-sub-TCDD, RT: 16.833

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
2,3,7,8-TCDD	1.045	D 13C-2,3,7,8-TCDD	100.000	164269470	38931558

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.045		100.000	164269470	38931558

Sum the Uncalibrated Results

RT	319.8965 Area	319.8965 Height	321.8936 Area	321.8936 Height	Amount	Ratio	Flags
16.690	307145	51957	54973	8296	0.2110	5.59	RQ
16.690	42329	6387	54973	8296	0.0567		Empc Correction

Compound is Marked ND

Eurofins TestAmerica, Sacramento

AreaSum WorkSheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d
Lims ID: MB 320-308663/1-A
Client ID:
Inject. Date: 21-Jul-2019 19:56:24 Dil. Factor: 1.0000
Sample Type: MB, Method Blank
Instrument ID: 3D5 Operator: ALM, AJS
Lims Batch ID: 309103 Lims Sample ID: 54

Non-2,3,7,8-sub-HpCDD, RT: 35.074

Initial Calibration RRF IsoDil Std Amount Added and Responses

Target Compound	RRF	Iso Dil Std Compound	Amount pg/ul	Area	Height
1,2,3,4,6,7,8-HpCDD	1.010	D 13C-1,2,3,4,6,7,8-HpCDD	100.000	106557787	30641404

Averages:

	RRFn		Qis	Ris Area	Ris Height
	1.010		100.000	106557787	30641404

Sum the Uncalibrated Results

RT	423.7766 Area	423.7766 Height	425.7737 Area	425.7737 Height	Amount	Ratio	Flags
33.615	79435	24064	75853	21281	0.1443	1.05	a
Signal Totals:							
	79435	24064	75853	21281			

Total Responses:

	Rx Area	Rx Height			Amount	Ratio	Flags
	155288	45345				1.05	a

On-Column Amount = (Rx * Qis) / (Ris * RRFn)
Quant By: Area

Amount: 0.1443 = (155288 * 100.000) / (106557787 * 1.010)

QC Flag Legend

Review Flags
a - User Assigned ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

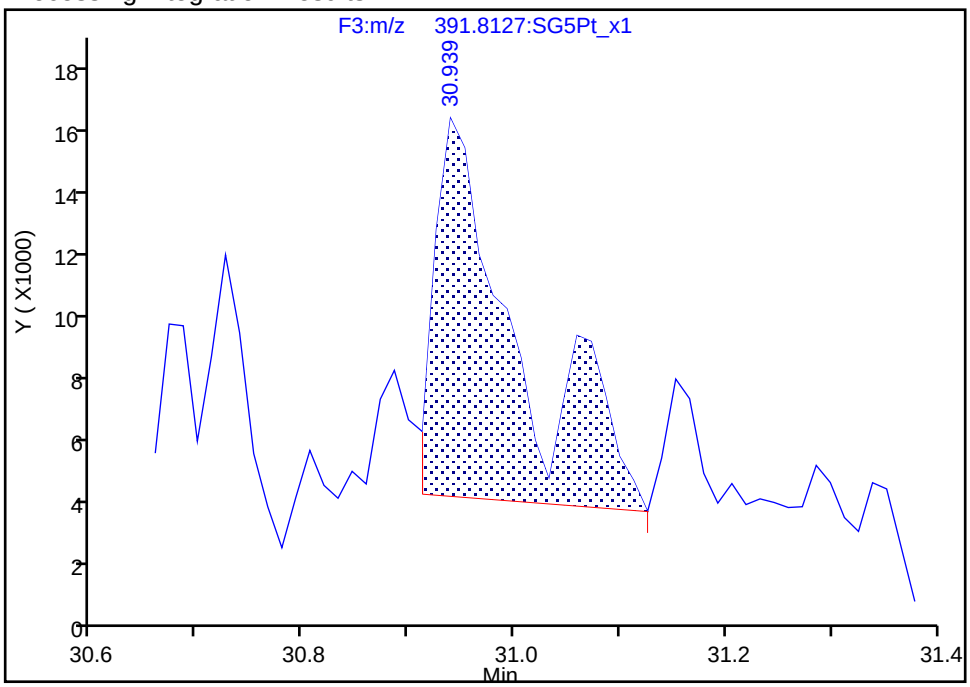
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d				
Injection Date:	21-Jul-2019 19:56:24	Instrument ID:	3D5		
Lims ID:	MB 320-308663/1-A				
Client ID:					
Operator ID:	ALM, AJS	ALS Bottle#:	37	Worklist Smp#:	54
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL		
Column:	DB-5 (0.32 mm)	Detector	F3:HRSIR		

1,2,3,4,7,8-HxCDD, CAS: 39227-28-6

Signal: 2

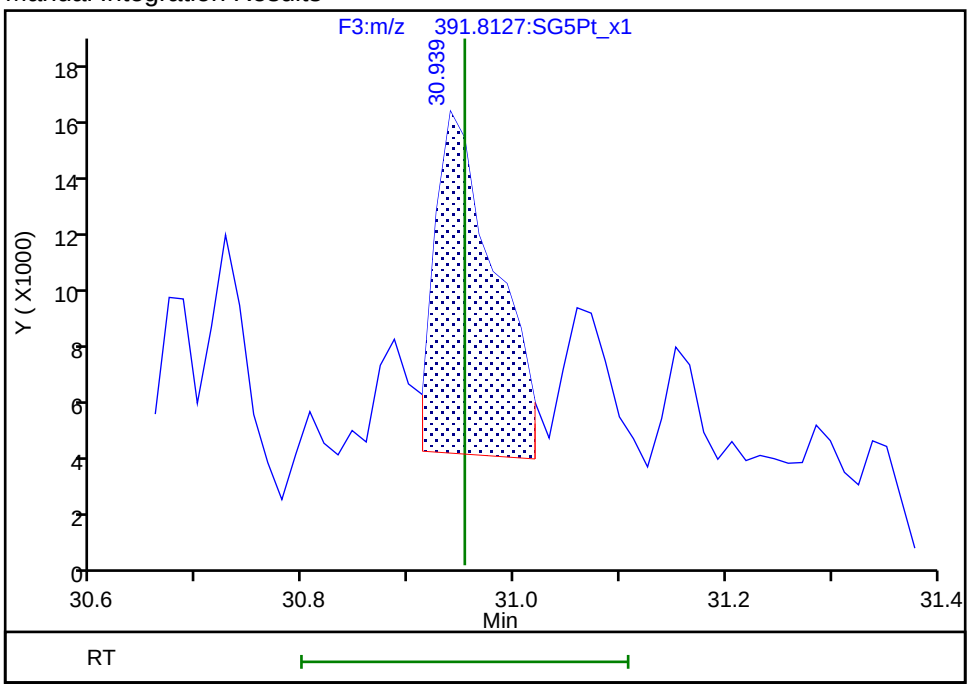
Processing Integration Results

RT: 30.94
Area: 63342
Amount: 0.090660
Amount Units: pg/ul



Manual Integration Results

RT: 30.94
Area: 46063
Amount: 0.076463
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:37:24

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

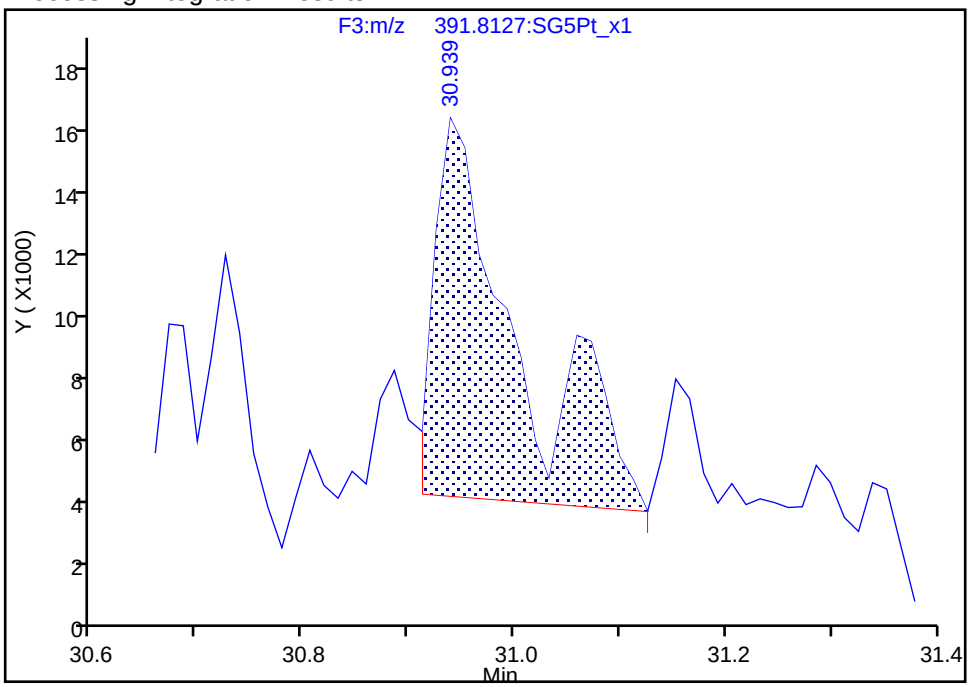
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d
Injection Date: 21-Jul-2019 19:56:24 Instrument ID: 3D5
Lims ID: MB 320-308663/1-A
Client ID:
Operator ID: ALM, AJS ALS Bottle#: 37 Worklist Smp#: 54
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL
Column: DB-5 (0.32 mm) Detector F3:HRSIR

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 2

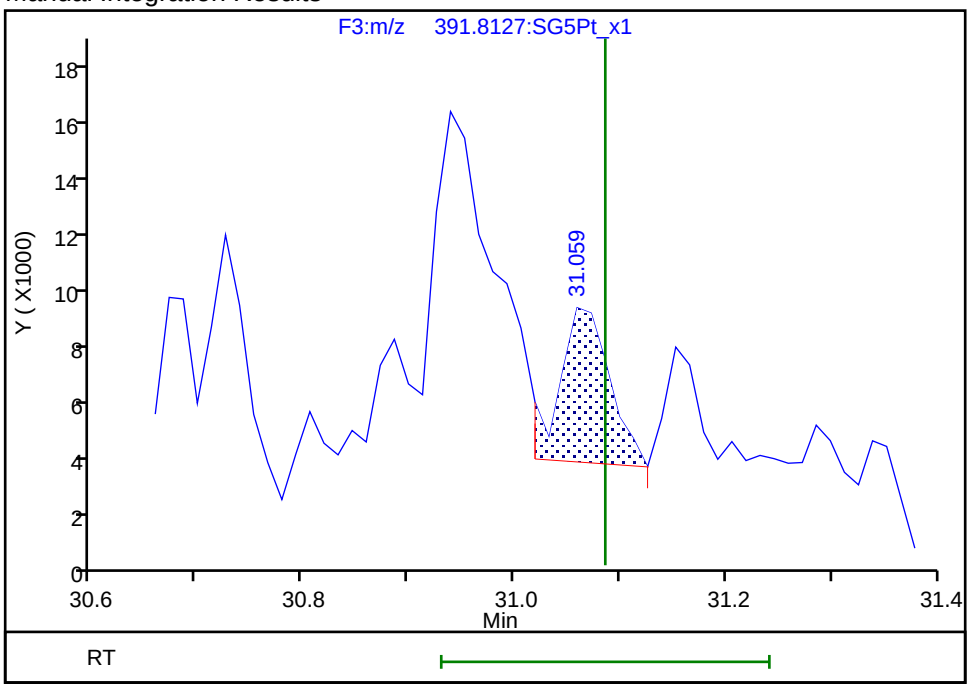
Processing Integration Results

RT: 30.94
Area: 63342
Amount: 0.078964
Amount Units: pg/ul



Manual Integration Results

RT: 31.06
Area: 17262
Amount: 0.046938
Amount Units: pg/ul



Reviewer: krongsingn, 23-Jul-2019 10:37:24
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Sacramento

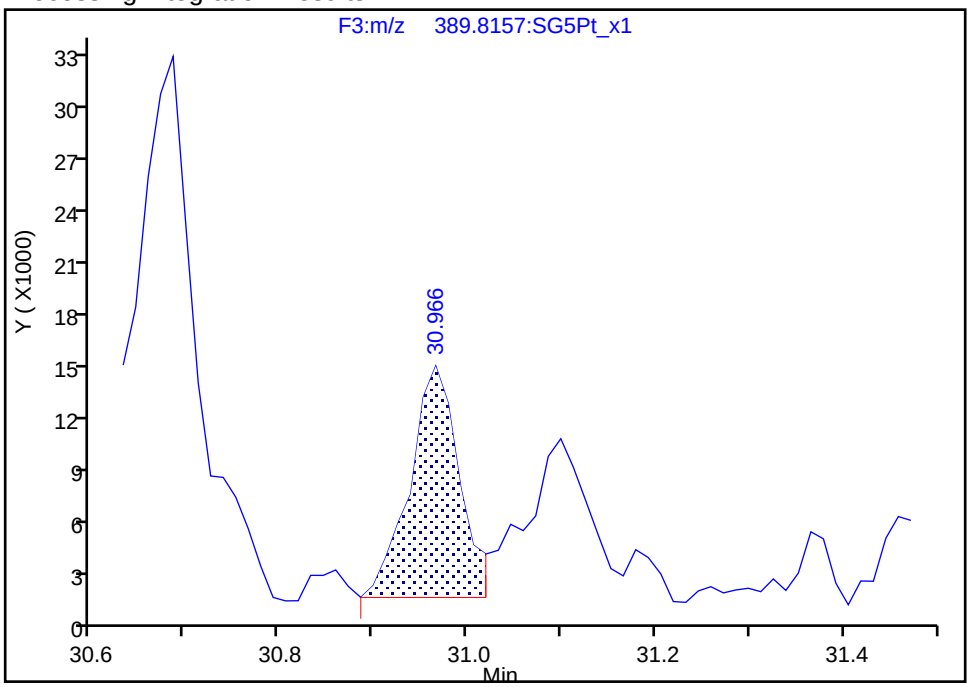
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d
Injection Date: 21-Jul-2019 19:56:24 Instrument ID: 3D5
Lims ID: MB 320-308663/1-A
Client ID:
Operator ID: ALM, AJS ALS Bottle#: 37 Worklist Smp#: 54
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL
Column: DB-5 (0.32 mm) Detector F3:HRSIR

1,2,3,6,7,8-HxCDD, CAS: 57653-85-7

Signal: 1

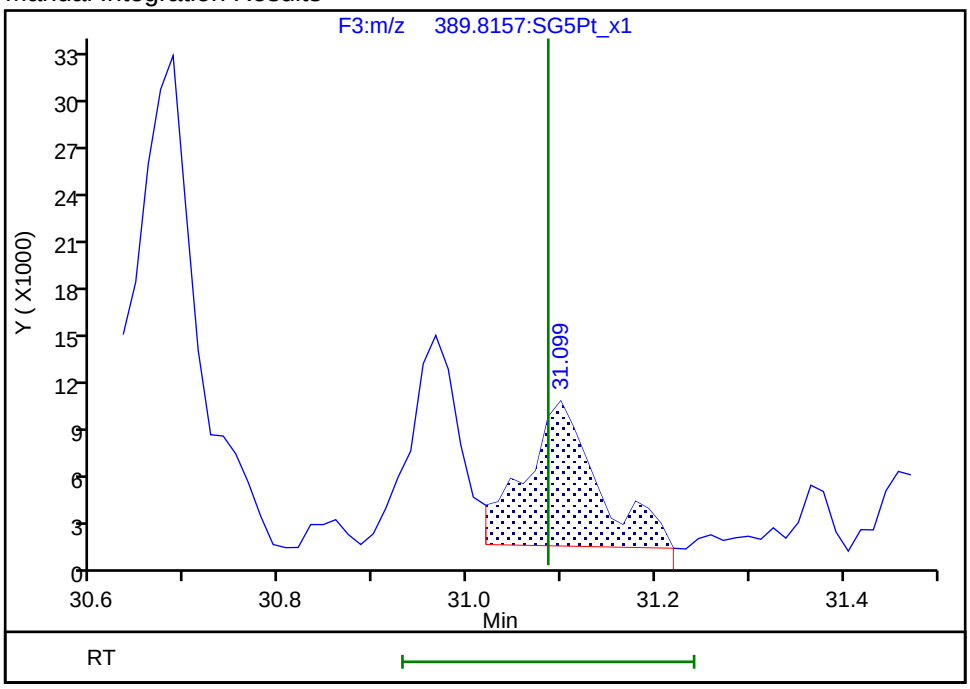
Processing Integration Results

RT: 30.97
Area: 47001
Amount: 0.078964
Amount Units: pg/ul



Manual Integration Results

RT: 31.10
Area: 48328
Amount: 0.046938
Amount Units: pg/ul



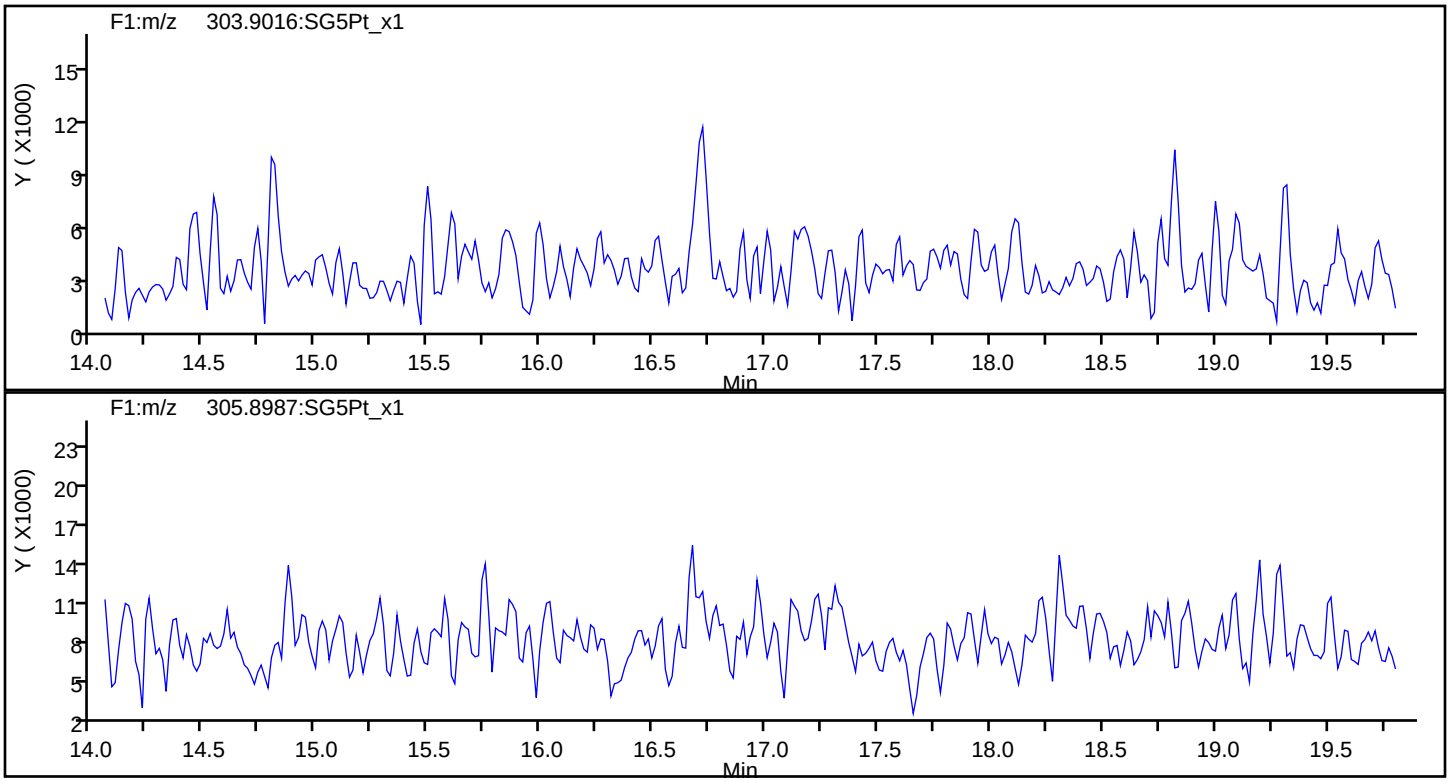
Reviewer: krongsingn, 23-Jul-2019 10:37:32
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

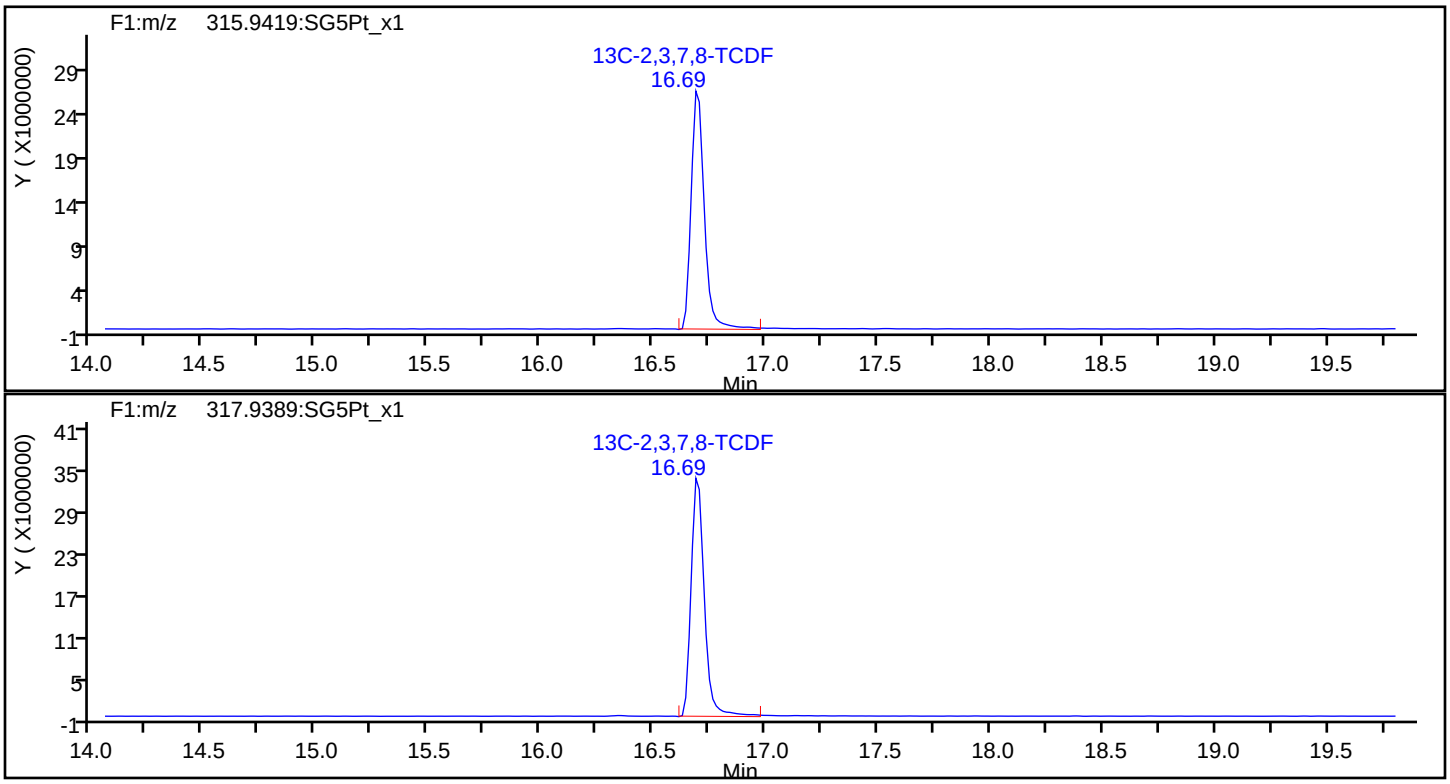
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF



TCDF Standards

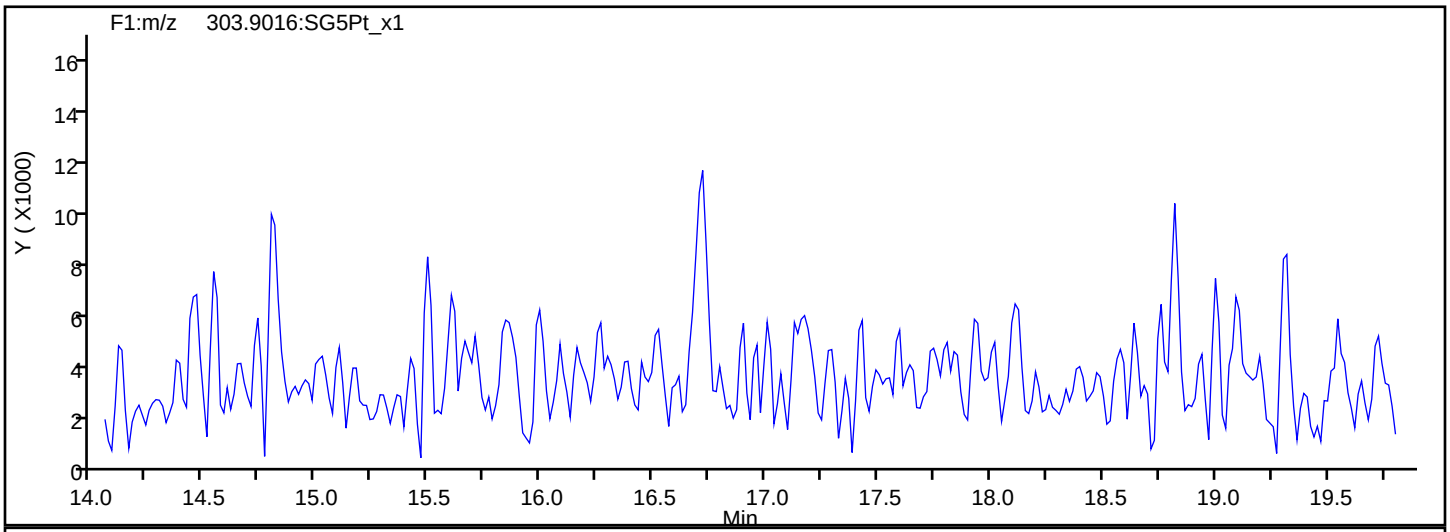


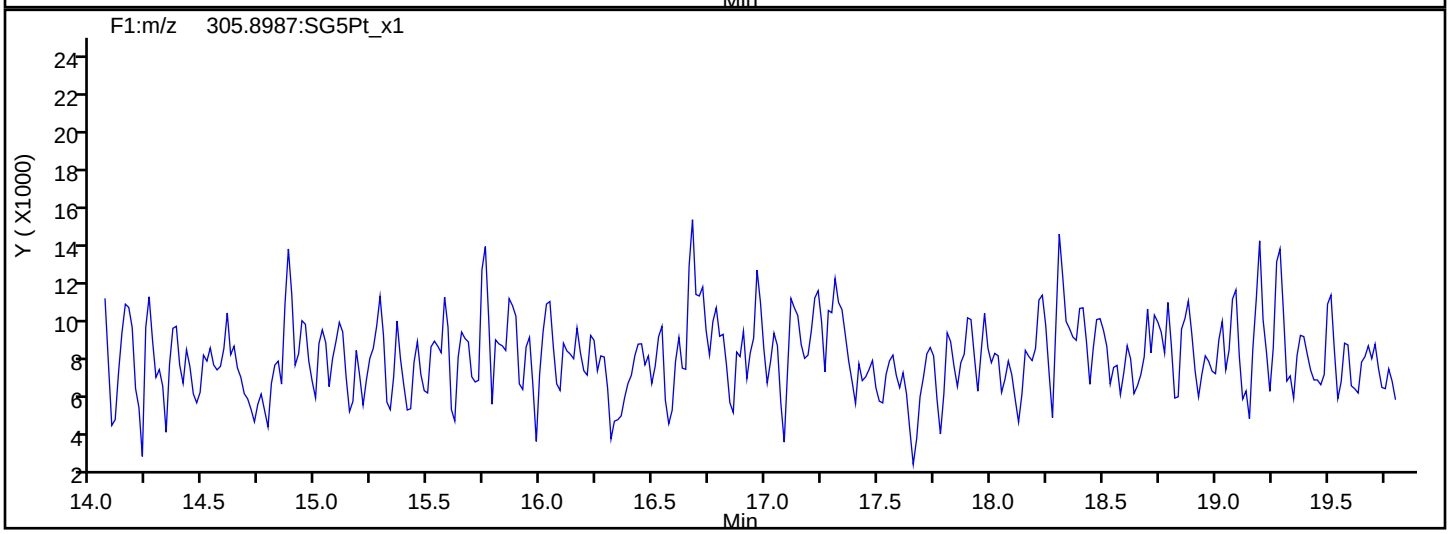
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

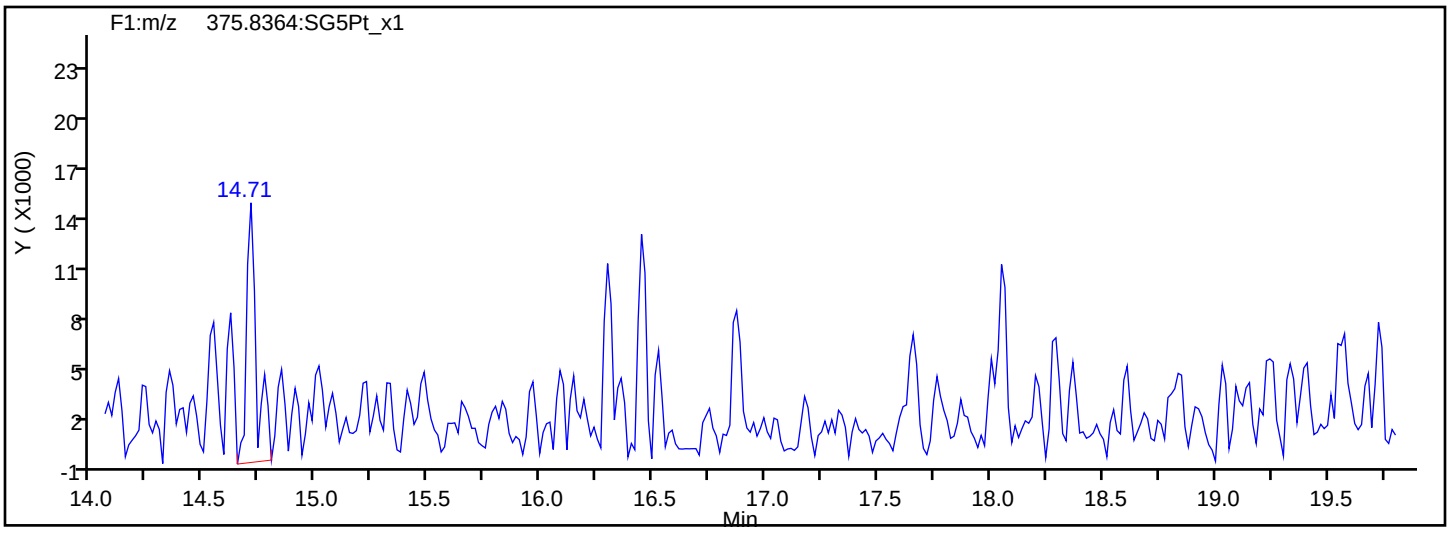
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass

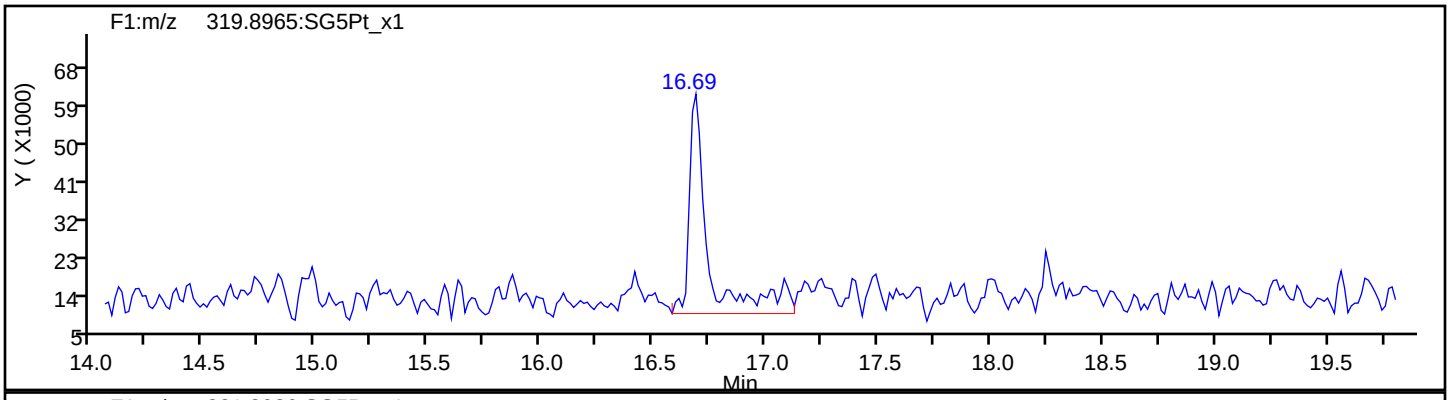


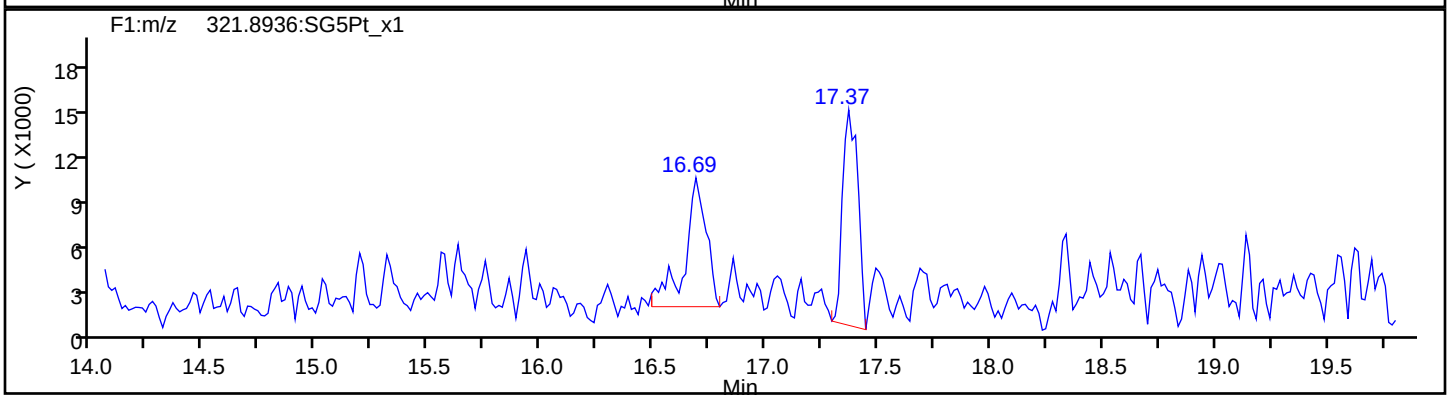
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

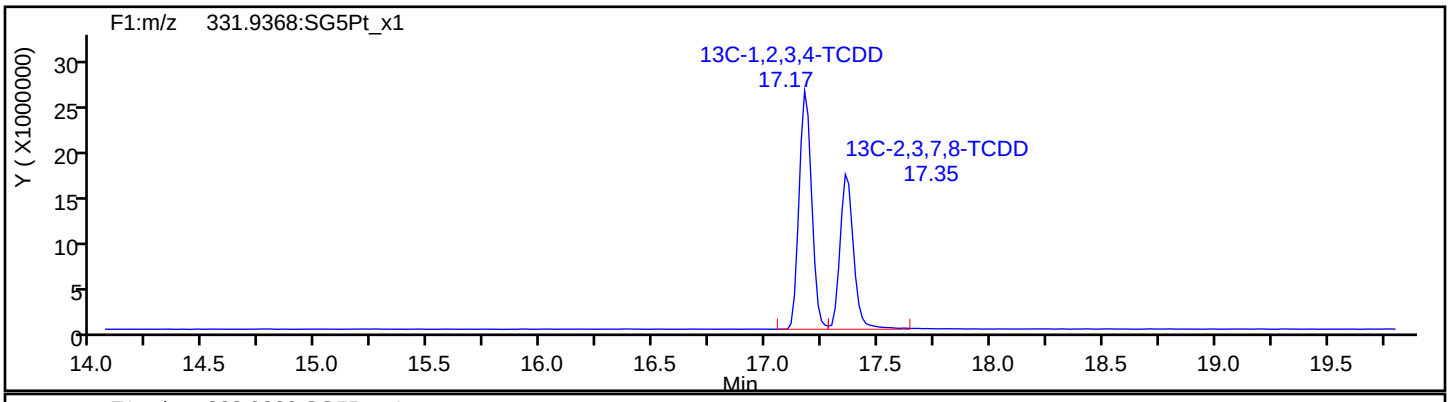
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

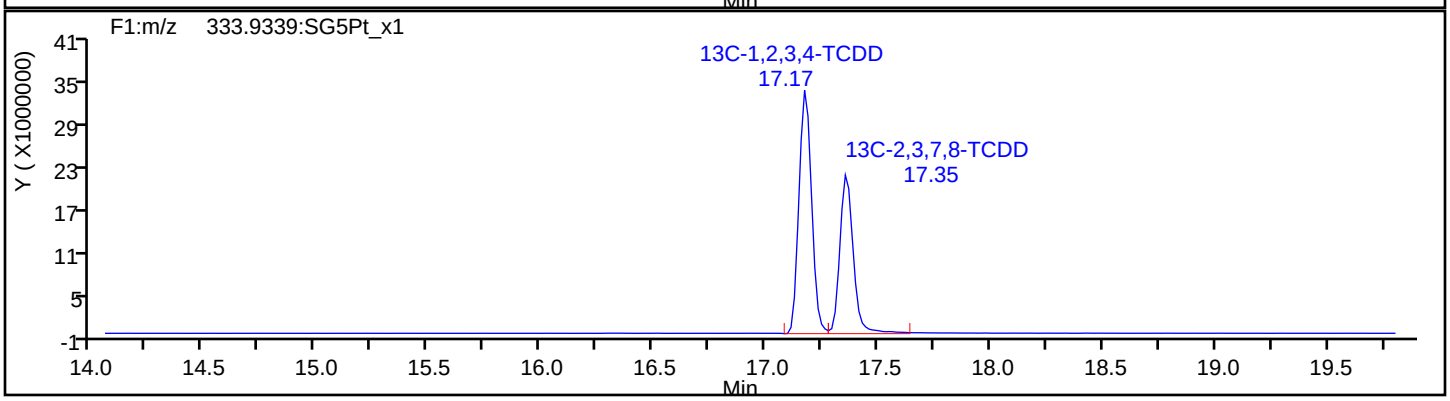
TCDD





TCDD Standards





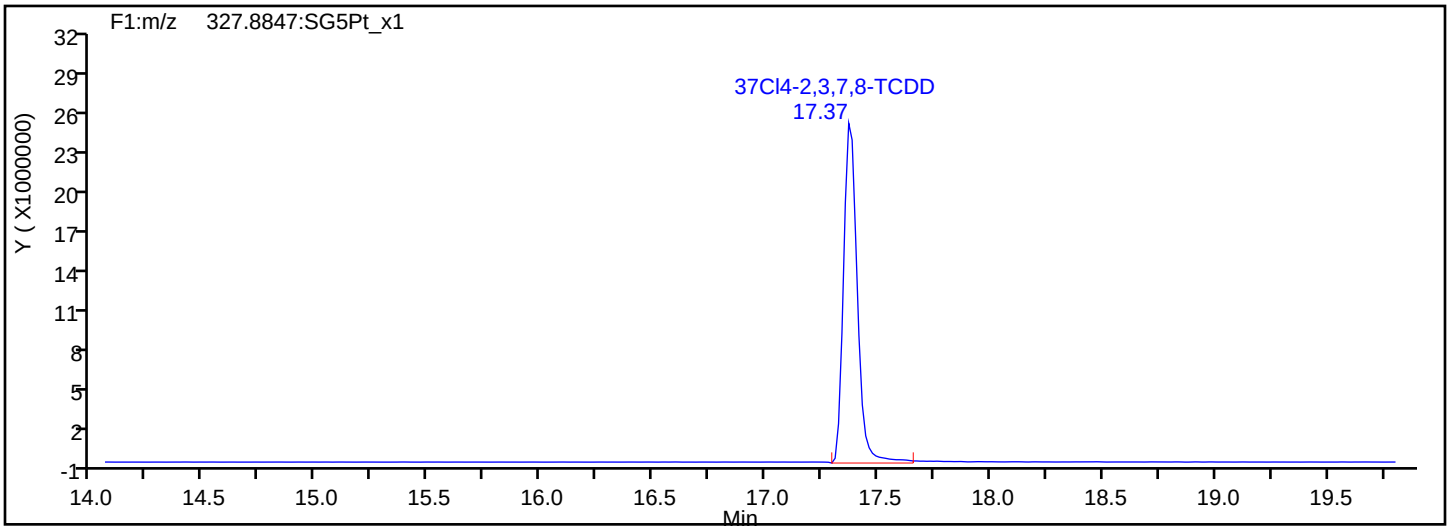
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

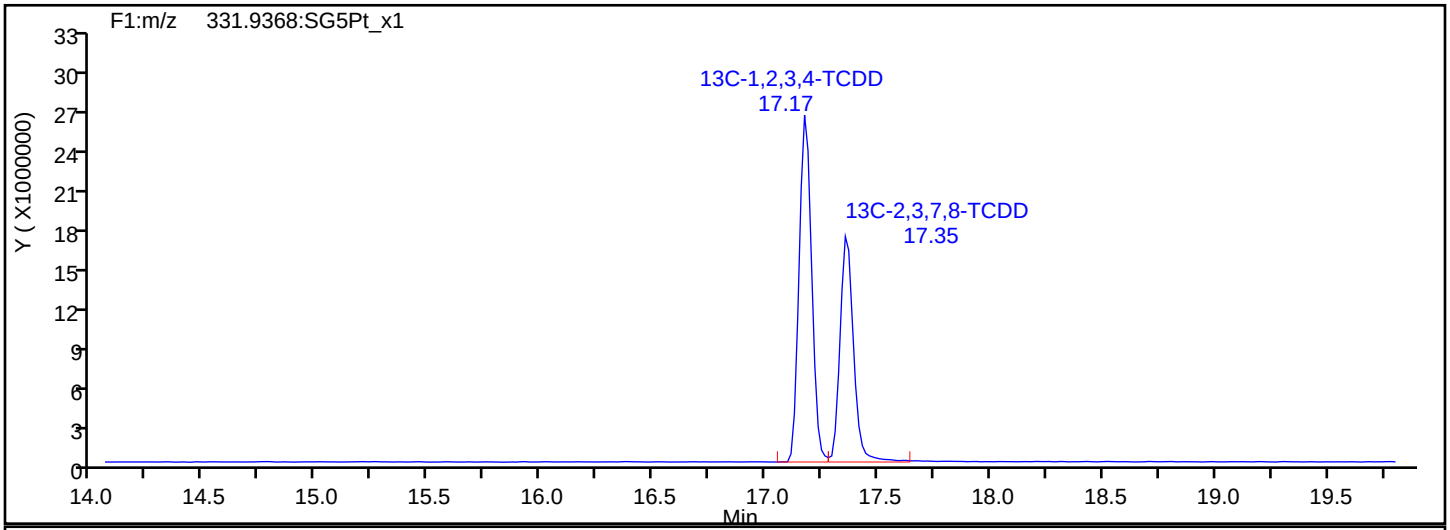
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d

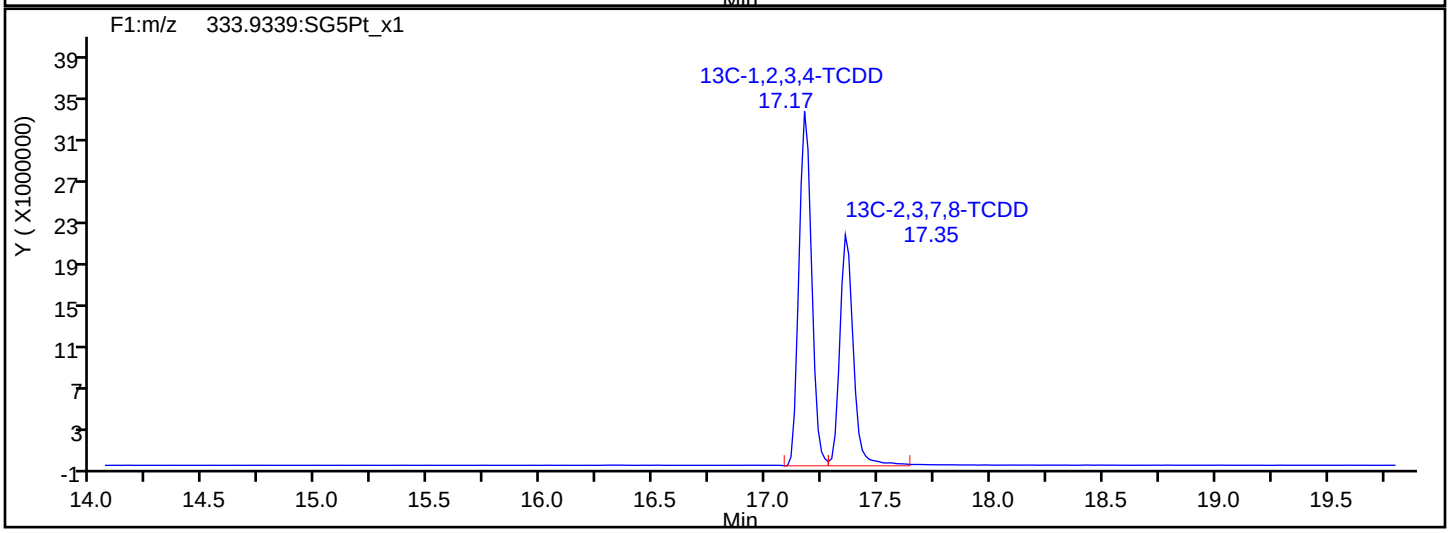
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



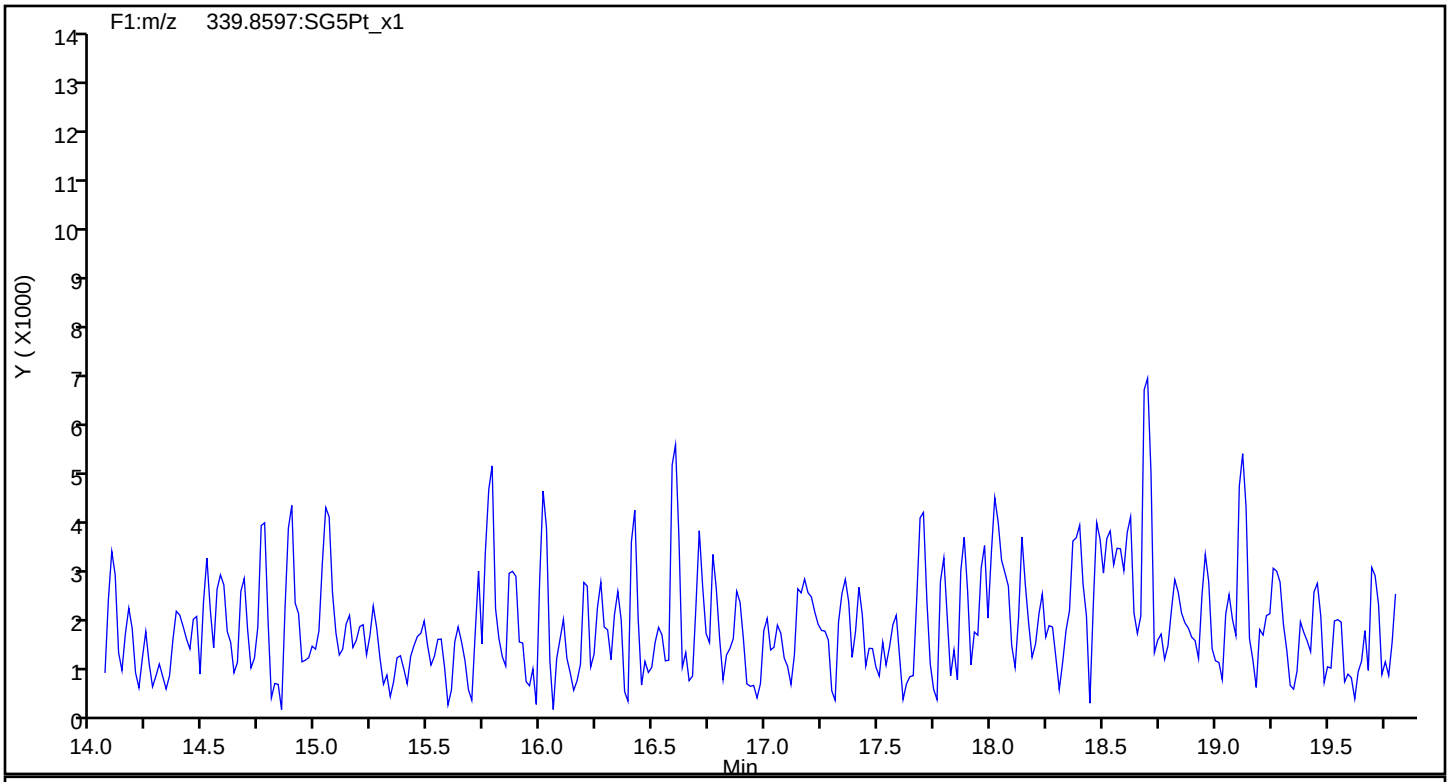


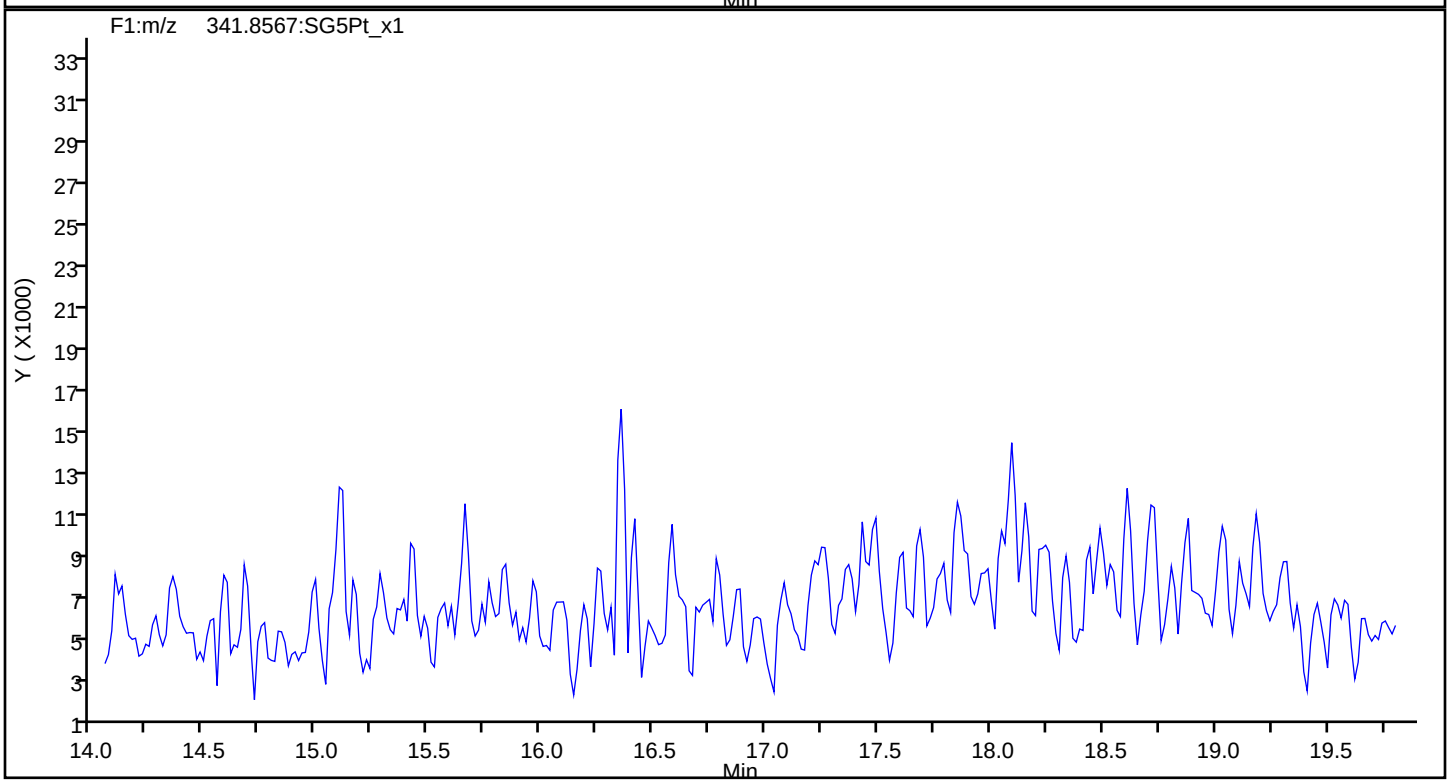
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



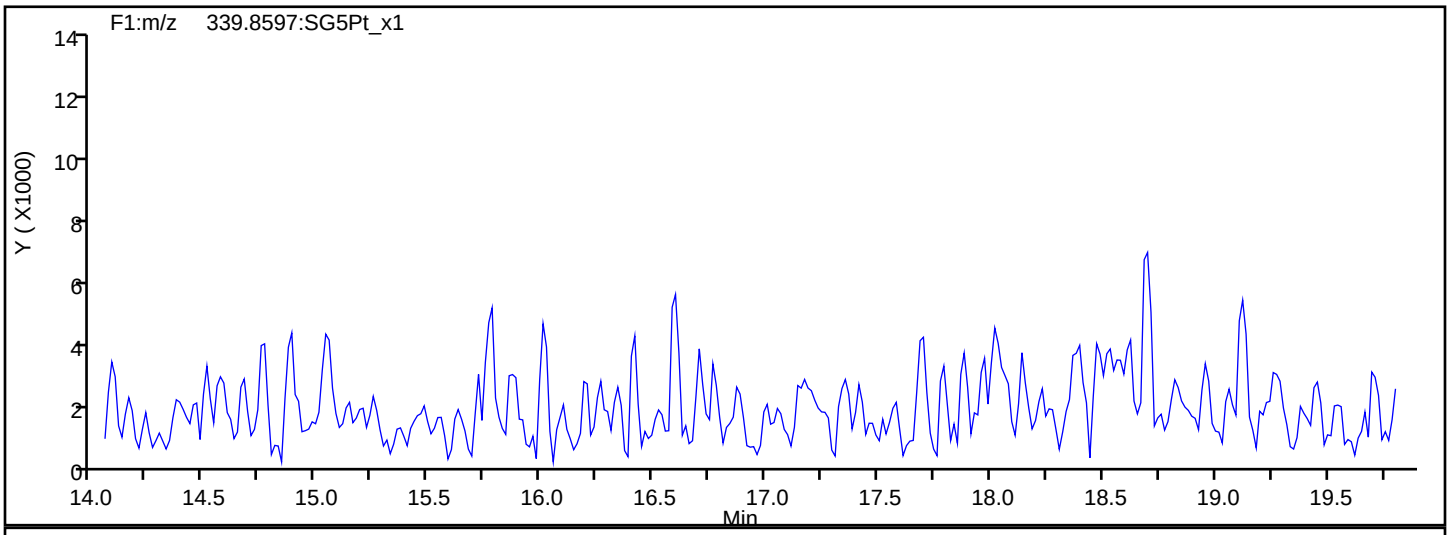


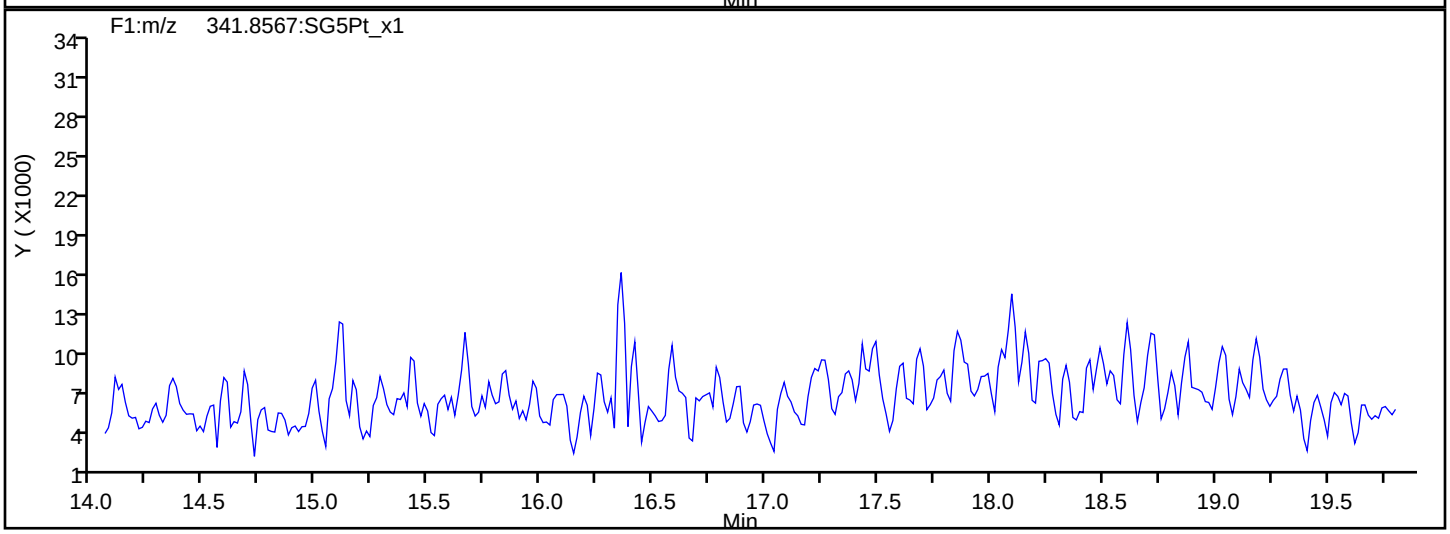
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

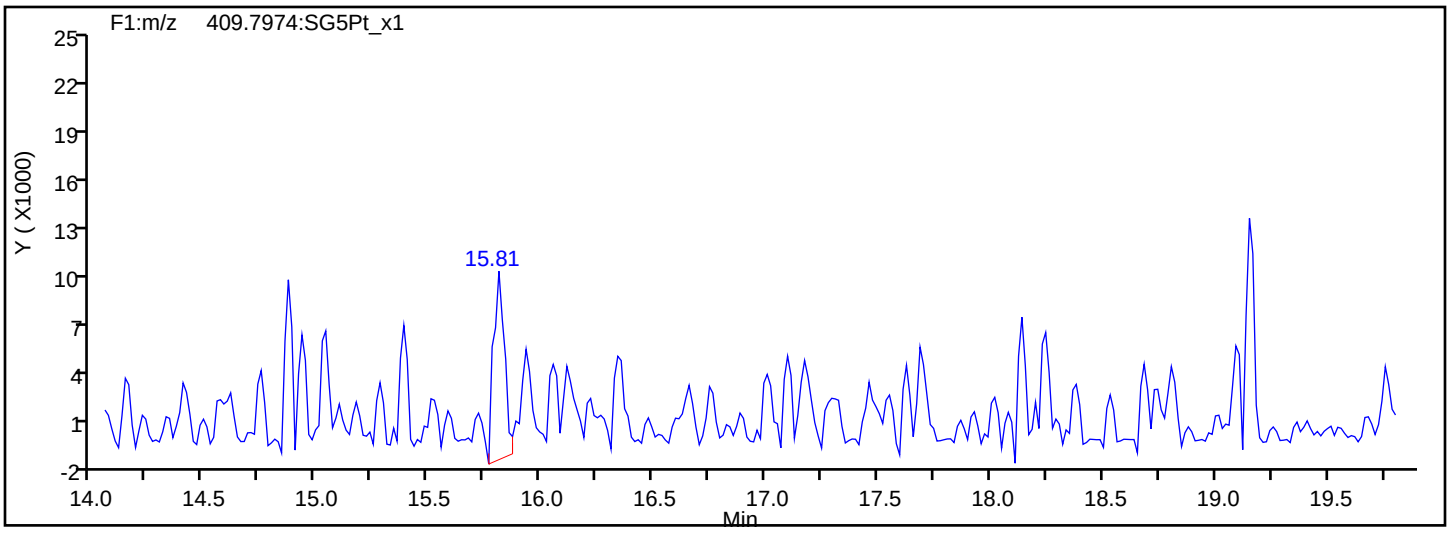
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

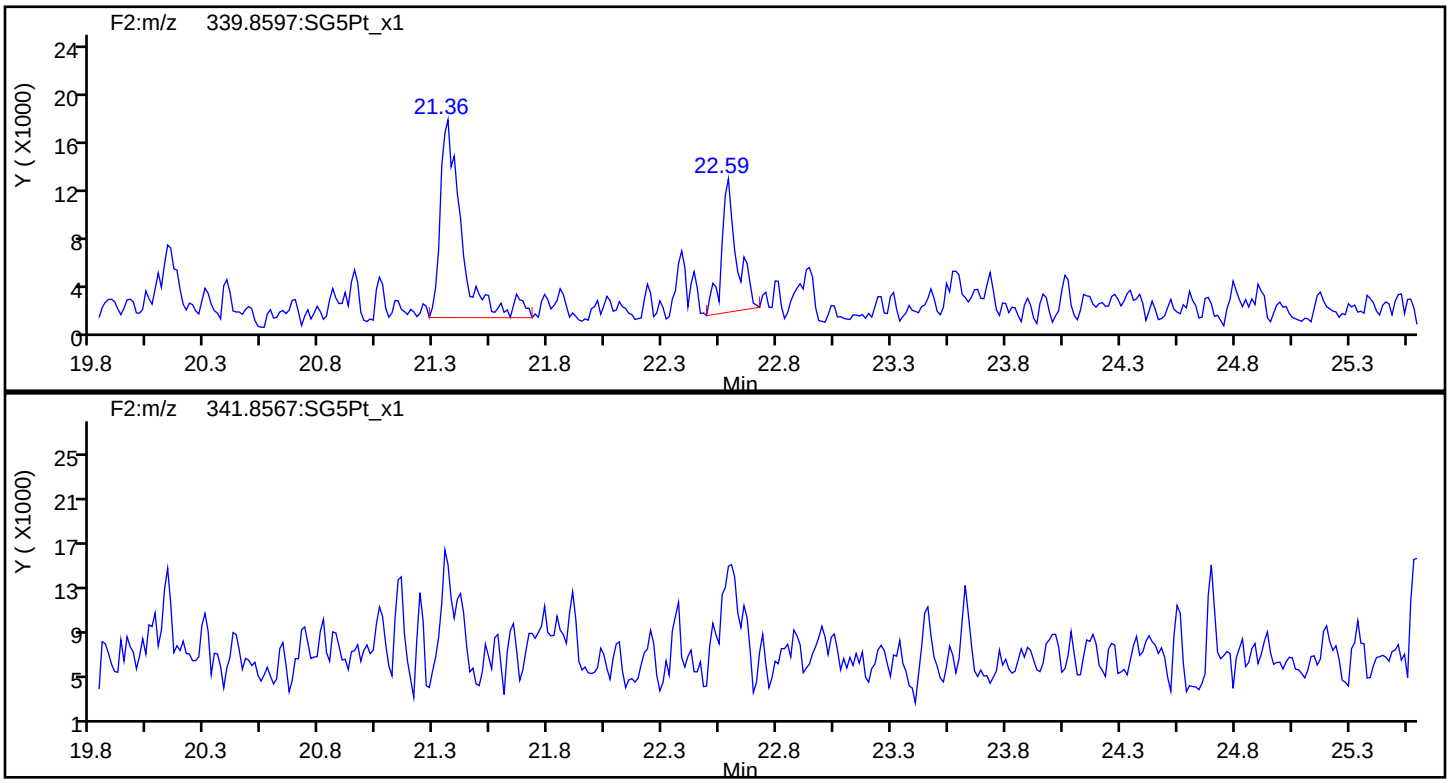


Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

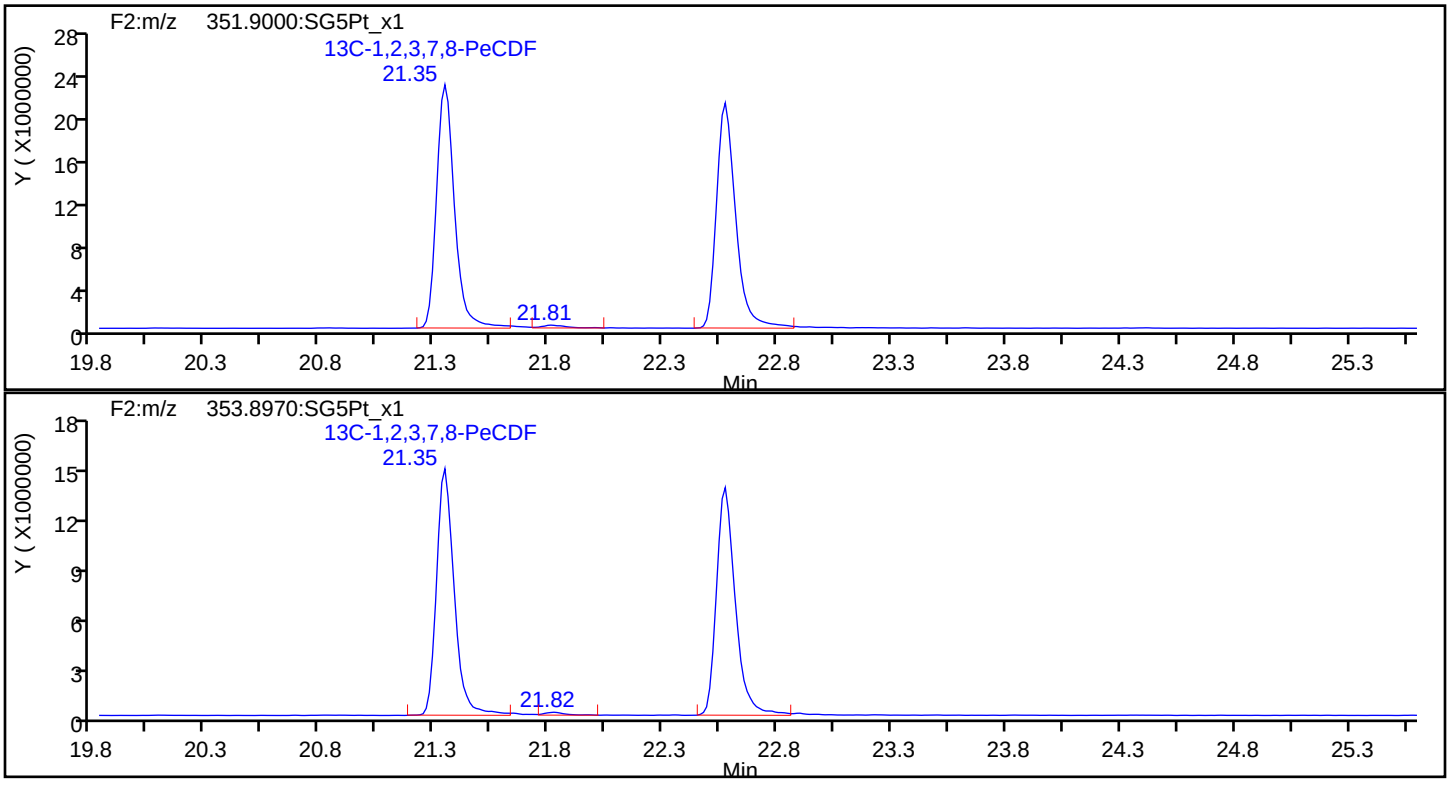
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

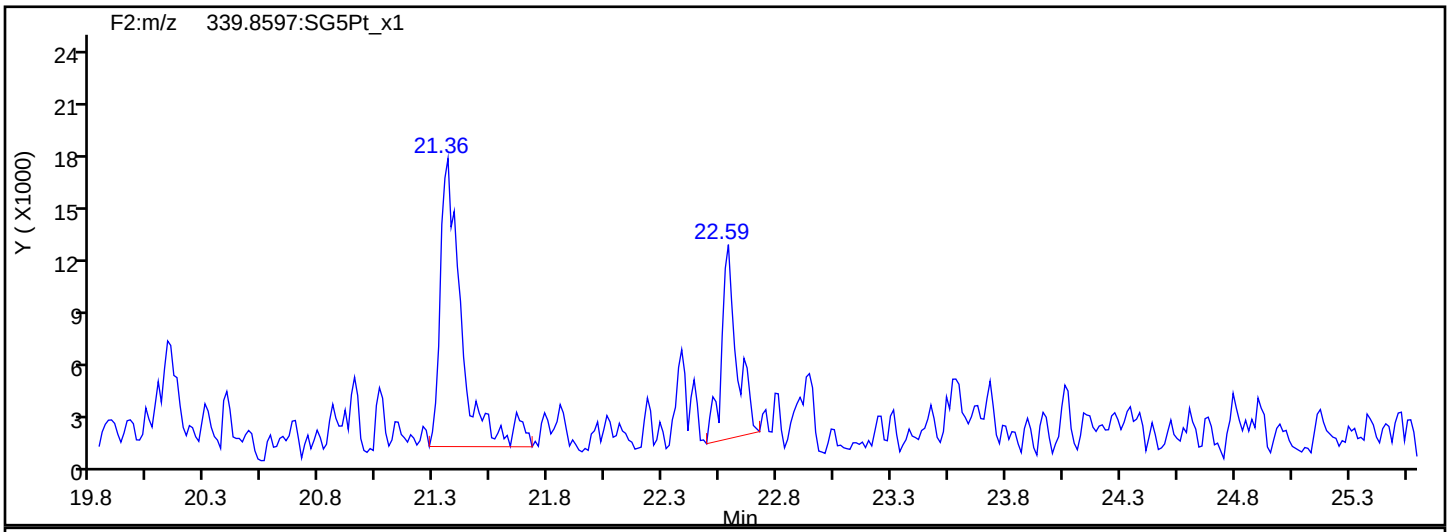


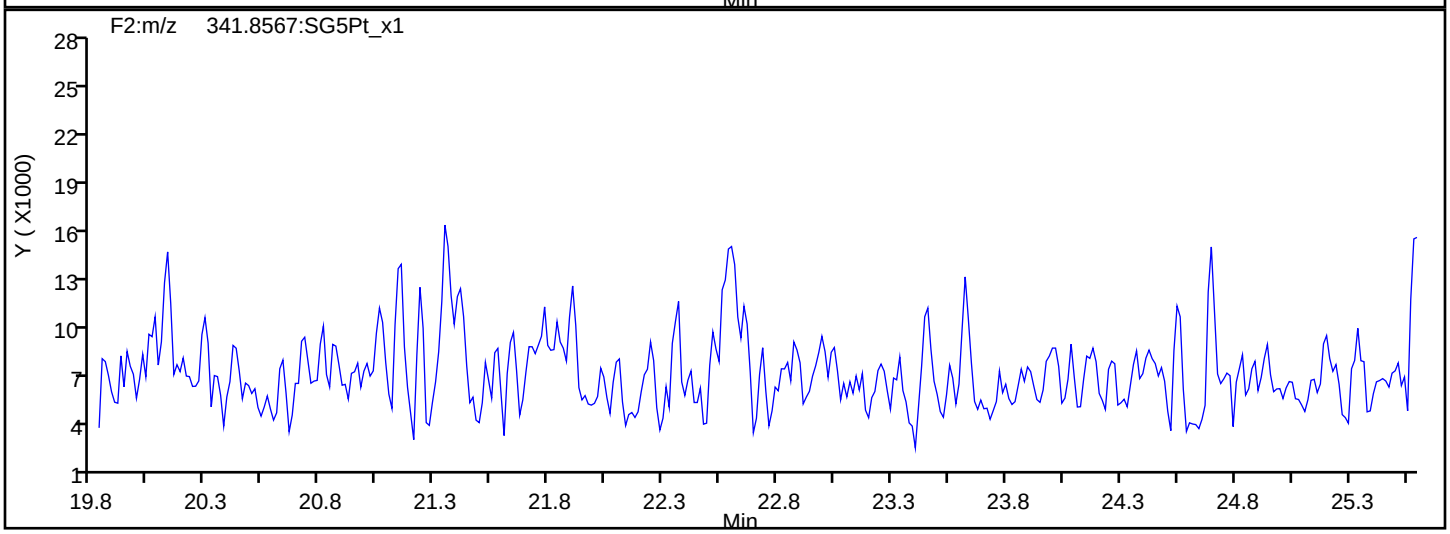
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

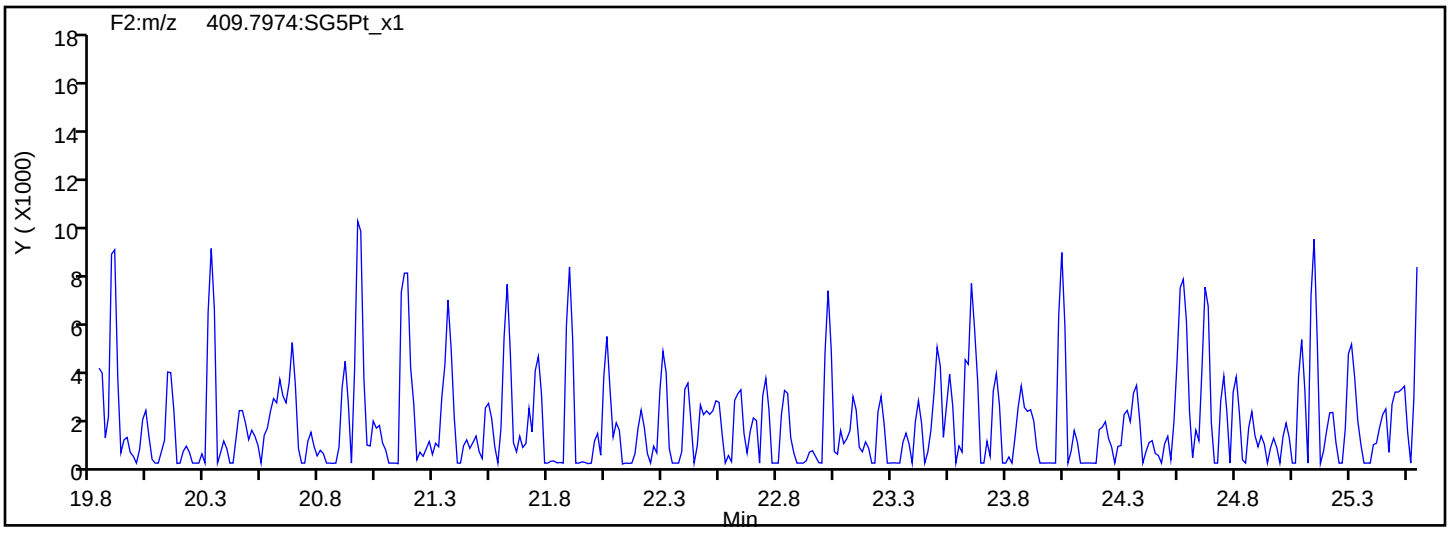
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass

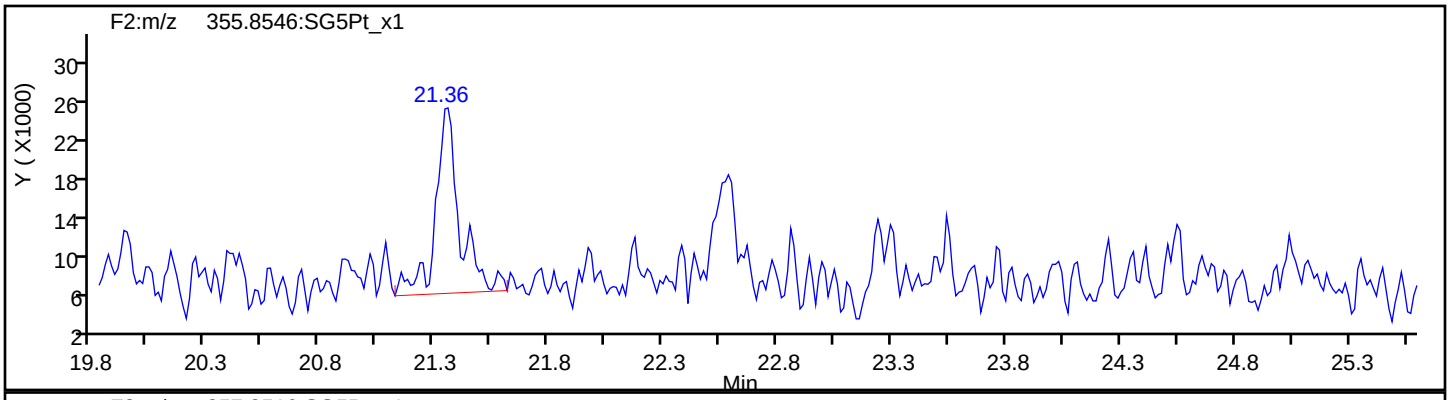


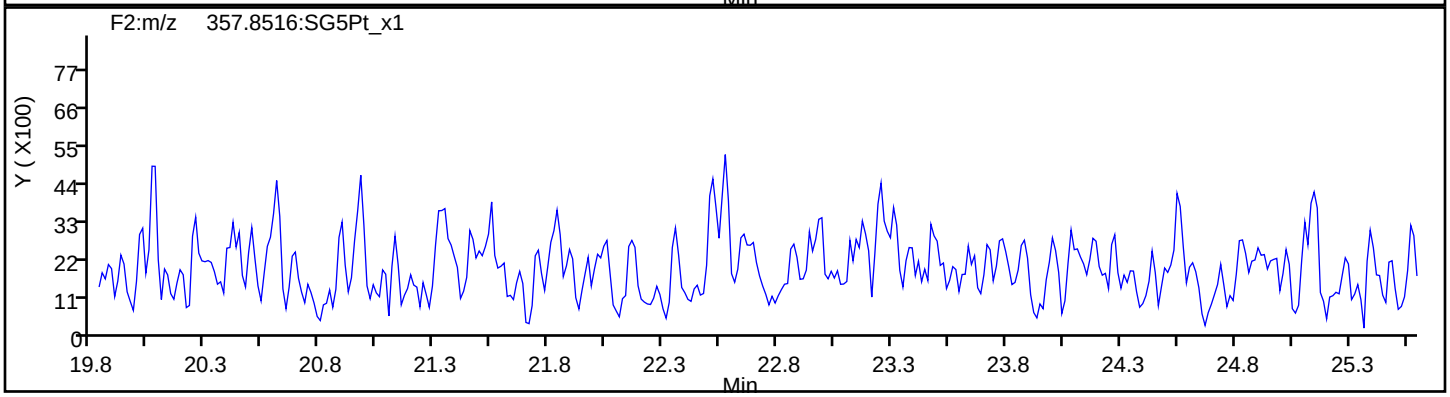
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

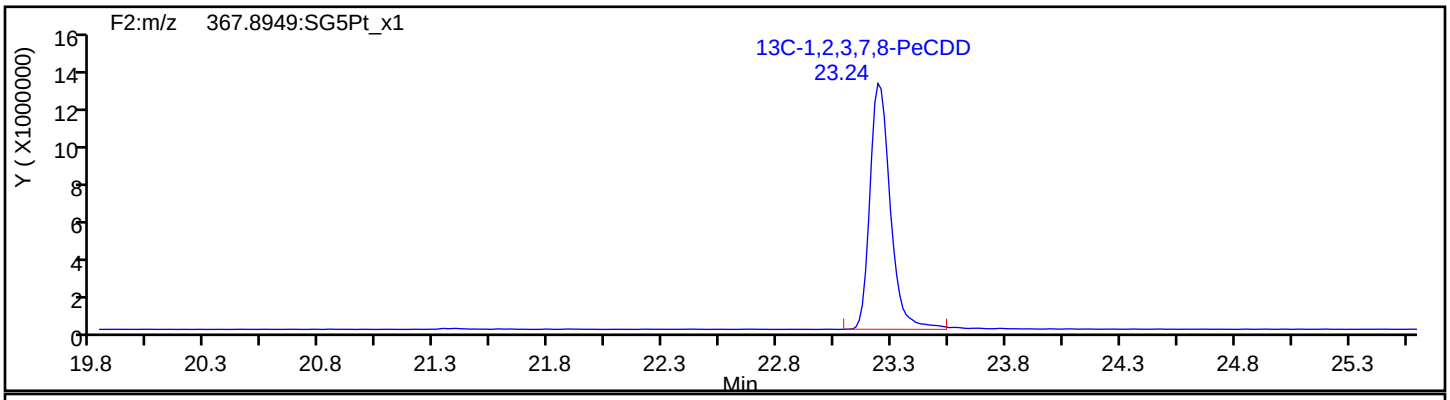
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

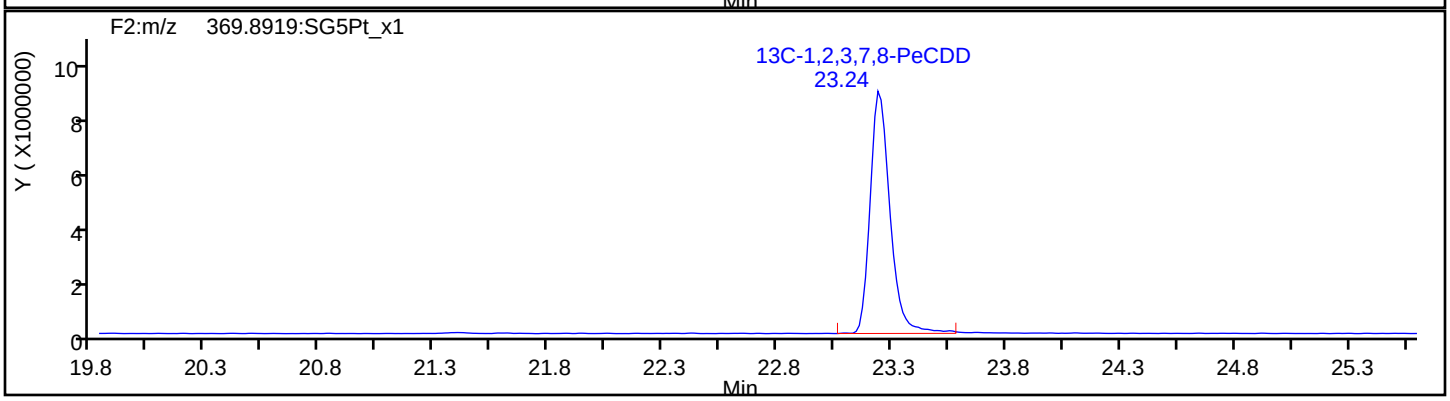
PeCDD





PeCDD Standards





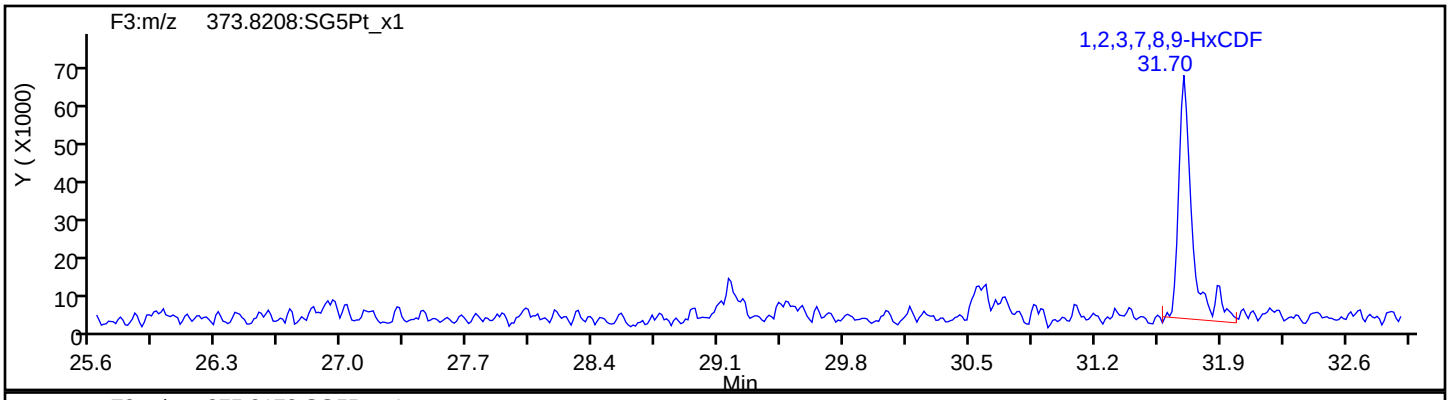
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

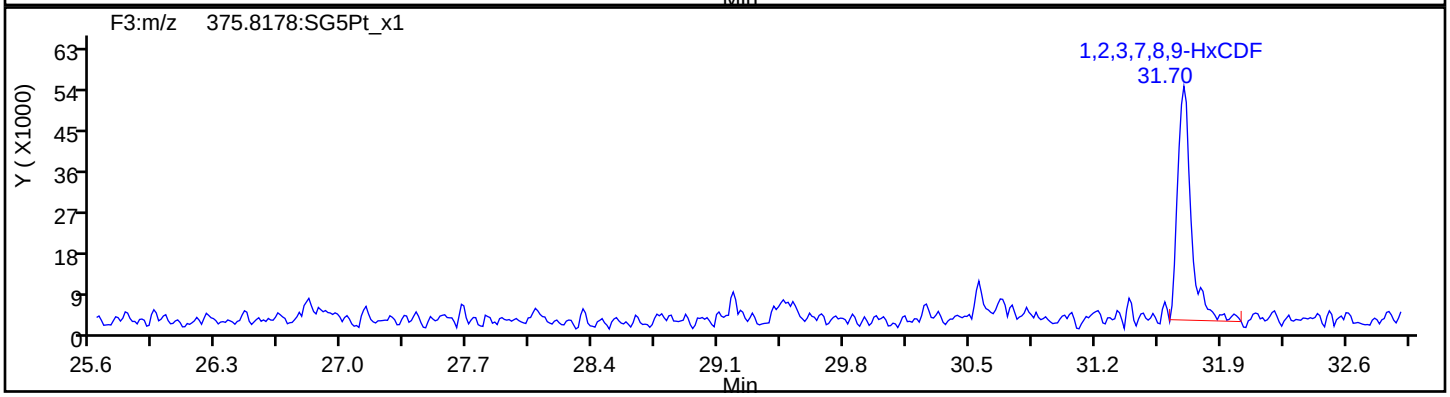
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d

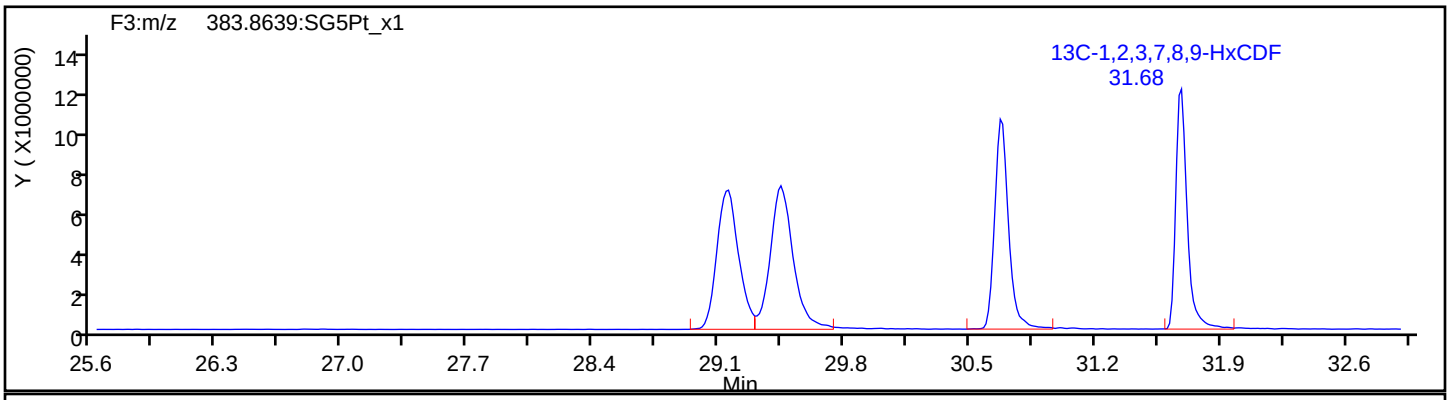
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

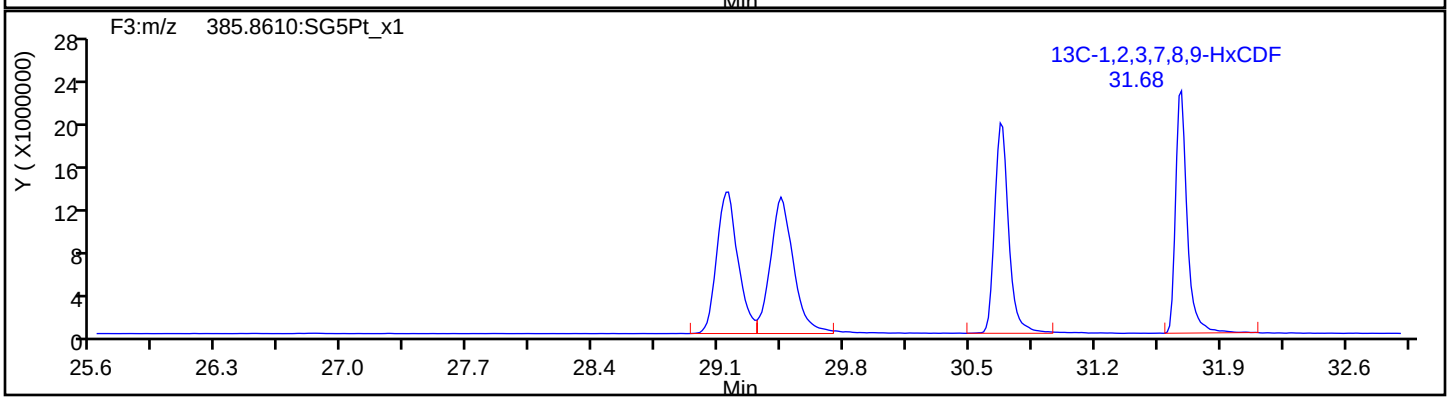
HxCDF





HxCDF Standards



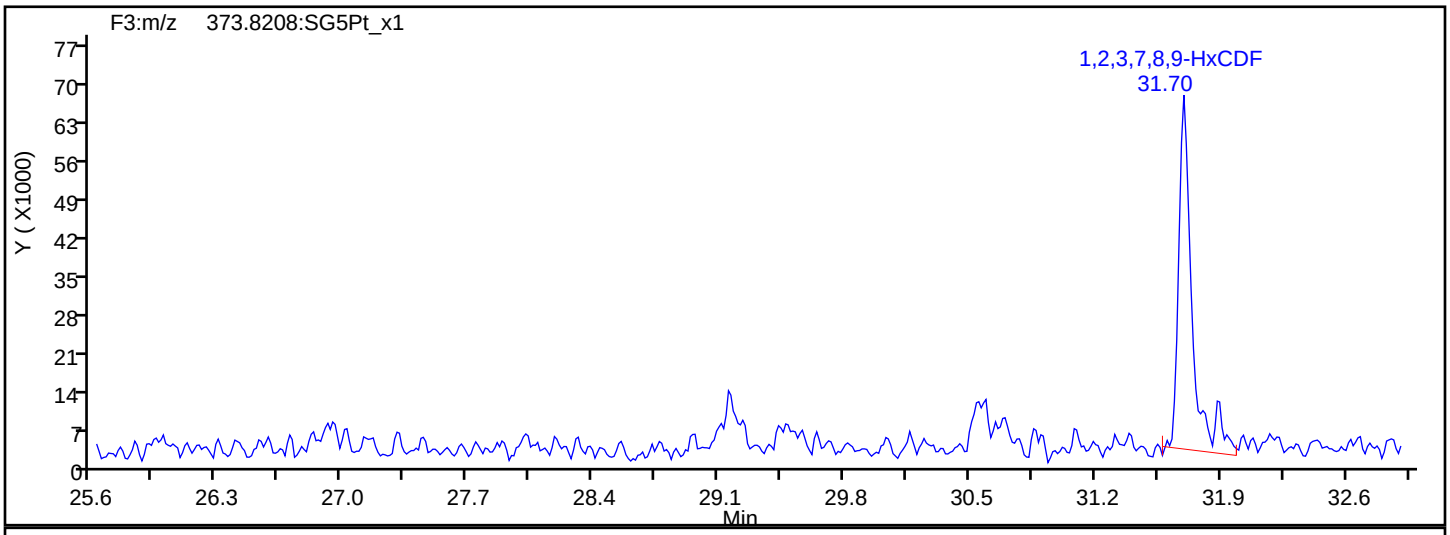


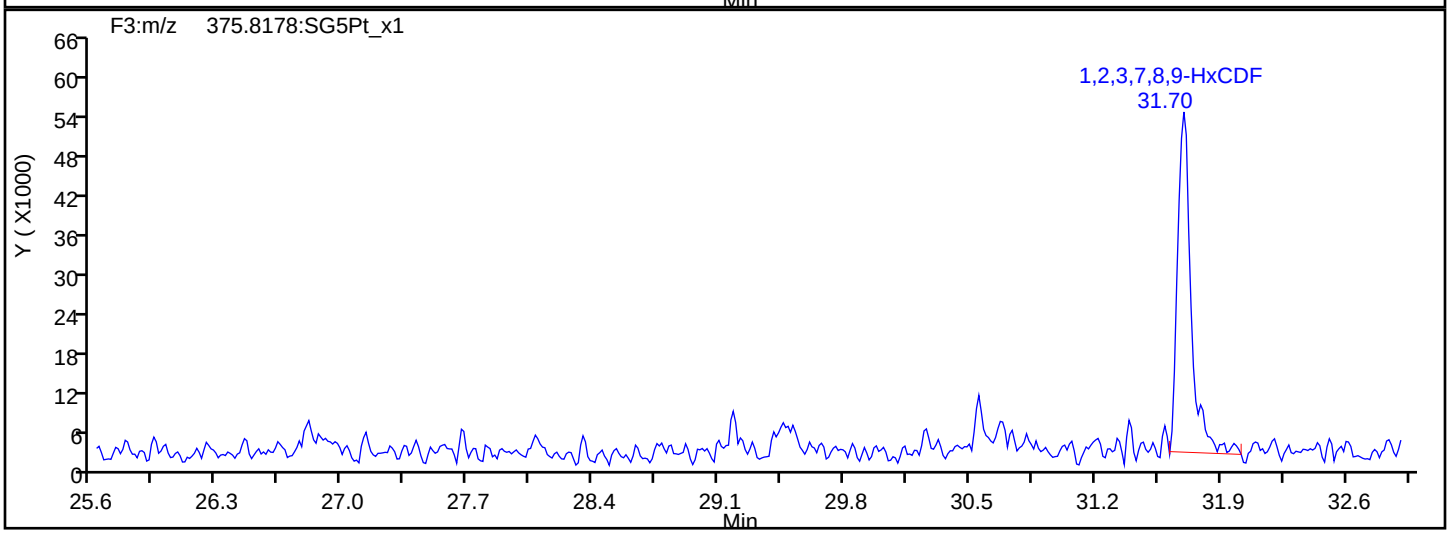
Report Date: 23-Jul-2019 10:38:27 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

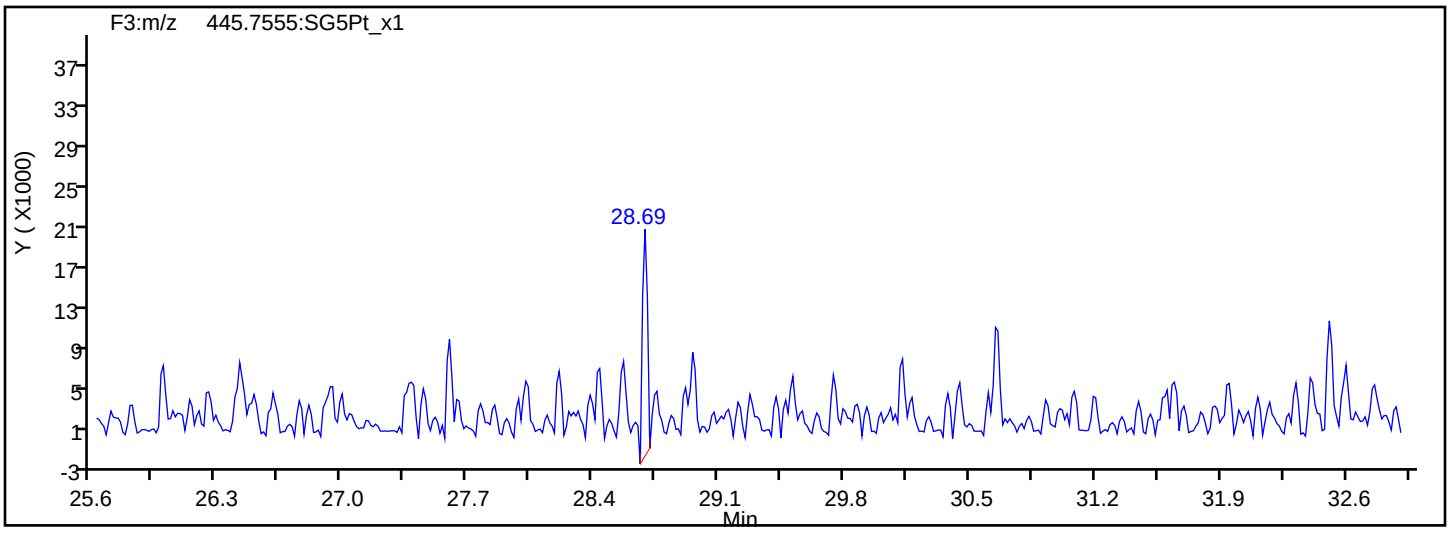
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass

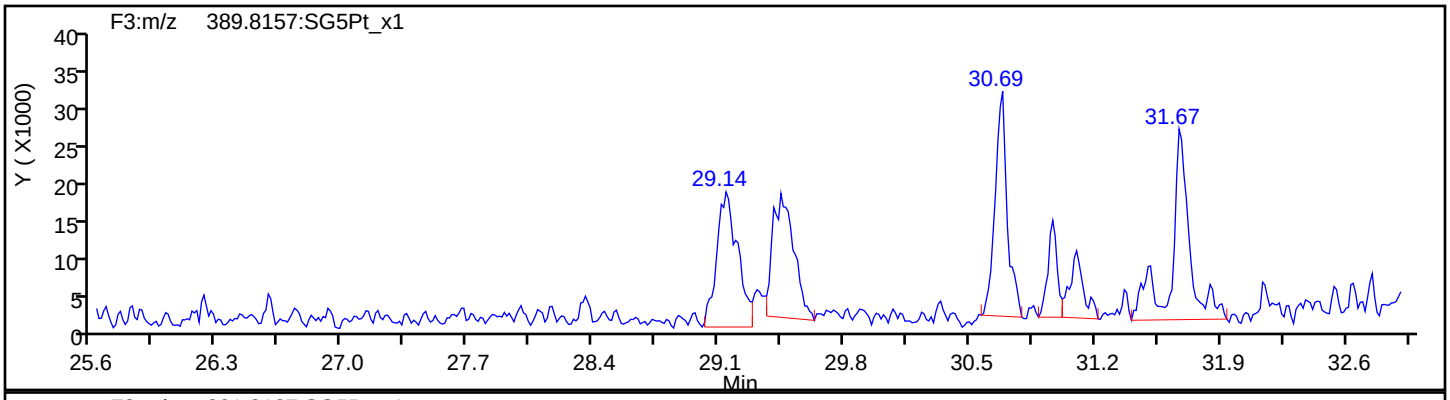


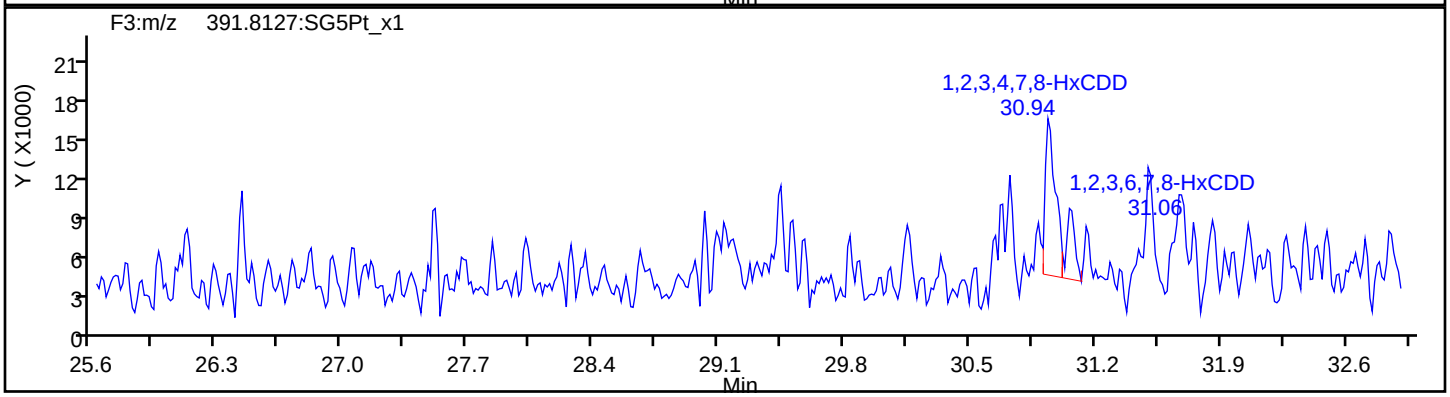
Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

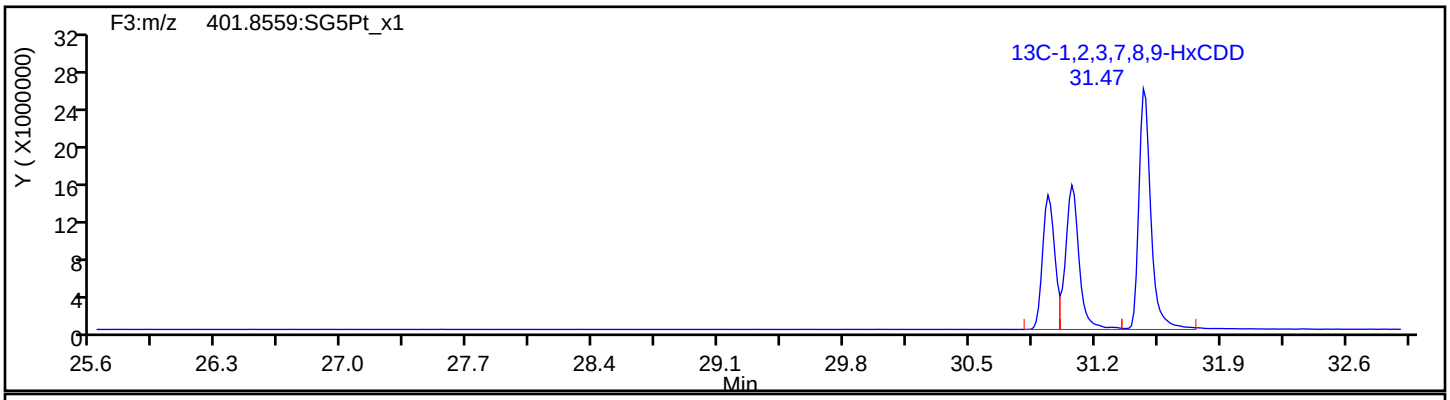
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

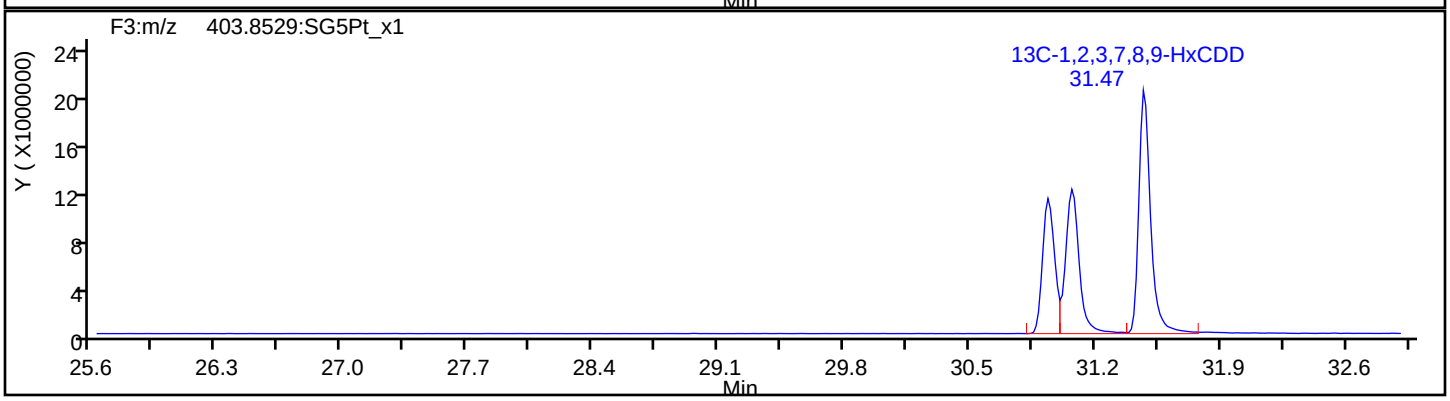
HxCDD





HxCDD Standards





Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d

Injection Date: 21-Jul-2019 19:56:24 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

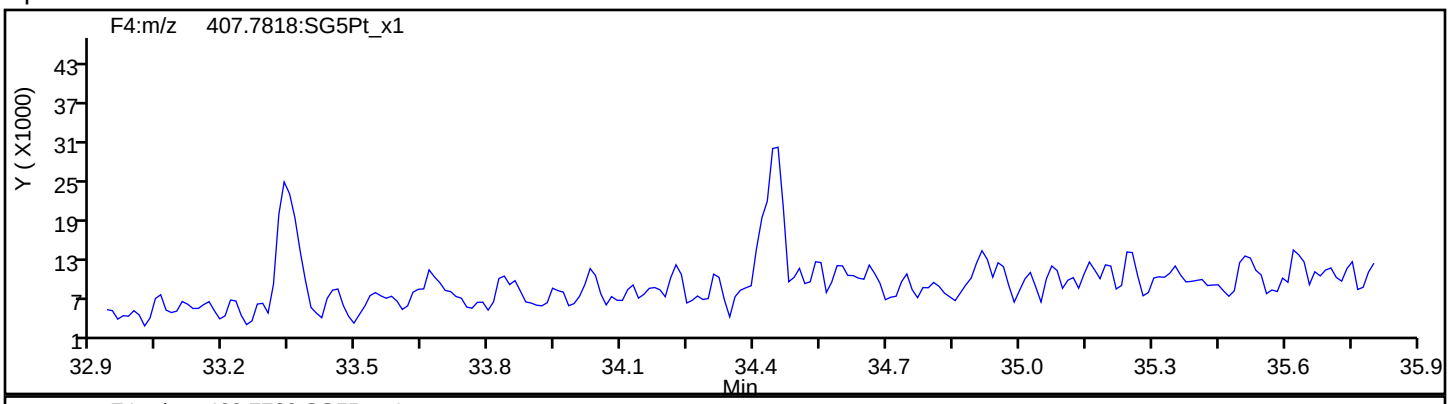
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

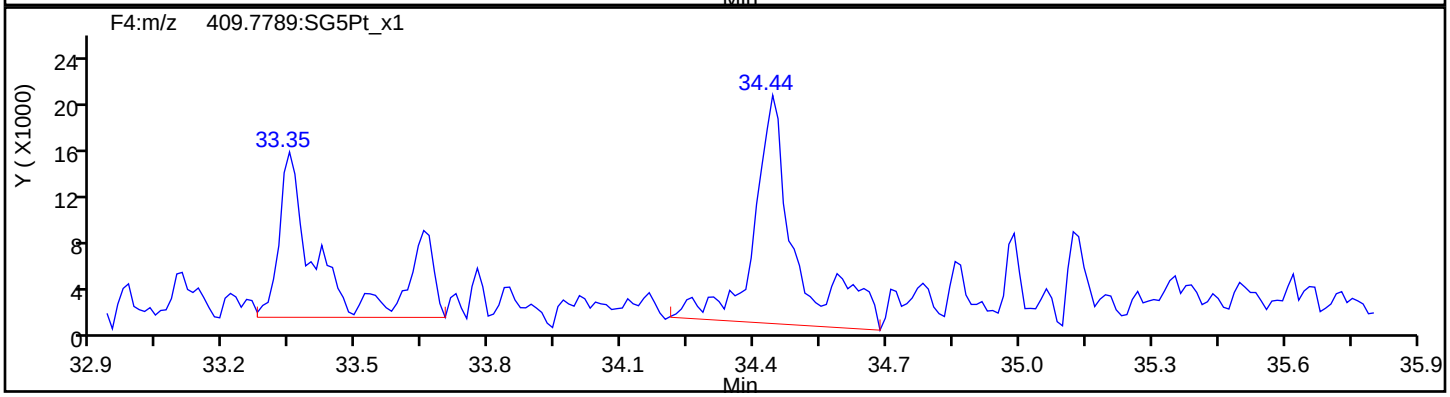
Client ID:

Worklist#: 309103 Sample Line#: 54

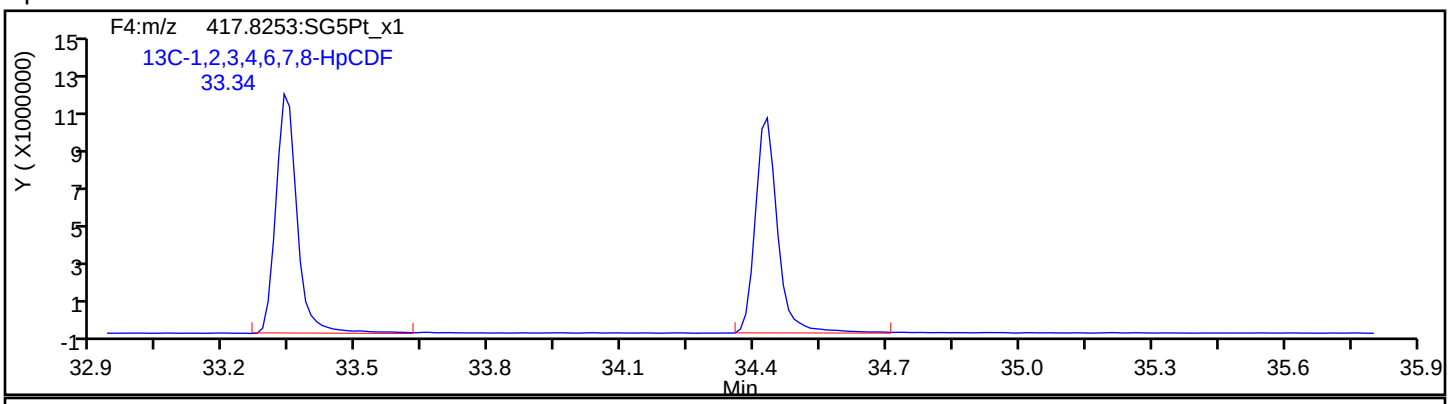
Column Type: DB-5 Column Dia: 0.32 mm

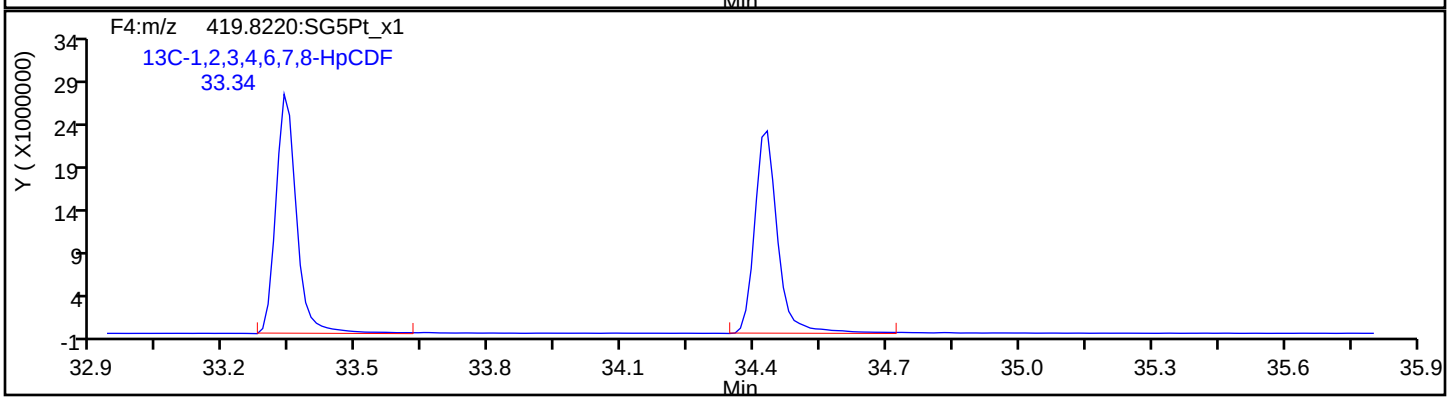
HpCDF





HpCDF Standards



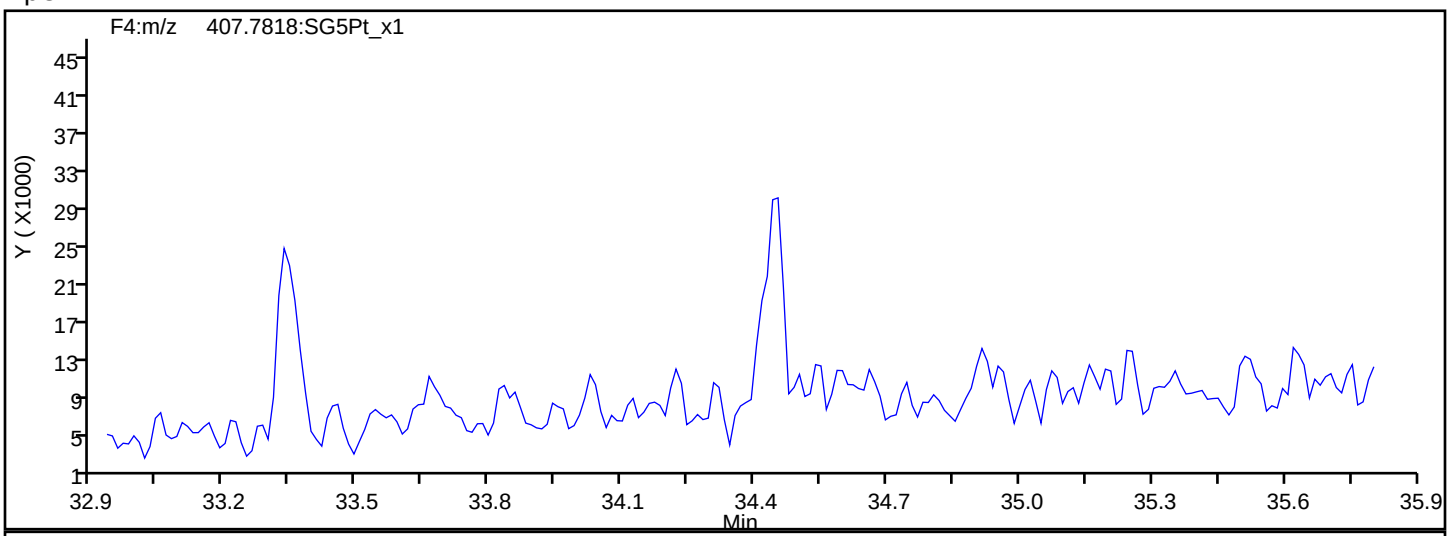


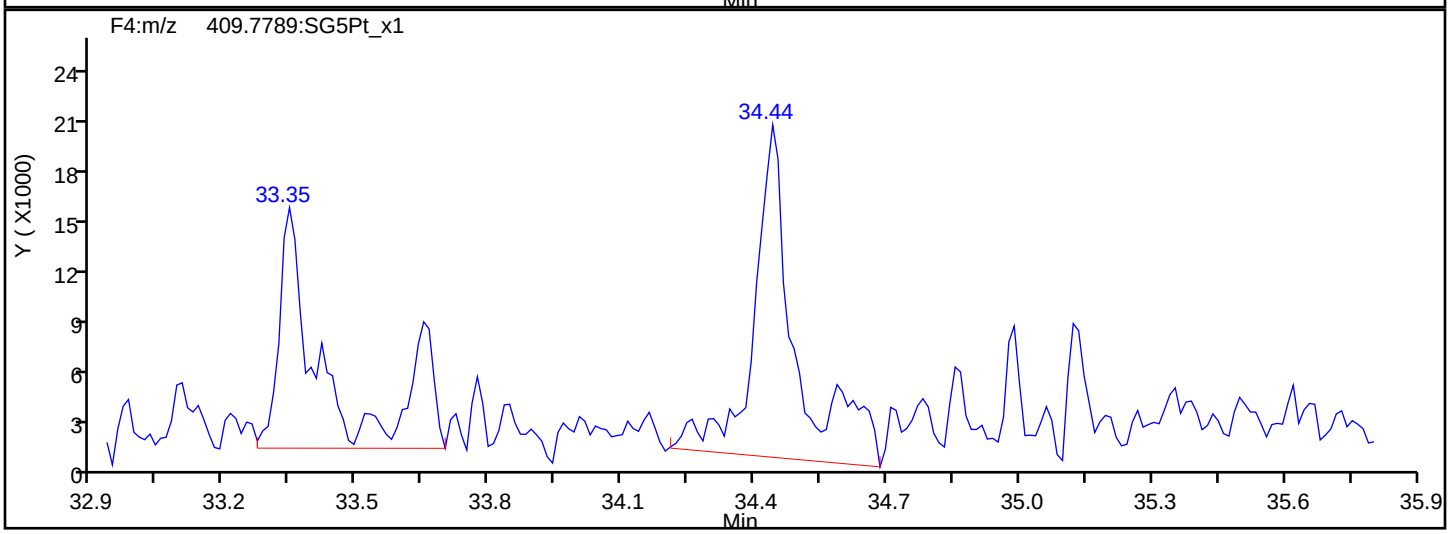
Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

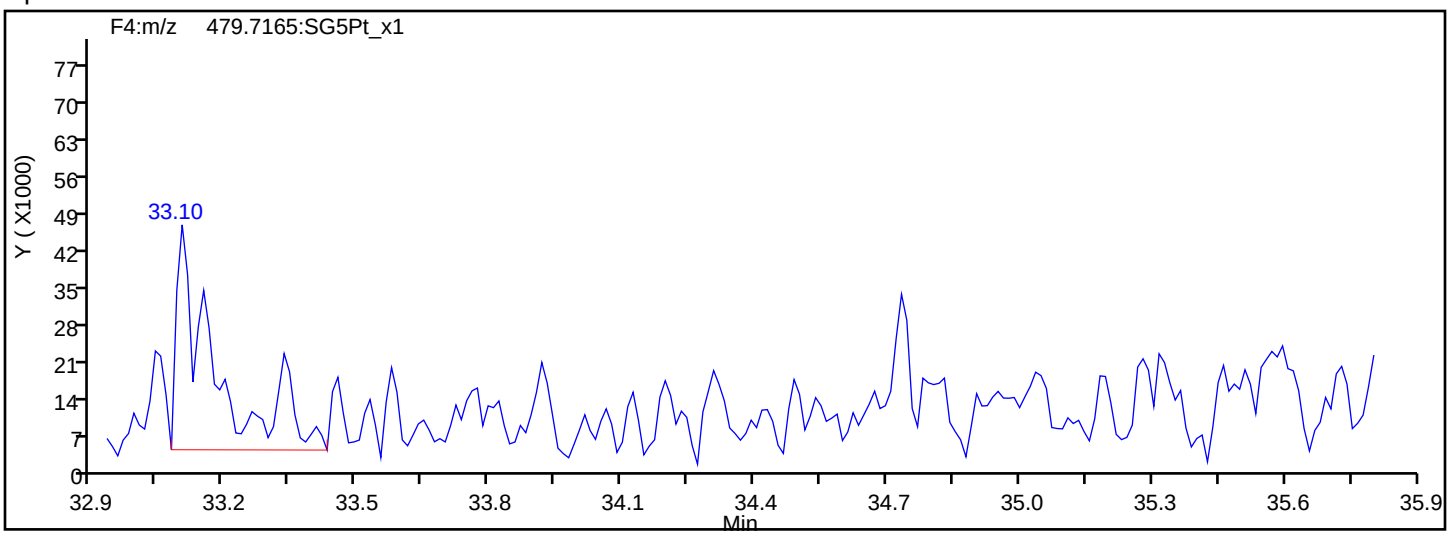
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

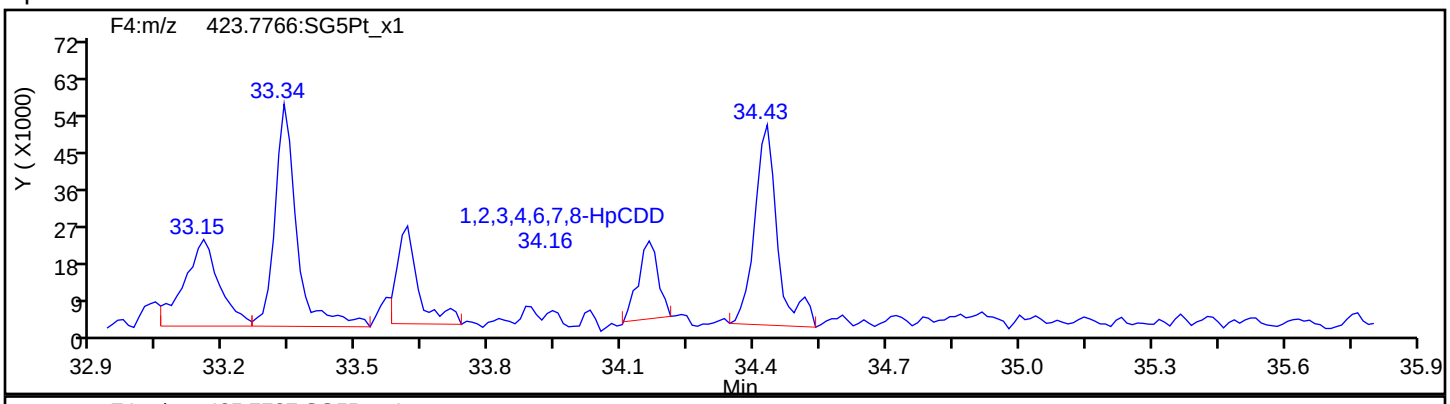


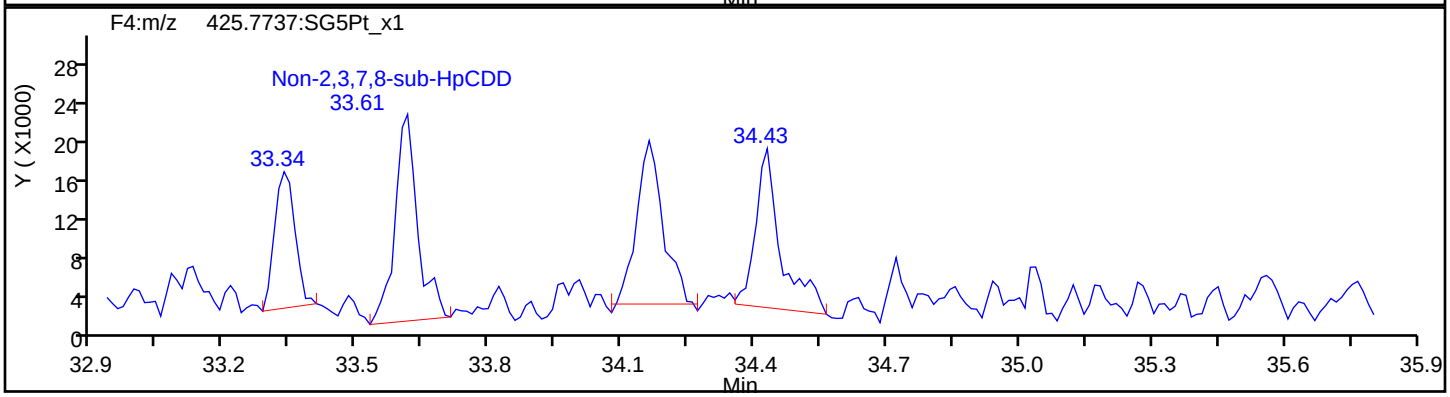
Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

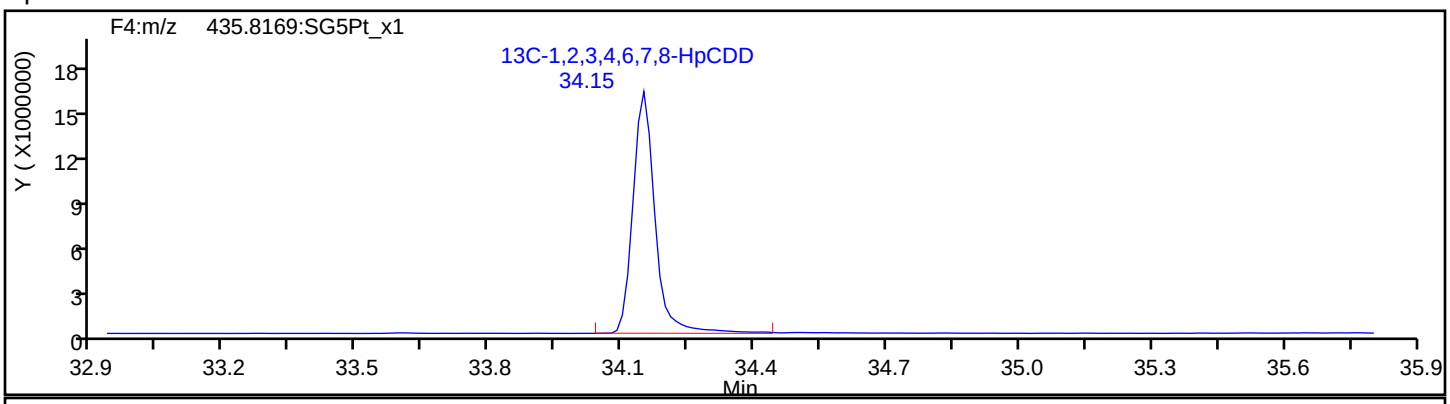
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

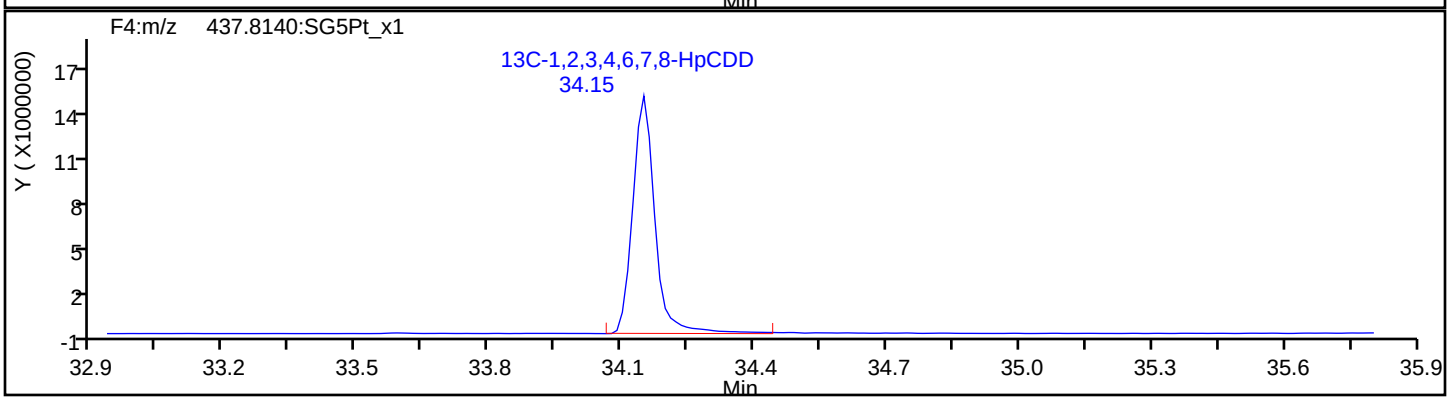
HpCDD





HpCDD Standards





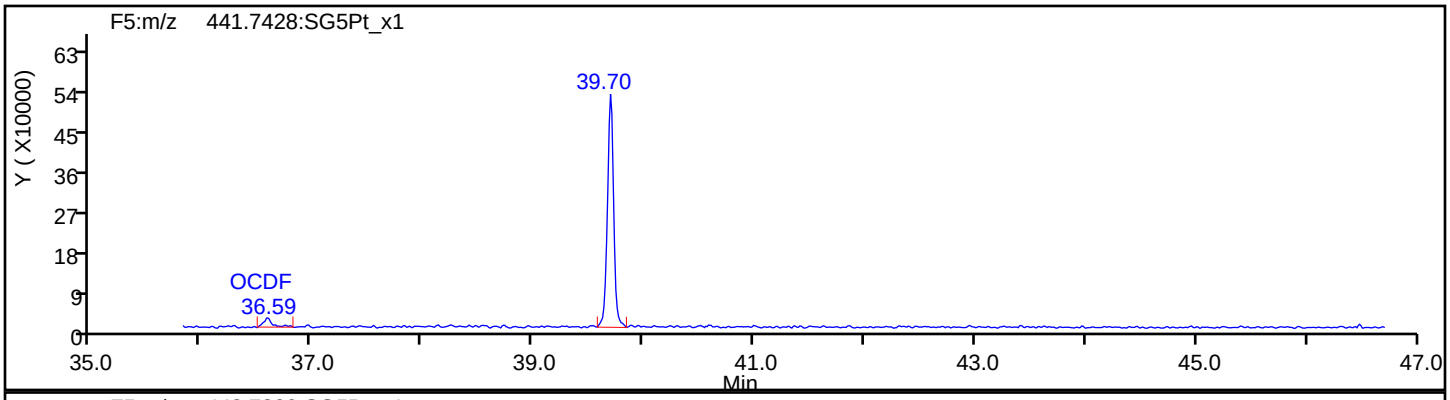
Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

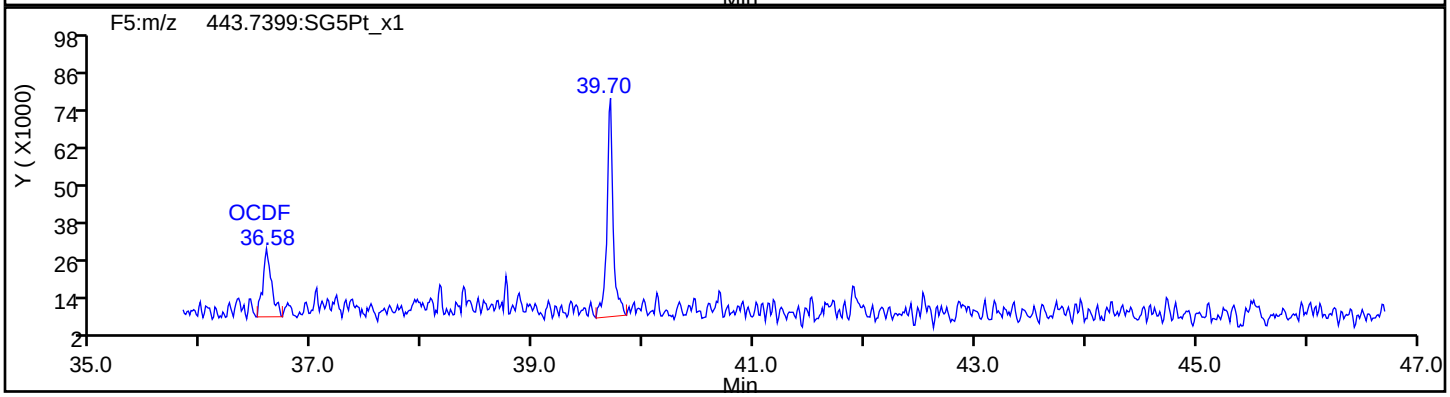
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d

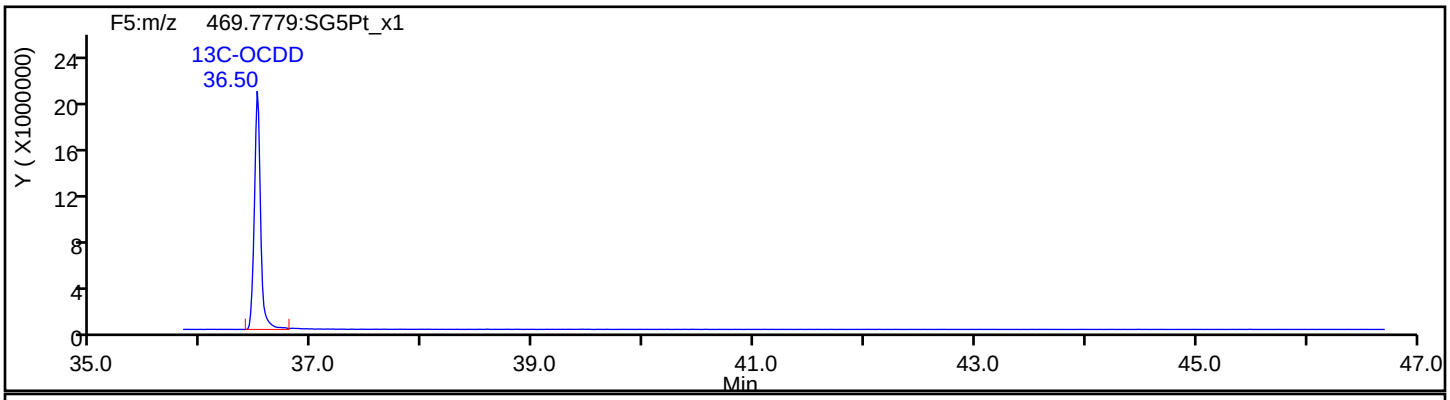
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

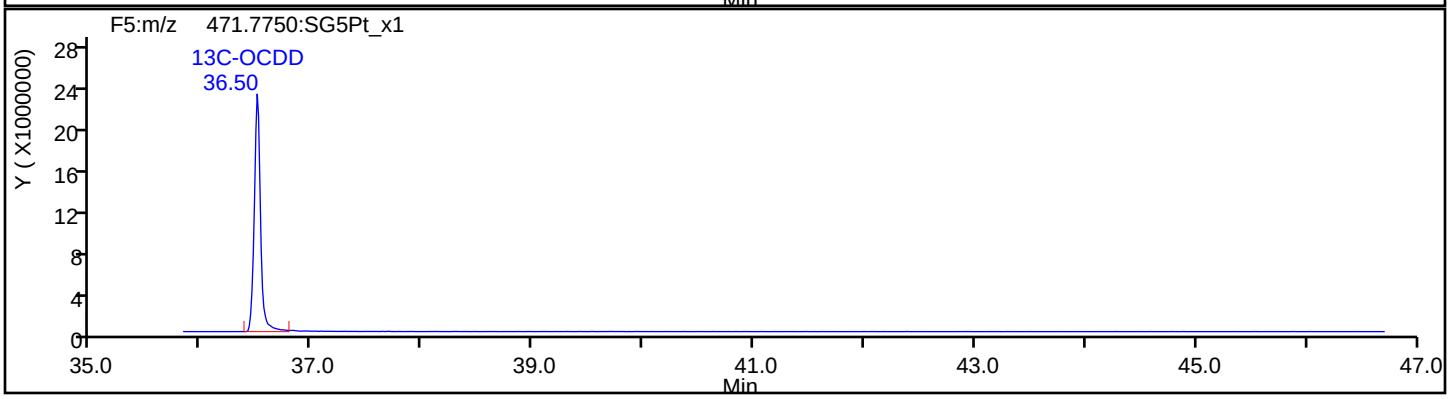
OCDF





OCDF Standards



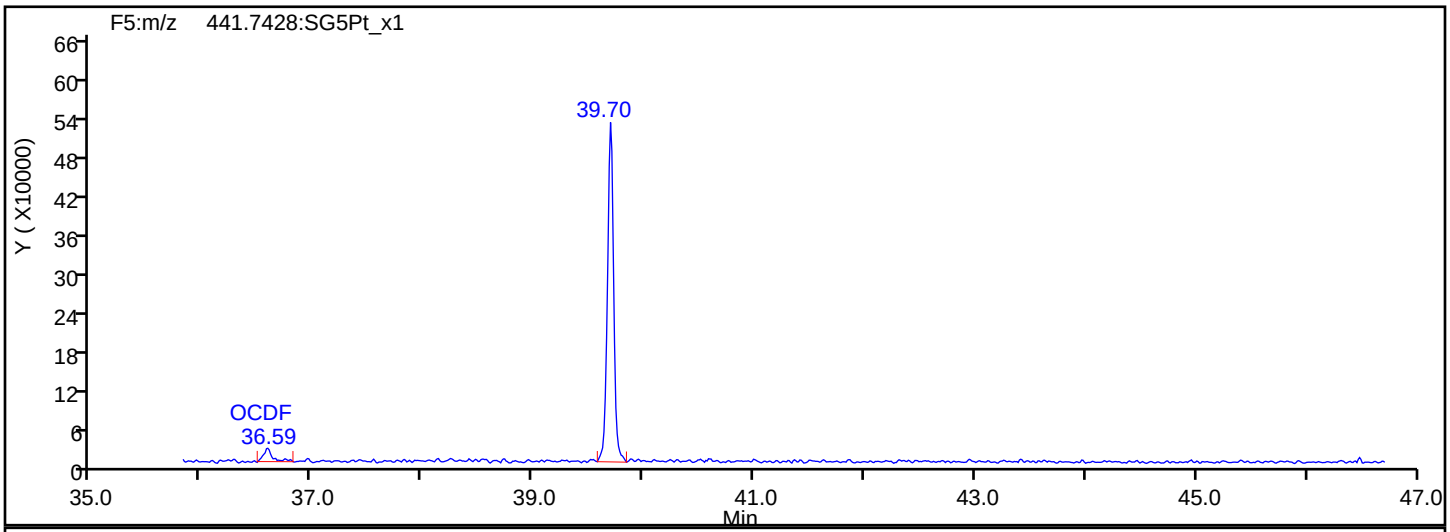


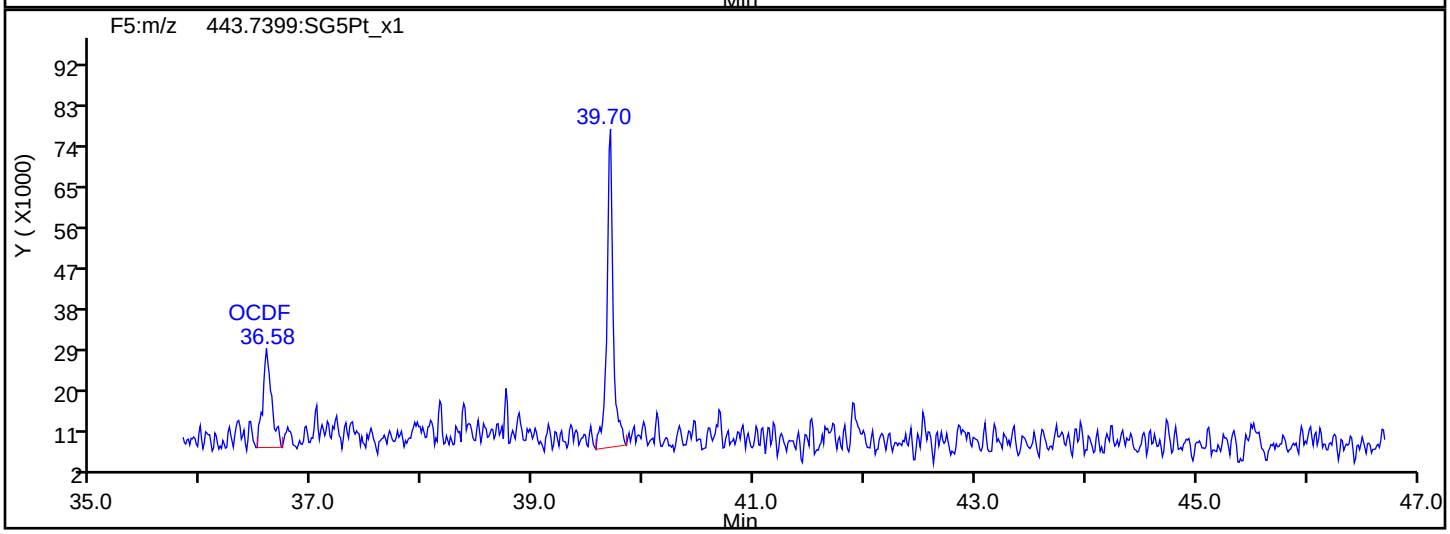
Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

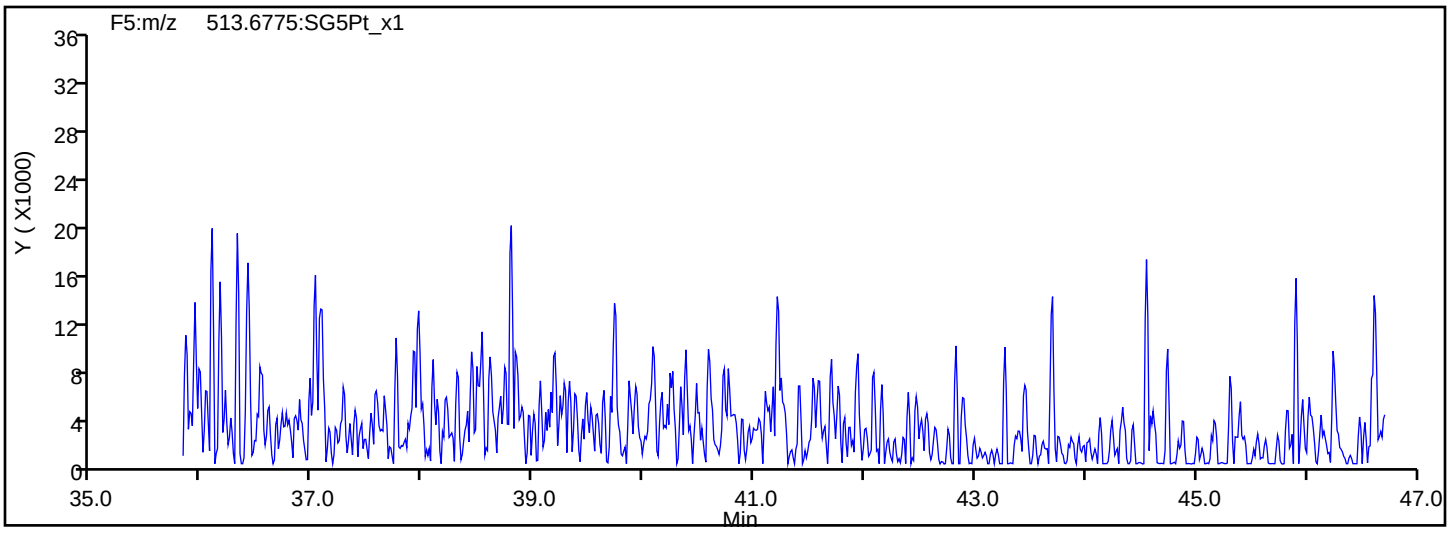
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

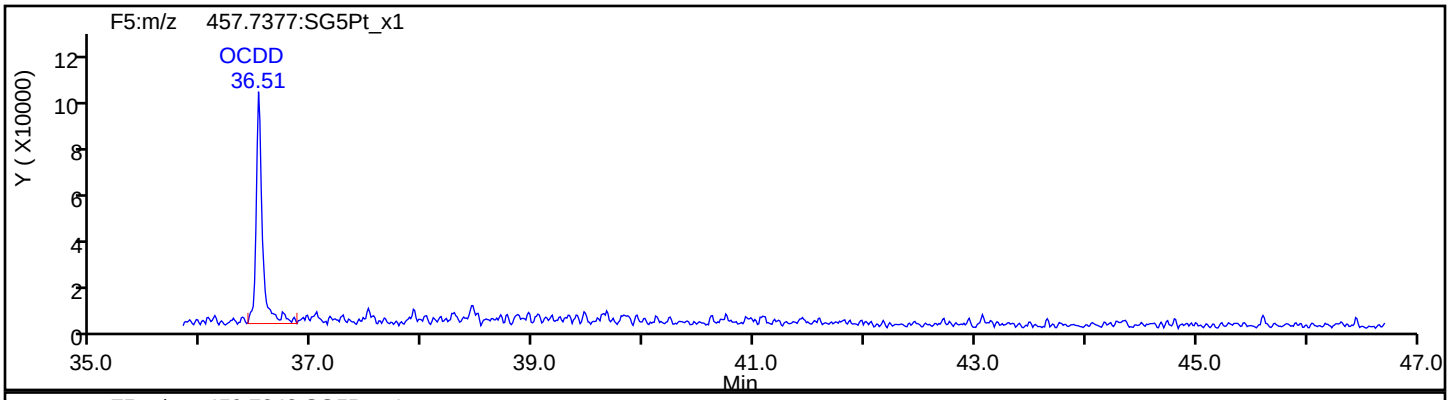


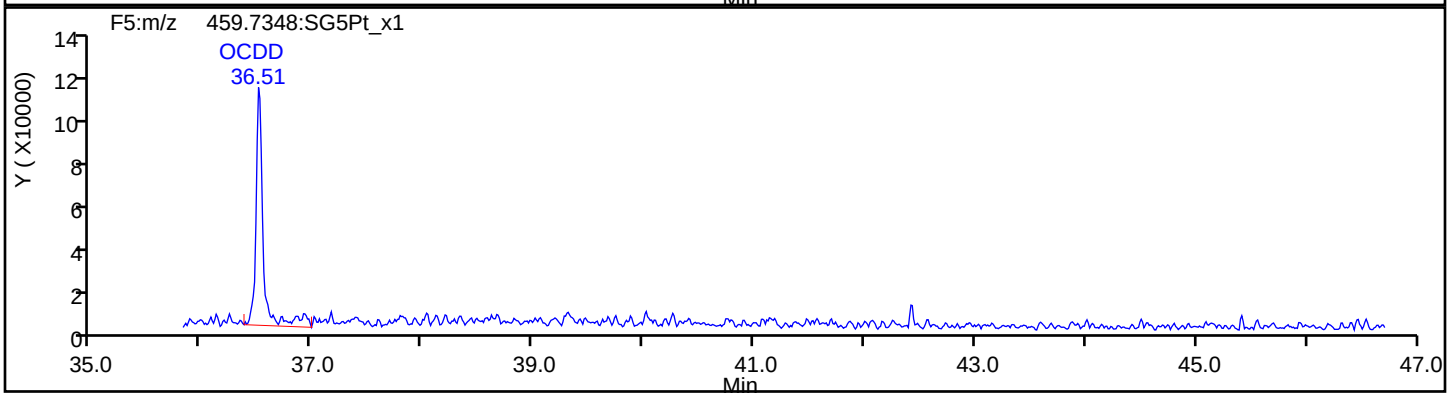
Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

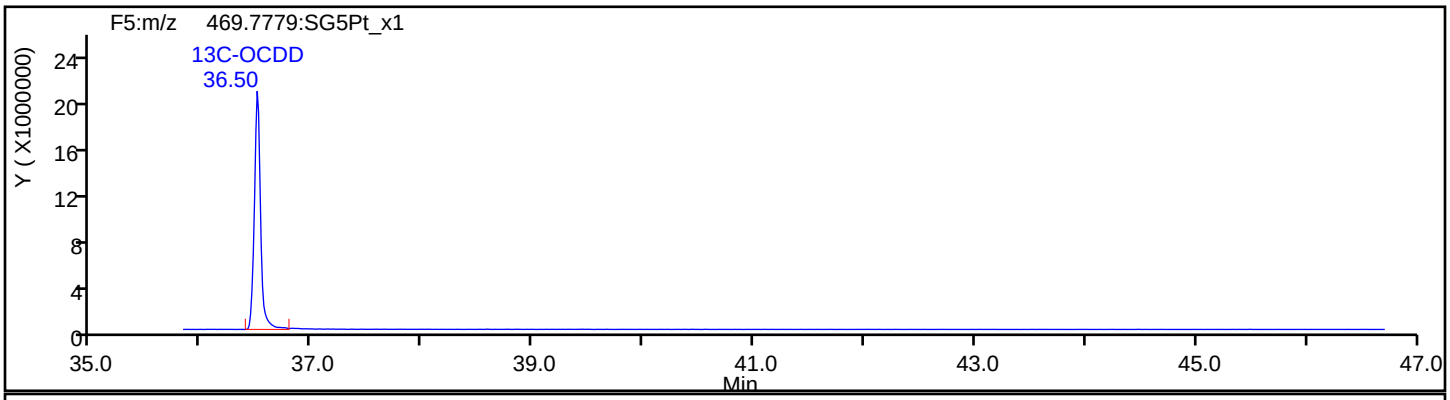
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm

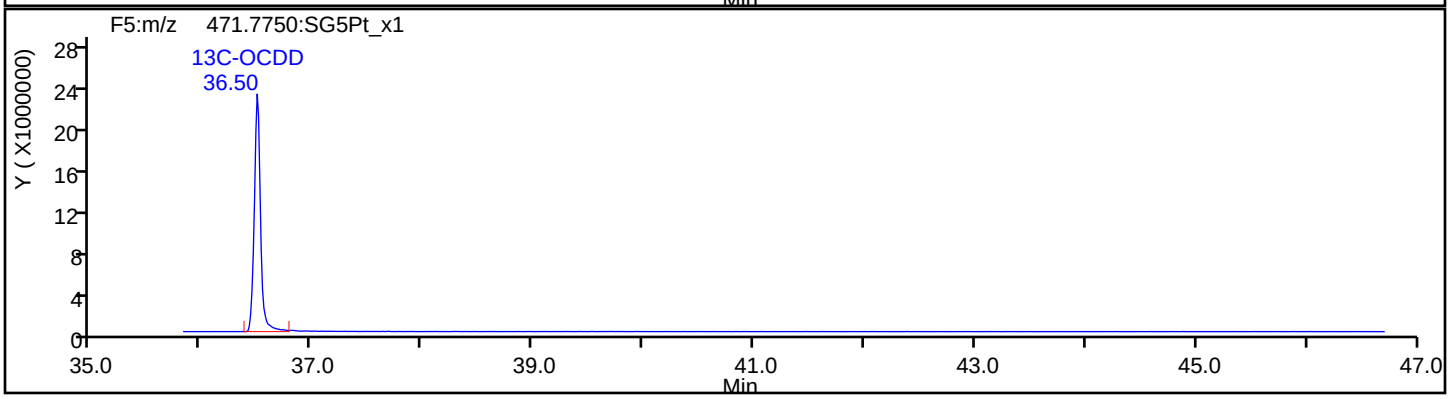
OCDD





OCDD Standards

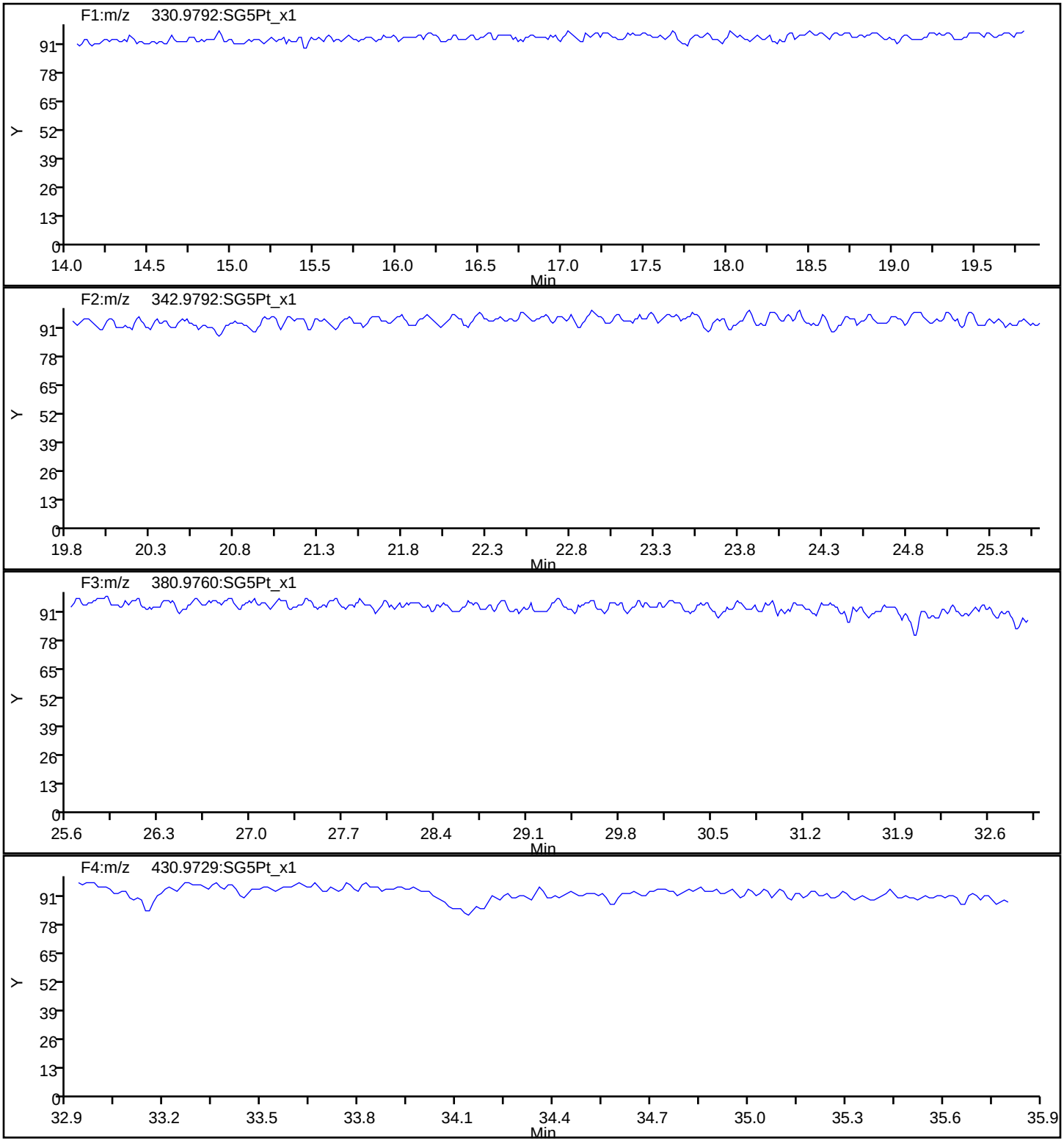




Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

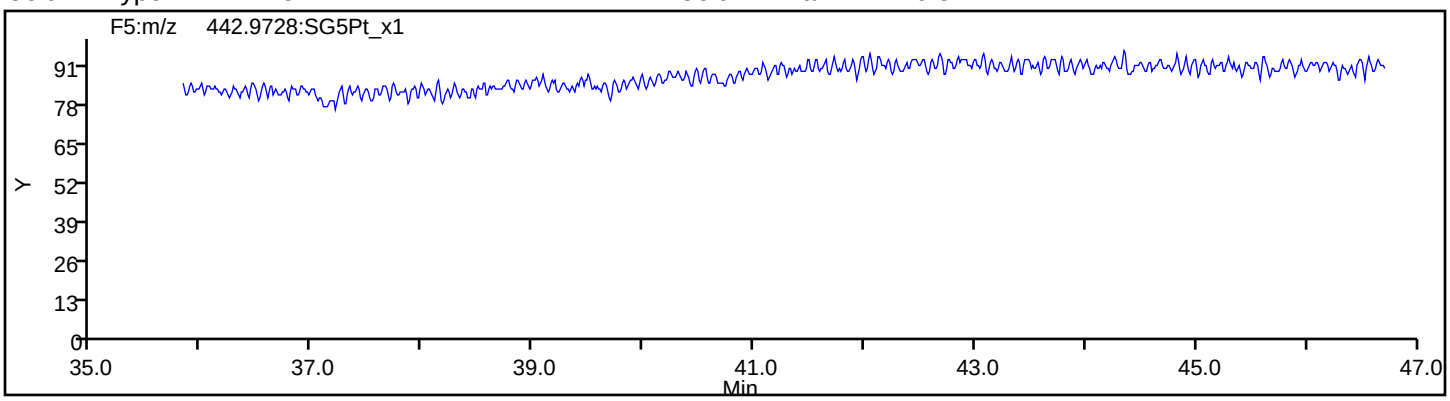
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 10:38:28 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_54.d		
Injection Date:	21-Jul-2019 19:56:24	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	54
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 320-308663/2-A

Matrix: Solid Lab File ID: 19JL19A3D5_55.d

Analysis Method: 1613B Date Collected:

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10(g) Date Analyzed: 07/21/2019 20:43

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	21.6		1.0	0.17
51207-31-9	2,3,7,8-TCDF	21.2		1.0	0.089
40321-76-4	1,2,3,7,8-PeCDD	108		5.0	0.27
57117-41-6	1,2,3,7,8-PeCDF	112		5.0	0.53
57117-31-4	2,3,4,7,8-PeCDF	114		5.0	0.60
39227-28-6	1,2,3,4,7,8-HxCDD	108		5.0	0.36
57653-85-7	1,2,3,6,7,8-HxCDD	114		5.0	0.36
19408-74-3	1,2,3,7,8,9-HxCDD	120		5.0	0.34
70648-26-9	1,2,3,4,7,8-HxCDF	101		5.0	0.79
57117-44-9	1,2,3,6,7,8-HxCDF	107		5.0	0.87
72918-21-9	1,2,3,7,8,9-HxCDF	110		5.0	0.46
60851-34-5	2,3,4,6,7,8-HxCDF	106		5.0	0.56
35822-46-9	1,2,3,4,6,7,8-HpCDD	112		5.0	0.44
67562-39-4	1,2,3,4,6,7,8-HpCDF	109		5.0	0.69
55673-89-7	1,2,3,4,7,8,9-HpCDF	107		5.0	0.81
3268-87-9	OCDD	214		10	0.22
39001-02-0	OCDF	216		10	0.30

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 320-308663/2-A

Matrix: Solid Lab File ID: 19JL19A3D5_55.d

Analysis Method: 1613B Date Collected:

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10(g) Date Analyzed: 07/21/2019 20:43

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	67		20-175
89059-46-1	13C-2,3,7,8-TCDF	71		22-152
109719-79-1	13C-1,2,3,7,8-PeCDD	72		21-227
109719-77-9	13C-1,2,3,7,8-PeCDF	72		21-192
116843-02-8	13C-2,3,4,7,8-PeCDF	71		13-328
109719-80-4	13C-1,2,3,4,7,8-HxCDD	62		21-193
109719-81-5	13C-1,2,3,6,7,8-HxCDD	60		25-163
114423-98-2	13C-1,2,3,4,7,8-HxCDF	74		19-202
116843-03-9	13C-1,2,3,6,7,8-HxCDF	67		21-159
116843-05-1	13C-2,3,4,6,7,8-HxCDF	68		22-176
116843-04-0	13C-1,2,3,7,8,9-HxCDF	74		17-205
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	72		26-166
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	76		21-158
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	81		20-186
114423-97-1	13C-OCDD	79		13-199

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	95		31-191

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d
Lims ID: LCS 320-308663/2-A
Client ID:
Sample Type: LCS
Inject. Date: 21-Jul-2019 20:43:52 ALS Bottle#: 38 Worklist Smp#: 55
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCS 320-308663/2-A LCS 320-308663/2-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:38:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:43:35

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	222388681	0.79	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.705	219370574	0.79	1.3908	70.9	70.9	0.2659	0.2659	70.93	
2,3,7,8-TCDF	16.720	22595374	0.78	0.9710	10.6	10.6	0.0446	0.0446	106	
A Non-2,3,7,8-sub-TCDF	16.402						0.0446	0.0446		
S Total TCDF					10.6	10.6	0.0446	0.0446		
D 13C-2,3,7,8-TCDD	17.355	146234091	0.80	0.9819	67.0	67.0	0.2359	0.2359	66.97	
2,3,7,8-TCDD	17.385	16520064	0.79	1.0447	10.8	10.8	0.0833	0.0833	108	
$ 37Cl4-2,3,7,8-TCDD	17.370	103434342		1.2205	38.1	38.1	0.0792	0.0792	95.27	
A Non-2,3,7,8-sub-TCDD	16.833						0.0833	0.0833		
S Total TCDD					10.8	10.8	0.0833	0.0833		
D 13C-1,2,3,7,8-PeCDF	21.345	186017574	1.57	1.1585	72.2	72.2	0.2420	0.2420	72.20	
1,2,3,7,8-PeCDF	21.372	100533532	1.60	0.9633	56.1	56.1	0.2669	0.2669	112	
D 13C-2,3,4,7,8-PeCDF	22.573	182322001	1.63	1.1532	71.1	71.1	0.2431	0.2431	71.09	
2,3,4,7,8-PeCDF	22.600	98537329	1.58	0.9495	56.9	56.9	0.2993	0.2993	114	
A F1 PeCDFs	19.215						0.0407	0.0407		
A Non-2,3,7,8-sub-PeCDF	22.104						0.2823	0.2823		
S Total PeCDF					113.0	113.0	0.2831	0.2831		
D 13C-1,2,3,7,8-PeCDD	23.254	118198054	1.56	0.7431	71.5	71.5	0.1486	0.1486	71.52	
1,2,3,7,8-PeCDD	23.268	67862339	1.66	1.0635	54.0	54.0	0.1359	0.1359	108	
A Non-2,3,7,8-sub-PeCDD	22.232						0.1359	0.1359		
S Total PeCDD					54.0	54.0	0.1359	0.1359		
D 13C-1,2,3,4,7,8-HxCDF	29.142	154040116	0.52	0.9837	74.5	74.5	0.3222	0.3222	74.46	
1,2,3,4,7,8-HxCDF	29.182	94883987	1.24	1.2173	50.6	50.6	0.3941	0.3941	101	
D 13C-1,2,3,6,7,8-HxCDF	29.448	162075929	0.53	1.1554	66.7	66.7	0.2744	0.2744	66.70	
1,2,3,6,7,8-HxCDF	29.488	98000251	1.22	1.1311	53.5	53.5	0.4370	0.4370	107	
D 13C-2,3,4,6,7,8-HxCDF	30.673	147443605	0.51	1.0361	67.7	67.7	0.3059	0.3059	67.66	
2,3,4,6,7,8-HxCDF	30.700	91734266	1.23	1.1710	53.1	53.1	0.2782	0.2782	106	
D 13C-1,2,3,7,8,9-HxCDF	31.685	140866383	0.51	0.9034	74.1	74.1	0.3509	0.3509	74.14	
1,2,3,7,8,9-HxCDF	31.698	91182003	1.24	1.1787	54.9	54.9	0.2293	0.2293	110	
A Non-2,3,7,8-sub-HxCDF	29.135						0.3131	0.3131		
S Total HxCDF					212.1	212.1	0.3347	0.3347		

Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,7,8,9-HxCDD	31.485	210316370	1.30	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.939	108133250	1.29	0.8287	62.0	62.0	0.2332	0.2332	62.04	
1,2,3,4,7,8-HxCDD	30.966	60020572	1.29	1.0267	54.1	54.1	0.1816	0.1816	108	
D 13C-1,2,3,6,7,8-HxCDD	31.073	120403047	1.25	0.9495	60.3	60.3	0.2035	0.2035	60.30	
1,2,3,6,7,8-HxCDD	31.099	66915033	1.34	0.9771	56.9	56.9	0.1793	0.1793	114	
1,2,3,7,8,9-HxCDD	31.499	72553524	1.28	1.0616	59.8	59.8	0.1702	0.1702	120	
A Non-2,3,7,8-sub-HxCDD	29.926						0.1768	0.1768		
S Total HxCDD					170.8	170.8	0.1770	0.1770		
D 13C-1,2,3,4,6,7,8-HpCDF	33.347	116207139	0.44	0.7285	75.8	75.8	0.7090	0.7090	75.85	
1,2,3,4,6,7,8-HpCDF	33.360	90849269	1.04	1.4373	54.4	54.4	0.3465	0.3465	109	
D 13C-1,2,3,4,7,8,9-HpCDF	34.429	112375902	0.46	0.6556	81.5	81.5	0.7878	0.7878	81.50	
1,2,3,4,7,8,9-HpCDF	34.441	78480743	1.09	1.3091	53.3	53.3	0.4054	0.4054	107	
A Non-2,3,7,8-sub-HpCDF	33.894						0.3742	0.3742		
S Total HpCDF					107.7	107.7	0.3760	0.3760		
D 13C-1,2,3,4,6,7,8-HpCDD	34.150	105446956	1.05	0.6978	71.8	71.8	0.3739	0.3739	71.85	
1,2,3,4,6,7,8-HpCDD	34.162	59825993	1.03	1.0102	56.2	56.2	0.2189	0.2189	112	
A Non-2,3,7,8-sub-HpCDD	35.074						0.2189	0.2189		
S Total HpCDD					56.2	56.2	0.2189	0.2189		
D 13C-OCDD	36.509	157857706	0.91	0.4780	157.0	157.0	0.2000	0.2000	78.52	
OCDF	36.593	115074674	0.90	1.3501	108.0	108.0	0.1506	0.1506	108	
OCDD	36.509	89911895	0.89	1.0627	107.2	107.2	0.1118	0.1118	107	

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d
Lims ID: LCS 320-308663/2-A
Client ID:
Sample Type: LCS
Inject. Date: 21-Jul-2019 20:43:52 ALS Bottle#: 38 Worklist Smp#: 55
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCS 320-308663/2-A LCS 320-308663/2-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:38:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:43:35

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		98009354	25460288	25389	63472	1003		
333.9339	17.173	17.158	1		124379327	32177158	28006	70015	1149	0.79(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.705	16.690	1	0.973	97011043	23781924	58616	146540	406		
317.9389	16.705	16.690	1	0.973	122359531	29723024	26634	66585	1116	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.720	16.705	1	1.001	9876231	2405393	3226	8065	746		
305.8987	16.705	16.705	0	1.000	12719143	3133663	6034	15085	519	0.78(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	16.402						3226	8065			
305.8987	16.402						6034	15085			
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	64997243	15400255	25389	63472	607		
333.9339	17.355	17.355	0	1.011	81236848	18822330	28006	70015	672	0.80(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.385	17.355	2	1.002	7311378	1745889	8017	20042	218		
321.8936	17.370	17.355	1	1.001	9208686	2129446	3902	9755	546	0.79(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	103434342	24079215	22280	55700	1081		
A Non-2,3,7,8-sub-TCDD											
319.8965	16.833						8017	20042			
321.8936	16.833						3902	9755			
13C-1,2,3,7,8-PeCDF											
351.9000	21.345	21.332	1	1.243	113561649	21306663	38161	95402	558		
353.8970	21.345	21.332	1	1.243	72455925	13643906	26483	66207	515	1.57(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8-PeCDF											
339.8597	21.372	21.345	2	1.001	61901823	11015409	21520	53800	512		
341.8567	21.372	21.345	2	1.001	38631709	6953371	14424	36060	482	1.60(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.573	22.559	1	1.314	112908582	19624411	38161	95402	514		
353.8970	22.573	22.559	1	1.314	69413419	11997506	26483	66207	453	1.63(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.600	22.586	1	1.001	60392459	10372866	21520	53800	482		
341.8567	22.600	22.586	1	1.001	38144870	6549562	14424	36060	454	1.58(1.32-1.78)	
A F1 PeCDFs											
339.8597	19.215						1634	4085			
341.8567	19.215						3550	8875			
A Non-2,3,7,8-sub-PeCDF											
339.8597	22.104						21520	53800			
341.8567	22.104						14424	36060			
13C-1,2,3,7,8-PeCDD											
367.8949	23.254	23.227	2	1.354	72089537	11892839	14671	36677	811		
369.8919	23.254	23.227	2	1.354	46108517	7715602	10793	26982	715	1.56(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.268	23.254	1	1.001	42309348	6952185	7352	18380	946		
357.8516	23.268	23.254	1	1.001	25552991	4173490	3982	9955	1048	1.66(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.232						7352	18380			
357.8516	22.232						3982	9955			
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.142	29.115	2	0.926	52467980	6394425	20265	50662	316		
385.8610	29.142	29.115	2	0.926	101572136	12263269	37489	93722	327	0.52(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.182	29.155	2	1.001	52451853	5982578	19359	48397	309		
375.8178	29.182	29.155	2	1.001	42432134	5018614	16448	41120	305	1.24(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.448	29.421	2	0.935	55900926	6247371	20265	50662	308		
385.8610	29.448	29.421	2	0.935	106175003	11860346	37489	93722	316	0.53(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.488	29.462	2	1.001	53867676	5871643	19359	48397	303		
375.8178	29.475	29.462	1	1.001	44132575	4776197	16448	41120	290	1.22(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.673	30.660	1	0.974	49617308	9216045	20265	50662	455		
385.8610	30.673	30.660	1	0.974	97826297	18263415	37489	93722	487	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.700	30.687	1	1.001	50669585	9418333	19359	48397	487		
375.8178	30.700	30.687	1	1.001	41064681	7677827	16448	41120	467	1.23(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.685	31.672	1	1.006	47327206	11013828	20265	50662	543		
385.8610	31.685	31.672	1	1.006	93539177	22102832	37489	93722	590	0.51(0.43-0.59)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8,9-HxCDF											
373.8208	31.698	31.685	1	1.000	50553531	11595810	19359	48397	599		
375.8178	31.698	31.685	1	1.000	40628472	9343551	16448	41120	568	1.24(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.135						19359	48397			
375.8178	29.135						16448	41120			
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.485	31.472	1		118916522	25648066	18580	46450	1380		
403.8529	31.485	31.472	1		91399848	19900737	16630	41575	1197	1.30(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.939	30.926	1	0.983	60957628	12727657	18580	46450	685		
403.8529	30.939	30.926	1	0.983	47175622	9991518	16630	41575	601	1.29(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.966	30.953	1	1.001	33796359	7392619	9071	22677	815		
391.8127	30.966	30.953	1	1.001	26224213	5562146	7877	19692	706	1.29(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.073	31.059	1	0.987	66914212	13504316	18580	46450	727		
403.8529	31.073	31.059	1	0.987	53488835	10683348	16630	41575	642	1.25(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.099	31.086	1	1.001	38279007	7605047	9071	22677	838		
391.8127	31.099	31.086	1	1.001	28636026	5765617	7877	19692	732	1.34(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.499	31.485	1	1.018	40685812	8986950	9071	22677	991		
391.8127	31.499	31.485	1	1.018	31867712	7053963	7877	19692	896	1.28(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						9071	22677			
391.8127	29.926						7877	19692			
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.347	33.335	1	1.059	35297606	10844416	32223	80557	337		
419.8220	33.347	33.335	1	1.059	80909533	24702882	61878	154695	399	0.44(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.360	33.347	1	1.000	46423176	13958344	34547	86367	404		
409.7789	33.347	33.347	0	1.000	44426093	13635342	36273	90682	376	1.04(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.429	34.429	0	1.093	35364262	10430330	32223	80557	324		
419.8220	34.429	34.429	0	1.093	77011640	22930561	61878	154695	371	0.46(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.441	34.441	0	1.000	40974319	12009050	34547	86367	348		
409.7789	34.441	34.441	0	1.000	37506424	10885396	36273	90682	300	1.09(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.894						34547	86367			
409.7789	33.894						36273	90682			
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.150	34.150	0	1.085	54119519	16022579	22376	55940	716		
437.8140	34.150	34.150	0	1.085	51327437	15397629	25159	62897	612	1.05(0.88-1.20)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,6,7,8-HpCDD											
423.7766	34.162	34.162	0	1.000	30331213	9214517	15613	39032	590		
425.7737	34.162	34.162	0	1.000	29494780	8802975	12184	30460	723	1.03(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						15613	39032			
425.7737	35.074						12184	30460			
13C-OCDD											
469.7779	36.509	36.498	1	1.160	75206765	18872930	8972	22430	2104		
471.7750	36.498	36.498	0	1.159	82650941	20872944	8442	21105	2473	0.91(0.76-1.02)	
OCDF											
441.7428	36.593	36.582	1	1.002	54571564	13894899	6383	15957	2177		
443.7399	36.581	36.582	0	1.002	60503110	15545932	9778	24445	1590	0.90(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	42387011	10810559	4374	10935	2472		
459.7348	36.509	36.509	0	1.000	47524884	12172686	5072	12680	2400	0.89(0.76-1.02)	

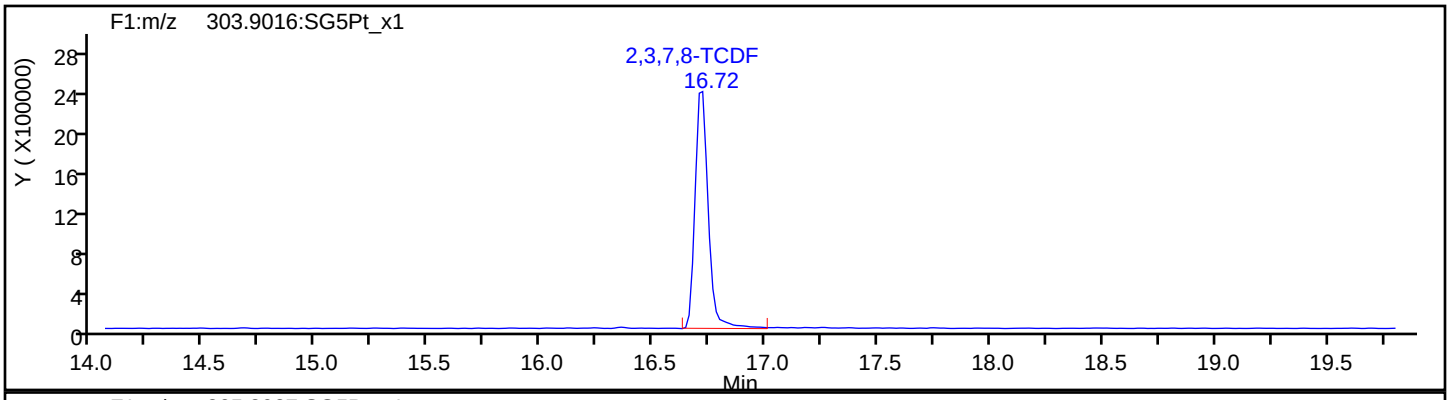
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

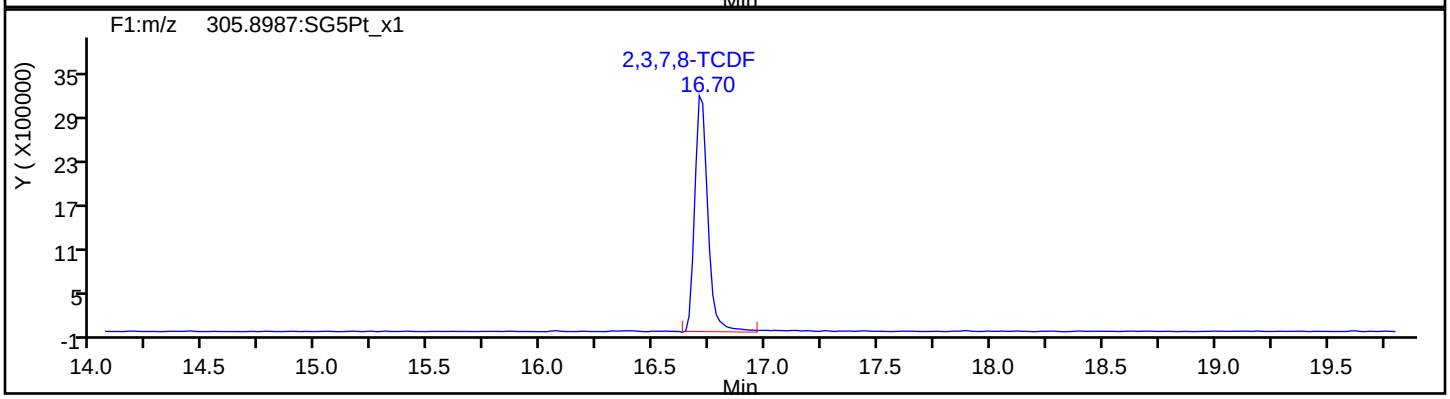
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

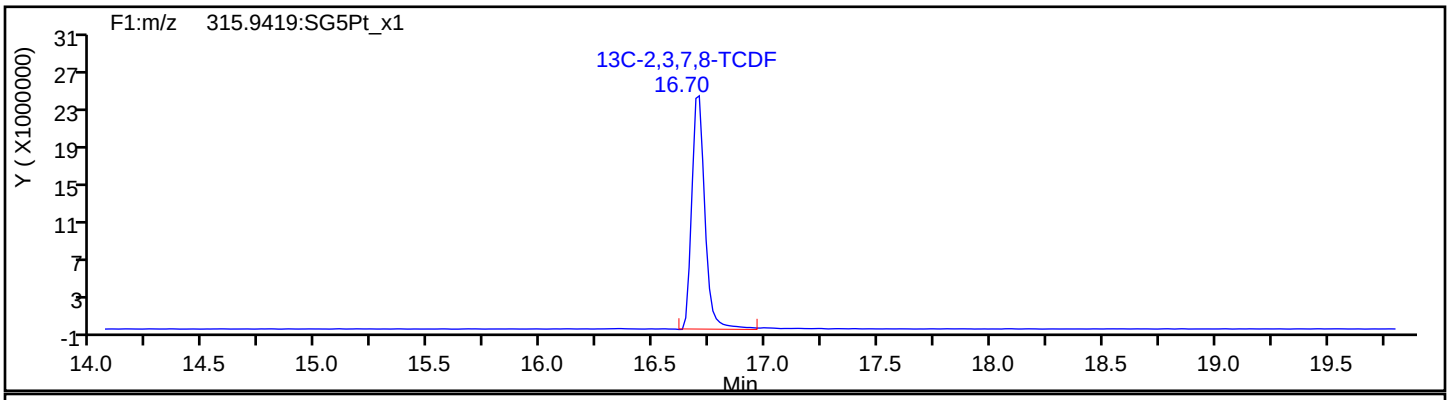
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

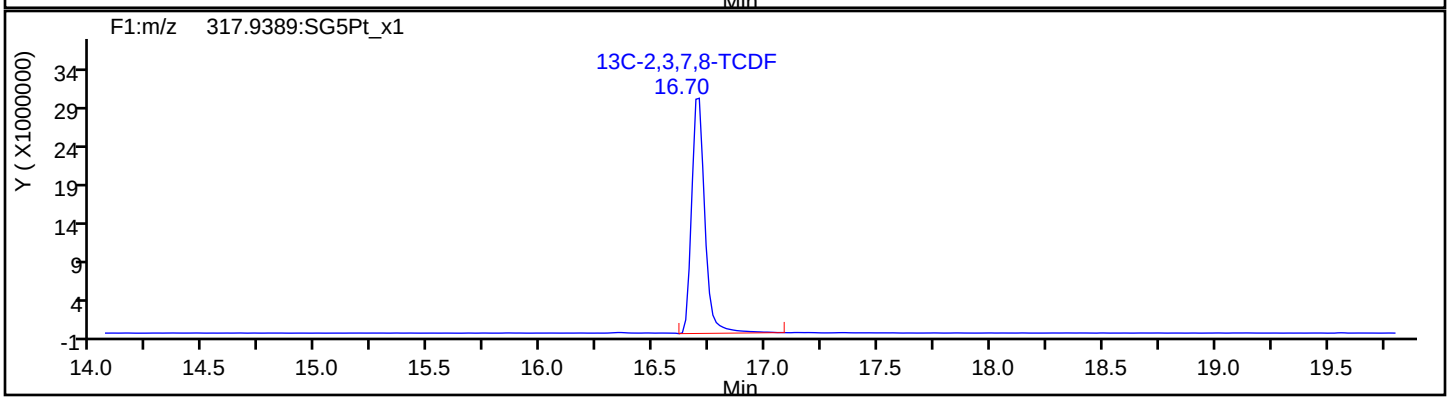
TCDF





TCDF Standards



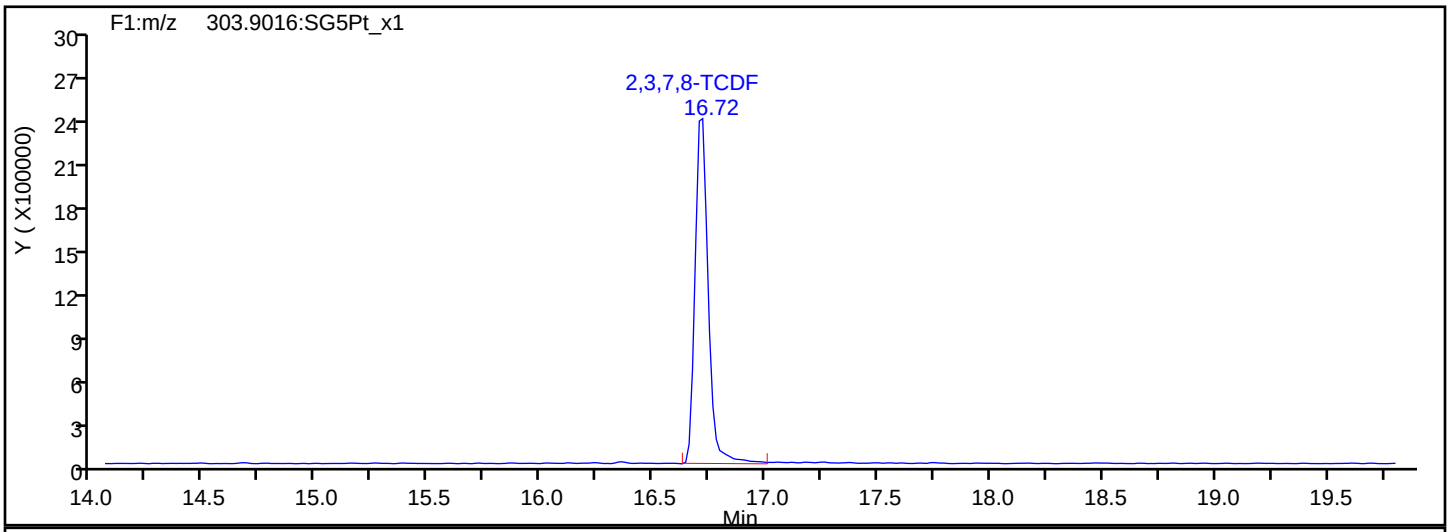


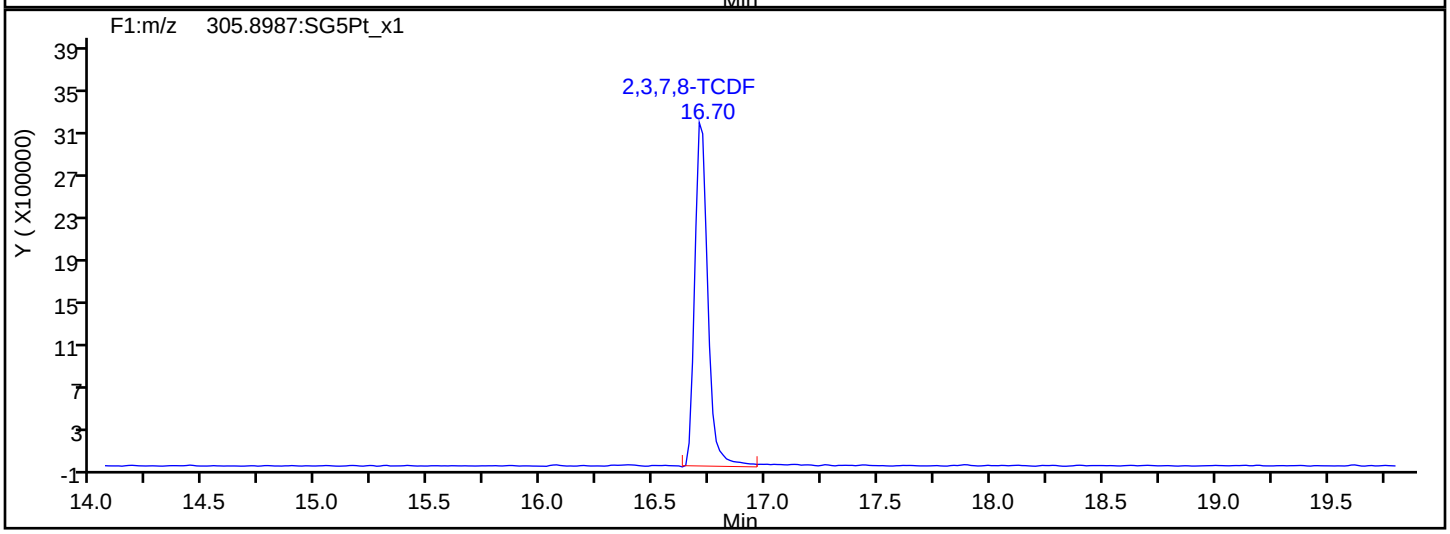
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

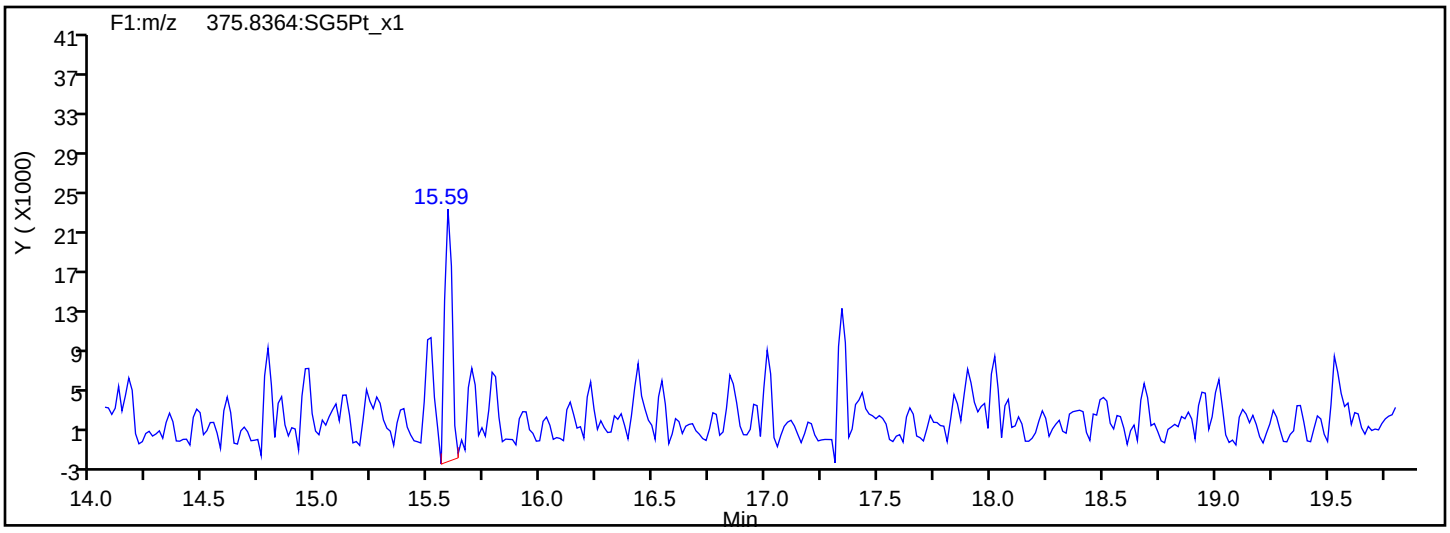
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



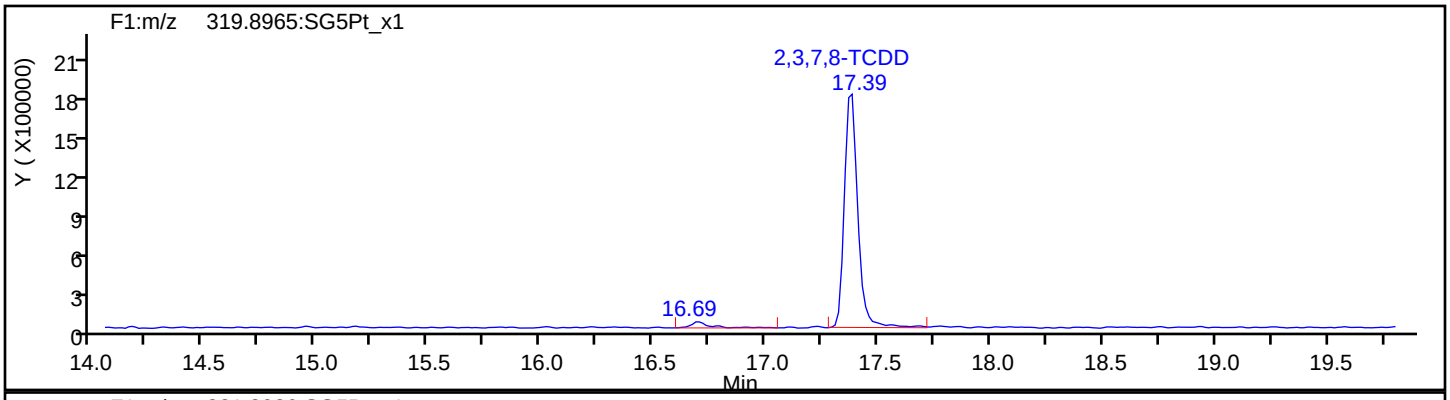
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

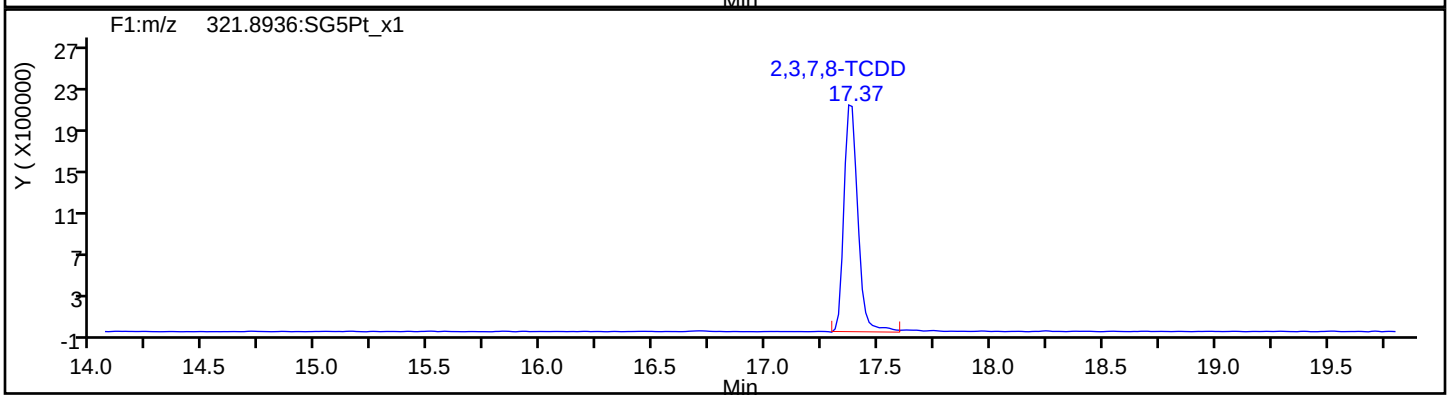
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

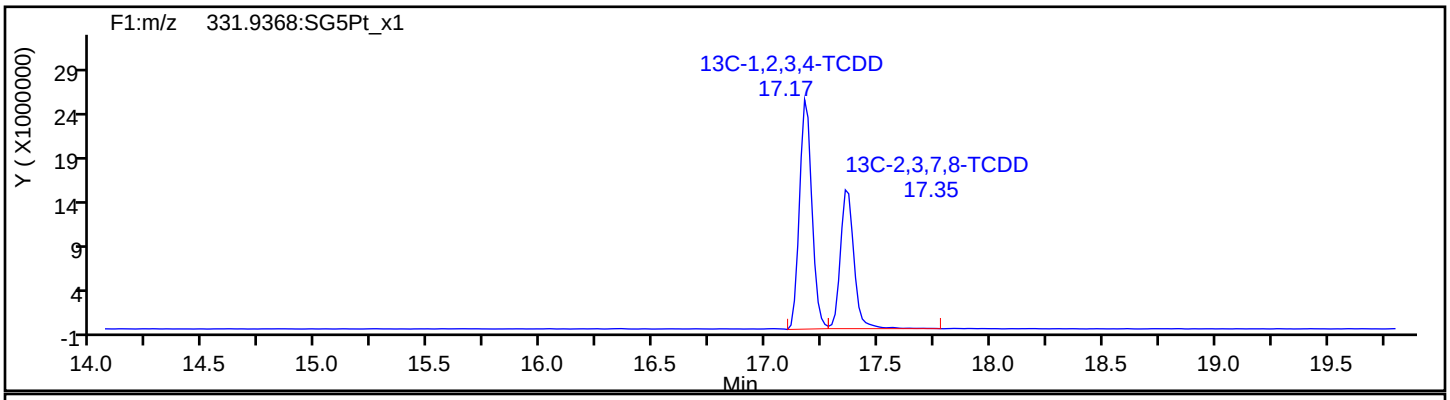
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

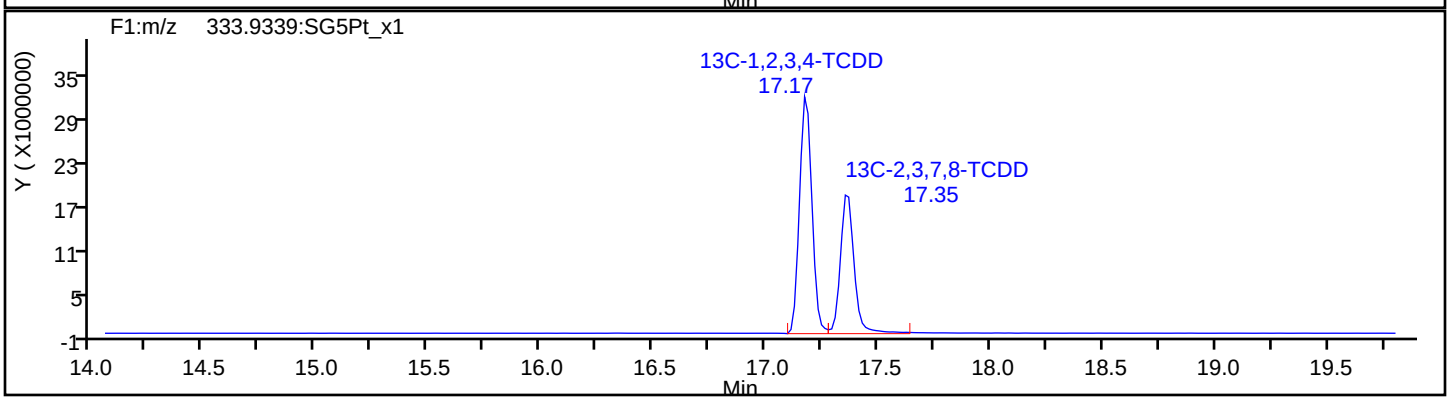
TCDD





TCDD Standards





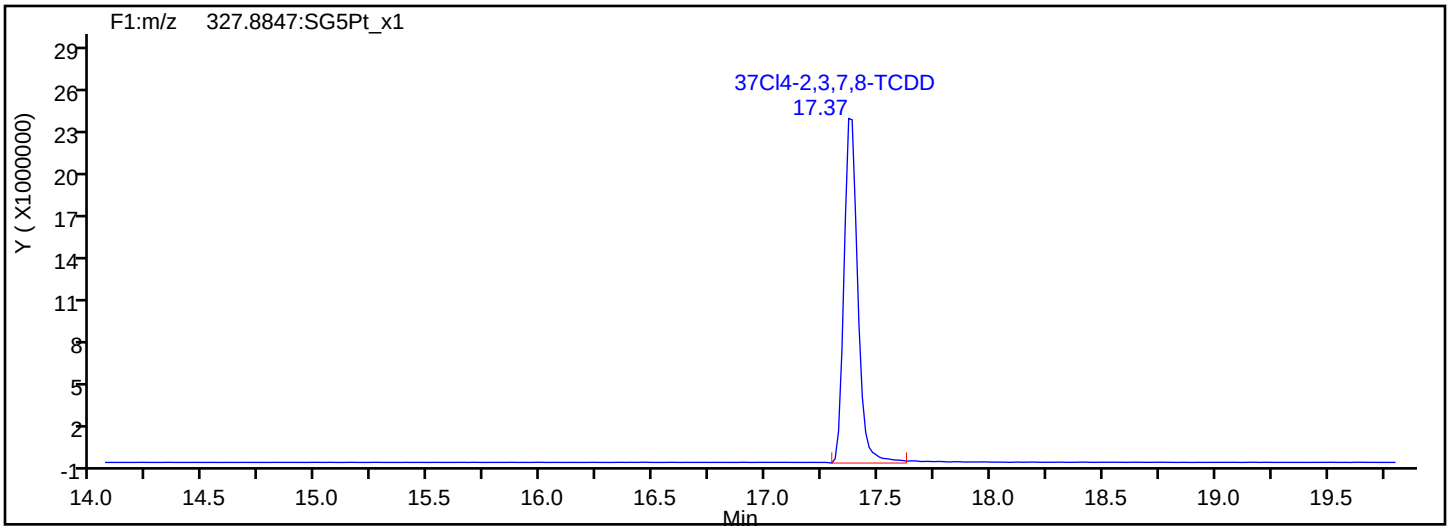
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

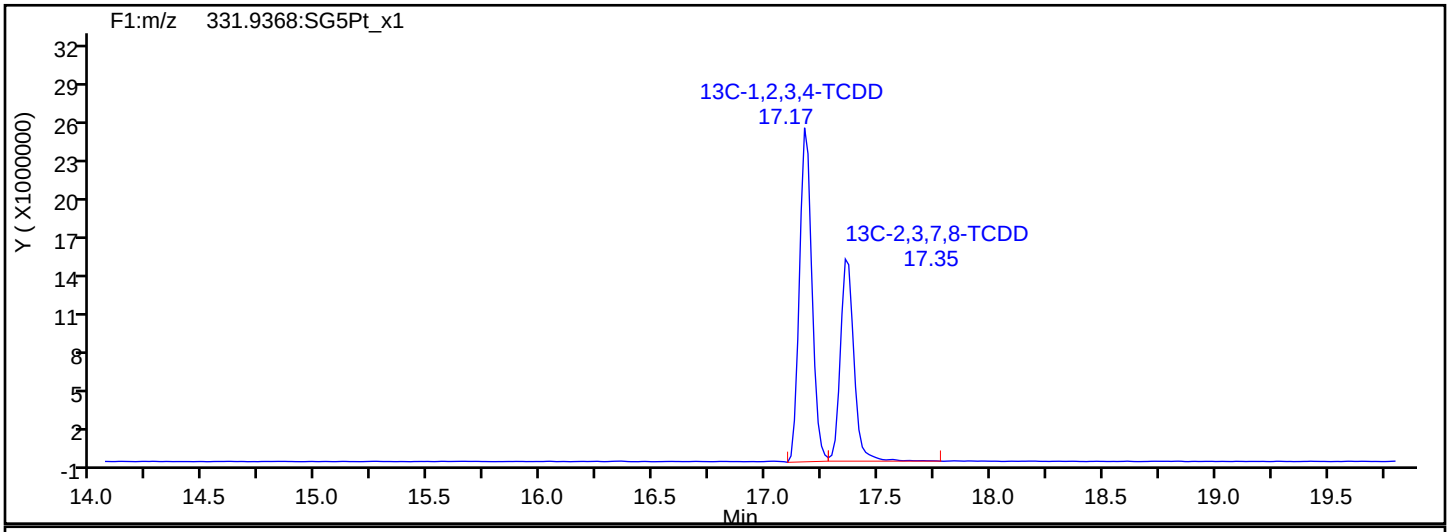
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

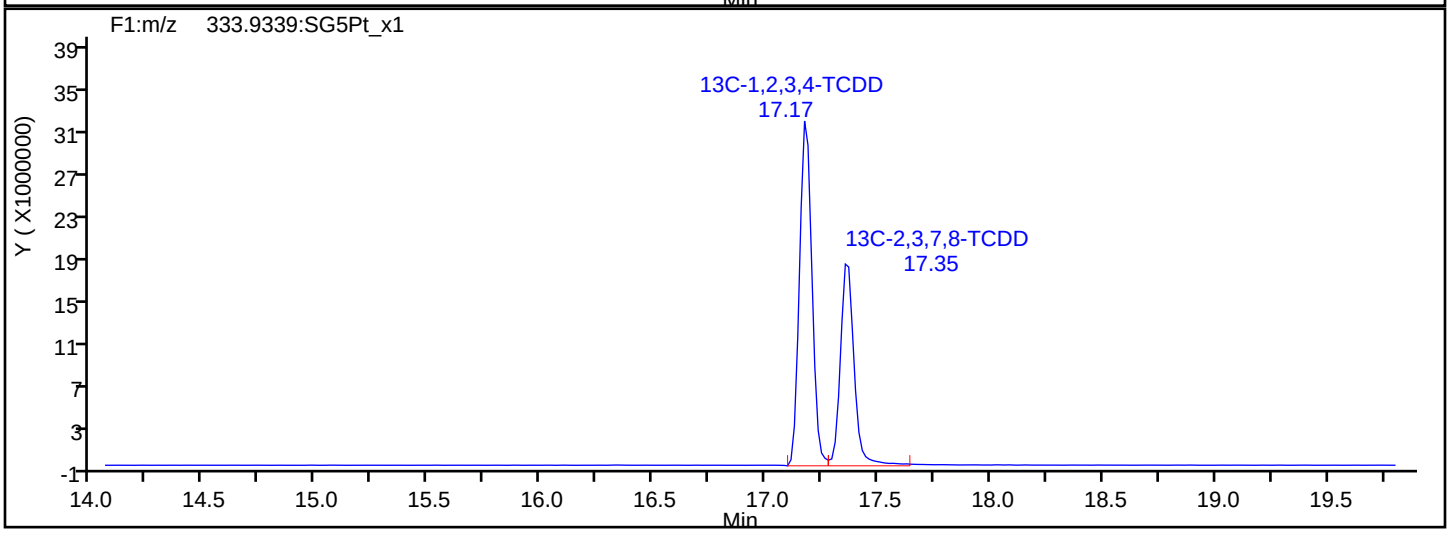
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards



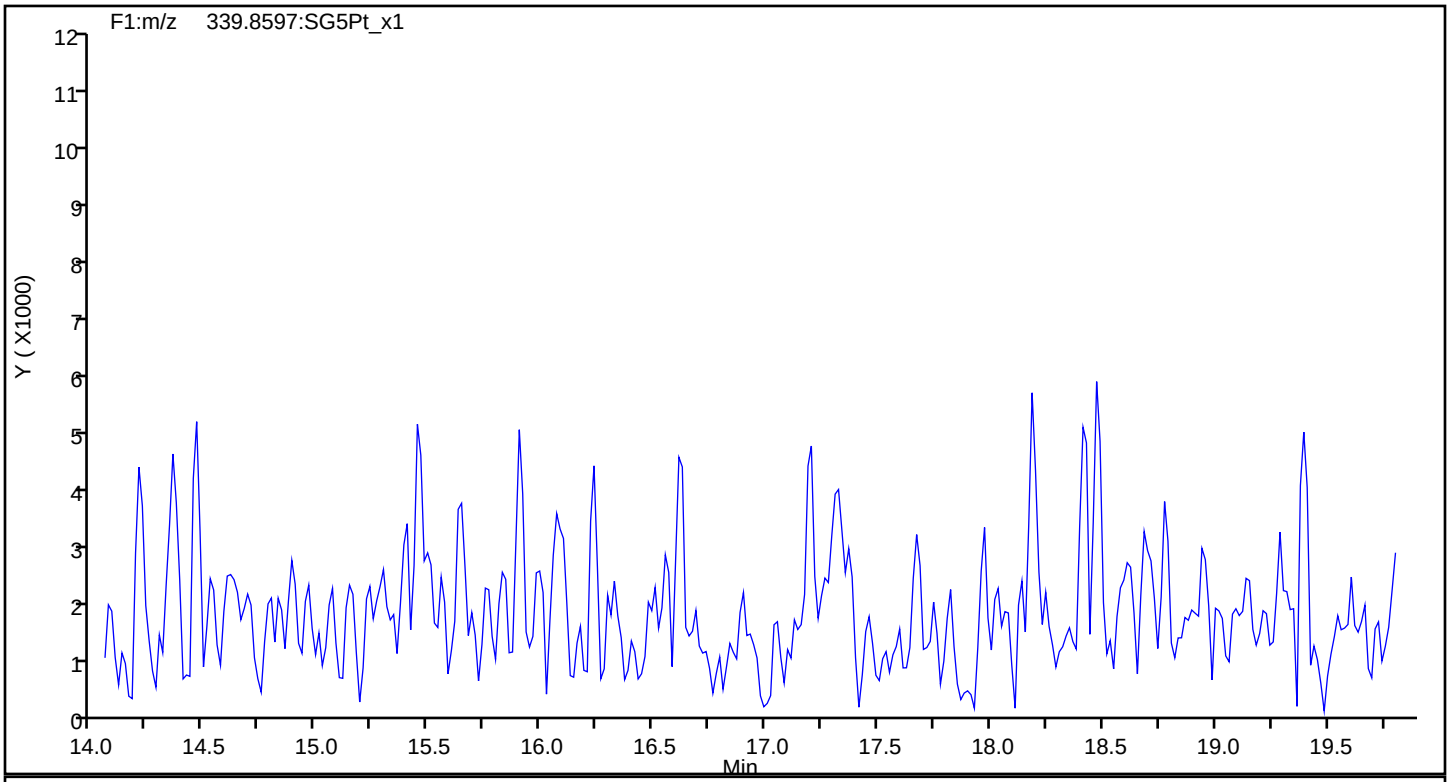


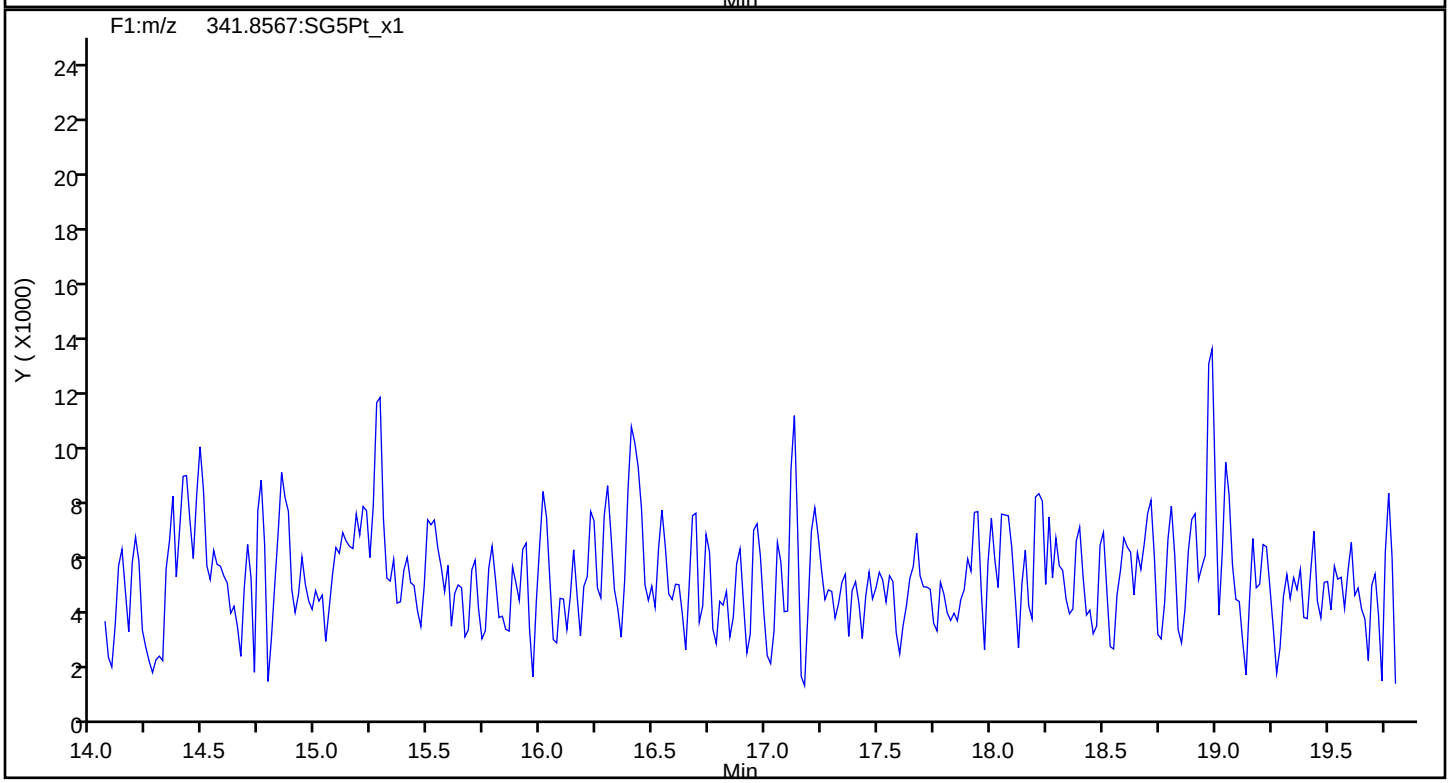
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



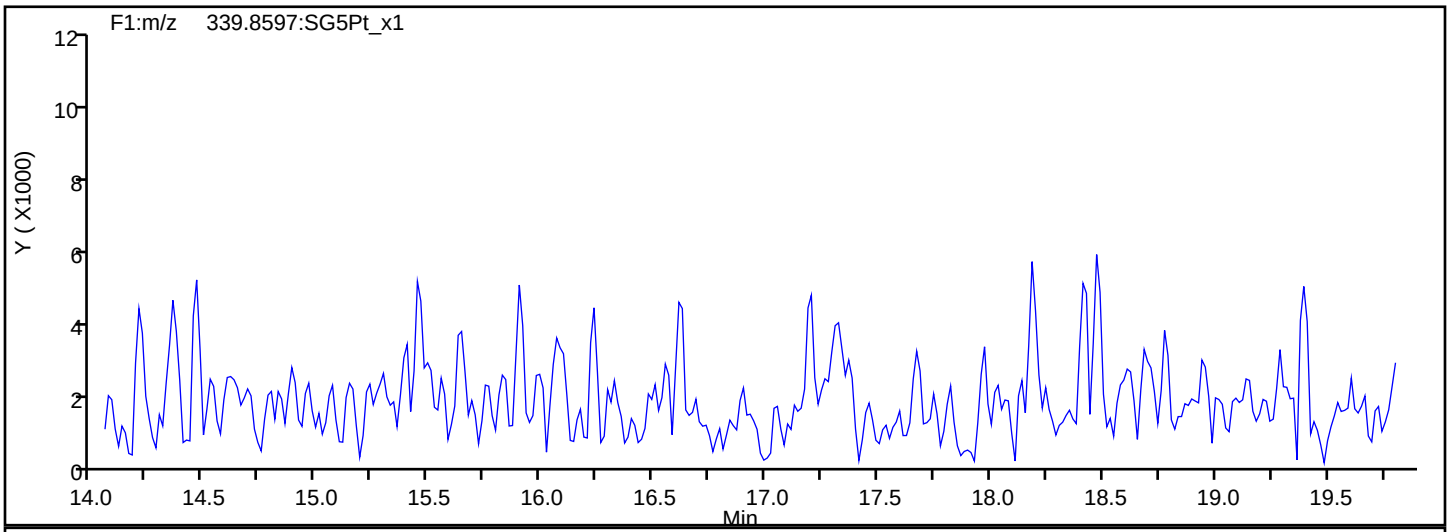


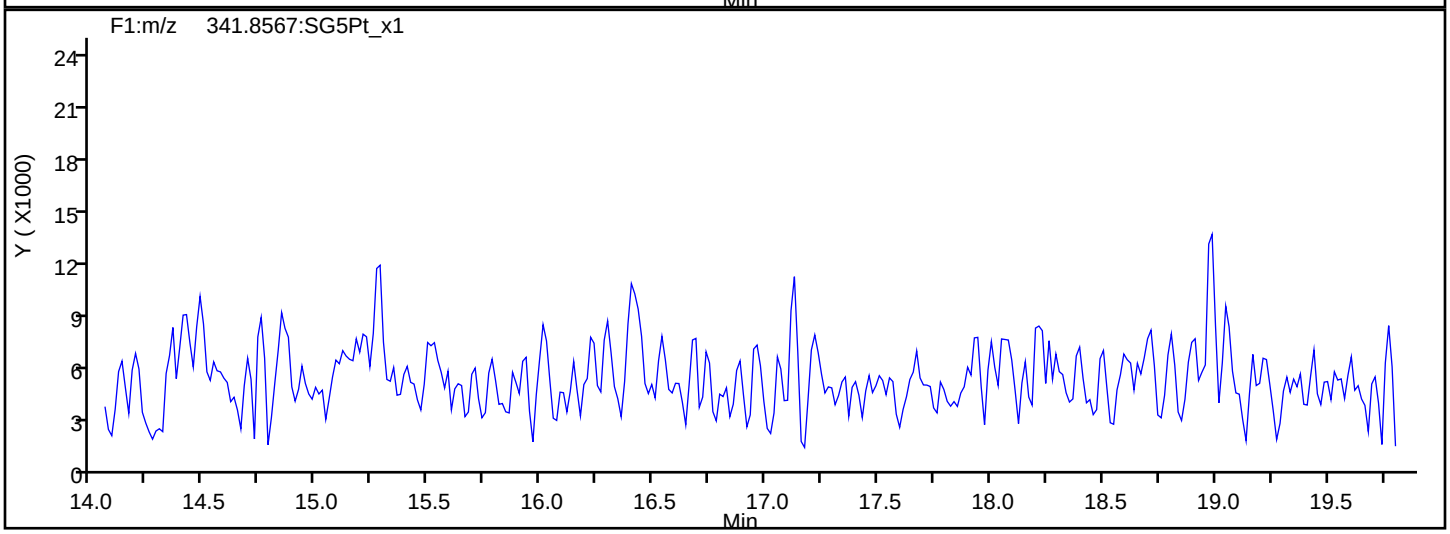
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

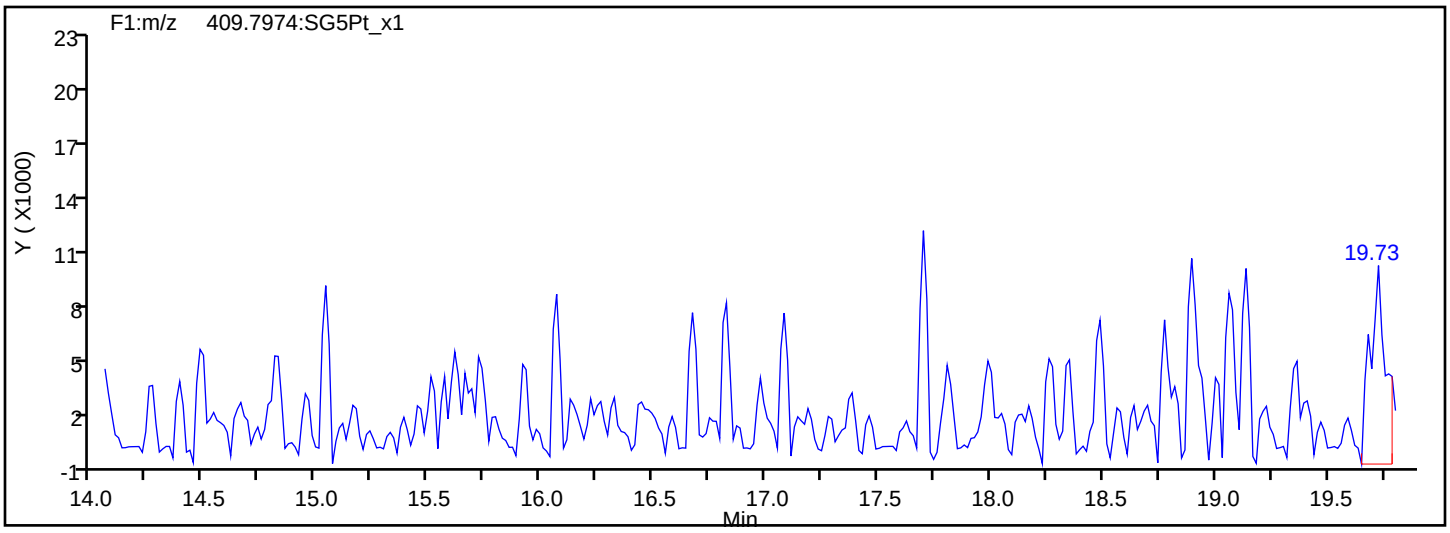
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

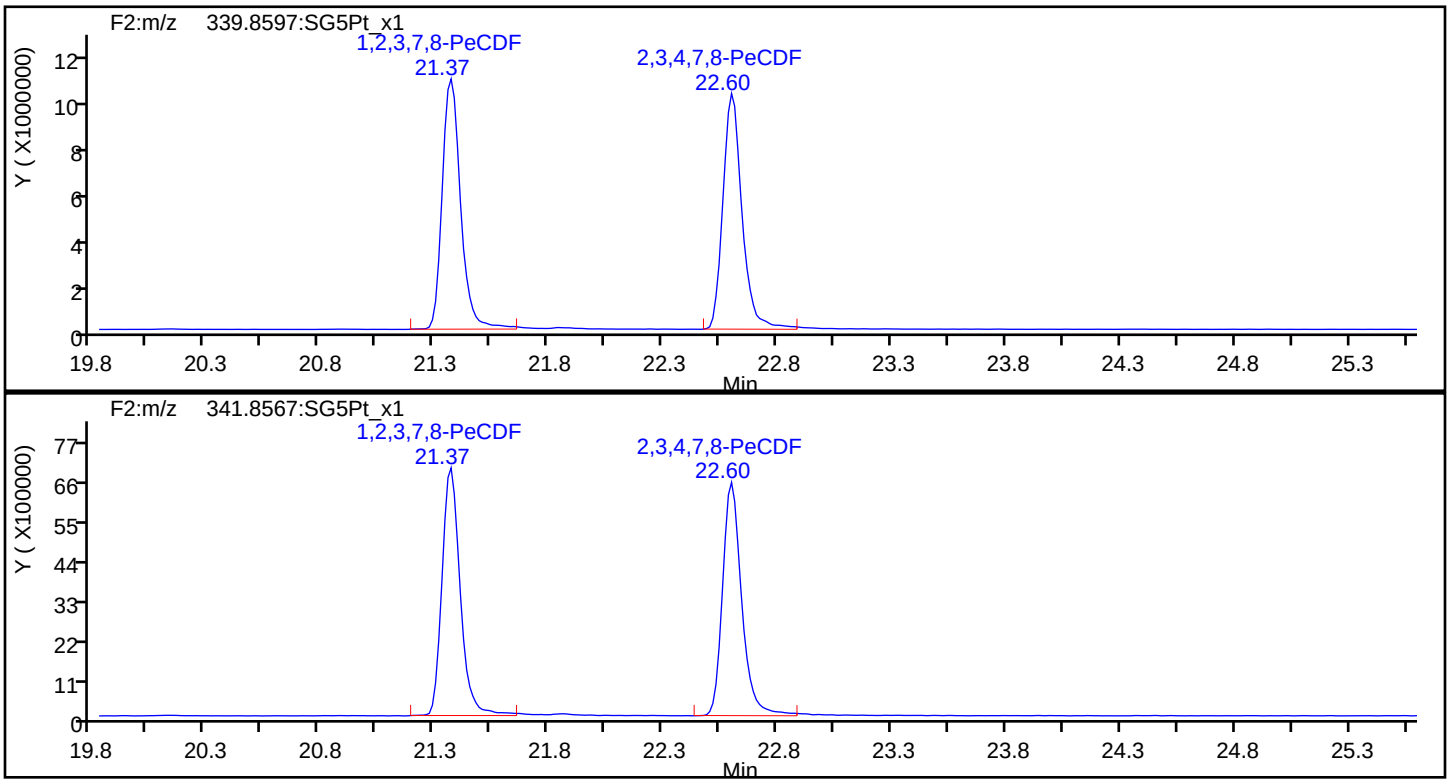


Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

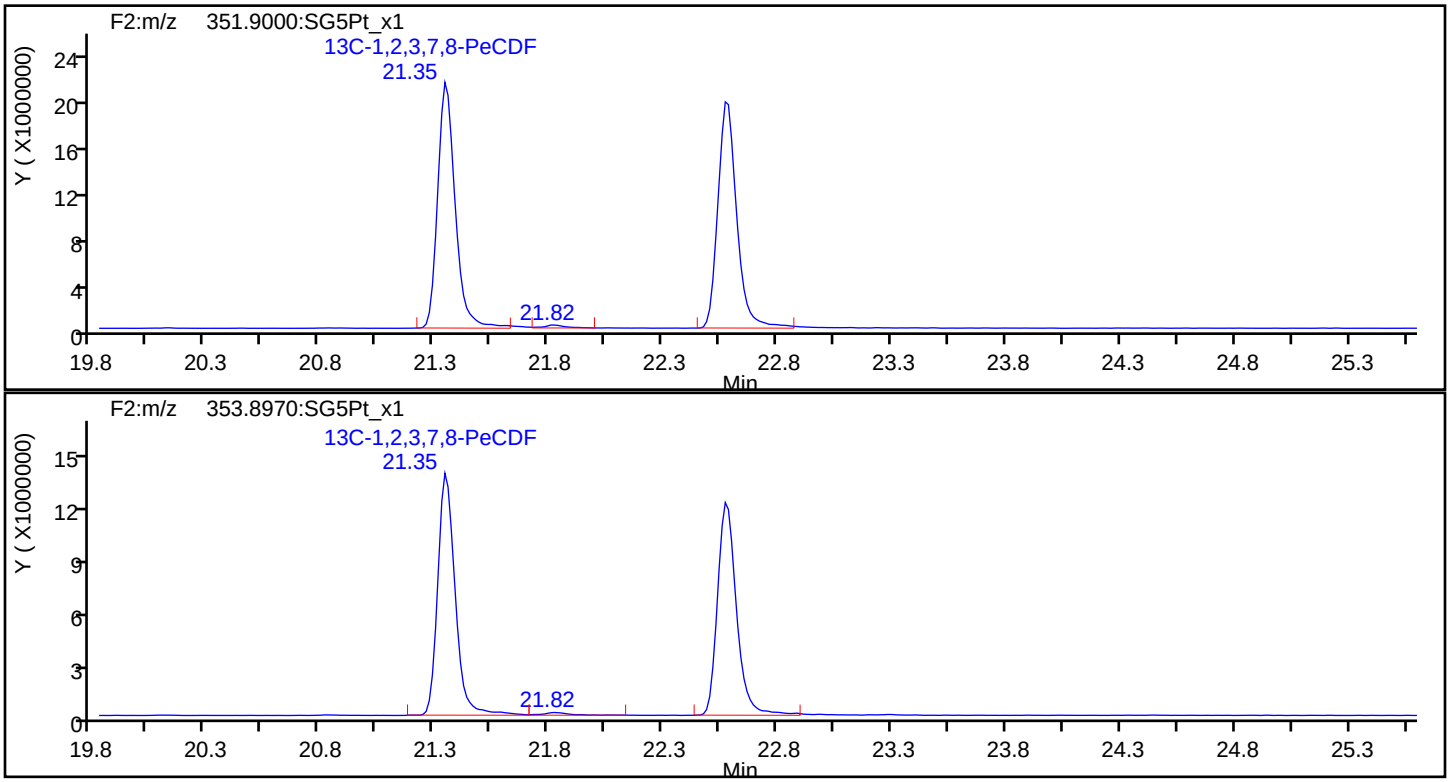
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

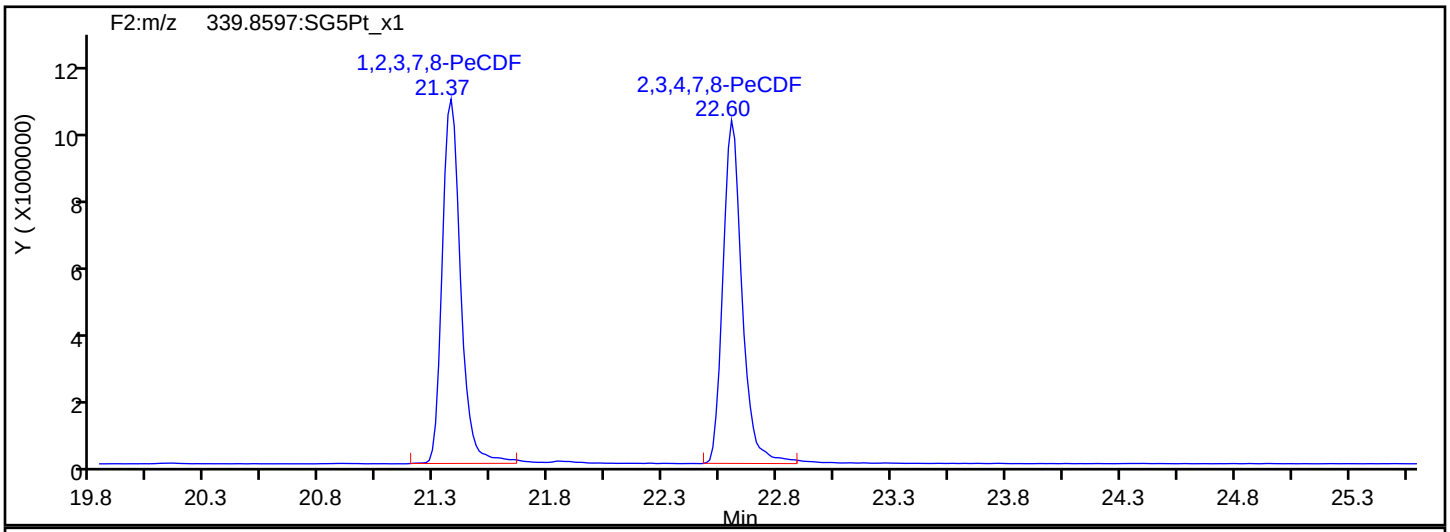


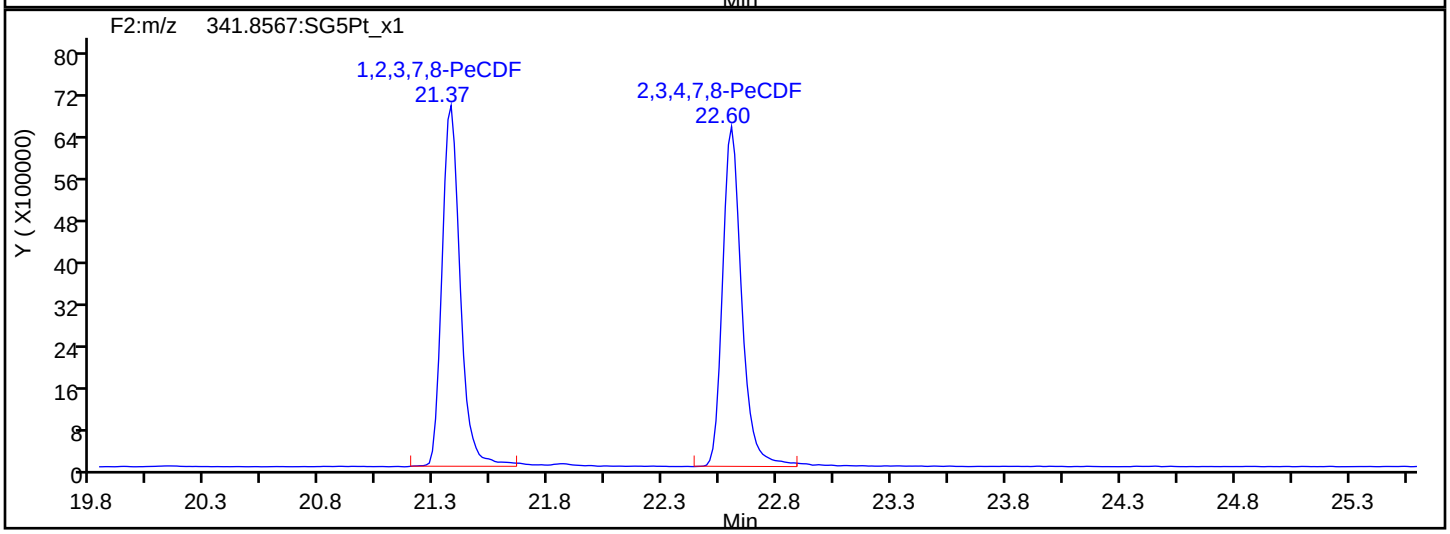
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

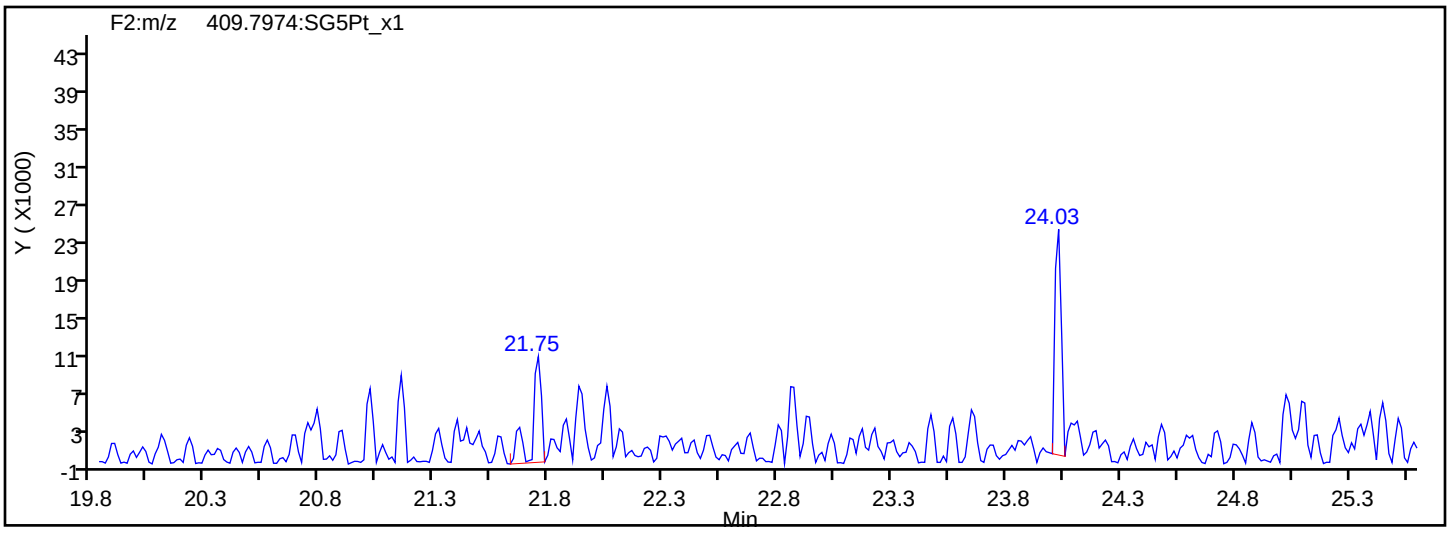
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



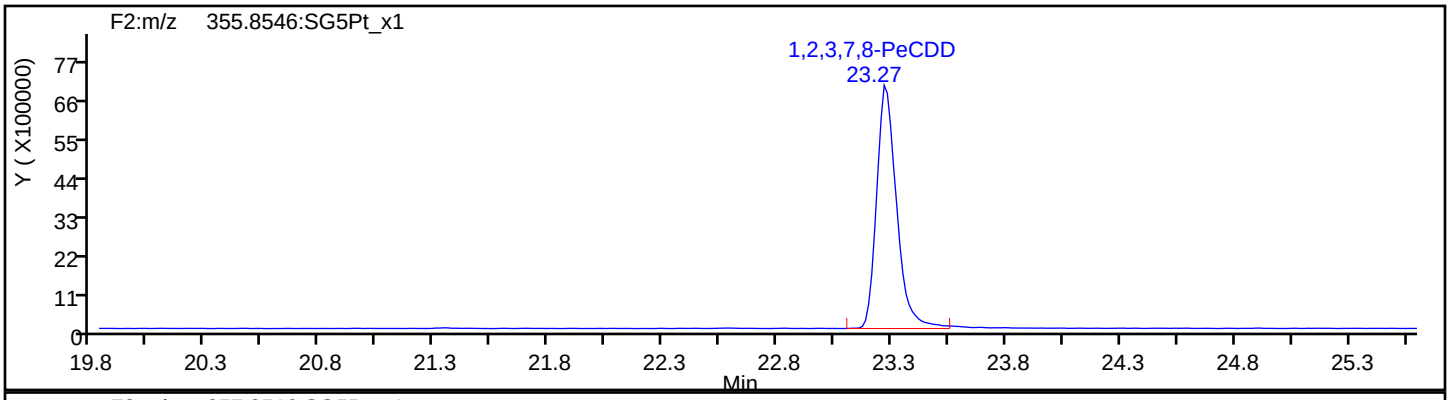
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

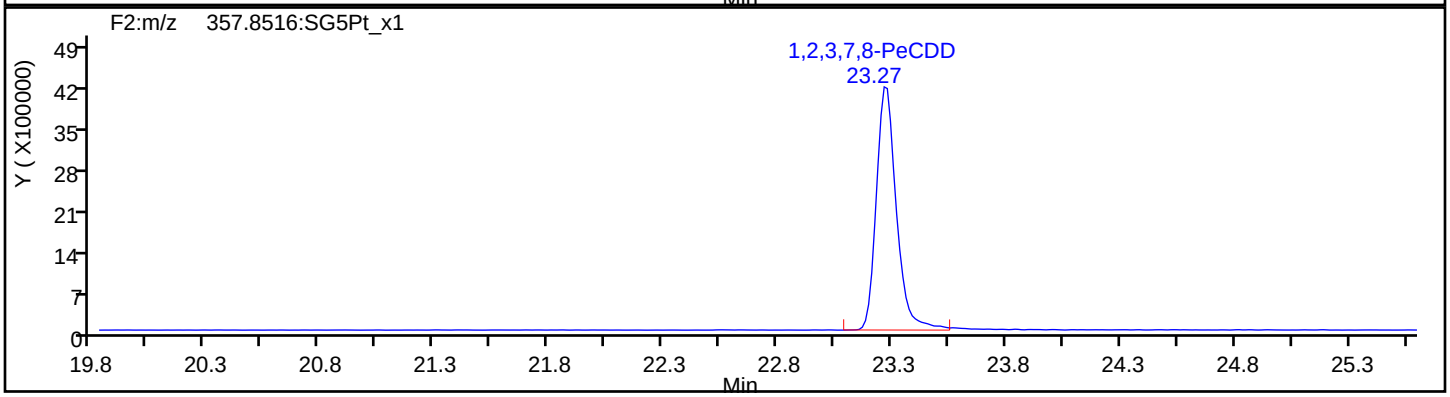
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

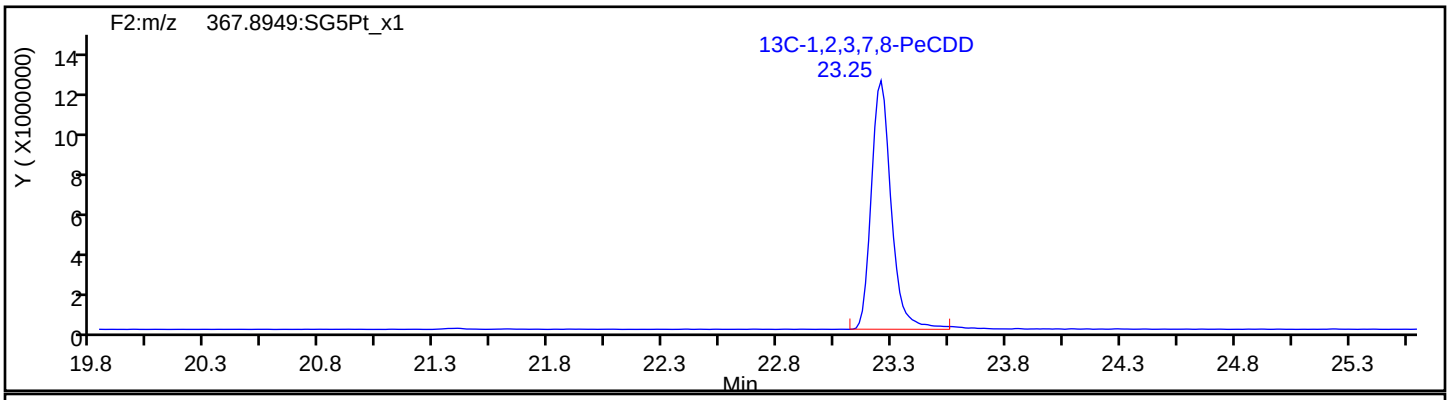
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

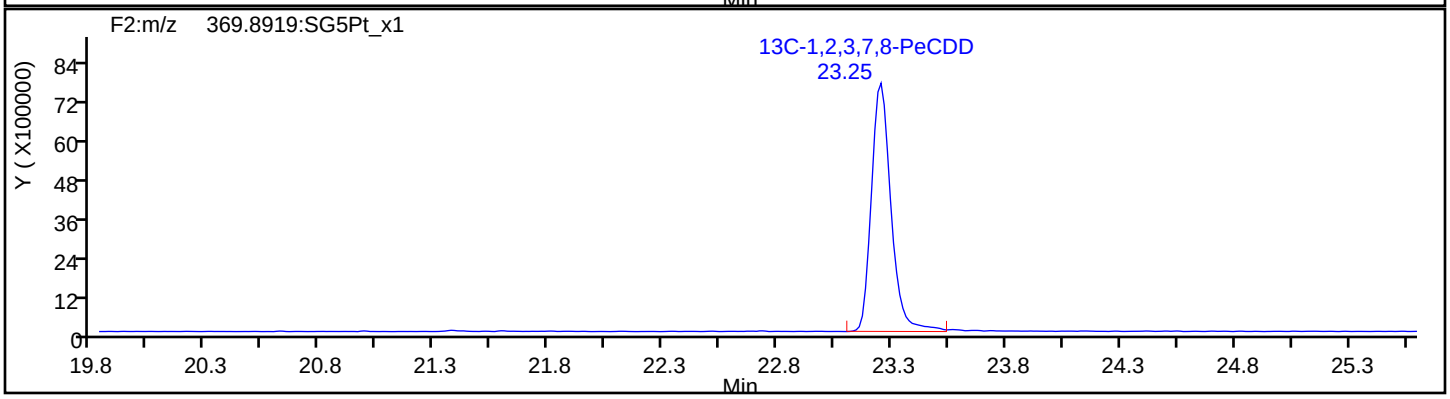
PeCDD





PeCDD Standards





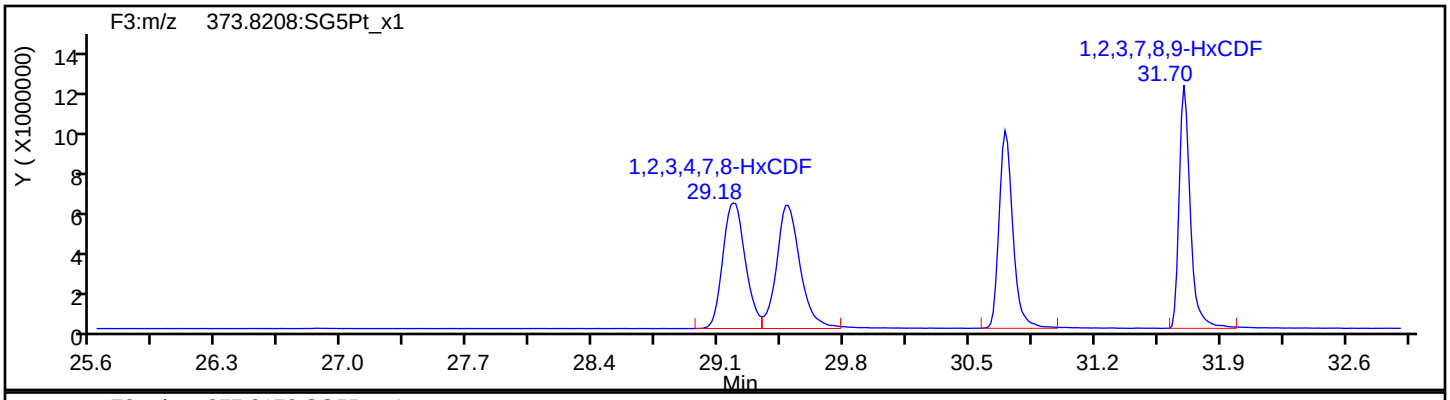
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

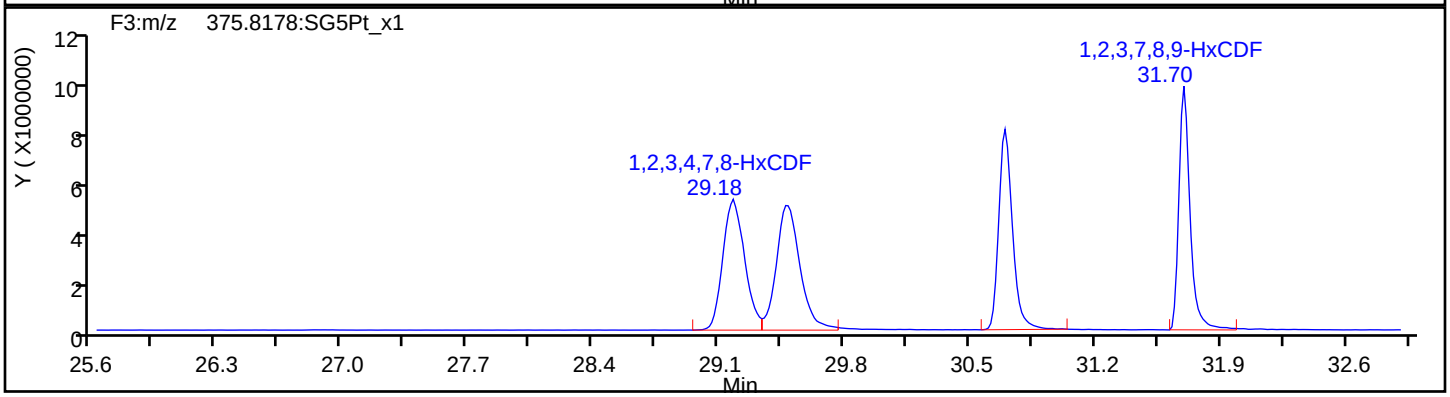
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

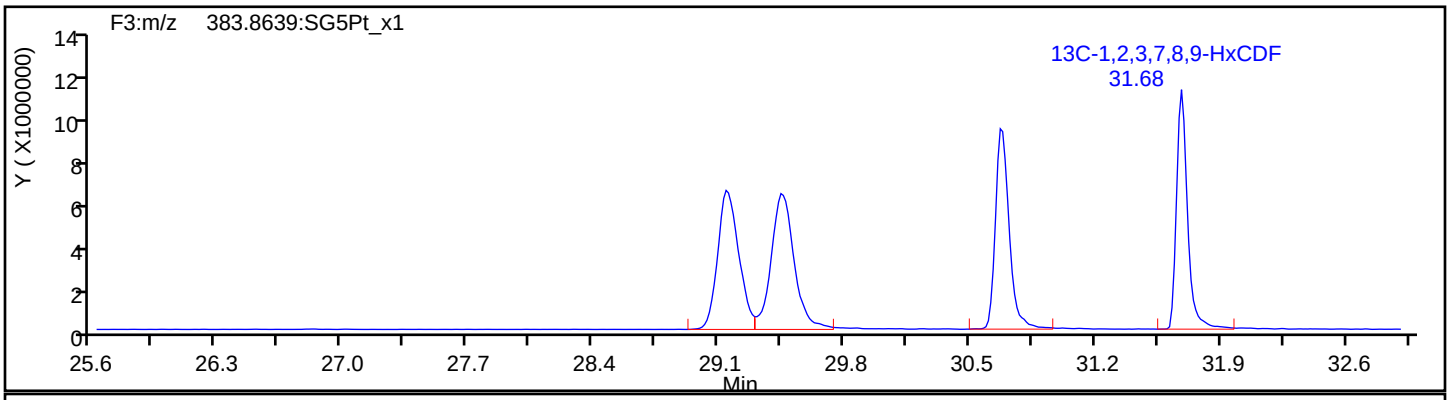
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

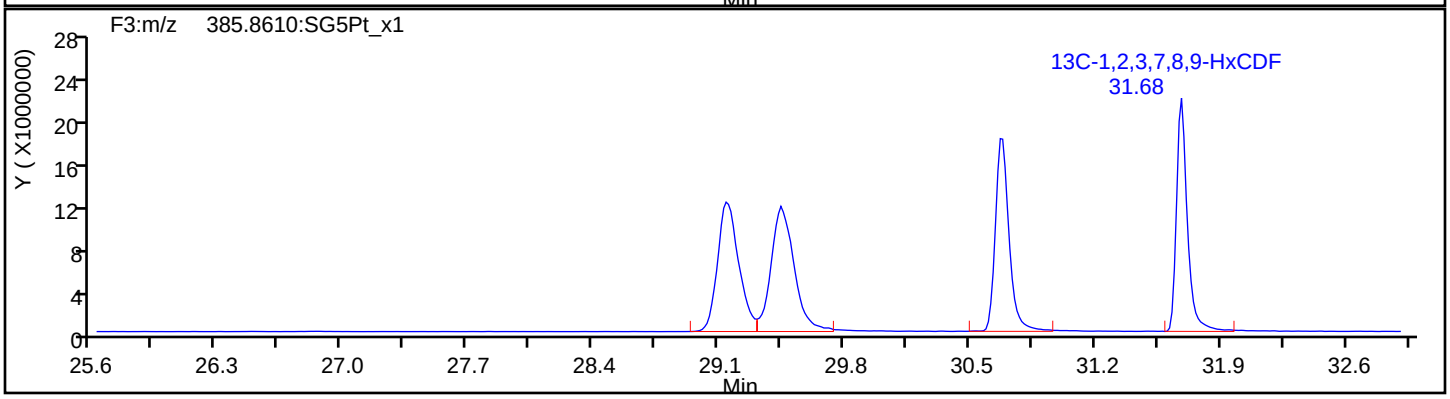
HxCDF





HxCDF Standards



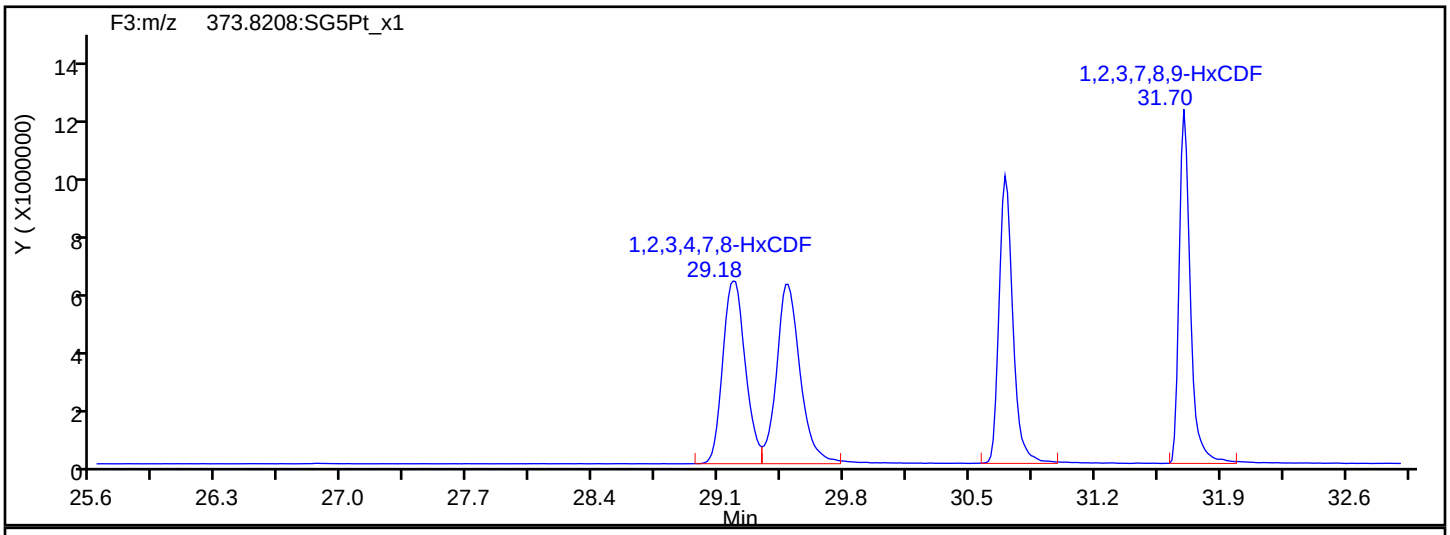


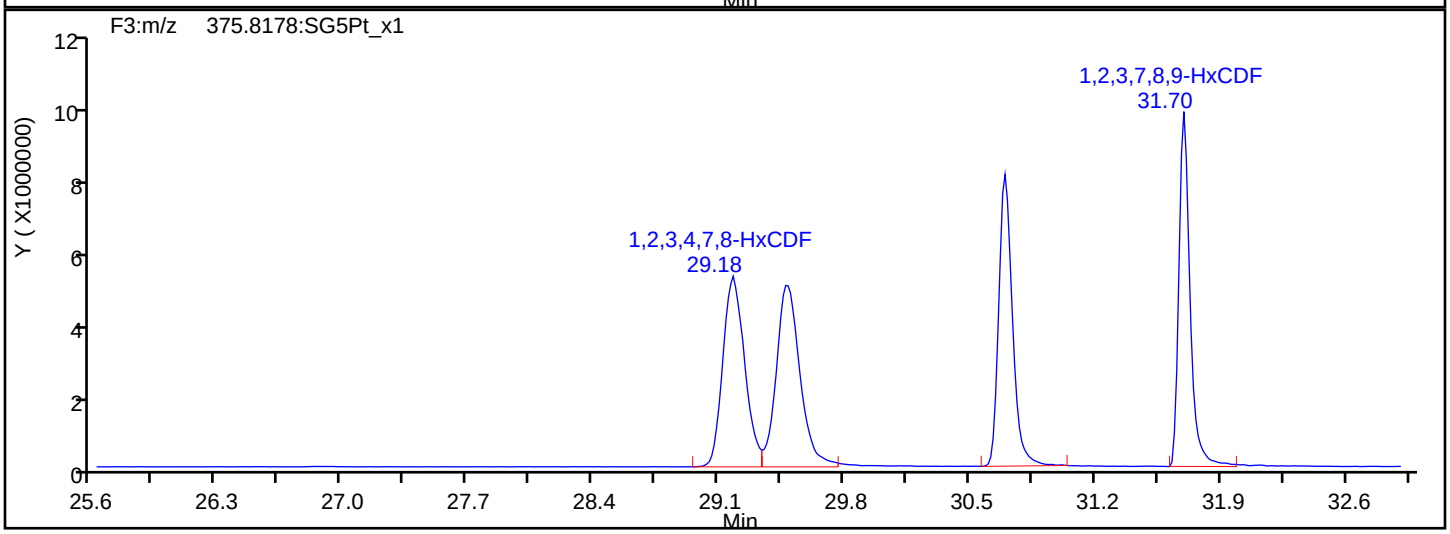
Report Date: 23-Jul-2019 10:39:25 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

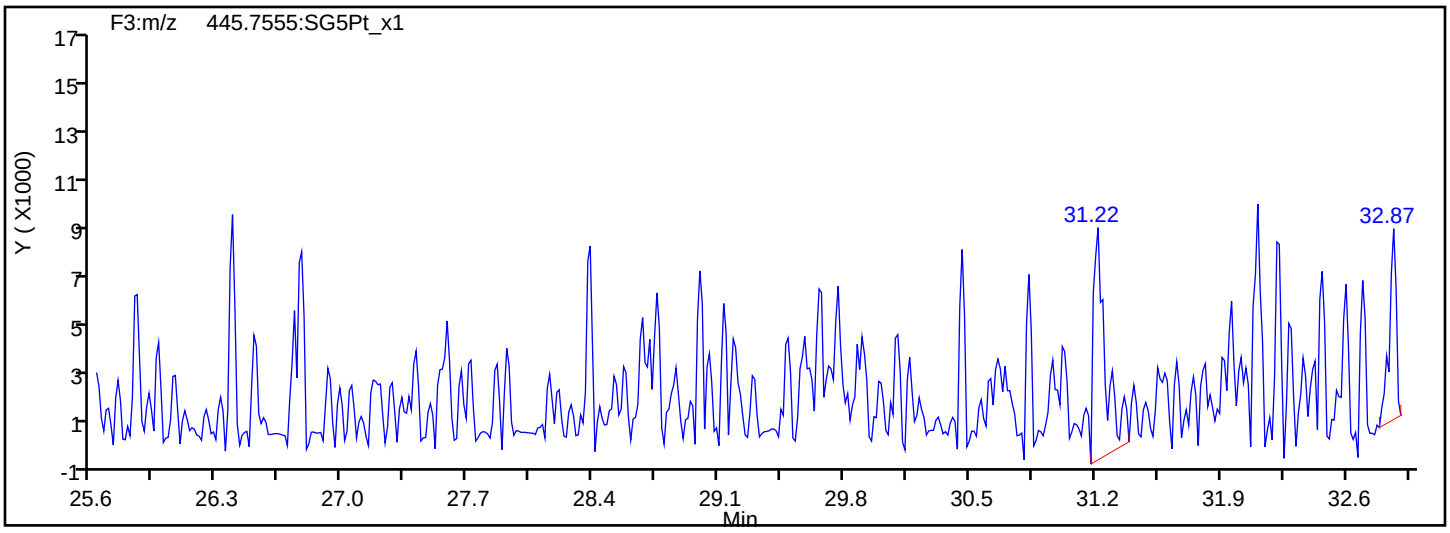
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



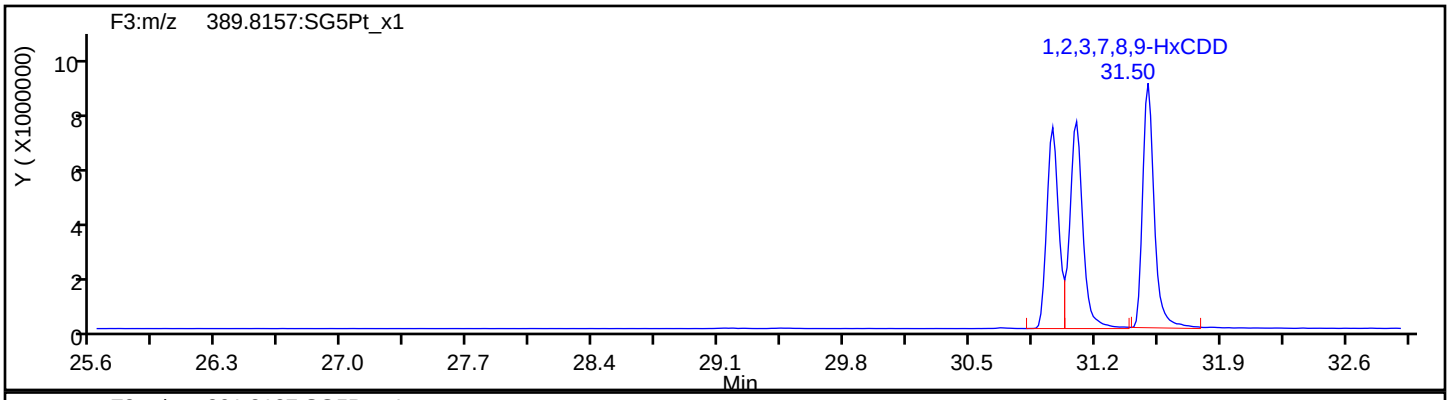
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

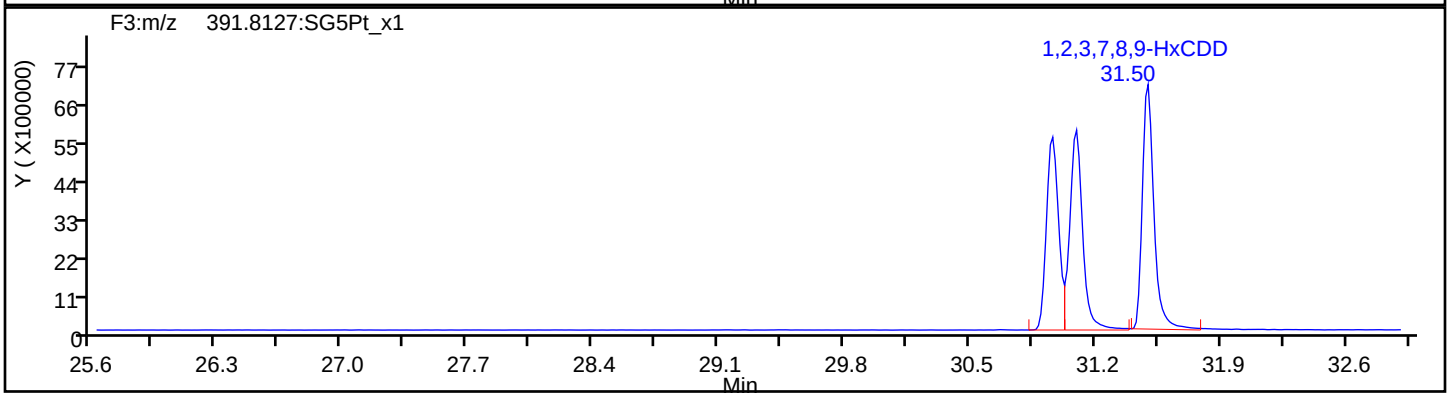
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

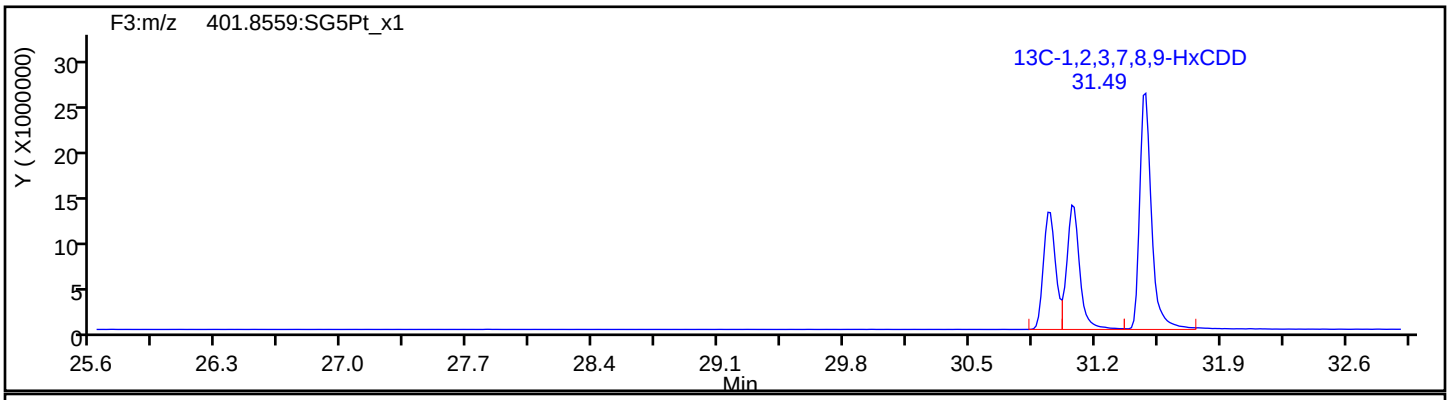
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

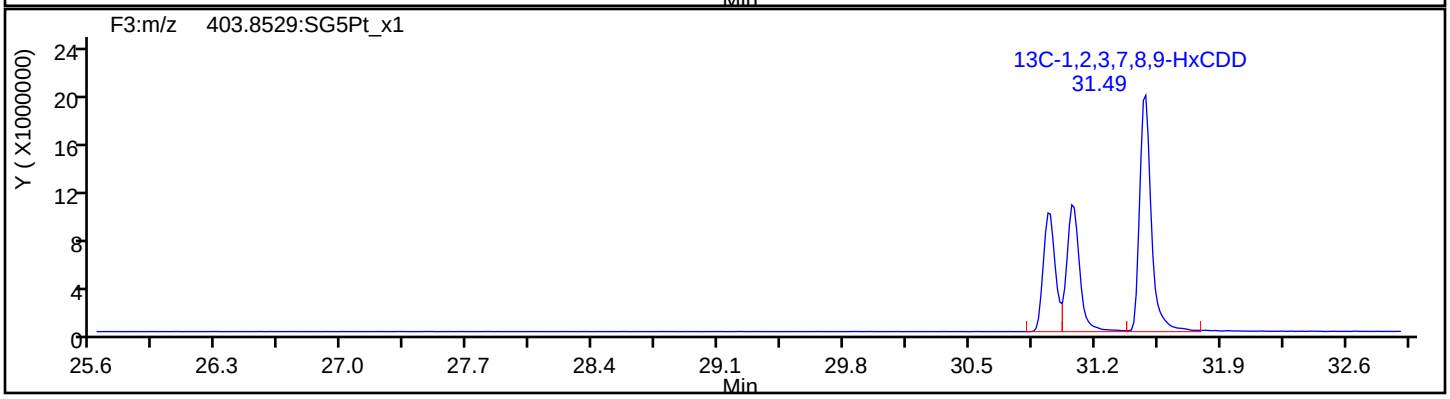
HxCDD





HxCDD Standards



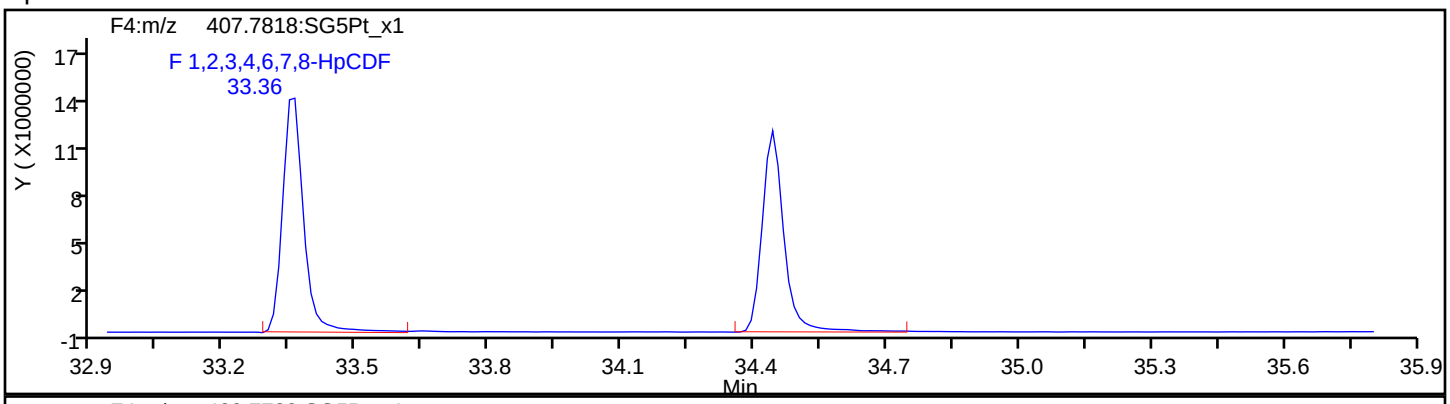


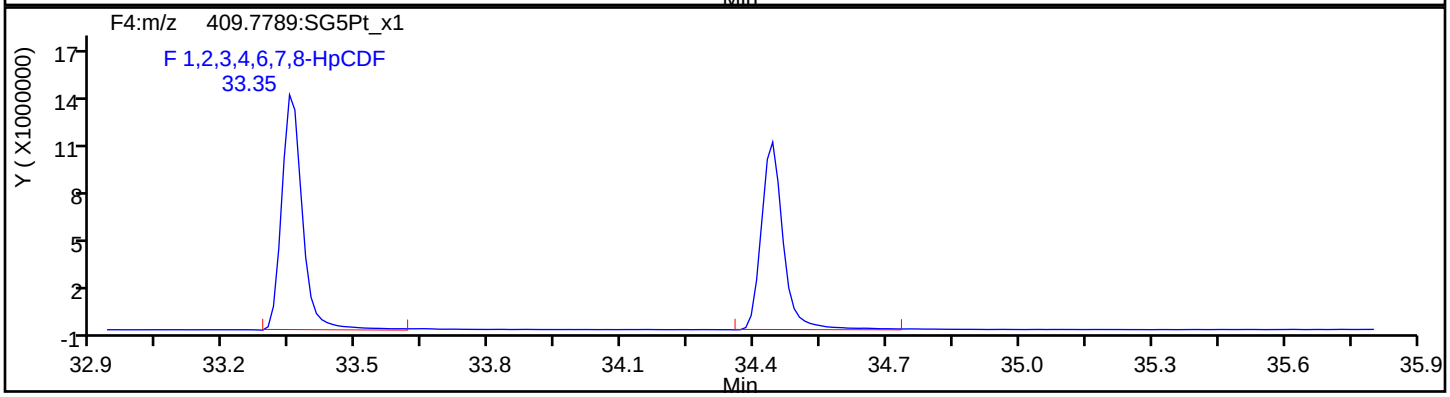
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

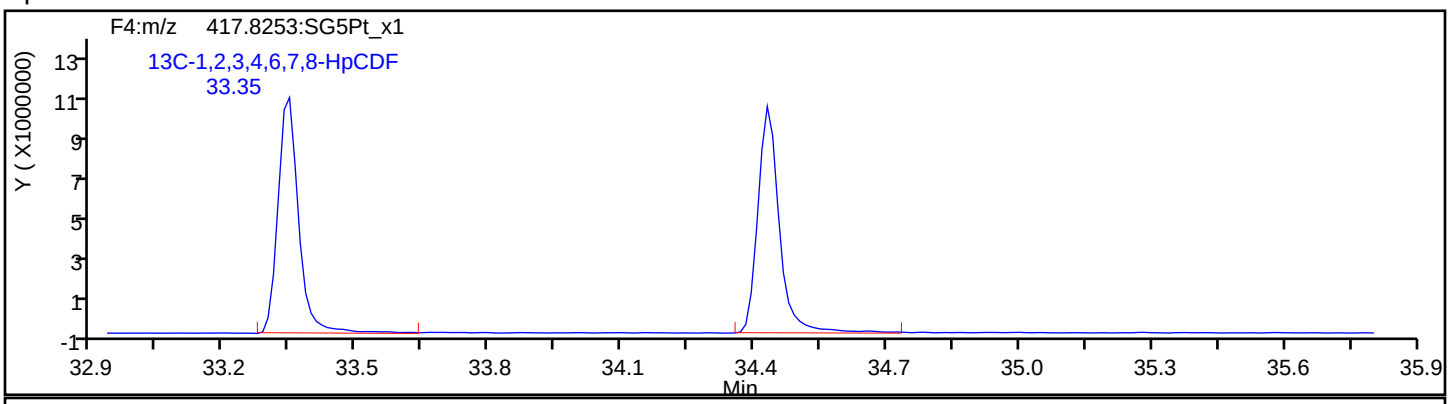
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

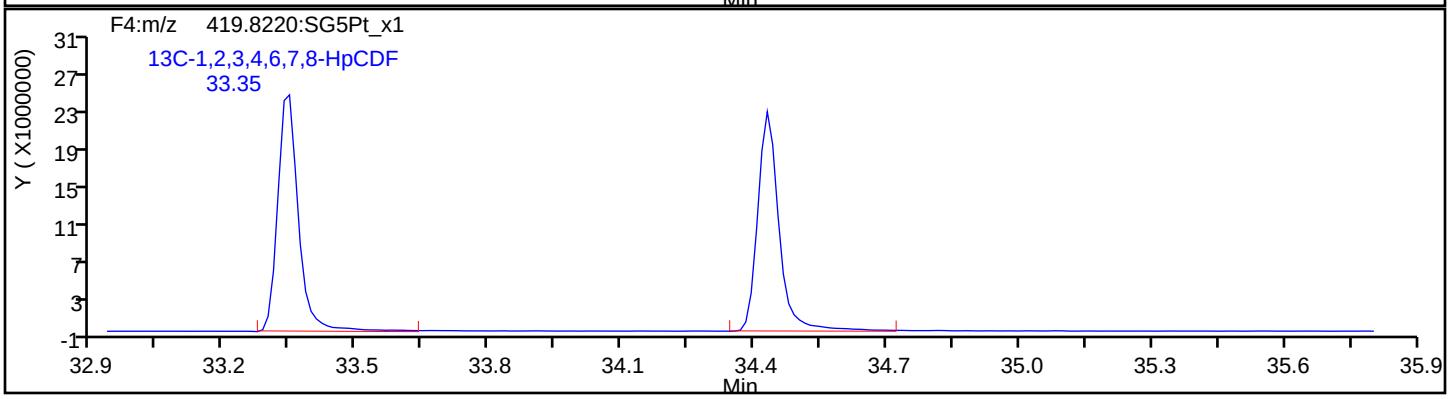
HpCDF





HpCDF Standards





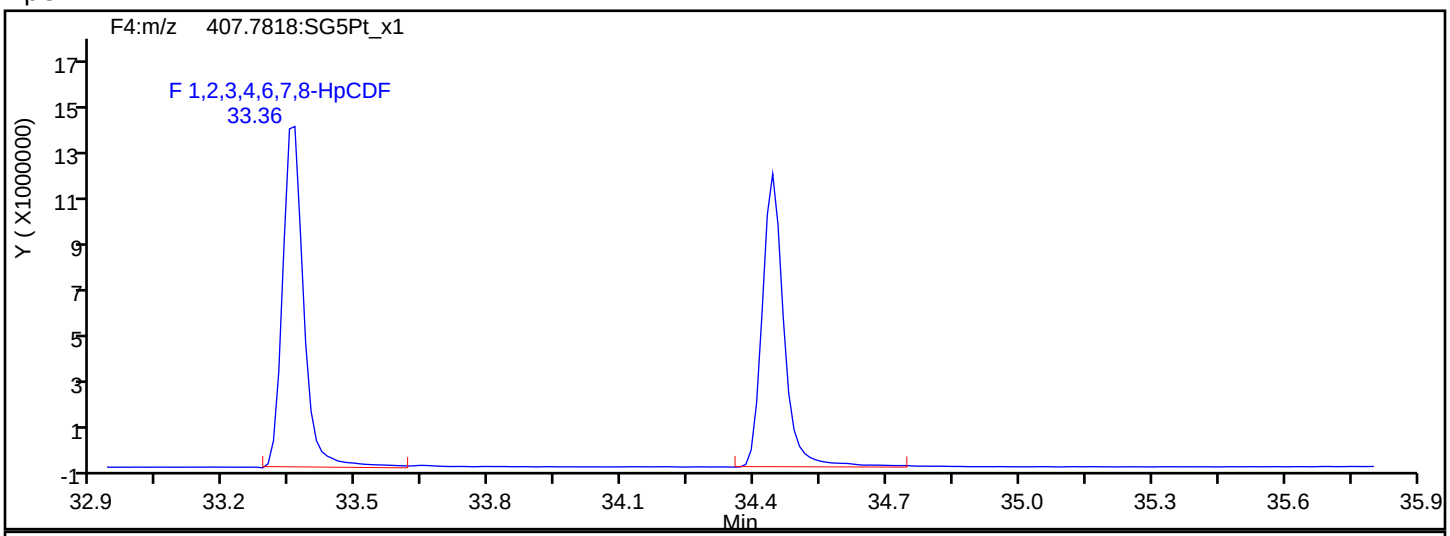
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

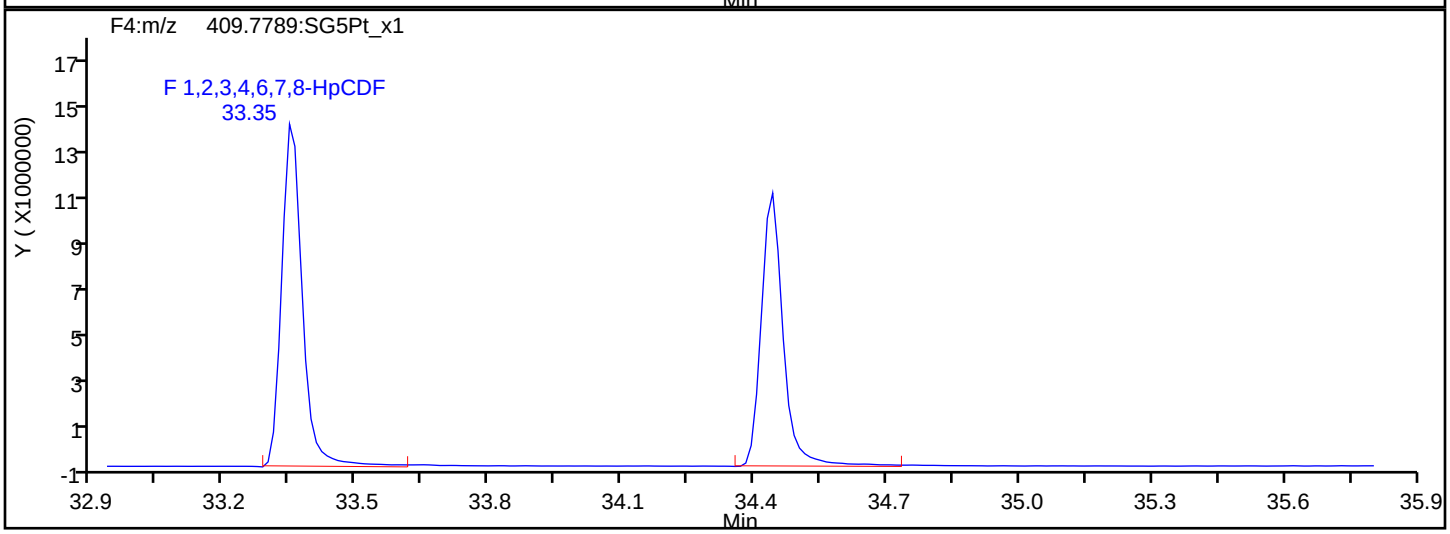
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

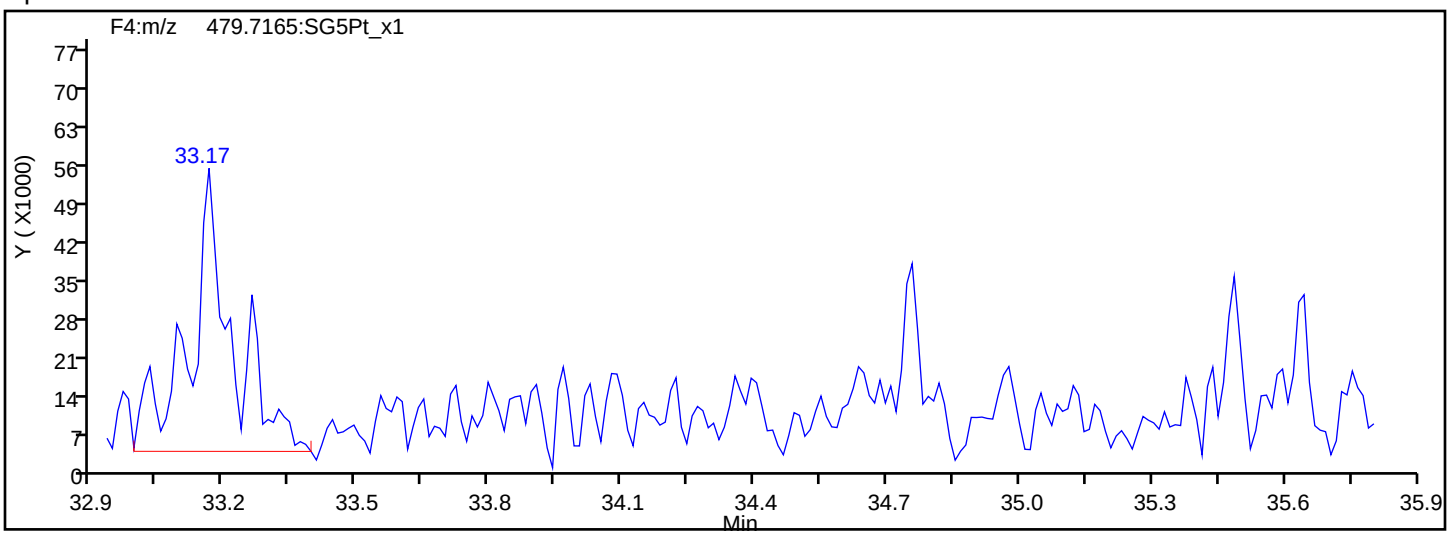
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass



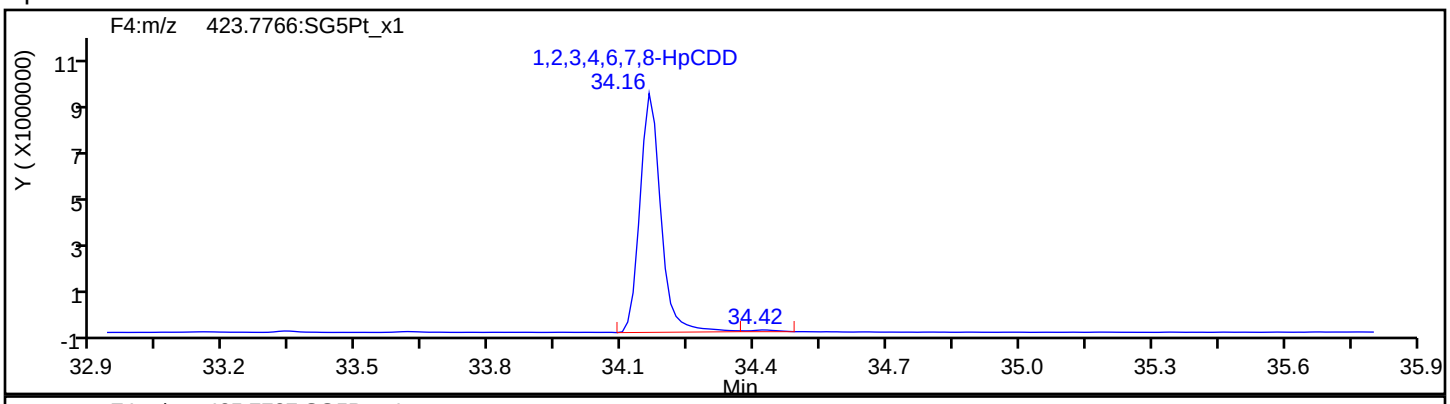
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

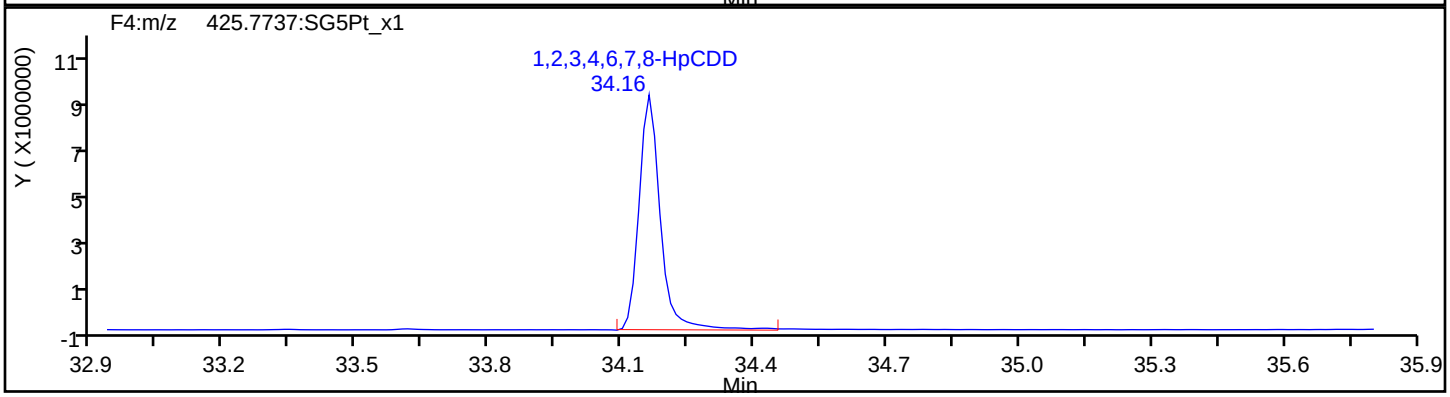
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

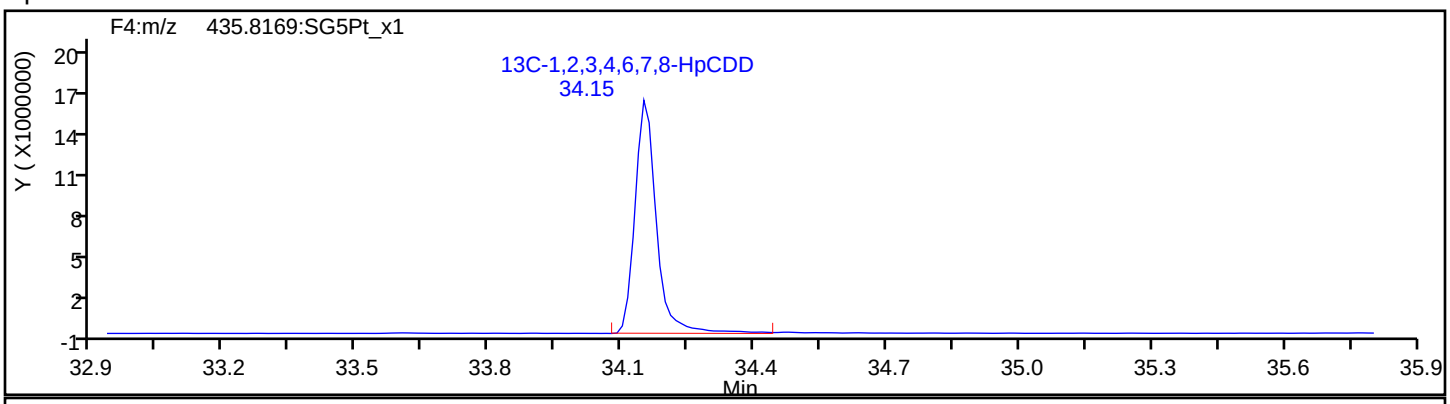
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

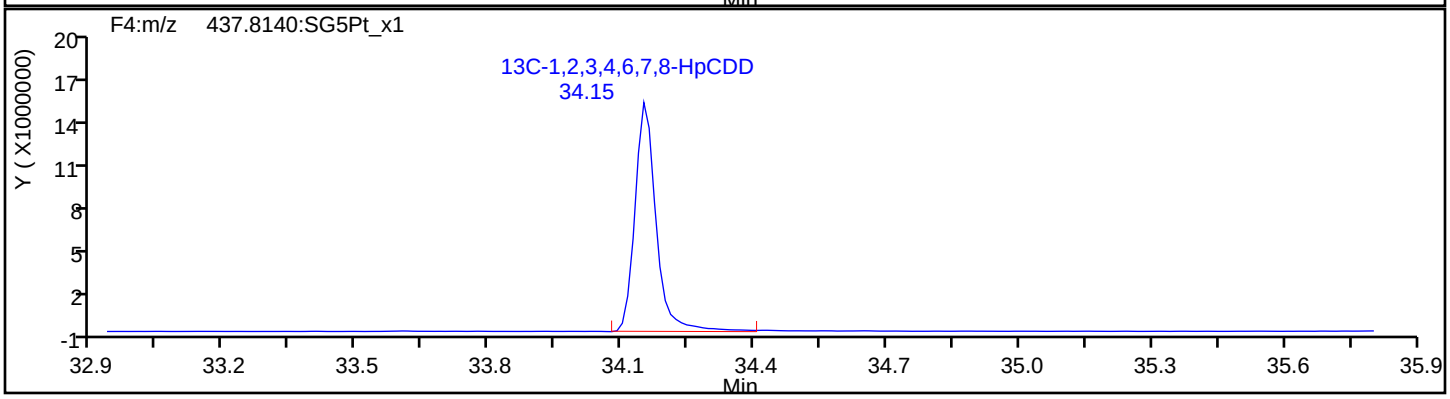
HpCDD





HpCDD Standards





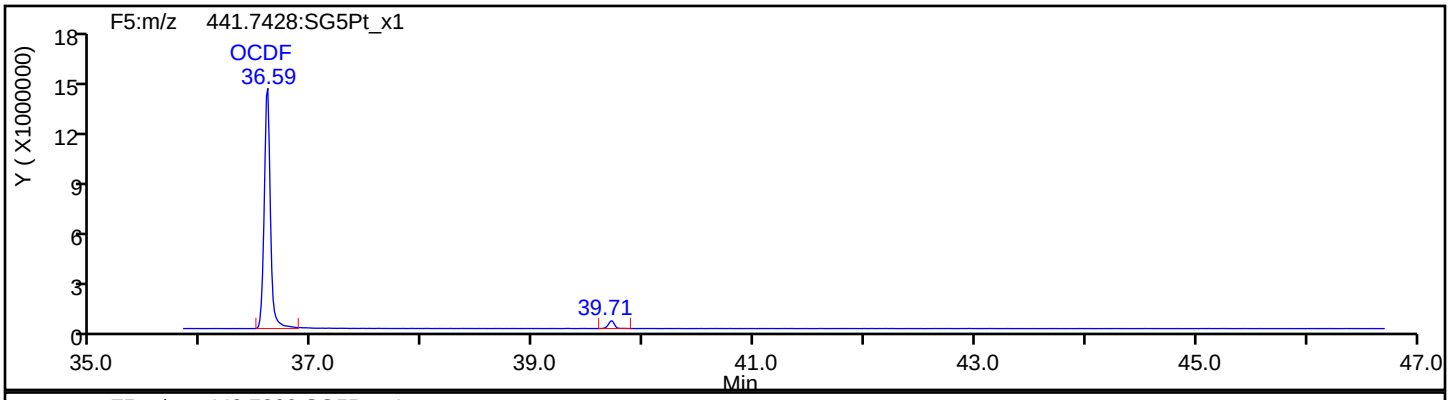
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

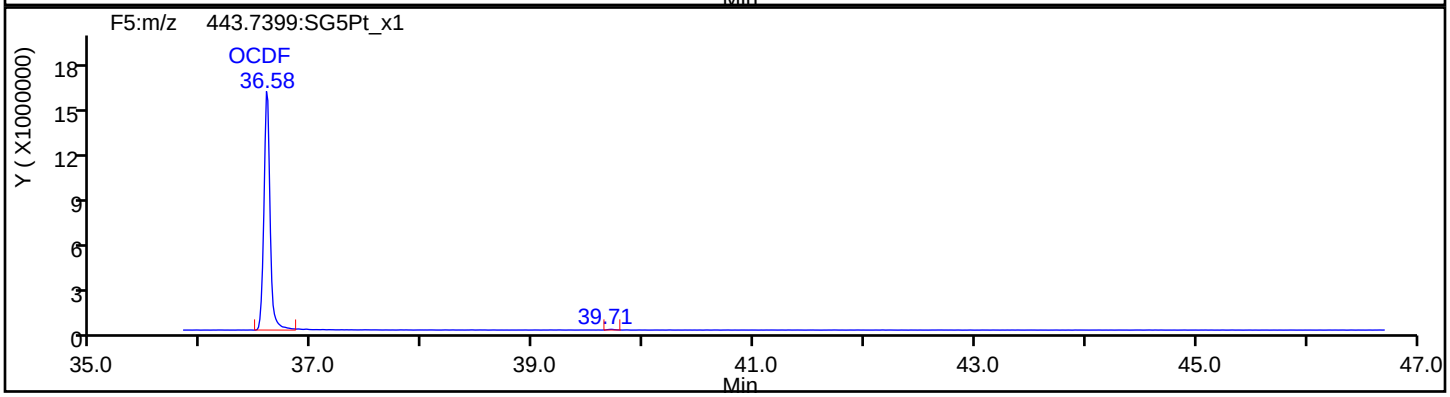
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d

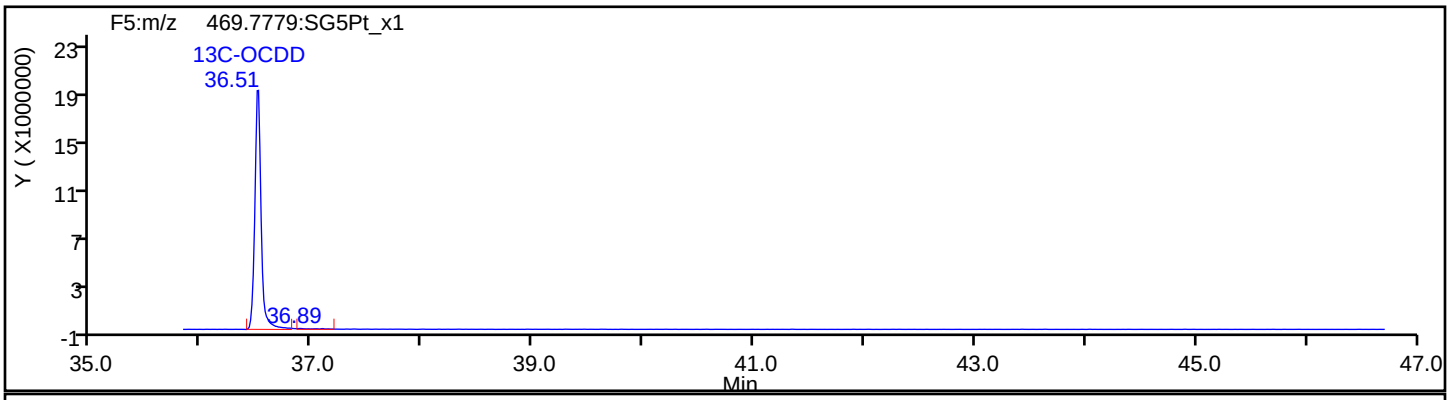
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

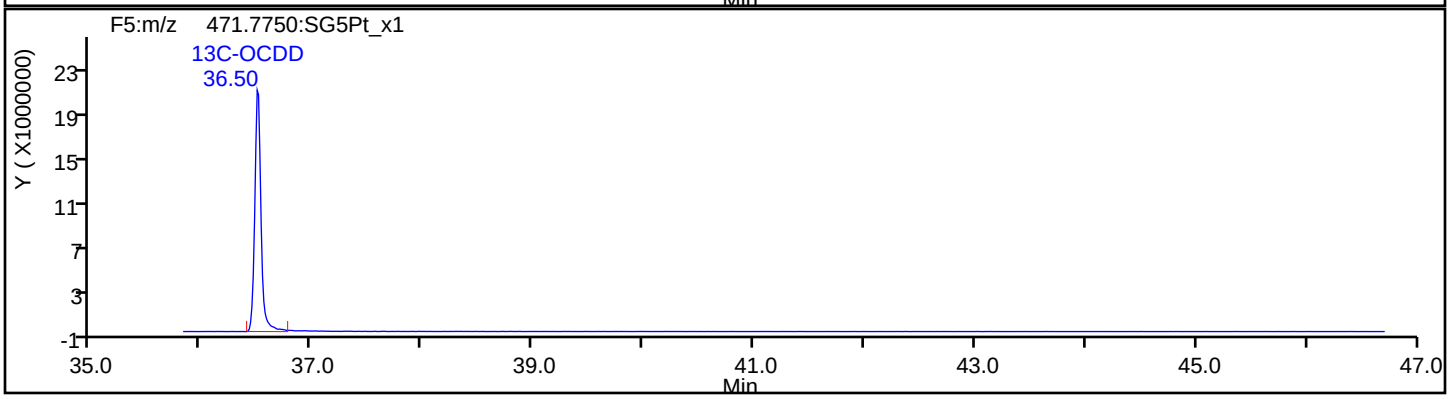
OCDF





OCDF Standards



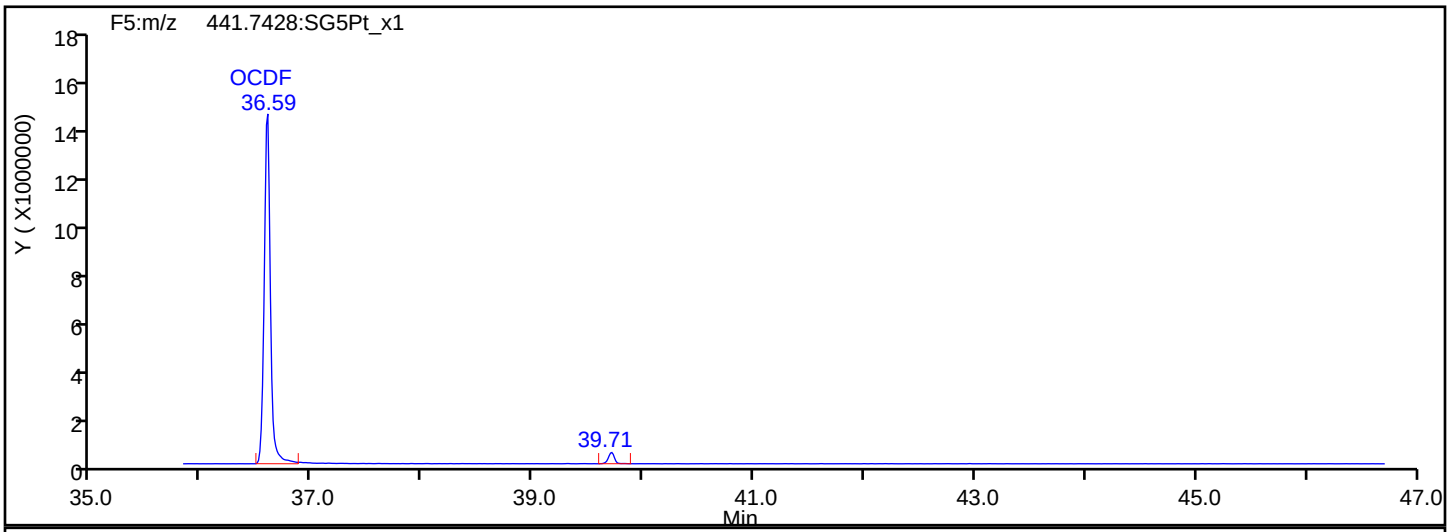


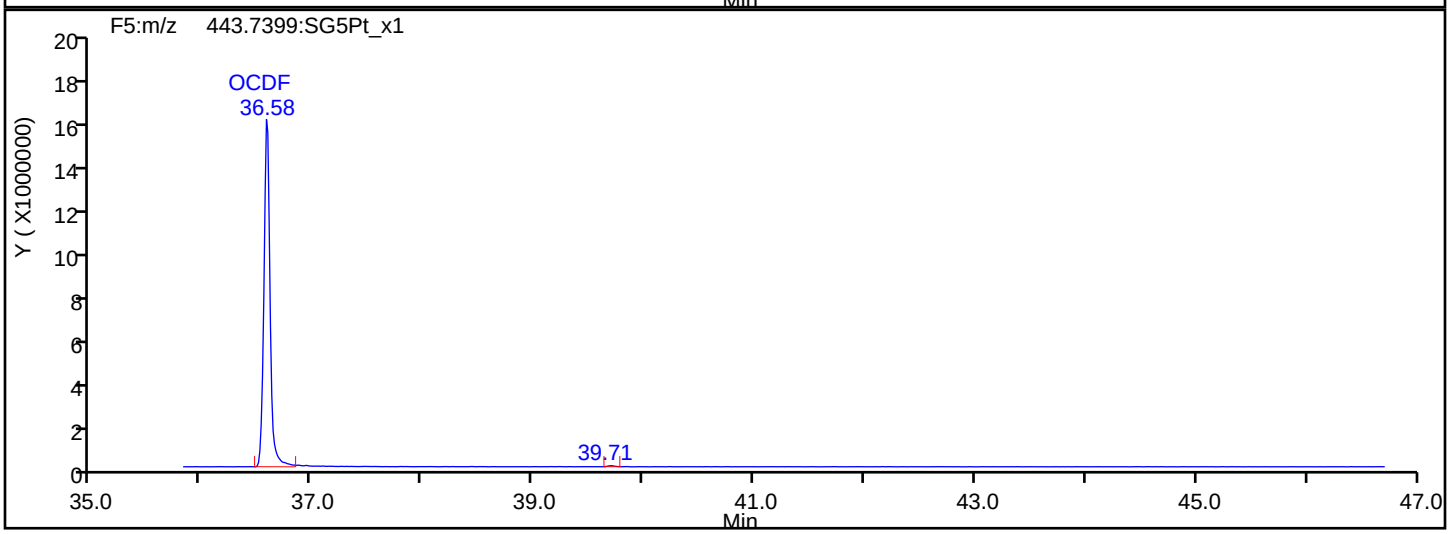
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

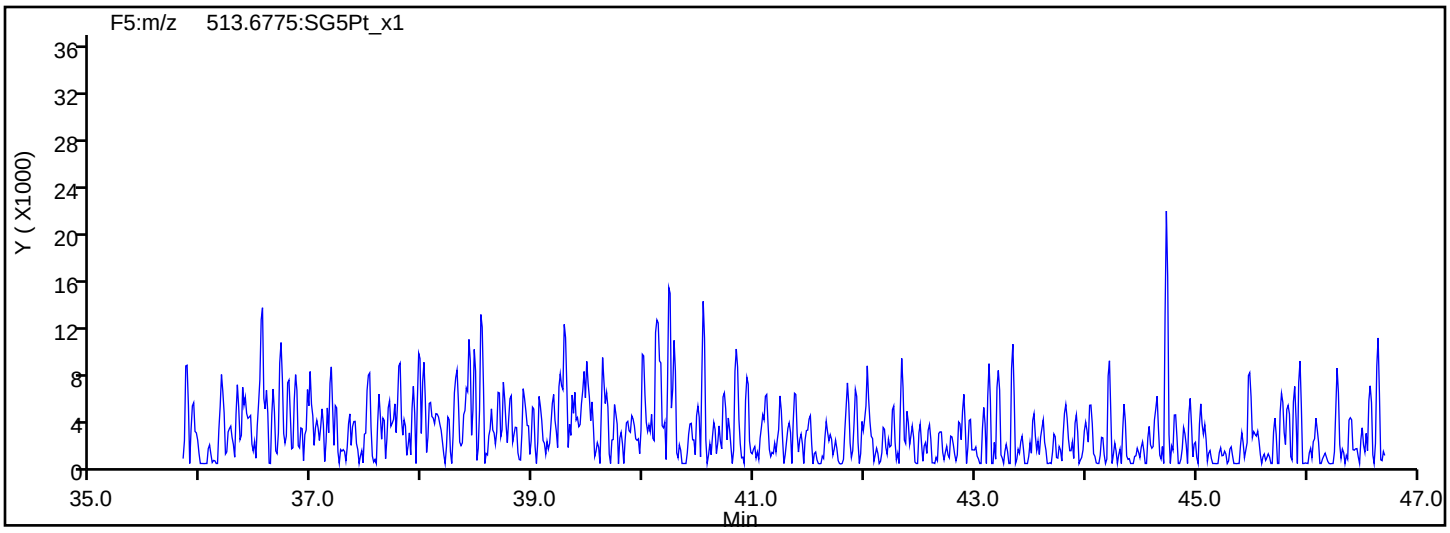
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

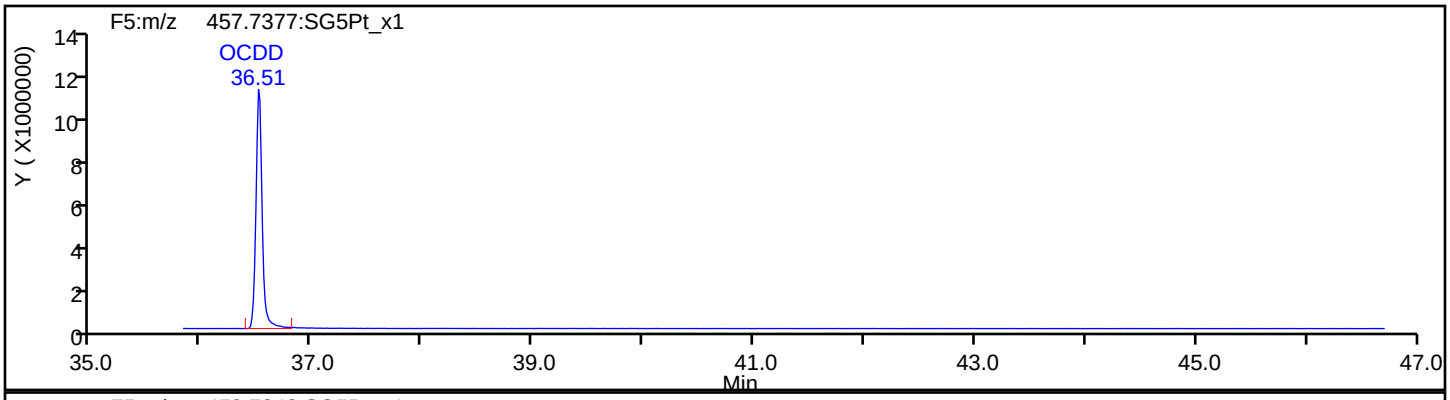


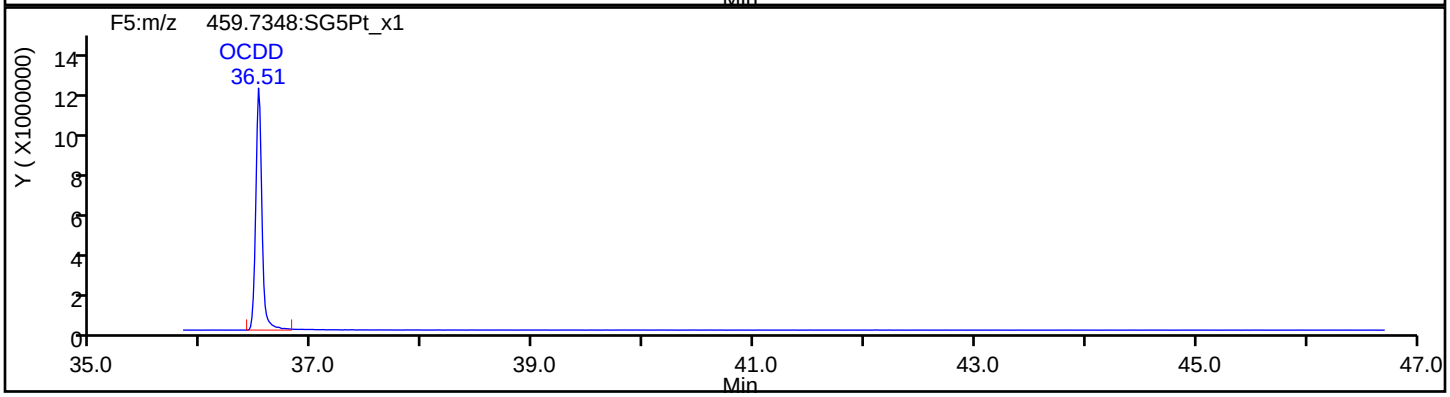
Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

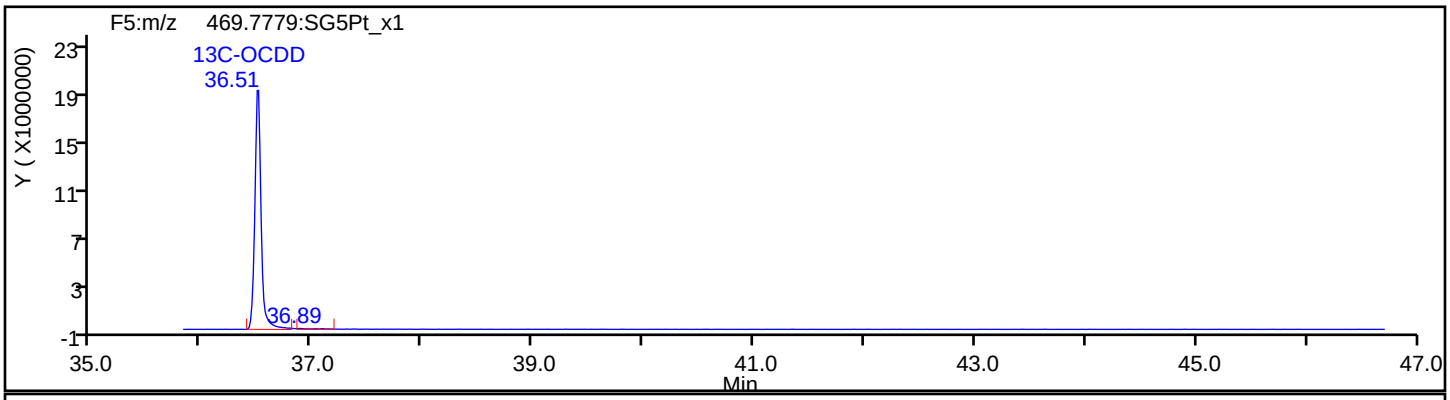
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm

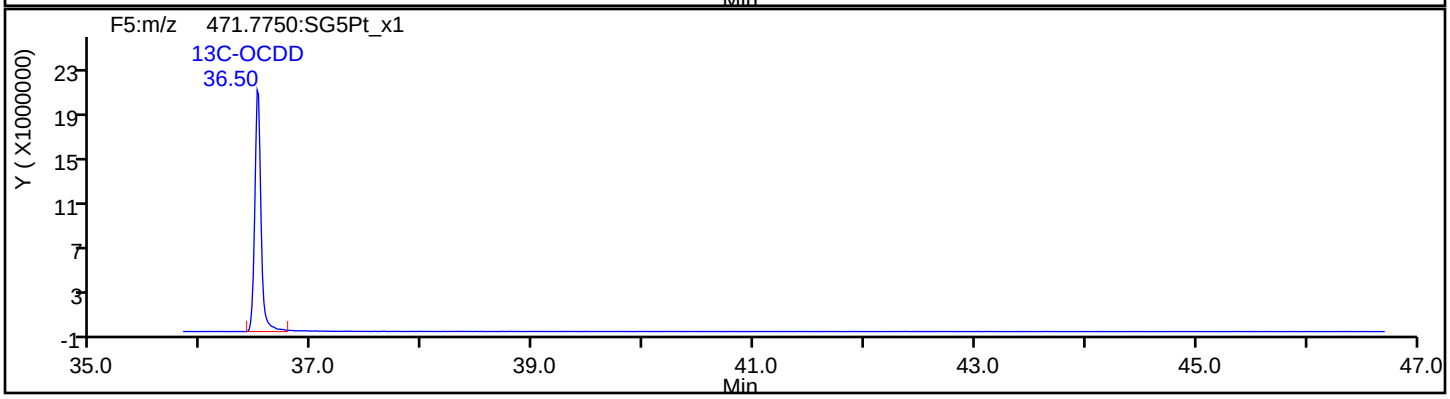
OCDD





OCDD Standards

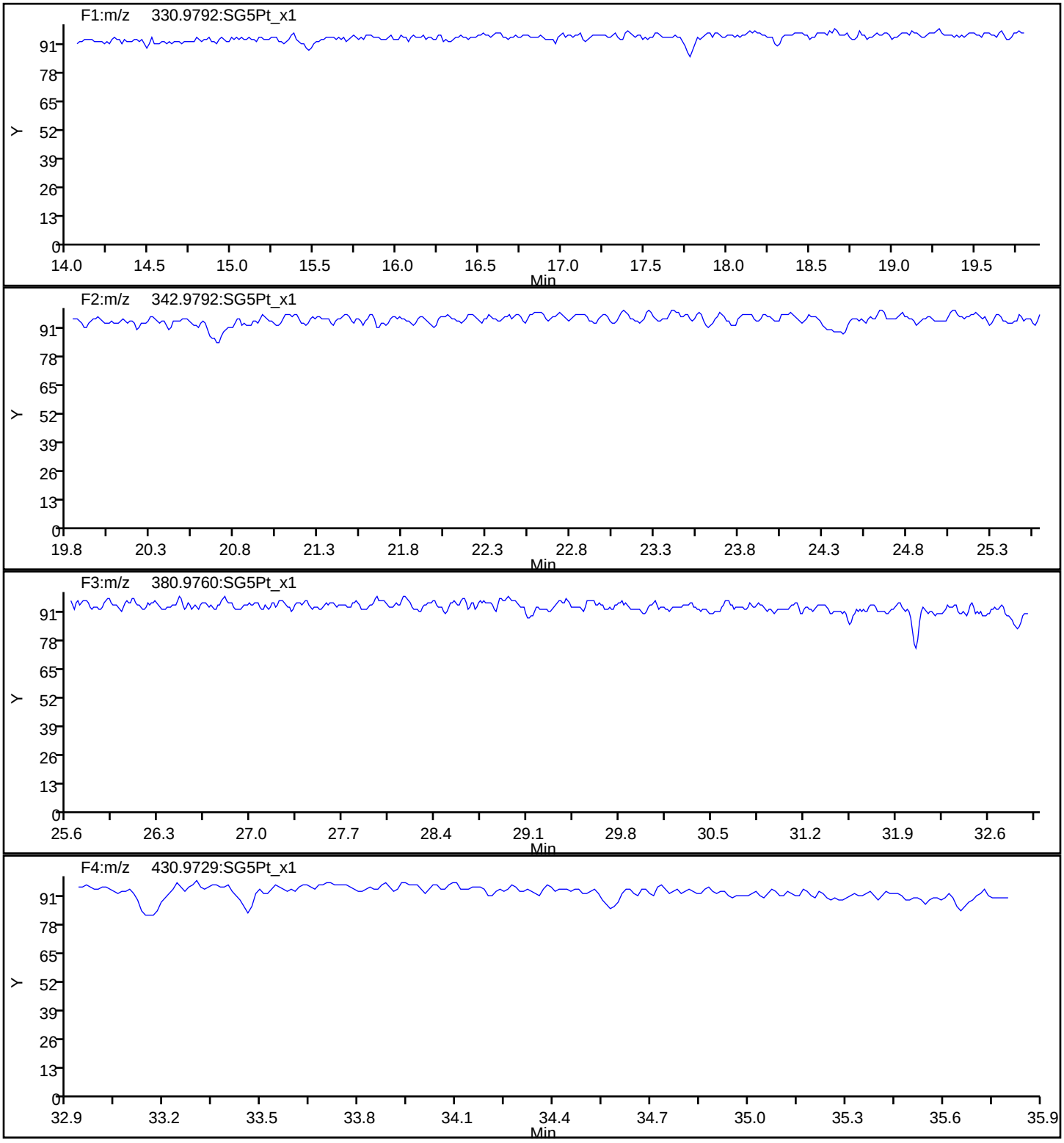




Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

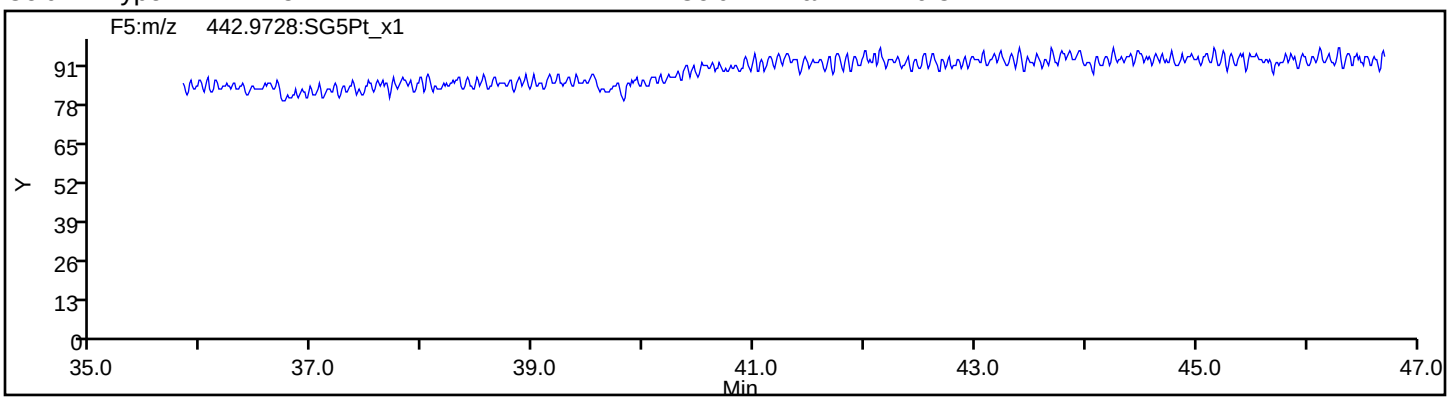
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 10:39:26 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_55.d		
Injection Date:	21-Jul-2019 20:43:52	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	55
Column Type:	DB-5	Column Dia:	0.32 mm



FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 320-308663/3-A

Matrix: Solid Lab File ID: 19JL19A3D5_56.d

Analysis Method: 1613B Date Collected:

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10(g) Date Analyzed: 07/21/2019 21:31

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
1746-01-6	2,3,7,8-TCDD	21.2		1.0	0.13
51207-31-9	2,3,7,8-TCDF	20.7		1.0	0.090
40321-76-4	1,2,3,7,8-PeCDD	108		5.0	0.29
57117-41-6	1,2,3,7,8-PeCDF	112		5.0	0.51
57117-31-4	2,3,4,7,8-PeCDF	114		5.0	0.58
39227-28-6	1,2,3,4,7,8-HxCDD	112		5.0	0.36
57653-85-7	1,2,3,6,7,8-HxCDD	107		5.0	0.34
19408-74-3	1,2,3,7,8,9-HxCDD	116		5.0	0.33
70648-26-9	1,2,3,4,7,8-HxCDF	103		5.0	0.82
57117-44-9	1,2,3,6,7,8-HxCDF	108		5.0	0.88
72918-21-9	1,2,3,7,8,9-HxCDF	112		5.0	0.44
60851-34-5	2,3,4,6,7,8-HxCDF	108		5.0	0.55
35822-46-9	1,2,3,4,6,7,8-HpCDD	111		5.0	0.47
67562-39-4	1,2,3,4,6,7,8-HpCDF	107		5.0	0.70
55673-89-7	1,2,3,4,7,8,9-HpCDF	107		5.0	0.81
3268-87-9	OCDD	213		10	0.21
39001-02-0	OCDF	214		10	0.25

FORM I
DIOXIN ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 320-308663/3-A

Matrix: Solid Lab File ID: 19JL19A3D5_56.d

Analysis Method: 1613B Date Collected:

Extract. Method: HRMS-Sox Date Extracted: 07/18/2019 13:27

Sample wt/vol: 10(g) Date Analyzed: 07/21/2019 21:31

Con. Extract Vol.: 20(uL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 309103 Units: pg/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
76523-40-5	13C-2,3,7,8-TCDD	71		20-175
89059-46-1	13C-2,3,7,8-TCDF	74		22-152
109719-79-1	13C-1,2,3,7,8-PeCDD	76		21-227
109719-77-9	13C-1,2,3,7,8-PeCDF	76		21-192
116843-02-8	13C-2,3,4,7,8-PeCDF	74		13-328
109719-80-4	13C-1,2,3,4,7,8-HxCDD	64		21-193
109719-81-5	13C-1,2,3,6,7,8-HxCDD	68		25-163
114423-98-2	13C-1,2,3,4,7,8-HxCDF	75		19-202
116843-03-9	13C-1,2,3,6,7,8-HxCDF	67		21-159
116843-05-1	13C-2,3,4,6,7,8-HxCDF	70		22-176
116843-04-0	13C-1,2,3,7,8,9-HxCDF	77		17-205
109719-83-7	13C-1,2,3,4,6,7,8-HpCDD	77		26-166
109719-84-8	13C-1,2,3,4,6,7,8-HpCDF	78		21-158
109719-94-0	13C-1,2,3,4,7,8,9-HpCDF	86		20-186
114423-97-1	13C-OCDD	84		13-199

CAS NO.	SURROGATE	%REC	Q	LIMITS
85508-50-5	37Cl4-2,3,7,8-TCDD	96		31-191

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d
Lims ID: LCSD 320-308663/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 21-Jul-2019 21:31:23 ALS Bottle#: 39 Worklist Smp#: 56
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 320-308663/3-A LCSD 320-308663/3-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:38:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:43:52

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,4-TCDD	17.173	245817401	0.81	3.2E+06	100.0	100.0				
D 13C-2,3,7,8-TCDF	16.690	253409258	0.79	1.3908	74.1	74.1	0.2354	0.2354	74.12	
2,3,7,8-TCDF	16.705	25479796	0.80	0.9710	10.4	10.4	0.0451	0.0451	104	
A Non-2,3,7,8-sub-TCDF	16.402						0.0451	0.0451		
S Total TCDF					10.4	10.4	0.0451	0.0451		
D 13C-2,3,7,8-TCDD	17.355	170768673	0.80	0.9819	70.8	70.8	0.2564	0.2564	70.75	
2,3,7,8-TCDD	17.370	18917291	0.76	1.0447	10.6	10.6	0.0629	0.0629	106	
$ 37Cl4-2,3,7,8-TCDD	17.370	115780932		1.2205	38.6	38.6	0.0747	0.0747	96.48	
A Non-2,3,7,8-sub-TCDD	16.833						0.0629	0.0629		
S Total TCDD					10.6	10.6	0.0629	0.0629		
D 13C-1,2,3,7,8-PeCDF	21.332	216088875	1.59	1.1585	75.9	75.9	0.2585	0.2585	75.88	
1,2,3,7,8-PeCDF	21.359	116107937	1.60	0.9633	55.8	55.8	0.2572	0.2572	112	
D 13C-2,3,4,7,8-PeCDF	22.559	208897826	1.59	1.1532	73.7	73.7	0.2597	0.2597	73.69	
2,3,4,7,8-PeCDF	22.586	112647765	1.56	0.9495	56.8	56.8	0.2884	0.2884	114	
A F1 PeCDFs	19.215						0.0415	0.0415		
A Non-2,3,7,8-sub-PeCDF	22.104						0.2720	0.2720		
S Total PeCDF					112.6	112.6	0.2728	0.2728		
D 13C-1,2,3,7,8-PeCDD	23.227	138215227	1.59	0.7431	75.7	75.7	0.1513	0.1513	75.66	
1,2,3,7,8-PeCDD	23.254	79124014	1.67	1.0635	53.8	53.8	0.1433	0.1433	108	
A Non-2,3,7,8-sub-PeCDD	22.232						0.1433	0.1433		
S Total PeCDD					53.8	53.8	0.1433	0.1433		
D 13C-1,2,3,4,7,8-HxCDF	29.128	169828616	0.51	0.9837	74.8	74.8	0.3372	0.3372	74.76	
1,2,3,4,7,8-HxCDF	29.155	106027599	1.21	1.2173	51.3	51.3	0.4079	0.4079	103	
D 13C-1,2,3,6,7,8-HxCDF	29.421	178033409	0.52	1.1554	66.7	66.7	0.2871	0.2871	66.73	
1,2,3,6,7,8-HxCDF	29.461	108384029	1.24	1.1311	53.8	53.8	0.4421	0.4421	108	
D 13C-2,3,4,6,7,8-HxCDF	30.660	166403308	0.51	1.0361	69.5	69.5	0.3201	0.3201	69.55	
2,3,4,6,7,8-HxCDF	30.686	105175253	1.24	1.1710	54.0	54.0	0.2762	0.2762	108	
D 13C-1,2,3,7,8,9-HxCDF	31.672	161055011	0.54	0.9034	77.2	77.2	0.3671	0.3671	77.20	
1,2,3,7,8,9-HxCDF	31.685	106223100	1.23	1.1787	56.0	56.0	0.2216	0.2216	112	
A Non-2,3,7,8-sub-HxCDF	29.135						0.3115	0.3115		
S Total HxCDF					215.0	215.0	0.3370	0.3370		

Report Date: 23-Jul-2019 10:40:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* 13C-1,2,3,7,8,9-HxCDD	31.459	230930522	1.29	2.6E+06	100.0	100.0				
D 13C-1,2,3,4,7,8-HxCDD	30.926	122661881	1.31	0.8287	64.1	64.1	0.2141	0.2141	64.10	
1,2,3,4,7,8-HxCDD	30.953	70312374	1.29	1.0267	55.8	55.8	0.1779	0.1779	112	
D 13C-1,2,3,6,7,8-HxCDD	31.059	148358797	1.28	0.9495	67.7	67.7	0.1869	0.1869	67.66	
1,2,3,6,7,8-HxCDD	31.086	77348833	1.23	0.9771	53.4	53.4	0.1710	0.1710	107	
1,2,3,7,8,9-HxCDD	31.485	83773216	1.22	1.0616	58.2	58.2	0.1644	0.1644	116	
A Non-2,3,7,8-sub-HxCDD	29.926						0.1708	0.1708		
S Total HxCDD					167.4	167.4	0.1711	0.1711		
D 13C-1,2,3,4,6,7,8-HpCDF	33.335	131495714	0.45	0.7285	78.2	78.2	0.6298	0.6298	78.16	
1,2,3,4,6,7,8-HpCDF	33.335	101558836	1.08	1.4373	53.7	53.7	0.3507	0.3507	107	
D 13C-1,2,3,4,7,8,9-HpCDF	34.417	129523187	0.44	0.6556	85.5	85.5	0.6998	0.6998	85.55	
1,2,3,4,7,8,9-HpCDF	34.429	91061846	1.01	1.3091	53.7	53.7	0.4057	0.4057	107	
A Non-2,3,7,8-sub-HpCDF	33.894						0.3767	0.3767		
S Total HpCDF					107.4	107.4	0.3782	0.3782		
D 13C-1,2,3,4,6,7,8-HpCDD	34.138	124478533	1.09	0.6978	77.2	77.2	0.3507	0.3507	77.24	
1,2,3,4,6,7,8-HpCDD	34.150	70021414	1.07	1.0102	55.7	55.7	0.2371	0.2371	111	
A Non-2,3,7,8-sub-HpCDD	35.074						0.2371	0.2371		
S Total HpCDD					55.7	55.7	0.2371	0.2371		
D 13C-OCDD	36.498	185215307	0.90	0.4780	167.8	167.8	0.2119	0.2119	83.90	
OCDF	36.581	133950587	0.95	1.3501	107.1	107.1	0.1268	0.1268	107	
OCDD	36.509	104687925	0.88	1.0627	106.4	106.4	0.1063	0.1063	106	

Eurofins TestAmerica, Sacramento
Target Compound Quantitation Worksheet Report

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d
Lims ID: LCSD 320-308663/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 21-Jul-2019 21:31:23 ALS Bottle#: 39 Worklist Smp#: 56
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 320-308663/3-A LCSD 320-308663/3-A
Misc. Info.: 19JL19A3D5
Operator ID: ALM, AJS Instrument ID: 3D5

Method: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\Dioxin_3D5.m
Limit Group: HR - 1613B - ICAL
Last Update: 23-Jul-2019 10:38:18 Calib Date: 21-May-2019 16:41:15
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Sacramento\ChromData\3D5\20190521-76651.b\21MY193D5_7.d

Column 1 : DB-5 (0.32 mm) Det: F1:HRSIR
Process Host: CTX0340

First Level Reviewer: shardaa Date: 22-Jul-2019 11:43:52

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C-1,2,3,4-TCDD											
331.9368	17.173	17.158	1		109876973	27600619	31121	77802	887		
333.9339	17.158	17.158	0		135940428	33669838	30585	76462	1101	0.81(0.65-0.89)	
13C-2,3,7,8-TCDF											
315.9419	16.690	16.690	0	0.972	112164590	27933746	54596	136490	512		
317.9389	16.690	16.690	0	0.972	141244668	35242182	25626	64065	1375	0.79(0.65-0.89)	
2,3,7,8-TCDF											
303.9016	16.705	16.705	0	1.001	11318577	2781841	4514	11285	616		
305.8987	16.705	16.705	0	1.001	14161219	3419409	6545	16362	522	0.80(0.65-0.89)	
A Non-2,3,7,8-sub-TCDF											
303.9016	16.402						4514	11285			
305.8987	16.402						6545	16362			
13C-2,3,7,8-TCDD											
331.9368	17.355	17.355	0	1.011	75645858	17829088	31121	77802	573		
333.9339	17.355	17.355	0	1.011	95122815	22779869	30585	76462	745	0.80(0.65-0.89)	
2,3,7,8-TCDD											
319.8965	17.370	17.355	1	1.001	8158857	2006406	7516	18790	267		
321.8936	17.370	17.355	1	1.001	10758434	2621831	3165	7912	828	0.76(0.65-0.89)	
37Cl4-2,3,7,8-TCDD											
327.8847	17.370	17.370	0	1.011	115780932	27550189	22338	55845	1233		
A Non-2,3,7,8-sub-TCDD											
319.8965	16.833						7516	18790			
321.8936	16.833						3165	7912			
13C-1,2,3,7,8-PeCDF											
351.9000	21.332	21.332	0	1.242	132526597	25191789	44421	111052	567		
353.8970	21.332	21.332	0	1.242	83562278	15493093	28975	72437	535	1.59(1.32-1.78)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8-PeCDF											
339.8597	21.359	21.345	1	1.001	71491883	12781662	22985	57462	556		
341.8567	21.359	21.345	1	1.001	44616054	8006684	17330	43325	462	1.60(1.32-1.78)	
13C-2,3,4,7,8-PeCDF											
351.9000	22.559	22.559	0	1.314	128361423	22873396	44421	111052	515		
353.8970	22.559	22.559	0	1.314	80536403	13926849	28975	72437	481	1.59(1.32-1.78)	
2,3,4,7,8-PeCDF											
339.8597	22.586	22.586	0	1.001	68563622	11649624	22985	57462	507		
341.8567	22.586	22.586	0	1.001	44084143	7419213	17330	43325	428	1.56(1.32-1.78)	
A F1 PeCDFs											
339.8597	19.215						1772	4430			
341.8567	19.215						4379	10947			
A Non-2,3,7,8-sub-PeCDF											
339.8597	22.104						22985	57462			
341.8567	22.104						17330	43325			
13C-1,2,3,7,8-PeCDD											
367.8949	23.227	23.227	0	1.353	84816845	14121089	16721	41802	845		
369.8919	23.227	23.227	0	1.353	53398382	8944274	10826	27065	826	1.59(1.32-1.78)	
1,2,3,7,8-PeCDD											
355.8546	23.254	23.254	0	1.001	49501676	8001918	9033	22582	886		
357.8516	23.254	23.254	0	1.001	29622338	4744249	5031	12577	943	1.67(1.32-1.78)	
A Non-2,3,7,8-sub-PeCDD											
355.8546	22.232						9033	22582			
357.8516	22.232						5031	12577			
13C-1,2,3,4,7,8-HxCDF											
383.8639	29.128	29.115	1	0.926	57288845	6725294	24098	60245	279		
385.8610	29.128	29.115	1	0.926	112539771	13600926	42710	106775	318	0.51(0.43-0.59)	
1,2,3,4,7,8-HxCDF											
373.8208	29.155	29.155	0	1.001	58117144	6861291	22057	55142	311		
375.8178	29.155	29.155	0	1.001	47910455	5549007	18315	45787	303	1.21(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDF											
383.8639	29.421	29.421	0	0.935	61119934	7110230	24098	60245	295		
385.8610	29.435	29.421	1	0.936	116913475	13071932	42710	106775	306	0.52(0.43-0.59)	
1,2,3,6,7,8-HxCDF											
373.8208	29.461	29.462	0	1.001	59890350	6668702	22057	55142	302		
375.8178	29.461	29.462	0	1.001	48493679	5314124	18315	45787	290	1.24(1.05-1.43)	
13C-2,3,4,6,7,8-HxCDF											
383.8639	30.660	30.660	0	0.975	56223834	10711430	24098	60245	444		
385.8610	30.660	30.660	0	0.975	110179474	20497730	42710	106775	480	0.51(0.43-0.59)	
2,3,4,6,7,8-HxCDF											
373.8208	30.686	30.687	0	1.001	58187705	10803052	22057	55142	490		
375.8178	30.686	30.687	0	1.001	46987548	8733492	18315	45787	477	1.24(1.05-1.43)	
13C-1,2,3,7,8,9-HxCDF											
383.8639	31.672	31.672	0	1.007	56305401	13600651	24098	60245	564		
385.8610	31.672	31.672	0	1.007	104749610	25037462	42710	106775	586	0.54(0.43-0.59)	

Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,7,8,9-HxCDF											
373.8208	31.685	31.685	0	1.000	58622268	13600178	22057	55142	617		
375.8178	31.685	31.685	0	1.000	47600832	10900491	18315	45787	595	1.23(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDF											
373.8208	29.135						22057	55142			
375.8178	29.135						18315	45787			
13C-1,2,3,7,8,9-HxCDD											
401.8559	31.459	31.472	-1		130150367	28429682	18949	47372	1500		
403.8529	31.459	31.472	-1		100780155	21926066	16794	41985	1306	1.29(1.05-1.43)	
13C-1,2,3,4,7,8-HxCDD											
401.8559	30.926	30.926	0	0.983	69494044	15041259	18949	47372	794		
403.8529	30.926	30.926	0	0.983	53167837	11716099	16794	41985	698	1.31(1.05-1.43)	
1,2,3,4,7,8-HxCDD											
389.8157	30.953	30.953	0	1.001	39653896	8382146	10501	26252	798		
391.8127	30.953	30.953	0	1.001	30658478	6533850	9048	22620	722	1.29(1.05-1.43)	
13C-1,2,3,6,7,8-HxCDD											
401.8559	31.059	31.059	0	0.987	83247256	16267807	18949	47372	859		
403.8529	31.059	31.059	0	0.987	65111541	12975534	16794	41985	773	1.28(1.05-1.43)	
1,2,3,6,7,8-HxCDD											
389.8157	31.086	31.086	0	1.001	42692895	8549091	10501	26252	814		
391.8127	31.086	31.086	0	1.001	34655938	6950170	9048	22620	768	1.23(1.05-1.43)	
1,2,3,7,8,9-HxCDD											
389.8157	31.485	31.485	0	1.018	46029661	9980091	10501	26252	950		
391.8127	31.485	31.485	0	1.018	37743555	8200880	9048	22620	906	1.22(1.05-1.43)	
A Non-2,3,7,8-sub-HxCDD											
389.8157	29.926						10501	26252			
391.8127	29.926						9048	22620			
13C-1,2,3,4,6,7,8-HpCDF											
417.8253	33.335	33.335	0	1.060	40554219	12189587	28978	72445	421		
419.8220	33.335	33.335	0	1.060	90941495	27248918	63435	158587	430	0.45(0.37-0.51)	
1,2,3,4,6,7,8-HpCDF											
407.7818	33.335	33.347	-1	1.000	52804038	15584815	44153	110382	353		
409.7789	33.335	33.347	-1	1.000	48754798	14764210	35360	88400	418	1.08(0.88-1.20)	
13C-1,2,3,4,7,8,9-HpCDF											
417.8253	34.417	34.429	-1	1.094	39289656	11485058	28978	72445	396		
419.8220	34.417	34.429	-1	1.094	90233531	25939266	63435	158587	409	0.44(0.37-0.51)	
1,2,3,4,7,8,9-HpCDF											
407.7818	34.429	34.441	-1	1.000	45734973	13139116	44153	110382	298		
409.7789	34.429	34.441	-1	1.000	45326873	12918725	35360	88400	365	1.01(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDF											
407.7818	33.894						44153	110382			
409.7789	33.894						35360	88400			
13C-1,2,3,4,6,7,8-HpCDD											
435.8169	34.138	34.150	-1	1.085	64888861	18831067	25227	63067	746		
437.8140	34.138	34.150	-1	1.085	59589672	17223373	24068	60170	716	1.09(0.88-1.20)	

Report Date: 23-Jul-2019 10:40:16 Chrom Revision: 2.3 15-Jul-2019 06:58:08
Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

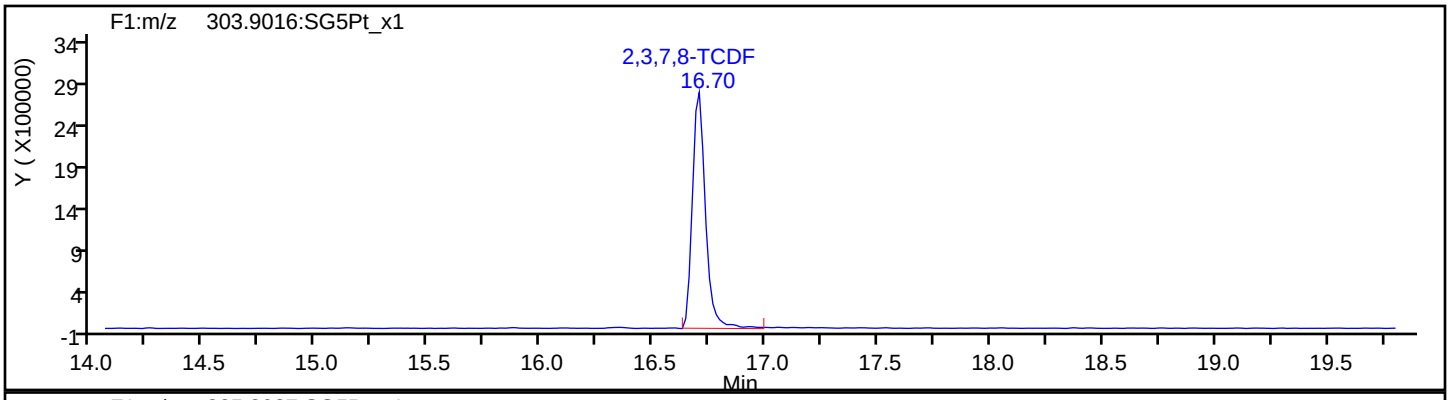
Signal	RT (min.)	Exp RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
1,2,3,4,6,7,8-HpCDD											
423.7766	34.150	34.162	-1	1.000	36195220	10618261	18007	45017	590		
425.7737	34.150	34.162	-1	1.000	33826194	9998481	16539	41347	605	1.07(0.88-1.20)	
A Non-2,3,7,8-sub-HpCDD											
423.7766	35.074						18007	45017			
425.7737	35.074						16539	41347			
13C-OCDD											
469.7779	36.498	36.498	0	1.160	87862664	21972028	9841	24602	2233		
471.7750	36.498	36.498	0	1.160	97352643	24266204	10562	26405	2298	0.90(0.76-1.02)	
OCDF											
441.7428	36.581	36.582	0	1.002	65102804	16425074	6884	17210	2386		
443.7399	36.569	36.582	-1	1.002	68847783	16780650	8953	22382	1874	0.95(0.76-1.02)	
OCDD											
457.7377	36.509	36.509	0	1.000	48971746	11998732	5345	13362	2245		
459.7348	36.498	36.509	-1	1.000	55716179	13760173	5097	12742	2700	0.88(0.76-1.02)	

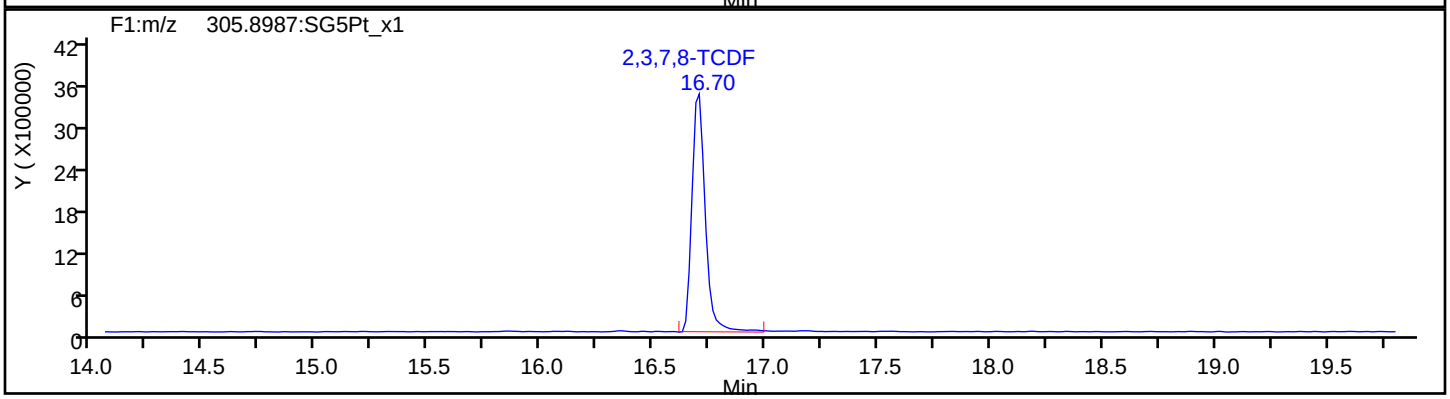
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

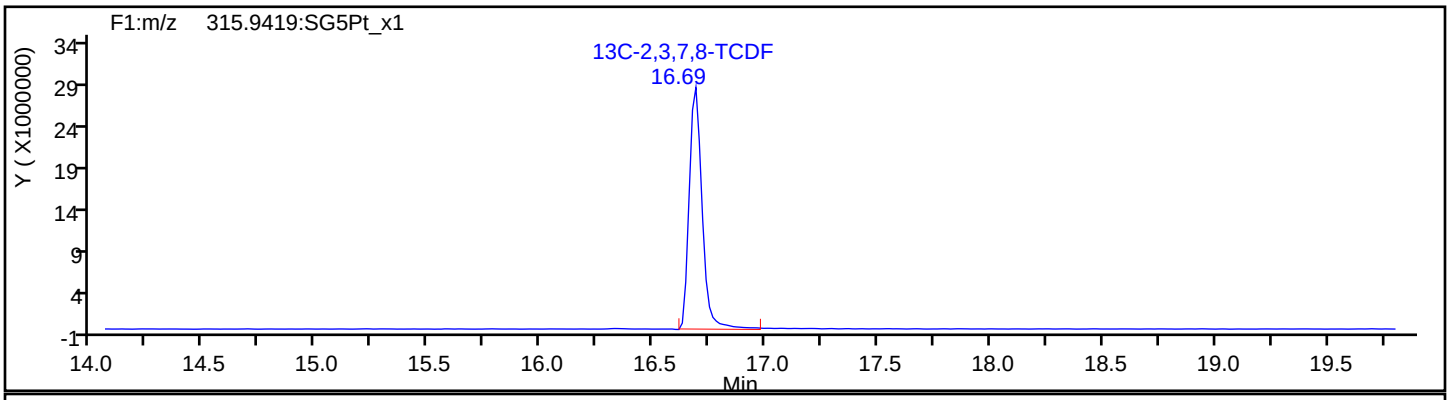
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

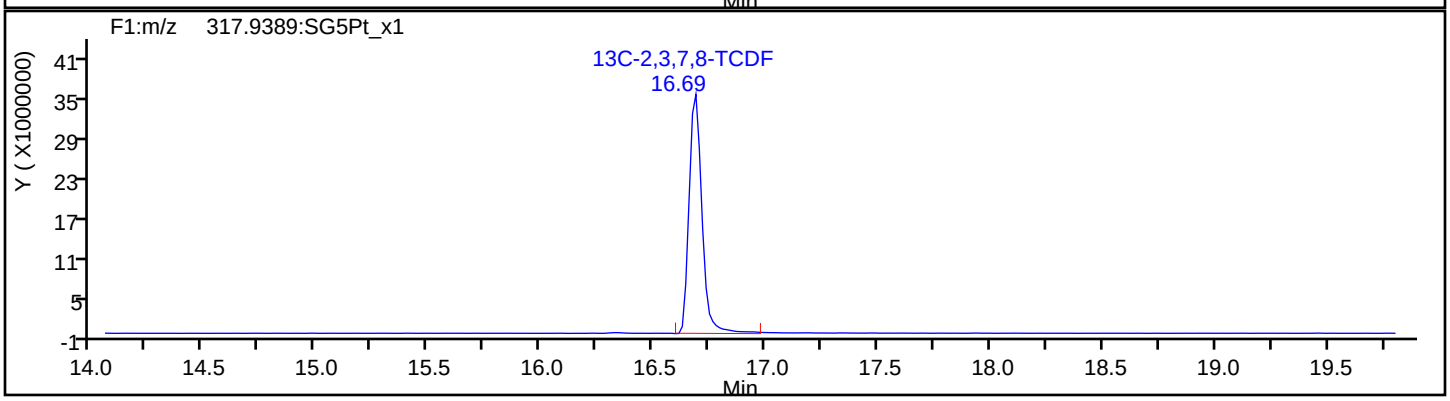
TCDF





TCDF Standards



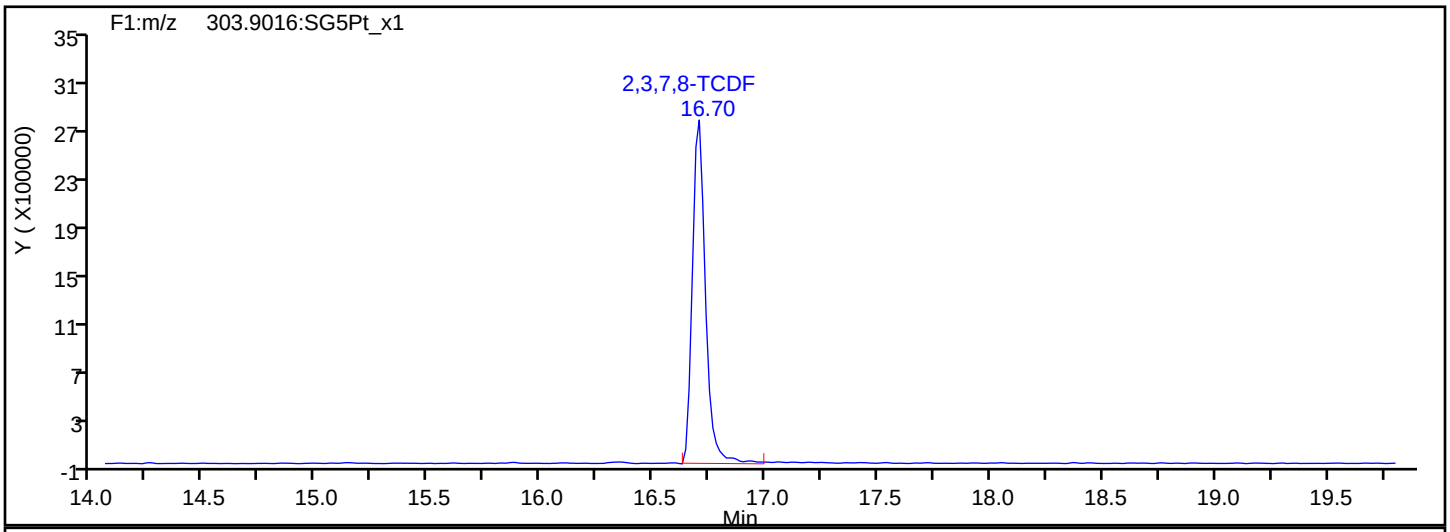


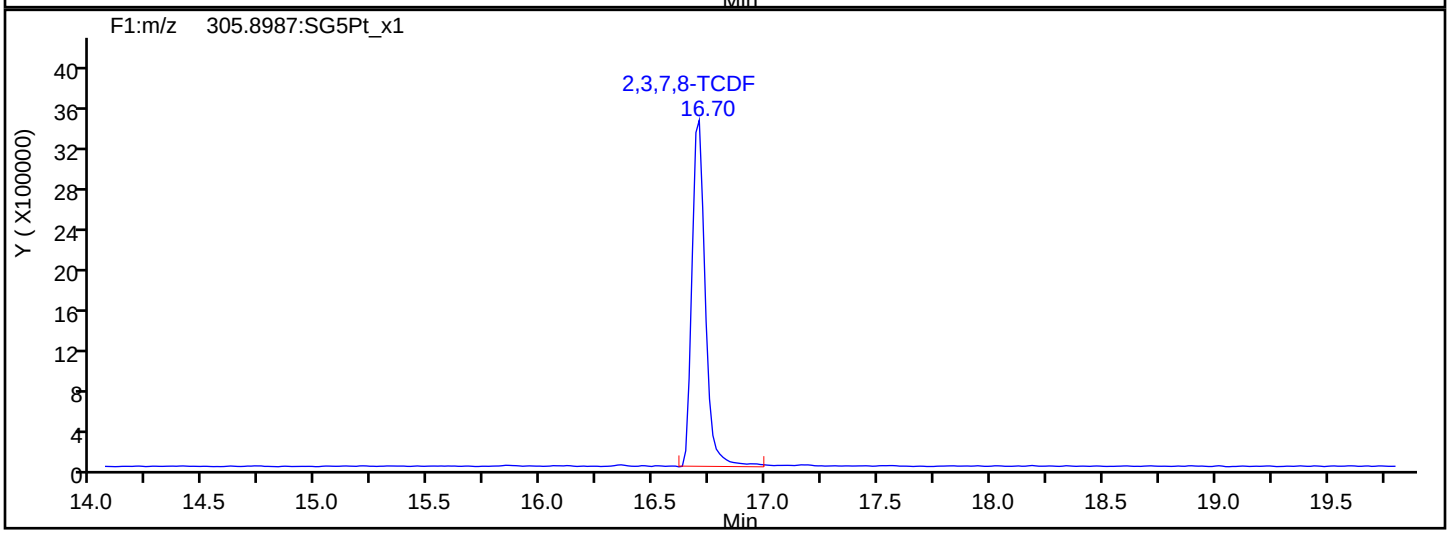
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

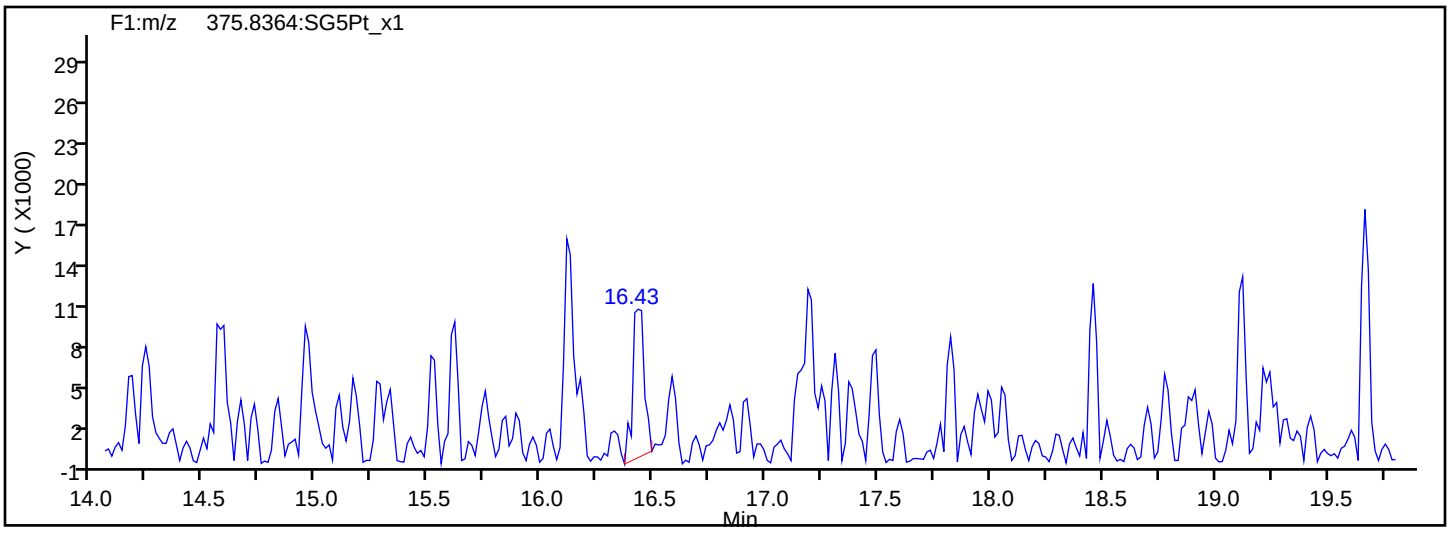
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

TCDF





TCDF Interference Mass



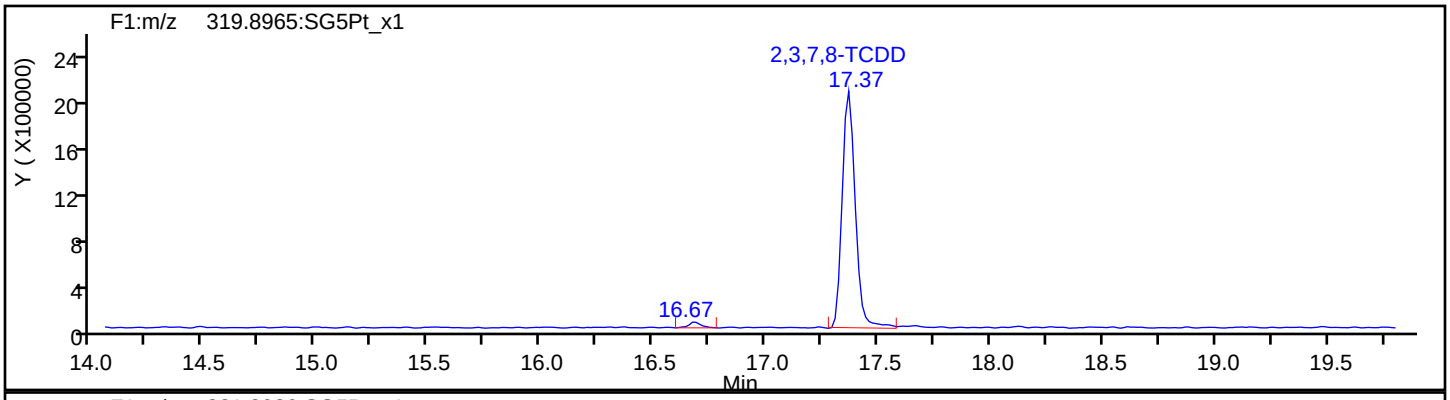
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

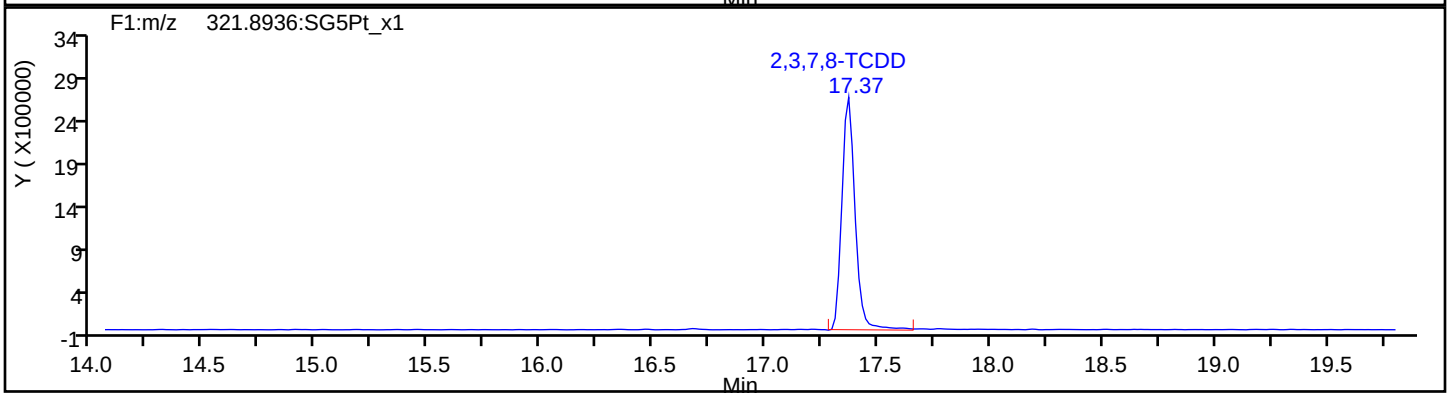
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

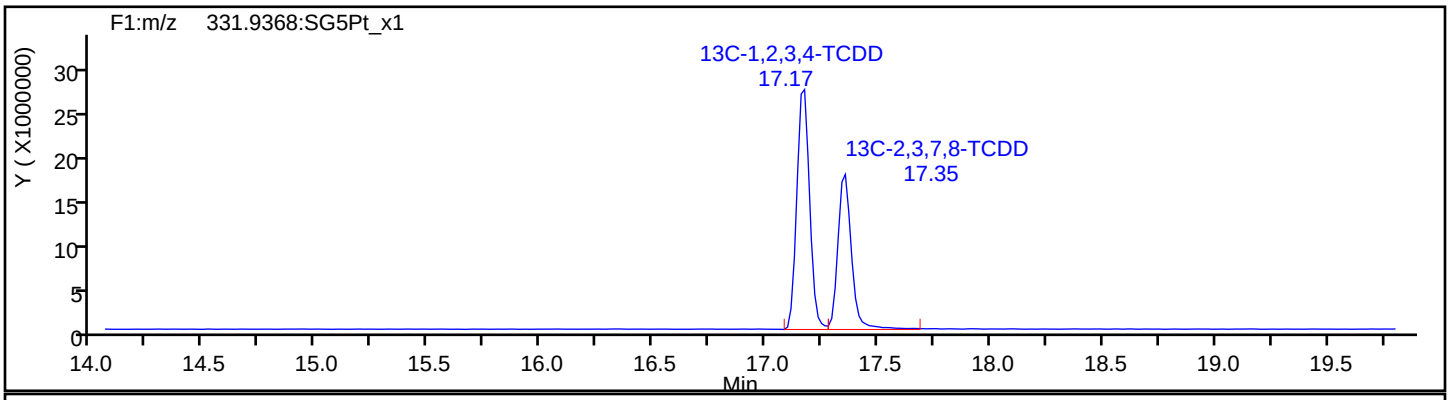
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

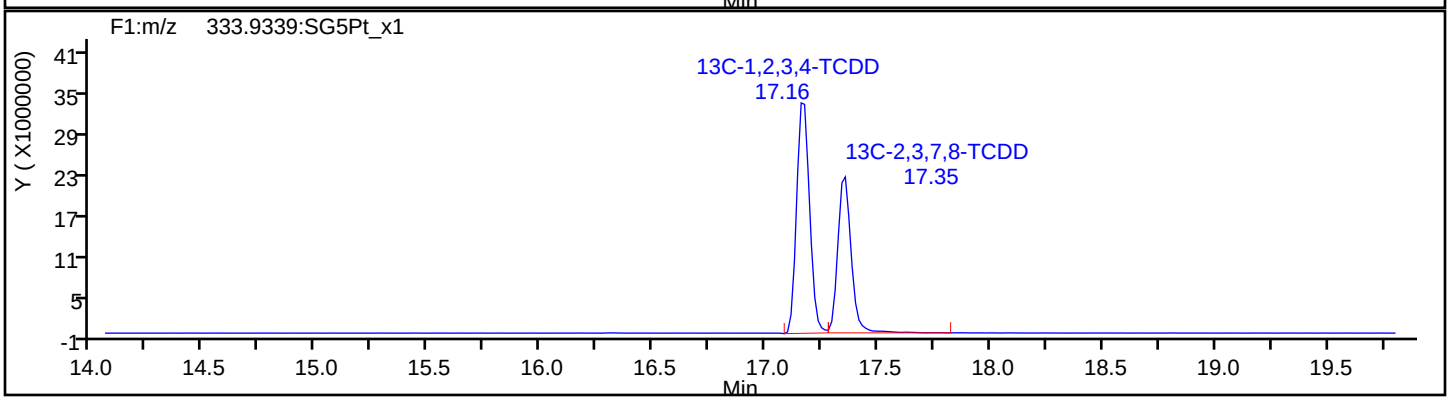
TCDD





TCDD Standards



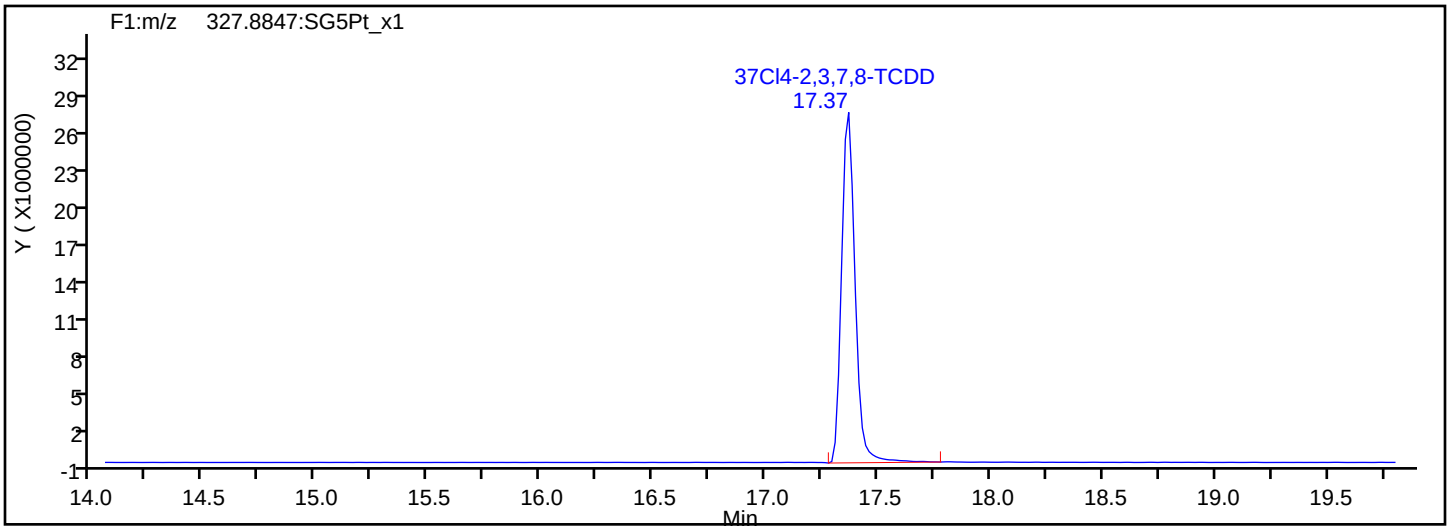


Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

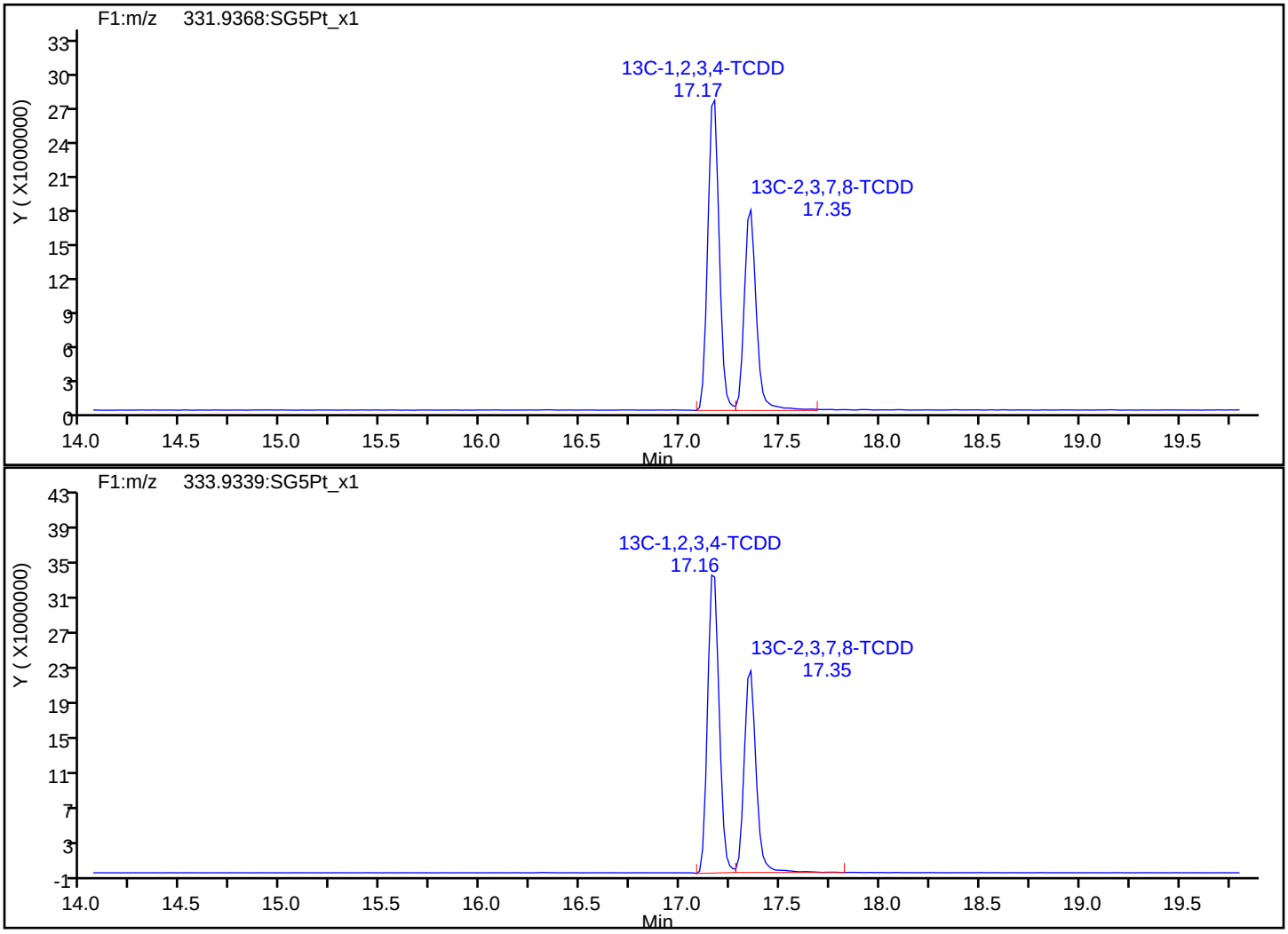
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

37Cl4-TCDD



37Cl4-TCDD Standards

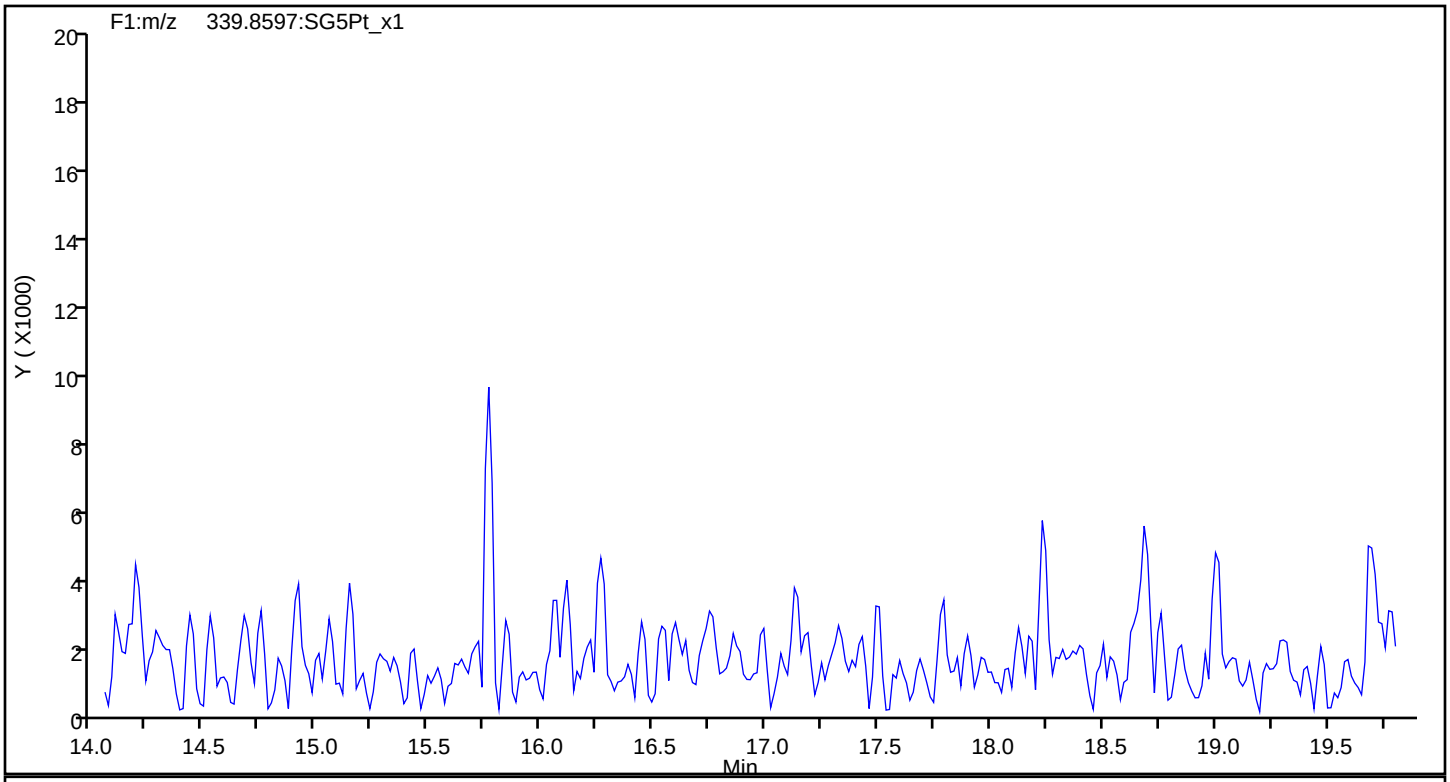


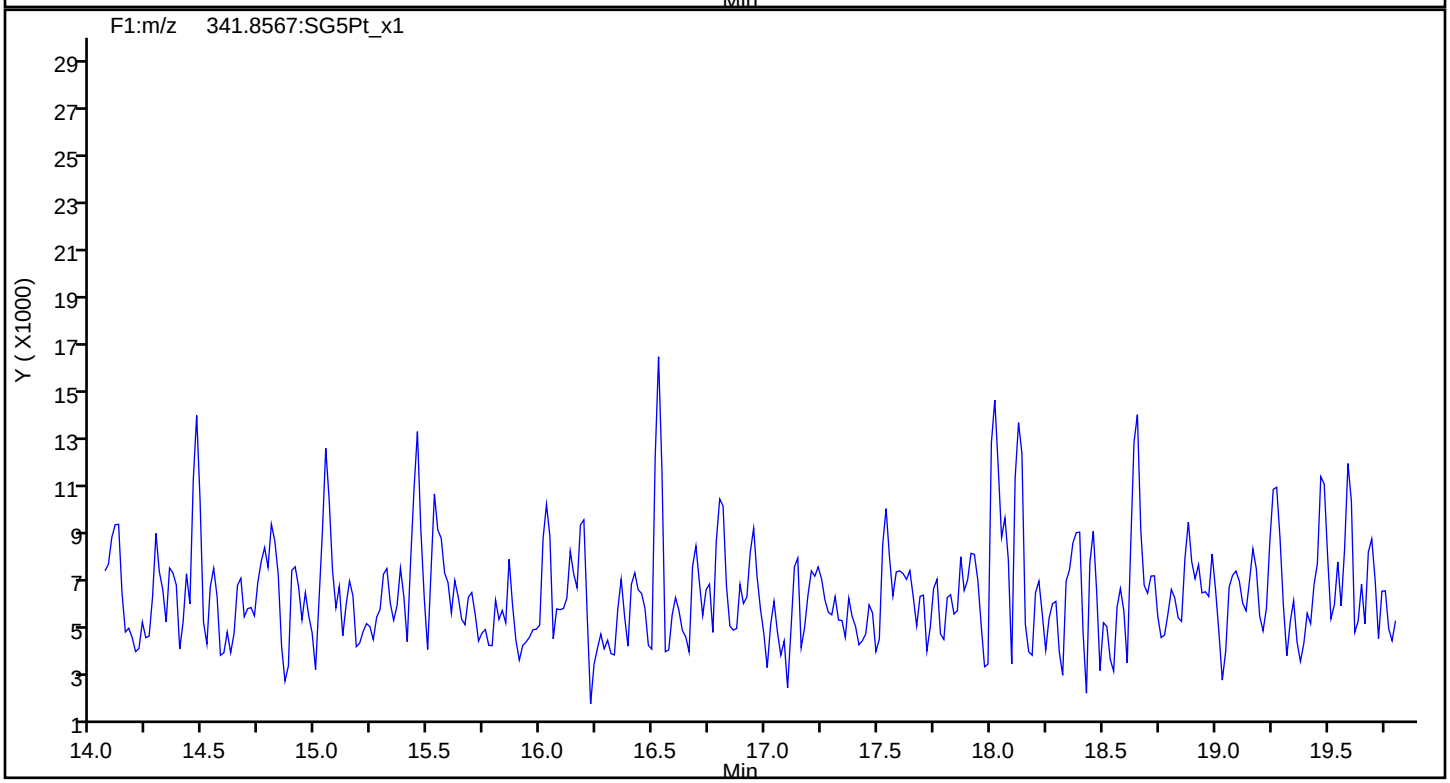
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs



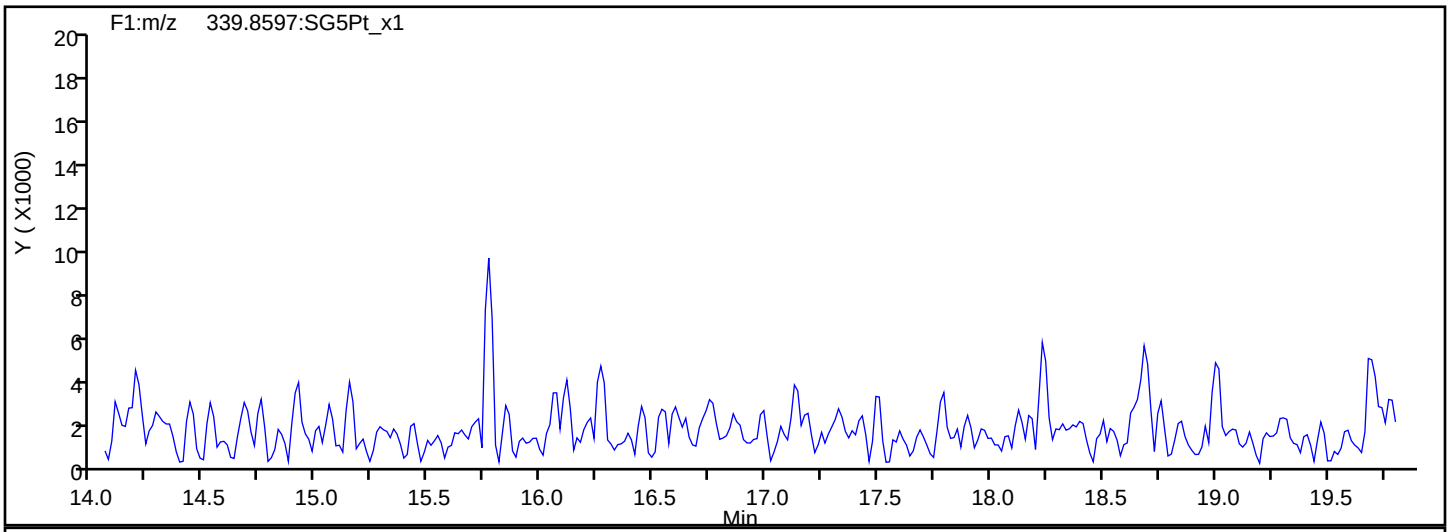


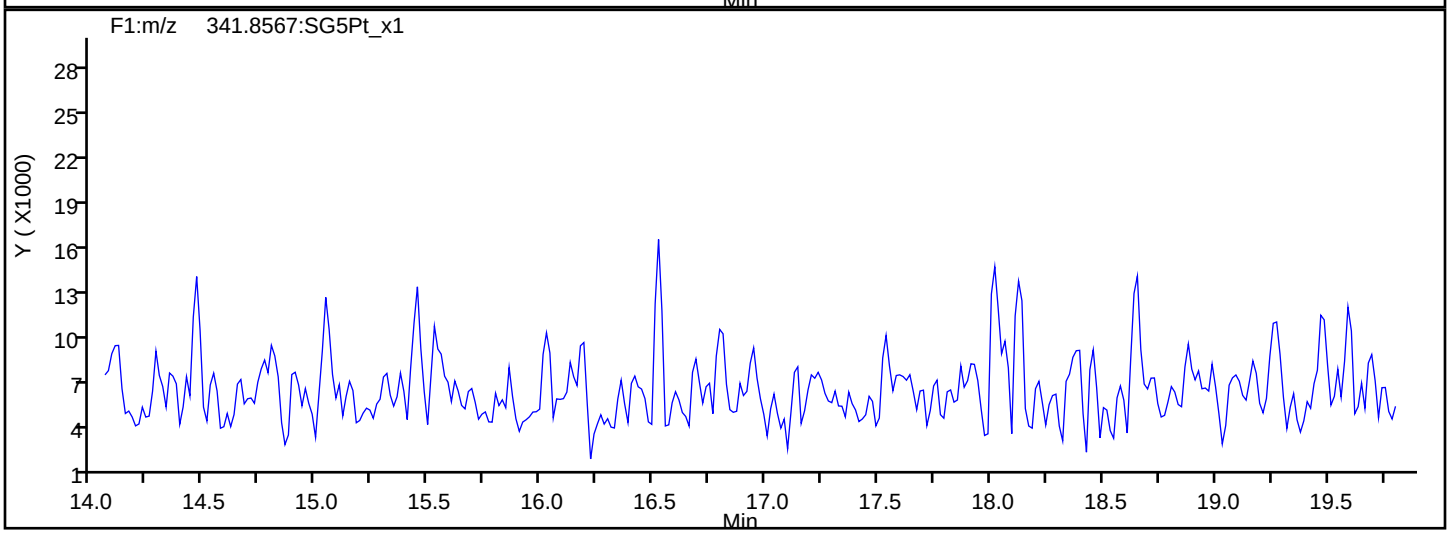
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

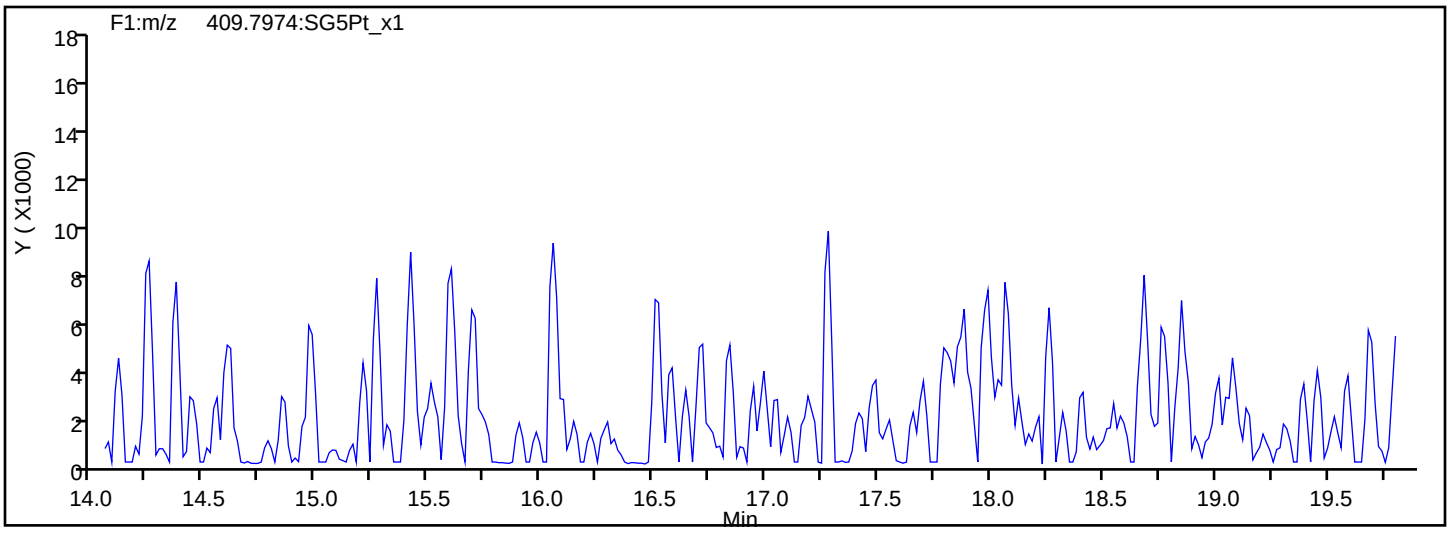
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

F1 PeCDFs





F1 PeCDFs Interference Mass

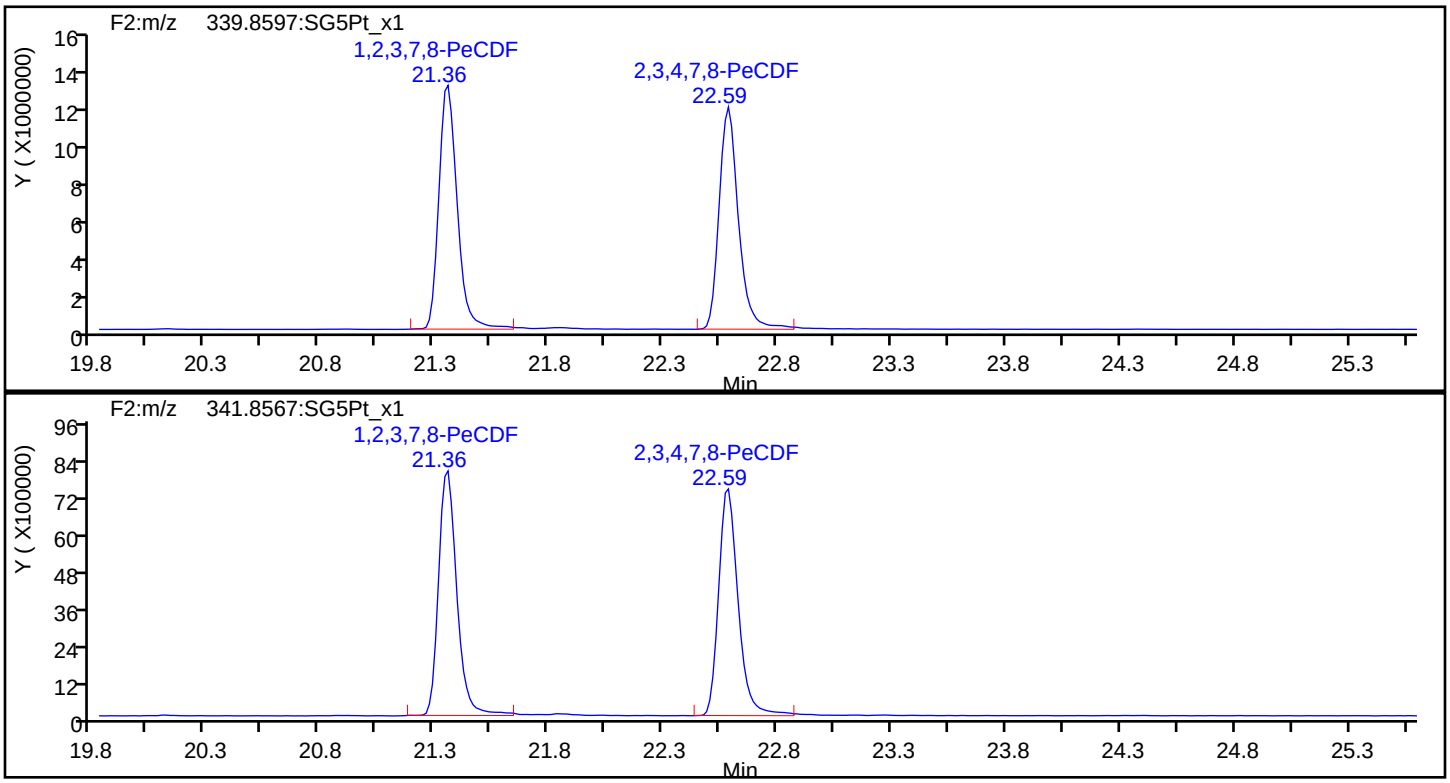


Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

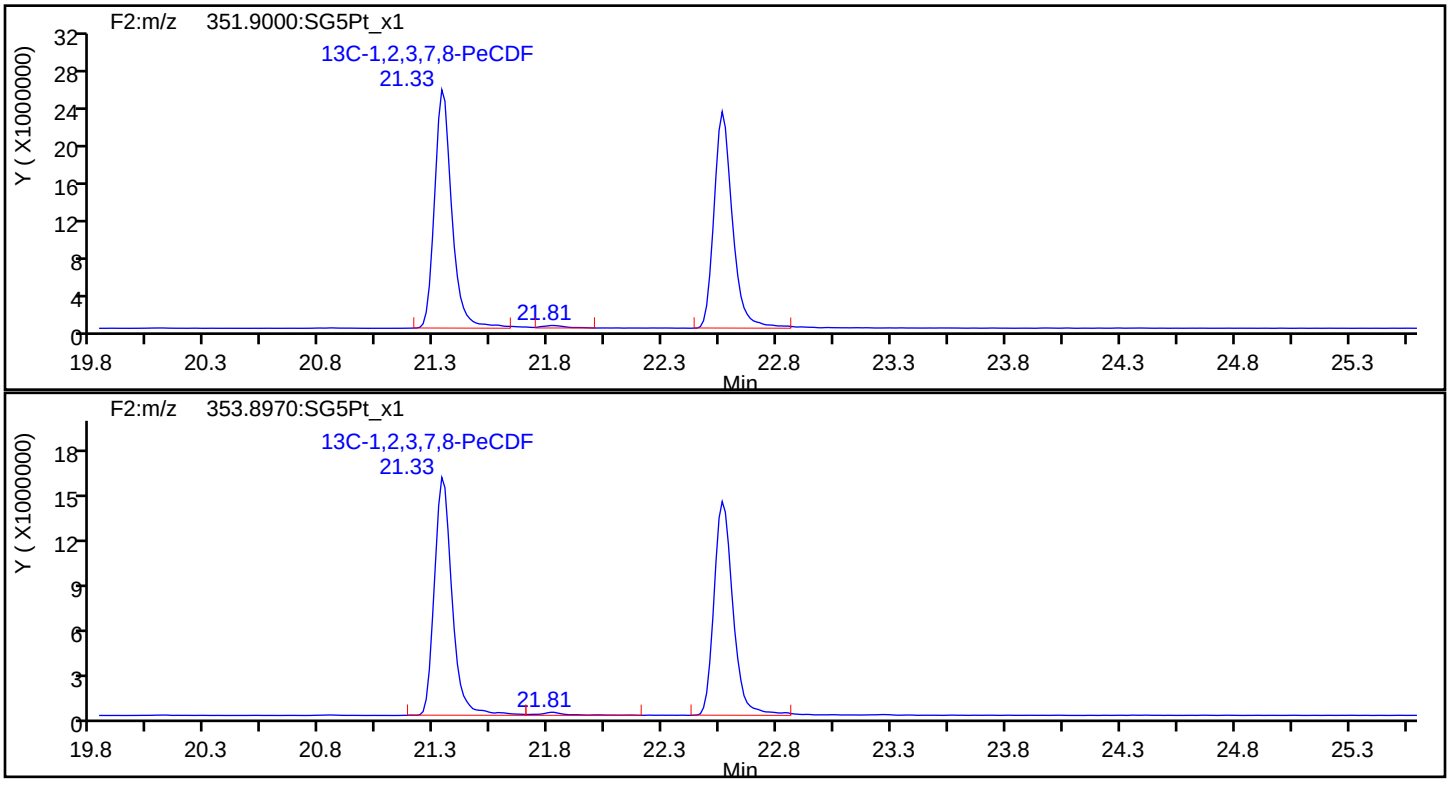
Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF



PeCDF Standards

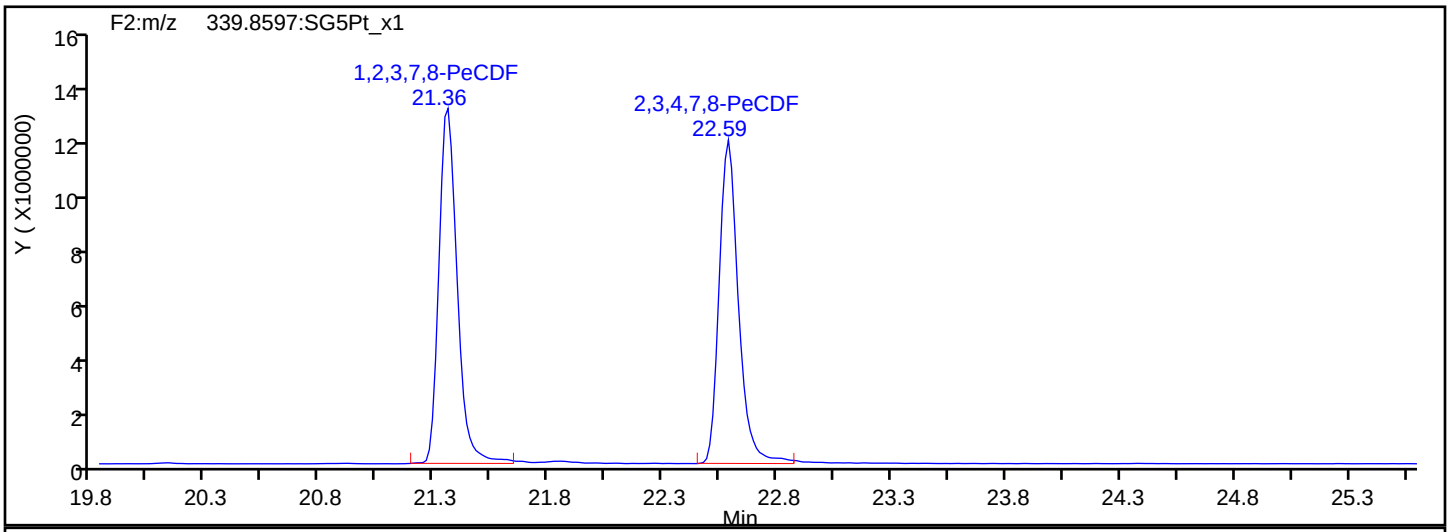


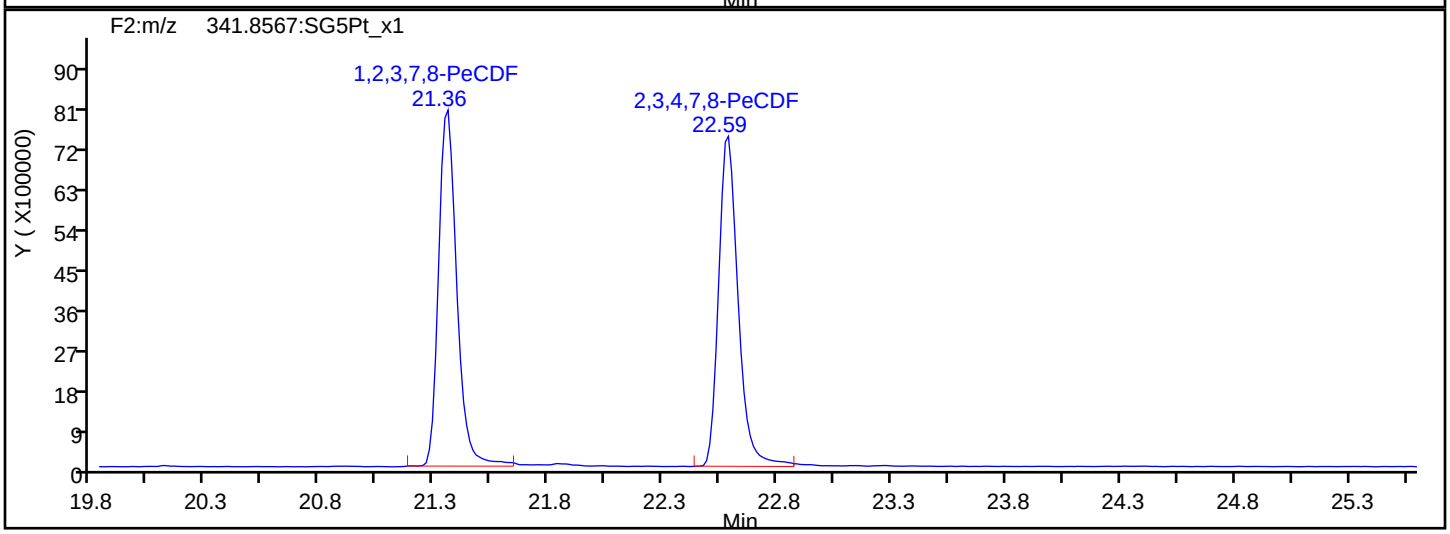
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

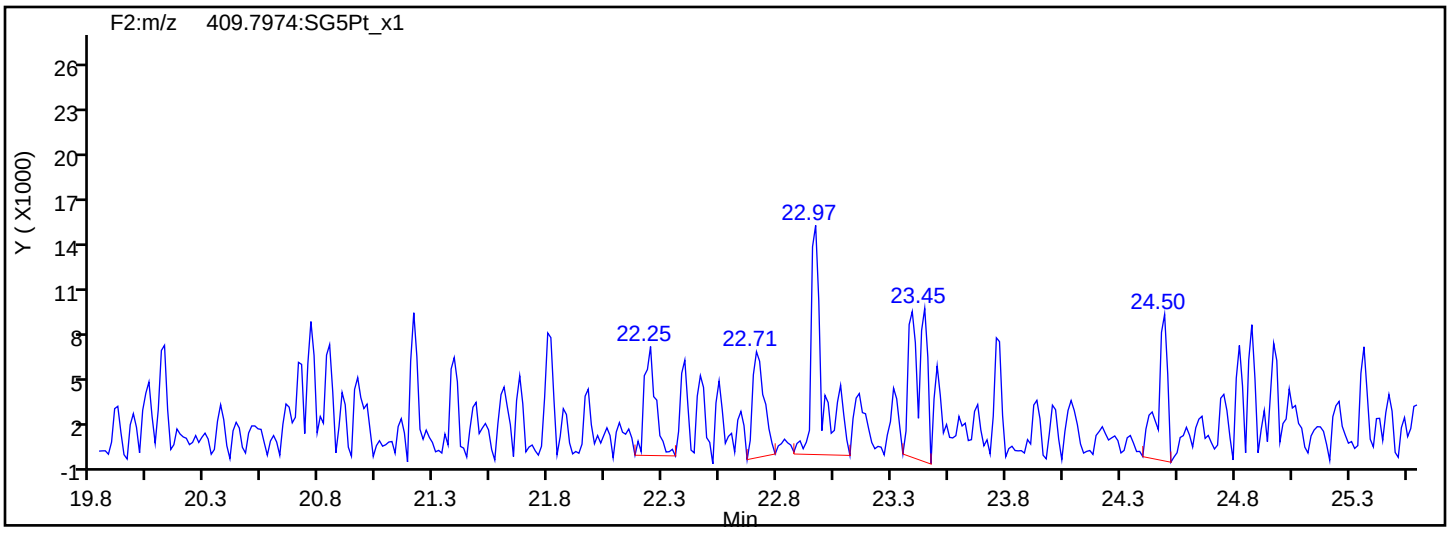
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

PeCDF





PeCDF Interference Mass



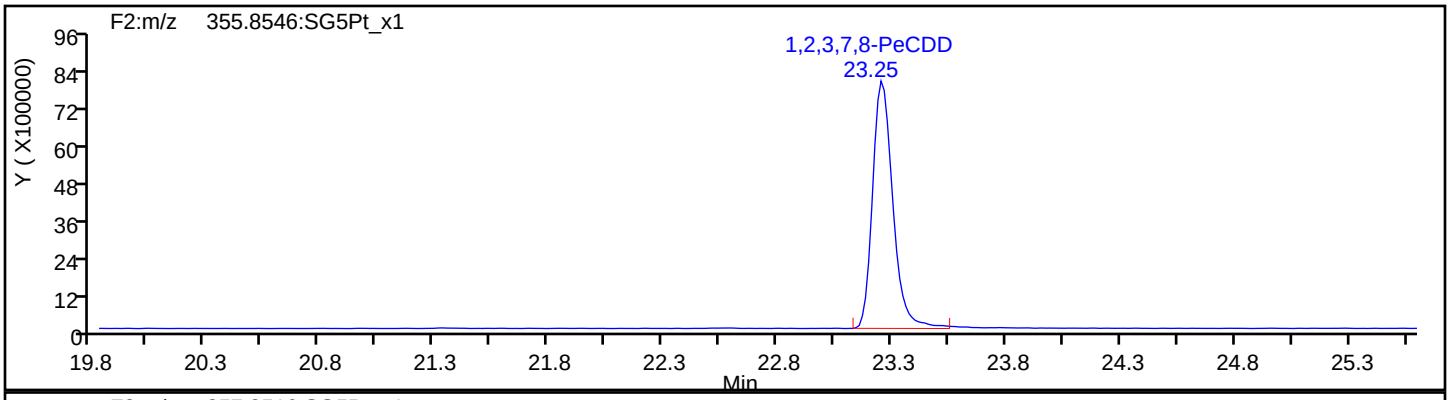
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

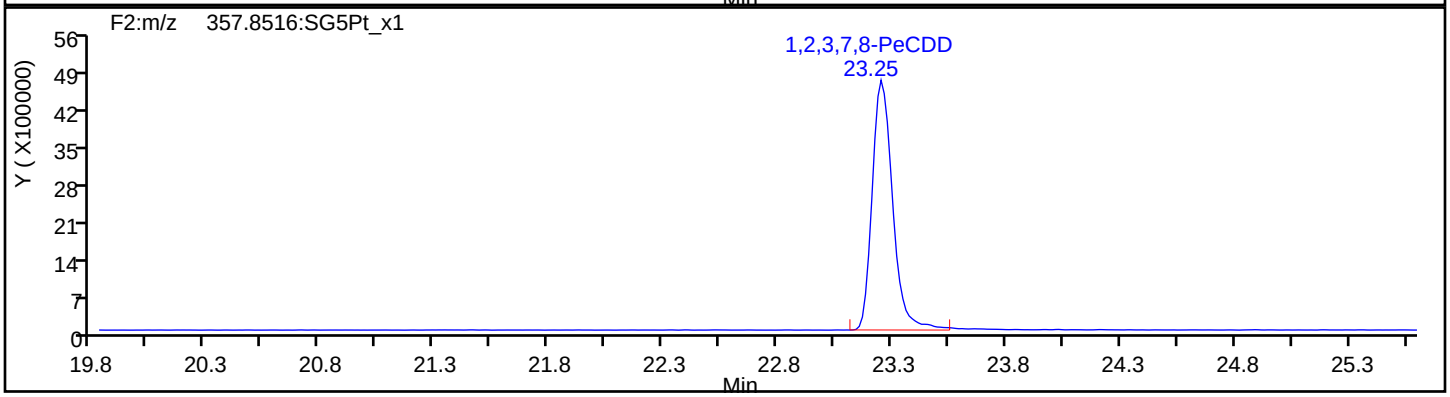
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

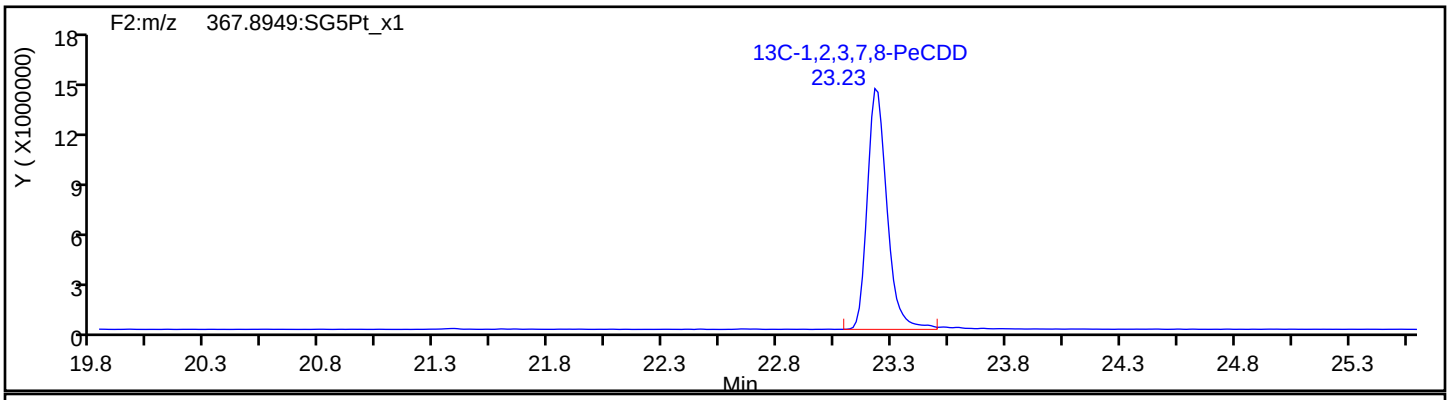
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

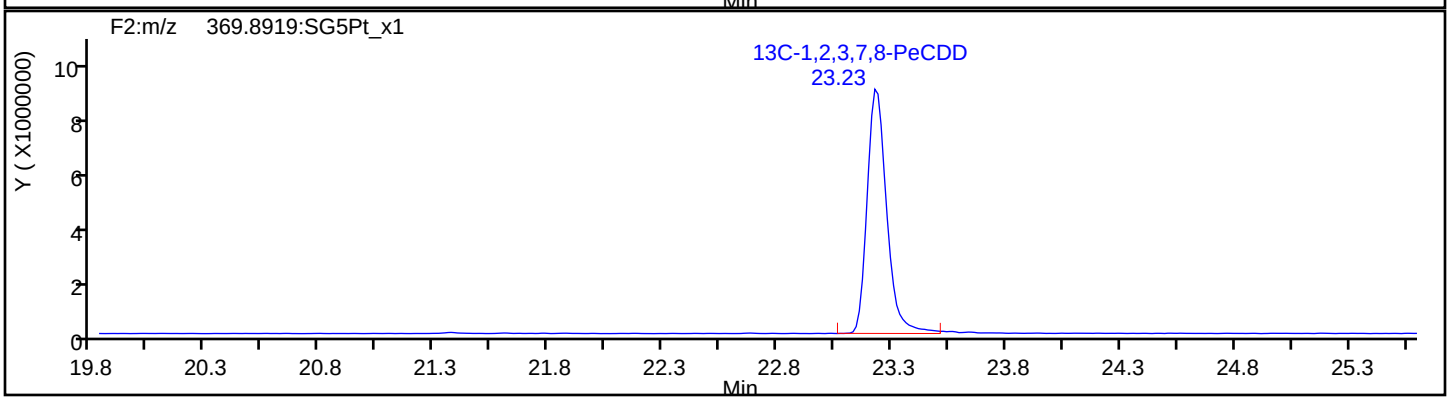
PeCDD





PeCDD Standards





Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

Injection Date: 21-Jul-2019 21:31:23 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

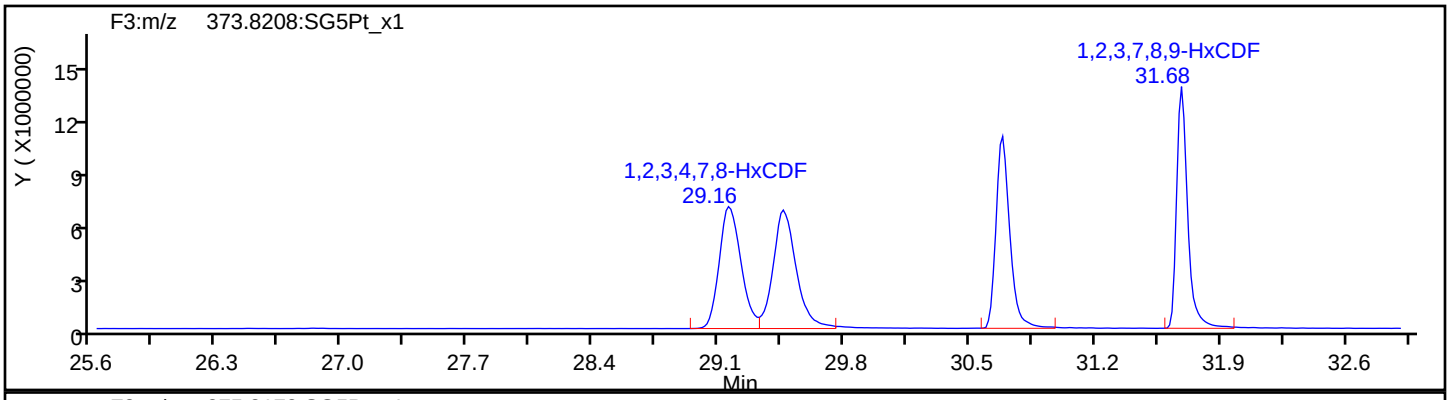
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

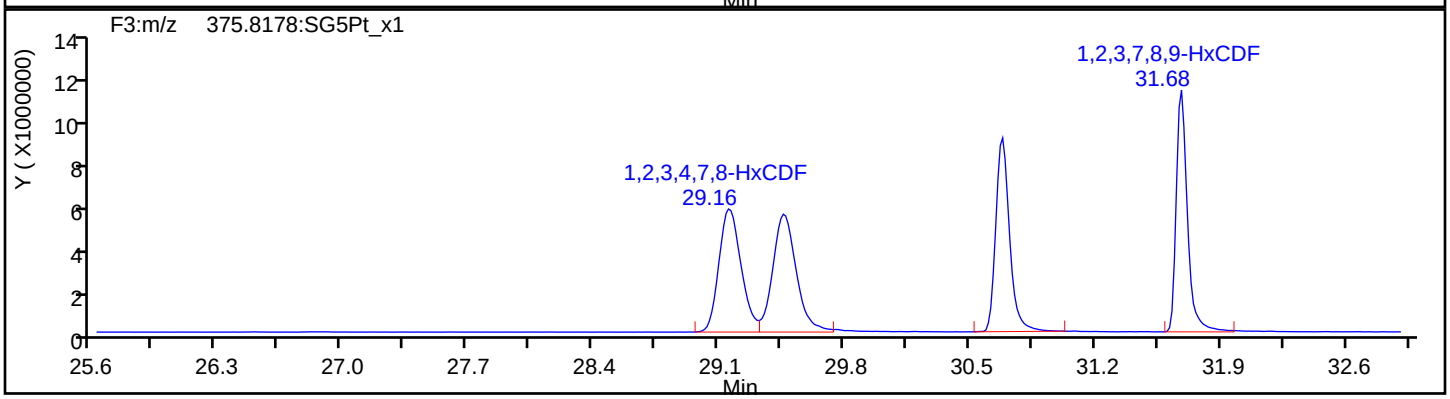
Client ID:

Worklist#: 309103 Sample Line#: 56

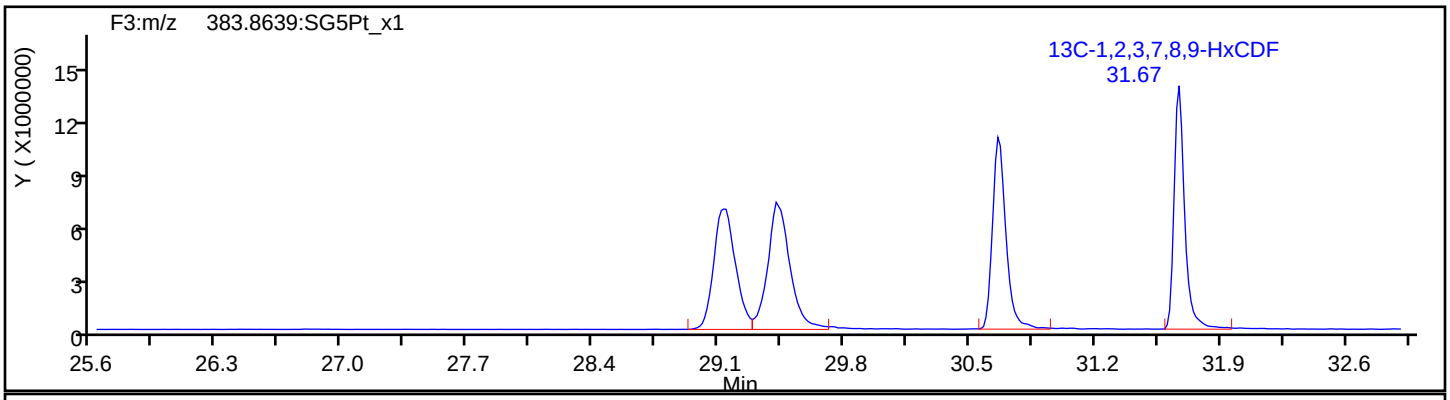
Column Type: DB-5 Column Dia: 0.32 mm

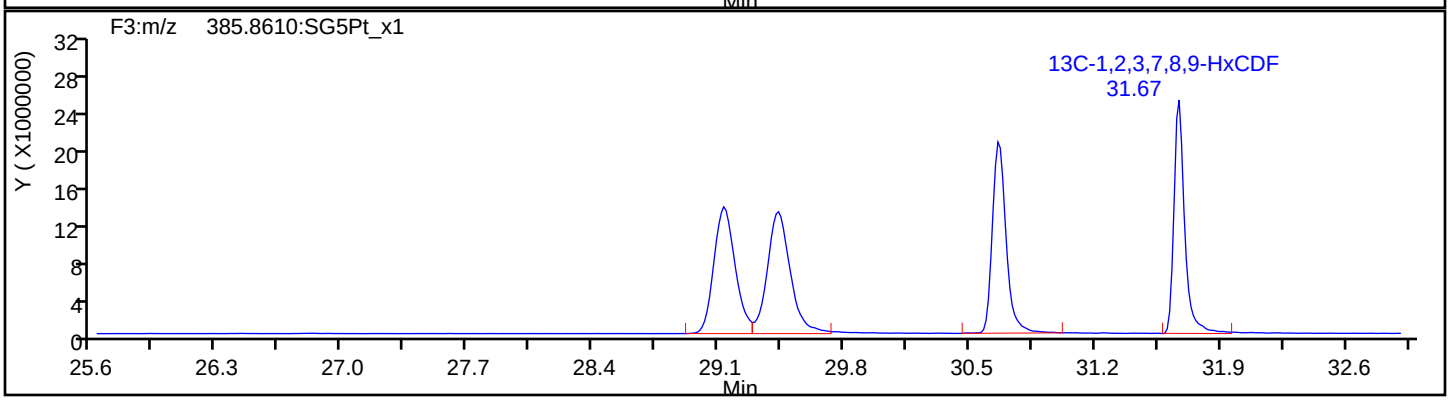
HxCDF





HxCDF Standards



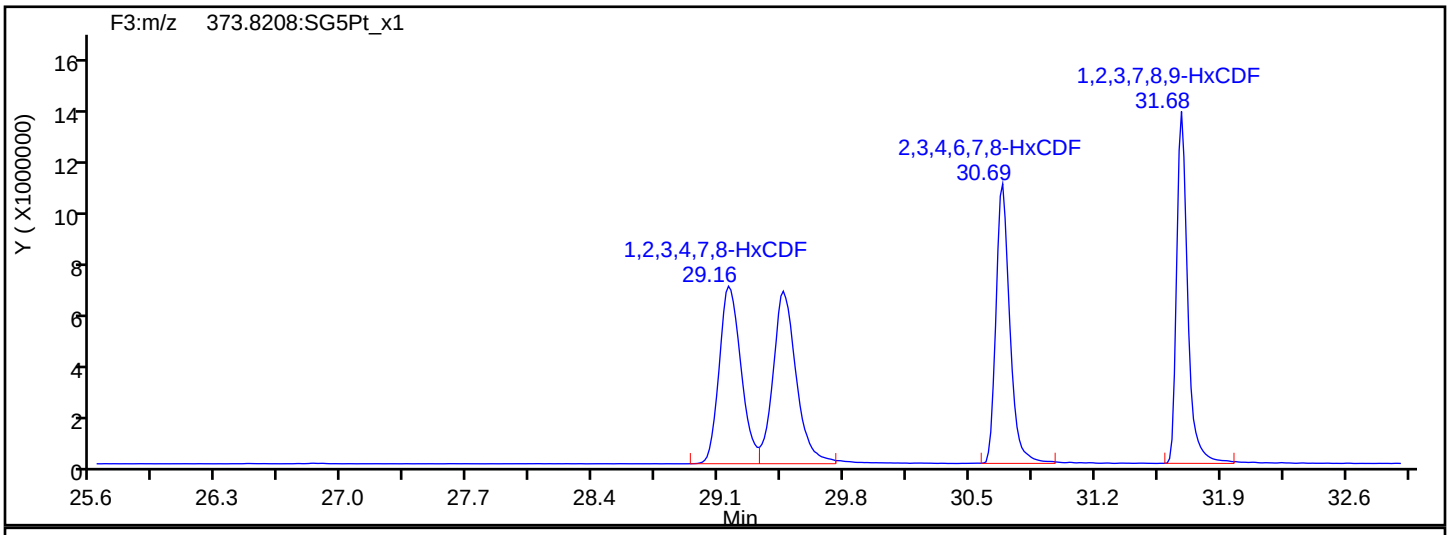


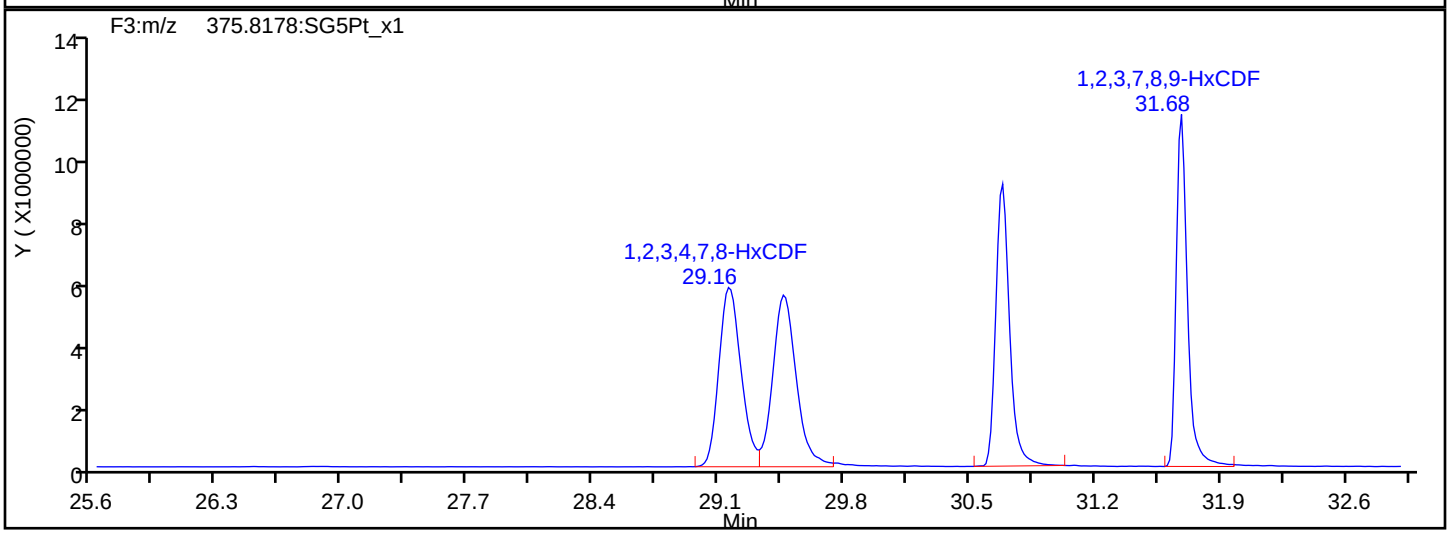
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

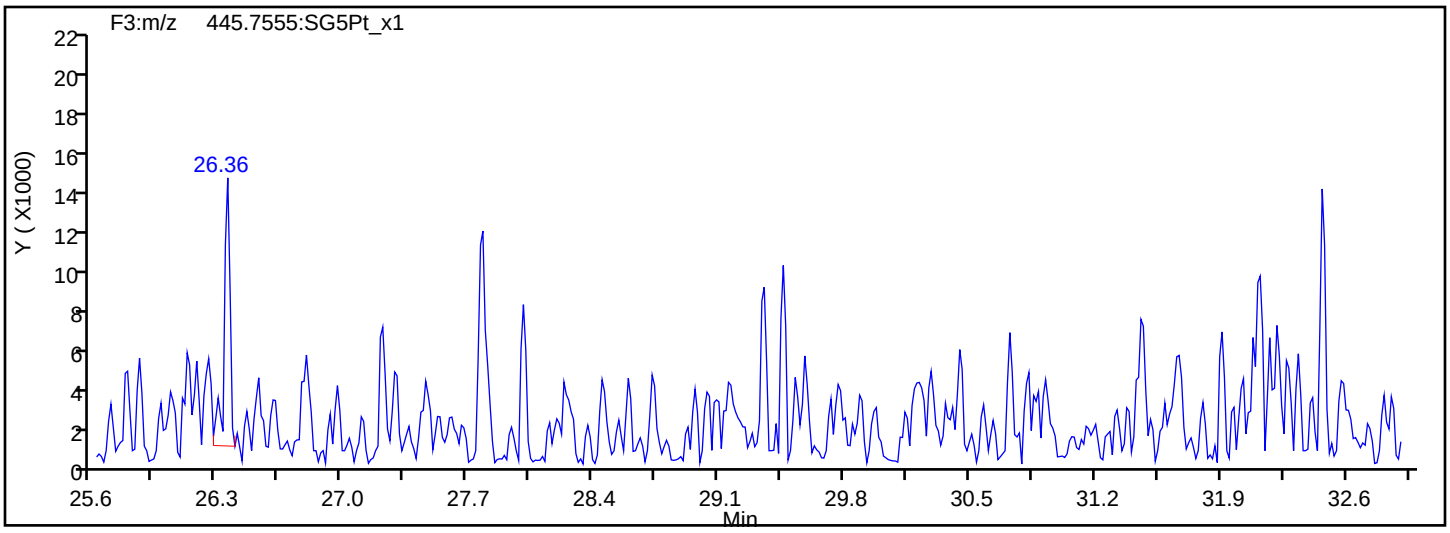
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

HxCDF





HxCDF Interference Mass



Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

Injection Date: 21-Jul-2019 21:31:23 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

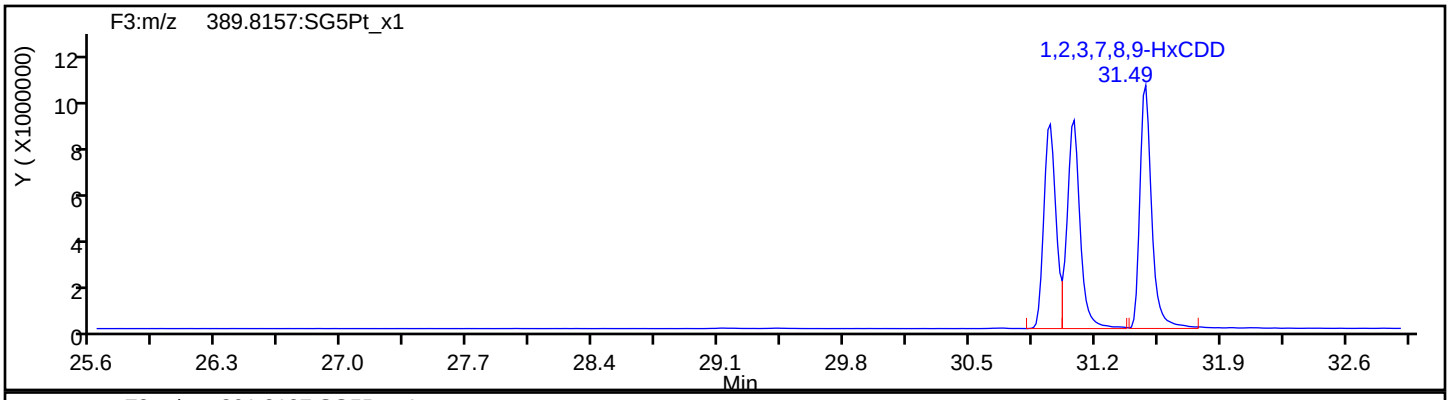
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

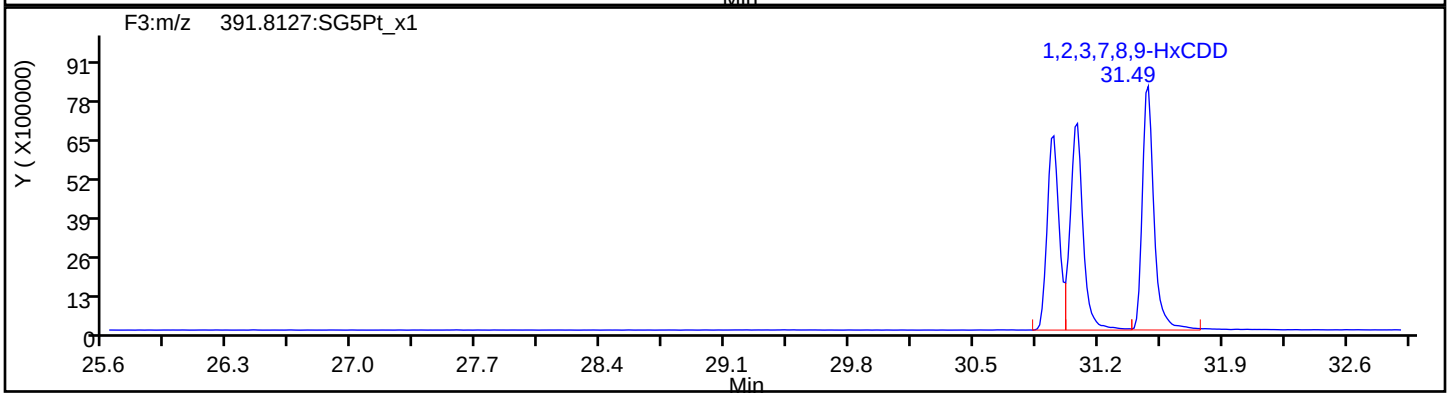
Client ID:

Worklist#: 309103 Sample Line#: 56

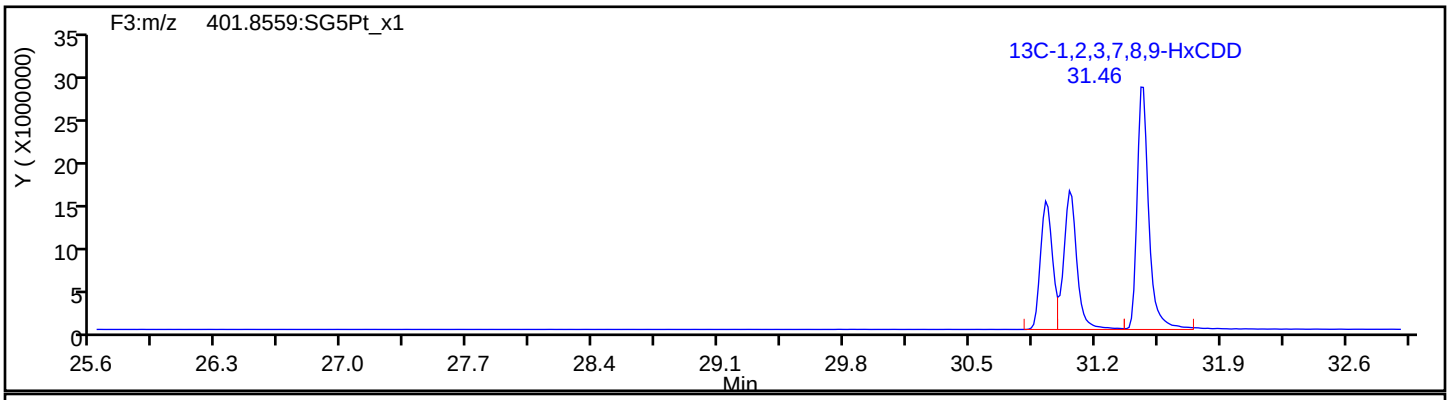
Column Type: DB-5 Column Dia: 0.32 mm

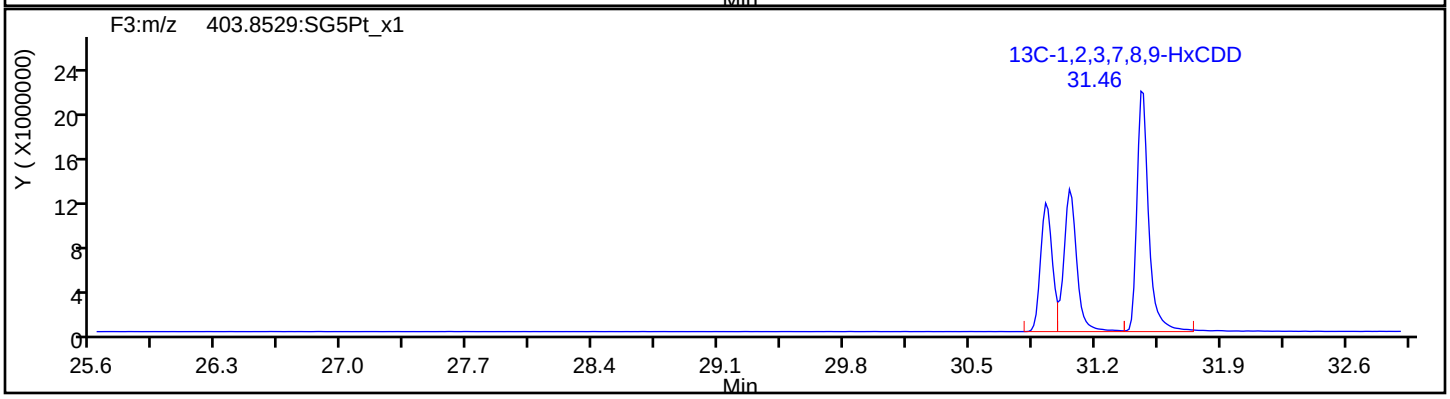
HxCDD





HxCDD Standards





Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

Injection Date: 21-Jul-2019 21:31:23 Injection Vol: 2.0 ul

Instrument ID: 3D5 Operator ID: ALM, AJS

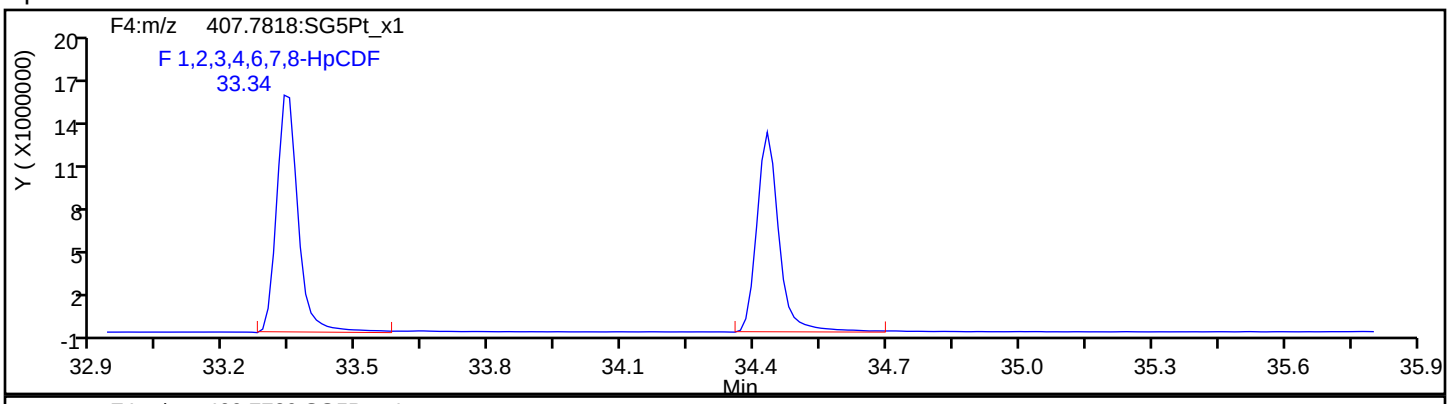
Method: Dioxin_3D5 Limit Group: HR - 1613B - ICAL

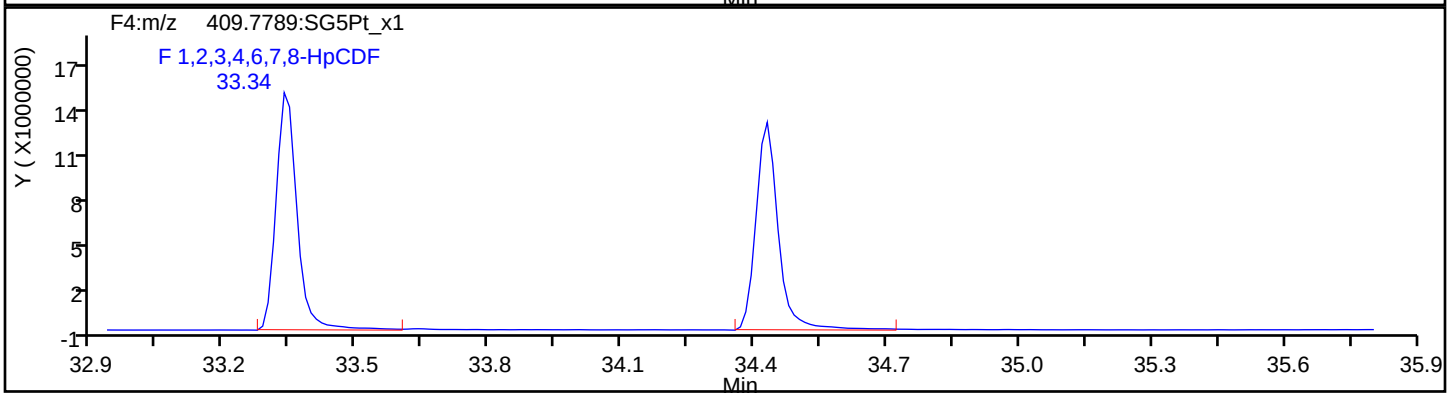
Client ID:

Worklist#: 309103 Sample Line#: 56

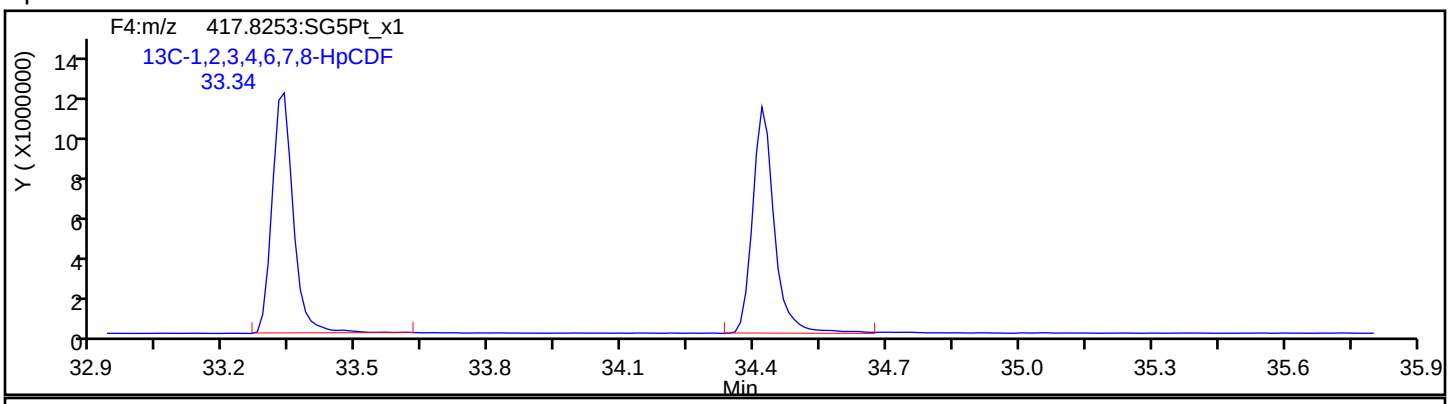
Column Type: DB-5 Column Dia: 0.32 mm

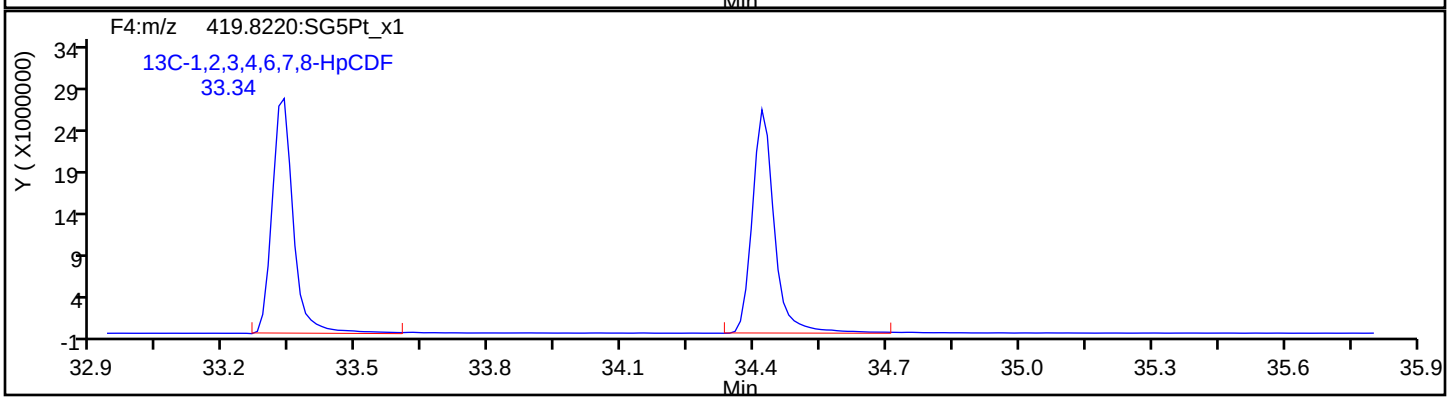
HpCDF





HpCDF Standards



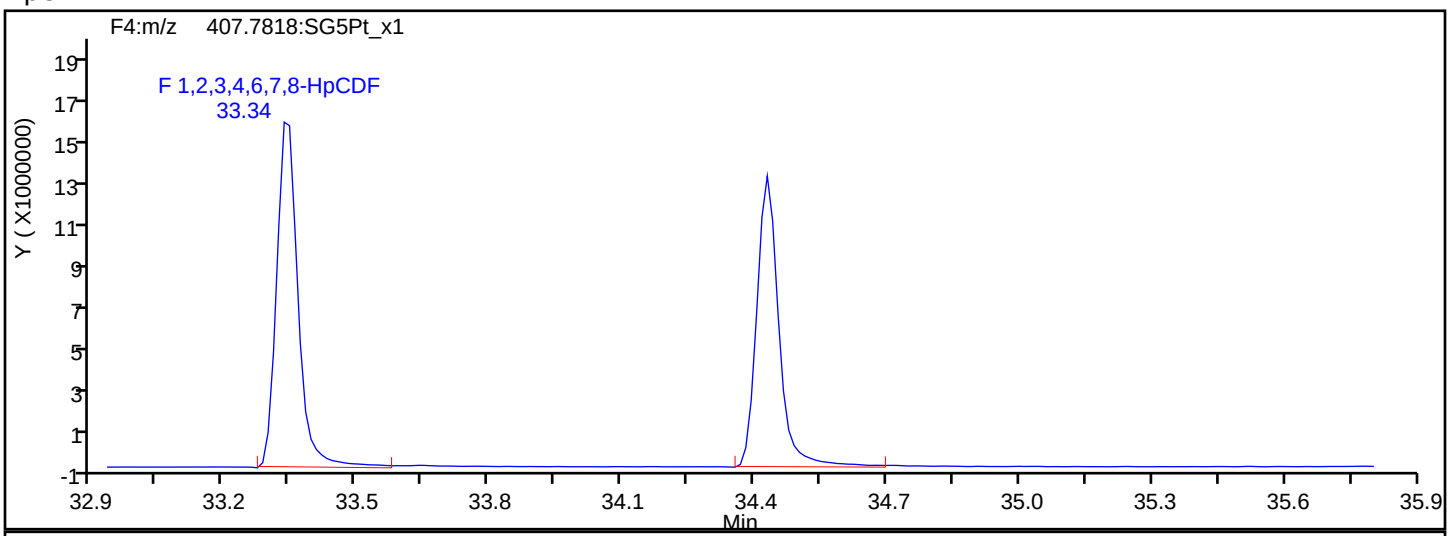


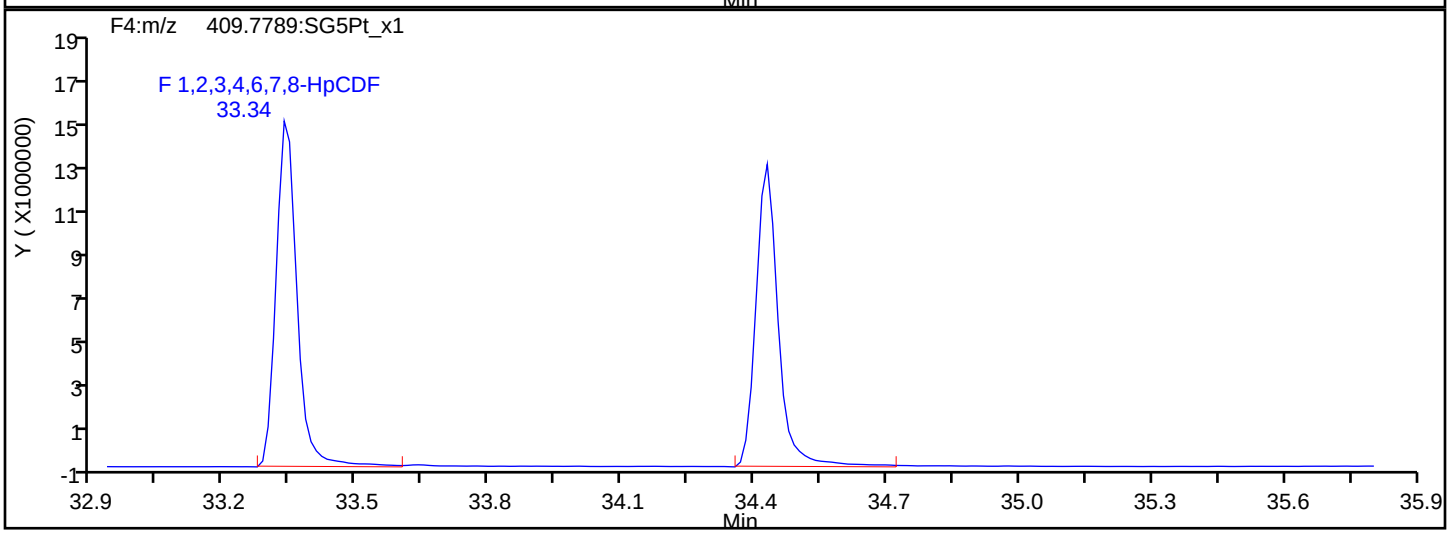
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

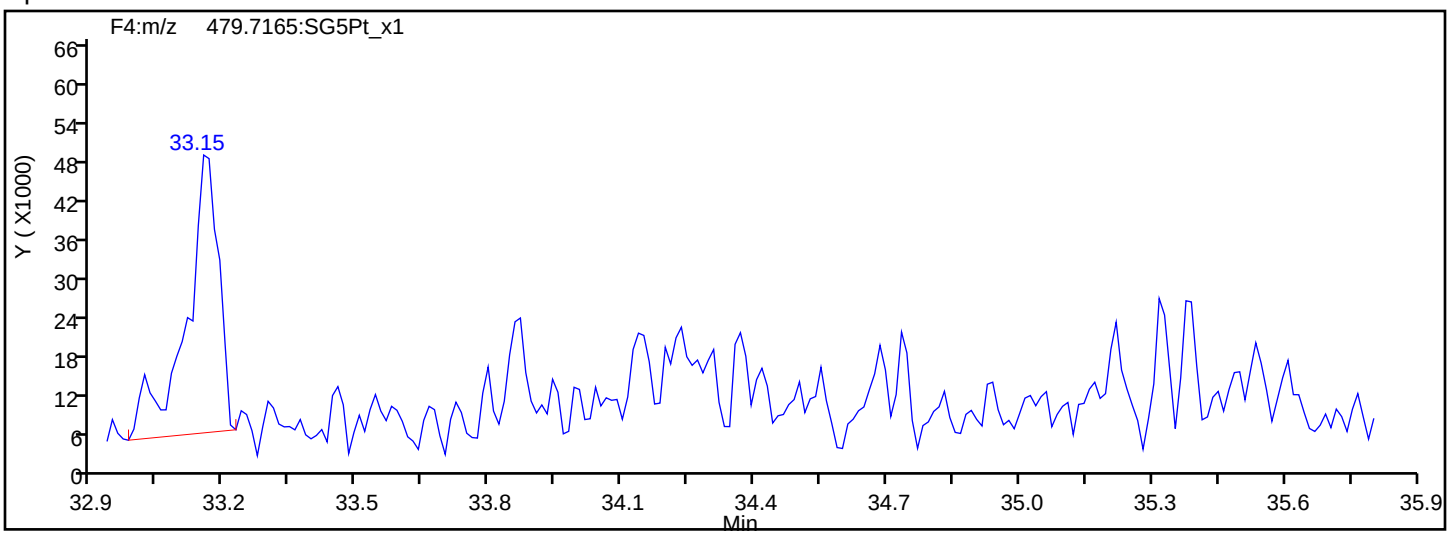
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

HpCDF





HpCDF Interference Mass

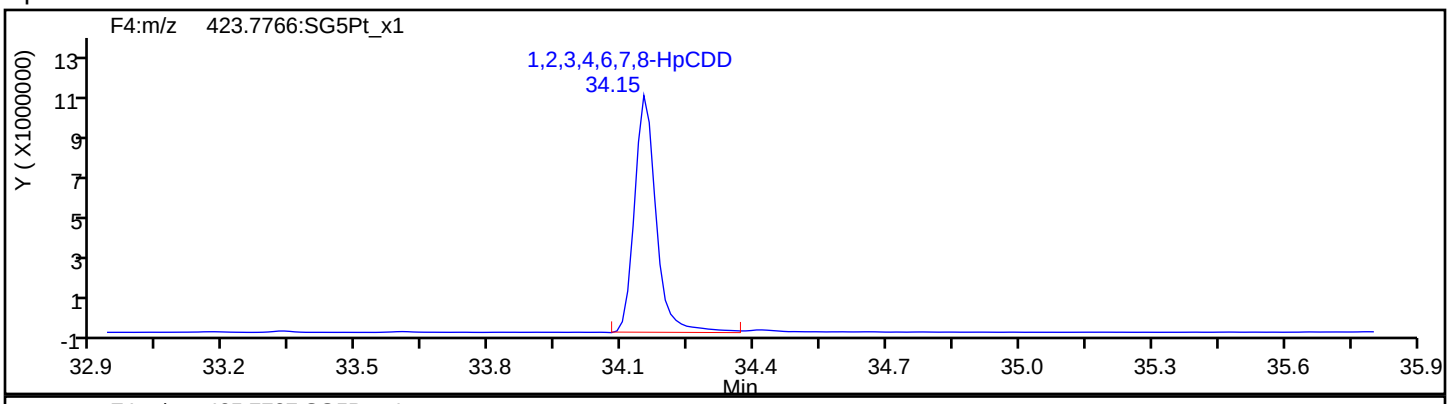


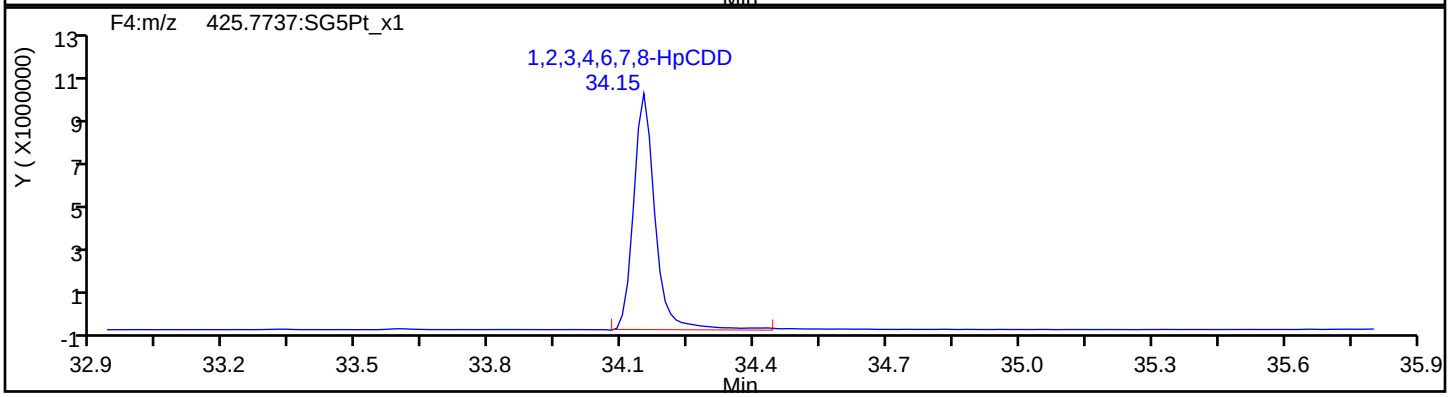
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

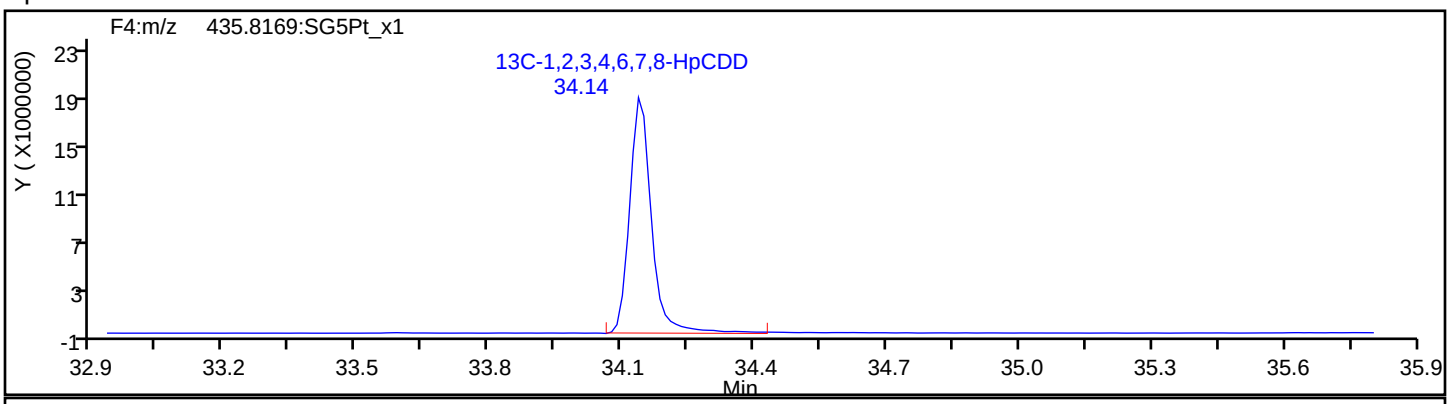
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

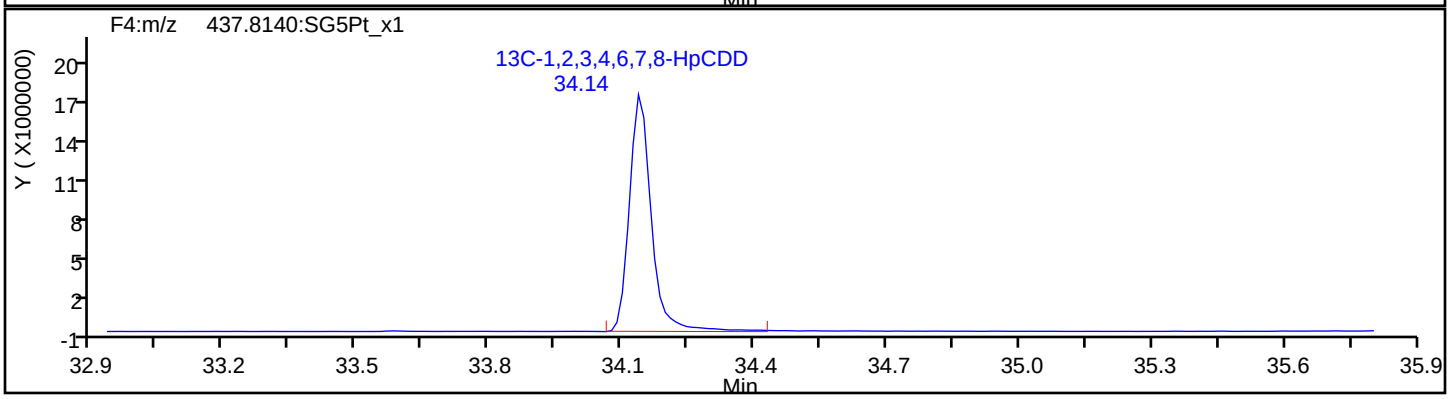
HpCDD





HpCDD Standards





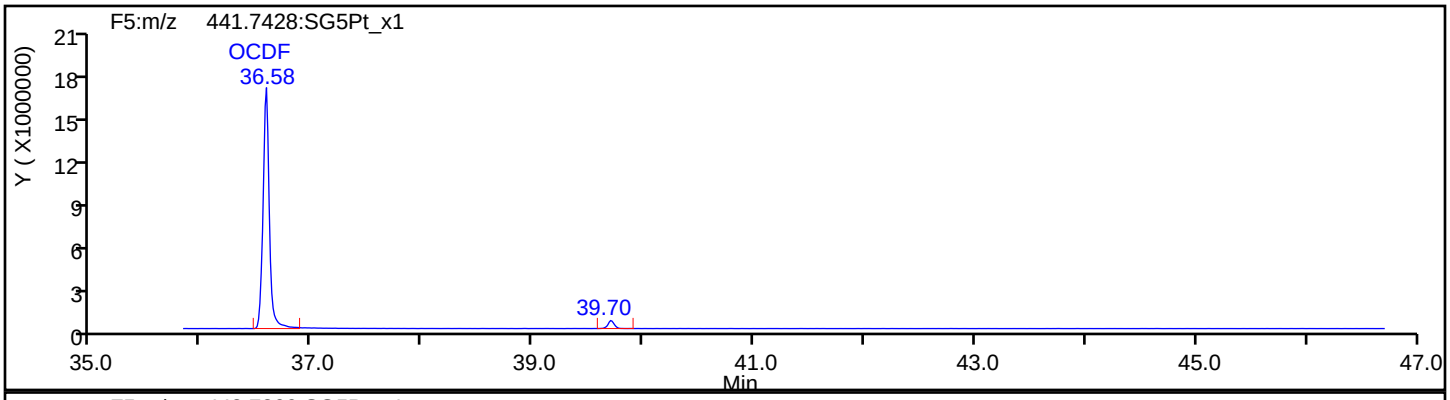
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

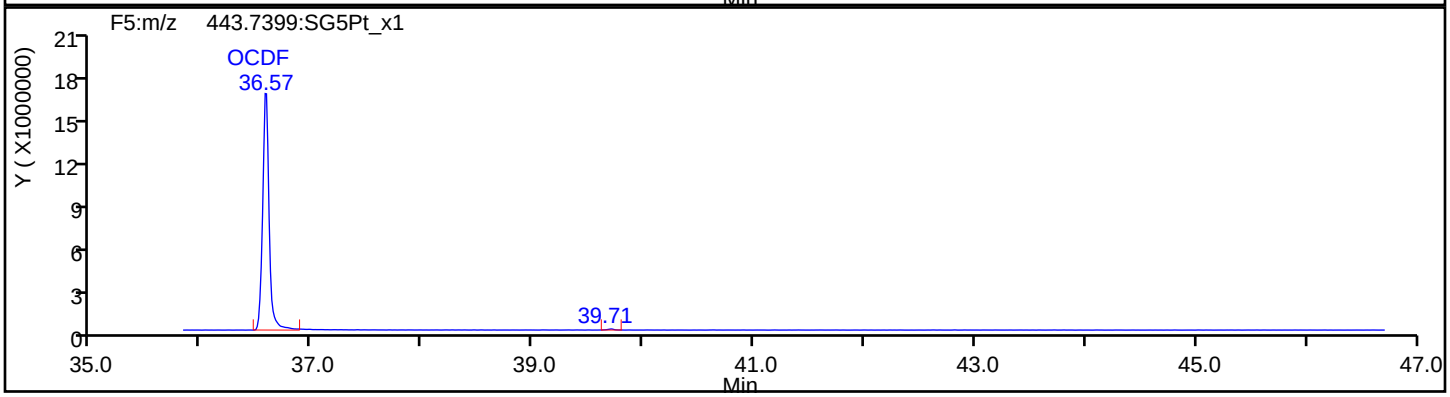
Eurofins TestAmerica, Sacramento

Data File: \\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d

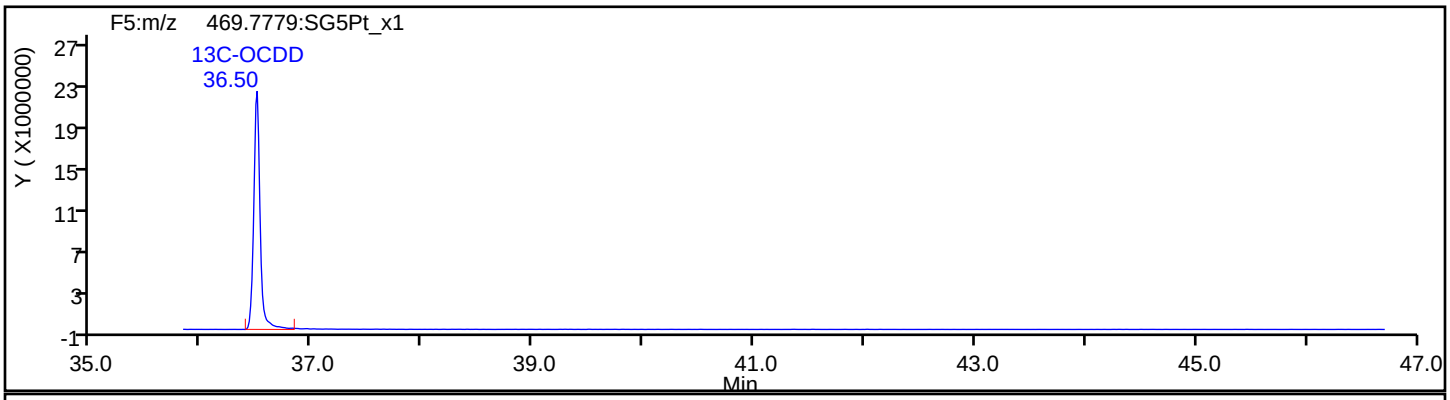
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

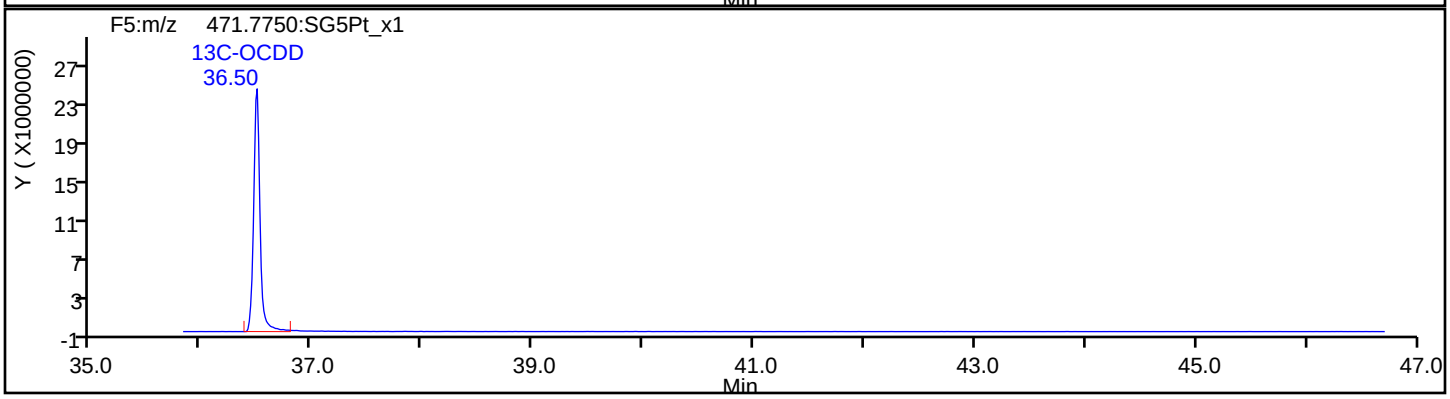
OCDF





OCDF Standards



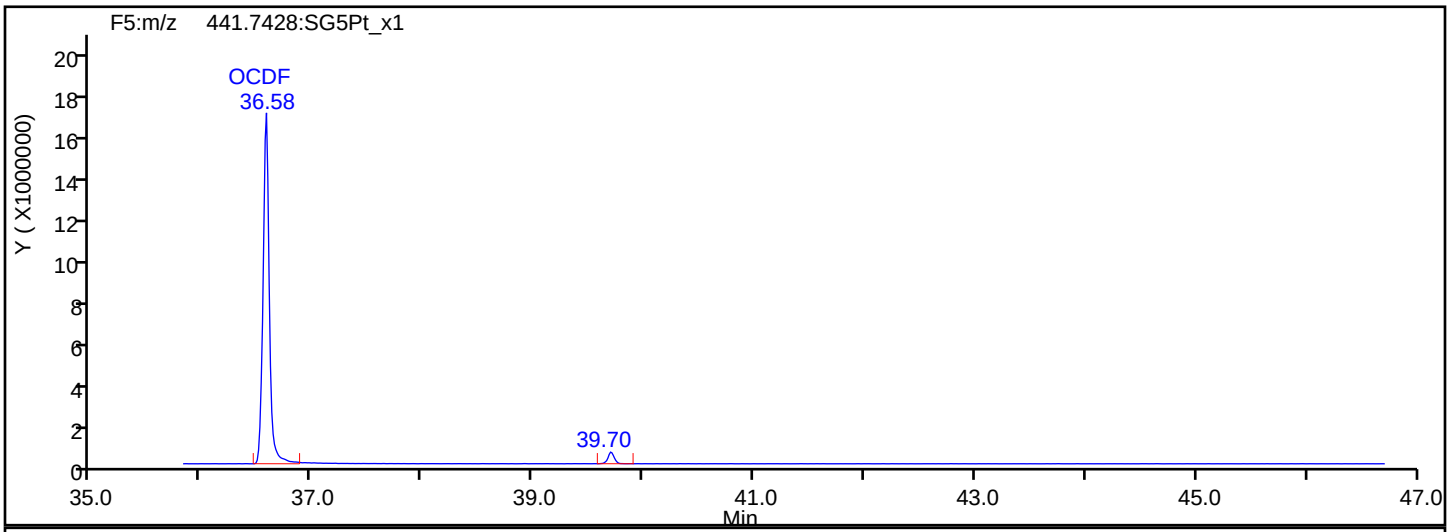


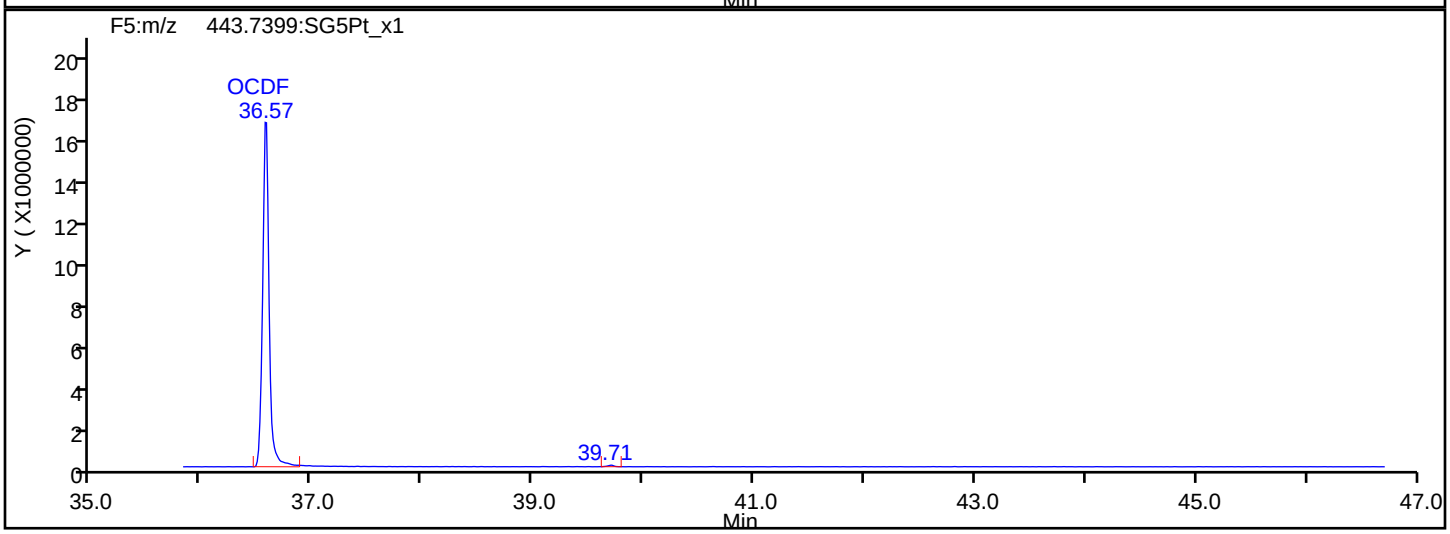
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

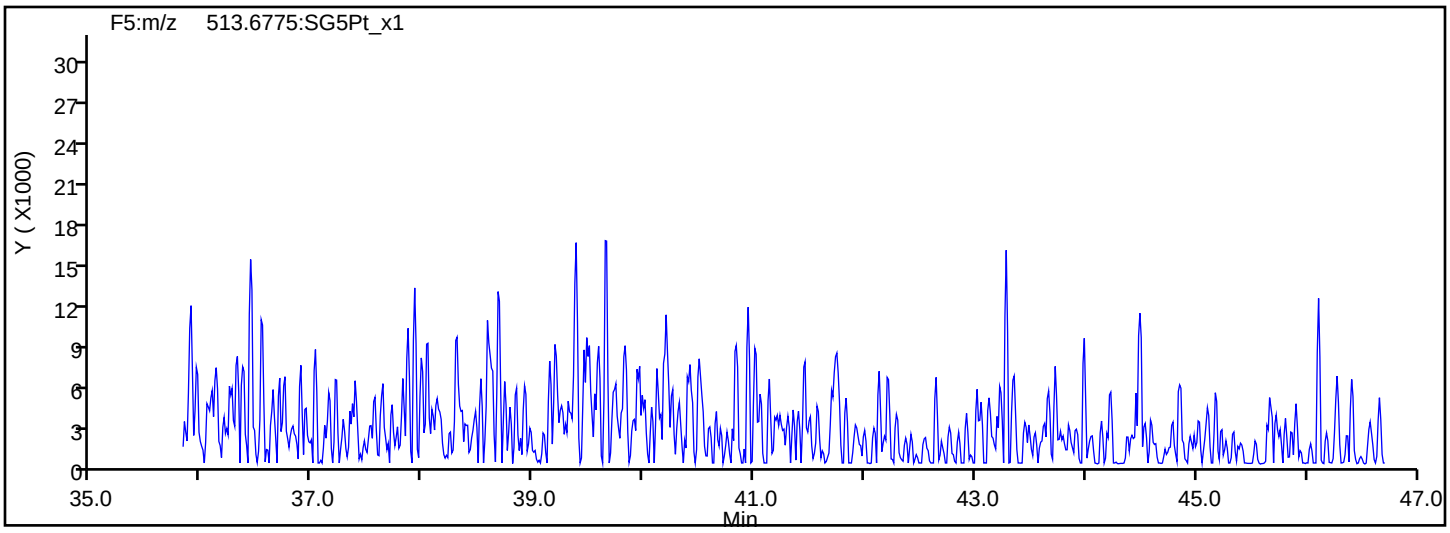
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

OCDF





OCDF Interference Mass

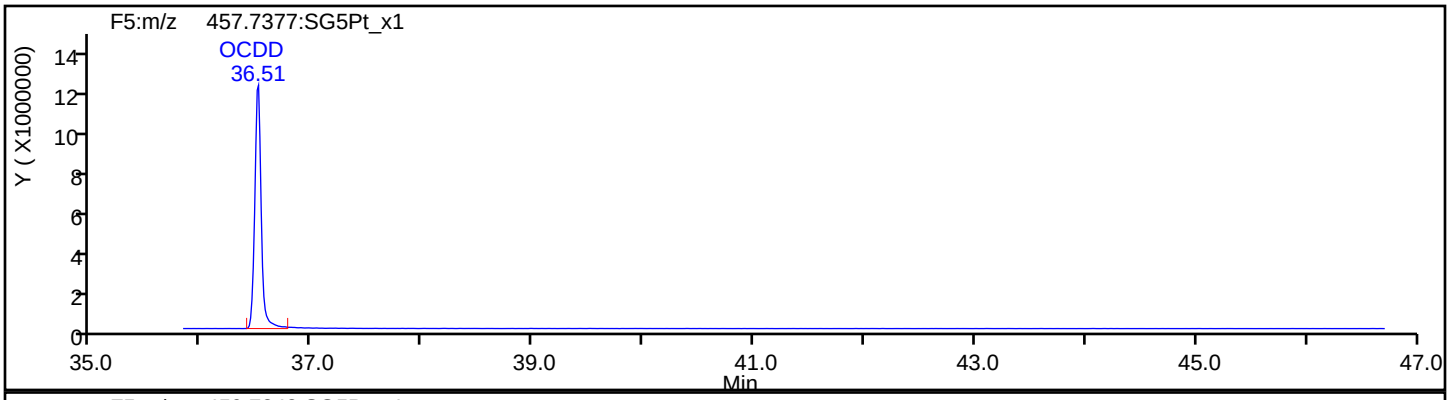


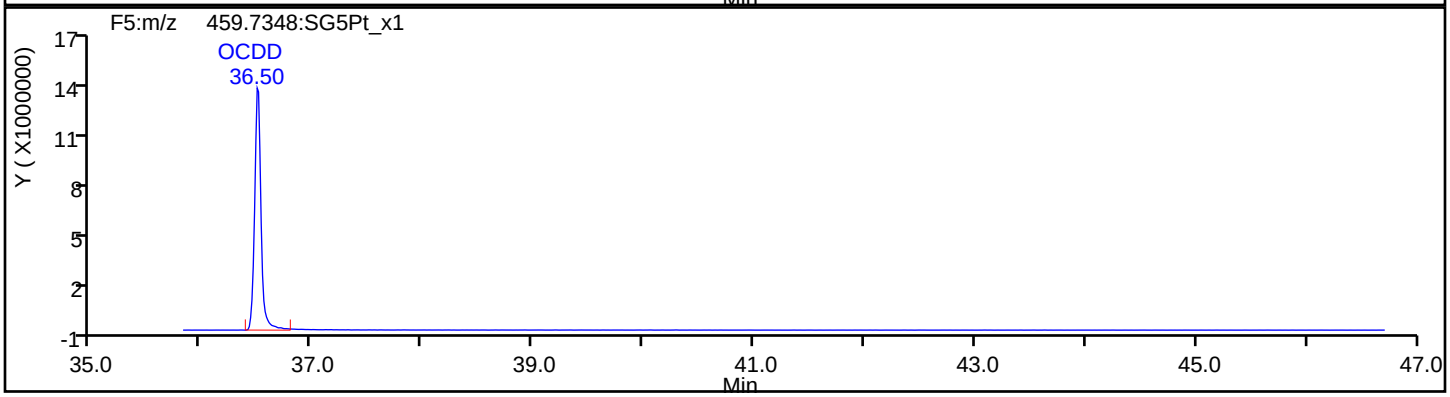
Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

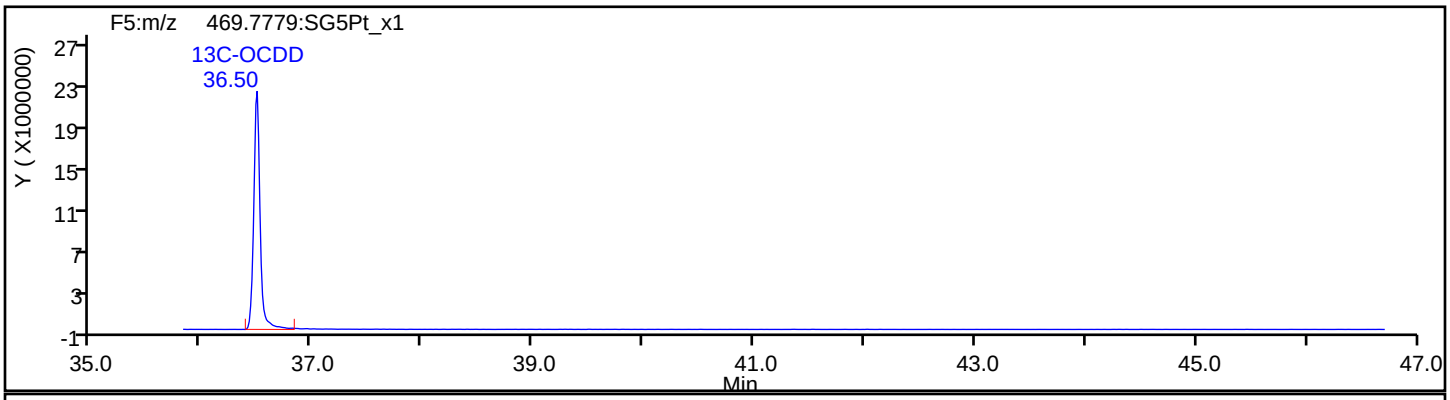
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm

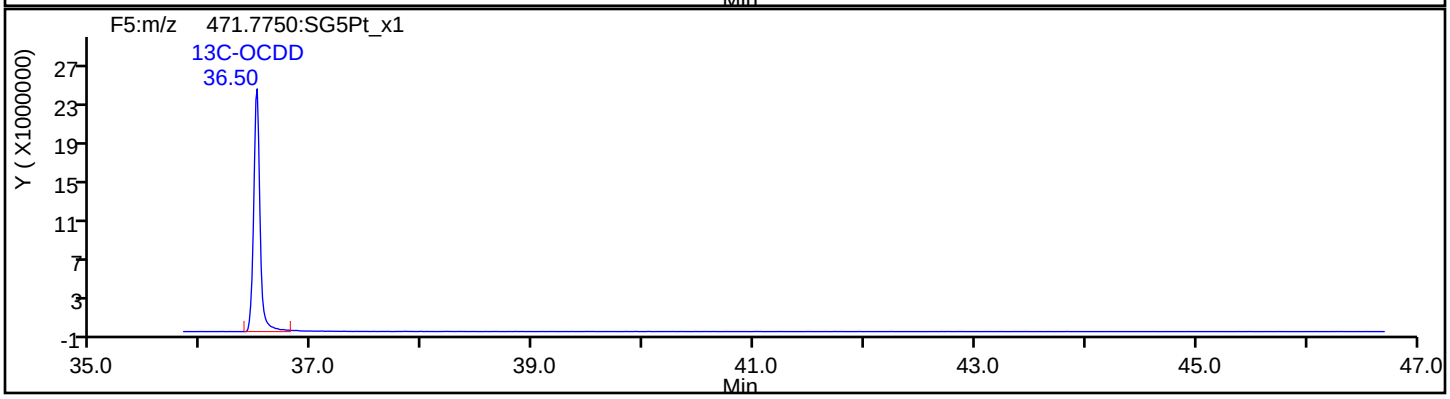
OCDD





OCDD Standards

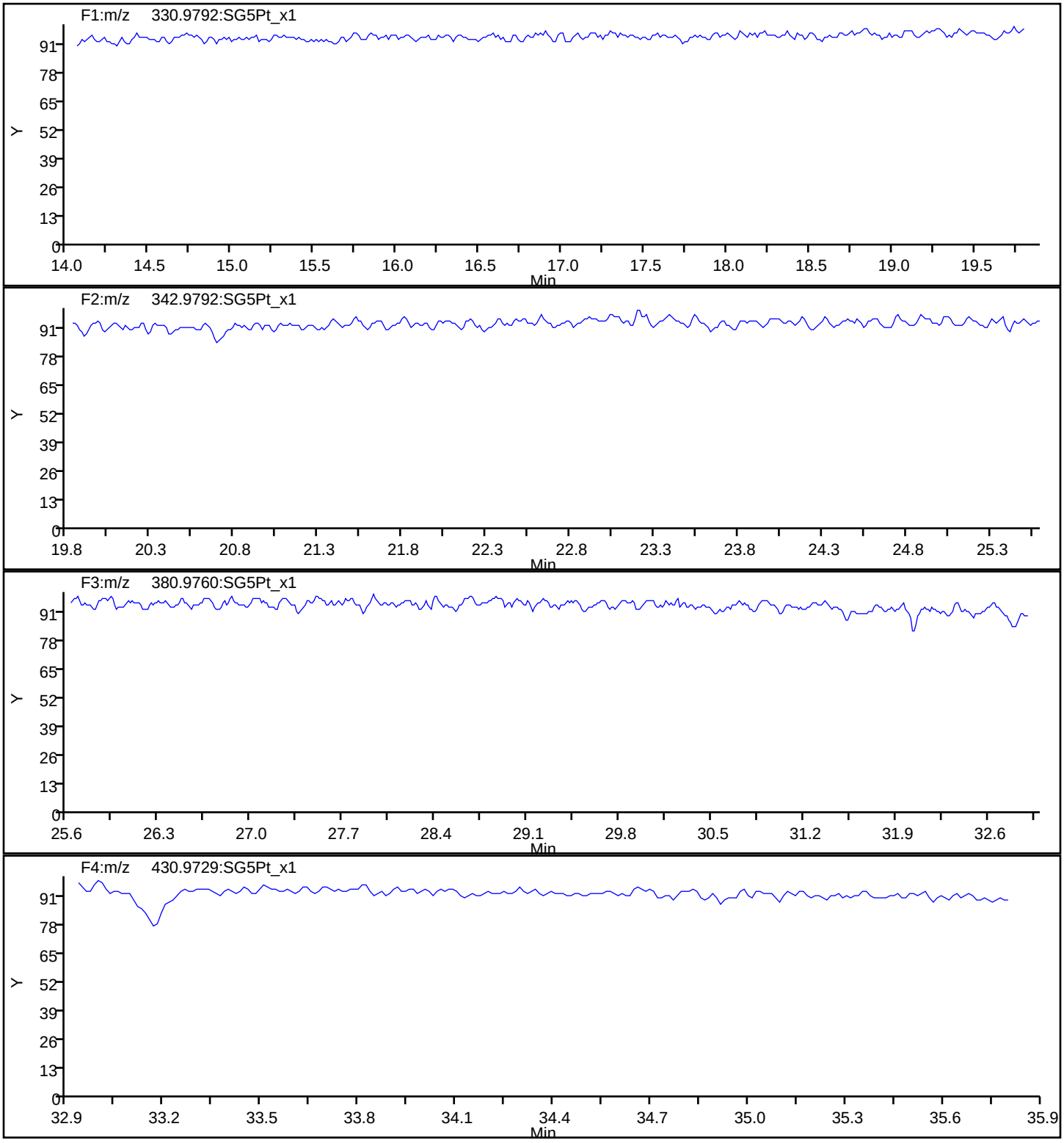




Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

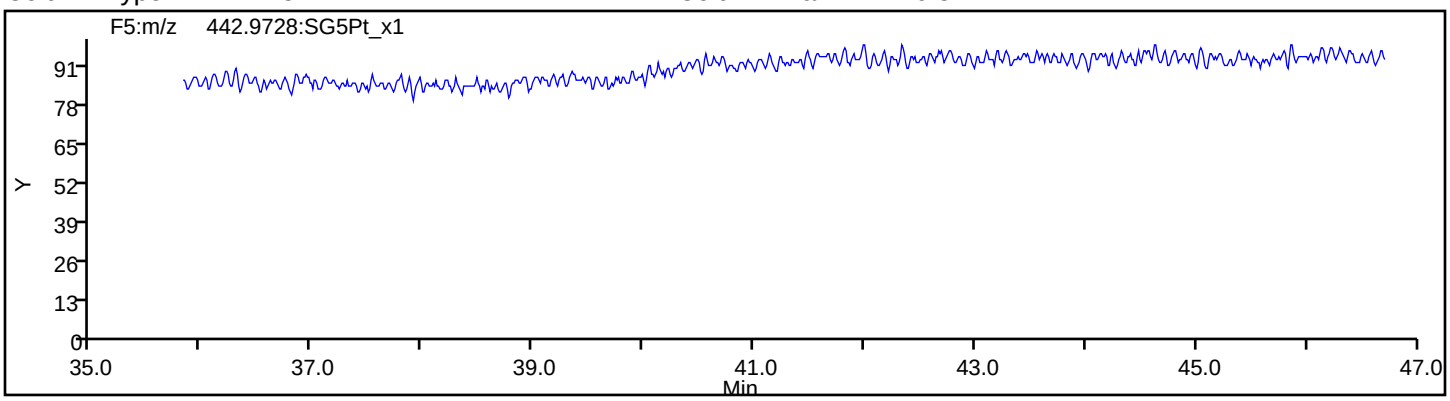
Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm



Report Date: 23-Jul-2019 10:40:17 Chrom Revision: 2.3 15-Jul-2019 06:58:08

Eurofins TestAmerica, Sacramento

Data File:	\\chromna\Sacramento\ChromData\3D5\20190720-79813.b\19JL19A3D5_56.d		
Injection Date:	21-Jul-2019 21:31:23	Injection Vol:	2.0 ul
Instrument ID:	3D5	Operator ID:	ALM, AJS
Method:	Dioxin_3D5	Limit Group:	HR - 1613B - ICAL
Client ID:			
Worklist#:	309103	Sample Line#:	56
Column Type:	DB-5	Column Dia:	0.32 mm



DIOXIN ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Instrument ID: 4D2 Start Date: 05/13/2019 17:44

Analysis Batch Number: 294351 End Date: 05/13/2019 22:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CPS 320-294351/2		05/13/2019 17:44	1	13MY19C4D2_002.d	DB-225 0.32(mm)
IC 320-294351/4		05/13/2019 19:08	1	13MY19C4D2_004.d	DB-225 0.32(mm)
IC 320-294351/5		05/13/2019 19:46	1	13MY19C4D2_005.d	DB-225 0.32(mm)
IC 320-294351/6		05/13/2019 20:24	1	13MY19C4D2_006.d	DB-225 0.32(mm)
IC 320-294351/7		05/13/2019 21:01	1	13MY19C4D2_007.d	DB-225 0.32(mm)
IC 320-294351/8		05/13/2019 21:39	1	13MY19C4D2_008.d	DB-225 0.32(mm)
ICV 320-294351/10		05/13/2019 22:55	1	13MY19C4D2_010.d	DB-225 0.32(mm)

DIOXIN ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Start Date: 05/21/2019 11:56

Analysis Batch Number: 296020 End Date: 05/21/2019 18:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
WDM 320-296020/1		05/21/2019 11:56	1	21MY193D5_1.d	DB-5 0.32(mm)
IC 320-296020/3		05/21/2019 13:31	1	21MY193D5_3.d	DB-5 0.32(mm)
IC 320-296020/4		05/21/2019 14:18	1	21MY193D5_4.d	DB-5 0.32(mm)
IC 320-296020/5		05/21/2019 15:06	1	21MY193D5_5.d	DB-5 0.32(mm)
IC 320-296020/6		05/21/2019 15:53	1	21MY193D5_6.d	DB-5 0.32(mm)
IC 320-296020/7		05/21/2019 16:41	1	21MY193D5_7.d	DB-5 0.32(mm)
ICV 320-296020/9		05/21/2019 18:16	1	21MY193D5_9.d	DB-5 0.32(mm)

DIOXIN ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Start Date: 07/21/2019 17:13

Analysis Batch Number: 309103 End Date: 07/22/2019 03:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-309103/51		07/21/2019 17:13	1	19JL19A3D5_51.d	DB-5 0.32(mm)
WDM 320-309103/52		07/21/2019 18:11	1	19JL19A3D5_52.d	DB-5 0.32(mm)
MB 320-308663/1-A		07/21/2019 19:56	1	19JL19A3D5_54.d	DB-5 0.32(mm)
LCS 320-308663/2-A		07/21/2019 20:43	1	19JL19A3D5_55.d	DB-5 0.32(mm)
LCSD 320-308663/3-A		07/21/2019 21:31	1	19JL19A3D5_56.d	DB-5 0.32(mm)
580-87706-1		07/21/2019 22:18	1	19JL19A3D5_57.d	DB-5 0.32(mm)
580-87706-2		07/21/2019 23:06	1	19JL19A3D5_58.d	DB-5 0.32(mm)
580-87706-3		07/21/2019 23:53	1	19JL19A3D5_59.d	DB-5 0.32(mm)
580-87706-4		07/22/2019 00:41	1	19JL19A3D5_60.d	DB-5 0.32(mm)
580-87706-5		07/22/2019 01:28	1	19JL19A3D5_61.d	DB-5 0.32(mm)
580-87706-6		07/22/2019 02:16	1	19JL19A3D5_62.d	DB-5 0.32(mm)
580-87706-7		07/22/2019 03:03	1	19JL19A3D5_63.d	DB-5 0.32(mm)
580-87706-8		07/22/2019 03:51	1	19JL19A3D5_64.d	DB-5 0.32(mm)

DIOXIN ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Instrument ID: 3D5 Start Date: 07/22/2019 05:46

Analysis Batch Number: 309104 End Date: 07/22/2019 13:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-309104/66		07/22/2019 05:46	1	19JL19A3D5_66.d	DB-5 0.32(mm)
WDM 320-309104/67		07/22/2019 06:43	1	19JL19A3D5_67.d	DB-5 0.32(mm)
580-87706-9		07/22/2019 08:18	1	19JL19A3D5_69.d	DB-5 0.32(mm)
580-87706-10		07/22/2019 09:06	1	19JL19A3D5_70.d	DB-5 0.32(mm)
580-87706-11		07/22/2019 09:53	1	19JL19A3D5_71.d	DB-5 0.32(mm)
580-87706-12		07/22/2019 10:41	1	19JL19A3D5_72.d	DB-5 0.32(mm)
580-87706-13		07/22/2019 11:29	1	19JL19A3D5_73.d	DB-5 0.32(mm)
580-87706-14		07/22/2019 12:16	1	19JL19A3D5_74.d	DB-5 0.32(mm)
580-87706-15		07/22/2019 13:04	1	19JL19A3D5_75.d	DB-5 0.32(mm)

DIOXIN ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 580-87706-1

SDG No.:

Instrument ID: 4D2 Start Date: 07/22/2019 10:56

Analysis Batch Number: 309356 End Date: 07/22/2019 16:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-309356/1		07/22/2019 10:56	1	22JL19A4D2_001.d	DB-225 0.32(mm)
CPS 320-309356/2		07/22/2019 11:34	1	22JL19A4D2_002.d	DB-225 0.32(mm)
580-87706-2 RA		07/22/2019 12:49	1	22JL19A4D2_004.d	DB-225 0.32(mm)
580-87706-6 RA		07/22/2019 13:27	1	22JL19A4D2_005.d	DB-225 0.32(mm)
580-87706-9 RA		07/22/2019 14:05	1	22JL19A4D2_006.d	DB-225 0.32(mm)
580-87706-11 RA		07/22/2019 14:42	1	22JL19A4D2_007.d	DB-225 0.32(mm)
580-87706-13 RA		07/22/2019 15:20	1	22JL19A4D2_008.d	DB-225 0.32(mm)
580-87706-14 RA		07/22/2019 15:58	1	22JL19A4D2_009.d	DB-225 0.32(mm)
580-87706-15 RA		07/22/2019 16:36	1	22JL19A4D2_010.d	DB-225 0.32(mm)

DIOXIN BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 580-87706-1

SDG No.:

Batch Number: 308663 Batch Start Date: 07/18/19 13:27 Batch Analyst: Rafieefar, Sina

Batch Method: HRMS-Sox Batch End Date: 07/19/19 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ExtractionID	RotoVapID	HRDXNIDA 00385	HRDXNIS 00117
MB 320-308663/1		HRMS-Sox, 1613B		10 g	20 uL	G1	1	1 mL	20 uL
LCS 320-308663/2		HRMS-Sox, 1613B		10 g	20 uL	G2	3	1 mL	20 uL
LCSD 320-308663/3		HRMS-Sox, 1613B		10 g	20 uL	G3	1	1 mL	20 uL
580-87706-C-1	22T-SG-17_20190716	HRMS-Sox, 1613B	T	10.15 g	20 uL	G4	3	1 mL	20 uL
580-87706-C-2	22T-SG-18_20190716	HRMS-Sox, 1613B	T	9.98 g	20 uL	G5	1	1 mL	20 uL
580-87706-C-3	22T-SG-11_20190716	HRMS-Sox, 1613B	T	10.18 g	20 uL	G6	3	1 mL	20 uL
580-87706-C-4	22T-SG-11-D_20190716	HRMS-Sox, 1613B	T	10.02 g	20 uL	H1	1	1 mL	20 uL
580-87706-C-5	22T-SG-12_20190716	HRMS-Sox, 1613B	T	10.09 g	20 uL	H2	3	1 mL	20 uL
580-87706-C-6	22T-SG-19_20190716	HRMS-Sox, 1613B	T	10.07 g	20 uL	H3	1	1 mL	20 uL
580-87706-C-7	22T-SG-20_20190716	HRMS-Sox, 1613B	T	10.05 g	20 uL	H4	3	1 mL	20 uL
580-87706-C-8	22T-SG-15_20190716	HRMS-Sox, 1613B	T	10.07 g	20 uL	H5	1	1 mL	20 uL
580-87706-C-9	22T-SG-14_20190716	HRMS-Sox, 1613B	T	9.94 g	20 uL	H6	3	1 mL	20 uL
580-87706-C-10	22T-SG-13_20190716	HRMS-Sox, 1613B	T	10.10 g	20 uL	I1	1	1 mL	20 uL
580-87706-C-11	22T-SG-22_20190716	HRMS-Sox, 1613B	T	10.00 g	20 uL	I2	3	1 mL	20 uL
580-87706-C-12	22T-SG-23_20190716	HRMS-Sox, 1613B	T	10.08 g	20 uL	I3	1	1 mL	20 uL
580-87706-C-13	22T-SG-10_20190716	HRMS-Sox, 1613B	T	10.06 g	20 uL	I4	3	1 mL	20 uL
580-87706-C-14	22T-SG-21_20190716	HRMS-Sox, 1613B	T	10.01 g	20 uL	I5	1	1 mL	20 uL
580-87706-C-15	22T-SG-16_20190716	HRMS-Sox, 1613B	T	10.08 g	20 uL	I6	3	1 mL	20 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	HRDXNSU 00215	HRDXNTA 00113				
MB 320-308663/1		HRMS-Sox, 1613B		1 mL					
LCS 320-308663/2		HRMS-Sox, 1613B		1 mL	50 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIOXIN BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 580-87706-1

SDG No.:

Batch Number: 308663 Batch Start Date: 07/18/19 13:27 Batch Analyst: Rafieefar, Sina

Batch Method: HRMS-Sox Batch End Date: 07/19/19 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	HRDXNSU 00215	HRDXNTA 00113				
LCSD 320-308663/3		HRMS-Sox, 1613B		1 mL	50 uL				
580-87706-C-1	22T-SG-17_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-2	22T-SG-18_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-3	22T-SG-11_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-4	22T-SG-11-D_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-5	22T-SG-12_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-6	22T-SG-19_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-7	22T-SG-20_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-8	22T-SG-15_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-9	22T-SG-14_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-10	22T-SG-13_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-11	22T-SG-22_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-12	22T-SG-23_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-13	22T-SG-10_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-14	22T-SG-21_20190716	HRMS-Sox, 1613B	T	1 mL					
580-87706-C-15	22T-SG-16_20190716	HRMS-Sox, 1613B	T	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIOXIN BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Sacramen Job No.: 580-87706-1

SDG No.:

Batch Number: 308663 Batch Start Date: 07/18/19 13:27 Batch Analyst: Rafieefar, Sina

Batch Method: HRMS-Sox Batch End Date: 07/19/19 13:00

Batch Notes	
20% DCM:Hexane ID	1650241 mL
65% DCM:Hexane ID	1650221 mL
Acid Silica Gel ID	1668188
Acid Alumina ID	18X
Balance ID	QA-73
C14 ID	STBH7678
Hexane ID	0000221330 mL
IFB Clean Up	TGL 07/19/19
Na2SO4 ID	0000220237
Analyst ID - IDA Reagent Drop	SR 7/18/19 HD05018 B-1/4
Analyst ID - IDA Reagent Drop Witness	A1A 7/18/19
Analyst ID - IS Reagent Drop	TGL 07/19/19 DB15270 B 2/4
Analyst ID - IS Reagent Drop Witness	A1A 07/19/19
Analyst ID - SU Reagent Drop	TGL 07/19/19 HD05018 B 3/4
Analyst ID - SU Reagent Drop Witness	GLB 07/19/19
Analyst ID - TA Reagent Drop	SR 7/18/19 DB15270 B-7/10
Analyst ID - TA Reagent Drop Witness	A1A 7/18/19
Silica Gel ID	1656367
Soxhlet/Soxtherm End	18:15
Soxhlet/Soxtherm Start	15:15 FC 07/18/19
Storage Box ID	DXN-76
Toluene ID	0000218357 mL

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job Number: 580-87706-1

SDG No.:

Project: Portland Harbor

Client Sample ID	Lab Sample ID
22T-SG-17_20190716	580-87706-1
22T-SG-18_20190716	580-87706-2
22T-SG-11_20190716	580-87706-3
22T-SG-11-D_20190716	580-87706-4
22T-SG-12_20190716	580-87706-5
22T-SG-19_20190716	580-87706-6
22T-SG-20_20190716	580-87706-7
22T-SG-15_20190716	580-87706-8
22T-SG-14_20190716	580-87706-9
22T-SG-13_20190716	580-87706-10
22T-SG-22_20190716	580-87706-11
22T-SG-23_20190716	580-87706-12
22T-SG-10_20190716	580-87706-13
22T-SG-21_20190716	580-87706-14
22T-SG-16_20190716	580-87706-15

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-17_20190716 Lab Sample ID: 580-87706-1

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 08:13

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	13000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-18_20190716 Lab Sample ID: 580-87706-2

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 08:44

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	32000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-11_20190716 Lab Sample ID: 580-87706-3

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 08:58

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	33000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-11-D_20190716 Lab Sample ID: 580-87706-4

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 09:00

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	32000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-12_20190716 Lab Sample ID: 580-87706-5

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 09:38

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	35000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-19_20190716 Lab Sample ID: 580-87706-6

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 10:09

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	23000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-20_20190716 Lab Sample ID: 580-87706-7

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 10:31

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	40000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-15_20190716 Lab Sample ID: 580-87706-8

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 10:50

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	41000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-14_20190716 Lab Sample ID: 580-87706-9

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 11:06

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	35000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-13_20190716 Lab Sample ID: 580-87706-10

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 12:12

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	35000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-22_20190716 Lab Sample ID: 580-87706-11

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 12:30

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	33000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-23_20190716 Lab Sample ID: 580-87706-12

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 12:58

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	26000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-10_20190716 Lab Sample ID: 580-87706-13

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 13:15

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	23000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-21_20190716 Lab Sample ID: 580-87706-14

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 14:08

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	33000	2000	97	mg/Kg			1	9060_PSEP

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 22T-SG-16_20190716 Lab Sample ID: 580-87706-15

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG ID.:

Matrix: Solid Date Sampled: 07/16/2019 14:24

Reporting Basis: WET Date Received: 07/16/2019 15:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon - Duplicates	29000	2000	97	mg/Kg			1	9060_PSEP

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Analyst: SPP Batch Start Date: 07/09/2019

Reporting Units: mg/Kg Analytical Batch No.: 306422

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:35	Total Organic Carbon - Duplicates	113000	120000	94	80-120		CaCO3_00004_00007
2	ICB	10:02	Total Organic Carbon - Duplicates	ND					
11	CCV	11:18	Total Organic Carbon - Duplicates	125000	120000	104	80-120		CaCO3_00008
12	CCB	11:20	Total Organic Carbon - Duplicates	ND					
20	CCV	11:51	Total Organic Carbon - Duplicates	127000	120000	106	80-120		CaCO3_00008
21	CCB	11:53	Total Organic Carbon - Duplicates	ND					
30	CCV	12:32	Total Organic Carbon - Duplicates	121000	120000	101	80-120		CaCO3_00008
31	CCB	12:34	Total Organic Carbon - Duplicates	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 306422 Date: 07/23/2019 10:47							
9060_PSEP	MB 580-306422/3	Total Organic Carbon - Duplicates	ND		mg/Kg	2000	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306422 Date: 07/23/2019 11:36											
9060_PSEP	580-87706-5	Total Organic Carbon - Duplicates	35000		mg/Kg						
9060_PSEP	580-87706-5 MS	Total Organic Carbon - Duplicates	162000		mg/Kg	120000	106	68-149			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306422 Date: 07/23/2019 11:39											
9060_PSEP	580-87706-5 MSD	Total Organic Carbon - Duplicates	157000		mg/Kg	120000	102	68-149	3	32	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 306422 Date: 07/23/2019 11:26								
9060_PSEP	22T-SG-12_20190716	580-87706-5	Total Organic Carbon - Duplicates	35000	mg/Kg			
9060_PSEP	22T-SG-12_20190716	580-87706-5 DU	Total Organic Carbon - Duplicates	34100	mg/Kg	2	50	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306422	Date: 07/23/2019 10:49										
						LCS Source: TOCS_LCS_00010					
9060_PS EP	LCS 580-306422/4	Total Organic Carbon - Duplicates	5430		mg/Kg	5080	107	40-180	2	32	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306422	Date: 07/23/2019 10:51										
						LCSD Source: TOCS_LCS_00010					
9060_PSEP	LCSD 580-306422/5	Total Organic Carbon - Duplicates	5530		mg/Kg	5080	109	40-180	2	32	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job Number: 580-87706-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	
Total Solids		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job Number: 580-87706-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060_PSEP MDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job Number: 580-87706-1

SDG Number:

Matrix: Solid Instrument ID: TAC105

Method: 9060_PSEP XMDL Date: 07/09/2019 14:51

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		2000	96.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 07/18/2019 14:00 End Date: 07/18/2019 14:00

Lab Sample Id	D/F	Type	Time	Analytes																										
				% Sol	Moist	TS																								
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
580-87706-10	1	T	14:00	X	X	X																								
580-87706-9	1	T	14:00	X	X	X																								
580-87706-8	1	T	14:00	X	X	X																								
580-87706-7	1	T	14:00	X	X	X																								
580-87706-6	1	T	14:00	X	X	X																								
580-87706-5 MS	1	T	14:00	X	X	X																								
580-87706-5 MSD	1	T	14:00	X	X	X																								
580-87706-5	1	T	14:00	X	X	X																								
580-87706-4	1	T	14:00	X	X	X																								
580-87706-3	1	T	14:00	X	X	X																								
580-87706-2	1	T	14:00	X	X	X																								
580-87706-1	1	T	14:00	X	X	X																								
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											
ZZZZZZ			14:00																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 07/18/2019 14:00 End Date: 07/18/2019 14:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist	TS																							
ZZZZZZ			14:00																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 07/18/2019 14:32 End Date: 07/18/2019 14:32

Lab Sample Id	D/F	Type	Time	Analytes																											
				% Sol	Moist	TS																									
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
ZZZZZZ			14:32																												
580-87706-11	1	T	14:32	X	X	X																									
580-87706-12	1	T	14:32	X	X	X																									
580-87706-13	1	T	14:32	X	X	X																									
580-87706-14	1	T	14:32	X	X	X																									
580-87706-15	1	T	14:32	X	X	X																									
580-87706-15 DU	1	T	14:32	X	X	X																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Instrument ID: TAC105 Analysis Method: 9060_PSEP

Start Date: 07/09/2019 09:35 End Date: 07/23/2019 12:34

Lab Sample Id	D/F	Type	Time	Analytes																									
				TOCD																									
ICV 580-306422/1	1		09:35	X																									
ICB 580-306422/2	1		10:02	X																									
MB 580-306422/3	1	T	10:47	X																									
LCS 580-306422/4	1	T	10:49	X																									
LCSD 580-306422/5	1	T	10:51	X																									
ZZZZZZ			10:54																										
580-87706-1	1	T	10:59	X																									
580-87706-2	1	T	11:03	X																									
580-87706-3	1	T	11:08	X																									
580-87706-4	1	T	11:12	X																									
CCV 580-306422/11	1		11:18	X																									
CCB 580-306422/12	1		11:20	X																									
580-87706-5	1	T	11:22	X																									
580-87706-5 DU	1	T	11:26	X																									
580-87706-5 TRL	1	T	11:31	X																									
580-87706-5 MS	1	T	11:36	X																									
580-87706-5 MSD	1	T	11:39	X																									
580-87706-6	1	T	11:41	X																									
580-87706-7	1	T	11:46	X																									
CCV 580-306422/20	1		11:51	X																									
CCB 580-306422/21	1		11:53	X																									
580-87706-8	1	T	11:55	X																									
580-87706-9	1	T	12:00	X																									
580-87706-10	1	T	12:04	X																									
580-87706-11	1	T	12:09	X																									
580-87706-12	1	T	12:13	X																									
580-87706-13	1	T	12:18	X																									
580-87706-14	1	T	12:22	X																									
580-87706-15	1	T	12:27	X																									
CCV 580-306422/30	1		12:32	X																									
CCB 580-306422/31	1		12:34	X																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306030 Batch Start Date: 07/18/19 14:00 Batch Analyst: McMorris, Regan

Batch Method: 2540G Batch End Date: 07/19/19 08:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
580-87706-A-10	22T-SG-13_20190716	2540G	T	706-10	.679 g	17.541 g	7.427 g		
580-87706-A-9	22T-SG-14_20190716	2540G	T	706-9	.676 g	14.68 g	6.090 g		
580-87706-A-8	22T-SG-15_20190716	2540G	T	706-8	.673 g	14.966 g	5.778 g		
580-87706-A-7	22T-SG-20_20190716	2540G	T	706-7	.675 g	19.616 g	9.151 g		
580-87706-A-6	22T-SG-19_20190716	2540G	T	706-6	.671 g	17.887 g	9.412 g		
580-87706-A-5 MS	22T-SG-12_20190716	2540G	T	706-5ms	.715 g	11.826 g	5.207 g		
580-87706-A-5 MSD	22T-SG-12_20190716	2540G	T	706-5msd	.727 g	16.041 g	6.782 g		
580-87706-A-5	22T-SG-12_20190716	2540G	T	706-5	.732 g	17.671 g	7.319 g		
580-87706-A-4	22T-SG-11-D_20190716	2540G	T	706-4	.685 g	17.222 g	7.016 g		
580-87706-A-3	22T-SG-11_20190716	2540G	T	706-3	.692 g	17.994 g	7.626 g		
580-87706-A-2	22T-SG-18_20190716	2540G	T	706-2	.69 g	11.883 g	4.047 g		
580-87706-A-1	22T-SG-17_20190716	2540G	T	706-1	.69 g	16.218 g	9.176 g		

Batch Notes	
Balance ID	SEA229
Date samples were placed in the oven	07/18/2019
Oven Temp In	113.2 Degrees C
Time samples were place in the oven	15:35
Date samples were removed from oven	07/19/2019
Oven Temp Out	112.9 Degrees C
Time Samples were removed from oven	08:30
Oven ID	Oven2
Thermometer ID	Digital Readout
Temperature - Start - Uncorrected	109.6 Degrees C
Temperature - End - Uncorrected	110.3 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306030 Batch Start Date: 07/18/19 14:00 Batch Analyst: McMorris, Regan

Batch Method: 2540G Batch End Date: 07/19/19 08:30

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306039 Batch Start Date: 07/18/19 14:31 Batch Analyst: Mohammed, Joe C

Batch Method: 2540G Batch End Date: 07/23/19 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-87706-A-11	22T-SG-22_20190716	2540G	T	0.690 g	6.462 g	2.959 g			
580-87706-A-12	22T-SG-23_20190716	2540G	T	0.714 g	7.627 g	3.895 g			
580-87706-A-13	22T-SG-10_20190716	2540G	T	0.677 g	11.774 g	6.868 g			
580-87706-A-14	22T-SG-21_20190716	2540G	T	0.685 g	7.230 g	3.506 g			
580-87706-A-15	22T-SG-16_20190716	2540G	T	0.672 g	6.981 g	3.434 g			
580-87706-A-15 DU	22T-SG-16_20190716	2540G	T	0.687 g	7.503 g	3.676 g			

Batch Notes	
Balance ID	SEA232
Batch Comment	Weighed by: JCM (Wet), JCM (Dry)
Date samples were placed in the oven	07/18/2019
Oven Temp In	108.9 Degrees C
Time samples were place in the oven	15:04
Date samples were removed from oven	07/23/2019
Oven Temp Out	108.4 Degrees C
Time Samples were removed from oven	08:40
Oven ID	OVEN 2
Thermometer ID	Digital Readout
Temperature - Start - Uncorrected	110.5 Degrees C
Temperature - End - Uncorrected	110.0 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Seattle Job No.: 580-87706-1

SDG No.:

Batch Number: 306422 Batch Start Date: 07/09/19 09:35 Batch Analyst: Palmquist, Stan P

Batch Method: 9060_PSEP Batch End Date: 07/23/19 12:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	Baked Sand 00062	CaCO3 00008	CaCO3_00004 00007	TOCS_LCS 00010		
ICV 580-306422/1		9060_PSEP				# g			
ICB 580-306422/2		9060_PSEP		# Kg					
LCS 580-306422/4		9060_PSEP					# g		
LCSD 580-306422/5		9060_PSEP					# g		
CCV 580-306422/11		9060_PSEP			# g				
CCB 580-306422/12		9060_PSEP		# Kg					
580-87706-A-5 MS	22T-SG-12_20190716	9060_PSEP	T		0.1005 g				
580-87706-A-5 MSD	22T-SG-12_20190716	9060_PSEP	T		0.1007 g				
CCV 580-306422/20		9060_PSEP			# g				
CCB 580-306422/21		9060_PSEP		# Kg					
CCV 580-306422/30		9060_PSEP			# g				
CCB 580-306422/31		9060_PSEP		# Kg					

Batch Notes	
Pipette/Syringe/Dispenser ID	2ml-1763020--10ml-1763016

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SC632

306415

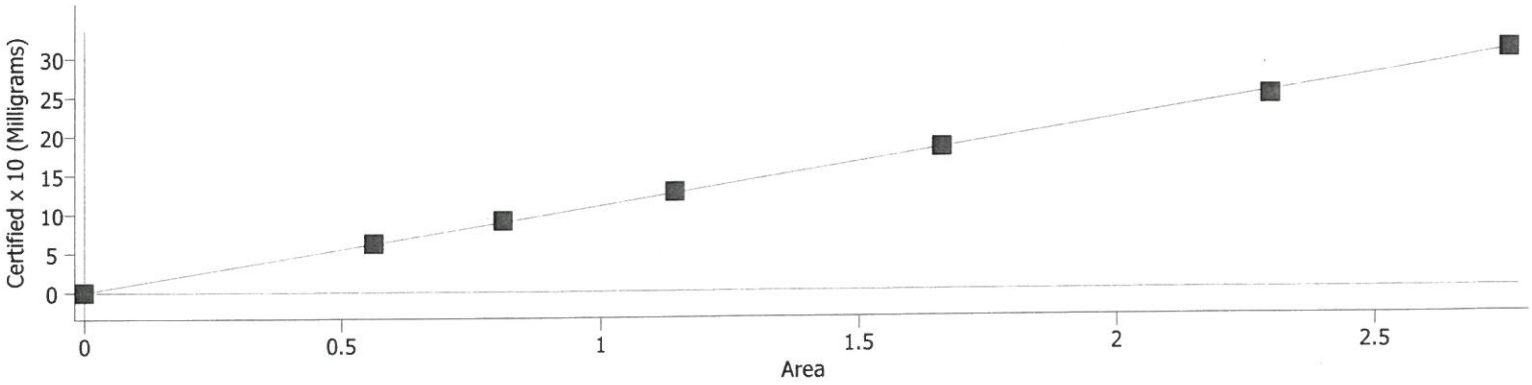
306492

TA SOIL LINNEAR Calibration - Read Only

CO2 Low (range: 0.000000 to 30.312000 mg)

Previous Calibration:
y= +1.09191x + 0.000110251
Date: 7/8/2019 2:07:32 PM

New Calibration:
y= +1.09191x + 0.000110251
Curve Type: Linear
Weighting: 1 / Certified
RMS Error: 0.00021308



Row	Standard	Drift	Mass	Certified	Calculated	Error %	Prev Err %	Peak	Peak Area	Weighting	Date	Range	Saturated
1	Blank	0	1.0000	0.000	0.000000000092	100.00	100.00	13.369	0.0001009	2.5000E+6	07/08/19 01:48 PM	Low	No
2	1947764	0	0.051500	12.000	11.929	-0.59353	-0.59353	916.68	0.56252	1.6181	07/08/19 01:51 PM	Low	No
3	1947764	0	0.075300	12.000	11.759	-2.0061	-2.0061	1202.9	0.81084	1.1067	07/08/19 01:54 PM	Low	No
4	1947764	1	0.10540	12.000	11.857	-1.1931	-1.1931	1614.1	1.1444	0.79064	07/08/19 01:56 PM	Low	No
5	1947764	0	0.15130	12.000	11.981	-0.15598	-0.15598	2480.5	1.6601	0.55078	07/08/19 01:59 PM	Low	No
6	1947764	0	0.20500	12.000	12.243	2.0271	2.0271	3122.4	2.2985	0.40650	07/08/19 02:02 PM	Low	No
7	1947764	0	0.25260	12.000	11.953	-0.38851	-0.38851	3020.5	2.7652	0.32990	07/08/19 02:05 PM	Low	No

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Blank	2694.1		1.0000	TA SOIL LINNEAR	7/8/2019 1:48:47 PM	0.000000009240	A04

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
1947764	300286		0.0515	TA SOIL LINNEAR	7/8/2019 1:51:23 PM	11.93	A05
1947764	431630		0.0753	TA SOIL LINNEAR	7/8/2019 1:54:05 PM	11.76	A06
1947764	608072		0.1054	TA SOIL LINNEAR	7/8/2019 1:56:51 PM	11.86	A07
1947764	880826		0.1513	TA SOIL LINNEAR	7/8/2019 1:59:36 PM	11.98	A08
1947764	1218510		0.2050	TA SOIL LINNEAR	7/8/2019 2:02:27 PM	12.24	A09
1947764	1465347		0.2526	TA SOIL LINNEAR	7/8/2019 2:05:38 PM	11.95	A10
Average			0.1402			11.95	
Std. Deviation			0.08			0.163	
RSD			55.48			1.361	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICV 1821631	1124454		0.2043	TA SOIL LINNEAR	7/9/2019 9:35:00 AM	11.33	A01

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
ICB 1936920	2563.6		0.2021	TA SOIL LINNEAR	7/9/2019 10:02:04 AM	-0.001724	A02

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
MB	2300.9		0.2101	TA SOIL LINNEAR	7/23/2019 10:47:34 AM	-0.004239	A04

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCS	54167		0.1957	TA SOIL LINNEAR	7/23/2019 10:49:34 AM	0.5426	A05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
LCSD	55382		0.1966	TA SOIL LINNEAR	7/23/2019 10:51:51 AM	0.5528	A06

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87671-A-5	319436		0.2134	TA SOIL LINNEAR	7/23/2019 10:54:53 AM	3.064	
580-87671-A-5	267601		0.2027	TA SOIL LINNEAR	7/23/2019 10:57:04 AM	2.697	
Average			0.2081			2.881	
Std. Deviation			0.008			0.2589	
RSD			3.637			8.989	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-1	138664		0.2081	TA SOIL LINNEAR	7/23/2019 10:59:19 AM	1.348	A09
580-87706-A-1	122530		0.2101	TA SOIL LINNEAR	7/23/2019 11:01:34 AM	1.177	A10
Average			0.2091			1.263	
Std. Deviation			0.001			0.1212	
RSD			0.676			9.596	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-2	305093		0.1942	TA SOIL LINNEAR	7/23/2019 11:03:49 AM	3.214	B01
580-87706-A-2	316158		0.2005	TA SOIL LINNEAR	7/23/2019 11:06:06 AM	3.227	B02
Average			0.1974			3.221	
Std. Deviation			0.004			0.0091	
RSD			2.257			0.284	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-3	308491		0.1944	TA SOIL LINNEAR	7/23/2019 11:08:23 AM	3.247	B03
580-87706-A-3	319820		0.1999	TA SOIL LINNEAR	7/23/2019 11:10:37 AM	3.275	B04
Average			0.1971			3.261	
Std. Deviation			0.004			0.0196	
RSD			1.973			0.600	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-4	317170		0.2016	TA SOIL LINNEAR	7/23/2019 11:12:52 AM	3.220	B05
580-87706-A-4	306502		0.1958	TA SOIL LINNEAR	7/23/2019 11:15:07 AM	3.203	B06
Average			0.1987			3.211	
Std. Deviation			0.004			0.0121	
RSD			2.064			0.377	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCV	1218160		0.2014	TA SOIL LINNEAR	7/23/2019 11:18:18 AM	12.46	B07
CCV	1238510		0.2011	TA SOIL LINNEAR	7/23/2019 11:51:35 AM	12.69	D01
CCV	1193273		0.2029	TA SOIL LINNEAR	7/23/2019 12:32:50 PM	12.11	E09
Average			0.2018			12.42	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Std. Deviation			0.0010			0.288	
RSD			0.478			2.322	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
CCB	3527.5		0.2068	TA SOIL LINNEAR	7/23/2019 11:20:14 AM	0.007937	B08
CCB	2636.3		0.1984	TA SOIL LINNEAR	7/23/2019 11:53:46 AM	-0.0009996	D02
CCB	2282.1		0.1999	TA SOIL LINNEAR	7/23/2019 12:34:48 PM	-0.004649	E10
Average			0.2017			0.0007629	
Std. Deviation			0.004			0.0064758	
RSD			2.221			848.8	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-5	359030		0.2117	TA SOIL LINNEAR	7/23/2019 11:22:26 AM	3.474	B09
580-87706-A-5	348693		0.2060	TA SOIL LINNEAR	7/23/2019 11:24:39 AM	3.467	B10
Average			0.2088			3.471	
Std. Deviation			0.004			0.0053	
RSD			1.930			0.152	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-5 DU	351209		0.2076	TA SOIL LINNEAR	7/23/2019 11:26:56 AM	3.465	C01
580-87706-A-5 DU	321450		0.1965	TA SOIL LINNEAR	7/23/2019 11:29:12 AM	3.348	C02
Average			0.2021			3.407	
Std. Deviation			0.008			0.0827	
RSD			3.885			2.426	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-5 TRL	340134		0.2023	TA SOIL LINNEAR	7/23/2019 11:31:30 AM	3.443	C03
580-87706-A-5 TRL	339227		0.2007	TA SOIL LINNEAR	7/23/2019 11:33:45 AM	3.461	C04
Average			0.2015			3.452	
Std. Deviation			0.001			0.0128	
RSD			0.561			0.371	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-5 MS	778701	0.1005	0.0987	TA SOIL LINNEAR	7/23/2019 11:36:37 AM	16.23	C05

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-5 MSD	811504	0.1007	0.1063	TA SOIL LINNEAR	7/23/2019 11:39:23 AM	15.71	C06

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-6	237617		0.2075	TA SOIL LINNEAR	7/23/2019 11:41:36 AM	2.337	C07
580-87706-A-6	231122		0.2082	TA SOIL LINNEAR	7/23/2019 11:43:50 AM	2.265	C08
Average			0.2078			2.301	
Std. Deviation			0.0005			0.0511	
RSD			0.238			2.221	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-7	397612		0.1992	TA SOIL LINNEAR	7/23/2019 11:46:08 AM	4.092	C09
580-87706-A-7	395119		0.2025	TA SOIL LINNEAR	7/23/2019 11:48:24 AM	4.000	C10
Average			0.2009			4.046	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
Std. Deviation			0.002			0.0651	
RSD			1.162			1.610	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-8	389459		0.1957	TA SOIL LINNEAR	7/23/2019 11:55:45 AM	4.079	D03
580-87706-A-8	389100		0.1951	TA SOIL LINNEAR	7/23/2019 11:58:01 AM	4.088	D04
Average			0.1954			4.084	
Std. Deviation			0.0004			0.0062	
RSD			0.217			0.152	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-9	343031		0.2022	TA SOIL LINNEAR	7/23/2019 12:00:17 PM	3.474	D05
580-87706-A-9	342063		0.1990	TA SOIL LINNEAR	7/23/2019 12:02:33 PM	3.520	D06
Average			0.2006			3.497	
Std. Deviation			0.002			0.0324	
RSD			1.128			0.927	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-10	358253		0.2084	TA SOIL LINNEAR	7/23/2019 12:04:49 PM	3.522	D07
580-87706-A-10	350986		0.2093	TA SOIL LINNEAR	7/23/2019 12:07:06 PM	3.435	D08
Average			0.2089			3.478	
Std. Deviation			0.0006			0.0614	
RSD			0.305			1.765	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-11	323125		0.2028	TA SOIL LINNEAR	7/23/2019 12:09:21 PM	3.261	D09

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-A-11	321155		0.2027	TA SOIL LINNEAR	7/23/2019 12:11:36 PM	3.243	D10
Average			0.2027			3.252	
Std. Deviation			0.00007			0.0131	
RSD			0.035			0.401	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-B-12	290277		0.2263	TA SOIL LINNEAR	7/23/2019 12:13:51 PM	2.623	E01
580-87706-B-12	263915		0.2106	TA SOIL LINNEAR	7/23/2019 12:16:09 PM	2.560	E02
Average			0.2185			2.592	
Std. Deviation			0.01			0.0445	
RSD			5.082			1.715	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-B-13	225100		0.1964	TA SOIL LINNEAR	7/23/2019 12:18:26 PM	2.337	E03
580-87706-B-13	228915		0.1999	TA SOIL LINNEAR	7/23/2019 12:20:40 PM	2.336	E04
Average			0.1981			2.337	
Std. Deviation			0.002			0.0011	
RSD			1.249			0.046	

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-B-14	331488		0.2075	TA SOIL LINNEAR	7/23/2019 12:22:55 PM	3.271	E05
580-87706-B-14	330356		0.1982	TA SOIL LINNEAR	7/23/2019 12:25:09 PM	3.412	E06
Average			0.2028			3.342	
Std. Deviation			0.007			0.1002	
RSD			3.242			2.998	

SC632

Name	Carbon Low Area	Description	Mass	Method	Analysis Date	Carbon %	Location
580-87706-B-15	281818		0.2017	TA SOIL LINNEAR	7/23/2019 12:27:24 PM	2.856	E07
580-87706-B-15	294195		0.2024	TA SOIL LINNEAR	7/23/2019 12:29:39 PM	2.973	E08
Average			0.2021			2.915	
Std. Deviation			0.0005			0.0823	
RSD			0.245			2.823	

Subcontract Data

Shipping and Receiving Documents

Laboratory Management Program (LaMP) Chain of Custody Record

Soil, Sediment and Groundwater Samples

Page 1 of 3

BP Site Node Path: _____ Req Due Date (mm/dd/yy): EDD by 7/26/2019 Rush TAT Yes 5 days No ___

BP/RM Facility No: _____ Lab Work Order Number: 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 227	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Acct:		Enfos Proposal No:	00BX4-0008	Phone: (619) 990-6421	Email: lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___		Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage:	Activity: Sediment Sampling	Invoice To:	WR329993 BP-RM X BP-Other ___

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Laboratory	Seattle					Sac	Knox	Seattle		
Preservation										

Report Type & QC Level

Limited (Standard) Package ___

Limited Plus Package ___

Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as anchors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-17_20190716	8:13		4		X	X	X	X	X	X				X	071719 VRG
	22T-SG-18_20190716	8:44		4		X	X	X	X	X	X				X	
	22T-SG-11_20190716	8:58		4		X	X	X	X	X	X				X	
	22T-SG-11-D_20190716	9:00		4		X	X	X	X	X	X				X	
	22T-SG-12_20190716	9:38		4		X	X	X	X	X	X				X	
	22T-SG-12-MSD_20190716	9:38		4		X	X	X	X	X	X				X	extra vol for MSD
	22T-SG-19_20190716	10:09		4		X	X	X	X	X	X				X	

			Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Laura McWilliams		Laura McWilliams	7/16	1545			
Sampler's Company:	Haley & Aldrich							
Ship Method:	Deliver to Portland Service Center	Ship Date:						
Shipment Tracking No:	7/16/19							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Proprietary and Confidential

bp rm

Laboratory Management Program (LaMP) Chain of Custody Record

Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ Req Due Date (mm/dd/yy): EDD by 7/26/2019 Rush TAT: Yes 5 days No ____

BP/RM Facility No: _____ Lab Work Order Number: 56013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129758-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA 92108
Lab Phone:	(253) 248-4975	California Global ID No:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Acct:		Enfos Proposal No:	00BX4-0008	Phone:	(619) 990-6421 Email: lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ____ DOC-BU ____ DOC-RM ____		Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage:	Activity: Sediment Sampling	Invoice To:	WR329993 BP-RM __X__ BP-Other ____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Laboratory	Seattle					Sac.	Knox	Seattle		
Preservation										

Report Type & QC Level

Limited (Standard) Package ____

Limited Plus Package ____

Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-20-20190716	10:31		4		X	X	X	X	X	X				X	
	22T-SG-15-20190716	10:50		4		X	X	X	X	X	X				X	
	22T-SG-14-20190716	11:06		4		X	X	X	X	X	X				X	
	22T-SG-13-20190716	12:12		4		X	X	X	X	X	X				X	
	22T-SG-22-20190716	12:30		4		X	X	X	X	X	X				X	
	22T-SG-23-20190716	12:58		4		X	X	X	X	X	X				X	
	22T-SG-10-20190716	13:15		4		X	X	X	X	X	X				X	

071719
VRG

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Laura McWilliams	Laura McWilliams	7/16	1545			
Sampler's Company:	Haley & Aldrich						
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19						
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Laboratory Management Program (LaMP) Chain of Custody Record

Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ Req Due Date (mm/dd/yy): EDD by 7/26/2019 Rush TAT: Yes 5 days No _____

BPIRM Facility No: _____ Lab Work Order Number: 580-13435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BPIARC Facility Address:	Former Terminal 227	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland, OR 97241	Consultant/Contractor Project No:	129758-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5000 Mission Center Rd, Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Acct#:		Enfos Proposal No:	00834-0008	Phone:	(619) 990-4421 Email: lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ____ GGC-BU ____ GGC-RM ____		Send/Submit EDD to:	rgotberg@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage	Activity: Sediment Sampling	Invoice To:	WRG22660 BP-RM __X__ BP-Other _____

BPIRM PM:	Kyle Christie
PM Phone:	(714) 815-6971
PM Email:	kyle.christie@bp.com

Requested Analyses

Laboratory: Seattle | Sec. Knox | Seattle

Preservation:

Report Type & QC Level

Limited (Standard) Package ____

Limited Plus Package ____

Full Package __X__

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-6_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SVOC - standard list w/ LV (8270D SIM)	PCBs as aroclors - low level (8082A)	Chlorine & Fluorine - LV aqueous (9056A)	Perc + grain size/clay list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-21_20190716	1408		4		X	X	X	X	X	X				X
	22T-SG-16_20190716	1424		4		X	X	X	X	X	X				X

071719
VRG

Sampler's Name:	Laura McWilliams	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	Haley & Aldrich	Laura McWilliams	7/16	1515			
Ship Method:	Deliver to Portland Service Center	Ship Date: 7/16/19					
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals in Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Proprietary and Confidential

Loc: 580
87706

bp rm

Laboratory Management Program (LaMP) Chain of Custody Record

Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ **Req Due Date (mm/dd/yy):** EDD by 7/26/2019 Rush TAT Yes 5 days No ____

BP/RM Facility No: _____ **Lab Work Order Number:** 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Accnt:		Enfos Proposal No:	00BX4-0008	Phone: (619) 990-6421 Email:	lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ____ OOC-BU ____ OOC-RM ____		Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other info:		Stage	Activity: Sediment Sampling	Invoice To: WR329993	BP-RM ___X___ BP-Other _____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Report Type & QC Level

Limited (Standard) Package ____
Limited Plus Package ____
Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-17_20190716	8:13		4		X	X	X	X	X	X					
	22T-SG-18_20190716	8:44		4		X	X	X	X	X	X					
	22T-SG-11_20190716	8:58		4		X	X	X	X	X	X					
	22T-SG-11-D_20190716	9:00		4		X	X	X	X	X	X					
	22T-SG-12_20190716	9:38		4		X	X	X	X	X	X					
	22T-SG-12-MSD_20190716	9:38		4		X	X	X	X	X	X					extra Vol for MS/MSD
	22T-SG-19_20190716	10:09		4		X	X	X	X	X	X					

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Laura McWilliams	Laura McWilliams	7/16	1545	TAPOR	7/16/19	1545
Sampler's Company:	Haley & Aldrich	Tapor / TAPOR	7/16/19	1730	T.A.	7/16/19	1000
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19						
Shipment Tracking No:							

Special Instructions:

Custody Seal: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 4.5 °F/C 3.3 | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Therm. ID: IR4 Cor: 2.1 ° Unc: 2.4 °
Cooler Dsc: Yellow
Packing: Bubble
Cust. Seal: Yes X No
Blue Ice, Wet, Dry, None
FedEx: P
UPS:
Lab Courr:
Other:

580-87706 Chain of Custody

Proprietary and Confidential
Property of BP and its Affiliates

Laboratory Management Program (LaMP) Chain of Custody Record

Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ **Req Due Date (mm/dd/yy):** EDD by 7/26/2019 Rush TAT Yes 5 days No _____

BP/RM Facility No: _____ **Lab Work Order Number:** 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Accnt:		Enfos Proposal No:	00BX4-0008	Phone: (619) 990-6421	Email: lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision _____	OOC-BU _____ OOC-RM _____	Send/Submit EDD to:	vgoderd@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage	Activity: Sediment Sampling	Invoice To:	WR329993 BP-RM __X__ BP-Other _____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Report Type & QC Level

Limited (Standard) Package _____

Limited Plus Package _____

Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-20-20190716	10:31		4		X	X	X	X	X	X					
	22T-SG-15-20190716	10:50		4		X	X	X	X	X	X					
	22T-SG-14-20190716	11:06		4		X	X	X	X	X	X					
	22T-SG-13-20190716	12:12		4		X	X	X	X	X	X					
	22T-SG-22-20190716	12:30		4		X	X	X	X	X	X					
	22T-SG-23-20190716	12:58		4		X	X	X	X	X	X					
	22T-SG-10-20190716	13:15		4		X	X	X	X	X	X					

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Laura McWilliams	Laura McWilliams	7/16	1545	TARR	7/16/19	1545
Sampler's Company:	Haley & Aldrich	TARR	7/16/19	1730	TA	7/17/19	1000
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19						
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Proprietary and Confidential
Property of BP and its Affiliates

bp rm

Laboratory Management Program (LaMP) Chain of Custody Record

Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ **Req Due Date (mm/dd/yy):** EDD by 7/26/2019 Rush TAT Yes 5 days No _____

BP/RM Facility No: _____ **Lab Work Order Number:** 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T			Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland	OR	97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none			Address:	5333 Mission Center Rd., Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable			Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Acct:		Enfos Proposal No:	00BX4-0008			Phone: (619) 990-6421	Email: lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision _____	OOC-BU _____	OOC-RM _____		Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage	Activity: Sediment Sampling			Invoice To: WR329993	BP-RM ___X___ BP-Other _____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Report Type & QC Level

Limited (Standard) Package ____

Limited Plus Package ____

Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	Laboratory			Seattle						Sac.	Knox	Seattle				
	Preservation															
	22T-SG-21_20190716	1408		4		X	X	X	X	X	X					
	22T-SG-16_20190716	1424		4		X	X	X	X	X	X					

Sampler's Name:	Laura McWilliams	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	Haley & Aldrich	[signature]	7/16	1545	[signature] T.A.OR	7/16/19	1545
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19	[signature] / T.A.OR	7/16/19	1730	[signature] T.A.	7/17/19	1000
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____°F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Proprietary and Confidential
Property of BP and its Affiliates

Laboratory Management Program (LaMP) Chain of Custody Record
Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ **Req Due Date (mm/dd/yy):** EDD by 7/26/2019 Rush TAT Yes 5 days / No ____

BP/RM Facility No: _____ **Lab Work Order Number:** 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Accnt:		Enfos Proposal No:	00BX4-0008	Phone: (619) 990-6421	Email: lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ____	OOC-BU ____ OOC-RM ____	Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage	Activity: Sediment Sampling	Invoice To: WR329993	BP-RM __X__ BP-Other ____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses — **Report Type & QC Level**

Limited (Standard) Package ____
Limited Plus Package ____
Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-17_20190716	8:13		4		X	X	X	X	X	X					
	22T-SG-18_20190716	8:44		4		X	X	X	X	X	X					
	22T-SG-11_20190716	8:58		4		X	X	X	X	X	X					
	22T-SG-11-D_20190716	9:00		4		X	X	X	X	X	X					
	22T-SG-12_20190716	9:38		4		X	X	X	X	X	X					
	22T-SG-12-MSD_20190716	9:38		4		X	X	X	X	X	X					extra Vol for MS/MSD
	22T-SG-19_20190716	10:09		4		X	X	X	X	X	X					

580-87706 Chain of Custody

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Laura McWilliams	Laura McWilliams	7/16	1545	HAP	7/16/19	1545
Sampler's Company:	Haley & Aldrich	Austin HAP	7/16/19	1730	ETA-SAC	7/17/19	930
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19						
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: 4.5 3.3 °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

5.4°C

Proprietary and Confidential
Property of BP and its Affiliates

bp rm

Laboratory Management Program (LaMP) Chain of Custody Record
Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ **Req Due Date (mm/dd/yy):** EDD by 7/26/2019 Rush TAT Yes 5 days No ____

BP/RM Facility No: _____ **Lab Work Order Number:** 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Accnt:		Enfos Proposal No:	00BX4-0008	Phone: (619) 990-6421 Email:	lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ____ OOC-BU ____ OOC-RM ____		Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage	Activity: Sediment Sampling	Invoice To: WR329993	BP-RM __X__ BP-Other _____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Report Type & QC Level

Limited (Standard) Package ____
Limited Plus Package ____
Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF pest. (DDX only) - low level (8081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
	22T-SG-20_20190716	10:31		4		X	X	X	X	X	X					
	22T-SG-15_20190716	10:50		4		X	X	X	X	X	X					
	22T_SG-14_20190716	11:06		4		X	X	X	X	X	X					
	22T_SG-13-20190716	12:12		4		X	X	X	X	X	X					
	22T_SG-22-20190716	12:30		4		X	X	X	X	X	X					
	22T-SG-23_20190716	12:58		4		X	X	X	X	X	X					
	22T-SG-10_20190716	13:15		4		X	X	X	X	X	X					

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Laura McWilliams	Laura McWilliams	7/16	1545	TAPOR	7/16/19	1545
Sampler's Company:	Haley & Aldrich	TAPOR	7/16/19	1730	ETA-SAC	7/17/19	930
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19						
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____°F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

5.4°C

Proprietary and Confidential
Property of BP and its Affiliates

Laboratory Management Program (LaMP) Chain of Custody Record
Soil, Sediment and Groundwater Samples

BP Site Node Path: _____ Req Due Date (mm/dd/yy): EDD by 7/26/2019 Rush TAT Yes 5 days / No ____

BP/RM Facility No: _____ Lab Work Order Number: 58013435 - 6

Lab Name:	Eurofins TestAmerica, Seattle	BP/ARC Facility Address:	Former Terminal 22T	Consultant/Contractor:	Haley & Aldrich
Lab Address:	5755 8th Street East, Tacoma, WA 98424	City, State, ZIP Code:	Portland OR 97241	Consultant/Contractor Project No:	129768-004
Lab PM:	Nathan Lewis	Lead Regulatory Agency:	none	Address:	5333 Mission Center Rd., Suite 200, San Diego, CA, 92108
Lab Phone:	(253) 248-4975	California Global ID No.:	not applicable	Consultant/Contractor PM:	Laura McWilliams
Lab Shipping Accnt:		Enfos Proposal No:	00BX4-0008	Phone: (619) 990-6421 Email:	lmcwilliams@haleyaldrich.com
Lab Bottle Order No:		Accounting Mode: Provision ____ OOC-BU ____ OOC-RM ____		Send/Submit EDD to:	vgodard@haleyaldrich.com and lmcwilliams@haleyaldrich.com
Other Info:		Stage	Activity: Sediment Sampling	Invoice To: WR329993	BP-RM __X__ BP-Other _____

BP/RM PM:	Kyle Christie
PM Phone:	(714) 815-8971
PM Email:	kyle.christie@bp.com

Requested Analyses

Report Type & QC Level

Limited (Standard) Package ____

Limited Plus Package ____

Full Package X

Lab No.	Unique Sample ID, must follow format of SAMPLENAMEYYYYMMDD Examples: MW01_20190101; BH01_3-5_20190101	Time	Laboratory Preservation	Depth Unit	Total Number of Containers	Matrix	Percent Solids (D 2216)	TOC - PSEP (9060)	SEF past. (DDX only) - low level (6081B)	PAHs - standard list of 17 (8270D SIM)	PCBs as arclors - low level (8082A)	Dioxins & Furans - 17 isomers (1613B)	PAH + aPAH custom list (8270D SIM)	Metals - As, Cd, Cu, Pb, Zn (6020A)	Mercury - CVAA (7471A)	Freeze 1 jar for archive	Comments
			Seattle									Sac.	Knox	Seattle			
	22T-SG-21_20190716	14:08			4		X	X	X	X	X	X					
	22T-SG-16_20190716	14:24			4		X	X	X	X	X	X					

Sampler's Name:	Laura McWilliams	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	Haley & Aldrich	[signature]	7/16	1545	[signature] TASOR	7/16/19	1545
Ship Method:	Deliver to Portland Service Center Ship Date: 7/16/19	[signature] TASOR	7/16/19	1730	[signature] ETA-SAC	7/17/19	930
Shipment Tracking No:							

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

5.4°C

Proprietary and Confidential
Property of BP and its Affiliates

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 580-87706-1

Login Number: 87706
List Number: 1
Creator: Antonson, Angeline D

List Source: Eurofins TestAmerica, Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	