eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-85913-3
Client Project/Site: Portland Harbor Pre-Remedial Design

For:
AECOM
1111 Third Ave
Suite 1600
Seattle, Washington 98101

Attn: Amy Dahl

M. Elaine Walker

Authorized for release by:
5/16/2019 12:27:37 PM

Elaine Walker, Project Manager II
(253)248-4972
elaine.walker@testamericainc.com

Table of Contents

Job ID: 580-85913-3

Laboratory: Eurofins TestAmerica, Seattle

Narrative

CASE NARRATIVE
Client: AECOM
Project: Portland Harbor Pre-Remedial Design
Report Number: 580-85913-3

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

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

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

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

RECEIPT

Five samples were received on 5/3/2019 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3º C and 4.8º C.

A sample container was provided to be archived frozen at the TestAmerica Sacramento laboratory pending potential additional analyses.

This report contains results of PCB Congeners, performed by TestAmerica Knoxville.

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

POLYCHLORINATED BIPHENYLS CONGENERS (PCBS)

Samples PDI-ST-T07A-1905 (580-85913-1), PDI-ST-T07B-1905 (580-85913-2), PDI-ST-T06A-1905 (580-85913-3) and PDI-ST-T06B-1905 (580-85913-4) were analyzed for polychlorinated biphenyls congeners (PCBs) in accordance with EPA Method 1668A. The samples were prepared on 05/08/2019 and analyzed on 05/13/2019.

Several analytes were detected in method blank MB 140-29875/5-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

One or more ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) associated with the following sample: PDI-ST-T07B-1905 (580-85913-2).

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

PCB CONGENERS - RINSE BLANK

Sample PDI-RB-ST-190501 (580-85913-5) was analyzed for PCB Congeners in accordance with 1668A. The sample was prepared on 05/10/2019 and analyzed on 05/16/2019.

Several analytes were detected in method blank MB 140-29960/3-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. The sample has no detection above the reporting limit (RL) indicating the system was free

Job ID: 580-85913-3 (Continued)

Laboratory: Eurofins TestAmerica, Seattle (Continued)

from contamination.

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

Qualifiers

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
C	The compound co-eluted with other compounds
C108	The compound co-eluted with PCB-108
C110	The compound co-eluted with PCB-110
C12	The compound co-eluted with PCB-12
C128	The compound co-eluted with PCB-128
C129	The compound co-eluted with PCB-129
C134	The compound co-eluted with PCB-134
C135	The compound co-eluted with PCB-135
C139	The compound co-eluted with PCB-139
C147	The compound co-eluted with PCB-147
C153	The compound co-eluted with PCB-153
C156	The compound co-eluted with PCB-156
C171	The compound co-eluted with PCB-171
C18	The compound co-eluted with PCB-18
C180	The compound co-eluted with PCB-180
C183	The compound co-eluted with PCB-183
C198	The compound co-eluted with PCB-198
C20	The compound co-eluted with PCB-20
C21	The compound co-eluted with PCB-21
C26	The compound co-eluted with PCB-26
C40	The compound co-eluted with PCB-40
C43	The compound co-eluted with PCB-43
C44	The compound co-eluted with PCB-44
C45	The compound co-eluted with PCB-45
C49	The compound co-eluted with PCB-49
C50	The compound co-eluted with PCB-50
C59	The compound co-eluted with PCB-59
C61	The compound co-eluted with PCB-61
C83	The compound co-eluted with PCB-83
C85	The compound co-eluted with PCB-85
C86	The compound co-eluted with PCB-86
C88	The compound co-eluted with PCB-88
C90	The compound co-eluted with PCB-90
C93	The compound co-eluted with PCB-93
C98	The compound co-eluted with PCB-98
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: PDI-ST-T07A-1905
Lab Sample ID: 580-85913-1
Date Collected: 05/01/19 16:45
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 49.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.00049	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-2	ND		0.010	0.00051	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-3	ND		0.010	0.00049	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-4	**0.0082**	**J q**	0.020	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-5	ND		0.010	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-6	**0.0056**	**J q**	0.010	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-7	ND		0.010	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-8	**0.0094**	**J**	0.020	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-9	ND		0.010	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-10	ND		0.010	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-11	**0.035**		0.020	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-12	**0.0035**	**J C**	0.020	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-13	**0.0035**	**J C12**	0.020	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-14	ND		0.010	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-15	**0.0059**	**J q**	0.010	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-16	**0.0074**	**J q**	0.010	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-17	**0.015**		0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-18	**0.023**	**C**	0.020	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-19	ND		0.010	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-20	**0.032**	**C**	0.020	0.00090	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-21	**0.012**	**J C**	0.020	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-22	**0.0090**	**J**	0.010	0.00092	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-23	ND		0.010	0.00091	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-24	ND		0.010	0.00097	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-25	**0.0043**	**J q**	0.010	0.00083	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-26	**0.0077**	**J q C**	0.020	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-27	**0.0034**	**J q**	0.010	0.00084	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-28	**0.032**	**C20**	0.020	0.00090	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-29	**0.0077**	**J q C26**	0.020	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-30	**0.023**	**C18**	0.020	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-31	**0.025**		0.020	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-32	**0.0078**	**J**	0.010	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-33	**0.012**	**J C21**	0.020	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-34	ND		0.010	0.00095	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-35	ND		0.010	0.00092	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-36	ND		0.010	0.00089	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-37	**0.0090**	**J**	0.010	0.00092	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-38	ND		0.010	0.00095	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-39	ND		0.010	0.00085	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-40	**0.026**	**J C**	0.030	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-41	**0.026**	**J C40**	0.030	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-42	**0.014**	**q**	0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-43	ND	C	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-44	**0.061**	**C**	0.030	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-45	**0.0093**	**J C**	0.020	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-46	ND		0.010	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-47	**0.061**	**C44**	0.030	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-48	**0.0062**	**J q**	0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-49	**0.042**	**C**	0.020	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1

Client Sample ID: PDI-ST-T07A-1905
Lab Sample ID: 580-85913-1
Date Collected: 05/01/19 16:45
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 49.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	**0.0078**	**J C**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-51	**0.0093**	**J C45**	0.020	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-52	**0.081**		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-53	**0.0078**	**J C50**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-54	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-55	ND		0.010	0.00083	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-56	**0.021**		0.010	0.00083	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-57	ND		0.010	0.00085	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-58	ND		0.010	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-59	**0.0043**	**J q C**	0.030	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-60	**0.0095**	**J**	0.010	0.00085	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-61	**0.085**	**C**	0.040	0.00080	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-62	**0.0043**	**J q C59**	0.030	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-63	ND		0.010	0.00077	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-64	**0.021**		0.010	0.00076	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-65	**0.061**	**C44**	0.030	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-66	**0.047**		0.010	0.00079	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-67	ND		0.010	0.00073	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-68	ND		0.010	0.00075	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-69	**0.042**	**C49**	0.020	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-70	**0.085**	**C61**	0.040	0.00080	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-71	**0.026**	**J C40**	0.030	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-72	ND		0.010	0.00083	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-73	ND	C43	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-74	**0.085**	**C61**	0.040	0.00080	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-75	**0.0043**	**J q C59**	0.030	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-76	**0.085**	**C61**	0.040	0.00080	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-77	**0.0058**	**J**	0.010	0.00079	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-78	ND		0.010	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-79	ND		0.010	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-80	ND		0.010	0.00073	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-81	ND		0.010	0.00080	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-82	**0.0098**	**J**	0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-83	**0.062**	**q C B**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-84	**0.021**	**q**	0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-85	**0.020**	**J C**	0.030	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-86	**0.061**	**C B**	0.060	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-87	**0.061**	**C86 B**	0.060	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-88	**0.014**	**J q C**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-89	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-90	**0.099**	**C**	0.030	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-91	**0.014**	**J q C88**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-92	**0.021**		0.010	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-93	ND	C	0.020	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-94	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-95	**0.077**		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-96	ND		0.010	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-97	**0.061**	**C86 B**	0.060	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-98	ND	C	0.020	0.00098	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1

Client Sample ID: PDI-ST-T07A-1905
Lab Sample ID: 580-85913-1
Date Collected: 05/01/19 16:45
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 49.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	**0.062**	**q C83 B**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-100	ND	C93	0.020	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-101	**0.099**	**C90**	0.030	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-102	ND	C98	0.020	0.00098	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-103	ND		0.010	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-104	ND		0.010	0.00077	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-105	**0.030**		0.010	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-106	ND		0.010	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-107	**0.0083**	**J**	0.010	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-108	ND	C	0.020	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-109	**0.061**	**C86 B**	0.060	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-110	**0.11**	**C B**	0.020	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-111	ND		0.010	0.00071	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-112	ND		0.010	0.00075	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-113	**0.099**	**C90**	0.030	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-114	ND		0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-115	**0.11**	**C110 B**	0.020	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-116	**0.020**	**J C85**	0.030	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-117	**0.020**	**J C85**	0.030	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-118	**0.079**		0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-119	**0.061**	**C86 B**	0.060	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-120	ND		0.010	0.00072	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-121	ND		0.010	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-122	ND		0.010	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-123	**0.0020**	**J**	0.010	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-124	ND	C108	0.020	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-125	**0.061**	**C86 B**	0.060	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-126	ND		0.010	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-127	ND		0.010	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-128	**0.017**	**J q C**	0.020	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-129	**0.13**	**C**	0.040	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-130	**0.0077**	**J q**	0.010	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-131	ND		0.010	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-132	**0.033**		0.010	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-133	ND		0.010	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-134	**0.0035**	**J C**	0.020	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-135	**0.033**	**C**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-136	**0.013**		0.010	0.00079	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-137	**0.0059**	**J q**	0.010	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-138	**0.13**	**C129**	0.040	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-139	ND	C	0.020	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-140	ND	C139	0.020	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-141	**0.017**	**q**	0.010	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-142	ND		0.010	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-143	**0.0035**	**J C134**	0.020	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-144	**0.0031**	**J q**	0.010	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-145	ND		0.010	0.00076	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-146	**0.016**		0.010	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-147	**0.10**	**C**	0.020	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1

Client Sample ID: PDI-ST-T07A-1905
Date Collected: 05/01/19 16:45
Date Received: 05/03/19 11:05

Lab Sample ID: 580-85913-1
Matrix: Solid
Percent Solids: 49.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-149	**0.10**	**C147**	0.020	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-150	ND		0.010	0.00072	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-151	**0.033**	**C135**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-152	ND		0.010	0.00078	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-153	**0.11**	**C**	0.020	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-154	ND		0.010	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-155	ND		0.010	0.00073	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-156	**0.014**	**J C**	0.020	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-157	**0.014**	**J C156**	0.020	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-158	**0.013**		0.010	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-159	ND		0.010	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-160	**0.13**	**C129**	0.040	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-161	ND		0.010	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-162	ND		0.010	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-163	**0.13**	**C129**	0.040	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-164	**0.0094**	**J**	0.010	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-165	ND		0.010	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-166	**0.017**	**J q C128**	0.020	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-167	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-168	**0.11**	**C153**	0.020	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-169	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-170	**0.028**	**q**	0.010	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-171	**0.0091**	**J q C**	0.020	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-172	ND		0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-173	**0.0091**	**J q C171**	0.020	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-174	**0.026**		0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-175	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-176	ND		0.010	0.00085	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-177	**0.016**		0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-178	**0.0086**	**J**	0.010	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-179	**0.013**	**q**	0.010	0.00090	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-180	**0.028**	**C**	0.020	0.00094	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-181	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-182	ND		0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-183	**0.021**	**C**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-184	ND		0.010	0.00092	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-185	**0.021**	**C183**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-186	ND		0.010	0.00090	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-187	**0.039**	**q**	0.010	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-188	ND		0.010	0.00076	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-189	ND		0.010	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-190	**0.0044**	**J q**	0.010	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-191	ND		0.010	0.00085	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-192	ND		0.010	0.00095	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-193	**0.028**	**C180**	0.020	0.00094	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-194	**0.013**	**q**	0.010	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-195	**0.0086**	**J q**	0.010	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-196	**0.0058**	**J q**	0.010	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1

Client Sample ID: PDI-ST-T07A-1905
Lab Sample ID: 580-85913-1
Date Collected: 05/01/19 16:45
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 49.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.010	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-198	**0.015**	**J q C**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-199	**0.015**	**J q C198**	0.020	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-200	ND		0.010	0.00077	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-201	ND		0.010	0.00079	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-202	**0.0055**	**J**	0.010	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-203	**0.0093**	**J q B**	0.010	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-204	ND		0.010	0.00087	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-205	ND		0.010	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-206	**0.014**		0.010	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-207	ND		0.010	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-208	ND		0.010	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1
PCB-209	**0.021**	**q**	0.010	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 21:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*48*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-3L	*52*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-4L	*66*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-15L	*72*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-19L	*84*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-37L	*92*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-54L	*105*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-77L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-81L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-104L	*77*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-105L	*87*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-114L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-118L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-123L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-126L	*77*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-155L	*96*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-156L	*80*	*C*	*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-157L	*80*	*C156*	*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-167L	*84*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-169L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-170L	*80*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-188L	*94*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-189L	*85*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-202L	*109*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-205L	*72*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-206L	*77*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-208L	*91*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-209L	*81*		*30 - 140*	*05/08/19 07:26*	*05/13/19 21:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*88*		*40 - 125*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-111L	*81*		*40 - 125*	*05/08/19 07:26*	*05/13/19 21:06*	*1*
PCB-178L	*100*		*40 - 125*	*05/08/19 07:26*	*05/13/19 21:06*	*1*

Client Sample ID: PDI-ST-T07B-1905
Lab Sample ID: 580-85913-2
Date Collected: 05/01/19 17:00
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 41.9

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.012	0.00051	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-2	**0.0020**	**J q**	0.012	0.00055	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-3	**0.0060**	**J q**	0.012	0.00056	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-4	**0.028**		0.023	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-5	ND		0.012	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-6	**0.031**		0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-7	**0.0086**	**J**	0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-8	**0.14**		0.023	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-9	**0.011**	**J**	0.012	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-10	ND		0.012	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-11	**0.033**		0.023	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-12	**0.012**	**J q C**	0.023	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-13	**0.012**	**J q C12**	0.023	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-14	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-15	**0.086**		0.012	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-16	**0.032**		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-17	**0.031**	**q**	0.012	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-18	**0.067**	**C**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-19	**0.0084**	**J**	0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-20	**0.082**	**C**	0.023	0.00095	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-21	**0.042**	**C**	0.023	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-22	**0.026**	**q**	0.012	0.00098	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-23	ND		0.012	0.00097	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-24	ND		0.012	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-25	**0.0086**	**J q**	0.012	0.00088	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-26	**0.017**	**J q C**	0.023	0.00094	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-27	**0.0045**	**J q**	0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-28	**0.082**	**C20**	0.023	0.00095	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-29	**0.017**	**J q C26**	0.023	0.00094	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-30	**0.067**	**C18**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-31	**0.074**		0.023	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-32	**0.020**		0.012	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-33	**0.042**	**C21**	0.023	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-34	ND		0.012	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-35	**0.0017**	**J q**	0.012	0.00098	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-36	ND		0.012	0.00094	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-37	**0.022**		0.012	0.00097	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-38	ND		0.012	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-39	ND		0.012	0.00091	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-40	**0.030**	**J C**	0.035	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-41	**0.030**	**J C40**	0.035	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-42	**0.014**	**q**	0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-43	**0.0044**	**J C**	0.023	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-44	**0.060**	**C**	0.035	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-45	**0.014**	**J C**	0.023	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-46	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-47	**0.060**	**C44**	0.035	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-48	**0.0064**	**J q**	0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-49	**0.035**	**C**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1

Client Sample ID: PDI-ST-T07B-1905
Lab Sample ID: 580-85913-2
Date Collected: 05/01/19 17:00
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 41.9

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	**0.014**	**J q C**	0.023	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-51	**0.014**	**J C45**	0.023	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-52	**0.094**		0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-53	**0.014**	**J q C50**	0.023	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-54	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-55	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-56	**0.020**		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-57	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-58	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-59	**0.0079**	**J C**	0.035	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-60	**0.0084**	**J q**	0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-61	**0.083**	**C**	0.046	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-62	**0.0079**	**J C59**	0.035	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-63	ND		0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-64	**0.025**		0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-65	**0.060**	**C44**	0.035	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-66	**0.047**		0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-67	ND		0.012	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-68	ND		0.012	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-69	**0.035**	**C49**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-70	**0.083**	**C61**	0.046	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-71	**0.030**	**J C40**	0.035	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-72	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-73	**0.0044**	**J C43**	0.023	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-74	**0.083**	**C61**	0.046	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-75	**0.0079**	**J C59**	0.035	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-76	**0.083**	**C61**	0.046	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-77	**0.0086**	**J**	0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-78	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-79	ND		0.012	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-80	ND		0.012	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-81	ND		0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-82	**0.013**	**q**	0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-83	**0.075**	**C B**	0.023	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-84	**0.028**	**q**	0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-85	**0.021**	**J C**	0.035	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-86	**0.076**	**C B**	0.070	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-87	**0.076**	**C86 B**	0.070	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-88	**0.020**	**J C**	0.023	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-89	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-90	**0.13**	**C**	0.035	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-91	**0.020**	**J C88**	0.023	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-92	**0.025**		0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-93	ND	C	0.023	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-94	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-95	**0.10**		0.012	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-96	ND		0.012	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-97	**0.076**	**C86 B**	0.070	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-98	ND	C	0.023	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

Job ID: 580-85913-3

Client Sample ID: PDI-ST-T07B-1905
Date Collected: 05/01/19 17:00
Date Received: 05/03/19 11:05

Lab Sample ID: 580-85913-2
Matrix: Solid
Percent Solids: 41.9

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	**0.075**	**C83 B**	0.023	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-100	ND	C93	0.023	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-101	**0.13**	**C90**	0.035	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-102	ND	C98	0.023	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-103	ND		0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-104	ND		0.012	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-105	**0.043**		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-106	ND		0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-107	**0.012**		0.012	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-108	ND	C	0.023	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-109	**0.076**	**C86 B**	0.070	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-110	**0.14**	**C B**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-111	ND		0.012	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-112	ND		0.012	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-113	**0.13**	**C90**	0.035	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-114	ND		0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-115	**0.14**	**C110 B**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-116	**0.021**	**J C85**	0.035	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-117	**0.021**	**J C85**	0.035	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-118	**0.098**		0.012	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-119	**0.076**	**C86 B**	0.070	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-120	ND		0.012	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-121	ND		0.012	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-122	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-123	**0.0024**	**J q**	0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-124	ND	C108	0.023	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-125	**0.076**	**C86 B**	0.070	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-126	ND		0.012	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-127	ND		0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-128	**0.030**	**C**	0.023	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-129	**0.23**	**C**	0.046	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-130	**0.011**	**J**	0.012	0.0040	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-131	ND		0.012	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-132	**0.065**		0.012	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-133	ND		0.012	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-134	**0.0089**	**J q C**	0.023	0.0040	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-135	**0.062**	**C**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-136	**0.017**	**q**	0.012	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-137	**0.0074**	**J q**	0.012	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-138	**0.23**	**C129**	0.046	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-139	ND	C	0.023	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-140	ND	C139	0.023	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-141	**0.037**	**q**	0.012	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-142	ND		0.012	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-143	**0.0089**	**J q C134**	0.023	0.0040	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-144	ND		0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-145	ND		0.012	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-146	**0.037**		0.012	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-147	**0.19**	**C**	0.023	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-ST-T07B-1905
Lab Sample ID: 580-85913-2
Date Collected: 05/01/19 17:00
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 41.9

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-149	**0.19**	**C147**	0.023	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-150	ND		0.012	0.00096	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-151	**0.062**	**C135**	0.023	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-152	ND		0.012	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-153	**0.20**	**C**	0.023	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-154	ND		0.012	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-155	ND		0.012	0.00096	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-156	**0.018**	**J q C**	0.023	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-157	**0.018**	**J q C156**	0.023	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-158	**0.020**		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-159	ND		0.012	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-160	**0.23**	**C129**	0.046	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-161	ND		0.012	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-162	ND		0.012	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-163	**0.23**	**C129**	0.046	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-164	**0.013**	**q**	0.012	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-165	ND		0.012	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-166	**0.030**	**C128**	0.023	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-167	**0.0087**	**J**	0.012	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-168	**0.20**	**C153**	0.023	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-169	ND		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-170	**0.068**		0.012	0.0012	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-171	**0.016**	**J q C**	0.023	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-172	**0.0096**	**J**	0.012	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-173	**0.016**	**J q C171**	0.023	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-174	**0.075**		0.012	0.00096	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-175	ND		0.012	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-176	**0.0084**	**J**	0.012	0.00070	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-177	**0.047**		0.012	0.00099	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-178	**0.020**		0.012	0.0010	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-179	**0.033**		0.012	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-180	**0.14**	**C**	0.023	0.00078	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-181	ND		0.012	0.00093	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-182	ND		0.012	0.00089	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-183	**0.042**	**C**	0.023	0.00091	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-184	ND		0.012	0.00076	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-185	**0.042**	**C183**	0.023	0.00091	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-186	ND		0.012	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-187	**0.095**		0.012	0.00086	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-188	ND		0.012	0.00062	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-189	ND		0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-190	**0.0064**	**J q**	0.012	0.00067	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-191	ND		0.012	0.00070	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-192	ND		0.012	0.00078	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-193	**0.14**	**C180**	0.023	0.00078	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-194	**0.026**		0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-195	**0.010**	**J q**	0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-196	**0.011**	**J**	0.012	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1

Client Sample ID: PDI-ST-T07B-1905
Lab Sample ID: 580-85913-2

Date Collected: 05/01/19 17:00
Matrix: Solid

Date Received: 05/03/19 11:05
Percent Solids: 41.9

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.012	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-198	**0.024**	**q C**	0.023	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-199	**0.024**	**q C198**	0.023	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-200	ND		0.012	0.00072	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-201	**0.0061**	**J**	0.012	0.00074	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-202	**0.0099**	**J q**	0.012	0.00083	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-203	**0.014**	**q B**	0.012	0.00096	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-204	ND		0.012	0.00081	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-205	ND		0.012	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-206	**0.029**		0.012	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-207	**0.0030**	**J q**	0.012	0.00091	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-208	**0.0047**	**J q**	0.012	0.00090	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1
PCB-209	**0.048**		0.012	0.00075	ng/g	☼	05/08/19 07:26	05/13/19 17:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*60*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-3L	*64*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-4L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-15L	*78*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-19L	*90*	*q*	*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-37L	*90*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-54L	*116*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-77L	*82*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-81L	*81*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-104L	*87*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-105L	*97*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-114L	*101*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-118L	*98*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-123L	*99*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-126L	*85*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-155L	*104*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-156L	*87*	*C*	*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-157L	*87*	*C156*	*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-167L	*89*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-169L	*85*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-170L	*87*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-188L	*105*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-189L	*84*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-202L	*120*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-205L	*77*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-206L	*89*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-208L	*96*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-209L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 17:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*92*		*40 - 125*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-111L	*89*		*40 - 125*	*05/08/19 07:26*	*05/13/19 17:53*	*1*
PCB-178L	*107*		*40 - 125*	*05/08/19 07:26*	*05/13/19 17:53*	*1*

Client Sample ID: PDI-ST-T06A-1905
Lab Sample ID: 580-85913-3
Date Collected: 05/01/19 17:15
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 45.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.011	0.00053	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-2	ND		0.011	0.00054	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-3	ND		0.011	0.00051	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-4	**0.0095**	**J q**	0.022	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-5	ND		0.011	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-6	ND		0.011	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-7	ND		0.011	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-8	**0.0092**	**J q**	0.022	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-9	ND		0.011	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-10	ND		0.011	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-11	**0.052**		0.022	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-12	ND	C	0.022	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-13	ND	C12	0.022	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-14	ND		0.011	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-15	**0.0062**	**J q**	0.011	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-16	**0.0085**	**J**	0.011	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-17	**0.011**	**q**	0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-18	**0.017**	**J q C**	0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-19	**0.011**		0.011	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-20	**0.031**	**C**	0.022	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-21	**0.0095**	**J C**	0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-22	**0.0055**	**J q**	0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-23	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-24	ND		0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-25	**0.0033**	**J q**	0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-26	**0.0057**	**J C**	0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-27	**0.0068**	**J**	0.011	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-28	**0.031**	**C20**	0.022	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-29	**0.0057**	**J C26**	0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-30	**0.017**	**J q C18**	0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-31	**0.024**		0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-32	**0.012**		0.011	0.0011	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-33	**0.0095**	**J C21**	0.022	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-34	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-35	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-36	ND		0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-37	**0.0077**	**J q**	0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-38	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-39	ND		0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-40	**0.016**	**J q C**	0.032	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-41	**0.016**	**J q C40**	0.032	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-42	**0.015**		0.011	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-43	ND	C	0.022	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-44	**0.047**	**C**	0.032	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-45	ND	C	0.022	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-46	ND		0.011	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-47	**0.047**	**C44**	0.032	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-48	**0.0064**	**J q**	0.011	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-49	**0.037**	**C**	0.022	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1

Client Sample ID: PDI-ST-T06A-1905
Lab Sample ID: 580-85913-3
Date Collected: 05/01/19 17:15
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 45.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	**0.011**	**J C**	0.022	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-51	ND	C45	0.022	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-52	**0.080**		0.011	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-53	**0.011**	**J C50**	0.022	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-54	ND		0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-55	ND		0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-56	**0.017**		0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-57	ND		0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-58	ND		0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-59	ND	C	0.032	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-60	**0.0054**	**J q**	0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-61	**0.075**	**q C**	0.043	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-62	ND	C59	0.032	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-63	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-64	**0.018**	**q**	0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-65	**0.047**	**C44**	0.032	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-66	**0.045**		0.011	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-67	ND		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-68	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-69	**0.037**	**C49**	0.022	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-70	**0.075**	**q C61**	0.043	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-71	**0.016**	**J q C40**	0.032	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-72	ND		0.011	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-73	ND	C43	0.022	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-74	**0.075**	**q C61**	0.043	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-75	ND	C59	0.032	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-76	**0.075**	**q C61**	0.043	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-77	**0.0059**	**J**	0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-78	ND		0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-79	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-80	ND		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-81	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-82	**0.011**	**q**	0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-83	**0.061**	**q C B**	0.022	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-84	**0.029**	**q**	0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-85	**0.019**	**J q C**	0.032	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-86	**0.075**	**C B**	0.065	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-87	**0.075**	**C86 B**	0.065	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-88	**0.020**	**J q C**	0.022	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-89	ND		0.011	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-90	**0.11**	**C**	0.032	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-91	**0.020**	**J q C88**	0.022	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-92	**0.021**		0.011	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-93	**0.0053**	**J q C**	0.022	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-94	ND		0.011	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-95	**0.10**		0.011	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-96	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-97	**0.075**	**C86 B**	0.065	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-98	**0.0093**	**J C**	0.022	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1

Client Sample ID: PDI-ST-T06A-1905
Lab Sample ID: 580-85913-3

Date Collected: 05/01/19 17:15
Matrix: Solid

Date Received: 05/03/19 11:05
Percent Solids: 45.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.061	q C83 B	0.022	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-100	0.0053	J q C93	0.022	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-101	0.11	C90	0.032	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-102	0.0093	J C98	0.022	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-103	ND		0.011	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-104	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-105	0.047		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-106	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-107	0.0096	J q	0.011	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-108	0.0057	J q C	0.022	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-109	0.075	C86 B	0.065	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-110	0.13	C B	0.022	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-111	ND		0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-112	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-113	0.11	C90	0.032	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-114	ND		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-115	0.13	C110 B	0.022	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-116	0.019	J q C85	0.032	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-117	0.019	J q C85	0.032	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-118	0.11		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-119	0.075	C86 B	0.065	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-120	ND		0.011	0.0013	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-121	ND		0.011	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-122	ND		0.011	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-123	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-124	0.0057	J q C108	0.022	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-125	0.075	C86 B	0.065	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-126	ND		0.011	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-127	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-128	0.029	q C	0.022	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-129	0.19	C	0.043	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-130	0.017	q	0.011	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-131	ND		0.011	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-132	0.049	q	0.011	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-133	ND		0.011	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-134	0.0058	J q C	0.022	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-135	0.046	C	0.022	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-136	0.018		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-137	0.0097	J	0.011	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-138	0.19	C129	0.043	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-139	ND	C	0.022	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-140	ND	C139	0.022	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-141	0.030	q	0.011	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-142	ND		0.011	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-143	0.0058	J q C134	0.022	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-144	ND		0.011	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-145	ND		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-146	0.036		0.011	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-147	0.15	C	0.022	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1

Client Sample ID: PDI-ST-T06A-1905
Lab Sample ID: 580-85913-3
Date Collected: 05/01/19 17:15
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 45.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-149	**0.15**	**C147**	0.022	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-150	ND		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-151	**0.046**	**C135**	0.022	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-152	ND		0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-153	**0.15**	**C**	0.022	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-154	ND		0.011	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-155	ND		0.011	0.0015	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-156	**0.020**	**J q C**	0.022	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-157	**0.020**	**J q C156**	0.022	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-158	**0.020**		0.011	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-159	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-160	**0.19**	**C129**	0.043	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-161	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-162	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-163	**0.19**	**C129**	0.043	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-164	**0.014**		0.011	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-165	ND		0.011	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-166	**0.029**	**q C128**	0.022	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-167	**0.0087**	**J**	0.011	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-168	**0.15**	**C153**	0.022	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-169	ND		0.011	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-170	**0.048**		0.011	0.0047	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-171	ND	C	0.022	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-172	ND		0.011	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-173	ND	C171	0.022	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-174	**0.046**		0.011	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-175	ND		0.011	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-176	ND		0.011	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-177	**0.023**		0.011	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-178	**0.013**		0.011	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-179	**0.018**		0.011	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-180	**0.085**	**C**	0.022	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-181	ND		0.011	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-182	ND		0.011	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-183	**0.026**	**q C**	0.022	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-184	ND		0.011	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-185	**0.026**	**q C183**	0.022	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-186	ND		0.011	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-187	**0.063**		0.011	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-188	ND		0.011	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-189	ND		0.011	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-190	ND		0.011	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-191	ND		0.011	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-192	ND		0.011	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-193	**0.085**	**C180**	0.022	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-194	**0.020**	**q**	0.011	0.0047	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-195	ND		0.011	0.0052	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-196	**0.012**		0.011	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1

Client Sample ID: PDI-ST-T06A-1905
Lab Sample ID: 580-85913-3
Date Collected: 05/01/19 17:15
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 45.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-198	**0.029**	**C**	0.022	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-199	**0.029**	**C198**	0.022	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-200	ND		0.011	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-201	ND		0.011	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-202	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-203	**0.013**	**B**	0.011	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-204	ND		0.011	0.0022	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-205	ND		0.011	0.0040	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-206	**0.012**	**q**	0.011	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-207	ND		0.011	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-208	ND		0.011	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1
PCB-209	**0.038**		0.011	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 18:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*56*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-3L	*60*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-4L	*75*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-15L	*80*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-19L	*97*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-37L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-54L	*111*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-77L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-81L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-104L	*84*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-105L	*90*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-114L	*94*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-118L	*93*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-123L	*95*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-126L	*80*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-155L	*101*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-156L	*82*	*C*	*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-157L	*82*	*C156*	*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-167L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-169L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-170L	*81*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-188L	*104*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-189L	*86*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-202L	*119*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-205L	*74*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-206L	*82*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-208L	*96*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-209L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 18:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*90*		*40 - 125*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-111L	*87*		*40 - 125*	*05/08/19 07:26*	*05/13/19 18:54*	*1*
PCB-178L	*102*		*40 - 125*	*05/08/19 07:26*	*05/13/19 18:54*	*1*

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-ST-T06B-1905
Lab Sample ID: 580-85913-4
Date Collected: 05/01/19 17:10
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 40.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.012	0.00076	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-2	**0.0055**	**J**	0.012	0.00085	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-3	ND		0.012	0.00089	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-4	**0.012**	**J q**	0.024	0.0075	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-5	ND		0.012	0.0057	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-6	**0.038**	**q**	0.012	0.0050	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-7	ND		0.012	0.0051	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-8	**0.016**	**J q**	0.024	0.0046	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-9	ND		0.012	0.0053	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-10	ND		0.012	0.0056	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-11	**0.054**		0.024	0.0049	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-12	ND	C	0.024	0.0051	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-13	ND	C12	0.024	0.0051	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-14	ND		0.012	0.0043	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-15	**0.0067**	**J q**	0.012	0.0051	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-16	**0.020**	**q**	0.012	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-17	**0.035**	**q**	0.012	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-18	**0.063**	**q C**	0.024	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-19	**0.0058**	**J q**	0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-20	**0.093**	**C**	0.024	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-21	**0.029**	**C**	0.024	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-22	**0.022**		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-23	ND		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-24	ND		0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-25	**0.046**	**q**	0.012	0.0018	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-26	**0.086**	**C**	0.024	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-27	**0.0045**	**J q**	0.012	0.0017	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-28	**0.093**	**C20**	0.024	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-29	**0.086**	**C26**	0.024	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-30	**0.063**	**q C18**	0.024	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-31	**0.093**		0.024	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-32	**0.020**		0.012	0.0016	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-33	**0.029**	**C21**	0.024	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-34	ND		0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-35	ND		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-36	ND		0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-37	**0.014**		0.012	0.0020	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-38	ND		0.012	0.0021	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-39	ND		0.012	0.0019	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-40	**0.055**	**C**	0.036	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-41	**0.055**	**C40**	0.036	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-42	**0.034**		0.012	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-43	ND	C	0.024	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-44	**0.13**	**C**	0.036	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-45	**0.028**	**C**	0.024	0.0044	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-46	ND		0.012	0.0053	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-47	**0.13**	**C44**	0.036	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-48	**0.018**		0.012	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-49	**0.094**	**C**	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

Job ID: 580-85913-3

Client Sample ID: PDI-ST-T06B-1905
Date Collected: 05/01/19 17:10
Date Received: 05/03/19 11:05

Lab Sample ID: 580-85913-4
Matrix: Solid
Percent Solids: 40.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.026	C	0.024	0.0041	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-51	0.028	C45	0.024	0.0044	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-52	0.19		0.012	0.0041	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-53	0.026	C50	0.024	0.0041	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-54	ND		0.012	0.0014	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-55	ND		0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-56	0.026		0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-57	ND		0.012	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-58	ND		0.012	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-59	0.013	J C	0.036	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-60	0.013		0.012	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-61	0.12	C	0.049	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-62	0.013	J C59	0.036	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-63	ND		0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-64	0.042	q	0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-65	0.13	C44	0.036	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-66	0.072		0.012	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-67	ND		0.012	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-68	ND		0.012	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-69	0.094	C49	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-70	0.12	C61	0.049	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-71	0.055	C40	0.036	0.0042	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-72	ND		0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-73	ND	C43	0.024	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-74	0.12	C61	0.049	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-75	0.013	J C59	0.036	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-76	0.12	C61	0.049	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-77	0.0081	J	0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-78	ND		0.012	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-79	ND		0.012	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-80	ND		0.012	0.0027	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-81	ND		0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-82	0.016	q	0.012	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-83	0.13	C B	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-84	0.065	q	0.012	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-85	0.034	J q C	0.036	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-86	0.12	C B	0.073	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-87	0.12	C86 B	0.073	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-88	0.040	C	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-89	ND		0.012	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-90	0.21	C	0.036	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-91	0.040	C88	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-92	0.047		0.012	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-93	0.0077	J q C	0.024	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-94	ND		0.012	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-95	0.22		0.012	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-96	ND		0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-97	0.12	C86 B	0.073	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-98	0.013	J q C	0.024	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1

Client Sample ID: PDI-ST-T06B-1905
Date Collected: 05/01/19 17:10
Date Received: 05/03/19 11:05

Lab Sample ID: 580-85913-4
Matrix: Solid
Percent Solids: 40.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.13	C83 B	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-100	0.0077	J q C93	0.024	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-101	0.21	C90	0.036	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-102	0.013	J q C98	0.024	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-103	ND		0.012	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-104	ND		0.012	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-105	0.054		0.012	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-106	ND		0.012	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-107	0.012	q	0.012	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-108	0.0071	J q C	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-109	0.12	C86 B	0.073	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-110	0.23	C B	0.024	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-111	ND		0.012	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-112	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-113	0.21	C90	0.036	0.0029	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-114	ND		0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-115	0.23	C110 B	0.024	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-116	0.034	J q C85	0.036	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-117	0.034	J q C85	0.036	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-118	0.14		0.012	0.0031	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-119	0.12	C86 B	0.073	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-120	ND		0.012	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-121	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-122	ND		0.012	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-123	ND		0.012	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-124	0.0071	J q C108	0.024	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-125	0.12	C86 B	0.073	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-126	ND		0.012	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-127	ND		0.012	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-128	0.035	q C	0.024	0.0054	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-129	0.29	C	0.049	0.0056	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-130	0.021	q	0.012	0.0074	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-131	ND		0.012	0.0077	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-132	0.095		0.012	0.0073	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-133	ND		0.012	0.0070	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-134	0.015	J C	0.024	0.0073	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-135	0.095	C	0.024	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-136	0.035		0.012	0.0026	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-137	0.017	q	0.012	0.0063	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-138	0.29	C129	0.049	0.0056	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-139	ND	C	0.024	0.0063	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-140	ND	C139	0.024	0.0063	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-141	0.051		0.012	0.0066	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-142	ND		0.012	0.0070	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-143	0.015	J C134	0.024	0.0073	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-144	0.012	q	0.012	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-145	ND		0.012	0.0024	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-146	0.040	q	0.012	0.0062	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-147	0.26	C	0.024	0.0071	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

Job ID: 580-85913-3

Client Sample ID: PDI-ST-T06B-1905
Date Collected: 05/01/19 17:10
Date Received: 05/03/19 11:05

Lab Sample ID: 580-85913-4
Matrix: Solid
Percent Solids: 40.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.012	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-149	**0.26**	**C147**	0.024	0.0071	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-150	ND		0.012	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-151	**0.095**	**C135**	0.024	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-152	ND		0.012	0.0025	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-153	**0.24**	**C**	0.024	0.0049	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-154	**0.0045**	**J**	0.012	0.0028	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-155	ND		0.012	0.0023	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-156	**0.025**	**q C**	0.024	0.0061	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-157	**0.025**	**q C156**	0.024	0.0061	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-158	**0.029**		0.012	0.0044	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-159	ND		0.012	0.0047	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-160	**0.29**	**C129**	0.049	0.0056	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-161	ND		0.012	0.0046	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-162	ND		0.012	0.0046	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-163	**0.29**	**C129**	0.049	0.0056	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-164	**0.027**		0.012	0.0049	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-165	ND		0.012	0.0053	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-166	**0.035**	**q C128**	0.024	0.0054	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-167	ND		0.012	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-168	**0.24**	**C153**	0.024	0.0049	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-169	ND		0.012	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-170	**0.057**	**q**	0.012	0.0064	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-171	**0.025**	**C**	0.024	0.0052	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-172	**0.016**		0.012	0.0051	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-173	**0.025**	**C171**	0.024	0.0052	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-174	**0.052**		0.012	0.0048	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-175	ND		0.012	0.0047	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-176	**0.018**		0.012	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-177	**0.039**		0.012	0.0050	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-178	**0.019**		0.012	0.0051	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-179	**0.035**		0.012	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-180	**0.11**	**C**	0.024	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-181	ND		0.012	0.0047	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-182	ND		0.012	0.0045	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-183	**0.033**	**q C**	0.024	0.0046	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-184	ND		0.012	0.0038	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-185	**0.033**	**q C183**	0.024	0.0046	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-186	ND		0.012	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-187	**0.077**		0.012	0.0043	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-188	ND		0.012	0.0030	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-189	ND		0.012	0.0066	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-190	**0.010**	**J**	0.012	0.0034	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-191	ND		0.012	0.0035	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-192	ND		0.012	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-193	**0.11**	**C180**	0.024	0.0039	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-194	**0.041**		0.012	0.010	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-195	ND		0.012	0.011	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-196	**0.012**	**q**	0.012	0.0048	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1

Client Sample ID: PDI-ST-T06B-1905
Lab Sample ID: 580-85913-4
Date Collected: 05/01/19 17:10
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 40.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.012	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-198	**0.044**	**C**	0.024	0.0048	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-199	**0.044**	**C198**	0.024	0.0048	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-200	ND		0.012	0.0032	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-201	ND		0.012	0.0033	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-202	**0.012**		0.012	0.0037	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-203	**0.021**	**q B**	0.012	0.0043	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-204	ND		0.012	0.0036	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-205	ND		0.012	0.0087	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-206	ND	G	0.013	0.013	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-207	ND		0.012	0.0086	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-208	ND		0.012	0.0086	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1
PCB-209	**0.041**		0.012	0.012	ng/g	☼	05/08/19 07:26	05/13/19 19:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*53*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-3L	*54*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-4L	*68*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-15L	*73*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-19L	*77*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-37L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-54L	*100*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-77L	*74*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-81L	*71*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-104L	*72*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-105L	*80*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-114L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-118L	*81*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-123L	*82*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-126L	*71*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-155L	*86*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-156L	*71*	*C*	*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-157L	*71*	*C156*	*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-167L	*75*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-169L	*66*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-170L	*71*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-188L	*98*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-189L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-202L	*106*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-205L	*68*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-206L	*74*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-208L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-209L	*71*		*30 - 140*	*05/08/19 07:26*	*05/13/19 19:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*81*		*40 - 125*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-111L	*77*		*40 - 125*	*05/08/19 07:26*	*05/13/19 19:56*	*1*
PCB-178L	*98*		*40 - 125*	*05/08/19 07:26*	*05/13/19 19:56*	*1*

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-RB-ST-190501
Lab Sample ID: 580-85913-5
Date Collected: 05/01/19 17:45
Matrix: Water
Date Received: 05/03/19 11:05

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.040	0.00048	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-2	ND		0.040	0.00054	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-3	**0.0028**	**J q**	0.040	0.00057	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-4	ND		0.059	0.0059	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-5	ND		0.040	0.0047	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-6	ND		0.040	0.0042	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-7	ND		0.040	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-8	**0.0067**	**J q**	0.059	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-9	ND		0.040	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-10	ND		0.040	0.0047	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-11	**0.024**	**J B**	0.059	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-12	ND	C	0.079	0.0042	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-13	ND	C12	0.079	0.0042	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-14	ND		0.040	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-15	ND		0.040	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-16	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-17	ND		0.040	0.0016	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-18	**0.011**	**J C**	0.079	0.0014	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-19	ND		0.040	0.0020	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-20	**0.0071**	**J C B q**	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-21	**0.0058**	**J C q**	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-22	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-23	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-24	ND		0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-25	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-26	ND	C	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-27	ND		0.040	0.0012	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-28	**0.0071**	**J B C20 q**	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-29	ND	C26	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-30	**0.011**	**J C18**	0.079	0.0014	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-31	**0.0051**	**J B q**	0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-32	ND		0.040	0.0011	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-33	**0.0058**	**J C21 q**	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-34	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-35	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-36	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-37	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-38	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-39	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-40	ND	C	0.12	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-41	ND	C40	0.12	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-42	ND		0.040	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-43	ND	C	0.079	0.0038	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-44	ND	C	0.12	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-45	ND	C	0.079	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-46	ND		0.040	0.0052	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-47	ND	C44	0.12	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-48	ND		0.040	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-49	ND	C	0.079	0.0033	ng/L		05/10/19 09:38	05/16/19 02:23	1

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-RB-ST-190501
Lab Sample ID: 580-85913-5
Date Collected: 05/01/19 17:45
Matrix: Water
Date Received: 05/03/19 11:05

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	ND	C	0.079	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-51	ND	C45	0.079	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-52	ND		0.040	0.0040	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-53	ND	C50	0.079	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-54	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-55	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-56	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-57	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-58	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-59	ND	C	0.12	0.0029	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-60	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-61	ND	C	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-62	ND	C59	0.12	0.0029	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-63	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-64	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-65	ND	C44	0.12	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-66	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-67	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-68	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-69	ND	C49	0.079	0.0033	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-70	ND	C61	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-71	ND	C40	0.12	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-72	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-73	ND	C43	0.079	0.0038	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-74	ND	C61	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-75	ND	C59	0.12	0.0029	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-76	ND	C61	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-77	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-78	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-79	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-80	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-81	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-82	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-83	ND	C	0.079	0.0026	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-84	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-85	ND	C	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-86	ND	C	0.24	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-87	ND	C86	0.24	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-88	ND	C	0.079	0.0025	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-89	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-90	ND	C	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-91	ND	C88	0.079	0.0025	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-92	ND		0.040	0.0024	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-93	ND	C	0.079	0.0024	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-94	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-95	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-96	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-97	ND	C86	0.24	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-98	ND	C	0.079	0.0024	ng/L		05/10/19 09:38	05/16/19 02:23	1

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-RB-ST-190501
Lab Sample ID: 580-85913-5
Date Collected: 05/01/19 17:45
Matrix: Water
Date Received: 05/03/19 11:05

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	ND	C83	0.079	0.0026	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-100	ND	C93	0.079	0.0024	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-101	ND	C90	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-102	ND	C98	0.079	0.0024	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-103	ND		0.040	0.0024	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-104	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-105	ND		0.040	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-106	ND		0.040	0.0034	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-107	ND		0.040	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-108	ND	C	0.079	0.0035	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-109	ND	C86	0.24	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-110	**0.0074**	**J C q**	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-111	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-112	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-113	ND	C90	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-114	ND		0.040	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-115	**0.0074**	**J C110 q**	0.079	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-116	ND	C85	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-117	ND	C85	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-118	ND		0.040	0.0033	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-119	ND	C86	0.24	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-120	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-121	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-122	ND		0.040	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-123	ND		0.040	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-124	ND	C108	0.079	0.0035	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-125	ND	C86	0.24	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-126	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-127	ND		0.040	0.0034	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-128	ND	C	0.079	0.0038	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-129	ND	C	0.16	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-130	ND		0.040	0.0052	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-131	ND		0.040	0.0054	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-132	ND		0.040	0.0050	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-133	ND		0.040	0.0049	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-134	ND	C	0.079	0.0051	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-135	ND	C	0.079	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-136	ND		0.040	0.0023	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-137	ND		0.040	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-138	ND	C129	0.16	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-139	ND	C	0.079	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-140	ND	C139	0.079	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-141	ND		0.040	0.0046	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-142	ND		0.040	0.0049	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-143	ND	C134	0.079	0.0051	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-144	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-145	ND		0.040	0.0022	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-146	ND		0.040	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-147	ND	C	0.079	0.0049	ng/L		05/10/19 09:38	05/16/19 02:23	1

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-RB-ST-190501
Lab Sample ID: 580-85913-5
Date Collected: 05/01/19 17:45
Matrix: Water
Date Received: 05/03/19 11:05

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.040	0.0031	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-149	ND	C147	0.079	0.0049	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-150	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-151	ND	C135	0.079	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-152	ND		0.040	0.0022	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-153	ND	C	0.079	0.0034	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-154	ND		0.040	0.0025	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-155	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-156	ND	C	0.079	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-157	ND	C156	0.079	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-158	ND		0.040	0.0031	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-159	ND		0.040	0.0033	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-160	ND	C129	0.16	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-161	ND		0.040	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-162	ND		0.040	0.0032	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-163	ND	C129	0.16	0.0039	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-164	ND		0.040	0.0034	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-165	ND		0.040	0.0037	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-166	ND	C128	0.079	0.0038	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-167	ND		0.040	0.0025	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-168	ND	C153	0.079	0.0034	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-169	ND		0.040	0.0023	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-170	ND		0.040	0.0051	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-171	ND	C	0.079	0.0048	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-172	ND		0.040	0.0048	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-173	ND	C171	0.079	0.0048	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-174	ND		0.040	0.0045	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-175	ND		0.040	0.0044	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-176	ND		0.040	0.0033	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-177	ND		0.040	0.0046	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-178	ND		0.040	0.0047	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-179	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-180	ND	C	0.079	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-181	ND		0.040	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-182	ND		0.040	0.0042	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-183	ND	C	0.079	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-184	ND		0.040	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-185	ND	C183	0.079	0.0043	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-186	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-187	ND		0.040	0.0040	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-188	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-189	ND		0.040	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-190	ND		0.040	0.0031	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-191	ND		0.040	0.0033	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-192	ND		0.040	0.0037	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-193	ND	C180	0.079	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-194	ND		0.040	0.0058	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-195	ND		0.040	0.0064	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-196	ND		0.040	0.0052	ng/L		05/10/19 09:38	05/16/19 02:23	1

Client Sample ID: PDI-RB-ST-190501
Lab Sample ID: 580-85913-5

Date Collected: 05/01/19 17:45
Matrix: Water
Date Received: 05/03/19 11:05

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.040	0.0040	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-198	ND	C	0.079	0.0053	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-199	ND	C198	0.079	0.0053	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-200	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-201	ND		0.040	0.0036	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-202	ND		0.040	0.0041	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-203	ND		0.040	0.0047	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-204	ND		0.040	0.0040	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-205	ND		0.040	0.0049	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-206	ND		0.040	0.0066	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-207	ND		0.040	0.0049	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-208	ND		0.040	0.0051	ng/L		05/10/19 09:38	05/16/19 02:23	1
PCB-209	ND		0.040	0.0068	ng/L		05/10/19 09:38	05/16/19 02:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*60*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-3L	*60*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-4L	*76*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-15L	*71*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-19L	*80*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-37L	*80*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-54L	*94*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-77L	*75*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-81L	*76*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-104L	*76*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-105L	*84*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-114L	*81*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-118L	*79*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-123L	*81*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-126L	*84*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-155L	*86*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-156L	*80*	*C*	*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-157L	*80*	*C156*	*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-167L	*81*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-169L	*89*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-170L	*77*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-188L	*80*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-189L	*77*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-202L	*100*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-205L	*70*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-206L	*82*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-208L	*81*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-209L	*85*		*30 - 140*	*05/10/19 09:38*	*05/16/19 02:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*87*		*40 - 125*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-111L	*85*		*40 - 125*	*05/10/19 09:38*	*05/16/19 02:23*	*1*
PCB-178L	*91*		*40 - 125*	*05/10/19 09:38*	*05/16/19 02:23*	*1*

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 140-29875/5-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29875

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000078	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-2	ND		0.010	0.000093	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-3	ND		0.010	0.00011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-4	ND		0.020	0.0030	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-5	ND		0.010	0.0026	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-6	ND		0.010	0.0023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-7	ND		0.010	0.0023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-8	ND		0.020	0.0021	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-9	ND		0.010	0.0024	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-10	ND		0.010	0.0025	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-11	ND		0.020	0.0022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-12	ND	C	0.020	0.0023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-13	ND	C12	0.020	0.0023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-14	ND		0.010	0.0020	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-15	ND		0.010	0.0026	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-16	ND		0.010	0.00030	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-17	ND		0.010	0.00027	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-18	ND	C	0.020	0.00024	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-19	ND		0.010	0.00033	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-20	ND	C	0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-21	ND	C	0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-22	ND		0.010	0.000023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-23	ND		0.010	0.000023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-24	ND		0.010	0.00022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-25	ND		0.010	0.000020	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-26	ND	C	0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-27	ND		0.010	0.00019	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-28	ND	C20	0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-29	ND	C26	0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-30	ND	C18	0.020	0.00024	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-31	ND		0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-32	ND		0.010	0.00019	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-33	ND	C21	0.020	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-34	ND		0.010	0.000023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-35	ND		0.010	0.000023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-36	ND		0.010	0.000022	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-37	ND		0.010	0.000023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-38	ND		0.010	0.000024	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-39	ND		0.010	0.000021	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-40	ND	C	0.030	0.00058	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-41	ND	C40	0.030	0.00058	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-42	ND		0.010	0.00059	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-43	ND	C	0.020	0.00055	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-44	ND	C	0.030	0.00052	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-45	ND	C	0.020	0.00061	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-46	ND		0.010	0.00074	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-47	ND	C44	0.030	0.00052	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-48	ND		0.010	0.00058	ng/g		05/08/19 07:26	05/13/19 15:50	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29875/5-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29875

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.020	0.00048	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-50	ND	C	0.020	0.00057	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-51	ND	C45	0.020	0.00061	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-52	ND		0.010	0.00058	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-53	ND	C50	0.020	0.00057	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-54	ND		0.010	0.00069	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-55	ND		0.010	0.00043	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-56	ND		0.010	0.00043	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-57	ND		0.010	0.00043	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-58	ND		0.010	0.00044	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-59	ND	C	0.030	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-60	ND		0.010	0.00043	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-61	ND	C	0.040	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-62	ND	C59	0.030	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-63	ND		0.010	0.00040	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-64	ND		0.010	0.00039	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-65	ND	C44	0.030	0.00052	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-66	ND		0.010	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-67	ND		0.010	0.00037	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-68	ND		0.010	0.00038	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-69	ND	C49	0.020	0.00048	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-70	ND	C61	0.040	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-71	ND	C40	0.030	0.00058	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-72	ND		0.010	0.00042	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-73	ND	C43	0.020	0.00055	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-74	ND	C61	0.040	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-75	ND	C59	0.030	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-76	ND	C61	0.040	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-77	ND		0.010	0.00042	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-78	ND		0.010	0.00044	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-79	0.00126	J q	0.010	0.00038	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-80	ND		0.010	0.00037	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-81	ND		0.010	0.00039	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-82	ND		0.010	0.0012	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-83	0.00446	J q C	0.020	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-84	ND		0.010	0.0012	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-85	ND	C	0.030	0.00091	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-86	0.00758	J C	0.060	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-87	0.00758	J C86	0.060	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-88	ND	C	0.020	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-89	ND		0.010	0.0012	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-90	ND	C	0.030	0.00093	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-91	ND	C88	0.020	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-92	ND		0.010	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-93	ND	C	0.020	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-94	ND		0.010	0.0012	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-95	ND		0.010	0.0012	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-96	ND		0.010	0.00091	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-97	0.00758	J C86	0.060	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29875/5-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29875

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-98	ND	C	0.020	0.0010	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-99	0.00446	J q C83	0.020	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-100	ND	C93	0.020	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-101	ND	C90	0.030	0.00093	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-102	ND	C98	0.020	0.0010	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-103	ND		0.010	0.0011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-104	ND		0.010	0.00081	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-105	ND		0.010	0.00067	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-106	ND		0.010	0.00070	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-107	ND		0.010	0.00075	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-108	ND	C	0.020	0.00072	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-109	0.00758	J C86	0.060	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-110	0.00332	J q C	0.020	0.00077	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-111	ND		0.010	0.00075	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-112	ND		0.010	0.00079	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-113	ND	C90	0.030	0.00093	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-114	ND		0.010	0.00068	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-115	0.00332	J q C110	0.020	0.00077	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-116	ND	C85	0.030	0.00091	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-117	ND	C85	0.030	0.00091	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-118	ND		0.010	0.00065	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-119	0.00758	J C86	0.060	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-120	ND		0.010	0.00076	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-121	ND		0.010	0.00078	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-122	ND		0.010	0.00080	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-123	ND		0.010	0.00068	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-124	ND	C108	0.020	0.00072	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-125	0.00758	J C86	0.060	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-126	ND		0.010	0.00073	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-127	ND		0.010	0.00069	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-128	ND	C	0.020	0.00046	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-129	ND	C	0.040	0.00048	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-130	ND		0.010	0.00063	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-131	ND		0.010	0.00065	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-132	ND		0.010	0.00061	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-133	ND		0.010	0.00059	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-134	ND	C	0.020	0.00062	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-135	ND	C	0.020	0.000026	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-136	ND		0.010	0.000019	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-137	ND		0.010	0.00054	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-138	ND	C129	0.040	0.00048	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-139	ND	C	0.020	0.00053	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-140	ND	C139	0.020	0.00053	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-141	ND		0.010	0.00055	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-142	ND		0.010	0.00059	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-143	ND	C134	0.020	0.00062	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-144	ND		0.010	0.000023	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-145	0.00267	J q	0.010	0.000018	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-146	ND		0.010	0.00052	ng/g		05/08/19 07:26	05/13/19 15:50	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29875/5-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29875

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-147	ND	C	0.020	0.00060	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-148	ND		0.010	0.000025	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-149	ND	C147	0.020	0.00060	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-150	ND		0.010	0.000017	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-151	ND	C135	0.020	0.000026	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-152	ND		0.010	0.000018	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-153	ND	C	0.020	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-154	ND		0.010	0.000020	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-155	ND		0.010	0.000017	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-156	ND	C	0.020	0.00054	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-157	ND	C156	0.020	0.00054	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-158	ND		0.010	0.00037	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-159	ND		0.010	0.00040	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-160	ND	C129	0.040	0.00048	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-161	ND		0.010	0.00039	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-162	ND		0.010	0.00039	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-163	ND	C129	0.040	0.00048	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-164	ND		0.010	0.00042	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-165	ND		0.010	0.00045	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-166	ND	C128	0.020	0.00046	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-167	ND		0.010	0.00030	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-168	ND	C153	0.020	0.00041	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-169	ND		0.010	0.00028	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-170	ND		0.010	0.000011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-171	ND	C	0.020	0.000011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-172	ND		0.010	0.000011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-173	ND	C171	0.020	0.000011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-174	ND		0.010	0.000010	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-175	ND		0.010	0.0000099	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-176	ND		0.010	0.0000074	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-177	ND		0.010	0.000010	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-178	ND		0.010	0.000011	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-179	ND		0.010	0.0000079	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-180	ND	C	0.020	0.0000082	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-181	ND		0.010	0.0000098	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-182	ND		0.010	0.0000095	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-183	ND	C	0.020	0.0000096	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-184	ND		0.010	0.0000081	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-185	ND	C183	0.020	0.0000096	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-186	ND		0.010	0.0000078	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-187	ND		0.010	0.0000091	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-188	ND		0.010	0.0000069	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-189	ND		0.010	0.00055	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-190	ND		0.010	0.0000071	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-191	ND		0.010	0.0000074	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-192	ND		0.010	0.0000083	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-193	ND	C180	0.020	0.0000082	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-194	ND		0.010	0.0000096	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-195	ND		0.010	0.000010	ng/g		05/08/19 07:26	05/13/19 15:50	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29875/5-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29875

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-196	ND		0.010	0.00037	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-197	ND		0.010	0.00029	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-198	ND	C	0.020	0.00038	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-199	ND	C198	0.020	0.00038	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-200	ND		0.010	0.00025	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-201	ND		0.010	0.00026	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-202	ND		0.010	0.00029	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-203	0.000594	J q	0.010	0.00034	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-204	ND		0.010	0.00029	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-205	ND		0.010	0.0000081	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-206	ND		0.010	0.00092	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-207	ND		0.010	0.00065	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-208	ND		0.010	0.00067	ng/g		05/08/19 07:26	05/13/19 15:50	1
PCB-209	ND		0.010	0.00057	ng/g		05/08/19 07:26	05/13/19 15:50	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*61*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-3L	*57*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-4L	*70*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-15L	*66*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-19L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-37L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-54L	*92*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-77L	*71*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-81L	*72*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-104L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-105L	*86*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-114L	*80*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-118L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-123L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-126L	*83*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-155L	*93*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-156L	*78*	*C*	*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-157L	*78*	*C156*	*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-167L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-169L	*86*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-170L	*79*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-188L	*84*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-189L	*76*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-202L	*102*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-205L	*74*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-206L	*88*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-208L	*87*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-209L	*94*		*30 - 140*	*05/08/19 07:26*	*05/13/19 15:50*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*83*		*40 - 125*	*05/08/19 07:26*	*05/13/19 15:50*	*1*
PCB-111L	*88*		*40 - 125*	*05/08/19 07:26*	*05/13/19 15:50*	*1*

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29875/5-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29875

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-178L	94		40 - 125	05/08/19 07:26	05/13/19 15:50	1

Lab Sample ID: LCS 140-29875/6-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.400		ng/g		80	50 - 150
PCB-3	0.500	0.409		ng/g		82	50 - 150
PCB-4	0.500	0.484		ng/g		97	50 - 150
PCB-15	0.500	0.472		ng/g		94	50 - 150
PCB-19	0.500	0.523		ng/g		105	50 - 150
PCB-37	0.500	0.477		ng/g		95	50 - 150
PCB-54	0.500	0.472		ng/g		94	50 - 150
PCB-77	0.500	0.475		ng/g		95	50 - 150
PCB-81	0.500	0.446		ng/g		89	50 - 150
PCB-104	0.500	0.510		ng/g		102	50 - 150
PCB-105	0.500	0.508		ng/g		102	50 - 150
PCB-114	0.500	0.549		ng/g		110	50 - 150
PCB-118	0.500	0.520		ng/g		104	50 - 150
PCB-123	0.500	0.561		ng/g		112	50 - 150
PCB-126	0.500	0.512		ng/g		102	50 - 150
PCB-155	0.500	0.515		ng/g		103	50 - 150
PCB-156	1.00	1.07	C	ng/g		107	50 - 150
PCB-157	1.00	1.07	C156	ng/g		107	50 - 150
PCB-167	0.500	0.542		ng/g		108	50 - 150
PCB-169	0.500	0.482		ng/g		96	50 - 150
PCB-188	0.500	0.527		ng/g		105	50 - 150
PCB-189	0.500	0.528		ng/g		106	50 - 150
PCB-202	0.500	0.450		ng/g		90	50 - 150
PCB-205	0.500	0.582		ng/g		116	50 - 150
PCB-206	0.500	0.490		ng/g		98	50 - 150
PCB-208	0.500	0.517		ng/g		103	50 - 150
PCB-209	0.500	0.542		ng/g		108	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	63		30 - 140
PCB-3L	60		30 - 140
PCB-4L	73		30 - 140
PCB-15L	69		30 - 140
PCB-19L	77		30 - 140
PCB-37L	79		30 - 140
PCB-54L	94		30 - 140
PCB-77L	80		30 - 140
PCB-81L	79		30 - 140
PCB-104L	82		30 - 140
PCB-105L	92		30 - 140
PCB-114L	86		30 - 140

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-29875/6-B
Matrix: Solid
Analysis Batch: 30002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29875

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-118L	87		30 - 140
PCB-123L	89		30 - 140
PCB-126L	90		30 - 140
PCB-155L	97		30 - 140
PCB-156L	87	C	30 - 140
PCB-157L	87	C156	30 - 140
PCB-167L	91		30 - 140
PCB-169L	93		30 - 140
PCB-170L	86		30 - 140
PCB-188L	91		30 - 140
PCB-189L	80		30 - 140
PCB-202L	116		30 - 140
PCB-205L	76		30 - 140
PCB-206L	90		30 - 140
PCB-208L	90		30 - 140
PCB-209L	96		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	90		40 - 125
PCB-111L	96		40 - 125
PCB-178L	100		40 - 125

Lab Sample ID: MB 140-29960/3-A
Matrix: Water
Analysis Batch: 30073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29960

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.040	0.00094	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-2	ND		0.040	0.0011	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-3	ND		0.040	0.0012	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-4	ND		0.060	0.0085	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-5	ND		0.040	0.0069	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-6	ND		0.040	0.0061	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-7	ND		0.040	0.0062	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-8	ND		0.060	0.0056	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-9	ND		0.040	0.0064	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-10	ND		0.040	0.0068	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-11	0.0204	J q	0.060	0.0060	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-12	ND	C	0.080	0.0062	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-13	ND	C12	0.080	0.0062	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-14	ND		0.040	0.0052	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-15	ND		0.040	0.0065	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-16	ND		0.040	0.0053	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-17	ND		0.040	0.0048	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-18	ND	C	0.080	0.0042	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-19	ND		0.040	0.0059	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-20	0.00554	J C	0.080	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-21	ND	C	0.080	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29960/3-A
Matrix: Water
Analysis Batch: 30073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29960

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-22	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-23	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-24	ND		0.040	0.0040	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-25	ND		0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-26	ND	C	0.080	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-27	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-28	0.00554	J C20	0.080	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-29	ND	C26	0.080	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-30	ND	C18	0.080	0.0042	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-31	0.00598	J	0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-32	ND		0.040	0.0033	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-33	ND	C21	0.080	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-34	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-35	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-36	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-37	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-38	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-39	ND		0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-40	ND	C	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-41	ND	C40	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-42	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-43	ND	C	0.080	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-44	0.00810	J C q	0.12	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-45	ND	C	0.080	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-46	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-47	0.00810	J C44 q	0.12	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-48	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-49	ND	C	0.080	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-50	ND	C	0.080	0.0020	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-51	ND	C45	0.080	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-52	ND		0.040	0.0020	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-53	ND	C50	0.080	0.0020	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-54	ND		0.040	0.0043	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-55	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-56	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-57	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-58	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-59	ND	C	0.12	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-60	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-61	0.00364	J C q	0.16	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-62	ND	C59	0.12	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-63	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-64	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-65	0.00810	J C44 q	0.12	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-66	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-67	ND		0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-68	0.00357	J	0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-69	ND	C49	0.080	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-70	0.00364	J C61 q	0.16	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29960/3-A
Matrix: Water
Analysis Batch: 30073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29960

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-71	ND	C40	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-72	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-73	ND	C43	0.080	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-74	0.00364	J C61 q	0.16	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-75	ND	C59	0.12	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-76	0.00364	J C61 q	0.16	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-77	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-78	ND		0.040	0.0015	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-79	ND		0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-80	ND		0.040	0.0013	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-81	ND		0.040	0.0014	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-82	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-83	ND	C	0.080	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-84	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-85	ND	C	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-86	ND	C	0.24	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-87	ND	C86	0.24	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-88	ND	C	0.080	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-89	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-90	ND	C	0.12	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-91	ND	C88	0.080	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-92	ND		0.040	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-93	ND	C	0.080	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-94	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-95	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-96	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-97	ND	C86	0.24	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-98	ND	C	0.080	0.0024	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-99	ND	C83	0.080	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-100	ND	C93	0.080	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-101	ND	C90	0.12	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-102	ND	C98	0.080	0.0024	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-103	ND		0.040	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-104	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-105	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-106	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-107	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-108	ND	C	0.080	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-109	ND	C86	0.24	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-110	ND	C	0.080	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-111	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-112	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-113	ND	C90	0.12	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-114	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-115	ND	C110	0.080	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-116	ND	C85	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-117	ND	C85	0.12	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-118	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-119	ND	C86	0.24	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29960/3-A
Matrix: Water
Analysis Batch: 30073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29960

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-120	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-121	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-122	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-123	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-124	ND	C108	0.080	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-125	ND	C86	0.24	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-126	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-127	ND		0.040	0.0018	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-128	ND	C	0.080	0.0027	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-129	ND	C	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-130	ND		0.040	0.0037	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-131	ND		0.040	0.0038	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-132	ND		0.040	0.0036	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-133	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-134	ND	C	0.080	0.0036	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-135	ND	C	0.080	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-136	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-137	ND		0.040	0.0031	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-138	ND	C129	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-139	ND	C	0.080	0.0031	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-140	ND	C139	0.080	0.0031	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-141	ND		0.040	0.0032	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-142	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-143	ND	C134	0.080	0.0036	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-144	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-145	ND		0.040	0.0020	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-146	ND		0.040	0.0031	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-147	ND	C	0.080	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-148	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-149	ND	C147	0.080	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-150	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-151	ND	C135	0.080	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-152	ND		0.040	0.0020	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-153	ND	C	0.080	0.0024	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-154	ND		0.040	0.0023	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-155	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-156	ND	C	0.080	0.0031	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-157	ND	C156	0.080	0.0031	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-158	ND		0.040	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-159	ND		0.040	0.0023	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-160	ND	C129	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-161	ND		0.040	0.0023	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-162	ND		0.040	0.0023	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-163	ND	C129	0.16	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-164	ND		0.040	0.0024	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-165	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-166	ND	C128	0.080	0.0027	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-167	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-168	ND	C153	0.080	0.0024	ng/L		05/10/19 09:38	05/16/19 06:22	1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29960/3-A
Matrix: Water
Analysis Batch: 30073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29960

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-169	ND		0.040	0.0017	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-170	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-171	ND	C	0.080	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-172	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-173	ND	C171	0.080	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-174	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-175	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-176	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-177	ND		0.040	0.0027	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-178	ND		0.040	0.0028	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-179	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-180	ND	C	0.080	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-181	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-182	ND		0.040	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-183	ND	C	0.080	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-184	ND		0.040	0.0021	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-185	ND	C183	0.080	0.0025	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-186	ND		0.040	0.0020	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-187	ND		0.040	0.0024	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-188	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-189	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-190	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-191	ND		0.040	0.0019	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-192	ND		0.040	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-193	ND	C180	0.080	0.0022	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-194	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-195	ND		0.040	0.0038	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-196	ND		0.040	0.0038	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-197	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-198	ND	C	0.080	0.0038	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-199	ND	C198	0.080	0.0038	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-200	0.00366	J q	0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-201	ND		0.040	0.0026	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-202	ND		0.040	0.0030	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-203	ND		0.040	0.0034	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-204	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-205	ND		0.040	0.0029	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-206	ND		0.040	0.0043	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-207	ND		0.040	0.0033	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-208	ND		0.040	0.0035	ng/L		05/10/19 09:38	05/16/19 06:22	1
PCB-209	ND		0.040	0.0046	ng/L		05/10/19 09:38	05/16/19 06:22	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*55*		*30 - 140*	*05/10/19 09:38*	*05/16/19 06:22*	*1*
PCB-3L	*56*		*30 - 140*	*05/10/19 09:38*	*05/16/19 06:22*	*1*
PCB-4L	*70*		*30 - 140*	*05/10/19 09:38*	*05/16/19 06:22*	*1*
PCB-15L	*69*		*30 - 140*	*05/10/19 09:38*	*05/16/19 06:22*	*1*
PCB-19L	*72*		*30 - 140*	*05/10/19 09:38*	*05/16/19 06:22*	*1*
PCB-37L	*79*		*30 - 140*	*05/10/19 09:38*	*05/16/19 06:22*	*1*

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-29960/3-A
Matrix: Water
Analysis Batch: 30073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29960

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-54L	85		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-77L	77		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-81L	75		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-104L	66		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-105L	85		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-114L	80		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-118L	79		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-123L	81		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-126L	83		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-155L	81		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-156L	82	C	30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-157L	82	C156	30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-167L	83		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-169L	90		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-170L	79		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-188L	75		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-189L	75		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-202L	97		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-205L	69		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-206L	84		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-208L	81		30 - 140	05/10/19 09:38	05/16/19 06:22	1
PCB-209L	86		30 - 140	05/10/19 09:38	05/16/19 06:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	82		40 - 125	05/10/19 09:38	05/16/19 06:22	1
PCB-111L	81		40 - 125	05/10/19 09:38	05/16/19 06:22	1
PCB-178L	89		40 - 125	05/10/19 09:38	05/16/19 06:22	1

Lab Sample ID: LCS 140-29960/4-A
Matrix: Water
Analysis Batch: 30052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29960

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	1.00	0.879		ng/L		88	50 - 150
PCB-3	1.00	0.865		ng/L		87	50 - 150
PCB-4	1.00	0.983		ng/L		98	50 - 150
PCB-15	1.00	1.01		ng/L		101	50 - 150
PCB-19	1.00	1.13		ng/L		113	50 - 150
PCB-37	1.00	1.01		ng/L		101	50 - 150
PCB-54	1.00	0.983		ng/L		98	50 - 150
PCB-77	1.00	0.987		ng/L		99	50 - 150
PCB-81	1.00	0.904		ng/L		90	50 - 150
PCB-104	1.00	1.14		ng/L		114	50 - 150
PCB-105	1.00	1.04		ng/L		104	50 - 150
PCB-114	1.00	1.07		ng/L		107	50 - 150
PCB-118	1.00	1.02		ng/L		102	50 - 150
PCB-123	1.00	1.19		ng/L		119	50 - 150
PCB-126	1.00	1.14		ng/L		114	50 - 150

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-29960/4-A
Matrix: Water
Analysis Batch: 30052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29960

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-155			1.00	1.14		ng/L		114	50 - 150		
PCB-156			2.00	2.20	C	ng/L		110	50 - 150		
PCB-157			2.00	2.20	C156	ng/L		110	50 - 150		
PCB-167			1.00	1.07		ng/L		107	50 - 150		
PCB-169			1.00	0.984		ng/L		98	50 - 150		
PCB-188			1.00	1.12		ng/L		112	50 - 150		
PCB-189			1.00	1.09		ng/L		109	50 - 150		
PCB-202			1.00	0.959		ng/L		96	50 - 150		
PCB-205			1.00	1.17		ng/L		117	50 - 150		
PCB-206			1.00	1.00		ng/L		100	50 - 150		
PCB-208			1.00	1.06		ng/L		106	50 - 150		
PCB-209			1.00	1.03		ng/L		103	50 - 150		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-1L	*57*		*30 - 140*
PCB-3L	*56*		*30 - 140*
PCB-4L	*69*		*30 - 140*
PCB-15L	*69*		*30 - 140*
PCB-19L	*74*		*30 - 140*
PCB-37L	*77*		*30 - 140*
PCB-54L	*92*		*30 - 140*
PCB-77L	*76*		*30 - 140*
PCB-81L	*76*		*30 - 140*
PCB-104L	*69*		*30 - 140*
PCB-105L	*86*		*30 - 140*
PCB-114L	*82*		*30 - 140*
PCB-118L	*82*		*30 - 140*
PCB-123L	*82*		*30 - 140*
PCB-126L	*85*		*30 - 140*
PCB-155L	*75*		*30 - 140*
PCB-156L	*81*	*C*	*30 - 140*
PCB-157L	*81*	*C156*	*30 - 140*
PCB-167L	*82*		*30 - 140*
PCB-169L	*90*		*30 - 140*
PCB-170L	*80*		*30 - 140*
PCB-188L	*78*		*30 - 140*
PCB-189L	*76*		*30 - 140*
PCB-202L	*102*		*30 - 140*
PCB-205L	*71*		*30 - 140*
PCB-206L	*81*		*30 - 140*
PCB-208L	*85*		*30 - 140*
PCB-209L	*85*		*30 - 140*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-28L	*87*		*40 - 125*
PCB-111L	*90*		*40 - 125*
PCB-178L	*100*		*40 - 125*

Lab Chronicle

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-ST-T07A-1905
Lab Sample ID: 580-85913-1
Date Collected: 05/01/19 16:45
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 49.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			29875	05/08/19 07:26	BRS	TAL KNX
Total/NA	Cleanup	Split			29912	05/09/19 11:21	EBS	TAL KNX
Total/NA	Analysis	1668A		1	30002	05/13/19 21:06	JMN	TAL KNX

Client Sample ID: PDI-ST-T07B-1905
Lab Sample ID: 580-85913-2
Date Collected: 05/01/19 17:00
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 41.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			29875	05/08/19 07:26	BRS	TAL KNX
Total/NA	Cleanup	Split			29912	05/09/19 11:21	EBS	TAL KNX
Total/NA	Analysis	1668A		1	30002	05/13/19 17:53	JMN	TAL KNX

Client Sample ID: PDI-ST-T06A-1905
Lab Sample ID: 580-85913-3
Date Collected: 05/01/19 17:15
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 45.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			29875	05/08/19 07:26	BRS	TAL KNX
Total/NA	Cleanup	Split			29912	05/09/19 11:21	EBS	TAL KNX
Total/NA	Analysis	1668A		1	30002	05/13/19 18:54	JMN	TAL KNX

Client Sample ID: PDI-ST-T06B-1905
Lab Sample ID: 580-85913-4
Date Collected: 05/01/19 17:10
Matrix: Solid
Date Received: 05/03/19 11:05
Percent Solids: 40.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			29875	05/08/19 07:26	BRS	TAL KNX
Total/NA	Cleanup	Split			29912	05/09/19 11:21	EBS	TAL KNX
Total/NA	Analysis	1668A		1	30002	05/13/19 19:56	JMN	TAL KNX

Client Sample ID: PDI-RB-ST-190501
Lab Sample ID: 580-85913-5
Date Collected: 05/01/19 17:45
Matrix: Water
Date Received: 05/03/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sepf			29960	05/10/19 09:38	BRS	TAL KNX
Total/NA	Analysis	1668A		1	30073	05/16/19 02:23	PMP	TAL KNX

Laboratory References:
TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-20
ANAB	DoD		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-20

Laboratory: Eurofins TestAmerica, Knoxville

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

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		N/A	
ANAB	DoD		L2311	02-13-22
ANAB	DoD		L2311.01	02-13-22
Arkansas DEQ	State Program	6	88-0688	06-16-20
California	State Program	9	2423	06-30-19
Colorado	State Program	8	TN00009	02-28-20
Connecticut	State Program	1	PH-0223	09-30-19
Florida	NELAP	4	E87177	06-30-19
Georgia	State Program	4	906	04-13-20
Hawaii	State Program	9	N/A	04-13-20
Kansas	NELAP	7	E-10349	10-31-19
Kentucky (DW)	State Program	4	90101	12-31-19
Louisiana	NELAP	6	83979	06-30-19
Louisiana (DW)	NELAP	6	LA160005	12-31-19
Maryland	State Program	3	277	03-31-20
Michigan	State Program	5	9933	04-13-20
Nevada	State Program	9	TN00009	07-31-19
New Hampshire	NELAP	1	2999	01-17-20
New Jersey	NELAP	2	TN001	06-30-19
New York	NELAP	2	10781	03-31-20
North Carolina (DW)	State Program	4	21705	07-31-19
North Carolina (WW/SW)	State Program	4	64	12-31-19
Ohio VAP	State Program	5	CL0059	08-28-20
Oklahoma	State Program	6	9415	08-31-19
Oregon	NELAP	10	TNI0189	06-30-19
Pennsylvania	NELAP	3	68-00576	12-31-19
Tennessee	State Program	4	2014	04-13-20
Texas	NELAP	6	T104704380-16-9	08-31-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-19
Virginia	NELAP	3	460176	09-14-19
Washington	State Program	10	C593	01-19-20
West Virginia (DW)	State Program	3	9955C	12-31-19
West Virginia DEP	State Program	3	345	04-30-20
Wisconsin	State Program	5	998044300	08-31-19

Sample Summary

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-85913-1	PDI-ST-T07A-1905	Solid	05/01/19 16:45	05/03/19 11:05
580-85913-2	PDI-ST-T07B-1905	Solid	05/01/19 17:00	05/03/19 11:05
580-85913-3	PDI-ST-T06A-1905	Solid	05/01/19 17:15	05/03/19 11:05
580-85913-4	PDI-ST-T06B-1905	Solid	05/01/19 17:10	05/03/19 11:05
580-85913-5	PDI-RB-ST-190501	Water	05/01/19 17:45	05/03/19 11:05

SURFACE SEDIMENT CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 **Ph: 253-922-2310 Fax: 253-922-5047**	**Project Contact: Amy Dahl / Chelsey Cook** **Tel: (206) 438-2261 / (206) 438-2010**	**Site Contact: Jennifer Ray** **Laboratory Contact: Elaine-Walker**	**5/3/2019** COC No: 1 1 of 1 pages
Client Contact AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60566335 Study: Sediment Trap	**Analysis Turnaround Time** Calendar (C) or Work Days (W) ___W_____ 21 days [x] Other _5 days for all analyses except PCBs at 10 days _____	**Carrier: Courier**	

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	WQ - PCB Congeners 1668A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NWTPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SM5310B	Sample Specific Notes:
PDI-ST-T07A-1905	5/1/2019	16:45	S		JJK	6		x	x	x	x	x	x						
PDI-ST-T07B-1905	5/1/2019	17:00	S		JJK	6		x	x	x	x	x	x						
PDI-ST-T06B-1905	5/1/2019	17:10	S	MS/MSD	KK	8		x	x	x	x	x	x						
PDI-ST-T06A-1905	5/1/2019	17:15	S		JJK	6		x	x	x	x	x	x						
PDI-RB-ST-~~190129~~ 190501	5/1/2019	17:45	W		JJK	8								x	x	x	x	x	

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
[ ] Return To Client [X] Disposal By Lab [X] Archive For 12 Months

Special Instructions/QC Requirements & Comments:

4.8, 1.3

Relinquished by:	Company: AECOM	Date/Time: 5/3/19 1250	Received by:	Company: M.E	Date/Time: 5-3-19 / 1250
Relinquished by:	Company: M.E	Date/Time: 5-3-19 / 1345	Received by:	Company: TAP	Date/Time: 5/3/19 1345
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

580-85913 Chain of Custody

SURFACE SEDIMENT
CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 **Ph: 253-922-2310 Fax: 253-922-5047**	**Project Contact: Amy Dahl / Chelsey Cook** **Tel: (206) 438-2261 / (206) 438-2010** **Analysis Turnaround Time** Calendar (C) or Work Days (W) ___W_____ 21 days [x] Other _5 days for all analyses except PCBs at 10 days _____	**Site Contact: Jennifer Ray** **Laboratory Contact: Elaine-Walker**	**5/3/2019** **Carrier: Courier**	COC No: 1 __1____ of __1____ pages

Client Contact
AECOM
1111 3rd Ave Suite 1600
Seattle, WA 98101
Phone: (206) 438-2700 Fax: 1+(866) 495-5288
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling
Portland, OR
Project #: 60566335 Study: Sediment Trap

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	WQ - PCB Congeners 1668A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NWTPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SM5310B						Sample Specific Notes:
PDI-ST-T07A-1905	5/1/2019	16:45	S		JJK	6		x	x	x	x	x	x											
PDI-ST-T07B-1905	5/1/2019	17:00	S		JJR	6		x	x	x	x	x	x											
PDI-ST-T06B-1905	5/1/2019	17:10	S	MS/MSD	KK	8		x	x	x	x	x	x											
PDI-ST-T06A-1905	5/1/2019	17:15	S		JJR	6		x	x	x	x	x	x											
PDI-RB-ST-190201	5/1/2019	17:45	W		JJR	8								x	x	x	x	x						

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal

[ ] Return To Client [x] Disposal By Lab [x] Archive For 12 Months

Special Instructions/QC Requirements & Comments:

4.8, 1.3

Relinquished by:	Company: AECOM	Date/Time: 5/3/19 1250	Received by:	Company: M.E	Date/Time: 5-3-19 / 1250
Relinquished by:	Company: M.E	Date/Time: 5-3-19 / 1345	Received by:	Company: TAPER	Date/Time: 5/3/19 1345
Relinquished by:	Company: TAPER	Date/Time: 5/3/19 1700	Received by:	Company: TASEA	Date/Time: 5-4-19 1100

5=3.4

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

580-85913 Chain of Custody

urofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	No: 580-65716.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):	Page: Page 1 of 1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/10/2019		Job #: 580-85913-1
City: Knoxville	TAT Requested (days):		
State, Zip: TN, 37921			
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:		
Email:	WO #:		
Project Name: Portland Harbor Pre-Remedial Design	Project #: 58012120		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_Split (MOD) 209 PCBs plus Totals	1668A/1668_P_Sep (MOD) 209 PCBs plus Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PDI-ST-T07A-1905 (580-85913-1)	5/1/19	16:45 Pacific		Solid			X	X		1	
PDI-ST-T07B-1905 (580-85913-2)	5/1/19	17:00 Pacific		Solid			X	X		1	
PDI-ST-T06A-1905 (580-85913-3)	5/1/19	17:10 Pacific		Solid			X	X		1	
PDI-RB-ST-190501 (580-85913-5)	5/1/19	17:45 Pacific		Water					X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: KA 5/3/19 1510	Date/Time: 5/3/19 1510	Company TAPOR	Received by:	Date/Time: 5/4/19 0930	Company TA-Knx
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Loc: 580
85913

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SC68 Correction factor: +0.0	✓			☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?			✓	☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: 7194 2020/04	✓			☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Custody seal intact
RT: 1.4°C CT: 1.4°C
TrK# 4772 7014 2746
RC-ND, 1 cooler
KW 5/4/19

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: ____________ PM Instructions: ____________

Sample Receiving Associate: [signature] Date: 5/4/19

QA026R31.doc, 112618

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

eurofins | Environment Testing TestAmerica

5/16/2019

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-65786.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-85913-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/17/2019			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921	PO #:			
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	WO #:			
Email:	Project #: 58012120			
Project Name: Portland Harbor Pre-Remedial Design	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Screen_1668/Screen_PCB_P_S	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PDI-ST-T07A-1905 (580-85913-1)	5/1/19	16:45 Pacific		Solid			X	1	
PDI-ST-T07B-1905 (580-85913-2)	5/1/19	17:00 Pacific		Solid			X	1	
PDI-ST-T06A-1905 (580-85913-3)	5/1/19	17:15 Pacific		Solid			X	1	
PDI-ST-T06B-1905 (580-85913-4)	5/1/19	17:10 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) | Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	5/3/19 1510	TAL BA		5/4/19 0930	TAL-SDG
	Relinquished by:	Date/Time:	Company	Received by: [signature]	5-7-19 07:00	TAL-KNX
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-65785.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-85913-3
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 5/15/2019			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921	PO #:			
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	WO #:			
Email:	Project #: 58012120			
Project Name: Portland Harbor Pre-Remedial Design	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PDI-ST-T06B-1905 (580-85913-4)	5/1/19	17:10 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	TA Portland	5/3/19 1510	TAPDX		5/4/19 0930	TAKWX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
					5-7-19 07:00	TA-KWX
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

5/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-85913-3

Login Number: 85913
List Number: 1
Creator: O'Connell, Jason I

List Source: Eurofins TestAmerica, Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Isotope Dilution Summary

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (30-140)	PCB3L (30-140)	PCB4L (30-140)	PCB15L (30-140)	PCB19L (30-140)	PCB37L (30-140)	PCB54L (30-140)	PCB77L (30-140)
580-85913-1	PDI-ST-T07A-1905	48	52	66	72	84	92	105	79
580-85913-2	PDI-ST-T07B-1905	60	64	76	78	90 q	90	116	82
580-85913-3	PDI-ST-T06A-1905	56	60	75	80	97	88	111	83
580-85913-4	PDI-ST-T06B-1905	53	54	68	73	77	79	100	74
LCS 140-29875/6-B	Lab Control Sample	63	60	73	69	77	79	94	80
MB 140-29875/5-B	Method Blank	61	57	70	66	79	76	92	71

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (30-140)	PCB104L (30-140)	PCB105L (30-140)	P114L (30-140)	PCB118L (30-140)	PCB123L (30-140)	PCB126L (30-140)	PCB155L (30-140)
580-85913-1	PDI-ST-T07A-1905	79	77	87	88	88	88	77	96
580-85913-2	PDI-ST-T07B-1905	81	87	97	101	98	99	85	104
580-85913-3	PDI-ST-T06A-1905	83	84	90	94	93	95	80	101
580-85913-4	PDI-ST-T06B-1905	71	72	80	83	81	82	71	86
LCS 140-29875/6-B	Lab Control Sample	79	82	92	86	87	89	90	97
MB 140-29875/5-B	Method Blank	72	76	86	80	83	83	83	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB156L (30-140)	PCB157L (30-140)	PCB167L (30-140)	PCB169L (30-140)	PCB170L (30-140)	PCB188L (30-140)	PCB189L (30-140)	PCB202L (30-140)
580-85913-1	PDI-ST-T07A-1905	80 C	80 C156	84	76	80	94	85	109
580-85913-2	PDI-ST-T07B-1905	87 C	87 C156	89	85	87	105	84	120
580-85913-3	PDI-ST-T06A-1905	82 C	82 C156	83	76	81	104	86	119
580-85913-4	PDI-ST-T06B-1905	71 C	71 C156	75	66	71	98	76	106
LCS 140-29875/6-B	Lab Control Sample	87 C	87 C156	91	93	86	91	80	116
MB 140-29875/5-B	Method Blank	78 C	78 C156	79	86	79	84	76	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)				
580-85913-1	PDI-ST-T07A-1905	72	77	91	81				
580-85913-2	PDI-ST-T07B-1905	77	89	96	88				
580-85913-3	PDI-ST-T06A-1905	74	82	96	79				
580-85913-4	PDI-ST-T06B-1905	68	74	88	71				
LCS 140-29875/6-B	Lab Control Sample	76	90	90	96				
MB 140-29875/5-B	Method Blank	74	88	87	94				

Surrogate Legend

PCB1L = PCB-1L
PCB3L = PCB-3L
PCB4L = PCB-4L
PCB15L = PCB-15L
PCB19L = PCB-19L
PCB37L = PCB-37L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L
PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L
PCB118L = PCB-118L
PCB123L = PCB-123L

PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB157L = PCB-157L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB170L = PCB-170L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB202L = PCB-202L
PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB1L	PCB3L	PCB4L	PCB15L	PCB19L	PCB37L	PCB54L	PCB77L
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)
580-85913-5	PDI-RB-ST-190501	60	60	76	71	80	80	94	75
LCS 140-29960/4-A	Lab Control Sample	57	56	69	69	74	77	92	76
MB 140-29960/3-A	Method Blank	55	56	70	69	72	79	85	77

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB81L	PCB104L	PCB105L	P114L	PCB118L	PCB123L	PCB126L	PCB155L
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)
580-85913-5	PDI-RB-ST-190501	76	76	84	81	79	81	84	86
LCS 140-29960/4-A	Lab Control Sample	76	69	86	82	82	82	85	75
MB 140-29960/3-A	Method Blank	75	66	85	80	79	81	83	81

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB156L	PCB157L	PCB167L	PCB169L	PCB170L	PCB188L	PCB189L	PCB202L
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)
580-85913-5	PDI-RB-ST-190501	80 C	80 C156	81	89	77	80	77	100
LCS 140-29960/4-A	Lab Control Sample	81 C	81 C156	82	90	80	78	76	102
MB 140-29960/3-A	Method Blank	82 C	82 C156	83	90	79	75	75	97

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB205L	PCB206L	PCB208L	PCB209L				
Lab Sample ID	Client Sample ID	(30-140)	(30-140)	(30-140)	(30-140)				
580-85913-5	PDI-RB-ST-190501	70	82	81	85				
LCS 140-29960/4-A	Lab Control Sample	71	81	85	85				
MB 140-29960/3-A	Method Blank	69	84	81	86				

Surrogate Legend

PCB1L = PCB-1L
PCB3L = PCB-3L
PCB4L = PCB-4L
PCB15L = PCB-15L
PCB19L = PCB-19L
PCB37L = PCB-37L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L
PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L

Isotope Dilution Summary

Client: AECOM
Job ID: 580-85913-3
Project/Site: Portland Harbor Pre-Remedial Design

PCB118L = PCB-118L
PCB123L = PCB-123L
PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB157L = PCB-157L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB170L = PCB-170L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB202L = PCB-202L
PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L