

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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TestAmerica Job ID: 580-77717-3

Client Project/Site: Portland Harbor Pre-Remedial Design
Revision: 1

For:

AECOM
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Attn: Karen Mixon

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Authorized for release by:
7/27/2018 9:36:26 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

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

TestAmerica Job ID: 580-77717-3

Job ID: 580-77717-3

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-77717-3

REVISION 1: JULY 25, 2018

This report was revised to include the Estimated Maximum Possible Concentrations (EMPCs) for PCB 5 and/or PCB 159 where the original values were outside the theoretical ion ratio limits and were not being adjusted to reflect the EMPC values.

This report was revised to correct results which were originally reported using zero area of one of the two masses used for quantitation.

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

Eleven samples were received on 6/1/2018 1:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.6° C, 1.0° C, 1.4° C and 4.2° 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 by Method 1668A, 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-SG-B355-BL1 (580-77717-1), PDI-SG-B188-BL1 (580-77717-2), PDI-SG-B193-BL1 (580-77717-3), PDI-SG-B396-BL1 (580-77717-4), PDI-SG-B349-BL1 (580-77717-5), PDI-SG-B348-BL1 (580-77717-6), PDI-SG-B344-BL1 (580-77717-7), PDI-SG-B342-BL1 (580-77717-8) and PDI-SG-B342-BL1-D (580-77717-9) were analyzed for polychlorinated biphenyls congeners (PCBs) in accordance with EPA Method 1668A. The samples were prepared on 06/12/2018 and 06/13/2018 and analyzed on 06/22/2018 and 06/23/2018.

Several analytes were detected in method blank MB 140-21117/17-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.

Several analytes were detected in method blank MB 140-21154/16-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.

Case Narrative

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

TestAmerica Job ID: 580-77717-3

Job ID: 580-77717-3 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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

PCB CONGENERS - Rinse Blank

Samples PDI-RB-VV-180530-1515 (580-77717-10) and PDI-RB-VV-180531 (580-77717-11) were analyzed for PCB Congeners in accordance with 1668A. The samples were prepared on 06/05/2018 and analyzed on 06/13/2018.

Several analytes were detected in method blank MB 140-20916/6-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.

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

Definitions/Glossary

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

TestAmerica Job ID: 580-77717-3

Qualifiers

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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.
C93	The compound co-eluted with PCB-93
C90	The compound co-eluted with PCB-90
C98	The compound co-eluted with PCB-98
C	The compound co-eluted with other compounds
C86	The compound co-eluted with PCB-86
C110	The compound co-eluted with PCB-110
C85	The compound co-eluted with PCB-85
C108	The compound co-eluted with PCB-108
C12	The compound co-eluted with PCB-12
C129	The compound co-eluted with PCB-129
C139	The compound co-eluted with PCB-139
C134	The compound co-eluted with PCB-134
C147	The compound co-eluted with PCB-147
C135	The compound co-eluted with PCB-135
C156	The compound co-eluted with PCB-156
C128	The compound co-eluted with PCB-128
C153	The compound co-eluted with PCB-153
C171	The compound co-eluted with PCB-171
C183	The compound co-eluted with PCB-183
C180	The compound co-eluted with PCB-180
C198	The compound co-eluted with PCB-198
C20	The compound co-eluted with PCB-20
C26	The compound co-eluted with PCB-26
C18	The compound co-eluted with PCB-18
C21	The compound co-eluted with PCB-21
C40	The compound co-eluted with PCB-40
C44	The compound co-eluted with PCB-44
C45	The compound co-eluted with PCB-45
C50	The compound co-eluted with PCB-50
C59	The compound co-eluted with PCB-59
C49	The compound co-eluted with PCB-49
C61	The compound co-eluted with PCB-61
C43	The compound co-eluted with PCB-43
C88	The compound co-eluted with PCB-88
C83	The compound co-eluted with PCB-83

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

TestAmerica Seattle

Definitions/Glossary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77717-3

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DLC	Decision Level Concentration (Radiochemistry)
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 Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B355-BL1

Date Collected: 05/31/18 10:35

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-1

Matrix: Solid

Percent Solids: 41.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0023	J q B	0.012	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-2	0.0053	J B	0.012	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-3	0.0034	J q B	0.012	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-4	0.020	J B	0.024	0.00055	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-5	ND		0.012	0.00041	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-6	0.0024	J q	0.012	0.00041	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-7	0.00072	J q B	0.012	0.00039	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-8	0.010	J B	0.024	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-9	0.0011	J q	0.012	0.00045	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-10	0.00093	J q	0.012	0.00044	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-11	0.049	B	0.024	0.00037	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-12	0.0040	J q C B	0.024	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-13	0.0040	J q C12 B	0.024	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-14	ND		0.012	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-15	0.012	B	0.012	0.00043	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-16	0.0061	J	0.012	0.00049	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-17	0.016	B	0.012	0.00037	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-18	0.018	J C B	0.024	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-19	0.032	B	0.012	0.00046	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-20	0.054	C B	0.024	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-21	0.018	J C B	0.024	0.00077	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-22	0.016		0.012	0.00084	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-23	ND		0.012	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-24	0.00037	J q B	0.012	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-25	0.0070	J B	0.012	0.00079	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-26	0.0097	J q C	0.024	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-27	0.0045	J q B	0.012	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-28	0.054	C20 B	0.024	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-29	0.0097	J q C26	0.024	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-30	0.018	J C18 B	0.024	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-31	0.039	B	0.024	0.00076	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-32	0.011	J B	0.012	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-33	0.018	J C21 B	0.024	0.00077	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-34	ND		0.012	0.00086	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-35	ND		0.012	0.00082	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-36	ND		0.012	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-37	0.018	B	0.012	0.00077	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-38	ND		0.012	0.00081	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-39	ND		0.012	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-40	0.043	C B	0.036	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-41	0.043	C40 B	0.036	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-42	0.021	B	0.012	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-43	0.0078	J q C B	0.024	0.00098	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-44	0.15	C B	0.036	0.00097	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-45	0.035	C B	0.024	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-46	0.0038	J q B	0.012	0.0013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-47	0.15	C44 B	0.036	0.00097	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-48	0.012		0.012	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-49	0.090	C B	0.024	0.00087	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B355-BL1

Lab Sample ID: 580-77717-1

Date Collected: 05/31/18 10:35

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 41.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.038	C B	0.024	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-51	0.035	C45 B	0.024	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-52	0.23	B	0.012	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-53	0.038	C50 B	0.024	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-54	0.0086	J	0.012	0.000037	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-55	ND		0.012	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-56	0.034	B	0.012	0.00076	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-57	ND		0.012	0.00076	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-58	ND		0.012	0.00073	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-59	0.0082	J C B	0.036	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-60	0.017	B	0.012	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-61	0.19	C B	0.047	0.00072	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-62	0.0082	J C59 B	0.036	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-63	0.0018	J q B	0.012	0.00066	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-64	0.035		0.012	0.00069	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-65	0.15	C44 B	0.036	0.00097	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-66	0.092	B	0.012	0.00072	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-67	0.0014	J q B	0.012	0.00070	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-68	0.0028	J B	0.012	0.00066	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-69	0.090	C49 B	0.024	0.00087	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-70	0.19	C61 B	0.047	0.00072	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-71	0.043	C40 B	0.036	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-72	0.0016	J B	0.012	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-73	0.0078	J q C43 B	0.024	0.00098	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-74	0.19	C61 B	0.047	0.00072	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-75	0.0082	J C59 B	0.036	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-76	0.19	C61 B	0.047	0.00072	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-77	0.0095	J B	0.012	0.00064	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-78	ND		0.012	0.00073	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-79	0.0019	J q B	0.012	0.00062	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-80	ND		0.012	0.00065	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-81	ND		0.012	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-82	0.047		0.012	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-83	0.21	C B	0.024	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-84	0.087	B	0.012	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-85	0.063	C B	0.036	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-86	0.26	C B	0.071	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-87	0.26	C86 B	0.071	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-88	0.058	C	0.024	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-89	ND		0.012	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-90	0.41	C B	0.036	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-91	0.058	C88	0.024	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-92	0.078		0.012	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-93	0.017	J C B	0.024	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-94	0.0041	J q	0.012	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-95	0.33	B	0.012	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-96	0.0046	J	0.012	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-97	0.26	C86 B	0.071	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-98	0.015	J q C	0.024	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B355-BL1

Lab Sample ID: 580-77717-1

Date Collected: 05/31/18 10:35

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 41.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.21	C83 B	0.024	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-100	0.017	J C93 B	0.024	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-101	0.41	C90 B	0.036	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-102	0.015	J q C98	0.024	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-103	0.0098	J B	0.012	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-104	ND		0.012	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-105	0.14	B	0.012	0.0013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-106	ND		0.012	0.0014	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-107	0.025		0.012	0.0014	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-108	0.017	J C B	0.024	0.0014	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-109	0.26	C86 B	0.071	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-110	0.43	C B	0.024	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-111	ND		0.012	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-112	ND		0.012	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-113	0.41	C90 B	0.036	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-114	0.010	J B	0.012	0.0013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-115	0.43	C110 B	0.024	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-116	0.063	C85 B	0.036	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-117	0.063	C85 B	0.036	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-118	0.33	B	0.012	0.0013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-119	0.26	C86 B	0.071	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-120	0.0025	J B	0.012	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-121	ND		0.012	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-122	0.0087	J B	0.012	0.0015	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-123	0.0057	J	0.012	0.0012	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-124	0.017	J C108 B	0.024	0.0014	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-125	0.26	C86 B	0.071	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-126	ND		0.012	0.0014	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-127	ND		0.012	0.0013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-128	0.11	C B	0.024	0.00077	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-129	0.66	C B	0.047	0.00079	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-130	0.043		0.012	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-131	0.0081	J q	0.012	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-132	0.21	B	0.012	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-133	0.011	J	0.012	0.00099	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-134	0.039	C	0.024	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-135	0.19	C B	0.024	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-136	0.081		0.012	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-137	0.034		0.012	0.00085	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-138	0.66	C129 B	0.047	0.00079	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-139	0.011	J C B	0.024	0.00088	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-140	0.011	J C139 B	0.024	0.00088	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-141	0.13	B	0.012	0.00092	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-142	ND		0.012	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-143	0.039	C134	0.024	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-144	0.026	B	0.012	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-145	0.00025	J q	0.012	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-146	0.089	B	0.012	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-147	0.48	C B	0.024	0.00089	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B355-BL1

Lab Sample ID: 580-77717-1

Date Collected: 05/31/18 10:35

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 41.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0012	J q	0.012	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-149	0.48	C147 B	0.024	0.00089	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-150	0.0022	J	0.012	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-151	0.19	C135 B	0.024	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-152	0.00087	J q B	0.012	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-153	0.49	C B	0.024	0.00069	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-154	0.0087	J q	0.012	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-155	0.00021	J q B	0.012	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-156	0.080	C B	0.024	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-157	0.080	C156 B	0.024	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-158	0.071	B	0.012	0.00061	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-159	0.0044	J q B	0.012	0.00063	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-160	0.66	C129 B	0.047	0.00079	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-161	ND		0.012	0.00065	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-162	ND		0.012	0.00062	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-163	0.66	C129 B	0.047	0.00079	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-164	0.048		0.012	0.00067	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-165	ND		0.012	0.00075	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-166	0.11	C128 B	0.024	0.00077	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-167	0.026		0.012	0.00045	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-168	0.49	C153 B	0.024	0.00069	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-169	ND		0.012	0.00050	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-170	0.14	B	0.012	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-171	0.043	C B	0.024	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-172	0.023	B	0.012	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-173	0.043	C171 B	0.024	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-174	0.15	B	0.012	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-175	0.0043	J q	0.012	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-176	0.016	B	0.012	0.0000082	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-177	0.087		0.012	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-178	0.029		0.012	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-179	0.053	B	0.012	0.0000090	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-180	0.27	C B	0.024	0.0000096	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-181	0.0020	J q	0.012	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-182	0.0013	J q	0.012	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-183	0.088	C B	0.024	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-184	ND		0.012	0.0000091	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-185	0.088	C183 B	0.024	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-186	ND		0.012	0.0000087	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-187	0.17	B	0.012	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-188	ND		0.012	0.0000081	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-189	0.0049	J B	0.012	0.00089	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-190	0.027	B	0.012	0.0000083	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-191	0.0064	J	0.012	0.0000084	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-192	ND		0.012	0.0000089	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-193	0.27	C180 B	0.024	0.0000096	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-194	0.054	B	0.012	0.00050	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-195	0.024	B	0.012	0.00056	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-196	0.025	B	0.012	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B355-BL1

Lab Sample ID: 580-77717-1

Date Collected: 05/31/18 10:35

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 41.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0021	J	0.012	0.000085	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-198	0.060	C	0.024	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-199	0.060	C198	0.024	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-200	0.0061	J	0.012	0.000093	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-201	0.0061	J	0.012	0.000090	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-202	0.013		0.012	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-203	0.037		0.012	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-204	ND		0.012	0.000093	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-205	0.0029	J B	0.012	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-206	0.033	B	0.012	0.00065	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-207	0.0033	J q	0.012	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-208	0.0096	J q	0.012	0.00045	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
PCB-209	0.042	B	0.012	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 03:37	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	61		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-3L	61		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-4L	78		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-15L	79		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-19L	81		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-37L	78		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-54L	92		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-77L	82		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-81L	71		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-104L	88		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-105L	84		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-114L	84		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-118L	87		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-123L	85		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-126L	84		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-155L	107		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-156L	81	C	30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-157L	81	C156	30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-167L	83		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-169L	80		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-170L	80		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-188L	85		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-189L	81		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-202L	102		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-205L	77		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-206L	79		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-208L	81		30 - 140				06/12/18 11:00	06/22/18 03:37	1
PCB-209L	72		30 - 140				06/12/18 11:00	06/22/18 03:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	80		40 - 125				06/12/18 11:00	06/22/18 03:37	1
PCB-111L	86		40 - 125				06/12/18 11:00	06/22/18 03:37	1
PCB-178L	87		40 - 125				06/12/18 11:00	06/22/18 03:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B188-BL1

Date Collected: 05/31/18 15:27

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-2

Matrix: Solid

Percent Solids: 72.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00052	J q B	0.0098	0.000080	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-2	0.0012	J q B	0.0098	0.000094	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-3	0.0013	J q B	0.0098	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-4	0.0013	J B	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-5	ND		0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-6	ND		0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-7	0.00050	J q B	0.0098	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-8	0.0020	J B	0.020	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-9	ND		0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-10	ND		0.0098	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-11	0.0098	J q B	0.020	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-12	0.0010	J C B	0.020	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-13	0.0010	J C12 B	0.020	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-14	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-15	0.0022	J q B	0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-16	0.00095	J	0.0098	0.000072	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-17	0.0015	J q B	0.0098	0.000055	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-18	0.0023	J q C B	0.020	0.000048	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-19	0.0011	J q B	0.0098	0.000068	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-20	0.0078	J C B	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-21	0.0025	J q C B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-22	0.0020	J q	0.0098	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-23	ND		0.0098	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-24	ND		0.0098	0.000042	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-25	0.00099	J B	0.0098	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-26	0.0013	J C	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-27	ND		0.0098	0.000041	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-28	0.0078	J C20 B	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-29	0.0013	J C26	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-30	0.0023	J q C18 B	0.020	0.000048	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-31	0.0050	J B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-32	0.0013	J q B	0.0098	0.000038	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-33	0.0025	J q C21 B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-34	ND		0.0098	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-35	ND		0.0098	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-36	ND		0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-37	0.0018	J q B	0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-38	ND		0.0098	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-39	ND		0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-40	0.0038	J q C B	0.029	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-41	0.0038	J q C40 B	0.029	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-42	0.0025	J q B	0.0098	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-43	ND	C	0.020	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-44	0.013	J C B	0.029	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-45	0.0027	J C B	0.020	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-46	0.00053	J B	0.0098	0.00039	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-47	0.013	J C44 B	0.029	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-48	ND		0.0098	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-49	0.0077	J C B	0.020	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B188-BL1

Lab Sample ID: 580-77717-2

Date Collected: 05/31/18 15:27

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 72.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0020	J C B	0.020	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-51	0.0027	J C45 B	0.020	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-52	0.012	q B	0.0098	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-53	0.0020	J C50 B	0.020	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-54	0.00035	J q	0.0098	0.000027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-55	ND		0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-56	0.0036	J B	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-57	ND		0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-58	ND		0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-59	0.00074	J q C B	0.029	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-60	0.0017	J B	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-61	0.014	J C B	0.039	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-62	0.00074	J q C59 B	0.029	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-63	0.00027	J q B	0.0098	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-64	0.0035	J	0.0098	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-65	0.013	J C44 B	0.029	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-66	0.010	B	0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-67	ND		0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-68	0.00052	J q B	0.0098	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-69	0.0077	J C49 B	0.020	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-70	0.014	J C61 B	0.039	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-71	0.0038	J q C40 B	0.029	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-72	0.00023	J q B	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-73	ND	C43	0.020	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-74	0.014	J C61 B	0.039	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-75	0.00074	J q C59 B	0.029	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-76	0.014	J C61 B	0.039	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-77	0.00076	J q B	0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-78	ND		0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-79	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-80	ND		0.0098	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-81	ND		0.0098	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-82	0.0017	J q	0.0098	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-83	0.014	J C B	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-84	0.0044	J B	0.0098	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-85	0.0027	J q C B	0.029	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-86	0.011	J C B	0.059	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-87	0.011	J C86 B	0.059	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-88	0.0026	J q C	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-89	ND		0.0098	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-90	0.020	J C B	0.029	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-91	0.0026	J q C88	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-92	0.0037	J q	0.0098	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-93	ND	C	0.020	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-94	ND		0.0098	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-95	0.013	q B	0.0098	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-96	ND		0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-97	0.011	J C86 B	0.059	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-98	0.00038	J q C	0.020	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B188-BL1

Lab Sample ID: 580-77717-2

Date Collected: 05/31/18 15:27

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 72.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.014	J C83 B	0.020	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-100	ND	C93	0.020	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-101	0.020	J C90 B	0.029	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-102	0.00038	J q C98	0.020	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-103	ND		0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-104	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-105	0.0047	J q B	0.0098	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-106	ND		0.0098	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-107	0.0012	J	0.0098	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-108	0.00058	J q C B	0.020	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-109	0.011	J C86 B	0.059	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-110	0.020	C B	0.020	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-111	ND		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-112	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-113	0.020	J C90 B	0.029	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-114	ND		0.0098	0.00030	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-115	0.020	C110 B	0.020	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-116	0.0027	J q C85 B	0.029	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-117	0.0027	J q C85 B	0.029	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-118	0.012	q B	0.0098	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-119	0.011	J C86 B	0.059	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-120	ND		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-121	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-122	ND		0.0098	0.00037	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-123	ND		0.0098	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-124	0.00058	J q C108 E	0.020	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-125	0.011	J C86 B	0.059	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-126	ND		0.0098	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-127	ND		0.0098	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-128	0.0039	J q C B	0.020	0.00037	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-129	0.033	J C B	0.039	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-130	0.0020	J q	0.0098	0.00051	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-131	ND		0.0098	0.00051	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-132	0.010	B	0.0098	0.00049	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-133	ND		0.0098	0.00048	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-134	0.0025	J C	0.020	0.00050	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-135	0.013	J C B	0.020	0.000027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-136	0.0054	J	0.0098	0.000020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-137	0.0011	J q	0.0098	0.00041	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-138	0.033	J C129 B	0.039	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-139	0.00058	J q C B	0.020	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-140	0.00058	J q C139 E	0.020	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-141	0.0068	J B	0.0098	0.00044	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-142	ND		0.0098	0.00048	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-143	0.0025	J C134	0.020	0.00050	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-144	0.0014	J q B	0.0098	0.000025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-145	ND		0.0098	0.000020	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-146	0.0061	J B	0.0098	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-147	0.031	C B	0.020	0.00043	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B188-BL1

Lab Sample ID: 580-77717-2

Date Collected: 05/31/18 15:27

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 72.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.000026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-149	0.031	C147 B	0.020	0.00043	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-150	ND		0.0098	0.000018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-151	0.013	J C135 B	0.020	0.000027	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-152	0.000034	J q B	0.0098	0.000019	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-153	0.029	C B	0.020	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-154	0.00059	J q	0.0098	0.000023	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-155	ND		0.0098	0.000018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-156	0.0025	J q C B	0.020	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-157	0.0025	J q C156 E	0.020	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-158	0.0032	J B	0.0098	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-159	0.00039	J q B	0.0098	0.00030	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-160	0.033	J C129 B	0.039	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-161	ND		0.0098	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-162	ND		0.0098	0.00030	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-163	0.033	J C129 B	0.039	0.00038	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-164	0.0026	J	0.0098	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-165	ND		0.0098	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-166	0.0039	J q C128 E	0.020	0.00037	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-167	0.00093	J q	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-168	0.029	C153 B	0.020	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-169	ND		0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-170	0.011	B	0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-171	0.0032	J C B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-172	0.0019	J B	0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-173	0.0032	J C171 B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-174	0.013	B	0.0098	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-175	ND		0.0098	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-176	0.00068	J q B	0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-177	0.0073	J	0.0098	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-178	0.0025	J	0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-179	0.0047	J q B	0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-180	0.020	q C B	0.020	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-181	ND		0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-182	ND		0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-183	0.0079	J C B	0.020	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-184	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-185	0.0079	J C183 B	0.020	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-186	ND		0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-187	0.015	B	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-188	ND		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-189	0.00022	J q B	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-190	0.0018	J q B	0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-191	ND		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-192	ND		0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-193	0.020	q C180 B	0.020	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-194	0.0048	J B	0.0098	0.00041	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-195	0.0024	J B	0.0098	0.00046	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-196	0.0030	J B	0.0098	0.00033	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B188-BL1

Lab Sample ID: 580-77717-2

Date Collected: 05/31/18 15:27

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 72.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-198	0.0067	J C	0.020	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-199	0.0067	J C198	0.020	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-200	0.00079	J	0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-201	ND		0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-202	0.0012	J	0.0098	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-203	0.0029	J q	0.0098	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-204	ND		0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-205	ND		0.0098	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-206	0.044	q B	0.0098	0.0023	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-207	ND		0.0098	0.0016	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-208	ND		0.0098	0.0017	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
PCB-209	0.0032	J q B	0.0098	0.000035	ng/g	☼	06/12/18 11:00	06/22/18 04:41	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	67		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-3L	60		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-4L	78		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-15L	74		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-19L	79		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-37L	75		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-54L	92		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-77L	81		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-81L	80		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-104L	87		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-105L	84		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-114L	83		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-118L	88		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-123L	86		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-126L	85		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-155L	108		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-156L	83	C	30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-157L	83	C156	30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-167L	84		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-169L	83		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-170L	82		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-188L	84		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-189L	80		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-202L	103		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-205L	79		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-206L	81		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-208L	80		30 - 140				06/12/18 11:00	06/22/18 04:41	1
PCB-209L	73		30 - 140				06/12/18 11:00	06/22/18 04:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	77		40 - 125				06/12/18 11:00	06/22/18 04:41	1
PCB-111L	87		40 - 125				06/12/18 11:00	06/22/18 04:41	1
PCB-178L	84		40 - 125				06/12/18 11:00	06/22/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B193-BL1

Lab Sample ID: 580-77717-3

Date Collected: 05/31/18 11:30

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 57.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0038	J B	0.0098	0.00016	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-2	0.0066	J B	0.0098	0.00017	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-3	0.0047	J B	0.0098	0.00019	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-4	0.010	J B	0.020	0.00065	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-5	ND		0.0098	0.00045	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-6	0.0044	J	0.0098	0.00044	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-7	0.0012	J q B	0.0098	0.00042	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-8	0.018	J B	0.020	0.00043	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-9	0.0012	J q	0.0098	0.00049	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-10	0.0012	J q	0.0098	0.00048	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-11	0.031	B	0.020	0.00040	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-12	0.0032	J q C B	0.020	0.00041	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-13	0.0032	J q C12 B	0.020	0.00041	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-14	ND		0.0098	0.00037	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-15	0.017	B	0.0098	0.00044	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-16	0.019		0.0098	0.00044	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-17	0.019	B	0.0098	0.00033	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-18	0.037	C B	0.020	0.00029	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-19	0.0088	J B	0.0098	0.00041	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-20	0.097	C B	0.020	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-21	0.039	C B	0.020	0.00073	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-22	0.029		0.0098	0.00079	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-23	ND		0.0098	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-24	ND		0.0098	0.00025	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-25	0.0077	J B	0.0098	0.00074	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-26	0.014	J C	0.020	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-27	0.0039	J B	0.0098	0.00025	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-28	0.097	C20 B	0.020	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-29	0.014	J C26	0.020	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-30	0.037	C18 B	0.020	0.00029	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-31	0.074	B	0.020	0.00072	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-32	0.015	B	0.0098	0.00023	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-33	0.039	C21 B	0.020	0.00073	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-34	ND		0.0098	0.00080	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-35	0.0024	J B	0.0098	0.00077	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-36	ND		0.0098	0.00070	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-37	0.029	B	0.0098	0.00072	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-38	ND		0.0098	0.00076	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-39	ND		0.0098	0.00069	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-40	0.078	C B	0.029	0.00087	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-41	0.078	C40 B	0.029	0.00087	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-42	0.037	B	0.0098	0.00088	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-43	0.0038	J C B	0.020	0.00079	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-44	0.17	C B	0.029	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-45	0.030	C B	0.020	0.00092	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-46	0.0069	J B	0.0098	0.0011	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-47	0.17	C44 B	0.029	0.00078	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-48	0.022		0.0098	0.00084	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1
PCB-49	0.086	C B	0.020	0.00070	ng/g	☆	06/12/18 11:00	06/22/18 05:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B193-BL1

Lab Sample ID: 580-77717-3

Date Collected: 05/31/18 11:30

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 57.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.021	C B	0.020	0.00088	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-51	0.030	C45 B	0.020	0.00092	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-52	0.18	B	0.0098	0.00092	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-53	0.021	C50 B	0.020	0.00088	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-54	0.0014	J q	0.0098	0.000016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-55	ND		0.0098	0.00060	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-56	0.064	B	0.0098	0.00061	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-57	ND		0.0098	0.00061	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-58	0.00071	J q	0.0098	0.00059	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-59	0.012	J C B	0.029	0.00059	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-60	0.031	B	0.0098	0.00059	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-61	0.21	C B	0.039	0.00058	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-62	0.012	J C59 B	0.029	0.00059	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-63	0.0045	J B	0.0098	0.00053	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-64	0.056		0.0098	0.00056	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-65	0.17	C44 B	0.029	0.00078	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-66	0.14	B	0.0098	0.00058	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-67	0.0032	J q B	0.0098	0.00056	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-68	0.0046	J B	0.0098	0.00053	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-69	0.086	C49 B	0.020	0.00070	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-70	0.21	C61 B	0.039	0.00058	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-71	0.078	C40 B	0.029	0.00087	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-72	0.0018	J B	0.0098	0.00060	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-73	0.0038	J C43 B	0.020	0.00079	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-74	0.21	C61 B	0.039	0.00058	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-75	0.012	J C59 B	0.029	0.00059	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-76	0.21	C61 B	0.039	0.00058	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-77	0.016	B	0.0098	0.00055	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-78	ND		0.0098	0.00059	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-79	0.0016	J B	0.0098	0.00050	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-80	ND		0.0098	0.00052	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-81	ND		0.0098	0.00055	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-82	0.027		0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-83	0.12	C B	0.020	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-84	0.046	B	0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-85	0.037	C B	0.029	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-86	0.12	C B	0.059	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-87	0.12	C86 B	0.059	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-88	0.032	C	0.020	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-89	0.0025	J	0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-90	0.21	C B	0.029	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-91	0.032	C88	0.020	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-92	0.042		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-93	0.0050	J q C B	0.020	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-94	ND		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-95	0.16	B	0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-96	0.0018	J q	0.0098	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-97	0.12	C86 B	0.059	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-98	0.0086	J C	0.020	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B193-BL1

Lab Sample ID: 580-77717-3

Date Collected: 05/31/18 11:30

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 57.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.12	C83 B	0.020	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-100	0.0050	J q C93 B	0.020	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-101	0.21	C90 B	0.029	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-102	0.0086	J C98	0.020	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-103	0.0041	J B	0.0098	0.00014	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-104	ND		0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-105	0.073	B	0.0098	0.00091	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-106	ND		0.0098	0.00093	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-107	0.015		0.0098	0.00091	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-108	0.0060	J q C B	0.020	0.00094	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-109	0.12	C86 B	0.059	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-110	0.22	C B	0.020	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-111	ND		0.0098	0.000099	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-112	ND		0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-113	0.21	C90 B	0.029	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-114	0.0076	J B	0.0098	0.00085	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-115	0.22	C110 B	0.020	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-116	0.037	C85 B	0.029	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-117	0.037	C85 B	0.029	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-118	0.17	B	0.0098	0.00084	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-119	0.12	C86 B	0.059	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-120	0.0015	J B	0.0098	0.000097	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-121	ND		0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-122	0.0036	J B	0.0098	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-123	0.0033	J	0.0098	0.00083	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-124	0.0060	J q C108 E	0.020	0.00094	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-125	0.12	C86 B	0.059	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-126	ND		0.0098	0.00091	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-127	ND		0.0098	0.00089	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-128	0.052	C B	0.020	0.00088	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-129	0.42	C B	0.039	0.00090	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-130	0.025		0.0098	0.0012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-131	0.0043	J	0.0098	0.0012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-132	0.12	B	0.0098	0.0012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-133	0.0069	J	0.0098	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-134	0.020	q C	0.020	0.0012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-135	0.15	C B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-136	0.051		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-137	0.011		0.0098	0.00097	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-138	0.42	C129 B	0.039	0.00090	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-139	0.0051	J q C B	0.020	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-140	0.0051	J q C139 E	0.020	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-141	0.093	B	0.0098	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-142	ND		0.0098	0.0011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-143	0.020	q C134	0.020	0.0012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-144	0.021	B	0.0098	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-145	ND		0.0098	0.00018	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-146	0.071	B	0.0098	0.00094	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-147	0.35	C B	0.020	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B193-BL1

Lab Sample ID: 580-77717-3

Date Collected: 05/31/18 11:30

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 57.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-149	0.35	C147 B	0.020	0.0010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-150	0.00097	J q	0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-151	0.15	C135 B	0.020	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-152	ND		0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-153	0.38	C B	0.020	0.00078	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-154	0.0047	J q	0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-155	ND		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-156	0.034	C B	0.020	0.00094	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-157	0.034	C156 B	0.020	0.00094	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-158	0.040	B	0.0098	0.00070	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-159	0.0049	J B	0.0098	0.00072	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-160	0.42	C129 B	0.039	0.00090	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-161	ND		0.0098	0.00074	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-162	ND		0.0098	0.00071	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-163	0.42	C129 B	0.039	0.00090	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-164	0.031		0.0098	0.00076	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-165	ND		0.0098	0.00085	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-166	0.052	C128 B	0.020	0.00088	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-167	0.012		0.0098	0.00052	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-168	0.38	C153 B	0.020	0.00078	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-169	ND		0.0098	0.00056	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-170	0.15	B	0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-171	0.047	C B	0.020	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-172	0.025	B	0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-173	0.047	C171 B	0.020	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-174	0.16	B	0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-175	0.0059	J	0.0098	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-176	0.018	B	0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-177	0.097		0.0098	0.00017	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-178	0.033		0.0098	0.00016	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-179	0.063	B	0.0098	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-180	0.32	C B	0.020	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-181	0.0056	J q	0.0098	0.00015	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-182	ND		0.0098	0.00014	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-183	0.11	C B	0.020	0.00014	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-184	ND		0.0098	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-185	0.11	C183 B	0.020	0.00014	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-186	ND		0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-187	0.20	B	0.0098	0.00014	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-188	ND		0.0098	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-189	0.0050	J q B	0.0098	0.00041	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-190	0.030	B	0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-191	0.0072	J	0.0098	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-192	ND		0.0098	0.00012	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-193	0.32	C180 B	0.020	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-194	0.066	B	0.0098	0.00062	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-195	0.031	B	0.0098	0.00070	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-196	0.031	B	0.0098	0.00030	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B193-BL1

Lab Sample ID: 580-77717-3

Date Collected: 05/31/18 11:30

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 57.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0025	J q	0.0098	0.00021	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-198	0.071	C	0.020	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-199	0.071	C198	0.020	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-200	0.0089	J	0.0098	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-201	0.0081	J	0.0098	0.00022	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-202	0.014		0.0098	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-203	0.045		0.0098	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-204	ND		0.0098	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-205	0.0045	J B	0.0098	0.00047	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-206	0.056	B	0.0098	0.00070	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-207	0.0060	J	0.0098	0.00047	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-208	0.013		0.0098	0.00051	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1
PCB-209	0.14	B	0.0098	0.00043	ng/g	☼	06/12/18 11:00	06/22/18 05:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-3L	61		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-4L	78		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-15L	80		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-19L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-37L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-54L	102		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-77L	84		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-81L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-104L	92		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-105L	85		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-114L	84		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-118L	87		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-123L	86		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-126L	86		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-155L	111		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-156L	81	C	30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-157L	81	C156	30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-167L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-169L	80		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-170L	84		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-188L	89		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-189L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-202L	107		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-205L	79		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-206L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-208L	83		30 - 140	06/12/18 11:00	06/22/18 05:44	1
PCB-209L	74		30 - 140	06/12/18 11:00	06/22/18 05:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	80		40 - 125	06/12/18 11:00	06/22/18 05:44	1
PCB-111L	87		40 - 125	06/12/18 11:00	06/22/18 05:44	1
PCB-178L	89		40 - 125	06/12/18 11:00	06/22/18 05:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B396-BL1

Date Collected: 05/30/18 15:38

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-4

Matrix: Solid

Percent Solids: 76.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0014	J q B	0.0097	0.00011	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-2	0.0016	J B	0.0097	0.00011	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-3	0.0020	J q B	0.0097	0.00013	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-4	0.0053	J B	0.019	0.00033	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-5	ND		0.0097	0.00023	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-6	0.0011	J	0.0097	0.00023	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-7	0.0016	J B	0.0097	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-8	0.0031	J B	0.019	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-9	ND		0.0097	0.00025	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-10	ND		0.0097	0.00024	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-11	0.017	J B	0.019	0.00021	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-12	0.00094	J q C B	0.019	0.00021	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-13	0.00094	J q C12 B	0.019	0.00021	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-14	ND		0.0097	0.00019	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-15	0.0017	J q B	0.0097	0.00023	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-16	0.0020	J q	0.0097	0.00014	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-17	0.0024	J q B	0.0097	0.00011	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-18	0.0035	J q C B	0.019	0.000096	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-19	0.012	B	0.0097	0.00014	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-20	0.0087	J C B	0.019	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-21	0.0024	J C B	0.019	0.00020	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-22	0.0024	J	0.0097	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-23	ND		0.0097	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-24	ND		0.0097	0.000083	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-25	0.0011	J B	0.0097	0.00021	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-26	0.0012	J C	0.019	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-27	0.0017	J B	0.0097	0.000082	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-28	0.0087	J C20 B	0.019	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-29	0.0012	J C26	0.019	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-30	0.0035	J q C18 B	0.019	0.000096	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-31	0.0054	J B	0.019	0.00020	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-32	0.0026	J q B	0.0097	0.000075	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-33	0.0024	J C21 B	0.019	0.00020	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-34	ND		0.0097	0.00022	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-35	0.00053	J q B	0.0097	0.00021	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-36	ND		0.0097	0.00019	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-37	0.0026	J B	0.0097	0.00020	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-38	ND		0.0097	0.00021	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-39	ND		0.0097	0.00019	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-40	0.013	J C B	0.029	0.00040	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-41	0.013	J C40 B	0.029	0.00040	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-42	0.0054	J B	0.0097	0.00041	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-43	0.0021	J C B	0.019	0.00036	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-44	0.034	C B	0.029	0.00036	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-45	0.012	J C B	0.019	0.00042	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-46	ND		0.0097	0.00049	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-47	0.034	C44 B	0.029	0.00036	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-48	0.0024	J q	0.0097	0.00038	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1
PCB-49	0.019	C B	0.019	0.00032	ng/g	☆	06/12/18 11:00	06/22/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B396-BL1

Lab Sample ID: 580-77717-4

Date Collected: 05/30/18 15:38

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 76.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.016	J C B	0.019	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-51	0.012	J C45 B	0.019	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-52	0.037	B	0.0097	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-53	0.016	J C50 B	0.019	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-54	0.0037	J	0.0097	0.000016	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-55	ND		0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-56	0.0082	J B	0.0097	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-57	ND		0.0097	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-58	0.00030	J q	0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-59	0.0020	J C B	0.029	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-60	0.0043	J B	0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-61	0.028	J C B	0.039	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-62	0.0020	J C59 B	0.029	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-63	0.00057	J B	0.0097	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-64	0.0086	J	0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-65	0.034	C44 B	0.029	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-66	0.017	B	0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-67	0.00033	J q B	0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-68	ND		0.0097	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-69	0.019	C49 B	0.019	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-70	0.028	J C61 B	0.039	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-71	0.013	J C40 B	0.029	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-72	ND		0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-73	0.0021	J C43 B	0.019	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-74	0.028	J C61 B	0.039	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-75	0.0020	J C59 B	0.029	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-76	0.028	J C61 B	0.039	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-77	0.0019	J B	0.0097	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-78	ND		0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-79	ND		0.0097	0.00023	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-80	ND		0.0097	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-81	ND		0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-82	0.0041	J q	0.0097	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-83	0.022	C B	0.019	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-84	0.011	q B	0.0097	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-85	0.0061	J C B	0.029	0.000079	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-86	0.024	J C B	0.058	0.000083	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-87	0.024	J C86 B	0.058	0.000083	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-88	0.012	J C	0.019	0.000099	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-89	0.00054	J q	0.0097	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-90	0.055	C B	0.029	0.000085	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-91	0.012	J C88	0.019	0.000099	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-92	0.010		0.0097	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-93	0.0048	J q C B	0.019	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-94	0.0014	J	0.0097	0.00011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-95	0.064	B	0.0097	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-96	0.0016	J	0.0097	0.000081	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-97	0.024	J C86 B	0.058	0.000083	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-98	0.0031	J C	0.019	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B396-BL1

Lab Sample ID: 580-77717-4

Date Collected: 05/30/18 15:38

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 76.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.022	C83 B	0.019	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-100	0.0048	J q C93 B	0.019	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-101	0.055	C90 B	0.029	0.000085	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-102	0.0031	J C98	0.019	0.00010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-103	0.0014	J q B	0.0097	0.000093	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-104	0.00040	J q B	0.0097	0.000072	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-105	0.0094	J B	0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-106	ND		0.0097	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-107	0.0016	J q	0.0097	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-108	0.00067	J q C B	0.019	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-109	0.024	J C86 B	0.058	0.000083	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-110	0.050	C B	0.019	0.000069	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-111	0.00026	J	0.0097	0.000065	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-112	ND		0.0097	0.000071	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-113	0.055	C90 B	0.029	0.000085	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-114	ND		0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-115	0.050	C110 B	0.019	0.000069	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-116	0.0061	J C85 B	0.029	0.000079	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-117	0.0061	J C85 B	0.029	0.000079	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-118	0.023	B	0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-119	0.024	J C86 B	0.058	0.000083	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-120	ND		0.0097	0.000064	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-121	0.00024	J q B	0.0097	0.000069	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-122	ND		0.0097	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-123	ND		0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-124	0.00067	J q C108 E	0.019	0.00029	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-125	0.024	J C86 B	0.058	0.000083	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-126	ND		0.0097	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-127	ND		0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-128	0.010	J C B	0.019	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-129	0.094	C B	0.039	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-130	0.0043	J	0.0097	0.00043	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-131	ND		0.0097	0.00043	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-132	0.034	B	0.0097	0.00041	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-133	0.0018	J q	0.0097	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-134	0.0064	J C	0.019	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-135	0.051	C B	0.019	0.000047	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-136	0.021		0.0097	0.000034	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-137	0.0020	J q	0.0097	0.00035	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-138	0.094	C129 B	0.039	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-139	0.0014	J C B	0.019	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-140	0.0014	J C139 B	0.019	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-141	0.022	B	0.0097	0.00037	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-142	ND		0.0097	0.00040	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-143	0.0064	J C134	0.019	0.00042	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-144	0.0060	J B	0.0097	0.000044	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-145	ND		0.0097	0.000034	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-146	0.016	B	0.0097	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-147	0.10	C B	0.019	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B396-BL1

Lab Sample ID: 580-77717-4

Date Collected: 05/30/18 15:38

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 76.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00038	J q	0.0097	0.000046	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-149	0.10	C147 B	0.019	0.00036	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-150	0.00058	J q	0.0097	0.000031	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-151	0.051	C135 B	0.019	0.000047	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-152	0.00032	J B	0.0097	0.000033	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-153	0.085	C B	0.019	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-154	0.0021	J	0.0097	0.000040	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-155	ND		0.0097	0.000031	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-156	0.0060	J C B	0.019	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-157	0.0060	J C156 B	0.019	0.00034	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-158	0.0084	J B	0.0097	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-159	0.0012	J q B	0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-160	0.094	C129 B	0.039	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-161	ND		0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-162	ND		0.0097	0.00025	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-163	0.094	C129 B	0.039	0.00032	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-164	0.0068	J	0.0097	0.00027	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-165	ND		0.0097	0.00030	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-166	0.010	J C128 B	0.019	0.00031	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-167	0.0024	J	0.0097	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-168	0.085	C153 B	0.019	0.00028	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-169	ND		0.0097	0.00019	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-170	0.025	B	0.0097	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-171	0.0090	J C B	0.019	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-172	0.0045	J B	0.0097	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-173	0.0090	J C171 B	0.019	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-174	0.035	B	0.0097	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-175	0.0013	J q	0.0097	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-176	0.0046	J B	0.0097	0.0000080	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-177	0.020		0.0097	0.000013	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-178	0.0081	J	0.0097	0.000012	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-179	0.016	B	0.0097	0.0000088	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-180	0.061	C B	0.019	0.0000094	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-181	ND		0.0097	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-182	ND		0.0097	0.000010	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-183	0.022	C B	0.019	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-184	ND		0.0097	0.0000089	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-185	0.022	C183 B	0.019	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-186	ND		0.0097	0.0000086	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-187	0.043	B	0.0097	0.000011	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-188	ND		0.0097	0.0000080	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-189	0.00090	J B	0.0097	0.00024	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-190	0.0055	J B	0.0097	0.0000082	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-191	0.00080	J q	0.0097	0.0000082	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-192	ND		0.0097	0.0000087	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-193	0.061	C180 B	0.019	0.0000094	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-194	0.011	B	0.0097	0.00035	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-195	0.0058	J B	0.0097	0.00039	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-196	0.0054	J B	0.0097	0.000067	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B396-BL1

Lab Sample ID: 580-77717-4

Date Collected: 05/30/18 15:38

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 76.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00032	J	0.0097	0.000046	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-198	0.012	J C	0.019	0.000071	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-199	0.012	J C198	0.019	0.000071	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-200	0.0011	J q	0.0097	0.000050	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-201	0.0018	J	0.0097	0.000049	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-202	0.0025	J	0.0097	0.000055	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-203	0.0078	J	0.0097	0.000063	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-204	ND		0.0097	0.000050	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-205	0.00049	J B	0.0097	0.00026	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-206	0.0065	J B	0.0097	0.00020	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-207	ND		0.0097	0.00013	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-208	0.0021	J q	0.0097	0.00014	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
PCB-209	0.0031	J q B	0.0097	0.000029	ng/g	☼	06/12/18 11:00	06/22/18 15:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	64		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-3L	63		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-4L	78		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-15L	80		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-19L	78		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-37L	81		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-54L	94		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-77L	84		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-81L	82		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-104L	83		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-105L	80		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-114L	80		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-118L	81		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-123L	81		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-126L	81		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-155L	102		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-156L	78	C	30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-157L	78	C156	30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-167L	78		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-169L	77		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-170L	77		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-188L	83		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-189L	79		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-202L	99		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-205L	73		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-206L	75		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-208L	78		30 - 140				06/12/18 11:00	06/22/18 15:06	1
PCB-209L	66		30 - 140				06/12/18 11:00	06/22/18 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	78		40 - 125				06/12/18 11:00	06/22/18 15:06	1
PCB-111L	87		40 - 125				06/12/18 11:00	06/22/18 15:06	1
PCB-178L	85		40 - 125				06/12/18 11:00	06/22/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B349-BL1

Date Collected: 05/30/18 13:48

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-5

Matrix: Solid

Percent Solids: 36.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0047	J B	0.014	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-2	0.0031	J q B	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-3	0.0044	J q B	0.014	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-4	0.0064	J B	0.027	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-5	ND		0.014	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-6	0.0025	J	0.014	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-7	ND		0.014	0.00055	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-8	0.0074	J B	0.027	0.00057	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-9	ND		0.014	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-10	ND		0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-11	0.069	B	0.027	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-12	ND	C	0.027	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-13	ND	C12	0.027	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-14	ND		0.014	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-15	0.0073	J q B	0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-16	0.0046	J q B	0.014	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-17	0.0081	J B	0.014	0.00021	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-18	0.014	J C	0.027	0.00018	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-19	0.0048	J	0.014	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-20	0.040	C B	0.027	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-21	0.012	J C B	0.027	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-22	0.011	J q	0.014	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-23	ND		0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-24	ND		0.014	0.00016	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-25	0.0040	J	0.014	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-26	0.0072	J C B	0.027	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-27	0.0014	J	0.014	0.00016	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-28	0.040	C20 B	0.027	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-29	0.0072	J C26 B	0.027	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-30	0.014	J C18	0.027	0.00018	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-31	0.028	B	0.027	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-32	0.0064	J B	0.014	0.00014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-33	0.012	J C21 B	0.027	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-34	ND		0.014	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-35	0.0012	J q	0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-36	ND		0.014	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-37	0.013	J B	0.014	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-38	ND		0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-39	ND		0.014	0.00057	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-40	0.020	J C B	0.041	0.00094	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-41	0.020	J C40 B	0.041	0.00094	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-42	0.012	J	0.014	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-43	0.0028	J C	0.027	0.00085	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-44	0.059	C B	0.041	0.00084	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-45	0.0092	J C	0.027	0.00099	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-46	0.0020	J	0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-47	0.059	C44 B	0.041	0.00084	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-48	0.0064	J	0.014	0.00090	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-49	0.037	C B	0.027	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B349-BL1

Lab Sample ID: 580-77717-5

Date Collected: 05/30/18 13:48

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0081	J C B	0.027	0.00094	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-51	0.0092	J C45	0.027	0.00099	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-52	0.083	B	0.014	0.00099	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-53	0.0081	J C50 B	0.027	0.00094	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-54	0.00047	J q	0.014	0.000030	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-55	0.0030	J	0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-56	0.022	B	0.014	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-57	ND		0.014	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-58	ND		0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-59	0.0046	J C B	0.041	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-60	0.0080	J q B	0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-61	0.091	C B	0.055	0.00062	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-62	0.0046	J C59 B	0.041	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-63	0.0010	J q	0.014	0.00057	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-64	0.019	B	0.014	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-65	0.059	C44 B	0.041	0.00084	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-66	0.057	B	0.014	0.00062	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-67	ND		0.014	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-68	0.00077	J	0.014	0.00057	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-69	0.037	C49 B	0.027	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-70	0.091	C61 B	0.055	0.00062	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-71	0.020	J C40 B	0.041	0.00094	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-72	ND		0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-73	0.0028	J C43	0.027	0.00085	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-74	0.091	C61 B	0.055	0.00062	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-75	0.0046	J C59 B	0.041	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-76	0.091	C61 B	0.055	0.00062	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-77	0.0070	J	0.014	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-78	ND		0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-79	0.0012	J	0.014	0.00054	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-80	ND		0.014	0.00056	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-81	ND		0.014	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-82	0.015	q	0.014	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-83	0.086	C B	0.027	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-84	0.029	B	0.014	0.00031	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-85	0.023	J q C	0.041	0.00021	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-86	0.083	C B	0.082	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-87	0.083	C86 B	0.082	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-88	0.018	J C B	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-89	0.0017	J q	0.014	0.00029	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-90	0.13	C B	0.041	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-91	0.018	J C88 B	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-92	0.025	B	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-93	0.0042	J C	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-94	0.0012	J q	0.014	0.00029	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-95	0.091	B	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-96	ND		0.014	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-97	0.083	C86 B	0.082	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-98	0.0046	J C	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B349-BL1

Lab Sample ID: 580-77717-5

Date Collected: 05/30/18 13:48

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.086	C83 B	0.027	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-100	0.0042	J C93	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-101	0.13	C90 B	0.041	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-102	0.0046	J C98	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-103	0.0018	J q B	0.014	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-104	ND		0.014	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-105	0.051	B	0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-106	ND		0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-107	0.011	J B	0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-108	0.0062	J C B	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-109	0.083	C86 B	0.082	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-110	0.15	C B	0.027	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-111	ND		0.014	0.00017	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-112	0.00078	J q	0.014	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-113	0.13	C90 B	0.041	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-114	0.0027	J q B	0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-115	0.15	C110 B	0.027	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-116	0.023	J q C85	0.041	0.00021	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-117	0.023	J q C85	0.041	0.00021	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-118	0.13	B	0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-119	0.083	C86 B	0.082	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-120	0.00064	J q	0.014	0.00017	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-121	ND		0.014	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-122	0.0019	J q B	0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-123	0.0029	J	0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-124	0.0062	J C108 B	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-125	0.083	C86 B	0.082	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-126	ND		0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-127	ND		0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-128	0.040	C	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-129	0.26	C B	0.055	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-130	0.016		0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-131	0.0024	J q	0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-132	0.064		0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-133	0.0030	J q	0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-134	0.012	J C B	0.027	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-135	0.064	C	0.027	0.000037	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-136	0.019		0.014	0.000027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-137	0.0065	J q B	0.014	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-138	0.26	C129 B	0.055	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-139	0.0024	J C	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-140	0.0024	J C139	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-141	0.046		0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-142	ND		0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-143	0.012	J C134 B	0.027	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-144	0.0071	J	0.014	0.000035	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-145	ND		0.014	0.000027	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-146	0.035	B	0.014	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-147	0.16	C B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B349-BL1

Lab Sample ID: 580-77717-5

Date Collected: 05/30/18 13:48

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.014	0.000036	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-149	0.16	C147 B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-150	0.00015	J q	0.014	0.000024	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-151	0.064	C135	0.027	0.000037	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-152	0.00014	J	0.014	0.000026	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-153	0.19	C B	0.027	0.00089	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-154	0.0010	J q	0.014	0.000031	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-155	0.00035	J q B	0.014	0.000024	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-156	0.023	J C B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-157	0.023	J C156 B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-158	0.025		0.014	0.00079	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-159	ND		0.014	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-160	0.26	C129 B	0.055	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-161	ND		0.014	0.00084	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-162	ND		0.014	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-163	0.26	C129 B	0.055	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-164	0.019		0.014	0.00086	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-165	ND		0.014	0.00096	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-166	0.040	C128	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-167	0.0083	J q	0.014	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-168	0.19	C153 B	0.027	0.00089	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-169	ND		0.014	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-170	0.068		0.014	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-171	0.022	J C B	0.027	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-172	0.011	J B	0.014	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-173	0.022	J C171 B	0.027	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-174	0.076		0.014	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-175	0.0031	J q	0.014	0.00012	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-176	0.0057	J q	0.014	0.000084	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-177	0.045		0.014	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-178	0.016	B	0.014	0.00012	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-179	0.028	B	0.014	0.000092	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-180	0.14	C B	0.027	0.000099	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-181	ND		0.014	0.00011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-182	ND		0.014	0.00011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-183	0.048	C	0.027	0.00011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-184	0.00061	J q	0.014	0.000093	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-185	0.048	C183	0.027	0.00011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-186	ND		0.014	0.000089	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-187	0.096	B	0.014	0.00011	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-188	ND		0.014	0.000082	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-189	0.0025	J	0.014	0.00073	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-190	0.014		0.014	0.000085	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-191	0.0020	J q	0.014	0.000086	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-192	ND		0.014	0.000091	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-193	0.14	C180 B	0.027	0.000099	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-194	0.035	B	0.014	0.00054	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-195	0.012	J q	0.014	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-196	0.016	B	0.014	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B349-BL1

Lab Sample ID: 580-77717-5

Date Collected: 05/30/18 13:48

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0011	J q	0.014	0.00018	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-198	0.047	C	0.027	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-199	0.047	C198	0.027	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-200	0.0039	J q	0.014	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-201	0.0044	J B	0.014	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-202	0.0099	J	0.014	0.00021	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-203	0.029	B	0.014	0.00024	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-204	ND		0.014	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-205	0.0015	J q B	0.014	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-206	0.029	q	0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-207	0.0034	J	0.014	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-208	0.010	J	0.014	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
PCB-209	0.043	B	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 07:51	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	50		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-3L	53		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-4L	73		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-15L	77		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-19L	77		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-37L	76		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-54L	99		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-77L	81		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-81L	81		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-104L	87		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-105L	84		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-114L	85		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-118L	87		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-123L	86		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-126L	83		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-155L	108		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-156L	80	C	30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-157L	80	C156	30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-167L	82		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-169L	83		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-170L	82		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-188L	86		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-189L	81		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-202L	104		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-205L	78		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-206L	80		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-208L	82		30 - 140				06/13/18 11:00	06/22/18 07:51	1
PCB-209L	72		30 - 140				06/13/18 11:00	06/22/18 07:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	77		40 - 125				06/13/18 11:00	06/22/18 07:51	1
PCB-111L	83		40 - 125				06/13/18 11:00	06/22/18 07:51	1
PCB-178L	85		40 - 125				06/13/18 11:00	06/22/18 07:51	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B348-BL1

Date Collected: 05/30/18 11:41

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-6

Matrix: Solid

Percent Solids: 36.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0057	J B	0.013	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-2	0.0031	J B q	0.013	0.00029	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-3	0.0041	J B q	0.013	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-4	0.0098	J B	0.027	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-5	ND		0.013	0.00045	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-6	0.0049	J	0.013	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-7	0.0033	J	0.013	0.00042	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-8	0.015	J B	0.027	0.00043	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-9	0.0023	J B	0.013	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-10	0.0012	J q	0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-11	0.060	B	0.027	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-12	0.0017	J C q	0.027	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-13	0.0017	J C12 q	0.027	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-14	ND		0.013	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-15	0.013	B	0.013	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-16	0.0089	J B q	0.013	0.00039	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-17	0.012	J B	0.013	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-18	0.021	J C	0.027	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-19	0.0098	J	0.013	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-20	0.047	C B	0.027	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-21	0.015	J C B	0.027	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-22	0.016		0.013	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-23	ND		0.013	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-24	0.0012	J	0.013	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-25	0.0039	J q	0.013	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-26	0.0078	J C B q	0.027	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-27	0.0029	J q	0.013	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-28	0.047	B C20	0.027	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-29	0.0078	J C26 B q	0.027	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-30	0.021	J C18	0.027	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-31	0.033	B	0.027	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-32	0.0075	J B	0.013	0.00021	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-33	0.015	J B C21	0.027	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-34	ND		0.013	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-35	0.0024	J	0.013	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-36	ND		0.013	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-37	0.019	B	0.013	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-38	ND		0.013	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-39	ND		0.013	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-40	0.026	J C B q	0.040	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-41	0.026	J B q C40	0.040	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-42	0.014		0.013	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-43	0.0034	J C	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-44	0.067	C B	0.040	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-45	0.012	J C q	0.027	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-46	0.0041	J	0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-47	0.067	B C44	0.040	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-48	0.0087	J	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-49	0.041	C B	0.027	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B348-BL1

Lab Sample ID: 580-77717-6

Date Collected: 05/30/18 11:41

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0099	J C B	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-51	0.012	J C45 q	0.027	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-52	0.094	B	0.013	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-53	0.0099	J C50 B	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-54	0.0033	J q	0.013	0.000040	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-55	0.0022	J q	0.013	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-56	0.025	B	0.013	0.00083	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-57	ND		0.013	0.00083	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-58	ND		0.013	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-59	0.0045	J C B q	0.040	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-60	0.013	B	0.013	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-61	0.11	C B	0.054	0.00078	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-62	0.0045	J B C59 q	0.040	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-63	0.0016	J q	0.013	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-64	0.024	B	0.013	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-65	0.067	B C44	0.040	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-66	0.065	B	0.013	0.00079	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-67	0.0019	J	0.013	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-68	0.0015	J	0.013	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-69	0.041	B C49	0.027	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-70	0.11	C61 B	0.054	0.00078	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-71	0.026	J B q C40	0.040	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-72	ND		0.013	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-73	0.0034	J C43	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-74	0.11	C61 B	0.054	0.00078	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-75	0.0045	J B C59 q	0.040	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-76	0.11	C61 B	0.054	0.00078	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-77	0.0096	J	0.013	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-78	ND		0.013	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-79	0.0010	J	0.013	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-80	ND		0.013	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-81	ND		0.013	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-82	0.017		0.013	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-83	0.086	C B	0.027	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-84	0.028	B	0.013	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-85	0.029	J C	0.040	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-86	0.090	C B	0.081	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-87	0.090	B C86	0.081	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-88	0.019	J C B q	0.027	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-89	0.0010	J	0.013	0.00034	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-90	0.13	C B	0.040	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-91	0.019	J C88 B q	0.027	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-92	0.027	B	0.013	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-93	0.0035	J C	0.027	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-94	0.0011	J q	0.013	0.00034	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-95	0.10	B	0.013	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-96	0.0010	J q	0.013	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-97	0.090	B C86	0.081	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-98	0.0044	J C q	0.027	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B348-BL1

Lab Sample ID: 580-77717-6

Date Collected: 05/30/18 11:41

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.086	C83 B	0.027	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-100	0.0035	J C93	0.027	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-101	0.13	B C90	0.040	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-102	0.0044	J C98 q	0.027	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-103	0.0018	J B q	0.013	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-104	ND		0.013	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-105	0.057	B	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-106	ND		0.013	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-107	0.016	B	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-108	0.0071	J C B	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-109	0.090	B C86	0.081	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-110	0.16	C B	0.027	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-111	ND		0.013	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-112	0.00087	J q	0.013	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-113	0.13	B C90	0.040	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-114	0.0029	J B	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-115	0.16	B C110	0.027	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-116	0.029	J C85	0.040	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-117	0.029	J C85	0.040	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-118	0.14	B	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-119	0.090	B C86	0.081	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-120	ND		0.013	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-121	ND		0.013	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-122	ND		0.013	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-123	0.0026	J q	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-124	0.0071	J B C108	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-125	0.090	B C86	0.081	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-126	ND		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-127	ND		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-128	0.043	C	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-129	0.27	C B	0.054	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-130	0.017		0.013	0.0017	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-131	ND		0.013	0.0017	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-132	0.073		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-133	0.0032	J	0.013	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-134	0.011	J C B	0.027	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-135	0.073	C	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-136	0.023		0.013	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-137	0.010	J B	0.013	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-138	0.27	B C129	0.054	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-139	0.0042	J C	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-140	0.0042	J C139	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-141	0.050		0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-142	ND		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-143	0.011	J C134 B	0.027	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-144	0.0091	J	0.013	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-145	ND		0.013	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-146	0.039	B	0.013	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-147	0.17	C B	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B348-BL1

Lab Sample ID: 580-77717-6

Date Collected: 05/30/18 11:41

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.013	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-149	0.17	B C147	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-150	0.00029	J q	0.013	0.00017	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-151	0.073	C135	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-152	ND		0.013	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-153	0.21	C B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-154	0.0035	J q	0.013	0.00022	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-155	ND		0.013	0.00018	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-156	0.027	C B	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-157	0.027	C156 B	0.027	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-158	0.027		0.013	0.00097	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-159	0.0028	J	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-160	0.27	B C129	0.054	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-161	ND		0.013	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-162	ND		0.013	0.00098	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-163	0.27	B C129	0.054	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-164	0.019		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-165	ND		0.013	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-166	0.043	C128	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-167	0.010	J	0.013	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-168	0.21	B C153	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-169	ND		0.013	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-170	0.079		0.013	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-171	0.020	J C B q	0.027	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-172	0.015	B	0.013	0.00073	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-173	0.020	J C171 B q	0.027	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-174	0.082		0.013	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-175	0.0036	J	0.013	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-176	0.0083	J	0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-177	0.050		0.013	0.00077	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-178	0.016	B	0.013	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-179	0.030	B	0.013	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-180	0.17	C B	0.027	0.00056	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-181	ND		0.013	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-182	ND		0.013	0.00062	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-183	0.049	C	0.027	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-184	ND		0.013	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-185	0.049	C183	0.027	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-186	ND		0.013	0.00051	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-187	0.11	B	0.013	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-188	ND		0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-189	0.0031	J	0.013	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-190	0.016		0.013	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-191	0.0032	J q	0.013	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-192	ND		0.013	0.00052	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-193	0.17	C180 B	0.027	0.00056	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-194	0.044	B	0.013	0.00087	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-195	0.018		0.013	0.00098	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-196	0.020	B	0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B348-BL1

Lab Sample ID: 580-77717-6

Date Collected: 05/30/18 11:41

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0019	J	0.013	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-198	0.055	C	0.027	0.00051	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-199	0.055	C198	0.027	0.00051	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-200	0.0055	J	0.013	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-201	0.0056	J B	0.013	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-202	0.013		0.013	0.00040	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-203	0.027	B q	0.013	0.00045	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-204	ND		0.013	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-205	0.0027	J B	0.013	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-206	0.065	q	0.013	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-207	0.0041	J	0.013	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-208	0.013		0.013	0.00077	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
PCB-209	0.050	B	0.013	0.00016	ng/g	☼	06/13/18 11:00	06/22/18 16:09	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	58		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-3L	57		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-4L	81		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-15L	85		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-19L	86		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-37L	87		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-54L	100		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-77L	90		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-81L	88		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-104L	97		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-105L	90		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-114L	88		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-118L	92		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-123L	90		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-126L	89		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-155L	115		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-156L	85	C	30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-157L	85	C156	30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-167L	87		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-169L	88		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-170L	88		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-188L	92		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-189L	87		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-202L	112		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-205L	81		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-206L	85		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-208L	89		30 - 140				06/13/18 11:00	06/22/18 16:09	1
PCB-209L	76		30 - 140				06/13/18 11:00	06/22/18 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	78		40 - 125				06/13/18 11:00	06/22/18 16:09	1
PCB-111L	85		40 - 125				06/13/18 11:00	06/22/18 16:09	1
PCB-178L	88		40 - 125				06/13/18 11:00	06/22/18 16:09	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B344-BL1

Date Collected: 05/30/18 11:00

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-7

Matrix: Solid

Percent Solids: 36.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0046	J q B	0.014	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-2	0.0046	J B	0.014	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-3	0.0050	J q B	0.014	0.00038	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-4	0.0098	J B	0.027	0.00093	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-5	ND		0.014	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-6	0.0048	J	0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-7	0.0014	J q	0.014	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-8	0.012	J q B	0.027	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-9	ND		0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-10	ND		0.014	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-11	0.059	B	0.027	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-12	0.0049	J q C	0.027	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-13	0.0049	J q C12	0.027	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-14	ND		0.014	0.00054	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-15	0.012	J B	0.014	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-16	0.0091	J B	0.014	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-17	0.012	J B	0.014	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-18	0.018	J C	0.027	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-19	0.0082	J	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-20	0.048	C B	0.027	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-21	0.016	J C B	0.027	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-22	0.014		0.014	0.00081	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-23	ND		0.014	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-24	0.00045	J q	0.014	0.00017	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-25	0.0065	J q	0.014	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-26	0.012	J C B	0.027	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-27	0.0022	J	0.014	0.00017	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-28	0.048	C20 B	0.027	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-29	0.012	J C26 B	0.027	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-30	0.018	J C18	0.027	0.00020	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-31	0.037	B	0.027	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-32	0.0085	J B	0.014	0.00016	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-33	0.016	J C21 B	0.027	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-34	ND		0.014	0.00083	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-35	ND		0.014	0.00079	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-36	ND		0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-37	0.015	B	0.014	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-38	ND		0.014	0.00078	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-39	ND		0.014	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-40	0.029	J C B	0.041	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-41	0.029	J C40 B	0.041	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-42	0.014		0.014	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-43	0.0041	J q C	0.027	0.00096	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-44	0.074	C B	0.041	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-45	0.013	J C	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-46	0.0027	J	0.014	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-47	0.074	C44 B	0.041	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-48	0.0071	J	0.014	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-49	0.048	C B	0.027	0.00085	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B344-BL1

Lab Sample ID: 580-77717-7

Date Collected: 05/30/18 11:00

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.010	J C B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-51	0.013	J C45	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-52	0.10	B	0.014	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-53	0.010	J C50 B	0.027	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-54	0.0011	J q	0.014	0.000050	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-55	0.0033	J q	0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-56	0.024	B	0.014	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-57	ND		0.014	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-58	ND		0.014	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-59	0.0045	J q C B	0.041	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-60	0.0098	J B	0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-61	0.11	C B	0.054	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-62	0.0045	J q C59 B	0.041	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-63	0.0025	J	0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-64	0.023	B	0.014	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-65	0.074	C44 B	0.041	0.00095	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-66	0.067	B	0.014	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-67	0.0012	J q	0.014	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-68	0.00071	J q	0.014	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-69	0.048	C49 B	0.027	0.00085	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-70	0.11	C61 B	0.054	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-71	0.029	J C40 B	0.041	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-72	0.0012	J	0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-73	0.0041	J q C43	0.027	0.00096	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-74	0.11	C61 B	0.054	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-75	0.0045	J q C59 B	0.041	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-76	0.11	C61 B	0.054	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-77	0.0093	J	0.014	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-78	ND		0.014	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-79	0.0011	J	0.014	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-80	ND		0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-81	ND		0.014	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-82	0.021		0.014	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-83	0.10	C B	0.027	0.00046	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-84	0.032	B	0.014	0.00050	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-85	0.029	J C	0.041	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-86	0.10	C B	0.081	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-87	0.10	C86 B	0.081	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-88	0.024	J C B	0.027	0.00043	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-89	0.0015	J q	0.014	0.00047	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-90	0.16	C B	0.041	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-91	0.024	J C88 B	0.027	0.00043	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-92	0.032	q B	0.014	0.00045	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-93	0.0073	J q C	0.027	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-94	ND		0.014	0.00047	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-95	0.13	B	0.014	0.00046	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-96	0.0010	J q	0.014	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-97	0.10	C86 B	0.081	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-98	0.0049	J C	0.027	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B344-BL1

Lab Sample ID: 580-77717-7

Date Collected: 05/30/18 11:00

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.10	C83 B	0.027	0.00046	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-100	0.0073	J q C93	0.027	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-101	0.16	C90 B	0.041	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-102	0.0049	J C98	0.027	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-103	0.0023	J q B	0.014	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-104	ND		0.014	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-105	0.064	B	0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-106	ND		0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-107	0.012	J B	0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-108	0.0049	J q C B	0.027	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-109	0.10	C86 B	0.081	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-110	0.18	C B	0.027	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-111	0.00081	J q	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-112	ND		0.014	0.00031	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-113	0.16	C90 B	0.041	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-114	0.0026	J q B	0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-115	0.18	C110 B	0.027	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-116	0.029	J C85	0.041	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-117	0.029	J C85	0.041	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-118	0.15	B	0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-119	0.10	C86 B	0.081	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-120	0.0017	J q	0.014	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-121	ND		0.014	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-122	0.0018	J B	0.014	0.0017	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-123	0.0028	J q	0.014	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-124	0.0049	J q C108 E	0.027	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-125	0.10	C86 B	0.081	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-126	ND		0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-127	ND		0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-128	0.047	C	0.027	0.00090	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-129	0.31	C B	0.054	0.00092	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-130	0.019		0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-131	0.0028	J	0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-132	0.082		0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-133	0.0058	J	0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-134	0.014	J C B	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-135	0.089	C	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-136	0.030		0.014	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-137	0.012	J B	0.014	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-138	0.31	C129 B	0.054	0.00092	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-139	0.0035	J q C	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-140	0.0035	J q C139	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-141	0.053		0.014	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-142	ND		0.014	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-143	0.014	J C134 B	0.027	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-144	0.0090	J q	0.014	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-145	ND		0.014	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-146	0.049	B	0.014	0.00097	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-147	0.21	C B	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B344-BL1

Lab Sample ID: 580-77717-7

Date Collected: 05/30/18 11:00

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.014	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-149	0.21	C147 B	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-150	0.00055	J q	0.014	0.00017	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-151	0.089	C135	0.027	0.00027	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-152	0.00027	J	0.014	0.00019	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-153	0.25	C B	0.027	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-154	0.0035	J q	0.014	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-155	ND		0.014	0.00018	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-156	0.030	C B	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-157	0.030	C156 B	0.027	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-158	0.028		0.014	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-159	0.0027	J q	0.014	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-160	0.31	C129 B	0.054	0.00092	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-161	ND		0.014	0.00076	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-162	ND		0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-163	0.31	C129 B	0.054	0.00092	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-164	0.021		0.014	0.00078	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-165	ND		0.014	0.00087	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-166	0.047	C128	0.027	0.00090	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-167	0.0092	J	0.014	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-168	0.25	C153 B	0.027	0.00080	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-169	ND		0.014	0.00055	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-170	0.088		0.014	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-171	0.028	C B	0.027	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-172	0.017	B	0.014	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-173	0.028	C171 B	0.027	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-174	0.10		0.014	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-175	0.0040	J	0.014	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-176	0.0096	J	0.014	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-177	0.063		0.014	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-178	0.025	B	0.014	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-179	0.039	B	0.014	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-180	0.20	C B	0.027	0.00052	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-181	ND		0.014	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-182	ND		0.014	0.00057	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-183	0.059	C	0.027	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-184	ND		0.014	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-185	0.059	C183	0.027	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-186	ND		0.014	0.00047	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-187	0.13	B	0.014	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-188	ND		0.014	0.00044	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-189	ND		0.014	0.00072	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-190	0.019		0.014	0.00045	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-191	0.0054	J	0.014	0.00045	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-192	ND		0.014	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-193	0.20	C180 B	0.027	0.00052	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-194	0.051	B	0.014	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-195	0.024		0.014	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-196	0.025	B	0.014	0.00070	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B344-BL1

Lab Sample ID: 580-77717-7

Date Collected: 05/30/18 11:00

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 36.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0015	J q	0.014	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-198	0.062	C	0.027	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-199	0.062	C198	0.027	0.00074	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-200	0.0063	J q	0.014	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-201	0.0059	J B	0.014	0.00051	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-202	0.014		0.014	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-203	0.035	B	0.014	0.00066	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-204	ND		0.014	0.00053	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-205	0.0029	J B	0.014	0.00077	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-206	0.058	q	0.014	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-207	0.0032	J	0.014	0.00098	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-208	0.0099	J q	0.014	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1
PCB-209	0.049	B	0.014	0.00057	ng/g	☼	06/13/18 11:00	06/22/18 17:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	57		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-3L	56		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-4L	78		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-15L	81		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-19L	81		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-37L	83		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-54L	91		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-77L	86		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-81L	84		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-104L	90		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-105L	85		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-114L	84		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-118L	88		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-123L	86		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-126L	86		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-155L	109		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-156L	82	C	30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-157L	82	C156	30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-167L	85		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-169L	85		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-170L	84		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-188L	85		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-189L	83		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-202L	105		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-205L	79		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-206L	82		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-208L	83		30 - 140	06/13/18 11:00	06/22/18 17:13	1
PCB-209L	76		30 - 140	06/13/18 11:00	06/22/18 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	78		40 - 125	06/13/18 11:00	06/22/18 17:13	1
PCB-111L	86		40 - 125	06/13/18 11:00	06/22/18 17:13	1
PCB-178L	87		40 - 125	06/13/18 11:00	06/22/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1

Date Collected: 05/30/18 09:53

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-8

Matrix: Solid

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0049	J B	0.013	0.00032	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-2	0.0037	J q B	0.013	0.00035	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-3	0.0054	J q B	0.013	0.00040	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-4	0.0065	J B	0.026	0.00078	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-5	0.00057	J q	0.013	0.00056	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-6	0.0039	J q	0.013	0.00056	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-7	0.0017	J q	0.013	0.00053	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-8	0.013	J B	0.026	0.00055	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-9	0.0014	J B	0.013	0.00062	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-10	ND		0.013	0.00060	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-11	0.075	B	0.026	0.00051	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-12	ND	C	0.026	0.00051	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-13	ND	C12	0.026	0.00051	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-14	ND		0.013	0.00047	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-15	0.010	J B	0.013	0.00058	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-16	0.0076	J q B	0.013	0.00030	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-17	0.011	J q B	0.013	0.00023	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-18	0.020	J C	0.026	0.00020	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-19	0.0046	J q	0.013	0.00028	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-20	0.049	C B	0.026	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-21	0.018	J C B	0.026	0.00094	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-22	0.015		0.013	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-23	ND		0.013	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-24	ND		0.013	0.00017	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-25	0.0056	J	0.013	0.00096	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-26	0.0088	J C B	0.026	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-27	0.0017	J q	0.013	0.00017	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-28	0.049	C20 B	0.026	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-29	0.0088	J C26 B	0.026	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-30	0.020	J C18	0.026	0.00020	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-31	0.037	B	0.026	0.00093	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-32	0.0079	J B	0.013	0.00016	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-33	0.018	J C21 B	0.026	0.00094	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-34	ND		0.013	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-35	ND		0.013	0.00099	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-36	ND		0.013	0.00091	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-37	0.014	B	0.013	0.00094	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-38	ND		0.013	0.00098	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-39	ND		0.013	0.00090	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-40	0.026	J C B	0.039	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-41	0.026	J C40 B	0.039	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-42	0.013		0.013	0.0010	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-43	ND	C	0.026	0.00092	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-44	0.074	C B	0.039	0.00091	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-45	0.0081	J q C	0.026	0.0011	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-46	0.0036	J	0.013	0.0012	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-47	0.074	C44 B	0.039	0.00091	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-48	0.0078	J	0.013	0.00097	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1
PCB-49	0.047	C B	0.026	0.00082	ng/g	☆	06/13/18 11:00	06/22/18 18:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1

Lab Sample ID: 580-77717-8

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.4

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 B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-51	0.0081	J q C45	0.026	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-52	0.097	B	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-53	0.011	J C50 B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-54	0.0011	J	0.013	0.000035	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-55	ND		0.013	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-56	0.023	B	0.013	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-57	ND		0.013	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-58	0.0020	J q	0.013	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-59	0.0034	J q C B	0.039	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-60	0.0088	J q B	0.013	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-61	0.10	C B	0.052	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-62	0.0034	J q C59 B	0.039	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-63	0.0012	J q	0.013	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-64	0.021	B	0.013	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-65	0.074	C44 B	0.039	0.00091	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-66	0.059	B	0.013	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-67	ND		0.013	0.00065	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-68	0.0015	J	0.013	0.00061	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-69	0.047	C49 B	0.026	0.00082	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-70	0.10	C61 B	0.052	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-71	0.026	J C40 B	0.039	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-72	0.0017	J	0.013	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-73	ND	C43	0.026	0.00092	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-74	0.10	C61 B	0.052	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-75	0.0034	J q C59 B	0.039	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-76	0.10	C61 B	0.052	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-77	0.0088	J	0.013	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-78	ND		0.013	0.00068	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-79	ND		0.013	0.00058	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-80	ND		0.013	0.00060	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-81	ND		0.013	0.00064	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-82	0.022		0.013	0.00039	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-83	0.11	C B	0.026	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-84	0.030	B	0.013	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-85	0.029	J C	0.039	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-86	0.10	C B	0.078	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-87	0.10	C86 B	0.078	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-88	0.025	J C B	0.026	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-89	ND		0.013	0.00038	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-90	0.16	C B	0.039	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-91	0.025	J C88 B	0.026	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-92	0.038	B	0.013	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-93	0.016	J q C	0.026	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-94	0.0017	J q	0.013	0.00038	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-95	0.12	B	0.013	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-96	0.0014	J q	0.013	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-97	0.10	C86 B	0.078	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-98	0.0070	J C	0.026	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1

Lab Sample ID: 580-77717-8

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.11	C83 B	0.026	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-100	0.016	J q C93	0.026	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-101	0.16	C90 B	0.039	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-102	0.0070	J C98	0.026	0.00036	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-103	0.0042	J B	0.013	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-104	ND		0.013	0.00026	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-105	0.062	B	0.013	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-106	ND		0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-107	0.010	J q B	0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-108	0.0059	J C B	0.026	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-109	0.10	C86 B	0.078	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-110	0.18	C B	0.026	0.00024	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-111	ND		0.013	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-112	ND		0.013	0.00025	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-113	0.16	C90 B	0.039	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-114	0.0024	J q B	0.013	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-115	0.18	C110 B	0.026	0.00024	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-116	0.029	J C85	0.039	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-117	0.029	J C85	0.039	0.00028	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-118	0.14	B	0.013	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-119	0.10	C86 B	0.078	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-120	0.0012	J q	0.013	0.00023	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-121	ND		0.013	0.00024	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-122	ND		0.013	0.0017	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-123	ND		0.013	0.0014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-124	0.0059	J C108 B	0.026	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-125	0.10	C86 B	0.078	0.00030	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-126	ND		0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-127	ND		0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-128	0.048	C	0.026	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-129	0.32	C B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-130	0.020		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-131	ND		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-132	0.081		0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-133	0.0063	J q	0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-134	0.016	J C B	0.026	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-135	0.10	C	0.026	0.00014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-136	0.031		0.013	0.00010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-137	0.010	J B	0.013	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-138	0.32	C129 B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-139	0.0045	J q C	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-140	0.0045	J q C139	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-141	0.057		0.013	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-142	ND		0.013	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-143	0.016	J C134 B	0.026	0.0015	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-144	0.012	J	0.013	0.00013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-145	ND		0.013	0.00010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-146	0.059	B	0.013	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-147	0.22	C B	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1

Lab Sample ID: 580-77717-8

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0013	J q	0.013	0.00014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-149	0.22	C147 B	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-150	0.00052	J q	0.013	0.000091	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-151	0.10	C135	0.026	0.00014	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-152	ND		0.013	0.000098	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-153	0.27	C B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-154	0.0087	J	0.013	0.00012	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-155	0.00015	J q B	0.013	0.000093	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-156	0.031	C B	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-157	0.031	C156 B	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-158	0.028		0.013	0.00090	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-159	0.0056	J	0.013	0.00093	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-160	0.32	C129 B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-161	ND		0.013	0.00096	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-162	ND		0.013	0.00091	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-163	0.32	C129 B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-164	0.021		0.013	0.00099	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-165	ND		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-166	0.048	C128	0.026	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-167	0.011	J	0.013	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-168	0.27	C153 B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-169	ND		0.013	0.00069	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-170	0.14		0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-171	0.042	C B	0.026	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-172	0.027	B	0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-173	0.042	C171 B	0.026	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-174	0.14		0.013	0.00050	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-175	0.0035	J q	0.013	0.00045	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-176	0.014		0.013	0.00031	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-177	0.093		0.013	0.00050	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-178	0.035	B	0.013	0.00047	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-179	0.055	B	0.013	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-180	0.33	C B	0.026	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-181	ND		0.013	0.00043	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-182	0.0029	J q B	0.013	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-183	0.094	C	0.026	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-184	ND		0.013	0.00035	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-185	0.094	C183	0.026	0.00041	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-186	ND		0.013	0.00033	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-187	0.21	B	0.013	0.00042	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-188	ND		0.013	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-189	0.0063	J	0.013	0.00059	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-190	0.032		0.013	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-191	0.0080	J q	0.013	0.00032	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-192	ND		0.013	0.00034	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-193	0.33	C180 B	0.026	0.00037	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-194	0.096	B	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-195	0.040		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-196	0.050	B	0.013	0.00067	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1

Lab Sample ID: 580-77717-8

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0031	J q	0.013	0.00047	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-198	0.11	C	0.026	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-199	0.11	C198	0.026	0.00071	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-200	0.013		0.013	0.00051	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-201	0.012	J B	0.013	0.00049	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-202	0.021		0.013	0.00055	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-203	0.064	B	0.013	0.00063	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-204	ND		0.013	0.00051	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-205	0.0051	J B	0.013	0.00075	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-206	0.067	q	0.013	0.0016	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-207	0.0046	J	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-208	0.013	q	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1
PCB-209	0.046	B	0.013	0.00048	ng/g	☼	06/13/18 11:00	06/22/18 18:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	57		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-3L	53		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-4L	78		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-15L	82		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-19L	82		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-37L	82		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-54L	96		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-77L	86		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-81L	85		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-104L	91		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-105L	85		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-114L	85		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-118L	88		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-123L	85		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-126L	86		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-155L	114		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-156L	83	C	30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-157L	83	C156	30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-167L	84		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-169L	87		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-170L	83		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-188L	83		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-189L	82		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-202L	100		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-205L	78		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-206L	84		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-208L	84		30 - 140	06/13/18 11:00	06/22/18 18:16	1
PCB-209L	77		30 - 140	06/13/18 11:00	06/22/18 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125	06/13/18 11:00	06/22/18 18:16	1
PCB-111L	88		40 - 125	06/13/18 11:00	06/22/18 18:16	1
PCB-178L	83		40 - 125	06/13/18 11:00	06/22/18 18:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1-D

Date Collected: 05/30/18 09:53

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-9

Matrix: Solid

Percent Solids: 38.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0083	J B	0.013	0.00034	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-2	0.0047	J B	0.013	0.00038	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-3	0.0068	J B	0.013	0.00045	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-4	0.0093	J B	0.026	0.00087	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-5	ND		0.013	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-6	0.0053	J	0.013	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-7	0.0012	J q	0.013	0.00061	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-8	0.011	J B	0.026	0.00062	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-9	0.0015	J q B	0.013	0.00071	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-10	ND		0.013	0.00069	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-11	0.060	B	0.026	0.00058	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-12	0.0042	J q C	0.026	0.00058	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-13	0.0042	J q C12	0.026	0.00058	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-14	ND		0.013	0.00054	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-15	0.0095	J q B	0.013	0.00067	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-16	0.0074	J B	0.013	0.00036	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-17	0.014	B	0.013	0.00027	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-18	0.020	J C	0.026	0.00024	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-19	0.0064	J q	0.013	0.00033	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-20	0.052	C B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-21	0.017	J q C B	0.026	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-22	0.012	J q	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-23	ND		0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-24	ND		0.013	0.00020	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-25	0.0051	J q	0.013	0.00098	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-26	0.011	J C B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-27	0.0026	J	0.013	0.00020	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-28	0.052	C20 B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-29	0.011	J C26 B	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-30	0.020	J C18	0.026	0.00024	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-31	0.034	B	0.026	0.00095	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-32	0.0076	J B	0.013	0.00019	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-33	0.017	J q C21 B	0.026	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-34	ND		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-35	0.0021	J	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-36	ND		0.013	0.00092	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-37	0.015	B	0.013	0.00095	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-38	ND		0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-39	ND		0.013	0.00091	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-40	0.029	J C B	0.039	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-41	0.029	J C40 B	0.039	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-42	0.016		0.013	0.00097	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-43	0.0032	J C	0.026	0.00087	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-44	0.079	C B	0.039	0.00086	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-45	0.012	J C	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-46	0.0028	J q	0.013	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-47	0.079	C44 B	0.039	0.00086	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-48	0.0092	J	0.013	0.00092	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-49	0.051	C B	0.026	0.00077	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1-D

Lab Sample ID: 580-77717-9

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.012	J C B	0.026	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-51	0.012	J C45	0.026	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-52	0.12	B	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-53	0.012	J C50 B	0.026	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-54	0.0013	J q	0.013	0.000079	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-55	ND		0.013	0.00066	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-56	0.026	B	0.013	0.00067	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-57	ND		0.013	0.00067	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-58	ND		0.013	0.00065	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-59	0.0046	J q C B	0.039	0.00065	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-60	0.011	J B	0.013	0.00066	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-61	0.12	C B	0.052	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-62	0.0046	J q C59 B	0.039	0.00065	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-63	0.0024	J q	0.013	0.00058	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-64	0.026	B	0.013	0.00061	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-65	0.079	C44 B	0.039	0.00086	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-66	0.069	B	0.013	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-67	0.0016	J	0.013	0.00062	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-68	0.00083	J q	0.013	0.00058	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-69	0.051	C49 B	0.026	0.00077	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-70	0.12	C61 B	0.052	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-71	0.029	J C40 B	0.039	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-72	0.00098	J q	0.013	0.00066	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-73	0.0032	J C43	0.026	0.00087	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-74	0.12	C61 B	0.052	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-75	0.0046	J q C59 B	0.039	0.00065	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-76	0.12	C61 B	0.052	0.00064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-77	0.0086	J	0.013	0.00061	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-78	ND		0.013	0.00065	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-79	0.0017	J q	0.013	0.00055	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-80	ND		0.013	0.00057	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-81	ND		0.013	0.00061	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-82	0.021	q	0.013	0.00049	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-83	0.13	C B	0.026	0.00047	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-84	0.040	q B	0.013	0.00051	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-85	0.038	J C	0.039	0.00035	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-86	0.12	C B	0.078	0.00037	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-87	0.12	C86 B	0.078	0.00037	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-88	0.029	C B	0.026	0.00044	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-89	0.0016	J	0.013	0.00048	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-90	0.20	C B	0.039	0.00038	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-91	0.029	C88 B	0.026	0.00044	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-92	0.039	B	0.013	0.00046	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-93	0.0080	J C	0.026	0.00045	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-94	ND		0.013	0.00048	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-95	0.15	B	0.013	0.00047	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-96	0.0025	J	0.013	0.00036	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-97	0.12	C86 B	0.078	0.00037	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-98	0.0056	J C	0.026	0.00045	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1-D

Lab Sample ID: 580-77717-9

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.2

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	0.026	0.00047	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-100	0.0080	J C93	0.026	0.00045	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-101	0.20	C90 B	0.039	0.00038	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-102	0.0056	J C98	0.026	0.00045	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-103	0.0039	J B	0.013	0.00042	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-104	ND		0.013	0.00032	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-105	0.073	B	0.013	0.0021	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-106	ND		0.013	0.0023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-107	0.014	B	0.013	0.0022	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-108	0.0067	J q C B	0.026	0.0023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-109	0.12	C86 B	0.078	0.00037	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-110	0.22	C B	0.026	0.00031	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-111	0.0012	J q	0.013	0.00029	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-112	0.0027	J	0.013	0.00032	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-113	0.20	C90 B	0.039	0.00038	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-114	ND		0.013	0.0021	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-115	0.22	C110 B	0.026	0.00031	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-116	0.038	J C85	0.039	0.00035	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-117	0.038	J C85	0.039	0.00035	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-118	0.17	B	0.013	0.0021	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-119	0.12	C86 B	0.078	0.00037	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-120	0.0019	J q	0.013	0.00029	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-121	ND		0.013	0.00031	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-122	ND		0.013	0.0025	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-123	0.0037	J q	0.013	0.0021	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-124	0.0067	J q C108 E	0.026	0.0023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-125	0.12	C86 B	0.078	0.00037	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-126	ND		0.013	0.0023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-127	ND		0.013	0.0022	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-128	0.055	C	0.026	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-129	0.35	C B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-130	0.022		0.013	0.0017	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-131	0.0038	J	0.013	0.0017	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-132	0.10		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-133	0.0085	J	0.013	0.0016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-134	0.020	J C B	0.026	0.0016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-135	0.11	C	0.026	0.00016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-136	0.035	q	0.013	0.00011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-137	0.015	B	0.013	0.0013	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-138	0.35	C129 B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-139	0.0061	J C	0.026	0.0014	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-140	0.0061	J C139	0.026	0.0014	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-141	0.067		0.013	0.0014	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-142	ND		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-143	0.020	J C134 B	0.026	0.0016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-144	0.013		0.013	0.00015	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-145	ND		0.013	0.00011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-146	0.064	B	0.013	0.0013	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-147	0.26	C B	0.026	0.0014	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1-D

Lab Sample ID: 580-77717-9

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0011	J	0.013	0.00015	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-149	0.26	C147 B	0.026	0.0014	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-150	0.00058	J q	0.013	0.00010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-151	0.11	C135	0.026	0.00016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-152	0.00053	J	0.013	0.00011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-153	0.29	C B	0.026	0.0011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-154	0.0056	J q	0.013	0.00013	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-155	ND		0.013	0.00010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-156	0.033	C B	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-157	0.033	C156 B	0.026	0.0013	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-158	0.036		0.013	0.00096	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-159	0.0026	J q	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-160	0.35	C129 B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-161	ND		0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-162	ND		0.013	0.00098	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-163	0.35	C129 B	0.052	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-164	0.025		0.013	0.0011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-165	ND		0.013	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-166	0.055	C128	0.026	0.0012	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-167	0.013		0.013	0.00072	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-168	0.29	C153 B	0.026	0.0011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-169	ND		0.013	0.00076	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-170	0.11		0.013	0.000027	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-171	0.032	C B	0.026	0.000026	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-172	0.021	B	0.013	0.000026	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-173	0.032	C171 B	0.026	0.000026	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-174	0.12		0.013	0.000027	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-175	0.0041	J	0.013	0.000024	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-176	0.014		0.013	0.000017	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-177	0.076		0.013	0.000027	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-178	0.025	q B	0.013	0.000025	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-179	0.045	B	0.013	0.000019	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-180	0.23	C B	0.026	0.000020	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-181	ND		0.013	0.000023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-182	ND		0.013	0.000022	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-183	0.074	C	0.026	0.000022	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-184	ND		0.013	0.000019	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-185	0.074	C183	0.026	0.000022	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-186	ND		0.013	0.000018	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-187	0.16	B	0.013	0.000023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-188	ND		0.013	0.000017	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-189	0.0033	J	0.013	0.000050	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-190	0.022		0.013	0.000017	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-191	0.0041	J q	0.013	0.000018	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-192	ND		0.013	0.000019	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-193	0.23	C180 B	0.026	0.000020	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-194	0.056	B	0.013	0.000057	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-195	0.025		0.013	0.000064	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-196	0.026	B	0.013	0.000030	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B342-BL1-D

Lab Sample ID: 580-77717-9

Date Collected: 05/30/18 09:53

Matrix: Solid

Date Received: 06/01/18 13:55

Percent Solids: 38.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0018	J	0.013	0.00021	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-198	0.071	C	0.026	0.00032	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-199	0.071	C198	0.026	0.00032	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-200	0.0077	J	0.013	0.00023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-201	0.0073	J B	0.013	0.00022	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-202	0.017		0.013	0.00025	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-203	0.042	B	0.013	0.00028	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-204	ND		0.013	0.00023	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-205	0.0031	J q B	0.013	0.00043	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-206	0.036		0.013	0.0016	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-207	0.0047	J	0.013	0.0010	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-208	0.012	J	0.013	0.0011	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
PCB-209	0.045	B	0.013	0.00027	ng/g	☼	06/13/18 11:00	06/23/18 03:03	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	53		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-3L	52		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-4L	76		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-15L	80		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-19L	81		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-37L	81		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-54L	99		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-77L	84		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-81L	83		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-104L	91		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-105L	85		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-114L	84		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-118L	88		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-123L	86		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-126L	86		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-155L	111		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-156L	82	C	30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-157L	82	C156	30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-167L	85		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-169L	83		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-170L	83		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-188L	87		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-189L	83		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-202L	104		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-205L	78		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-206L	83		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-208L	84		30 - 140				06/13/18 11:00	06/23/18 03:03	1
PCB-209L	74		30 - 140				06/13/18 11:00	06/23/18 03:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125				06/13/18 11:00	06/23/18 03:03	1
PCB-111L	87		40 - 125				06/13/18 11:00	06/23/18 03:03	1
PCB-178L	88		40 - 125				06/13/18 11:00	06/23/18 03:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180530-1515

Lab Sample ID: 580-77717-10

Date Collected: 05/30/18 15:15

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0026	J B	0.039	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-2	0.0024	J B	0.039	0.00020	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-3	0.0045	J B q	0.039	0.00025	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-4	0.010	J	0.059	0.0013	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-5	ND		0.039	0.00096	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-6	0.0021	J q	0.039	0.00095	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-7	ND		0.039	0.00090	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-8	0.012	J B	0.059	0.00093	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-9	ND		0.039	0.0011	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-10	ND		0.039	0.0010	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-11	0.067	B	0.059	0.00087	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-12	ND	C	0.079	0.00087	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-13	ND	C12	0.079	0.00087	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-14	ND		0.039	0.00080	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-15	0.0074	J B q	0.039	0.0010	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-16	0.010	J B q	0.039	0.00036	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-17	0.0085	J B	0.039	0.00027	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-18	0.0010	J C B q	0.079	0.00024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-19	0.0042	J B	0.039	0.00034	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-20	0.018	J C B	0.079	0.00047	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-21	0.011	J C B	0.079	0.00044	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-22	0.011	J B	0.039	0.00047	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-23	ND		0.039	0.00047	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-24	ND		0.039	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-25	0.0021	J	0.039	0.00044	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-26	0.0022	J C B q	0.079	0.00047	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-27	0.0010	J q	0.039	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-28	0.018	J B C20	0.079	0.00047	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-29	0.0022	J C26 B q	0.079	0.00047	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-30	0.0010	J C18 B q	0.079	0.00024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-31	0.0055	J B q	0.039	0.00043	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-32	0.0046	J B q	0.039	0.00019	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-33	0.011	J B C21	0.079	0.00044	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-34	ND		0.039	0.00048	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-35	ND		0.039	0.00046	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-36	ND		0.039	0.00042	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-37	0.0031	J q	0.039	0.00043	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-38	ND		0.039	0.00045	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-39	ND		0.039	0.00041	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-40	0.0050	J C B q	0.12	0.00032	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-41	0.0050	J B q C40	0.12	0.00032	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-42	0.0022	J q	0.039	0.00033	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-43	ND	C	0.079	0.00029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-44	0.011	J C B q	0.12	0.00029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-45	0.0036	J C B q	0.079	0.00034	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-46	0.0018	J B q	0.039	0.00040	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-47	0.011	J B C44 q	0.12	0.00029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-48	0.0011	J B q	0.039	0.00031	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-49	0.0044	J C q	0.079	0.00026	ng/L		06/05/18 13:34	06/13/18 19:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180530-1515

Lab Sample ID: 580-77717-10

Date Collected: 05/30/18 15:15

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0022	J C q	0.079	0.00033	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-51	0.0036	J C45 B q	0.079	0.00034	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-52	0.014	J B	0.039	0.00034	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-53	0.0022	J C50 q	0.079	0.00033	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-54	0.00091	J q	0.039	0.000072	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-55	0.00042	J q	0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-56	0.0024	J B q	0.039	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-57	ND		0.039	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-58	ND		0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-59	0.0011	J C q	0.12	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-60	0.0023	J	0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-61	0.0076	J C B	0.16	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-62	0.0011	J C59 q	0.12	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-63	ND		0.039	0.00020	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-64	0.0029	J B q	0.039	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-65	0.011	J B C44 q	0.12	0.00029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-66	0.0042	J B	0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-67	ND		0.039	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-68	0.00056	J B q	0.039	0.00020	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-69	0.0044	J C49 q	0.079	0.00026	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-70	0.0076	J C61 B	0.16	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-71	0.0050	J B q C40	0.12	0.00032	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-72	ND		0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-73	ND	C43	0.079	0.00029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-74	0.0076	J C61 B	0.16	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-75	0.0011	J C59 q	0.12	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-76	0.0076	J C61 B	0.16	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-77	0.00047	J q	0.039	0.00021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-78	ND		0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-79	ND		0.039	0.00019	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-80	ND		0.039	0.00019	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-81	ND		0.039	0.00020	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-82	ND		0.039	0.00024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-83	0.0023	J C	0.079	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-84	0.00063	J q	0.039	0.00025	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-85	ND	C	0.12	0.00017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-86	0.0012	J C q	0.24	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-87	0.0012	J C86 q	0.24	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-88	0.00033	J C q	0.079	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-89	ND		0.039	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-90	0.0046	J C B	0.12	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-91	0.00033	J C88 q	0.079	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-92	0.00064	J q	0.039	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-93	0.00086	J C q	0.079	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-94	ND		0.039	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-95	0.0041	J B q	0.039	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-96	ND		0.039	0.00017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-97	0.0012	J C86 q	0.24	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-98	ND	C	0.079	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180530-1515

Lab Sample ID: 580-77717-10

Date Collected: 05/30/18 15:15

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.0023	J C83	0.079	0.00023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-100	0.00086	J C93 q	0.079	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-101	0.0046	J B C90	0.12	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-102	ND	C98	0.079	0.00022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-103	ND		0.039	0.00020	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-104	ND		0.039	0.00016	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-105	0.0019	J B q	0.039	0.00036	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-106	ND		0.039	0.00039	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-107	ND		0.039	0.00038	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-108	ND	C	0.079	0.00039	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-109	0.0012	J C86 q	0.24	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-110	0.0065	J C B	0.079	0.00015	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-111	ND		0.039	0.00014	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-112	ND		0.039	0.00015	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-113	0.0046	J B C90	0.12	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-114	ND		0.039	0.00035	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-115	0.0065	J B C110	0.079	0.00015	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-116	ND	C85	0.12	0.00017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-117	ND	C85	0.12	0.00017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-118	0.0039	J B	0.039	0.00035	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-119	0.0012	J C86 q	0.24	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-120	ND		0.039	0.00014	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-121	ND		0.039	0.00015	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-122	ND		0.039	0.00043	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-123	ND		0.039	0.00035	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-124	ND	C108	0.079	0.00039	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-125	0.0012	J C86 q	0.24	0.00018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-126	ND		0.039	0.00039	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-127	ND		0.039	0.00037	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-128	ND	C	0.079	0.000021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-129	0.0044	J C B q	0.16	0.000022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-130	ND		0.039	0.000029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-131	ND		0.039	0.000029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-132	0.0019	J B q	0.039	0.000028	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-133	0.00048	J q	0.039	0.000027	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-134	ND	C	0.079	0.000029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-135	0.00077	J C q	0.079	0.00010	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-136	0.00052	J q	0.039	0.000075	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-137	0.000077	J q	0.039	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-138	0.0044	J B C129 q	0.16	0.000022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-139	ND	C	0.079	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-140	ND	C139	0.079	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-141	0.0013	J q	0.039	0.000025	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-142	ND		0.039	0.000028	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-143	ND	C134	0.079	0.000029	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-144	ND		0.039	0.000096	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-145	ND		0.039	0.000074	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-146	0.00018	J q	0.039	0.000023	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-147	0.0055	J C B q	0.079	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180530-1515

Lab Sample ID: 580-77717-10

Date Collected: 05/30/18 15:15

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.039	0.00010	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-149	0.0055	J B C147 q	0.079	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-150	ND		0.039	0.000067	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-151	0.00077	J C135 q	0.079	0.00010	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-152	ND		0.039	0.000072	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-153	0.0040	J C B q	0.079	0.000019	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-154	ND		0.039	0.000086	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-155	ND		0.039	0.000068	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-156	0.00046	J C q	0.079	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-157	0.00046	J C156 q	0.079	0.000024	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-158	0.00069	J	0.039	0.000017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-159	ND		0.039	0.000017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-160	0.0044	J B C129 q	0.16	0.000022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-161	ND		0.039	0.000018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-162	ND		0.039	0.000017	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-163	0.0044	J B C129 q	0.16	0.000022	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-164	0.00030	J q	0.039	0.000018	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-165	ND		0.039	0.000021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-166	ND	C128	0.079	0.000021	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-167	ND		0.039	0.000013	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-168	0.0040	J B C153 q	0.079	0.000019	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-169	ND		0.039	0.000013	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-170	0.0029	J	0.039	0.000079	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-171	0.00023	J C q	0.079	0.000080	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-172	0.00031	J	0.039	0.000078	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-173	0.00023	J C171 q	0.079	0.000080	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-174	ND		0.039	0.000082	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-175	ND		0.039	0.000074	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-176	ND		0.039	0.000051	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-177	0.00030	J q	0.039	0.000082	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-178	ND		0.039	0.000076	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-179	0.0016	J	0.039	0.000057	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-180	0.0037	J C B q	0.079	0.000060	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-181	ND		0.039	0.000070	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-182	ND		0.039	0.000067	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-183	0.0023	J C B q	0.079	0.000068	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-184	ND		0.039	0.000057	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-185	0.0023	J B C183 q	0.079	0.000068	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-186	ND		0.039	0.000055	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-187	0.0019	J B q	0.039	0.000069	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-188	ND		0.039	0.000052	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-189	ND		0.039	0.000028	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-190	ND		0.039	0.000052	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-191	ND		0.039	0.000053	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-192	ND		0.039	0.000056	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-193	0.0037	J C180 B q	0.079	0.000060	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-194	0.0013	J	0.039	0.000012	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-195	ND		0.039	0.000014	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-196	ND		0.039	0.000012	ng/L		06/05/18 13:34	06/13/18 19:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180530-1515

Lab Sample ID: 580-77717-10

Date Collected: 05/30/18 15:15

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.039	0.000082	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-198	ND	C	0.079	0.00013	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-199	ND	C198	0.079	0.00013	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-200	ND		0.039	0.000089	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-201	ND		0.039	0.000087	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-202	ND		0.039	0.000097	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-203	ND		0.039	0.00011	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-204	ND		0.039	0.000089	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-205	ND		0.039	0.000094	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-206	ND		0.039	0.0010	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-207	ND		0.039	0.00067	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-208	ND		0.039	0.00072	ng/L		06/05/18 13:34	06/13/18 19:10	1
PCB-209	0.00064	J B q	0.039	0.00011	ng/L		06/05/18 13:34	06/13/18 19:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	59		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-3L	54		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-4L	81		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-15L	82		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-19L	81		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-37L	80		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-54L	94		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-77L	76		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-81L	74		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-104L	84		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-105L	73		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-114L	71		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-118L	75		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-123L	73		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-126L	75		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-155L	93		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-156L	68	C	30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-157L	68	C156	30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-167L	68		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-169L	68		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-170L	65		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-188L	65		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-189L	56		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-202L	81		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-205L	60		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-206L	60		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-208L	60		30 - 140	06/05/18 13:34	06/13/18 19:10	1
PCB-209L	62		30 - 140	06/05/18 13:34	06/13/18 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	87		40 - 125	06/05/18 13:34	06/13/18 19:10	1
PCB-111L	99		40 - 125	06/05/18 13:34	06/13/18 19:10	1
PCB-178L	96		40 - 125	06/05/18 13:34	06/13/18 19:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180531

Lab Sample ID: 580-77717-11

Date Collected: 05/31/18 17:00

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0034	J B	0.046	0.00013	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-2	0.0024	J B	0.046	0.00015	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-3	0.0047	J B	0.046	0.00018	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-4	0.011	J q	0.068	0.0014	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-5	ND		0.046	0.0011	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-6	0.0043	J	0.046	0.0010	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-7	ND		0.046	0.00099	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-8	0.018	J B	0.068	0.0010	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-9	ND		0.046	0.0012	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-10	ND		0.046	0.0011	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-11	0.027	J B	0.068	0.00096	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-12	ND	C	0.091	0.00096	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-13	ND	C12	0.091	0.00096	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-14	ND		0.046	0.00088	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-15	0.0081	J q B	0.046	0.0011	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-16	0.014	J B	0.046	0.00025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-17	0.0050	J q B	0.046	0.00019	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-18	0.016	J q C B	0.091	0.00017	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-19	0.0034	J B	0.046	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-20	0.019	J C B	0.091	0.00044	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-21	0.010	J C B	0.091	0.00041	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-22	0.012	J B	0.046	0.00044	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-23	0.00050	J q B	0.046	0.00043	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-24	0.00098	J q	0.046	0.00014	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-25	0.0018	J	0.046	0.00042	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-26	0.0038	J q C B	0.091	0.00043	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-27	0.0014	J q	0.046	0.00014	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-28	0.019	J C20 B	0.091	0.00044	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-29	0.0038	J q C26 B	0.091	0.00043	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-30	0.016	J q C18 B	0.091	0.00017	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-31	0.0056	J q B	0.046	0.00040	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-32	0.0057	J q B	0.046	0.00013	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-33	0.010	J C21 B	0.091	0.00041	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-34	ND		0.046	0.00045	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-35	ND		0.046	0.00043	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-36	ND		0.046	0.00039	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-37	0.0050	J	0.046	0.00040	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-38	ND		0.046	0.00042	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-39	ND		0.046	0.00039	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-40	0.0057	J q C B	0.14	0.00036	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-41	0.0057	J q C40 B	0.14	0.00036	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-42	0.0021	J q	0.046	0.00036	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-43	ND	C	0.091	0.00033	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-44	0.013	J C B	0.14	0.00032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-45	0.0039	J q C B	0.091	0.00038	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-46	0.00085	J q B	0.046	0.00044	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-47	0.013	J C44 B	0.14	0.00032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-48	0.0026	J q B	0.046	0.00034	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-49	0.0035	J q C	0.091	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180531

Lab Sample ID: 580-77717-11

Date Collected: 05/31/18 17:00

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0025	J C	0.091	0.00036	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-51	0.0039	J q C45 B	0.091	0.00038	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-52	0.014	J B	0.046	0.00038	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-53	0.0025	J C50	0.091	0.00036	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-54	ND		0.046	0.00015	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-55	ND		0.046	0.00025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-56	0.0035	J B	0.046	0.00025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-57	ND		0.046	0.00025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-58	ND		0.046	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-59	0.00063	J q C	0.14	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-60	0.0017	J	0.046	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-61	0.0086	J C B	0.18	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-62	0.00063	J q C59	0.14	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-63	ND		0.046	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-64	0.0039	J q B	0.046	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-65	0.013	J C44 B	0.14	0.00032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-66	0.0051	J B	0.046	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-67	ND		0.046	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-68	ND		0.046	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-69	0.0035	J q C49	0.091	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-70	0.0086	J C61 B	0.18	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-71	0.0057	J q C40 B	0.14	0.00036	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-72	ND		0.046	0.00025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-73	ND	C43	0.091	0.00033	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-74	0.0086	J C61 B	0.18	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-75	0.00063	J q C59	0.14	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-76	0.0086	J C61 B	0.18	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-77	ND		0.046	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-78	ND		0.046	0.00024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-79	ND		0.046	0.00021	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-80	ND		0.046	0.00021	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-81	ND		0.046	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-82	ND		0.046	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-83	0.00089	J q C	0.091	0.00028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-84	0.0011	J q	0.046	0.00031	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-85	0.00048	J q C B	0.14	0.00021	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-86	0.0027	J q C	0.27	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-87	0.0027	J q C86	0.27	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-88	0.00052	J q C	0.091	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-89	ND		0.046	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-90	0.0036	J q C B	0.14	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-91	0.00052	J q C88	0.091	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-92	ND		0.046	0.00028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-93	ND	C	0.091	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-94	ND		0.046	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-95	0.0027	J q B	0.046	0.00028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-96	ND		0.046	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-97	0.0027	J q C86	0.27	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-98	ND	C	0.091	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180531

Lab Sample ID: 580-77717-11

Date Collected: 05/31/18 17:00

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.00089	J q C83	0.091	0.00028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-100	ND	C93	0.091	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-101	0.0036	J q C90 B	0.14	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-102	ND	C98	0.091	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-103	ND		0.046	0.00025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-104	ND		0.046	0.00019	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-105	0.0012	J q B	0.046	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-106	ND		0.046	0.00031	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-107	ND		0.046	0.00030	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-108	ND	C	0.091	0.00032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-109	0.0027	J q C86	0.27	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-110	0.0043	J C B	0.091	0.00019	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-111	ND		0.046	0.00017	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-112	ND		0.046	0.00019	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-113	0.0036	J q C90 B	0.14	0.00023	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-114	ND		0.046	0.00028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-115	0.0043	J C110 B	0.091	0.00019	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-116	0.00048	J q C85 B	0.14	0.00021	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-117	0.00048	J q C85 B	0.14	0.00021	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-118	0.0022	J B	0.046	0.00029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-119	0.0027	J q C86	0.27	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-120	ND		0.046	0.00017	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-121	ND		0.046	0.00019	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-122	ND		0.046	0.00035	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-123	ND		0.046	0.00027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-124	ND	C108	0.091	0.00032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-125	0.0027	J q C86	0.27	0.00022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-126	ND		0.046	0.00031	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-127	0.00061	J	0.046	0.00030	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-128	ND	C	0.091	0.000025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-129	0.0021	J q C B	0.18	0.000025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-130	ND		0.046	0.000034	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-131	ND		0.046	0.000034	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-132	0.0015	J q B	0.046	0.000033	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-133	ND		0.046	0.000032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-134	ND	C	0.091	0.000033	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-135	0.00050	J q C	0.091	0.000065	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-136	0.00015	J q	0.046	0.000047	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-137	ND		0.046	0.000028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-138	0.0021	J q C129 E	0.18	0.000025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-139	ND	C	0.091	0.000028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-140	ND	C139	0.091	0.000028	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-141	0.00063	J	0.046	0.000030	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-142	ND		0.046	0.000032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-143	ND	C134	0.091	0.000033	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-144	ND		0.046	0.000061	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-145	ND		0.046	0.000047	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-146	0.00065	J q	0.046	0.000027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-147	0.0022	J q C B	0.091	0.000029	ng/L		06/05/18 13:34	06/13/18 20:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180531

Lab Sample ID: 580-77717-11

Date Collected: 05/31/18 17:00

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.046	0.000063	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-149	0.0022	J q C147 E	0.091	0.000029	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-150	ND		0.046	0.000042	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-151	0.00050	J q C135	0.091	0.000065	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-152	ND		0.046	0.000045	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-153	0.0027	J q C B	0.091	0.000022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-154	ND		0.046	0.000054	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-155	0.000044	J q	0.046	0.000043	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-156	0.00038	J C	0.091	0.000027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-157	0.00038	J C156	0.091	0.000027	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-158	0.00022	J q	0.046	0.000020	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-159	ND		0.046	0.000020	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-160	0.0021	J q C129 E	0.18	0.000025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-161	ND		0.046	0.000021	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-162	ND		0.046	0.000020	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-163	0.0021	J q C129 E	0.18	0.000025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-164	ND		0.046	0.000022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-165	ND		0.046	0.000024	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-166	ND	C128	0.091	0.000025	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-167	ND		0.046	0.000015	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-168	0.0027	J q C153 E	0.091	0.000022	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-169	ND		0.046	0.000016	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-170	0.00025	J q	0.046	0.000049	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-171	ND	C	0.091	0.000050	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-172	ND		0.046	0.000048	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-173	ND	C171	0.091	0.000050	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-174	0.0012	J	0.046	0.000051	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-175	ND		0.046	0.000046	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-176	ND		0.046	0.000032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-177	ND		0.046	0.000051	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-178	ND		0.046	0.000047	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-179	ND		0.046	0.000035	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-180	0.0013	J q C B	0.091	0.000037	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-181	ND		0.046	0.000044	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-182	ND		0.046	0.000041	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-183	0.00055	J q C B	0.091	0.000042	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-184	ND		0.046	0.000035	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-185	0.00055	J q C183 E	0.091	0.000042	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-186	ND		0.046	0.000034	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-187	0.00035	J q B	0.046	0.000043	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-188	ND		0.046	0.000032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-189	ND		0.046	0.00012	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-190	ND		0.046	0.000032	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-191	ND		0.046	0.000033	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-192	ND		0.046	0.000035	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-193	0.0013	J q C180 E	0.091	0.000037	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-194	0.00034	J q	0.046	0.00015	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-195	ND		0.046	0.00017	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-196	ND		0.046	0.000092	ng/L		06/05/18 13:34	06/13/18 20:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180531

Lab Sample ID: 580-77717-11

Date Collected: 05/31/18 17:00

Matrix: Water

Date Received: 06/01/18 13:55

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.046	0.000064	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-198	ND	C	0.091	0.000098	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-199	ND	C198	0.091	0.000098	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-200	ND		0.046	0.000070	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-201	ND		0.046	0.000068	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-202	ND		0.046	0.000076	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-203	ND		0.046	0.000087	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-204	ND		0.046	0.000070	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-205	ND		0.046	0.00011	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-206	ND		0.046	0.0015	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-207	ND		0.046	0.00096	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-208	ND		0.046	0.0010	ng/L		06/05/18 13:34	06/13/18 20:14	1
PCB-209	ND		0.046	0.00012	ng/L		06/05/18 13:34	06/13/18 20:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	70		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-3L	65		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-4L	96		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-15L	93		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-19L	94		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-37L	97		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-54L	115		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-77L	97		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-81L	94		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-104L	102		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-105L	96		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-114L	93		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-118L	99		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-123L	97		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-126L	98		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-155L	124		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-156L	96	C	30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-157L	96	C156	30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-167L	96		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-169L	97		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-170L	94		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-188L	95		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-189L	83		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-202L	125		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-205L	90		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-206L	93		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-208L	92		30 - 140	06/05/18 13:34	06/13/18 20:14	1
PCB-209L	97		30 - 140	06/05/18 13:34	06/13/18 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	91		40 - 125	06/05/18 13:34	06/13/18 20:14	1
PCB-111L	100		40 - 125	06/05/18 13:34	06/13/18 20:14	1
PCB-178L	98		40 - 125	06/05/18 13:34	06/13/18 20:14	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-20916/6-A

Matrix: Water

Analysis Batch: 21174

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20916

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000409	J q	0.040	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-2	0.00106	J q	0.040	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-3	0.00210	J q	0.040	0.00020	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-4	ND		0.060	0.0011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-5	ND		0.040	0.00089	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-6	ND		0.040	0.00088	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-7	ND		0.040	0.00083	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-8	0.00253	J	0.060	0.00086	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-9	ND		0.040	0.00097	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-10	ND		0.040	0.00095	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-11	0.0156	J q	0.060	0.00080	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-12	ND	C	0.080	0.00080	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-13	ND	C12	0.080	0.00080	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-14	ND		0.040	0.00074	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-15	0.00176	J q	0.040	0.0010	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-16	0.00106	J q	0.040	0.00019	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-17	0.00193	J q	0.040	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-18	0.00301	J C q	0.080	0.00013	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-19	0.000723	J q	0.040	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-20	0.00593	J C	0.080	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-21	0.00300	J C q	0.080	0.00037	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-22	0.00148	J q	0.040	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-23	0.000682	J q	0.040	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-24	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-25	ND		0.040	0.00038	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-26	0.00108	J C	0.080	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-27	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-28	0.00593	J C20	0.080	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-29	0.00108	J C26	0.080	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-30	0.00301	J C18 q	0.080	0.00013	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-31	0.00313	J q	0.040	0.00036	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-32	0.00121	J q	0.040	0.000099	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-33	0.00300	J C21 q	0.080	0.00037	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-34	ND		0.040	0.00041	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-35	ND		0.040	0.00039	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-36	ND		0.040	0.00035	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-37	ND		0.040	0.00037	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-38	ND		0.040	0.00039	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-39	ND		0.040	0.00035	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-40	0.00163	J C q	0.12	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-41	0.00163	J q C40	0.12	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-42	ND		0.040	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-43	ND	C	0.080	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-44	0.00478	J C	0.12	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-45	0.00109	J C q	0.080	0.00019	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-46	0.000758	J q	0.040	0.00022	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-47	0.00478	J C44	0.12	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-48	0.000704	J q	0.040	0.00017	ng/L		06/05/18 13:34	06/13/18 14:56	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-20916/6-A

Matrix: Water

Analysis Batch: 21174

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20916

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-50	ND	C	0.080	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-51	0.00109	J C45 q	0.080	0.00019	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-52	0.00371	J	0.040	0.00019	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-53	ND	C50	0.080	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-54	ND		0.040	0.000082	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-55	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-56	0.000336	J q	0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-57	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-58	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-59	ND	C	0.12	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-60	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-61	0.00309	J C	0.16	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-62	ND	C59	0.12	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-63	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-64	0.00134	J	0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-65	0.00478	J C44	0.12	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-66	0.00194	J	0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-67	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-68	0.000778	J q	0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-69	ND	C49	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-70	0.00309	J C61	0.16	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-71	0.00163	J q C40	0.12	0.00018	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-72	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-73	ND	C43	0.080	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-74	0.00309	J C61	0.16	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-75	ND	C59	0.12	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-76	0.00309	J C61	0.16	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-77	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-78	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-79	ND		0.040	0.00010	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-80	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-81	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-82	ND		0.040	0.00015	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-83	ND	C	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-84	ND		0.040	0.00016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-85	0.000191	J C q	0.12	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-86	ND	C	0.24	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-87	ND	C86	0.24	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-88	ND	C	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-89	ND		0.040	0.00015	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-90	0.00142	J C q	0.12	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-91	ND	C88	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-92	ND		0.040	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-93	ND	C	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-94	ND		0.040	0.00015	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-95	0.00149	J q	0.040	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-96	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-20916/6-A

Matrix: Water

Analysis Batch: 21174

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20916

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	ND	C86	0.24	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-98	ND	C	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-99	ND	C83	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-100	ND	C93	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-101	0.00142	J C90 q	0.12	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-102	ND	C98	0.080	0.00014	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-103	0.000439	J	0.040	0.00013	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-104	ND		0.040	0.000099	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-105	0.000936	J	0.040	0.00040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-106	ND		0.040	0.00043	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-107	ND		0.040	0.00041	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-108	ND	C	0.080	0.00043	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-109	ND	C86	0.24	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-110	0.000703	J C q	0.080	0.000094	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-111	ND		0.040	0.000088	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-112	ND		0.040	0.000097	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-113	0.00142	J C90 q	0.12	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-114	ND		0.040	0.00039	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-115	0.000703	J C110 q	0.080	0.000094	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-116	0.000191	J C85 q	0.12	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-117	0.000191	J C85 q	0.12	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-118	0.00125	J q	0.040	0.00038	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-119	ND	C86	0.24	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-120	ND		0.040	0.000087	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-121	ND		0.040	0.000094	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-122	ND		0.040	0.00047	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-123	ND		0.040	0.00038	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-124	ND	C108	0.080	0.00043	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-125	ND	C86	0.24	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-126	ND		0.040	0.00045	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-127	ND		0.040	0.00041	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-128	ND	C	0.080	0.000063	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-129	0.00220	J C q	0.16	0.000064	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-130	ND		0.040	0.000086	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-131	ND		0.040	0.000087	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-132	0.000540	J	0.040	0.000084	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-133	ND		0.040	0.000081	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-134	ND	C	0.080	0.000085	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-135	ND	C	0.080	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-136	ND		0.040	0.000086	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-137	ND		0.040	0.000070	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-138	0.00220	J C129 q	0.16	0.000064	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-139	ND	C	0.080	0.000072	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-140	ND	C139	0.080	0.000072	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-141	ND		0.040	0.000075	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-142	ND		0.040	0.000082	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-143	ND	C134	0.080	0.000085	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-144	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-20916/6-A

Matrix: Water

Analysis Batch: 21174

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20916

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.040	0.000086	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-146	ND		0.040	0.000068	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-147	0.00169	J C q	0.080	0.000073	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-148	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-149	0.00169	J C147 q	0.080	0.000073	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-150	ND		0.040	0.000078	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-151	ND	C135	0.080	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-152	ND		0.040	0.000083	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-153	0.000997	J C q	0.080	0.000056	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-154	ND		0.040	0.00010	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-155	ND		0.040	0.000079	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-156	ND	C	0.080	0.000068	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-157	ND	C156	0.080	0.000068	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-158	ND		0.040	0.000050	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-159	ND		0.040	0.000052	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-160	0.00220	J C129 q	0.16	0.000064	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-161	ND		0.040	0.000053	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-162	ND		0.040	0.000051	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-163	0.00220	J C129 q	0.16	0.000064	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-164	ND		0.040	0.000055	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-165	ND		0.040	0.000061	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-166	ND	C128	0.080	0.000063	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-167	ND		0.040	0.000037	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-168	0.000997	J C153 q	0.080	0.000056	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-169	ND		0.040	0.000040	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-170	ND		0.040	0.000097	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-171	ND	C	0.080	0.000096	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-172	ND		0.040	0.000094	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-173	ND	C171	0.080	0.000096	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-174	ND		0.040	0.000098	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-175	ND		0.040	0.000089	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-176	ND		0.040	0.000062	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-177	ND		0.040	0.000099	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-178	ND		0.040	0.000092	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-179	ND		0.040	0.000068	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-180	0.000875	J C q	0.080	0.000073	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-181	ND		0.040	0.000084	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-182	ND		0.040	0.000080	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-183	0.000194	J C q	0.080	0.000081	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-184	ND		0.040	0.000069	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-185	0.000194	J C183 q	0.080	0.000081	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-186	ND		0.040	0.000066	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-187	0.000611	J q	0.040	0.000083	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-188	ND		0.040	0.000061	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-189	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-190	ND		0.040	0.000063	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-191	ND		0.040	0.000064	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-192	ND		0.040	0.000067	ng/L		06/05/18 13:34	06/13/18 14:56	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-20916/6-A

Matrix: Water

Analysis Batch: 21174

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20916

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-193	0.000875	J C180 q	0.080	0.000073	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-194	ND		0.040	0.000066	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-195	ND		0.040	0.000074	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-196	ND		0.040	0.00012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-197	ND		0.040	0.000082	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-198	ND	C	0.080	0.00013	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-199	ND	C198	0.080	0.00013	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-200	ND		0.040	0.000090	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-201	ND		0.040	0.000087	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-202	ND		0.040	0.000098	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-203	ND		0.040	0.00011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-204	ND		0.040	0.000090	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-205	ND		0.040	0.000049	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-206	ND		0.040	0.0016	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-207	ND		0.040	0.0011	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-208	ND		0.040	0.0012	ng/L		06/05/18 13:34	06/13/18 14:56	1
PCB-209	0.000253	J q	0.040	0.000073	ng/L		06/05/18 13:34	06/13/18 14:56	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	73		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-3L	66		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-4L	97		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-15L	86		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-19L	94		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-37L	91		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-54L	111		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-77L	90		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-81L	86		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-104L	101		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-105L	93		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-114L	90		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-118L	98		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-123L	94		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-126L	93		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-155L	120		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-156L	90	C	30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-157L	90	C156	30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-167L	90		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-169L	92		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-170L	93		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-188L	93		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-189L	83		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-202L	118		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-205L	88		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-206L	91		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-208L	91		30 - 140	06/05/18 13:34	06/13/18 14:56	1
PCB-209L	93		30 - 140	06/05/18 13:34	06/13/18 14:56	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-20916/6-A
Matrix: Water
Analysis Batch: 21174

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20916

Surrogate	MB MB %Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	90	40 - 125	06/05/18 13:34	06/13/18 14:56	1
PCB-111L	98	40 - 125	06/05/18 13:34	06/13/18 14:56	1
PCB-178L	100	40 - 125	06/05/18 13:34	06/13/18 14:56	1

Lab Sample ID: LCS 140-20916/7-A
Matrix: Water
Analysis Batch: 21174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	1.00	0.893		ng/L		89	50 - 150
PCB-3	1.00	0.945		ng/L		95	50 - 150
PCB-4	1.00	0.831		ng/L		83	50 - 150
PCB-15	1.00	0.882		ng/L		88	50 - 150
PCB-19	1.00	0.861		ng/L		86	50 - 150
PCB-37	1.00	0.857		ng/L		86	50 - 150
PCB-54	1.00	0.923		ng/L		92	50 - 150
PCB-77	1.00	0.805		ng/L		80	50 - 150
PCB-81	1.00	0.771		ng/L		77	50 - 150
PCB-104	1.00	0.827		ng/L		83	50 - 150
PCB-105	1.00	0.836		ng/L		84	50 - 150
PCB-114	1.00	0.926		ng/L		93	50 - 150
PCB-118	1.00	0.876		ng/L		88	50 - 150
PCB-123	1.00	0.875		ng/L		87	50 - 150
PCB-126	1.00	0.879		ng/L		88	50 - 150
PCB-155	1.00	0.878		ng/L		88	50 - 150
PCB-156	2.00	1.70	C	ng/L		85	50 - 150
PCB-157	2.00	1.70	C156	ng/L		85	50 - 150
PCB-167	1.00	0.880		ng/L		88	50 - 150
PCB-169	1.00	0.825		ng/L		83	50 - 150
PCB-188	1.00	0.819		ng/L		82	50 - 150
PCB-189	1.00	0.847		ng/L		85	50 - 150
PCB-202	1.00	0.787		ng/L		79	50 - 150
PCB-205	1.00	0.808		ng/L		81	50 - 150
PCB-206	1.00	0.822		ng/L		82	50 - 150
PCB-208	1.00	0.819		ng/L		82	50 - 150
PCB-209	1.00	0.776		ng/L		78	50 - 150

Isotope Dilution	LCS LCS %Recovery Qualifier	Limits
PCB-1L	71	30 - 140
PCB-3L	67	30 - 140
PCB-4L	97	30 - 140
PCB-15L	91	30 - 140
PCB-19L	89	30 - 140
PCB-37L	93	30 - 140
PCB-54L	108	30 - 140
PCB-77L	95	30 - 140
PCB-81L	93	30 - 140
PCB-104L	97	30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCS 140-20916/7-A

Matrix: Water

Analysis Batch: 21174

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20916

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-105L	93		30 - 140
PCB-114L	88		30 - 140
PCB-118L	95		30 - 140
PCB-123L	92		30 - 140
PCB-126L	92		30 - 140
PCB-155L	116		30 - 140
PCB-156L	91	C	30 - 140
PCB-157L	91	C156	30 - 140
PCB-167L	91		30 - 140
PCB-169L	92		30 - 140
PCB-170L	89		30 - 140
PCB-188L	89		30 - 140
PCB-189L	81		30 - 140
PCB-202L	114		30 - 140
PCB-205L	87		30 - 140
PCB-206L	90		30 - 140
PCB-208L	87		30 - 140
PCB-209L	93		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	90		40 - 125
PCB-111L	99		40 - 125
PCB-178L	97		40 - 125

Lab Sample ID: MB 140-21117/17-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21117

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000448	J q	0.010	0.000084	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-2	0.00118	J q	0.010	0.00010	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-3	0.00124	J q	0.010	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-4	0.000992	J q	0.020	0.00023	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-5	ND		0.010	0.00019	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-6	ND		0.010	0.00019	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-7	0.000843	J	0.010	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-8	0.000771	J q	0.020	0.00019	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-9	ND		0.010	0.00021	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-10	ND		0.010	0.00021	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-11	0.00477	J	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-12	0.00181	J C	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-13	0.00181	J C12	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-14	ND		0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-15	0.000653	J q	0.010	0.00023	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-16	ND		0.010	0.000050	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-17	0.000298	J q	0.010	0.000038	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-18	0.000536	J q C	0.020	0.000034	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-19	0.000239	J q	0.010	0.000047	ng/g		06/12/18 11:00	06/20/18 19:12	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21117/17-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21117

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-20	0.000700	J q C	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-21	0.000894	J q C	0.020	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-22	ND		0.010	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-23	0.000237	J q	0.010	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-24	0.000166	J	0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-25	0.000213	J q	0.010	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-26	ND	C	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-27	0.000114	J q	0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-28	0.000700	J q C20	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-29	ND	C26	0.020	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-30	0.000536	J q C18	0.020	0.000034	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-31	0.000851	J	0.020	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-32	0.000729	J q	0.010	0.000026	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-33	0.000894	J q C21	0.020	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-34	ND		0.010	0.00018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-35	0.000366	J q	0.010	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-36	ND		0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-37	0.000404	J q	0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-38	ND		0.010	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-39	0.000191	J q	0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-40	0.000724	J q C	0.030	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-41	0.000724	J q C40	0.030	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-42	0.000171	J q	0.010	0.000044	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-43	0.000158	J q C	0.020	0.000039	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-44	0.00270	J C	0.030	0.000038	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-45	0.000514	J q C	0.020	0.000045	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-46	0.000125	J q	0.010	0.000053	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-47	0.00270	J C44	0.030	0.000038	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-48	ND		0.010	0.000041	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-49	0.000477	J q C	0.020	0.000035	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-50	0.0000713	J q C	0.020	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-51	0.000514	J q C45	0.020	0.000045	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-52	0.000953	J	0.010	0.000045	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-53	0.0000713	J q C50	0.020	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-54	ND		0.010	0.000024	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-55	ND		0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-56	0.000317	J q	0.010	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-57	0.000175	J q	0.010	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-58	ND		0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-59	0.0000544	J q C	0.030	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-60	0.000328	J q	0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-61	0.00115	J C	0.040	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-62	0.0000544	J q C59	0.030	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-63	0.0000858	J q	0.010	0.000026	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-64	ND		0.010	0.000027	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-65	0.00270	J C44	0.030	0.000038	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-66	0.000878	J	0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-67	0.0000827	J	0.010	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21117/17-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21117

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-68	0.000524	J	0.010	0.000026	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-69	0.000477	J q C49	0.020	0.000035	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-70	0.00115	J C61	0.040	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-71	0.000724	J q C40	0.030	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-72	0.0000398	J q	0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-73	0.000158	J q C43	0.020	0.000039	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-74	0.00115	J C61	0.040	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-75	0.0000544	J q C59	0.030	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-76	0.00115	J C61	0.040	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-77	0.000156	J q	0.010	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-78	ND		0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-79	0.0000404	J q	0.010	0.000025	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-80	0.0000346	J q	0.010	0.000026	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-81	0.0000869	J q	0.010	0.000026	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-82	ND		0.010	0.000048	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-83	0.000185	J q C	0.020	0.000046	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-84	0.000536	J q	0.010	0.000050	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-85	0.000560	J q C	0.030	0.000034	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-86	0.00117	J q C	0.060	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-87	0.00117	J q C86	0.060	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-88	ND	C	0.020	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-89	ND		0.010	0.000047	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-90	0.000463	J q C	0.030	0.000037	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-91	ND	C88	0.020	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-92	ND		0.010	0.000045	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-93	0.000522	J C	0.020	0.000044	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-94	ND		0.010	0.000047	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-95	0.000314	J q	0.010	0.000046	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-96	ND		0.010	0.000035	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-97	0.00117	J q C86	0.060	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-98	ND	C	0.020	0.000044	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-99	0.000185	J q C83	0.020	0.000046	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-100	0.000522	J C93	0.020	0.000044	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-101	0.000463	J q C90	0.030	0.000037	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-102	ND	C98	0.020	0.000044	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-103	0.000103	J q	0.010	0.000041	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-104	0.0000414	J q	0.010	0.000032	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-105	0.000469	J q	0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-106	ND		0.010	0.000013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-107	ND		0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-108	0.000170	J q C	0.020	0.000013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-109	0.00117	J q C86	0.060	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-110	0.000331	J q C	0.020	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-111	ND		0.010	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-112	ND		0.010	0.000031	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-113	0.000463	J q C90	0.030	0.000037	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-114	0.000327	J	0.010	0.000011	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-115	0.000331	J q C110	0.020	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21117/17-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21117

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-116	0.000560	J q C85	0.030	0.000034	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-117	0.000560	J q C85	0.030	0.000034	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-118	0.000560	J q	0.010	0.00012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-119	0.00117	J q C86	0.060	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-120	0.000113	J	0.010	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-121	0.000149	J	0.010	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-122	0.000151	J q	0.010	0.00014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-123	ND		0.010	0.00011	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-124	0.000170	J q C108	0.020	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-125	0.00117	J q C86	0.060	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-126	ND		0.010	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-127	ND		0.010	0.00012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-128	0.000504	J C	0.020	0.00012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-129	0.000692	J q C	0.040	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-130	ND		0.010	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-131	ND		0.010	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-132	0.000179	J	0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-133	ND		0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-134	ND	C	0.020	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-135	0.000351	J q C	0.020	0.000031	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-136	ND		0.010	0.000023	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-137	ND		0.010	0.00014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-138	0.000692	J q C129	0.040	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-139	0.000271	J q C	0.020	0.00014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-140	0.000271	J q C139	0.020	0.00014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-141	0.000205	J q	0.010	0.00015	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-142	ND		0.010	0.00016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-143	ND	C134	0.020	0.00017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-144	0.000224	J q	0.010	0.000029	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-145	ND		0.010	0.000023	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-146	0.000211	J q	0.010	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-147	0.000471	J q C	0.020	0.00014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-148	ND		0.010	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-149	0.000471	J q C147	0.020	0.00014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-150	ND		0.010	0.000020	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-151	0.000351	J q C135	0.020	0.000031	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-152	0.0000752	J q	0.010	0.000022	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-153	0.000672	J C	0.020	0.00011	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-154	ND		0.010	0.000026	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-155	0.0000497	J q	0.010	0.000021	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-156	0.000164	J q C	0.020	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-157	0.000164	J q C156	0.020	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-158	0.000240	J q	0.010	0.000098	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-159	0.000156	J q	0.010	0.00010	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-160	0.000692	J q C129	0.040	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-161	0.000143	J q	0.010	0.00010	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-162	ND		0.010	0.000099	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-163	0.000692	J q C129	0.040	0.00013	ng/g		06/12/18 11:00	06/20/18 19:12	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21117/17-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21117

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-164	ND		0.010	0.00011	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-165	ND		0.010	0.00012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-166	0.000504	J C128	0.020	0.00012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-167	ND		0.010	0.000074	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-168	0.000672	J C153	0.020	0.00011	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-169	ND		0.010	0.000078	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-170	0.000121	J q	0.010	0.000018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-171	0.000391	J C	0.020	0.000018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-172	0.0000525	J q	0.010	0.000018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-173	0.000391	J C171	0.020	0.000018	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-174	0.0000281	J q	0.010	0.000019	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-175	ND		0.010	0.000017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-176	0.000133	J q	0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-177	ND		0.010	0.000019	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-178	ND		0.010	0.000017	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-179	0.0000274	J q	0.010	0.000013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-180	0.000283	J q C	0.020	0.000014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-181	ND		0.010	0.000016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-182	ND		0.010	0.000015	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-183	0.000206	J q C	0.020	0.000015	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-184	0.000349	J q	0.010	0.000013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-185	0.000206	J q C183	0.020	0.000015	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-186	0.0000422	J q	0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-187	0.000504	J	0.010	0.000016	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-188	0.000315	J	0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-189	0.0000922	J q	0.010	0.000038	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-190	0.0000563	J q	0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-191	ND		0.010	0.000012	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-192	0.0000340	J q	0.010	0.000013	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-193	0.000283	J q C180	0.020	0.000014	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-194	0.000271	J q	0.010	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-195	0.000235	J q	0.010	0.000033	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-196	0.000277	J	0.010	0.000041	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-197	ND		0.010	0.000028	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-198	ND	C	0.020	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-199	ND	C198	0.020	0.000043	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-200	ND		0.010	0.000031	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-201	ND		0.010	0.000030	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-202	ND		0.010	0.000033	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-203	ND		0.010	0.000038	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-204	ND		0.010	0.000031	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-205	0.0000558	J q	0.010	0.000022	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-206	0.000369	J q	0.010	0.000049	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-207	ND		0.010	0.000033	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-208	ND		0.010	0.000036	ng/g		06/12/18 11:00	06/20/18 19:12	1
PCB-209	0.000153	J q	0.010	0.000033	ng/g		06/12/18 11:00	06/20/18 19:12	1

TestAmerica Seattle

QC Sample Results

Client: AECOM

TestAmerica Job ID: 580-77717-3

Project/Site: Portland Harbor Pre-Remedial Design

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-1L	61		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-3L	54		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-4L	79		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-15L	73		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-19L	78		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-37L	76		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-54L	96		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-77L	77		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-81L	77		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-104L	87		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-105L	80		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-114L	79		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-118L	83		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-123L	81		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-126L	81		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-155L	113		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-156L	79	C	30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-157L	79	C156	30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-167L	78		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-169L	80		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-170L	80		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-188L	80		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-189L	70		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-202L	104		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-205L	77		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-206L	85		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-208L	83		30 - 140	06/12/18 11:00	06/20/18 19:12	1
PCB-209L	83		30 - 140	06/12/18 11:00	06/20/18 19:12	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-28L	79		40 - 125	06/12/18 11:00	06/20/18 19:12	1
PCB-111L	88		40 - 125	06/12/18 11:00	06/20/18 19:12	1
PCB-178L	85		40 - 125	06/12/18 11:00	06/20/18 19:12	1

Lab Sample ID: LCS 140-21117/18-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21117

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
PCB-1	0.500	0.449		ng/g		90	50 - 150
PCB-3	0.500	0.477		ng/g		95	50 - 150
PCB-4	0.500	0.424		ng/g		85	50 - 150
PCB-15	0.500	0.455		ng/g		91	50 - 150
PCB-19	0.500	0.462		ng/g		92	50 - 150
PCB-37	0.500	0.447		ng/g		89	50 - 150
PCB-54	0.500	0.507		ng/g		101	50 - 150
PCB-77	0.500	0.418		ng/g		84	50 - 150
PCB-81	0.500	0.430		ng/g		86	50 - 150
PCB-104	0.500	0.444		ng/g		89	50 - 150
PCB-105	0.500	0.462		ng/g		92	50 - 150
PCB-114	0.500	0.473		ng/g		95	50 - 150
PCB-118	0.500	0.472		ng/g		94	50 - 150
PCB-123	0.500	0.475		ng/g		95	50 - 150
PCB-126	0.500	0.454		ng/g		91	50 - 150

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCS 140-21117/18-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-155	0.500	0.446		ng/g		89	50 - 150
PCB-156	1.00	0.911	C	ng/g		91	50 - 150
PCB-157	1.00	0.911	C156	ng/g		91	50 - 150
PCB-167	0.500	0.467		ng/g		93	50 - 150
PCB-169	0.500	0.456		ng/g		91	50 - 150
PCB-188	0.500	0.467		ng/g		93	50 - 150
PCB-189	0.500	0.469		ng/g		94	50 - 150
PCB-202	0.500	0.421		ng/g		84	50 - 150
PCB-205	0.500	0.456		ng/g		91	50 - 150
PCB-206	0.500	0.474		ng/g		95	50 - 150
PCB-208	0.500	0.468		ng/g		94	50 - 150
PCB-209	0.500	0.447		ng/g		89	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	60		30 - 140
PCB-3L	56		30 - 140
PCB-4L	78		30 - 140
PCB-15L	76		30 - 140
PCB-19L	81		30 - 140
PCB-37L	81		30 - 140
PCB-54L	93		30 - 140
PCB-77L	86		30 - 140
PCB-81L	83		30 - 140
PCB-104L	85		30 - 140
PCB-105L	82		30 - 140
PCB-114L	81		30 - 140
PCB-118L	84		30 - 140
PCB-123L	82		30 - 140
PCB-126L	85		30 - 140
PCB-155L	112		30 - 140
PCB-156L	85	C	30 - 140
PCB-157L	85	C156	30 - 140
PCB-167L	82		30 - 140
PCB-169L	86		30 - 140
PCB-170L	81		30 - 140
PCB-188L	80		30 - 140
PCB-189L	71		30 - 140
PCB-202L	107		30 - 140
PCB-205L	78		30 - 140
PCB-206L	82		30 - 140
PCB-208L	81		30 - 140
PCB-209L	81		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	77		40 - 125
PCB-111L	86		40 - 125
PCB-178L	83		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCSD 140-21117/19-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21117

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.451		ng/g		90	50 - 150	0	50
PCB-3	0.500	0.474		ng/g		95	50 - 150	1	50
PCB-4	0.500	0.434		ng/g		87	50 - 150	2	50
PCB-15	0.500	0.467		ng/g		93	50 - 150	3	50
PCB-19	0.500	0.477		ng/g		95	50 - 150	3	50
PCB-37	0.500	0.454		ng/g		91	50 - 150	2	50
PCB-54	0.500	0.506		ng/g		101	50 - 150	0	50
PCB-77	0.500	0.419		ng/g		84	50 - 150	0	50
PCB-81	0.500	0.413		ng/g		83	50 - 150	4	50
PCB-104	0.500	0.448		ng/g		90	50 - 150	1	50
PCB-105	0.500	0.454		ng/g		91	50 - 150	2	50
PCB-114	0.500	0.492		ng/g		98	50 - 150	4	50
PCB-118	0.500	0.482		ng/g		96	50 - 150	2	50
PCB-123	0.500	0.437		ng/g		87	50 - 150	8	50
PCB-126	0.500	0.456		ng/g		91	50 - 150	0	50
PCB-155	0.500	0.446		ng/g		89	50 - 150	0	50
PCB-156	1.00	0.878	C	ng/g		88	50 - 150	4	50
PCB-157	1.00	0.878	C156	ng/g		88	50 - 150	4	50
PCB-167	0.500	0.456		ng/g		91	50 - 150	2	50
PCB-169	0.500	0.437		ng/g		87	50 - 150	4	50
PCB-188	0.500	0.466		ng/g		93	50 - 150	0	50
PCB-189	0.500	0.467		ng/g		93	50 - 150	0	50
PCB-202	0.500	0.407		ng/g		81	50 - 150	3	50
PCB-205	0.500	0.449		ng/g		90	50 - 150	2	50
PCB-206	0.500	0.467		ng/g		93	50 - 150	2	50
PCB-208	0.500	0.450		ng/g		90	50 - 150	4	50
PCB-209	0.500	0.451		ng/g		90	50 - 150	1	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	63		30 - 140
PCB-3L	57		30 - 140
PCB-4L	80		30 - 140
PCB-15L	74		30 - 140
PCB-19L	78		30 - 140
PCB-37L	78		30 - 140
PCB-54L	90		30 - 140
PCB-77L	77		30 - 140
PCB-81L	77		30 - 140
PCB-104L	84		30 - 140
PCB-105L	78		30 - 140
PCB-114L	76		30 - 140
PCB-118L	80		30 - 140
PCB-123L	79		30 - 140
PCB-126L	80		30 - 140
PCB-155L	111		30 - 140
PCB-156L	79	C	30 - 140
PCB-157L	79	C156	30 - 140
PCB-167L	76		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCSD 140-21117/19-B

Matrix: Solid

Analysis Batch: 21352

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21117

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
PCB-169L	79		30 - 140
PCB-170L	80		30 - 140
PCB-188L	80		30 - 140
PCB-189L	69		30 - 140
PCB-202L	105		30 - 140
PCB-205L	76		30 - 140
PCB-206L	84		30 - 140
PCB-208L	83		30 - 140
PCB-209L	82		30 - 140

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
PCB-28L	78		40 - 125
PCB-111L	85		40 - 125
PCB-178L	85		40 - 125

Lab Sample ID: MB 140-21154/16-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21154

Analyte	MB		RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1	0.00404	J	0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-2	0.00375	J	0.010	0.00014	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-3	0.00304	J q	0.010	0.00019	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-4	0.000884	J q	0.020	0.00034	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-5	ND		0.010	0.00030	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-6	ND		0.010	0.00030	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-7	ND		0.010	0.00029	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-8	0.000867	J	0.020	0.00029	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-9	0.000568	J q	0.010	0.00033	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-10	ND		0.010	0.00033	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-11	0.00264	J q	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-12	ND	C	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-13	ND	C12	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-14	ND		0.010	0.00025	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-15	0.000517	J q	0.010	0.00039	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-16	0.000343	J q	0.010	0.000066	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-17	0.00106	J q	0.010	0.000050	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-18	ND	C	0.020	0.000044	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-19	ND		0.010	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-20	0.00106	J C	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-21	0.000894	J q C	0.020	0.00026	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-22	ND		0.010	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-23	ND		0.010	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-24	ND		0.010	0.000038	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-25	ND		0.010	0.00027	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-26	0.000924	J C	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-27	ND		0.010	0.000038	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-28	0.00106	J C20	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21154/16-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21154

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-29	0.000924	J C26	0.020	0.00028	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-30	ND	C18	0.020	0.000044	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-31	0.000868	J q	0.020	0.00026	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-32	0.000111	J q	0.010	0.000035	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-33	0.000894	J q C21	0.020	0.00026	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-34	ND		0.010	0.00029	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-35	ND		0.010	0.00027	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-36	ND		0.010	0.00025	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-37	0.000568	J q	0.010	0.00026	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-38	ND		0.010	0.00027	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-39	ND		0.010	0.00025	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-40	0.000470	J q C	0.030	0.00017	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-41	0.000470	J q C40	0.030	0.00017	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-42	ND		0.010	0.00017	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-43	ND	C	0.020	0.00015	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-44	0.00190	J C	0.030	0.00015	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-45	ND	C	0.020	0.00018	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-46	ND		0.010	0.00021	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-47	0.00190	J C44	0.030	0.00015	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-48	ND		0.010	0.00016	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-49	0.000651	J q C	0.020	0.00014	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-50	0.000635	J C	0.020	0.00017	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-51	ND	C45	0.020	0.00018	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-52	0.00210	J q	0.010	0.00018	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-53	0.000635	J C50	0.020	0.00017	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-54	ND		0.010	0.000053	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-55	ND		0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-56	0.000139	J q	0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-57	ND		0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-58	ND		0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-59	0.000349	J q C	0.030	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-60	0.000126	J q	0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-61	0.00193	J q C	0.040	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-62	0.000349	J q C59	0.030	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-63	ND		0.010	0.00010	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-64	0.000530	J	0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-65	0.00190	J C44	0.030	0.00015	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-66	0.000415	J	0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-67	ND		0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-68	ND		0.010	0.00010	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-69	0.000651	J q C49	0.020	0.00014	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-70	0.00193	J q C61	0.040	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-71	0.000470	J q C40	0.030	0.00017	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-72	ND		0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-73	ND	C43	0.020	0.00015	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-74	0.00193	J q C61	0.040	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-75	0.000349	J q C59	0.030	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-76	0.00193	J q C61	0.040	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21154/16-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21154

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	ND		0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-78	ND		0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-79	ND		0.010	0.000097	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-80	ND		0.010	0.00010	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-81	ND		0.010	0.00010	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-82	ND		0.010	0.000081	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-83	0.00124	J q C	0.020	0.000078	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-84	0.000300	J	0.010	0.000085	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-85	ND	C	0.030	0.000059	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-86	0.00379	J C	0.060	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-87	0.00379	J C86	0.060	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-88	0.000480	J q C	0.020	0.000074	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-89	ND		0.010	0.000080	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-90	0.00318	J C	0.030	0.000063	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-91	0.000480	J q C88	0.020	0.000074	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-92	0.000496	J q	0.010	0.000076	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-93	ND	C	0.020	0.000075	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-94	ND		0.010	0.000080	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-95	0.00223	J q	0.010	0.000078	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-96	ND		0.010	0.000060	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-97	0.00379	J C86	0.060	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-98	ND	C	0.020	0.000075	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-99	0.00124	J q C83	0.020	0.000078	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-100	ND	C93	0.020	0.000075	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-101	0.00318	J C90	0.030	0.000063	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-102	ND	C98	0.020	0.000075	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-103	0.000398	J q	0.010	0.000069	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-104	ND		0.010	0.000054	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-105	0.000616	J q	0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-106	ND		0.010	0.00013	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-107	0.000415	J	0.010	0.00013	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-108	0.000374	J q C	0.020	0.00014	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-109	0.00379	J C86	0.060	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-110	0.00255	J q C	0.020	0.000051	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-111	ND		0.010	0.000048	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-112	ND		0.010	0.000052	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-113	0.00318	J C90	0.030	0.000063	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-114	0.000151	J q	0.010	0.00012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-115	0.00255	J q C110	0.020	0.000051	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-116	ND	C85	0.030	0.000059	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-117	ND	C85	0.030	0.000059	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-118	0.00222	J	0.010	0.00013	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-119	0.00379	J C86	0.060	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-120	ND		0.010	0.000047	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-121	ND		0.010	0.000051	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-122	0.000588	J	0.010	0.00015	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-123	ND		0.010	0.00011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-124	0.000374	J q C108	0.020	0.00014	ng/g		06/13/18 11:00	06/22/18 02:34	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21154/16-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21154

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-125	0.00379	J C86	0.060	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-126	ND		0.010	0.00014	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-127	ND		0.010	0.00013	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-128	ND	C	0.020	0.0000086	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-129	0.00272	J q C	0.040	0.0000087	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-130	ND		0.010	0.000012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-131	ND		0.010	0.000012	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-132	ND		0.010	0.000011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-133	ND		0.010	0.000011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-134	0.000260	J q C	0.020	0.000011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-135	ND	C	0.020	0.000086	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-136	ND		0.010	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-137	0.000165	J q	0.010	0.0000095	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-138	0.00272	J q C129	0.040	0.0000087	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-139	ND	C	0.020	0.0000098	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-140	ND	C139	0.020	0.0000098	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-141	ND		0.010	0.000010	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-142	ND		0.010	0.000011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-143	0.000260	J q C134	0.020	0.000011	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-144	ND		0.010	0.000080	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-145	ND		0.010	0.000062	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-146	0.000133	J q	0.010	0.0000092	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-147	0.00128	J q C	0.020	0.0000098	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-148	ND		0.010	0.000083	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-149	0.00128	J q C147	0.020	0.0000098	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-150	ND		0.010	0.000056	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-151	ND	C135	0.020	0.000086	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-152	ND		0.010	0.000060	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-153	0.00177	J C	0.020	0.0000076	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-154	ND		0.010	0.000072	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-155	0.000206	J q	0.010	0.000057	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-156	0.000189	J q C	0.020	0.0000090	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-157	0.000189	J q C156	0.020	0.0000090	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-158	ND		0.010	0.0000068	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-159	ND		0.010	0.0000070	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-160	0.00272	J q C129	0.040	0.0000087	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-161	ND		0.010	0.0000072	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-162	ND		0.010	0.0000069	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-163	0.00272	J q C129	0.040	0.0000087	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-164	ND		0.010	0.0000074	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-165	ND		0.010	0.0000083	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-166	ND	C128	0.020	0.0000086	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-167	ND		0.010	0.0000053	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-168	0.00177	J C153	0.020	0.0000076	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-169	ND		0.010	0.0000054	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-170	ND		0.010	0.000037	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-171	0.000242	J q C	0.020	0.000038	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-172	0.000117	J q	0.010	0.000037	ng/g		06/13/18 11:00	06/22/18 02:34	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21154/16-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21154

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-173	0.000242	J q C171	0.020	0.000038	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-174	ND		0.010	0.000039	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-175	ND		0.010	0.000035	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-176	ND		0.010	0.000024	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-177	ND		0.010	0.000039	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-178	0.0000608	J q	0.010	0.000036	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-179	0.0000456	J q	0.010	0.000027	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-180	0.00105	J q C	0.020	0.000029	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-181	ND		0.010	0.000033	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-182	0.000143	J q	0.010	0.000031	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-183	ND	C	0.020	0.000032	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-184	ND		0.010	0.000027	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-185	ND	C183	0.020	0.000032	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-186	ND		0.010	0.000026	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-187	0.000179	J q	0.010	0.000033	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-188	0.0000471	J q	0.010	0.000025	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-189	ND		0.010	0.000049	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-190	ND		0.010	0.000025	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-191	ND		0.010	0.000025	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-192	ND		0.010	0.000026	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-193	0.00105	J q C180	0.020	0.000029	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-194	0.000289	J q	0.010	0.000042	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-195	ND		0.010	0.000047	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-196	0.000290	J q	0.010	0.000063	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-197	ND		0.010	0.000044	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-198	ND	C	0.020	0.000067	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-199	ND	C198	0.020	0.000067	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-200	ND		0.010	0.000048	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-201	0.000253	J q	0.010	0.000046	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-202	ND		0.010	0.000052	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-203	0.000133	J q	0.010	0.000059	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-204	0.000182	J q	0.010	0.000048	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-205	0.0000666	J q	0.010	0.000032	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-206	ND		0.010	0.000097	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-207	ND		0.010	0.000063	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-208	ND		0.010	0.000068	ng/g		06/13/18 11:00	06/22/18 02:34	1
PCB-209	0.000343	J q	0.010	0.000039	ng/g		06/13/18 11:00	06/22/18 02:34	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	57		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-3L	54		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-4L	68		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-15L	59		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-19L	71		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-37L	70		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-54L	84		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-77L	75		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-81L	75		30 - 140	06/13/18 11:00	06/22/18 02:34	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: MB 140-21154/16-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21154

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-104L	84		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-105L	80		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-114L	78		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-118L	82		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-123L	79		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-126L	81		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-155L	104		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-156L	84	C	30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-157L	84	C156	30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-167L	82		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-169L	85		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-170L	83		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-188L	79		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-189L	77		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-202L	101		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-205L	78		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-206L	79		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-208L	78		30 - 140	06/13/18 11:00	06/22/18 02:34	1
PCB-209L	74		30 - 140	06/13/18 11:00	06/22/18 02:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125	06/13/18 11:00	06/22/18 02:34	1
PCB-111L	83		40 - 125	06/13/18 11:00	06/22/18 02:34	1
PCB-178L	82		40 - 125	06/13/18 11:00	06/22/18 02:34	1

Lab Sample ID: LCS 140-21154/17-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.492		ng/g		98	50 - 150
PCB-3	0.500	0.492		ng/g		98	50 - 150
PCB-4	0.500	0.438		ng/g		88	50 - 150
PCB-15	0.500	0.476		ng/g		95	50 - 150
PCB-19	0.500	0.441		ng/g		88	50 - 150
PCB-37	0.500	0.499		ng/g		100	50 - 150
PCB-54	0.500	0.499		ng/g		100	50 - 150
PCB-77	0.500	0.422		ng/g		84	50 - 150
PCB-81	0.500	0.455		ng/g		91	50 - 150
PCB-104	0.500	0.466		ng/g		93	50 - 150
PCB-105	0.500	0.496		ng/g		99	50 - 150
PCB-114	0.500	0.527		ng/g		105	50 - 150
PCB-118	0.500	0.500		ng/g		100	50 - 150
PCB-123	0.500	0.468		ng/g		94	50 - 150
PCB-126	0.500	0.483		ng/g		97	50 - 150
PCB-155	0.500	0.466		ng/g		93	50 - 150
PCB-156	1.00	0.934	C	ng/g		93	50 - 150
PCB-157	1.00	0.934	C156	ng/g		93	50 - 150

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCS 140-21154/17-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-167	0.500	0.486		ng/g		97	50 - 150
PCB-169	0.500	0.463		ng/g		93	50 - 150
PCB-188	0.500	0.482		ng/g		96	50 - 150
PCB-189	0.500	0.504		ng/g		101	50 - 150
PCB-202	0.500	0.427		ng/g		85	50 - 150
PCB-205	0.500	0.470		ng/g		94	50 - 150
PCB-206	0.500	0.482		ng/g		96	50 - 150
PCB-208	0.500	0.475		ng/g		95	50 - 150
PCB-209	0.500	0.472		ng/g		94	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	58		30 - 140
PCB-3L	57		30 - 140
PCB-4L	70		30 - 140
PCB-15L	68		30 - 140
PCB-19L	75		30 - 140
PCB-37L	74		30 - 140
PCB-54L	89		30 - 140
PCB-77L	80		30 - 140
PCB-81L	76		30 - 140
PCB-104L	81		30 - 140
PCB-105L	80		30 - 140
PCB-114L	80		30 - 140
PCB-118L	83		30 - 140
PCB-123L	81		30 - 140
PCB-126L	83		30 - 140
PCB-155L	103		30 - 140
PCB-156L	84	C	30 - 140
PCB-157L	84	C156	30 - 140
PCB-167L	82		30 - 140
PCB-169L	85		30 - 140
PCB-170L	82		30 - 140
PCB-188L	78		30 - 140
PCB-189L	79		30 - 140
PCB-202L	99		30 - 140
PCB-205L	78		30 - 140
PCB-206L	81		30 - 140
PCB-208L	79		30 - 140
PCB-209L	72		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	76		40 - 125
PCB-111L	85		40 - 125
PCB-178L	81		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCSD 140-21154/18-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21154

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.495		ng/g		99	50 - 150	1	50
PCB-3	0.500	0.507		ng/g		101	50 - 150	3	50
PCB-4	0.500	0.435		ng/g		87	50 - 150	1	50
PCB-15	0.500	0.494		ng/g		99	50 - 150	4	50
PCB-19	0.500	0.441		ng/g		88	50 - 150	0	50
PCB-37	0.500	0.480		ng/g		96	50 - 150	4	50
PCB-54	0.500	0.523		ng/g		105	50 - 150	5	50
PCB-77	0.500	0.408		ng/g		82	50 - 150	3	50
PCB-81	0.500	0.471		ng/g		94	50 - 150	4	50
PCB-104	0.500	0.457		ng/g		91	50 - 150	2	50
PCB-105	0.500	0.480		ng/g		96	50 - 150	3	50
PCB-114	0.500	0.513		ng/g		103	50 - 150	3	50
PCB-118	0.500	0.516		ng/g		103	50 - 150	3	50
PCB-123	0.500	0.470		ng/g		94	50 - 150	0	50
PCB-126	0.500	0.478		ng/g		96	50 - 150	1	50
PCB-155	0.500	0.476		ng/g		95	50 - 150	2	50
PCB-156	1.00	0.920	C	ng/g		92	50 - 150	2	50
PCB-157	1.00	0.920	C156	ng/g		92	50 - 150	2	50
PCB-167	0.500	0.490		ng/g		98	50 - 150	1	50
PCB-169	0.500	0.466		ng/g		93	50 - 150	1	50
PCB-188	0.500	0.500		ng/g		100	50 - 150	4	50
PCB-189	0.500	0.495		ng/g		99	50 - 150	2	50
PCB-202	0.500	0.412		ng/g		82	50 - 150	3	50
PCB-205	0.500	0.461		ng/g		92	50 - 150	2	50
PCB-206	0.500	0.473		ng/g		95	50 - 150	2	50
PCB-208	0.500	0.468		ng/g		94	50 - 150	1	50
PCB-209	0.500	0.458		ng/g		92	50 - 150	3	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
PCB-1L	62		30 - 140
PCB-3L	59		30 - 140
PCB-4L	74		30 - 140
PCB-15L	70		30 - 140
PCB-19L	73		30 - 140
PCB-37L	75		30 - 140
PCB-54L	85		30 - 140
PCB-77L	79		30 - 140
PCB-81L	78		30 - 140
PCB-104L	81		30 - 140
PCB-105L	82		30 - 140
PCB-114L	80		30 - 140
PCB-118L	83		30 - 140
PCB-123L	81		30 - 140
PCB-126L	84		30 - 140
PCB-155L	99		30 - 140
PCB-156L	83	C	30 - 140
PCB-157L	83	C156	30 - 140
PCB-167L	79		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77717-3

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

Lab Sample ID: LCSD 140-21154/18-B

Matrix: Solid

Analysis Batch: 21408

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21154

<i>Isotope Dilution</i>	<i>LCSD</i>	<i>LCSD</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
PCB-169L	81		30 - 140
PCB-170L	81		30 - 140
PCB-188L	77		30 - 140
PCB-189L	78		30 - 140
PCB-202L	100		30 - 140
PCB-205L	78		30 - 140
PCB-206L	79		30 - 140
PCB-208L	79		30 - 140
PCB-209L	73		30 - 140

<i>Surrogate</i>	<i>LCSD</i>	<i>LCSD</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
PCB-28L	75		40 - 125
PCB-111L	84		40 - 125
PCB-178L	81		40 - 125

Lab Chronicle

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B355-BL1

Date Collected: 05/31/18 10:35

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-1

Matrix: Solid

Percent Solids: 41.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21117	06/12/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21227	06/14/18 09:52	EBS	TAL KNX
Total/NA	Analysis	1668A		1	21408	06/22/18 03:37	PMP	TAL KNX

Client Sample ID: PDI-SG-B188-BL1

Date Collected: 05/31/18 15:27

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-2

Matrix: Solid

Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21117	06/12/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21227	06/14/18 09:52	EBS	TAL KNX
Total/NA	Analysis	1668A		1	21408	06/22/18 04:41	PMP	TAL KNX

Client Sample ID: PDI-SG-B193-BL1

Date Collected: 05/31/18 11:30

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-3

Matrix: Solid

Percent Solids: 57.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21117	06/12/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21227	06/14/18 09:52	EBS	TAL KNX
Total/NA	Analysis	1668A		1	21408	06/22/18 05:44	PMP	TAL KNX

Client Sample ID: PDI-SG-B396-BL1

Date Collected: 05/30/18 15:38

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-4

Matrix: Solid

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21117	06/12/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21227	06/14/18 09:52	EBS	TAL KNX
Total/NA	Analysis	1668A		1	21425	06/22/18 15:06	MSD	TAL KNX

Client Sample ID: PDI-SG-B349-BL1

Date Collected: 05/30/18 13:48

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-5

Matrix: Solid

Percent Solids: 36.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21154	06/13/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21239	06/14/18 19:35	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21408	06/22/18 07:51	PMP	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-SG-B348-BL1

Date Collected: 05/30/18 11:41

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-6

Matrix: Solid

Percent Solids: 36.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21154	06/13/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21239	06/14/18 19:35	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21425	06/22/18 16:09	MSD	TAL KNX

Client Sample ID: PDI-SG-B344-BL1

Date Collected: 05/30/18 11:00

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-7

Matrix: Solid

Percent Solids: 36.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21154	06/13/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21239	06/14/18 19:35	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21425	06/22/18 17:13	MSD	TAL KNX

Client Sample ID: PDI-SG-B342-BL1

Date Collected: 05/30/18 09:53

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-8

Matrix: Solid

Percent Solids: 38.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21154	06/13/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21239	06/14/18 19:35	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21425	06/22/18 18:16	MSD	TAL KNX

Client Sample ID: PDI-SG-B342-BL1-D

Date Collected: 05/30/18 09:53

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-9

Matrix: Solid

Percent Solids: 38.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21154	06/13/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			21239	06/14/18 19:35	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21445	06/23/18 03:03	PMP	TAL KNX

Client Sample ID: PDI-RB-VV-180530-1515

Date Collected: 05/30/18 15:15

Date Received: 06/01/18 13:55

Lab Sample ID: 580-77717-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sepf			20916	06/05/18 13:34	SMA	TAL KNX
Total/NA	Analysis	1668A		1	21174	06/13/18 19:10	MSD	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77717-3

Client Sample ID: PDI-RB-VV-180531

Lab Sample ID: 580-77717-11

Date Collected: 05/31/18 17:00

Matrix: Water

Date Received: 06/01/18 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sepf			20916	06/05/18 13:34	SMA	TAL KNX
Total/NA	Analysis	1668A		1	21174	06/13/18 20:14	MSD	TAL KNX

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM

TestAmerica Job ID: 580-77717-3

Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: 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	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Laboratory: 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 ELAP		L2311	02-13-19
Arkansas DEQ	State Program	6	88-0688	06-16-19
California	State Program	9	2423	06-30-19
Colorado	State Program	8	TN00009	02-28-19
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	04-13-19
Kansas	NELAP	7	E-10349	10-31-18
Kentucky (DW)	State Program	4	90101	12-31-18
Louisiana	NELAP	6	83979	06-30-19
Louisiana (DW)	NELAP	6	LA160005	12-31-18
Maryland	State Program	3	277	03-31-19
Michigan	State Program	5	9933	04-13-20
Nevada	State Program	9	TN00009	07-31-18
New Jersey	NELAP	2	TN001	06-30-19
New York	NELAP	2	10781	03-31-19
North Carolina (DW)	State Program	4	21705	07-31-19
North Carolina (WW/SW)	State Program	4	64	12-31-18
Ohio VAP	State Program	5	CL0059	11-22-18
Oklahoma	State Program	6	9415	08-31-18
Oregon	NELAP	10	TNI0189	01-01-19
Pennsylvania	NELAP	3	68-00576	12-31-18
Tennessee	State Program	4	2014	04-13-20
Texas	NELAP	6	T104704380-16-9	08-31-18
US Fish & Wildlife	Federal		LE-058448-0	07-31-18
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-18
Virginia	NELAP	3	460176	09-14-18
Washington	State Program	10	C593	01-19-19
West Virginia (DW)	State Program	3	9955C	12-31-18
West Virginia DEP	State Program	3	345	04-30-19
Wisconsin	State Program	5	998044300	08-31-18

TestAmerica Seattle

Sample Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77717-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-77717-1	PDI-SG-B355-BL1	Solid	05/31/18 10:35	06/01/18 13:55
580-77717-2	PDI-SG-B188-BL1	Solid	05/31/18 15:27	06/01/18 13:55
580-77717-3	PDI-SG-B193-BL1	Solid	05/31/18 11:30	06/01/18 13:55
580-77717-4	PDI-SG-B396-BL1	Solid	05/30/18 15:38	06/01/18 13:55
580-77717-5	PDI-SG-B349-BL1	Solid	05/30/18 13:48	06/01/18 13:55
580-77717-6	PDI-SG-B348-BL1	Solid	05/30/18 11:41	06/01/18 13:55
580-77717-7	PDI-SG-B344-BL1	Solid	05/30/18 11:00	06/01/18 13:55
580-77717-8	PDI-SG-B342-BL1	Solid	05/30/18 09:53	06/01/18 13:55
580-77717-9	PDI-SG-B342-BL1-D	Solid	05/30/18 09:53	06/01/18 13:55
580-77717-10	PDI-RB-VV-180530-1515	Water	05/30/18 15:15	06/01/18 13:55
580-77717-11	PDI-RB-VV-180531	Water	05/31/18 17:00	06/01/18 13:55

TestAmerica-Seattle
5755-8th-Street-East
Tacoma, WA 98424-1317
Ph: 253-972-2310 Fax: 253-972-5047

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: Surface Sediment

Project Contact: Amy Dahl / Chelsea Cook
Tel: (206) 438-2261 / (206) 438-2010
Analysis Turnaround Time
Calendar (C) or Work Days (W)
☒ 21 days
☐ Other

Site Contact: Jennifer Ray
Laboratory Contact: Elaine Walker
Carrier: Courier
6/1/2018 COC No. 1 of 1 page(s)

Sample Identification

Sample Date

Sample Time

Matrix

QC Sample

Sampler's Initials

Total No. of Cont.

Fraction

PCB Congeners 168A

PCDFs 1613B

TPH Diesel, Metals, Mercury NWTPH-Dx

Grain size ASTM D7928/D6913

Total organic carbon, Total solids 9060

Archive Archive -20 C

WQ - PCB Congeners 168A

WQ - PCDFs 1613B

WQ - TPH Diesel NWTPH-Dx

WQ - Metals, Mercury 6020B, 7470

WQ - Total Organic Carbon SM5310B

Sample Specific Notes:

580-77717 Chain of Custody

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 ☒ Disposal By Lab ☒ Archive For 12 Months

Special Instructions/QC Requirements & Comments:
Separate reports for each lab.

Relinquished by: [Signature] Date/Time: 6/1/18 1130 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

Relinquished by: [Signature] Date/Time: 6/1/18 1305 Company: M.E.

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		SURFACE SEDIMENT CHAIN OF CUSTODY										6/1/2018 COC No: 1							
Client Contact		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010		Site Contact: Jennifer Ray		Laboratory Contact: Elaine-Walker		Carrier: Courier		1 of 1 page(s)									
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: Surface Sediment		Analysis Turnaround Time Calendar (C) or Work Days (W) ☒ 21 days ☐ Other _____																	
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 168A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NW/TPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9160	Archive Archive -20 C	WQ - PCB Congeners 168A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NW/TPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SMS10B	Sample Specific Notes:
PDI-SG-B355-BL1	5/31/2018	10:35	SS		AM	6		x	x	x	x	x	x						
PDI-SG-B188-BL1	5/31/2018	15:27	SS		AM	6		x	x	x	x	x	x						
PDI-SG-B193-BL1	5/31/2018	11:30	SS		MM	6		x	x	x	x	x	x						
PDI-SG-B396-BL1	5/30/2018	15:38	SS		MM	6		x	x	x	x	x	x						
PDI-SG-B349-BL1	5/30/2018	13:48	SS		MM	6		x	x	x	x	x	x						
PDI-SG-B348-BL1	5/30/2018	11:41	SS		MM	6		x	x	x	x	x	x						
PDI-SG-B344-BL1	5/30/2018	11:00	SS		MM	6		x	x	x	x	x	x						
PDI-SG-B342-BL1	5/30/2018	9:53	SS		MM	6		x	x	x	x	x	x						
PDI-SG-B342-BL1-D	5/30/2018	9:53	SS		MM	5		x	x	x		x	x						
PDI-RB-VV-180530-1515	5/30/2018	15:15	W			8								x	x	x	x	x	
PDI-RB-VV-180531	5/31/2018	17:00	W			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 ☒ Disposal By Lab ☒ Archive For 12 Months																			
Special Instructions/QC Requirements & Comments: Separate reports for each lab.																			
104, 0.6, 4.2, 1.0																			
Relinquished by: [Signature]	Company: AECOM	Date/Time: 6/1/18 1130	Received by: [Signature]				Company: M/E	Date/Time: 6-1-18 / 1130											
Relinquished by: [Signature]	Company: M.E.	Date/Time: 6/1/18 1305	Received by: [Signature]				Company: TAPOR	Date/Time: 6/1/18 1305											
Relinquished by: [Signature]	Company: TAPOR	Date/Time: 6/1/18 1700	Received by: B. Shaw				Company: SEA TA	Date/Time: 6/2/18 1000											

724 = 1.5 / 1.3 w/c - 5

Chain of Custody Record


America
 IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Lab Plot: Walker, Elaine M		580-77717 Chain of Custody	
Client Contact: Shipping/Receiving		Phone: Elaine Walker		Page: 1 of 2	
Company: TestAmerica Laboratories, Inc.		E-Mail: elaine.walker@testamerica.com		Job #: 580-77717-3	
Address: 5815 Middlebrook Pike, Knoxville TN, 37921		State of Origin: Oregon		Preservation Codes:	
Due Date Requested: 6/20/2018		Accreditations Required (See note):		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 Other:	
TAT Requested (days):		Analysis Requested		Total Number of Containers	
PO #:		1668A/1668 P_Sox (MOD) 209 PCBs plus Totals		1	
WO #:		Screen_1668/Screen_PCB_P_S		1	
Project #:		1668A/1668 P_Sox (MOD) 209 PCBs plus Totals		1	
SSOW#:		Field Filtered Sample (Yes or No)		1	
		Bottom MS/MSD (Yes or No)		1	
		Matrix (Wet, Solid, On-wet, Solid)		1	
		Sample Type (C=Comp, G=grab)		1	
		Sample Time		1	
		Sample Date		1	
		Preservation Code		1	
		Special Instructions/Notes:		1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon 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/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)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date: 6/20/18	
Relinquished by: <i>[Signature]</i>		Date: 6/20/18	
Relinquished by: <i>[Signature]</i>		Date: 6/20/18	
Custody Seals Intact: ☐ Yes ☐ No		Cooler Temperature(s) °C and Other Remarks:	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Ver: 09/20/2016

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			☐ Containers, Broken	RT: 1.6°C CT: 1.6°C
2. Were ambient air containers received intact?	/		/	☐ Checked in lab	Explosives Fedex Po
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA	TR# 4423 0750 4249
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID: <u>5C-68</u> Correction factor: <u>0.0°C</u>	/			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	Custody seal intact
5. Were all of the sample containers received intact?	/			☐ Containers, Broken	KW 6/5/18
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	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	/		/	☐ Sampler Not Listed on COC	pH test strip lot number: _____
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	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?	/			☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	Lot Number: _____
17. Were VOA samples received without headspace?	/		/	☐ Headspace (VOA only)	Exp Date: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668)	/		/	☐ Residual Chlorine	Analyst: _____
Chlorine test strip lot number: <u>7194 2020/04</u>					Date: _____
19. For 1613B water samples is pH<9?	/		/	☐ If no, lab will adjust	Time: _____
20. For rad samples was sample activity info. Provided?	/		/	☐ Project missing info	
Project #: _____ PM Instructions: _____					

QA026R30.doc, 080916

Sample Receiving Associate: SW Date: 6/5/18



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-77717-3

Login Number: 77717

List Source: TestAmerica Seattle

List Number: 1

Creator: O'Connell, Jason I

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

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

TestAmerica Job ID: 580-77717-3

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)
580-77717-1	PDI-SG-B355-BL1	61	61	78	79	81	78	92	82
580-77717-2	PDI-SG-B188-BL1	67	60	78	74	79	75	92	81
580-77717-3	PDI-SG-B193-BL1	60	61	78	80	83	83	102	84
580-77717-4	PDI-SG-B396-BL1	64	63	78	80	78	81	94	84
580-77717-5	PDI-SG-B349-BL1	50	53	73	77	77	76	99	81
580-77717-6	PDI-SG-B348-BL1	58	57	81	85	86	87	100	90
580-77717-7	PDI-SG-B344-BL1	57	56	78	81	81	83	91	86
580-77717-8	PDI-SG-B342-BL1	57	53	78	82	82	82	96	86
580-77717-9	PDI-SG-B342-BL1-D	53	52	76	80	81	81	99	84
LCS 140-21117/18-B	Lab Control Sample	60	56	78	76	81	81	93	86
LCS 140-21154/17-B	Lab Control Sample	58	57	70	68	75	74	89	80
LCSD 140-21117/19-B	Lab Control Sample Dup	63	57	80	74	78	78	90	77
LCSD 140-21154/18-B	Lab Control Sample Dup	62	59	74	70	73	75	85	79
MB 140-21117/17-B	Method Blank	61	54	79	73	78	76	96	77
MB 140-21154/16-B	Method Blank	57	54	68	59	71	70	84	75

		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)
580-77717-1	PDI-SG-B355-BL1	71	88	84	84	87	85	84	107
580-77717-2	PDI-SG-B188-BL1	80	87	84	83	88	86	85	108
580-77717-3	PDI-SG-B193-BL1	83	92	85	84	87	86	86	111
580-77717-4	PDI-SG-B396-BL1	82	83	80	80	81	81	81	102
580-77717-5	PDI-SG-B349-BL1	81	87	84	85	87	86	83	108
580-77717-6	PDI-SG-B348-BL1	88	97	90	88	92	90	89	115
580-77717-7	PDI-SG-B344-BL1	84	90	85	84	88	86	86	109
580-77717-8	PDI-SG-B342-BL1	85	91	85	85	88	85	86	114
580-77717-9	PDI-SG-B342-BL1-D	83	91	85	84	88	86	86	111
LCS 140-21117/18-B	Lab Control Sample	83	85	82	81	84	82	85	112
LCS 140-21154/17-B	Lab Control Sample	76	81	80	80	83	81	83	103
LCSD 140-21117/19-B	Lab Control Sample Dup	77	84	78	76	80	79	80	111
LCSD 140-21154/18-B	Lab Control Sample Dup	78	81	82	80	83	81	84	99
MB 140-21117/17-B	Method Blank	77	87	80	79	83	81	81	113
MB 140-21154/16-B	Method Blank	75	84	80	78	82	79	81	104

		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)
580-77717-1	PDI-SG-B355-BL1	81 C	81 C156	83	80	80	85	81	102
580-77717-2	PDI-SG-B188-BL1	83 C	83 C156	84	83	82	84	80	103
580-77717-3	PDI-SG-B193-BL1	81 C	81 C156	83	80	84	89	83	107
580-77717-4	PDI-SG-B396-BL1	78 C	78 C156	78	77	77	83	79	99
580-77717-5	PDI-SG-B349-BL1	80 C	80 C156	82	83	82	86	81	104
580-77717-6	PDI-SG-B348-BL1	85 C	85 C156	87	88	88	92	87	112
580-77717-7	PDI-SG-B344-BL1	82 C	82 C156	85	85	84	85	83	105
580-77717-8	PDI-SG-B342-BL1	83 C	83 C156	84	87	83	83	82	100
580-77717-9	PDI-SG-B342-BL1-D	82 C	82 C156	85	83	83	87	83	104
LCS 140-21117/18-B	Lab Control Sample	85 C	85 C156	82	86	81	80	71	107
LCS 140-21154/17-B	Lab Control Sample	84 C	84 C156	82	85	82	78	79	99
LCSD 140-21117/19-B	Lab Control Sample Dup	79 C	79 C156	76	79	80	80	69	105

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-77717-3

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

Matrix: Solid

Prep Type: Total/NA

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)
LCSD 140-21154/18-B	Lab Control Sample Dup	83 C	83 C156	79	81	81	77	78	100
MB 140-21117/17-B	Method Blank	79 C	79 C156	78	80	80	80	70	104
MB 140-21154/16-B	Method Blank	84 C	84 C156	82	85	83	79	77	101

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)
580-77717-1	PDI-SG-B355-BL1	77	79	81	72
580-77717-2	PDI-SG-B188-BL1	79	81	80	73
580-77717-3	PDI-SG-B193-BL1	79	83	83	74
580-77717-4	PDI-SG-B396-BL1	73	75	78	66
580-77717-5	PDI-SG-B349-BL1	78	80	82	72
580-77717-6	PDI-SG-B348-BL1	81	85	89	76
580-77717-7	PDI-SG-B344-BL1	79	82	83	76
580-77717-8	PDI-SG-B342-BL1	78	84	84	77
580-77717-9	PDI-SG-B342-BL1-D	78	83	84	74
LCS 140-21117/18-B	Lab Control Sample	78	82	81	81
LCS 140-21154/17-B	Lab Control Sample	78	81	79	72
LCSD 140-21117/19-B	Lab Control Sample Dup	76	84	83	82
LCSD 140-21154/18-B	Lab Control Sample Dup	78	79	79	73
MB 140-21117/17-B	Method Blank	77	85	83	83
MB 140-21154/16-B	Method Blank	78	79	78	74

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

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-77717-3

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)

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)
580-77717-10	PDI-RB-VV-180530-1515	59	54	81	82	81	80	94	76
580-77717-11	PDI-RB-VV-180531	70	65	96	93	94	97	115	97
LCS 140-20916/7-A	Lab Control Sample	71	67	97	91	89	93	108	95
MB 140-20916/6-A	Method Blank	73	66	97	86	94	91	111	90

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)
580-77717-10	PDI-RB-VV-180530-1515	74	84	73	71	75	73	75	93
580-77717-11	PDI-RB-VV-180531	94	102	96	93	99	97	98	124
LCS 140-20916/7-A	Lab Control Sample	93	97	93	88	95	92	92	116
MB 140-20916/6-A	Method Blank	86	101	93	90	98	94	93	120

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)
580-77717-10	PDI-RB-VV-180530-1515	68 C	68 C156	68	68	65	65	56	81
580-77717-11	PDI-RB-VV-180531	96 C	96 C156	96	97	94	95	83	125
LCS 140-20916/7-A	Lab Control Sample	91 C	91 C156	91	92	89	89	81	114
MB 140-20916/6-A	Method Blank	90 C	90 C156	90	92	93	93	83	118

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)
580-77717-10	PDI-RB-VV-180530-1515	60	60	60	62
580-77717-11	PDI-RB-VV-180531	90	93	92	97
LCS 140-20916/7-A	Lab Control Sample	87	90	87	93
MB 140-20916/6-A	Method Blank	88	91	91	93

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

TestAmerica Seattle

Isotope Dilution Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77717-3

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

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